2018 PERIODIC REVIEW REPORT

FORMER BUFFALO CHINA SITE
NYSDEC ID: C915209

16-344-1389

Prepared for:

Hayes Place Management Group, Inc.
57-75 Hayes Place
Buffalo, New York 14210

Prepared by:

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, New York 14209

March 30, 2018

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1.0 Introduction

1.1 Background Information

The Former Buffalo China (Site) is located at 51 Hayes Place in Buffalo, New York (Figure 1.1). The Site consists of the following properties:

Parcel Address	*Parcel No.*	*Section No.*	*Block No.*	*Lot No.*
51 Hayes Place, Buffalo, NY, 14210	123	9	4	2
75 Hayes Place, Buffalo, NY, 14210	123	9	4	17
55 Hayes Place, Buffalo, NY, 14210	123	9	4	16.2
151 Harrison Street, Buffalo, NY, 14210	123	38	3	1
133 Harrison Street, Buffalo, NY, 14210	123	38	2	39
70 Lester Street, Buffalo, NY, 14210	123	38	2	1.1

The properties and facility are currently owned by Hayes Place Management Group, Inc. (HPMG). Remediation of the Site was completed in 2012 under the oversight of the New York State Department of Environmental Conservation (NYSDEC) in accordance with Brownfield Cleanup Agreement (BCA) Index #B9-0732-06-11, Site #C-915209. A Site Management Plan (SMP) was developed upon completion of the remedial construction to ensure implementation and management of the institutional controls (ICs) and engineering controls (ECs) in place at the Site. This Periodic Review Report (PRR) is being prepared to certify that site management activities are being conducted in accordance with the SMP.

Site remedial activities were performed in accordance with the NYSDEC-approved Remedial Action Work Plan dated September 2010.

The following is a summary of the Remedial Actions completed at the Site and ongoing operations and monitoring activities:

- Excavation and off-Site disposal of unsaturated soils that exhibited concentrations of VOCs, SVOCs, and metals in excess of applicable NYSDEC standards or objectives. These soils were located primarily on the south and west sides of the Harrison Street warehouse.
- Backfill and restoration of the excavated area similar to pre-excavation conditions.
- Monitored natural attenuation of VOCs and SVOCs in some discrete areas and institutional and engineering controls to minimize exposures to metals in Site soils.
- In situ treatment through chemical oxidation (ISCO) of on-Site and off-Site groundwater impacted by VOCs.
- Groundwater monitoring to evaluate the effectiveness of the remedy.

Remedial activities conducted at the Site were completed in April 2012. Further details regarding the remediation of the Site are included in the Final Engineering Report (CRA, 2012). The NYSDEC issued the Certificate of Completion (COC) to Buffalo China in December 2012.

In addition to the remedial actions that were undertaken on the property, the following actions were also implemented in order to prevent exposure to any impacted soil remaining on-Site:

- Development of institutional and engineering controls including execution of an Environmental Easement to restrict land use and prevent further exposure to any contamination remaining at the Site.
- Development and implementation of a SMP for long term management of remaining contamination as required by the Environmental Easement, which includes plans for (1) Institutional and Engineering Controls, (2) excavation and soil management in the Post-Remediation Excavation Work Plan, (3) monitoring, (4) operation and maintenance, and (5) reporting.
- Annual Certification of the institutional and engineering controls.

The SMP, designed to serve as a work plan for Site monitoring and maintenance, was prepared in November 2012 and approved by NYSDEC in December 2012.

This report presents the results of one groundwater ISCO event performed in March 2017, one groundwater monitoring event performed in February 2018, and the Site Inspection conducted in March 2018. The report is organized as follows:

- Section 1 – Introduction: The background and brief remedial history of the Site.
- Section 2 – Engineering and Institutional Controls: The ECs and ICs for the Site are described.
- Section 3 – Inspections and Maintenance Activities: Activities performed during the current reporting period and their results.
- Section 4 – Operations and Maintenance: Discussion of groundwater treatment monitoring data and analytical results generated from the various monitoring events.
- Section 5 – Conclusions and Recommendations: Conclusions and recommendations based upon the data and results of the current monitoring period.

2.0 Engineering and Institutional Controls

Engineering controls are required to protect human health and the environment because impacted groundwater and some impacted soils are present at the Site. Figure 2.1 shows the Site layout and Figures 2.2 and 2.3 show the various EC systems in place at the Site.

2.1 Engineering Controls (ECs)

The purpose of the EC systems is to eliminate the potential for human contact with soils exceeding industrial use soil cleanup objectives, prevent percolation of precipitation through the impacted fill, and minimize the potential for contaminated runoff from the Site. The EC systems in place at the Site consist of the following:

- Cover System: Existing buildings and pavement at the Site form the Site cover, preventing exposure to soil exceeding industrial levels. The existing buildings and pavement at the Site that form the Site Cover Systems are shown on Figure 2.2.
- Soil Cover: In the absence of Site development, a soil cover is required in areas where the upper 1 foot of exposed surface soil exceeds the applicable SCOs. Since no areas where the upper 1 foot of exposed soil exceeds the applicable SCOs were left after the remedial activities, excavated areas were backfilled with imported clean fill and stone to existing grades. In the event that a soil cover is required at a later date (i.e. demolition of a building or paved area without replacement or restoration, regrading of undeveloped areas), the soil cover will consist of a minimum of 1 foot of soil meeting the SCOs for commercial use.
- Groundwater Treatment System: An injection piping gallery and overburden and bedrock injection wells have been installed for the distribution of oxidants and nutrients as part of the chemical oxidation and enhanced biodegradation components of the Site remedy for groundwater. The in situ groundwater treatment program began in April 2012.
- Groundwater Monitoring: Groundwater monitoring activities to assess the effectiveness of chemical oxidation, enhanced biodegradation, and natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment, and/or control measures will be evaluated. The groundwater monitoring program began in June 2012.
- Soil Vapor Intrusion (SVI) Mitigation System Operation and Maintenance: A sub-slab depressurization system has been installed off-Site at a residence located at 127 Harrison Street to minimize the potential for exposures through SVI.

2.2 Institutional Controls (ICs)

The purpose of the ICs are to:

- Implement, maintain, and monitor the ECs.

- Prevent future exposure to remaining on-Site contamination by controlling disturbance of the subsurface contamination.
- Limit the use and development of portions of the Site to industrial uses only.

The ICs that have been established for the Site must be:

- In compliance with the Environmental Easement and the SMP by the Grantor (Hayes Place Management Group, Inc.) and the Grantor's successors and assigns.
- Operated and maintained as specified in the SMP.
- Inspected at a frequency and in a manner defined in the SMP.

Data and information pertinent to the management of the Site must be reported at the frequency and in a manner defined in the SMP.

Adherence to the ICs is required by the Environmental Easement. The ICs may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Site has a series of ICs in the form of Site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- Property Use: The property may only be used for industrial use, provided that the long-term ECs and ICs included in the SMP are adhered to. The property may not be used for a higher level of use, such as unrestricted, restricted residential, or commercial use without additional evaluation (including possible additional remediation) and amendment of the Environmental Easement, as approved by the NYSDEC.
- Prohibition of Groundwater Use: The use of groundwater underlying the property as a source of potable water is prohibited without treatment rendering it safe for the intended use as determined by the NYSDEC, NYSDOH, or the Erie County Health Department.
- Prohibition of Vegetable Gardening: Vegetable gardens and farming on the property are prohibited.
- Annual Certification: The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that:

    a. Controls employed at the Site are unchanged from previous certification or that any changes to the controls were approved by the NYSDEC.
    b. Nothing has occurred that impairs the ability of the controls to protect public health and the environment or that constitutes a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

3.0 Inspections and Maintenance Activities

A comprehensive Site-wide inspection is required to be conducted annually, as specified in the SMP. The intent of the annual inspection is to determine whether:

- The ECs continue to perform as designed.
- The ECs continue to be protective of human health and the environment.
- The Site is operated and maintained in compliance with the SMP and Environmental Easement.
- The remedial performance criteria have been achieved.
- Sampling and analysis of appropriate media were conducted.
- Site records are complete and current.
- Changes to the remedial systems or monitoring are needed.

The O&M activities were performed in 2015 by GHD Consulting Services, Inc. (GHD). Upon transfer of the property ownership to Hayes Place Management Group, Inc., LiRo Engineers, Inc. (LiRo) was retained in 2016 by HPMG to continue operation and maintenance and monitoring activities.

LiRo and NYSDEC conducted the annual comprehensive Site inspection on March 26, 2018. The following sections discuss the findings of the 2018 inspection. The completed Site Inspection Form is provided as Appendix A to this report. Site photographs taken at the time of the inspection are provided as Appendix B to this report.

3.1 Asphalt Pavement/Concrete Cover System

The areas of pavement and concrete cover systems to be maintained are shown on Figure 2.2. These areas were observed for damage and deterioration and no deficiencies were observed.

3.1.1 Corrective Action

No damage or deterioration was noted during the inspection. No corrective action is necessary for the Asphalt Pavement/Concrete Cover System at this time.

3.2 Surface Soil/Stone Cover System

Excavated areas were backfilled with imported clean fill and stone to existing grades. These areas were observed for erosion and animal burrows.

3.2.1 Corrective Action

No erosion or animal burrows were observed during the Site inspection. No corrective action is necessary for the surface soil/stone cover system at this time.

3.3 SVI Mitigation System at 127 Harrison Street

Mitigation of SVI at the off-Site residence located at 127 Harrison Street was addressed as an interim remedial measure (IRM) in accordance with the IRM Work Plan for the installation of a sub slab depressurization system dated July 25, 2011 (CRA).

The mitigation IRM was implemented on August 4, 2011 and included installation of a RADONAWAY RP-145 centrifugal in-line fan to provide sub-slab depressurization, sealing of floor cracks, score lines, and other openings to sub-slab with urethane sealant, and installation of a lexan cover and airtight drain over the sump crock. Post mitigation sampling was conducted in December 2011. Details of the IRM and post mitigation sampling are provided in the FER (CRA, December 2012).

Since LiRo was retained by HPMG, LiRo has made multiple attempts both in-person and by telephone to contact the property owner to request access to SVI system in order to perform an inspection and vacuum monitoring. The attempts went unanswered. On February 8, 2018 a request for access letter was sent to the property owner via United States Postal Service certified mail and several attempts to contact the homeowner in person were made during the groundwater sampling in February 2018. USPS provided confirmation of delivery of the letter, however, the request for access has not been answered.

3.3.1 Corrective Action

LiRo sent a request for access letter and indemnification agreement to the property owner via United States Postal Service certified mail. The USPS provided confirmation of delivery of the letter, however, the request for access has not been answered. A copy of the request for access letter is provided in Appendix C of this report. LiRo will continue to attempt to make arrangements with the property owner to gain access to the SVI system in order to perform the routine SVI system inspection and vacuum monitoring.

4.0 Operations and Maintenance

4.1 In Situ Groundwater Treatment

The in situ chemical oxidation (ISCO) program began in April 2012. The groundwater treatment system consists of 10 horizontal injection piping galleries and 29 injection wells (22 overburden wells and 7 bedrock wells). The oxidant solution utilized for the in situ groundwater treatment program is sodium hydroxide (NaOH)-activated sodium persulfate. Injections were completed in April 2012, July 2012, October 2012, January 2013, April 2013, July 2013, August 2015, and March 2017.

During this reporting period, one ISCO injection was completed.

The ISCO injection event was completed between March 2, 2017 and March 6, 2017 and consisted of the injection of approximately 7,053 pounds of Klozur persulfate and 5,040 pounds of 25 percent sodium hydroxide catalyst. In order to minimize the potential for generating a reaction, the sodium hydroxide was injected to each of the selected injection points prior to the injection of the Klozur persulfate solution. The sodium hydroxide injections were completed on March 2, 2017. Following the injection of the sodium hydroxide, two batches of Klozur persulfate solution were mixed. Each batch of Klozur persulfate solution consisted of approximately 3,527 pounds of Klozur persulfate and 700 gallons of potable water. Mixing of the solution was accomplished by recirculation with the use of an electric submersible pump and agitation with compressed air. The first batch of persulfate was injected into the Injection gallery on March 2, 2017. The second batch of persulfate solution was mixed on March 3, 2017 and injected into the selected Injection Wells on March 6, 2017. The persulfate solution could not be injected on March 3, 2017 due to freezing temperatures. Table 4.1 presents a summary of the ISCO injection event.

4.2 Groundwater Monitoring

4.2.1 Monitoring Well Inspection

Monitoring well inspections were conducted in conjunction with February 2018 groundwater sampling and the Site-wide inspection performed on March 26, 2018. The locations of the groundwater monitoring wells are shown on Figure 2.3. The inspections of the monitoring wells included the condition of well caps, J-plugs, seals, protective pads, and visible portions of the well casings. Monitoring well conditions are noted on the Site Inspection Forms presented in Appendix A. Photographs of wells requiring repairs are presented in Appendix B.

The majority of wells were noted to be in good condition. Three wells (IW-14, IW-25, and IW-26) require repairs to the concrete surface seals due to cracks, eight wells (MW-6, MW-7, MW-7A, MW-8, MW-9, MW-20A, and IW-17) are missing one or more lid bolts/washers, three wells (MW-7A, MW-20A, and MW-22) need j-plugs, one well (IW-23) needs a new lock, two wells (IW-1 and IW-4) need repairs to the lockable caps, and two wells (MW-11 and MW-22A) sustained significant damage to their curb boxes and require curb box replacement. These repairs will be made during the next groundwater sampling event scheduled for August 2018.

4.2.2 Groundwater Elevations

As part of the monitoring activities described in the SMP, water levels were measured in each monitoring well using an electric water level meter. Water level measurements are summarized in Table 4.1. Groundwater contour maps are provided as Figure 4.1 (overburden) and Figure 4.2 (bedrock).

4.2.3 Groundwater Sampling

Ten groundwater sampling events have been performed by CRA/GHD and LiRo since the implementation of the in situ chemical oxidation program. Groundwater samples were collected and analyzed in June 2012, September 2012, December 2012, March 2013, June 2013, September 2013, April 2015, October 2015, September/October 2016, and February 2018. Additionally, samples were collected from MW-6A, MW-20, and MW-20A in December 2012, March, June and September 2013, and October 2015. These wells were not part of the monitoring well network specified in the SMP but were used to assess conditions east of MW-6 based on the lower than expected acceptance rate for the oxidant in that area.

Currently, groundwater sampling consists of the collection of samples from all monitoring wells for analysis of volatile organic compounds (VOCs) and field parameters (pH, conductivity, oxidation-reduction potential (ORP), dissolved oxygen (DO), temperature, and turbidity). In addition, samples are collected from the overburden and bedrock plume wells for field analysis of sodium persulfate.

4.3 Groundwater Data Evaluation

The groundwater analytical data generated during this reporting period (February 2018) are summarized in the following tables:

- Table 4.2 – Volatile organic compounds (VOCs) in perimeter wells.
- Table 4.3 – VOCs in overburden plume wells.
- Table 4.4 – VOCs in bedrock plume wells.

The analytical data reports are provided electronically as Appendix D. A quality assurance/quality control (QA/QC) review of the analytical data is currently being conducted and Data Usability Summary Reports (DUSRs) will be prepared. The DUSRs will be submitted as Appendix E to this report upon completion.

VOCs in Perimeter Wells: The perimeter monitoring wells were monitored for VOCs only. A review of the data presented in Table 4.2, with the exception of detections of vinyl chloride and cis-1,2-dichloroethene at MW-7A, shows that all results for VOCs in February 2018 were either non-detect or below the NYS groundwater cleanup standards. At MW-7A, vinyl chloride was detected at 6.3 µg/L (the NYS Standard for vinyl chloride is 2 µg/L) and cis-1,2-dichloroethene was detected at 31 µg/L (the NYS Standard for cis-1,2-dichloroethene is 5 µg/L). Vinyl chloride and cis-1,2-dichloroethene have previously been detected at concentrations exceeding NYS groundwater cleanup standards at MW-7A.

VOCs in Plume Wells: Specific VOC compounds to be monitored in overburden and bedrock plume wells are listed in Table 4.2 of the SMP. These compounds include:

- 1,1-Dichloroethene (1,1-DCE)
- 1,2-Dichloroethane (1,2-DCA)
- Acetone
- Cis-1,2-Dichloroethene (cis-1,2-DCE)
- Methylene Chloride
- Tetrachloroethene (PCE)
- Toluene
- Trans-1,2-Dichloroethene (trans-1,2-DCE)
- Trichloroethene (TCE)
- Vinyl Chloride (VC)

Overburden Plume Wells: There are four monitoring wells used to monitor the overburden groundwater plume, these are MW-5R, MW-6, MW-11, and MW-19R. Table 4.3 presents the monitoring results for the overburden plume wells.

Concentration versus time plots were generated for the six VOCs that had an exceedance of the NYS groundwater standard since the last sampling event performed during the Remedial Investigation phase of the project (July 2009). The plots are presented in Appendix F of this report. The February 2018 concentrations indicate a decrease in VOC concentrations in these wells. Notable exceptions to the decreases are increases in TCE, cis-1,2-DCE, and vinyl chloride in MW-6 and TCE in MW-19R.

Bedrock Plume Wells: There are five monitoring wells used to monitor the bedrock groundwater plume, these are MW-5AR, MW-13A, MW-14A, MW-19AR, and MW-21A. Table 4.4 presents the VOC results for the bedrock plume monitoring wells.

MW-14A as well as two overburden and one bedrock injection wells are located on the property at 103 Harrison Street. This property was sold on December 15, 2017 and is currently vacant. Because there is no access agreement with the current owner, this well was not sampled during the February 2018 monitoring event.

Concentration versus time plots were generated for the nine VOCs that had an exceedance of the NYS groundwater standard since the last sampling event performed during the Remedial Investigation phase of the project (July 2009). The plots are presented in Appendix F of this report. The February 2018 concentrations indicate an increase in VOC concentrations in MW-5AR and MW-13A and decreases in VOC concentrations in MW-19AR and MW-21A.

Sodium Persulfate in Plume Wells: A sample was collected from each of the plume wells for field analysis of sodium persulfate using Peroxychem's Klozur Field Test Kit-K. Sodium persulfate was detected in all of the plume wells that were sampled. The concentration of sodium persulfate ranged from 2.5 to 8.2 milligrams per liter (mg/L) in the overburden wells and 5.5 to 11.4 mg/L in the bedrock wells.

pH was also measured at each well at the time of sample collection. Overburden well pH values ranged from 7.14 to 9.65 standard units (s.u.) and bedrock well pH values ranged from 6.47 to 7.64 s.u.. A pH of 10.5 s.u. or greater is required to activate the sodium persulfate into forming oxidizing radicals (SO_4^-. OH, and O_2^-)

5.0 Conclusions and Recommendations

The annual inspection and monitoring activities performed during this reporting period found that:

- Twelve monitoring and injection wells require repairs ranging from installing new bolts to replacing curb boxes.
- The asphalt and stone cover systems are in good condition.
- The inspection of the SVI system and basement floor at 127 Harrison Street was not completed during this reporting period.
- Groundwater surface elevation contours indicate that the groundwater flow patterns across the Site remain consisted with previous hydraulic monitoring events.
- With the exception of detections of vinyl chloride and cis-1,2-DCE at MW-7A, VOCs in the perimeter wells are either non-detect or below NYS groundwater standards, indicating that the plume has not migrated beyond the current established perimeter.
- VOCs in the overburden and bedrock plume wells have not been reduced to an acceptable level to begin the in situ enhanced biodegradation program.
- Sodium Persulfate remains within the overburden and bedrock plume wells at concentrations between 2.5 and 11.4 grams per liter.
- Groundwater pH was below 10.5 s.u. in all monitoring wells.

The identified maintenance issues (minor well pad and road box issues) will be addressed during the next groundwater sampling event which is scheduled for August 2018. The NYSDEC will be notified when the corrective actions have been completed.

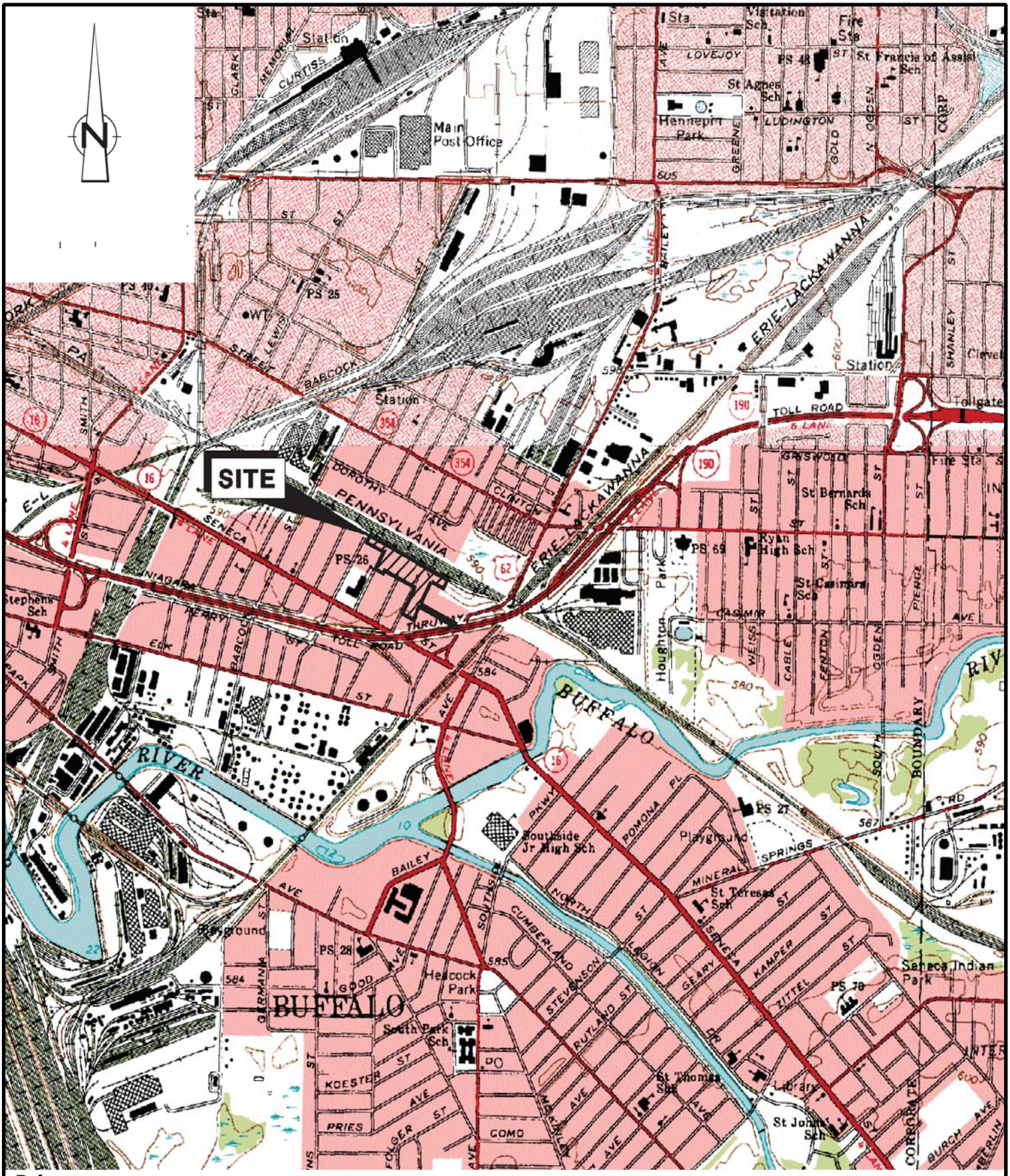
Based on the groundwater monitoring data, the remedial action continues to be effective in preventing further off-Site migration of impacted groundwater. However, the VOC concentrations have not been reduced to levels amenable to begin the ISEB program at this time.

Based on the presence of sodium persulfate remaining in groundwater collected from the overburden and bedrock monitoring wells and groundwater pH less than 10.5 s.u., it is recommended that the remaining sodium persulfate be re-activated to stimulate further oxidation of the contaminants. A Work Plan for re-activating the remaining sodium persulfate is attached as Appendix G.

6.0 Certification

The PRR Certification Form is attached as Appendix H.

Figures



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LiRo-Engineers, Inc.
690 Delaware Ave.
Buffalo, New York

Former Buffalo China Site
SITE LOCATION MAP

FIGURE NO.

1.1

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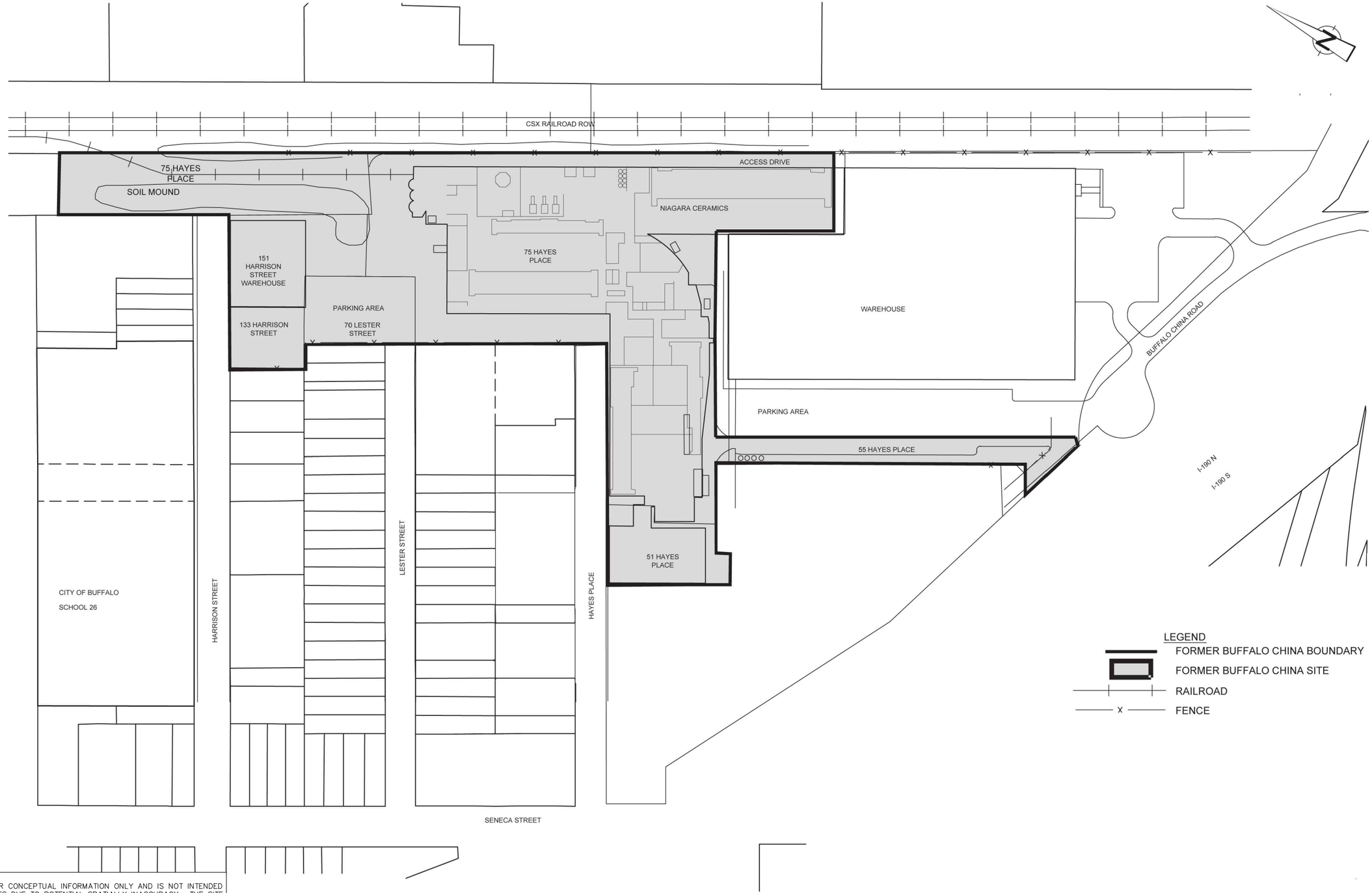

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NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, New York

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CHECKED BY:		DRAWING TITLE: SITE LAYOUT	FIGURE NO. 2.1
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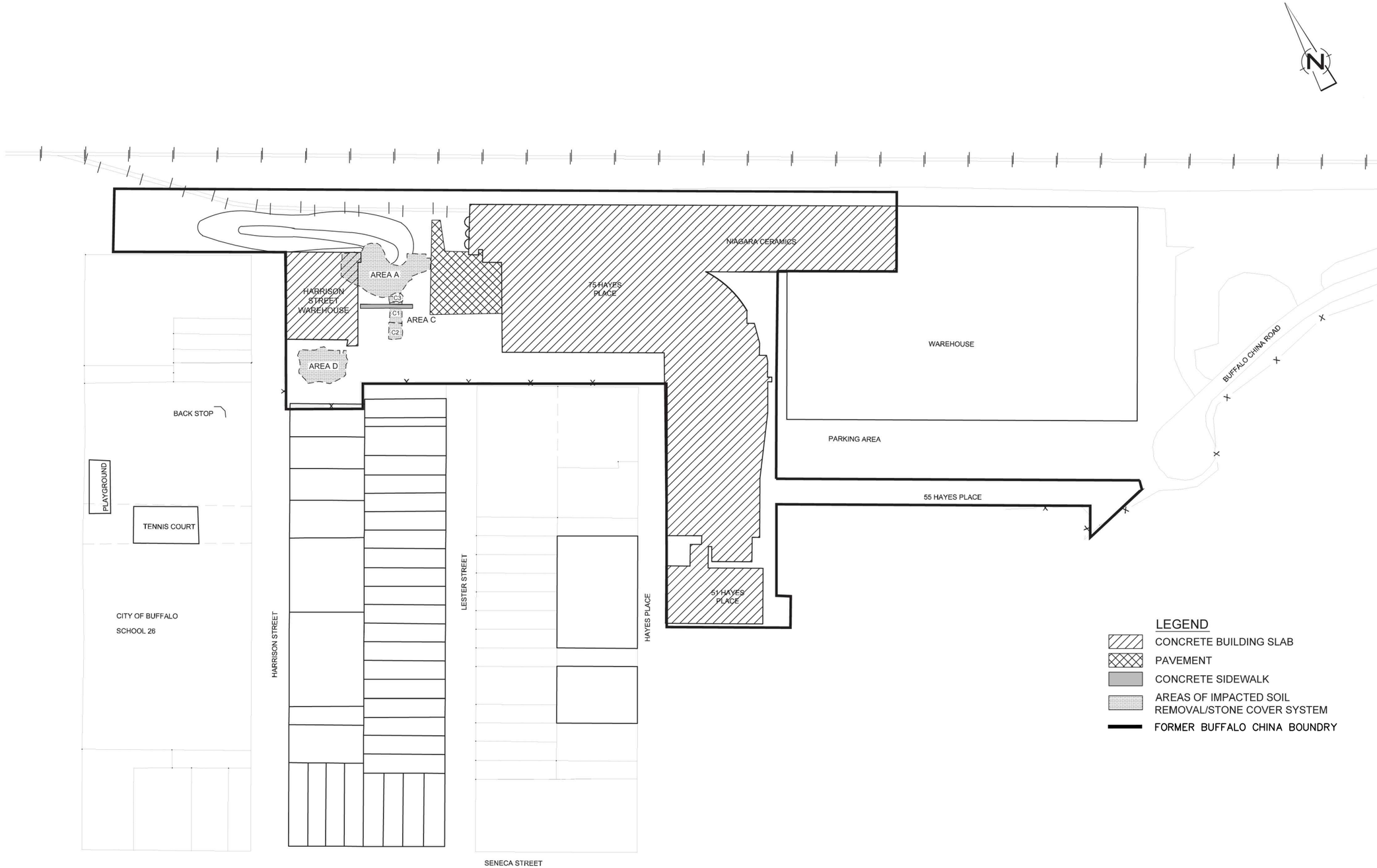

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Buffalo, New York

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FIGURE NO.	2.2

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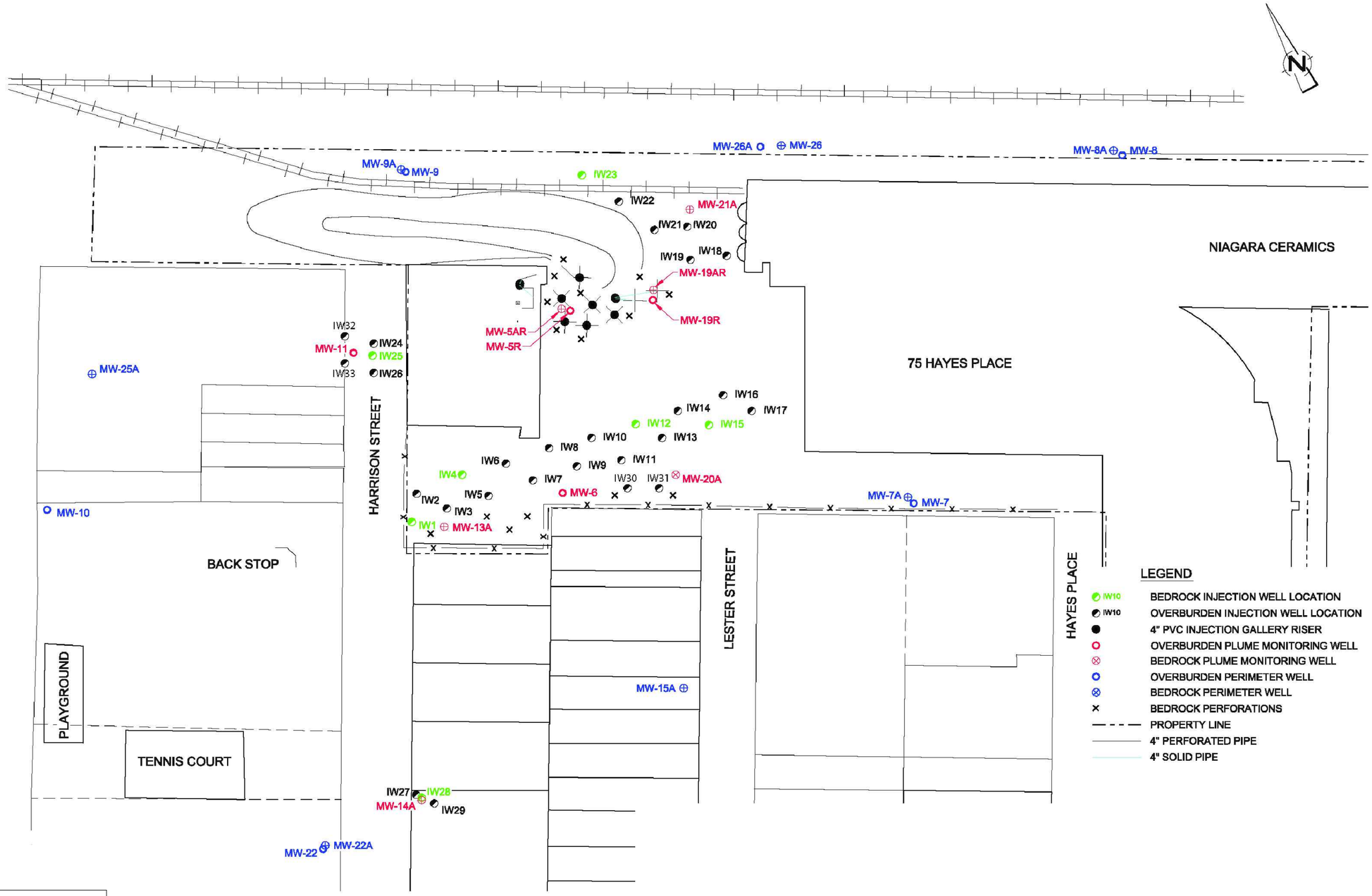

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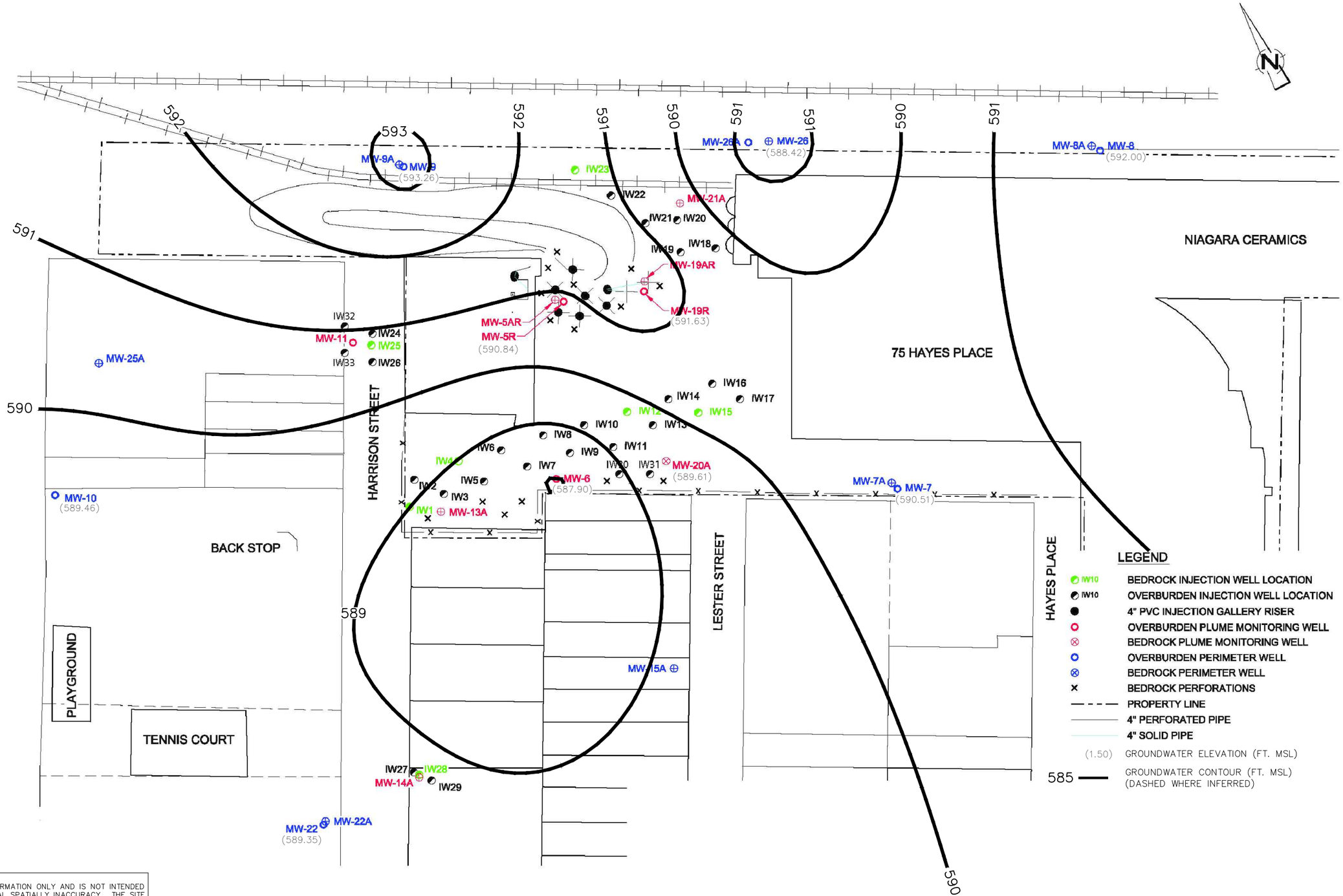

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FIGURE NO.	4.1

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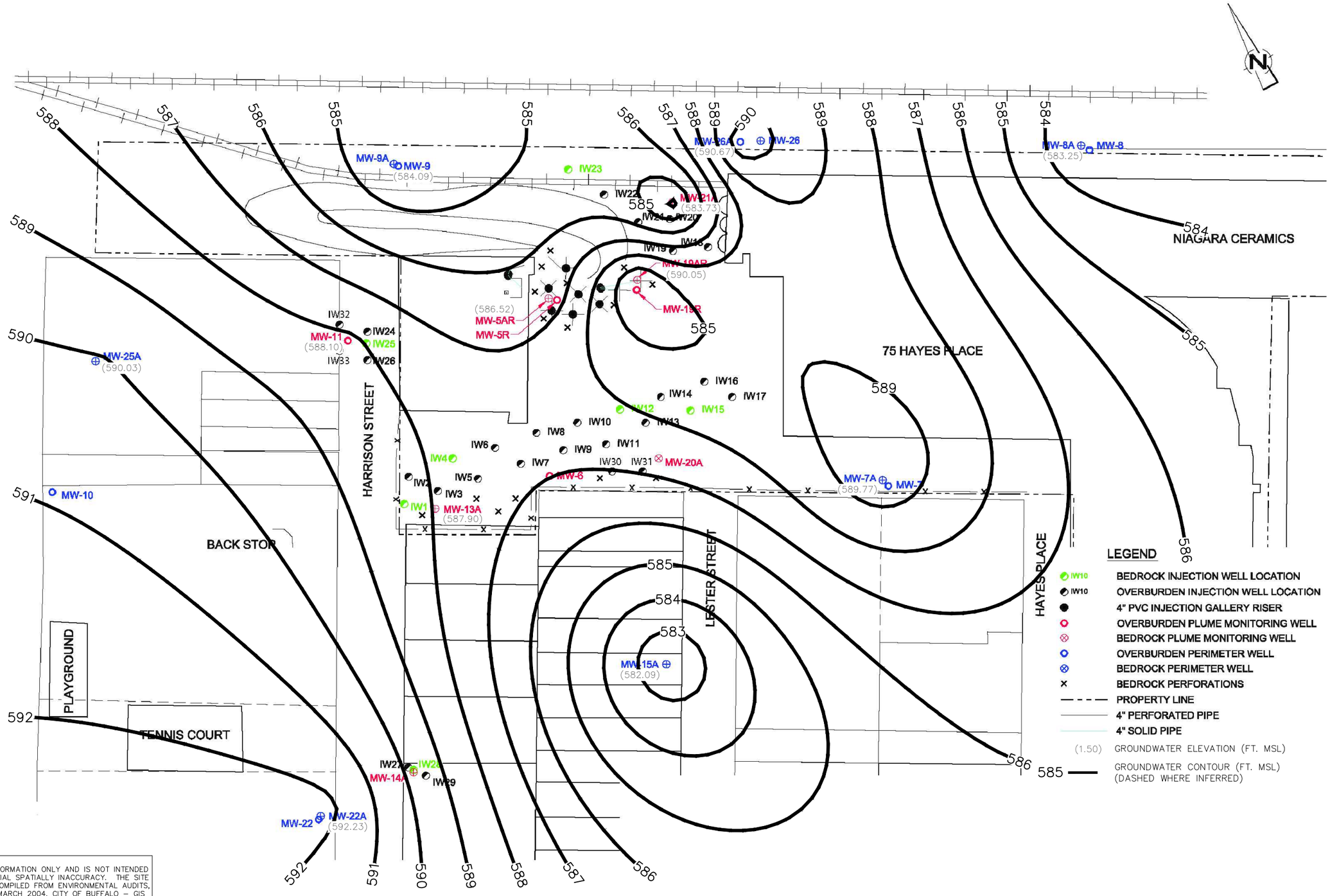


SOURCE:
THIS BASEMAP IS FOR CONCEPTUAL INFORMATION ONLY AND IS NOT INTENDED FOR DESIGN PURPOSES DUE TO POTENTIAL SPATIALLY INACCURACY. THE SITE INFORMATION ON THIS BASEMAP WAS COMPILED FROM ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWINGS NO. 1, MARCH 2004, CITY OF BUFFALO – GIS INFORMATION SYSTEM.

NO.	DATE	DESCRIPTION
		REVISIONS

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, New York

PROJ. ENG.:	CLIENT: HAYES PLACE MANAGEMENT GROUP, INC.	JOB TITLE AND LOCATION: FORMER BUFFALO CHINA	LIRO JOB NO.: 16–344–1389
DESIGNED BY:			SHEET OF 6 6
CHECKED BY:		DRAWING TITLE: BEDROCK GROUNDWATER SURFACE ELEVATION CONTOURS - FEBRUARY 2018	FIGURE NO. 4.2
DRAWN BY: EMM	DATE: MARCH 2018	SCALE: NOT TO SCALE	

J:\16-344-1389 buffalo china\CAD\2018 PRR REPORT\FORMER CHINA BUFFALO.dwg 3/12/2018 4:59 PM

Tables

TABLE 4.1

ISCO INJECTION SUMMARY
MARCH 2017
FORMER BUFFALO CHINA SITE (No. C915209)

Injection Point	Pre-Injection 25% NaOH Pumped (gallons) 3/2/2017	Volume Persulfate Pumped			Total Persulfate Pumped (gallons)
		Thursday 3/2/2017	Friday 3/3/2017	Monday 3/6/2017	
Bedrock Injection Wells					
IW-1	35	--	--	125	125
IW-4	30	--	--	80	80
Overburden Injection Wells					
IW-3	5	--	--	20	20
IW-5	5	--	--	40	40
IW-7	5	--	--	40	40
IW-9	5	--	--	45	45
IW-24	5	--	--	10	10
IW-26	5	--	--	10	10
IW-30	5	--	--	20	20
IW-31	5	--	--	45	45
IW-32	5	--	--	15	15
IW-33	5	--	--	180	180
Injection Gallery					
IG-A	35	100	--	--	100
IG-B	35	100	--	--	100
IG-C	35	100	--	--	100
IG-D	35	100	--	--	100
IG-E	35	100	--	--	100
IG-F	35	100	--	--	100
IG-G	35	100	--	--	100
IG-H	35	100	--	--	100
IG-I	25	100	--	--	100
IG-J	25	100	--	--	100

TABLE 4.2

SUMMARY OF HYDRAULIC MONITORING DATA
FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

Well ID	*Sample / Measurement Date*	*Top of Riser Elevation (ft. above AMSL)*	*Depth to Water (ft. below top of riser)*	*Water Elevation (ft. above AMSL)*
Overburden				
MW-5R	2/8/2018	598.10	7.26	590.84
MW-6	2/9/2018	594.15	6.25	587.90
MW-7	2/12/2018	592.03	1.52	590.51
MW-8	2/6/2018	594.00	2.00	592.00
MW-9	2/6/2018	594.81	1.55	593.26
MW-10	2/12/2018	596.45	6.99	589.46
MW-11	2/12/2018	595.04	5.43	589.61
MW-19R	2/12/2018	593.28	1.65	591.63
MW-20	--	593.32	NM	NA
MW-22	2/12/2018	592.34	2.99	589.35
MW-25	--	598.13	NM	NA
MW-26	2/8/2018	593.22	4.80	588.42
Bedrock				
MW-5AR	2/8/2018	596.29	9.77	586.52
MW-7A	2/12/2018	592.31	2.54	589.77
MW-8A	2/7/2018	594.10	10.85	583.25
MW-9A	2/7/2018	594.94	10.85	584.09
MW-13A	2/9/2018	594.75	6.85	587.90
MW-14A	--	593.37	NM	NA
MW-15A	2/9/2018	592.70	10.61	582.09
MW-19AR	2/12/2018	593.40	3.35	590.05
MW-20A	2/9/2018	593.06	4.96	588.10
MW-21A	2/8/2018	590.98	7.25	583.73
MW-22A	2/13/2018	592.23	0.00	592.23
MW-25A	2/13/2018	598.13	8.10	590.03
MW-26A	2/8/2018	593.05	2.38	590.67

Notes:
AMSL - Above Mean Sea Level

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	*Perimeter*	*Perimeter*	*Perimeter*	*Perimeter*
				Overburden Monitoring Well	*Bedrock Monitoring Well*	*Overburden Monitoring Well*	*Bedrock Monitoring Well*	*Overburden Monitoring Well*
			Location ID:	*MW-7*	*MW-7A*	*MW-8*	*MW-8A*	*MW-9*
			Sample ID:	*MW-7*	*MW-7A*	*MW-8*	*MW-8A*	*MW-9*
			Sample Date:	*2/12/2018*	*2/12/2018*	*2/7/2018*	*2/7/2018*	*2/6/2018*
							MS/MSD	
		New York State Water Quality						
Parameters	***Units***	***Guidance Values***	***Standards***					
Volatile Organic Analytes								
1,1,1-Trichloroethane (TCA)	ug/L	NC	5	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/L	NC	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ug/L	NC	1	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	NC	5	ND	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	ug/L	NC	5	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	ug/L	NC	5	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	ug/L	NC	5	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	NC	5	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	NC	0.04	ND	ND	ND	ND	ND
1,2-Dibromoethane	ug/L	NC	0.0006	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/L	NC	0.6	ND	ND	ND	ND	ND
1,2-Dichloropropane	ug/L	NC	1	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND	ND
1,4-Dioxane	ug/L	NC	NC	ND	ND	ND	ND	ND
2-Butanone (MEK)	ug/L	50	NC	ND	ND	ND	ND	2.6 J
2-Hexanone	ug/L	50	NC	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	ug/L	NC	NC	ND	ND	ND	ND	ND
Acetone	ug/L	50	NC	ND	3.0 J	1.7 J	ND	3.2 J
Benzene	ug/L	50	1	ND	ND	ND	ND	ND
Bromochloromethane	ug/L	NC	5	ND	ND	ND	ND	ND
Bromodichloromethane	ug/L	50	NC	ND	ND	ND	ND	ND
Bromoform	ug/L	50	NC	ND	ND	ND	ND	ND
Bromomethane	ug/L	NC	5	ND	ND	ND	ND	ND
Carbon Disulfide	ug/L	60	60	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/L	NC	5	ND	ND	ND	ND	ND
Chlorobenzene	ug/L	NC	5	ND	ND	ND	ND	ND
Chloroethane	ug/L	NC	5	ND	ND	ND	ND	ND

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	*Perimeter*	*Perimeter*	*Perimeter*	*Perimeter*
				Overburden Monitoring Well	*Bedrock Monitoring Well*	*Overburden Monitoring Well*	*Bedrock Monitoring Well*	*Overburden Monitoring Well*
			Location ID:	***MW-7***	***MW-7A***	***MW-8***	***MW-8A***	***MW-9***
			Sample ID:	***MW-7***	***MW-7A***	***MW-8***	***MW-8A***	***MW-9***
			Sample Date:	***2/12/2018***	***2/12/2018***	***2/7/2018***	***2/7/2018***	***2/6/2018***
							MS/MSD	
		New York State Water Quality						
Parameters	***Units***	***Guidance Values***	***Standards***					
Volatile Organic Analytes								
Chloroform	ug/L	NC	7	ND	ND	ND	ND	ND
Chloromethane	ug/L	NC	5	ND	ND	ND	ND	0.26 J
Cyclohexane	ug/L	NC	NC	ND	ND	ND	ND	ND
Dibromochloromethane	ug/L	NC	5	ND	ND	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	ug/L	NC	5	ND	ND	ND	ND	ND
Methylene Chloride (Dichloromethane)	ug/L	NC	NC	ND	ND	ND	ND	ND
Ethylbenzene	ug/L	NC	5	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ug/L	NC	5	ND	ND	ND	ND	ND
Methyl Acetate	ug/L	NC	NC	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether	ug/L	10	NC	ND	ND	ND	ND	ND
Methylcyclohexane	ug/L	NC	NC	ND	ND	ND	ND	ND
Styrene	ug/L	NC	5	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	NC	5	ND	ND	ND	ND	ND
Toluene	ug/L	NC	5	ND	ND	ND	ND	ND
Trichloroethene (TCE)	ug/L	NC	5	ND	ND	ND	ND	ND
Trichlorofluoromethane (CFC 11)	ug/L	NC	5	ND	ND	ND	ND	ND
Vinyl Chloride	ug/L	NC	2	ND	**6.3**	ND	ND	ND
cis-1,2-Dichloroethene	ug/L	NC	5	ND	**31**	ND	ND	ND
cis-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND	ND	ND
m,p-Xylenes	ug/L	NC	5	ND	ND	ND	ND	ND
o-Xylene	ug/L	NC	5	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	NC	5	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND	ND	ND
Field Parameters								
Conductivity, field	mS/cm	NC	NC	1.15	1.09	0.906	0.602	1.29
Dissolved oxygen (DO), field	ug/L	NC	NC	0.94	1.26	2	1.29	1.05
Oxidation reduction potential (ORP), field	millivolts	NC	NC	-24	-50	-19	-182	-13

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	***Perimeter***	***Perimeter***	***Perimeter***	***Perimeter***
				Overburden Monitoring Well	***Bedrock Monitoring Well***	***Overburden Monitoring Well***	***Bedrock Monitoring Well***	***Overburden Monitoring Well***
			Location ID:	***MW-7***	***MW-7A***	***MW-8***	***MW-8A***	***MW-9***
			Sample ID:	***MW-7***	***MW-7A***	***MW-8***	***MW-8A***	***MW-9***
			Sample Date:	***2/12/2018***	***2/12/2018***	***2/7/2018***	***2/7/2018***	***2/6/2018***
							MS/MSD	
		New York State Water Quality						
Parameters	***Units***	***Guidance Values***	***Standards***					
Volatile Organic Analytes								
pH, field	s.u.	NC	6.5-8.5	7.3	7.56	6.97	8.34	7.06
Temperature, field	Deg. C	NC	NC	7.58	9.45	8.4	11.79	6.08
Turbidity, field	NTU	NC	NC	0	57.5	0	54.8	0

Notes:

1.0 - Exceeds criteria

ND - Not detected

J - Estimated concentration

H- High

B - Compound detected in associated blank sample

NC - No criteria

ug/L - Micrograms per liter

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	*Perimeter*	*Perimeter*	*Perimeter*	*Perimeter*
				Bedrock Monitoring Well	*Overburden Monitoring Well*	*Bedrock Monitoring Well*	*Overburden Monitoring Well*	*Bedrock Monitoring Well*
			Location ID:	***MW-9A***	***MW-10***	***MW-15A***	***MW-22***	***MW-25A***
			Sample ID:	***MW-9A***	***MW-10***	***MW-15A***	***MW-22***	***MW-25A***
			Sample Date:	***2/7/2018***	***2/12/2018***	***2/14/2018***	***2/12/2018***	***2/13/2018***
		New York State Water Quality						
Parameters	***Units***	***Guidance Values***	***Standards***					
Volatile Organic Analytes								
1,1,1-Trichloroethane (TCA)	ug/L	NC	5	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/L	NC	5	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ug/L	NC	1	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	NC	5	ND	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	ug/L	NC	5	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	ug/L	NC	5	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	ug/L	NC	5	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	NC	5	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	NC	0.04	ND	ND	ND	ND	ND
1,2-Dibromoethane	ug/L	NC	0.0006	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/L	NC	0.6	ND	ND	ND	ND	ND
1,2-Dichloropropane	ug/L	NC	1	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND	ND
1,4-Dioxane	ug/L	NC	NC	ND	ND	ND	ND	ND
2-Butanone (MEK)	ug/L	50	NC	ND	ND	2.0 J	ND	ND
2-Hexanone	ug/L	50	NC	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	ug/L	NC	NC	ND	ND	ND	ND	ND
Acetone	ug/L	50	NC	ND	2.4 J	2.1 J	2.7 J	2.2 J
Benzene	ug/L	50	1	ND	ND	ND	ND	ND
Bromochloromethane	ug/L	NC	5	ND	ND	ND	ND	ND
Bromodichloromethane	ug/L	50	NC	ND	ND	ND	ND	ND
Bromoform	ug/L	50	NC	ND	ND	ND	ND	ND
Bromomethane	ug/L	NC	5	ND	ND	ND	ND	ND
Carbon Disulfide	ug/L	60	60	ND	ND	ND	ND	ND
Carbon Tetrachloride	ug/L	NC	5	ND	ND	ND	ND	ND
Chlorobenzene	ug/L	NC	5	ND	ND	ND	ND	ND
Chloroethane	ug/L	NC	5	ND	ND	ND	ND	ND

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	*Perimeter*	*Perimeter*	*Perimeter*	*Perimeter*
				Bedrock Monitoring Well	*Overburden Monitoring Well*	*Bedrock Monitoring Well*	*Overburden Monitoring Well*	*Bedrock Monitoring Well*
			Location ID:	***MW-9A***	***MW-10***	***MW-15A***	***MW-22***	***MW-25A***
			Sample ID:	***MW-9A***	***MW-10***	***MW-15A***	***MW-22***	***MW-25A***
			Sample Date:	***2/7/2018***	***2/12/2018***	***2/14/2018***	***2/12/2018***	***2/13/2018***
		New York State Water Quality						
Parameters	***Units***	***Guidance Values***	***Standards***					
Volatile Organic Analytes								
Chloroform	ug/L	NC	7	ND	ND	ND	ND	ND
Chloromethane	ug/L	NC	5	0.25 J	ND	ND	ND	ND
Cyclohexane	ug/L	NC	NC	ND	ND	ND	ND	ND
Dibromochloromethane	ug/L	NC	5	ND	ND	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	ug/L	NC	5	ND	ND	ND	ND	ND
Methylene Chloride (Dichloromethane)	ug/L	NC	NC	ND	ND	ND	ND	ND
Ethylbenzene	ug/L	NC	5	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ug/L	NC	5	ND	ND	ND	ND	ND
Methyl Acetate	ug/L	NC	NC	ND	ND	ND	ND	ND
Methyl tert-Butyl Ether	ug/L	10	NC	ND	ND	ND	ND	ND
Methylcyclohexane	ug/L	NC	NC	ND	ND	ND	ND	ND
Styrene	ug/L	NC	5	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	NC	5	ND	ND	0.32 J	ND	ND
Toluene	ug/L	NC	5	ND	ND	ND	ND	ND
Trichloroethene (TCE)	ug/L	NC	5	ND	ND	0.41 J	ND	0.32 J
Trichlorofluoromethane (CFC 11)	ug/L	NC	5	ND	ND	ND	ND	ND
Vinyl Chloride	ug/L	NC	2	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ug/L	NC	5	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND	ND	ND
m,p-Xylenes	ug/L	NC	5	ND	ND	ND	ND	ND
o-Xylene	ug/L	NC	5	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	NC	5	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND	ND	ND
Field Parameters								
Conductivity, field	mS/cm	NC	NC	1.71	0.456	3.51	0.677	0.939
Dissolved oxygen (DO), field	ug/L	NC	NC	1.06	2.43	3.54	0.89	1.22
Oxidation reduction potential (ORP), field	millivolts	NC	NC	-76	33	-53	-67	-38

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	*Perimeter*	*Perimeter*	*Perimeter*	*Perimeter*
				Bedrock Monitoring Well	*Overburden Monitoring Well*	*Bedrock Monitoring Well*	*Overburden Monitoring Well*	*Bedrock Monitoring Well*
			Location ID:	*MW-9A*	*MW-10*	*MW-15A*	*MW-22*	*MW-25A*
			Sample ID:	*MW-9A*	*MW-10*	*MW-15A*	*MW-22*	*MW-25A*
			Sample Date:	*2/7/2018*	*2/12/2018*	*2/14/2018*	*2/12/2018*	*2/13/2018*
		New York State Water Quality						
Parameters	***Units***	***Guidance Values***	***Standards***					
Volatile Organic Analytes								
pH, field	s.u.	NC	6.5-8.5	7.23	8.17	7.62	7.55	7.27
Temperature, field	Deg. C	NC	NC	10	7.4	10.25	7.33	10.56
Turbidity, field	NTU	NC	NC	0	4	129	0.9	13.6

Notes:

1.0 - Exceeds criteria

ND - Not detected

J - Estimated concentration

H- High

B - Compound detected in associated blank sample

NC - No criteria

ug/L - Micrograms per liter

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	*Perimeter*	*Perimeter*
				Bedrock Monitoring Well	*Overburden Monitoring Well*	*Bedrock Monitoring Well*
			Location ID:	*MW-25A*	*MW-26*	*MW-26A*
			Sample ID:	*Duplicate*	*MW-26*	*MW-26A*
			Sample Date:		*2/8/2018*	*2/8/2018*
		New York State Water Quality				
Parameters	*Units*	*Guidance Values*	*Standards*			
Volatile Organic Analytes						
1,1,1-Trichloroethane (TCA)	ug/L	NC	5	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/L	NC	5	ND	ND	ND
1,1,2-Trichloroethane	ug/L	NC	1	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	NC	5	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	ug/L	NC	5	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	ug/L	NC	5	ND	ND	ND
1,2,3-Trichlorobenzene	ug/L	NC	5	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	NC	5	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	NC	0.04	ND	ND	ND
1,2-Dibromoethane	ug/L	NC	0.0006	ND	ND	ND
1,2-Dichlorobenzene	ug/L	NC	3	ND	ND	ND
1,2-Dichloroethane	ug/L	NC	0.6	ND	ND	ND
1,2-Dichloropropane	ug/L	NC	1	ND	ND	ND
1,3-Dichlorobenzene	ug/L	NC	3	ND	ND	ND
1,4-Dichlorobenzene	ug/L	NC	3	ND	ND	ND
1,4-Dioxane	ug/L	NC	NC	ND	ND	ND
2-Butanone (MEK)	ug/L	50	NC	ND	ND	ND
2-Hexanone	ug/L	50	NC	ND	ND	ND
4-Methyl-2-pentanone	ug/L	NC	NC	ND	ND	ND
Acetone	ug/L	50	NC	3.8 J	ND	ND
Benzene	ug/L	50	1	ND	ND	ND
Bromochloromethane	ug/L	NC	5	ND	ND	ND
Bromodichloromethane	ug/L	50	NC	ND	ND	ND
Bromoform	ug/L	50	NC	ND	ND	ND
Bromomethane	ug/L	NC	5	ND	ND	ND
Carbon Disulfide	ug/L	60	60	ND	ND	ND
Carbon Tetrachloride	ug/L	NC	5	ND	ND	ND
Chlorobenzene	ug/L	NC	5	ND	ND	ND
Chloroethane	ug/L	NC	5	ND	ND	ND

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	*Perimeter*	*Perimeter*
				Bedrock Monitoring Well	*Overburden Monitoring Well*	*Bedrock Monitoring Well*
			Location ID:	*MW-25A*	*MW-26*	*MW-26A*
			Sample ID:	*Duplicate*	*MW-26*	*MW-26A*
			Sample Date:		*2/8/2018*	*2/8/2018*
		New York State Water Quality				
Parameters	*Units*	*Guidance Values*	*Standards*			
Volatile Organic Analytes						
Chloroform	ug/L	NC	7	ND	ND	ND
Chloromethane	ug/L	NC	5	ND	ND	ND
Cyclohexane	ug/L	NC	NC	ND	ND	ND
Dibromochloromethane	ug/L	NC	5	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	ug/L	NC	5	ND	ND	ND
Methylene Chloride (Dichloromethane)	ug/L	NC	NC	ND	ND	ND
Ethylbenzene	ug/L	NC	5	ND	ND	ND
Isopropylbenzene (Cumene)	ug/L	NC	5	ND	ND	ND
Methyl Acetate	ug/L	NC	NC	ND	ND	ND
Methyl tert-Butyl Ether	ug/L	10	NC	ND	ND	ND
Methylcyclohexane	ug/L	NC	NC	ND	ND	ND
Styrene	ug/L	NC	5	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	NC	5	ND	ND	ND
Toluene	ug/L	NC	5	ND	ND	ND
Trichloroethene (TCE)	ug/L	NC	5	0.35 J	ND	ND
Trichlorofluoromethane (CFC 11)	ug/L	NC	5	ND	ND	ND
Vinyl Chloride	ug/L	NC	2	ND	ND	ND
cis-1,2-Dichloroethene	ug/L	NC	5	1.1 J	ND	ND
cis-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND
m,p-Xylenes	ug/L	NC	5	ND	ND	ND
o-Xylene	ug/L	NC	5	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	NC	5	ND	ND	ND
trans-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND
Field Parameters						
Conductivity, field	mS/cm	NC	NC	--	3.69	1.51
Dissolved oxygen (DO), field	ug/L	NC	NC	--	1	2.05
Oxidation reduction potential (ORP), field	millivolts	NC	NC	--	-10	13

TABLE 4.3

ANALYTICAL RESULTS SUMMARY
VOCs in PERIMETER WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Perimeter	***Perimeter***	***Perimeter***
				Bedrock Monitoring Well	***Overburden Monitoring Well***	***Bedrock Monitoring Well***
			Location ID:	***MW-25A***	***MW-26***	***MW-26A***
			Sample ID:	***Duplicate***	***MW-26***	***MW-26A***
			Sample Date:		***2/8/2018***	***2/8/2018***
		New York State Water Quality				
Parameters	***Units***	***Guidance Values***	***Standards***			
Volatile Organic Analytes						
pH, field	s.u.	NC	6.5-8.5	--	7.14	7.47
Temperature, field	Deg. C	NC	NC	--	6.68	7.87
Turbidity, field	NTU	NC	NC	--	0	0.4

Notes:

1.0 - Exceeds criteria

ND - Not detected

J - Estimated concentration

H- High

B - Compound detected in associated blank sample

NC - No criteria

ug/L - Micrograms per liter

TABLE 4.4

ANALYTICAL RESULTS SUMMARY
VOCs in OVERBURDEN PLUME WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Plume	*Plume*	*Plume*	*Plume*
				Overburden Monitoring Well	*Overburden Monitoring Well*	*Overburden Monitoring Well*	*Overburden Monitoring Well*
			Location ID:	*MW-5R*	*MW-6*	*MW-11*	*MW-19R*
			Sample ID:	*MW-5R*	*MW-6*	*MW-11*	*MW-19R*
			Sample Date:	*2/8/2018*	*2/12/2018*		*2/12/2018*
		New York State Water Quality					
Parameters	*Units*	*Guidance Values*	*Standards*				
Volatile Organic Analytes							
1,1,1-Trichloroethane (TCA)	ug/L	NC	5	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/L	NC	5	ND	ND	ND	ND
1,1,2-Trichloroethane	ug/L	NC	1	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	NC	5	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	ug/L	NC	5	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	ug/L	NC	5	ND	**25**	ND	ND
1,2,3-Trichlorobenzene	ug/L	NC	5	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	NC	5	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	NC	0.04	ND	ND	ND	ND
1,2-Dibromoethane	ug/L	NC	0.0006	ND	ND	ND	ND
1,2-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND
1,2-Dichloroethane	ug/L	NC	0.6	ND	ND	ND	ND
1,2-Dichloropropane	ug/L	NC	1	ND	ND	ND	ND
1,3-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND
1,4-Dichlorobenzene	ug/L	NC	3	ND	ND	ND	ND
1,4-Dioxane	ug/L	NC	NC	ND	ND	ND	ND
2-Butanone (MEK)	ug/L	50	NC	1.1 J	ND	0.93 J	ND
2-Hexanone	ug/L	50	NC	ND	ND	ND	ND
4-Methyl-2-pentanone	ug/L	NC	NC	ND	ND	ND	ND
Acetone	ug/L	50	NC	12	ND	3.6 J	1.3 J
Benzene	ug/L	50	1	ND	1.1 J	ND	ND
Bromochloromethane	ug/L	NC	5	ND	ND	ND	ND
Bromodichloromethane	ug/L	50	NC	ND	ND	ND	ND
Bromoform	ug/L	50	NC	ND	ND	ND	ND
Bromomethane	ug/L	NC	5	ND	ND	ND	ND
Carbon Disulfide	ug/L	60	60	0.44 J	ND	ND	ND
Carbon Tetrachloride	ug/L	NC	5	ND	ND	ND	ND
Chlorobenzene	ug/L	NC	5	ND	ND	ND	ND
Chloroethane	ug/L	NC	5	ND	ND	ND	ND
Chloroform	ug/L	NC	7	0.28 J	ND	ND	ND
Chloromethane	ug/L	NC	5	ND	ND	ND	ND
Cyclohexane	ug/L	NC	NC	ND	ND	ND	0.52 J
Dibromochloromethane	ug/L	NC	5	ND	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	ug/L	NC	5	ND	ND	ND	ND
Methylene Chloride (Dichloromethane)	ug/L	NC	NC	ND	ND	ND	ND
Ethylbenzene	ug/L	NC	5	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ug/L	NC	5	ND	ND	ND	ND
Methyl Acetate	ug/L	NC	NC	ND	ND	ND	ND

TABLE 4.4

ANALYTICAL RESULTS SUMMARY
VOCs in OVERBURDEN PLUME WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Plume	*Plume*	*Plume*	*Plume*
				Overburden Monitoring Well	*Overburden Monitoring Well*	*Overburden Monitoring Well*	*Overburden Monitoring Well*
			Location ID:	*MW-5R*	*MW-6*	*MW-11*	*MW-19R*
			Sample ID:	*MW-5R*	*MW-6*	*MW-11*	*MW-19R*
			Sample Date:	*2/8/2018*	*2/12/2018*		*2/12/2018*
		New York State Water Quality					
Parameters	*Units*	*Guidance Values*	*Standards*				
Volatile Organic Analytes							
Methyl tert-Butyl Ether	ug/L	10	NC	ND	ND	ND	ND
Methylcyclohexane	ug/L	NC	NC	ND	ND	ND	0.47 J
Styrene	ug/L	NC	5	ND	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	NC	5	0.61 J	**11 J**	ND	ND
Toluene	ug/L	NC	5	ND	ND	ND	ND
Trichloroethene (TCE)	ug/L	NC	5	**130**	**490**	0.87 J	**66**
Trichlorofluoromethane (CFC 11)	ug/L	NC	5	ND	ND	ND	ND
Vinyl Chloride	ug/L	NC	2	ND	**110**	ND	0.76 J
cis-1,2-Dichloroethene	ug/L	NC	5	**72**	**3100 D**	4.7 J	**88**
cis-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND	ND
m,p-Xylenes	ug/L	NC	5	ND	ND	ND	ND
o-Xylene	ug/L	NC	5	ND	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	NC	5	**6.6**	**17 J**	ND	3.7 J
trans-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	ND	ND
Field Parameters							
Conductivity, field	mS/cm	NC	NC	1.57	0.585	12	2.38
Dissolved oxygen (DO), field	ug/L	NC	NC	2.23	0.57	2.88	1.41
Oxidation reduction potential (ORP), field	millivolts	NC	NC	17	-223	-12	30
pH, field	s.u.	NC	6.5-8.5	8.15	9.65	7.14	7.57
Temperature, field	Deg. C	NC	NC	5.42	8.59	6.48	6.71
Turbidity, field	NTU	NC	NC	0	44	>1,000	6.6
Sodium Persulfate	ug/L	NC	NC	5,500,000	2,500,000	5,500,000	8,200,000

Notes:

1.0 - Exceeds criteria

ND - Not detected

J - Estimated concentration

D - Diluted

NC - No criteria

ug/L - Micrograms per liter

TABLE 4.5

ANALYTICAL RESULTS SUMMARY
VOCs in BEDROCK PLUME WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Plume	*Plume*	*Plume*	*Plume*	*Plume*	*Plume*	*Plume*	*Plume*
				Bedrock Monitoring Well	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*
			Location ID:	*MW-5AR*	*MW-13A*	*MW-14A*	*MW-19AR*	*MW-20A*	*MW-21A*	*MW-21A*
			Sample ID:	*MW-5AR*	*MW-13A*	*Not Sampled - Access*	*MW-19AR*	*MW-20A*	*MW-21A*	*Duplicate-01*
			Sample Date:	*2/8/2018*	*2/9/2018*		*2/13/2018*	*2/9/2018*	*2/8/2018*	2/8/2018
										Duplicate
		New York State Water Quality								
Parameters	***Units***	***Guidance Values***	***Standards***							
Volatile Organic Analytes										
1,1,1-Trichloroethane (TCA)	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/L	NC	5	**60 J**	4.2 J	NS	0.56 J	ND	ND	ND
1,1,2-Trichloroethane	ug/L	NC	1	ND	ND	NS	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA)	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE)	ug/L	NC	5	ND	**7.8 J**	NS	ND	ND	1.6 J	1.5 J
1,2,3-Trichlorobenzene	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	NC	0.04	ND	ND	NS	ND	ND	ND	ND
1,2-Dibromoethane	ug/L	NC	0.0006	ND	ND	NS	ND	ND	ND	ND
1,2-Dichlorobenzene	ug/L	NC	3	ND	ND	NS	ND	ND	0.26 J	0.29 J
1,2-Dichloroethane	ug/L	NC	0.6	ND	ND	NS	ND	ND	ND	ND
1,2-Dichloropropane	ug/L	NC	1	ND	ND	NS	ND	ND	ND	ND
1,3-Dichlorobenzene	ug/L	NC	3	ND	ND	NS	ND	ND	ND	ND
1,4-Dichlorobenzene	ug/L	NC	3	ND	ND	NS	ND	ND	ND	ND
1,4-Dioxane	ug/L	NC	NC	ND	ND	NS	ND	ND	ND	ND
2-Butanone (MEK)	ug/L	50	NC	ND	ND	NS	9.8 J	ND	ND	ND
2-Hexanone	ug/L	50	NC	ND	ND	NS	ND	ND	ND	ND
4-Methyl-2-pentanone	ug/L	NC	NC	ND	ND	NS	ND	ND	ND	ND
Acetone	ug/L	50	NC	**180 J**	**51 J**	NS	**78**	2.7 J	2.0 J	1.5 J
Benzene	ug/L	50	1	ND	ND	NS	ND	ND	0.47 J	0.46 J
Bromochloromethane	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Bromodichloromethane	ug/L	50	NC	ND	ND	NS	ND	ND	ND	ND
Bromoform	ug/L	50	NC	ND	ND	NS	ND	ND	ND	ND
Bromomethane	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Carbon Disulfide	ug/L	60	60	11 J	11 J	NS	12	ND	ND	ND
Carbon Tetrachloride	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Chlorobenzene	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Chloroethane	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Chloroform	ug/L	NC	7	ND	ND	NS	0.28 J	ND	ND	ND
Chloromethane	ug/L	NC	5	**12 J**	2.7 J	NS	0.69 J	ND	ND	ND
Cyclohexane	ug/L	NC	NC	ND	ND	NS	0.48 J	0.54 J	ND	ND
Dibromochloromethane	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Methylene Chloride (Dichloromethane)	ug/L	NC	NC	ND	ND	NS	ND	ND	ND	ND
Ethylbenzene	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND

TABLE 4.5

ANALYTICAL RESULTS SUMMARY
VOCs in BEDROCK PLUME WELLS - FEBRUARY 2018
FORMER BUFFALO CHINA SITE (No. C915209)

				Plume	*Plume*	*Plume*	*Plume*	*Plume*	*Plume*	*Plume*
				Bedrock Monitoring Well	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*	*Bedrock Monitoring Well*
			Location ID:	*MW-5AR*	*MW-13A*	*MW-14A*	*MW-19AR*	*MW-20A*	*MW-21A*	*MW-21A*
			Sample ID:	*MW-5AR*	*MW-13A*	*Not Sampled - Access*	*MW-19AR*	*MW-20A*	*MW-21A*	*Duplicate-01*
			Sample Date:	*2/8/2018*	*2/9/2018*		*2/13/2018*	*2/9/2018*	*2/8/2018*	2/8/2018
										Duplicate
		New York State Water Quality								
Parameters	***Units***	***Guidance Values***	***Standards***							
Volatile Organic Analytes										
Methyl Acetate	ug/L	NC	NC	ND	ND	NS	ND	ND	ND	ND
Methyl tert-Butyl Ether	ug/L	10	NC	ND	ND	NS	ND	ND	ND	ND
Methylcyclohexane	ug/L	NC	NC	ND	ND	NS	0.31 J	ND	ND	ND
Styrene	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	NC	5	**58 J**	**26 J**	NS	5.0 J	ND	ND	ND
Toluene	ug/L	NC	5	**21 J**	4.4 J	NS	ND	ND	ND	ND
Trichloroethene (TCE)	ug/L	NC	5	**28,000 D**	**4,300 D**	NS	**440 D**	0.67 J	**7.4**	**7.1**
Trichlorofluoromethane (CFC 11)	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
Vinyl Chloride	ug/L	NC	2	**240 J**	**130**	NS	ND	**21**	**75**	**75**
cis-1,2-Dichloroethene	ug/L	NC	5	**21,000 D**	**6,800 D**	NS	**65**	**29**	**170**	**160**
cis-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	NS	ND	ND	ND	ND
m,p-Xylenes	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
o-Xylene	ug/L	NC	5	ND	ND	NS	ND	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	NC	5	**720**	**290**	NS	**9.6**	ND	**12**	**11**
trans-1,3-Dichloropropene	ug/L	NC	NC	ND	ND	NS	ND	ND	ND	ND
Field Parameters										
Conductivity, field	mS/cm	NC	NC	20	8.53	NS	19.4	1.48	5.63	--
Dissolved oxygen (DO), field	ug/L	NC	NC	0.53	0.84	NS	1.05	0.95	0.76	--
Oxidation reduction potential (ORP), field	millivolts	NC	NC	43	151	NS	122	-20	-42	--
pH, field	s.u.	NC	6.5-8.5	6.7	6.98	NS	6.47	7.64	7.2	--
Temperature, field	Deg. C	NC	NC	9.06	8.98	NS	9.29	10.72	8.89	--
Turbidity, field	NTU	NC	NC	154	59.2	NS	894	115	23.8	--
Sodium Persulfate	ug/L	NC	NC	5,500,000	11,300,000	NS	11,400,000	7,500,000	8,200,000	--

Notes:

1.0 - Exceeds criteria

ND - Not detected

J - Estimated concentration

D - Diluted

NC - No criteria

ug/L - Micrograms per liter

Appendix A
Site Inspection Forms

SITE INSPECTION FORM
FORMER BUFFALO CHINA SITE
BUFFALO, NEW YORK
NYSDEC SITE NO. C915209

INSPECTION DATE: 3/26/18

INSPECTED BY: Jon Williams

Overall Site

Has the Site use changed since the last inspection? *Yes* _____ *No* X

If yes, please describe the changes: _____

Have neighboring property uses changed? *Yes* _____ *No* X

If yes, please describe the changes: _____

Asphalt/Concrete Cover System

Potential Problems	*Concern*	*Corrective Action*
Potholes and cracks	• Deterioration of asphalt pavement or concrete • Safety hazard	• Use cold mix or hot mix asphalt and liquid bituminous material to patch, repair, or replace asphalt • For concrete, select repair method based on type and extent of damage
Ponding water	• Safety hazard	• No action required if ponding is minor • If ponding is significant, install drainage holes in asphalt/concrete pavement
Obstructions/Debris	• Safety hazard	• Remove obstructions as soon as possible

Inspect For	*Inspection Item Identified (circle one)*		*Action Required (circle one)*		*Comments*
Deterioration	(Yes)	No	Yes	(No)	some cracking at edges of asphalt and in concrete, same as 2017
Obstruction/Debris	(Yes)	No	Yes	(No)	some miscellaneous C+D debris at edges.
Potholes	Yes	(No)	Yes	(No)	
Drainage/Puddles	Yes	(No)	Yes	(No)	
Other see other side	Yes	(No)	Yes	(No)	

SITE INSPECTION FORM
FORMER BUFFALO CHINA SITE
BUFFALO, NEW YORK
NYSDEC SITE NO. C915209

INSPECTION DATE: 3/26/18

INSPECTED BY: Jon Williams

Surface Soil/Stone Cover System

Potential Problems	***Concern***	***Corrective Action***
Erosion	• Deterioration of integrity of cover • Washed out soil/stone	• Backfill with additional imported stone/common fill as needed • If persistent erosion occurs, erosion control mats may be required in selected areas
Animal burrows	• Potential for soil cover erosion • Safety hazard	• Contract exterminator regarding trapping and relocation of persistent rodents • Seal all holes with common fill and compact
Damage to fence	• Potential access to Site by unauthorized persons	• No action if damage is minor and does not allow access by unauthorized persons • Repair fence if appropriate

Inspect For	*Inspection Item Identified (circle one)*		*Action Required (circle one)*		*Comments*
Erosion	Yes	(No)	Yes	(No)	no erosion, some cracks. as 2017
Animal Burrows	Yes	(No)	Yes	(No)	no burrows, evidence of deer
Damage to fence	(Yes)	No	Yes	No	chain link gate panel missing
Other	(Yes)	No	Yes	No	Miscellaneous Debris

SITE INSPECTION FORM
FORMER BUFFALO CHINA SITE
BUFFALO, NEW YORK
NYSDEC SITE NO. C915209

INSPECTION DATE: 3/26/18

INSPECTED BY: Jon Williams

Monitoring Wells

Potential Problems	***Concern***	***Corrective Action***
Missing locks	• Potential access by unauthorized persons	• Replace lock
Missing J-plugs	• Potential well contamination from surface water or rain water	• Replace J-plug
Concrete surface seal	• Damaged seal can allow water infiltration around casing and contamination of groundwater	• Contract drilling subcontractor to have surface seal replaced
Damaged flush-mount or stickup casing	• Damaged casing can result in damage to riser	• Contract drilling subcontractor to have casing replaced

Monitoring Well	*Well Condition (circle one)*			*Comments*
MW-5	(Good)	Fair	Needs Repair	all good
MW-5A	(Good)	Fair	Needs Repair	all good
MW-6	Good	Fair	(Needs Repair)	no bolts, no j-plug
MW-7	Good	Fair	(Needs Repair)	needs 2 bolts
MW-7A	Good	Fair	(Needs Repair)	needs 1 bolt, new j-plug
MW-8	Good	(Fair)	(Needs Repair)	1 bolt, broken tab
MW-8A	(Good)	Fair	Needs Repair	all good
MW-9	Good	(Fair)	(Needs Repair)	missing 1 bolt
MW-9A	(Good)	Fair	Needs Repair	all good
MW-10	(Good)	Fair	Needs Repair	all good
MW-11	Good	Fair	(Needs Repair)	curb box destroyed
MW-13A	(Good)	Fair	Needs Repair	all good
MW-14A* new owner	Good	Fair	Needs Repair	contractor trailer in driveway
MW-15A	(Good)	Fair	Needs Repair	all good
MW-19R	(Good)	Fair	Needs Repair	cap, riser, lock
MW-19AR	(Good)	Fair	Needs Repair	cap, riser, lock
MW-21A	(Good)	Fair	Needs Repair	all good
MW-22	Good	Fair	(Needs Repair)	j-plug destroyed, casing

MW-20A good, lid not bolted, cap loose flooded, needs 1 bolt Washer

SITE INSPECTION FORM
FORMER BUFFALO CHINA SITE
BUFFALO, NEW YORK
NYSDEC SITE NO. C915209

INSPECTION DATE: 3/26/18

INSPECTED BY: Jon Williams

Monitoring Well	*Well Condition (circle one)*			*Comments*
MW-22A	Good	Fair	(Needs Repair)	missing curb box lid, J-plug intact
MW-25A	(Good)	Fair	Needs Repair	all components good
MW-26	(Good)	Fair	Needs Repair	all good
MW-26A	(Good)	Fair	Needs Repair	all good

Injection Wells

Potential Problems	***Concern***	***Corrective Action***
Missing caps	• Potential well contamination from surface water or rain water	• Replace cap
Damaged stickup	• Inability to distribute oxidant, inoculum, substrate, nutrients to subsurface	• Repair stickup or contract drilling subcontractor to replace injection well

Injection Well/Gallery	*Well Condition (circle one)*			*Comments*
IW-1	(Good)	Fair	(Needs Repair)	loose royer cap
IW-2	(Good)	Fair	Needs Repair	all good
IW-3	(Good)	Fair	Needs Repair	all good
IW-4	(Good)	Fair	(Needs Repair)	loose royer cap
IW-5	(Good)	Fair	Needs Repair	all good
IW-6	(Good)	Fair	Needs Repair	all good
IW-7	(Good)	Fair	Needs Repair	all good
IW-8	(Good)	Fair	Needs Repair	all good
IW-9	(Good)	Fair	Needs Repair	all good
IW-10	(Good)	Fair	Needs Repair	all good
IW-11	(Good)	Fair	Needs Repair	all good
IW-12	(Good)	Fair	Needs Repair	all good
IW-13	(Good)	Fair	Needs Repair	all good
IW-14	Good	Fair	(Needs Repair)	concrete collar
IW-15	(Good)	Fair	Needs Repair	all good
IW-16	(Good)	Fair	Needs Repair	all good

SITE INSPECTION FORM
FORMER BUFFALO CHINA SITE
BUFFALO, NEW YORK
NYSDEC SITE NO. C915209

INSPECTION DATE: 3/26/18

INSPECTED BY: Joe Williams

Injection Well/Gallery	*Well Condition (circle one)*			*Comments*
IW-17	(Good)	Fair	Needs Repair	all good, needs bolt shaved
IW-18	(Good)	Fair	Needs Repair	all good
IW-19	(Good)	Fair	Needs Repair	all good
IW-20	(Good)	Fair	Needs Repair	all good
IW-21	(Good)	Fair	Needs Repair	difficult access
IW-22	(Good)	Fair	Needs Repair	all good
IW-23	Good	(Fair)	(Needs Repair)	stickup casing and cap good, lock rusted shut
IW-24	(Good)	Fair	Needs Repair	all good
IW-25	Good	(Fair)	Needs Repair	some cracking in concrete
IW-26	Good	(Fair)	Needs Repair	some cracking in concrete
IW-27	Good	Fair	Needs Repair	could not inspect
IW-28	Good	Fair	Needs Repair	could not inspect
IW-29	Good	Fair	Needs Repair	could not inspect
IG-1	(Good)	Fair	Needs Repair	
IG-2	(Good)	Fair	Needs Repair	
IG-3	(Good)	Fair	Needs Repair	
IG-4	(Good)	Fair	Needs Repair	
IG-5	(Good)	Fair	Needs Repair	
IG-6	(Good)	Fair	Needs Repair	
IG-7	(Good)	Fair	Needs Repair	
IG-8	(Good)	Fair	Needs Repair	
IG-9	(Good)	Fair	Needs Repair	
IG-10	(Good)	Fair	Needs Repair	

IW-32 good condition, all components functioning

IW-33 good

IW-30 good, except no j-plug or threaded cap

IW-31 good

Appendix B
Site Photographs

Site Photos

Asphalt cover system, view towards north.

Site Photos

Southern edge of asphalt cover system.

Site Photos

Western edge of asphalt cover system.

Site Photos

Area A stone cover system, view towards northeast.

Site Photos

Area C stone cover system, view towards southwest.

Site Photos

Area D stone cover system, view towards east.

Site Photos

Concrete sidewalk, view toward Harrison Street Warehouse.

Site Photos

Monitoring well MW-7, missing 2 lid bolts.

Monitoring well MW-7A, missing 1 lid bolt and j-plug.

Site Photos

Monitoring well MW-20A, missing 1 lid bolt.

Monitoring well MW-6, missing 2 lid bolts.

Site Photos

Injection well IW-4, loose cap.

Injection well IW-26, cracks in concrete collar.

Site Photos

Injection well IW-24, cracks in concrete collar.

Monitoring well MW-11, damaged curb box.

Site Photos

Monitoring well MW-22A, damaged curb box.

Monitoring well MW-9A, undercutting of concrete collar.

Site Photos

Monitoring well MW-9, missing 1 lid bolt.

Appendix C
Access Request Letter – 127 Harrison Street

LiRo Engineers, Inc.
A LiRo Group Company
690 Delaware Avenue, Buffalo, NY 14209 Telephone 716.882.5476 Facsimile 716.882.9640

February 8, 2018

Mr. Richard Runge
127 Harrison Street
Buffalo, New York 14210

Re: Former Buffalo China Site
Brownfield Site #C915209
Request for Access – 127 Harrison Street

Dear Mr. Runge,

LiRo Engineers, Inc. (LiRo) has been retained by Hayes Place Management Group, Inc. (HPMG) to provide environmental engineering services at the Former Buffalo China (Brownfield Site #C915209) at 51 Hayes Street in Buffalo, New York. As part of the environmental engineering services, LiRo is conducting groundwater monitoring and soil vapor intrusion monitoring on behalf of HPMG.

The remediation and monitoring program is being conducted under a Site Management Plan (SMP) that has been approved by the New York State Department of Environmental Conservation (NYSDEC). A requirement of the SMP is that the sub-slab depressurization system that is installed at your property be checked at least once per year to ensure that it is working properly.

LiRo is currently scheduling the annual Site-wide inspection for the Former Buffalo China Site for mid to late February. Typically, inspection of the sub-slab depressurization system at your property is included with the Site-wide inspection.

LiRo would like to request access to your property located at 127 Harrison Street in order to inspect and test the sub-slab depressurization system. Testing will require access to your basement to check for cracks in the floor, ensure the sump crock is sealed, and perform a vacuum pressure test at the sample point installed in the basement floor. We anticipate that the inspection and testing will take no longer than 30 minutes.

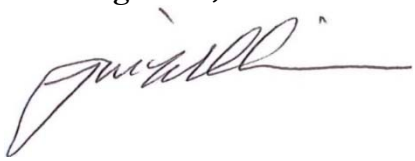
LiRo would like to perform the monitoring during the Site-wide inspection later in February. For any future events, LiRo will provide you with written notification prior to any monitoring event. LiRo will be happy to discuss the performance of the sub-slab depressurization system at the time of monitoring. If any deficiencies are identified with the operation of the system, LiRo will discuss these with you and schedule a convenient date and time to complete repairs.

Please review the attached indemnification agreement. If the terms of the agreement are agreeable please sign and return a copy in the enclosed self-addressed stamped envelope and indicate what would be a convenient date and time for you to have the inspection performed.

Should you require any additional information and to schedule a convenient time for the monitoring, please contact me directly at 716-970-4136 or by email at williamsj@liro.com.

Sincerely,

LiRo Engineers, Inc.



Jon Williams
Senior Geologist

ER: COMPLE... IS SECTION ON DELIVERY

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MR. Richard Runge
127 Harrison St.
Buffalo, NY 14210

A. Signature

X Matt

☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

FEB 10 2018

3. Service Type

☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7011 1570 0001 4090 5315

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

Appendix D
Laboratory Analytical Reports
(Included on Attached CD)

February 23, 2018 Service Request No:R1801238

Mr. Jon Williams
The LiRo Group
690 Delaware Ave.
Buffalo, NY 14209

Laboratory Results for: Buffalo China

Dear Mr.Williams,

Enclosed are the results of the sample(s) submitted to our laboratory February 13, 2018
For your reference, these analyses have been assigned our service request number **R1801238.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Lisa.Reyes@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Lisa Reyes
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Road, Building 300, Suite 360
Rochester, NY 14623
T : +1 585 288 5380
F : +1 585 288 8475
www.alsglobal.com

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Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: The LiRo Group
Project: Buffalo China
Sample Matrix: Water

Service Request: R1801238
Date Received: 02/13/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Seventeen water samples were received for analysis at ALS Environmental on 02/13/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by _____ Date 02/23/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-9	Lab ID: R1801238-001					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
2-Butanone (MEK)	2.6	J	0.81	10	ug/L	8260C
Acetone	3.2	J	1.3	10	ug/L	8260C
Chloromethane	0.26	J	0.21	5.0	ug/L	8260C

CLIENT ID: MW-8	Lab ID: R1801238-002					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	1.7	J	1.3	10	ug/L	8260C

CLIENT ID: MW-9A	Lab ID: R1801238-004					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Chloromethane	0.25	J	0.21	5.0	ug/L	8260C

CLIENT ID: MW-21A	Lab ID: R1801238-007					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1-Dichloroethene (1,1-DCE)	1.6	J	0.57	5.0	ug/L	8260C
1,2-Dichlorobenzene	0.26	J	0.21	5.0	ug/L	8260C
Acetone	2.0	J	1.3	10	ug/L	8260C
Benzene	0.47	J	0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	7.4		0.22	5.0	ug/L	8260C
Vinyl Chloride	75		0.32	5.0	ug/L	8260C
cis-1,2-Dichloroethene	170		0.30	5.0	ug/L	8260C
trans-1,2-Dichloroethene	12		0.33	5.0	ug/L	8260C

CLIENT ID: DUPLICATE-01	Lab ID: R1801238-008					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1-Dichloroethene (1,1-DCE)	1.5	J	0.57	5.0	ug/L	8260C
1,2-Dichlorobenzene	0.29	J	0.21	5.0	ug/L	8260C
Acetone	1.5	J	1.3	10	ug/L	8260C
Benzene	0.46	J	0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	7.1		0.22	5.0	ug/L	8260C
Vinyl Chloride	75		0.32	5.0	ug/L	8260C
cis-1,2-Dichloroethene	160		0.30	5.0	ug/L	8260C
trans-1,2-Dichloroethene	11		0.33	5.0	ug/L	8260C

CLIENT ID: MW-5R	Lab ID: R1801238-009					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
2-Butanone (MEK)	1.1	J	0.81	10	ug/L	8260C
Acetone	12		1.3	10	ug/L	8260C
Carbon Disulfide	0.44	J	0.22	10	ug/L	8260C
Chloroform	0.28	J	0.25	5.0	ug/L	8260C
Tetrachloroethene (PCE)	0.61	J	0.30	5.0	ug/L	8260C
Trichloroethene (TCE)	130		0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	72		0.30	5.0	ug/L	8260C
trans-1,2-Dichloroethene	6.6		0.33	5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-5R	Lab ID: R1801238-009					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**

CLIENT ID: MW-5AR	Lab ID: R1801238-010					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,2,2-Tetrachloroethane	60	J	13	250	ug/L	8260C
Acetone	180	J	62	500	ug/L	8260C
Carbon Disulfide	11	J	11	500	ug/L	8260C
Chloromethane	12	J	11	250	ug/L	8260C
Tetrachloroethene (PCE)	58	J	15	250	ug/L	8260C
Toluene	21	J	10	250	ug/L	8260C
Trichloroethene (TCE)	28000	D	44	1000	ug/L	8260C
Vinyl Chloride	240	J	16	250	ug/L	8260C
cis-1,2-Dichloroethene	21000	D	60	1000	ug/L	8260C
trans-1,2-Dichloroethene	720		17	250	ug/L	8260C

CLIENT ID: MW-13A	Lab ID: R1801238-011					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,2,2-Tetrachloroethane	4.2	J	2.5	50	ug/L	8260C
1,1-Dichloroethene (1,1-DCE)	7.8	J	5.7	50	ug/L	8260C
Acetone	51	J	13	100	ug/L	8260C
Carbon Disulfide	11	J	2.2	100	ug/L	8260C
Chloromethane	2.7	J	2.1	50	ug/L	8260C
Tetrachloroethene (PCE)	26	J	3.0	50	ug/L	8260C
Toluene	4.4	J	2.0	50	ug/L	8260C
Trichloroethene (TCE)	4300	D	11	250	ug/L	8260C
Vinyl Chloride	130		3.2	50	ug/L	8260C
cis-1,2-Dichloroethene	6800	D	15	250	ug/L	8260C
trans-1,2-Dichloroethene	290		3.3	50	ug/L	8260C

CLIENT ID: MW-20A	Lab ID: R1801238-012					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	2.7	J	1.3	10	ug/L	8260C
Cyclohexane	0.54	J	0.25	10	ug/L	8260C
Trichloroethene (TCE)	0.67	J	0.22	5.0	ug/L	8260C
Vinyl Chloride	21		0.32	5.0	ug/L	8260C
cis-1,2-Dichloroethene	29		0.30	5.0	ug/L	8260C

CLIENT ID: MW-6	Lab ID: R1801238-013					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1-Dichloroethene (1,1-DCE)	25		2.9	25	ug/L	8260C
Benzene	1.1	J	1.0	25	ug/L	8260C
Tetrachloroethene (PCE)	11	J	1.5	25	ug/L	8260C
Trichloroethene (TCE)	490		1.1	25	ug/L	8260C
Vinyl Chloride	110		1.6	25	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-6	Lab ID: R1801238-013					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
cis-1,2-Dichloroethene	3100	D	7.5	130	ug/L	8260C
trans-1,2-Dichloroethene	17	J	1.7	25	ug/L	8260C

CLIENT ID: MW-7A	Lab ID: R1801238-014					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	3.0	J	1.3	10	ug/L	8260C
Vinyl Chloride	6.3		0.32	5.0	ug/L	8260C
cis-1,2-Dichloroethene	31		0.30	5.0	ug/L	8260C

CLIENT ID: MW-19R	Lab ID: R1801238-016					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	1.3	J	1.3	10	ug/L	8260C
Cyclohexane	0.52	J	0.25	10	ug/L	8260C
Methylcyclohexane	0.47	J	0.27	10	ug/L	8260C
Trichloroethene (TCE)	66		0.22	5.0	ug/L	8260C
Vinyl Chloride	0.76	J	0.32	5.0	ug/L	8260C
cis-1,2-Dichloroethene	88		0.30	5.0	ug/L	8260C
trans-1,2-Dichloroethene	3.7	J	0.33	5.0	ug/L	8260C

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1801238-001	MW-9	2/6/2018	1315
R1801238-002	MW-8	2/6/2018	1420
R1801238-003	MW-8A	2/7/2018	1345
R1801238-004	MW-9A	2/7/2018	1500
R1801238-005	MW-26	2/8/2018	1015
R1801238-006	MW-26A	2/8/2018	1220
R1801238-007	MW-21A	2/8/2018	1315
R1801238-008	DUPLICATE-01	2/8/2018	1330
R1801238-009	MW-5R	2/8/2018	1430
R1801238-010	MW-5AR	2/8/2018	1515
R1801238-011	MW-13A	2/9/2018	1045
R1801238-012	MW-20A	2/9/2018	1230
R1801238-013	MW-6	2/12/2018	1000
R1801238-014	MW-7A	2/12/2018	1050
R1801238-015	MW-7	2/12/2018	1140
R1801238-016	MW-19R	2/12/2018	1245
R1801238-017	TRIP BLANK	2/6/2018	

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

49571

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: Buffalo China	Project Number: 16-344-1389
Project Manager: Jon Williams	Report CC:
Company/Address: LiRo Engineers, Inc. 690 Delaware Avenue Buffalo NY 14209	
Phone #: 716-970-4136	Email: williamsj@liro.com
Sampler's Signature:	Sampler's Printed Name: Jon Williams

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
MW-9		2/6/18	1315	W	3	X							
MW-8		2/6/18	1420		3	X							
MW-8A MS/MSD		2/7/18	1345		9	X							
MW-9A		2/7/18	1500		3	X							
MW-26		2/8/18	1015		3	X							
MW-26A		2/8/18	1220		3	X							
MW-21A		2/8/18	1315		3	X							
Duplicate-01		2/8/18	1330		3	X							
MW-5R		2/8/18	1430		3	X							
MW-5AR		2/8/18	1515		3	X							
MW-13A		2/9/18	1045		3	X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE: 10 day

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
X IV. Data Validation Report with Raw Data
NYSDEC EDD
Edata X Yes _____ No

INVOICE INFORMATION
PO # 16-344-1389
BILL TO: LiRo
Attn: Annette Golecki
Jon Williams

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature: Gary Boham	Signature: Gary Boham	Signature	Signature	Signature
Printed Name: Jon Williams	Printed Name: Gary Boham	Printed Name: Gary Boham	Printed Name	Printed Name	
Firm: LiRo	Firm: ALS	Firm: ALS	Firm: ALS	Firm	
Date/Time: 2/13/18 1000	Date/Time: 2/13/18 1000	Date/Time: 2/13/18 1310	Date/Time: 2/13/18 1310	Date/Time	

R1801238 5
The LiRo Group
Buffalo China

Distribution: White - Lab Copy; Yellow - Return to Originator

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

49570

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name	Project Number
Buffalo China	16-344-1389
Project Manager	Report CC
Company/Address	
Phone #	Email
Sampler's Signature	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
MW-20A		2/9/18	1230	W	3	X							
MW-6		2/12/18	1000		3	X							
MW-7A		2/12/18	1050		3	X							
MW-7		2/12/18	1140		3	X							
MW-19R		2/12/18	1245		3	X							
Trip Blank		—	—		3	X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature Jon Williams	Signature Gary Bohan	Signature Gary Bohan	Signature	Signature	
Printed Name LiRo	Printed Name Gary Bohan	Printed Name Gary Bohan	Printed Name	Printed Name	
Firm 2/13/18 1000	Firm ALS	Firm ALS	Firm ALS	Firm	
Date/Time	Date/Time 2/13/18 1000	Date/Time 2/13/18 1310	Date/Time 2/13/18 1310	Date/Time	

R1801238 5
The LiRo Group
Buffalo China

Distribution: White - Lab Copy; Yellow - Return to Originator

R1801238 5
The LIRo Group
Buffalo China

Cooler Receipt and Preservation Check Form

Project/Client LiRo Folder Number .

Cooler received on 2/13/18 by: @/GE **COURIER:** (ALS) UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y (N)	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	(Y) N NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 2/13/18 Time: 1310 ID: IR#7 (IR#9) From: (Temp Blank) (Sample Bottle)

Observed Temp (°C)	0.6	0.4	1.3	0.8			
Correction Factor (°C)	+1.0	−	−	−			
Corrected Temp (°C)	1.6	0.4	1.3	0.8			
Temp from:Type of bottle	cert tube	−	−	−			
Within 0-6°C?	(Y) N	(Y) N	(Y) N	(Y) N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: Standing Approval Client aware at drop-off Client notified by:

All samples held in storage location: R-002 by @ on 2/13/18 at 1315
5035 samples placed in storage location: by on at

Cooler Breakdown: Date: 2/13/18 Time: 1828 by: @

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

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
Residual Chlorine (-)		For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
		$Na_2S_2O_3$	-	-						
		ZnAcetate	-	-						
		HCl	**	**	4/15/20					

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 7-219-002

Explain all Discrepancies/ Other Comments:

Headspace: MW-7 (1 vial)
MW-5 AR (1 vial)

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: @
PC Secondary Review:

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1801238-001.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-001.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1109	In Lab / DLIPANI	
		2/15/2018	1758	R-001-S10 / DLIPANI	
R1801238-001.03					
		2/13/2018	1820	R-001 / DWARD	
		2/13/2018	1820	SMO / DWARD	
R1801238-002.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-002.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1109	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-002.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-003.01					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-003.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-003.03					

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-003.04					
		2/13/2018	1831	SMO / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1758	R-001-S10 / DLIPANI	
R1801238-003.05					
		2/13/2018	1831	SMO / DWARD	
R1801238-003.06					
		2/13/2018	1831	SMO / DWARD	
R1801238-003.07					
		2/13/2018	1831	SMO / DWARD	
R1801238-003.08					
	8260C				
		2/13/2018	1831	SMO / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-003.09					
		2/13/2018	1831	SMO / DWARD	
R1801238-004.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
		2/15/2018	1109	In Lab / DLIPANI	
R1801238-004.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1109	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-004.03					

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-005.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-005.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-005.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-006.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-006.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-006.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-007.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1801238-007.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-007.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-008.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-008.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-008.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-009.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-009.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-009.03					
		2/13/2018	1820	SMO / DWARD	

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		2/13/2018	1820	R-001 / DWARD	
R1801238-010.01					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-010.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/16/2018	1035	In Lab / DLIPANI	
R1801238-010.03					
	8260C,8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-011.01					
	8260C,8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-011.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-011.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/16/2018	1035	In Lab / DLIPANI	
		2/16/2018	1825	R-001-S10 / DLIPANI	
R1801238-012.01					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-012.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-012.03					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/16/2018	1035	In Lab / DLIPANI	
R1801238-013.01					
	8260C,8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-013.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-013.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/16/2018	1036	In Lab / DLIPANI	
		2/16/2018	1825	R-001-S10 / DLIPANI	
R1801238-014.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-014.02					
		2/13/2018	1820	SMO / DWARD	

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-014.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-015.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-015.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-015.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-016.01					
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1352	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-016.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1110	In Lab / DLIPANI	
		2/15/2018	1759	R-001-S10 / DLIPANI	
R1801238-016.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
R1801238-017.01					

ALS Group USA, Corp.
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Internal Chain of Custody Report

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C				
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/14/2018	1351	In Lab / DLIPANI	
		2/14/2018	1733	R-001-S10 / DLIPANI	
R1801238-017.02					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	
		2/15/2018	1109	In Lab / DLIPANI	
		2/15/2018	1758	R-001-S10 / DLIPANI	
R1801238-017.03					
		2/13/2018	1820	SMO / DWARD	
		2/13/2018	1820	R-001 / DWARD	

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

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

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Approved	New Jersey ID # NY004	
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

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

ALS Laboratory Group

Acronyms

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

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Sample Name: MW-9 **Date Collected:** 02/6/18
Lab Code: R1801238-001 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-8 **Date Collected:** 02/6/18
Lab Code: R1801238-002 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-8A **Date Collected:** 02/7/18
Lab Code: R1801238-003 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-9A **Date Collected:** 02/7/18
Lab Code: R1801238-004 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-26 **Date Collected:** 02/8/18
Lab Code: R1801238-005 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Sample Name: MW-26A **Date Collected:** 02/8/18
Lab Code: R1801238-006 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-21A **Date Collected:** 02/8/18
Lab Code: R1801238-007 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: DUPLICATE-01 **Date Collected:** 02/8/18
Lab Code: R1801238-008 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-5R **Date Collected:** 02/8/18
Lab Code: R1801238-009 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-5AR **Date Collected:** 02/8/18
Lab Code: R1801238-010 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389

Sample Name: MW-13A **Date Collected:** 02/9/18
Lab Code: R1801238-011 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-20A **Date Collected:** 02/9/18
Lab Code: R1801238-012 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-6 **Date Collected:** 02/12/18
Lab Code: R1801238-013 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-7A **Date Collected:** 02/12/18
Lab Code: R1801238-014 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-7 **Date Collected:** 02/12/18
Lab Code: R1801238-015 **Date Received:** 02/13/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389		

Sample Name:	MW-19R	**Date Collected:**	02/12/18
Lab Code:	R1801238-016	**Date Received:**	02/13/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	TRIP BLANK	**Date Collected:**	02/6/18
Lab Code:	R1801238-017	**Date Received:**	02/13/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

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

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Volatile Organic Compounds by GC/MS

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1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1801238-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 13:42	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 13:42	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 13:42	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 13:42	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 13:42	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 13:42	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 13:42	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 13:42	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 13:42	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 13:42	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 13:42	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,4-Dioxane	100	U	100	20	1	02/15/18 13:42	
2-Butanone (MEK)	**2.6**	**J**	10	0.81	1	02/15/18 13:42	
2-Hexanone	10	U	10	1.7	1	02/15/18 13:42	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 13:42	
Acetone	**3.2**	**J**	10	1.3	1	02/15/18 13:42	
Benzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 13:42	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 13:42	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 13:42	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 13:42	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 13:42	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 13:42	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 13:42	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 13:42	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 13:42	
Chloromethane	**0.26**	**J**	5.0	0.21	1	02/15/18 13:42	
Cyclohexane	10	U	10	0.25	1	02/15/18 13:42	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 13:42	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 13:42	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 13:42	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 13:42	
Methyl Acetate	10	U	10	0.43	1	02/15/18 13:42	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 13:42	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 13:42	
Styrene	5.0	U	5.0	0.20	1	02/15/18 13:42	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 13:42	
Toluene	5.0	U	5.0	0.20	1	02/15/18 13:42	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1801238-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 13:42	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 13:42	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 13:42	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 13:42	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 13:42	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 13:42	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 13:42	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 13:42	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 13:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 13:42	
Dibromofluoromethane	96	89 - 119	02/15/18 13:42	
Toluene-d8	98	87 - 121	02/15/18 13:42	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 14:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1801238-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 13:20	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 13:20	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 13:20	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 13:20	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 13:20	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 13:20	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 13:20	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 13:20	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 13:20	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 13:20	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 13:20	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,4-Dioxane	100	U	100	20	1	02/15/18 13:20	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 13:20	
2-Hexanone	10	U	10	1.7	1	02/15/18 13:20	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 13:20	
Acetone	**1.7**	**J**	10	1.3	1	02/15/18 13:20	
Benzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 13:20	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 13:20	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 13:20	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 13:20	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 13:20	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 13:20	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 13:20	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 13:20	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 13:20	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 13:20	
Cyclohexane	10	U	10	0.25	1	02/15/18 13:20	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 13:20	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 13:20	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 13:20	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 13:20	
Methyl Acetate	10	U	10	0.43	1	02/15/18 13:20	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 13:20	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 13:20	
Styrene	5.0	U	5.0	0.20	1	02/15/18 13:20	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 13:20	
Toluene	5.0	U	5.0	0.20	1	02/15/18 13:20	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 14:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1801238-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 13:20	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 13:20	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 13:20	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 13:20	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 13:20	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 13:20	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 13:20	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 13:20	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 13:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 13:20	
Dibromofluoromethane	96	89 - 119	02/15/18 13:20	
Toluene-d8	98	87 - 121	02/15/18 13:20	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 13:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8A	**Units:**	ug/L
Lab Code:	R1801238-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 14:47	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 14:47	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 14:47	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 14:47	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 14:47	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 14:47	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 14:47	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 14:47	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 14:47	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 14:47	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 14:47	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,4-Dioxane	100 U	100	20	1	02/15/18 14:47	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 14:47	
2-Hexanone	10 U	10	1.7	1	02/15/18 14:47	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 14:47	
Acetone	10 U	10	1.3	1	02/15/18 14:47	
Benzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 14:47	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 14:47	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 14:47	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 14:47	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 14:47	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 14:47	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 14:47	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 14:47	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 14:47	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 14:47	
Cyclohexane	10 U	10	0.25	1	02/15/18 14:47	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 14:47	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 14:47	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 14:47	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 14:47	
Methyl Acetate	10 U	10	0.43	1	02/15/18 14:47	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 14:47	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 14:47	
Styrene	5.0 U	5.0	0.20	1	02/15/18 14:47	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 14:47	
Toluene	5.0 U	5.0	0.20	1	02/15/18 14:47	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 13:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8A	**Units:**	ug/L
Lab Code:	R1801238-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 14:47	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 14:47	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 14:47	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 14:47	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 14:47	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 14:47	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 14:47	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 14:47	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 14:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 14:47	
Dibromofluoromethane	96	89 - 119	02/15/18 14:47	
Toluene-d8	98	87 - 121	02/15/18 14:47	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 15:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9A	**Units:**	ug/L
Lab Code:	R1801238-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 14:04	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 14:04	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 14:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 14:04	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 14:04	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 14:04	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 14:04	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 14:04	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 14:04	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 14:04	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 14:04	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,4-Dioxane	100	U	100	20	1	02/15/18 14:04	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 14:04	
2-Hexanone	10	U	10	1.7	1	02/15/18 14:04	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 14:04	
Acetone	10	U	10	1.3	1	02/15/18 14:04	
Benzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 14:04	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 14:04	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 14:04	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 14:04	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 14:04	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 14:04	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 14:04	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 14:04	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 14:04	
Chloromethane	**0.25**	**J**	5.0	0.21	1	02/15/18 14:04	
Cyclohexane	10	U	10	0.25	1	02/15/18 14:04	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 14:04	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 14:04	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 14:04	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 14:04	
Methyl Acetate	10	U	10	0.43	1	02/15/18 14:04	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 14:04	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 14:04	
Styrene	5.0	U	5.0	0.20	1	02/15/18 14:04	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 14:04	
Toluene	5.0	U	5.0	0.20	1	02/15/18 14:04	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 15:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9A	**Units:**	ug/L
Lab Code:	R1801238-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 14:04	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 14:04	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 14:04	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 14:04	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 14:04	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 14:04	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 14:04	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 14:04	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 14:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/15/18 14:04	
Dibromofluoromethane	98	89 - 119	02/15/18 14:04	
Toluene-d8	98	87 - 121	02/15/18 14:04	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 10:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26	**Units:**	ug/L
Lab Code:	R1801238-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 14:25	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 14:25	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 14:25	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 14:25	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 14:25	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 14:25	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 14:25	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 14:25	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 14:25	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 14:25	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 14:25	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,4-Dioxane	100 U	100	20	1	02/15/18 14:25	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 14:25	
2-Hexanone	10 U	10	1.7	1	02/15/18 14:25	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 14:25	
Acetone	10 U	10	1.3	1	02/15/18 14:25	
Benzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 14:25	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 14:25	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 14:25	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 14:25	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 14:25	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 14:25	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 14:25	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 14:25	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 14:25	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 14:25	
Cyclohexane	10 U	10	0.25	1	02/15/18 14:25	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 14:25	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 14:25	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 14:25	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 14:25	
Methyl Acetate	10 U	10	0.43	1	02/15/18 14:25	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 14:25	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 14:25	
Styrene	5.0 U	5.0	0.20	1	02/15/18 14:25	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 14:25	
Toluene	5.0 U	5.0	0.20	1	02/15/18 14:25	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 10:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26	**Units:**	ug/L
Lab Code:	R1801238-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 14:25	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 14:25	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 14:25	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 14:25	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 14:25	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 14:25	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 14:25	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 14:25	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 14:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 14:25	
Dibromofluoromethane	97	89 - 119	02/15/18 14:25	
Toluene-d8	100	87 - 121	02/15/18 14:25	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 12:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26A	**Units:**	ug/L
Lab Code:	R1801238-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 15:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 15:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 15:08	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 15:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 15:08	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 15:08	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 15:08	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 15:08	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 15:08	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 15:08	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 15:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,4-Dioxane	100 U	100	20	1	02/15/18 15:08	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 15:08	
2-Hexanone	10 U	10	1.7	1	02/15/18 15:08	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 15:08	
Acetone	10 U	10	1.3	1	02/15/18 15:08	
Benzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 15:08	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 15:08	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 15:08	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 15:08	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 15:08	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 15:08	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 15:08	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 15:08	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 15:08	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 15:08	
Cyclohexane	10 U	10	0.25	1	02/15/18 15:08	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 15:08	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 15:08	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 15:08	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 15:08	
Methyl Acetate	10 U	10	0.43	1	02/15/18 15:08	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 15:08	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 15:08	
Styrene	5.0 U	5.0	0.20	1	02/15/18 15:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 15:08	
Toluene	5.0 U	5.0	0.20	1	02/15/18 15:08	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 12:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26A	**Units:**	ug/L
Lab Code:	R1801238-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 15:08	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 15:08	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 15:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 15:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 15:08	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 15:08	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 15:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 15:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 15:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 15:08	
Dibromofluoromethane	95	89 - 119	02/15/18 15:08	
Toluene-d8	100	87 - 121	02/15/18 15:08	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-21A	**Units:**	ug/L
Lab Code:	R1801238-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 15:30	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 15:30	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 15:30	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 15:30	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,1-Dichloroethene (1,1-DCE)	**1.6**	**J**	5.0	0.57	1	02/15/18 15:30	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 15:30	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 15:30	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 15:30	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 15:30	
1,2-Dichlorobenzene	**0.26**	**J**	5.0	0.21	1	02/15/18 15:30	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 15:30	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,4-Dioxane	100	U	100	20	1	02/15/18 15:30	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 15:30	
2-Hexanone	10	U	10	1.7	1	02/15/18 15:30	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 15:30	
Acetone	**2.0**	**J**	10	1.3	1	02/15/18 15:30	
Benzene	**0.47**	**J**	5.0	0.20	1	02/15/18 15:30	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 15:30	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 15:30	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 15:30	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 15:30	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 15:30	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 15:30	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 15:30	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 15:30	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 15:30	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 15:30	
Cyclohexane	10	U	10	0.25	1	02/15/18 15:30	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 15:30	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 15:30	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 15:30	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 15:30	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 15:30	
Methyl Acetate	10	U	10	0.43	1	02/15/18 15:30	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 15:30	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 15:30	
Styrene	5.0	U	5.0	0.20	1	02/15/18 15:30	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 15:30	
Toluene	5.0	U	5.0	0.20	1	02/15/18 15:30	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-21A	**Units:**	ug/L
Lab Code:	R1801238-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**7.4**		5.0	0.22	1	02/15/18 15:30	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/15/18 15:30	
Vinyl Chloride	**75**		5.0	0.32	1	02/15/18 15:30	
cis-1,2-Dichloroethene	**170**		5.0	0.30	1	02/15/18 15:30	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/15/18 15:30	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/15/18 15:30	
o-Xylene	5.0	U	5.0	0.20	1	02/15/18 15:30	
trans-1,2-Dichloroethene	**12**		5.0	0.33	1	02/15/18 15:30	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/15/18 15:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/15/18 15:30	
Dibromofluoromethane	97	89 - 119	02/15/18 15:30	
Toluene-d8	98	87 - 121	02/15/18 15:30	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	DUPLICATE-01	**Units:**	ug/L
Lab Code:	R1801238-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 15:52	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 15:52	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 15:52	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 15:52	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 15:52	
1,1-Dichloroethene (1,1-DCE)	**1.5 J**	5.0	0.57	1	02/15/18 15:52	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 15:52	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 15:52	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 15:52	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 15:52	
1,2-Dichlorobenzene	**0.29 J**	5.0	0.21	1	02/15/18 15:52	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 15:52	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 15:52	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 15:52	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 15:52	
1,4-Dioxane	100 U	100	20	1	02/15/18 15:52	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 15:52	
2-Hexanone	10 U	10	1.7	1	02/15/18 15:52	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 15:52	
Acetone	**1.5 J**	10	1.3	1	02/15/18 15:52	
Benzene	**0.46 J**	5.0	0.20	1	02/15/18 15:52	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 15:52	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 15:52	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 15:52	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 15:52	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 15:52	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 15:52	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 15:52	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 15:52	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 15:52	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 15:52	
Cyclohexane	10 U	10	0.25	1	02/15/18 15:52	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 15:52	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 15:52	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 15:52	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 15:52	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 15:52	
Methyl Acetate	10 U	10	0.43	1	02/15/18 15:52	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 15:52	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 15:52	
Styrene	5.0 U	5.0	0.20	1	02/15/18 15:52	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 15:52	
Toluene	5.0 U	5.0	0.20	1	02/15/18 15:52	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	DUPLICATE-01	**Units:**	ug/L
Lab Code:	R1801238-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**7.1**		5.0	0.22	1	02/15/18 15:52	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/15/18 15:52	
Vinyl Chloride	**75**		5.0	0.32	1	02/15/18 15:52	
cis-1,2-Dichloroethene	**160**		5.0	0.30	1	02/15/18 15:52	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/15/18 15:52	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/15/18 15:52	
o-Xylene	5.0	U	5.0	0.20	1	02/15/18 15:52	
trans-1,2-Dichloroethene	**11**		5.0	0.33	1	02/15/18 15:52	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/15/18 15:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	02/15/18 15:52	
Dibromofluoromethane	98	89 - 119	02/15/18 15:52	
Toluene-d8	99	87 - 121	02/15/18 15:52	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 14:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5R	**Units:**	ug/L
Lab Code:	R1801238-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 16:41	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 16:41	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 16:41	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 16:41	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 16:41	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 16:41	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 16:41	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 16:41	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 16:41	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 16:41	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 16:41	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,4-Dioxane	100	U	100	20	1	02/15/18 16:41	
2-Butanone (MEK)	**1.1**	**J**	10	0.81	1	02/15/18 16:41	
2-Hexanone	10	U	10	1.7	1	02/15/18 16:41	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 16:41	
Acetone	**12**		10	1.3	1	02/15/18 16:41	
Benzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 16:41	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 16:41	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 16:41	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 16:41	
Carbon Disulfide	**0.44**	**J**	10	0.22	1	02/15/18 16:41	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 16:41	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 16:41	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 16:41	
Chloroform	**0.28**	**J**	5.0	0.25	1	02/15/18 16:41	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 16:41	
Cyclohexane	10	U	10	0.25	1	02/15/18 16:41	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 16:41	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 16:41	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 16:41	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 16:41	
Methyl Acetate	10	U	10	0.43	1	02/15/18 16:41	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 16:41	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 16:41	
Styrene	5.0	U	5.0	0.20	1	02/15/18 16:41	
Tetrachloroethene (PCE)	**0.61**	**J**	5.0	0.30	1	02/15/18 16:41	
Toluene	5.0	U	5.0	0.20	1	02/15/18 16:41	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 14:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5R	**Units:**	ug/L
Lab Code:	R1801238-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**130**		5.0	0.22	1	02/15/18 16:41	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/15/18 16:41	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/15/18 16:41	
cis-1,2-Dichloroethene	**72**		5.0	0.30	1	02/15/18 16:41	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/15/18 16:41	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/15/18 16:41	
o-Xylene	5.0	U	5.0	0.20	1	02/15/18 16:41	
trans-1,2-Dichloroethene	**6.6**		5.0	0.33	1	02/15/18 16:41	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/15/18 16:41	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	02/15/18 16:41	
Dibromofluoromethane	96	89 - 119	02/15/18 16:41	
Toluene-d8	99	87 - 121	02/15/18 16:41	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 15:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5AR	**Units:**	ug/L
Lab Code:	R1801238-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	250	U	250	18	50	02/15/18 19:14	
1,1,2,2-Tetrachloroethane	**60**	**J**	250	13	50	02/15/18 19:14	
1,1,2-Trichloroethane	250	U	250	17	50	02/15/18 19:14	
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	16	50	02/15/18 19:14	
1,1-Dichloroethane (1,1-DCA)	250	U	250	10	50	02/15/18 19:14	
1,1-Dichloroethene (1,1-DCE)	250	U	250	29	50	02/15/18 19:14	
1,2,3-Trichlorobenzene	250	U	250	41	50	02/15/18 19:14	
1,2,4-Trichlorobenzene	250	U	250	12	50	02/15/18 19:14	
1,2-Dibromo-3-chloropropane (DBCP)	250	U	250	37	50	02/15/18 19:14	
1,2-Dibromoethane	250	U	250	12	50	02/15/18 19:14	
1,2-Dichlorobenzene	250	U	250	11	50	02/15/18 19:14	
1,2-Dichloroethane	250	U	250	18	50	02/15/18 19:14	
1,2-Dichloropropane	250	U	250	10	50	02/15/18 19:14	
1,3-Dichlorobenzene	250	U	250	10	50	02/15/18 19:14	
1,4-Dichlorobenzene	250	U	250	10	50	02/15/18 19:14	
1,4-Dioxane	5000	U	5000	1000	50	02/15/18 19:14	
2-Butanone (MEK)	500	U	500	41	50	02/15/18 19:14	
2-Hexanone	500	U	500	83	50	02/15/18 19:14	
4-Methyl-2-pentanone	500	U	500	34	50	02/15/18 19:14	
Acetone	**180**	**J**	500	62	50	02/15/18 19:14	
Benzene	250	U	250	10	50	02/15/18 19:14	
Bromochloromethane	250	U	250	16	50	02/15/18 19:14	
Bromodichloromethane	250	U	250	16	50	02/15/18 19:14	
Bromoform	250	U	250	21	50	02/15/18 19:14	
Bromomethane	250	U	250	15	50	02/15/18 19:14	
Carbon Disulfide	**11**	**J**	500	11	50	02/15/18 19:14	
Carbon Tetrachloride	250	U	250	23	50	02/15/18 19:14	
Chlorobenzene	250	U	250	15	50	02/15/18 19:14	
Chloroethane	250	U	250	12	50	02/15/18 19:14	
Chloroform	250	U	250	13	50	02/15/18 19:14	
Chloromethane	**12**	**J**	250	11	50	02/15/18 19:14	
Cyclohexane	500	U	500	13	50	02/15/18 19:14	
Dibromochloromethane	250	U	250	16	50	02/15/18 19:14	
Dichlorodifluoromethane (CFC 12)	250	U	250	23	50	02/15/18 19:14	
Dichloromethane	250	U	250	30	50	02/15/18 19:14	
Ethylbenzene	250	U	250	10	50	02/15/18 19:14	
Isopropylbenzene (Cumene)	250	U	250	10	50	02/15/18 19:14	
Methyl Acetate	500	U	500	22	50	02/15/18 19:14	
Methyl tert-Butyl Ether	250	U	250	15	50	02/15/18 19:14	
Methylcyclohexane	500	U	500	14	50	02/15/18 19:14	
Styrene	250	U	250	10	50	02/15/18 19:14	
Tetrachloroethene (PCE)	**58**	**J**	250	15	50	02/15/18 19:14	
Toluene	**21**	**J**	250	10	50	02/15/18 19:14	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 15:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5AR	**Units:**	ug/L
Lab Code:	R1801238-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**28000**	**D**	1000	44	200	02/16/18 12:45	
Trichlorofluoromethane (CFC 11)	250	U	250	10	50	02/15/18 19:14	
Vinyl Chloride	**240**	**J**	250	16	50	02/15/18 19:14	
cis-1,2-Dichloroethene	**21000**	**D**	1000	60	200	02/16/18 12:45	
cis-1,3-Dichloropropene	250	U	250	12	50	02/15/18 19:14	
m,p-Xylenes	250	U	250	17	50	02/15/18 19:14	
o-Xylene	250	U	250	10	50	02/15/18 19:14	
trans-1,2-Dichloroethene	**720**		250	17	50	02/15/18 19:14	
trans-1,3-Dichloropropene	250	U	250	10	50	02/15/18 19:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 19:14	
Dibromofluoromethane	97	89 - 119	02/15/18 19:14	
Toluene-d8	99	87 - 121	02/15/18 19:14	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 10:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-13A	**Units:**	ug/L
Lab Code:	R1801238-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	50	U	50	3.6	10	02/15/18 19:35	
1,1,2,2-Tetrachloroethane	**4.2**	**J**	50	2.5	10	02/15/18 19:35	
1,1,2-Trichloroethane	50	U	50	3.4	10	02/15/18 19:35	
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	50	3.1	10	02/15/18 19:35	
1,1-Dichloroethane (1,1-DCA)	50	U	50	2.0	10	02/15/18 19:35	
1,1-Dichloroethene (1,1-DCE)	**7.8**	**J**	50	5.7	10	02/15/18 19:35	
1,2,3-Trichlorobenzene	50	U	50	8.2	10	02/15/18 19:35	
1,2,4-Trichlorobenzene	50	U	50	2.3	10	02/15/18 19:35	
1,2-Dibromo-3-chloropropane (DBCP)	50	U	50	7.4	10	02/15/18 19:35	
1,2-Dibromoethane	50	U	50	2.4	10	02/15/18 19:35	
1,2-Dichlorobenzene	50	U	50	2.1	10	02/15/18 19:35	
1,2-Dichloroethane	50	U	50	3.6	10	02/15/18 19:35	
1,2-Dichloropropane	50	U	50	2.0	10	02/15/18 19:35	
1,3-Dichlorobenzene	50	U	50	2.0	10	02/15/18 19:35	
1,4-Dichlorobenzene	50	U	50	2.0	10	02/15/18 19:35	
1,4-Dioxane	1000	U	1000	200	10	02/15/18 19:35	
2-Butanone (MEK)	100	U	100	8.1	10	02/15/18 19:35	
2-Hexanone	100	U	100	17	10	02/15/18 19:35	
4-Methyl-2-pentanone	100	U	100	6.7	10	02/15/18 19:35	
Acetone	**51**	**J**	100	13	10	02/15/18 19:35	
Benzene	50	U	50	2.0	10	02/15/18 19:35	
Bromochloromethane	50	U	50	3.2	10	02/15/18 19:35	
Bromodichloromethane	50	U	50	3.2	10	02/15/18 19:35	
Bromoform	50	U	50	4.2	10	02/15/18 19:35	
Bromomethane	50	U	50	2.9	10	02/15/18 19:35	
Carbon Disulfide	**11**	**J**	100	2.2	10	02/15/18 19:35	
Carbon Tetrachloride	50	U	50	4.5	10	02/15/18 19:35	
Chlorobenzene	50	U	50	2.9	10	02/15/18 19:35	
Chloroethane	50	U	50	2.4	10	02/15/18 19:35	
Chloroform	50	U	50	2.5	10	02/15/18 19:35	
Chloromethane	**2.7**	**J**	50	2.1	10	02/15/18 19:35	
Cyclohexane	100	U	100	2.5	10	02/15/18 19:35	
Dibromochloromethane	50	U	50	3.1	10	02/15/18 19:35	
Dichlorodifluoromethane (CFC 12)	50	U	50	4.6	10	02/15/18 19:35	
Dichloromethane	50	U	50	6.0	10	02/15/18 19:35	
Ethylbenzene	50	U	50	2.0	10	02/15/18 19:35	
Isopropylbenzene (Cumene)	50	U	50	2.0	10	02/15/18 19:35	
Methyl Acetate	100	U	100	4.3	10	02/15/18 19:35	
Methyl tert-Butyl Ether	50	U	50	2.9	10	02/15/18 19:35	
Methylcyclohexane	100	U	100	2.7	10	02/15/18 19:35	
Styrene	50	U	50	2.0	10	02/15/18 19:35	
Tetrachloroethene (PCE)	**26**	**J**	50	3.0	10	02/15/18 19:35	
Toluene	**4.4**	**J**	50	2.0	10	02/15/18 19:35	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 10:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-13A	**Units:**	ug/L
Lab Code:	R1801238-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**4300**	**D**	250	11	50	02/16/18 13:07	
Trichlorofluoromethane (CFC 11)	50	U	50	2.0	10	02/15/18 19:35	
Vinyl Chloride	**130**		50	3.2	10	02/15/18 19:35	
cis-1,2-Dichloroethene	**6800**	**D**	250	15	50	02/16/18 13:07	
cis-1,3-Dichloropropene	50	U	50	2.4	10	02/15/18 19:35	
m,p-Xylenes	50	U	50	3.3	10	02/15/18 19:35	
o-Xylene	50	U	50	2.0	10	02/15/18 19:35	
trans-1,2-Dichloroethene	**290**		50	3.3	10	02/15/18 19:35	
trans-1,3-Dichloropropene	50	U	50	2.0	10	02/15/18 19:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 19:35	
Dibromofluoromethane	97	89 - 119	02/15/18 19:35	
Toluene-d8	99	87 - 121	02/15/18 19:35	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 12:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-20A	**Units:**	ug/L
Lab Code:	R1801238-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/16/18 12:23	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/16/18 12:23	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/16/18 12:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/16/18 12:23	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/16/18 12:23	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/16/18 12:23	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/16/18 12:23	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/16/18 12:23	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/16/18 12:23	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/16/18 12:23	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/16/18 12:23	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/16/18 12:23	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/16/18 12:23	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/16/18 12:23	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/16/18 12:23	
1,4-Dioxane	100	U	100	20	1	02/16/18 12:23	
2-Butanone (MEK)	10	U	10	0.81	1	02/16/18 12:23	
2-Hexanone	10	U	10	1.7	1	02/16/18 12:23	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/16/18 12:23	
Acetone	**2.7**	**J**	10	1.3	1	02/16/18 12:23	
Benzene	5.0	U	5.0	0.20	1	02/16/18 12:23	
Bromochloromethane	5.0	U	5.0	0.32	1	02/16/18 12:23	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/16/18 12:23	
Bromoform	5.0	U	5.0	0.42	1	02/16/18 12:23	
Bromomethane	5.0	U	5.0	0.29	1	02/16/18 12:23	
Carbon Disulfide	10	U	10	0.22	1	02/16/18 12:23	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/16/18 12:23	
Chlorobenzene	5.0	U	5.0	0.29	1	02/16/18 12:23	
Chloroethane	5.0	U	5.0	0.24	1	02/16/18 12:23	
Chloroform	5.0	U	5.0	0.25	1	02/16/18 12:23	
Chloromethane	5.0	U	5.0	0.21	1	02/16/18 12:23	
Cyclohexane	**0.54**	**J**	10	0.25	1	02/16/18 12:23	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/16/18 12:23	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/16/18 12:23	
Dichloromethane	5.0	U	5.0	0.60	1	02/16/18 12:23	
Ethylbenzene	5.0	U	5.0	0.20	1	02/16/18 12:23	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/16/18 12:23	
Methyl Acetate	10	U	10	0.43	1	02/16/18 12:23	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/16/18 12:23	
Methylcyclohexane	10	U	10	0.27	1	02/16/18 12:23	
Styrene	5.0	U	5.0	0.20	1	02/16/18 12:23	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/16/18 12:23	
Toluene	5.0	U	5.0	0.20	1	02/16/18 12:23	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 12:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-20A	**Units:**	ug/L
Lab Code:	R1801238-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.67**	**J**	5.0	0.22	1	02/16/18 12:23	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/16/18 12:23	
Vinyl Chloride	**21**		5.0	0.32	1	02/16/18 12:23	
cis-1,2-Dichloroethene	**29**		5.0	0.30	1	02/16/18 12:23	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/16/18 12:23	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/16/18 12:23	
o-Xylene	5.0	U	5.0	0.20	1	02/16/18 12:23	
trans-1,2-Dichloroethene	5.0	U	5.0	0.33	1	02/16/18 12:23	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/16/18 12:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/16/18 12:23	
Dibromofluoromethane	97	89 - 119	02/16/18 12:23	
Toluene-d8	98	87 - 121	02/16/18 12:23	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-6	**Units:**	ug/L
Lab Code:	R1801238-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	25 U	25	1.8	5	02/15/18 18:30	
1,1,2,2-Tetrachloroethane	25 U	25	1.3	5	02/15/18 18:30	
1,1,2-Trichloroethane	25 U	25	1.7	5	02/15/18 18:30	
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	25	1.6	5	02/15/18 18:30	
1,1-Dichloroethane (1,1-DCA)	25 U	25	1.0	5	02/15/18 18:30	
1,1-Dichloroethene (1,1-DCE)	**25**	25	2.9	5	02/15/18 18:30	
1,2,3-Trichlorobenzene	25 U	25	4.1	5	02/15/18 18:30	
1,2,4-Trichlorobenzene	25 U	25	1.2	5	02/15/18 18:30	
1,2-Dibromo-3-chloropropane (DBCP)	25 U	25	3.7	5	02/15/18 18:30	
1,2-Dibromoethane	25 U	25	1.2	5	02/15/18 18:30	
1,2-Dichlorobenzene	25 U	25	1.1	5	02/15/18 18:30	
1,2-Dichloroethane	25 U	25	1.8	5	02/15/18 18:30	
1,2-Dichloropropane	25 U	25	1.0	5	02/15/18 18:30	
1,3-Dichlorobenzene	25 U	25	1.0	5	02/15/18 18:30	
1,4-Dichlorobenzene	25 U	25	1.0	5	02/15/18 18:30	
1,4-Dioxane	500 U	500	100	5	02/15/18 18:30	
2-Butanone (MEK)	50 U	50	4.1	5	02/15/18 18:30	
2-Hexanone	50 U	50	8.3	5	02/15/18 18:30	
4-Methyl-2-pentanone	50 U	50	3.4	5	02/15/18 18:30	
Acetone	50 U	50	6.2	5	02/15/18 18:30	
Benzene	**1.1 J**	25	1.0	5	02/15/18 18:30	
Bromochloromethane	25 U	25	1.6	5	02/15/18 18:30	
Bromodichloromethane	25 U	25	1.6	5	02/15/18 18:30	
Bromoform	25 U	25	2.1	5	02/15/18 18:30	
Bromomethane	25 U	25	1.5	5	02/15/18 18:30	
Carbon Disulfide	50 U	50	1.1	5	02/15/18 18:30	
Carbon Tetrachloride	25 U	25	2.3	5	02/15/18 18:30	
Chlorobenzene	25 U	25	1.5	5	02/15/18 18:30	
Chloroethane	25 U	25	1.2	5	02/15/18 18:30	
Chloroform	25 U	25	1.3	5	02/15/18 18:30	
Chloromethane	25 U	25	1.1	5	02/15/18 18:30	
Cyclohexane	50 U	50	1.3	5	02/15/18 18:30	
Dibromochloromethane	25 U	25	1.6	5	02/15/18 18:30	
Dichlorodifluoromethane (CFC 12)	25 U	25	2.3	5	02/15/18 18:30	
Dichloromethane	25 U	25	3.0	5	02/15/18 18:30	
Ethylbenzene	25 U	25	1.0	5	02/15/18 18:30	
Isopropylbenzene (Cumene)	25 U	25	1.0	5	02/15/18 18:30	
Methyl Acetate	50 U	50	2.2	5	02/15/18 18:30	
Methyl tert-Butyl Ether	25 U	25	1.5	5	02/15/18 18:30	
Methylcyclohexane	50 U	50	1.4	5	02/15/18 18:30	
Styrene	25 U	25	1.0	5	02/15/18 18:30	
Tetrachloroethene (PCE)	**11 J**	25	1.5	5	02/15/18 18:30	
Toluene	25 U	25	1.0	5	02/15/18 18:30	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-6	**Units:**	ug/L
Lab Code:	R1801238-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**490**		25	1.1	5	02/15/18 18:30	
Trichlorofluoromethane (CFC 11)	25	U	25	1.0	5	02/15/18 18:30	
Vinyl Chloride	**110**		25	1.6	5	02/15/18 18:30	
cis-1,2-Dichloroethene	**3100**	**D**	130	7.5	25	02/16/18 13:29	
cis-1,3-Dichloropropene	25	U	25	1.2	5	02/15/18 18:30	
m,p-Xylenes	25	U	25	1.7	5	02/15/18 18:30	
o-Xylene	25	U	25	1.0	5	02/15/18 18:30	
trans-1,2-Dichloroethene	**17**	**J**	25	1.7	5	02/15/18 18:30	
trans-1,3-Dichloropropene	25	U	25	1.0	5	02/15/18 18:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	02/15/18 18:30	
Dibromofluoromethane	95	89 - 119	02/15/18 18:30	
Toluene-d8	96	87 - 121	02/15/18 18:30	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:50
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7A	**Units:**	ug/L
Lab Code:	R1801238-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 18:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 18:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 18:08	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 18:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 18:08	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 18:08	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 18:08	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 18:08	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 18:08	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 18:08	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 18:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,4-Dioxane	100 U	100	20	1	02/15/18 18:08	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 18:08	
2-Hexanone	10 U	10	1.7	1	02/15/18 18:08	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 18:08	
Acetone	**3.0 J**	10	1.3	1	02/15/18 18:08	
Benzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 18:08	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 18:08	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 18:08	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 18:08	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 18:08	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 18:08	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 18:08	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 18:08	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 18:08	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 18:08	
Cyclohexane	10 U	10	0.25	1	02/15/18 18:08	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 18:08	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 18:08	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 18:08	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 18:08	
Methyl Acetate	10 U	10	0.43	1	02/15/18 18:08	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 18:08	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 18:08	
Styrene	5.0 U	5.0	0.20	1	02/15/18 18:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 18:08	
Toluene	5.0 U	5.0	0.20	1	02/15/18 18:08	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:50
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7A	**Units:**	ug/L
Lab Code:	R1801238-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 18:08	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 18:08	
Vinyl Chloride	**6.3**	5.0	0.32	1	02/15/18 18:08	
cis-1,2-Dichloroethene	**31**	5.0	0.30	1	02/15/18 18:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 18:08	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 18:08	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 18:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 18:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 18:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 18:08	
Dibromofluoromethane	96	89 - 119	02/15/18 18:08	
Toluene-d8	99	87 - 121	02/15/18 18:08	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 11:40
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7	**Units:**	ug/L
Lab Code:	R1801238-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 17:25	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 17:25	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 17:25	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 17:25	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 17:25	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 17:25	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 17:25	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 17:25	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 17:25	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 17:25	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 17:25	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,4-Dioxane	100 U	100	20	1	02/15/18 17:25	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 17:25	
2-Hexanone	10 U	10	1.7	1	02/15/18 17:25	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 17:25	
Acetone	10 U	10	1.3	1	02/15/18 17:25	
Benzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 17:25	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 17:25	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 17:25	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 17:25	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 17:25	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 17:25	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 17:25	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 17:25	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 17:25	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 17:25	
Cyclohexane	10 U	10	0.25	1	02/15/18 17:25	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 17:25	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 17:25	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 17:25	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 17:25	
Methyl Acetate	10 U	10	0.43	1	02/15/18 17:25	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 17:25	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 17:25	
Styrene	5.0 U	5.0	0.20	1	02/15/18 17:25	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 17:25	
Toluene	5.0 U	5.0	0.20	1	02/15/18 17:25	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 11:40
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7	**Units:**	ug/L
Lab Code:	R1801238-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 17:25	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 17:25	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 17:25	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 17:25	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 17:25	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 17:25	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 17:25	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 17:25	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 17:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	02/15/18 17:25	
Dibromofluoromethane	96	89 - 119	02/15/18 17:25	
Toluene-d8	98	87 - 121	02/15/18 17:25	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 12:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-19R	**Units:**	ug/L
Lab Code:	R1801238-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 17:47	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 17:47	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 17:47	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 17:47	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 17:47	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 17:47	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 17:47	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 17:47	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 17:47	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 17:47	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 17:47	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 17:47	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 17:47	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 17:47	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 17:47	
1,4-Dioxane	100 U	100	20	1	02/15/18 17:47	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 17:47	
2-Hexanone	10 U	10	1.7	1	02/15/18 17:47	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 17:47	
Acetone	**1.3 J**	10	1.3	1	02/15/18 17:47	
Benzene	5.0 U	5.0	0.20	1	02/15/18 17:47	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 17:47	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 17:47	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 17:47	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 17:47	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 17:47	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 17:47	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 17:47	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 17:47	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 17:47	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 17:47	
Cyclohexane	**0.52 J**	10	0.25	1	02/15/18 17:47	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 17:47	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 17:47	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 17:47	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 17:47	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 17:47	
Methyl Acetate	10 U	10	0.43	1	02/15/18 17:47	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 17:47	
Methylcyclohexane	**0.47 J**	10	0.27	1	02/15/18 17:47	
Styrene	5.0 U	5.0	0.20	1	02/15/18 17:47	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 17:47	
Toluene	5.0 U	5.0	0.20	1	02/15/18 17:47	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 12:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-19R	**Units:**	ug/L
Lab Code:	R1801238-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**66**		5.0	0.22	1	02/15/18 17:47	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/15/18 17:47	
Vinyl Chloride	**0.76**	**J**	5.0	0.32	1	02/15/18 17:47	
cis-1,2-Dichloroethene	**88**		5.0	0.30	1	02/15/18 17:47	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/15/18 17:47	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/15/18 17:47	
o-Xylene	5.0	U	5.0	0.20	1	02/15/18 17:47	
trans-1,2-Dichloroethene	**3.7**	**J**	5.0	0.33	1	02/15/18 17:47	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/15/18 17:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/15/18 17:47	
Dibromofluoromethane	97	89 - 119	02/15/18 17:47	
Toluene-d8	101	87 - 121	02/15/18 17:47	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	TRIP BLANK	**Units:**	ug/L
Lab Code:	R1801238-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 12:04	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 12:04	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 12:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 12:04	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 12:04	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 12:04	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 12:04	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 12:04	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 12:04	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 12:04	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 12:04	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,4-Dioxane	100 U	100	20	1	02/15/18 12:04	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 12:04	
2-Hexanone	10 U	10	1.7	1	02/15/18 12:04	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 12:04	
Acetone	10 U	10	1.3	1	02/15/18 12:04	
Benzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 12:04	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 12:04	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 12:04	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 12:04	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 12:04	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 12:04	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 12:04	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 12:04	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 12:04	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 12:04	
Cyclohexane	10 U	10	0.25	1	02/15/18 12:04	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 12:04	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 12:04	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 12:04	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 12:04	
Methyl Acetate	10 U	10	0.43	1	02/15/18 12:04	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 12:04	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 12:04	
Styrene	5.0 U	5.0	0.20	1	02/15/18 12:04	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 12:04	
Toluene	5.0 U	5.0	0.20	1	02/15/18 12:04	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	TRIP BLANK	**Units:**	ug/L
Lab Code:	R1801238-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 12:04	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 12:04	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 12:04	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 12:04	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 12:04	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 12:04	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 12:04	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 12:04	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 12:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	02/15/18 12:04	
Dibromofluoromethane	95	89 - 119	02/15/18 12:04	
Toluene-d8	96	87 - 121	02/15/18 12:04	

QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Sample Name	Lab Code	4-Bromofluorobenzene 85 - 122	Dibromofluoromethane 89 - 119	Toluene-d8 87 - 121
MW-9	R1801238-001	90	96	98
MW-8	R1801238-002	90	96	98
MW-8A	R1801238-003	90	96	98
MW-9A	R1801238-004	89	98	98
MW-26	R1801238-005	91	97	100
MW-26A	R1801238-006	90	95	100
MW-21A	R1801238-007	89	97	98
DUPLICATE-01	R1801238-008	92	98	99
MW-5R	R1801238-009	92	96	99
MW-5AR	R1801238-010	91	97	99
MW-13A	R1801238-011	91	97	99
MW-20A	R1801238-012	89	97	98
MW-6	R1801238-013	88	95	96
MW-7A	R1801238-014	91	96	99
MW-7	R1801238-015	86	96	98
MW-19R	R1801238-016	89	97	101
TRIP BLANK	R1801238-017	88	95	96
Lab Control Sample	RQ1801454-03	96	97	99
Method Blank	RQ1801454-04	91	97	98
MW-8A MS	RQ1801454-05	97	98	100
MW-8A DMS	RQ1801454-06	94	97	99
Lab Control Sample	RQ1801509-03	95	99	98
Method Blank	RQ1801509-04	88	97	99

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18
Sample Matrix:	Water	**Date Received:**	02/13/18
		Date Analyzed:	02/15/18

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW-8A	**Units:**	ug/L
Lab Code:	R1801238-003	**Basis:**	NA
Analysis Method:	8260C		

		Matrix Spike RQ1801454-05			Duplicate Matrix Spike RQ1801454-06				
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	5.0 U	49.7	50.0	99	49.2	50.0	98	74-127	1	30
1,1,2,2-Tetrachloroethane	5.0 U	53.7	50.0	107	54.2	50.0	108	72-122	<1	30
1,1,2-Trichloroethane	5.0 U	52.2	50.0	104	50.5	50.0	101	79-119	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	45.5	50.0	91	43.0	50.0	86	59-131	6	30
1,1-Dichloroethane (1,1-DCA)	5.0 U	51.3	50.0	103	50.3	50.0	101	74-132	2	30
1,1-Dichloroethene (1,1-DCE)	5.0 U	49.0	50.0	98	47.7	50.0	95	74-139	3	30
1,2,3-Trichlorobenzene	5.0 U	51.2	50.0	102	50.9	50.0	102	54-143	<1	30
1,2,4-Trichlorobenzene	5.0 U	48.8	50.0	98	49.9	50.0	100	56-140	2	30
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	49.6	50.0	99	52.2	50.0	104	65-137	5	30
1,2-Dibromoethane	5.0 U	51.7	50.0	103	51.4	50.0	103	80-117	<1	30
1,2-Dichlorobenzene	5.0 U	48.0	50.0	96	49.2	50.0	98	77-120	2	30
1,2-Dichloroethane	5.0 U	52.6	50.0	105	50.4	50.0	101	68-130	4	30
1,2-Dichloropropane	5.0 U	50.2	50.0	100	51.1	50.0	102	79-124	2	30
1,3-Dichlorobenzene	5.0 U	49.3	50.0	99	49.6	50.0	99	74-125	<1	30
1,4-Dichlorobenzene	5.0 U	47.8	50.0	96	47.1	50.0	94	72-124	1	30
1,4-Dioxane	100 U	1120	1000	112	1100	1000	110	48-143	1	30
2-Butanone (MEK)	10 U	51.2	50.0	102	47.7	50.0	95	46-141	7	30
2-Hexanone	10 U	52.3	50.0	105	51.4	50.0	103	56-132	2	30
4-Methyl-2-pentanone	10 U	55.2	50.0	110	53.9	50.0	108	60-141	2	30
Acetone	10 U	47.7	50.0	95	44.7	50.0	89	29-151	7	30
Benzene	5.0 U	50.5	50.0	101	49.7	50.0	99	76-129	2	30
Bromochloromethane	5.0 U	49.8	50.0	100	48.4	50.0	97	82-125	3	30
Bromodichloromethane	5.0 U	49.3	50.0	99	48.0	50.0	96	76-127	3	30
Bromoform	5.0 U	49.7	50.0	99	49.8	50.0	100	58-133	<1	30
Bromomethane	5.0 U	35.1	50.0	70	37.4	50.0	75	10-162	6	30
Carbon Disulfide	10 U	51.8	50.0	104	51.3	50.0	103	34-162	<1	30
Carbon Tetrachloride	5.0 U	50.2	50.0	100	51.6	50.0	103	65-135	3	30
Chlorobenzene	5.0 U	49.8	50.0	100	49.6	50.0	99	76-125	<1	30
Chloroethane	5.0 U	51.9	50.0	104	49.9	50.0	100	70-140	4	30
Chloroform	5.0 U	51.1	50.0	102	49.4	50.0	99	75-130	3	30
Chloromethane	5.0 U	48.4	50.0	97	47.4	50.0	95	55-160	2	30
Cyclohexane	10 U	51.8	50.0	104	50.8	50.0	102	52-145	2	30
Dibromochloromethane	5.0 U	49.8	50.0	100	49.6	50.0	99	72-128	<1	30
Dichlorodifluoromethane (CFC 12)	5.0 U	44.5	50.0	89	44.1	50.0	88	49-154	<1	30
Dichloromethane	5.0 U	49.7	50.0	99	48.6	50.0	97	75-121	2	30

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

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

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

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18
Sample Matrix:	Water	**Date Received:**	02/13/18
		Date Analyzed:	02/15/18

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW-8A	**Units:**	ug/L
Lab Code:	R1801238-003	**Basis:**	NA
Analysis Method:	8260C		

		Matrix Spike			Duplicate Matrix Spike					
		RQ1801454-05			RQ1801454-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	5.0 U	50.5	50.0	101	49.6	50.0	99	72-134	2	30
Isopropylbenzene (Cumene)	5.0 U	50.3	50.0	101	50.5	50.0	101	76-136	<1	30
Methyl Acetate	10 U	52.4	50.0	105	50.9	50.0	102	36-146	3	30
Methyl tert-Butyl Ether	5.0 U	50.3	50.0	101	48.2	50.0	96	74-130	4	30
Methylcyclohexane	10 U	51.9	50.0	104	51.0	50.0	102	45-146	2	30
Styrene	5.0 U	51.0	50.0	102	50.9	50.0	102	34-156	<1	30
Tetrachloroethene (PCE)	5.0 U	47.5	50.0	95	47.3	50.0	95	67-137	<1	30
Toluene	5.0 U	51.7	50.0	103	50.4	50.0	101	79-125	3	30
Trichloroethene (TCE)	5.0 U	46.9	50.0	94	45.5	50.0	91	62-142	3	30
Trichlorofluoromethane (CFC 11)	5.0 U	50.2	50.0	100	47.7	50.0	95	72-142	5	30
Vinyl Chloride	5.0 U	52.4	50.0	105	51.2	50.0	102	60-157	2	30
cis-1,2-Dichloroethene	5.0 U	51.3	50.0	103	48.6	50.0	97	72-133	5	30
cis-1,3-Dichloropropene	5.0 U	51.0	50.0	102	51.1	50.0	102	52-134	<1	30
m,p-Xylenes	5.0 U	103	100	103	101	100	101	68-138	1	30
o-Xylene	5.0 U	51.6	50.0	103	51.3	50.0	103	68-134	<1	30
trans-1,2-Dichloroethene	5.0 U	49.0	50.0	98	46.8	50.0	94	77-125	5	30
trans-1,3-Dichloropropene	5.0 U	51.2	50.0	102	52.1	50.0	104	50-142	2	30

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

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

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

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/15/18 11:42

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1801454-04

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\021518\D1418.D\

Analysis Method: 8260C
Analysis Lot:580347

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1801454-03	I:\ACQUDATA\msvoa10\data\021518\D1416.D\	02/15/18 10:54
TRIP BLANK	R1801238-017	I:\ACQUDATA\msvoa10\data\021518\D1419.D\	02/15/18 12:04
MW-8	R1801238-002	I:\ACQUDATA\msvoa10\data\021518\D1421.D\	02/15/18 13:20
MW-9	R1801238-001	I:\ACQUDATA\msvoa10\data\021518\D1422.D\	02/15/18 13:42
MW-9A	R1801238-004	I:\ACQUDATA\msvoa10\data\021518\D1423.D\	02/15/18 14:04
MW-26	R1801238-005	I:\ACQUDATA\msvoa10\data\021518\D1424.D\	02/15/18 14:25
MW-8A	R1801238-003	I:\ACQUDATA\msvoa10\data\021518\D1425.D\	02/15/18 14:47
MW-26A	R1801238-006	I:\ACQUDATA\msvoa10\data\021518\D1426.D\	02/15/18 15:08
MW-21A	R1801238-007	I:\ACQUDATA\msvoa10\data\021518\D1427.D\	02/15/18 15:30
DUPLICATE-01	R1801238-008	I:\ACQUDATA\msvoa10\data\021518\D1428.D\	02/15/18 15:52
MW-5R	R1801238-009	I:\ACQUDATA\msvoa10\data\021518\D1430.D\	02/15/18 16:41
MW-7	R1801238-015	I:\ACQUDATA\msvoa10\data\021518\D1432.D\	02/15/18 17:25
MW-19R	R1801238-016	I:\ACQUDATA\msvoa10\data\021518\D1433.D\	02/15/18 17:47
MW-7A	R1801238-014	I:\ACQUDATA\msvoa10\data\021518\D1434.D\	02/15/18 18:08
MW-6	R1801238-013	I:\ACQUDATA\msvoa10\data\021518\D1435.D\	02/15/18 18:30
MW-5AR	R1801238-010	I:\ACQUDATA\msvoa10\data\021518\D1437.D\	02/15/18 19:14
MW-13A	R1801238-011	I:\ACQUDATA\msvoa10\data\021518\D1438.D\	02/15/18 19:35
MW-8A	RQ1801454-05	I:\ACQUDATA\msvoa10\data\021518\D1440.D\	02/15/18 20:19
MW-8A	RQ1801454-06	I:\ACQUDATA\msvoa10\data\021518\D1441.D\	02/15/18 20:41

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/16/18 11:12

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1801509-04

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\021618\D1448.D\

Analysis Method: 8260C
Analysis Lot:580610

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1801509-03	I:\ACQUDATA\msvoa10\data\021618\D1446.D\	02/16/18 10:21
MW-20A	R1801238-012	I:\ACQUDATA\msvoa10\data\021618\D1451.D\	02/16/18 12:23
MW-5AR	R1801238-010	I:\ACQUDATA\msvoa10\data\021618\D1452.D\	02/16/18 12:45
MW-13A	R1801238-011	I:\ACQUDATA\msvoa10\data\021618\D1453.D\	02/16/18 13:07
MW-6	R1801238-013	I:\ACQUDATA\msvoa10\data\021618\D1454.D\	02/16/18 13:29

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801454-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 11:42	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 11:42	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 11:42	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 11:42	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 11:42	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 11:42	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 11:42	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 11:42	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 11:42	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 11:42	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 11:42	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 11:42	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 11:42	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 11:42	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 11:42	
1,4-Dioxane	100 U	100	20	1	02/15/18 11:42	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 11:42	
2-Hexanone	10 U	10	1.7	1	02/15/18 11:42	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 11:42	
Acetone	10 U	10	1.3	1	02/15/18 11:42	
Benzene	5.0 U	5.0	0.20	1	02/15/18 11:42	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 11:42	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 11:42	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 11:42	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 11:42	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 11:42	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 11:42	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 11:42	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 11:42	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 11:42	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 11:42	
Cyclohexane	10 U	10	0.25	1	02/15/18 11:42	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 11:42	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 11:42	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 11:42	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 11:42	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 11:42	
Methyl Acetate	10 U	10	0.43	1	02/15/18 11:42	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 11:42	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 11:42	
Styrene	5.0 U	5.0	0.20	1	02/15/18 11:42	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 11:42	
Toluene	5.0 U	5.0	0.20	1	02/15/18 11:42	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801454-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 11:42	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 11:42	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 11:42	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 11:42	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 11:42	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 11:42	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 11:42	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 11:42	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 11:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 11:42	
Dibromofluoromethane	97	89 - 119	02/15/18 11:42	
Toluene-d8	98	87 - 121	02/15/18 11:42	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801509-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/16/18 11:12	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/16/18 11:12	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/16/18 11:12	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/16/18 11:12	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/16/18 11:12	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/16/18 11:12	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/16/18 11:12	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/16/18 11:12	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/16/18 11:12	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/16/18 11:12	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/16/18 11:12	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/16/18 11:12	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/16/18 11:12	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/16/18 11:12	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/16/18 11:12	
1,4-Dioxane	100 U	100	20	1	02/16/18 11:12	
2-Butanone (MEK)	10 U	10	0.81	1	02/16/18 11:12	
2-Hexanone	10 U	10	1.7	1	02/16/18 11:12	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/16/18 11:12	
Acetone	10 U	10	1.3	1	02/16/18 11:12	
Benzene	5.0 U	5.0	0.20	1	02/16/18 11:12	
Bromochloromethane	5.0 U	5.0	0.32	1	02/16/18 11:12	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/16/18 11:12	
Bromoform	5.0 U	5.0	0.42	1	02/16/18 11:12	
Bromomethane	5.0 U	5.0	0.29	1	02/16/18 11:12	
Carbon Disulfide	10 U	10	0.22	1	02/16/18 11:12	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/16/18 11:12	
Chlorobenzene	5.0 U	5.0	0.29	1	02/16/18 11:12	
Chloroethane	5.0 U	5.0	0.24	1	02/16/18 11:12	
Chloroform	5.0 U	5.0	0.25	1	02/16/18 11:12	
Chloromethane	5.0 U	5.0	0.21	1	02/16/18 11:12	
Cyclohexane	10 U	10	0.25	1	02/16/18 11:12	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/16/18 11:12	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/16/18 11:12	
Dichloromethane	5.0 U	5.0	0.60	1	02/16/18 11:12	
Ethylbenzene	5.0 U	5.0	0.20	1	02/16/18 11:12	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/16/18 11:12	
Methyl Acetate	10 U	10	0.43	1	02/16/18 11:12	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/16/18 11:12	
Methylcyclohexane	10 U	10	0.27	1	02/16/18 11:12	
Styrene	5.0 U	5.0	0.20	1	02/16/18 11:12	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/16/18 11:12	
Toluene	5.0 U	5.0	0.20	1	02/16/18 11:12	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801509-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/16/18 11:12	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/16/18 11:12	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/16/18 11:12	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/16/18 11:12	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/16/18 11:12	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/16/18 11:12	
o-Xylene	5.0 U	5.0	0.20	1	02/16/18 11:12	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/16/18 11:12	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/16/18 11:12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	02/16/18 11:12	
Dibromofluoromethane	97	89 - 119	02/16/18 11:12	
Toluene-d8	99	87 - 121	02/16/18 11:12	

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/15/18 10:54

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1801454-03

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\021518\D1416.D\

Analysis Method: 8260C
Analysis Lot:580347

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1801454-04	I:\ACQUDATA\msvoa10\data\021518\D1418.D\	02/15/18 11:42
TRIP BLANK	R1801238-017	I:\ACQUDATA\msvoa10\data\021518\D1419.D\	02/15/18 12:04
MW-8	R1801238-002	I:\ACQUDATA\msvoa10\data\021518\D1421.D\	02/15/18 13:20
MW-9	R1801238-001	I:\ACQUDATA\msvoa10\data\021518\D1422.D\	02/15/18 13:42
MW-9A	R1801238-004	I:\ACQUDATA\msvoa10\data\021518\D1423.D\	02/15/18 14:04
MW-26	R1801238-005	I:\ACQUDATA\msvoa10\data\021518\D1424.D\	02/15/18 14:25
MW-8A	R1801238-003	I:\ACQUDATA\msvoa10\data\021518\D1425.D\	02/15/18 14:47
MW-26A	R1801238-006	I:\ACQUDATA\msvoa10\data\021518\D1426.D\	02/15/18 15:08
MW-21A	R1801238-007	I:\ACQUDATA\msvoa10\data\021518\D1427.D\	02/15/18 15:30
DUPLICATE-01	R1801238-008	I:\ACQUDATA\msvoa10\data\021518\D1428.D\	02/15/18 15:52
MW-5R	R1801238-009	I:\ACQUDATA\msvoa10\data\021518\D1430.D\	02/15/18 16:41
MW-7	R1801238-015	I:\ACQUDATA\msvoa10\data\021518\D1432.D\	02/15/18 17:25
MW-19R	R1801238-016	I:\ACQUDATA\msvoa10\data\021518\D1433.D\	02/15/18 17:47
MW-7A	R1801238-014	I:\ACQUDATA\msvoa10\data\021518\D1434.D\	02/15/18 18:08
MW-6	R1801238-013	I:\ACQUDATA\msvoa10\data\021518\D1435.D\	02/15/18 18:30
MW-5AR	R1801238-010	I:\ACQUDATA\msvoa10\data\021518\D1437.D\	02/15/18 19:14
MW-13A	R1801238-011	I:\ACQUDATA\msvoa10\data\021518\D1438.D\	02/15/18 19:35
MW-8A	RQ1801454-05	I:\ACQUDATA\msvoa10\data\021518\D1440.D\	02/15/18 20:19
MW-8A	RQ1801454-06	I:\ACQUDATA\msvoa10\data\021518\D1441.D\	02/15/18 20:41

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/16/18 10:21

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1801509-03

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\021618\D1446.D\

Analysis Method: 8260C
Analysis Lot:580610

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1801509-04	I:\ACQUDATA\msvoa10\data\021618\D1448.D\	02/16/18 11:12
MW-20A	R1801238-012	I:\ACQUDATA\msvoa10\data\021618\D1451.D\	02/16/18 12:23
MW-5AR	R1801238-010	I:\ACQUDATA\msvoa10\data\021618\D1452.D\	02/16/18 12:45
MW-13A	R1801238-011	I:\ACQUDATA\msvoa10\data\021618\D1453.D\	02/16/18 13:07
MW-6	R1801238-013	I:\ACQUDATA\msvoa10\data\021618\D1454.D\	02/16/18 13:29

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/15/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801454-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.2	20.0	96	74-120
1,1,2,2-Tetrachloroethane	8260C	18.7	20.0	94	78-122
1,1,2-Trichloroethane	8260C	19.4	20.0	97	82-118
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.8	20.0	89	75-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.4	20.0	97	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	18.7	20.0	94	74-135
1,2,3-Trichlorobenzene	8260C	20.0	20.0	100	56-164
1,2,4-Trichlorobenzene	8260C	20.1	20.0	101	68-147
1,2-Dibromo-3-chloropropane (DBCP)	8260C	19.2	20.0	96	55-149
1,2-Dibromoethane	8260C	19.5	20.0	97	81-125
1,2-Dichlorobenzene	8260C	18.9	20.0	94	80-119
1,2-Dichloroethane	8260C	19.9	20.0	99	71-127
1,2-Dichloropropane	8260C	19.0	20.0	95	80-119
1,3-Dichlorobenzene	8260C	20.0	20.0	100	79-121
1,4-Dichlorobenzene	8260C	18.7	20.0	94	79-119
1,4-Dioxane	8260C	399	400	100	69-151
2-Butanone (MEK)	8260C	16.9	20.0	85	61-137
2-Hexanone	8260C	17.4	20.0	87	63-124
4-Methyl-2-pentanone	8260C	18.1	20.0	91	66-124
Acetone	8260C	20.4	20.0	102	40-161
Benzene	8260C	19.1	20.0	95	76-118
Bromochloromethane	8260C	19.1	20.0	95	81-126
Bromodichloromethane	8260C	19.2	20.0	96	78-126
Bromoform	8260C	19.9	20.0	100	71-136
Bromomethane	8260C	17.2	20.0	86	42-166
Carbon Disulfide	8260C	18.8	20.0	94	65-127
Carbon Tetrachloride	8260C	19.5	20.0	98	68-125
Chlorobenzene	8260C	19.2	20.0	96	80-121
Chloroethane	8260C	18.6	20.0	93	70-127
Chloroform	8260C	19.4	20.0	97	76-120
Chloromethane	8260C	18.9	20.0	95	69-145
Cyclohexane	8260C	18.6	20.0	93	63-121
Dibromochloromethane	8260C	18.7	20.0	93	77-128

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/15/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801454-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	18.1	20.0	90	65-152
Dichloromethane	8260C	19.1	20.0	95	73-122
Ethylbenzene	8260C	19.2	20.0	96	76-120
Isopropylbenzene (Cumene)	8260C	19.0	20.0	95	78-126
Methyl Acetate	8260C	18.8	20.0	94	62-131
Methyl tert-Butyl Ether	8260C	19.2	20.0	96	78-125
Methylcyclohexane	8260C	18.4	20.0	92	51-129
Styrene	8260C	19.3	20.0	96	80-124
Tetrachloroethene (PCE)	8260C	18.4	20.0	92	78-124
Toluene	8260C	19.4	20.0	97	77-120
Trichloroethene (TCE)	8260C	18.1	20.0	90	78-123
Trichlorofluoromethane (CFC 11)	8260C	19.5	20.0	97	68-126
Vinyl Chloride	8260C	20.2	20.0	101	69-133
cis-1,2-Dichloroethene	8260C	18.9	20.0	95	80-121
cis-1,3-Dichloropropene	8260C	19.3	20.0	97	74-126
m,p-Xylenes	8260C	38.5	40.0	96	78-123
o-Xylene	8260C	19.2	20.0	96	80-120
trans-1,2-Dichloroethene	8260C	19.1	20.0	95	80-120
trans-1,3-Dichloropropene	8260C	20.7	20.0	104	67-135

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/16/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801509-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.2	20.0	96	74-120
1,1,2,2-Tetrachloroethane	8260C	20.6	20.0	103	78-122
1,1,2-Trichloroethane	8260C	19.5	20.0	97	82-118
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.5	20.0	92	75-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.4	20.0	97	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	18.8	20.0	94	74-135
1,2,3-Trichlorobenzene	8260C	20.5	20.0	102	56-164
1,2,4-Trichlorobenzene	8260C	20.9	20.0	104	68-147
1,2-Dibromo-3-chloropropane (DBCP)	8260C	18.6	20.0	93	55-149
1,2-Dibromoethane	8260C	19.9	20.0	100	81-125
1,2-Dichlorobenzene	8260C	19.5	20.0	97	80-119
1,2-Dichloroethane	8260C	20.6	20.0	103	71-127
1,2-Dichloropropane	8260C	19.3	20.0	97	80-119
1,3-Dichlorobenzene	8260C	20.1	20.0	100	79-121
1,4-Dichlorobenzene	8260C	19.3	20.0	96	79-119
1,4-Dioxane	8260C	397	400	99	69-151
2-Butanone (MEK)	8260C	19.0	20.0	95	61-137
2-Hexanone	8260C	17.6	20.0	88	63-124
4-Methyl-2-pentanone	8260C	18.7	20.0	93	66-124
Acetone	8260C	19.0	20.0	95	40-161
Benzene	8260C	19.5	20.0	98	76-118
Bromochloromethane	8260C	18.2	20.0	91	81-126
Bromodichloromethane	8260C	19.5	20.0	98	78-126
Bromoform	8260C	19.0	20.0	95	71-136
Bromomethane	8260C	15.9	20.0	79	42-166
Carbon Disulfide	8260C	19.4	20.0	97	65-127
Carbon Tetrachloride	8260C	19.6	20.0	98	68-125
Chlorobenzene	8260C	19.5	20.0	97	80-121
Chloroethane	8260C	19.2	20.0	96	70-127
Chloroform	8260C	19.5	20.0	97	76-120
Chloromethane	8260C	18.4	20.0	92	69-145
Cyclohexane	8260C	18.6	20.0	93	63-121
Dibromochloromethane	8260C	19.1	20.0	95	77-128

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801238
Date Analyzed: 02/16/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801509-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	17.7	20.0	89	65-152
Dichloromethane	8260C	19.9	20.0	99	73-122
Ethylbenzene	8260C	19.5	20.0	97	76-120
Isopropylbenzene (Cumene)	8260C	19.5	20.0	97	78-126
Methyl Acetate	8260C	19.5	20.0	97	62-131
Methyl tert-Butyl Ether	8260C	18.9	20.0	95	78-125
Methylcyclohexane	8260C	18.9	20.0	94	51-129
Styrene	8260C	19.6	20.0	98	80-124
Tetrachloroethene (PCE)	8260C	19.0	20.0	95	78-124
Toluene	8260C	19.6	20.0	98	77-120
Trichloroethene (TCE)	8260C	18.3	20.0	91	78-123
Trichlorofluoromethane (CFC 11)	8260C	19.8	20.0	99	68-126
Vinyl Chloride	8260C	20.0	20.0	100	69-133
cis-1,2-Dichloroethene	8260C	19.1	20.0	95	80-121
cis-1,3-Dichloropropene	8260C	19.7	20.0	99	74-126
m,p-Xylenes	8260C	39.4	40.0	99	78-123
o-Xylene	8260C	20.1	20.0	100	80-120
trans-1,2-Dichloroethene	8260C	19.5	20.0	98	80-120
trans-1,3-Dichloropropene	8260C	21.5	20.0	107	67-135

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/15/18 08:59

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\021518\D1413.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 580347

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.83	18054	Pass
75	95	30	60	49.08	42549	Pass
95	95	100	100	100.00	86693	Pass
96	95	5	9	7.10	6153	Pass
173	174	0	2	1.13	869	Pass
174	95	50	120	88.90	77069	Pass
175	174	5	9	7.24	5578	Pass
176	174	95	101	96.72	74541	Pass
177	176	5	9	6.52	4863	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1801454-02	I:\ACQUDATA\msvoa10\data\021518\D1414.D\	02/15/18 09:51	
Lab Control Sample	RQ1801454-03	I:\ACQUDATA\msvoa10\data\021518\D1416.D\	02/15/18 10:54	
Method Blank	RQ1801454-04	I:\ACQUDATA\msvoa10\data\021518\D1418.D\	02/15/18 11:42	
TRIP BLANK	R1801238-017	I:\ACQUDATA\msvoa10\data\021518\D1419.D\	02/15/18 12:04	
MW-8	R1801238-002	I:\ACQUDATA\msvoa10\data\021518\D1421.D\	02/15/18 13:20	
MW-9	R1801238-001	I:\ACQUDATA\msvoa10\data\021518\D1422.D\	02/15/18 13:42	
MW-9A	R1801238-004	I:\ACQUDATA\msvoa10\data\021518\D1423.D\	02/15/18 14:04	
MW-26	R1801238-005	I:\ACQUDATA\msvoa10\data\021518\D1424.D\	02/15/18 14:25	
MW-8A	R1801238-003	I:\ACQUDATA\msvoa10\data\021518\D1425.D\	02/15/18 14:47	
MW-26A	R1801238-006	I:\ACQUDATA\msvoa10\data\021518\D1426.D\	02/15/18 15:08	
MW-21A	R1801238-007	I:\ACQUDATA\msvoa10\data\021518\D1427.D\	02/15/18 15:30	
DUPLICATE-01	R1801238-008	I:\ACQUDATA\msvoa10\data\021518\D1428.D\	02/15/18 15:52	
MW-5R	R1801238-009	I:\ACQUDATA\msvoa10\data\021518\D1430.D\	02/15/18 16:41	
MW-7	R1801238-015	I:\ACQUDATA\msvoa10\data\021518\D1432.D\	02/15/18 17:25	
MW-19R	R1801238-016	I:\ACQUDATA\msvoa10\data\021518\D1433.D\	02/15/18 17:47	
MW-7A	R1801238-014	I:\ACQUDATA\msvoa10\data\021518\D1434.D\	02/15/18 18:08	
MW-6	R1801238-013	I:\ACQUDATA\msvoa10\data\021518\D1435.D\	02/15/18 18:30	
MW-5AR	R1801238-010	I:\ACQUDATA\msvoa10\data\021518\D1437.D\	02/15/18 19:14	
MW-13A	R1801238-011	I:\ACQUDATA\msvoa10\data\021518\D1438.D\	02/15/18 19:35	
MW-8A	RQ1801454-05	I:\ACQUDATA\msvoa10\data\021518\D1440.D\	02/15/18 20:19	
MW-8A	RQ1801454-06	I:\ACQUDATA\msvoa10\data\021518\D1441.D\	02/15/18 20:41	

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/16/18 09:04

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\021618\D1444.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 580610

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.68	17859	Pass
75	95	30	60	49.44	40723	Pass
95	95	100	100	100.00	82368	Pass
96	95	5	9	6.72	5538	Pass
173	174	0	2	1.29	968	Pass
174	95	50	120	91.02	74971	Pass
175	174	5	9	7.42	5564	Pass
176	174	95	101	96.75	72531	Pass
177	176	5	9	6.34	4601	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1801509-02	I:\ACQUDATA\msvoa10\data\021618\D1445.D\	02/16/18 09:46	
Lab Control Sample	RQ1801509-03	I:\ACQUDATA\msvoa10\data\021618\D1446.D\	02/16/18 10:21	
Method Blank	RQ1801509-04	I:\ACQUDATA\msvoa10\data\021618\D1448.D\	02/16/18 11:12	
MW-20A	R1801238-012	I:\ACQUDATA\msvoa10\data\021618\D1451.D\	02/16/18 12:23	
MW-5AR	R1801238-010	I:\ACQUDATA\msvoa10\data\021618\D1452.D\	02/16/18 12:45	
MW-13A	R1801238-011	I:\ACQUDATA\msvoa10\data\021618\D1453.D\	02/16/18 13:07	
MW-6	R1801238-013	I:\ACQUDATA\msvoa10\data\021618\D1454.D\	02/16/18 13:29	

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389 **Date Analyzed:** 02/15/18 09:51

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

File ID: I:\ACQUDATA\msvoa10\data\021518\D1414.D\ **Lab Code:** RQ1801454-02
Instrument ID: R-MS-10 **Analysis Lot:** 580347
Analysis Method: 8260C **Signal ID:**

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	158,345	11.85	310,461	6.49	279,305	9.80
	Upper Limit ==>	316,690	12.35	620,922	6.99	558,610	10.30
	Lower Limit ==>	79,173	11.35	155,231	5.99	139,653	9.30
Associated Analyses							
Lab Control Sample	RQ1801454-03	158031	11.85	321128	6.49	281988	9.80
Method Blank	RQ1801454-04	133478	11.85	301731	6.49	261709	9.80
TRIP BLANK	R1801238-017	133525	11.85	296678	6.49	257889	9.80
MW-8	R1801238-002	132123	11.85	291110	6.49	252537	9.80
MW-9	R1801238-001	132639	11.85	298462	6.49	261486	9.80
MW-9A	R1801238-004	131323	11.85	293361	6.49	256519	9.80
MW-26	R1801238-005	128948	11.85	282602	6.49	248759	9.80
MW-8A	R1801238-003	129530	11.85	290157	6.49	253842	9.80
MW-26A	R1801238-006	129874	11.85	287413	6.49	251581	9.80
MW-21A	R1801238-007	127137	11.85	287513	6.49	247969	9.80
DUPLICATE-01	R1801238-008	128405	11.85	288497	6.49	250960	9.80
MW-5R	R1801238-009	134372	11.85	300313	6.49	260928	9.80
MW-7	R1801238-015	133698	11.85	292678	6.49	258706	9.80
MW-19R	R1801238-016	129321	11.85	285315	6.49	248867	9.80
MW-7A	R1801238-014	128925	11.85	292846	6.49	257791	9.80
MW-6	R1801238-013.R01	133659	11.85	290807	6.49	252937	9.80
MW-5AR	R1801238-010.R01	127443	11.85	282601	6.49	247565	9.80
MW-13A	R1801238-011.R01	129404	11.85	289761	6.49	254790	9.80
MW-8A	RQ1801454-05	154817	11.85	305871	6.49	272441	9.80
MW-8A	RQ1801454-06	155765	11.85	313891	6.49	276586	9.80

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China/16-344-1389 **Date Analyzed:** 02/15/18 09:51

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

File ID: I:\ACQUDATA\msvoa10\data\021518\D1414.D\ **Lab Code:** RQ1801454-02
Instrument ID: R-MS-10 **Analysis Lot:** 580347
Analysis Method: 8260C **Signal ID:**

		Pentafluorobenzene	
		Area	**RT**
	ICAL Result ==>	210,113	5.39
	Upper Limit ==>	420,226	5.89
	Lower Limit ==>	105,057	4.89
Associated Analyses			
Lab Control Sample	RQ1801454-03	215601	5.39
Method Blank	RQ1801454-04	201123	5.39
TRIP BLANK	R1801238-017	197949	5.39
MW-8	R1801238-002	190212	5.39
MW-9	R1801238-001	197443	5.39
MW-9A	R1801238-004	193430	5.39
MW-26	R1801238-005	188689	5.39
MW-8A	R1801238-003	189440	5.39
MW-26A	R1801238-006	191272	5.39
MW-21A	R1801238-007	190054	5.38
DUPLICATE-01	R1801238-008	190387	5.39
MW-5R	R1801238-009	196694	5.39
MW-7	R1801238-015	193122	5.39
MW-19R	R1801238-016	190827	5.39
MW-7A	R1801238-014	192025	5.39
MW-6	R1801238-013.R01	192109	5.39
MW-5AR	R1801238-010.R01	184381	5.39
MW-13A	R1801238-011.R01	194974	5.39
MW-8A	RQ1801454-05	201690	5.39
MW-8A	RQ1801454-06	213499	5.39

QA/QC Report

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/16/18 09:46

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

File ID: I:\ACQUDATA\msvoa10\data\021618\D1445.D\ **Lab Code:**RQ1801509-02
Instrument ID: R-MS-10 **Analysis Lot:**580610
Analysis Method: 8260C **Signal ID:**

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	160,349	11.85	314,380	6.49	279,367	9.80
	Upper Limit ==>	320,698	12.35	628,760	6.99	558,734	10.30
	Lower Limit ==>	80,175	11.35	157,190	5.99	139,684	9.30
Associated Analyses							
Lab Control Sample	RQ1801509-03	155003	11.85	322663	6.49	284463	9.80
Method Blank	RQ1801509-04	133159	11.85	300969	6.49	260020	9.80
MW-20A	R1801238-012	135463	11.85	297070	6.49	262503	9.80
MW-5AR	R1801238-010	132824	11.85	295313	6.49	259097	9.80
MW-13A	R1801238-011	134534	11.85	301564	6.49	260707	9.80
MW-6	R1801238-013	131443	11.85	294189	6.49	256657	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/16/18 09:46

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

File ID: I:\ACQUDATA\msvoa10\data\021618\D1445.D\ **Lab Code:**RQ1801509-02
Instrument ID: R-MS-10 **Analysis Lot:**580610
Analysis Method: 8260C **Signal ID:**

		Pentafluorobenzene	
		Area	**RT**
	ICAL Result ==>	212,164	5.39
	Upper Limit ==>	424,328	5.89
	Lower Limit ==>	106,082	4.89
Associated Analyses			
Lab Control Sample	RQ1801509-03	219633	5.39
Method Blank	RQ1801509-04	199521	5.39
MW-20A	R1801238-012	197395	5.38
MW-5AR	R1801238-010	196067	5.39
MW-13A	R1801238-011	198029	5.39
MW-6	R1801238-013	191418	5.39

Raw Data

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1801238-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 13:42	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 13:42	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 13:42	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 13:42	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 13:42	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 13:42	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 13:42	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 13:42	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 13:42	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 13:42	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 13:42	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
1,4-Dioxane	100	U	100	20	1	02/15/18 13:42	
2-Butanone (MEK)	**2.6**	**J**	10	0.81	1	02/15/18 13:42	
2-Hexanone	10	U	10	1.7	1	02/15/18 13:42	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 13:42	
Acetone	**3.2**	**J**	10	1.3	1	02/15/18 13:42	
Benzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 13:42	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 13:42	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 13:42	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 13:42	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 13:42	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 13:42	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 13:42	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 13:42	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 13:42	
Chloromethane	**0.26**	**J**	5.0	0.21	1	02/15/18 13:42	
Cyclohexane	10	U	10	0.25	1	02/15/18 13:42	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 13:42	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 13:42	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 13:42	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 13:42	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 13:42	
Methyl Acetate	10	U	10	0.43	1	02/15/18 13:42	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 13:42	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 13:42	
Styrene	5.0	U	5.0	0.20	1	02/15/18 13:42	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 13:42	
Toluene	5.0	U	5.0	0.20	1	02/15/18 13:42	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9	**Units:**	ug/L
Lab Code:	R1801238-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 13:42	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 13:42	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 13:42	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 13:42	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 13:42	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 13:42	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 13:42	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 13:42	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 13:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 13:42	
Dibromofluoromethane	96	89 - 119	02/15/18 13:42	
Toluene-d8	98	87 - 121	02/15/18 13:42	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 14:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1801238-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 13:20	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 13:20	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 13:20	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 13:20	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 13:20	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 13:20	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 13:20	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 13:20	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 13:20	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 13:20	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 13:20	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
1,4-Dioxane	100	U	100	20	1	02/15/18 13:20	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 13:20	
2-Hexanone	10	U	10	1.7	1	02/15/18 13:20	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 13:20	
Acetone	**1.7**	**J**	10	1.3	1	02/15/18 13:20	
Benzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 13:20	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 13:20	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 13:20	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 13:20	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 13:20	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 13:20	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 13:20	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 13:20	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 13:20	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 13:20	
Cyclohexane	10	U	10	0.25	1	02/15/18 13:20	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 13:20	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 13:20	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 13:20	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 13:20	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 13:20	
Methyl Acetate	10	U	10	0.43	1	02/15/18 13:20	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 13:20	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 13:20	
Styrene	5.0	U	5.0	0.20	1	02/15/18 13:20	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 13:20	
Toluene	5.0	U	5.0	0.20	1	02/15/18 13:20	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18 14:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8	**Units:**	ug/L
Lab Code:	R1801238-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 13:20	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 13:20	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 13:20	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 13:20	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 13:20	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 13:20	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 13:20	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 13:20	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 13:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 13:20	
Dibromofluoromethane	96	89 - 119	02/15/18 13:20	
Toluene-d8	98	87 - 121	02/15/18 13:20	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 13:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8A	**Units:**	ug/L
Lab Code:	R1801238-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 14:47	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 14:47	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 14:47	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 14:47	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 14:47	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 14:47	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 14:47	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 14:47	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 14:47	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 14:47	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 14:47	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
1,4-Dioxane	100 U	100	20	1	02/15/18 14:47	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 14:47	
2-Hexanone	10 U	10	1.7	1	02/15/18 14:47	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 14:47	
Acetone	10 U	10	1.3	1	02/15/18 14:47	
Benzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 14:47	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 14:47	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 14:47	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 14:47	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 14:47	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 14:47	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 14:47	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 14:47	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 14:47	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 14:47	
Cyclohexane	10 U	10	0.25	1	02/15/18 14:47	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 14:47	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 14:47	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 14:47	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 14:47	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 14:47	
Methyl Acetate	10 U	10	0.43	1	02/15/18 14:47	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 14:47	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 14:47	
Styrene	5.0 U	5.0	0.20	1	02/15/18 14:47	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 14:47	
Toluene	5.0 U	5.0	0.20	1	02/15/18 14:47	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 13:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-8A	**Units:**	ug/L
Lab Code:	R1801238-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 14:47	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 14:47	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 14:47	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 14:47	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 14:47	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 14:47	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 14:47	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 14:47	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 14:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 14:47	
Dibromofluoromethane	96	89 - 119	02/15/18 14:47	
Toluene-d8	98	87 - 121	02/15/18 14:47	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 15:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9A	**Units:**	ug/L
Lab Code:	R1801238-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 14:04	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 14:04	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 14:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 14:04	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 14:04	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 14:04	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 14:04	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 14:04	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 14:04	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 14:04	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 14:04	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
1,4-Dioxane	100	U	100	20	1	02/15/18 14:04	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 14:04	
2-Hexanone	10	U	10	1.7	1	02/15/18 14:04	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 14:04	
Acetone	10	U	10	1.3	1	02/15/18 14:04	
Benzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 14:04	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 14:04	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 14:04	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 14:04	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 14:04	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 14:04	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 14:04	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 14:04	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 14:04	
Chloromethane	**0.25**	**J**	5.0	0.21	1	02/15/18 14:04	
Cyclohexane	10	U	10	0.25	1	02/15/18 14:04	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 14:04	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 14:04	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 14:04	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 14:04	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 14:04	
Methyl Acetate	10	U	10	0.43	1	02/15/18 14:04	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 14:04	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 14:04	
Styrene	5.0	U	5.0	0.20	1	02/15/18 14:04	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 14:04	
Toluene	5.0	U	5.0	0.20	1	02/15/18 14:04	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/07/18 15:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-9A	**Units:**	ug/L
Lab Code:	R1801238-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 14:04	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 14:04	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 14:04	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 14:04	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 14:04	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 14:04	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 14:04	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 14:04	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 14:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/15/18 14:04	
Dibromofluoromethane	98	89 - 119	02/15/18 14:04	
Toluene-d8	98	87 - 121	02/15/18 14:04	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 10:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26	**Units:**	ug/L
Lab Code:	R1801238-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 14:25	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 14:25	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 14:25	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 14:25	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 14:25	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 14:25	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 14:25	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 14:25	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 14:25	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 14:25	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 14:25	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
1,4-Dioxane	100 U	100	20	1	02/15/18 14:25	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 14:25	
2-Hexanone	10 U	10	1.7	1	02/15/18 14:25	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 14:25	
Acetone	10 U	10	1.3	1	02/15/18 14:25	
Benzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 14:25	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 14:25	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 14:25	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 14:25	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 14:25	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 14:25	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 14:25	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 14:25	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 14:25	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 14:25	
Cyclohexane	10 U	10	0.25	1	02/15/18 14:25	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 14:25	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 14:25	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 14:25	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 14:25	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 14:25	
Methyl Acetate	10 U	10	0.43	1	02/15/18 14:25	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 14:25	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 14:25	
Styrene	5.0 U	5.0	0.20	1	02/15/18 14:25	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 14:25	
Toluene	5.0 U	5.0	0.20	1	02/15/18 14:25	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 10:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26	**Units:**	ug/L
Lab Code:	R1801238-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 14:25	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 14:25	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 14:25	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 14:25	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 14:25	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 14:25	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 14:25	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 14:25	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 14:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 14:25	
Dibromofluoromethane	97	89 - 119	02/15/18 14:25	
Toluene-d8	100	87 - 121	02/15/18 14:25	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 12:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26A	**Units:**	ug/L
Lab Code:	R1801238-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 15:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 15:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 15:08	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 15:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 15:08	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 15:08	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 15:08	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 15:08	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 15:08	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 15:08	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 15:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
1,4-Dioxane	100 U	100	20	1	02/15/18 15:08	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 15:08	
2-Hexanone	10 U	10	1.7	1	02/15/18 15:08	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 15:08	
Acetone	10 U	10	1.3	1	02/15/18 15:08	
Benzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 15:08	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 15:08	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 15:08	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 15:08	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 15:08	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 15:08	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 15:08	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 15:08	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 15:08	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 15:08	
Cyclohexane	10 U	10	0.25	1	02/15/18 15:08	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 15:08	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 15:08	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 15:08	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 15:08	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 15:08	
Methyl Acetate	10 U	10	0.43	1	02/15/18 15:08	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 15:08	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 15:08	
Styrene	5.0 U	5.0	0.20	1	02/15/18 15:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 15:08	
Toluene	5.0 U	5.0	0.20	1	02/15/18 15:08	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 12:20
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-26A	**Units:**	ug/L
Lab Code:	R1801238-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 15:08	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 15:08	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 15:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 15:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 15:08	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 15:08	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 15:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 15:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 15:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	02/15/18 15:08	
Dibromofluoromethane	95	89 - 119	02/15/18 15:08	
Toluene-d8	100	87 - 121	02/15/18 15:08	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-21A	**Units:**	ug/L
Lab Code:	R1801238-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 15:30	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 15:30	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 15:30	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 15:30	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,1-Dichloroethene (1,1-DCE)	**1.6**	**J**	5.0	0.57	1	02/15/18 15:30	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 15:30	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 15:30	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 15:30	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 15:30	
1,2-Dichlorobenzene	**0.26**	**J**	5.0	0.21	1	02/15/18 15:30	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 15:30	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 15:30	
1,4-Dioxane	100	U	100	20	1	02/15/18 15:30	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 15:30	
2-Hexanone	10	U	10	1.7	1	02/15/18 15:30	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 15:30	
Acetone	**2.0**	**J**	10	1.3	1	02/15/18 15:30	
Benzene	**0.47**	**J**	5.0	0.20	1	02/15/18 15:30	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 15:30	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 15:30	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 15:30	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 15:30	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 15:30	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 15:30	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 15:30	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 15:30	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 15:30	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 15:30	
Cyclohexane	10	U	10	0.25	1	02/15/18 15:30	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 15:30	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 15:30	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 15:30	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 15:30	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 15:30	
Methyl Acetate	10	U	10	0.43	1	02/15/18 15:30	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 15:30	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 15:30	
Styrene	5.0	U	5.0	0.20	1	02/15/18 15:30	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 15:30	
Toluene	5.0	U	5.0	0.20	1	02/15/18 15:30	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-21A	**Units:**	ug/L
Lab Code:	R1801238-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**7.4**		5.0	0.22	1	02/15/18 15:30	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/15/18 15:30	
Vinyl Chloride	**75**		5.0	0.32	1	02/15/18 15:30	
cis-1,2-Dichloroethene	**170**		5.0	0.30	1	02/15/18 15:30	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/15/18 15:30	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/15/18 15:30	
o-Xylene	5.0	U	5.0	0.20	1	02/15/18 15:30	
trans-1,2-Dichloroethene	**12**		5.0	0.33	1	02/15/18 15:30	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/15/18 15:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/15/18 15:30	
Dibromofluoromethane	97	89 - 119	02/15/18 15:30	
Toluene-d8	98	87 - 121	02/15/18 15:30	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	DUPLICATE-01	**Units:**	ug/L
Lab Code:	R1801238-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 15:52	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 15:52	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 15:52	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 15:52	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 15:52	
1,1-Dichloroethene (1,1-DCE)	**1.5**	**J**	5.0	0.57	1	02/15/18 15:52	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 15:52	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 15:52	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 15:52	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 15:52	
1,2-Dichlorobenzene	**0.29**	**J**	5.0	0.21	1	02/15/18 15:52	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 15:52	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 15:52	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 15:52	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 15:52	
1,4-Dioxane	100	U	100	20	1	02/15/18 15:52	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 15:52	
2-Hexanone	10	U	10	1.7	1	02/15/18 15:52	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 15:52	
Acetone	**1.5**	**J**	10	1.3	1	02/15/18 15:52	
Benzene	**0.46**	**J**	5.0	0.20	1	02/15/18 15:52	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 15:52	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 15:52	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 15:52	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 15:52	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 15:52	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 15:52	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 15:52	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 15:52	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 15:52	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 15:52	
Cyclohexane	10	U	10	0.25	1	02/15/18 15:52	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 15:52	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 15:52	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 15:52	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 15:52	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 15:52	
Methyl Acetate	10	U	10	0.43	1	02/15/18 15:52	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 15:52	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 15:52	
Styrene	5.0	U	5.0	0.20	1	02/15/18 15:52	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 15:52	
Toluene	5.0	U	5.0	0.20	1	02/15/18 15:52	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 13:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	DUPLICATE-01	**Units:**	ug/L
Lab Code:	R1801238-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**7.1**	5.0	0.22	1	02/15/18 15:52	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 15:52	
Vinyl Chloride	**75**	5.0	0.32	1	02/15/18 15:52	
cis-1,2-Dichloroethene	**160**	5.0	0.30	1	02/15/18 15:52	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 15:52	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 15:52	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 15:52	
trans-1,2-Dichloroethene	**11**	5.0	0.33	1	02/15/18 15:52	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 15:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	02/15/18 15:52	
Dibromofluoromethane	98	89 - 119	02/15/18 15:52	
Toluene-d8	99	87 - 121	02/15/18 15:52	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 14:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5R	**Units:**	ug/L
Lab Code:	R1801238-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 16:41	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 16:41	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 16:41	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 16:41	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 16:41	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 16:41	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 16:41	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 16:41	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 16:41	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 16:41	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 16:41	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
1,4-Dioxane	100	U	100	20	1	02/15/18 16:41	
2-Butanone (MEK)	**1.1**	**J**	10	0.81	1	02/15/18 16:41	
2-Hexanone	10	U	10	1.7	1	02/15/18 16:41	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 16:41	
Acetone	**12**		10	1.3	1	02/15/18 16:41	
Benzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 16:41	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 16:41	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 16:41	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 16:41	
Carbon Disulfide	**0.44**	**J**	10	0.22	1	02/15/18 16:41	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 16:41	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 16:41	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 16:41	
Chloroform	**0.28**	**J**	5.0	0.25	1	02/15/18 16:41	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 16:41	
Cyclohexane	10	U	10	0.25	1	02/15/18 16:41	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 16:41	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 16:41	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 16:41	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 16:41	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 16:41	
Methyl Acetate	10	U	10	0.43	1	02/15/18 16:41	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 16:41	
Methylcyclohexane	10	U	10	0.27	1	02/15/18 16:41	
Styrene	5.0	U	5.0	0.20	1	02/15/18 16:41	
Tetrachloroethene (PCE)	**0.61**	**J**	5.0	0.30	1	02/15/18 16:41	
Toluene	5.0	U	5.0	0.20	1	02/15/18 16:41	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 14:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5R	**Units:**	ug/L
Lab Code:	R1801238-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**130**		5.0	0.22	1	02/15/18 16:41	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/15/18 16:41	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/15/18 16:41	
cis-1,2-Dichloroethene	**72**		5.0	0.30	1	02/15/18 16:41	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/15/18 16:41	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/15/18 16:41	
o-Xylene	5.0	U	5.0	0.20	1	02/15/18 16:41	
trans-1,2-Dichloroethene	**6.6**		5.0	0.33	1	02/15/18 16:41	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/15/18 16:41	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	02/15/18 16:41	
Dibromofluoromethane	96	89 - 119	02/15/18 16:41	
Toluene-d8	99	87 - 121	02/15/18 16:41	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 15:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5AR	**Units:**	ug/L
Lab Code:	R1801238-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	250	U	250	18	50	02/15/18 19:14	
1,1,2,2-Tetrachloroethane	**60**	**J**	250	13	50	02/15/18 19:14	
1,1,2-Trichloroethane	250	U	250	17	50	02/15/18 19:14	
1,1,2-Trichloro-1,2,2-trifluoroethane	250	U	250	16	50	02/15/18 19:14	
1,1-Dichloroethane (1,1-DCA)	250	U	250	10	50	02/15/18 19:14	
1,1-Dichloroethene (1,1-DCE)	250	U	250	29	50	02/15/18 19:14	
1,2,3-Trichlorobenzene	250	U	250	41	50	02/15/18 19:14	
1,2,4-Trichlorobenzene	250	U	250	12	50	02/15/18 19:14	
1,2-Dibromo-3-chloropropane (DBCP)	250	U	250	37	50	02/15/18 19:14	
1,2-Dibromoethane	250	U	250	12	50	02/15/18 19:14	
1,2-Dichlorobenzene	250	U	250	11	50	02/15/18 19:14	
1,2-Dichloroethane	250	U	250	18	50	02/15/18 19:14	
1,2-Dichloropropane	250	U	250	10	50	02/15/18 19:14	
1,3-Dichlorobenzene	250	U	250	10	50	02/15/18 19:14	
1,4-Dichlorobenzene	250	U	250	10	50	02/15/18 19:14	
1,4-Dioxane	5000	U	5000	1000	50	02/15/18 19:14	
2-Butanone (MEK)	500	U	500	41	50	02/15/18 19:14	
2-Hexanone	500	U	500	83	50	02/15/18 19:14	
4-Methyl-2-pentanone	500	U	500	34	50	02/15/18 19:14	
Acetone	**180**	**J**	500	62	50	02/15/18 19:14	
Benzene	250	U	250	10	50	02/15/18 19:14	
Bromochloromethane	250	U	250	16	50	02/15/18 19:14	
Bromodichloromethane	250	U	250	16	50	02/15/18 19:14	
Bromoform	250	U	250	21	50	02/15/18 19:14	
Bromomethane	250	U	250	15	50	02/15/18 19:14	
Carbon Disulfide	**11**	**J**	500	11	50	02/15/18 19:14	
Carbon Tetrachloride	250	U	250	23	50	02/15/18 19:14	
Chlorobenzene	250	U	250	15	50	02/15/18 19:14	
Chloroethane	250	U	250	12	50	02/15/18 19:14	
Chloroform	250	U	250	13	50	02/15/18 19:14	
Chloromethane	**12**	**J**	250	11	50	02/15/18 19:14	
Cyclohexane	500	U	500	13	50	02/15/18 19:14	
Dibromochloromethane	250	U	250	16	50	02/15/18 19:14	
Dichlorodifluoromethane (CFC 12)	250	U	250	23	50	02/15/18 19:14	
Dichloromethane	250	U	250	30	50	02/15/18 19:14	
Ethylbenzene	250	U	250	10	50	02/15/18 19:14	
Isopropylbenzene (Cumene)	250	U	250	10	50	02/15/18 19:14	
Methyl Acetate	500	U	500	22	50	02/15/18 19:14	
Methyl tert-Butyl Ether	250	U	250	15	50	02/15/18 19:14	
Methylcyclohexane	500	U	500	14	50	02/15/18 19:14	
Styrene	250	U	250	10	50	02/15/18 19:14	
Tetrachloroethene (PCE)	**58**	**J**	250	15	50	02/15/18 19:14	
Toluene	**21**	**J**	250	10	50	02/15/18 19:14	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/08/18 15:15
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-5AR	**Units:**	ug/L
Lab Code:	R1801238-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**28000**	**D**	1000	44	200	02/16/18 12:45	
Trichlorofluoromethane (CFC 11)	250	U	250	10	50	02/15/18 19:14	
Vinyl Chloride	**240**	**J**	250	16	50	02/15/18 19:14	
cis-1,2-Dichloroethene	**21000**	**D**	1000	60	200	02/16/18 12:45	
cis-1,3-Dichloropropene	250	U	250	12	50	02/15/18 19:14	
m,p-Xylenes	250	U	250	17	50	02/15/18 19:14	
o-Xylene	250	U	250	10	50	02/15/18 19:14	
trans-1,2-Dichloroethene	**720**		250	17	50	02/15/18 19:14	
trans-1,3-Dichloropropene	250	U	250	10	50	02/15/18 19:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 19:14	
Dibromofluoromethane	97	89 - 119	02/15/18 19:14	
Toluene-d8	99	87 - 121	02/15/18 19:14	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 10:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-13A	**Units:**	ug/L
Lab Code:	R1801238-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	50	U	50	3.6	10	02/15/18 19:35	
1,1,2,2-Tetrachloroethane	**4.2**	**J**	50	2.5	10	02/15/18 19:35	
1,1,2-Trichloroethane	50	U	50	3.4	10	02/15/18 19:35	
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	50	3.1	10	02/15/18 19:35	
1,1-Dichloroethane (1,1-DCA)	50	U	50	2.0	10	02/15/18 19:35	
1,1-Dichloroethene (1,1-DCE)	**7.8**	**J**	50	5.7	10	02/15/18 19:35	
1,2,3-Trichlorobenzene	50	U	50	8.2	10	02/15/18 19:35	
1,2,4-Trichlorobenzene	50	U	50	2.3	10	02/15/18 19:35	
1,2-Dibromo-3-chloropropane (DBCP)	50	U	50	7.4	10	02/15/18 19:35	
1,2-Dibromoethane	50	U	50	2.4	10	02/15/18 19:35	
1,2-Dichlorobenzene	50	U	50	2.1	10	02/15/18 19:35	
1,2-Dichloroethane	50	U	50	3.6	10	02/15/18 19:35	
1,2-Dichloropropane	50	U	50	2.0	10	02/15/18 19:35	
1,3-Dichlorobenzene	50	U	50	2.0	10	02/15/18 19:35	
1,4-Dichlorobenzene	50	U	50	2.0	10	02/15/18 19:35	
1,4-Dioxane	1000	U	1000	200	10	02/15/18 19:35	
2-Butanone (MEK)	100	U	100	8.1	10	02/15/18 19:35	
2-Hexanone	100	U	100	17	10	02/15/18 19:35	
4-Methyl-2-pentanone	100	U	100	6.7	10	02/15/18 19:35	
Acetone	**51**	**J**	100	13	10	02/15/18 19:35	
Benzene	50	U	50	2.0	10	02/15/18 19:35	
Bromochloromethane	50	U	50	3.2	10	02/15/18 19:35	
Bromodichloromethane	50	U	50	3.2	10	02/15/18 19:35	
Bromoform	50	U	50	4.2	10	02/15/18 19:35	
Bromomethane	50	U	50	2.9	10	02/15/18 19:35	
Carbon Disulfide	**11**	**J**	100	2.2	10	02/15/18 19:35	
Carbon Tetrachloride	50	U	50	4.5	10	02/15/18 19:35	
Chlorobenzene	50	U	50	2.9	10	02/15/18 19:35	
Chloroethane	50	U	50	2.4	10	02/15/18 19:35	
Chloroform	50	U	50	2.5	10	02/15/18 19:35	
Chloromethane	**2.7**	**J**	50	2.1	10	02/15/18 19:35	
Cyclohexane	100	U	100	2.5	10	02/15/18 19:35	
Dibromochloromethane	50	U	50	3.1	10	02/15/18 19:35	
Dichlorodifluoromethane (CFC 12)	50	U	50	4.6	10	02/15/18 19:35	
Dichloromethane	50	U	50	6.0	10	02/15/18 19:35	
Ethylbenzene	50	U	50	2.0	10	02/15/18 19:35	
Isopropylbenzene (Cumene)	50	U	50	2.0	10	02/15/18 19:35	
Methyl Acetate	100	U	100	4.3	10	02/15/18 19:35	
Methyl tert-Butyl Ether	50	U	50	2.9	10	02/15/18 19:35	
Methylcyclohexane	100	U	100	2.7	10	02/15/18 19:35	
Styrene	50	U	50	2.0	10	02/15/18 19:35	
Tetrachloroethene (PCE)	**26**	**J**	50	3.0	10	02/15/18 19:35	
Toluene	**4.4**	**J**	50	2.0	10	02/15/18 19:35	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 10:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-13A	**Units:**	ug/L
Lab Code:	R1801238-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**4300**	**D**	250	11	50	02/16/18 13:07	
Trichlorofluoromethane (CFC 11)	50	U	50	2.0	10	02/15/18 19:35	
Vinyl Chloride	**130**		50	3.2	10	02/15/18 19:35	
cis-1,2-Dichloroethene	**6800**	**D**	250	15	50	02/16/18 13:07	
cis-1,3-Dichloropropene	50	U	50	2.4	10	02/15/18 19:35	
m,p-Xylenes	50	U	50	3.3	10	02/15/18 19:35	
o-Xylene	50	U	50	2.0	10	02/15/18 19:35	
trans-1,2-Dichloroethene	**290**		50	3.3	10	02/15/18 19:35	
trans-1,3-Dichloropropene	50	U	50	2.0	10	02/15/18 19:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 19:35	
Dibromofluoromethane	97	89 - 119	02/15/18 19:35	
Toluene-d8	99	87 - 121	02/15/18 19:35	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 12:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-20A	**Units:**	ug/L
Lab Code:	R1801238-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/16/18 12:23	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/16/18 12:23	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/16/18 12:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/16/18 12:23	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/16/18 12:23	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/16/18 12:23	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/16/18 12:23	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/16/18 12:23	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/16/18 12:23	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/16/18 12:23	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/16/18 12:23	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/16/18 12:23	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/16/18 12:23	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/16/18 12:23	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/16/18 12:23	
1,4-Dioxane	100 U	100	20	1	02/16/18 12:23	
2-Butanone (MEK)	10 U	10	0.81	1	02/16/18 12:23	
2-Hexanone	10 U	10	1.7	1	02/16/18 12:23	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/16/18 12:23	
Acetone	**2.7 J**	10	1.3	1	02/16/18 12:23	
Benzene	5.0 U	5.0	0.20	1	02/16/18 12:23	
Bromochloromethane	5.0 U	5.0	0.32	1	02/16/18 12:23	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/16/18 12:23	
Bromoform	5.0 U	5.0	0.42	1	02/16/18 12:23	
Bromomethane	5.0 U	5.0	0.29	1	02/16/18 12:23	
Carbon Disulfide	10 U	10	0.22	1	02/16/18 12:23	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/16/18 12:23	
Chlorobenzene	5.0 U	5.0	0.29	1	02/16/18 12:23	
Chloroethane	5.0 U	5.0	0.24	1	02/16/18 12:23	
Chloroform	5.0 U	5.0	0.25	1	02/16/18 12:23	
Chloromethane	5.0 U	5.0	0.21	1	02/16/18 12:23	
Cyclohexane	**0.54 J**	10	0.25	1	02/16/18 12:23	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/16/18 12:23	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/16/18 12:23	
Dichloromethane	5.0 U	5.0	0.60	1	02/16/18 12:23	
Ethylbenzene	5.0 U	5.0	0.20	1	02/16/18 12:23	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/16/18 12:23	
Methyl Acetate	10 U	10	0.43	1	02/16/18 12:23	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/16/18 12:23	
Methylcyclohexane	10 U	10	0.27	1	02/16/18 12:23	
Styrene	5.0 U	5.0	0.20	1	02/16/18 12:23	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/16/18 12:23	
Toluene	5.0 U	5.0	0.20	1	02/16/18 12:23	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/09/18 12:30
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-20A	**Units:**	ug/L
Lab Code:	R1801238-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.67**	**J**	5.0	0.22	1	02/16/18 12:23	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/16/18 12:23	
Vinyl Chloride	**21**		5.0	0.32	1	02/16/18 12:23	
cis-1,2-Dichloroethene	**29**		5.0	0.30	1	02/16/18 12:23	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/16/18 12:23	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/16/18 12:23	
o-Xylene	5.0	U	5.0	0.20	1	02/16/18 12:23	
trans-1,2-Dichloroethene	5.0	U	5.0	0.33	1	02/16/18 12:23	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/16/18 12:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/16/18 12:23	
Dibromofluoromethane	97	89 - 119	02/16/18 12:23	
Toluene-d8	98	87 - 121	02/16/18 12:23	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-6	**Units:**	ug/L
Lab Code:	R1801238-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	25 U	25	1.8	5	02/15/18 18:30	
1,1,2,2-Tetrachloroethane	25 U	25	1.3	5	02/15/18 18:30	
1,1,2-Trichloroethane	25 U	25	1.7	5	02/15/18 18:30	
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	25	1.6	5	02/15/18 18:30	
1,1-Dichloroethane (1,1-DCA)	25 U	25	1.0	5	02/15/18 18:30	
1,1-Dichloroethene (1,1-DCE)	**25**	25	2.9	5	02/15/18 18:30	
1,2,3-Trichlorobenzene	25 U	25	4.1	5	02/15/18 18:30	
1,2,4-Trichlorobenzene	25 U	25	1.2	5	02/15/18 18:30	
1,2-Dibromo-3-chloropropane (DBCP)	25 U	25	3.7	5	02/15/18 18:30	
1,2-Dibromoethane	25 U	25	1.2	5	02/15/18 18:30	
1,2-Dichlorobenzene	25 U	25	1.1	5	02/15/18 18:30	
1,2-Dichloroethane	25 U	25	1.8	5	02/15/18 18:30	
1,2-Dichloropropane	25 U	25	1.0	5	02/15/18 18:30	
1,3-Dichlorobenzene	25 U	25	1.0	5	02/15/18 18:30	
1,4-Dichlorobenzene	25 U	25	1.0	5	02/15/18 18:30	
1,4-Dioxane	500 U	500	100	5	02/15/18 18:30	
2-Butanone (MEK)	50 U	50	4.1	5	02/15/18 18:30	
2-Hexanone	50 U	50	8.3	5	02/15/18 18:30	
4-Methyl-2-pentanone	50 U	50	3.4	5	02/15/18 18:30	
Acetone	50 U	50	6.2	5	02/15/18 18:30	
Benzene	**1.1 J**	25	1.0	5	02/15/18 18:30	
Bromochloromethane	25 U	25	1.6	5	02/15/18 18:30	
Bromodichloromethane	25 U	25	1.6	5	02/15/18 18:30	
Bromoform	25 U	25	2.1	5	02/15/18 18:30	
Bromomethane	25 U	25	1.5	5	02/15/18 18:30	
Carbon Disulfide	50 U	50	1.1	5	02/15/18 18:30	
Carbon Tetrachloride	25 U	25	2.3	5	02/15/18 18:30	
Chlorobenzene	25 U	25	1.5	5	02/15/18 18:30	
Chloroethane	25 U	25	1.2	5	02/15/18 18:30	
Chloroform	25 U	25	1.3	5	02/15/18 18:30	
Chloromethane	25 U	25	1.1	5	02/15/18 18:30	
Cyclohexane	50 U	50	1.3	5	02/15/18 18:30	
Dibromochloromethane	25 U	25	1.6	5	02/15/18 18:30	
Dichlorodifluoromethane (CFC 12)	25 U	25	2.3	5	02/15/18 18:30	
Dichloromethane	25 U	25	3.0	5	02/15/18 18:30	
Ethylbenzene	25 U	25	1.0	5	02/15/18 18:30	
Isopropylbenzene (Cumene)	25 U	25	1.0	5	02/15/18 18:30	
Methyl Acetate	50 U	50	2.2	5	02/15/18 18:30	
Methyl tert-Butyl Ether	25 U	25	1.5	5	02/15/18 18:30	
Methylcyclohexane	50 U	50	1.4	5	02/15/18 18:30	
Styrene	25 U	25	1.0	5	02/15/18 18:30	
Tetrachloroethene (PCE)	**11 J**	25	1.5	5	02/15/18 18:30	
Toluene	25 U	25	1.0	5	02/15/18 18:30	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:00
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-6	**Units:**	ug/L
Lab Code:	R1801238-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**490**		25	1.1	5	02/15/18 18:30	
Trichlorofluoromethane (CFC 11)	25	U	25	1.0	5	02/15/18 18:30	
Vinyl Chloride	**110**		25	1.6	5	02/15/18 18:30	
cis-1,2-Dichloroethene	**3100**	**D**	130	7.5	25	02/16/18 13:29	
cis-1,3-Dichloropropene	25	U	25	1.2	5	02/15/18 18:30	
m,p-Xylenes	25	U	25	1.7	5	02/15/18 18:30	
o-Xylene	25	U	25	1.0	5	02/15/18 18:30	
trans-1,2-Dichloroethene	**17**	**J**	25	1.7	5	02/15/18 18:30	
trans-1,3-Dichloropropene	25	U	25	1.0	5	02/15/18 18:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	02/15/18 18:30	
Dibromofluoromethane	95	89 - 119	02/15/18 18:30	
Toluene-d8	96	87 - 121	02/15/18 18:30	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:50
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7A	**Units:**	ug/L
Lab Code:	R1801238-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 18:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 18:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 18:08	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 18:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 18:08	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 18:08	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 18:08	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 18:08	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 18:08	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 18:08	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 18:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
1,4-Dioxane	100 U	100	20	1	02/15/18 18:08	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 18:08	
2-Hexanone	10 U	10	1.7	1	02/15/18 18:08	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 18:08	
Acetone	**3.0 J**	10	1.3	1	02/15/18 18:08	
Benzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 18:08	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 18:08	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 18:08	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 18:08	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 18:08	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 18:08	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 18:08	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 18:08	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 18:08	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 18:08	
Cyclohexane	10 U	10	0.25	1	02/15/18 18:08	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 18:08	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 18:08	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 18:08	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 18:08	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 18:08	
Methyl Acetate	10 U	10	0.43	1	02/15/18 18:08	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 18:08	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 18:08	
Styrene	5.0 U	5.0	0.20	1	02/15/18 18:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 18:08	
Toluene	5.0 U	5.0	0.20	1	02/15/18 18:08	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 10:50
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7A	**Units:**	ug/L
Lab Code:	R1801238-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 18:08	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 18:08	
Vinyl Chloride	**6.3**	5.0	0.32	1	02/15/18 18:08	
cis-1,2-Dichloroethene	**31**	5.0	0.30	1	02/15/18 18:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 18:08	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 18:08	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 18:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 18:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 18:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	02/15/18 18:08	
Dibromofluoromethane	96	89 - 119	02/15/18 18:08	
Toluene-d8	99	87 - 121	02/15/18 18:08	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 11:40
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7	**Units:**	ug/L
Lab Code:	R1801238-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 17:25	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 17:25	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 17:25	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 17:25	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 17:25	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 17:25	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 17:25	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 17:25	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 17:25	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 17:25	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 17:25	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
1,4-Dioxane	100 U	100	20	1	02/15/18 17:25	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 17:25	
2-Hexanone	10 U	10	1.7	1	02/15/18 17:25	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 17:25	
Acetone	10 U	10	1.3	1	02/15/18 17:25	
Benzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 17:25	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 17:25	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 17:25	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 17:25	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 17:25	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 17:25	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 17:25	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 17:25	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 17:25	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 17:25	
Cyclohexane	10 U	10	0.25	1	02/15/18 17:25	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 17:25	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 17:25	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 17:25	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 17:25	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 17:25	
Methyl Acetate	10 U	10	0.43	1	02/15/18 17:25	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 17:25	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 17:25	
Styrene	5.0 U	5.0	0.20	1	02/15/18 17:25	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 17:25	
Toluene	5.0 U	5.0	0.20	1	02/15/18 17:25	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 11:40
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-7	**Units:**	ug/L
Lab Code:	R1801238-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 17:25	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 17:25	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 17:25	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 17:25	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 17:25	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 17:25	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 17:25	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 17:25	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 17:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	02/15/18 17:25	
Dibromofluoromethane	96	89 - 119	02/15/18 17:25	
Toluene-d8	98	87 - 121	02/15/18 17:25	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 12:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-19R	**Units:**	ug/L
Lab Code:	R1801238-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/15/18 17:47	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/15/18 17:47	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/15/18 17:47	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/15/18 17:47	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/15/18 17:47	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/15/18 17:47	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/15/18 17:47	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/15/18 17:47	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/15/18 17:47	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/15/18 17:47	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/15/18 17:47	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/15/18 17:47	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/15/18 17:47	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 17:47	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/15/18 17:47	
1,4-Dioxane	100	U	100	20	1	02/15/18 17:47	
2-Butanone (MEK)	10	U	10	0.81	1	02/15/18 17:47	
2-Hexanone	10	U	10	1.7	1	02/15/18 17:47	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/15/18 17:47	
Acetone	**1.3**	**J**	10	1.3	1	02/15/18 17:47	
Benzene	5.0	U	5.0	0.20	1	02/15/18 17:47	
Bromochloromethane	5.0	U	5.0	0.32	1	02/15/18 17:47	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/15/18 17:47	
Bromoform	5.0	U	5.0	0.42	1	02/15/18 17:47	
Bromomethane	5.0	U	5.0	0.29	1	02/15/18 17:47	
Carbon Disulfide	10	U	10	0.22	1	02/15/18 17:47	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/15/18 17:47	
Chlorobenzene	5.0	U	5.0	0.29	1	02/15/18 17:47	
Chloroethane	5.0	U	5.0	0.24	1	02/15/18 17:47	
Chloroform	5.0	U	5.0	0.25	1	02/15/18 17:47	
Chloromethane	5.0	U	5.0	0.21	1	02/15/18 17:47	
Cyclohexane	**0.52**	**J**	10	0.25	1	02/15/18 17:47	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/15/18 17:47	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/15/18 17:47	
Dichloromethane	5.0	U	5.0	0.60	1	02/15/18 17:47	
Ethylbenzene	5.0	U	5.0	0.20	1	02/15/18 17:47	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/15/18 17:47	
Methyl Acetate	10	U	10	0.43	1	02/15/18 17:47	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/15/18 17:47	
Methylcyclohexane	**0.47**	**J**	10	0.27	1	02/15/18 17:47	
Styrene	5.0	U	5.0	0.20	1	02/15/18 17:47	
Tetrachloroethene (PCE)	5.0	U	5.0	0.30	1	02/15/18 17:47	
Toluene	5.0	U	5.0	0.20	1	02/15/18 17:47	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/12/18 12:45
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	MW-19R	**Units:**	ug/L
Lab Code:	R1801238-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**66**		5.0	0.22	1	02/15/18 17:47	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/15/18 17:47	
Vinyl Chloride	**0.76**	**J**	5.0	0.32	1	02/15/18 17:47	
cis-1,2-Dichloroethene	**88**		5.0	0.30	1	02/15/18 17:47	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/15/18 17:47	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/15/18 17:47	
o-Xylene	5.0	U	5.0	0.20	1	02/15/18 17:47	
trans-1,2-Dichloroethene	**3.7**	**J**	5.0	0.33	1	02/15/18 17:47	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/15/18 17:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	02/15/18 17:47	
Dibromofluoromethane	97	89 - 119	02/15/18 17:47	
Toluene-d8	101	87 - 121	02/15/18 17:47	

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	TRIP BLANK	**Units:**	ug/L
Lab Code:	R1801238-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/15/18 12:04	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/15/18 12:04	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/15/18 12:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/15/18 12:04	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/15/18 12:04	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/15/18 12:04	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/15/18 12:04	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/15/18 12:04	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/15/18 12:04	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/15/18 12:04	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/15/18 12:04	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
1,4-Dioxane	100 U	100	20	1	02/15/18 12:04	
2-Butanone (MEK)	10 U	10	0.81	1	02/15/18 12:04	
2-Hexanone	10 U	10	1.7	1	02/15/18 12:04	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/15/18 12:04	
Acetone	10 U	10	1.3	1	02/15/18 12:04	
Benzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
Bromochloromethane	5.0 U	5.0	0.32	1	02/15/18 12:04	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/15/18 12:04	
Bromoform	5.0 U	5.0	0.42	1	02/15/18 12:04	
Bromomethane	5.0 U	5.0	0.29	1	02/15/18 12:04	
Carbon Disulfide	10 U	10	0.22	1	02/15/18 12:04	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/15/18 12:04	
Chlorobenzene	5.0 U	5.0	0.29	1	02/15/18 12:04	
Chloroethane	5.0 U	5.0	0.24	1	02/15/18 12:04	
Chloroform	5.0 U	5.0	0.25	1	02/15/18 12:04	
Chloromethane	5.0 U	5.0	0.21	1	02/15/18 12:04	
Cyclohexane	10 U	10	0.25	1	02/15/18 12:04	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/15/18 12:04	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/15/18 12:04	
Dichloromethane	5.0 U	5.0	0.60	1	02/15/18 12:04	
Ethylbenzene	5.0 U	5.0	0.20	1	02/15/18 12:04	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/15/18 12:04	
Methyl Acetate	10 U	10	0.43	1	02/15/18 12:04	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/15/18 12:04	
Methylcyclohexane	10 U	10	0.27	1	02/15/18 12:04	
Styrene	5.0 U	5.0	0.20	1	02/15/18 12:04	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/15/18 12:04	
Toluene	5.0 U	5.0	0.20	1	02/15/18 12:04	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801238
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/06/18
Sample Matrix:	Water	**Date Received:**	02/13/18 13:10
Sample Name:	TRIP BLANK	**Units:**	ug/L
Lab Code:	R1801238-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

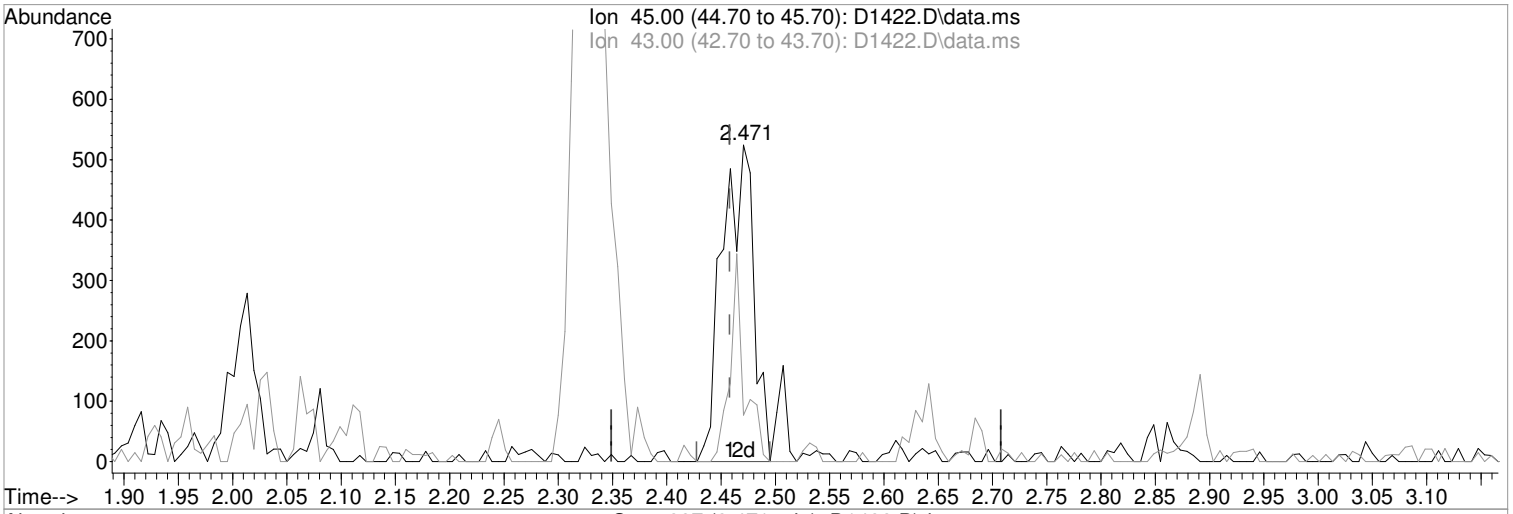
Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/15/18 12:04	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/15/18 12:04	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/15/18 12:04	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/15/18 12:04	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/15/18 12:04	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/15/18 12:04	
o-Xylene	5.0 U	5.0	0.20	1	02/15/18 12:04	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/15/18 12:04	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/15/18 12:04	

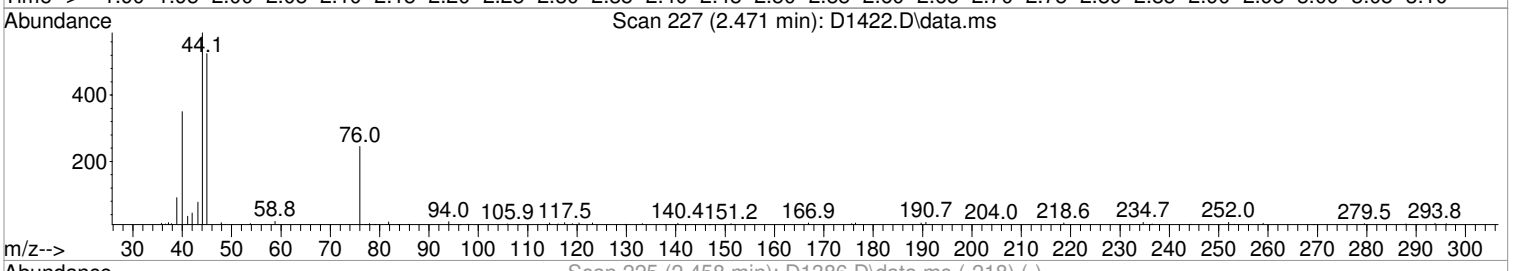
Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	02/15/18 12:04	
Dibromofluoromethane	95	89 - 119	02/15/18 12:04	
Toluene-d8	96	87 - 121	02/15/18 12:04	

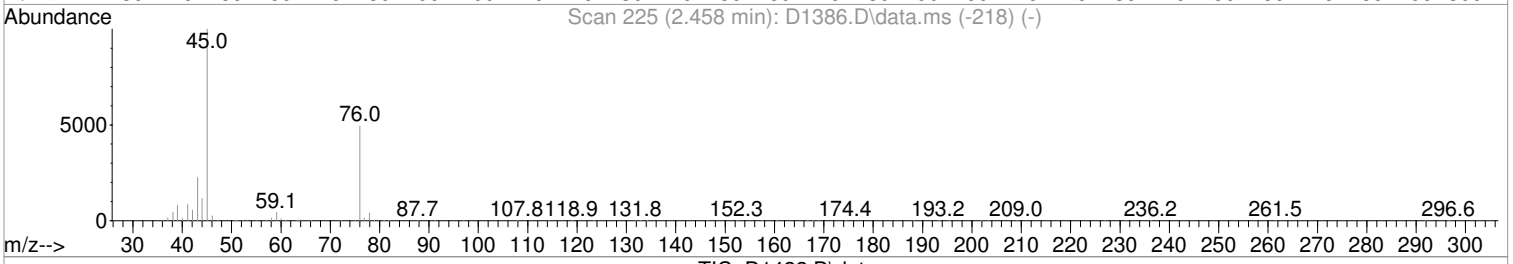
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1422.D
Acq On : 15 Feb 2018 1:42 pm
Operator : D.LIPANI
Sample : R1801238-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 13:56:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1422.D\data.ms

(16) 2-Propanol

2.471min (+0.013) 6.37 ug/L m

response 1055

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	14.69
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

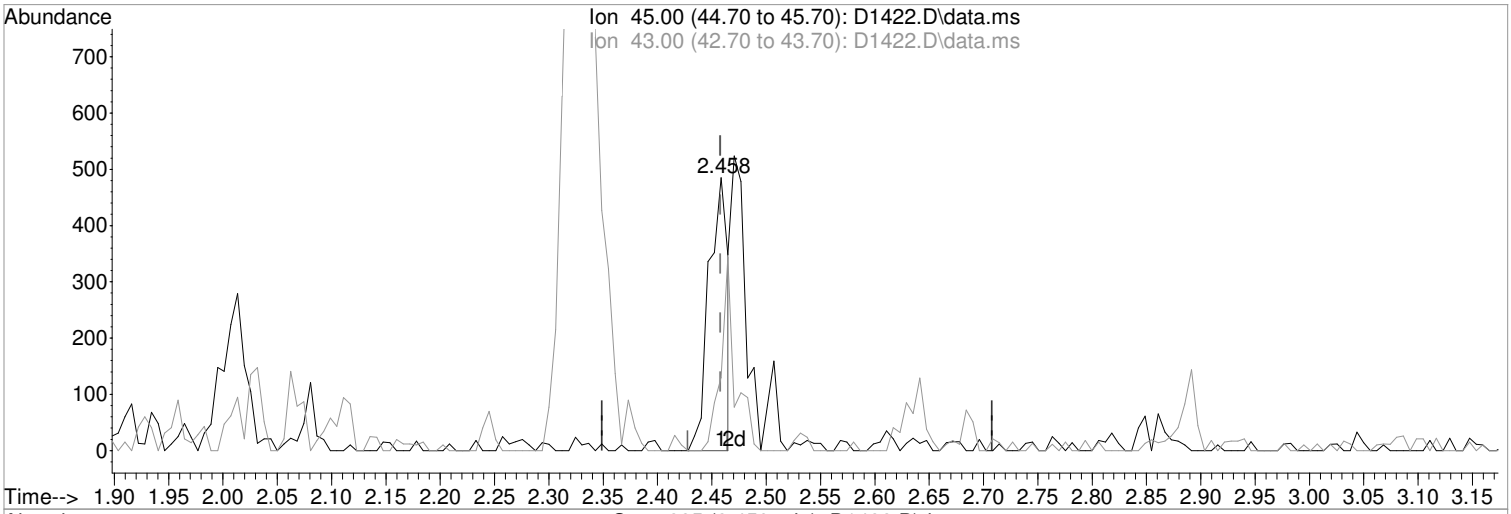
02/16/18

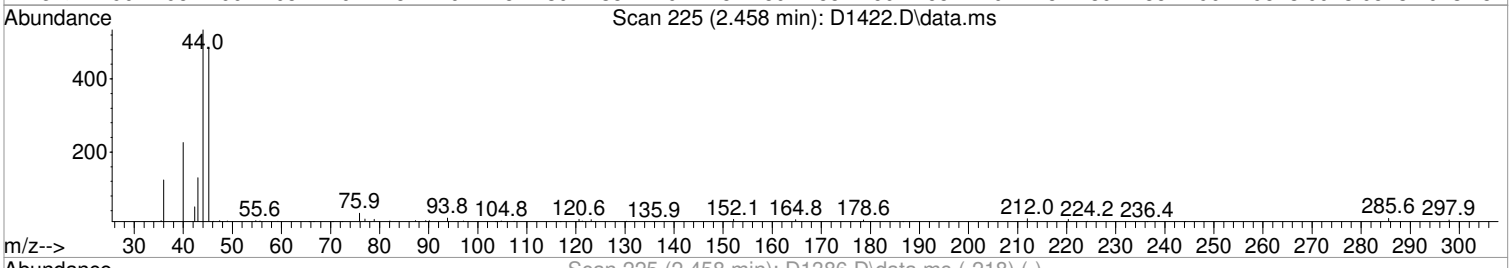
1st DL 02/16/18
2nd FJ 02/17/18

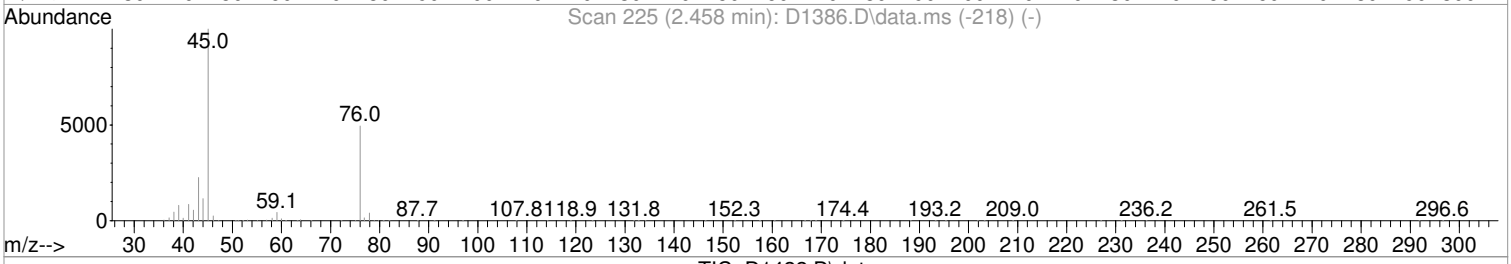
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1422.D
Acq On : 15 Feb 2018 1:42 pm
Operator : D.LIPANI
Sample : R1801238-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 13:56:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1422.D\data.ms

(16) 2-Propanol

2.458min (+0.000) 3.55 ug/L

response 587

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	26.80
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

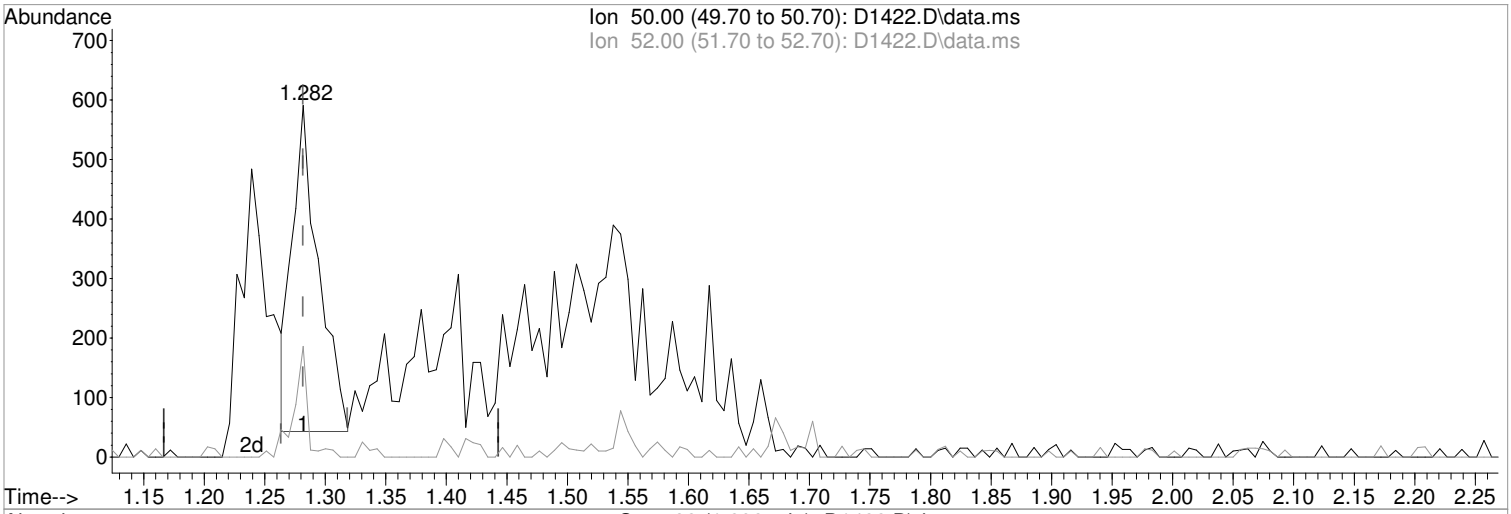
02/16/18

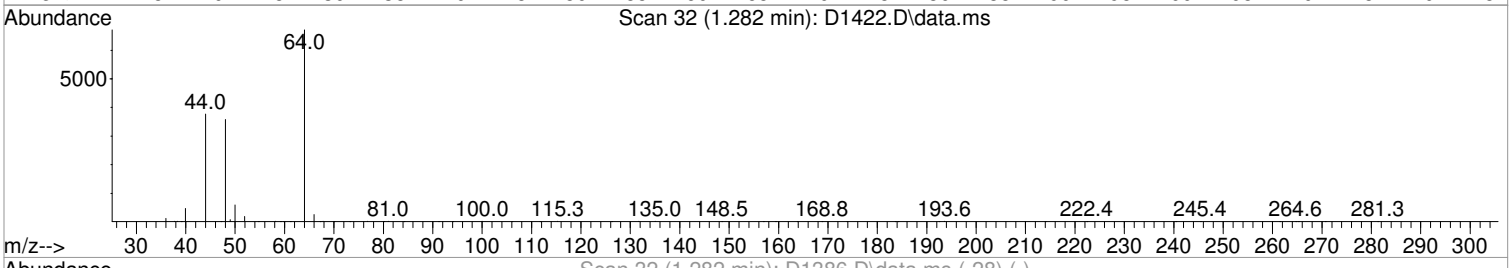
1st DL 02/16/18
2nd FJ 02/17/18

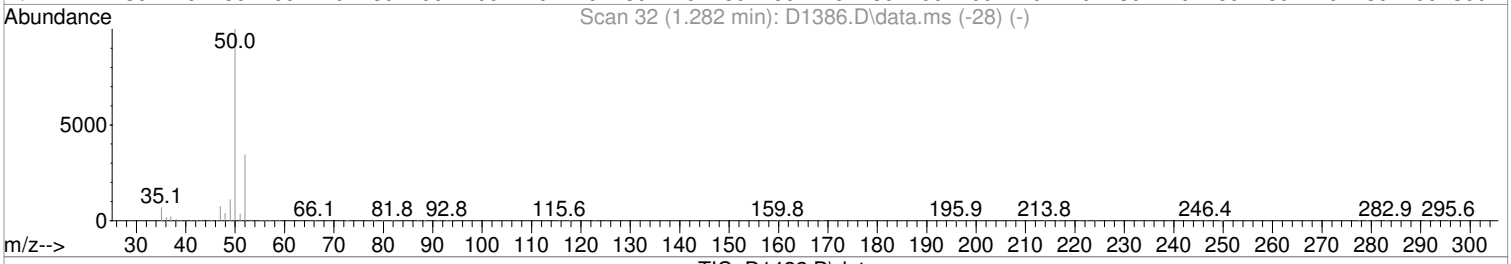
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1422.D
Acq On : 15 Feb 2018 1:42 pm
Operator : D.LIPANI
Sample : R1801238-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 13:56:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1422.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.26 ug/L m

response 823

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	31.47
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

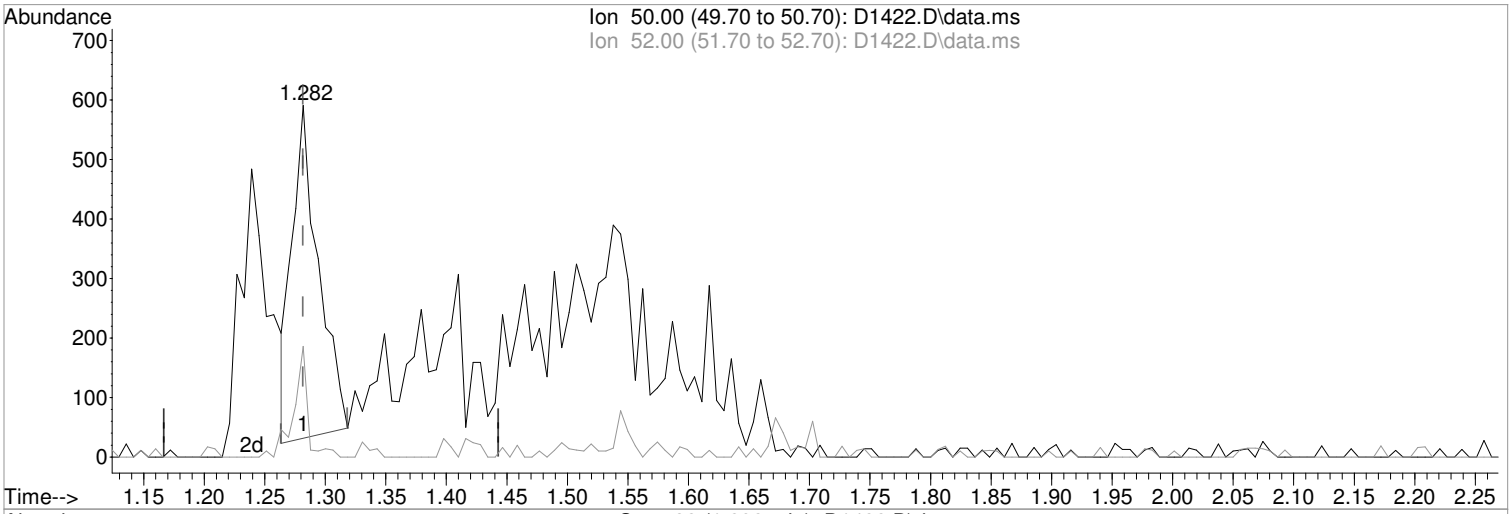
02/16/18

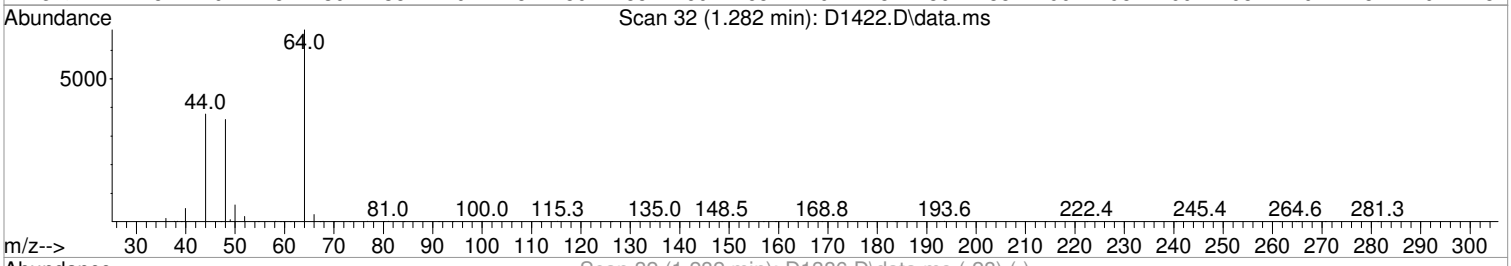
1st DL 02/16/18
2nd FJ 02/17/18

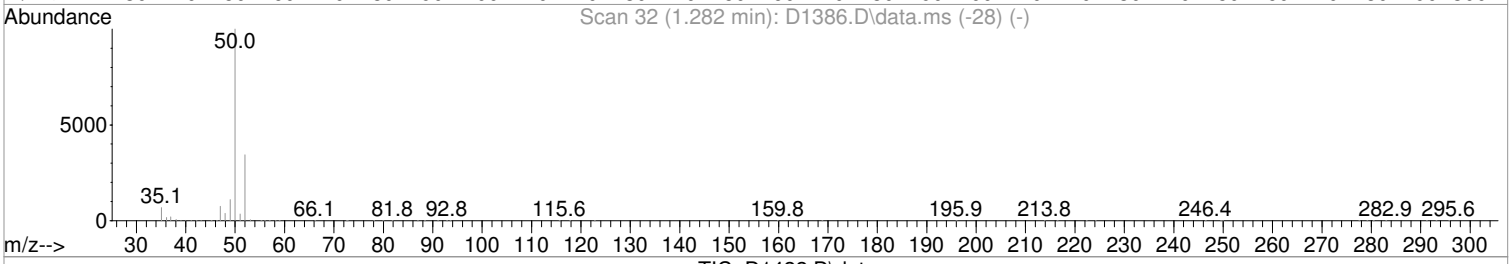
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1422.D
Acq On : 15 Feb 2018 1:42 pm
Operator : D.LIPANI
Sample : R1801238-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 13:56:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1422.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.27 ug/L

response 846

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	31.47
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1422.D
Acq On : 15 Feb 2018 1:42 pm
Operator : D.LIPANI
Sample : R1801238-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 16 09:01:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

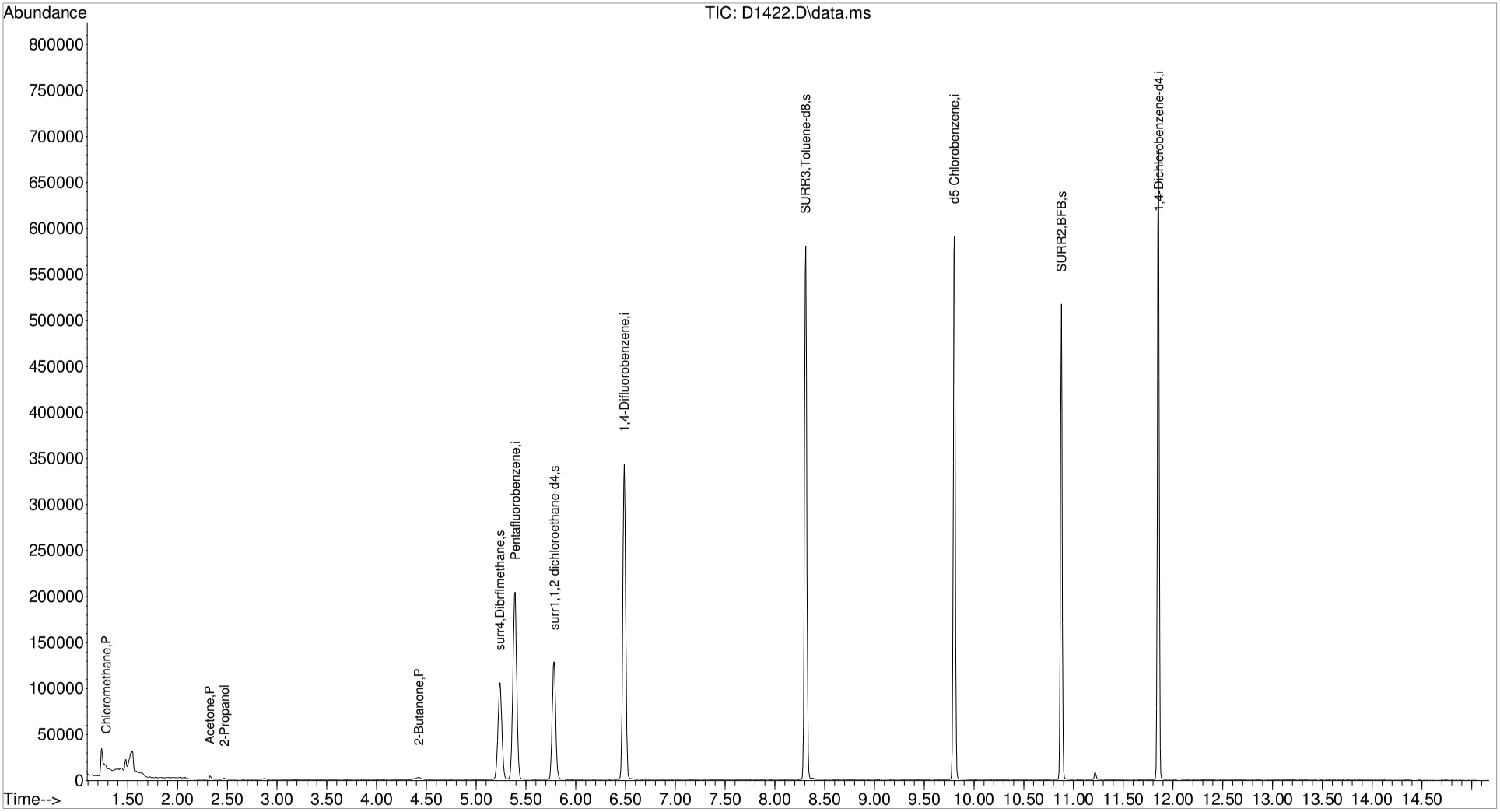
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	197443	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	298462	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	261486	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132639	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	87190	47.75	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.50%			
46) surr1,1,2-dichloroetha...	5.781	65	107537	50.93	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 101.86%			
64) SURR3,Toluene-d8	8.311	98	353631	49.14	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.28%			
69) SURR2,BFB	10.878	95	125983	45.20	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.40%			
Target Compounds						Qvalue
3) Chloromethane	1.282	50	823m	0.26	ug/L	
15) Acetone	2.324	43	3273	3.18	ug/L	86
16) 2-Propanol	2.471	45	1055m	6.37	ug/L	
34) 2-Butanone	4.421	43	3634	2.59	ug/L	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

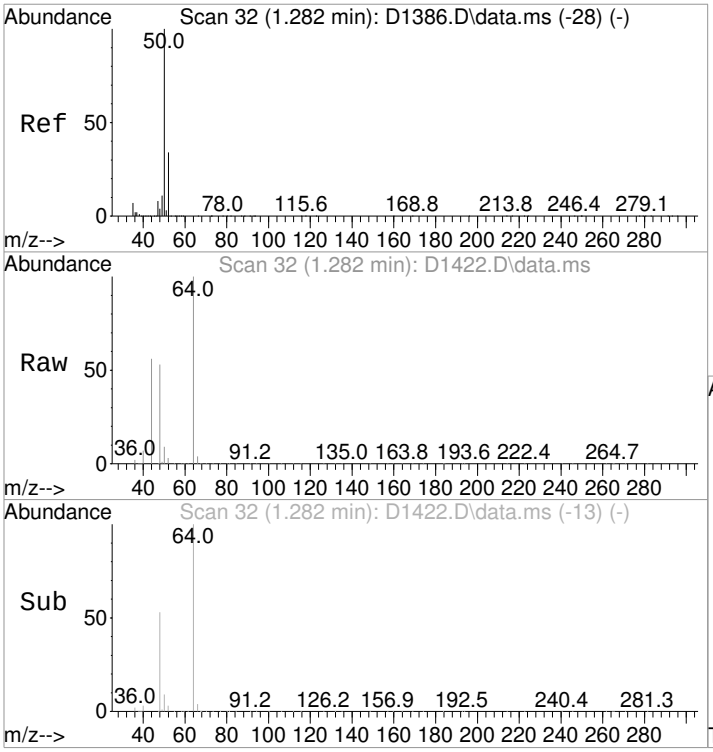
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1422.D
Acq On : 15 Feb 2018 1:42 pm
Operator : D.LIPANI
Sample : R1801238-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 16 09:01:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



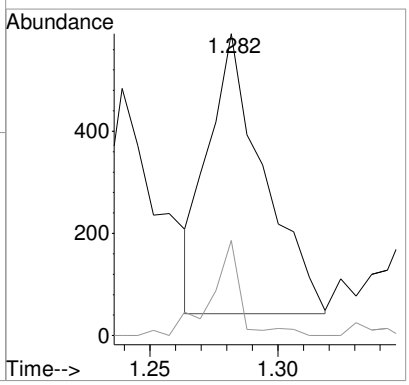
1st DL 02/16/18
2nd FJ 02/17/18

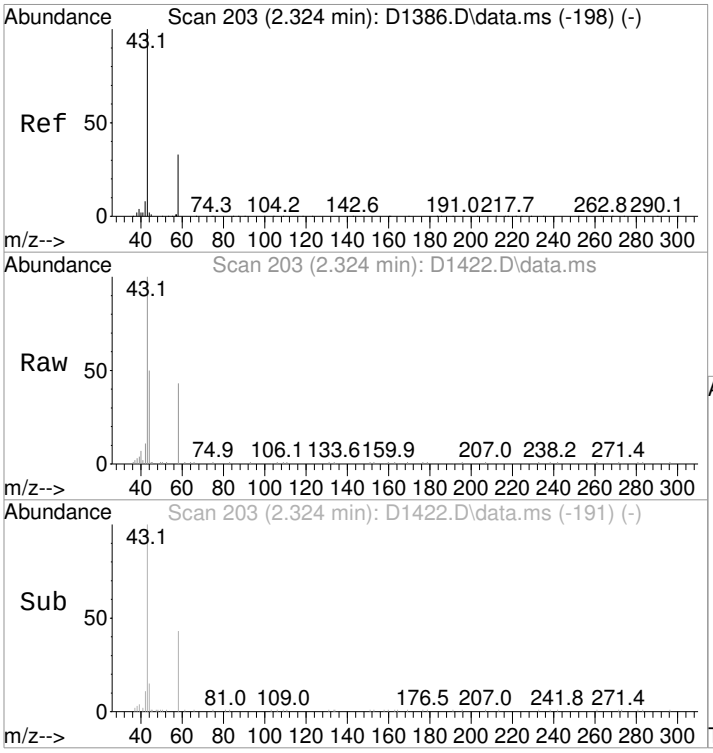


#3
Chloromethane
Concen: 0.26 ug/L m
RT: 1.282 min Scan# 32
Delta R.T. -0.000 min
Lab File: D1422.D
Acq: 15 Feb 2018 1:42 pm

Tgt Ion: 50 Resp: 823

Ion	Ratio	Lower	Upper
50	100		
52	31.5	11.6	51.6

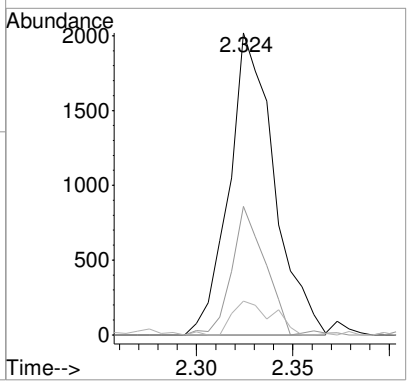


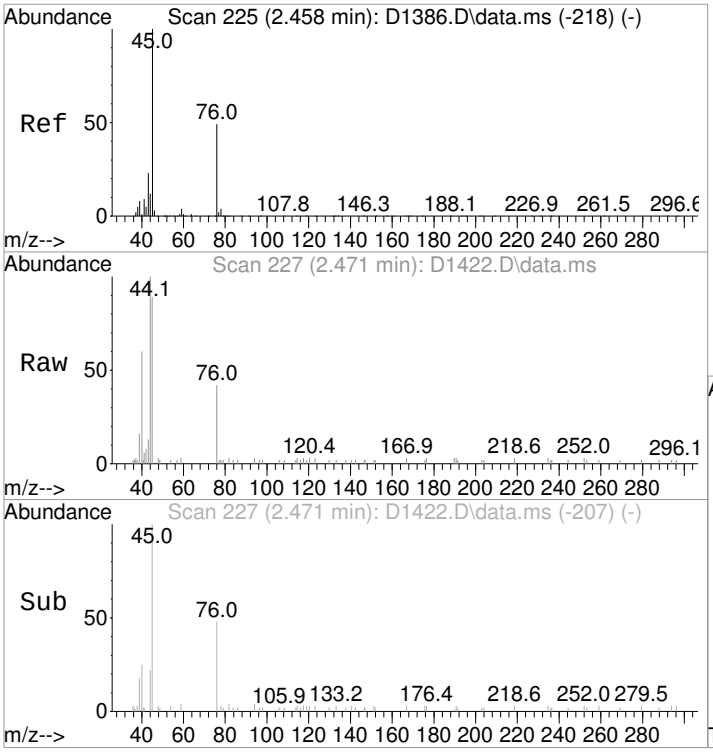


#15
Acetone
Concen: 3.18 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1422.D
Acq: 15 Feb 2018 1:42 pm

Tgt Ion: 43 Resp: 3273

Ion	Ratio	Lower	Upper
43	100		
58	42.5	12.8	52.8
42	11.2	0.0	30.0

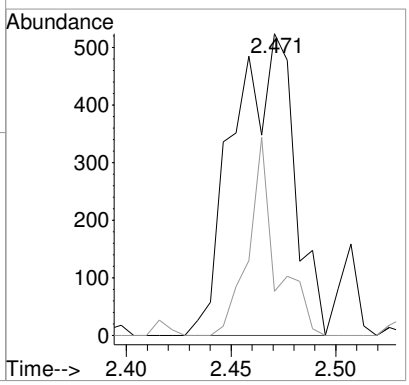


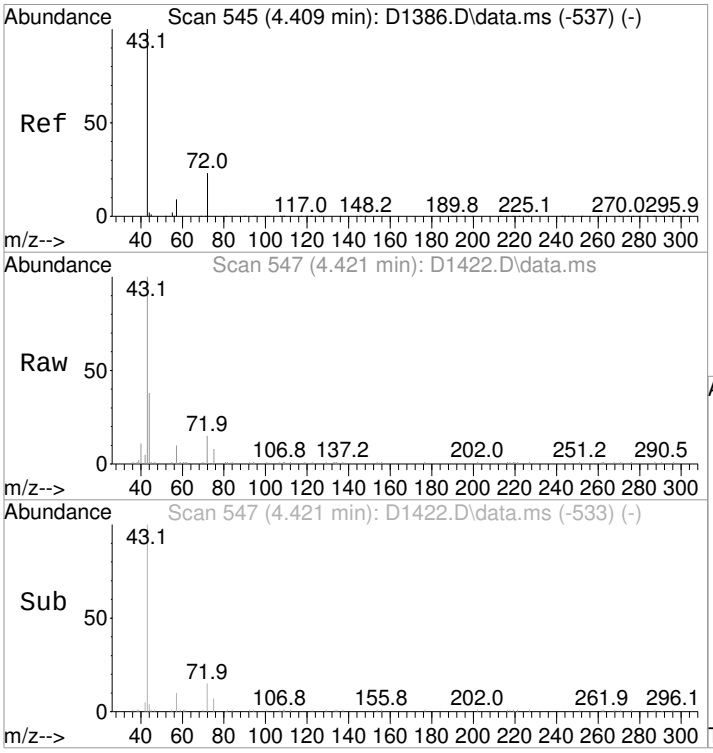


#16
2-Propanol
Concen: 6.37 ug/L m
RT: 2.471 min Scan# 227
Delta R.T. 0.013 min
Lab File: D1422.D
Acq: 15 Feb 2018 1:42 pm

Tgt Ion: 45 Resp: 1055

Ion	Ratio	Lower	Upper
45	100		
43	14.7	4.3	44.3

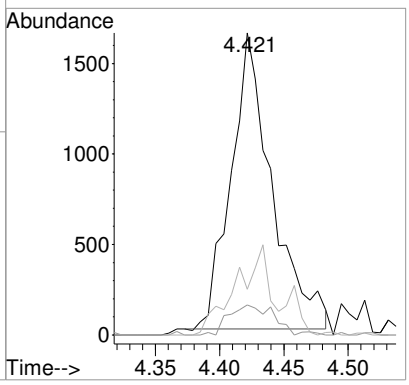




#34
2-Butanone
Concen: 2.59 ug/L
RT: 4.421 min Scan# 547
Delta R.T. 0.006 min
Lab File: D1422.D
Acq: 15 Feb 2018 1:42 pm

Tgt Ion: 43 Resp: 3634

Ion	Ratio	Lower	Upper
43	100		
57	9.9	0.0	27.1
72	15.2	4.9	44.9



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1421.D
Acq On : 15 Feb 2018 1:20 pm
Operator : D.LIPANI
Sample : R1801238-002|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 08:56:34 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

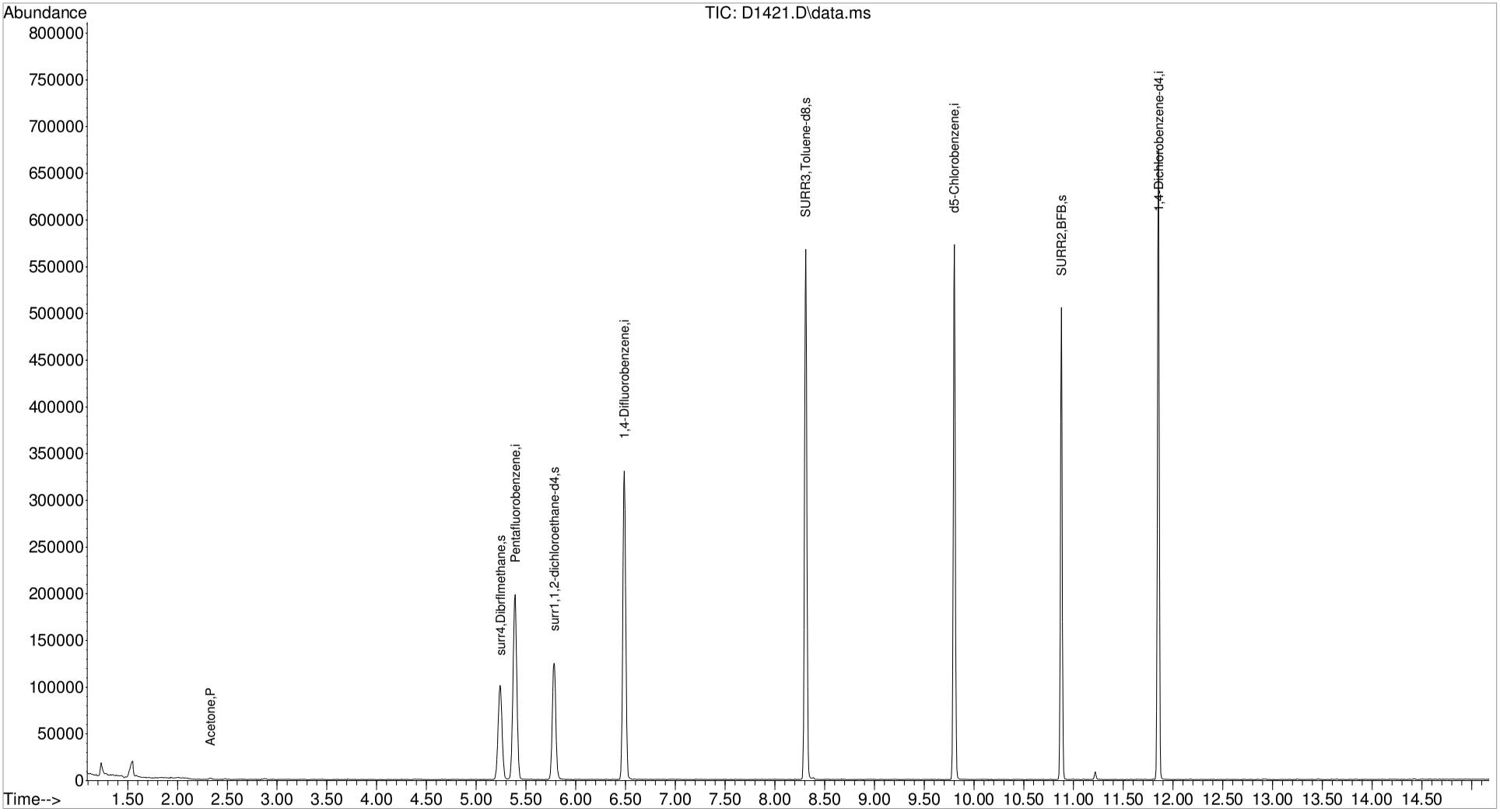
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	190212	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	291110	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	252537	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132123	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	85106	47.78	ug/L	0.01
Spiked Amount 50.000	Range 89 - 119		Recovery = 95.56%			
46) surr1,1,2-dichloroetha...	5.781	65	106129	51.54	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.08%			
64) SURR3,Toluene-d8	8.311	98	342712	48.83	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.66%			
69) SURR2,BFB	10.878	95	121705	44.77	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.54%			
Target Compounds						Qvalue
15) Acetone	2.330	43	1661	1.67	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

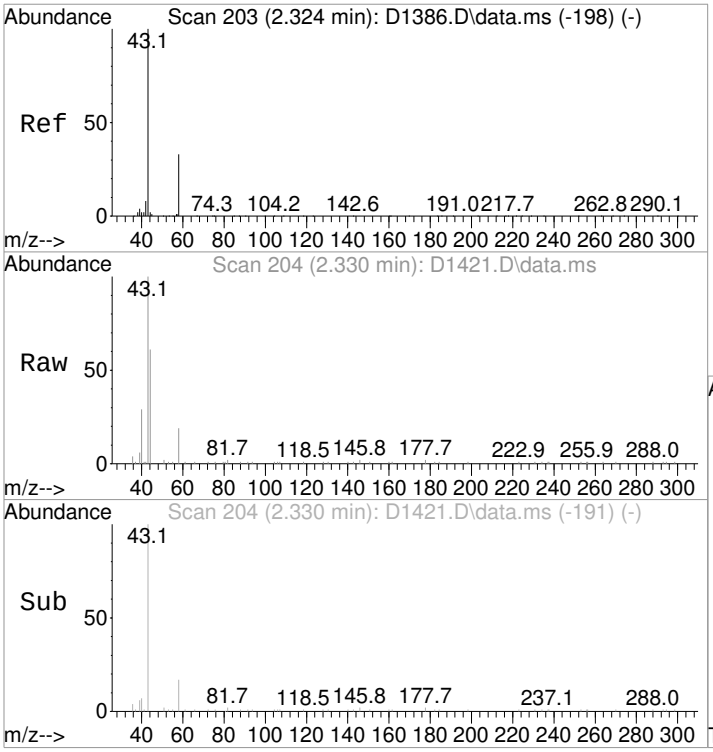
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1421.D
Acq On : 15 Feb 2018 1:20 pm
Operator : D.LIPANI
Sample : R1801238-002|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 08:56:34 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



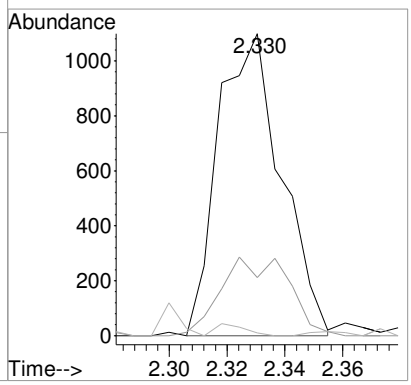
1st DL 02/16/18
2nd FJ 02/17/18



#15
Acetone
Concen: 1.67 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1421.D
Acq: 15 Feb 2018 1:20 pm

Tgt Ion: 43 Resp: 1661

Ion	Ratio	Lower	Upper
43	100		
58	19.3	12.8	52.8
42	0.9	0.0	30.0



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1425.D
Acq On : 15 Feb 2018 2:47 pm
Operator : D.LIPANI
Sample : R1801238-003|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 16 14:39:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

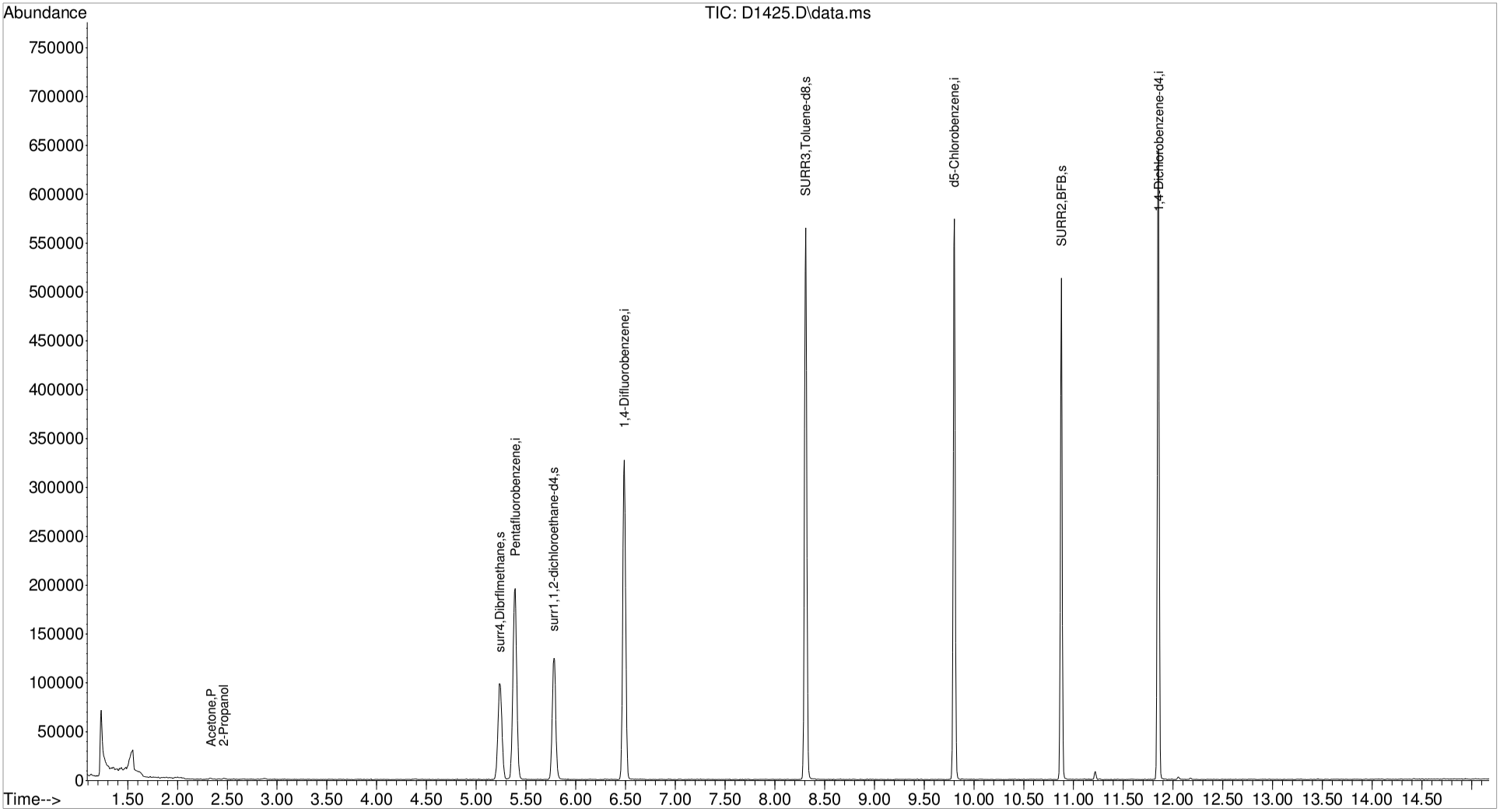
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	189440	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	290157	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	253842	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	129530	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	85423	48.12	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.24%			
46) surr1,1,2-dichloroetha...	5.775	65	105487	51.39	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.78%			
64) SURR3,Toluene-d8	8.311	98	343268	49.07	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.14%			
69) SURR2,BFB	10.878	95	121853	44.97	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.94%			
Target Compounds						Qvalue
15) Acetone	2.337	43	1158	1.17	ug/L	78
16) 2-Propanol	2.465	45	778	4.90	ug/L	64

(#) = qualifier out of range (m) = manual integration (+) = signals summed

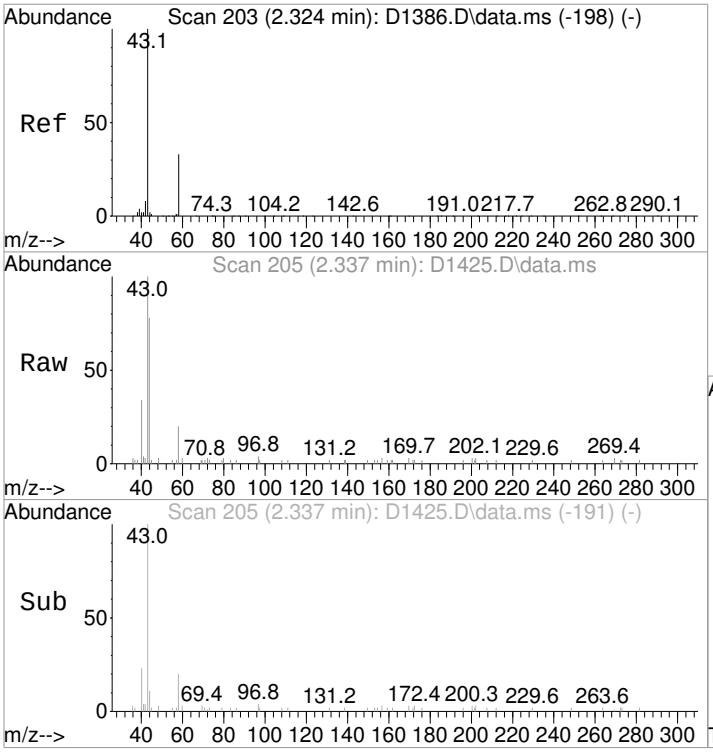
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1425.D
Acq On : 15 Feb 2018 2:47 pm
Operator : D.LIPANI
Sample : R1801238-003|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 16 14:39:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



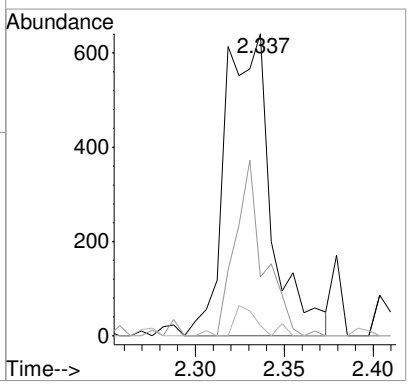
1st DL 02/16/18
2nd FJ 02/17/18

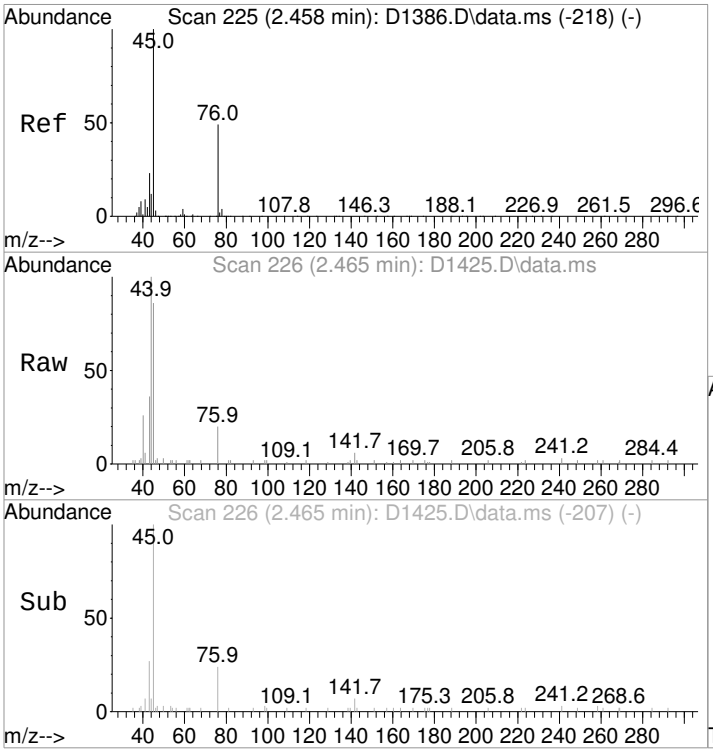


#15
Acetone
Concen: 1.17 ug/L
RT: 2.337 min Scan# 205
Delta R.T. 0.012 min
Lab File: D1425.D
Acq: 15 Feb 2018 2:47 pm

Tgt Ion: 43 Resp: 1158

Ion	Ratio	Lower	Upper
43	100		
58	19.5	12.8	52.8
42	3.4	0.0	30.0

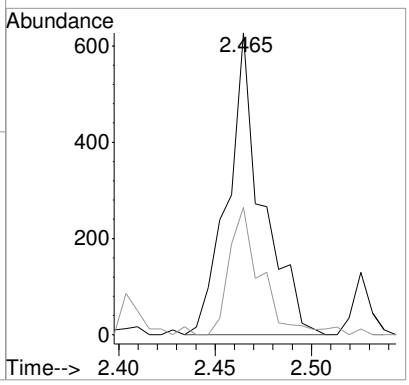




#16
2-Propanol
Concen: 4.90 ug/L
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1425.D
Acq: 15 Feb 2018 2:47 pm

Tgt Ion: 45 Resp: 778

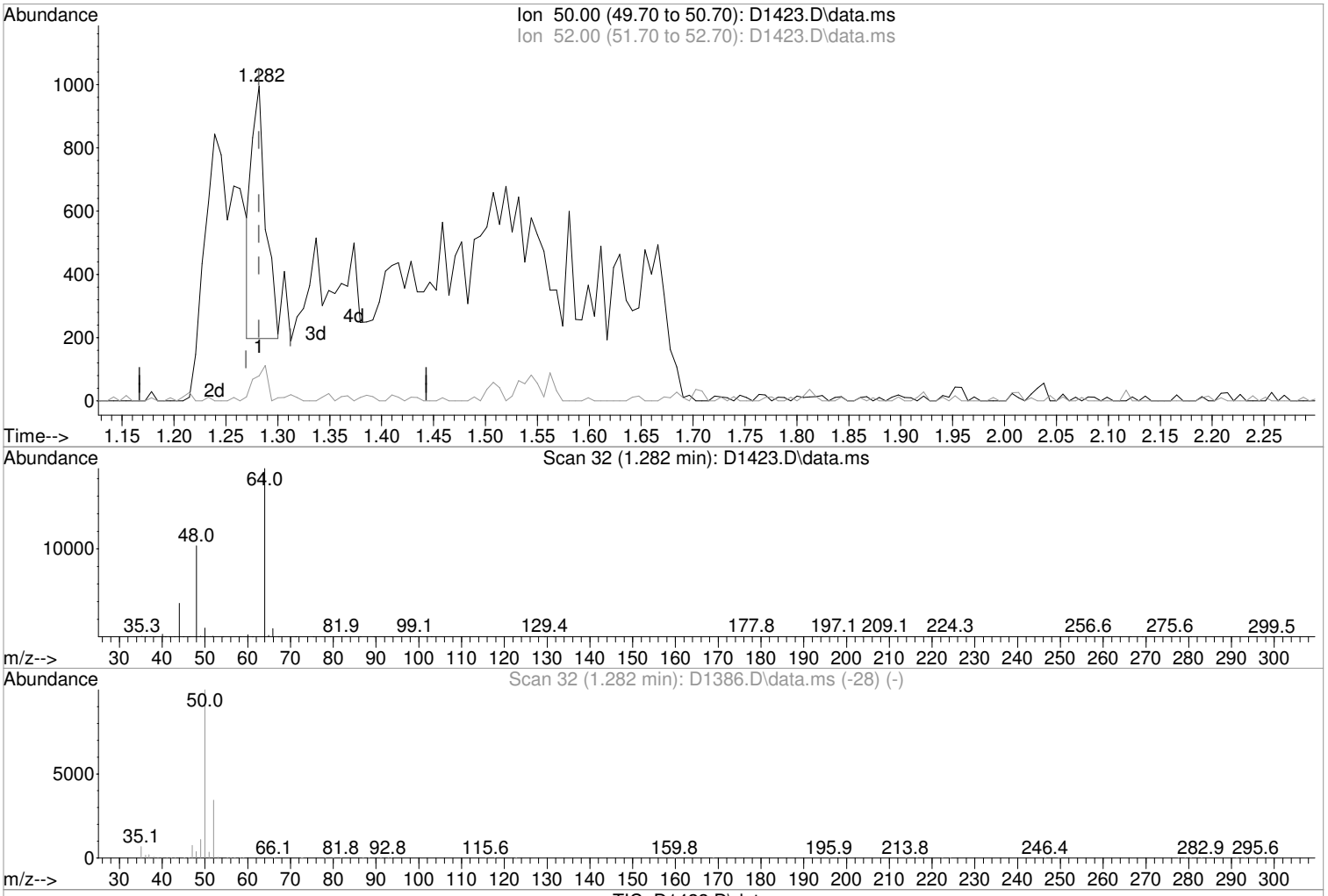
Ion	Ratio	Lower	Upper
45	100		
43	42.3	4.3	44.3



Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1423.D
Acq On : 15 Feb 2018 2:04 pm
Operator : D.LIPANI
Sample : R1801238-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 15 14:17:53 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1423.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.25 ug/L m

response 749

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	7.94#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

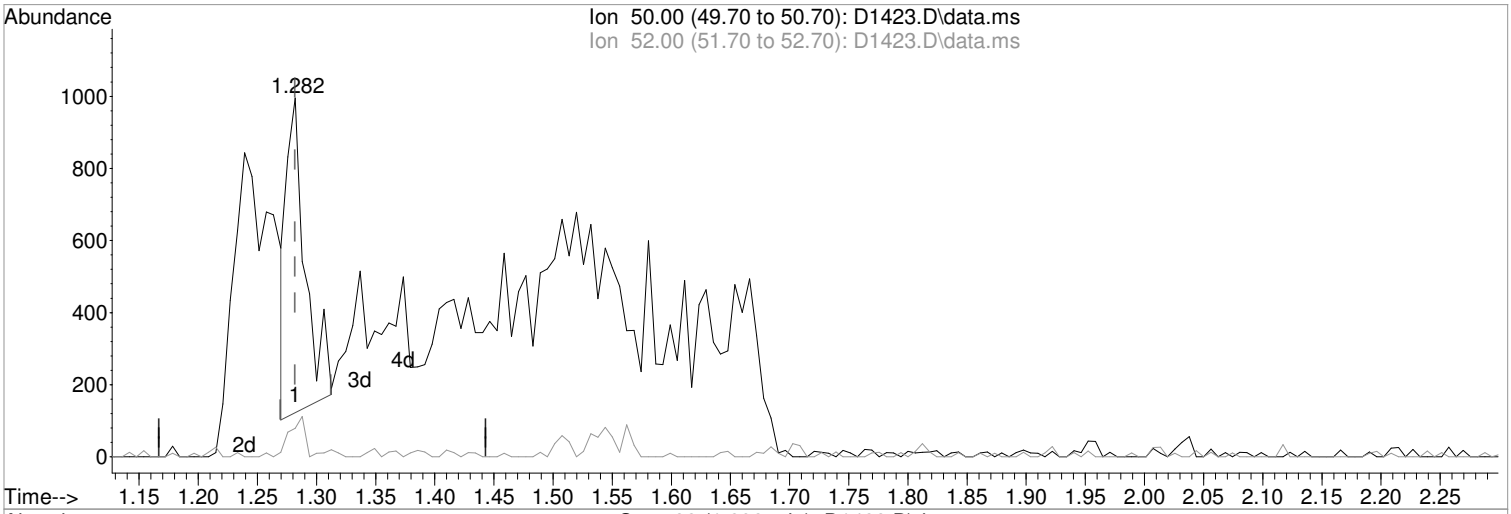
Poor integration.

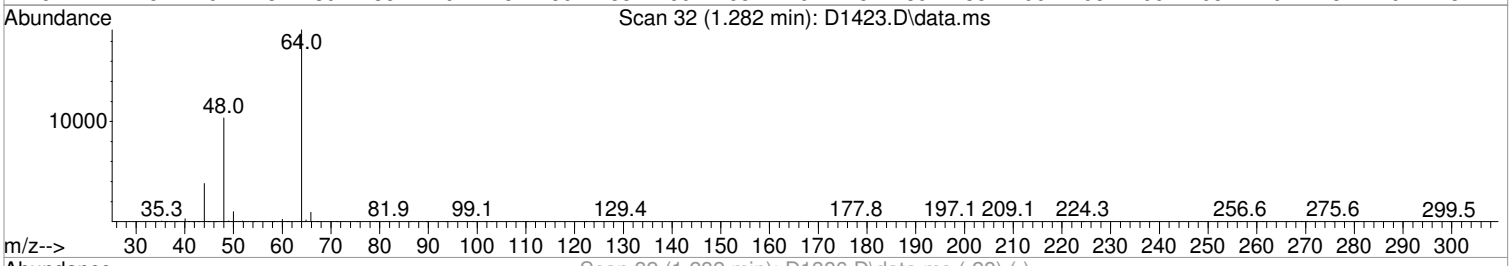
02/16/18

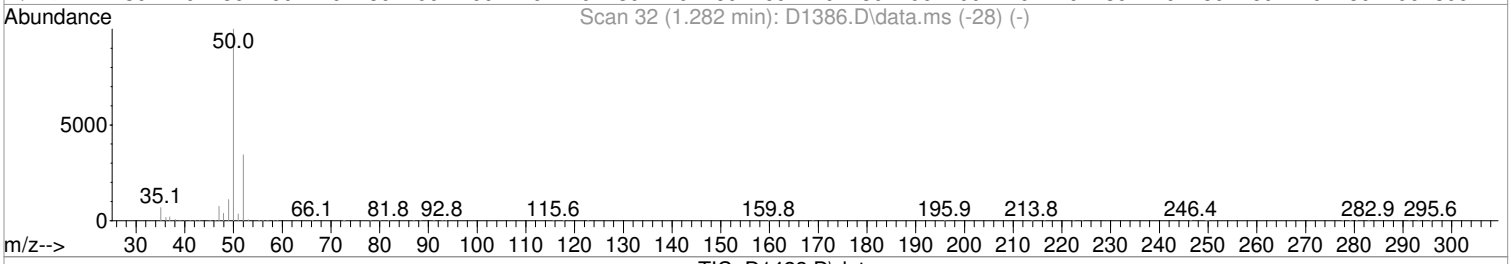
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1423.D
Acq On : 15 Feb 2018 2:04 pm
Operator : D.LIPANI
Sample : R1801238-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 15 14:17:53 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1423.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.32 ug/L

response 976

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	7.94#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1423.D
Acq On : 15 Feb 2018 2:04 pm
Operator : D.LIPANI
Sample : R1801238-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 09:05:45 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

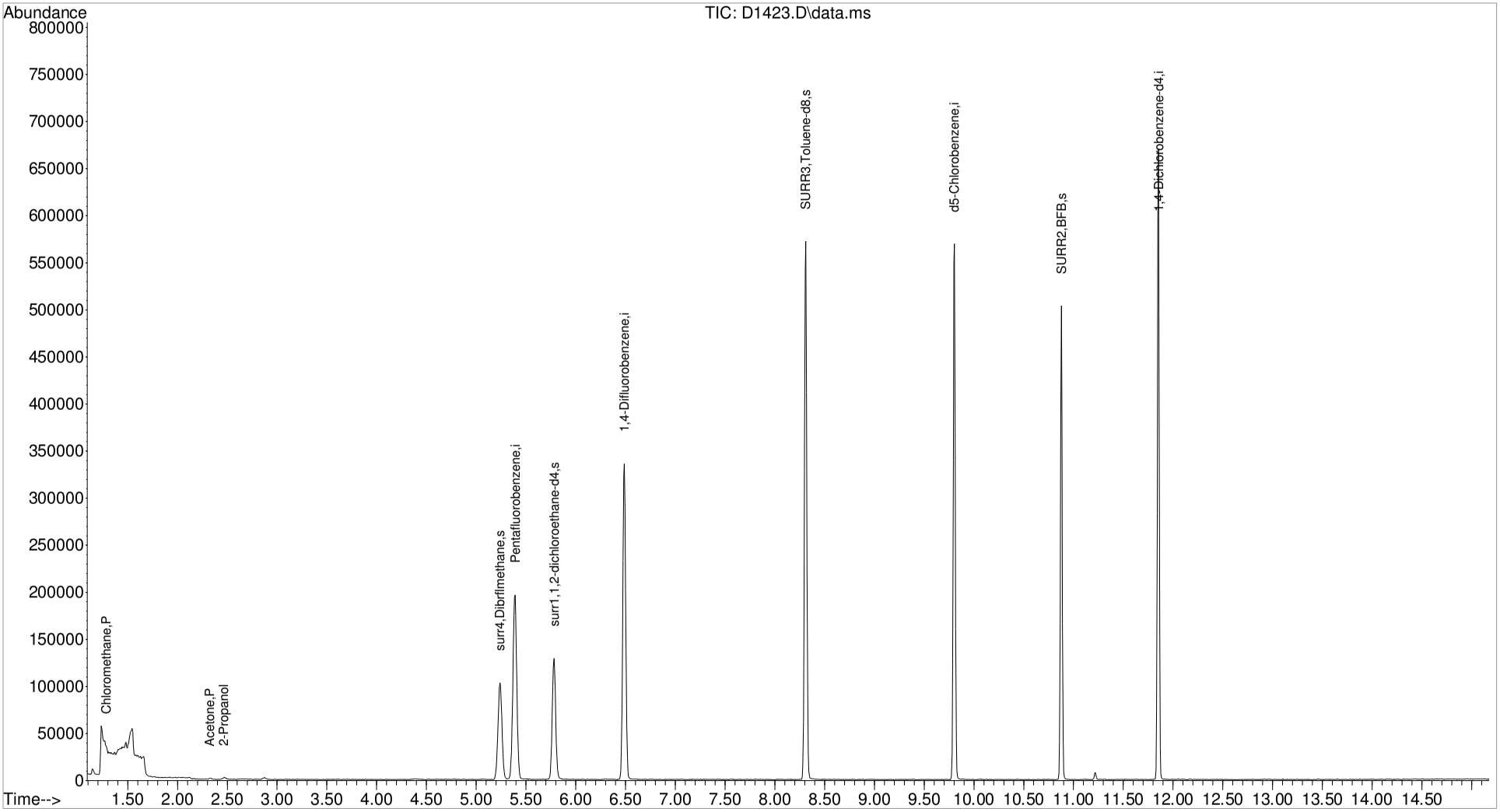
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	193430	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	293361	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	256519	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	131323	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	88233	49.16	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.32%			
46) surr1,1,2-dichloroetha...	5.781	65	106628	51.38	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.76%			
64) SURR3,Toluene-d8	8.311	98	345491	48.85	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.70%			
69) SURR2,BFB	10.878	95	121608	44.39	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 88.78%			
Target Compounds						Qvalue
3) Chloromethane	1.282	50	749m	0.25	ug/L	
15) Acetone	2.324	43	1263	1.25	ug/L	89
16) 2-Propanol	2.465	45	1391	8.58	ug/L	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

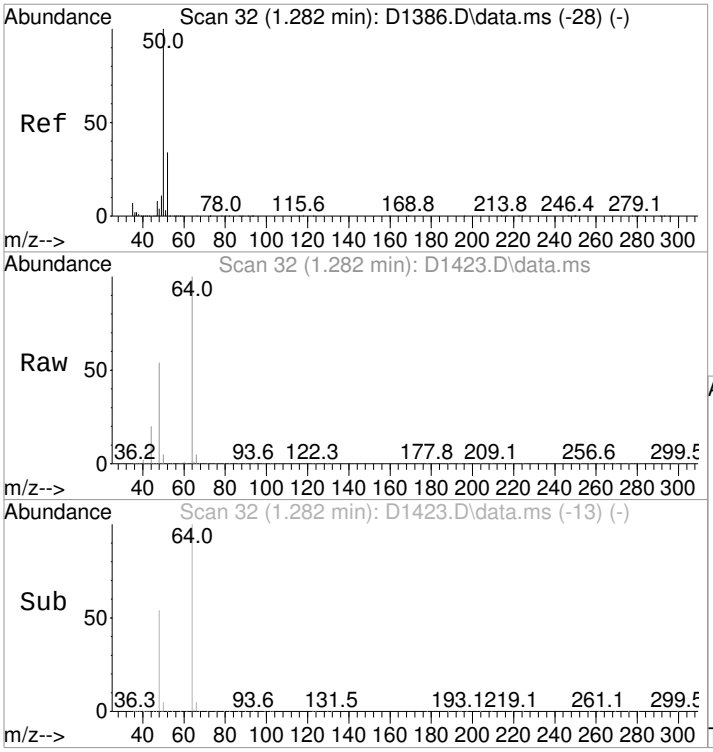
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1423.D
Acq On : 15 Feb 2018 2:04 pm
Operator : D.LIPANI
Sample : R1801238-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 09:05:45 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



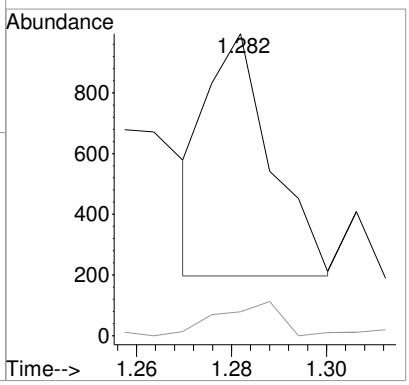
1st DL 02/16/18
2nd FJ 02/17/18

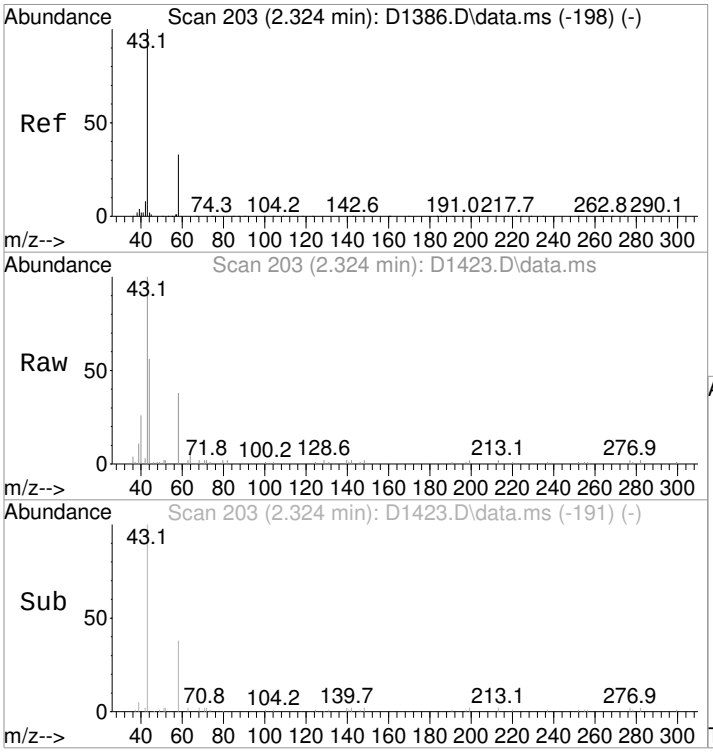


#3
Chloromethane
Concen: 0.25 ug/L m
RT: 1.282 min Scan# 32
Delta R.T. -0.000 min
Lab File: D1423.D
Acq: 15 Feb 2018 2:04 pm

Tgt Ion: 50 Resp: 749

Ion	Ratio	Lower	Upper
50	100		
52	7.9	11.6	51.6#

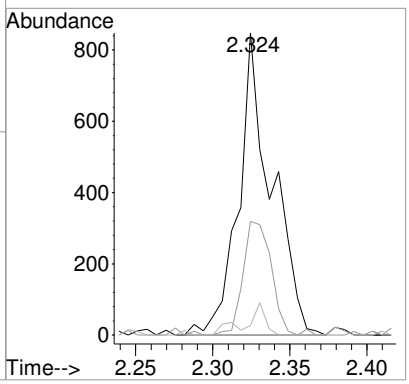


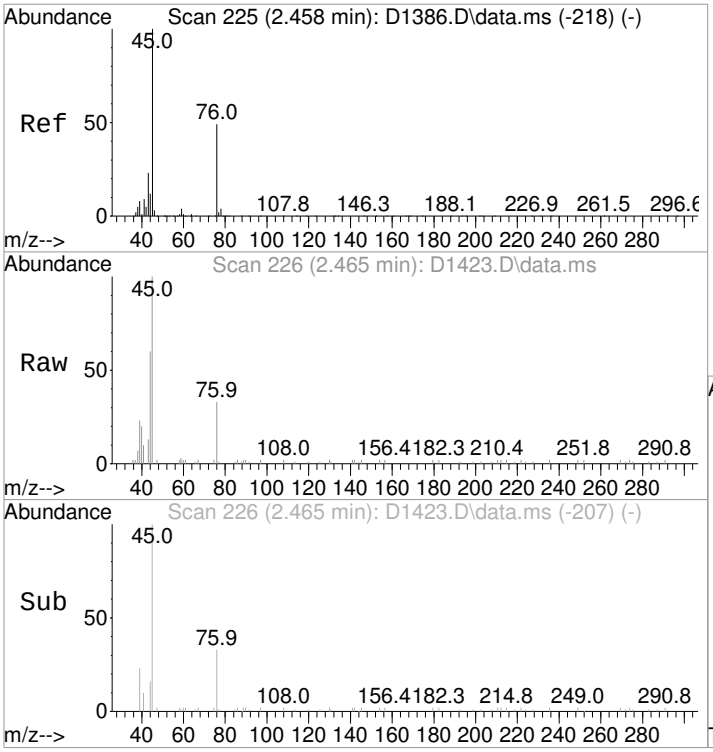


#15
Acetone
Concen: 1.25 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1423.D
Acq: 15 Feb 2018 2:04 pm

Tgt Ion: 43 Resp: 1263

Ion	Ratio	Lower	Upper
43	100		
58	37.6	12.8	52.8
42	3.2	0.0	30.0

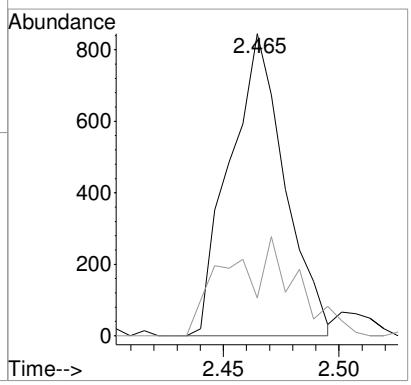




#16
2-Propanol
Concen: 8.58 ug/L
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1423.D
Acq: 15 Feb 2018 2:04 pm

Tgt Ion: 45 Resp: 1391

Ion	Ratio	Lower	Upper
45	100		
43	12.5	4.3	44.3

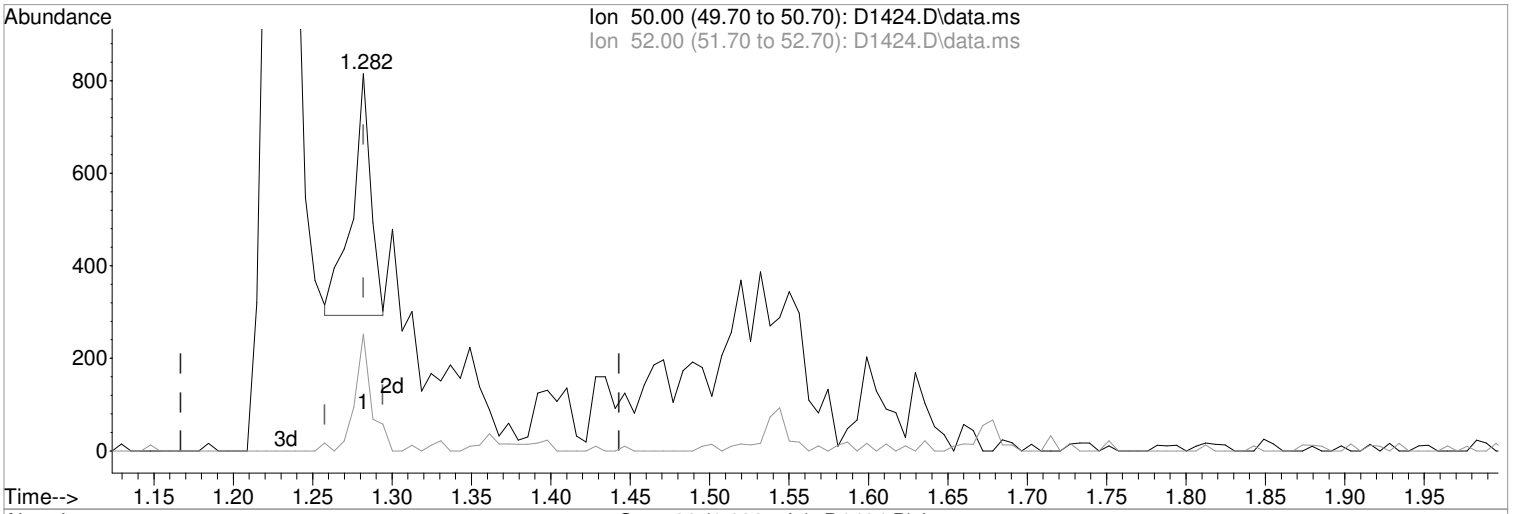


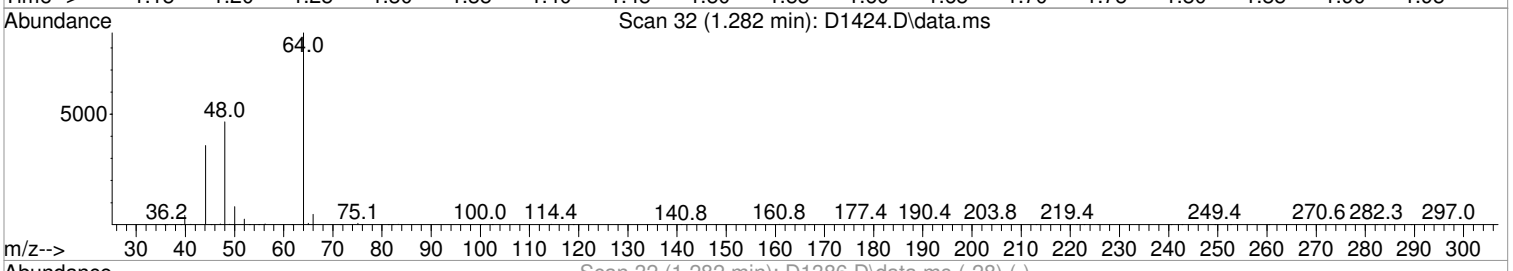
1st DL 02/16/18
2nd FW 02/17/18

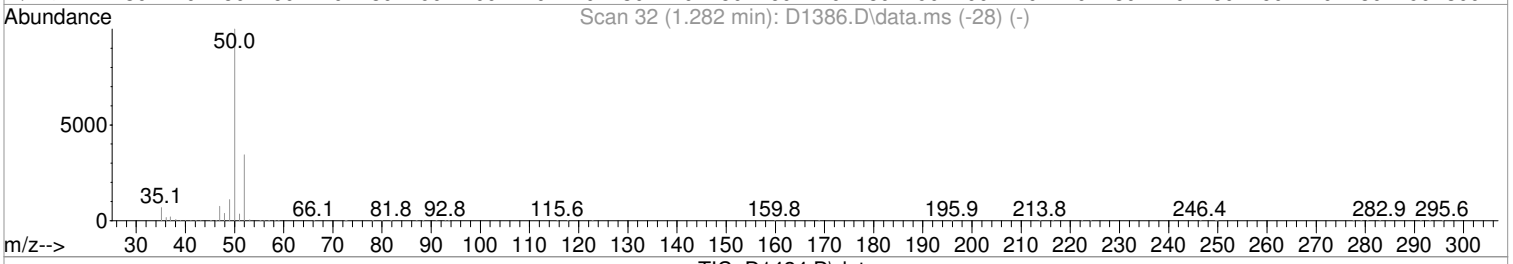
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1424.D
Acq On : 15 Feb 2018 2:25 pm
Operator : D.LIPANI
Sample : R1801238-005|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 15 14:39:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1424.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.15 ug/L m

response 433

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	30.92
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

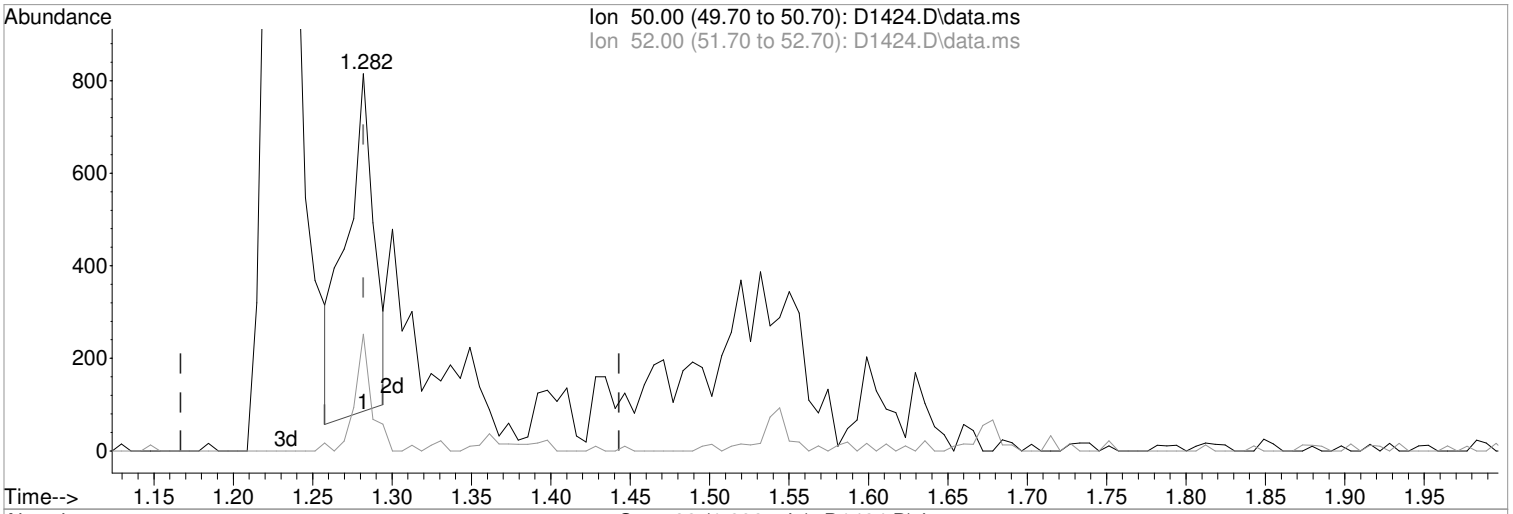
Poor integration.

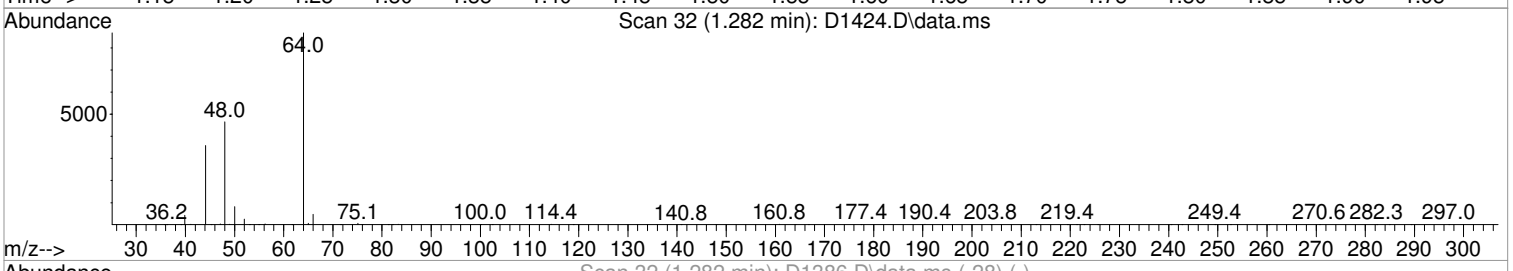
02/16/18

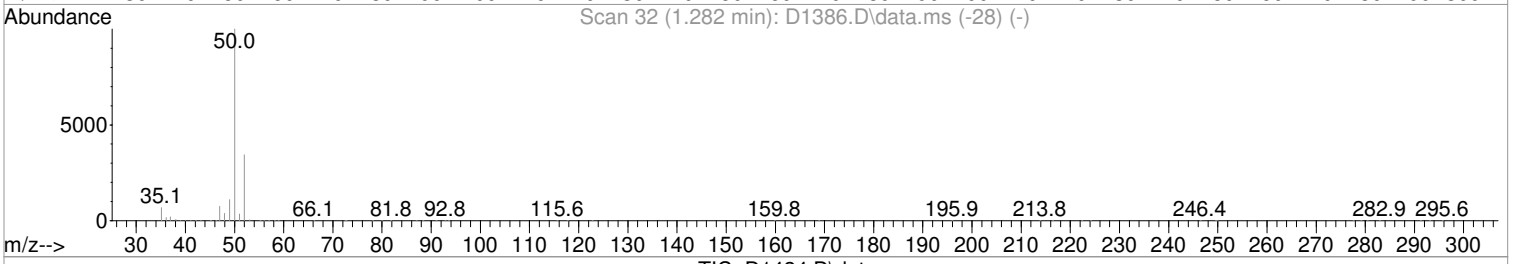
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1424.D
Acq On : 15 Feb 2018 2:25 pm
Operator : D.LIPANI
Sample : R1801238-005|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 15 14:39:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1424.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.30 ug/L

response 904

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	30.92
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1424.D
Acq On : 15 Feb 2018 2:25 pm
Operator : D.LIPANI
Sample : R1801238-005|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 16 09:12:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

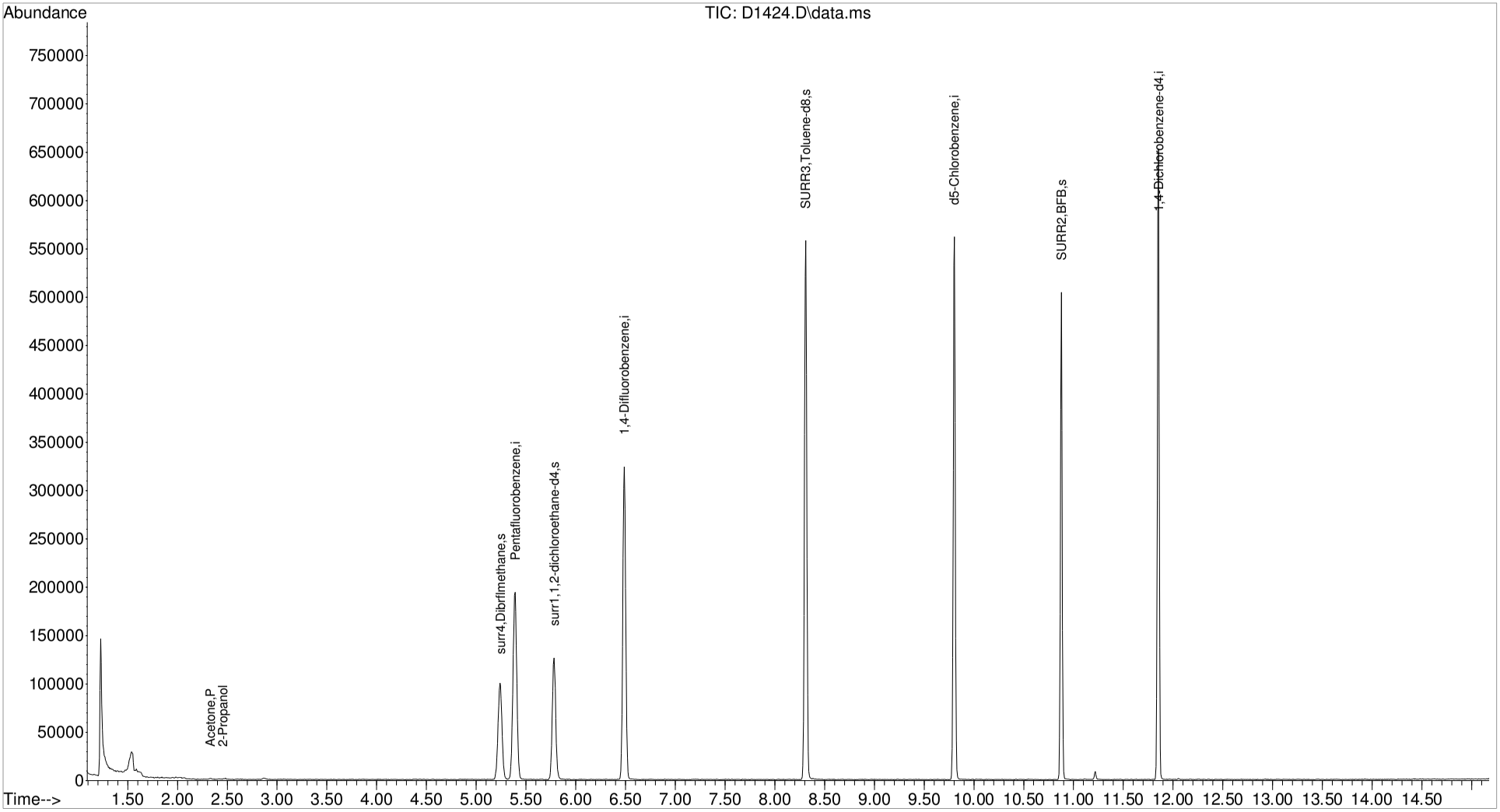
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	188689	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	282602	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	248759	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	128948	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	83870	48.51	ug/L	0.01
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.02%			
46) surr1,1,2-dichloroetha...	5.781	65	104469	52.26	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.52%			
64) SURR3,Toluene-d8	8.311	98	341043	50.05	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.10%			
69) SURR2,BFB	10.878	95	120076	45.50	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.00%			
Target Compounds						Qvalue
15) Acetone	2.331	43	1119	1.14	ug/L	82
16) 2-Propanol	2.459	45	503	3.18	ug/L	71

(#) = qualifier out of range (m) = manual integration (+) = signals summed

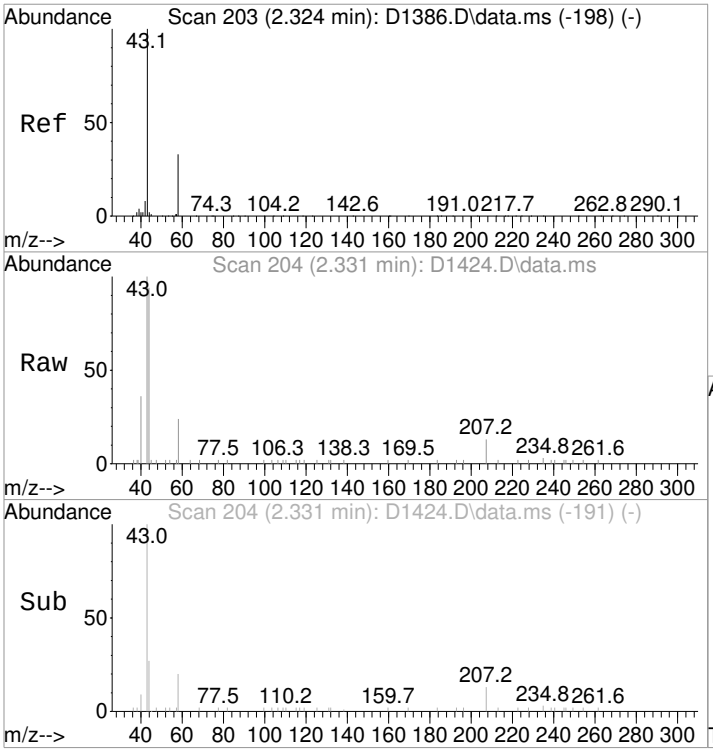
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1424.D
Acq On : 15 Feb 2018 2:25 pm
Operator : D.LIPANI
Sample : R1801238-005|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 16 09:12:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



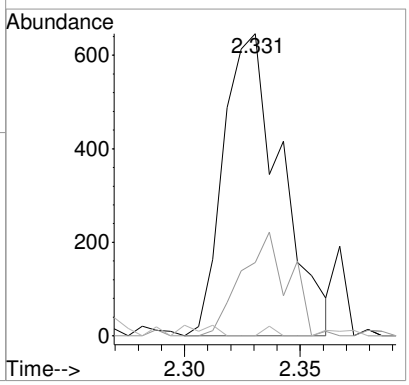
1st DL 02/16/18
2nd FJ 02/17/18

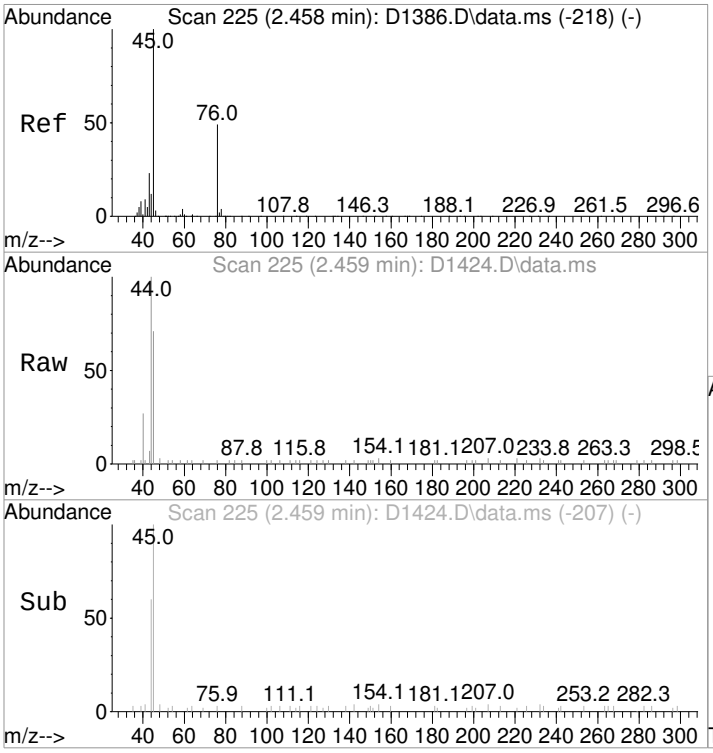


#15
Acetone
Concen: 1.14 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1424.D
Acq: 15 Feb 2018 2:25 pm

Tgt Ion: 43 Resp: 1119

Ion	Ratio	Lower	Upper
43	100		
58	24.3	12.8	52.8
42	0.0	0.0	30.0

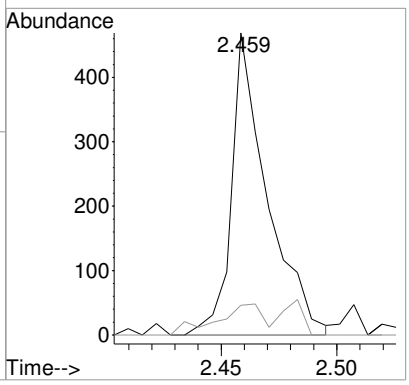




#16
2-Propanol
Concen: 3.18 ug/L
RT: 2.459 min Scan# 225
Delta R.T. 0.001 min
Lab File: D1424.D
Acq: 15 Feb 2018 2:25 pm

Tgt Ion: 45 Resp: 503

Ion	Ratio	Lower	Upper
45	100		
43	9.8	4.3	44.3



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1426.D
Acq On : 15 Feb 2018 3:08 pm
Operator : D.LIPANI
Sample : R1801238-006|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 16 14:43:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

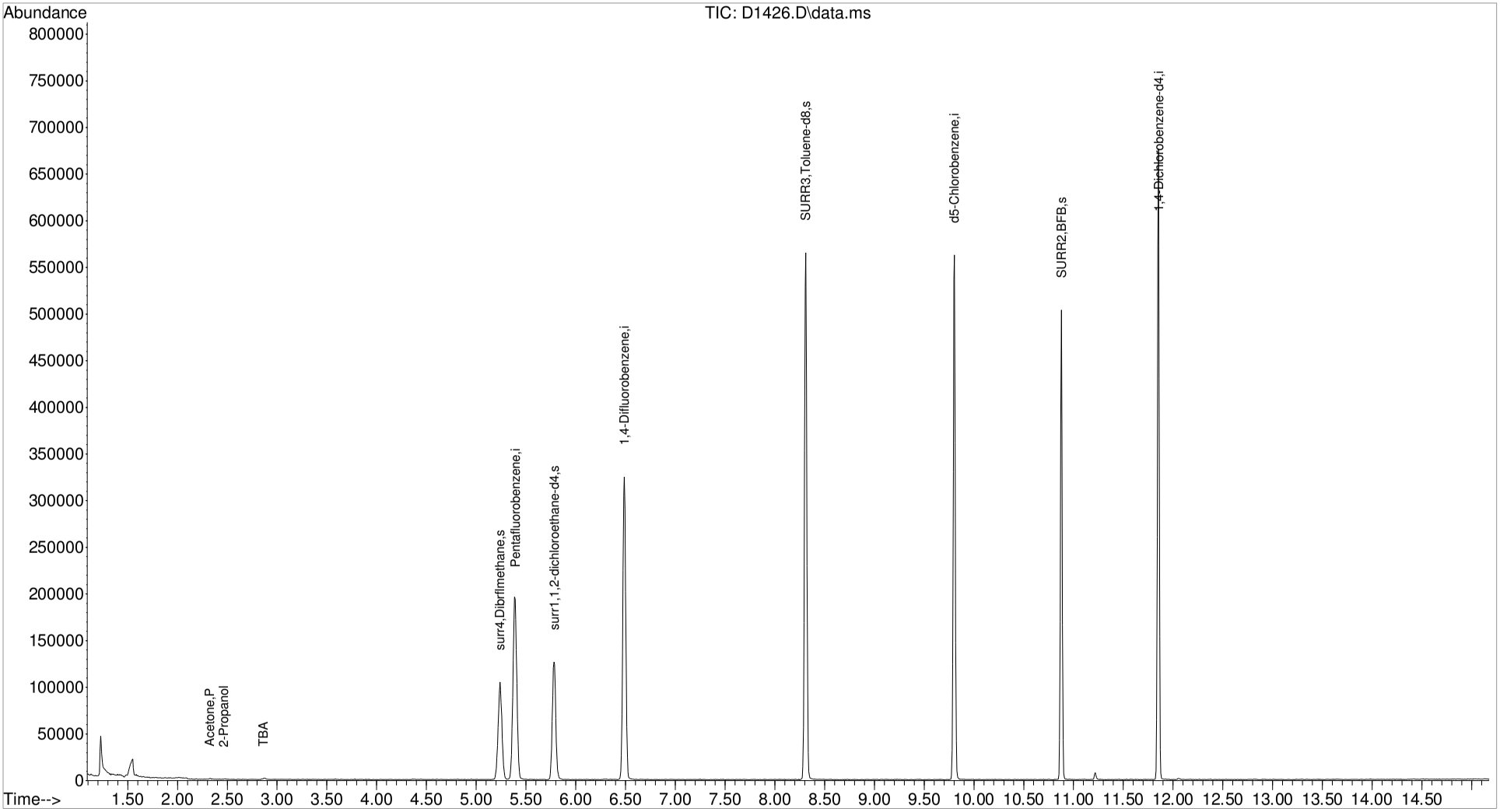
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	191272	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	287413	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	251581	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	129874	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	83400	47.43	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 94.86%			
46) surr1,1,2-dichloroetha...	5.781	65	105855	52.06	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.12%			
64) SURR3,Toluene-d8	8.311	98	345369	49.84	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.68%			
69) SURR2,BFB	10.878	95	120284	44.81	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.62%			
Target Compounds						Qvalue
15) Acetone	2.324	43	1145	1.15	ug/L	70
16) 2-Propanol	2.465	45	236	1.47	ug/L #	51
23) TBA	2.861	59	885	3.74	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

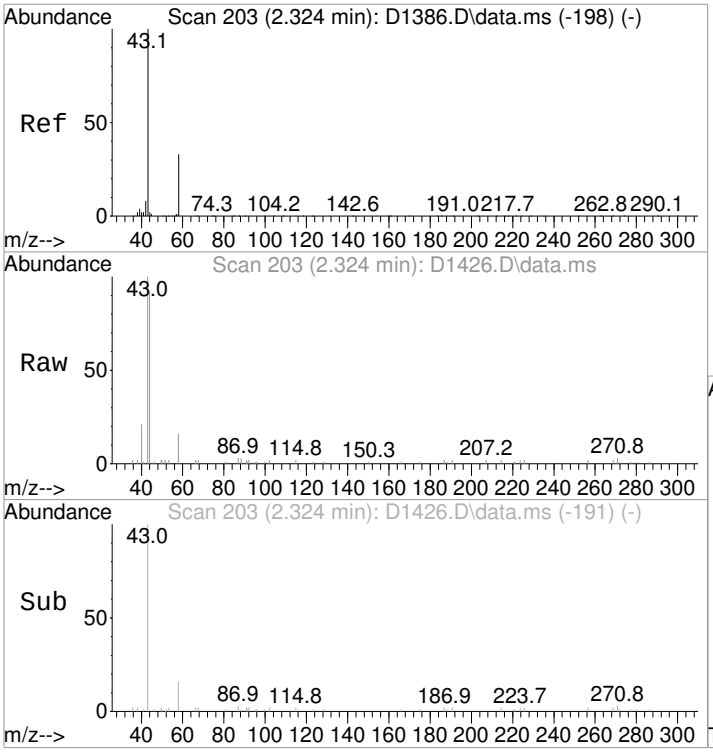
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1426.D
Acq On : 15 Feb 2018 3:08 pm
Operator : D.LIPANI
Sample : R1801238-006|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 16 14:43:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



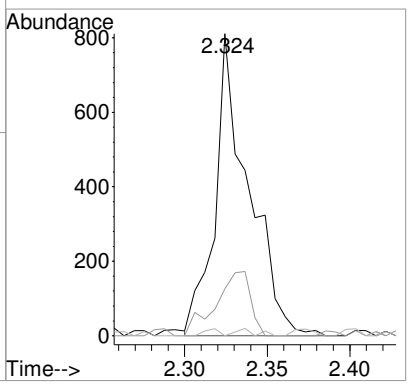
1st DL 02/16/18
2nd FJ 02/17/18

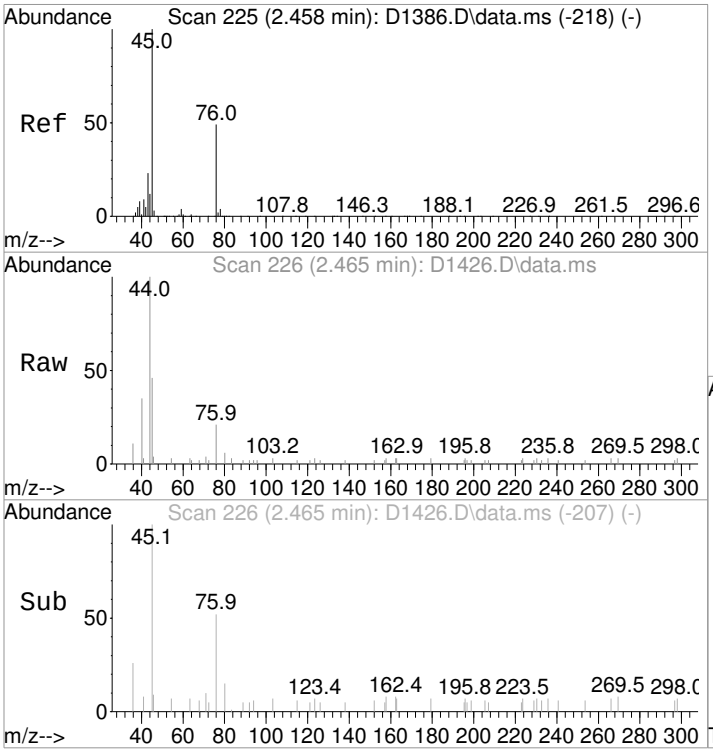


#15
Acetone
Concen: 1.15 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1426.D
Acq: 15 Feb 2018 3:08 pm

Tgt Ion: 43 Resp: 1145

Ion	Ratio	Lower	Upper
43	100		
58	15.5	12.8	52.8
42	0.0	0.0	30.0

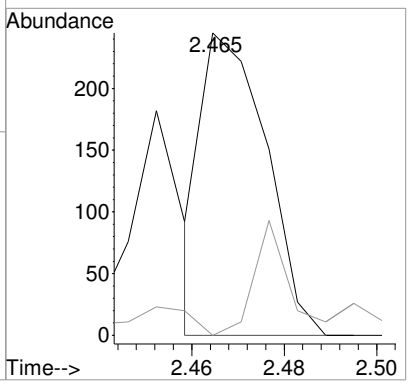


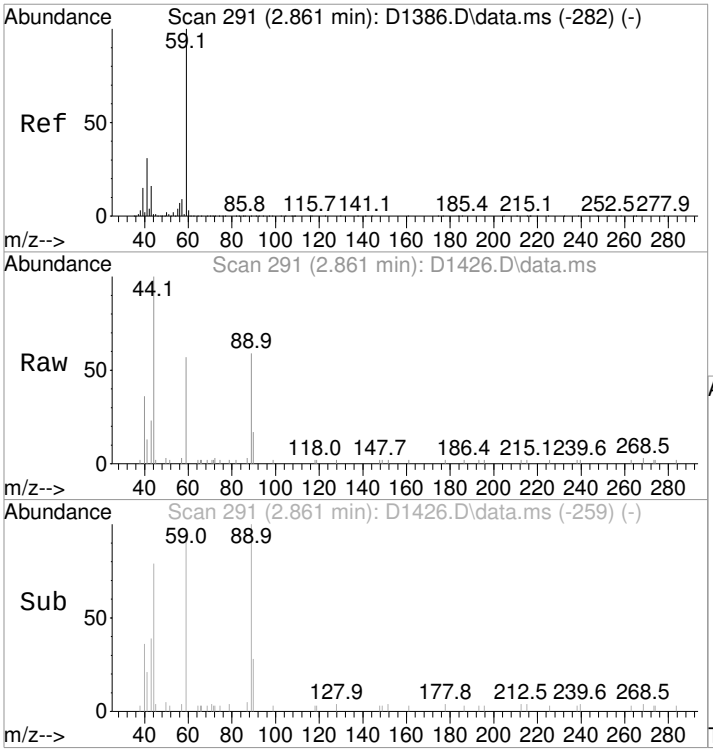


#16
2-Propanol
Concen: 1.47 ug/L
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1426.D
Acq: 15 Feb 2018 3:08 pm

Tgt Ion: 45 Resp: 236

Ion	Ratio	Lower	Upper
45	100		
43	0.0	4.3	44.3#

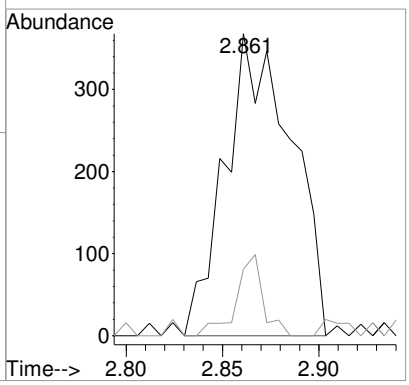




#23
TBA
Concen: 3.74 ug/L
RT: 2.861 min Scan# 291
Delta R.T. 0.007 min
Lab File: D1426.D
Acq: 15 Feb 2018 3:08 pm

Tgt Ion: 59 Resp: 885

Ion	Ratio	Lower	Upper
59	100		
41	22.0	3.6	43.6

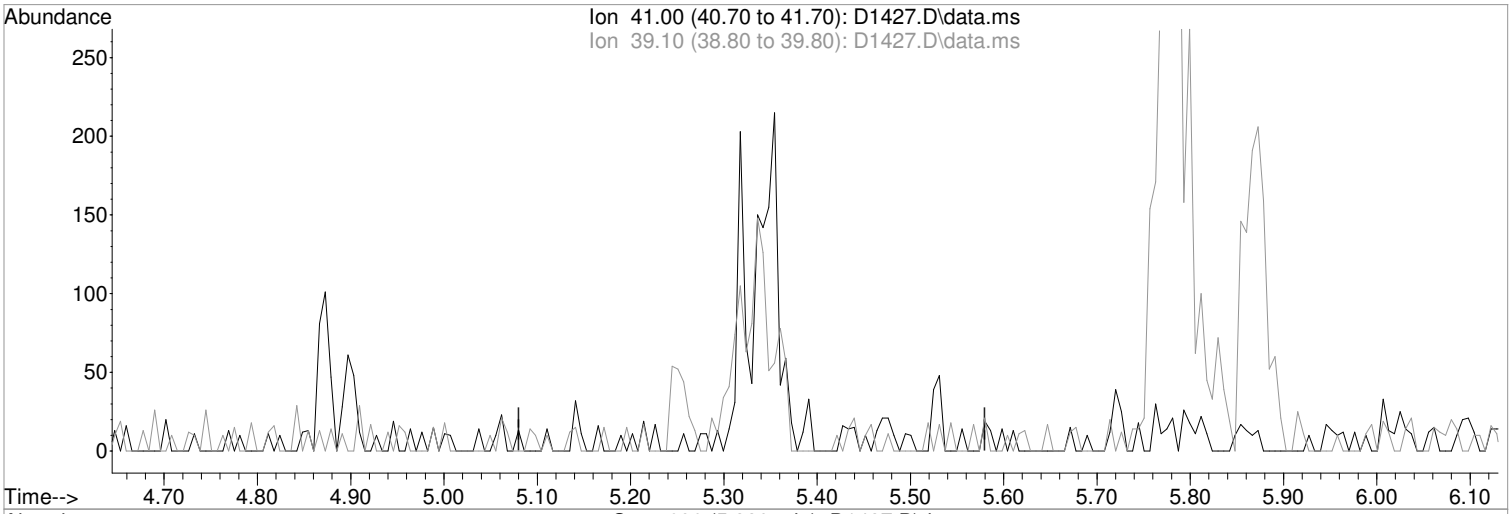


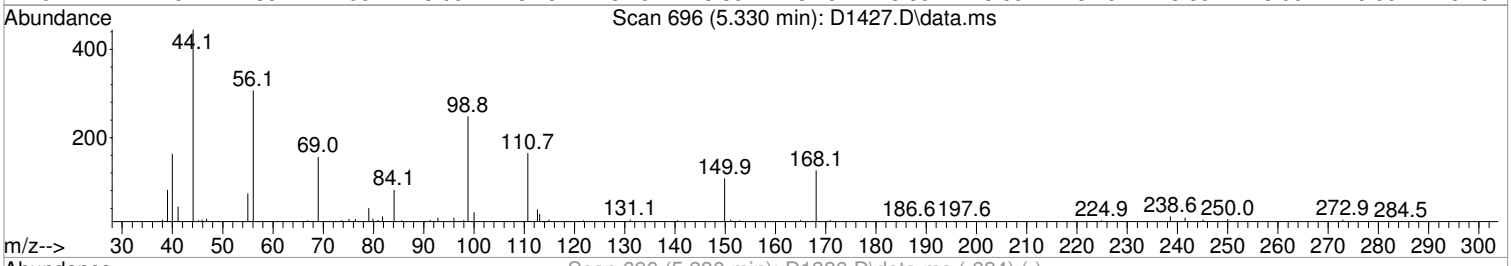
1st DL 02/16/18
2nd FJ 02/17/18

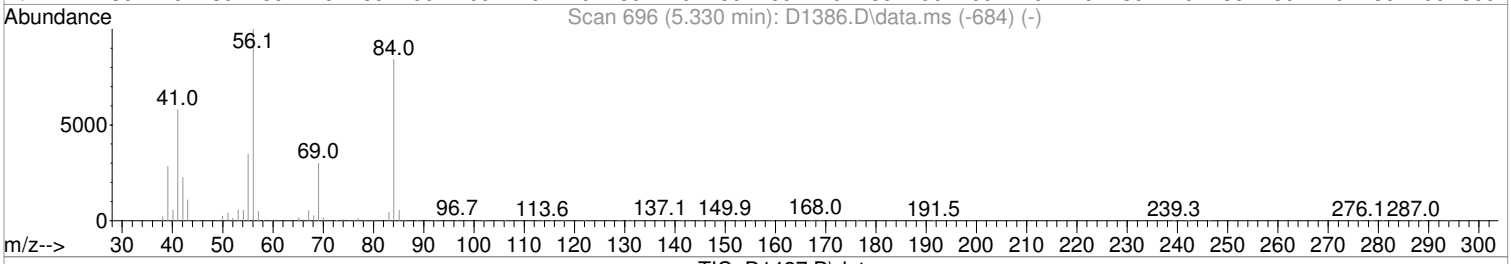
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1427.D
Acq On : 15 Feb 2018 3:30 pm
Operator : D.LIPANI
Sample : R1801238-007|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 15 15:45:17 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1427.D\data.ms

(42) Cyclohexane (P)

5.330min (-5.330) 0.00 ug/L

response 0

Ion	Exp%	Act%
41.00	100	0.00
39.10	48.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1427.D
Acq On : 15 Feb 2018 3:30 pm
Operator : D.LIPANI
Sample : R1801238-007|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 16 15:04:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

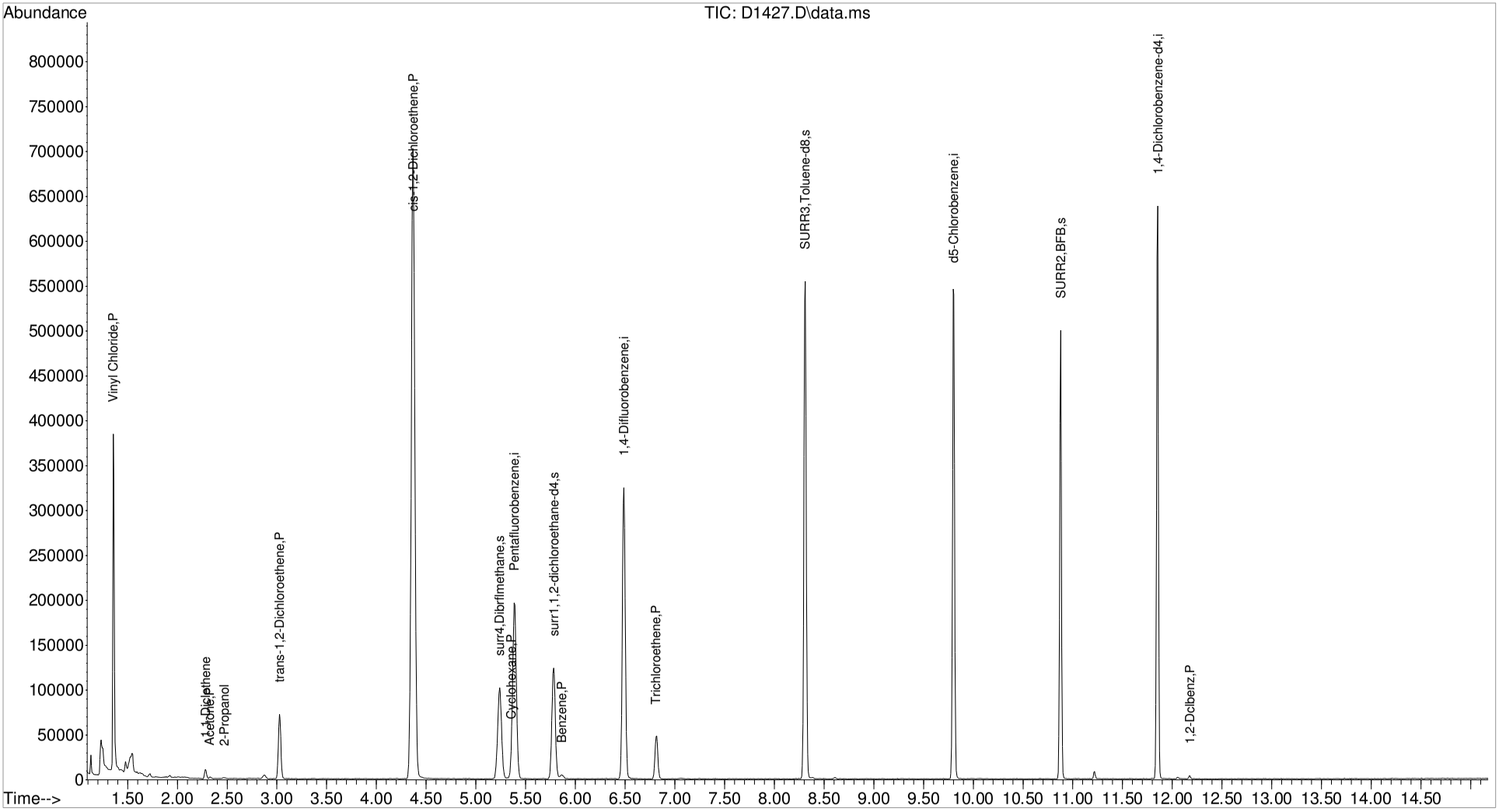
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	190054	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	287513	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	247969	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	127137	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	84888	48.26	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.52%				
46) surr1,1,2-dichloroetha...	5.781	65	104019	51.14	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.28%				
64) SURR3,Toluene-d8	8.311	98	338355	48.81	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.62%				
69) SURR2,BFB	10.878	95	119717	44.59	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.18%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.355	62	211018	74.59	ug/L		93
13) 1,1-Diclethene	2.282	96	2922	1.57	ug/L		94
15) Acetone	2.324	43	1979	2.00	ug/L		90
16) 2-Propanol	2.471	45	1100	6.90	ug/L		67
26) trans-1,2-Dichloroethene	3.026	96	24485	11.95	ug/L	#	85
33) cis-1,2-Dichloroethene	4.367	96	385780	172.45	ug/L		95
42) Cyclohexane	5.354	41	417m	0.21	ug/L		
47) Benzene	5.860	78	3964	0.47	ug/L		98
53) Trichloroethene	6.811	130	16709	7.35	ug/L		97
109) 1,2-Dclbenz	12.176	146	1143	0.26	ug/L		80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

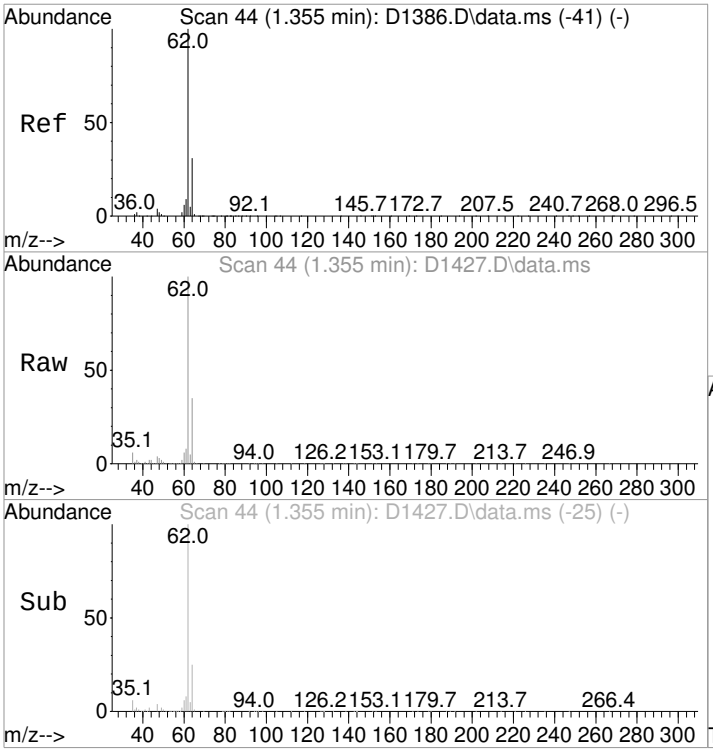
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1427.D
Acq On : 15 Feb 2018 3:30 pm
Operator : D.LIPANI
Sample : R1801238-007|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 16 15:04:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



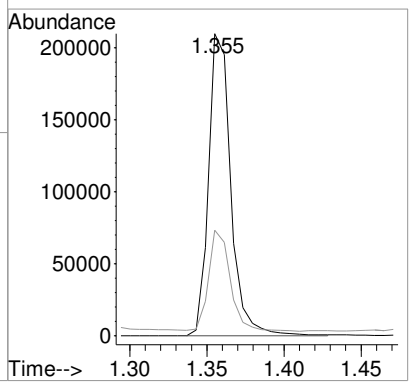
1st DL 02/16/18
2nd FJ 02/17/18

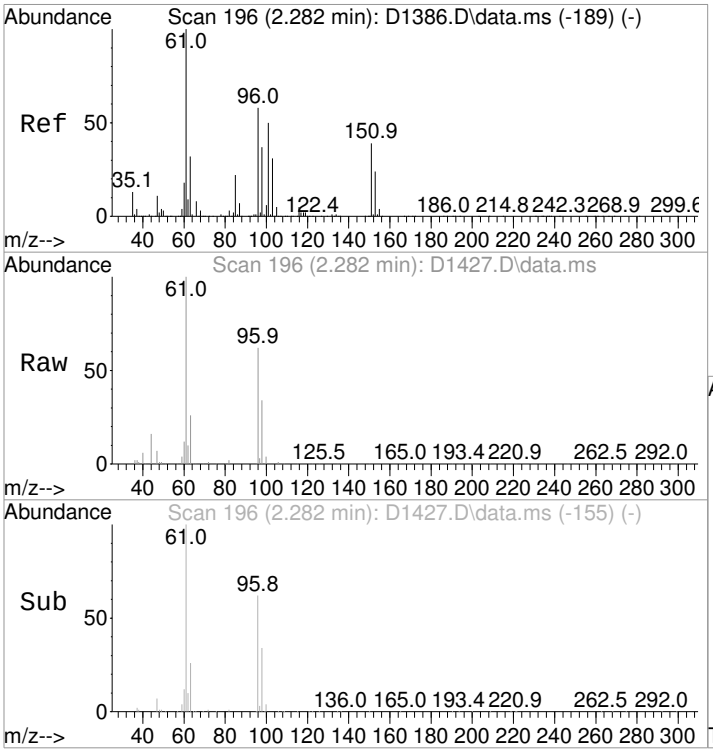


#4
Vinyl Chloride
Concen: 74.59 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 62 Resp: 211018

Ion	Ratio	Lower	Upper
62	100		
64	34.9	11.2	51.2

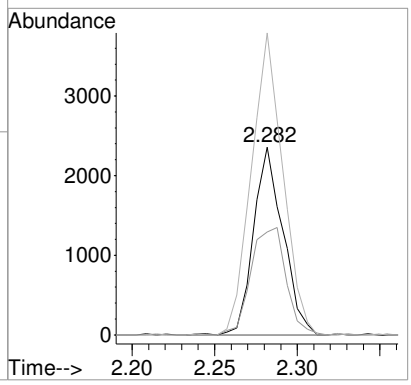


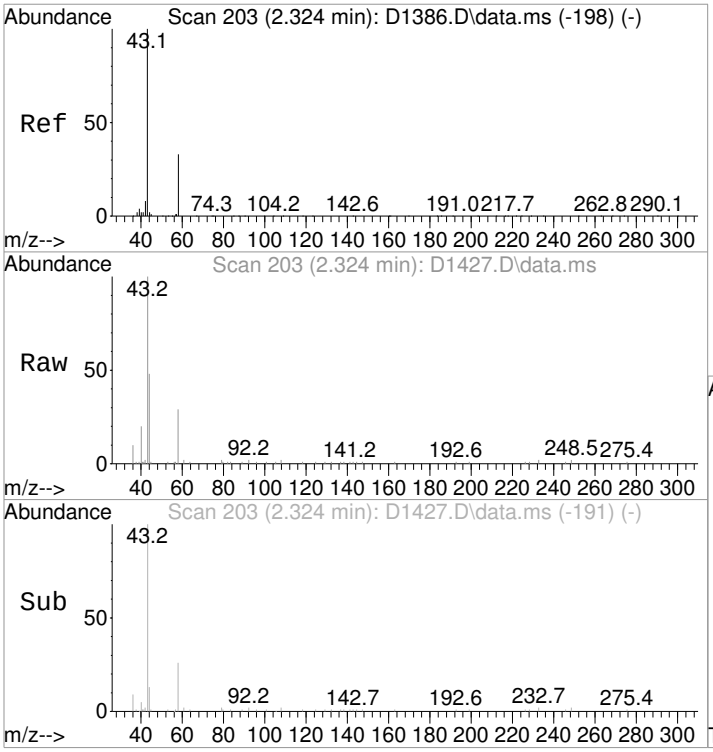


#13
1,1-Diclethene
Concen: 1.57 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 96 Resp: 2922

Ion	Ratio	Lower	Upper
96	100		
98	54.8	42.2	82.2
61	160.8	134.9	174.9

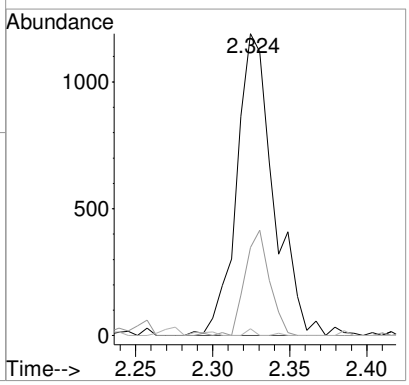


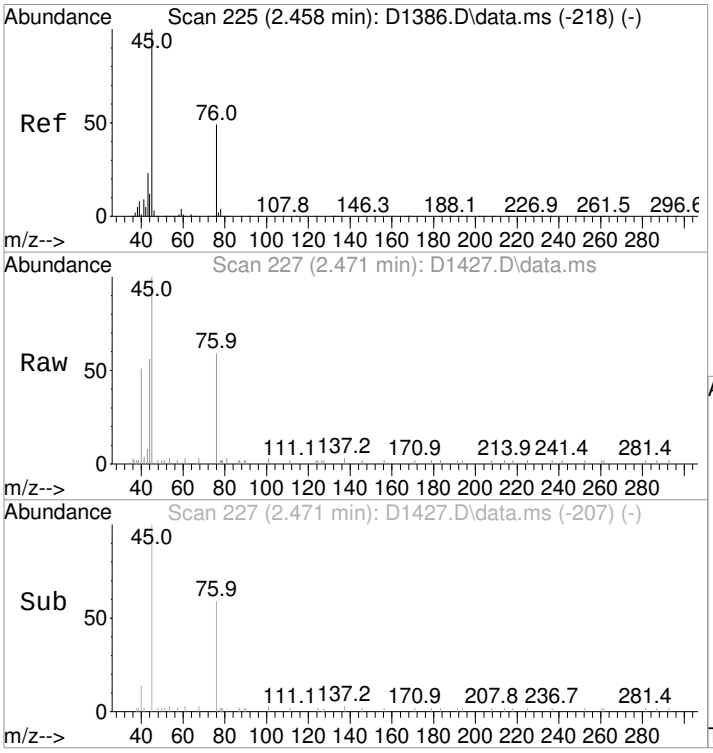


#15
Acetone
Concen: 2.00 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 43 Resp: 1979

Ion	Ratio	Lower	Upper
43	100		
58	29.2	12.8	52.8
42	2.3	0.0	30.0

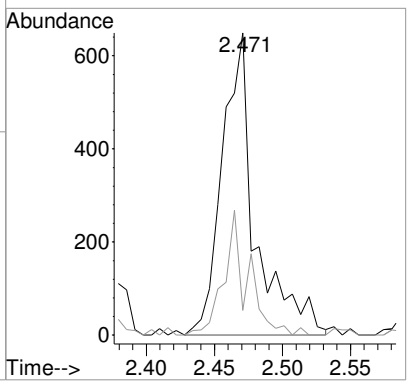


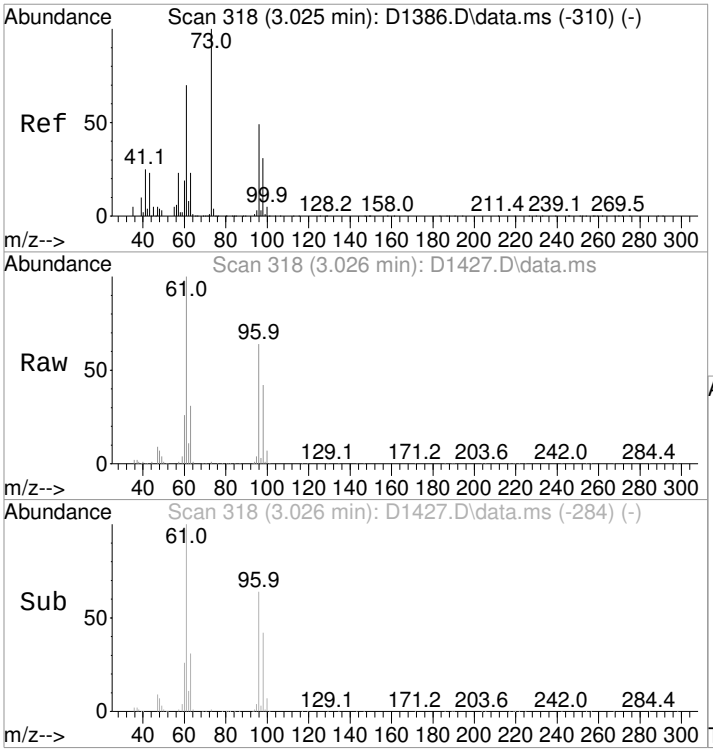


#16
2-Propanol
Concen: 6.90 ug/L
RT: 2.471 min Scan# 227
Delta R.T. 0.013 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 45 Resp: 1100

Ion	Ratio	Lower	Upper
45	100		
43	8.2	4.3	44.3

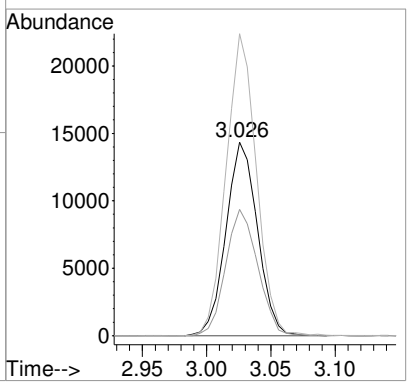


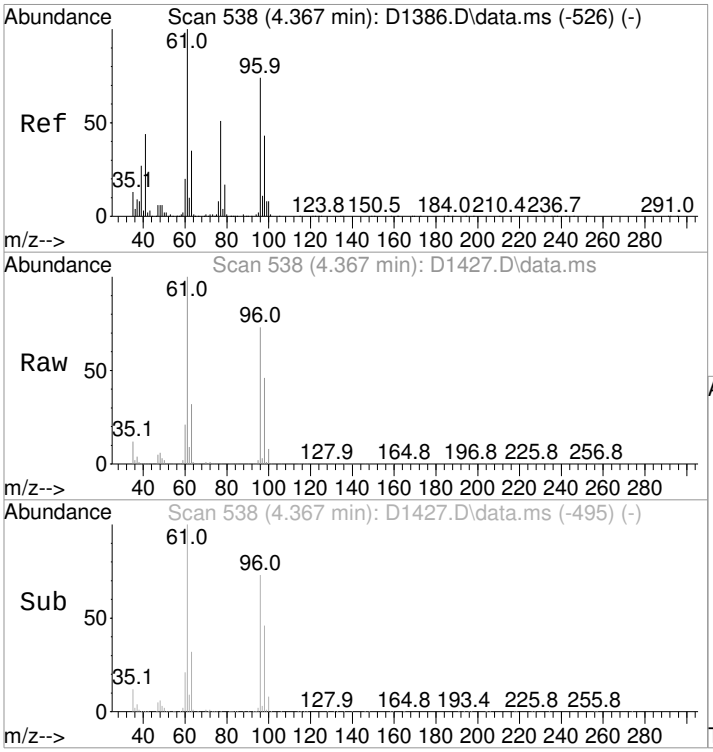


#26
trans-1,2-Dichloroethene
Concen: 11.95 ug/L
RT: 3.026 min Scan# 318
Delta R.T. -0.000 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 96 Resp: 24485

Ion	Ratio	Lower	Upper
96	100		
98	65.2	40.9	80.9
61	156.0	113.1	153.1#

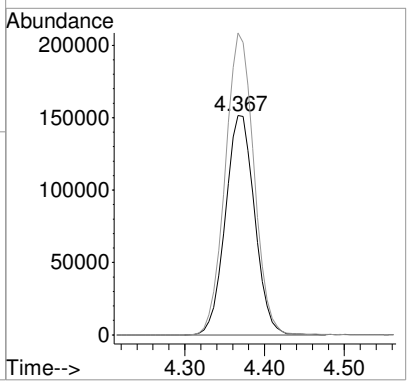


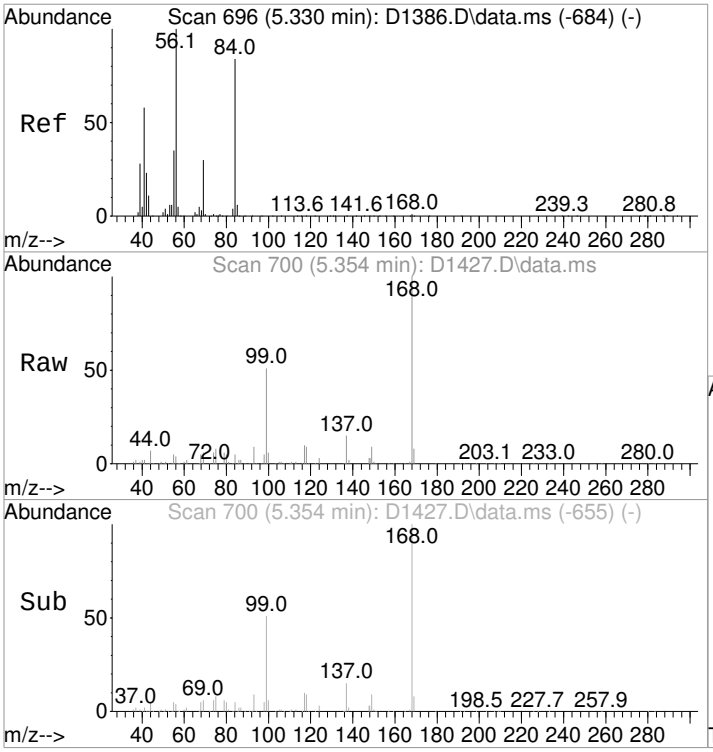


#33
cis-1,2-Dichloroethene
Concen: 172.45 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 96 Resp: 385780

Ion	Ratio	Lower	Upper
96	100		
61	137.6	111.5	151.5

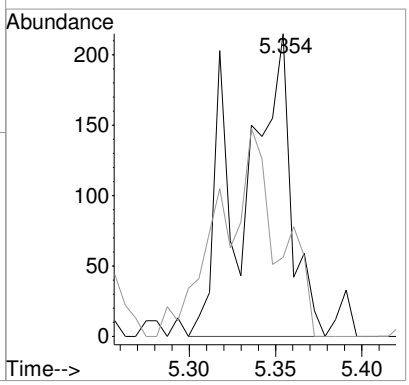


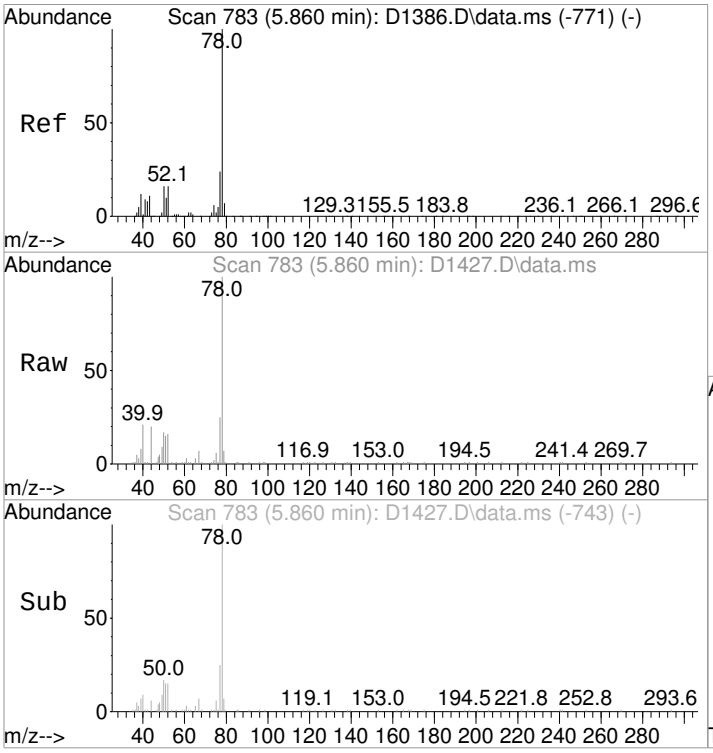


#42
Cyclohexane
Concen: 0.21 ug/L m
RT: 5.354 min Scan# 700
Delta R.T. 0.024 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 41 Resp: 417

Ion	Ratio	Lower	Upper
41	100		
39	26.0	28.2	68.2#

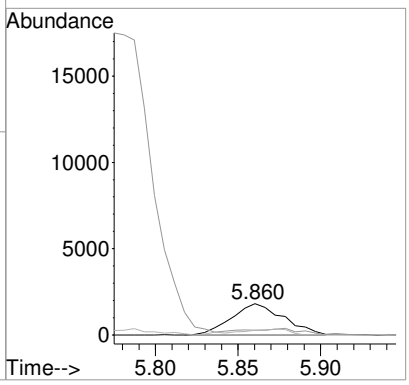


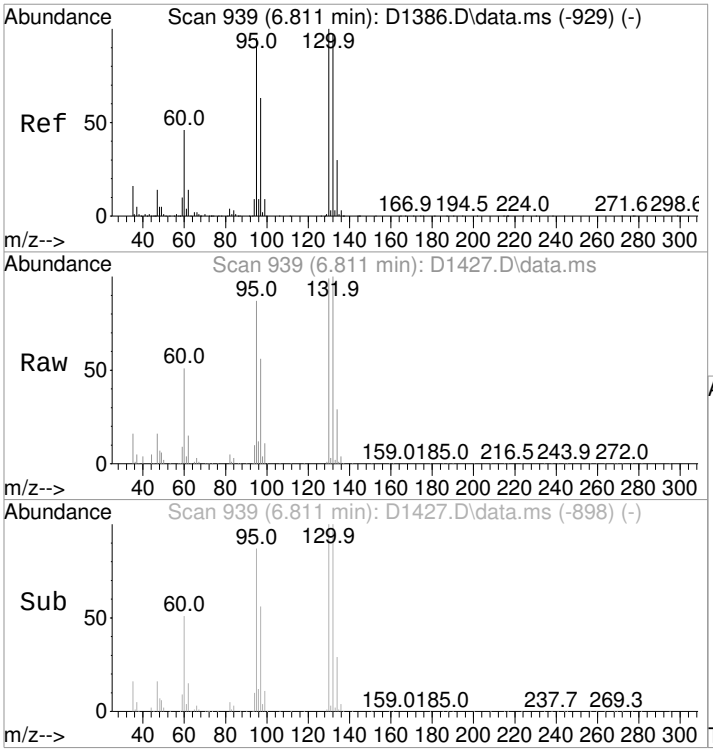


#47
Benzene
Concen: 0.47 ug/L
RT: 5.860 min Scan# 783
Delta R.T. -0.000 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion: 78 Resp: 3964

Ion	Ratio	Lower	Upper
78	100		
51	14.9	0.0	35.9
52	15.6	0.0	36.4

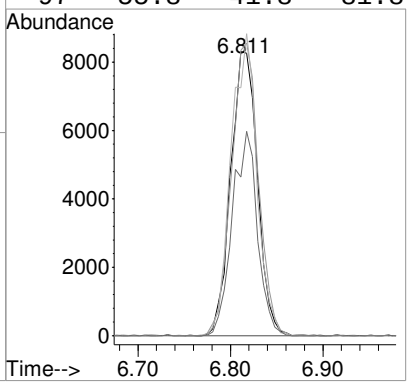


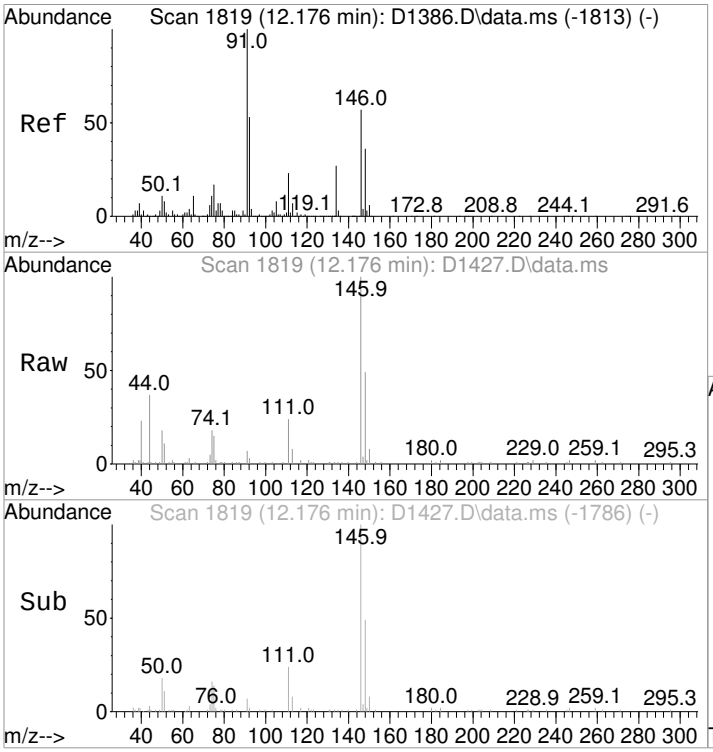


#53
Trichloroethene
Concen: 7.35 ug/L
RT: 6.811 min Scan# 939
Delta R.T. -0.000 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion:130 Resp: 16709

Ion	Ratio	Lower	Upper
130	100		
132	100.5	80.0	120.0
95	87.3	68.5	108.5
97	55.8	41.8	81.8

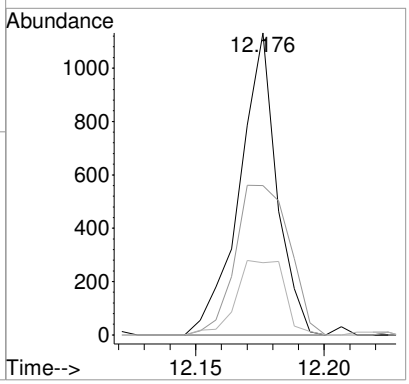




#109
1,2-Dclbenz
Concen: 0.26 ug/L
RT: 12.176 min Scan# 1819
Delta R.T. 0.006 min
Lab File: D1427.D
Acq: 15 Feb 2018 3:30 pm

Tgt Ion:146 Resp: 1143

Ion	Ratio	Lower	Upper
146	100		
148	49.5	44.2	84.2
111	23.9	17.5	57.5

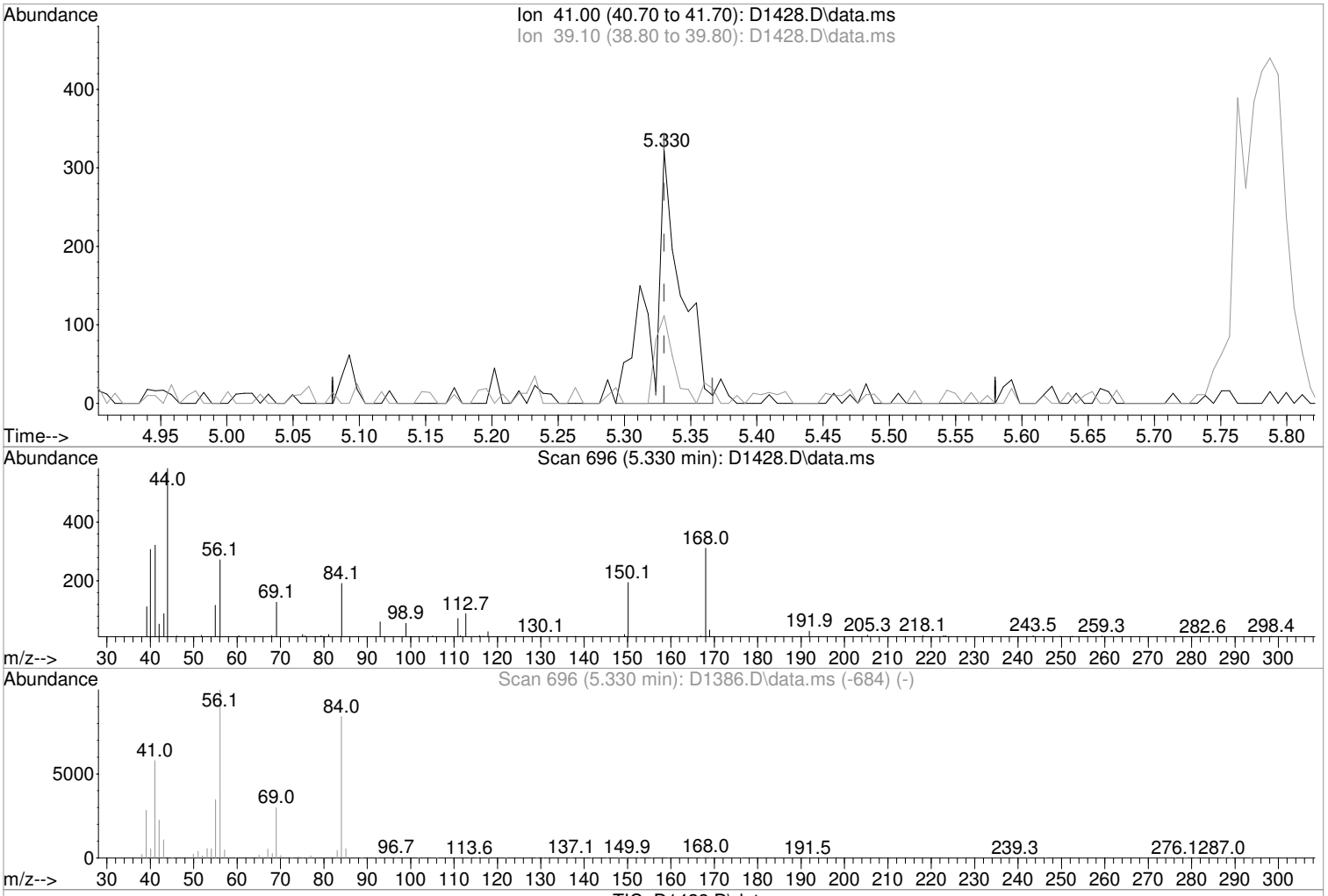


1st DL 02/16/18
2nd FW 02/17/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1428.D
Acq On : 15 Feb 2018 3:52 pm
Operator : D.LIPANI
Sample : R1801238-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 15 16:07:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1428.D\data.ms

(42) Cyclohexane (P)

5.330min (+0.000) 0.24 ug/L m

response 482

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	34.78
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

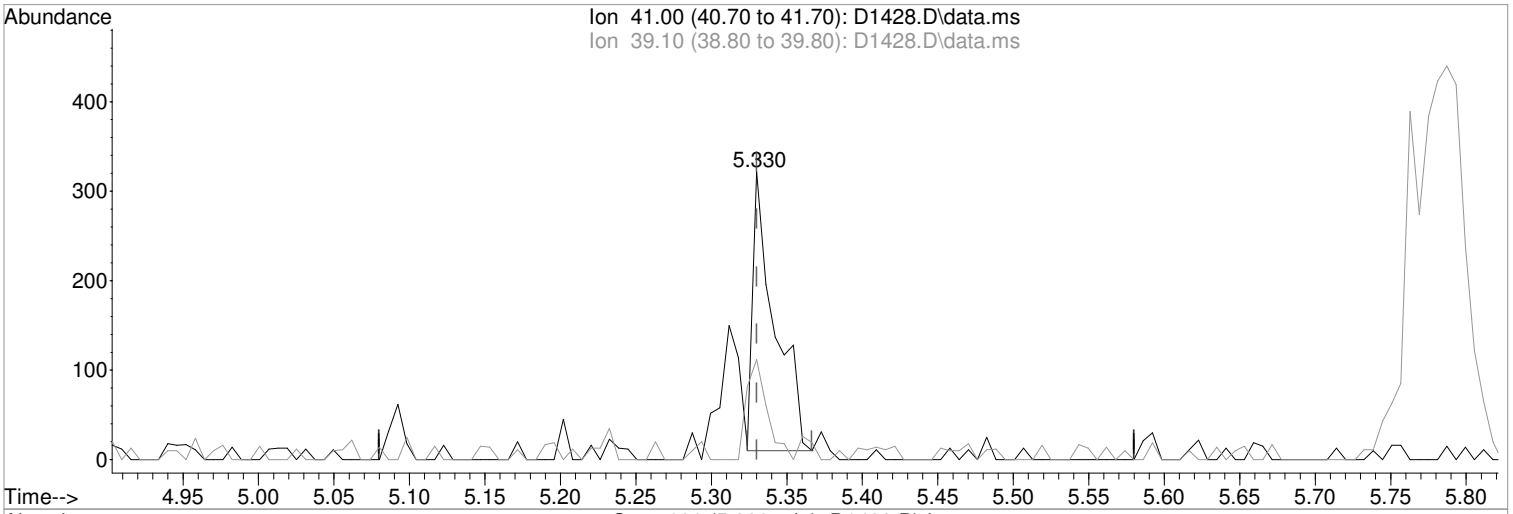
02/16/18

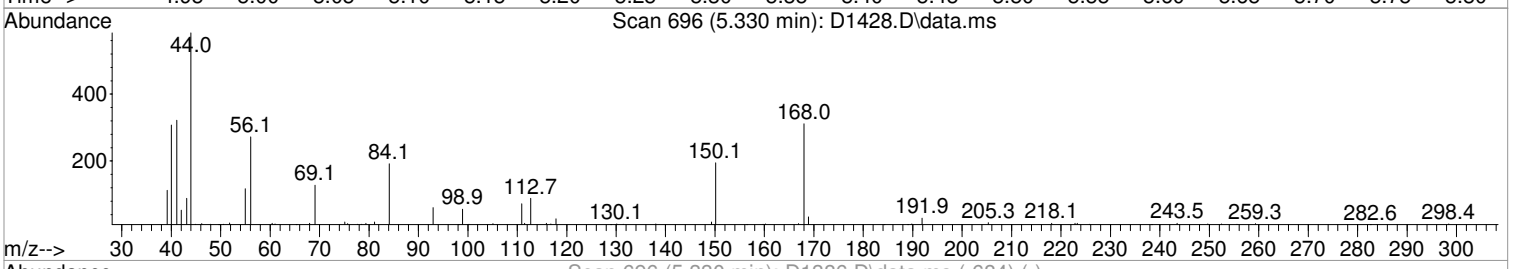
1st DL 02/16/18
2nd FW 02/17/18

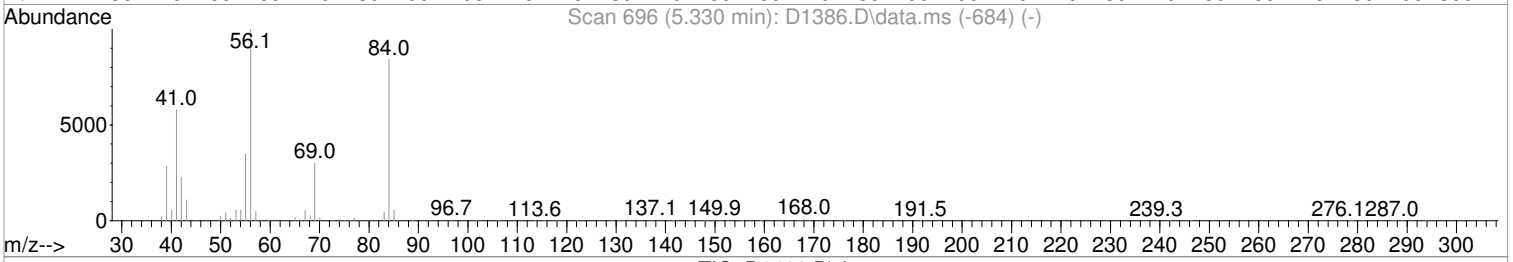
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1428.D
Acq On : 15 Feb 2018 3:52 pm
Operator : D.LIPANI
Sample : R1801238-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 15 16:07:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1428.D\data.ms

(42) Cyclohexane (P)

5.330min (+0.000) 0.15 ug/L

response 314

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	34.78
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

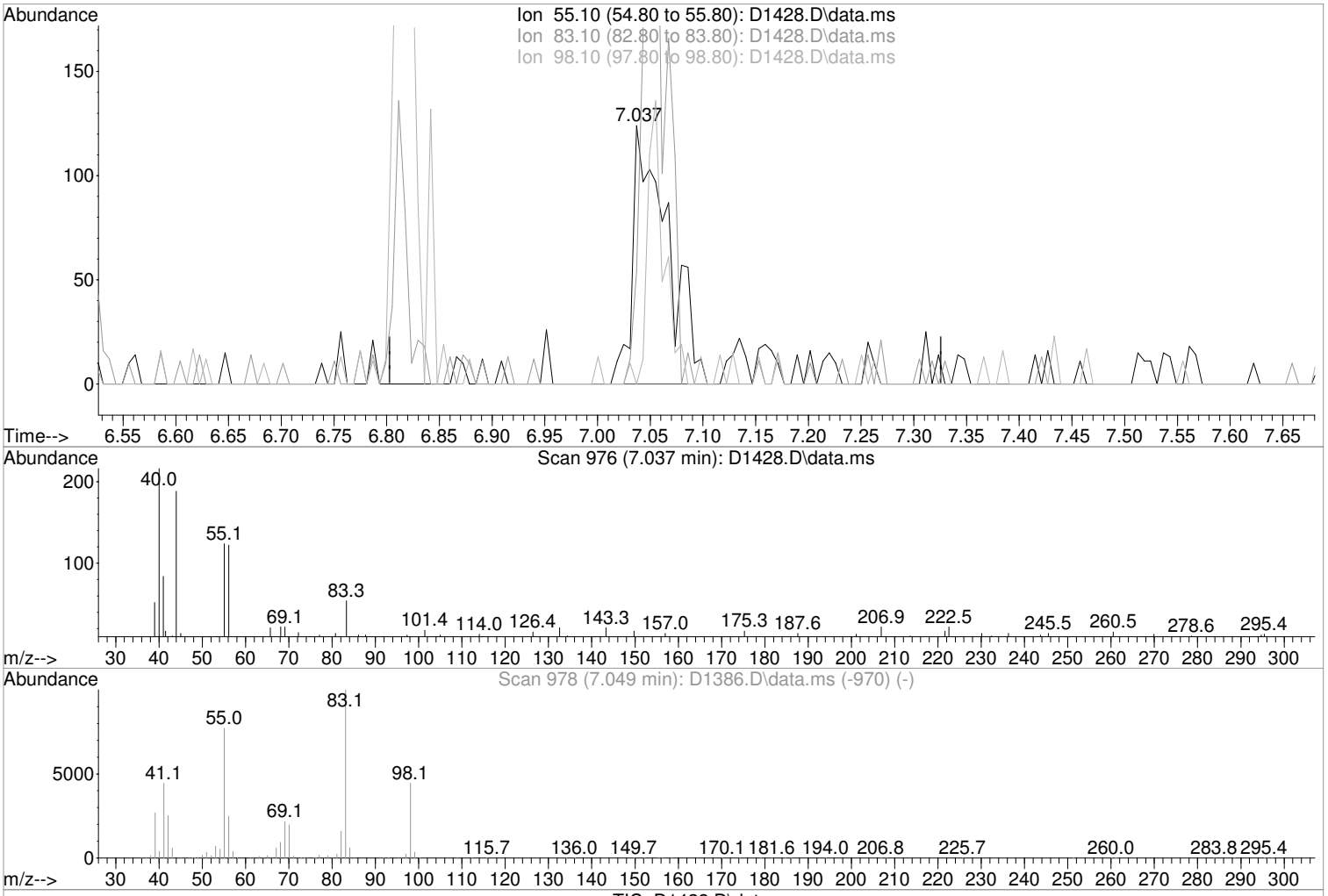
02/16/18

1st DL 02/16/18
2nd FJ 02/17/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1428.D
Acq On : 15 Feb 2018 3:52 pm
Operator : D.LIPANI
Sample : R1801238-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 15 16:07:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1428.D\data.ms

(54) Methylcyclohexane (P)

7.037min (-0.006) 0.11 ug/L m

response 288

Ion	Exp%	Act%
55.10	100	100
83.10	129.60	43.55#
98.10	63.60	0.00#
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

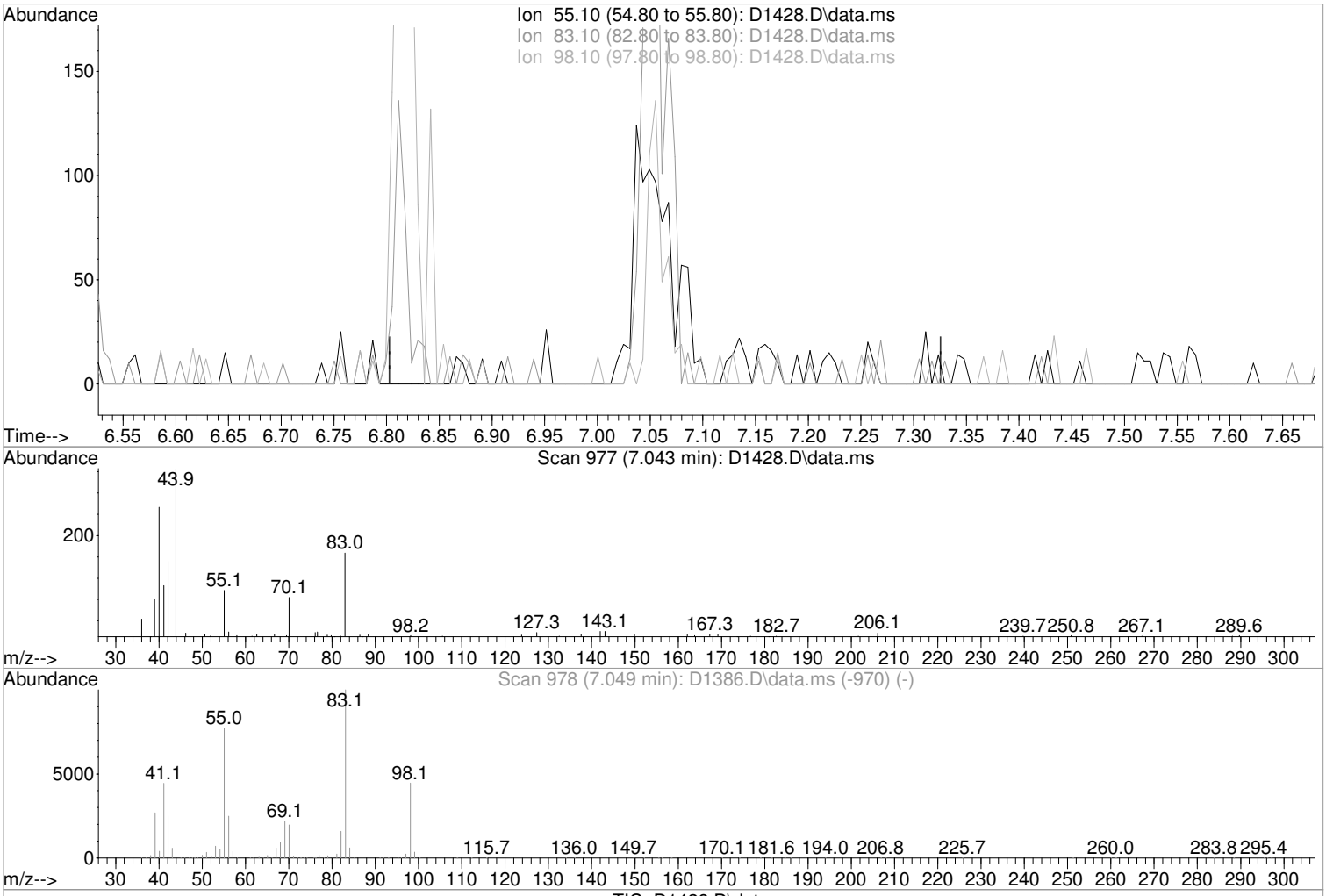
02/16/18

1st DL 02/16/18
2nd FJ 02/17/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1428.D
Acq On : 15 Feb 2018 3:52 pm
Operator : D.LIPANI
Sample : R1801238-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 15 16:07:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1428.D\data.ms

(54) Methylcyclohexane (P)

7.043min (-7.043) 0.00 ug/L

response 0

Ion	Exp%	Act%
55.10	100	0.00
83.10	129.60	0.00#
98.10	63.60	0.00#
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1428.D
Acq On : 15 Feb 2018 3:52 pm
Operator : D.LIPANI
Sample : R1801238-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 16 15:12:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

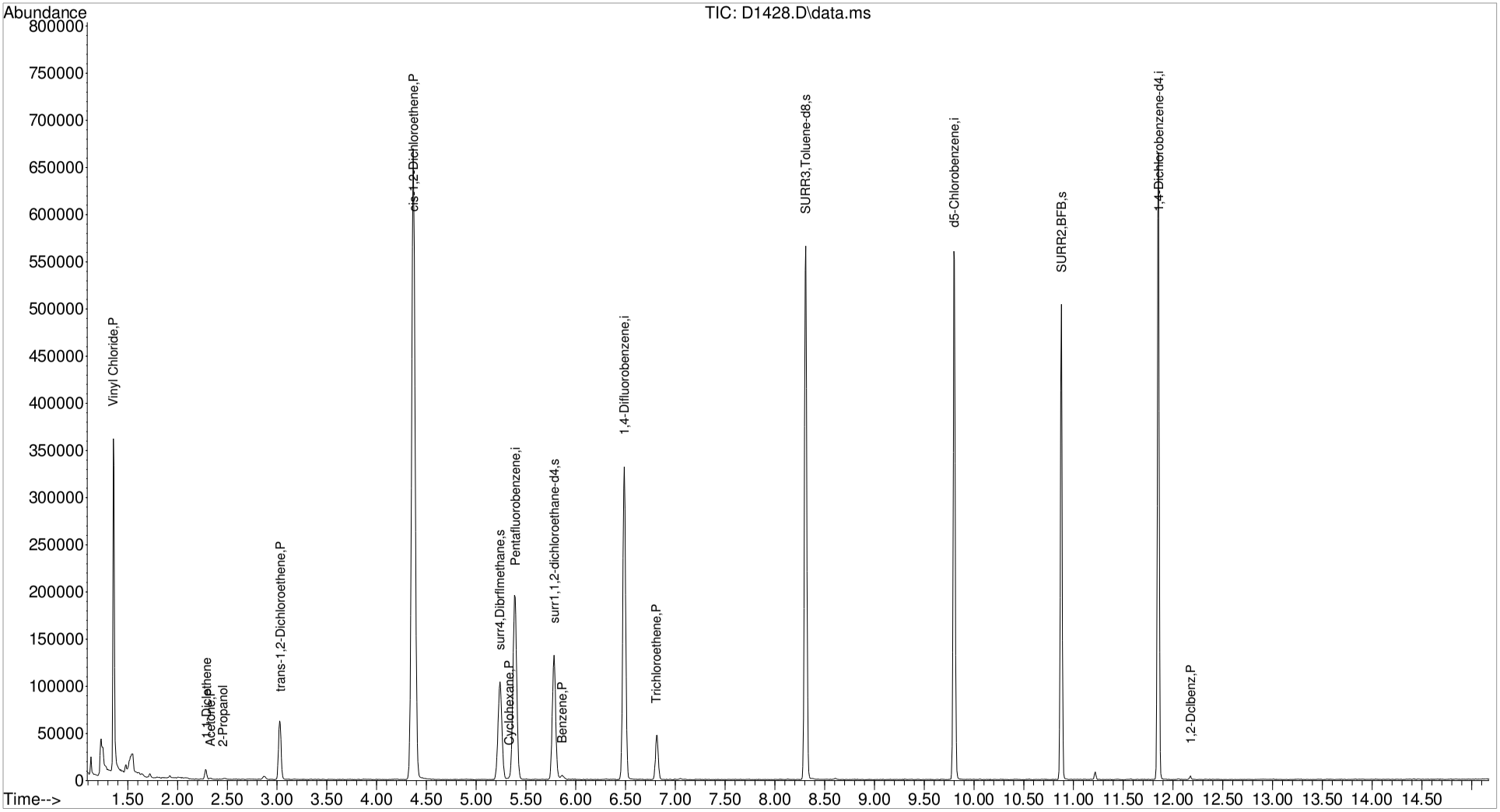
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	190387	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	288497	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	250960	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	128405	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	86898	49.23	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.46%			
46) surr1,1,2-dichloroetha...	5.781	65	106092	51.99	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.98%			
64) SURR3,Toluene-d8	8.311	98	345067	49.61	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.22%			
69) SURR2,BFB	10.878	95	123249	45.75	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.50%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	211801	74.73	ug/L	96
13) 1,1-Diclethene	2.288	96	2742	1.47	ug/L	89
15) Acetone	2.331	43	1462	1.47	ug/L	90
16) 2-Propanol	2.459	45	1030	6.45	ug/L	94
26) trans-1,2-Dichloroethene	3.032	96	22624	11.02	ug/L	94
33) cis-1,2-Dichloroethene	4.367	96	365373	163.04	ug/L	97
42) Cyclohexane	5.330	41	482m	0.24	ug/L	
47) Benzene	5.866	78	3869	0.46	ug/L	86
53) Trichloroethene	6.811	130	16252	7.13	ug/L	94
109) 1,2-Dclbenz	12.176	146	1264	0.29	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

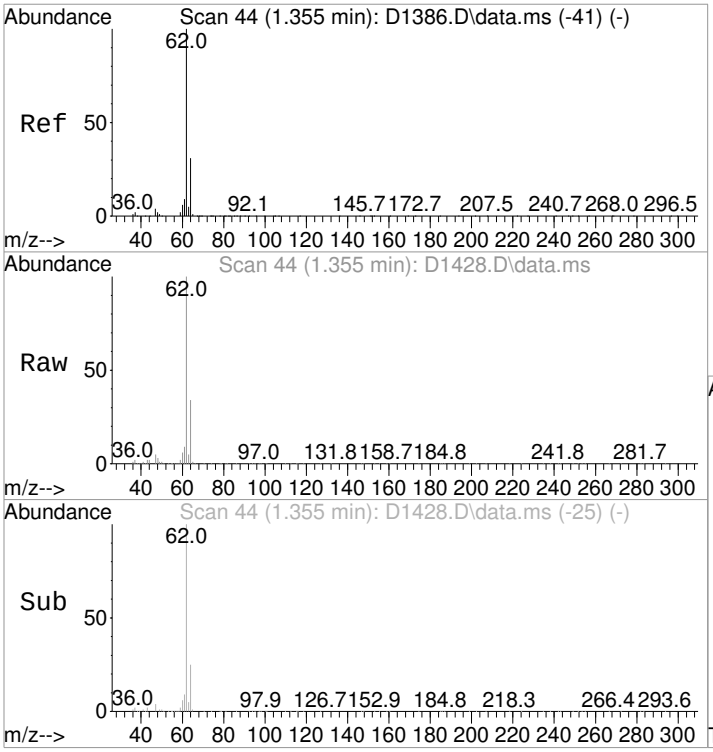
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1428.D
Acq On : 15 Feb 2018 3:52 pm
Operator : D.LIPANI
Sample : R1801238-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 16 15:12:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



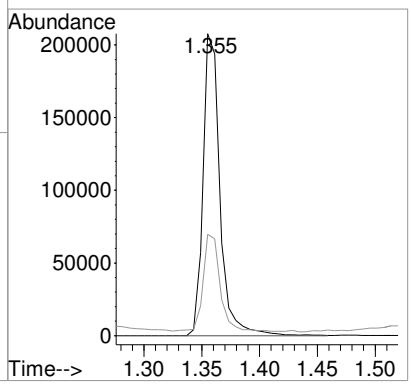
1st DL 02/16/18
2nd FJ 02/17/18

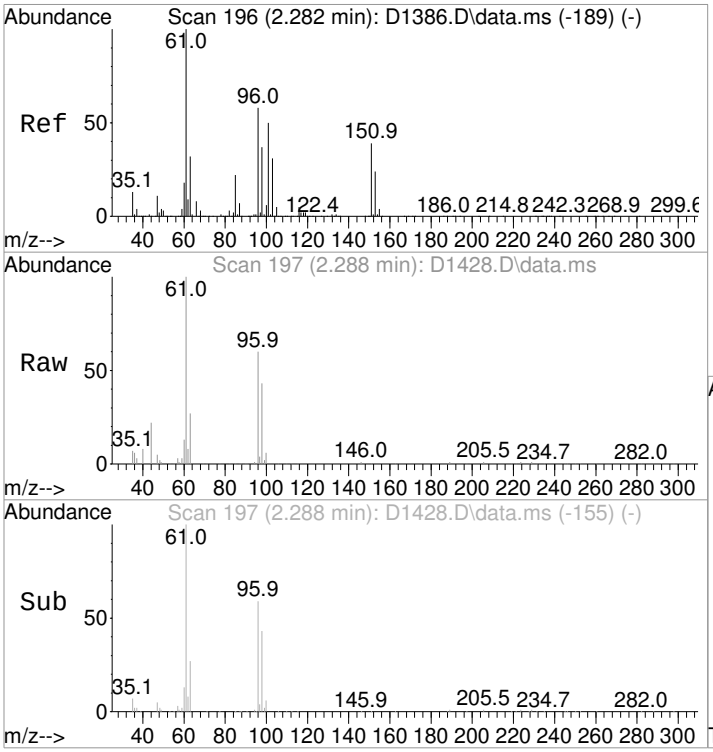


#4
Vinyl Chloride
Concen: 74.73 ug/L
RT: 1.355 min Scan# 44
Delta R.T. 0.000 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 62 Resp: 211801

Ion	Ratio	Lower	Upper
62	100		
64	33.5	11.2	51.2

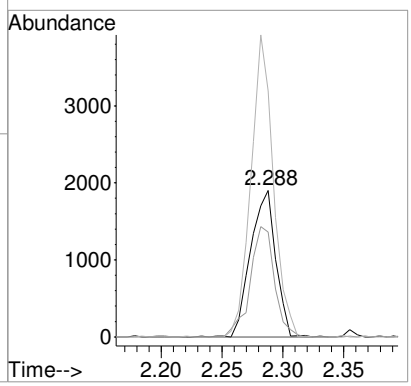


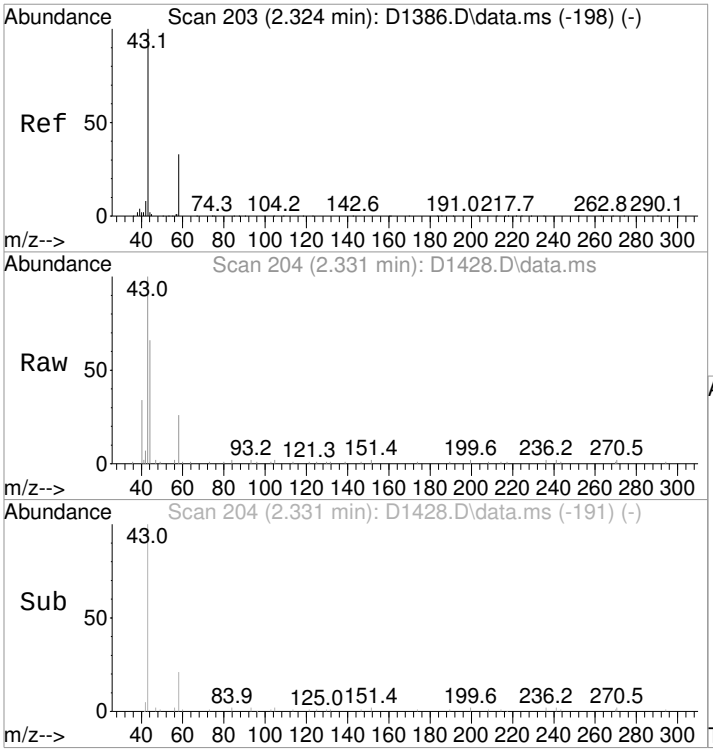


#13
1,1-Diclethene
Concen: 1.47 ug/L
RT: 2.288 min Scan# 197
Delta R.T. 0.006 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 96 Resp: 2742

Ion	Ratio	Lower	Upper
96	100		
98	71.6	42.2	82.2
61	168.0	134.9	174.9

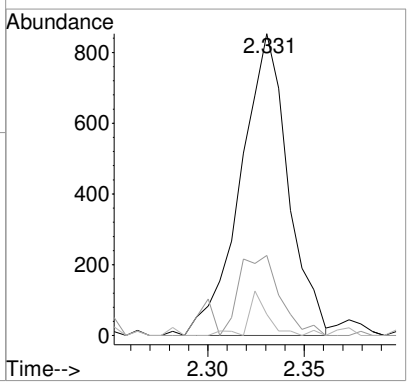


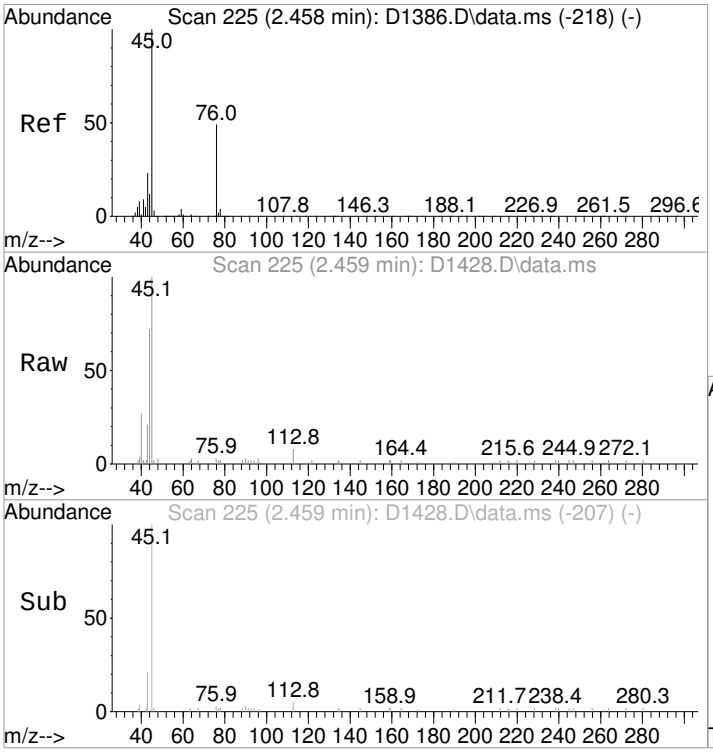


#15
Acetone
Concen: 1.47 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 43 Resp: 1462

Ion	Ratio	Lower	Upper
43	100		
58	26.5	12.8	52.8
42	7.0	0.0	30.0

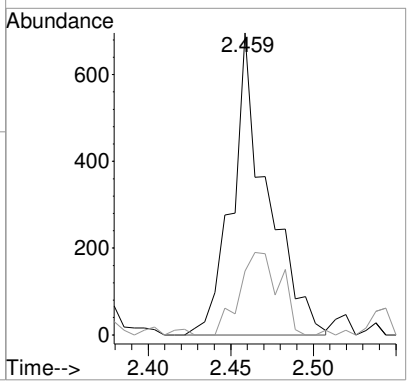


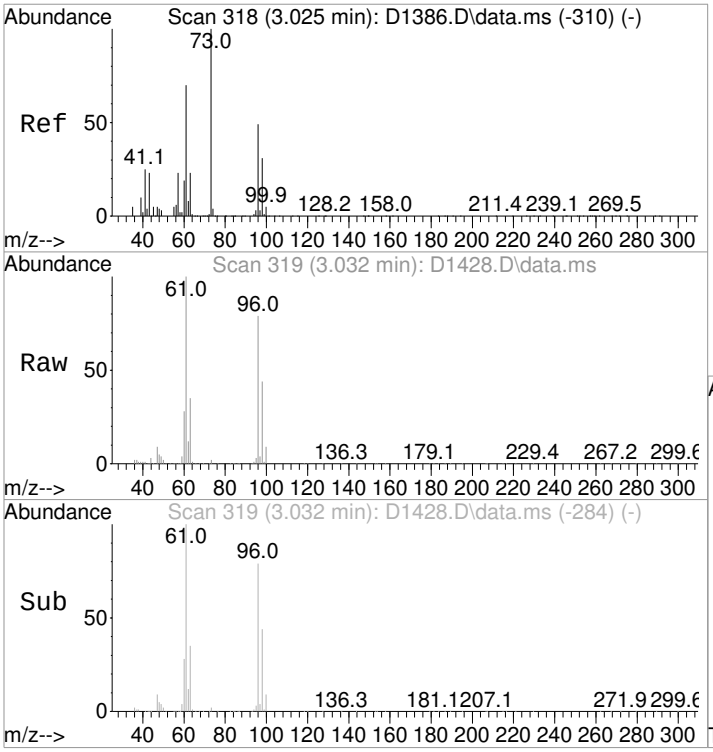


#16
2-Propanol
Concen: 6.45 ug/L
RT: 2.459 min Scan# 225
Delta R.T. 0.001 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 45 Resp: 1030

Ion	Ratio	Lower	Upper
45	100		
43	21.1	4.3	44.3

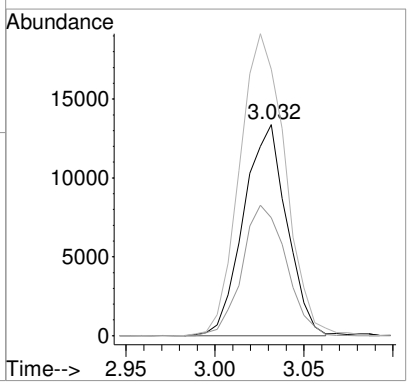


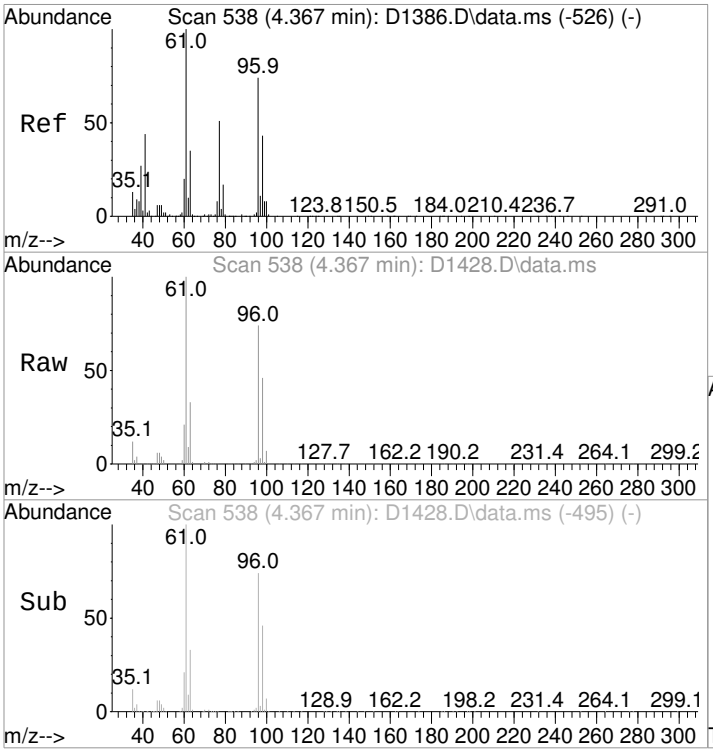


#26
trans-1,2-Dichloroethene
Concen: 11.02 ug/L
RT: 3.032 min Scan# 319
Delta R.T. 0.006 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 96 Resp: 22624

Ion	Ratio	Lower	Upper
96	100		
98	55.9	40.9	80.9
61	126.2	113.1	153.1

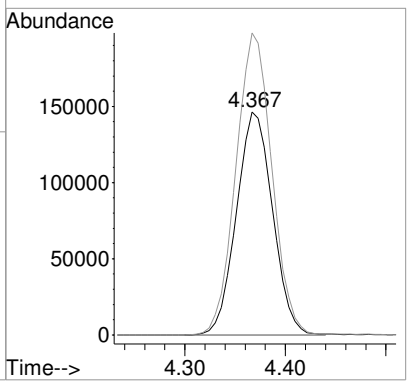


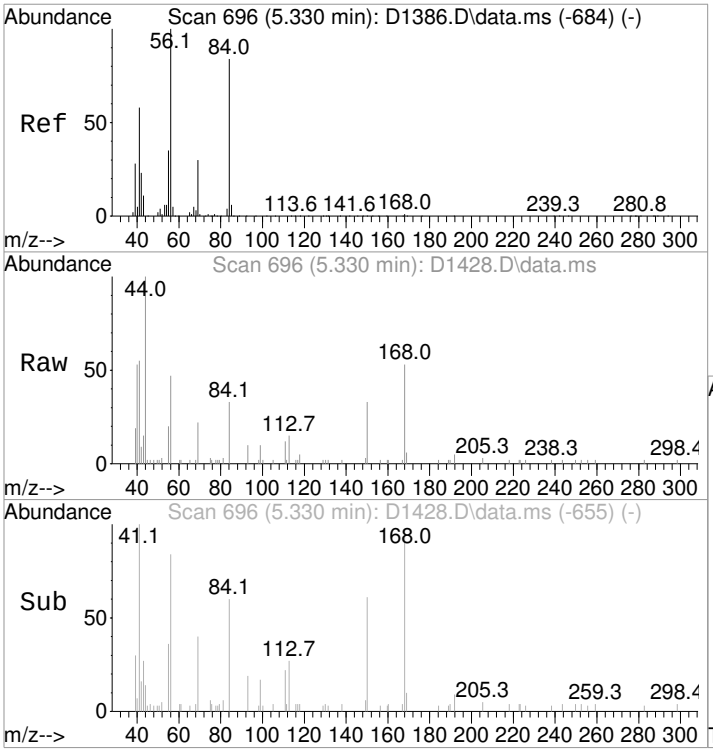


#33
cis-1,2-Dichloroethene
Concen: 163.04 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 96 Resp: 365373

Ion	Ratio	Lower	Upper
96	100		
61	135.5	111.5	151.5

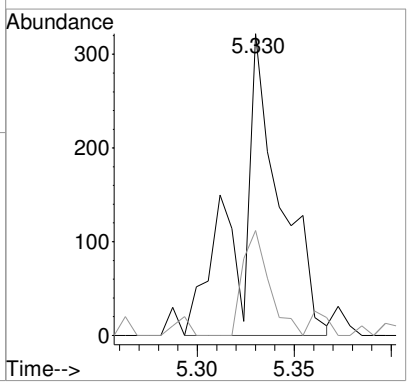


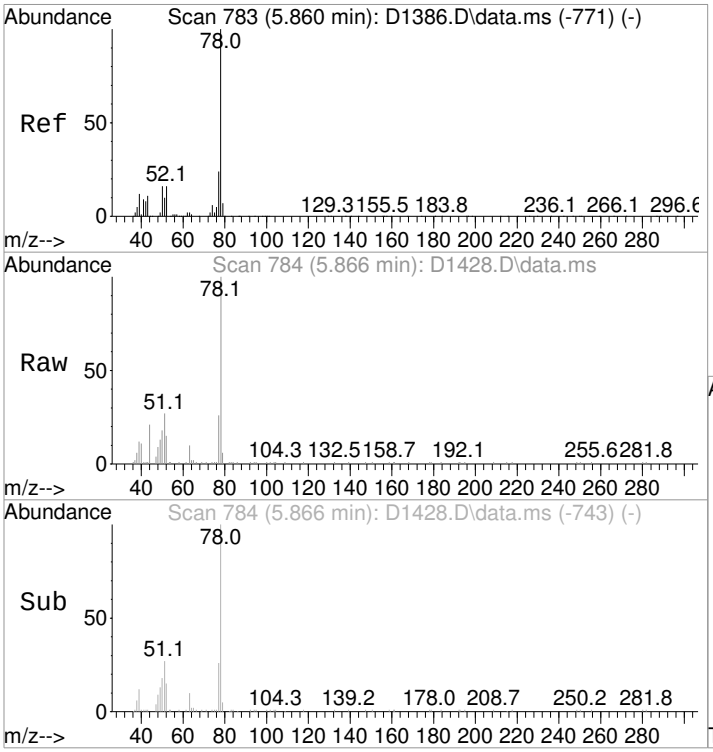


#42
Cyclohexane
Concen: 0.24 ug/L m
RT: 5.330 min Scan# 696
Delta R.T. 0.000 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 41 Resp: 482

Ion	Ratio	Lower	Upper
41	100		
39	34.8	28.2	68.2

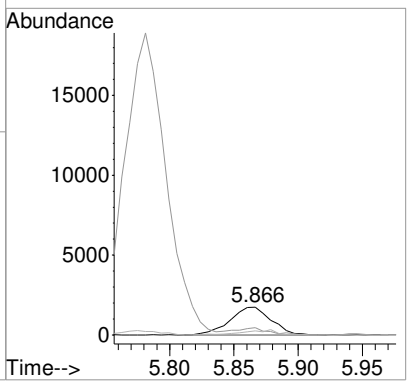


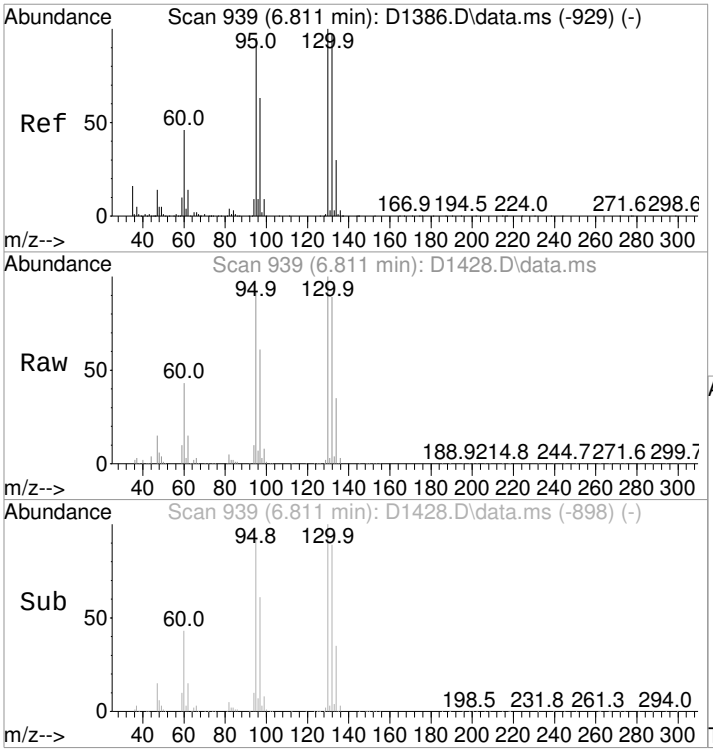


#47
Benzene
Concen: 0.46 ug/L
RT: 5.866 min Scan# 784
Delta R.T. 0.006 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion: 78 Resp: 3869

Ion	Ratio	Lower	Upper
78	100		
51	26.7	0.0	35.9
52	15.0	0.0	36.4

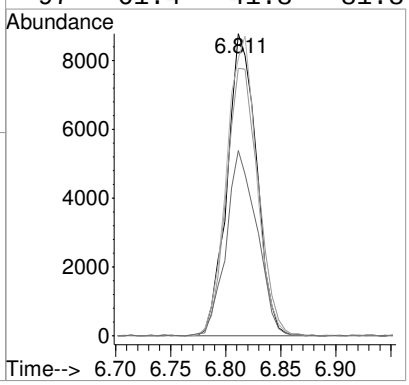


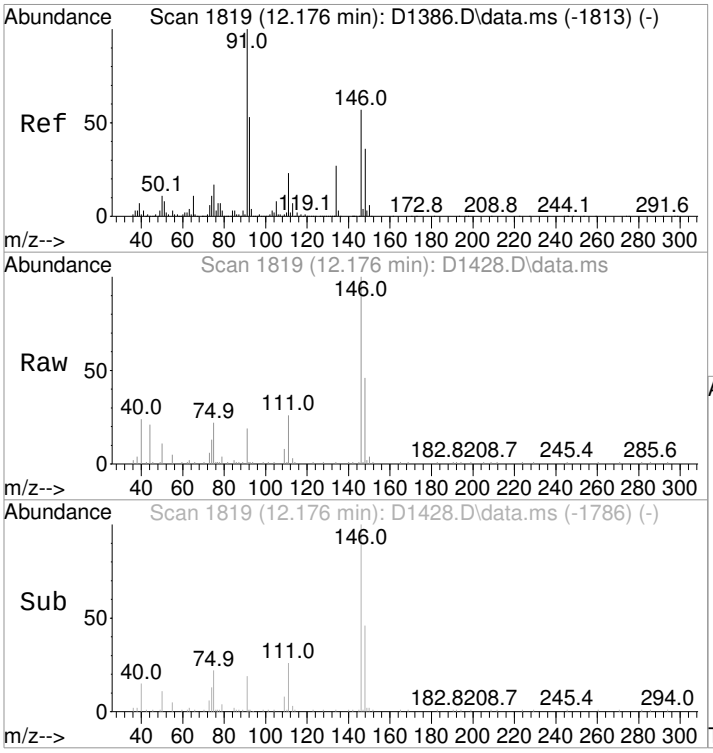


#53
Trichloroethene
Concen: 7.13 ug/L
RT: 6.811 min Scan# 939
Delta R.T. 0.000 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion:130 Resp: 16252

Ion	Ratio	Lower	Upper
130	100		
132	88.6	80.0	120.0
95	91.8	68.5	108.5
97	61.4	41.8	81.8

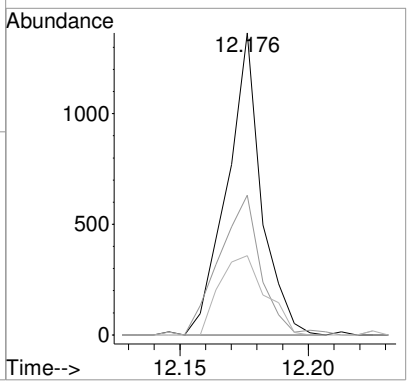




#109
1,2-Dclbenz
Concen: 0.29 ug/L
RT: 12.176 min Scan# 1819
Delta R.T. 0.006 min
Lab File: D1428.D
Acq: 15 Feb 2018 3:52 pm

Tgt Ion:146 Resp: 1264

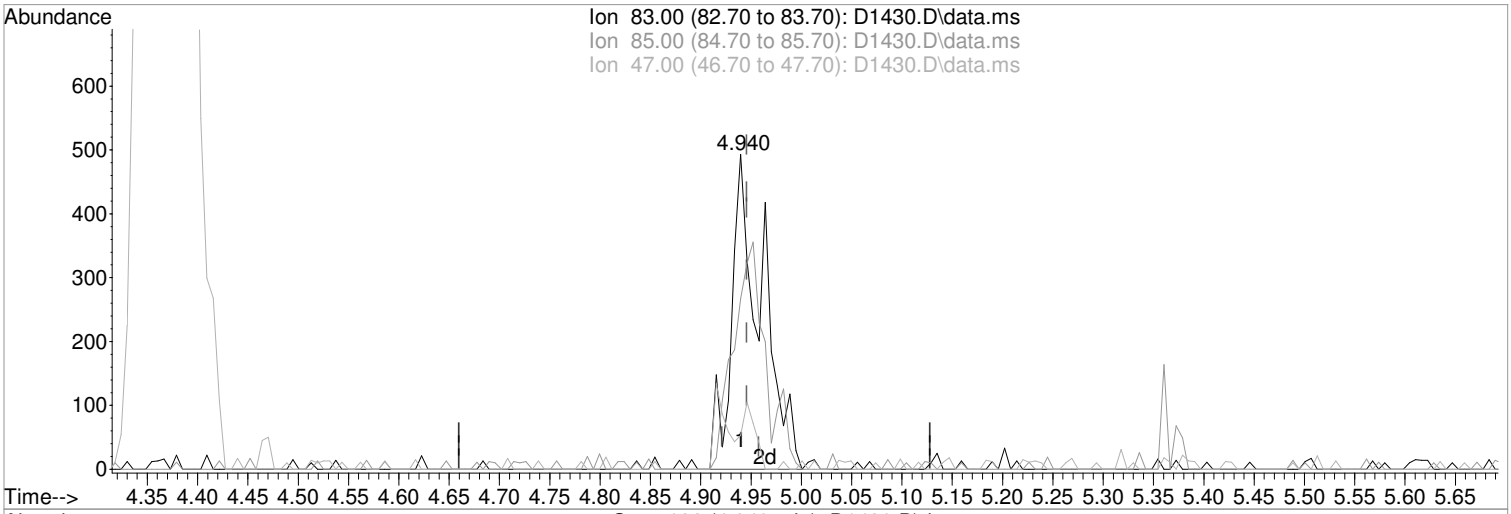
Ion	Ratio	Lower	Upper
146	100		
148	46.2	44.2	84.2
111	26.2	17.5	57.5

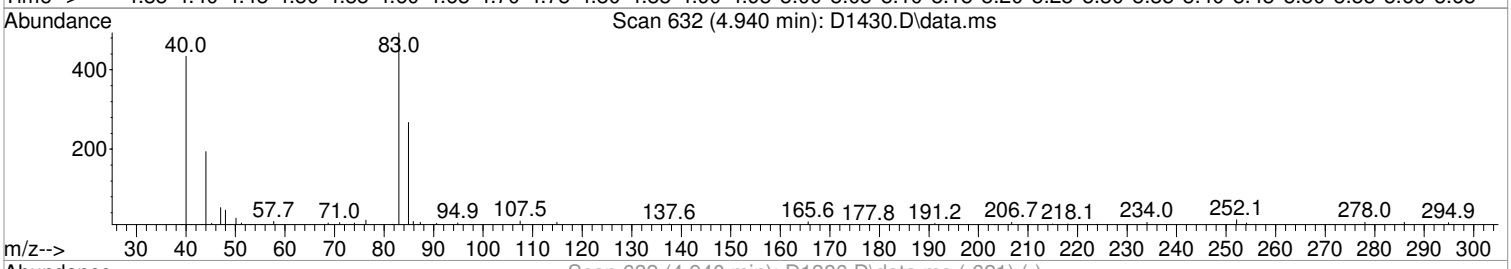


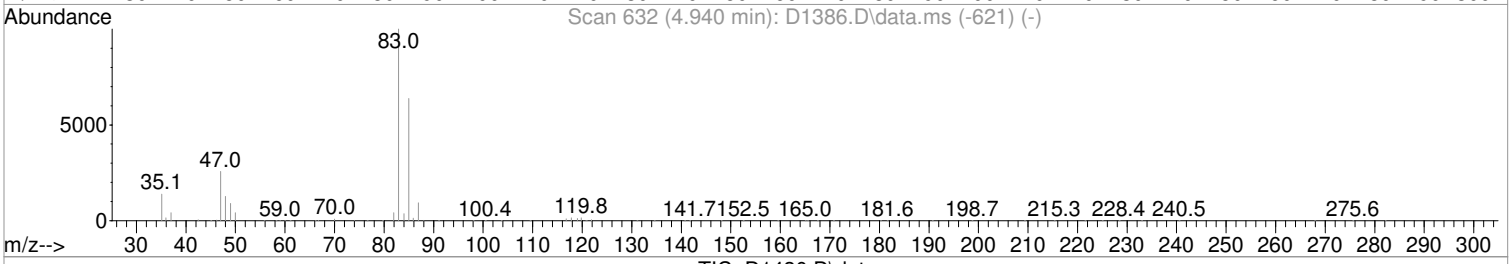
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1430.D
Acq On : 15 Feb 2018 4:41 pm
Operator : D.LIPANI
Sample : R1801238-009|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 16:55:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1430.D\data.ms

(39) Chloroform (P)

4.940min (-0.006) 0.28 ug/L m

response 1037

Ion	Exp%	Act%
83.00	100	100
85.00	64.60	54.16
47.00	22.60	10.75
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

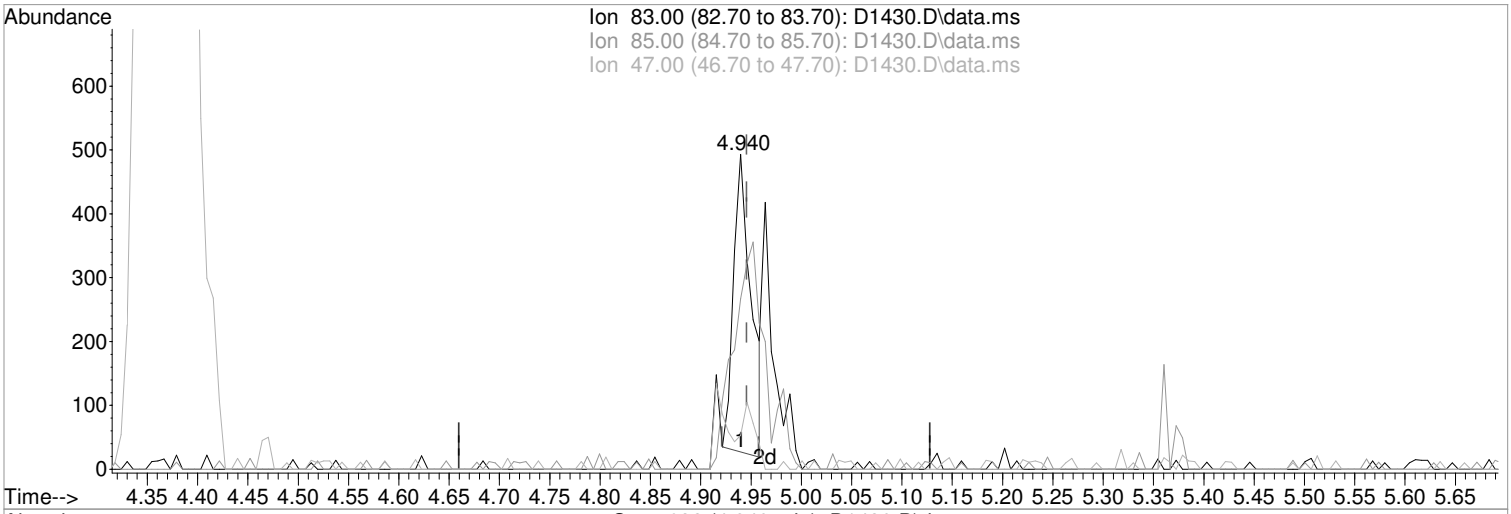
02/16/18

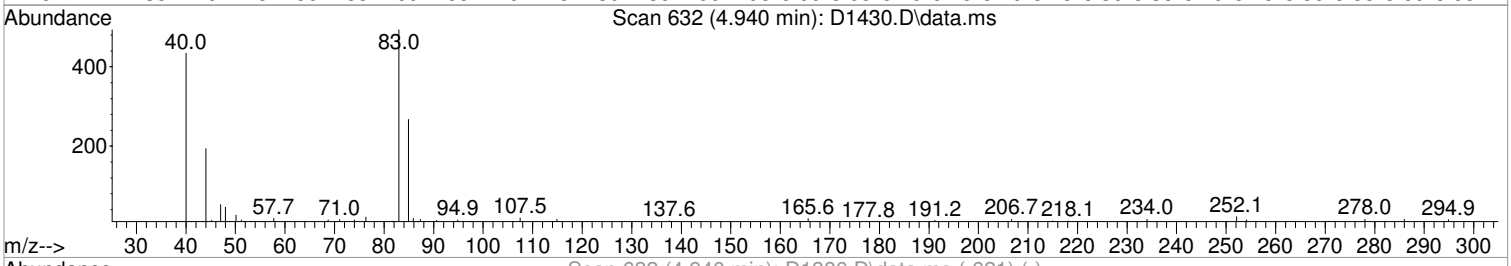
1st DL 02/16/18
2nd FJ 02/17/18

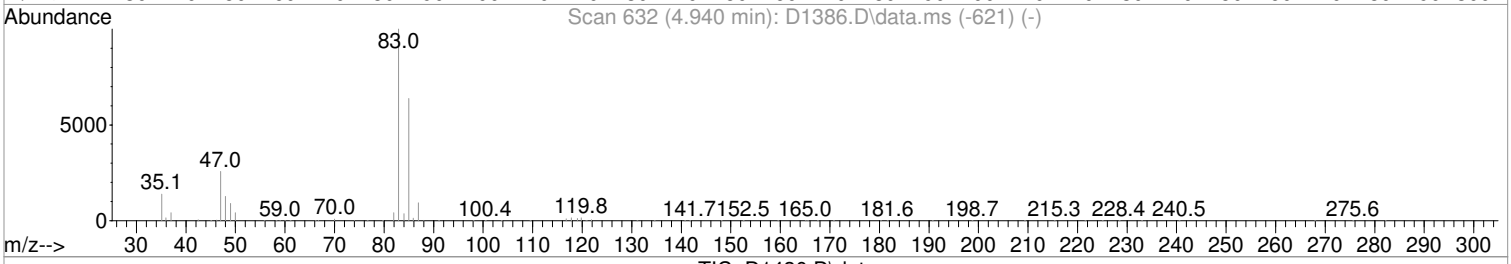
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1430.D
Acq On : 15 Feb 2018 4:41 pm
Operator : D.LIPANI
Sample : R1801238-009|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 16:55:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1430.D\data.ms

(39) Chloroform (P)

4.940min (-0.006) 0.16 ug/L

response 565

Ion	Exp%	Act%
83.00	100	100
85.00	64.60	54.16
47.00	22.60	10.75
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1430.D
Acq On : 15 Feb 2018 4:41 pm
Operator : D.LIPANI
Sample : R1801238-009|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 16 15:15:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

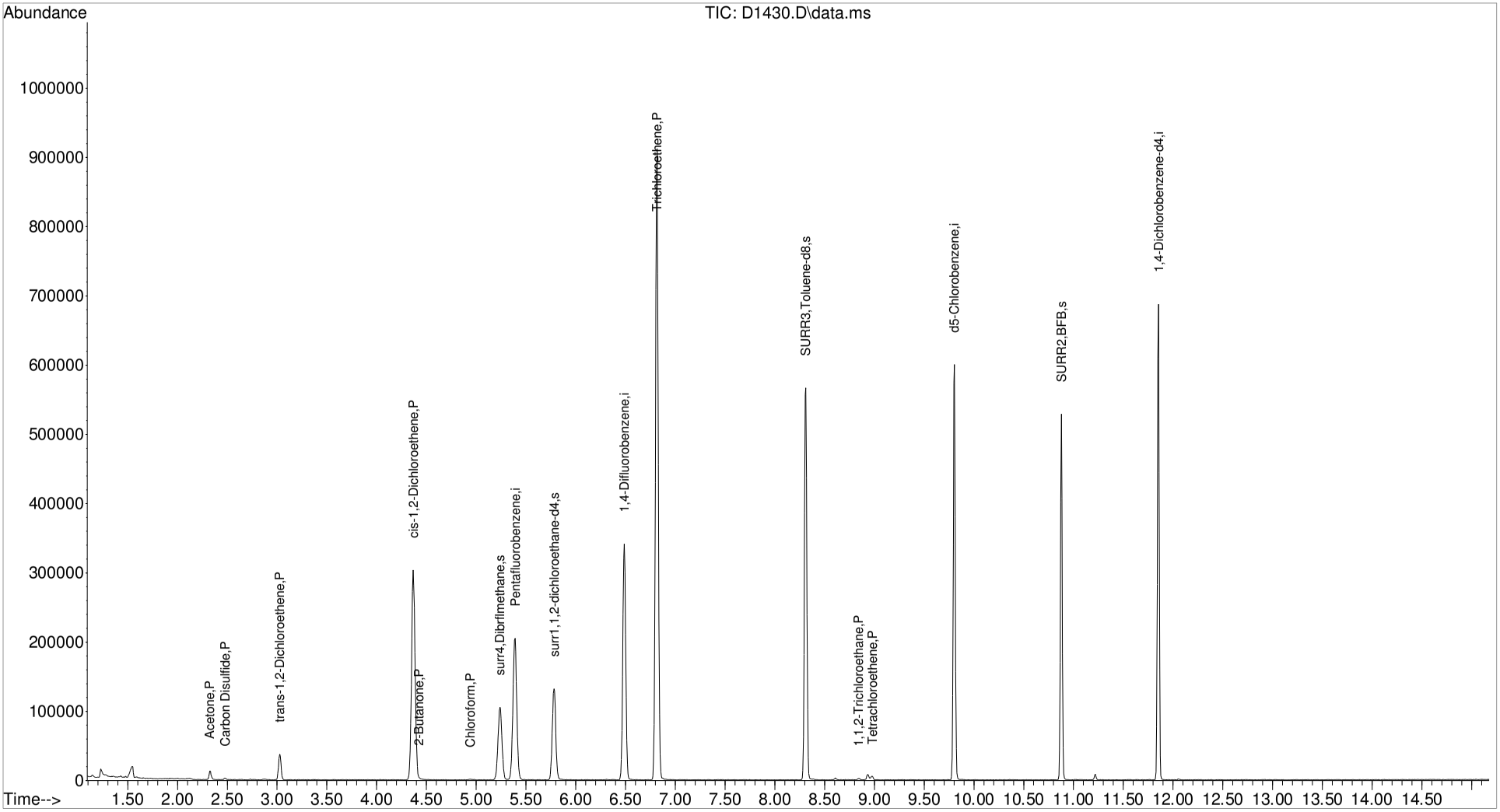
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	196694	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	300313	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	260928	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	134372	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	88564	48.20	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.40%			
46) surr1,1,2-dichloroetha...	5.781	65	110400	51.97	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.94%			
64) SURR3,Toluene-d8	8.311	98	358072	49.45	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.90%			
69) SURR2,BFB	10.878	95	128643	45.87	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.74%			
Target Compounds						Qvalue
15) Acetone	2.324	43	12181	11.87	ug/L	93
18) Carbon Disulfide	2.477	76	2365	0.44	ug/L	99
26) trans-1,2-Dichloroethene	3.025	96	13920	6.56	ug/L	88
33) cis-1,2-Dichloroethene	4.367	96	166911	72.09	ug/L	100
34) 2-Butanone	4.428	43	1507	1.08	ug/L	96
39) Chloroform	4.940	83	1037m	0.28	ug/L	
53) Trichloroethene	6.817	130	318938	134.33	ug/L	95
68) 1,1,2-Trichloroethane	8.841	97	626	0.31	ug/L	91
71) Tetrachloroethene	8.982	164	1108	0.61	ug/L #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

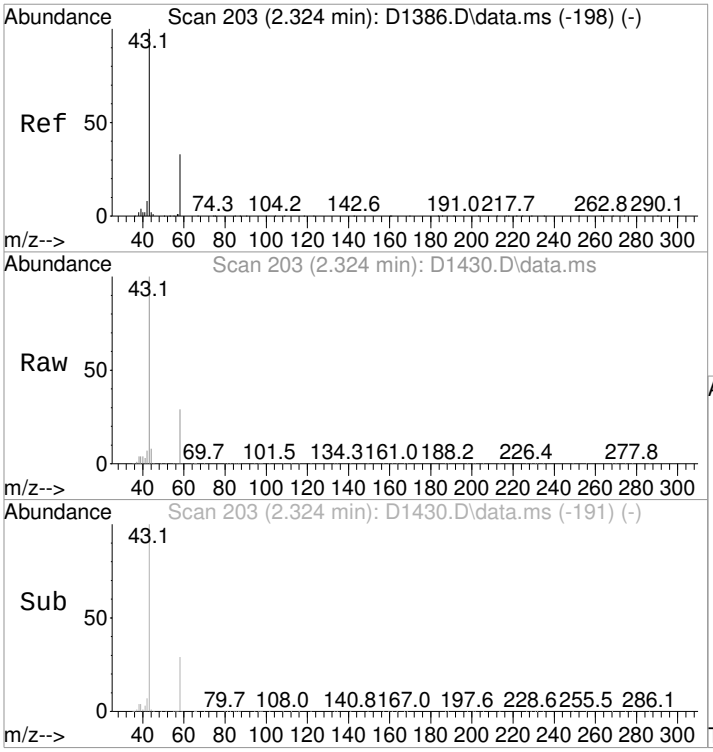
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1430.D
Acq On : 15 Feb 2018 4:41 pm
Operator : D.LIPANI
Sample : R1801238-009|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 16 15:15:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



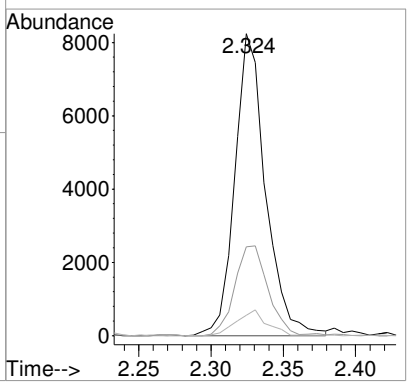
1st DL 02/16/18
2nd FJ 02/17/18

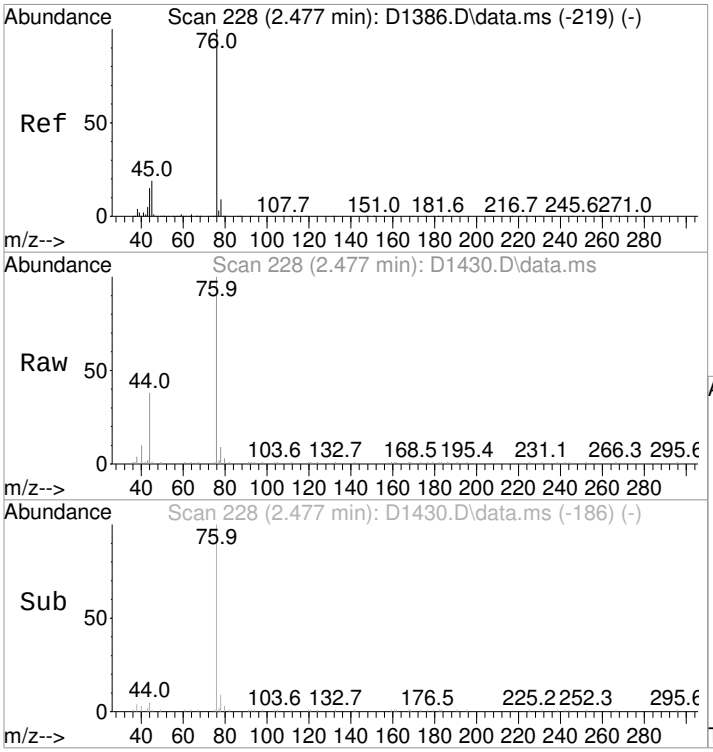


#15
Acetone
Concen: 11.87 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion: 43 Resp: 12181

Ion	Ratio	Lower	Upper
43	100		
58	29.5	12.8	52.8
42	6.7	0.0	30.0

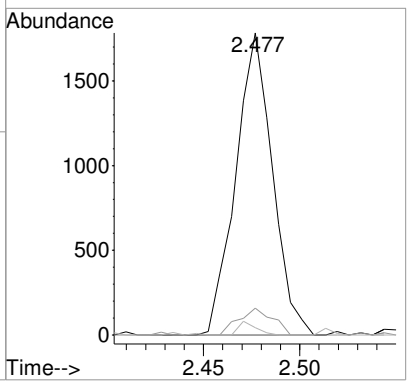


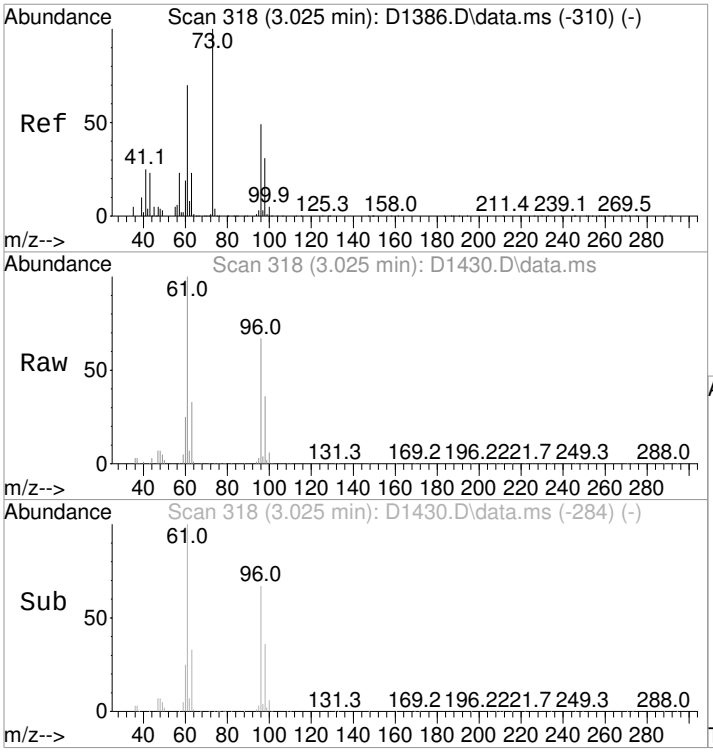


#18
Carbon Disulfide
Concen: 0.44 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion: 76 Resp: 2365

Ion	Ratio	Lower	Upper
76	100		
78	8.9	0.0	29.1
77	2.5	0.0	22.8

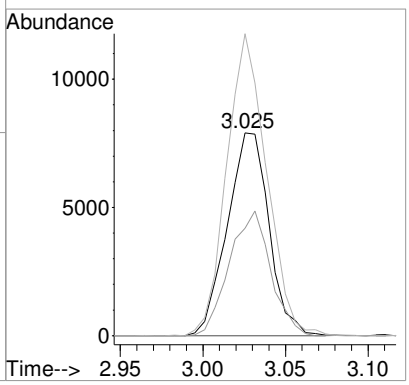


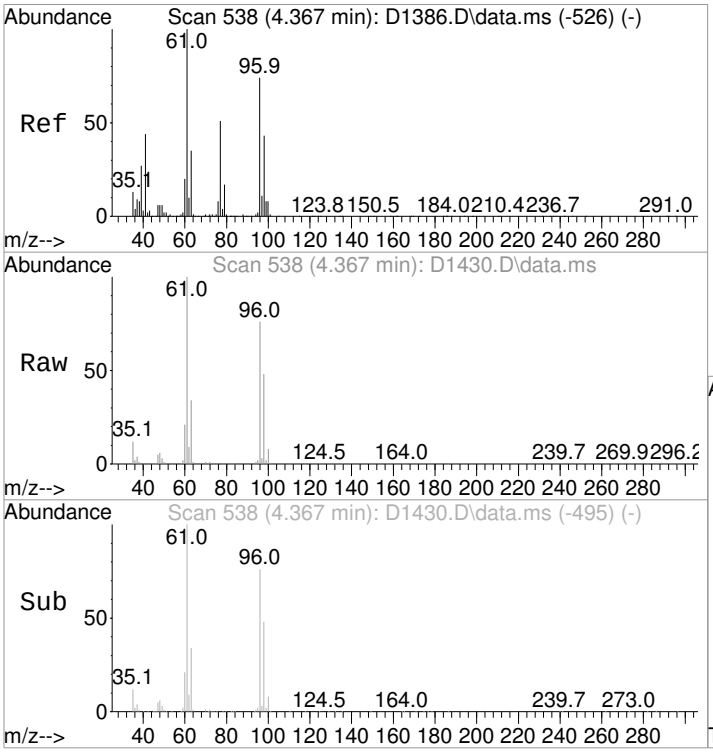


#26
trans-1,2-Dichloroethene
Concen: 6.56 ug/L
RT: 3.025 min Scan# 318
Delta R.T. -0.000 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion: 96 Resp: 13920

Ion	Ratio	Lower	Upper
96	100		
98	53.0	40.9	80.9
61	148.8	113.1	153.1

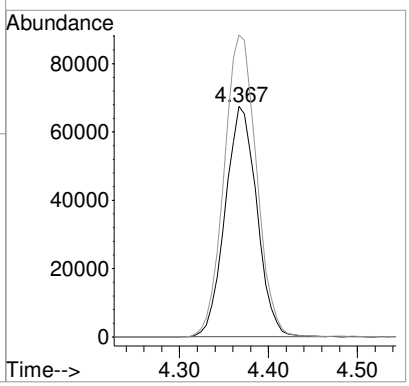


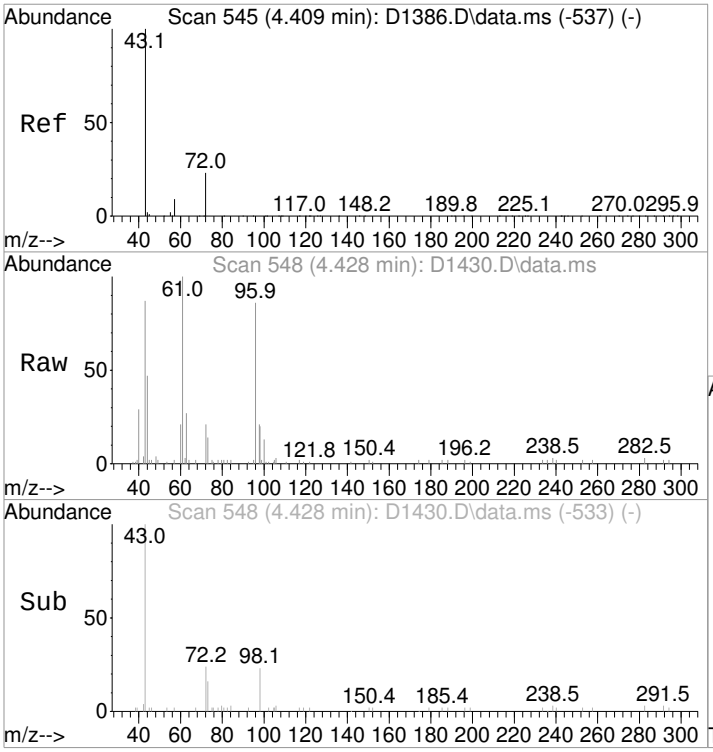


#33
cis-1,2-Dichloroethene
Concen: 72.09 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion: 96 Resp: 166911

Ion	Ratio	Lower	Upper
96	100		
61	131.0	111.5	151.5

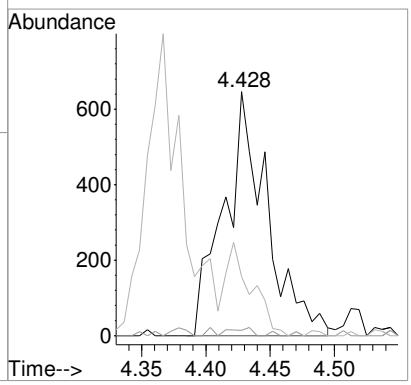


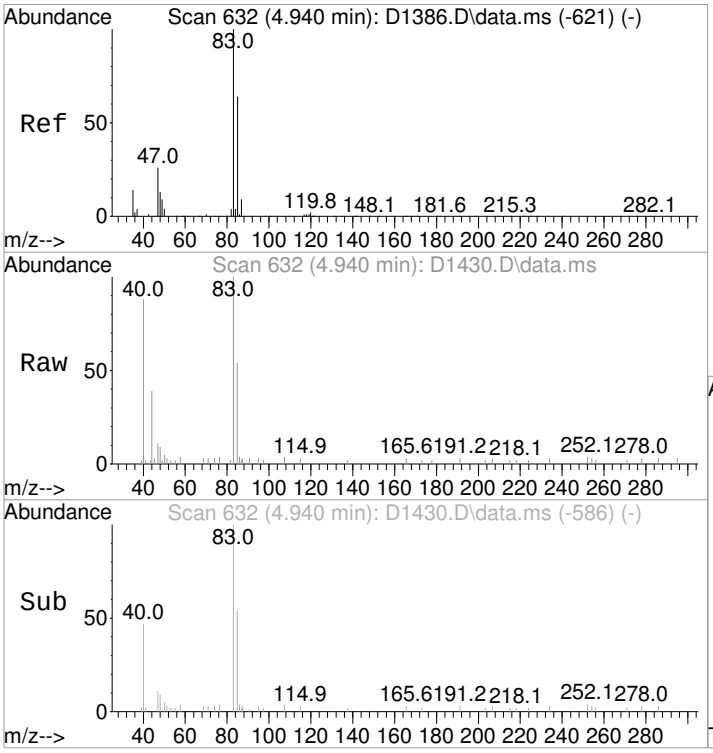


#34
2-Butanone
Concen: 1.08 ug/L
RT: 4.428 min Scan# 548
Delta R.T. 0.012 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion: 43 Resp: 1507

Ion	Ratio	Lower	Upper
43	100		
57	2.2	0.0	27.1
72	24.3	4.9	44.9

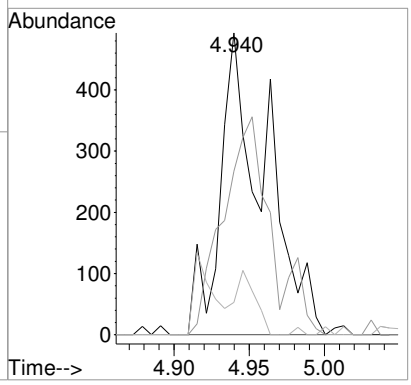


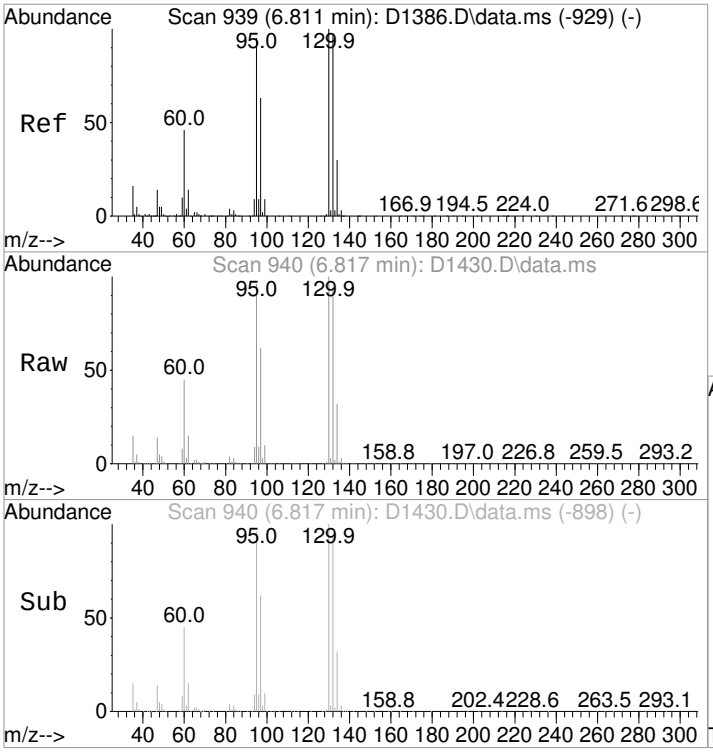


#39
Chloroform
Concen: 0.28 ug/L m
RT: 4.940 min Scan# 632
Delta R.T. -0.006 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion: 83 Resp: 1037

Ion	Ratio	Lower	Upper
83	100		
85	54.2	44.6	84.6
47	10.8	2.6	42.6

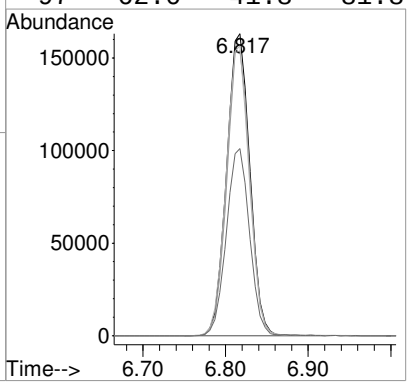


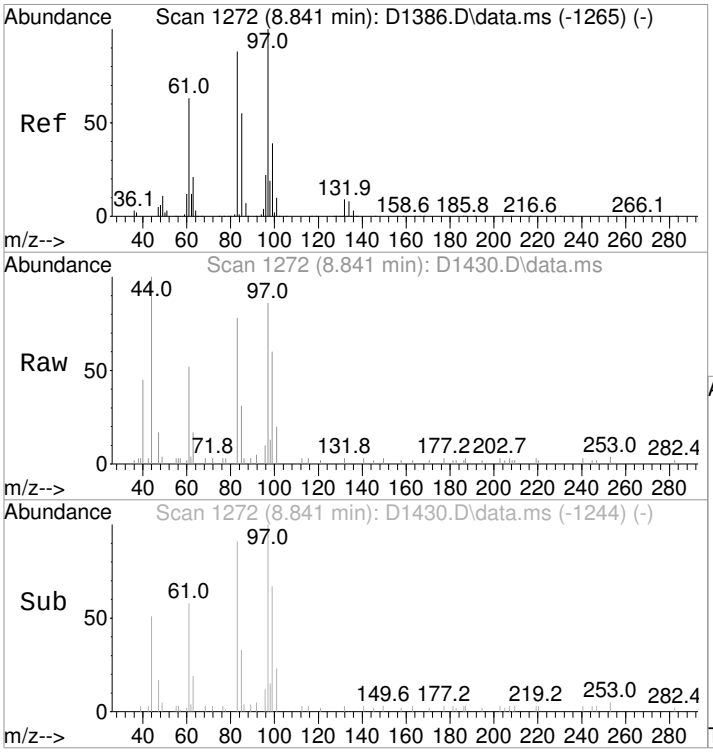


#53
Trichloroethene
Concen: 134.33 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion:130 Resp: 318938

Ion	Ratio	Lower	Upper
130	100		
132	94.3	80.0	120.0
95	96.0	68.5	108.5
97	62.0	41.8	81.8

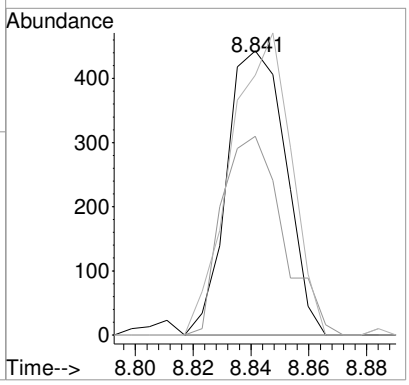


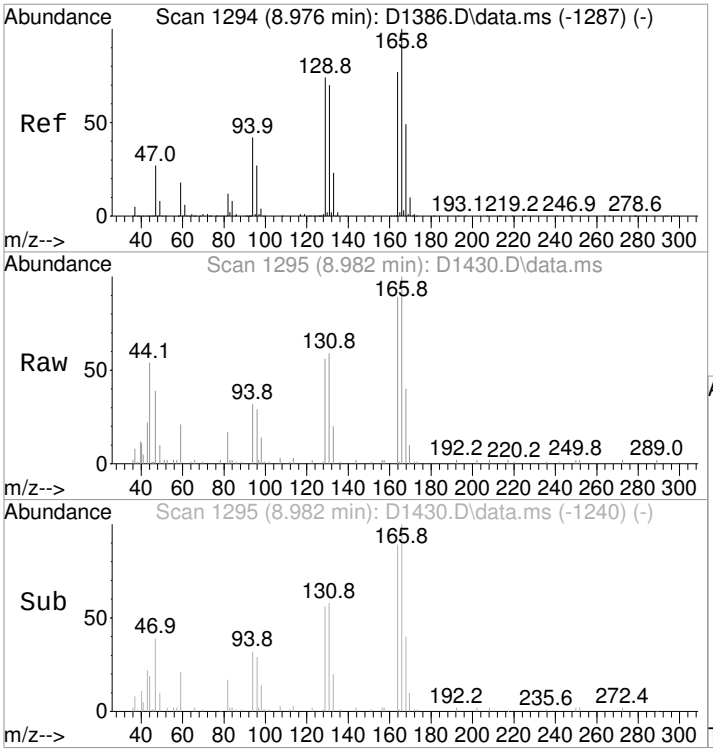


#68
1,1,2-Trichloroethane
Concen: 0.31 ug/L
RT: 8.841 min Scan# 1272
Delta R.T. -0.000 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion: 97 Resp: 626

Ion	Ratio	Lower	Upper
97	100		
99	70.0	44.2	84.2
83	91.4	62.0	102.0

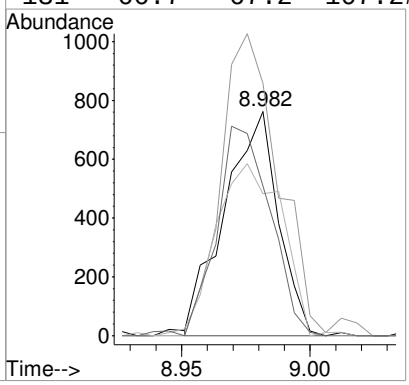




#71
Tetrachloroethene
Concen: 0.61 ug/L
RT: 8.982 min Scan# 1295
Delta R.T. 0.006 min
Lab File: D1430.D
Acq: 15 Feb 2018 4:41 pm

Tgt Ion:164 Resp: 1108

Ion	Ratio	Lower	Upper
164	100		
166	112.5	108.6	148.6
129	63.3	69.1	109.1#
131	66.7	67.2	107.2#



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1437.D
Acq On : 15 Feb 2018 7:14 pm
Operator : D.LIPANI
Sample : R1801238-010|50 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 16 15:37:39 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

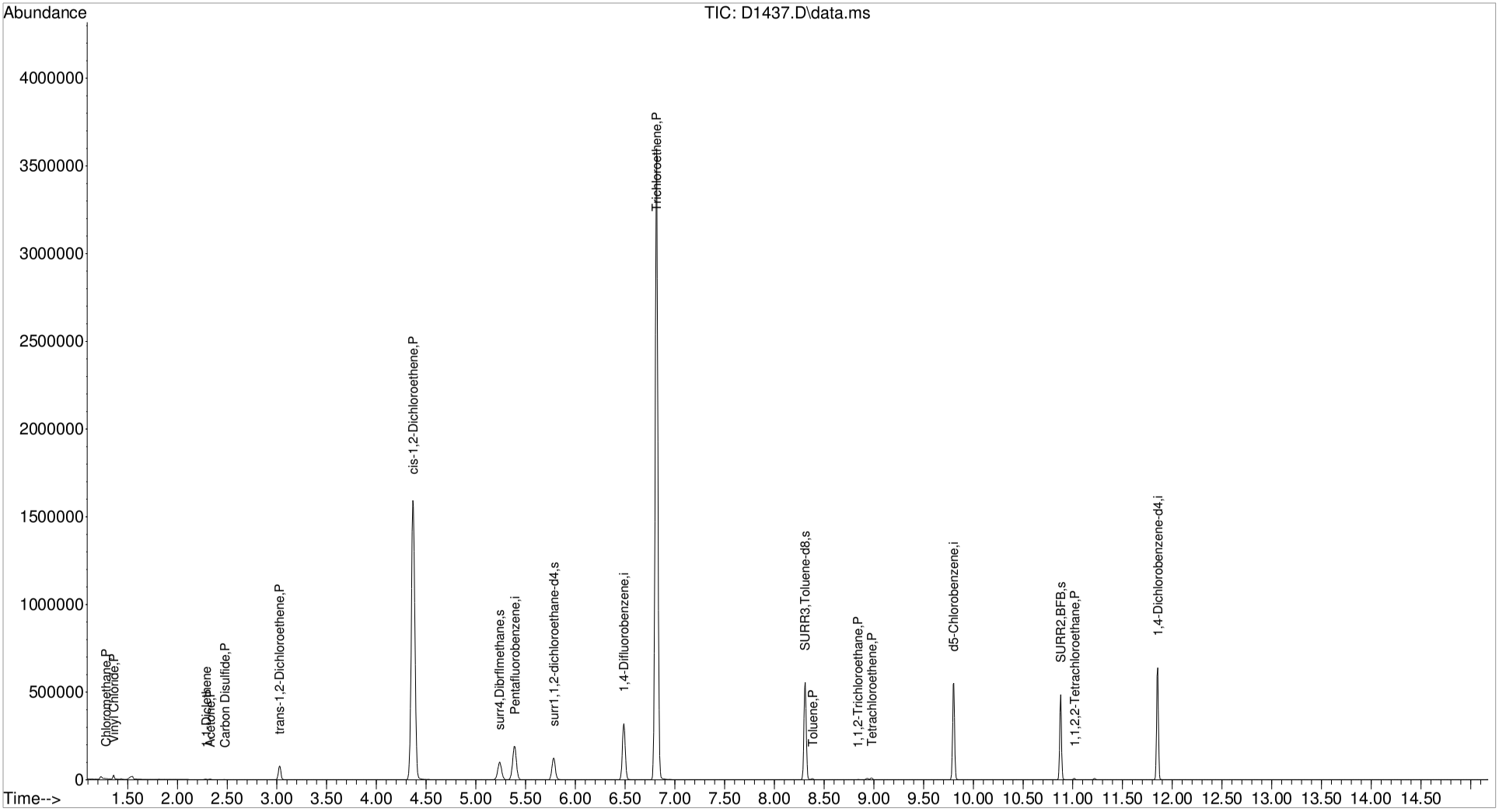
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	5.391	168	184381	50.00	ug/L	0.00	
41) 1,4-Difluorobenzene	6.488	114	282601	50.00	ug/L	0.00	
70) d5-Chlorobenzene	9.805	117	247565	50.00	ug/L	0.00	
90) 1,4-Dichlorobenzene-d4	11.853	152	127443	50.00	ug/L	0.00	
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	83630	48.37	ug/L	0.00	
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.74%				
46) surr1,1,2-dichloroetha...	5.781	65	104122	52.08	ug/L	0.00	
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.16%				
64) SURR3,Toluene-d8	8.311	98	338522	49.68	ug/L	0.00	
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.36%				
69) SURR2,BFB	10.878	95	119725	45.37	ug/L	0.00	
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.74%				RPT 1 / 200
Target Compounds						Qvalue	
3) Chloromethane	1.282	50	700	0.24	ug/L #	63	
4) Vinyl Chloride	1.361	62	12893	4.70	ug/L	91	
13) 1,1-Diclethene	2.288	96	916	0.51	ug/L #	79	
15) Acetone	2.331	43	3540	3.68	ug/L	77	
18) Carbon Disulfide	2.477	76	1089	0.22	ug/L	85	
26) trans-1,2-Dichloroethene	3.026	96	28440	14.31	ug/L #	85	
33) cis-1,2-Dichloroethene	4.373	96	874527	402.96	ug/L	97	E-Over Calibration
53) Trichloroethene	6.817	130	1200208	537.17	ug/L	95	E-Over Calibration
65) Toluene	8.384	91	3696	0.42	ug/L	84	
68) 1,1,2-Trichloroethane	8.841	97	457	0.24	ug/L	95	
71) Tetrachloroethene	8.982	164	2001	1.16	ug/L	92	
91) 1,1,2,2-Tetrachloroethane	11.018	83	3118	1.20	ug/L	92	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

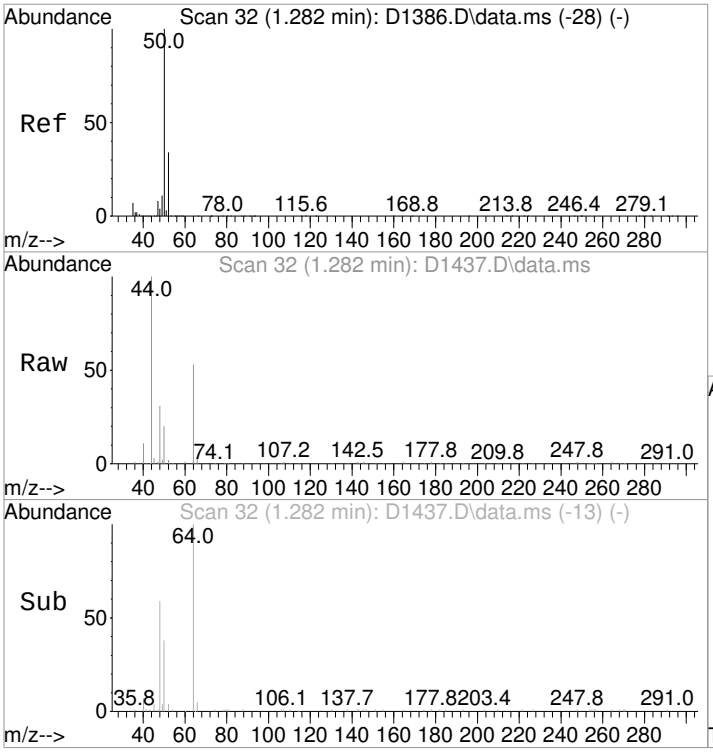
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1437.D
Acq On : 15 Feb 2018 7:14 pm
Operator : D.LIPANI
Sample : R1801238-010|50 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 16 15:37:39 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



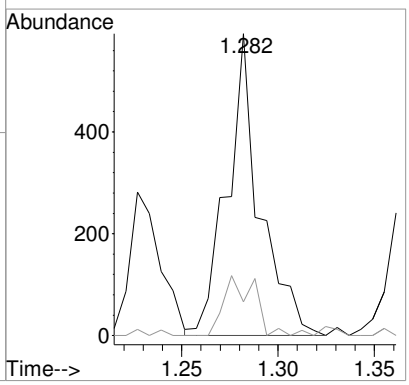
1st DL 02/16/18
2nd FJ 02/17/18

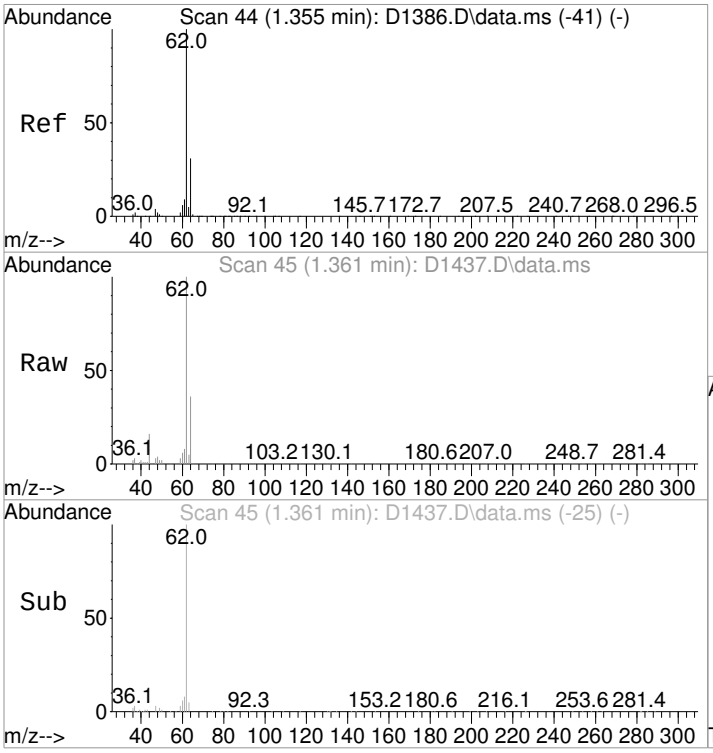


#3
Chloromethane
Concen: 0.24 ug/L
RT: 1.282 min Scan# 32
Delta R.T. 0.000 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 50 Resp: 700

Ion	Ratio	Lower	Upper
50	100		
52	11.1	11.6	51.6#

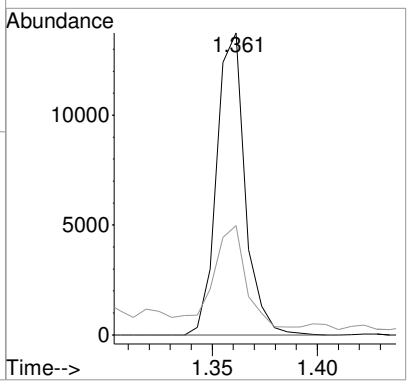


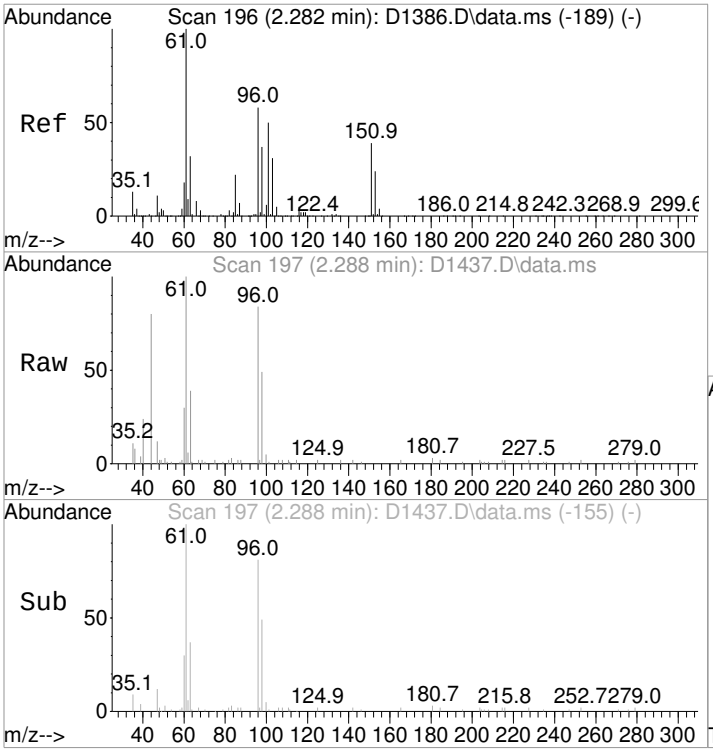


#4
Vinyl Chloride
Concen: 4.70 ug/L
RT: 1.361 min Scan# 45
Delta R.T. 0.006 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 62 Resp: 12893

Ion	Ratio	Lower	Upper
62	100		
64	36.2	11.2	51.2

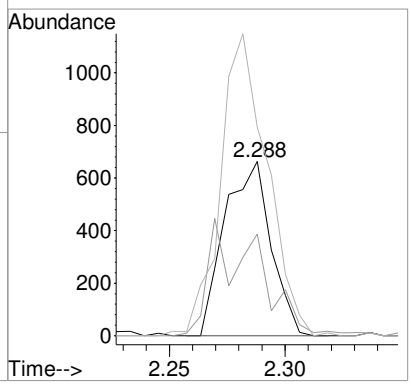


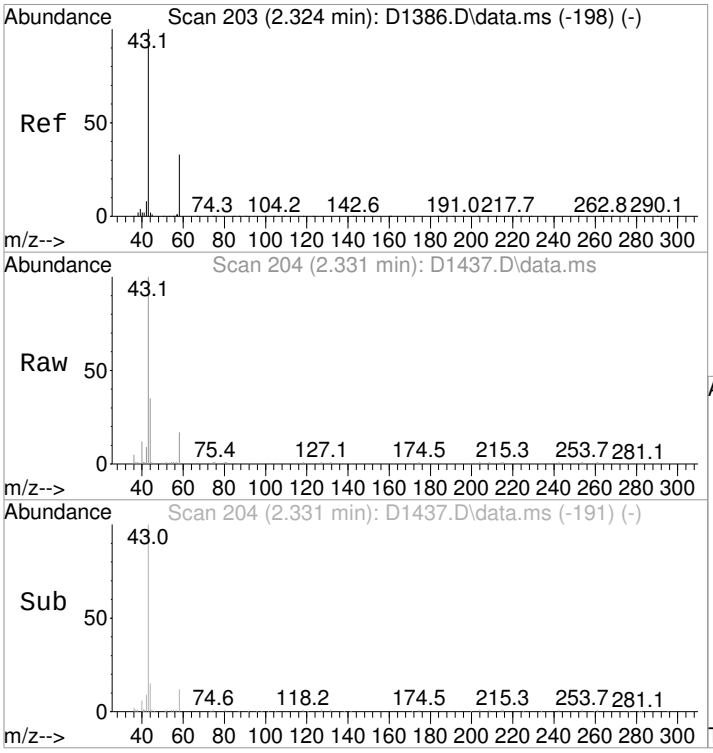


#13
1,1-Diclethene
Concen: 0.51 ug/L
RT: 2.288 min Scan# 197
Delta R.T. 0.006 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 96 Resp: 916

Ion	Ratio	Lower	Upper
96	100		
98	58.4	42.2	82.2
61	119.8	134.9	174.9#

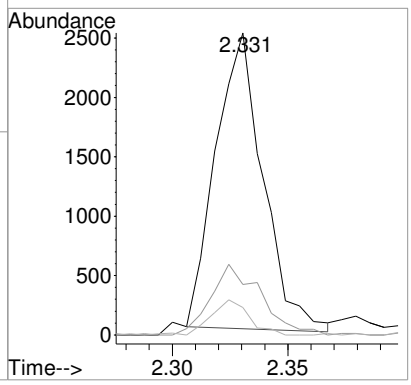


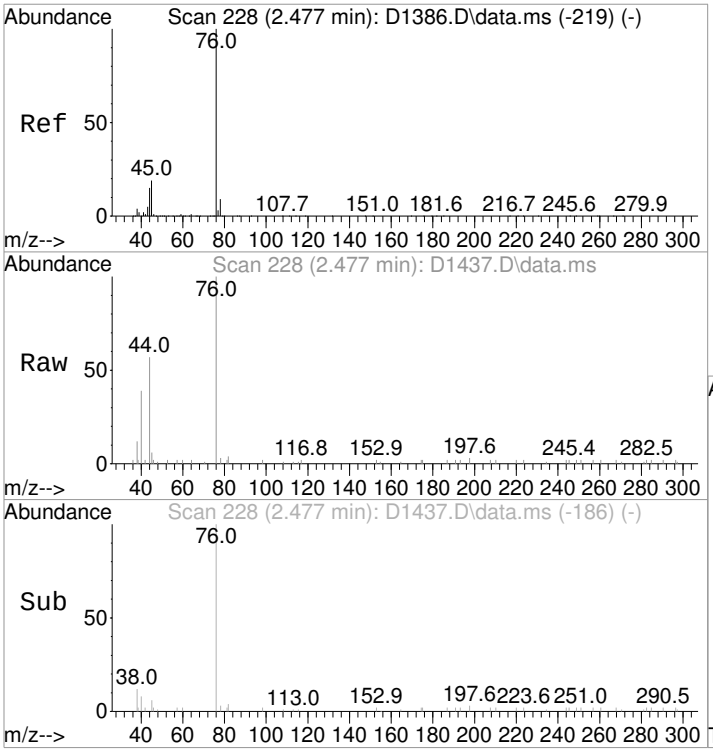


#15
Acetone
Concen: 3.68 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 43 Resp: 3540

Ion	Ratio	Lower	Upper
43	100		
58	16.7	12.8	52.8
42	9.0	0.0	30.0

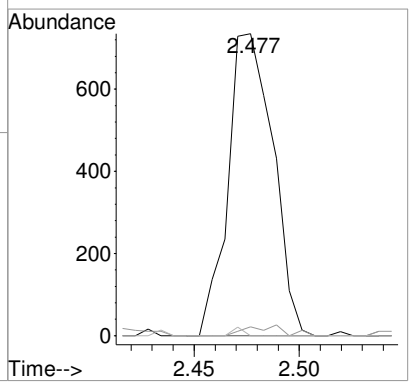


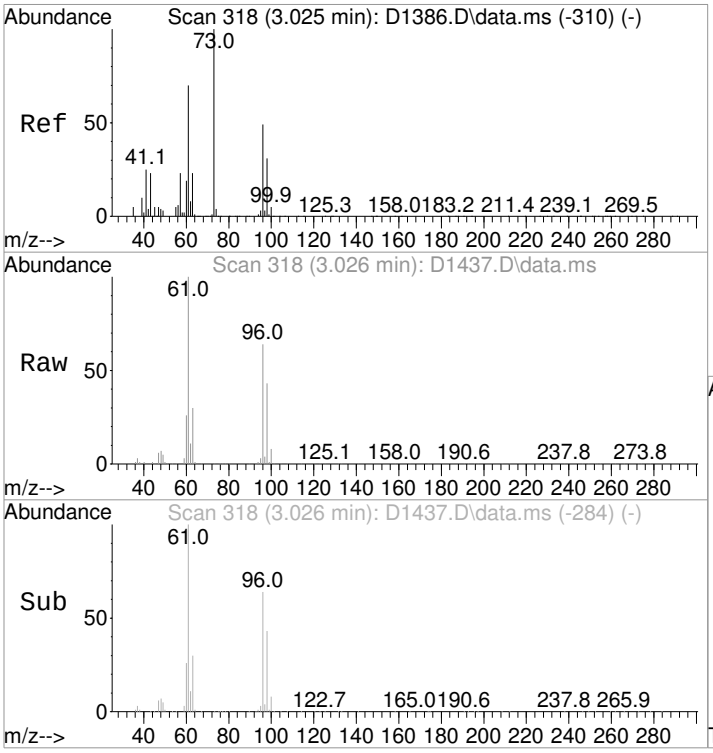


#18
Carbon Disulfide
Concen: 0.22 ug/L
RT: 2.477 min Scan# 228
Delta R.T. 0.000 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 76 Resp: 1089

Ion	Ratio	Lower	Upper
76	100		
78	3.0	0.0	29.1
77	0.0	0.0	22.8

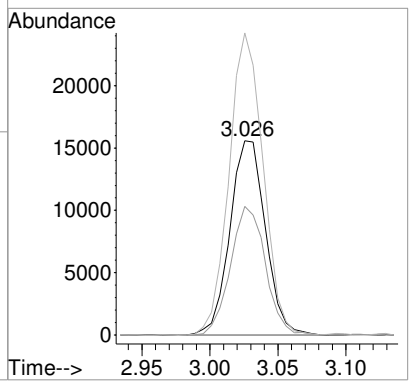


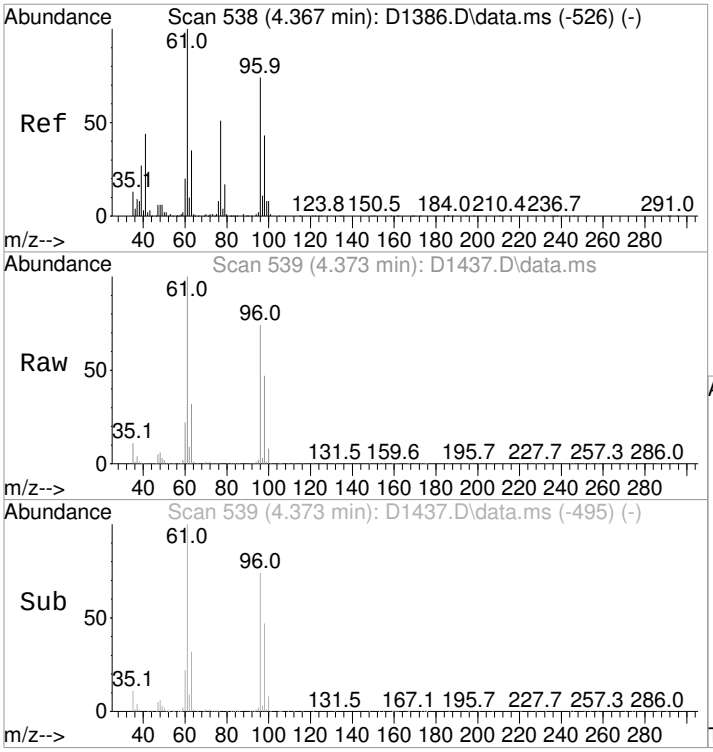


#26
trans-1,2-Dichloroethene
Concen: 14.31 ug/L
RT: 3.026 min Scan# 318
Delta R.T. 0.000 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 96 Resp: 28440

Ion	Ratio	Lower	Upper
96	100		
98	66.3	40.9	80.9
61	155.6	113.1	153.1#

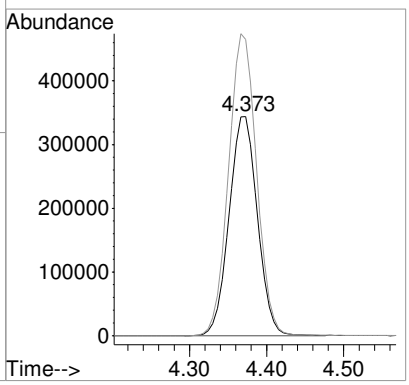


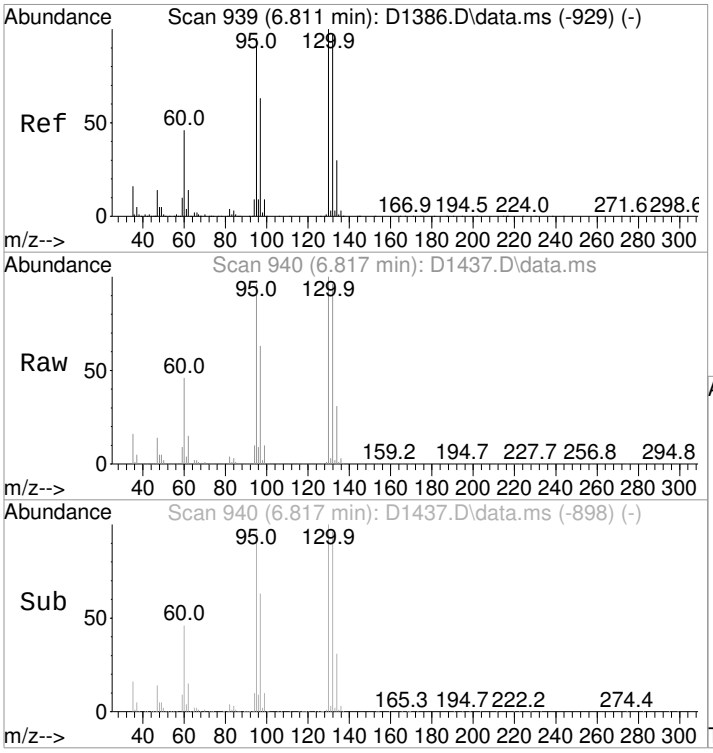


#33
cis-1,2-Dichloroethene
Concen: 402.96 ug/L
RT: 4.373 min Scan# 539
Delta R.T. 0.012 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 96 Resp: 874527

Ion	Ratio	Lower	Upper
96	100		
61	135.1	111.5	151.5

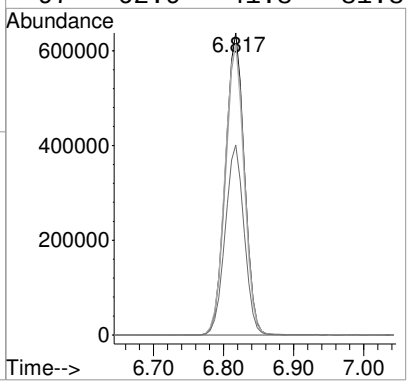


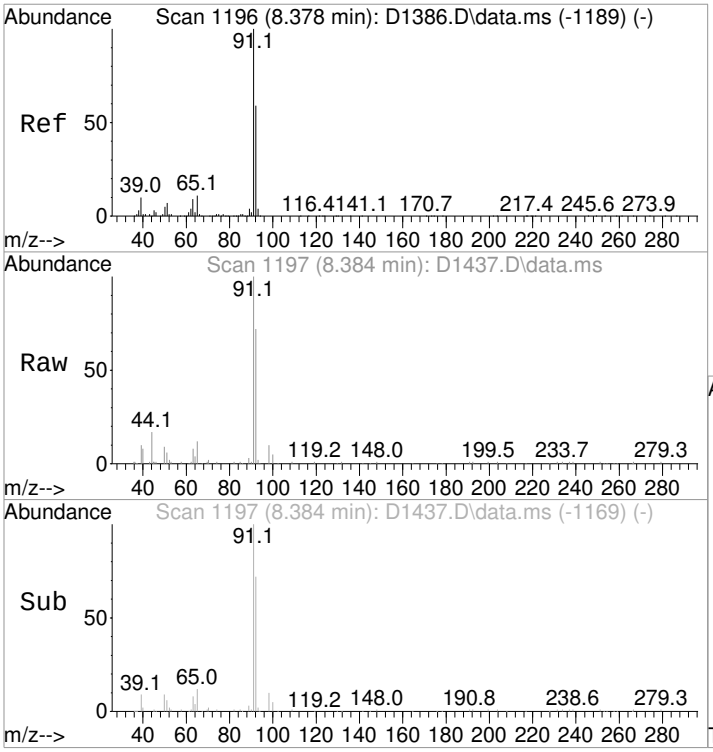


#53
Trichloroethene
Concen: 537.17 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion:130 Resp: 1200208

Ion	Ratio	Lower	Upper
130	100		
132	96.4	80.0	120.0
95	96.1	68.5	108.5
97	62.9	41.8	81.8

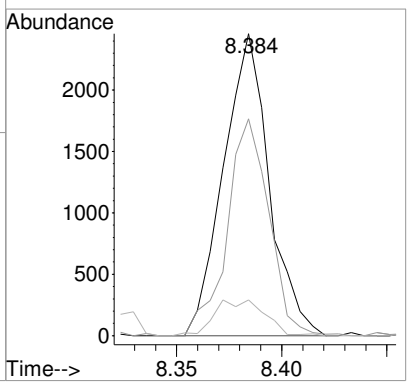


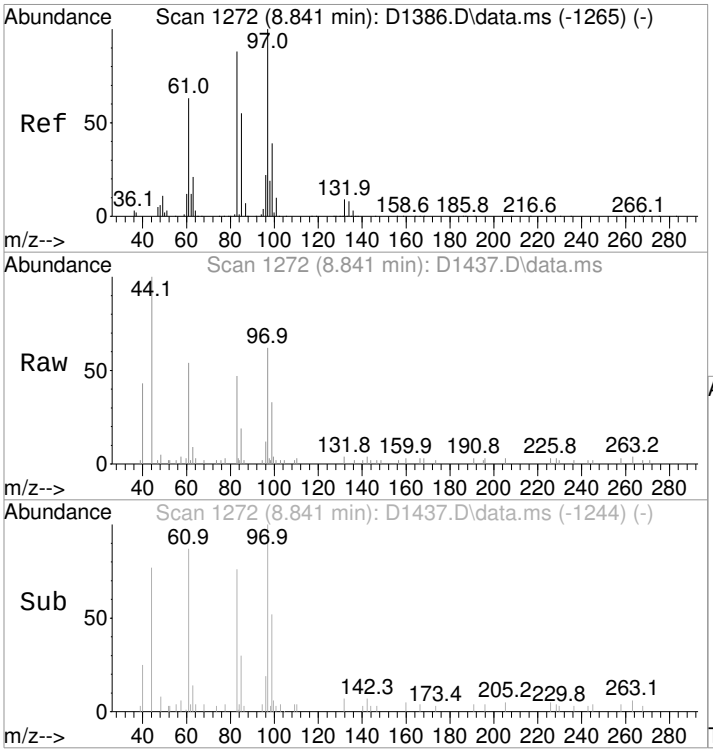


#65
Toluene
Concen: 0.42 ug/L
RT: 8.384 min Scan# 1197
Delta R.T. 0.000 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 91 Resp: 3696

Ion	Ratio	Lower	Upper
91	100		
92	71.8	38.1	78.1
65	11.8	0.0	30.2

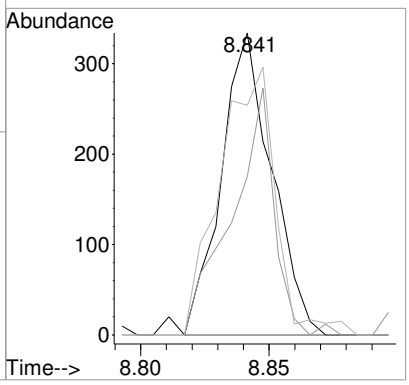


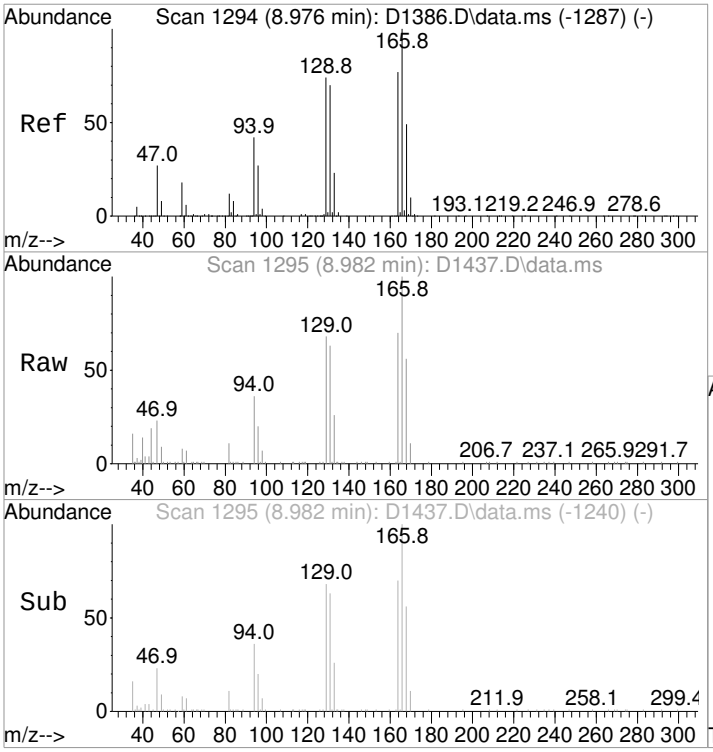


#68
1,1,2-Trichloroethane
Concen: 0.24 ug/L
RT: 8.841 min Scan# 1272
Delta R.T. 0.000 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 97 Resp: 457

Ion	Ratio	Lower	Upper
97	100		
99	58.1	44.2	84.2
83	80.2	62.0	102.0

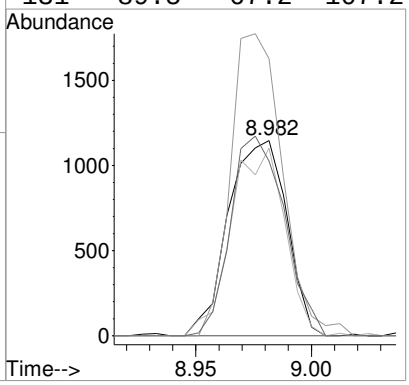


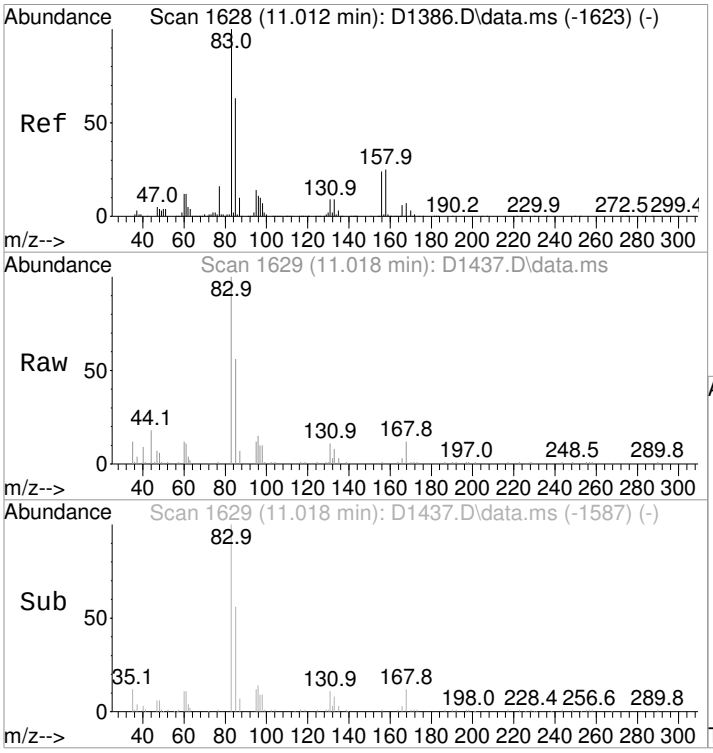


#71
Tetrachloroethene
Concen: 1.16 ug/L
RT: 8.982 min Scan# 1295
Delta R.T. 0.006 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion:164 Resp: 2001

Ion	Ratio	Lower	Upper
164	100		
166	141.8	108.6	148.6
129	96.1	69.1	109.1
131	89.5	67.2	107.2

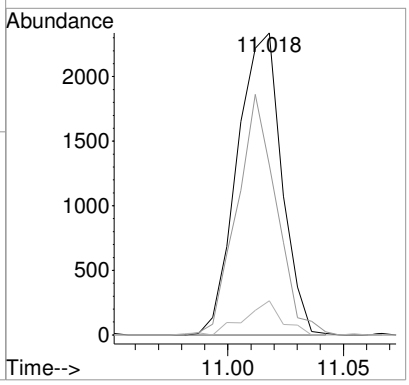




#91
1,1,2,2-Tetrachloroethane
Concen: 1.20 ug/L
RT: 11.018 min Scan# 1629
Delta R.T. 0.006 min
Lab File: D1437.D
Acq: 15 Feb 2018 7:14 pm

Tgt Ion: 83 Resp: 3118

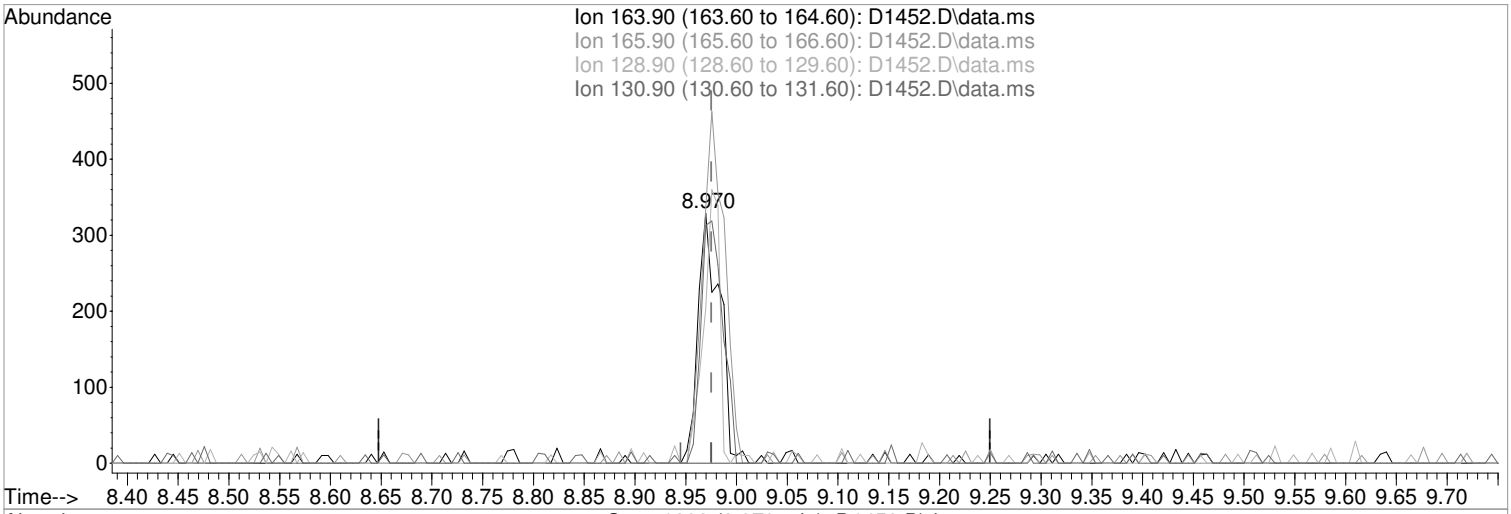
Ion	Ratio	Lower	Upper
83	100		
85	56.2	42.6	82.6
131	11.3	0.0	29.9

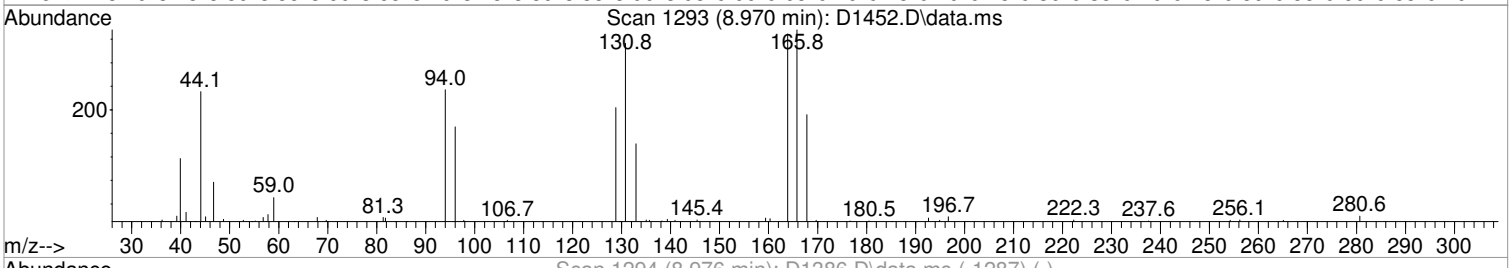


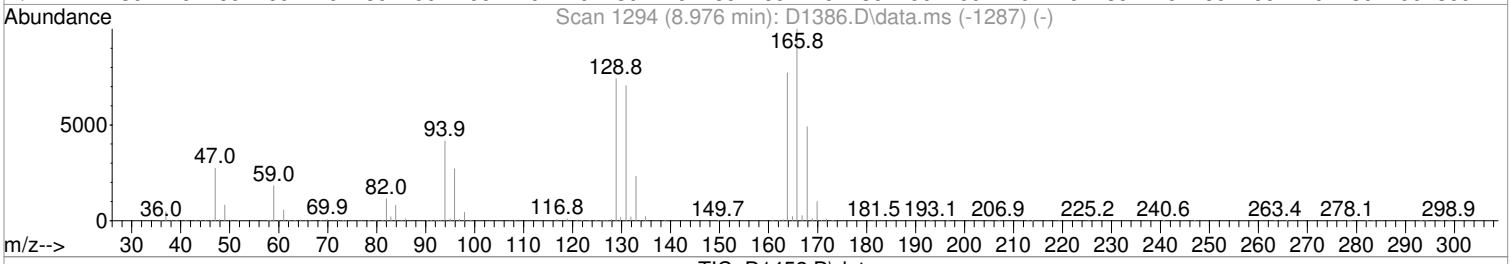
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1452.D
Acq On : 16 Feb 2018 12:45 pm
Operator : D.LIPANI
Sample : R1801238-010|200 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 12:59:49 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1452.D\data.ms

(71) Tetrachloroethene (P)

8.970min (-0.006) 0.27 ug/L m

response 494

Ion	Exp%	Act%
163.90	100	100
165.90	128.60	102.13#
128.90	89.10	62.01#
130.90	87.20	95.14

Manual Integration:

After

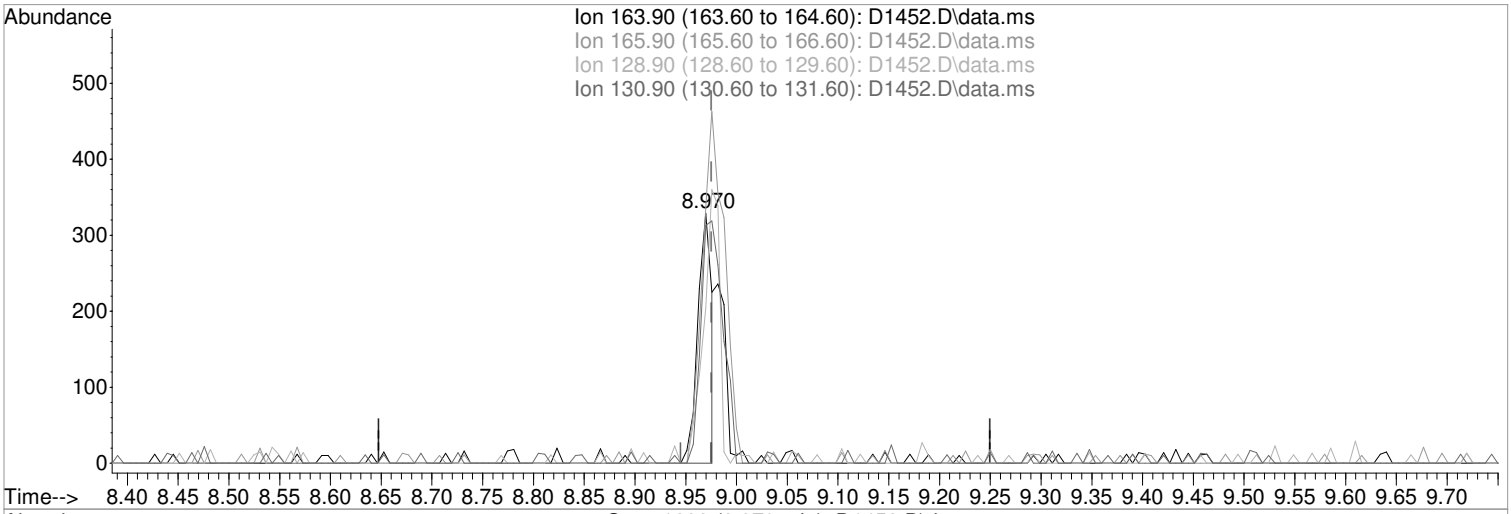
Poor integration.

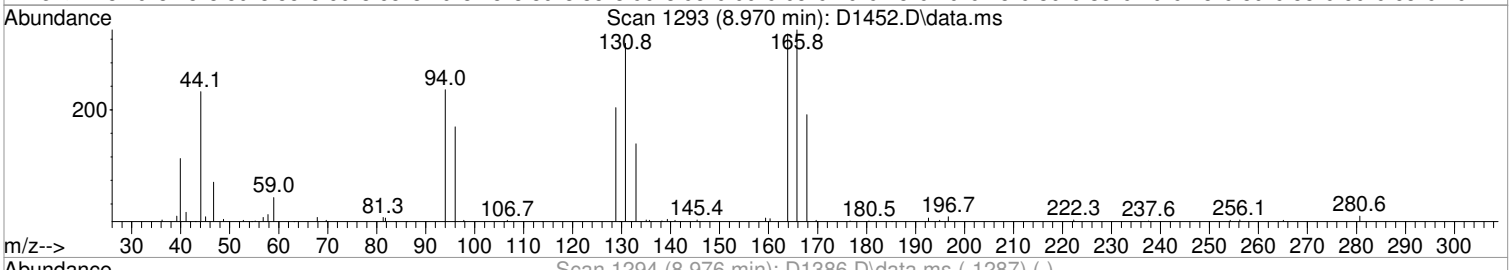
02/20/18

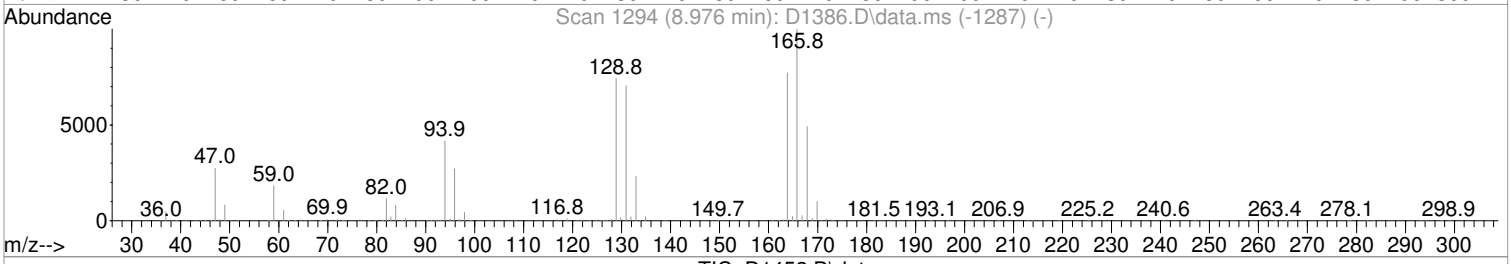
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1452.D
Acq On : 16 Feb 2018 12:45 pm
Operator : D.LIPANI
Sample : R1801238-010|200 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 12:59:49 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1452.D\data.ms

(71) Tetrachloroethene (P)

8.970min (-0.006) 0.18 ug/L

response 317

Ion	Exp%	Act%
163.90	100	100
165.90	128.60	102.13#
128.90	89.10	65.05#
130.90	87.20	95.14

Manual Integration:

Before

02/20/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1452.D
Acq On : 16 Feb 2018 12:45 pm
Operator : D.LIPANI
Sample : R1801238-010|200 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:06:13 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	196067	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	295313	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	259097	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132824	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	87246	48.29	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.58%			
46) surr1,1,2-dichloroetha...	5.781	65	109864	52.59	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 105.18%			
64) SURR3,Toluene-d8	8.311	98	355306	49.90	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.80%			
69) SURR2,BFB	10.878	95	126197	45.76	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.52%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	4399	1.51	ug/L	100
5) Bromomethane	1.587	94	299	Below Cal		88
15) Acetone	2.331	43	1102	1.08	ug/L	89
26) trans-1,2-Dichloroethene	3.026	96	7815	3.70	ug/L	96
33) cis-1,2-Dichloroethene	4.367	96	245070	106.19	ug/L	98
53) Trichloroethene	6.818	130	322415	138.09	ug/L	96
71) Tetrachloroethene	8.970	164	494m	0.27	ug/L	
91) 1,1,2,2-Tetrachloroethane	11.018	83	812	0.30	ug/L	78

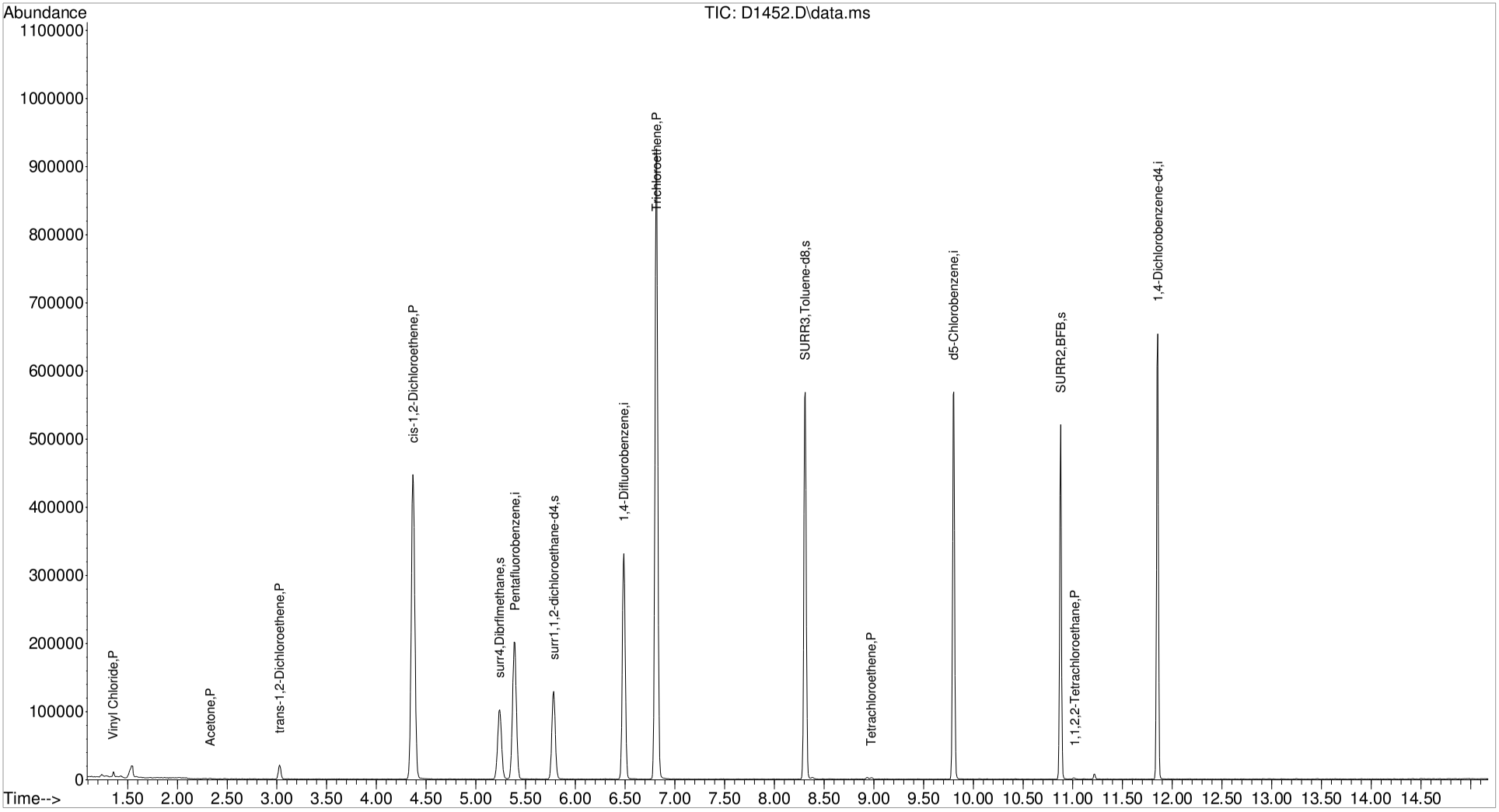
DL

(#) = qualifier out of range (m) = manual integration (+) = signals summed

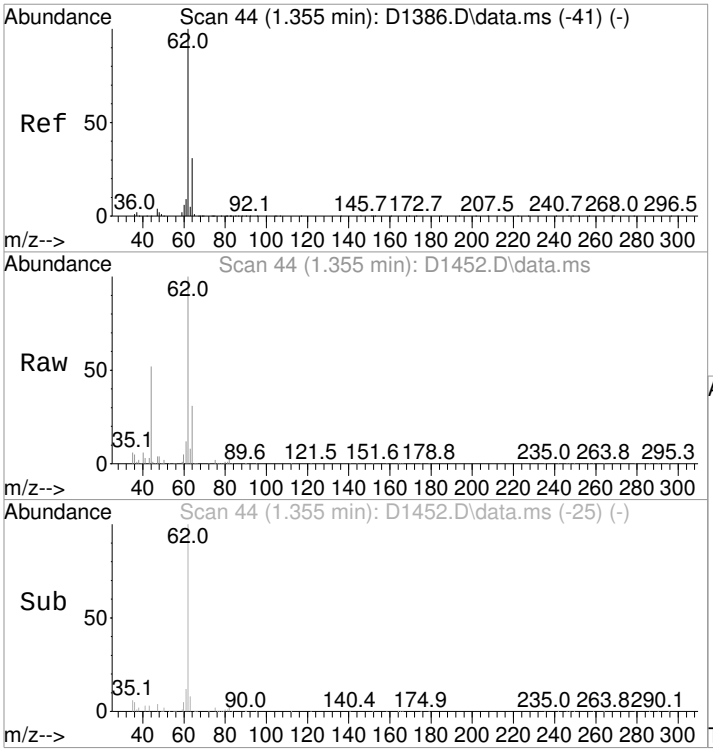
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1452.D
Acq On : 16 Feb 2018 12:45 pm
Operator : D.LIPANI
Sample : R1801238-010|200 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 20 15:06:13 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



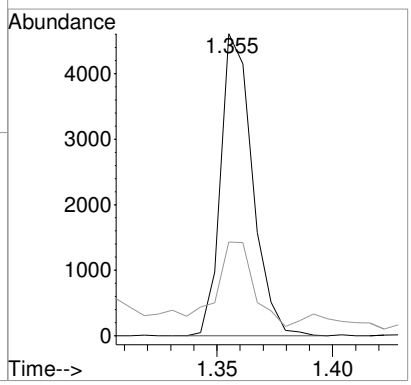
1st DL 02/21/18
2nd 02/21/18

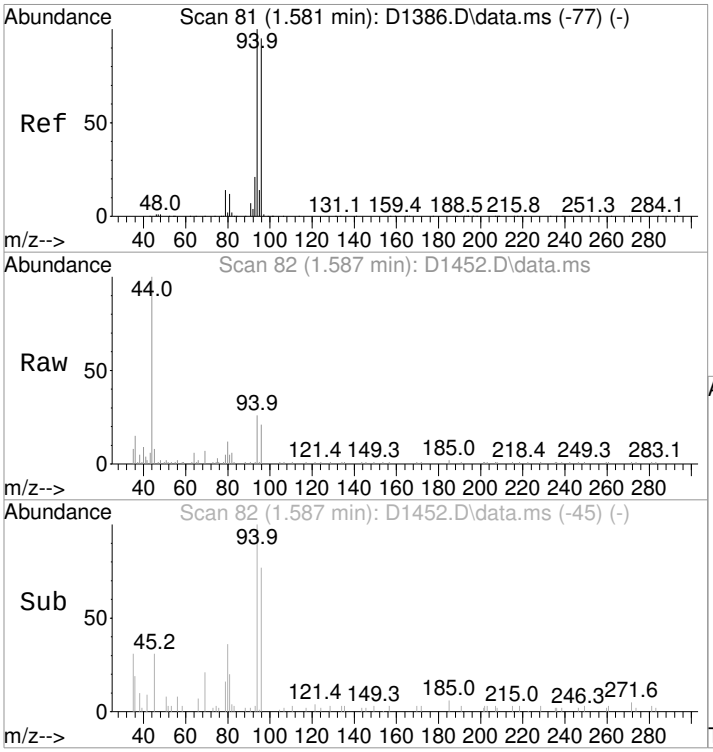


#4
Vinyl Chloride
Concen: 1.51 ug/L
RT: 1.355 min Scan# 44
Delta R.T. 0.000 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion: 62 Resp: 4399

Ion	Ratio	Lower	Upper
62	100		
64	31.0	11.2	51.2

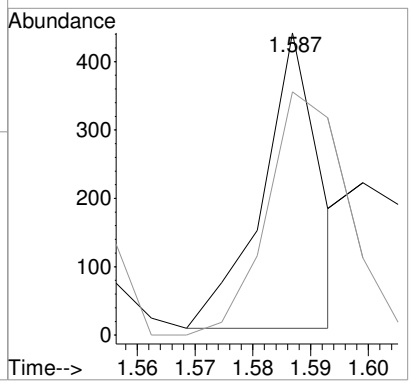


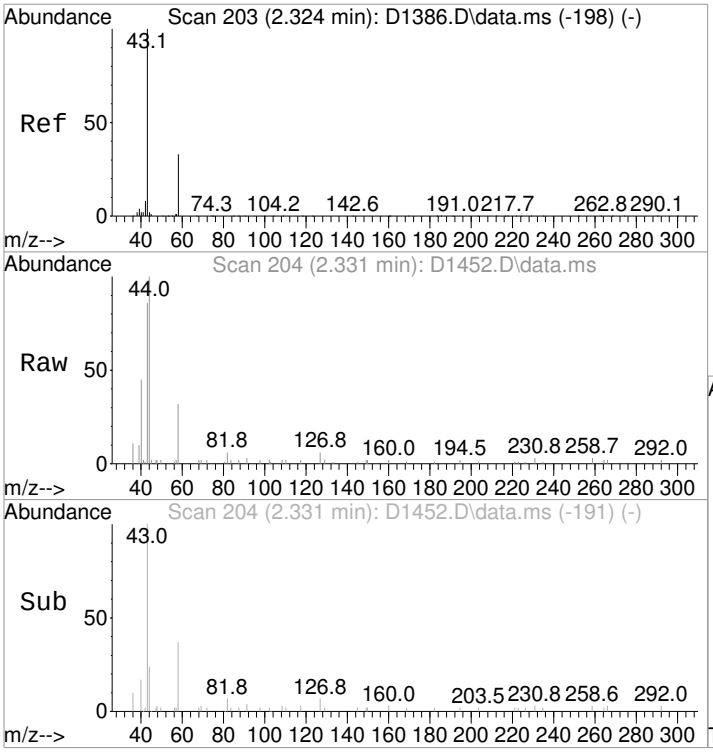


#5
Bromomethane
Concen: Below Cal
RT: 1.587 min Scan# 82
Delta R.T. 0.001 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion: 94 Resp: 299

Ion	Ratio	Lower	Upper
94	100		
96	80.5	72.1	112.1

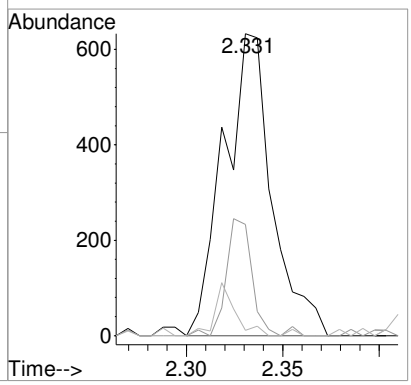


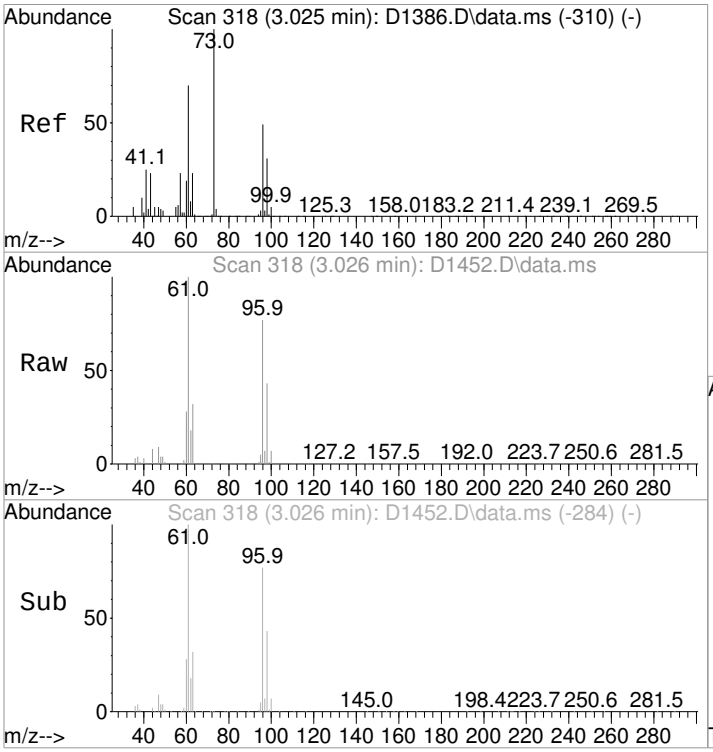


#15
Acetone
Concen: 1.08 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion: 43 Resp: 1102

Ion	Ratio	Lower	Upper
43	100		
58	36.8	12.8	52.8
42	1.7	0.0	30.0

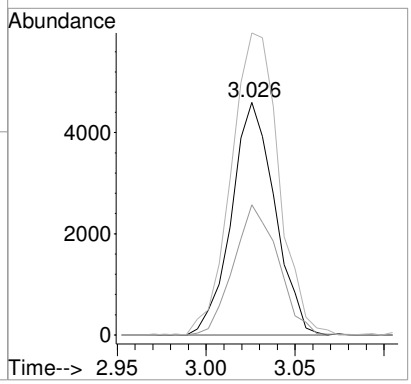


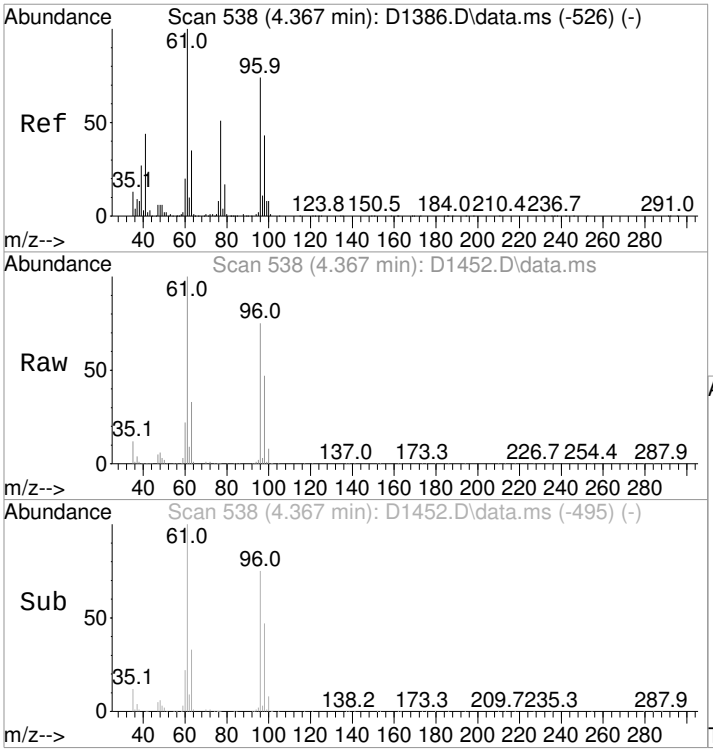


#26
trans-1,2-Dichloroethene
Concen: 3.70 ug/L
RT: 3.026 min Scan# 318
Delta R.T. 0.000 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion: 96 Resp: 7815

Ion	Ratio	Lower	Upper
96	100		
98	55.9	40.9	80.9
61	129.8	113.1	153.1

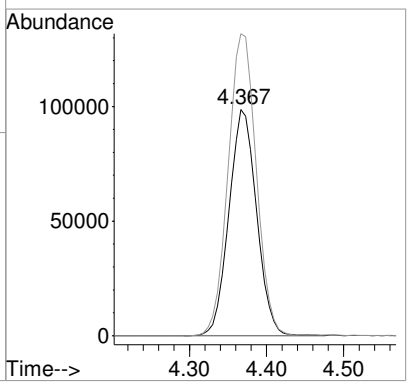


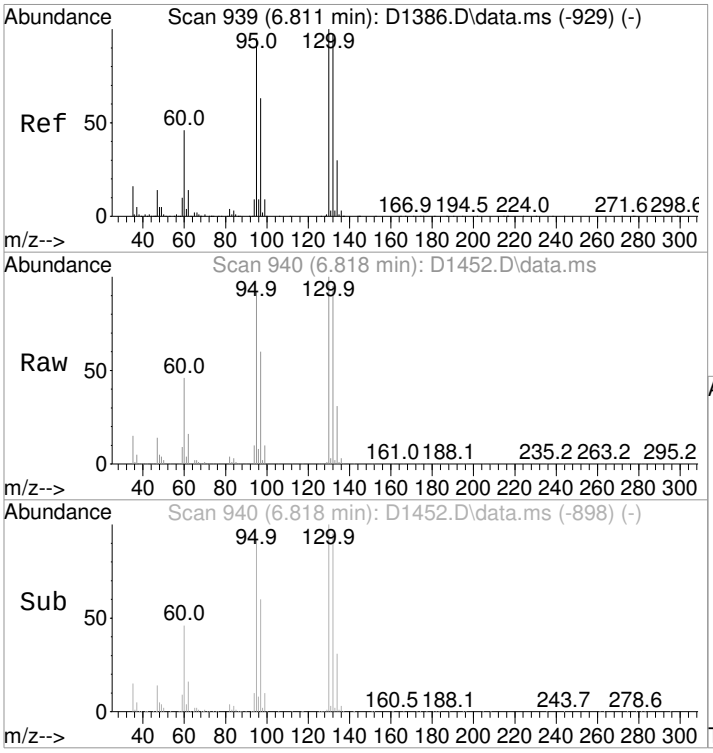


#33
cis-1,2-Dichloroethene
Concen: 106.19 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion: 96 Resp: 245070

Ion	Ratio	Lower	Upper
96	100		
61	133.5	111.5	151.5

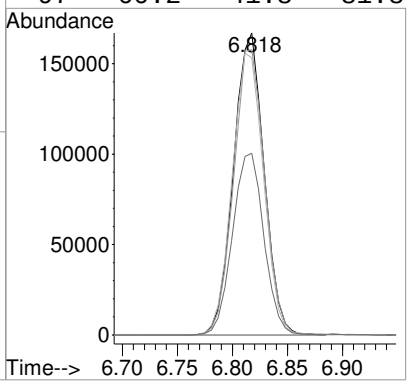


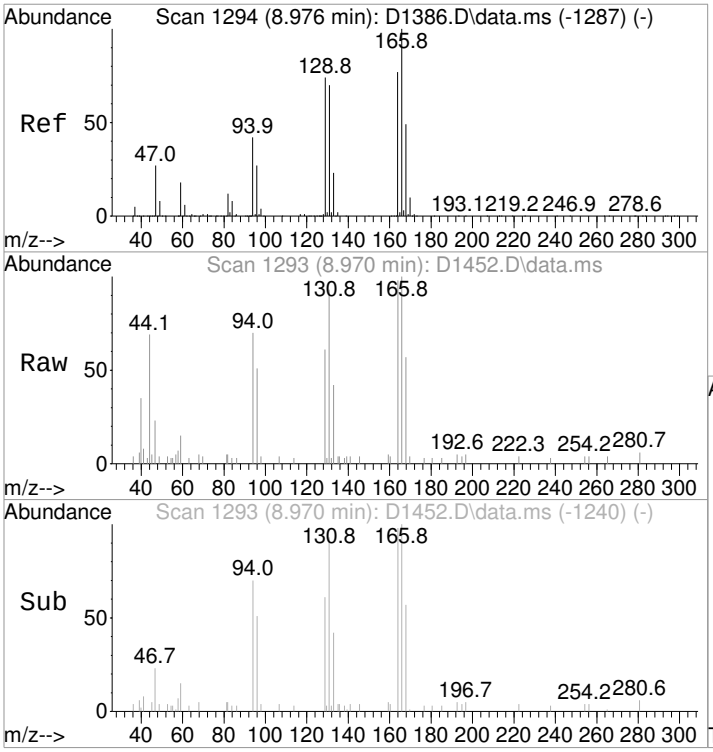


#53
Trichloroethene
Concen: 138.09 ug/L
RT: 6.818 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion:130 Resp: 322415

Ion	Ratio	Lower	Upper
130	100		
132	94.5	80.0	120.0
95	91.7	68.5	108.5
97	60.2	41.8	81.8

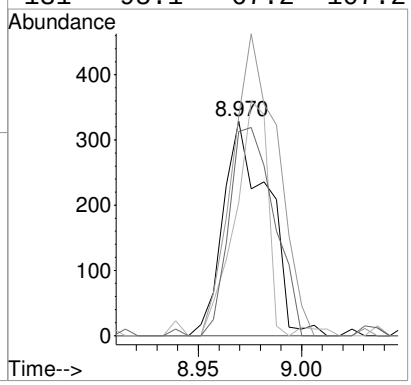


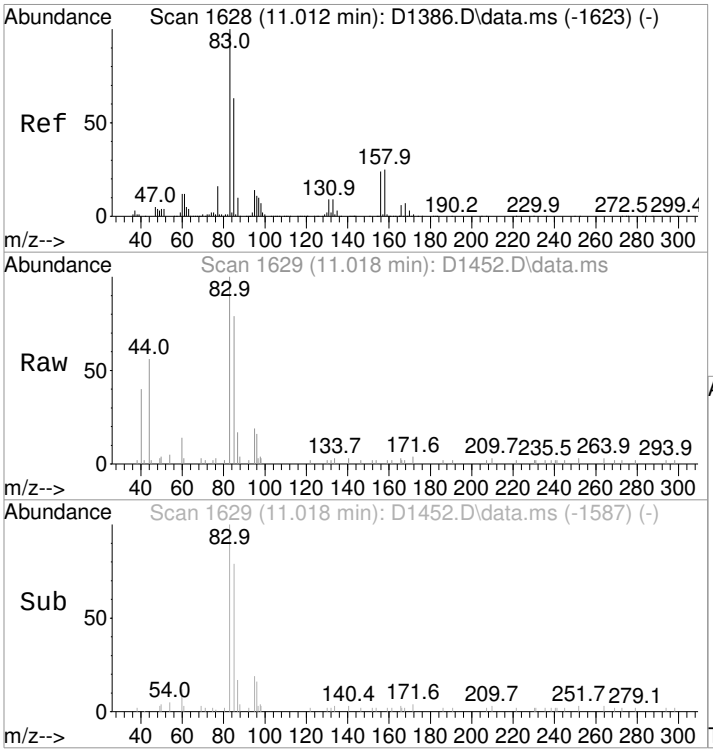


#71
Tetrachloroethene
Concen: 0.27 ug/L m
RT: 8.970 min Scan# 1293
Delta R.T. -0.006 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion:164 Resp: 494

Ion	Ratio	Lower	Upper
164	100		
166	102.1	108.6	148.6#
129	62.0	69.1	109.1#
131	95.1	67.2	107.2

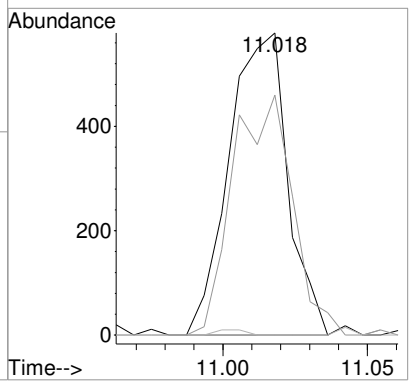




#91
1,1,2,2-Tetrachloroethane
Concen: 0.30 ug/L
RT: 11.018 min Scan# 1629
Delta R.T. 0.006 min
Lab File: D1452.D
Acq: 16 Feb 2018 12:45 pm

Tgt Ion: 83 Resp: 812

Ion	Ratio	Lower	Upper
83	100		
85	79.4	42.6	82.6
131	0.0	0.0	29.9

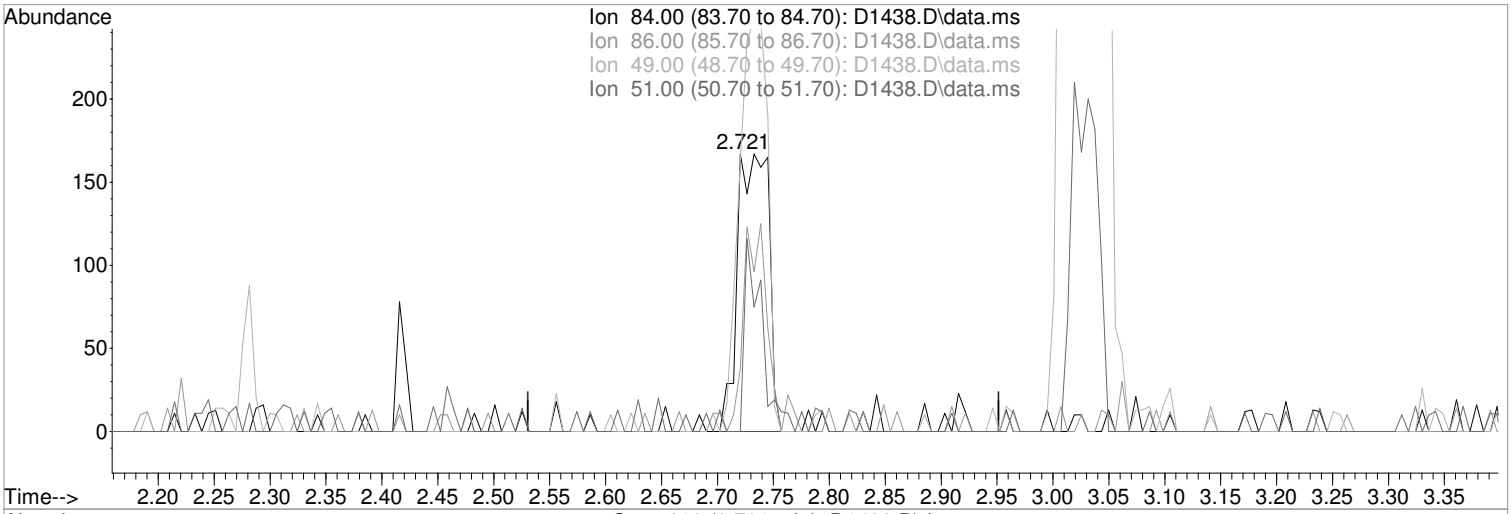


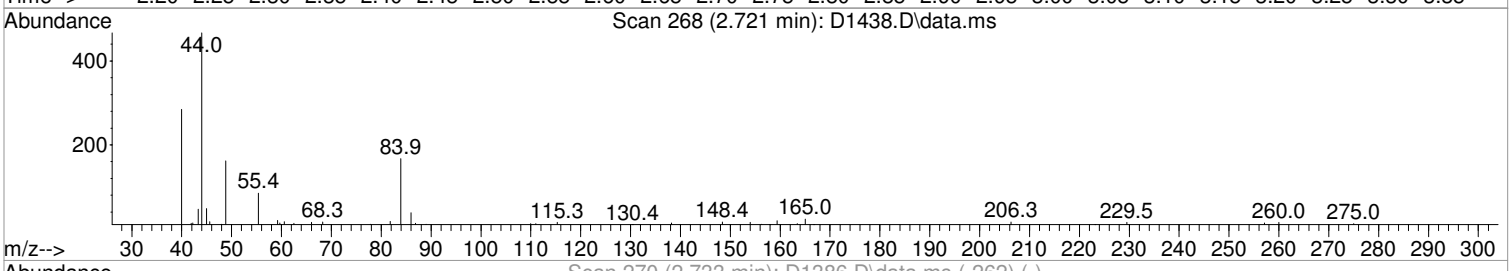
1st DL 02/16/18
2nd FJ 02/17/18

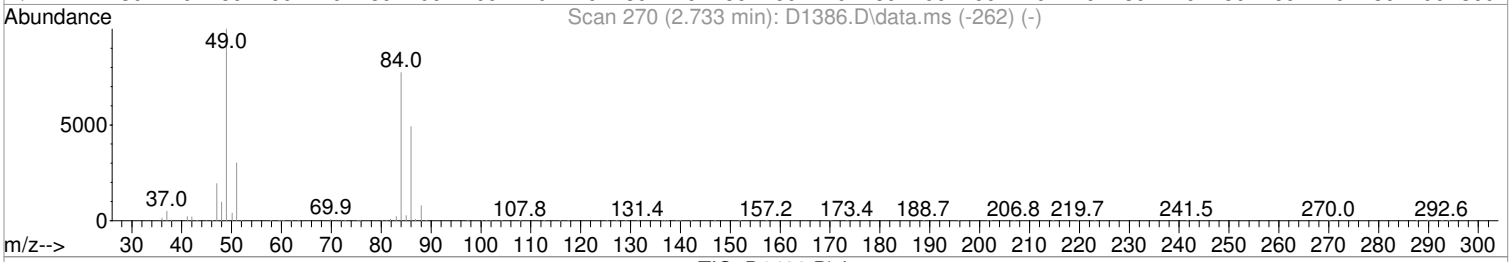
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1438.D
Acq On : 15 Feb 2018 7:35 pm
Operator : D.LIPANI
Sample : R1801238-011|10 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 15 19:50:01 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1438.D\data.ms

(22) Methylene Chloride (P)

2.721min (-0.012) 0.15 ug/L m

response 323

Ion	Exp%	Act%
84.00	100	100
86.00	65.90	22.75#
49.00	124.80	97.01#
51.00	36.60	0.00#

Manual Integration:

After

Peak not found.

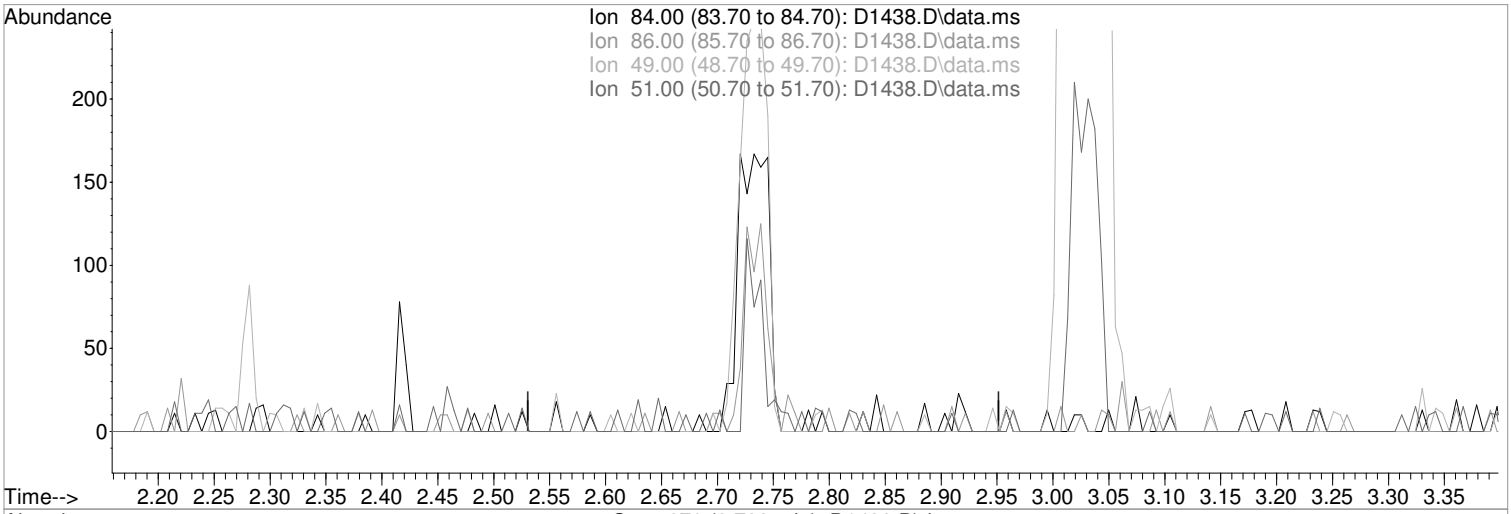
02/16/18

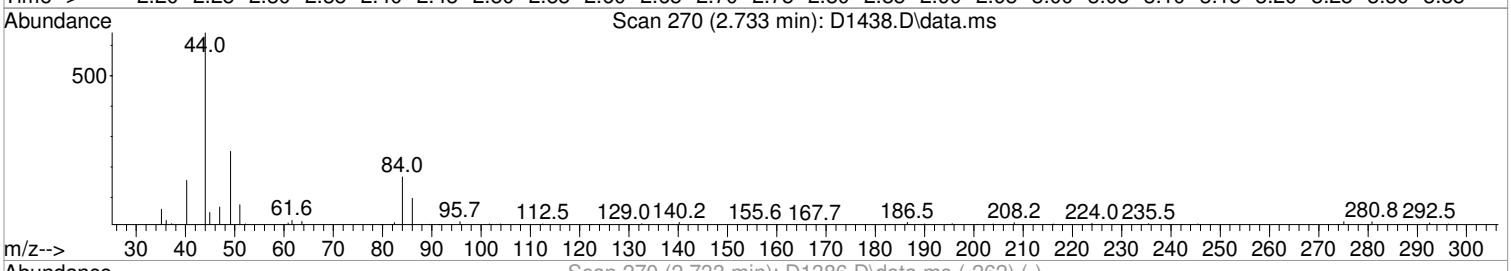
1st DL 02/16/18
2nd FJ 02/17/18

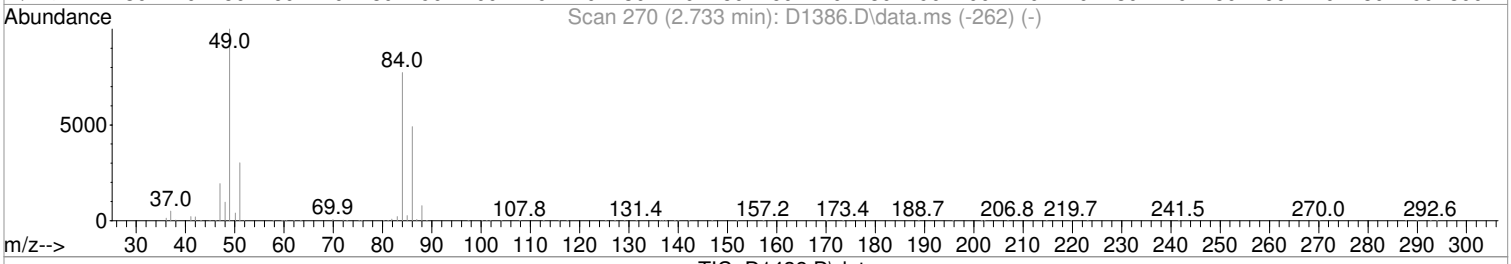
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1438.D
Acq On : 15 Feb 2018 7:35 pm
Operator : D.LIPANI
Sample : R1801238-011|10 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 15 19:50:01 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1438.D\data.ms

(22) Methylene Chloride (P)

2.733min (-2.733) 0.00 ug/L

response 0

Ion	Exp%	Act%
84.00	100	0.00
86.00	65.90	0.00#
49.00	124.80	0.00#
51.00	36.60	0.00#

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1438.D
Acq On : 15 Feb 2018 7:35 pm
Operator : D.LIPANI
Sample : R1801238-011|10 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 16 15:43:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

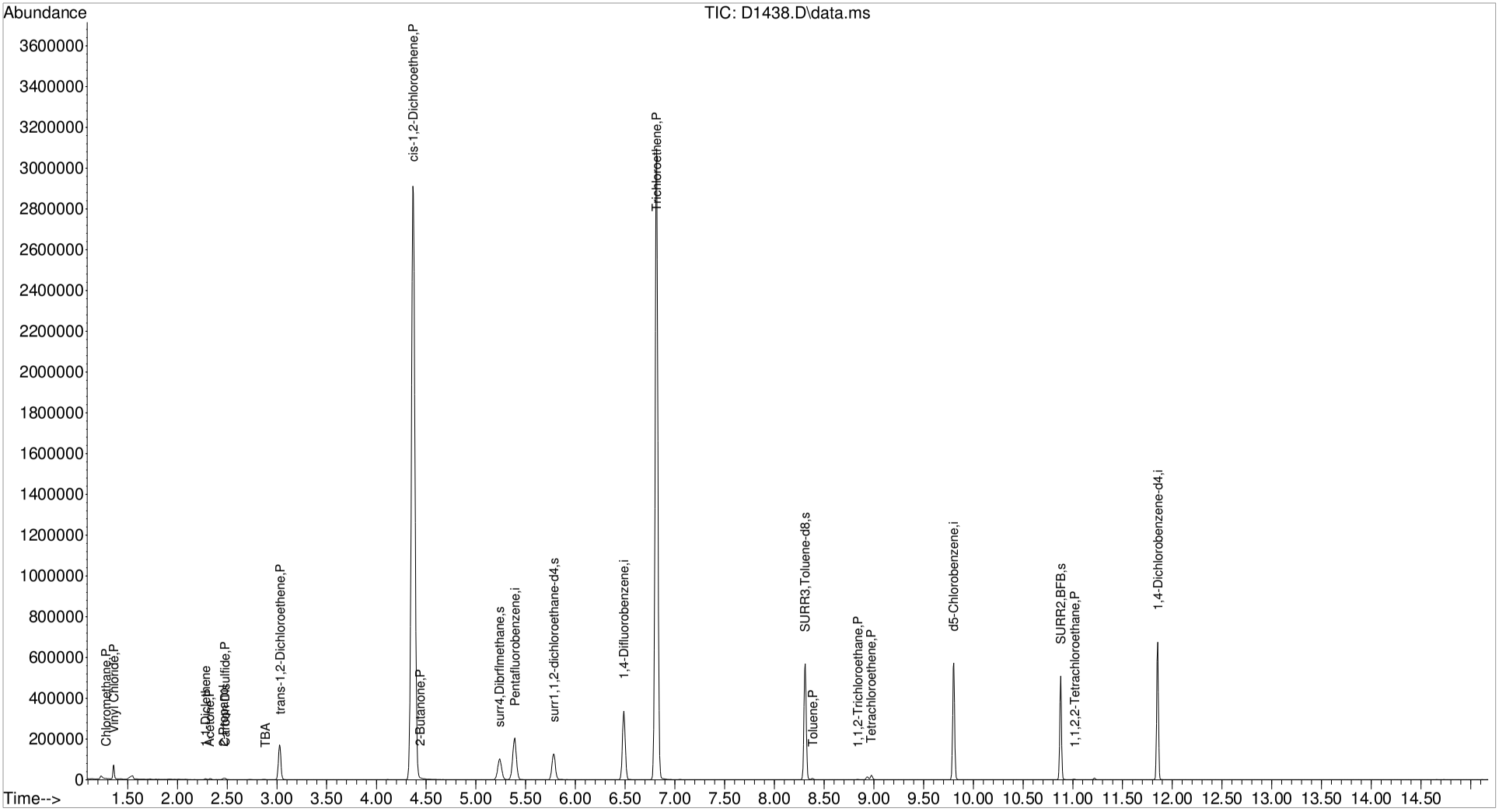
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Pentafluorobenzene	5.391	168	194974	50.00	ug/L	0.00	
41) 1,4-Difluorobenzene	6.488	114	289761	50.00	ug/L	0.00	
70) d5-Chlorobenzene	9.805	117	254790	50.00	ug/L	0.00	
90) 1,4-Dichlorobenzene-d4	11.853	152	129404	50.00	ug/L	0.00	
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	85980	48.50	ug/L	0.00	
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.00%				
46) surr1,1,2-dichloroetha...	5.781	65	105641	51.54	ug/L	0.00	
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.08%				
64) SURR3,Toluene-d8	8.311	98	345295	49.42	ug/L	0.00	
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.84%				
69) SURR2,BFB	10.877	95	123094	45.49	ug/L	0.00	
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.98%				RPT 1 / 50
Target Compounds						Qvalue	
3) Chloromethane	1.282	50	819	0.27	ug/L	90	
4) Vinyl Chloride	1.361	62	37788	13.02	ug/L	93	
13) 1,1-Diclethene	2.282	96	1481	0.78	ug/L	87	
15) Acetone	2.324	43	5225	5.14	ug/L	97	
16) 2-Propanol	2.464	45	4743	29.02	ug/L	95	
18) Carbon Disulfide	2.477	76	5679	1.06	ug/L	98	
23) TBA	2.885	59	1141	4.72	ug/L	80	
26) trans-1,2-Dichloroethene	3.031	96	60377	28.72	ug/L	91	
33) cis-1,2-Dichloroethene	4.373	96	1605579	699.61	ug/L	98	E-Over Calibration
34) 2-Butanone	4.440	43	681	0.49	ug/L #	59	
53) Trichloroethene	6.817	130	1045402	456.32	ug/L	96	E-Over Calibration
65) Toluene	8.384	91	3937	0.44	ug/L	92	
68) 1,1,2-Trichloroethane	8.841	97	464	0.24	ug/L	84	
71) Tetrachloroethene	8.975	164	4529	2.55	ug/L #	83	
91) 1,1,2,2-Tetrachloroethane	11.018	83	1107	0.42	ug/L	91	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

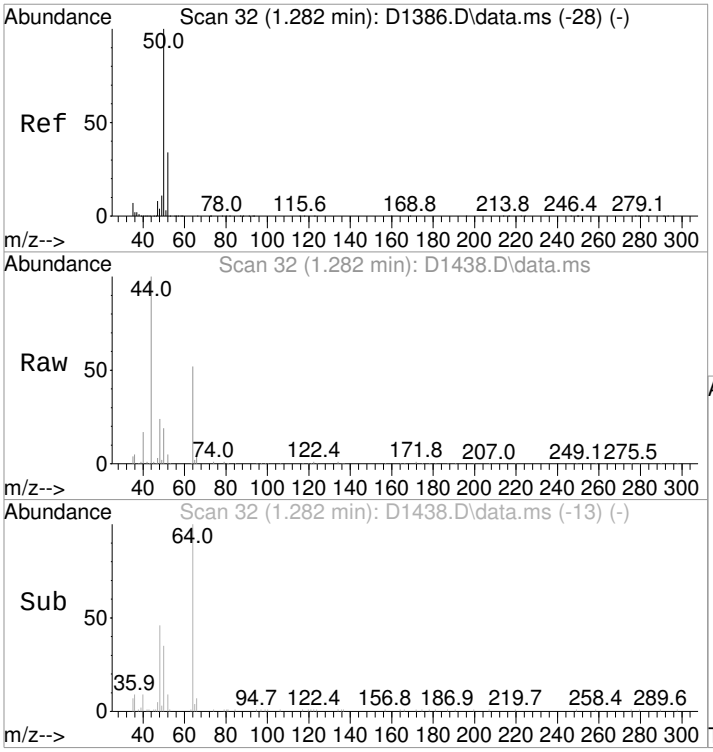
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1438.D
Acq On : 15 Feb 2018 7:35 pm
Operator : D.LIPANI
Sample : R1801238-011|10 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 16 15:43:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



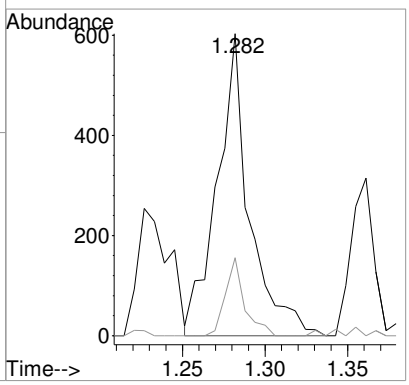
1st DL 02/16/18
2nd FJ 02/17/18

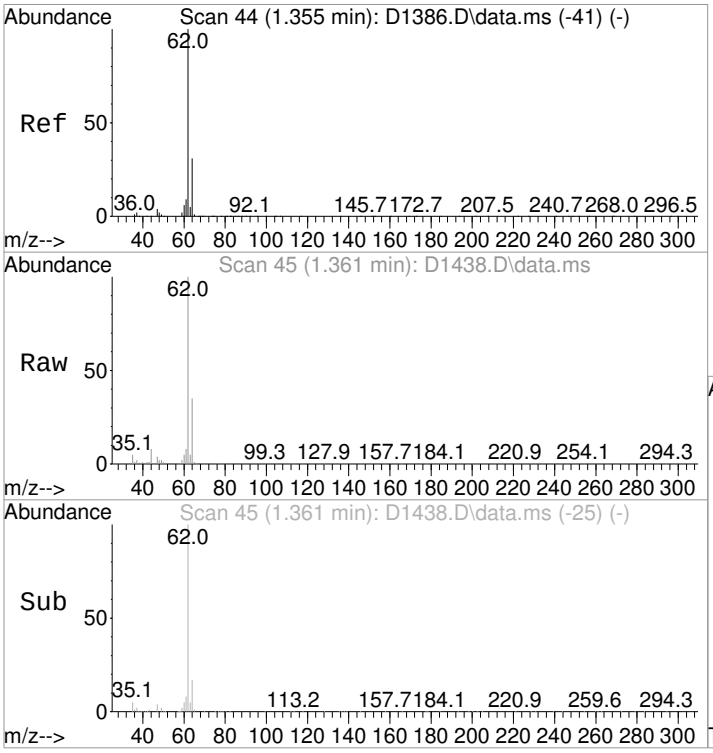


#3
Chloromethane
Concen: 0.27 ug/L
RT: 1.282 min Scan# 32
Delta R.T. -0.000 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 50 Resp: 819

Ion	Ratio	Lower	Upper
50	100		
52	25.9	11.6	51.6

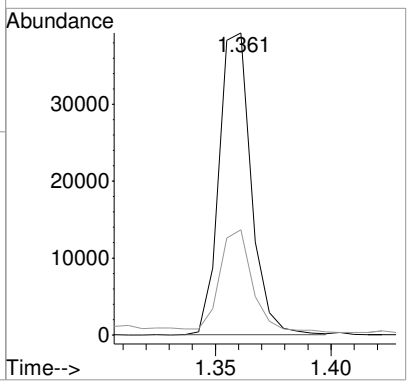


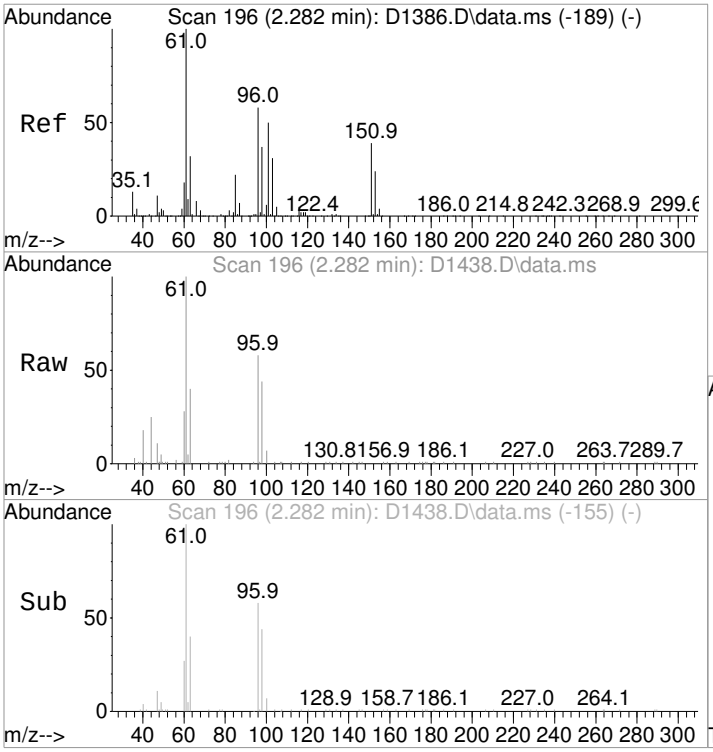


#4
Vinyl Chloride
Concen: 13.02 ug/L
RT: 1.361 min Scan# 45
Delta R.T. 0.006 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 62 Resp: 37788

Ion	Ratio	Lower	Upper
62	100		
64	34.8	11.2	51.2

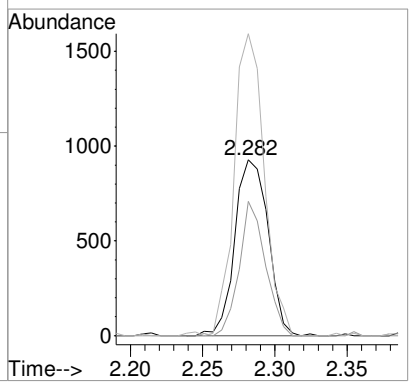


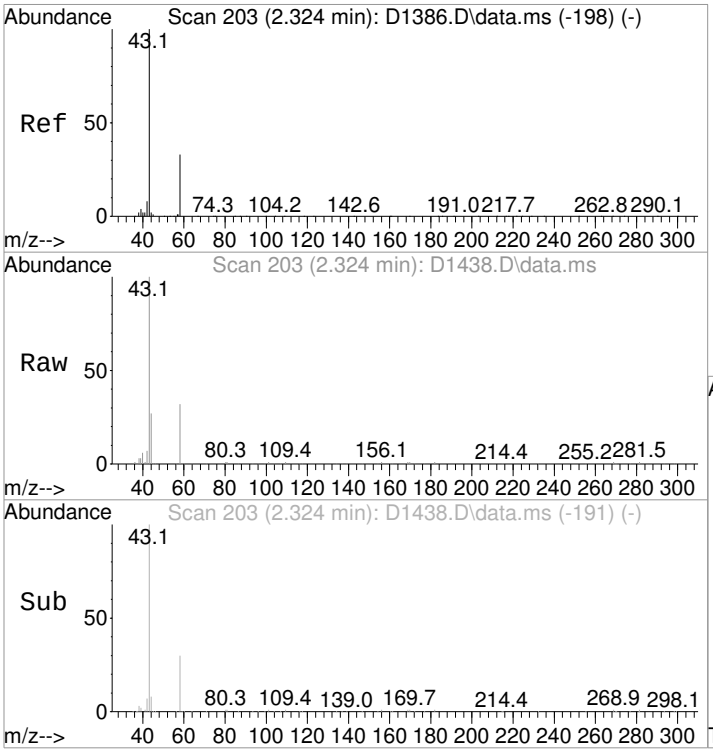


#13
1,1-Diclethene
Concen: 0.78 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 96 Resp: 1481

Ion	Ratio	Lower	Upper
96	100		
98	75.5	42.2	82.2
61	169.8	134.9	174.9

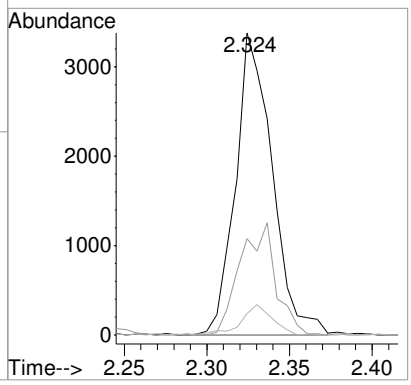


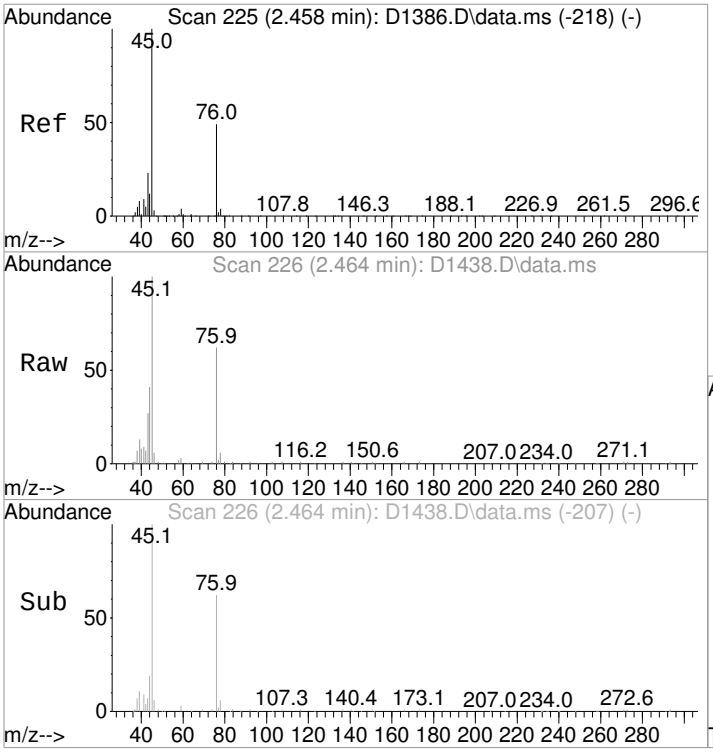


#15
Acetone
Concen: 5.14 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 43 Resp: 5225

Ion	Ratio	Lower	Upper
43	100		
58	31.9	12.8	52.8
42	7.1	0.0	30.0

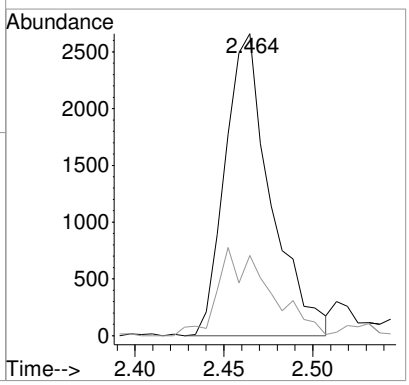


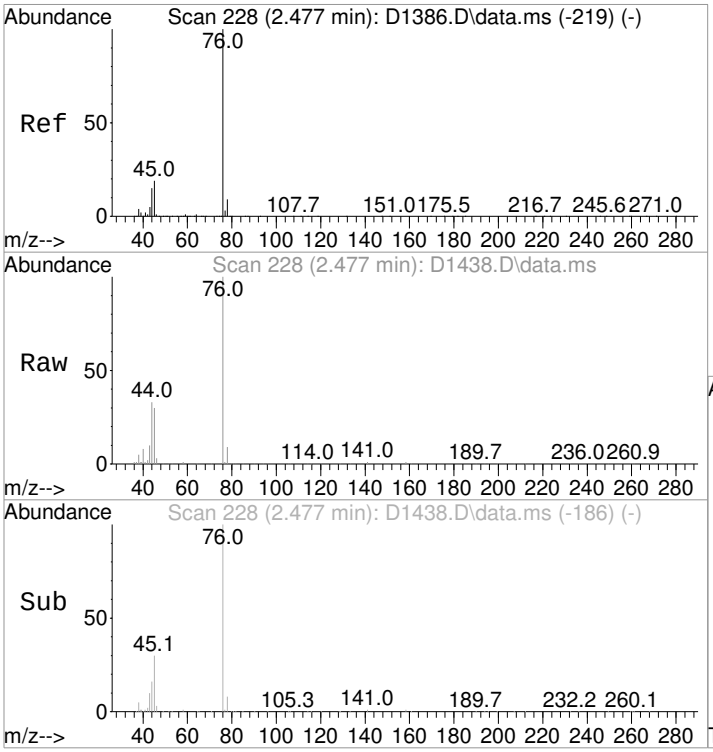


#16
2-Propanol
Concen: 29.02 ug/L
RT: 2.464 min Scan# 226
Delta R.T. 0.006 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 45 Resp: 4743

Ion	Ratio	Lower	Upper
45	100		
43	26.5	4.3	44.3

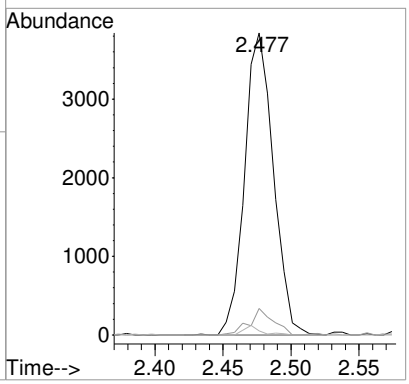


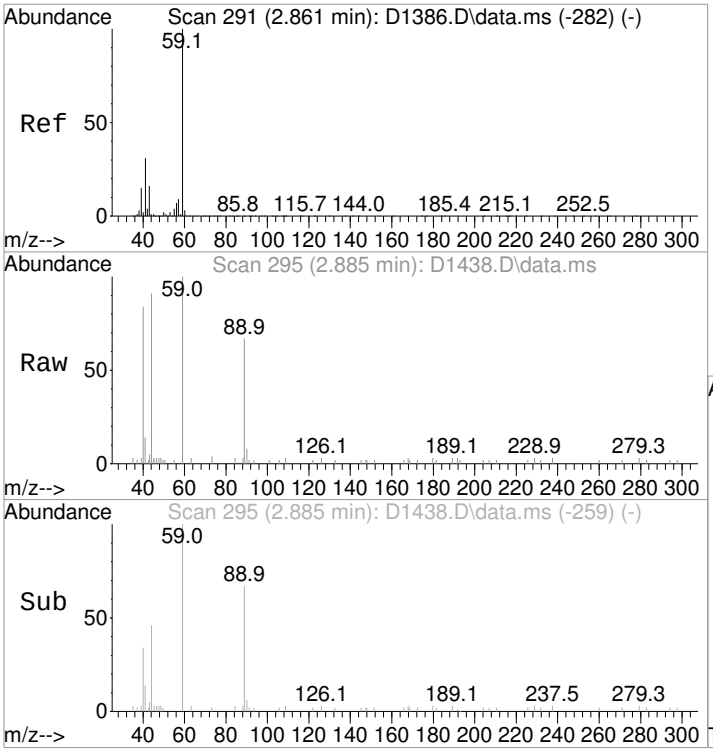


#18
Carbon Disulfide
Concen: 1.06 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 76 Resp: 5679

Ion	Ratio	Lower	Upper
76	100		
78	8.8	0.0	29.1
77	1.4	0.0	22.8

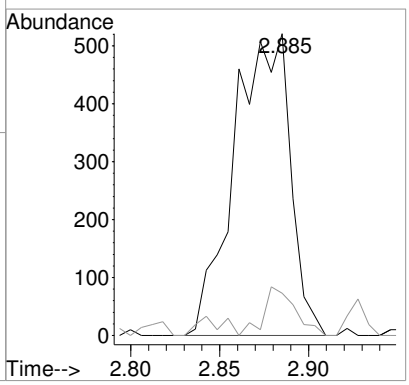


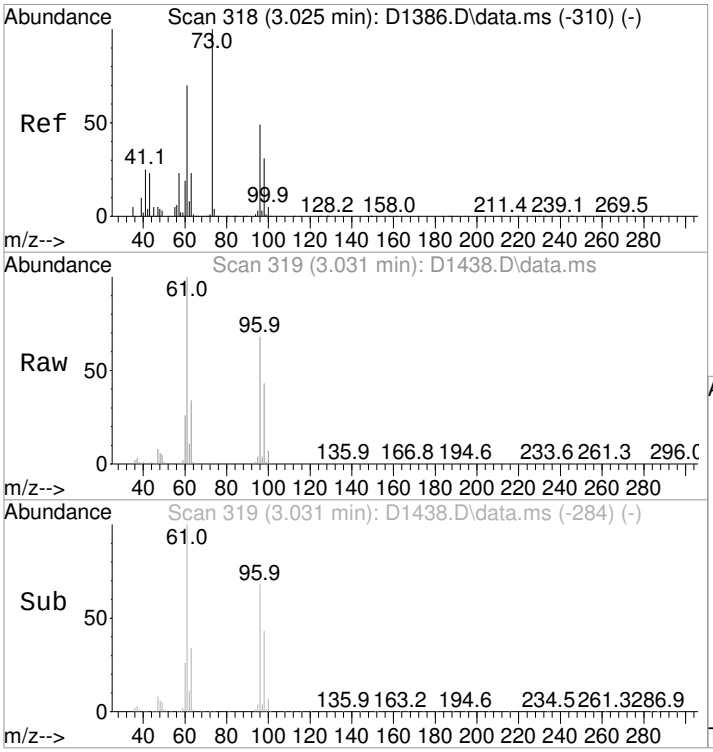


#23
TBA
Concen: 4.72 ug/L
RT: 2.885 min Scan# 295
Delta R.T. 0.031 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 59 Resp: 1141

Ion	Ratio	Lower	Upper
59	100		
41	14.0	3.6	43.6

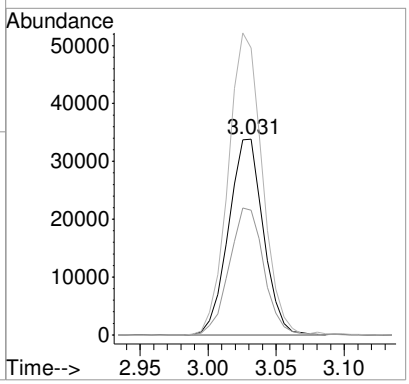


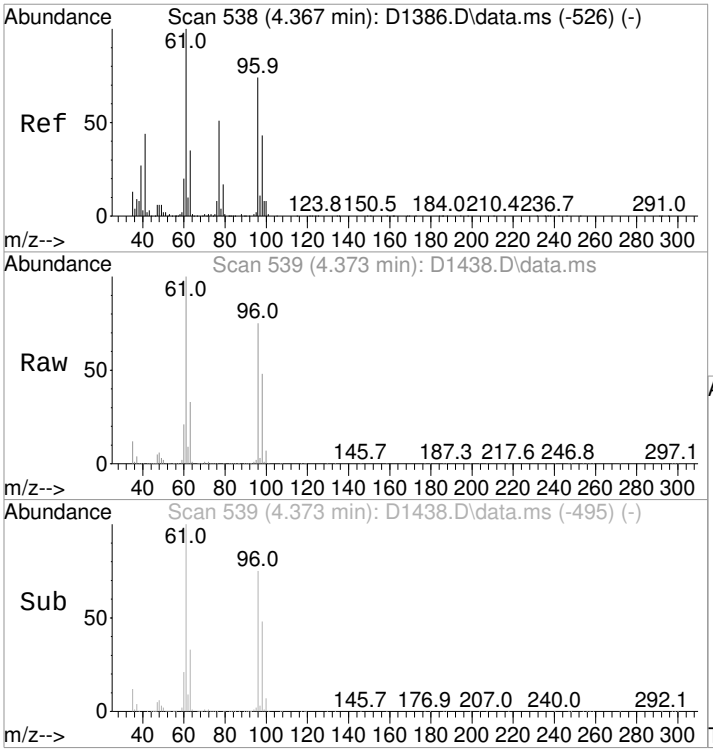


#26
trans-1,2-Dichloroethene
Concen: 28.72 ug/L
RT: 3.031 min Scan# 319
Delta R.T. 0.006 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 96 Resp: 60377

Ion	Ratio	Lower	Upper
96	100		
98	63.7	40.9	80.9
61	146.6	113.1	153.1

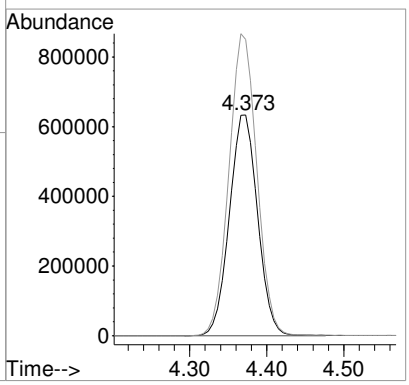


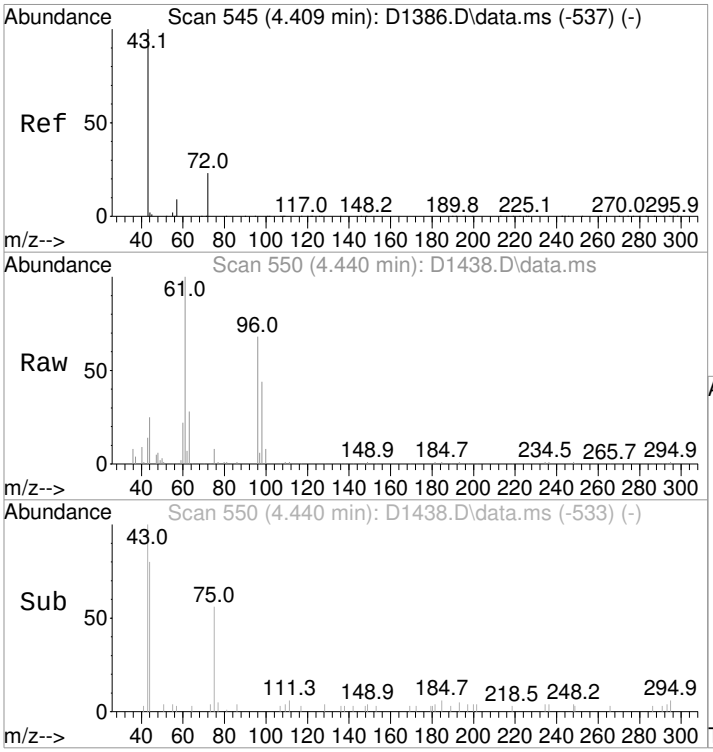


#33
cis-1,2-Dichloroethene
Concen: 699.61 ug/L
RT: 4.373 min Scan# 539
Delta R.T. 0.012 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 96 Resp: 1605579

Ion	Ratio	Lower	Upper
96	100		
61	134.2	111.5	151.5

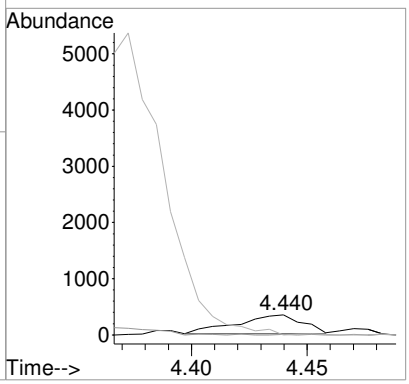


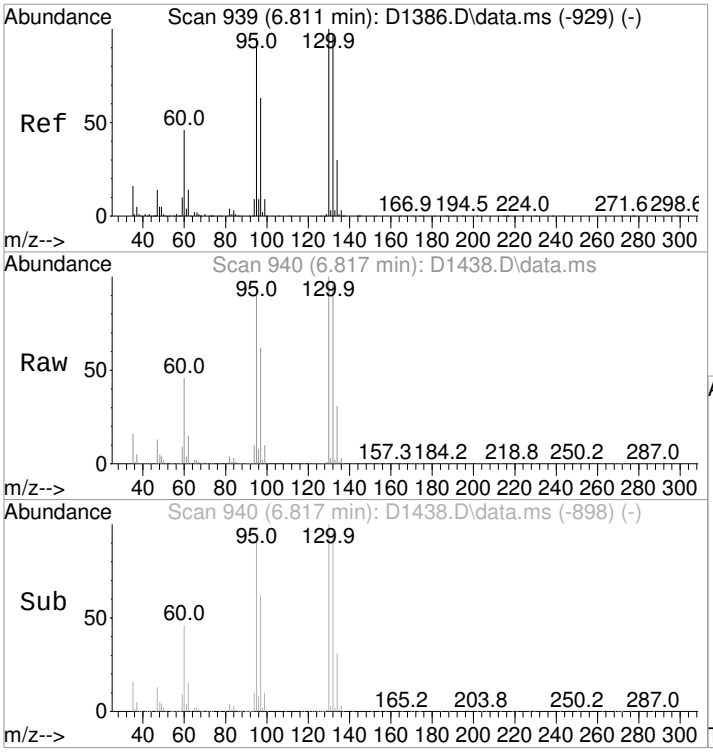


#34
2-Butanone
Concen: 0.49 ug/L
RT: 4.440 min Scan# 550
Delta R.T. 0.024 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 43 Resp: 681

Ion	Ratio	Lower	Upper
43	100		
57	3.1	0.0	27.1
72	0.0	4.9	44.9#

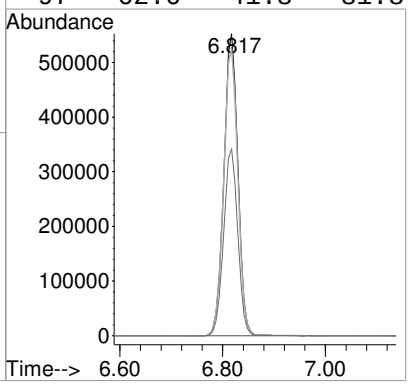


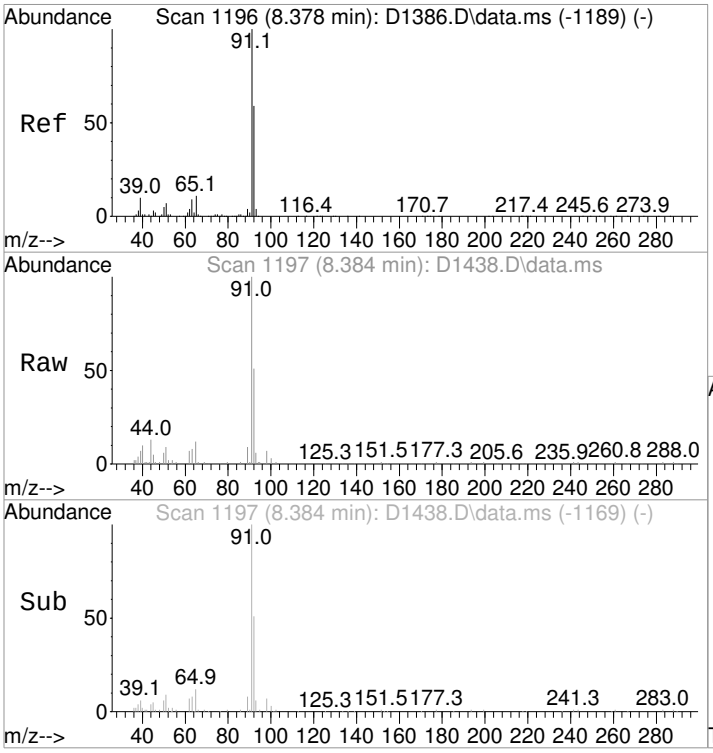


#53
Trichloroethene
Concen: 456.32 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion:130 Resp: 1045402

Ion	Ratio	Lower	Upper
130	100		
132	95.8	80.0	120.0
95	94.5	68.5	108.5
97	62.0	41.8	81.8

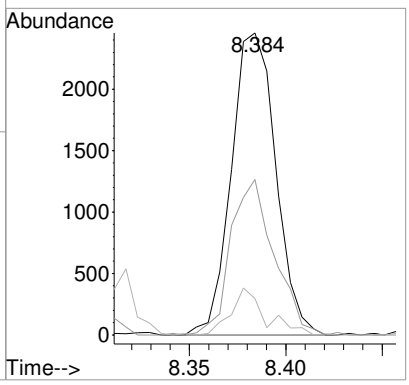


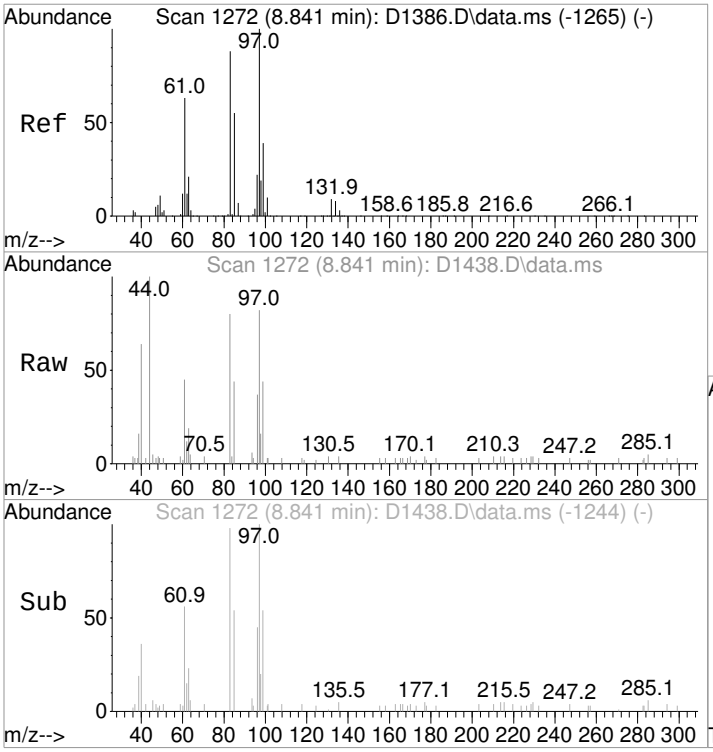


#65
Toluene
Concen: 0.44 ug/L
RT: 8.384 min Scan# 1197
Delta R.T. -0.000 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 91 Resp: 3937

Ion	Ratio	Lower	Upper
91	100		
92	51.5	38.1	78.1
65	12.1	0.0	30.2

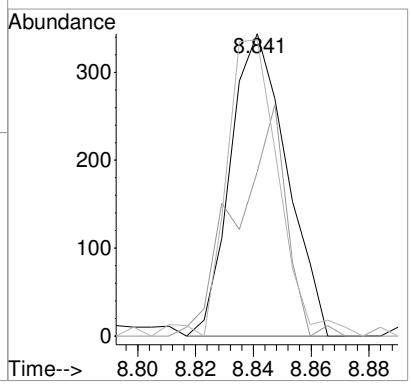


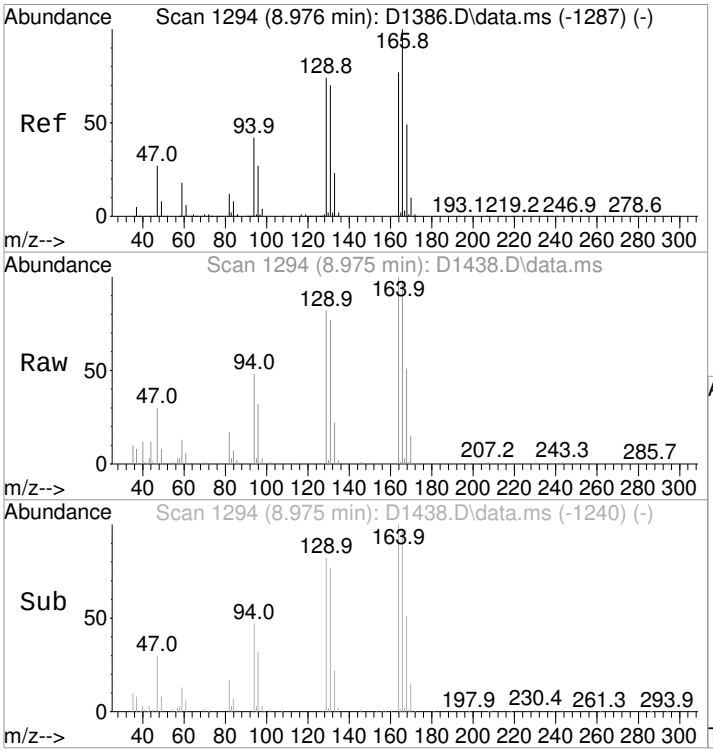


#68
1,1,2-Trichloroethane
Concen: 0.24 ug/L
RT: 8.841 min Scan# 1272
Delta R.T. -0.000 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 97 Resp: 464

Ion	Ratio	Lower	Upper
97	100		
99	54.4	44.2	84.2
83	98.0	62.0	102.0

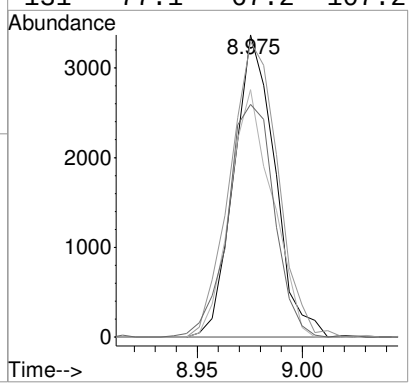


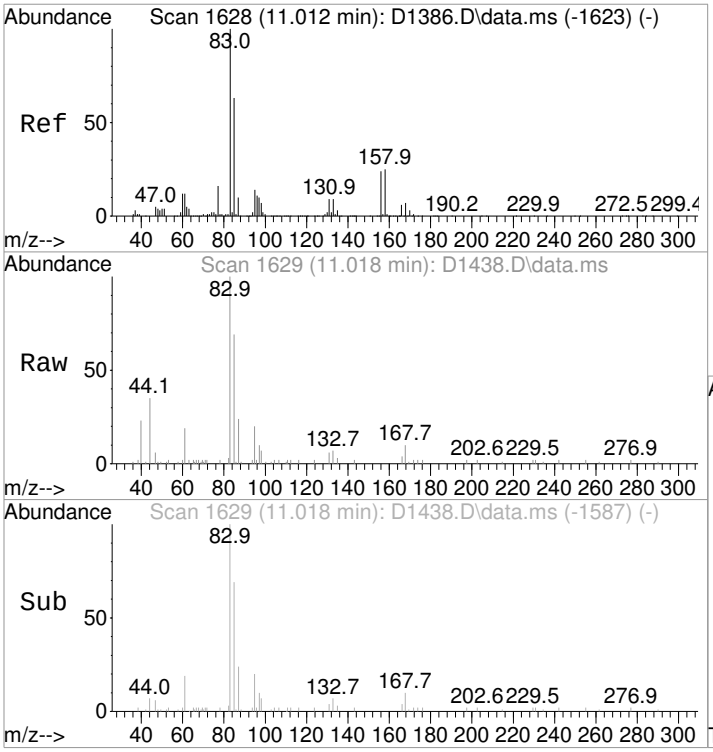


#71
Tetrachloroethene
Concen: 2.55 ug/L
RT: 8.975 min Scan# 1294
Delta R.T. -0.000 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion:164 Resp: 4529

Ion	Ratio	Lower	Upper
164	100		
166	97.7	108.6	148.6#
129	81.8	69.1	109.1
131	77.1	67.2	107.2

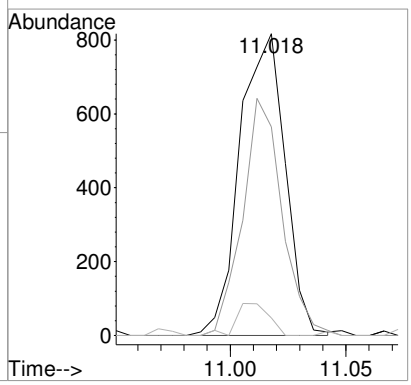




#91
1,1,2,2-Tetrachloroethane
Concen: 0.42 ug/L
RT: 11.018 min Scan# 1629
Delta R.T. 0.006 min
Lab File: D1438.D
Acq: 15 Feb 2018 7:35 pm

Tgt Ion: 83 Resp: 1107

Ion	Ratio	Lower	Upper
83	100		
85	69.2	42.6	82.6
131	5.9	0.0	29.9



1st DL 02/21/18
2nd 02/21/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1453.D
Acq On : 16 Feb 2018 1:07 pm
Operator : D.LIPANI
Sample : R1801238-011|50 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 20 15:08:17 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	198029	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	301564	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	260707	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	134534	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	89108	48.30	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.60%			
46) surr1,1,2-dichloroetha...	5.781	65	108866	51.03	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.06%			
64) SURR3,Toluene-d8	8.311	98	354889	48.81	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.62%			
69) SURR2,BFB	10.878	95	126247	44.83	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.66%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	8351	2.83	ug/L	90
15) Acetone	2.325	43	1358	1.31	ug/L	82
18) Carbon Disulfide	2.477	76	1460	0.27	ug/L	84
26) trans-1,2-Dichloroethene	3.026	96	11816	5.53	ug/L	92
33) cis-1,2-Dichloroethene	4.367	96	315449	135.33	ug/L	93
53) Trichloroethene	6.811	130	204709	85.86	ug/L	93
71) Tetrachloroethene	8.976	164	1008	0.55	ug/L #	65

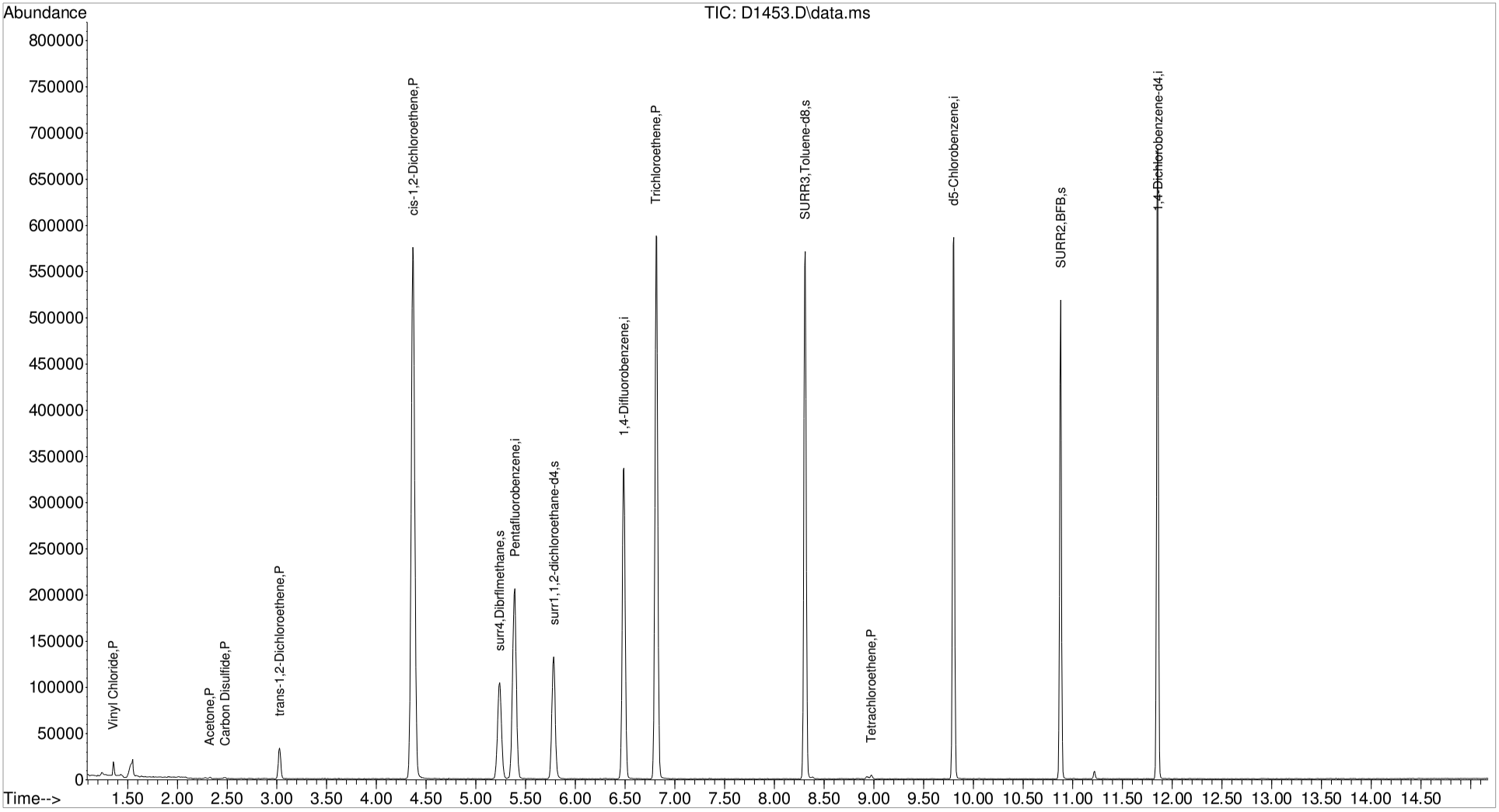
DL

(#) = qualifier out of range (m) = manual integration (+) = signals summed

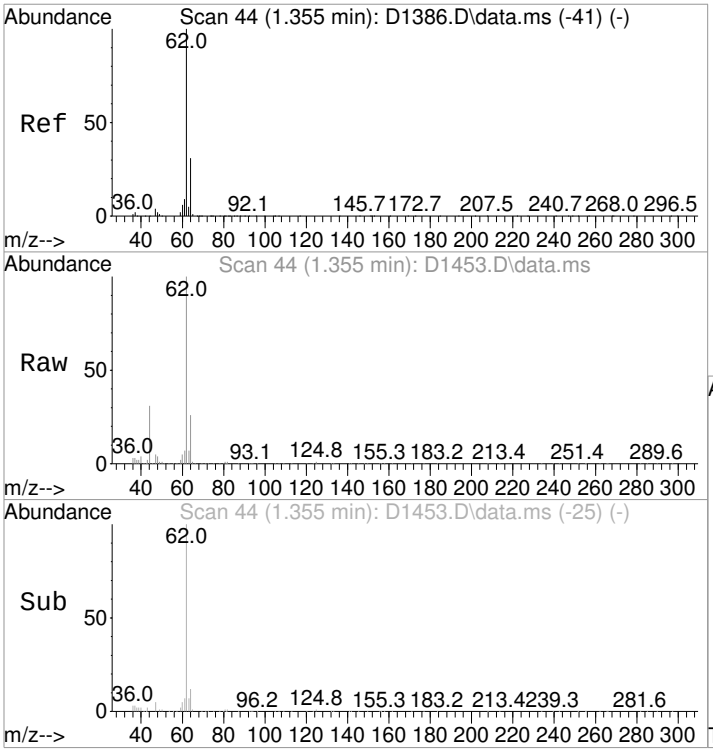
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1453.D
Acq On : 16 Feb 2018 1:07 pm
Operator : D.LIPANI
Sample : R1801238-011|50 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 20 15:08:17 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



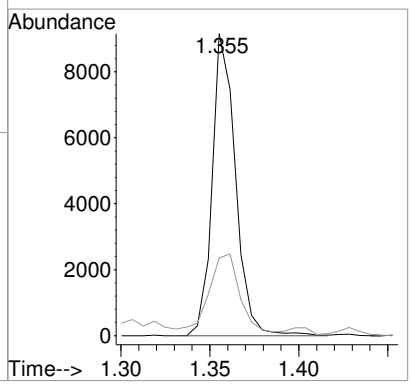
1st 02/21/18
2nd 02/21/18

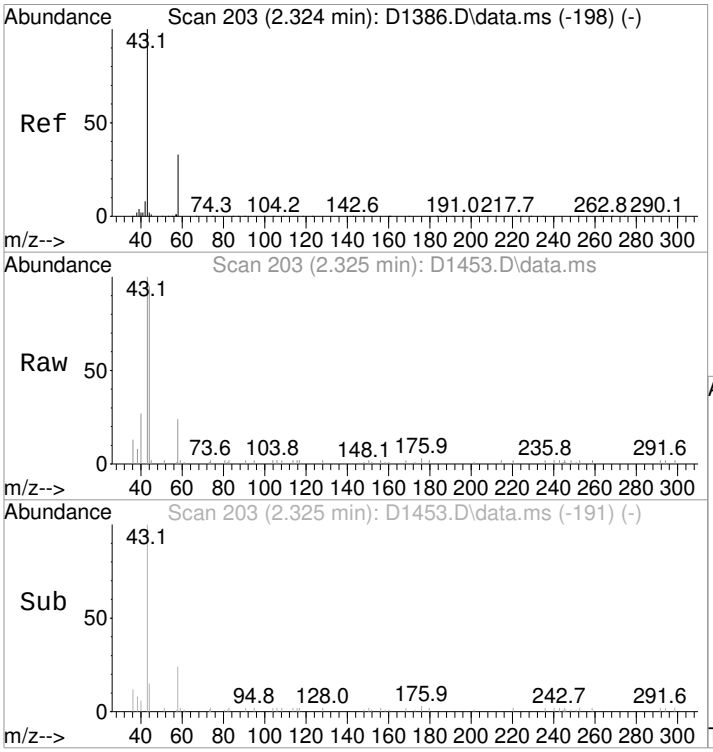


#4
Vinyl Chloride
Concen: 2.83 ug/L
RT: 1.355 min Scan# 44
Delta R.T. 0.000 min
Lab File: D1453.D
Acq: 16 Feb 2018 1:07 pm

Tgt Ion: 62 Resp: 8351

Ion	Ratio	Lower	Upper
62	100		
64	25.7	11.2	51.2

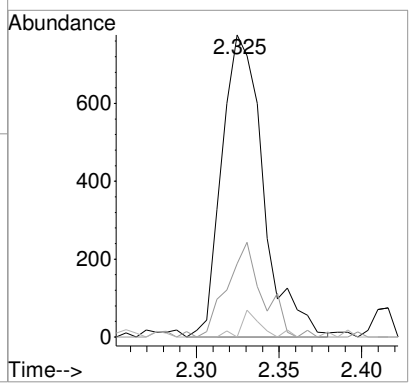


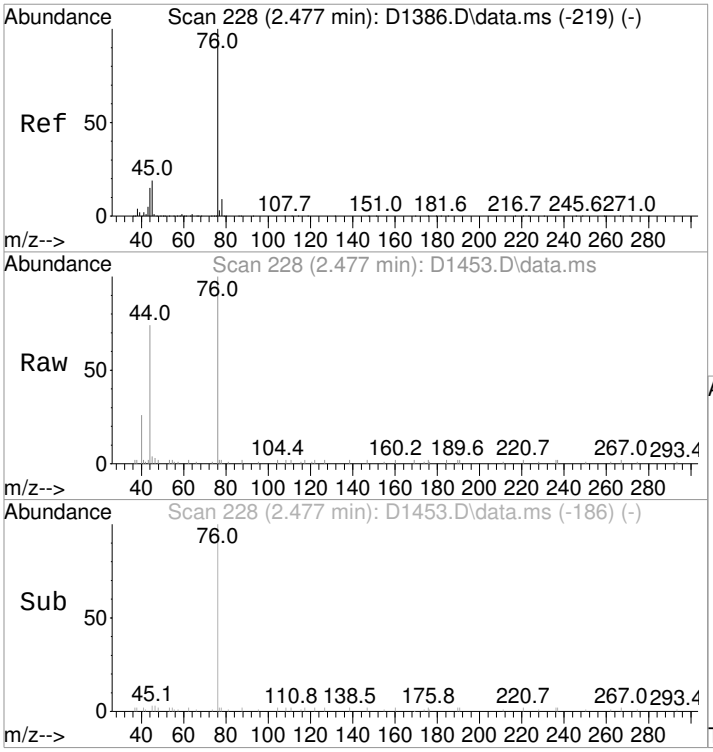


#15
Acetone
Concen: 1.31 ug/L
RT: 2.325 min Scan# 203
Delta R.T. 0.000 min
Lab File: D1453.D
Acq: 16 Feb 2018 1:07 pm

Tgt Ion: 43 Resp: 1358

Ion	Ratio	Lower	Upper
43	100		
58	24.2	12.8	52.8
42	0.0	0.0	30.0

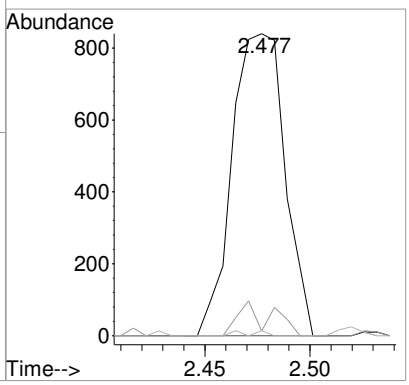


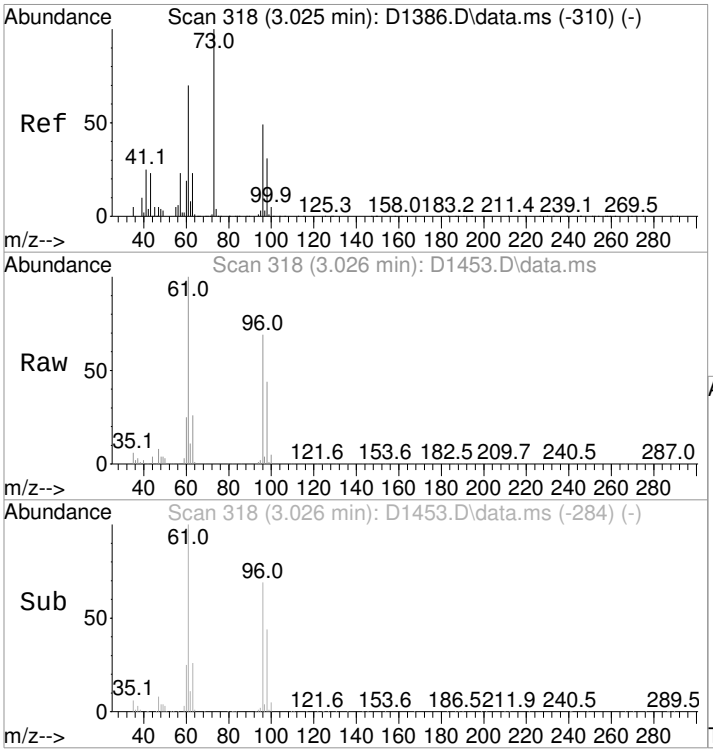


#18
Carbon Disulfide
Concen: 0.27 ug/L
RT: 2.477 min Scan# 228
Delta R.T. 0.000 min
Lab File: D1453.D
Acq: 16 Feb 2018 1:07 pm

Tgt Ion: 76 Resp: 1460

Ion	Ratio	Lower	Upper
76	100		
78	1.5	0.0	29.1
77	3.2	0.0	22.8

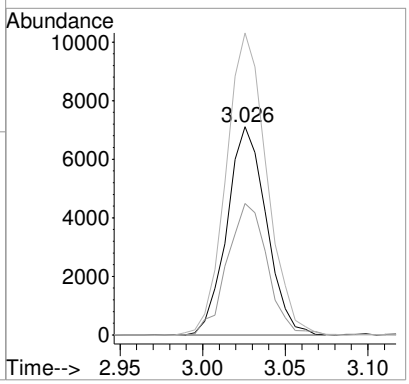


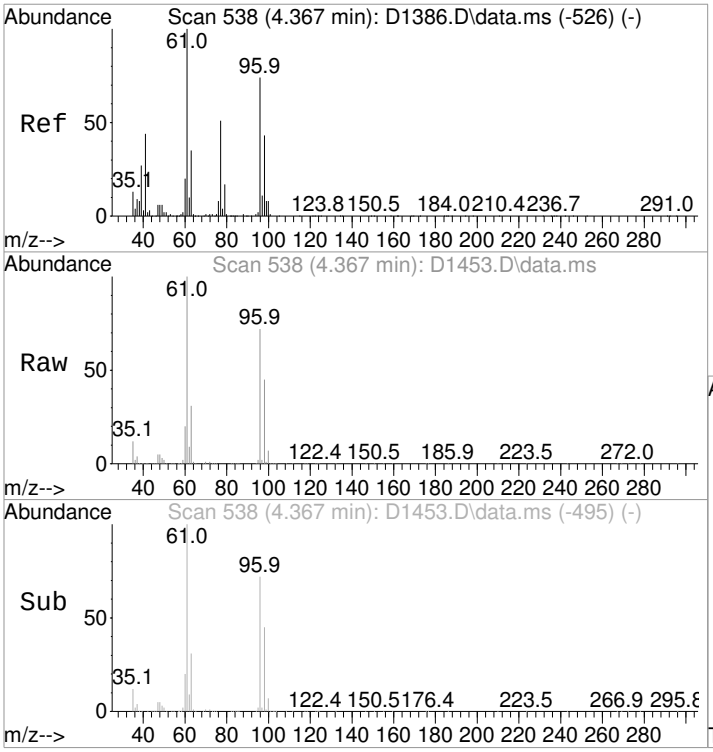


#26
trans-1,2-Dichloroethene
Concen: 5.53 ug/L
RT: 3.026 min Scan# 318
Delta R.T. 0.000 min
Lab File: D1453.D
Acq: 16 Feb 2018 1:07 pm

Tgt Ion: 96 Resp: 11816

Ion	Ratio	Lower	Upper
96	100		
98	63.1	40.9	80.9
61	144.9	113.1	153.1

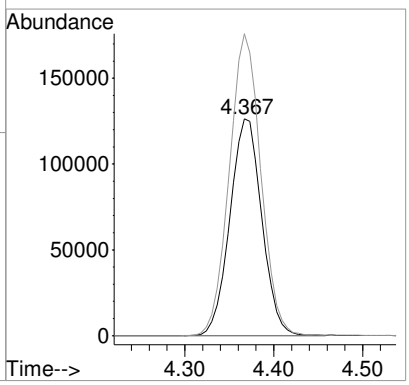


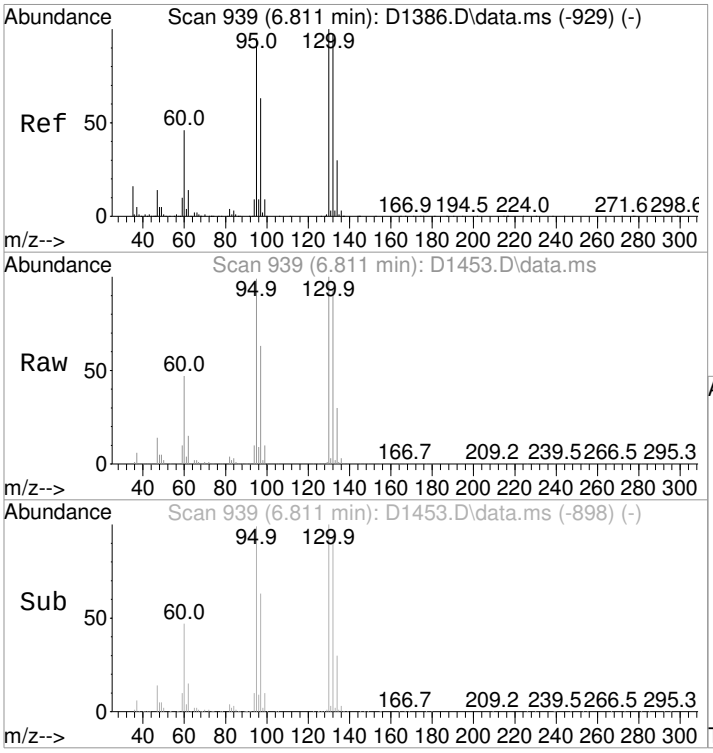


#33
cis-1,2-Dichloroethene
Concen: 135.33 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1453.D
Acq: 16 Feb 2018 1:07 pm

Tgt Ion: 96 Resp: 315449

Ion	Ratio	Lower	Upper
96	100		
61	139.3	111.5	151.5

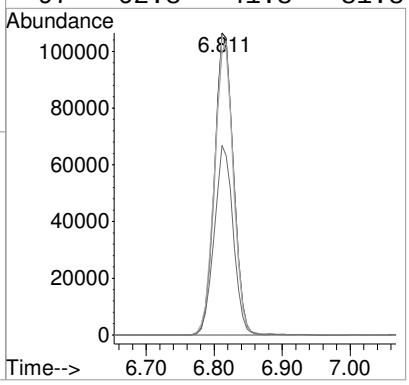


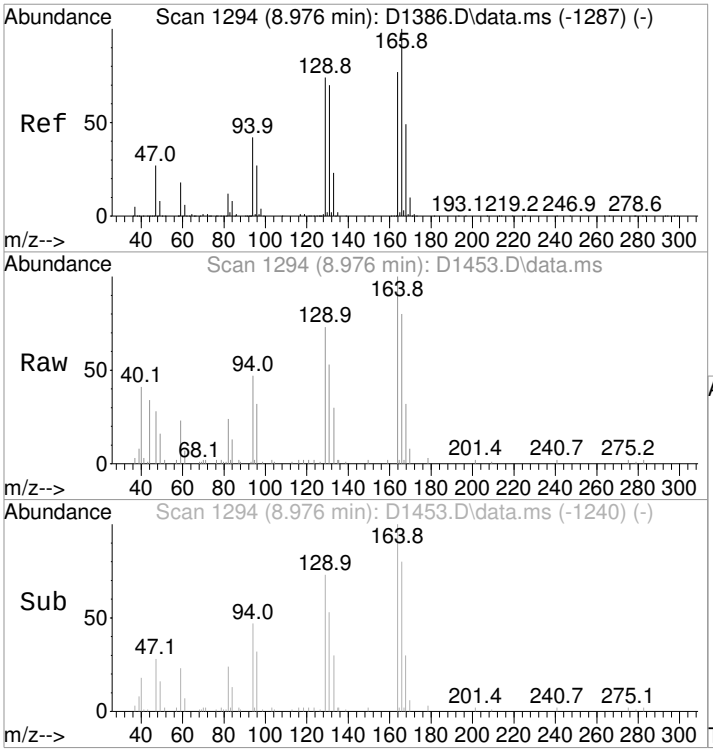


#53
Trichloroethene
Concen: 85.86 ug/L
RT: 6.811 min Scan# 939
Delta R.T. 0.000 min
Lab File: D1453.D
Acq: 16 Feb 2018 1:07 pm

Tgt Ion:130 Resp: 204709

Ion	Ratio	Lower	Upper
130	100		
132	93.3	80.0	120.0
95	98.8	68.5	108.5
97	62.8	41.8	81.8

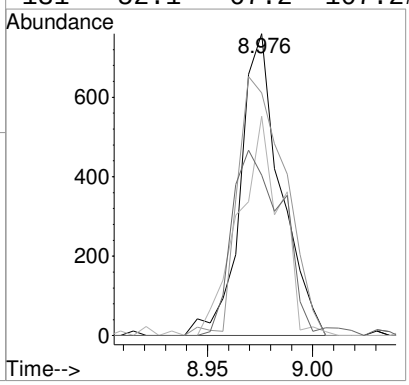




#71
Tetrachloroethene
Concen: 0.55 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. 0.000 min
Lab File: D1453.D
Acq: 16 Feb 2018 1:07 pm

Tgt Ion:164 Resp: 1008

Ion	Ratio	Lower	Upper
164	100		
166	78.7	108.6	148.6#
129	71.1	69.1	109.1
131	52.1	67.2	107.2#

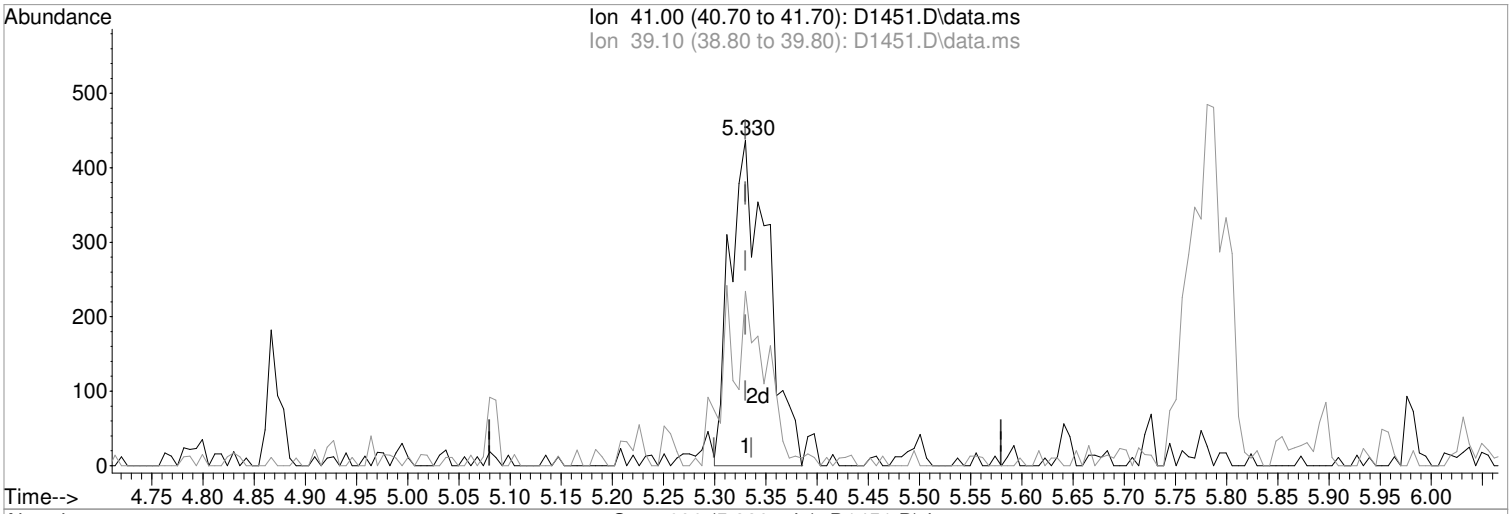


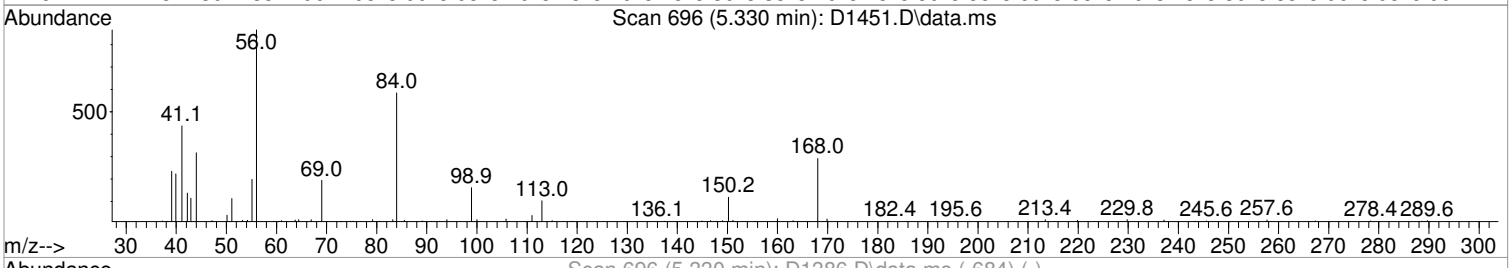
1st DL 02/21/18
2nd 02/21/18

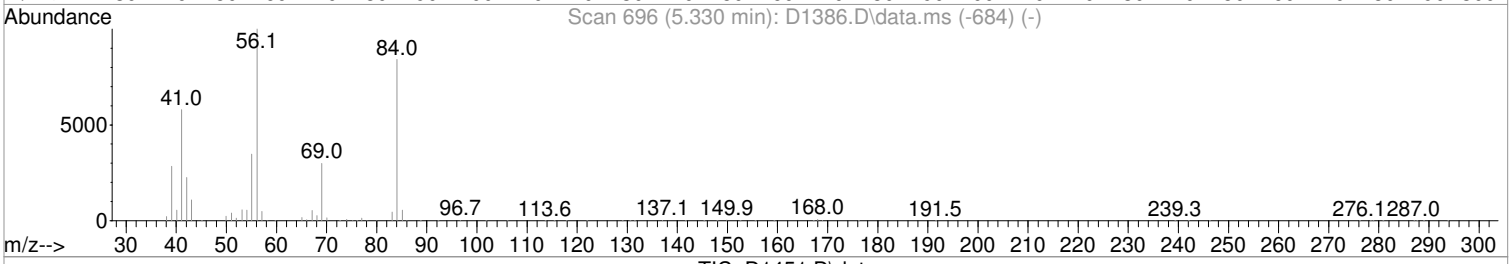
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1451.D
Acq On : 16 Feb 2018 12:23 pm
Operator : D.LIPANI
Sample : R1801238-012|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 12:37:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1451.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.000) 0.54 ug/L m

response 1124

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	53.55
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

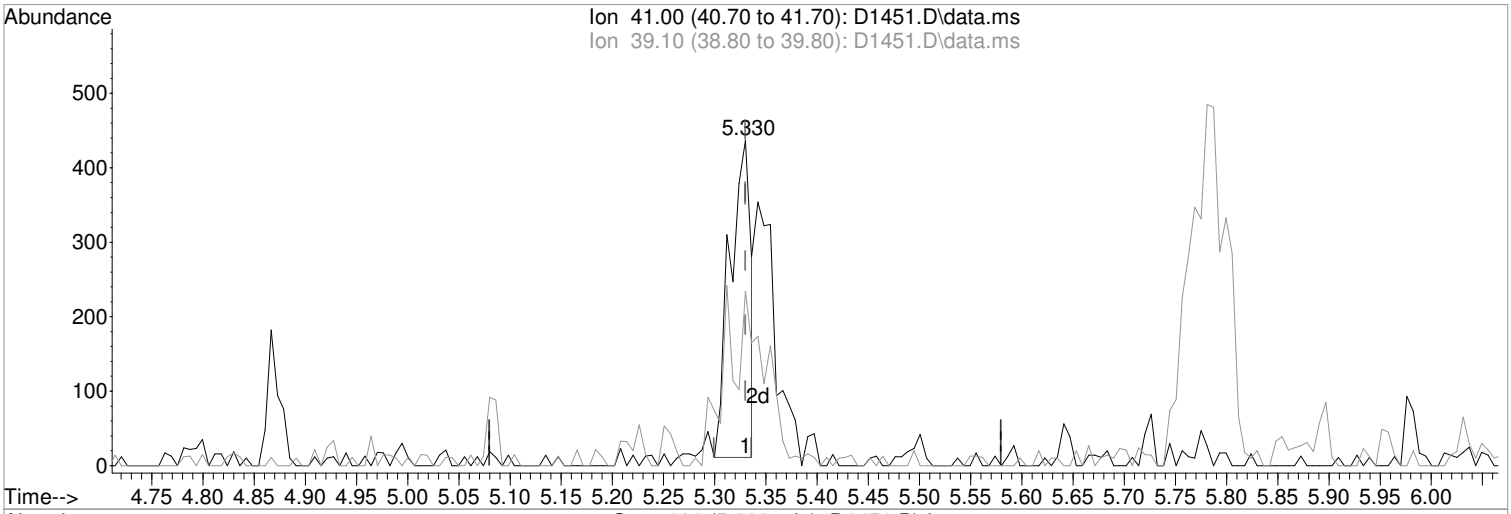
02/20/18

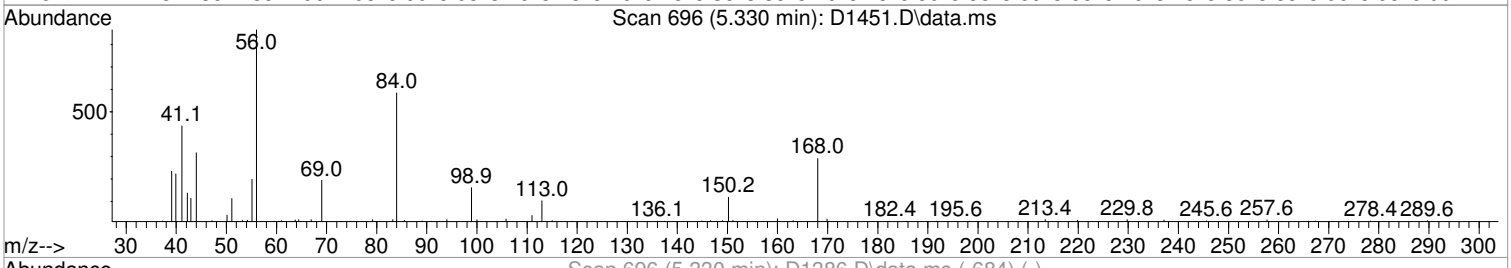
1st DL 02/21/18
2nd 02/21/18

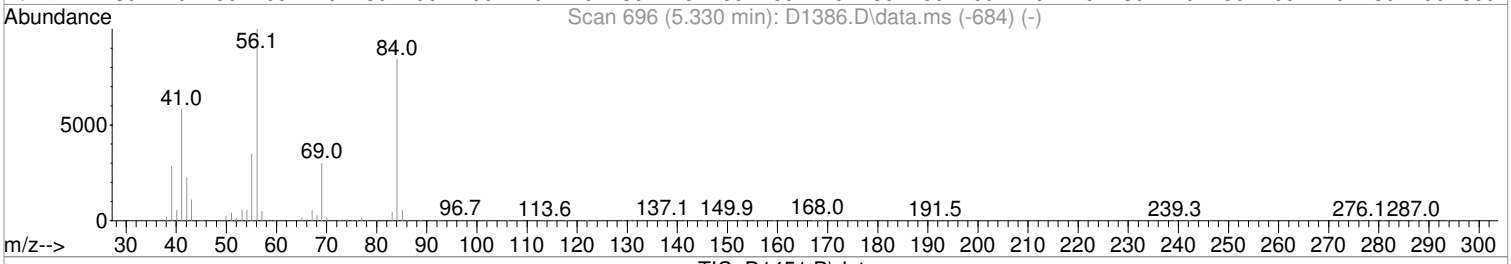
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1451.D
Acq On : 16 Feb 2018 12:23 pm
Operator : D.LIPANI
Sample : R1801238-012|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 12:37:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1451.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.000) 0.29 ug/L

response 611

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	53.55
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/20/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1451.D
Acq On : 16 Feb 2018 12:23 pm
Operator : D.LIPANI
Sample : R1801238-012|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 15:03:48 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

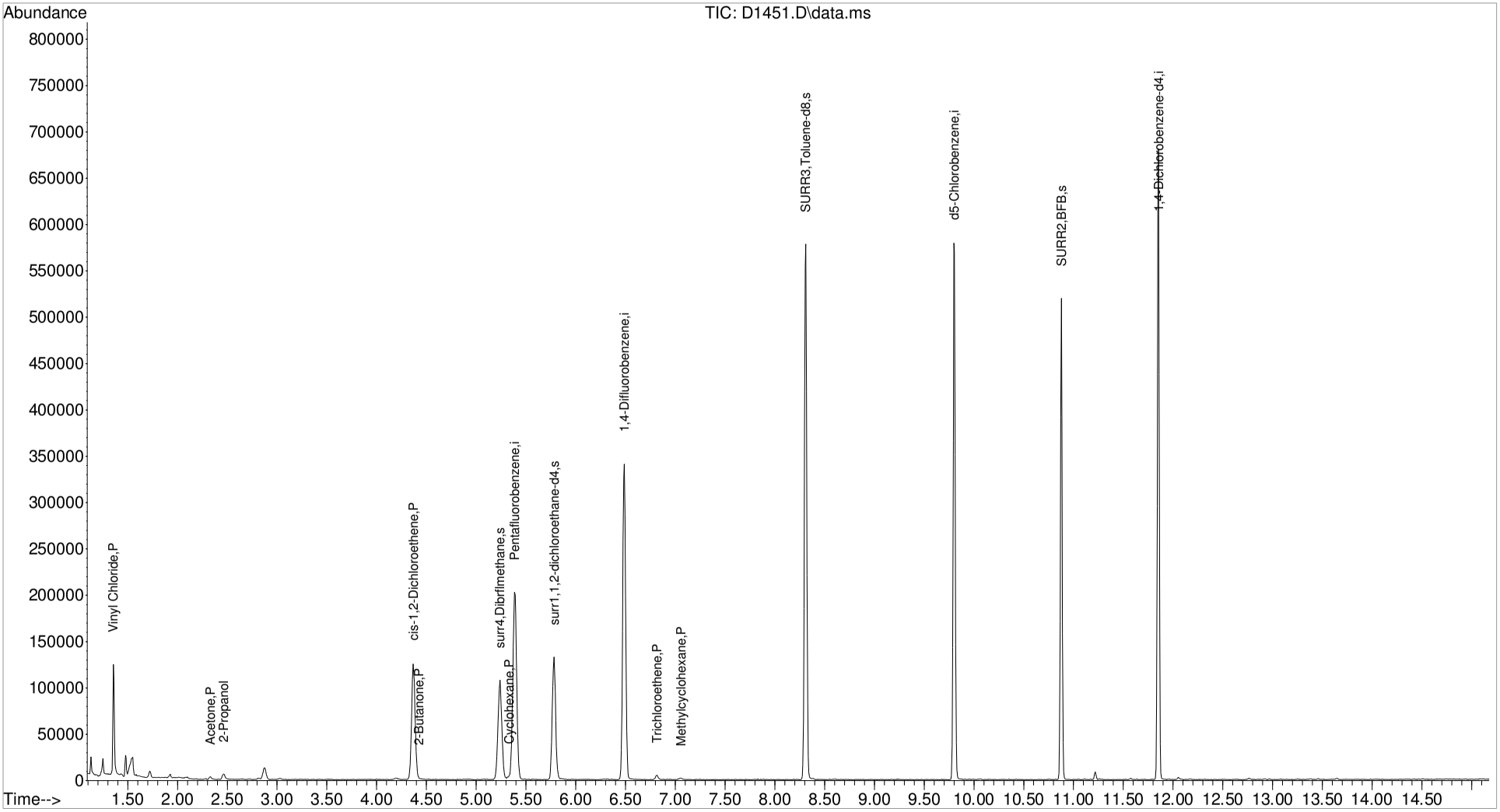
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	197395	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	297070	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	262503	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	135463	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	88338	48.60	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.20%			
46) surr1,1,2-dichloroetha...	5.781	65	107832	51.31	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.62%			
64) SURR3,Toluene-d8	8.311	98	352665	49.24	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.48%			
69) SURR2,BFB	10.878	95	122755	44.25	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 88.50%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	61011	20.76	ug/L	99
15) Acetone	2.331	43	2808	2.73	ug/L	86
16) 2-Propanol	2.465	45	6401	38.68	ug/L	95
33) cis-1,2-Dichloroethene	4.373	96	66574	28.65	ug/L	99
34) 2-Butanone	4.422	43	330	0.24	ug/L	69
42) Cyclohexane	5.330	41	1124m	0.54	ug/L	
53) Trichloroethene	6.817	130	1570	0.67	ug/L #	88
54) Methylcyclohexane	7.055	55	720	0.26	ug/L #	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

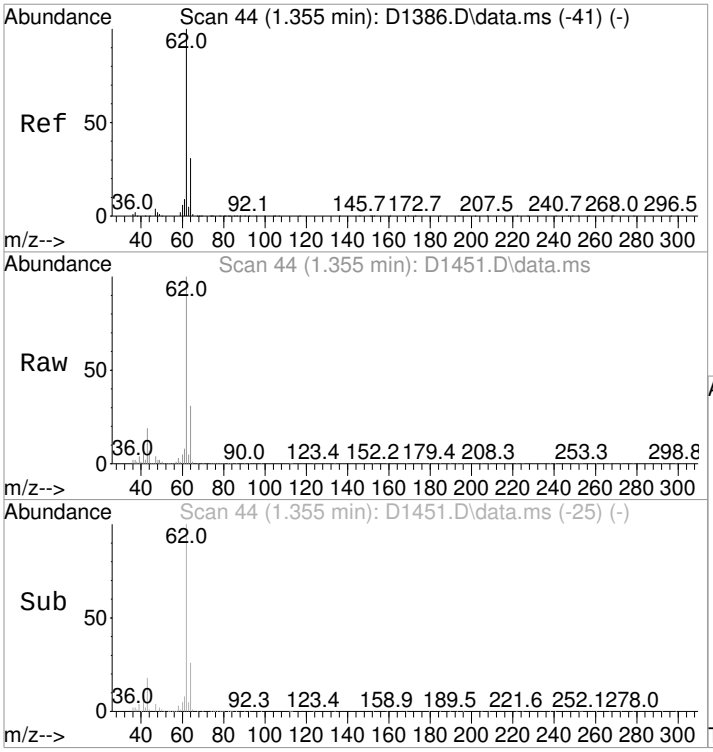
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1451.D
Acq On : 16 Feb 2018 12:23 pm
Operator : D.LIPANI
Sample : R1801238-012|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 20 15:03:48 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



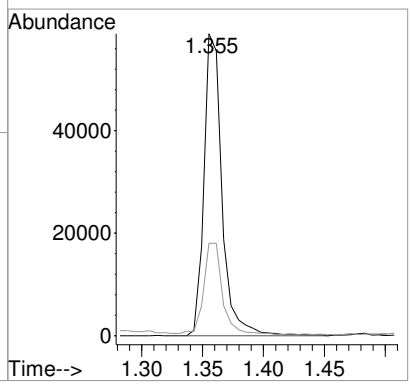
1st 02/21/18
2nd 02/21/18

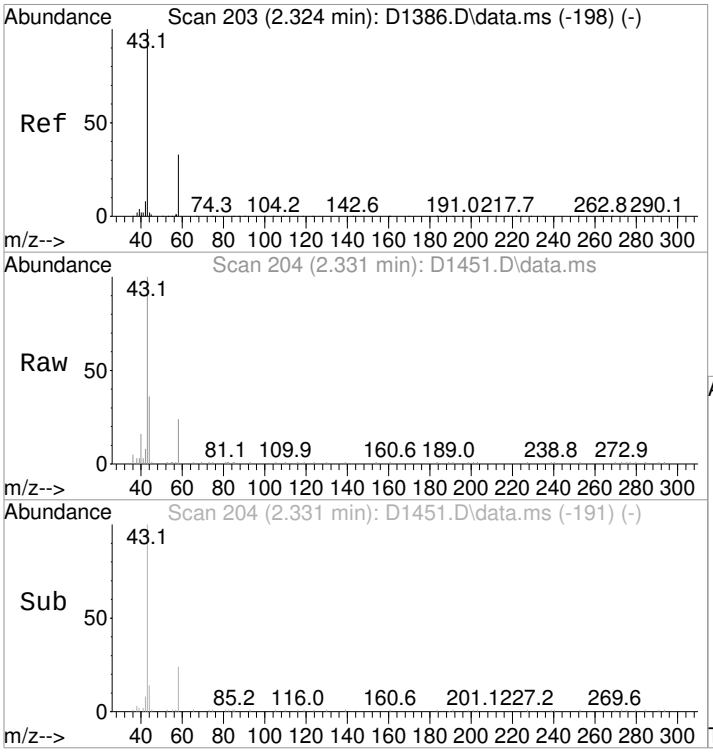


#4
Vinyl Chloride
Concen: 20.76 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion: 62 Resp: 61011

Ion	Ratio	Lower	Upper
62	100		
64	30.6	11.2	51.2

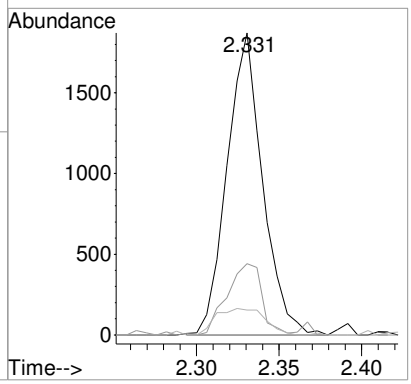


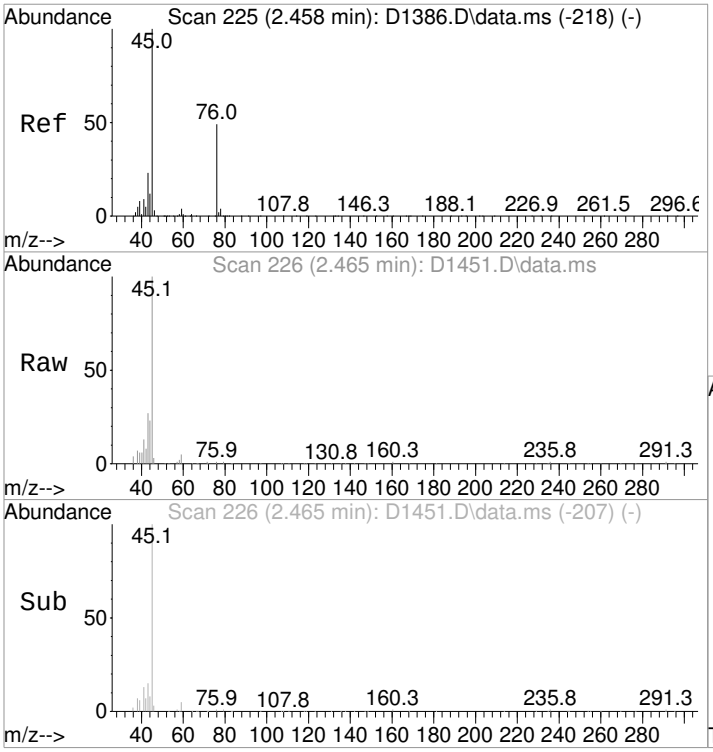


#15
Acetone
Concen: 2.73 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion: 43 Resp: 2808

Ion	Ratio	Lower	Upper
43	100		
58	23.6	12.8	52.8
42	8.2	0.0	30.0

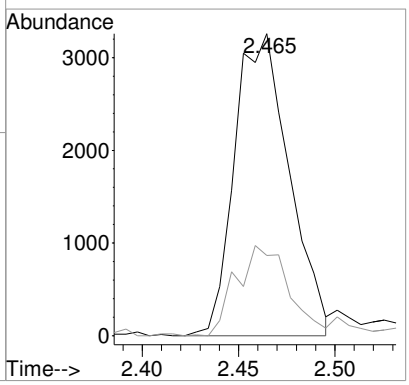


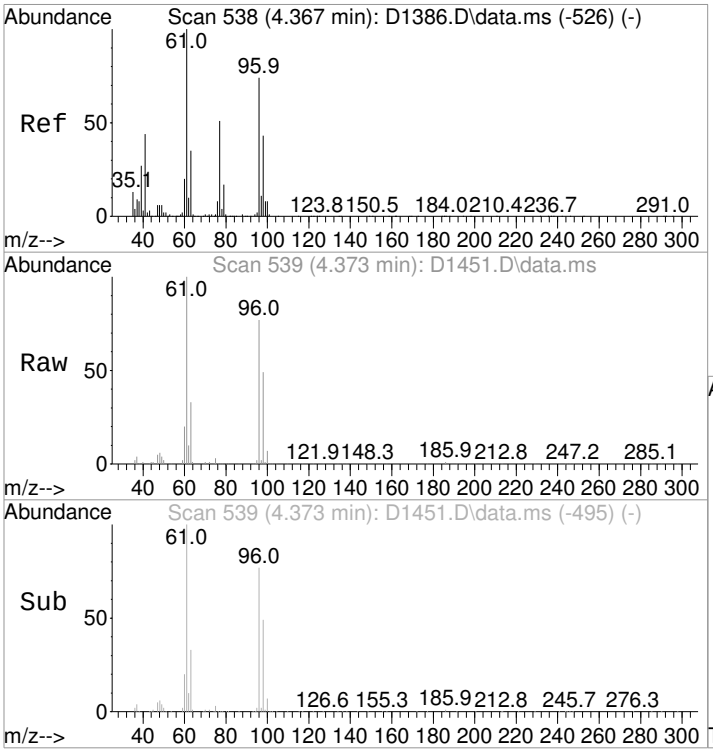


#16
2-Propanol
Concen: 38.68 ug/L
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion: 45 Resp: 6401

Ion	Ratio	Lower	Upper
45	100		
43	26.6	4.3	44.3

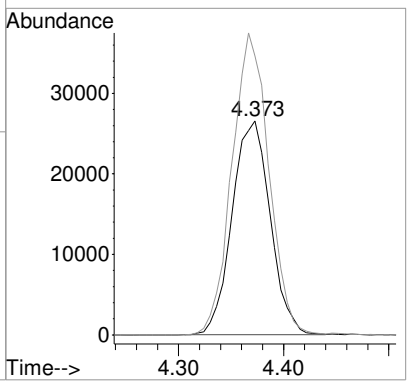


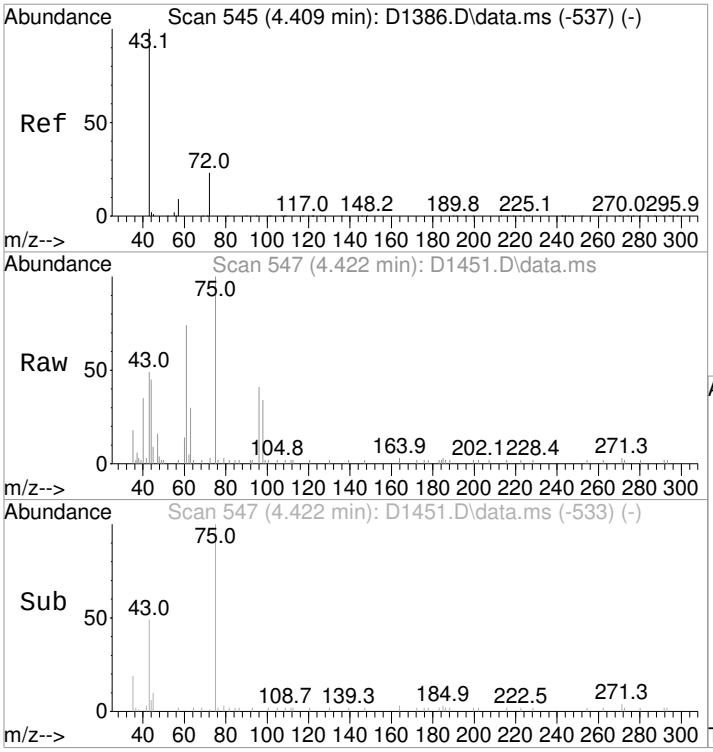


#33
cis-1,2-Dichloroethene
Concen: 28.65 ug/L
RT: 4.373 min Scan# 539
Delta R.T. 0.012 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion: 96 Resp: 66574

Ion	Ratio	Lower	Upper
96	100		
61	130.4	111.5	151.5

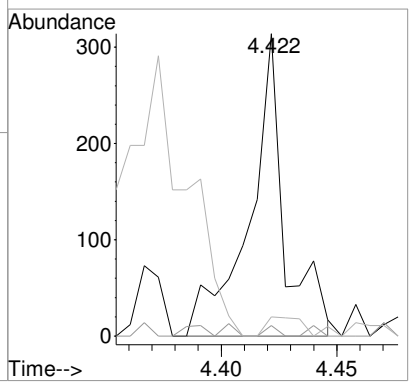


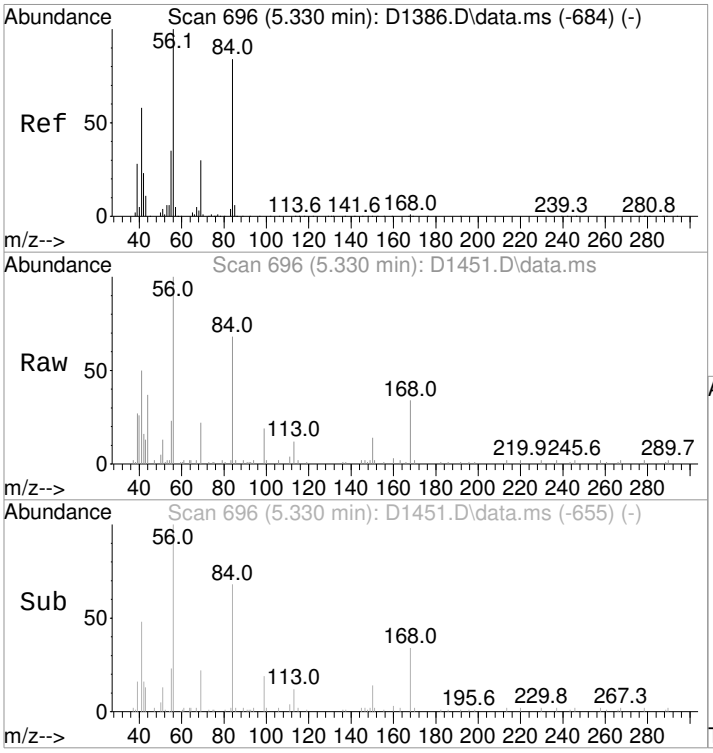


#34
2-Butanone
Concen: 0.24 ug/L
RT: 4.422 min Scan# 547
Delta R.T. 0.006 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion: 43 Resp: 330

Ion	Ratio	Lower	Upper
43	100		
57	3.5	0.0	27.1
72	6.4	4.9	44.9

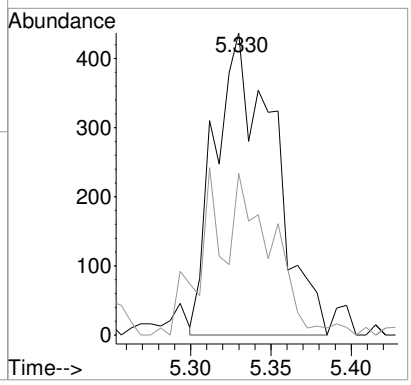


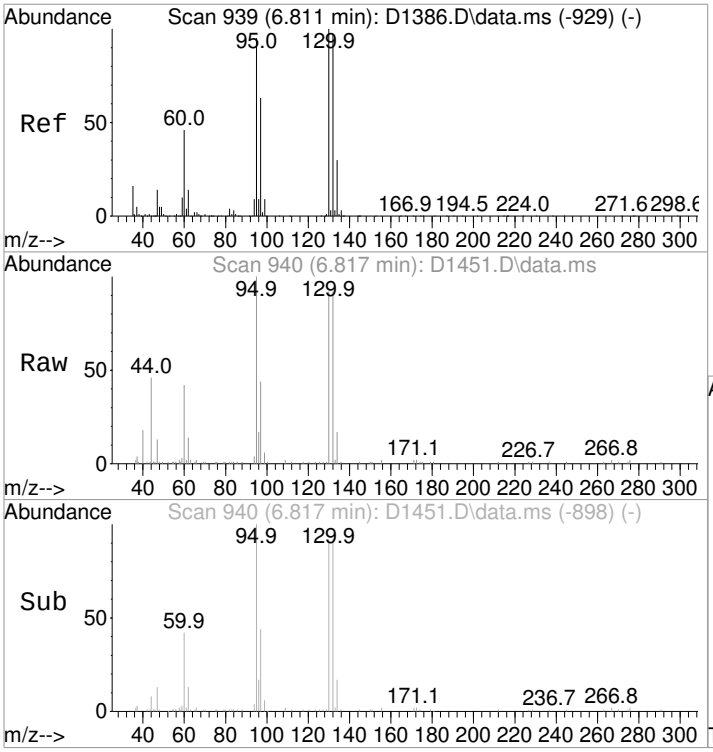


#42
Cyclohexane
Concen: 0.54 ug/L m
RT: 5.330 min Scan# 696
Delta R.T. -0.000 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion: 41 Resp: 1124

Ion	Ratio	Lower	Upper
41	100		
39	53.5	28.2	68.2

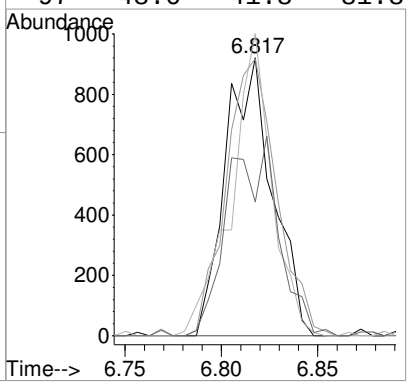


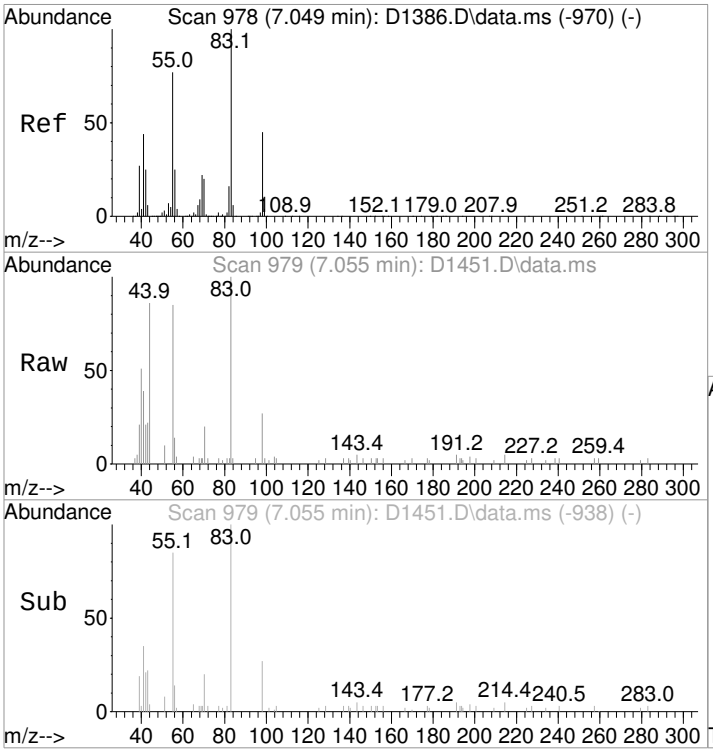


#53
Trichloroethene
Concen: 0.67 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion:130 Resp: 1570

Ion	Ratio	Lower	Upper
130	100		
132	99.6	80.0	120.0
95	108.6	68.5	108.5#
97	48.0	41.8	81.8

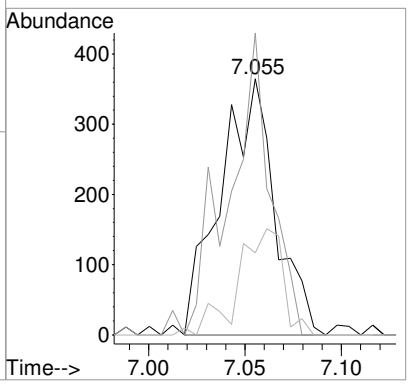




#54
Methylcyclohexane
Concen: 0.26 ug/L
RT: 7.055 min Scan# 979
Delta R.T. 0.012 min
Lab File: D1451.D
Acq: 16 Feb 2018 12:23 pm

Tgt Ion: 55 Resp: 720

Ion	Ratio	Lower	Upper
55	100		
83	121.9	109.6	149.6
98	32.1	43.6	83.6#



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1435.D
Acq On : 15 Feb 2018 6:30 pm
Operator : D.LIPANI
Sample : R1801238-013|5.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 16 15:34:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	192109	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	290807	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	252937	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	133659	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	84285	47.37	ug/L		0.01
Spiked Amount 50.000	Range 89 - 119		Recovery = 94.74%				
46) surr1,1,2-dichloroetha...	5.781	65	104691	50.89	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 101.78%				
64) SURR3,Toluene-d8	8.311	98	337848	48.18	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.36%				
69) SURR2,BFB	10.878	95	119861	44.14	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 88.28%				
Target Compounds							Qvalue
4) Vinyl Chloride	1.355	62	61806	21.61	ug/L		90
13) 1,1-Diclethene	2.282	96	9405	5.00	ug/L	#	87
15) Acetone	2.325	43	1130	1.13	ug/L		82
16) 2-Propanol	2.471	45	310	1.93	ug/L		64
26) trans-1,2-Dichloroethene	3.026	96	7055	3.41	ug/L	#	78
33) cis-1,2-Dichloroethene	4.367	96	1570022	694.32	ug/L		95
47) Benzene	5.867	78	1793	0.21	ug/L		85
53) Trichloroethene	6.818	130	224210	97.52	ug/L		95
71) Tetrachloroethene	8.976	164	3977	2.25	ug/L		94

RPT 1 / 25

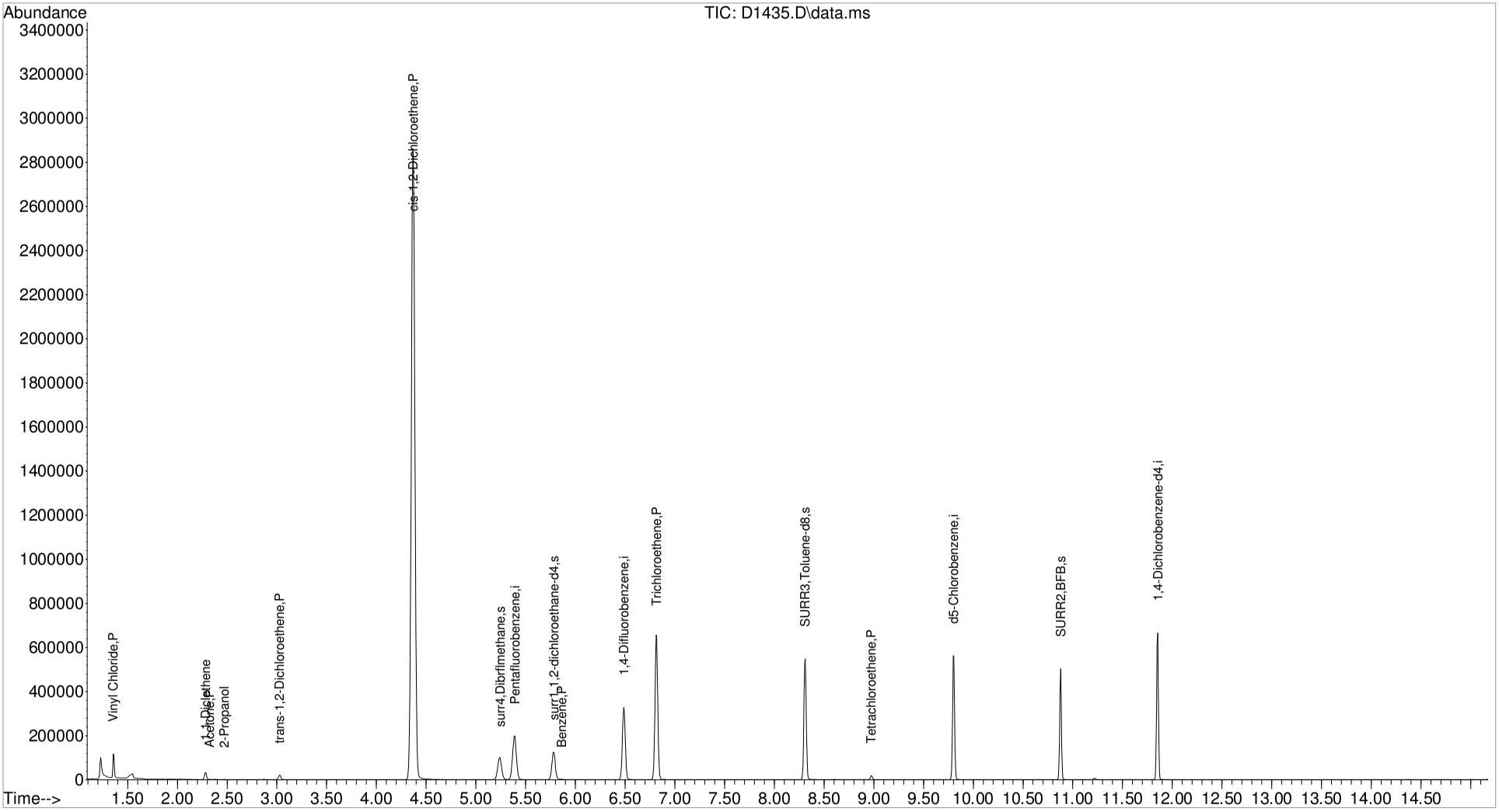
E-Over Calibration

(#) = qualifier out of range (m) = manual integration (+) = signals summed

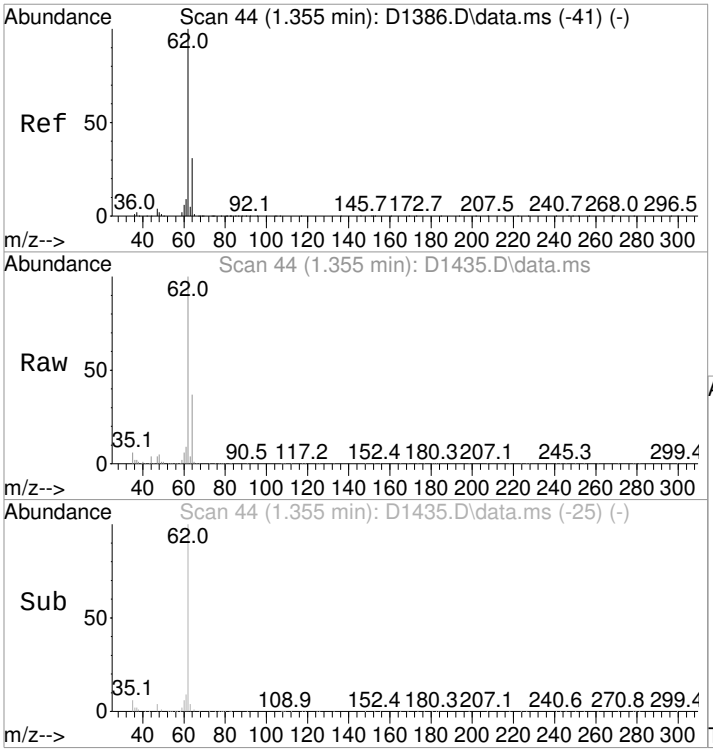
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1435.D
Acq On : 15 Feb 2018 6:30 pm
Operator : D.LIPANI
Sample : R1801238-013|5.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 16 15:34:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



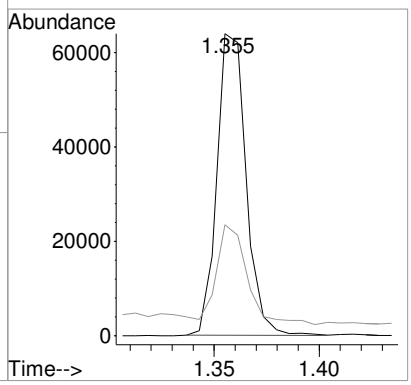
1st DL 02/16/18
2nd FJ 02/17/18

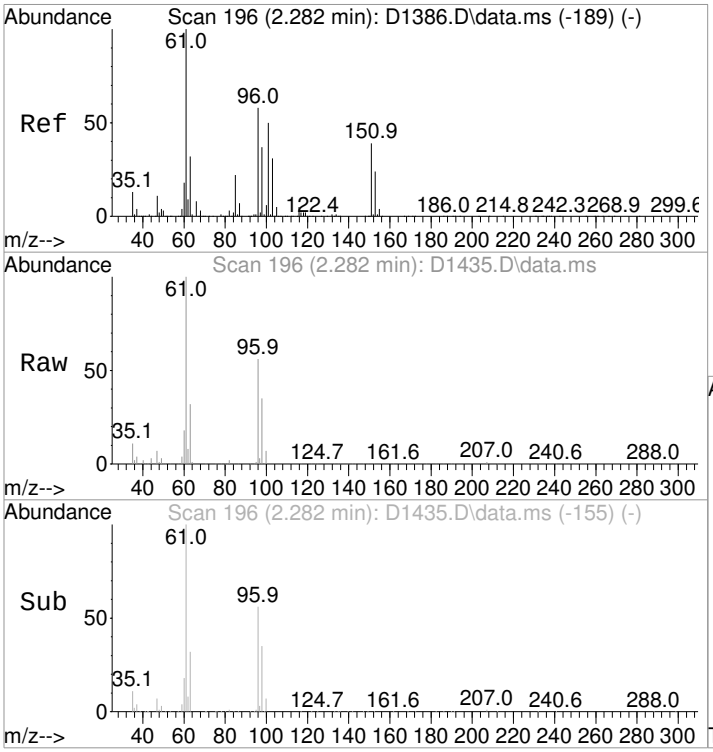


#4
Vinyl Chloride
Concen: 21.61 ug/L
RT: 1.355 min Scan# 44
Delta R.T. 0.000 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion: 62 Resp: 61806

Ion	Ratio	Lower	Upper
62	100		
64	36.8	11.2	51.2

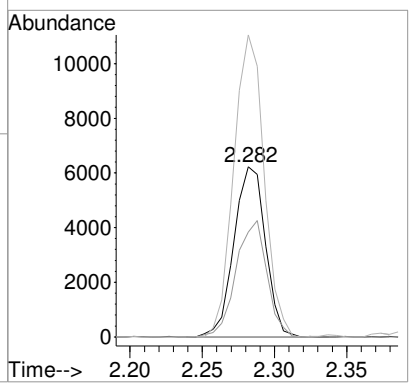


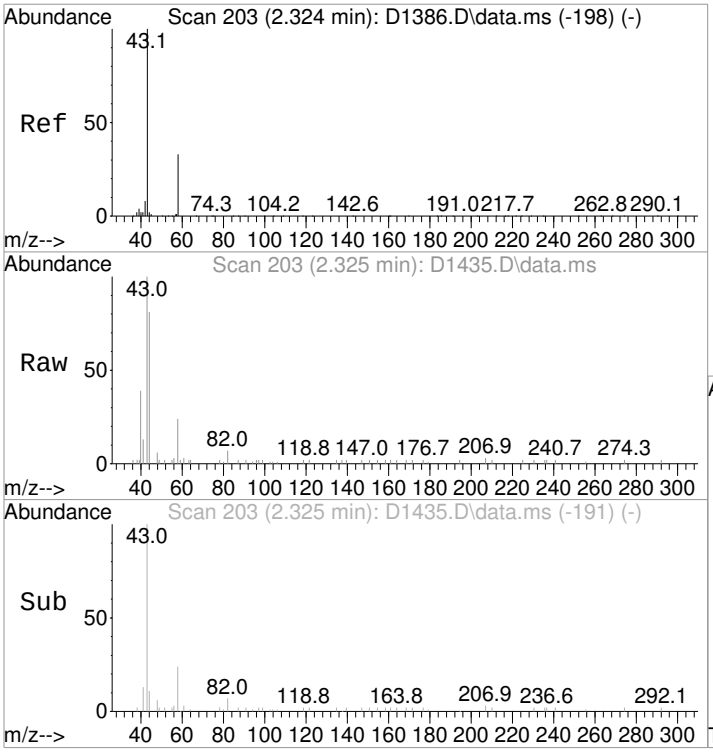


#13
1,1-Diclethene
Concen: 5.00 ug/L
RT: 2.282 min Scan# 196
Delta R.T. 0.000 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion: 96 Resp: 9405

Ion	Ratio	Lower	Upper
96	100		
98	61.6	42.2	82.2
61	177.5	134.9	174.9#

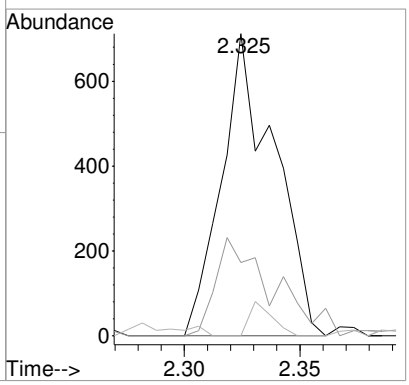


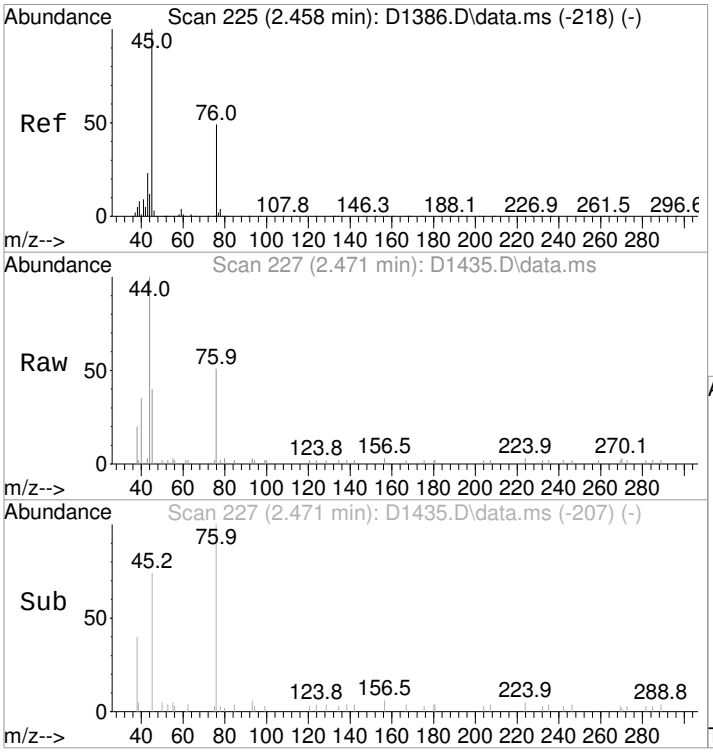


#15
Acetone
Concen: 1.13 ug/L
RT: 2.325 min Scan# 203
Delta R.T. 0.000 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion: 43 Resp: 1130

Ion	Ratio	Lower	Upper
43	100		
58	24.3	12.8	52.8
42	0.0	0.0	30.0

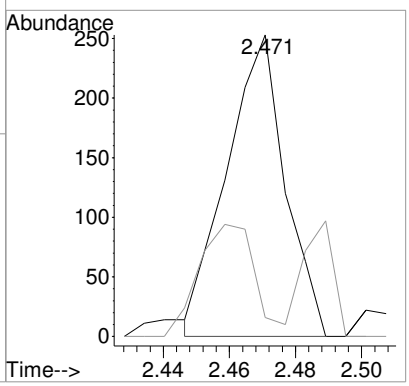


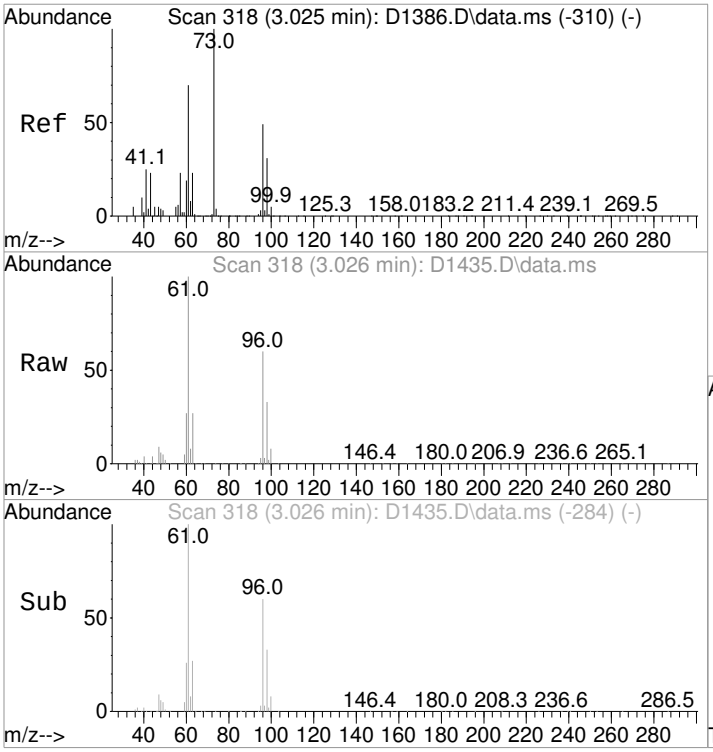


#16
2-Propanol
Concen: 1.93 ug/L
RT: 2.471 min Scan# 227
Delta R.T. 0.013 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion: 45 Resp: 310

Ion	Ratio	Lower	Upper
45	100		
43	6.3	4.3	44.3

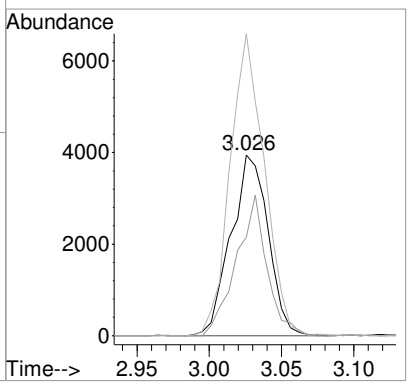


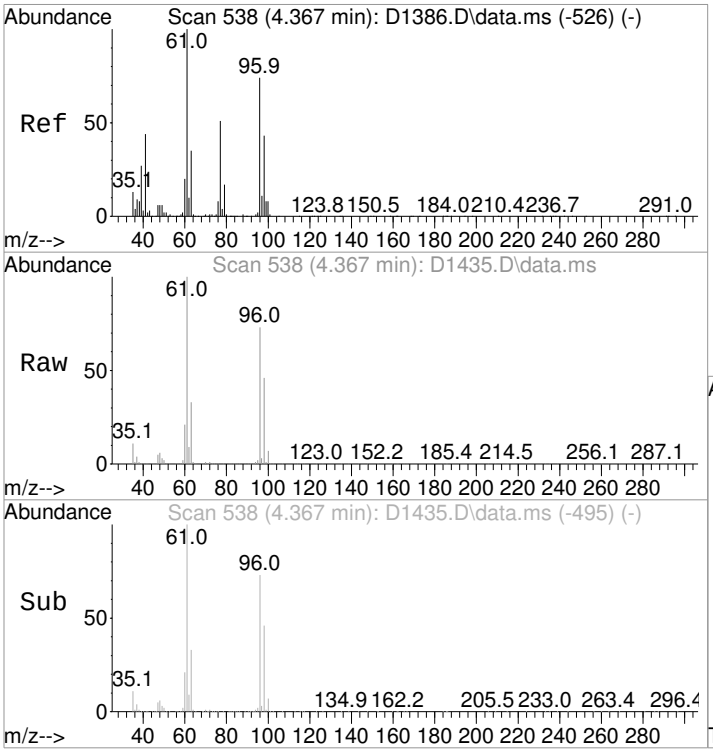


#26
trans-1,2-Dichloroethene
Concen: 3.41 ug/L
RT: 3.026 min Scan# 318
Delta R.T. 0.000 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion: 96 Resp: 7055

Ion	Ratio	Lower	Upper
96	100		
98	54.5	40.9	80.9
61	167.2	113.1	153.1#

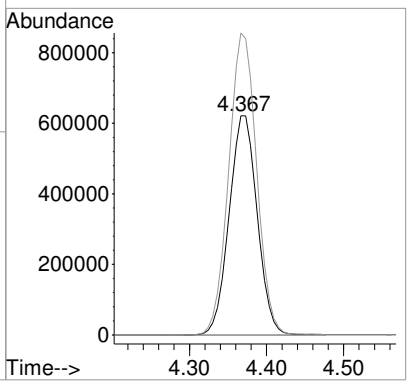


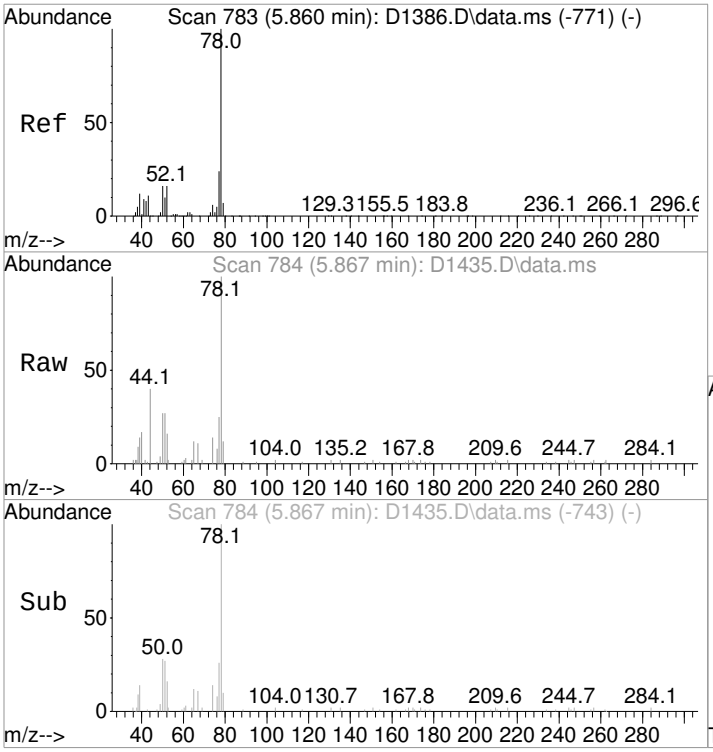


#33
cis-1,2-Dichloroethene
Concen: 694.32 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion: 96 Resp: 1570022

Ion	Ratio	Lower	Upper
96	100		
61	137.8	111.5	151.5

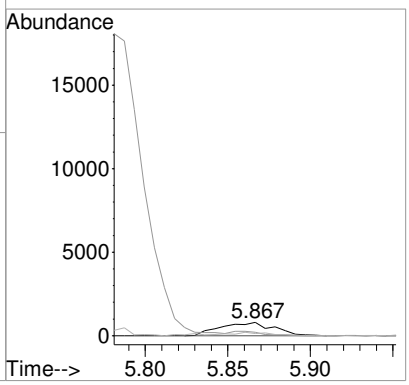


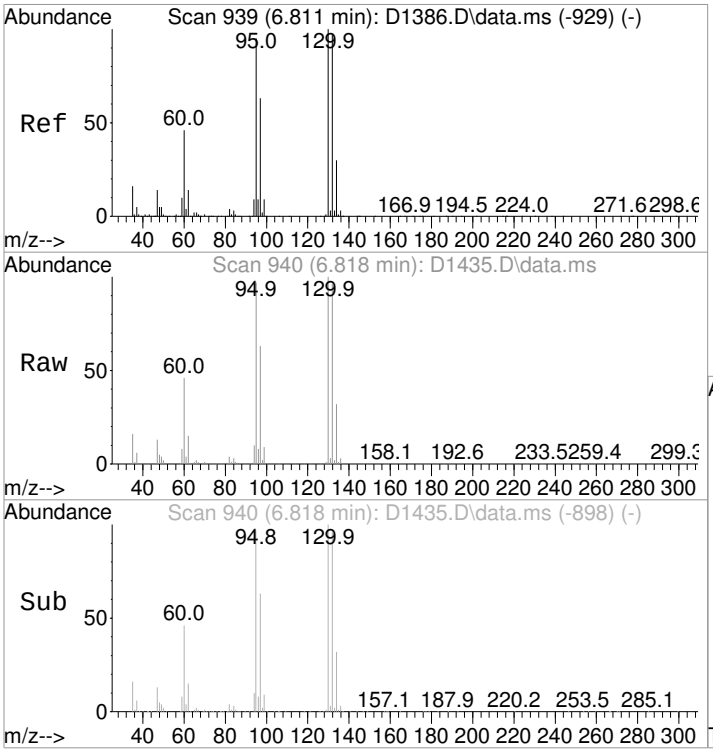


#47
Benzene
Concen: 0.21 ug/L
RT: 5.867 min Scan# 784
Delta R.T. 0.006 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion: 78 Resp: 1793

Ion	Ratio	Lower	Upper
78	100		
51	27.0	0.0	35.9
52	18.2	0.0	36.4

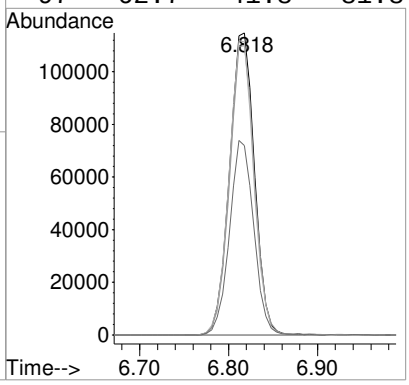


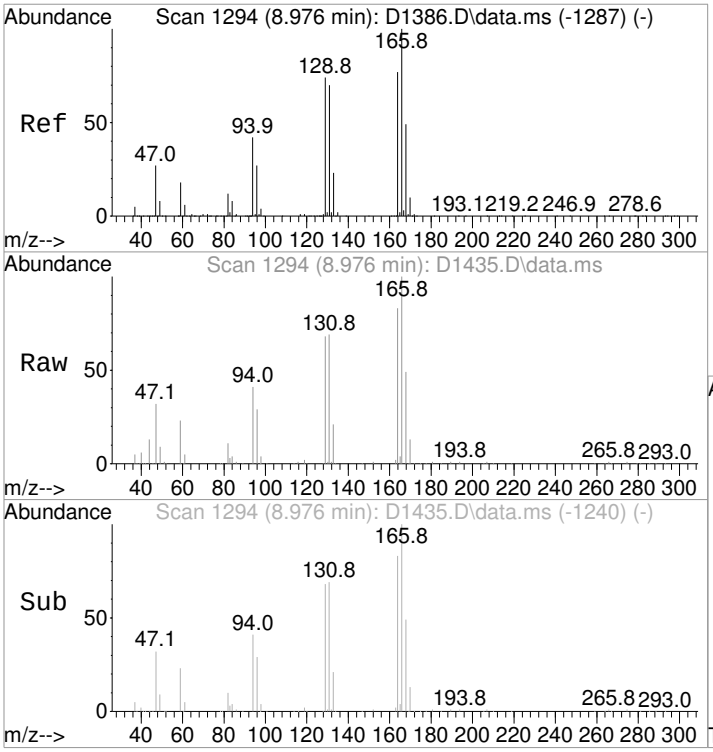


#53
Trichloroethene
Concen: 97.52 ug/L
RT: 6.818 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion:130 Resp: 224210

Ion	Ratio	Lower	Upper
130	100		
132	95.7	80.0	120.0
95	97.0	68.5	108.5
97	62.7	41.8	81.8

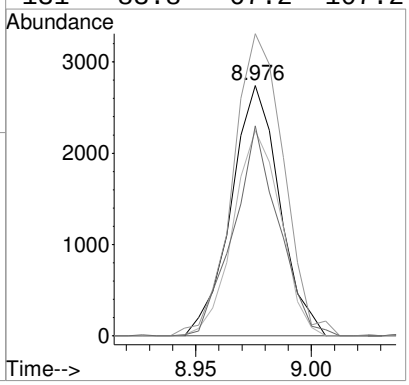




#71
Tetrachloroethene
Concen: 2.25 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. 0.000 min
Lab File: D1435.D
Acq: 15 Feb 2018 6:30 pm

Tgt Ion:164 Resp: 3977

Ion	Ratio	Lower	Upper
164	100		
166	120.7	108.6	148.6
129	82.0	69.1	109.1
131	83.8	67.2	107.2



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1454.D
Acq On : 16 Feb 2018 1:29 pm
Operator : D.LIPANI
Sample : R1801238-013|25 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 20 15:14:53 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	191418	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	294189	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	256657	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	131443	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	84649	47.03	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 94.06%			
46) surr1,1,2-dichloroetha...	5.781	65	106170	51.02	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.04%			
64) SURR3,Toluene-d8	8.311	98	347592	49.00	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.00%			
69) SURR2,BFB	10.878	95	122599	44.62	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.24%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	12506	4.39	ug/L	100
13) 1,1-Diclethene	2.282	96	1819	0.97	ug/L	98
15) Acetone	2.330	43	519	0.52	ug/L	76
26) trans-1,2-Dichloroethene	3.025	96	1344	0.65	ug/L	89
33) cis-1,2-Dichloroethene	4.367	96	281752	125.05	ug/L	98
53) Trichloroethene	6.811	130	40970	17.61	ug/L	93
71) Tetrachloroethene	8.969	164	728	0.41	ug/L #	62

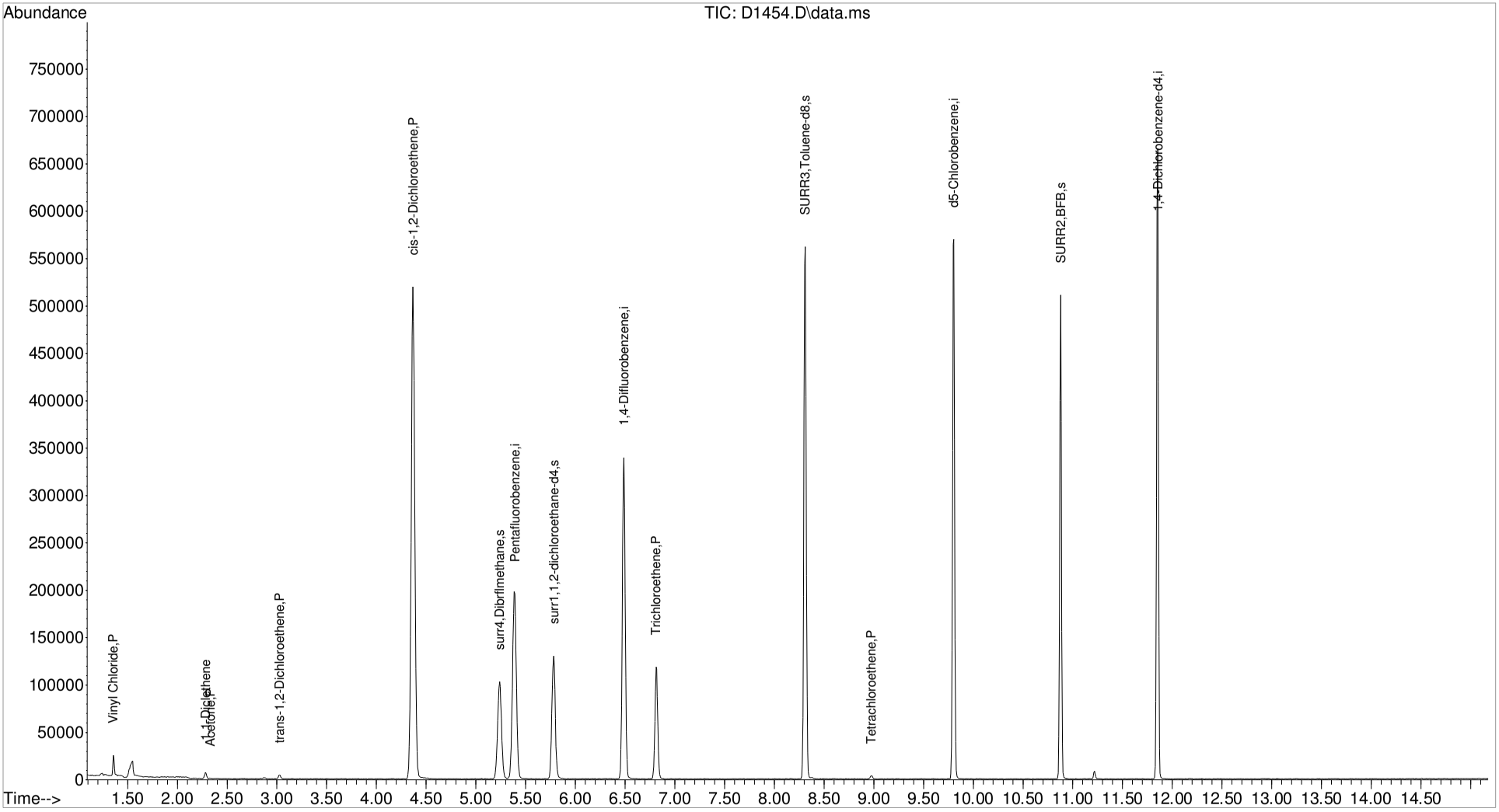
DL

(#) = qualifier out of range (m) = manual integration (+) = signals summed

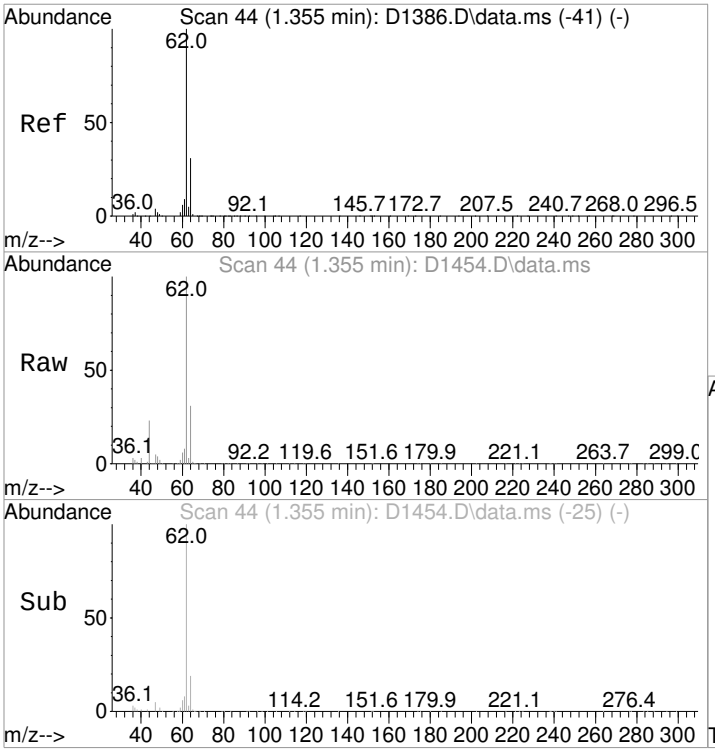
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1454.D
Acq On : 16 Feb 2018 1:29 pm
Operator : D.LIPANI
Sample : R1801238-013|25 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 20 15:14:53 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



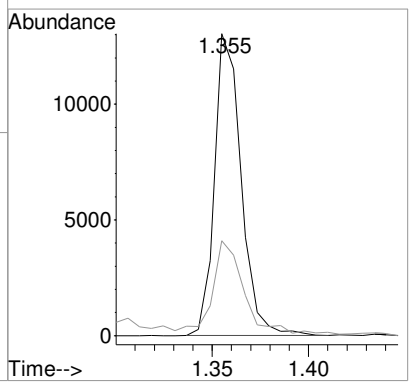
1st 02/21/18
2nd 02/21/18

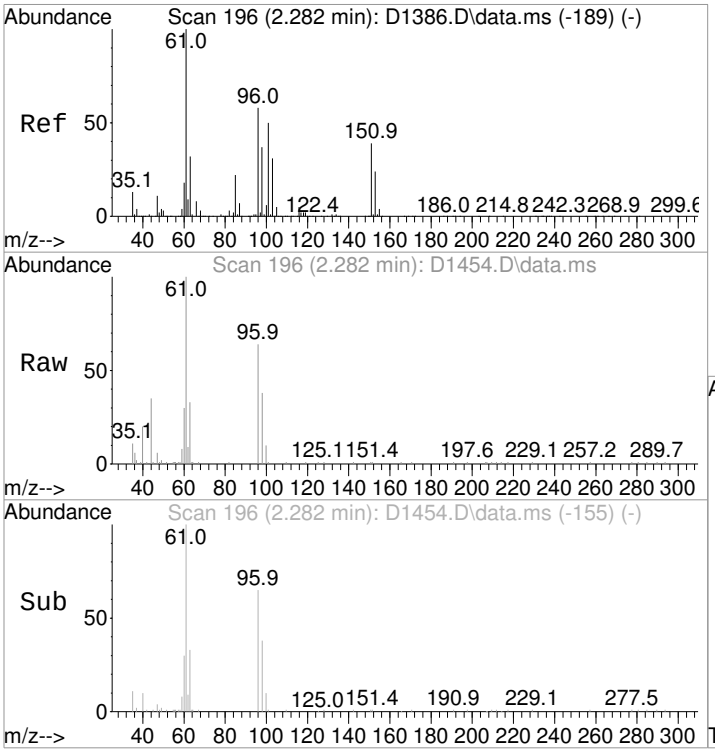


#4
Vinyl Chloride
Concen: 4.39 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: D1454.D
Acq: 16 Feb 2018 1:29 pm

Tgt Ion: 62 Resp: 12506

Ion	Ratio	Lower	Upper
62	100		
64	31.4	11.2	51.2

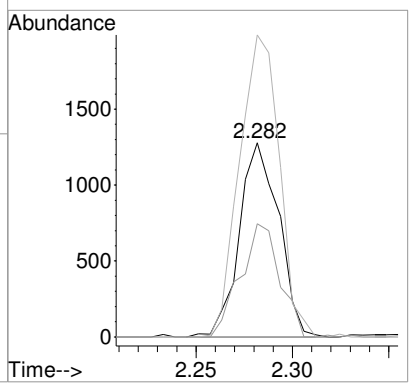


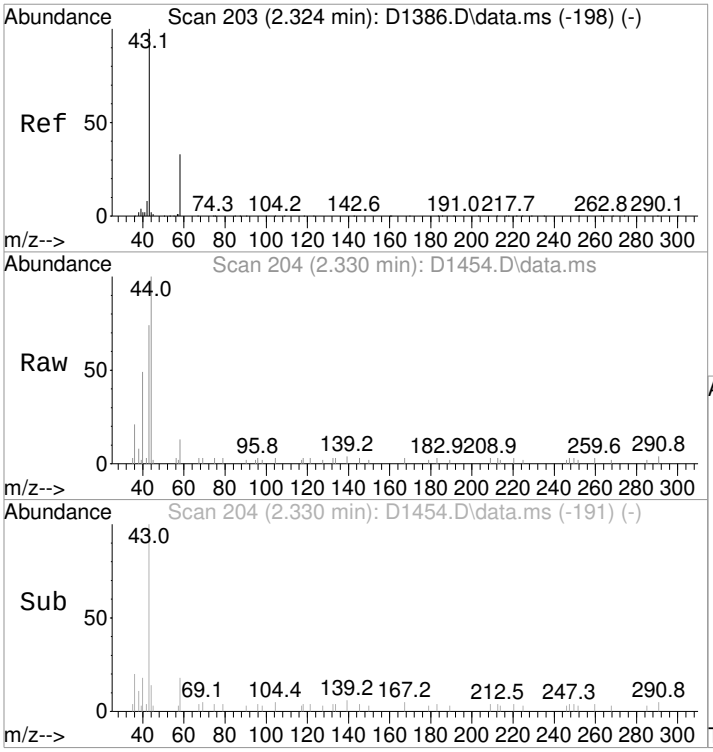


#13
1,1-Diclethene
Concen: 0.97 ug/L
RT: 2.282 min Scan# 196
Delta R.T. -0.000 min
Lab File: D1454.D
Acq: 16 Feb 2018 1:29 pm

Tgt Ion: 96 Resp: 1819

Ion	Ratio	Lower	Upper
96	100		
98	58.4	42.2	82.2
61	155.6	134.9	174.9

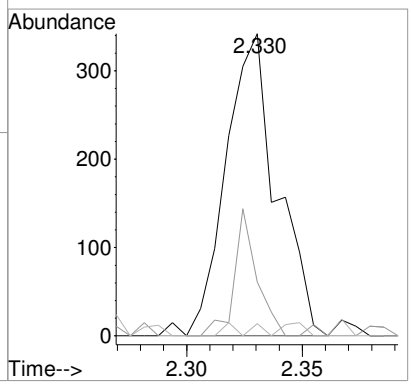


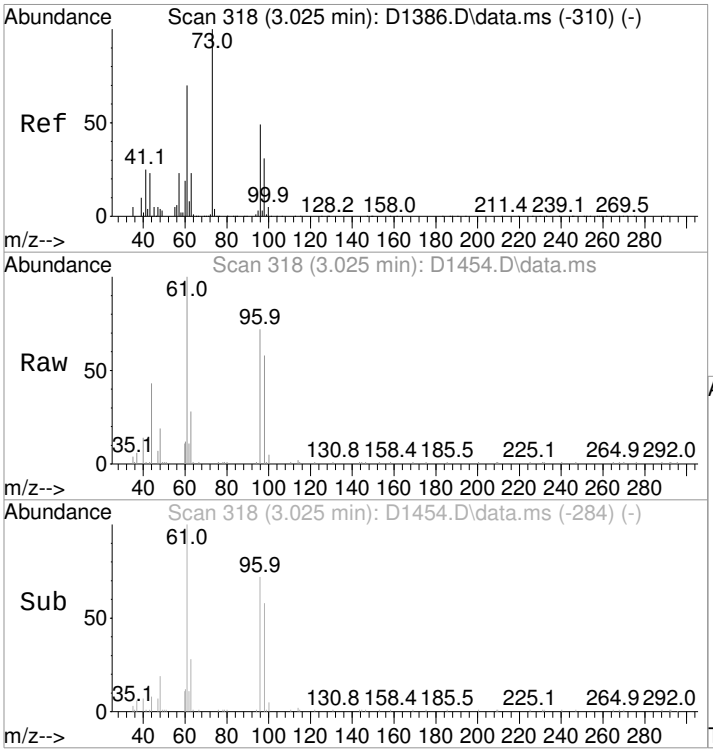


#15
Acetone
Concen: 0.52 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1454.D
Acq: 16 Feb 2018 1:29 pm

Tgt Ion: 43 Resp: 519

Ion	Ratio	Lower	Upper
43	100		
58	17.8	12.8	52.8
42	4.1	0.0	30.0

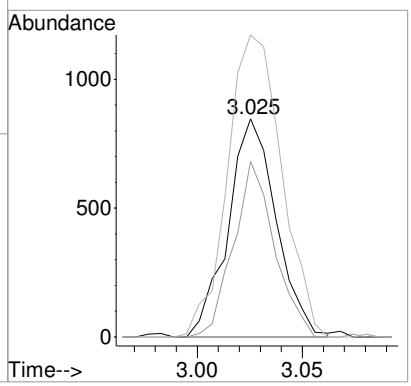


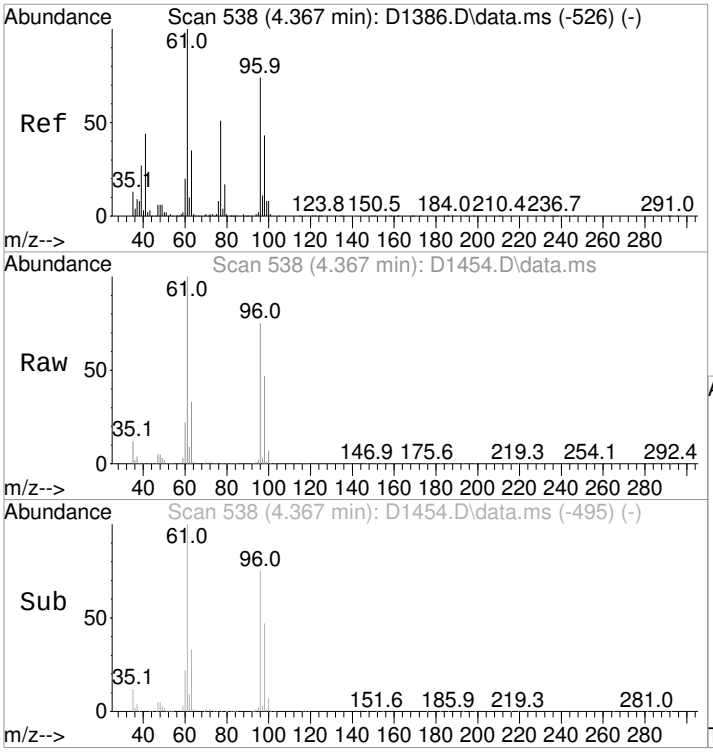


#26
trans-1,2-Dichloroethene
Concen: 0.65 ug/L
RT: 3.025 min Scan# 318
Delta R.T. -0.000 min
Lab File: D1454.D
Acq: 16 Feb 2018 1:29 pm

Tgt Ion: 96 Resp: 1344

Ion	Ratio	Lower	Upper
96	100		
98	80.4	40.9	80.9
61	138.4	113.1	153.1

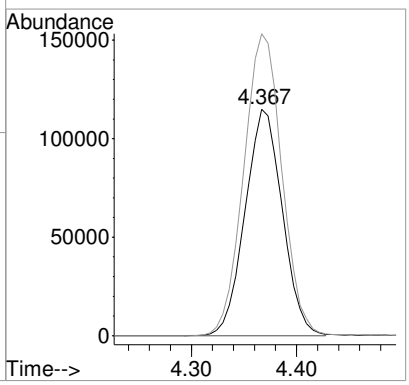


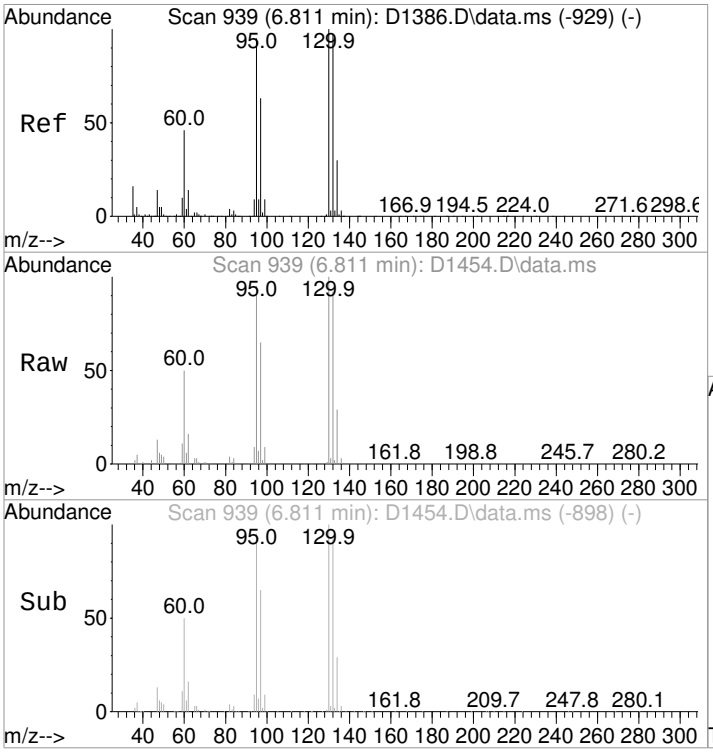


#33
cis-1,2-Dichloroethene
Concen: 125.05 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1454.D
Acq: 16 Feb 2018 1:29 pm

Tgt Ion: 96 Resp: 281752

Ion	Ratio	Lower	Upper
96	100		
61	133.4	111.5	151.5

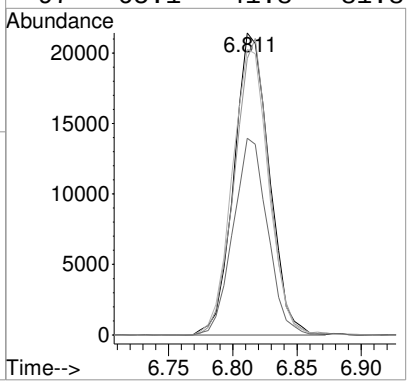


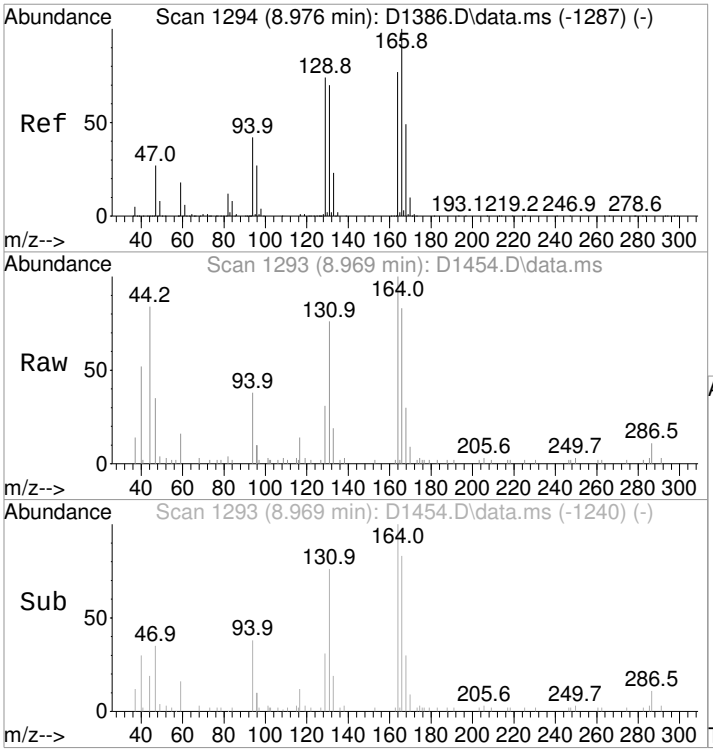


#53
Trichloroethene
Concen: 17.61 ug/L
RT: 6.811 min Scan# 939
Delta R.T. -0.000 min
Lab File: D1454.D
Acq: 16 Feb 2018 1:29 pm

Tgt Ion:130 Resp: 40970

Ion	Ratio	Lower	Upper
130	100		
132	91.5	80.0	120.0
95	94.5	68.5	108.5
97	65.1	41.8	81.8

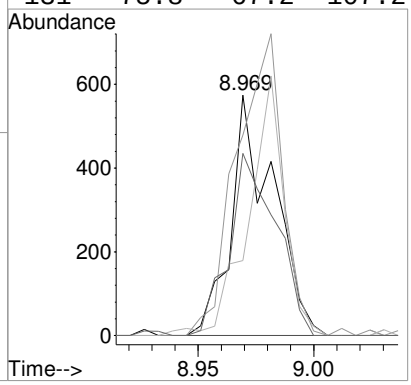




#71
Tetrachloroethene
Concen: 0.41 ug/L
RT: 8.969 min Scan# 1293
Delta R.T. -0.006 min
Lab File: D1454.D
Acq: 16 Feb 2018 1:29 pm

Tgt Ion:164 Resp: 728

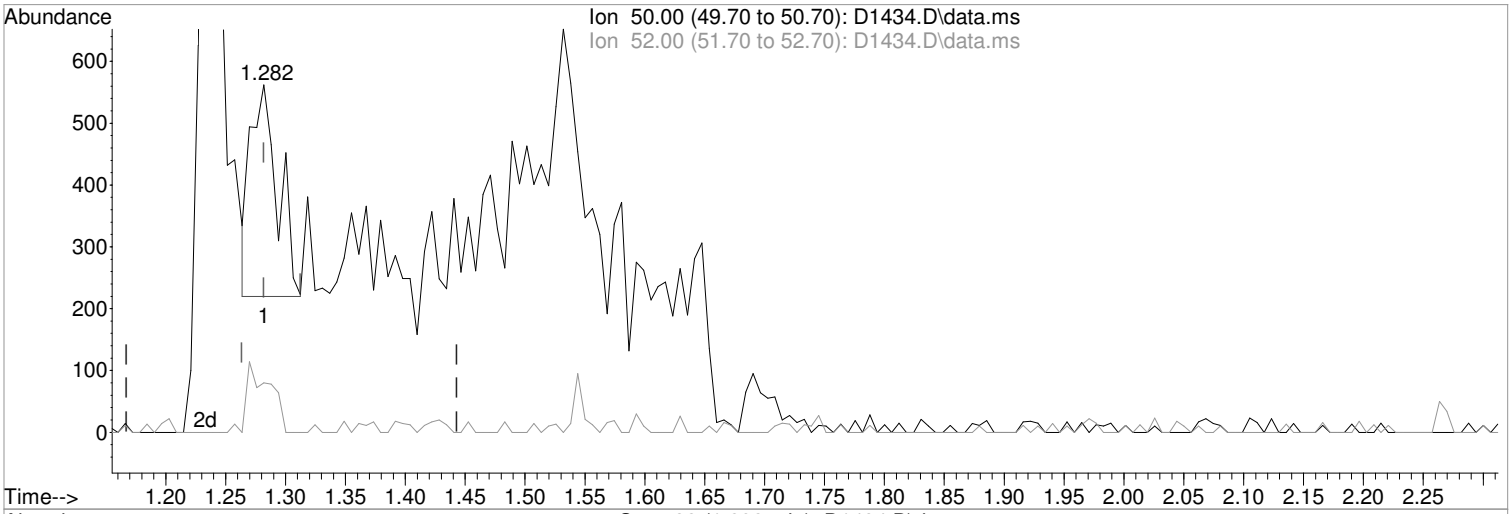
Ion	Ratio	Lower	Upper
164	100		
166	83.4	108.6	148.6#
129	31.2	69.1	109.1#
131	75.8	67.2	107.2

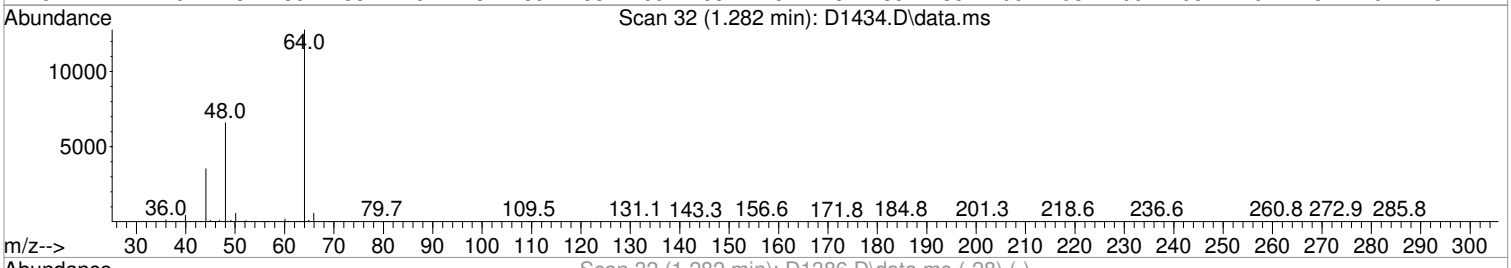


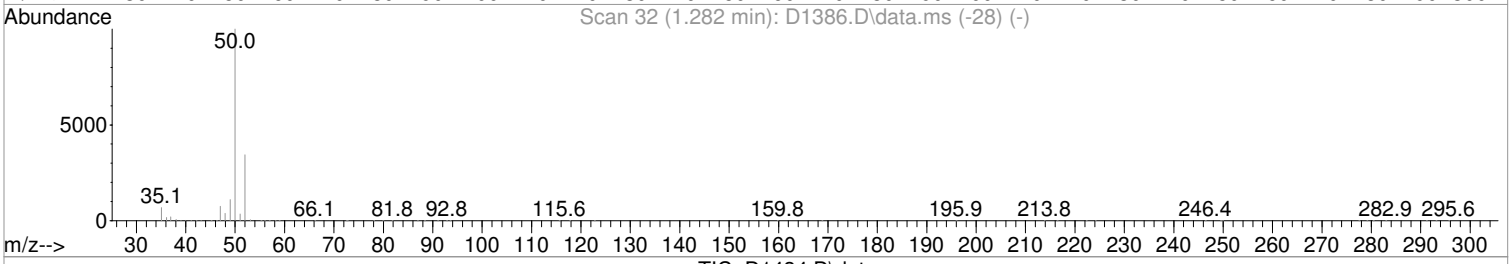
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1434.D
Acq On : 15 Feb 2018 6:08 pm
Operator : D.LIPANI
Sample : R1801238-014|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 15 18:23:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1434.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.18 ug/L m

response 545

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	11.57#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

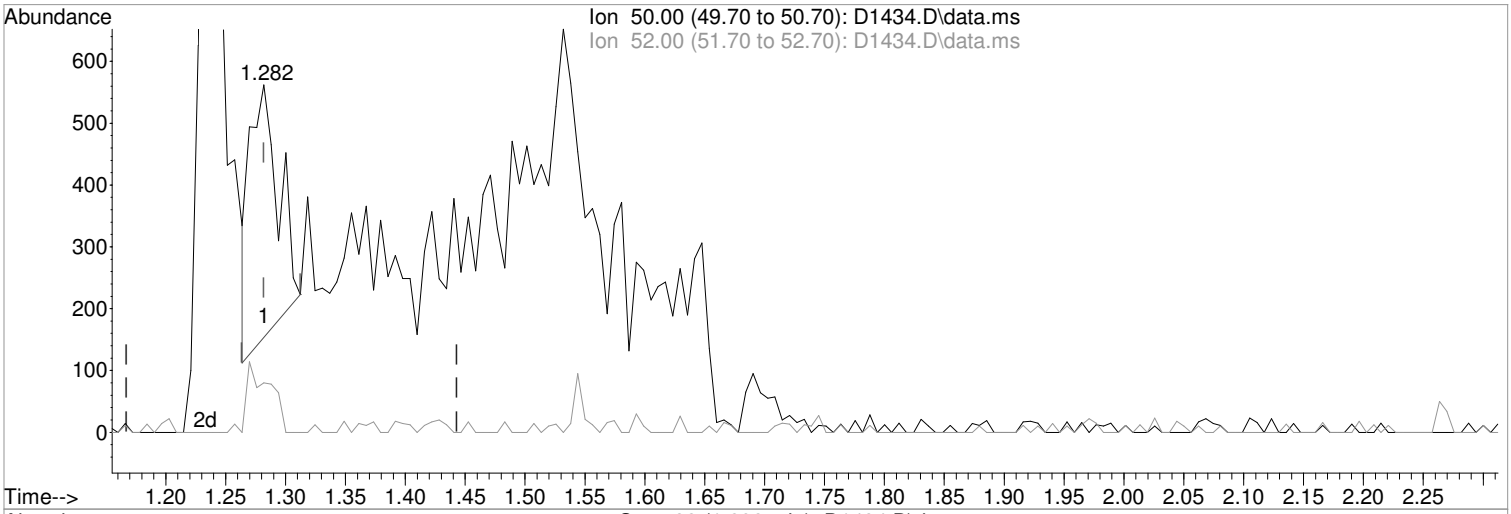
Poor integration.

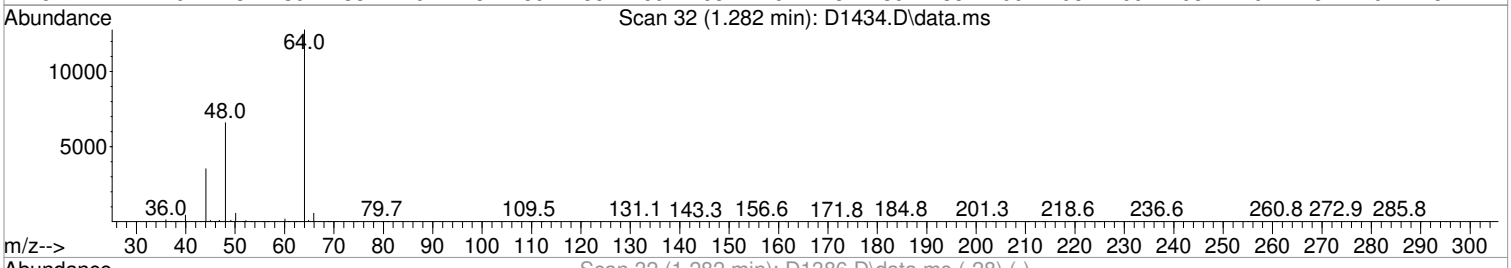
02/16/18

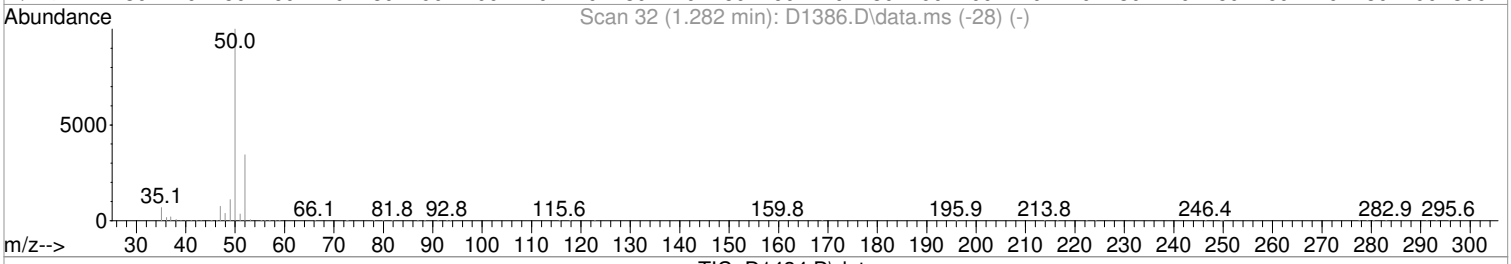
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1434.D
Acq On : 15 Feb 2018 6:08 pm
Operator : D.LIPANI
Sample : R1801238-014|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 15 18:23:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1434.D\data.ms

(3) Chloromethane (P)

1.282min (-0.000) 0.23 ug/L

response 698

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	14.23
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1434.D
Acq On : 15 Feb 2018 6:08 pm
Operator : D.LIPANI
Sample : R1801238-014|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 16 15:30:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

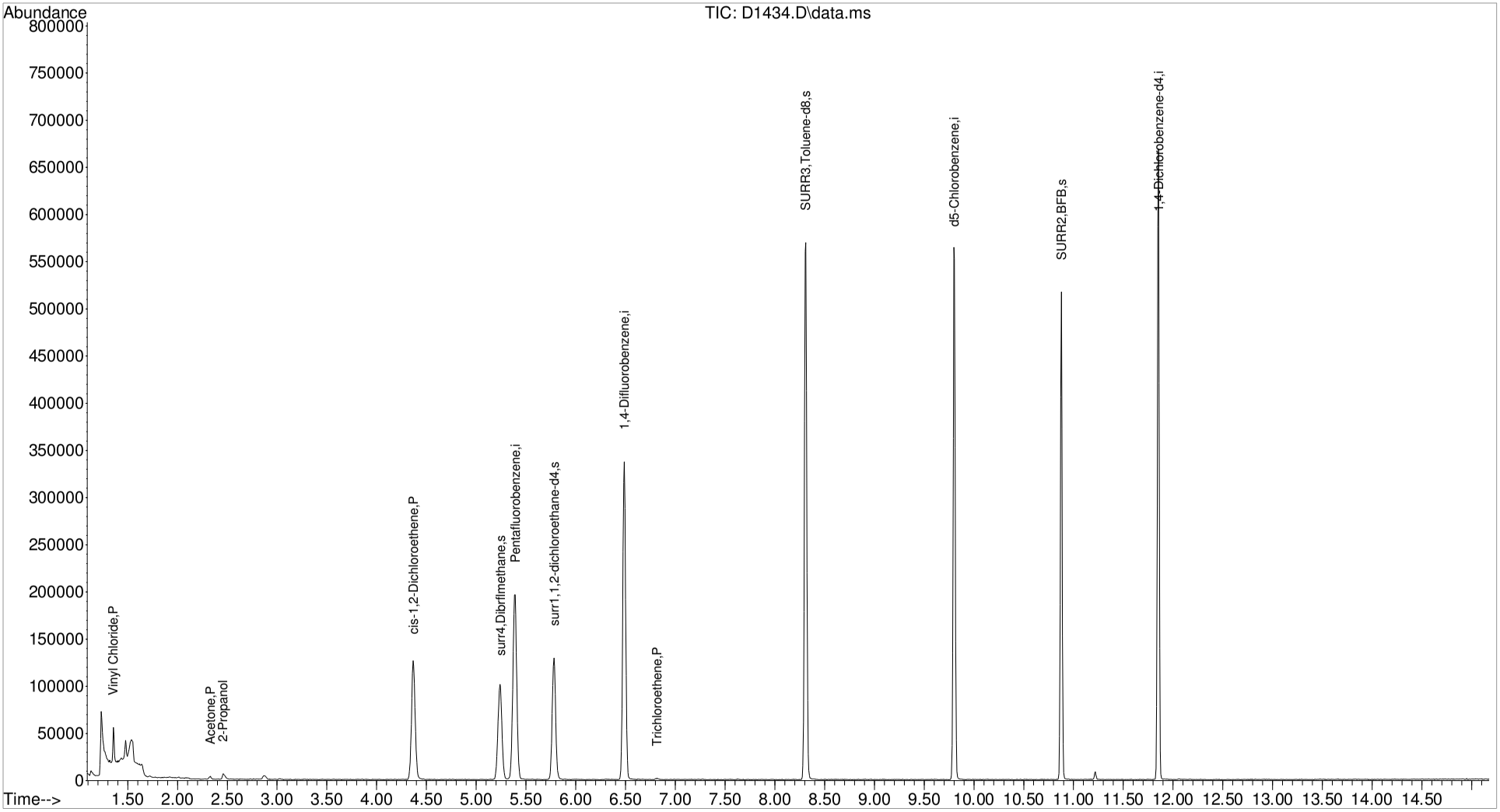
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	192025	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	292846	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	257791	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	128925	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	86403	48.23	ug/L	0.01
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.46%			
46) surr1,1,2-dichloroetha...	5.781	65	107651	51.97	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 103.94%			
64) SURR3,Toluene-d8	8.311	98	348936	49.42	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.84%			
69) SURR2,BFB	10.878	95	124734	45.61	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 91.22%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	17907	6.26	ug/L #	21
15) Acetone	2.331	43	2991	2.98	ug/L	99
16) 2-Propanol	2.459	45	6492	40.33	ug/L	90
33) cis-1,2-Dichloroethene	4.373	96	69101	30.57	ug/L	94
53) Trichloroethene	6.817	130	482	0.21	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

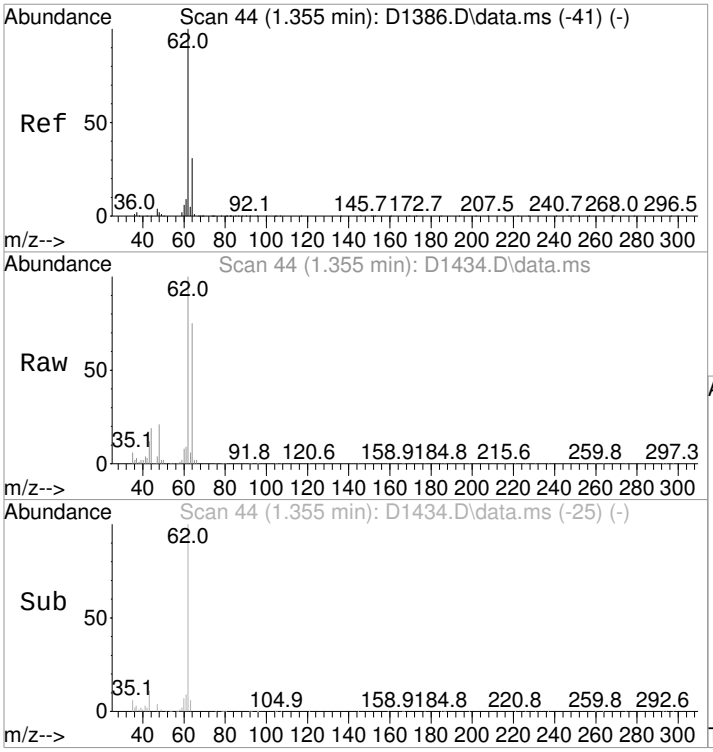
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1434.D
Acq On : 15 Feb 2018 6:08 pm
Operator : D.LIPANI
Sample : R1801238-014|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 16 15:30:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



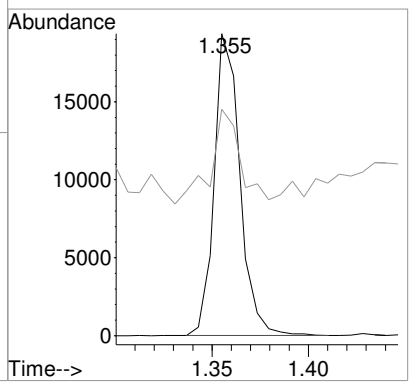
1st DL 02/16/18
2nd FJ 02/17/18

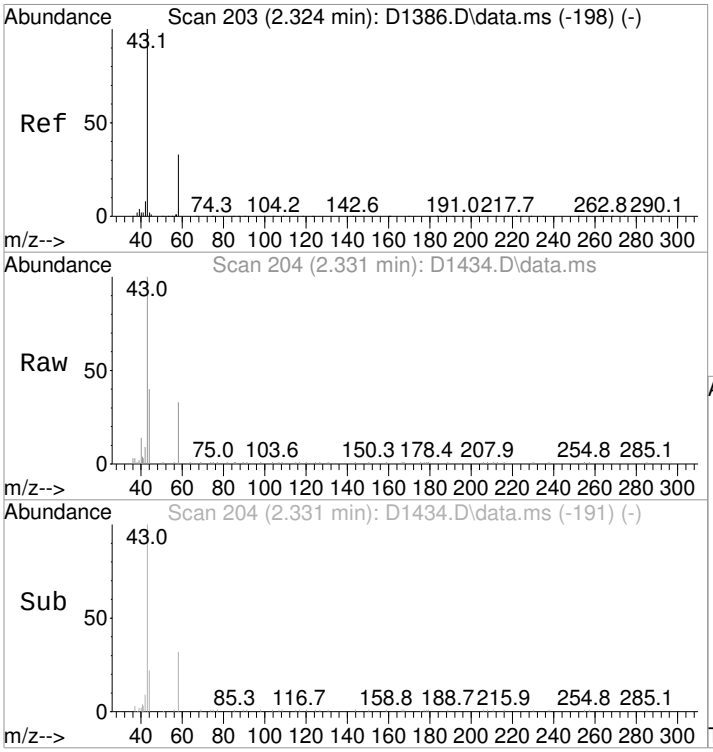


#4
Vinyl Chloride
Concen: 6.26 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: D1434.D
Acq: 15 Feb 2018 6:08 pm

Tgt Ion: 62 Resp: 17907

Ion	Ratio	Lower	Upper
62	100		
64	75.0	11.2	51.2#

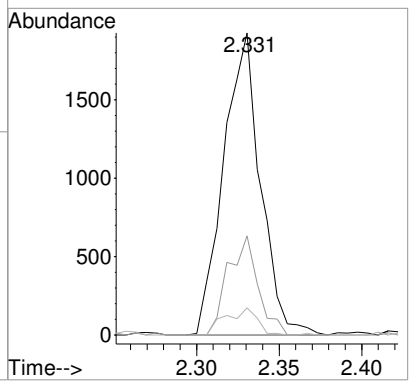


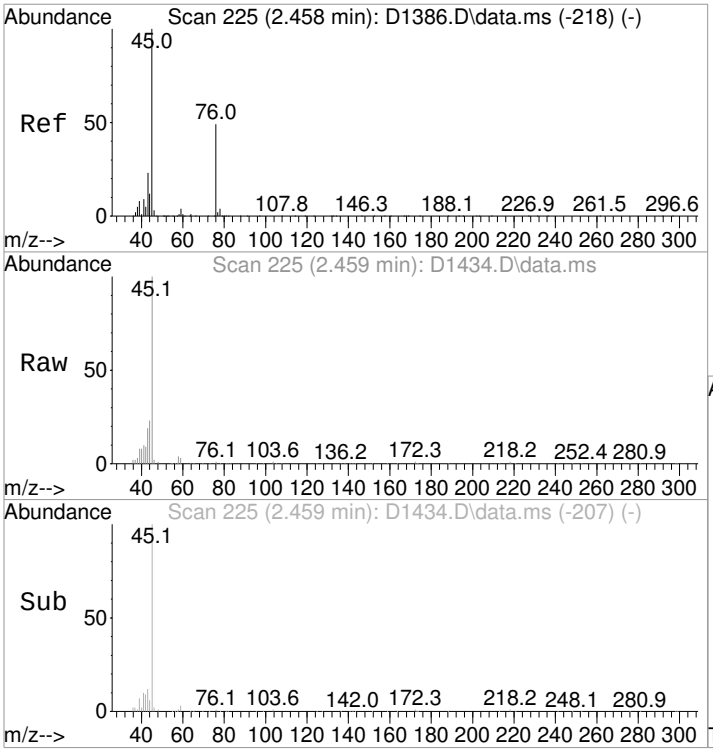


#15
Acetone
Concen: 2.98 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1434.D
Acq: 15 Feb 2018 6:08 pm

Tgt Ion: 43 Resp: 2991

Ion	Ratio	Lower	Upper
43	100		
58	32.8	12.8	52.8
42	9.0	0.0	30.0

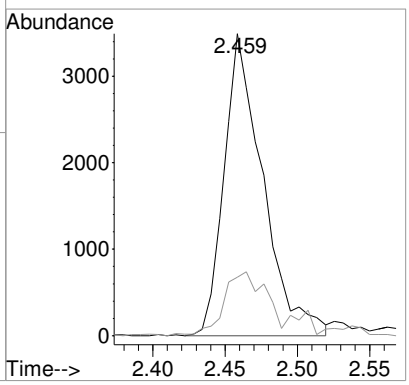


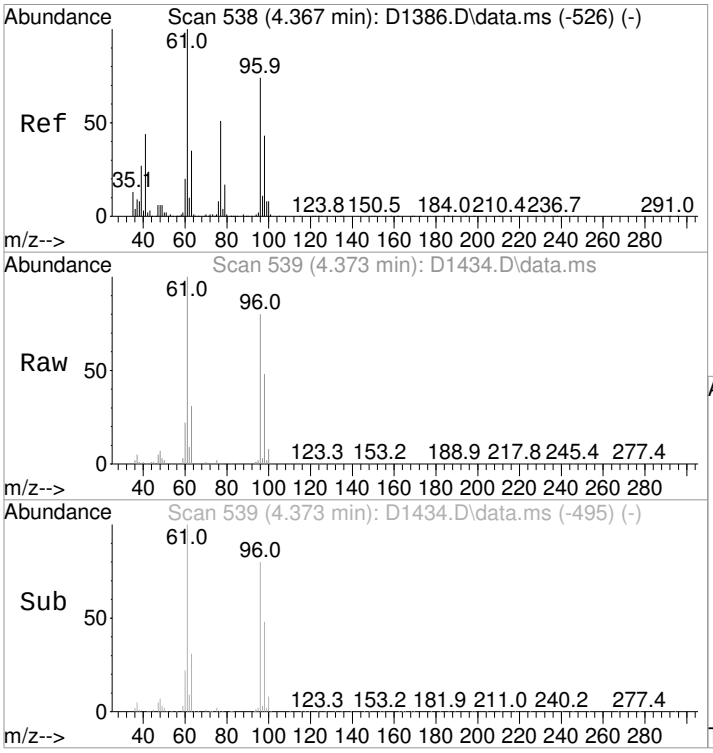


#16
2-Propanol
Concen: 40.33 ug/L
RT: 2.459 min Scan# 225
Delta R.T. 0.001 min
Lab File: D1434.D
Acq: 15 Feb 2018 6:08 pm

Tgt Ion: 45 Resp: 6492

Ion	Ratio	Lower	Upper
45	100		
43	19.3	4.3	44.3

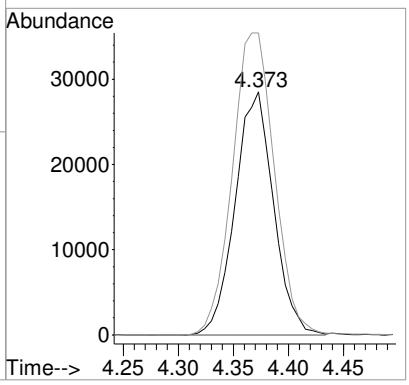


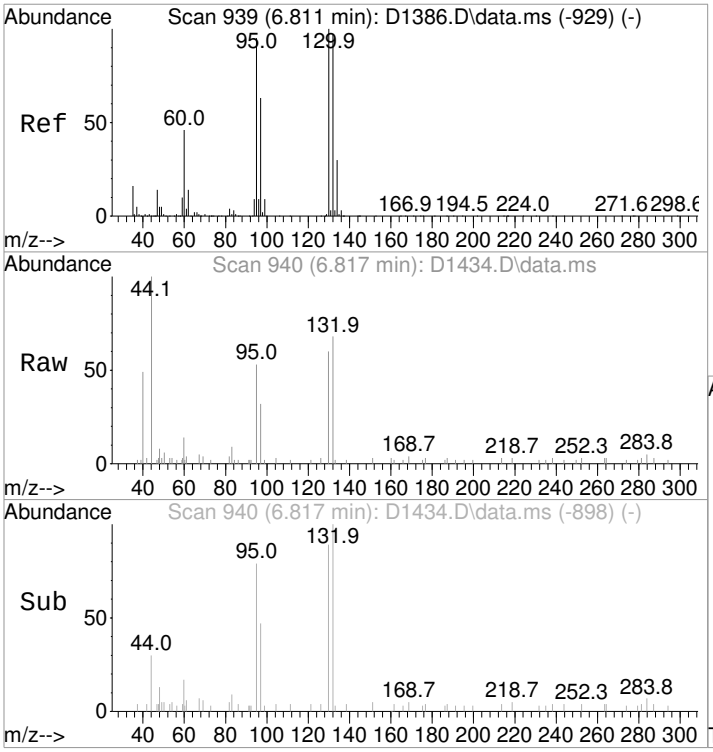


#33
cis-1,2-Dichloroethene
Concen: 30.57 ug/L
RT: 4.373 min Scan# 539
Delta R.T. 0.012 min
Lab File: D1434.D
Acq: 15 Feb 2018 6:08 pm

Tgt Ion: 96 Resp: 69101

Ion	Ratio	Lower	Upper
96	100		
61	124.3	111.5	151.5

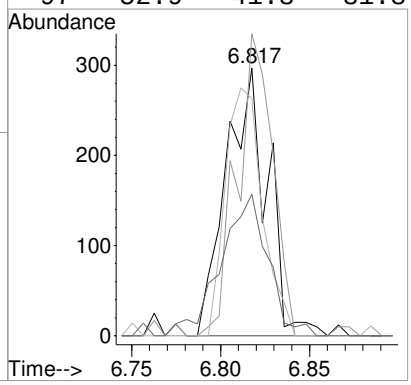




#53
Trichloroethene
Concen: 0.21 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1434.D
Acq: 15 Feb 2018 6:08 pm

Tgt Ion:130 Resp: 482

Ion	Ratio	Lower	Upper
130	100		
132	112.8	80.0	120.0
95	88.6	68.5	108.5
97	52.9	41.8	81.8



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1432.D
Acq On : 15 Feb 2018 5:25 pm
Operator : D.LIPANI
Sample : R1801238-015|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 16 15:22:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

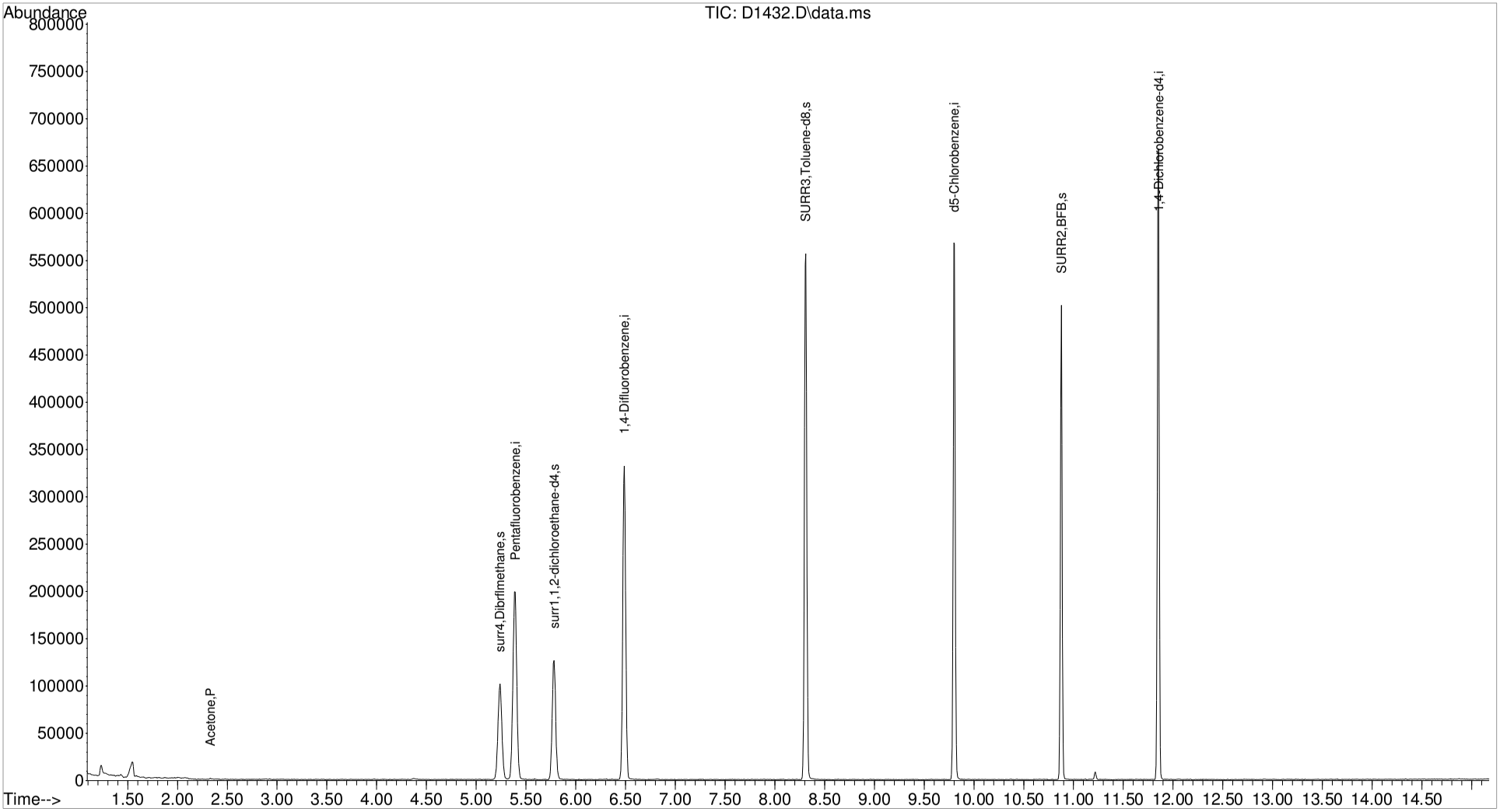
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	193122	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	292678	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	258706	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	133698	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	86046	48.05	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.10%			
46) surr1,1,2-dichloroetha...	5.781	65	105684	51.05	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.10%			
64) SURR3,Toluene-d8	8.311	98	344525	48.82	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.64%			
69) SURR2,BFB	10.878	95	117907	43.14	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 86.28%			
Target Compounds						Qvalue
15) Acetone	2.331	43	953	0.95	ug/L	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

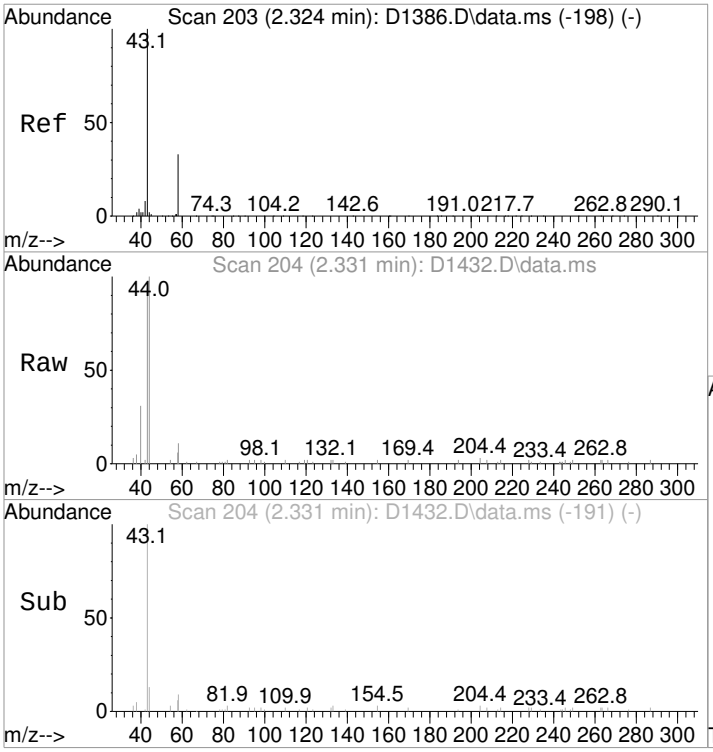
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1432.D
Acq On : 15 Feb 2018 5:25 pm
Operator : D.LIPANI
Sample : R1801238-015|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 16 15:22:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



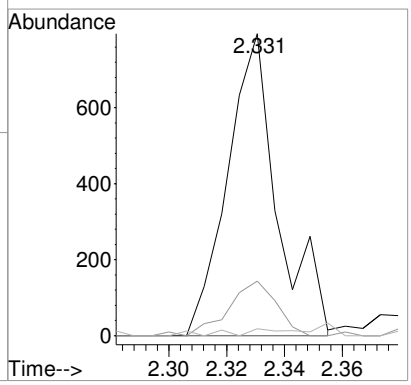
1st DL 02/16/18
2nd FJ 02/17/18



#15
Acetone
Concen: 0.95 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1432.D
Acq: 15 Feb 2018 5:25 pm

Tgt Ion: 43 Resp: 953

Ion	Ratio	Lower	Upper
43	100		
58	18.1	12.8	52.8
42	2.3	0.0	30.0

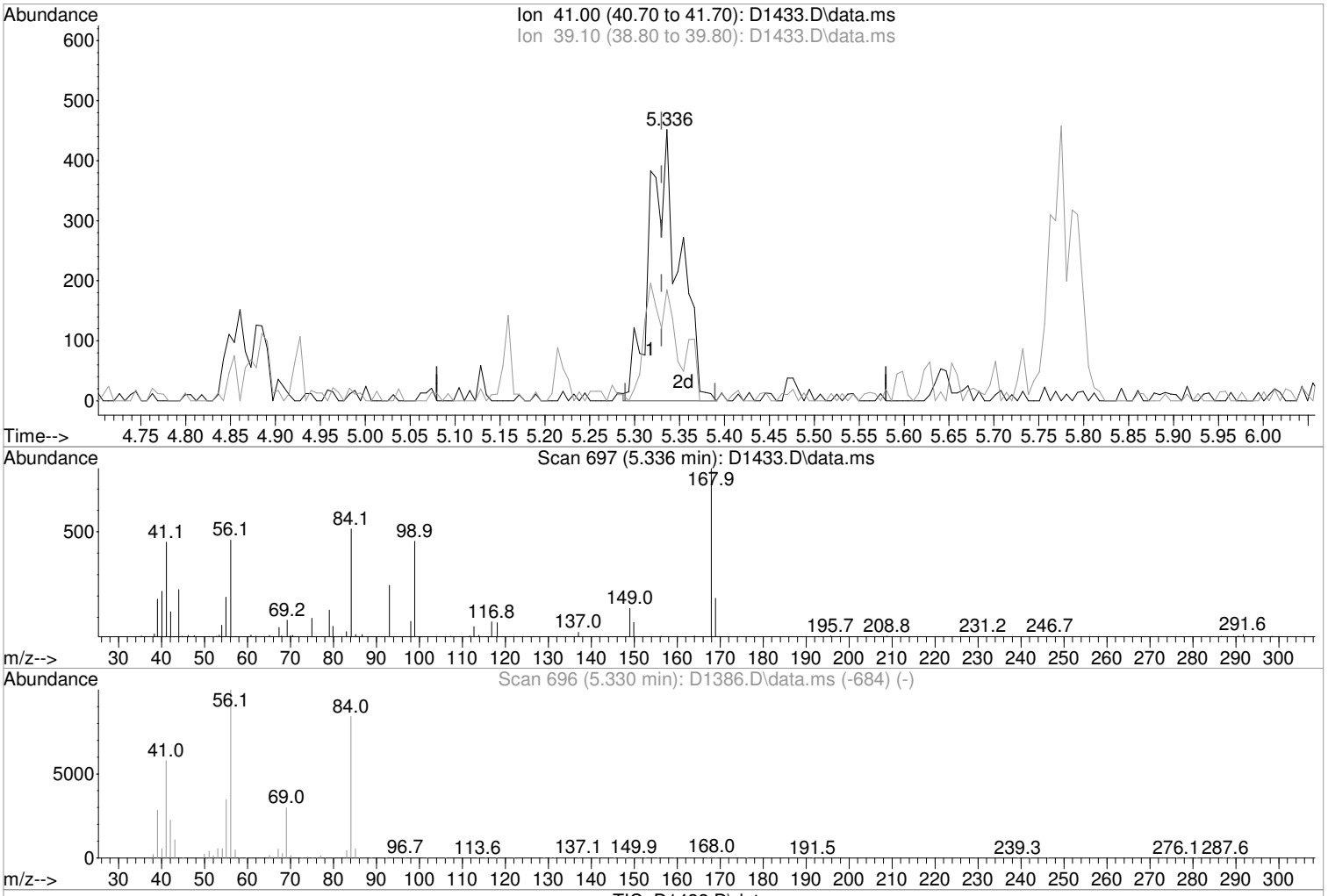


1st DL 02/16/18
2nd FW 02/17/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1433.D
Acq On : 15 Feb 2018 5:47 pm
Operator : D.LIPANI
Sample : R1801238-016|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 15 18:01:18 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1433.D\data.ms

(42) Cyclohexane (P)

5.336min (+0.006) 0.52 ug/L m

response 1038

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	40.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

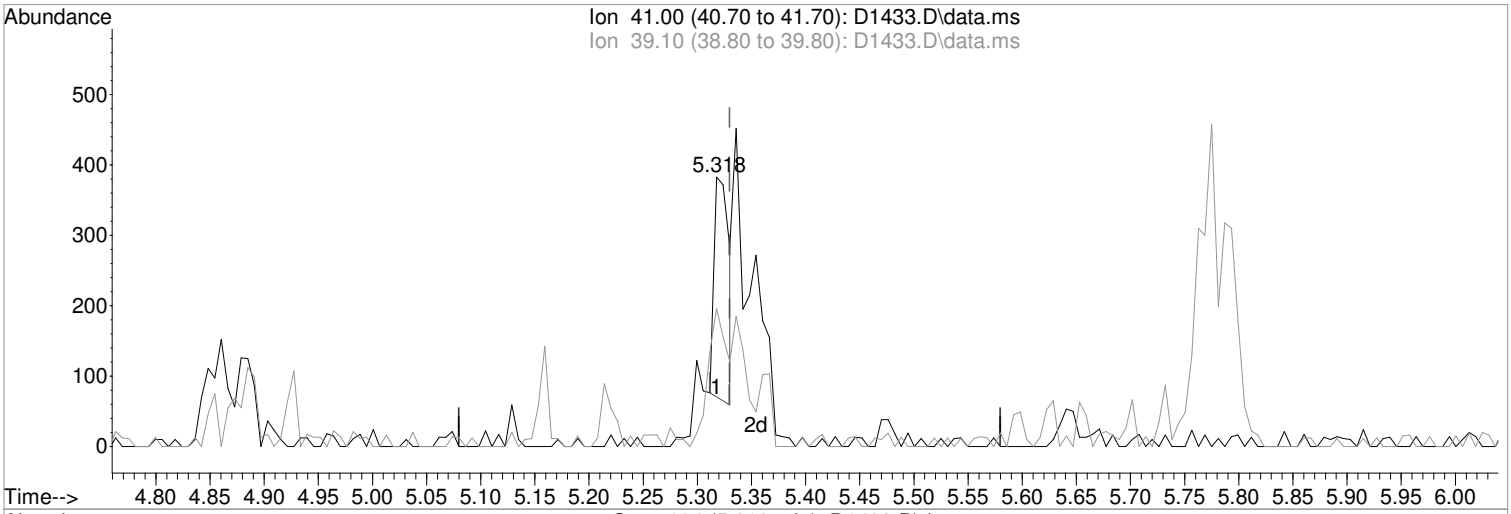
Poor integration.

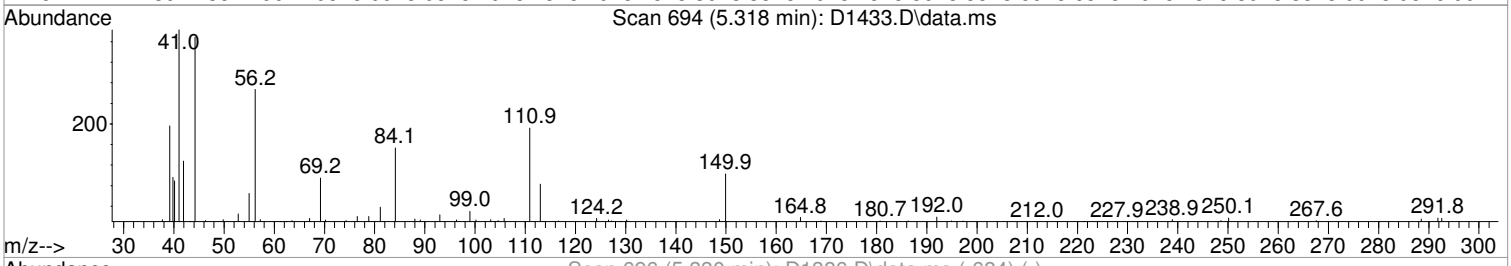
02/16/18

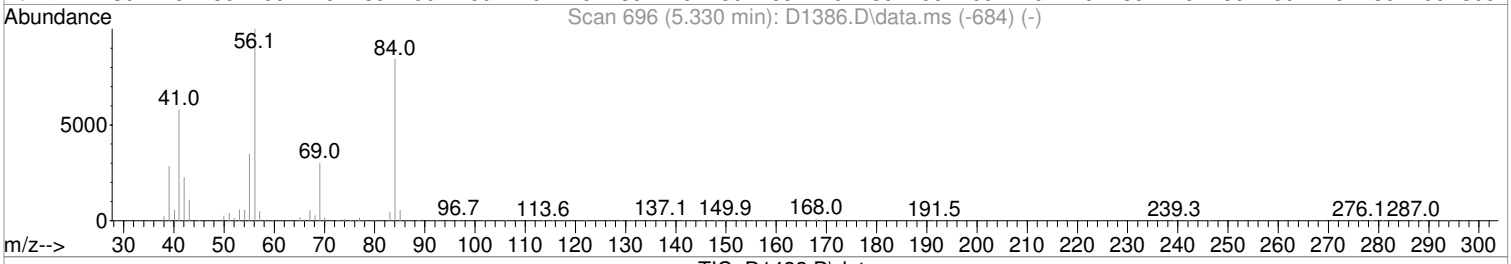
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1433.D
Acq On : 15 Feb 2018 5:47 pm
Operator : D.LIPANI
Sample : R1801238-016|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 15 18:01:18 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1433.D\data.ms

(42) Cyclohexane (P)

5.318min (-0.012) 0.15 ug/L

response 306

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	76.24#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

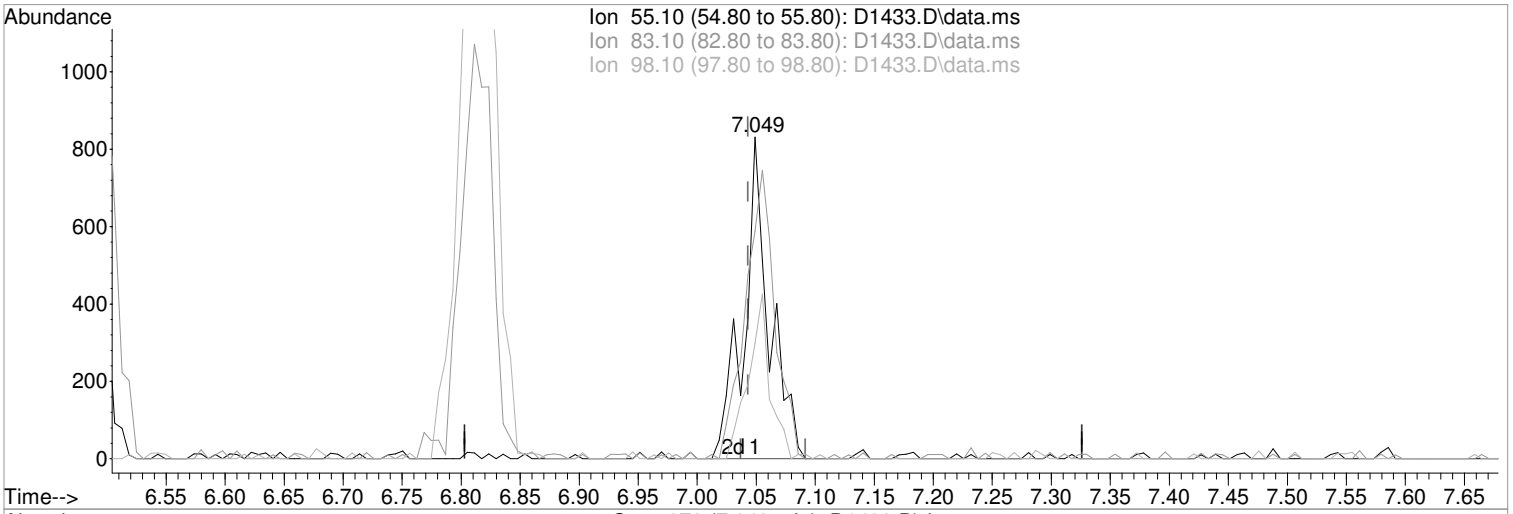
02/16/18

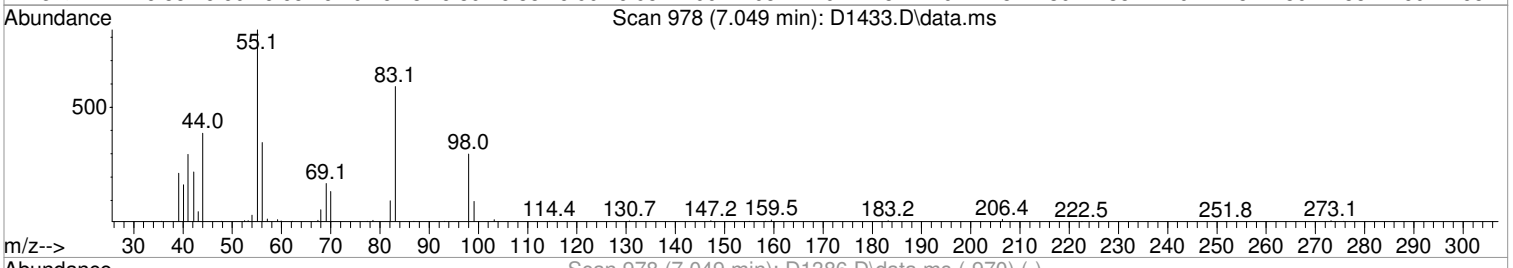
1st DL 02/16/18
2nd FJ 02/17/18

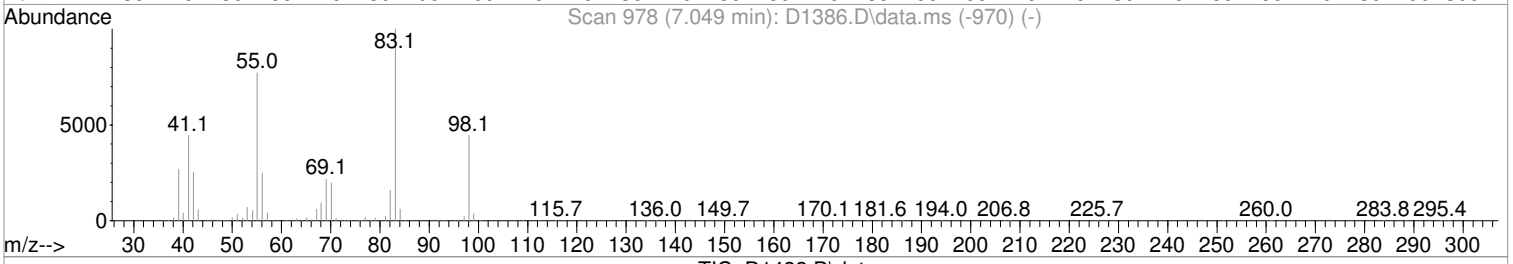
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1433.D
Acq On : 15 Feb 2018 5:47 pm
Operator : D.LIPANI
Sample : R1801238-016|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 15 18:01:18 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1433.D\data.ms

(54) Methylcyclohexane (P)

7.049min (+0.006) 0.47 ug/L m

response 1249

Ion	Exp%	Act%
55.10	100	100
83.10	129.60	70.76#
98.10	63.60	35.98#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

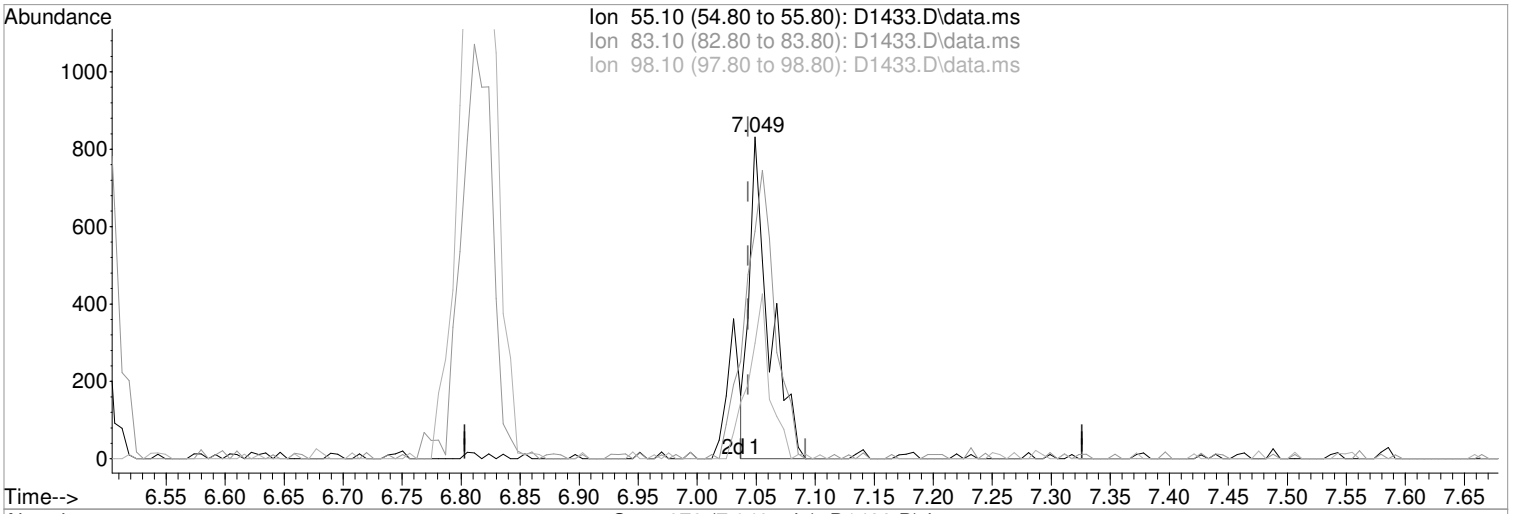
02/16/18

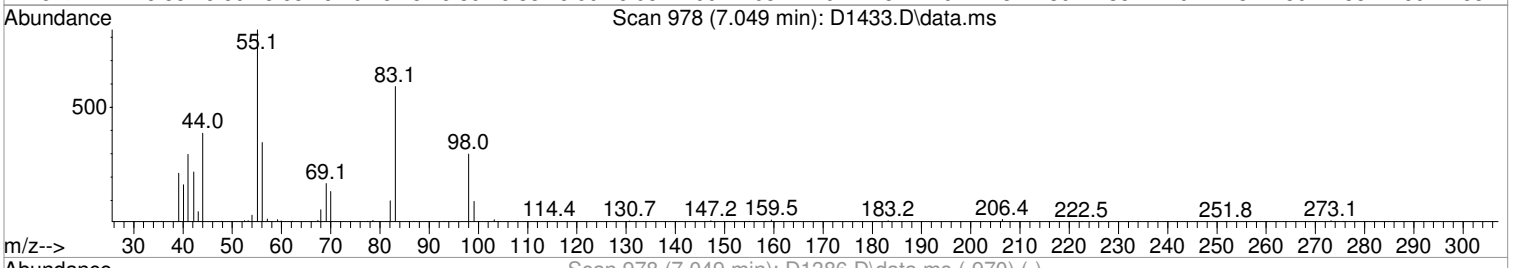
1st DL 02/16/18
2nd FW 02/17/18

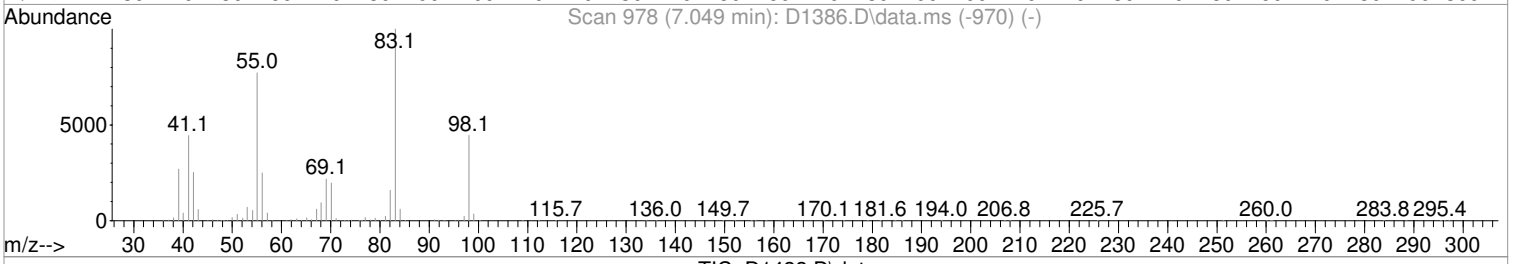
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1433.D
Acq On : 15 Feb 2018 5:47 pm
Operator : D.LIPANI
Sample : R1801238-016|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 15 18:01:18 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1433.D\data.ms

(54) Methylcyclohexane (P)

7.049min (+0.006) 0.37 ug/L

response 980

Ion	Exp%	Act%
55.10	100	100
83.10	129.60	70.76#
98.10	63.60	35.98#
0.00	0.00	0.00

Manual Integration:

Before

02/16/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1433.D
Acq On : 15 Feb 2018 5:47 pm
Operator : D.LIPANI
Sample : R1801238-016|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 16 15:26:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

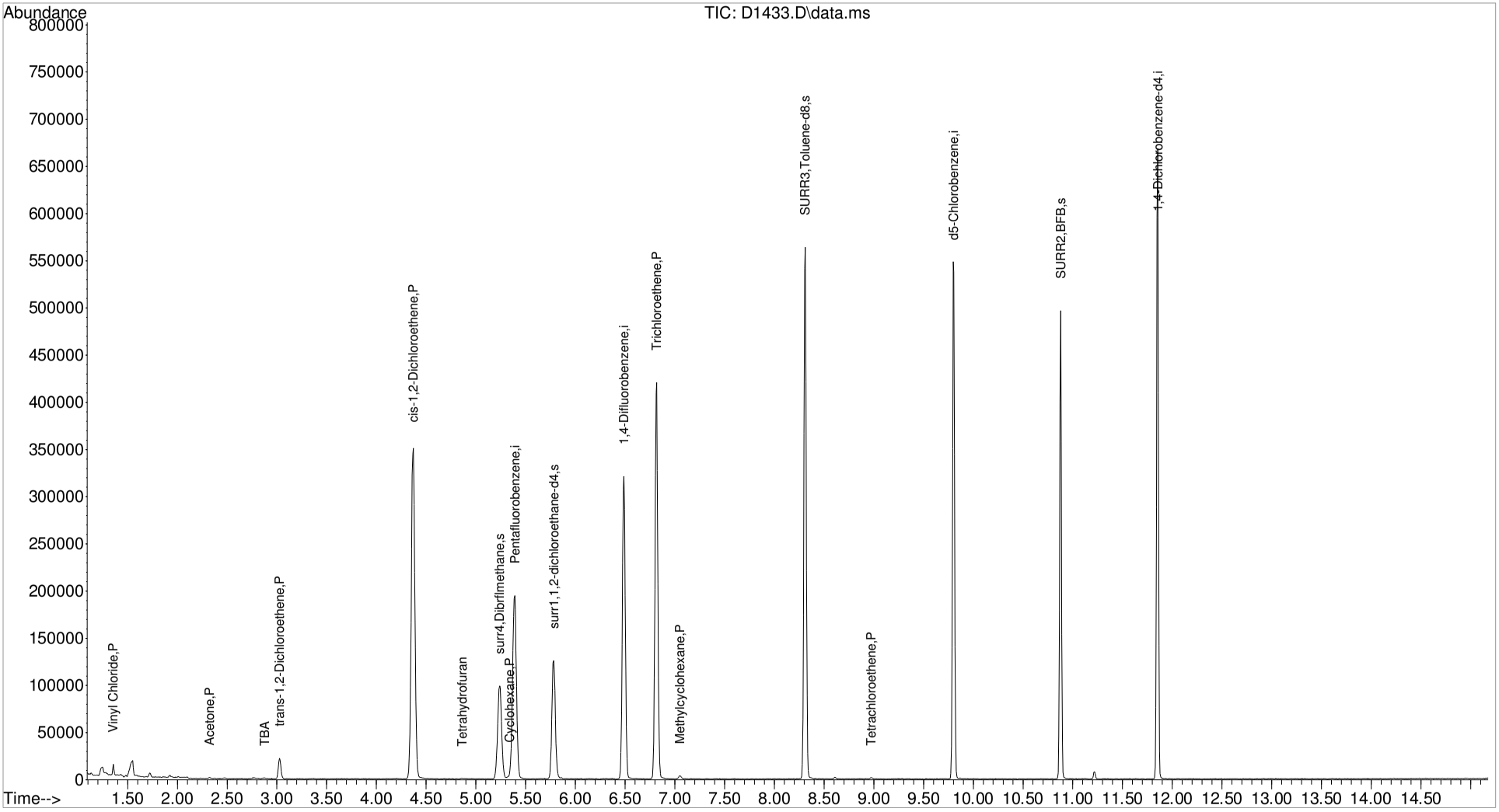
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	190827	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	285315	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	248867	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	129321	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	84968	48.68	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.36%			
46) surr1,1,2-dichloroetha...	5.781	65	105402	52.22	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.44%			
64) SURR3,Toluene-d8	8.311	98	346315	50.34	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 100.68%			
69) SURR2,BFB	10.878	95	119146	44.72	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 89.44%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.355	62	2172	0.76	ug/L #	52
15) Acetone	2.324	43	1328	1.33	ug/L	74
23) TBA	2.879	59	599	2.53	ug/L	62
26) trans-1,2-Dichloroethene	3.025	96	7531	3.66	ug/L #	82
33) cis-1,2-Dichloroethene	4.367	96	197301	87.84	ug/L	100
38) Tetrahydrofuran	4.860	42	502	0.64	ug/L #	64
42) Cyclohexane	5.336	41	1038m	0.52	ug/L	
53) Trichloroethene	6.817	130	148410	65.79	ug/L	96
54) Methylcyclohexane	7.049	55	1249m	0.47	ug/L	
71) Tetrachloroethene	8.975	164	353	0.20	ug/L #	58

(#) = qualifier out of range (m) = manual integration (+) = signals summed

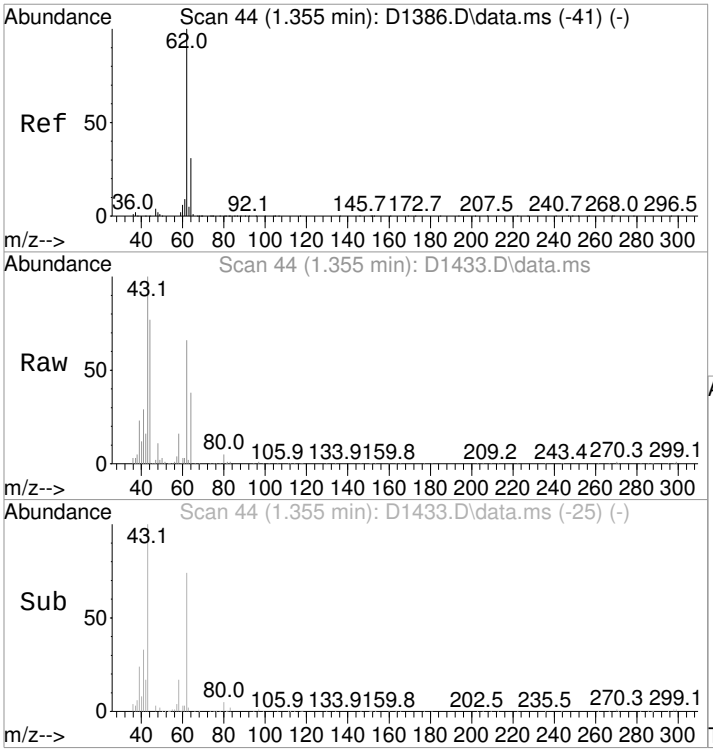
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1433.D
Acq On : 15 Feb 2018 5:47 pm
Operator : D.LIPANI
Sample : R1801238-016|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 16 15:26:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



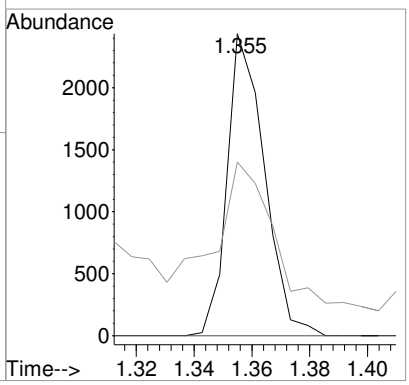
1st DL 02/16/18
2nd FJ 02/17/18

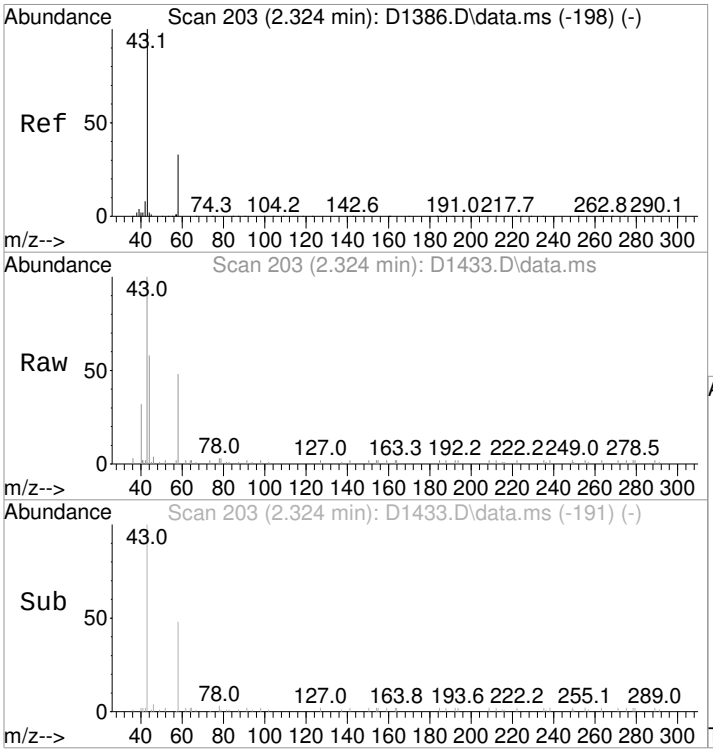


#4
Vinyl Chloride
Concen: 0.76 ug/L
RT: 1.355 min Scan# 44
Delta R.T. -0.000 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 62 Resp: 2172

Ion	Ratio	Lower	Upper
62	100		
64	57.5	11.2	51.2#

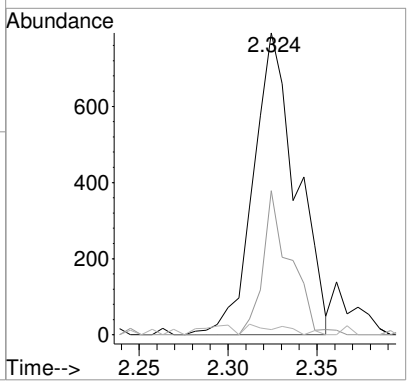


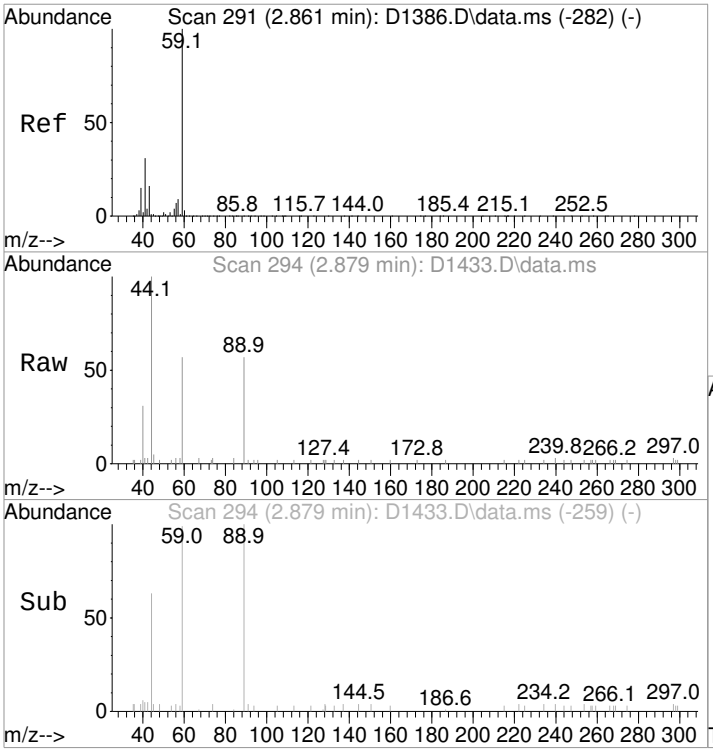


#15
Acetone
Concen: 1.33 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 43 Resp: 1328

Ion	Ratio	Lower	Upper
43	100		
58	47.8	12.8	52.8
42	1.8	0.0	30.0

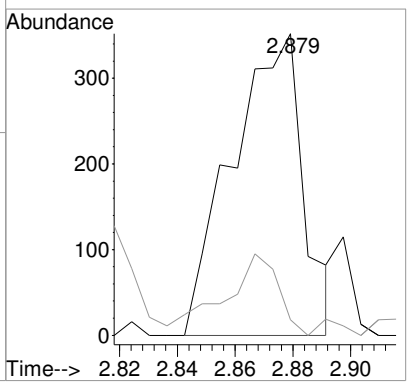


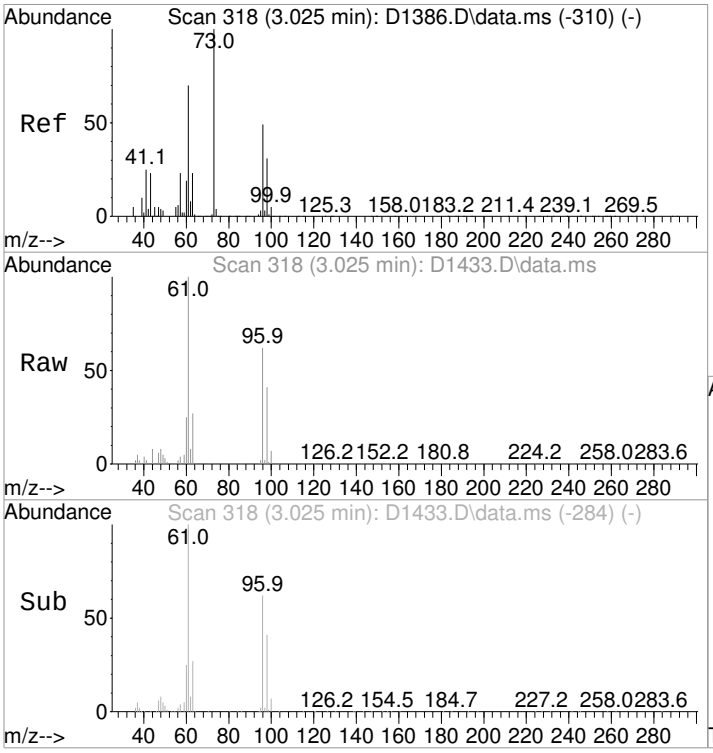


#23
TBA
Concen: 2.53 ug/L
RT: 2.879 min Scan# 294
Delta R.T. 0.025 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 59 Resp: 599

Ion	Ratio	Lower	Upper
59	100		
41	5.1	3.6	43.6

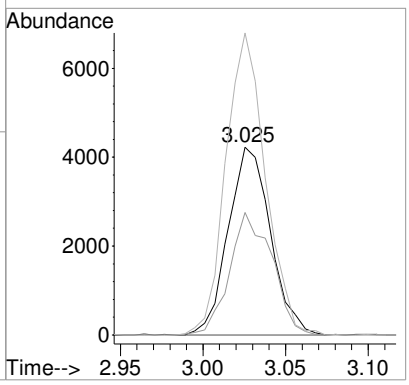


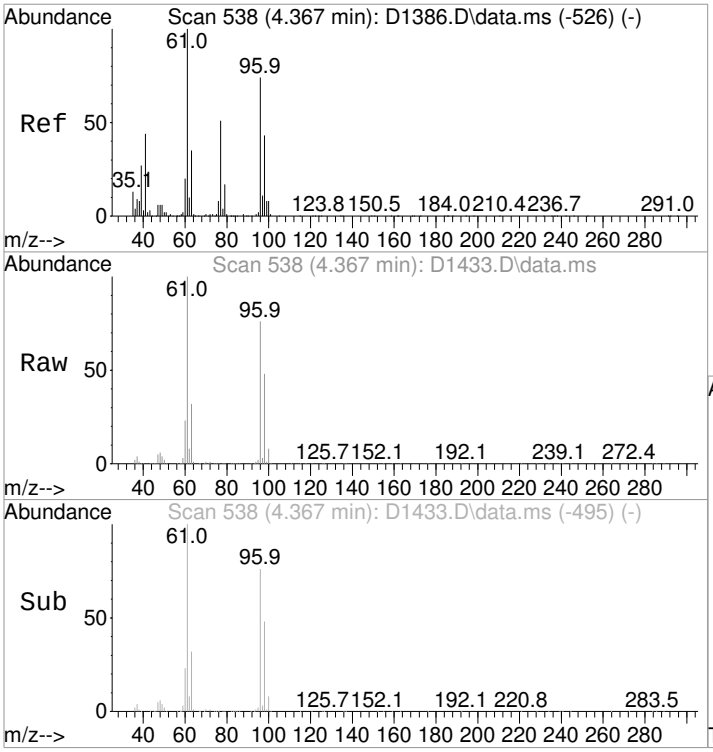


#26
trans-1,2-Dichloroethene
Concen: 3.66 ug/L
RT: 3.025 min Scan# 318
Delta R.T. -0.000 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 96 Resp: 7531

Ion	Ratio	Lower	Upper
96	100		
98	65.2	40.9	80.9
61	160.8	113.1	153.1#

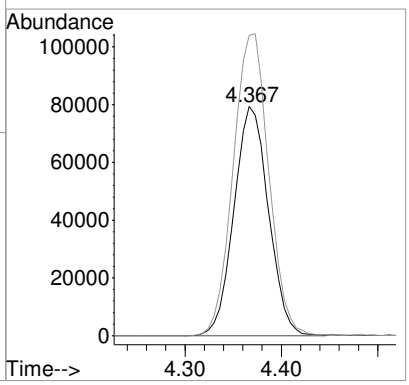


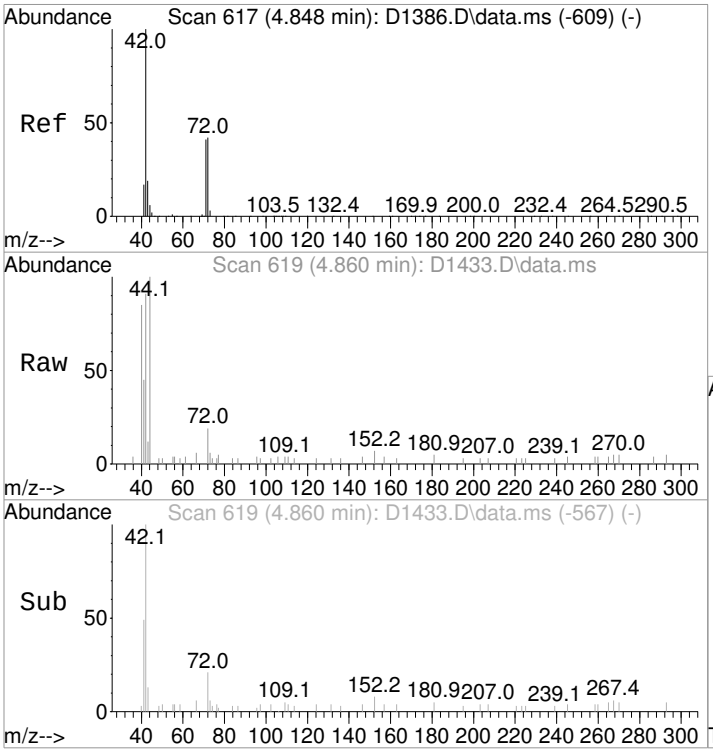


#33
cis-1,2-Dichloroethene
Concen: 87.84 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 96 Resp: 197301

Ion	Ratio	Lower	Upper
96	100		
61	131.0	111.5	151.5

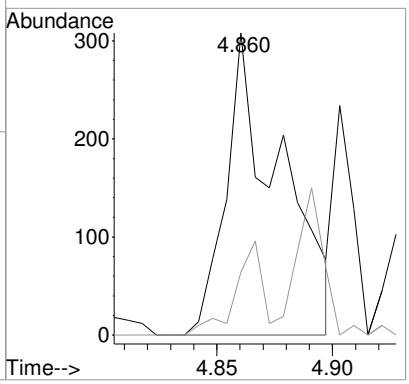


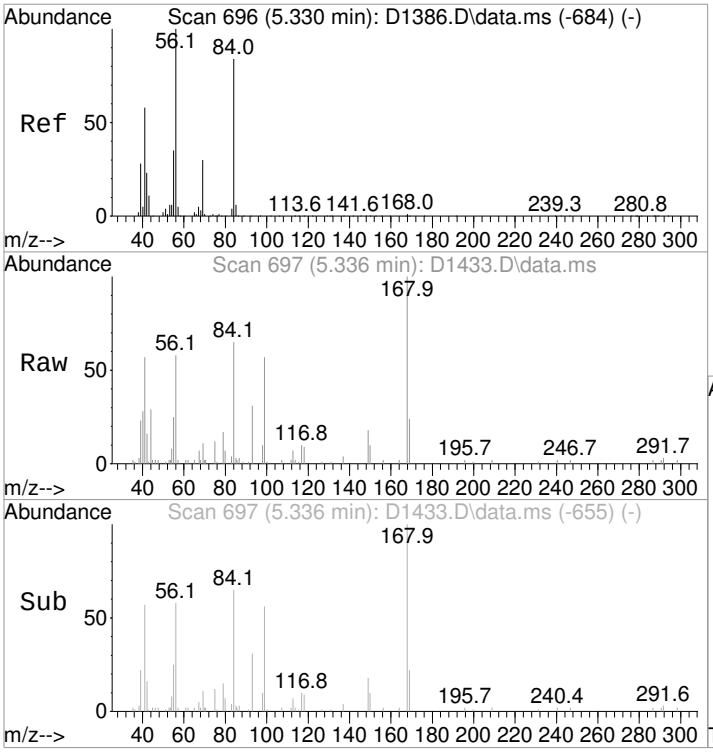


#38
Tetrahydrofuran
Concen: 0.64 ug/L
RT: 4.860 min Scan# 619
Delta R.T. -0.000 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 42 Resp: 502

Ion	Ratio	Lower	Upper
42	100		
72	20.8	24.0	64.0#

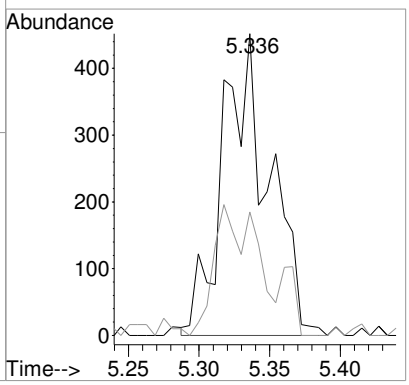


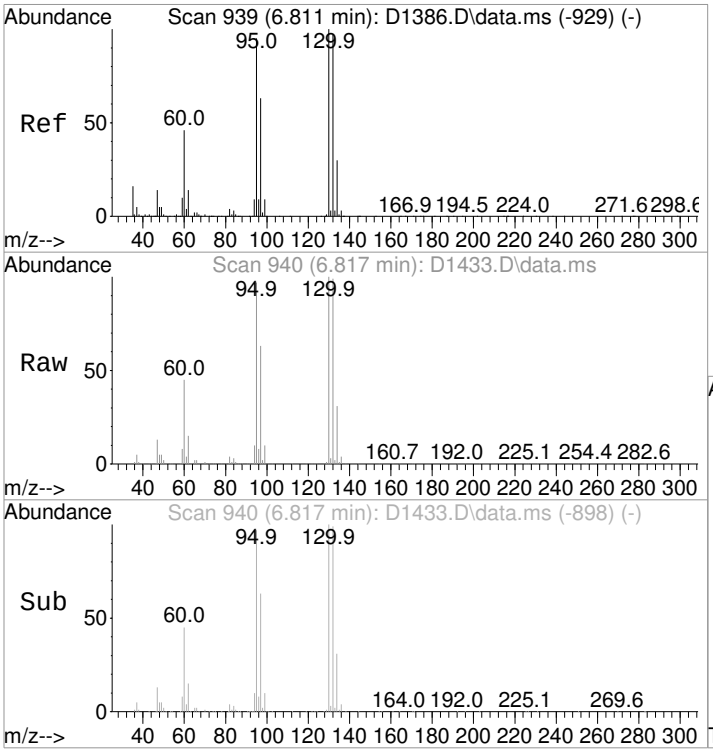


#42
Cyclohexane
Concen: 0.52 ug/L m
RT: 5.336 min Scan# 697
Delta R.T. 0.006 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 41 Resp: 1038

Ion	Ratio	Lower	Upper
41	100		
39	40.9	28.2	68.2

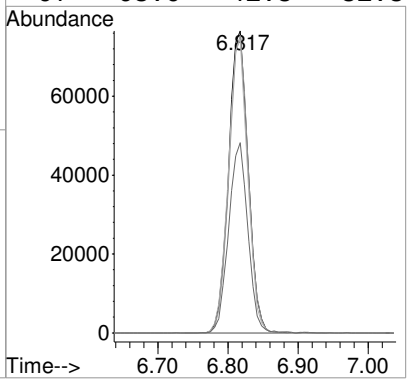


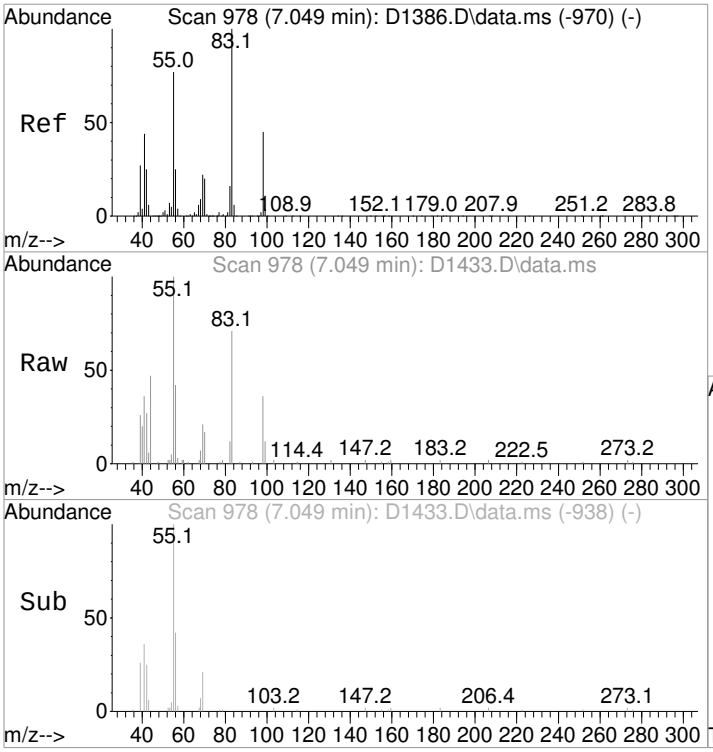


#53
Trichloroethene
Concen: 65.79 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion:130 Resp: 148410

Ion	Ratio	Lower	Upper
130	100		
132	98.5	80.0	120.0
95	97.0	68.5	108.5
97	63.0	41.8	81.8

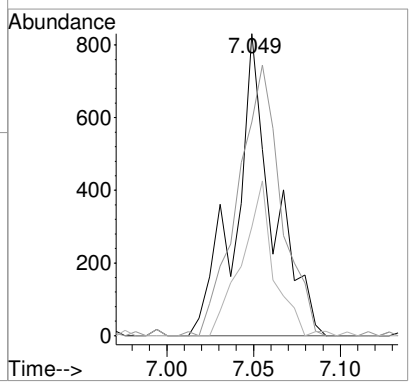


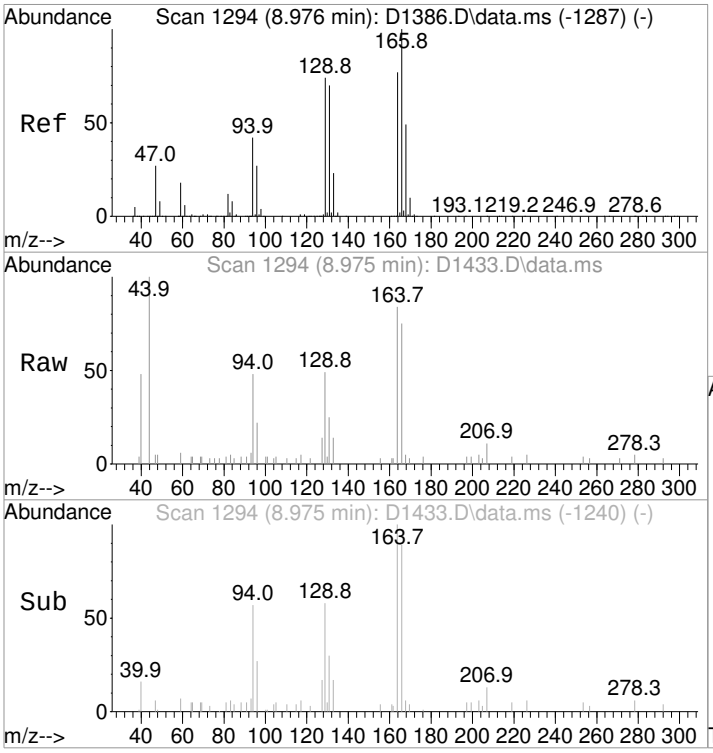


#54
Methylcyclohexane
Concen: 0.47 ug/L m
RT: 7.049 min Scan# 978
Delta R.T. 0.006 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion: 55 Resp: 1249

Ion	Ratio	Lower	Upper
55	100		
83	70.8	109.6	149.6#
98	36.0	43.6	83.6#

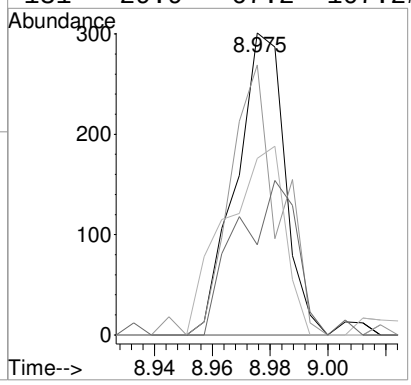




#71
Tetrachloroethene
Concen: 0.20 ug/L
RT: 8.975 min Scan# 1294
Delta R.T. -0.000 min
Lab File: D1433.D
Acq: 15 Feb 2018 5:47 pm

Tgt Ion:164 Resp: 353

Ion	Ratio	Lower	Upper
164	100		
166	89.4	108.6	148.6#
129	58.5	69.1	109.1#
131	29.9	67.2	107.2#



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1419.D
Acq On : 15 Feb 2018 12:04 pm
Operator : D.LIPANI
Sample : R1801238-017|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 08:49:28 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

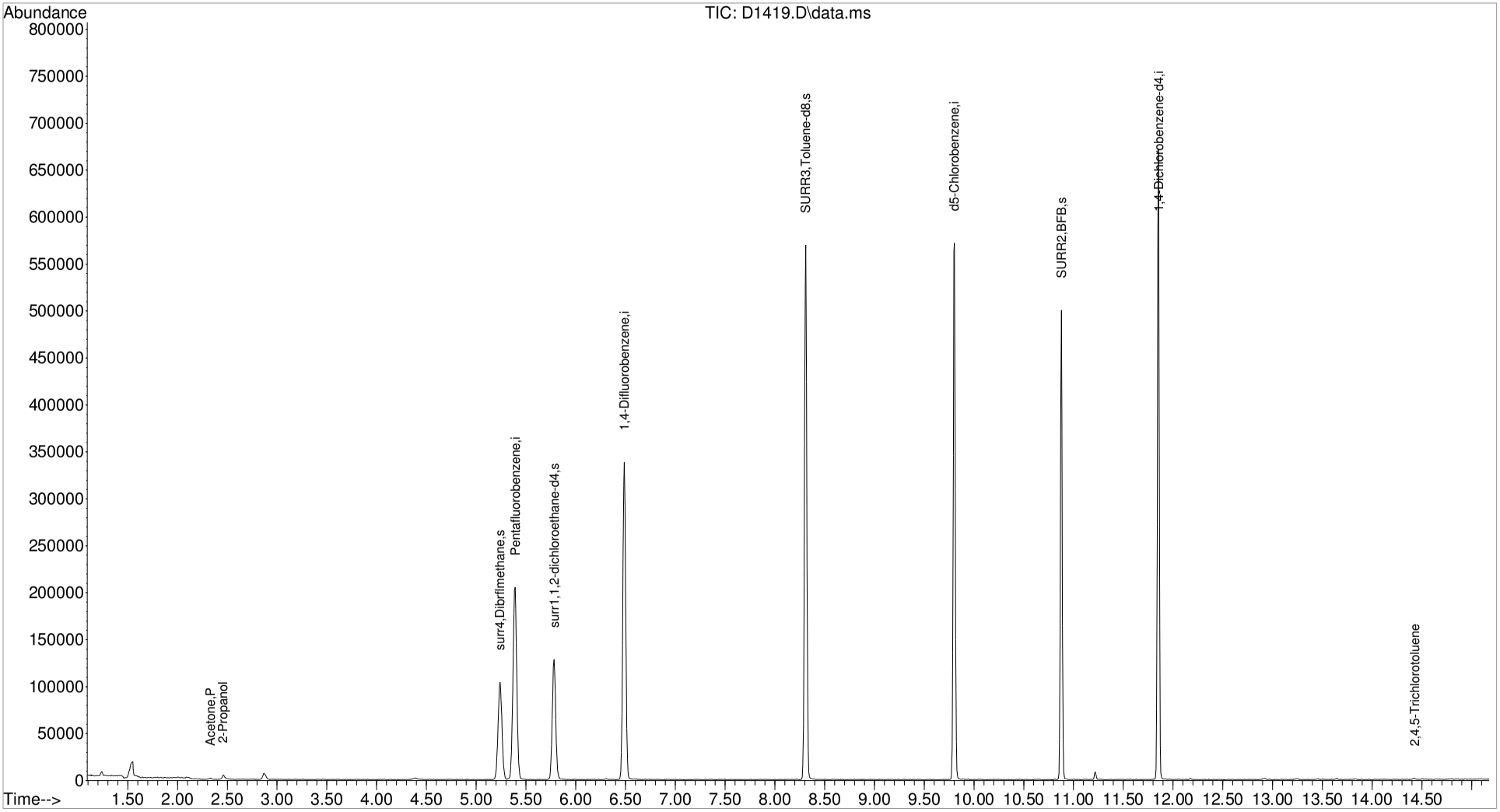
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	197949	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	296678	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	257889	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	133525	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	85841	47.29	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 94.58%			
46) surr1,1,2-dichloroetha...	5.781	65	105537	50.29	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.58%			
64) SURR3,Toluene-d8	8.311	98	344547	48.17	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 96.34%			
69) SURR2,BFB	10.878	95	121627	43.90	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 87.80%			
Target Compounds						Qvalue
15) Acetone	2.330	43	1209	1.17	ug/L	79
16) 2-Propanol	2.458	45	5097	30.72	ug/L	94
118) 2,4,5-Trichlorotoluene	14.426	159	456	0.22	ug/L #	70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

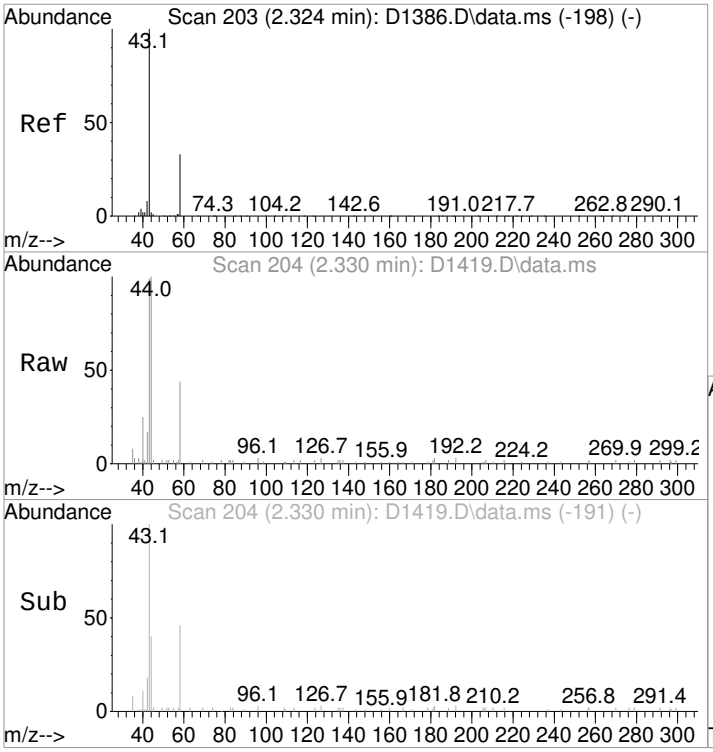
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1419.D
Acq On : 15 Feb 2018 12:04 pm
Operator : D.LIPANI
Sample : R1801238-017|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 08:49:28 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



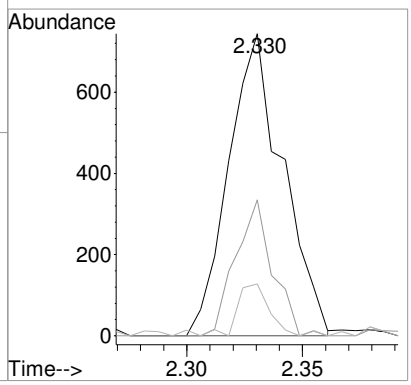
1st DL 02/16/18
2nd FJ 02/17/18

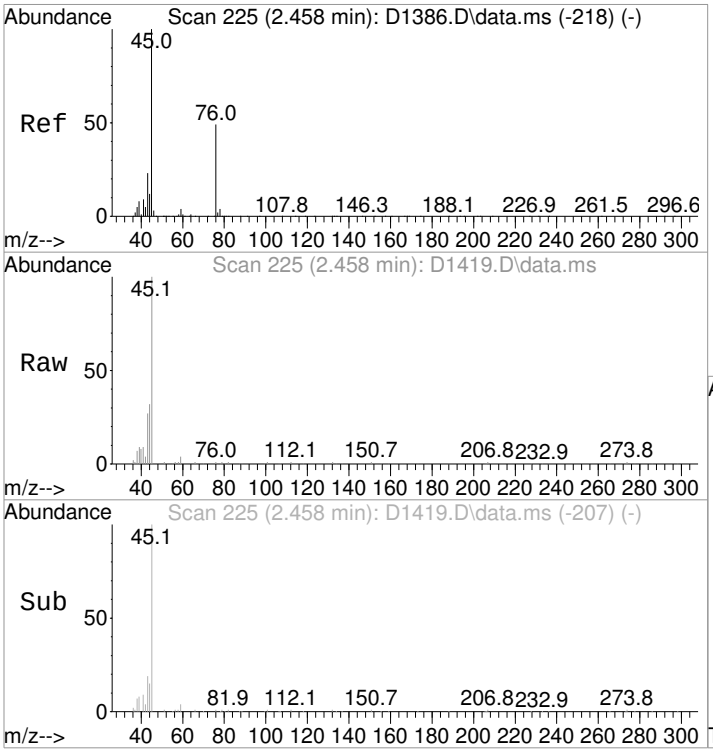


#15
Acetone
Concen: 1.17 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1419.D
Acq: 15 Feb 2018 12:04 pm

Tgt Ion: 43 Resp: 1209

Ion	Ratio	Lower	Upper
43	100		
58	45.0	12.8	52.8
42	17.2	0.0	30.0

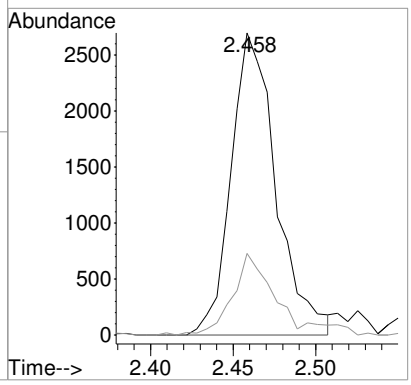


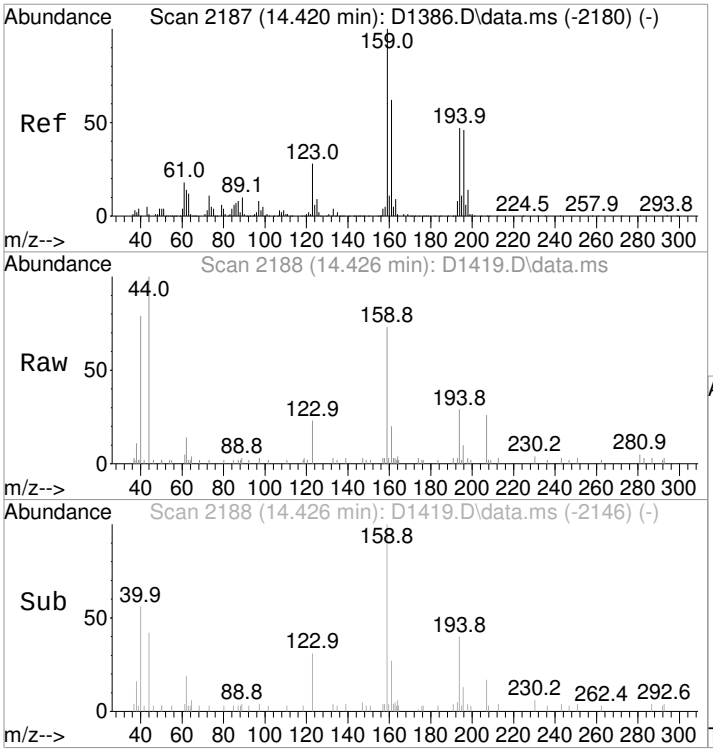


#16
2-Propanol
Concen: 30.72 ug/L
RT: 2.458 min Scan# 225
Delta R.T. 0.000 min
Lab File: D1419.D
Acq: 15 Feb 2018 12:04 pm

Tgt Ion: 45 Resp: 5097

Ion	Ratio	Lower	Upper
45	100		
43	27.0	4.3	44.3

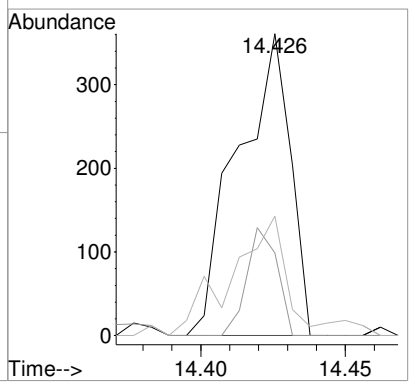




#118
2,4,5-Trichlorotoluene
Concen: 0.22 ug/L
RT: 14.426 min Scan# 2188
Delta R.T. 0.006 min
Lab File: D1419.D
Acq: 15 Feb 2018 12:04 pm

Tgt Ion:159 Resp: 456

Ion	Ratio	Lower	Upper
159	100		
161	26.5	41.2	81.2#
194	38.2	23.7	63.7



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1418.D
Acq On : 15 Feb 2018 11:42 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 08:47:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

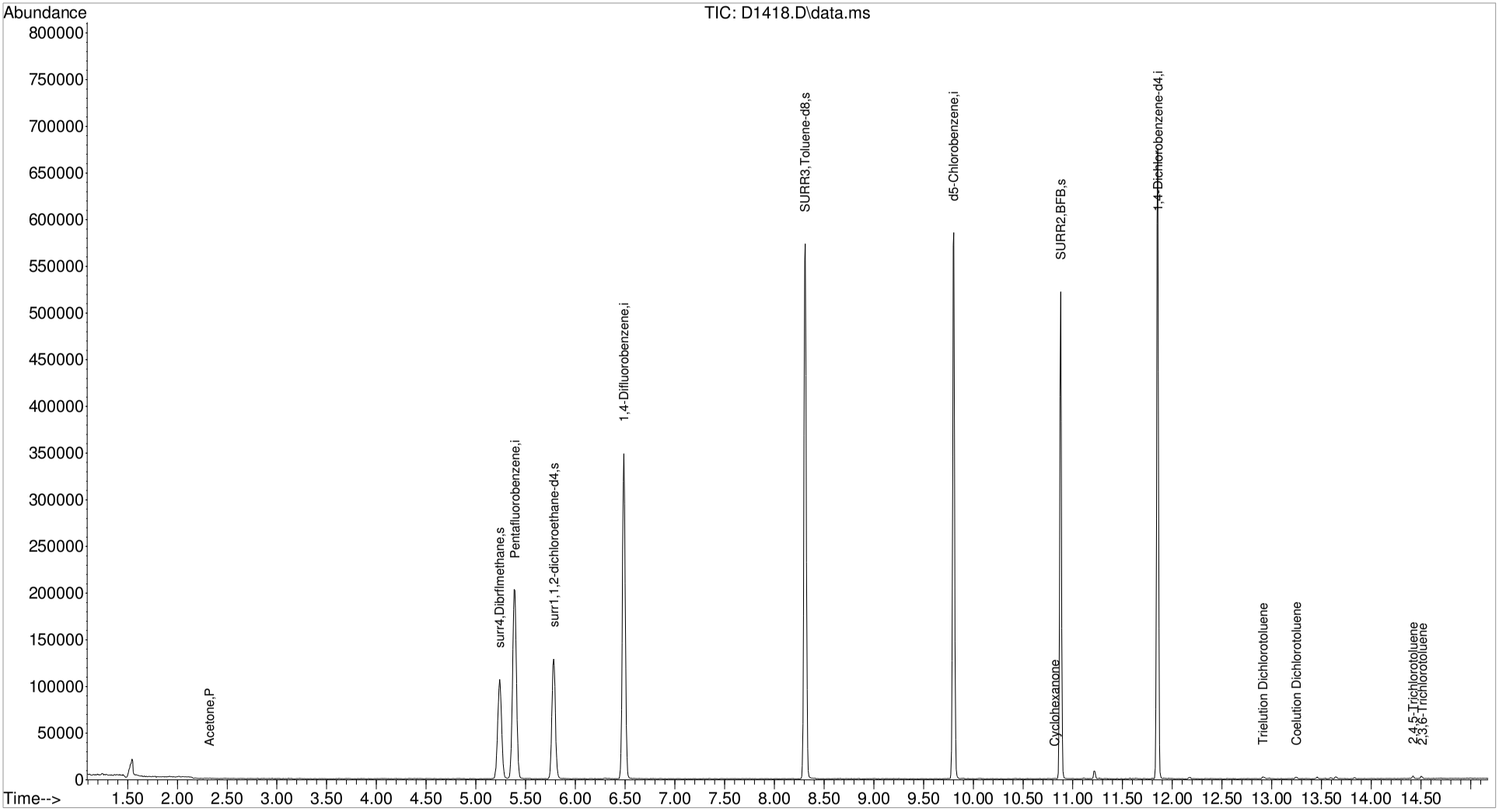
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	201123	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	301731	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	261709	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	133478	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	89872	48.68	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.36%			
46) surr1,1,2-dichloroetha...	5.781	65	109293	51.20	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.40%			
64) SURR3,Toluene-d8	8.311	98	354688	48.76	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 97.52%			
69) SURR2,BFB	10.878	95	127664	45.31	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.62%			
Target Compounds						Qvalue
15) Acetone	2.324	43	349	0.33	ug/L	67
88) Cyclohexanone	10.817	55	232	0.36	ug/L #	44
111) Trielution Dichlorotol...	12.908	125	1025	0.27	ug/L	87
113) Coelution Dichlorotoluene	13.249	125	814	0.20	ug/L	88
118) 2,4,5-Trichlorotoluene	14.420	159	649	0.31	ug/L	77
119) 2,3,6-Trichlorotoluene	14.511	159	505	0.27	ug/L	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

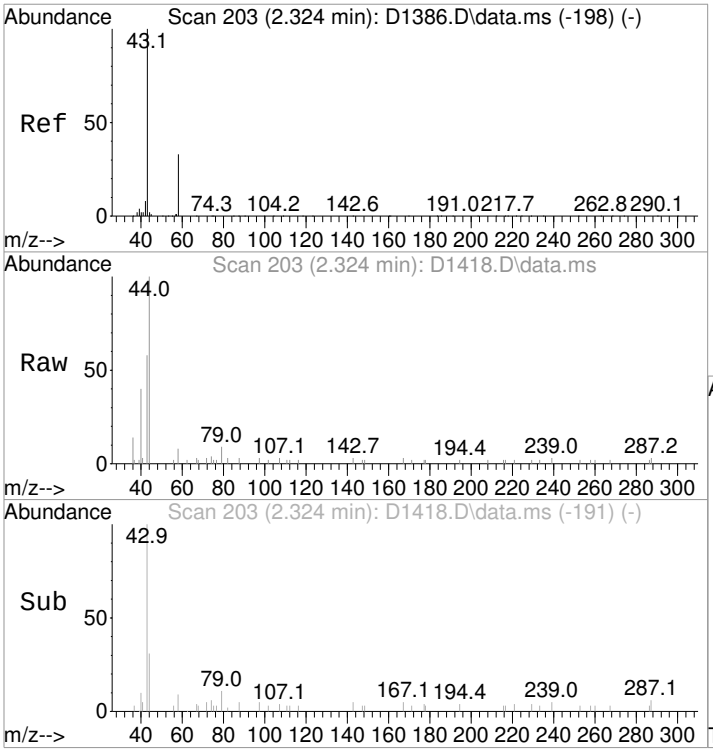
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1418.D
Acq On : 15 Feb 2018 11:42 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 08:47:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



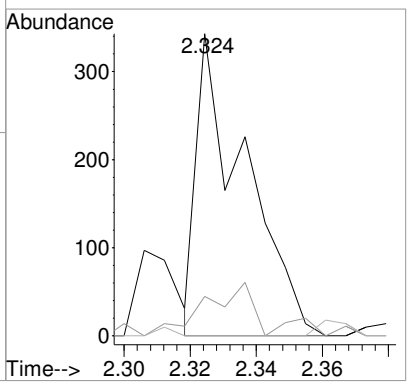
1st DL 02/16/18
2nd FJ 02/17/18

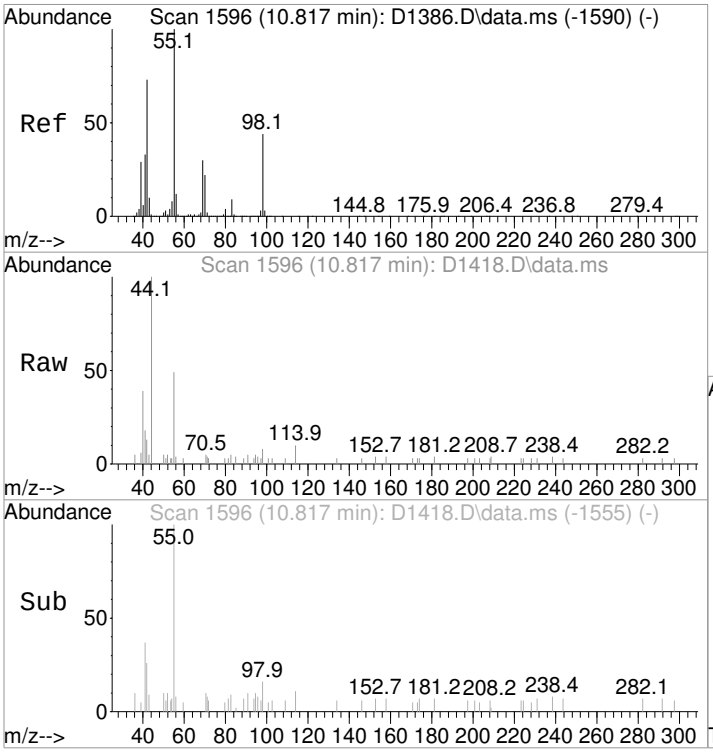


#15
Acetone
Concen: 0.33 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1418.D
Acq: 15 Feb 2018 11:42 am

Tgt Ion: 43 Resp: 349

Ion	Ratio	Lower	Upper
43	100		
58	13.1	12.8	52.8
42	0.0	0.0	30.0

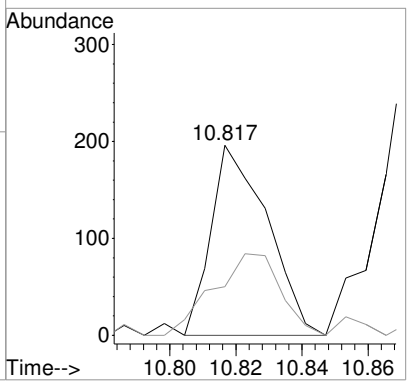


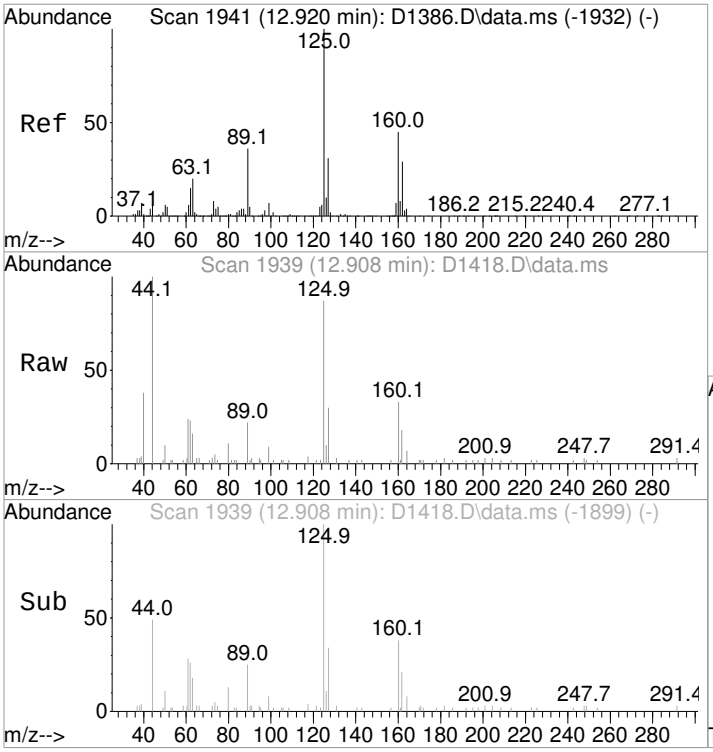


#88
Cyclohexanone
Concen: 0.36 ug/L
RT: 10.817 min Scan# 1596
Delta R.T. 0.001 min
Lab File: D1418.D
Acq: 15 Feb 2018 11:42 am

Tgt Ion: 55 Resp: 232

Ion	Ratio	Lower	Upper
55	100		
42	25.5	51.9	91.9#

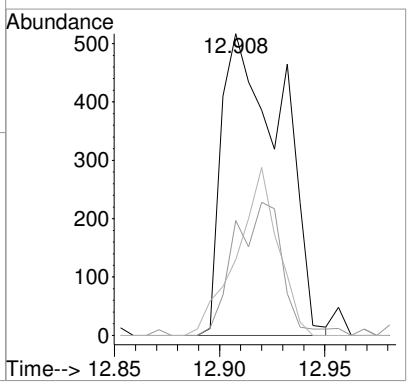


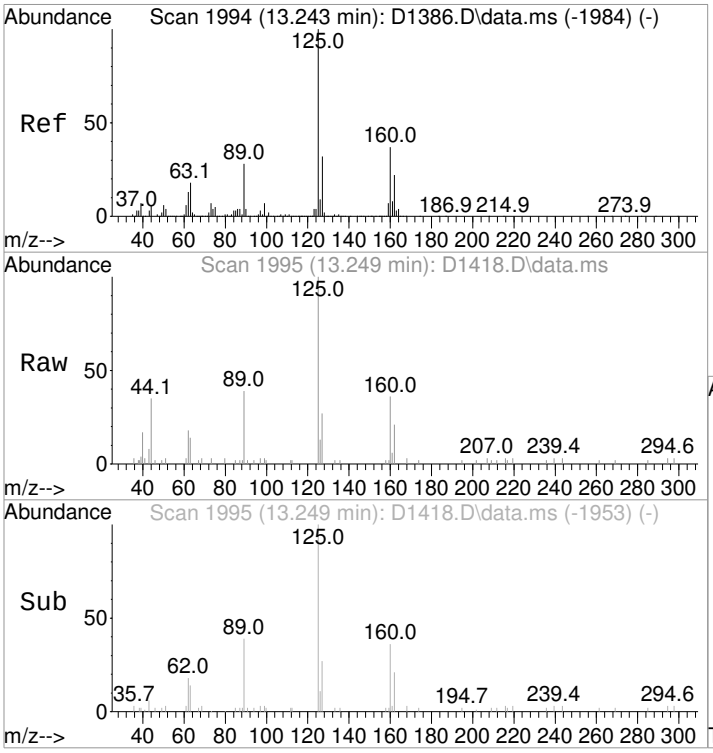


#111
Trielution Dichlorotoluene
Concen: 0.27 ug/L
RT: 12.908 min Scan# 1939
Delta R.T. -0.006 min
Lab File: D1418.D
Acq: 15 Feb 2018 11:42 am

Tgt Ion:125 Resp: 1025

Ion	Ratio	Lower	Upper
125	100		
160	38.1	25.1	65.1
89	25.1	15.0	55.0

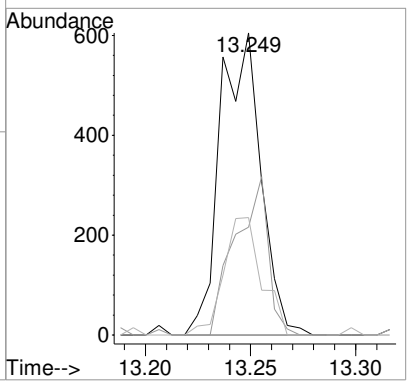


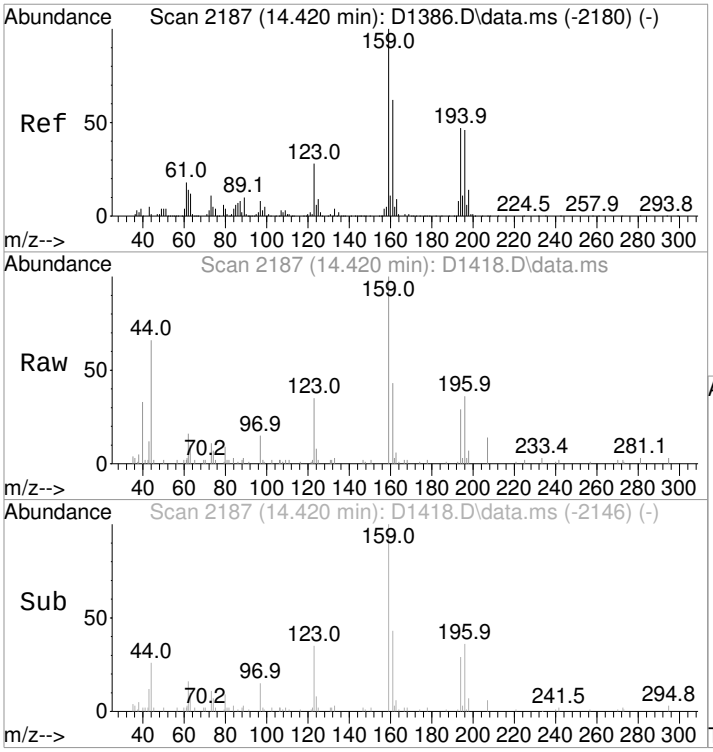


#113
Coelution Dichlorotoluene
Concen: 0.20 ug/L
RT: 13.249 min Scan# 1995
Delta R.T. 0.006 min
Lab File: D1418.D
Acq: 15 Feb 2018 11:42 am

Tgt Ion:125 Resp: 814

Ion	Ratio	Lower	Upper
125	100		
160	35.7	18.3	58.3
89	38.8	7.0	47.0

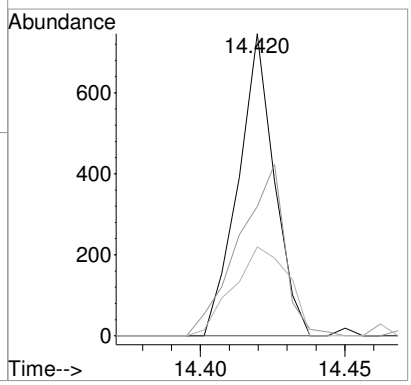


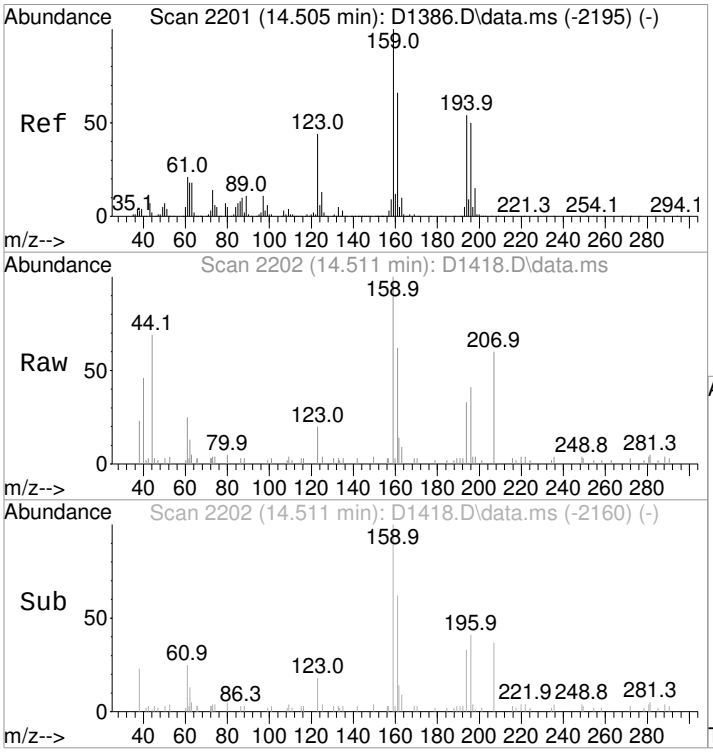


#118
2,4,5-Trichlorotoluene
Concen: 0.31 ug/L
RT: 14.420 min Scan# 2187
Delta R.T. -0.000 min
Lab File: D1418.D
Acq: 15 Feb 2018 11:42 am

Tgt Ion:159 Resp: 649

Ion	Ratio	Lower	Upper
159	100		
161	42.8	41.2	81.2
194	29.5	23.7	63.7

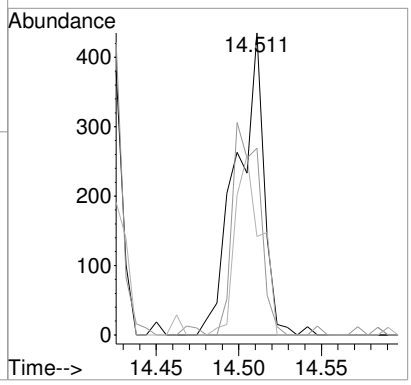




#119
2,3,6-Trichlorotoluene
Concen: 0.27 ug/L
RT: 14.511 min Scan# 2202
Delta R.T. 0.006 min
Lab File: D1418.D
Acq: 15 Feb 2018 11:42 am

Tgt Ion:159 Resp: 505

Ion	Ratio	Lower	Upper
159	100		
161	75.9	42.4	82.4
194	32.6	29.7	69.7

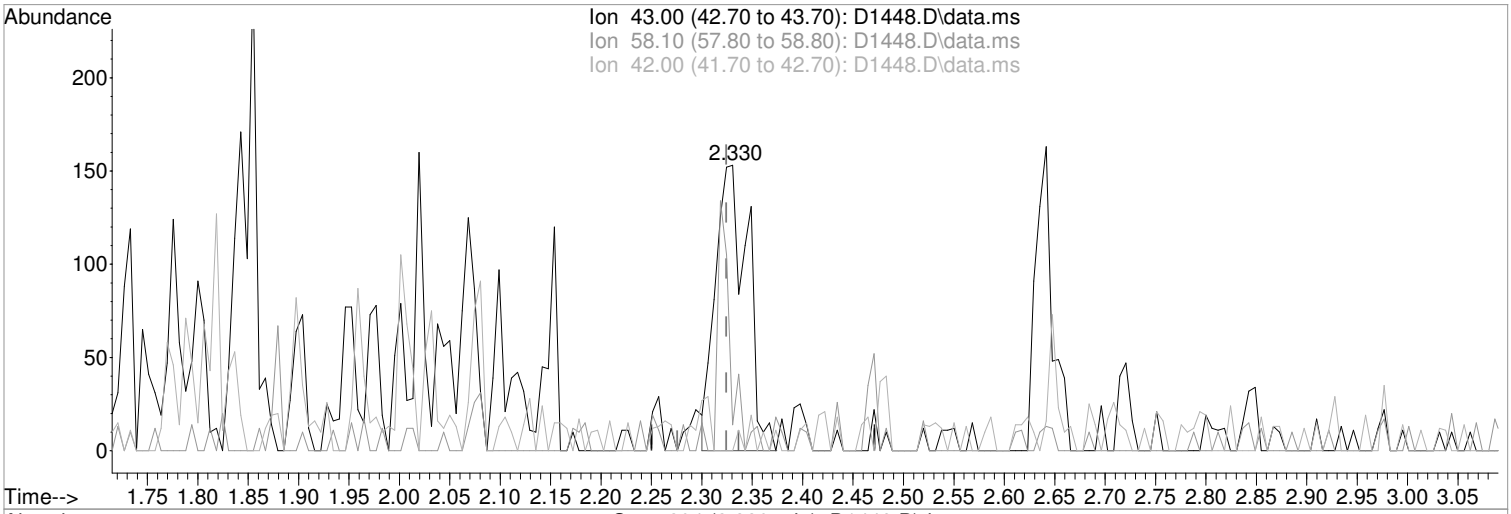


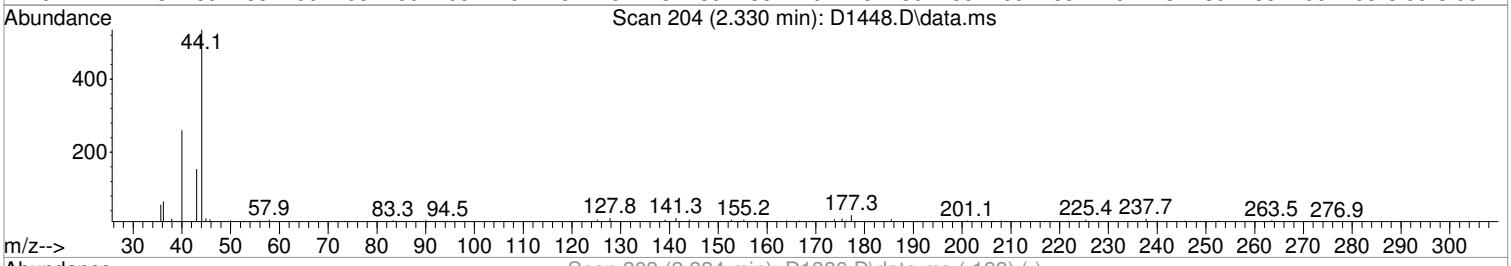
1st DL 02/21/18
2nd 02/21/18

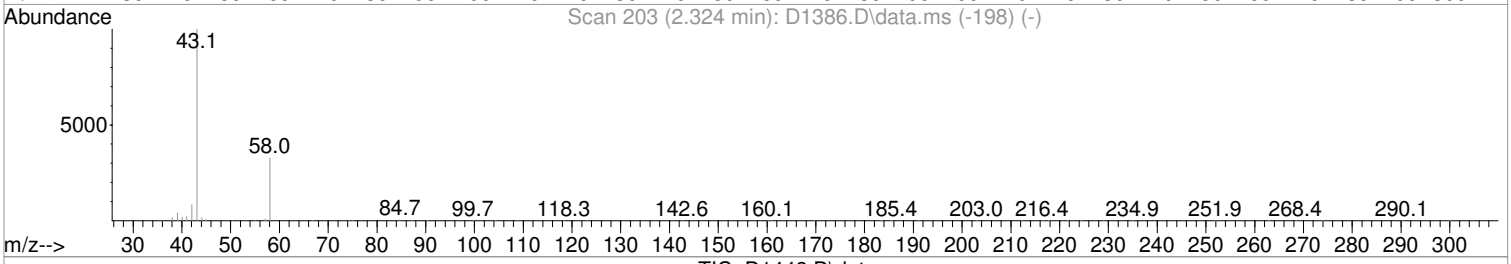
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1448.D
Acq On : 16 Feb 2018 11:12 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 11:26:28 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1448.D\data.ms

(15) Acetone (P)

2.330min (+0.006) 0.32 ug/L m

response 338

Ion	Exp%	Act%
43.00	100	100
58.10	32.80	9.15#
42.00	10.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

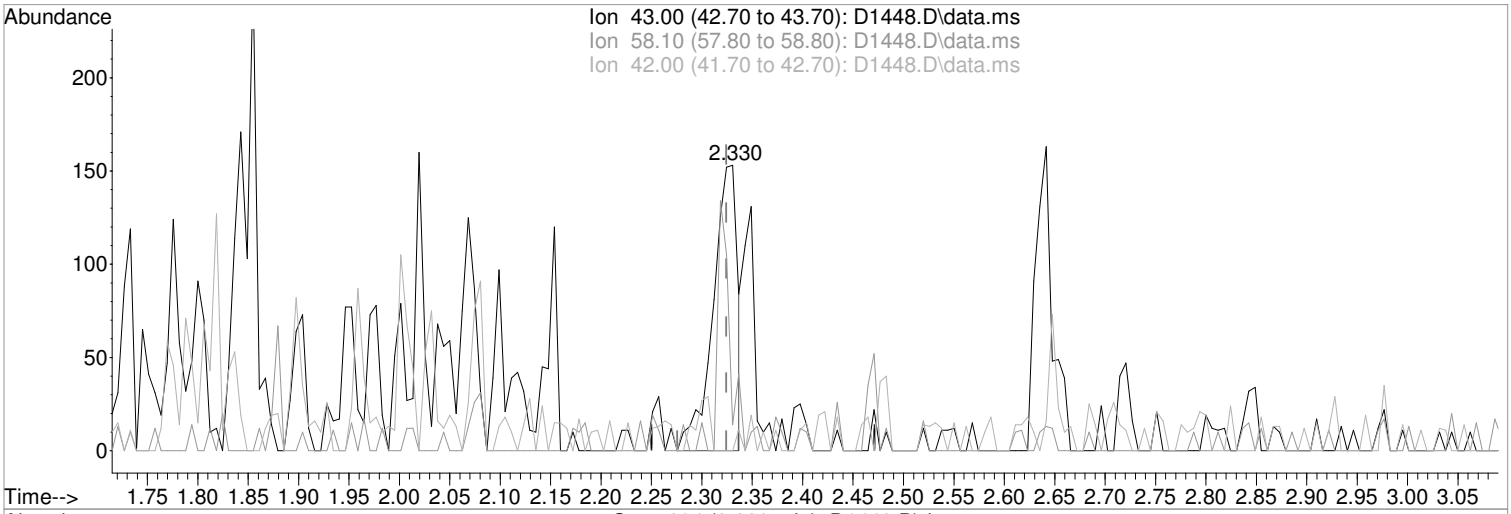
02/20/18

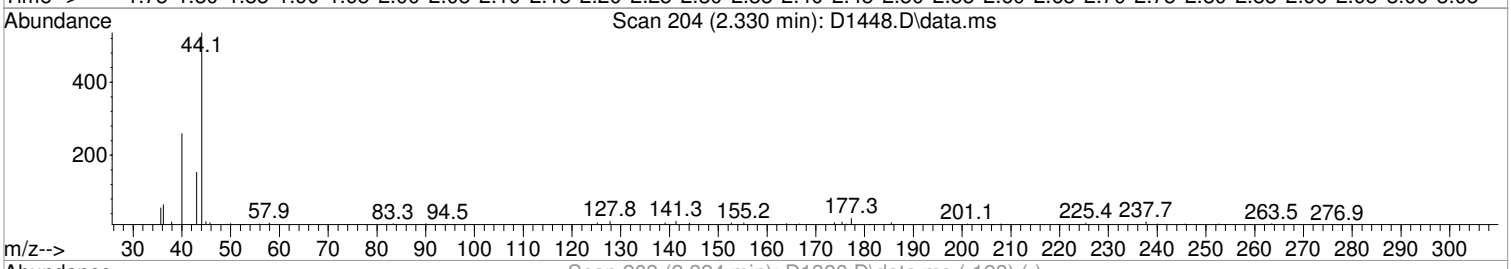
1st DL 02/21/18
2nd 02/21/18

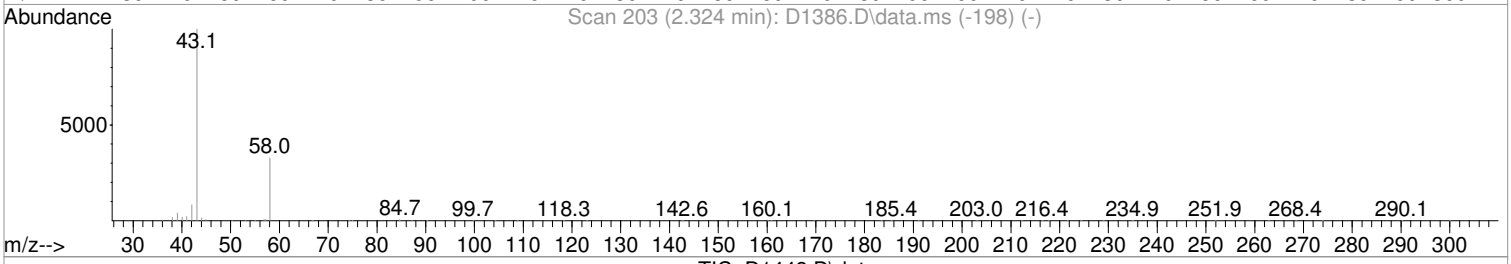
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1448.D
Acq On : 16 Feb 2018 11:12 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 11:26:28 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1448.D\data.ms

(15) Acetone (P)

2.330min (+0.006) 0.25 ug/L

response 259

Ion	Exp%	Act%
43.00	100	100
58.10	32.80	9.15#
42.00	10.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/20/18

1st DL 02/21/18
2nd 02/21/18

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1448.D
Acq On : 16 Feb 2018 11:12 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge

Signal : TIC: D1448.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.544	64	75	81	rBV3	19932	47818	5.06%	0.927%
2	5.238	668	681	691	rBV	106904	291041	30.81%	5.644%
3	5.385	694	705	720	rVB	205502	548686	58.08%	10.640%
4	5.781	759	770	784	rBV2	132032	323211	34.21%	6.268%
5	6.488	877	886	896	rBV2	340502	687040	72.72%	13.323%
6	8.311	1176	1185	1195	rBV	576852	944766	100.00%	18.321%
7	9.805	1423	1430	1439	rBV	579279	823719	87.19%	15.973%
8	10.878	1600	1606	1614	rVB	512809	641966	67.95%	12.449%
9	11.219	1657	1662	1667	rBV4	8298	10592	1.12%	0.205%
10	11.853	1760	1766	1775	rVB	678430	837972	88.70%	16.250%

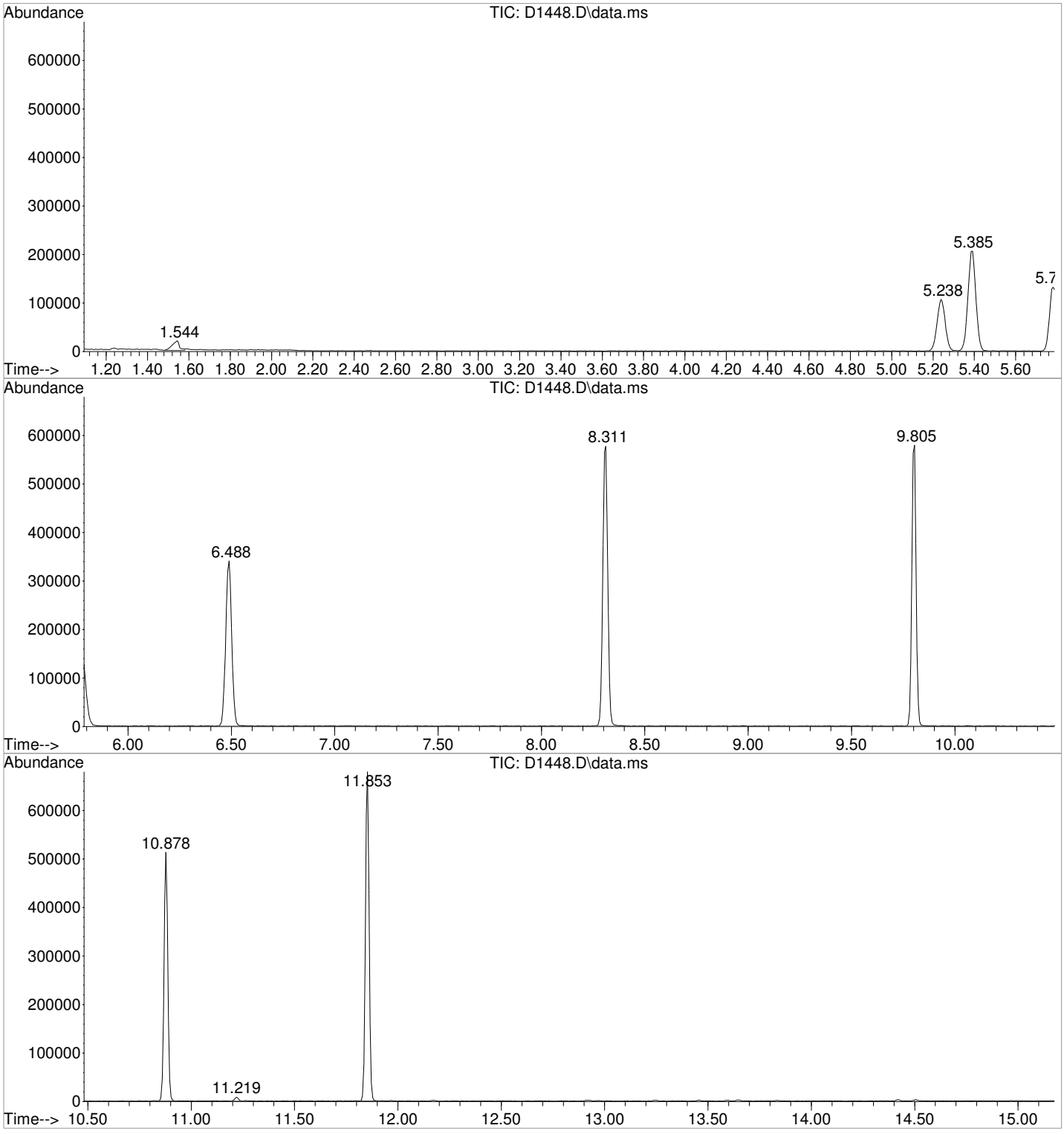
Sum of corrected areas: 5156811

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1448.D
Acq On : 16 Feb 2018 11:12 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa10\data\021618\\
Data File : D1448.D
Acq On : 16 Feb 2018 11:12 amm
Operator : D.LIPANII
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.MM
Quant Title : MS#10 - 8260B WATERS 5.0mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1448.D
Acq On : 16 Feb 2018 11:12 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 20 14:36:49 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

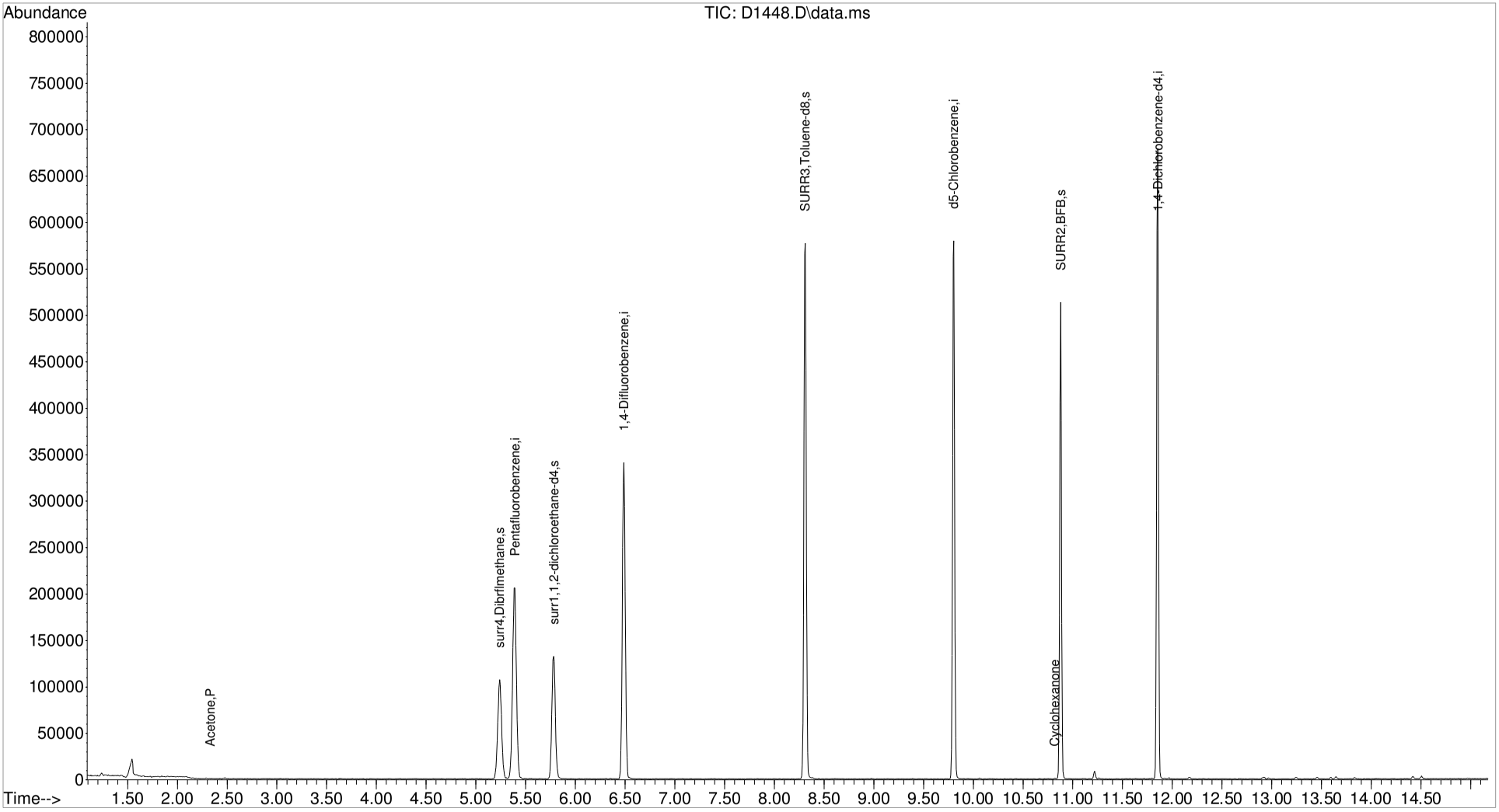
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	199521	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	300969	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	260020	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	133159	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	89084	48.38	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.76%			
46) surr1,1,2-dichloroetha...	5.781	65	110907	52.09	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 104.18%			
64) SURR3,Toluene-d8	8.311	98	357744	49.30	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.60%			
69) SURR2,BFB	10.878	95	123785	44.04	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 88.08%			
Target Compounds						Qvalue
15) Acetone	2.330	43	338m	0.32	ug/L	
88) Cyclohexanone	10.817	55	332	0.52	ug/L	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

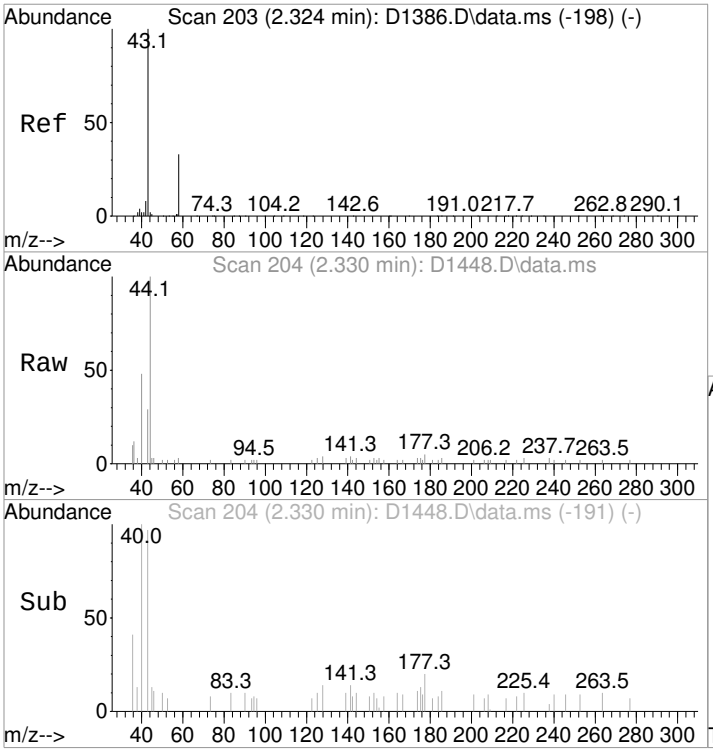
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1448.D
Acq On : 16 Feb 2018 11:12 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 20 14:36:49 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



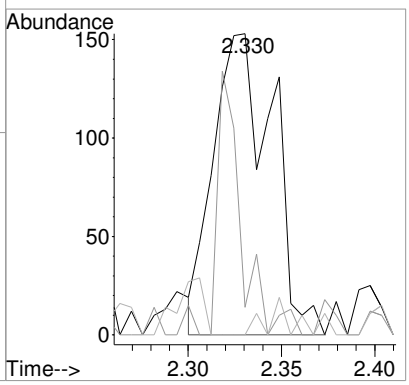
1st 02/21/18
2nd 02/21/18

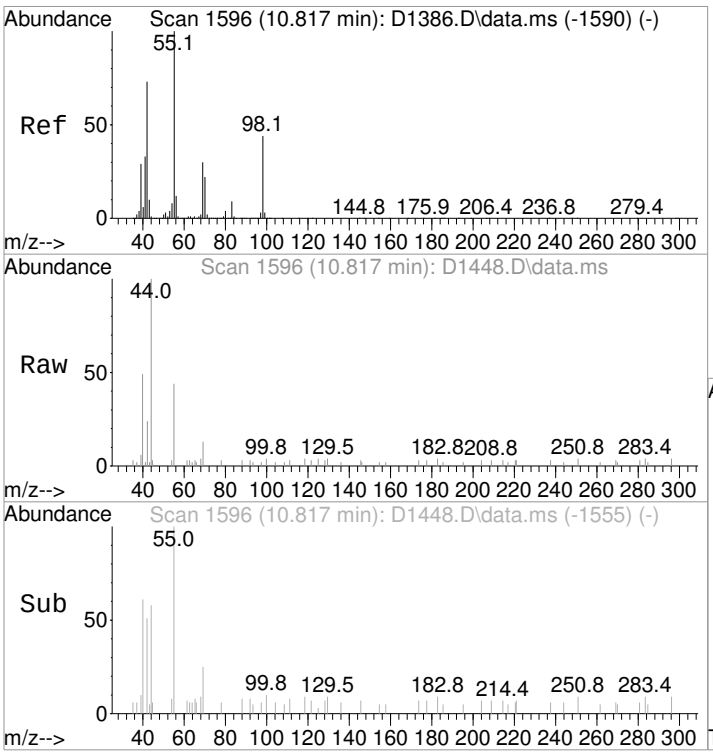


#15
Acetone
Concen: 0.32 ug/L m
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1448.D
Acq: 16 Feb 2018 11:12 am

Tgt Ion: 43 Resp: 338

Ion	Ratio	Lower	Upper
43	100		
58	9.2	12.8	52.8#
42	0.0	0.0	30.0

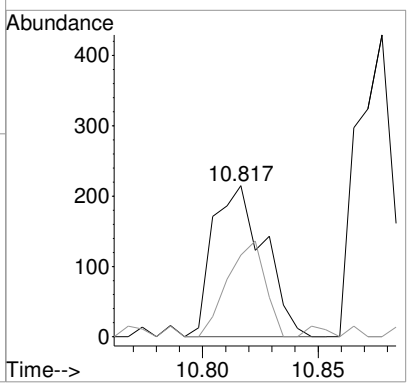




#88
Cyclohexanone
Concen: 0.52 ug/L
RT: 10.817 min Scan# 1596
Delta R.T. 0.001 min
Lab File: D1448.D
Acq: 16 Feb 2018 11:12 am

Tgt Ion: 55 Resp: 332

Ion	Ratio	Lower	Upper
55	100		
42	54.0	51.9	91.9



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1416.D
Acq On : 15 Feb 2018 10:54 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 11:09:05 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	215601	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	321128	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	281988	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	158031	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.232	113	95610	48.66	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.32%				
46) surr1,1,2-dichloroetha...	5.781	65	112853	49.68	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.36%				
64) SURR3,Toluene-d8	8.311	98	381424	49.26	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.52%				
69) SURR2,BFB	10.878	95	144527	48.19	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.38%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	55862	18.07	ug/L		98
3) Chloromethane	1.282	50	64491	18.94	ug/L		99
4) Vinyl Chloride	1.361	62	64663	20.15	ug/L		98
5) Bromomethane	1.587	94	43223	17.15	ug/L		100
6) Chloroethane	1.666	64	37663	18.58	ug/L		99
7) Freon 21	1.812	67	91780	18.59	ug/L		98
8) Trichlorofluoromethane	1.861	101	71087	19.49	ug/L		96
9) Diethyl Ether	2.093	59	43289	20.55	ug/L		99
10) Freon 123a	2.099	67	60063	21.01	ug/L		99
11) Freon 123	2.148	83	60885	18.61	ug/L		96
12) Acrolein	2.190	56	18214	30.22	ug/L		85
13) 1,1-Diclethene	2.282	96	39511	18.71	ug/L	#	84
14) Freon 113	2.288	101	41117	17.83	ug/L		87
15) Acetone	2.324	43	22968	20.41	ug/L		92
16) 2-Propanol	2.458	45	64934	359.29	ug/L		93
17) Iodomethane	2.416	142	54023	18.86	ug/L		95
18) Carbon Disulfide	2.477	76	111220	18.84	ug/L		100
19) Acetonitrile	2.574	40	22885	101.05	ug/L		91
20) Allyl Chloride	2.611	76	21862	20.17	ug/L		93
21) Methyl Acetate	2.635	43	42664	18.80	ug/L		95
22) Methylene Chloride	2.733	84	45556	19.07	ug/L		89
23) TBA	2.861	59	97450	364.90	ug/L		81
24) Acrylonitrile	2.989	53	113150	98.41	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	128209	19.24	ug/L		97
26) trans-1,2-Dichloroethene	3.032	96	44286	19.05	ug/L		94
27) 1,1-Diclethane	3.525	63	80277	19.44	ug/L		97
28) Vinyl Acetate	3.617	86	8126	17.06	ug/L	#	47
29) DIPE	3.653	45	150723	19.55	ug/L		94
30) 2-Chloro-1,3-Butadiene	3.653	53	70813	19.61	ug/L		90
31) ETBE	4.184	59	115272	18.77	ug/L		96
32) 2,2-Dichloropropane	4.367	77	43462	18.66	ug/L		98
33) cis-1,2-Dichloroethene	4.373	96	47976	18.90	ug/L		90
34) 2-Butanone	4.415	43	25929	16.92	ug/L		97
35) Propionitrile	4.501	54	43481	92.75	ug/L		98
36) Bromochloromethane	4.763	130	30191	19.07	ug/L		94
37) Methacrylonitrile	4.769	67	21917	19.58	ug/L		96
38) Tetrahydrofuran	4.867	42	17334	19.66	ug/L		99
39) Chloroform	4.946	83	77352	19.38	ug/L		99
40) 1,1,1-Trichloroethane	5.251	97	56726	19.15	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1416.D
Acq On : 15 Feb 2018 10:54 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 11:09:05 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.342	41	42211	18.62	ug/L	98
44) Carbontetrachloride	5.531	117	44759	19.52	ug/L	94
45) 1,1-Dichloropropene	5.543	75	61305	18.98	ug/L	92
47) Benzene	5.860	78	179281	19.08	ug/L	97
48) 1,2-Dichloroethane	5.897	62	64041	19.85	ug/L	98
49) Iso-Butyl Alcohol	5.879	43	45841	344.52	ug/L	90
50) TAME	6.098	73	107226	18.80	ug/L	99
51) n-Heptane	6.354	43	61360	19.28	ug/L	99
52) 1-Butanol	6.848	56	65286	854.32	ug/L	99
53) Trichloroethene	6.817	130	45940	18.09	ug/L	97
54) Methylcyclohexane	7.055	55	55491	18.40	ug/L	95
55) 1,2-Diclpropane	7.098	63	46703	18.97	ug/L	98
56) Dibromomethane	7.238	93	28505	18.57	ug/L	91
57) 1,4-Dioxane	7.299	88	15714	398.77	ug/L	94
58) Methyl Methacrylate	7.323	69	34549	19.41	ug/L	98
59) Bromodichloromethane	7.470	83	54198	19.18	ug/L	95
60) 2-Nitropropane	7.756	41	16515	31.66	ug/L	93
61) 2-Chloroethylvinyl Ether	7.878	63	6950	13.09	ug/L	99
62) cis-1,3-Dichloropropene	8.012	75	63202	19.32	ug/L	99
63) 4-Methyl-2-pentanone	8.220	43	48991	18.13	ug/L	96
65) Toluene	8.384	91	193722	19.35	ug/L	97
66) trans-1,3-Dichloropropene	8.652	75	49544	20.73	ug/L	99
67) Ethyl Methacrylate	8.799	69	59293	20.59	ug/L	99
68) 1,1,2-Trichloroethane	8.841	97	42411	19.41	ug/L	99
71) Tetrachloroethene	8.976	164	36157	18.37	ug/L	96
72) 2-Hexanone	9.134	43	35479	17.37	ug/L	93
73) 1,3-Dichloropropane	9.012	76	73919	19.07	ug/L	98
74) Dibromochloromethane	9.238	129	38270	18.68	ug/L	97
75) N-Butyl Acetate	9.293	43	71629	18.51	ug/L	99
76) 1,2-Dibromoethane	9.335	107	42179	19.49	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	72274	19.28	ug/L	96
78) Chlorobenzene	9.829	112	125760	19.21	ug/L	96
79) 4-Chlorobenzotrifluoride	9.902	180	64527	19.55	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.914	131	38386	19.10	ug/L	96
81) Ethylbenzene	9.951	106	65278	19.17	ug/L	98
82) (m+p)Xylene	10.061	106	161101	38.52	ug/L	96
83) o-Xylene	10.420	106	77068	19.20	ug/L	98
84) Styrene	10.433	104	131922	19.27	ug/L	96
85) Bromoform	10.585	173	25234	19.92	ug/L	94
86) 2-Chlorobenzotrifluoride	10.664	180	68470	19.01	ug/L	98
87) Isopropylbenzene	10.756	105	201255	18.99	ug/L	99
88) Cyclohexanone	10.817	55	186533	271.73	ug/L	98
89) trans-1,4-Dichloro-2-B...	11.067	53	13334	20.53	ug/L	85
91) 1,1,2,2-Tetrachloroethane	11.012	83	60383	18.73	ug/L	99
92) Bromobenzene	11.000	156	53410	19.06	ug/L	90
93) 1,2,3-Trichloropropane	11.042	110	17784	18.16	ug/L	94
94) n-Propylbenzene	11.109	91	246662	19.50	ug/L	99
95) 2-Chlorotoluene	11.170	91	152159	20.00	ug/L	98
96) 3-Chlorotoluene	11.225	91	144882	19.40	ug/L	98
97) 4-Chlorotoluene	11.268	91	171062	19.11	ug/L	96
98) 1,3,5-Trimethylbenzene	11.262	105	171882	19.86	ug/L	98
99) tert-Butylbenzene	11.536	119	147856	19.06	ug/L	98
100) 1,2,4-Trimethylbenzene	11.573	105	171736	19.95	ug/L	98
101) 3,4-Dichlorobenzotrifl...	11.634	214	58652	19.04	ug/L	98
102) sec-Butylbenzene	11.719	105	223414	20.06	ug/L	99
103) p-Isopropyltoluene	11.841	119	186252	20.34	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1416.D
Acq On : 15 Feb 2018 10:54 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 11:09:05 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

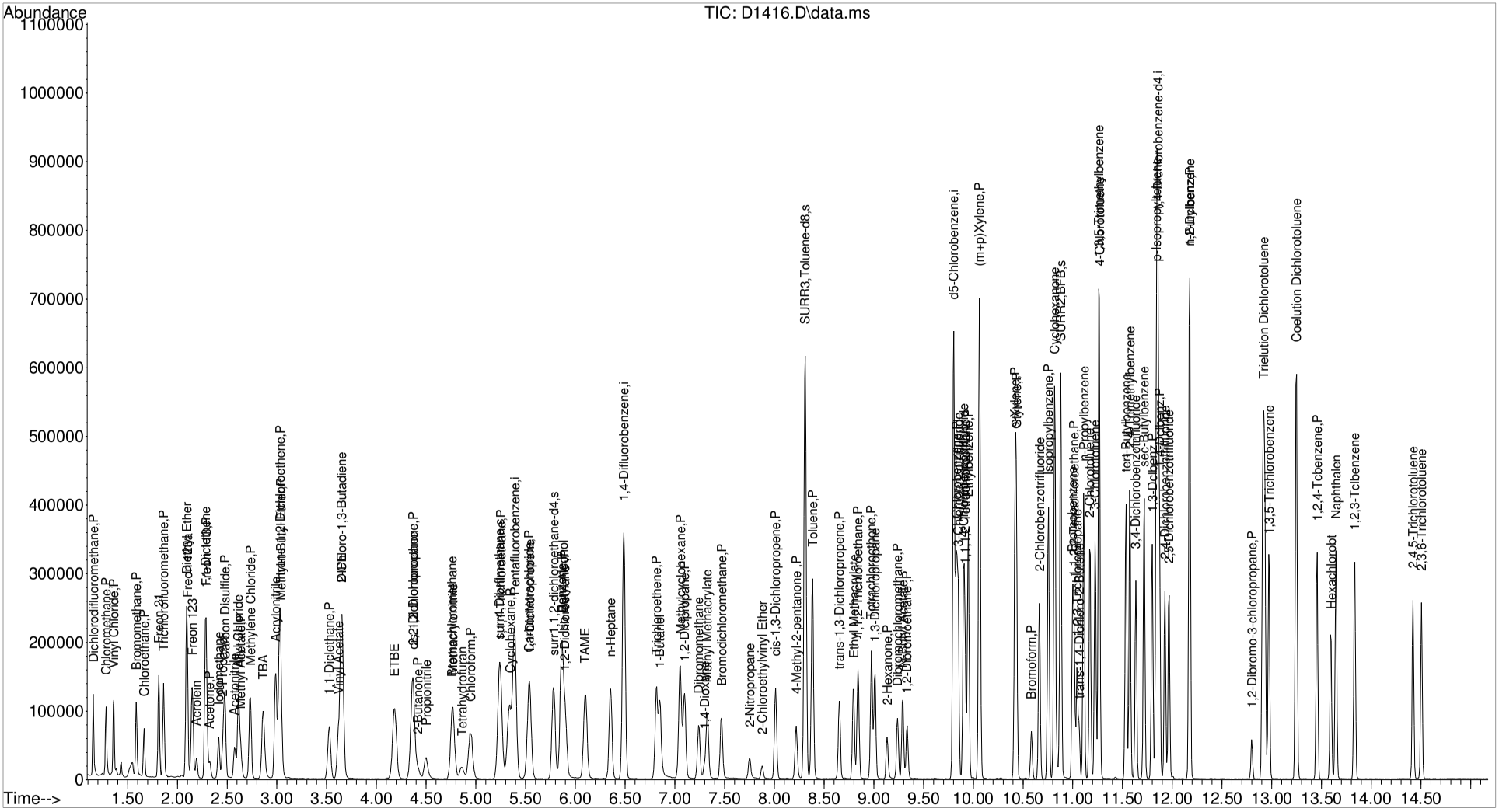
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	108294	20.00	ug/L	99
105) 1,4-Dclbenz	11.871	146	106711	18.70	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	52046	18.50	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	58646	18.97	ug/L	98
108) n-Butylbenzene	12.176	91	175071	21.23	ug/L	99
109) 1,2-Dclbenz	12.176	146	103064	18.89	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	11028	19.17	ug/L	98
111) Trielution Dichlorotol...	12.920	125	268390	59.15	ug/L	97
112) 1,3,5-Trichlorobenzene	12.975	180	81190	19.53	ug/L	97
113) Coelution Dichlorotoluene	13.249	125	193500	40.20	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	80253	20.11	ug/L	96
115) Hexachlorobt	13.597	225	32457	18.71	ug/L	96
116) Naphthalen	13.645	128	192066	21.34	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	76723	19.95	ug/L	95
118) 2,4,5-Trichlorotoluene	14.420	159	52004	20.95	ug/L	95
119) 2,3,6-Trichlorotoluene	14.505	159	47986	21.79	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1416.D
Acq On : 15 Feb 2018 10:54 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 11:09:05 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/16/18
2nd FJ 02/17/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1446.D
Acq On : 16 Feb 2018 10:21 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 10:36:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	219633	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	322663	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	284463	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	155003	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	97607	49.44	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.88%				
46) surr1,1,2-dichloroetha...	5.781	65	114964	50.37	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.74%				
64) SURR3,Toluene-d8	8.311	98	381379	49.02	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.04%				
69) SURR2,BFB	10.877	95	143132	47.50	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	55783	17.72	ug/L		98
3) Chloromethane	1.282	50	63793	18.39	ug/L		99
4) Vinyl Chloride	1.361	62	65530	20.04	ug/L		97
5) Bromomethane	1.587	94	40897	15.86	ug/L		91
6) Chloroethane	1.666	64	39530	19.15	ug/L		94
7) Freon 21	1.812	67	97898	19.46	ug/L		98
8) Trichlorofluoromethane	1.861	101	73426	19.76	ug/L		97
9) Diethyl Ether	2.093	59	43033	20.05	ug/L		95
10) Freon 123a	2.099	67	62362	21.42	ug/L		100
11) Freon 123	2.147	83	63695	19.11	ug/L		92
12) Acrolein	2.190	56	17902	29.16	ug/L		97
13) 1,1-Diclethene	2.282	96	40379	18.77	ug/L	#	85
14) Freon 113	2.288	101	43396	18.47	ug/L		91
15) Acetone	2.324	43	21779	19.00	ug/L		89
16) 2-Propanol	2.458	45	67535	366.83	ug/L		97
17) Iodomethane	2.416	142	61740	20.97	ug/L		97
18) Carbon Disulfide	2.477	76	116671	19.40	ug/L		100
19) Acetonitrile	2.574	40	22493	97.49	ug/L		93
20) Allyl Chloride	2.617	76	22191	20.10	ug/L	#	83
21) Methyl Acetate	2.635	43	45029	19.48	ug/L		91
22) Methylene Chloride	2.733	84	48314	19.85	ug/L		95
23) TBA	2.861	59	100771	370.41	ug/L		83
24) Acrylonitrile	2.989	53	117679	100.47	ug/L		97
25) Methyl-t-Butyl Ether	3.038	73	128305	18.90	ug/L		96
26) trans-1,2-Dichloroethene	3.025	96	46266	19.54	ug/L		88
27) 1,1-Diclethane	3.525	63	81649	19.41	ug/L		99
28) Vinyl Acetate	3.623	86	8693	17.92	ug/L	#	67
29) DIPE	3.653	45	146906	18.70	ug/L		96
30) 2-Chloro-1,3-Butadiene	3.647	53	73162	19.88	ug/L		94
31) ETBE	4.184	59	114906	18.37	ug/L		96
32) 2,2-Dichloropropane	4.360	77	44033	18.56	ug/L		96
33) cis-1,2-Dichloroethene	4.367	96	49299	19.07	ug/L	#	80
34) 2-Butanone	4.415	43	29641	18.99	ug/L		98
35) Propionitrile	4.495	54	44848	93.91	ug/L		93
36) Bromochloromethane	4.763	130	29280	18.16	ug/L		87
37) Methacrylonitrile	4.763	67	21929	19.23	ug/L	#	82
38) Tetrahydrofuran	4.848	42	17190	19.14	ug/L		85
39) Chloroform	4.946	83	79111	19.45	ug/L		96
40) 1,1,1-Trichloroethane	5.244	97	57872	19.18	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1446.D
Acq On : 16 Feb 2018 10:21 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 10:36:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	42442	18.63	ug/L		99
44) Carbontetrachloride	5.525	117	45191	19.62	ug/L		94
45) 1,1-Dichloropropene	5.537	75	62741	19.34	ug/L		92
47) Benzene	5.860	78	184500	19.54	ug/L		97
48) 1,2-Dichloroethane	5.903	62	66671	20.57	ug/L		97
49) Iso-Butyl Alcohol	5.885	43	45603	341.39	ug/L		94
50) TAME	6.104	73	104619	18.26	ug/L		95
51) n-Heptane	6.354	43	64372	20.13	ug/L		96
52) 1-Butanol	6.848	56	63697	830.59	ug/L		100
53) Trichloroethene	6.817	130	46602	18.27	ug/L		92
54) Methylcyclohexane	7.049	55	57184	18.87	ug/L		93
55) 1,2-Diclpropane	7.098	63	47826	19.34	ug/L		96
56) Dibromomethane	7.244	93	28895	18.73	ug/L		90
57) 1,4-Dioxane	7.299	88	15731	397.30	ug/L		87
58) Methyl Methacrylate	7.323	69	34792	19.45	ug/L		91
59) Bromodichloromethane	7.470	83	55455	19.53	ug/L		96
60) 2-Nitropropane	7.750	41	16791	32.04	ug/L		94
61) 2-Chloroethylvinyl Ether	7.872	63	6733	12.64	ug/L		89
62) cis-1,3-Dichloropropene	8.012	75	64824	19.73	ug/L		98
63) 4-Methyl-2-pentanone	8.219	43	50671	18.66	ug/L		99
65) Toluene	8.384	91	196586	19.55	ug/L		98
66) trans-1,3-Dichloropropene	8.652	75	51632	21.45	ug/L		97
67) Ethyl Methacrylate	8.793	69	60991	21.06	ug/L		90
68) 1,1,2-Trichloroethane	8.841	97	42760	19.48	ug/L		93
71) Tetrachloroethene	8.975	164	37682	18.98	ug/L		97
72) 2-Hexanone	9.134	43	36183	17.56	ug/L		95
73) 1,3-Dichloropropane	9.012	76	76835	19.65	ug/L		96
74) Dibromochloromethane	9.238	129	39366	19.05	ug/L		97
75) N-Butyl Acetate	9.286	43	75078	19.23	ug/L		94
76) 1,2-Dibromoethane	9.335	107	43498	19.92	ug/L		100
77) 3-Chlorobenzotrifluoride	9.847	180	66431	17.57	ug/L		99
78) Chlorobenzene	9.829	112	128517	19.46	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	58435	17.55	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.914	131	39347	19.40	ug/L		98
81) Ethylbenzene	9.951	106	66854	19.46	ug/L		95
82) (m+p)Xylene	10.061	106	166273	39.41	ug/L		94
83) o-Xylene	10.420	106	81365	20.09	ug/L		97
84) Styrene	10.432	104	135129	19.56	ug/L		96
85) Bromoform	10.585	173	24229	19.01	ug/L		97
86) 2-Chlorobenzotrifluoride	10.664	180	63405	17.45	ug/L		93
87) Isopropylbenzene	10.756	105	208015	19.46	ug/L		97
88) Cyclohexanone	10.817	55	198720	286.96	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.060	53	12996	19.86	ug/L		87
91) 1,1,2,2-Tetrachloroethane	11.012	83	64985	20.56	ug/L		98
92) Bromobenzene	10.999	156	55556	20.21	ug/L		91
93) 1,2,3-Trichloropropane	11.042	110	17648	18.37	ug/L	#	90
94) n-Propylbenzene	11.109	91	256183	20.65	ug/L		98
95) 2-Chlorotoluene	11.170	91	151790	20.34	ug/L		98
96) 3-Chlorotoluene	11.225	91	138177	18.87	ug/L		99
97) 4-Chlorotoluene	11.268	91	177438	20.21	ug/L		95
98) 1,3,5-Trimethylbenzene	11.262	105	177886	20.95	ug/L		100
99) tert-Butylbenzene	11.536	119	148456	19.51	ug/L		98
100) 1,2,4-Trimethylbenzene	11.572	105	174936	20.71	ug/L		97
101) 3,4-Dichlorobenzotrifl...	11.633	214	54451	18.02	ug/L		98
102) sec-Butylbenzene	11.719	105	227953	20.86	ug/L		97
103) p-Isopropyltoluene	11.841	119	188964	21.04	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1446.D
Acq On : 16 Feb 2018 10:21 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 10:36:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

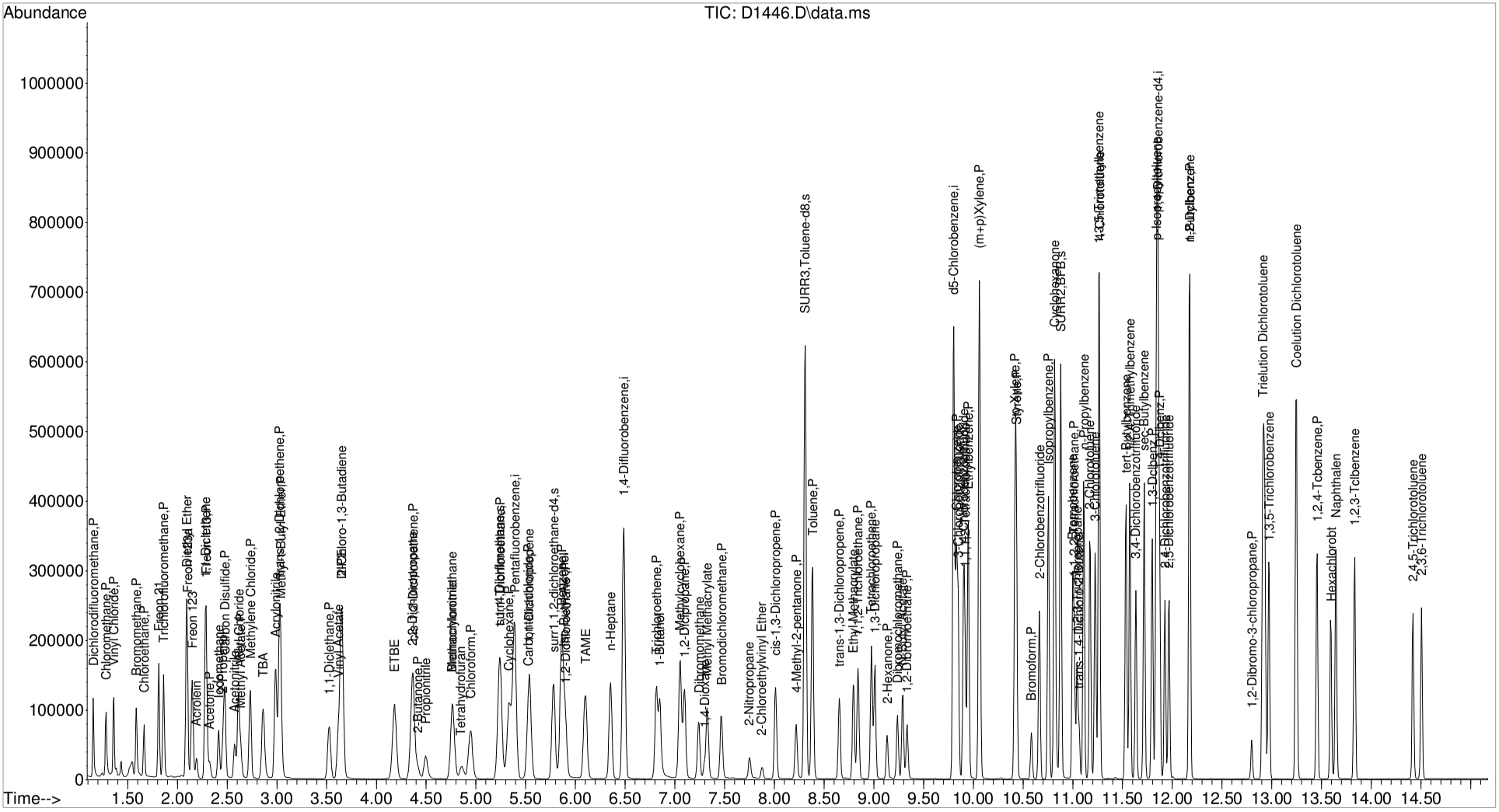
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	106545	20.06	ug/L	97
105) 1,4-Dclbenz	11.871	146	107933	19.28	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	48524	17.59	ug/L	94
107) 2,5-Dichlorobenzotrifl...	11.969	214	56464	18.62	ug/L	98
108) n-Butylbenzene	12.176	91	178804	22.08	ug/L	97
109) 1,2-Dclbenz	12.176	146	104102	19.46	ug/L	96
110) 1,2-Dibromo-3-chloropr...	12.798	157	10495	18.62	ug/L	96
111) Trielution Dichlorotol...	12.914	125	254729	57.23	ug/L	95
112) 1,3,5-Trichlorobenzene	12.975	180	77271	18.95	ug/L	96
113) Coelution Dichlorotoluene	13.249	125	185631	39.32	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	81661	20.86	ug/L	99
115) Hexachlorobt	13.596	225	34097	20.04	ug/L	96
116) Naphthalen	13.645	128	189930	21.51	ug/L	98
117) 1,2,3-Tclbenzene	13.834	180	77170	20.46	ug/L	98
118) 2,4,5-Trichlorotoluene	14.419	159	48897	20.08	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	45187	20.92	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1446.D
Acq On : 16 Feb 2018 10:21 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 10:36:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st 02/21/18
2nd 02/21/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1440.D
Acq On : 15 Feb 2018 8:19 pm
Operator : D.LIPANI
Sample : R1801238-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 15 20:33:34 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	201690	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	305871	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	272441	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	154817	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	91760	49.03	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 98.06%				
46) surr1,1,2-dichloroetha...	5.781	65	109754	50.72	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 101.44%				
64) SURR3,Toluene-d8	8.311	98	367246	49.80	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.60%				
69) SURR2,BFB	10.878	95	138956	48.65	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	128702	44.51	ug/L		99
3) Chloromethane	1.282	50	154158	48.39	ug/L		98
4) Vinyl Chloride	1.355	62	157203	52.36	ug/L		98
5) Bromomethane	1.581	94	78442	35.08	ug/L		97
6) Chloroethane	1.660	64	98368	51.88	ug/L		96
7) Freon 21	1.812	67	253818	54.95	ug/L		100
8) Trichlorofluoromethane	1.861	101	171400	50.24	ug/L		99
9) Diethyl Ether	2.093	59	107094	54.34	ug/L		97
10) Freon 123a	2.099	67	163823	61.26	ug/L		98
11) Freon 123	2.148	83	165926	54.21	ug/L		96
12) Acrolein	2.190	56	45745	81.13	ug/L		97
13) 1,1-Diclethene	2.282	96	96774	49.00	ug/L		88
14) Freon 113	2.288	101	98098	45.47	ug/L		92
15) Acetone	2.324	43	50184	47.68	ug/L		98
16) 2-Propanol	2.465	45	194587	1150.96	ug/L		99
17) Iodomethane	2.416	142	161645	55.28	ug/L		97
18) Carbon Disulfide	2.477	76	285860	51.77	ug/L		99
19) Acetonitrile	2.574	40	61314	289.40	ug/L		97
20) Allyl Chloride	2.617	76	50722	50.03	ug/L	#	83
21) Methyl Acetate	2.635	43	111291	52.44	ug/L		98
22) Methylene Chloride	2.733	84	110997	49.67	ug/L		91
23) TBA	2.867	59	282321	1130.06	ug/L		81
24) Acrylonitrile	2.989	53	309252	287.53	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	313185	50.25	ug/L		94
26) trans-1,2-Dichloroethene	3.026	96	106610	49.02	ug/L		89
27) 1,1-Diclethane	3.525	63	198088	51.28	ug/L		98
28) Vinyl Acetate	3.617	86	22120	49.66	ug/L	#	82
29) DIPE	3.653	45	388416	53.85	ug/L		97
30) 2-Chloro-1,3-Butadiene	3.653	53	182415	53.99	ug/L		89
31) ETBE	4.184	59	281147	48.94	ug/L		99
32) 2,2-Dichloropropane	4.361	77	94847	43.53	ug/L		97
33) cis-1,2-Dichloroethene	4.367	96	121771	51.29	ug/L		94
34) 2-Butanone	4.416	43	73383	51.19	ug/L		99
35) Propionitrile	4.495	54	123186	280.88	ug/L		97
36) Bromochloromethane	4.763	130	73790	49.83	ug/L		92
37) Methacrylonitrile	4.769	67	58217	55.59	ug/L	#	76
38) Tetrahydrofuran	4.861	42	46030	55.81	ug/L		94
39) Chloroform	4.946	83	190946	51.13	ug/L		96
40) 1,1,1-Trichloroethane	5.251	97	137852	49.74	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1440.D
Acq On : 15 Feb 2018 8:19 pm
Operator : D.LIPANI
Sample : R1801238-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 15 20:33:34 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	111748	51.76	ug/L		97
44) Carbontetrachloride	5.531	117	109532	50.16	ug/L		96
45) 1,1-Dichloropropene	5.543	75	154218	50.14	ug/L		94
47) Benzene	5.860	78	451666	50.47	ug/L		99
48) 1,2-Dichloroethane	5.897	62	161698	52.63	ug/L		97
49) Iso-Butyl Alcohol	5.885	43	133683	988.58	ug/L		94
50) TAME	6.104	73	272534	50.18	ug/L		97
51) n-Heptane	6.354	43	133399	44.01	ug/L		97
52) 1-Butanol	6.854	56	205060	2584.49	ug/L		99
53) Trichloroethene	6.811	130	113288	46.85	ug/L		93
54) Methylcyclohexane	7.055	55	149034	51.88	ug/L		98
55) 1,2-Diclpropane	7.098	63	117660	50.18	ug/L		98
56) Dibromomethane	7.238	93	72088	49.30	ug/L	#	84
57) 1,4-Dioxane	7.299	88	41947	1117.57	ug/L		95
58) Methyl Methacrylate	7.330	69	94638	53.96	ug/L		97
59) Bromodichloromethane	7.470	83	132785	49.34	ug/L		95
60) 2-Nitropropane	7.750	41	47014	94.64	ug/L		90
62) cis-1,3-Dichloropropene	8.012	75	158828	50.99	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	142078	55.19	ug/L		99
65) Toluene	8.384	91	493224	51.73	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	127102	51.23	ug/L		98
67) Ethyl Methacrylate	8.793	69	163668	56.14	ug/L		92
68) 1,1,2-Trichloroethane	8.841	97	108653	52.22	ug/L		95
71) Tetrachloroethene	8.976	164	90404	47.53	ug/L		95
72) 2-Hexanone	9.134	43	103173	52.28	ug/L		94
73) 1,3-Dichloropropane	9.012	76	191680	51.17	ug/L		98
74) Dibromochloromethane	9.238	129	98480	49.76	ug/L		97
75) N-Butyl Acetate	9.287	43	215284	57.57	ug/L		96
76) 1,2-Dibromoethane	9.335	107	108010	51.65	ug/L		97
77) 3-Chlorobenzotrifluoride	9.847	180	174150	48.09	ug/L		100
78) Chlorobenzene	9.829	112	314800	49.77	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	155025	48.61	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	97900	50.41	ug/L		99
81) Ethylbenzene	9.951	106	166129	50.50	ug/L		96
82) (m+p)Xylene	10.061	106	414772	102.65	ug/L		95
83) o-Xylene	10.420	106	200135	51.61	ug/L		97
84) Styrene	10.433	104	337263	50.98	ug/L		97
85) Bromoform	10.585	173	65049	49.66	ug/L		90
86) 2-Chlorobenzotrifluoride	10.664	180	172416	49.55	ug/L		93
87) Isopropylbenzene	10.756	105	514680	50.27	ug/L		99
88) Cyclohexanone	10.817	55	130225	196.35	ug/L		96
89) trans-1,4-Dichloro-2-B...	11.061	53	35295	53.98	ug/L		89
91) 1,1,2,2-Tetrachloroethane	11.012	83	169605	53.71	ug/L		100
92) Bromobenzene	11.000	156	136847	49.84	ug/L	#	88
93) 1,2,3-Trichloropropane	11.042	110	47010	49.00	ug/L		98
94) n-Propylbenzene	11.109	91	627925	50.67	ug/L		98
95) 2-Chlorotoluene	11.170	91	381444	51.18	ug/L		99
96) 3-Chlorotoluene	11.225	91	384752	52.60	ug/L		99
97) 4-Chlorotoluene	11.268	91	435200	49.63	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	439523	51.84	ug/L		98
99) tert-Butylbenzene	11.536	119	371630	48.89	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	438882	52.03	ug/L		98
101) 3,4-Dichlorobenzotrifl...	11.634	214	141048	46.73	ug/L		97
102) sec-Butylbenzene	11.719	105	552151	50.60	ug/L		99
103) p-Isopropyltoluene	11.841	119	464464	51.78	ug/L		98
104) 1,3-Dclbenz	11.798	146	261472	49.29	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1440.D
Acq On : 15 Feb 2018 8:19 pm
Operator : D.LIPANI
Sample : R1801238-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 15 20:33:34 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

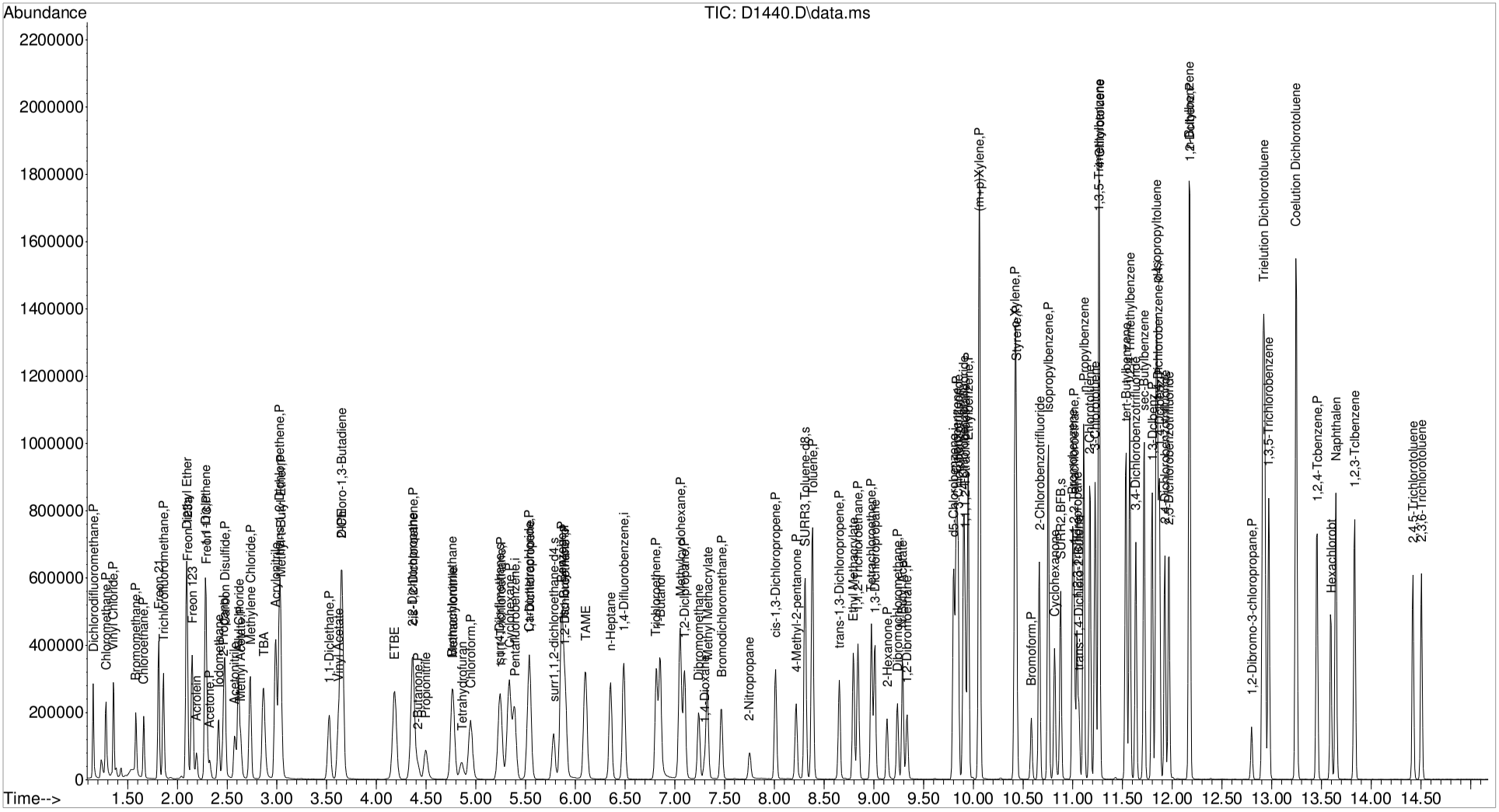
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	267103	47.77	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	128606	46.67	ug/L	94
107) 2,5-Dichlorobenzotrifl...	11.969	214	145063	47.90	ug/L	94
108) n-Butylbenzene	12.170	91	443202	52.63	ug/L	99
109) 1,2-Dclbenz	12.176	146	256482	47.99	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	29601	49.61	ug/L	97
111) Trielution Dichlorotol...	12.920	125	681294	153.26	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	198483	48.75	ug/L	99
113) Coelution Dichlorotoluene	13.243	125	496429	105.27	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	190610	48.76	ug/L	98
115) Hexachlorobt	13.597	225	75823	44.61	ug/L	98
116) Naphthalen	13.645	128	502301	56.97	ug/L	98
117) 1,2,3-Tclbenzene	13.834	180	192715	51.16	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	123053	50.60	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	114175	52.93	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1440.D
Acq On : 15 Feb 2018 8:19 pm
Operator : D.LIPANI
Sample : R1801238-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 15 20:33:34 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/16/18
2nd FJ 02/17/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1441.D
Acq On : 15 Feb 2018 8:41 pm
Operator : D.LIPANI
Sample : R1801238-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 15 20:55:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	213499	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	313891	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	276586	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	155765	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.245	113	93540	48.71	ug/L		0.01
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.42%				
46) surr1,1,2-dichloroetha...	5.781	65	113567	51.15	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.30%				
64) SURR3,Toluene-d8	8.311	98	372818	49.26	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 98.52%				
69) SURR2,BFB	10.878	95	138125	47.12	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	134916	44.08	ug/L		98
3) Chloromethane	1.282	50	159937	47.43	ug/L		97
4) Vinyl Chloride	1.361	62	162834	51.23	ug/L		94
5) Bromomethane	1.581	94	87898	37.37	ug/L		96
6) Chloroethane	1.660	64	100187	49.92	ug/L		99
7) Freon 21	1.812	67	254387	52.03	ug/L		99
8) Trichlorofluoromethane	1.861	101	172076	47.65	ug/L		99
9) Diethyl Ether	2.093	59	110152	52.80	ug/L		96
10) Freon 123a	2.093	67	165841	58.59	ug/L		94
11) Freon 123	2.148	83	166168	51.29	ug/L		95
12) Acrolein	2.190	56	45576	76.36	ug/L		95
13) 1,1-Diclethene	2.282	96	99695	47.69	ug/L		90
14) Freon 113	2.288	101	98262	43.03	ug/L		94
15) Acetone	2.324	43	49742	44.65	ug/L		98
16) 2-Propanol	2.465	45	208349	1164.19	ug/L		97
17) Iodomethane	2.416	142	167215	54.12	ug/L		96
18) Carbon Disulfide	2.477	76	299636	51.26	ug/L		99
19) Acetonitrile	2.574	40	60509	269.80	ug/L		97
20) Allyl Chloride	2.617	76	54662	50.93	ug/L	#	84
21) Methyl Acetate	2.635	43	114313	50.88	ug/L		97
22) Methylene Chloride	2.733	84	115047	48.63	ug/L		95
23) TBA	2.867	59	293251	1108.88	ug/L		84
24) Acrylonitrile	2.989	53	305171	268.04	ug/L		99
25) Methyl-t-Butyl Ether	3.038	73	317666	48.15	ug/L		93
26) trans-1,2-Dichloroethene	3.026	96	107809	46.83	ug/L		91
27) 1,1-Diclethane	3.525	63	205812	50.34	ug/L		99
28) Vinyl Acetate	3.623	86	22608	47.94	ug/L	#	75
29) DIPE	3.653	45	395489	51.80	ug/L		97
30) 2-Chloro-1,3-Butadiene	3.653	53	183327	51.26	ug/L		94
31) ETBE	4.184	59	299116	49.19	ug/L		99
32) 2,2-Dichloropropane	4.355	77	101764	44.12	ug/L		97
33) cis-1,2-Dichloroethene	4.367	96	122204	48.63	ug/L		88
34) 2-Butanone	4.409	43	72443	47.74	ug/L		96
35) Propionitrile	4.495	54	120975	260.59	ug/L		100
36) Bromochloromethane	4.763	130	75788	48.35	ug/L		96
37) Methacrylonitrile	4.769	67	60379	54.46	ug/L		98
38) Tetrahydrofuran	4.861	42	46492	53.25	ug/L		93
39) Chloroform	4.946	83	195382	49.42	ug/L		97
40) 1,1,1-Trichloroethane	5.251	97	144358	49.21	ug/L		95

1st DL 02/16/18
2nd FJ 02/17/18

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1441.D
Acq On : 15 Feb 2018 8:41 pm
Operator : D.LIPANI
Sample : R1801238-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 15 20:55:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	112631	50.83	ug/L		98
44) Carbontetrachloride	5.531	117	115510	51.55	ug/L		91
45) 1,1-Dichloropropene	5.543	75	152532	48.32	ug/L		97
47) Benzene	5.860	78	456297	49.69	ug/L		98
48) 1,2-Dichloroethane	5.903	62	158919	50.40	ug/L		97
49) Iso-Butyl Alcohol	5.885	43	142673	1026.38	ug/L		92
50) TAME	6.098	73	278655	49.99	ug/L		98
51) n-Heptane	6.354	43	134243	43.16	ug/L		99
52) 1-Butanol	6.854	56	221295	2702.60	ug/L		96
53) Trichloroethene	6.811	130	112986	45.53	ug/L		97
54) Methylcyclohexane	7.055	55	150392	51.02	ug/L		94
55) 1,2-Diclpropane	7.098	63	123047	51.14	ug/L		98
56) Dibromomethane	7.238	93	72683	48.43	ug/L	#	84
57) 1,4-Dioxane	7.299	88	42496	1103.27	ug/L		95
58) Methyl Methacrylate	7.330	69	97377	54.10	ug/L		95
59) Bromodichloromethane	7.470	83	132423	47.95	ug/L		96
60) 2-Nitropropane	7.750	41	46625	91.46	ug/L		90
62) cis-1,3-Dichloropropene	8.012	75	163405	51.12	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	142268	53.85	ug/L		97
65) Toluene	8.384	91	493555	50.44	ug/L		98
66) trans-1,3-Dichloropropene	8.652	75	132915	52.08	ug/L		96
67) Ethyl Methacrylate	8.793	69	170799	57.01	ug/L		92
68) 1,1,2-Trichloroethane	8.841	97	107899	50.53	ug/L		98
71) Tetrachloroethene	8.976	164	91291	47.28	ug/L		97
72) 2-Hexanone	9.134	43	102989	51.41	ug/L		94
73) 1,3-Dichloropropane	9.012	76	188435	49.55	ug/L		97
74) Dibromochloromethane	9.238	129	99633	49.59	ug/L		98
75) N-Butyl Acetate	9.287	43	214248	56.44	ug/L		96
76) 1,2-Dibromoethane	9.335	107	109214	51.44	ug/L		99
77) 3-Chlorobenzotrifluoride	9.847	180	176152	47.91	ug/L		97
78) Chlorobenzene	9.829	112	318586	49.62	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	156100	48.21	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	99358	50.40	ug/L		99
81) Ethylbenzene	9.951	106	165737	49.62	ug/L		100
82) (m+p)Xylene	10.061	106	414932	101.15	ug/L		95
83) o-Xylene	10.420	106	202042	51.32	ug/L		100
84) Styrene	10.433	104	342093	50.94	ug/L		98
85) Bromoform	10.585	173	66268	49.81	ug/L		92
86) 2-Chlorobenzotrifluoride	10.664	180	174268	49.33	ug/L		97
87) Isopropylbenzene	10.756	105	525023	50.51	ug/L		98
88) Cyclohexanone	10.817	55	132821	197.26	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.061	53	36096	54.36	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.012	83	172076	54.16	ug/L		98
92) Bromobenzene	11.000	156	136595	49.45	ug/L	#	88
93) 1,2,3-Trichloropropane	11.042	110	47285	48.99	ug/L		99
94) n-Propylbenzene	11.109	91	634275	50.87	ug/L		98
95) 2-Chlorotoluene	11.170	91	387526	51.68	ug/L		99
96) 3-Chlorotoluene	11.225	91	379646	51.59	ug/L		98
97) 4-Chlorotoluene	11.268	91	433049	49.08	ug/L		95
98) 1,3,5-Trimethylbenzene	11.262	105	448841	52.61	ug/L		98
99) tert-Butylbenzene	11.536	119	378678	49.52	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	445333	52.47	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	142160	46.81	ug/L		99
102) sec-Butylbenzene	11.719	105	564794	51.44	ug/L		98
103) p-Isopropyltoluene	11.841	119	474209	52.55	ug/L		98
104) 1,3-Dclbenz	11.798	146	264692	49.59	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1441.D
Acq On : 15 Feb 2018 8:41 pm
Operator : D.LIPANI
Sample : R1801238-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 15 20:55:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

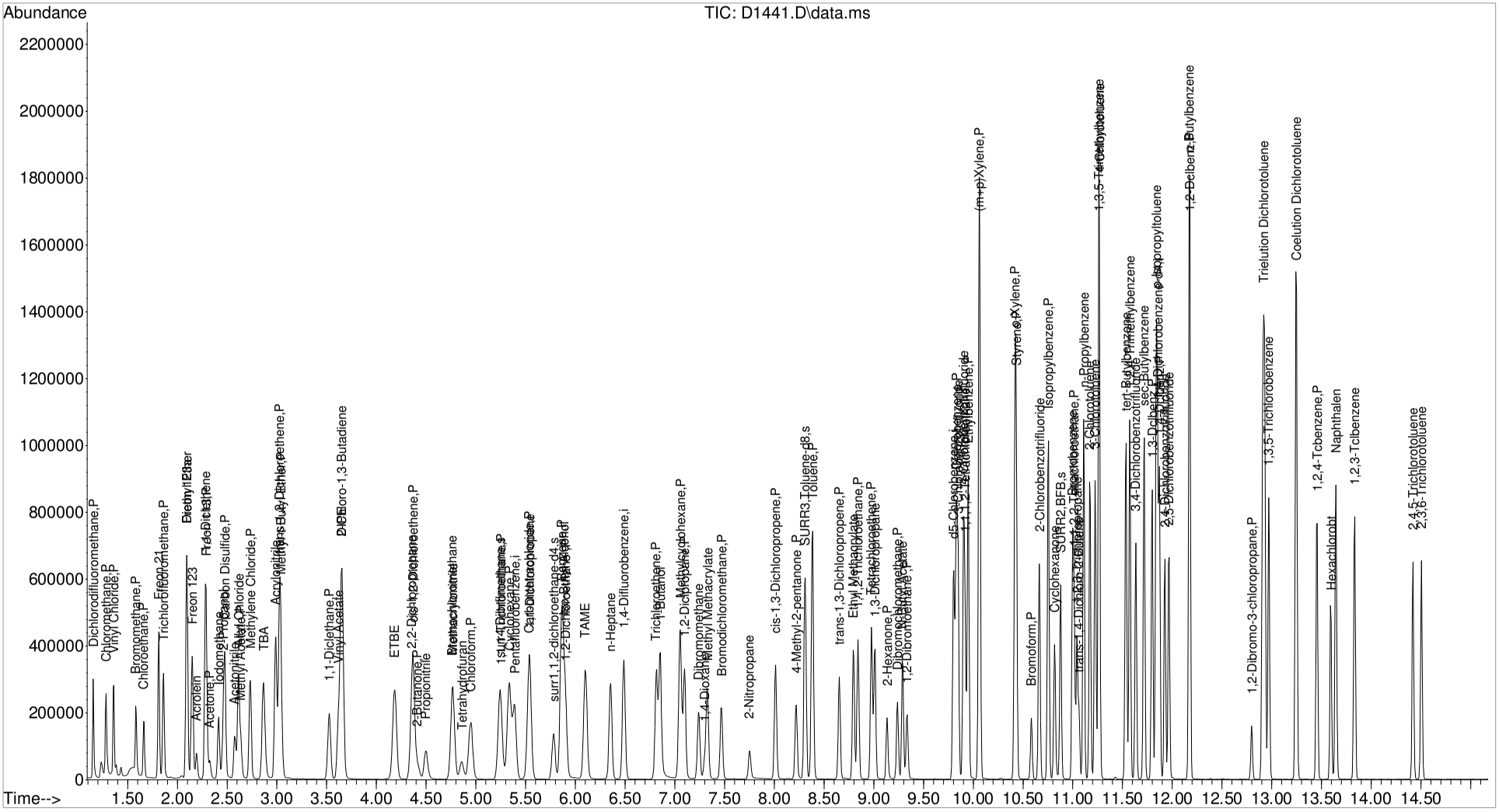
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	264735	47.06	ug/L	95
106) 2,4-Dichlorobenzotrifl...	11.926	214	128992	46.53	ug/L	94
107) 2,5-Dichlorobenzotrifl...	11.969	214	146630	48.13	ug/L	97
108) n-Butylbenzene	12.170	91	449996	53.08	ug/L	99
109) 1,2-Dclbenz	12.176	146	264450	49.18	ug/L	97
110) 1,2-Dibromo-3-chloropr...	12.798	157	31477	52.21	ug/L	93
111) Trielution Dichlorotol...	12.920	125	689762	154.22	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	201687	49.23	ug/L	97
113) Coelution Dichlorotoluene	13.249	125	500993	105.59	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	196127	49.87	ug/L	98
115) Hexachlorobt	13.597	225	78804	46.09	ug/L	96
116) Naphthalen	13.645	128	519579	58.57	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	192883	50.90	ug/L	97
118) 2,4,5-Trichlorotoluene	14.420	159	126639	51.75	ug/L	99
119) 2,3,6-Trichlorotoluene	14.505	159	120485	55.51	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1441.D
Acq On : 15 Feb 2018 8:41 pm
Operator : D.LIPANI
Sample : R1801238-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 15 20:55:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/16/18
2nd FJ 02/17/18

1st DL 02/16/18
2nd FJ 02/17/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1414.D
Acq On : 15 Feb 2018 9:51 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 10:05:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	i	Pentafluorobenzene	1.0000	1.0000	0.0	101	0.00
2	P	Dichlorodifluoromethane	0.7168	0.7081	1.2	94	0.00
3	P	Chloromethane	0.7898	0.7476	5.3	95	0.00
4	P	Vinyl Chloride	0.7443	0.7445	-0.0	95	0.00
5	P	Bromomethane	0.6377	0.5178	-3.2	~~18.8~~	97	0.00
6	P	Chloroethane	0.4700	0.4656	0.9	98	0.00
7		Freon 21	1.1450	1.1479	-0.3	100	0.00
8	P	Trichlorofluoromethane	0.8457	0.8322	1.6	97	0.00
9		Diethyl Ether	0.4886	0.4926	-0.8	103	0.00
10		Freon 123a	0.6629	0.6817	-2.8	103	0.00
11		Freon 123	0.7588	0.7244	4.5	100	0.00
12		Acrolein	0.1398	0.1238	11.4	90	0.00
13		1,1-Diclethene	0.4896	0.4743	3.1	95	0.00
14	P	Freon 113	0.5348	0.5219	2.4	96	0.00
15	P	Acetone	0.2609	0.2467	5.4	96	0.00
16		2-Propanol	0.0419	0.0365	12.9	82	0.00
17		Iodomethane	0.6650	0.6746	-5.7	~~1.4~~	90	0.00
18	P	Carbon Disulfide	1.3690	1.4058	-2.7	102	0.00
19		Acetonitrile	0.0525	0.0498	5.1	92	0.00
20		Allyl Chloride	0.2514	0.2577	-2.5	98	0.01
21	P	Methyl Acetate	0.5262	0.5008	4.8	95	0.00
22	P	Methylene Chloride	0.5540	0.5390	2.7	97	0.00
23		TBA	0.0619	0.0523	15.5	80	0.00
24		Acrylonitrile	0.2666	0.2592	2.8	93	0.00
25	P	Methyl-t-Butyl Ether	1.5451	1.4732	4.7	93	0.00
26	P	trans-1,2-Dichloroethene	0.5391	0.5179	3.9	98	0.00
27	P	1,1-Diclethane	0.9576	0.9383	2.0	97	0.00
28		Vinyl Acetate	0.1104	0.1034	6.3	92	0.00
29		DIPE	1.7882	1.7557	1.8	97	0.00
30		2-Chloro-1,3-Butadiene	0.8376	0.8702	-3.9	101	0.00
31		ETBE	1.4241	1.3446	5.6	93	0.01
32		2,2-Dichloropropane	0.5401	0.5193	3.9	93	0.00
33	P	cis-1,2-Dichloroethene	0.5885	0.5652	4.0	94	0.00
34	P	2-Butanone	0.3554	0.3211	9.7	92	0.00
35		Propionitrile	0.1087	0.1014	6.7	92	0.00
36		Bromochloromethane	0.3671	0.3523	4.0	95	0.01
37		Methacrylonitrile	0.2596	0.2557	1.5	94	0.01
38		Tetrahydrofuran	0.2045	0.1928	5.7	91	0.00
39	P	Chloroform	0.9259	0.9047	2.3	97	0.00
40	P	1,1,1-Trichloroethane	0.6870	0.6982	-1.6	97	0.00
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	99	0.00
42	P	Cyclohexane	0.3529	0.3645	-3.3	105	0.00
43	s	surr4,Dibrflmethane	0.3059	0.3073	-0.5	97	0.01
44	P	Carbontetrachloride	0.3570	0.3769	-5.6	97	0.00
45		1,1-Dichloropropene	0.5028	0.4934	1.9	96	0.00
46	s	surr1,1,2-dichloroethane-d4	0.3537	0.3610	-2.1	101	0.00
47	P	Benzene	1.4629	1.4363	1.8	96	0.00
48	P	1,2-Dichloroethane	0.5022	0.5002	0.4	97	0.00
49		Iso-Butyl Alcohol	0.0195	0.0173	-20.9	~~11.3~~	84	0.00
50		TAME	0.8879	0.8510	4.2	93	0.00
51		n-Heptane	0.4954	0.5186	-4.7	100	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1414.D
Acq On : 15 Feb 2018 9:51 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 10:05:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52		1-Butanol	0.0112	0.0108	-14.8	~~3.6~~	83	0.00
53	P	Trichloroethene	0.3953	0.3751		5.1	95	0.00
54	P	Methylcyclohexane	0.4695	0.4915		-4.7	103	0.01
55	P	1,2-Diclpropane	0.3833	0.3821		0.3	98	0.00
56		Dibromomethane	0.2390	0.2314		3.2	96	0.00
57		1,4-Dioxane	0.0061	0.0057		6.6	88	-0.01
58		Methyl Methacrylate	0.2693	0.2682	-5.9	~~0.4~~	88	0.00
59	P	Bromodichloromethane	0.4399	0.4447		-1.1	96	0.00
60		2-Nitropropane	0.0812	0.0790		2.7	95	0.00
61		2-Chloroethylvinyl Ether	0.0936	0.0703	-22.0	~~24.9#~~	70	0.00
62	P	cis-1,3-Dichloropropene	0.5092	0.5435		-6.7	98	0.00
63	P	4-Methyl-2-pentanone	0.4208	0.4027		4.3	92	0.00
64	s	SURR3,Toluene-d8	1.2055	1.2417		-3.0	101	0.00
65	P	Toluene	1.5586	1.5635		-0.3	97	0.00
66	P	trans-1,3-Dichloropropene	0.4066	0.4397	+7.7	~~8.1~~	96	0.00
67		Ethyl Methacrylate	0.4605	0.4720	+0.0	~~2.5~~	91	0.00
68	P	1,1,2-Trichloroethane	0.3401	0.3350		1.5	95	0.00
69	s	SURR2,BFB	0.4669	0.4800		-2.8	101	0.00
70	i	d5-Chlorobenzene	1.0000	1.0000		0.0	100	0.00
71	P	Tetrachloroethene	0.3490	0.3460		0.9	98	0.00
72	P	2-Hexanone	0.3622	0.3166		12.6	89	0.00
73		1,3-Dichloropropane	0.6874	0.6585		4.2	94	0.00
74	P	Dibromochloromethane	0.3632	0.3714		-2.3	97	0.00
75		N-Butyl Acetate	0.6863	0.6709		2.2	90	0.00
76	P	1,2-Dibromoethane	0.3838	0.3837		0.0	96	0.00
77		3-Chlorobenzotrifluoride	0.6646	0.6218		6.4	95	0.00
78	P	Chlorobenzene	1.1607	1.1294		2.7	97	0.00
79		4-Chlorobenzotrifluoride	0.5853	0.5656		3.4	96	0.00
80		1,1,1,2-Tetrachloroethane	0.3564	0.3601		-1.0	97	0.00
81	P	Ethylbenzene	0.6038	0.6069		-0.5	98	0.00
82	P	(m+p)Xylene	0.7415	0.7560		-2.0	96	0.00
83	P	o-Xylene	0.7117	0.7320		-2.9	97	0.00
84	P	Styrene	1.2141	1.2446		-2.5	97	0.00
85	P	Bromoform	0.2343	0.2507	+3.8	~~7.0~~	94	0.00
86		2-Chlorobenzotrifluoride	0.6386	0.6085		4.7	95	0.00
87	P	Isopropylbenzene	1.8791	1.9315		-2.8	97	0.00
88		Cyclohexanone	0.1217	0.1158		4.8	87	0.00
89		trans-1,4-Dichloro-2-Butene	0.1069	0.1112	-6.6	~~4.0~~	93	0.00
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000		0.0	102	0.00
91	P	1,1,2,2-Tetrachloroethane	1.0198	0.9610		5.8	93	0.00
92		Bromobenzene	0.8867	0.8754		1.3	94	0.00
93		1,2,3-Trichloropropane	0.3099	0.2736		11.7	91	0.00
94		n-Propylbenzene	4.0027	4.1477		-3.6	96	0.00
95		2-Chlorotoluene	2.4072	2.3635		1.8	95	0.00
96		3-Chlorotoluene	2.3624	2.4116		-2.1	101	0.00
97		4-Chlorotoluene	2.8320	2.7709		2.2	96	0.00
98		1,3,5-Trimethylbenzene	2.7384	2.8280		-3.3	96	0.00
99		tert-Butylbenzene	2.4548	2.4371		0.7	97	0.00
100		1,2,4-Trimethylbenzene	2.7242	2.8204		-3.5	97	0.00
101		3,4-Dichlorobenzotrifluorid	0.9749	0.9349		4.1	96	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1414.D
Acq On : 15 Feb 2018 9:51 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 10:05:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
102		sec-Butylbenzene	3.5243	3.7764	-7.2	99	0.00
103		p-Isopropyltoluene	2.8968	3.0870	-6.6	98	0.00
104	P	1,3-Dclbenz	1.7133	1.6980	0.9	99	0.00
105	P	1,4-Dclbenz	1.8057	1.7329	4.0	97	0.00
106		2,4-Dichlorobenzotrifluorid	0.8899	0.8459	4.9	98	0.00
107		2,5-Dichlorobenzotrifluorid	0.9780	0.9333	4.6	95	0.00
108		n-Butylbenzene	2.6759	2.9031	+6.6 ~~-8.5~~	97	0.00
109	P	1,2-Dclbenz	1.7260	1.6562	4.0	97	0.00
110	P	1,2-Dibromo-3-chloropropane	0.1891	0.1895	-1.6 ~~-0.2~~	93	0.00
111		Trielution Dichlorotoluene	1.4357	1.4260	0.7	97	0.00
112		1,3,5-Trichlorobenzene	1.3150	1.2661	3.7	97	0.00
113		Coelution Dichlorotoluene	1.5230	1.5361	-0.9	96	0.00
114	P	1,2,4-Tcbenzene	1.2625	1.2723	-0.8	96	0.00
115		Hexachlorobt	0.5489	0.5456	0.6	94	0.00
116		Naphthalen	2.8477	2.8858	-1.3	94	0.00
117		1,2,3-Tclbenzene	1.2165	1.2041	1.0	96	0.00
118		2,4,5-Trichlorotoluene	0.7855	0.7812	0.5	95	0.00
119		2,3,6-Trichlorotoluene	0.6967	0.7194	-3.3	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1414.D
Acq On : 15 Feb 2018 9:51 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 10:05:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	210113	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	310461	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	279305	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	158345	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.244	113	95395	50.22	ug/L		0.01
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.44%				
46) surr1,1,2-dichloroetha...	5.781	65	112075	51.03	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.06%				
64) SURR3,Toluene-d8	8.311	98	385492	51.50	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.00%				
69) SURR2,BFB	10.877	95	149035	51.40	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	148772	49.39	ug/L		99
3) Chloromethane	1.282	50	157079	47.33	ug/L		98
4) Vinyl Chloride	1.361	62	156427	50.01	ug/L		99
5) Bromomethane	1.587	94	108789	48.40	ug/L		94
6) Chloroethane	1.666	64	97821	49.52	ug/L		98
7) Freon 21	1.812	67	241191	50.13	ug/L		100
8) Trichlorofluoromethane	1.861	101	174854	49.20	ug/L		96
9) Diethyl Ether	2.093	59	103506	50.42	ug/L		98
10) Freon 123a	2.099	67	143241	51.42	ug/L		97
11) Freon 123	2.147	83	152211	47.74	ug/L		96
12) Acrolein	2.190	56	130032	221.38	ug/L		100
13) 1,1-Diclethene	2.282	96	99656	48.44	ug/L	#	83
14) Freon 113	2.288	101	109649	48.79	ug/L		92
15) Acetone	2.324	43	51830	47.27	ug/L		94
16) 2-Propanol	2.464	45	153545	871.79	ug/L		97
17) Iodomethane	2.416	142	141744	47.16	ug/L		97
18) Carbon Disulfide	2.477	76	295375	51.35	ug/L		100
19) Acetonitrile	2.574	40	52337	237.13	ug/L		99
20) Allyl Chloride	2.617	76	54137	51.25	ug/L	#	77
21) Methyl Acetate	2.635	43	105231	47.59	ug/L		98
22) Methylene Chloride	2.733	84	113254	48.65	ug/L		93
23) TBA	2.861	59	219690	844.11	ug/L		82
24) Acrylonitrile	2.989	53	272346	243.06	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	309530	47.67	ug/L		96
26) trans-1,2-Dichloroethene	3.025	96	108814	48.03	ug/L		92
27) 1,1-Diclethane	3.525	63	197158	49.00	ug/L		97
28) Vinyl Acetate	3.617	86	21730	46.83	ug/L	#	85
29) DIPE	3.653	45	368900	49.09	ug/L		94
30) 2-Chloro-1,3-Butadiene	3.653	53	182838	51.94	ug/L		95
31) ETBE	4.184	59	282524	47.21	ug/L		99
32) 2,2-Dichloropropane	4.360	77	109109	48.07	ug/L		97
33) cis-1,2-Dichloroethene	4.367	96	118759	48.02	ug/L		90
34) 2-Butanone	4.415	43	67458	45.17	ug/L		99
35) Propionitrile	4.495	54	106577	233.27	ug/L		96
36) Bromochloromethane	4.769	130	74014	47.98	ug/L		96
37) Methacrylonitrile	4.769	67	53731	49.25	ug/L		93
38) Tetrahydrofuran	4.854	42	40520	47.16	ug/L		92
39) Chloroform	4.946	83	190085	48.86	ug/L		95
40) 1,1,1-Trichloroethane	5.250	97	146707	50.82	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1414.D
Acq On : 15 Feb 2018 9:51 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 10:05:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	113151	51.63	ug/L		99
44) Carbontetrachloride	5.531	117	117015	52.80	ug/L		95
45) 1,1-Dichloropropene	5.543	75	153192	49.07	ug/L		96
47) Benzene	5.860	78	445902	49.09	ug/L		98
48) 1,2-Dichloroethane	5.903	62	155301	49.80	ug/L		99
49) Iso-Butyl Alcohol	5.878	43	107482	791.24	ug/L		94
50) TAME	6.104	73	264213	47.92	ug/L		99
51) n-Heptane	6.354	43	160994	52.33	ug/L		99
52) 1-Butanol	6.854	56	167864	2130.58	ug/L		100
53) Trichloroethene	6.817	130	116467	47.45	ug/L		96
54) Methylcyclohexane	7.055	55	152580	52.33	ug/L		95
55) 1,2-Diclpropane	7.098	63	118619	49.84	ug/L		97
56) Dibromomethane	7.238	93	71854	48.41	ug/L	#	84
57) 1,4-Dioxane	7.299	88	35531	932.64	ug/L		88
58) Methyl Methacrylate	7.329	69	83260	47.06	ug/L		94
59) Bromodichloromethane	7.470	83	138053	50.54	ug/L		95
60) 2-Nitropropane	7.750	41	49065	97.31	ug/L		99
61) 2-Chloroethylvinyl Ether	7.878	63	21823	39.01	ug/L		92
62) cis-1,3-Dichloropropene	8.012	75	168723	53.36	ug/L		99
63) 4-Methyl-2-pentanone	8.219	43	125027	47.85	ug/L		95
65) Toluene	8.384	91	485409	50.16	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	136503	53.83	ug/L		96
67) Ethyl Methacrylate	8.799	69	146545	50.02	ug/L		95
68) 1,1,2-Trichloroethane	8.841	97	104002	49.24	ug/L		94
71) Tetrachloroethene	8.975	164	96651	49.57	ug/L		96
72) 2-Hexanone	9.134	43	88428	43.71	ug/L		95
73) 1,3-Dichloropropane	9.012	76	183925	47.90	ug/L		99
74) Dibromochloromethane	9.238	129	103739	51.13	ug/L		97
75) N-Butyl Acetate	9.292	43	187385	48.88	ug/L		98
76) 1,2-Dibromoethane	9.335	107	107163	49.98	ug/L		100
77) 3-Chlorobenzotrifluoride	9.847	180	173680	46.78	ug/L		97
78) Chlorobenzene	9.829	112	315436	48.65	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	157981	48.32	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.920	131	100582	50.52	ug/L		96
81) Ethylbenzene	9.951	106	169508	50.26	ug/L		98
82) (m+p)Xylene	10.061	106	422329	101.95	ug/L		93
83) o-Xylene	10.420	106	204442	51.42	ug/L		98
84) Styrene	10.432	104	347623	51.26	ug/L		98
85) Bromoform	10.585	173	70019	51.89	ug/L		96
86) 2-Chlorobenzotrifluoride	10.664	180	169963	47.65	ug/L		94
87) Isopropylbenzene	10.756	105	539478	51.39	ug/L		99
88) Cyclohexanone	10.816	55	647039	951.61	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.066	53	31070	46.71	ug/L		97
91) 1,1,2,2-Tetrachloroethane	11.012	83	152174	47.12	ug/L		99
92) Bromobenzene	10.999	156	138609	49.36	ug/L	#	87
93) 1,2,3-Trichloropropane	11.042	110	43326	44.15	ug/L		93
94) n-Propylbenzene	11.109	91	656768	51.81	ug/L		98
95) 2-Chlorotoluene	11.176	91	374254	49.09	ug/L		98
96) 3-Chlorotoluene	11.225	91	381868	51.04	ug/L		98
97) 4-Chlorotoluene	11.268	91	438751	48.92	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	447799	51.64	ug/L		99
99) tert-Butylbenzene	11.536	119	385909	49.64	ug/L		100
100) 1,2,4-Trimethylbenzene	11.572	105	446597	51.77	ug/L		97
101) 3,4-Dichlorobenzotrifl...	11.633	214	148037	47.95	ug/L		97
102) sec-Butylbenzene	11.719	105	597967	53.58	ug/L		99
103) p-Isopropyltoluene	11.841	119	488805	53.28	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1414.D
Acq On : 15 Feb 2018 9:51 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 10:05:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

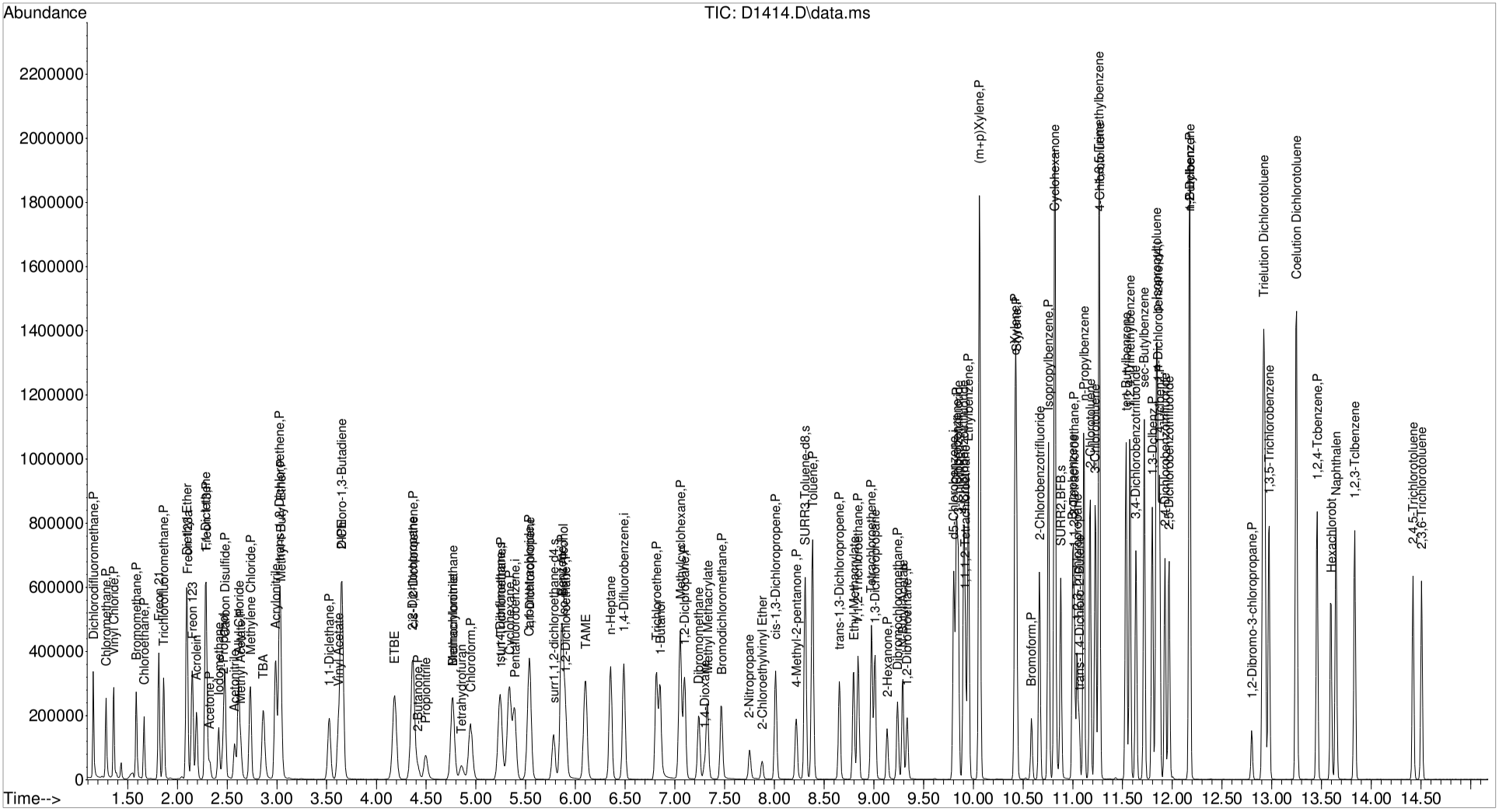
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	268876	49.56	ug/L	98
105) 1,4-Dclbenz	11.871	146	274400	47.99	ug/L	95
106) 2,4-Dichlorobenzotrifl...	11.926	214	133951	47.53	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	147783	47.72	ug/L	96
108) n-Butylbenzene	12.176	91	459690	53.32	ug/L	96
109) 1,2-Dclbenz	12.176	146	262246	47.98	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	29999	49.19	ug/L	96
111) Trielution Dichlorotol...	12.920	125	677396	148.99	ug/L	98
112) 1,3,5-Trichlorobenzene	12.975	180	200485	48.14	ug/L	95
113) Coelution Dichlorotoluene	13.249	125	486474	100.86	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	201458	50.39	ug/L	99
115) Hexachlorobt	13.596	225	86391	49.70	ug/L	93
116) Naphthalen	13.645	128	456948	50.67	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	190660	49.49	ug/L	99
118) 2,4,5-Trichlorotoluene	14.419	159	123697	49.73	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	113910	51.63	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1414.D
Acq On : 15 Feb 2018 9:51 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 10:05:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/16/18
2nd FJ 02/17/18

1st DL 02/21/18
2nd 02/21/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1445.D
Acq On : 16 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:00:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	i	Pentafluorobenzene	1.0000	1.0000	0.0	102	0.00
2	P	Dichlorodifluoromethane	0.7168	0.7092	1.1	95	0.00
3	P	Chloromethane	0.7898	0.7394	6.4	95	0.00
4	P	Vinyl Chloride	0.7443	0.7540	-1.3	97	0.00
5	P	Bromomethane	0.6377	0.4600	-15.4 ~~27.9#~~	87	0.00
6	P	Chloroethane	0.4700	0.4585	2.4	98	0.00
7		Freon 21	1.1450	1.1559	-1.0	102	0.00
8	P	Trichlorofluoromethane	0.8457	0.8057	4.7	95	0.00
9		Diethyl Ether	0.4886	0.4969	-1.7	105	0.00
10		Freon 123a	0.6629	0.6976	-5.2	107	0.00
11		Freon 123	0.7588	0.7454	1.8	104	0.00
12		Acrolein	0.1398	0.1232	11.9	90	0.00
13		1,1-Diclethene	0.4896	0.4774	2.5	96	0.00
14	P	Freon 113	0.5348	0.5206	2.7	97	0.00
15	P	Acetone	0.2609	0.2423	7.1	95	0.00
16		2-Propanol	0.0419	0.0390	6.9	88	0.00
17		Iodomethane	0.6650	0.7677	+6.3 ~~15.4~~	103	0.00
18	P	Carbon Disulfide	1.3690	1.3488	1.5	99	0.00
19		Acetonitrile	0.0525	0.0504	4.0	94	0.00
20		Allyl Chloride	0.2514	0.2545	-1.2	98	0.01
21	P	Methyl Acetate	0.5262	0.5270	-0.2	101	0.00
22	P	Methylene Chloride	0.5540	0.5182	6.5	95	0.00
23		TBA	0.0619	0.0556	10.2	86	0.00
24		Acrylonitrile	0.2666	0.2629	1.4	96	0.00
25	P	Methyl-t-Butyl Ether	1.5451	1.4848	3.9	95	0.00
26	P	trans-1,2-Dichloroethene	0.5391	0.5044	6.4	96	0.00
27	P	1,1-Diclethane	0.9576	0.9367	2.2	98	0.00
28		Vinyl Acetate	0.1104	0.1004	9.1	90	0.00
29		DIPE	1.7882	1.7875	0.0	100	0.00
30		2-Chloro-1,3-Butadiene	0.8376	0.8700	-3.9	102	0.00
31		ETBE	1.4241	1.3824	2.9	96	0.01
32		2,2-Dichloropropane	0.5401	0.5165	4.4	94	0.00
33	P	cis-1,2-Dichloroethene	0.5885	0.5657	3.9	95	0.01
34	P	2-Butanone	0.3554	0.3350	5.7	96	0.00
35		Propionitrile	0.1087	0.1022	6.0	93	0.00
36		Bromochloromethane	0.3671	0.3539	3.6	96	0.00
37		Methacrylonitrile	0.2596	0.2460	5.2	91	0.01
38		Tetrahydrofuran	0.2045	0.1936	5.3	92	0.00
39	P	Chloroform	0.9259	0.8896	3.9	96	0.00
40	P	1,1,1-Trichloroethane	0.6870	0.6808	0.9	96	0.00
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	101	0.00
42	P	Cyclohexane	0.3529	0.3612	-2.4	105	0.00
43	s	surr4,Dibrflmethane	0.3059	0.3064	-0.2	98	0.00
44	P	Carbontetrachloride	0.3570	0.3555	0.4	92	0.00
45		1,1-Dichloropropene	0.5028	0.4981	0.9	98	0.00
46	s	surr1,1,2-dichloroethane-d4	0.3537	0.3625	-2.5	102	0.00
47	P	Benzene	1.4629	1.4224	2.8	96	0.00
48	P	1,2-Dichloroethane	0.5022	0.5091	-1.4	100	0.00
49		Iso-Butyl Alcohol	0.0195	0.0180	-17.7 ~~7.7~~	88	0.00
50		TAME	0.8879	0.8572	3.5	95	0.00
51		n-Heptane	0.4954	0.5105	-3.0	100	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1445.D
Acq On : 16 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:00:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52		1-Butanol	0.0112	0.0114	-10.6 ~~-1.8~~	89	0.00
53	P	Trichloroethene	0.3953	0.3587	9.3	92	0.00
54	P	Methylcyclohexane	0.4695	0.4902	-4.4	104	0.01
55	P	1,2-Diclpropane	0.3833	0.3725	2.8	97	0.00
56		Dibromomethane	0.2390	0.2314	3.2	97	0.00
57		1,4-Dioxane	0.0061	0.0059	3.3	91	-0.01
58		Methyl Methacrylate	0.2693	0.2744	-3.8 ~~-1.9~~	91	0.00
59	P	Bromodichloromethane	0.4399	0.4218	4.1	92	0.00
60		2-Nitropropane	0.0812	0.0748	7.9	91	0.00
61		2-Chloroethylvinyl Ether	0.0936	0.0640	-28.3 ~~31.6#~~	64	0.00
62	P	cis-1,3-Dichloropropene	0.5092	0.5358	-5.2	98	0.00
63	P	4-Methyl-2-pentanone	0.4208	0.4147	1.4	96	0.00
64	s	SURR3,Toluene-d8	1.2055	1.2231	-1.5	101	0.00
65	P	Toluene	1.5586	1.5622	-0.2	98	0.00
66	P	trans-1,3-Dichloropropene	0.4066	0.4344	-6.5 ~~-6.8~~	96	0.00
67		Ethyl Methacrylate	0.4605	0.4793	-1.5 ~~-4.1~~	94	0.00
68	P	1,1,2-Trichloroethane	0.3401	0.3371	0.9	97	0.00
69	s	SURR2,BFB	0.4669	0.4683	-0.3	99	0.00
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	100	0.00
71	P	Tetrachloroethene	0.3490	0.3259	6.6	93	0.00
72	P	2-Hexanone	0.3622	0.3385	6.5	95	0.00
73		1,3-Dichloropropane	0.6874	0.6707	2.4	95	0.00
74	P	Dibromochloromethane	0.3632	0.3615	0.5	94	0.00
75		N-Butyl Acetate	0.6863	0.7048	-2.7	94	0.00
76	P	1,2-Dibromoethane	0.3838	0.3878	-1.0	97	0.00
77		3-Chlorobenzotrifluoride	0.6646	0.6148	7.5	94	0.00
78	P	Chlorobenzene	1.1607	1.1279	2.8	97	0.00
79		4-Chlorobenzotrifluoride	0.5853	0.5517	5.7	94	0.00
80		1,1,1,2-Tetrachloroethane	0.3564	0.3538	0.7	95	0.00
81	P	Ethylbenzene	0.6038	0.6095	-0.9	98	0.00
82	P	(m+p)Xylene	0.7415	0.7533	-1.6	96	0.00
83	P	o-Xylene	0.7117	0.7235	-1.7	96	0.00
84	P	Styrene	1.2141	1.2450	-2.5	97	0.00
85	P	Bromoform	0.2343	0.2383	-0.9 ~~-1.7~~	90	0.00
86		2-Chlorobenzotrifluoride	0.6386	0.6059	5.1	95	0.00
87	P	Isopropylbenzene	1.8791	1.9185	-2.1	96	0.00
88		Cyclohexanone	0.1217	0.1159	4.8	87	0.00
89		trans-1,4-Dichloro-2-Butene	0.1069	0.1104	-7.2 ~~-3.3~~	93	0.00
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	103	0.00
91	P	1,1,2,2-Tetrachloroethane	1.0198	0.9773	4.2	96	0.00
92		Bromobenzene	0.8867	0.8606	2.9	93	0.00
93		1,2,3-Trichloropropane	0.3099	0.2790	10.0	94	0.00
94		n-Propylbenzene	4.0027	4.0877	-2.1	96	0.00
95		2-Chlorotoluene	2.4072	2.3343	3.0	95	0.00
96		3-Chlorotoluene	2.3624	2.2547	4.6	96	0.00
97		4-Chlorotoluene	2.8320	2.8078	0.9	98	0.00
98		1,3,5-Trimethylbenzene	2.7384	2.7919	-2.0	96	0.00
99		tert-Butylbenzene	2.4548	2.3821	3.0	96	0.00
100		1,2,4-Trimethylbenzene	2.7242	2.7190	0.2	95	0.00
101		3,4-Dichlorobenzotrifluorid	0.9749	0.8980	7.9	94	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1445.D
Acq On : 16 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:00:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
102		sec-Butylbenzene	3.5243	3.6222	-2.8	96	0.00
103		p-Isopropyltoluene	2.8968	3.0111	-3.9	97	0.00
104	P	1,3-Dclbenz	1.7133	1.6481	3.8	97	0.00
105	P	1,4-Dclbenz	1.8057	1.6675	7.7	95	0.00
106		2,4-Dichlorobenzotrifluorid	0.8899	0.8424	5.3	99	0.00
107		2,5-Dichlorobenzotrifluorid	0.9780	0.8968	8.3	93	0.00
108		n-Butylbenzene	2.6759	2.8700	+5.5 ~~-7.3~~	97	0.00
109	P	1,2-Dclbenz	1.7260	1.6184	6.2	96	0.00
110	P	1,2-Dibromo-3-chloropropane	0.1891	0.1868	-2.9 ~~-1.2~~	93	0.00
111		Trielution Dichlorotoluene	1.4357	1.3791	3.9	95	0.00
112		1,3,5-Trichlorobenzene	1.3150	1.2464	5.2	97	0.00
113		Coelution Dichlorotoluene	1.5230	1.5108	0.8	96	0.00
114	P	1,2,4-Tcbenzene	1.2625	1.2403	1.8	94	0.00
115		Hexachlorobt	0.5489	0.5338	2.8	94	0.00
116		Naphthalen	2.8477	2.8330	0.5	93	0.00
117		1,2,3-Tclbenzene	1.2165	1.1705	3.8	94	0.00
118		2,4,5-Trichlorotoluene	0.7855	0.7833	0.3	96	0.00
119		2,3,6-Trichlorotoluene	0.6967	0.6972	-0.1	94	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1445.D
Acq On : 16 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:00:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	212164	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	314380	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	279367	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	160349	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.232	113	96315	50.08	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.16%			
46) surr1,1,2-dichloroetha...	5.781	65	113968	51.25	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 102.50%			
64) SURR3,Toluene-d8	8.311	98	384519	50.73	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.46%			
69) SURR2,BFB	10.877	95	147227	50.15	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 100.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	150462	49.47	ug/L	98
3) Chloromethane	1.282	50	156875	46.81	ug/L	99
4) Vinyl Chloride	1.361	62	159962	50.65	ug/L	99
5) Bromomethane	1.587	94	97606	42.31	ug/L	96
6) Chloroethane	1.666	64	97285	48.78	ug/L	96
7) Freon 21	1.812	67	245244	50.47	ug/L	100
8) Trichlorofluoromethane	1.861	101	170949	47.64	ug/L	98
9) Diethyl Ether	2.093	59	105423	50.85	ug/L	99
10) Freon 123a	2.093	67	148000	52.61	ug/L	94
11) Freon 123	2.147	83	158140	49.12	ug/L	97
12) Acrolein	2.190	56	130745	220.45	ug/L	99
13) 1,1-Diclethene	2.282	96	101293	48.76	ug/L	91
14) Freon 113	2.288	101	110462	48.68	ug/L	93
15) Acetone	2.324	43	51401	46.43	ug/L	91
16) 2-Propanol	2.458	45	165415	930.11	ug/L	94
17) Iodomethane	2.416	142	162872	53.13	ug/L	100
18) Carbon Disulfide	2.477	76	286176	49.27	ug/L	99
19) Acetonitrile	2.574	40	53468	239.91	ug/L	99
20) Allyl Chloride	2.617	76	53986	50.62	ug/L #	80
21) Methyl Acetate	2.635	43	111819	50.08	ug/L	97
22) Methylene Chloride	2.733	84	109937	46.76	ug/L	90
23) TBA	2.861	59	236136	898.53	ug/L	84
24) Acrylonitrile	2.989	53	278930	246.53	ug/L	99
25) Methyl-t-Butyl Ether	3.038	73	315023	48.05	ug/L	94
26) trans-1,2-Dichloroethene	3.025	96	107020	46.78	ug/L #	87
27) 1,1-Diclethane	3.525	63	198743	48.91	ug/L	99
28) Vinyl Acetate	3.611	86	21297	45.45	ug/L #	93
29) DIPE	3.653	45	379236	49.98	ug/L	95
30) 2-Chloro-1,3-Butadiene	3.653	53	184573	51.93	ug/L	93
31) ETBE	4.184	59	293298	48.54	ug/L	99
32) 2,2-Dichloropropane	4.360	77	109586	47.82	ug/L	96
33) cis-1,2-Dichloroethene	4.373	96	120019	48.06	ug/L	93
34) 2-Butanone	4.415	43	71079	47.14	ug/L	97
35) Propionitrile	4.501	54	108446	235.07	ug/L	96
36) Bromochloromethane	4.763	130	75082	48.20	ug/L	96
37) Methacrylonitrile	4.769	67	52195	47.38	ug/L	89
38) Tetrahydrofuran	4.860	42	41068	47.34	ug/L	92
39) Chloroform	4.946	83	188749	48.04	ug/L	96
40) 1,1,1-Trichloroethane	5.244	97	144439	49.55	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1445.D
Acq On : 16 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:00:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	113564	51.17	ug/L	99
44) Carbontetrachloride	5.531	117	111770	49.80	ug/L	92
45) 1,1-Dichloropropene	5.543	75	156596	49.53	ug/L	95
47) Benzene	5.860	78	447174	48.62	ug/L	97
48) 1,2-Dichloroethane	5.897	62	160039	50.68	ug/L	97
49) Iso-Butyl Alcohol	5.878	43	113437	823.09	ug/L	94
50) TAME	6.104	73	269489	48.27	ug/L	98
51) n-Heptane	6.354	43	160495	51.52	ug/L	98
52) 1-Butanol	6.854	56	179182	2234.55	ug/L	92
53) Trichloroethene	6.811	130	112782	45.37	ug/L	95
54) Methylcyclohexane	7.055	55	154123	52.20	ug/L	98
55) 1,2-Diclpropane	7.098	63	117118	48.60	ug/L	94
56) Dibromomethane	7.238	93	72738	48.40	ug/L	92
57) 1,4-Dioxane	7.299	88	36930	957.27	ug/L	98
58) Methyl Methacrylate	7.323	69	86256	48.10	ug/L	98
59) Bromodichloromethane	7.470	83	132602	47.94	ug/L	96
60) 2-Nitropropane	7.750	41	47044	92.14	ug/L	91
61) 2-Chloroethylvinyl Ether	7.878	63	20107	35.83	ug/L	95
62) cis-1,3-Dichloropropene	8.012	75	168447	52.61	ug/L	99
63) 4-Methyl-2-pentanone	8.219	43	130368	49.27	ug/L	98
65) Toluene	8.384	91	491111	50.12	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	136551	53.26	ug/L	97
67) Ethyl Methacrylate	8.799	69	150674	50.73	ug/L	97
68) 1,1,2-Trichloroethane	8.841	97	105964	49.55	ug/L	96
71) Tetrachloroethene	8.975	164	91052	46.69	ug/L	95
72) 2-Hexanone	9.134	43	94564	46.73	ug/L	97
73) 1,3-Dichloropropane	9.012	76	187375	48.78	ug/L	99
74) Dibromochloromethane	9.238	129	101005	49.77	ug/L	99
75) N-Butyl Acetate	9.292	43	196904	51.35	ug/L	98
76) 1,2-Dibromoethane	9.335	107	108340	50.52	ug/L	96
77) 3-Chlorobenzotrifluoride	9.847	180	171746	46.25	ug/L	96
78) Chlorobenzene	9.829	112	315102	48.59	ug/L	97
79) 4-Chlorobenzotrifluoride	9.902	180	154125	47.13	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	98839	49.63	ug/L	98
81) Ethylbenzene	9.951	106	170271	50.47	ug/L	95
82) (m+p)Xylene	10.061	106	420888	101.58	ug/L	94
83) o-Xylene	10.420	106	202128	50.83	ug/L	97
84) Styrene	10.432	104	347799	51.27	ug/L	97
85) Bromoform	10.585	173	66565	49.56	ug/L	91
86) 2-Chlorobenzotrifluoride	10.664	180	169261	47.44	ug/L	93
87) Isopropylbenzene	10.756	105	535966	51.05	ug/L	98
88) Cyclohexanone	10.817	55	647815	952.54	ug/L	100
89) trans-1,4-Dichloro-2-B...	11.060	53	30847	46.38	ug/L	94
91) 1,1,2,2-Tetrachloroethane	11.018	83	156715	47.92	ug/L	100
92) Bromobenzene	10.999	156	137993	48.53	ug/L	90
93) 1,2,3-Trichloropropane	11.042	110	44744	45.03	ug/L	91
94) n-Propylbenzene	11.109	91	655466	51.06	ug/L	98
95) 2-Chlorotoluene	11.176	91	374309	48.49	ug/L	98
96) 3-Chlorotoluene	11.225	91	361545	47.72	ug/L	99
97) 4-Chlorotoluene	11.268	91	450232	49.57	ug/L	95
98) 1,3,5-Trimethylbenzene	11.262	105	447682	50.98	ug/L	99
99) tert-Butylbenzene	11.536	119	381971	48.52	ug/L	99
100) 1,2,4-Trimethylbenzene	11.572	105	435984	49.90	ug/L	98
101) 3,4-Dichlorobenzotrifl...	11.633	214	143999	46.06	ug/L	97
102) sec-Butylbenzene	11.719	105	580822	51.39	ug/L	99
103) p-Isopropyltoluene	11.841	119	482834	51.97	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1445.D
Acq On : 16 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:00:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	264265	48.10	ug/L	94
105) 1,4-Dclbenz	11.871	146	267387	46.18	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	135071	47.33	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	143794	45.85	ug/L	96
108) n-Butylbenzene	12.176	91	460205	52.75	ug/L	98
109) 1,2-Dclbenz	12.176	146	259504	46.88	ug/L	96
110) 1,2-Dibromo-3-chloropr...	12.798	157	29947	48.55	ug/L	92
111) Trielution Dichlorotol...	12.920	125	663396	144.08	ug/L	100
112) 1,3,5-Trichlorobenzene	12.975	180	199867	47.39	ug/L	96
113) Coelution Dichlorotoluene	13.249	125	484496	99.20	ug/L	99
114) 1,2,4-Tcbenzene	13.456	180	198873	49.12	ug/L	99
115) Hexachlorobt	13.596	225	85596	48.63	ug/L	98
116) Naphthalen	13.645	128	454264	49.74	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	187682	48.11	ug/L	97
118) 2,4,5-Trichlorotoluene	14.419	159	125596	49.86	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	111789	50.03	ug/L	99

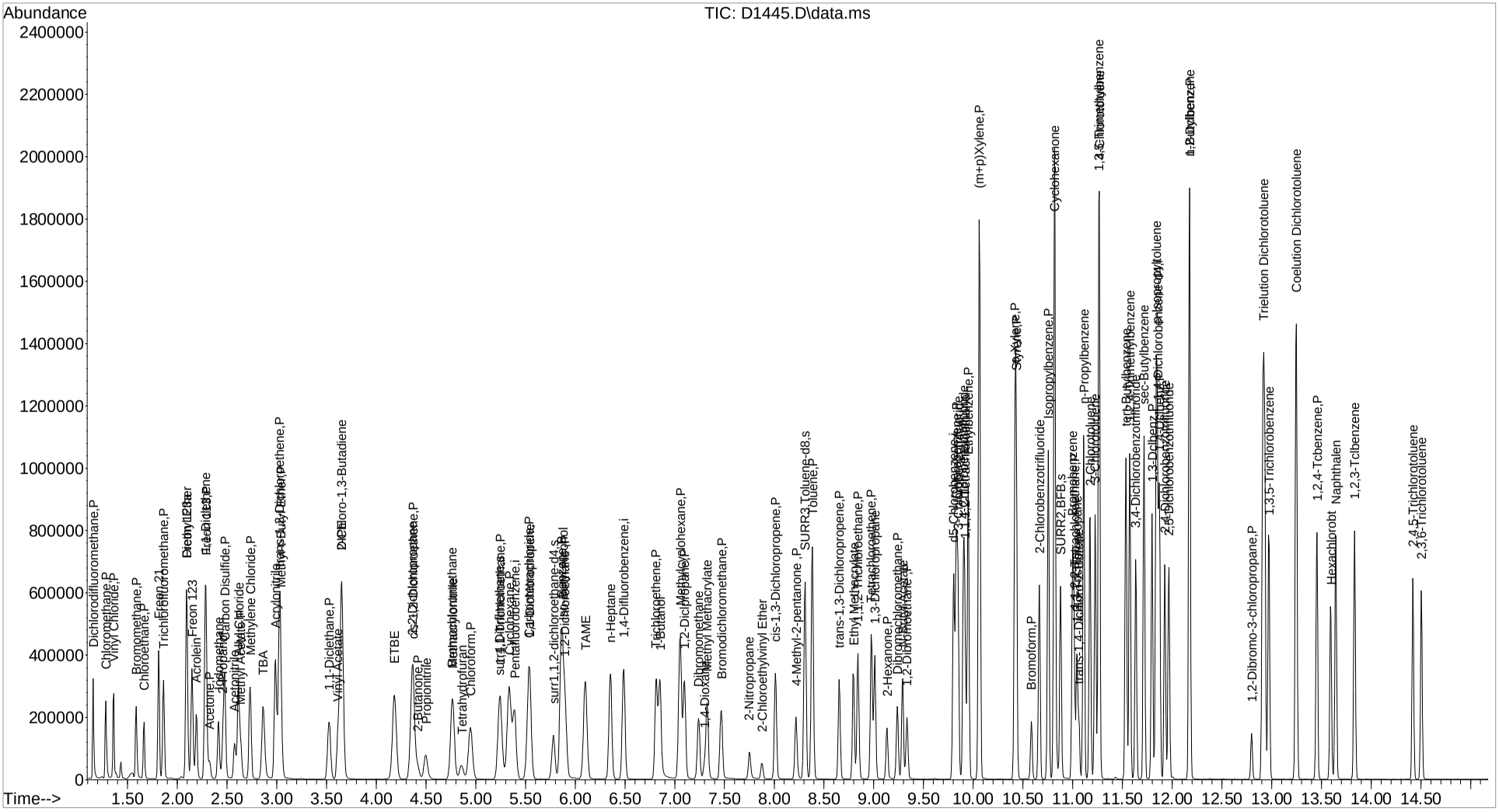
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1445.D
Acq On : 16 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:00:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

1st DL 02/21/18
2nd 02/21/18

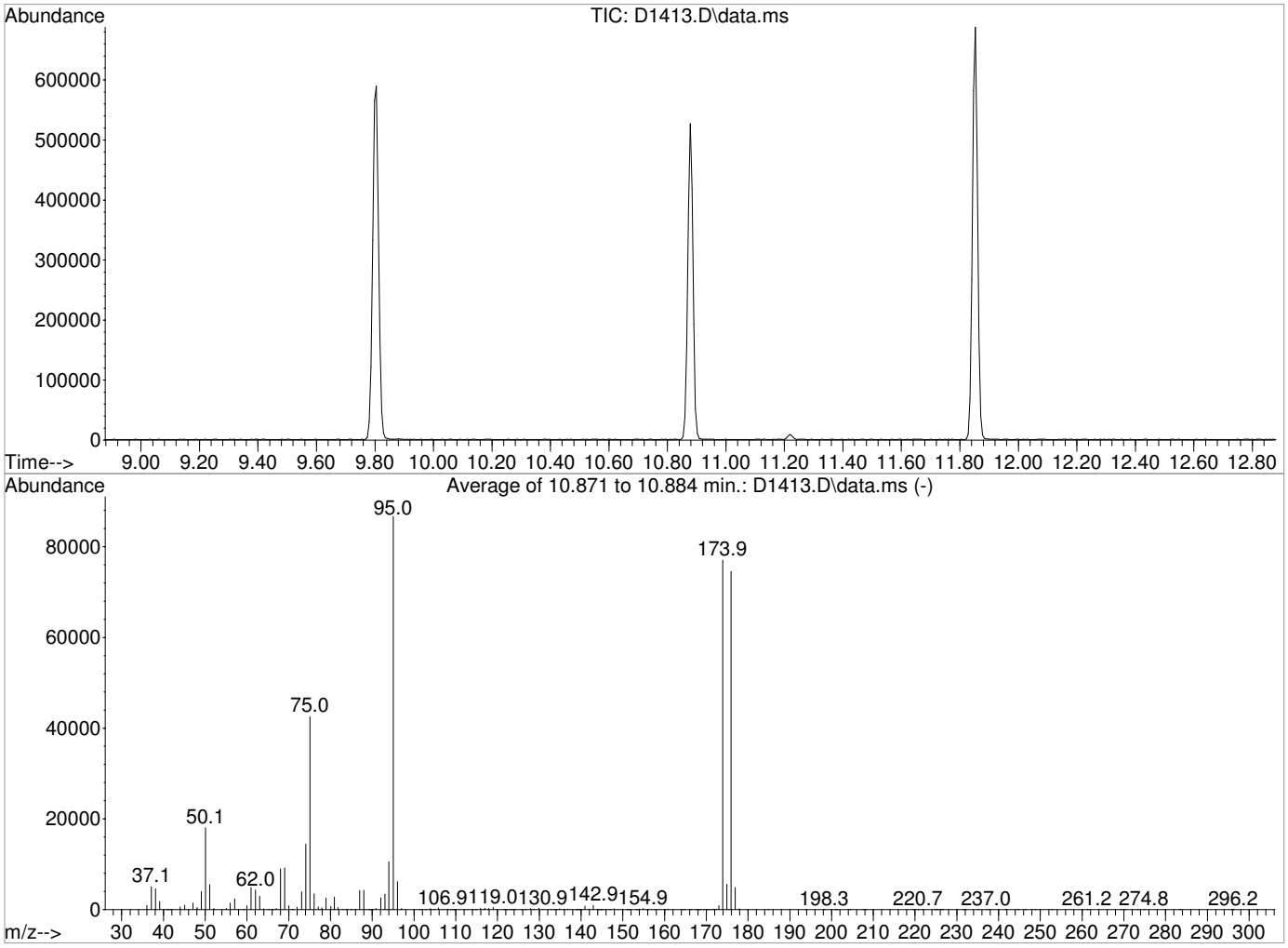


1st DL 02/16/18
2nd FJ 02/17/18

Data Path : I:\ACQUDATA\msvoa10\data\021518\
Data File : D1413.D
Acq On : 15 Feb 2018 8:59 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Feb 14 15:09:58 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

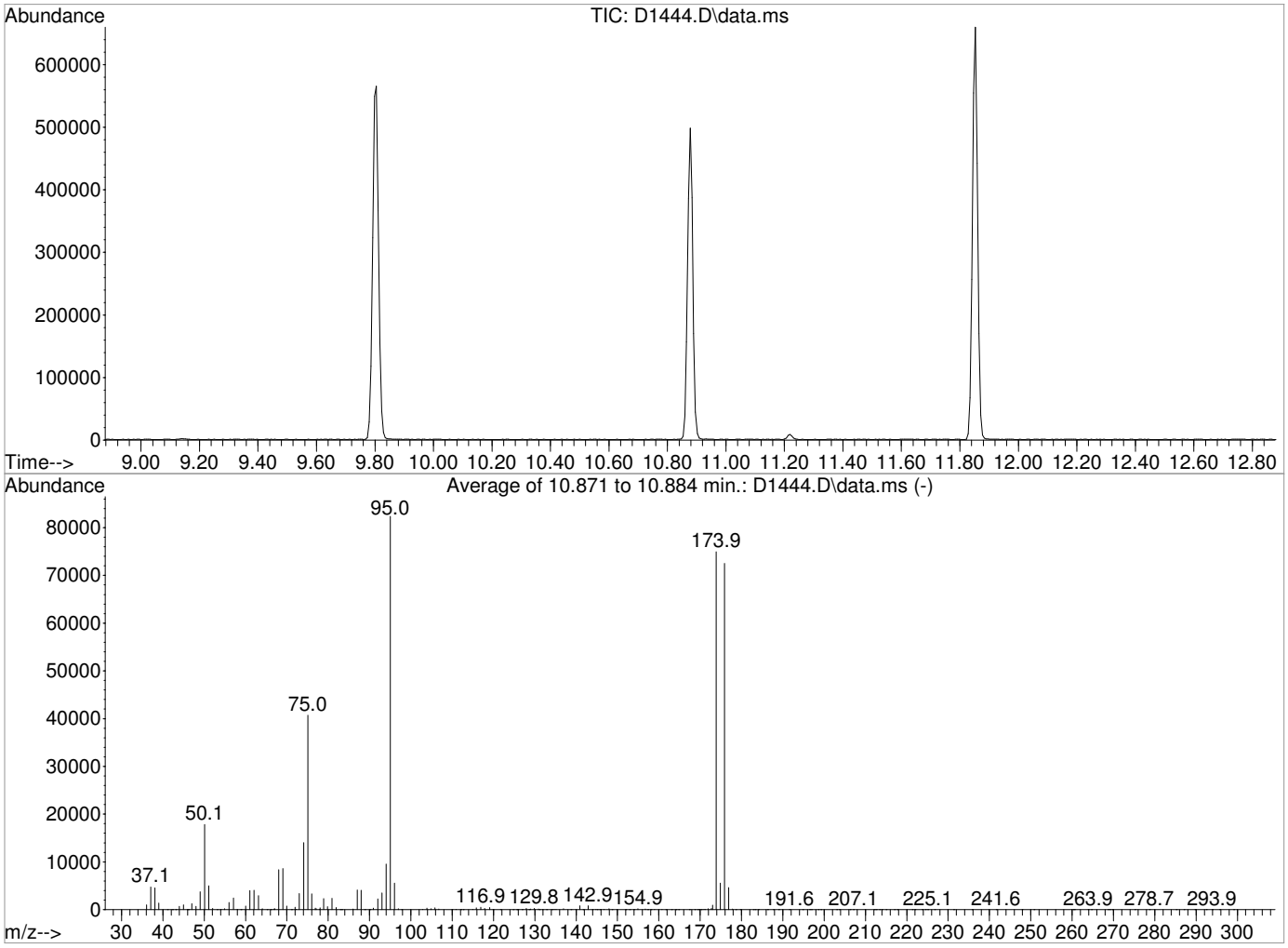
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	18054	PASS
75	95	30	60	49.1	42549	PASS
95	95	100	100	100.0	86693	PASS
96	95	5	9	7.1	6153	PASS
173	174	0.00	2	1.1	869	PASS
174	95	50	120	88.9	77069	PASS
175	174	5	9	7.2	5578	PASS
176	174	95	101	96.7	74541	PASS
177	176	5	9	6.5	4863	PASS

1st DL 02/21/18
2nd 02/21/18

Data Path : I:\ACQUDATA\msvoa10\data\021618\
Data File : D1444.D
Acq On : 16 Feb 2018 9:04 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Feb 14 15:09:58 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.7	17859	PASS
75	95	30	60	49.4	40723	PASS
95	95	100	100	100.0	82368	PASS
96	95	5	9	6.7	5538	PASS
173	174	0.00	2	1.3	968	PASS
174	95	50	120	91.0	74971	PASS
175	174	5	9	7.4	5564	PASS
176	174	95	101	96.7	72531	PASS
177	176	5	9	6.3	4601	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	232273	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	340229	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	302798	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	172219	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	101681	48.85	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.70%			
46) surr1,1,2-dichloroetha...	5.775	65	119691	49.73	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.46%			
64) SURR3,Toluene-d8	8.305	98	407839	49.72	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.44%			
69) SURR2,BFB	10.878	95	156263	49.18	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.36%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	146811	44.09	ug/L	98
3) Chloromethane	1.282	50	162237	44.22	ug/L	97
4) Vinyl Chloride	1.355	62	164949	47.71	ug/L	97
5) Bromomethane	1.581	94	118709	47.69	ug/L	98
6) Chloroethane	1.660	64	97463	44.64	ug/L	96
7) Freon 21	1.812	67	257013	48.32	ug/L	98
8) Trichlorofluoromethane	1.861	101	193348	49.21	ug/L	98
9) Diethyl Ether	2.093	59	105960	46.69	ug/L	98
10) Freon 123a	2.093	67	161529	52.45	ug/L	99
11) Freon 123	2.148	83	169831	48.18	ug/L	95
12) Acrolein	2.190	56	48671	74.96	ug/L	95
13) 1,1-Diclethene	2.282	96	105380	46.33	ug/L	89
14) Freon 113	2.288	101	110473	44.47	ug/L	92
15) Acetone	2.324	43	54546	45.00	ug/L	93
16) 2-Propanol	2.459	45	178398	916.26	ug/L	99
17) Iodomethane	2.416	142	151329	45.67	ug/L	95
18) Carbon Disulfide	2.477	76	307640	48.38	ug/L	99
19) Acetonitrile	2.574	40	57807	236.92	ug/L	94
20) Allyl Chloride	2.611	76	58335	49.96	ug/L #	78
21) Methyl Acetate	2.635	43	109364	44.74	ug/L	98
22) Methylene Chloride	2.727	84	120072	46.65	ug/L	94
23) TBA	2.861	59	259746	902.80	ug/L	89
24) Acrylonitrile	2.983	53	287838	232.38	ug/L	100
25) Methyl-t-Butyl Ether	3.032	73	339231	47.26	ug/L	96
26) trans-1,2-Dichloroethene	3.026	96	117600	46.96	ug/L	94
27) 1,1-Diclethane	3.525	63	213190	47.93	ug/L	99
28) Vinyl Acetate	3.617	86	24981	48.69	ug/L #	87
29) DIPE	3.647	45	397292	47.83	ug/L	91
30) 2-Chloro-1,3-Butadiene	3.647	53	192806	49.55	ug/L	88
31) ETBE	4.178	59	321379	48.58	ug/L	97
32) 2,2-Dichloropropane	4.361	77	127937	50.99	ug/L	99
33) cis-1,2-Dichloroethene	4.367	96	131987	48.28	ug/L #	82
34) 2-Butanone	4.409	43	72525	43.93	ug/L	99
35) Propionitrile	4.489	54	112007	221.77	ug/L	96
36) Bromochloromethane	4.763	130	80887	47.43	ug/L	98
37) Methacrylonitrile	4.763	67	57634	47.78	ug/L	90
38) Tetrahydrofuran	4.854	42	41831	44.04	ug/L	98
39) Chloroform	4.946	83	205736	47.83	ug/L	98
40) 1,1,1-Trichloroethane	5.245	97	159312	49.92	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.330	41	114734	47.77	ug/L	95
44) Carbontetrachloride	5.525	117	124460	51.24	ug/L	97
45) 1,1-Dichloropropene	5.537	75	164306	48.03	ug/L	96
47) Benzene	5.860	78	481121	48.33	ug/L	98
48) 1,2-Dichloroethane	5.897	62	169079	49.47	ug/L	95
49) Iso-Butyl Alcohol	5.879	43	122516	821.51	ug/L	97
50) TAME	6.098	73	305072	50.49	ug/L	98
51) n-Heptane	6.348	43	165991	49.24	ug/L	100
52) 1-Butanol	6.848	56	186428	2156.45	ug/L	97
53) Trichloroethene	6.811	130	125724	46.74	ug/L	94
54) Methylcyclohexane	7.049	55	160504	50.24	ug/L	93
55) 1,2-Diclpropane	7.098	63	126094	48.35	ug/L	99
56) Dibromomethane	7.238	93	77308	47.53	ug/L	93
57) 1,4-Dioxane	7.299	88	39456	945.05	ug/L	92
58) Methyl Methacrylate	7.324	69	95267	49.05	ug/L	98
59) Bromodichloromethane	7.464	83	149174	49.84	ug/L	96
60) 2-Nitropropane	7.750	41	48212	87.25	ug/L	100
61) 2-Chloroethylvinyl Ether	7.872	63	25807	41.75	ug/L	98
62) cis-1,3-Dichloropropene	8.012	75	182995	52.81	ug/L	99
63) 4-Methyl-2-pentanone	8.220	43	130523	45.58	ug/L	99
65) Toluene	8.384	91	518977	48.94	ug/L	99
66) trans-1,3-Dichloropropene	8.653	75	150724	49.30	ug/L	98
67) Ethyl Methacrylate	8.793	69	172067	53.30	ug/L	96
68) 1,1,2-Trichloroethane	8.841	97	113765	49.15	ug/L	95
71) Tetrachloroethene	8.976	164	102600	48.54	ug/L	96
72) 2-Hexanone	9.134	43	95328	43.46	ug/L	97
73) 1,3-Dichloropropane	9.012	76	197370	47.41	ug/L	99
74) Dibromochloromethane	9.238	129	111030	50.48	ug/L	99
75) N-Butyl Acetate	9.287	43	204944	49.31	ug/L	96
76) 1,2-Dibromoethane	9.335	107	115175	49.55	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	191729	47.63	ug/L	95
78) Chlorobenzene	9.829	112	339070	48.24	ug/L	97
79) 4-Chlorobenzotrifluoride	9.902	180	171450	48.37	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.914	131	109643	50.80	ug/L	98
81) Ethylbenzene	9.951	106	179884	49.20	ug/L	93
82) (m+p)Xylene	10.061	106	444717	99.03	ug/L	93
83) o-Xylene	10.420	106	217144	50.38	ug/L	99
84) Styrene	10.433	104	370776	50.43	ug/L	99
85) Bromoform	10.585	173	73483	50.39	ug/L	87
86) 2-Chlorobenzotrifluoride	10.664	180	185728	48.03	ug/L	98
87) Isopropylbenzene	10.756	105	563493	49.52	ug/L	99
88) Cyclohexanone	10.817	55	525697	713.16	ug/L	99
89) trans-1,4-Dichloro-2-B...	11.061	53	37167	51.29	ug/L	94
91) 1,1,2,2-Tetrachloroethane	11.012	83	166731	47.47	ug/L	98
92) Bromobenzene	11.000	156	149364	48.91	ug/L	91
93) 1,2,3-Trichloropropane	11.042	110	46856	43.90	ug/L	97
94) n-Propylbenzene	11.109	91	683806	49.60	ug/L	99
95) 2-Chlorotoluene	11.170	91	413620	49.89	ug/L	100
96) 3-Chlorotoluene	11.225	91	401953	49.40	ug/L	98
97) 4-Chlorotoluene	11.268	91	478595	49.06	ug/L	95
98) 1,3,5-Trimethylbenzene	11.262	105	487787	51.72	ug/L	99
99) tert-Butylbenzene	11.536	119	409744	48.46	ug/L	97
100) 1,2,4-Trimethylbenzene	11.573	105	480481	51.21	ug/L	98
101) 3,4-Dichlorobenzotrifl...	11.634	214	162247	48.32	ug/L	99
102) sec-Butylbenzene	11.719	105	622520	51.28	ug/L	98
103) p-Isopropyltoluene	11.841	119	528603	52.98	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration

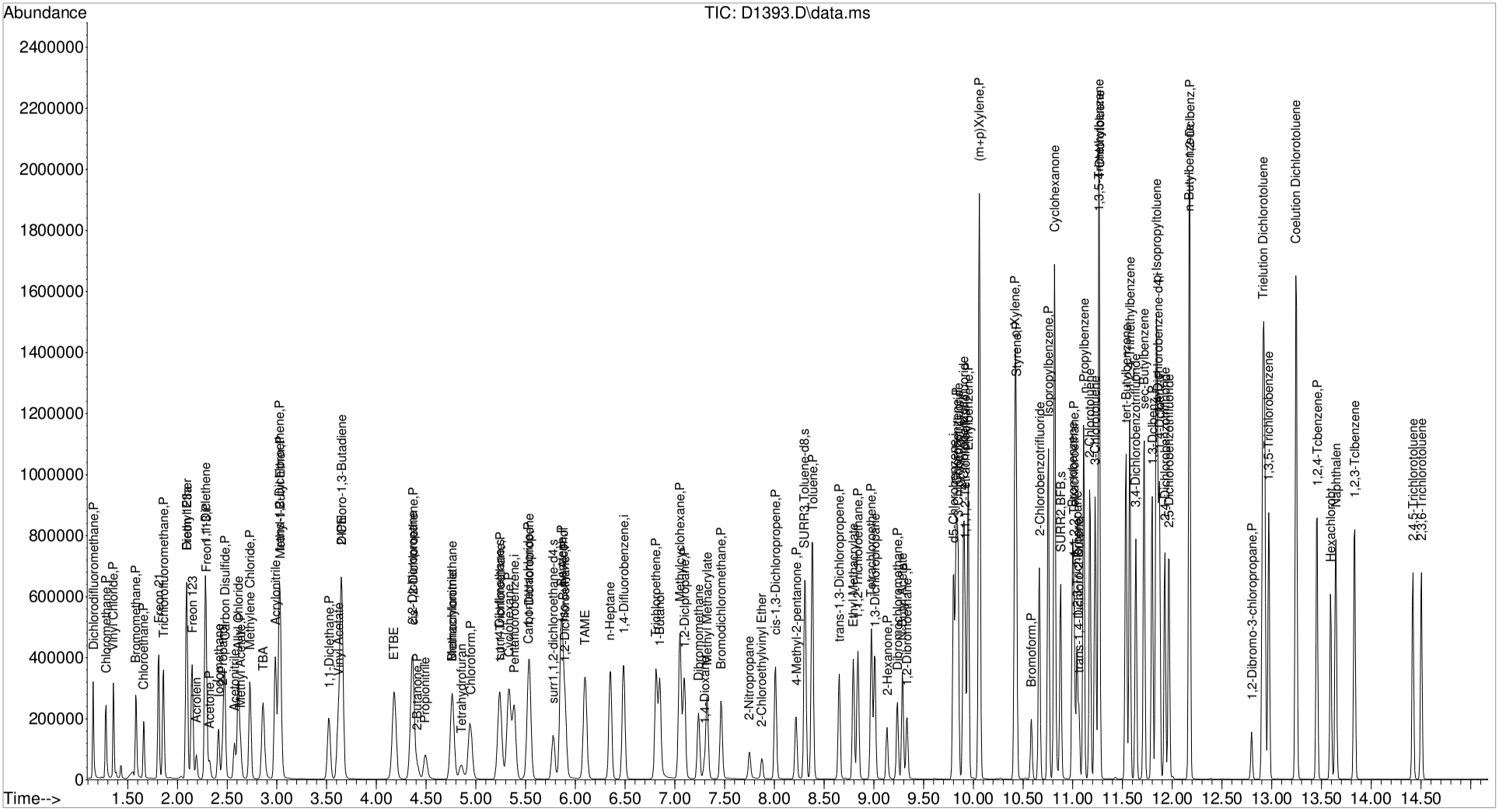
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	288870	48.95	ug/L	97
105) 1,4-Dclbenz	11.871	146	294082	47.28	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	144954	47.29	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	164250	48.76	ug/L	96
108) n-Butylbenzene	12.170	91	494041	52.73	ug/L	97
109) 1,2-Dclbenz	12.176	146	288242	48.48	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	32349	48.81	ug/L	97
111) Trielution Dichlorotol...	12.914	125	735485	148.73	ug/L	95
112) 1,3,5-Trichlorobenzene	12.969	180	215521	47.58	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	530543	101.14	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	214600	49.35	ug/L	98
115) Hexachlorobt	13.591	225	92191	48.76	ug/L	99
116) Naphthalen	13.645	128	491670	50.13	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	206455	49.27	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	136983	50.63	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	126835	52.85	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration



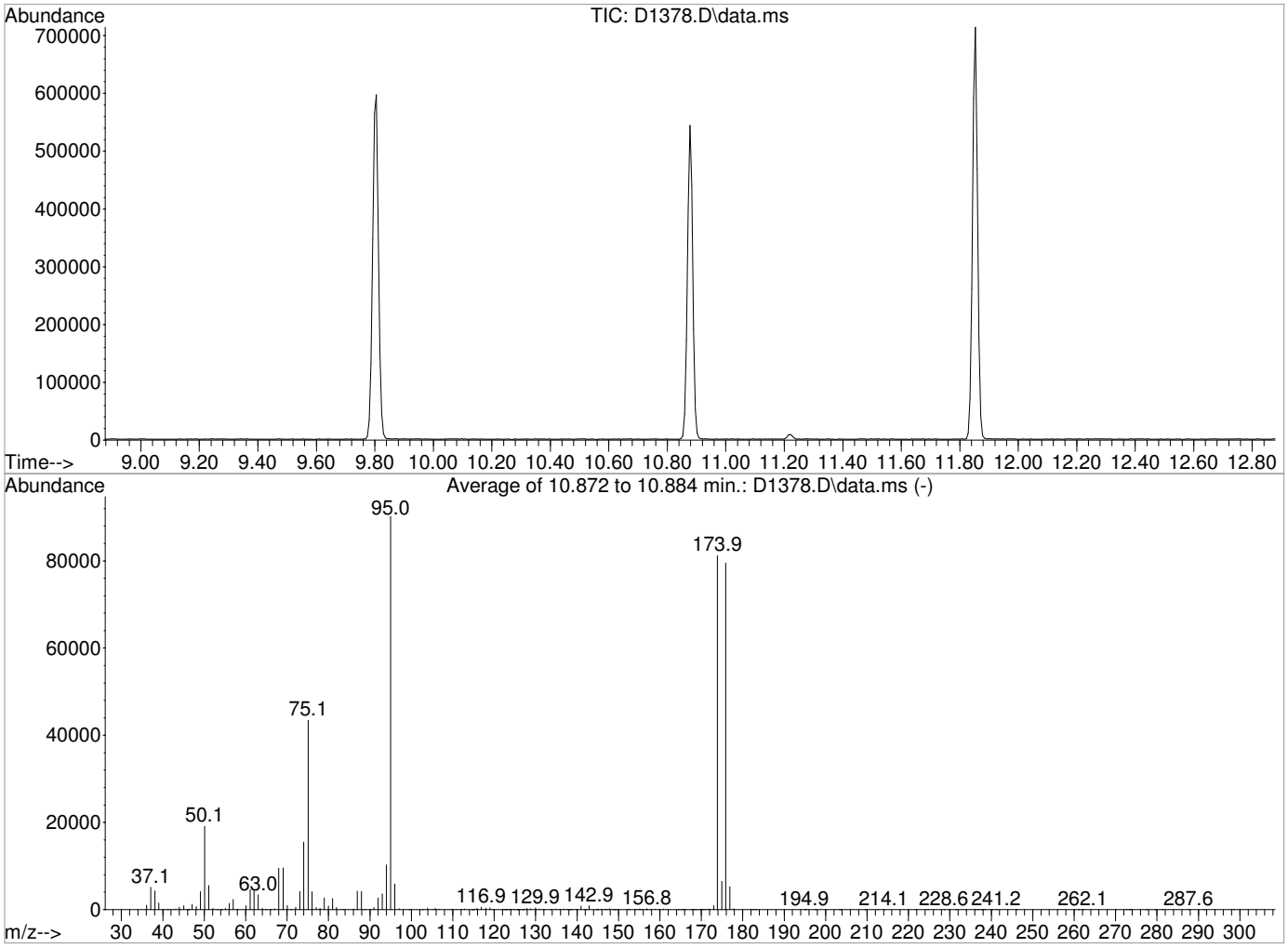
1st 02/14/18
2nd 02/15/18

1st DL 02/14/18
2nd FJ 02/15/18

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1378.D
Acq On : 12 Feb 2018 11:27 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Feb 14 15:09:58 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.2	19139	PASS
75	95	30	60	48.2	43459	PASS
95	95	100	100	100.0	90208	PASS
96	95	5	9	6.5	5879	PASS
173	174	0.00	2	1.1	893	PASS
174	95	50	120	90.0	81211	PASS
175	174	5	9	8.0	6515	PASS
176	174	95	101	97.9	79496	PASS
177	176	5	9	6.6	5245	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1380.D
Acq On : 12 Feb 2018 12:24 pm
Operator : D.LIPANI
Sample : INST BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 14 16:30:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

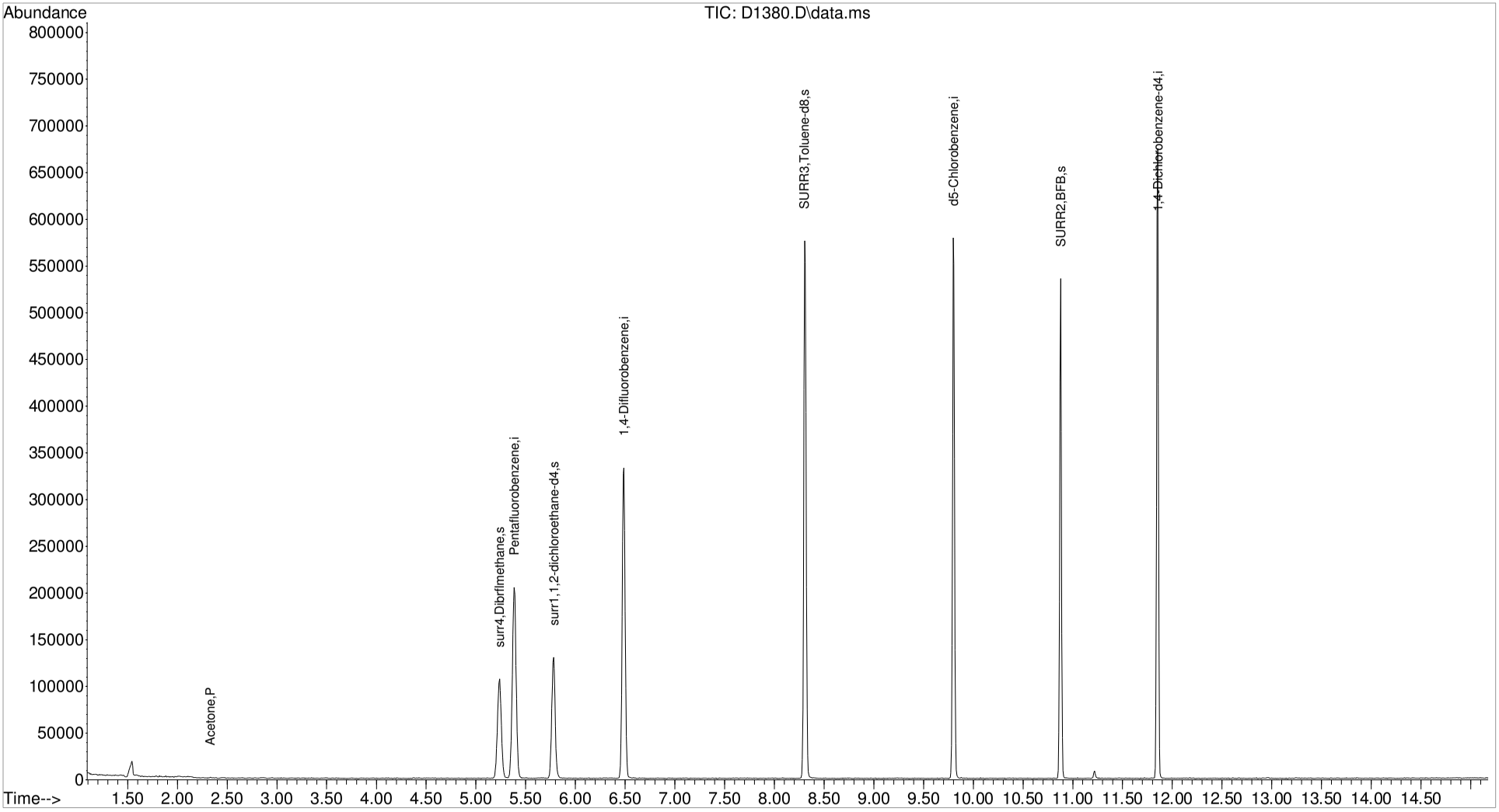
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	199127	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	296365	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.798	117	258923	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	134685	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	87580	48.30	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.60%			
46) surr1,1,2-dichloroetha...	5.781	65	104017	49.62	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.24%			
64) SURR3,Toluene-d8	8.305	98	355946	49.81	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.62%			
69) SURR2,BFB	10.877	95	125569	45.37	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.74%			
Target Compounds						Qvalue
15) Acetone	2.330	43	469	0.45	ug/L	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

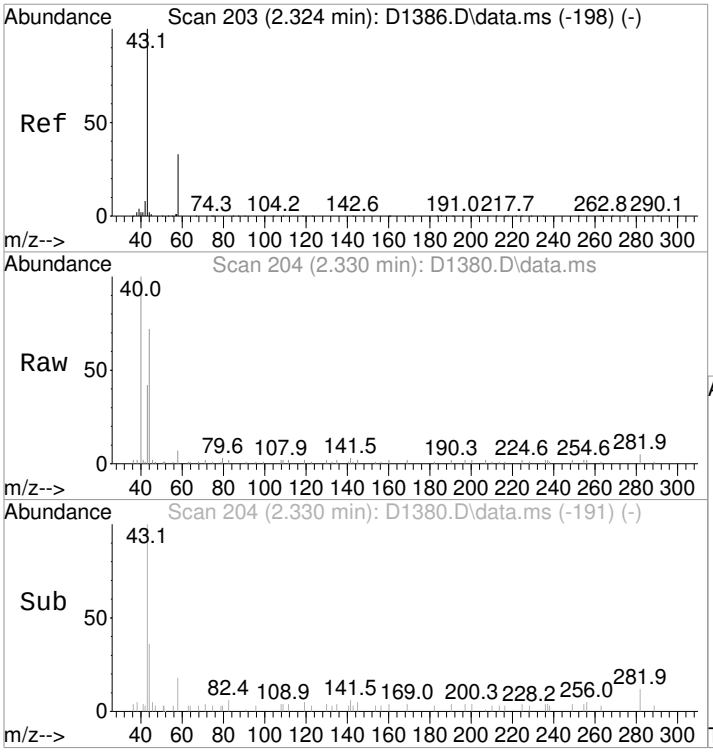
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1380.D
Acq On : 12 Feb 2018 12:24 pm
Operator : D.LIPANI
Sample : INST BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 14 16:30:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



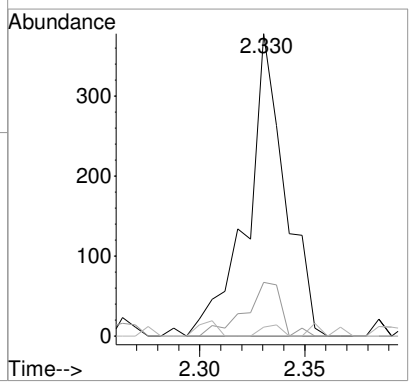
1st DL 02/14/18
2nd FJ 02/15/18



#15
Acetone
Concen: 0.45 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1380.D
Acq: 12 Feb 2018 12:24 pm

Tgt Ion: 43 Resp: 469

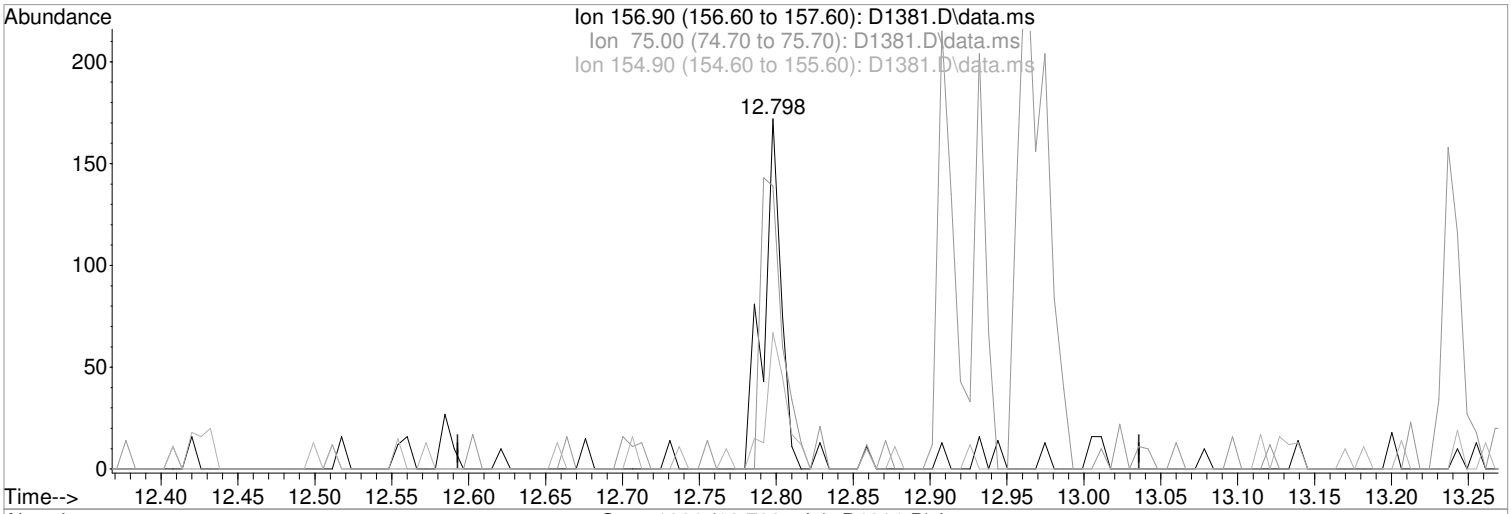
Ion	Ratio	Lower	Upper
43	100		
58	17.7	12.8	52.8
42	2.9	0.0	30.0

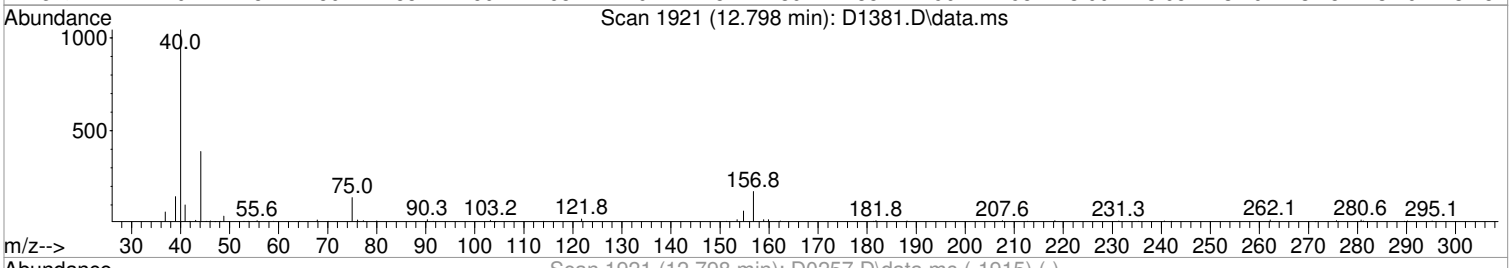


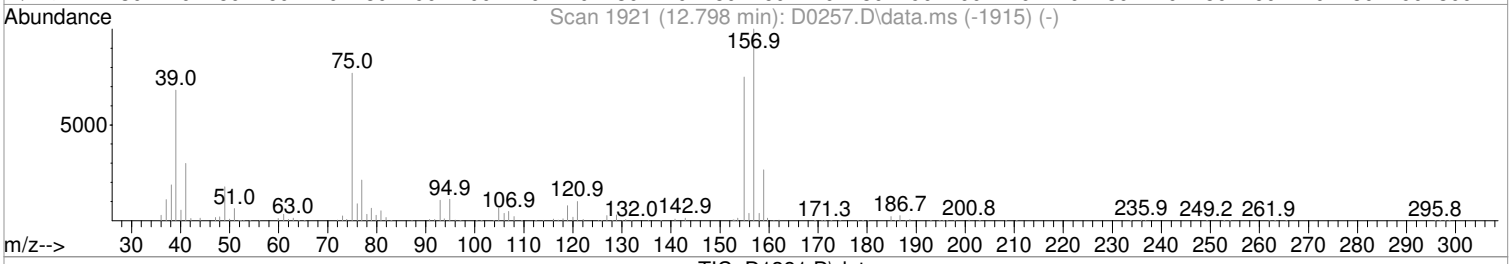
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(110) 1,2-Dibromo-3-chloropropane (P)

12.798min (-0.000) 0.82 ug/L m

response 140

Ion	Exp%	Act%
156.90	100	100
75.00	77.20	80.81
154.90	75.00	38.95#
0.00	0.00	0.00

Manual Integration:

After

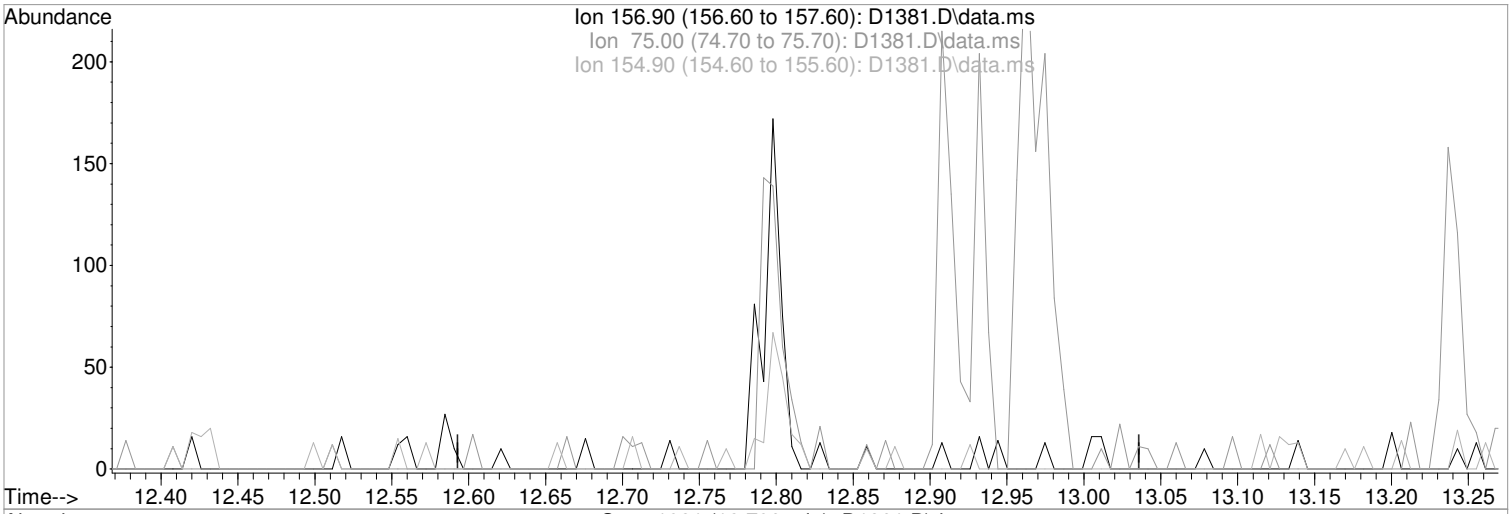
Peak not found.

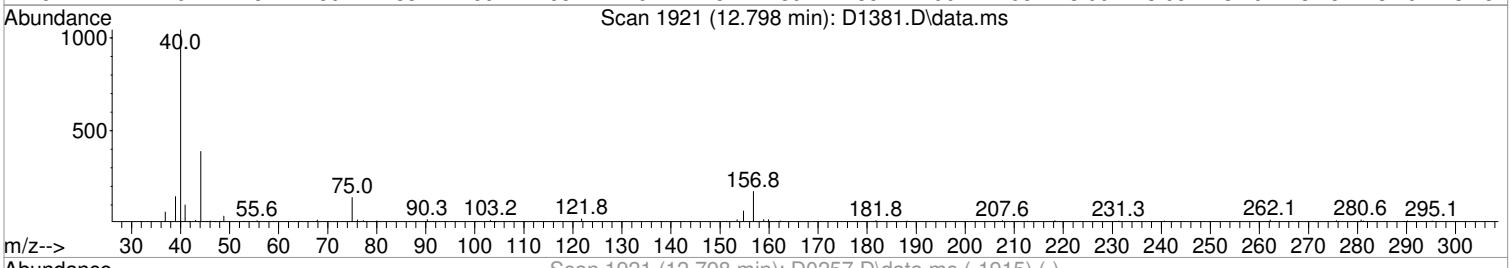
02/14/18

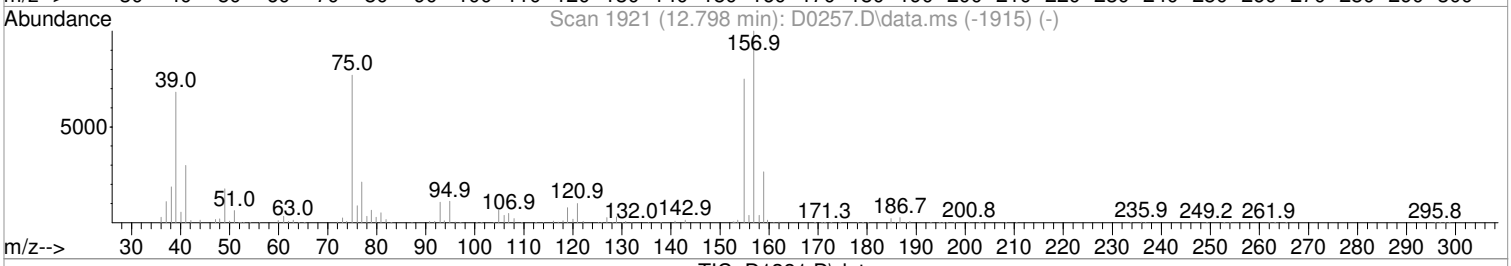
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(110) 1,2-Dibromo-3-chloropropane (P)

12.798min (-12.798) 0.00 ug/L

response 0

Ion	Exp%	Act%
156.90	100	0.00
75.00	77.20	0.00#
154.90	75.00	0.00#
0.00	0.00	0.00

Manual Integration:

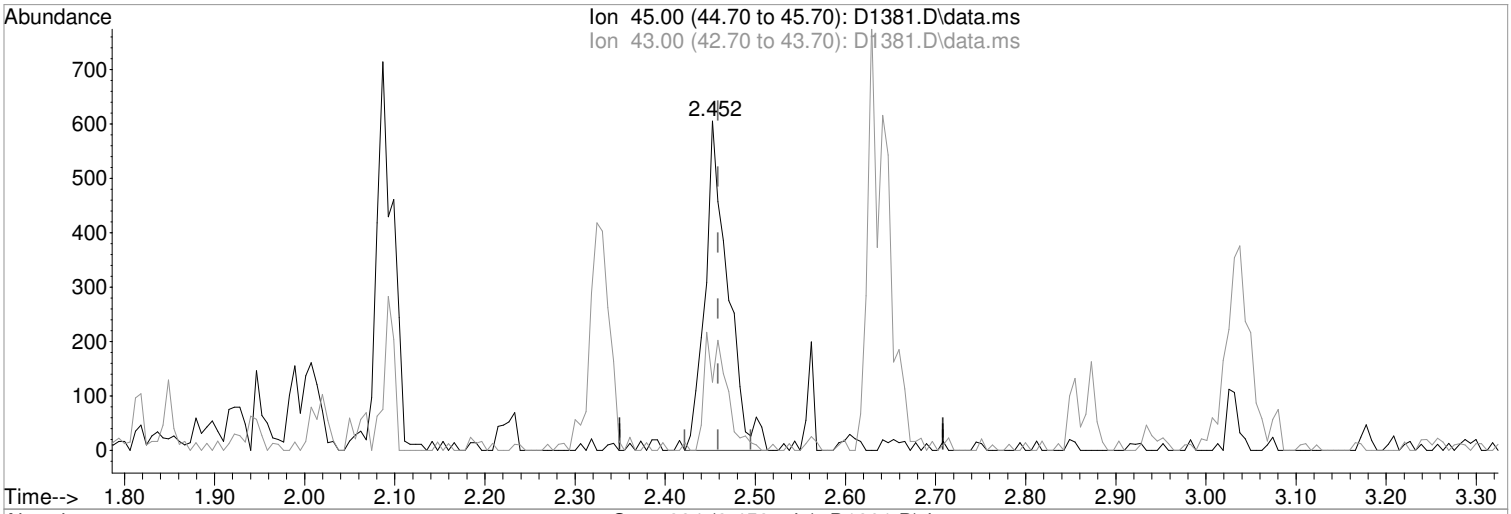
Before

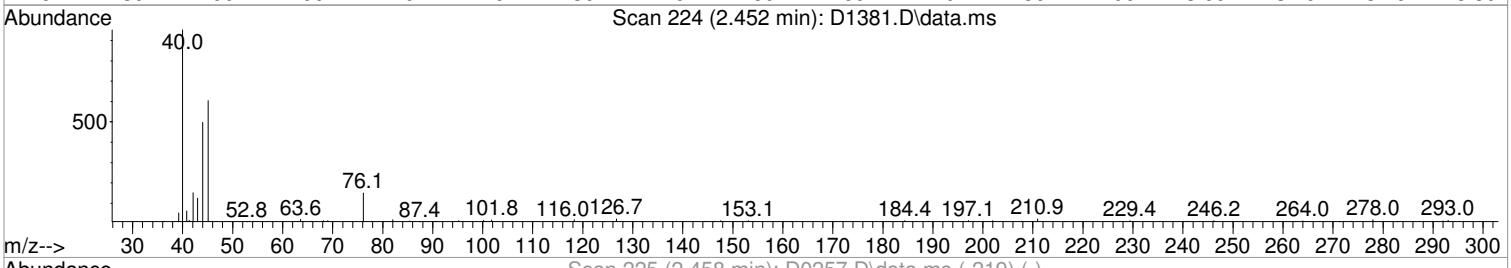
02/14/18

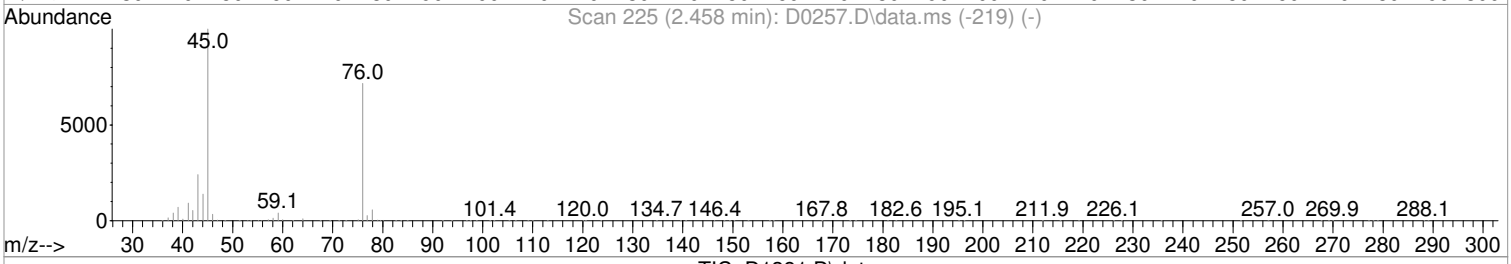
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(16) 2-Propanol

2.452min (-0.006) 7.54 ug/L m

response 1063

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	20.66
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

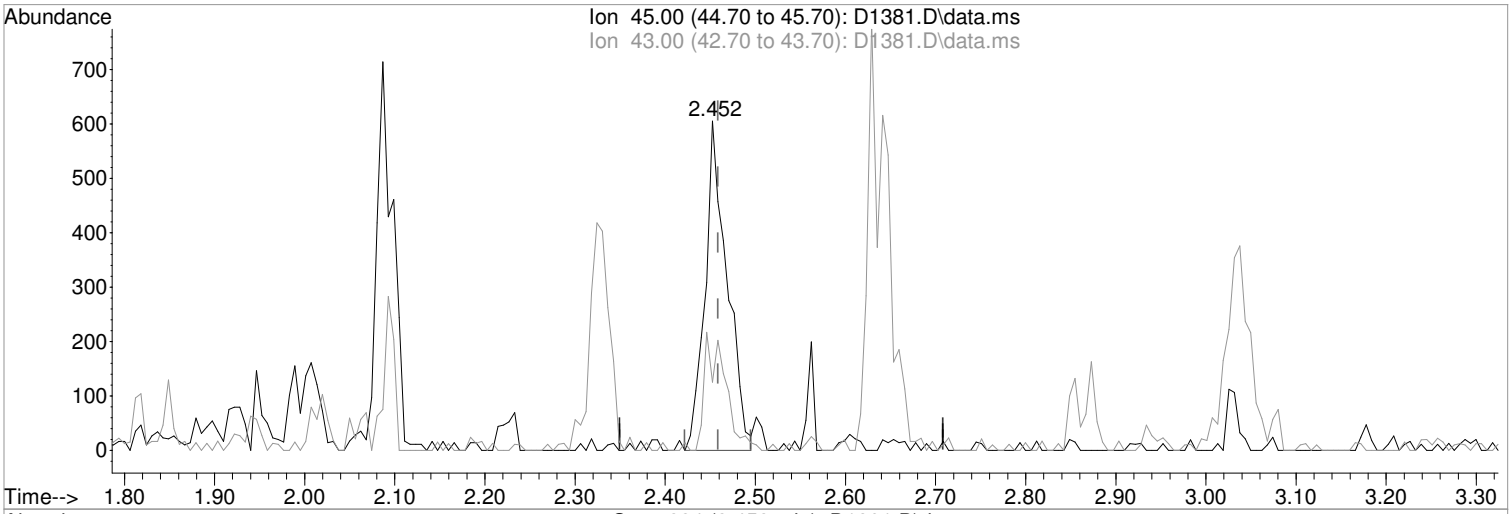
02/14/18

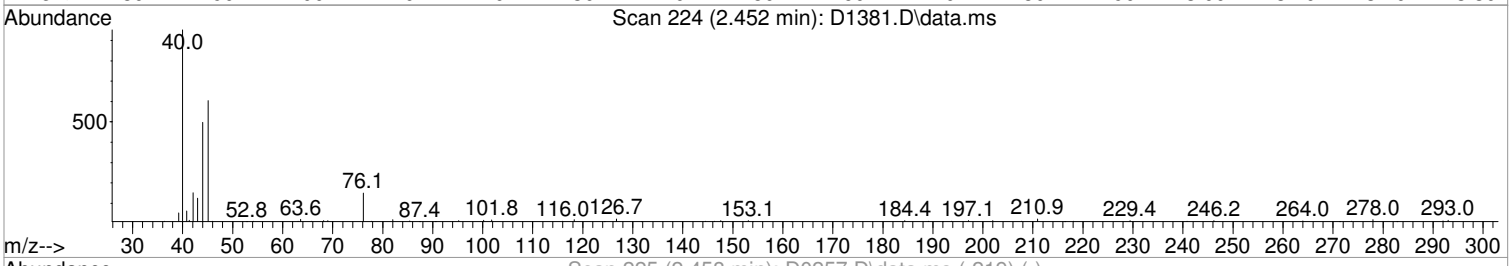
1st DL 02/14/18
2nd FW 02/15/18

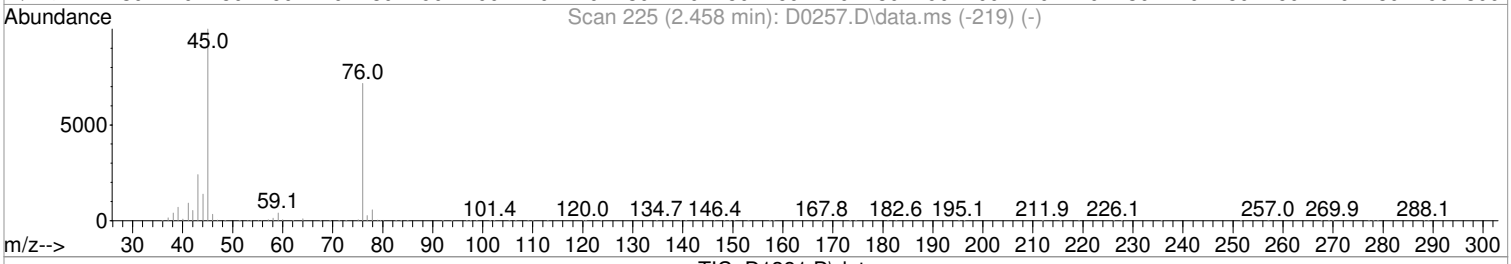
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(16) 2-Propanol

2.452min (-0.006) 7.27 ug/L

response 1025

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	20.66
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

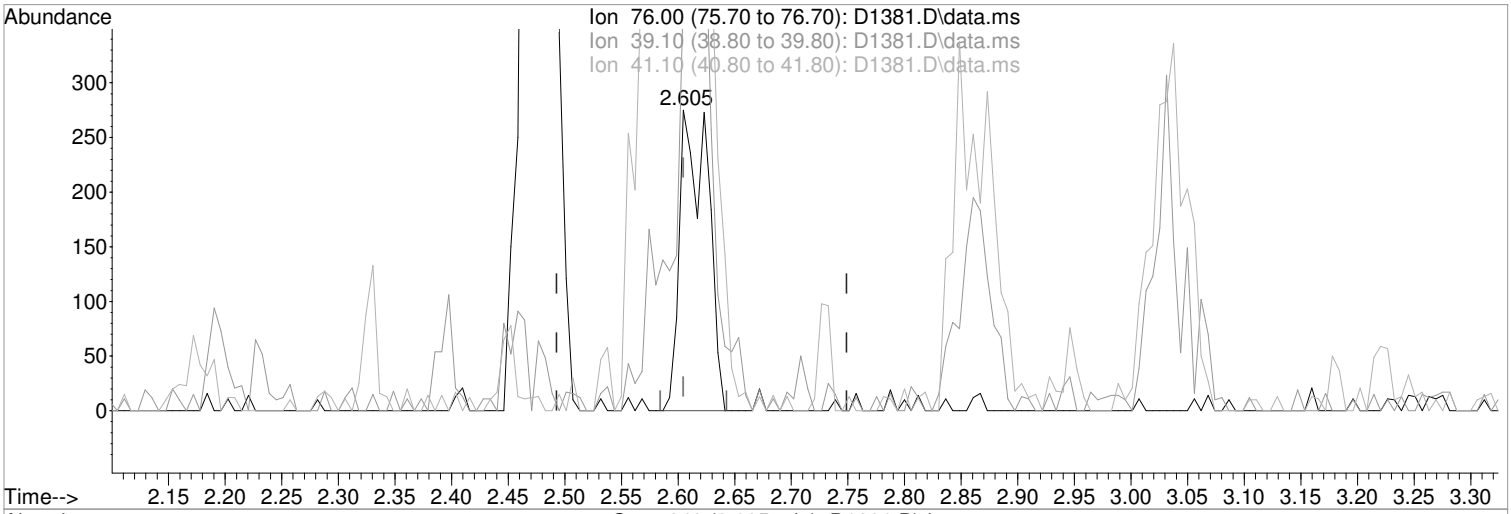
02/14/18

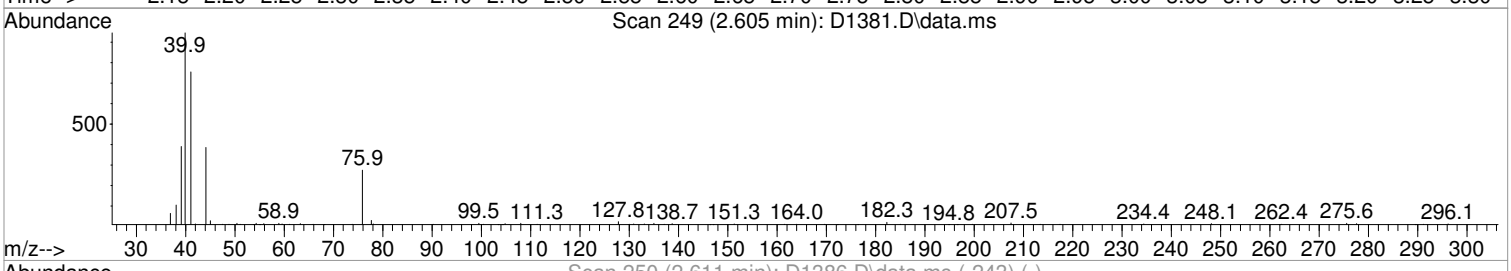
1st DL 02/14/18
2nd FJ 02/15/18

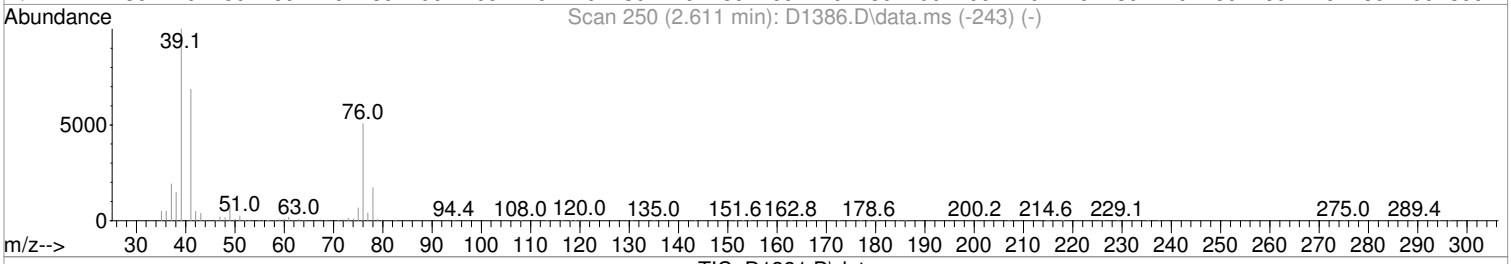
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(20) Allyl Chloride

2.605min (-0.000) 0.48 ug/L m

response 473

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	142.18#
41.10	256.10	274.91
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

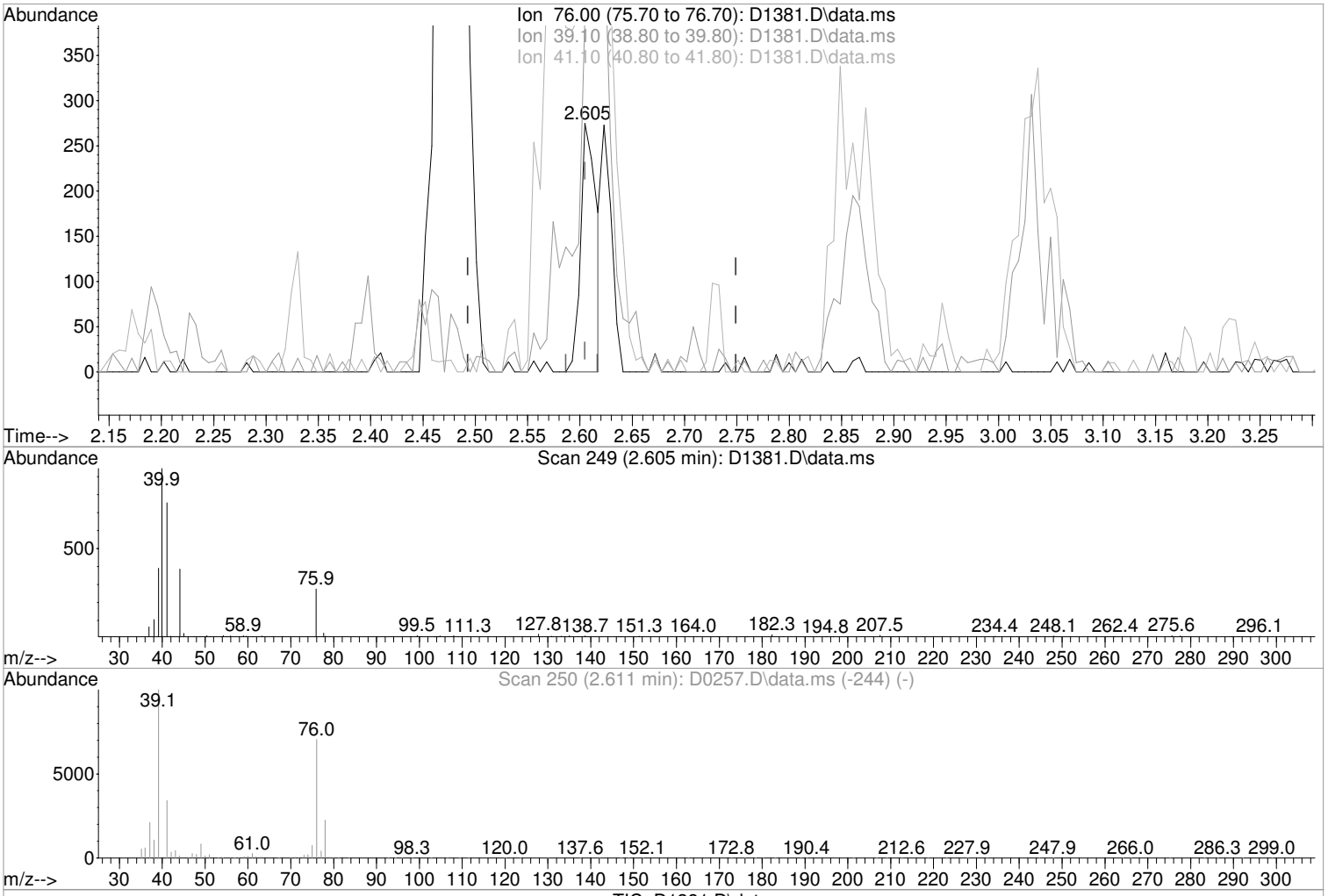
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(20) Allyl Chloride

2.605min (-0.000) 0.29 ug/L

response 287

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	142.18#
41.10	256.10	274.91
0.00	0.00	0.00

Manual Integration:

Before

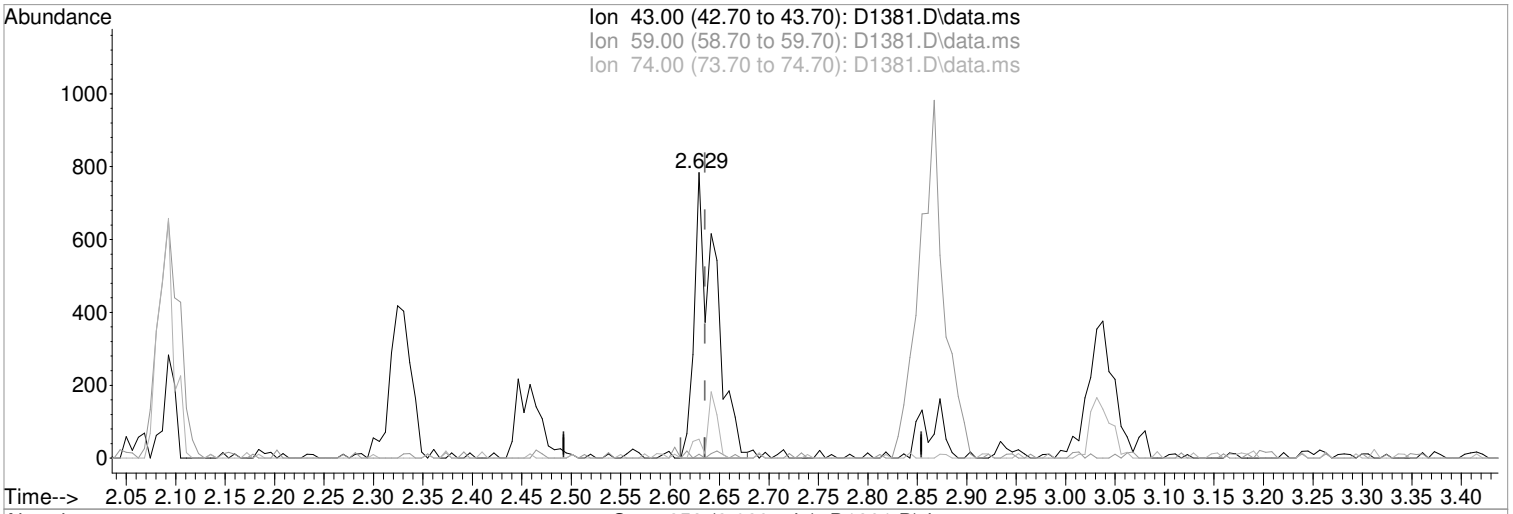
02/14/18

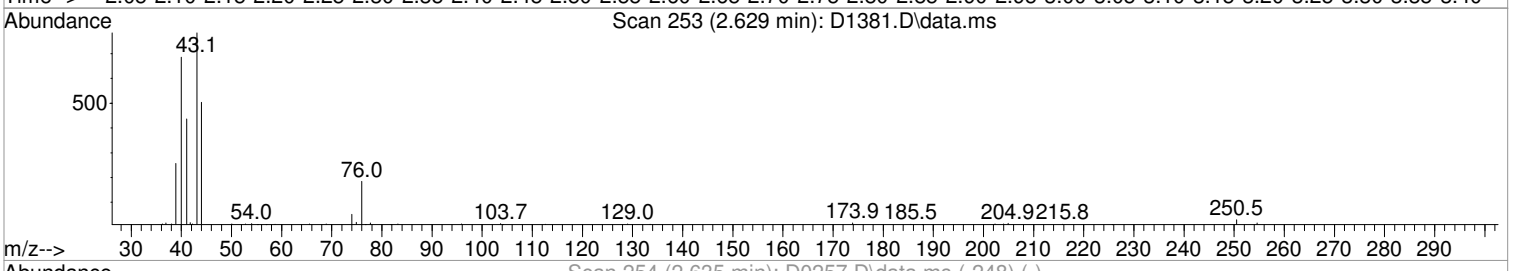
1st DL 02/14/18
2nd FJ 02/15/18

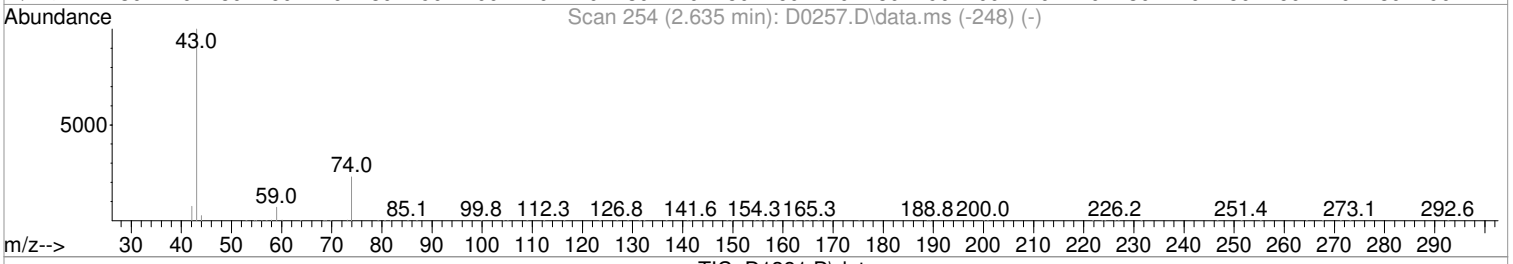
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(21) Methyl Acetate (P)

2.629min (-0.006) 0.60 ug/L m

response 1156

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	1.40
74.00	22.70	6.63
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

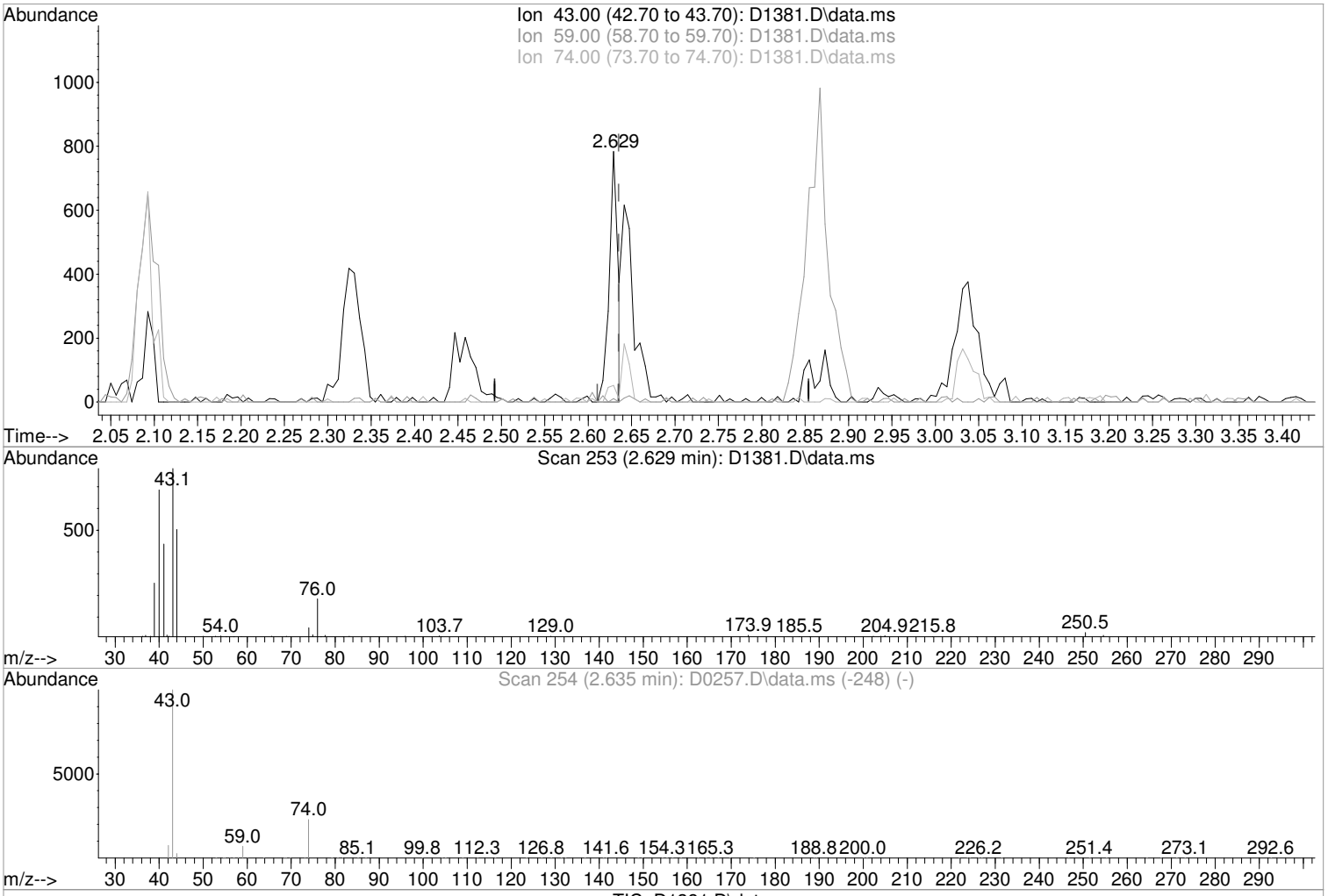
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(21) Methyl Acetate (P)

2.629min (-0.006) 0.29 ug/L

response 552

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	1.40
74.00	22.70	6.63
0.00	0.00	0.00

Manual Integration:

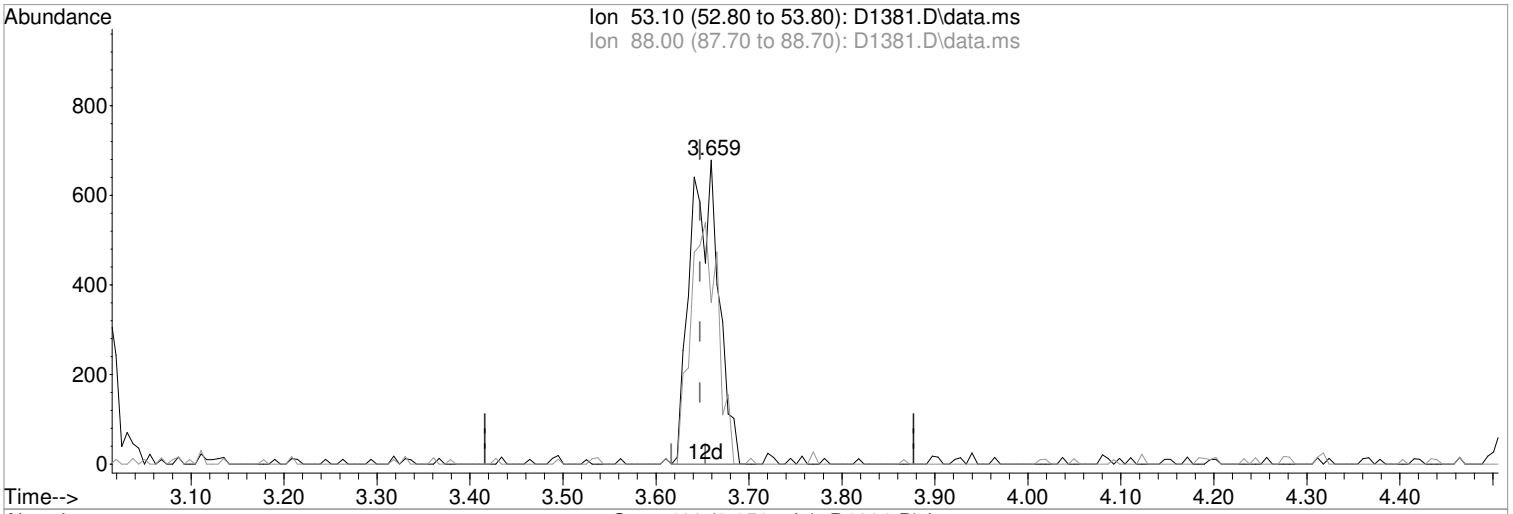
Before

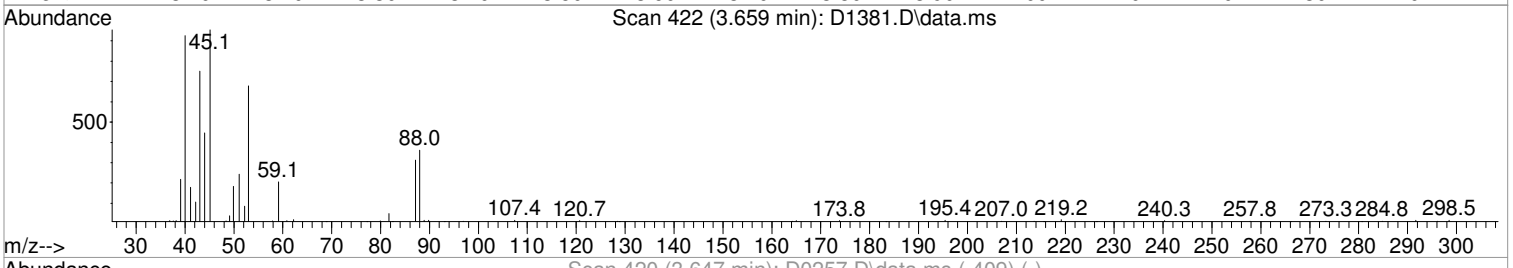
02/14/18

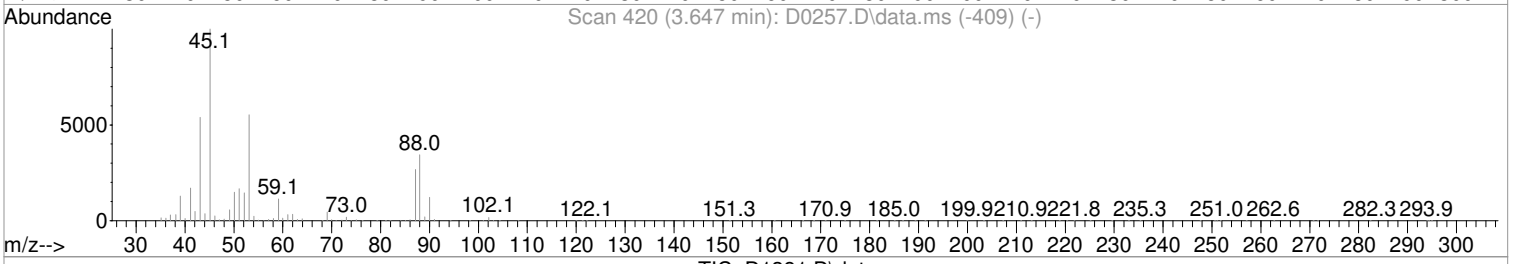
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(30) 2-Chloro-1,3-Butadiene

3.659min (+0.012) 0.45 ug/L m

response 1437

Ion	Exp%	Act%
53.10	100	100
88.00	62.40	53.17
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

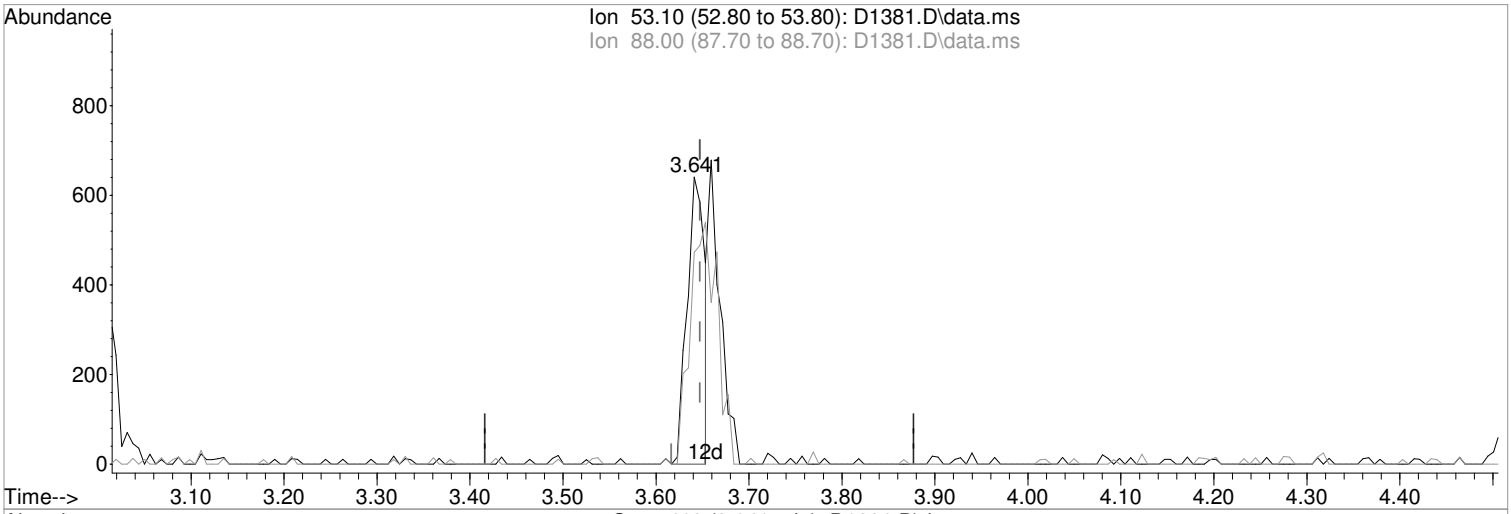
Poor integration.

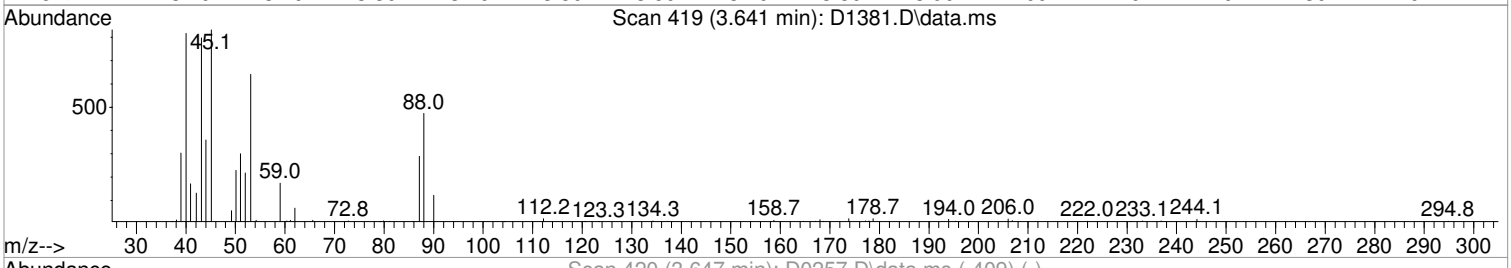
02/14/18

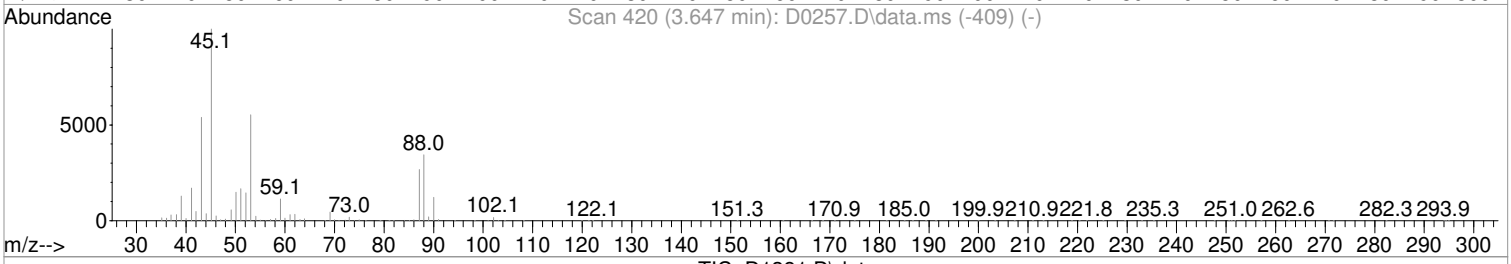
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(30) 2-Chloro-1,3-Butadiene

3.641min (-0.006) 0.27 ug/L

response 848

Ion	Exp%	Act%
53.10	100	100
88.00	62.40	73.79
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

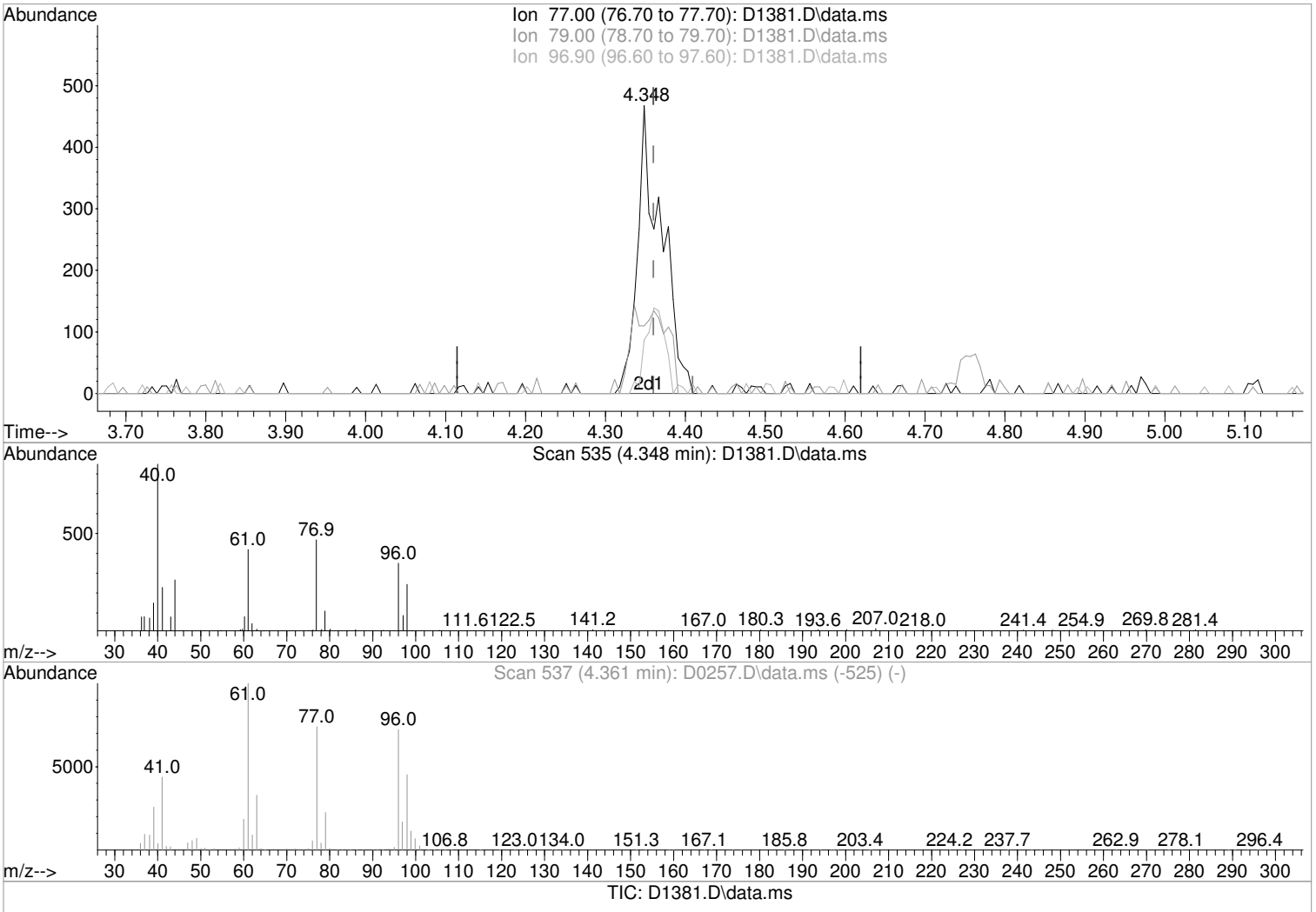
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(32) 2,2-Dichloropropane

4.348min (-0.012) 0.51 ug/L m

response 981

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	23.50
96.90	22.80	18.59
0.00	0.00	0.00

Manual Integration:

After

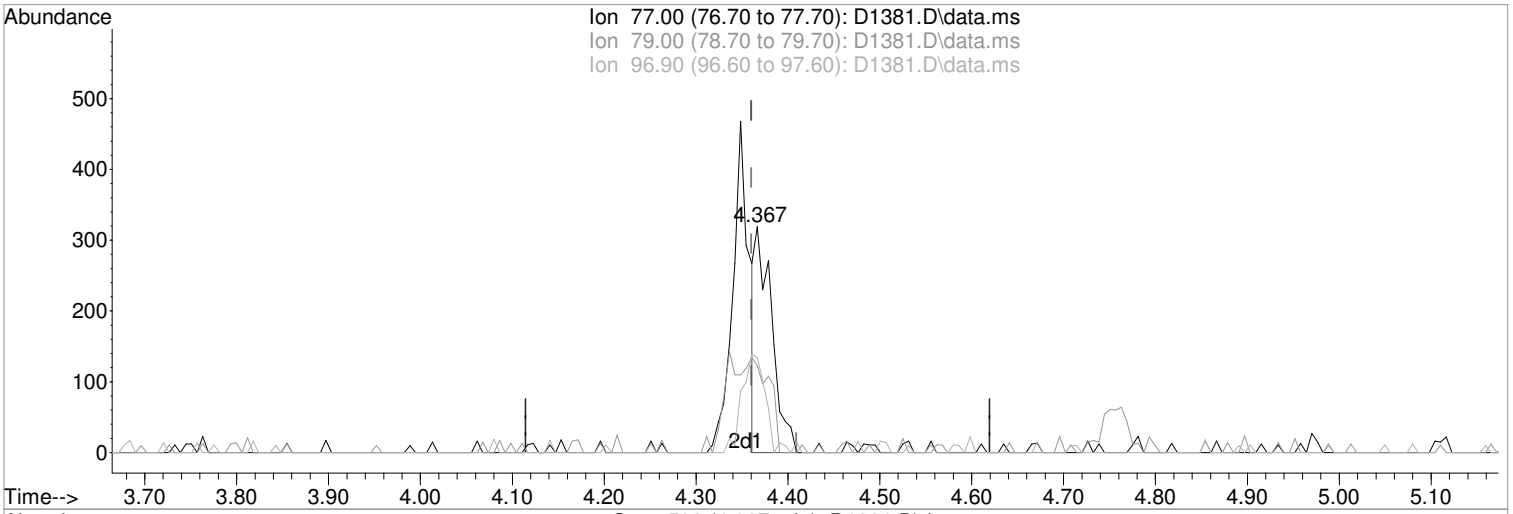
Poor integration.

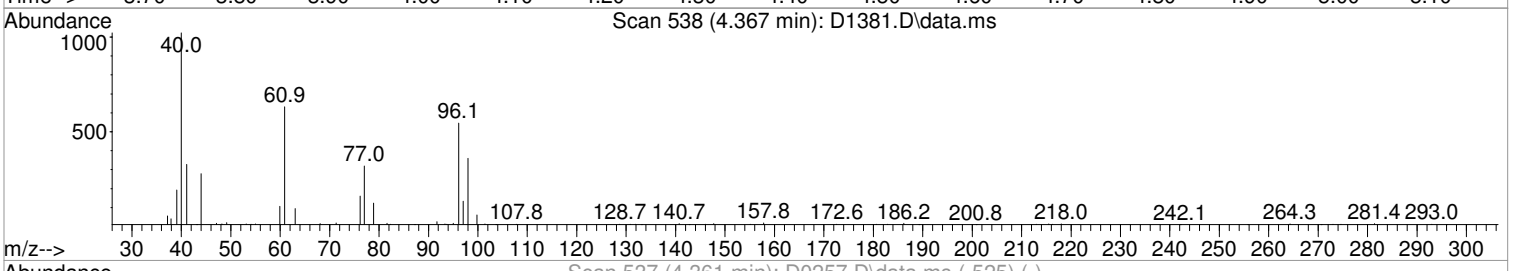
02/14/18

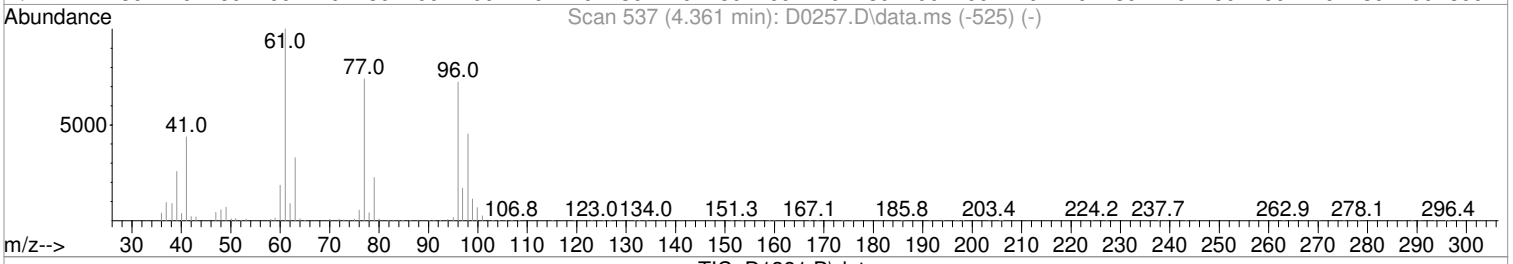
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(32) 2,2-Dichloropropane

4.367min (+0.006) 0.21 ug/L

response 406

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	38.56
96.90	22.80	42.01
0.00	0.00	0.00

Manual Integration:

Before

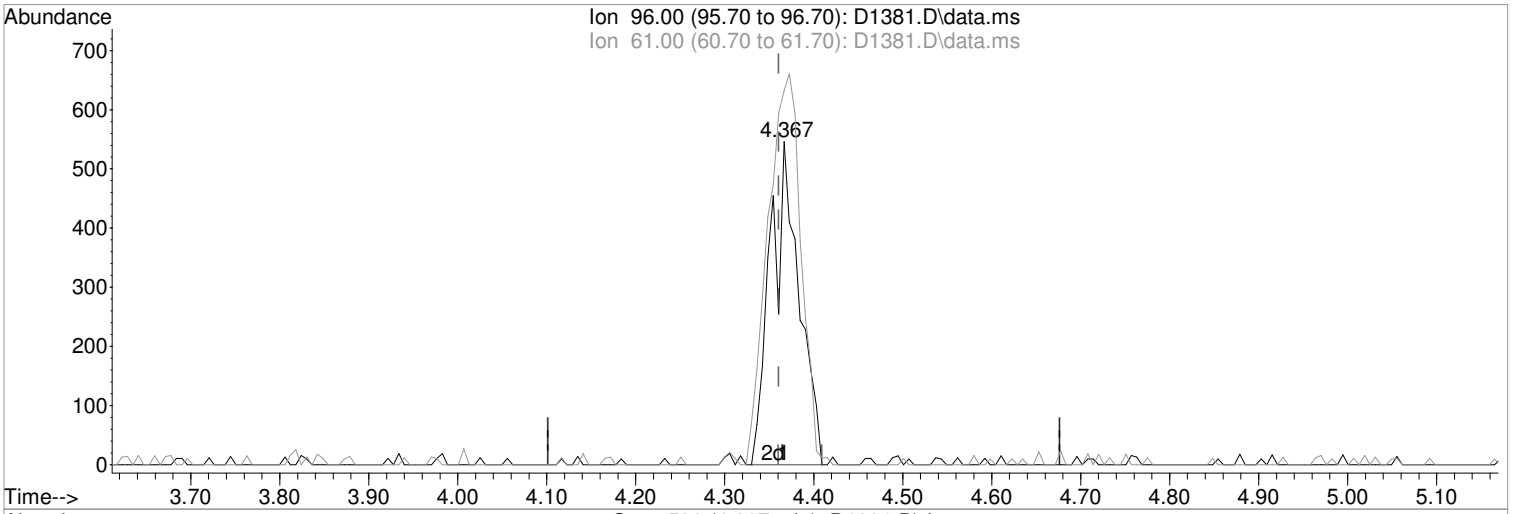
02/14/18

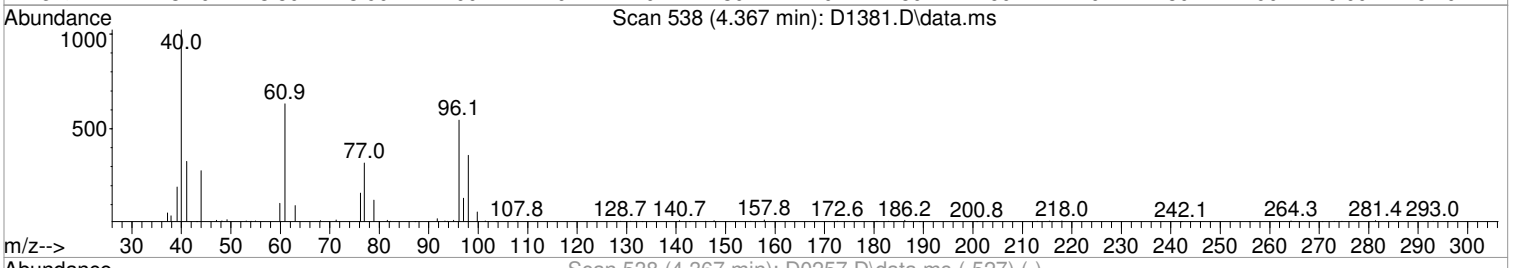
1st DL 02/14/18
2nd FJ 02/15/18

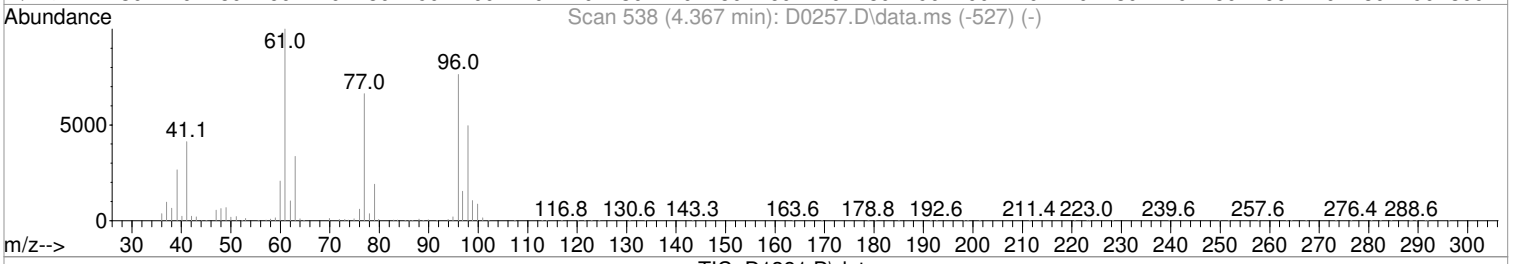
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.367min (+0.006) 0.53 ug/L m

response 1229

Ion	Exp%	Act%
96.00	100	100
61.00	131.50	115.75
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

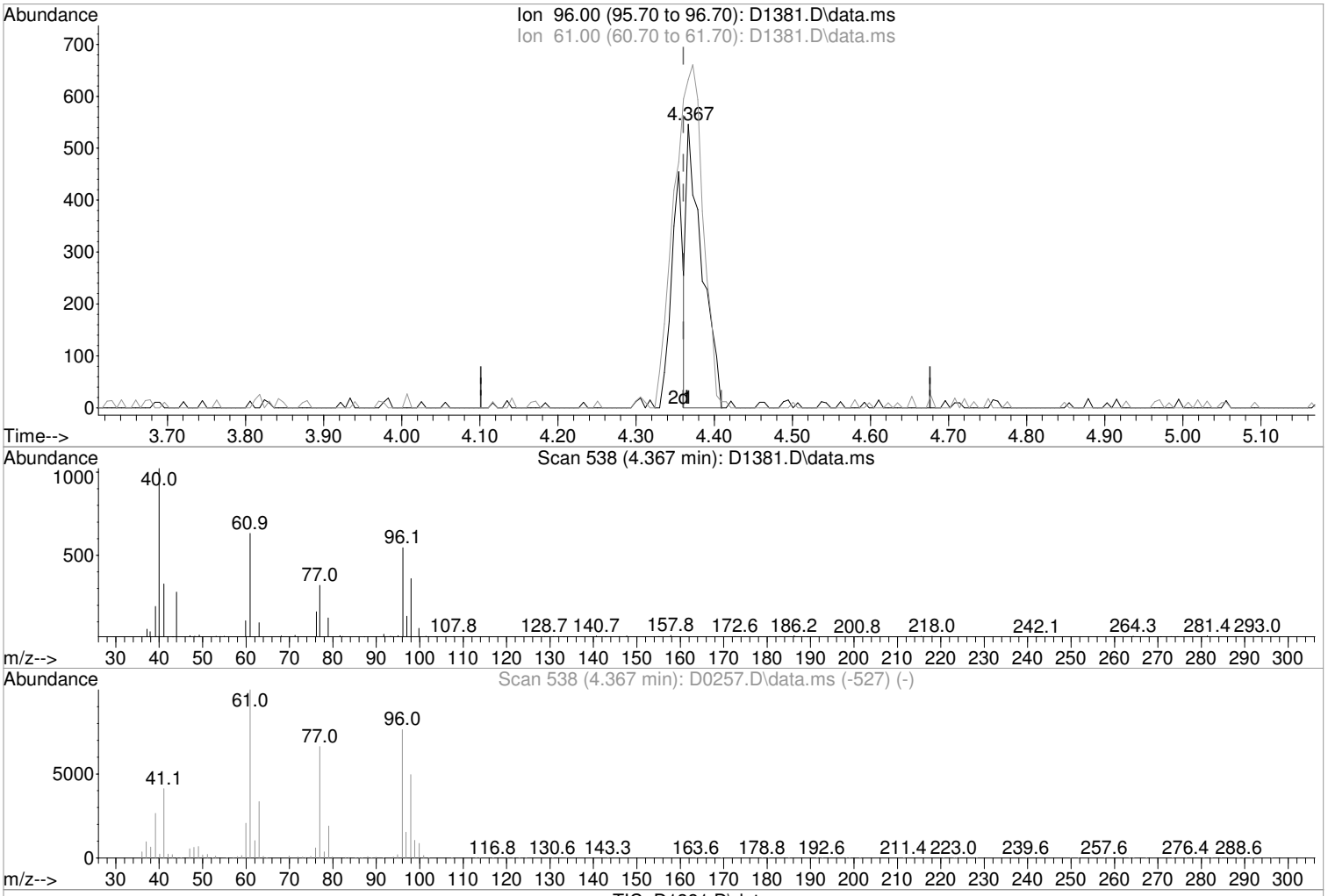
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.367min (+0.006) 0.33 ug/L

response 756

Ion	Exp%	Act%
96.00	100	100
61.00	131.50	115.75
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

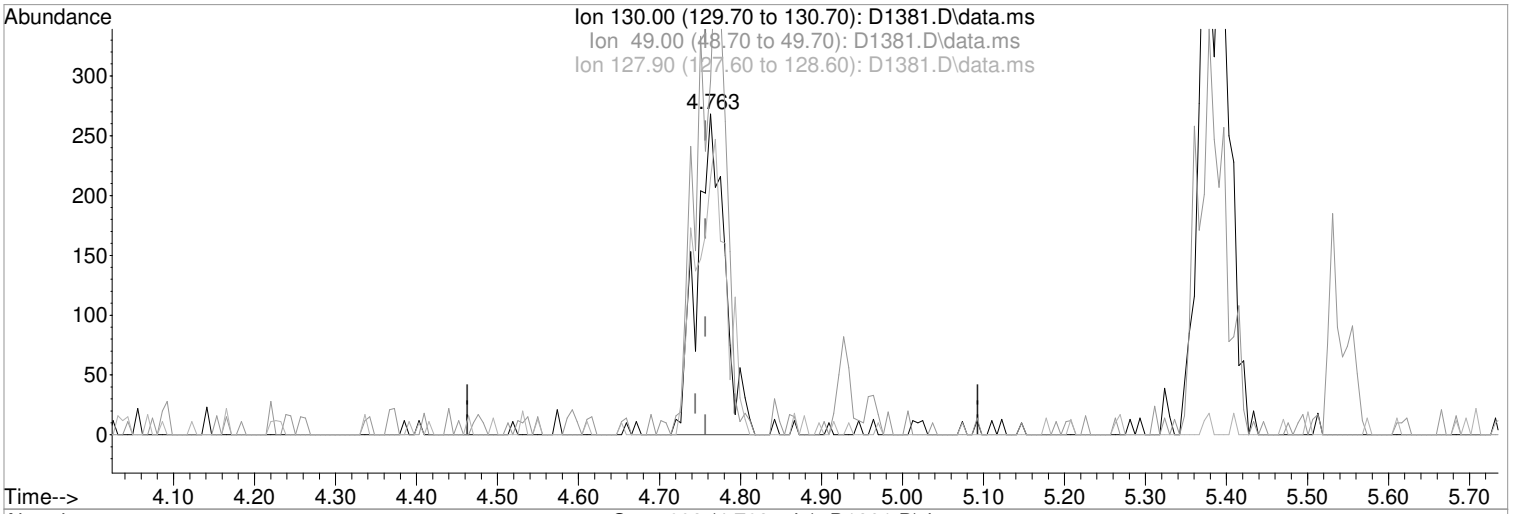
02/14/18

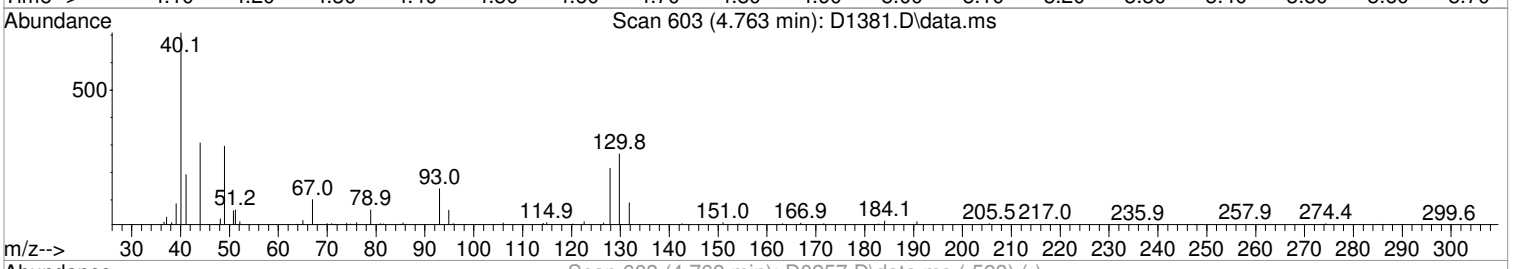
1st DL 02/14/18
2nd FW 02/15/18

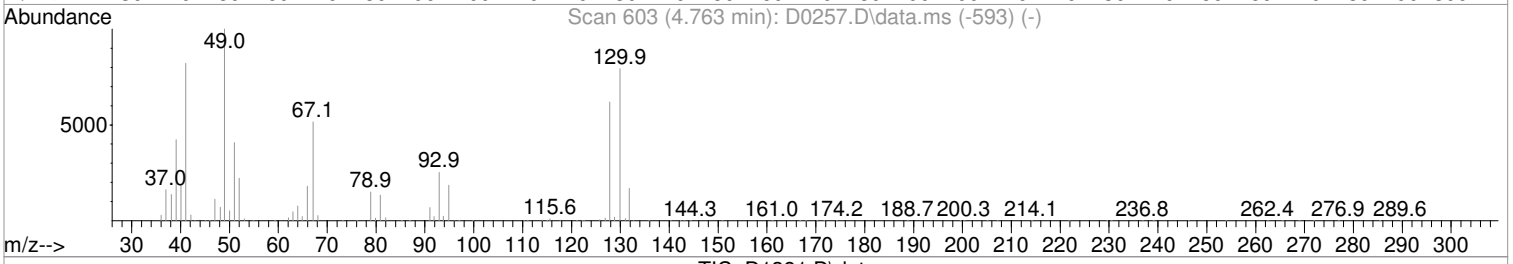
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(36) Bromochloromethane

4.763min (+0.006) 0.50 ug/L m

response 647

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	110.45
127.90	78.50	80.22
0.00	0.00	0.00

Manual Integration:

After

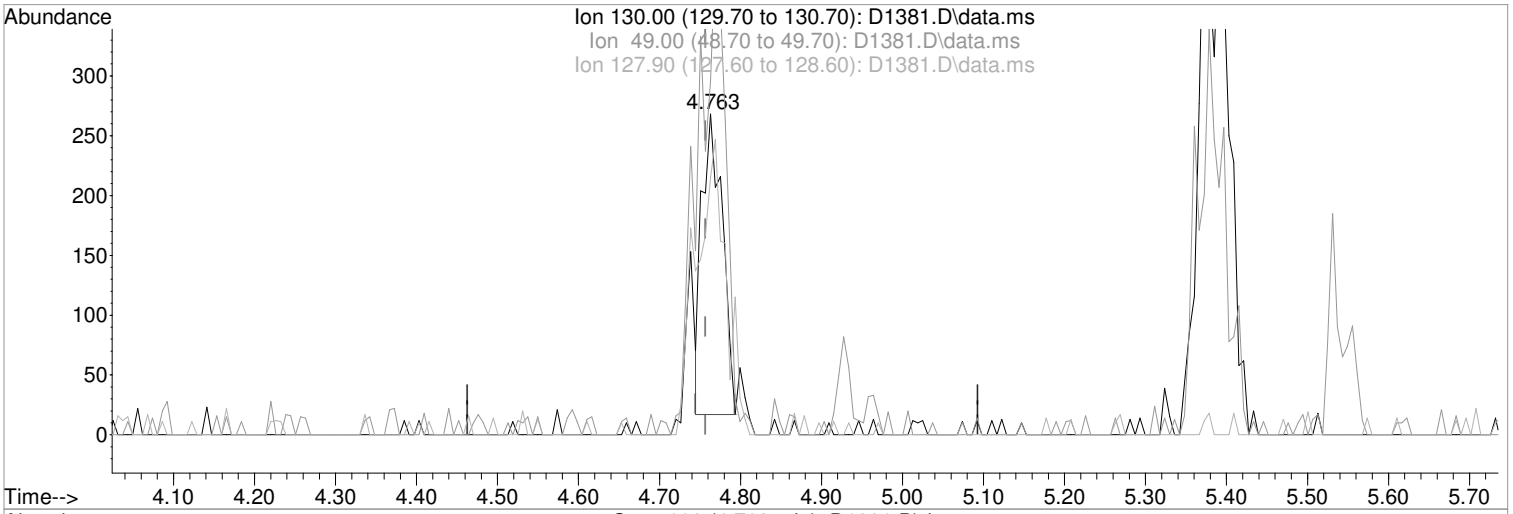
Poor integration.

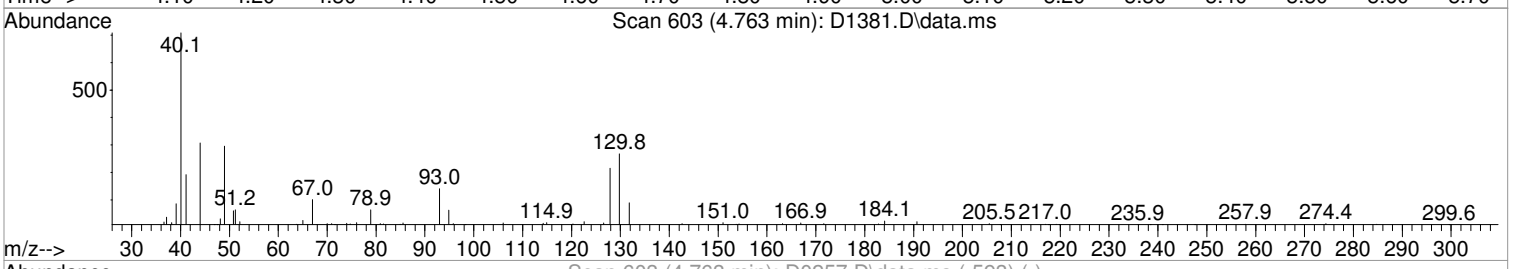
02/14/18

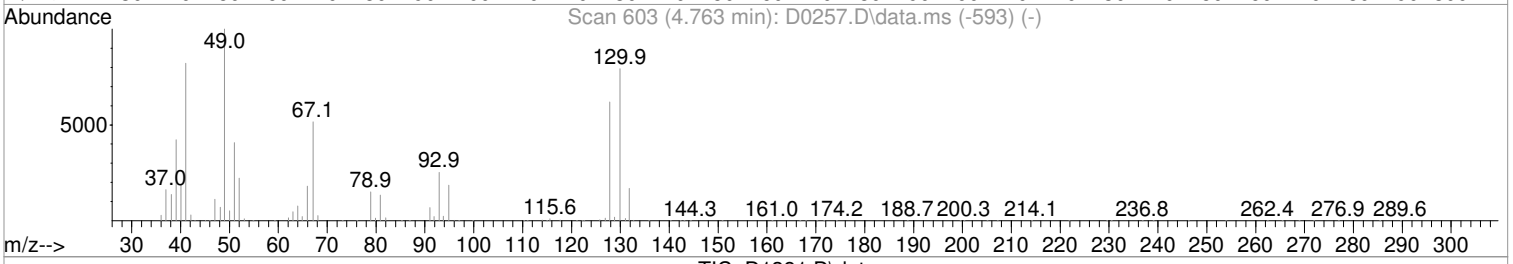
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(36) Bromochloromethane

4.763min (+0.006) 0.34 ug/L

response 440

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	110.45
127.90	78.50	80.22
0.00	0.00	0.00

Manual Integration:

Before

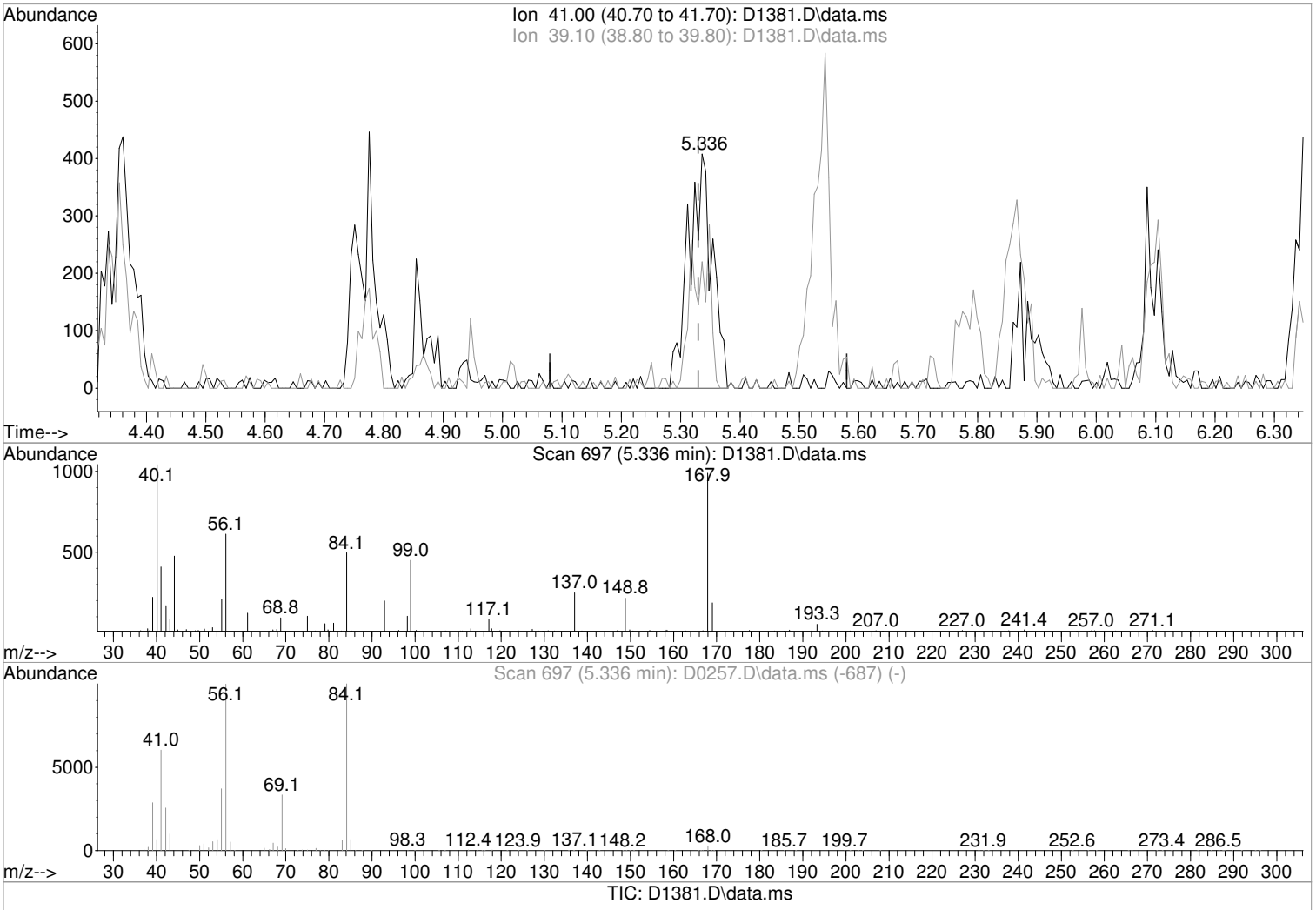
02/14/18

1st DL 02/14/18
2nd FW 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(42) Cyclohexane (P)

5.336min (+0.006) 0.66 ug/L m

response 1129

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	53.92
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

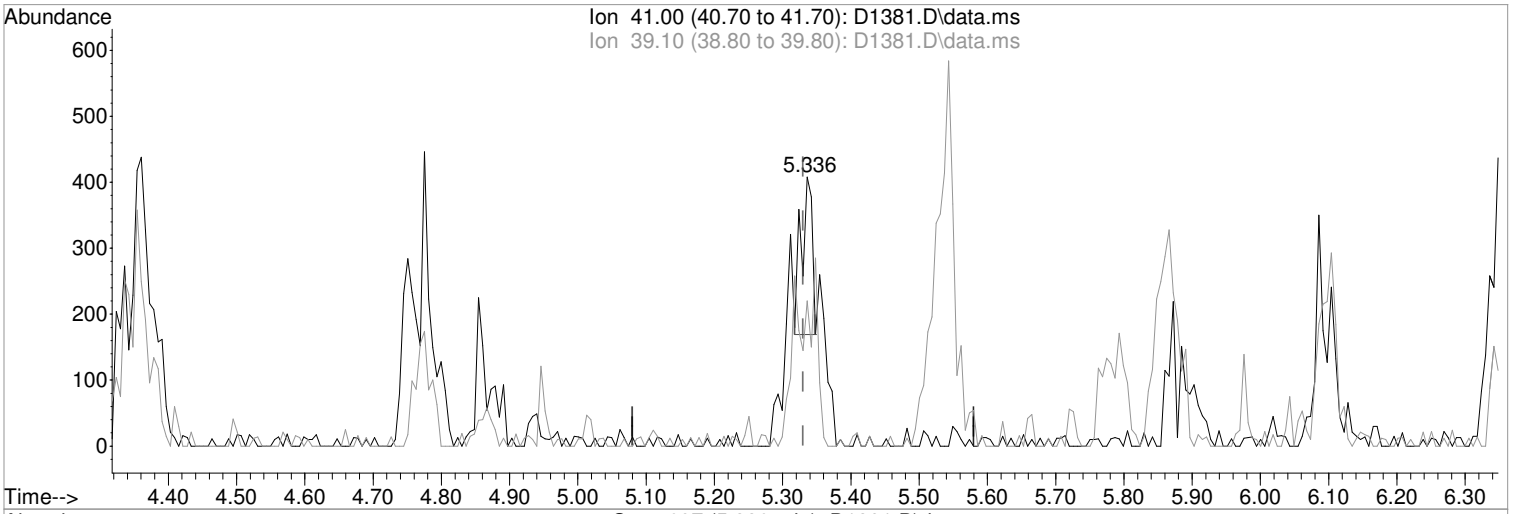
Peak not found.

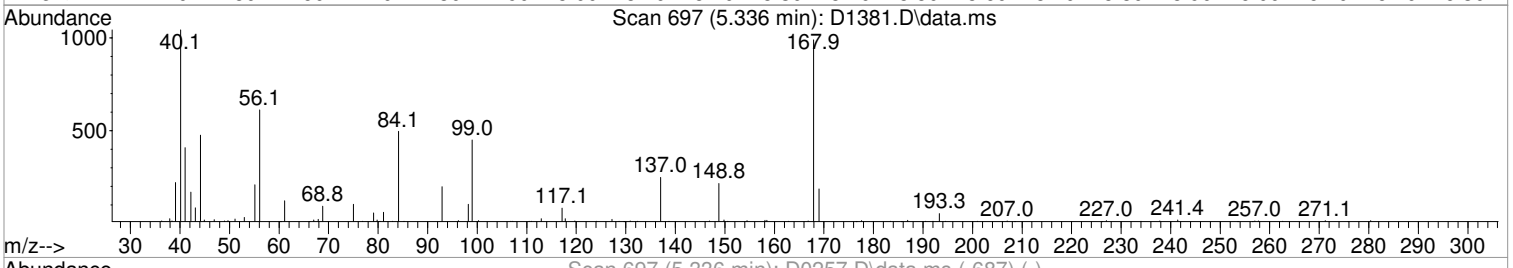
02/14/18

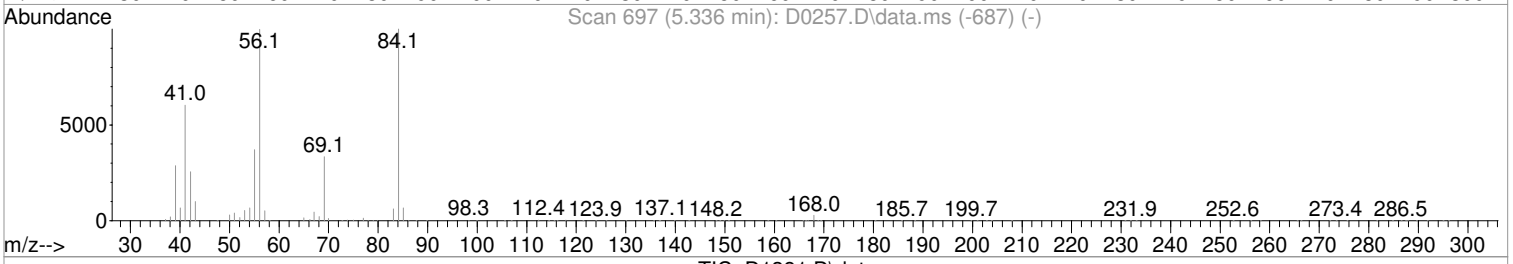
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(42) Cyclohexane (P)

5.336min (+0.006) 0.16 ug/L

response 266

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	53.92
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

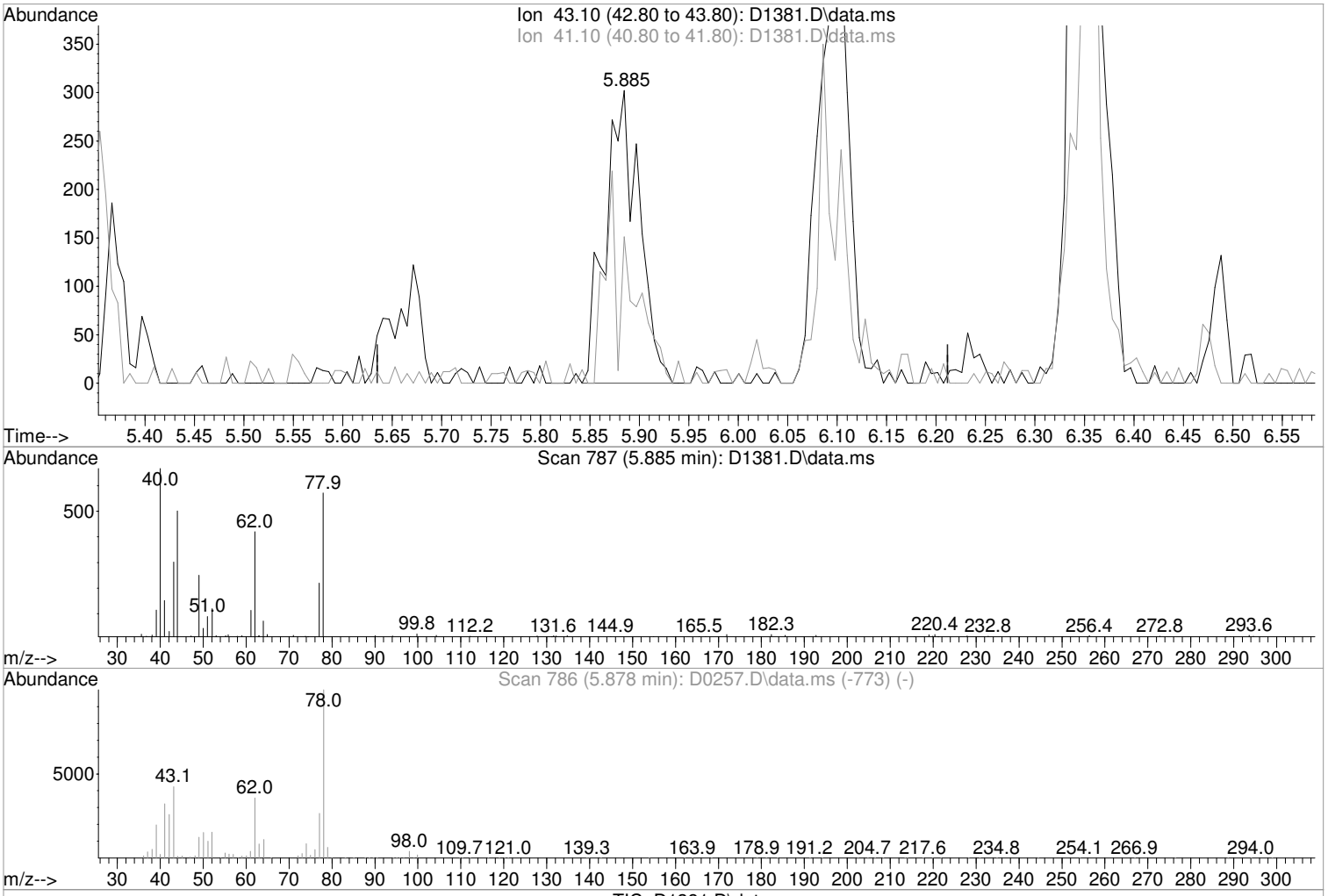
02/14/18

1st DL 02/14/18
2nd FW 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(49) Iso-Butyl Alcohol

5.885min (+0.013) 33.15 ug/L m

response 714

Ion	Exp%	Act%
43.10	100	100
41.10	76.00	50.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

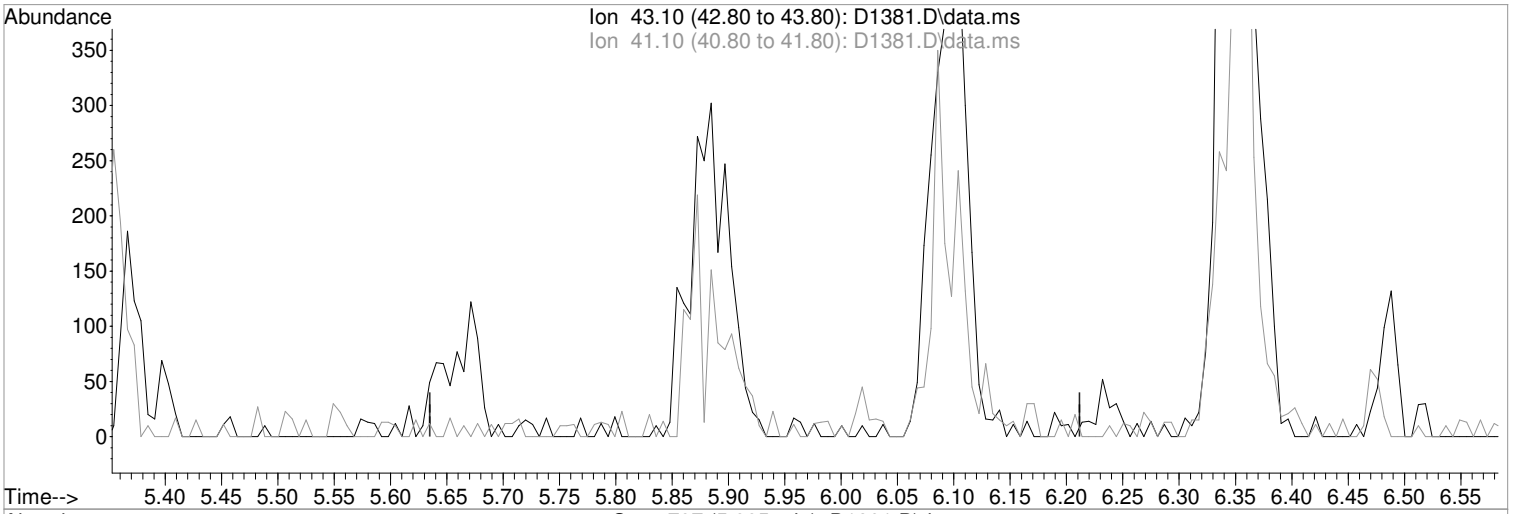
02/14/18

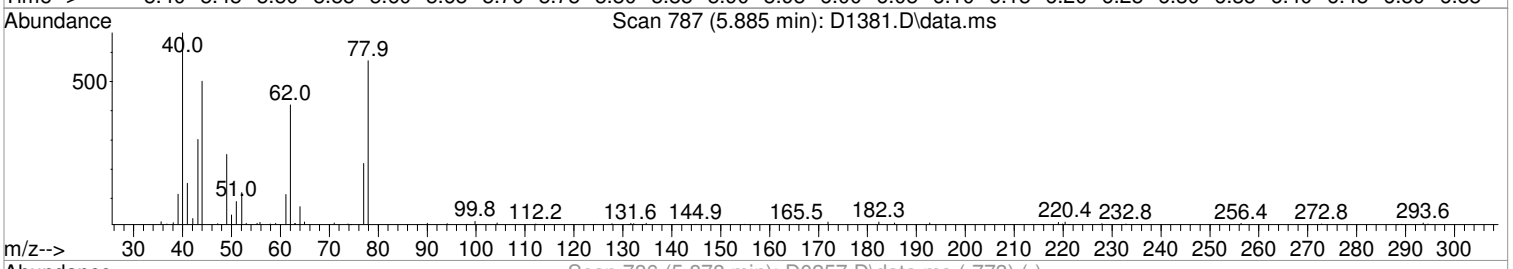
1st DL 02/14/18
2nd FW 02/15/18

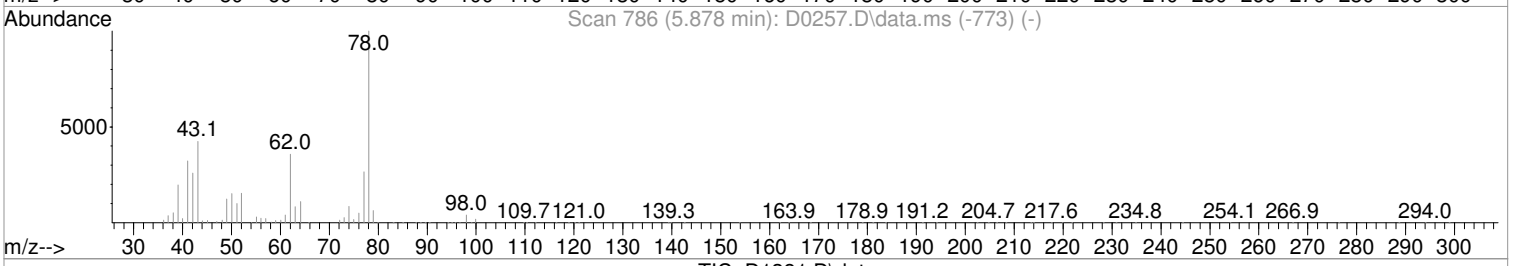
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(49) Iso-Butyl Alcohol

5.872min (-5.872) 0.00 ug/L

response 0

Ion	Exp%	Act%
43.10	100	0.00
41.10	76.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

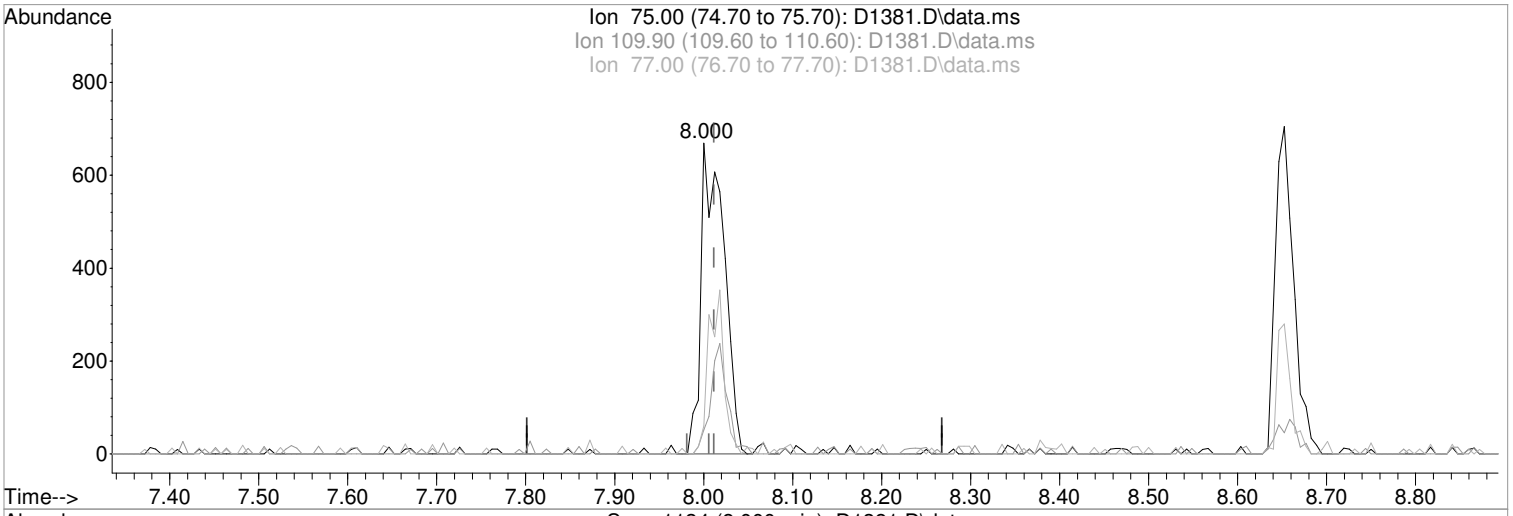
02/14/18

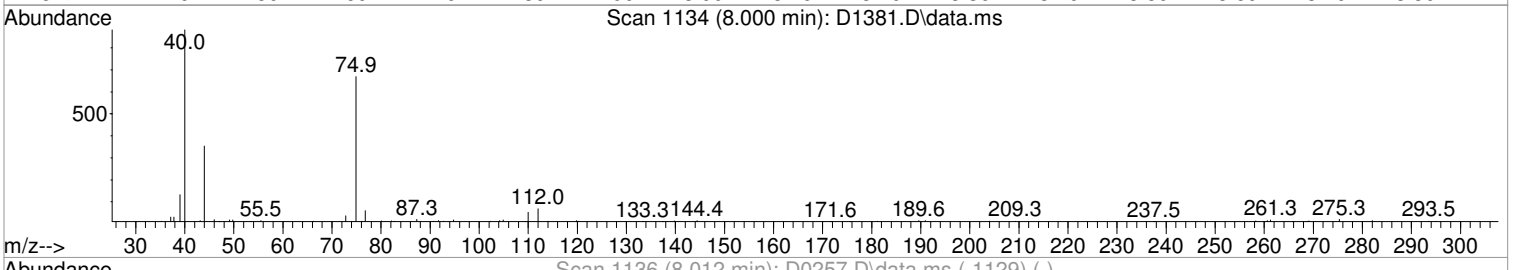
1st DL 02/14/18
2nd FW 02/15/18

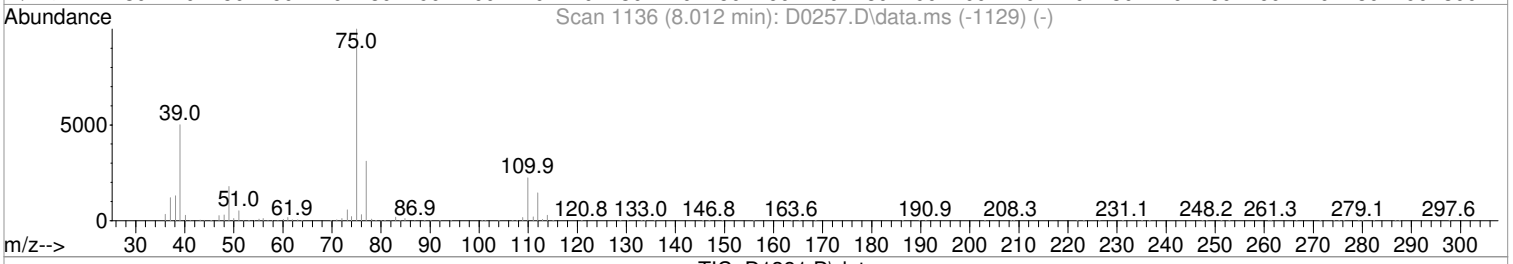
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(62) cis-1,3-Dichloropropene (P)

8.000min (-0.012) 0.71 ug/L m

response 1213

Ion	Exp%	Act%
75.00	100	100
109.90	22.30	7.77
77.00	31.20	8.97#
0.00	0.00	0.00

Manual Integration:

After

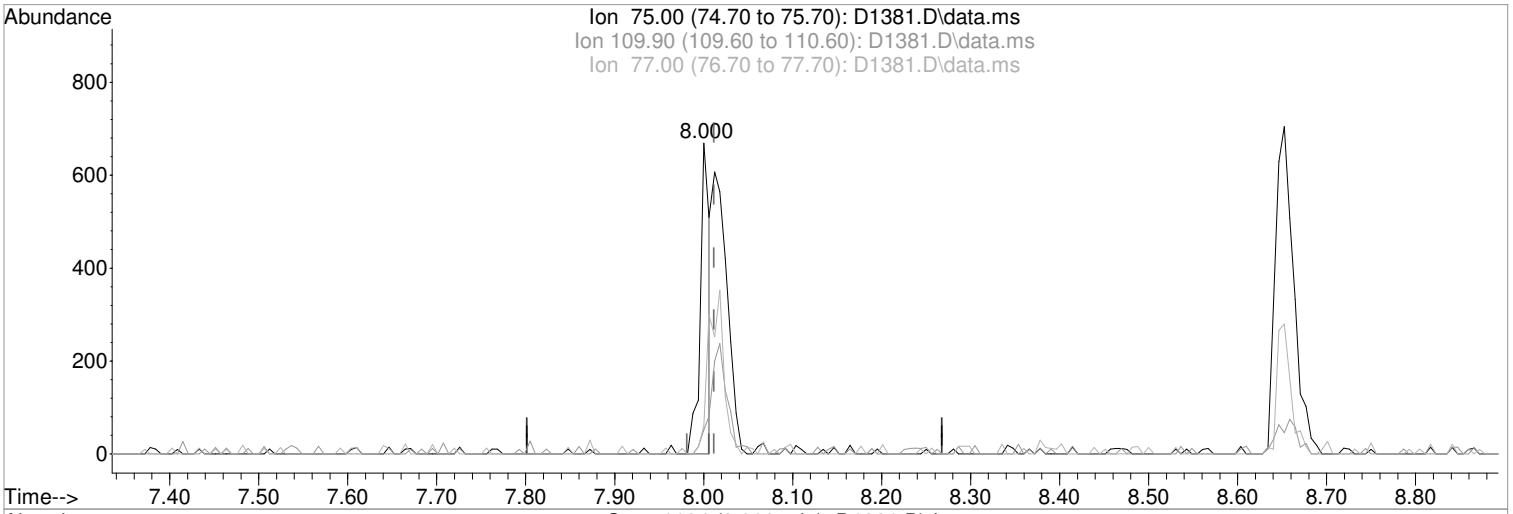
Poor integration.

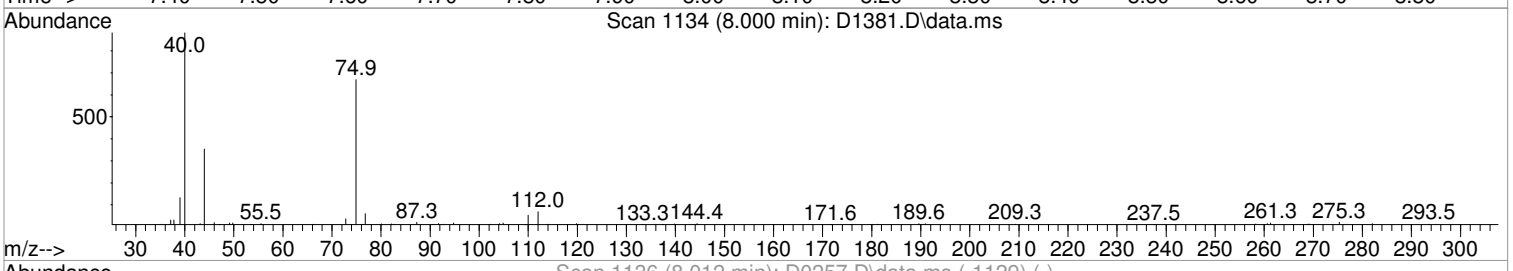
02/14/18

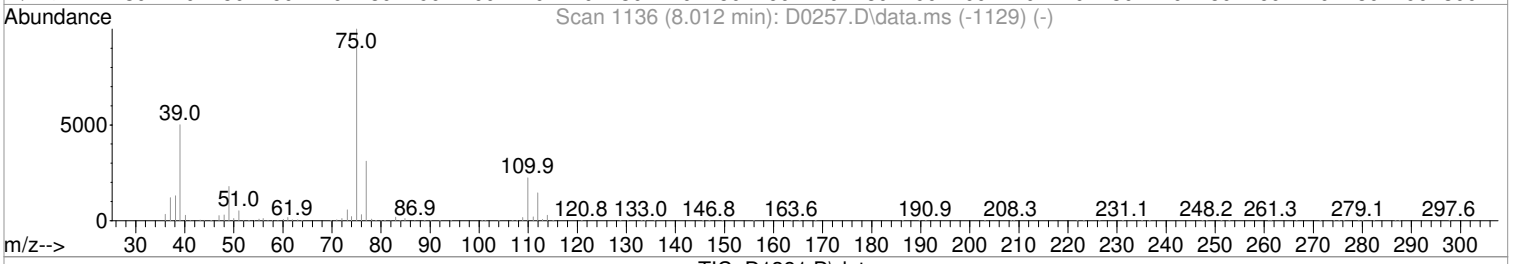
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(62) cis-1,3-Dichloropropene (P)

8.000min (-0.012) 0.48 ug/L

response 505

Ion	Exp%	Act%
75.00	100	100
109.90	22.30	7.77
77.00	31.20	8.97#
0.00	0.00	0.00

Manual Integration:

Before

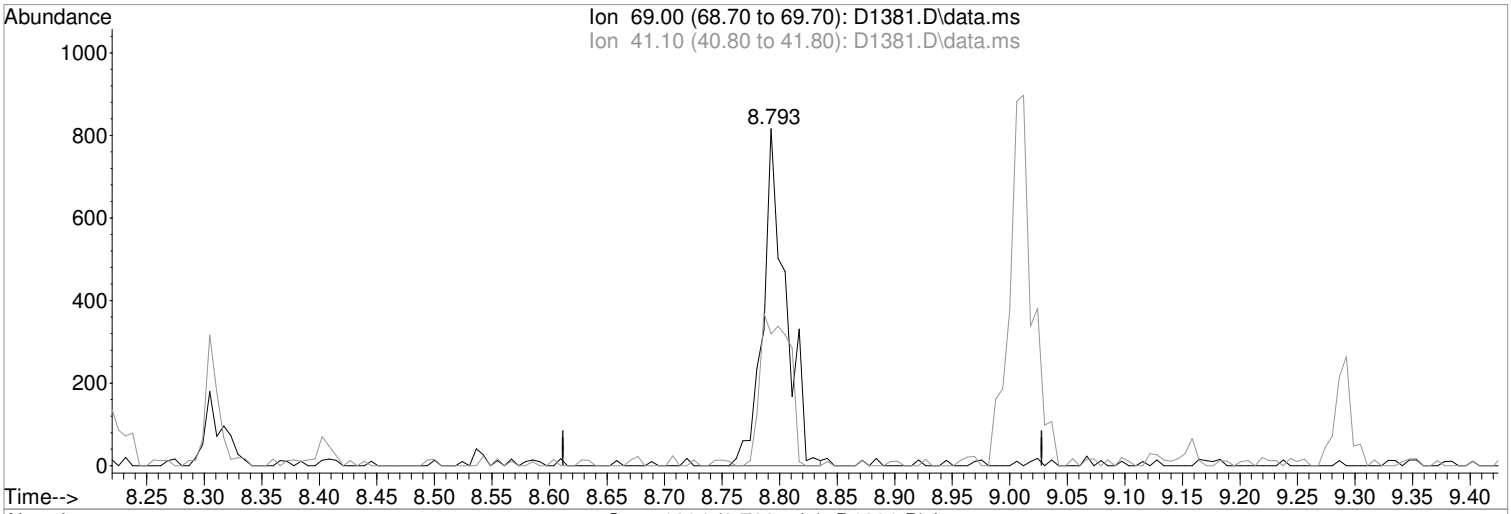
02/14/18

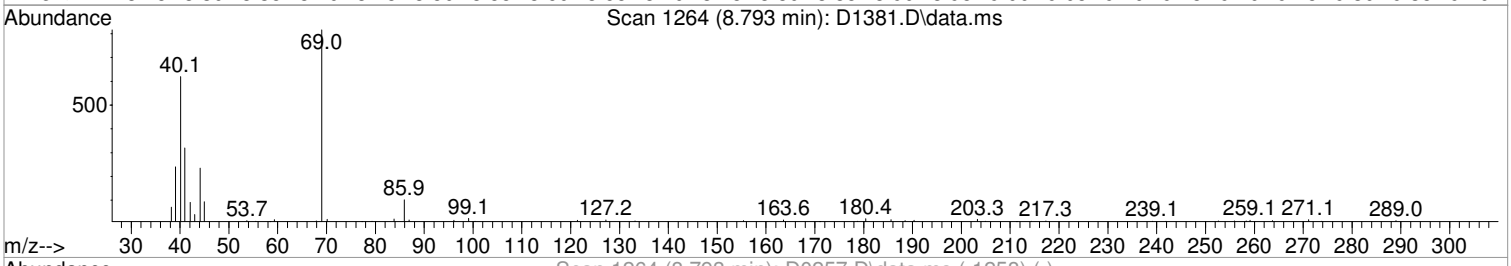
1st DL 02/14/18
2nd FJ 02/15/18

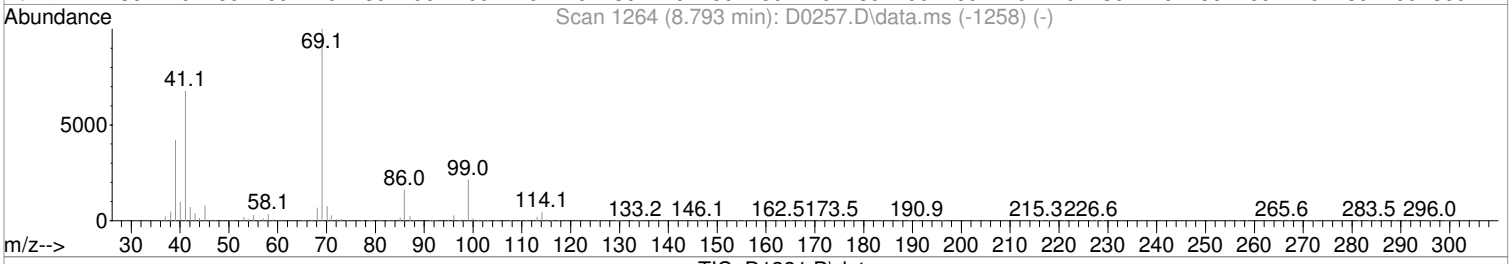
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(67) Ethyl Methacrylate

8.793min (+0.001) 0.41 ug/L m

response 1109

Ion	Exp%	Act%
69.00	100	100
41.10	67.70	39.09#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

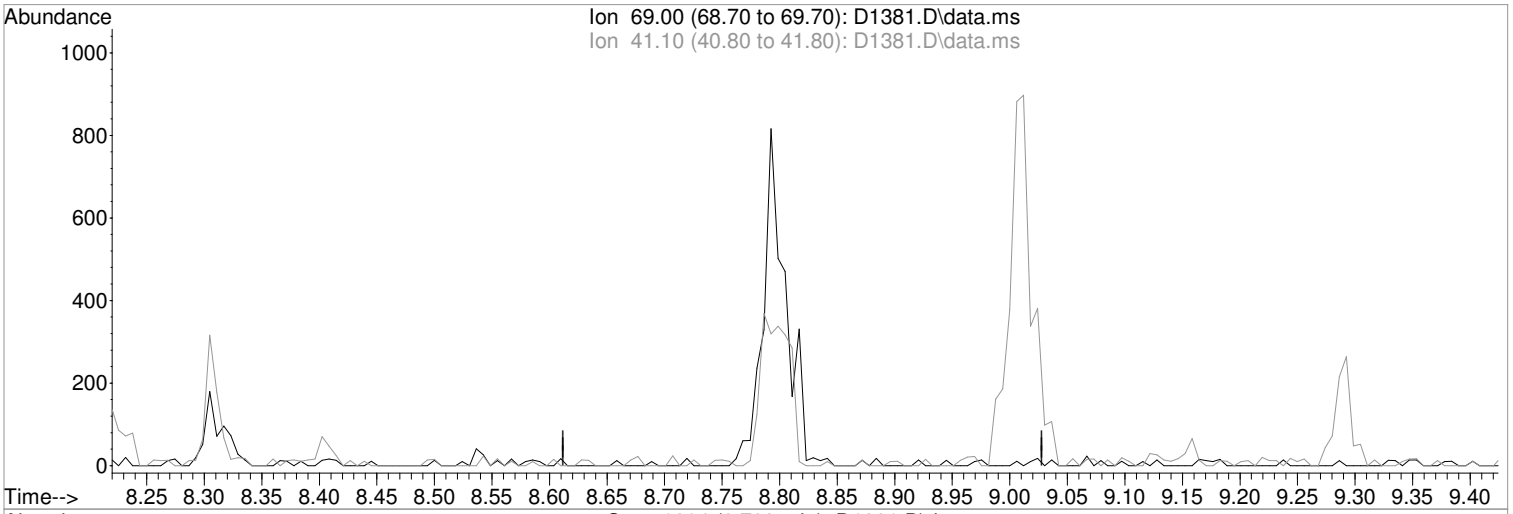
Peak not found.

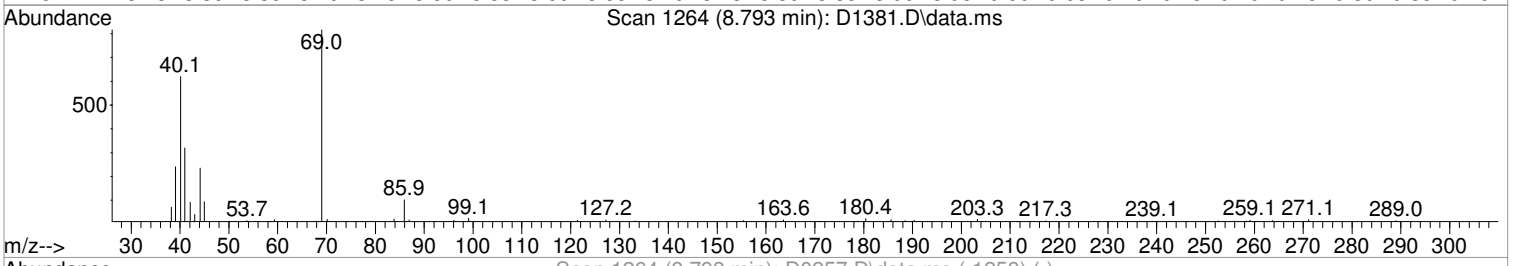
02/14/18

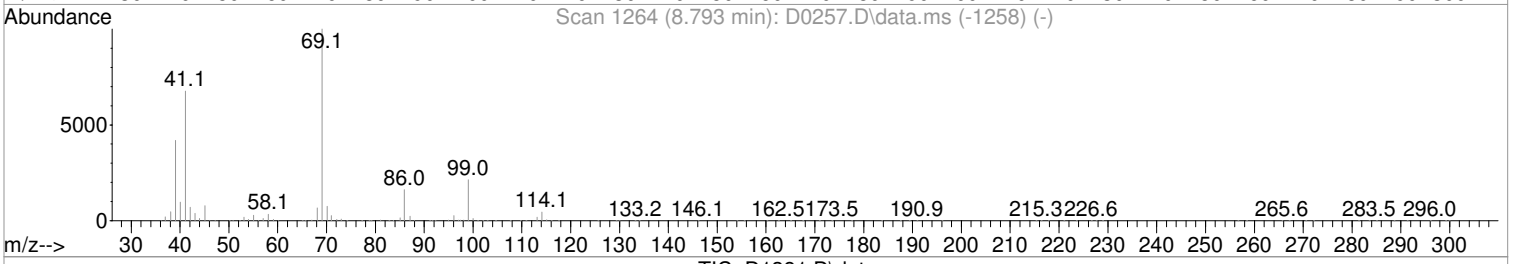
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(67) Ethyl Methacrylate

8.792min (-8.792) 0.00 ug/L

response 0

Ion	Exp%	Act%
69.00	100	0.00
41.10	67.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

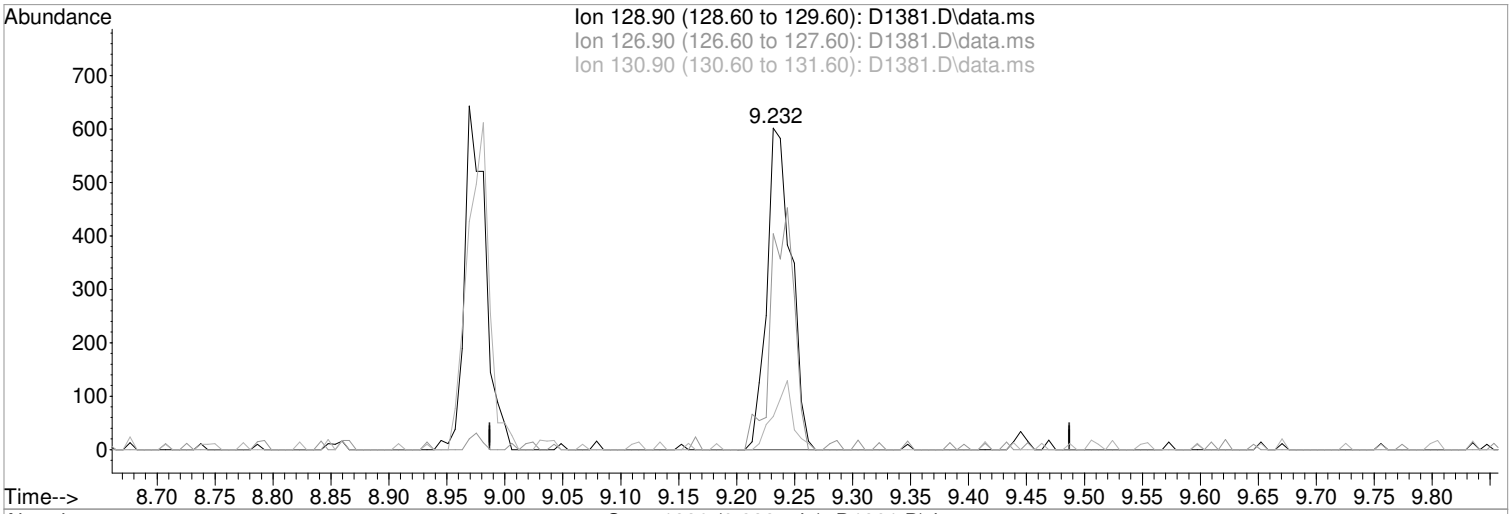
02/14/18

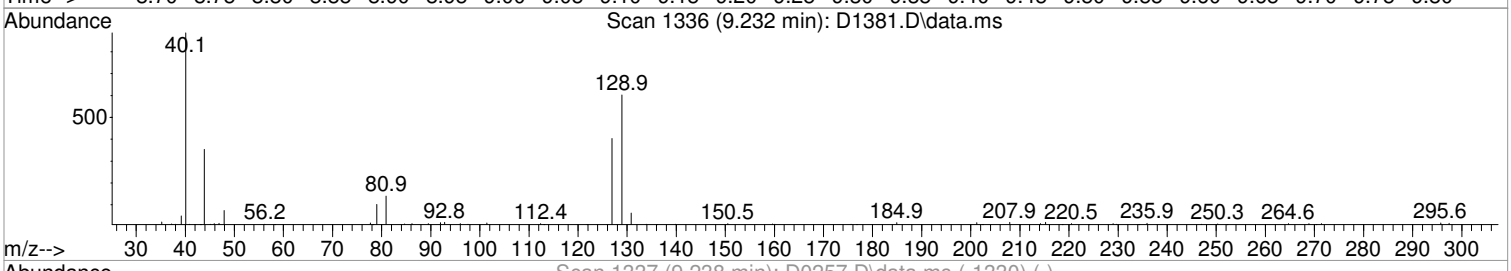
1st DL 02/14/18
2nd FW 02/15/18

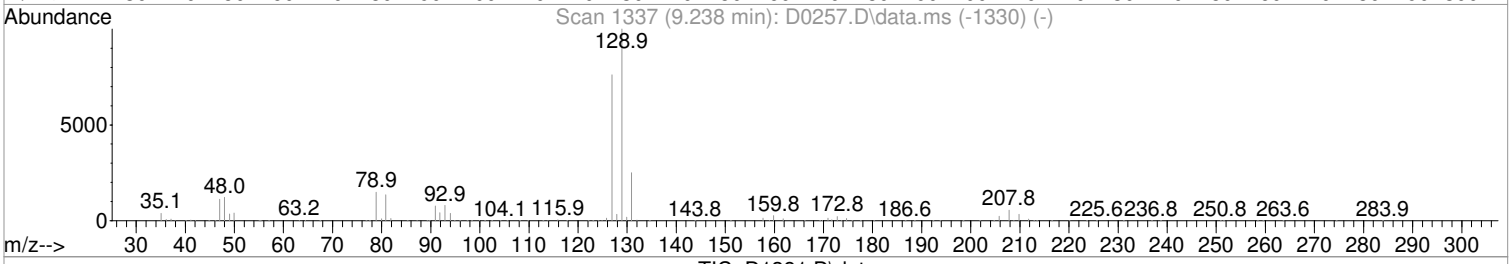
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(74) Dibromochloromethane (P)

9.232min (-0.005) 0.49 ug/L m

response 883

Ion	Exp%	Act%
128.90	100	100
126.90	76.20	67.11
130.90	25.10	10.30
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

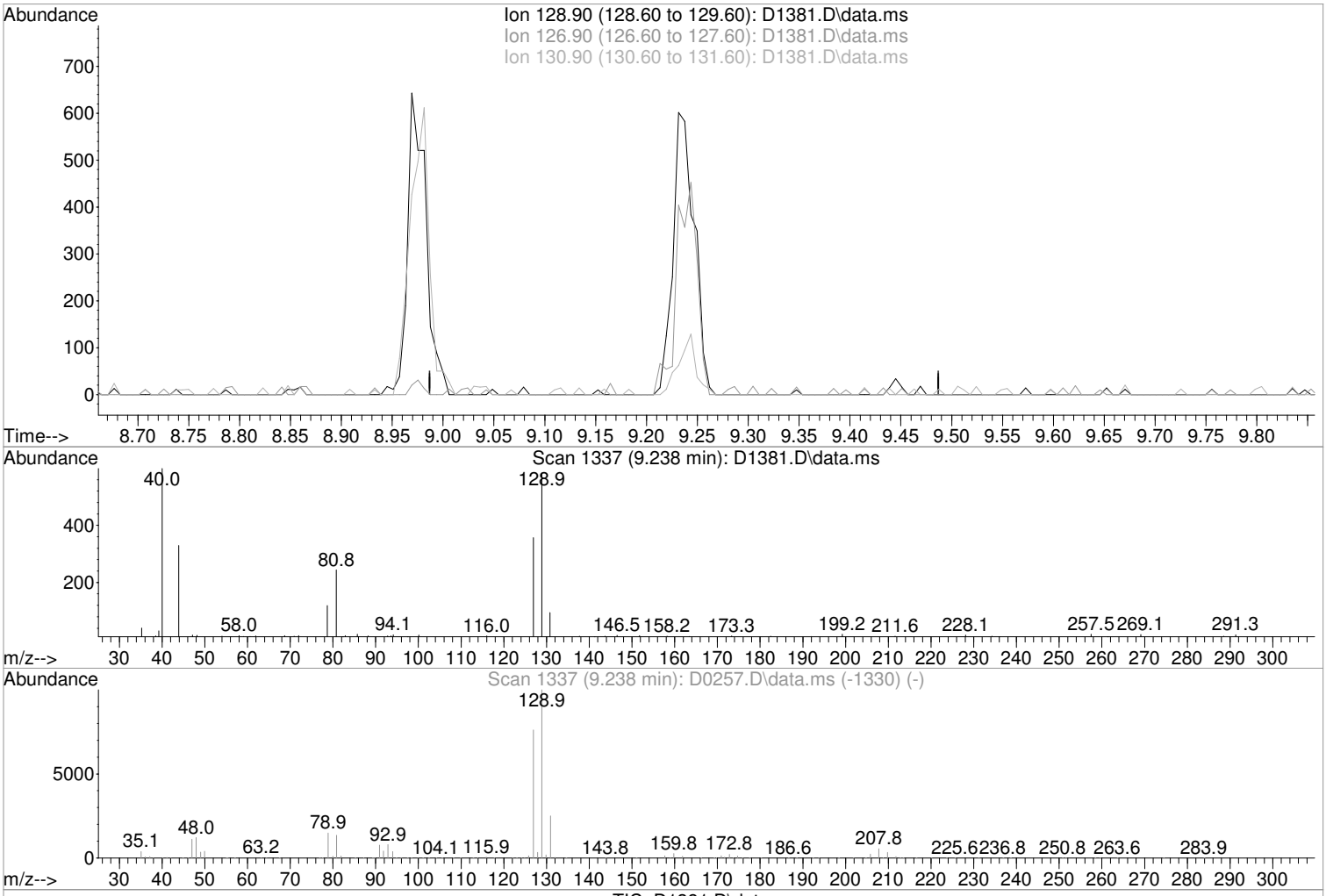
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(74) Dibromochloromethane (P)

9.237min (-9.237) 0.00 ug/L

response 0

Ion	Exp%	Act%
128.90	100	0.00
126.90	76.20	0.00#
130.90	25.10	0.00#
0.00	0.00	0.00

Manual Integration:

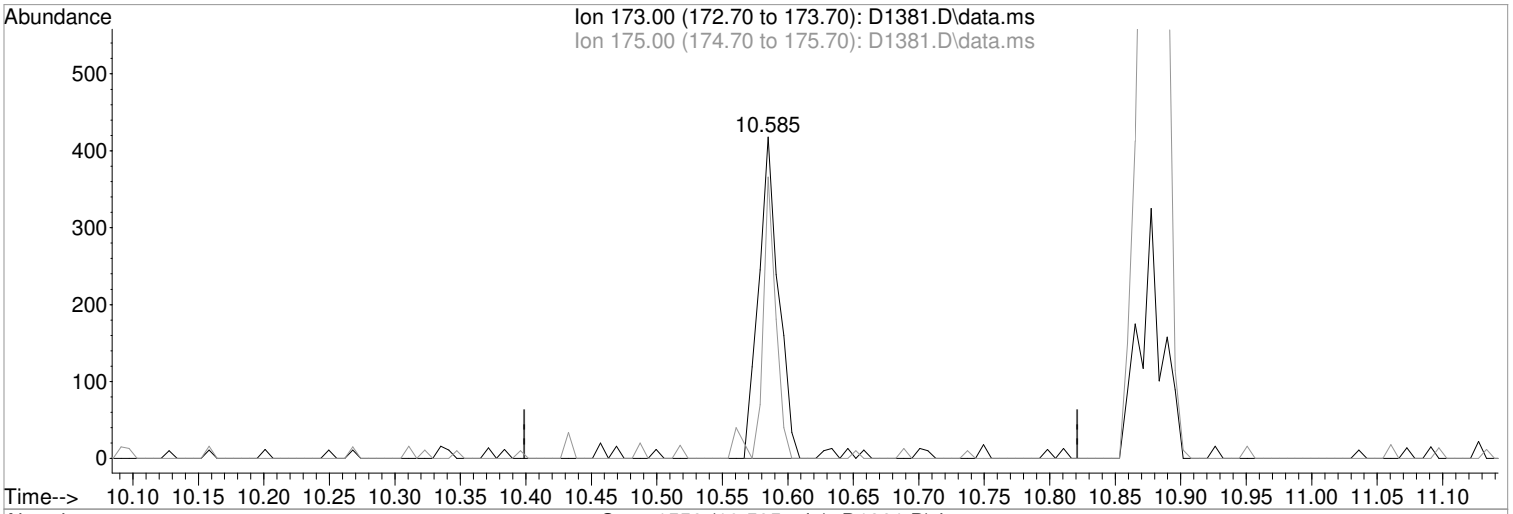
Before

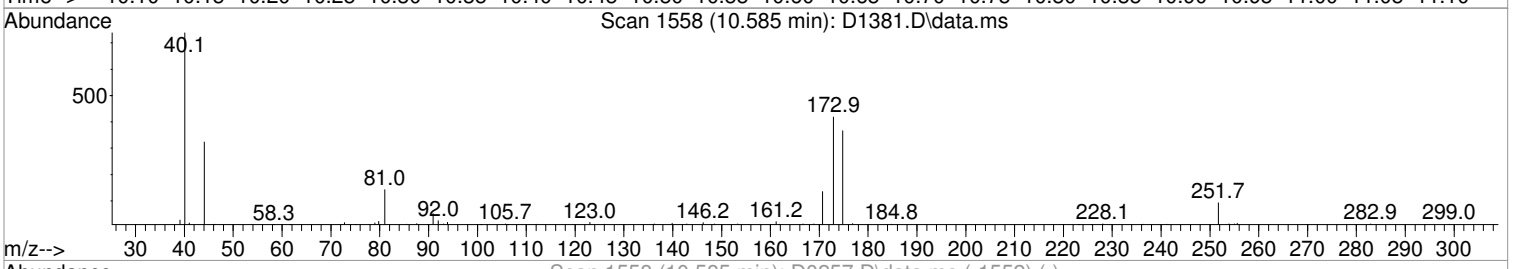
02/14/18

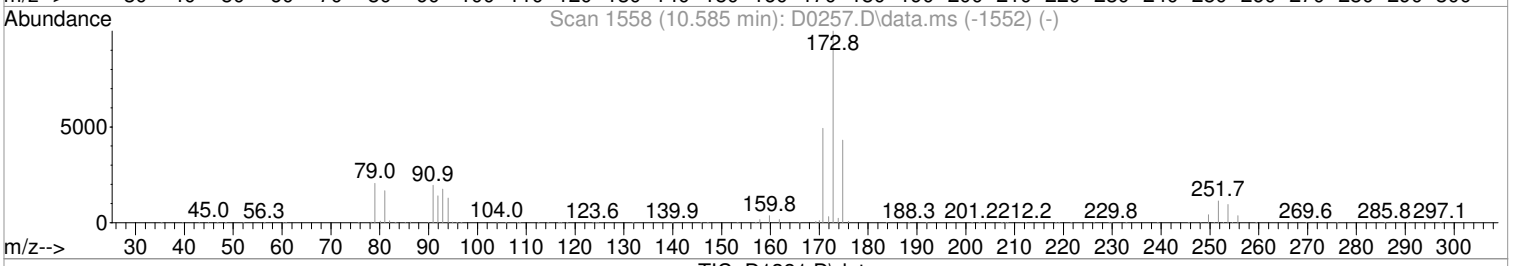
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(85) Bromoform (P)

10.585min (-0.000) 0.58 ug/L m

response 445

Ion	Exp%	Act%
173.00	100	100
175.00	43.30	87.56#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

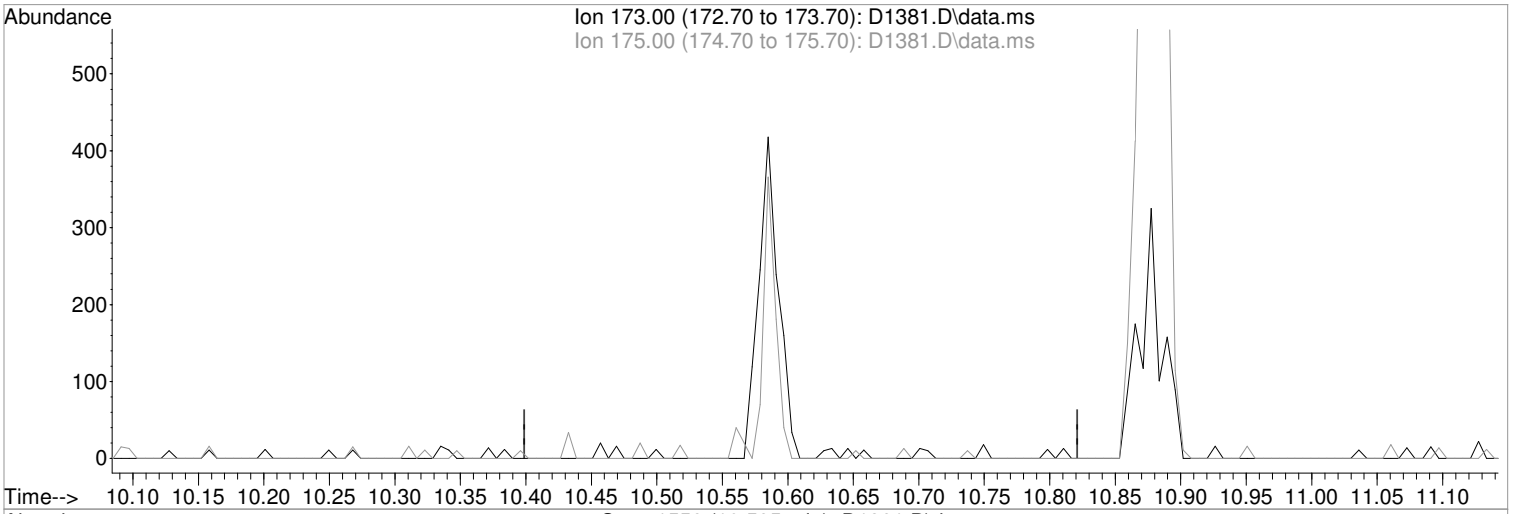
02/14/18

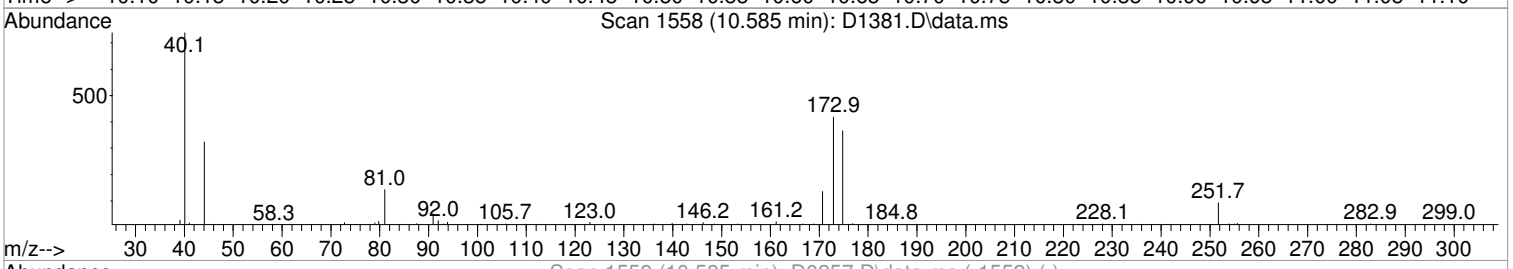
1st DL 02/14/18
2nd FJ 02/15/18

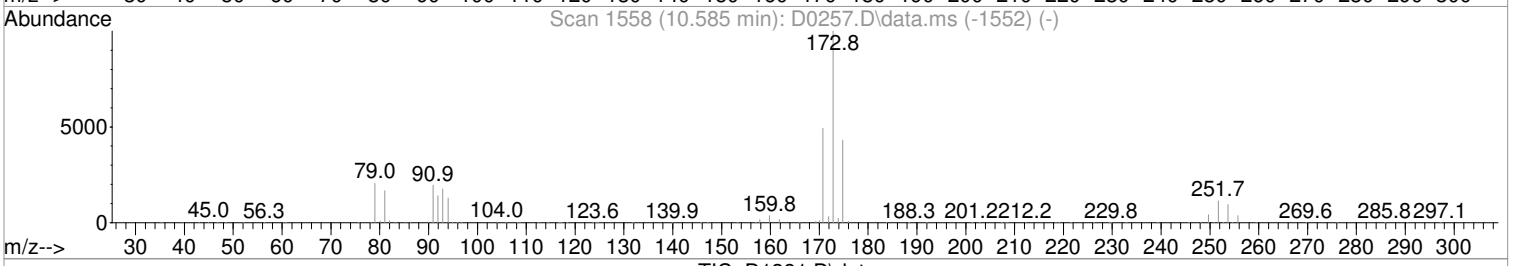
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(85) Bromoform (P)

10.585min (-10.585) 0.00 ug/L

response 0

Ion	Exp%	Act%
173.00	100	0.00
175.00	43.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

1st DL 02/14/18
2nd FW 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
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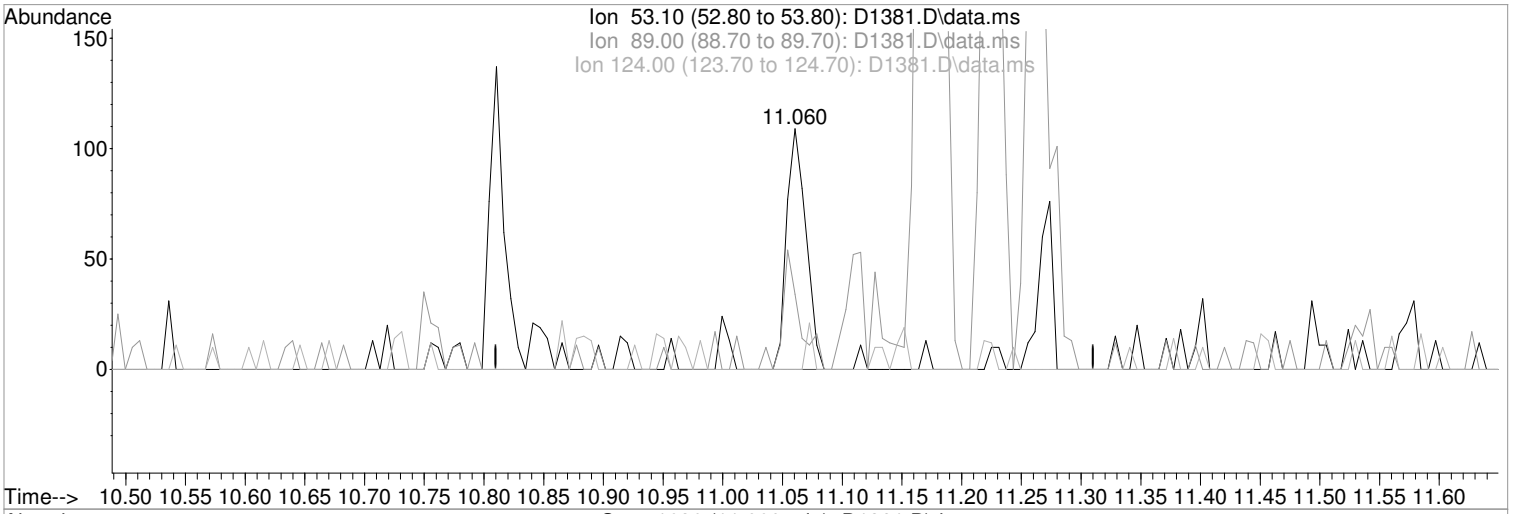
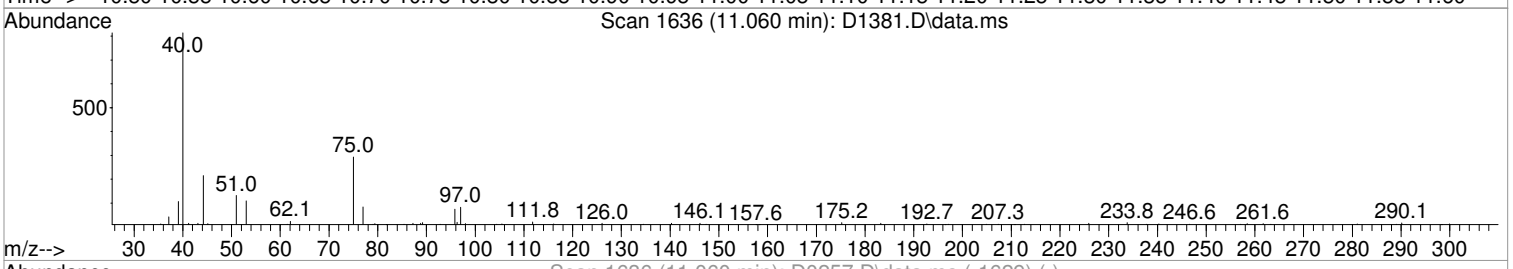
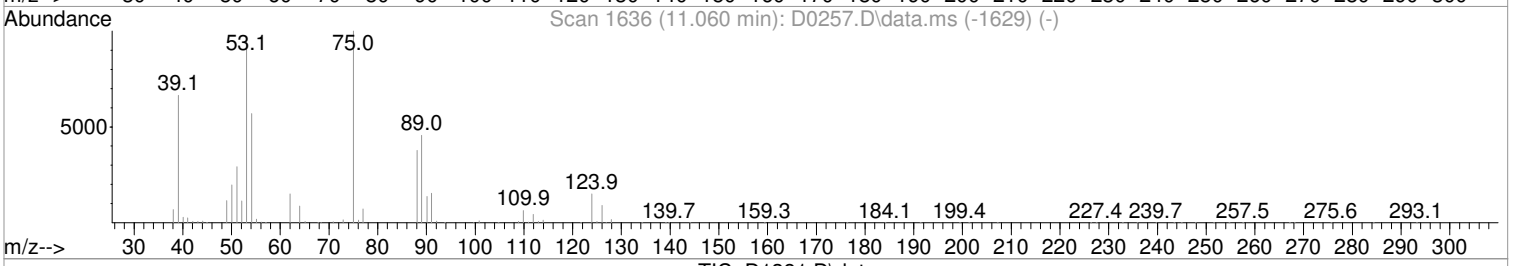
Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.060min (+0.000) 0.45 ug/L m

response 123

Ion	Exp%	Act%
53.10	100	100
89.00	47.80	16.51#
124.00	15.90	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

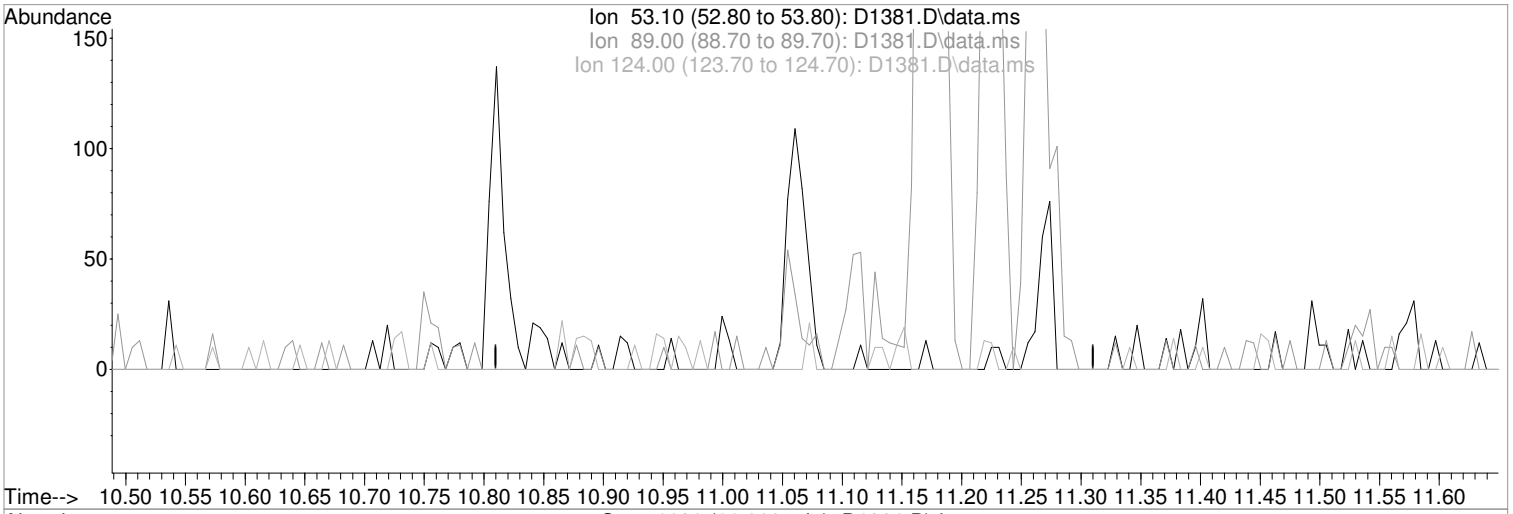
02/14/18

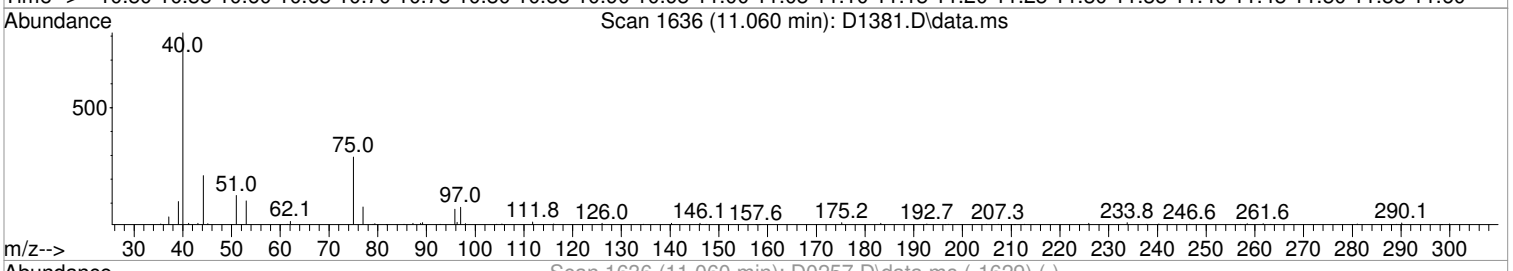
1st DL 02/14/18
2nd FW 02/15/18

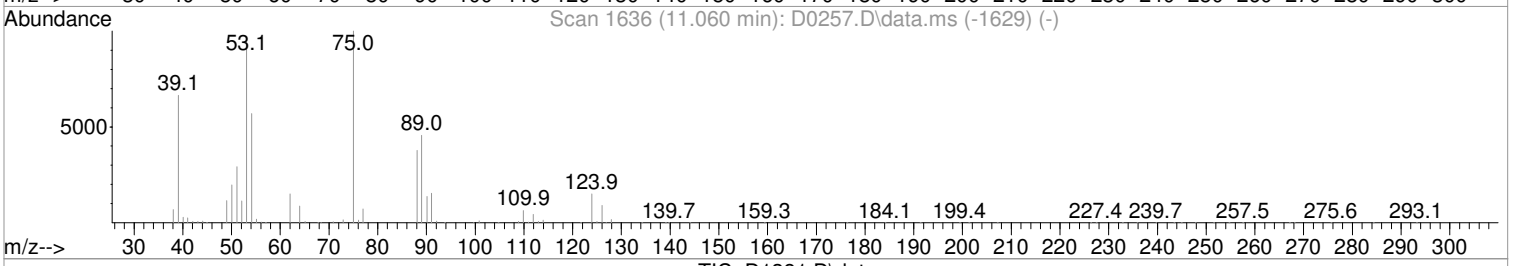
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.060min (-11.060) 0.00 ug/L

response 0

Ion	Exp%	Act%
53.10	100	0.00
89.00	47.80	0.00#
124.00	15.90	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	196643	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	290806	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	253246	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	130742	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	19214	10.80	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 21.60%#				
46) surr1,1,2-dichloroetha...	5.781	65	23718	11.53	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 23.06%#				
64) SURR3,Toluene-d8	8.305	98	79217	11.30	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 22.60%#				
69) SURR2,BFB	10.878	95	28028	10.32	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 20.64%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	1314	0.47	ug/L		91
3) Chloromethane	1.282	50	1828	0.59	ug/L		94
4) Vinyl Chloride	1.361	62	1276	0.44	ug/L		77
5) Bromomethane	1.587	94	1951m	0.39	ug/L		
6) Chloroethane	1.666	64	857	0.46	ug/L		82
7) Freon 21	1.812	67	2283	0.51	ug/L		95
8) Trichlorofluoromethane	1.867	101	1931	0.58	ug/L		88
9) Diethyl Ether	2.093	59	990	0.52	ug/L	#	78
10) Freon 123a	2.093	67	1211	0.46	ug/L	#	69
11) Freon 123	2.148	83	1661	0.56	ug/L		93
12) Acrolein	2.196	56	1282	2.33	ug/L		90
13) 1,1-Diclethene	2.276	96	1048	0.54	ug/L	#	71
14) Freon 113	2.288	101	1215	0.58	ug/L	#	63
15) Acetone	2.324	43	594	0.58	ug/L		76
16) 2-Propanol	2.452	45	1063m	7.54	ug/L		
17) Iodomethane	2.416	142	485	1.87	ug/L		81
18) Carbon Disulfide	2.477	76	2774	0.52	ug/L		96
20) Allyl Chloride	2.605	76	473m	0.48	ug/L		
21) Methyl Acetate	2.629	43	1156m	0.60	ug/L		
22) Methylene Chloride	2.733	84	1175	0.54	ug/L	#	84
23) TBA	2.867	59	1702	7.89	ug/L		91
24) Acrylonitrile	2.995	53	2440	2.34	ug/L	#	75
25) Methyl-t-Butyl Ether	3.031	73	2844	0.47	ug/L		95
26) trans-1,2-Dichloroethene	3.025	96	1287	0.64	ug/L	#	66
27) 1,1-Diclethane	3.525	63	2058	0.55	ug/L		88
29) DIPE	3.647	45	3060	0.44	ug/L		85
30) 2-Chloro-1,3-Butadiene	3.659	53	1437m	0.45	ug/L		
31) ETBE	4.184	59	2566	0.46	ug/L		89
32) 2,2-Dichloropropane	4.348	77	981m	0.51	ug/L		
33) cis-1,2-Dichloroethene	4.367	96	1229m	0.53	ug/L		
34) 2-Butanone	4.428	43	687	0.49	ug/L	#	61
35) Propionitrile	4.513	54	1051	2.47	ug/L		88
36) Bromochloromethane	4.763	130	647m	0.50	ug/L		
38) Tetrahydrofuran	4.873	42	364	0.45	ug/L	#	7
39) Chloroform	4.940	83	2044	0.56	ug/L		94
40) 1,1,1-Trichloroethane	5.244	97	1340	0.50	ug/L	#	74
42) Cyclohexane	5.336	41	1129m	0.66	ug/L		
44) Carbontetrachloride	5.519	117	980	0.47	ug/L	#	74
45) 1,1-Dichloropropene	5.543	75	1495	0.51	ug/L	#	64

1st DL 02/14/18
2nd FJ 02/15/18

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) Benzene	5.854	78	4401	0.52	ug/L		97
48) 1,2-Dichloroethane	5.897	62	1208	0.41	ug/L		95
49) Iso-Butyl Alcohol	5.885	43	714m	33.15	ug/L		
50) TAME	6.098	73	2473	0.48	ug/L	#	73
51) n-Heptane	6.354	43	1594	0.55	ug/L		86
52) 1-Butanol	6.848	56	842	26.47	ug/L	#	50
53) Trichloroethene	6.811	130	1408	0.61	ug/L	#	69
54) Methylcyclohexane	7.049	55	1228	0.45	ug/L		86
55) 1,2-Diclpropane	7.098	63	1195	0.54	ug/L		81
56) Dibromomethane	7.232	93	777	0.56	ug/L	#	51
57) 1,4-Dioxane	7.305	88	281	7.87	ug/L	#	1
58) Methyl Methacrylate	7.323	69	529	0.34	ug/L		89
59) Bromodichloromethane	7.470	83	1373	0.54	ug/L		90
60) 2-Nitropropane	7.750	41	340	0.72	ug/L	#	55
62) cis-1,3-Dichloropropene	8.000	75	1213m	0.71	ug/L		
63) 4-Methyl-2-pentanone	8.213	43	1086	0.46	ug/L		82
65) Toluene	8.378	91	4533	0.50	ug/L		96
66) trans-1,3-Dichloropropene	8.652	75	1021	0.70	ug/L		76
67) Ethyl Methacrylate	8.793	69	1109m	0.41	ug/L		
68) 1,1,2-Trichloroethane	8.841	97	897	0.45	ug/L		83
71) Tetrachloroethene	8.975	164	984	0.56	ug/L	#	88
72) 2-Hexanone	9.140	43	689	0.39	ug/L	#	74
73) 1,3-Dichloropropane	9.012	76	1618	0.46	ug/L	#	73
74) Dibromochloromethane	9.232	129	883m	0.49	ug/L		
75) N-Butyl Acetate	9.292	43	1353	0.40	ug/L	#	71
76) 1,2-Dibromoethane	9.335	107	867	0.45	ug/L		94
77) 3-Chlorobenzotrifluoride	9.847	180	1910	0.57	ug/L	#	74
78) Chlorobenzene	9.829	112	2939	0.50	ug/L		92
79) 4-Chlorobenzotrifluoride	9.896	180	1494	0.50	ug/L		91
80) 1,1,1,2-Tetrachloroethane	9.914	131	807	0.45	ug/L	#	73
81) Ethylbenzene	9.951	106	1618	0.53	ug/L	#	77
82) (m+p)Xylene	10.067	106	3656	0.97	ug/L		95
83) o-Xylene	10.420	106	1626	0.45	ug/L	#	52
84) Styrene	10.432	104	2742	0.45	ug/L		93
85) Bromoform	10.585	173	445m	0.58	ug/L		
86) 2-Chlorobenzotrifluoride	10.664	180	1616	0.50	ug/L		96
87) Isopropylbenzene	10.756	105	4639	0.49	ug/L		99
88) Cyclohexanone	10.817	55	4347	7.29	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.060	53	123m	0.45	ug/L		
91) 1,1,2,2-Tetrachloroethane	11.012	83	1375	0.52	ug/L		92
92) Bromobenzene	10.999	156	1035	0.45	ug/L	#	56
93) 1,2,3-Trichloropropane	11.036	110	404	0.50	ug/L	#	49
94) n-Propylbenzene	11.109	91	5162	0.49	ug/L		97
95) 2-Chlorotoluene	11.170	91	2963	0.47	ug/L		98
96) 3-Chlorotoluene	11.225	91	2939	0.48	ug/L		83
97) 4-Chlorotoluene	11.268	91	3861	0.52	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	3352	0.47	ug/L		93
99) tert-Butylbenzene	11.536	119	3502	0.55	ug/L		90
100) 1,2,4-Trimethylbenzene	11.573	105	3429	0.48	ug/L		96
101) 3,4-Dichlorobenzotrifl...	11.633	214	1342	0.53	ug/L	#	76
102) sec-Butylbenzene	11.719	105	4157	0.45	ug/L		92
103) p-Isopropyltoluene	11.841	119	3690	0.49	ug/L		96
104) 1,3-Dclbenz	11.798	146	2352	0.53	ug/L		93
105) 1,4-Dclbenz	11.871	146	2691	0.57	ug/L	#	75
106) 2,4-Dichlorobenzotrifl...	11.932	214	1226	0.53	ug/L	#	70
107) 2,5-Dichlorobenzotrifl...	11.969	214	1269	0.50	ug/L	#	77

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration

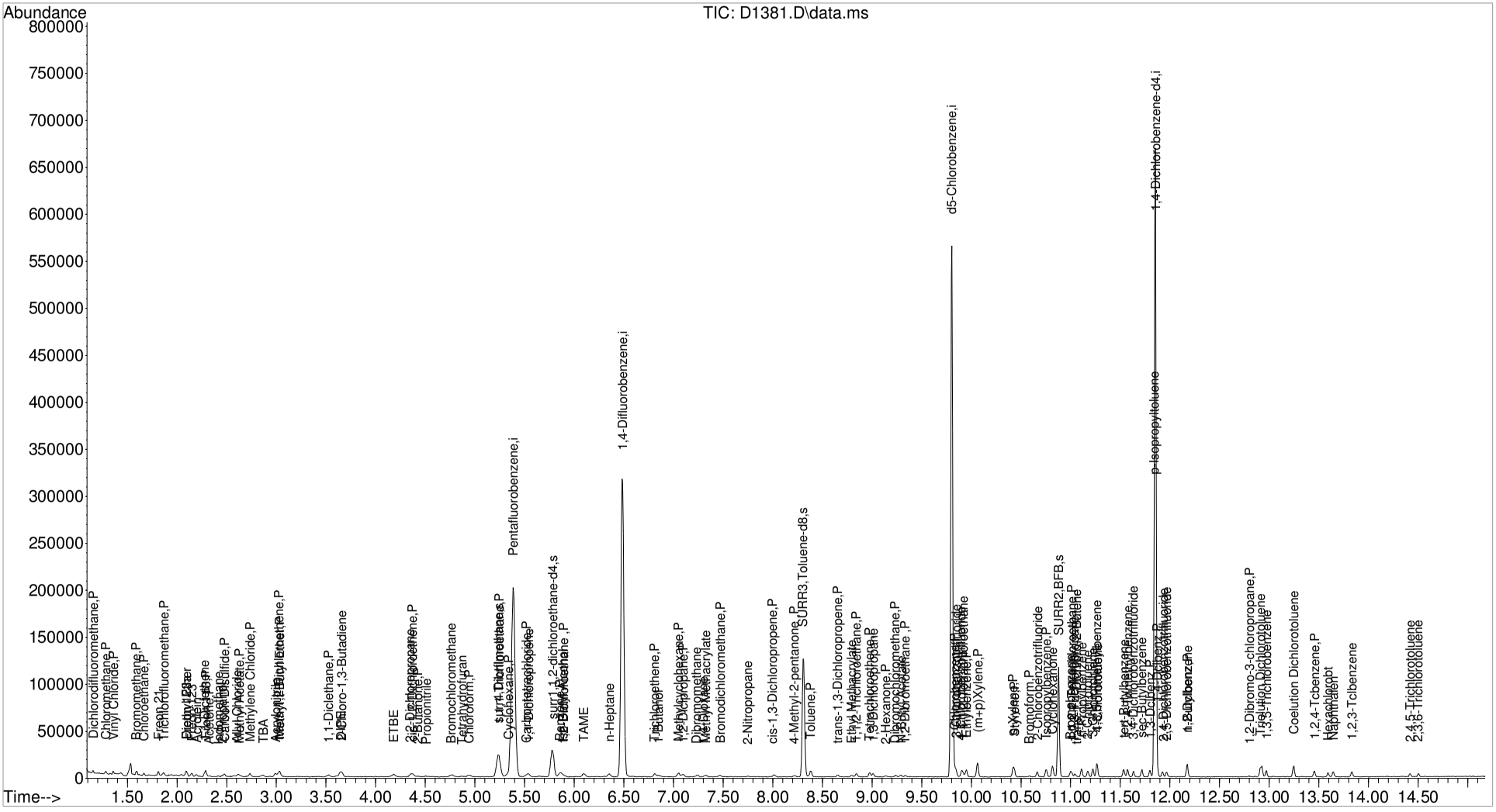
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) n-Butylbenzene	12.176	91	3081	0.44	ug/L		92
109) 1,2-Dclbenz	12.176	146	2640	0.58	ug/L		96
110) 1,2-Dibromo-3-chloropr...	12.798	157	140m	0.82	ug/L		
111) Trielution Dichlorotol...	12.914	125	5706	1.52	ug/L	#	77
112) 1,3,5-Trichlorobenzene	12.975	180	1736	0.50	ug/L		96
113) Coelution Dichlorotoluene	13.249	125	3960	0.99	ug/L		86
114) 1,2,4-Tcbenzene	13.456	180	1683	0.51	ug/L		82
115) Hexachlorobt	13.590	225	862	0.60	ug/L		89
116) Naphthalen	13.645	128	3114	0.42	ug/L		95
117) 1,2,3-Tclbenzene	13.834	180	1588	0.50	ug/L		82
118) 2,4,5-Trichlorotoluene	14.419	159	816	0.40	ug/L		87
119) 2,3,6-Trichlorotoluene	14.499	159	733	0.40	ug/L		88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



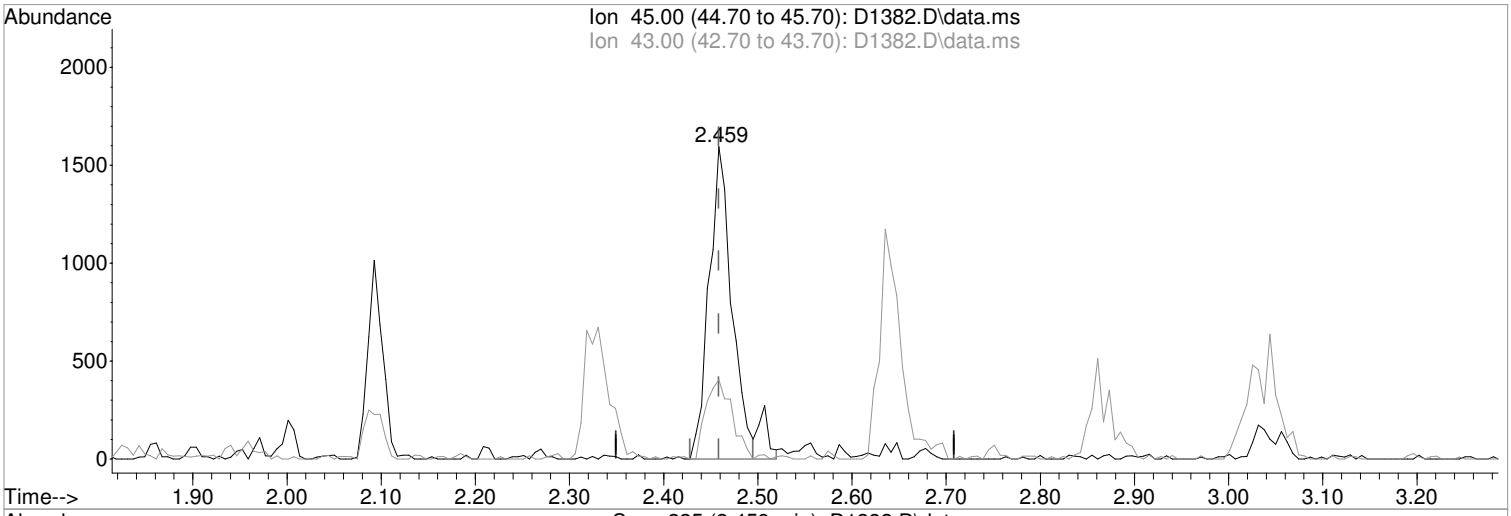
1st DL 02/14/18
2nd [illegible] 02/15/18

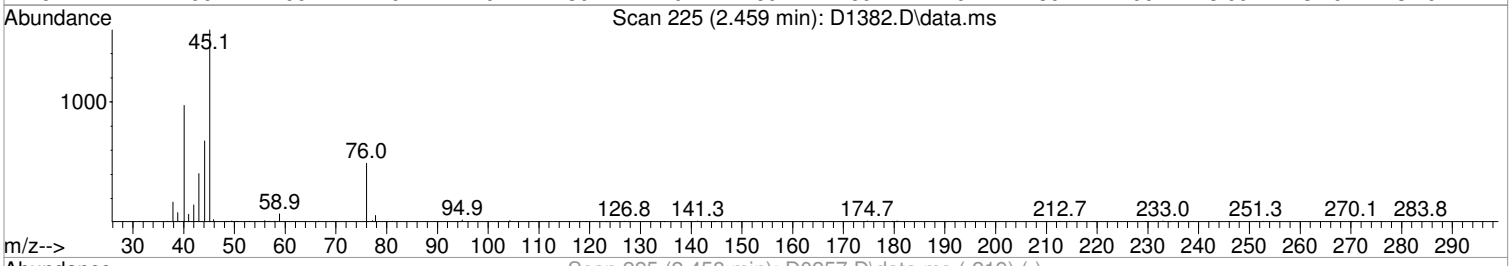
1st DL 02/14/18
2nd FJ 02/15/18

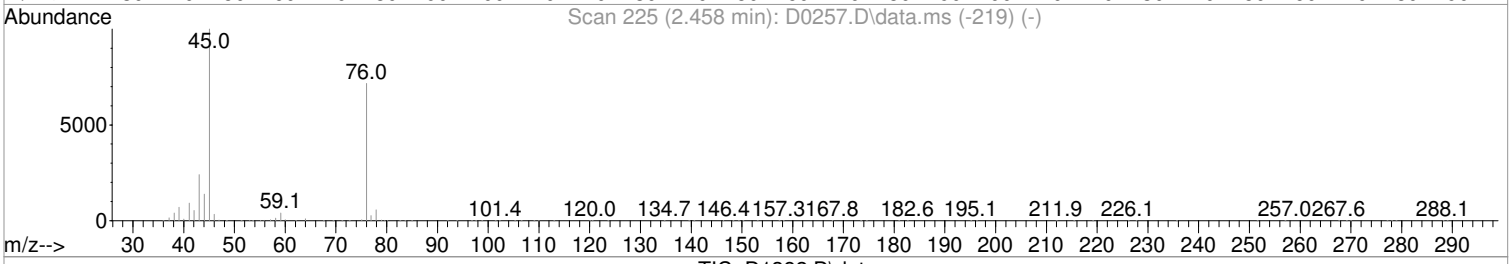
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(16) 2-Propanol

2.459min (-0.000) 21.44 ug/L m

response 2876

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	25.44
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

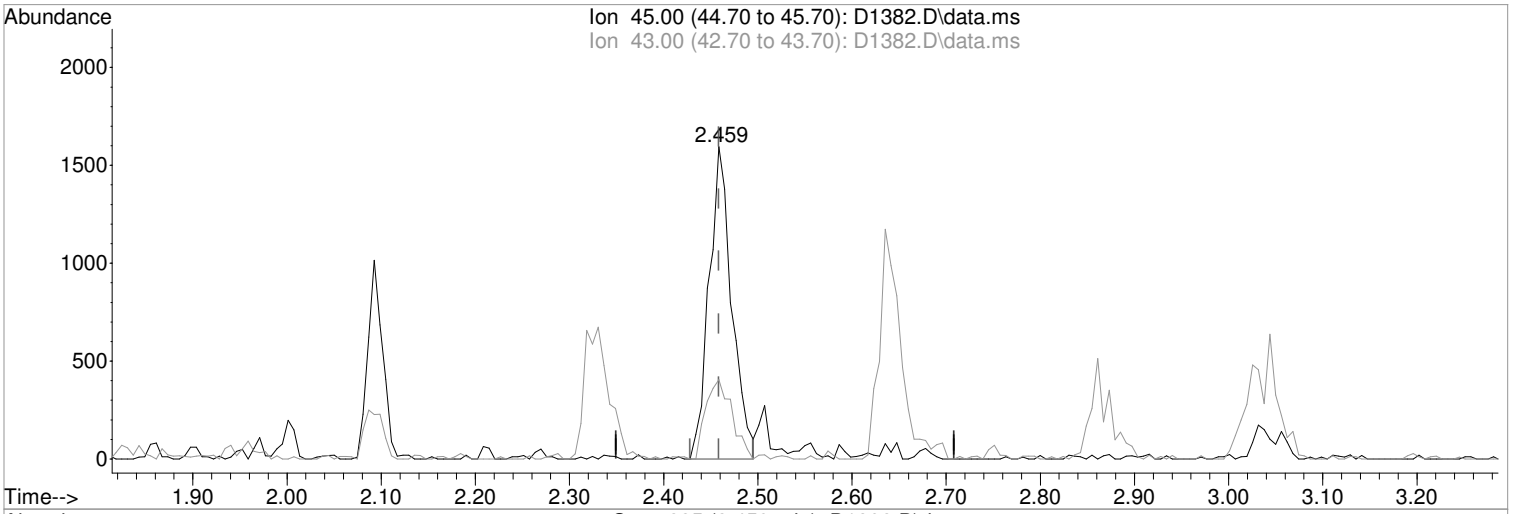
02/14/18

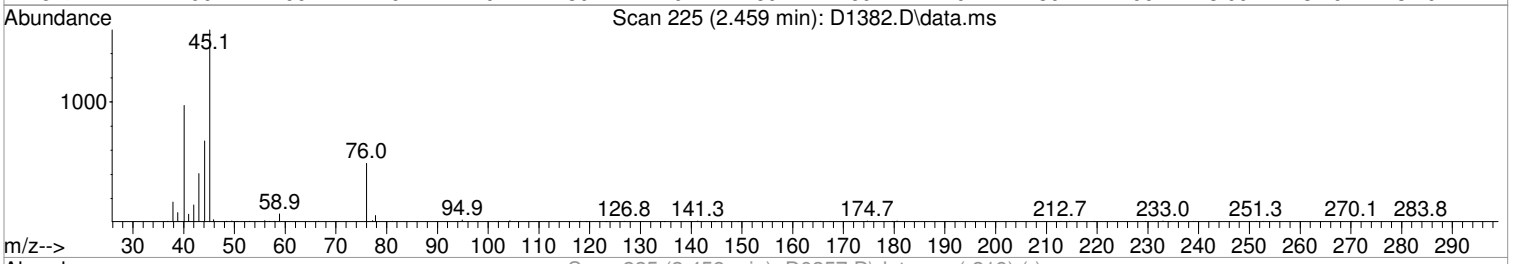
1st DL 02/14/18
2nd FJ 02/15/18

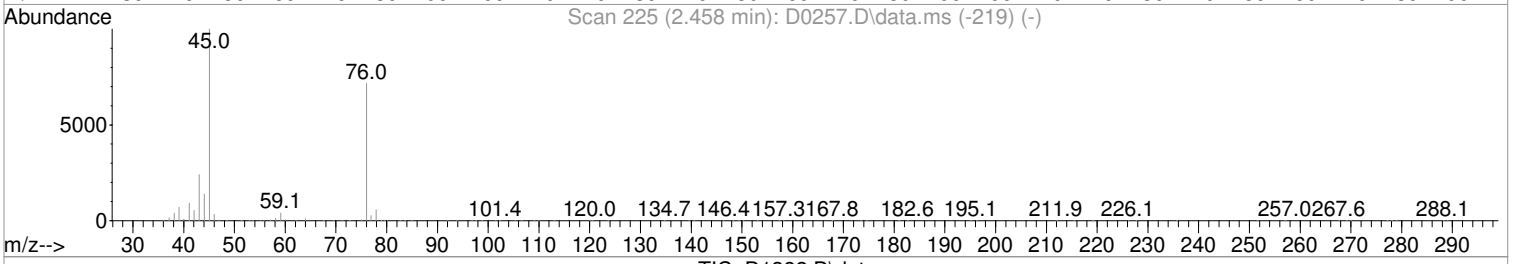
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(16) 2-Propanol

2.459min (-0.000) 19.95 ug/L

response 2676

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	25.44
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

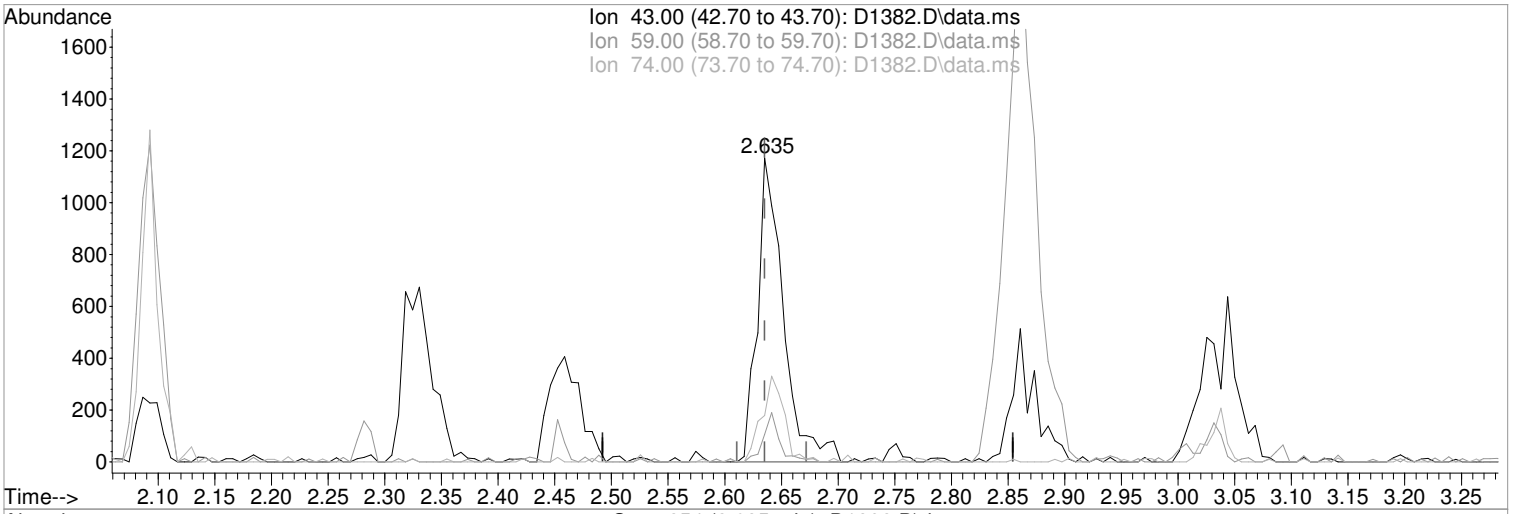
02/14/18

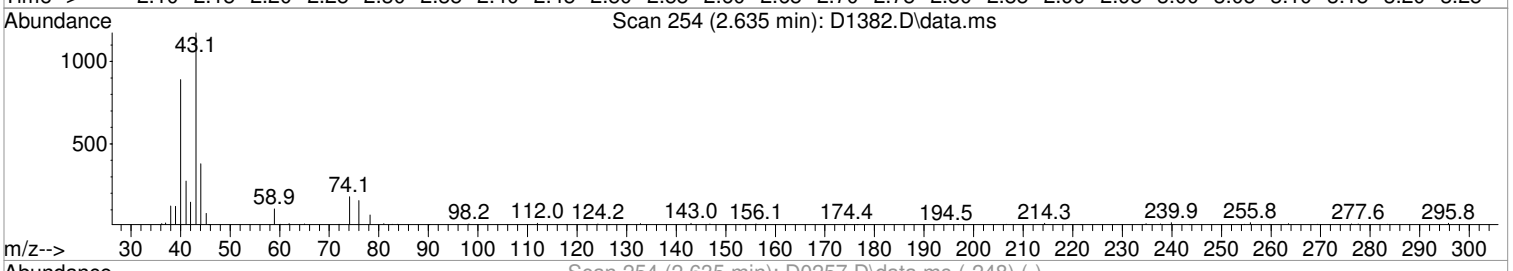
1st DL 02/14/18
2nd FJ 02/15/18

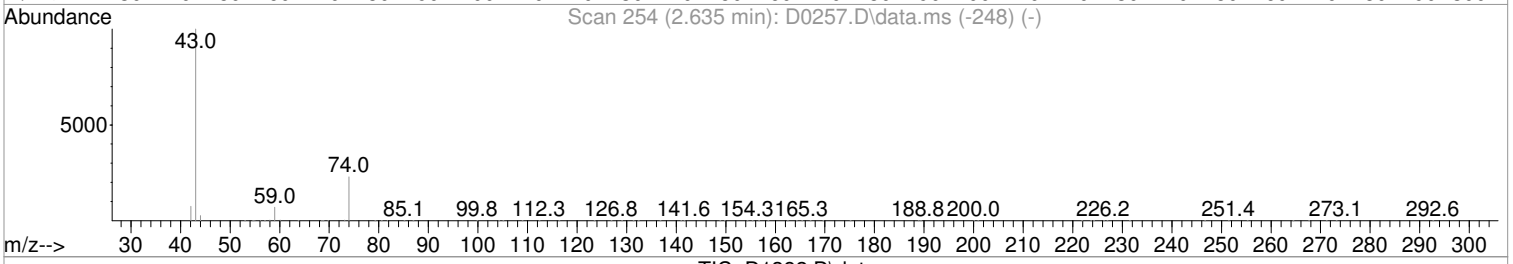
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(21) Methyl Acetate (P)

2.635min (-0.000) 0.96 ug/L m

response 1865

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	9.04
74.00	22.70	15.26
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

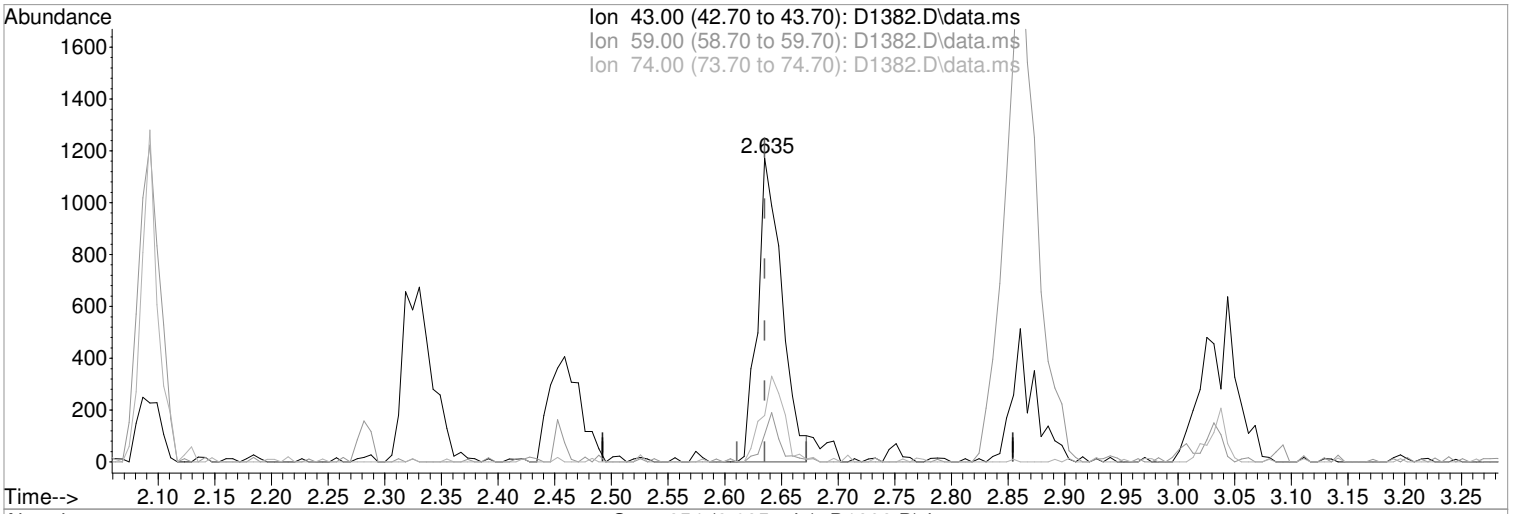
02/14/18

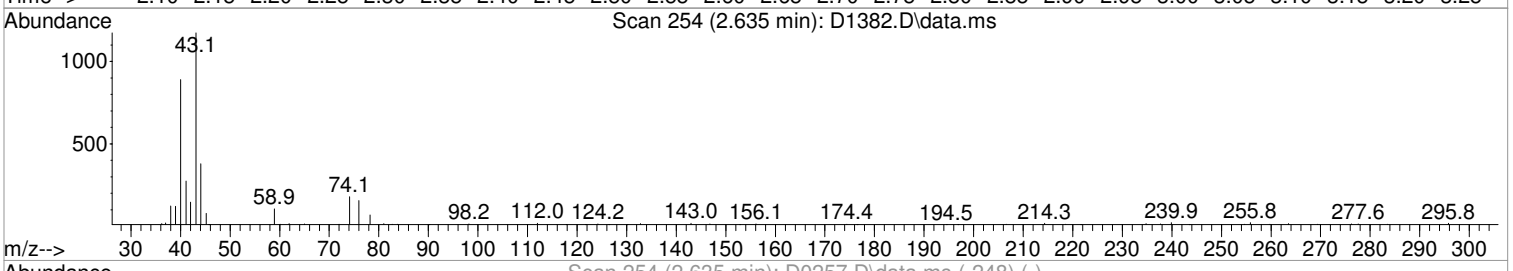
1st DL 02/14/18
2nd FJ 02/15/18

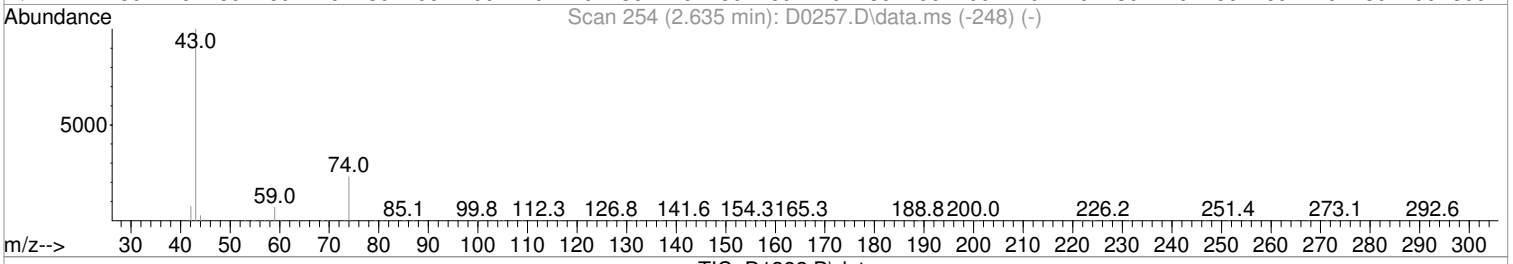
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(21) Methyl Acetate (P)

2.635min (-0.000) 0.90 ug/L

response 1755

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	9.04
74.00	22.70	15.26
0.00	0.00	0.00

Manual Integration:

Before

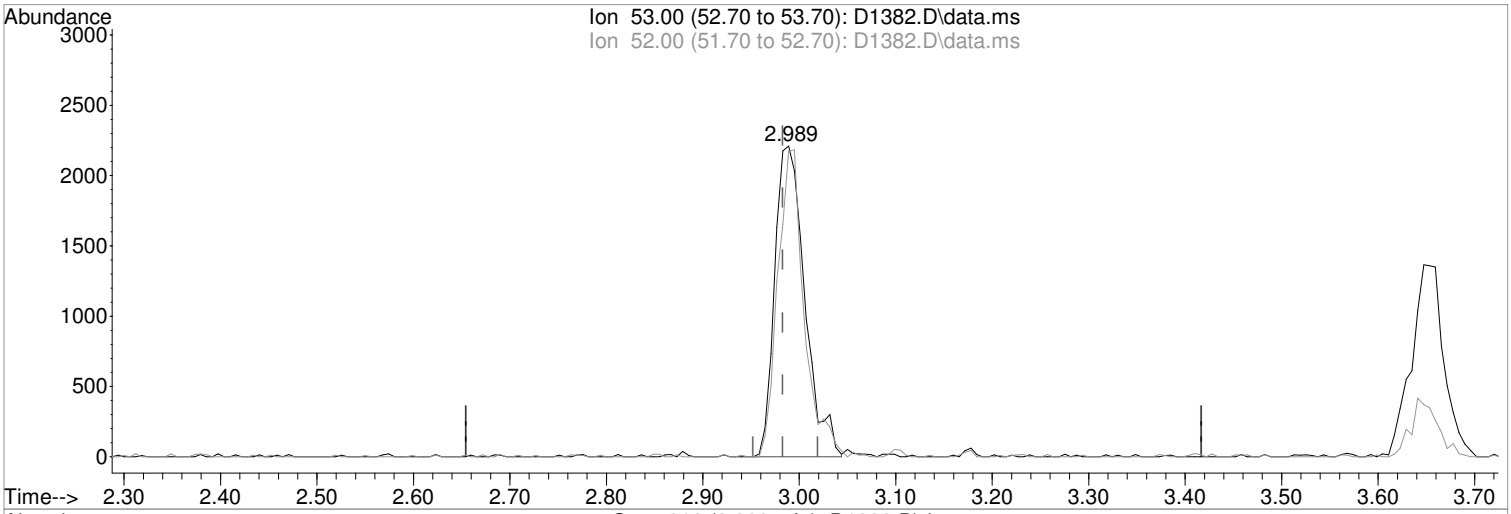
02/14/18

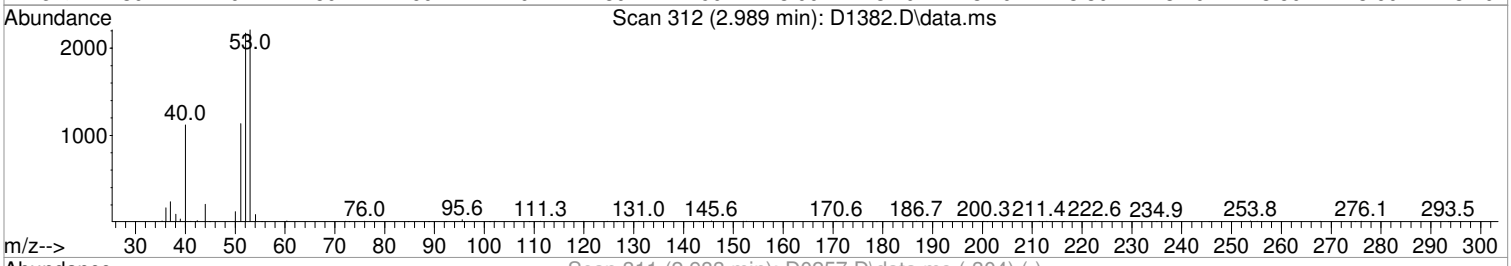
1st DL 02/14/18
2nd FJ 02/15/18

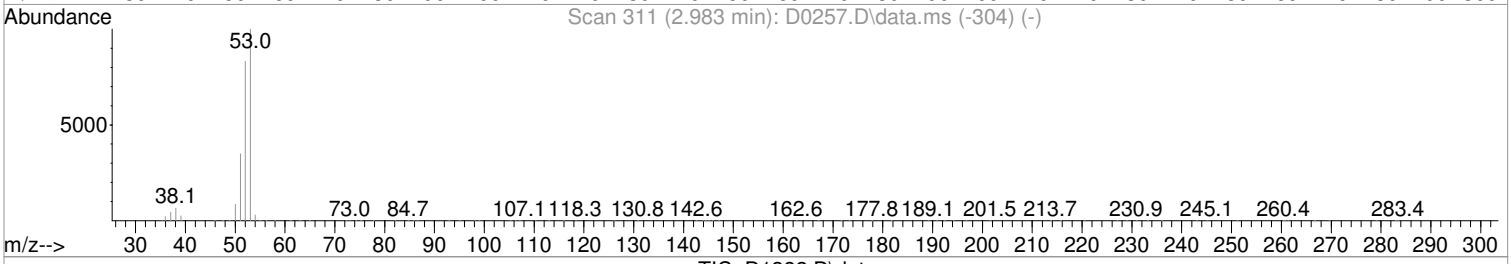
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(24) Acrylonitrile

2.989min (+0.006) 4.84 ug/L m

response 4794

Ion	Exp%	Act%
53.00	100	100
52.00	83.10	98.37
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

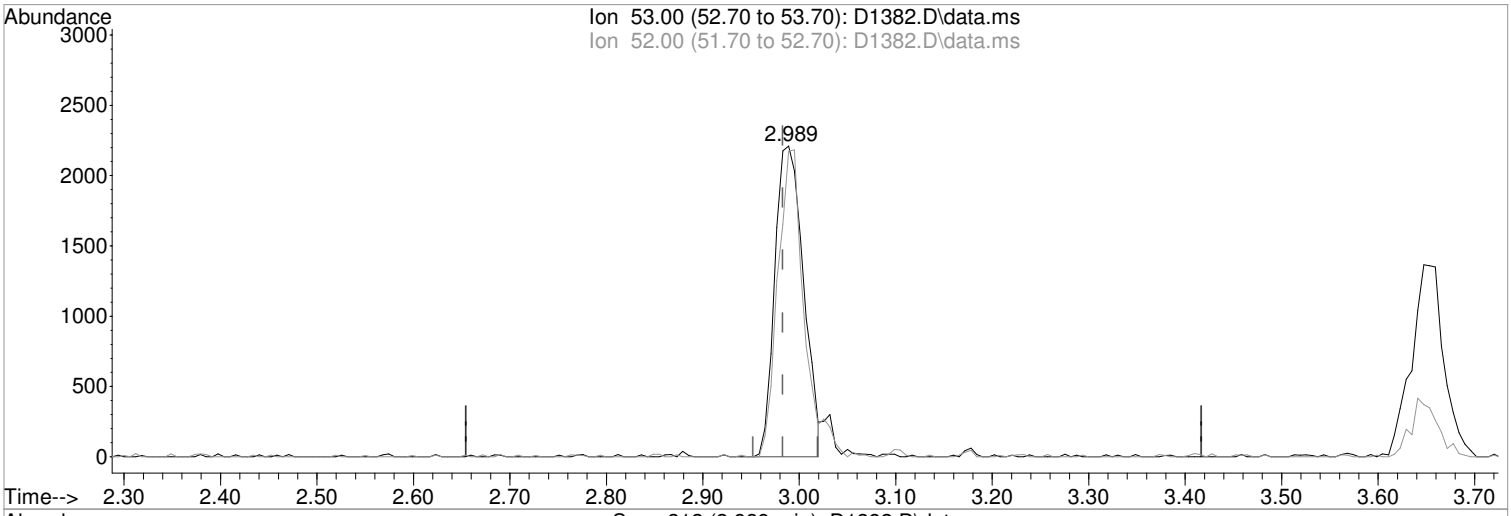
02/14/18

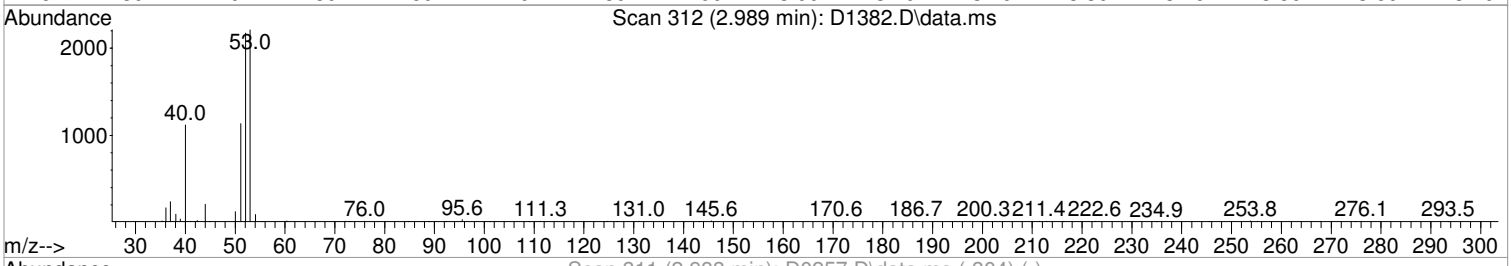
1st DL 02/14/18
2nd FJ 02/15/18

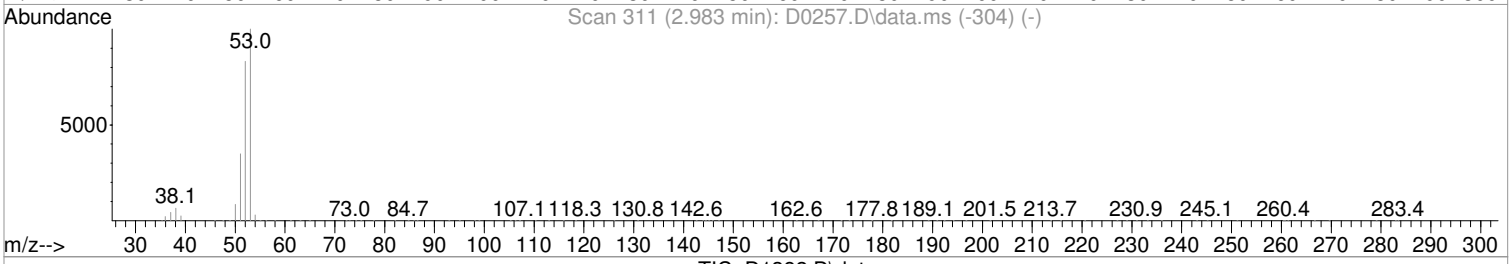
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(24) Acrylonitrile

2.989min (+0.006) 4.61 ug/L

response 4560

Ion	Exp%	Act%
53.00	100	100
52.00	83.10	98.37
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

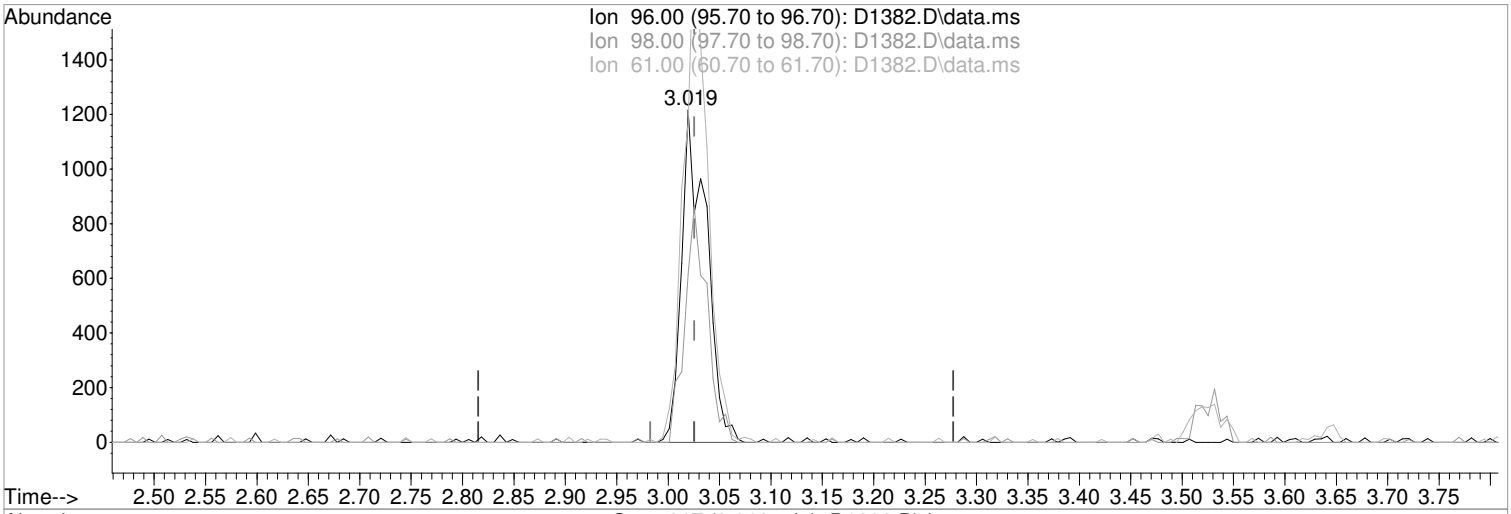
02/14/18

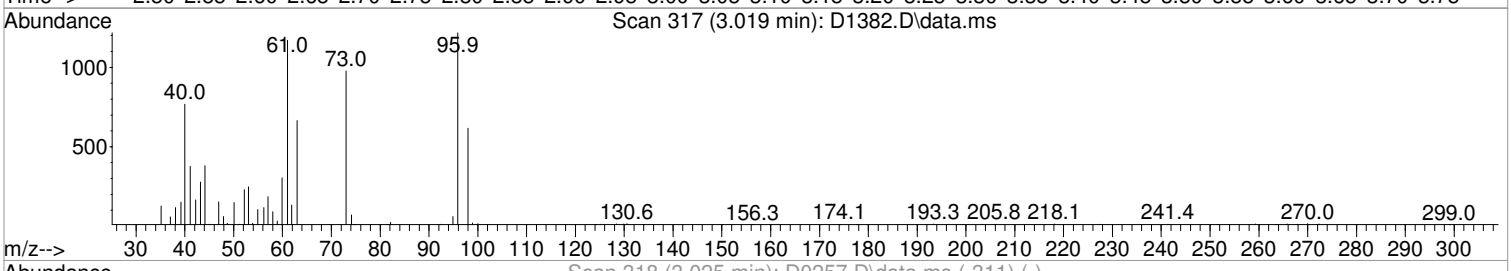
1st DL 02/14/18
2nd FJ 02/15/18

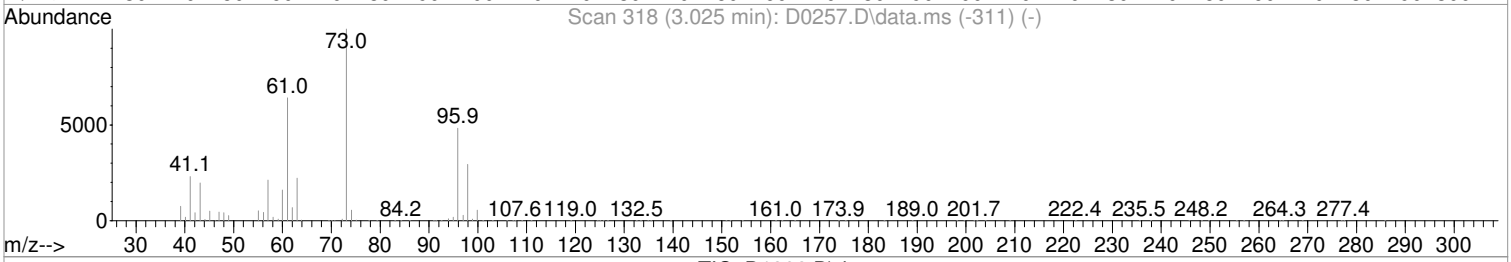
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.019min (-0.006) 1.07 ug/L m

response 2034

Ion	Exp%	Act%
96.00	100	100
98.00	60.90	50.70
61.00	133.10	96.22#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

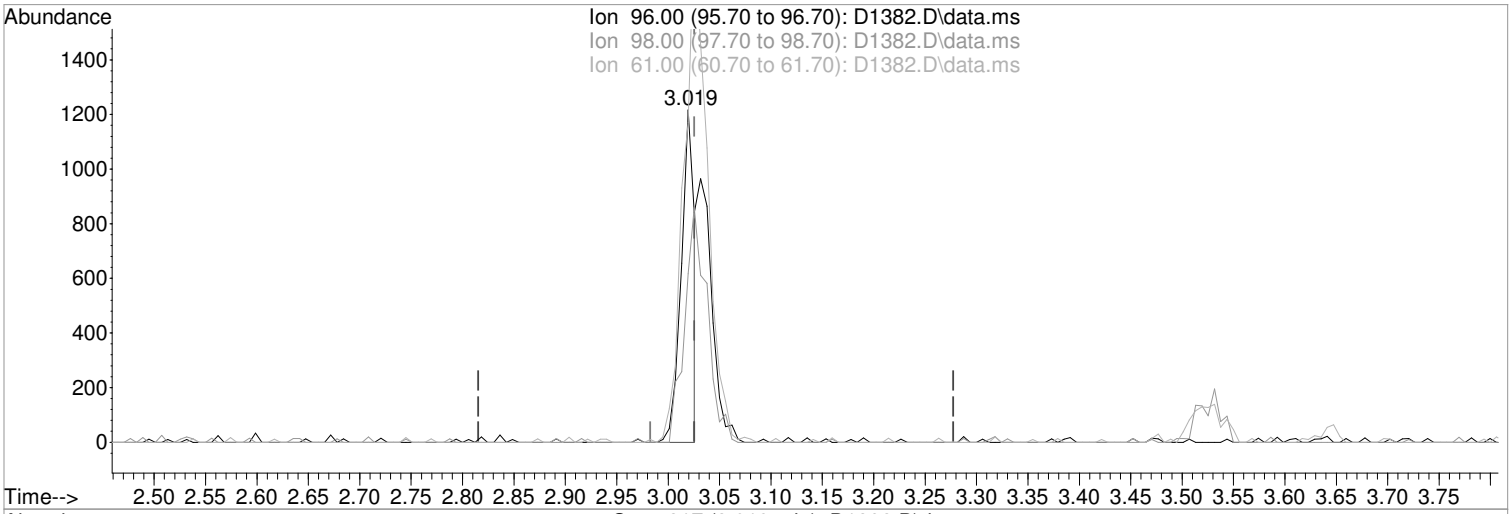
02/14/18

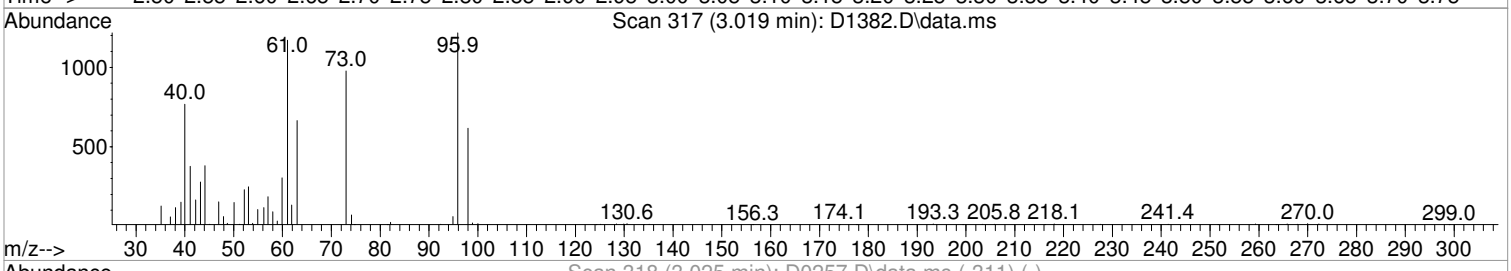
1st DL 02/14/18
2nd FJ 02/15/18

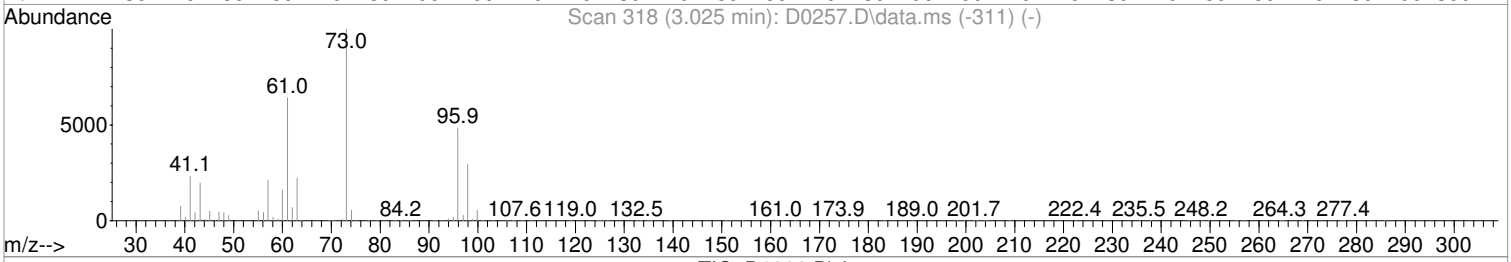
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.019min (-0.006) 0.58 ug/L

response 1098

Ion	Exp%	Act%
96.00	100	100
98.00	60.90	50.70
61.00	133.10	96.22#
0.00	0.00	0.00

Manual Integration:

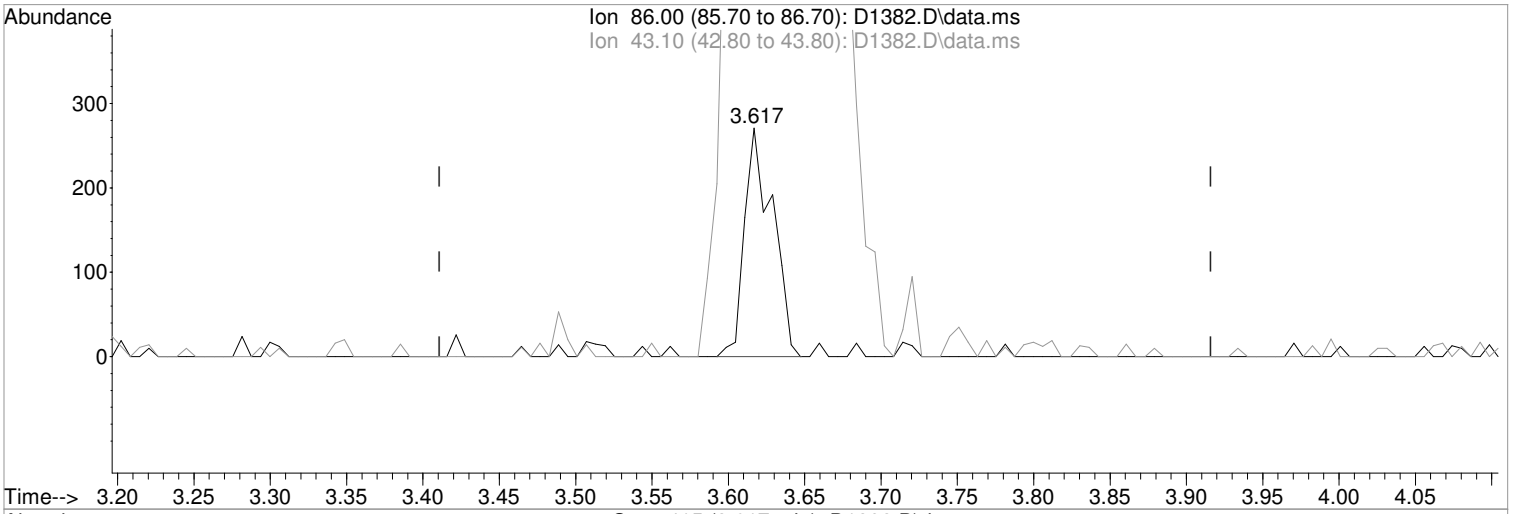
Before

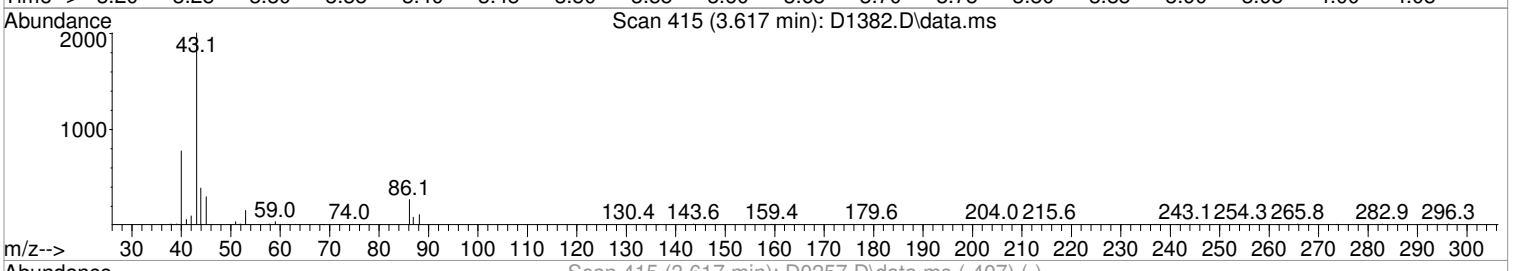
02/14/18

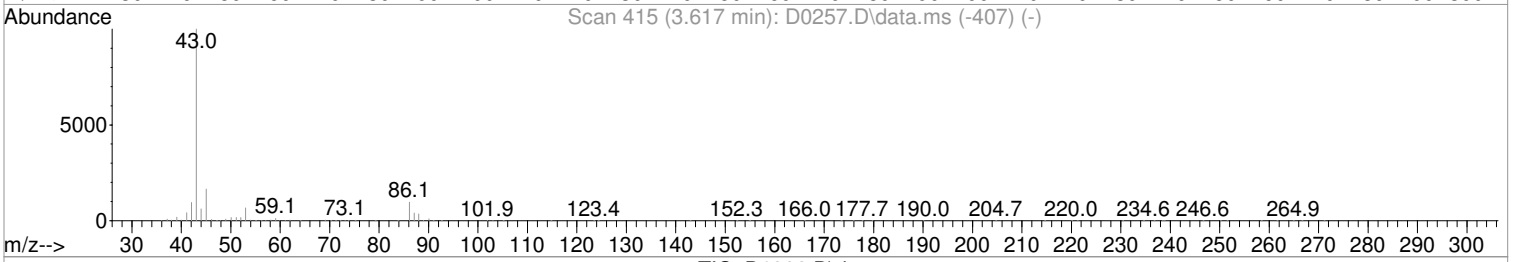
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(28) Vinyl Acetate

3.617min (+0.007) 0.87 ug/L m

response 347

Ion	Exp%	Act%
86.00	100	100
43.10	1043.10	740.59#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

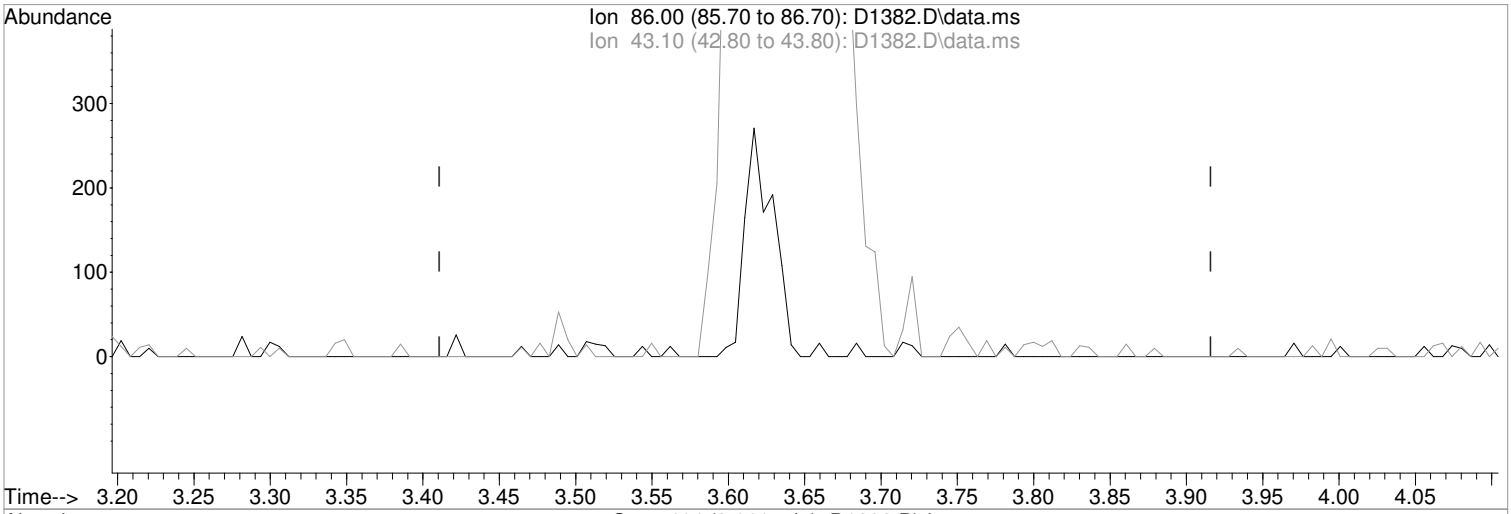
Peak not found.

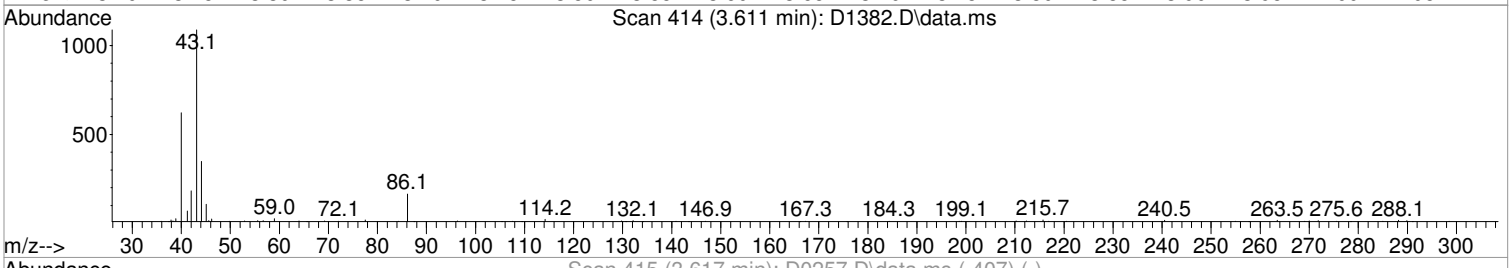
02/14/18

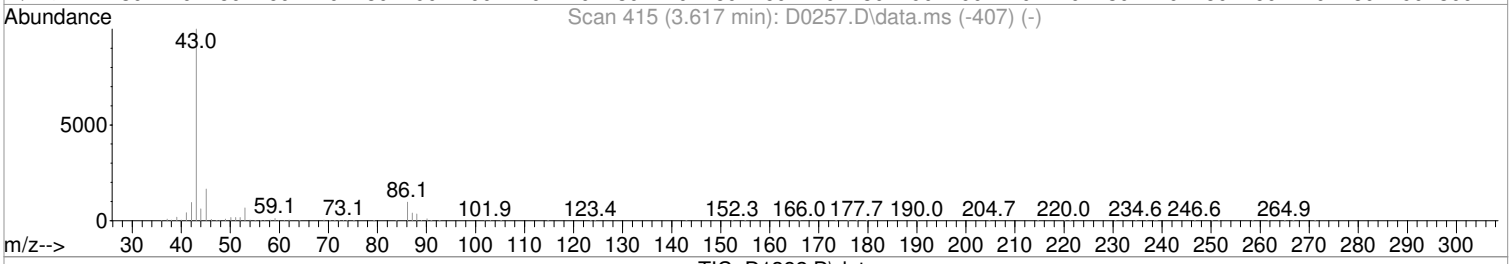
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(28) Vinyl Acetate

3.610min (-3.610) 0.00 ug/L

response 0

Ion	Exp%	Act%
86.00	100	0.00
43.10	1043.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

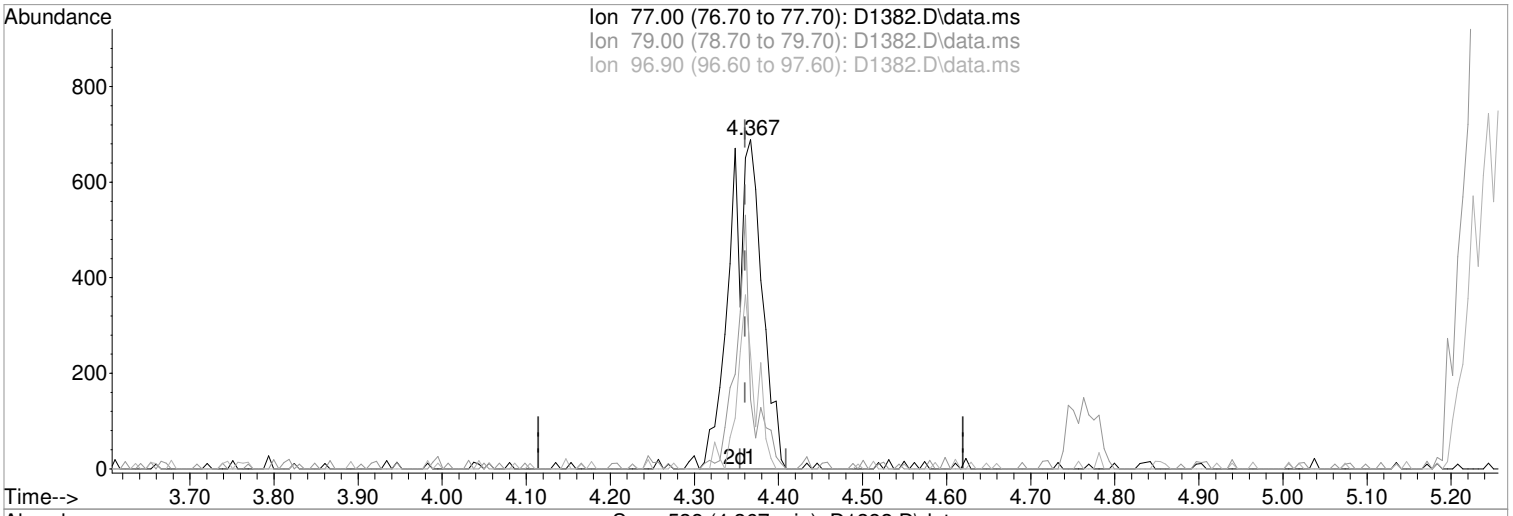
Before

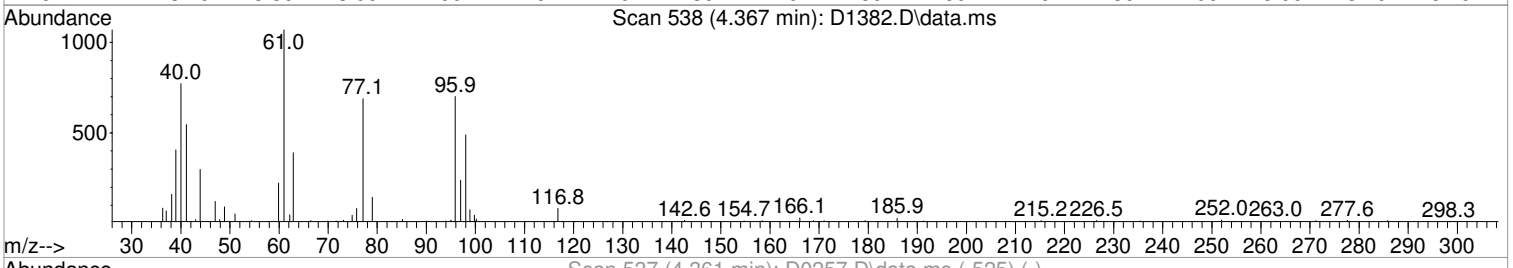
02/14/18

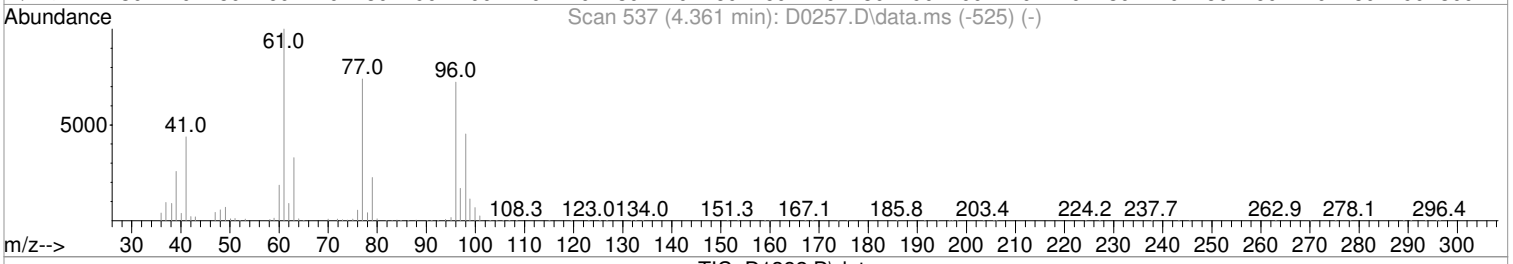
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(32) 2,2-Dichloropropane

4.367min (+0.006) 0.94 ug/L m

response 1823

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	21.04
96.90	22.80	34.69
0.00	0.00	0.00

Manual Integration:

After

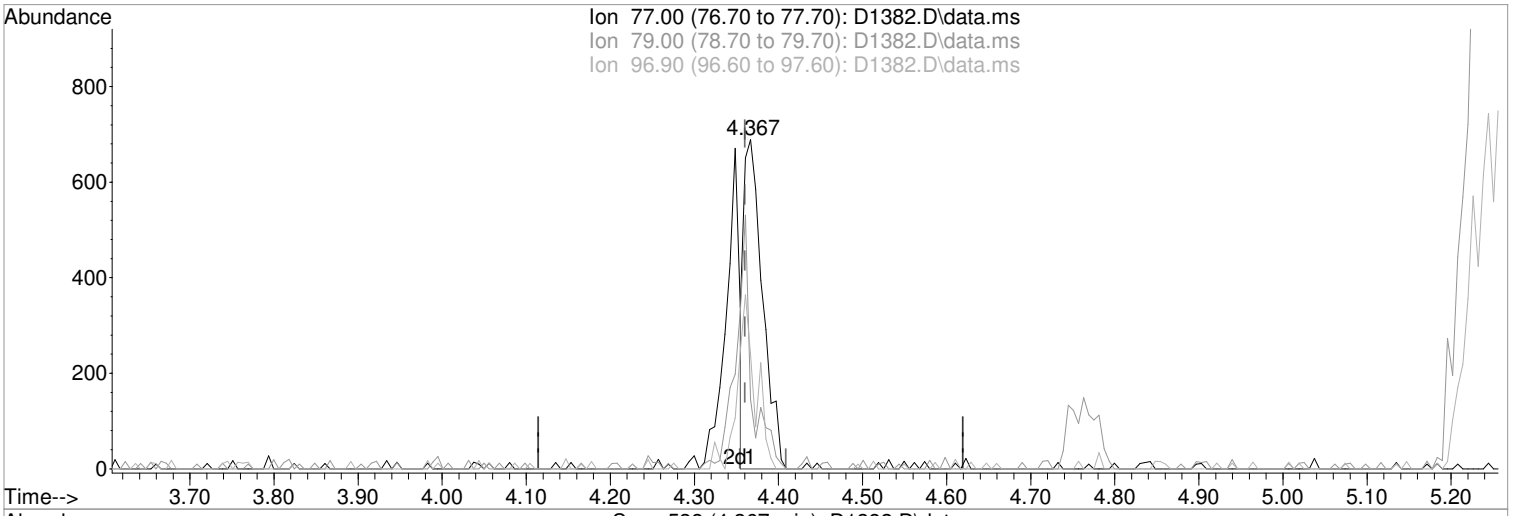
Poor integration.

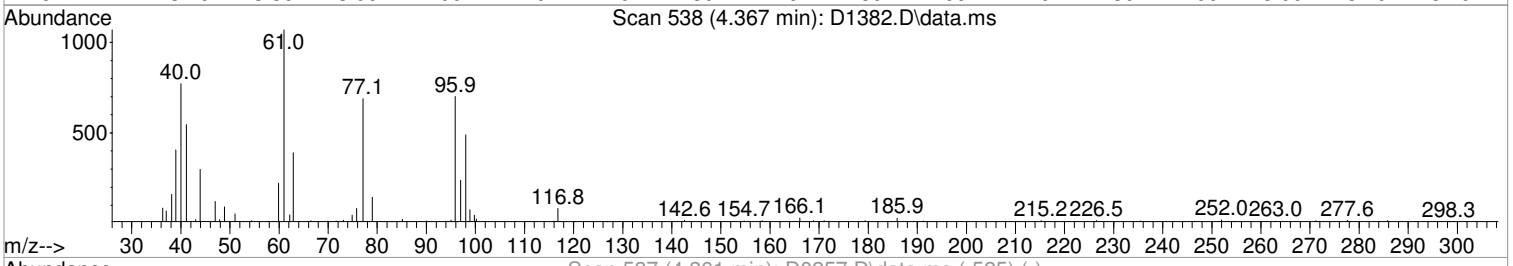
02/14/18

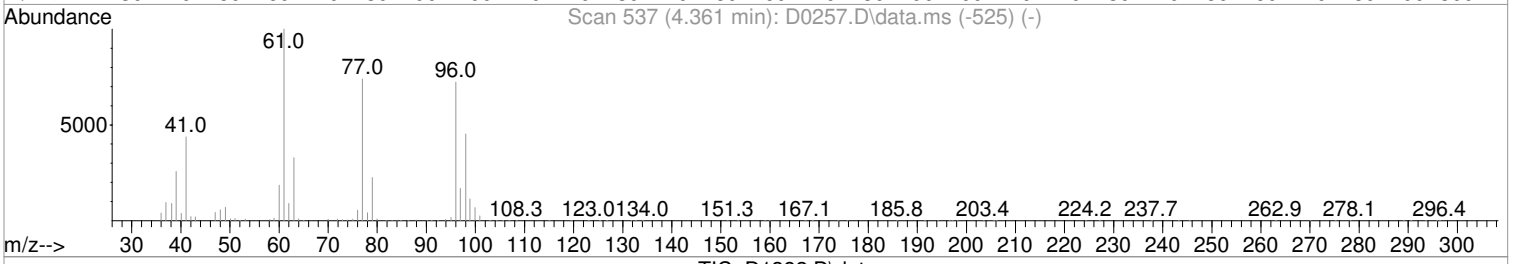
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(32) 2,2-Dichloropropane

4.367min (+0.006) 0.55 ug/L

response 1064

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	21.04
96.90	22.80	34.69
0.00	0.00	0.00

Manual Integration:

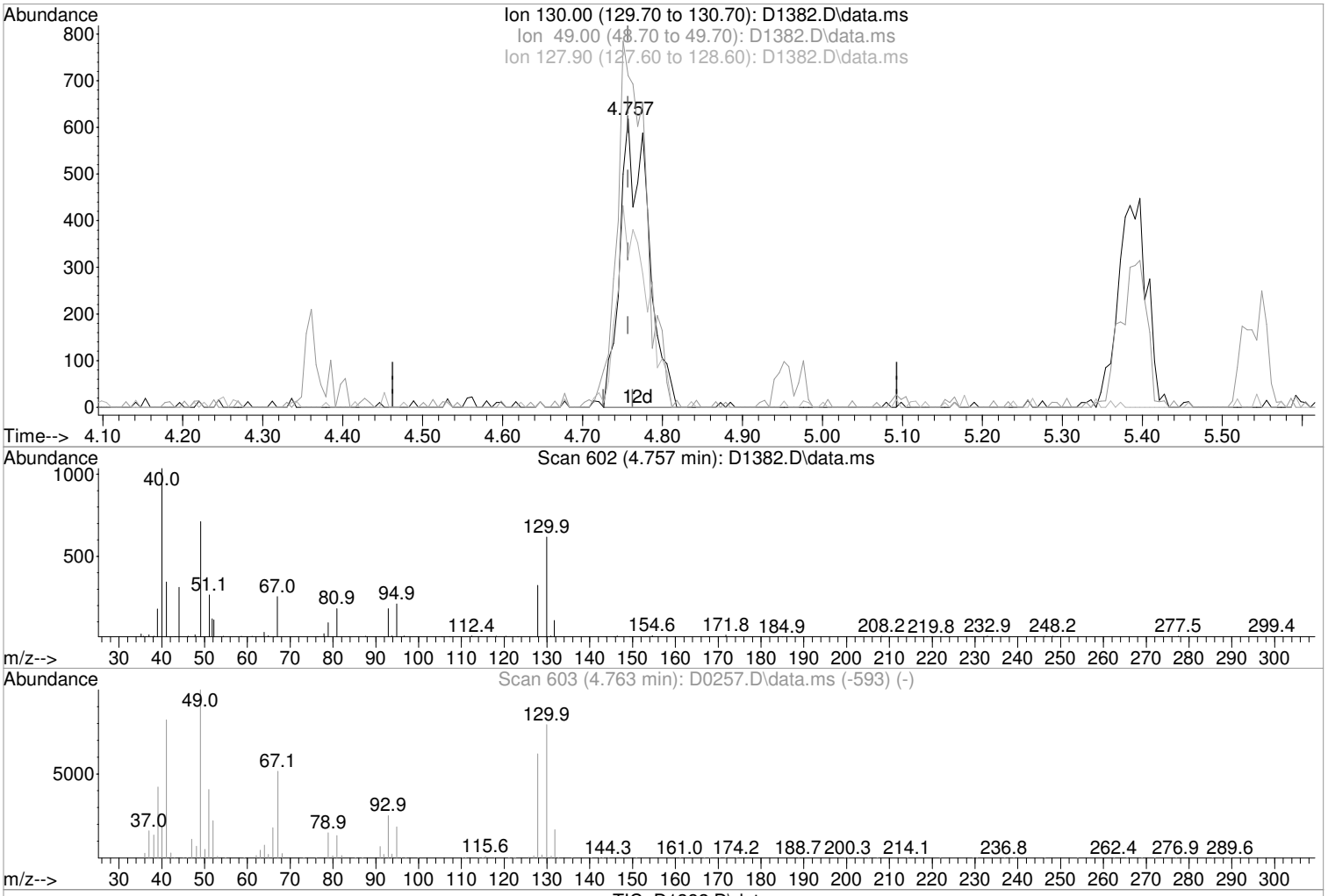
Before

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(36) Bromochloromethane

4.757min (-0.000) 1.18 ug/L m

response 1518

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	115.05
127.90	78.50	52.27#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

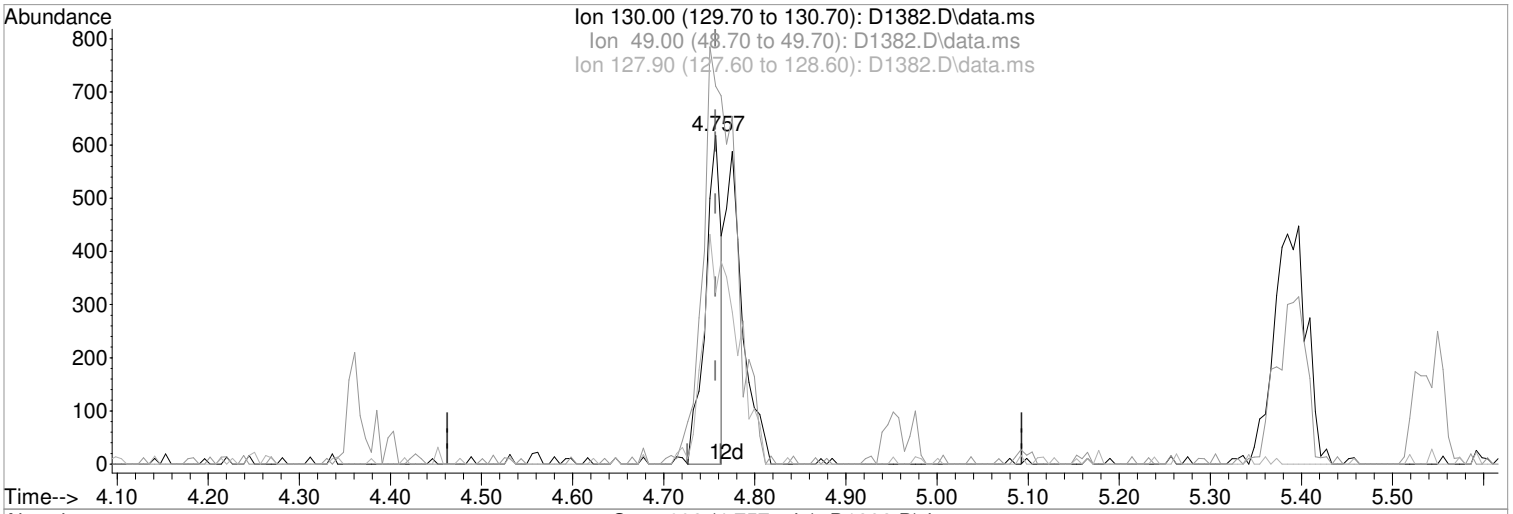
02/14/18

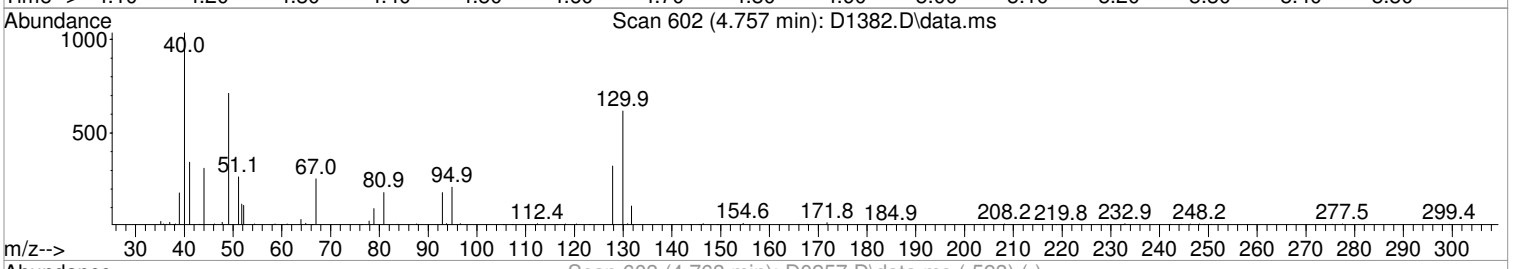
1st DL 02/14/18
2nd FW 02/15/18

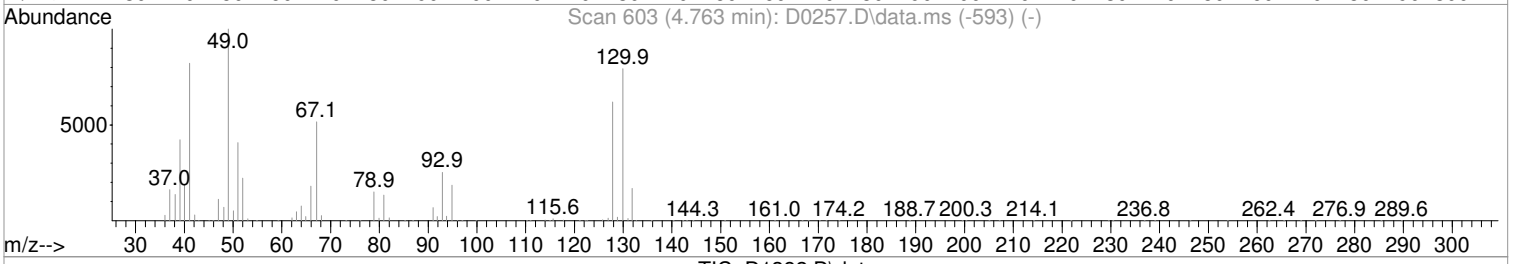
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(36) Bromochloromethane

4.757min (-0.000) 0.58 ug/L

response 740

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	115.05
127.90	78.50	52.27#
0.00	0.00	0.00

Manual Integration:

Before

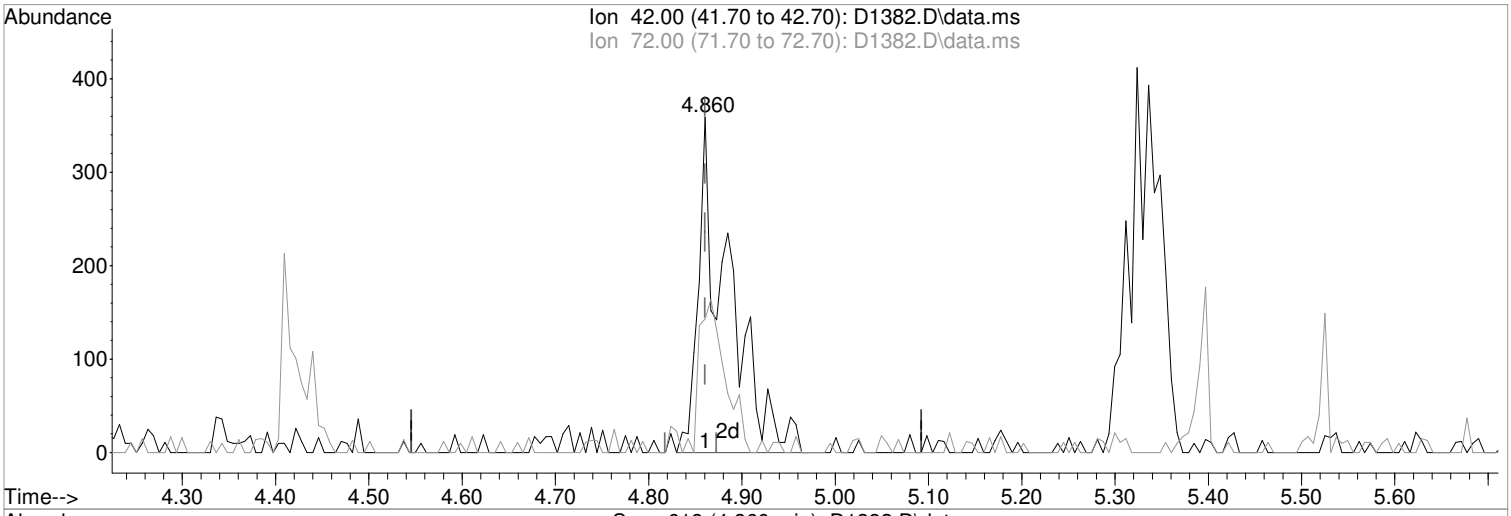
02/14/18

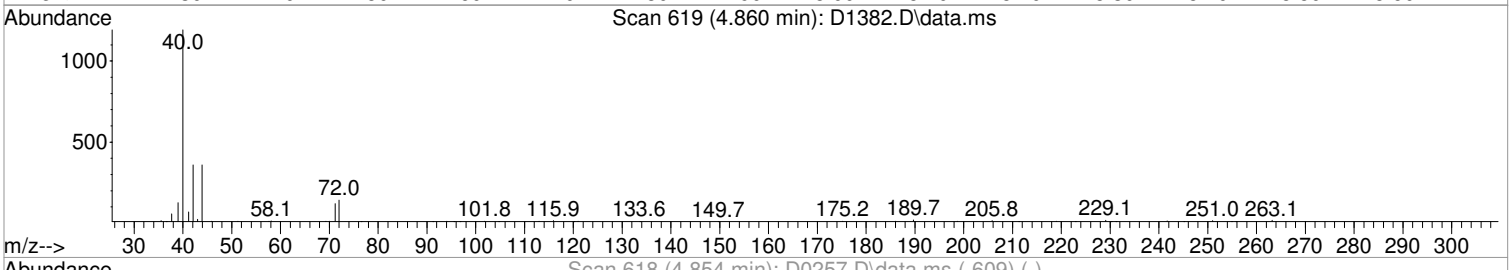
1st DL 02/14/18
2nd FW 02/15/18

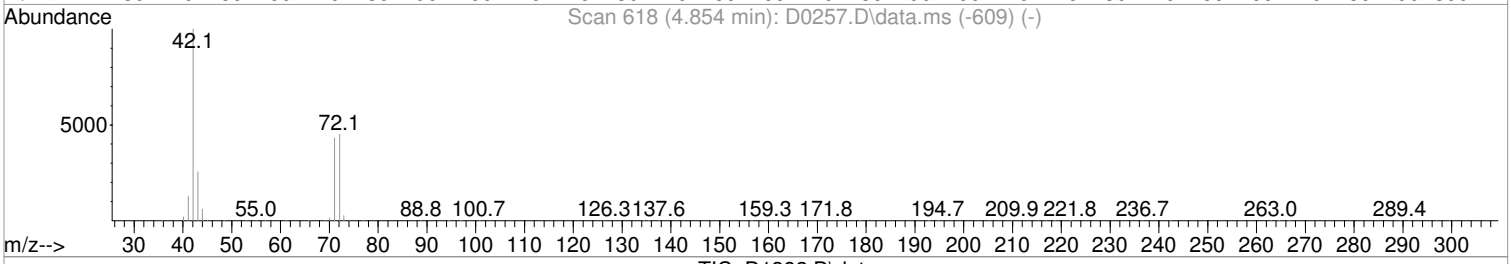
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(38) Tetrahydrofuran

4.860min (-0.000) 1.06 ug/L m

response 811

Ion	Exp%	Act%
42.00	100	100
72.00	44.00	39.83
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

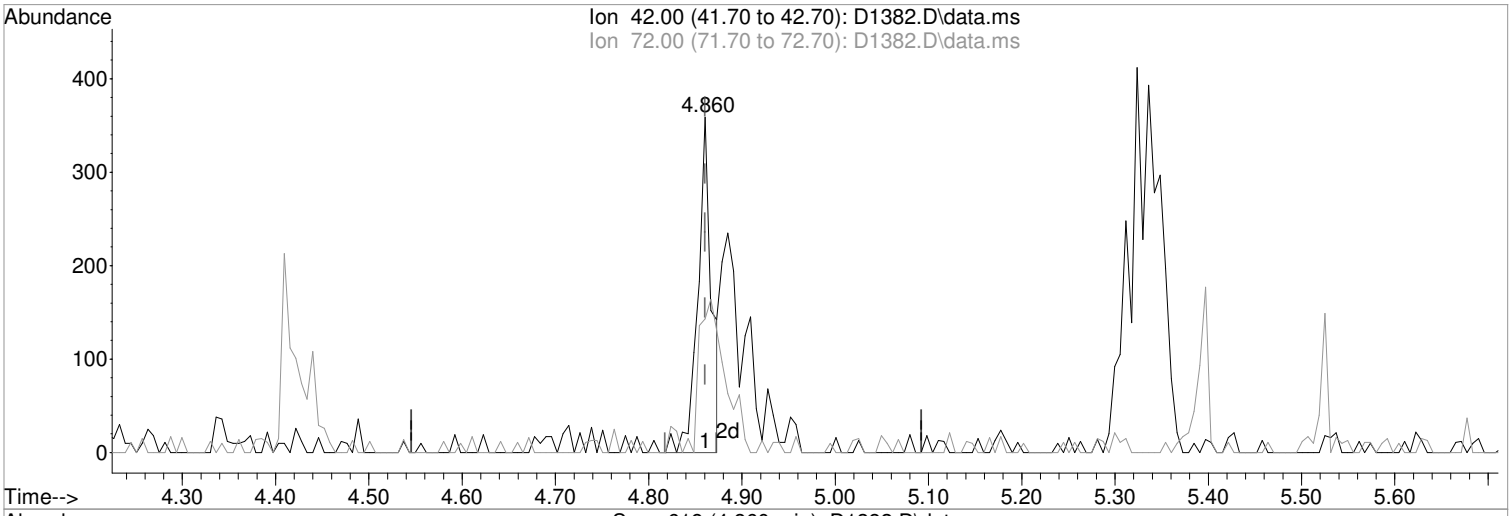
02/14/18

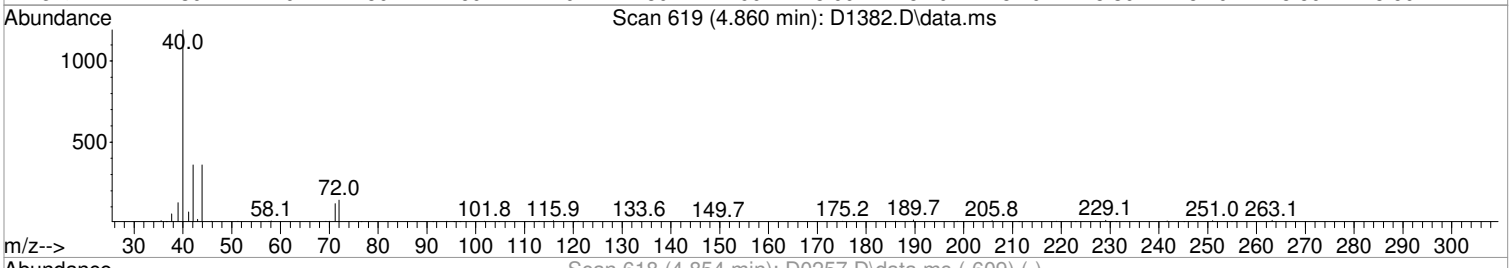
1st DL 02/14/18
2nd FW 02/15/18

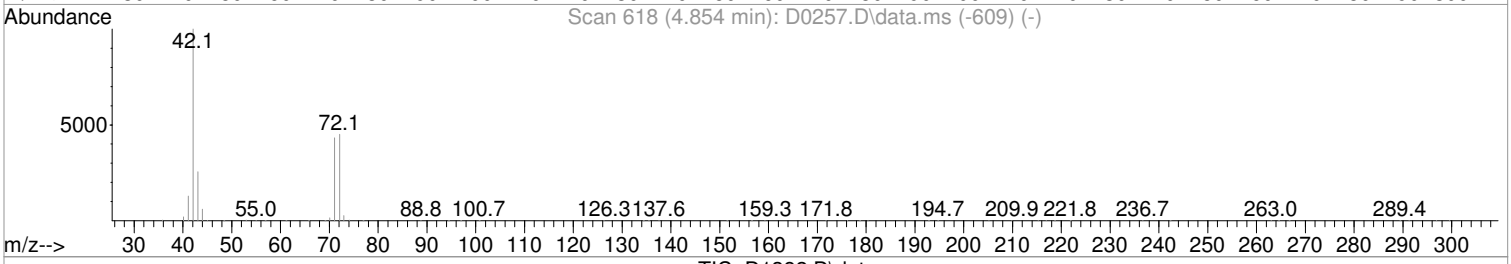
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(38) Tetrahydrofuran

4.860min (-0.000) 0.48 ug/L

response 368

Ion	Exp%	Act%
42.00	100	100
72.00	44.00	39.83
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

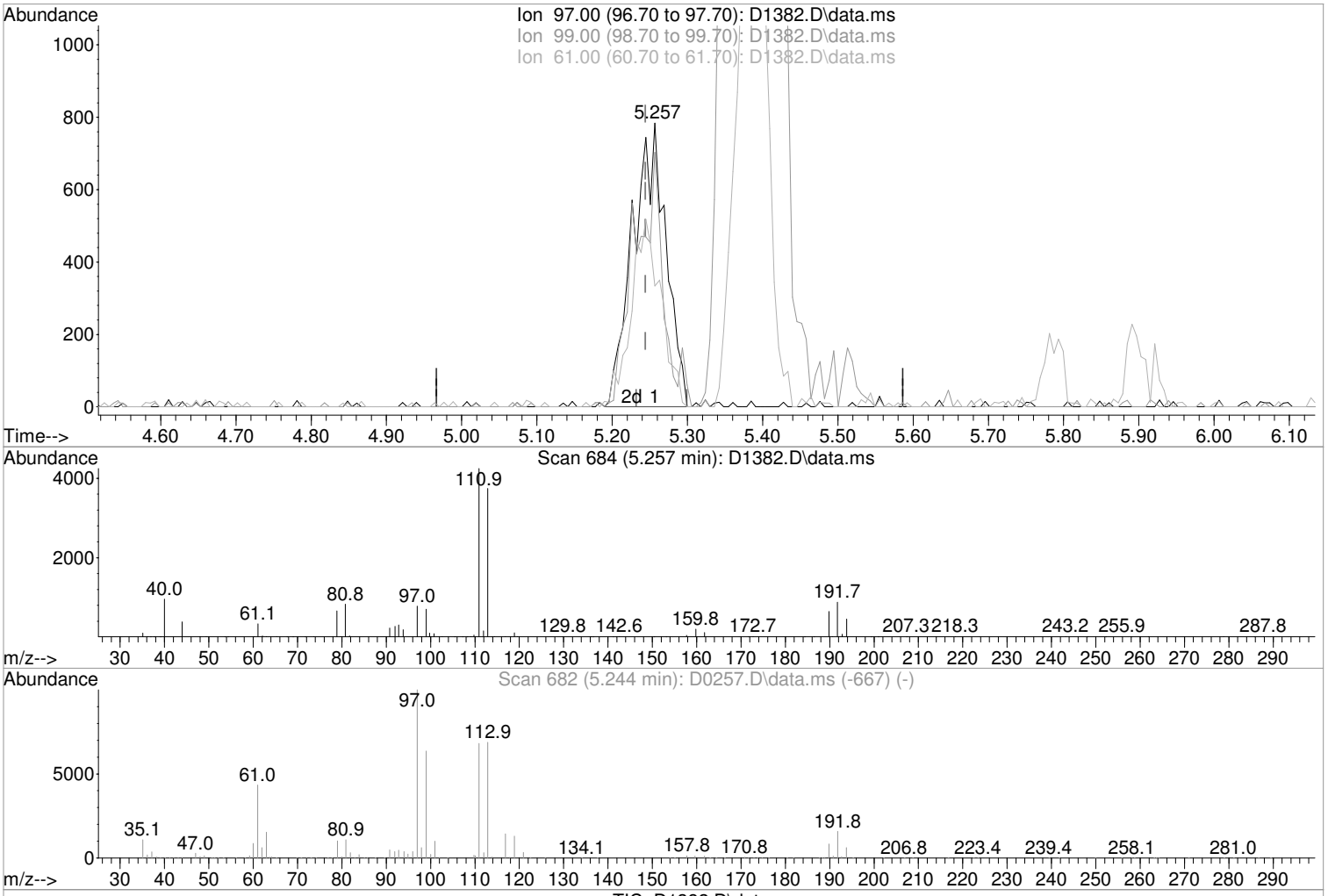
02/14/18

1st DL 02/14/18
2nd FW 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.257min (+0.012) 0.94 ug/L m

response 2405

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	89.67#
61.00	43.40	42.60
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

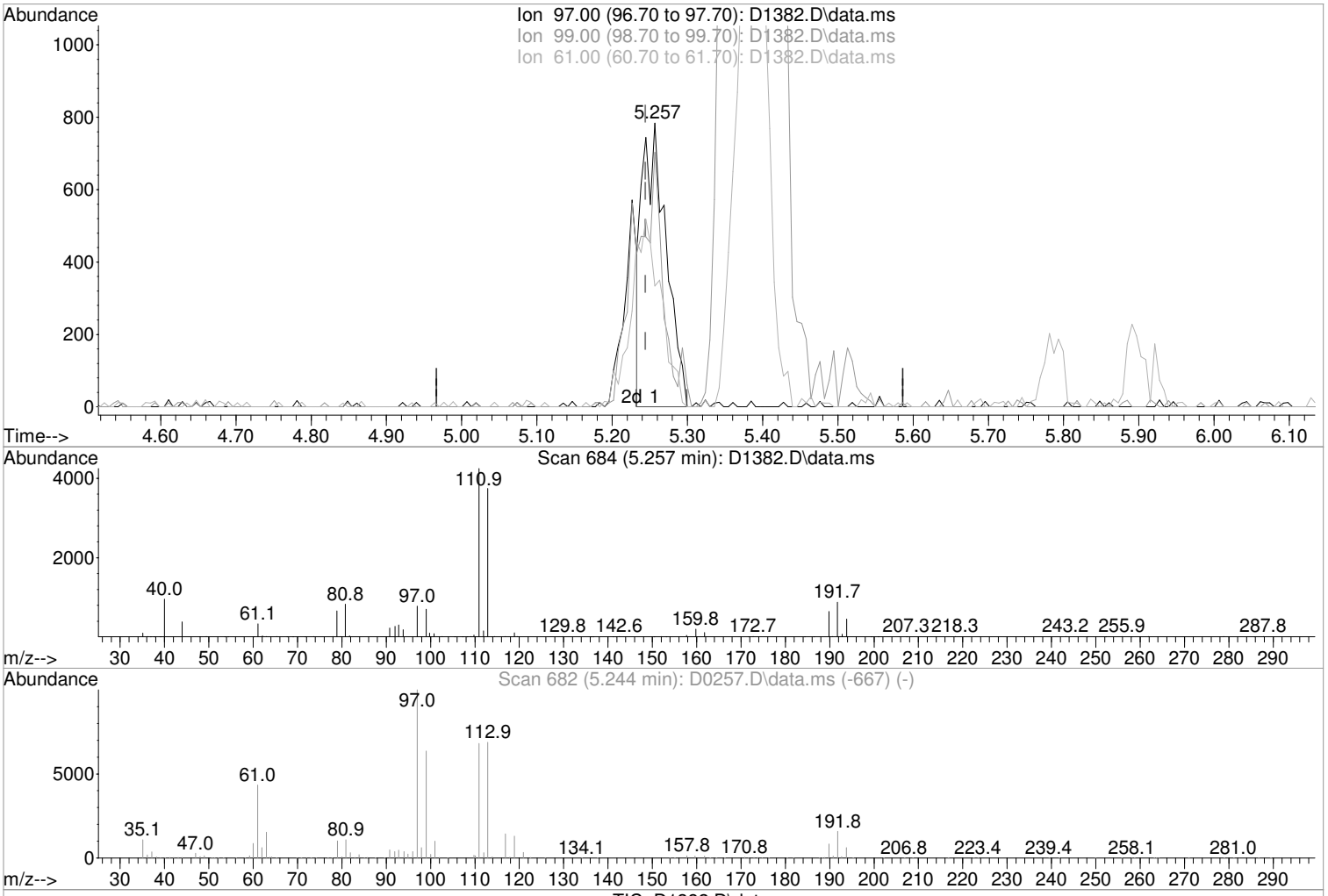
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.257min (+0.012) 0.67 ug/L

response 1726

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	89.67#
61.00	43.40	42.60
0.00	0.00	0.00

Manual Integration:

Before

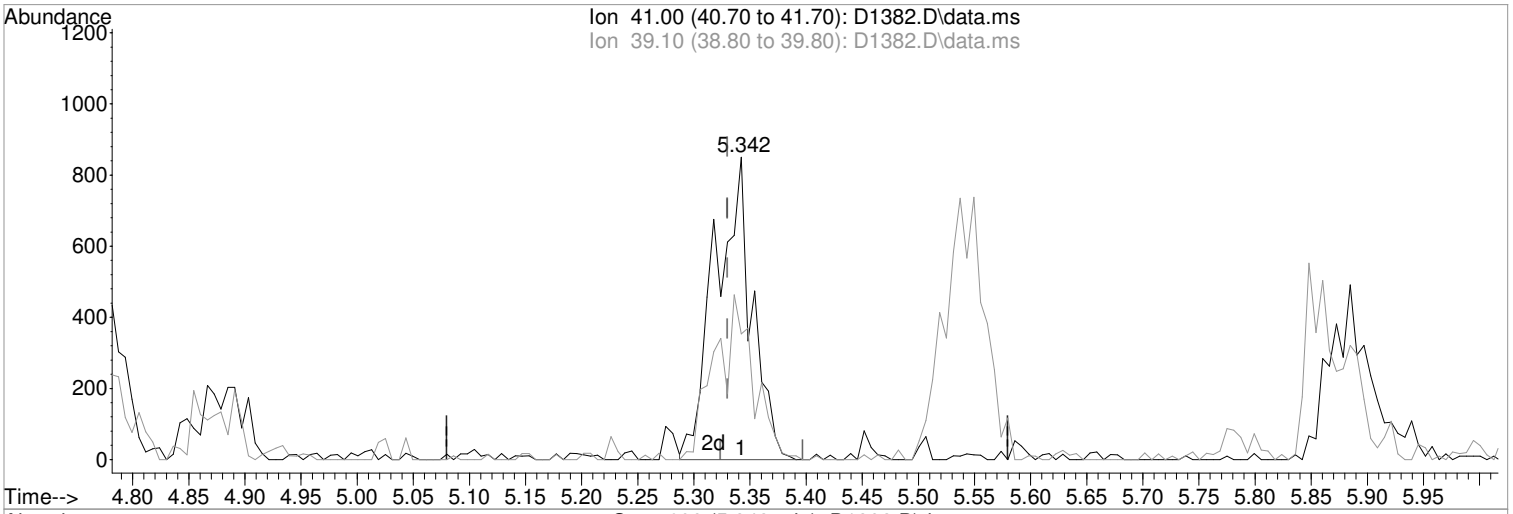
02/14/18

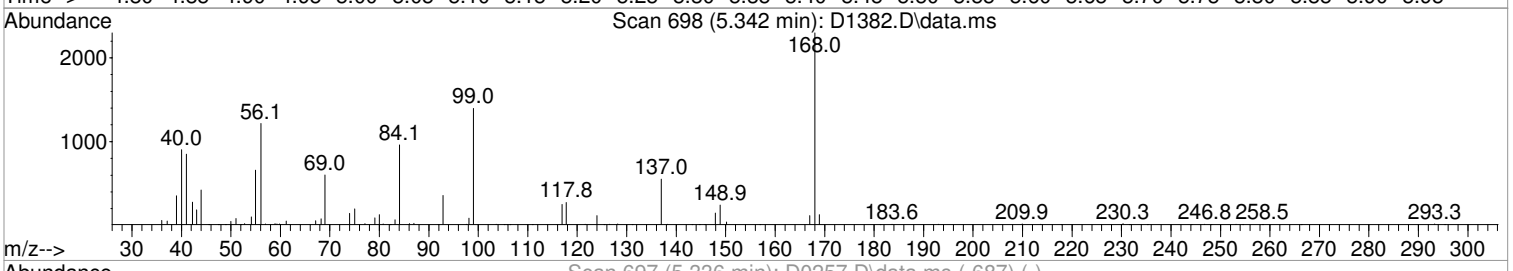
1st DL 02/14/18
2nd FW 02/15/18

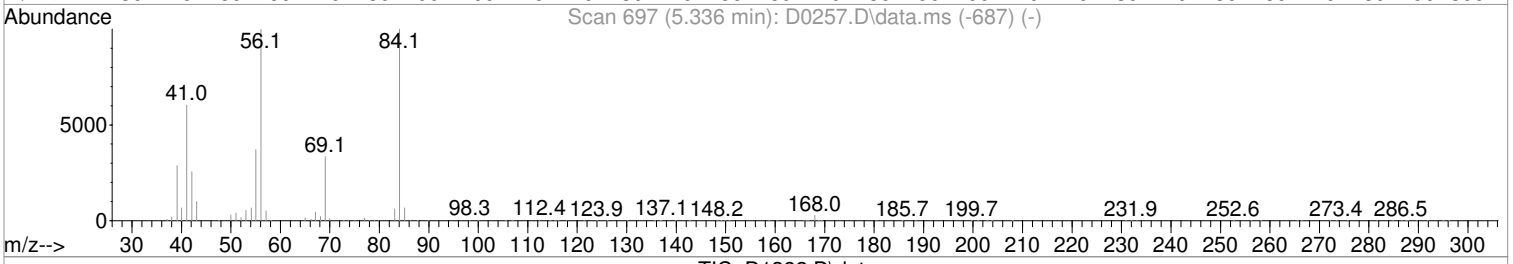
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(42) Cyclohexane (P)

5.342min (+0.012) 1.07 ug/L m

response 1947

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	41.53
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

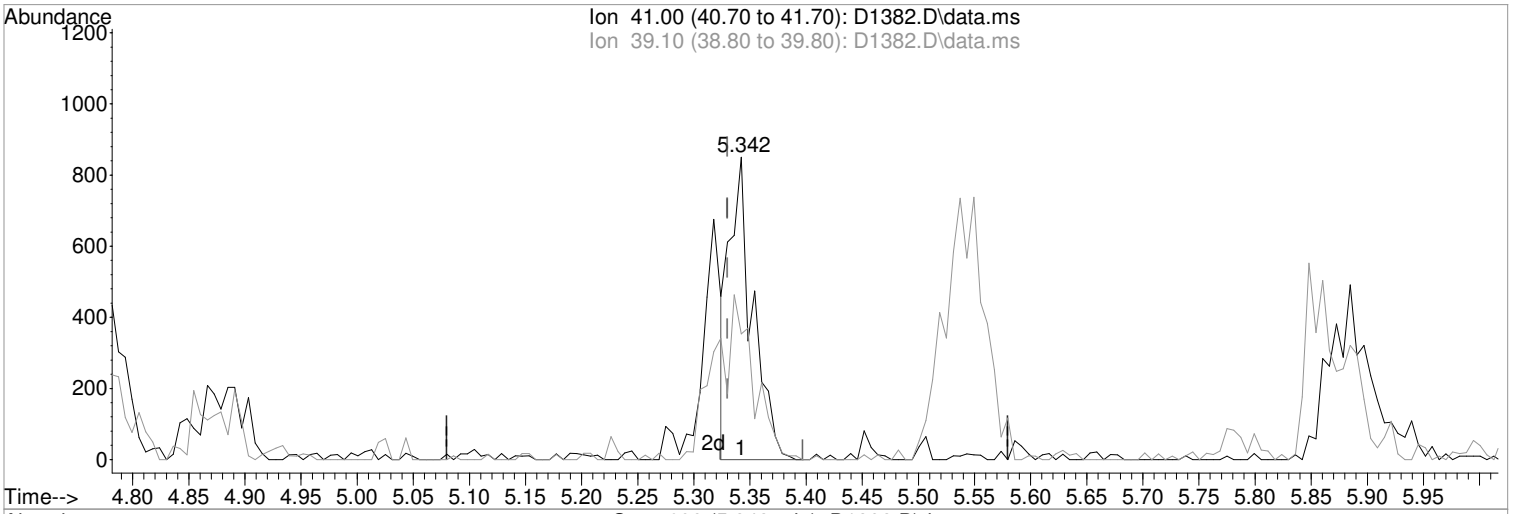
Poor integration.

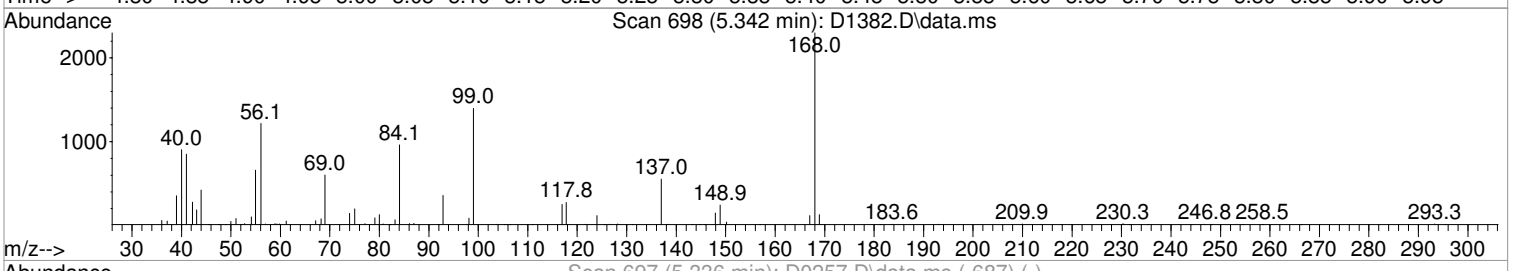
02/14/18

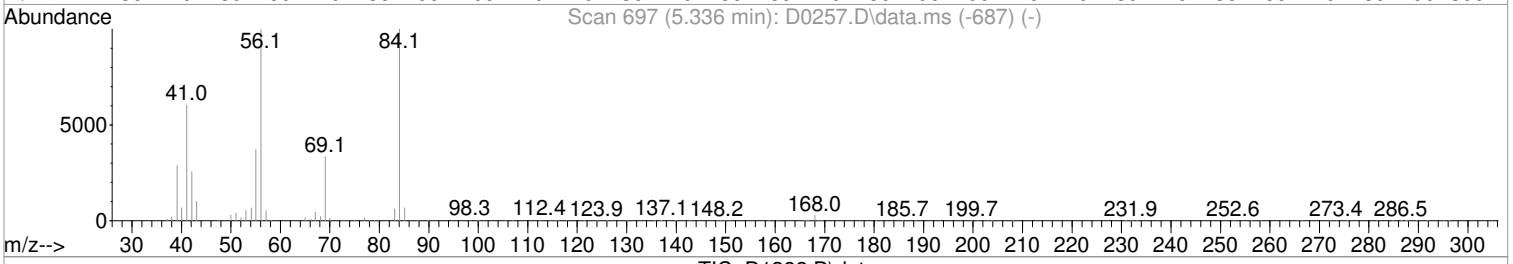
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(42) Cyclohexane (P)

5.342min (+0.012) 0.69 ug/L

response 1245

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	41.53
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

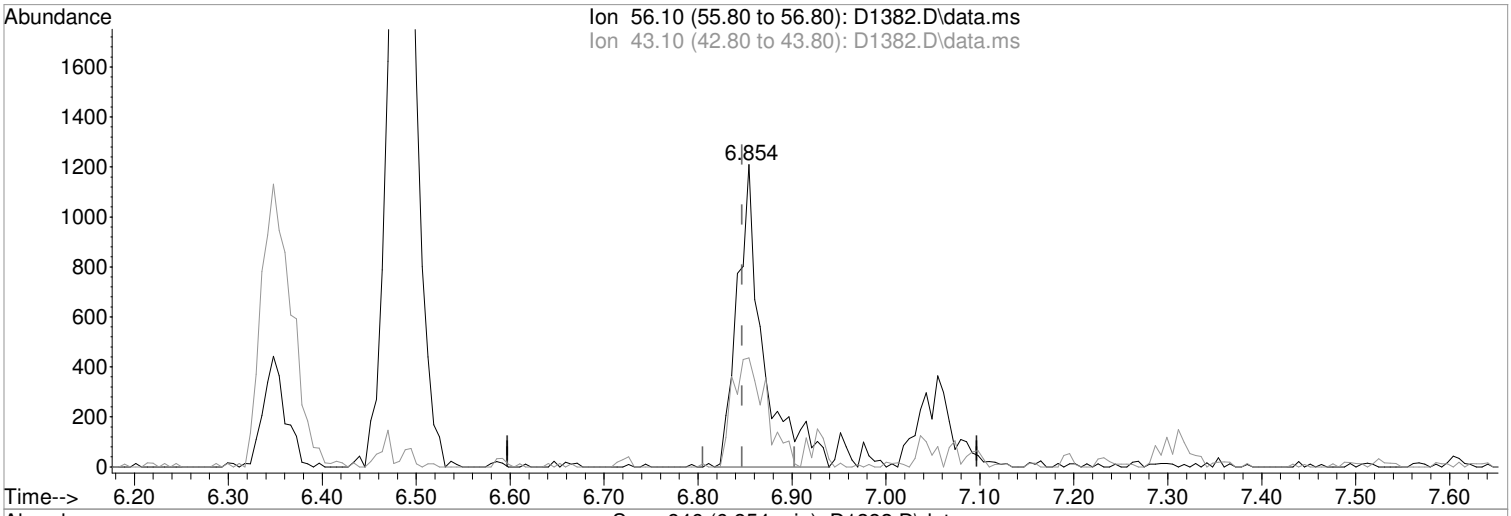
02/14/18

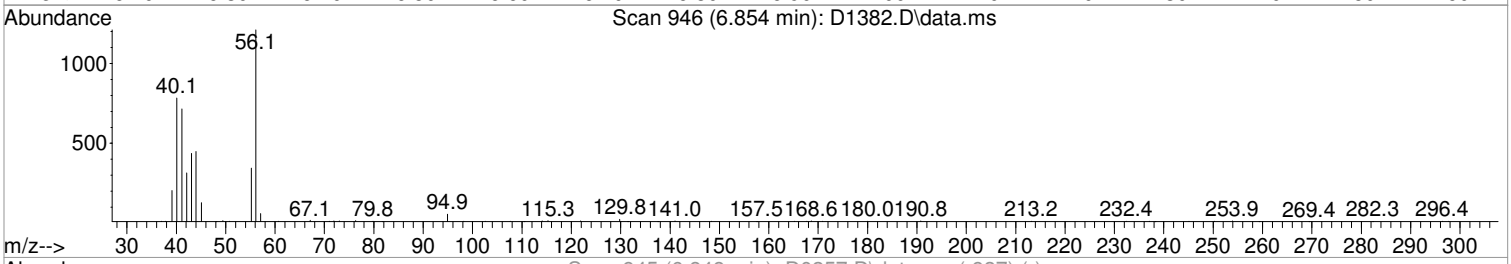
1st DL 02/14/18
2nd FW 02/15/18

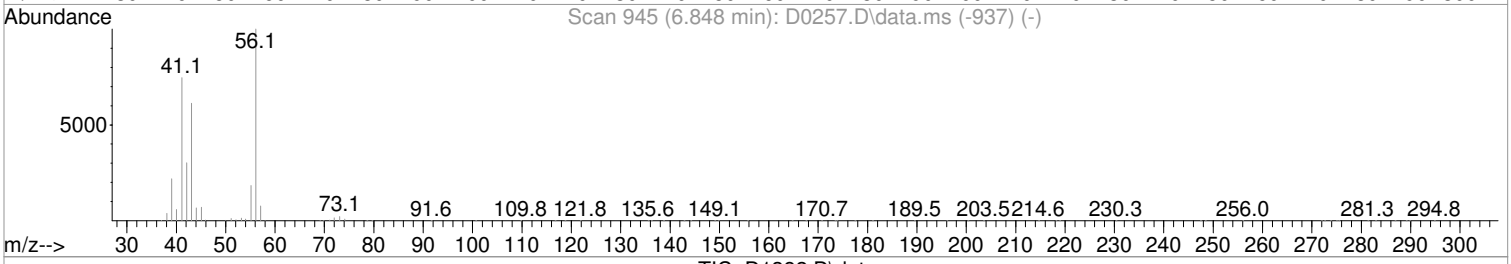
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(52) 1-Butanol

6.854min (+0.007) 55.41 ug/L m

response 2355

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	36.03#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

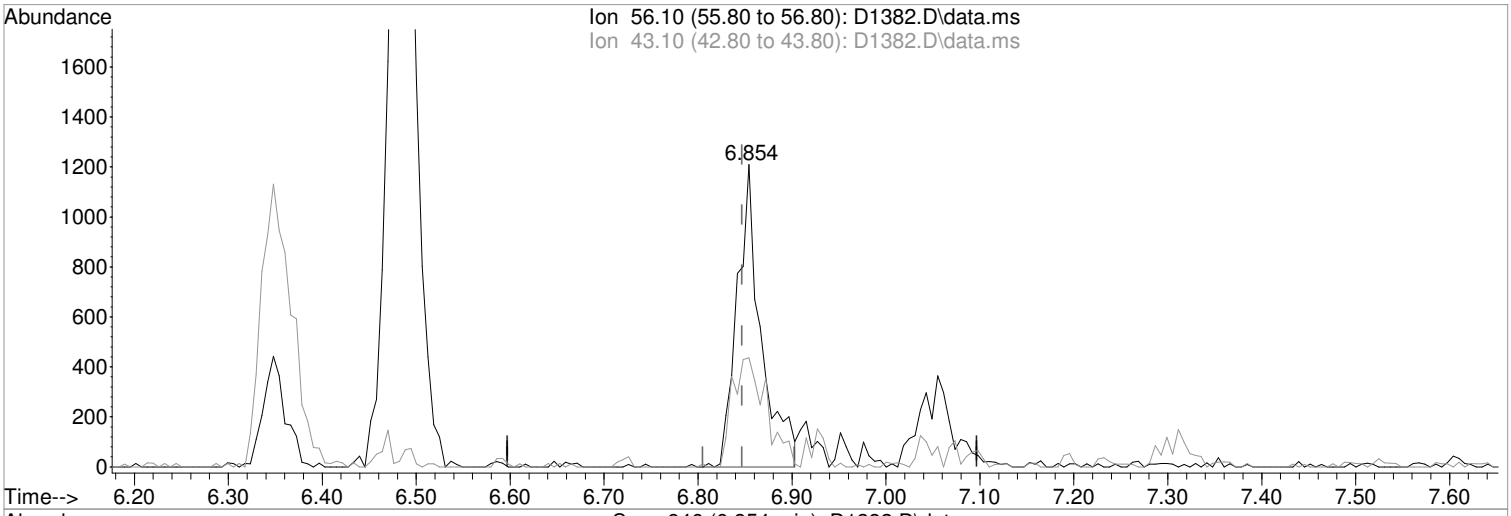
02/14/18

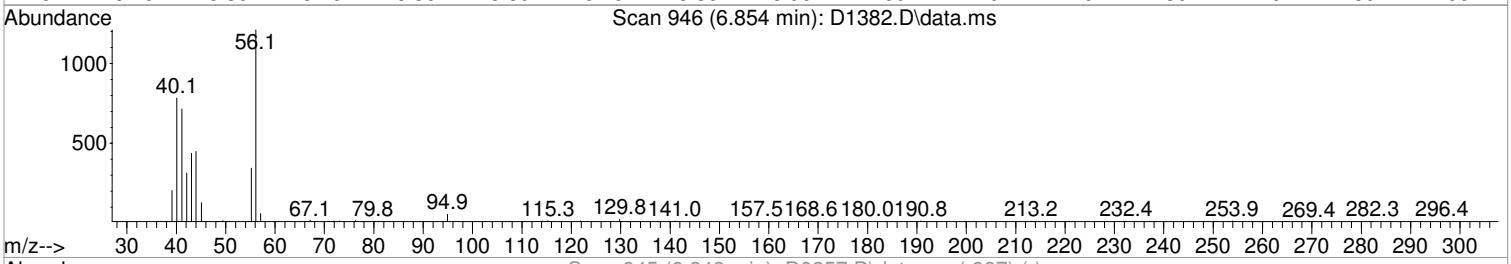
1st DL 02/14/18
2nd FJ 02/15/18

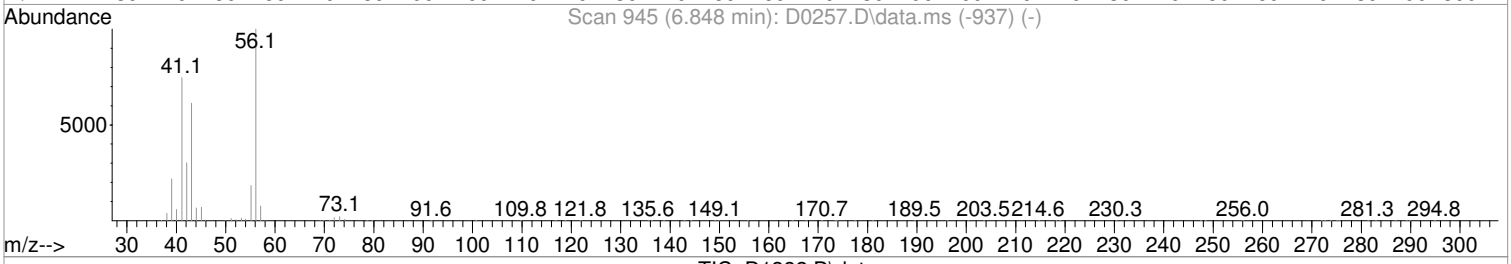
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(52) 1-Butanol

6.854min (+0.007) 51.50 ug/L

response 2145

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	36.03#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

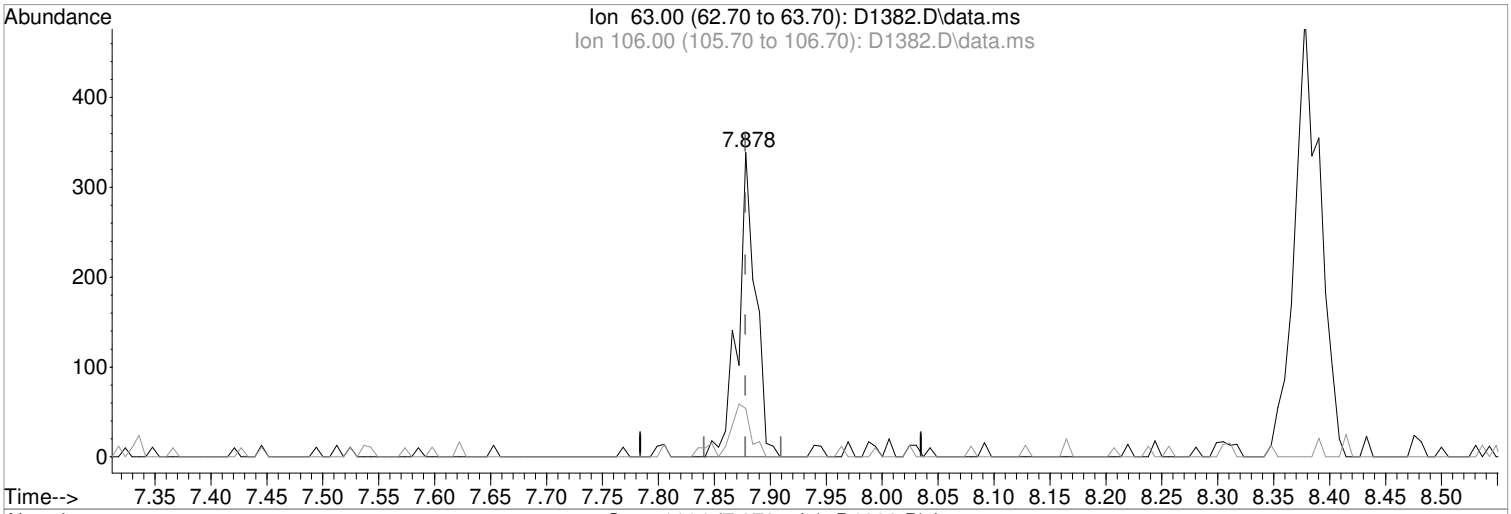
02/14/18

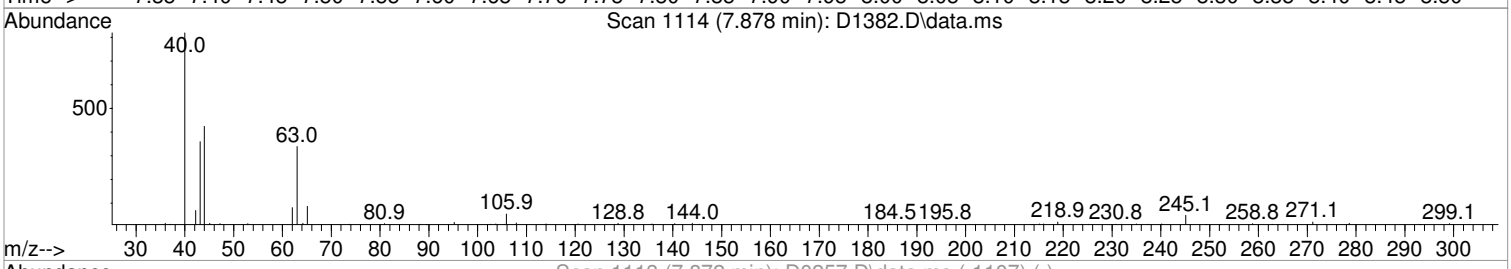
1st DL 02/14/18
2nd FW 02/15/18

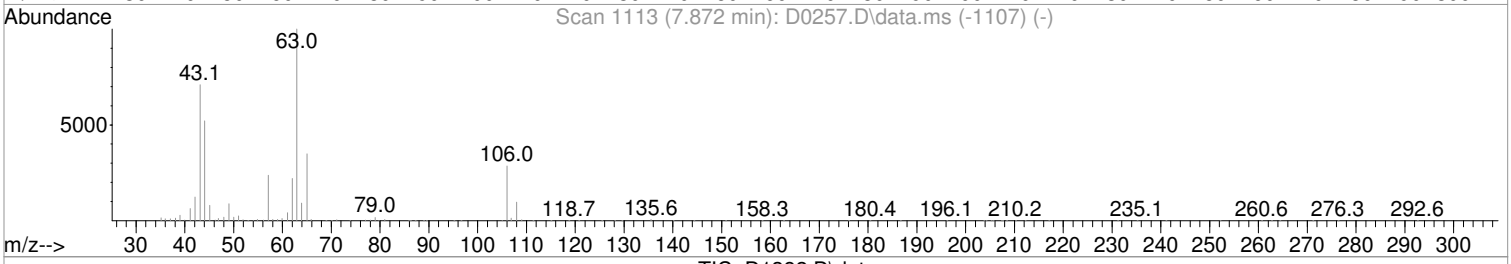
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(61) 2-Chloroethylvinyl Ether

7.878min (+0.000) 0.73 ug/L m

response 375

Ion	Exp%	Act%
63.00	100	100
106.00	28.50	15.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

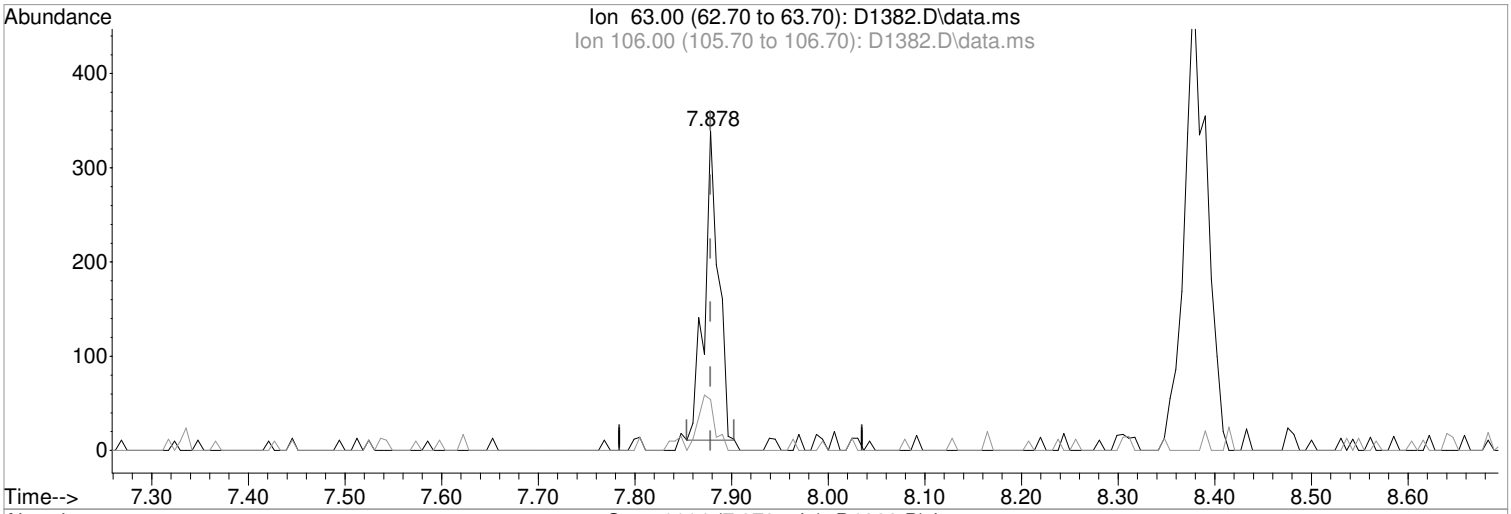
Poor integration.

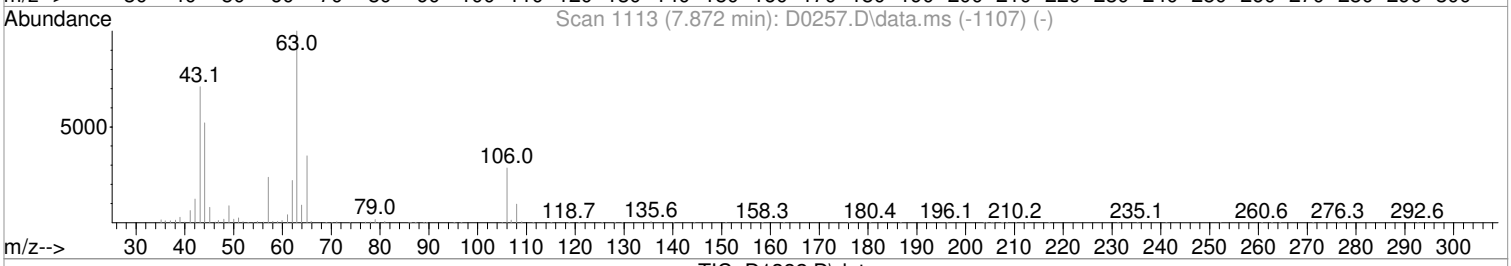
02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration





TIC: D1382.D\data.ms

(61) 2-Chloroethylvinyl Ether

7.878min (+0.000) 0.65 ug/L

response 332

Ion	Exp%	Act%
63.00	100	100
106.00	28.50	15.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

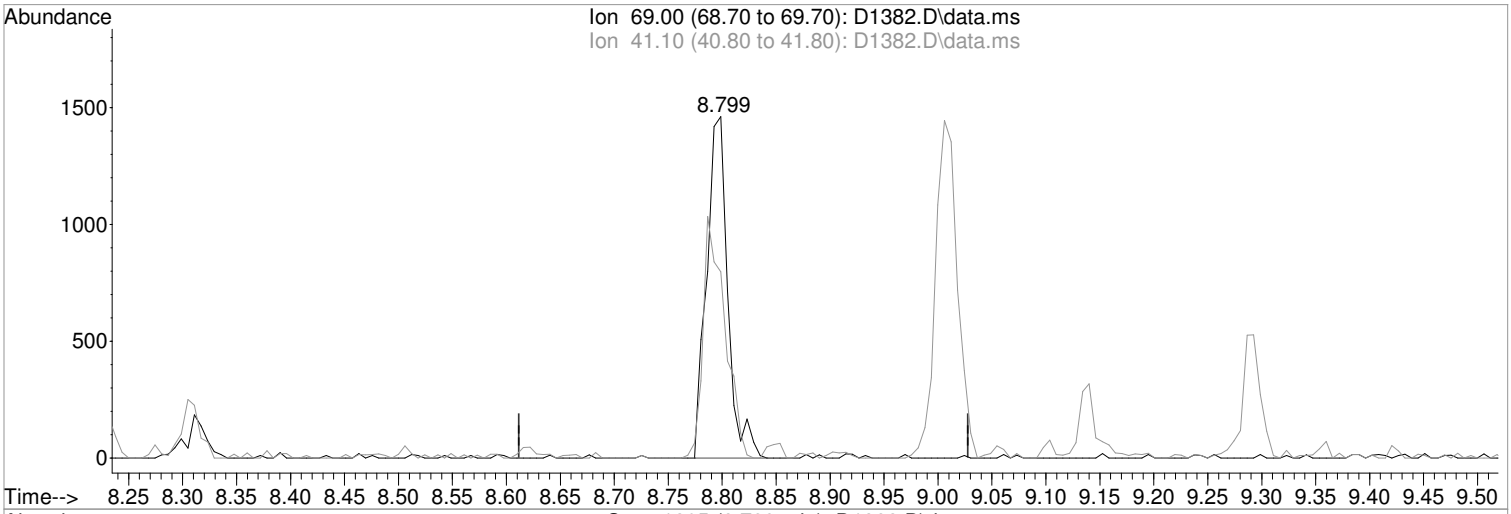
02/14/18

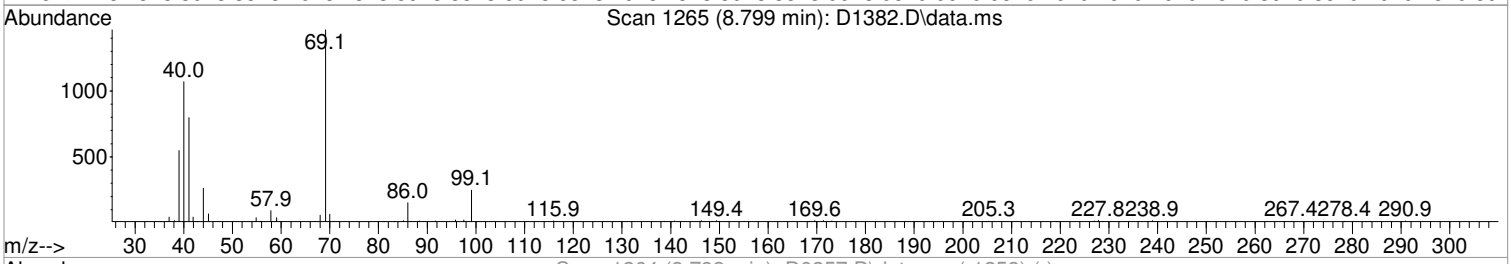
1st DL 02/14/18
2nd FW 02/15/18

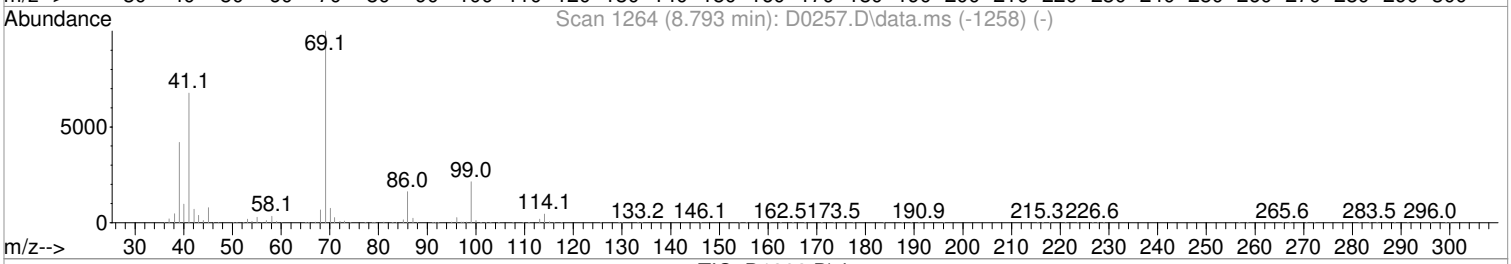
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(67) Ethyl Methacrylate

8.799min (+0.007) 0.78 ug/L m

response 1990

Ion	Exp%	Act%
69.00	100	100
41.10	67.70	54.51
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

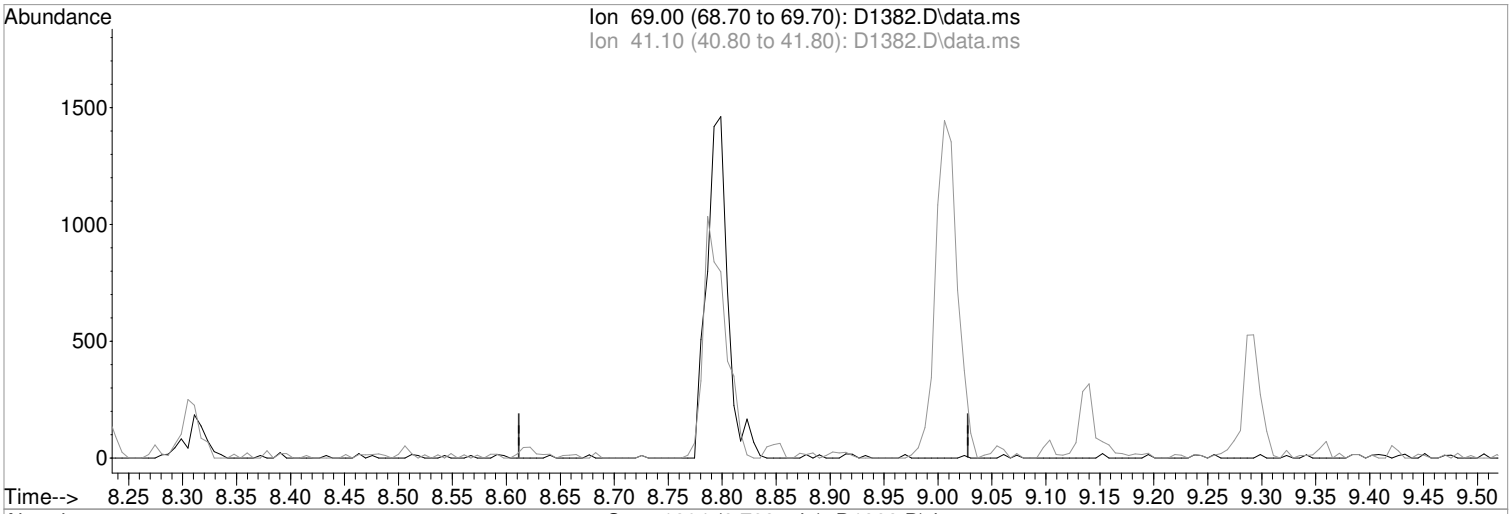
02/14/18

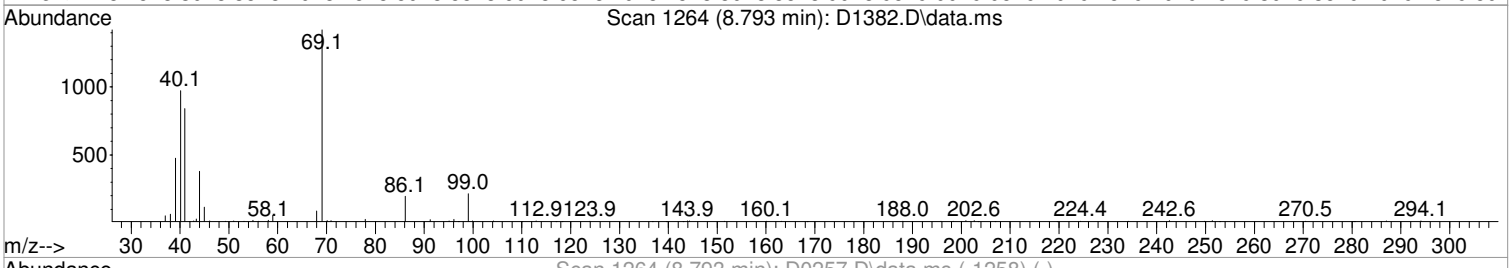
1st DL 02/14/18
2nd FW 02/15/18

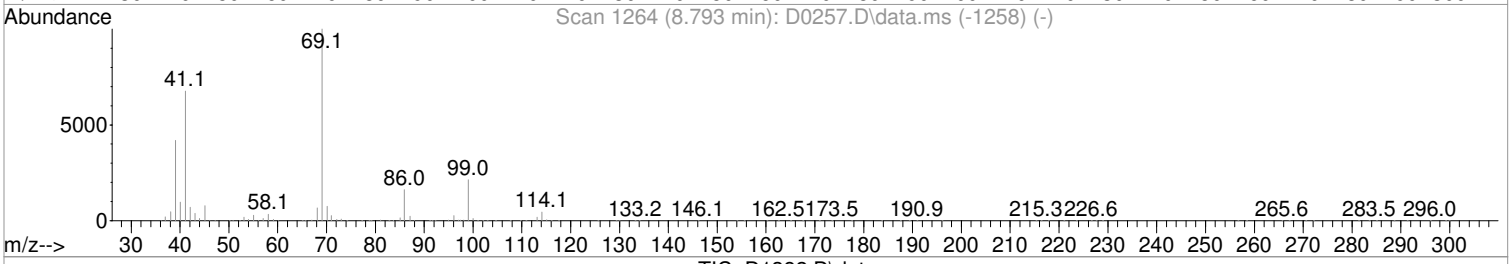
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(67) Ethyl Methacrylate

8.792min (-8.792) 0.00 ug/L

response 0

Ion	Exp%	Act%
69.00	100	0.00
41.10	67.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

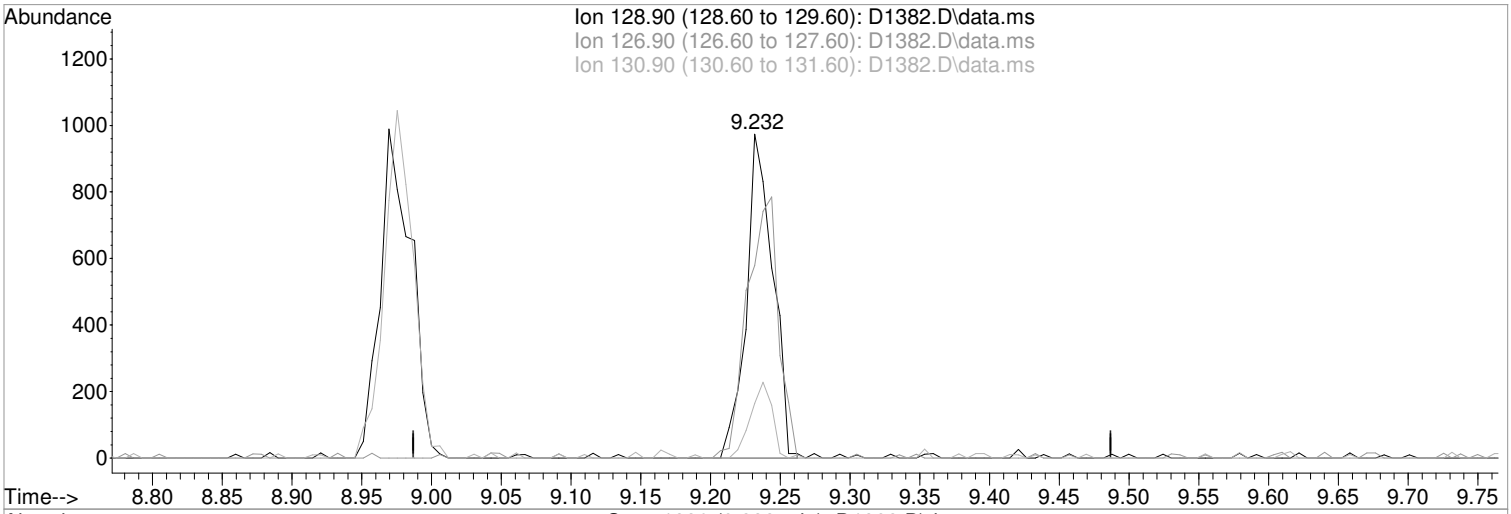
Before

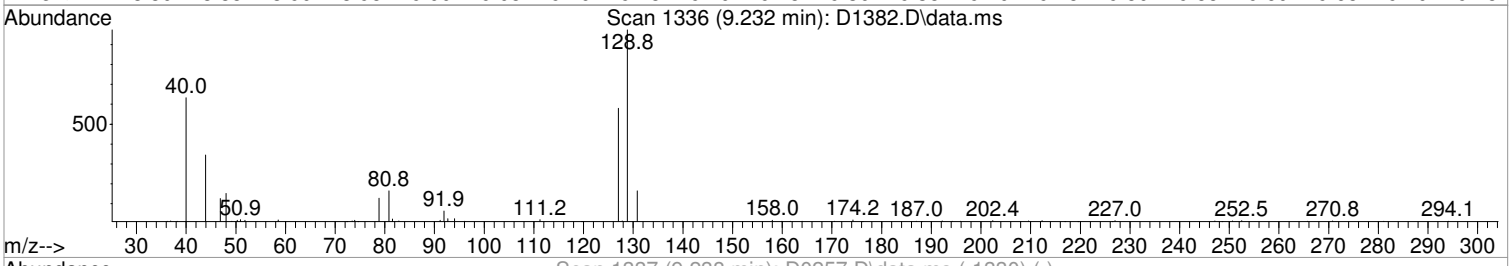
02/14/18

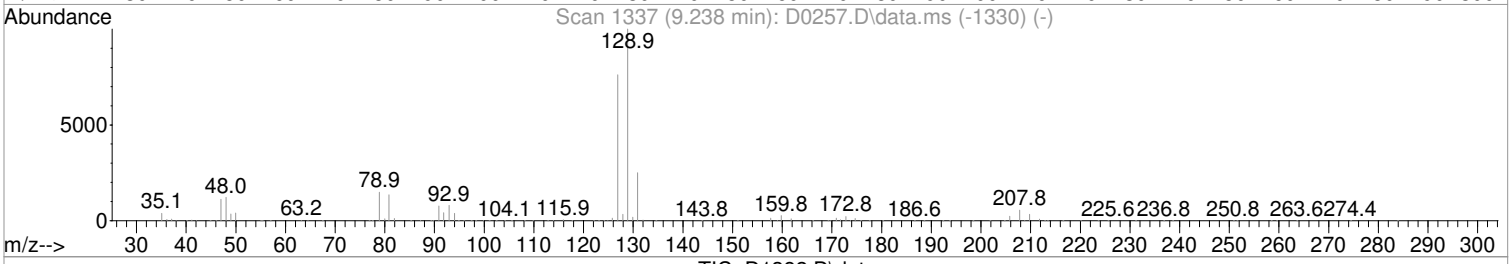
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(74) Dibromochloromethane (P)

9.232min (-0.005) 0.73 ug/L m

response 1285

Ion	Exp%	Act%
128.90	100	100
126.90	76.20	59.45
130.90	25.10	16.94
0.00	0.00	0.00

Manual Integration:

After

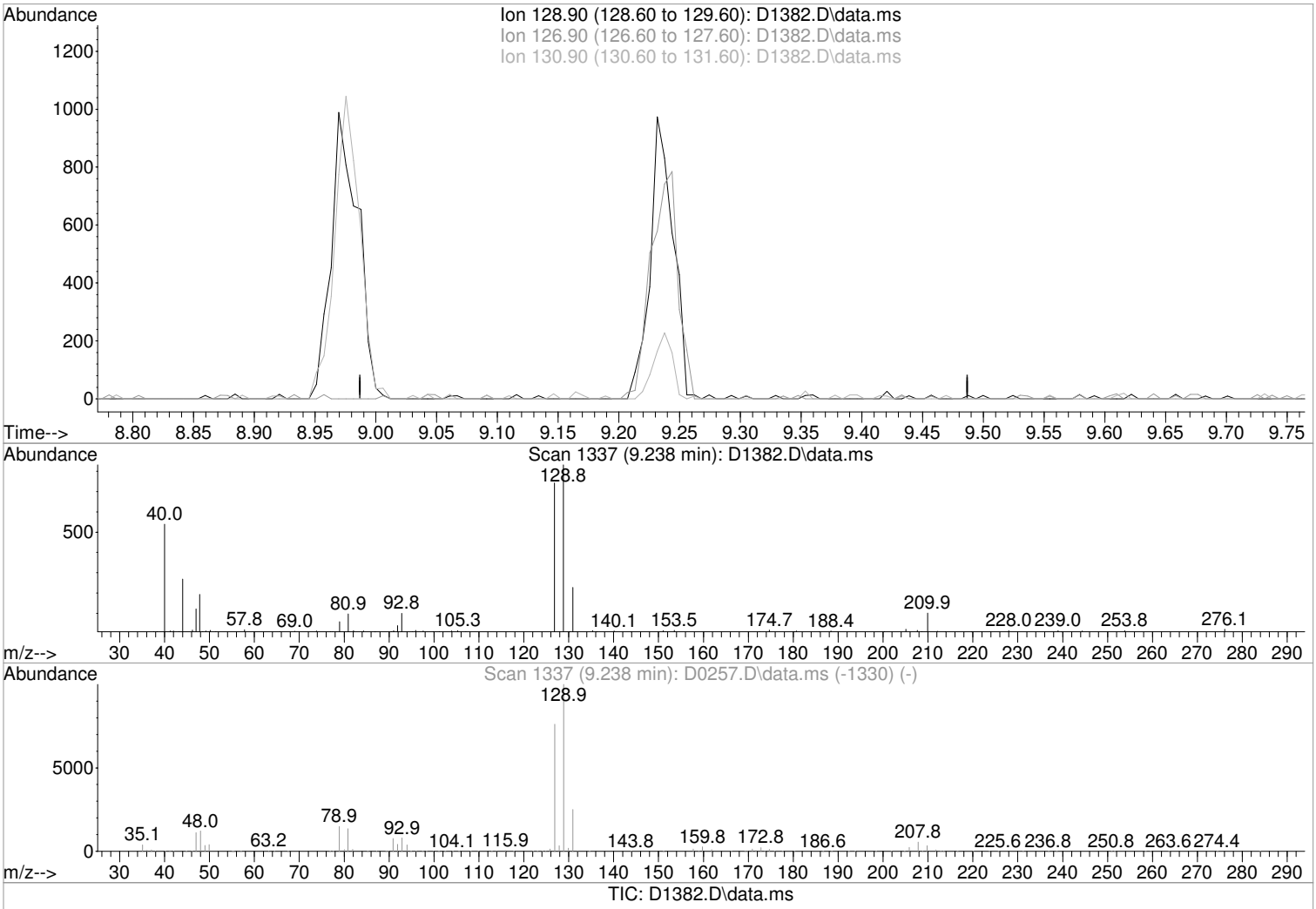
Peak not found.

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(74) Dibromochloromethane (P)

9.237min (-9.237) 0.00 ug/L

response 0

Ion	Exp%	Act%
128.90	100	0.00
126.90	76.20	0.00#
130.90	25.10	0.00#
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	186550	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	276906	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	241433	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	128939	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.232	113	18916	11.17	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.34%#				
46) surr1,1,2-dichloroetha...	5.775	65	23934	12.22	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 24.44%#				
64) SURR3,Toluene-d8	8.311	98	77301	11.58	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 23.16%#				
69) SURR2,BFB	10.878	95	27172	10.51	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.02%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	2497	0.93	ug/L		86
3) Chloromethane	1.282	50	2978	1.01	ug/L		84
4) Vinyl Chloride	1.361	62	2858	1.03	ug/L		88
5) Bromomethane	1.587	94	3052	0.99	ug/L		97
6) Chloroethane	1.666	64	2063	1.18	ug/L		95
7) Freon 21	1.812	67	4625	1.08	ug/L		99
8) Trichlorofluoromethane	1.861	101	3310	1.05	ug/L		97
9) Diethyl Ether	2.093	59	1643	0.90	ug/L	#	78
10) Freon 123a	2.093	67	2489	1.01	ug/L		79
11) Freon 123	2.154	83	3016	1.07	ug/L		89
12) Acrolein	2.190	56	2595	4.98	ug/L		96
13) 1,1-Diclethene	2.282	96	1762	0.96	ug/L		87
14) Freon 113	2.288	101	2187	1.10	ug/L	#	67
15) Acetone	2.330	43	1228	1.26	ug/L		93
16) 2-Propanol	2.459	45	2876m	21.44	ug/L		
17) Iodomethane	2.416	142	1013	2.05	ug/L		80
18) Carbon Disulfide	2.477	76	4827	0.95	ug/L		86
20) Allyl Chloride	2.623	76	797	0.85	ug/L	#	81
21) Methyl Acetate	2.635	43	1865m	0.96	ug/L		
22) Methylene Chloride	2.733	84	2032	0.98	ug/L		91
23) TBA	2.861	59	3856	18.84	ug/L		66
24) Acrylonitrile	2.989	53	4794m	4.84	ug/L		
25) Methyl-t-Butyl Ether	3.032	73	5443	0.94	ug/L		98
26) trans-1,2-Dichloroethene	3.019	96	2034m	1.07	ug/L		
27) 1,1-Diclethane	3.519	63	3384	0.95	ug/L		93
28) Vinyl Acetate	3.617	86	347m	0.87	ug/L		
29) DIPE	3.653	45	7198	1.08	ug/L		87
30) 2-Chloro-1,3-Butadiene	3.647	53	3175	1.02	ug/L		83
31) ETBE	4.184	59	4749	0.89	ug/L		87
32) 2,2-Dichloropropane	4.367	77	1823m	0.94	ug/L		
33) cis-1,2-Dichloroethene	4.373	96	2230	1.02	ug/L		91
34) 2-Butanone	4.415	43	1457	1.11	ug/L		85
35) Propionitrile	4.507	54	2076	5.13	ug/L		53
36) Bromochloromethane	4.757	130	1518m	1.18	ug/L		
37) Methacrylonitrile	4.775	67	767	0.81	ug/L	#	71
38) Tetrahydrofuran	4.860	42	811m	1.06	ug/L		
39) Chloroform	4.946	83	3339	0.97	ug/L		95
40) 1,1,1-Trichloroethane	5.257	97	2405m	0.94	ug/L		
42) Cyclohexane	5.342	41	1947m	1.07	ug/L		

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Carbontetrachloride	5.531	117	1713	0.87	ug/L	#	69
45) 1,1-Dichloropropene	5.537	75	2995	1.08	ug/L		84
47) Benzene	5.854	78	8554	1.06	ug/L		96
48) 1,2-Dichloroethane	5.897	62	2812	1.01	ug/L		97
49) Iso-Butyl Alcohol	5.872	43	1367	38.70	ug/L		94
50) TAME	6.104	73	4198	0.85	ug/L		93
51) n-Heptane	6.348	43	2572	0.94	ug/L		94
52) 1-Butanol	6.854	56	2355m	55.41	ug/L		
53) Trichloroethene	6.811	130	2271	1.04	ug/L	#	84
54) Methylcyclohexane	7.049	55	2787	1.07	ug/L	#	77
55) 1,2-Diclpropane	7.098	63	1959	0.92	ug/L		84
56) Dibromomethane	7.244	93	1292	0.98	ug/L	#	70
57) 1,4-Dioxane	7.299	88	727	21.40	ug/L		99
58) Methyl Methacrylate	7.330	69	1366	0.92	ug/L	#	79
59) Bromodichloromethane	7.470	83	2265	0.93	ug/L		88
60) 2-Nitropropane	7.750	41	792	1.76	ug/L		90
61) 2-Chloroethylvinyl Ether	7.878	63	375m	0.73	ug/L		
62) cis-1,3-Dichloropropene	8.012	75	2321	0.95	ug/L		85
63) 4-Methyl-2-pentanone	8.220	43	2048	0.90	ug/L		73
65) Toluene	8.378	91	8684	1.01	ug/L		93
66) trans-1,3-Dichloropropene	8.652	75	1595	0.96	ug/L		91
67) Ethyl Methacrylate	8.799	69	1990m	0.78	ug/L		
68) 1,1,2-Trichloroethane	8.841	97	1983	1.05	ug/L		94
71) Tetrachloroethene	8.976	164	1738	1.03	ug/L		90
72) 2-Hexanone	9.140	43	1387	0.82	ug/L		94
73) 1,3-Dichloropropane	9.012	76	3516	1.06	ug/L		88
74) Dibromochloromethane	9.232	129	1285m	0.73	ug/L		
75) N-Butyl Acetate	9.286	43	2565	0.79	ug/L		94
76) 1,2-Dibromoethane	9.335	107	1706	0.92	ug/L	#	75
77) 3-Chlorobenzotrifluoride	9.847	180	3033	0.95	ug/L		83
78) Chlorobenzene	9.829	112	5347	0.95	ug/L		91
79) 4-Chlorobenzotrifluoride	9.896	180	2615	0.93	ug/L		93
80) 1,1,1,2-Tetrachloroethane	9.914	131	1643	0.95	ug/L		86
81) Ethylbenzene	9.945	106	2601	0.89	ug/L		97
82) (m+p)Xylene	10.061	106	6622	1.85	ug/L		90
83) o-Xylene	10.420	106	3209	0.93	ug/L		98
84) Styrene	10.433	104	5713	0.97	ug/L		85
85) Bromoform	10.579	173	864	0.95	ug/L		80
86) 2-Chlorobenzotrifluoride	10.664	180	3224	1.05	ug/L		93
87) Isopropylbenzene	10.756	105	8673	0.96	ug/L		91
88) Cyclohexanone	10.817	55	10031	17.65	ug/L		90
89) trans-1,4-Dichloro-2-B...	11.060	53	366	0.96	ug/L	#	63
91) 1,1,2,2-Tetrachloroethane	11.012	83	2354	0.90	ug/L		92
92) Bromobenzene	11.000	156	2262	0.99	ug/L		90
93) 1,2,3-Trichloropropane	11.042	110	955	1.20	ug/L	#	55
94) n-Propylbenzene	11.109	91	9260	0.90	ug/L		98
95) 2-Chlorotoluene	11.170	91	6685	1.08	ug/L		98
96) 3-Chlorotoluene	11.225	91	5918	0.97	ug/L		93
97) 4-Chlorotoluene	11.262	91	6984	0.96	ug/L		87
98) 1,3,5-Trimethylbenzene	11.262	105	6678	0.95	ug/L		95
99) tert-Butylbenzene	11.530	119	6325	1.00	ug/L		87
100) 1,2,4-Trimethylbenzene	11.573	105	6584	0.94	ug/L		93
101) 3,4-Dichlorobenzotrifl...	11.634	214	2322	0.92	ug/L		96
102) sec-Butylbenzene	11.719	105	8570	0.94	ug/L		95
103) p-Isopropyltoluene	11.841	119	6527	0.87	ug/L		95
104) 1,3-Dclbenz	11.798	146	4448	1.01	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration

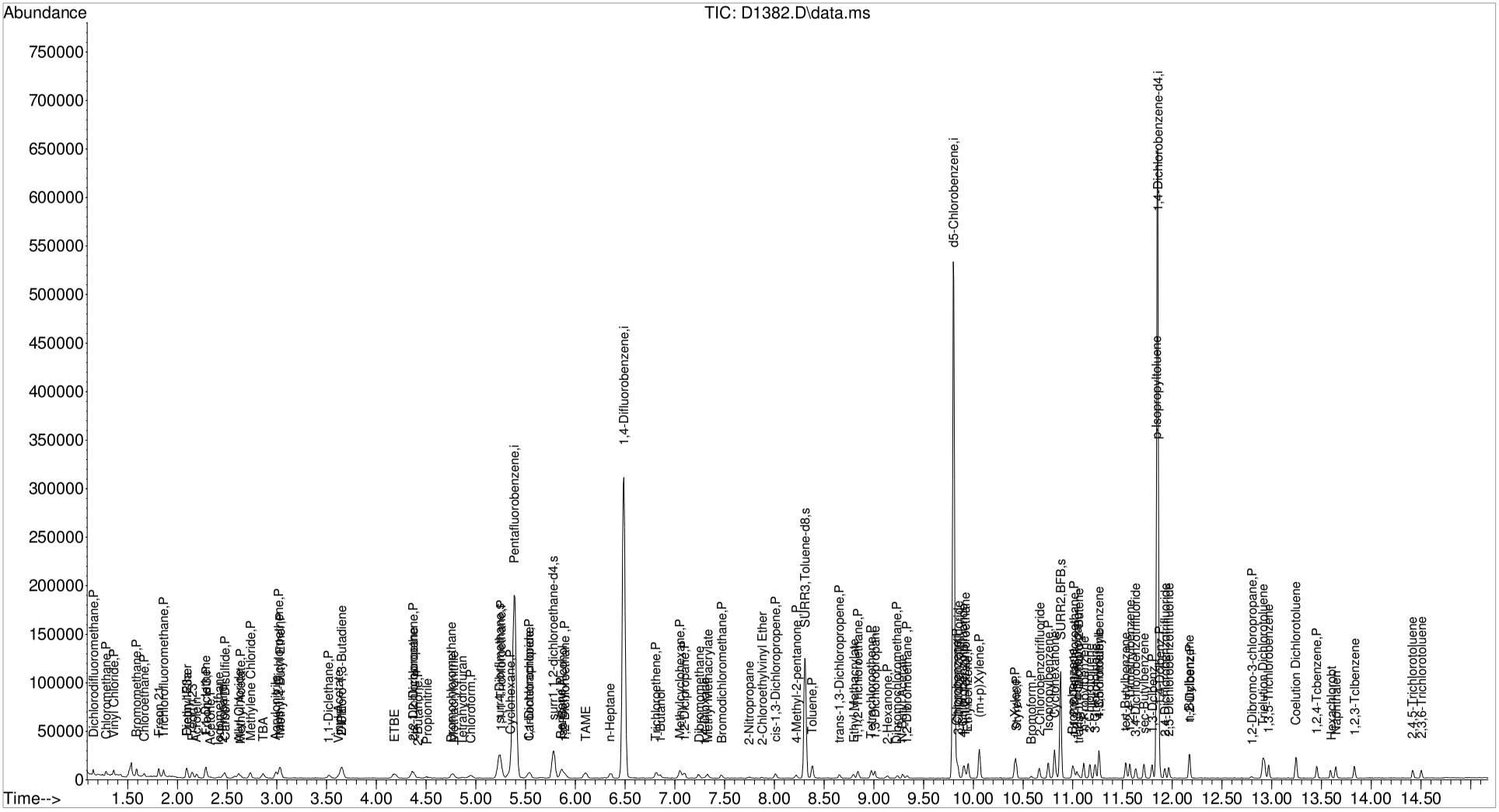
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,4-Dclbenz	11.871	146	4793	1.03	ug/L		92
106) 2,4-Dichlorobenzotrifl...	11.926	214	2286	1.00	ug/L		91
107) 2,5-Dichlorobenzotrifl...	11.969	214	2496	0.99	ug/L		92
108) n-Butylbenzene	12.170	91	5940	0.86	ug/L		98
109) 1,2-Dclbenz	12.176	146	3962	0.89	ug/L		96
110) 1,2-Dibromo-3-chloropr...	12.804	157	373	1.08	ug/L	#	62
111) Trielution Dichlorotol...	12.914	125	10522	2.84	ug/L		88
112) 1,3,5-Trichlorobenzene	12.969	180	3329	0.98	ug/L		91
113) Coelution Dichlorotoluene	13.243	125	6544	1.67	ug/L		94
114) 1,2,4-Tcbenzene	13.450	180	3085	0.95	ug/L		89
115) Hexachlorobt	13.597	225	1217	0.86	ug/L		93
116) Naphthalen	13.645	128	6713	0.91	ug/L		97
117) 1,2,3-Tclbenzene	13.834	180	3280	1.05	ug/L		87
118) 2,4,5-Trichlorotoluene	14.414	159	2122	1.05	ug/L		88
119) 2,3,6-Trichlorotoluene	14.505	159	1578	0.88	ug/L		87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



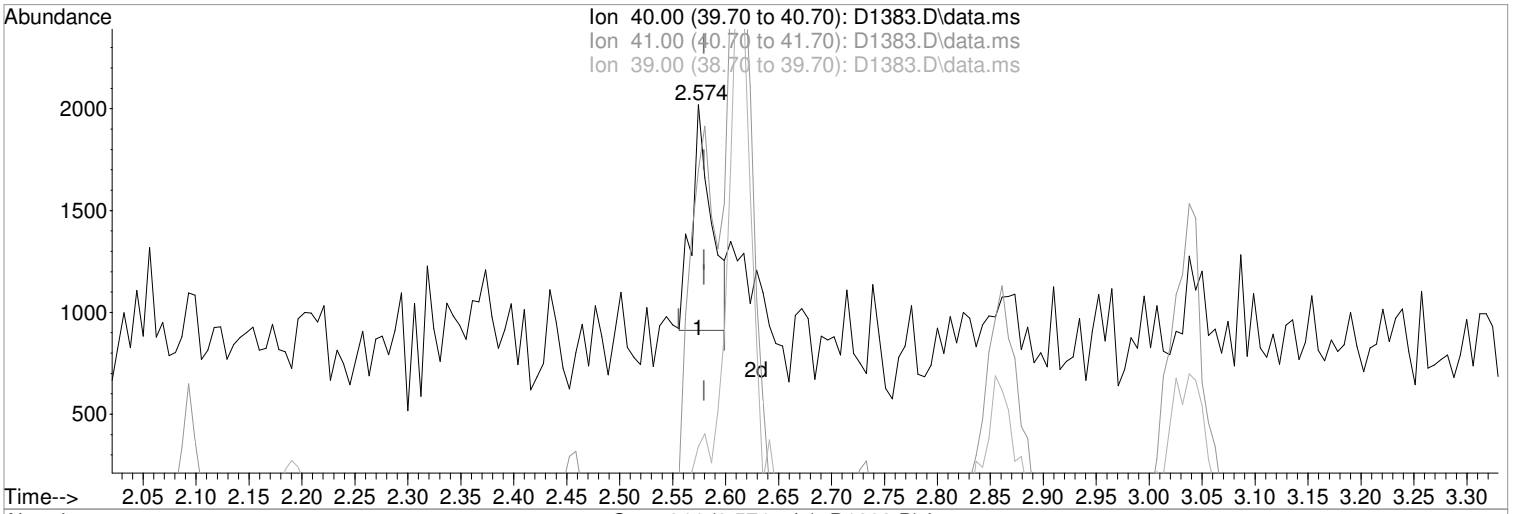
1st DL 02/14/18
2nd FJ 02/15/18

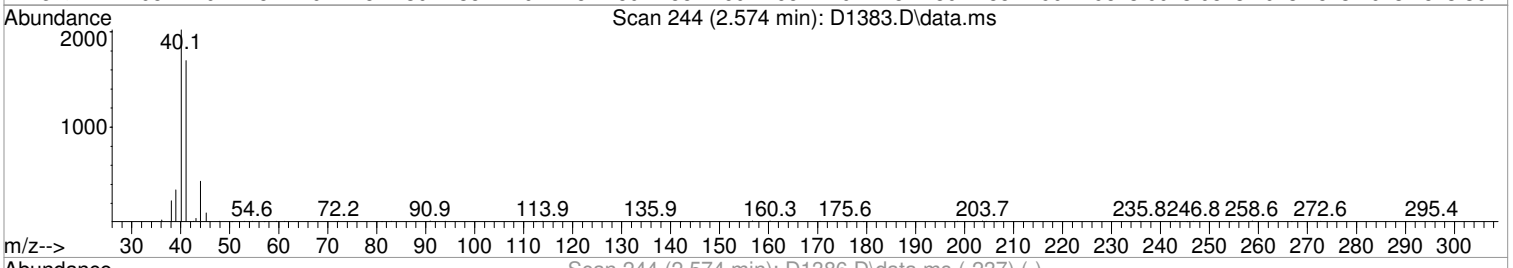
1st DL 02/14/18
2nd FW 02/15/18

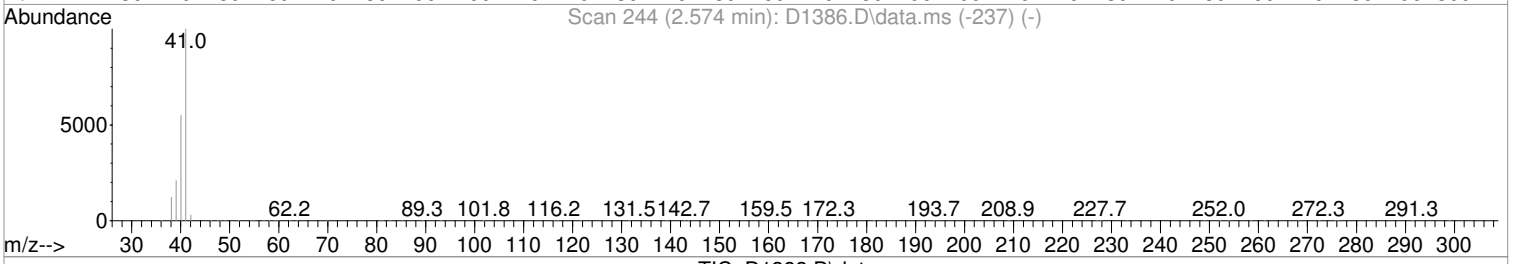
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(19) Acetonitrile

2.574min (-0.006) 6.77 ug/L m

response 1439

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	84.01#
39.00	34.60	16.93
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

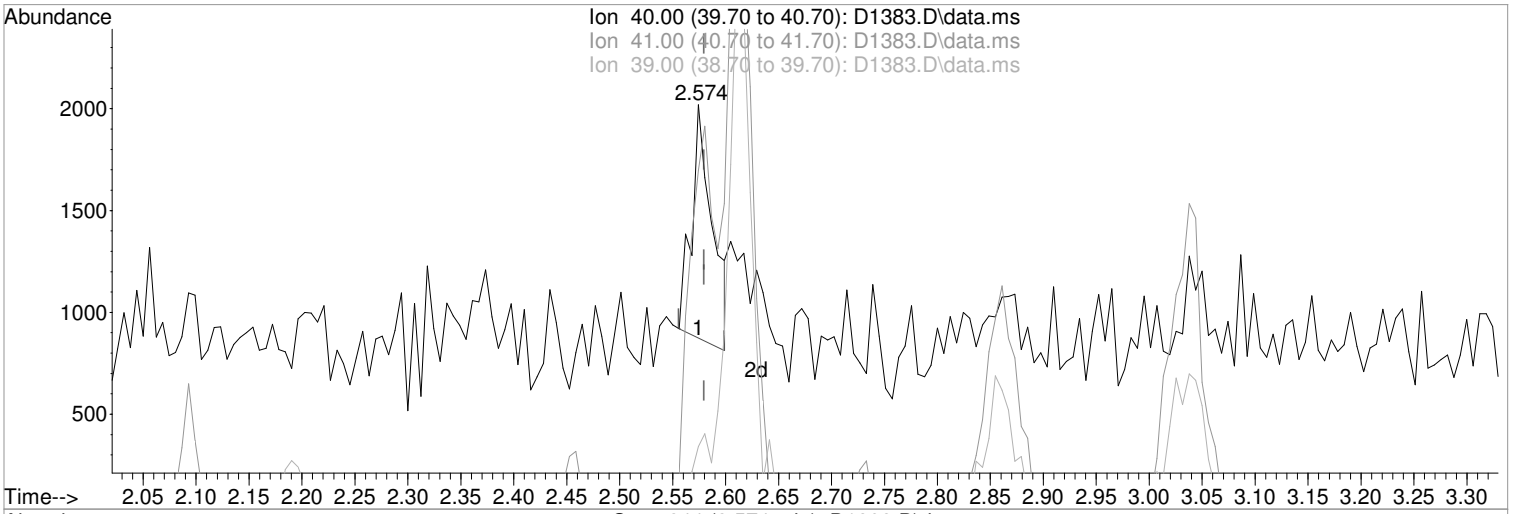
02/14/18

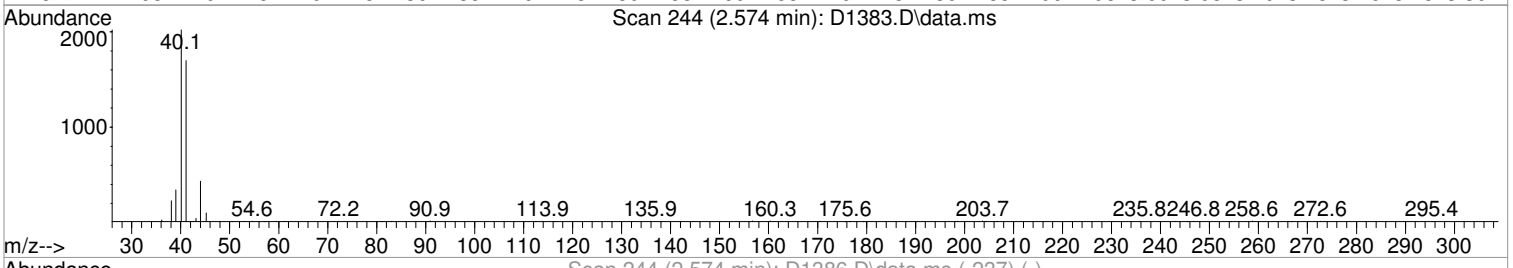
1st DL 02/14/18
2nd FW 02/15/18

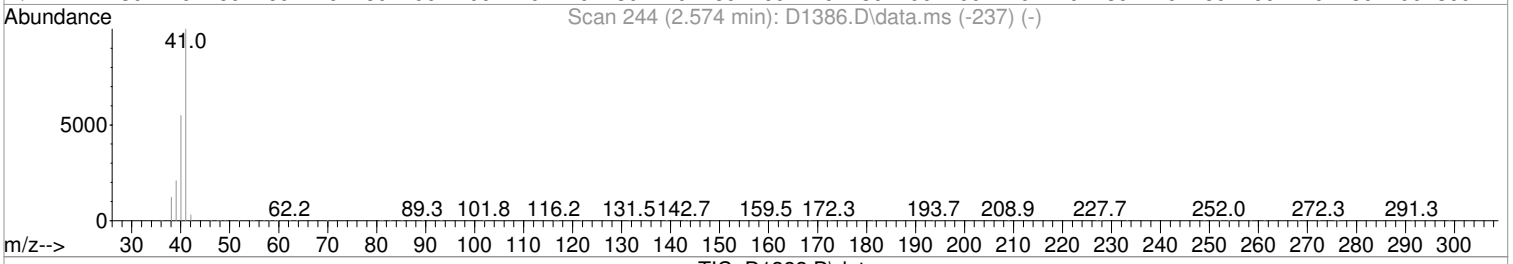
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(19) Acetonitrile

2.574min (-0.006) 7.33 ug/L

response 1558

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	84.01#
39.00	34.60	16.93
0.00	0.00	0.00

Manual Integration:

Before

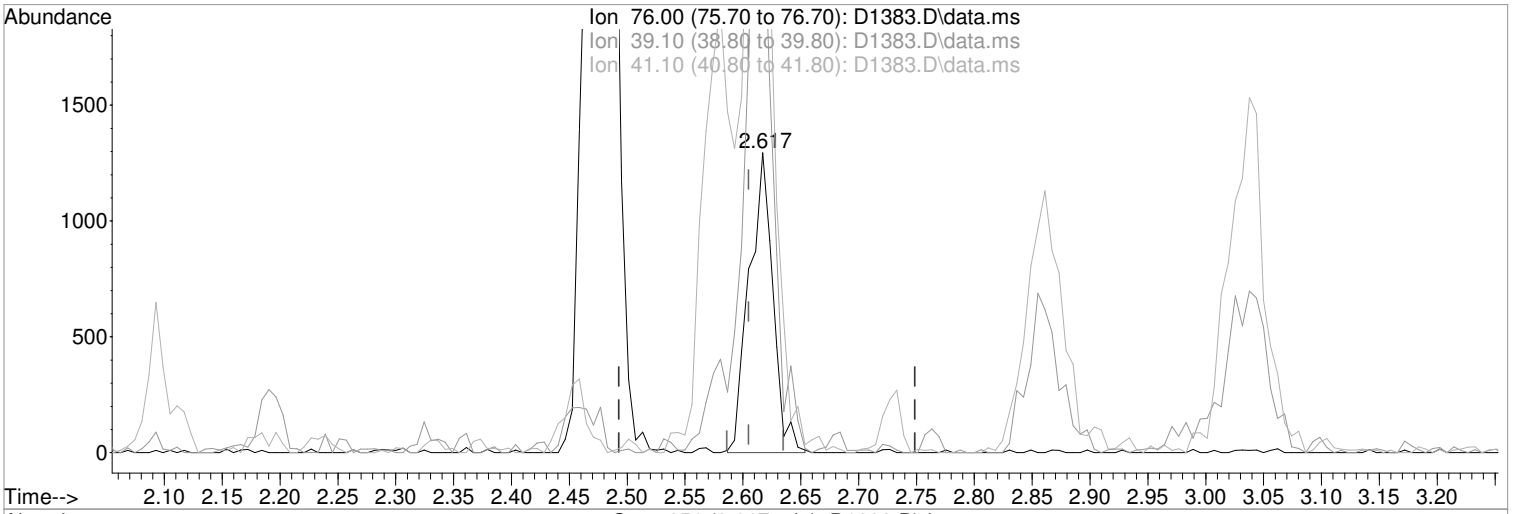
02/14/18

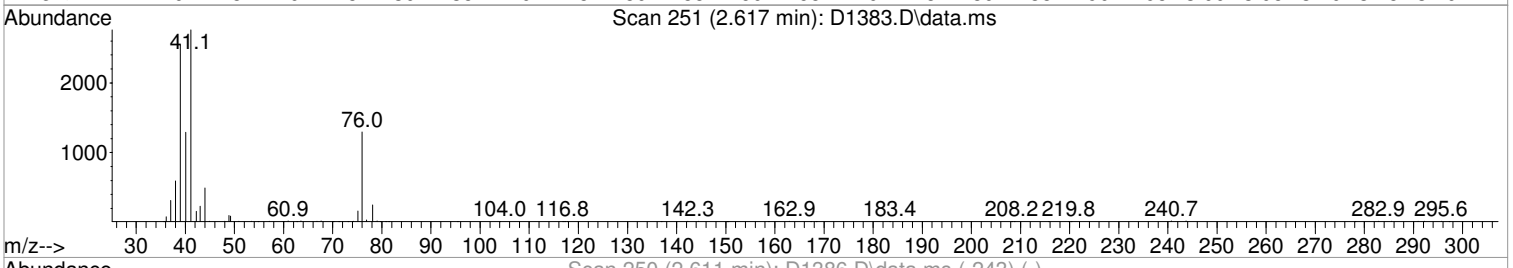
1st DL 02/14/18
2nd FJ 02/15/18

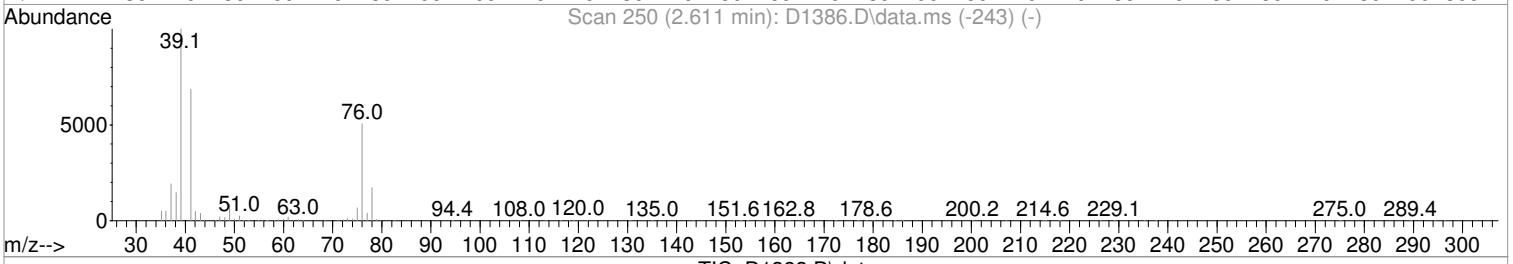
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(20) Allyl Chloride

2.617min (+0.012) 1.92 ug/L m

response 1852

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	196.37
41.10	256.10	213.13#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

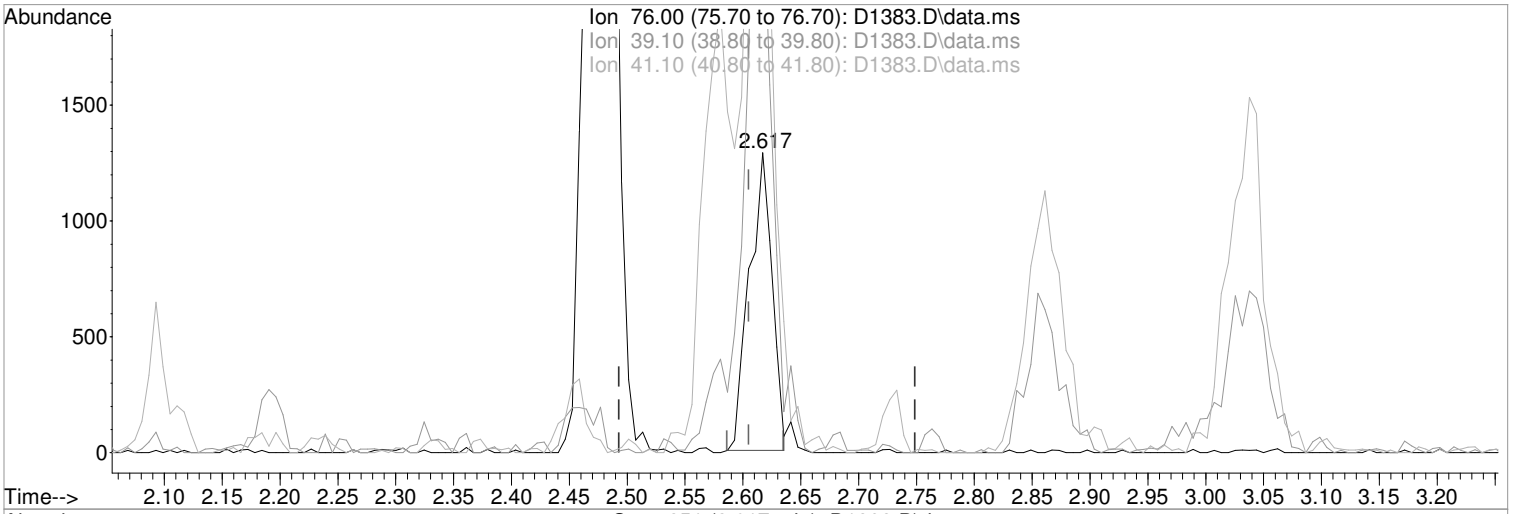
02/14/18

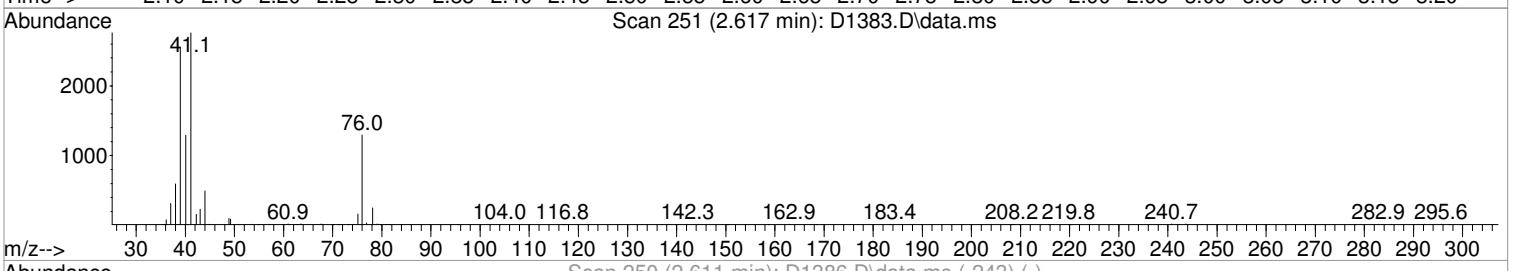
1st DL 02/14/18
2nd FJ 02/15/18

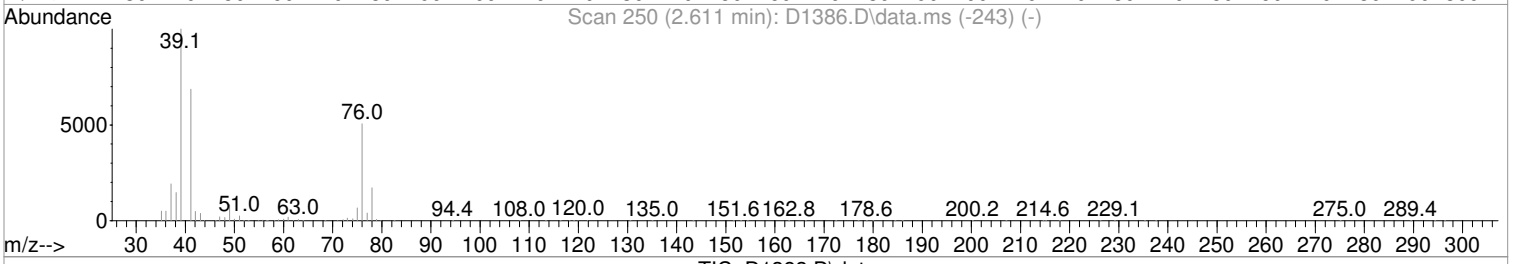
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(20) Allyl Chloride

2.617min (+0.012) 1.82 ug/L

response 1761

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	196.37
41.10	256.10	213.13#
0.00	0.00	0.00

Manual Integration:

Before

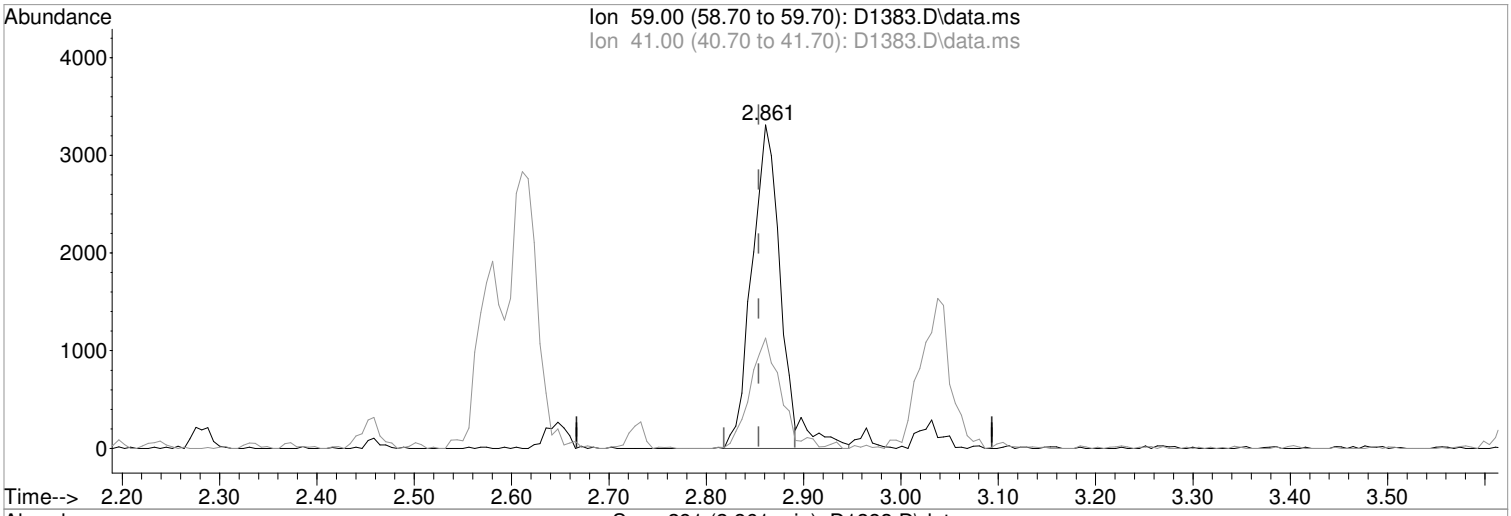
02/14/18

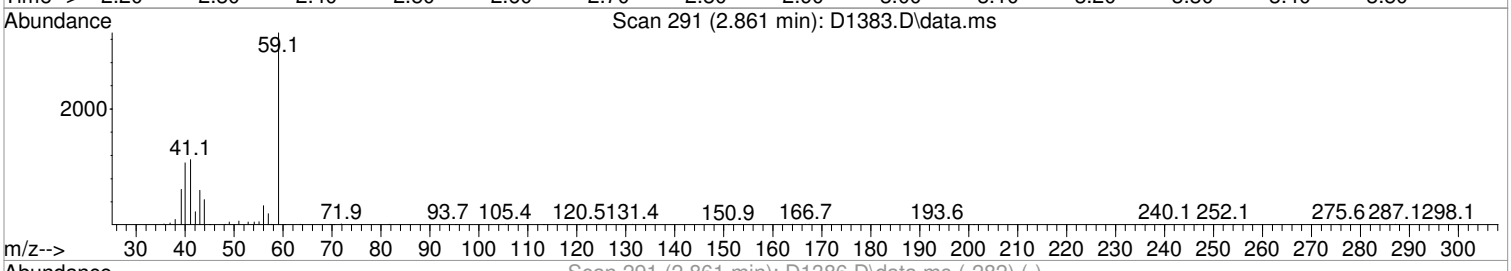
1st DL 02/14/18
2nd FJ 02/15/18

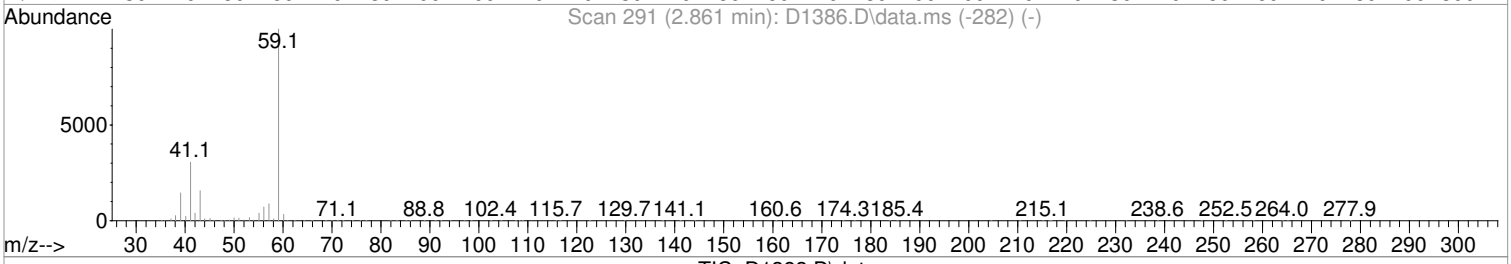
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(23) TBA

2.861min (+0.007) 32.70 ug/L m

response 6929

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	34.14
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

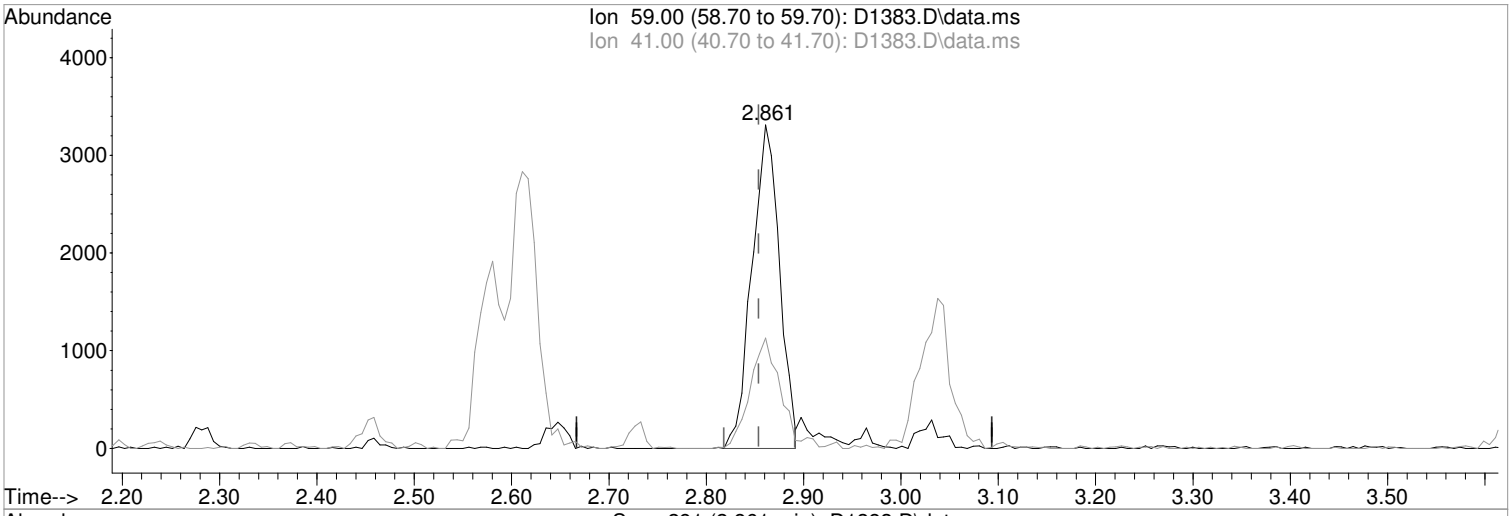
02/14/18

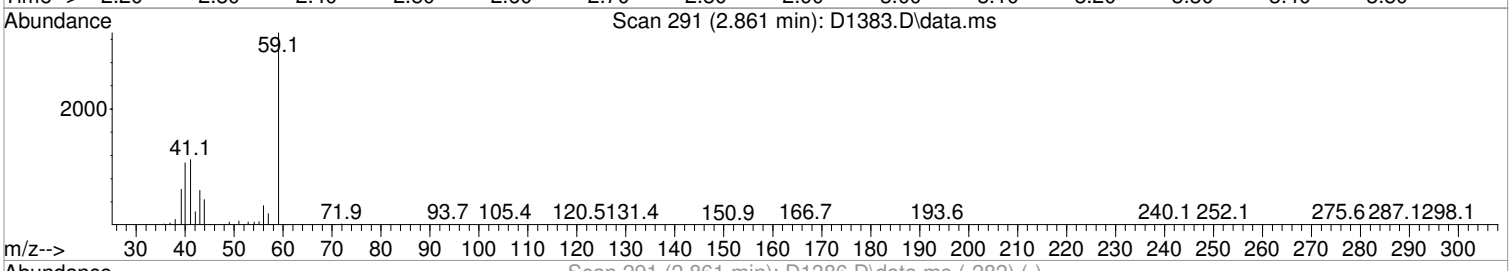
1st DL 02/14/18
2nd FJ 02/15/18

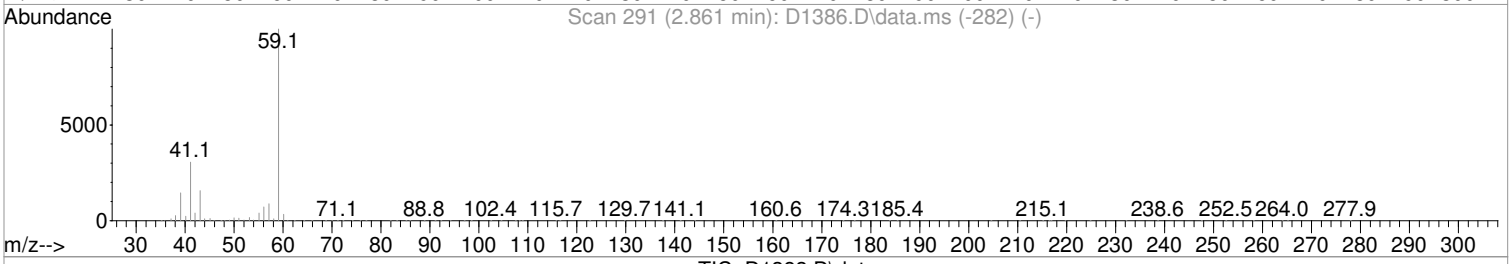
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(23) TBA

2.861min (+0.007) 30.64 ug/L

response 6492

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	34.14
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

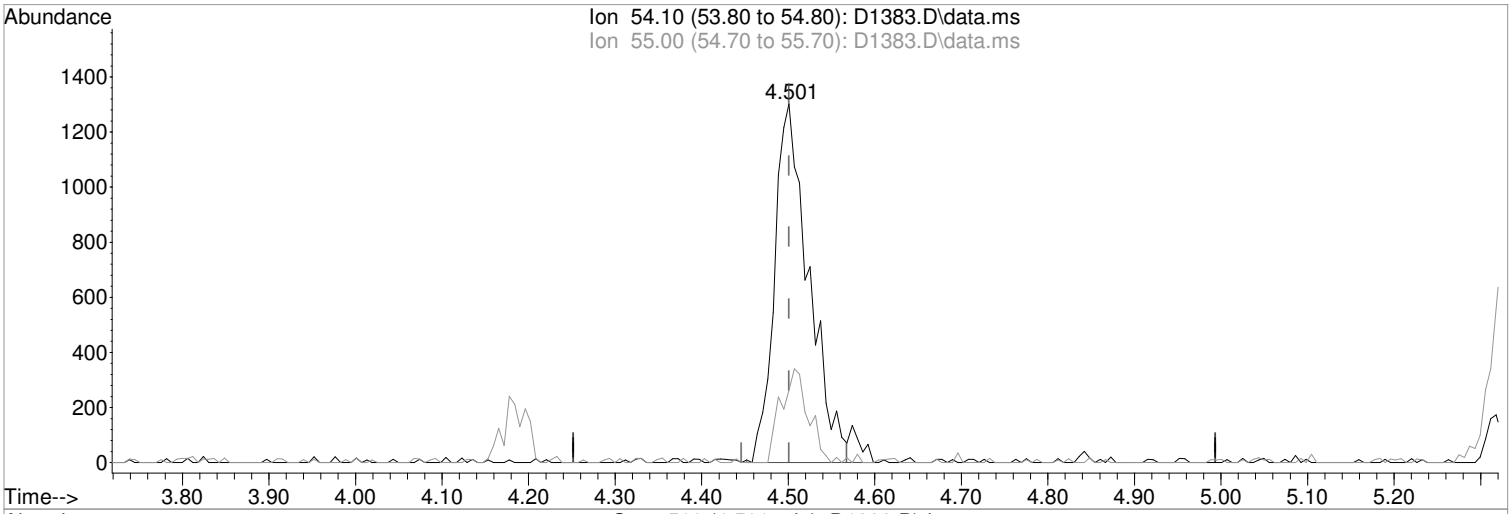
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration



TIC: D1383.D\data.ms

(35) Propionitrile

4.501min (-0.000) 8.84 ug/L m

response 3700

Ion	Exp%	Act%
54.10	100	100
55.00	15.40	20.20
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

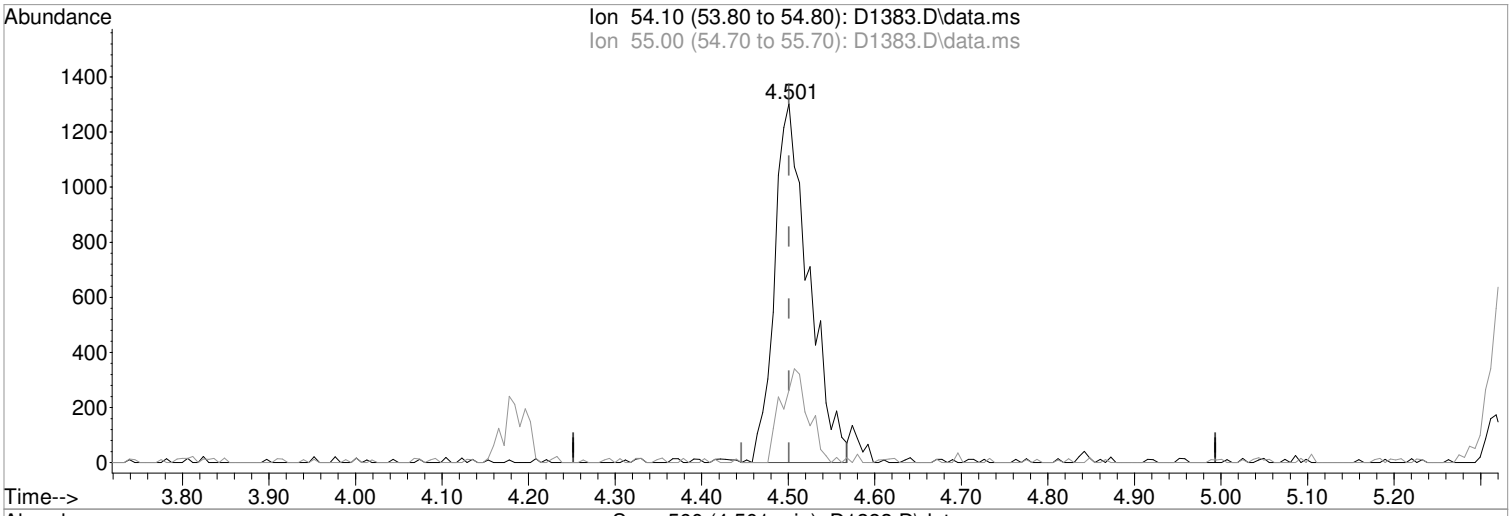
02/14/18

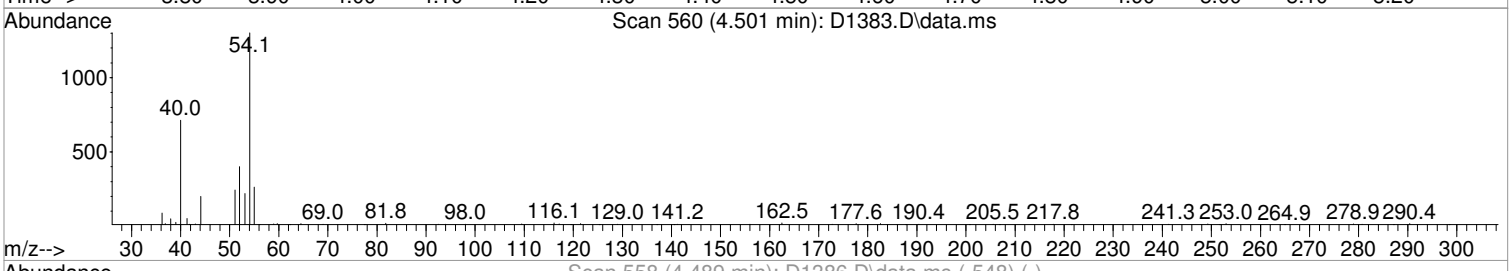
1st DL 02/14/18
2nd FJ 02/15/18

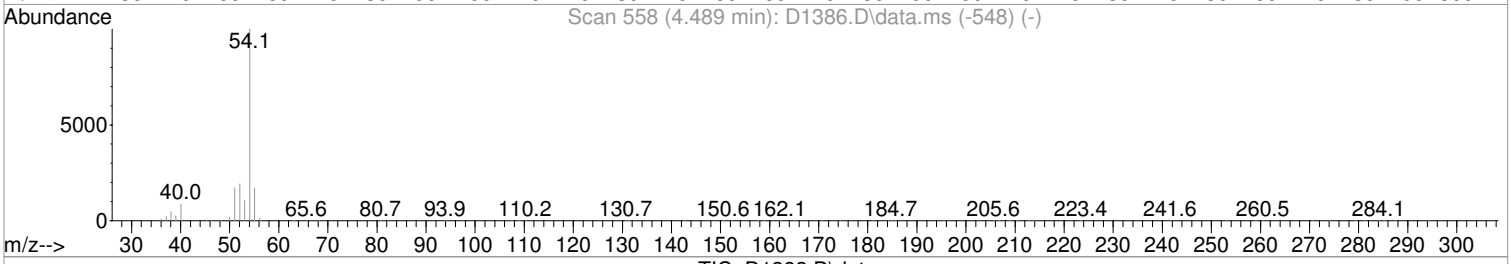
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(35) Propionitrile

4.501min (-0.000) 8.56 ug/L

response 3584

Ion	Exp%	Act%
54.10	100	100
55.00	15.40	20.20
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

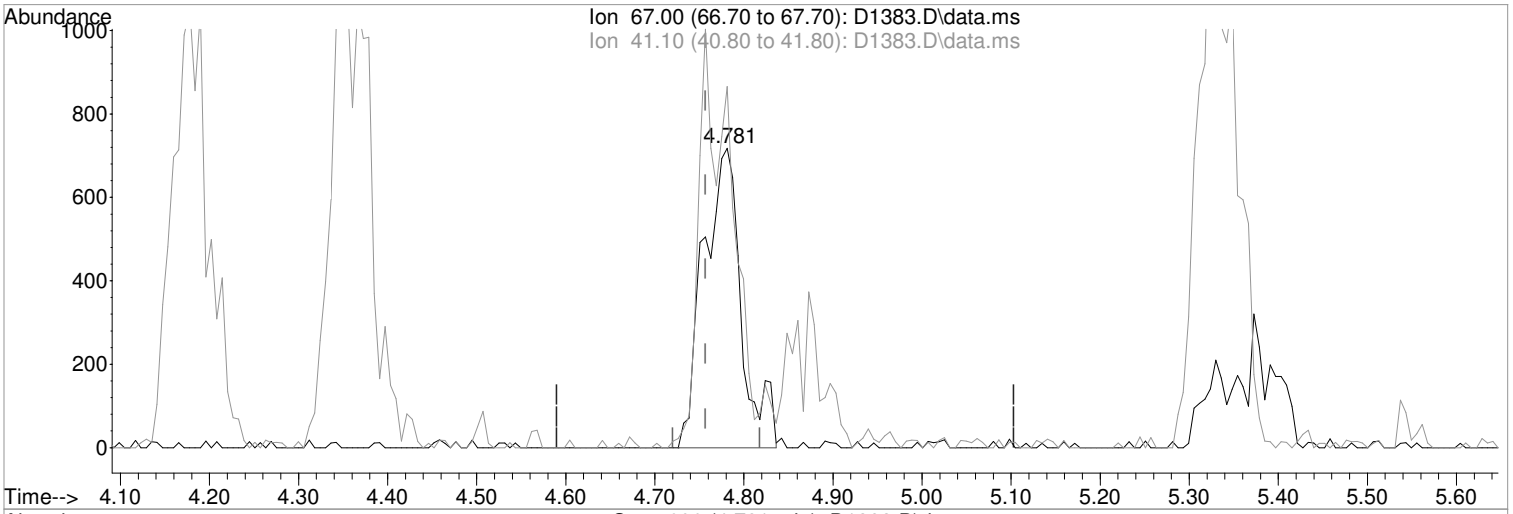
02/14/18

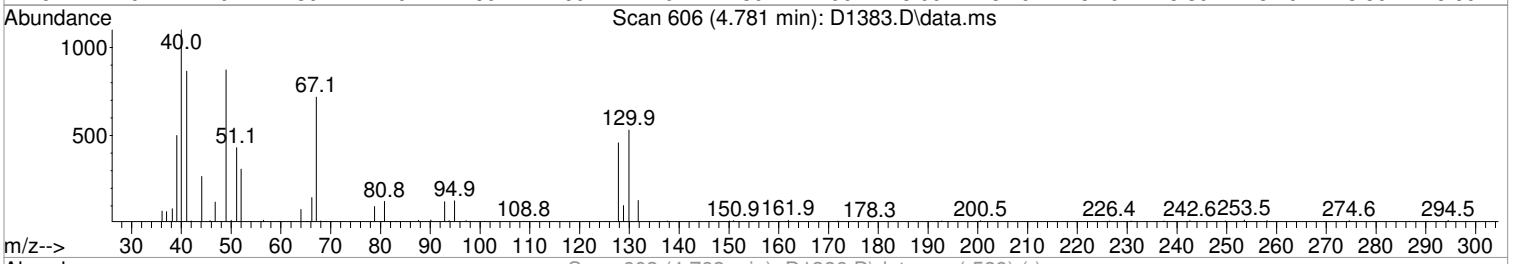
1st DL 02/14/18
2nd FW 02/15/18

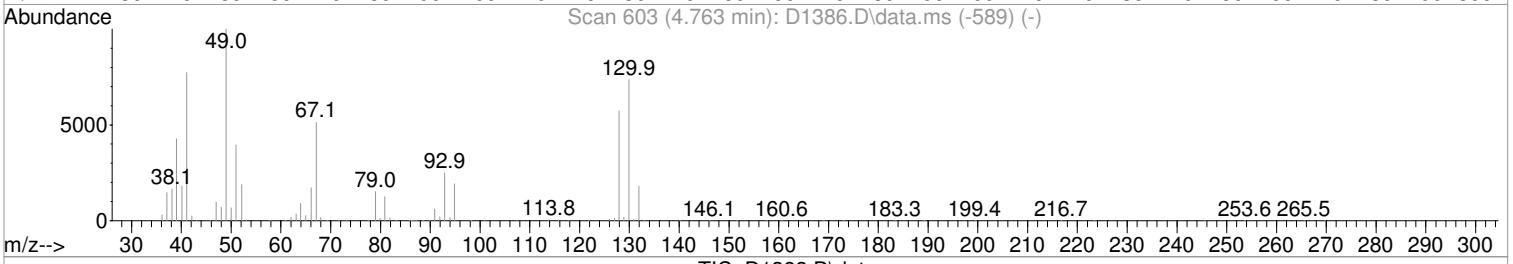
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(37) Methacrylonitrile

4.781min (+0.024) 2.16 ug/L m

response 2110

Ion	Exp%	Act%
67.00	100	100
41.10	137.50	120.61
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

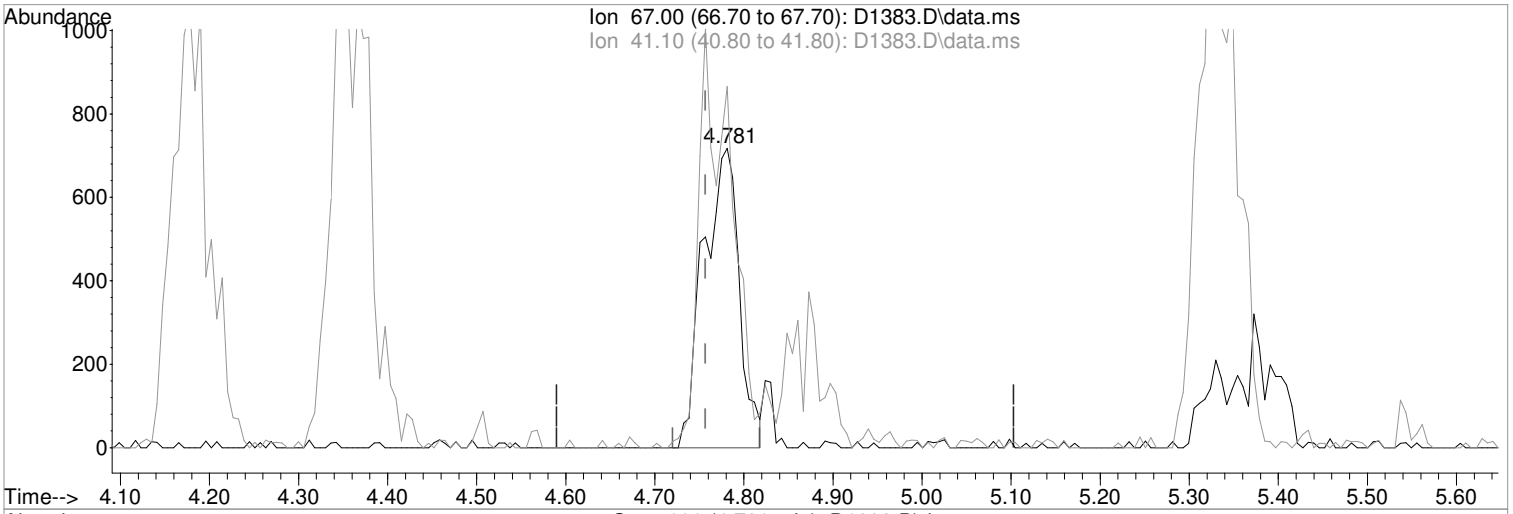
02/14/18

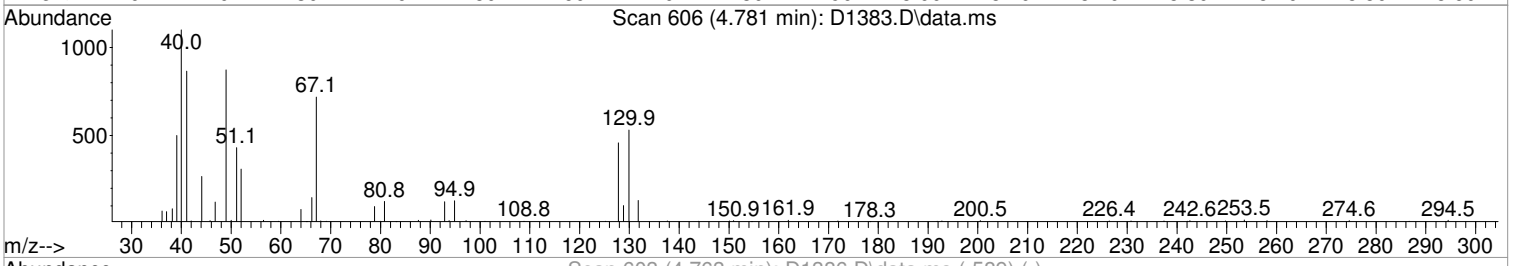
1st DL 02/14/18
2nd FW 02/15/18

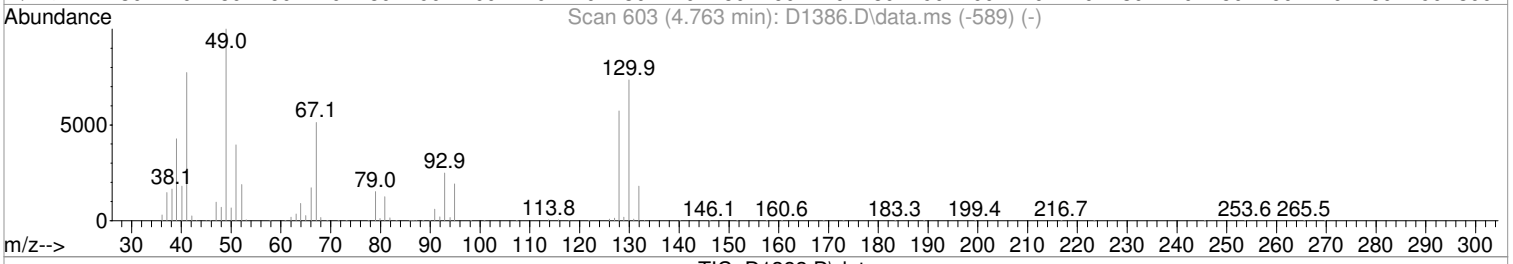
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(37) Methacrylonitrile

4.781min (+0.024) 2.04 ug/L

response 1990

Ion	Exp%	Act%
67.00	100	100
41.10	137.50	120.61
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

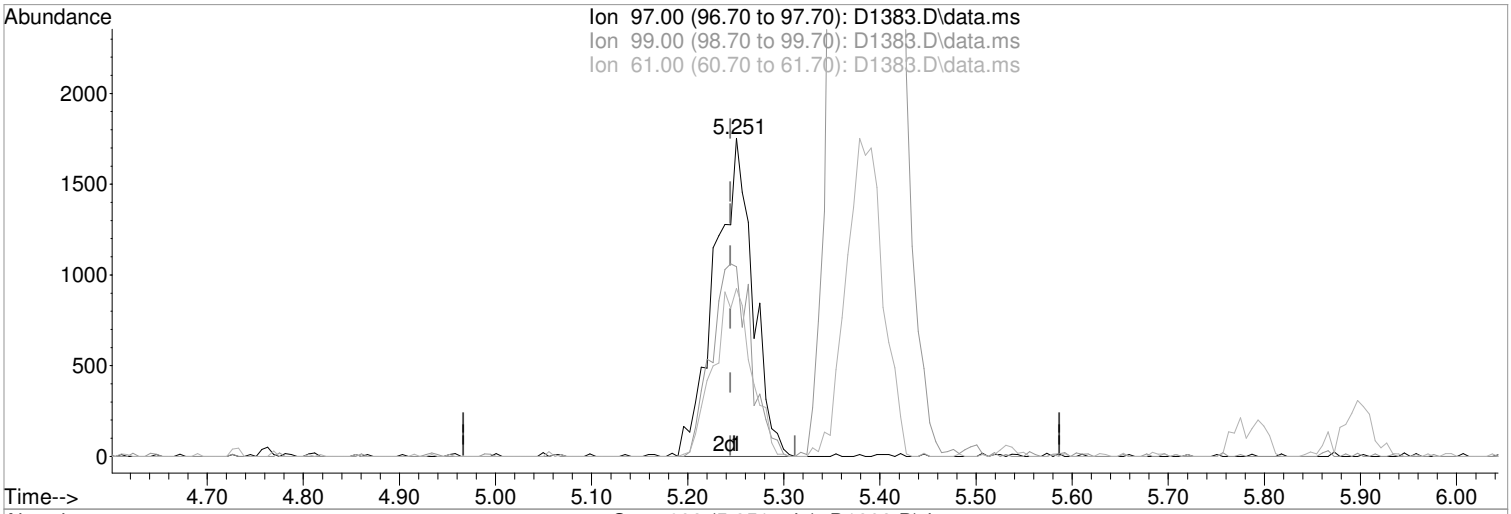
Before

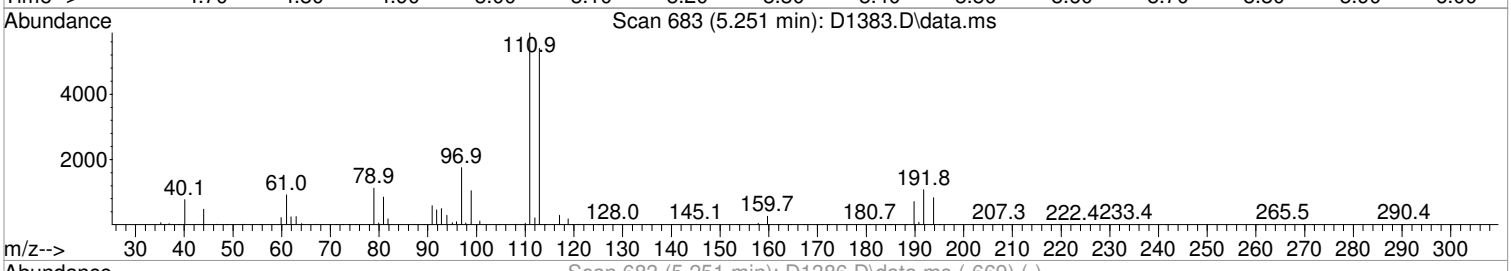
02/14/18

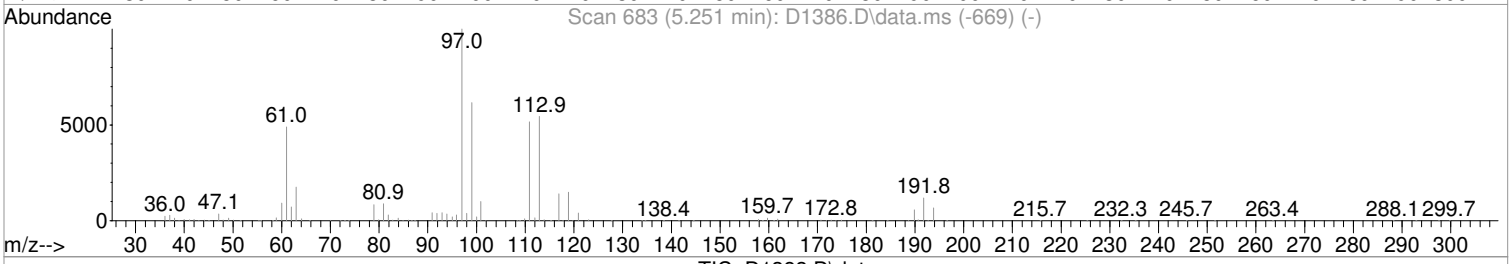
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.251min (+0.006) 1.81 ug/L m

response 4806

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	59.65
61.00	43.40	52.80
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

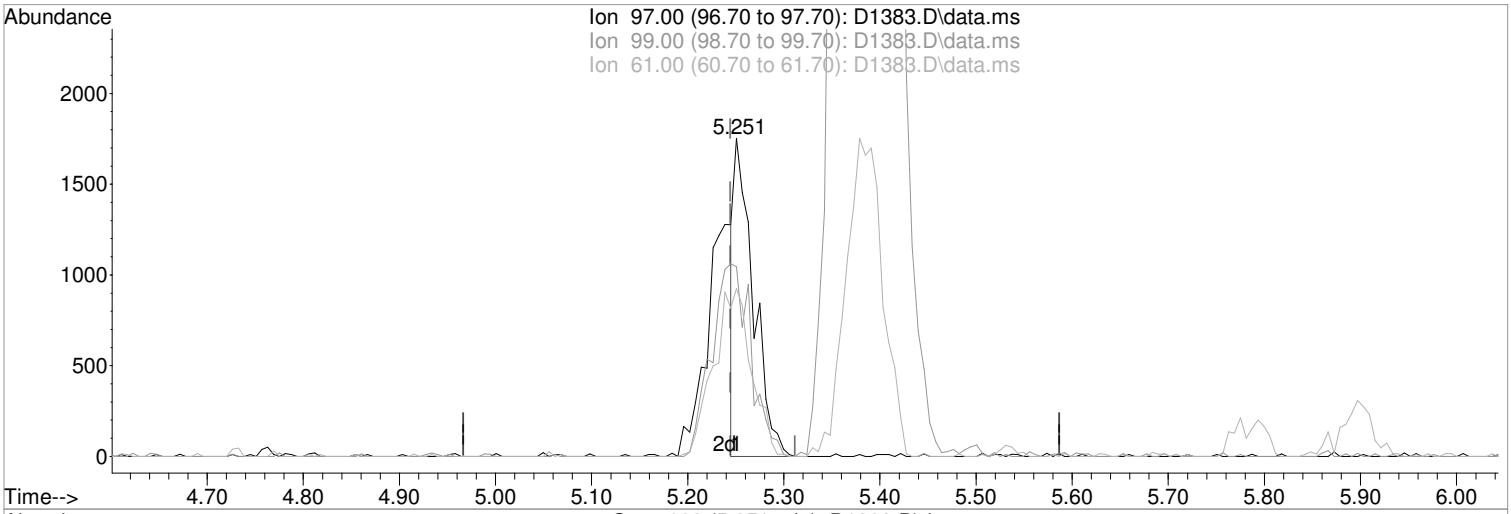
02/14/18

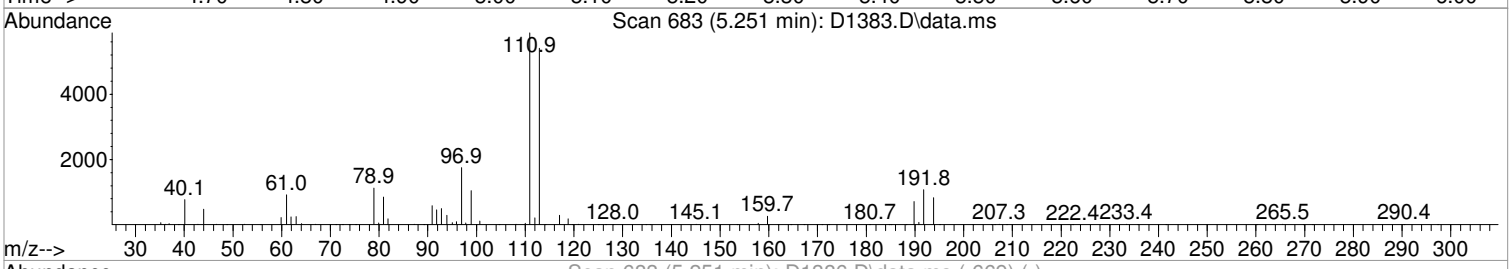
1st DL 02/14/18
2nd FW 02/15/18

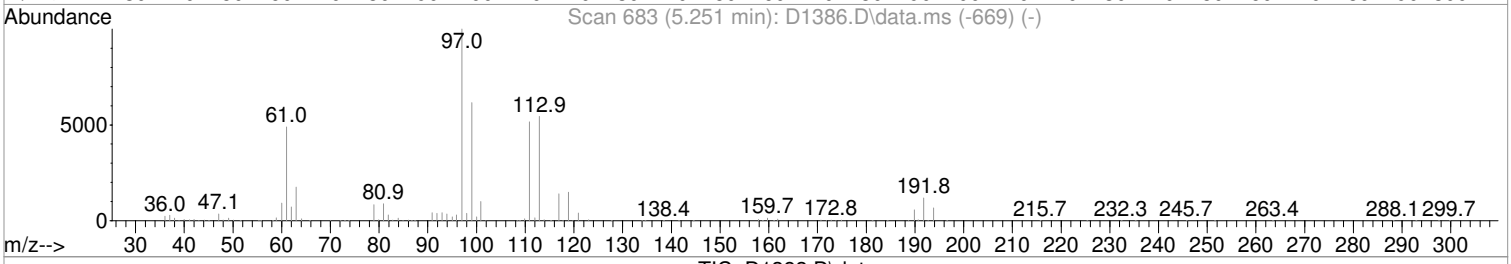
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.251min (+0.006) 0.92 ug/L

response 2429

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	59.65
61.00	43.40	52.80
0.00	0.00	0.00

Manual Integration:

Before

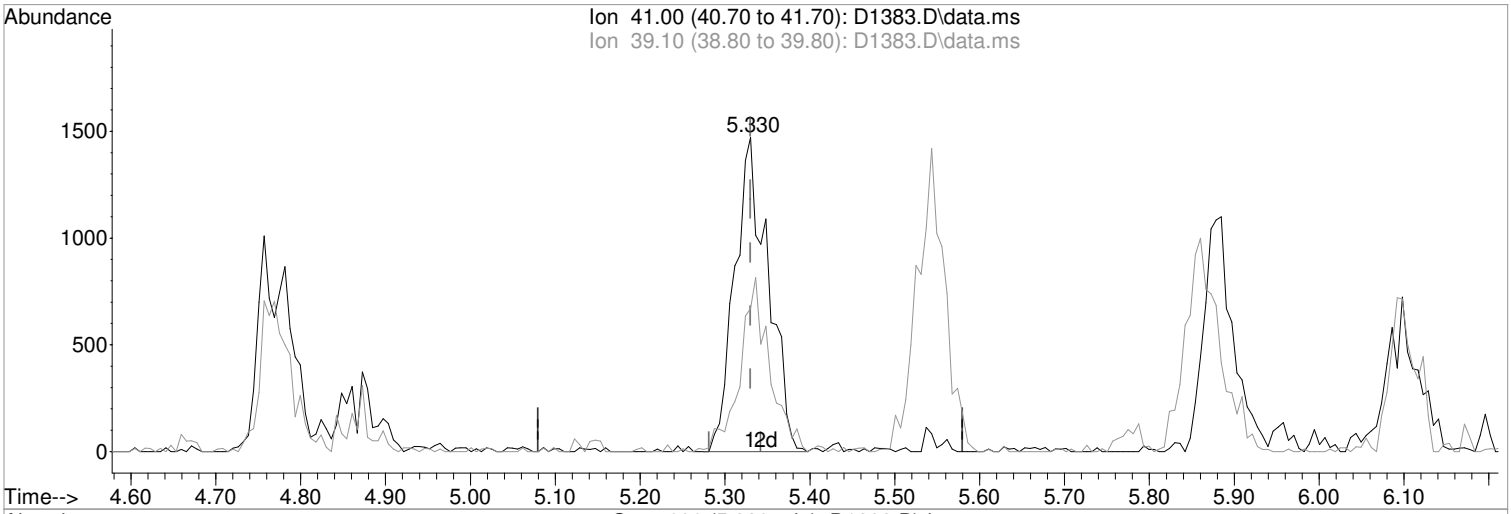
02/14/18

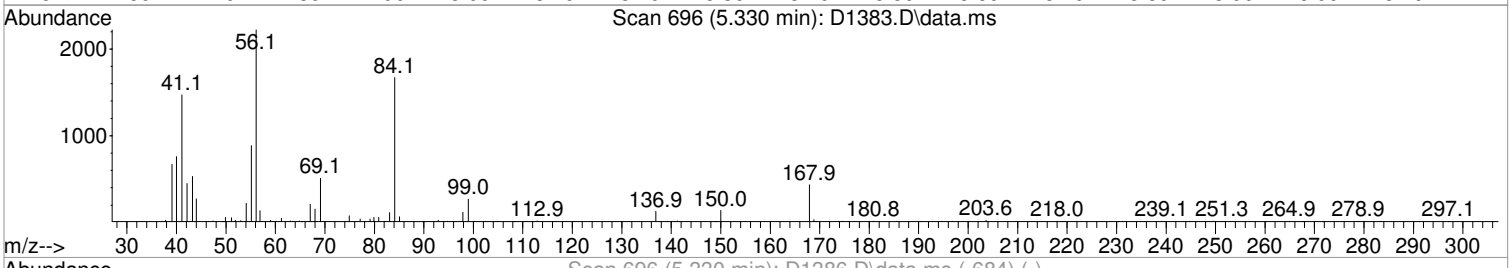
1st DL 02/14/18
2nd FW 02/15/18

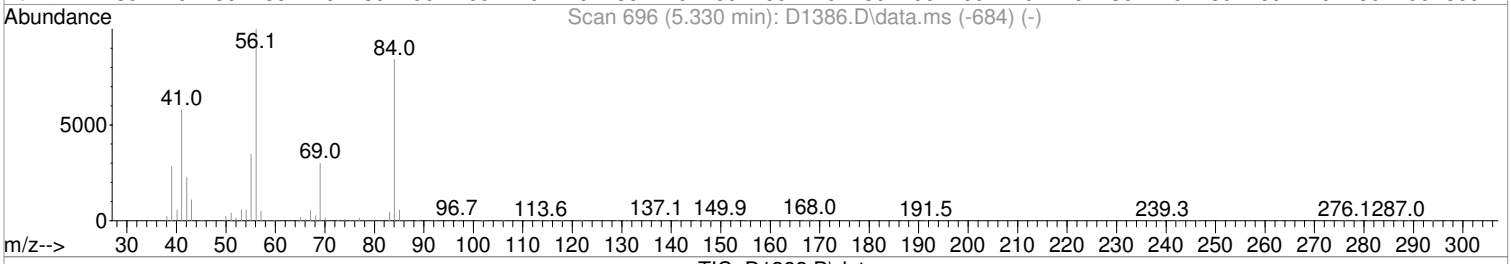
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.000) 2.05 ug/L m

response 3997

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	45.45
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

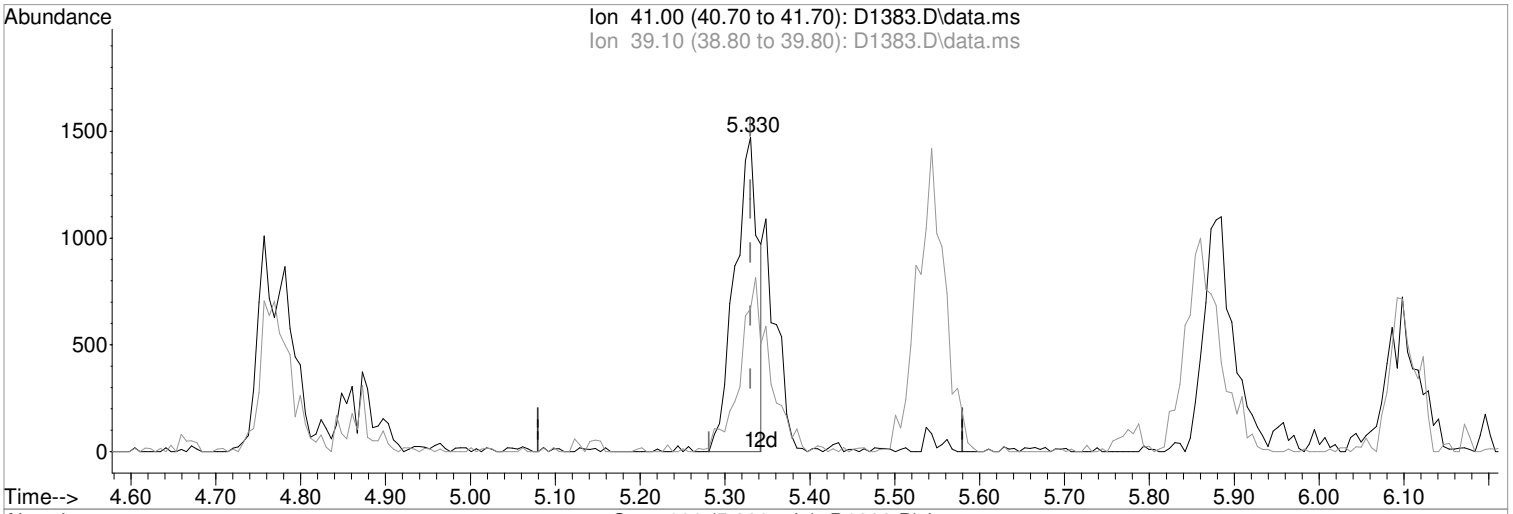
Poor integration.

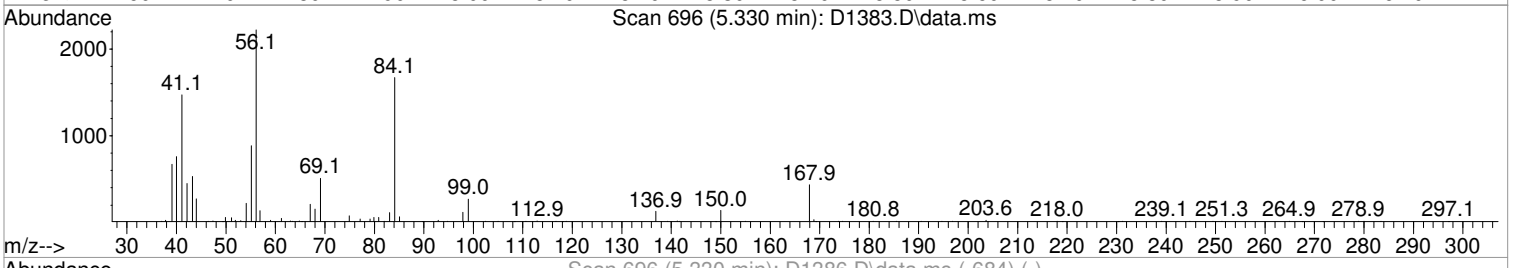
02/14/18

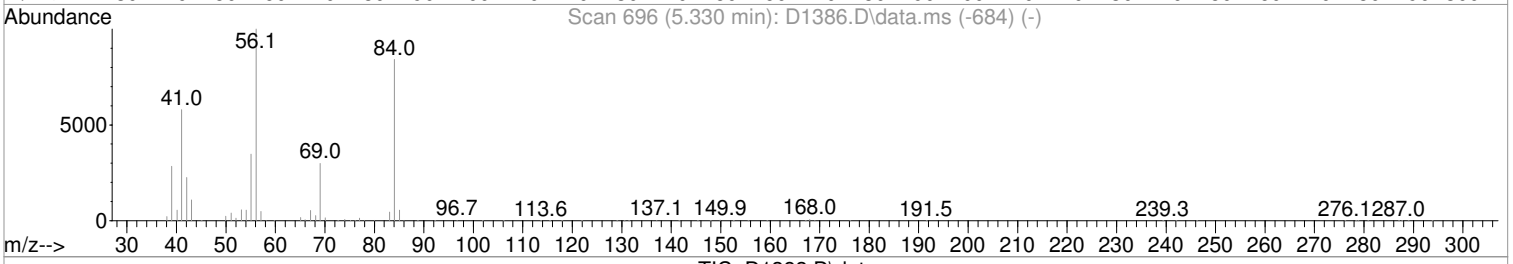
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.000) 1.47 ug/L

response 2863

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	45.45
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

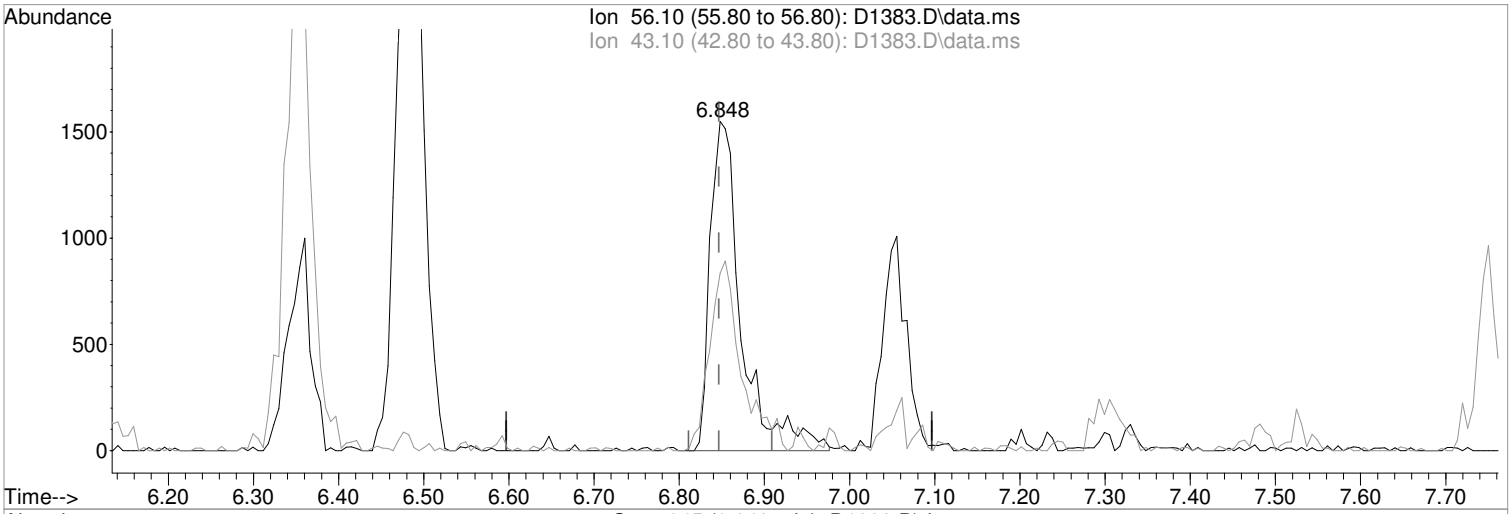
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration



TIC: D1383.D\data.ms

(52) 1-Butanol

6.848min (+0.001) 81.48 ug/L m

response 3931

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	53.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

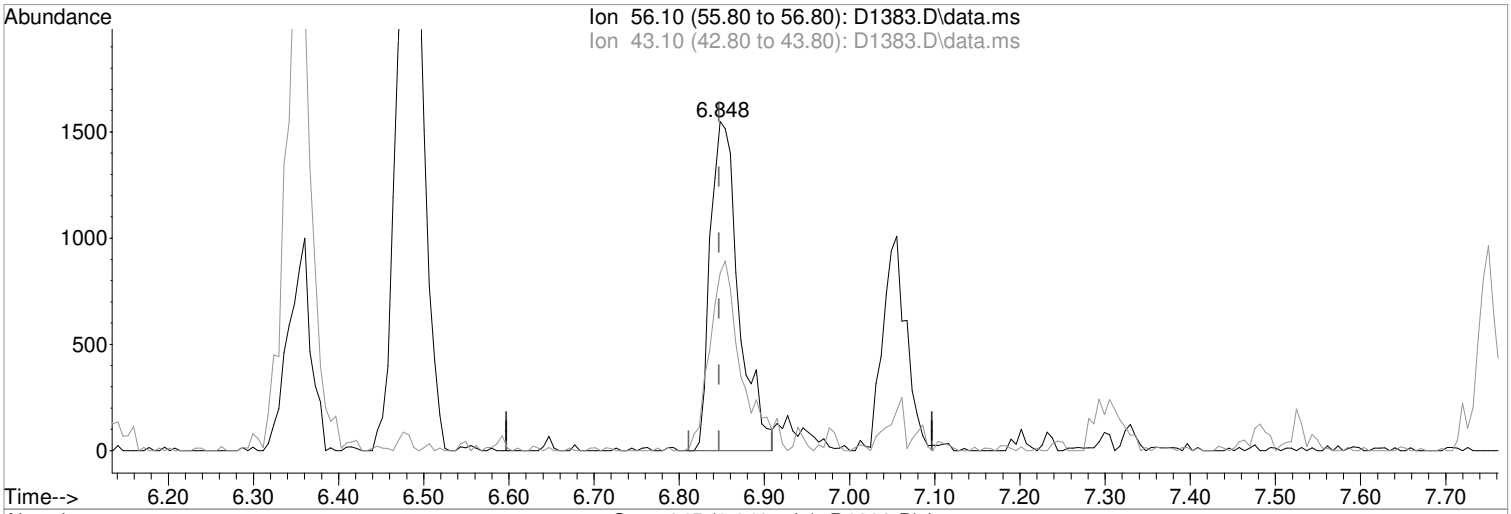
02/14/18

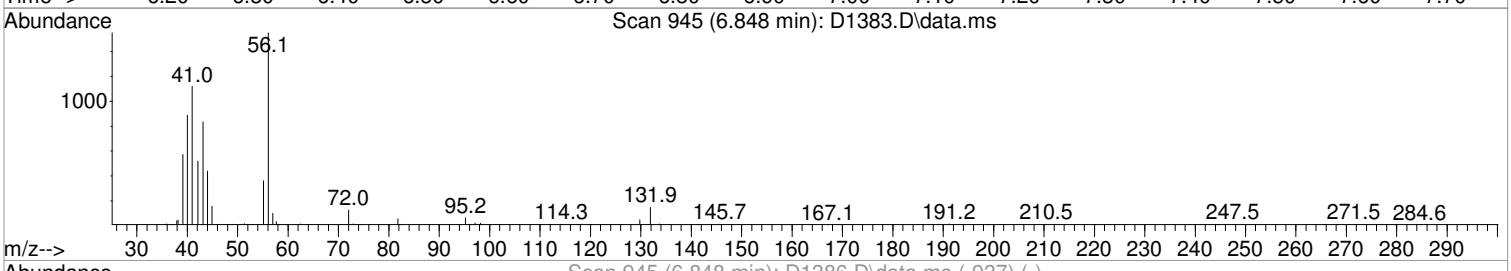
1st DL 02/14/18
2nd FW 02/15/18

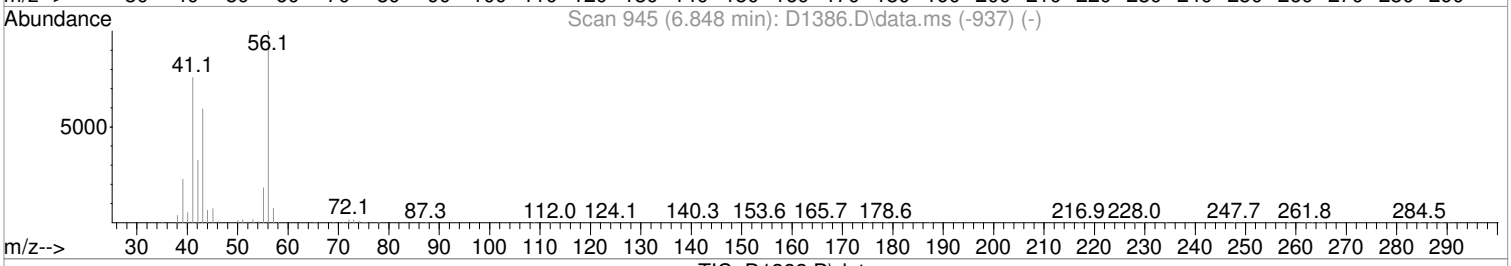
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(52) 1-Butanol

6.848min (+0.001) 75.43 ug/L

response 3592

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	53.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	193171	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	284918	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	246849	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	134221	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	19805	11.36	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.72%#				
46) surr1,1,2-dichloroetha...	5.781	65	24635	12.22	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 24.44%#				
64) SURR3,Toluene-d8	8.305	98	79772	11.61	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 23.22%#				
69) SURR2,BFB	10.878	95	29327	11.02	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 22.04%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	5002	1.81	ug/L		93
3) Chloromethane	1.282	50	5808	1.90	ug/L		97
4) Vinyl Chloride	1.361	62	5418	1.88	ug/L		100
5) Bromomethane	1.587	94	5413	2.13	ug/L		98
6) Chloroethane	1.666	64	3707	2.04	ug/L		97
7) Freon 21	1.812	67	8848	2.00	ug/L		96
8) Trichlorofluoromethane	1.861	101	6065	1.86	ug/L		89
9) Diethyl Ether	2.093	59	4087	2.17	ug/L		86
10) Freon 123a	2.099	67	5256	2.05	ug/L		86
11) Freon 123	2.148	83	6179	2.11	ug/L		94
12) Acrolein	2.190	56	5225	9.68	ug/L		80
13) 1,1-Diclethene	2.288	96	3229	1.71	ug/L		96
14) Freon 113	2.294	101	3840	1.86	ug/L		82
15) Acetone	2.324	43	2040	2.02	ug/L		85
16) 2-Propanol	2.459	45	4751	33.92	ug/L		79
17) Iodomethane	2.416	142	2427	2.48	ug/L		91
18) Carbon Disulfide	2.477	76	9802	1.85	ug/L		95
19) Acetonitrile	2.574	40	1439m	6.77	ug/L		
20) Allyl Chloride	2.617	76	1852m	1.92	ug/L		
21) Methyl Acetate	2.635	43	3910	1.92	ug/L		86
22) Methylene Chloride	2.727	84	4118	1.92	ug/L		94
23) TBA	2.861	59	6929m	32.70	ug/L		
24) Acrylonitrile	2.983	53	9914	9.62	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	11490	1.92	ug/L		98
26) trans-1,2-Dichloroethene	3.032	96	3789	1.82	ug/L	#	80
27) 1,1-Diclethane	3.525	63	6962	1.88	ug/L		97
28) Vinyl Acetate	3.617	86	714	1.67	ug/L	#	83
29) DIPE	3.647	45	13183	1.91	ug/L		82
30) 2-Chloro-1,3-Butadiene	3.653	53	5931	1.83	ug/L		98
31) ETBE	4.184	59	10438	1.90	ug/L		96
32) 2,2-Dichloropropane	4.361	77	3419	1.64	ug/L		95
33) cis-1,2-Dichloroethene	4.373	96	3962	1.74	ug/L	#	82
34) 2-Butanone	4.428	43	2585	1.90	ug/L		91
35) Propionitrile	4.501	54	3700m	8.84	ug/L		
36) Bromochloromethane	4.769	130	2536	1.79	ug/L		96
37) Methacrylonitrile	4.781	67	2110m	2.16	ug/L		
38) Tetrahydrofuran	4.867	42	1466	1.86	ug/L		80
39) Chloroform	4.952	83	6864	1.92	ug/L		91
40) 1,1,1-Trichloroethane	5.251	97	4806m	1.81	ug/L		

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	3997m	2.05	ug/L		
44) Carbontetrachloride	5.531	117	3681	1.81	ug/L		95
45) 1,1-Dichloropropene	5.537	75	5502	1.92	ug/L		90
47) Benzene	5.854	78	15640	1.88	ug/L		97
48) 1,2-Dichloroethane	5.897	62	6015	2.10	ug/L		88
49) Iso-Butyl Alcohol	5.879	43	2687	48.74	ug/L	#	65
50) TAME	6.098	73	8962	1.77	ug/L		89
51) n-Heptane	6.354	43	5273	1.87	ug/L		99
52) 1-Butanol	6.848	56	3931m	81.48	ug/L		
53) Trichloroethene	6.811	130	4241	1.88	ug/L		89
54) Methylcyclohexane	7.055	55	4979	1.86	ug/L	#	79
55) 1,2-Diclpropane	7.098	63	3991	1.83	ug/L		89
56) Dibromomethane	7.238	93	2437	1.79	ug/L		87
57) 1,4-Dioxane	7.293	88	1147	32.81	ug/L		80
58) Methyl Methacrylate	7.330	69	2637	1.72	ug/L	#	82
59) Bromodichloromethane	7.470	83	4407	1.76	ug/L		94
60) 2-Nitropropane	7.756	41	1344	2.90	ug/L	#	73
61) 2-Chloroethylvinyl Ether	7.878	63	798	1.50	ug/L		86
62) cis-1,3-Dichloropropene	8.012	75	5055	1.91	ug/L		97
63) 4-Methyl-2-pentanone	8.220	43	3896	1.67	ug/L		93
65) Toluene	8.378	91	16457	1.85	ug/L		89
66) trans-1,3-Dichloropropene	8.646	75	3380	1.68	ug/L		81
67) Ethyl Methacrylate	8.799	69	3818	1.46	ug/L		92
68) 1,1,2-Trichloroethane	8.841	97	3655	1.89	ug/L		95
71) Tetrachloroethene	8.976	164	3199	1.86	ug/L		91
72) 2-Hexanone	9.134	43	2667	1.55	ug/L		77
73) 1,3-Dichloropropane	9.012	76	6152	1.81	ug/L		95
74) Dibromochloromethane	9.238	129	3064	1.71	ug/L		97
75) N-Butyl Acetate	9.286	43	5206	1.58	ug/L		92
76) 1,2-Dibromoethane	9.335	107	3151	1.66	ug/L		96
77) 3-Chlorobenzotrifluoride	9.847	180	6663	2.03	ug/L		86
78) Chlorobenzene	9.829	112	11511	2.01	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	5821	2.01	ug/L		91
80) 1,1,1,2-Tetrachloroethane	9.914	131	3110	1.77	ug/L		94
81) Ethylbenzene	9.951	106	5874	1.97	ug/L		91
82) (m+p)Xylene	10.061	106	13190	3.60	ug/L		96
83) o-Xylene	10.420	106	6376	1.81	ug/L		92
84) Styrene	10.433	104	10496	1.75	ug/L		93
85) Bromoform	10.579	173	1744	1.75	ug/L		88
86) 2-Chlorobenzotrifluoride	10.664	180	5974	1.89	ug/L		93
87) Isopropylbenzene	10.750	105	16856	1.82	ug/L		94
88) Cyclohexanone	10.817	55	17892	30.78	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.061	53	1036	2.12	ug/L		91
91) 1,1,2,2-Tetrachloroethane	11.012	83	5257	1.92	ug/L		90
92) Bromobenzene	11.000	156	4487	1.89	ug/L		88
93) 1,2,3-Trichloropropane	11.036	110	1559	1.87	ug/L	#	88
94) n-Propylbenzene	11.109	91	20322	1.89	ug/L		96
95) 2-Chlorotoluene	11.170	91	12376	1.92	ug/L		95
96) 3-Chlorotoluene	11.225	91	12440	1.96	ug/L		92
97) 4-Chlorotoluene	11.268	91	13998	1.84	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	12774	1.74	ug/L		91
99) tert-Butylbenzene	11.536	119	12110	1.84	ug/L		87
100) 1,2,4-Trimethylbenzene	11.573	105	12494	1.71	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	5495	2.10	ug/L		93
102) sec-Butylbenzene	11.719	105	17383	1.84	ug/L		99
103) p-Isopropyltoluene	11.841	119	13841	1.78	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration

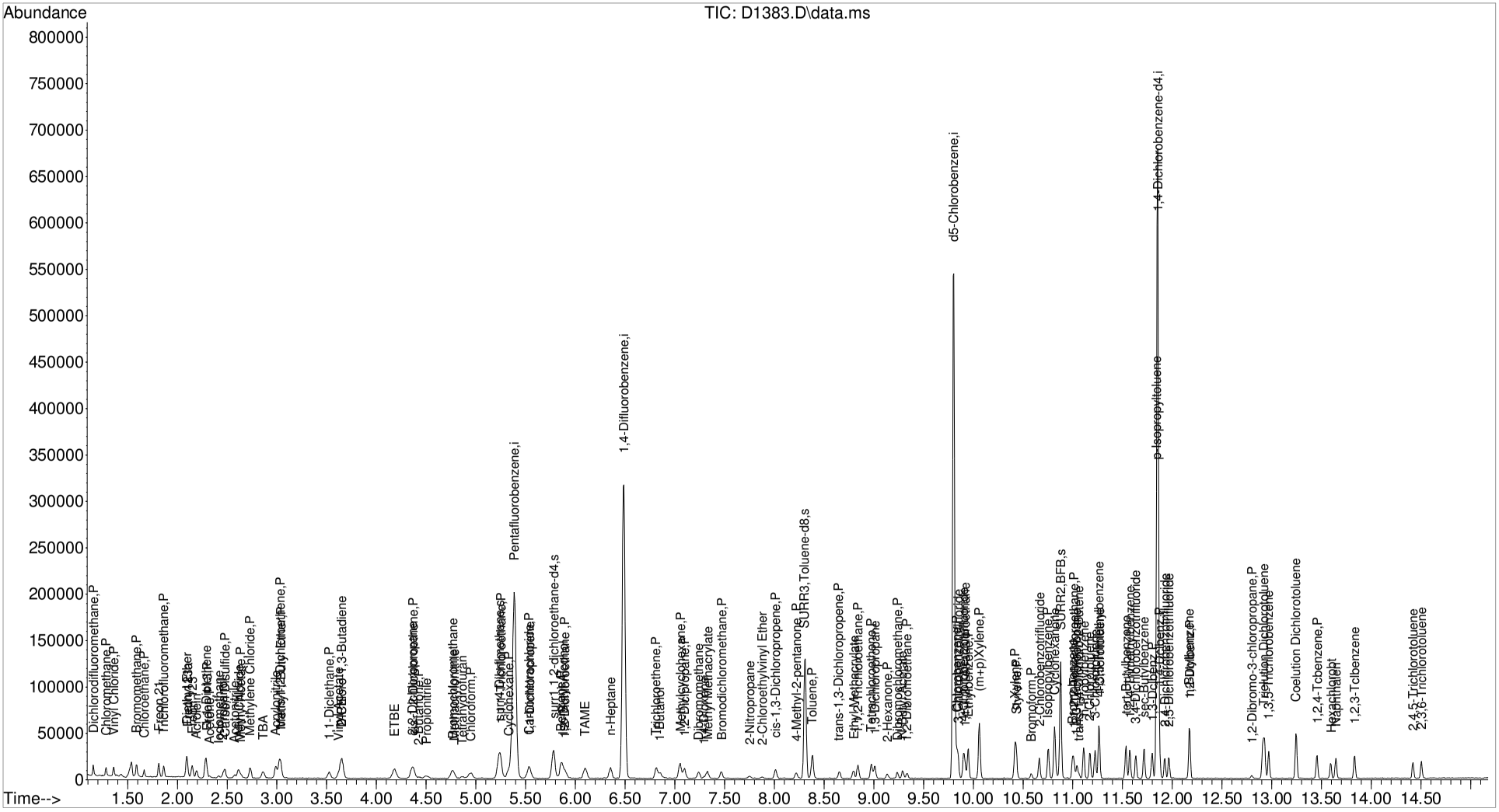
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) 1,3-Dclbenz	11.798	146	8837	1.92	ug/L		83
105) 1,4-Dclbenz	11.871	146	9676	2.00	ug/L		96
106) 2,4-Dichlorobenzotrifl...	11.926	214	5069	2.12	ug/L		92
107) 2,5-Dichlorobenzotrifl...	11.969	214	5529	2.11	ug/L		97
108) n-Butylbenzene	12.170	91	11958	1.66	ug/L		96
109) 1,2-Dclbenz	12.176	146	9364	2.02	ug/L		94
110) 1,2-Dibromo-3-chloropr...	12.798	157	810	1.84	ug/L	#	84
111) Trielution Dichlorotol...	12.920	125	21430	5.56	ug/L		98
112) 1,3,5-Trichlorobenzene	12.969	180	7120	2.02	ug/L		94
113) Coelution Dichlorotoluene	13.243	125	14829	3.63	ug/L		99
114) 1,2,4-Tcbenzene	13.456	180	6106	1.80	ug/L	#	80
115) Hexachlorobt	13.597	225	2452	1.66	ug/L		94
116) Naphthalen	13.645	128	13266	1.74	ug/L		97
117) 1,2,3-Tclbenzene	13.834	180	5518	1.69	ug/L		91
118) 2,4,5-Trichlorotoluene	14.420	159	3766	1.79	ug/L		96
119) 2,3,6-Trichlorotoluene	14.505	159	3438	1.84	ug/L		83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration



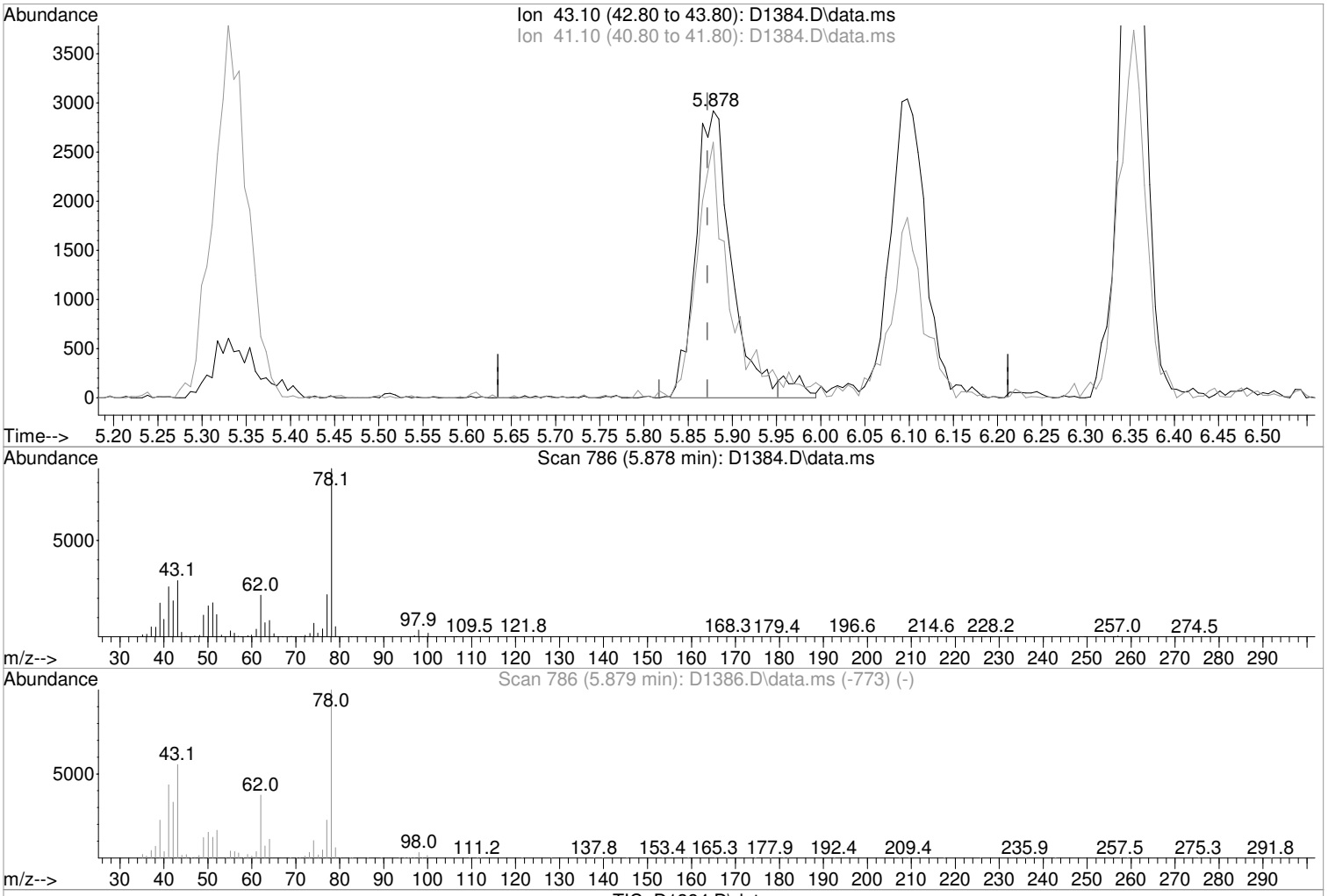
1st DL 02/14/18
2nd FJ 02/15/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration



TIC: D1384.D\data.ms

(49) Iso-Butyl Alcohol

5.878min (+0.006) 92.52 ug/L m

response 8483

Ion	Exp%	Act%
43.10	100	100
41.10	76.00	89.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

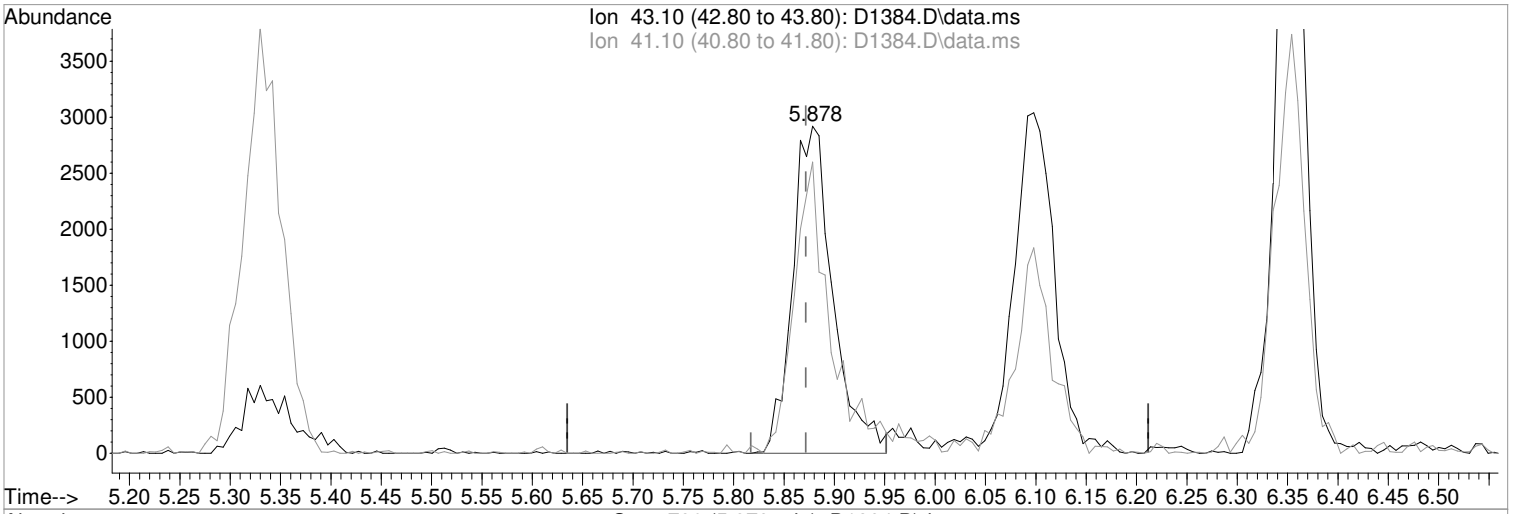
02/14/18

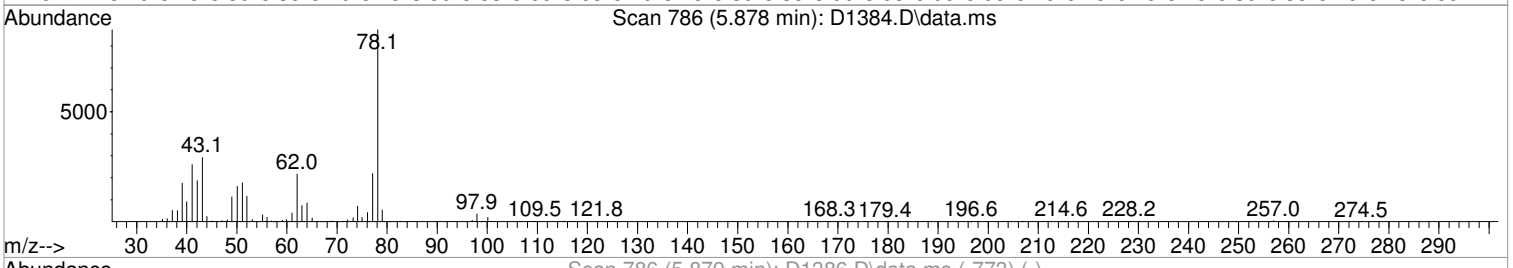
1st DL 02/14/18
2nd FW 02/15/18

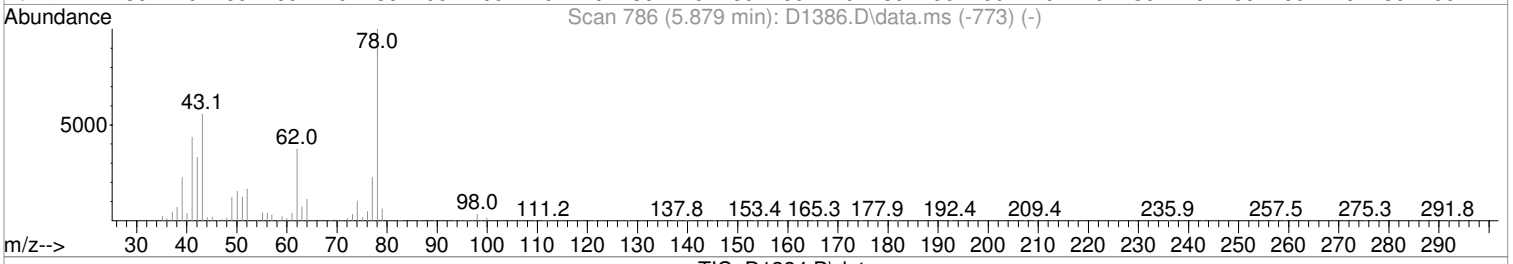
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration







TIC: D1384.D\data.ms

(49) Iso-Butyl Alcohol

5.878min (+0.006) 89.97 ug/L

response 8149

Ion	Exp%	Act%
43.10	100	100
41.10	76.00	89.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

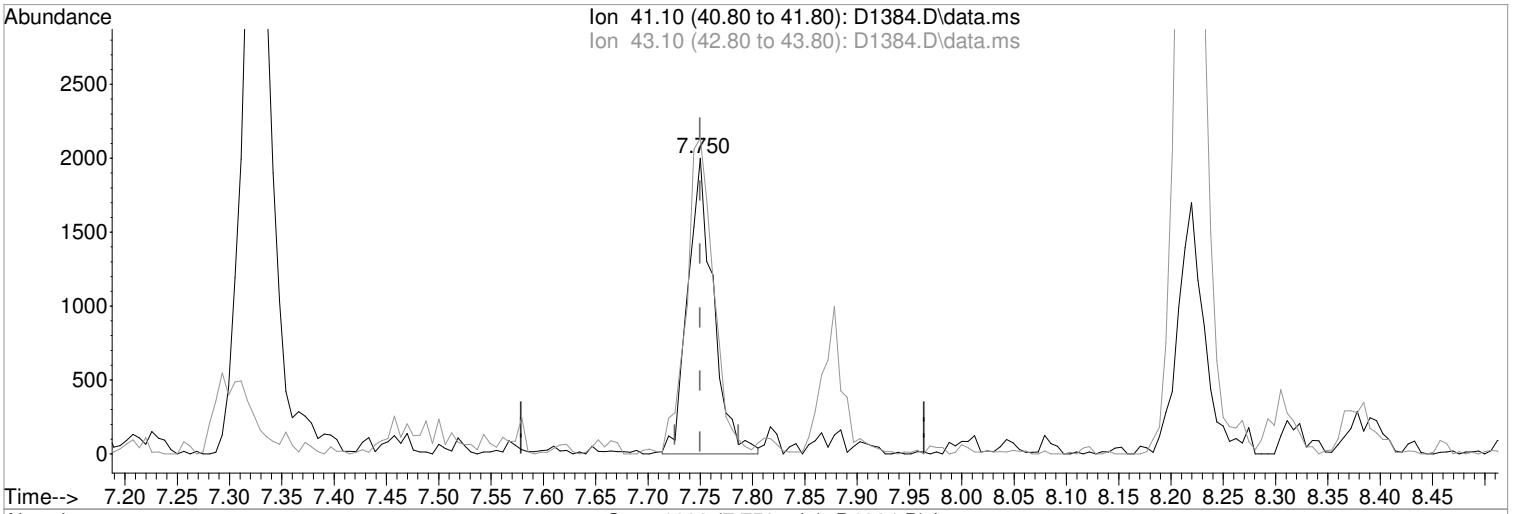
02/14/18

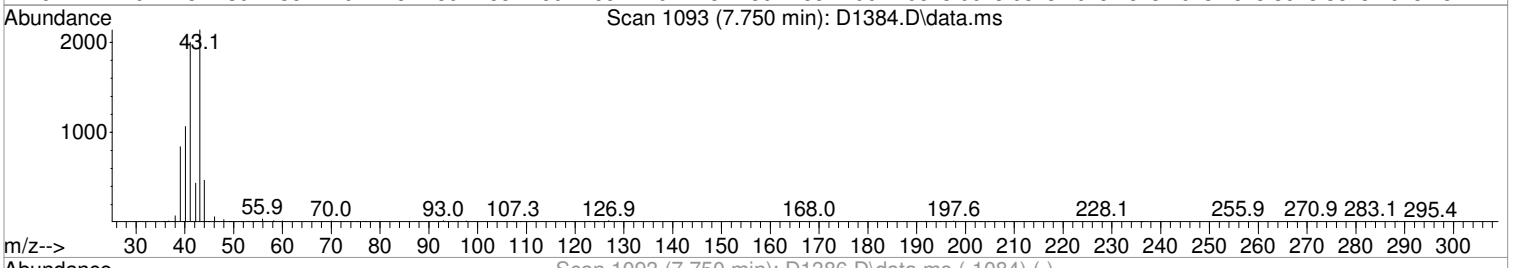
1st DL 02/14/18
2nd FJ 02/15/18

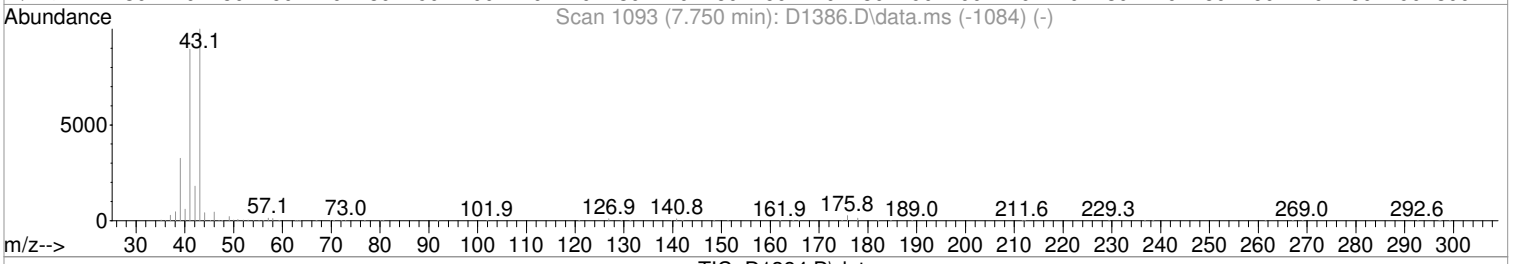
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration







TIC: D1384.D\data.ms

(60) 2-Nitropropane

7.750min (+0.000) 7.16 ug/L m

response 3398

Ion	Exp%	Act%
41.10	100	100
43.10	106.40	106.85
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

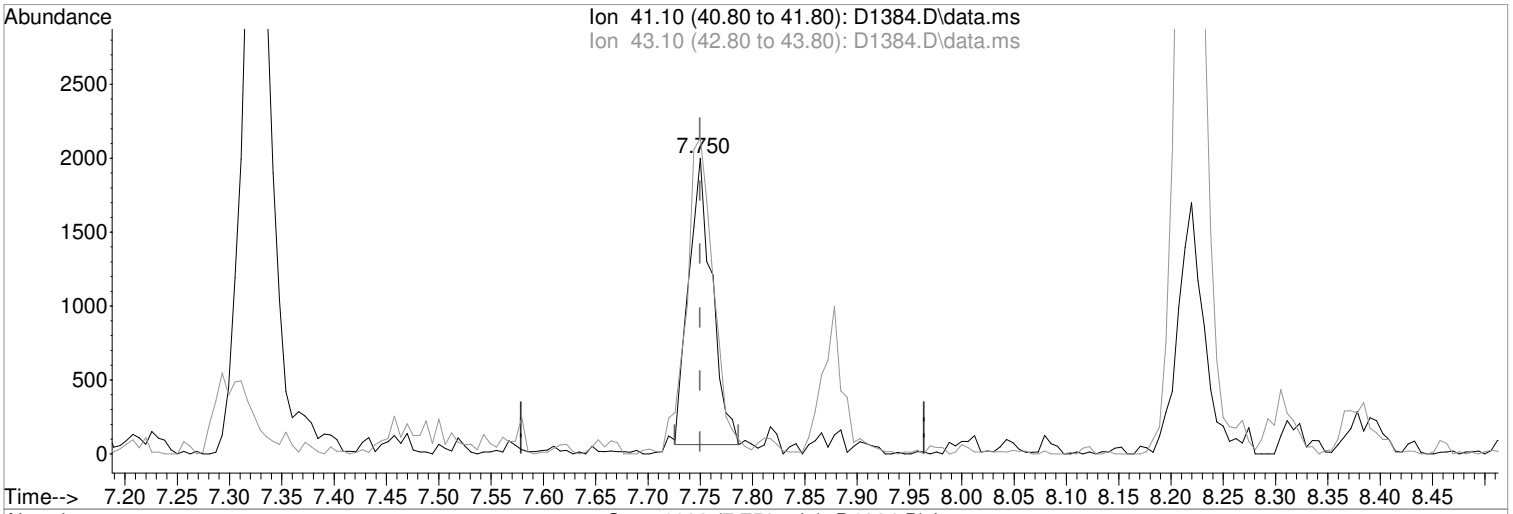
02/14/18

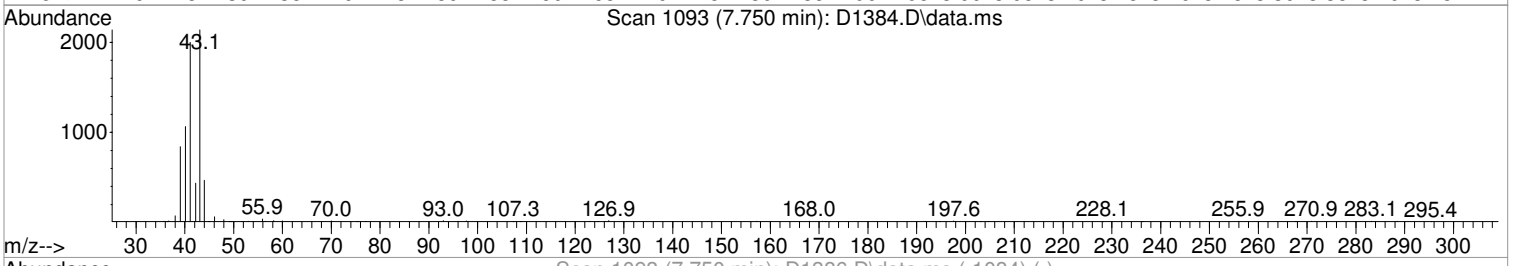
1st DL 02/14/18
2nd FJ 02/15/18

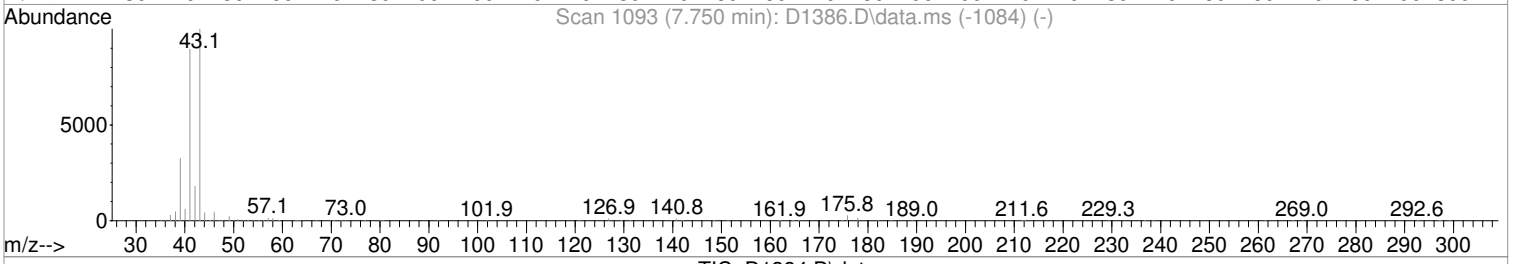
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration







TIC: D1384.D\data.ms

(60) 2-Nitropropane

7.750min (+0.000) 6.36 ug/L

response 3016

Ion	Exp%	Act%
41.10	100	100
43.10	106.40	106.85
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	197829	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	292162	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	254181	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	135129	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	19824	11.09	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.18%#				
46) surr1,1,2-dichloroetha...	5.781	65	23776	11.50	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 23.00%#				
64) SURR3,Toluene-d8	8.305	98	78118	11.09	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 22.18%#				
69) SURR2,BFB	10.878	95	29272	10.73	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.46%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	14763	5.21	ug/L		98
3) Chloromethane	1.282	50	15374	4.92	ug/L		96
4) Vinyl Chloride	1.355	62	13809	4.69	ug/L		98
5) Bromomethane	1.593	94	12453	5.56	ug/L		97
6) Chloroethane	1.666	64	8636	4.64	ug/L		87
7) Freon 21	1.812	67	22296	4.92	ug/L		96
8) Trichlorofluoromethane	1.861	101	16458	4.92	ug/L		90
9) Diethyl Ether	2.093	59	9617	4.98	ug/L		97
10) Freon 123a	2.099	67	13562	5.17	ug/L		98
11) Freon 123	2.148	83	14976	4.99	ug/L		95
12) Acrolein	2.190	56	13607	24.60	ug/L		97
13) 1,1-Diclethene	2.282	96	10066	5.20	ug/L		98
14) Freon 113	2.288	101	9194	4.34	ug/L		88
15) Acetone	2.324	43	5216	5.05	ug/L		90
16) 2-Propanol	2.458	45	12379	86.31	ug/L		99
17) Iodomethane	2.416	142	8933	4.45	ug/L		78
18) Carbon Disulfide	2.477	76	23631	4.36	ug/L		96
19) Acetonitrile	2.574	40	5751	26.43	ug/L	#	73
20) Allyl Chloride	2.617	76	4775	4.80	ug/L		100
21) Methyl Acetate	2.641	43	9852	4.73	ug/L		95
22) Methylene Chloride	2.727	84	11423	5.21	ug/L		94
23) TBA	2.861	59	19878	91.08	ug/L		80
24) Acrylonitrile	2.983	53	25104	23.80	ug/L		96
25) Methyl-t-Butyl Ether	3.038	73	28832	4.72	ug/L		87
26) trans-1,2-Dichloroethene	3.025	96	10185	4.77	ug/L	#	86
27) 1,1-Diclethane	3.525	63	18949	5.00	ug/L		97
28) Vinyl Acetate	3.611	86	2033	4.65	ug/L	#	60
29) DIPE	3.647	45	33253	4.70	ug/L		93
30) 2-Chloro-1,3-Butadiene	3.647	53	15236	4.60	ug/L		81
31) ETBE	4.184	59	26061	4.63	ug/L		92
32) 2,2-Dichloropropane	4.360	77	9148	4.28	ug/L		99
33) cis-1,2-Dichloroethene	4.367	96	11371	4.88	ug/L		95
34) 2-Butanone	4.415	43	6918	4.95	ug/L		96
35) Propionitrile	4.507	54	10536	24.49	ug/L		94
36) Bromochloromethane	4.763	130	7208	4.96	ug/L		89
37) Methacrylonitrile	4.763	67	4568	4.54	ug/L		98
38) Tetrahydrofuran	4.866	42	3843	4.75	ug/L		69
39) Chloroform	4.946	83	17873	4.88	ug/L		89
40) 1,1,1-Trichloroethane	5.244	97	12051	4.43	ug/L		95

1st DL 02/14/18
2nd FJ 02/15/18

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	9899	4.80	ug/L		98
44) Carbontetrachloride	5.525	117	8513	4.08	ug/L		96
45) 1,1-Dichloropropene	5.543	75	13614	4.63	ug/L		96
47) Benzene	5.854	78	42479	4.97	ug/L		93
48) 1,2-Dichloroethane	5.897	62	14714	5.01	ug/L		95
49) Iso-Butyl Alcohol	5.878	43	8483m	92.52	ug/L		
50) TAME	6.098	73	23118	4.46	ug/L		99
51) n-Heptane	6.354	43	12723	4.39	ug/L		94
52) 1-Butanol	6.842	56	11015	199.49	ug/L		94
53) Trichloroethene	6.817	130	10822	4.69	ug/L		95
54) Methylcyclohexane	7.049	55	14065	5.13	ug/L	#	87
55) 1,2-Diclpropane	7.098	63	11618	5.19	ug/L		100
56) Dibromomethane	7.238	93	7014	5.02	ug/L	#	82
57) 1,4-Dioxane	7.305	88	3621	101.00	ug/L		99
58) Methyl Methacrylate	7.323	69	7061	4.49	ug/L		91
59) Bromodichloromethane	7.464	83	12176	4.74	ug/L		95
60) 2-Nitropropane	7.750	41	3398m	7.16	ug/L		
61) 2-Chloroethylvinyl Ether	7.878	63	1877	3.43	ug/L		98
62) cis-1,3-Dichloropropene	8.006	75	13824	4.91	ug/L		90
63) 4-Methyl-2-pentanone	8.219	43	11242	4.69	ug/L		96
65) Toluene	8.384	91	43128	4.74	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	9825	4.24	ug/L		95
67) Ethyl Methacrylate	8.793	69	12257	4.56	ug/L		91
68) 1,1,2-Trichloroethane	8.841	97	9656	4.86	ug/L		86
71) Tetrachloroethene	8.975	164	8165	4.60	ug/L		95
72) 2-Hexanone	9.134	43	8261	4.66	ug/L		99
73) 1,3-Dichloropropane	9.012	76	18680	5.35	ug/L		98
74) Dibromochloromethane	9.238	129	8745	4.74	ug/L		92
75) N-Butyl Acetate	9.286	43	14703	4.32	ug/L		97
76) 1,2-Dibromoethane	9.335	107	10090	5.17	ug/L		96
77) 3-Chlorobenzotrifluoride	9.847	180	15934	4.72	ug/L		95
78) Chlorobenzene	9.829	112	29852	5.06	ug/L		99
79) 4-Chlorobenzotrifluoride	9.902	180	14610	4.91	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.914	131	8344	4.61	ug/L		95
81) Ethylbenzene	9.951	106	13623	4.44	ug/L		98
82) (m+p)Xylene	10.061	106	35010	9.29	ug/L		99
83) o-Xylene	10.420	106	16518	4.57	ug/L		96
84) Styrene	10.432	104	27986	4.53	ug/L		98
85) Bromoform	10.585	173	5161	4.77	ug/L	#	66
86) 2-Chlorobenzotrifluoride	10.664	180	15045	4.63	ug/L		96
87) Isopropylbenzene	10.756	105	41674	4.36	ug/L		95
88) Cyclohexanone	10.817	55	54985	91.87	ug/L		94
89) trans-1,4-Dichloro-2-B...	11.060	53	2512	4.59	ug/L		76
91) 1,1,2,2-Tetrachloroethane	11.012	83	14405	5.23	ug/L		95
92) Bromobenzene	10.999	156	11990	5.00	ug/L		91
93) 1,2,3-Trichloropropane	11.042	110	4271	5.10	ug/L	#	81
94) n-Propylbenzene	11.109	91	50445	4.66	ug/L		99
95) 2-Chlorotoluene	11.170	91	30465	4.68	ug/L		97
96) 3-Chlorotoluene	11.225	91	30991	4.85	ug/L		97
97) 4-Chlorotoluene	11.268	91	35619	4.65	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	33824	4.57	ug/L		99
99) tert-Butylbenzene	11.536	119	29260	4.41	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	34559	4.69	ug/L		95
101) 3,4-Dichlorobenzotrifl...	11.633	214	13068	4.96	ug/L		89
102) sec-Butylbenzene	11.719	105	41680	4.38	ug/L		98
103) p-Isopropyltoluene	11.841	119	32847	4.20	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration

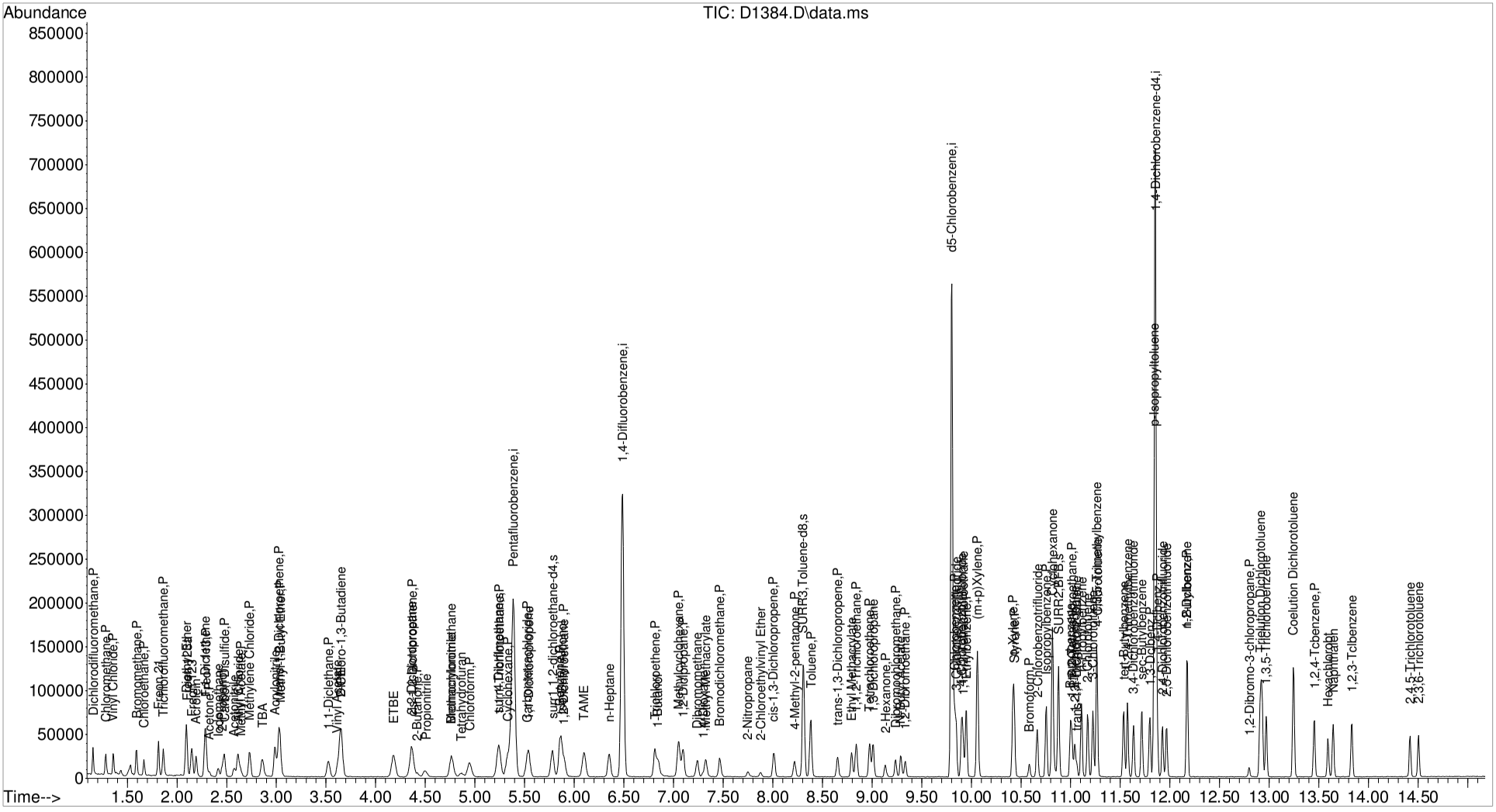
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	21551	4.65	ug/L	93
105) 1,4-Dclbenz	11.871	146	23147	4.74	ug/L	94
106) 2,4-Dichlorobenzotrifl...	11.926	214	11196	4.66	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.969	214	12330	4.66	ug/L	96
108) n-Butylbenzene	12.170	91	29011	4.01	ug/L	96
109) 1,2-Dclbenz	12.170	146	22389	4.80	ug/L	90
110) 1,2-Dibromo-3-chloropr...	12.798	157	1952	3.86	ug/L	87
111) Trielution Dichlorotol...	12.914	125	54625	14.08	ug/L	92
112) 1,3,5-Trichlorobenzene	12.969	180	16381	4.61	ug/L	95
113) Coelution Dichlorotoluene	13.243	125	39368	9.56	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	15651	4.59	ug/L	98
115) Hexachlorobt	13.590	225	6574	4.43	ug/L	88
116) Naphthalen	13.645	128	36108	4.69	ug/L	96
117) 1,2,3-Tclbenzene	13.834	180	15298	4.65	ug/L	97
118) 2,4,5-Trichlorotoluene	14.419	159	9752	4.59	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	8681	4.61	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	199228	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	296724	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	259114	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	143455	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	33942	18.70	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 37.40%#			
46) surr1,1,2-dichloroetha...	5.781	65	39113	18.63	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 37.26%#			
64) SURR3,Toluene-d8	8.305	98	136316	19.05	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 38.10%#			
69) SURR2,BFB	10.878	95	52169	18.83	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 37.66%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	60377	21.14	ug/L	99
3) Chloromethane	1.282	50	64837	20.60	ug/L	99
4) Vinyl Chloride	1.355	62	64630	21.79	ug/L	97
5) Bromomethane	1.587	94	44781	21.71	ug/L	96
6) Chloroethane	1.666	64	38474	20.54	ug/L	95
7) Freon 21	1.812	67	90384	19.81	ug/L	100
8) Trichlorofluoromethane	1.861	101	67361	19.99	ug/L	98
9) Diethyl Ether	2.093	59	38043	19.54	ug/L	96
10) Freon 123a	2.093	67	52484	19.87	ug/L	99
11) Freon 123	2.148	83	57585	19.05	ug/L	98
12) Acrolein	2.190	56	57393	103.05	ug/L	95
13) 1,1-Diclethene	2.282	96	39108	20.05	ug/L	96
14) Freon 113	2.288	101	41687	19.56	ug/L	99
15) Acetone	2.324	43	20790	20.00	ug/L	94
16) 2-Propanol	2.458	45	62526	432.90	ug/L	96
17) Iodomethane	2.416	142	53421	17.96	ug/L	94
18) Carbon Disulfide	2.477	76	109786	20.13	ug/L	99
19) Acetonitrile	2.574	40	22405	102.26	ug/L	96
20) Allyl Chloride	2.617	76	20137	20.11	ug/L #	87
21) Methyl Acetate	2.635	43	41267	19.68	ug/L	97
22) Methylene Chloride	2.733	84	43754	19.82	ug/L	93
23) TBA	2.861	59	94857	431.57	ug/L	83
24) Acrylonitrile	2.983	53	108108	101.76	ug/L	97
25) Methyl-t-Butyl Ether	3.031	73	121953	19.81	ug/L	98
26) trans-1,2-Dichloroethene	3.025	96	42028	19.56	ug/L	89
27) 1,1-Diclethane	3.525	63	76200	19.97	ug/L	98
28) Vinyl Acetate	3.617	86	8548	19.43	ug/L	96
29) DIPE	3.653	45	140898	19.77	ug/L	94
30) 2-Chloro-1,3-Butadiene	3.653	53	68977	20.67	ug/L	97
31) ETBE	4.178	59	109452	19.29	ug/L	97
32) 2,2-Dichloropropane	4.361	77	40711	18.92	ug/L	100
33) cis-1,2-Dichloroethene	4.361	96	47823	20.39	ug/L	100
34) 2-Butanone	4.415	43	27281	19.44	ug/L	93
35) Propionitrile	4.495	54	43341	100.05	ug/L	99
36) Bromochloromethane	4.763	130	30010	20.52	ug/L	97
37) Methacrylonitrile	4.769	67	21219	20.96	ug/L	89
38) Tetrahydrofuran	4.854	42	16303	20.01	ug/L	88
39) Chloroform	4.946	83	72664	19.70	ug/L	93
40) 1,1,1-Trichloroethane	5.244	97	54240	19.81	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	41711	19.91	ug/L		98
44) Carbontetrachloride	5.525	117	41722	19.70	ug/L		89
45) 1,1-Dichloropropene	5.543	75	60878	20.40	ug/L		93
47) Benzene	5.860	78	175434	20.21	ug/L		97
48) 1,2-Dichloroethane	5.903	62	62479	20.96	ug/L		98
49) Iso-Butyl Alcohol	5.872	43	42974	349.12	ug/L		98
50) TAME	6.098	73	103407	19.62	ug/L		99
51) n-Heptane	6.354	43	61320	20.86	ug/L		96
52) 1-Butanol	6.848	56	65129	1047.14	ug/L		94
53) Trichloroethene	6.811	130	47552	20.27	ug/L		96
54) Methylcyclohexane	7.055	55	54823	19.67	ug/L		97
55) 1,2-Diclpropane	7.098	63	44575	19.60	ug/L		100
56) Dibromomethane	7.238	93	28442	20.05	ug/L		87
57) 1,4-Dioxane	7.293	88	15043	413.14	ug/L		96
58) Methyl Methacrylate	7.323	69	33599	21.03	ug/L		88
59) Bromodichloromethane	7.464	83	51434	19.70	ug/L		95
60) 2-Nitropropane	7.750	41	16650	34.55	ug/L		93
61) 2-Chloroethylvinyl Ether	7.878	63	10176	18.33	ug/L		85
62) cis-1,3-Dichloropropene	8.012	75	59446	20.07	ug/L		98
63) 4-Methyl-2-pentanone	8.220	43	49579	20.38	ug/L		96
65) Toluene	8.384	91	189918	20.53	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	45974	18.15	ug/L		94
67) Ethyl Methacrylate	8.793	69	56459	20.66	ug/L		97
68) 1,1,2-Trichloroethane	8.841	97	41142	20.38	ug/L		98
71) Tetrachloroethene	8.975	164	36741	20.31	ug/L		96
72) 2-Hexanone	9.134	43	35926	19.86	ug/L		97
73) 1,3-Dichloropropane	9.012	76	71871	20.17	ug/L		99
74) Dibromochloromethane	9.238	129	38137	20.26	ug/L		98
75) N-Butyl Acetate	9.286	43	71445	20.60	ug/L		95
76) 1,2-Dibromoethane	9.335	107	42400	21.32	ug/L		95
77) 3-Chlorobenzotrifluoride	9.847	180	64513	18.73	ug/L		97
78) Chlorobenzene	9.829	112	122810	20.42	ug/L		97
79) 4-Chlorobenzotrifluoride	9.902	180	59872	19.74	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	35833	19.40	ug/L		96
81) Ethylbenzene	9.951	106	65659	20.99	ug/L	#	86
82) (m+p)Xylene	10.061	106	162574	42.31	ug/L		98
83) o-Xylene	10.420	106	77816	21.10	ug/L		100
84) Styrene	10.432	104	131572	20.91	ug/L		99
85) Bromoform	10.579	173	23934	20.53	ug/L		90
86) 2-Chlorobenzotrifluoride	10.664	180	64465	19.48	ug/L		94
87) Isopropylbenzene	10.756	105	205577	21.11	ug/L		97
88) Cyclohexanone	10.817	55	259960	426.08	ug/L		100
89) trans-1,4-Dichloro-2-B...	11.060	53	12099	20.28	ug/L		92
91) 1,1,2,2-Tetrachloroethane	11.012	83	57507	19.65	ug/L		99
92) Bromobenzene	10.999	156	53523	21.04	ug/L		91
93) 1,2,3-Trichloropropane	11.042	110	17700	19.91	ug/L		96
94) n-Propylbenzene	11.109	91	246776	21.49	ug/L		98
95) 2-Chlorotoluene	11.170	91	144934	20.99	ug/L		98
96) 3-Chlorotoluene	11.225	91	138478	20.43	ug/L		98
97) 4-Chlorotoluene	11.268	91	169340	20.84	ug/L		96
98) 1,3,5-Trimethylbenzene	11.262	105	167147	21.27	ug/L		98
99) tert-Butylbenzene	11.536	119	146347	20.78	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	166560	21.31	ug/L		97
101) 3,4-Dichlorobenzotrifl...	11.633	214	53985	19.30	ug/L		97
102) sec-Butylbenzene	11.713	105	219924	21.75	ug/L		99
103) p-Isopropyltoluene	11.841	119	181237	21.81	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration

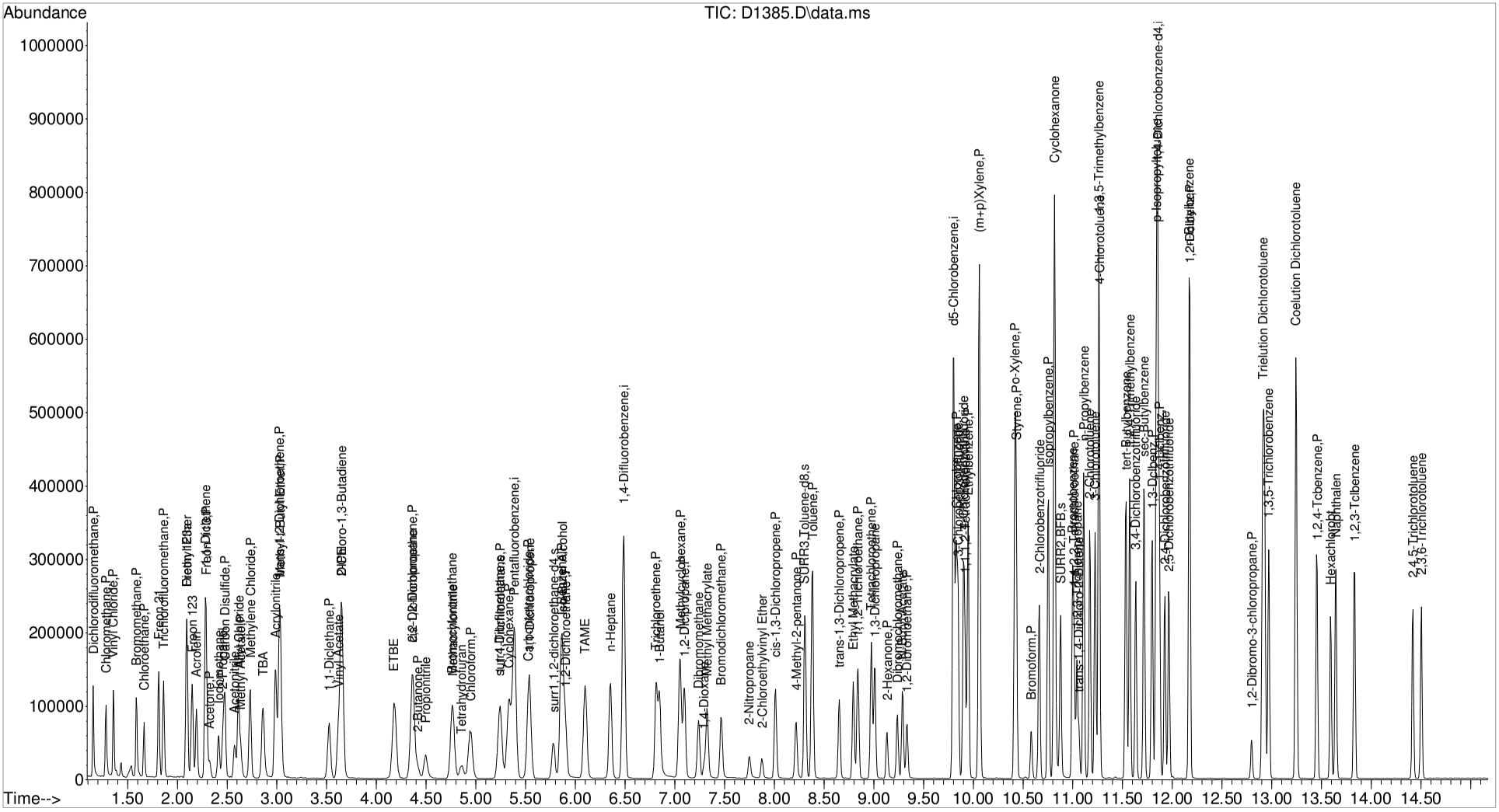
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	103191	20.99	ug/L	99
105) 1,4-Dclbenz	11.871	146	102855	19.85	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	48908	19.16	ug/L	91
107) 2,5-Dichlorobenzotrifl...	11.969	214	54973	19.59	ug/L	94
108) n-Butylbenzene	12.170	91	167247	21.78	ug/L	97
109) 1,2-Dclbenz	12.176	146	101314	20.46	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	10591	18.04	ug/L	93
111) Trielution Dichlorotol...	12.914	125	247831	60.17	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	77764	20.61	ug/L	96
113) Coelution Dichlorotoluene	13.243	125	179644	41.11	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	75994	20.98	ug/L	96
115) Hexachlorobt	13.590	225	32439	20.60	ug/L	99
116) Naphthalen	13.645	128	174189	21.32	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	72833	20.87	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	46245	20.52	ug/L	94
119) 2,3,6-Trichlorotoluene	14.505	159	43232	21.63	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	207949	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	312241	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	278473	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	155759	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	97889	51.24	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.48%				
46) surr1,1,2-dichloroetha...	5.775	65	111463	50.46	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.92%				
64) SURR3,Toluene-d8	8.311	98	381040	50.61	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.22%				
69) SURR2,BFB	10.878	95	148015	50.76	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.52%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	158763	53.25	ug/L		98
3) Chloromethane	1.282	50	164672	50.13	ug/L		95
4) Vinyl Chloride	1.355	62	164771	53.23	ug/L		99
5) Bromomethane	1.581	94	112083	54.35	ug/L		97
6) Chloroethane	1.660	64	99725	51.01	ug/L		99
7) Freon 21	1.812	67	240057	50.41	ug/L		99
8) Trichlorofluoromethane	1.861	101	179419	51.01	ug/L		99
9) Diethyl Ether	2.087	59	100637	49.53	ug/L		97
10) Freon 123a	2.093	67	138418	50.20	ug/L		100
11) Freon 123	2.148	83	152530	48.34	ug/L		96
12) Acrolein	2.190	56	145070	249.56	ug/L		100
13) 1,1-Diclethene	2.282	96	105298	51.71	ug/L		89
14) Freon 113	2.288	101	114258	51.37	ug/L		91
15) Acetone	2.324	43	54081	49.84	ug/L		98
16) 2-Propanol	2.458	45	187722	1259.26	ug/L		97
17) Iodomethane	2.410	142	158217	47.82	ug/L		100
18) Carbon Disulfide	2.477	76	288421	50.66	ug/L		99
19) Acetonitrile	2.574	40	56804	248.31	ug/L		94
20) Allyl Chloride	2.611	76	55040	52.93	ug/L	#	73
21) Methyl Acetate	2.635	43	110366	54.29	ug/L		97
22) Methylene Chloride	2.733	84	116233	50.44	ug/L		96
23) TBA	2.861	59	274037	1201.35	ug/L		86
24) Acrylonitrile	2.983	53	291670	264.40	ug/L		99
25) Methyl-t-Butyl Ether	3.032	73	331845	51.64	ug/L		98
26) trans-1,2-Dichloroethene	3.025	96	111367	52.38	ug/L		94
27) 1,1-Diclethane	3.525	63	202364	50.81	ug/L		98
28) Vinyl Acetate	3.611	86	23590	52.79	ug/L	#	82
29) DIPE	3.647	45	378596	50.91	ug/L		94
30) 2-Chloro-1,3-Butadiene	3.647	53	181496	54.25	ug/L		97
31) ETBE	4.178	59	304517	51.41	ug/L		99
32) 2,2-Dichloropropane	4.354	77	116985	57.99	ug/L		99
33) cis-1,2-Dichloroethene	4.367	96	126438	51.66	ug/L		96
34) 2-Butanone	4.409	43	73670	50.42	ug/L		97
35) Propionitrile	4.489	54	116219	257.81	ug/L		95
36) Bromochloromethane	4.763	130	77976	56.44	ug/L		95
37) Methacrylonitrile	4.763	67	57100	54.40	ug/L		89
38) Tetrahydrofuran	4.848	42	44489	52.32	ug/L		95
39) Chloroform	4.940	83	196130	50.93	ug/L		98
40) 1,1,1-Trichloroethane	5.251	97	151002	52.85	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.330	41	108193	58.76	ug/L	99
44) Carbontetrachloride	5.525	117	121162	54.35	ug/L	97
45) 1,1-Dichloropropene	5.537	75	159634	50.84	ug/L	95
47) Benzene	5.860	78	464005	50.79	ug/L	97
48) 1,2-Dichloroethane	5.897	62	159365	50.81	ug/L	97
49) Iso-Butyl Alcohol	5.879	43	128273	932.27	ug/L	97
50) TAME	6.098	73	284825	51.37	ug/L	98
51) n-Heptane	6.348	43	161141	52.08	ug/L	98
52) 1-Butanol	6.848	56	201437	2777.58	ug/L	97
53) Trichloroethene	6.811	130	121986	49.41	ug/L	96
54) Methylcyclohexane	7.049	55	148768	50.74	ug/L	97
55) 1,2-Diclpropane	7.098	63	120533	50.36	ug/L	98
56) Dibromomethane	7.238	93	75228	50.40	ug/L	89
57) 1,4-Dioxane	7.299	88	40414	1054.76	ug/L	95
58) Methyl Methacrylate	7.323	69	94519	56.21	ug/L	97
59) Bromodichloromethane	7.464	83	143467	52.23	ug/L	94
60) 2-Nitropropane	7.750	41	51920	102.38	ug/L	95
61) 2-Chloroethylvinyl Ether	7.878	63	31371	54.26	ug/L	91
62) cis-1,3-Dichloropropene	8.012	75	172344	50.72	ug/L	98
63) 4-Methyl-2-pentanone	8.220	43	135174	52.81	ug/L	98
65) Toluene	8.378	91	502763	51.66	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	142369	50.64	ug/L	97
67) Ethyl Methacrylate	8.793	69	160807	55.34	ug/L	96
68) 1,1,2-Trichloroethane	8.841	97	109056	51.34	ug/L	95
71) Tetrachloroethene	8.976	164	98410	50.62	ug/L	96
72) 2-Hexanone	9.134	43	99173	51.02	ug/L	98
73) 1,3-Dichloropropane	9.012	76	196574	51.34	ug/L	97
74) Dibromochloromethane	9.238	129	107324	54.47	ug/L	96
75) N-Butyl Acetate	9.286	43	209071	56.08	ug/L	96
76) 1,2-Dibromoethane	9.335	107	111187	52.01	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	182755	49.37	ug/L	97
78) Chlorobenzene	9.829	112	325569	50.36	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	163868	50.27	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	103522	52.15	ug/L	96
81) Ethylbenzene	9.951	106	173203	51.51	ug/L	97
82) (m+p)Xylene	10.061	106	437795	106.00	ug/L	97
83) o-Xylene	10.420	106	211609	53.38	ug/L	94
84) Styrene	10.433	104	358306	52.99	ug/L	98
85) Bromoform	10.585	173	74255	54.33	ug/L	94
86) 2-Chlorobenzotrifluoride	10.664	180	178111	50.08	ug/L	97
87) Isopropylbenzene	10.756	105	556688	53.19	ug/L	99
88) Cyclohexanone	10.817	55	740587	1129.45	ug/L	99
89) trans-1,4-Dichloro-2-B...	11.060	53	33241	50.54	ug/L	98
91) 1,1,2,2-Tetrachloroethane	11.012	83	163047	51.32	ug/L	99
92) Bromobenzene	10.999	156	147869	53.53	ug/L	92
93) 1,2,3-Trichloropropane	11.042	110	47582	49.30	ug/L	94
94) n-Propylbenzene	11.109	91	680928	54.61	ug/L	98
95) 2-Chlorotoluene	11.170	91	393569	52.48	ug/L	99
96) 3-Chlorotoluene	11.225	91	376604	51.17	ug/L	99
97) 4-Chlorotoluene	11.268	91	458126	51.93	ug/L	95
98) 1,3,5-Trimethylbenzene	11.262	105	464689	54.47	ug/L	99
99) tert-Butylbenzene	11.536	119	399077	52.19	ug/L	98
100) 1,2,4-Trimethylbenzene	11.573	105	458803	54.06	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.634	214	153884	50.67	ug/L	96
102) sec-Butylbenzene	11.719	105	606692	55.26	ug/L	98
103) p-Isopropyltoluene	11.841	119	498737	55.27	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration

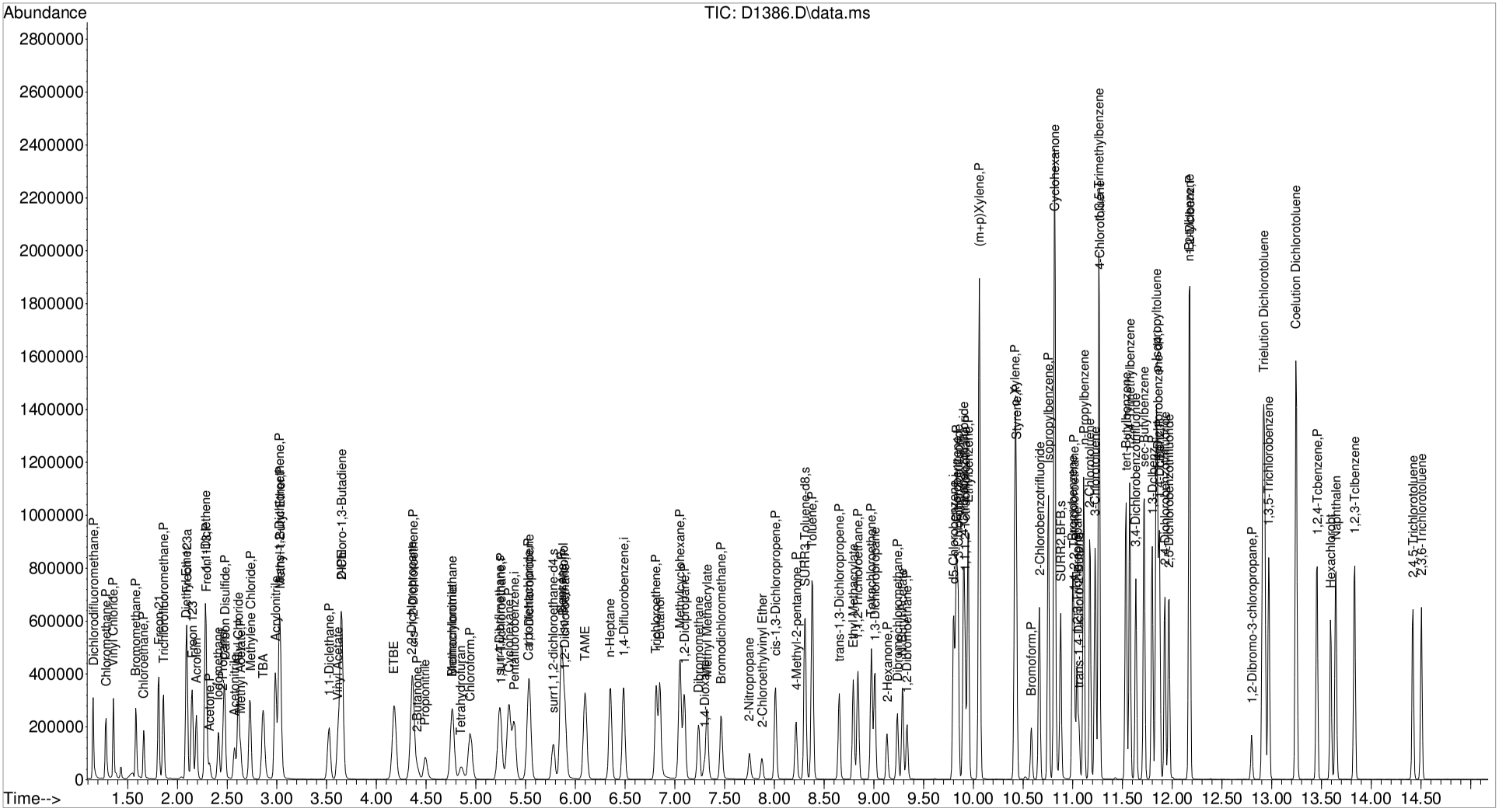
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	272839	51.12	ug/L	96
105) 1,4-Dclbenz	11.871	146	282643	50.25	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	136778	49.34	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.969	214	154879	50.84	ug/L	95
108) n-Butylbenzene	12.170	91	475409	57.03	ug/L	99
109) 1,2-Dclbenz	12.176	146	270808	50.36	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	32302	49.00	ug/L	92
111) Trielution Dichlorotol...	12.920	125	696337	155.70	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	207036	50.54	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	506667	106.79	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	210616	53.55	ug/L	99
115) Hexachlorobt	13.590	225	91442	53.48	ug/L	97
116) Naphthalen	13.645	128	488415	55.06	ug/L	98
117) 1,2,3-Tclbenzene	13.834	180	198645	52.42	ug/L	98
118) 2,4,5-Trichlorotoluene	14.420	159	130305	53.25	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	118776	54.73	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	221212	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.482	114	330716	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.804	117	296595	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	170740	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	200557	99.12	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 198.24%#				
46) surr1,1,2-dichloroetha...	5.781	65	230779	98.65	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 197.30%#				
64) SURR3,Toluene-d8	8.311	98	791217	99.23	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 198.46%#				
69) SURR2,BFB	10.877	95	310994	100.70	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 201.40%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	324165	102.22	ug/L		98
3) Chloromethane	1.282	50	336676	96.35	ug/L		96
4) Vinyl Chloride	1.355	62	340519	103.41	ug/L		98
5) Bromomethane	1.574	94	205919	98.00	ug/L		99
6) Chloroethane	1.654	64	205192	98.67	ug/L		95
7) Freon 21	1.806	67	486854	96.10	ug/L		99
8) Trichlorofluoromethane	1.855	101	356535	95.29	ug/L		98
9) Diethyl Ether	2.093	59	220239	101.89	ug/L		98
10) Freon 123a	2.093	67	287858	98.15	ug/L		98
11) Freon 123	2.147	83	313090	93.27	ug/L		95
12) Acrolein	2.190	56	334931	541.62	ug/L		99
13) 1,1-Diclethene	2.282	96	217108	100.23	ug/L		93
14) Freon 113	2.288	101	226857	95.88	ug/L		94
15) Acetone	2.324	43	123856	107.29	ug/L		94
16) 2-Propanol	2.483	45	454802	2835.89	ug/L		92
17) Iodomethane	2.410	142	355922	99.21	ug/L		96
18) Carbon Disulfide	2.471	76	633755	104.64	ug/L		99
19) Acetonitrile	2.574	40	126373	519.47	ug/L		96
20) Allyl Chloride	2.611	76	117520	105.68	ug/L	#	84
21) Methyl Acetate	2.635	43	244563	105.06	ug/L		97
22) Methylene Chloride	2.727	84	242975	99.13	ug/L		94
23) TBA	2.873	59	689845	2826.69	ug/L		90
24) Acrylonitrile	2.983	53	651349	552.15	ug/L		99
25) Methyl-t-Butyl Ether	3.031	73	733383	107.29	ug/L		98
26) trans-1,2-Dichloroethene	3.025	96	235320	98.66	ug/L		95
27) 1,1-Diclethane	3.525	63	426827	100.75	ug/L		98
28) Vinyl Acetate	3.617	86	54475	111.50	ug/L	#	60
29) DIPE	3.653	45	818787	103.49	ug/L		97
30) 2-Chloro-1,3-Butadiene	3.647	53	395951	106.84	ug/L		91
31) ETBE	4.178	59	679169	107.79	ug/L		98
32) 2,2-Dichloropropane	4.360	77	266333	111.46	ug/L		98
33) cis-1,2-Dichloroethene	4.367	96	267200	102.62	ug/L		88
34) 2-Butanone	4.415	43	170124	108.62	ug/L		97
35) Propionitrile	4.495	54	266611	554.27	ug/L		98
36) Bromochloromethane	4.763	130	167468	103.12	ug/L		95
37) Methacrylonitrile	4.763	67	128098	113.94	ug/L		92
38) Tetrahydrofuran	4.860	42	99827	110.36	ug/L		90
39) Chloroform	4.940	83	412056	100.60	ug/L		96
40) 1,1,1-Trichloroethane	5.244	97	325203	106.99	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	224826	96.31	ug/L		96
44) Carbontetrachloride	5.525	117	260293	110.25	ug/L		95
45) 1,1-Dichloropropene	5.537	75	330252	99.31	ug/L		95
47) Benzene	5.860	78	967957	100.04	ug/L		98
48) 1,2-Dichloroethane	5.897	62	342064	102.97	ug/L		96
49) Iso-Butyl Alcohol	5.897	43	328554	2169.90	ug/L		99
50) TAME	6.098	73	647954	110.33	ug/L		99
51) n-Heptane	6.354	43	313133	95.56	ug/L		97
52) 1-Butanol	6.860	56	527176	5755.66	ug/L		94
53) Trichloroethene	6.811	130	250952	95.98	ug/L		96
54) Methylcyclohexane	7.049	55	304340	97.99	ug/L		95
55) 1,2-Diclpropane	7.098	63	261696	103.22	ug/L		99
56) Dibromomethane	7.238	93	161242	101.98	ug/L		90
57) 1,4-Dioxane	7.299	88	92541	2280.29	ug/L		98
58) Methyl Methacrylate	7.323	69	213117	119.66	ug/L		99
59) Bromodichloromethane	7.463	83	304898	104.79	ug/L		95
60) 2-Nitropropane	7.750	41	133129	247.85	ug/L		92
61) 2-Chloroethylvinyl Ether	7.872	63	78056	126.13	ug/L		94
62) cis-1,3-Dichloropropene	8.012	75	386437	104.49	ug/L		98
63) 4-Methyl-2-pentanone	8.219	43	315650	116.43	ug/L		99
65) Toluene	8.384	91	1064357	103.25	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	332264	104.07	ug/L		97
67) Ethyl Methacrylate	8.792	69	375618	123.33	ug/L		96
68) 1,1,2-Trichloroethane	8.841	97	234511	104.24	ug/L		98
71) Tetrachloroethene	8.975	164	202082	97.60	ug/L		97
72) 2-Hexanone	9.134	43	238956	115.42	ug/L		96
73) 1,3-Dichloropropane	9.012	76	417466	102.37	ug/L		99
74) Dibromochloromethane	9.238	129	243385	112.96	ug/L		98
75) N-Butyl Acetate	9.286	43	481672	121.30	ug/L		97
76) 1,2-Dibromoethane	9.335	107	247829	108.85	ug/L		97
77) 3-Chlorobenzotrifluoride	9.847	180	383733	97.33	ug/L		96
78) Chlorobenzene	9.829	112	686091	99.64	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	341189	98.27	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	231325	109.41	ug/L		97
81) Ethylbenzene	9.951	106	366386	102.30	ug/L		98
82) (m+p)Xylene	10.061	106	920490	209.26	ug/L		98
83) o-Xylene	10.420	106	448039	106.12	ug/L		99
84) Styrene	10.432	104	773711	107.43	ug/L		98
85) Bromoform	10.585	173	171056	106.95	ug/L		91
86) 2-Chlorobenzotrifluoride	10.664	180	375625	99.16	ug/L		96
87) Isopropylbenzene	10.756	105	1167159	104.71	ug/L		98
88) Cyclohexanone	10.816	55	1766884	2529.99	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.060	53	79650	106.33	ug/L		96
91) 1,1,2,2-Tetrachloroethane	11.012	83	370099	106.28	ug/L		99
92) Bromobenzene	10.999	156	307916	101.69	ug/L	#	86
93) 1,2,3-Trichloropropane	11.042	110	106450	100.61	ug/L		99
94) n-Propylbenzene	11.109	91	1405637	102.84	ug/L		99
95) 2-Chlorotoluene	11.170	91	826812	100.58	ug/L		99
96) 3-Chlorotoluene	11.225	91	812170	100.68	ug/L		99
97) 4-Chlorotoluene	11.268	91	991825	102.56	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	993423	106.24	ug/L		99
99) tert-Butylbenzene	11.536	119	843744	100.66	ug/L		98
100) 1,2,4-Trimethylbenzene	11.572	105	982078	105.57	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.633	214	321841	96.68	ug/L		99
102) sec-Butylbenzene	11.719	105	1267513	105.32	ug/L		98
103) p-Isopropyltoluene	11.841	119	1053700	106.52	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration

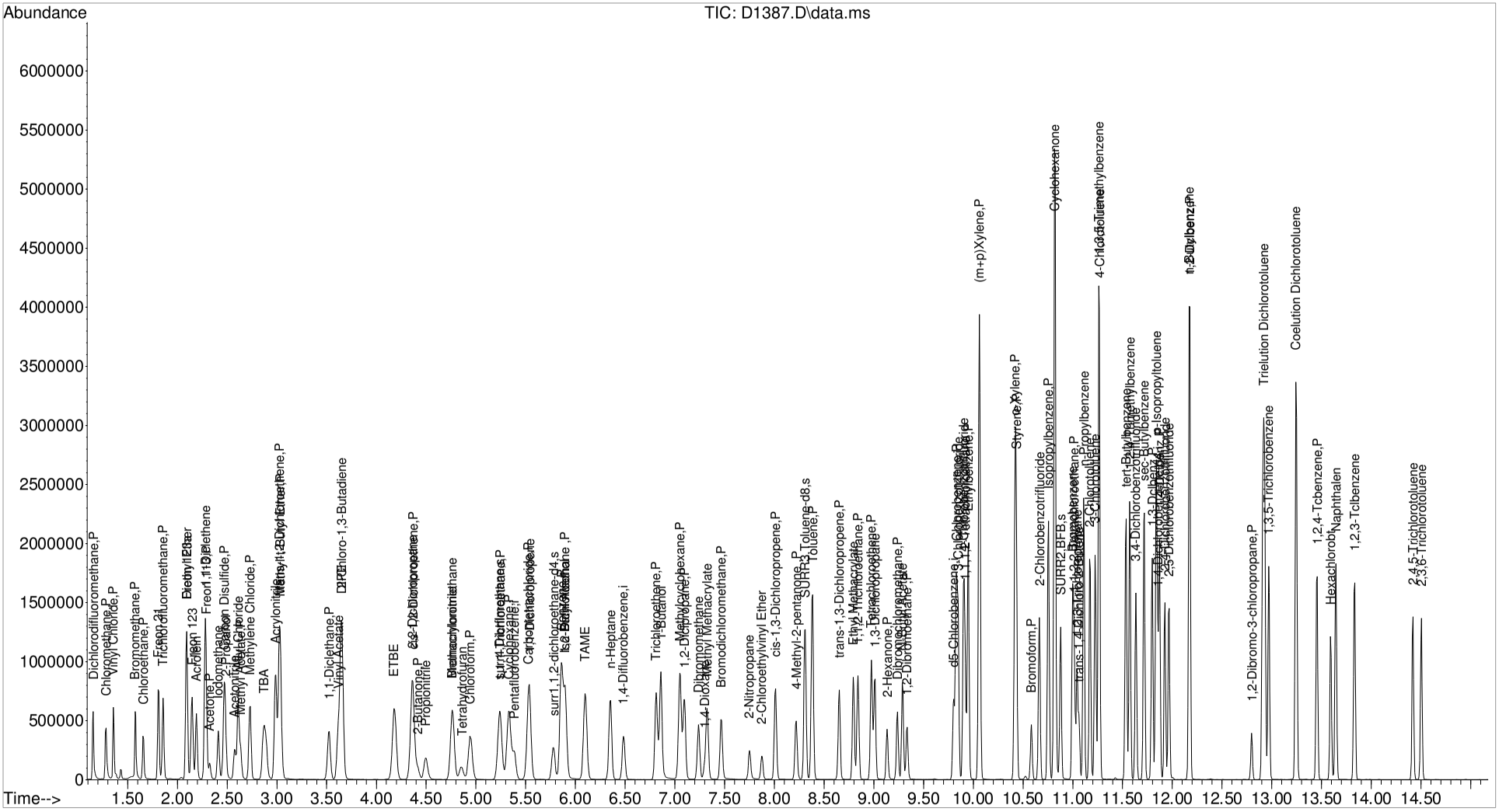
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	586411	100.23	ug/L	99
105) 1,4-Dclbenz	11.871	146	597006	96.82	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	294280	96.84	ug/L	94
107) 2,5-Dichlorobenzotrifl...	11.969	214	330126	98.85	ug/L	96
108) n-Butylbenzene	12.170	91	1009381	110.46	ug/L	98
109) 1,2-Dclbenz	12.176	146	580462	98.48	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.798	157	80581	108.16	ug/L	96
111) Trielution Dichlorotol...	12.920	125	1483366	302.57	ug/L	100
112) 1,3,5-Trichlorobenzene	12.969	180	443007	98.65	ug/L	97
113) Coelution Dichlorotoluene	13.243	125	1086824	208.97	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	437894	101.57	ug/L	96
115) Hexachlorobt	13.590	225	187508	100.04	ug/L	97
116) Naphthalen	13.645	128	1096133	112.72	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	427371	102.88	ug/L	99
118) 2,4,5-Trichlorotoluene	14.419	159	281236	104.85	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	254775	107.09	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration



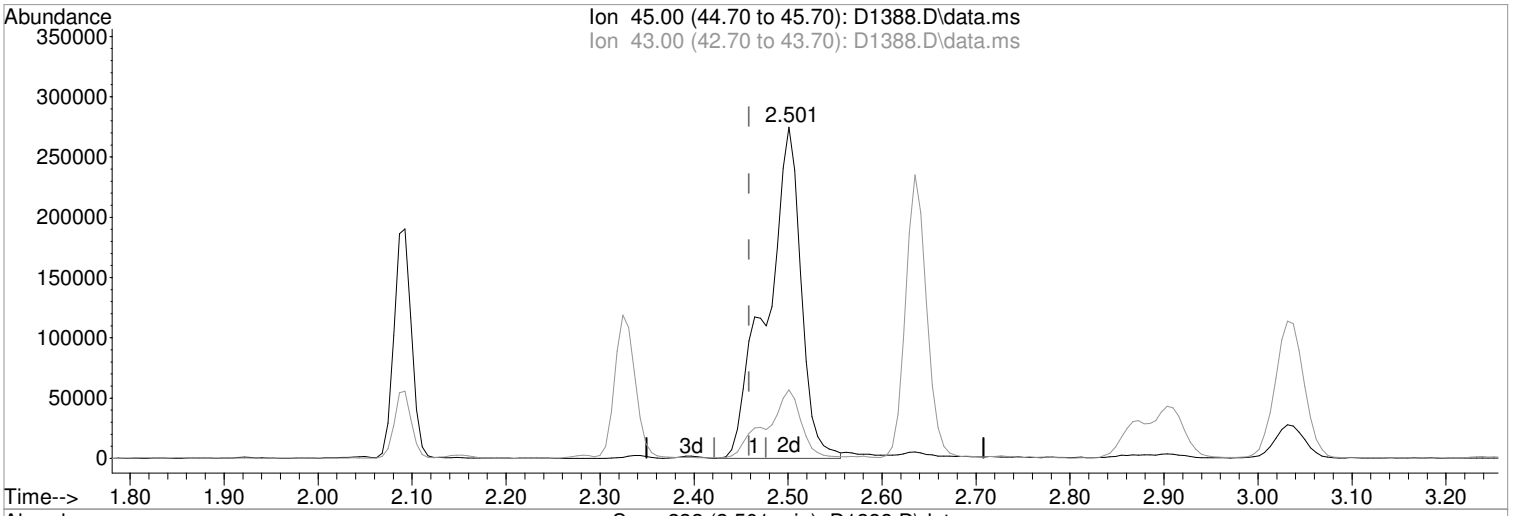
1st DL 02/14/18
2nd FJ 02/15/18

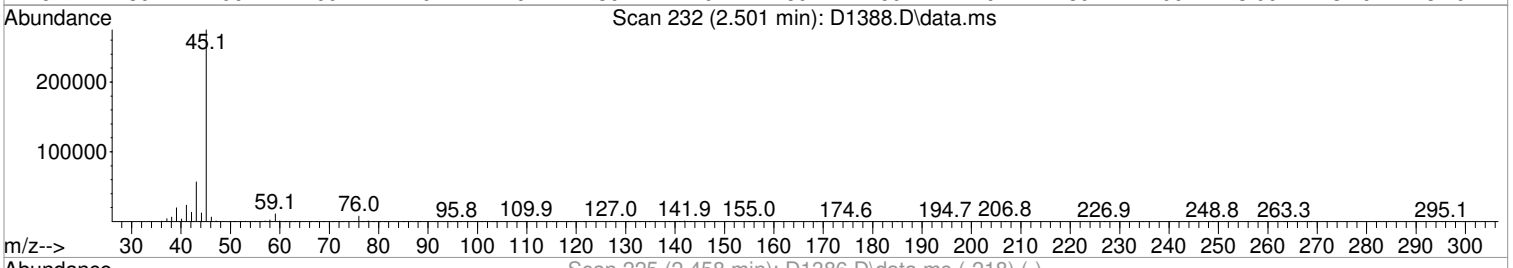
1st DL 02/14/18
2nd FW 02/15/18

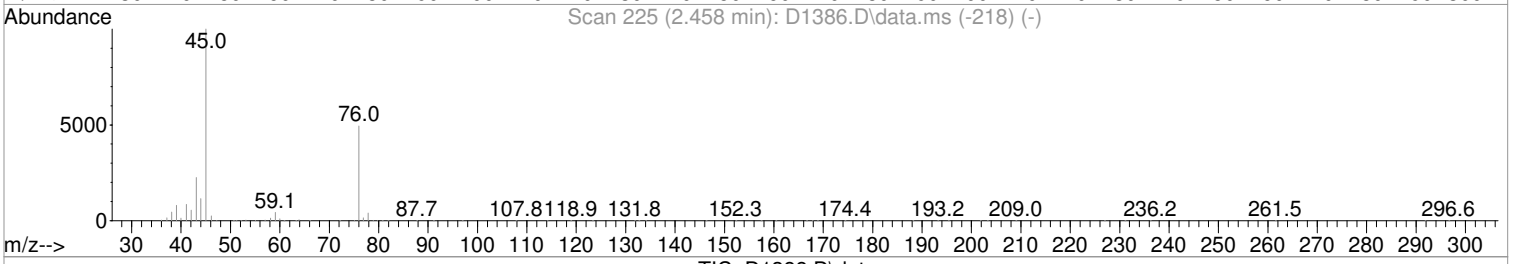
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(16) 2-Propanol

2.501min (+0.042) 4142.40 ug/L m

response 696140

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	20.67
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

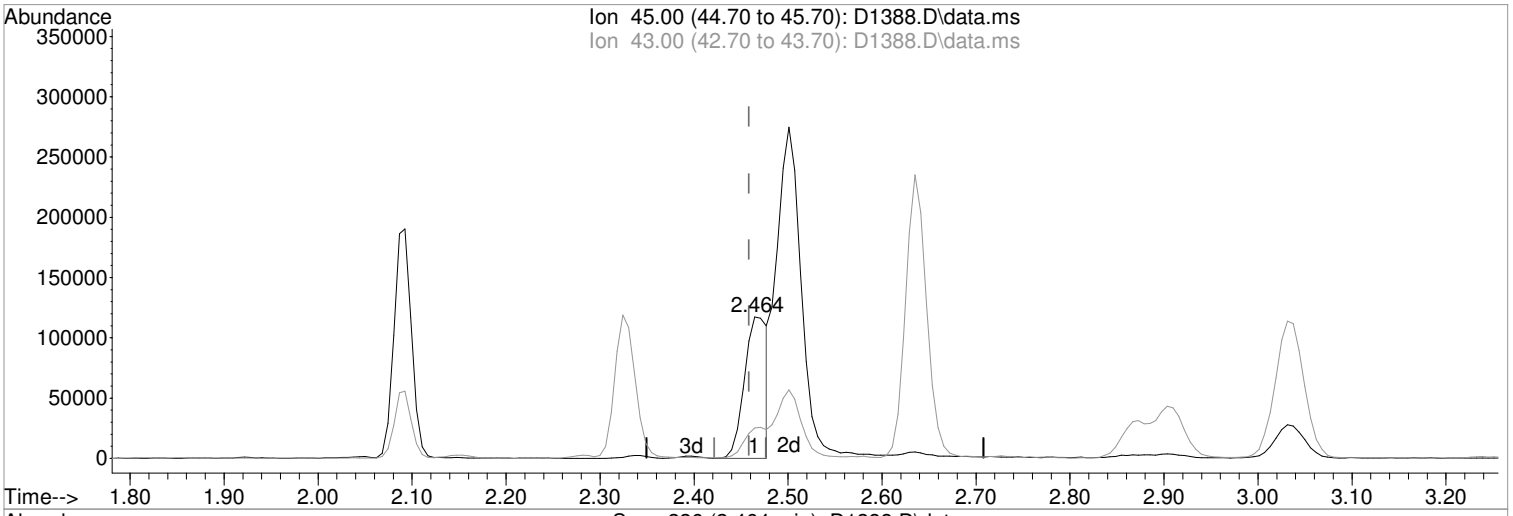
02/14/18

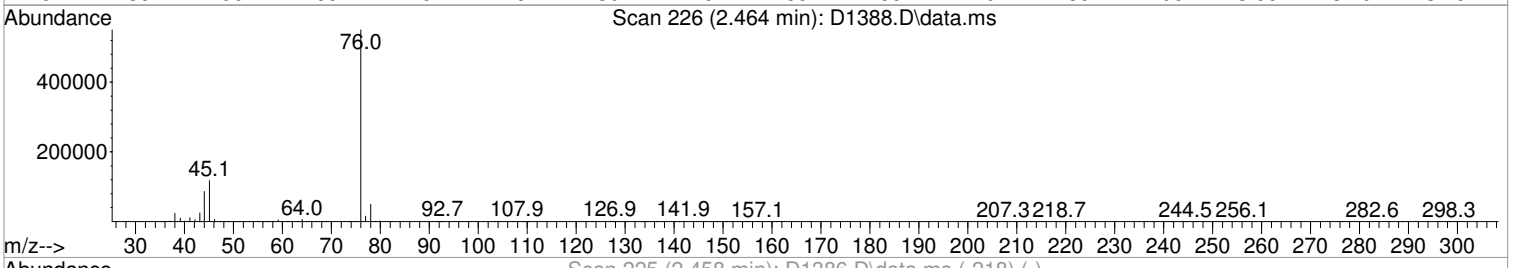
1st DL 02/14/18
2nd FW 02/15/18

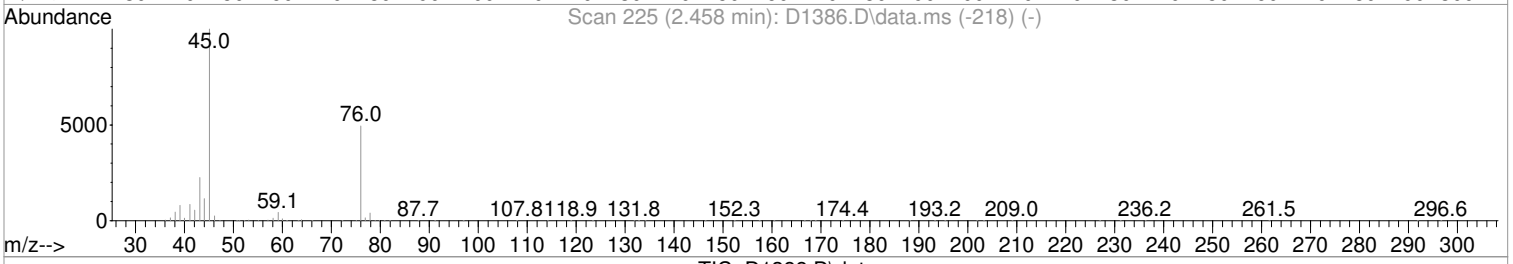
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(16) 2-Propanol

2.464min (+0.006) 1155.76 ug/L

response 194228

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	21.49
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

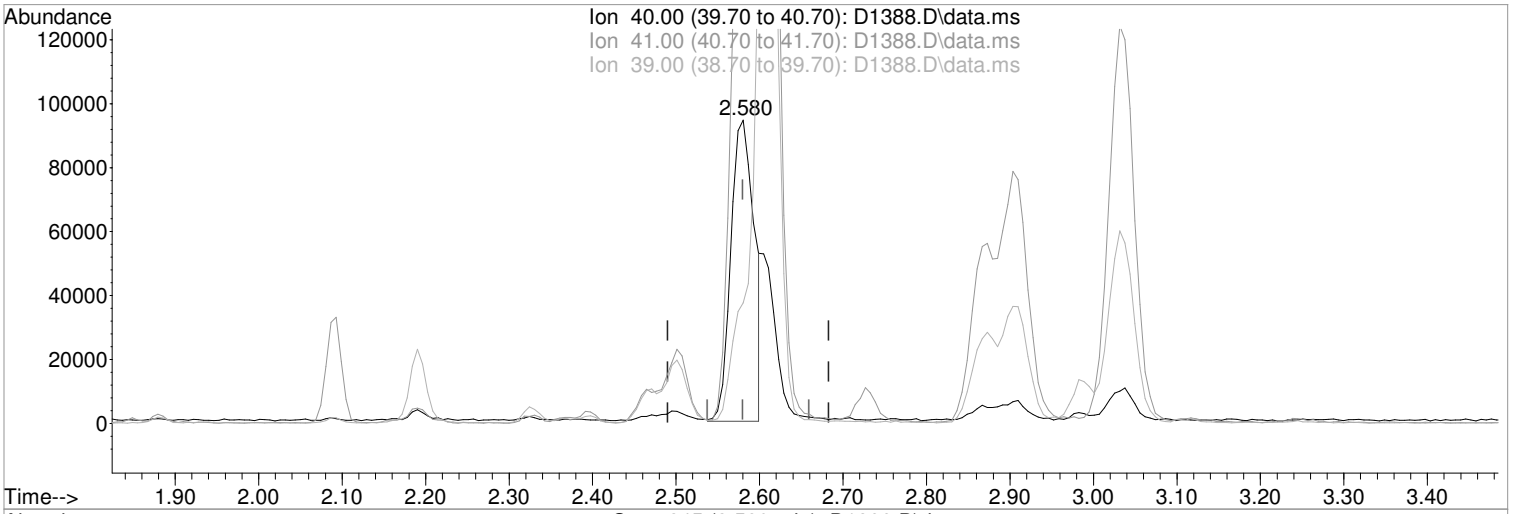
02/14/18

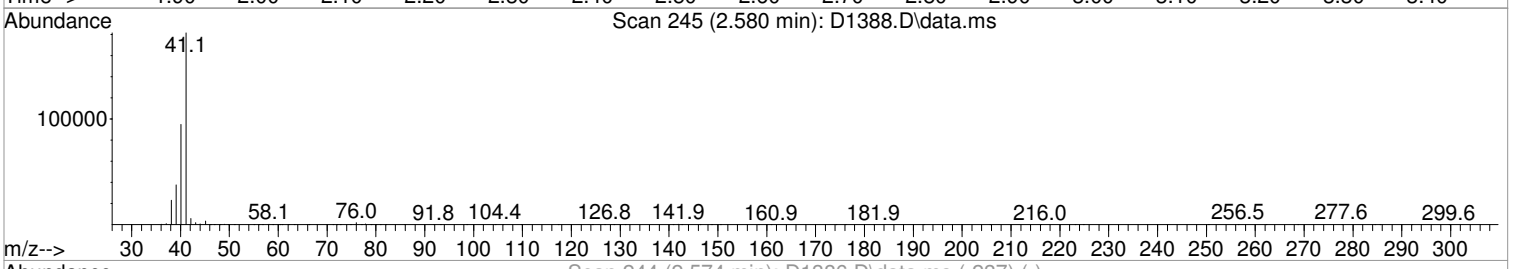
1st DL 02/14/18
2nd FW 02/15/18

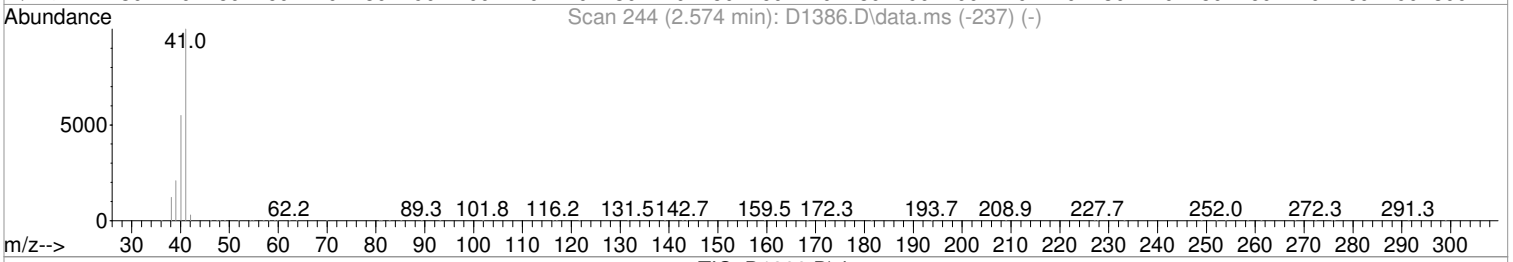
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(19) Acetonitrile

2.580min (+0.000) 715.64 ug/L m

response 182434

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	191.40
39.00	34.60	39.72
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

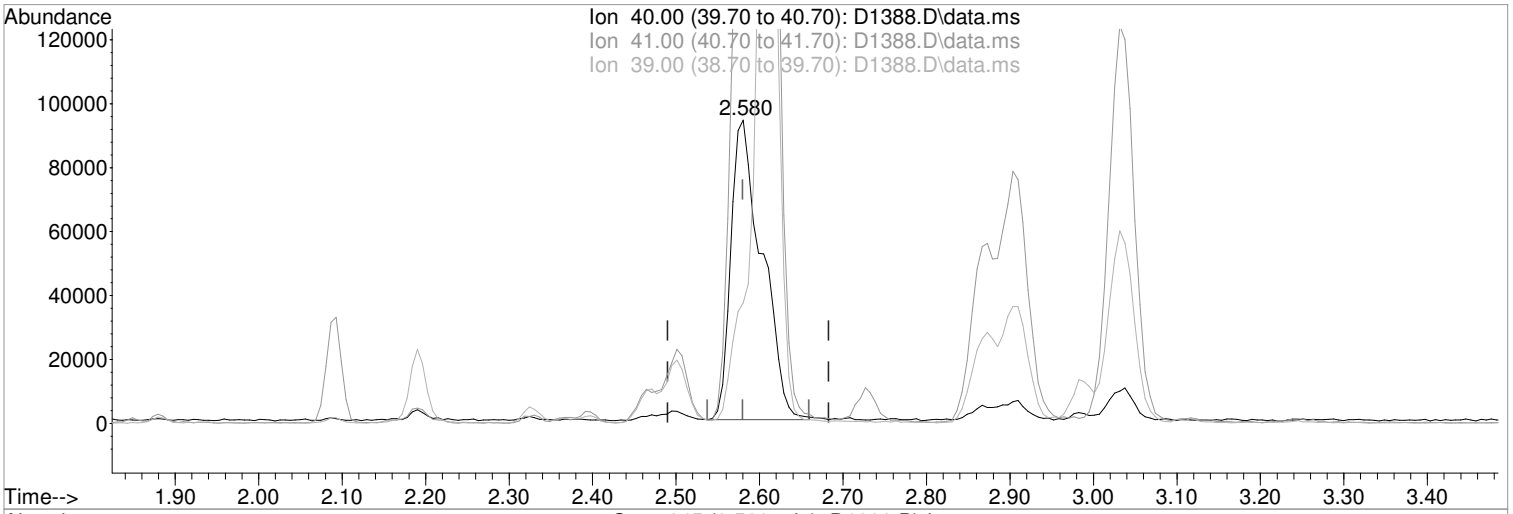
02/14/18

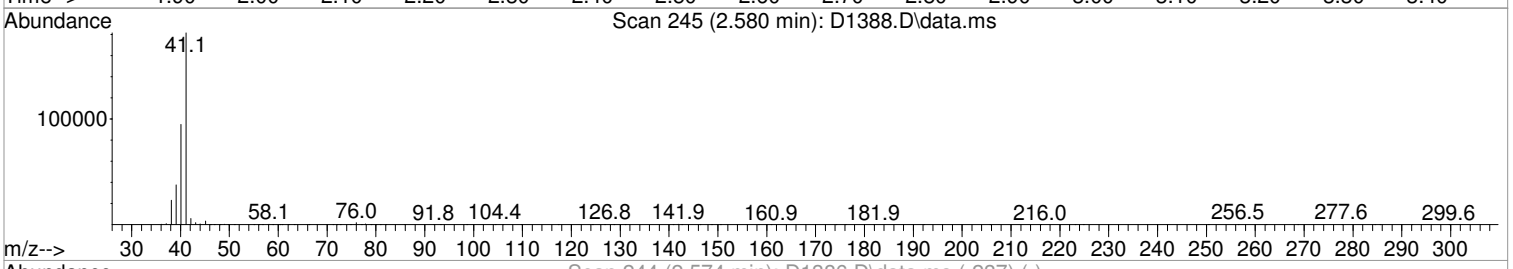
1st DL 02/14/18
2nd FJ 02/15/18

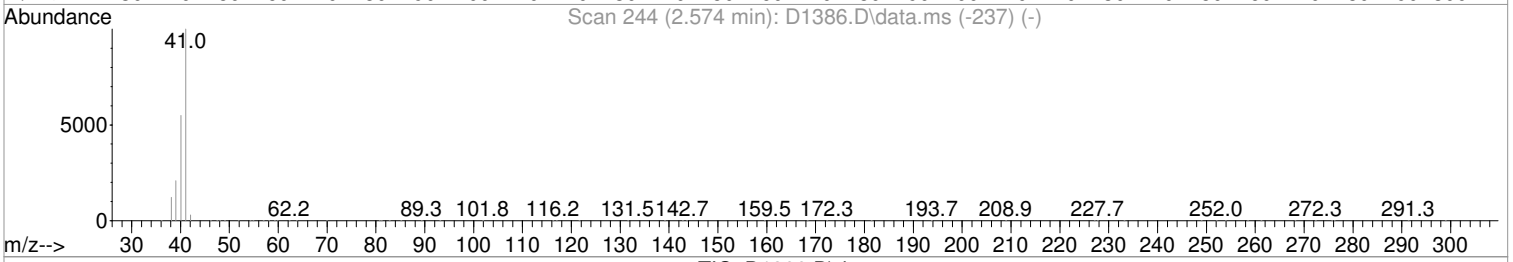
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(19) Acetonitrile

2.580min (+0.000) 950.91 ug/L

response 242410

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	191.40
39.00	34.60	39.72
0.00	0.00	0.00

Manual Integration:

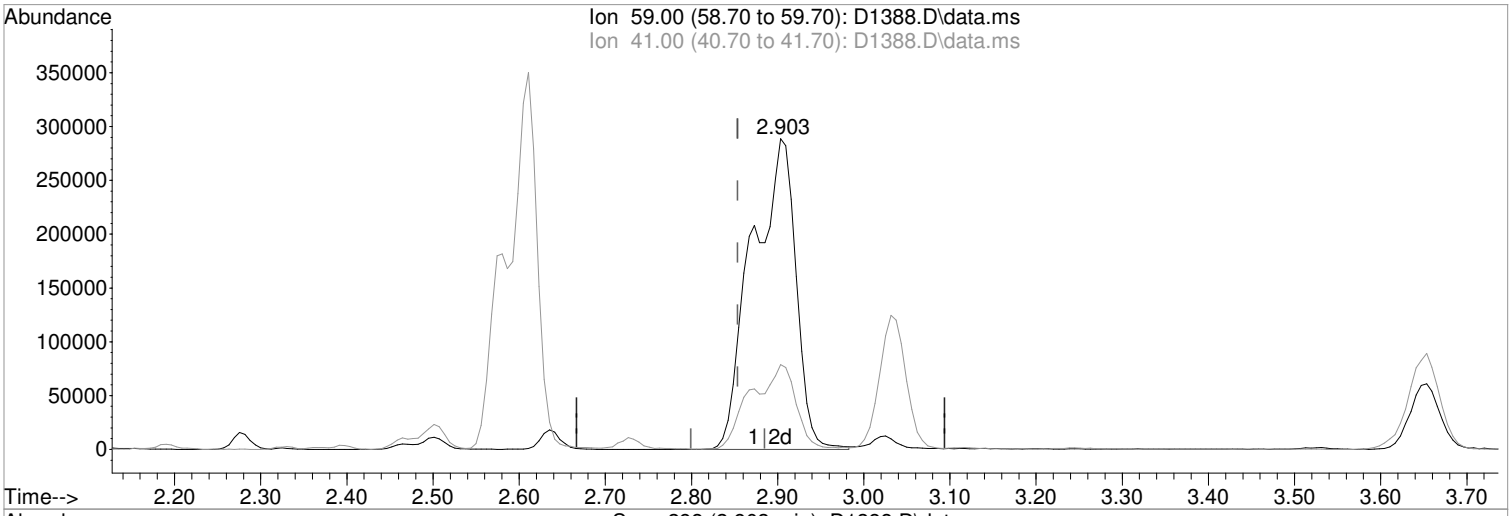
Before

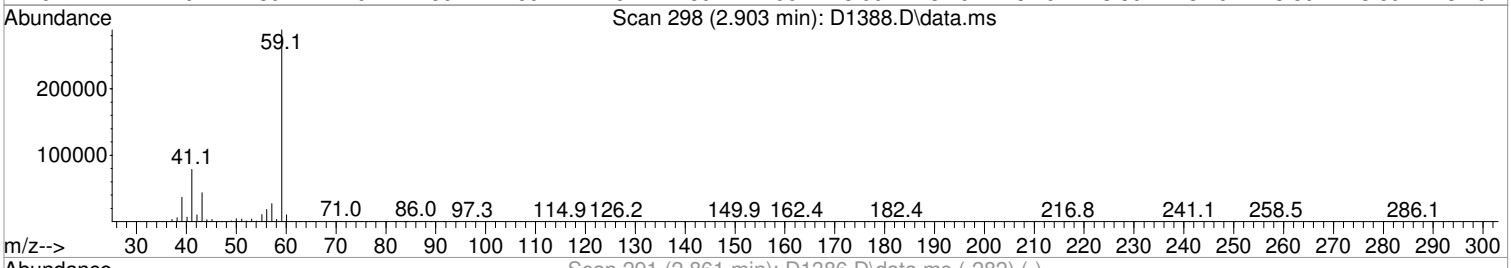
02/14/18

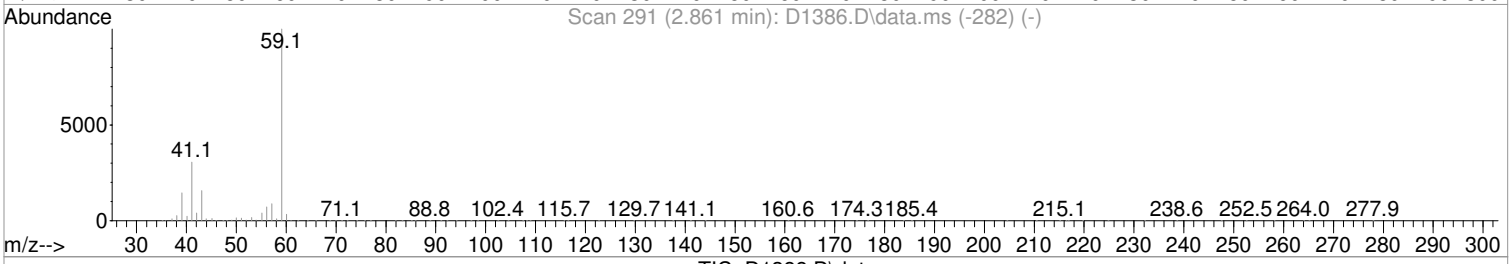
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(23) TBA

2.903min (+0.049) 3972.89 ug/L m

response 1015994

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	27.30
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

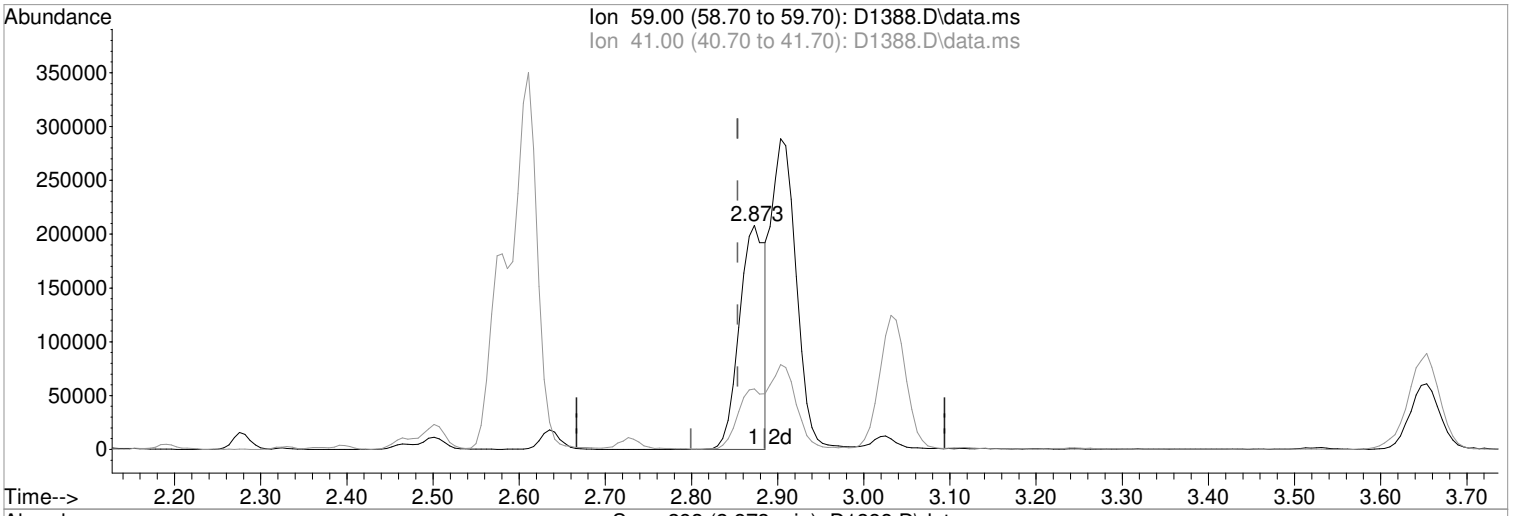
02/14/18

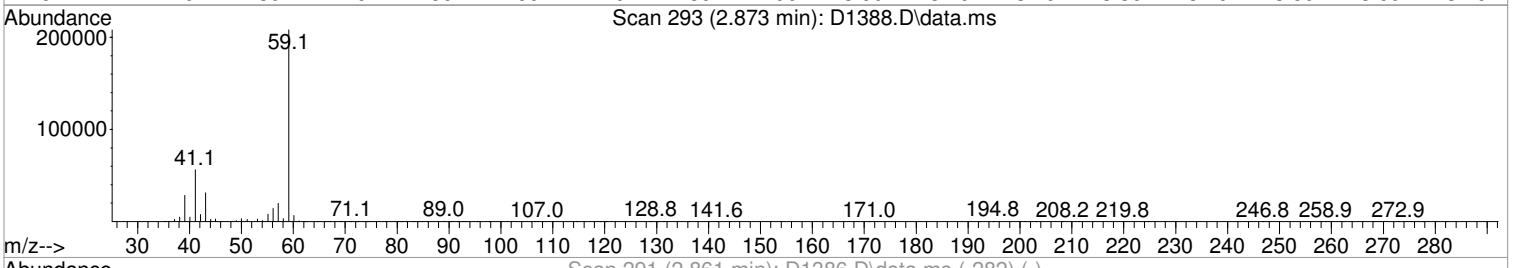
1st DL 02/14/18
2nd FW 02/15/18

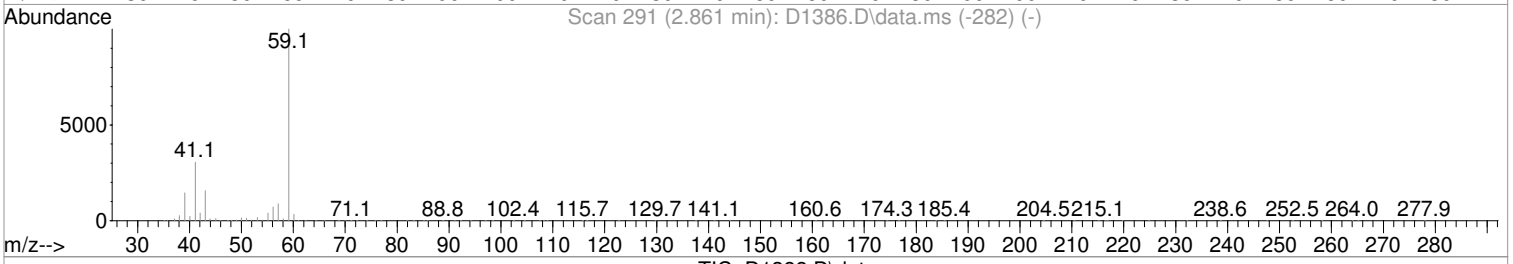
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(23) TBA

2.873min (+0.019) 1672.61 ug/L

response 427741

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	27.07
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	231804	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	344457	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	309302	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	184529	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	396216	188.01	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 376.02%#				
46) surr1,1,2-dichloroetha...	5.775	65	449405	184.43	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 368.86%#				
64) SURR3,Toluene-d8	8.311	98	1550987	186.75	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 373.50%#				
69) SURR2,BFB	10.877	95	619972	192.73	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 385.46%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	508603	153.05	ug/L		99
3) Chloromethane	1.282	50	512531	139.98	ug/L		97
4) Vinyl Chloride	1.355	62	522023	151.28	ug/L		99
5) Bromomethane	1.574	94	274620	128.35	ug/L		98
6) Chloroethane	1.654	64	312199	143.27	ug/L		98
7) Freon 21	1.806	67	790873	148.98	ug/L		99
8) Trichlorofluoromethane	1.855	101	553148	141.08	ug/L		97
9) Diethyl Ether	2.093	59	330857	146.07	ug/L		99
10) Freon 123a	2.093	67	461487	150.16	ug/L		99
11) Freon 123	2.147	83	508411	144.53	ug/L		97
12) Acrolein	2.190	56	492495	760.03	ug/L		96
13) 1,1-Diclethene	2.275	96	339498	149.56	ug/L		92
14) Freon 113	2.282	101	365072	147.24	ug/L		92
15) Acetone	2.324	43	178854	147.86	ug/L		95
16) 2-Propanol	2.501	45	696140m	4142.40	ug/L		
17) Iodomethane	2.410	142	563253	148.95	ug/L		97
18) Carbon Disulfide	2.471	76	1012773	159.58	ug/L		99
19) Acetonitrile	2.580	40	182434m	715.64	ug/L		
20) Allyl Chloride	2.611	76	186314	159.89	ug/L	#	78
21) Methyl Acetate	2.635	43	365719	149.93	ug/L		97
22) Methylene Chloride	2.727	84	370270	144.16	ug/L		96
23) TBA	2.903	59	1015994m	3972.89	ug/L		
24) Acrylonitrile	2.989	53	933639	755.28	ug/L		98
25) Methyl-t-Butyl Ether	3.031	73	1127538	157.41	ug/L		97
26) trans-1,2-Dichloroethene	3.025	96	360955	144.42	ug/L		91
27) 1,1-Diclethane	3.519	63	655133	147.57	ug/L		99
28) Vinyl Acetate	3.617	86	86825	169.59	ug/L	#	88
29) DIPE	3.653	45	1306754	157.62	ug/L		98
30) 2-Chloro-1,3-Butadiene	3.647	53	616416	158.73	ug/L		95
31) ETBE	4.178	59	1089426	165.01	ug/L		99
32) 2,2-Dichloropropane	4.360	77	433164	172.99	ug/L		100
33) cis-1,2-Dichloroethene	4.367	96	403353	147.83	ug/L		87
34) 2-Butanone	4.415	43	248974	151.62	ug/L		97
35) Propionitrile	4.501	54	381664	757.20	ug/L		97
36) Bromochloromethane	4.763	130	256464	150.70	ug/L		98
37) Methacrylonitrile	4.769	67	186639	158.42	ug/L		96
38) Tetrahydrofuran	4.854	42	140172	147.88	ug/L		98
39) Chloroform	4.946	83	629898	146.75	ug/L		97
40) 1,1,1-Trichloroethane	5.244	97	507060	159.20	ug/L		98

1st DL 02/14/18
2nd FJ 02/15/18

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	365681	150.39	ug/L	100
44) Carbontetrachloride	5.525	117	410164	166.79	ug/L	95
45) 1,1-Dichloropropene	5.537	75	507998	146.66	ug/L	97
47) Benzene	5.860	78	1460700	144.94	ug/L	98
48) 1,2-Dichloroethane	5.897	62	517916	149.69	ug/L	98
49) Iso-Butyl Alcohol	5.909	43	486356	3029.73	ug/L	96
50) TAME	6.098	73	1031721	168.67	ug/L	99
51) n-Heptane	6.354	43	530038	155.29	ug/L	98
52) 1-Butanol	6.866	56	794866	7616.22	ug/L	92
53) Trichloroethene	6.811	130	377499	138.61	ug/L	96
54) Methylcyclohexane	7.049	55	509283	157.44	ug/L	93
55) 1,2-Diclpropane	7.098	63	400486	151.67	ug/L	97
56) Dibromomethane	7.238	93	243032	147.58	ug/L	92
57) 1,4-Dioxane	7.305	88	134377	3179.08	ug/L	94
58) Methyl Methacrylate	7.323	69	317384	171.09	ug/L	99
59) Bromodichloromethane	7.463	83	466874	154.06	ug/L	96
60) 2-Nitropropane	7.750	41	198914	355.56	ug/L	91
61) 2-Chloroethylvinyl Ether	7.878	63	123129	191.03	ug/L	98
62) cis-1,3-Dichloropropene	8.012	75	604125	148.68	ug/L	99
63) 4-Methyl-2-pentanone	8.219	43	463937	164.30	ug/L	99
65) Toluene	8.384	91	1621643	151.03	ug/L	100
66) trans-1,3-Dichloropropene	8.652	75	521114	148.58	ug/L	98
67) Ethyl Methacrylate	8.793	69	559340	176.33	ug/L	94
68) 1,1,2-Trichloroethane	8.841	97	354756	151.39	ug/L	96
71) Tetrachloroethene	8.975	164	316602	146.63	ug/L	99
72) 2-Hexanone	9.134	43	348658	161.49	ug/L	97
73) 1,3-Dichloropropane	9.012	76	621561	146.16	ug/L	99
74) Dibromochloromethane	9.238	129	378597	168.50	ug/L	98
75) N-Butyl Acetate	9.292	43	744045	179.68	ug/L	97
76) 1,2-Dibromoethane	9.335	107	372774	157.00	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	621767	151.23	ug/L	96
78) Chlorobenzene	9.829	112	1064286	148.22	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	558009	154.12	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	358388	162.55	ug/L	97
81) Ethylbenzene	9.951	106	570994	152.88	ug/L	95
82) (m+p)Xylene	10.061	106	1423645	310.35	ug/L	96
83) o-Xylene	10.420	106	701737	159.38	ug/L	100
84) Styrene	10.432	104	1203239	160.21	ug/L	97
85) Bromoform	10.585	173	264114	147.21	ug/L	92
86) 2-Chlorobenzotrifluoride	10.664	180	620866	157.17	ug/L	94
87) Isopropylbenzene	10.756	105	1828643	157.31	ug/L	99
88) Cyclohexanone	10.823	55	2488953	3417.51	ug/L	100
89) trans-1,4-Dichloro-2-B...	11.066	53	121033	149.08	ug/L	82
91) 1,1,2,2-Tetrachloroethane	11.018	83	550343	146.23	ug/L	96
92) Bromobenzene	10.999	156	486303	148.61	ug/L	91
93) 1,2,3-Trichloropropane	11.042	110	157230	137.50	ug/L	96
94) n-Propylbenzene	11.109	91	2212666	149.79	ug/L	98
95) 2-Chlorotoluene	11.176	91	1292385	145.47	ug/L	99
96) 3-Chlorotoluene	11.225	91	1309709	150.22	ug/L	99
97) 4-Chlorotoluene	11.268	91	1581537	151.32	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	1572366	155.58	ug/L	98
99) tert-Butylbenzene	11.536	119	1350473	149.07	ug/L	98
100) 1,2,4-Trimethylbenzene	11.572	105	1565413	155.70	ug/L	97
101) 3,4-Dichlorobenzotrifl...	11.633	214	540191	150.14	ug/L	99
102) sec-Butylbenzene	11.719	105	2047745	157.44	ug/L	98
103) p-Isopropyltoluene	11.841	119	1716188	160.53	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration

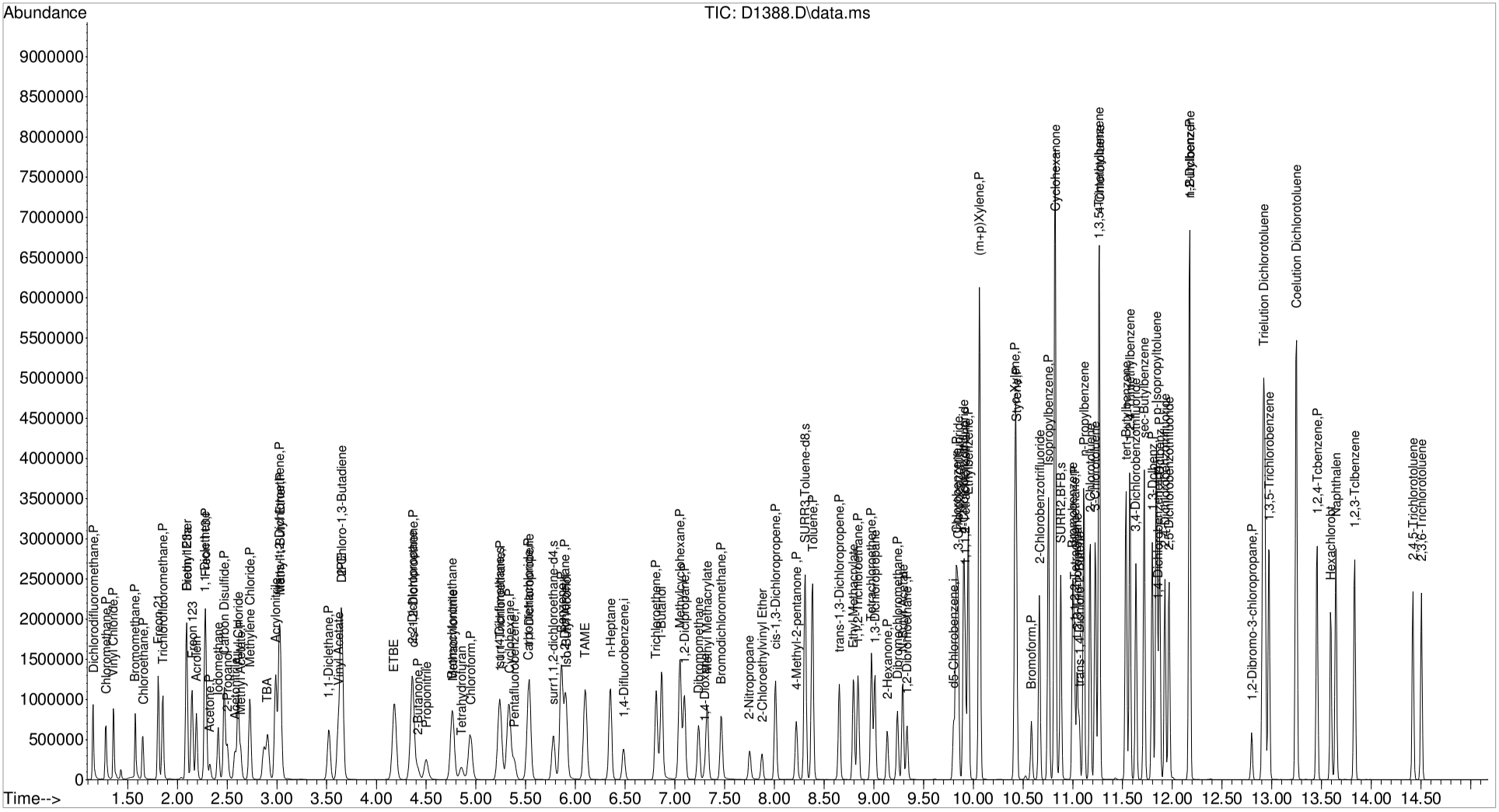
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	923741	146.09	ug/L	97
105) 1,4-Dclbenz	11.871	146	946084	141.97	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	488169	148.64	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	551858	152.90	ug/L	97
108) n-Butylbenzene	12.176	91	1680752	170.19	ug/L	97
109) 1,2-Dclbenz	12.176	146	921747	144.70	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	120249	146.41	ug/L	95
111) Trielution Dichlorotol...	12.920	125	2482106	468.45	ug/L	99
112) 1,3,5-Trichlorobenzene	12.975	180	734312	151.30	ug/L	98
113) Coelution Dichlorotoluene	13.249	125	1793495	319.08	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	712439	152.91	ug/L	97
115) Hexachlorobt	13.590	225	314624	155.32	ug/L	97
116) Naphthalen	13.645	128	1660024	157.95	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	684534	152.47	ug/L	100
118) 2,4,5-Trichlorotoluene	14.419	159	468990	161.79	ug/L	99
119) 2,3,6-Trichlorotoluene	14.505	159	421688	164.00	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	248261	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	366283	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	323763	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	185714	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	112449	50.18	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.36%				
46) surr1,1,2-dichloroetha...	5.781	65	128636	49.65	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.30%				
64) SURR3,Toluene-d8	8.311	98	440165	49.84	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.68%				
69) SURR2,BFB	10.878	95	170696	49.90	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	729951	205.09	ug/L		99
3) Chloromethane	1.282	50	742648	189.38	ug/L		97
4) Vinyl Chloride	1.355	62	755705	204.48	ug/L		99
5) Bromomethane	1.581	94	458934	218.52	ug/L		97
6) Chloroethane	1.660	64	447093	191.57	ug/L		98
7) Freon 21	1.812	67	1098701	193.25	ug/L		99
8) Trichlorofluoromethane	1.855	101	810487	193.01	ug/L		98
9) Diethyl Ether	2.093	59	499780	206.03	ug/L		99
10) Freon 123a	2.093	67	674341	204.87	ug/L		97
11) Freon 123	2.148	83	719218	190.90	ug/L		96
12) Acrolein	2.190	56	690373	994.77	ug/L		98
13) 1,1-Diclethene	2.282	96	495153	203.68	ug/L		92
14) Freon 113	2.288	101	533519	200.91	ug/L		92
15) Acetone	2.324	43	242067	186.85	ug/L		95
16) 2-Propanol	2.465	45	971343	4859.33	ug/L		94
17) Iodomethane	2.410	142	837565	206.14	ug/L		98
18) Carbon Disulfide	2.471	76	1489227	219.09	ug/L		100
19) Acetonitrile	2.574	40	257265	986.50	ug/L		98
20) Allyl Chloride	2.611	76	274111	219.64	ug/L	#	83
21) Methyl Acetate	2.635	43	512809	196.29	ug/L		99
22) Methylene Chloride	2.727	84	540288	196.41	ug/L		95
23) TBA	2.867	59	1435936	4831.20	ug/L		97
24) Acrylonitrile	2.989	53	1337562	1010.31	ug/L		98
25) Methyl-t-Butyl Ether	3.031	73	1639400	213.70	ug/L		96
26) trans-1,2-Dichloroethene	3.025	96	529572	197.84	ug/L		92
27) 1,1-Diclethane	3.525	63	962713	202.48	ug/L		99
28) Vinyl Acetate	3.617	86	125717	229.28	ug/L	#	82
29) DIPE	3.653	45	1889802	212.84	ug/L		96
30) 2-Chloro-1,3-Butadiene	3.647	53	893380	214.80	ug/L		94
31) ETBE	4.184	59	1620093	229.12	ug/L		99
32) 2,2-Dichloropropane	4.361	77	665682	248.22	ug/L		95
33) cis-1,2-Dichloroethene	4.367	96	590325	202.01	ug/L		88
34) 2-Butanone	4.409	43	340907	193.46	ug/L		99
35) Propionitrile	4.495	54	532280	986.01	ug/L		96
36) Bromochloromethane	4.763	130	373765	205.07	ug/L		96
37) Methacrylonitrile	4.769	67	266859	211.50	ug/L		94
38) Tetrahydrofuran	4.854	42	200092	197.10	ug/L		96
39) Chloroform	4.946	83	907990	197.52	ug/L		98
40) 1,1,1-Trichloroethane	5.244	97	749703	219.78	ug/L		98

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	Cyclohexane	5.330	41	520836	201.44	ug/L		98
44)	Carbontetrachloride	5.531	117	618118	236.38	ug/L		91
45)	1,1-Dichloropropene	5.537	75	741929	201.43	ug/L		95
47)	Benzene	5.860	78	2110866	196.97	ug/L		98
48)	1,2-Dichloroethane	5.897	62	747753	203.24	ug/L		98
49)	Iso-Butyl Alcohol	5.897	43	679973	3918.38	ug/L		96
50)	TAME	6.098	73	1528846	235.05	ug/L		99
51)	n-Heptane	6.354	43	775312	213.62	ug/L		99
52)	1-Butanol	6.866	56	1094583	9194.08	ug/L		94
53)	Trichloroethene	6.811	130	564112	194.79	ug/L		95
54)	Methylcyclohexane	7.055	55	719051	209.04	ug/L		95
55)	1,2-Diclpropane	7.098	63	574831	204.72	ug/L		96
56)	Dibromomethane	7.238	93	347883	198.66	ug/L		91
57)	1,4-Dioxane	7.305	88	184325	4100.90	ug/L		97
58)	Methyl Methacrylate	7.323	69	449290	227.77	ug/L		97
59)	Bromodichloromethane	7.464	83	687056	213.20	ug/L		95
60)	2-Nitropropane	7.750	41	296445	498.32	ug/L		91
61)	2-Chloroethylvinyl Ether	7.878	63	180395	263.20	ug/L		100
62)	cis-1,3-Dichloropropene	8.012	75	891378	195.56	ug/L		99
63)	4-Methyl-2-pentanone	8.220	43	647823	215.75	ug/L		99
65)	Toluene	8.384	91	2331348	204.19	ug/L		99
66)	trans-1,3-Dichloropropene	8.652	75	787067	199.31	ug/L		98
67)	Ethyl Methacrylate	8.799	69	804500	238.50	ug/L		96
68)	1,1,2-Trichloroethane	8.841	97	512487	205.67	ug/L		97
71)	Tetrachloroethene	8.975	164	463606	205.12	ug/L		96
72)	2-Hexanone	9.134	43	474910	210.14	ug/L		97
73)	1,3-Dichloropropane	9.012	76	892364	200.47	ug/L		99
74)	Dibromochloromethane	9.238	129	554552	235.78	ug/L		99
75)	N-Butyl Acetate	9.286	43	1035283	238.85	ug/L		97
76)	1,2-Dibromoethane	9.335	107	537038	216.09	ug/L		100
77)	3-Chlorobenzotrifluoride	9.847	180	909152	211.25	ug/L		97
78)	Chlorobenzene	9.829	112	1529393	203.48	ug/L		96
79)	4-Chlorobenzotrifluoride	9.902	180	814655	214.96	ug/L		98
80)	1,1,1,2-Tetrachloroethane	9.914	131	533394	231.12	ug/L		97
81)	Ethylbenzene	9.951	106	824822	210.98	ug/L		92
82)	(m+p)Xylene	10.067	106	2062833	429.60	ug/L		97
83)	o-Xylene	10.420	106	1011712	219.52	ug/L		99
84)	Styrene	10.432	104	1734692	220.66	ug/L		97
85)	Bromoform	10.585	173	393857	193.91	ug/L		92
86)	2-Chlorobenzotrifluoride	10.664	180	881383	213.15	ug/L		96
87)	Isopropylbenzene	10.756	105	2611550	214.63	ug/L		99
88)	Cyclohexanone	10.823	55	3359421	4406.69	ug/L		100
89)	trans-1,4-Dichloro-2-B...	11.067	53	172863	195.45	ug/L		80
91)	1,1,2,2-Tetrachloroethane	11.018	83	773634	204.25	ug/L		97
92)	Bromobenzene	10.999	156	687928	208.88	ug/L	#	89
93)	1,2,3-Trichloropropane	11.042	110	217788	189.24	ug/L		99
94)	n-Propylbenzene	11.115	91	3106061	208.92	ug/L		98
95)	2-Chlorotoluene	11.176	91	1811297	202.58	ug/L		98
96)	3-Chlorotoluene	11.231	91	1881538	214.43	ug/L		99
97)	4-Chlorotoluene	11.268	91	2176247	206.89	ug/L		98
98)	1,3,5-Trimethylbenzene	11.262	105	2201824	216.48	ug/L		99
99)	tert-Butylbenzene	11.536	119	1870354	205.13	ug/L		99
100)	1,2,4-Trimethylbenzene	11.573	105	2158179	213.29	ug/L		98
101)	3,4-Dichlorobenzotrifl...	11.640	214	749863	207.09	ug/L		99
102)	sec-Butylbenzene	11.719	105	2789451	213.09	ug/L		98
103)	p-Isopropyltoluene	11.841	119	2349452	218.36	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration

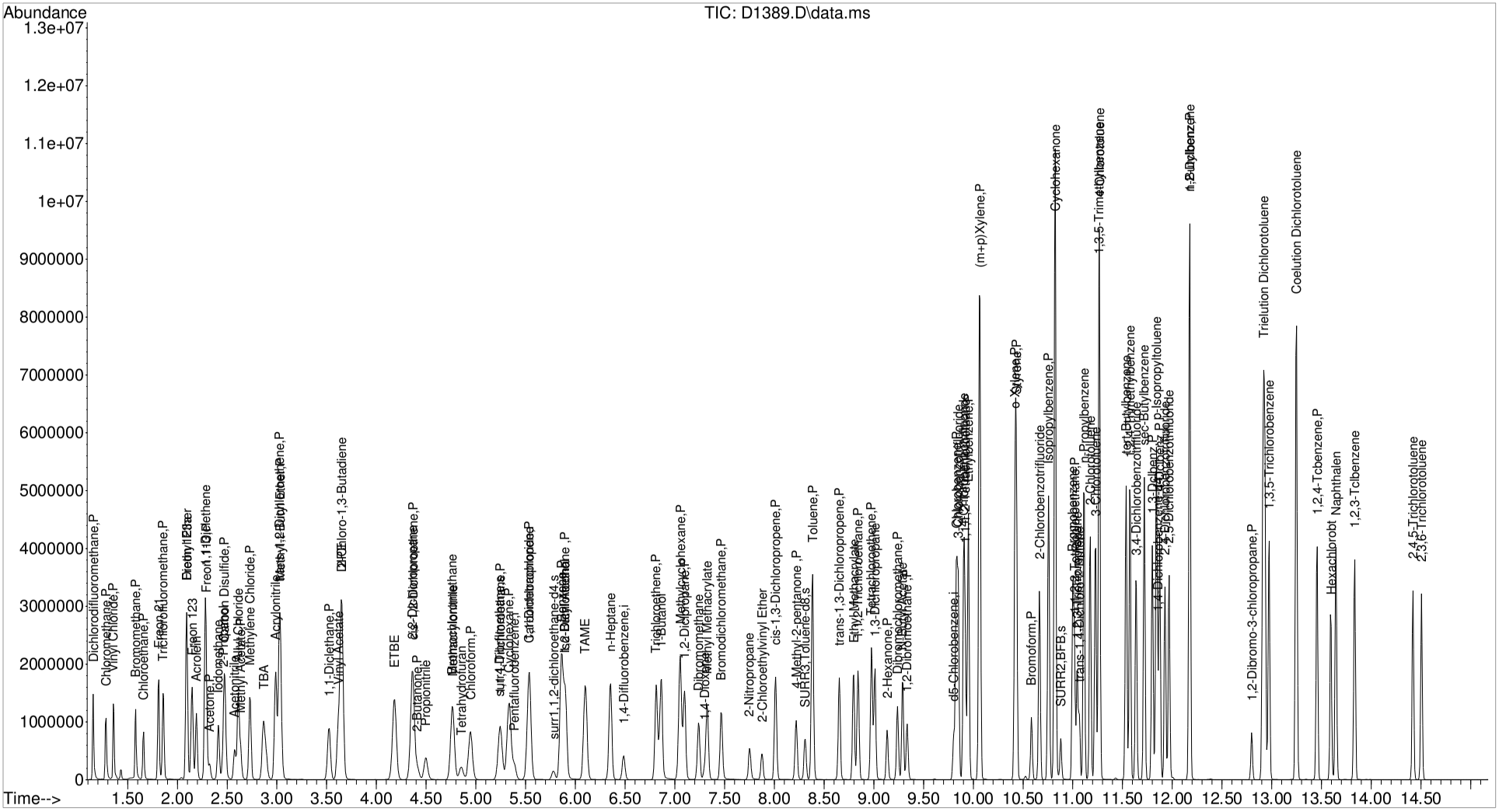
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	1276850	200.65	ug/L	97
105) 1,4-Dclbenz	11.871	146	1303287	194.33	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	696876	210.83	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	746653	205.55	ug/L	97
108) n-Butylbenzene	12.176	91	2295785	230.98	ug/L	96
109) 1,2-Dclbenz	12.176	146	1269247	197.98	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	169032	199.20	ug/L	96
111) Trielution Dichlorotol...	12.920	125	3467545	650.26	ug/L	98
112) 1,3,5-Trichlorobenzene	12.975	180	1017762	208.37	ug/L	97
113) Coelution Dichlorotoluene	13.249	125	2500629	442.05	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	993572	211.88	ug/L	99
115) Hexachlorobt	13.597	225	442497	217.05	ug/L	96
116) Naphthalen	13.645	128	2318902	219.23	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	942908	208.68	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	657984	225.54	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	587852	227.16	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Aquisition Date
09	RC1800023-09	STD#1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\021218\D1381.D	02/12/2018 13:16
08	RC1800023-08	STD#2 - 1.0 PPB	I:\ACQUDATA\msvoa10\data\021218\D1382.D	02/12/2018 13:38
07	RC1800023-07	STD#3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\021218\D1383.D	02/12/2018 14:17
06	RC1800023-06	STD#4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\021218\D1384.D	02/12/2018 14:43
05	RC1800023-05	STD#5 - 20 PPB	I:\ACQUDATA\msvoa10\data\021218\D1385.D	02/12/2018 15:07
04	RC1800023-04	STD#5 - 50 PPB	I:\ACQUDATA\msvoa10\data\021218\D1386.D	02/12/2018 15:40
03	RC1800023-03	STD#6 - 100 PPB	I:\ACQUDATA\msvoa10\data\021218\D1387.D	02/12/2018 16:02
02	RC1800023-02	STD#7 - 150 PPB	I:\ACQUDATA\msvoa10\data\021218\D1388.D	02/12/2018 16:31
01	RC1800023-01	STD#8 - 200 PPB	I:\ACQUDATA\msvoa10\data\021218\D1389.D	02/12/2018 17:01

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6814	08	1.000	0.6446	07	2.000	0.622	06	5.000	0.6092
05	20.000	0.6806	04	50.000	0.7261	03	100.000	0.735	02	150.000	0.7292
01	200.000	0.755									

1,1,2,2-Tetrachloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.052	08	1.000	0.9128	07	2.000	0.9792	06	5.000	1.066
05	20.000	1.002	04	50.000	1.047	03	100.000	1.084	02	150.000	0.9941
01	200.000	1.041									

1,1,2-Trichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3085	08	1.000	0.3581	07	2.000	0.3207	06	5.000	0.3305
05	20.000	0.3466	04	50.000	0.3493	03	100.000	0.3546	02	150.000	0.3433
01	200.000	0.3498									

1,1,2-Trichloro-1,2,2-trifluoroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6179	08	1.000	0.5862	07	2.000	0.497	06	5.000	0.4647
05	20.000	0.5231	04	50.000	0.5495	03	100.000	0.5128	02	150.000	0.525
01	200.000	0.5373									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.047	08	1.000	0.907	07	2.000	0.901	06	5.000	0.9578
05	20.000	0.9562	04	50.000	0.9731	03	100.000	0.9647	02	150.000	0.9421
01	200.000	0.9695									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5329	08	1.000	0.4723	07	2.000	0.4179	06	5.000	0.5088
05	20.000	0.4907	04	50.000	0.5064	03	100.000	0.4907	02	150.000	0.4882
01	200.000	0.4986									

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
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Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

1,2,3-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.215	08	1.000	1.272	07	2.000	1.028	06	5.000	1.132
05	20.000	1.269	04	50.000	1.275	03	100.000	1.252	02	150.000	1.237
01	200.000	1.269									

1,2,4-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.287	08	1.000	1.196	07	2.000	1.137	06	5.000	1.158
05	20.000	1.324	04	50.000	1.352	03	100.000	1.282	02	150.000	1.287
01	200.000	1.338									

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	1.000	0.1446	07	2.000	0.1509	06	5.000	0.1445	05	20.000	0.1846
04	50.000	0.2074	03	100.000	0.236	02	150.000	0.2172	01	200.000	0.2275

1,2-Dibromoethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3424	08	1.000	0.3533	07	2.000	0.3191	06	5.000	0.397
05	20.000	0.4091	04	50.000	0.3993	03	100.000	0.4178	02	150.000	0.4017
01	200.000	0.4147									

1,2-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	2.019	08	1.000	1.536	07	2.000	1.744	06	5.000	1.657
05	20.000	1.766	04	50.000	1.739	03	100.000	1.7	02	150.000	1.665
01	200.000	1.709									

1,2-Dichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4154	08	1.000	0.5078	07	2.000	0.5278	06	5.000	0.5036
05	20.000	0.5264	04	50.000	0.5104	03	100.000	0.5172	02	150.000	0.5012
01	200.000	0.5104									

1,2-Dichloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4109	08	1.000	0.3537	07	2.000	0.3502	06	5.000	0.3977
05	20.000	0.3756	04	50.000	0.386	03	100.000	0.3957	02	150.000	0.3876
01	200.000	0.3923									

1,3-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.799	08	1.000	1.725	07	2.000	1.646	06	5.000	1.595
05	20.000	1.798	04	50.000	1.752	03	100.000	1.717	02	150.000	1.669
01	200.000	1.719									

Client: The LiRo Group **Service Request:** R1801238
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Analyte

1,4-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	2.058	08	1.000	1.859	07	2.000	1.802	06	5.000	1.713
05	20.000	1.792	04	50.000	1.815	03	100.000	1.748	02	150.000	1.709
01	200.000	1.754									

1,4-Dioxane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	10.000	0.004831	08	20.000	0.006564	07	40.000	0.005032	06	100.000	0.006197
05	400.000	0.006337	04	1000.000	0.006472	03	2000.000	0.006996	02	3000.000	0.006502
01	4000.000	0.00629									

2-Butanone (MEK)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	5.000	0.3497	05	20.000	0.3423	04	50.000	0.3543	03	100.000	0.3845
02	150.000	0.358	01	200.000	0.3433						

2-Hexanone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	5.000	0.325	05	20.000	0.3466	04	50.000	0.3561	03	100.000	0.4028
02	150.000	0.3757	01	200.000	0.3667						

4-Methyl-2-pentanone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	2.000	0.3419	06	5.000	0.3848	05	20.000	0.4177	04	50.000	0.4329
03	100.000	0.4772	02	150.000	0.449	01	200.000	0.4422			

Acetone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	5.000	0.2637	05	20.000	0.2609	04	50.000	0.2601	03	100.000	0.2799
02	150.000	0.2572	01	200.000	0.2438						

Benzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.513	08	1.000	1.545	07	2.000	1.372	06	5.000	1.454
05	20.000	1.478	04	50.000	1.486	03	100.000	1.463	02	150.000	1.414
01	200.000	1.441									

Bromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.329	08	1.000	0.4069	07	2.000	0.3282	06	5.000	0.3644
05	20.000	0.3766	04	50.000	0.375	03	100.000	0.3785	02	150.000	0.3688
01	200.000	0.3764									

Bromodichloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4721	08	1.000	0.409	07	2.000	0.3867	06	5.000	0.4168
05	20.000	0.4333	04	50.000	0.4595	03	100.000	0.461	02	150.000	0.4518
01	200.000	0.4689									

Client: The LiRo Group **Service Request:** R1801238
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Analyte

Bromoform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.1757	08	1.000	0.1789	07	2.000	0.1766	06	5.000	0.203
05	20.000	0.2309	04	50.000	0.2667	03	100.000	0.2884	02	150.000	0.2846
01	200.000	0.3041									

Bromomethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.9922	08	1.000	0.818	07	2.000	0.7005	06	5.000	0.6295
05	20.000	0.5619	04	50.000	0.539	03	100.000	0.4654	02	150.000	0.3949

Carbon Disulfide

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.411	08	1.000	1.294	07	2.000	1.269	06	5.000	1.195
05	20.000	1.378	04	50.000	1.387	03	100.000	1.432	02	150.000	1.456
01	200.000	1.5									

Carbon Tetrachloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.337	08	1.000	0.3093	07	2.000	0.323	06	5.000	0.2914
05	20.000	0.3515	04	50.000	0.388	03	100.000	0.3935	02	150.000	0.3969
01	200.000	0.4219									

Chlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.161	08	1.000	1.107	07	2.000	1.166	06	5.000	1.174
05	20.000	1.185	04	50.000	1.169	03	100.000	1.157	02	150.000	1.147
01	200.000	1.181									

Chloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4358	08	1.000	0.5529	07	2.000	0.4798	06	5.000	0.4365
05	20.000	0.4828	04	50.000	0.4796	03	100.000	0.4638	02	150.000	0.4489
01	200.000	0.4502									

Chloroform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.039	08	1.000	0.8949	07	2.000	0.8883	06	5.000	0.9035
05	20.000	0.9118	04	50.000	0.9432	03	100.000	0.9314	02	150.000	0.9058
01	200.000	0.9144									

Chloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.9296	08	1.000	0.7982	07	2.000	0.7517	06	5.000	0.7771
05	20.000	0.8136	04	50.000	0.7919	03	100.000	0.761	02	150.000	0.737
01	200.000	0.7479									

Client: The LiRo Group
Project: Buffalo China

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Analyte

Cyclohexane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3882	08	1.000	0.3516	07	2.000	0.3507	06	5.000	0.3388
05	20.000	0.3514	04	50.000	0.3465	03	100.000	0.3399	02	150.000	0.3539
01	200.000	0.3555									

Dibromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3487	08	1.000	0.2661	07	2.000	0.3103	06	5.000	0.344
05	20.000	0.368	04	50.000	0.3854	03	100.000	0.4103	02	150.000	0.408
01	200.000	0.4282									

Dichlorodifluoromethane (CFC 12)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6682	08	1.000	0.6693	07	2.000	0.6474	06	5.000	0.7463
05	20.000	0.7576	04	50.000	0.7635	03	100.000	0.7327	02	150.000	0.7314
01	200.000	0.7351									

Dichloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5975	08	1.000	0.5446	07	2.000	0.5329	06	5.000	0.5774
05	20.000	0.549	04	50.000	0.5589	03	100.000	0.5492	02	150.000	0.5324
01	200.000	0.5441									

Ethylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6389	08	1.000	0.5387	07	2.000	0.5949	06	5.000	0.536
05	20.000	0.6335	04	50.000	0.622	03	100.000	0.6177	02	150.000	0.6154
01	200.000	0.6369									

Isopropylbenzene (Cumene)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.832	08	1.000	1.796	07	2.000	1.707	06	5.000	1.64
05	20.000	1.983	04	50.000	1.999	03	100.000	1.968	02	150.000	1.971
01	200.000	2.017									

Methyl Acetate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5879	08	1.000	0.4999	07	2.000	0.506	06	5.000	0.498
05	20.000	0.5178	04	50.000	0.5307	03	100.000	0.5528	02	150.000	0.5259
01	200.000	0.5164									

Methyl tert-Butyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.446	08	1.000	1.459	07	2.000	1.487	06	5.000	1.457
05	20.000	1.53	04	50.000	1.596	03	100.000	1.658	02	150.000	1.621
01	200.000	1.651									

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Analyte

Methylcyclohexane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4223	08	1.000	0.5032	07	2.000	0.4369	06	5.000	0.4814
05	20.000	0.4619	04	50.000	0.4765	03	100.000	0.4601	02	150.000	0.4928
01	200.000	0.4908									

Styrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.083	08	1.000	1.183	07	2.000	1.063	06	5.000	1.101
05	20.000	1.269	04	50.000	1.287	03	100.000	1.304	02	150.000	1.297
01	200.000	1.339									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3886	08	1.000	0.3599	07	2.000	0.324	06	5.000	0.3212
05	20.000	0.3545	04	50.000	0.3534	03	100.000	0.3407	02	150.000	0.3412
01	200.000	0.358									

Toluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.559	08	1.000	1.568	07	2.000	1.444	06	5.000	1.476
05	20.000	1.6	04	50.000	1.61	03	100.000	1.609	02	150.000	1.569
01	200.000	1.591									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4842	08	1.000	0.4101	07	2.000	0.3721	06	5.000	0.3704
05	20.000	0.4006	04	50.000	0.3907	03	100.000	0.3794	02	150.000	0.3653
01	200.000	0.385									

Trichlorofluoromethane (CFC 11)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.982	08	1.000	0.8872	07	2.000	0.7849	06	5.000	0.8319
05	20.000	0.8453	04	50.000	0.8628	03	100.000	0.8059	02	150.000	0.7954
01	200.000	0.8162									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6489	08	1.000	0.766	07	2.000	0.7012	06	5.000	0.698
05	20.000	0.811	04	50.000	0.7924	03	100.000	0.7697	02	150.000	0.7507
01	200.000	0.761									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.625	08	1.000	0.5977	07	2.000	0.5128	06	5.000	0.5748
05	20.000	0.6001	04	50.000	0.608	03	100.000	0.6039	02	150.000	0.58
01	200.000	0.5945									

Client: The LiRo Group **Service Request:** R1801238
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Analyte

cis-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4171	08	1.000	0.4191	07	2.000	0.4435	06	5.000	0.4732
05	20.000	0.5009	04	50.000	0.552	03	100.000	0.5842	02	150.000	0.5846
01	200.000	0.6084									

m,p-Xylenes

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	1.000	0.7218	08	2.000	0.6857	07	4.000	0.6679	06	10.000	0.6887
05	40.000	0.7843	04	100.000	0.7861	03	200.000	0.7759	02	300.000	0.7671
01	400.000	0.7964									

o-Xylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6421	08	1.000	0.6646	07	2.000	0.6457	06	5.000	0.6499
05	20.000	0.7508	04	50.000	0.7599	03	100.000	0.7553	02	150.000	0.7563
01	200.000	0.7812									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6545	08	1.000	0.5452	07	2.000	0.4904	06	5.000	0.5148
05	20.000	0.5274	04	50.000	0.5355	03	100.000	0.5319	02	150.000	0.5191
01	200.000	0.5333									

trans-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3511	08	1.000	0.288	07	2.000	0.2966	06	5.000	0.3363
05	20.000	0.3873	04	50.000	0.456	03	100.000	0.5023	02	150.000	0.5043
01	200.000	0.5372									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.501	05	20.000	0.4395	04	50.000	0.474	03	100.000	0.4702
02	200.000	0.45									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.3393	05	20.000	0.286	04	50.000	0.3135	03	100.000	0.3032
02	200.000	0.2876									

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	1.337	05	20.000	1.149	04	50.000	1.22	03	100.000	1.196
02	200.000	1.126									

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Project: Buffalo China

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Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023
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Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
1,1,1-Trichloroethane (TCA)	TRG	Average RF	% RSD	7.7	≤20	0.687	0.100
1,1,2,2-Tetrachloroethane	TRG	Average RF	% RSD	5.2	≤20	1.02	0.300
1,1,2-Trichloroethane	TRG	Average RF	% RSD	4.9	≤20	0.3401	0.100
1,1,2-Trichloro-1,2,2-trifluoroethane	TRG	Average RF	% RSD	8.6	≤20	0.5348	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	4.4	≤20	0.9576	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	6.5	≤20	0.4896	0.100
1,2,3-Trichlorobenzene	TRG	Average RF	% RSD	6.9	≤20	1.216	
1,2,4-Trichlorobenzene	TRG	Average RF	% RSD	6.3	≤20	1.262	0.200
1,2-Dibromo-3-chloropropane (DBCP)	TRG	Quadratic	COD	0.9919	≥0.99	0.1891	0.050
1,2-Dibromoethane	TRG	Average RF	% RSD	9.4	≤20	0.3838	0.100
1,2-Dichlorobenzene	TRG	Average RF	% RSD	7.5	≤20	1.726	0.400
1,2-Dichloroethane	TRG	Average RF	% RSD	6.7	≤20	0.5022	0.100
1,2-Dichloropropane	TRG	Average RF	% RSD	5.3	≤20	0.3833	0.100
1,3-Dichlorobenzene	TRG	Average RF	% RSD	4.0	≤20	1.713	0.600
1,4-Dichlorobenzene	TRG	Average RF	% RSD	5.9	≤20	1.806	0.500
1,4-Dioxane	TRG	Average RF	% RSD	11.7	≤20	0.006136	
2-Butanone (MEK)	TRG	Average RF	% RSD	4.4	≤20	0.3554	0.05
2-Hexanone	TRG	Average RF	% RSD	7.3	≤20	0.3622	0.05
4-Methyl-2-pentanone	TRG	Average RF	% RSD	10.7	≤20	0.4208	0.05
Acetone	TRG	Average RF	% RSD	4.5	≤20	0.2609	0.05
Benzene	TRG	Average RF	% RSD	3.5	≤20	1.463	0.500
Bromochloromethane	TRG	Average RF	% RSD	6.8	≤20	0.3671	
Bromodichloromethane	TRG	Average RF	% RSD	6.8	≤20	0.4399	0.200
Bromoform	TRG	Quadratic	COD	0.9960	≥0.99	0.2343	0.100
Bromomethane	TRG	Quadratic	COD	0.9999	≥0.99	0.6377	0.100
Carbon Disulfide	TRG	Average RF	% RSD	7.2	≤20	1.369	0.100
Carbon Tetrachloride	TRG	Average RF	% RSD	12.6	≤20	0.357	0.05
Chlorobenzene	TRG	Average RF	% RSD	2.0	≤20	1.161	0.500
Chloroethane	TRG	Average RF	% RSD	7.7	≤20	0.47	0.100
Chloroform	TRG	Average RF	% RSD	5.0	≤20	0.9259	0.200
Chloromethane	TRG	Average RF	% RSD	7.4	≤20	0.7898	0.100
Cyclohexane	TRG	Average RF	% RSD	4.1	≤20	0.3529	0.100
Dibromochloromethane	TRG	Average RF	% RSD	14.4	≤20	0.3632	0.100
Dichlorodifluoromethane (CFC 12)	TRG	Average RF	% RSD	6.0	≤20	0.7168	0.100

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Dichloromethane	TRG	Average RF	% RSD	3.8	≤20	0.554	0.100
Ethylbenzene	TRG	Average RF	% RSD	6.6	≤20	0.6038	0.100
Isopropylbenzene (Cumene)	TRG	Average RF	% RSD	7.4	≤20	1.879	0.100
Methyl Acetate	TRG	Average RF	% RSD	5.5	≤20	0.5262	0.100
Methyl tert-Butyl Ether	TRG	Average RF	% RSD	5.6	≤20	1.545	0.100
Methylcyclohexane	TRG	Average RF	% RSD	5.7	≤20	0.4695	0.100
Styrene	TRG	Average RF	% RSD	8.9	≤20	1.214	0.300
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	5.9	≤20	0.349	0.200
Toluene	TRG	Average RF	% RSD	3.8	≤20	1.559	0.400
Trichloroethene (TCE)	TRG	Average RF	% RSD	9.2	≤20	0.3953	0.200
Trichlorofluoromethane (CFC 11)	TRG	Average RF	% RSD	7.2	≤20	0.8457	0.100
Vinyl Chloride	TRG	Average RF	% RSD	6.9	≤20	0.7443	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	5.4	≤20	0.5885	0.100
cis-1,3-Dichloropropene	TRG	Average RF	% RSD	14.8	≤20	0.5092	0.200
m,p-Xylenes	TRG	Average RF	% RSD	6.8	≤20	0.7415	0.100
o-Xylene	TRG	Average RF	% RSD	8.3	≤20	0.7117	0.300
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	8.5	≤20	0.5391	0.100
trans-1,3-Dichloropropene	TRG	Quadratic	COD	0.9943	≥0.99	0.4066	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	5.1	≤20	0.4669	
Dibromofluoromethane	SURR	Average RF	% RSD	7.1	≤20	0.3059	
Toluene-d8	SURR	Average RF	% RSD	6.8	≤20	1.206	

ALS Group USA, Corp.
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QA/QC Report

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Aquisition Date
10	RC1800023-10	ICV	I:\ACQUDATA\msvoa10\data\021218\D1393.D	02/12/2018 19:04

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.9	6.87E-1	6.859E-1	-0.165	±30	Average RF
1,1,2,2-Tetrachloroethane	50.0	47.5	1.02E0	9.681E-1	-5.065	±30	Average RF
1,1,2-Trichloroethane	50.0	49.2	3.401E-1	3.344E-1	-1.694	±30	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	44.5	5.348E-1	4.756E-1	-11.068	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	47.9	9.576E-1	9.178E-1	-4.148	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	46.3	4.896E-1	4.537E-1	-7.338	±30	Average RF
1,2,3-Trichlorobenzene	50.0	49.3	1.216E0	1.199E0	-1.454	±30	Average RF
1,2,4-Trichlorobenzene	50.0	49.4	1.262E0	1.246E0	-1.299	±30	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	48.8	1.891E-1	1.878E-1	-2.390	±30	Quadratic
1,2-Dibromoethane	50.0	49.6	3.838E-1	3.804E-1	-0.897	±30	Average RF
1,2-Dichlorobenzene	50.0	48.5	1.726E0	1.674E0	-3.033	±30	Average RF
1,2-Dichloroethane	50.0	49.5	5.022E-1	4.97E-1	-1.050	±30	Average RF
1,2-Dichloropropane	50.0	48.3	3.833E-1	3.706E-1	-3.307	±30	Average RF
1,3-Dichlorobenzene	50.0	49.0	1.713E0	1.677E0	-2.097	±30	Average RF
1,4-Dichlorobenzene	50.0	47.3	1.806E0	1.708E0	-5.430	±30	Average RF
1,4-Dioxane	1000	945	6.136E-3	5.798E-3	-5.495	±30	Average RF
2-Butanone (MEK)	50.0	43.9	3.554E-1	3.122E-1	-12.133	±30	Average RF
2-Hexanone	50.0	43.5	3.622E-1	3.148E-1	-13.074	±30	Average RF
4-Methyl-2-pentanone	50.0	45.6	4.208E-1	3.836E-1	-8.833	±30	Average RF
Acetone	50.0	45.0	2.609E-1	2.348E-1	-9.997	±30	Average RF
Benzene	50.0	48.3	1.463E0	1.414E0	-3.335	±30	Average RF
Bromochloromethane	50.0	47.4	3.671E-1	3.482E-1	-5.132	±30	Average RF
Bromodichloromethane	50.0	49.8	4.399E-1	4.385E-1	-0.329	±30	Average RF
Bromoform	50.0	50.4	2.343E-1	2.427E-1	0.785	±30	Quadratic
Bromomethane	50.0	47.7	6.377E-1	5.111E-1	-4.628	±30	Quadratic
Carbon Disulfide	50.0	48.4	1.369E0	1.324E0	-3.249	±30	Average RF
Carbon Tetrachloride	50.0	51.2	3.57E-1	3.658E-1	2.48	±30	Average RF
Chlorobenzene	50.0	48.2	1.161E0	1.12E0	-3.528	±30	Average RF
Chloroethane	50.0	44.6	4.7E-1	4.196E-1	-10.730	±30	Average RF
Chloroform	50.0	47.8	9.259E-1	8.858E-1	-4.331	±30	Average RF
Chloromethane	50.0	44.2	7.898E-1	6.985E-1	-11.560	±30	Average RF
Cyclohexane	50.0	47.8	3.529E-1	3.372E-1	-4.454	±30	Average RF
Dibromochloromethane	50.0	50.5	3.632E-1	3.667E-1	0.951	±30	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	44.1	7.168E-1	6.321E-1	-11.823	±30	Average RF
Dichloromethane	50.0	46.7	5.54E-1	5.169E-1	-6.693	±30	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: The LiRo Group **Service Request:** R1801238
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Aquisition Date
10	RC1800023-10	ICV	I:\ACQUDATA\msvoa10\data\021218\D1393.D	02/12/2018 19:04

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Ethylbenzene	50.0	49.2	6.038E-1	5.941E-1	-1.604	±30	Average RF
Isopropylbenzene (Cumene)	50.0	49.5	1.879E0	1.861E0	-0.966	±30	Average RF
Methyl Acetate	50.0	44.7	5.262E-1	4.708E-1	-10.513	±30	Average RF
Methyl tert-Butyl Ether	50.0	47.3	1.545E0	1.46E0	-5.475	±30	Average RF
Methylcyclohexane	50.0	50.2	4.695E-1	4.718E-1	0.470	±30	Average RF
Styrene	50.0	50.4	1.214E0	1.224E0	0.860	±30	Average RF
Tetrachloroethene (PCE)	50.0	48.5	3.49E-1	3.388E-1	-2.925	±30	Average RF
Toluene	50.0	48.9	1.559E0	1.525E0	-2.129	±30	Average RF
Trichloroethene (TCE)	50.0	46.7	3.953E-1	3.695E-1	-6.523	±30	Average RF
Trichlorofluoromethane (CFC 11)	50.0	49.2	8.457E-1	8.324E-1	-1.574	±30	Average RF
Vinyl Chloride	50.0	47.7	7.443E-1	7.102E-1	-4.590	±30	Average RF
cis-1,2-Dichloroethene	50.0	48.3	5.885E-1	5.682E-1	-3.448	±30	Average RF
cis-1,3-Dichloropropene	50.0	52.8	5.092E-1	5.379E-1	5.62	±30	Average RF
m,p-Xylenes	100	99.0	7.415E-1	7.343E-1	-0.971	±30	Average RF
o-Xylene	50.0	50.4	7.117E-1	7.171E-1	0.756	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.0	5.391E-1	5.063E-1	-6.086	±30	Average RF
trans-1,3-Dichloropropene	50.0	54.2	4.066E-1	4.43E-1	8.37	±30	Quadratic
4-Bromofluorobenzene	50.0	49.2	4.669E-1	4.593E-1	-1.638	±30	Average RF
Dibromofluoromethane	50.0	48.8	3.059E-1	2.989E-1	-2.303	±30	Average RF
Toluene-d8	50.0	49.7	1.206E0	1.199E0	-0.565	±30	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801238
Date Analyzed: 02/15/18 09:51

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\021518\D1414.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 580347
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	50.8	0.687	0.6982	1.6	NA	±20	Average RF
1,1,2,2-Tetrachloroethane	50.0	47.1	1.0198	0.961	-5.8	NA	±20	Average RF
1,1,2-Trichloroethane	50.0	49.2	0.3401	0.335	-1.5	NA	±20	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.8	0.5348	0.5219	-2.4	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	49.0	0.9576	0.9383	-2.0	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	48.4	0.4896	0.4743	-3.1	NA	±20	Average RF
1,2,3-Trichlorobenzene	50.0	49.5	1.2165	1.2041	-1.0	NA	±20	Average RF
1,2,4-Trichlorobenzene	50.0	50.4	1.2625	1.2723	0.8	NA	±20	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	49.2	0.1891	0.1895	NA	-1.6	±20	Quadratic
1,2-Dibromoethane	50.0	50.0	0.3838	0.3837	0.0	NA	±20	Average RF
1,2-Dichlorobenzene	50.0	48.0	1.726	1.6562	-4.0	NA	±20	Average RF
1,2-Dichloroethane	50.0	49.8	0.5022	0.5002	-0.4	NA	±20	Average RF
1,2-Dichloropropane	50.0	49.8	0.3833	0.3821	-0.3	NA	±20	Average RF
1,3-Dichlorobenzene	50.0	49.6	1.7133	1.698	-0.9	NA	±20	Average RF
1,4-Dichlorobenzene	50.0	48.0	1.8057	1.7329	-4.0	NA	±20	Average RF
1,4-Dioxane	1000	933	0.0061	0.0057	-6.7	NA	±20	Average RF
2-Butanone (MEK)	50.0	45.2	0.3554	0.3211	-9.7	NA	±20	Average RF
2-Hexanone	50.0	43.7	0.3622	0.3166	-12.6	NA	±20	Average RF
4-Methyl-2-pentanone	50.0	47.9	0.4208	0.4027	-4.3	NA	±20	Average RF
Acetone	50.0	47.3	0.2609	0.2467	-5.5	NA	±20	Average RF
Benzene	50.0	49.1	1.4629	1.4363	-1.8	NA	±20	Average RF
Bromochloromethane	50.0	48.0	0.3671	0.3523	-4.0	NA	±20	Average RF
Bromodichloromethane	50.0	50.5	0.4399	0.4447	1.1	NA	±20	Average RF
Bromoform	50.0	51.9	0.2343	0.2507	NA	3.8	±20	Quadratic
Bromomethane	50.0	48.4	0.6377	0.5178	NA	-3.2	±20	Quadratic
Carbon Disulfide	50.0	51.4	1.369	1.4058	2.7	NA	±20	Average RF
Carbon Tetrachloride	50.0	52.8	0.357	0.3769	5.6	NA	±20	Average RF
Chlorobenzene	50.0	48.7	1.1607	1.1294	-2.7	NA	±20	Average RF
Chloroethane	50.0	49.5	0.47	0.4656	-1.0	NA	±20	Average RF
Chloroform	50.0	48.9	0.9259	0.9047	-2.3	NA	±20	Average RF
Chloromethane	50.0	47.3	0.7898	0.7476	-5.3	NA	±20	Average RF
Cyclohexane	50.0	51.6	0.3529	0.3645	3.3	NA	±20	Average RF
Dibromochloromethane	50.0	51.1	0.3632	0.3714	2.3	NA	±20	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	49.4	0.7168	0.7081	-1.2	NA	±20	Average RF
Dichloromethane	50.0	48.7	0.554	0.539	-2.7	NA	±20	Average RF
Ethylbenzene	50.0	50.3	0.6038	0.6069	0.5	NA	±20	Average RF
Isopropylbenzene (Cumene)	50.0	51.4	1.8791	1.9315	2.8	NA	±20	Average RF
Methyl Acetate	50.0	47.6	0.5262	0.5008	-4.8	NA	±20	Average RF
Methyl tert-Butyl Ether	50.0	47.7	1.5451	1.4732	-4.7	NA	±20	Average RF
Methylcyclohexane	50.0	52.3	0.4695	0.4915	4.7	NA	±20	Average RF
Styrene	50.0	51.3	1.2141	1.2446	2.5	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	49.6	0.349	0.346	-0.9	NA	±20	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801238
Date Analyzed: 02/15/18 09:51

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\021518\D1414.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 580347
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Toluene	50.0	50.2	1.5586	1.5635	0.3	NA	±20	Average RF
Trichloroethene (TCE)	50.0	47.5	0.3953	0.3751	-5.1	NA	±20	Average RF
Trichlorofluoromethane (CFC 11)	50.0	49.2	0.8457	0.8322	-1.6	NA	±20	Average RF
Vinyl Chloride	50.0	50.0	0.7443	0.7445	0.0	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	48.0	0.5885	0.5652	-4.0	NA	±20	Average RF
cis-1,3-Dichloropropene	50.0	53.4	0.5092	0.5435	6.7	NA	±20	Average RF
m,p-Xylenes	100	102	0.7415	0.756	2.0	NA	±20	Average RF
o-Xylene	50.0	51.4	0.7117	0.732	2.8	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	48.0	0.5391	0.5179	-3.9	NA	±20	Average RF
trans-1,3-Dichloropropene	50.0	53.8	0.4066	0.4397	NA	7.7	±20	Quadratic
4-Bromofluorobenzene	50.0	51.4	0.4669	0.48	2.8	NA	±20	Average RF
Dibromofluoromethane	50.0	50.2	0.3059	0.3073	0.4	NA	±20	Average RF
Toluene-d8	50.0	51.5	1.2055	1.2417	3.0	NA	±20	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801238
Date Analyzed: 02/16/18 09:46

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\021618\D1445.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 580610
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.6	0.687	0.6808	-0.9	NA	±20	Average RF
1,1,2,2-Tetrachloroethane	50.0	47.9	1.0198	0.9773	-4.2	NA	±20	Average RF
1,1,2-Trichloroethane	50.0	49.6	0.3401	0.3371	-0.9	NA	±20	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.7	0.5348	0.5206	-2.6	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	48.9	0.9576	0.9367	-2.2	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	48.8	0.4896	0.4774	-2.5	NA	±20	Average RF
1,2,3-Trichlorobenzene	50.0	48.1	1.2165	1.1705	-3.8	NA	±20	Average RF
1,2,4-Trichlorobenzene	50.0	49.1	1.2625	1.2403	-1.8	NA	±20	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	48.6	0.1891	0.1868	NA	-2.9	±20	Quadratic
1,2-Dibromoethane	50.0	50.5	0.3838	0.3878	1.0	NA	±20	Average RF
1,2-Dichlorobenzene	50.0	46.9	1.726	1.6184	-6.2	NA	±20	Average RF
1,2-Dichloroethane	50.0	50.7	0.5022	0.5091	1.4	NA	±20	Average RF
1,2-Dichloropropane	50.0	48.6	0.3833	0.3725	-2.8	NA	±20	Average RF
1,3-Dichlorobenzene	50.0	48.1	1.7133	1.6481	-3.8	NA	±20	Average RF
1,4-Dichlorobenzene	50.0	46.2	1.8057	1.6675	-7.6	NA	±20	Average RF
1,4-Dioxane	1000	957	0.0061	0.0059	-4.3	NA	±20	Average RF
2-Butanone (MEK)	50.0	47.1	0.3554	0.335	-5.7	NA	±20	Average RF
2-Hexanone	50.0	46.7	0.3622	0.3385	-6.5	NA	±20	Average RF
4-Methyl-2-pentanone	50.0	49.3	0.4208	0.4147	-1.5	NA	±20	Average RF
Acetone	50.0	46.4	0.2609	0.2423	-7.1	NA	±20	Average RF
Benzene	50.0	48.6	1.4629	1.4224	-2.8	NA	±20	Average RF
Bromochloromethane	50.0	48.2	0.3671	0.3539	-3.6	NA	±20	Average RF
Bromodichloromethane	50.0	47.9	0.4399	0.4218	-4.1	NA	±20	Average RF
Bromoform	50.0	49.6	0.2343	0.2383	NA	-0.9	±20	Quadratic
Bromomethane	50.0	42.3	0.6377	0.46	NA	-15.4	±20	Quadratic
Carbon Disulfide	50.0	49.3	1.369	1.3488	-1.5	NA	±20	Average RF
Carbon Tetrachloride	50.0	49.8	0.357	0.3555	-0.4	NA	±20	Average RF
Chlorobenzene	50.0	48.6	1.1607	1.1279	-2.8	NA	±20	Average RF
Chloroethane	50.0	48.8	0.47	0.4585	-2.4	NA	±20	Average RF
Chloroform	50.0	48.0	0.9259	0.8896	-3.9	NA	±20	Average RF
Chloromethane	50.0	46.8	0.7898	0.7394	-6.4	NA	±20	Average RF
Cyclohexane	50.0	51.2	0.3529	0.3612	2.3	NA	±20	Average RF
Dibromochloromethane	50.0	49.8	0.3632	0.3615	-0.5	NA	±20	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	49.5	0.7168	0.7092	-1.1	NA	±20	Average RF
Dichloromethane	50.0	46.8	0.554	0.5182	-6.5	NA	±20	Average RF
Ethylbenzene	50.0	50.5	0.6038	0.6095	0.9	NA	±20	Average RF
Isopropylbenzene (Cumene)	50.0	51.1	1.8791	1.9185	2.1	NA	±20	Average RF
Methyl Acetate	50.0	50.1	0.5262	0.527	0.2	NA	±20	Average RF
Methyl tert-Butyl Ether	50.0	48.1	1.5451	1.4848	-3.9	NA	±20	Average RF
Methylcyclohexane	50.0	52.2	0.4695	0.4902	4.4	NA	±20	Average RF
Styrene	50.0	51.3	1.2141	1.245	2.5	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	46.7	0.349	0.3259	-6.6	NA	±20	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801238
Date Analyzed: 02/16/18 09:46

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\021618\D1445.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 580610
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Toluene	50.0	50.1	1.5586	1.5622	0.2	NA	±20	Average RF
Trichloroethene (TCE)	50.0	45.4	0.3953	0.3587	-9.3	NA	±20	Average RF
Trichlorofluoromethane (CFC 11)	50.0	47.6	0.8457	0.8057	-4.7	NA	±20	Average RF
Vinyl Chloride	50.0	50.7	0.7443	0.754	1.3	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	48.1	0.5885	0.5657	-3.9	NA	±20	Average RF
cis-1,3-Dichloropropene	50.0	52.6	0.5092	0.5358	5.2	NA	±20	Average RF
m,p-Xylenes	100	102	0.7415	0.7533	1.6	NA	±20	Average RF
o-Xylene	50.0	50.8	0.7117	0.7235	1.7	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	46.8	0.5391	0.5044	-6.4	NA	±20	Average RF
trans-1,3-Dichloropropene	50.0	53.3	0.4066	0.4344	NA	6.5	±20	Quadratic
4-Bromofluorobenzene	50.0	50.2	0.4669	0.4683	0.3	NA	±20	Average RF
Dibromofluoromethane	50.0	50.1	0.3059	0.3064	0.2	NA	±20	Average RF
Toluene-d8	50.0	50.7	1.2055	1.2231	1.5	NA	±20	Average RF

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C **Analysis Lot:**580347
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\021518\D1413.D\	ZZZZZZZ	ZZZZZZZ	2/15/2018	08:59:00	
I:\ACQUDATA\msvoa10\data\021518\D1414.D\	Continuing Calibration Verification	RQ1801454-02	2/15/2018	09:51:00	
I:\ACQUDATA\msvoa10\data\021518\D1416.D\	Lab Control Sample	RQ1801454-03	2/15/2018	10:54:00	
I:\ACQUDATA\msvoa10\data\021518\D1418.D\	Method Blank	RQ1801454-04	2/15/2018	11:42:00	
I:\ACQUDATA\msvoa10\data\021518\D1419.D\	TRIP BLANK	R1801238-017	2/15/2018	12:04:00	
I:\ACQUDATA\msvoa10\data\021518\D1421.D\	MW-8	R1801238-002	2/15/2018	13:20:00	
I:\ACQUDATA\msvoa10\data\021518\D1422.D\	MW-9	R1801238-001	2/15/2018	13:42:00	
I:\ACQUDATA\msvoa10\data\021518\D1423.D\	MW-9A	R1801238-004	2/15/2018	14:04:00	
I:\ACQUDATA\msvoa10\data\021518\D1424.D\	MW-26	R1801238-005	2/15/2018	14:25:00	
I:\ACQUDATA\msvoa10\data\021518\D1425.D\	MW-8A	R1801238-003	2/15/2018	14:47:00	
I:\ACQUDATA\msvoa10\data\021518\D1426.D\	MW-26A	R1801238-006	2/15/2018	15:08:00	
I:\ACQUDATA\msvoa10\data\021518\D1427.D\	MW-21A	R1801238-007	2/15/2018	15:30:00	
I:\ACQUDATA\msvoa10\data\021518\D1428.D\	DUPLICATE-01	R1801238-008	2/15/2018	15:52:00	
I:\ACQUDATA\msvoa10\data\021518\D1430.D\	MW-5R	R1801238-009	2/15/2018	16:41:00	
I:\ACQUDATA\msvoa10\data\021518\D1432.D\	MW-7	R1801238-015	2/15/2018	17:25:00	
I:\ACQUDATA\msvoa10\data\021518\D1433.D\	MW-19R	R1801238-016	2/15/2018	17:47:00	
I:\ACQUDATA\msvoa10\data\021518\D1434.D\	MW-7A	R1801238-014	2/15/2018	18:08:00	
I:\ACQUDATA\msvoa10\data\021518\D1435.D\	MW-6	R1801238-013	2/15/2018	18:30:00	
I:\ACQUDATA\msvoa10\data\021518\D1437.D\	MW-5AR	R1801238-010	2/15/2018	19:14:00	
I:\ACQUDATA\msvoa10\data\021518\D1438.D\	MW-13A	R1801238-011	2/15/2018	19:35:00	
I:\ACQUDATA\msvoa10\data\021518\D1440.D\	MW-8A MS	RQ1801454-05	2/15/2018	20:19:00	
I:\ACQUDATA\msvoa10\data\021518\D1441.D\	MW-8A DMS	RQ1801454-06	2/15/2018	20:41:00	
I:\ACQUDATA\msvoa10\data\021618\D1444.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	09:04:00	

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C **Analysis Lot:**580347
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\021618\D1449.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	11:40:00	
I:\ACQUDATA\msvoa10\data\021618\D1450.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	12:01:00	
I:\ACQUDATA\msvoa10\data\021618\D1455.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	13:58:00	
I:\ACQUDATA\msvoa10\data\021618\D1456.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	14:20:00	
I:\ACQUDATA\msvoa10\data\021618\D1457.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	14:42:00	
I:\ACQUDATA\msvoa10\data\021618\D1458.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	15:03:00	
I:\ACQUDATA\msvoa10\data\021618\D1459.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	15:25:00	
I:\ACQUDATA\msvoa10\data\021618\D1460.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	15:47:00	
I:\ACQUDATA\msvoa10\data\021618\D1461.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	16:09:00	
I:\ACQUDATA\msvoa10\data\021618\D1462.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	16:30:00	
I:\ACQUDATA\msvoa10\data\021618\D1463.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	16:52:00	
I:\ACQUDATA\msvoa10\data\021618\D1464.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	17:14:00	
I:\ACQUDATA\msvoa10\data\021618\D1465.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	17:36:00	
I:\ACQUDATA\msvoa10\data\021618\D1466.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	17:57:00	
I:\ACQUDATA\msvoa10\data\021618\D1467.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	18:19:00	
I:\ACQUDATA\msvoa10\data\021618\D1468.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	18:41:00	
I:\ACQUDATA\msvoa10\data\021618\D1469.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	19:03:00	
I:\ACQUDATA\msvoa10\data\021618\D1470.D\	ZZZZZZZ	ZZZZZZZ	2/16/2018	19:24:00	

Client: The LiRo Group **Service Request:**R1801238
Project: Buffalo China/16-344-1389

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C **Analysis Lot:**580610
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\021518\D1435.D\	MW-6	R1801238-013	2/15/2018	18:30:00	
I:\ACQUDATA\msvoa10\data\021518\D1437.D\	MW-5AR	R1801238-010	2/15/2018	19:14:00	
I:\ACQUDATA\msvoa10\data\021518\D1438.D\	MW-13A	R1801238-011	2/15/2018	19:35:00	
I:\ACQUDATA\msvoa10\data\021618\D1445.D\	Continuing Calibration Verification	RQ1801509-02	2/16/2018	09:46:00	
I:\ACQUDATA\msvoa10\data\021618\D1446.D\	Lab Control Sample	RQ1801509-03	2/16/2018	10:21:00	
I:\ACQUDATA\msvoa10\data\021618\D1448.D\	Method Blank	RQ1801509-04	2/16/2018	11:12:00	
I:\ACQUDATA\msvoa10\data\021618\D1451.D\	MW-20A	R1801238-012	2/16/2018	12:23:00	
I:\ACQUDATA\msvoa10\data\021618\D1452.D\	MW-5AR	R1801238-010	2/16/2018	12:45:00	
I:\ACQUDATA\msvoa10\data\021618\D1453.D\	MW-13A	R1801238-011	2/16/2018	13:07:00	
I:\ACQUDATA\msvoa10\data\021618\D1454.D\	MW-6	R1801238-013	2/16/2018	13:29:00	

Analysis: 8260C | Analyst: R. Lipsman | pH strips: Hyd. 206717 | Tune Method: W021218.M

Date: 02/15/18 | Balance ID: — | ResCl strips: — | Run Method: ↓

Instr. MS#10 | 50 mL Class A used for dilution FV | Syringes: 181117 | LIMS Run#: 580347

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	Blk							D1412	Y	
2	Tune Check		(Run as a Blk)					13	Y	
3	CCV							14	Y	
4	LCS							15	N	Atomx R.T. shift
5	LCS							16	Y	
6	Blk							17	N	— x-over
7	Met Blk							18	Y	
8	R1801238-017	1.0		8043	IV	2	<2	19	Y	
9	-001	1.0				2	<2	D1420	N	— Atomx R.T. shift
10	(RL) -002	1.0				2	<2	21	Y	
11	-001 ~~-003~~	1.0				2	<2	22	Y	
12	-004	1.0				2	<2	23	Y	
13	-005	1.0				1	<2	24	Y	
14	-003	1.0				2	<2	25	Y	
15	-006	1.0				1	<2	26	Y	
16	-007	1.0				1	<2	27	Y	
17	-008	1.0				1	<2	28	Y	
18	Blk			—	—	—	—	29	O.K.	
19	R1801238-009	1.0		8043	IV	1	<2	D1430	Y	
20	-012	1.0				1	<2	31	(N)	— prob TCE x-over >MDL rpt 1.0
21	-015	1.0				1	<2	32	Y	
22	-016	1.0				1	<2	33	Y	
23	-014	1.0				1	<2	34	Y	
24	-013	5.0	10mL/50mL			1	<2	35	(Y)	— rpt 1/25 or 1/50
25	Blk			—	—	—	—	36	O.K.	
26	R1801238-010	50	1.0mL/50mL	8043	IV	1	<2	37	(Y)	— rpt 1/250
27	-011	10	5.0mL/50mL			1	<2	38	(Y)	— rpt 1/50
28	Blk			—	—	—	—	39	O.K	
29	R1801238-003MS	1.0		8043	IV	2	<2	D1440	Y	MS/DMS 187713 4.2µl
30	-003DMS	1.0				3	<2	41	Y	187747 ↓ into full vials
31	Blk			—	—	—	—	42	O.K.	186658 ↓
32-36	High Gases + Blks			—	—	—	—	43-47	Y	187905 10.6µl sample

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Primary TG : 187973 2.0µl
Primary HSL : 187975 5 DL
Primary OCC : 186749
Primary Frt : 188036
Primary :

50mL DI = CCV.

Secondary TG : 187713 2.0µl
Secondary HSL : 187747 ↓
Secondary OCC : 186658 ↓
Secondary Frt : 187905 5.0µl
Secondary :

50mL DI = LCS.

Combined IS/Surr : —
Surrogate 50 : 187505
Internal Std 50 : 187504
Reagents:

Analysis: 8260C/624 Analyst: D. Lipari pH strips: Hyd-206717 Tune Method: W121218.M

Date: 02/16/18 Balance ID: — ResCl strips: HF 100517F Run Method: ↓

Instr. MS#10 50 mL Class A used for dilution FV Syringes: 181117 LIMS Run#: 580610

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./		RL	Tier	Vial	pH	File#	OK?	Comments
1	Mix 2								D1442	Y	
2	BlK								43	O.K.	
3	Tune Check		(Run as a BlK)						44	Y	
4	CCV								45	Y	
5	LCS								46	Y	
6	BlK								47	N	— x-over
7	Met BlK								48	Y	
8	R1801168-001	5.0	10mL/50mL		6368	II	1	<2	49	Y	— weak but Very foamy!
9	↓ -002	5.0	10mL/50mL		↓	↓	1	<2	D1450	Y	— " " " "
10	R1801238-012	1.0			8043	IV	2	<2	51	Y	~~DL~~ not a "DL"
11	↓ -010	200	1.0mL/200mL		↓	↓	2	<2	52	Y	= DL
12	↓ -011	50	1.0mL/50mL	Residual	↓	↓	2	<2	53	Y	= DL
13	↓ -013	25	2.0mL/50mL	Chlorine	↓	↓	2	<2	54	Y	= DL
14	R1801275-008	1.0	(624)	neg	6141	II	1	7	55	Y	
15	↓ -009	1.0	↓	neg	↓	↓	1	7	56	Y	
16	↓ -015	1.0	↓	neg	↓	↓	1	7	57	Y	
17	R1801226-001	1.0	(8260C)	—	6656	III	1	<2	58	Y	
18	↓ -002	1.0	↓	—	↓	↓	1	<2	59	Y	
19	↓ -003	1.0	↓	—	↓	↓	1	<2	D1460	Y	
20	R1801244-002	1.0	(624) (composited)	neg	13977	I	C-1	7	61	Y	
21	R1801344-002	1.0	↓	neg	13979	I	1	7	62	Y	
22	↓ -001	1.0	↓	neg	13709	↓	1	7	63	Y	
23	R1801343-003	1.0	↓	neg	13709	↓	1	7	64	Y	
24	R1801343-001	1.0	↓	neg	↓	↓	1	7	65	Y	
25	↓ -002	1.0	↓	neg	↓	↓	1	7	66	Y	
26	R1801243-006	1.0	↓	neg	11868	II	1	7	67	Y	MS/DMS:
27	↓ -003	2.5	(20mL/50mL)	neg	↓	↓	C-1	7	68	Y	187713 4.2µl } into
28	R1801343-001MS	1.0	↓	neg	13709	II	2	7	69	Y	187747 ↓ } full vials
29	↓ -001DMS	1.0	↓	neg	↓		3	7	D1470	Y	186658 ↓ } of
30	BlK			—	—	—	—	—	↓ 71	O.K.	187905 10.6µl } sample
	EOD	DL 2-16-18									

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Primary TG : 187973 5.0µl
Primary HSL : 187975
Primary OCC : 186749
Primary Fr+ : 188036 ↓ / 50mL DI = CCV.
Primary :

Secondary TG : 187713 2.0µl
Secondary HSL : 187747
Secondary OCC : 186658 ↓
Secondary Fr+ : 187905 5.0µl / 50mL DI = LCS
Secondary :

Combined IS/Surr ← : —
Surrogate 50 : 187505
Internal Std 50 : 187504
Reagents:

February 27, 2018 Service Request No:R1801449

Mr. Jon Williams
The LiRo Group
690 Delaware Ave.
Buffalo, NY 14209

Laboratory Results for: Buffalo China

Dear Mr.Williams,

Enclosed are the results of the sample(s) submitted to our laboratory February 19, 2018
For your reference, these analyses have been assigned our service request number **R1801449.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Lisa.Reyes@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Lisa Reyes
Project Manager

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Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: The LiRo Group
Project: Buffalo China
Sample Matrix: Water

Service Request: R1801449
Date Received: 02/19/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV, validation deliverables including all summary forms and associated raw data. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Eight water samples were received for analysis at ALS Environmental on 02/19/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by _____ Date 02/27/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-10	Lab ID: R1801449-001					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	2.4	J	1.3	10	ug/L	8260C

CLIENT ID: MW-11	Lab ID: R1801449-002					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
2-Butanone (MEK)	0.93	J	0.81	10	ug/L	8260C
Acetone	3.6	J	1.3	10	ug/L	8260C
Trichloroethene (TCE)	0.87	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	4.7	J	0.30	5.0	ug/L	8260C

CLIENT ID: MW-25A	Lab ID: R1801449-003					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	2.2	J	1.3	10	ug/L	8260C
Trichloroethene (TCE)	0.32	J	0.22	5.0	ug/L	8260C

CLIENT ID: Duplicate-02	Lab ID: R1801449-004					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	3.8	J	1.3	10	ug/L	8260C
Trichloroethene (TCE)	0.35	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	1.1	J	0.30	5.0	ug/L	8260C

CLIENT ID: MW-22	Lab ID: R1801449-005					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Acetone	2.7	J	1.3	10	ug/L	8260C

CLIENT ID: MW-19AR	Lab ID: R1801449-006					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
1,1,2,2-Tetrachloroethane	0.56	J	0.25	5.0	ug/L	8260C
2-Butanone (MEK)	9.8	J	0.81	10	ug/L	8260C
Acetone	78		1.3	10	ug/L	8260C
Carbon Disulfide	12		0.22	10	ug/L	8260C
Chloroform	0.28	J	0.25	5.0	ug/L	8260C
Chloromethane	0.69	J	0.21	5.0	ug/L	8260C
Cyclohexane	0.48	J	0.25	10	ug/L	8260C
Methylcyclohexane	0.31	J	0.27	10	ug/L	8260C
Tetrachloroethene (PCE)	5.0	J	0.30	5.0	ug/L	8260C
Trichloroethene (TCE)	440	D	1.1	25	ug/L	8260C
cis-1,2-Dichloroethene	65		0.30	5.0	ug/L	8260C
trans-1,2-Dichloroethene	9.6		0.33	5.0	ug/L	8260C

CLIENT ID: MW-15A	Lab ID: R1801449-007					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
2-Butanone (MEK)	2.0	J	0.81	10	ug/L	8260C
Acetone	2.1	J	1.3	10	ug/L	8260C
Tetrachloroethene (PCE)	0.32	J	0.30	5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-15A	Lab ID: R1801449-007					
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**
Trichloroethene (TCE)	0.41	J	0.22	5.0	ug/L	8260C

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: The LiRo Group **Service Request:**R1801449

Project: Buffalo China/16-344-1389

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1801449-001	MW-10	2/13/2018	1300
R1801449-002	MW-11	2/13/2018	1330
R1801449-003	MW-25A	2/13/2018	1335
R1801449-004	Duplicate-02	2/13/2018	1400
R1801449-005	MW-22	2/13/2018	1420
R1801449-006	MW-19AR	2/13/2018	1430
R1801449-007	MW-15A	2/14/2018	1240
R1801449-008	Trip Blank	2/13/2018	

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

49547

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

Project Name: Buffalo China	Project Number: 16-344-1389
Project Manager: Jon Williams	Report CC:
Company/Address: LiRo Engineers, Inc. 690 Delaware Avenue Buffalo NY 14209	
Phone #: 716-882-5476	Email: williamsj@liro.com
Sampler's Signature:	Sampler's Printed Name: Jon Williams

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)
MW-10		2/13/18	1300	W	3	X						
MW-11		2/13/18	1330		3	X						
MW-25A MS/MSD		2/13/18	1335		9	X						
Duplicate-02		2/13/18	1400		3	X						
MW-22		2/13/18	1420		3	X						
MW-19AR		2/13/18	1430		3	X						
MW-15A		2/14/18	1240		3	X						
Trip Blank		—	—		3	X						

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE: 10 day

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
X IV. Data Validation Report with Raw Data
NYSDEC EDD
Edata X Yes _____ No

INVOICE INFORMATION
PO # 16-344-1389
BILL TO: LiRo
Attn: Annette Gorek'i

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Jon Williams	Printed Name: SCOTT SCAVO	Printed Name	Printed Name	Printed Name	
Firm: LiRo	Firm: ALS	Firm	Firm	Firm	
Date/Time: 2/15/17 1430	Date/Time: 2/19/18 1215	Date/Time	Date/Time	Date/Time	

R1801449 5
The LiRo Group
Buffal China

Distribution: White - Lab Copy; Yellow - Return to Originator

R1801449 5
The LIRo Group
Buffal China

Cooler Receipt and Preservation Check Form

Project/Client BUFFALO CHINA Folder Number .

Cooler received on 2/19/18 by: SAB

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	(Y) N NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (**Wet Ice**) **Dry Ice** **Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 2/19/18 Time: 1220 ID: (IR#7) IR#9 From: Temp Blank (Sample Bottle)

Observed Temp (°C)	16.9						
Correction Factor (°C)	+.7						
Corrected Temp (°C)	16.8						
Temp from:Type of bottle	VOA VIAL						
Within 0-6°C?	Y (N)	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: (Ice melted) Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: Standing Approval Client aware at drop-off Client notified by:

All samples held in storage location: R-002 by SAB on 2/19/18 at 1220
5035 samples placed in storage location: by on at

Cooler Breakdown: Date: 2/20/18 Time: 1406 by: @

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

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
Residual Chlorine (-)		For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
		$Na_2S_2O_3$	-	-						
		ZnAcetate	-	-						
		HCl	**	**	4/15/20					

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: T-249-002

Explain all Discrepancies/ Other Comments:

2 VOA VIALS (MW-19AR)
2/13/18 1430

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: @
PC Secondary Review: NV

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1801449-001.01					
	8260C				
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
		2/22/2018	1200	In Lab / DLIPANI	
		2/22/2018	1820	R-001-S10 / DLIPANI	
R1801449-001.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-001.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-002.01					
	8260C				
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
		2/22/2018	1200	In Lab / DLIPANI	
		2/22/2018	1820	R-001-S10 / DLIPANI	
R1801449-002.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-002.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-003.01					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-003.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-003.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1801449-003.04					
		2/20/2018	1407	SMO / DWARD	
		2/22/2018	1820	R-001-S10 / DLIPANI	
R1801449-003.05					
		2/20/2018	1407	SMO / DWARD	
R1801449-003.06					
		2/20/2018	1407	SMO / DWARD	
R1801449-003.07					
		2/20/2018	1407	SMO / DWARD	
R1801449-003.08					
		2/20/2018	1407	SMO / DWARD	
R1801449-003.09					
	8260C				
		2/20/2018	1407	SMO / DWARD	
		2/22/2018	1200	In Lab / DLIPANI	
		2/22/2018	1820	R-001-S10 / DLIPANI	
R1801449-004.01					
	8260C				
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
		2/23/2018	1123	In Lab / DLIPANI	
		2/23/2018	1836	R-001-S10 / DLIPANI	
R1801449-004.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-004.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-005.01					
	8260C				
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
		2/23/2018	1123	In Lab / DLIPANI	

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C				
		2/23/2018	1836	R-001-S10 / DLIPANI	
R1801449-005.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-005.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-006.01					
	8260C,8260C				
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
		2/23/2018	1123	In Lab / DLIPANI	
		2/23/2018	1836	R-001-S10 / DLIPANI	
R1801449-006.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-006.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-007.01					
	8260C				
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
		2/23/2018	1123	In Lab / DLIPANI	
		2/23/2018	1836	R-001-S10 / DLIPANI	
R1801449-007.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-007.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-008.01					

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China/16-344-1389

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C				
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
		2/22/2018	1559	In Lab / DLIPANI	
		2/22/2018	1820	R-001-S10 / DLIPANI	
R1801449-008.02					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	
R1801449-008.03					
		2/20/2018	1406	SMO / DWARD	
		2/20/2018	1406	R-001 / DWARD	

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

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

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Approved	New Jersey ID # NY004	
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

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

ALS Laboratory Group

Acronyms

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

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China/16-344-1389

Sample Name: MW-10 **Date Collected:** 02/13/18
Lab Code: R1801449-001 **Date Received:** 02/19/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-11 **Date Collected:** 02/13/18
Lab Code: R1801449-002 **Date Received:** 02/19/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-25A **Date Collected:** 02/13/18
Lab Code: R1801449-003 **Date Received:** 02/19/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: Duplicate-02 **Date Collected:** 02/13/18
Lab Code: R1801449-004 **Date Received:** 02/19/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name: MW-22 **Date Collected:** 02/13/18
Lab Code: R1801449-005 **Date Received:** 02/19/18
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389		

Sample Name:	MW-19AR	**Date Collected:**	02/13/18
Lab Code:	R1801449-006	**Date Received:**	02/19/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	MW-15A	**Date Collected:**	02/14/18
Lab Code:	R1801449-007	**Date Received:**	02/19/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

Sample Name:	Trip Blank	**Date Collected:**	02/13/18
Lab Code:	R1801449-008	**Date Received:**	02/19/18
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		DLIPANI

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

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1801449-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 18:10	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 18:10	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 18:10	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 18:10	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 18:10	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 18:10	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 18:10	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 18:10	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 18:10	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 18:10	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 18:10	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,4-Dioxane	100 U	100	20	1	02/22/18 18:10	
2-Butanone (MEK)	10 U	10	0.81	1	02/22/18 18:10	
2-Hexanone	10 U	10	1.7	1	02/22/18 18:10	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 18:10	
Acetone	**2.4 J**	10	1.3	1	02/22/18 18:10	
Benzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 18:10	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 18:10	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 18:10	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 18:10	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 18:10	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 18:10	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 18:10	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 18:10	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 18:10	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 18:10	
Cyclohexane	10 U	10	0.25	1	02/22/18 18:10	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 18:10	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 18:10	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 18:10	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 18:10	
Methyl Acetate	10 U	10	0.43	1	02/22/18 18:10	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 18:10	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 18:10	
Styrene	5.0 U	5.0	0.20	1	02/22/18 18:10	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 18:10	
Toluene	5.0 U	5.0	0.20	1	02/22/18 18:10	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1801449-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/22/18 18:10	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/22/18 18:10	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/22/18 18:10	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/22/18 18:10	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/22/18 18:10	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/22/18 18:10	
o-Xylene	5.0 U	5.0	0.20	1	02/22/18 18:10	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/22/18 18:10	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/22/18 18:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	02/22/18 18:10	
Dibromofluoromethane	102	89 - 119	02/22/18 18:10	
Toluene-d8	105	87 - 121	02/22/18 18:10	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	R1801449-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 18:32	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 18:32	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 18:32	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 18:32	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 18:32	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 18:32	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 18:32	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 18:32	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 18:32	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 18:32	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 18:32	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,4-Dioxane	100 U	100	20	1	02/22/18 18:32	
2-Butanone (MEK)	**0.93 J**	10	0.81	1	02/22/18 18:32	
2-Hexanone	10 U	10	1.7	1	02/22/18 18:32	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 18:32	
Acetone	**3.6 J**	10	1.3	1	02/22/18 18:32	
Benzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 18:32	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 18:32	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 18:32	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 18:32	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 18:32	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 18:32	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 18:32	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 18:32	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 18:32	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 18:32	
Cyclohexane	10 U	10	0.25	1	02/22/18 18:32	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 18:32	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 18:32	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 18:32	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 18:32	
Methyl Acetate	10 U	10	0.43	1	02/22/18 18:32	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 18:32	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 18:32	
Styrene	5.0 U	5.0	0.20	1	02/22/18 18:32	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 18:32	
Toluene	5.0 U	5.0	0.20	1	02/22/18 18:32	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	R1801449-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.87 J**	5.0	0.22	1	02/22/18 18:32	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/22/18 18:32	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/22/18 18:32	
cis-1,2-Dichloroethene	**4.7 J**	5.0	0.30	1	02/22/18 18:32	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/22/18 18:32	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/22/18 18:32	
o-Xylene	5.0 U	5.0	0.20	1	02/22/18 18:32	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/22/18 18:32	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/22/18 18:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	02/22/18 18:32	
Dibromofluoromethane	101	89 - 119	02/22/18 18:32	
Toluene-d8	105	87 - 121	02/22/18 18:32	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:35
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-25A	**Units:**	ug/L
Lab Code:	R1801449-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 17:49	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 17:49	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 17:49	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 17:49	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 17:49	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 17:49	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 17:49	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 17:49	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 17:49	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 17:49	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 17:49	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,4-Dioxane	100 U	100	20	1	02/22/18 17:49	
2-Butanone (MEK)	10 U	10	0.81	1	02/22/18 17:49	
2-Hexanone	10 U	10	1.7	1	02/22/18 17:49	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 17:49	
Acetone	**2.2 J**	10	1.3	1	02/22/18 17:49	
Benzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 17:49	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 17:49	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 17:49	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 17:49	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 17:49	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 17:49	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 17:49	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 17:49	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 17:49	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 17:49	
Cyclohexane	10 U	10	0.25	1	02/22/18 17:49	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 17:49	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 17:49	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 17:49	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 17:49	
Methyl Acetate	10 U	10	0.43	1	02/22/18 17:49	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 17:49	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 17:49	
Styrene	5.0 U	5.0	0.20	1	02/22/18 17:49	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 17:49	
Toluene	5.0 U	5.0	0.20	1	02/22/18 17:49	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:35
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-25A	**Units:**	ug/L
Lab Code:	R1801449-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.32 J**	5.0	0.22	1	02/22/18 17:49	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/22/18 17:49	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/22/18 17:49	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/22/18 17:49	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/22/18 17:49	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/22/18 17:49	
o-Xylene	5.0 U	5.0	0.20	1	02/22/18 17:49	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/22/18 17:49	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/22/18 17:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	02/22/18 17:49	
Dibromofluoromethane	100	89 - 119	02/22/18 17:49	
Toluene-d8	102	87 - 121	02/22/18 17:49	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Duplicate-02	**Units:**	ug/L
Lab Code:	R1801449-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/23/18 15:45	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/23/18 15:45	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/23/18 15:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/23/18 15:45	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/23/18 15:45	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/23/18 15:45	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/23/18 15:45	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/23/18 15:45	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/23/18 15:45	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/23/18 15:45	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/23/18 15:45	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,4-Dioxane	100 U	100	20	1	02/23/18 15:45	
2-Butanone (MEK)	10 U	10	0.81	1	02/23/18 15:45	
2-Hexanone	10 U	10	1.7	1	02/23/18 15:45	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/23/18 15:45	
Acetone	**3.8 J**	10	1.3	1	02/23/18 15:45	
Benzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
Bromochloromethane	5.0 U	5.0	0.32	1	02/23/18 15:45	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/23/18 15:45	
Bromoform	5.0 U	5.0	0.42	1	02/23/18 15:45	
Bromomethane	5.0 U	5.0	0.29	1	02/23/18 15:45	
Carbon Disulfide	10 U	10	0.22	1	02/23/18 15:45	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/23/18 15:45	
Chlorobenzene	5.0 U	5.0	0.29	1	02/23/18 15:45	
Chloroethane	5.0 U	5.0	0.24	1	02/23/18 15:45	
Chloroform	5.0 U	5.0	0.25	1	02/23/18 15:45	
Chloromethane	5.0 U	5.0	0.21	1	02/23/18 15:45	
Cyclohexane	10 U	10	0.25	1	02/23/18 15:45	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/23/18 15:45	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/23/18 15:45	
Dichloromethane	5.0 U	5.0	0.60	1	02/23/18 15:45	
Ethylbenzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/23/18 15:45	
Methyl Acetate	10 U	10	0.43	1	02/23/18 15:45	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/23/18 15:45	
Methylcyclohexane	10 U	10	0.27	1	02/23/18 15:45	
Styrene	5.0 U	5.0	0.20	1	02/23/18 15:45	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/23/18 15:45	
Toluene	5.0 U	5.0	0.20	1	02/23/18 15:45	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Duplicate-02	**Units:**	ug/L
Lab Code:	R1801449-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.35**	**J**	5.0	0.22	1	02/23/18 15:45	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/23/18 15:45	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/23/18 15:45	
cis-1,2-Dichloroethene	**1.1**	**J**	5.0	0.30	1	02/23/18 15:45	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/23/18 15:45	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/23/18 15:45	
o-Xylene	5.0	U	5.0	0.20	1	02/23/18 15:45	
trans-1,2-Dichloroethene	5.0	U	5.0	0.33	1	02/23/18 15:45	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/23/18 15:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 15:45	
Dibromofluoromethane	100	89 - 119	02/23/18 15:45	
Toluene-d8	103	87 - 121	02/23/18 15:45	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:20
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-22	**Units:**	ug/L
Lab Code:	R1801449-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/23/18 15:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/23/18 15:24	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/23/18 15:24	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/23/18 15:24	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/23/18 15:24	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/23/18 15:24	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/23/18 15:24	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/23/18 15:24	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/23/18 15:24	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/23/18 15:24	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/23/18 15:24	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,4-Dioxane	100 U	100	20	1	02/23/18 15:24	
2-Butanone (MEK)	10 U	10	0.81	1	02/23/18 15:24	
2-Hexanone	10 U	10	1.7	1	02/23/18 15:24	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/23/18 15:24	
Acetone	**2.7 J**	10	1.3	1	02/23/18 15:24	
Benzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
Bromochloromethane	5.0 U	5.0	0.32	1	02/23/18 15:24	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/23/18 15:24	
Bromoform	5.0 U	5.0	0.42	1	02/23/18 15:24	
Bromomethane	5.0 U	5.0	0.29	1	02/23/18 15:24	
Carbon Disulfide	10 U	10	0.22	1	02/23/18 15:24	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/23/18 15:24	
Chlorobenzene	5.0 U	5.0	0.29	1	02/23/18 15:24	
Chloroethane	5.0 U	5.0	0.24	1	02/23/18 15:24	
Chloroform	5.0 U	5.0	0.25	1	02/23/18 15:24	
Chloromethane	5.0 U	5.0	0.21	1	02/23/18 15:24	
Cyclohexane	10 U	10	0.25	1	02/23/18 15:24	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/23/18 15:24	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/23/18 15:24	
Dichloromethane	5.0 U	5.0	0.60	1	02/23/18 15:24	
Ethylbenzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/23/18 15:24	
Methyl Acetate	10 U	10	0.43	1	02/23/18 15:24	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/23/18 15:24	
Methylcyclohexane	10 U	10	0.27	1	02/23/18 15:24	
Styrene	5.0 U	5.0	0.20	1	02/23/18 15:24	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/23/18 15:24	
Toluene	5.0 U	5.0	0.20	1	02/23/18 15:24	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:20
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-22	**Units:**	ug/L
Lab Code:	R1801449-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/23/18 15:24	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/23/18 15:24	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/23/18 15:24	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/23/18 15:24	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/23/18 15:24	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/23/18 15:24	
o-Xylene	5.0 U	5.0	0.20	1	02/23/18 15:24	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/23/18 15:24	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/23/18 15:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 15:24	
Dibromofluoromethane	100	89 - 119	02/23/18 15:24	
Toluene-d8	103	87 - 121	02/23/18 15:24	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-19AR	**Units:**	ug/L
Lab Code:	R1801449-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/23/18 16:29	
1,1,2,2-Tetrachloroethane	**0.56**	**J**	5.0	0.25	1	02/23/18 16:29	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/23/18 16:29	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/23/18 16:29	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/23/18 16:29	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/23/18 16:29	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/23/18 16:29	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/23/18 16:29	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/23/18 16:29	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/23/18 16:29	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/23/18 16:29	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,4-Dioxane	100	U	100	20	1	02/23/18 16:29	
2-Butanone (MEK)	**9.8**	**J**	10	0.81	1	02/23/18 16:29	
2-Hexanone	10	U	10	1.7	1	02/23/18 16:29	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/23/18 16:29	
Acetone	**78**		10	1.3	1	02/23/18 16:29	
Benzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
Bromochloromethane	5.0	U	5.0	0.32	1	02/23/18 16:29	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/23/18 16:29	
Bromoform	5.0	U	5.0	0.42	1	02/23/18 16:29	
Bromomethane	5.0	U	5.0	0.29	1	02/23/18 16:29	
Carbon Disulfide	**12**		10	0.22	1	02/23/18 16:29	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/23/18 16:29	
Chlorobenzene	5.0	U	5.0	0.29	1	02/23/18 16:29	
Chloroethane	5.0	U	5.0	0.24	1	02/23/18 16:29	
Chloroform	**0.28**	**J**	5.0	0.25	1	02/23/18 16:29	
Chloromethane	**0.69**	**J**	5.0	0.21	1	02/23/18 16:29	
Cyclohexane	**0.48**	**J**	10	0.25	1	02/23/18 16:29	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/23/18 16:29	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/23/18 16:29	
Dichloromethane	5.0	U	5.0	0.60	1	02/23/18 16:29	
Ethylbenzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/23/18 16:29	
Methyl Acetate	10	U	10	0.43	1	02/23/18 16:29	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/23/18 16:29	
Methylcyclohexane	**0.31**	**J**	10	0.27	1	02/23/18 16:29	
Styrene	5.0	U	5.0	0.20	1	02/23/18 16:29	
Tetrachloroethene (PCE)	**5.0**	**J**	5.0	0.30	1	02/23/18 16:29	
Toluene	5.0	U	5.0	0.20	1	02/23/18 16:29	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-19AR	**Units:**	ug/L
Lab Code:	R1801449-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**440**	**D**	25	1.1	5	02/23/18 17:44	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/23/18 16:29	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/23/18 16:29	
cis-1,2-Dichloroethene	**65**		5.0	0.30	1	02/23/18 16:29	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/23/18 16:29	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/23/18 16:29	
o-Xylene	5.0	U	5.0	0.20	1	02/23/18 16:29	
trans-1,2-Dichloroethene	**9.6**		5.0	0.33	1	02/23/18 16:29	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/23/18 16:29	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 16:29	
Dibromofluoromethane	102	89 - 119	02/23/18 16:29	
Toluene-d8	103	87 - 121	02/23/18 16:29	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/14/18 12:40
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-15A	**Units:**	ug/L
Lab Code:	R1801449-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/23/18 16:07	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/23/18 16:07	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/23/18 16:07	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/23/18 16:07	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/23/18 16:07	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/23/18 16:07	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/23/18 16:07	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/23/18 16:07	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/23/18 16:07	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/23/18 16:07	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/23/18 16:07	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,4-Dioxane	100	U	100	20	1	02/23/18 16:07	
2-Butanone (MEK)	**2.0**	**J**	10	0.81	1	02/23/18 16:07	
2-Hexanone	10	U	10	1.7	1	02/23/18 16:07	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/23/18 16:07	
Acetone	**2.1**	**J**	10	1.3	1	02/23/18 16:07	
Benzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
Bromochloromethane	5.0	U	5.0	0.32	1	02/23/18 16:07	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/23/18 16:07	
Bromoform	5.0	U	5.0	0.42	1	02/23/18 16:07	
Bromomethane	5.0	U	5.0	0.29	1	02/23/18 16:07	
Carbon Disulfide	10	U	10	0.22	1	02/23/18 16:07	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/23/18 16:07	
Chlorobenzene	5.0	U	5.0	0.29	1	02/23/18 16:07	
Chloroethane	5.0	U	5.0	0.24	1	02/23/18 16:07	
Chloroform	5.0	U	5.0	0.25	1	02/23/18 16:07	
Chloromethane	5.0	U	5.0	0.21	1	02/23/18 16:07	
Cyclohexane	10	U	10	0.25	1	02/23/18 16:07	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/23/18 16:07	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/23/18 16:07	
Dichloromethane	5.0	U	5.0	0.60	1	02/23/18 16:07	
Ethylbenzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/23/18 16:07	
Methyl Acetate	10	U	10	0.43	1	02/23/18 16:07	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/23/18 16:07	
Methylcyclohexane	10	U	10	0.27	1	02/23/18 16:07	
Styrene	5.0	U	5.0	0.20	1	02/23/18 16:07	
Tetrachloroethene (PCE)	**0.32**	**J**	5.0	0.30	1	02/23/18 16:07	
Toluene	5.0	U	5.0	0.20	1	02/23/18 16:07	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/14/18 12:40
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-15A	**Units:**	ug/L
Lab Code:	R1801449-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.41 J**	5.0	0.22	1	02/23/18 16:07	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/23/18 16:07	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/23/18 16:07	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/23/18 16:07	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/23/18 16:07	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/23/18 16:07	
o-Xylene	5.0 U	5.0	0.20	1	02/23/18 16:07	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/23/18 16:07	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/23/18 16:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 16:07	
Dibromofluoromethane	103	89 - 119	02/23/18 16:07	
Toluene-d8	105	87 - 121	02/23/18 16:07	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1801449-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 17:27	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 17:27	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 17:27	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 17:27	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 17:27	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 17:27	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 17:27	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 17:27	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 17:27	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 17:27	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 17:27	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,4-Dioxane	100 U	100	20	1	02/22/18 17:27	
2-Butanone (MEK)	10 U	10	0.81	1	02/22/18 17:27	
2-Hexanone	10 U	10	1.7	1	02/22/18 17:27	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 17:27	
Acetone	10 U	10	1.3	1	02/22/18 17:27	
Benzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 17:27	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 17:27	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 17:27	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 17:27	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 17:27	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 17:27	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 17:27	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 17:27	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 17:27	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 17:27	
Cyclohexane	10 U	10	0.25	1	02/22/18 17:27	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 17:27	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 17:27	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 17:27	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 17:27	
Methyl Acetate	10 U	10	0.43	1	02/22/18 17:27	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 17:27	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 17:27	
Styrene	5.0 U	5.0	0.20	1	02/22/18 17:27	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 17:27	
Toluene	5.0 U	5.0	0.20	1	02/22/18 17:27	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1801449-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/22/18 17:27	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/22/18 17:27	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/22/18 17:27	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/22/18 17:27	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/22/18 17:27	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/22/18 17:27	
o-Xylene	5.0 U	5.0	0.20	1	02/22/18 17:27	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/22/18 17:27	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/22/18 17:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	02/22/18 17:27	
Dibromofluoromethane	103	89 - 119	02/22/18 17:27	
Toluene-d8	108	87 - 121	02/22/18 17:27	

QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China/16-344-1389
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Sample Name	Lab Code	4-Bromofluorobenzene 85 - 122	Dibromofluoromethane 89 - 119	Toluene-d8 87 - 121
MW-10	R1801449-001	94	102	105
MW-11	R1801449-002	96	101	105
MW-25A	R1801449-003	94	100	102
Duplicate-02	R1801449-004	95	100	103
MW-22	R1801449-005	95	100	103
MW-19AR	R1801449-006	95	102	103
MW-15A	R1801449-007	95	103	105
Trip Blank	R1801449-008	97	103	108
Lab Control Sample	RQ1801663-03	103	104	106
Method Blank	RQ1801663-04	103	109	111
Lab Control Sample	RQ1801697-03	100	104	106
Method Blank	RQ1801697-04	98	106	106
MW-25A MS	RQ1801697-05	103	103	107
MW-25A DMS	RQ1801697-06	103	105	108

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18
Sample Matrix:	Water	**Date Received:**	02/19/18
		Date Analyzed:	02/22/18

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW-25A	**Units:**	ug/L
Lab Code:	R1801449-003	**Basis:**	NA
Analysis Method:	8260C		

		Matrix Spike			Duplicate Matrix Spike					
		RQ1801697-05			RQ1801697-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	5.0 U	51.5	50.0	103	51.2	50.0	102	74-127	<1	30
1,1,2,2-Tetrachloroethane	5.0 U	50.9	50.0	102	51.5	50.0	103	72-122	1	30
1,1,2-Trichloroethane	5.0 U	51.2	50.0	102	51.1	50.0	102	79-119	<1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	46.0	50.0	92	45.0	50.0	90	59-131	2	30
1,1-Dichloroethane (1,1-DCA)	5.0 U	52.0	50.0	104	51.1	50.0	102	74-132	2	30
1,1-Dichloroethene (1,1-DCE)	5.0 U	49.2	50.0	98	49.0	50.0	98	74-139	<1	30
1,2,3-Trichlorobenzene	5.0 U	48.9	50.0	98	50.5	50.0	101	54-143	3	30
1,2,4-Trichlorobenzene	5.0 U	47.5	50.0	95	50.3	50.0	101	56-140	6	30
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	49.3	50.0	99	49.6	50.0	99	65-137	<1	30
1,2-Dibromoethane	5.0 U	50.5	50.0	101	49.5	50.0	99	80-117	2	30
1,2-Dichlorobenzene	5.0 U	47.8	50.0	96	48.8	50.0	98	77-120	2	30
1,2-Dichloroethane	5.0 U	51.1	50.0	102	50.7	50.0	101	68-130	<1	30
1,2-Dichloropropane	5.0 U	51.0	50.0	102	51.1	50.0	102	79-124	<1	30
1,3-Dichlorobenzene	5.0 U	49.3	50.0	99	49.5	50.0	99	74-125	<1	30
1,4-Dichlorobenzene	5.0 U	47.0	50.0	94	47.6	50.0	95	72-124	1	30
1,4-Dioxane	100 U	1070	1000	107	860	1000	86	48-143	22	30
2-Butanone (MEK)	10 U	50.5	50.0	101	49.0	50.0	98	46-141	3	30
2-Hexanone	10 U	53.4	50.0	107	53.2	50.0	106	56-132	<1	30
4-Methyl-2-pentanone	10 U	55.7	50.0	111	55.5	50.0	111	60-141	<1	30
Acetone	2.2 J	45.9	50.0	87	44.3	50.0	84	29-151	4	30
Benzene	5.0 U	50.3	50.0	101	50.5	50.0	101	76-129	<1	30
Bromochloromethane	5.0 U	49.9	50.0	100	48.7	50.0	97	82-125	2	30
Bromodichloromethane	5.0 U	48.7	50.0	97	49.1	50.0	98	76-127	<1	30
Bromoform	5.0 U	48.2	50.0	96	48.5	50.0	97	58-133	<1	30
Bromomethane	5.0 U	48.9	50.0	98	46.2	50.0	92	10-162	6	30
Carbon Disulfide	10 U	50.2	50.0	100	51.6	50.0	103	34-162	3	30
Carbon Tetrachloride	5.0 U	48.9	50.0	98	50.9	50.0	102	65-135	4	30
Chlorobenzene	5.0 U	49.7	50.0	99	49.7	50.0	99	76-125	<1	30
Chloroethane	5.0 U	48.5	50.0	97	46.7	50.0	93	70-140	4	30
Chloroform	5.0 U	51.6	50.0	103	50.5	50.0	101	75-130	2	30
Chloromethane	5.0 U	49.3	50.0	99	48.5	50.0	97	55-160	2	30
Cyclohexane	10 U	52.7	50.0	105	52.7	50.0	105	52-145	<1	30
Dibromochloromethane	5.0 U	48.7	50.0	97	49.4	50.0	99	72-128	1	30
Dichlorodifluoromethane (CFC 12)	5.0 U	41.1	50.0	82	41.7	50.0	83	49-154	1	30
Dichloromethane	5.0 U	49.8	50.0	100	49.1	50.0	98	75-121	1	30

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

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

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

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18
Sample Matrix:	Water	**Date Received:**	02/19/18
		Date Analyzed:	02/22/18

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW-25A	**Units:**	ug/L
Lab Code:	R1801449-003	**Basis:**	NA
Analysis Method:	8260C		

		Matrix Spike RQ1801697-05			Duplicate Matrix Spike RQ1801697-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	5.0 U	50.8	50.0	102	50.1	50.0	100	72-134	1	30
Isopropylbenzene (Cumene)	5.0 U	50.9	50.0	102	50.1	50.0	100	76-136	1	30
Methyl Acetate	10 U	52.6	50.0	105	51.1	50.0	102	36-146	3	30
Methyl tert-Butyl Ether	5.0 U	50.0	50.0	100	50.0	50.0	100	74-130	<1	30
Methylcyclohexane	10 U	52.6	50.0	105	52.8	50.0	106	45-146	<1	30
Styrene	5.0 U	51.5	50.0	103	50.6	50.0	101	34-156	2	30
Tetrachloroethene (PCE)	5.0 U	47.2	50.0	94	47.2	50.0	94	67-137	<1	30
Toluene	5.0 U	51.0	50.0	102	50.9	50.0	102	79-125	<1	30
Trichloroethene (TCE)	0.32 J	46.8	50.0	93	47.4	50.0	94	62-142	1	30
Trichlorofluoromethane (CFC 11)	5.0 U	49.2	50.0	98	49.1	50.0	98	72-142	<1	30
Vinyl Chloride	5.0 U	52.0	50.0	104	52.9	50.0	106	60-157	2	30
cis-1,2-Dichloroethene	5.0 U	50.8	50.0	102	49.8	50.0	100	72-133	2	30
cis-1,3-Dichloropropene	5.0 U	52.1	50.0	104	52.4	50.0	105	52-134	<1	30
m,p-Xylenes	5.0 U	102	100	102	102	100	102	68-138	<1	30
o-Xylene	5.0 U	51.3	50.0	103	51.6	50.0	103	68-134	<1	30
trans-1,2-Dichloroethene	5.0 U	49.7	50.0	99	48.3	50.0	97	77-125	3	30
trans-1,3-Dichloropropene	5.0 U	52.3	50.0	105	53.5	50.0	107	50-142	2	30

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

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

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

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/22/18 11:58

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1801697-04

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\022218\D1537.D\

Analysis Method: 8260C
Analysis Lot:581234

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1801697-03	I:\ACQUDATA\msvoa10\data\022218\D1534.D\	02/22/18 10:33
Trip Blank	R1801449-008	I:\ACQUDATA\msvoa10\data\022218\D1551.D\	02/22/18 17:27
MW-25A	R1801449-003	I:\ACQUDATA\msvoa10\data\022218\D1552.D\	02/22/18 17:49
MW-10	R1801449-001	I:\ACQUDATA\msvoa10\data\022218\D1553.D\	02/22/18 18:10
MW-11	R1801449-002	I:\ACQUDATA\msvoa10\data\022218\D1554.D\	02/22/18 18:32
MW-25A	RQ1801697-05	I:\ACQUDATA\msvoa10\data\022218\D1559.D\	02/22/18 20:21
MW-25A	RQ1801697-06	I:\ACQUDATA\msvoa10\data\022218\D1560.D\	02/22/18 20:42

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/23/18 11:22

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1801663-04

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\022318\D1567.D\

Analysis Method: 8260C
Analysis Lot:581404

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1801663-03	I:\ACQUDATA\msvoa10\data\022318\D1565.D\	02/23/18 10:23
MW-22	R1801449-005	I:\ACQUDATA\msvoa10\data\022318\D1578.D\	02/23/18 15:24
Duplicate-02	R1801449-004	I:\ACQUDATA\msvoa10\data\022318\D1579.D\	02/23/18 15:45
MW-15A	R1801449-007	I:\ACQUDATA\msvoa10\data\022318\D1580.D\	02/23/18 16:07
MW-19AR	R1801449-006	I:\ACQUDATA\msvoa10\data\022318\D1581.D\	02/23/18 16:29
MW-19AR	R1801449-006	I:\ACQUDATA\msvoa10\data\022318\D1584.D\	02/23/18 17:44

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801663-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/23/18 11:22	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/23/18 11:22	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/23/18 11:22	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/23/18 11:22	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/23/18 11:22	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/23/18 11:22	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/23/18 11:22	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/23/18 11:22	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/23/18 11:22	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/23/18 11:22	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/23/18 11:22	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/23/18 11:22	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/23/18 11:22	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 11:22	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 11:22	
1,4-Dioxane	100 U	100	20	1	02/23/18 11:22	
2-Butanone (MEK)	10 U	10	0.81	1	02/23/18 11:22	
2-Hexanone	10 U	10	1.7	1	02/23/18 11:22	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/23/18 11:22	
Acetone	10 U	10	1.3	1	02/23/18 11:22	
Benzene	5.0 U	5.0	0.20	1	02/23/18 11:22	
Bromochloromethane	5.0 U	5.0	0.32	1	02/23/18 11:22	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/23/18 11:22	
Bromoform	5.0 U	5.0	0.42	1	02/23/18 11:22	
Bromomethane	5.0 U	5.0	0.29	1	02/23/18 11:22	
Carbon Disulfide	10 U	10	0.22	1	02/23/18 11:22	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/23/18 11:22	
Chlorobenzene	5.0 U	5.0	0.29	1	02/23/18 11:22	
Chloroethane	5.0 U	5.0	0.24	1	02/23/18 11:22	
Chloroform	5.0 U	5.0	0.25	1	02/23/18 11:22	
Chloromethane	5.0 U	5.0	0.21	1	02/23/18 11:22	
Cyclohexane	10 U	10	0.25	1	02/23/18 11:22	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/23/18 11:22	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/23/18 11:22	
Dichloromethane	5.0 U	5.0	0.60	1	02/23/18 11:22	
Ethylbenzene	5.0 U	5.0	0.20	1	02/23/18 11:22	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/23/18 11:22	
Methyl Acetate	10 U	10	0.43	1	02/23/18 11:22	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/23/18 11:22	
Methylcyclohexane	10 U	10	0.27	1	02/23/18 11:22	
Styrene	5.0 U	5.0	0.20	1	02/23/18 11:22	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/23/18 11:22	
Toluene	5.0 U	5.0	0.20	1	02/23/18 11:22	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801663-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/23/18 11:22	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/23/18 11:22	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/23/18 11:22	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/23/18 11:22	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/23/18 11:22	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/23/18 11:22	
o-Xylene	5.0 U	5.0	0.20	1	02/23/18 11:22	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/23/18 11:22	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/23/18 11:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	02/23/18 11:22	
Dibromofluoromethane	109	89 - 119	02/23/18 11:22	
Toluene-d8	111	87 - 121	02/23/18 11:22	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801697-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 11:58	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 11:58	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 11:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 11:58	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 11:58	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 11:58	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 11:58	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 11:58	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 11:58	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 11:58	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 11:58	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 11:58	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 11:58	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 11:58	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 11:58	
1,4-Dioxane	100 U	100	20	1	02/22/18 11:58	
2-Butanone (MEK)	10 U	10	0.81	1	02/22/18 11:58	
2-Hexanone	10 U	10	1.7	1	02/22/18 11:58	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 11:58	
Acetone	10 U	10	1.3	1	02/22/18 11:58	
Benzene	5.0 U	5.0	0.20	1	02/22/18 11:58	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 11:58	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 11:58	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 11:58	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 11:58	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 11:58	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 11:58	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 11:58	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 11:58	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 11:58	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 11:58	
Cyclohexane	10 U	10	0.25	1	02/22/18 11:58	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 11:58	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 11:58	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 11:58	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 11:58	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 11:58	
Methyl Acetate	10 U	10	0.43	1	02/22/18 11:58	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 11:58	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 11:58	
Styrene	5.0 U	5.0	0.20	1	02/22/18 11:58	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 11:58	
Toluene	5.0 U	5.0	0.20	1	02/22/18 11:58	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1801697-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/22/18 11:58	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/22/18 11:58	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/22/18 11:58	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/22/18 11:58	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/22/18 11:58	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/22/18 11:58	
o-Xylene	5.0 U	5.0	0.20	1	02/22/18 11:58	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/22/18 11:58	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/22/18 11:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	02/22/18 11:58	
Dibromofluoromethane	106	89 - 119	02/22/18 11:58	
Toluene-d8	106	87 - 121	02/22/18 11:58	

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/22/18 10:33

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1801697-03

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\022218\D1534.D\

Analysis Method: 8260C
Analysis Lot:581234

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1801697-04	I:\ACQUDATA\msvoa10\data\022218\D1537.D\	02/22/18 11:58
Trip Blank	R1801449-008	I:\ACQUDATA\msvoa10\data\022218\D1551.D\	02/22/18 17:27
MW-25A	R1801449-003	I:\ACQUDATA\msvoa10\data\022218\D1552.D\	02/22/18 17:49
MW-10	R1801449-001	I:\ACQUDATA\msvoa10\data\022218\D1553.D\	02/22/18 18:10
MW-11	R1801449-002	I:\ACQUDATA\msvoa10\data\022218\D1554.D\	02/22/18 18:32
MW-25A	RQ1801697-05	I:\ACQUDATA\msvoa10\data\022218\D1559.D\	02/22/18 20:21
MW-25A	RQ1801697-06	I:\ACQUDATA\msvoa10\data\022218\D1560.D\	02/22/18 20:42

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/23/18 10:23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1801663-03

Instrument ID:R-MS-10
File ID:I:\ACQUDATA\msvoa10\data\022318\D1565.D\

Analysis Method: 8260C
Analysis Lot:581404

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1801663-04	I:\ACQUDATA\msvoa10\data\022318\D1567.D\	02/23/18 11:22
MW-22	R1801449-005	I:\ACQUDATA\msvoa10\data\022318\D1578.D\	02/23/18 15:24
Duplicate-02	R1801449-004	I:\ACQUDATA\msvoa10\data\022318\D1579.D\	02/23/18 15:45
MW-15A	R1801449-007	I:\ACQUDATA\msvoa10\data\022318\D1580.D\	02/23/18 16:07
MW-19AR	R1801449-006	I:\ACQUDATA\msvoa10\data\022318\D1581.D\	02/23/18 16:29
MW-19AR	R1801449-006	I:\ACQUDATA\msvoa10\data\022318\D1584.D\	02/23/18 17:44

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/23/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801663-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.3	20.0	101	74-120
1,1,2,2-Tetrachloroethane	8260C	19.2	20.0	96	78-122
1,1,2-Trichloroethane	8260C	18.6	20.0	93	82-118
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.7	20.0	93	75-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.5	20.0	98	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	19.6	20.0	98	74-135
1,2,3-Trichlorobenzene	8260C	20.3	20.0	102	56-164
1,2,4-Trichlorobenzene	8260C	20.4	20.0	102	68-147
1,2-Dibromo-3-chloropropane (DBCP)	8260C	18.6	20.0	93	55-149
1,2-Dibromoethane	8260C	19.3	20.0	97	81-125
1,2-Dichlorobenzene	8260C	19.5	20.0	97	80-119
1,2-Dichloroethane	8260C	19.6	20.0	98	71-127
1,2-Dichloropropane	8260C	19.4	20.0	97	80-119
1,3-Dichlorobenzene	8260C	19.8	20.0	99	79-121
1,4-Dichlorobenzene	8260C	19.3	20.0	96	79-119
1,4-Dioxane	8260C	352	400	88	69-151
2-Butanone (MEK)	8260C	17.0	20.0	85	61-137
2-Hexanone	8260C	17.4	20.0	87	63-124
4-Methyl-2-pentanone	8260C	17.1	20.0	86	66-124
Acetone	8260C	18.4	20.0	92	40-161
Benzene	8260C	19.4	20.0	97	76-118
Bromochloromethane	8260C	19.5	20.0	98	81-126
Bromodichloromethane	8260C	18.5	20.0	93	78-126
Bromoform	8260C	19.0	20.0	95	71-136
Bromomethane	8260C	17.6	20.0	88	42-166
Carbon Disulfide	8260C	18.6	20.0	93	65-127
Carbon Tetrachloride	8260C	19.6	20.0	98	68-125
Chlorobenzene	8260C	19.5	20.0	97	80-121
Chloroethane	8260C	18.8	20.0	94	70-127
Chloroform	8260C	19.5	20.0	98	76-120
Chloromethane	8260C	18.6	20.0	93	69-145
Cyclohexane	8260C	18.3	20.0	91	63-121
Dibromochloromethane	8260C	19.1	20.0	96	77-128

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/23/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801663-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	17.0	20.0	85	65-152
Dichloromethane	8260C	19.7	20.0	99	73-122
Ethylbenzene	8260C	19.7	20.0	98	76-120
Isopropylbenzene (Cumene)	8260C	19.5	20.0	97	78-126
Methyl Acetate	8260C	18.1	20.0	91	62-131
Methyl tert-Butyl Ether	8260C	19.5	20.0	97	78-125
Methylcyclohexane	8260C	18.8	20.0	94	51-129
Styrene	8260C	19.8	20.0	99	80-124
Tetrachloroethene (PCE)	8260C	19.3	20.0	96	78-124
Toluene	8260C	19.3	20.0	97	77-120
Trichloroethene (TCE)	8260C	18.4	20.0	92	78-123
Trichlorofluoromethane (CFC 11)	8260C	19.6	20.0	98	68-126
Vinyl Chloride	8260C	19.5	20.0	98	69-133
cis-1,2-Dichloroethene	8260C	19.7	20.0	98	80-121
cis-1,3-Dichloropropene	8260C	20.1	20.0	100	74-126
m,p-Xylenes	8260C	39.5	40.0	99	78-123
o-Xylene	8260C	20.2	20.0	101	80-120
trans-1,2-Dichloroethene	8260C	19.3	20.0	96	80-120
trans-1,3-Dichloropropene	8260C	21.5	20.0	108	67-135

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/22/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801697-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.3	20.0	96	74-120
1,1,2,2-Tetrachloroethane	8260C	19.2	20.0	96	78-122
1,1,2-Trichloroethane	8260C	19.0	20.0	95	82-118
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.8	20.0	89	75-124
1,1-Dichloroethane (1,1-DCA)	8260C	19.3	20.0	96	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	18.7	20.0	94	74-135
1,2,3-Trichlorobenzene	8260C	19.6	20.0	98	56-164
1,2,4-Trichlorobenzene	8260C	19.9	20.0	100	68-147
1,2-Dibromo-3-chloropropane (DBCP)	8260C	18.0	20.0	90	55-149
1,2-Dibromoethane	8260C	18.8	20.0	94	81-125
1,2-Dichlorobenzene	8260C	19.5	20.0	98	80-119
1,2-Dichloroethane	8260C	19.0	20.0	95	71-127
1,2-Dichloropropane	8260C	18.9	20.0	94	80-119
1,3-Dichlorobenzene	8260C	19.6	20.0	98	79-121
1,4-Dichlorobenzene	8260C	18.7	20.0	93	79-119
1,4-Dioxane	8260C	352	400	88	69-151
2-Butanone (MEK)	8260C	17.9	20.0	90	61-137
2-Hexanone	8260C	17.5	20.0	88	63-124
4-Methyl-2-pentanone	8260C	17.5	20.0	88	66-124
Acetone	8260C	20.3	20.0	102	40-161
Benzene	8260C	19.1	20.0	95	76-118
Bromochloromethane	8260C	18.8	20.0	94	81-126
Bromodichloromethane	8260C	18.7	20.0	93	78-126
Bromoform	8260C	19.1	20.0	96	71-136
Bromomethane	8260C	17.2	20.0	86	42-166
Carbon Disulfide	8260C	19.8	20.0	99	65-127
Carbon Tetrachloride	8260C	18.7	20.0	93	68-125
Chlorobenzene	8260C	19.0	20.0	95	80-121
Chloroethane	8260C	18.4	20.0	92	70-127
Chloroform	8260C	19.2	20.0	96	76-120
Chloromethane	8260C	18.6	20.0	93	69-145
Cyclohexane	8260C	18.2	20.0	91	63-121
Dibromochloromethane	8260C	18.6	20.0	93	77-128

Client: The LiRo Group
Project: Buffalo China/16-344-1389
Sample Matrix: Water

Service Request: R1801449
Date Analyzed: 02/22/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1801697-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	16.5	20.0	83	65-152
Dichloromethane	8260C	18.9	20.0	95	73-122
Ethylbenzene	8260C	18.9	20.0	95	76-120
Isopropylbenzene (Cumene)	8260C	18.9	20.0	94	78-126
Methyl Acetate	8260C	17.7	20.0	89	62-131
Methyl tert-Butyl Ether	8260C	18.9	20.0	94	78-125
Methylcyclohexane	8260C	18.5	20.0	92	51-129
Styrene	8260C	19.0	20.0	95	80-124
Tetrachloroethene (PCE)	8260C	18.1	20.0	91	78-124
Toluene	8260C	18.7	20.0	94	77-120
Trichloroethene (TCE)	8260C	17.9	20.0	90	78-123
Trichlorofluoromethane (CFC 11)	8260C	19.1	20.0	95	68-126
Vinyl Chloride	8260C	19.6	20.0	98	69-133
cis-1,2-Dichloroethene	8260C	18.9	20.0	94	80-121
cis-1,3-Dichloropropene	8260C	19.0	20.0	95	74-126
m,p-Xylenes	8260C	38.8	40.0	97	78-123
o-Xylene	8260C	19.6	20.0	98	80-120
trans-1,2-Dichloroethene	8260C	18.9	20.0	94	80-120
trans-1,3-Dichloropropene	8260C	21.0	20.0	105	67-135

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/22/18 09:20

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\022218\D1532.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 581234

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.38	19729	Pass
75	95	30	60	49.31	47733	Pass
95	95	100	100	100.00	96800	Pass
96	95	5	9	6.82	6606	Pass
173	174	0	2	1.17	990	Pass
174	95	50	120	87.74	84933	Pass
175	174	5	9	7.61	6465	Pass
176	174	95	101	97.09	82459	Pass
177	176	5	9	6.55	5397	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1801697-02	I:\ACQUDATA\msvoa10\data\022218\D1533.D\	02/22/18 10:00	
Lab Control Sample	RQ1801697-03	I:\ACQUDATA\msvoa10\data\022218\D1534.D\	02/22/18 10:33	
Method Blank	RQ1801697-04	I:\ACQUDATA\msvoa10\data\022218\D1537.D\	02/22/18 11:58	
Trip Blank	R1801449-008	I:\ACQUDATA\msvoa10\data\022218\D1551.D\	02/22/18 17:27	
MW-25A	R1801449-003	I:\ACQUDATA\msvoa10\data\022218\D1552.D\	02/22/18 17:49	
MW-10	R1801449-001	I:\ACQUDATA\msvoa10\data\022218\D1553.D\	02/22/18 18:10	
MW-11	R1801449-002	I:\ACQUDATA\msvoa10\data\022218\D1554.D\	02/22/18 18:32	
MW-25A	RQ1801697-05	I:\ACQUDATA\msvoa10\data\022218\D1559.D\	02/22/18 20:21	
MW-25A	RQ1801697-06	I:\ACQUDATA\msvoa10\data\022218\D1560.D\	02/22/18 20:42	

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/23/18 09:00

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\022318\D1563.D\ **Analytical Method:** 8260C
Instrument ID: R-MS-10 **Analysis Lot:** 581404

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.99	20579	Pass
75	95	30	60	49.80	48832	Pass
95	95	100	100	100.00	98053	Pass
96	95	5	9	6.81	6679	Pass
173	174	0	2	1.22	1054	Pass
174	95	50	120	87.83	86123	Pass
175	174	5	9	7.45	6415	Pass
176	174	95	101	97.89	84304	Pass
177	176	5	9	6.62	5582	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1801663-02	I:\ACQUDATA\msvoa10\data\022318\D1564.D\	02/23/18 09:46	
Lab Control Sample	RQ1801663-03	I:\ACQUDATA\msvoa10\data\022318\D1565.D\	02/23/18 10:23	
Method Blank	RQ1801663-04	I:\ACQUDATA\msvoa10\data\022318\D1567.D\	02/23/18 11:22	
MW-22	R1801449-005	I:\ACQUDATA\msvoa10\data\022318\D1578.D\	02/23/18 15:24	
Duplicate-02	R1801449-004	I:\ACQUDATA\msvoa10\data\022318\D1579.D\	02/23/18 15:45	
MW-15A	R1801449-007	I:\ACQUDATA\msvoa10\data\022318\D1580.D\	02/23/18 16:07	
MW-19AR	R1801449-006	I:\ACQUDATA\msvoa10\data\022318\D1581.D\	02/23/18 16:29	
MW-19AR	R1801449-006	I:\ACQUDATA\msvoa10\data\022318\D1584.D\	02/23/18 17:44	

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/22/18 10:00

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

File ID: I:\ACQUDATA\msvoa10\data\022218\D1533.D\ **Lab Code:**RQ1801697-02
Instrument ID: R-MS-10 **Analysis Lot:**581234
Analysis Method: 8260C **Signal ID:**

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	163,490	11.85	329,358	6.49	287,709	9.80
	Upper Limit ==>	326,980	12.35	658,716	6.99	575,418	10.30
	Lower Limit ==>	81,745	11.35	164,679	5.99	143,855	9.30
Associated Analyses							
Lab Control Sample	RQ1801697-03	162325	11.85	348667	6.49	301946	9.80
Method Blank	RQ1801697-04	138327	11.85	320243	6.49	280086	9.80
Trip Blank	R1801449-008	134776	11.85	302158	6.49	267605	9.80
MW-25A	R1801449-003	131155	11.85	299364	6.49	256533	9.80
MW-10	R1801449-001	135375	11.85	300673	6.49	258213	9.80
MW-11	R1801449-002	133444	11.85	303308	6.49	266400	9.80
MW-25A	RQ1801697-05	158148	11.85	316899	6.49	279344	9.80
MW-25A	RQ1801697-06	151960	11.85	314246	6.49	277703	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/22/18 10:00

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

File ID: I:\ACQUDATA\msvoa10\data\022218\D1533.D\ **Lab Code:**RQ1801697-02
Instrument ID: R-MS-10 **Analysis Lot:**581234
Analysis Method: 8260C **Signal ID:**

		Pentafluorobenzene	
		Area	**RT**
	ICAL Result ==>	222,328	5.38
	Upper Limit ==>	444,656	5.88
	Lower Limit ==>	111,164	4.88
Associated Analyses			
Lab Control Sample	RQ1801697-03	233109	5.39
Method Blank	RQ1801697-04	213276	5.38
Trip Blank	R1801449-008	202795	5.39
MW-25A	R1801449-003	193787	5.39
MW-10	R1801449-001	196038	5.39
MW-11	R1801449-002	200853	5.38
MW-25A	RQ1801697-05	208349	5.38
MW-25A	RQ1801697-06	211109	5.39

QA/QC Report

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/23/18 09:46

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

File ID: I:\ACQUDATA\msvoa10\data\022318\D1564.D\ **Lab Code:**RQ1801663-02
Instrument ID: R-MS-10 **Analysis Lot:**581404
Analysis Method: 8260C **Signal ID:**

		1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	167,274	11.85	332,027	6.49	295,006	9.80
	Upper Limit ==>	334,548	12.35	664,054	6.99	590,012	10.30
	Lower Limit ==>	83,637	11.35	166,014	5.99	147,503	9.30
Associated Analyses							
Lab Control Sample	RQ1801663-03	160412	11.85	337643	6.49	293416	9.80
Method Blank	RQ1801663-04	139285	11.85	313471	6.49	271512	9.80
MW-22	R1801449-005	136938	11.85	309124	6.49	270200	9.80
Duplicate-02	R1801449-004	136360	11.85	307608	6.49	267514	9.80
MW-15A	R1801449-007	132223	11.85	297102	6.49	261686	9.80
MW-19AR	R1801449-006	126547	11.85	292237	6.49	252926	9.80
MW-19AR	R1801449-006.R01	132241	11.85	305285	6.49	266948	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389 **Date Analyzed:**02/23/18 09:46

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

File ID: I:\ACQUDATA\msvoa10\data\022318\D1564.D\ **Lab Code:**RQ1801663-02
Instrument ID: R-MS-10 **Analysis Lot:**581404
Analysis Method: 8260C **Signal ID:**

		Pentafluorobenzene	
		Area	**RT**
	ICAL Result ==>	221,053	5.38
	Upper Limit ==>	442,106	5.88
	Lower Limit ==>	110,527	4.88
Associated Analyses			
Lab Control Sample	RQ1801663-03	225258	5.39
Method Blank	RQ1801663-04	210150	5.39
MW-22	R1801449-005	202130	5.38
Duplicate-02	R1801449-004	201973	5.39
MW-15A	R1801449-007	198144	5.39
MW-19AR	R1801449-006	190336	5.39
MW-19AR	R1801449-006.R01	198600	5.39

Raw Data

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Volatile Organic Compounds by GC/MS

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Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1801449-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 18:10	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 18:10	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 18:10	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 18:10	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 18:10	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 18:10	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 18:10	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 18:10	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 18:10	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 18:10	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 18:10	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
1,4-Dioxane	100 U	100	20	1	02/22/18 18:10	
2-Butanone (MEK)	10 U	10	0.81	1	02/22/18 18:10	
2-Hexanone	10 U	10	1.7	1	02/22/18 18:10	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 18:10	
Acetone	**2.4 J**	10	1.3	1	02/22/18 18:10	
Benzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 18:10	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 18:10	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 18:10	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 18:10	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 18:10	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 18:10	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 18:10	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 18:10	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 18:10	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 18:10	
Cyclohexane	10 U	10	0.25	1	02/22/18 18:10	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 18:10	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 18:10	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 18:10	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 18:10	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 18:10	
Methyl Acetate	10 U	10	0.43	1	02/22/18 18:10	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 18:10	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 18:10	
Styrene	5.0 U	5.0	0.20	1	02/22/18 18:10	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 18:10	
Toluene	5.0 U	5.0	0.20	1	02/22/18 18:10	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-10	**Units:**	ug/L
Lab Code:	R1801449-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/22/18 18:10	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/22/18 18:10	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/22/18 18:10	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/22/18 18:10	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/22/18 18:10	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/22/18 18:10	
o-Xylene	5.0 U	5.0	0.20	1	02/22/18 18:10	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/22/18 18:10	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/22/18 18:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	02/22/18 18:10	
Dibromofluoromethane	102	89 - 119	02/22/18 18:10	
Toluene-d8	105	87 - 121	02/22/18 18:10	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	R1801449-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 18:32	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 18:32	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 18:32	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 18:32	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 18:32	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 18:32	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 18:32	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 18:32	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 18:32	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 18:32	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 18:32	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
1,4-Dioxane	100 U	100	20	1	02/22/18 18:32	
2-Butanone (MEK)	**0.93 J**	10	0.81	1	02/22/18 18:32	
2-Hexanone	10 U	10	1.7	1	02/22/18 18:32	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 18:32	
Acetone	**3.6 J**	10	1.3	1	02/22/18 18:32	
Benzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 18:32	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 18:32	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 18:32	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 18:32	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 18:32	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 18:32	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 18:32	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 18:32	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 18:32	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 18:32	
Cyclohexane	10 U	10	0.25	1	02/22/18 18:32	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 18:32	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 18:32	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 18:32	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 18:32	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 18:32	
Methyl Acetate	10 U	10	0.43	1	02/22/18 18:32	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 18:32	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 18:32	
Styrene	5.0 U	5.0	0.20	1	02/22/18 18:32	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 18:32	
Toluene	5.0 U	5.0	0.20	1	02/22/18 18:32	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	R1801449-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.87**	**J**	5.0	0.22	1	02/22/18 18:32	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/22/18 18:32	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/22/18 18:32	
cis-1,2-Dichloroethene	**4.7**	**J**	5.0	0.30	1	02/22/18 18:32	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/22/18 18:32	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/22/18 18:32	
o-Xylene	5.0	U	5.0	0.20	1	02/22/18 18:32	
trans-1,2-Dichloroethene	5.0	U	5.0	0.33	1	02/22/18 18:32	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/22/18 18:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	02/22/18 18:32	
Dibromofluoromethane	101	89 - 119	02/22/18 18:32	
Toluene-d8	105	87 - 121	02/22/18 18:32	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:35
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-25A	**Units:**	ug/L
Lab Code:	R1801449-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 17:49	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 17:49	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 17:49	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 17:49	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 17:49	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 17:49	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 17:49	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 17:49	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 17:49	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 17:49	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 17:49	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
1,4-Dioxane	100 U	100	20	1	02/22/18 17:49	
2-Butanone (MEK)	10 U	10	0.81	1	02/22/18 17:49	
2-Hexanone	10 U	10	1.7	1	02/22/18 17:49	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 17:49	
Acetone	**2.2 J**	10	1.3	1	02/22/18 17:49	
Benzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 17:49	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 17:49	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 17:49	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 17:49	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 17:49	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 17:49	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 17:49	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 17:49	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 17:49	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 17:49	
Cyclohexane	10 U	10	0.25	1	02/22/18 17:49	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 17:49	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 17:49	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 17:49	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 17:49	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 17:49	
Methyl Acetate	10 U	10	0.43	1	02/22/18 17:49	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 17:49	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 17:49	
Styrene	5.0 U	5.0	0.20	1	02/22/18 17:49	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 17:49	
Toluene	5.0 U	5.0	0.20	1	02/22/18 17:49	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 13:35
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-25A	**Units:**	ug/L
Lab Code:	R1801449-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.32**	**J**	5.0	0.22	1	02/22/18 17:49	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/22/18 17:49	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/22/18 17:49	
cis-1,2-Dichloroethene	5.0	U	5.0	0.30	1	02/22/18 17:49	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/22/18 17:49	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/22/18 17:49	
o-Xylene	5.0	U	5.0	0.20	1	02/22/18 17:49	
trans-1,2-Dichloroethene	5.0	U	5.0	0.33	1	02/22/18 17:49	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/22/18 17:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	02/22/18 17:49	
Dibromofluoromethane	100	89 - 119	02/22/18 17:49	
Toluene-d8	102	87 - 121	02/22/18 17:49	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Duplicate-02	**Units:**	ug/L
Lab Code:	R1801449-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/23/18 15:45	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/23/18 15:45	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/23/18 15:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/23/18 15:45	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/23/18 15:45	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/23/18 15:45	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/23/18 15:45	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/23/18 15:45	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/23/18 15:45	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/23/18 15:45	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/23/18 15:45	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
1,4-Dioxane	100 U	100	20	1	02/23/18 15:45	
2-Butanone (MEK)	10 U	10	0.81	1	02/23/18 15:45	
2-Hexanone	10 U	10	1.7	1	02/23/18 15:45	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/23/18 15:45	
Acetone	**3.8 J**	10	1.3	1	02/23/18 15:45	
Benzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
Bromochloromethane	5.0 U	5.0	0.32	1	02/23/18 15:45	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/23/18 15:45	
Bromoform	5.0 U	5.0	0.42	1	02/23/18 15:45	
Bromomethane	5.0 U	5.0	0.29	1	02/23/18 15:45	
Carbon Disulfide	10 U	10	0.22	1	02/23/18 15:45	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/23/18 15:45	
Chlorobenzene	5.0 U	5.0	0.29	1	02/23/18 15:45	
Chloroethane	5.0 U	5.0	0.24	1	02/23/18 15:45	
Chloroform	5.0 U	5.0	0.25	1	02/23/18 15:45	
Chloromethane	5.0 U	5.0	0.21	1	02/23/18 15:45	
Cyclohexane	10 U	10	0.25	1	02/23/18 15:45	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/23/18 15:45	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/23/18 15:45	
Dichloromethane	5.0 U	5.0	0.60	1	02/23/18 15:45	
Ethylbenzene	5.0 U	5.0	0.20	1	02/23/18 15:45	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/23/18 15:45	
Methyl Acetate	10 U	10	0.43	1	02/23/18 15:45	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/23/18 15:45	
Methylcyclohexane	10 U	10	0.27	1	02/23/18 15:45	
Styrene	5.0 U	5.0	0.20	1	02/23/18 15:45	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/23/18 15:45	
Toluene	5.0 U	5.0	0.20	1	02/23/18 15:45	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:00
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Duplicate-02	**Units:**	ug/L
Lab Code:	R1801449-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.35**	**J**	5.0	0.22	1	02/23/18 15:45	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/23/18 15:45	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/23/18 15:45	
cis-1,2-Dichloroethene	**1.1**	**J**	5.0	0.30	1	02/23/18 15:45	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/23/18 15:45	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/23/18 15:45	
o-Xylene	5.0	U	5.0	0.20	1	02/23/18 15:45	
trans-1,2-Dichloroethene	5.0	U	5.0	0.33	1	02/23/18 15:45	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/23/18 15:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 15:45	
Dibromofluoromethane	100	89 - 119	02/23/18 15:45	
Toluene-d8	103	87 - 121	02/23/18 15:45	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:20
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-22	**Units:**	ug/L
Lab Code:	R1801449-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/23/18 15:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/23/18 15:24	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/23/18 15:24	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/23/18 15:24	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/23/18 15:24	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/23/18 15:24	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/23/18 15:24	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/23/18 15:24	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/23/18 15:24	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/23/18 15:24	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/23/18 15:24	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
1,4-Dioxane	100 U	100	20	1	02/23/18 15:24	
2-Butanone (MEK)	10 U	10	0.81	1	02/23/18 15:24	
2-Hexanone	10 U	10	1.7	1	02/23/18 15:24	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/23/18 15:24	
Acetone	**2.7 J**	10	1.3	1	02/23/18 15:24	
Benzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
Bromochloromethane	5.0 U	5.0	0.32	1	02/23/18 15:24	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/23/18 15:24	
Bromoform	5.0 U	5.0	0.42	1	02/23/18 15:24	
Bromomethane	5.0 U	5.0	0.29	1	02/23/18 15:24	
Carbon Disulfide	10 U	10	0.22	1	02/23/18 15:24	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/23/18 15:24	
Chlorobenzene	5.0 U	5.0	0.29	1	02/23/18 15:24	
Chloroethane	5.0 U	5.0	0.24	1	02/23/18 15:24	
Chloroform	5.0 U	5.0	0.25	1	02/23/18 15:24	
Chloromethane	5.0 U	5.0	0.21	1	02/23/18 15:24	
Cyclohexane	10 U	10	0.25	1	02/23/18 15:24	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/23/18 15:24	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/23/18 15:24	
Dichloromethane	5.0 U	5.0	0.60	1	02/23/18 15:24	
Ethylbenzene	5.0 U	5.0	0.20	1	02/23/18 15:24	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/23/18 15:24	
Methyl Acetate	10 U	10	0.43	1	02/23/18 15:24	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/23/18 15:24	
Methylcyclohexane	10 U	10	0.27	1	02/23/18 15:24	
Styrene	5.0 U	5.0	0.20	1	02/23/18 15:24	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/23/18 15:24	
Toluene	5.0 U	5.0	0.20	1	02/23/18 15:24	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:20
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-22	**Units:**	ug/L
Lab Code:	R1801449-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/23/18 15:24	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/23/18 15:24	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/23/18 15:24	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/23/18 15:24	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/23/18 15:24	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/23/18 15:24	
o-Xylene	5.0 U	5.0	0.20	1	02/23/18 15:24	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/23/18 15:24	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/23/18 15:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 15:24	
Dibromofluoromethane	100	89 - 119	02/23/18 15:24	
Toluene-d8	103	87 - 121	02/23/18 15:24	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-19AR	**Units:**	ug/L
Lab Code:	R1801449-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/23/18 16:29	
1,1,2,2-Tetrachloroethane	**0.56**	**J**	5.0	0.25	1	02/23/18 16:29	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/23/18 16:29	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/23/18 16:29	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/23/18 16:29	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/23/18 16:29	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/23/18 16:29	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/23/18 16:29	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/23/18 16:29	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/23/18 16:29	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/23/18 16:29	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
1,4-Dioxane	100	U	100	20	1	02/23/18 16:29	
2-Butanone (MEK)	**9.8**	**J**	10	0.81	1	02/23/18 16:29	
2-Hexanone	10	U	10	1.7	1	02/23/18 16:29	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/23/18 16:29	
Acetone	**78**		10	1.3	1	02/23/18 16:29	
Benzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
Bromochloromethane	5.0	U	5.0	0.32	1	02/23/18 16:29	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/23/18 16:29	
Bromoform	5.0	U	5.0	0.42	1	02/23/18 16:29	
Bromomethane	5.0	U	5.0	0.29	1	02/23/18 16:29	
Carbon Disulfide	**12**		10	0.22	1	02/23/18 16:29	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/23/18 16:29	
Chlorobenzene	5.0	U	5.0	0.29	1	02/23/18 16:29	
Chloroethane	5.0	U	5.0	0.24	1	02/23/18 16:29	
Chloroform	**0.28**	**J**	5.0	0.25	1	02/23/18 16:29	
Chloromethane	**0.69**	**J**	5.0	0.21	1	02/23/18 16:29	
Cyclohexane	**0.48**	**J**	10	0.25	1	02/23/18 16:29	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/23/18 16:29	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/23/18 16:29	
Dichloromethane	5.0	U	5.0	0.60	1	02/23/18 16:29	
Ethylbenzene	5.0	U	5.0	0.20	1	02/23/18 16:29	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/23/18 16:29	
Methyl Acetate	10	U	10	0.43	1	02/23/18 16:29	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/23/18 16:29	
Methylcyclohexane	**0.31**	**J**	10	0.27	1	02/23/18 16:29	
Styrene	5.0	U	5.0	0.20	1	02/23/18 16:29	
Tetrachloroethene (PCE)	**5.0**	**J**	5.0	0.30	1	02/23/18 16:29	
Toluene	5.0	U	5.0	0.20	1	02/23/18 16:29	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18 14:30
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-19AR	**Units:**	ug/L
Lab Code:	R1801449-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**440**	**D**	25	1.1	5	02/23/18 17:44	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/23/18 16:29	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/23/18 16:29	
cis-1,2-Dichloroethene	**65**		5.0	0.30	1	02/23/18 16:29	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/23/18 16:29	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/23/18 16:29	
o-Xylene	5.0	U	5.0	0.20	1	02/23/18 16:29	
trans-1,2-Dichloroethene	**9.6**		5.0	0.33	1	02/23/18 16:29	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/23/18 16:29	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 16:29	
Dibromofluoromethane	102	89 - 119	02/23/18 16:29	
Toluene-d8	103	87 - 121	02/23/18 16:29	

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/14/18 12:40
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-15A	**Units:**	ug/L
Lab Code:	R1801449-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0	U	5.0	0.36	1	02/23/18 16:07	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.25	1	02/23/18 16:07	
1,1,2-Trichloroethane	5.0	U	5.0	0.34	1	02/23/18 16:07	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	0.31	1	02/23/18 16:07	
1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	0.57	1	02/23/18 16:07	
1,2,3-Trichlorobenzene	5.0	U	5.0	0.82	1	02/23/18 16:07	
1,2,4-Trichlorobenzene	5.0	U	5.0	0.23	1	02/23/18 16:07	
1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	0.74	1	02/23/18 16:07	
1,2-Dibromoethane	5.0	U	5.0	0.24	1	02/23/18 16:07	
1,2-Dichlorobenzene	5.0	U	5.0	0.21	1	02/23/18 16:07	
1,2-Dichloroethane	5.0	U	5.0	0.36	1	02/23/18 16:07	
1,2-Dichloropropane	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,3-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,4-Dichlorobenzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
1,4-Dioxane	100	U	100	20	1	02/23/18 16:07	
2-Butanone (MEK)	**2.0**	**J**	10	0.81	1	02/23/18 16:07	
2-Hexanone	10	U	10	1.7	1	02/23/18 16:07	
4-Methyl-2-pentanone	10	U	10	0.67	1	02/23/18 16:07	
Acetone	**2.1**	**J**	10	1.3	1	02/23/18 16:07	
Benzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
Bromochloromethane	5.0	U	5.0	0.32	1	02/23/18 16:07	
Bromodichloromethane	5.0	U	5.0	0.32	1	02/23/18 16:07	
Bromoform	5.0	U	5.0	0.42	1	02/23/18 16:07	
Bromomethane	5.0	U	5.0	0.29	1	02/23/18 16:07	
Carbon Disulfide	10	U	10	0.22	1	02/23/18 16:07	
Carbon Tetrachloride	5.0	U	5.0	0.45	1	02/23/18 16:07	
Chlorobenzene	5.0	U	5.0	0.29	1	02/23/18 16:07	
Chloroethane	5.0	U	5.0	0.24	1	02/23/18 16:07	
Chloroform	5.0	U	5.0	0.25	1	02/23/18 16:07	
Chloromethane	5.0	U	5.0	0.21	1	02/23/18 16:07	
Cyclohexane	10	U	10	0.25	1	02/23/18 16:07	
Dibromochloromethane	5.0	U	5.0	0.31	1	02/23/18 16:07	
Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	0.46	1	02/23/18 16:07	
Dichloromethane	5.0	U	5.0	0.60	1	02/23/18 16:07	
Ethylbenzene	5.0	U	5.0	0.20	1	02/23/18 16:07	
Isopropylbenzene (Cumene)	5.0	U	5.0	0.20	1	02/23/18 16:07	
Methyl Acetate	10	U	10	0.43	1	02/23/18 16:07	
Methyl tert-Butyl Ether	5.0	U	5.0	0.29	1	02/23/18 16:07	
Methylcyclohexane	10	U	10	0.27	1	02/23/18 16:07	
Styrene	5.0	U	5.0	0.20	1	02/23/18 16:07	
Tetrachloroethene (PCE)	**0.32**	**J**	5.0	0.30	1	02/23/18 16:07	
Toluene	5.0	U	5.0	0.20	1	02/23/18 16:07	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/14/18 12:40
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	MW-15A	**Units:**	ug/L
Lab Code:	R1801449-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	**0.41**	**J**	5.0	0.22	1	02/23/18 16:07	
Trichlorofluoromethane (CFC 11)	5.0	U	5.0	0.20	1	02/23/18 16:07	
Vinyl Chloride	5.0	U	5.0	0.32	1	02/23/18 16:07	
cis-1,2-Dichloroethene	5.0	U	5.0	0.30	1	02/23/18 16:07	
cis-1,3-Dichloropropene	5.0	U	5.0	0.24	1	02/23/18 16:07	
m,p-Xylenes	5.0	U	5.0	0.33	1	02/23/18 16:07	
o-Xylene	5.0	U	5.0	0.20	1	02/23/18 16:07	
trans-1,2-Dichloroethene	5.0	U	5.0	0.33	1	02/23/18 16:07	
trans-1,3-Dichloropropene	5.0	U	5.0	0.20	1	02/23/18 16:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	02/23/18 16:07	
Dibromofluoromethane	103	89 - 119	02/23/18 16:07	
Toluene-d8	105	87 - 121	02/23/18 16:07	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1801449-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.36	1	02/22/18 17:27	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.25	1	02/22/18 17:27	
1,1,2-Trichloroethane	5.0 U	5.0	0.34	1	02/22/18 17:27	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.31	1	02/22/18 17:27	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.57	1	02/22/18 17:27	
1,2,3-Trichlorobenzene	5.0 U	5.0	0.82	1	02/22/18 17:27	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.23	1	02/22/18 17:27	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.74	1	02/22/18 17:27	
1,2-Dibromoethane	5.0 U	5.0	0.24	1	02/22/18 17:27	
1,2-Dichlorobenzene	5.0 U	5.0	0.21	1	02/22/18 17:27	
1,2-Dichloroethane	5.0 U	5.0	0.36	1	02/22/18 17:27	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,4-Dichlorobenzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
1,4-Dioxane	100 U	100	20	1	02/22/18 17:27	
2-Butanone (MEK)	10 U	10	0.81	1	02/22/18 17:27	
2-Hexanone	10 U	10	1.7	1	02/22/18 17:27	
4-Methyl-2-pentanone	10 U	10	0.67	1	02/22/18 17:27	
Acetone	10 U	10	1.3	1	02/22/18 17:27	
Benzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
Bromochloromethane	5.0 U	5.0	0.32	1	02/22/18 17:27	
Bromodichloromethane	5.0 U	5.0	0.32	1	02/22/18 17:27	
Bromoform	5.0 U	5.0	0.42	1	02/22/18 17:27	
Bromomethane	5.0 U	5.0	0.29	1	02/22/18 17:27	
Carbon Disulfide	10 U	10	0.22	1	02/22/18 17:27	
Carbon Tetrachloride	5.0 U	5.0	0.45	1	02/22/18 17:27	
Chlorobenzene	5.0 U	5.0	0.29	1	02/22/18 17:27	
Chloroethane	5.0 U	5.0	0.24	1	02/22/18 17:27	
Chloroform	5.0 U	5.0	0.25	1	02/22/18 17:27	
Chloromethane	5.0 U	5.0	0.21	1	02/22/18 17:27	
Cyclohexane	10 U	10	0.25	1	02/22/18 17:27	
Dibromochloromethane	5.0 U	5.0	0.31	1	02/22/18 17:27	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.46	1	02/22/18 17:27	
Dichloromethane	5.0 U	5.0	0.60	1	02/22/18 17:27	
Ethylbenzene	5.0 U	5.0	0.20	1	02/22/18 17:27	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	02/22/18 17:27	
Methyl Acetate	10 U	10	0.43	1	02/22/18 17:27	
Methyl tert-Butyl Ether	5.0 U	5.0	0.29	1	02/22/18 17:27	
Methylcyclohexane	10 U	10	0.27	1	02/22/18 17:27	
Styrene	5.0 U	5.0	0.20	1	02/22/18 17:27	
Tetrachloroethene (PCE)	5.0 U	5.0	0.30	1	02/22/18 17:27	
Toluene	5.0 U	5.0	0.20	1	02/22/18 17:27	

Analytical Report

Client:	The LiRo Group	**Service Request:**	R1801449
Project:	Buffalo China/16-344-1389	**Date Collected:**	02/13/18
Sample Matrix:	Water	**Date Received:**	02/19/18 12:15
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1801449-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	0.22	1	02/22/18 17:27	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.20	1	02/22/18 17:27	
Vinyl Chloride	5.0 U	5.0	0.32	1	02/22/18 17:27	
cis-1,2-Dichloroethene	5.0 U	5.0	0.30	1	02/22/18 17:27	
cis-1,3-Dichloropropene	5.0 U	5.0	0.24	1	02/22/18 17:27	
m,p-Xylenes	5.0 U	5.0	0.33	1	02/22/18 17:27	
o-Xylene	5.0 U	5.0	0.20	1	02/22/18 17:27	
trans-1,2-Dichloroethene	5.0 U	5.0	0.33	1	02/22/18 17:27	
trans-1,3-Dichloropropene	5.0 U	5.0	0.20	1	02/22/18 17:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	02/22/18 17:27	
Dibromofluoromethane	103	89 - 119	02/22/18 17:27	
Toluene-d8	108	87 - 121	02/22/18 17:27	

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1553.D
Acq On : 22 Feb 2018 6:10 pm
Operator : D.LIPANI
Sample : R1801449-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 25 14:11:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

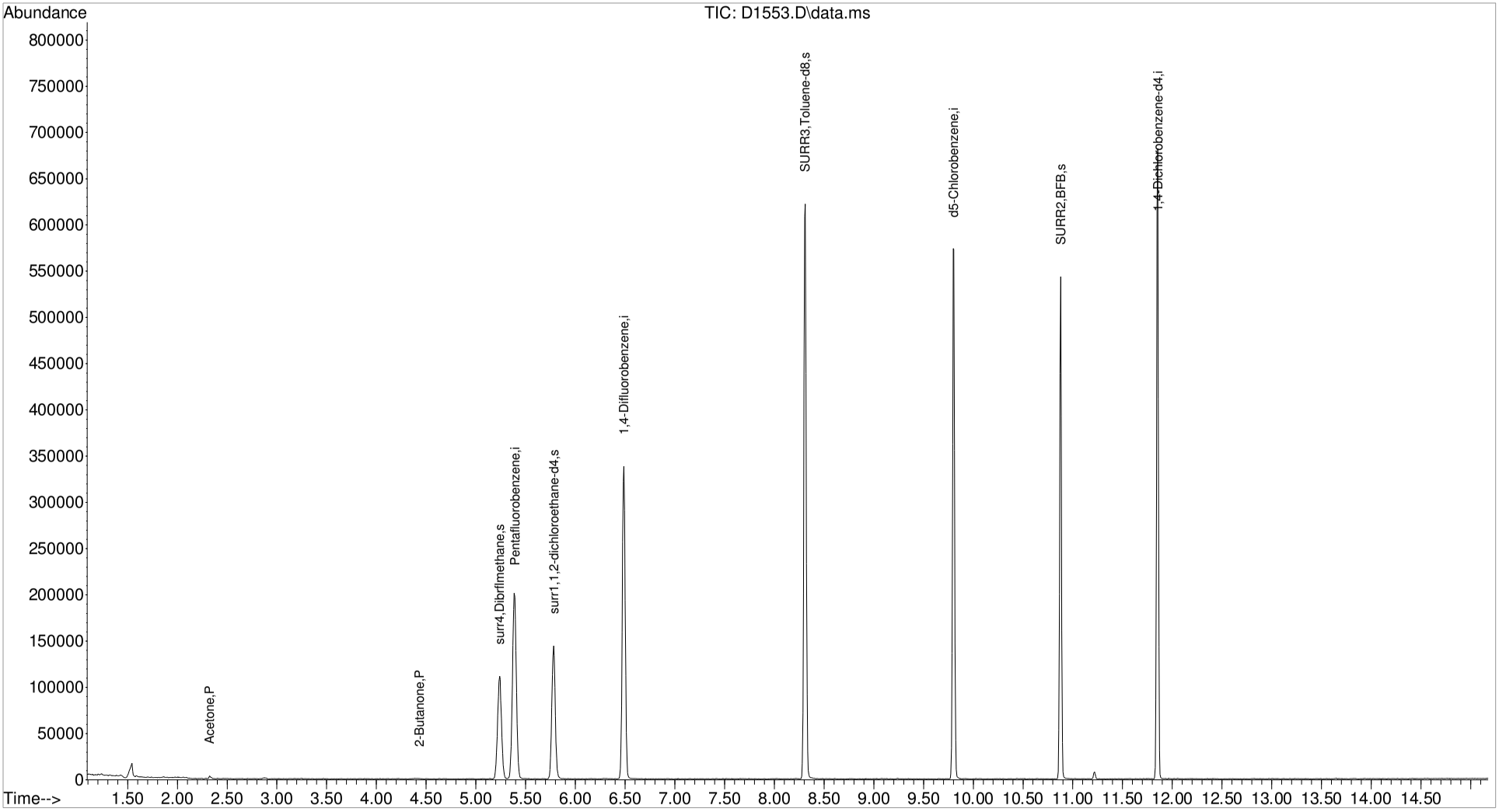
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	196038	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	300673	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	258213	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	135375	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	93355	50.75	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.50%			
46) surr1,1,2-dichloroetha...	5.781	65	117900	55.43	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.86%			
64) SURR3,Toluene-d8	8.311	98	382112	52.71	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.42%			
69) SURR2,BFB	10.878	95	131670	46.89	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.78%			
Target Compounds						Qvalue
5) Bromomethane	1.593	94	296	Below Cal	#	66
15) Acetone	2.324	43	2476	2.42	ug/L	92
34) 2-Butanone	4.434	43	514	0.37	ug/L	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed

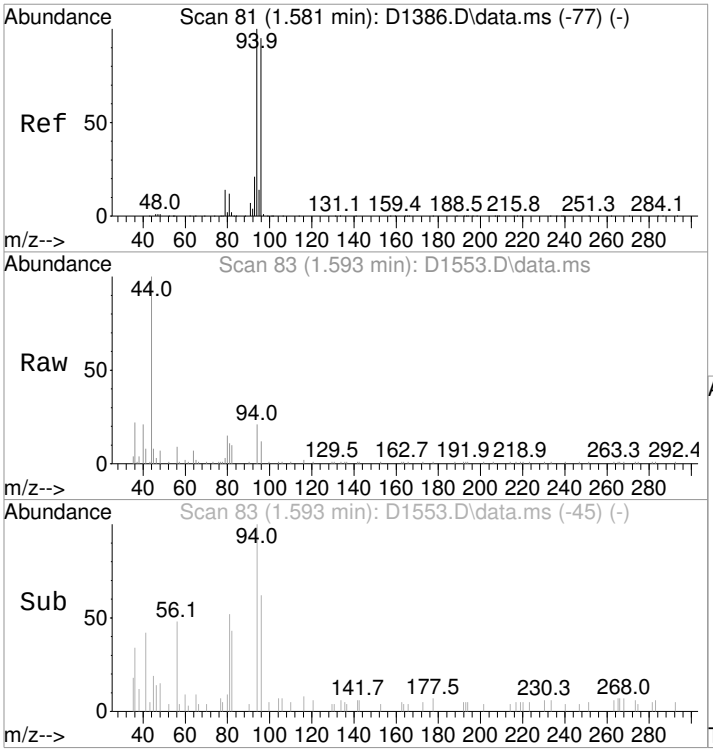
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1553.D
Acq On : 22 Feb 2018 6:10 pm
Operator : D.LIPANI
Sample : R1801449-001|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 25 14:11:35 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



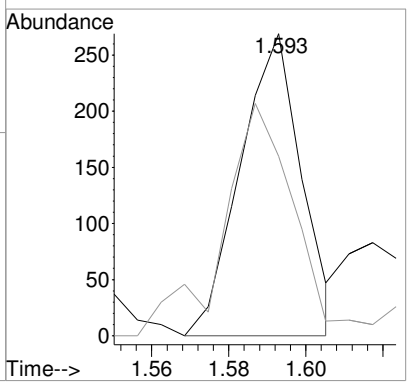
1st DL 02/26/18
2nd FJ 02/26/18

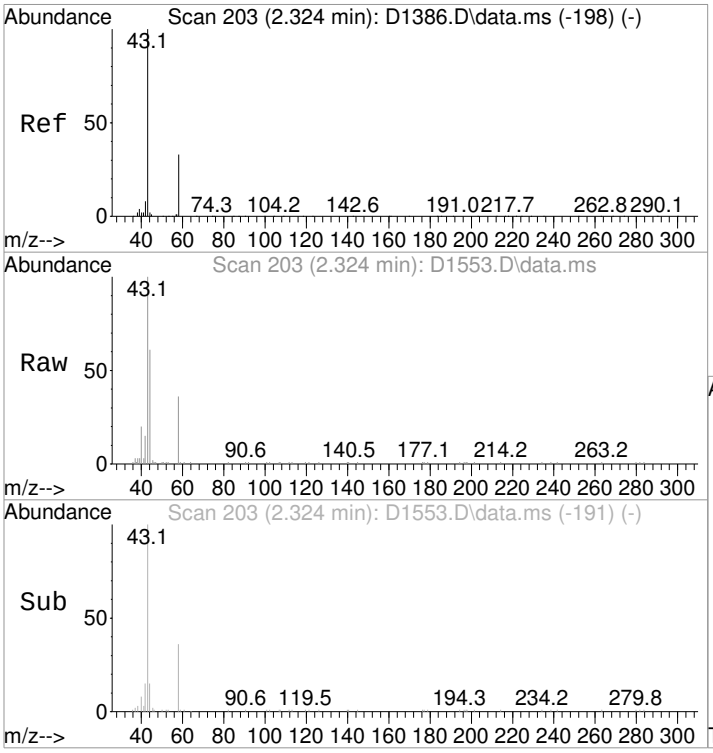


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.007 min
Lab File: D1553.D
Acq: 22 Feb 2018 6:10 pm

Tgt Ion: 94 Resp: 296

Ion	Ratio	Lower	Upper
94	100		
96	59.5	72.1	112.1#

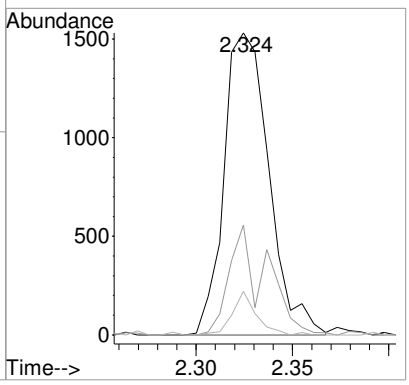


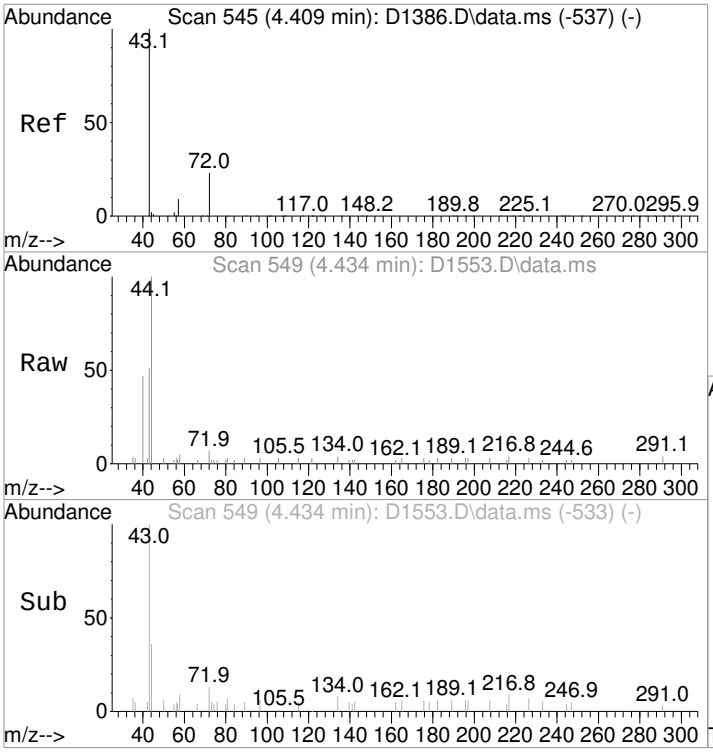


#15
Acetone
Concen: 2.42 ug/L
RT: 2.324 min Scan# 203
Delta R.T. 0.000 min
Lab File: D1553.D
Acq: 22 Feb 2018 6:10 pm

Tgt Ion: 43 Resp: 2476

Ion	Ratio	Lower	Upper
43	100		
58	36.4	12.8	52.8
42	14.5	0.0	30.0

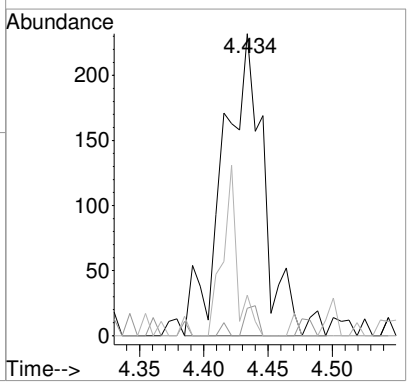




#34
2-Butanone
Concen: 0.37 ug/L
RT: 4.434 min Scan# 549
Delta R.T. 0.018 min
Lab File: D1553.D
Acq: 22 Feb 2018 6:10 pm

Tgt Ion: 43 Resp: 514

Ion	Ratio	Lower	Upper
43	100		
57	9.1	0.0	27.1
72	13.4	4.9	44.9



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1554.D
Acq On : 22 Feb 2018 6:32 pm
Operator : D.LIPANI
Sample : R1801449-002|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 25 14:14:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

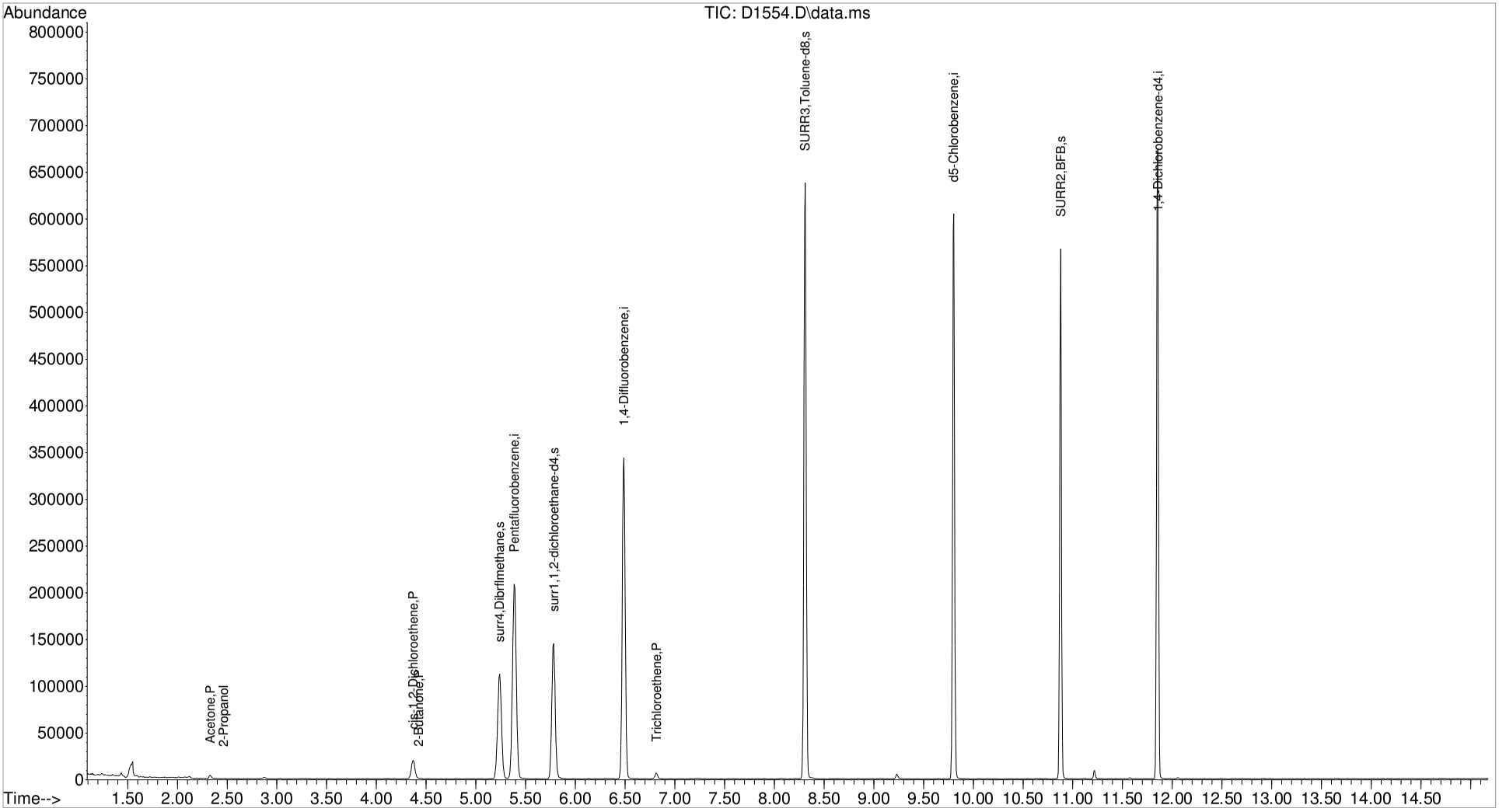
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	200853	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	303308	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	266400	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	133444	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	93487	50.38	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.76%			
46) surr1,1,2-dichloroetha...	5.781	65	120441	56.13	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 112.26%			
64) SURR3,Toluene-d8	8.311	98	385084	52.66	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.32%			
69) SURR2,BFB	10.878	95	135584	47.87	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.74%			
Target Compounds						Qvalue
5) Bromomethane	1.593	94	306	Below Cal		84
15) Acetone	2.330	43	3730	3.56	ug/L	93
16) 2-Propanol	2.465	45	187	1.11	ug/L	81
33) cis-1,2-Dichloroethene	4.373	96	11009	4.66	ug/L	97
34) 2-Butanone	4.428	43	1331	0.93	ug/L	75
53) Trichloroethene	6.817	130	2078	0.87	ug/L #	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

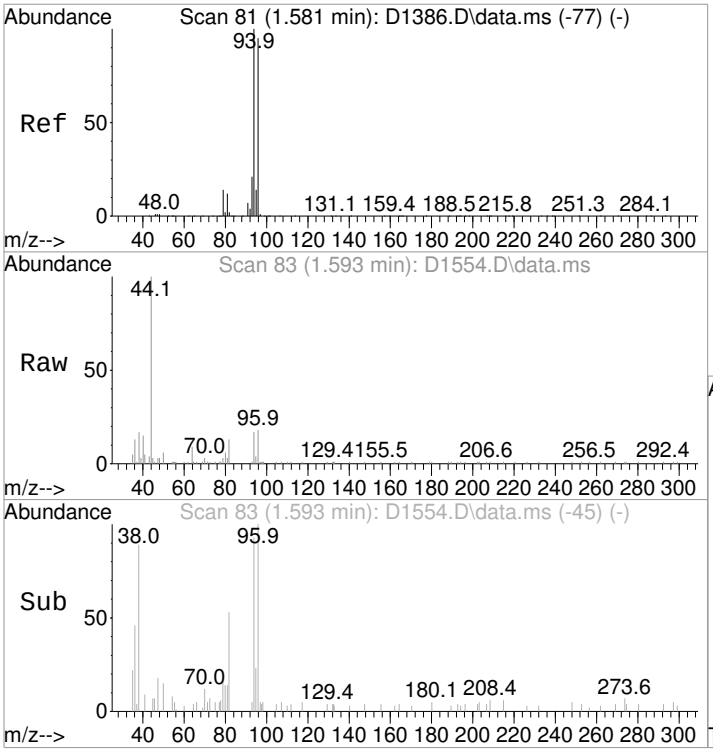
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1554.D
Acq On : 22 Feb 2018 6:32 pm
Operator : D.LIPANI
Sample : R1801449-002|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 25 14:14:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



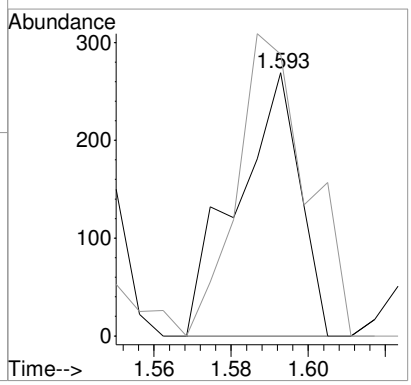
1st DL 02/26/18
2nd FJ 02/26/18

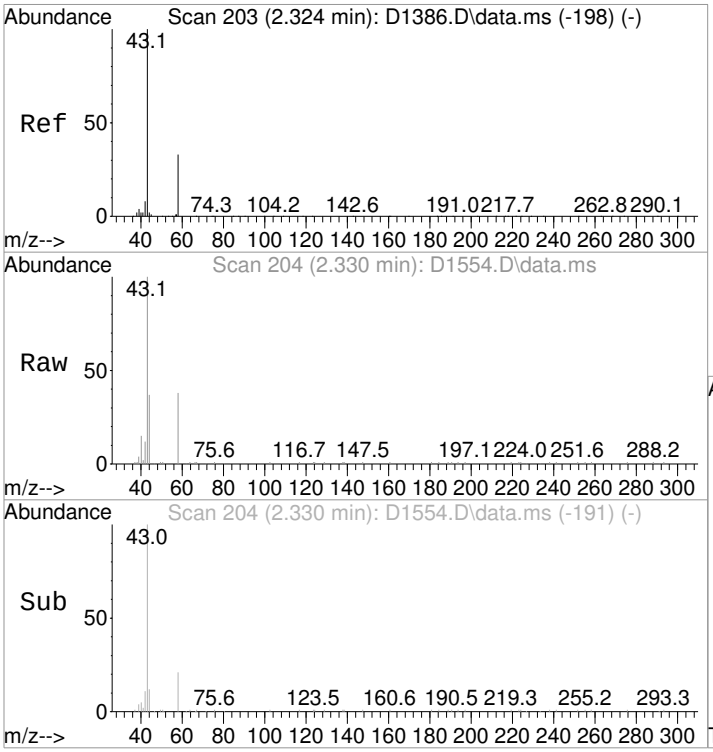


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.007 min
Lab File: D1554.D
Acq: 22 Feb 2018 6:32 pm

Tgt Ion: 94 Resp: 306

Ion	Ratio	Lower	Upper
94	100		
96	107.1	72.1	112.1

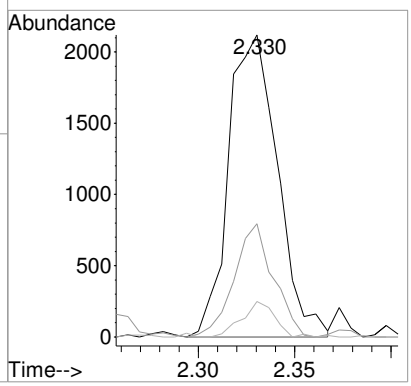


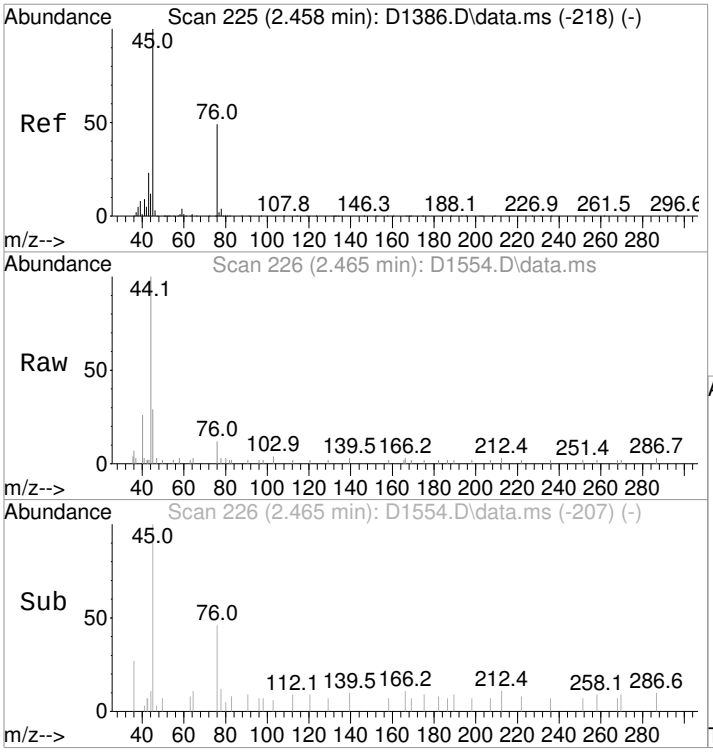


#15
Acetone
Concen: 3.56 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1554.D
Acq: 22 Feb 2018 6:32 pm

Tgt Ion: 43 Resp: 3730

Ion	Ratio	Lower	Upper
43	100		
58	37.5	12.8	52.8
42	11.7	0.0	30.0

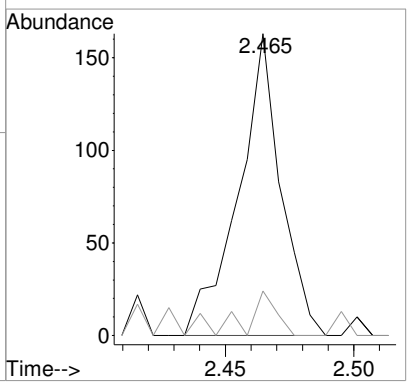


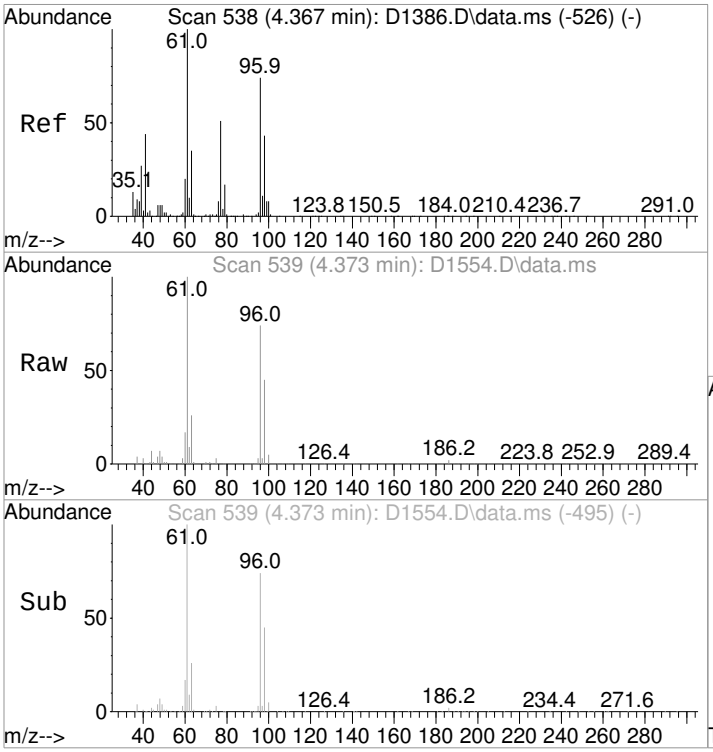


#16
2-Propanol
Concen: 1.11 ug/L
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1554.D
Acq: 22 Feb 2018 6:32 pm

Tgt Ion: 45 Resp: 187

Ion	Ratio	Lower	Upper
45	100		
43	14.7	4.3	44.3

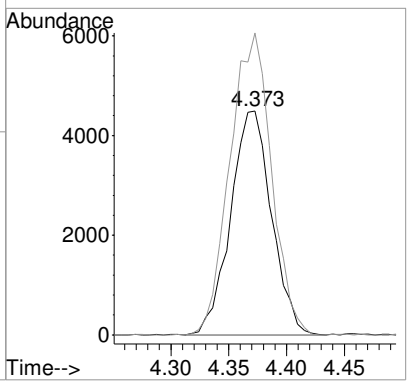


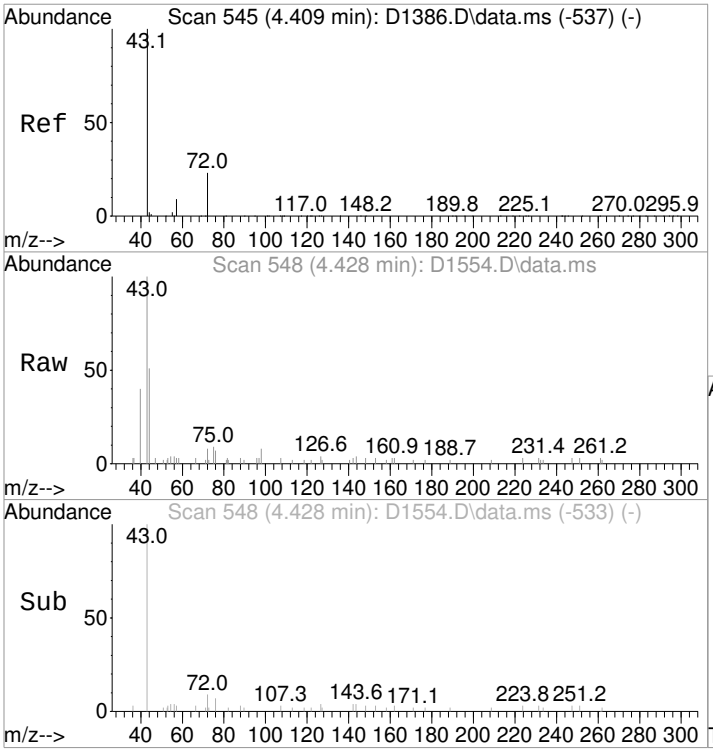


#33
cis-1,2-Dichloroethene
Concen: 4.66 ug/L
RT: 4.373 min Scan# 539
Delta R.T. 0.012 min
Lab File: D1554.D
Acq: 22 Feb 2018 6:32 pm

Tgt Ion: 96 Resp: 11009

Ion	Ratio	Lower	Upper
96	100		
61	134.9	111.5	151.5

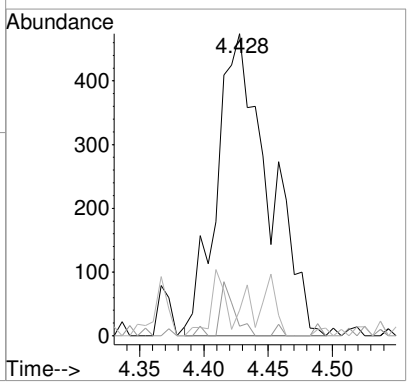


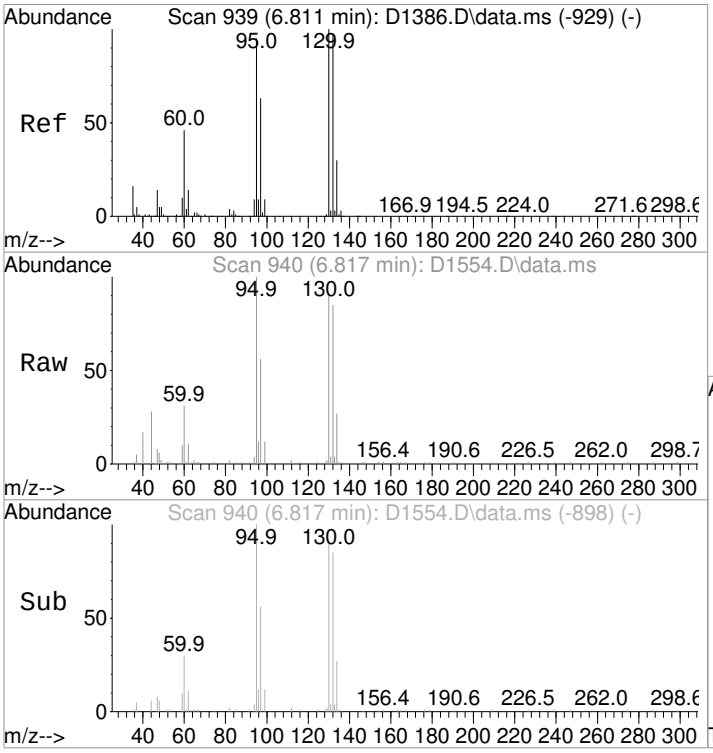


#34
2-Butanone
Concen: 0.93 ug/L
RT: 4.428 min Scan# 548
Delta R.T. 0.012 min
Lab File: D1554.D
Acq: 22 Feb 2018 6:32 pm

Tgt Ion: 43 Resp: 1331

Ion	Ratio	Lower	Upper
43	100		
57	3.2	0.0	27.1
72	10.5	4.9	44.9

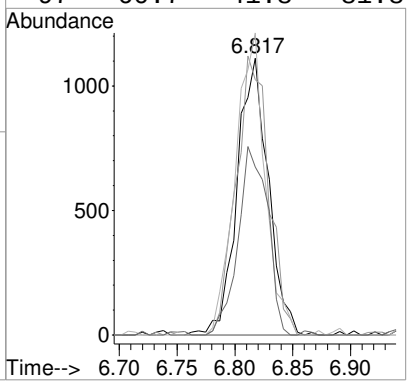




#53
Trichloroethene
Concen: 0.87 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1554.D
Acq: 22 Feb 2018 6:32 pm

Tgt Ion:130 Resp: 2078

Ion	Ratio	Lower	Upper
130	100		
132	92.3	80.0	120.0
95	109.2	68.5	108.5#
97	60.7	41.8	81.8



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1552.D
Acq On : 22 Feb 2018 5:49 pm
Operator : D.LIPANI
Sample : R1801449-003|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 25 14:10:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

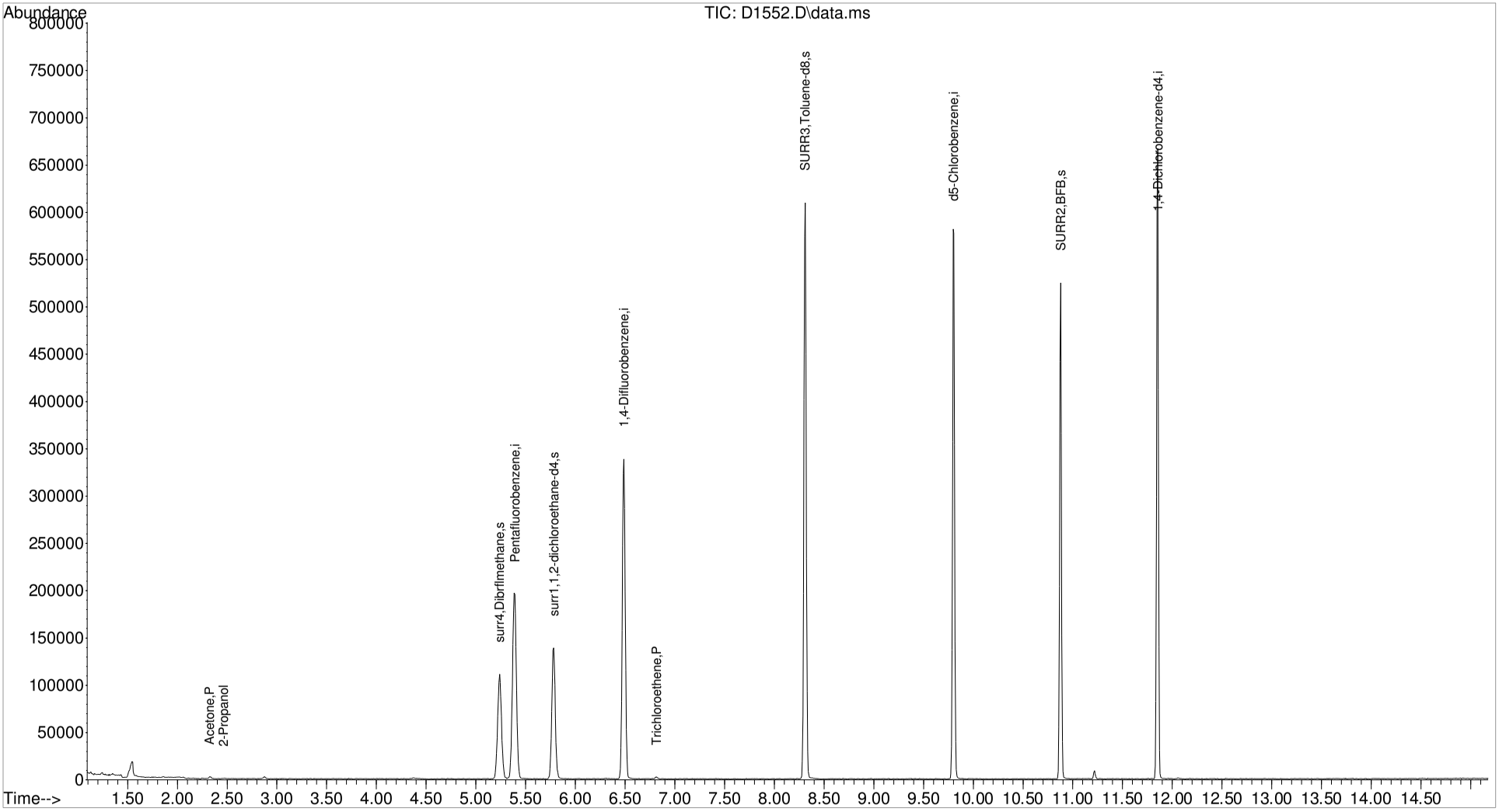
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	193787	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	299364	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	256533	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	131155	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	91603	50.01	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.02%				
46) surr1,1,2-dichloroetha...	5.781	65	116684	55.10	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 110.20%				
64) SURR3,Toluene-d8	8.311	98	369520	51.20	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 102.40%				
69) SURR2,BFB	10.878	95	130764	46.77	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 93.54%				
Target Compounds							Qvalue
15) Acetone	2.324	43	2199	2.17	ug/L		80
16) 2-Propanol	2.465	45	328	2.02	ug/L	#	51
53) Trichloroethene	6.817	130	756	0.32	ug/L	#	54

(#) = qualifier out of range (m) = manual integration (+) = signals summed

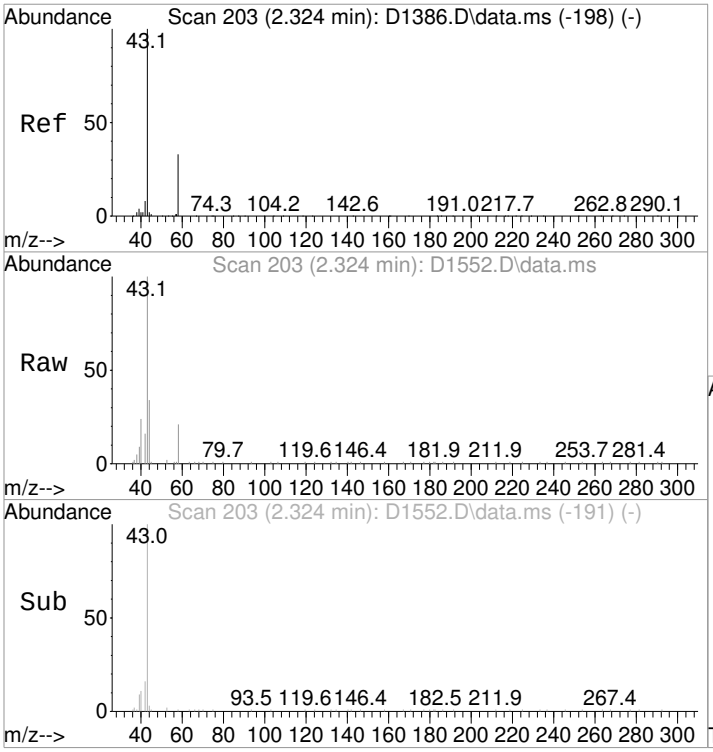
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1552.D
Acq On : 22 Feb 2018 5:49 pm
Operator : D.LIPANI
Sample : R1801449-003|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 25 14:10:02 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



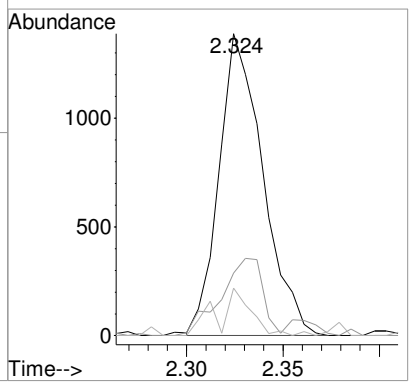
1st DL 02/26/18
2nd FJ 02/26/18

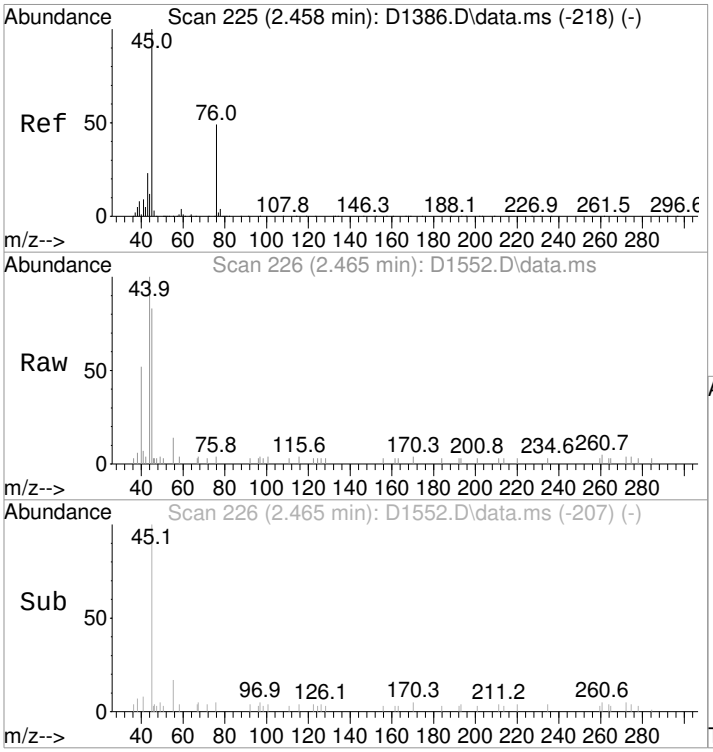


#15
Acetone
Concen: 2.17 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1552.D
Acq: 22 Feb 2018 5:49 pm

Tgt Ion: 43 Resp: 2199

Ion	Ratio	Lower	Upper
43	100		
58	20.7	12.8	52.8
42	15.8	0.0	30.0

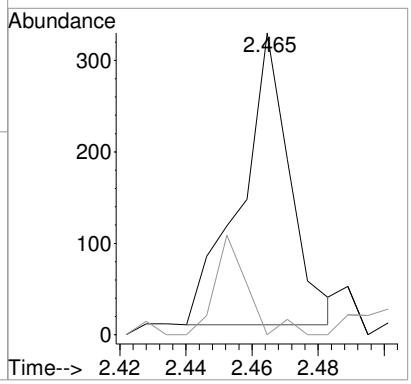


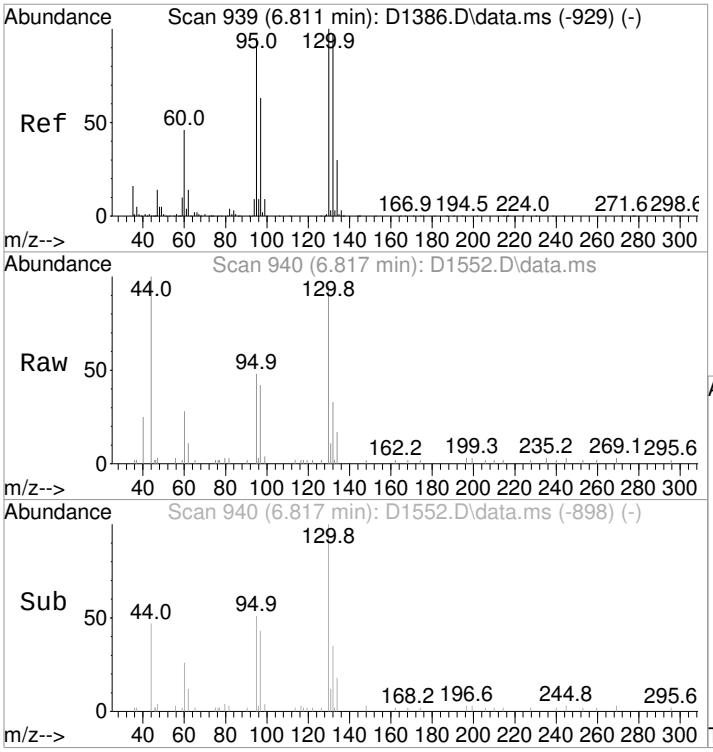


#16
2-Propanol
Concen: 2.02 ug/L
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1552.D
Acq: 22 Feb 2018 5:49 pm

Tgt Ion: 45 Resp: 328

Ion	Ratio	Lower	Upper
45	100		
43	0.0	4.3	44.3#

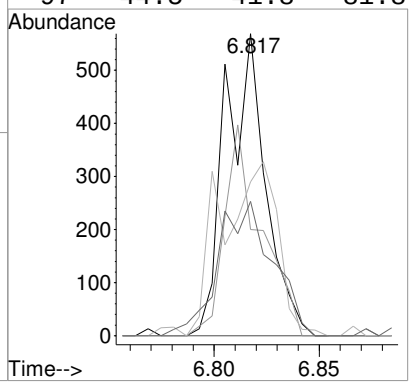




#53
Trichloroethene
Concen: 0.32 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1552.D
Acq: 22 Feb 2018 5:49 pm

Tgt Ion:130 Resp: 756

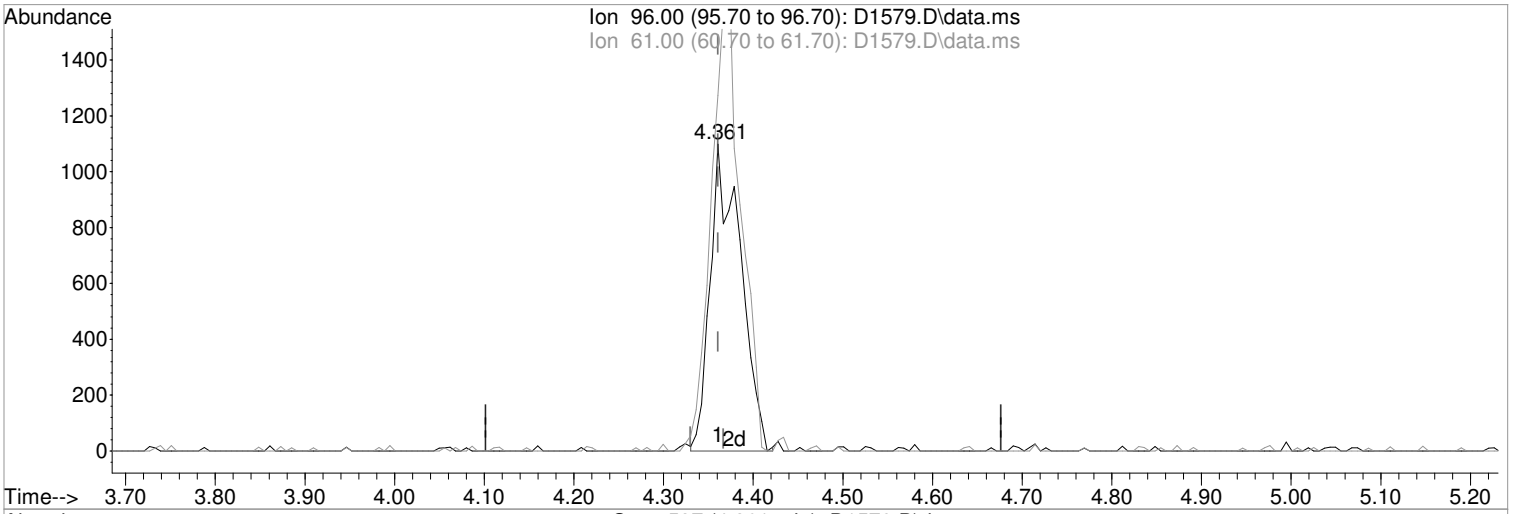
Ion	Ratio	Lower	Upper
130	100		
132	35.1	80.0	120.0#
95	51.0	68.5	108.5#
97	44.5	41.8	81.8

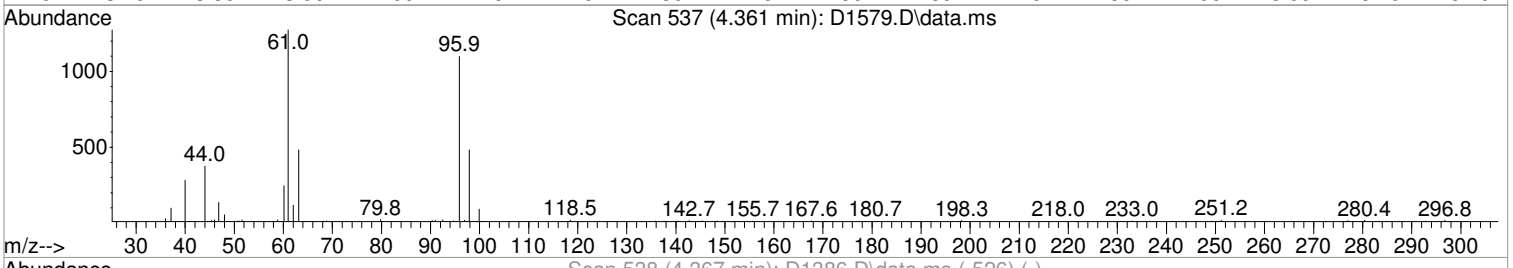


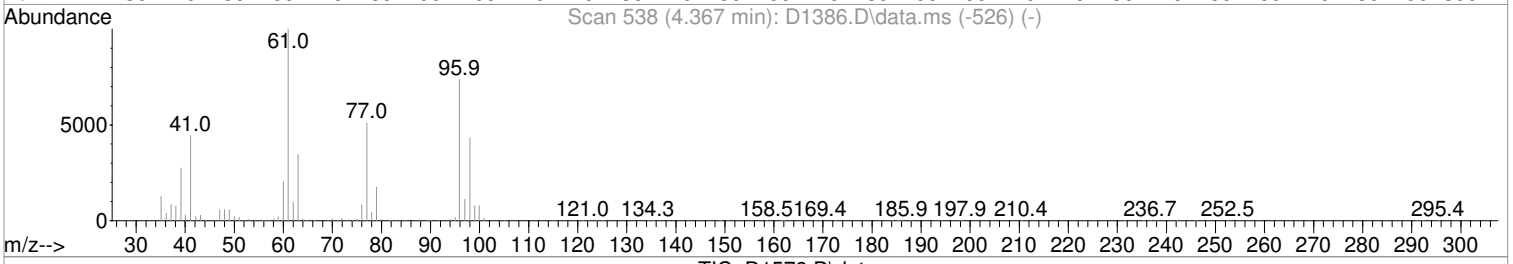
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1579.D
Acq On : 23 Feb 2018 3:45 pm
Operator : D.LIPANI
Sample : R1801449-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 23 16:00:11 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1579.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.361min (0.000) 1.09 ug/L m

response 2585

Ion	Exp%	Act%
96.00	100	100
61.00	131.50	115.83
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

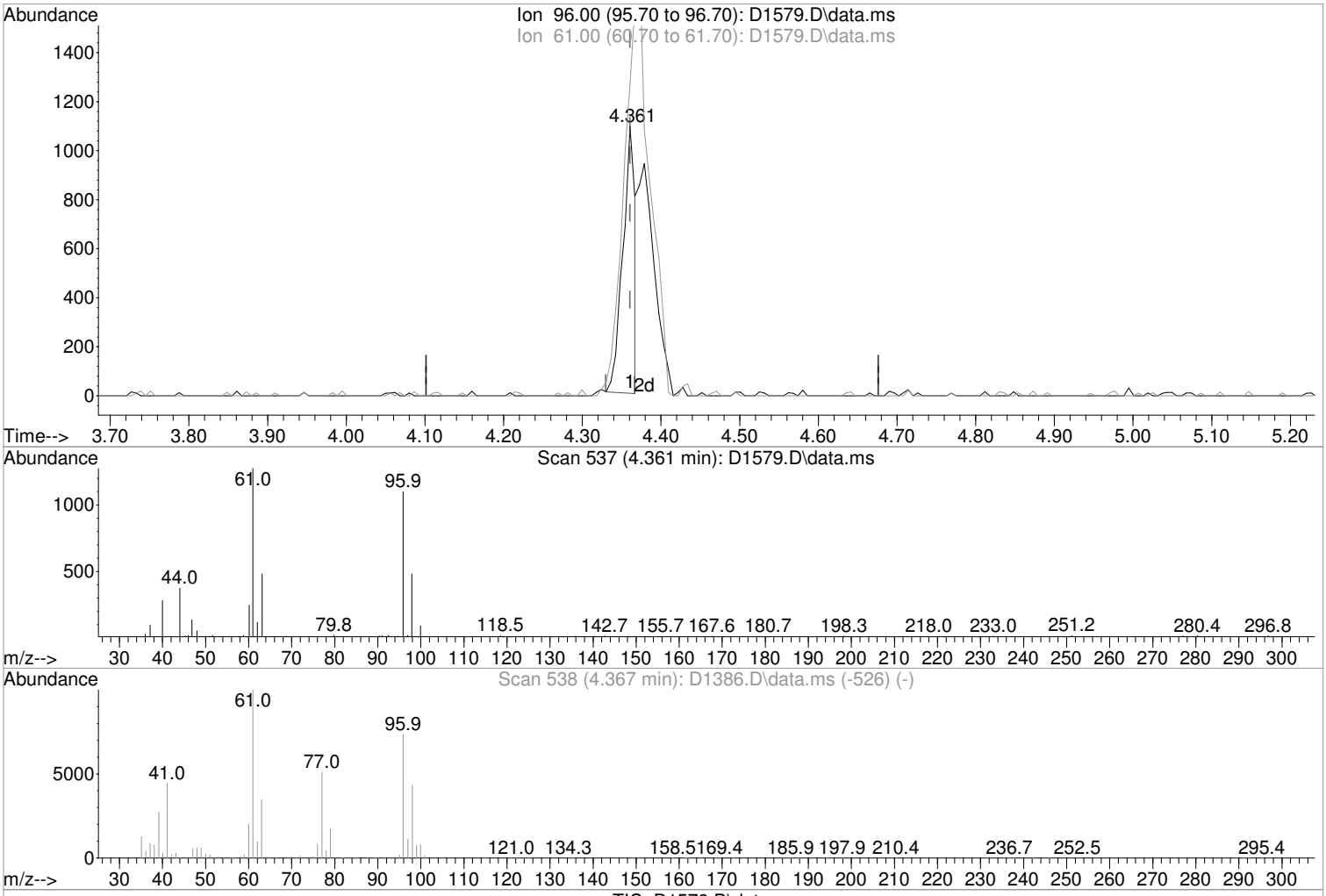
Poor integration.

02/26/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1579.D
Acq On : 23 Feb 2018 3:45 pm
Operator : D.LIPANI
Sample : R1801449-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 23 16:00:11 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1579.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.361min (0.000) 0.50 ug/L

response 1185

Ion	Exp%	Act%
96.00	100	100
61.00	131.50	115.83
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/26/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1579.D
Acq On : 23 Feb 2018 3:45 pm
Operator : D.LIPANI
Sample : R1801449-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 26 14:00:36 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

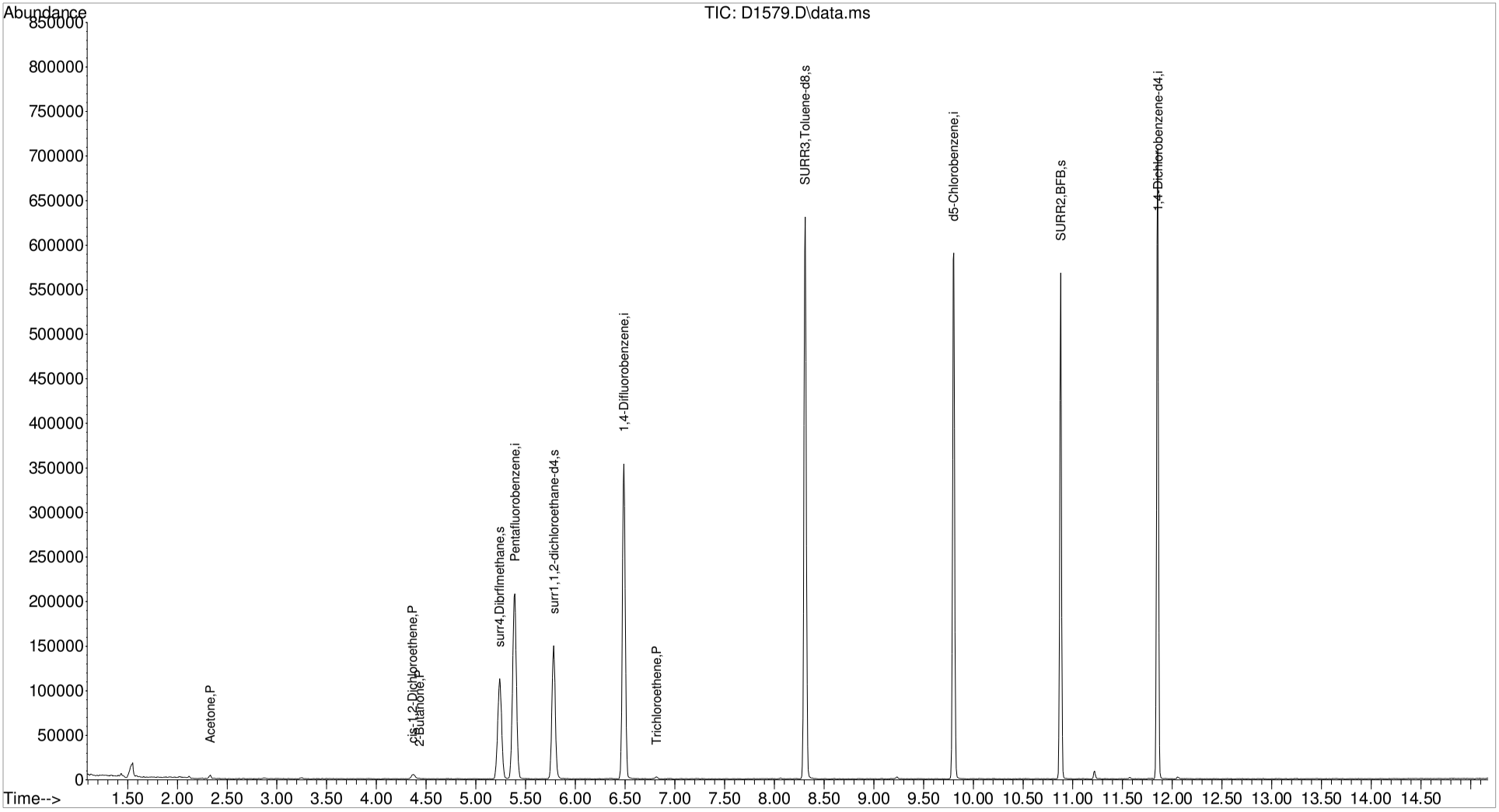
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	201973	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	307608	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	267514	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	136360	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	93743	49.81	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.62%			
46) surr1,1,2-dichloroetha...	5.781	65	122007	56.07	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 112.14%			
64) SURR3,Toluene-d8	8.311	98	383499	51.71	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.42%			
69) SURR2,BFB	10.878	95	137019	47.70	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.40%			
Target Compounds						Qvalue
5) Bromomethane	1.593	94	394	Below Cal	#	78
15) Acetone	2.331	43	4022	3.82	ug/L	73
33) cis-1,2-Dichloroethene	4.361	96	2585m	1.09	ug/L	
34) 2-Butanone	4.434	43	1142	0.80	ug/L	77
53) Trichloroethene	6.817	130	861	0.35	ug/L #	76

(#) = qualifier out of range (m) = manual integration (+) = signals summed

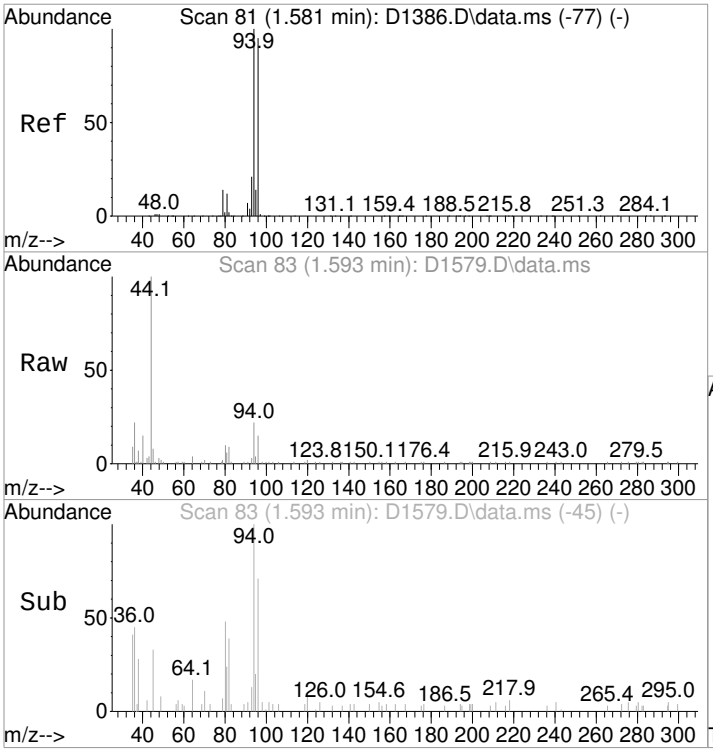
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1579.D
Acq On : 23 Feb 2018 3:45 pm
Operator : D.LIPANI
Sample : R1801449-004|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 26 14:00:36 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



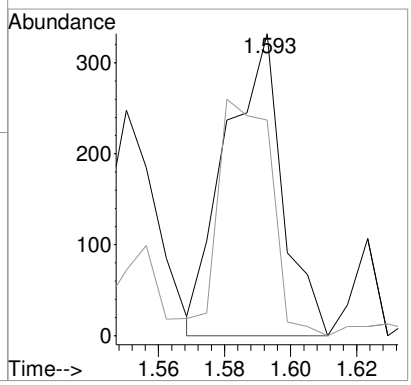
1st DL 02/26/18
2nd FJ 02/26/18

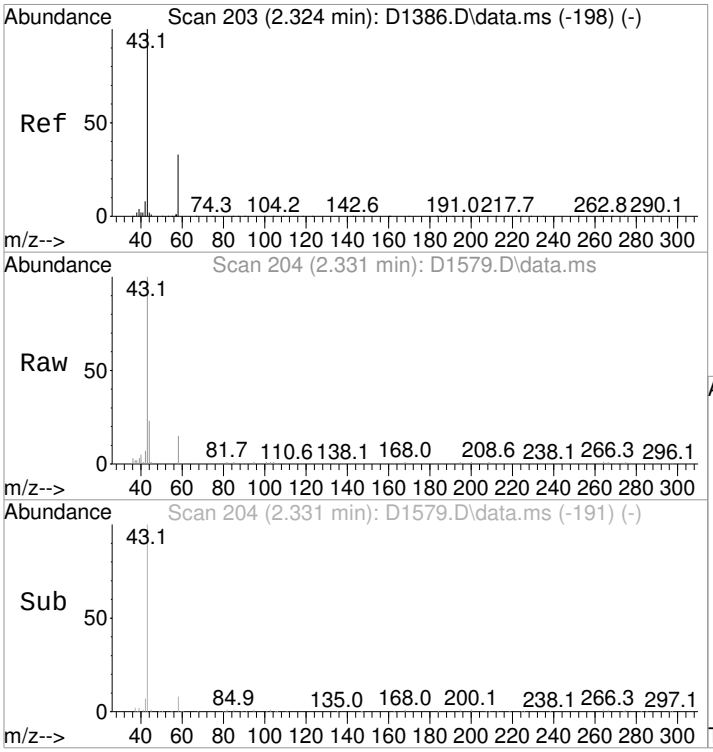


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.007 min
Lab File: D1579.D
Acq: 23 Feb 2018 3:45 pm

Tgt Ion: 94 Resp: 394

Ion	Ratio	Lower	Upper
94	100		
96	71.4	72.1	112.1#

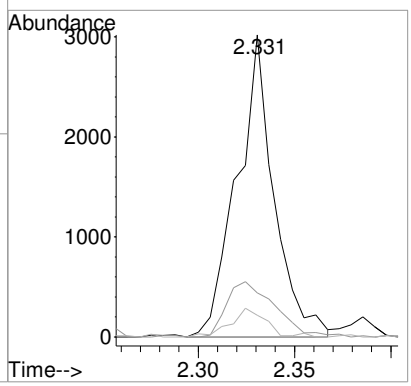


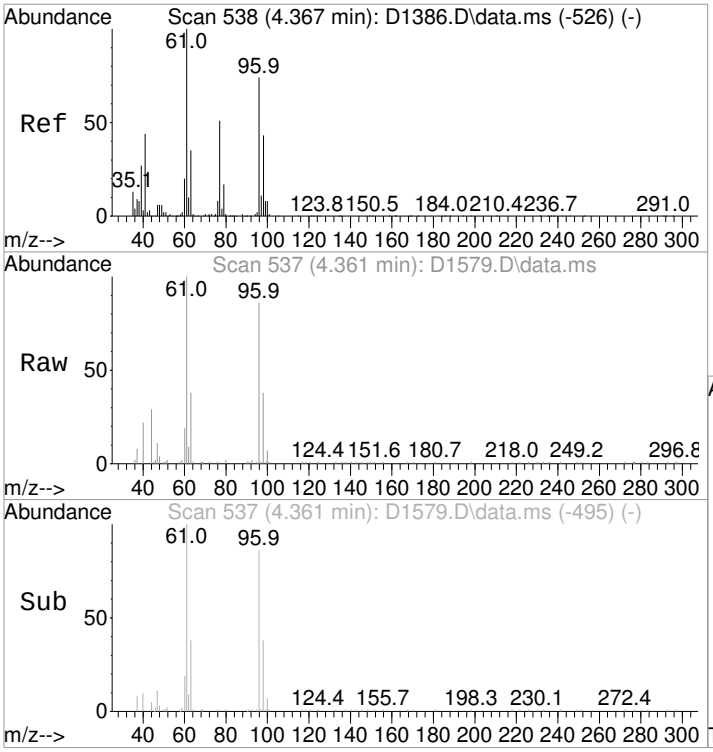


#15
Acetone
Concen: 3.82 ug/L
RT: 2.331 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1579.D
Acq: 23 Feb 2018 3:45 pm

Tgt Ion: 43 Resp: 4022

Ion	Ratio	Lower	Upper
43	100		
58	14.6	12.8	52.8
42	7.2	0.0	30.0

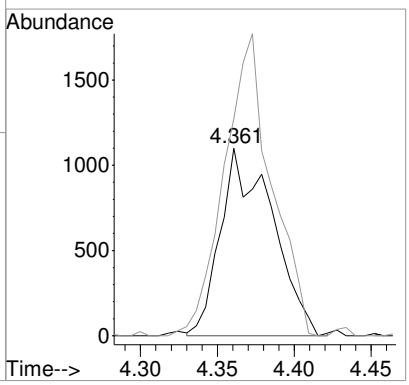


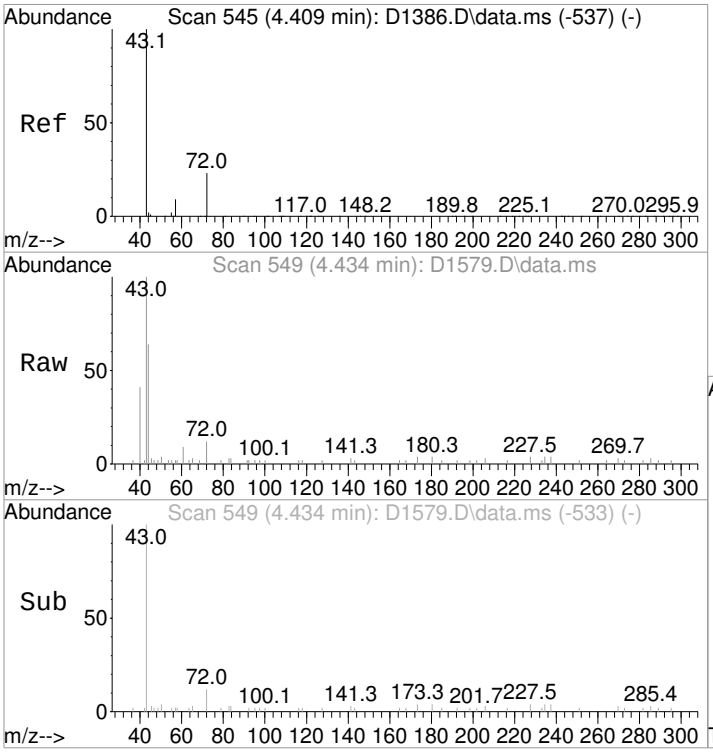


#33
cis-1,2-Dichloroethene
Concen: 1.09 ug/L m
RT: 4.361 min Scan# 537
Delta R.T. 0.000 min
Lab File: D1579.D
Acq: 23 Feb 2018 3:45 pm

Tgt Ion: 96 Resp: 2585

Ion	Ratio	Lower	Upper
96	100		
61	115.8	111.5	151.5

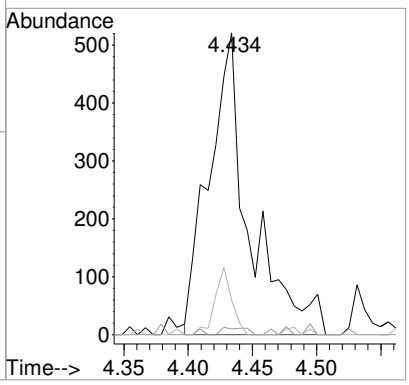


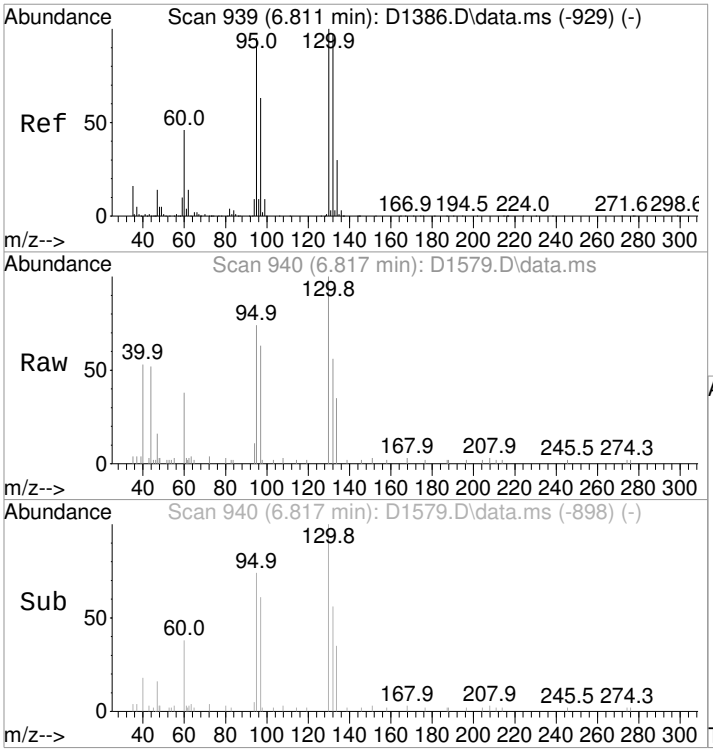


#34
2-Butanone
Concen: 0.80 ug/L
RT: 4.434 min Scan# 549
Delta R.T. 0.018 min
Lab File: D1579.D
Acq: 23 Feb 2018 3:45 pm

Tgt Ion: 43 Resp: 1142

Ion	Ratio	Lower	Upper
43	100		
57	4.4	0.0	27.1
72	11.5	4.9	44.9

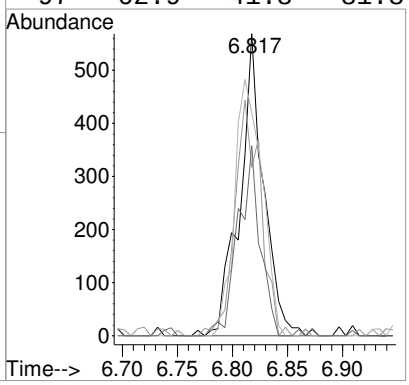




#53
Trichloroethene
Concen: 0.35 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1579.D
Acq: 23 Feb 2018 3:45 pm

Tgt Ion:130 Resp: 861

Ion	Ratio	Lower	Upper
130	100		
132	55.7	80.0	120.0#
95	73.8	68.5	108.5
97	62.9	41.8	81.8



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1578.D
Acq On : 23 Feb 2018 3:24 pm
Operator : D.LIPANI
Sample : R1801449-005|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 26 13:50:55 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

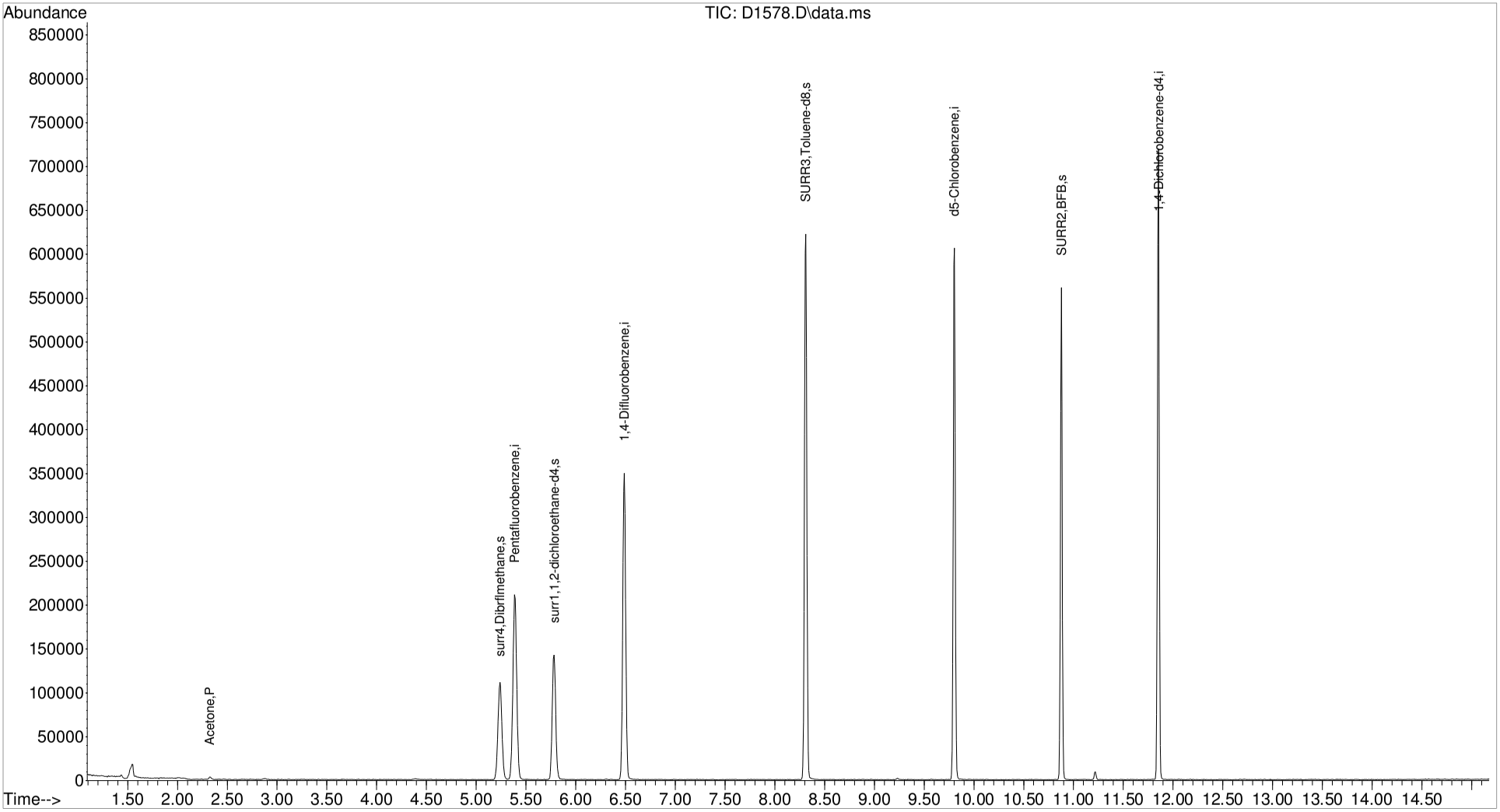
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	202130	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	309124	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	270200	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	136938	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.232	113	94400	49.91	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 99.82%			
46) surr1,1,2-dichloroetha...	5.781	65	119474	54.64	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 109.28%			
64) SURR3,Toluene-d8	8.311	98	384611	51.60	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.20%			
69) SURR2,BFB	10.878	95	137463	47.62	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 95.24%			
Target Compounds						Qvalue
5) Bromomethane	1.587	94	391	Below Cal	#	59
15) Acetone	2.324	43	2816	2.67	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

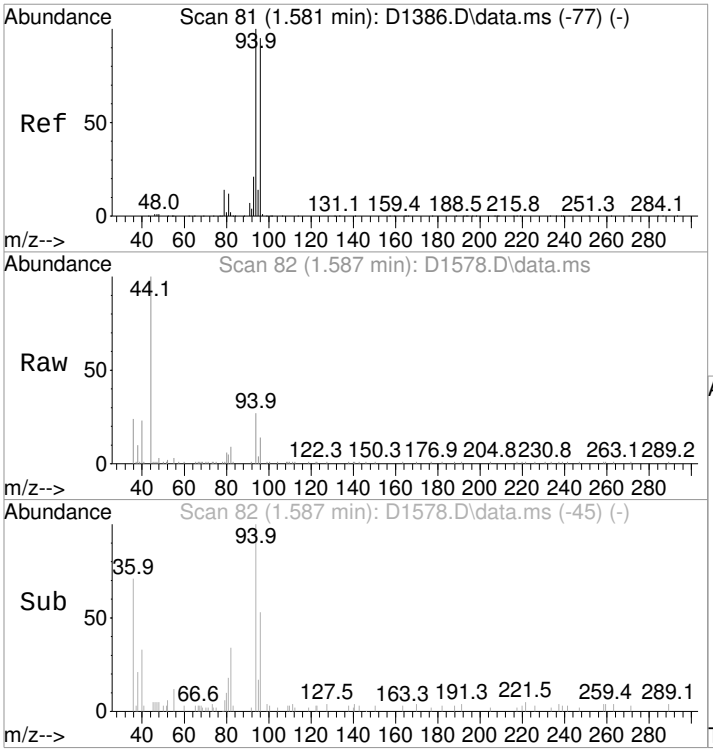
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1578.D
Acq On : 23 Feb 2018 3:24 pm
Operator : D.LIPANI
Sample : R1801449-005|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 26 13:50:55 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



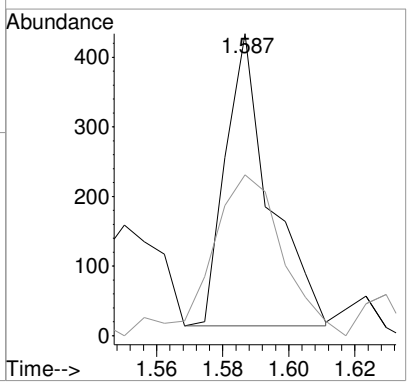
1st DL 02/26/18
2nd FJ 02/26/18

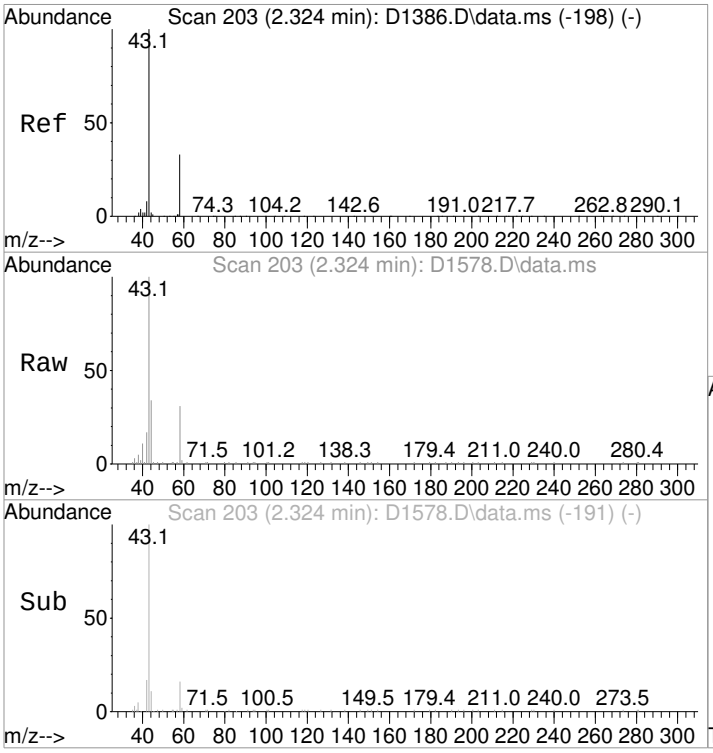


#5
Bromomethane
Concen: Below Cal
RT: 1.587 min Scan# 82
Delta R.T. 0.001 min
Lab File: D1578.D
Acq: 23 Feb 2018 3:24 pm

Tgt Ion: 94 Resp: 391

Ion	Ratio	Lower	Upper
94	100		
96	53.2	72.1	112.1#

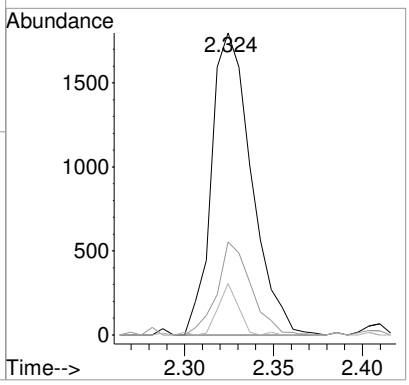




#15
Acetone
Concen: 2.67 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1578.D
Acq: 23 Feb 2018 3:24 pm

Tgt Ion: 43 Resp: 2816

Ion	Ratio	Lower	Upper
43	100		
58	30.8	12.8	52.8
42	17.0	0.0	30.0

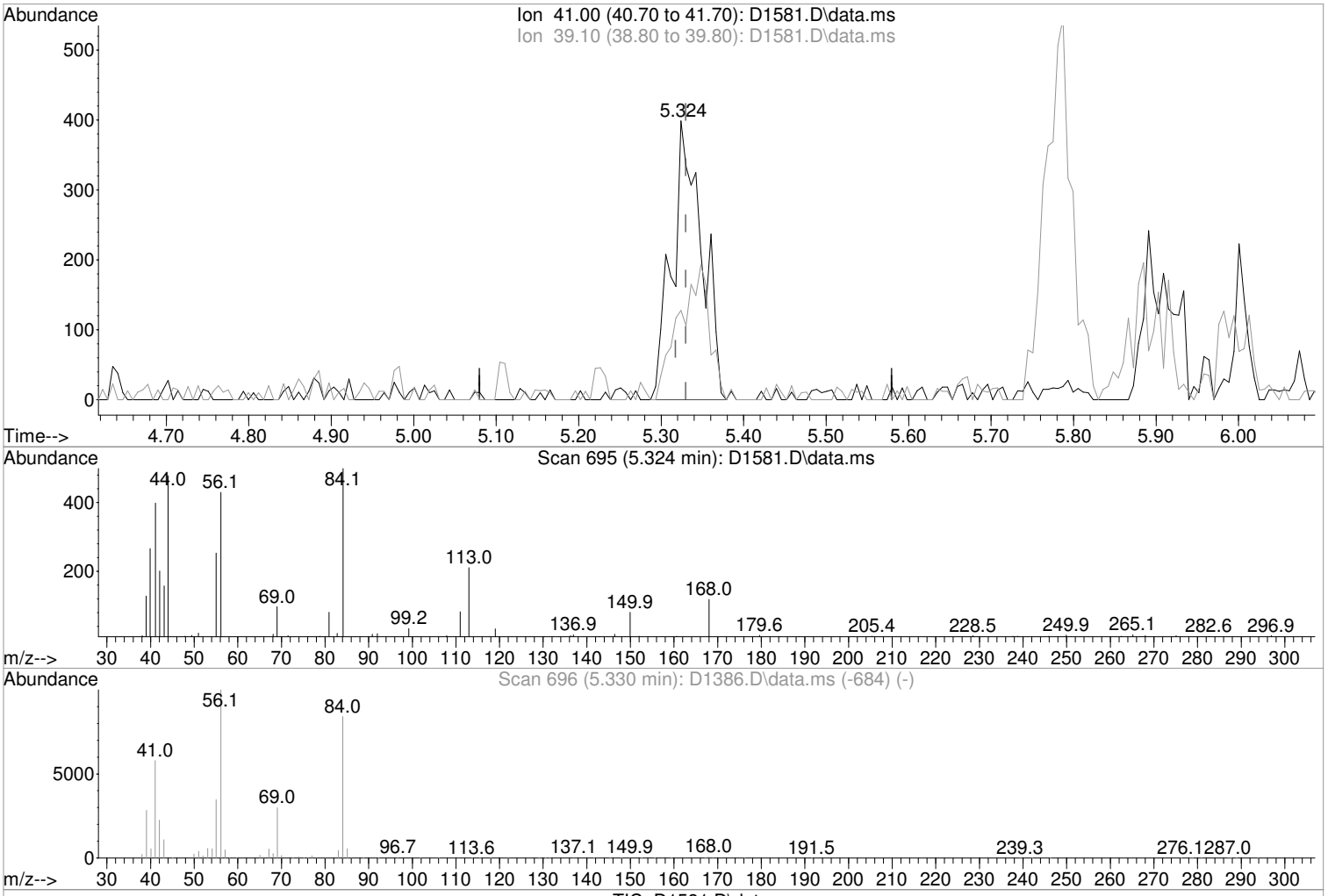


1st DL 02/26/18
2nd FW 02/26/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1581.D
Acq On : 23 Feb 2018 4:29 pm
Operator : D.LIPANI
Sample : R1801449-006|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 23 16:43:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1581.D\data.ms

(42) Cyclohexane (P)

5.324min (-0.006) 0.48 ug/L m

response 994

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	32.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

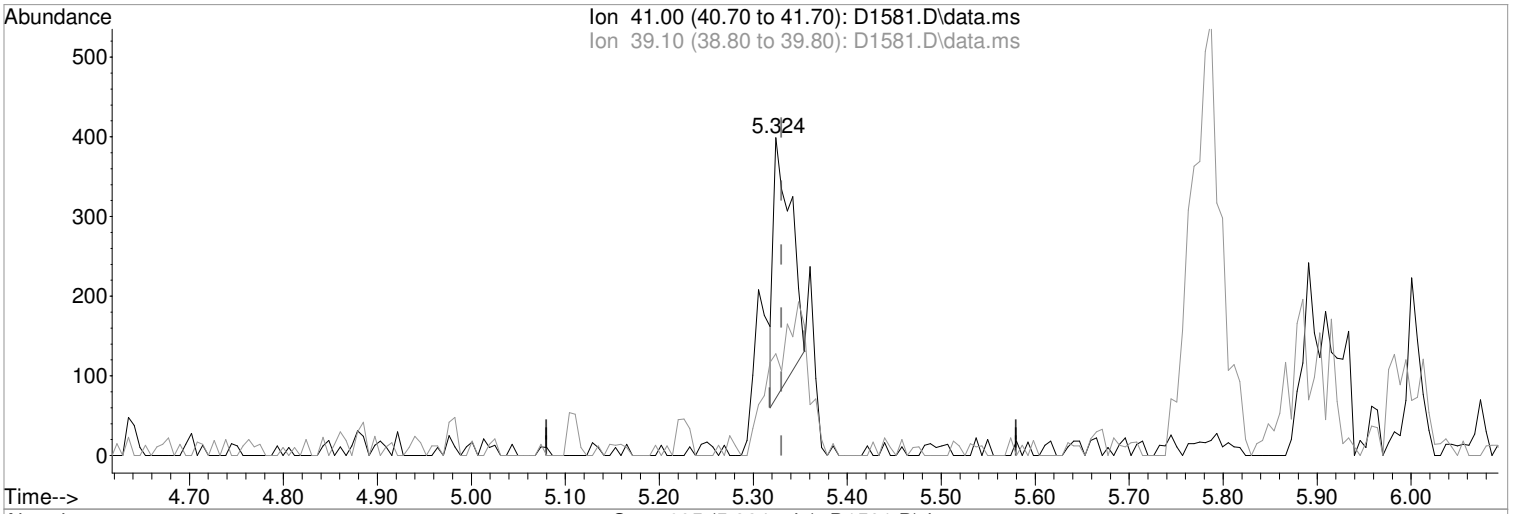
02/26/18

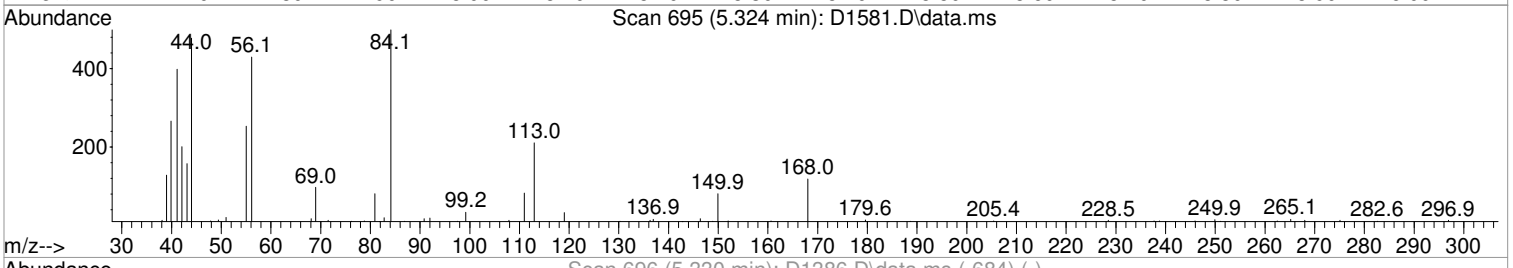
1st DL 02/26/18
2nd FW 02/26/18

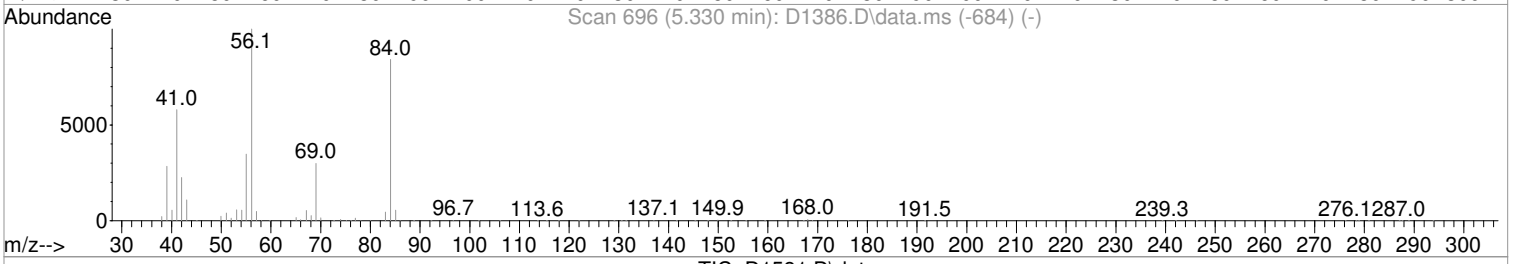
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1581.D
Acq On : 23 Feb 2018 4:29 pm
Operator : D.LIPANI
Sample : R1801449-006|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 23 16:43:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1581.D\data.ms

(42) Cyclohexane (P)

5.324min (-0.006) 0.20 ug/L

response 414

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	32.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/26/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1581.D
Acq On : 23 Feb 2018 4:29 pm
Operator : D.LIPANI
Sample : R1801449-006|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 26 14:10:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	190336	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	292237	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	252926	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	126547	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	91118	50.96	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.92%				
46) surr1,1,2-dichloroetha...	5.781	65	112393	54.37	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.74%				
64) SURR3,Toluene-d8	8.311	98	363816	51.63	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.26%				
69) SURR2,BFB	10.878	95	128987	47.26	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.52%				
Target Compounds							Qvalue
3) Chloromethane	1.282	50	2088	0.69	ug/L		92
5) Bromomethane	1.593	94	507	Below Cal			94
15) Acetone	2.324	43	77746	78.27	ug/L		89
16) 2-Propanol	2.465	45	1216	7.62	ug/L	#	44
18) Carbon Disulfide	2.477	76	62715	12.03	ug/L		99
19) Acetonitrile	2.587	40	1839	9.20	ug/L	#	56
23) TBA	2.867	59	2844	12.06	ug/L		98
26) trans-1,2-Dichloroethene	3.026	96	19787	9.64	ug/L		88
33) cis-1,2-Dichloroethene	4.367	96	145559	64.97	ug/L		91
34) 2-Butanone	4.422	43	13262	9.80	ug/L		100
39) Chloroform	4.952	83	989	0.28	ug/L	#	74
42) Cyclohexane	5.324	41	994m	0.48	ug/L		
53) Trichloroethene	6.817	130	1124074	486.50	ug/L		96
54) Methylcyclohexane	7.049	55	855	0.31	ug/L	#	78
63) 4-Methyl-2-pentanone	8.226	43	917	0.37	ug/L		75
71) Tetrachloroethene	8.976	164	8807	4.99	ug/L		95
72) 2-Hexanone	9.134	43	961	0.52	ug/L	#	68
91) 1,1,2,2-Tetrachloroethane	11.012	83	1441	0.56	ug/L		90

RPT 1 / 5

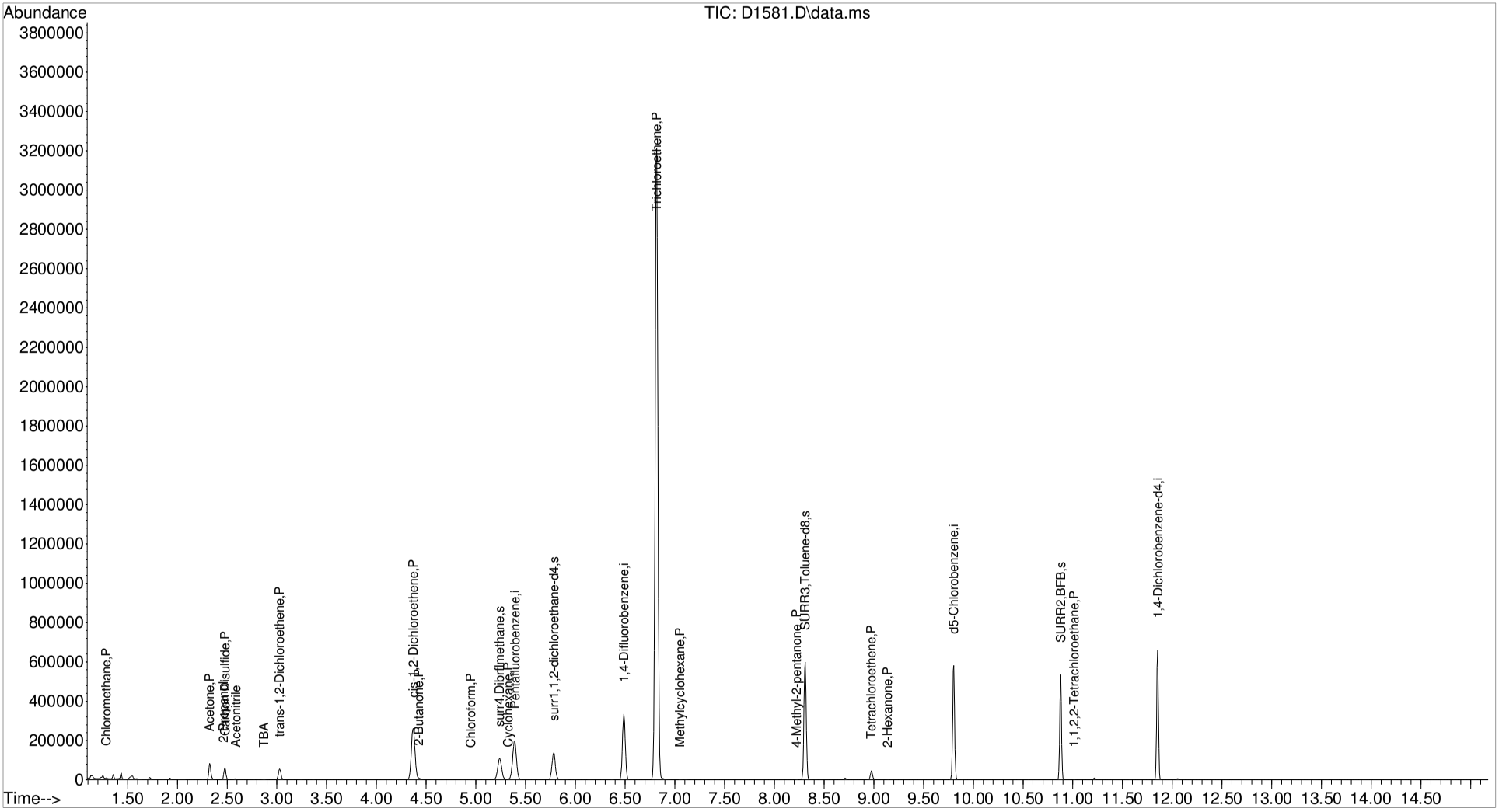
E-Over Calibration

(#) = qualifier out of range (m) = manual integration (+) = signals summed

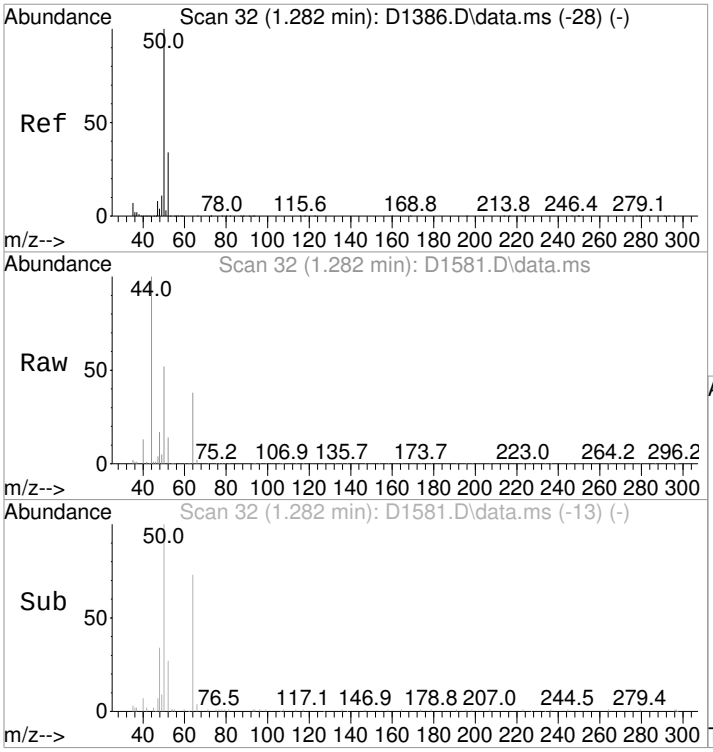
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1581.D
Acq On : 23 Feb 2018 4:29 pm
Operator : D.LIPANI
Sample : R1801449-006|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 26 14:10:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



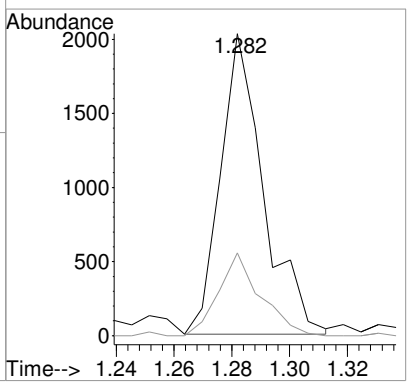
1st DL 02/26/18
2nd FJ 02/26/18

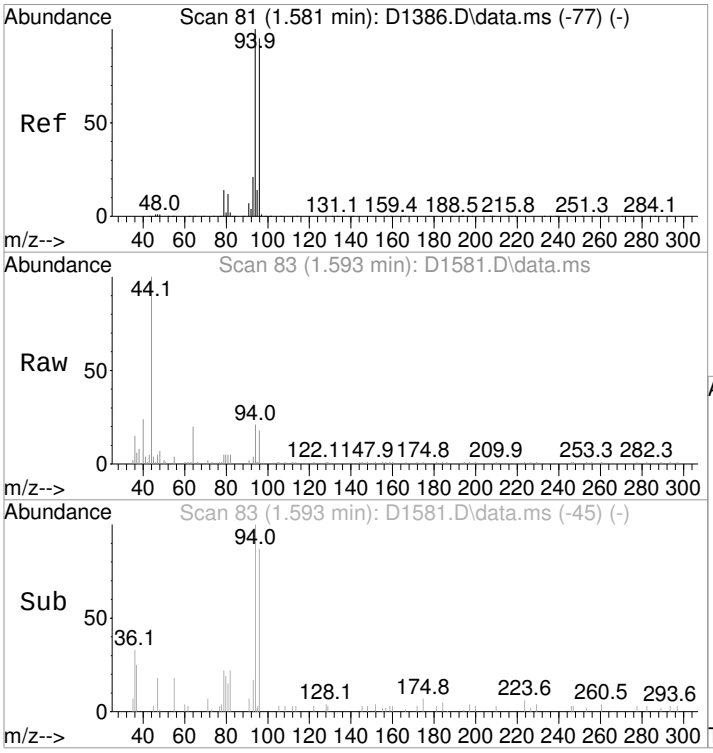


#3
Chloromethane
Concen: 0.69 ug/L
RT: 1.282 min Scan# 32
Delta R.T. -0.000 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 50 Resp: 2088

Ion	Ratio	Lower	Upper
50	100		
52	27.4	11.6	51.6

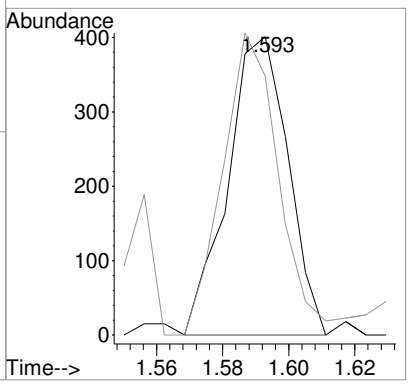


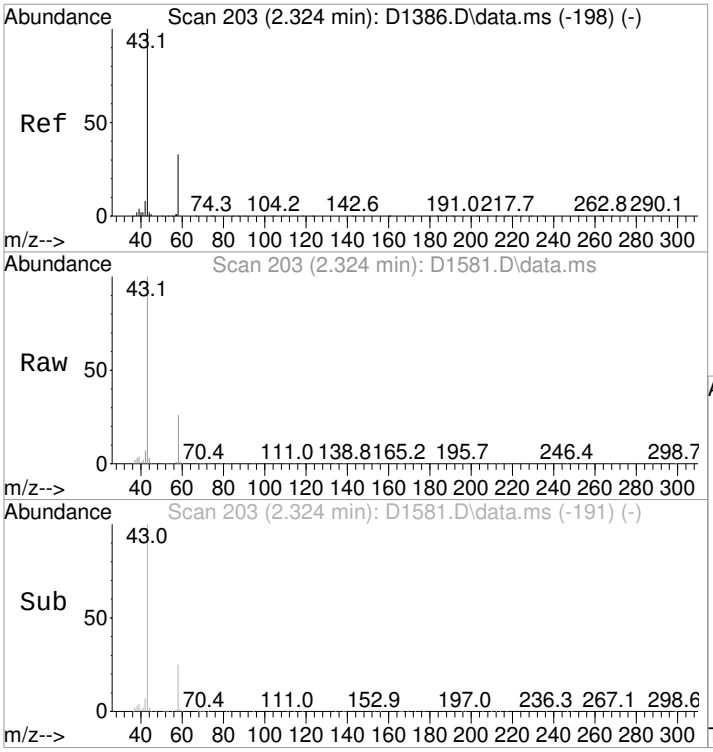


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.007 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 94 Resp: 507

Ion	Ratio	Lower	Upper
94	100		
96	86.8	72.1	112.1

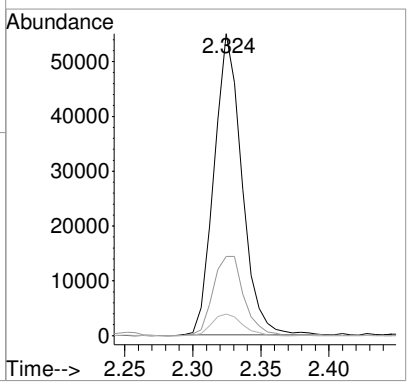


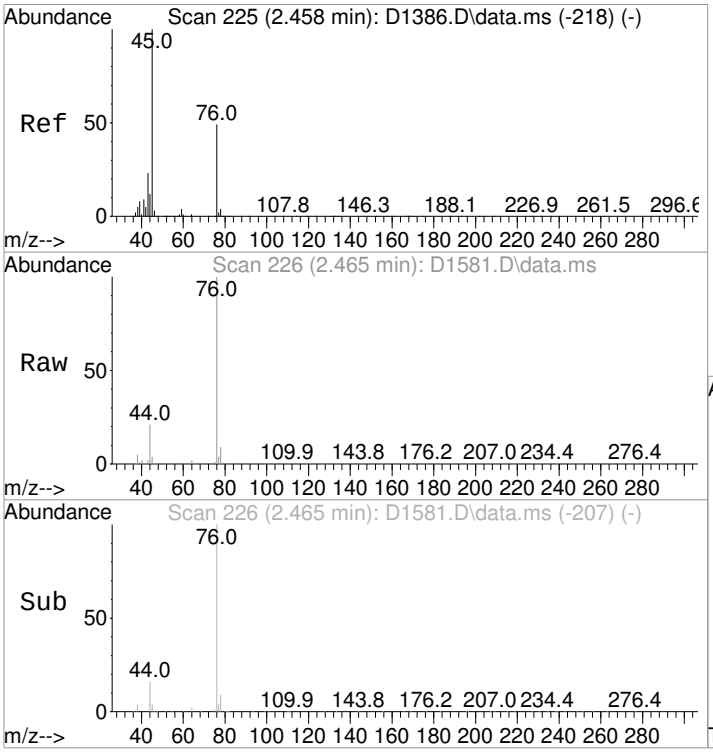


#15
Acetone
Concen: 78.27 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.000 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 43 Resp: 77746

Ion	Ratio	Lower	Upper
43	100		
58	26.3	12.8	52.8
42	7.1	0.0	30.0

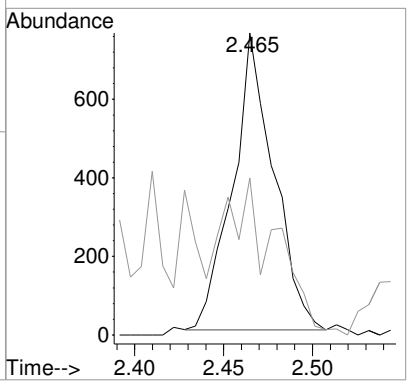


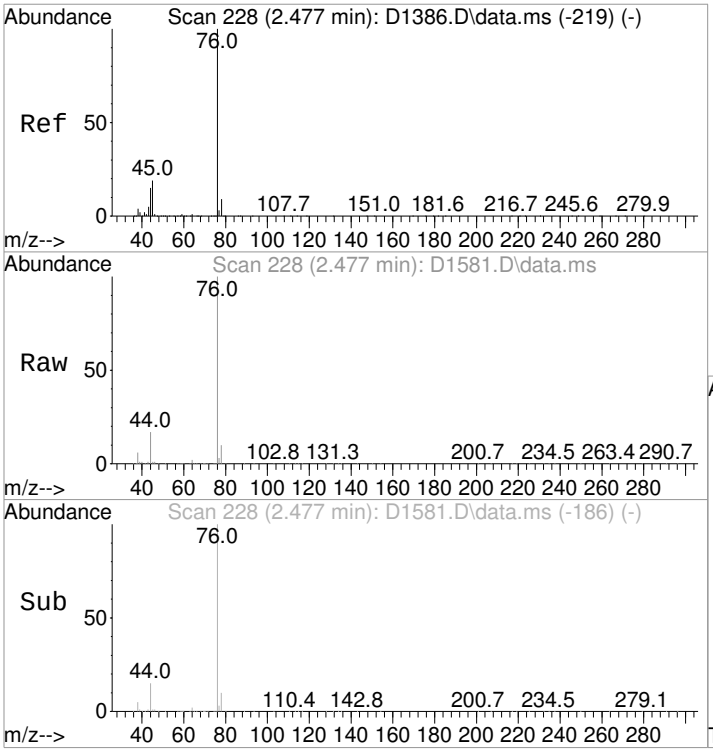


#16
2-Propanol
Concen: 7.62 ug/L
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 45 Resp: 1216

Ion	Ratio	Lower	Upper
45	100		
43	52.0	4.3	44.3#

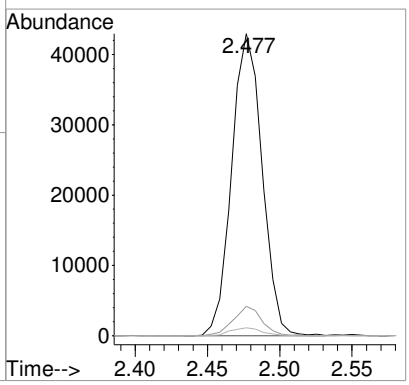


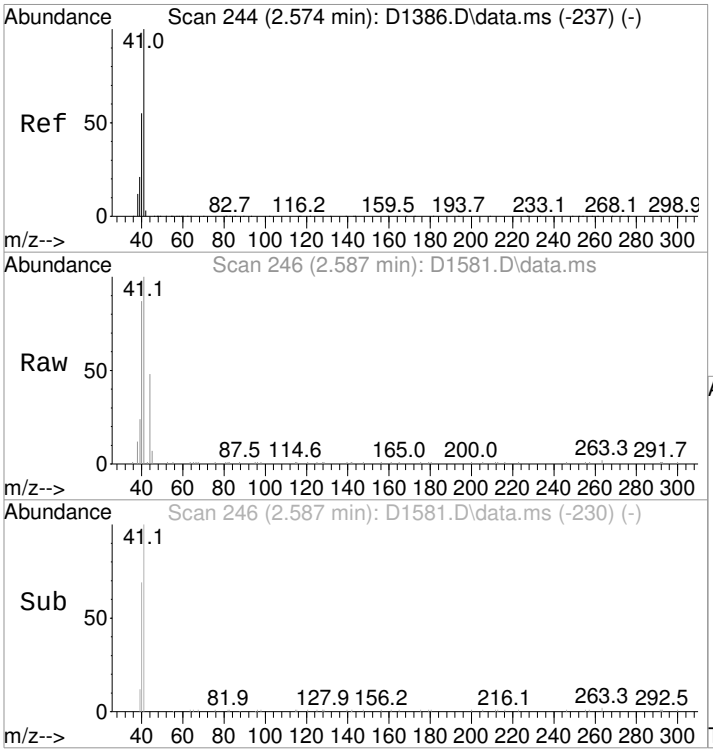


#18
Carbon Disulfide
Concen: 12.03 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 76 Resp: 62715

Ion	Ratio	Lower	Upper
76	100		
78	9.7	0.0	29.1
77	2.6	0.0	22.8

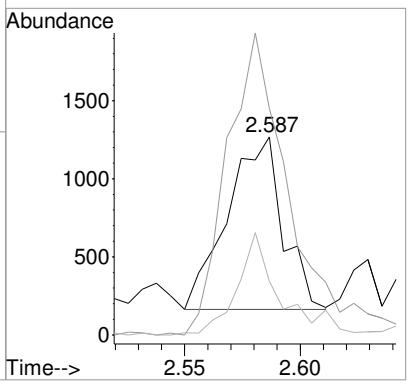


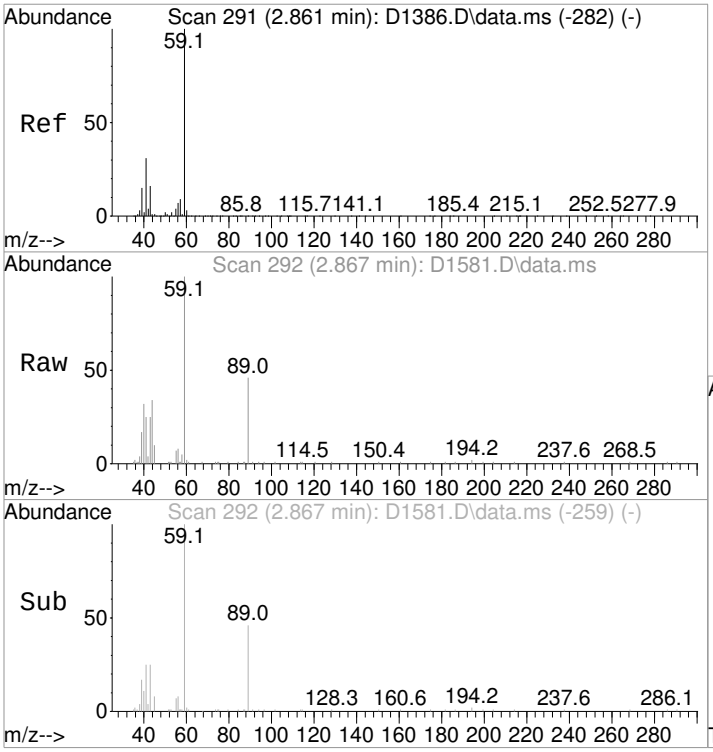


#19
Acetonitrile
Concen: 9.20 ug/L
RT: 2.587 min Scan# 246
Delta R.T. 0.007 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 40 Resp: 1839

Ion	Ratio	Lower	Upper
40	100		
41	114.4	167.5	207.5#
39	27.1	14.6	54.6

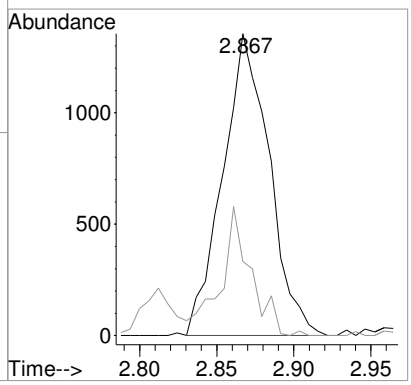


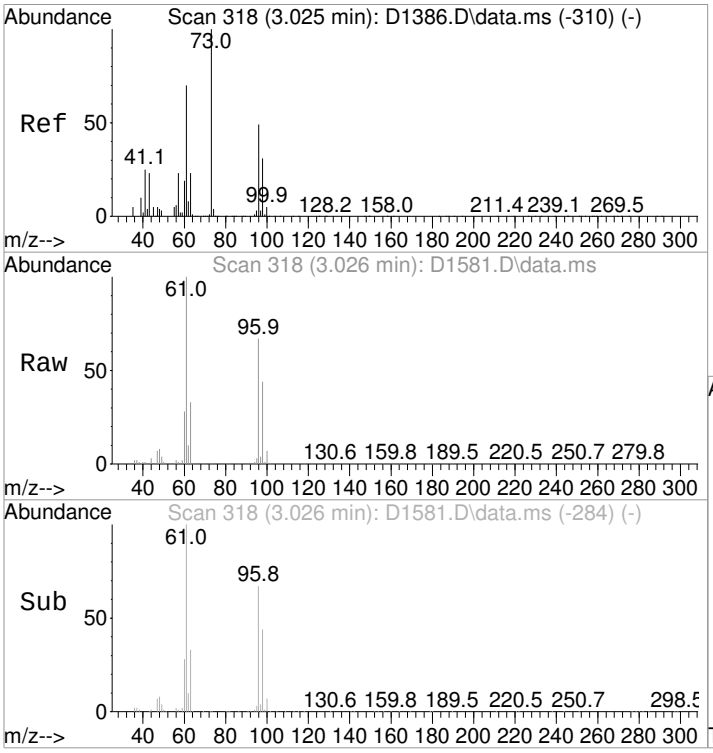


#23
TBA
Concen: 12.06 ug/L
RT: 2.867 min Scan# 292
Delta R.T. 0.013 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 59 Resp: 2844

Ion	Ratio	Lower	Upper
59	100		
41	24.6	3.6	43.6

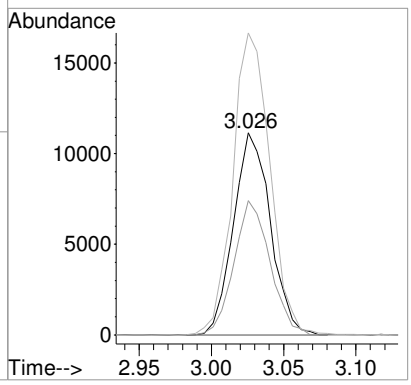


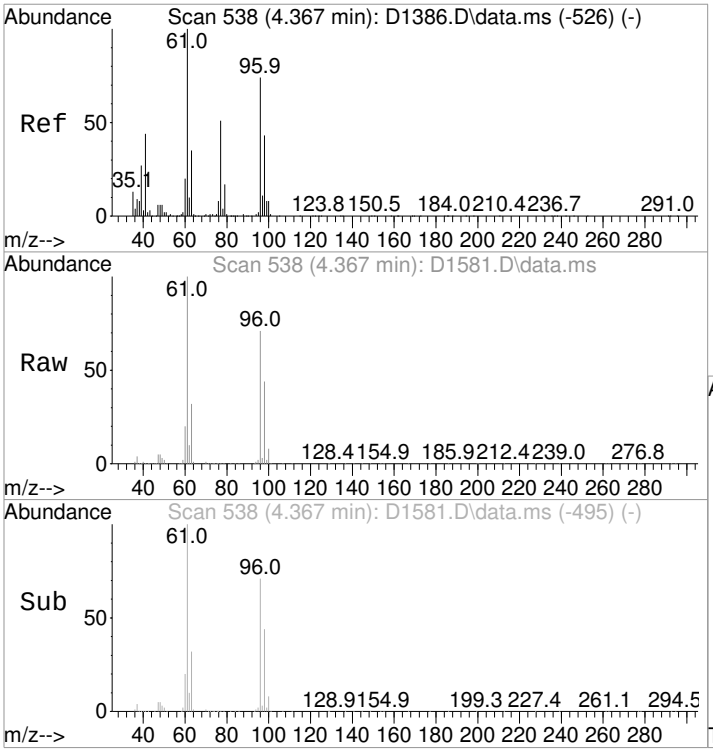


#26
trans-1,2-Dichloroethene
Concen: 9.64 ug/L
RT: 3.026 min Scan# 318
Delta R.T. -0.000 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 96 Resp: 19787

Ion	Ratio	Lower	Upper
96	100		
98	66.4	40.9	80.9
61	149.4	113.1	153.1

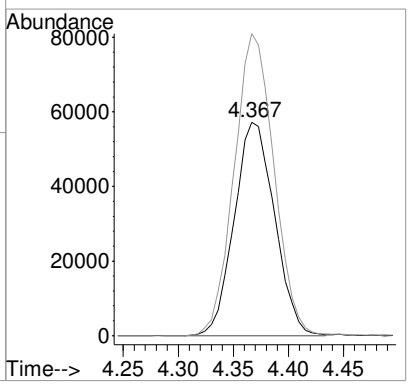


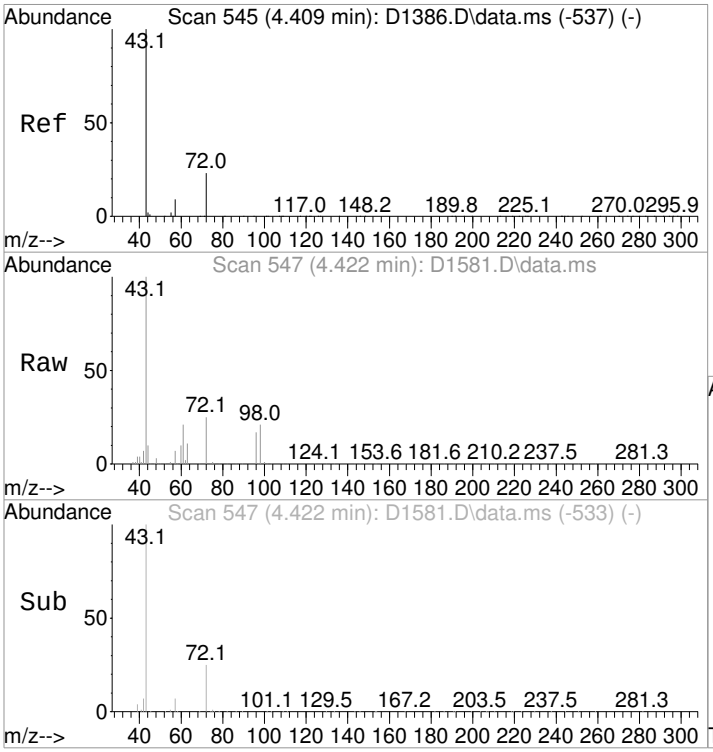


#33
cis-1,2-Dichloroethene
Concen: 64.97 ug/L
RT: 4.367 min Scan# 538
Delta R.T. 0.006 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 96 Resp: 145559

Ion	Ratio	Lower	Upper
96	100		
61	141.5	111.5	151.5

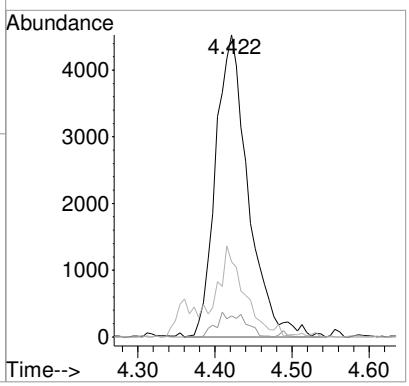


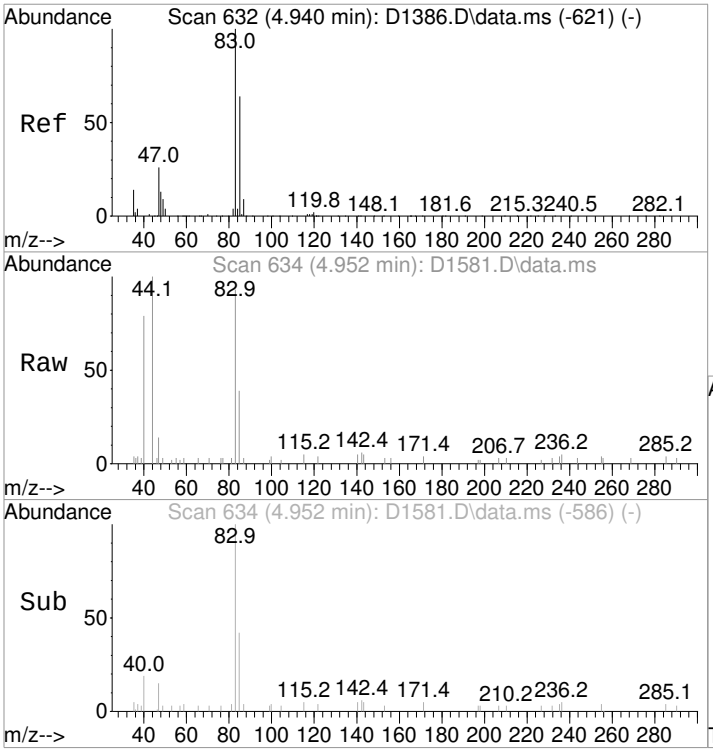


#34
2-Butanone
Concen: 9.80 ug/L
RT: 4.422 min Scan# 547
Delta R.T. 0.006 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 43 Resp: 13262

Ion	Ratio	Lower	Upper
43	100		
57	6.9	0.0	27.1
72	24.9	4.9	44.9

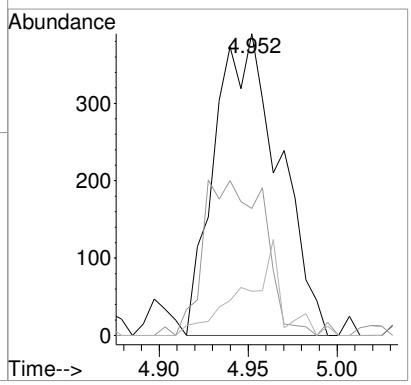


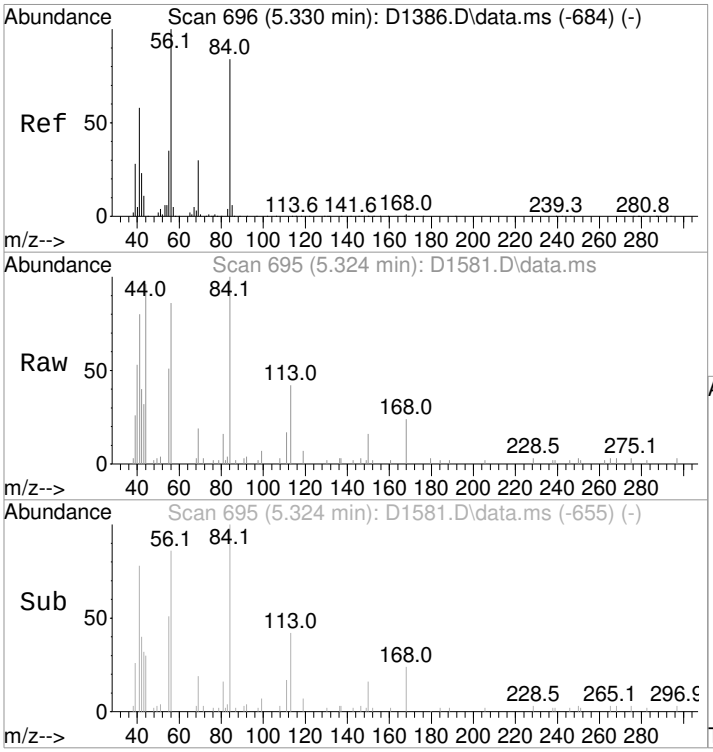


#39
Chloroform
Concen: 0.28 ug/L
RT: 4.952 min Scan# 634
Delta R.T. 0.006 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 83 Resp: 989

Ion	Ratio	Lower	Upper
83	100		
85	42.1	44.6	84.6#
47	14.6	2.6	42.6

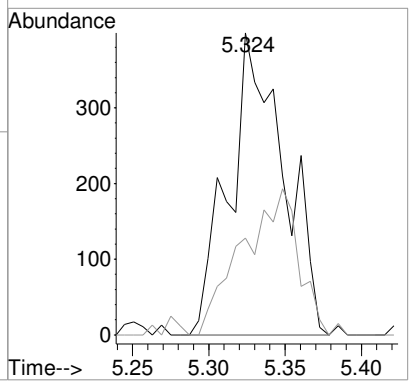


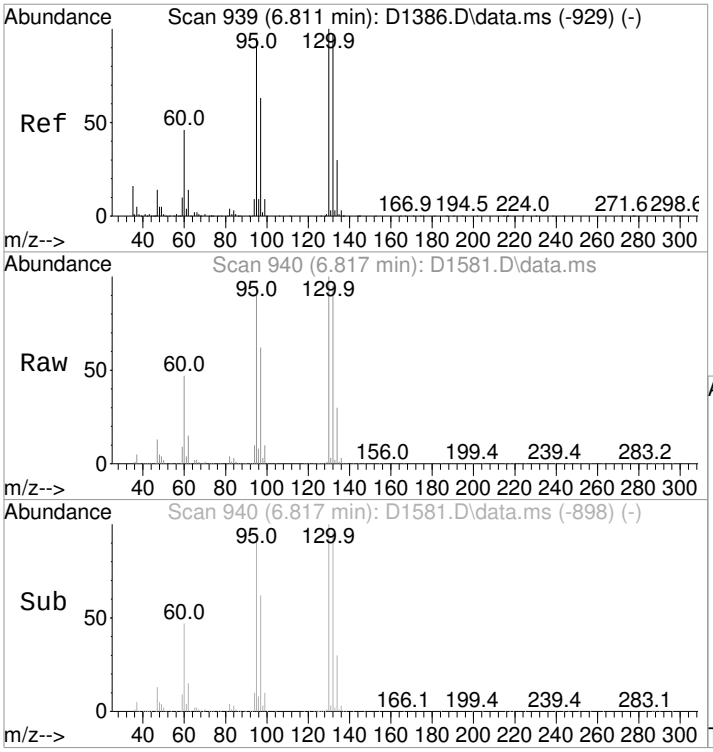


#42
Cyclohexane
Concen: 0.48 ug/L m
RT: 5.324 min Scan# 695
Delta R.T. -0.006 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 41 Resp: 994

Ion	Ratio	Lower	Upper
41	100		
39	32.1	28.2	68.2

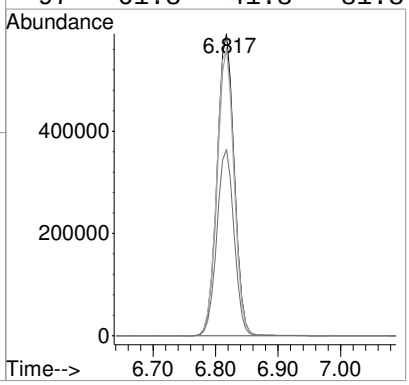


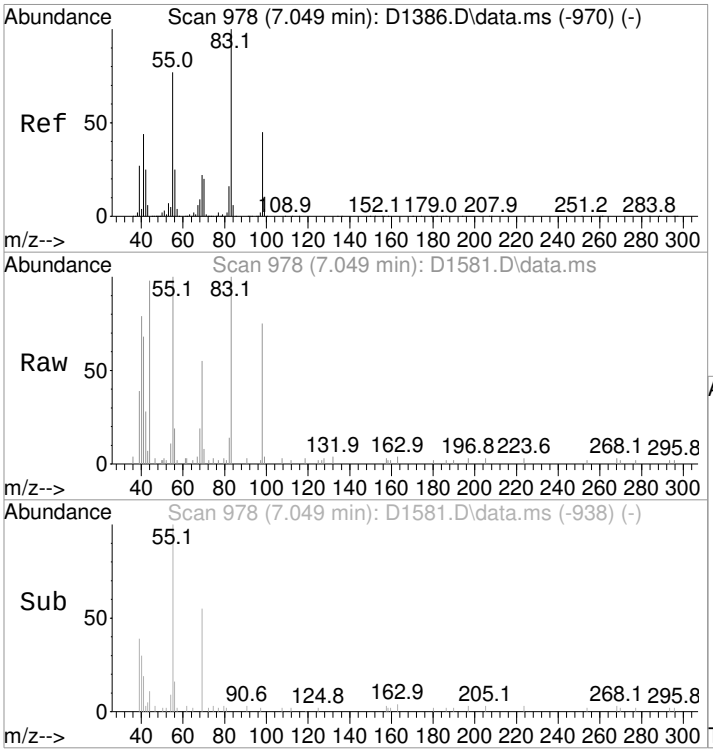


#53
Trichloroethene
Concen: 486.50 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion:130 Resp: 1124074

Ion	Ratio	Lower	Upper
130	100		
132	95.5	80.0	120.0
95	94.8	68.5	108.5
97	61.8	41.8	81.8

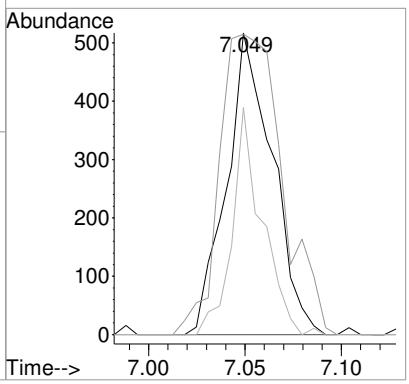


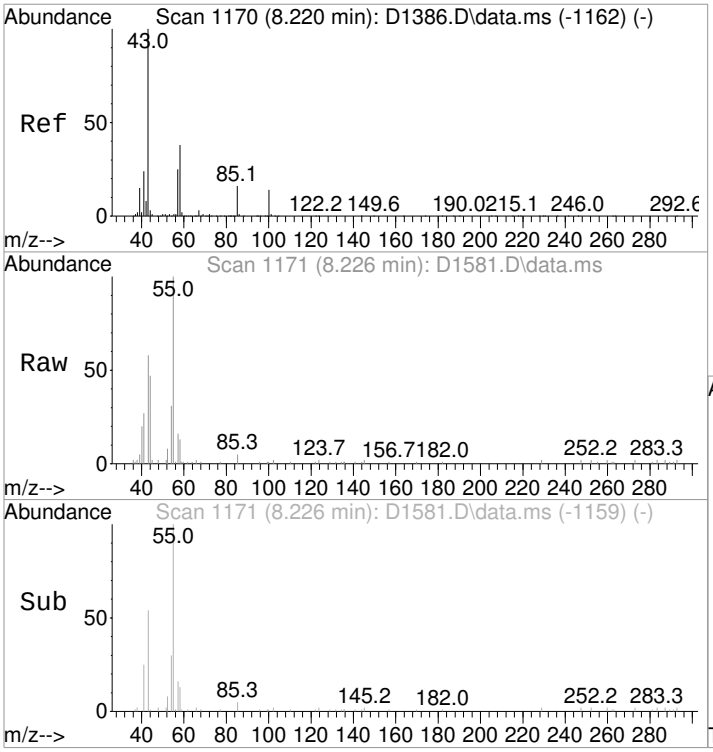


#54
Methylcyclohexane
Concen: 0.31 ug/L
RT: 7.049 min Scan# 978
Delta R.T. 0.006 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 55 Resp: 855

Ion	Ratio	Lower	Upper
55	100		
83	99.6	109.6	149.6#
98	75.2	43.6	83.6

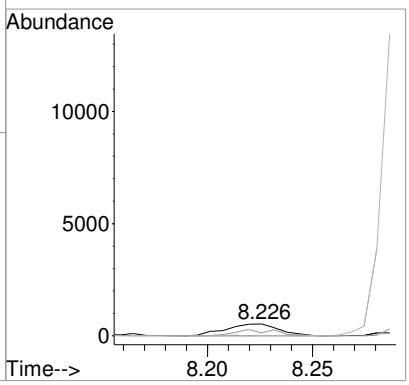


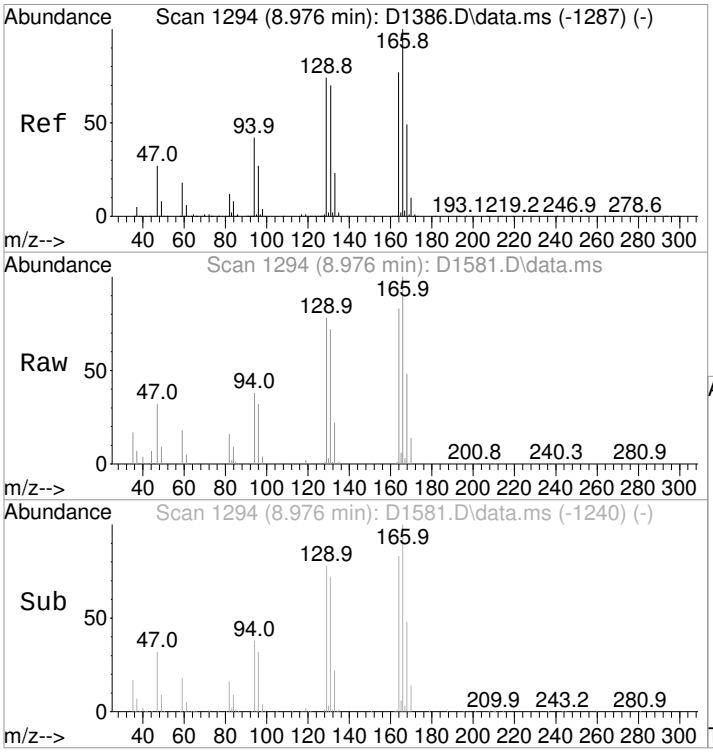


#63
4-Methyl-2-pentanone
Concen: 0.37 ug/L
RT: 8.226 min Scan# 1171
Delta R.T. 0.013 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 43 Resp: 917

Ion	Ratio	Lower	Upper
43	100		
58	24.9	19.0	59.0
100	1.9	0.0	33.8

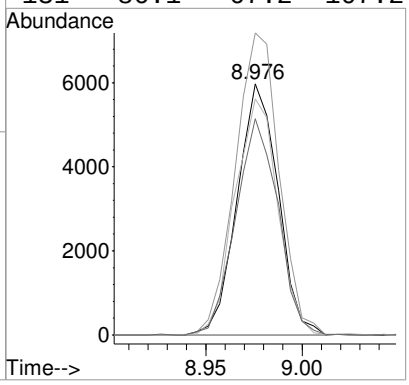


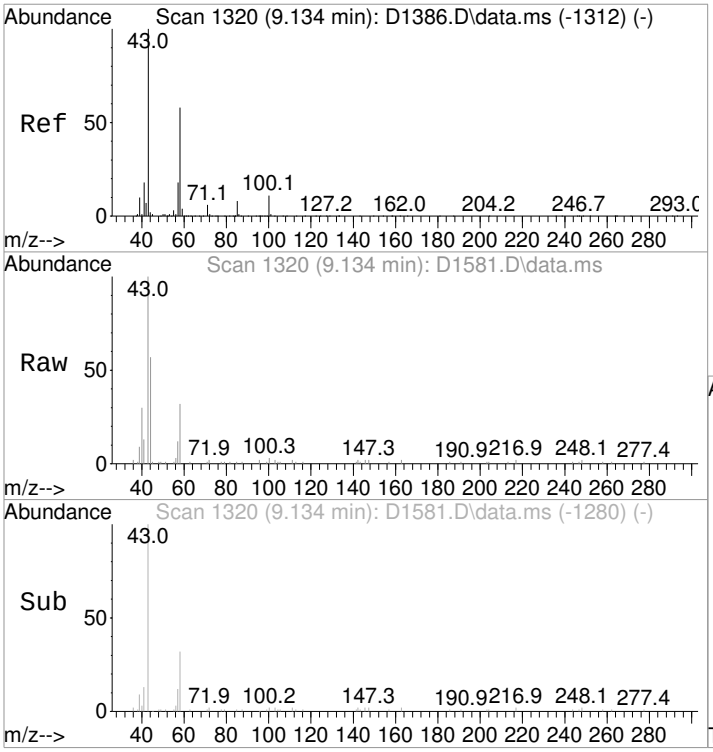


#71
Tetrachloroethene
Concen: 4.99 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. -0.000 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion:164 Resp: 8807

Ion	Ratio	Lower	Upper
164	100		
166	120.2	108.6	148.6
129	94.0	69.1	109.1
131	86.1	67.2	107.2

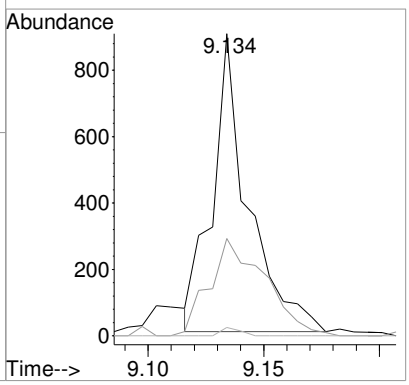


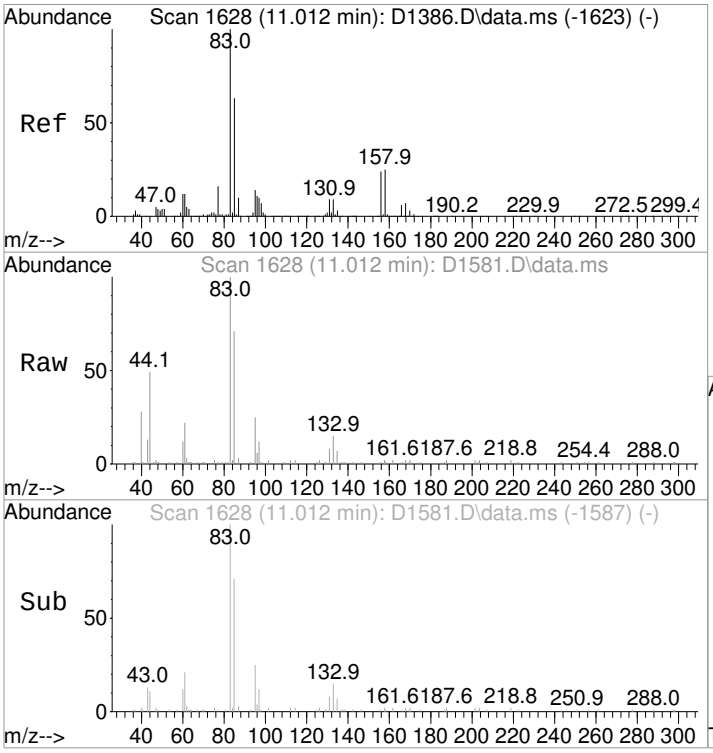


#72
2-Hexanone
Concen: 0.52 ug/L
RT: 9.134 min Scan# 1320
Delta R.T. 0.000 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 43 Resp: 961

Ion	Ratio	Lower	Upper
43	100		
58	32.2	37.1	77.1#
100	2.7	0.0	32.3

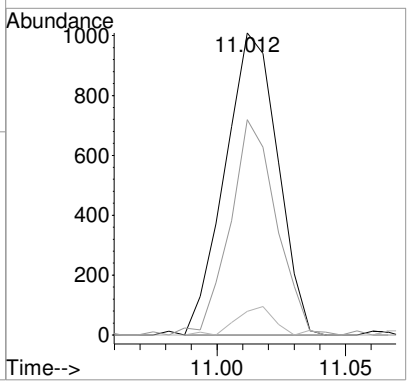




#91
1,1,2,2-Tetrachloroethane
Concen: 0.56 ug/L
RT: 11.012 min Scan# 1628
Delta R.T. -0.000 min
Lab File: D1581.D
Acq: 23 Feb 2018 4:29 pm

Tgt Ion: 83 Resp: 1441

Ion	Ratio	Lower	Upper
83	100		
85	71.3	42.6	82.6
131	7.8	0.0	29.9



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1584.D
Acq On : 23 Feb 2018 5:44 pm
Operator : D.LIPANI
Sample : R1801449-006.R01|5.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 26 14:13:17 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	198600	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	305285	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	266948	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132241	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	94671	50.69	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 101.38%			
46) surr1,1,2-dichloroetha...	5.781	65	120994	56.03	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 112.06%			
64) SURR3,Toluene-d8	8.311	98	382284	51.94	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 103.88%			
69) SURR2,BFB	10.878	95	137748	48.32	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.64%			
Target Compounds						Qvalue
5) Bromomethane	1.593	94	464	Below Cal	#	72
15) Acetone	2.324	43	14187	13.69	ug/L	96
16) 2-Propanol	2.459	45	705	4.23	ug/L	83
18) Carbon Disulfide	2.477	76	12739	2.34	ug/L	99
23) TBA	2.855	59	583	2.37	ug/L	96
26) trans-1,2-Dichloroethene	3.026	96	3851	1.80	ug/L	83
33) cis-1,2-Dichloroethene	4.373	96	27793	11.89	ug/L	99
34) 2-Butanone	4.422	43	2438	1.73	ug/L	94
53) Trichloroethene	6.817	130	211940	87.81	ug/L	96
71) Tetrachloroethene	8.976	164	2230	1.20	ug/L #	79

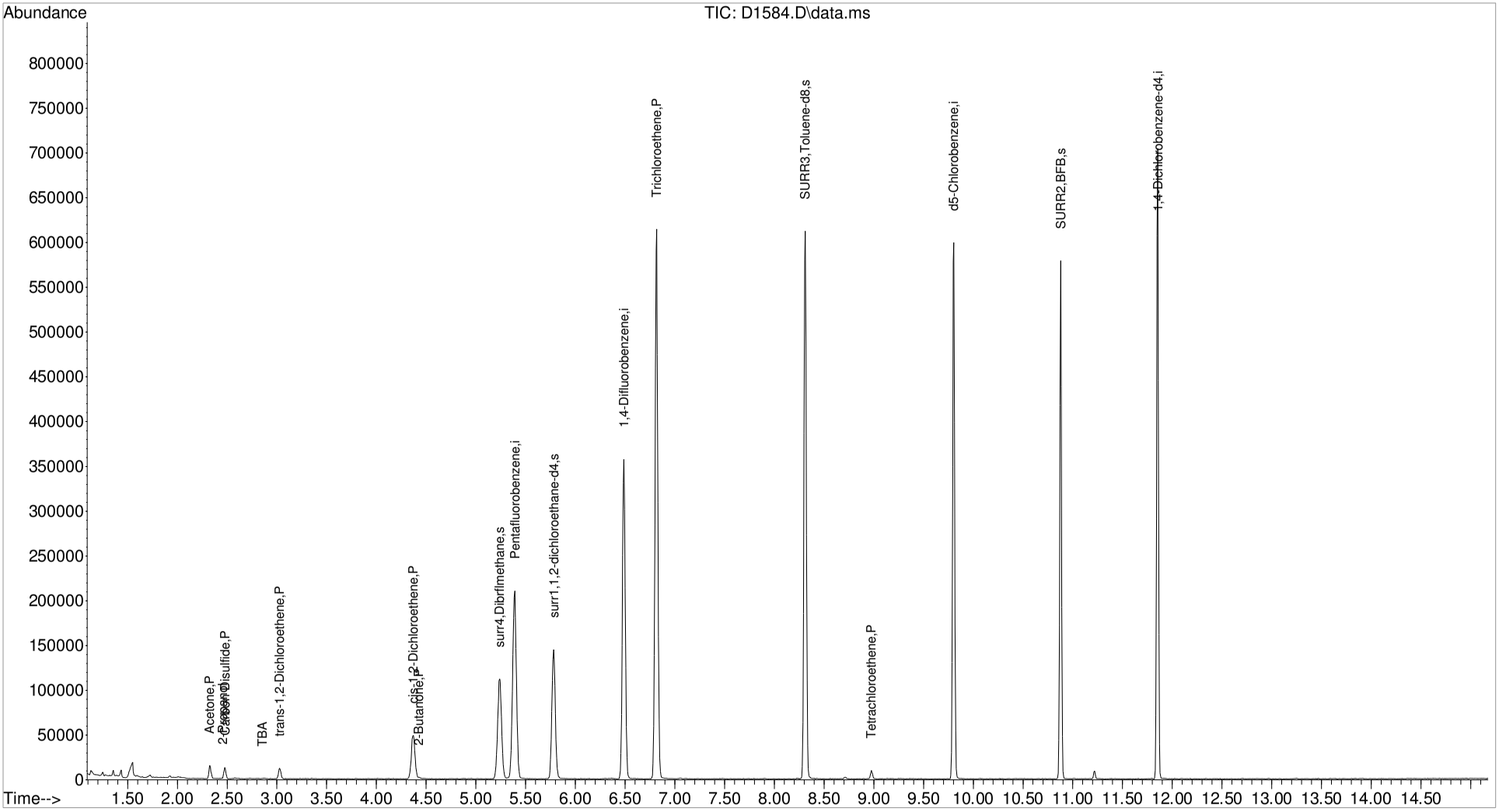
DL

(#) = qualifier out of range (m) = manual integration (+) = signals summed

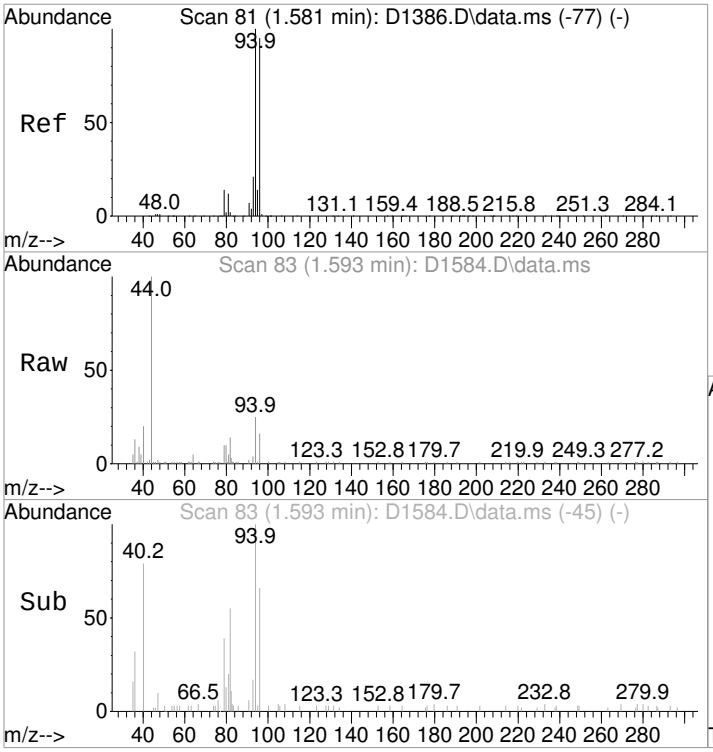
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1584.D
Acq On : 23 Feb 2018 5:44 pm
Operator : D.LIPANI
Sample : R1801449-006.R01|5.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 26 14:13:17 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



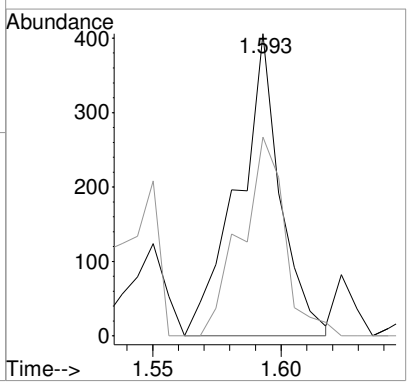
1st DL 02/26/18
2nd FJ 02/26/18

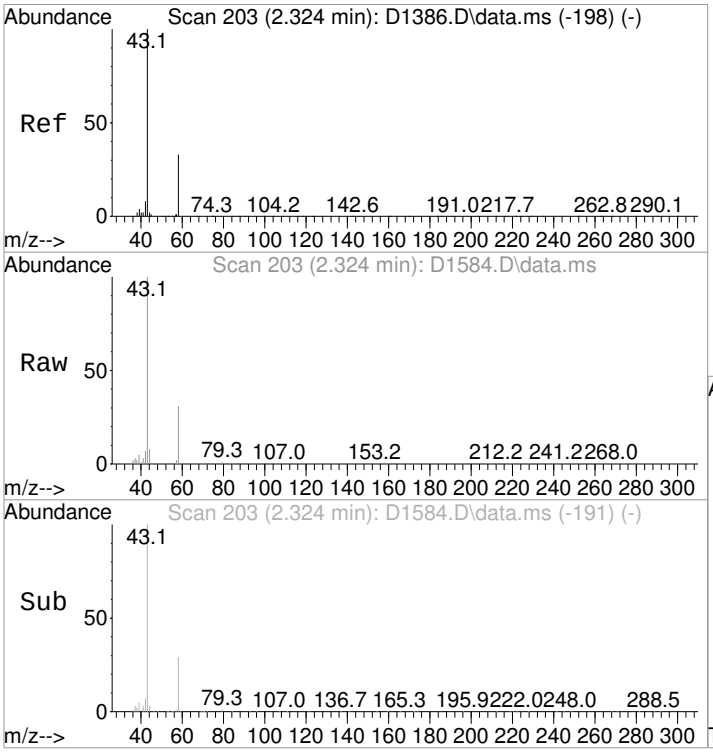


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.007 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 94 Resp: 464

Ion	Ratio	Lower	Upper
94	100		
96	65.8	72.1	112.1#

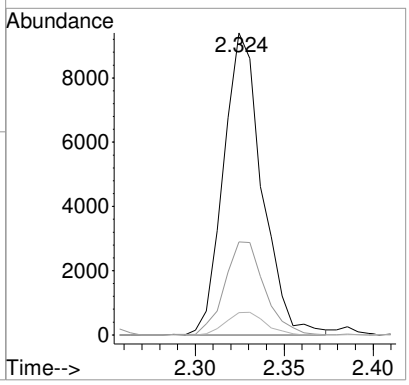


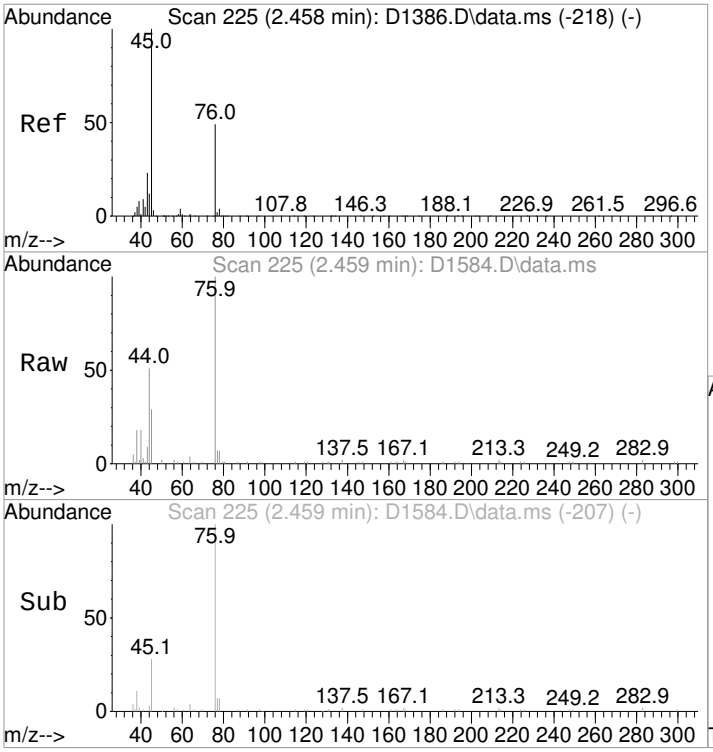


#15
Acetone
Concen: 13.69 ug/L
RT: 2.324 min Scan# 203
Delta R.T. 0.000 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 43 Resp: 14187

Ion	Ratio	Lower	Upper
43	100		
58	30.8	12.8	52.8
42	7.4	0.0	30.0

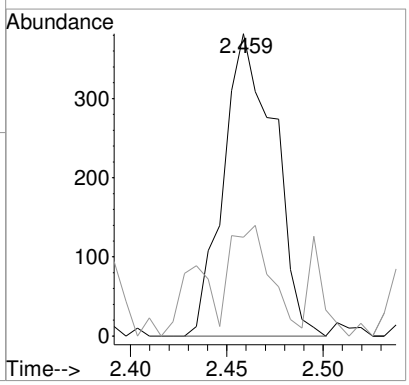


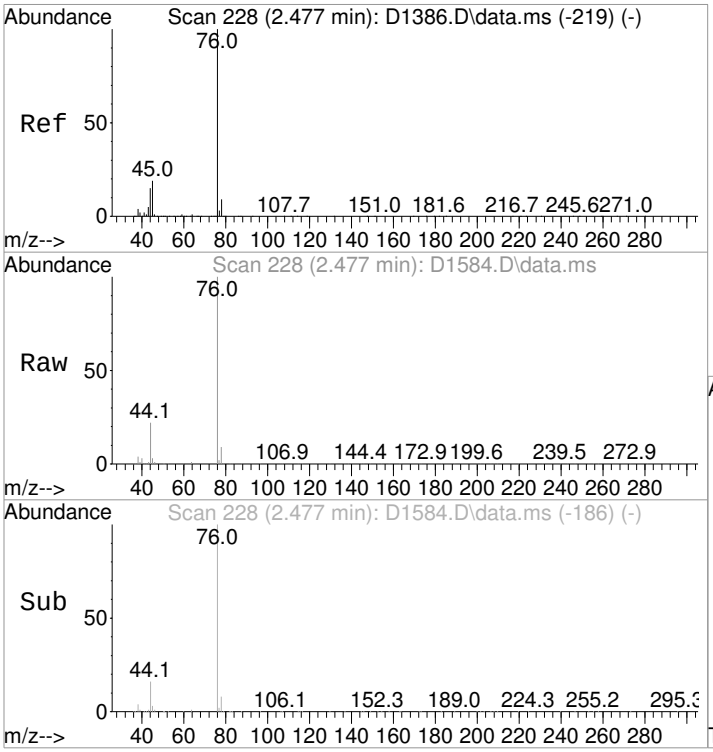


#16
2-Propanol
Concen: 4.23 ug/L
RT: 2.459 min Scan# 225
Delta R.T. 0.001 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 45 Resp: 705

Ion	Ratio	Lower	Upper
45	100		
43	32.7	4.3	44.3

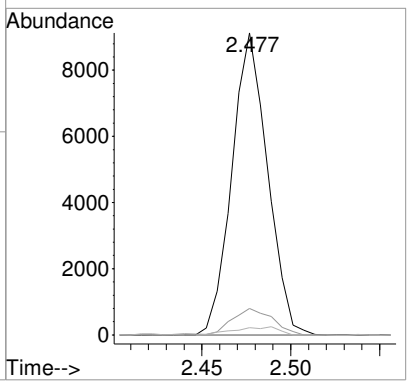


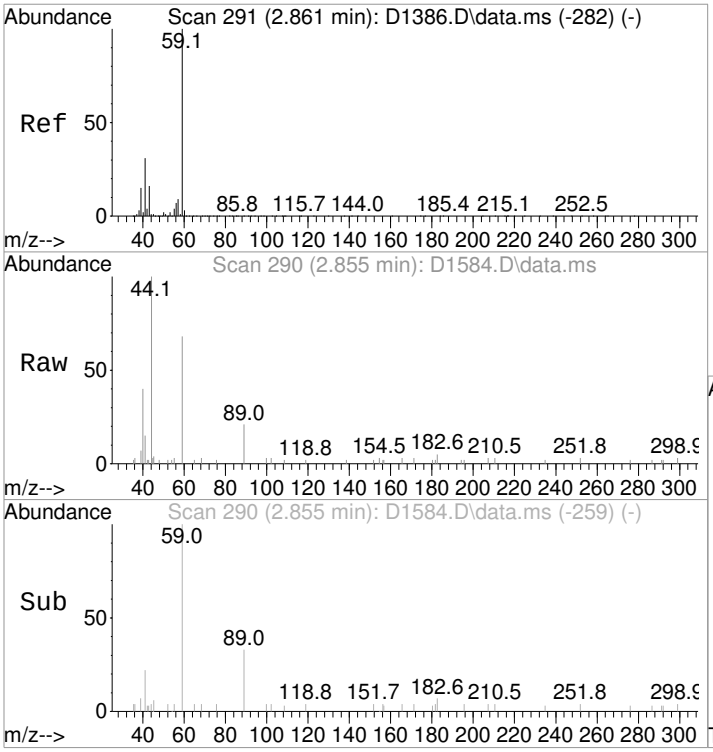


#18
Carbon Disulfide
Concen: 2.34 ug/L
RT: 2.477 min Scan# 228
Delta R.T. 0.000 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 76 Resp: 12739

Ion	Ratio	Lower	Upper
76	100		
78	8.7	0.0	29.1
77	2.4	0.0	22.8

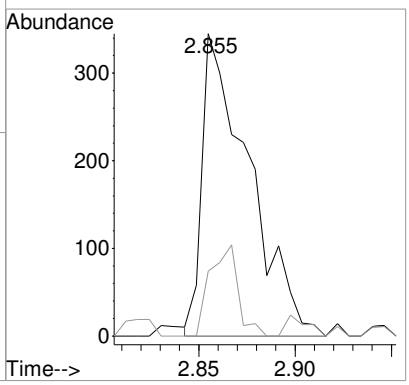


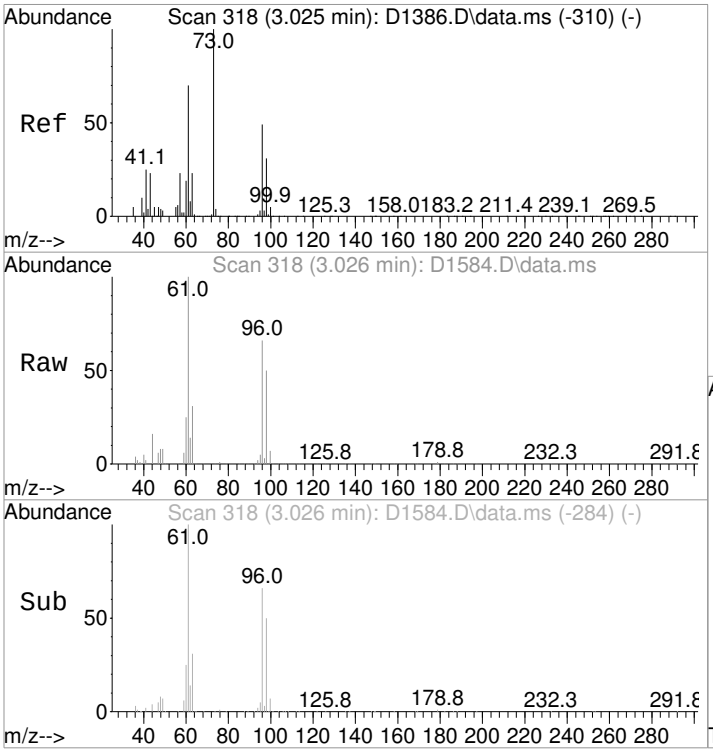


#23
TBA
Concen: 2.37 ug/L
RT: 2.855 min Scan# 290
Delta R.T. 0.001 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 59 Resp: 583

Ion	Ratio	Lower	Upper
59	100		
41	21.4	3.6	43.6

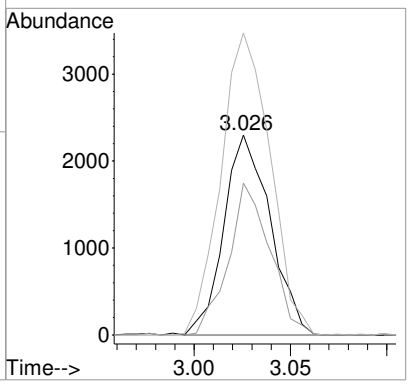


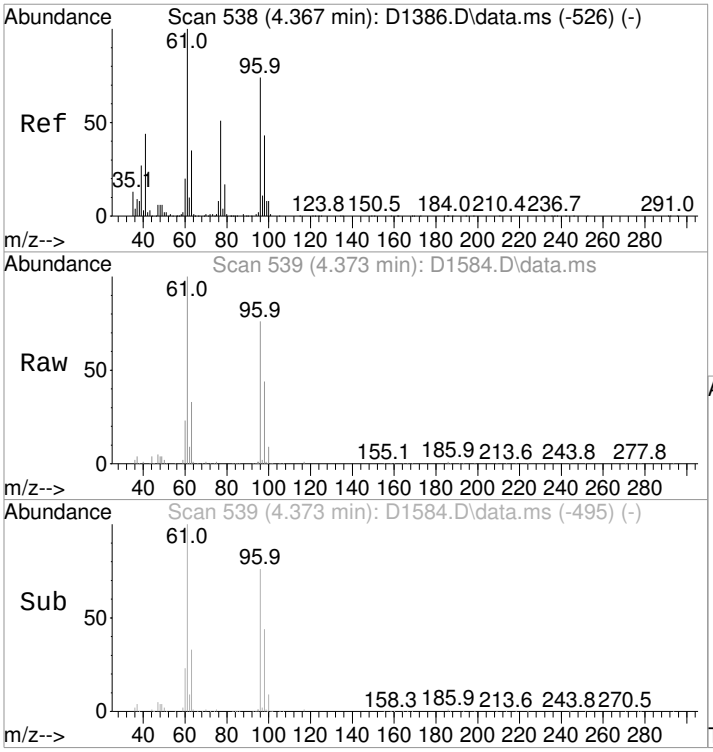


#26
trans-1,2-Dichloroethene
Concen: 1.80 ug/L
RT: 3.026 min Scan# 318
Delta R.T. 0.000 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 96 Resp: 3851

Ion	Ratio	Lower	Upper
96	100		
98	76.0	40.9	80.9
61	151.0	113.1	153.1

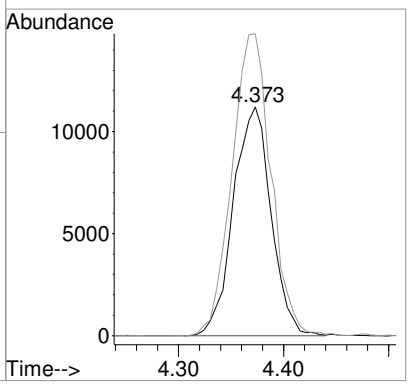


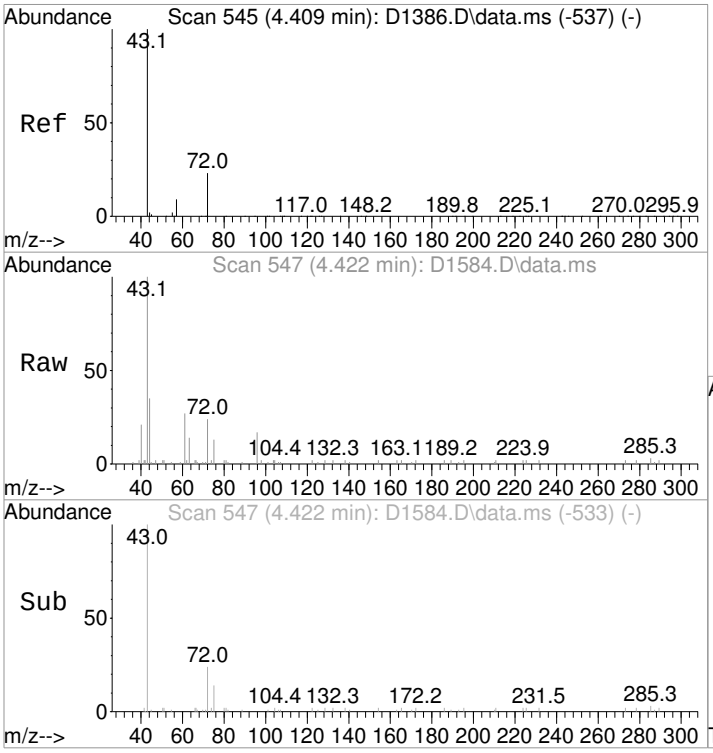


#33
cis-1,2-Dichloroethene
Concen: 11.89 ug/L
RT: 4.373 min Scan# 539
Delta R.T. 0.012 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 96 Resp: 27793

Ion	Ratio	Lower	Upper
96	100		
61	132.1	111.5	151.5

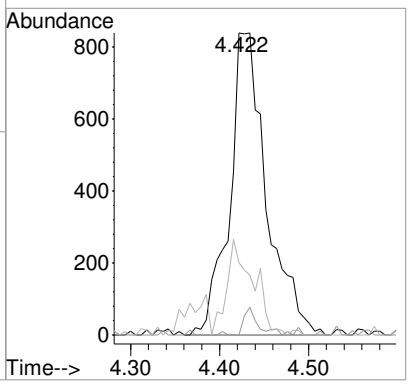


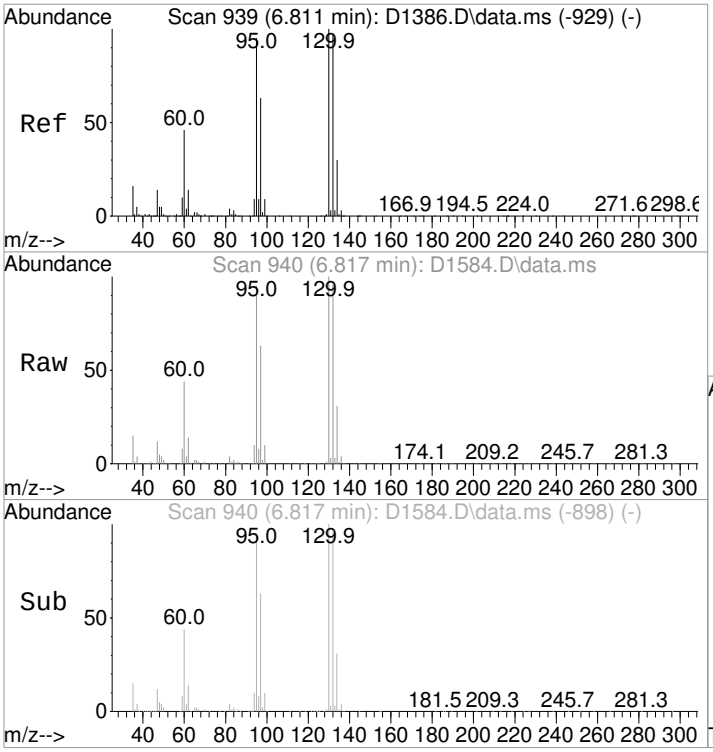


#34
2-Butanone
Concen: 1.73 ug/L
RT: 4.422 min Scan# 547
Delta R.T. 0.006 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion: 43 Resp: 2438

Ion	Ratio	Lower	Upper
43	100		
57	0.0	0.0	27.1
72	24.0	4.9	44.9

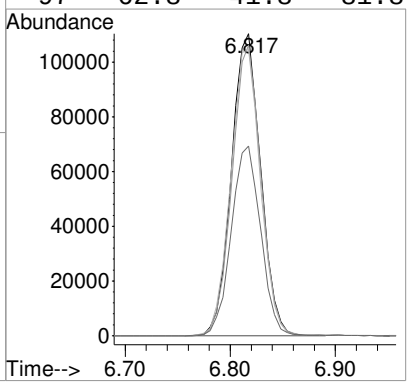


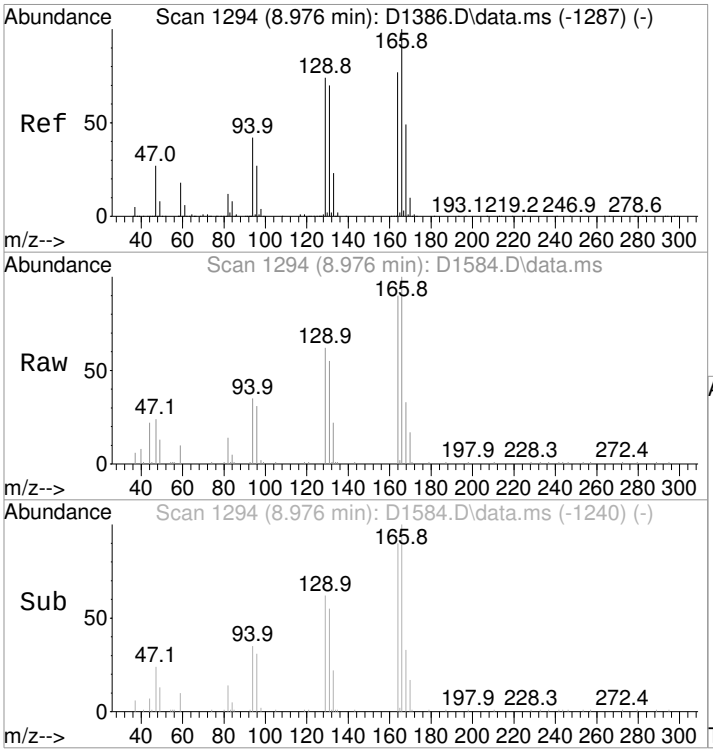


#53
Trichloroethene
Concen: 87.81 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion:130 Resp: 211940

Ion	Ratio	Lower	Upper
130	100		
132	96.2	80.0	120.0
95	94.8	68.5	108.5
97	62.8	41.8	81.8

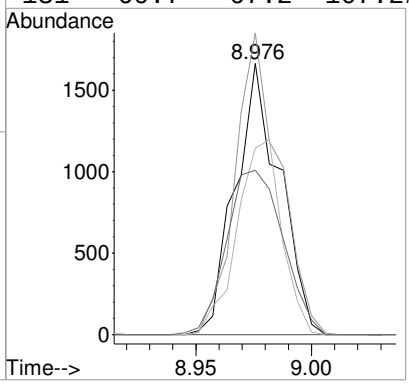




#71
Tetrachloroethene
Concen: 1.20 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. 0.000 min
Lab File: D1584.D
Acq: 23 Feb 2018 5:44 pm

Tgt Ion:164 Resp: 2230

Ion	Ratio	Lower	Upper
164	100		
166	111.2	108.6	148.6
129	68.8	69.1	109.1#
131	60.7	67.2	107.2#



Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1580.D
Acq On : 23 Feb 2018 4:07 pm
Operator : D.LIPANI
Sample : R1801449-007|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 26 14:04:23 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

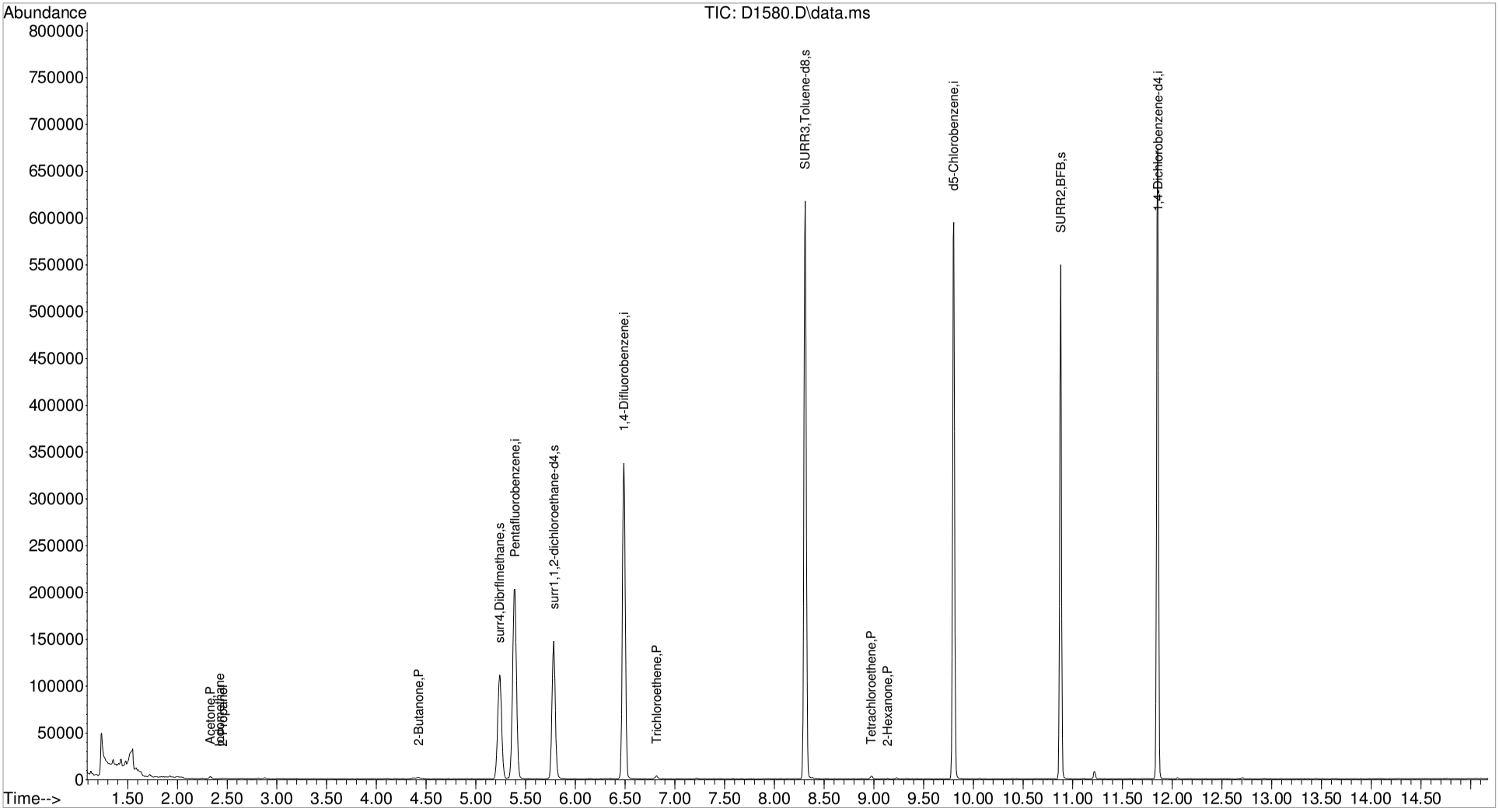
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	198144	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	297102	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	261686	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132223	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	93915	51.67	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.34%				
46) surr1,1,2-dichloroetha...	5.781	65	119355	56.79	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 113.58%				
64) SURR3,Toluene-d8	8.311	98	375547	52.43	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 104.86%				
69) SURR2,BFB	10.878	95	131679	47.46	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 94.92%				
Target Compounds							Qvalue
5) Bromomethane	1.587	94	457	Below Cal			88
15) Acetone	2.330	43	2166	2.09	ug/L		88
16) 2-Propanol	2.459	45	573	3.45	ug/L		98
17) Iodomethane	2.422	142	267	1.28	ug/L	#	65
34) 2-Butanone	4.422	43	2783	1.98	ug/L		91
53) Trichloroethene	6.817	130	965	0.41	ug/L		85
71) Tetrachloroethene	8.976	164	577	0.32	ug/L	#	74
72) 2-Hexanone	9.140	43	397	0.21	ug/L	#	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

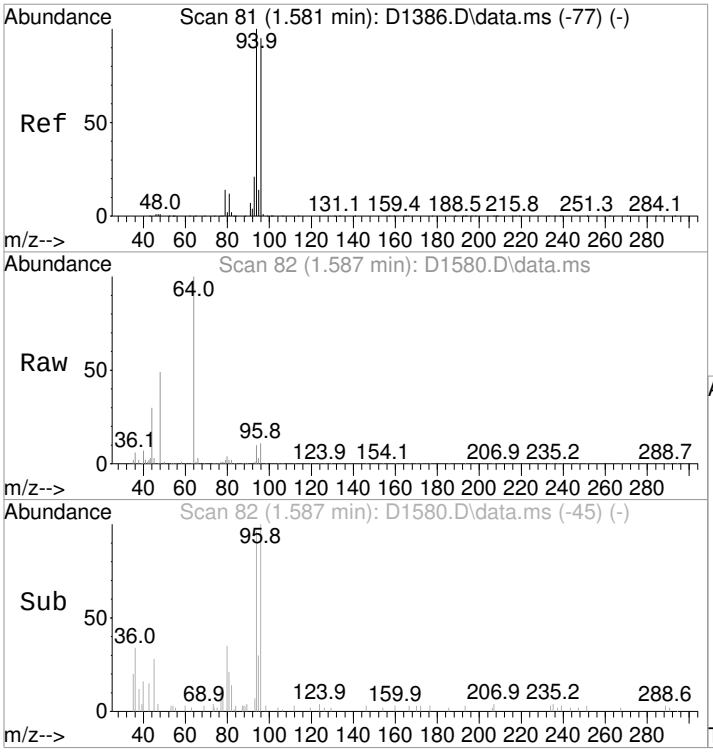
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1580.D
Acq On : 23 Feb 2018 4:07 pm
Operator : D.LIPANI
Sample : R1801449-007|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 26 14:04:23 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



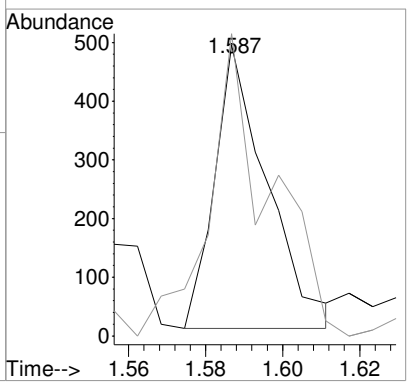
1st DL 02/26/18
2nd FJ 02/26/18

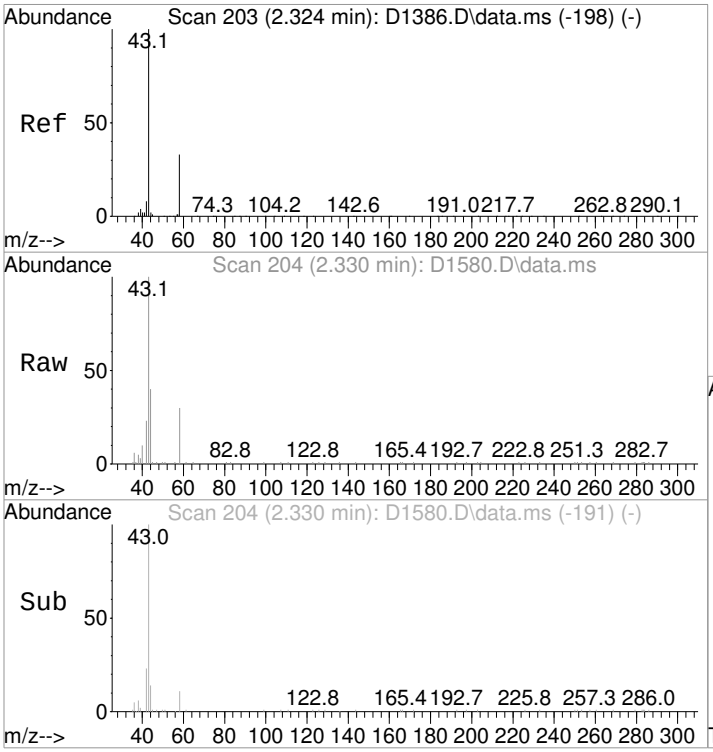


#5
Bromomethane
Concen: Below Cal
RT: 1.587 min Scan# 82
Delta R.T. 0.001 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion: 94 Resp: 457

Ion	Ratio	Lower	Upper
94	100		
96	103.8	72.1	112.1

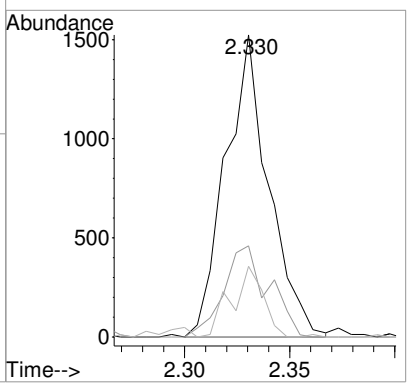


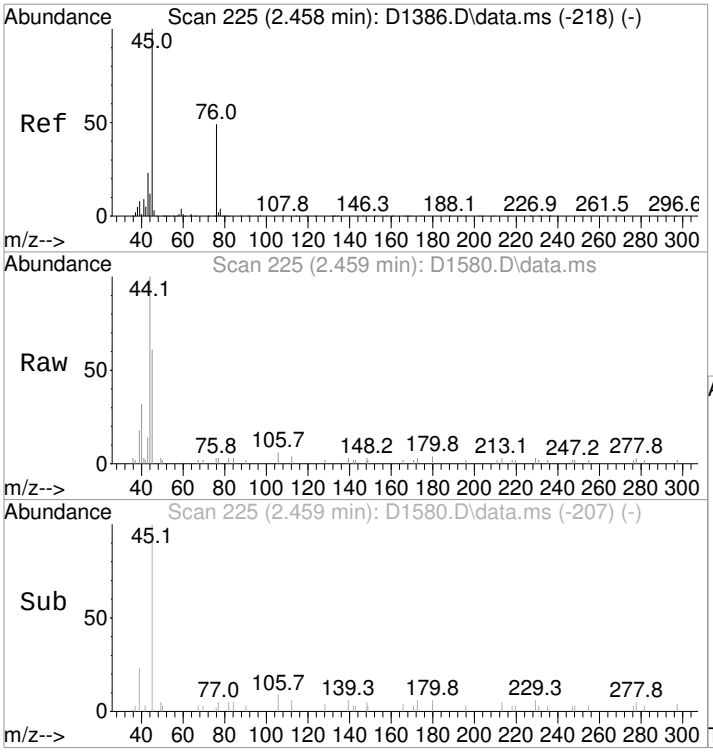


#15
Acetone
Concen: 2.09 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion: 43 Resp: 2166

Ion	Ratio	Lower	Upper
43	100		
58	30.2	12.8	52.8
42	23.4	0.0	30.0

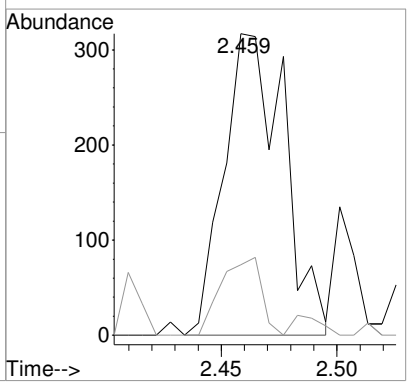


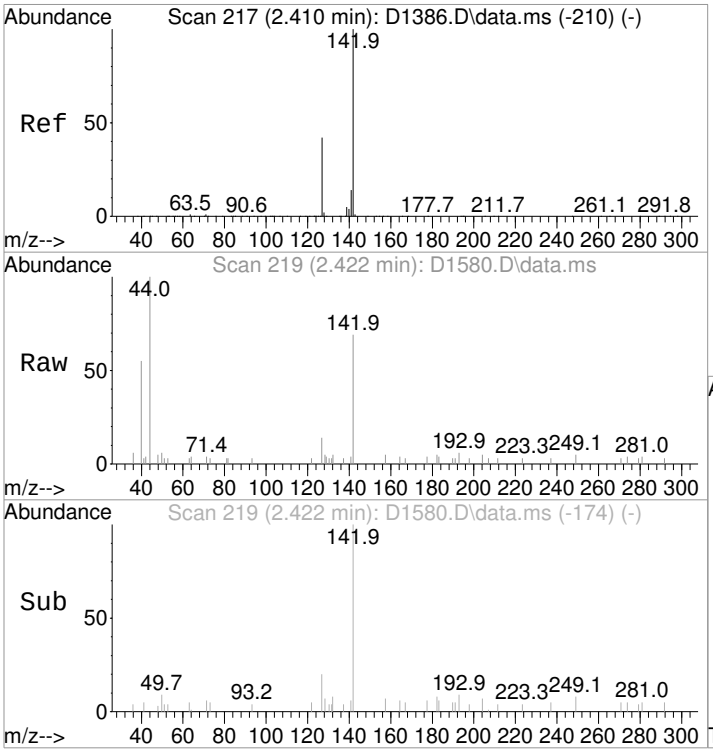


#16
2-Propanol
Concen: 3.45 ug/L
RT: 2.459 min Scan# 225
Delta R.T. 0.001 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion: 45 Resp: 573

Ion	Ratio	Lower	Upper
45	100		
43	23.3	4.3	44.3

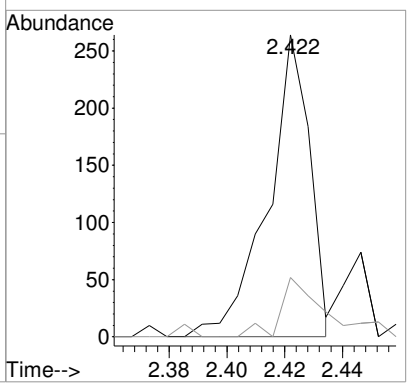


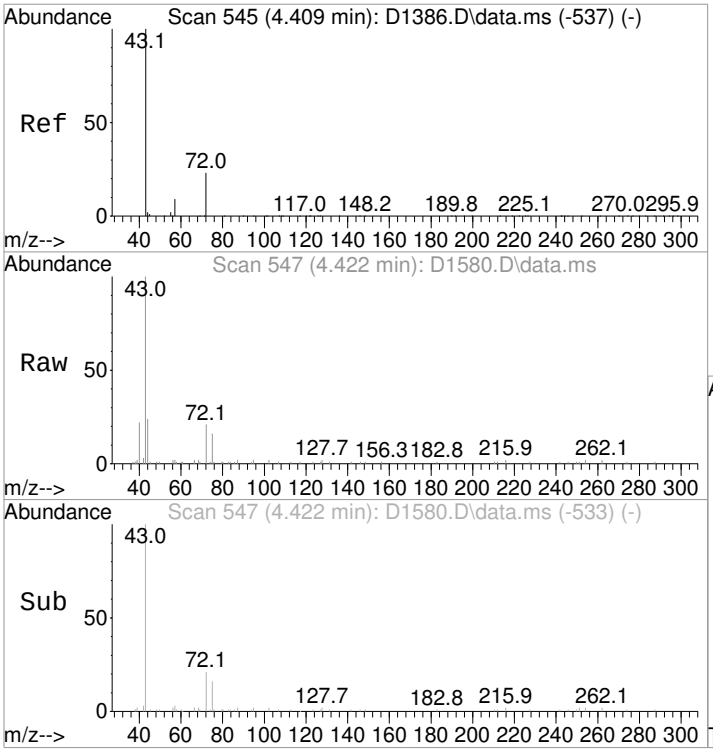


#17
Iodomethane
Concen: 1.28 ug/L
RT: 2.422 min Scan# 219
Delta R.T. 0.013 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion:142 Resp: 267

Ion	Ratio	Lower	Upper
142	100		
127	19.7	21.5	61.5#

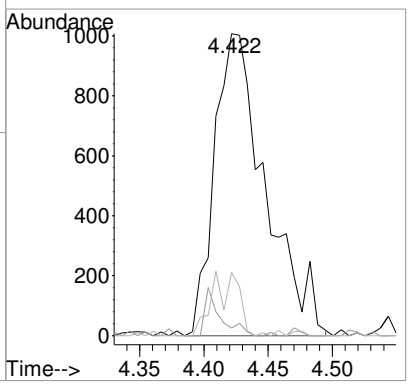


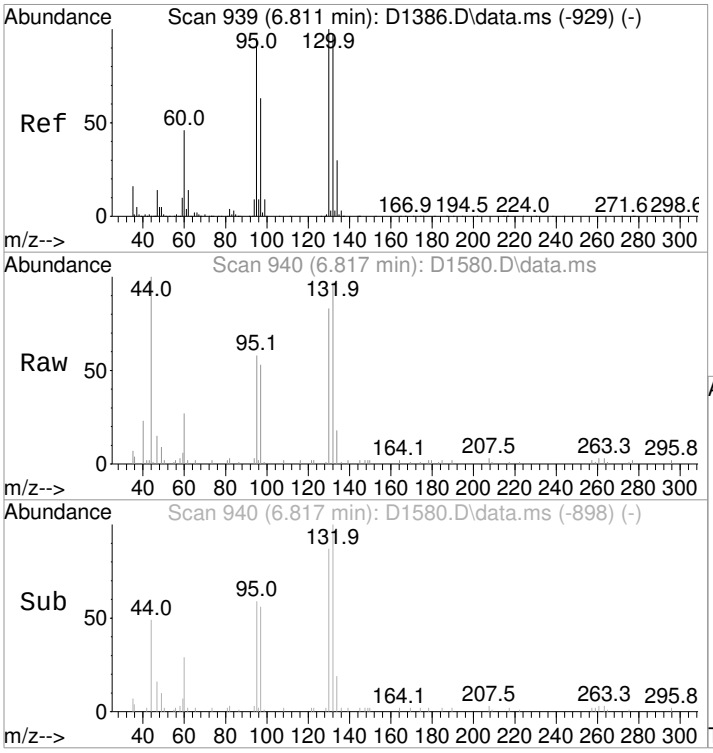


#34
2-Butanone
Concen: 1.98 ug/L
RT: 4.422 min Scan# 547
Delta R.T. 0.006 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion: 43 Resp: 2783

Ion	Ratio	Lower	Upper
43	100		
57	2.5	0.0	27.1
72	21.0	4.9	44.9

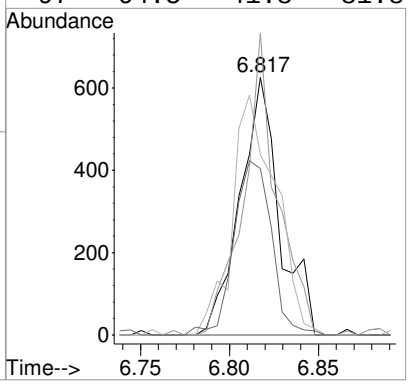


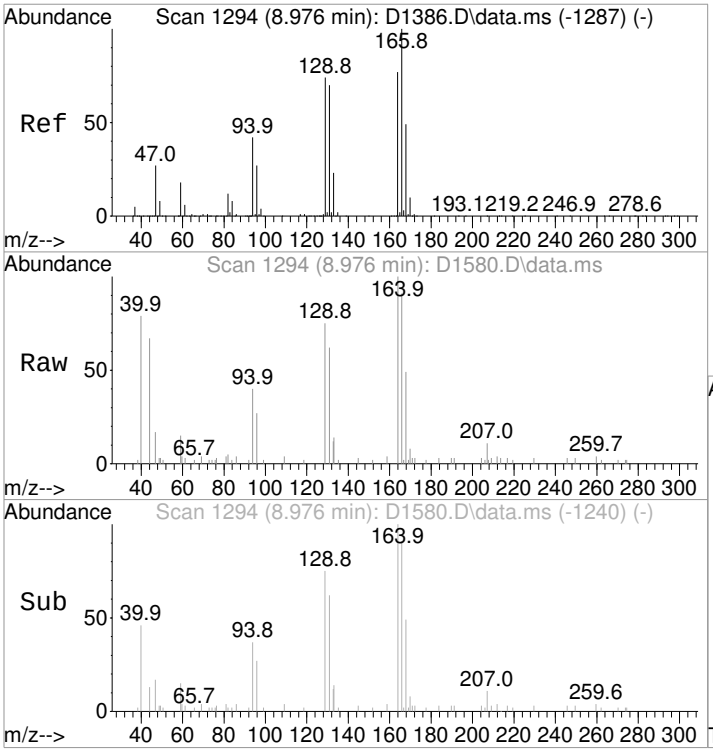


#53
Trichloroethene
Concen: 0.41 ug/L
RT: 6.817 min Scan# 940
Delta R.T. 0.006 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion:130 Resp: 965

Ion	Ratio	Lower	Upper
130	100		
132	117.3	80.0	120.0
95	70.0	68.5	108.5
97	64.5	41.8	81.8

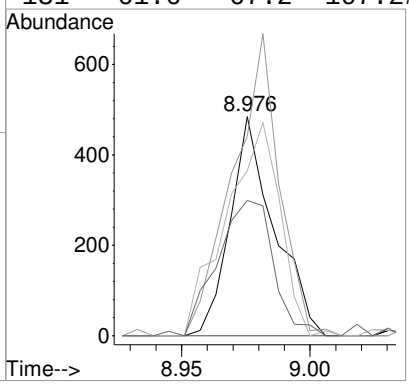


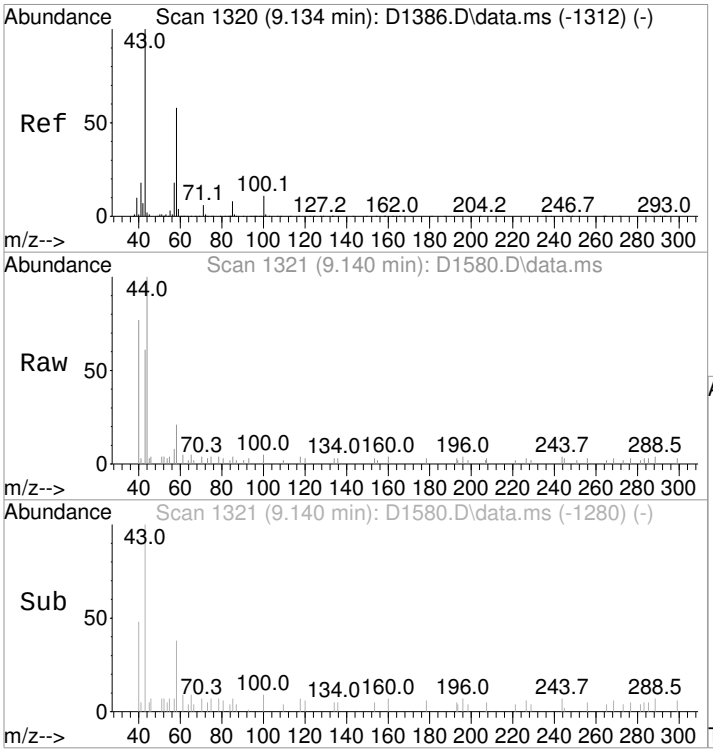


#71
Tetrachloroethene
Concen: 0.32 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. -0.000 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion:164 Resp: 577

Ion	Ratio	Lower	Upper
164	100		
166	90.9	108.6	148.6#
129	75.3	69.1	109.1
131	61.6	67.2	107.2#

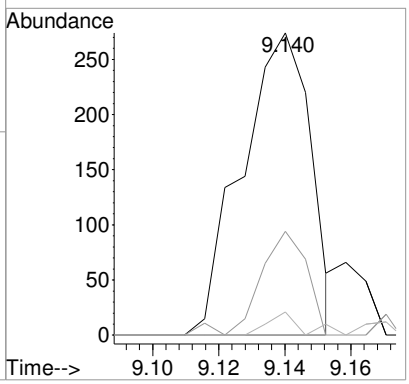




#72
2-Hexanone
Concen: 0.21 ug/L
RT: 9.140 min Scan# 1321
Delta R.T. 0.006 min
Lab File: D1580.D
Acq: 23 Feb 2018 4:07 pm

Tgt Ion: 43 Resp: 397

Ion	Ratio	Lower	Upper
43	100		
58	34.3	37.1	77.1#
100	7.7	0.0	32.3

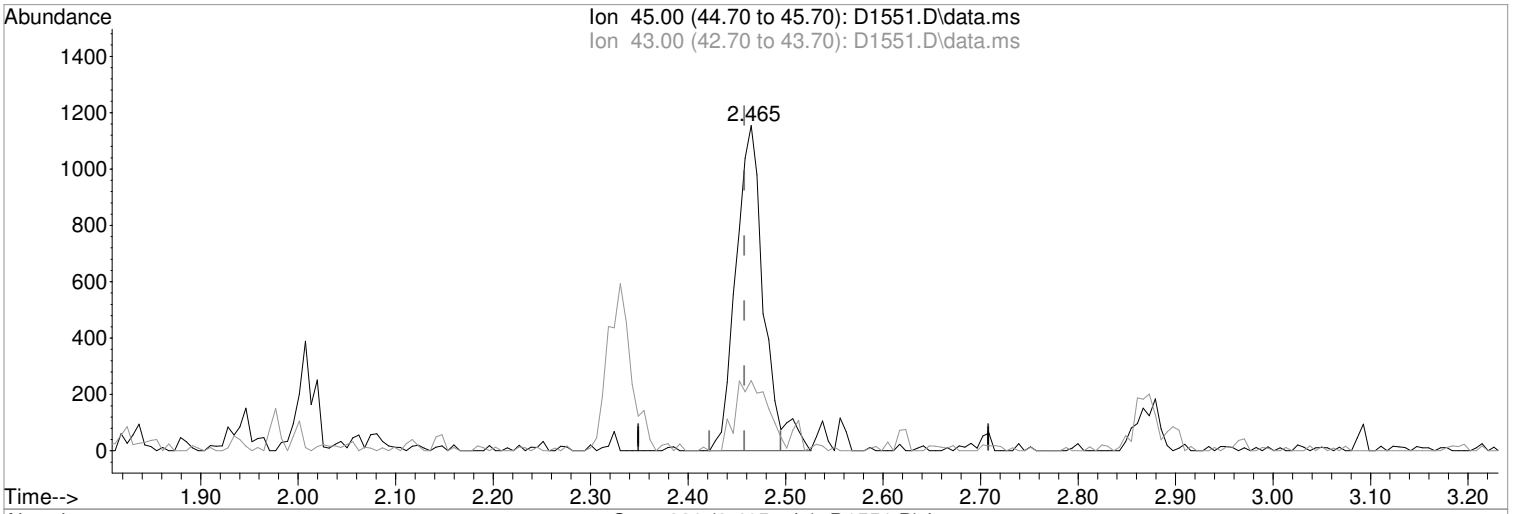


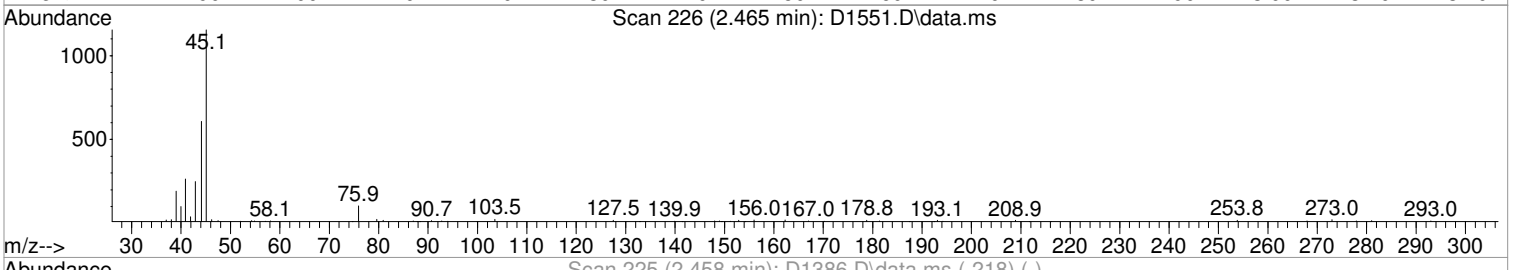
1st DL 02/26/18
2nd FW 02/26/18

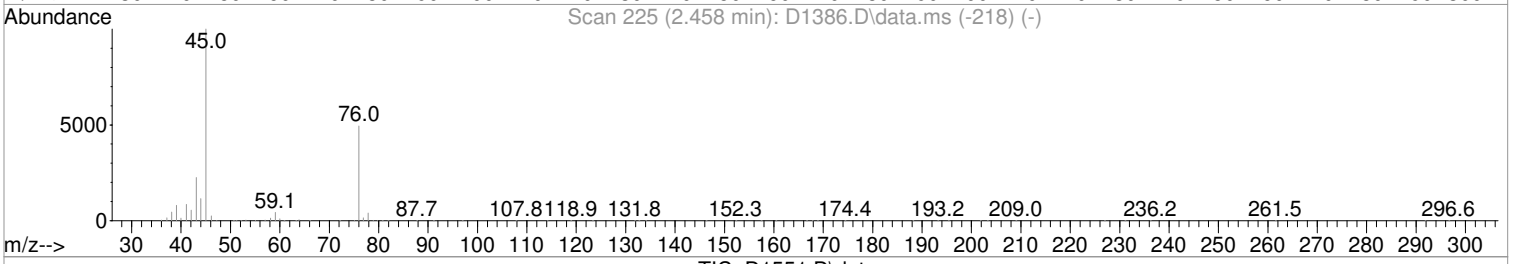
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1551.D
Acq On : 22 Feb 2018 5:27 pm
Operator : D.LIPANI
Sample : R1801449-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 22 17:41:46 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration







TIC: D1551.D\data.ms

(16) 2-Propanol

2.465min (+0.007) 13.57 ug/L m

response 2307

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	21.58
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

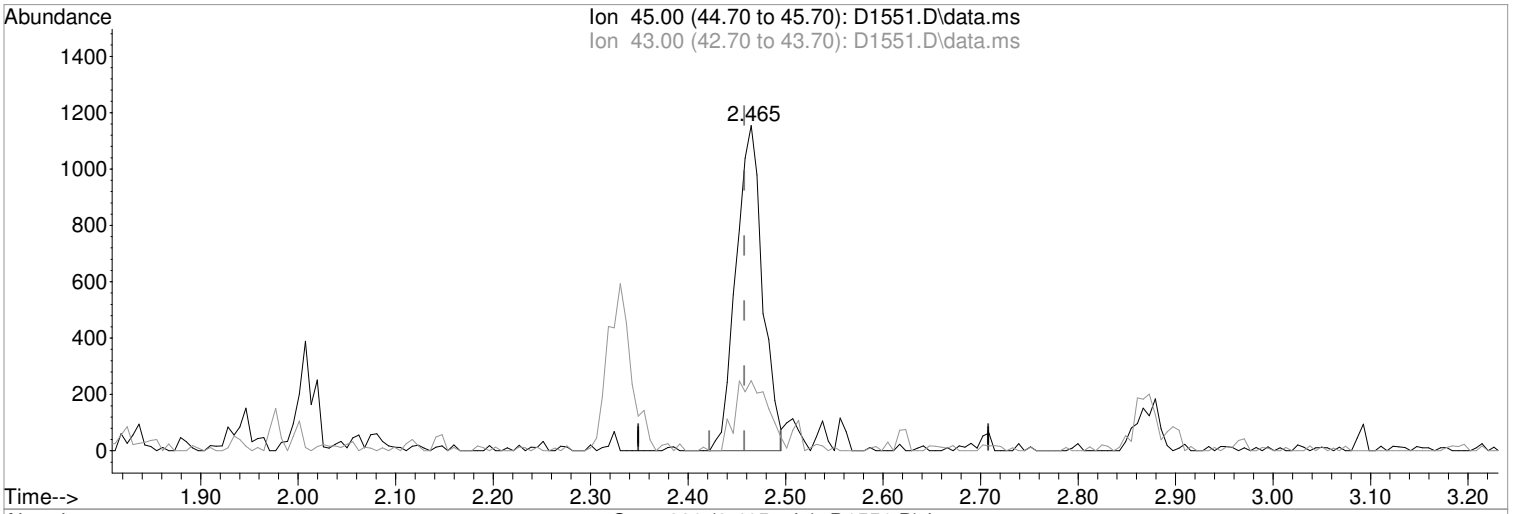
02/25/18

1st DL 02/26/18
2nd FW 02/26/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1551.D
Acq On : 22 Feb 2018 5:27 pm
Operator : D.LIPANI
Sample : R1801449-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 22 17:41:46 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



TIC: D1551.D\data.ms

(16) 2-Propanol

2.465min (+0.007) 12.88 ug/L

response 2190

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	21.58
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/25/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1551.D
Acq On : 22 Feb 2018 5:27 pm
Operator : D.LIPANI
Sample : R1801449-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 25 14:08:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

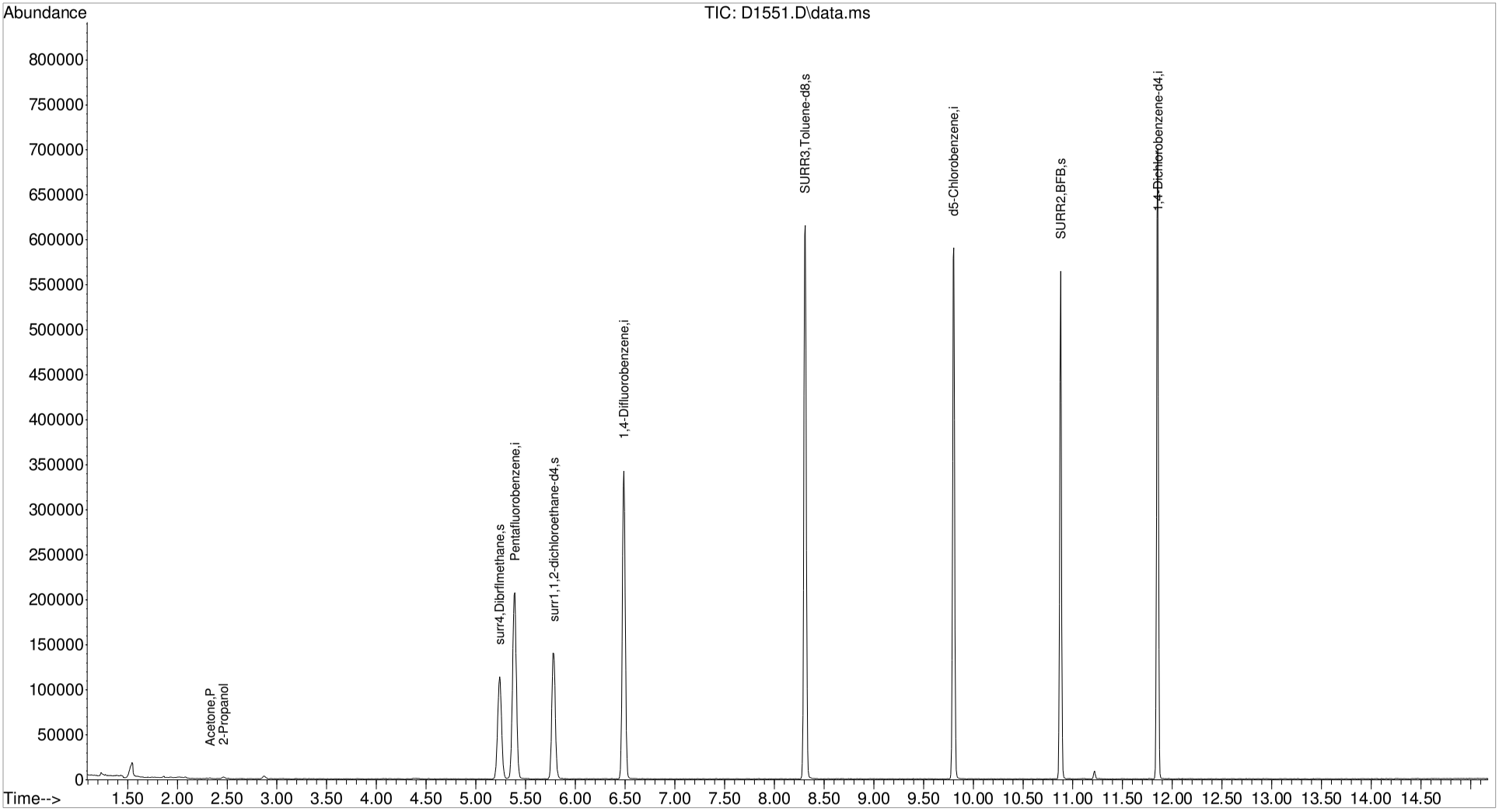
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	202795	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	302158	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	267605	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	134776	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	95324	51.56	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.12%			
46) surr1,1,2-dichloroetha...	5.781	65	119053	55.70	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 111.40%			
64) SURR3,Toluene-d8	8.311	98	392252	53.84	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.68%			
69) SURR2,BFB	10.878	95	136609	48.41	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 96.82%			
Target Compounds						Qvalue
5) Bromomethane	1.593	94	398	Below Cal		86
15) Acetone	2.330	43	994	0.94	ug/L	96
16) 2-Propanol	2.465	45	2307m	13.57	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

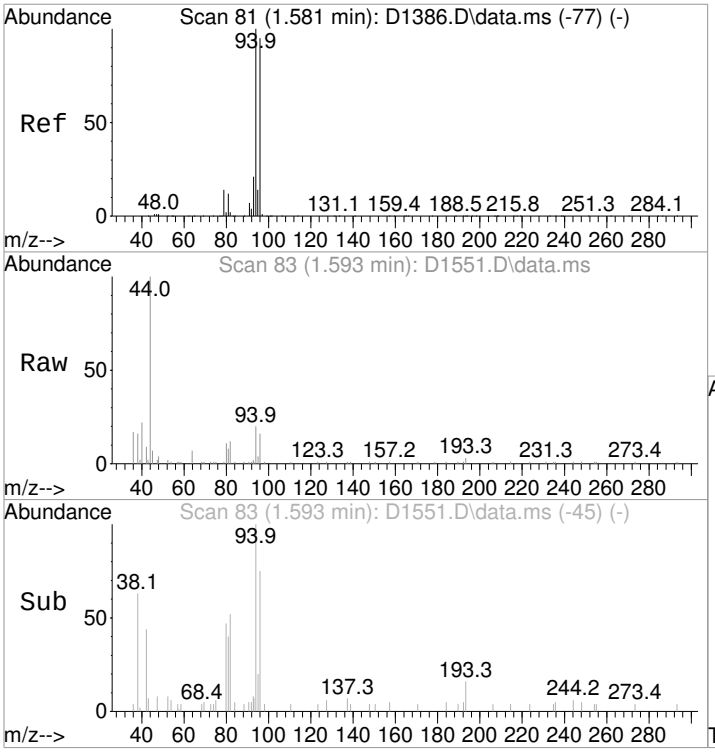
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1551.D
Acq On : 22 Feb 2018 5:27 pm
Operator : D.LIPANI
Sample : R1801449-008|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 25 14:08:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



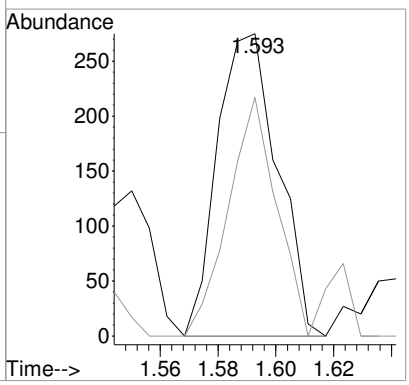
1st DL 02/26/18
2nd FJ 02/26/18

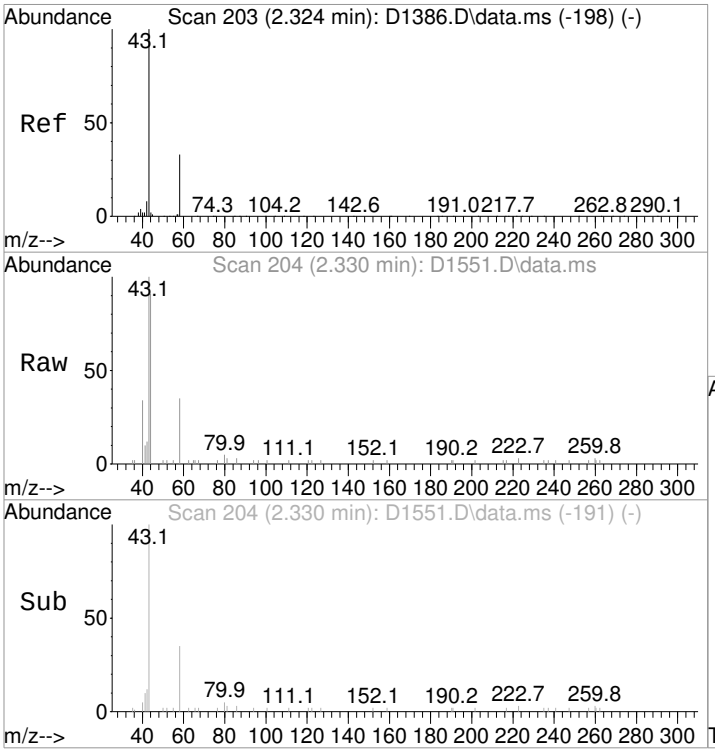


#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.007 min
Lab File: D1551.D
Acq: 22 Feb 2018 5:27 pm

Tgt Ion: 94 Resp: 398

Ion	Ratio	Lower	Upper
94	100		
96	78.9	72.1	112.1

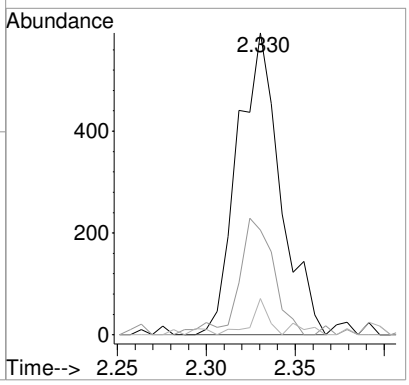


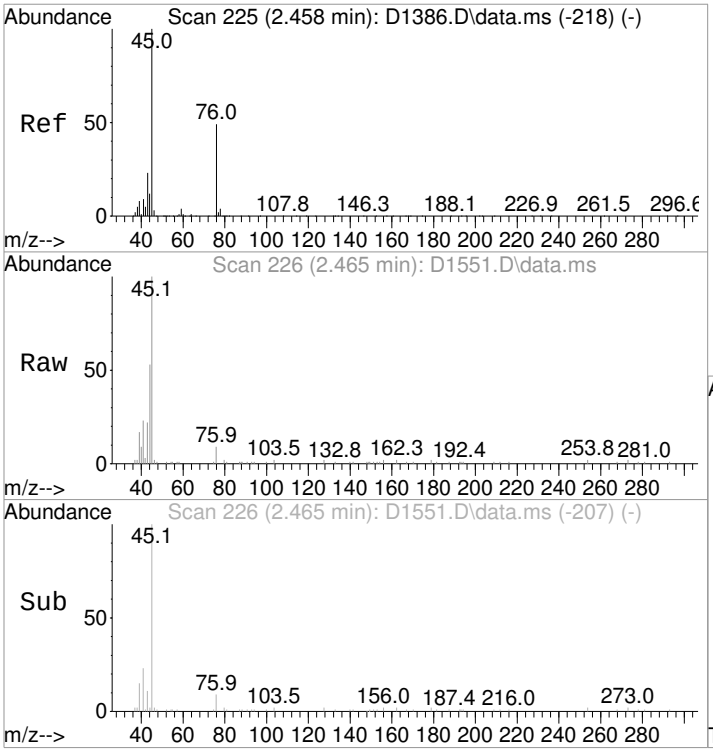


#15
Acetone
Concen: 0.94 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1551.D
Acq: 22 Feb 2018 5:27 pm

Tgt Ion: 43 Resp: 994

Ion	Ratio	Lower	Upper
43	100		
58	34.7	12.8	52.8
42	12.0	0.0	30.0

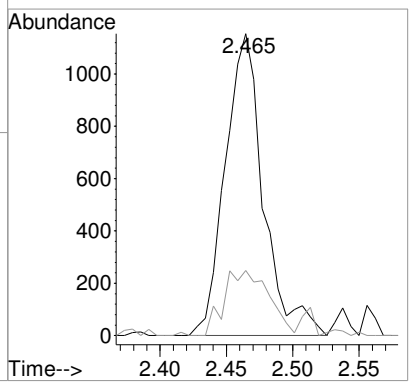




#16
2-Propanol
Concen: 13.57 ug/L m
RT: 2.465 min Scan# 226
Delta R.T. 0.007 min
Lab File: D1551.D
Acq: 22 Feb 2018 5:27 pm

Tgt Ion: 45 Resp: 2307

Ion	Ratio	Lower	Upper
45	100		
43	21.6	4.3	44.3



1st DL 02/26/18
2nd FJ 02/26/18

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1567.D
Acq On : 23 Feb 2018 11:22 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge

Signal : TIC: D1567.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.544	65	75	78	rBV5	16585	40453	3.63%	0.715%
2	5.238	667	681	693	rBV2	122496	341585	30.64%	6.035%
3	5.385	695	705	720	rVB	211309	570671	51.19%	10.083%
4	5.781	760	770	784	rBV2	157438	367883	33.00%	6.500%
5	6.488	876	886	898	rBV	359382	717553	64.36%	12.678%
6	8.311	1176	1185	1196	rBV	687518	1114879	100.00%	19.698%
7	9.805	1424	1430	1442	rVB	607384	856563	76.83%	15.134%
8	10.878	1600	1606	1614	rBV	604542	764107	68.54%	13.500%
9	11.219	1657	1662	1666	rBV4	9392	13069	1.17%	0.231%
10	11.853	1760	1766	1775	rVB	705263	873140	78.32%	15.427%

for bis (-chloromethyl) ether only

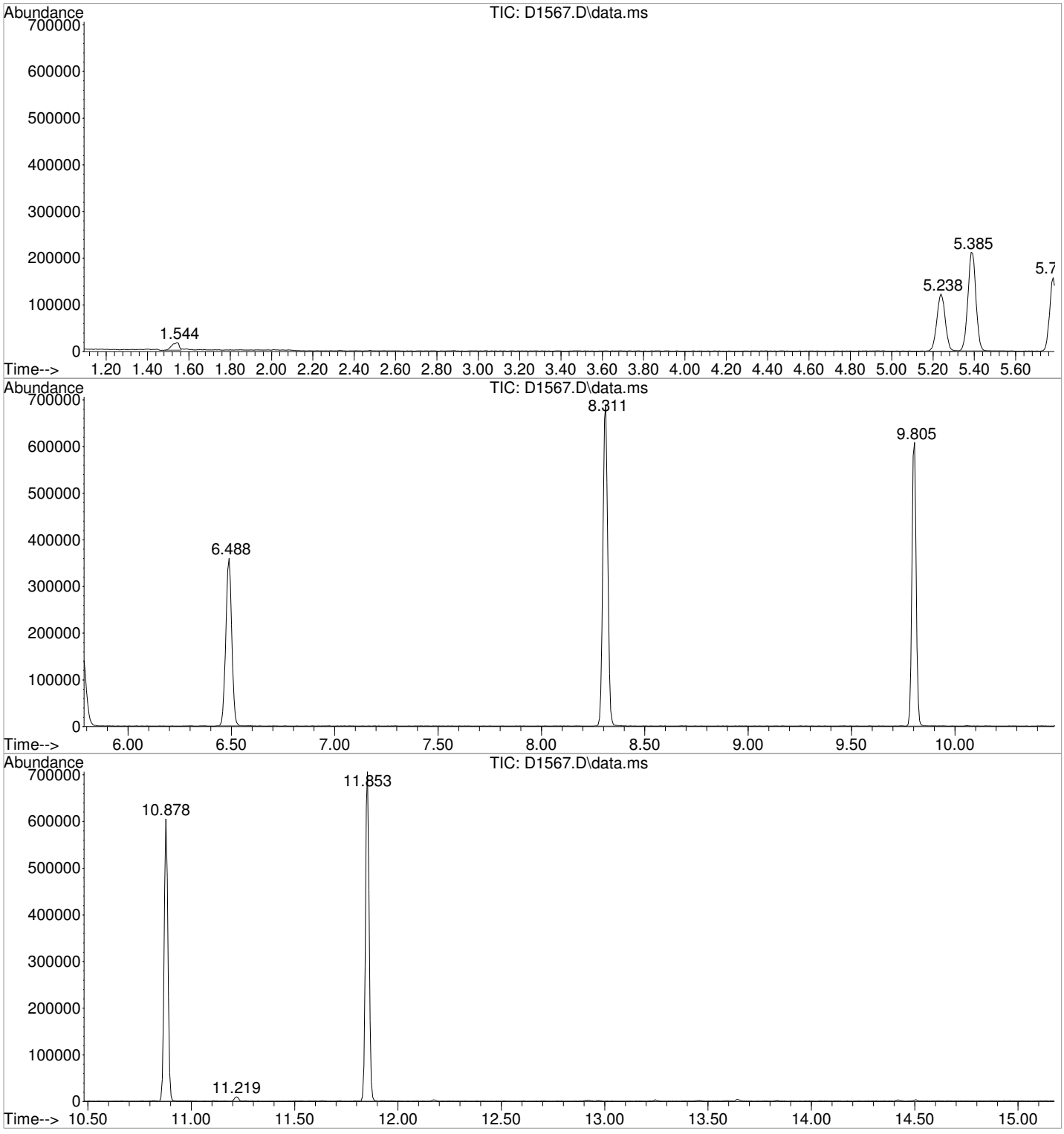
Sum of corrected areas: 5659903

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1567.D
Acq On : 23 Feb 2018 11:22 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa10\data\022318\\
Data File : D1567.D
Acq On : 23 Feb 2018 11:22 amm
Operator : D.LIPANII
Sample : MET BLK Inst : MSVOA10J
Misc :
ALS Vial : 5 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.MM
Quant Title : MS#10 - 8260B WATERS 5.0mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1567.D
Acq On : 23 Feb 2018 11:22 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 13:23:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

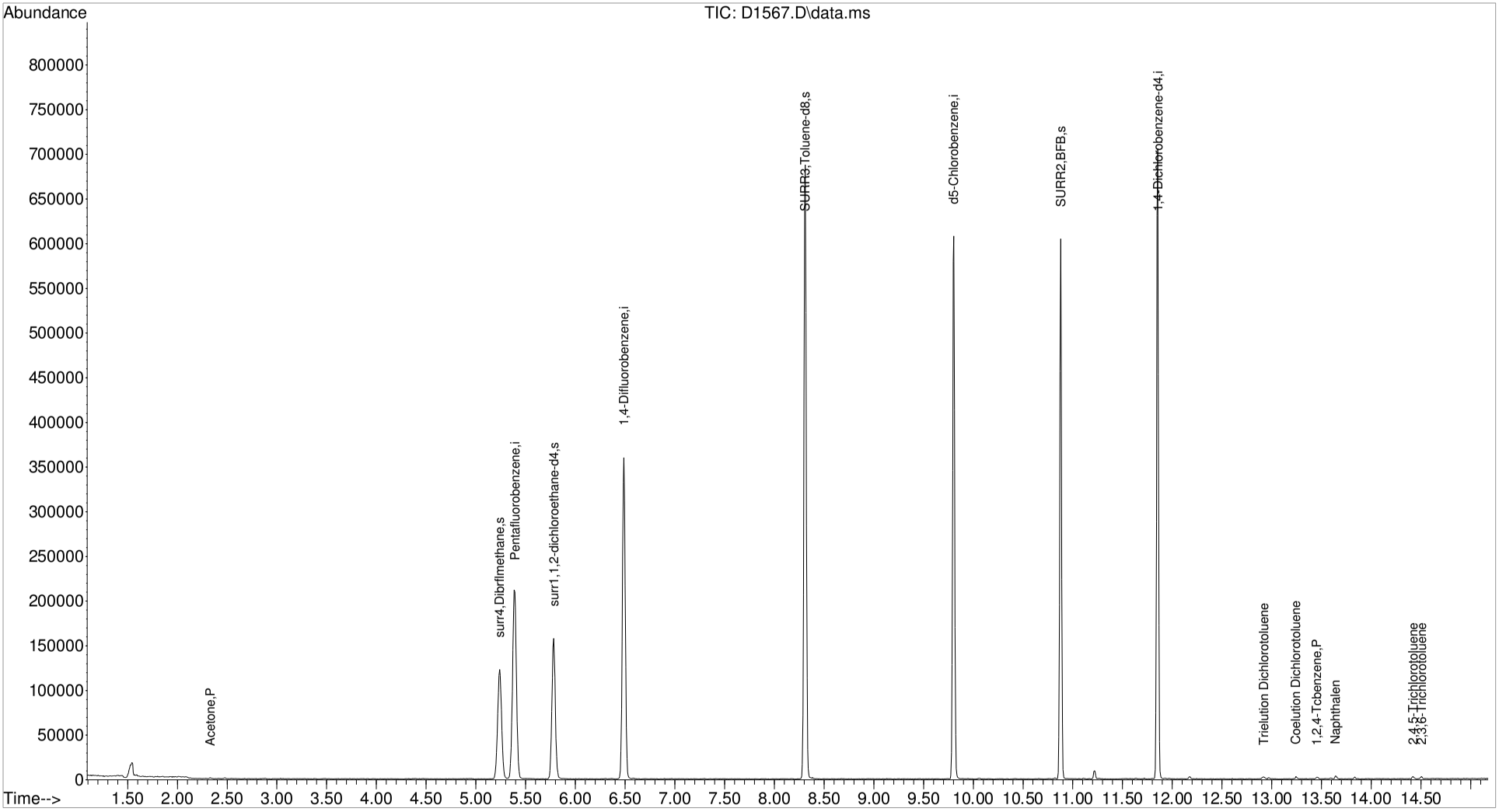
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	210150	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	313471	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	271512	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	139285	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	104501	54.49	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 108.98%			
46) surr1,1,2-dichloroetha...	5.781	65	128146	57.79	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 115.58%			
64) SURR3,Toluene-d8	8.311	98	419651	55.52	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 111.04%			
69) SURR2,BFB	10.878	95	150928	51.56	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.12%			
Target Compounds						Qvalue
15) Acetone	2.330	43	636	0.58	ug/L #	65
111) Trielution Dichlorotol...	12.920	125	1327	0.33	ug/L	79
113) Coelution Dichlorotoluene	13.243	125	1047	0.25	ug/L	94
114) 1,2,4-Tcbenzene	13.450	180	732	0.21	ug/L #	58
116) Naphthalen	13.639	128	2017	0.25	ug/L	80
118) 2,4,5-Trichlorotoluene	14.420	159	608	0.28	ug/L #	61
119) 2,3,6-Trichlorotoluene	14.505	159	628	0.32	ug/L #	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

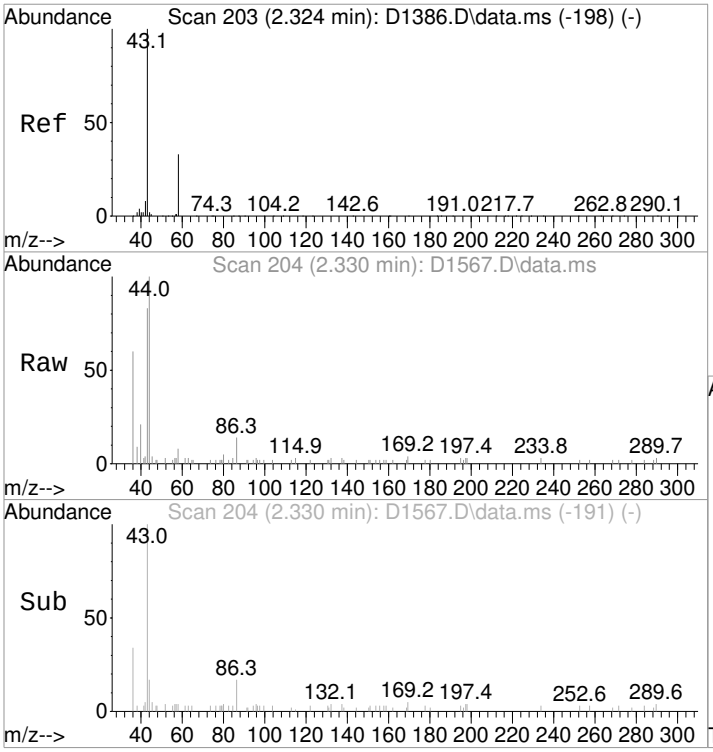
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1567.D
Acq On : 23 Feb 2018 11:22 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 13:23:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



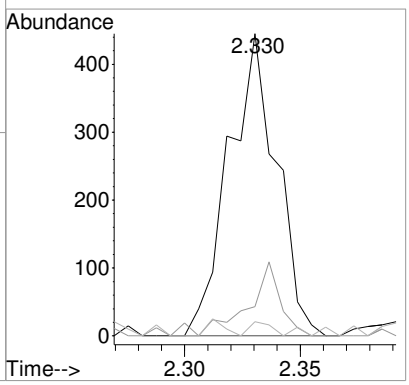
1st BA 02/23/18
2nd DL 02/23/18

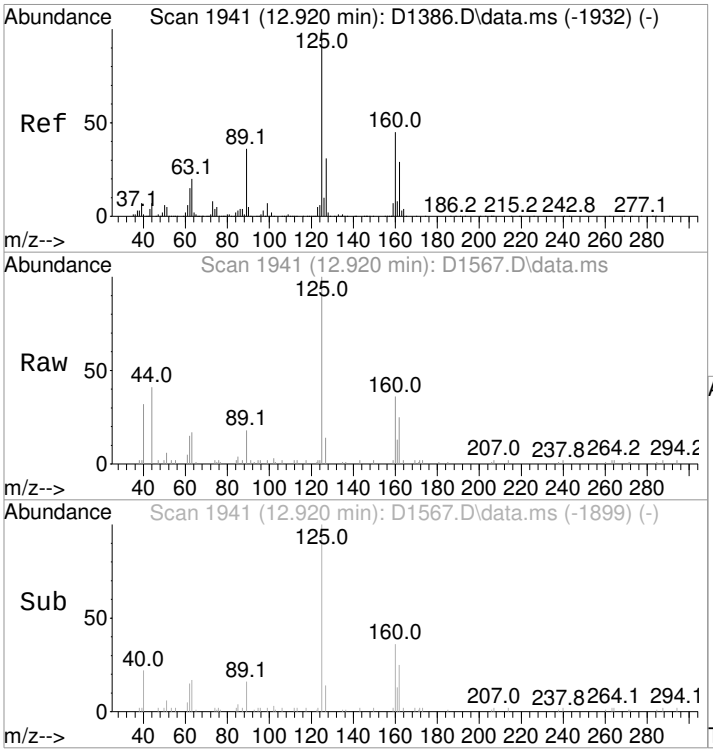


#15
Acetone
Concen: 0.58 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1567.D
Acq: 23 Feb 2018 11:22 am

Tgt Ion: 43 Resp: 636

Ion	Ratio	Lower	Upper
43	100		
58	9.7	12.8	52.8#
42	4.7	0.0	30.0

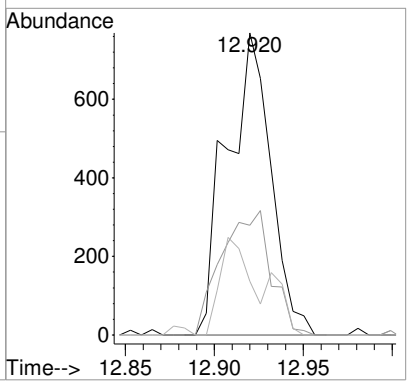


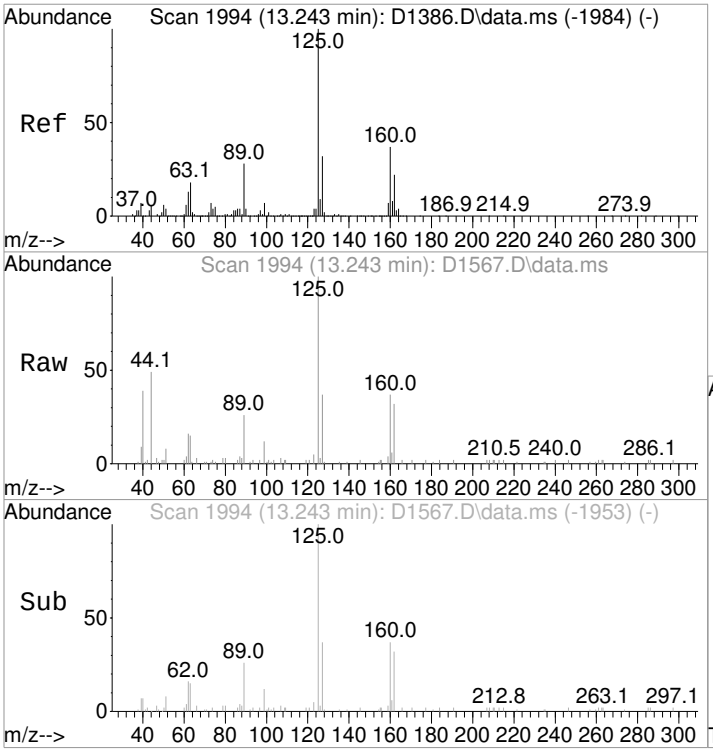


#111
Trielution Dichlorotoluene
Concen: 0.33 ug/L
RT: 12.920 min Scan# 1941
Delta R.T. 0.006 min
Lab File: D1567.D
Acq: 23 Feb 2018 11:22 am

Tgt Ion:125 Resp: 1327

Ion	Ratio	Lower	Upper
125	100		
160	36.3	25.1	65.1
89	17.8	15.0	55.0

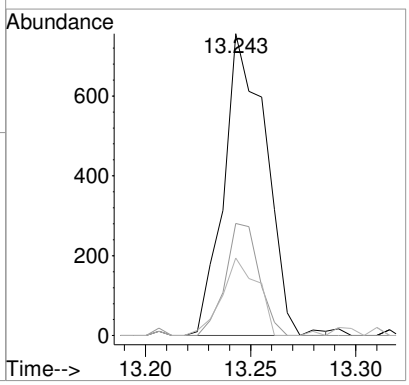


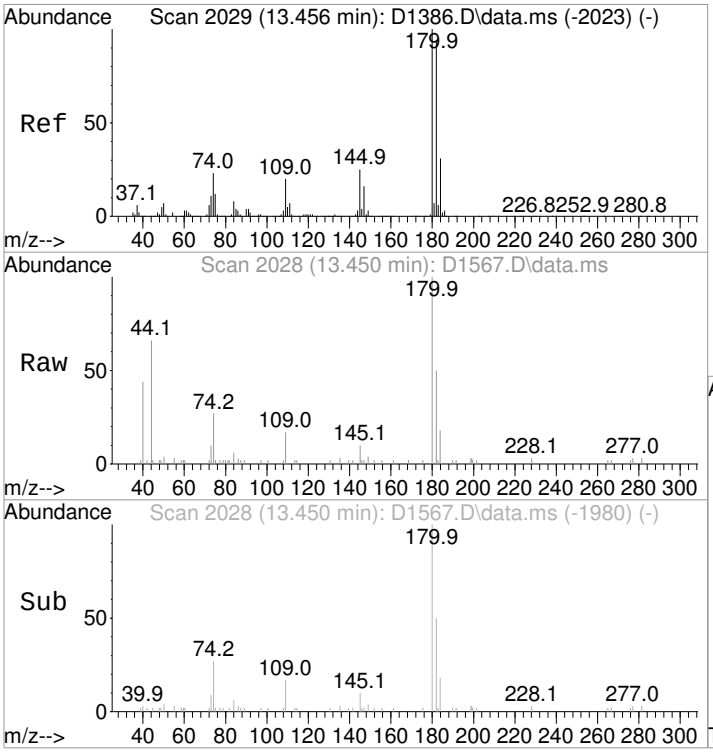


#113
Coelution Dichlorotoluene
Concen: 0.25 ug/L
RT: 13.243 min Scan# 1994
Delta R.T. -0.000 min
Lab File: D1567.D
Acq: 23 Feb 2018 11:22 am

Tgt Ion:125 Resp: 1047

Ion	Ratio	Lower	Upper
125	100		
160	43.5	18.3	58.3
89	25.7	7.0	47.0

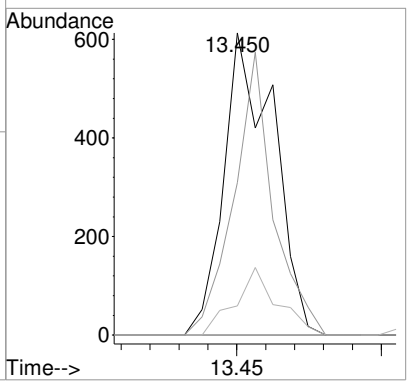


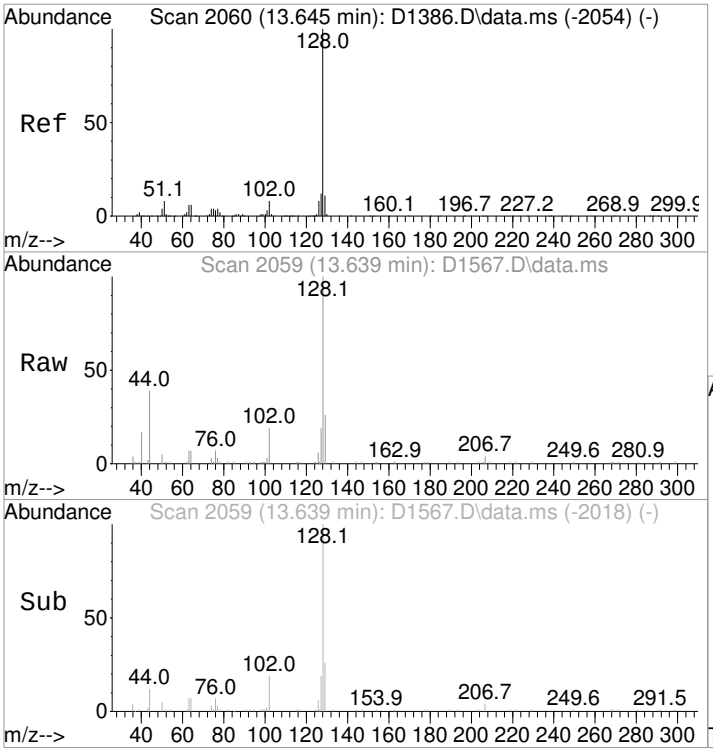


#114
1,2,4-Tcbenzene
Concen: 0.21 ug/L
RT: 13.450 min Scan# 2028
Delta R.T. -0.000 min
Lab File: D1567.D
Acq: 23 Feb 2018 11:22 am

Tgt Ion:180 Resp: 732

Ion	Ratio	Lower	Upper
180	100		
182	50.4	73.5	113.5#
145	9.6	7.0	47.0

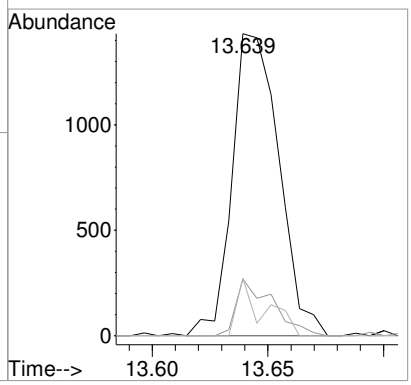


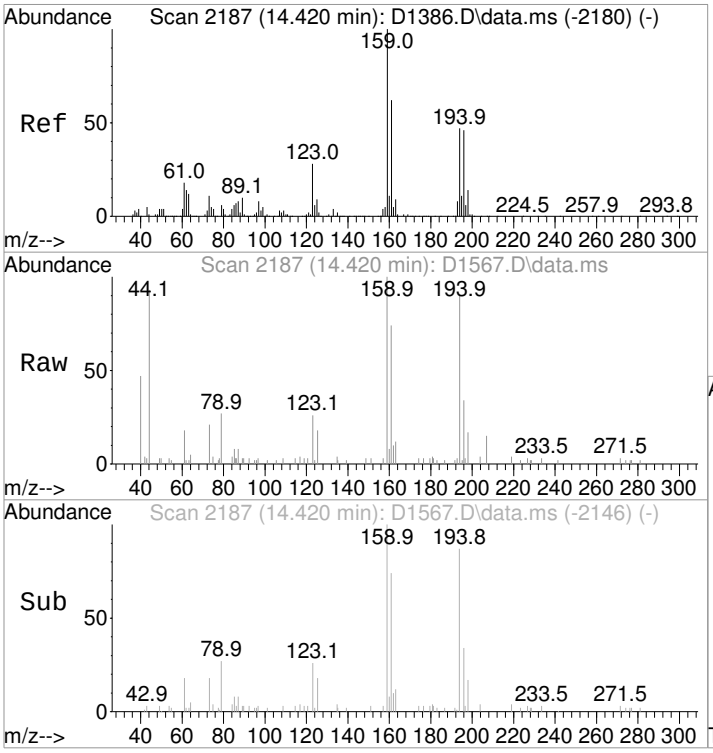


#116
Naphthalen
Concen: 0.25 ug/L
RT: 13.639 min Scan# 2059
Delta R.T. -0.006 min
Lab File: D1567.D
Acq: 23 Feb 2018 11:22 am

Tgt Ion:128 Resp: 2017

Ion	Ratio	Lower	Upper
128	100		
127	18.7	0.0	33.4
102	19.1	0.0	28.2

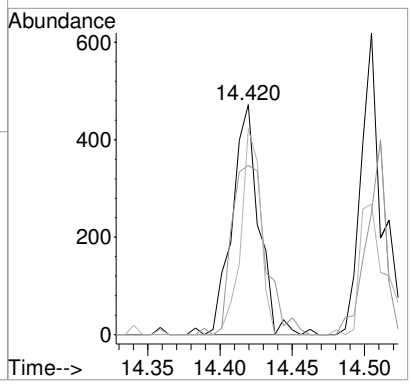


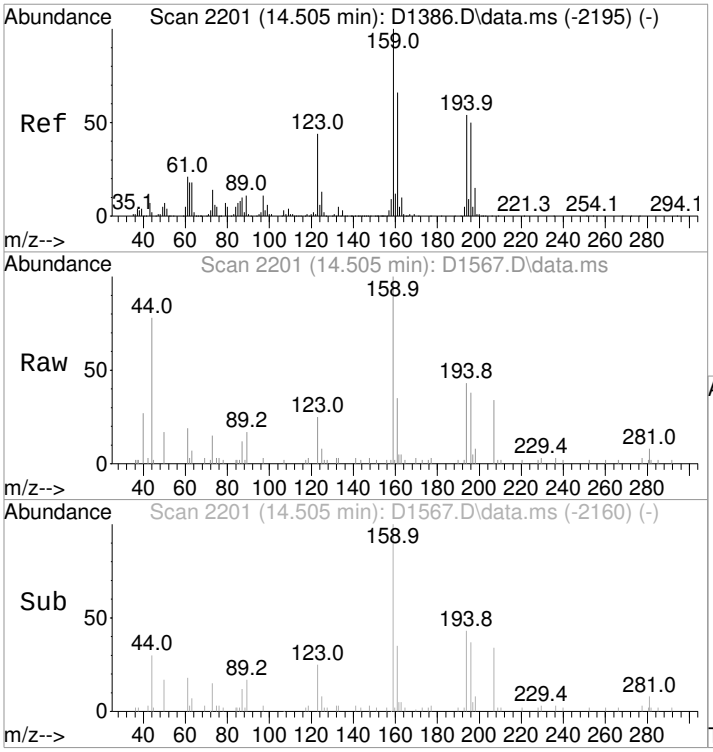


#118
2,4,5-Trichlorotoluene
Concen: 0.28 ug/L
RT: 14.420 min Scan# 2187
Delta R.T. -0.000 min
Lab File: D1567.D
Acq: 23 Feb 2018 11:22 am

Tgt Ion:159 Resp: 608

Ion	Ratio	Lower	Upper
159	100		
161	73.5	41.2	81.2
194	89.6	23.7	63.7#

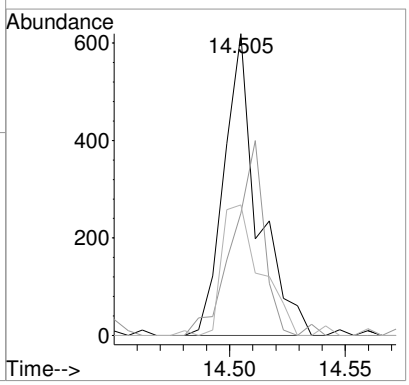




#119
2,3,6-Trichlorotoluene
Concen: 0.32 ug/L
RT: 14.505 min Scan# 2201
Delta R.T. -0.000 min
Lab File: D1567.D
Acq: 23 Feb 2018 11:22 am

Tgt Ion:159 Resp: 628

Ion	Ratio	Lower	Upper
159	100		
161	39.7	42.4	82.4#
194	42.3	29.7	69.7



1st DL 02/26/18
2nd FJ 02/26/18

LSC Area Percent Report

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1537.D
Acq On : 22 Feb 2018 11:58 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge

Signal : TIC: D1537.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.544	64	75	81	rBV4	16723	42652	3.94%	0.755%
2	5.238	668	681	693	rBV2	120778	335769	31.04%	5.943%
3	5.391	693	706	716	rVB	214331	579355	53.57%	10.255%
4	5.781	759	770	782	rBV2	154491	360439	33.33%	6.380%
5	6.488	876	886	897	rBV	363890	737058	68.15%	13.046%
6	8.311	1177	1185	1200	rBV	661089	1081586	100.00%	19.144%
7	9.804	1423	1430	1440	rBV	621956	879167	81.28%	15.561%
8	10.877	1600	1606	1614	rBV	604600	741684	68.57%	13.128%
9	11.219	1658	1662	1667	rBV2	9369	12461	1.15%	0.221%
10	11.853	1760	1766	1774	rBV	714723	879550	81.32%	15.568%

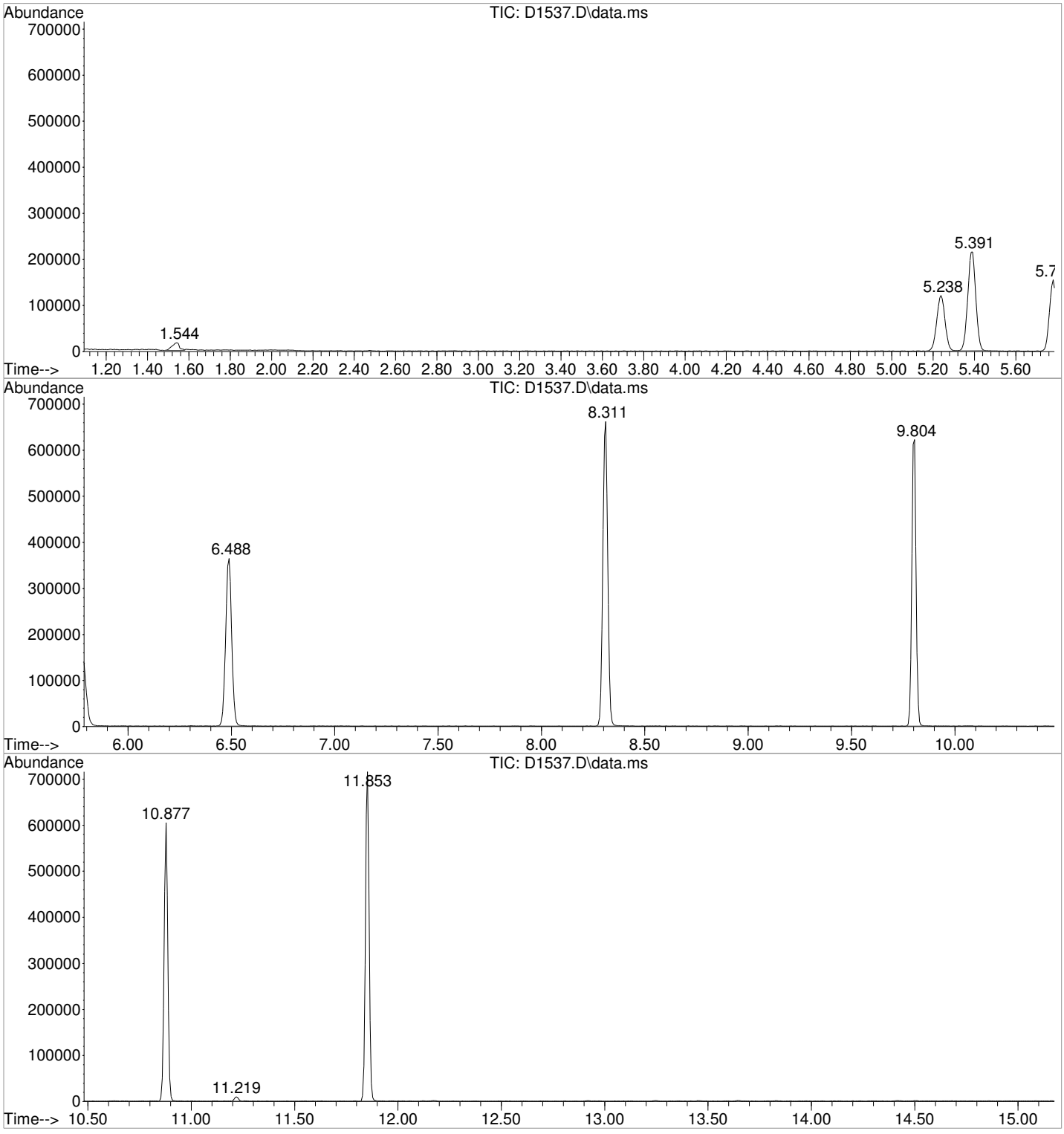
Sum of corrected areas: 5649721

LSC Report - Integrated Chromatogram

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1537.D
Acq On : 22 Feb 2018 11:58 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : I:\ACQUDATA\msvoa10\data\022218\\
Data File : D1537.D
Acq On : 22 Feb 2018 11:58 amm
Operator : D.LIPANII
Sample : MET BLK Inst : MSVOA10J
Misc :
ALS Vial : 7 Sample Multiplier: 11

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.MM
Quant Title : MS#10 - 8260B WATERS 5.0mL Purgee

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.LL
TIC Integration Parameters: LSCINT.PP

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1537.D
Acq On : 22 Feb 2018 11:58 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 13:13:54 2018
Quant Method : I:\ACQUDATA\msvoa10\Methods\E103017.m
Quant Title : MS#10 - 8260 WATERS 5mL Purge
QLast Update : Tue Oct 31 10:45:15 2017
Response via : Initial Calibration

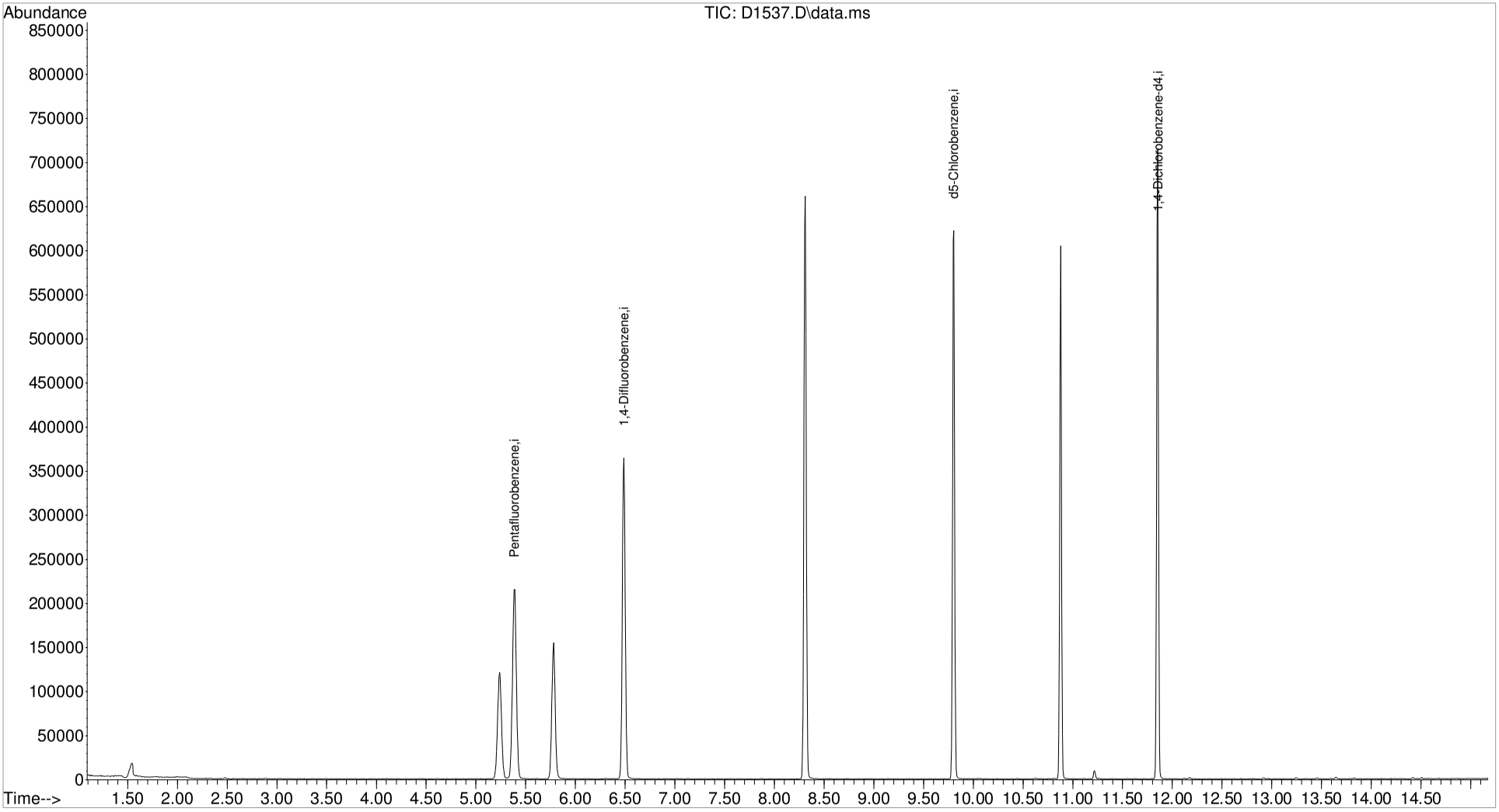
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	213276	50.00	ug/L	-0.02
3) 1,4-Difluorobenzene	6.488	114	320243	50.00	ug/L	0.00
7) d5-Chlorobenzene	9.804	117	280086	50.00	ug/L	0.00
9) 1,4-Dichlorobenzene-d4	11.853	152	138327	50.00	ug/L	0.00
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1537.D
Acq On : 22 Feb 2018 11:58 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 13:13:54 2018
Quant Method : I:\ACQUDATA\msvoa10\Methods\E103017.m
Quant Title : MS#10 - 8260 WATERS 5mL Purge
QLast Update : Tue Oct 31 10:45:15 2017
Response via : Initial Calibration



1st DL 02/26/18
2nd FJ 02/26/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1537.D
Acq On : 22 Feb 2018 11:58 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 13:13:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

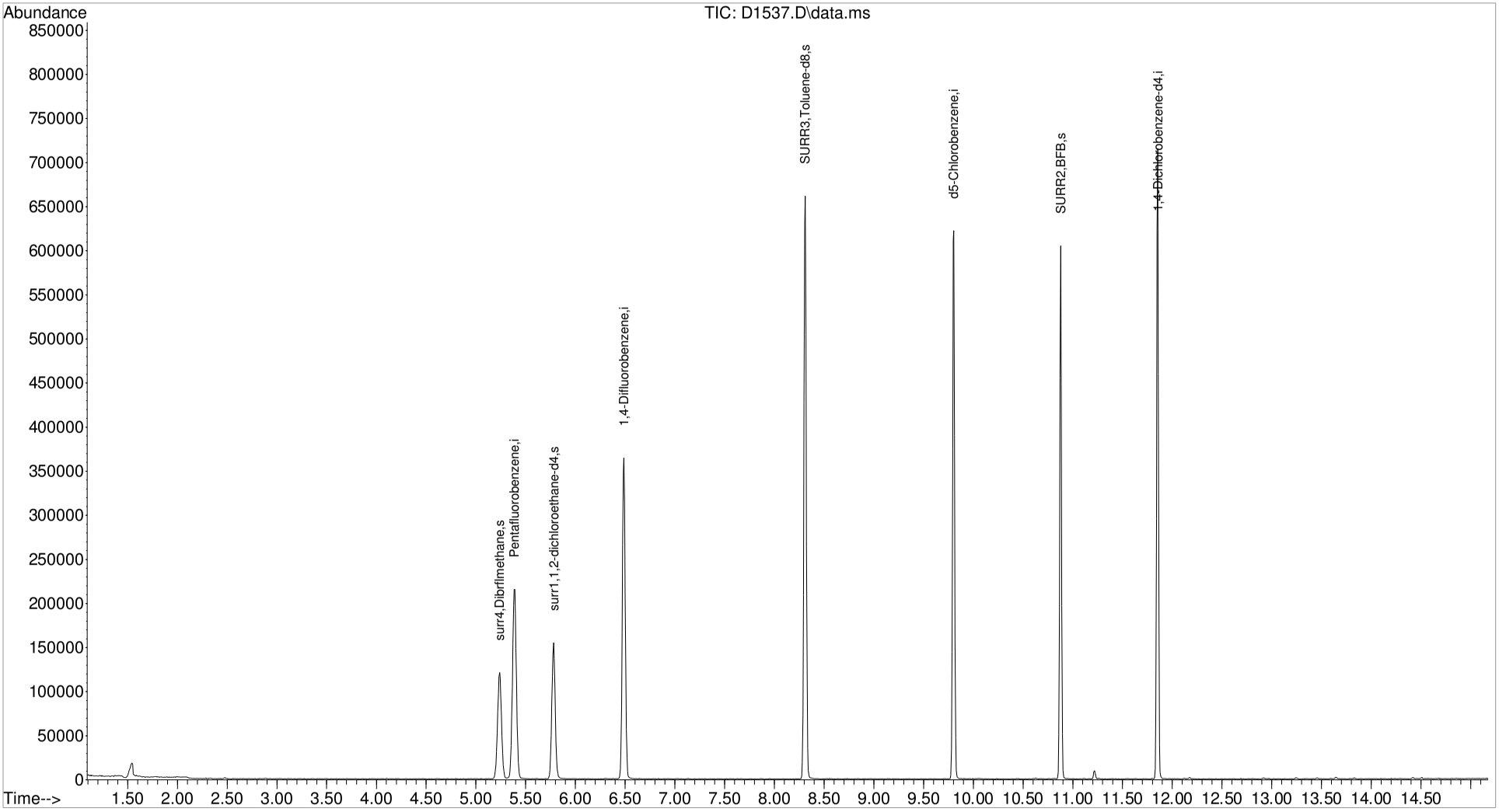
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	213276	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	320243	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.804	117	280086	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	138327	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	103623	52.89	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.78%			
46) surr1,1,2-dichloroetha...	5.781	65	126268	55.74	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 111.48%			
64) SURR3,Toluene-d8	8.311	98	408197	52.87	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.74%			
69) SURR2,BFB	10.877	95	146355	48.94	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 97.88%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1537.D
Acq On : 22 Feb 2018 11:58 am
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 25 13:13:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/26/18
2nd FJ 02/26/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1565.D
Acq On : 23 Feb 2018 10:23 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 10:37:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	225258	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	337643	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	293416	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	160412	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	107887	52.23	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.46%				
46) surr1,1,2-dichloroetha...	5.781	65	128716	53.89	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.78%				
64) SURR3,Toluene-d8	8.311	98	432107	53.08	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.16%				
69) SURR2,BFB	10.878	95	162081	51.40	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 102.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	54743	16.95	ug/L		98
3) Chloromethane	1.282	50	66255	18.62	ug/L		97
4) Vinyl Chloride	1.361	62	65450	19.52	ug/L		96
5) Bromomethane	1.587	94	46304	17.62	ug/L		99
6) Chloroethane	1.666	64	39746	18.77	ug/L		96
7) Freon 21	1.812	67	97074	18.82	ug/L		100
8) Trichlorofluoromethane	1.861	101	74843	19.64	ug/L		96
9) Diethyl Ether	2.093	59	43275	19.66	ug/L		97
10) Freon 123a	2.093	67	63026	21.10	ug/L		99
11) Freon 123	2.148	83	64361	18.83	ug/L		96
12) Acrolein	2.196	56	18080	28.71	ug/L		83
13) 1,1-Diclethene	2.282	96	43244	19.60	ug/L		91
14) Freon 113	2.288	101	45040	18.69	ug/L		86
15) Acetone	2.324	43	21666	18.43	ug/L		92
16) 2-Propanol	2.458	45	68301	361.72	ug/L		98
17) Iodomethane	2.416	142	55857	18.68	ug/L		97
18) Carbon Disulfide	2.477	76	114746	18.61	ug/L		99
19) Acetonitrile	2.574	40	22988	97.15	ug/L		98
20) Allyl Chloride	2.617	76	23557	20.80	ug/L	#	77
21) Methyl Acetate	2.635	43	42924	18.11	ug/L		98
22) Methylene Chloride	2.733	84	49272	19.74	ug/L		96
23) TBA	2.861	59	99887	357.99	ug/L		80
24) Acrylonitrile	2.989	53	116262	96.78	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	135631	19.49	ug/L		99
26) trans-1,2-Dichloroethene	3.025	96	46842	19.29	ug/L		93
27) 1,1-Diclethane	3.525	63	84165	19.51	ug/L		99
28) Vinyl Acetate	3.617	86	9078	18.25	ug/L	#	63
29) DIPE	3.653	45	159028	19.74	ug/L		95
30) 2-Chloro-1,3-Butadiene	3.647	53	74594	19.77	ug/L		85
31) ETBE	4.178	59	124395	19.39	ug/L		98
32) 2,2-Dichloropropane	4.360	77	48883	20.09	ug/L		98
33) cis-1,2-Dichloroethene	4.367	96	52204	19.69	ug/L		91
34) 2-Butanone	4.409	43	27215	17.00	ug/L		91
35) Propionitrile	4.501	54	45246	92.37	ug/L		96
36) Bromochloromethane	4.763	130	32285	19.52	ug/L	#	89
37) Methacrylonitrile	4.769	67	23118	19.76	ug/L		99
38) Tetrahydrofuran	4.860	42	16679	18.11	ug/L		99
39) Chloroform	4.952	83	81415	19.52	ug/L		98
40) 1,1,1-Trichloroethane	5.244	97	62781	20.28	ug/L		95

1st BA 02/23/18
2nd DL 02/23/18

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1565.D
Acq On : 23 Feb 2018 10:23 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 10:37:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	43581	18.29	ug/L		100
44) Carbontetrachloride	5.525	117	47256	19.60	ug/L		92
45) 1,1-Dichloropropene	5.537	75	66258	19.51	ug/L		93
47) Benzene	5.860	78	191805	19.42	ug/L		97
48) 1,2-Dichloroethane	5.897	62	66600	19.64	ug/L		97
49) Iso-Butyl Alcohol	5.878	43	47708	341.31	ug/L		93
50) TAME	6.104	73	114307	19.06	ug/L		98
51) n-Heptane	6.354	43	67828	20.27	ug/L		98
52) 1-Butanol	6.848	56	66896	833.48	ug/L		95
53) Trichloroethene	6.817	130	49199	18.43	ug/L		94
54) Methylcyclohexane	7.049	55	59683	18.82	ug/L		92
55) 1,2-Diclpropane	7.098	63	50193	19.39	ug/L		98
56) Dibromomethane	7.238	93	29589	18.33	ug/L		87
57) 1,4-Dioxane	7.299	88	14580	351.89	ug/L		95
58) Methyl Methacrylate	7.329	69	36188	19.34	ug/L		99
59) Bromodichloromethane	7.464	83	55007	18.52	ug/L		92
60) 2-Nitropropane	7.756	41	16222	29.58	ug/L		87
61) 2-Chloroethylvinyl Ether	7.878	63	5741	10.41	ug/L		85
62) cis-1,3-Dichloropropene	8.012	75	69026	20.07	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	48640	17.12	ug/L		100
65) Toluene	8.384	91	203420	19.33	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	54266	21.54	ug/L		98
67) Ethyl Methacrylate	8.793	69	61432	20.30	ug/L		93
68) 1,1,2-Trichloroethane	8.841	97	42703	18.59	ug/L		95
71) Tetrachloroethene	8.975	164	39427	19.25	ug/L		99
72) 2-Hexanone	9.134	43	36975	17.40	ug/L		95
73) 1,3-Dichloropropane	9.012	76	77532	19.22	ug/L		94
74) Dibromochloromethane	9.238	129	40781	19.13	ug/L		97
75) N-Butyl Acetate	9.292	43	75693	18.79	ug/L		94
76) 1,2-Dibromoethane	9.335	107	43570	19.34	ug/L		96
77) 3-Chlorobenzotrifluoride	9.847	180	72748	18.65	ug/L		94
78) Chlorobenzene	9.829	112	132684	19.48	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	64962	18.91	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	40798	19.51	ug/L		97
81) Ethylbenzene	9.951	106	69641	19.66	ug/L		100
82) (m+p)Xylene	10.061	106	171902	39.50	ug/L		94
83) o-Xylene	10.420	106	84289	20.18	ug/L		99
84) Styrene	10.432	104	141237	19.82	ug/L		97
85) Bromoform	10.585	173	25044	19.04	ug/L		78
86) 2-Chlorobenzotrifluoride	10.664	180	69051	18.43	ug/L		91
87) Isopropylbenzene	10.756	105	214632	19.46	ug/L		97
88) Cyclohexanone	10.817	55	185160	259.22	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.060	53	13070	19.38	ug/L		95
91) 1,1,2,2-Tetrachloroethane	11.012	83	62801	19.20	ug/L		99
92) Bromobenzene	10.999	156	55252	19.42	ug/L		88
93) 1,2,3-Trichloropropane	11.042	110	18106	18.21	ug/L	#	89
94) n-Propylbenzene	11.109	91	265508	20.68	ug/L		97
95) 2-Chlorotoluene	11.170	91	157021	20.33	ug/L		99
96) 3-Chlorotoluene	11.225	91	149218	19.69	ug/L		96
97) 4-Chlorotoluene	11.268	91	181602	19.99	ug/L		96
98) 1,3,5-Trimethylbenzene	11.262	105	183960	20.94	ug/L		98
99) tert-Butylbenzene	11.536	119	153580	19.50	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	179828	20.58	ug/L		98
101) 3,4-Dichlorobenzotrifl...	11.633	214	58476	18.70	ug/L		99
102) sec-Butylbenzene	11.719	105	237925	21.04	ug/L		97
103) p-Isopropyltoluene	11.841	119	195578	21.04	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1565.D
Acq On : 23 Feb 2018 10:23 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 10:37:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

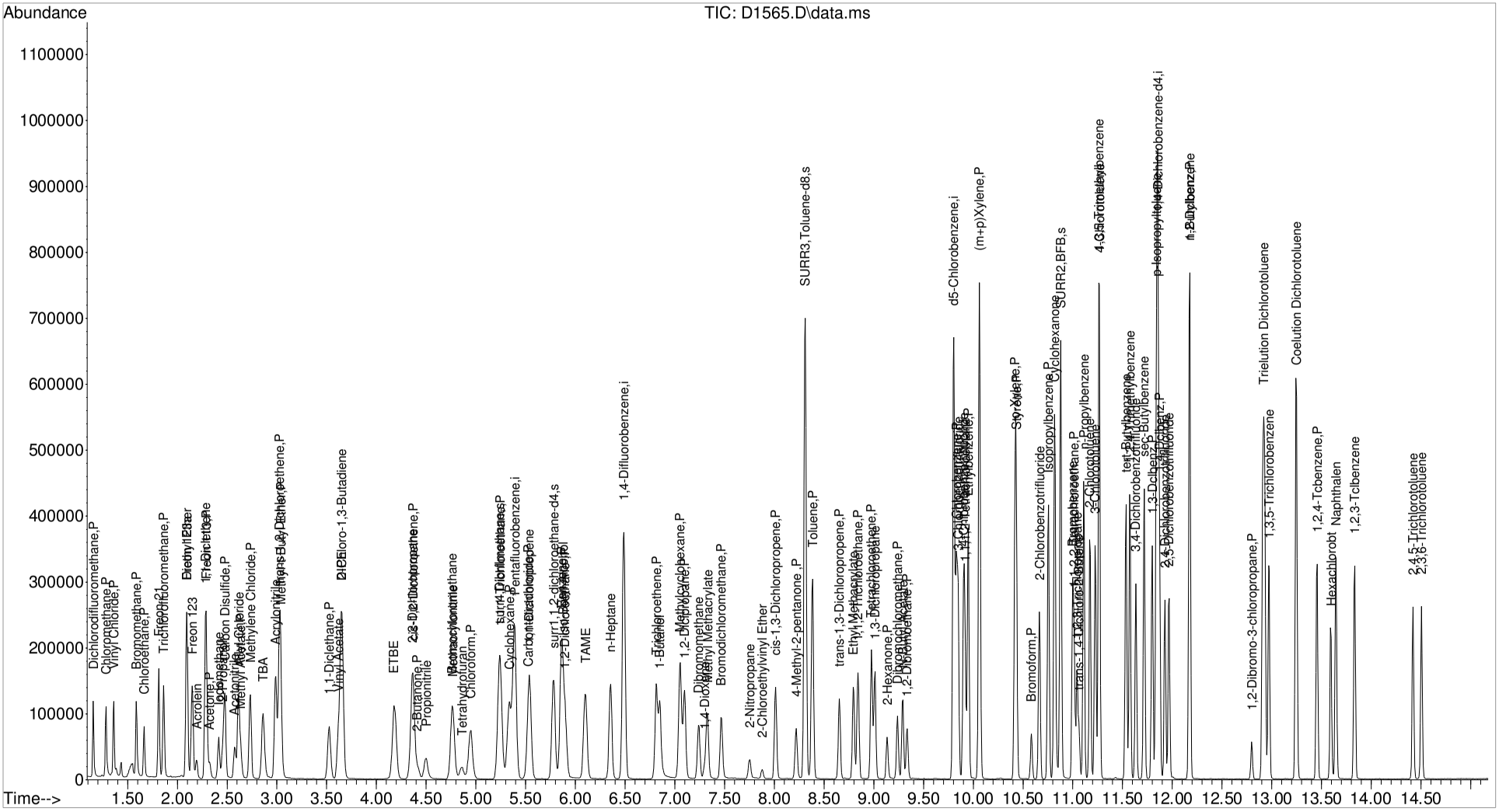
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	108965	19.82	ug/L	99
105) 1,4-Dclbenz	11.871	146	111742	19.29	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	53906	18.88	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	60690	19.34	ug/L	95
108) n-Butylbenzene	12.176	91	189278	22.57	ug/L	100
109) 1,2-Dclbenz	12.176	146	107842	19.47	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	10850	18.60	ug/L	96
111) Trielution Dichlorotol...	12.920	125	272076	59.07	ug/L	100
112) 1,3,5-Trichlorobenzene	12.975	180	81839	19.40	ug/L	98
113) Coelution Dichlorotoluene	13.249	125	196230	40.16	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	82545	20.38	ug/L	98
115) Hexachlorobt	13.597	225	34670	19.69	ug/L	96
116) Naphthalen	13.645	128	196072	21.46	ug/L	97
117) 1,2,3-Tclbenzene	13.834	180	79306	20.32	ug/L	96
118) 2,4,5-Trichlorotoluene	14.419	159	51156	20.30	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	48046	21.49	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1565.D
Acq On : 23 Feb 2018 10:23 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 10:37:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st BA 02/23/18
2nd DL 02/23/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1534.D
Acq On : 22 Feb 2018 10:33 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 22 10:47:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	233109	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	348667	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	301946	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	162325	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.232	113	111020	52.04	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.08%			
46) surr1,1,2-dichloroetha...	5.775	65	132397	53.68	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.36%			
64) SURR3,Toluene-d8	8.311	98	444004	52.82	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 105.64%			
69) SURR2,BFB	10.878	95	162639	49.95	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	55232	16.53	ug/L	97
3) Chloromethane	1.282	50	68397	18.58	ug/L	97
4) Vinyl Chloride	1.361	62	68059	19.61	ug/L	99
5) Bromomethane	1.587	94	46855	17.20	ug/L	98
6) Chloroethane	1.666	64	40359	18.42	ug/L	97
7) Freon 21	1.812	67	99091	18.56	ug/L	100
8) Trichlorofluoromethane	1.861	101	75206	19.07	ug/L	99
9) Diethyl Ether	2.093	59	45136	19.82	ug/L	98
10) Freon 123a	2.093	67	63716	20.62	ug/L	97
11) Freon 123	2.148	83	65341	18.47	ug/L	97
12) Acrolein	2.196	56	18739	28.76	ug/L	93
13) 1,1-Diclethene	2.282	96	42727	18.72	ug/L	90
14) Freon 113	2.288	101	44373	17.80	ug/L	93
15) Acetone	2.324	43	24738	20.34	ug/L	94
16) 2-Propanol	2.458	45	66353	339.57	ug/L	95
17) Iodomethane	2.416	142	56693	18.35	ug/L	92
18) Carbon Disulfide	2.477	76	126410	19.81	ug/L	99
19) Acetonitrile	2.574	40	24310	99.28	ug/L	97
20) Allyl Chloride	2.611	76	23196	19.79	ug/L #	82
21) Methyl Acetate	2.635	43	43477	17.72	ug/L	94
22) Methylene Chloride	2.733	84	48823	18.90	ug/L	98
23) TBA	2.861	59	100110	346.71	ug/L	85
24) Acrylonitrile	2.989	53	116515	93.73	ug/L	98
25) Methyl-t-Butyl Ether	3.032	73	136082	18.89	ug/L	98
26) trans-1,2-Dichloroethene	3.025	96	47425	18.87	ug/L	99
27) 1,1-Diclethane	3.525	63	86084	19.28	ug/L	96
28) Vinyl Acetate	3.623	86	10051	19.52	ug/L #	64
29) DIPE	3.647	45	162222	19.46	ug/L	93
30) 2-Chloro-1,3-Butadiene	3.647	53	76429	19.57	ug/L	92
31) ETBE	4.184	59	130236	19.62	ug/L	97
32) 2,2-Dichloropropane	4.361	77	47783	18.98	ug/L	97
33) cis-1,2-Dichloroethene	4.367	96	51825	18.89	ug/L	84
34) 2-Butanone	4.409	43	29677	17.91	ug/L	95
35) Propionitrile	4.495	54	45278	89.33	ug/L	95
36) Bromochloromethane	4.763	130	32181	18.80	ug/L	95
37) Methacrylonitrile	4.769	67	22230	18.37	ug/L	98
38) Tetrahydrofuran	4.854	42	16991	17.82	ug/L	96
39) Chloroform	4.946	83	82765	19.17	ug/L	95
40) 1,1,1-Trichloroethane	5.245	97	61685	19.26	ug/L	94

1st DL 02/26/18
2nd FJ 02/26/18

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1534.D
Acq On : 22 Feb 2018 10:33 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 22 10:47:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	44812	18.21	ug/L		98
44) Carbontetrachloride	5.531	117	46428	18.65	ug/L		93
45) 1,1-Dichloropropene	5.543	75	65379	18.65	ug/L		94
47) Benzene	5.860	78	194334	19.05	ug/L		100
48) 1,2-Dichloroethane	5.897	62	66546	19.00	ug/L		99
49) Iso-Butyl Alcohol	5.879	43	42271	296.89	ug/L		89
50) TAME	6.098	73	117574	18.99	ug/L		96
51) n-Heptane	6.354	43	64517	18.67	ug/L		96
52) 1-Butanol	6.848	56	68087	821.99	ug/L		93
53) Trichloroethene	6.811	130	49349	17.90	ug/L		92
54) Methylcyclohexane	7.055	55	60439	18.46	ug/L		94
55) 1,2-Diclpropane	7.098	63	50490	18.89	ug/L		98
56) Dibromomethane	7.238	93	30899	18.54	ug/L	#	82
57) 1,4-Dioxane	7.299	88	15057	351.92	ug/L		92
58) Methyl Methacrylate	7.323	69	35732	18.51	ug/L		95
59) Bromodichloromethane	7.464	83	57203	18.65	ug/L		93
60) 2-Nitropropane	7.750	41	17184	30.35	ug/L		97
61) 2-Chloroethylvinyl Ether	7.878	63	5598	9.86	ug/L		91
62) cis-1,3-Dichloropropene	8.012	75	67361	18.97	ug/L		98
63) 4-Methyl-2-pentanone	8.220	43	51455	17.54	ug/L		96
65) Toluene	8.384	91	203707	18.74	ug/L		98
66) trans-1,3-Dichloropropene	8.652	75	54644	21.04	ug/L		96
67) Ethyl Methacrylate	8.799	69	62731	20.08	ug/L		96
68) 1,1,2-Trichloroethane	8.841	97	45085	19.01	ug/L		96
71) Tetrachloroethene	8.976	164	38199	18.12	ug/L		98
72) 2-Hexanone	9.134	43	38335	17.53	ug/L		94
73) 1,3-Dichloropropane	9.012	76	77578	18.69	ug/L		97
74) Dibromochloromethane	9.238	129	40857	18.63	ug/L		96
75) N-Butyl Acetate	9.286	43	74773	18.04	ug/L		93
76) 1,2-Dibromoethane	9.335	107	43452	18.75	ug/L		92
77) 3-Chlorobenzotrifluoride	9.847	180	76677	19.10	ug/L		94
78) Chlorobenzene	9.829	112	132916	18.96	ug/L		97
79) 4-Chlorobenzotrifluoride	9.902	180	66240	18.74	ug/L		94
80) 1,1,1,2-Tetrachloroethane	9.914	131	40438	18.79	ug/L		96
81) Ethylbenzene	9.951	106	68972	18.92	ug/L		100
82) (m+p)Xylene	10.061	106	173844	38.82	ug/L		99
83) o-Xylene	10.420	106	84198	19.59	ug/L		98
84) Styrene	10.433	104	139174	18.98	ug/L		99
85) Bromoform	10.585	173	25870	19.11	ug/L		94
86) 2-Chlorobenzotrifluoride	10.664	180	72354	18.76	ug/L		97
87) Isopropylbenzene	10.756	105	214221	18.88	ug/L		98
88) Cyclohexanone	10.817	55	194778	264.98	ug/L		97
89) trans-1,4-Dichloro-2-B...	11.060	53	13172	18.99	ug/L		89
91) 1,1,2,2-Tetrachloroethane	11.012	83	63686	19.24	ug/L		96
92) Bromobenzene	10.999	156	57900	20.11	ug/L		90
93) 1,2,3-Trichloropropane	11.042	110	18050	17.94	ug/L		95
94) n-Propylbenzene	11.109	91	263292	20.26	ug/L		99
95) 2-Chlorotoluene	11.170	91	158507	20.28	ug/L		98
96) 3-Chlorotoluene	11.225	91	156964	20.47	ug/L		97
97) 4-Chlorotoluene	11.268	91	182206	19.82	ug/L		95
98) 1,3,5-Trimethylbenzene	11.262	105	183194	20.61	ug/L		99
99) tert-Butylbenzene	11.536	119	154370	19.37	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	180266	20.38	ug/L		98
101) 3,4-Dichlorobenzotrifl...	11.634	214	61344	19.38	ug/L		100
102) sec-Butylbenzene	11.719	105	237996	20.80	ug/L		98
103) p-Isopropyltoluene	11.841	119	195496	20.79	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1534.D
Acq On : 22 Feb 2018 10:33 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 22 10:47:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

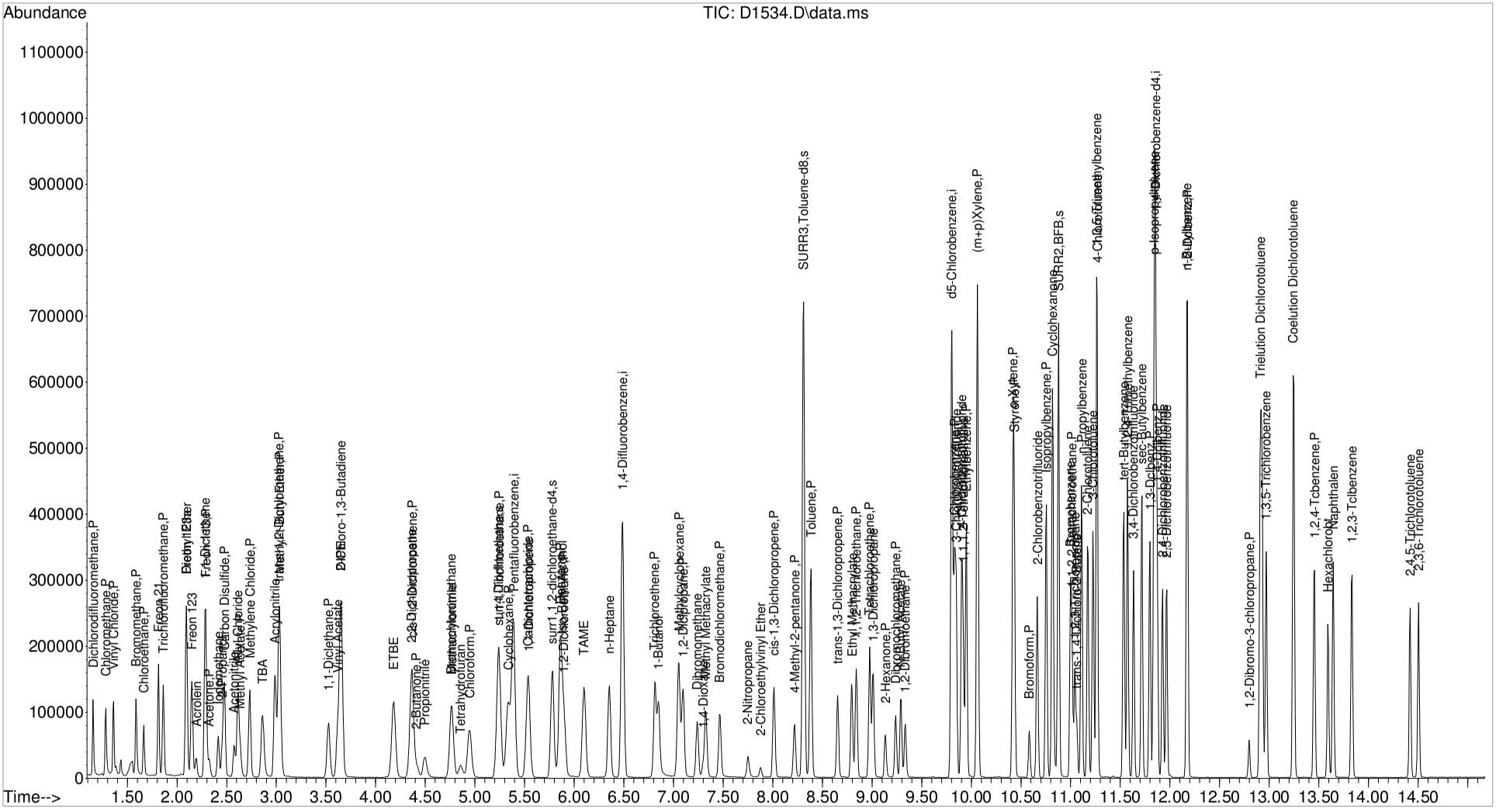
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	108936	19.59	ug/L	92
105) 1,4-Dclbenz	11.871	146	109465	18.67	ug/L	94
106) 2,4-Dichlorobenzotrifl...	11.926	214	55335	19.15	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.969	214	62196	19.59	ug/L	97
108) n-Butylbenzene	12.170	91	180049	21.26	ug/L	97
109) 1,2-Dclbenz	12.176	146	109284	19.50	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	10629	18.03	ug/L	89
111) Trielution Dichlorotol...	12.914	125	280545	60.19	ug/L	95
112) 1,3,5-Trichlorobenzene	12.969	180	83787	19.63	ug/L	97
113) Coelution Dichlorotoluene	13.243	125	200590	40.57	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	81741	19.94	ug/L	95
115) Hexachlorobt	13.590	225	34499	19.36	ug/L	98
116) Naphthalen	13.645	128	191663	20.73	ug/L	100
117) 1,2,3-Tclbenzene	13.834	180	77356	19.59	ug/L	97
118) 2,4,5-Trichlorotoluene	14.420	159	51891	20.35	ug/L	94
119) 2,3,6-Trichlorotoluene	14.505	159	48804	21.58	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1534.D
Acq On : 22 Feb 2018 10:33 am
Operator : D.LIPANI
Sample : LCS Inst : MSVOA10
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 22 10:47:41 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/26/18
2nd FJ 02/26/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1559.D
Acq On : 22 Feb 2018 8:21 pm
Operator : D.LIPANI
Sample : R1801449-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 22 20:35:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	208349	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	316899	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	279344	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	158148	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.232	113	100133	51.65	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 103.30%				
46) surr1,1,2-dichloroetha...	5.781	65	120845	53.91	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 107.82%				
64) SURR3,Toluene-d8	8.311	98	409250	53.56	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.12%				
69) SURR2,BFB	10.878	95	152457	51.52	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.04%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	122681	41.07	ug/L		99
3) Chloromethane	1.282	50	162176	49.28	ug/L		97
4) Vinyl Chloride	1.355	62	161368	52.03	ug/L		100
5) Bromomethane	1.581	94	108892	48.93	ug/L		93
6) Chloroethane	1.660	64	95005	48.51	ug/L		97
7) Freon 21	1.812	67	256665	53.79	ug/L		100
8) Trichlorofluoromethane	1.861	101	173436	49.21	ug/L		98
9) Diethyl Ether	2.093	59	109148	53.61	ug/L		96
10) Freon 123a	2.093	67	168948	61.16	ug/L		92
11) Freon 123	2.148	83	175799	55.60	ug/L		95
12) Acrolein	2.190	56	45194	77.60	ug/L		98
13) 1,1-Diclethene	2.282	96	100471	49.24	ug/L		89
14) Freon 113	2.288	101	102571	46.03	ug/L		88
15) Acetone	2.324	43	49888	45.88	ug/L		93
16) 2-Propanol	2.465	45	201768	1155.29	ug/L		97
17) Iodomethane	2.410	142	143076	47.95	ug/L		97
18) Carbon Disulfide	2.477	76	286343	50.20	ug/L		99
19) Acetonitrile	2.574	40	60677	277.24	ug/L		96
20) Allyl Chloride	2.611	76	54204	51.75	ug/L	#	67
21) Methyl Acetate	2.635	43	115237	52.56	ug/L		96
22) Methylene Chloride	2.733	84	114940	49.79	ug/L		93
23) TBA	2.867	59	299065	1158.82	ug/L		84
24) Acrylonitrile	2.983	53	305870	275.29	ug/L		98
25) Methyl-t-Butyl Ether	3.032	73	321663	49.96	ug/L		99
26) trans-1,2-Dichloroethene	3.025	96	111643	49.70	ug/L		91
27) 1,1-Diclethane	3.525	63	207569	52.02	ug/L		98
28) Vinyl Acetate	3.617	86	22473	48.84	ug/L	#	50
29) DIPE	3.653	45	405777	54.46	ug/L		100
30) 2-Chloro-1,3-Butadiene	3.647	53	191088	54.75	ug/L		91
31) ETBE	4.178	59	305882	51.55	ug/L		97
32) 2,2-Dichloropropane	4.361	77	104654	46.50	ug/L		98
33) cis-1,2-Dichloroethene	4.367	96	124627	50.82	ug/L		86
34) 2-Butanone	4.409	43	74710	50.45	ug/L		93
35) Propionitrile	4.495	54	121230	267.59	ug/L		96
36) Bromochloromethane	4.763	130	76302	49.88	ug/L		90
37) Methacrylonitrile	4.769	67	57700	53.33	ug/L		85
38) Tetrahydrofuran	4.854	42	47371	55.60	ug/L		91
39) Chloroform	4.946	83	199065	51.60	ug/L		97
40) 1,1,1-Trichloroethane	5.245	97	147411	51.49	ug/L		94

1st DL 02/26/18
2nd FJ 02/26/18

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1559.D
Acq On : 22 Feb 2018 8:21 pm
Operator : D.LIPANI
Sample : R1801449-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 22 20:35:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.336	41	117828	52.67	ug/L		98
44) Carbontetrachloride	5.531	117	110702	48.93	ug/L		96
45) 1,1-Dichloropropene	5.537	75	156638	49.15	ug/L		94
47) Benzene	5.860	78	466212	50.28	ug/L		98
48) 1,2-Dichloroethane	5.897	62	162627	51.09	ug/L		98
49) Iso-Butyl Alcohol	5.885	43	139898	998.11	ug/L		100
50) TAME	6.098	73	287528	51.09	ug/L		98
51) n-Heptane	6.354	43	142192	45.28	ug/L		97
52) 1-Butanol	6.854	56	217057	2634.23	ug/L		96
53) Trichloroethene	6.811	130	117174	46.77	ug/L		95
54) Methylcyclohexane	7.055	55	156500	52.59	ug/L		89
55) 1,2-Diclpropane	7.092	63	123853	50.98	ug/L		100
56) Dibromomethane	7.238	93	73468	48.49	ug/L		84
57) 1,4-Dioxane	7.299	88	41645	1070.91	ug/L		99
58) Methyl Methacrylate	7.323	69	95884	52.82	ug/L		93
59) Bromodichloromethane	7.464	83	135743	48.69	ug/L		96
60) 2-Nitropropane	7.750	41	46835	91.00	ug/L		95
62) cis-1,3-Dichloropropene	8.012	75	168101	52.09	ug/L		97
63) 4-Methyl-2-pentanone	8.220	43	148449	55.66	ug/L		96
65) Toluene	8.384	91	503809	51.00	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	134791	52.29	ug/L		97
67) Ethyl Methacrylate	8.793	69	167888	55.63	ug/L		85
68) 1,1,2-Trichloroethane	8.841	97	110435	51.23	ug/L		98
71) Tetrachloroethene	8.976	164	92075	47.22	ug/L		97
72) 2-Hexanone	9.134	43	108075	53.41	ug/L		92
73) 1,3-Dichloropropane	9.012	76	191889	49.96	ug/L		98
74) Dibromochloromethane	9.238	129	98849	48.71	ug/L		98
75) N-Butyl Acetate	9.286	43	225784	58.89	ug/L		96
76) 1,2-Dibromoethane	9.335	107	108267	50.49	ug/L		99
77) 3-Chlorobenzotrifluoride	9.847	180	179135	48.24	ug/L		96
78) Chlorobenzene	9.829	112	322324	49.70	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	159148	48.67	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	100796	50.62	ug/L		98
81) Ethylbenzene	9.951	106	171481	50.84	ug/L		97
82) (m+p)Xylene	10.061	106	423644	102.26	ug/L		97
83) o-Xylene	10.420	106	204051	51.32	ug/L		97
84) Styrene	10.433	104	348964	51.45	ug/L		97
85) Bromoform	10.585	173	64506	48.18	ug/L		90
86) 2-Chlorobenzotrifluoride	10.664	180	174945	49.04	ug/L		97
87) Isopropylbenzene	10.756	105	533996	50.86	ug/L		99
88) Cyclohexanone	10.817	55	125787	184.97	ug/L		97
89) trans-1,4-Dichloro-2-B...	11.060	53	35998	53.71	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.012	83	164035	50.86	ug/L		98
92) Bromobenzene	11.000	156	136218	48.57	ug/L	#	88
93) 1,2,3-Trichloropropane	11.042	110	46909	47.86	ug/L		96
94) n-Propylbenzene	11.109	91	645265	50.97	ug/L		97
95) 2-Chlorotoluene	11.170	91	386836	50.81	ug/L		99
96) 3-Chlorotoluene	11.225	91	390065	52.20	ug/L		98
97) 4-Chlorotoluene	11.268	91	444556	49.63	ug/L		96
98) 1,3,5-Trimethylbenzene	11.262	105	447491	51.66	ug/L		98
99) tert-Butylbenzene	11.536	119	378036	48.69	ug/L		100
100) 1,2,4-Trimethylbenzene	11.573	105	445852	51.74	ug/L		98
101) 3,4-Dichlorobenzotrifl...	11.634	214	140877	45.69	ug/L		100
102) sec-Butylbenzene	11.719	105	566676	50.84	ug/L		99
103) p-Isopropyltoluene	11.841	119	474429	51.78	ug/L		98
104) 1,3-Dclbenz	11.798	146	267080	49.29	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1559.D
Acq On : 22 Feb 2018 8:21 pm
Operator : D.LIPANI
Sample : R1801449-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 22 20:35:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

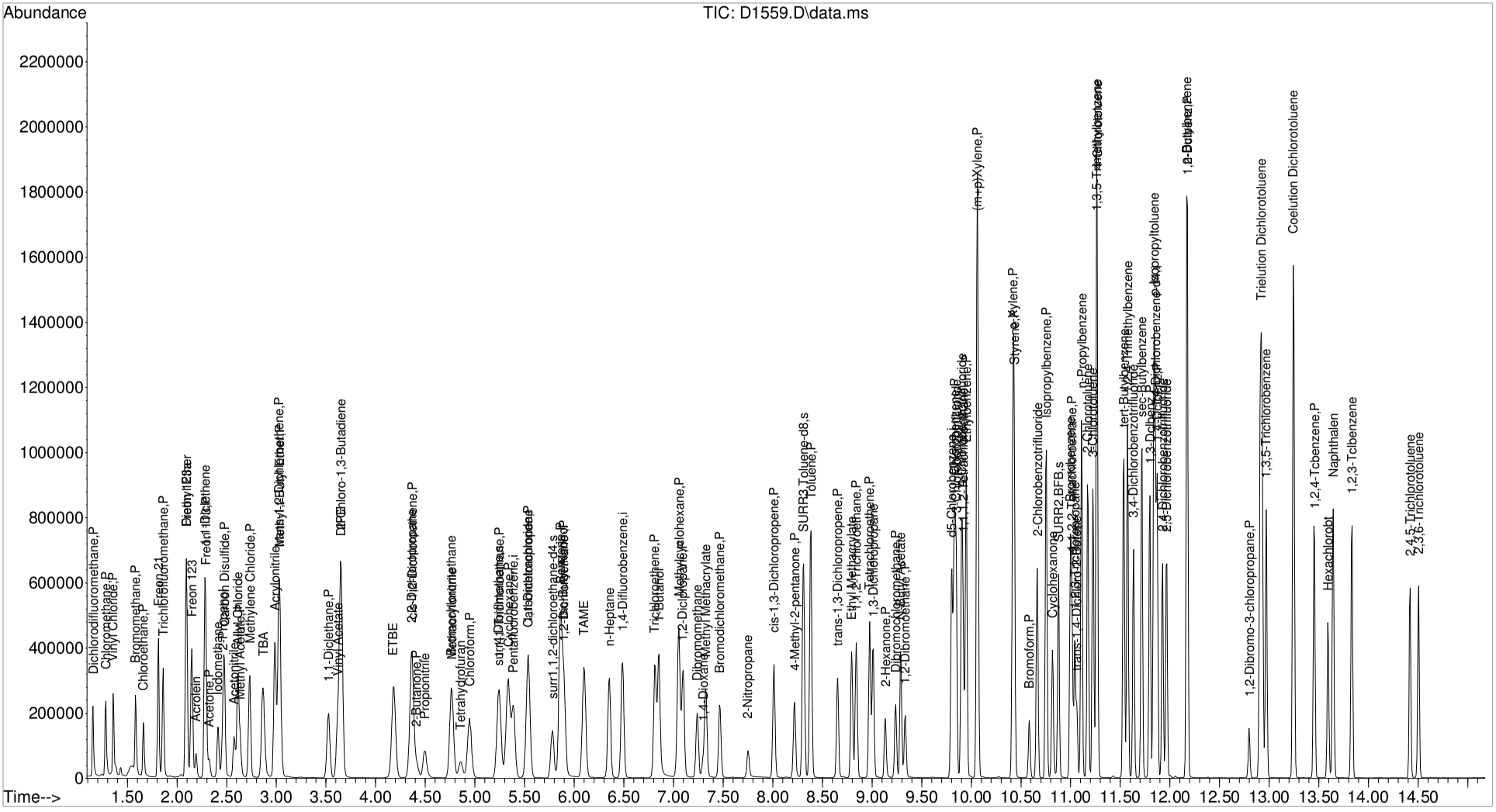
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	268436	47.00	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	129206	45.90	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.969	214	145891	47.16	ug/L	98
108) n-Butylbenzene	12.170	91	448904	52.21	ug/L	97
109) 1,2-Dclbenz	12.176	146	261139	47.83	ug/L	97
110) 1,2-Dibromo-3-chloropr...	12.798	157	30023	49.29	ug/L	96
111) Trielution Dichlorotol...	12.920	125	675123	148.67	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	196393	47.22	ug/L	97
113) Coelution Dichlorotoluene	13.243	125	493481	102.44	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	189467	47.45	ug/L	97
115) Hexachlorobt	13.590	225	71271	41.05	ug/L	99
116) Naphthalen	13.645	128	500267	55.54	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	187971	48.85	ug/L	97
118) 2,4,5-Trichlorotoluene	14.420	159	116724	46.98	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	107067	48.59	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1559.D
Acq On : 22 Feb 2018 8:21 pm
Operator : D.LIPANI
Sample : R1801449-003MS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 22 20:35:26 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/26/18
2nd FJ 02/26/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1560.D
Acq On : 22 Feb 2018 8:42 pm
Operator : D.LIPANI
Sample : R1801449-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 22 20:57:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.391	168	211109	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	314246	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	277703	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	151960	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	100567	52.31	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.62%				
46) surr1,1,2-dichloroetha...	5.781	65	121028	54.44	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.88%				
64) SURR3,Toluene-d8	8.311	98	408830	53.96	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 107.92%				
69) SURR2,BFB	10.877	95	151131	51.50	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 103.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	126088	41.66	ug/L		99
3) Chloromethane	1.282	50	161668	48.48	ug/L		97
4) Vinyl Chloride	1.355	62	166181	52.88	ug/L		99
5) Bromomethane	1.587	94	104885	46.17	ug/L		97
6) Chloroethane	1.666	64	92672	46.70	ug/L		97
7) Freon 21	1.812	67	258441	53.46	ug/L		99
8) Trichlorofluoromethane	1.861	101	175352	49.11	ug/L		99
9) Diethyl Ether	2.093	59	110131	53.39	ug/L		95
10) Freon 123a	2.099	67	170061	60.76	ug/L		99
11) Freon 123	2.147	83	166783	52.06	ug/L		95
12) Acrolein	2.190	56	44326	75.11	ug/L		96
13) 1,1-Diclethene	2.282	96	101286	49.00	ug/L	#	85
14) Freon 113	2.288	101	101636	45.01	ug/L		89
15) Acetone	2.324	43	48753	44.25	ug/L		94
16) 2-Propanol	2.458	45	179705	1015.51	ug/L		96
17) Iodomethane	2.416	142	152321	50.18	ug/L		96
18) Carbon Disulfide	2.477	76	298060	51.57	ug/L		99
19) Acetonitrile	2.574	40	56052	252.76	ug/L		92
20) Allyl Chloride	2.611	76	55449	52.25	ug/L	#	66
21) Methyl Acetate	2.635	43	113431	51.06	ug/L		98
22) Methylene Chloride	2.733	84	114911	49.12	ug/L		96
23) TBA	2.861	59	274868	1051.14	ug/L		84
24) Acrylonitrile	2.989	53	296708	263.55	ug/L		99
25) Methyl-t-Butyl Ether	3.038	73	326286	50.02	ug/L		97
26) trans-1,2-Dichloroethene	3.025	96	110031	48.34	ug/L		88
27) 1,1-Diclethane	3.525	63	206609	51.10	ug/L		99
28) Vinyl Acetate	3.617	86	21878	46.92	ug/L	#	49
29) DIPE	3.653	45	405109	53.66	ug/L		96
30) 2-Chloro-1,3-Butadiene	3.653	53	191179	54.06	ug/L		94
31) ETBE	4.178	59	309985	51.55	ug/L		99
32) 2,2-Dichloropropane	4.360	77	108986	47.79	ug/L		99
33) cis-1,2-Dichloroethene	4.367	96	123753	49.80	ug/L		83
34) 2-Butanone	4.415	43	73455	48.96	ug/L		98
35) Propionitrile	4.495	54	116072	252.85	ug/L		98
36) Bromochloromethane	4.763	130	75544	48.74	ug/L		90
37) Methacrylonitrile	4.775	67	59979	54.71	ug/L		96
38) Tetrahydrofuran	4.854	42	45839	53.10	ug/L		95
39) Chloroform	4.946	83	197283	50.47	ug/L		97
40) 1,1,1-Trichloroethane	5.244	97	148476	51.19	ug/L		98

1st DL 02/26/18
2nd FJ 02/26/18

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1560.D
Acq On : 22 Feb 2018 8:42 pm
Operator : D.LIPANI
Sample : R1801449-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 22 20:57:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	116973	52.73	ug/L		97
44) Carbontetrachloride	5.531	117	114175	50.89	ug/L		90
45) 1,1-Dichloropropene	5.543	75	154283	48.82	ug/L		93
47) Benzene	5.860	78	464473	50.52	ug/L		98
48) 1,2-Dichloroethane	5.903	62	159885	50.65	ug/L		95
49) Iso-Butyl Alcohol	5.878	43	128385	926.80	ug/L		100
50) TAME	6.098	73	292368	52.39	ug/L		94
51) n-Heptane	6.354	43	139612	44.84	ug/L		99
52) 1-Butanol	6.848	56	196200	2425.35	ug/L		95
53) Trichloroethene	6.811	130	117655	47.36	ug/L		93
54) Methylcyclohexane	7.055	55	155904	52.83	ug/L		92
55) 1,2-Diclpropane	7.098	63	122986	51.05	ug/L		96
56) Dibromomethane	7.238	93	70444	46.89	ug/L	#	84
57) 1,4-Dioxane	7.299	88	33152	859.71	ug/L		87
58) Methyl Methacrylate	7.323	69	96393	53.52	ug/L		95
59) Bromodichloromethane	7.470	83	135840	49.13	ug/L		95
60) 2-Nitropropane	7.750	41	45373	88.90	ug/L		81
62) cis-1,3-Dichloropropene	8.012	75	167796	52.43	ug/L		98
63) 4-Methyl-2-pentanone	8.219	43	146801	55.51	ug/L		98
65) Toluene	8.384	91	498702	50.91	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	137122	53.47	ug/L		98
67) Ethyl Methacrylate	8.793	69	170848	56.97	ug/L		92
68) 1,1,2-Trichloroethane	8.841	97	109299	51.13	ug/L		96
71) Tetrachloroethene	8.975	164	91554	47.23	ug/L		99
72) 2-Hexanone	9.134	43	106977	53.18	ug/L		92
73) 1,3-Dichloropropane	9.012	76	187249	49.04	ug/L		98
74) Dibromochloromethane	9.238	129	99593	49.37	ug/L		97
75) N-Butyl Acetate	9.286	43	225830	59.25	ug/L		95
76) 1,2-Dibromoethane	9.335	107	105550	49.51	ug/L		95
77) 3-Chlorobenzotrifluoride	9.847	180	180818	48.98	ug/L		95
78) Chlorobenzene	9.829	112	320345	49.69	ug/L		95
79) 4-Chlorobenzotrifluoride	9.902	180	159108	48.95	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	99454	50.24	ug/L		96
81) Ethylbenzene	9.951	106	167975	50.09	ug/L		95
82) (m+p)Xylene	10.061	106	418354	101.58	ug/L		95
83) o-Xylene	10.420	106	204041	51.62	ug/L		98
84) Styrene	10.432	104	341142	50.59	ug/L		98
85) Bromoform	10.585	173	64544	48.46	ug/L		83
86) 2-Chlorobenzotrifluoride	10.664	180	175137	49.38	ug/L		94
87) Isopropylbenzene	10.756	105	523213	50.13	ug/L		98
88) Cyclohexanone	10.817	55	110125	162.90	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.060	53	35720	53.62	ug/L		96
91) 1,1,2,2-Tetrachloroethane	11.012	83	159470	51.45	ug/L		98
92) Bromobenzene	10.999	156	136437	50.63	ug/L	#	88
93) 1,2,3-Trichloropropane	11.042	110	45570	48.39	ug/L		94
94) n-Propylbenzene	11.109	91	634705	52.17	ug/L		97
95) 2-Chlorotoluene	11.170	91	384972	52.62	ug/L		99
96) 3-Chlorotoluene	11.225	91	378022	52.65	ug/L		98
97) 4-Chlorotoluene	11.268	91	435638	50.61	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	440716	52.95	ug/L		99
99) tert-Butylbenzene	11.536	119	370216	49.62	ug/L		98
100) 1,2,4-Trimethylbenzene	11.572	105	443393	53.55	ug/L		98
101) 3,4-Dichlorobenzotrifl...	11.633	214	139305	47.02	ug/L		98
102) sec-Butylbenzene	11.719	105	562216	52.49	ug/L		99
103) p-Isopropyltoluene	11.841	119	466323	52.97	ug/L		98
104) 1,3-Dclbenz	11.798	146	257688	49.49	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1560.D
Acq On : 22 Feb 2018 8:42 pm
Operator : D.LIPANI
Sample : R1801449-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 22 20:57:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

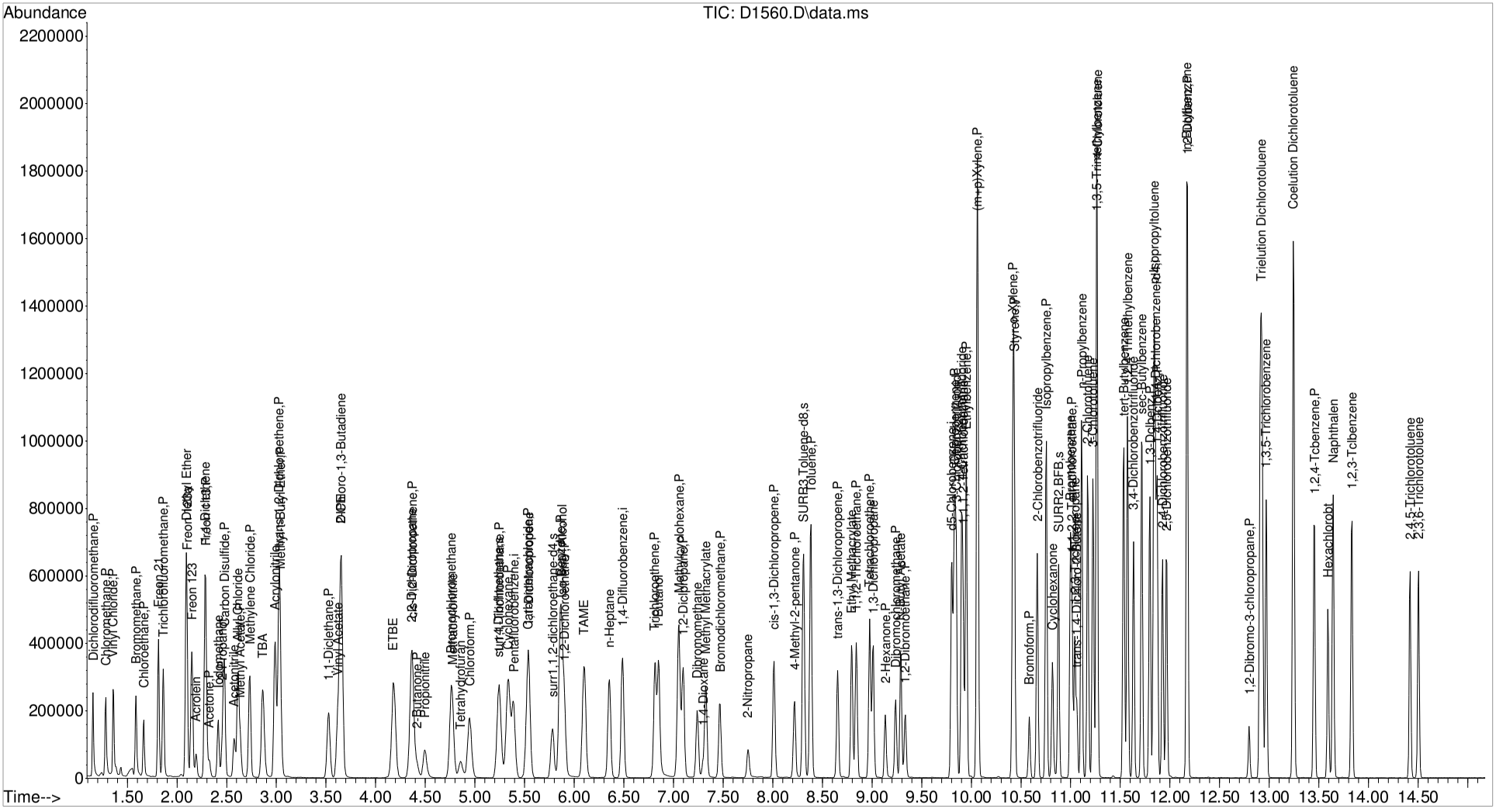
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) 1,4-Dclbenz	11.871	146	261129	47.58	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	125957	46.57	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	144290	48.54	ug/L	97
108) n-Butylbenzene	12.170	91	445317	53.80	ug/L	98
109) 1,2-Dclbenz	12.176	146	256057	48.81	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	29058	49.62	ug/L	90
111) Trielution Dichlorotol...	12.920	125	681367	156.16	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	199196	49.84	ug/L	97
113) Coelution Dichlorotoluene	13.243	125	501900	108.43	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	192938	50.28	ug/L	100
115) Hexachlorobt	13.590	225	73772	44.22	ug/L	98
116) Naphthalen	13.645	128	507320	58.62	ug/L	100
117) 1,2,3-Tclbenzene	13.834	180	186806	50.53	ug/L	99
118) 2,4,5-Trichlorotoluene	14.419	159	121122	50.74	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	114555	54.10	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1560.D
Acq On : 22 Feb 2018 8:42 pm
Operator : D.LIPANI
Sample : R1801449-003DMS|1.0 Inst : MSVOA10
Misc : Liro Group 8043 T4
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 22 20:57:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st DL 02/26/18
2nd FJ 02/26/18

1st BA 02/23/18
2nd DL 02/23/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1564.D
Acq On : 23 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 10:01:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	i	Pentafluorobenzene	1.0000	1.0000	0.0	106	0.00
2	P	Dichlorodifluoromethane	0.7168	0.6712	6.4	93	0.00
3	P	Chloromethane	0.7898	0.7486	5.2	100	0.00
4	P	Vinyl Chloride	0.7443	0.7299	1.9	98	0.00
5	P	Bromomethane	0.6377	0.5076	-5.4 ~~20.4#~~	100	0.00
6	P	Chloroethane	0.4700	0.4481	4.7	99	0.00
7		Freon 21	1.1450	1.1305	1.3	104	0.00
8	P	Trichlorofluoromethane	0.8457	0.7736	8.5	95	0.00
9		Diethyl Ether	0.4886	0.4547	6.9	100	0.00
10		Freon 123a	0.6629	0.6621	0.1	106	0.00
11		Freon 123	0.7588	0.7344	3.2	106	0.00
12		Acrolein	0.1398	0.1070	23.5#	82	0.00
13		1,1-Diclethene	0.4896	0.4649	5.0	98	0.00
14	P	Freon 113	0.5348	0.5085	4.9	98	0.00
15	P	Acetone	0.2609	0.2363	9.4	97	0.00
16		2-Propanol	0.0419	0.0393	6.2	93	0.00
17		Iodomethane	0.6650	0.6946	-3.1 ~~-4.5~~	97	0.00
18	P	Carbon Disulfide	1.3690	1.3417	2.0	103	0.00
19		Acetonitrile	0.0525	0.0493	6.1	96	0.00
20		Allyl Chloride	0.2514	0.2489	1.0	100	0.01
21	P	Methyl Acetate	0.5262	0.5344	-1.6	107	0.00
22	P	Methylene Chloride	0.5540	0.5262	5.0	100	0.00
23		TBA	0.0619	0.0555	10.3	90	0.00
24		Acrylonitrile	0.2666	0.2590	2.9	98	0.00
25	P	Methyl-t-Butyl Ether	1.5451	1.4767	4.4	98	0.00
26	P	trans-1,2-Dichloroethene	0.5391	0.4995	7.3	99	0.00
27	P	1,1-Diclethane	0.9576	0.9312	2.8	102	0.00
28		Vinyl Acetate	0.1104	0.1007	8.8	94	0.00
29		DIPE	1.7882	1.7710	1.0	103	0.00
30		2-Chloro-1,3-Butadiene	0.8376	0.8769	-4.7	107	0.00
31		ETBE	1.4241	1.4032	1.5	102	0.01
32		2,2-Dichloropropane	0.5401	0.5328	1.4	101	0.00
33	P	cis-1,2-Dichloroethene	0.5885	0.5501	6.5	96	0.00
34	P	2-Butanone	0.3554	0.3275	7.9	98	0.00
35		Propionitrile	0.1087	0.0999	8.1	95	0.00
36		Bromochloromethane	0.3671	0.3492	4.9	99	0.00
37		Methacrylonitrile	0.2596	0.2517	3.0	97	0.01
38		Tetrahydrofuran	0.2045	0.1983	3.0	99	0.00
39	P	Chloroform	0.9259	0.8801	4.9	99	0.00
40	P	1,1,1-Trichloroethane	0.6870	0.6826	0.6	100	0.00
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	106	0.00
42	P	Cyclohexane	0.3529	0.3579	-1.4	110	0.00
43	s	surr4,Dibrflmethane	0.3059	0.3238	-5.9	110	0.00
44	P	Carbontetrachloride	0.3570	0.3596	-0.7	99	0.00
45		1,1-Dichloropropene	0.5028	0.4814	4.3	100	0.00
46	s	surr1,1,2-dichloroethane-d4	0.3537	0.3849	-8.8	115	0.00
47	P	Benzene	1.4629	1.3848	5.3	99	0.00
48	P	1,2-Dichloroethane	0.5022	0.4900	2.4	102	0.00
49		Iso-Butyl Alcohol	0.0195	0.0181	7.2	94	0.01
50		TAME	0.8879	0.8555	3.6	100	0.00
51		n-Heptane	0.4954	0.4935	0.4	102	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1564.D
Acq On : 23 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 10:01:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52		1-Butanol	0.0112	0.0109	2.7	90	0.00
53	P	Trichloroethene	0.3953	0.3574	9.6	97	0.00
54	P	Methylcyclohexane	0.4695	0.4739	-0.9	106	0.01
55	P	1,2-Diclpropane	0.3833	0.3687	3.8	102	0.00
56		Dibromomethane	0.2390	0.2195	8.2	97	0.00
57		1,4-Dioxane	0.0061	0.0056	8.2	92	-0.01
58		Methyl Methacrylate	0.2693	0.2697	-0.1	95	0.00
59	P	Bromodichloromethane	0.4399	0.4168	5.3	96	0.00
60		2-Nitropropane	0.0812	0.0746	8.1	95	0.00
61		2-Chloroethylvinyl Ether	0.0936	0.0520	44.4#	55	0.00
62	P	cis-1,3-Dichloropropene	0.5092	0.5141	-1.0	99	0.00
63	P	4-Methyl-2-pentanone	0.4208	0.4031	4.2	99	0.00
64	s	SURR3,Toluene-d8	1.2055	1.2875	-6.8	112	0.00
65	P	Toluene	1.5586	1.4922	4.3	99	0.00
66	P	trans-1,3-Dichloropropene	0.4066	0.4281	-5.3	100	0.00
67		Ethyl Methacrylate	0.4605	0.4625	-0.4	96	0.00
68	P	1,1,2-Trichloroethane	0.3401	0.3186	6.3	97	0.00
69	s	SURR2,BFB	0.4669	0.4979	-6.6	112	0.00
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	106	0.00
71	P	Tetrachloroethene	0.3490	0.3211	8.0	96	0.00
72	P	2-Hexanone	0.3622	0.3261	10.0	97	0.00
73		1,3-Dichloropropane	0.6874	0.6377	7.2	96	0.00
74	P	Dibromochloromethane	0.3632	0.3548	2.3	98	0.00
75		N-Butyl Acetate	0.6863	0.6911	-0.7	98	0.00
76	P	1,2-Dibromoethane	0.3838	0.3704	3.5	98	0.00
77		3-Chlorobenzotrifluoride	0.6646	0.6081	8.5	98	0.00
78	P	Chlorobenzene	1.1607	1.0934	5.8	99	0.00
79		4-Chlorobenzotrifluoride	0.5853	0.5461	6.7	98	0.00
80		1,1,1,2-Tetrachloroethane	0.3564	0.3492	2.0	100	0.00
81	P	Ethylbenzene	0.6038	0.5735	5.0	98	0.00
82	P	(m+p)Xylene	0.7415	0.7227	2.5	97	0.00
83	P	o-Xylene	0.7117	0.6998	1.7	98	0.00
84	P	Styrene	1.2141	1.2144	-0.0	100	0.00
85	P	Bromoform	0.2343	0.2259	3.6	90	0.00
86		2-Chlorobenzotrifluoride	0.6386	0.5880	7.9	97	0.00
87	P	Isopropylbenzene	1.8791	1.8388	2.1	97	0.00
88		Cyclohexanone	0.1217	0.1053	13.5	84	0.00
89		trans-1,4-Dichloro-2-Butene	0.1069	0.1072	-0.3	95	0.00
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	107	0.00
91	P	1,1,2,2-Tetrachloroethane	1.0198	0.9471	7.1	97	0.00
92		Bromobenzene	0.8867	0.8433	4.9	95	0.00
93		1,2,3-Trichloropropane	0.3099	0.2680	13.5	94	0.00
94		n-Propylbenzene	4.0027	3.9692	0.8	98	0.00
95		2-Chlorotoluene	2.4072	2.2947	4.7	98	0.00
96		3-Chlorotoluene	2.3624	2.3446	0.8	104	0.00
97		4-Chlorotoluene	2.8320	2.6619	6.0	97	0.00
98		1,3,5-Trimethylbenzene	2.7384	2.7334	0.2	98	0.00
99		tert-Butylbenzene	2.4548	2.3369	4.8	98	0.00
100		1,2,4-Trimethylbenzene	2.7242	2.7048	0.7	99	0.00
101		3,4-Dichlorobenzotrifluorid	0.9749	0.8804	9.7	96	0.00

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1564.D
Acq On : 23 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 10:01:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
102		sec-Butylbenzene	3.5243	3.5372	-0.4	98	0.00
103		p-Isopropyltoluene	2.8968	2.9249	-1.0	98	0.00
104	P	1,3-Dclbenz	1.7133	1.5905	7.2	98	0.00
105	P	1,4-Dclbenz	1.8057	1.6178	10.4	96	0.00
106		2,4-Dichlorobenzotrifluorid	0.8899	0.8063	9.4	99	0.00
107		2,5-Dichlorobenzotrifluorid	0.9780	0.9036	7.6	98	0.00
108		n-Butylbenzene	2.6759	2.7659	-3.4	97	0.00
109	P	1,2-Dclbenz	1.7260	1.5863	8.1	98	0.00
110	P	1,2-Dibromo-3-chloropropane	0.1891	0.1756	7.1	91	0.00
111		Trielution Dichlorotoluene	1.4357	1.3441	6.4	97	0.00
112		1,3,5-Trichlorobenzene	1.3150	1.2016	8.6	97	0.00
113		Coelution Dichlorotoluene	1.5230	1.4663	3.7	97	0.00
114	P	1,2,4-Tcbenzene	1.2625	1.1939	5.4	95	0.00
115		Hexachlorobt	0.5489	0.5154	6.1	94	0.00
116		Naphthalen	2.8477	2.7617	3.0	95	0.00
117		1,2,3-Tclbenzene	1.2165	1.1370	6.5	96	0.00
118		2,4,5-Trichlorotoluene	0.7855	0.7325	6.7	94	0.00
119		2,3,6-Trichlorotoluene	0.6967	0.6811	2.2	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1564.D
Acq On : 23 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 10:01:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	221053	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	332027	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	295006	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	167274	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	107505	52.92	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 105.84%				
46) surr1,1,2-dichloroetha...	5.781	65	127790	54.41	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 108.82%				
64) SURR3,Toluene-d8	8.311	98	427480	53.40	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.80%				
69) SURR2,BFB	10.878	95	165328	53.32	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 106.64%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	148372	46.82	ug/L		98
3) Chloromethane	1.282	50	165482	47.39	ug/L		99
4) Vinyl Chloride	1.361	62	161348	49.03	ug/L		98
5) Bromomethane	1.587	94	112196	47.31	ug/L		98
6) Chloroethane	1.666	64	99048	47.66	ug/L		98
7) Freon 21	1.812	67	249908	49.37	ug/L		100
8) Trichlorofluoromethane	1.861	101	171010	45.74	ug/L		97
9) Diethyl Ether	2.093	59	100515	46.54	ug/L		98
10) Freon 123a	2.093	67	146365	49.94	ug/L		96
11) Freon 123	2.148	83	162340	48.39	ug/L		95
12) Acrolein	2.190	56	118255	191.37	ug/L		99
13) 1,1-Diclethene	2.282	96	102759	47.47	ug/L		89
14) Freon 113	2.288	101	112399	47.54	ug/L		89
15) Acetone	2.324	43	52242	45.29	ug/L		98
16) 2-Propanol	2.458	45	173900	938.50	ug/L		99
17) Iodomethane	2.416	142	153538	48.45	ug/L		95
18) Carbon Disulfide	2.477	76	296588	49.00	ug/L		100
19) Acetonitrile	2.574	40	54524	234.81	ug/L		97
20) Allyl Chloride	2.617	76	55010	49.50	ug/L	#	84
21) Methyl Acetate	2.635	43	118136	50.79	ug/L		98
22) Methylene Chloride	2.733	84	116327	47.49	ug/L		95
23) TBA	2.861	59	245395	896.21	ug/L		83
24) Acrylonitrile	2.989	53	286289	242.86	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	326423	47.79	ug/L		95
26) trans-1,2-Dichloroethene	3.025	96	110409	46.32	ug/L		89
27) 1,1-Diclethane	3.525	63	205835	48.62	ug/L		98
28) Vinyl Acetate	3.617	86	22271	45.62	ug/L	#	89
29) DIPE	3.647	45	391486	49.52	ug/L		94
30) 2-Chloro-1,3-Butadiene	3.647	53	193845	52.34	ug/L		92
31) ETBE	4.184	59	310176	49.27	ug/L		96
32) 2,2-Dichloropropane	4.360	77	117775	49.32	ug/L		97
33) cis-1,2-Dichloroethene	4.367	96	121592	46.73	ug/L		83
34) 2-Butanone	4.415	43	72403	46.09	ug/L		92
35) Propionitrile	4.495	54	110365	229.61	ug/L		90
36) Bromochloromethane	4.763	130	77184	47.56	ug/L		92
37) Methacrylonitrile	4.769	67	55628	48.46	ug/L		97
38) Tetrahydrofuran	4.854	42	43839	48.50	ug/L		95
39) Chloroform	4.946	83	194557	47.53	ug/L		98
40) 1,1,1-Trichloroethane	5.244	97	150899	49.68	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1564.D
Acq On : 23 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 10:01:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	118823	50.70	ug/L		96
44) Carbontetrachloride	5.525	117	119398	50.37	ug/L		99
45) 1,1-Dichloropropene	5.543	75	159848	47.88	ug/L		95
47) Benzene	5.860	78	459778	47.33	ug/L		99
48) 1,2-Dichloroethane	5.897	62	162695	48.78	ug/L		100
49) Iso-Butyl Alcohol	5.885	43	119939	823.97	ug/L		97
50) TAME	6.098	73	284061	48.18	ug/L		97
51) n-Heptane	6.354	43	163844	49.80	ug/L		99
52) 1-Butanol	6.848	56	181383	2150.54	ug/L		94
53) Trichloroethene	6.817	130	118656	45.20	ug/L		94
54) Methylcyclohexane	7.055	55	157345	50.46	ug/L		96
55) 1,2-Diclpropane	7.098	63	122415	48.10	ug/L		99
56) Dibromomethane	7.238	93	72885	45.92	ug/L		91
57) 1,4-Dioxane	7.299	88	37133	911.38	ug/L		92
58) Methyl Methacrylate	7.323	69	89539	47.31	ug/L		93
59) Bromodichloromethane	7.470	83	138388	47.37	ug/L		96
60) 2-Nitropropane	7.750	41	49554	91.89	ug/L		88
61) 2-Chloroethylvinyl Ether	7.878	63	17275	29.69	ug/L		98
62) cis-1,3-Dichloropropene	8.012	75	170702	50.48	ug/L		99
63) 4-Methyl-2-pentanone	8.219	43	133825	47.89	ug/L		97
65) Toluene	8.384	91	495447	47.87	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	142127	52.58	ug/L		95
67) Ethyl Methacrylate	8.799	69	153578	49.09	ug/L		95
68) 1,1,2-Trichloroethane	8.841	97	105796	46.84	ug/L		92
71) Tetrachloroethene	8.975	164	94736	46.00	ug/L		97
72) 2-Hexanone	9.134	43	96202	45.02	ug/L		94
73) 1,3-Dichloropropane	9.012	76	188118	46.38	ug/L		95
74) Dibromochloromethane	9.238	129	104671	48.84	ug/L		95
75) N-Butyl Acetate	9.286	43	203887	50.35	ug/L		94
76) 1,2-Dibromoethane	9.335	107	109270	48.25	ug/L		97
77) 3-Chlorobenzotrifluoride	9.847	180	179399	45.75	ug/L		97
78) Chlorobenzene	9.829	112	322548	47.10	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	161098	46.65	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	103030	48.99	ug/L		98
81) Ethylbenzene	9.951	106	169172	47.49	ug/L		99
82) (m+p)Xylene	10.061	106	426431	97.47	ug/L		94
83) o-Xylene	10.420	106	206431	49.16	ug/L		97
84) Styrene	10.432	104	358254	50.01	ug/L		96
85) Bromoform	10.585	173	66654	47.24	ug/L		82
86) 2-Chlorobenzotrifluoride	10.664	180	173449	46.04	ug/L		93
87) Isopropylbenzene	10.756	105	542448	48.93	ug/L		98
88) Cyclohexanone	10.817	55	621300	865.12	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.060	53	31631	45.10	ug/L		94
91) 1,1,2,2-Tetrachloroethane	11.012	83	158417	46.43	ug/L		99
92) Bromobenzene	10.999	156	141070	47.56	ug/L	#	87
93) 1,2,3-Trichloropropane	11.042	110	44830	43.25	ug/L		91
94) n-Propylbenzene	11.109	91	663952	49.58	ug/L		98
95) 2-Chlorotoluene	11.176	91	383849	47.66	ug/L		98
96) 3-Chlorotoluene	11.225	91	392190	49.62	ug/L		97
97) 4-Chlorotoluene	11.268	91	445272	47.00	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	457234	49.91	ug/L		99
99) tert-Butylbenzene	11.536	119	390903	47.60	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	452439	49.64	ug/L		96
101) 3,4-Dichlorobenzotrifl...	11.633	214	147260	45.15	ug/L		98
102) sec-Butylbenzene	11.719	105	591683	50.18	ug/L		98
103) p-Isopropyltoluene	11.841	119	489267	50.49	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1564.D
Acq On : 23 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 10:01:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

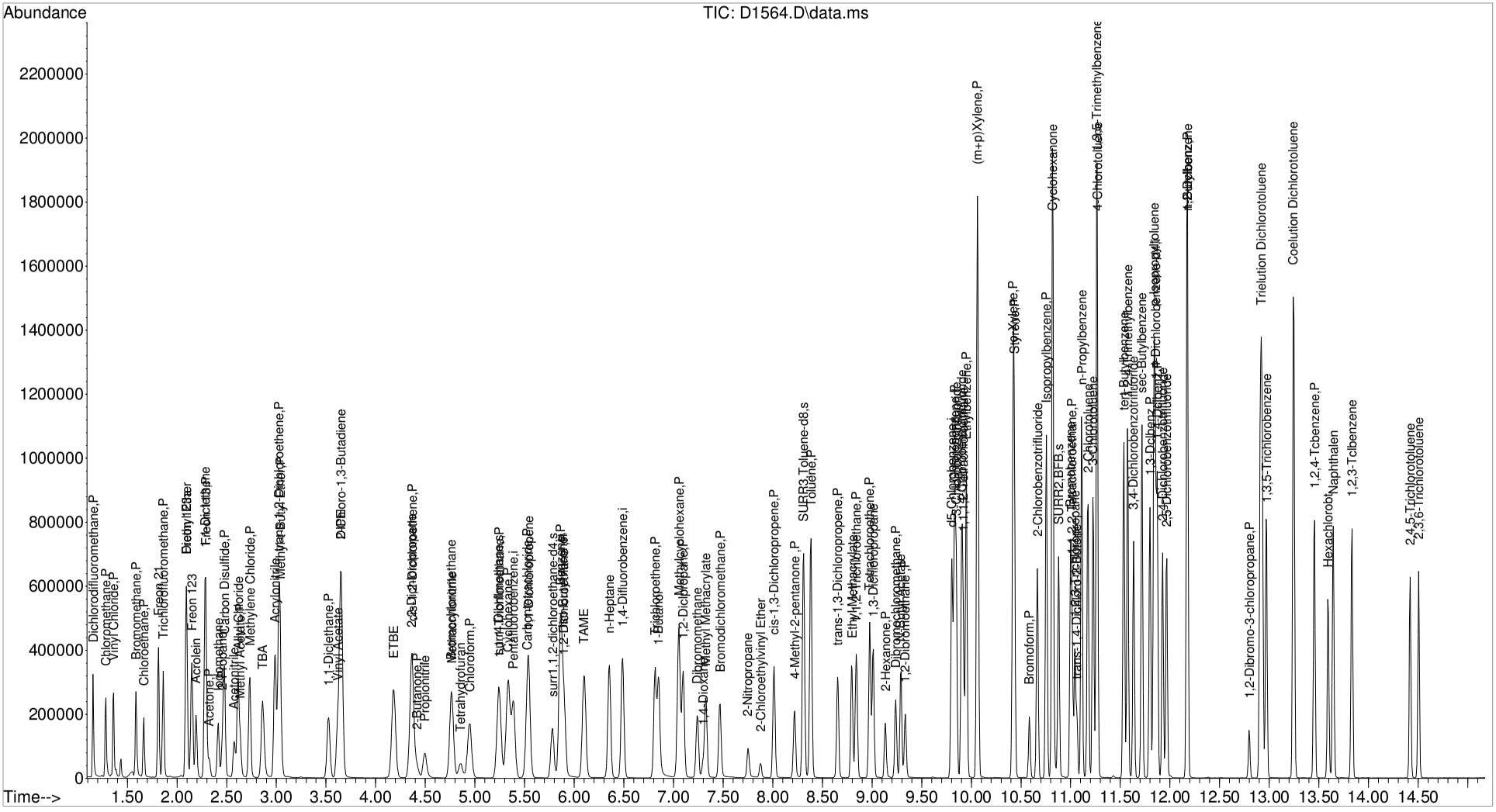
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	266047	46.42	ug/L	97
105) 1,4-Dclbenz	11.871	146	270614	44.80	ug/L	95
106) 2,4-Dichlorobenzotrifl...	11.926	214	134876	45.30	ug/L	98
107) 2,5-Dichlorobenzotrifl...	11.969	214	151156	46.20	ug/L	96
108) n-Butylbenzene	12.176	91	462664	50.96	ug/L	97
109) 1,2-Dclbenz	12.176	146	265339	45.95	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	29370	45.85	ug/L	93
111) Trielution Dichlorotol...	12.920	125	674519	140.44	ug/L	99
112) 1,3,5-Trichlorobenzene	12.975	180	201001	45.69	ug/L	96
113) Coelution Dichlorotoluene	13.243	125	490555	96.28	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	199714	47.28	ug/L	98
115) Hexachlorobt	13.590	225	86211	46.95	ug/L	97
116) Naphthalen	13.645	128	461957	48.49	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	190193	46.73	ug/L	99
118) 2,4,5-Trichlorotoluene	14.419	159	122521	46.63	ug/L	96
119) 2,3,6-Trichlorotoluene	14.505	159	113937	48.88	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1564.D
Acq On : 23 Feb 2018 9:46 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 10:01:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



1st BA 02/23/18
2nd DL 02/23/18

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1533.D
Acq On : 22 Feb 2018 10:00 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 22 10:14:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	i	Pentafluorobenzene	1.0000	1.0000	0.0	107	0.00	
2	P	Dichlorodifluoromethane	0.7168	0.6494	9.4	91	0.00	
3	P	Chloromethane	0.7898	0.7175	9.2	97	0.00	
4	P	Vinyl Chloride	0.7443	0.7203	3.2	97	0.00	
5	P	Bromomethane	0.6377	0.5030	-6.3 ~~21.1#~~	100	0.00	
6	P	Chloroethane	0.4700	0.4334	7.8	97	0.00	
7		Freon 21	1.1450	1.0963	4.3	102	0.00	
8	P	Trichlorofluoromethane	0.8457	0.7535	10.9	93	0.00	
9		Diethyl Ether	0.4886	0.4660	4.6	103	0.00	
10		Freon 123a	0.6629	0.6533	1.4	105	0.00	
11		Freon 123	0.7588	0.6990	7.9	102	0.00	
12		Acrolein	0.1398	0.1045	25.3#	80	0.00	(1)
13		1,1-Diclethene	0.4896	0.4487	8.4	95	0.00	
14	P	Freon 113	0.5348	0.4915	8.1	96	0.00	
15	P	Acetone	0.2609	0.2276	12.8	94	0.00	
16		2-Propanol	0.0419	0.0357	14.8	85	0.00	
17		Iodomethane	0.6650	0.6837	-4.5 ~~-2.8~~	96	0.00	
18	P	Carbon Disulfide	1.3690	1.3474	1.6	104	0.00	
19		Acetonitrile	0.0525	0.0456	13.1	89	0.00	
20		Allyl Chloride	0.2514	0.2384	5.2	96	0.00	
21	P	Methyl Acetate	0.5262	0.4998	5.0	101	0.00	
22	P	Methylene Chloride	0.5540	0.5093	8.1	97	0.00	
23		TBA	0.0619	0.0501	19.1	81	0.00	
24		Acrylonitrile	0.2666	0.2382	10.7	91	0.00	
25	P	Methyl-t-Butyl Ether	1.5451	1.4124	8.6	95	0.00	
26	P	trans-1,2-Dichloroethene	0.5391	0.4824	10.5	96	0.00	
27	P	1,1-Diclethane	0.9576	0.8887	7.2	98	0.00	
28		Vinyl Acetate	0.1104	0.0972	12.0	92	0.00	
29		DIPE	1.7882	1.7696	1.0	104	0.00	
30		2-Chloro-1,3-Butadiene	0.8376	0.8556	-2.1	105	0.00	
31		ETBE	1.4241	1.3911	2.3	102	0.01	
32		2,2-Dichloropropane	0.5401	0.5147	4.7	98	0.00	
33	P	cis-1,2-Dichloroethene	0.5885	0.5476	6.9	96	0.00	
34	P	2-Butanone	0.3554	0.3018	15.1	91	0.00	
35		Propionitrile	0.1087	0.0905	16.7	87	0.00	
36		Bromochloromethane	0.3671	0.3383	7.8	96	0.00	
37		Methacrylonitrile	0.2596	0.2377	8.4	93	0.01	
38		Tetrahydrofuran	0.2045	0.1690	17.4	84	0.00	
39	P	Chloroform	0.9259	0.8579	7.3	97	0.00	
40	P	1,1,1-Trichloroethane	0.6870	0.6537	4.8	96	0.00	
41	i	1,4-Difluorobenzene	1.0000	1.0000	0.0	105	0.00	
42	P	Cyclohexane	0.3529	0.3462	1.9	105	0.00	
43	s	surr4,Dibrflmethane	0.3059	0.3209	-4.9	108	0.00	
44	P	Carbontetrachloride	0.3570	0.3523	1.3	96	0.00	
45		1,1-Dichloropropene	0.5028	0.4699	6.5	97	0.00	
46	s	surr1,1,2-dichloroethane-d4	0.3537	0.3770	-6.6	111	0.00	
47	P	Benzene	1.4629	1.3757	6.0	98	0.00	
48	P	1,2-Dichloroethane	0.5022	0.4788	4.7	99	0.00	
49		Iso-Butyl Alcohol	0.0195	0.0166	-23.9 ~~14.9~~	85	0.00	NT
50		TAME	0.8879	0.8595	3.2	99	0.00	
51		n-Heptane	0.4954	0.4855	2.0	99	0.00	

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1533.D
Acq On : 22 Feb 2018 10:00 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 22 10:14:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
52		1-Butanol	0.0112	0.0103	-18.4~~8.0~~	84	0.00	
53	P	Trichloroethene	0.3953	0.3486	11.8	94	0.00	
54	P	Methylcyclohexane	0.4695	0.4739	-0.9	105	0.01	
55	P	1,2-Diclpropane	0.3833	0.3645	4.9	100	0.00	
56		Dibromomethane	0.2390	0.2157	9.7	94	0.00	
57		1,4-Dioxane	0.0061	0.0052	14.8	85	-0.01	
58		Methyl Methacrylate	0.2693	0.2573	-9.6 ~~4.5~~	90	0.00	
59	P	Bromodichloromethane	0.4399	0.4152	5.6	95	0.00	
60		2-Nitropropane	0.0812	0.0708	12.8	90	0.00	
61		2-Chloroethylvinyl Ether	0.0936	0.0486	48.1#	51	0.00	NT
62	P	cis-1,3-Dichloropropene	0.5092	0.5084	0.2	97	0.00	
63	P	4-Methyl-2-pentanone	0.4208	0.3778	10.2	92	0.00	
64	s	SURR3,Toluene-d8	1.2055	1.2834	-6.5	111	0.00	
65	P	Toluene	1.5586	1.4571	6.5	95	0.00	
66	P	trans-1,3-Dichloropropene	0.4066	0.4245	-4.4 ~~-4.4~~	98	0.00	
67		Ethyl Methacrylate	0.4605	0.4481	-4.7 ~~2.7~~	92	0.00	
68	P	1,1,2-Trichloroethane	0.3401	0.3163	7.0	96	0.00	
69	s	SURR2,BFB	0.4669	0.4867	-4.2	108	0.00	
70	i	d5-Chlorobenzene	1.0000	1.0000	0.0	103	0.00	
71	P	Tetrachloroethene	0.3490	0.3190	8.6	93	0.00	
72	P	2-Hexanone	0.3622	0.3102	14.4	90	0.00	
73		1,3-Dichloropropane	0.6874	0.6420	6.6	94	0.00	
74	P	Dibromochloromethane	0.3632	0.3553	2.2	95	0.00	
75		N-Butyl Acetate	0.6863	0.6508	5.2	90	0.00	
76	P	1,2-Dibromoethane	0.3838	0.3665	4.5	95	0.00	
77		3-Chlorobenzotrifluoride	0.6646	0.6319	4.9	99	0.00	
78	P	Chlorobenzene	1.1607	1.0876	6.3	96	0.00	
79		4-Chlorobenzotrifluoride	0.5853	0.5591	4.5	98	0.00	
80		1,1,1,2-Tetrachloroethane	0.3564	0.3515	1.4	98	0.00	
81	P	Ethylbenzene	0.6038	0.5744	4.9	95	0.00	
82	P	(m+p)Xylene	0.7415	0.7297	1.6	96	0.00	
83	P	o-Xylene	0.7117	0.7117	0.0	97	0.00	
84	P	Styrene	1.2141	1.2093	0.4	97	0.00	
85	P	Bromoform	0.2343	0.2275	-5.0 ~~2.9~~	88	0.00	
86		2-Chlorobenzotrifluoride	0.6386	0.6155	3.6	99	0.00	
87	P	Isopropylbenzene	1.8791	1.8682	0.6	97	0.00	
88		Cyclohexanone	0.1217	0.1058	13.1	82	0.00	
89		trans-1,4-Dichloro-2-Butene	0.1069	0.1006	-15.1 ~~5.9~~	87	0.00	
90	i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	105	0.00	
91	P	1,1,2,2-Tetrachloroethane	1.0198	0.9149	10.3	92	0.00	
92		Bromobenzene	0.8867	0.8413	5.1	93	0.00	
93		1,2,3-Trichloropropane	0.3099	0.2601	16.1	89	0.00	
94		n-Propylbenzene	4.0027	4.0048	-0.1	96	0.00	
95		2-Chlorotoluene	2.4072	2.2782	5.4	95	0.00	
96		3-Chlorotoluene	2.3624	2.3166	1.9	101	0.00	
97		4-Chlorotoluene	2.8320	2.7395	3.3	98	0.00	
98		1,3,5-Trimethylbenzene	2.7384	2.7377	0.0	96	0.00	
99		tert-Butylbenzene	2.4548	2.3276	5.2	95	0.00	
100		1,2,4-Trimethylbenzene	2.7242	2.7101	0.5	97	0.00	
101		3,4-Dichlorobenzotrifluorid	0.9749	0.9148	6.2	97	0.00	

Evaluate Continuing Calibration Report

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1533.D
Acq On : 22 Feb 2018 10:00 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 22 10:14:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
102		sec-Butylbenzene	3.5243	3.5624	-1.1	96	0.00
103		p-Isopropyltoluene	2.8968	2.9278	-1.1	96	0.00
104	P	1,3-Dclbenz	1.7133	1.6132	5.8	97	0.00
105	P	1,4-Dclbenz	1.8057	1.6307	9.7	94	0.00
106		2,4-Dichlorobenzotrifluorid	0.8899	0.8363	6.0	100	0.00
107		2,5-Dichlorobenzotrifluorid	0.9780	0.9524	2.6	101	0.00
108		n-Butylbenzene	2.6759	2.7566	-3.0	95	0.00
109	P	1,2-Dclbenz	1.7260	1.6128	6.6	97	0.00
110	P	1,2-Dibromo-3-chloropropane	0.1891	0.1686	-11.7 ~~10.8~~	85	0.00
111		Trielution Dichlorotoluene	1.4357	1.4090	1.9	99	0.00
112		1,3,5-Trichlorobenzene	1.3150	1.2635	3.9	100	0.00
113		Coelution Dichlorotoluene	1.5230	1.5220	0.1	98	0.00
114	P	1,2,4-Tcbenzene	1.2625	1.2008	4.9	93	0.00
115		Hexachlorobt	0.5489	0.5222	4.9	93	0.00
116		Naphthalen	2.8477	2.7258	4.3	91	0.00
117		1,2,3-Tclbenzene	1.2165	1.1381	6.4	94	0.00
118		2,4,5-Trichlorotoluene	0.7855	0.7488	4.7	94	0.00
119		2,3,6-Trichlorotoluene	0.6967	0.7113	-2.1	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1533.D
Acq On : 22 Feb 2018 10:00 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 22 10:14:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	222328	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	329358	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	287709	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	163490	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	105685	52.45	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 104.90%				
46) surr1,1,2-dichloroetha...	5.781	65	124162	53.29	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 106.58%				
64) SURR3,Toluene-d8	8.311	98	422711	53.23	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 106.46%				
69) SURR2,BFB	10.878	95	160309	52.12	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 104.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	144376	45.30	ug/L		98
3) Chloromethane	1.282	50	159525	45.43	ug/L		98
4) Vinyl Chloride	1.361	62	160150	48.39	ug/L		98
5) Bromomethane	1.587	94	111842	46.83	ug/L		100
6) Chloroethane	1.666	64	96358	46.10	ug/L		99
7) Freon 21	1.812	67	243738	47.87	ug/L		99
8) Trichlorofluoromethane	1.861	101	167532	44.55	ug/L		97
9) Diethyl Ether	2.093	59	103599	47.69	ug/L		99
10) Freon 123a	2.093	67	145255	49.28	ug/L		91
11) Freon 123	2.148	83	155398	46.06	ug/L		96
12) Acrolein	2.190	56	116142	186.87	ug/L		97
13) 1,1-Diclethene	2.282	96	99762	45.82	ug/L	#	87
14) Freon 113	2.288	101	109271	45.95	ug/L		89
15) Acetone	2.324	43	50594	43.61	ug/L		90
16) 2-Propanol	2.459	45	158641	851.24	ug/L		97
17) Iodomethane	2.416	142	152015	47.75	ug/L		97
18) Carbon Disulfide	2.477	76	299565	49.21	ug/L		99
19) Acetonitrile	2.574	40	50661	216.92	ug/L		97
20) Allyl Chloride	2.611	76	52996	47.42	ug/L	#	80
21) Methyl Acetate	2.635	43	111110	47.49	ug/L		98
22) Methylene Chloride	2.733	84	113234	45.96	ug/L		94
23) TBA	2.861	59	222828	809.13	ug/L		82
24) Acrylonitrile	2.989	53	264803	223.35	ug/L		100
25) Methyl-t-Butyl Ether	3.038	73	314020	45.71	ug/L		99
26) trans-1,2-Dichloroethene	3.026	96	107240	44.74	ug/L		95
27) 1,1-Diclethane	3.525	63	197572	46.40	ug/L		99
28) Vinyl Acetate	3.617	86	21601	43.99	ug/L	#	75
29) DIPE	3.653	45	393421	49.48	ug/L		97
30) 2-Chloro-1,3-Butadiene	3.647	53	190232	51.07	ug/L		94
31) ETBE	4.184	59	309276	48.84	ug/L		99
32) 2,2-Dichloropropane	4.361	77	114431	47.65	ug/L		97
33) cis-1,2-Dichloroethene	4.367	96	121743	46.52	ug/L		84
34) 2-Butanone	4.409	43	67091	42.46	ug/L		99
35) Propionitrile	4.495	54	100637	208.17	ug/L		97
36) Bromochloromethane	4.763	130	75210	46.08	ug/L		92
37) Methacrylonitrile	4.769	67	52853	45.78	ug/L		96
38) Tetrahydrofuran	4.861	42	37579	41.33	ug/L		92
39) Chloroform	4.946	83	190733	46.33	ug/L		98
40) 1,1,1-Trichloroethane	5.245	97	145337	47.58	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1533.D
Acq On : 22 Feb 2018 10:00 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 22 10:14:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	114013	49.04	ug/L	96
44) Carbontetrachloride	5.531	117	116021	49.34	ug/L	92
45) 1,1-Dichloropropene	5.543	75	154777	46.73	ug/L	94
47) Benzene	5.860	78	453100	47.02	ug/L	98
48) 1,2-Dichloroethane	5.903	62	157710	47.67	ug/L	97
49) Iso-Butyl Alcohol	5.879	43	109510	761.35	ug/L	98
50) TAME	6.104	73	283084	48.40	ug/L	98
51) n-Heptane	6.354	43	159908	49.00	ug/L	98
52) 1-Butanol	6.848	56	169761	2040.05	ug/L	97
53) Trichloroethene	6.811	130	114803	44.09	ug/L	94
54) Methylcyclohexane	7.055	55	156068	50.46	ug/L	93
55) 1,2-Diclpropane	7.098	63	120050	47.55	ug/L	99
56) Dibromomethane	7.238	93	71040	45.12	ug/L	93
57) 1,4-Dioxane	7.299	88	34171	845.48	ug/L	99
58) Methyl Methacrylate	7.323	69	84733	45.22	ug/L	95
59) Bromodichloromethane	7.470	83	136757	47.20	ug/L	95
60) 2-Nitropropane	7.750	41	46606	87.13	ug/L	89
61) 2-Chloroethylvinyl Ether	7.878	63	16014	27.91	ug/L	96
62) cis-1,3-Dichloropropene	8.012	75	167442	49.92	ug/L	99
63) 4-Methyl-2-pentanone	8.220	43	124443	44.89	ug/L	98
65) Toluene	8.384	91	479916	46.75	ug/L	99
66) trans-1,3-Dichloropropene	8.652	75	139813	52.19	ug/L	95
67) Ethyl Methacrylate	8.793	69	147577	47.66	ug/L	92
68) 1,1,2-Trichloroethane	8.841	97	104166	46.49	ug/L	97
71) Tetrachloroethene	8.976	164	91769	45.69	ug/L	94
72) 2-Hexanone	9.134	43	89235	42.82	ug/L	95
73) 1,3-Dichloropropane	9.012	76	184717	46.70	ug/L	96
74) Dibromochloromethane	9.238	129	102226	48.91	ug/L	98
75) N-Butyl Acetate	9.287	43	187234	47.41	ug/L	98
76) 1,2-Dibromoethane	9.335	107	105451	47.75	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	181802	47.54	ug/L	97
78) Chlorobenzene	9.829	112	312900	46.85	ug/L	97
79) 4-Chlorobenzotrifluoride	9.902	180	160861	47.76	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.914	131	101142	49.32	ug/L	97
81) Ethylbenzene	9.951	106	165251	47.57	ug/L	99
82) (m+p)Xylene	10.061	106	419888	98.40	ug/L	94
83) o-Xylene	10.420	106	204755	50.00	ug/L	97
84) Styrene	10.433	104	347925	49.80	ug/L	97
85) Bromoform	10.585	173	65442	47.52	ug/L	92
86) 2-Chlorobenzotrifluoride	10.664	180	177075	48.19	ug/L	95
87) Isopropylbenzene	10.756	105	537496	49.71	ug/L	98
88) Cyclohexanone	10.817	55	608697	869.07	ug/L	99
89) trans-1,4-Dichloro-2-B...	11.061	53	28947	42.45	ug/L	93
91) 1,1,2,2-Tetrachloroethane	11.012	83	149570	44.86	ug/L	96
92) Bromobenzene	11.000	156	137542	47.44	ug/L	90
93) 1,2,3-Trichloropropane	11.042	110	42516	41.96	ug/L	94
94) n-Propylbenzene	11.109	91	654739	50.03	ug/L	97
95) 2-Chlorotoluene	11.170	91	372466	47.32	ug/L	99
96) 3-Chlorotoluene	11.225	91	378749	49.03	ug/L	98
97) 4-Chlorotoluene	11.268	91	447886	48.37	ug/L	95
98) 1,3,5-Trimethylbenzene	11.262	105	447588	49.99	ug/L	98
99) tert-Butylbenzene	11.536	119	380539	47.41	ug/L	99
100) 1,2,4-Trimethylbenzene	11.573	105	443072	49.74	ug/L	96
101) 3,4-Dichlorobenzotrifl...	11.634	214	149561	46.92	ug/L	99
102) sec-Butylbenzene	11.719	105	582409	50.54	ug/L	98
103) p-Isopropyltoluene	11.841	119	478659	50.53	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1533.D
Acq On : 22 Feb 2018 10:00 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 22 10:14:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

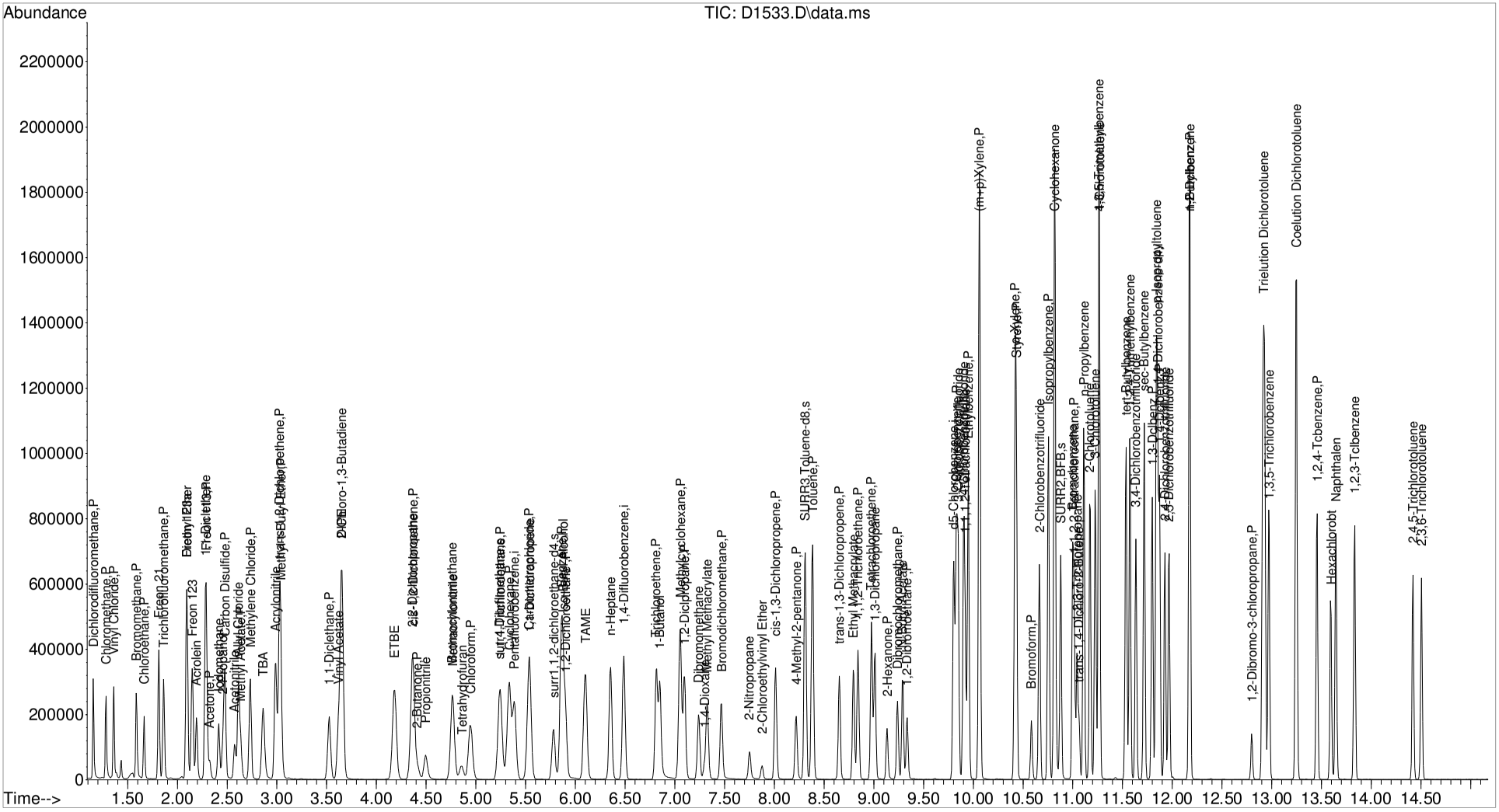
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	263747	47.08	ug/L	96
105) 1,4-Dclbenz	11.871	146	266602	45.16	ug/L	95
106) 2,4-Dichlorobenzotrifl...	11.926	214	136731	46.99	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	155706	48.69	ug/L	96
108) n-Butylbenzene	12.176	91	450676	50.80	ug/L	97
109) 1,2-Dclbenz	12.176	146	263678	46.72	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.798	157	27562	44.15	ug/L	91
111) Trielution Dichlorotol...	12.920	125	691083	147.21	ug/L	99
112) 1,3,5-Trichlorobenzene	12.975	180	206566	48.04	ug/L	99
113) Coelution Dichlorotoluene	13.249	125	497674	99.94	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	196323	47.56	ug/L	100
115) Hexachlorobt	13.597	225	85369	47.57	ug/L	98
116) Naphthalen	13.645	128	445638	47.86	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	186063	46.78	ug/L	95
118) 2,4,5-Trichlorotoluene	14.420	159	122419	47.67	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	116291	51.05	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1533.D
Acq On : 22 Feb 2018 10:00 am
Operator : D.LIPANI
Sample : CCV Inst : MSVOA10
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 22 10:14:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



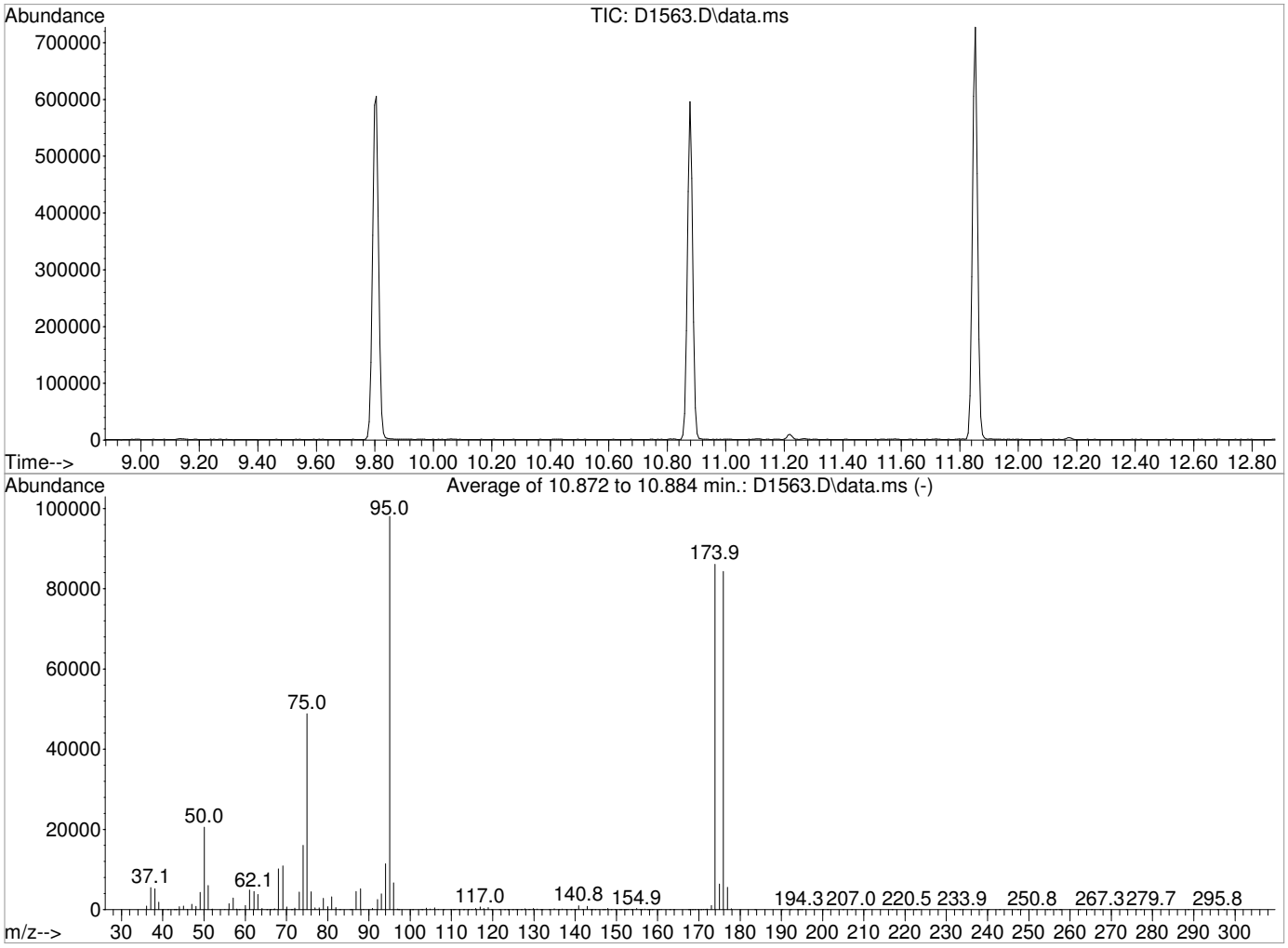
1st DL 02/26/18
2nd FJ 02/26/18

1st BA 02/23/18
2nd DL 02/23/18

Data Path : I:\ACQUDATA\msvoa10\data\022318\
Data File : D1563.D
Acq On : 23 Feb 2018 9:00 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Feb 14 15:09:58 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

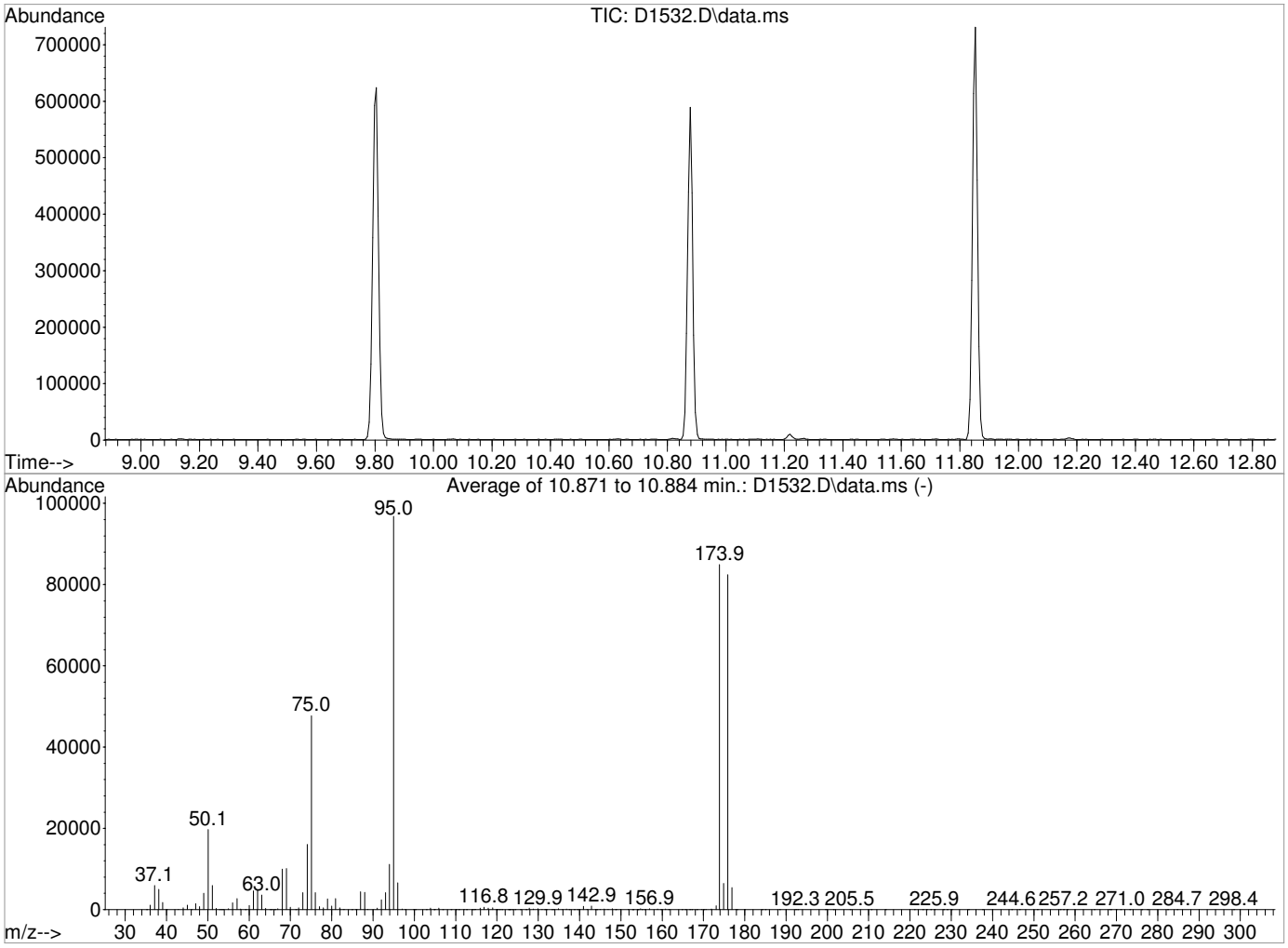
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.0	20579	PASS
75	95	30	60	49.8	48832	PASS
95	95	100	100	100.0	98053	PASS
96	95	5	9	6.8	6679	PASS
173	174	0.00	2	1.2	1054	PASS
174	95	50	120	87.8	86123	PASS
175	174	5	9	7.4	6415	PASS
176	174	95	101	97.9	84304	PASS
177	176	5	9	6.6	5582	PASS

1st DL 02/26/18
2nd FJ 02/26/18

Data Path : I:\ACQUDATA\msvoa10\data\022218\
Data File : D1532.D
Acq On : 22 Feb 2018 9:20 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Feb 14 15:09:58 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	19729	PASS
75	95	30	60	49.3	47733	PASS
95	95	100	100	100.0	96800	PASS
96	95	5	9	6.8	6606	PASS
173	174	0.00	2	1.2	990	PASS
174	95	50	120	87.7	84933	PASS
175	174	5	9	7.6	6465	PASS
176	174	95	101	97.1	82459	PASS
177	176	5	9	6.5	5397	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	232273	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	340229	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	302798	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	172219	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.239	113	101681	48.85	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 97.70%				
46) surr1,1,2-dichloroetha...	5.775	65	119691	49.73	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.46%				
64) SURR3,Toluene-d8	8.305	98	407839	49.72	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.44%				
69) SURR2,BFB	10.878	95	156263	49.18	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 98.36%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	146811	44.09	ug/L		98
3) Chloromethane	1.282	50	162237	44.22	ug/L		97
4) Vinyl Chloride	1.355	62	164949	47.71	ug/L		97
5) Bromomethane	1.581	94	118709	47.69	ug/L		98
6) Chloroethane	1.660	64	97463	44.64	ug/L		96
7) Freon 21	1.812	67	257013	48.32	ug/L		98
8) Trichlorofluoromethane	1.861	101	193348	49.21	ug/L		98
9) Diethyl Ether	2.093	59	105960	46.69	ug/L		98
10) Freon 123a	2.093	67	161529	52.45	ug/L		99
11) Freon 123	2.148	83	169831	48.18	ug/L		95
12) Acrolein	2.190	56	48671	74.96	ug/L		95
13) 1,1-Diclethene	2.282	96	105380	46.33	ug/L		89
14) Freon 113	2.288	101	110473	44.47	ug/L		92
15) Acetone	2.324	43	54546	45.00	ug/L		93
16) 2-Propanol	2.459	45	178398	916.26	ug/L		99
17) Iodomethane	2.416	142	151329	45.67	ug/L		95
18) Carbon Disulfide	2.477	76	307640	48.38	ug/L		99
19) Acetonitrile	2.574	40	57807	236.92	ug/L		94
20) Allyl Chloride	2.611	76	58335	49.96	ug/L	#	78
21) Methyl Acetate	2.635	43	109364	44.74	ug/L		98
22) Methylene Chloride	2.727	84	120072	46.65	ug/L		94
23) TBA	2.861	59	259746	902.80	ug/L		89
24) Acrylonitrile	2.983	53	287838	232.38	ug/L		100
25) Methyl-t-Butyl Ether	3.032	73	339231	47.26	ug/L		96
26) trans-1,2-Dichloroethene	3.026	96	117600	46.96	ug/L		94
27) 1,1-Diclethane	3.525	63	213190	47.93	ug/L		99
28) Vinyl Acetate	3.617	86	24981	48.69	ug/L	#	87
29) DIPE	3.647	45	397292	47.83	ug/L		91
30) 2-Chloro-1,3-Butadiene	3.647	53	192806	49.55	ug/L		88
31) ETBE	4.178	59	321379	48.58	ug/L		97
32) 2,2-Dichloropropane	4.361	77	127937	50.99	ug/L		99
33) cis-1,2-Dichloroethene	4.367	96	131987	48.28	ug/L	#	82
34) 2-Butanone	4.409	43	72525	43.93	ug/L		99
35) Propionitrile	4.489	54	112007	221.77	ug/L		96
36) Bromochloromethane	4.763	130	80887	47.43	ug/L		98
37) Methacrylonitrile	4.763	67	57634	47.78	ug/L		90
38) Tetrahydrofuran	4.854	42	41831	44.04	ug/L		98
39) Chloroform	4.946	83	205736	47.83	ug/L		98
40) 1,1,1-Trichloroethane	5.245	97	159312	49.92	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.330	41	114734	47.77	ug/L	95
44) Carbontetrachloride	5.525	117	124460	51.24	ug/L	97
45) 1,1-Dichloropropene	5.537	75	164306	48.03	ug/L	96
47) Benzene	5.860	78	481121	48.33	ug/L	98
48) 1,2-Dichloroethane	5.897	62	169079	49.47	ug/L	95
49) Iso-Butyl Alcohol	5.879	43	122516	821.51	ug/L	97
50) TAME	6.098	73	305072	50.49	ug/L	98
51) n-Heptane	6.348	43	165991	49.24	ug/L	100
52) 1-Butanol	6.848	56	186428	2156.45	ug/L	97
53) Trichloroethene	6.811	130	125724	46.74	ug/L	94
54) Methylcyclohexane	7.049	55	160504	50.24	ug/L	93
55) 1,2-Diclpropane	7.098	63	126094	48.35	ug/L	99
56) Dibromomethane	7.238	93	77308	47.53	ug/L	93
57) 1,4-Dioxane	7.299	88	39456	945.05	ug/L	92
58) Methyl Methacrylate	7.324	69	95267	49.05	ug/L	98
59) Bromodichloromethane	7.464	83	149174	49.84	ug/L	96
60) 2-Nitropropane	7.750	41	48212	87.25	ug/L	100
61) 2-Chloroethylvinyl Ether	7.872	63	25807	41.75	ug/L	98
62) cis-1,3-Dichloropropene	8.012	75	182995	52.81	ug/L	99
63) 4-Methyl-2-pentanone	8.220	43	130523	45.58	ug/L	99
65) Toluene	8.384	91	518977	48.94	ug/L	99
66) trans-1,3-Dichloropropene	8.653	75	150724	49.30	ug/L	98
67) Ethyl Methacrylate	8.793	69	172067	53.30	ug/L	96
68) 1,1,2-Trichloroethane	8.841	97	113765	49.15	ug/L	95
71) Tetrachloroethene	8.976	164	102600	48.54	ug/L	96
72) 2-Hexanone	9.134	43	95328	43.46	ug/L	97
73) 1,3-Dichloropropane	9.012	76	197370	47.41	ug/L	99
74) Dibromochloromethane	9.238	129	111030	50.48	ug/L	99
75) N-Butyl Acetate	9.287	43	204944	49.31	ug/L	96
76) 1,2-Dibromoethane	9.335	107	115175	49.55	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	191729	47.63	ug/L	95
78) Chlorobenzene	9.829	112	339070	48.24	ug/L	97
79) 4-Chlorobenzotrifluoride	9.902	180	171450	48.37	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.914	131	109643	50.80	ug/L	98
81) Ethylbenzene	9.951	106	179884	49.20	ug/L	93
82) (m+p)Xylene	10.061	106	444717	99.03	ug/L	93
83) o-Xylene	10.420	106	217144	50.38	ug/L	99
84) Styrene	10.433	104	370776	50.43	ug/L	99
85) Bromoform	10.585	173	73483	50.39	ug/L	87
86) 2-Chlorobenzotrifluoride	10.664	180	185728	48.03	ug/L	98
87) Isopropylbenzene	10.756	105	563493	49.52	ug/L	99
88) Cyclohexanone	10.817	55	525697	713.16	ug/L	99
89) trans-1,4-Dichloro-2-B...	11.061	53	37167	51.29	ug/L	94
91) 1,1,2,2-Tetrachloroethane	11.012	83	166731	47.47	ug/L	98
92) Bromobenzene	11.000	156	149364	48.91	ug/L	91
93) 1,2,3-Trichloropropane	11.042	110	46856	43.90	ug/L	97
94) n-Propylbenzene	11.109	91	683806	49.60	ug/L	99
95) 2-Chlorotoluene	11.170	91	413620	49.89	ug/L	100
96) 3-Chlorotoluene	11.225	91	401953	49.40	ug/L	98
97) 4-Chlorotoluene	11.268	91	478595	49.06	ug/L	95
98) 1,3,5-Trimethylbenzene	11.262	105	487787	51.72	ug/L	99
99) tert-Butylbenzene	11.536	119	409744	48.46	ug/L	97
100) 1,2,4-Trimethylbenzene	11.573	105	480481	51.21	ug/L	98
101) 3,4-Dichlorobenzotrifl...	11.634	214	162247	48.32	ug/L	99
102) sec-Butylbenzene	11.719	105	622520	51.28	ug/L	98
103) p-Isopropyltoluene	11.841	119	528603	52.98	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration

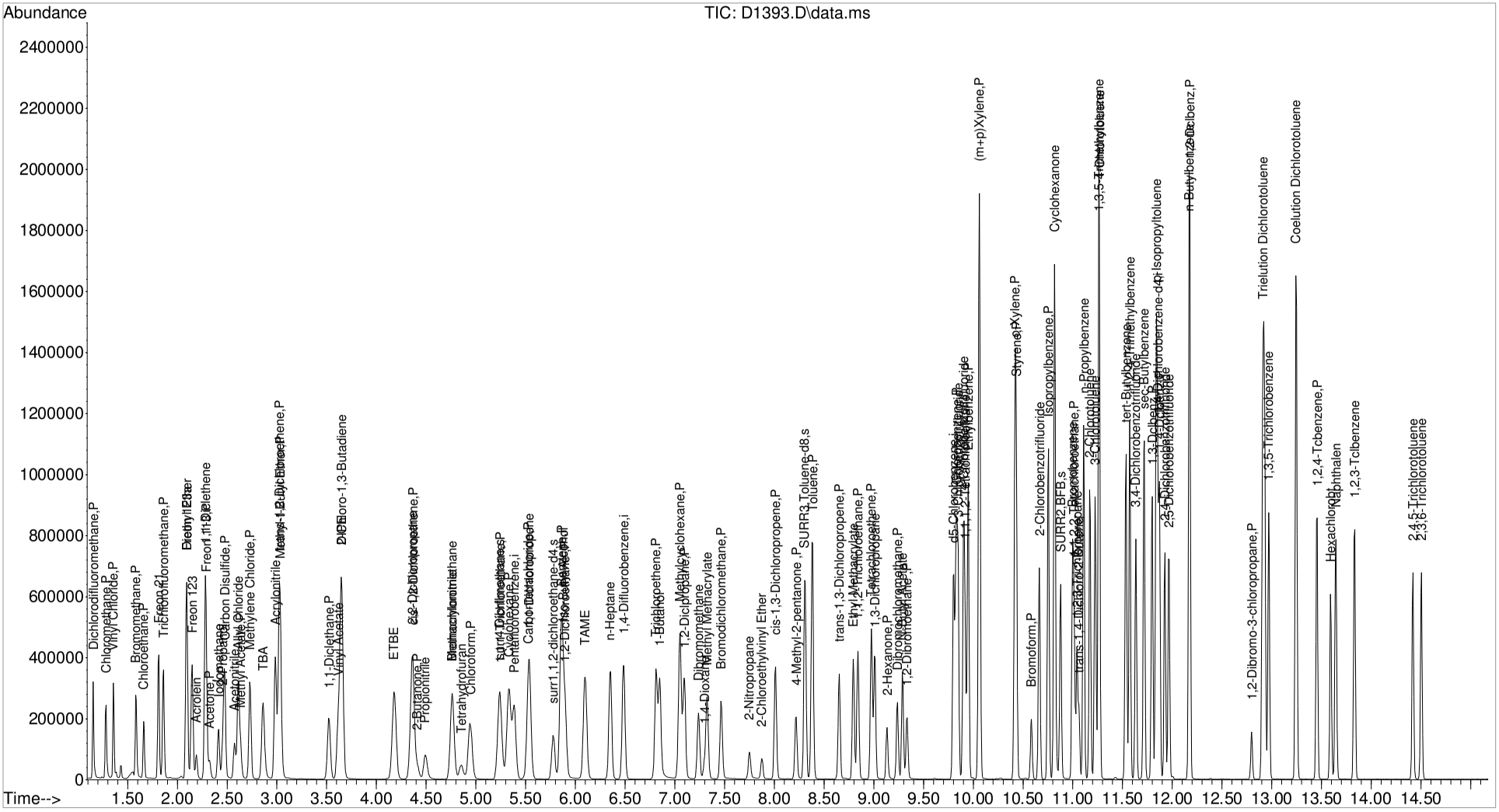
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	288870	48.95	ug/L	97
105) 1,4-Dclbenz	11.871	146	294082	47.28	ug/L	98
106) 2,4-Dichlorobenzotrifl...	11.926	214	144954	47.29	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	164250	48.76	ug/L	96
108) n-Butylbenzene	12.170	91	494041	52.73	ug/L	97
109) 1,2-Dclbenz	12.176	146	288242	48.48	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	32349	48.81	ug/L	97
111) Trielution Dichlorotol...	12.914	125	735485	148.73	ug/L	95
112) 1,3,5-Trichlorobenzene	12.969	180	215521	47.58	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	530543	101.14	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	214600	49.35	ug/L	98
115) Hexachlorobt	13.591	225	92191	48.76	ug/L	99
116) Naphthalen	13.645	128	491670	50.13	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	206455	49.27	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	136983	50.63	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	126835	52.85	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1393.D
Acq On : 12 Feb 2018 7:04 pm
Operator : D.LIPANI
Sample : ICV Inst : MSVOA10
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 14 14:56:25 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 14:56:18 2018
Response via : Initial Calibration



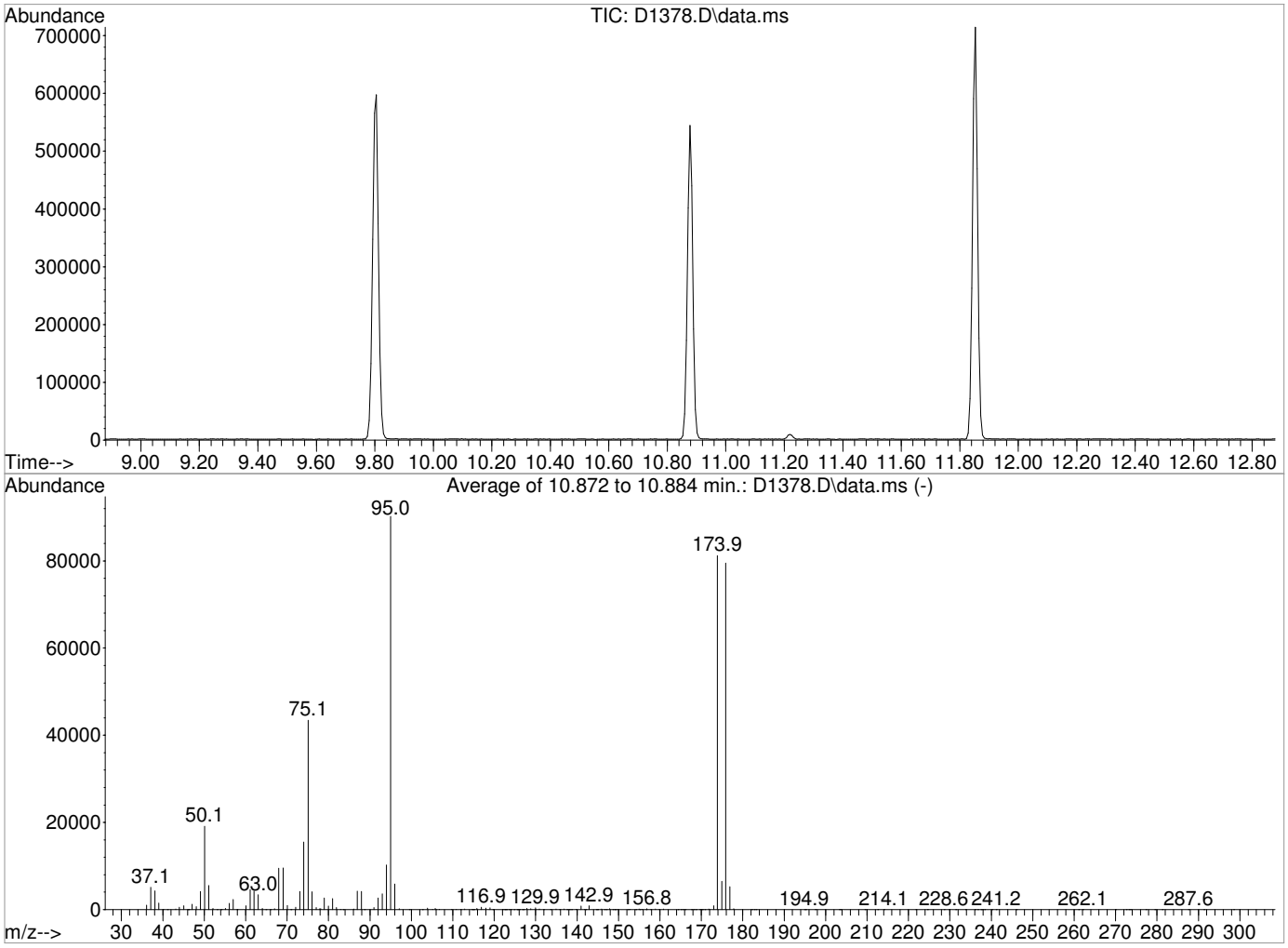
1st DL 02/14/18
2nd FJ 02/15/18

1st DL 02/14/18
2nd FJ 02/15/18

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1378.D
Acq On : 12 Feb 2018 11:27 am
Operator : D.LIPANI
Sample : TUNE CHECK Inst : MSVOA10
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Title : MS#10 - 8260B WATERS 5.0mL Purge
Last Update : Wed Feb 14 15:09:58 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.2	19139	PASS
75	95	30	60	48.2	43459	PASS
95	95	100	100	100.0	90208	PASS
96	95	5	9	6.5	5879	PASS
173	174	0.00	2	1.1	893	PASS
174	95	50	120	90.0	81211	PASS
175	174	5	9	8.0	6515	PASS
176	174	95	101	97.9	79496	PASS
177	176	5	9	6.6	5245	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1380.D
Acq On : 12 Feb 2018 12:24 pm
Operator : D.LIPANI
Sample : INST BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 14 16:30:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration

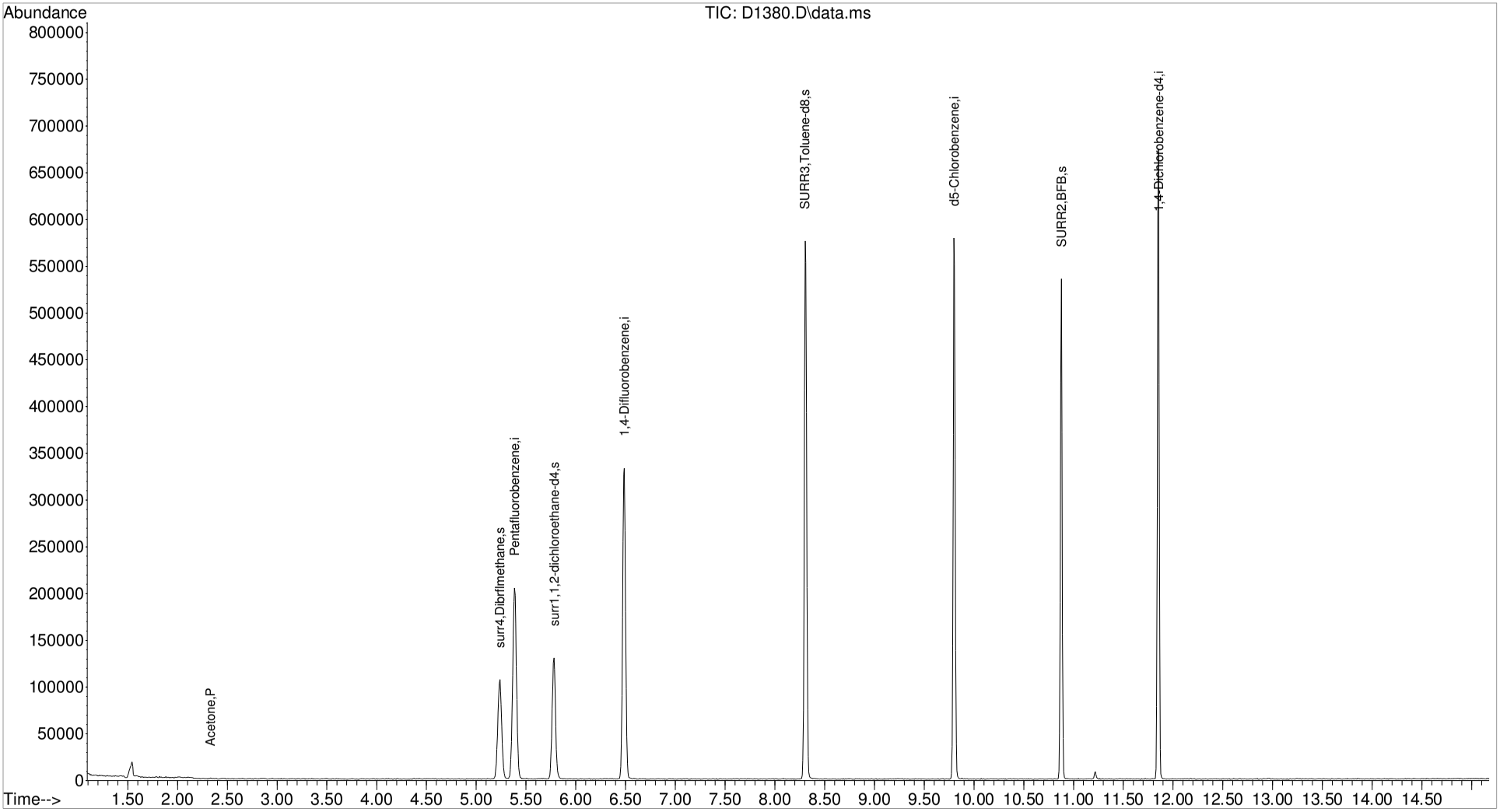
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	199127	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	296365	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.798	117	258923	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	134685	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	87580	48.30	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 96.60%			
46) surr1,1,2-dichloroetha...	5.781	65	104017	49.62	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.24%			
64) SURR3,Toluene-d8	8.305	98	355946	49.81	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.62%			
69) SURR2,BFB	10.877	95	125569	45.37	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 90.74%			
Target Compounds						Qvalue
15) Acetone	2.330	43	469	0.45	ug/L	75

(#) = qualifier out of range (m) = manual integration (+) = signals summed

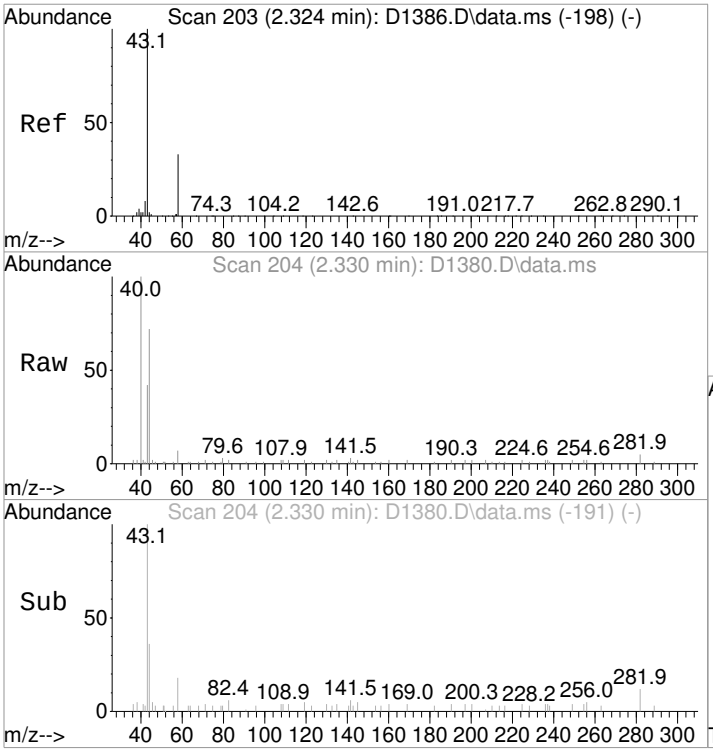
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1380.D
Acq On : 12 Feb 2018 12:24 pm
Operator : D.LIPANI
Sample : INST BLK Inst : MSVOA10
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 14 16:30:10 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 15:09:58 2018
Response via : Initial Calibration



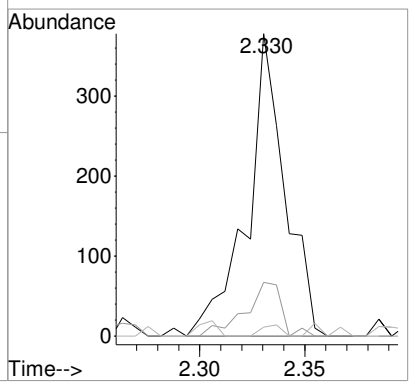
1st DL 02/14/18
2nd FJ 02/15/18



#15
Acetone
Concen: 0.45 ug/L
RT: 2.330 min Scan# 204
Delta R.T. 0.006 min
Lab File: D1380.D
Acq: 12 Feb 2018 12:24 pm

Tgt Ion: 43 Resp: 469

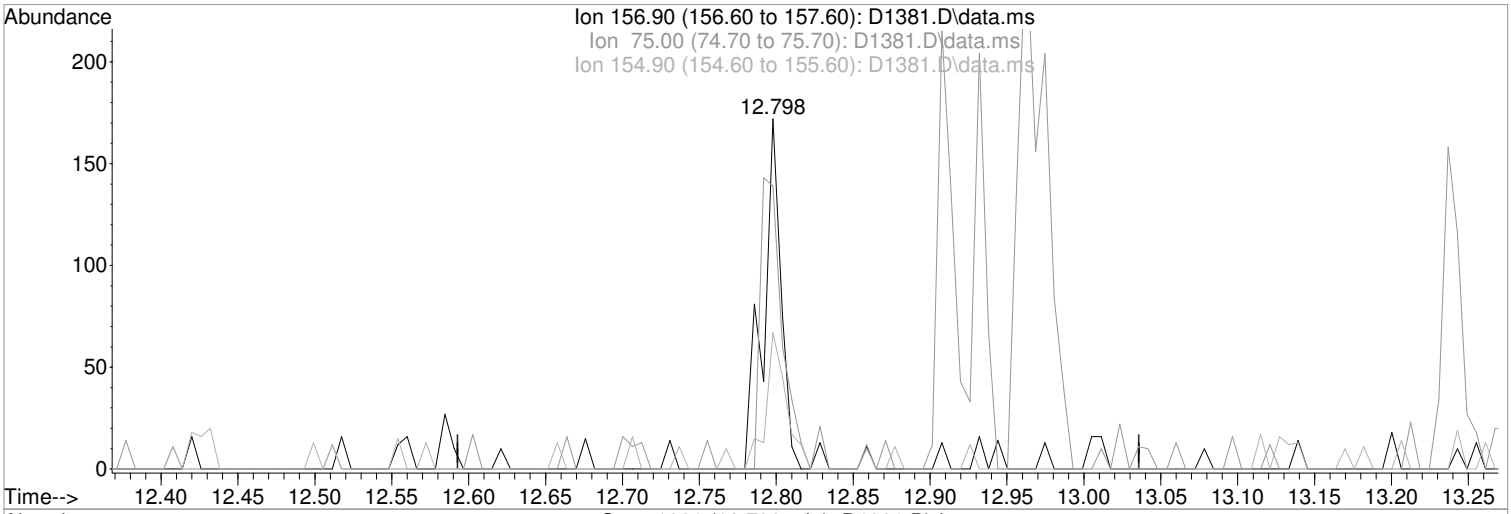
Ion	Ratio	Lower	Upper
43	100		
58	17.7	12.8	52.8
42	2.9	0.0	30.0

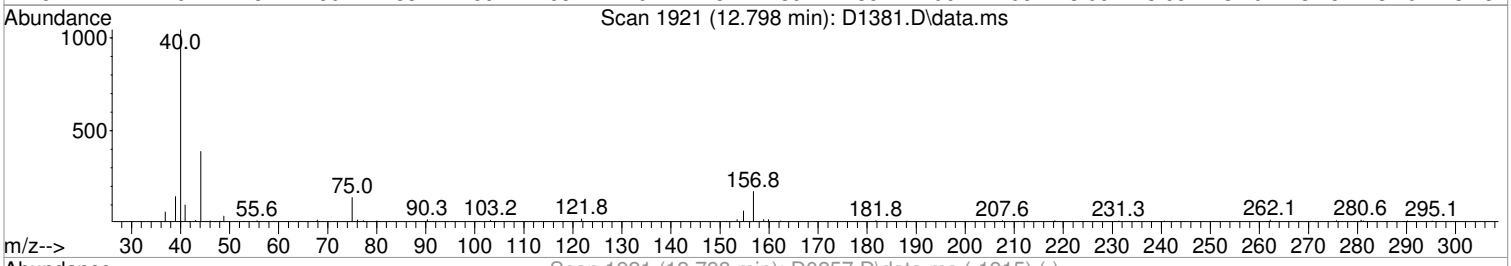


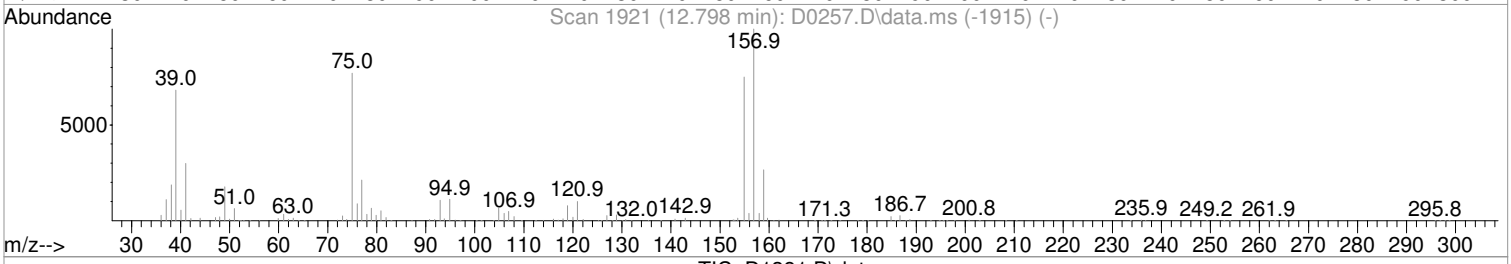
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(110) 1,2-Dibromo-3-chloropropane (P)

12.798min (-0.000) 0.82 ug/L m

response 140

Ion	Exp%	Act%
156.90	100	100
75.00	77.20	80.81
154.90	75.00	38.95#
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

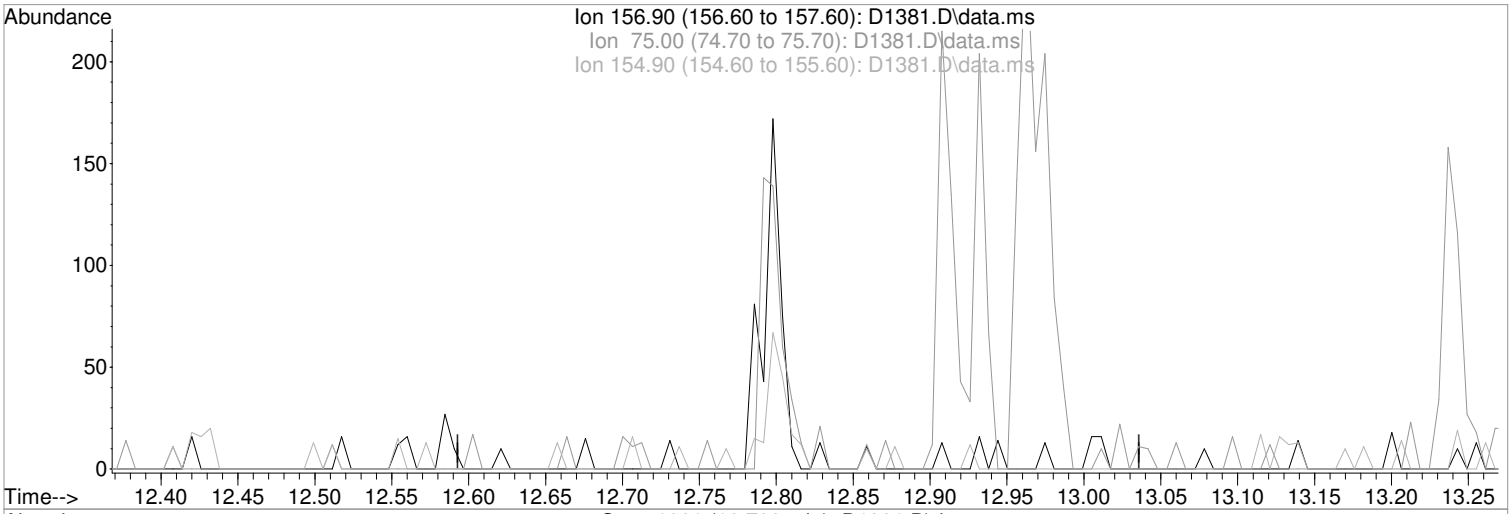
02/14/18

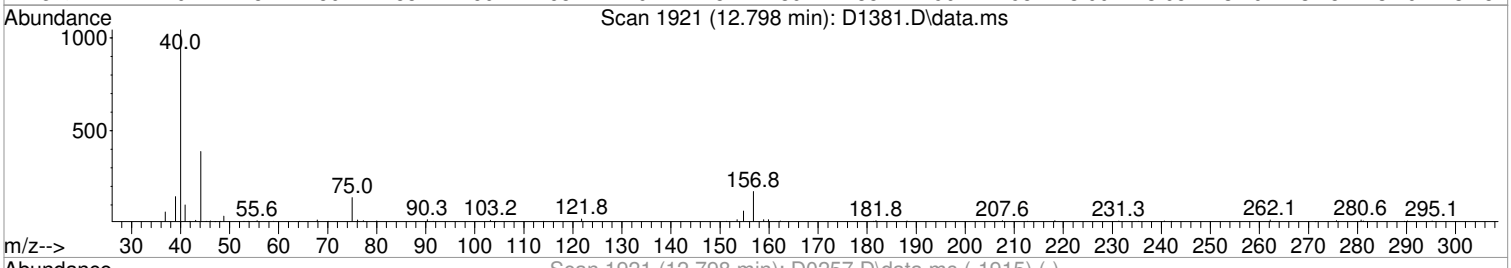
1st DL 02/14/18
2nd FW 02/15/18

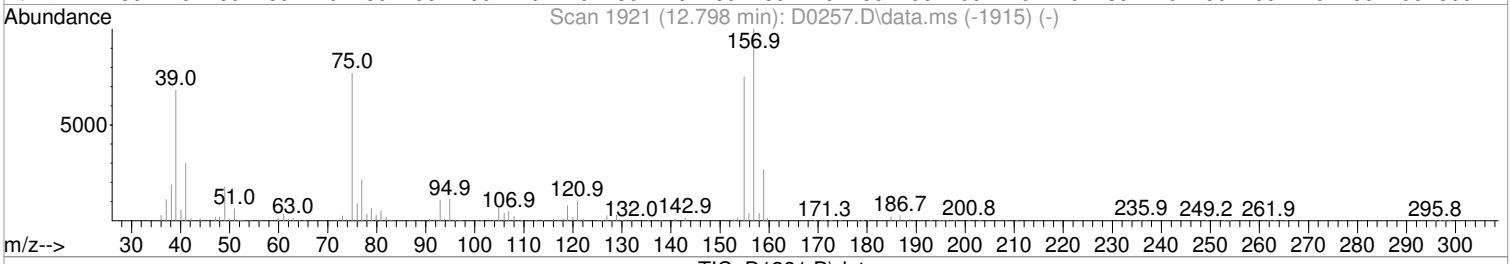
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(110) 1,2-Dibromo-3-chloropropane (P)

12.798min (-12.798) 0.00 ug/L

response 0

Ion	Exp%	Act%
156.90	100	0.00
75.00	77.20	0.00#
154.90	75.00	0.00#
0.00	0.00	0.00

Manual Integration:

Before

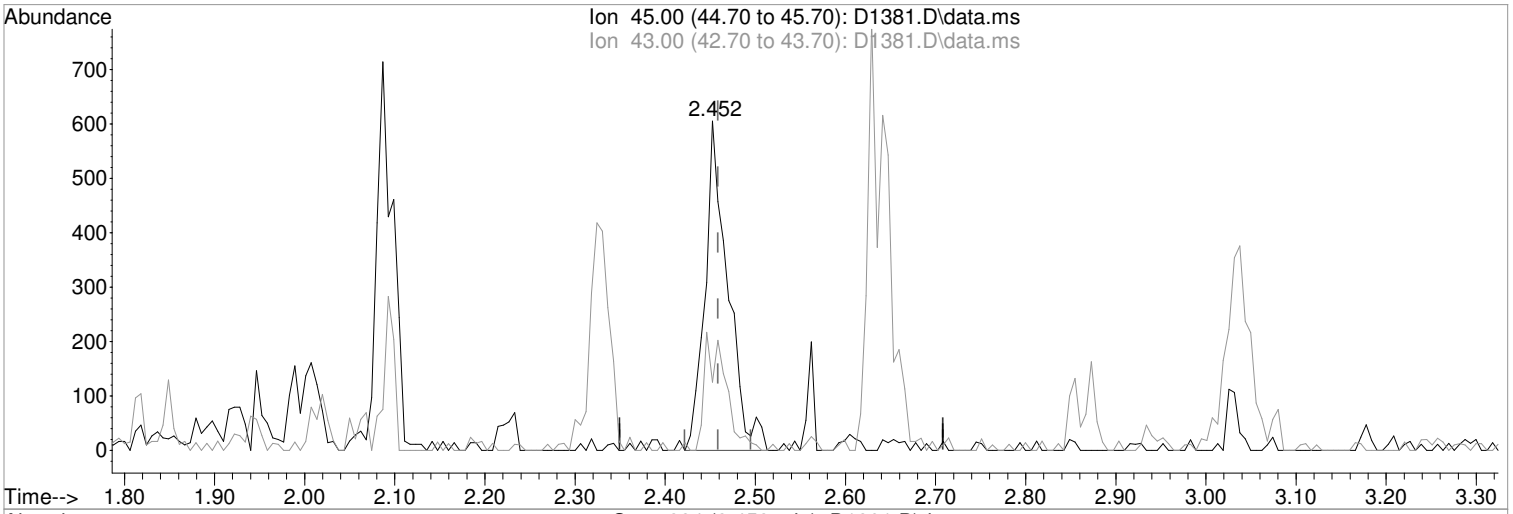
02/14/18

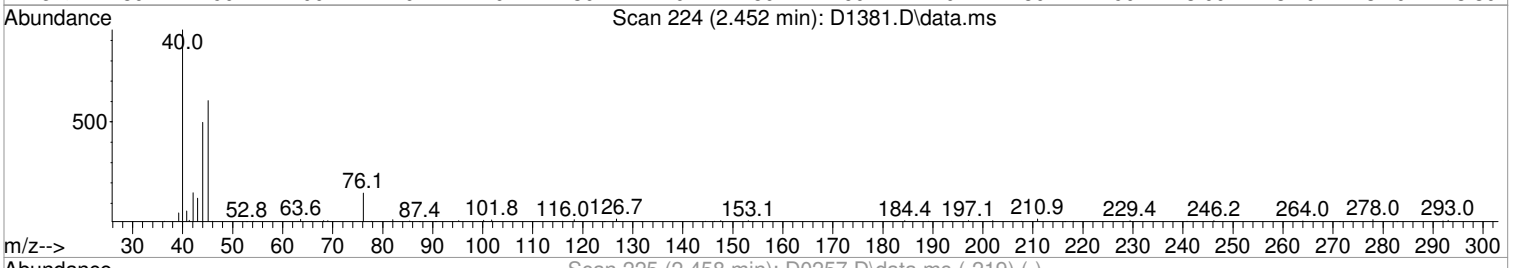
1st DL 02/14/18
2nd FJ 02/15/18

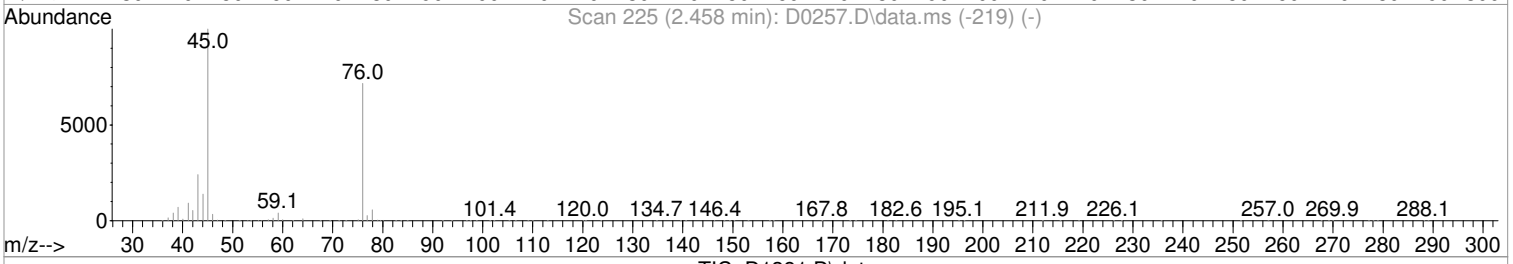
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(16) 2-Propanol

2.452min (-0.006) 7.54 ug/L m

response 1063

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	20.66
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

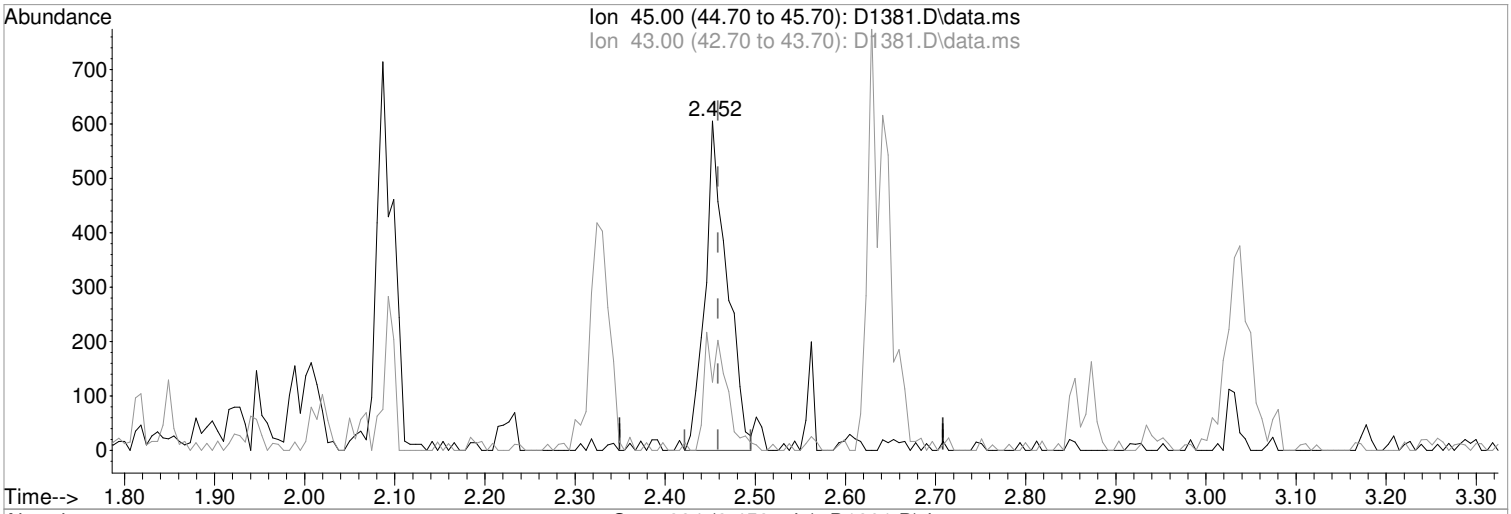
Poor integration.

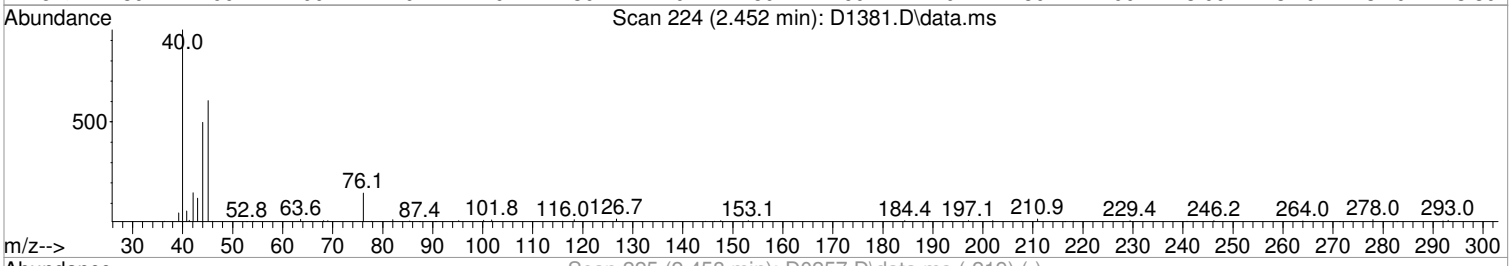
02/14/18

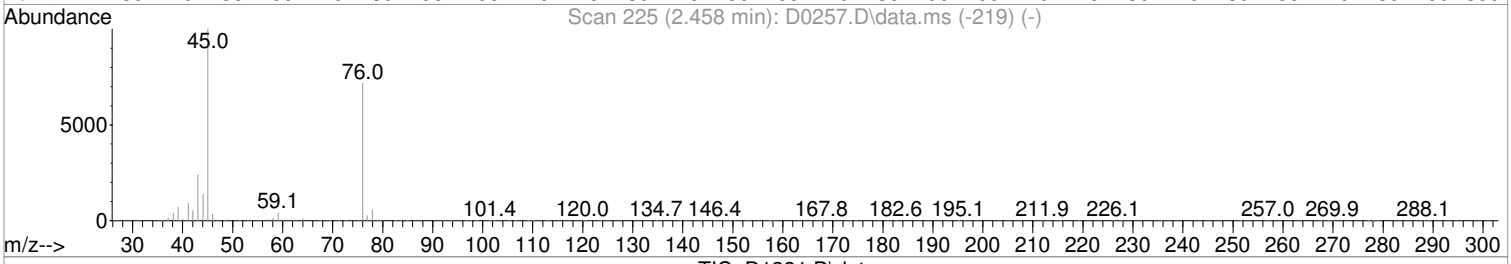
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(16) 2-Propanol

2.452min (-0.006) 7.27 ug/L

response 1025

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	20.66
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

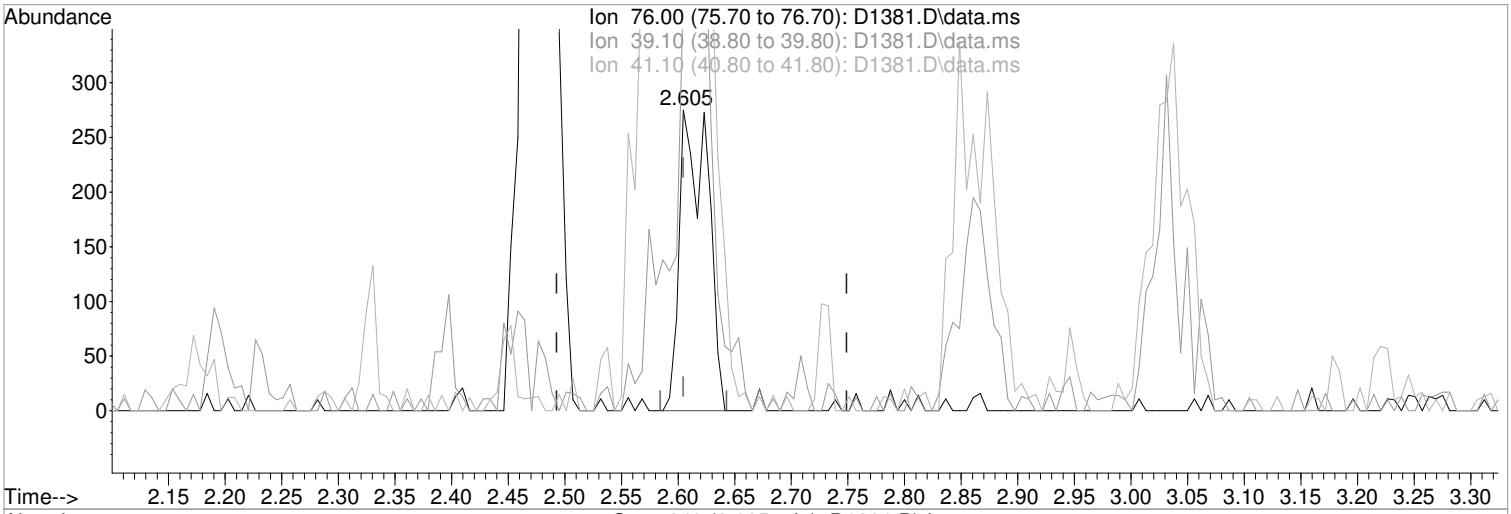
02/14/18

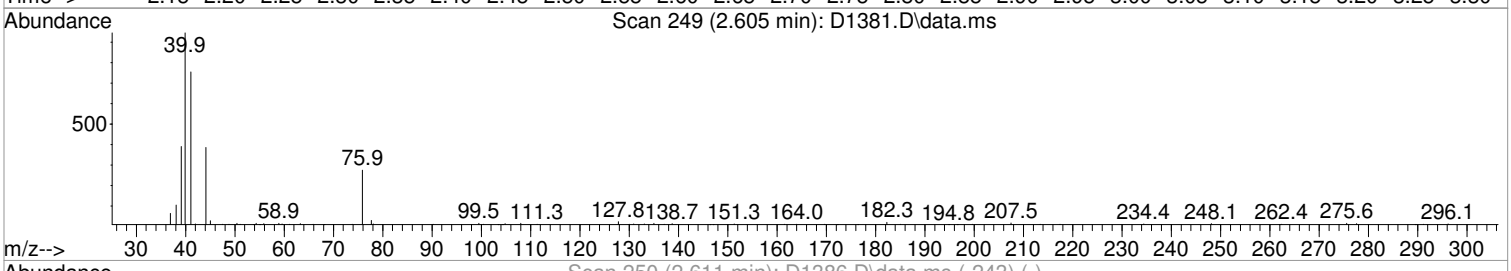
1st DL 02/14/18
2nd FW 02/15/18

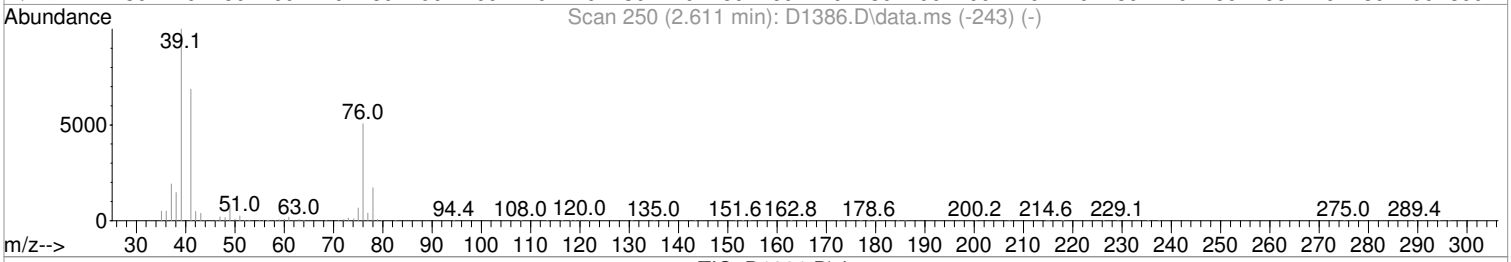
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(20) Allyl Chloride

2.605min (-0.000) 0.48 ug/L m

response 473

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	142.18#
41.10	256.10	274.91
0.00	0.00	0.00

Manual Integration:

After

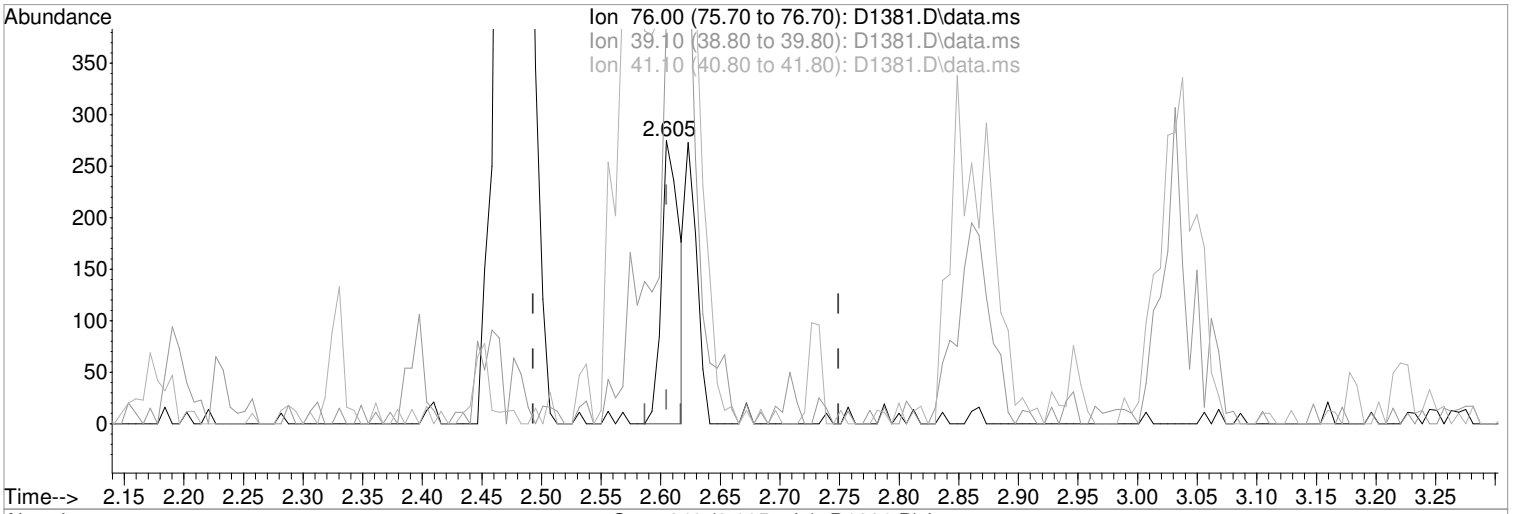
Poor integration.

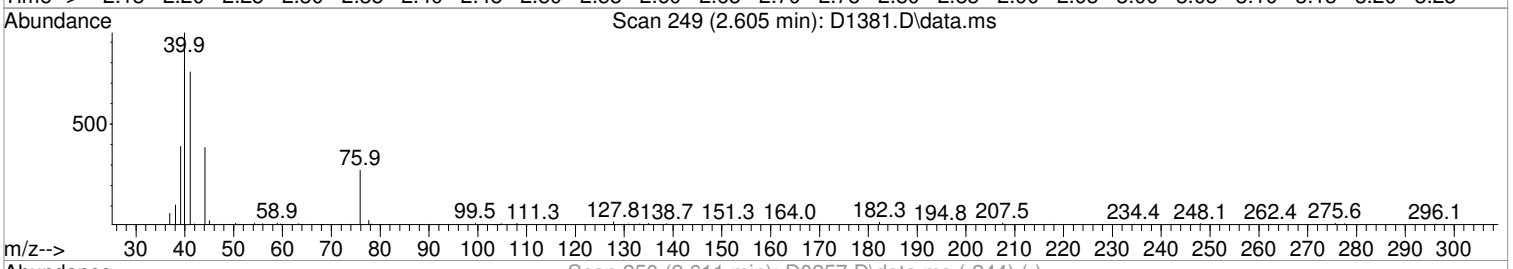
02/14/18

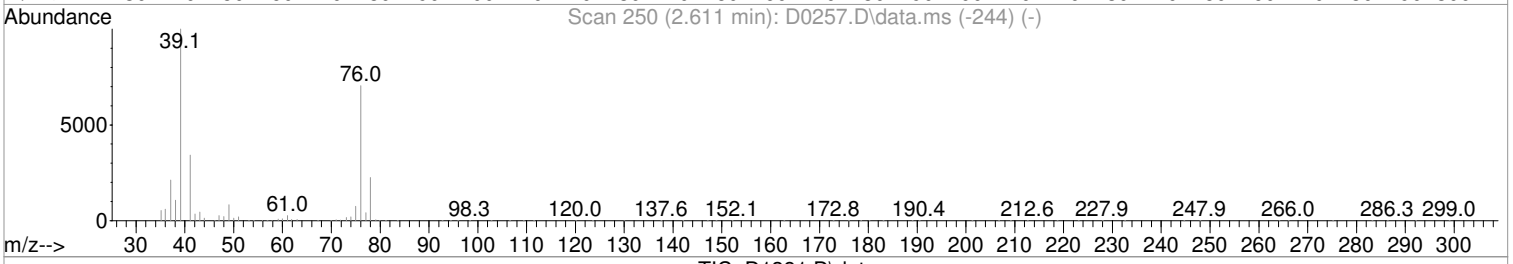
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(20) Allyl Chloride

2.605min (-0.000) 0.29 ug/L

response 287

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	142.18#
41.10	256.10	274.91
0.00	0.00	0.00

Manual Integration:

Before

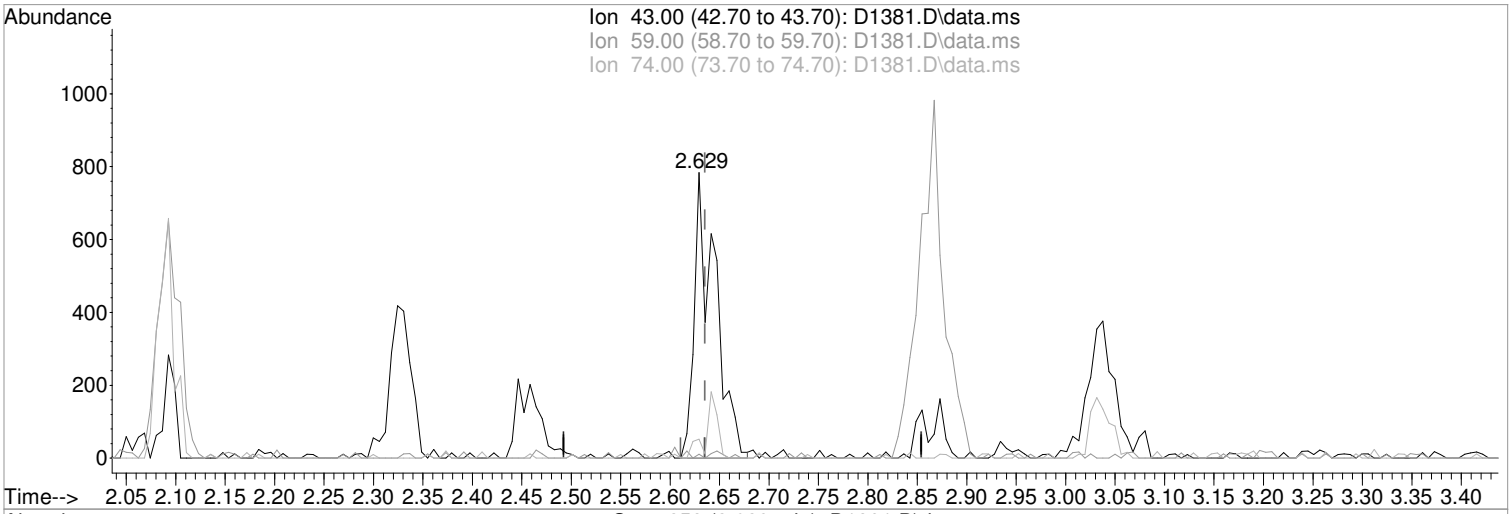
02/14/18

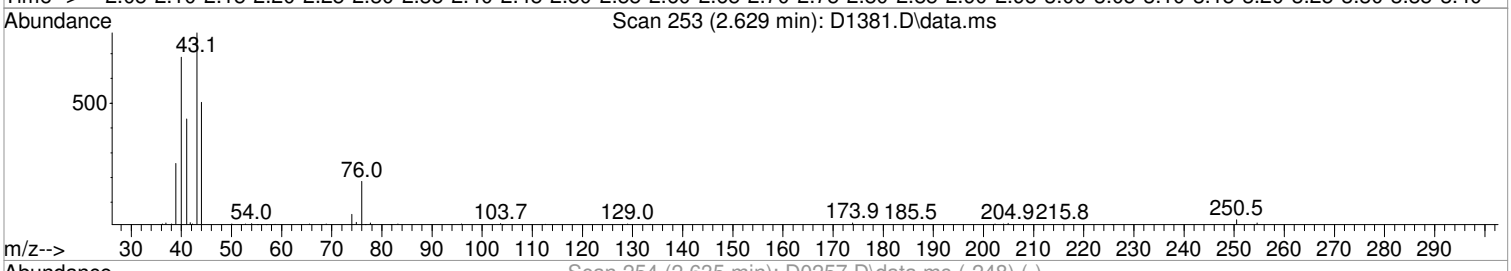
1st DL 02/14/18
2nd FJ 02/15/18

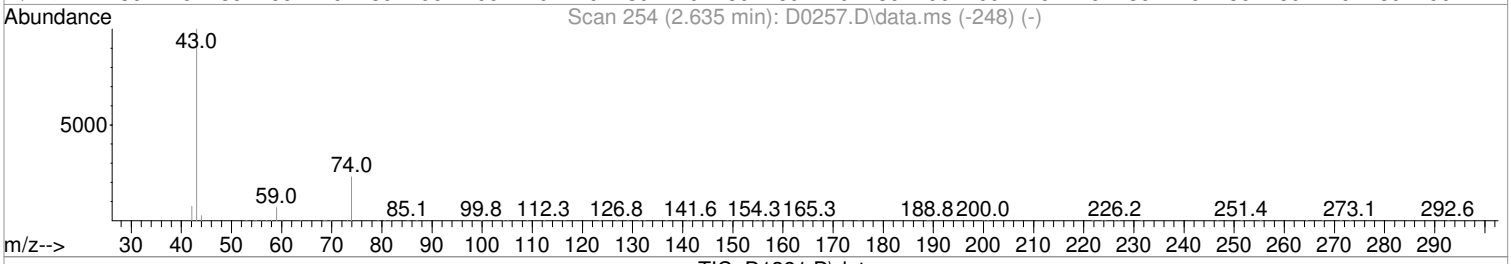
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(21) Methyl Acetate (P)

2.629min (-0.006) 0.60 ug/L m

response 1156

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	1.40
74.00	22.70	6.63
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

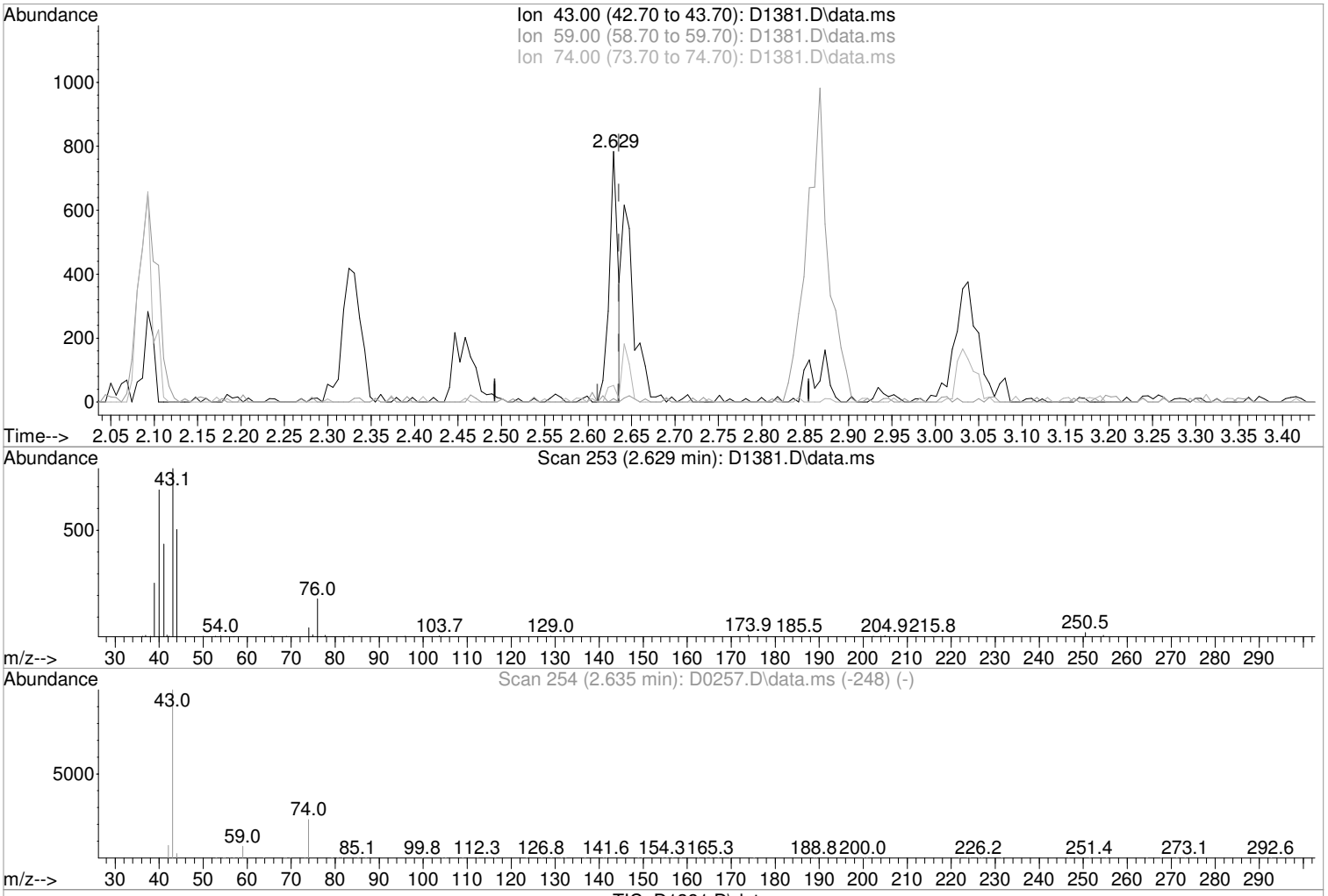
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(21) Methyl Acetate (P)

2.629min (-0.006) 0.29 ug/L

response 552

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	1.40
74.00	22.70	6.63
0.00	0.00	0.00

Manual Integration:

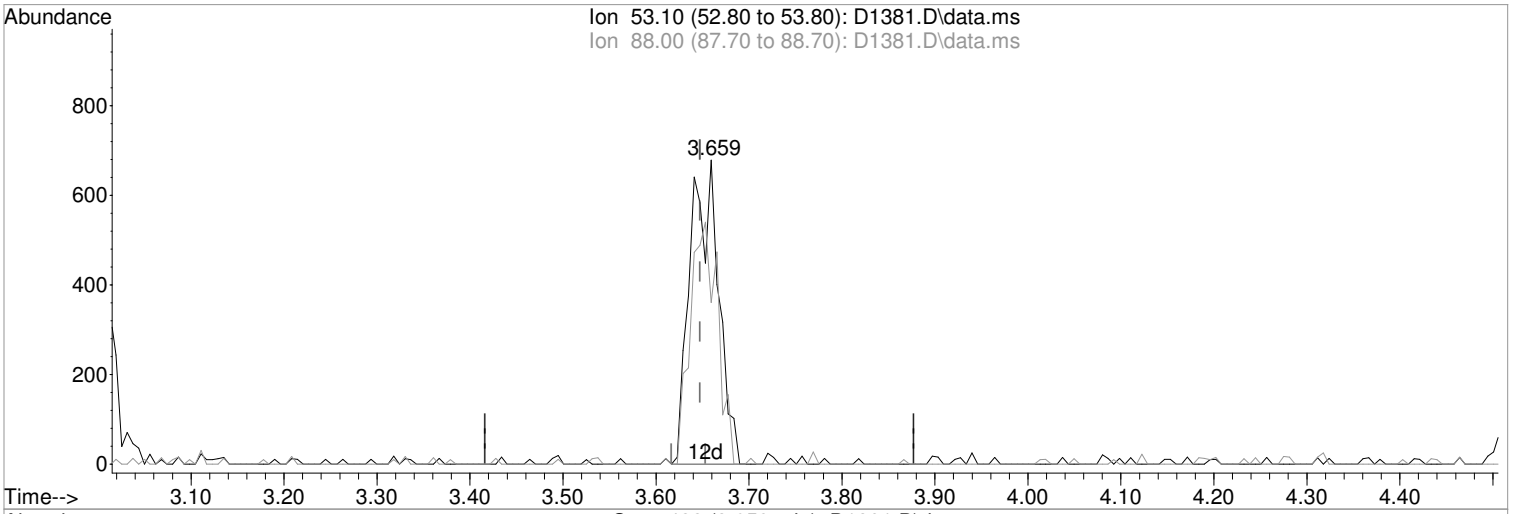
Before

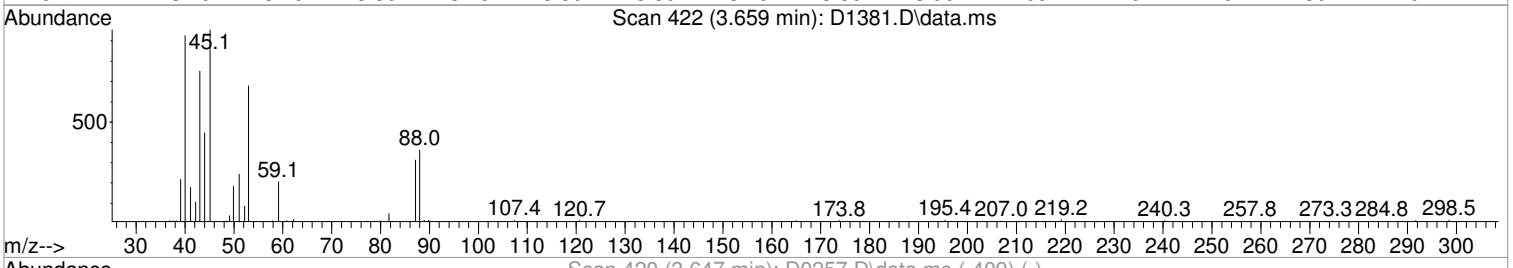
02/14/18

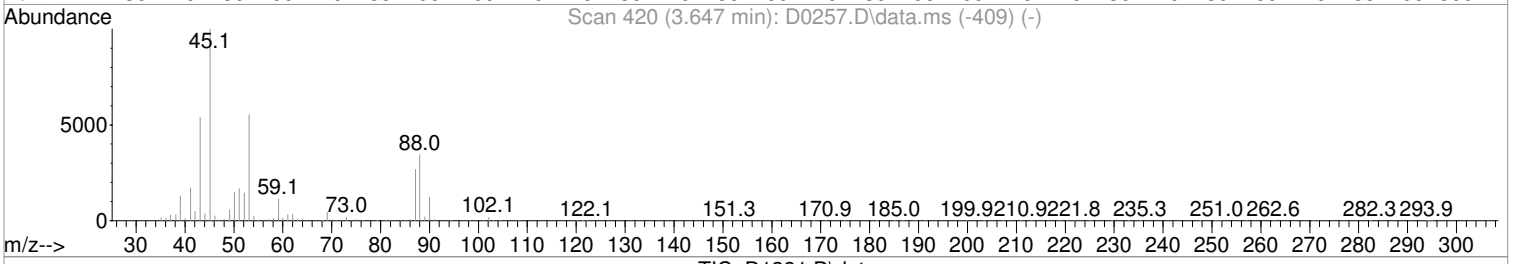
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(30) 2-Chloro-1,3-Butadiene

3.659min (+0.012) 0.45 ug/L m

response 1437

Ion	Exp%	Act%
53.10	100	100
88.00	62.40	53.17
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

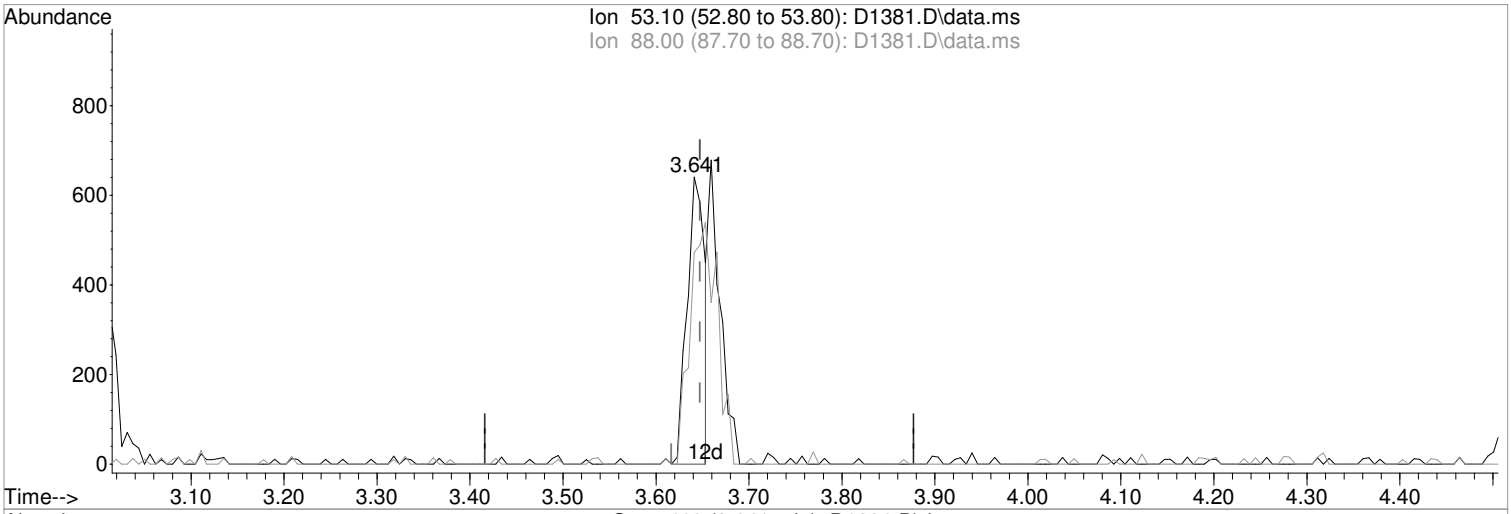
Poor integration.

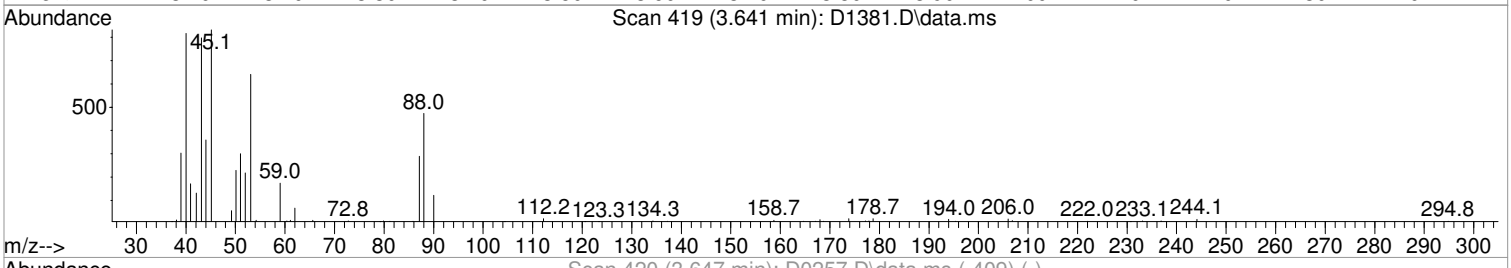
02/14/18

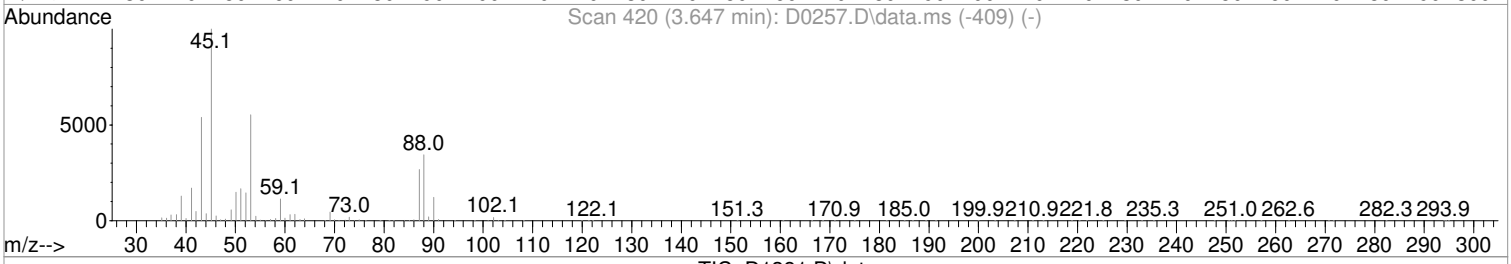
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(30) 2-Chloro-1,3-Butadiene

3.641min (-0.006) 0.27 ug/L

response 848

Ion	Exp%	Act%
53.10	100	100
88.00	62.40	73.79
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

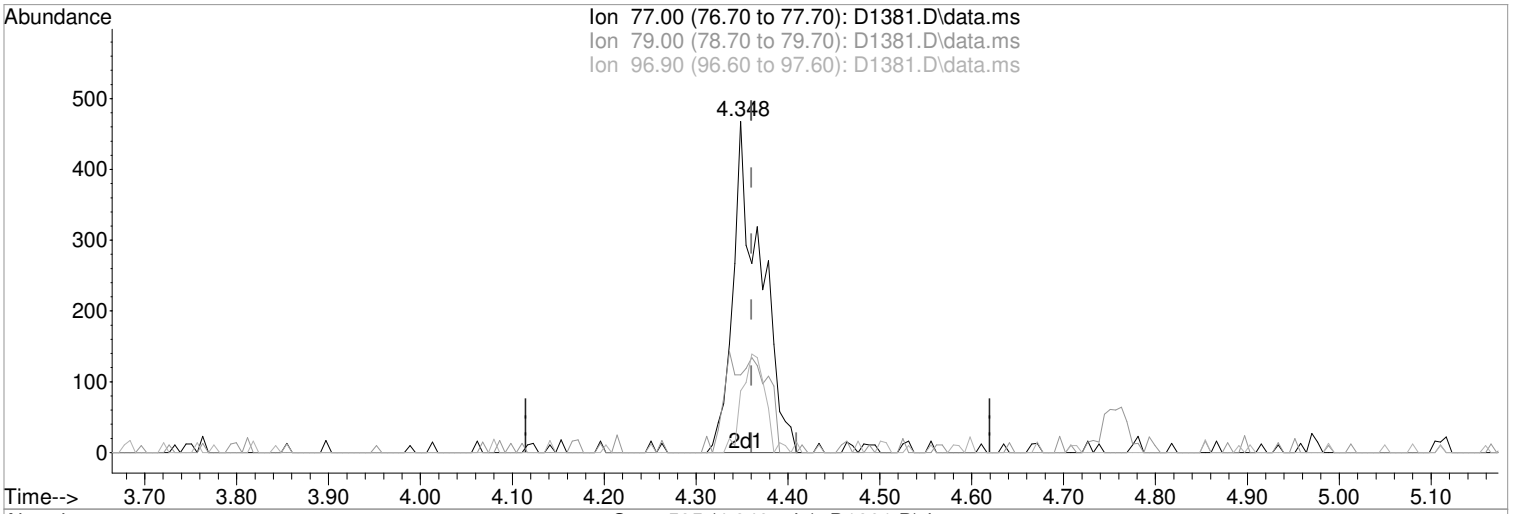
Before

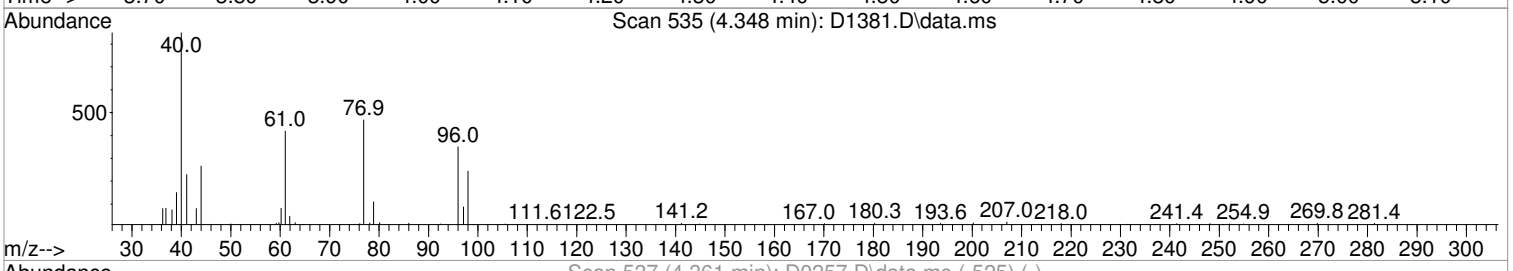
02/14/18

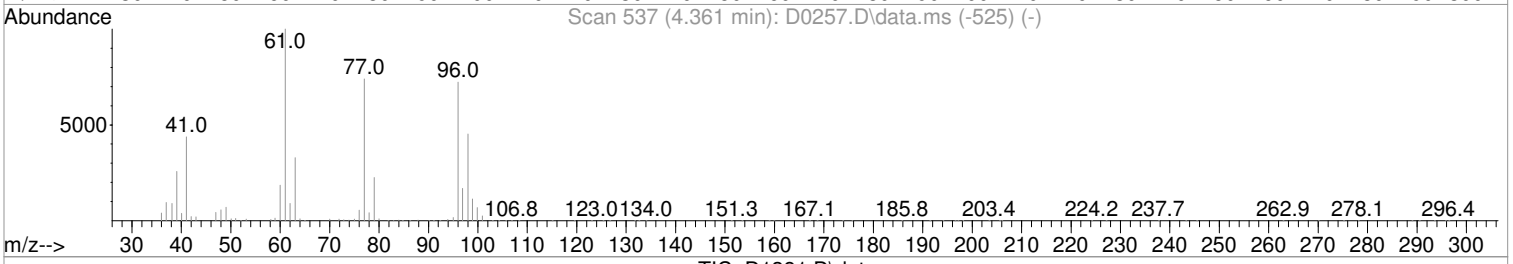
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(32) 2,2-Dichloropropane

4.348min (-0.012) 0.51 ug/L m

response 981

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	23.50
96.90	22.80	18.59
0.00	0.00	0.00

Manual Integration:

After

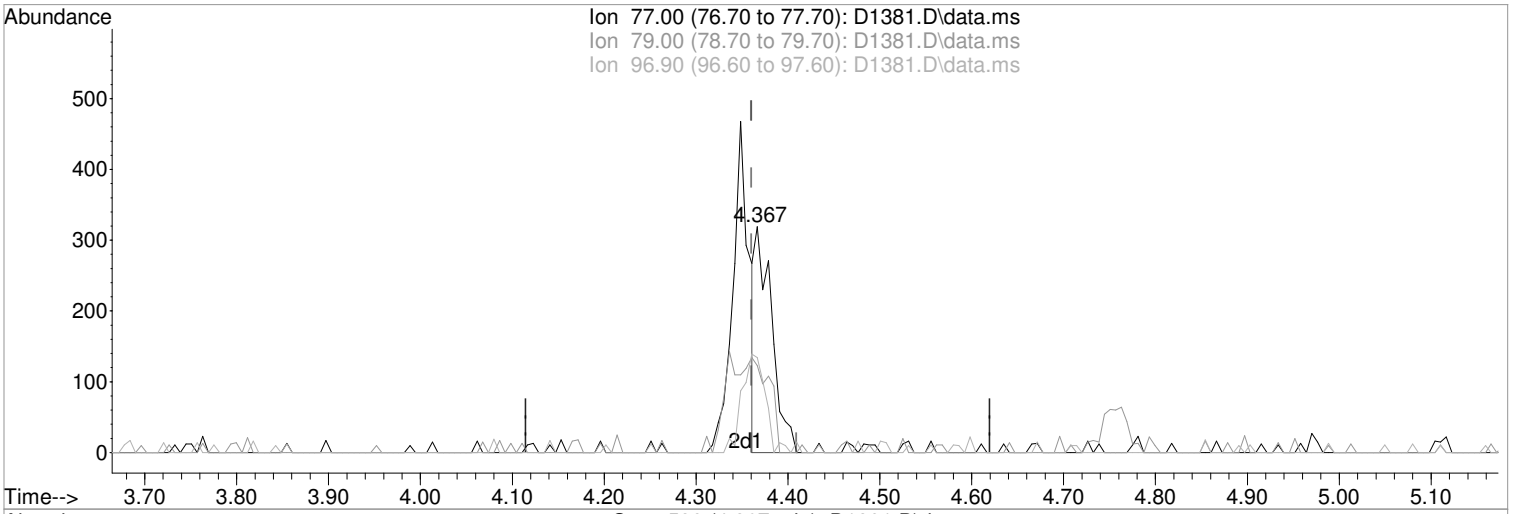
Poor integration.

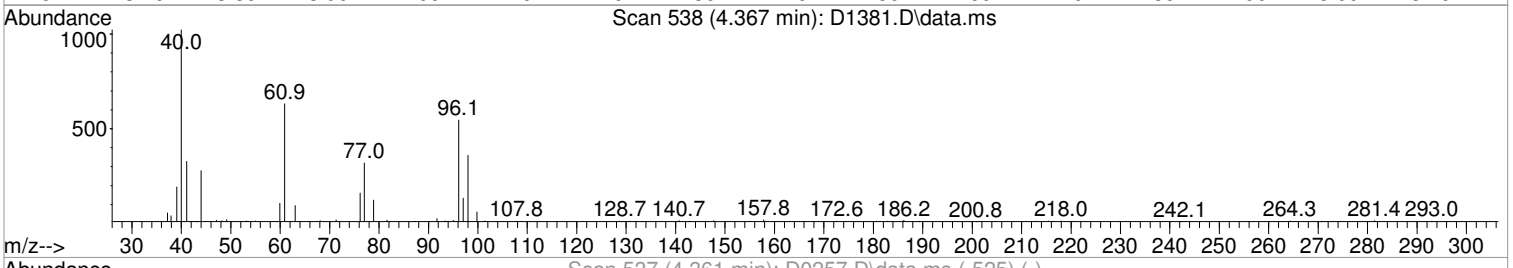
02/14/18

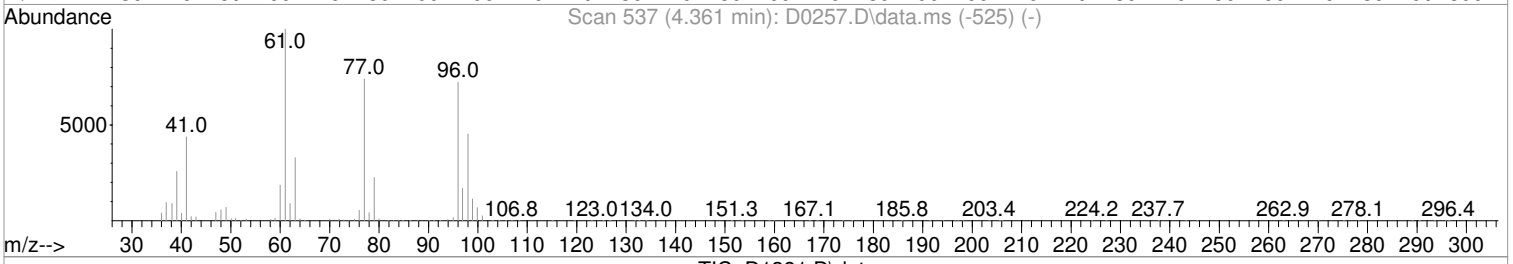
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(32) 2,2-Dichloropropane

4.367min (+0.006) 0.21 ug/L

response 406

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	38.56
96.90	22.80	42.01
0.00	0.00	0.00

Manual Integration:

Before

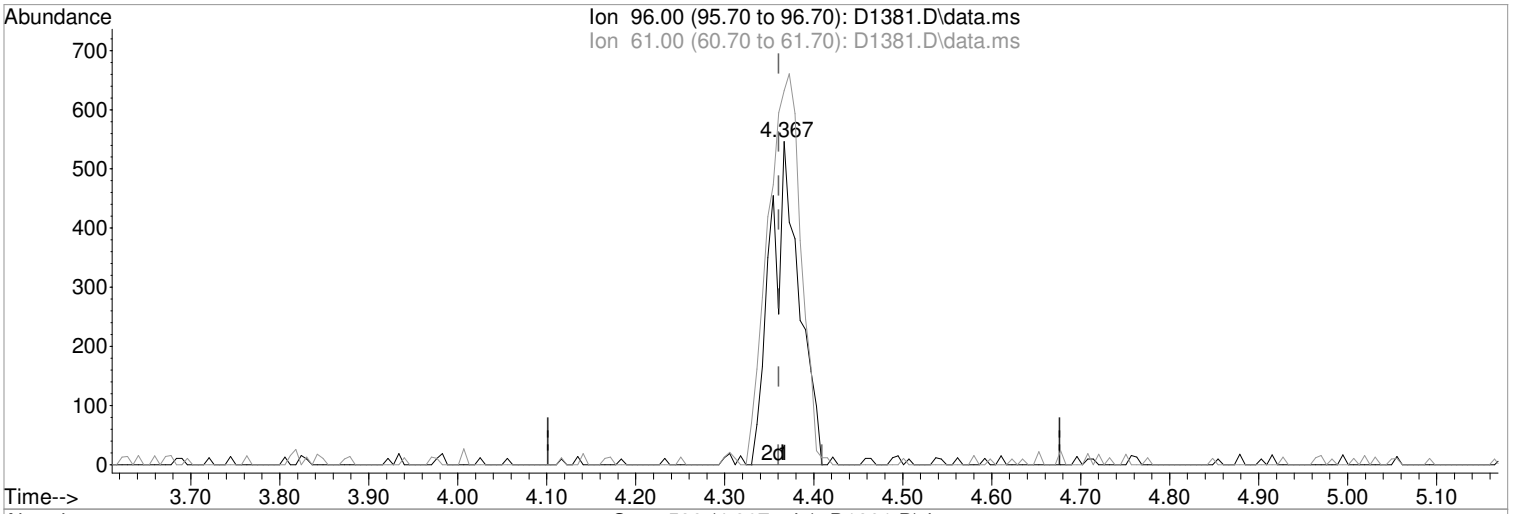
02/14/18

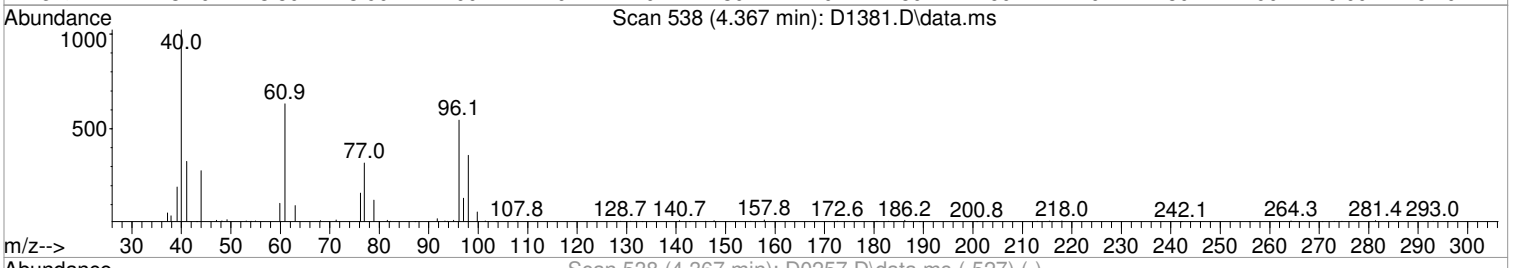
1st DL 02/14/18
2nd FJ 02/15/18

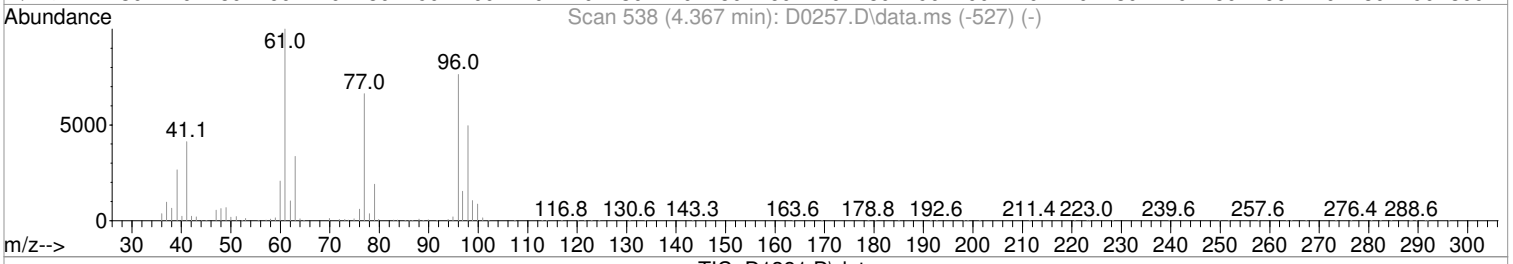
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.367min (+0.006) 0.53 ug/L m

response 1229

Ion	Exp%	Act%
96.00	100	100
61.00	131.50	115.75
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

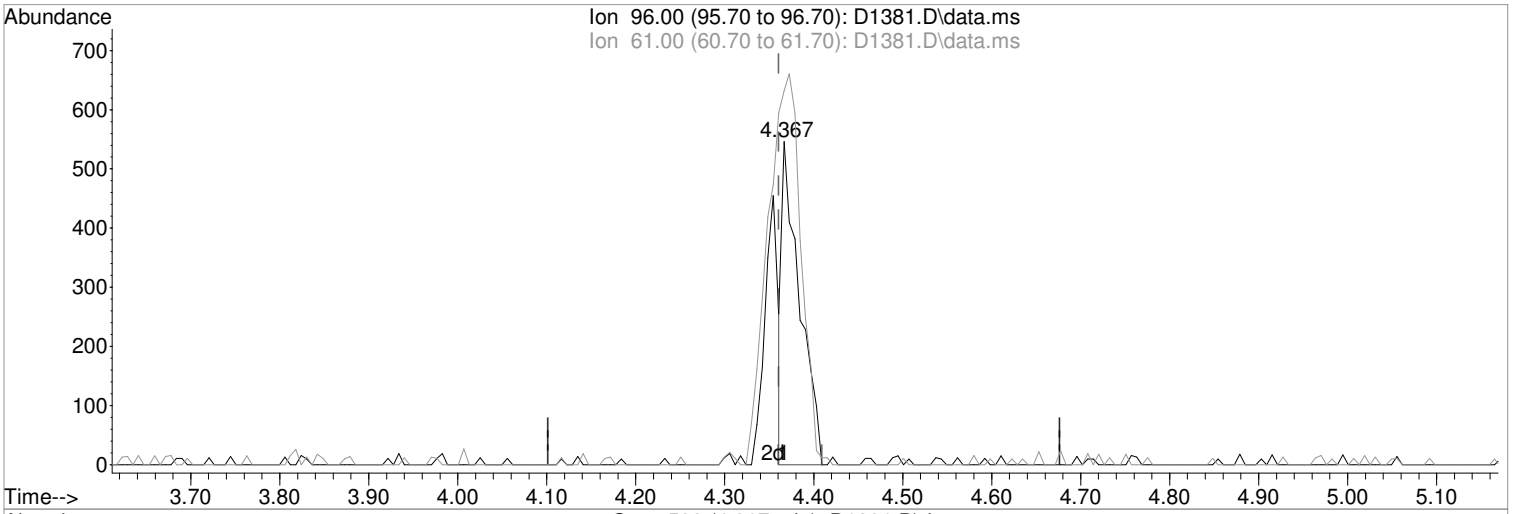
02/14/18

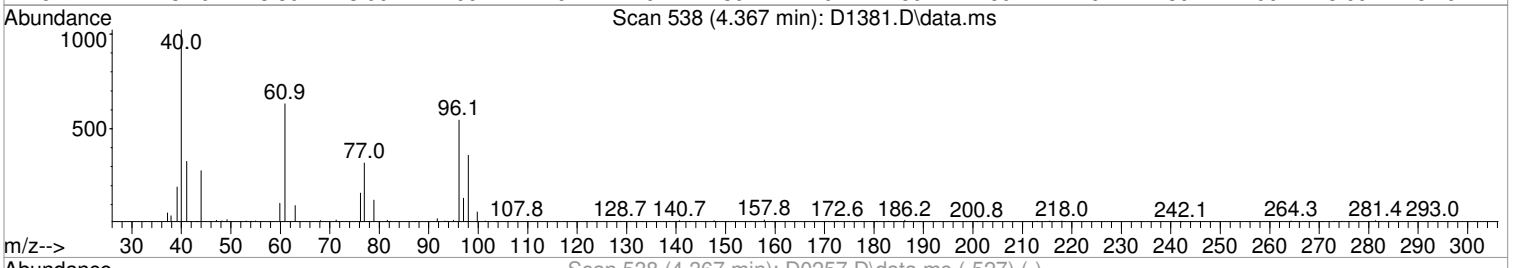
1st DL 02/14/18
2nd FJ 02/15/18

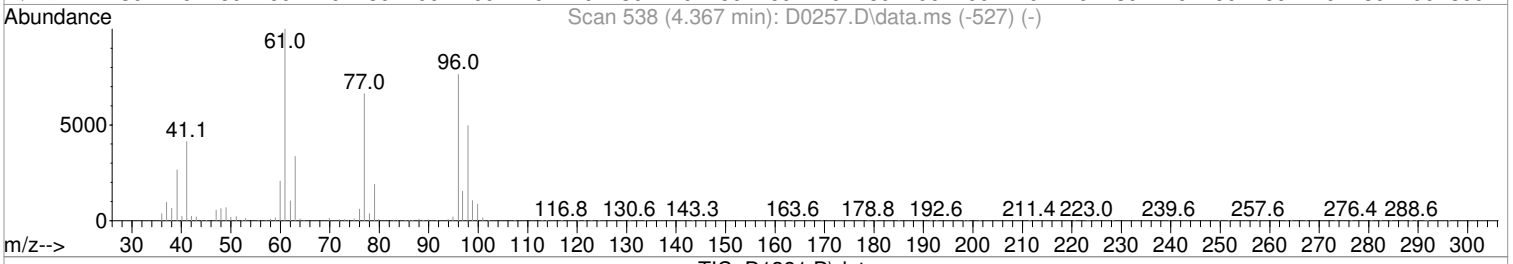
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.367min (+0.006) 0.33 ug/L

response 756

Ion	Exp%	Act%
96.00	100	100
61.00	131.50	115.75
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

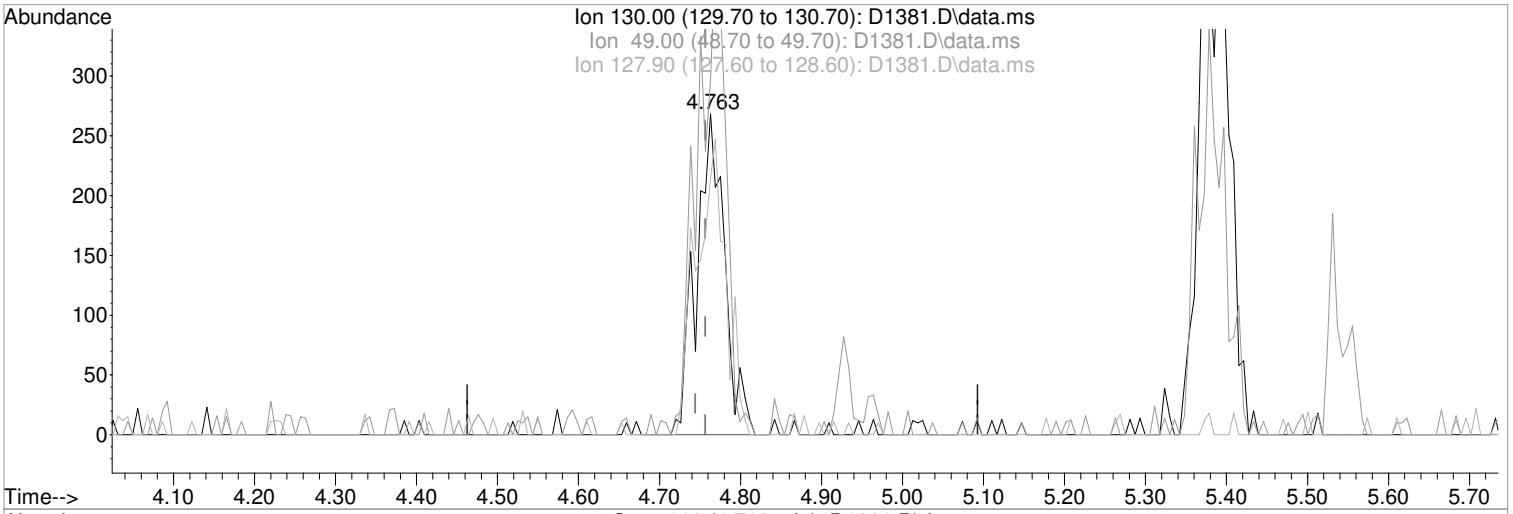
Before

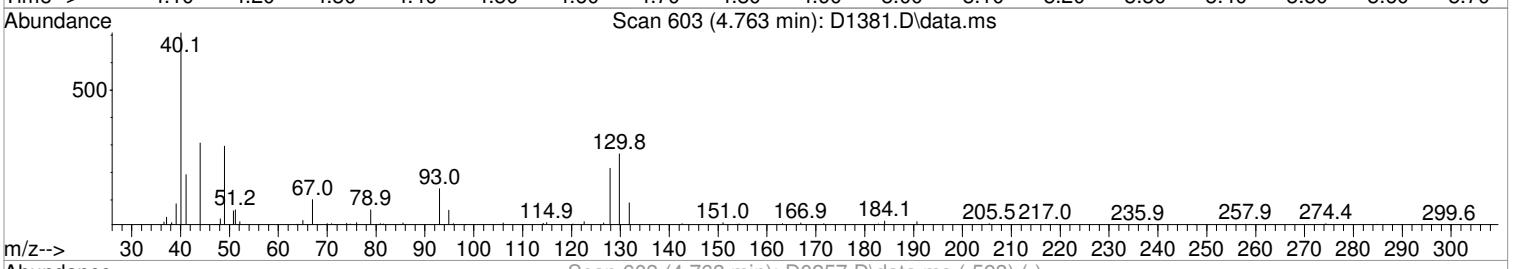
02/14/18

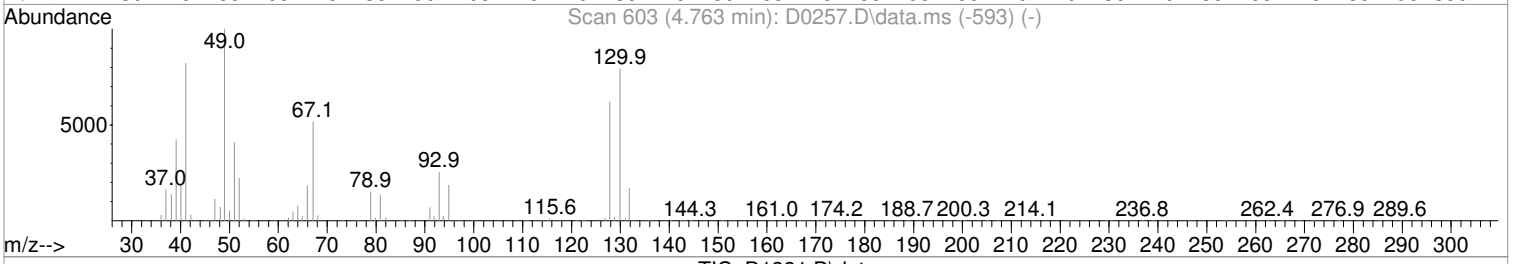
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(36) Bromochloromethane

4.763min (+0.006) 0.50 ug/L m

response 647

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	110.45
127.90	78.50	80.22
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

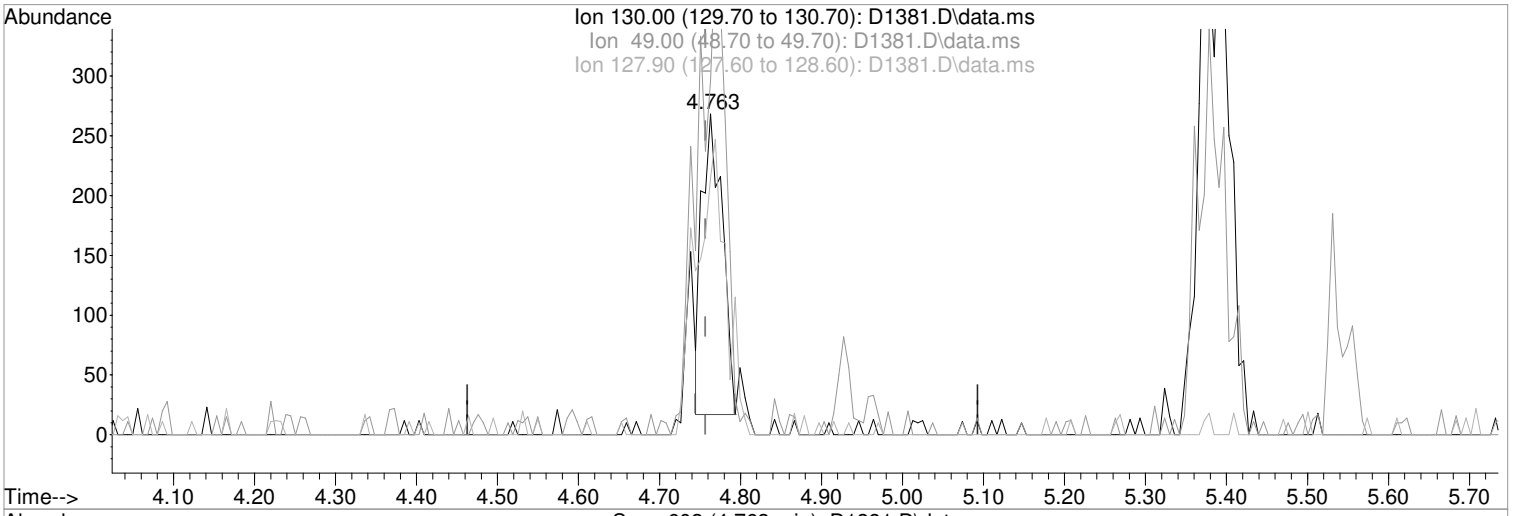
02/14/18

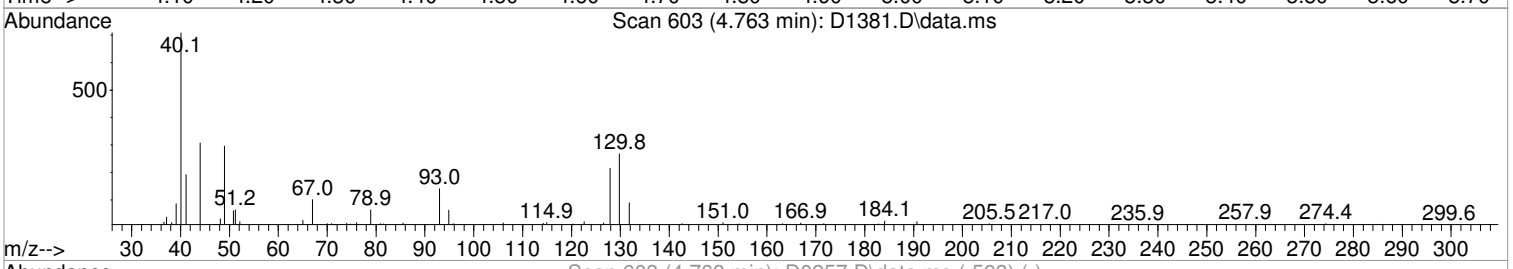
1st DL 02/14/18
2nd FW 02/15/18

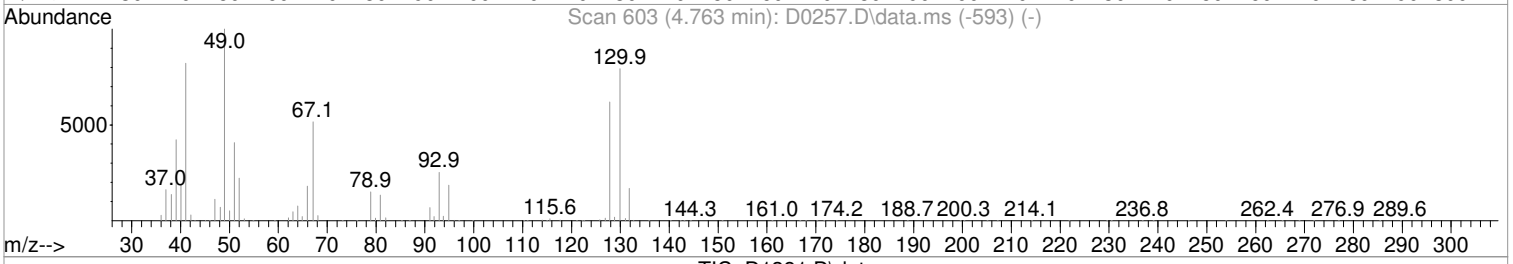
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(36) Bromochloromethane

4.763min (+0.006) 0.34 ug/L

response 440

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	110.45
127.90	78.50	80.22
0.00	0.00	0.00

Manual Integration:

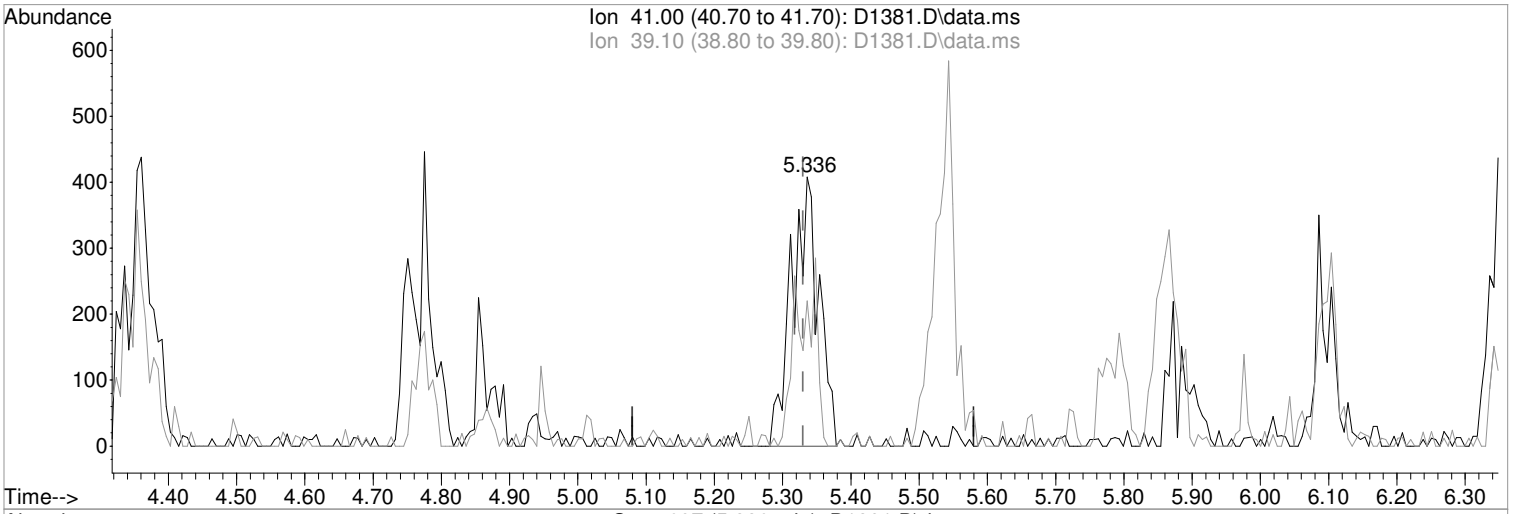
Before

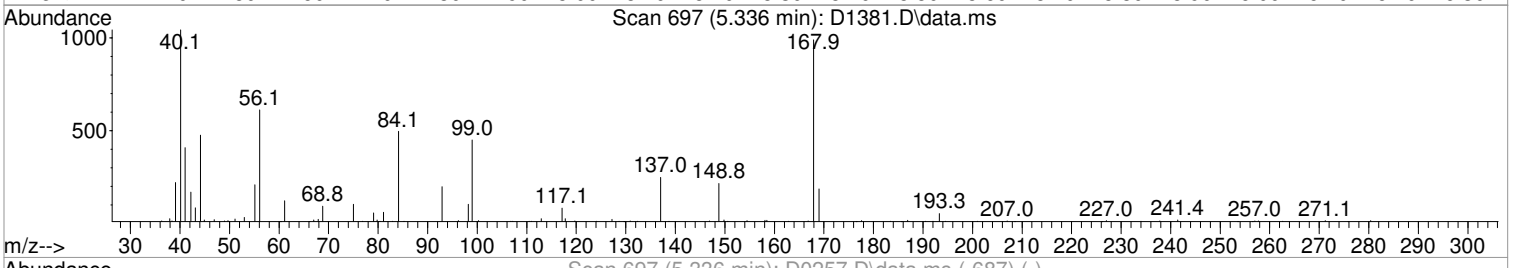
02/14/18

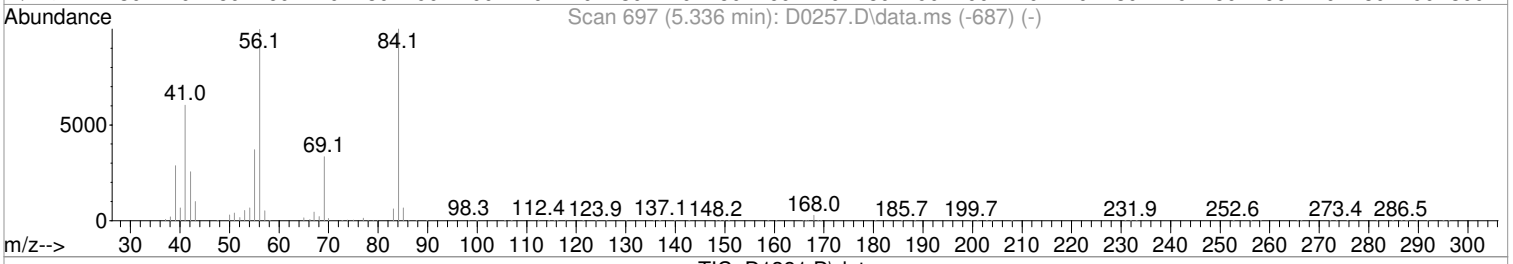
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(42) Cyclohexane (P)

5.336min (+0.006) 0.66 ug/L m

response 1129

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	53.92
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

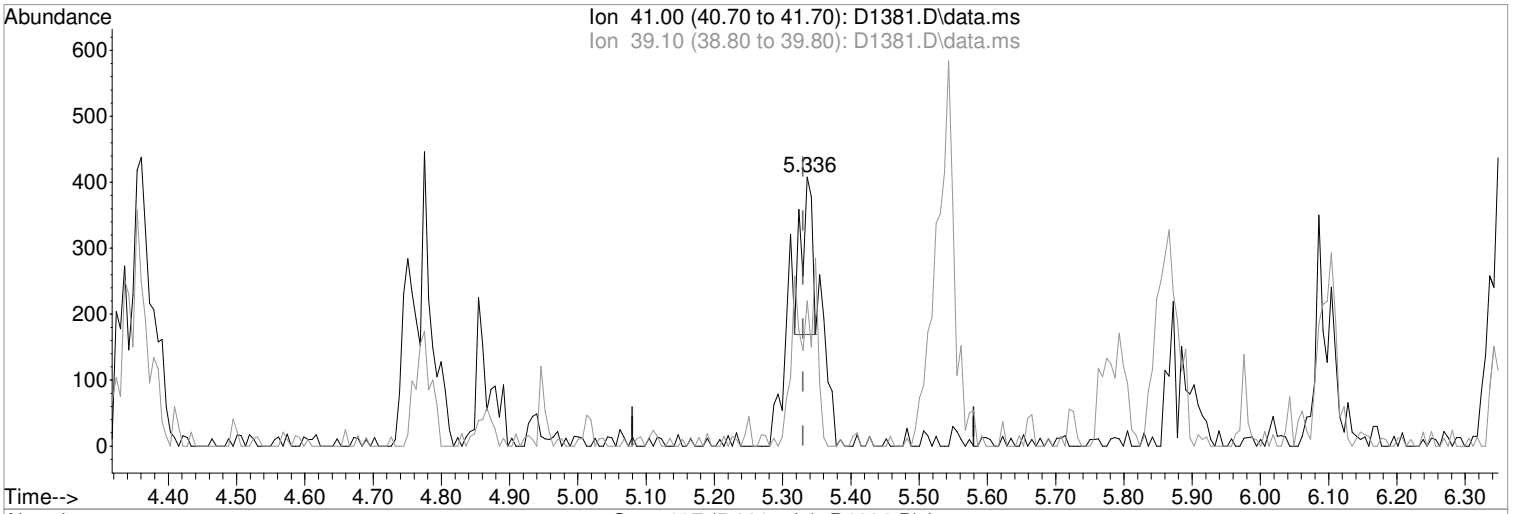
Peak not found.

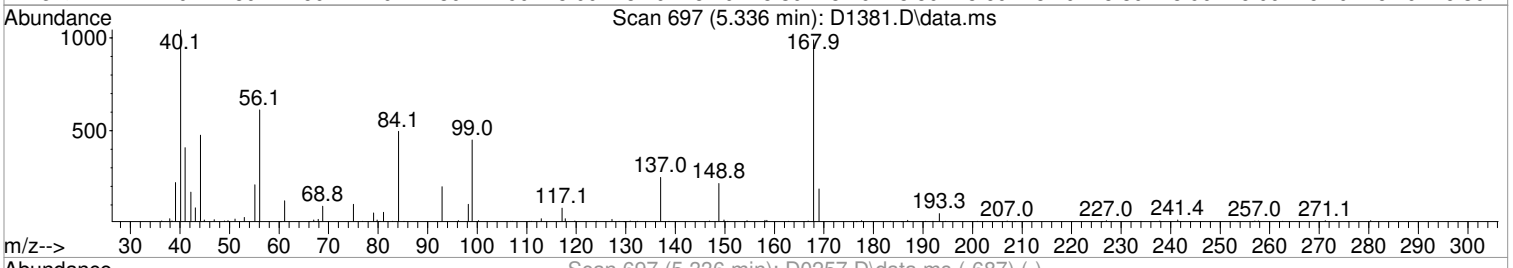
02/14/18

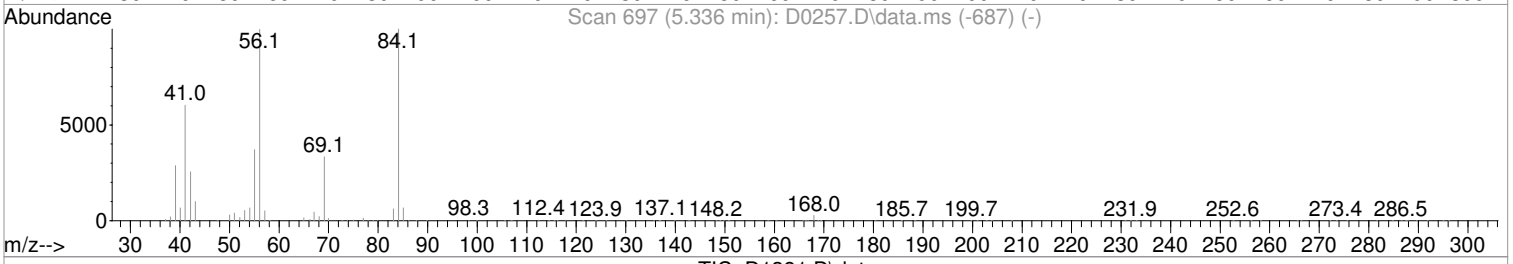
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(42) Cyclohexane (P)

5.336min (+0.006) 0.16 ug/L

response 266

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	53.92
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

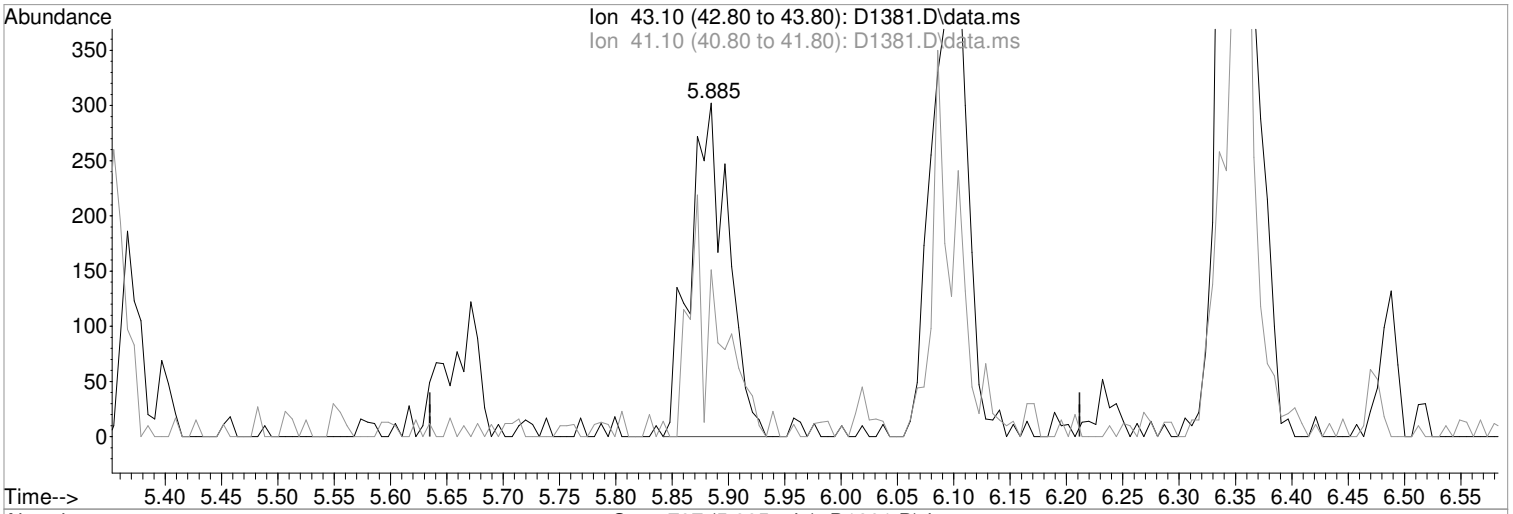
02/14/18

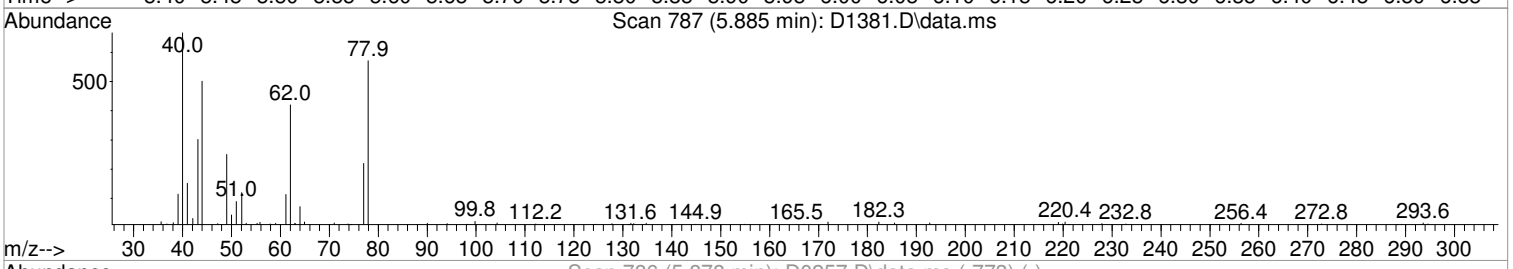
1st DL 02/14/18
2nd FW 02/15/18

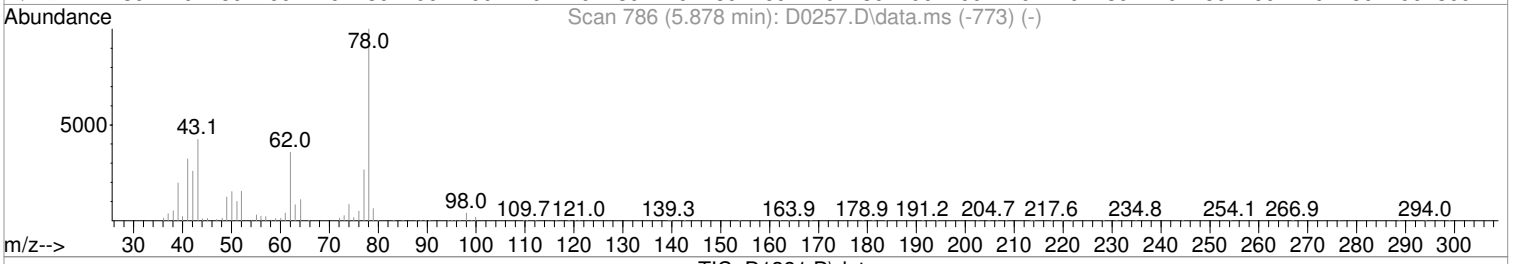
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(49) Iso-Butyl Alcohol

5.885min (+0.013) 33.15 ug/L m

response 714

Ion	Exp%	Act%
43.10	100	100
41.10	76.00	50.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

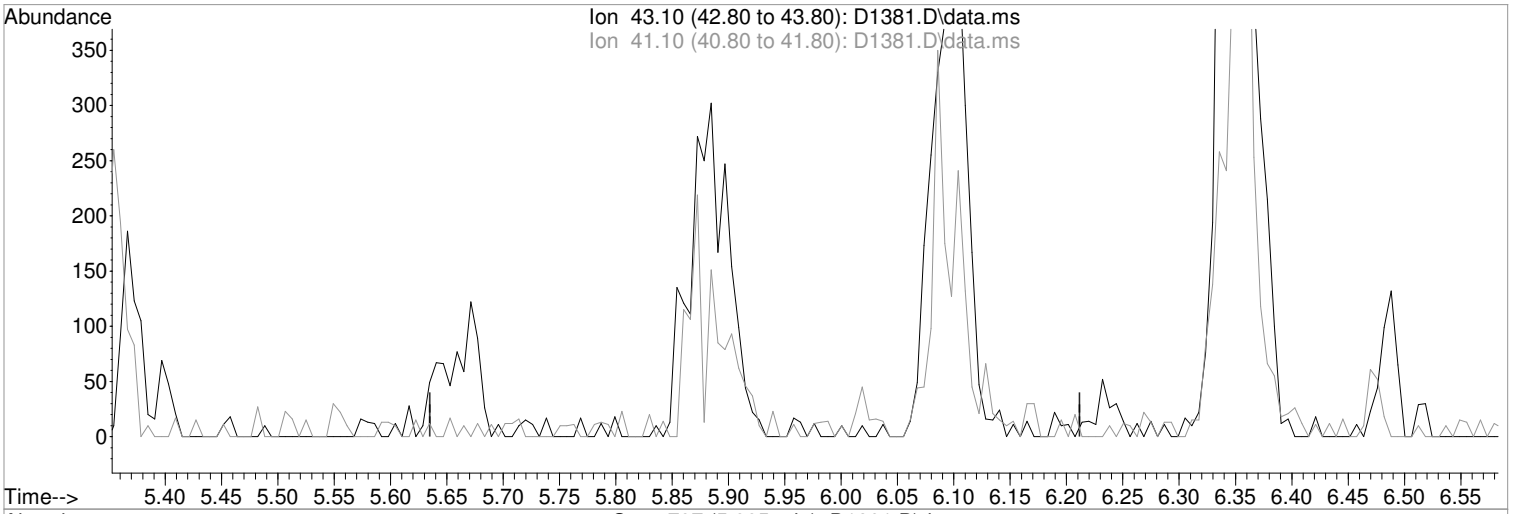
Peak not found.

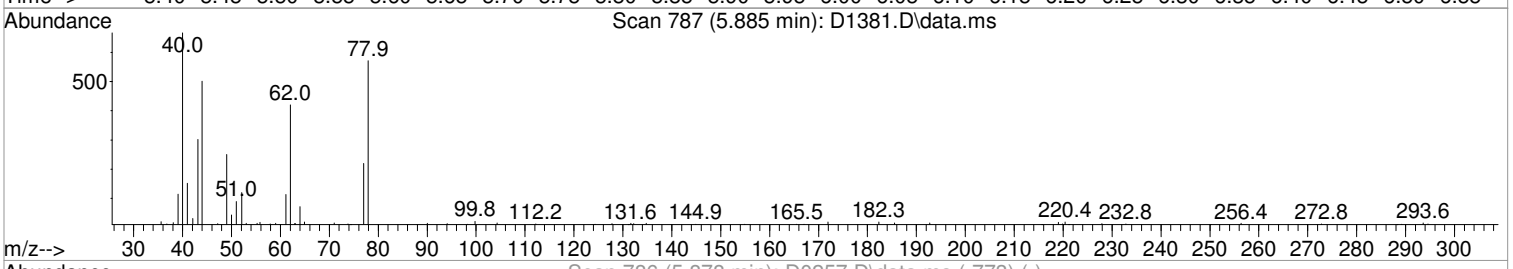
02/14/18

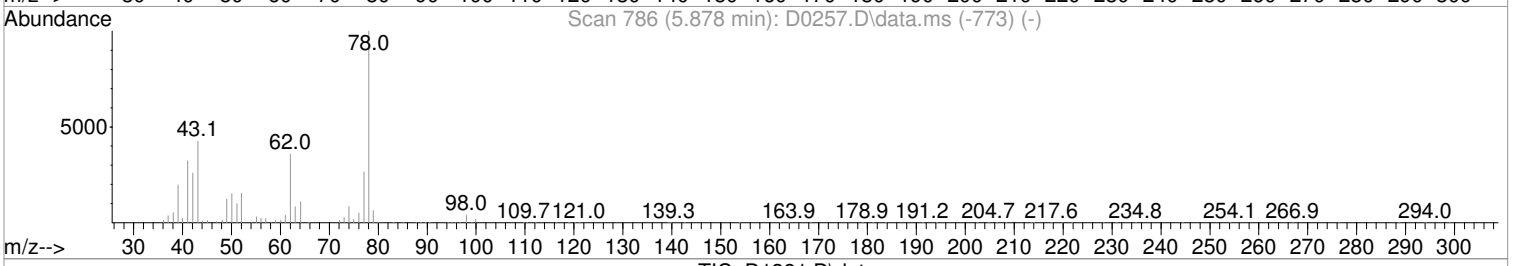
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(49) Iso-Butyl Alcohol

5.872min (-5.872) 0.00 ug/L

response 0

Ion	Exp%	Act%
43.10	100	0.00
41.10	76.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

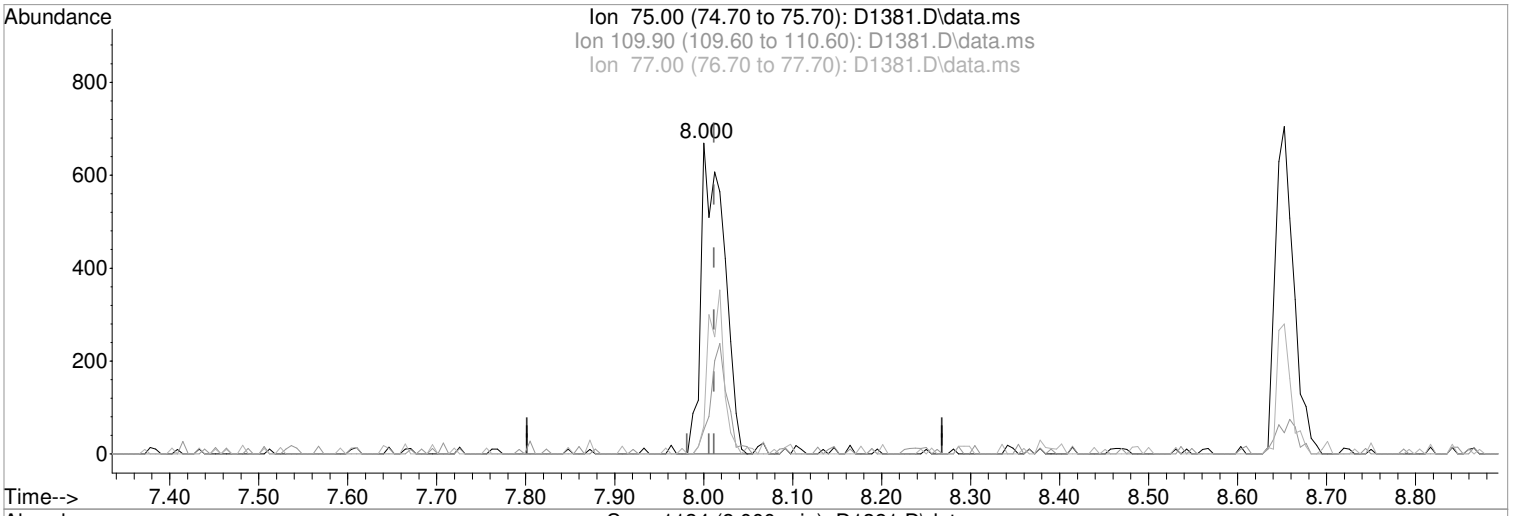
02/14/18

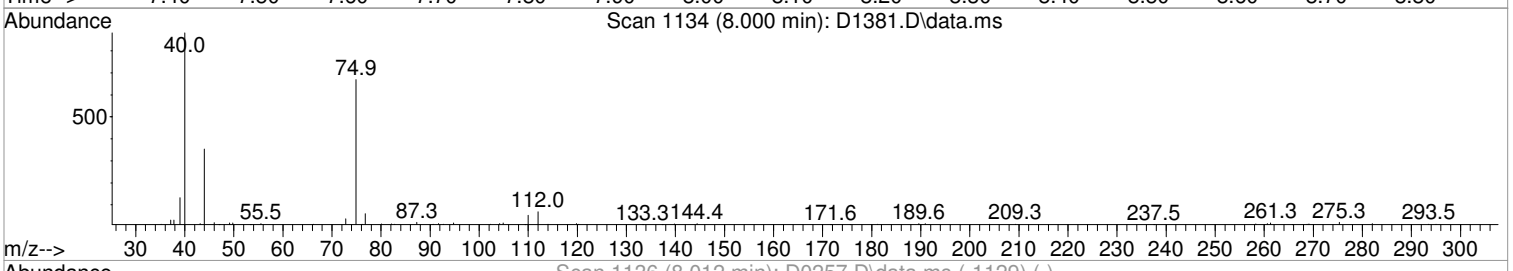
1st DL 02/14/18
2nd FJ 02/15/18

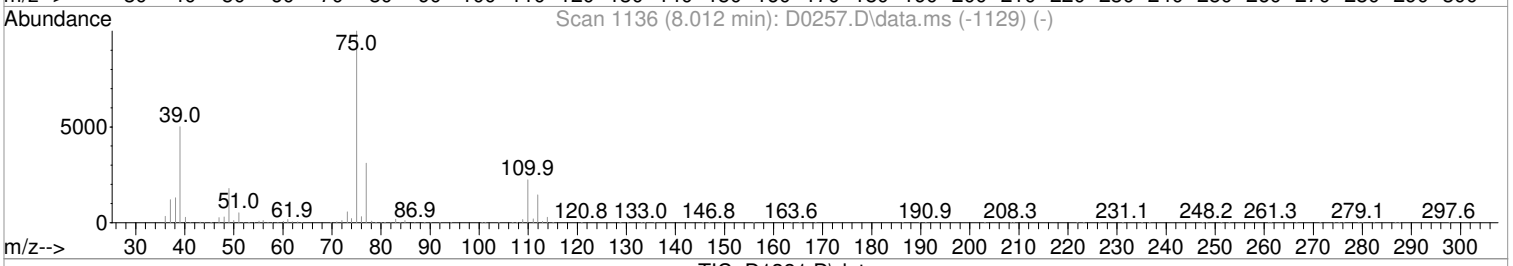
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(62) cis-1,3-Dichloropropene (P)

8.000min (-0.012) 0.71 ug/L m

response 1213

Ion	Exp%	Act%
75.00	100	100
109.90	22.30	7.77
77.00	31.20	8.97#
0.00	0.00	0.00

Manual Integration:

After

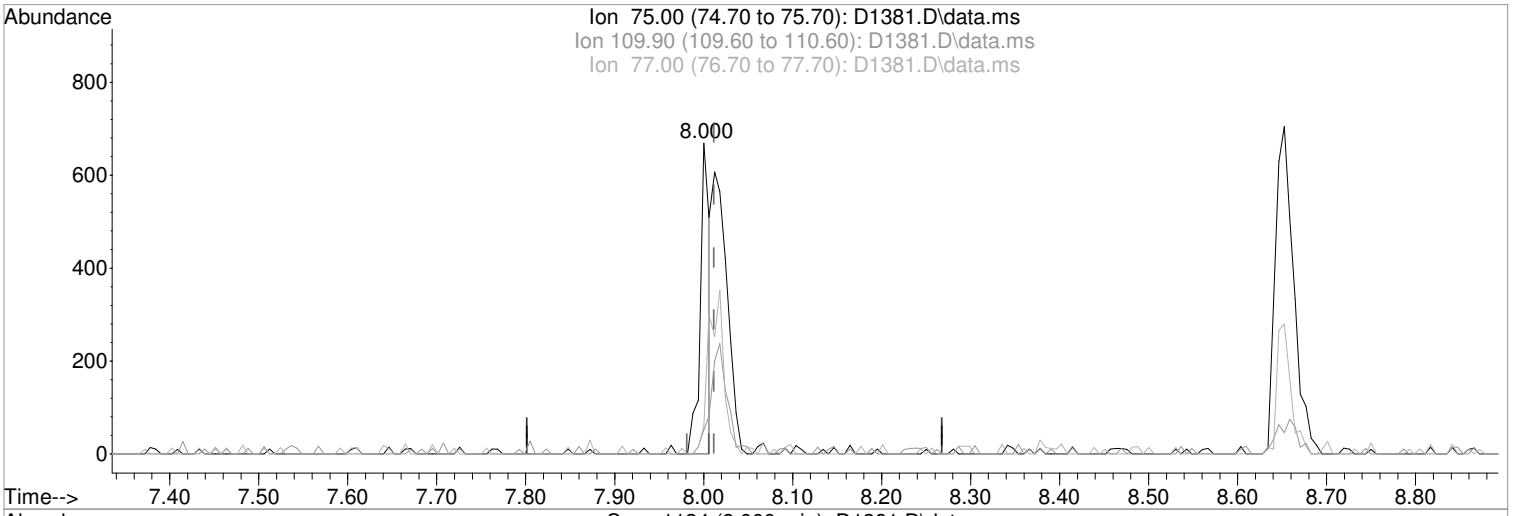
Poor integration.

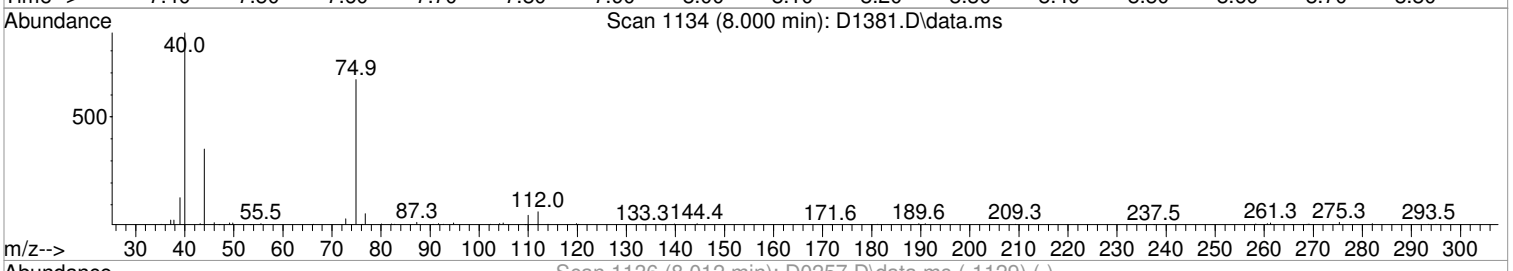
02/14/18

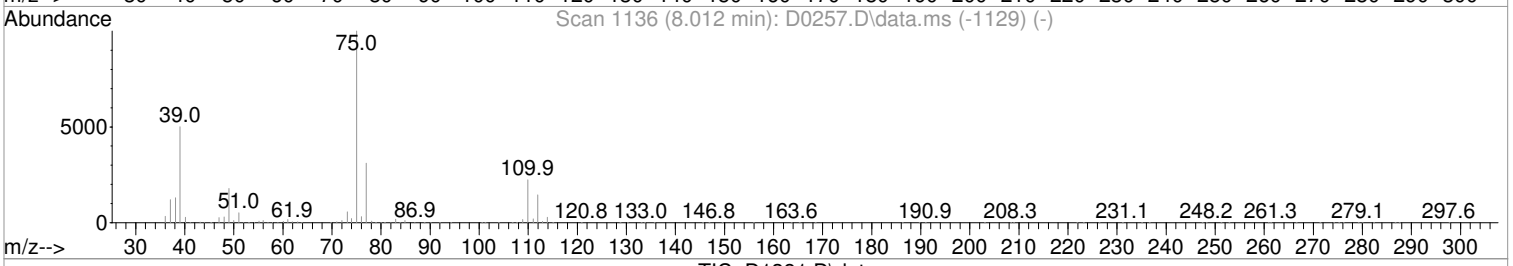
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(62) cis-1,3-Dichloropropene (P)

8.000min (-0.012) 0.48 ug/L

response 505

Ion	Exp%	Act%
75.00	100	100
109.90	22.30	7.77
77.00	31.20	8.97#
0.00	0.00	0.00

Manual Integration:

Before

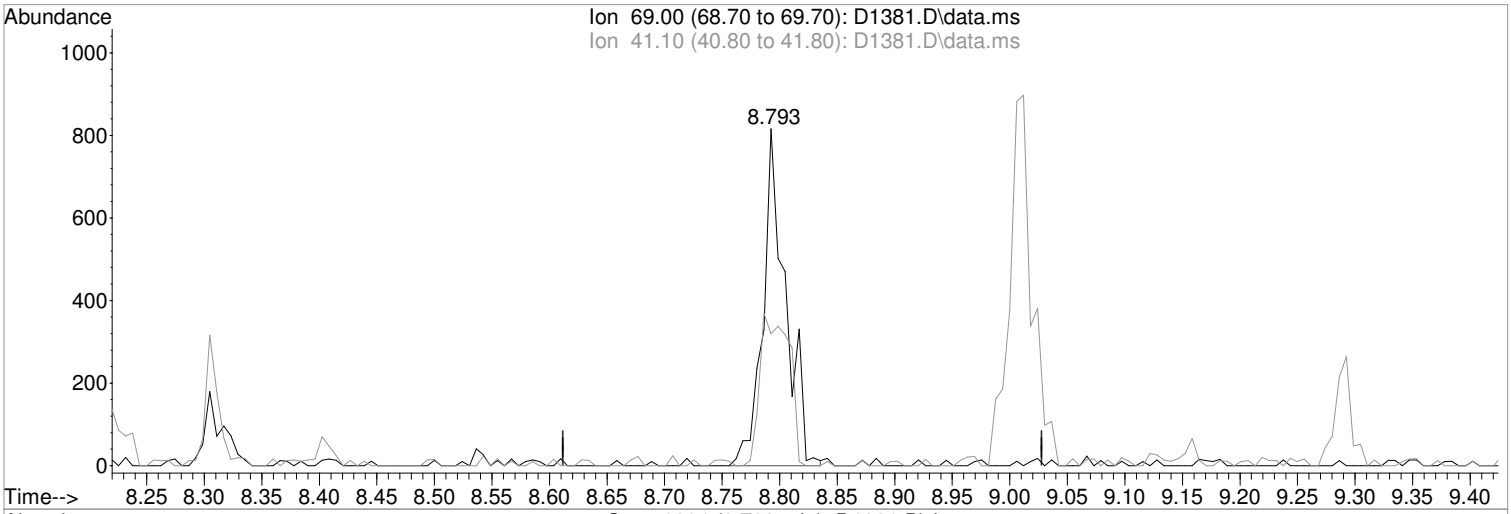
02/14/18

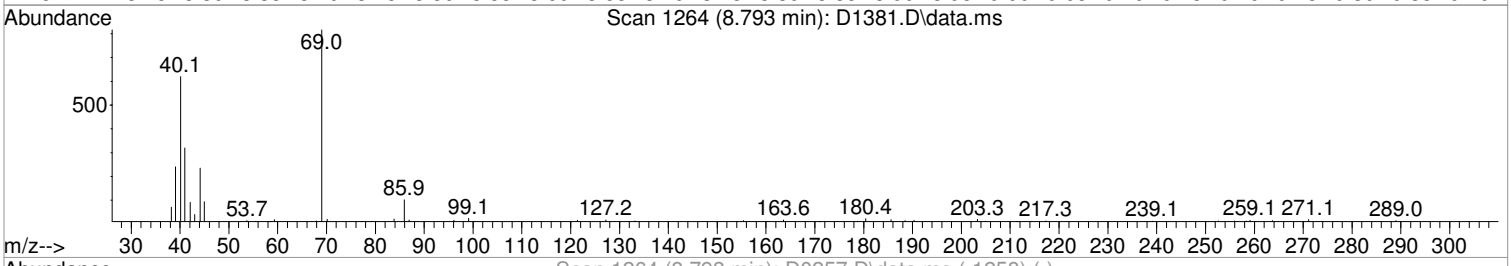
1st DL 02/14/18
2nd FJ 02/15/18

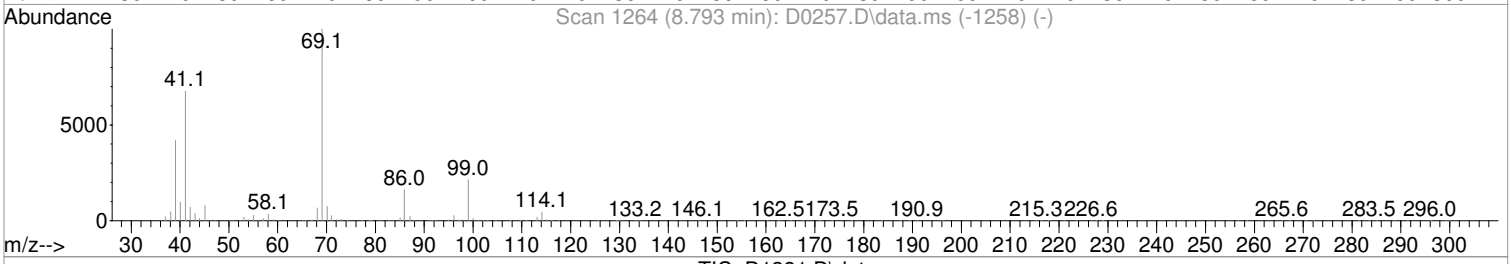
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(67) Ethyl Methacrylate

8.793min (+0.001) 0.41 ug/L m

response 1109

Ion	Exp%	Act%
69.00	100	100
41.10	67.70	39.09#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

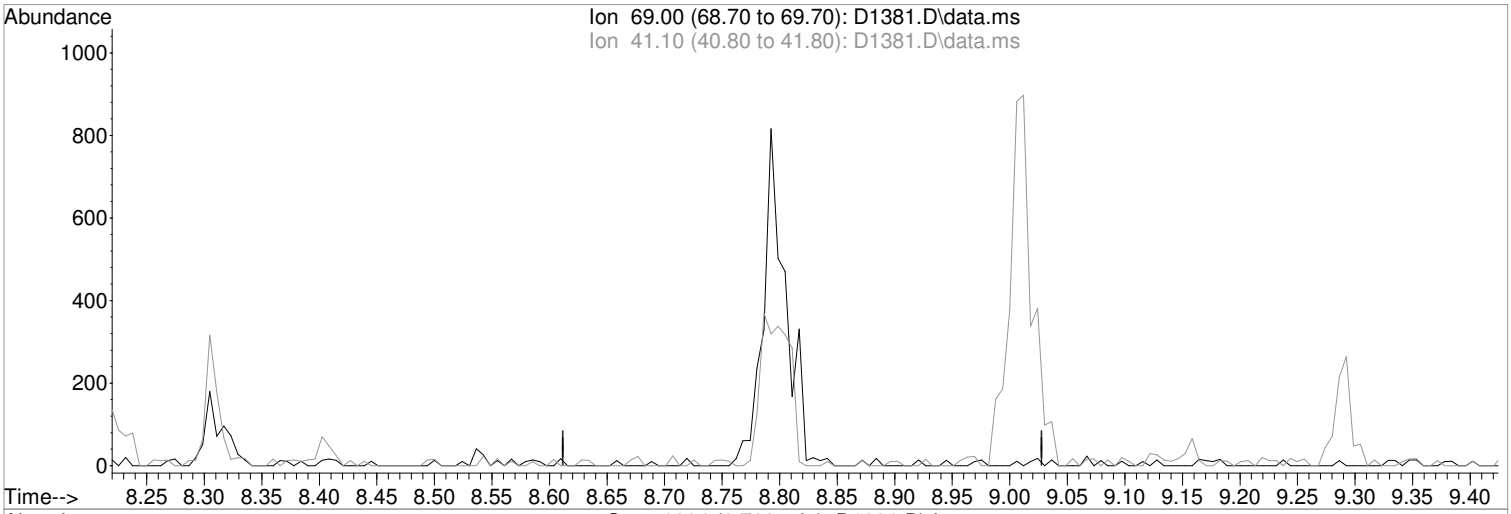
Peak not found.

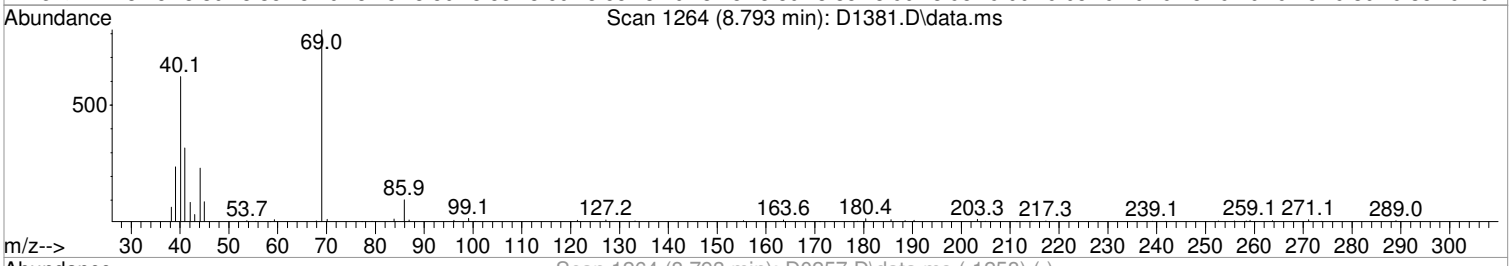
02/14/18

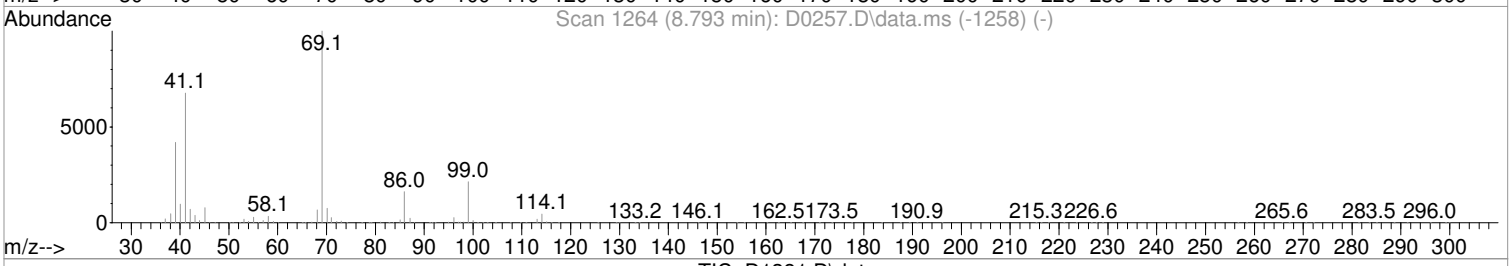
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(67) Ethyl Methacrylate

8.792min (-8.792) 0.00 ug/L

response 0

Ion	Exp%	Act%
69.00	100	0.00
41.10	67.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

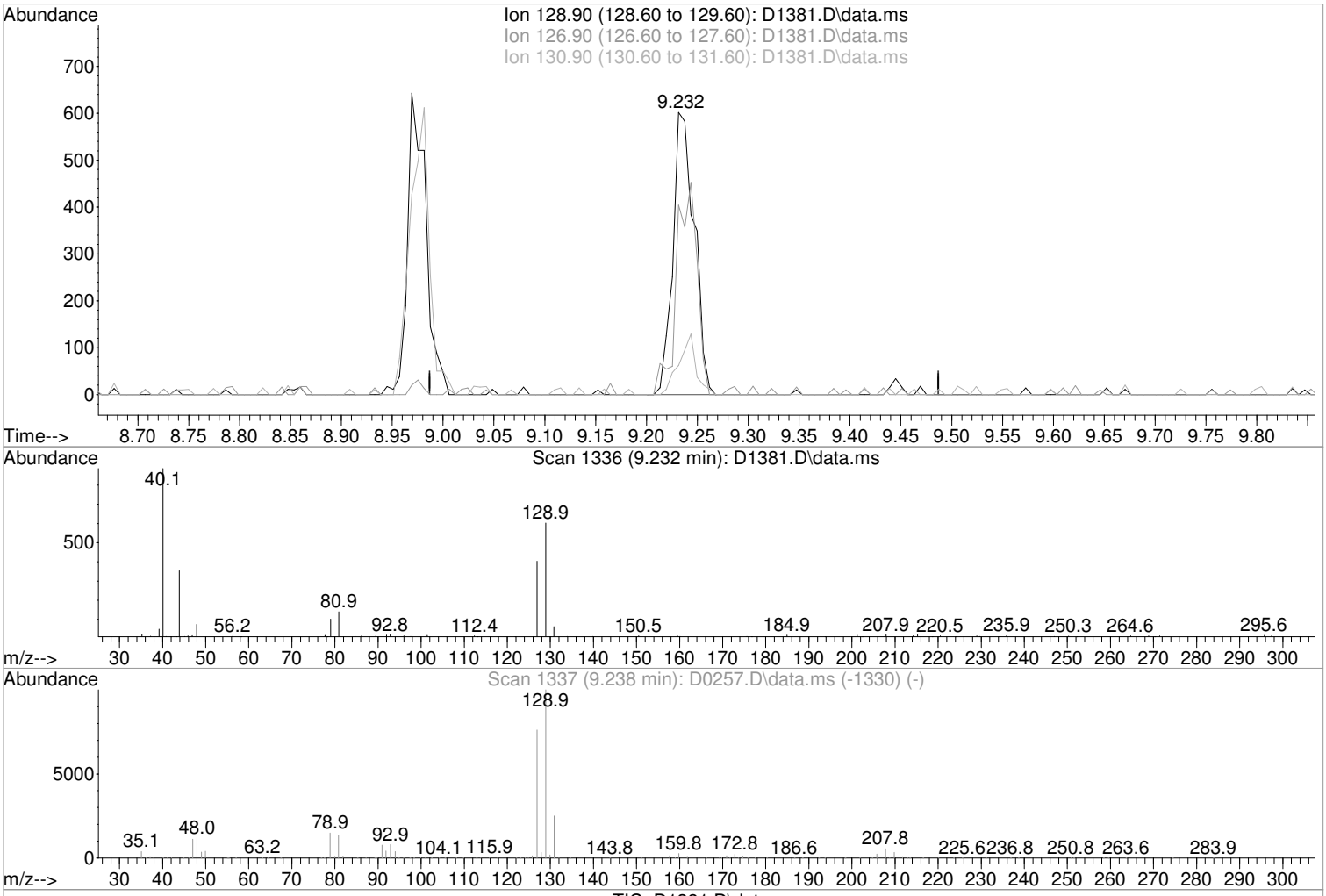
Before

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(74) Dibromochloromethane (P)

9.232min (-0.005) 0.49 ug/L m

response 883

Ion	Exp%	Act%
128.90	100	100
126.90	76.20	67.11
130.90	25.10	10.30
0.00	0.00	0.00

Manual Integration:

After

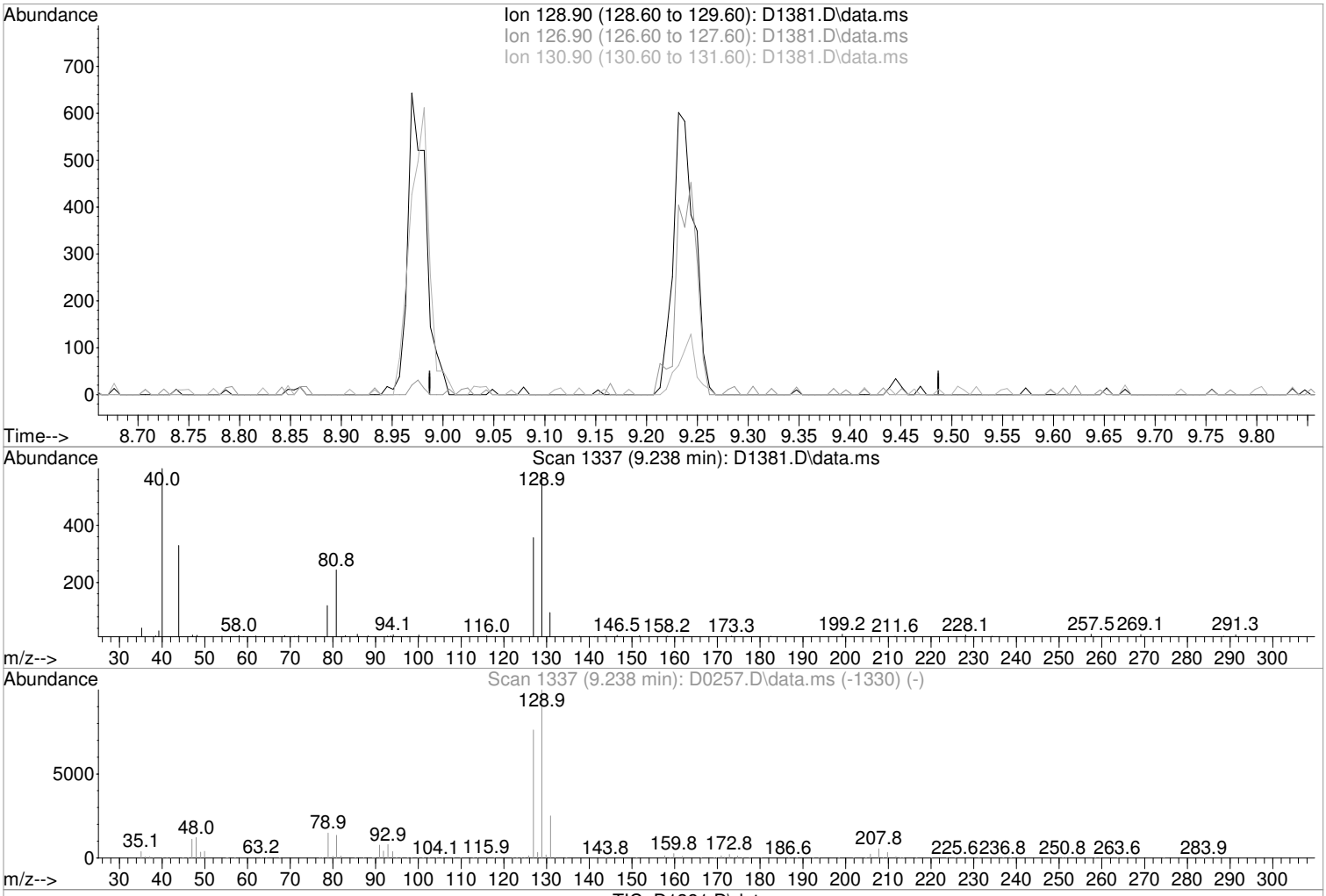
Peak not found.

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(74) Dibromochloromethane (P)

9.237min (-9.237) 0.00 ug/L

response 0

Ion	Exp%	Act%
128.90	100	0.00
126.90	76.20	0.00#
130.90	25.10	0.00#
0.00	0.00	0.00

Manual Integration:

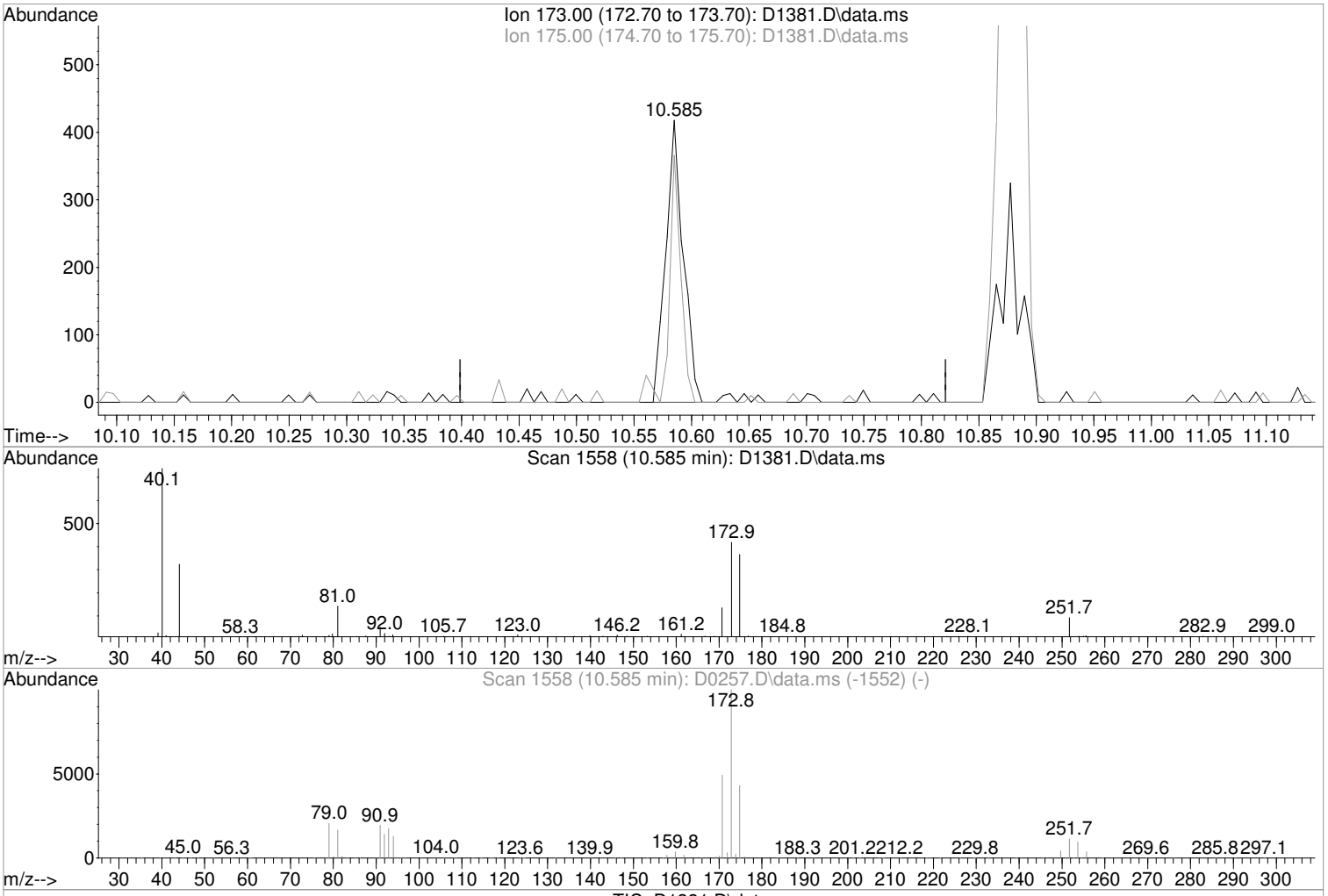
Before

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



TIC: D1381.D\data.ms

(85) Bromoform (P)

10.585min (-0.000) 0.58 ug/L m

response 445

Ion	Exp%	Act%
173.00	100	100
175.00	43.30	87.56#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

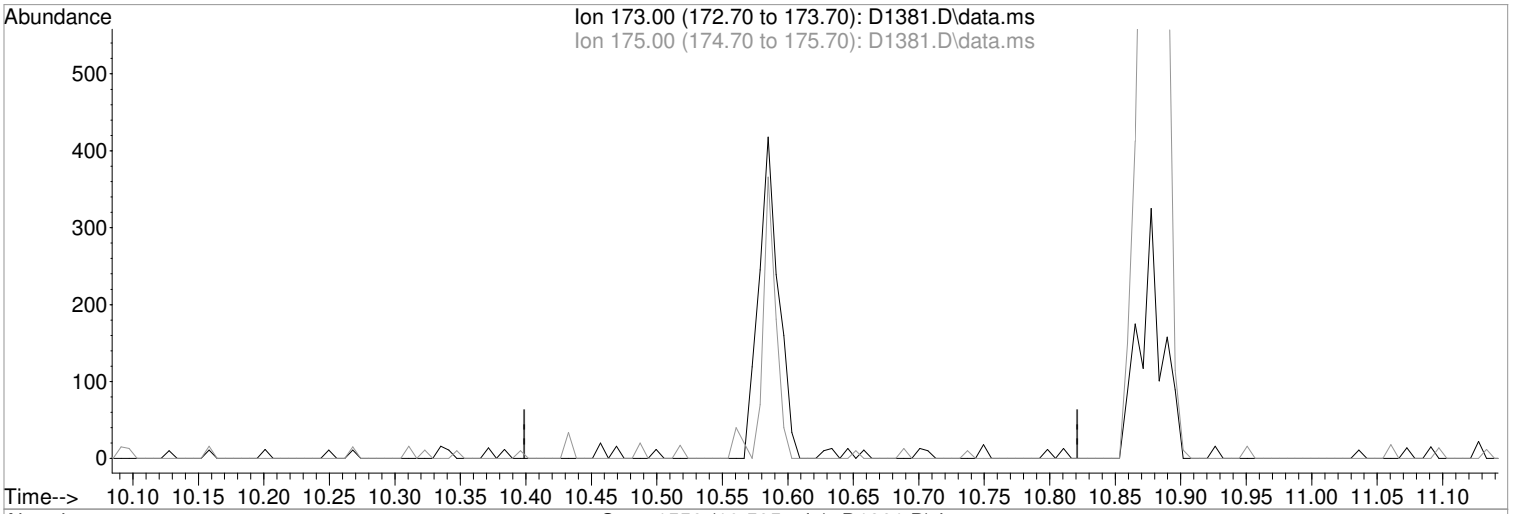
Peak not found.

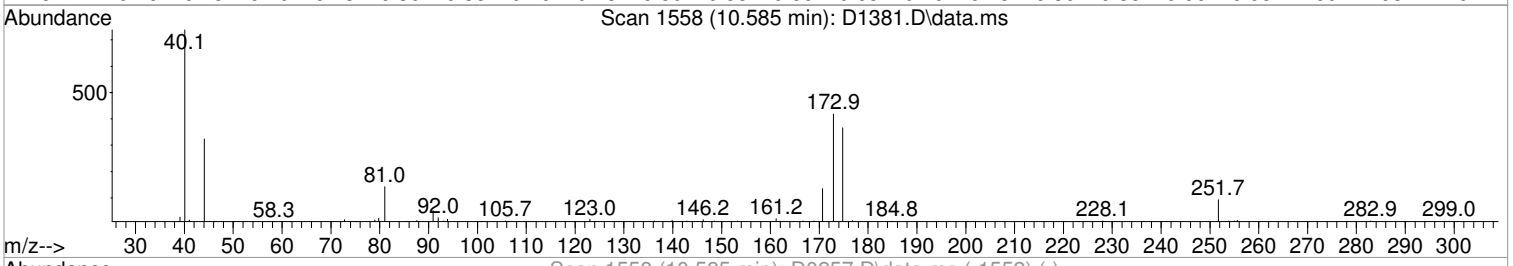
02/14/18

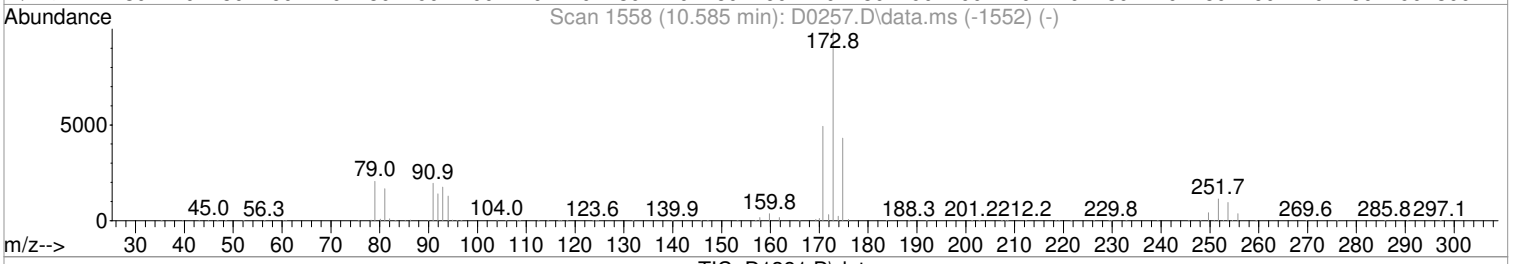
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(85) Bromoform (P)

10.585min (-10.585) 0.00 ug/L

response 0

Ion	Exp%	Act%
173.00	100	0.00
175.00	43.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

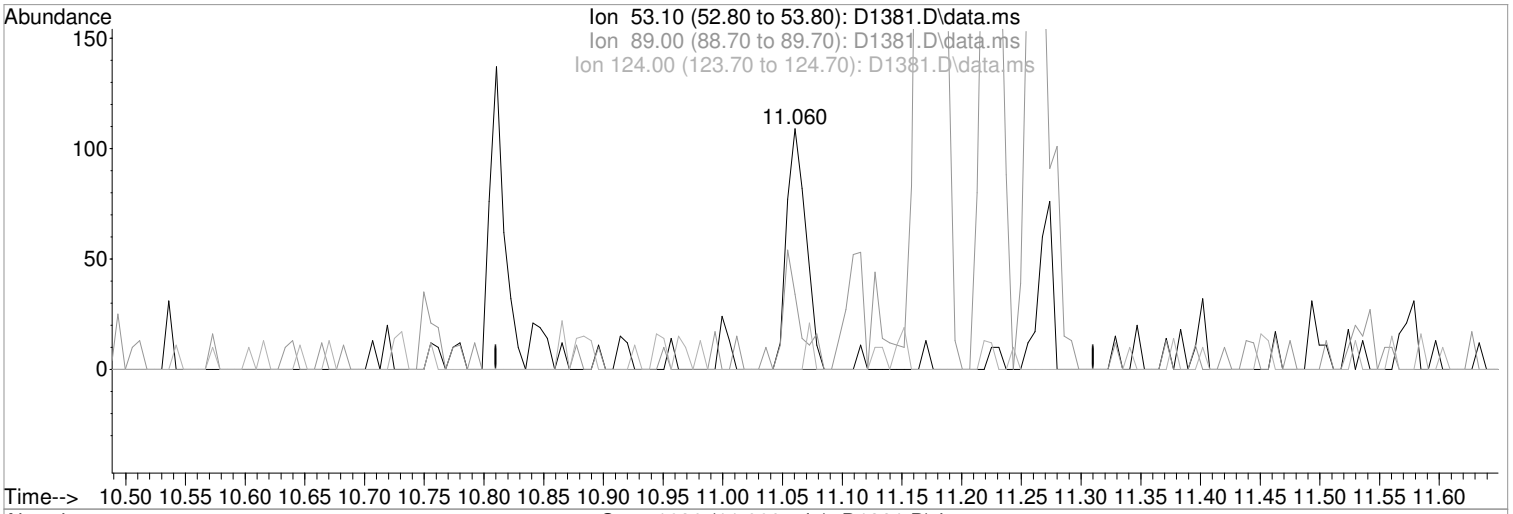
02/14/18

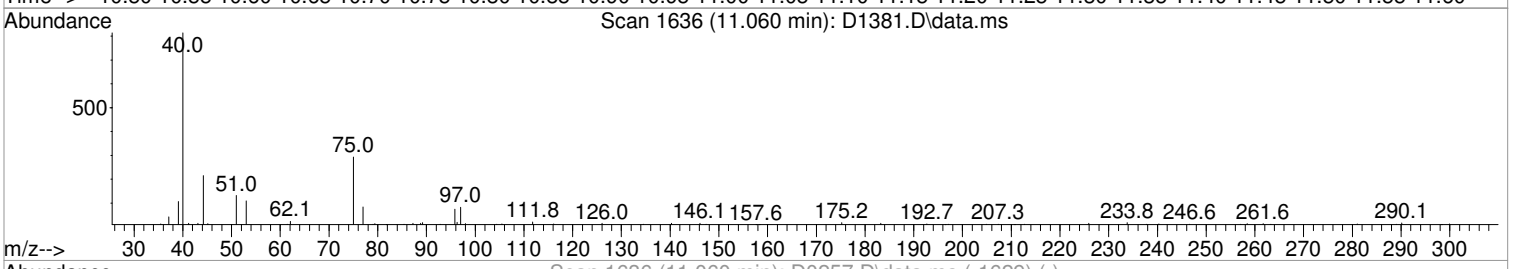
1st DL 02/14/18
2nd FW 02/15/18

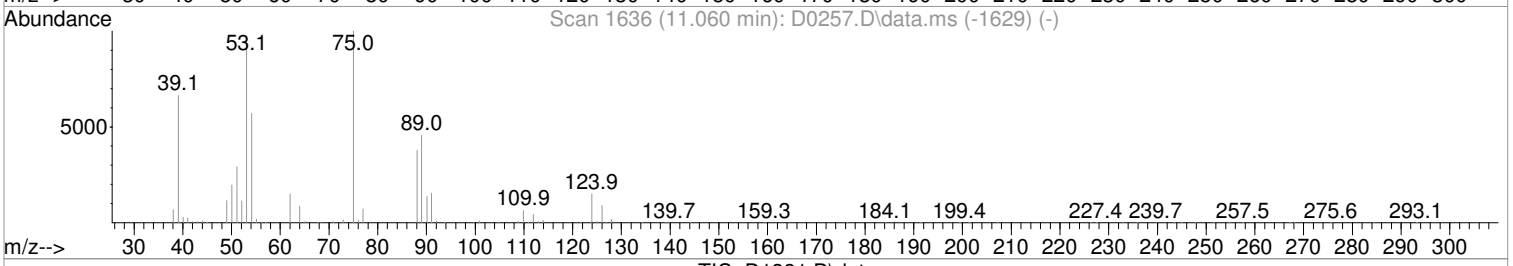
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration







TIC: D1381.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.060min (+0.000) 0.45 ug/L m

response 123

Ion	Exp%	Act%
53.10	100	100
89.00	47.80	16.51#
124.00	15.90	0.00
0.00	0.00	0.00

Manual Integration:

After

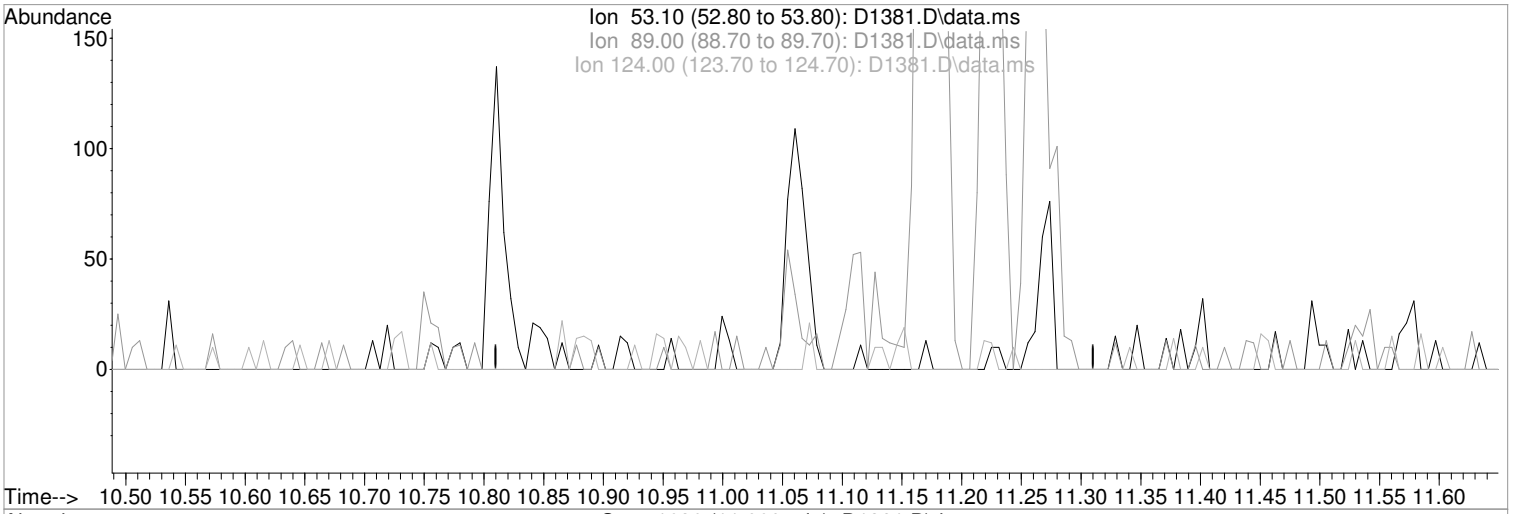
Peak not found.

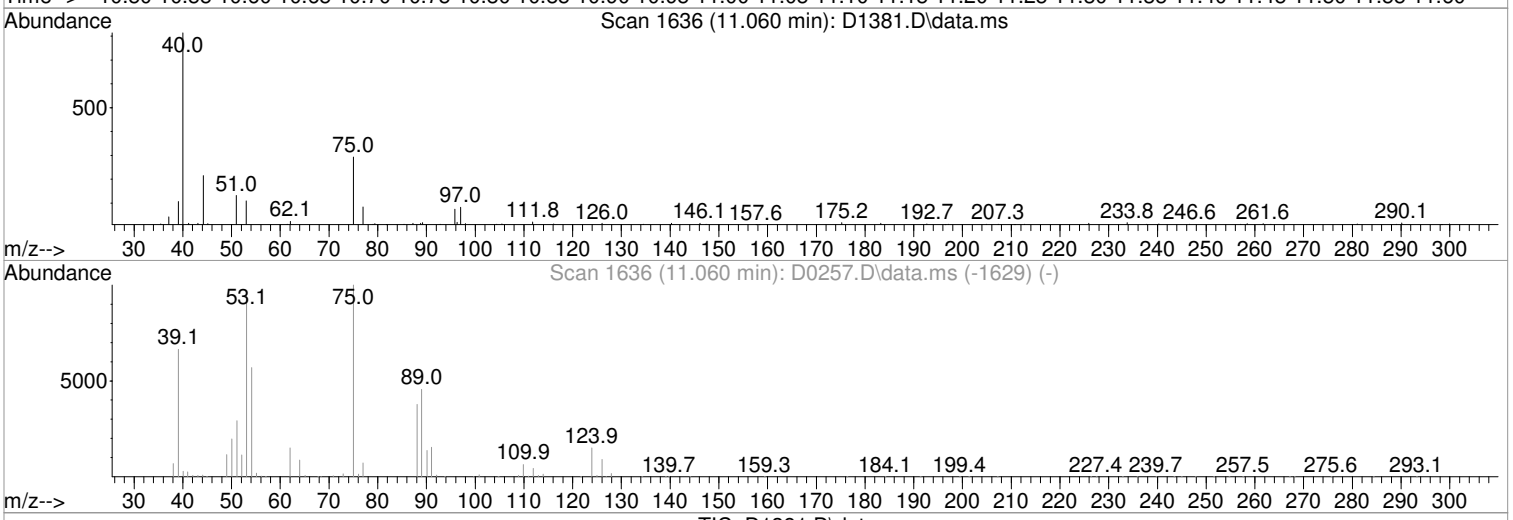
02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:26:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration





TIC: D1381.D\data.ms

(89) trans-1,4-Dichloro-2-Butene

11.060min (-11.060) 0.00 ug/L

response 0

Ion	Exp%	Act%
53.10	100	0.00
89.00	47.80	0.00#
124.00	15.90	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	196643	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	290806	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	253246	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	130742	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	19214	10.80	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 21.60%#				
46) surr1,1,2-dichloroetha...	5.781	65	23718	11.53	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 23.06%#				
64) SURR3,Toluene-d8	8.305	98	79217	11.30	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 22.60%#				
69) SURR2,BFB	10.878	95	28028	10.32	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 20.64%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	1314	0.47	ug/L		91
3) Chloromethane	1.282	50	1828	0.59	ug/L		94
4) Vinyl Chloride	1.361	62	1276	0.44	ug/L		77
5) Bromomethane	1.587	94	1951m	0.39	ug/L		
6) Chloroethane	1.666	64	857	0.46	ug/L		82
7) Freon 21	1.812	67	2283	0.51	ug/L		95
8) Trichlorofluoromethane	1.867	101	1931	0.58	ug/L		88
9) Diethyl Ether	2.093	59	990	0.52	ug/L	#	78
10) Freon 123a	2.093	67	1211	0.46	ug/L	#	69
11) Freon 123	2.148	83	1661	0.56	ug/L		93
12) Acrolein	2.196	56	1282	2.33	ug/L		90
13) 1,1-Diclethene	2.276	96	1048	0.54	ug/L	#	71
14) Freon 113	2.288	101	1215	0.58	ug/L	#	63
15) Acetone	2.324	43	594	0.58	ug/L		76
16) 2-Propanol	2.452	45	1063m	7.54	ug/L		
17) Iodomethane	2.416	142	485	1.87	ug/L		81
18) Carbon Disulfide	2.477	76	2774	0.52	ug/L		96
20) Allyl Chloride	2.605	76	473m	0.48	ug/L		
21) Methyl Acetate	2.629	43	1156m	0.60	ug/L		
22) Methylene Chloride	2.733	84	1175	0.54	ug/L	#	84
23) TBA	2.867	59	1702	7.89	ug/L		91
24) Acrylonitrile	2.995	53	2440	2.34	ug/L	#	75
25) Methyl-t-Butyl Ether	3.031	73	2844	0.47	ug/L		95
26) trans-1,2-Dichloroethene	3.025	96	1287	0.64	ug/L	#	66
27) 1,1-Diclethane	3.525	63	2058	0.55	ug/L		88
29) DIPE	3.647	45	3060	0.44	ug/L		85
30) 2-Chloro-1,3-Butadiene	3.659	53	1437m	0.45	ug/L		
31) ETBE	4.184	59	2566	0.46	ug/L		89
32) 2,2-Dichloropropane	4.348	77	981m	0.51	ug/L		
33) cis-1,2-Dichloroethene	4.367	96	1229m	0.53	ug/L		
34) 2-Butanone	4.428	43	687	0.49	ug/L	#	61
35) Propionitrile	4.513	54	1051	2.47	ug/L		88
36) Bromochloromethane	4.763	130	647m	0.50	ug/L		
38) Tetrahydrofuran	4.873	42	364	0.45	ug/L	#	7
39) Chloroform	4.940	83	2044	0.56	ug/L		94
40) 1,1,1-Trichloroethane	5.244	97	1340	0.50	ug/L	#	74
42) Cyclohexane	5.336	41	1129m	0.66	ug/L		
44) Carbontetrachloride	5.519	117	980	0.47	ug/L	#	74
45) 1,1-Dichloropropene	5.543	75	1495	0.51	ug/L	#	64

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) Benzene	5.854	78	4401	0.52	ug/L		97
48) 1,2-Dichloroethane	5.897	62	1208	0.41	ug/L		95
49) Iso-Butyl Alcohol	5.885	43	714m	33.15	ug/L		
50) TAME	6.098	73	2473	0.48	ug/L	#	73
51) n-Heptane	6.354	43	1594	0.55	ug/L		86
52) 1-Butanol	6.848	56	842	26.47	ug/L	#	50
53) Trichloroethene	6.811	130	1408	0.61	ug/L	#	69
54) Methylcyclohexane	7.049	55	1228	0.45	ug/L		86
55) 1,2-Diclpropane	7.098	63	1195	0.54	ug/L		81
56) Dibromomethane	7.232	93	777	0.56	ug/L	#	51
57) 1,4-Dioxane	7.305	88	281	7.87	ug/L	#	1
58) Methyl Methacrylate	7.323	69	529	0.34	ug/L		89
59) Bromodichloromethane	7.470	83	1373	0.54	ug/L		90
60) 2-Nitropropane	7.750	41	340	0.72	ug/L	#	55
62) cis-1,3-Dichloropropene	8.000	75	1213m	0.71	ug/L		
63) 4-Methyl-2-pentanone	8.213	43	1086	0.46	ug/L		82
65) Toluene	8.378	91	4533	0.50	ug/L		96
66) trans-1,3-Dichloropropene	8.652	75	1021	0.70	ug/L		76
67) Ethyl Methacrylate	8.793	69	1109m	0.41	ug/L		
68) 1,1,2-Trichloroethane	8.841	97	897	0.45	ug/L		83
71) Tetrachloroethene	8.975	164	984	0.56	ug/L	#	88
72) 2-Hexanone	9.140	43	689	0.39	ug/L	#	74
73) 1,3-Dichloropropane	9.012	76	1618	0.46	ug/L	#	73
74) Dibromochloromethane	9.232	129	883m	0.49	ug/L		
75) N-Butyl Acetate	9.292	43	1353	0.40	ug/L	#	71
76) 1,2-Dibromoethane	9.335	107	867	0.45	ug/L		94
77) 3-Chlorobenzotrifluoride	9.847	180	1910	0.57	ug/L	#	74
78) Chlorobenzene	9.829	112	2939	0.50	ug/L		92
79) 4-Chlorobenzotrifluoride	9.896	180	1494	0.50	ug/L		91
80) 1,1,1,2-Tetrachloroethane	9.914	131	807	0.45	ug/L	#	73
81) Ethylbenzene	9.951	106	1618	0.53	ug/L	#	77
82) (m+p)Xylene	10.067	106	3656	0.97	ug/L		95
83) o-Xylene	10.420	106	1626	0.45	ug/L	#	52
84) Styrene	10.432	104	2742	0.45	ug/L		93
85) Bromoform	10.585	173	445m	0.58	ug/L		
86) 2-Chlorobenzotrifluoride	10.664	180	1616	0.50	ug/L		96
87) Isopropylbenzene	10.756	105	4639	0.49	ug/L		99
88) Cyclohexanone	10.817	55	4347	7.29	ug/L		98
89) trans-1,4-Dichloro-2-B...	11.060	53	123m	0.45	ug/L		
91) 1,1,2,2-Tetrachloroethane	11.012	83	1375	0.52	ug/L		92
92) Bromobenzene	10.999	156	1035	0.45	ug/L	#	56
93) 1,2,3-Trichloropropane	11.036	110	404	0.50	ug/L	#	49
94) n-Propylbenzene	11.109	91	5162	0.49	ug/L		97
95) 2-Chlorotoluene	11.170	91	2963	0.47	ug/L		98
96) 3-Chlorotoluene	11.225	91	2939	0.48	ug/L		83
97) 4-Chlorotoluene	11.268	91	3861	0.52	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	3352	0.47	ug/L		93
99) tert-Butylbenzene	11.536	119	3502	0.55	ug/L		90
100) 1,2,4-Trimethylbenzene	11.573	105	3429	0.48	ug/L		96
101) 3,4-Dichlorobenzotrifl...	11.633	214	1342	0.53	ug/L	#	76
102) sec-Butylbenzene	11.719	105	4157	0.45	ug/L		92
103) p-Isopropyltoluene	11.841	119	3690	0.49	ug/L		96
104) 1,3-Dclbenz	11.798	146	2352	0.53	ug/L		93
105) 1,4-Dclbenz	11.871	146	2691	0.57	ug/L	#	75
106) 2,4-Dichlorobenzotrifl...	11.932	214	1226	0.53	ug/L	#	70
107) 2,5-Dichlorobenzotrifl...	11.969	214	1269	0.50	ug/L	#	77

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration

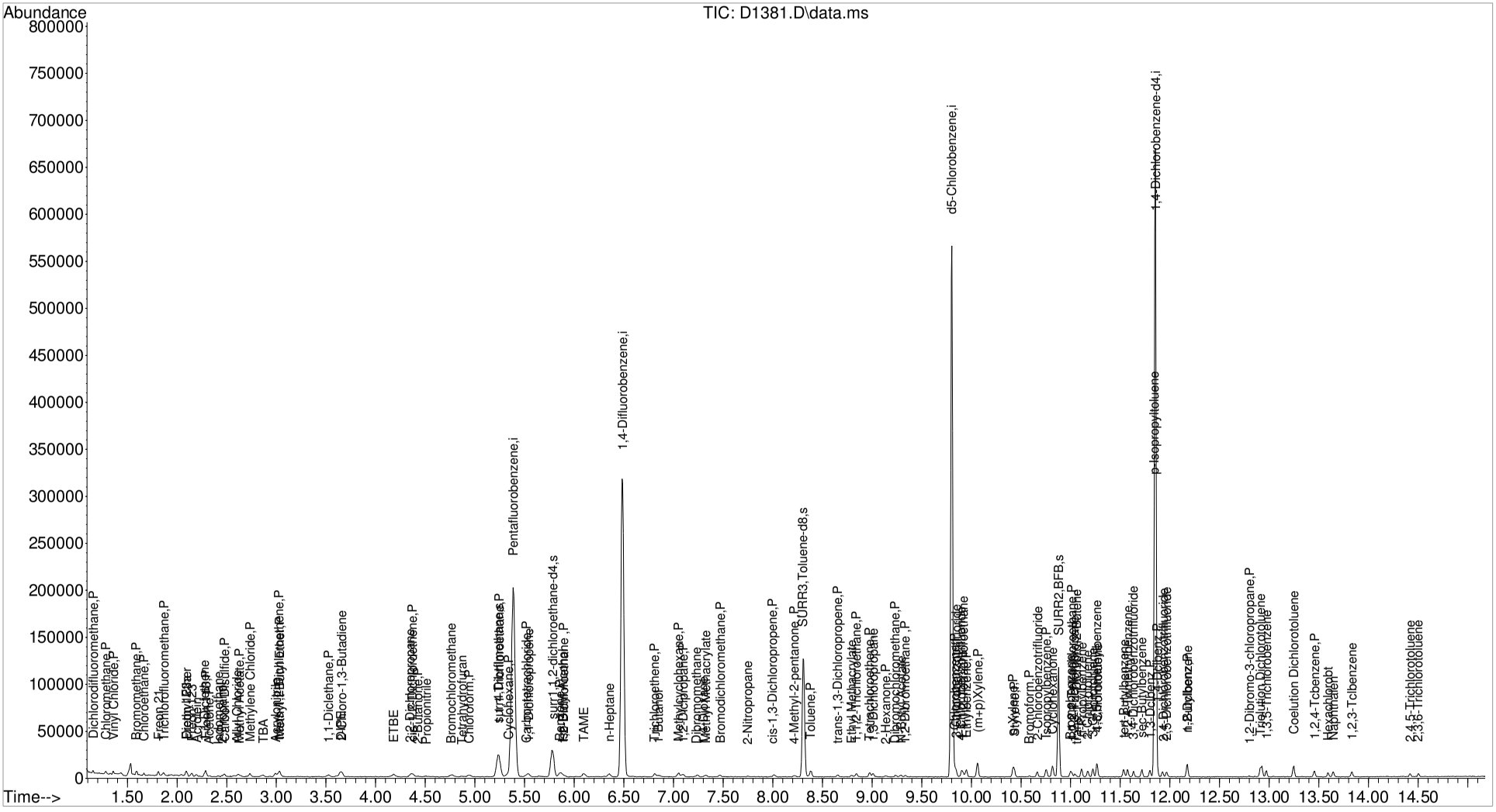
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) n-Butylbenzene	12.176	91	3081	0.44	ug/L		92
109) 1,2-Dclbenz	12.176	146	2640	0.58	ug/L		96
110) 1,2-Dibromo-3-chloropr...	12.798	157	140m	0.82	ug/L		
111) Trielution Dichlorotol...	12.914	125	5706	1.52	ug/L	#	77
112) 1,3,5-Trichlorobenzene	12.975	180	1736	0.50	ug/L		96
113) Coelution Dichlorotoluene	13.249	125	3960	0.99	ug/L		86
114) 1,2,4-Tcbenzene	13.456	180	1683	0.51	ug/L		82
115) Hexachlorobt	13.590	225	862	0.60	ug/L		89
116) Naphthalen	13.645	128	3114	0.42	ug/L		95
117) 1,2,3-Tclbenzene	13.834	180	1588	0.50	ug/L		82
118) 2,4,5-Trichlorotoluene	14.419	159	816	0.40	ug/L		87
119) 2,3,6-Trichlorotoluene	14.499	159	733	0.40	ug/L		88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1381.D
Acq On : 12 Feb 2018 1:16 pm
Operator : D.LIPANI
Sample : STD#1 - 0.5 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 09:39:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:25:51 2018
Response via : Initial Calibration



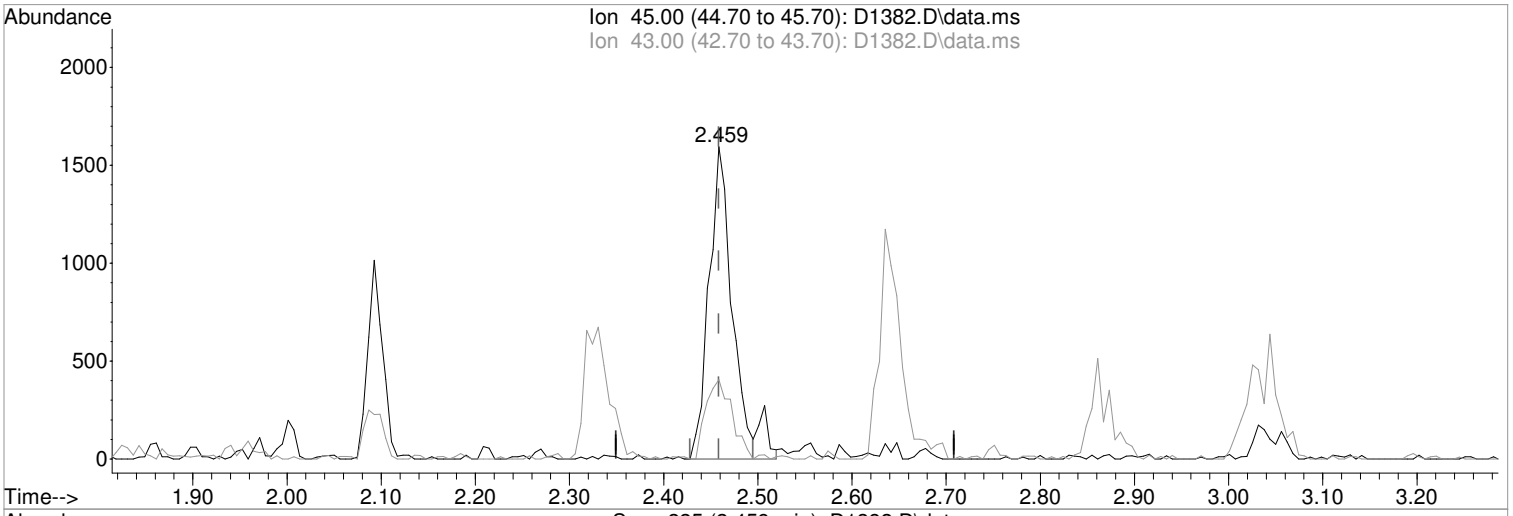
1st DL 02/14/18
2nd [illegible] 02/15/18

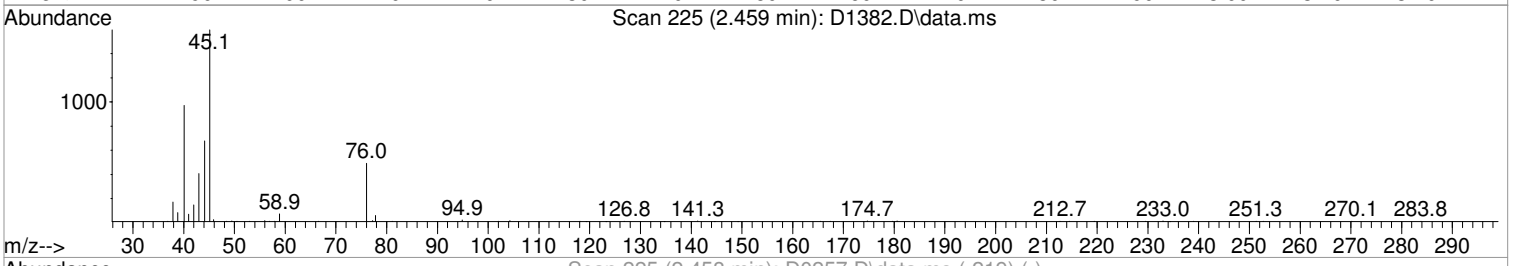
1st DL 02/14/18
2nd FJ 02/15/18

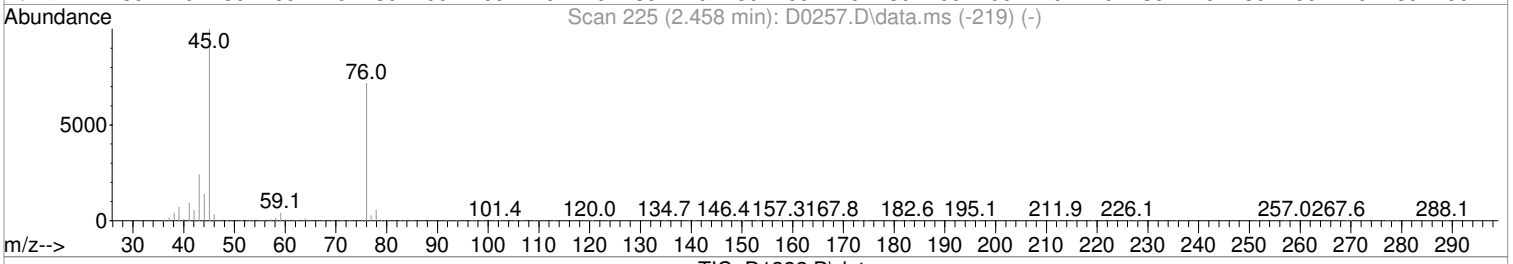
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(16) 2-Propanol

2.459min (-0.000) 21.44 ug/L m

response 2876

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	25.44
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

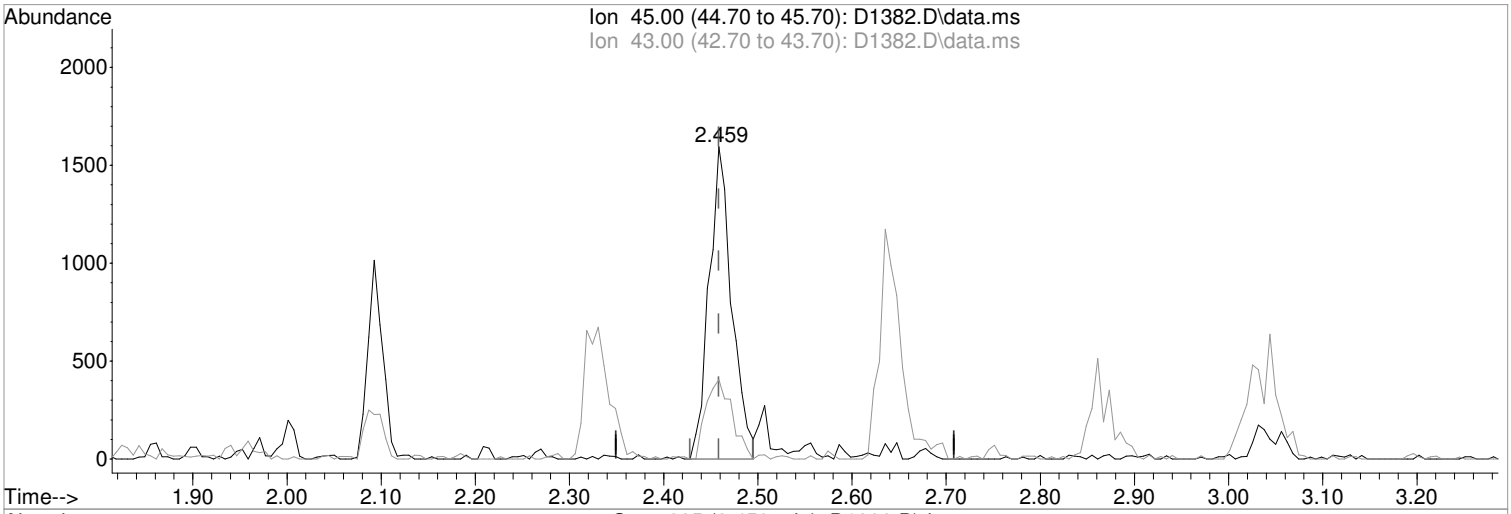
02/14/18

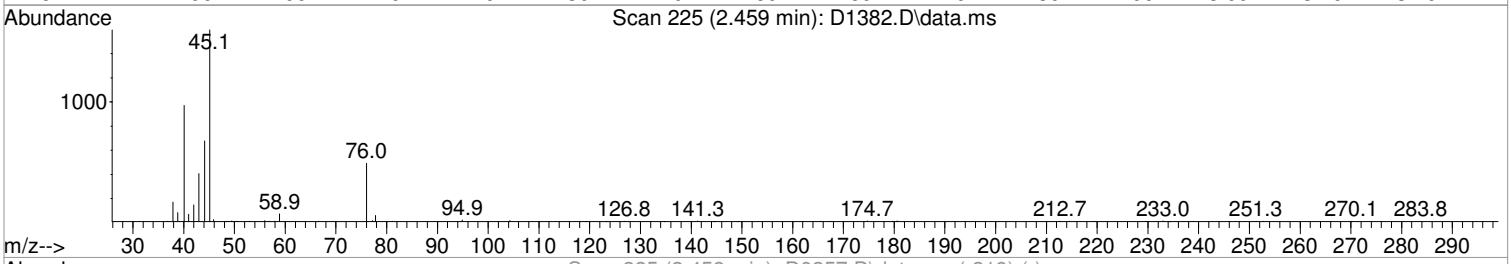
1st DL 02/14/18
2nd FW 02/15/18

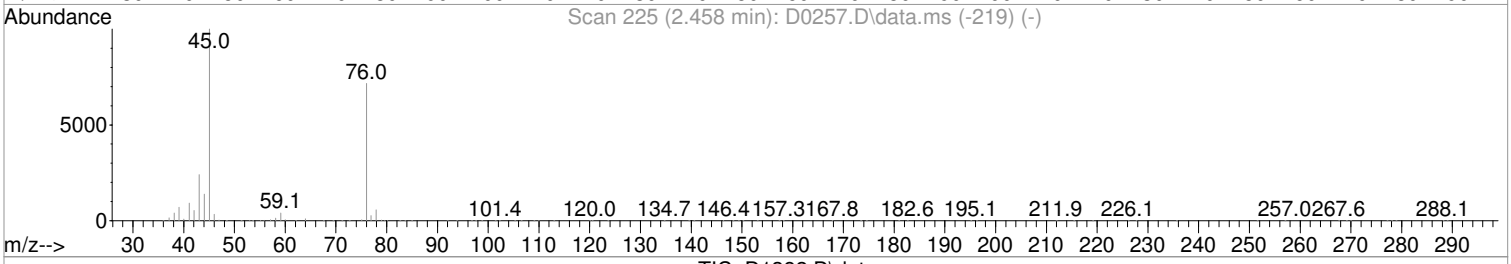
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(16) 2-Propanol

2.459min (-0.000) 19.95 ug/L

response 2676

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	25.44
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

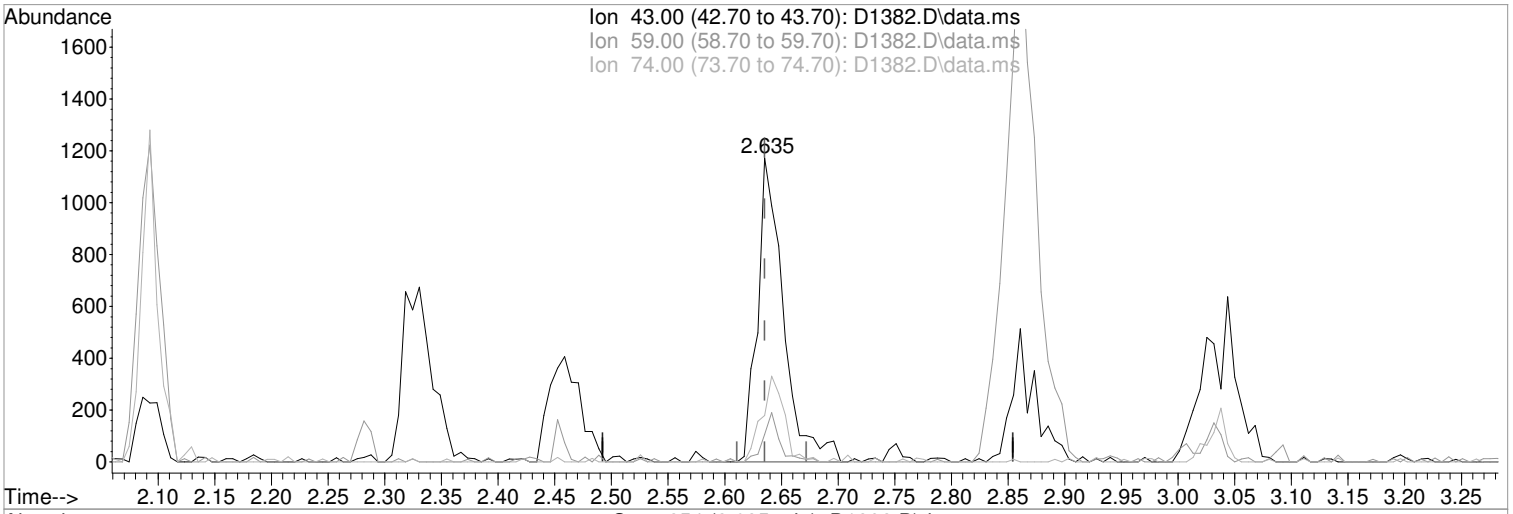
02/14/18

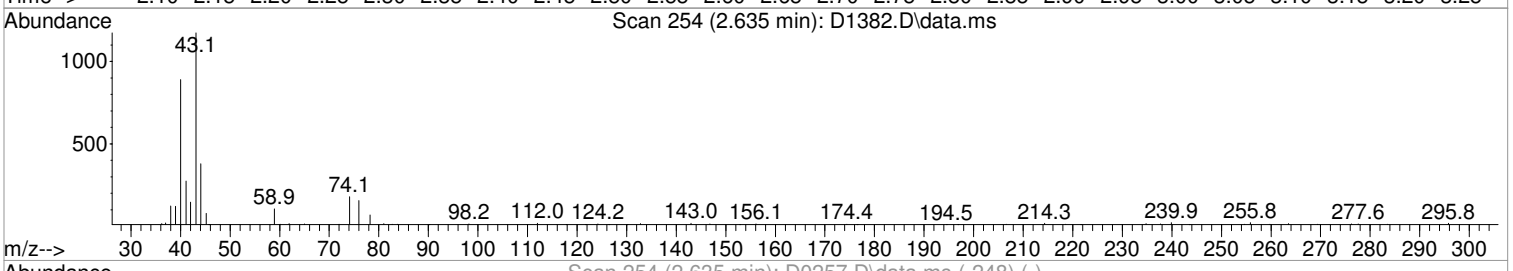
1st DL 02/14/18
2nd FJ 02/15/18

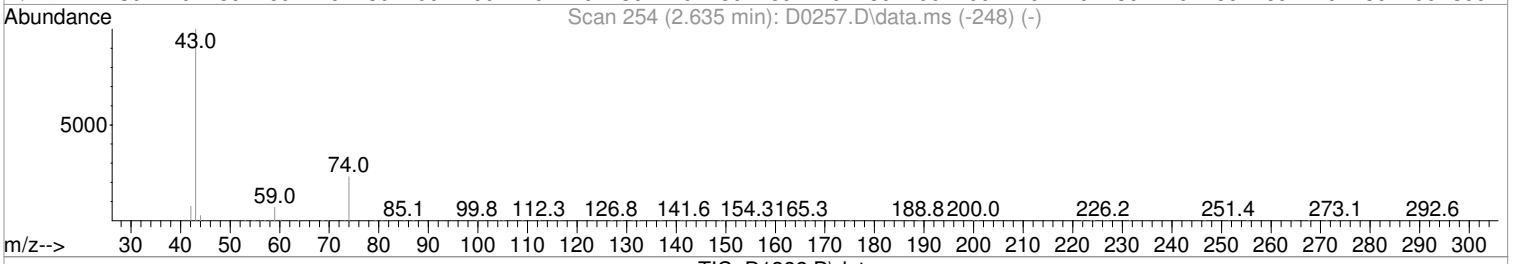
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(21) Methyl Acetate (P)

2.635min (-0.000) 0.96 ug/L m

response 1865

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	9.04
74.00	22.70	15.26
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

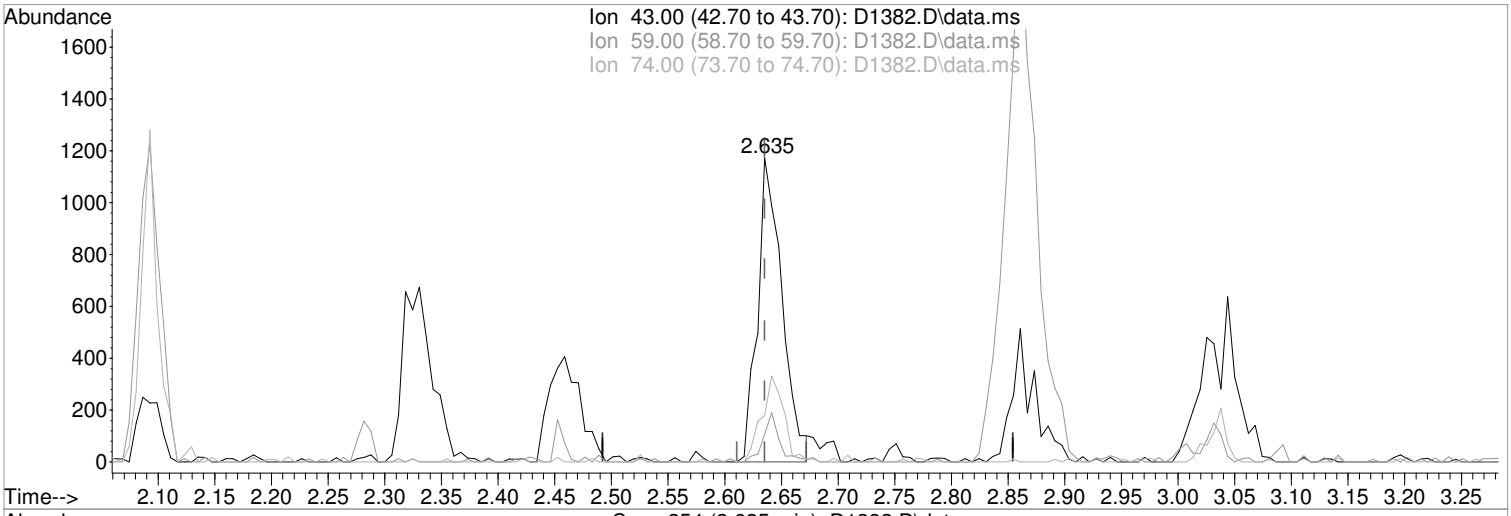
02/14/18

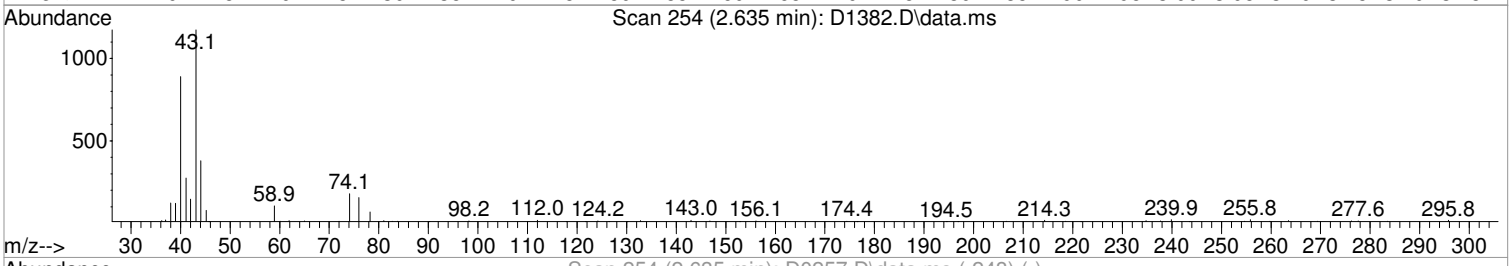
1st DL 02/14/18
2nd FJ 02/15/18

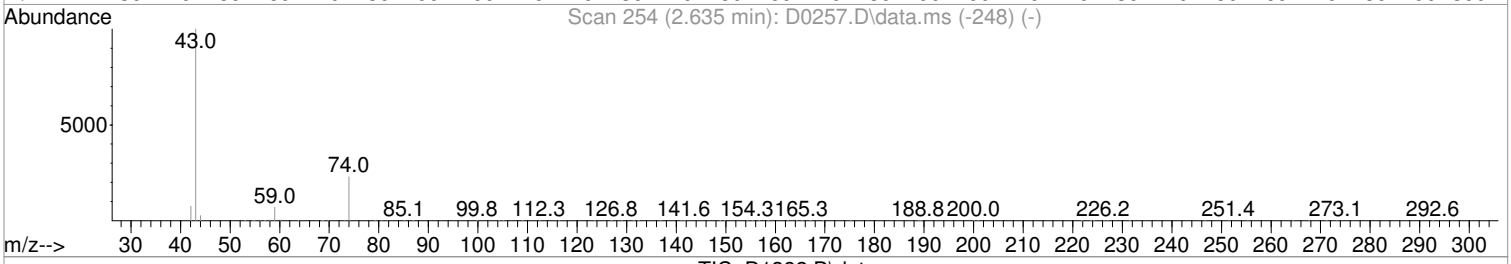
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(21) Methyl Acetate (P)

2.635min (-0.000) 0.90 ug/L

response 1755

Ion	Exp%	Act%
43.00	100	100
59.00	7.30	9.04
74.00	22.70	15.26
0.00	0.00	0.00

Manual Integration:

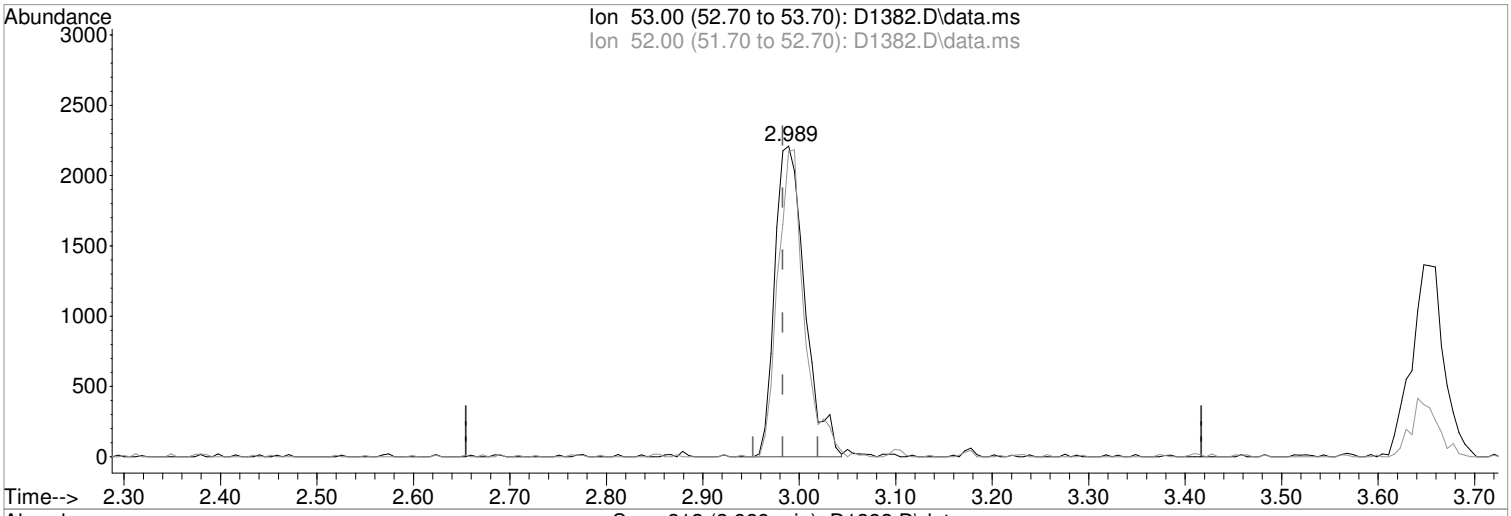
Before

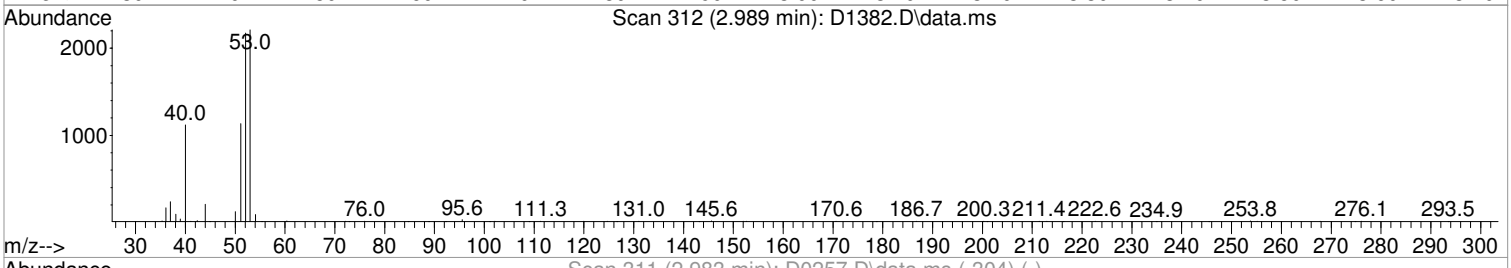
02/14/18

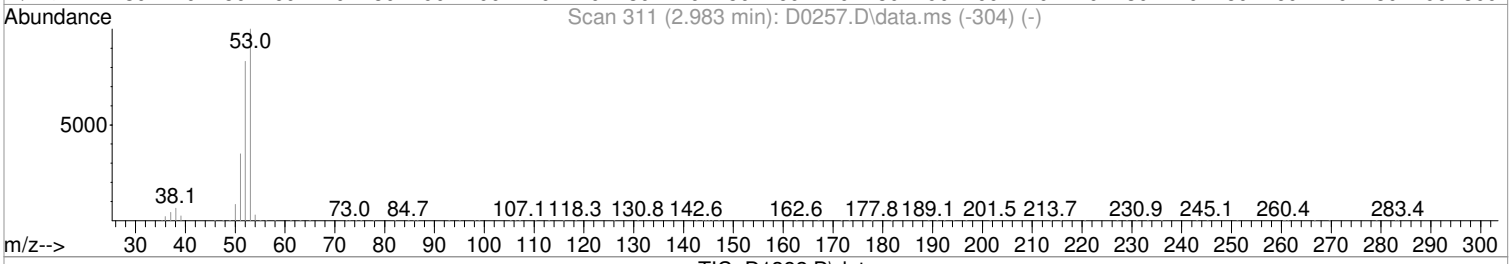
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(24) Acrylonitrile

2.989min (+0.006) 4.84 ug/L m

response 4794

Ion	Exp%	Act%
53.00	100	100
52.00	83.10	98.37
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

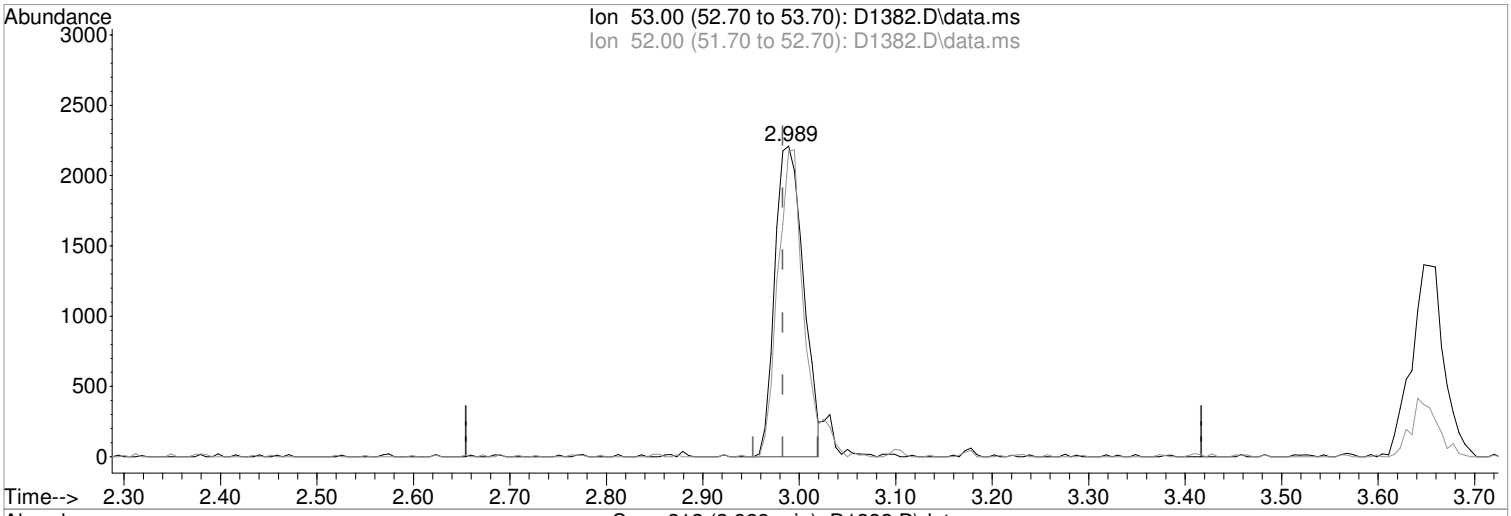
02/14/18

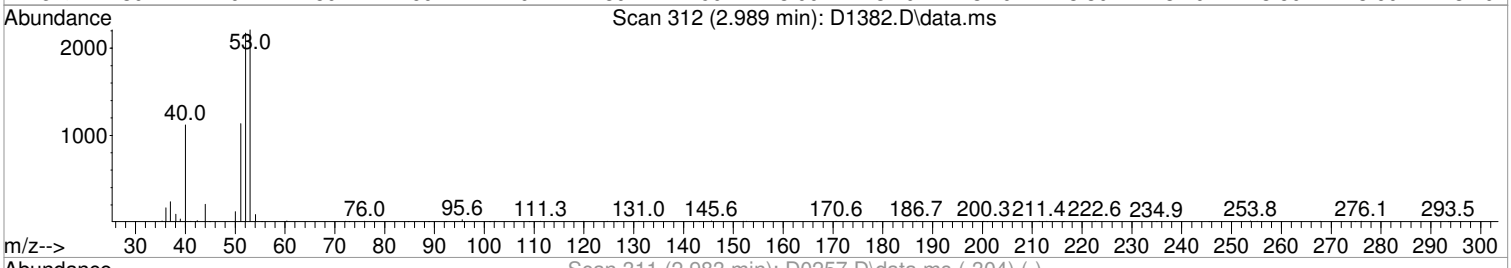
1st DL 02/14/18
2nd FJ 02/15/18

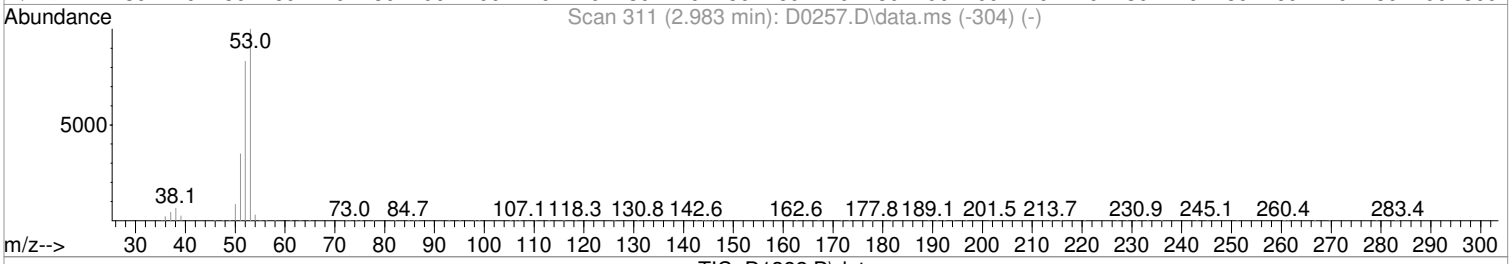
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(24) Acrylonitrile

2.989min (+0.006) 4.61 ug/L

response 4560

Ion	Exp%	Act%
53.00	100	100
52.00	83.10	98.37
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

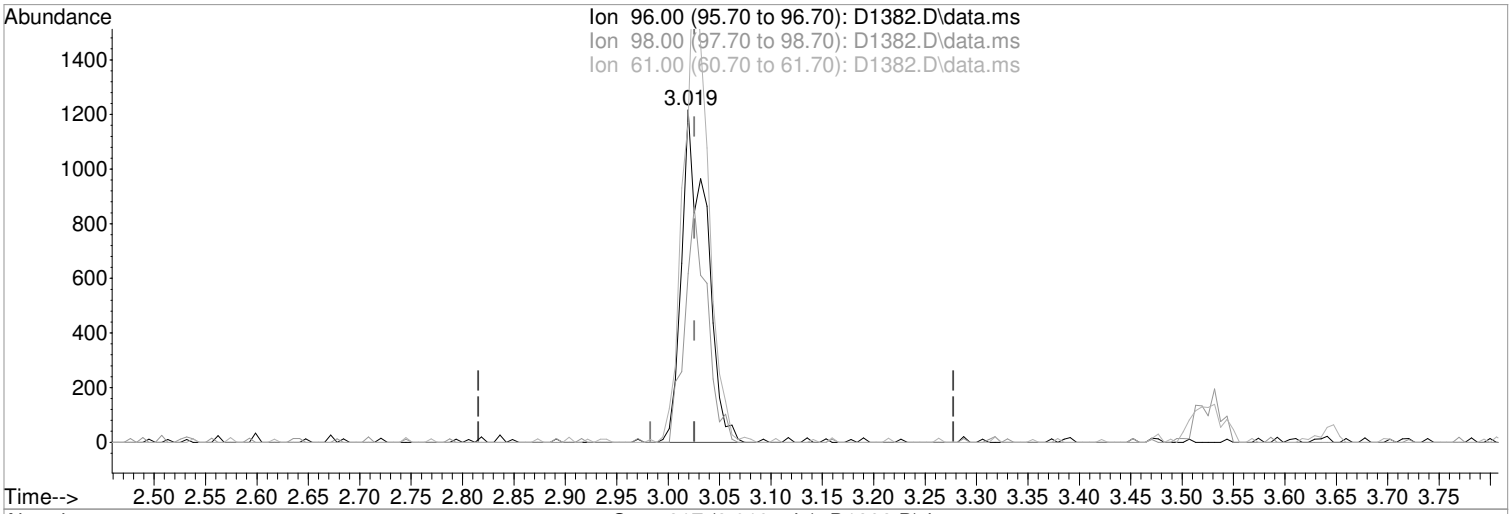
02/14/18

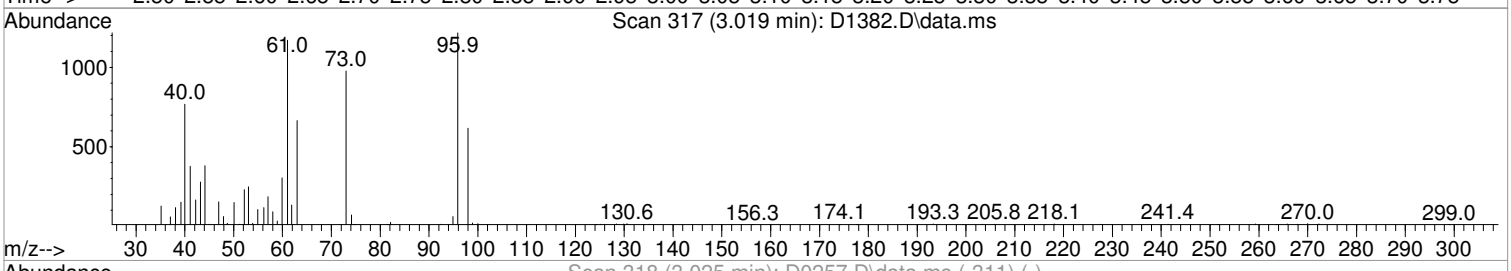
1st DL 02/14/18
2nd FJ 02/15/18

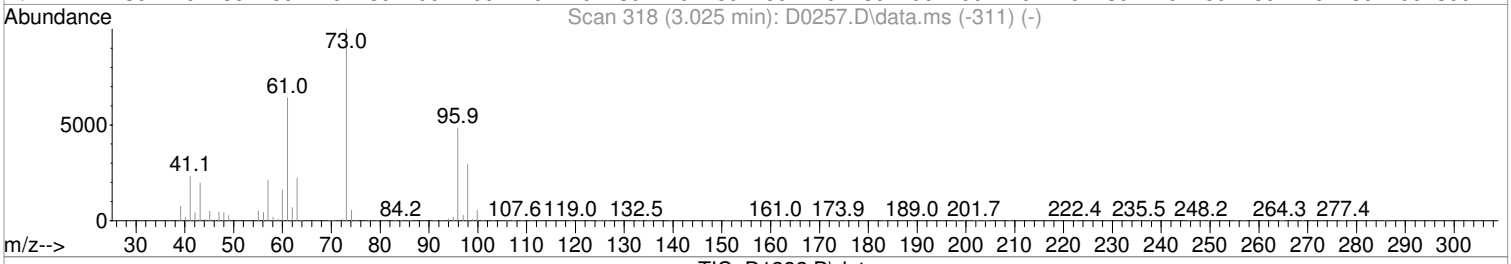
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.019min (-0.006) 1.07 ug/L m

response 2034

Ion	Exp%	Act%
96.00	100	100
98.00	60.90	50.70
61.00	133.10	96.22#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

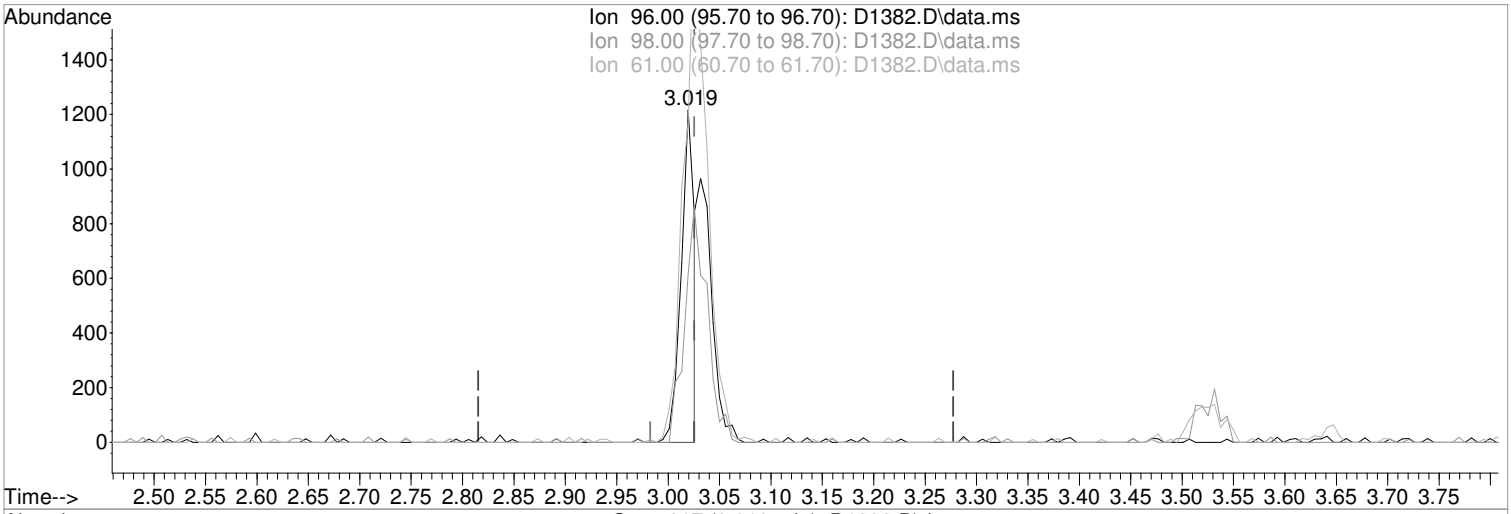
02/14/18

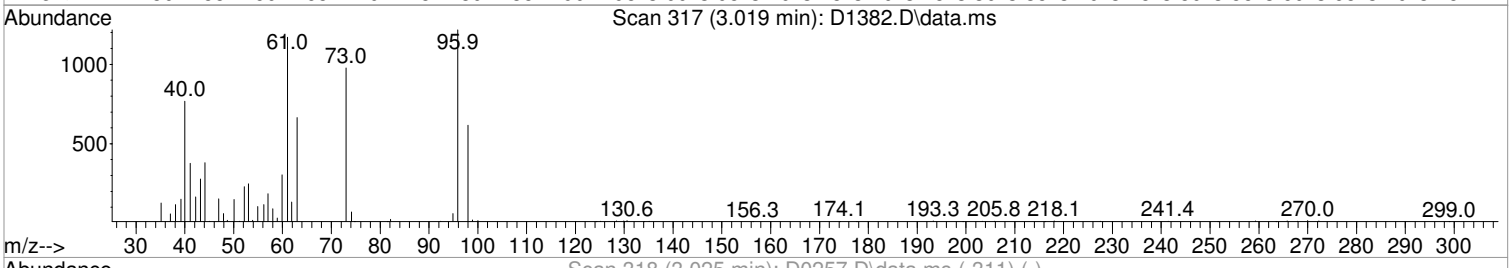
1st DL 02/14/18
2nd FJ 02/15/18

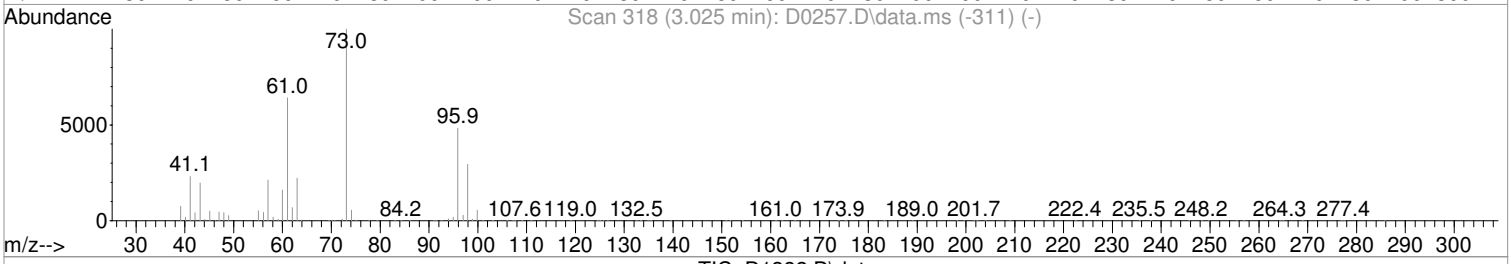
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(26) trans-1,2-Dichloroethene (P)

3.019min (-0.006) 0.58 ug/L

response 1098

Ion	Exp%	Act%
96.00	100	100
98.00	60.90	50.70
61.00	133.10	96.22#
0.00	0.00	0.00

Manual Integration:

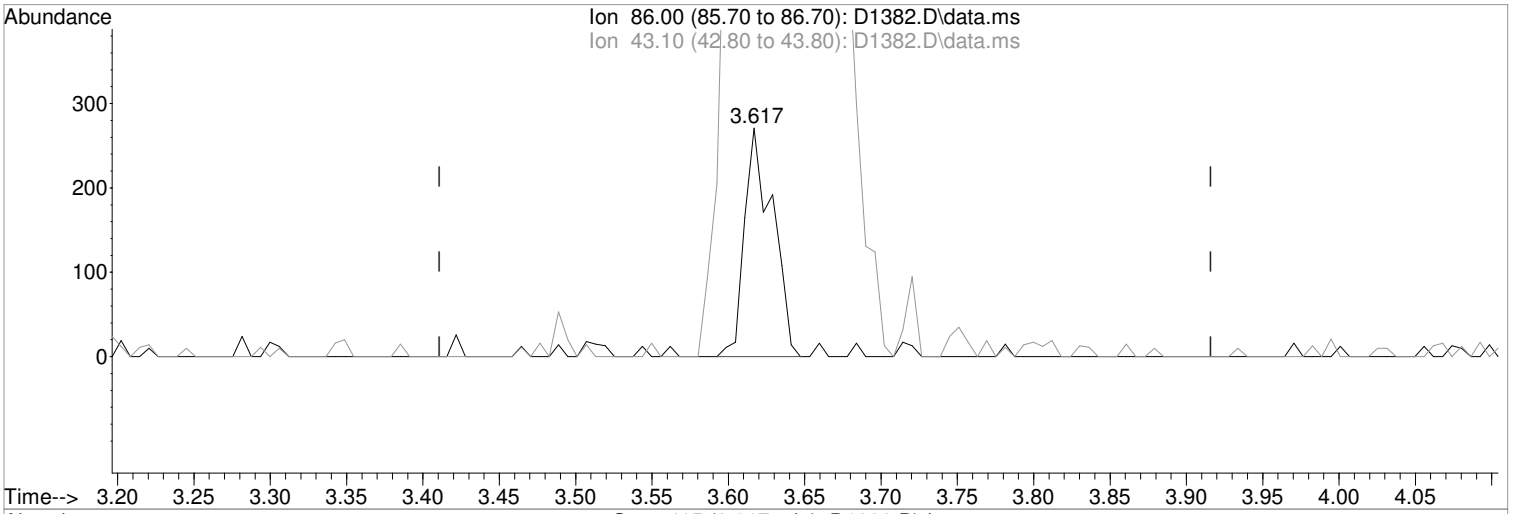
Before

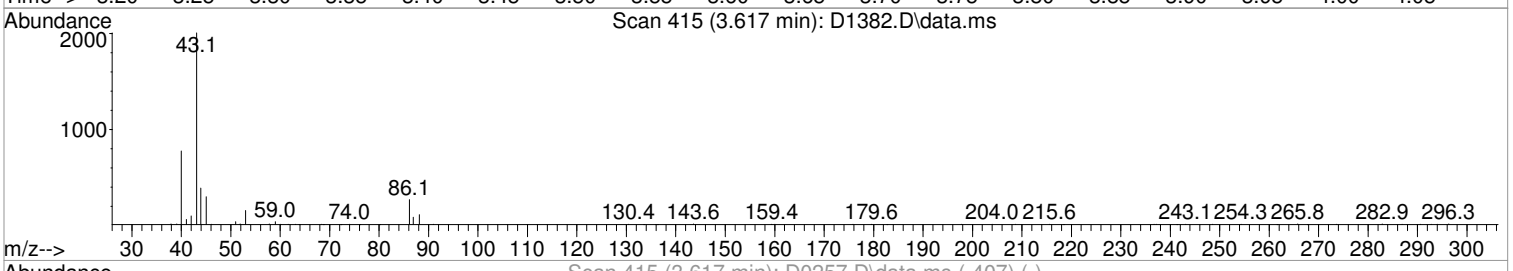
02/14/18

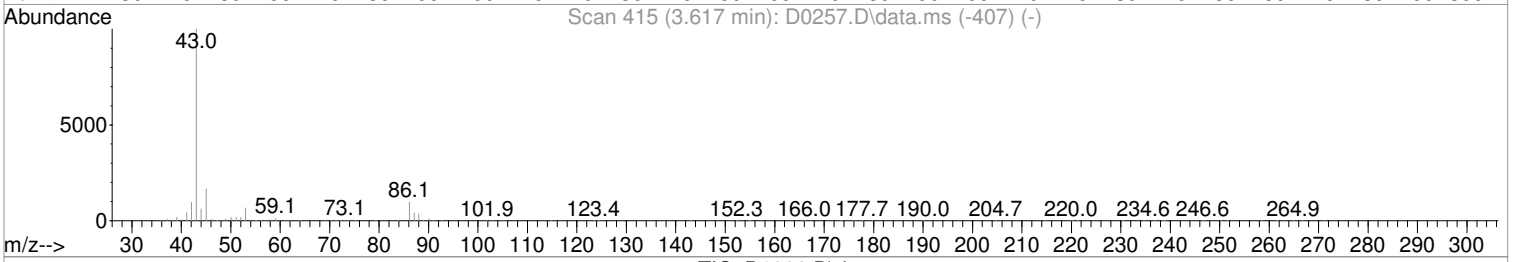
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(28) Vinyl Acetate

3.617min (+0.007) 0.87 ug/L m

response 347

Ion	Exp%	Act%
86.00	100	100
43.10	1043.10	740.59#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

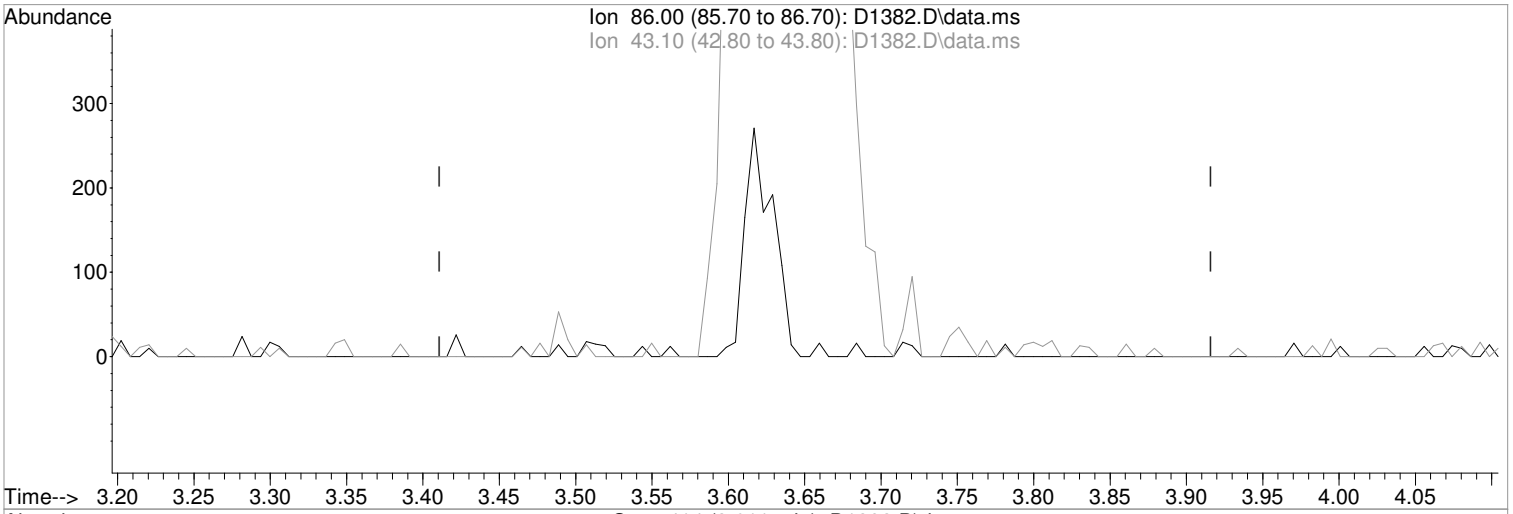
Peak not found.

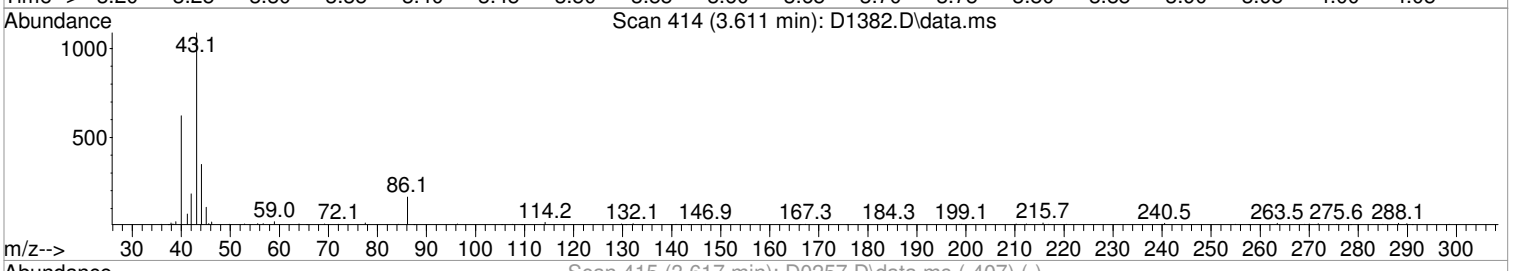
02/14/18

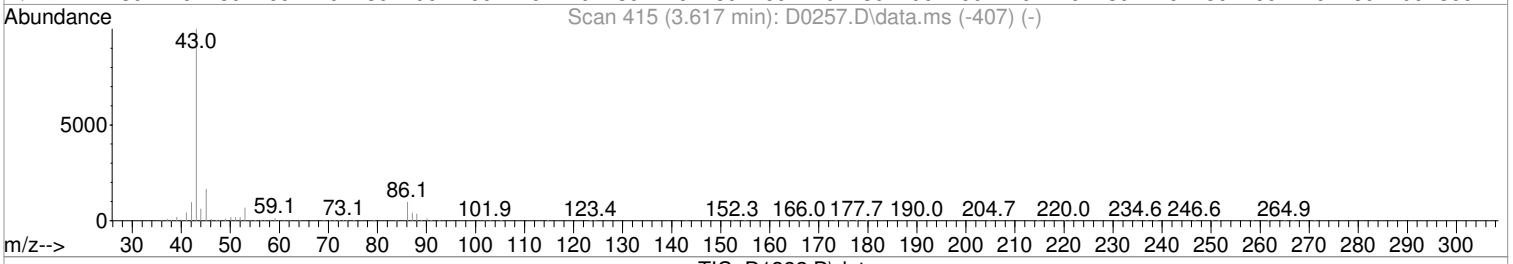
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(28) Vinyl Acetate

3.610min (-3.610) 0.00 ug/L

response 0

Ion	Exp%	Act%
86.00	100	0.00
43.10	1043.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

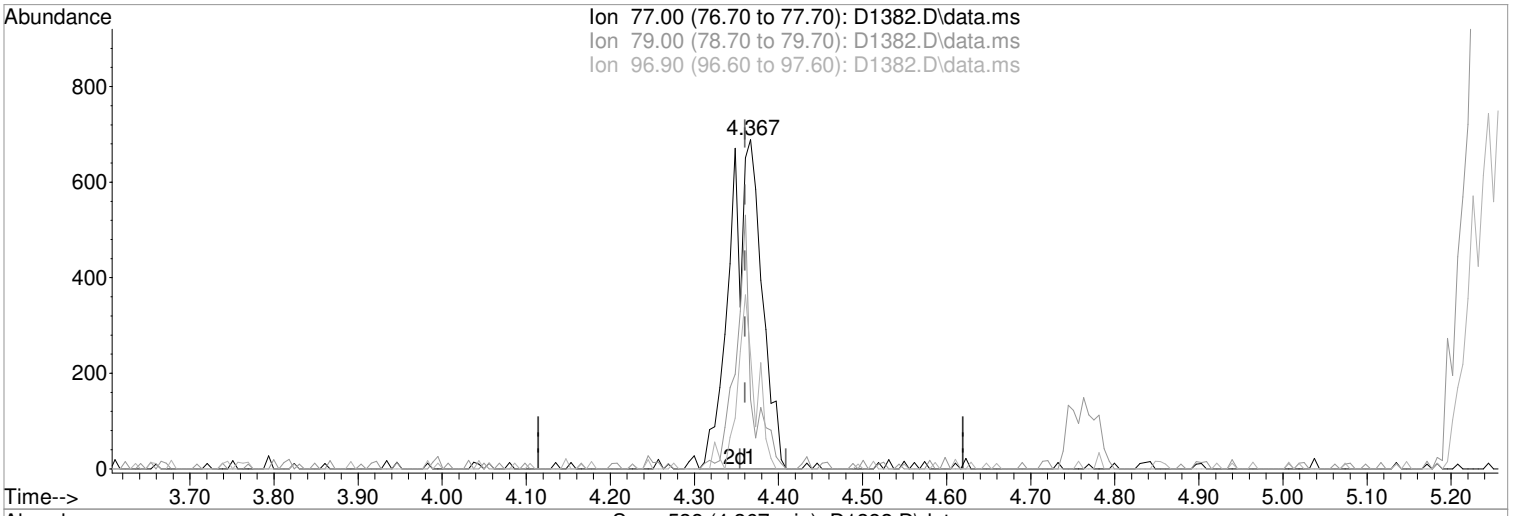
Before

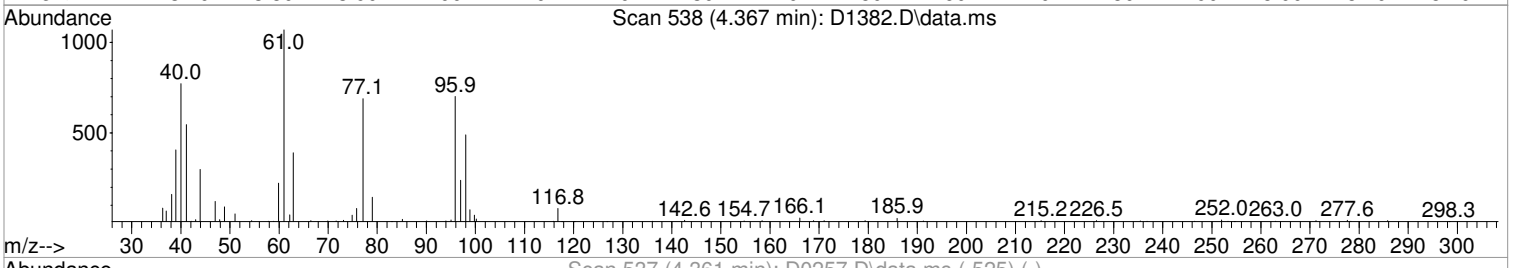
02/14/18

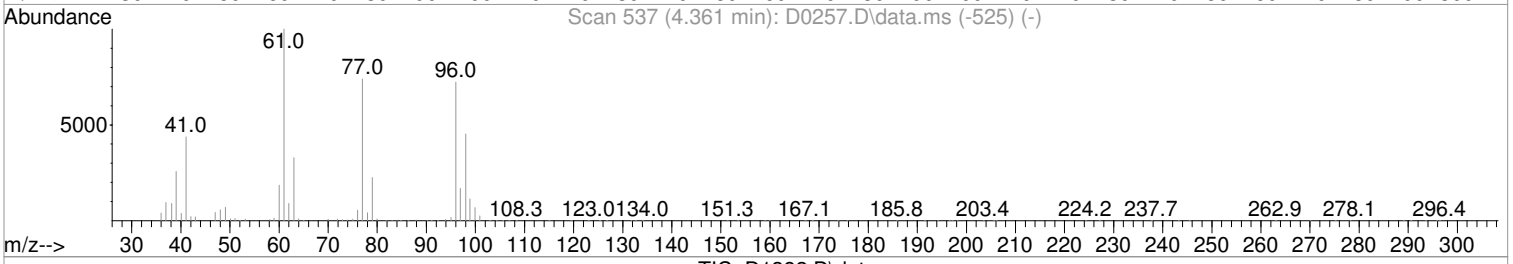
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(32) 2,2-Dichloropropane

4.367min (+0.006) 0.94 ug/L m

response 1823

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	21.04
96.90	22.80	34.69
0.00	0.00	0.00

Manual Integration:

After

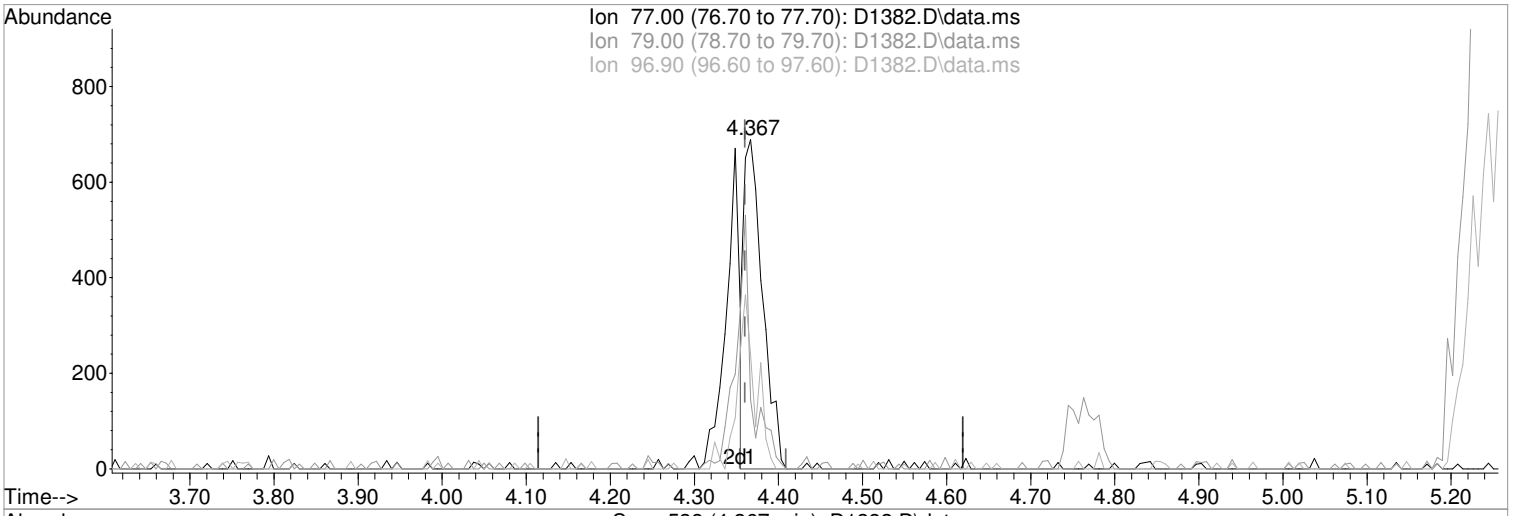
Poor integration.

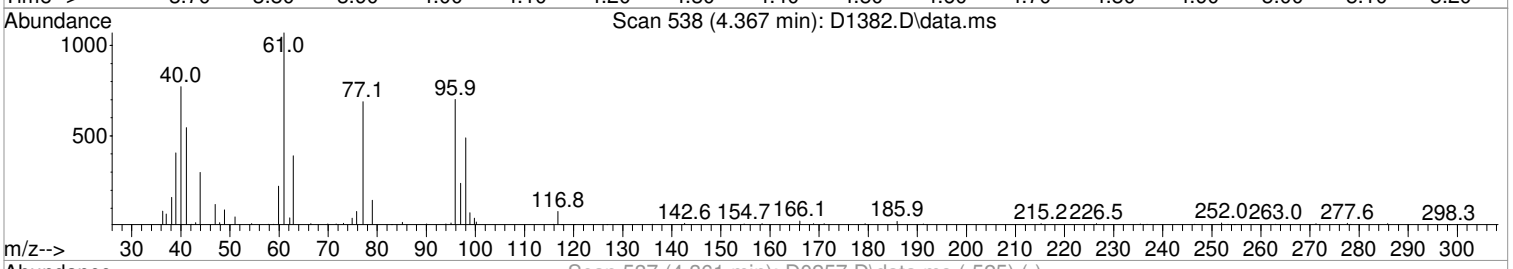
02/14/18

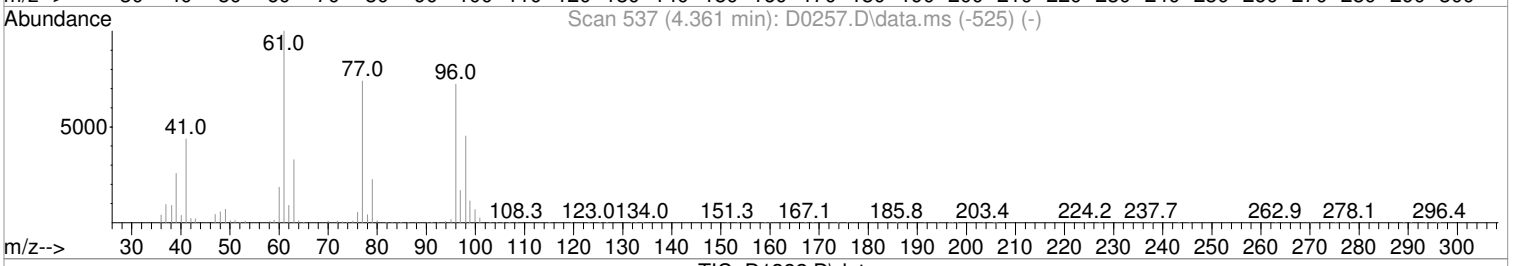
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(32) 2,2-Dichloropropane

4.367min (+0.006) 0.55 ug/L

response 1064

Ion	Exp%	Act%
77.00	100	100
79.00	30.50	21.04
96.90	22.80	34.69
0.00	0.00	0.00

Manual Integration:

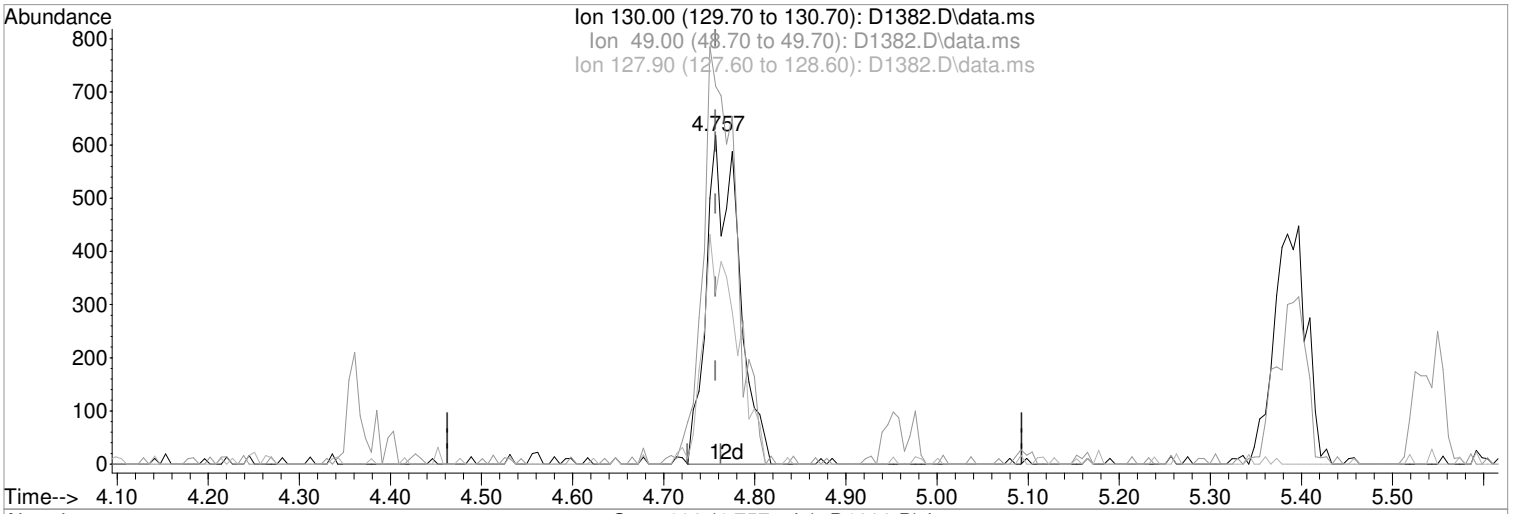
Before

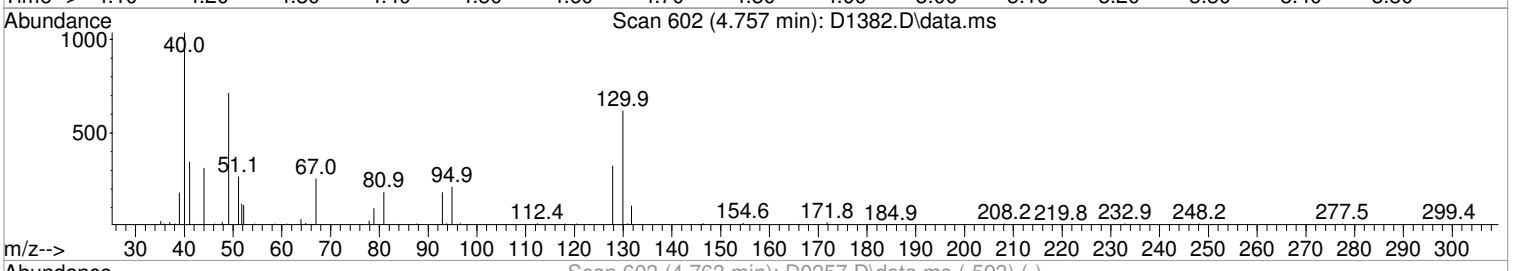
02/14/18

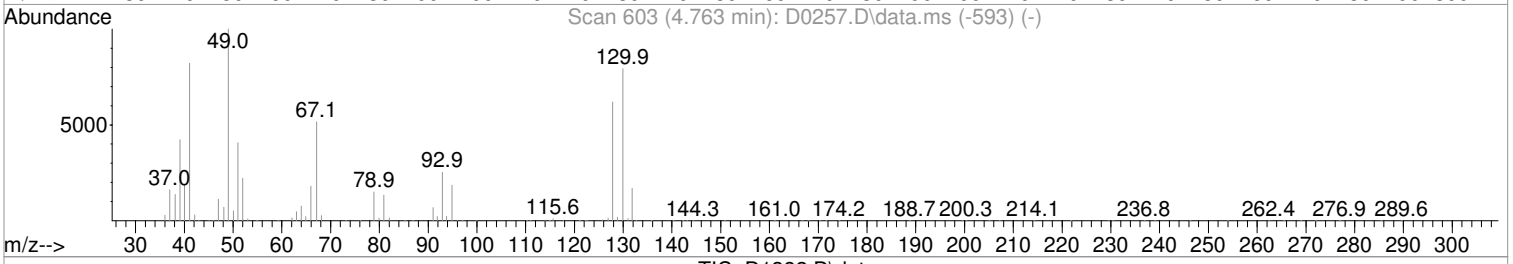
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(36) Bromochloromethane

4.757min (-0.000) 1.18 ug/L m

response 1518

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	115.05
127.90	78.50	52.27#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

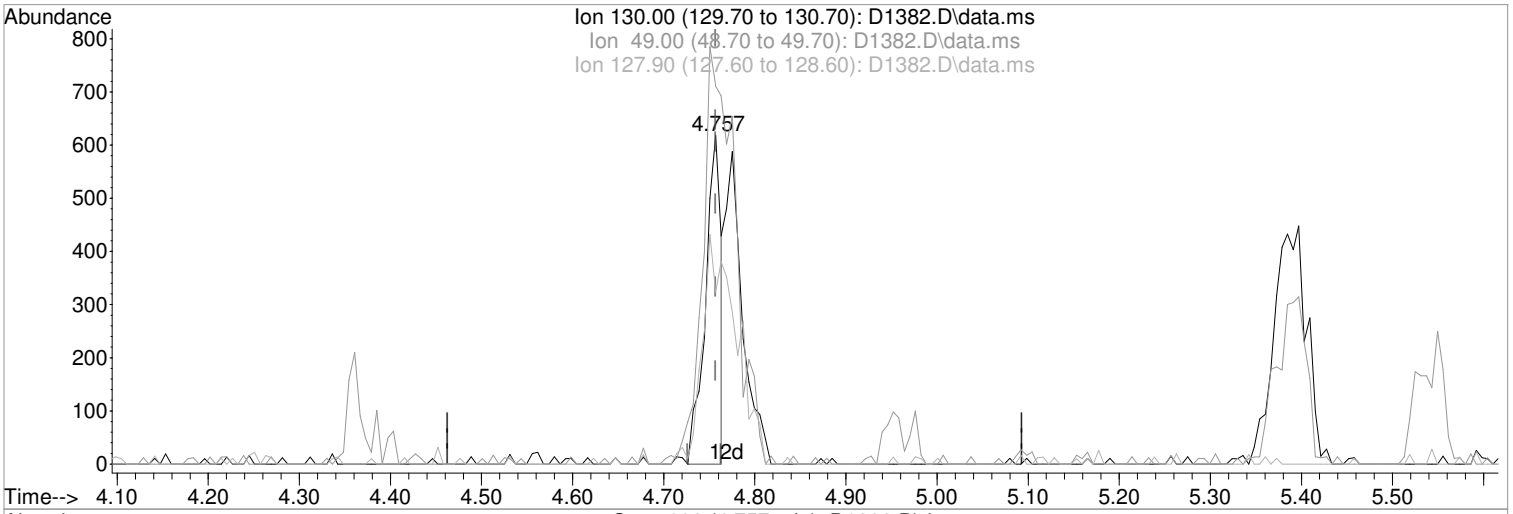
02/14/18

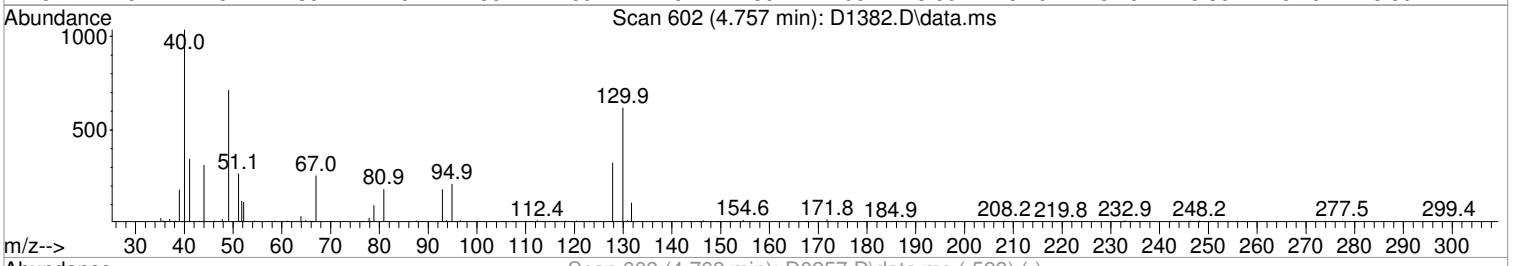
1st DL 02/14/18
2nd FW 02/15/18

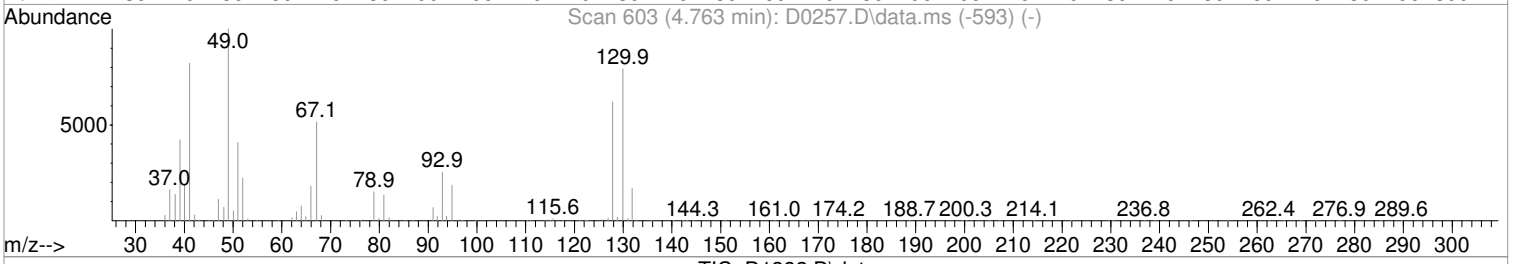
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(36) Bromochloromethane

4.757min (-0.000) 0.58 ug/L

response 740

Ion	Exp%	Act%
130.00	100	100
49.00	127.00	115.05
127.90	78.50	52.27#
0.00	0.00	0.00

Manual Integration:

Before

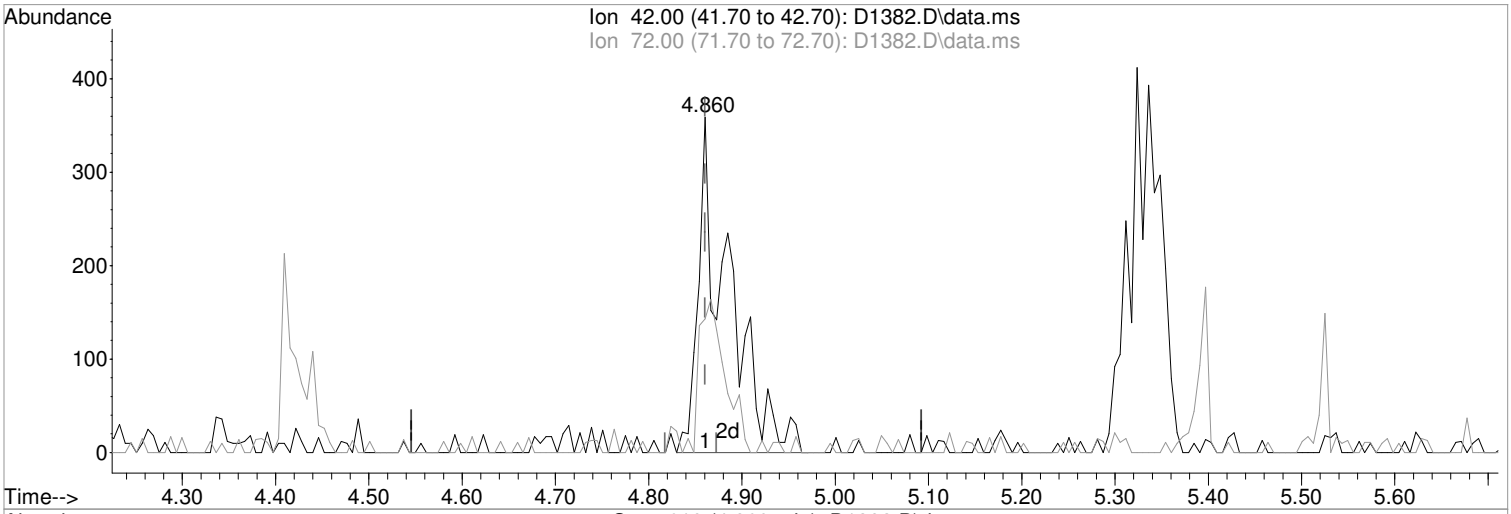
02/14/18

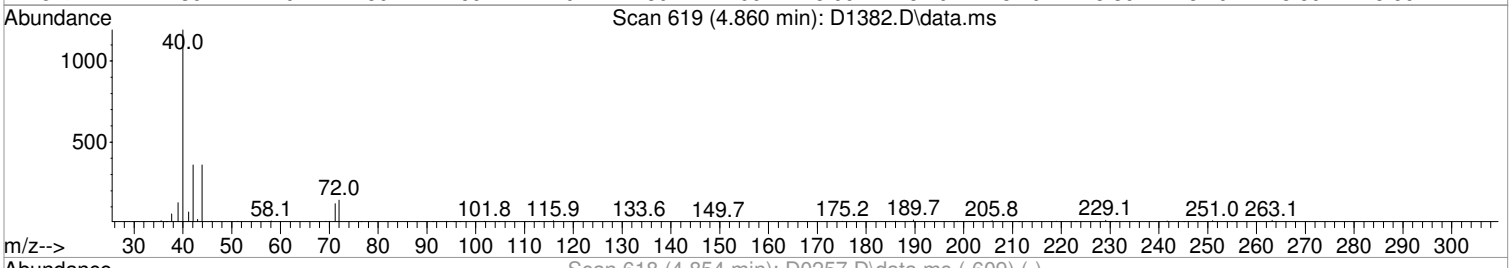
1st DL 02/14/18
2nd FW 02/15/18

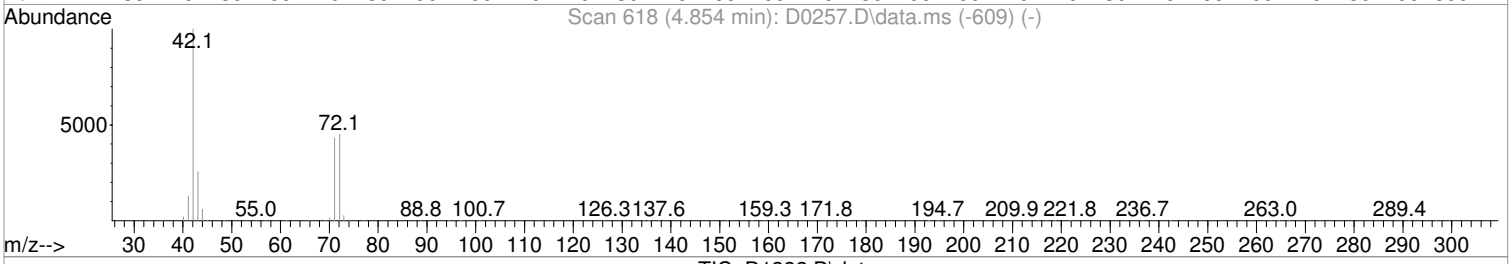
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(38) Tetrahydrofuran

4.860min (-0.000) 1.06 ug/L m

response 811

Ion	Exp%	Act%
42.00	100	100
72.00	44.00	39.83
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

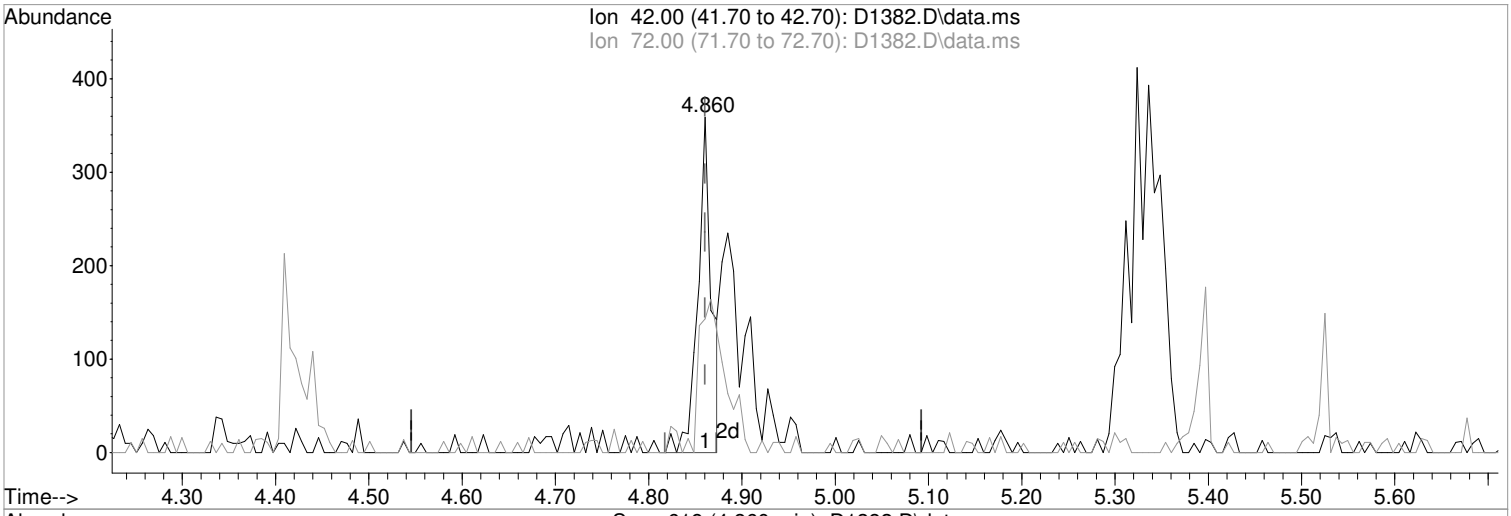
02/14/18

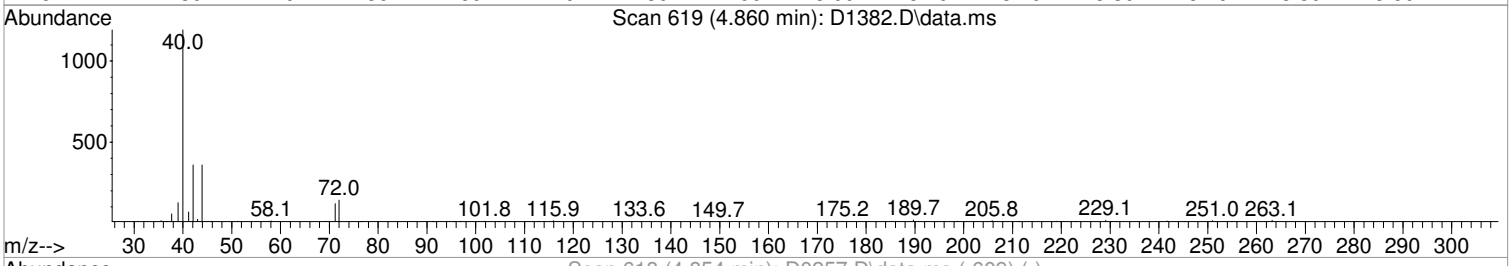
1st DL 02/14/18
2nd FW 02/15/18

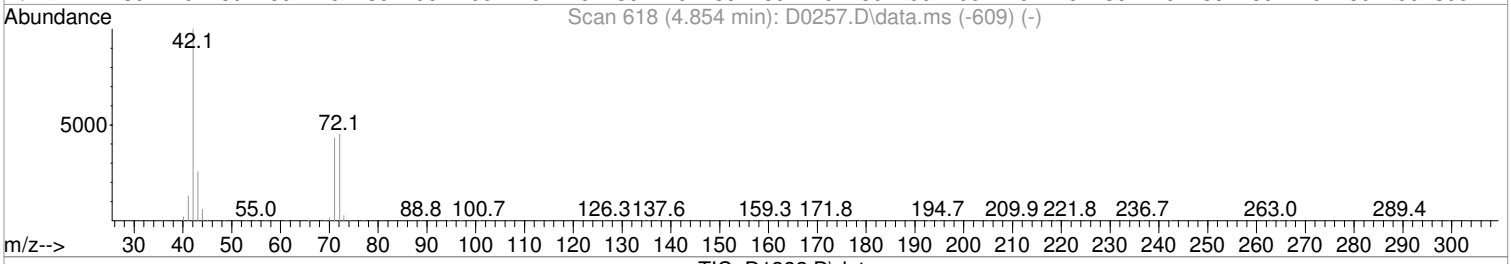
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(38) Tetrahydrofuran

4.860min (-0.000) 0.48 ug/L

response 368

Ion	Exp%	Act%
42.00	100	100
72.00	44.00	39.83
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

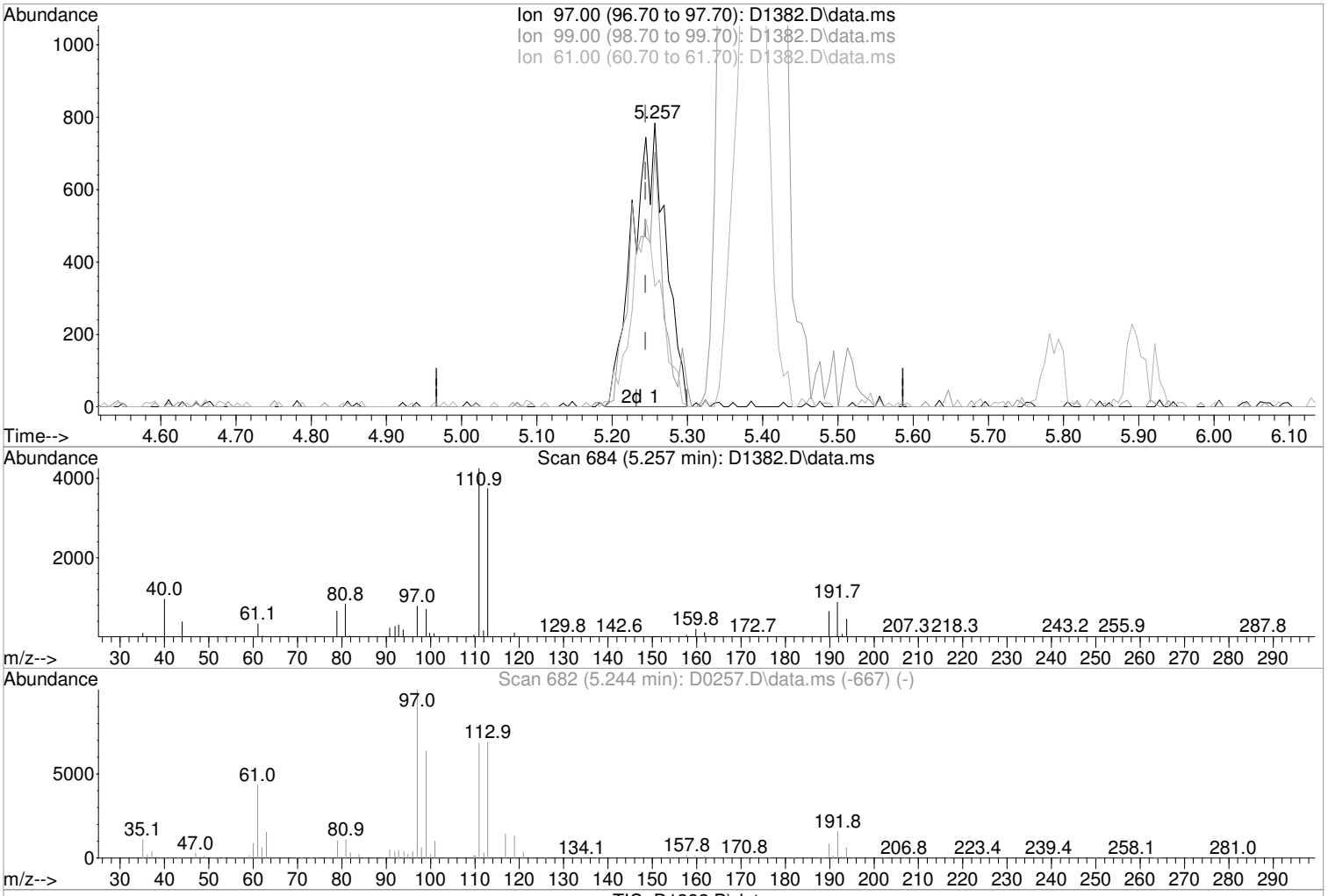
Before

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.257min (+0.012) 0.94 ug/L m

response 2405

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	89.67#
61.00	43.40	42.60
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

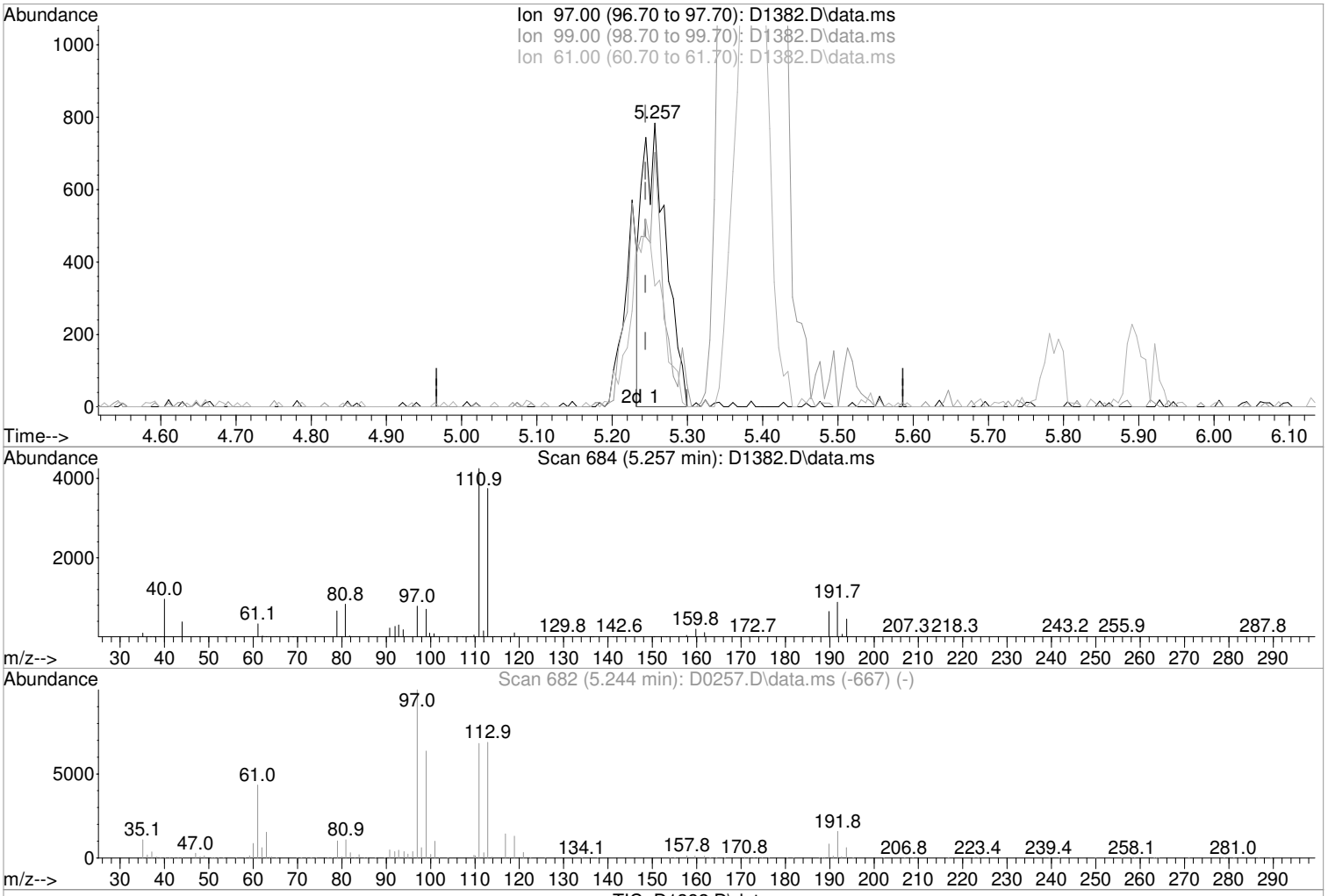
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.257min (+0.012) 0.67 ug/L

response 1726

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	89.67#
61.00	43.40	42.60
0.00	0.00	0.00

Manual Integration:

Before

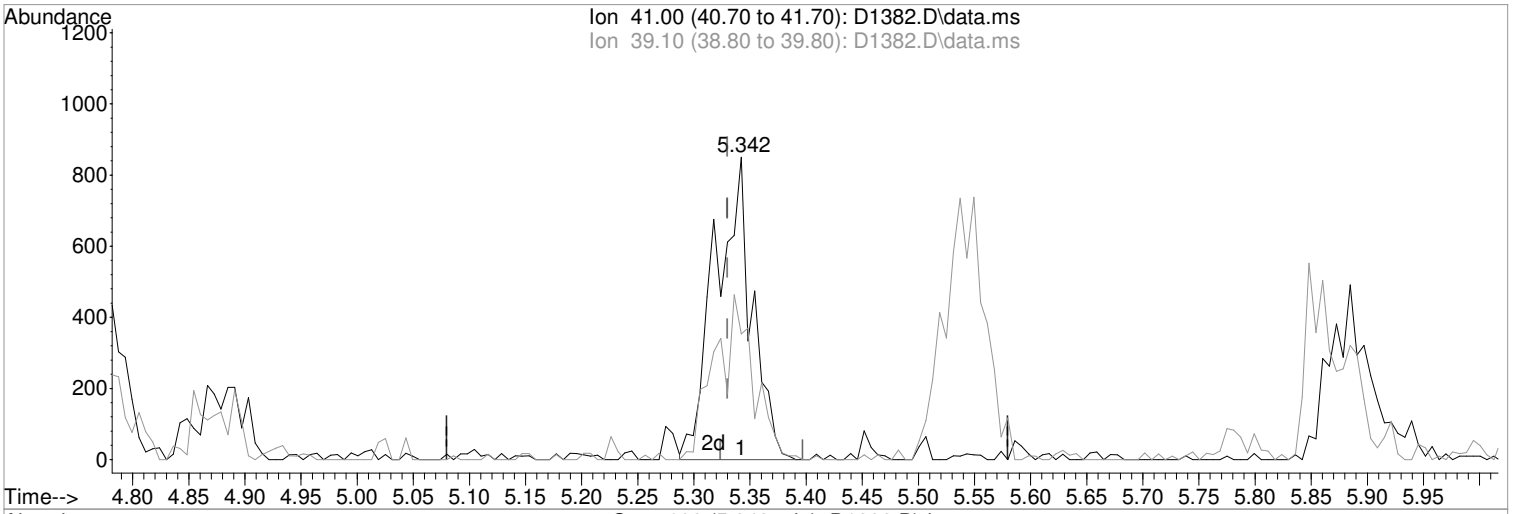
02/14/18

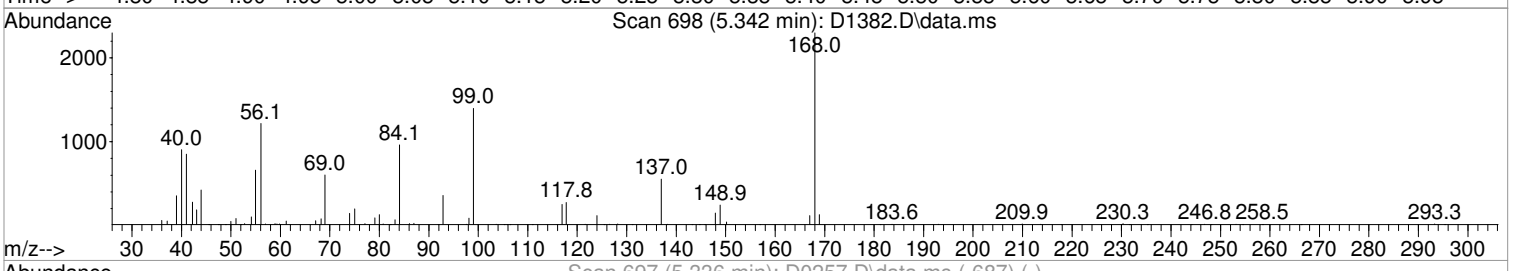
1st DL 02/14/18
2nd FW 02/15/18

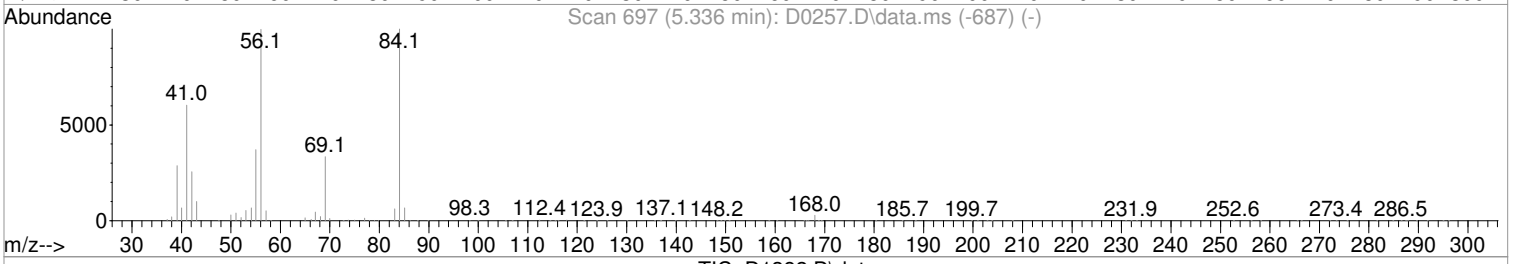
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(42) Cyclohexane (P)

5.342min (+0.012) 1.07 ug/L m

response 1947

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	41.53
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

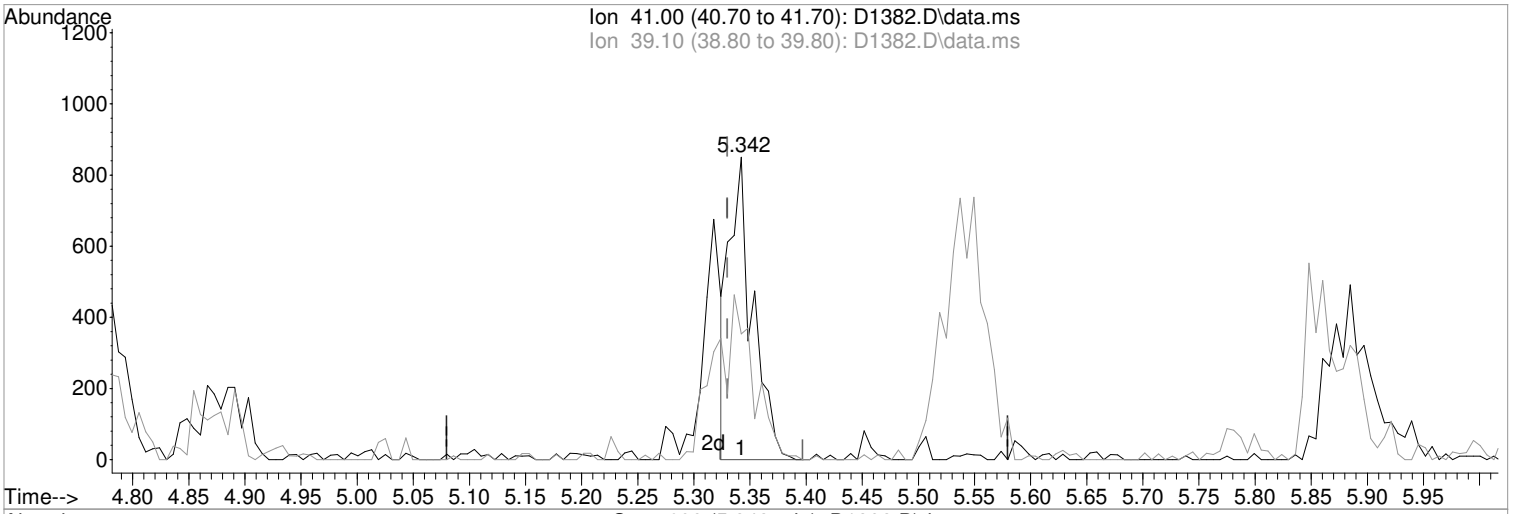
02/14/18

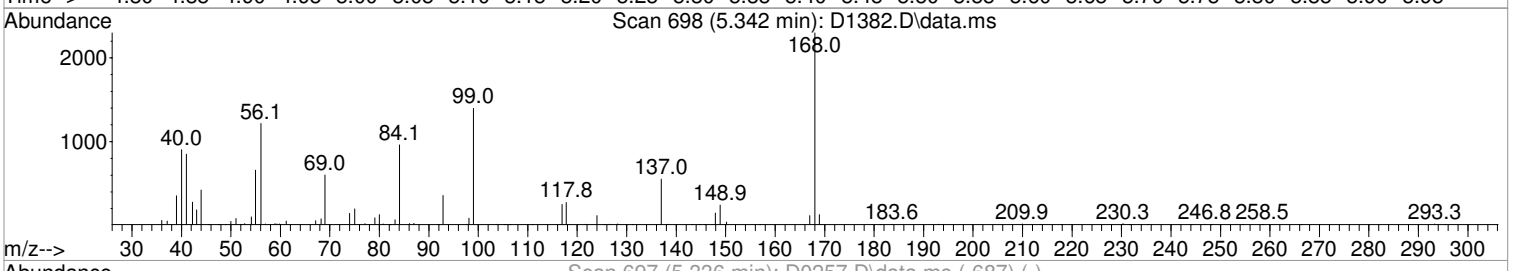
1st DL 02/14/18
2nd FW 02/15/18

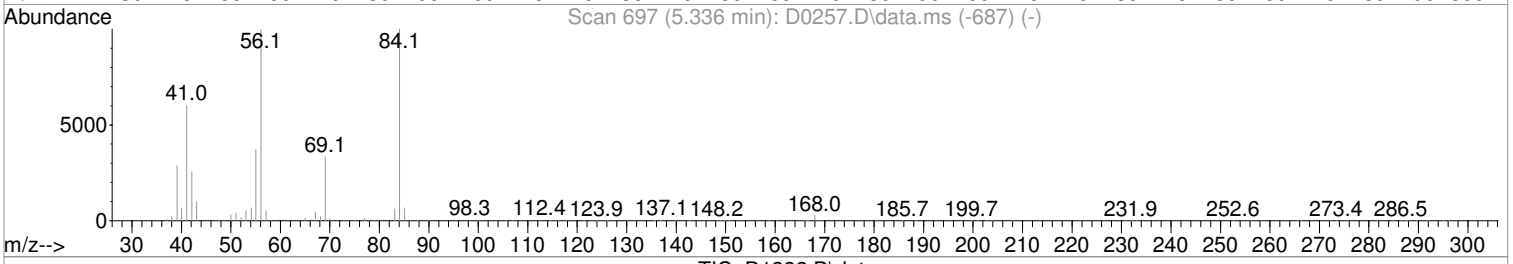
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(42) Cyclohexane (P)

5.342min (+0.012) 0.69 ug/L

response 1245

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	41.53
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

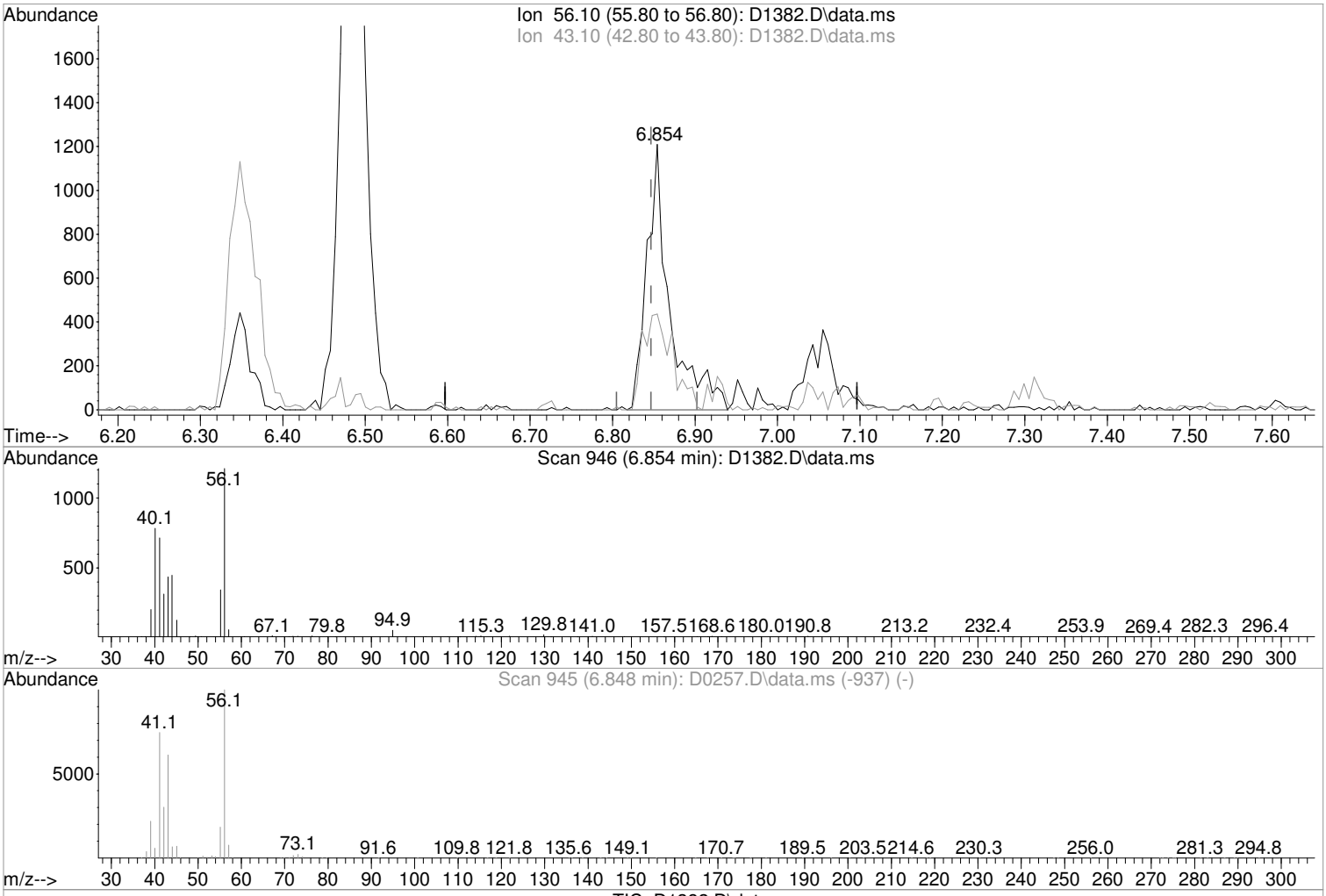
Before

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(52) 1-Butanol

6.854min (+0.007) 55.41 ug/L m

response 2355

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	36.03#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

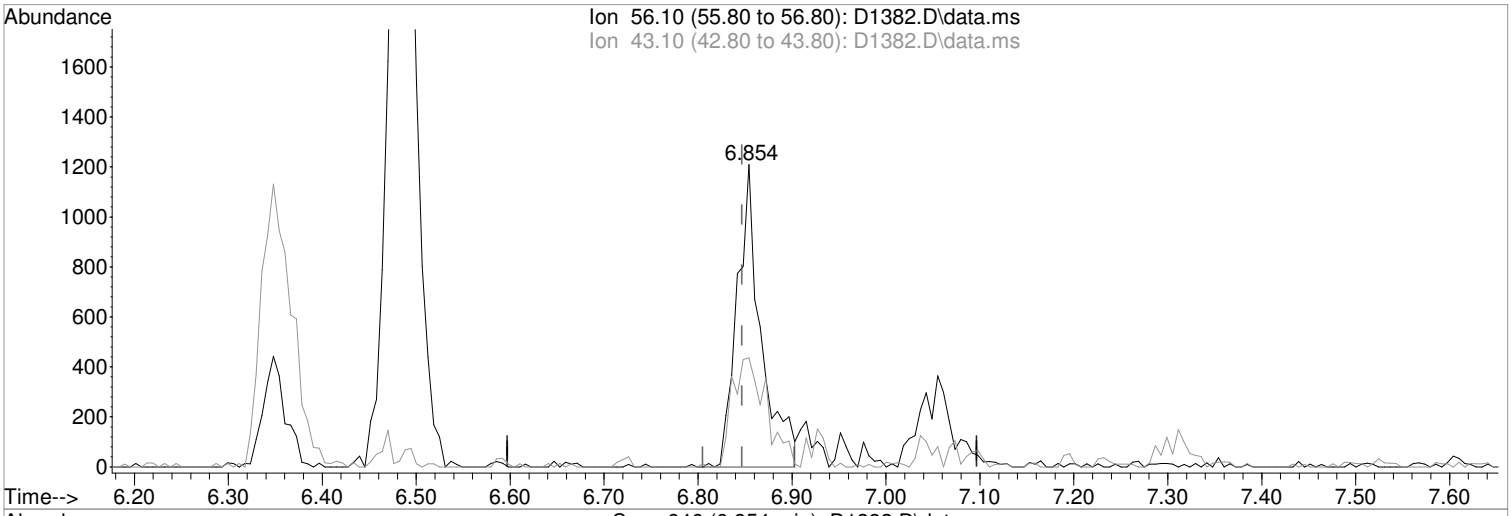
02/14/18

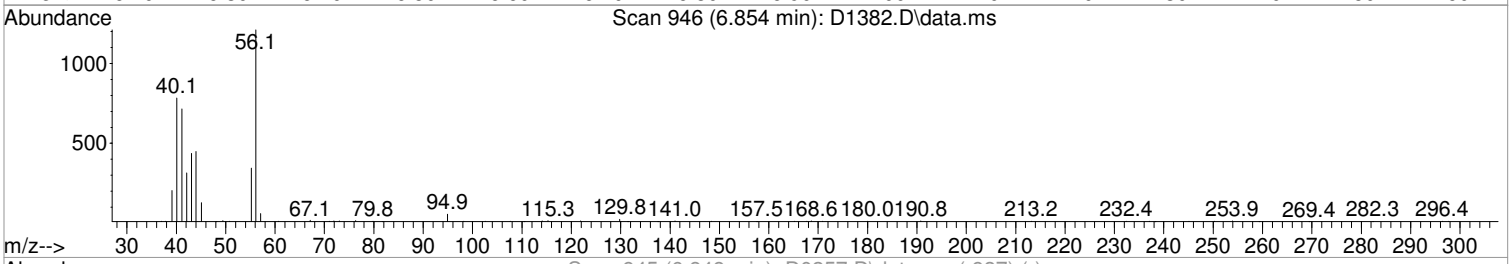
1st DL 02/14/18
2nd FJ 02/15/18

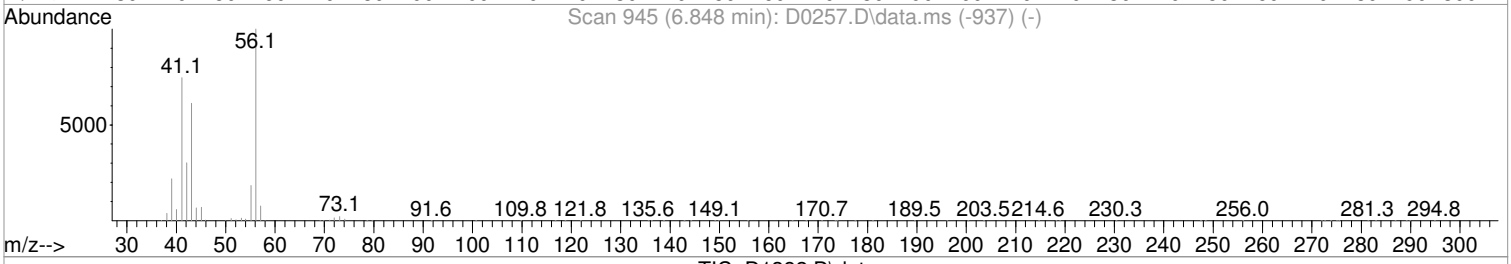
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(52) 1-Butanol

6.854min (+0.007) 51.50 ug/L

response 2145

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	36.03#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

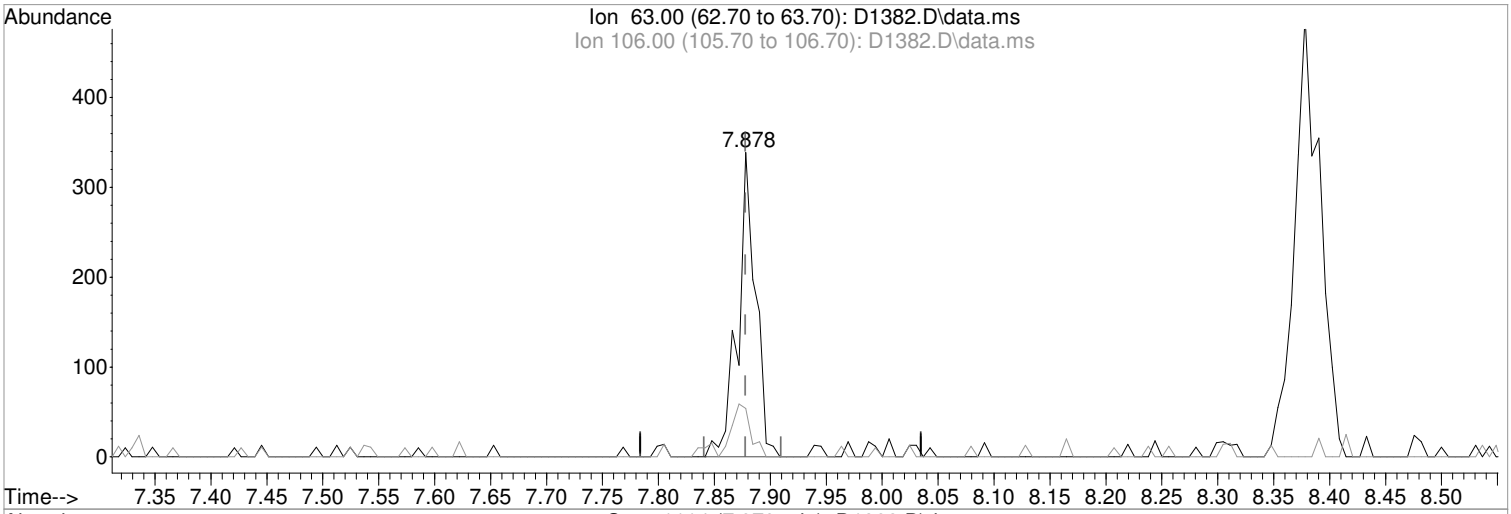
Before

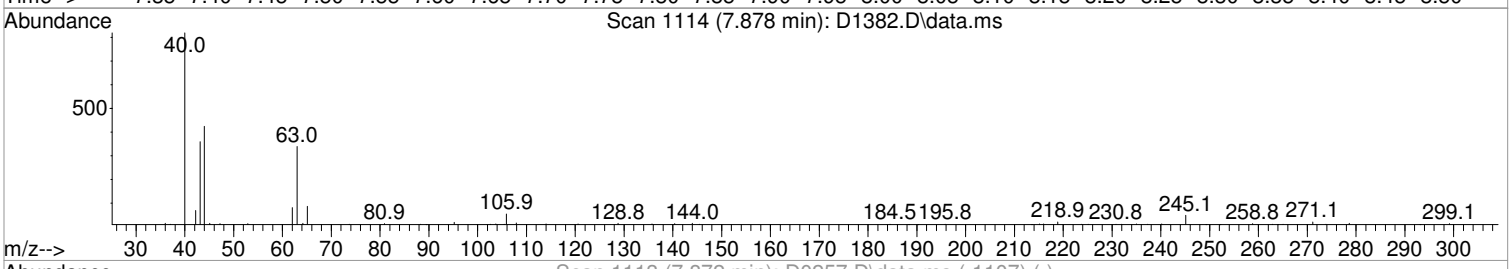
02/14/18

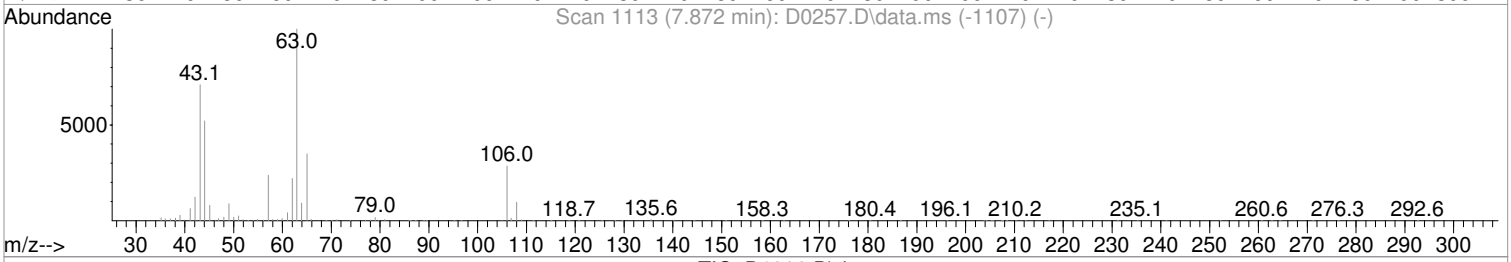
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(61) 2-Chloroethylvinyl Ether

7.878min (+0.000) 0.73 ug/L m

response 375

Ion	Exp%	Act%
63.00	100	100
106.00	28.50	15.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

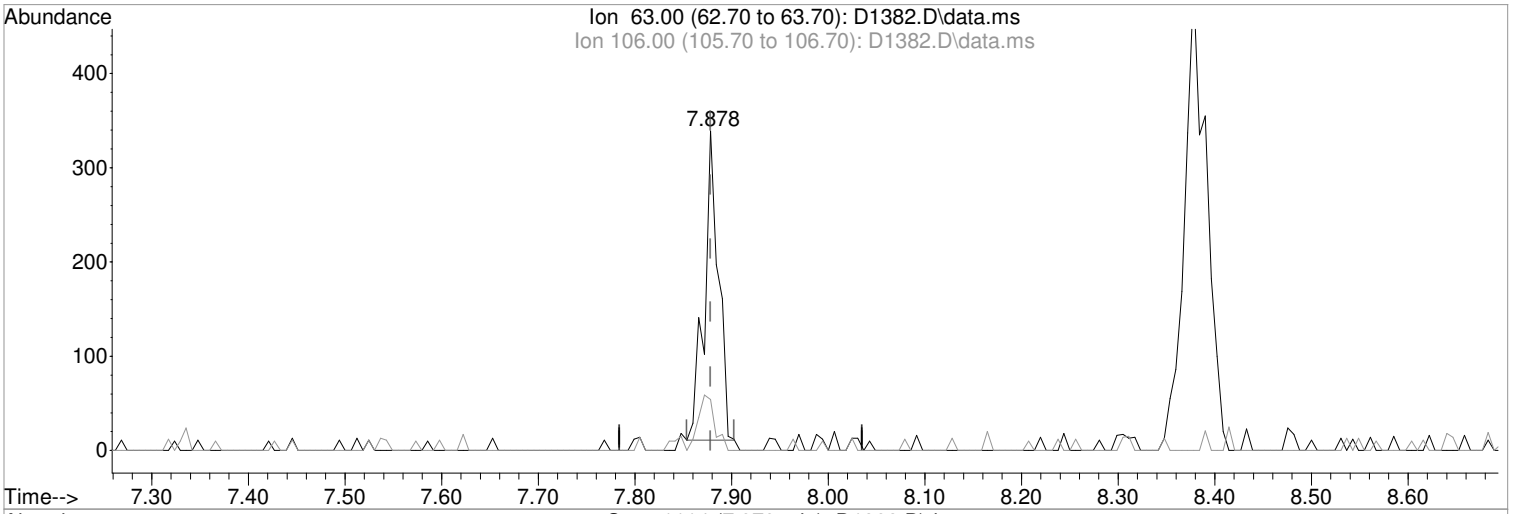
Poor integration.

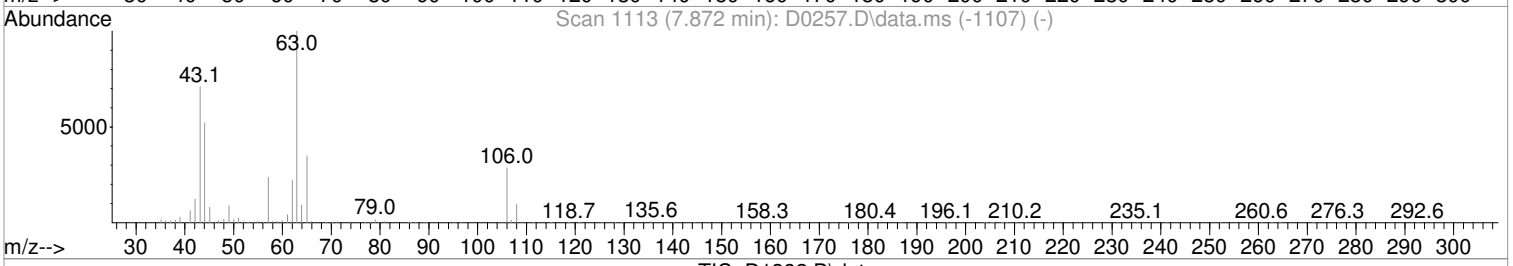
02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration





TIC: D1382.D\data.ms

(61) 2-Chloroethylvinyl Ether

7.878min (+0.000) 0.65 ug/L

response 332

Ion	Exp%	Act%
63.00	100	100
106.00	28.50	15.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

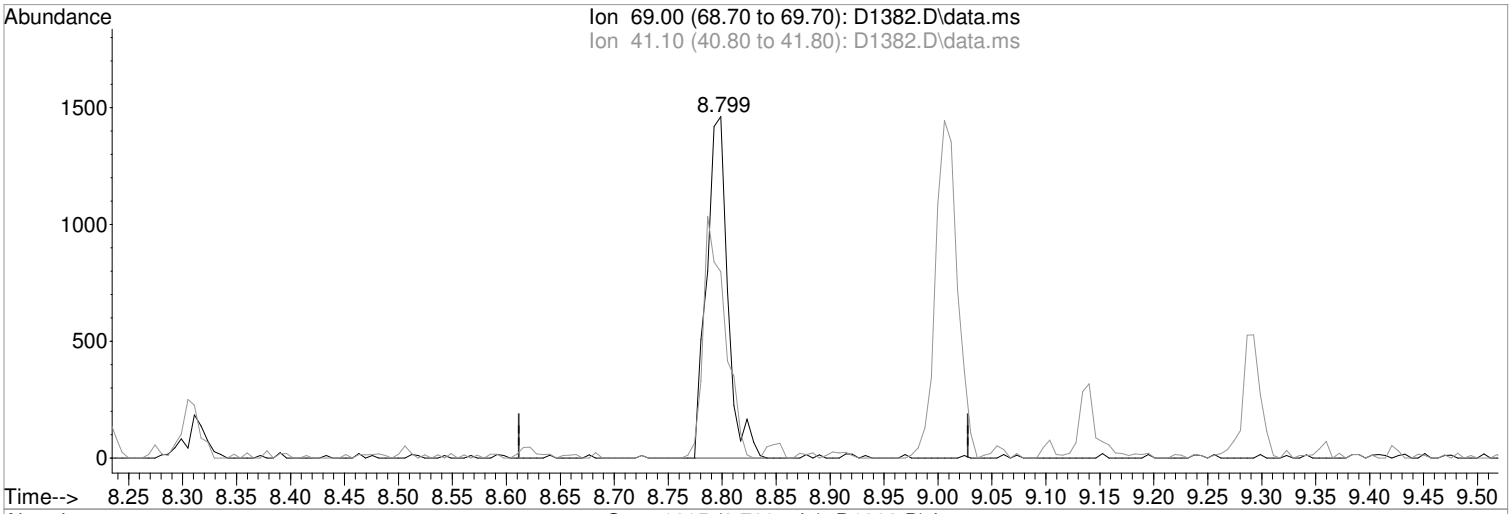
02/14/18

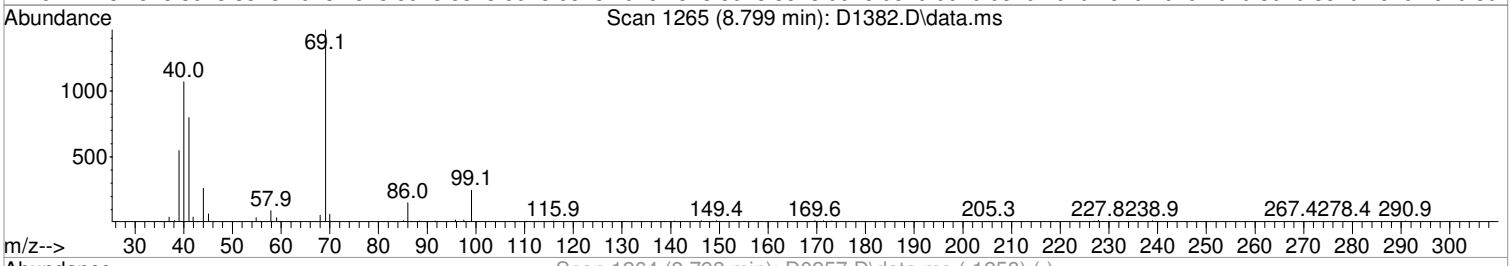
1st DL 02/14/18
2nd FW 02/15/18

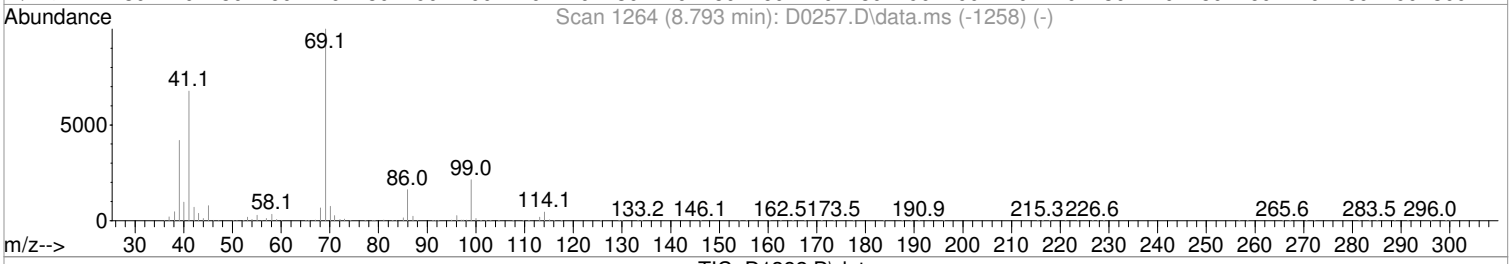
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(67) Ethyl Methacrylate

8.799min (+0.007) 0.78 ug/L m

response 1990

Ion	Exp%	Act%
69.00	100	100
41.10	67.70	54.51
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Peak not found.

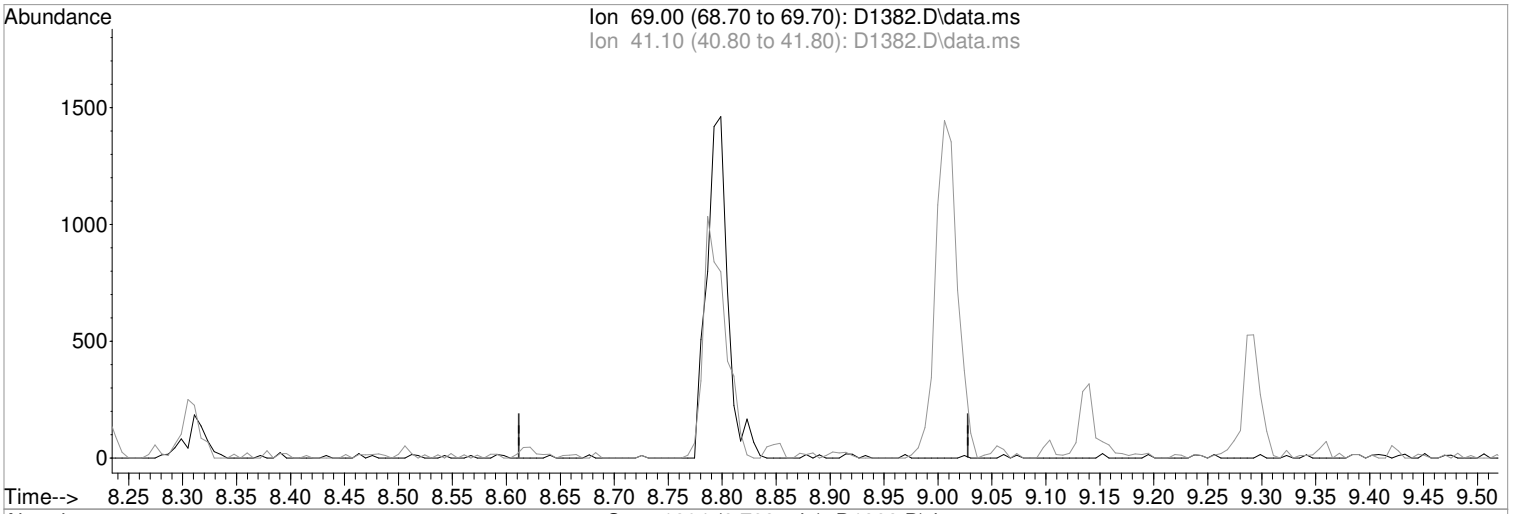
02/14/18

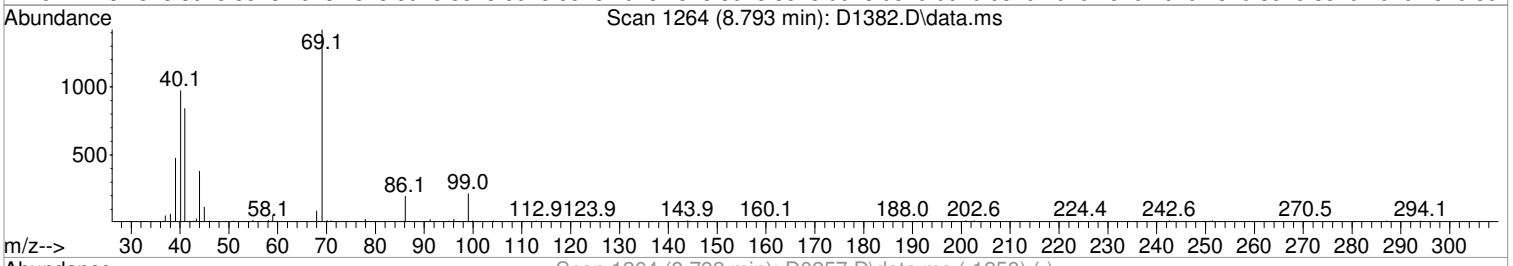
1st DL 02/14/18
2nd FW 02/15/18

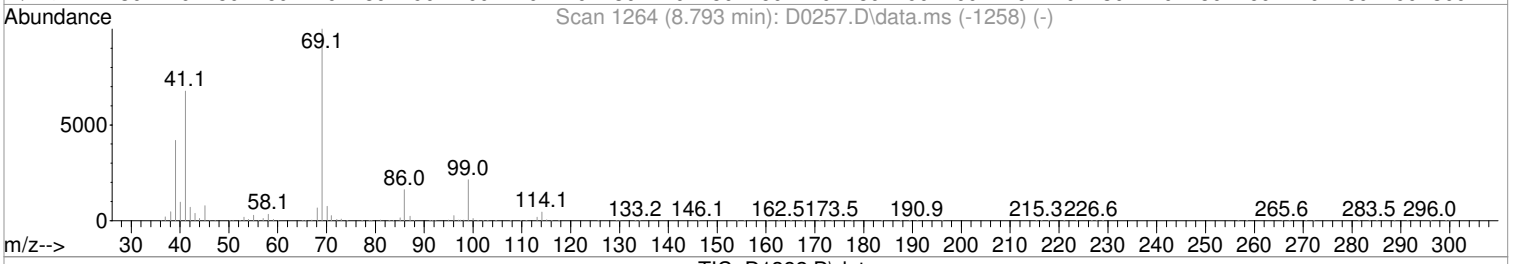
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration







TIC: D1382.D\data.ms

(67) Ethyl Methacrylate

8.792min (-8.792) 0.00 ug/L

response 0

Ion	Exp%	Act%
69.00	100	0.00
41.10	67.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

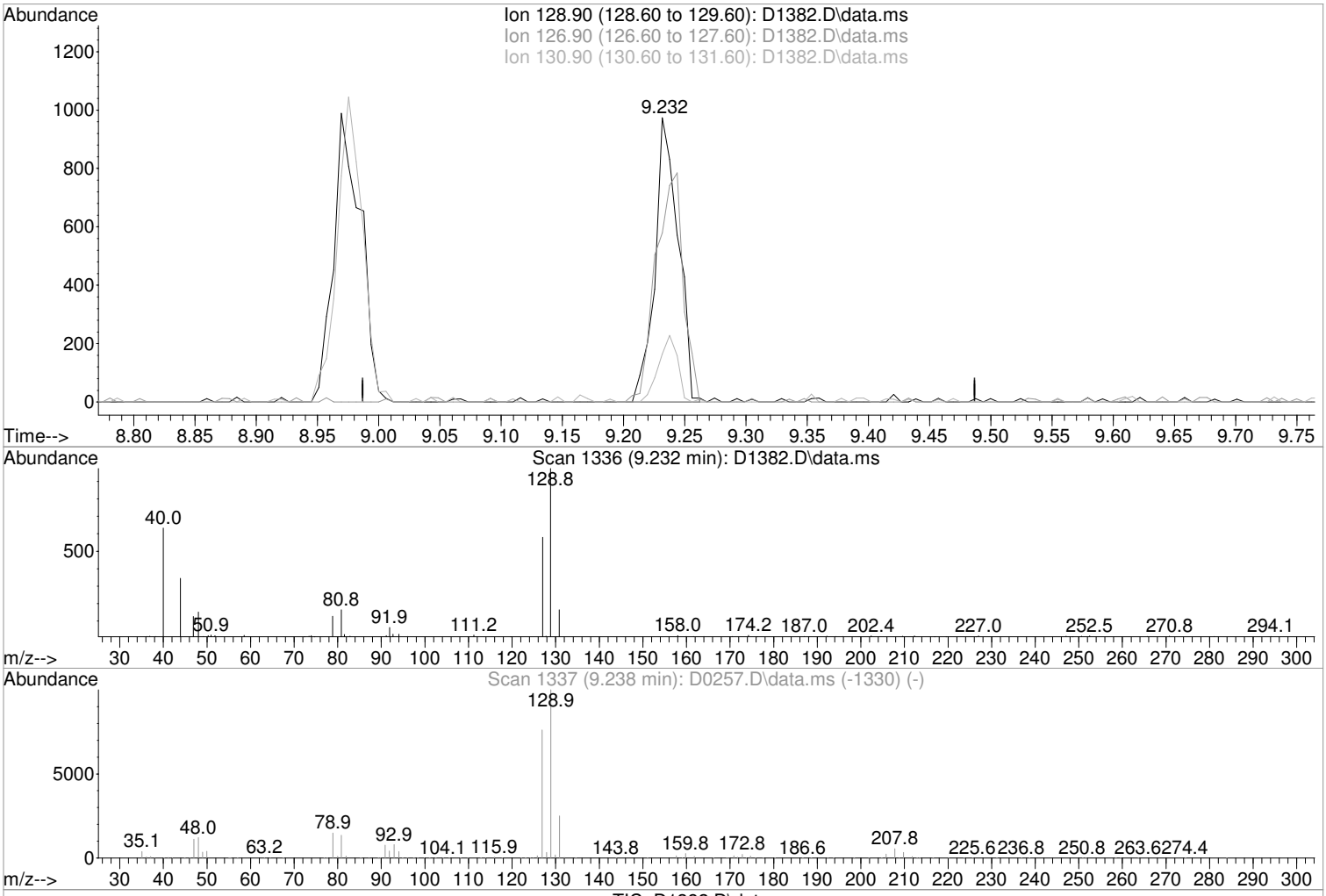
Before

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(74) Dibromochloromethane (P)

9.232min (-0.005) 0.73 ug/L m

response 1285

Ion	Exp%	Act%
128.90	100	100
126.90	76.20	59.45
130.90	25.10	16.94
0.00	0.00	0.00

Manual Integration:

After

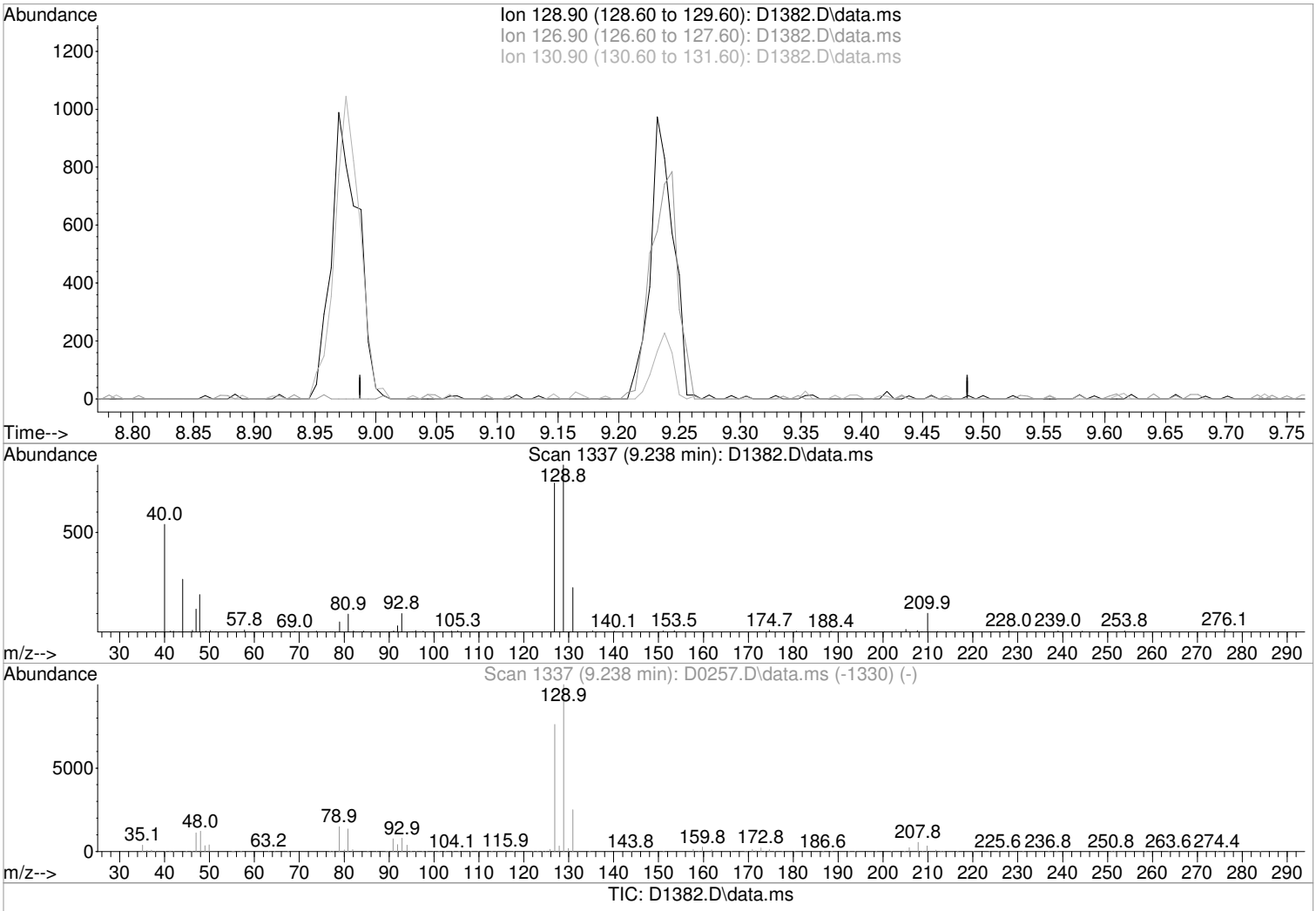
Peak not found.

02/14/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:40:14 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



TIC: D1382.D\data.ms

(74) Dibromochloromethane (P)

9.237min (-9.237) 0.00 ug/L

response 0

Ion	Exp%	Act%
128.90	100	0.00
126.90	76.20	0.00#
130.90	25.10	0.00#
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	186550	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	276906	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	241433	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	128939	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.232	113	18916	11.17	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.34%#				
46) surr1,1,2-dichloroetha...	5.775	65	23934	12.22	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 24.44%#				
64) SURR3,Toluene-d8	8.311	98	77301	11.58	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 23.16%#				
69) SURR2,BFB	10.878	95	27172	10.51	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.02%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	2497	0.93	ug/L		86
3) Chloromethane	1.282	50	2978	1.01	ug/L		84
4) Vinyl Chloride	1.361	62	2858	1.03	ug/L		88
5) Bromomethane	1.587	94	3052	0.99	ug/L		97
6) Chloroethane	1.666	64	2063	1.18	ug/L		95
7) Freon 21	1.812	67	4625	1.08	ug/L		99
8) Trichlorofluoromethane	1.861	101	3310	1.05	ug/L		97
9) Diethyl Ether	2.093	59	1643	0.90	ug/L	#	78
10) Freon 123a	2.093	67	2489	1.01	ug/L		79
11) Freon 123	2.154	83	3016	1.07	ug/L		89
12) Acrolein	2.190	56	2595	4.98	ug/L		96
13) 1,1-Diclethene	2.282	96	1762	0.96	ug/L		87
14) Freon 113	2.288	101	2187	1.10	ug/L	#	67
15) Acetone	2.330	43	1228	1.26	ug/L		93
16) 2-Propanol	2.459	45	2876m	21.44	ug/L		
17) Iodomethane	2.416	142	1013	2.05	ug/L		80
18) Carbon Disulfide	2.477	76	4827	0.95	ug/L		86
20) Allyl Chloride	2.623	76	797	0.85	ug/L	#	81
21) Methyl Acetate	2.635	43	1865m	0.96	ug/L		
22) Methylene Chloride	2.733	84	2032	0.98	ug/L		91
23) TBA	2.861	59	3856	18.84	ug/L		66
24) Acrylonitrile	2.989	53	4794m	4.84	ug/L		
25) Methyl-t-Butyl Ether	3.032	73	5443	0.94	ug/L		98
26) trans-1,2-Dichloroethene	3.019	96	2034m	1.07	ug/L		
27) 1,1-Diclethane	3.519	63	3384	0.95	ug/L		93
28) Vinyl Acetate	3.617	86	347m	0.87	ug/L		
29) DIPE	3.653	45	7198	1.08	ug/L		87
30) 2-Chloro-1,3-Butadiene	3.647	53	3175	1.02	ug/L		83
31) ETBE	4.184	59	4749	0.89	ug/L		87
32) 2,2-Dichloropropane	4.367	77	1823m	0.94	ug/L		
33) cis-1,2-Dichloroethene	4.373	96	2230	1.02	ug/L		91
34) 2-Butanone	4.415	43	1457	1.11	ug/L		85
35) Propionitrile	4.507	54	2076	5.13	ug/L		53
36) Bromochloromethane	4.757	130	1518m	1.18	ug/L		
37) Methacrylonitrile	4.775	67	767	0.81	ug/L	#	71
38) Tetrahydrofuran	4.860	42	811m	1.06	ug/L		
39) Chloroform	4.946	83	3339	0.97	ug/L		95
40) 1,1,1-Trichloroethane	5.257	97	2405m	0.94	ug/L		
42) Cyclohexane	5.342	41	1947m	1.07	ug/L		

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Carbontetrachloride	5.531	117	1713	0.87	ug/L	#	69
45) 1,1-Dichloropropene	5.537	75	2995	1.08	ug/L		84
47) Benzene	5.854	78	8554	1.06	ug/L		96
48) 1,2-Dichloroethane	5.897	62	2812	1.01	ug/L		97
49) Iso-Butyl Alcohol	5.872	43	1367	38.70	ug/L		94
50) TAME	6.104	73	4198	0.85	ug/L		93
51) n-Heptane	6.348	43	2572	0.94	ug/L		94
52) 1-Butanol	6.854	56	2355m	55.41	ug/L		
53) Trichloroethene	6.811	130	2271	1.04	ug/L	#	84
54) Methylcyclohexane	7.049	55	2787	1.07	ug/L	#	77
55) 1,2-Diclpropane	7.098	63	1959	0.92	ug/L		84
56) Dibromomethane	7.244	93	1292	0.98	ug/L	#	70
57) 1,4-Dioxane	7.299	88	727	21.40	ug/L		99
58) Methyl Methacrylate	7.330	69	1366	0.92	ug/L	#	79
59) Bromodichloromethane	7.470	83	2265	0.93	ug/L		88
60) 2-Nitropropane	7.750	41	792	1.76	ug/L		90
61) 2-Chloroethylvinyl Ether	7.878	63	375m	0.73	ug/L		
62) cis-1,3-Dichloropropene	8.012	75	2321	0.95	ug/L		85
63) 4-Methyl-2-pentanone	8.220	43	2048	0.90	ug/L		73
65) Toluene	8.378	91	8684	1.01	ug/L		93
66) trans-1,3-Dichloropropene	8.652	75	1595	0.96	ug/L		91
67) Ethyl Methacrylate	8.799	69	1990m	0.78	ug/L		
68) 1,1,2-Trichloroethane	8.841	97	1983	1.05	ug/L		94
71) Tetrachloroethene	8.976	164	1738	1.03	ug/L		90
72) 2-Hexanone	9.140	43	1387	0.82	ug/L		94
73) 1,3-Dichloropropane	9.012	76	3516	1.06	ug/L		88
74) Dibromochloromethane	9.232	129	1285m	0.73	ug/L		
75) N-Butyl Acetate	9.286	43	2565	0.79	ug/L		94
76) 1,2-Dibromoethane	9.335	107	1706	0.92	ug/L	#	75
77) 3-Chlorobenzotrifluoride	9.847	180	3033	0.95	ug/L		83
78) Chlorobenzene	9.829	112	5347	0.95	ug/L		91
79) 4-Chlorobenzotrifluoride	9.896	180	2615	0.93	ug/L		93
80) 1,1,1,2-Tetrachloroethane	9.914	131	1643	0.95	ug/L		86
81) Ethylbenzene	9.945	106	2601	0.89	ug/L		97
82) (m+p)Xylene	10.061	106	6622	1.85	ug/L		90
83) o-Xylene	10.420	106	3209	0.93	ug/L		98
84) Styrene	10.433	104	5713	0.97	ug/L		85
85) Bromoform	10.579	173	864	0.95	ug/L		80
86) 2-Chlorobenzotrifluoride	10.664	180	3224	1.05	ug/L		93
87) Isopropylbenzene	10.756	105	8673	0.96	ug/L		91
88) Cyclohexanone	10.817	55	10031	17.65	ug/L		90
89) trans-1,4-Dichloro-2-B...	11.060	53	366	0.96	ug/L	#	63
91) 1,1,2,2-Tetrachloroethane	11.012	83	2354	0.90	ug/L		92
92) Bromobenzene	11.000	156	2262	0.99	ug/L		90
93) 1,2,3-Trichloropropane	11.042	110	955	1.20	ug/L	#	55
94) n-Propylbenzene	11.109	91	9260	0.90	ug/L		98
95) 2-Chlorotoluene	11.170	91	6685	1.08	ug/L		98
96) 3-Chlorotoluene	11.225	91	5918	0.97	ug/L		93
97) 4-Chlorotoluene	11.262	91	6984	0.96	ug/L		87
98) 1,3,5-Trimethylbenzene	11.262	105	6678	0.95	ug/L		95
99) tert-Butylbenzene	11.530	119	6325	1.00	ug/L		87
100) 1,2,4-Trimethylbenzene	11.573	105	6584	0.94	ug/L		93
101) 3,4-Dichlorobenzotrifl...	11.634	214	2322	0.92	ug/L		96
102) sec-Butylbenzene	11.719	105	8570	0.94	ug/L		95
103) p-Isopropyltoluene	11.841	119	6527	0.87	ug/L		95
104) 1,3-Dclbenz	11.798	146	4448	1.01	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration

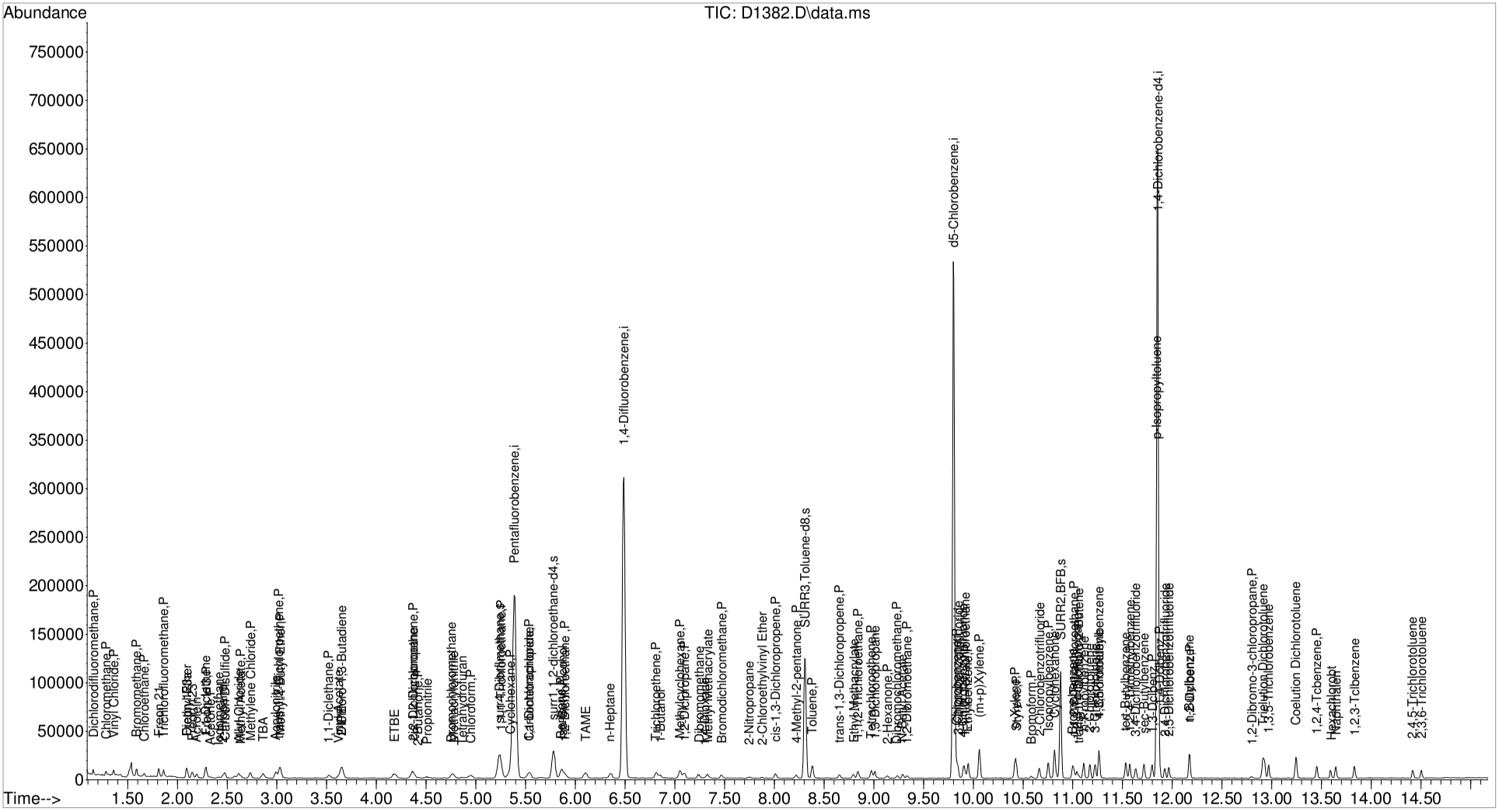
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
105) 1,4-Dclbenz	11.871	146	4793	1.03	ug/L		92
106) 2,4-Dichlorobenzotrifl...	11.926	214	2286	1.00	ug/L		91
107) 2,5-Dichlorobenzotrifl...	11.969	214	2496	0.99	ug/L		92
108) n-Butylbenzene	12.170	91	5940	0.86	ug/L		98
109) 1,2-Dclbenz	12.176	146	3962	0.89	ug/L		96
110) 1,2-Dibromo-3-chloropr...	12.804	157	373	1.08	ug/L	#	62
111) Trielution Dichlorotol...	12.914	125	10522	2.84	ug/L		88
112) 1,3,5-Trichlorobenzene	12.969	180	3329	0.98	ug/L		91
113) Coelution Dichlorotoluene	13.243	125	6544	1.67	ug/L		94
114) 1,2,4-Tcbenzene	13.450	180	3085	0.95	ug/L		89
115) Hexachlorobt	13.597	225	1217	0.86	ug/L		93
116) Naphthalen	13.645	128	6713	0.91	ug/L		97
117) 1,2,3-Tclbenzene	13.834	180	3280	1.05	ug/L		87
118) 2,4,5-Trichlorotoluene	14.414	159	2122	1.05	ug/L		88
119) 2,3,6-Trichlorotoluene	14.505	159	1578	0.88	ug/L		87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1382.D
Acq On : 12 Feb 2018 1:38 pm
Operator : D.LIPANI
Sample : STD#2 - 1.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 09:48:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:40:05 2018
Response via : Initial Calibration



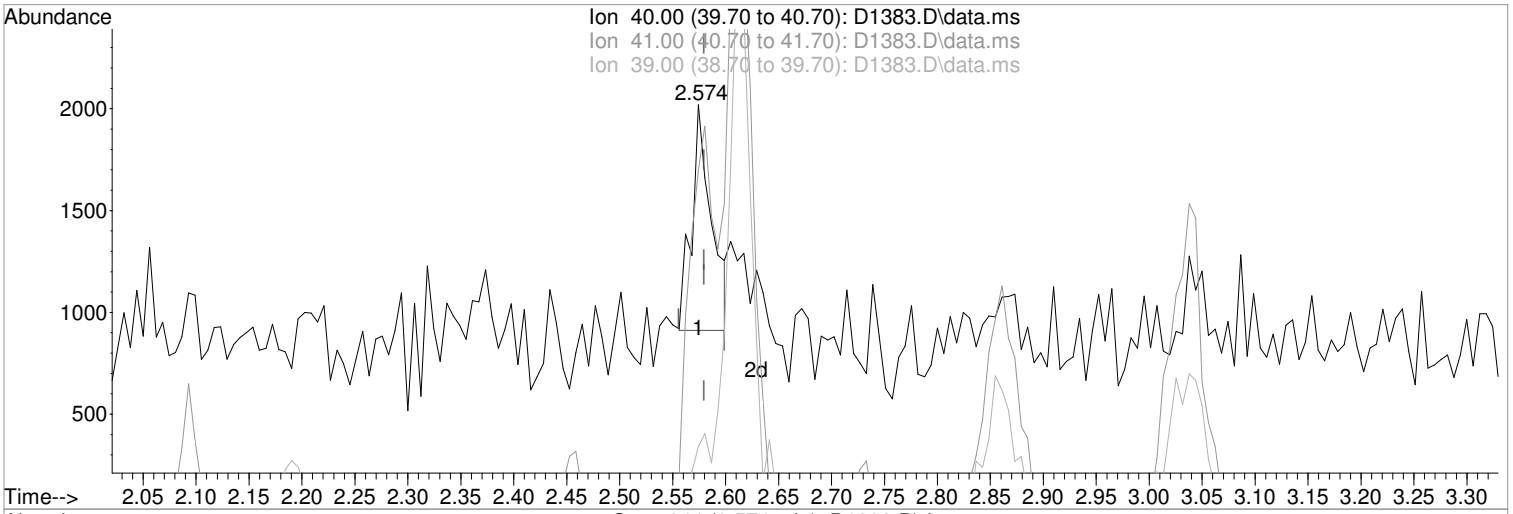
1st DL 02/14/18
2nd FJ 02/15/18

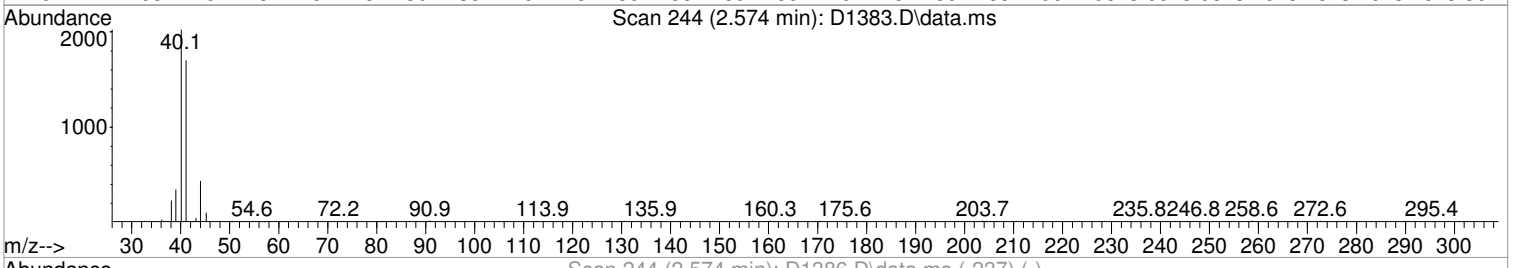
1st DL 02/14/18
2nd FW 02/15/18

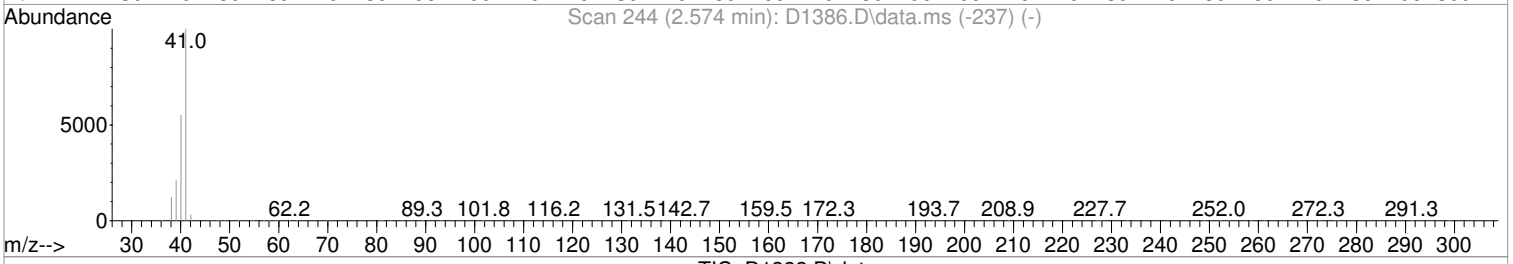
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(19) Acetonitrile

2.574min (-0.006) 6.77 ug/L m

response 1439

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	84.01#
39.00	34.60	16.93
0.00	0.00	0.00

Manual Integration:

After

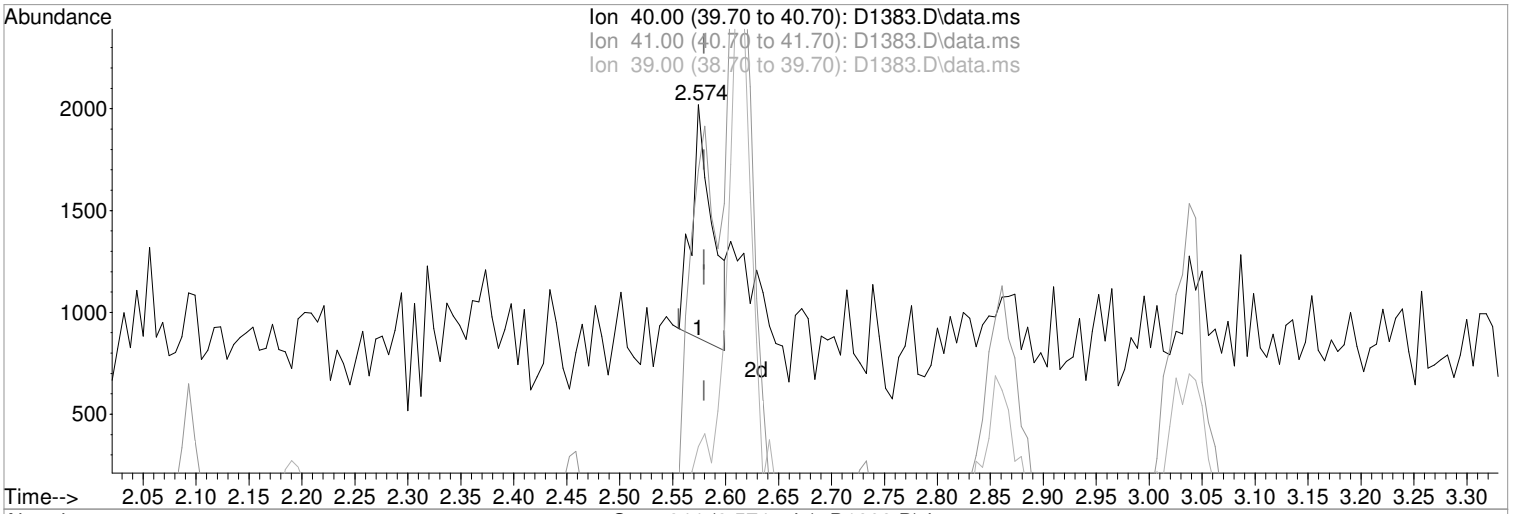
Poor integration.

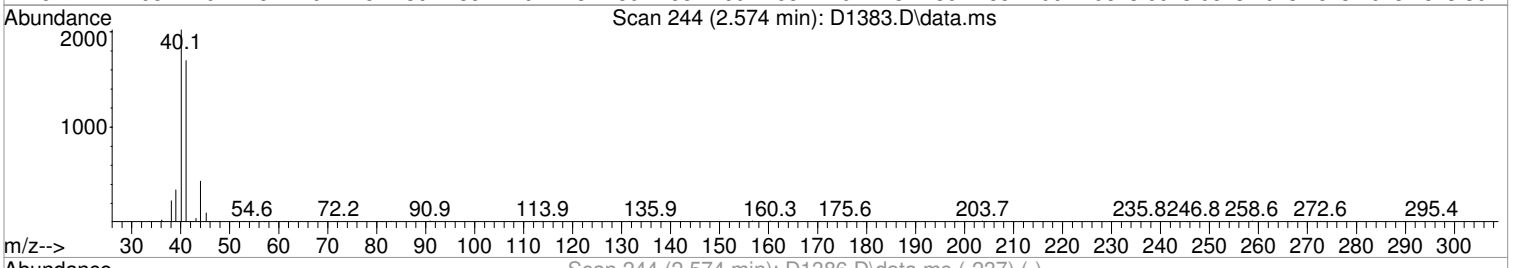
02/14/18

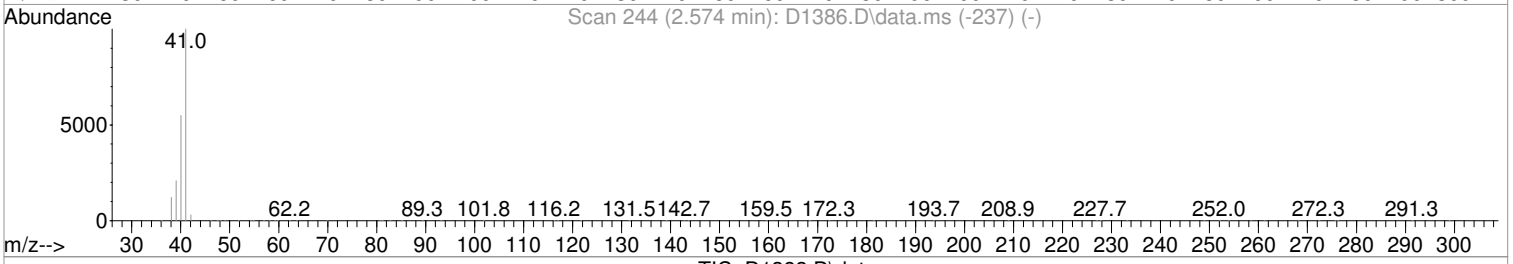
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(19) Acetonitrile

2.574min (-0.006) 7.33 ug/L

response 1558

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	84.01#
39.00	34.60	16.93
0.00	0.00	0.00

Manual Integration:

Before

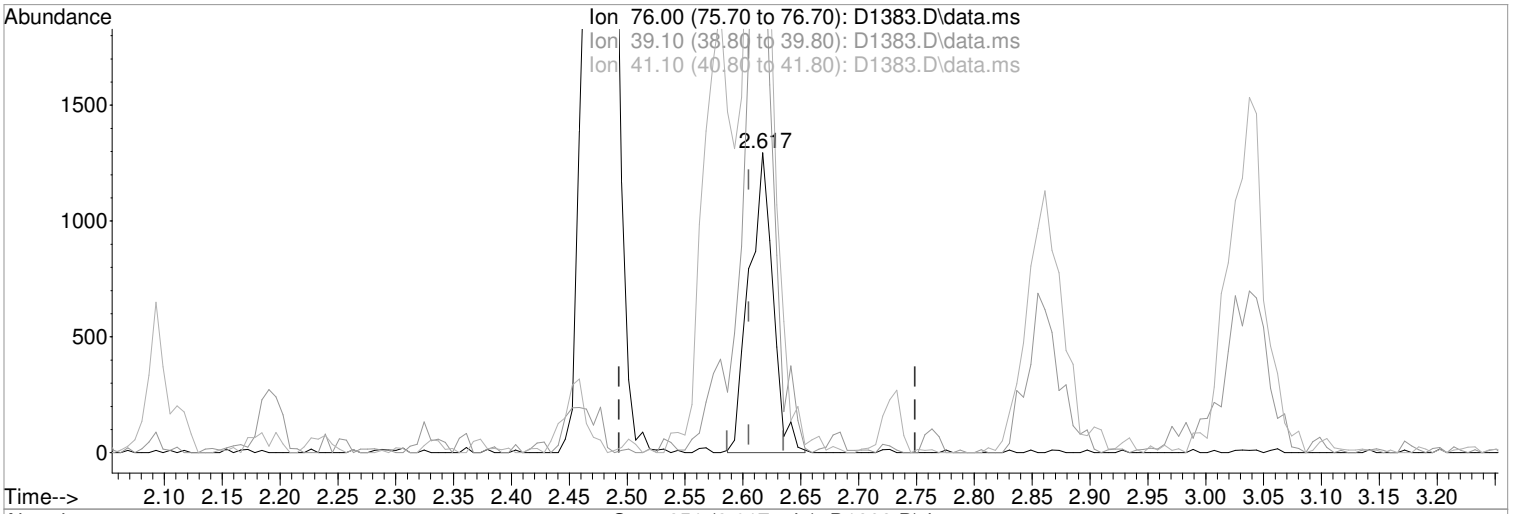
02/14/18

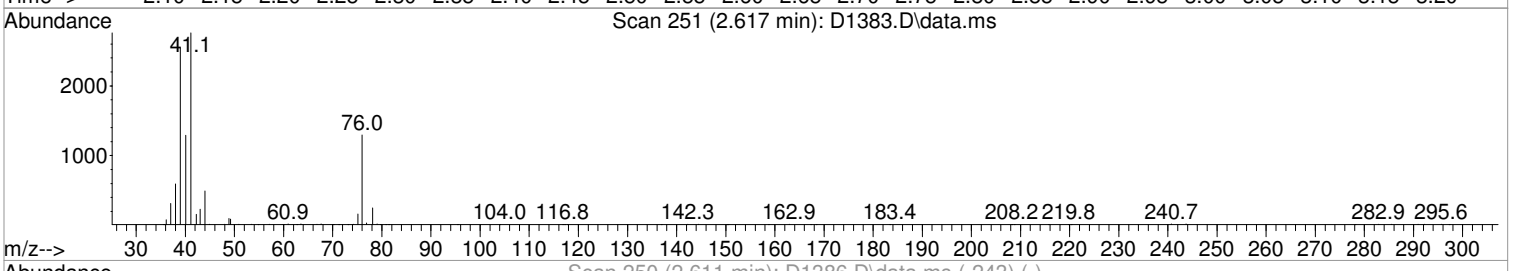
1st DL 02/14/18
2nd FJ 02/15/18

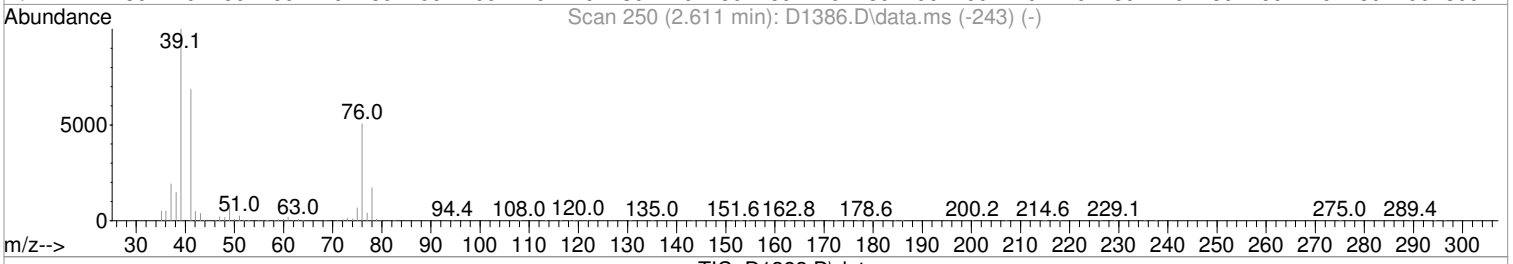
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(20) Allyl Chloride

2.617min (+0.012) 1.92 ug/L m

response 1852

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	196.37
41.10	256.10	213.13#
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

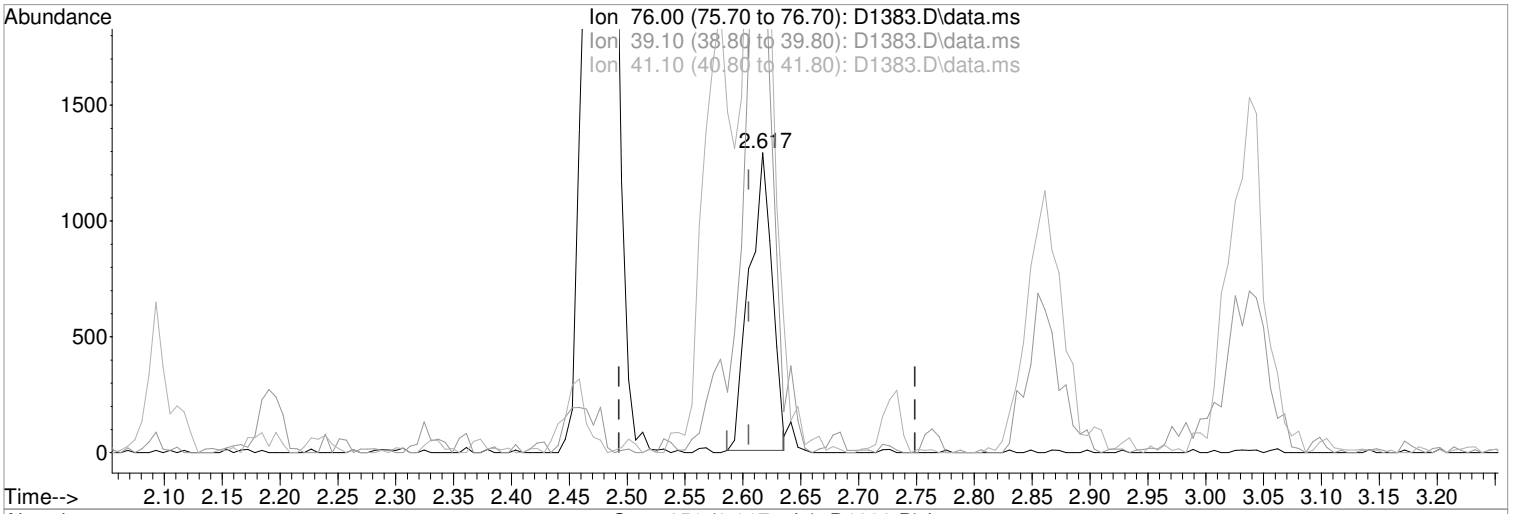
02/14/18

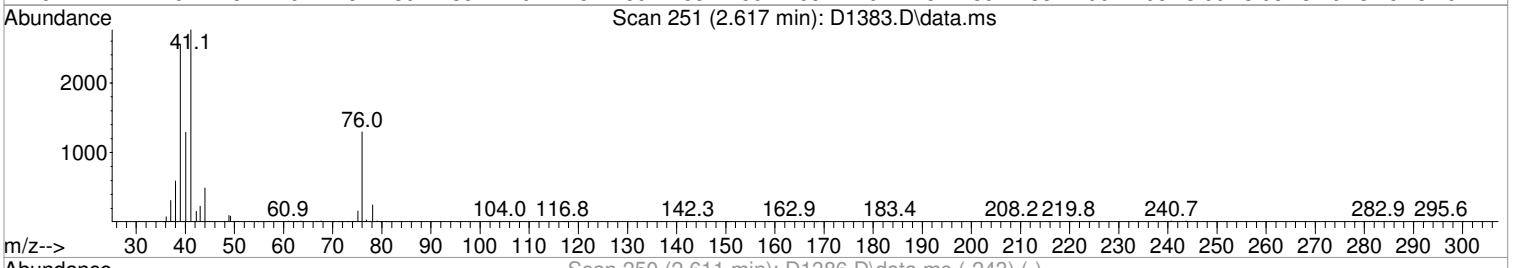
1st DL 02/14/18
2nd FJ 02/15/18

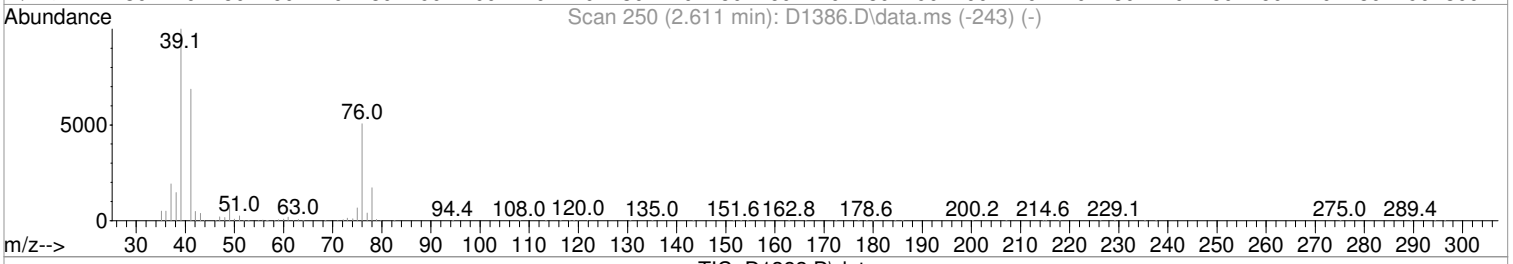
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(20) Allyl Chloride

2.617min (+0.012) 1.82 ug/L

response 1761

Ion	Exp%	Act%
76.00	100	100
39.10	180.40	196.37
41.10	256.10	213.13#
0.00	0.00	0.00

Manual Integration:

Before

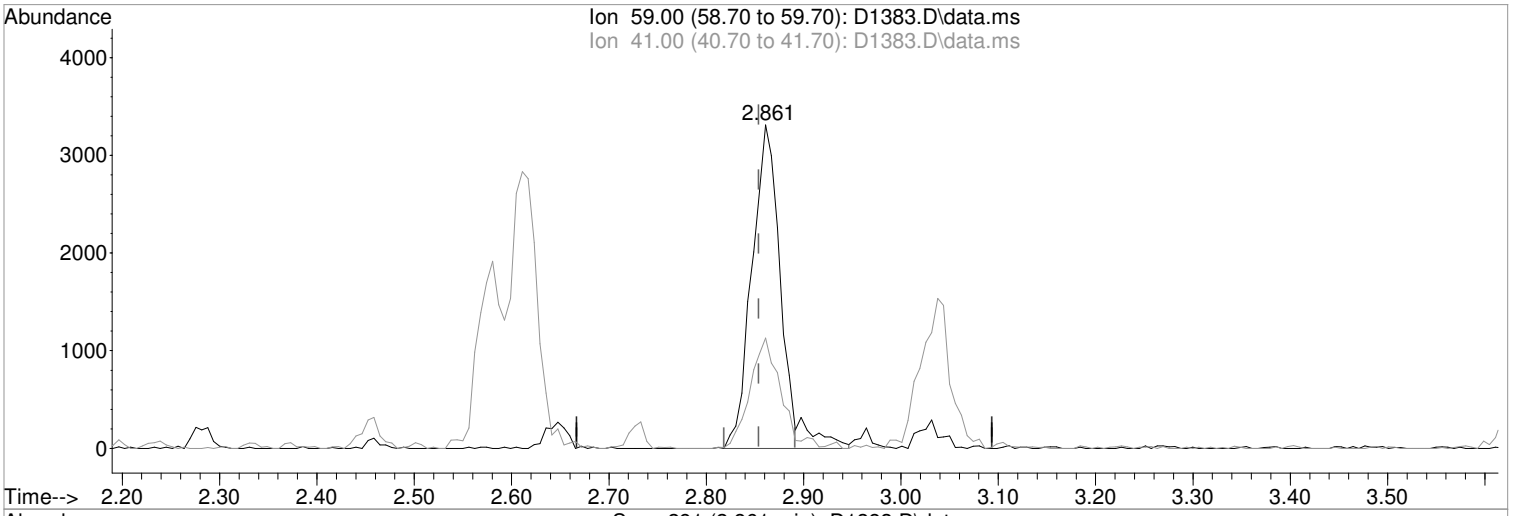
02/14/18

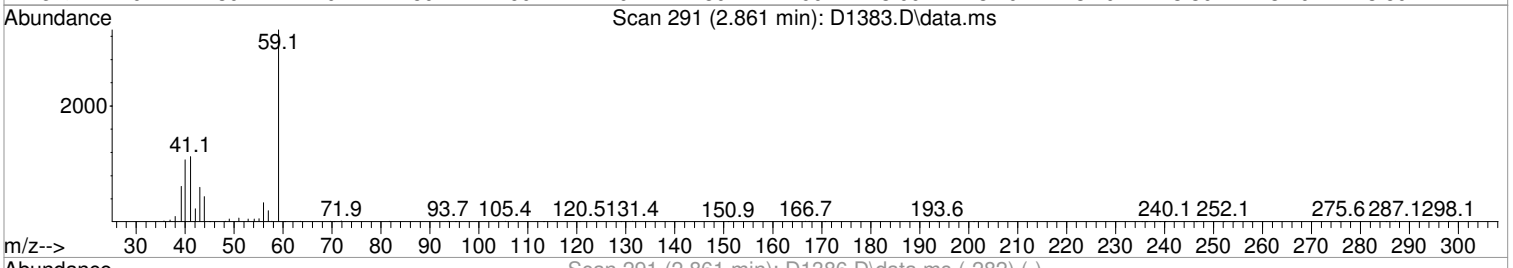
1st DL 02/14/18
2nd FJ 02/15/18

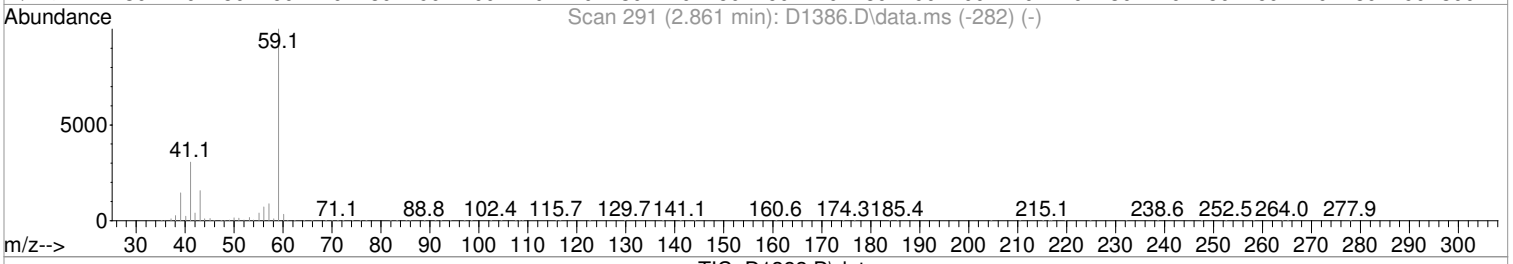
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(23) TBA

2.861min (+0.007) 32.70 ug/L m

response 6929

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	34.14
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

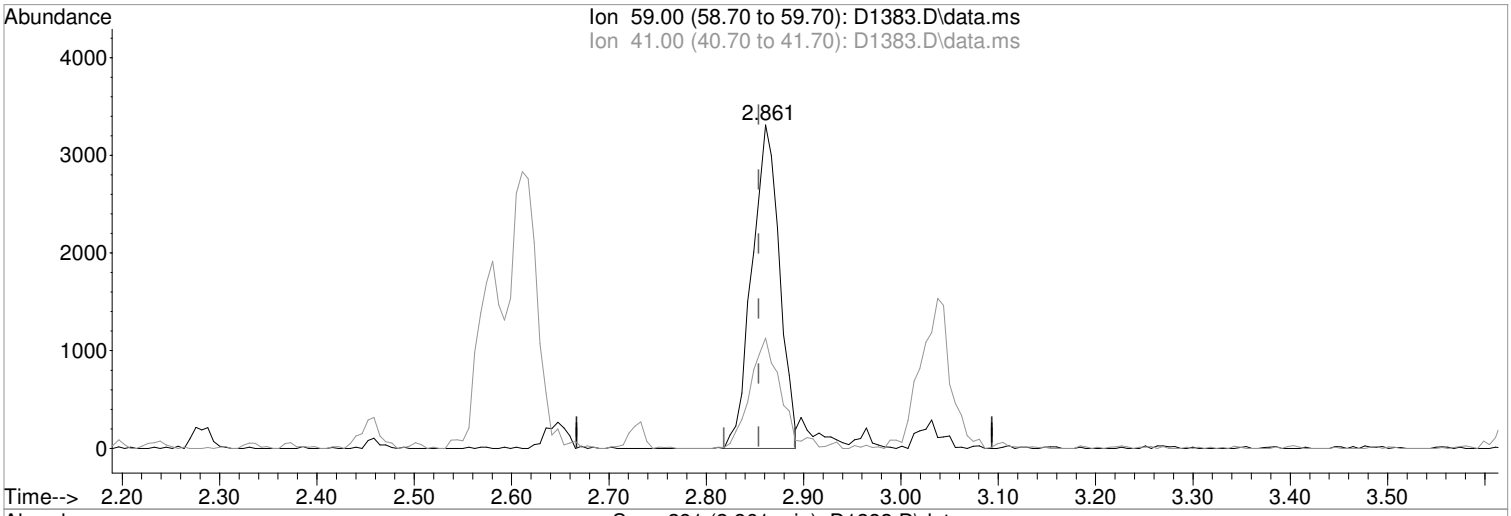
Poor integration.

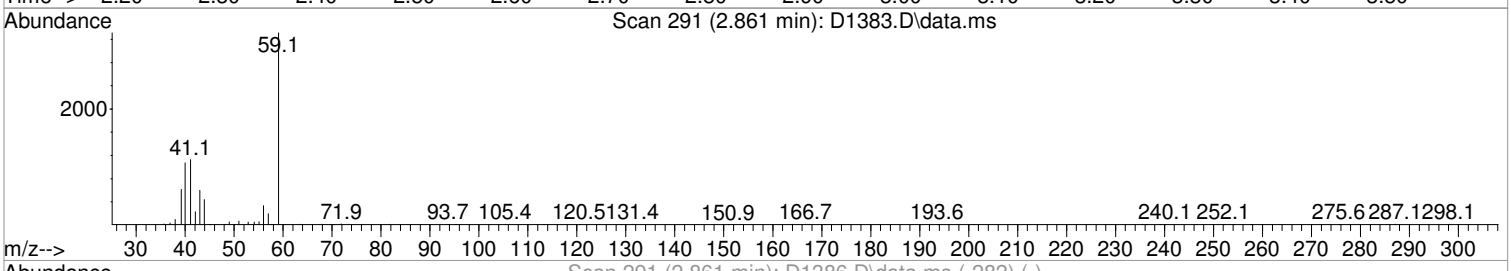
02/14/18

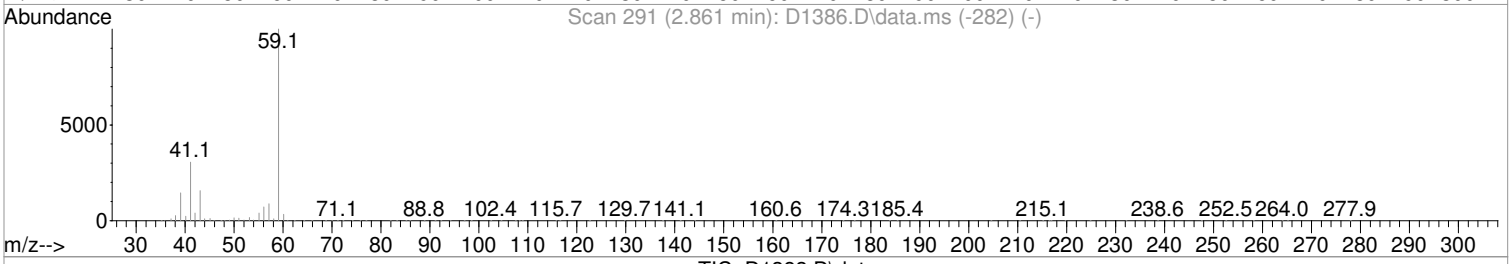
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(23) TBA

2.861min (+0.007) 30.64 ug/L

response 6492

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	34.14
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

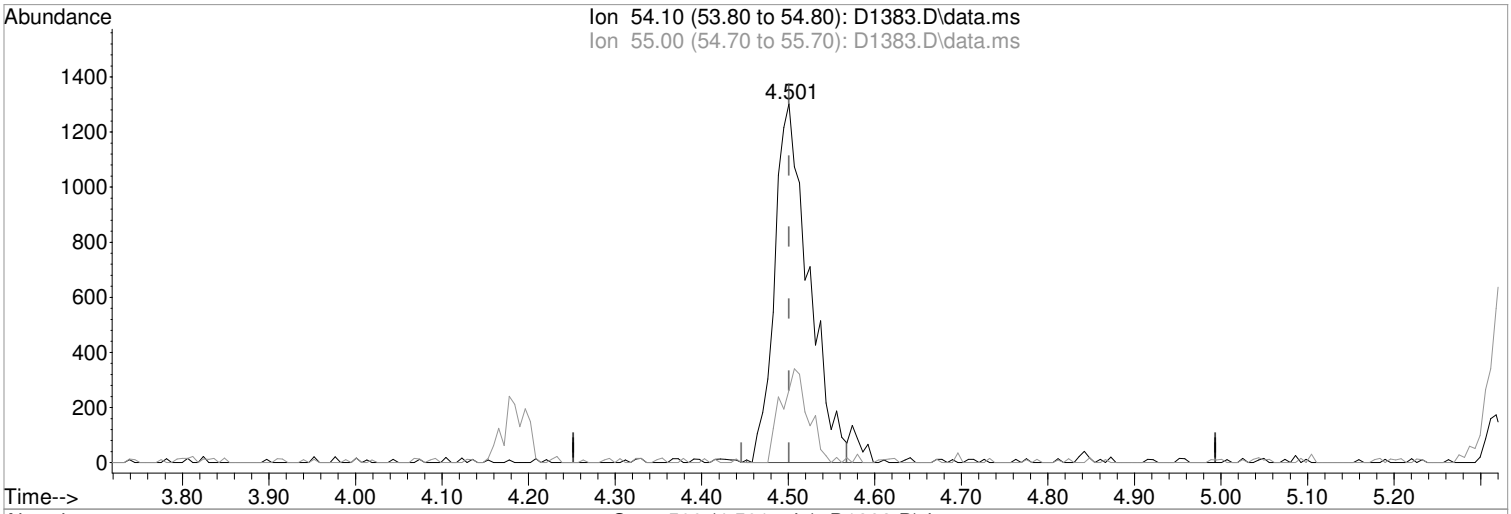
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration



TIC: D1383.D\data.ms

(35) Propionitrile

4.501min (-0.000) 8.84 ug/L m

response 3700

Ion	Exp%	Act%
54.10	100	100
55.00	15.40	20.20
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

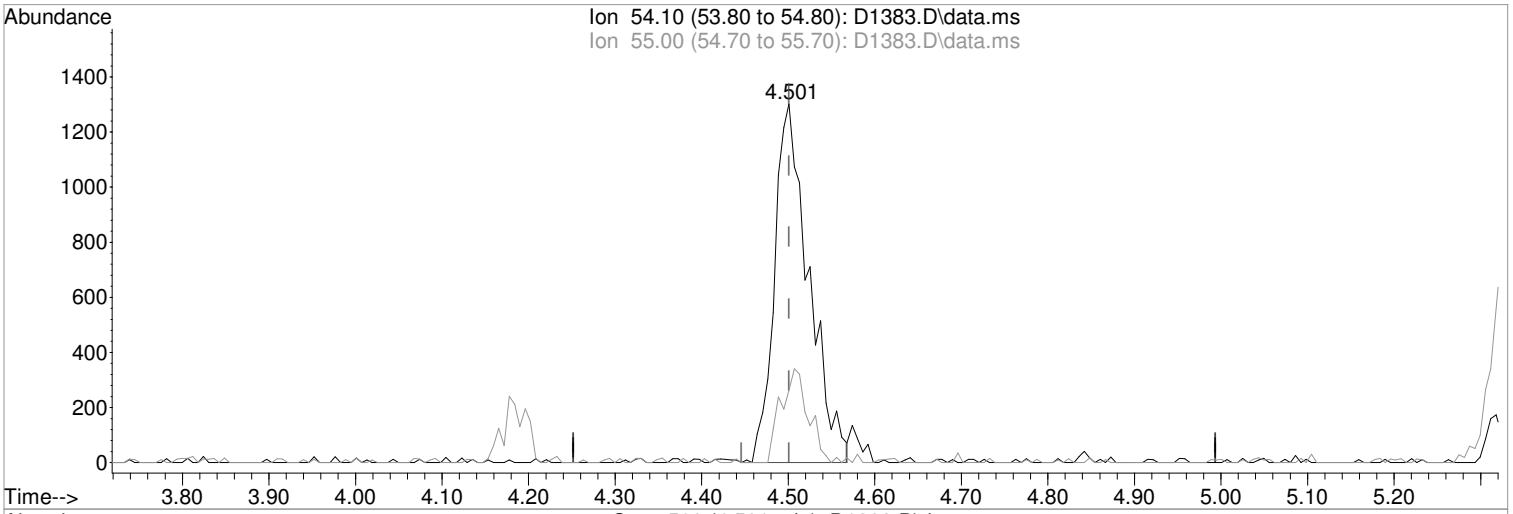
02/14/18

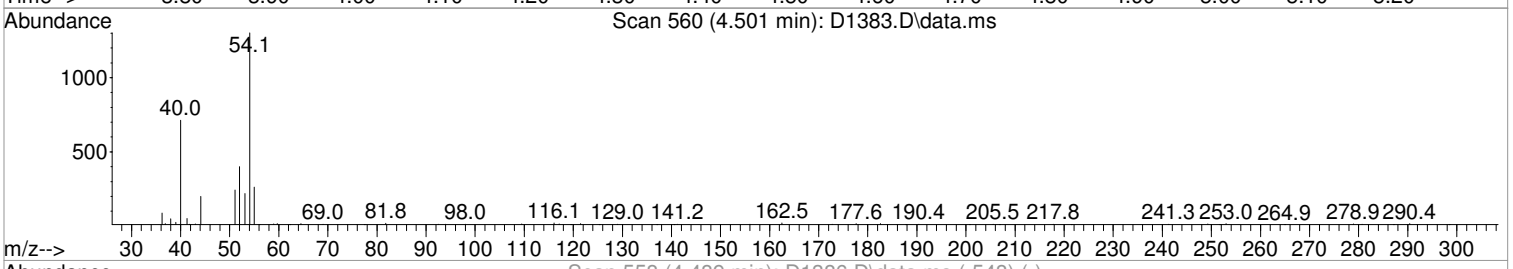
1st DL 02/14/18
2nd FJ 02/15/18

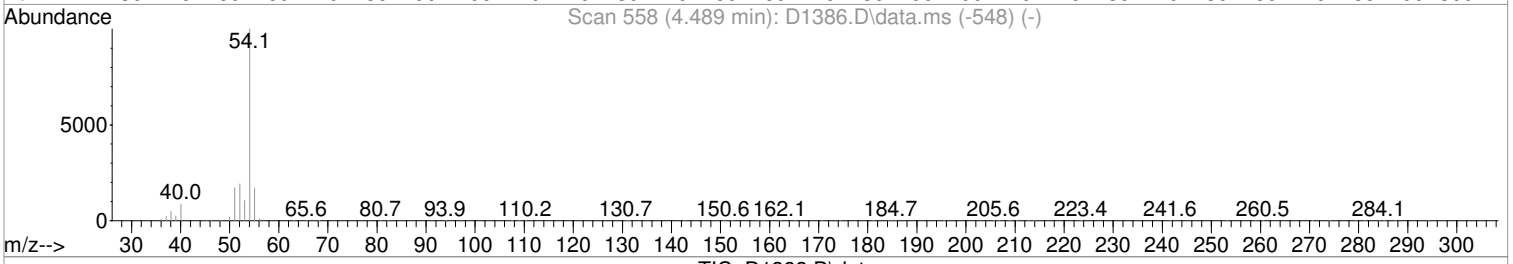
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(35) Propionitrile

4.501min (-0.000) 8.56 ug/L

response 3584

Ion	Exp%	Act%
54.10	100	100
55.00	15.40	20.20
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

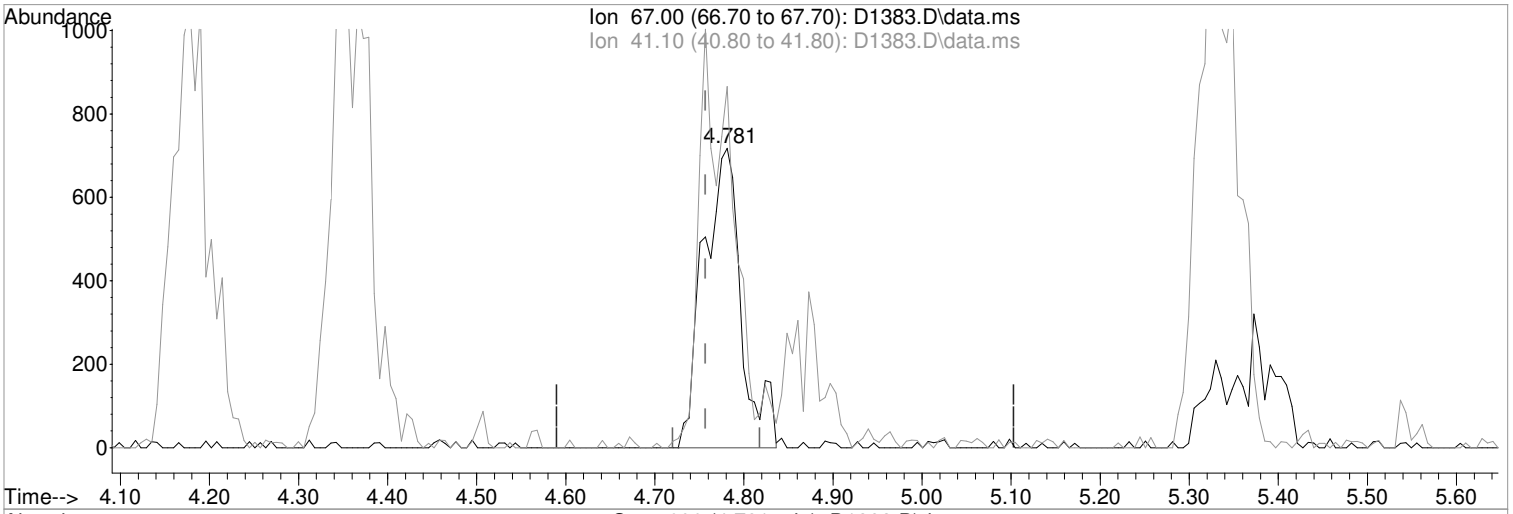
02/14/18

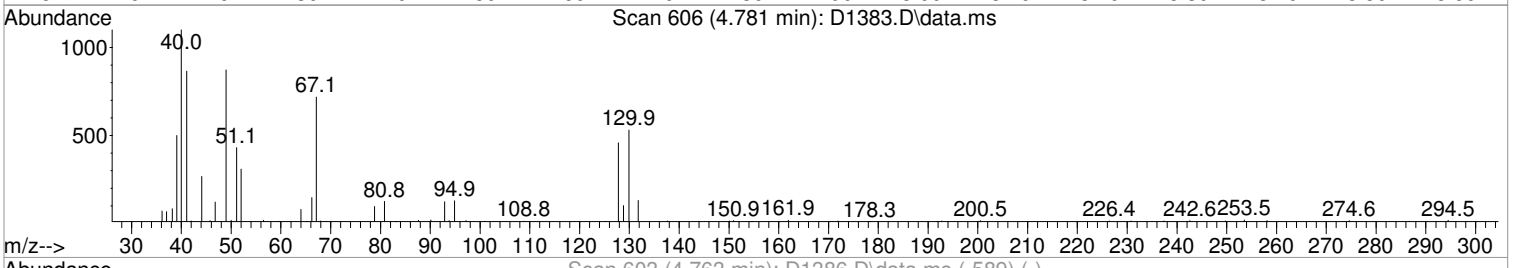
1st DL 02/14/18
2nd FW 02/15/18

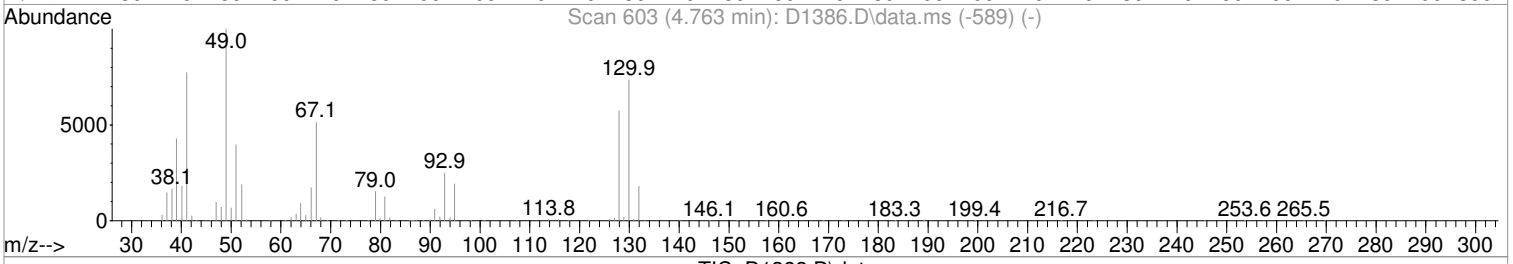
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(37) Methacrylonitrile

4.781min (+0.024) 2.16 ug/L m

response 2110

Ion	Exp%	Act%
67.00	100	100
41.10	137.50	120.61
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

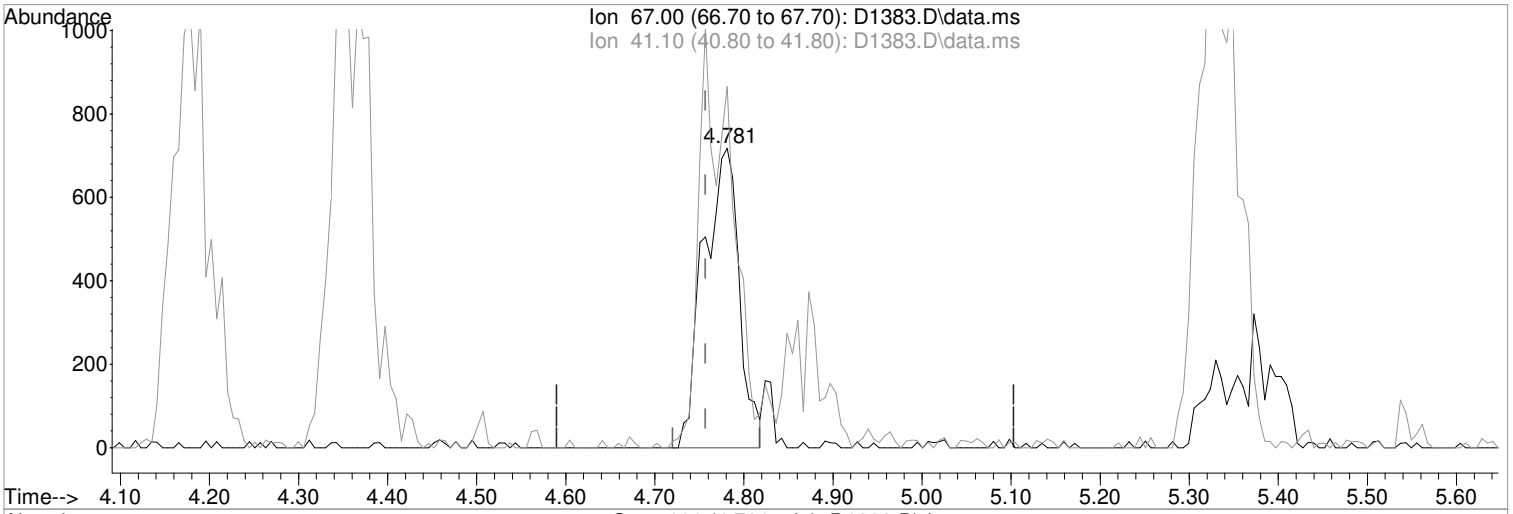
02/14/18

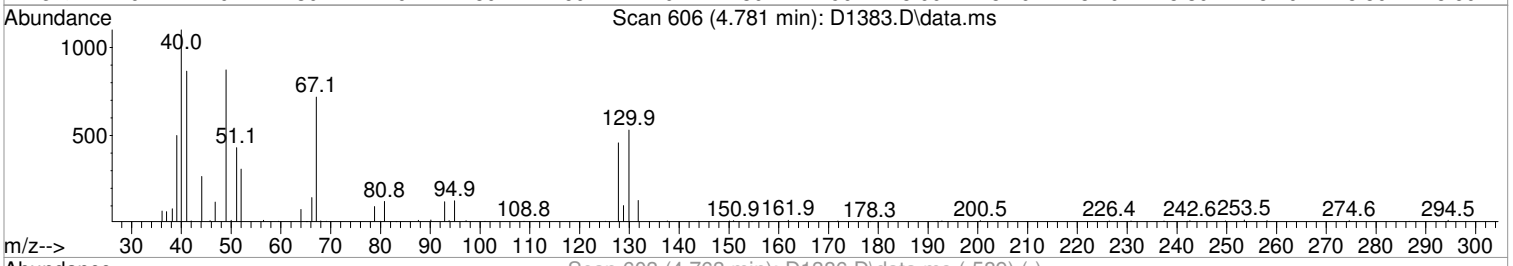
1st DL 02/14/18
2nd FW 02/15/18

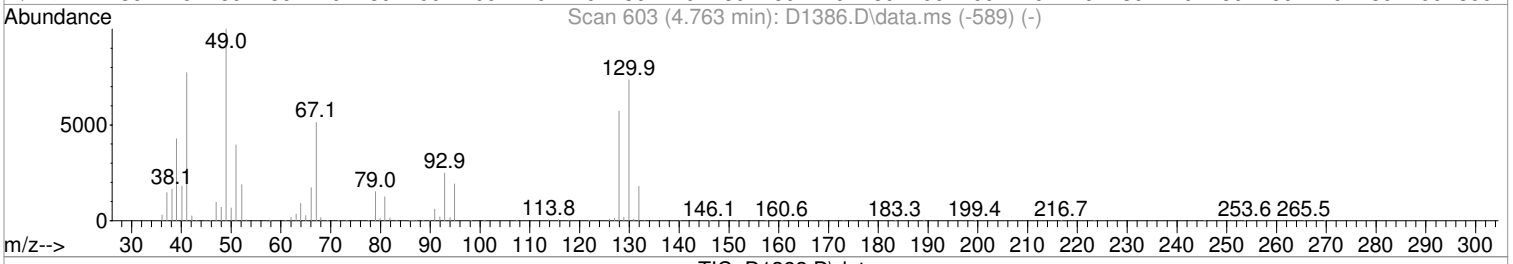
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(37) Methacrylonitrile

4.781min (+0.024) 2.04 ug/L

response 1990

Ion	Exp%	Act%
67.00	100	100
41.10	137.50	120.61
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

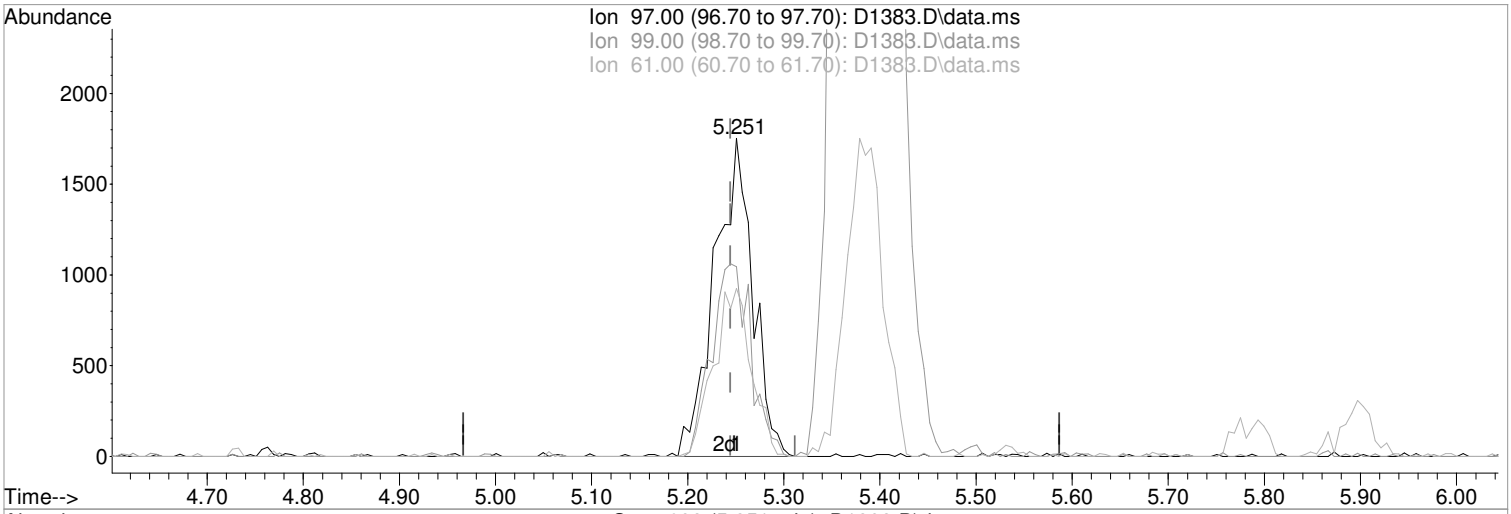
02/14/18

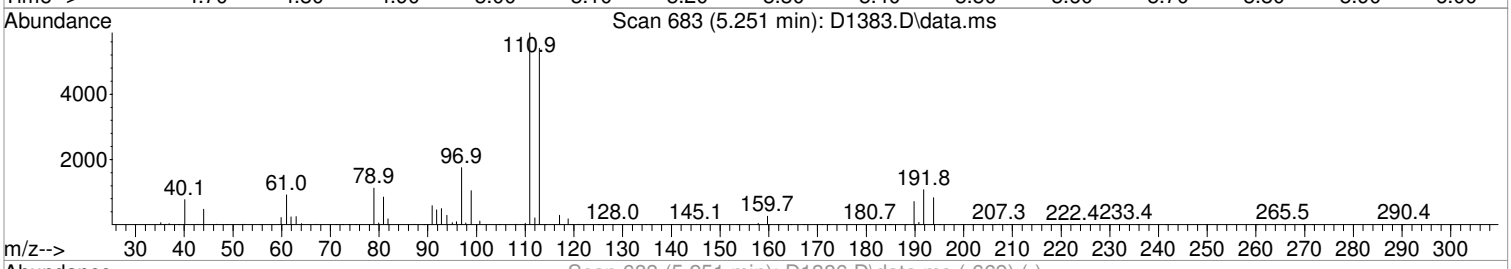
1st DL 02/14/18
2nd FW 02/15/18

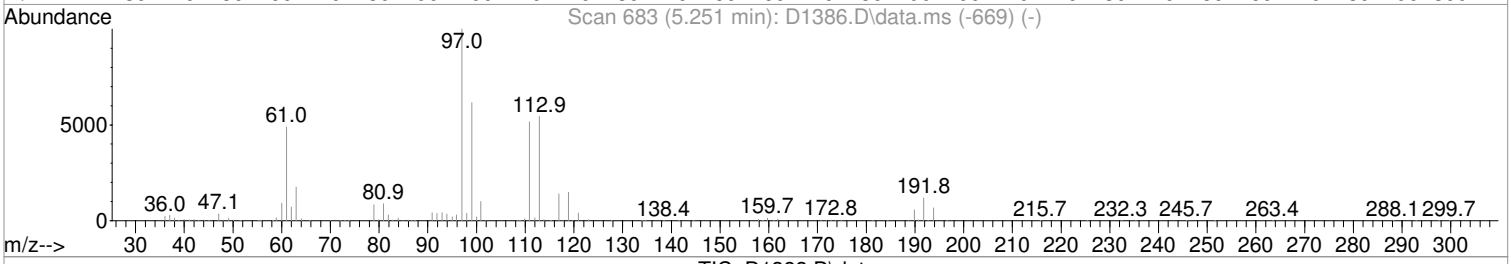
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.251min (+0.006) 1.81 ug/L m

response 4806

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	59.65
61.00	43.40	52.80
0.00	0.00	0.00

Manual Integration:

After

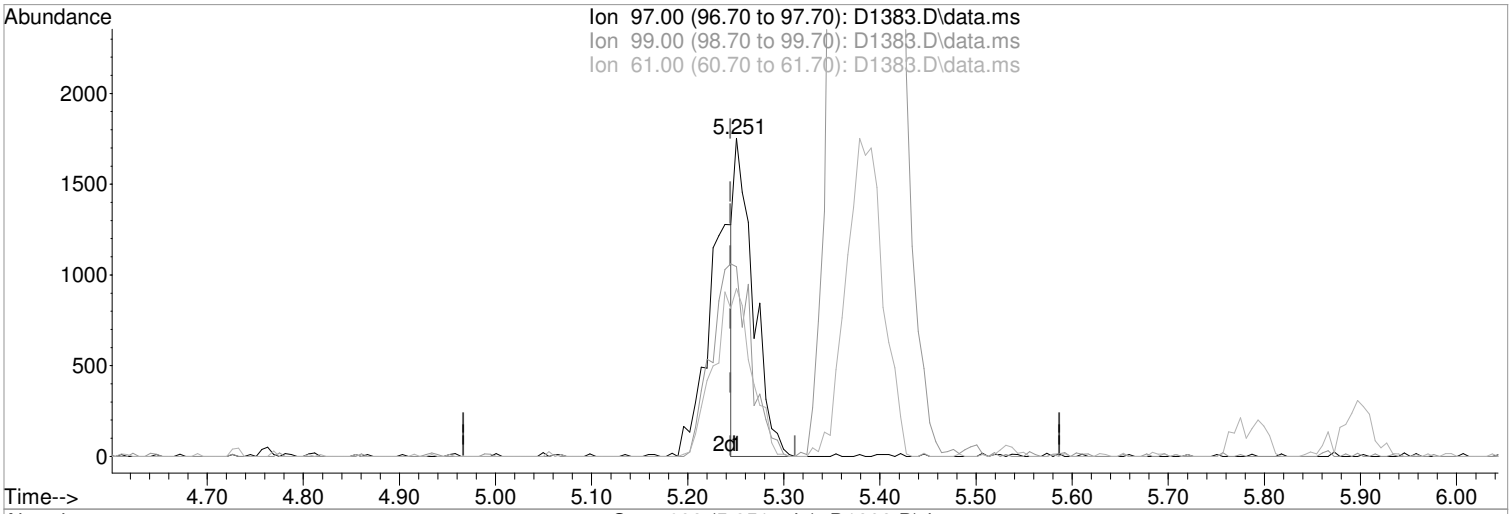
Poor integration.

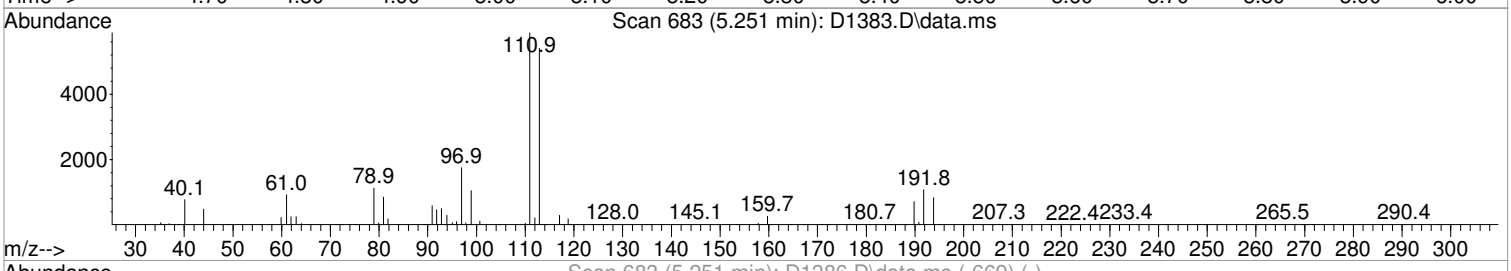
02/14/18

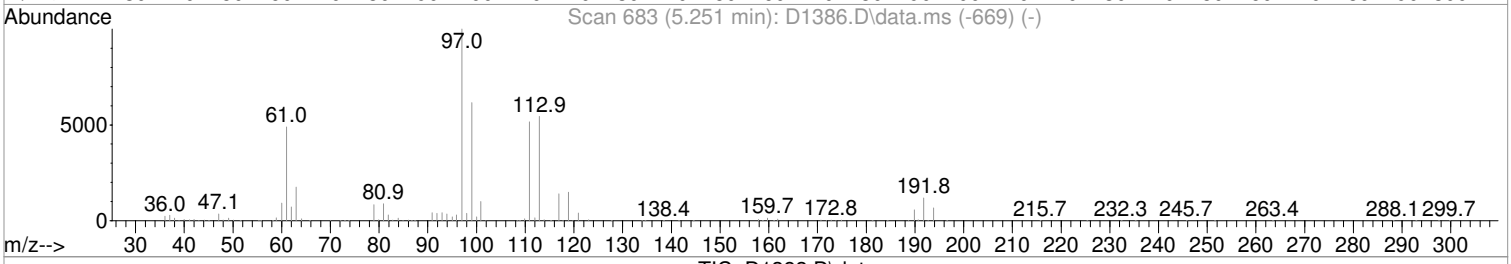
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.251min (+0.006) 0.92 ug/L

response 2429

Ion	Exp%	Act%
97.00	100	100
99.00	63.60	59.65
61.00	43.40	52.80
0.00	0.00	0.00

Manual Integration:

Before

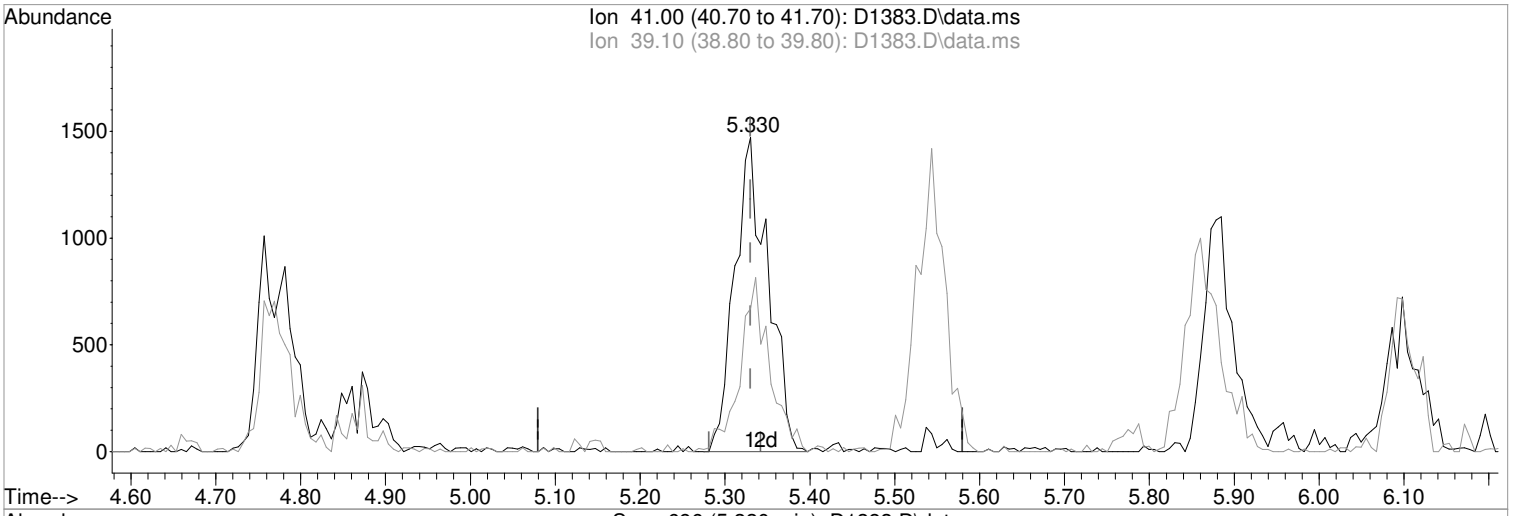
02/14/18

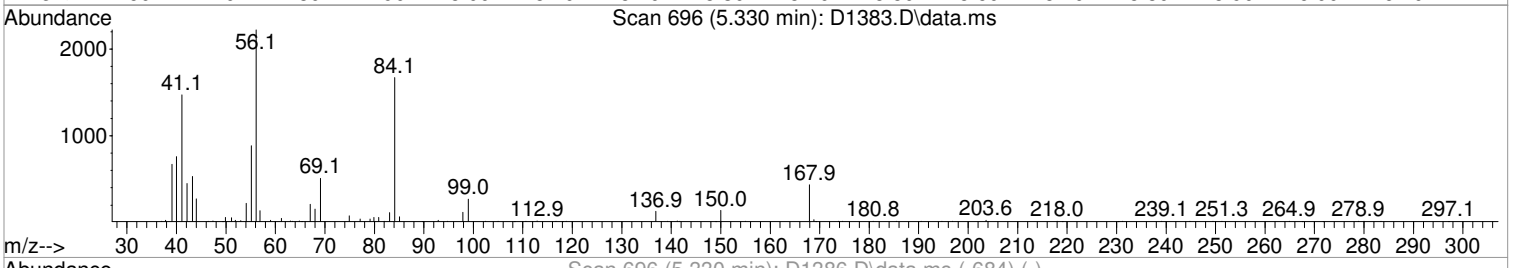
1st DL 02/14/18
2nd FW 02/15/18

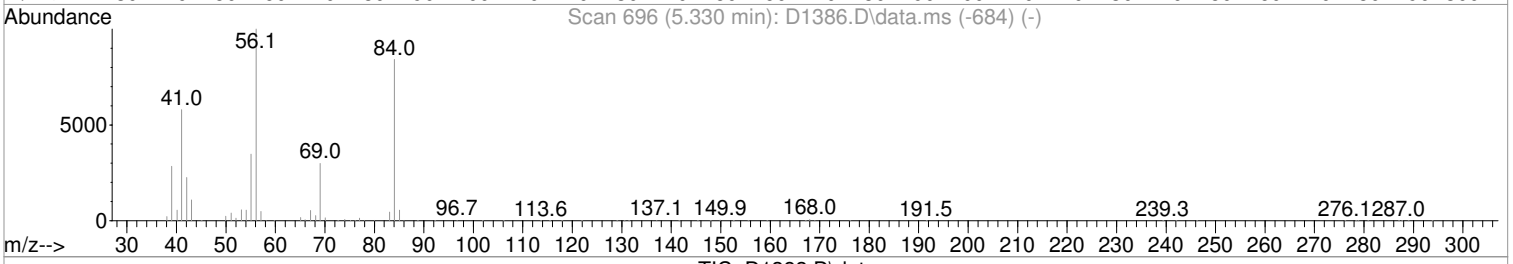
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.000) 2.05 ug/L m

response 3997

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	45.45
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

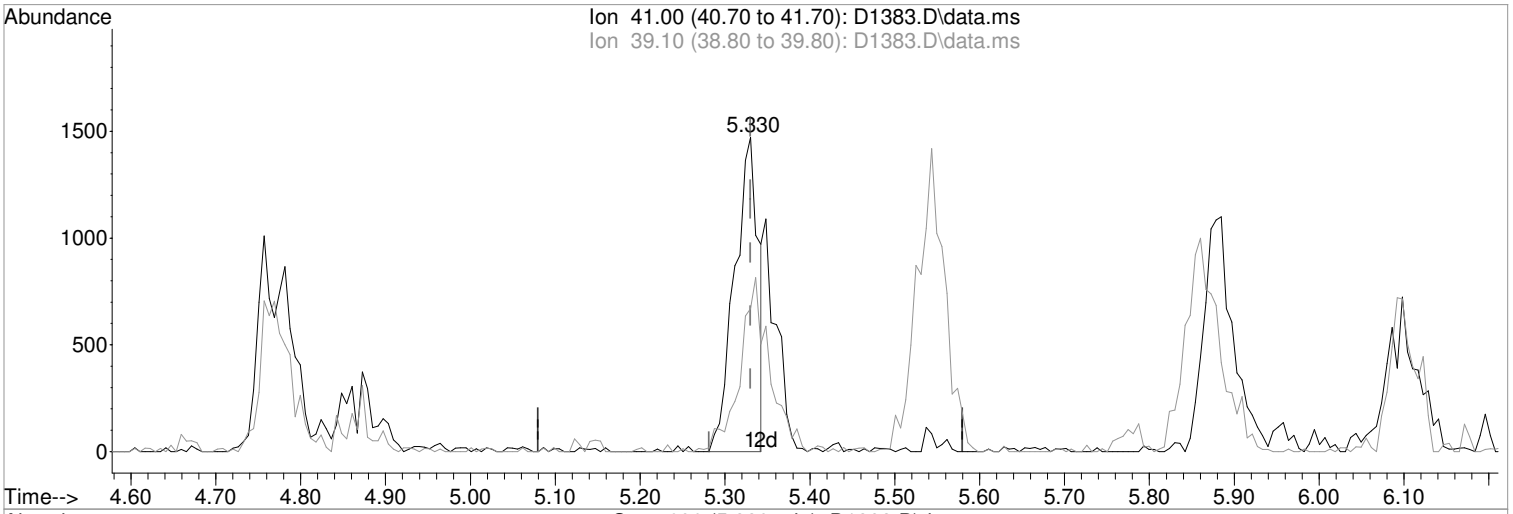
Poor integration.

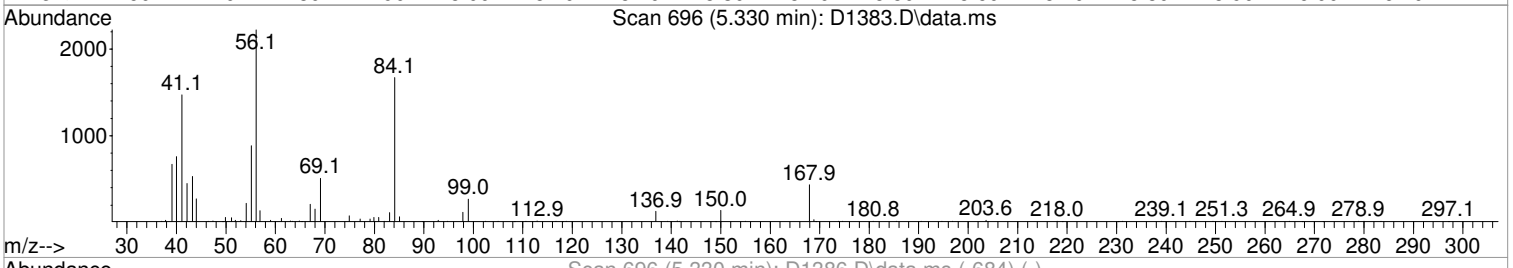
02/14/18

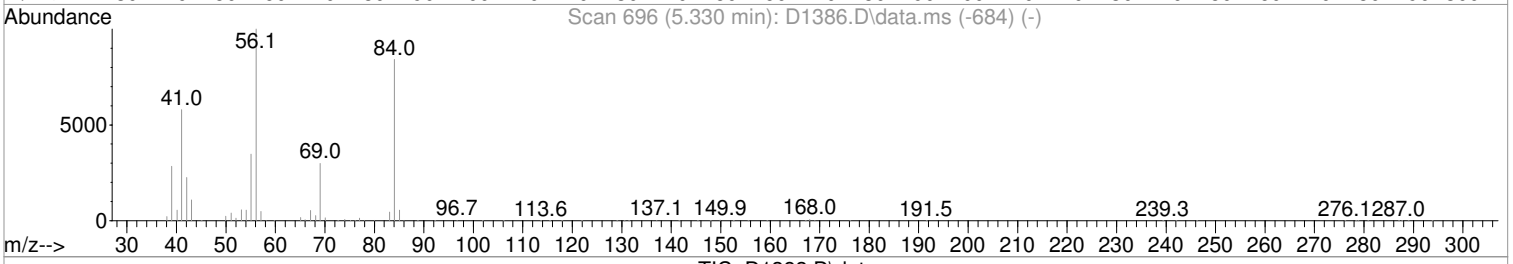
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(42) Cyclohexane (P)

5.330min (-0.000) 1.47 ug/L

response 2863

Ion	Exp%	Act%
41.00	100	100
39.10	48.20	45.45
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

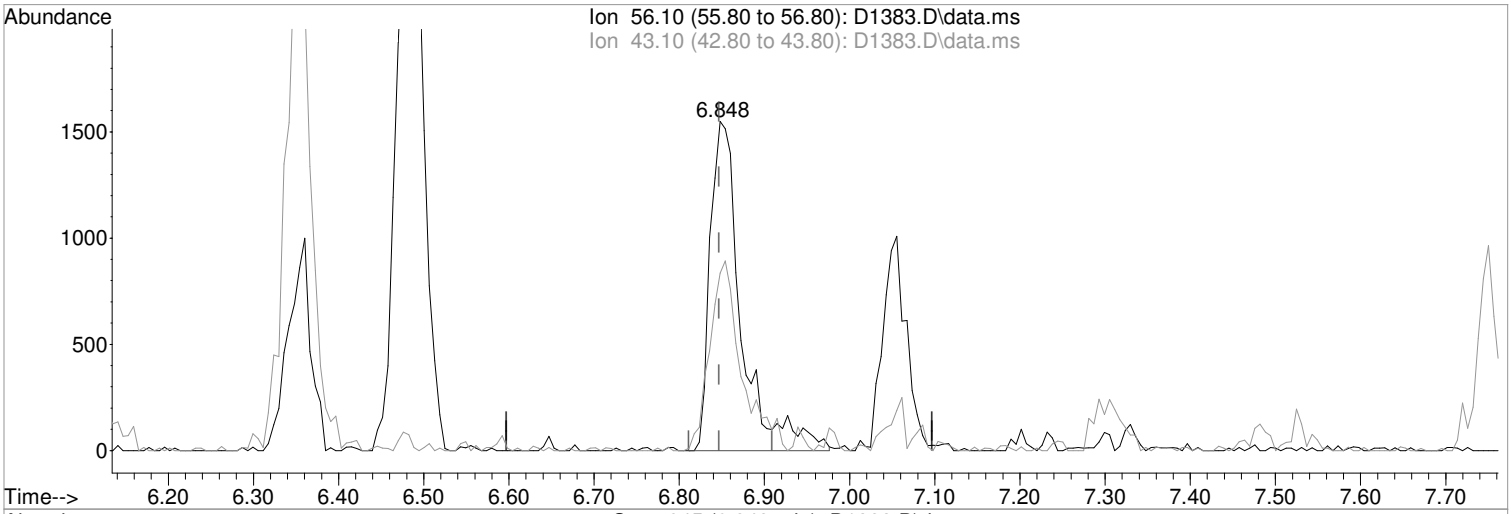
02/14/18

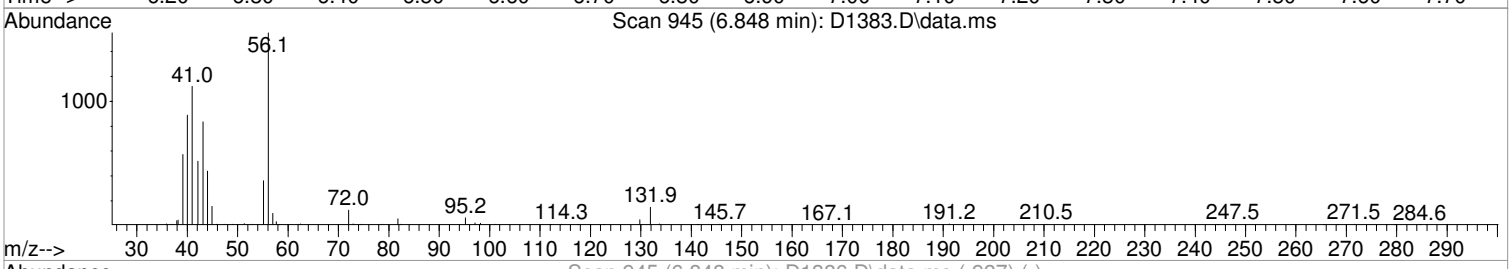
1st DL 02/14/18
2nd FJ 02/15/18

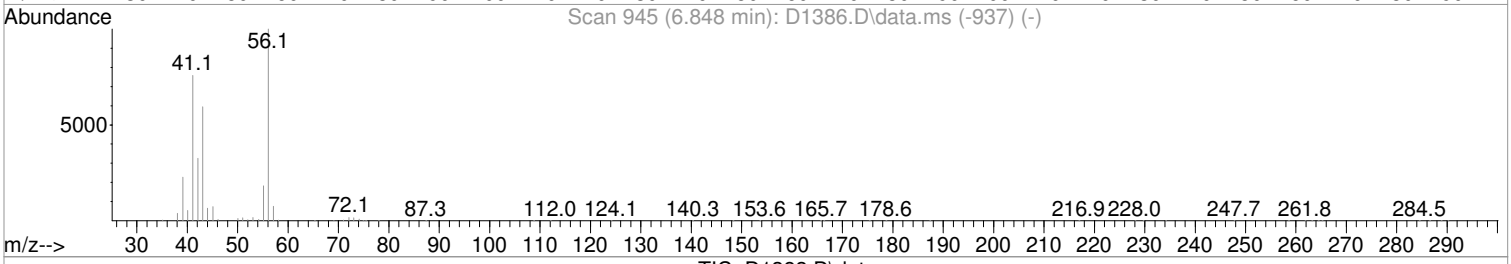
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(52) 1-Butanol

6.848min (+0.001) 81.48 ug/L m

response 3931

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	53.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

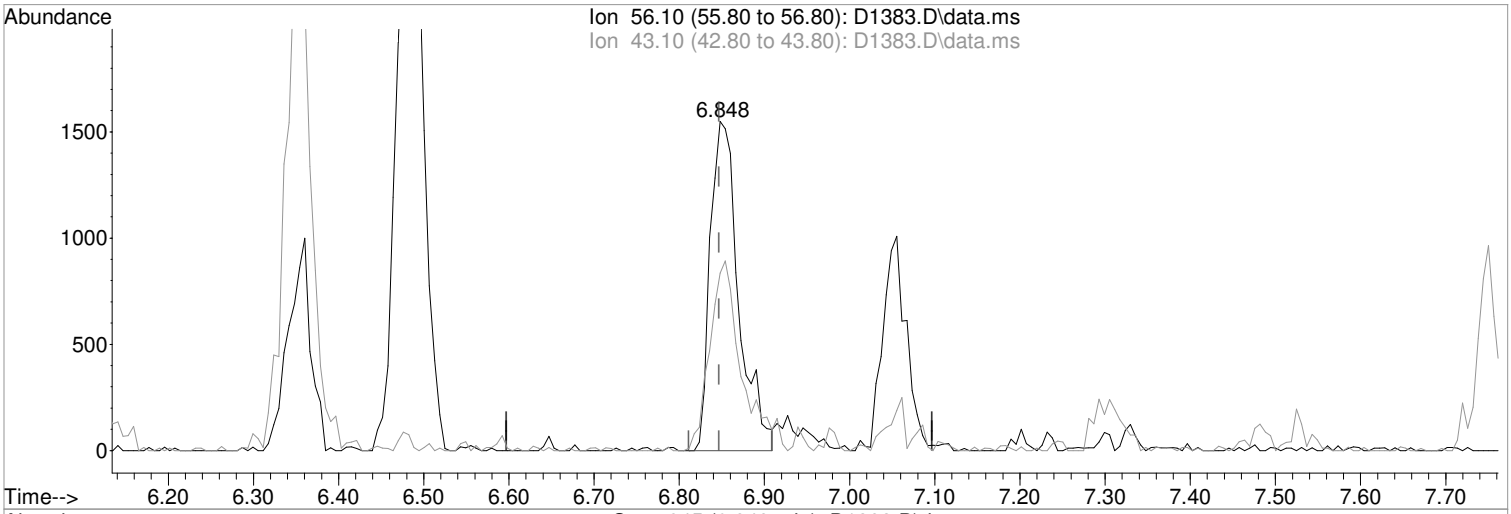
02/14/18

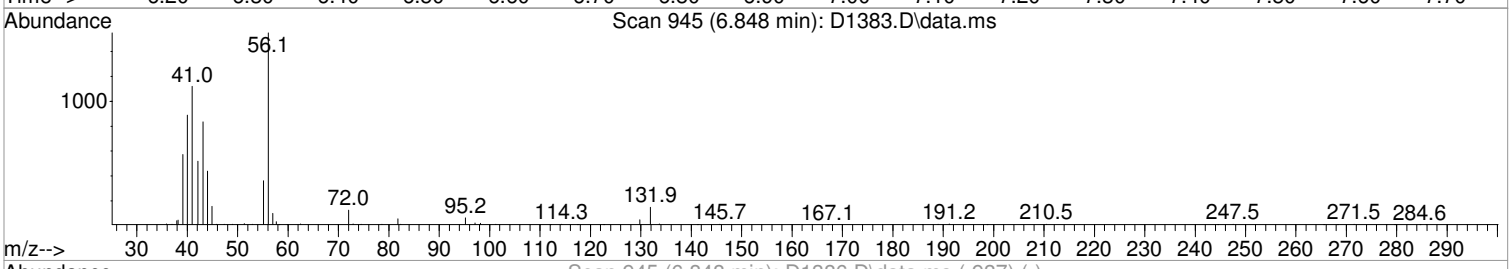
1st DL 02/14/18
2nd FW 02/15/18

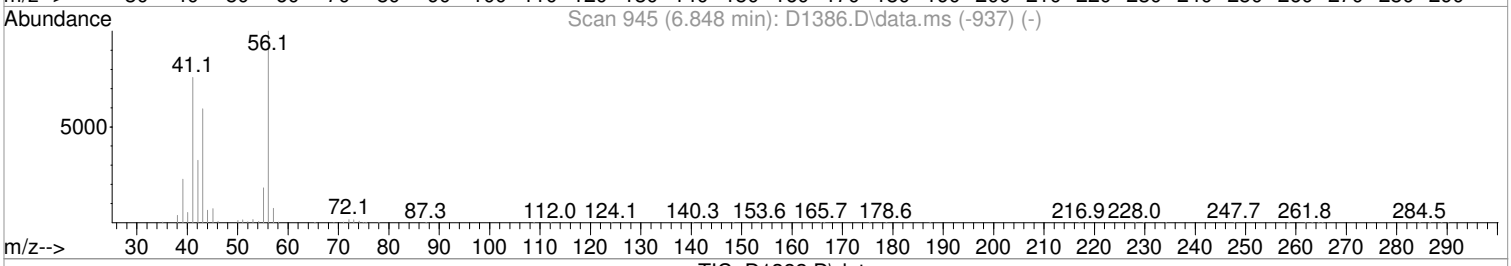
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:50:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration







TIC: D1383.D\data.ms

(52) 1-Butanol

6.848min (+0.001) 75.43 ug/L

response 3592

Ion	Exp%	Act%
56.10	100	100
43.10	61.80	53.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	193171	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	284918	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	246849	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	134221	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	19805	11.36	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.72%#				
46) surr1,1,2-dichloroetha...	5.781	65	24635	12.22	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 24.44%#				
64) SURR3,Toluene-d8	8.305	98	79772	11.61	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 23.22%#				
69) SURR2,BFB	10.878	95	29327	11.02	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 22.04%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	5002	1.81	ug/L		93
3) Chloromethane	1.282	50	5808	1.90	ug/L		97
4) Vinyl Chloride	1.361	62	5418	1.88	ug/L		100
5) Bromomethane	1.587	94	5413	2.13	ug/L		98
6) Chloroethane	1.666	64	3707	2.04	ug/L		97
7) Freon 21	1.812	67	8848	2.00	ug/L		96
8) Trichlorofluoromethane	1.861	101	6065	1.86	ug/L		89
9) Diethyl Ether	2.093	59	4087	2.17	ug/L		86
10) Freon 123a	2.099	67	5256	2.05	ug/L		86
11) Freon 123	2.148	83	6179	2.11	ug/L		94
12) Acrolein	2.190	56	5225	9.68	ug/L		80
13) 1,1-Diclethene	2.288	96	3229	1.71	ug/L		96
14) Freon 113	2.294	101	3840	1.86	ug/L		82
15) Acetone	2.324	43	2040	2.02	ug/L		85
16) 2-Propanol	2.459	45	4751	33.92	ug/L		79
17) Iodomethane	2.416	142	2427	2.48	ug/L		91
18) Carbon Disulfide	2.477	76	9802	1.85	ug/L		95
19) Acetonitrile	2.574	40	1439m	6.77	ug/L		
20) Allyl Chloride	2.617	76	1852m	1.92	ug/L		
21) Methyl Acetate	2.635	43	3910	1.92	ug/L		86
22) Methylene Chloride	2.727	84	4118	1.92	ug/L		94
23) TBA	2.861	59	6929m	32.70	ug/L		
24) Acrylonitrile	2.983	53	9914	9.62	ug/L		98
25) Methyl-t-Butyl Ether	3.038	73	11490	1.92	ug/L		98
26) trans-1,2-Dichloroethene	3.032	96	3789	1.82	ug/L	#	80
27) 1,1-Diclethane	3.525	63	6962	1.88	ug/L		97
28) Vinyl Acetate	3.617	86	714	1.67	ug/L	#	83
29) DIPE	3.647	45	13183	1.91	ug/L		82
30) 2-Chloro-1,3-Butadiene	3.653	53	5931	1.83	ug/L		98
31) ETBE	4.184	59	10438	1.90	ug/L		96
32) 2,2-Dichloropropane	4.361	77	3419	1.64	ug/L		95
33) cis-1,2-Dichloroethene	4.373	96	3962	1.74	ug/L	#	82
34) 2-Butanone	4.428	43	2585	1.90	ug/L		91
35) Propionitrile	4.501	54	3700m	8.84	ug/L		
36) Bromochloromethane	4.769	130	2536	1.79	ug/L		96
37) Methacrylonitrile	4.781	67	2110m	2.16	ug/L		
38) Tetrahydrofuran	4.867	42	1466	1.86	ug/L		80
39) Chloroform	4.952	83	6864	1.92	ug/L		91
40) 1,1,1-Trichloroethane	5.251	97	4806m	1.81	ug/L		

1st DL 02/14/18
2nd FJ 02/15/18

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	3997m	2.05	ug/L		
44) Carbontetrachloride	5.531	117	3681	1.81	ug/L		95
45) 1,1-Dichloropropene	5.537	75	5502	1.92	ug/L		90
47) Benzene	5.854	78	15640	1.88	ug/L		97
48) 1,2-Dichloroethane	5.897	62	6015	2.10	ug/L		88
49) Iso-Butyl Alcohol	5.879	43	2687	48.74	ug/L	#	65
50) TAME	6.098	73	8962	1.77	ug/L		89
51) n-Heptane	6.354	43	5273	1.87	ug/L		99
52) 1-Butanol	6.848	56	3931m	81.48	ug/L		
53) Trichloroethene	6.811	130	4241	1.88	ug/L		89
54) Methylcyclohexane	7.055	55	4979	1.86	ug/L	#	79
55) 1,2-Diclpropane	7.098	63	3991	1.83	ug/L		89
56) Dibromomethane	7.238	93	2437	1.79	ug/L		87
57) 1,4-Dioxane	7.293	88	1147	32.81	ug/L		80
58) Methyl Methacrylate	7.330	69	2637	1.72	ug/L	#	82
59) Bromodichloromethane	7.470	83	4407	1.76	ug/L		94
60) 2-Nitropropane	7.756	41	1344	2.90	ug/L	#	73
61) 2-Chloroethylvinyl Ether	7.878	63	798	1.50	ug/L		86
62) cis-1,3-Dichloropropene	8.012	75	5055	1.91	ug/L		97
63) 4-Methyl-2-pentanone	8.220	43	3896	1.67	ug/L		93
65) Toluene	8.378	91	16457	1.85	ug/L		89
66) trans-1,3-Dichloropropene	8.646	75	3380	1.68	ug/L		81
67) Ethyl Methacrylate	8.799	69	3818	1.46	ug/L		92
68) 1,1,2-Trichloroethane	8.841	97	3655	1.89	ug/L		95
71) Tetrachloroethene	8.976	164	3199	1.86	ug/L		91
72) 2-Hexanone	9.134	43	2667	1.55	ug/L		77
73) 1,3-Dichloropropane	9.012	76	6152	1.81	ug/L		95
74) Dibromochloromethane	9.238	129	3064	1.71	ug/L		97
75) N-Butyl Acetate	9.286	43	5206	1.58	ug/L		92
76) 1,2-Dibromoethane	9.335	107	3151	1.66	ug/L		96
77) 3-Chlorobenzotrifluoride	9.847	180	6663	2.03	ug/L		86
78) Chlorobenzene	9.829	112	11511	2.01	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	5821	2.01	ug/L		91
80) 1,1,1,2-Tetrachloroethane	9.914	131	3110	1.77	ug/L		94
81) Ethylbenzene	9.951	106	5874	1.97	ug/L		91
82) (m+p)Xylene	10.061	106	13190	3.60	ug/L		96
83) o-Xylene	10.420	106	6376	1.81	ug/L		92
84) Styrene	10.433	104	10496	1.75	ug/L		93
85) Bromoform	10.579	173	1744	1.75	ug/L		88
86) 2-Chlorobenzotrifluoride	10.664	180	5974	1.89	ug/L		93
87) Isopropylbenzene	10.750	105	16856	1.82	ug/L		94
88) Cyclohexanone	10.817	55	17892	30.78	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.061	53	1036	2.12	ug/L		91
91) 1,1,2,2-Tetrachloroethane	11.012	83	5257	1.92	ug/L		90
92) Bromobenzene	11.000	156	4487	1.89	ug/L		88
93) 1,2,3-Trichloropropane	11.036	110	1559	1.87	ug/L	#	88
94) n-Propylbenzene	11.109	91	20322	1.89	ug/L		96
95) 2-Chlorotoluene	11.170	91	12376	1.92	ug/L		95
96) 3-Chlorotoluene	11.225	91	12440	1.96	ug/L		92
97) 4-Chlorotoluene	11.268	91	13998	1.84	ug/L		99
98) 1,3,5-Trimethylbenzene	11.262	105	12774	1.74	ug/L		91
99) tert-Butylbenzene	11.536	119	12110	1.84	ug/L		87
100) 1,2,4-Trimethylbenzene	11.573	105	12494	1.71	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.634	214	5495	2.10	ug/L		93
102) sec-Butylbenzene	11.719	105	17383	1.84	ug/L		99
103) p-Isopropyltoluene	11.841	119	13841	1.78	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration

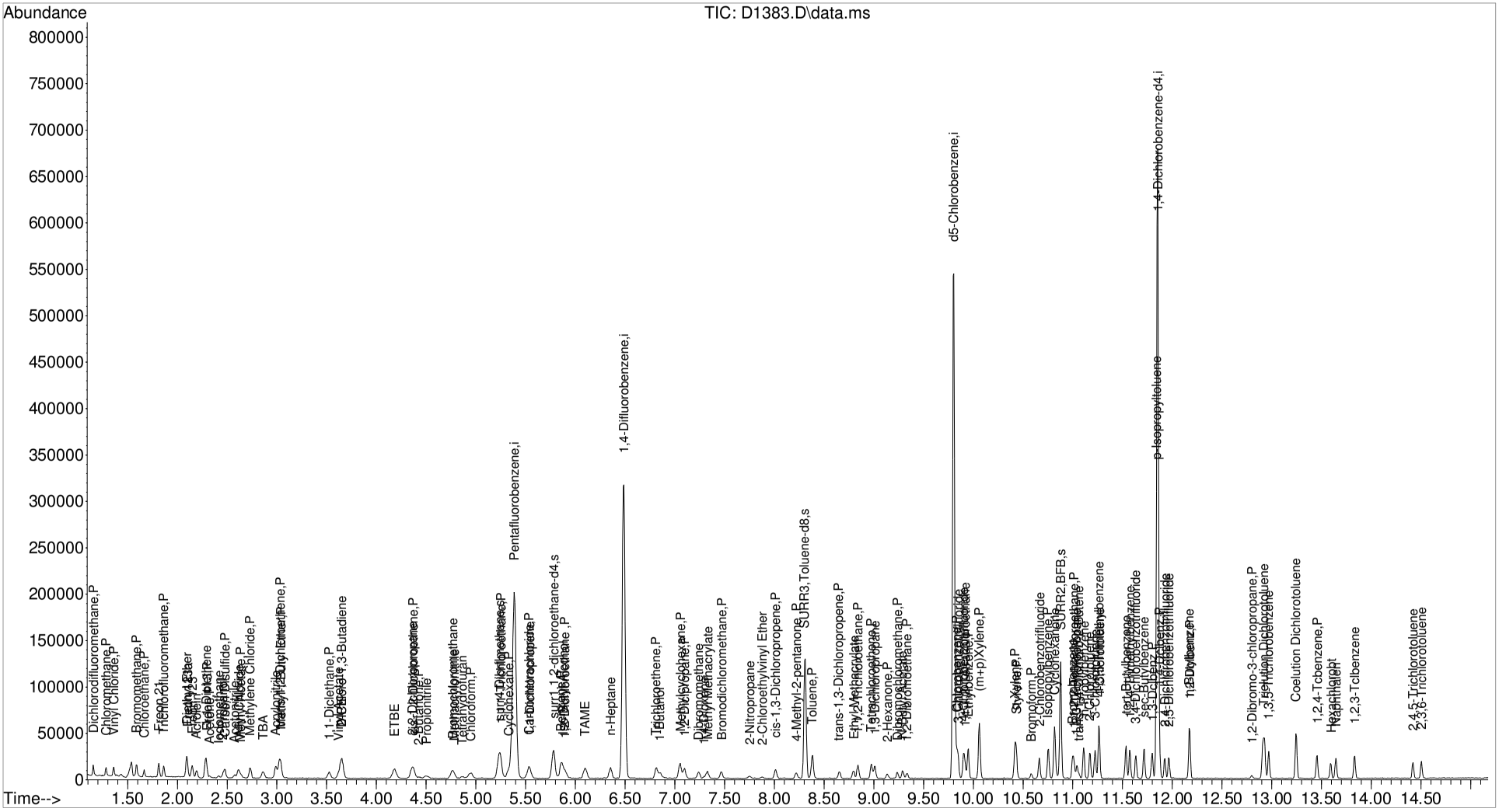
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) 1,3-Dclbenz	11.798	146	8837	1.92	ug/L		83
105) 1,4-Dclbenz	11.871	146	9676	2.00	ug/L		96
106) 2,4-Dichlorobenzotrifl...	11.926	214	5069	2.12	ug/L		92
107) 2,5-Dichlorobenzotrifl...	11.969	214	5529	2.11	ug/L		97
108) n-Butylbenzene	12.170	91	11958	1.66	ug/L		96
109) 1,2-Dclbenz	12.176	146	9364	2.02	ug/L		94
110) 1,2-Dibromo-3-chloropr...	12.798	157	810	1.84	ug/L	#	84
111) Trielution Dichlorotol...	12.920	125	21430	5.56	ug/L		98
112) 1,3,5-Trichlorobenzene	12.969	180	7120	2.02	ug/L		94
113) Coelution Dichlorotoluene	13.243	125	14829	3.63	ug/L		99
114) 1,2,4-Tcbenzene	13.456	180	6106	1.80	ug/L	#	80
115) Hexachlorobt	13.597	225	2452	1.66	ug/L		94
116) Naphthalen	13.645	128	13266	1.74	ug/L		97
117) 1,2,3-Tclbenzene	13.834	180	5518	1.69	ug/L		91
118) 2,4,5-Trichlorotoluene	14.420	159	3766	1.79	ug/L		96
119) 2,3,6-Trichlorotoluene	14.505	159	3438	1.84	ug/L		83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1383.D
Acq On : 12 Feb 2018 2:17 pm
Operator : D.LIPANI
Sample : STD#3 - 2.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 09:55:33 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:49:55 2018
Response via : Initial Calibration



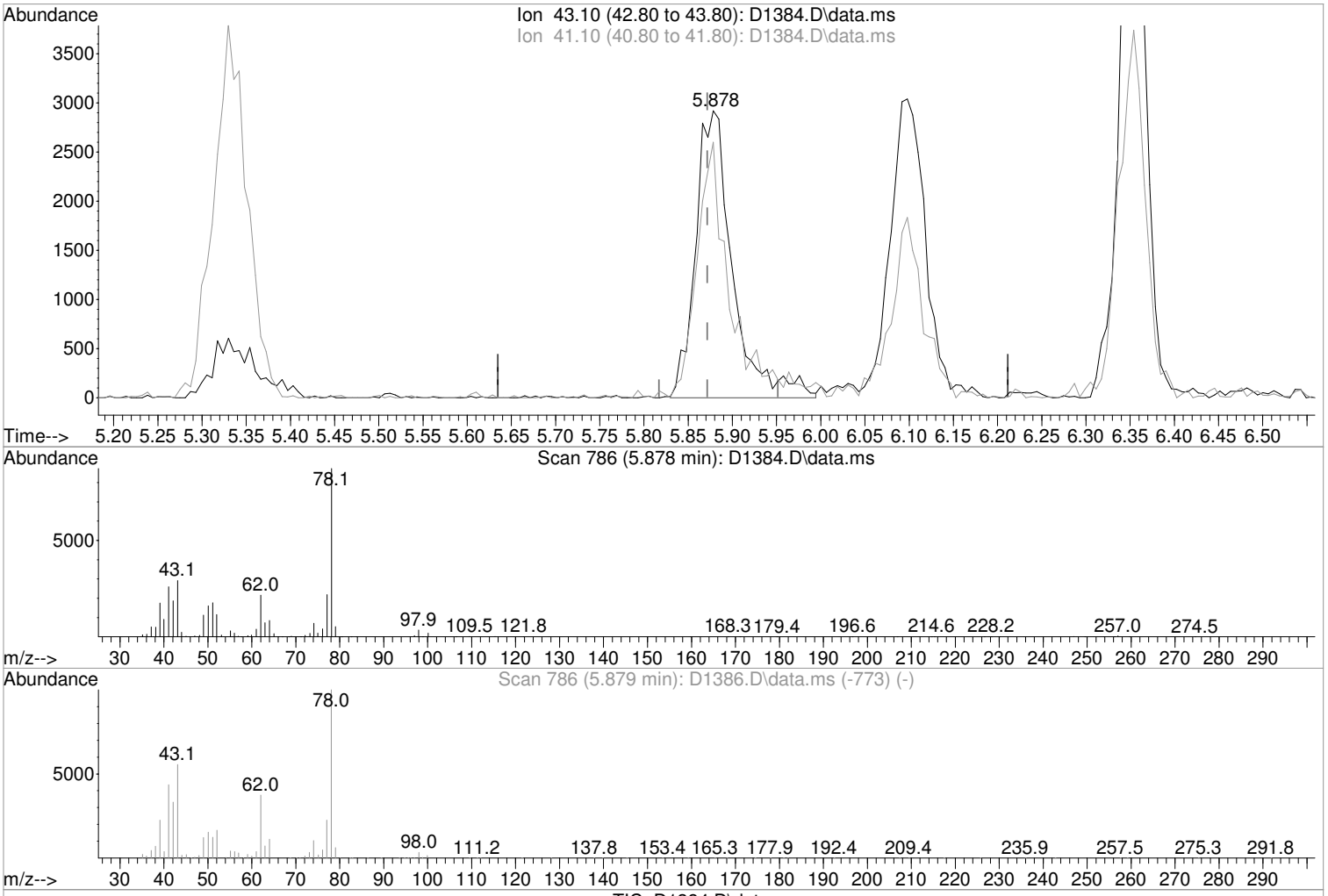
1st DL 02/14/18
2nd FJ 02/15/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration



TIC: D1384.D\data.ms

(49) Iso-Butyl Alcohol

5.878min (+0.006) 92.52 ug/L m

response 8483

Ion	Exp%	Act%
43.10	100	100
41.10	76.00	89.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

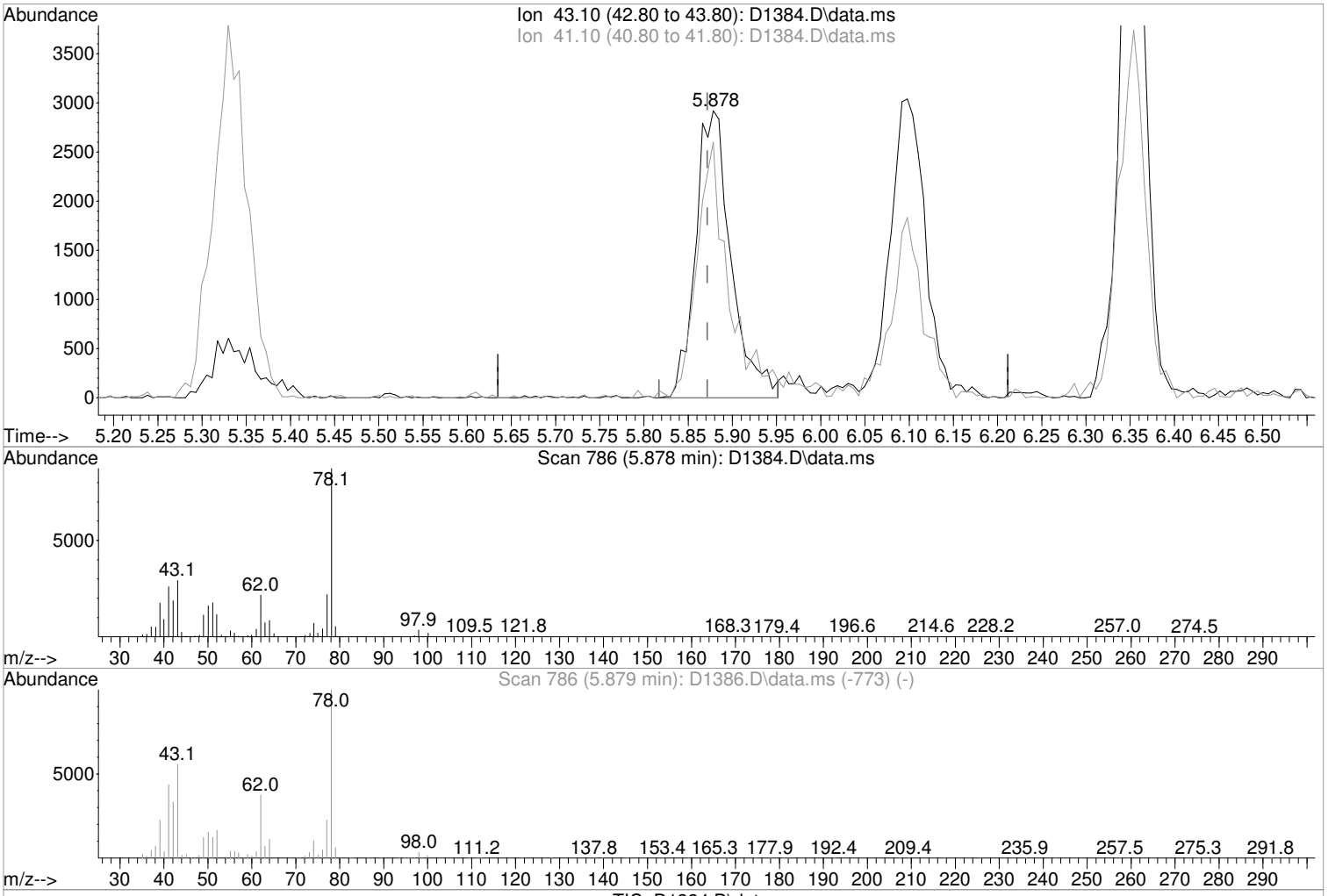
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration



TIC: D1384.D\data.ms

(49) Iso-Butyl Alcohol

5.878min (+0.006) 89.97 ug/L

response 8149

Ion	Exp%	Act%
43.10	100	100
41.10	76.00	89.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

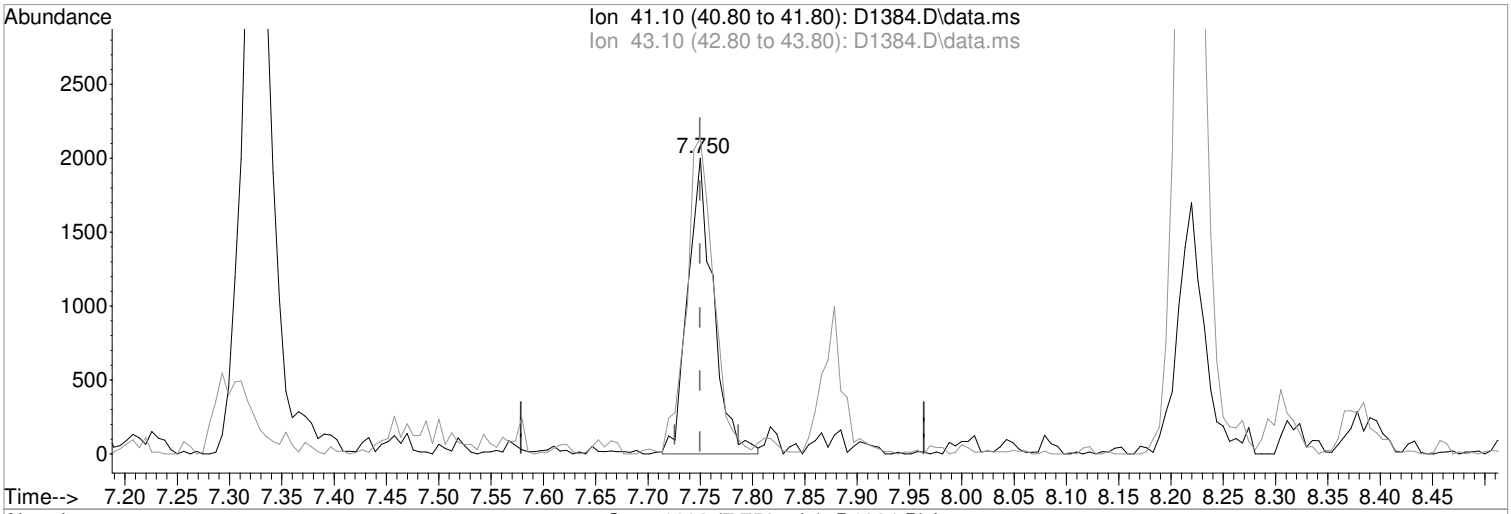
02/14/18

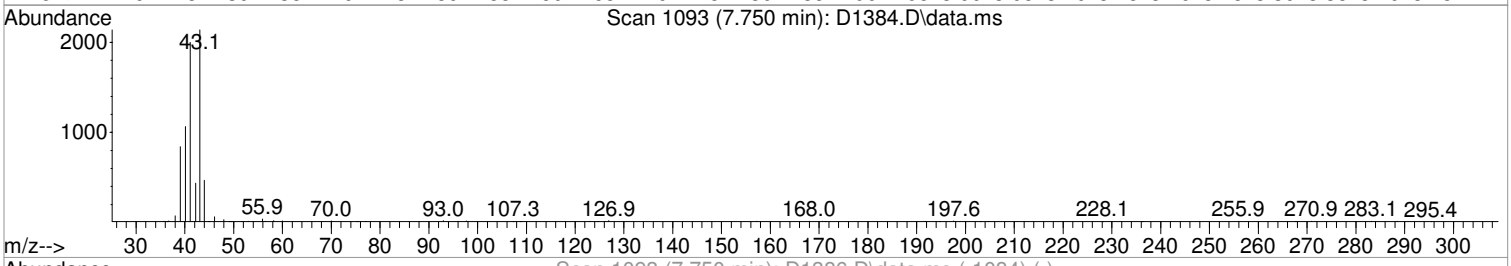
1st DL 02/14/18
2nd FJ 02/15/18

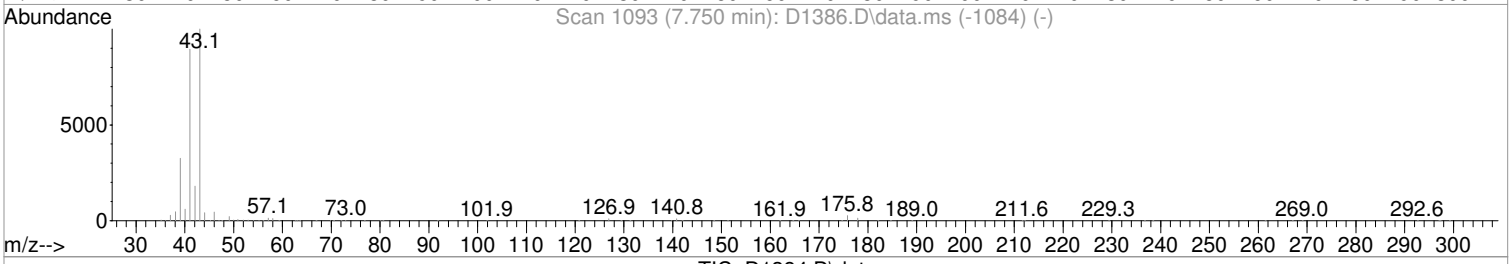
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration







TIC: D1384.D\data.ms

(60) 2-Nitropropane

7.750min (+0.000) 7.16 ug/L m

response 3398

Ion	Exp%	Act%
41.10	100	100
43.10	106.40	106.85
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

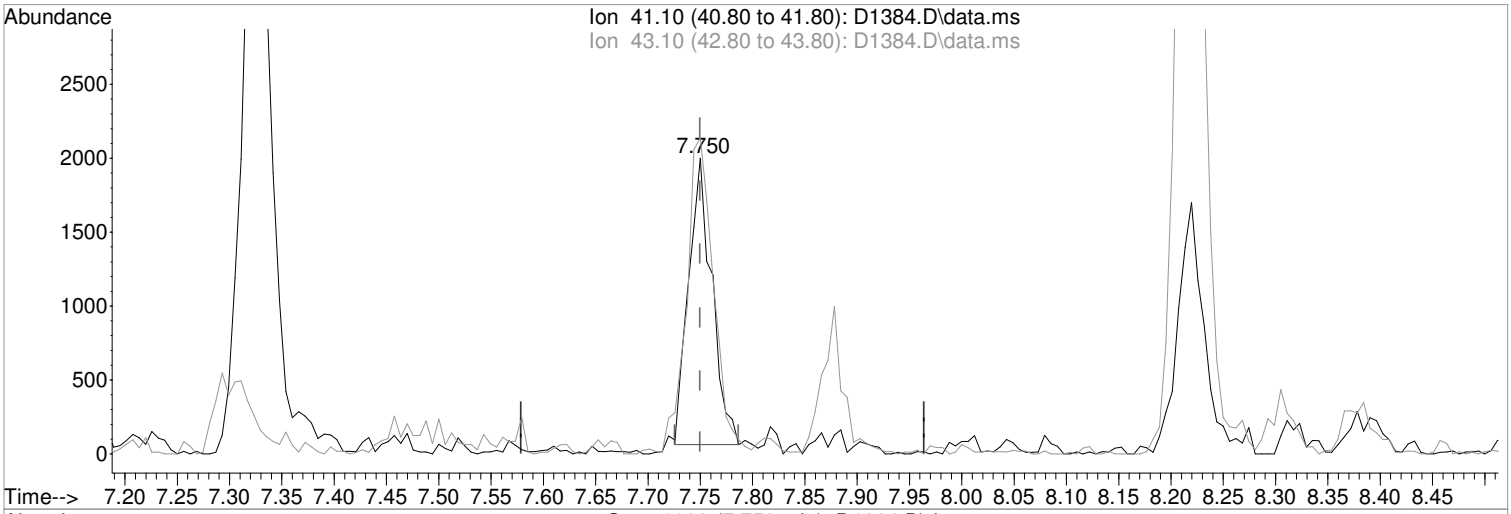
Poor integration.

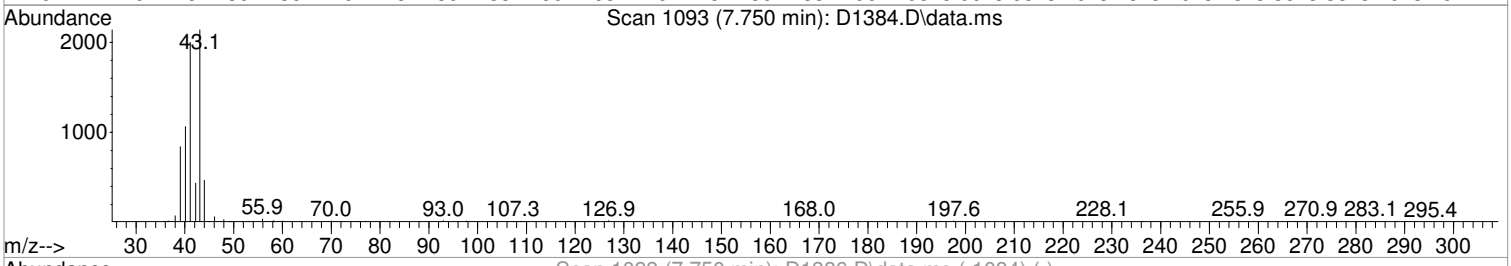
02/14/18

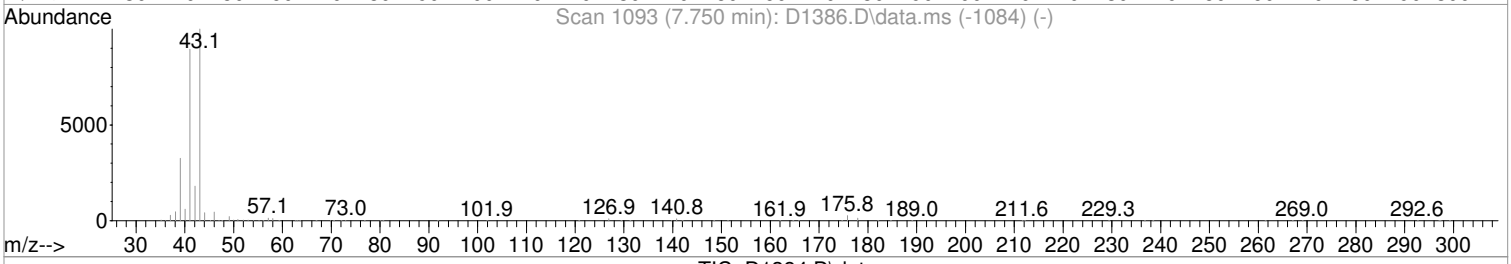
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 09:57:19 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration







TIC: D1384.D\data.ms

(60) 2-Nitropropane

7.750min (+0.000) 6.36 ug/L

response 3016

Ion	Exp%	Act%
41.10	100	100
43.10	106.40	106.85
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	197829	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	292162	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	254181	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	135129	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	19824	11.09	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 22.18%#				
46) surr1,1,2-dichloroetha...	5.781	65	23776	11.50	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 23.00%#				
64) SURR3,Toluene-d8	8.305	98	78118	11.09	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 22.18%#				
69) SURR2,BFB	10.878	95	29272	10.73	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 21.46%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	14763	5.21	ug/L		98
3) Chloromethane	1.282	50	15374	4.92	ug/L		96
4) Vinyl Chloride	1.355	62	13809	4.69	ug/L		98
5) Bromomethane	1.593	94	12453	5.56	ug/L		97
6) Chloroethane	1.666	64	8636	4.64	ug/L		87
7) Freon 21	1.812	67	22296	4.92	ug/L		96
8) Trichlorofluoromethane	1.861	101	16458	4.92	ug/L		90
9) Diethyl Ether	2.093	59	9617	4.98	ug/L		97
10) Freon 123a	2.099	67	13562	5.17	ug/L		98
11) Freon 123	2.148	83	14976	4.99	ug/L		95
12) Acrolein	2.190	56	13607	24.60	ug/L		97
13) 1,1-Diclethene	2.282	96	10066	5.20	ug/L		98
14) Freon 113	2.288	101	9194	4.34	ug/L		88
15) Acetone	2.324	43	5216	5.05	ug/L		90
16) 2-Propanol	2.458	45	12379	86.31	ug/L		99
17) Iodomethane	2.416	142	8933	4.45	ug/L		78
18) Carbon Disulfide	2.477	76	23631	4.36	ug/L		96
19) Acetonitrile	2.574	40	5751	26.43	ug/L	#	73
20) Allyl Chloride	2.617	76	4775	4.80	ug/L		100
21) Methyl Acetate	2.641	43	9852	4.73	ug/L		95
22) Methylene Chloride	2.727	84	11423	5.21	ug/L		94
23) TBA	2.861	59	19878	91.08	ug/L		80
24) Acrylonitrile	2.983	53	25104	23.80	ug/L		96
25) Methyl-t-Butyl Ether	3.038	73	28832	4.72	ug/L		87
26) trans-1,2-Dichloroethene	3.025	96	10185	4.77	ug/L	#	86
27) 1,1-Diclethane	3.525	63	18949	5.00	ug/L		97
28) Vinyl Acetate	3.611	86	2033	4.65	ug/L	#	60
29) DIPE	3.647	45	33253	4.70	ug/L		93
30) 2-Chloro-1,3-Butadiene	3.647	53	15236	4.60	ug/L		81
31) ETBE	4.184	59	26061	4.63	ug/L		92
32) 2,2-Dichloropropane	4.360	77	9148	4.28	ug/L		99
33) cis-1,2-Dichloroethene	4.367	96	11371	4.88	ug/L		95
34) 2-Butanone	4.415	43	6918	4.95	ug/L		96
35) Propionitrile	4.507	54	10536	24.49	ug/L		94
36) Bromochloromethane	4.763	130	7208	4.96	ug/L		89
37) Methacrylonitrile	4.763	67	4568	4.54	ug/L		98
38) Tetrahydrofuran	4.866	42	3843	4.75	ug/L		69
39) Chloroform	4.946	83	17873	4.88	ug/L		89
40) 1,1,1-Trichloroethane	5.244	97	12051	4.43	ug/L		95

1st DL 02/14/18
2nd FJ 02/15/18

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	9899	4.80	ug/L		98
44) Carbontetrachloride	5.525	117	8513	4.08	ug/L		96
45) 1,1-Dichloropropene	5.543	75	13614	4.63	ug/L		96
47) Benzene	5.854	78	42479	4.97	ug/L		93
48) 1,2-Dichloroethane	5.897	62	14714	5.01	ug/L		95
49) Iso-Butyl Alcohol	5.878	43	8483m	92.52	ug/L		
50) TAME	6.098	73	23118	4.46	ug/L		99
51) n-Heptane	6.354	43	12723	4.39	ug/L		94
52) 1-Butanol	6.842	56	11015	199.49	ug/L		94
53) Trichloroethene	6.817	130	10822	4.69	ug/L		95
54) Methylcyclohexane	7.049	55	14065	5.13	ug/L	#	87
55) 1,2-Diclpropane	7.098	63	11618	5.19	ug/L		100
56) Dibromomethane	7.238	93	7014	5.02	ug/L	#	82
57) 1,4-Dioxane	7.305	88	3621	101.00	ug/L		99
58) Methyl Methacrylate	7.323	69	7061	4.49	ug/L		91
59) Bromodichloromethane	7.464	83	12176	4.74	ug/L		95
60) 2-Nitropropane	7.750	41	3398m	7.16	ug/L		
61) 2-Chloroethylvinyl Ether	7.878	63	1877	3.43	ug/L		98
62) cis-1,3-Dichloropropene	8.006	75	13824	4.91	ug/L		90
63) 4-Methyl-2-pentanone	8.219	43	11242	4.69	ug/L		96
65) Toluene	8.384	91	43128	4.74	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	9825	4.24	ug/L		95
67) Ethyl Methacrylate	8.793	69	12257	4.56	ug/L		91
68) 1,1,2-Trichloroethane	8.841	97	9656	4.86	ug/L		86
71) Tetrachloroethene	8.975	164	8165	4.60	ug/L		95
72) 2-Hexanone	9.134	43	8261	4.66	ug/L		99
73) 1,3-Dichloropropane	9.012	76	18680	5.35	ug/L		98
74) Dibromochloromethane	9.238	129	8745	4.74	ug/L		92
75) N-Butyl Acetate	9.286	43	14703	4.32	ug/L		97
76) 1,2-Dibromoethane	9.335	107	10090	5.17	ug/L		96
77) 3-Chlorobenzotrifluoride	9.847	180	15934	4.72	ug/L		95
78) Chlorobenzene	9.829	112	29852	5.06	ug/L		99
79) 4-Chlorobenzotrifluoride	9.902	180	14610	4.91	ug/L		97
80) 1,1,1,2-Tetrachloroethane	9.914	131	8344	4.61	ug/L		95
81) Ethylbenzene	9.951	106	13623	4.44	ug/L		98
82) (m+p)Xylene	10.061	106	35010	9.29	ug/L		99
83) o-Xylene	10.420	106	16518	4.57	ug/L		96
84) Styrene	10.432	104	27986	4.53	ug/L		98
85) Bromoform	10.585	173	5161	4.77	ug/L	#	66
86) 2-Chlorobenzotrifluoride	10.664	180	15045	4.63	ug/L		96
87) Isopropylbenzene	10.756	105	41674	4.36	ug/L		95
88) Cyclohexanone	10.817	55	54985	91.87	ug/L		94
89) trans-1,4-Dichloro-2-B...	11.060	53	2512	4.59	ug/L		76
91) 1,1,2,2-Tetrachloroethane	11.012	83	14405	5.23	ug/L		95
92) Bromobenzene	10.999	156	11990	5.00	ug/L		91
93) 1,2,3-Trichloropropane	11.042	110	4271	5.10	ug/L	#	81
94) n-Propylbenzene	11.109	91	50445	4.66	ug/L		99
95) 2-Chlorotoluene	11.170	91	30465	4.68	ug/L		97
96) 3-Chlorotoluene	11.225	91	30991	4.85	ug/L		97
97) 4-Chlorotoluene	11.268	91	35619	4.65	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	33824	4.57	ug/L		99
99) tert-Butylbenzene	11.536	119	29260	4.41	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	34559	4.69	ug/L		95
101) 3,4-Dichlorobenzotrifl...	11.633	214	13068	4.96	ug/L		89
102) sec-Butylbenzene	11.719	105	41680	4.38	ug/L		98
103) p-Isopropyltoluene	11.841	119	32847	4.20	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration

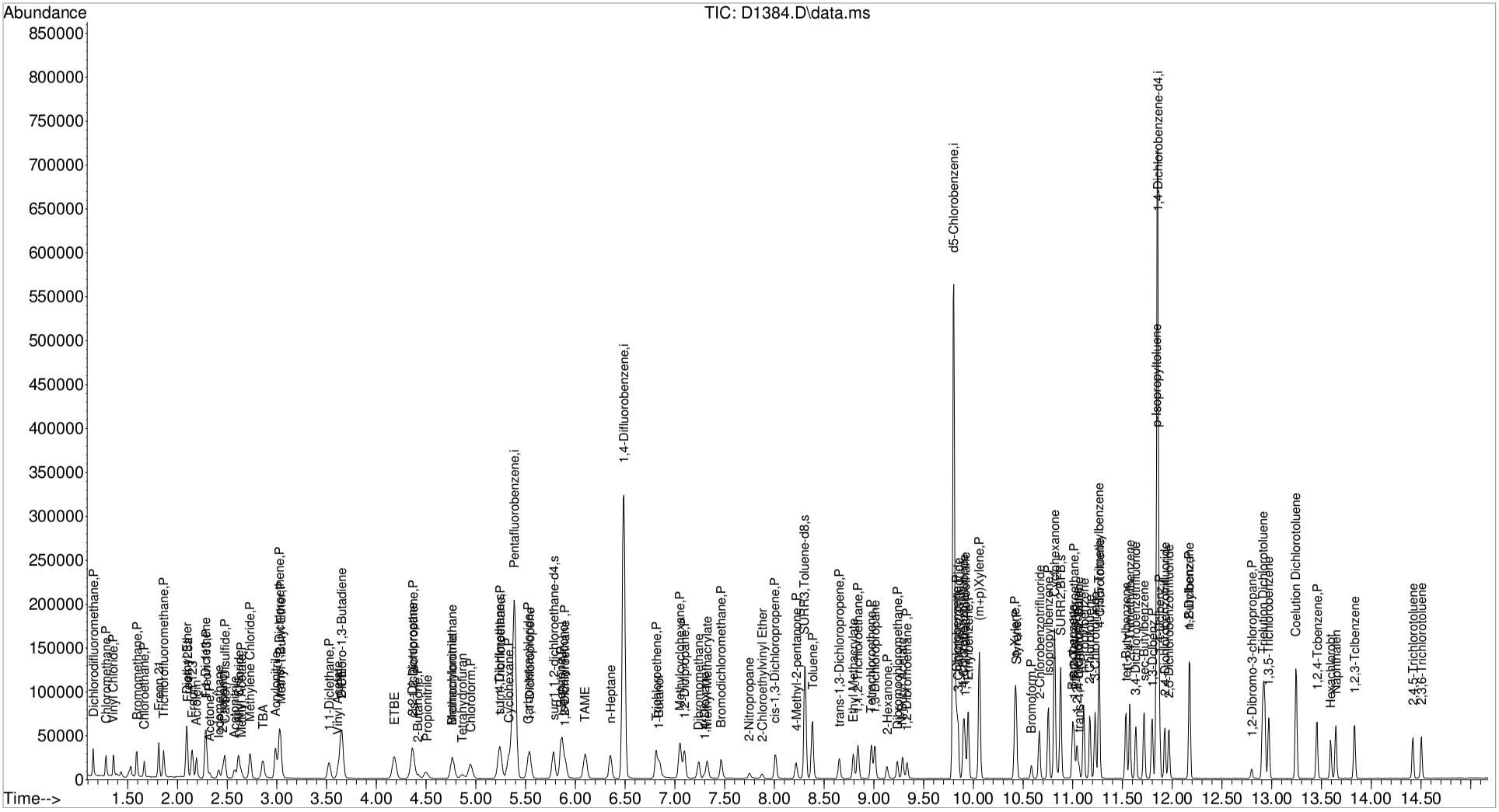
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	21551	4.65	ug/L	93
105) 1,4-Dclbenz	11.871	146	23147	4.74	ug/L	94
106) 2,4-Dichlorobenzotrifl...	11.926	214	11196	4.66	ug/L	95
107) 2,5-Dichlorobenzotrifl...	11.969	214	12330	4.66	ug/L	96
108) n-Butylbenzene	12.170	91	29011	4.01	ug/L	96
109) 1,2-Dclbenz	12.170	146	22389	4.80	ug/L	90
110) 1,2-Dibromo-3-chloropr...	12.798	157	1952	3.86	ug/L	87
111) Trielution Dichlorotol...	12.914	125	54625	14.08	ug/L	92
112) 1,3,5-Trichlorobenzene	12.969	180	16381	4.61	ug/L	95
113) Coelution Dichlorotoluene	13.243	125	39368	9.56	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	15651	4.59	ug/L	98
115) Hexachlorobt	13.590	225	6574	4.43	ug/L	88
116) Naphthalen	13.645	128	36108	4.69	ug/L	96
117) 1,2,3-Tclbenzene	13.834	180	15298	4.65	ug/L	97
118) 2,4,5-Trichlorotoluene	14.419	159	9752	4.59	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	8681	4.61	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1384.D
Acq On : 12 Feb 2018 2:43 pm
Operator : D.LIPANI
Sample : STD#4 - 5.0 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 10:00:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:57:10 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.385	168	199228	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	296724	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	259114	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	143455	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	33942	18.70	ug/L	0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 37.40%#			
46) surr1,1,2-dichloroetha...	5.781	65	39113	18.63	ug/L	0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 37.26%#			
64) SURR3,Toluene-d8	8.305	98	136316	19.05	ug/L	0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 38.10%#			
69) SURR2,BFB	10.878	95	52169	18.83	ug/L	0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 37.66%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	60377	21.14	ug/L	99
3) Chloromethane	1.282	50	64837	20.60	ug/L	99
4) Vinyl Chloride	1.355	62	64630	21.79	ug/L	97
5) Bromomethane	1.587	94	44781	21.71	ug/L	96
6) Chloroethane	1.666	64	38474	20.54	ug/L	95
7) Freon 21	1.812	67	90384	19.81	ug/L	100
8) Trichlorofluoromethane	1.861	101	67361	19.99	ug/L	98
9) Diethyl Ether	2.093	59	38043	19.54	ug/L	96
10) Freon 123a	2.093	67	52484	19.87	ug/L	99
11) Freon 123	2.148	83	57585	19.05	ug/L	98
12) Acrolein	2.190	56	57393	103.05	ug/L	95
13) 1,1-Diclethene	2.282	96	39108	20.05	ug/L	96
14) Freon 113	2.288	101	41687	19.56	ug/L	99
15) Acetone	2.324	43	20790	20.00	ug/L	94
16) 2-Propanol	2.458	45	62526	432.90	ug/L	96
17) Iodomethane	2.416	142	53421	17.96	ug/L	94
18) Carbon Disulfide	2.477	76	109786	20.13	ug/L	99
19) Acetonitrile	2.574	40	22405	102.26	ug/L	96
20) Allyl Chloride	2.617	76	20137	20.11	ug/L #	87
21) Methyl Acetate	2.635	43	41267	19.68	ug/L	97
22) Methylene Chloride	2.733	84	43754	19.82	ug/L	93
23) TBA	2.861	59	94857	431.57	ug/L	83
24) Acrylonitrile	2.983	53	108108	101.76	ug/L	97
25) Methyl-t-Butyl Ether	3.031	73	121953	19.81	ug/L	98
26) trans-1,2-Dichloroethene	3.025	96	42028	19.56	ug/L	89
27) 1,1-Diclethane	3.525	63	76200	19.97	ug/L	98
28) Vinyl Acetate	3.617	86	8548	19.43	ug/L	96
29) DIPE	3.653	45	140898	19.77	ug/L	94
30) 2-Chloro-1,3-Butadiene	3.653	53	68977	20.67	ug/L	97
31) ETBE	4.178	59	109452	19.29	ug/L	97
32) 2,2-Dichloropropane	4.361	77	40711	18.92	ug/L	100
33) cis-1,2-Dichloroethene	4.361	96	47823	20.39	ug/L	100
34) 2-Butanone	4.415	43	27281	19.44	ug/L	93
35) Propionitrile	4.495	54	43341	100.05	ug/L	99
36) Bromochloromethane	4.763	130	30010	20.52	ug/L	97
37) Methacrylonitrile	4.769	67	21219	20.96	ug/L	89
38) Tetrahydrofuran	4.854	42	16303	20.01	ug/L	88
39) Chloroform	4.946	83	72664	19.70	ug/L	93
40) 1,1,1-Trichloroethane	5.244	97	54240	19.81	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	41711	19.91	ug/L		98
44) Carbontetrachloride	5.525	117	41722	19.70	ug/L		89
45) 1,1-Dichloropropene	5.543	75	60878	20.40	ug/L		93
47) Benzene	5.860	78	175434	20.21	ug/L		97
48) 1,2-Dichloroethane	5.903	62	62479	20.96	ug/L		98
49) Iso-Butyl Alcohol	5.872	43	42974	349.12	ug/L		98
50) TAME	6.098	73	103407	19.62	ug/L		99
51) n-Heptane	6.354	43	61320	20.86	ug/L		96
52) 1-Butanol	6.848	56	65129	1047.14	ug/L		94
53) Trichloroethene	6.811	130	47552	20.27	ug/L		96
54) Methylcyclohexane	7.055	55	54823	19.67	ug/L		97
55) 1,2-Diclpropane	7.098	63	44575	19.60	ug/L		100
56) Dibromomethane	7.238	93	28442	20.05	ug/L		87
57) 1,4-Dioxane	7.293	88	15043	413.14	ug/L		96
58) Methyl Methacrylate	7.323	69	33599	21.03	ug/L		88
59) Bromodichloromethane	7.464	83	51434	19.70	ug/L		95
60) 2-Nitropropane	7.750	41	16650	34.55	ug/L		93
61) 2-Chloroethylvinyl Ether	7.878	63	10176	18.33	ug/L		85
62) cis-1,3-Dichloropropene	8.012	75	59446	20.07	ug/L		98
63) 4-Methyl-2-pentanone	8.220	43	49579	20.38	ug/L		96
65) Toluene	8.384	91	189918	20.53	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	45974	18.15	ug/L		94
67) Ethyl Methacrylate	8.793	69	56459	20.66	ug/L		97
68) 1,1,2-Trichloroethane	8.841	97	41142	20.38	ug/L		98
71) Tetrachloroethene	8.975	164	36741	20.31	ug/L		96
72) 2-Hexanone	9.134	43	35926	19.86	ug/L		97
73) 1,3-Dichloropropane	9.012	76	71871	20.17	ug/L		99
74) Dibromochloromethane	9.238	129	38137	20.26	ug/L		98
75) N-Butyl Acetate	9.286	43	71445	20.60	ug/L		95
76) 1,2-Dibromoethane	9.335	107	42400	21.32	ug/L		95
77) 3-Chlorobenzotrifluoride	9.847	180	64513	18.73	ug/L		97
78) Chlorobenzene	9.829	112	122810	20.42	ug/L		97
79) 4-Chlorobenzotrifluoride	9.902	180	59872	19.74	ug/L		99
80) 1,1,1,2-Tetrachloroethane	9.914	131	35833	19.40	ug/L		96
81) Ethylbenzene	9.951	106	65659	20.99	ug/L	#	86
82) (m+p)Xylene	10.061	106	162574	42.31	ug/L		98
83) o-Xylene	10.420	106	77816	21.10	ug/L		100
84) Styrene	10.432	104	131572	20.91	ug/L		99
85) Bromoform	10.579	173	23934	20.53	ug/L		90
86) 2-Chlorobenzotrifluoride	10.664	180	64465	19.48	ug/L		94
87) Isopropylbenzene	10.756	105	205577	21.11	ug/L		97
88) Cyclohexanone	10.817	55	259960	426.08	ug/L		100
89) trans-1,4-Dichloro-2-B...	11.060	53	12099	20.28	ug/L		92
91) 1,1,2,2-Tetrachloroethane	11.012	83	57507	19.65	ug/L		99
92) Bromobenzene	10.999	156	53523	21.04	ug/L		91
93) 1,2,3-Trichloropropane	11.042	110	17700	19.91	ug/L		96
94) n-Propylbenzene	11.109	91	246776	21.49	ug/L		98
95) 2-Chlorotoluene	11.170	91	144934	20.99	ug/L		98
96) 3-Chlorotoluene	11.225	91	138478	20.43	ug/L		98
97) 4-Chlorotoluene	11.268	91	169340	20.84	ug/L		96
98) 1,3,5-Trimethylbenzene	11.262	105	167147	21.27	ug/L		98
99) tert-Butylbenzene	11.536	119	146347	20.78	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	166560	21.31	ug/L		97
101) 3,4-Dichlorobenzotrifl...	11.633	214	53985	19.30	ug/L		97
102) sec-Butylbenzene	11.713	105	219924	21.75	ug/L		99
103) p-Isopropyltoluene	11.841	119	181237	21.81	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration

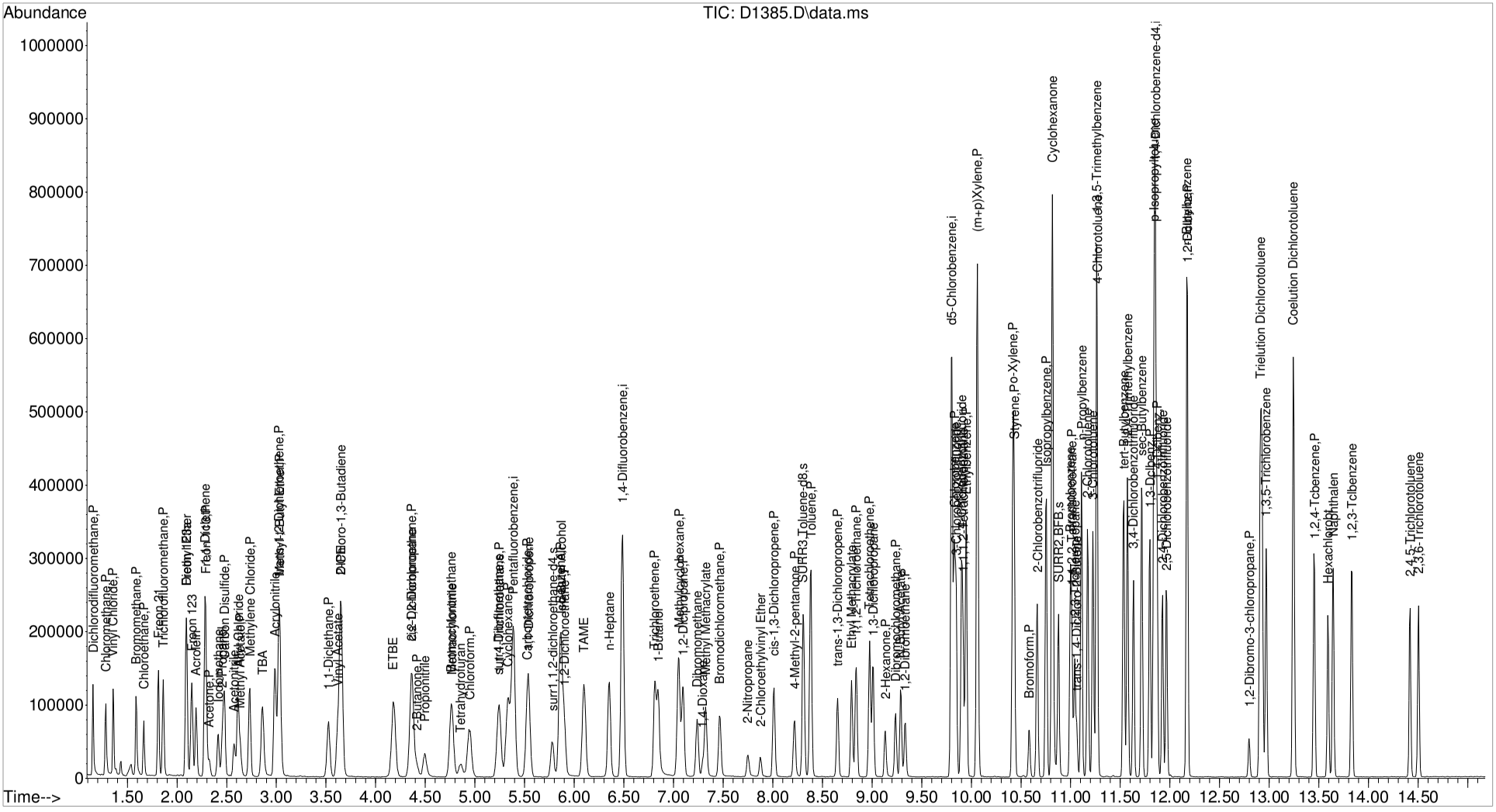
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	103191	20.99	ug/L	99
105) 1,4-Dclbenz	11.871	146	102855	19.85	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	48908	19.16	ug/L	91
107) 2,5-Dichlorobenzotrifl...	11.969	214	54973	19.59	ug/L	94
108) n-Butylbenzene	12.170	91	167247	21.78	ug/L	97
109) 1,2-Dclbenz	12.176	146	101314	20.46	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	10591	18.04	ug/L	93
111) Trielution Dichlorotol...	12.914	125	247831	60.17	ug/L	98
112) 1,3,5-Trichlorobenzene	12.969	180	77764	20.61	ug/L	96
113) Coelution Dichlorotoluene	13.243	125	179644	41.11	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	75994	20.98	ug/L	96
115) Hexachlorobt	13.590	225	32439	20.60	ug/L	99
116) Naphthalen	13.645	128	174189	21.32	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	72833	20.87	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	46245	20.52	ug/L	94
119) 2,3,6-Trichlorotoluene	14.505	159	43232	21.63	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1385.D
Acq On : 12 Feb 2018 3:07 pm
Operator : D.LIPANI
Sample : STD#5 - 20 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 10:20:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:20:41 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	207949	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	312241	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	278473	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	155759	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	97889	51.24	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 102.48%				
46) surr1,1,2-dichloroetha...	5.775	65	111463	50.46	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 100.92%				
64) SURR3,Toluene-d8	8.311	98	381040	50.61	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 101.22%				
69) SURR2,BFB	10.878	95	148015	50.76	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 101.52%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	158763	53.25	ug/L		98
3) Chloromethane	1.282	50	164672	50.13	ug/L		95
4) Vinyl Chloride	1.355	62	164771	53.23	ug/L		99
5) Bromomethane	1.581	94	112083	54.35	ug/L		97
6) Chloroethane	1.660	64	99725	51.01	ug/L		99
7) Freon 21	1.812	67	240057	50.41	ug/L		99
8) Trichlorofluoromethane	1.861	101	179419	51.01	ug/L		99
9) Diethyl Ether	2.087	59	100637	49.53	ug/L		97
10) Freon 123a	2.093	67	138418	50.20	ug/L		100
11) Freon 123	2.148	83	152530	48.34	ug/L		96
12) Acrolein	2.190	56	145070	249.56	ug/L		100
13) 1,1-Diclethene	2.282	96	105298	51.71	ug/L		89
14) Freon 113	2.288	101	114258	51.37	ug/L		91
15) Acetone	2.324	43	54081	49.84	ug/L		98
16) 2-Propanol	2.458	45	187722	1259.26	ug/L		97
17) Iodomethane	2.410	142	158217	47.82	ug/L		100
18) Carbon Disulfide	2.477	76	288421	50.66	ug/L		99
19) Acetonitrile	2.574	40	56804	248.31	ug/L		94
20) Allyl Chloride	2.611	76	55040	52.93	ug/L	#	73
21) Methyl Acetate	2.635	43	110366	54.29	ug/L		97
22) Methylene Chloride	2.733	84	116233	50.44	ug/L		96
23) TBA	2.861	59	274037	1201.35	ug/L		86
24) Acrylonitrile	2.983	53	291670	264.40	ug/L		99
25) Methyl-t-Butyl Ether	3.032	73	331845	51.64	ug/L		98
26) trans-1,2-Dichloroethene	3.025	96	111367	52.38	ug/L		94
27) 1,1-Diclethane	3.525	63	202364	50.81	ug/L		98
28) Vinyl Acetate	3.611	86	23590	52.79	ug/L	#	82
29) DIPE	3.647	45	378596	50.91	ug/L		94
30) 2-Chloro-1,3-Butadiene	3.647	53	181496	54.25	ug/L		97
31) ETBE	4.178	59	304517	51.41	ug/L		99
32) 2,2-Dichloropropane	4.354	77	116985	57.99	ug/L		99
33) cis-1,2-Dichloroethene	4.367	96	126438	51.66	ug/L		96
34) 2-Butanone	4.409	43	73670	50.42	ug/L		97
35) Propionitrile	4.489	54	116219	257.81	ug/L		95
36) Bromochloromethane	4.763	130	77976	56.44	ug/L		95
37) Methacrylonitrile	4.763	67	57100	54.40	ug/L		89
38) Tetrahydrofuran	4.848	42	44489	52.32	ug/L		95
39) Chloroform	4.940	83	196130	50.93	ug/L		98
40) 1,1,1-Trichloroethane	5.251	97	151002	52.85	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.330	41	108193	58.76	ug/L	99
44) Carbontetrachloride	5.525	117	121162	54.35	ug/L	97
45) 1,1-Dichloropropene	5.537	75	159634	50.84	ug/L	95
47) Benzene	5.860	78	464005	50.79	ug/L	97
48) 1,2-Dichloroethane	5.897	62	159365	50.81	ug/L	97
49) Iso-Butyl Alcohol	5.879	43	128273	932.27	ug/L	97
50) TAME	6.098	73	284825	51.37	ug/L	98
51) n-Heptane	6.348	43	161141	52.08	ug/L	98
52) 1-Butanol	6.848	56	201437	2777.58	ug/L	97
53) Trichloroethene	6.811	130	121986	49.41	ug/L	96
54) Methylcyclohexane	7.049	55	148768	50.74	ug/L	97
55) 1,2-Diclpropane	7.098	63	120533	50.36	ug/L	98
56) Dibromomethane	7.238	93	75228	50.40	ug/L	89
57) 1,4-Dioxane	7.299	88	40414	1054.76	ug/L	95
58) Methyl Methacrylate	7.323	69	94519	56.21	ug/L	97
59) Bromodichloromethane	7.464	83	143467	52.23	ug/L	94
60) 2-Nitropropane	7.750	41	51920	102.38	ug/L	95
61) 2-Chloroethylvinyl Ether	7.878	63	31371	54.26	ug/L	91
62) cis-1,3-Dichloropropene	8.012	75	172344	50.72	ug/L	98
63) 4-Methyl-2-pentanone	8.220	43	135174	52.81	ug/L	98
65) Toluene	8.378	91	502763	51.66	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	142369	50.64	ug/L	97
67) Ethyl Methacrylate	8.793	69	160807	55.34	ug/L	96
68) 1,1,2-Trichloroethane	8.841	97	109056	51.34	ug/L	95
71) Tetrachloroethene	8.976	164	98410	50.62	ug/L	96
72) 2-Hexanone	9.134	43	99173	51.02	ug/L	98
73) 1,3-Dichloropropane	9.012	76	196574	51.34	ug/L	97
74) Dibromochloromethane	9.238	129	107324	54.47	ug/L	96
75) N-Butyl Acetate	9.286	43	209071	56.08	ug/L	96
76) 1,2-Dibromoethane	9.335	107	111187	52.01	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	182755	49.37	ug/L	97
78) Chlorobenzene	9.829	112	325569	50.36	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	163868	50.27	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	103522	52.15	ug/L	96
81) Ethylbenzene	9.951	106	173203	51.51	ug/L	97
82) (m+p)Xylene	10.061	106	437795	106.00	ug/L	97
83) o-Xylene	10.420	106	211609	53.38	ug/L	94
84) Styrene	10.433	104	358306	52.99	ug/L	98
85) Bromoform	10.585	173	74255	54.33	ug/L	94
86) 2-Chlorobenzotrifluoride	10.664	180	178111	50.08	ug/L	97
87) Isopropylbenzene	10.756	105	556688	53.19	ug/L	99
88) Cyclohexanone	10.817	55	740587	1129.45	ug/L	99
89) trans-1,4-Dichloro-2-B...	11.060	53	33241	50.54	ug/L	98
91) 1,1,2,2-Tetrachloroethane	11.012	83	163047	51.32	ug/L	99
92) Bromobenzene	10.999	156	147869	53.53	ug/L	92
93) 1,2,3-Trichloropropane	11.042	110	47582	49.30	ug/L	94
94) n-Propylbenzene	11.109	91	680928	54.61	ug/L	98
95) 2-Chlorotoluene	11.170	91	393569	52.48	ug/L	99
96) 3-Chlorotoluene	11.225	91	376604	51.17	ug/L	99
97) 4-Chlorotoluene	11.268	91	458126	51.93	ug/L	95
98) 1,3,5-Trimethylbenzene	11.262	105	464689	54.47	ug/L	99
99) tert-Butylbenzene	11.536	119	399077	52.19	ug/L	98
100) 1,2,4-Trimethylbenzene	11.573	105	458803	54.06	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.634	214	153884	50.67	ug/L	96
102) sec-Butylbenzene	11.719	105	606692	55.26	ug/L	98
103) p-Isopropyltoluene	11.841	119	498737	55.27	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration

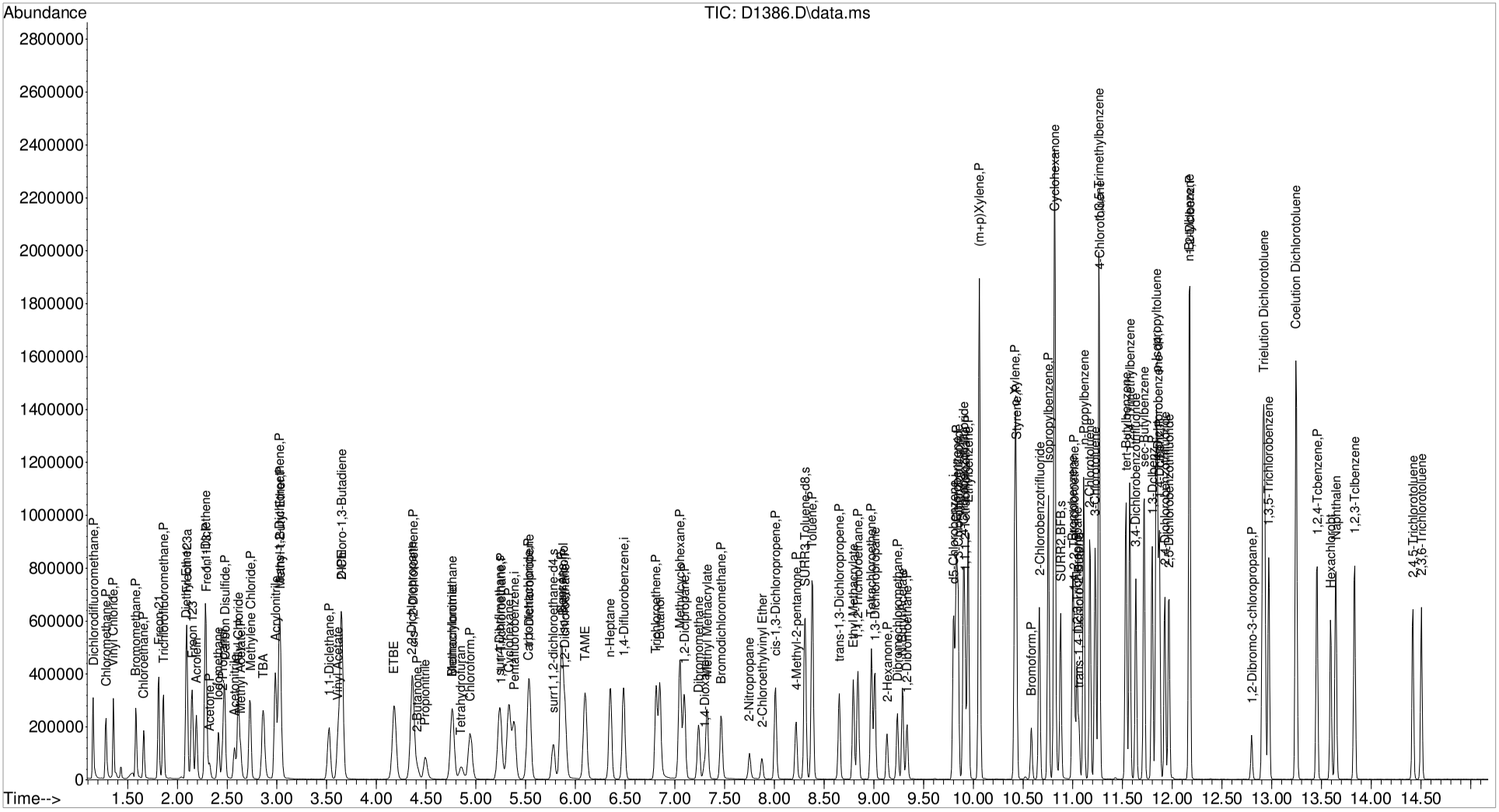
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	272839	51.12	ug/L	96
105) 1,4-Dclbenz	11.871	146	282643	50.25	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	136778	49.34	ug/L	97
107) 2,5-Dichlorobenzotrifl...	11.969	214	154879	50.84	ug/L	95
108) n-Butylbenzene	12.170	91	475409	57.03	ug/L	99
109) 1,2-Dclbenz	12.176	146	270808	50.36	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	32302	49.00	ug/L	92
111) Trielution Dichlorotol...	12.920	125	696337	155.70	ug/L	99
112) 1,3,5-Trichlorobenzene	12.969	180	207036	50.54	ug/L	98
113) Coelution Dichlorotoluene	13.243	125	506667	106.79	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	210616	53.55	ug/L	99
115) Hexachlorobt	13.590	225	91442	53.48	ug/L	97
116) Naphthalen	13.645	128	488415	55.06	ug/L	98
117) 1,2,3-Tclbenzene	13.834	180	198645	52.42	ug/L	98
118) 2,4,5-Trichlorotoluene	14.420	159	130305	53.25	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	118776	54.73	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1386.D
Acq On : 12 Feb 2018 3:40 pm
Operator : D.LIPANI
Sample : STD#5 - 50 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 09:23:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 09:23:12 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	221212	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.482	114	330716	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.804	117	296595	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	170740	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	200557	99.12	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 198.24%#				
46) surr1,1,2-dichloroetha...	5.781	65	230779	98.65	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 197.30%#				
64) SURR3,Toluene-d8	8.311	98	791217	99.23	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 198.46%#				
69) SURR2,BFB	10.877	95	310994	100.70	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 201.40%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	324165	102.22	ug/L		98
3) Chloromethane	1.282	50	336676	96.35	ug/L		96
4) Vinyl Chloride	1.355	62	340519	103.41	ug/L		98
5) Bromomethane	1.574	94	205919	98.00	ug/L		99
6) Chloroethane	1.654	64	205192	98.67	ug/L		95
7) Freon 21	1.806	67	486854	96.10	ug/L		99
8) Trichlorofluoromethane	1.855	101	356535	95.29	ug/L		98
9) Diethyl Ether	2.093	59	220239	101.89	ug/L		98
10) Freon 123a	2.093	67	287858	98.15	ug/L		98
11) Freon 123	2.147	83	313090	93.27	ug/L		95
12) Acrolein	2.190	56	334931	541.62	ug/L		99
13) 1,1-Diclethene	2.282	96	217108	100.23	ug/L		93
14) Freon 113	2.288	101	226857	95.88	ug/L		94
15) Acetone	2.324	43	123856	107.29	ug/L		94
16) 2-Propanol	2.483	45	454802	2835.89	ug/L		92
17) Iodomethane	2.410	142	355922	99.21	ug/L		96
18) Carbon Disulfide	2.471	76	633755	104.64	ug/L		99
19) Acetonitrile	2.574	40	126373	519.47	ug/L		96
20) Allyl Chloride	2.611	76	117520	105.68	ug/L	#	84
21) Methyl Acetate	2.635	43	244563	105.06	ug/L		97
22) Methylene Chloride	2.727	84	242975	99.13	ug/L		94
23) TBA	2.873	59	689845	2826.69	ug/L		90
24) Acrylonitrile	2.983	53	651349	552.15	ug/L		99
25) Methyl-t-Butyl Ether	3.031	73	733383	107.29	ug/L		98
26) trans-1,2-Dichloroethene	3.025	96	235320	98.66	ug/L		95
27) 1,1-Diclethane	3.525	63	426827	100.75	ug/L		98
28) Vinyl Acetate	3.617	86	54475	111.50	ug/L	#	60
29) DIPE	3.653	45	818787	103.49	ug/L		97
30) 2-Chloro-1,3-Butadiene	3.647	53	395951	106.84	ug/L		91
31) ETBE	4.178	59	679169	107.79	ug/L		98
32) 2,2-Dichloropropane	4.360	77	266333	111.46	ug/L		98
33) cis-1,2-Dichloroethene	4.367	96	267200	102.62	ug/L		88
34) 2-Butanone	4.415	43	170124	108.62	ug/L		97
35) Propionitrile	4.495	54	266611	554.27	ug/L		98
36) Bromochloromethane	4.763	130	167468	103.12	ug/L		95
37) Methacrylonitrile	4.763	67	128098	113.94	ug/L		92
38) Tetrahydrofuran	4.860	42	99827	110.36	ug/L		90
39) Chloroform	4.940	83	412056	100.60	ug/L		96
40) 1,1,1-Trichloroethane	5.244	97	325203	106.99	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	224826	96.31	ug/L		96
44) Carbontetrachloride	5.525	117	260293	110.25	ug/L		95
45) 1,1-Dichloropropene	5.537	75	330252	99.31	ug/L		95
47) Benzene	5.860	78	967957	100.04	ug/L		98
48) 1,2-Dichloroethane	5.897	62	342064	102.97	ug/L		96
49) Iso-Butyl Alcohol	5.897	43	328554	2169.90	ug/L		99
50) TAME	6.098	73	647954	110.33	ug/L		99
51) n-Heptane	6.354	43	313133	95.56	ug/L		97
52) 1-Butanol	6.860	56	527176	5755.66	ug/L		94
53) Trichloroethene	6.811	130	250952	95.98	ug/L		96
54) Methylcyclohexane	7.049	55	304340	97.99	ug/L		95
55) 1,2-Diclpropane	7.098	63	261696	103.22	ug/L		99
56) Dibromomethane	7.238	93	161242	101.98	ug/L		90
57) 1,4-Dioxane	7.299	88	92541	2280.29	ug/L		98
58) Methyl Methacrylate	7.323	69	213117	119.66	ug/L		99
59) Bromodichloromethane	7.463	83	304898	104.79	ug/L		95
60) 2-Nitropropane	7.750	41	133129	247.85	ug/L		92
61) 2-Chloroethylvinyl Ether	7.872	63	78056	126.13	ug/L		94
62) cis-1,3-Dichloropropene	8.012	75	386437	104.49	ug/L		98
63) 4-Methyl-2-pentanone	8.219	43	315650	116.43	ug/L		99
65) Toluene	8.384	91	1064357	103.25	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	332264	104.07	ug/L		97
67) Ethyl Methacrylate	8.792	69	375618	123.33	ug/L		96
68) 1,1,2-Trichloroethane	8.841	97	234511	104.24	ug/L		98
71) Tetrachloroethene	8.975	164	202082	97.60	ug/L		97
72) 2-Hexanone	9.134	43	238956	115.42	ug/L		96
73) 1,3-Dichloropropane	9.012	76	417466	102.37	ug/L		99
74) Dibromochloromethane	9.238	129	243385	112.96	ug/L		98
75) N-Butyl Acetate	9.286	43	481672	121.30	ug/L		97
76) 1,2-Dibromoethane	9.335	107	247829	108.85	ug/L		97
77) 3-Chlorobenzotrifluoride	9.847	180	383733	97.33	ug/L		96
78) Chlorobenzene	9.829	112	686091	99.64	ug/L		98
79) 4-Chlorobenzotrifluoride	9.902	180	341189	98.27	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	231325	109.41	ug/L		97
81) Ethylbenzene	9.951	106	366386	102.30	ug/L		98
82) (m+p)Xylene	10.061	106	920490	209.26	ug/L		98
83) o-Xylene	10.420	106	448039	106.12	ug/L		99
84) Styrene	10.432	104	773711	107.43	ug/L		98
85) Bromoform	10.585	173	171056	106.95	ug/L		91
86) 2-Chlorobenzotrifluoride	10.664	180	375625	99.16	ug/L		96
87) Isopropylbenzene	10.756	105	1167159	104.71	ug/L		98
88) Cyclohexanone	10.816	55	1766884	2529.99	ug/L		99
89) trans-1,4-Dichloro-2-B...	11.060	53	79650	106.33	ug/L		96
91) 1,1,2,2-Tetrachloroethane	11.012	83	370099	106.28	ug/L		99
92) Bromobenzene	10.999	156	307916	101.69	ug/L	#	86
93) 1,2,3-Trichloropropane	11.042	110	106450	100.61	ug/L		99
94) n-Propylbenzene	11.109	91	1405637	102.84	ug/L		99
95) 2-Chlorotoluene	11.170	91	826812	100.58	ug/L		99
96) 3-Chlorotoluene	11.225	91	812170	100.68	ug/L		99
97) 4-Chlorotoluene	11.268	91	991825	102.56	ug/L		97
98) 1,3,5-Trimethylbenzene	11.262	105	993423	106.24	ug/L		99
99) tert-Butylbenzene	11.536	119	843744	100.66	ug/L		98
100) 1,2,4-Trimethylbenzene	11.572	105	982078	105.57	ug/L		99
101) 3,4-Dichlorobenzotrifl...	11.633	214	321841	96.68	ug/L		99
102) sec-Butylbenzene	11.719	105	1267513	105.32	ug/L		98
103) p-Isopropyltoluene	11.841	119	1053700	106.52	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration

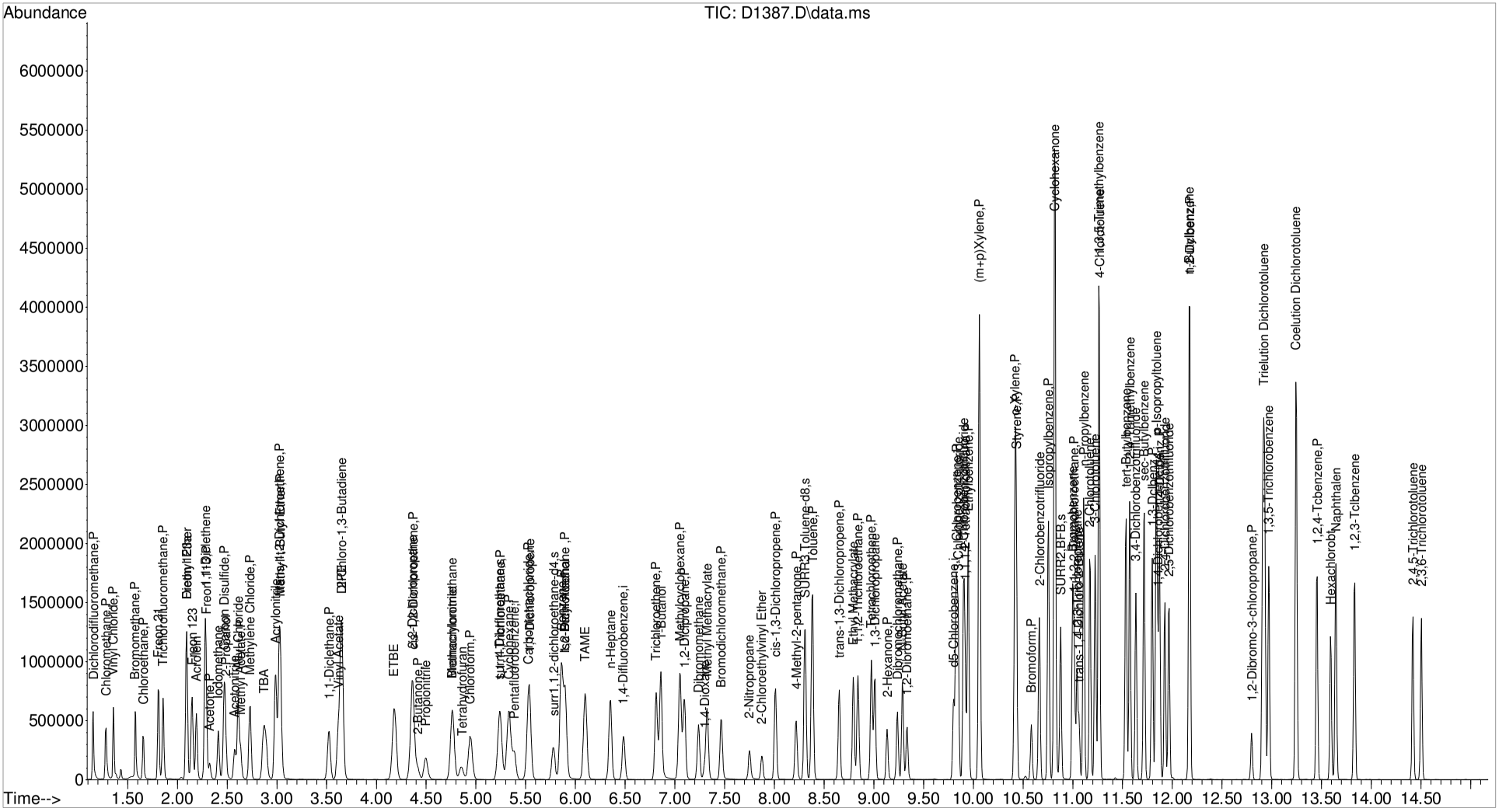
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	586411	100.23	ug/L	99
105) 1,4-Dclbenz	11.871	146	597006	96.82	ug/L	97
106) 2,4-Dichlorobenzotrifl...	11.926	214	294280	96.84	ug/L	94
107) 2,5-Dichlorobenzotrifl...	11.969	214	330126	98.85	ug/L	96
108) n-Butylbenzene	12.170	91	1009381	110.46	ug/L	98
109) 1,2-Dclbenz	12.176	146	580462	98.48	ug/L	99
110) 1,2-Dibromo-3-chloropr...	12.798	157	80581	108.16	ug/L	96
111) Trielution Dichlorotol...	12.920	125	1483366	302.57	ug/L	100
112) 1,3,5-Trichlorobenzene	12.969	180	443007	98.65	ug/L	97
113) Coelution Dichlorotoluene	13.243	125	1086824	208.97	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	437894	101.57	ug/L	96
115) Hexachlorobt	13.590	225	187508	100.04	ug/L	97
116) Naphthalen	13.645	128	1096133	112.72	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	427371	102.88	ug/L	99
118) 2,4,5-Trichlorotoluene	14.419	159	281236	104.85	ug/L	98
119) 2,3,6-Trichlorotoluene	14.505	159	254775	107.09	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1387.D
Acq On : 12 Feb 2018 4:02 pm
Operator : D.LIPANI
Sample : STD#6 - 100 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 14 10:23:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:22:50 2018
Response via : Initial Calibration

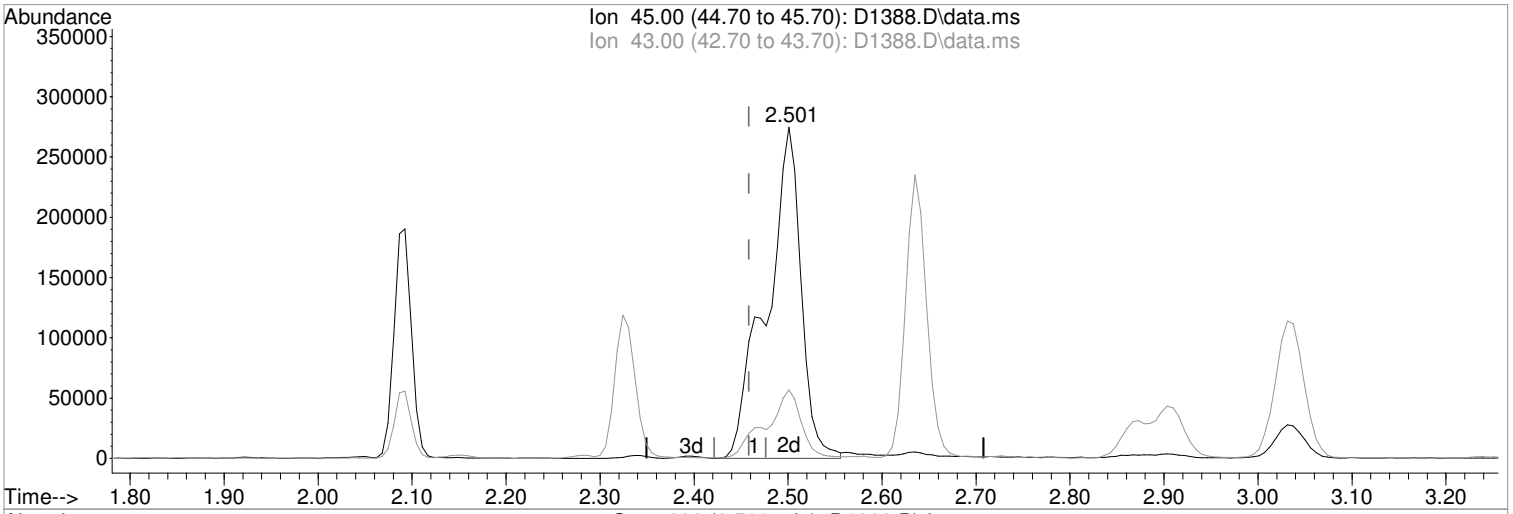


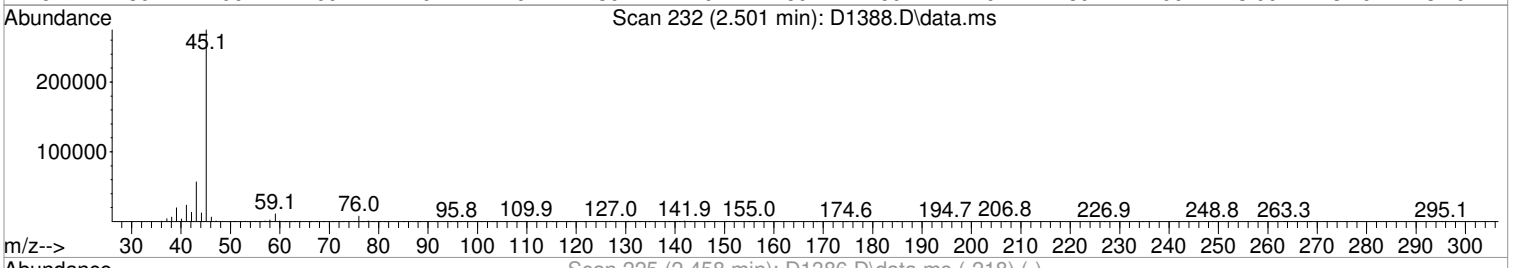
1st DL 02/14/18
2nd FJ 02/15/18

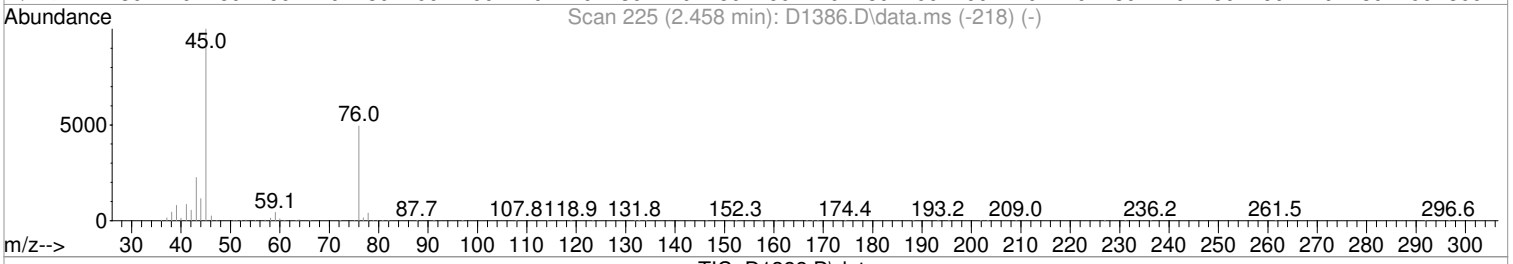
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(16) 2-Propanol

2.501min (+0.042) 4142.40 ug/L m

response 696140

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	20.67
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

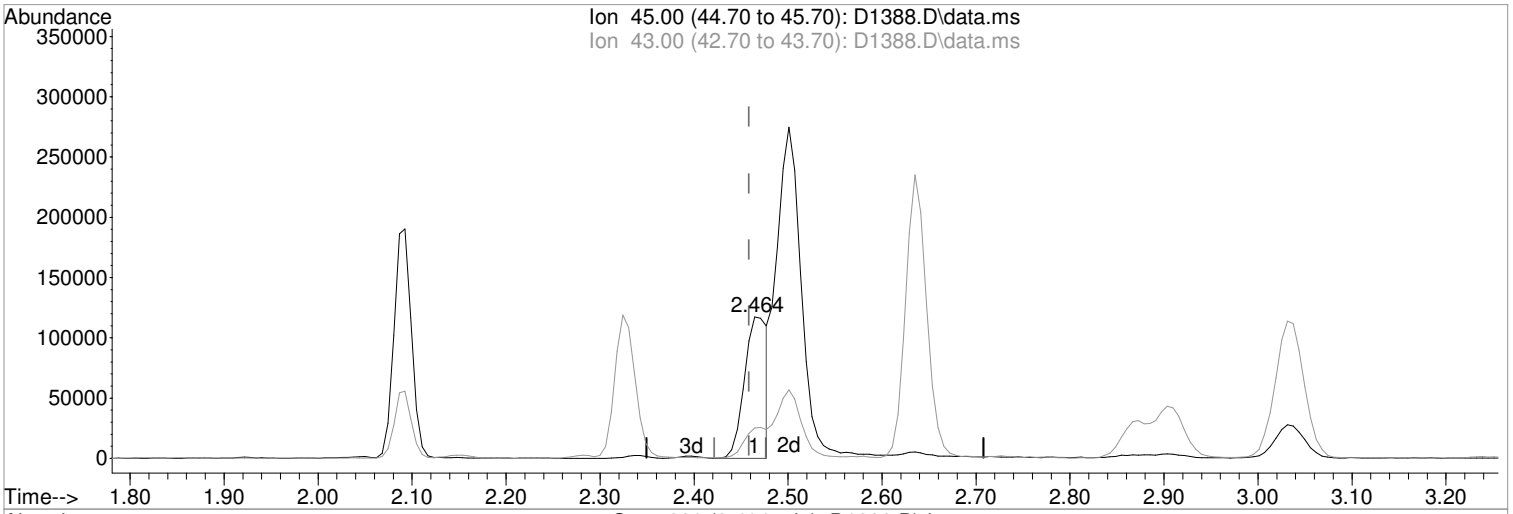
02/14/18

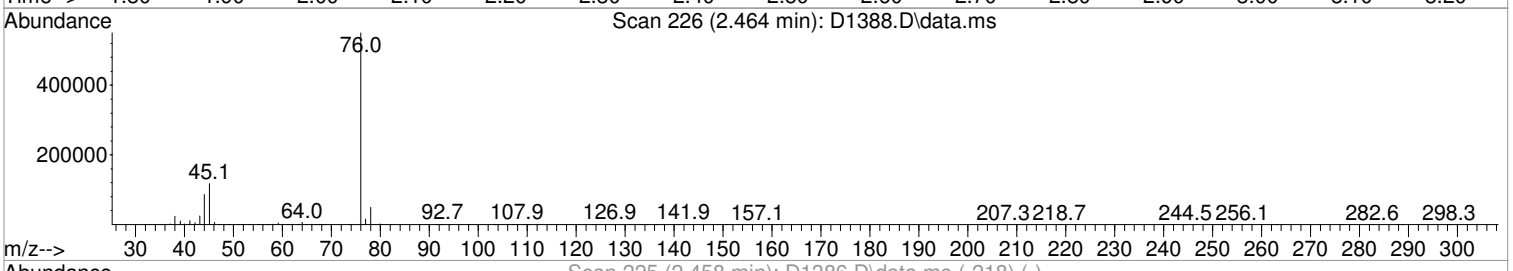
1st DL 02/14/18
2nd FJ 02/15/18

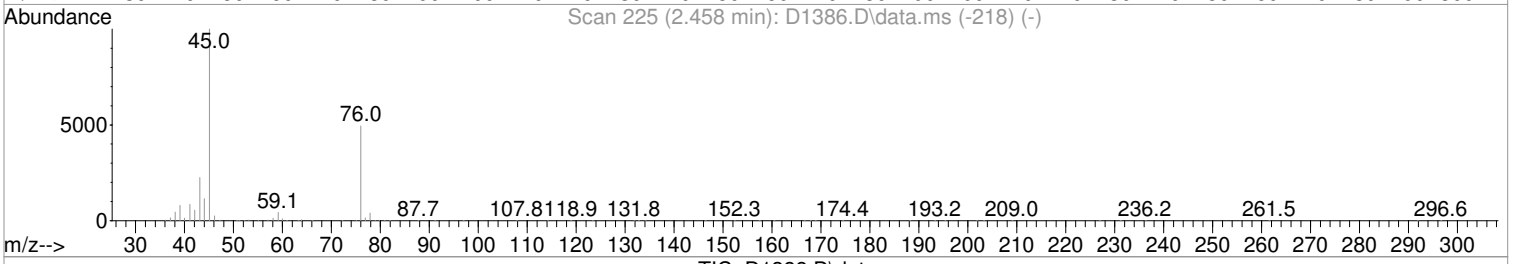
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(16) 2-Propanol

2.464min (+0.006) 1155.76 ug/L

response 194228

Ion	Exp%	Act%
45.00	100	100
43.00	24.30	21.49
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

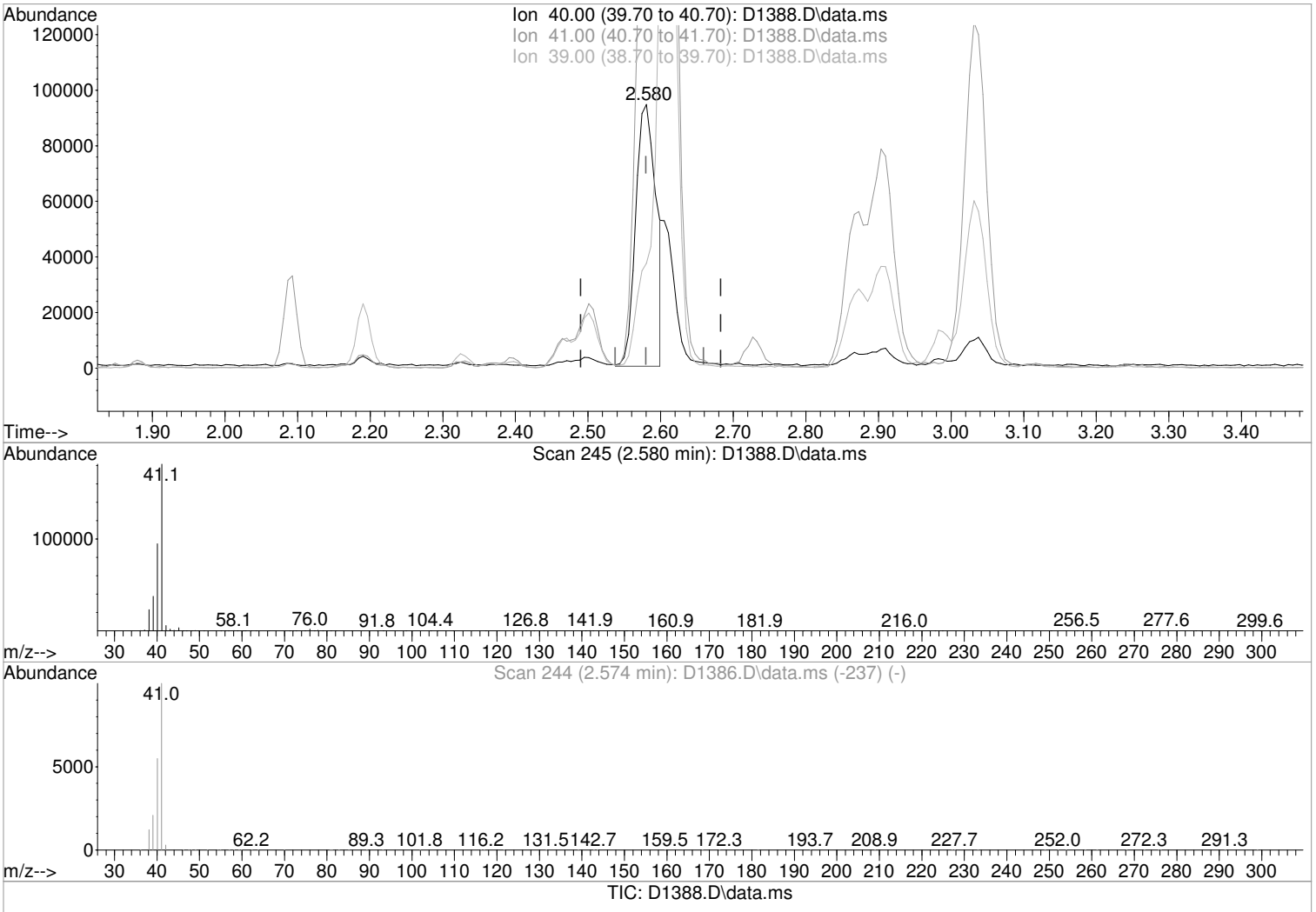
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration



TIC: D1388.D\data.ms

(19) Acetonitrile

2.580min (+0.000) 715.64 ug/L m

response 182434

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	191.40
39.00	34.60	39.72
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

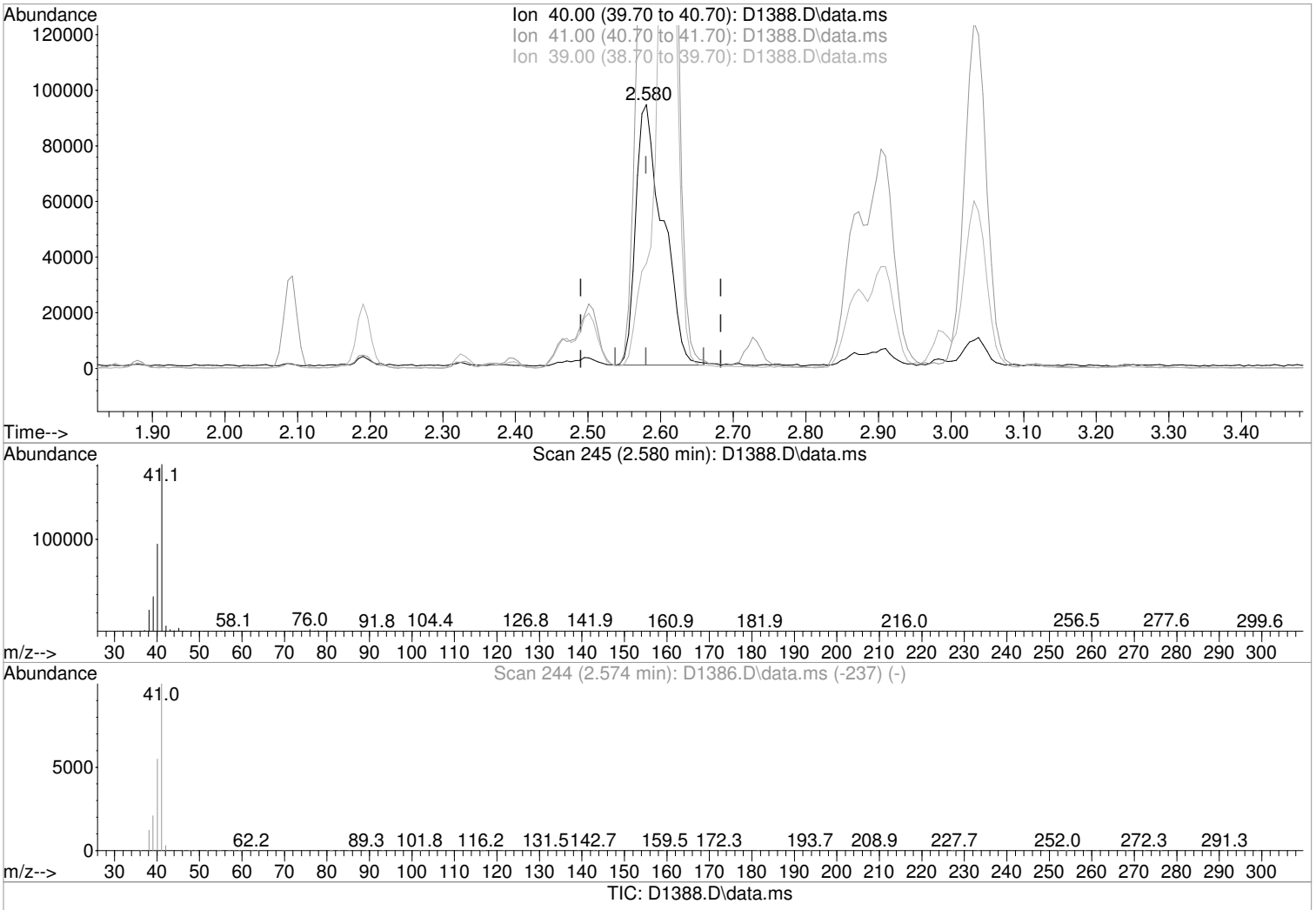
02/14/18

1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration



TIC: D1388.D\data.ms

(19) Acetonitrile

2.580min (+0.000) 950.91 ug/L

response 242410

Ion	Exp%	Act%
40.00	100	100
41.00	187.50	191.40
39.00	34.60	39.72
0.00	0.00	0.00

Manual Integration:

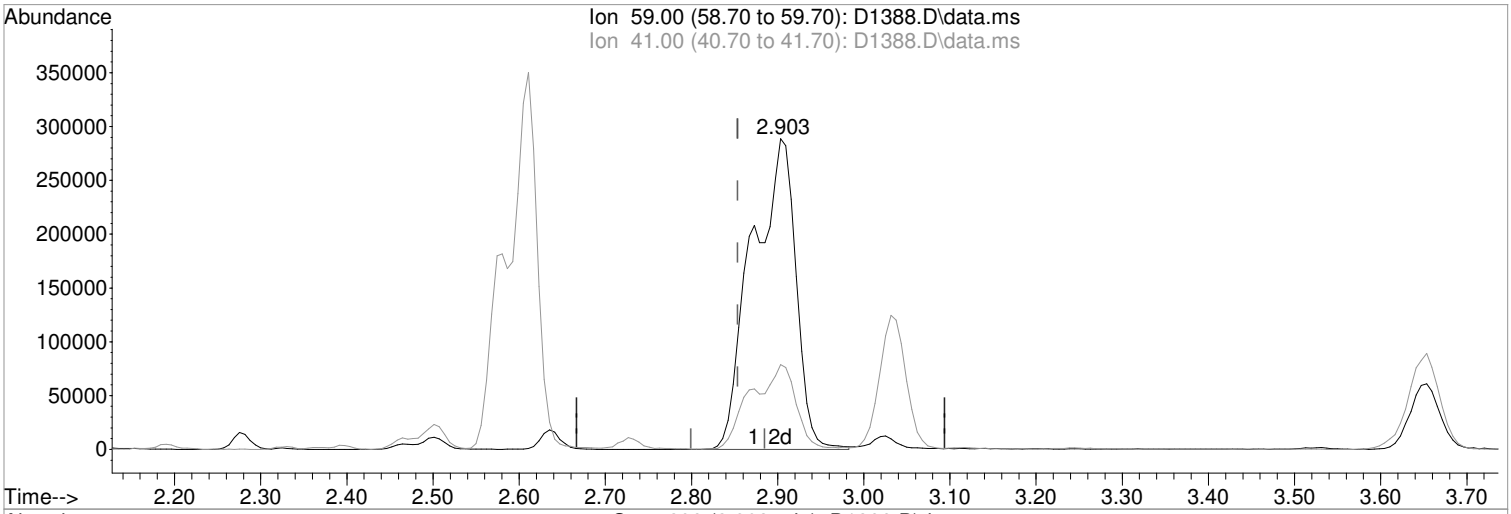
Before

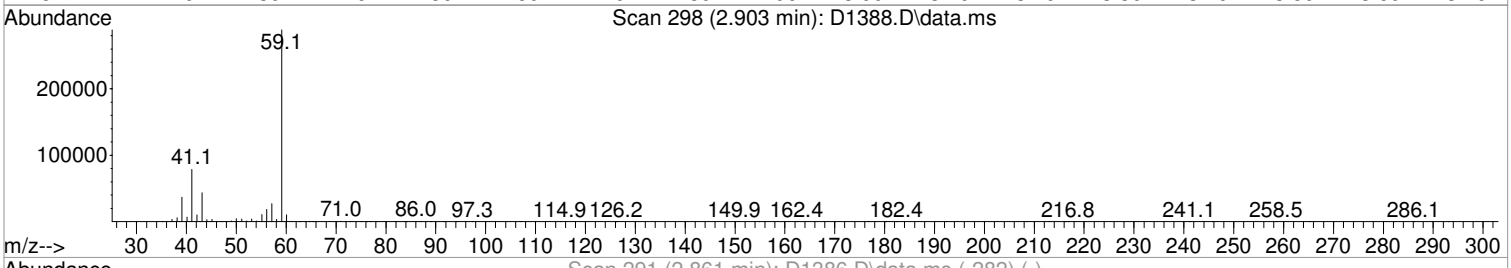
02/14/18

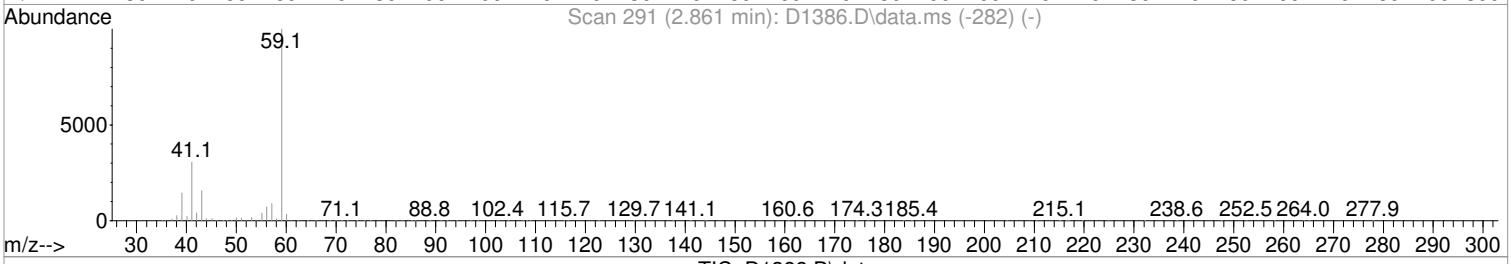
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(23) TBA

2.903min (+0.049) 3972.89 ug/L m

response 1015994

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	27.30
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

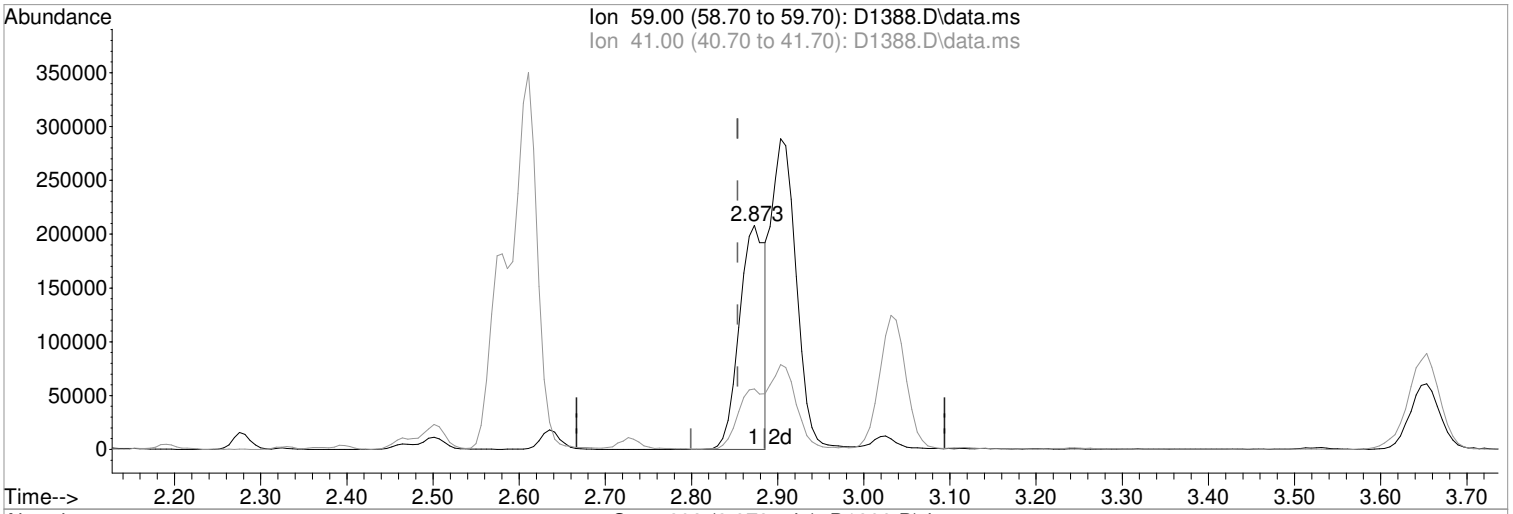
Poor integration.

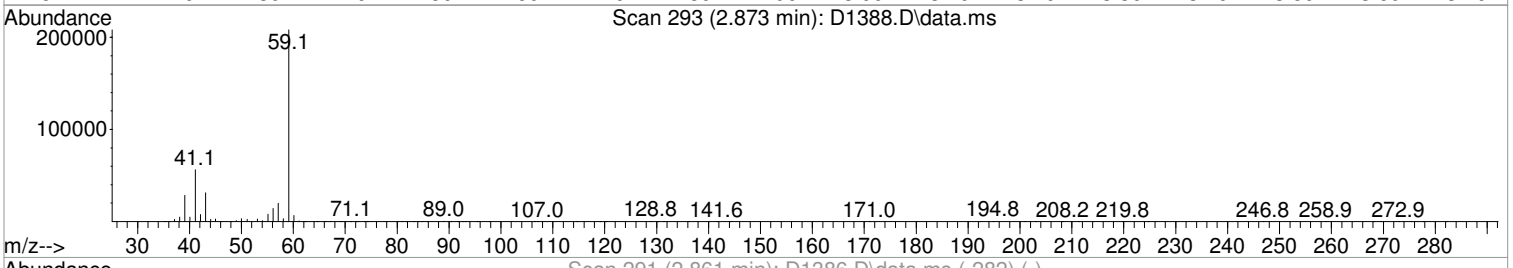
02/14/18

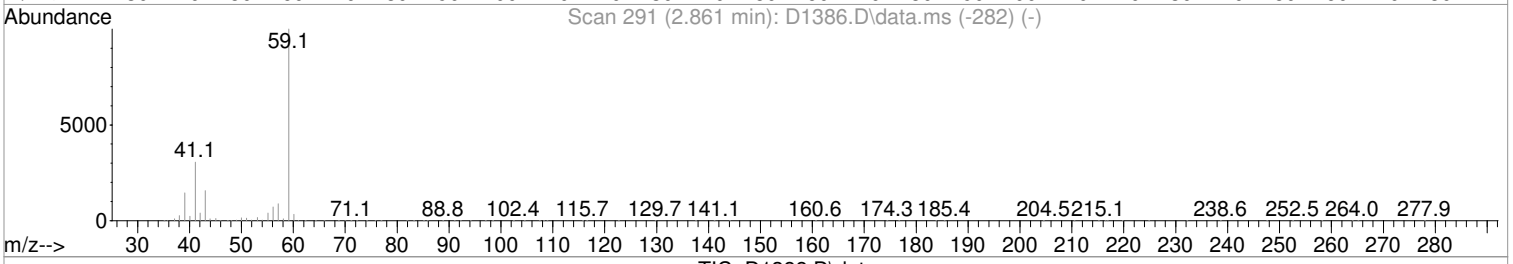
Quantitation Report (Qedit)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:29:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration







TIC: D1388.D\data.ms

(23) TBA

2.873min (+0.019) 1672.61 ug/L

response 427741

Ion	Exp%	Act%
59.00	100	100
41.00	23.60	27.07
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

02/14/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	231804	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	344457	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	309302	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	184529	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	396216	188.01	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 376.02%#				
46) surr1,1,2-dichloroetha...	5.775	65	449405	184.43	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 368.86%#				
64) SURR3,Toluene-d8	8.311	98	1550987	186.75	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 373.50%#				
69) SURR2,BFB	10.877	95	619972	192.73	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 385.46%#				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	508603	153.05	ug/L		99
3) Chloromethane	1.282	50	512531	139.98	ug/L		97
4) Vinyl Chloride	1.355	62	522023	151.28	ug/L		99
5) Bromomethane	1.574	94	274620	128.35	ug/L		98
6) Chloroethane	1.654	64	312199	143.27	ug/L		98
7) Freon 21	1.806	67	790873	148.98	ug/L		99
8) Trichlorofluoromethane	1.855	101	553148	141.08	ug/L		97
9) Diethyl Ether	2.093	59	330857	146.07	ug/L		99
10) Freon 123a	2.093	67	461487	150.16	ug/L		99
11) Freon 123	2.147	83	508411	144.53	ug/L		97
12) Acrolein	2.190	56	492495	760.03	ug/L		96
13) 1,1-Diclethene	2.275	96	339498	149.56	ug/L		92
14) Freon 113	2.282	101	365072	147.24	ug/L		92
15) Acetone	2.324	43	178854	147.86	ug/L		95
16) 2-Propanol	2.501	45	696140m	4142.40	ug/L		
17) Iodomethane	2.410	142	563253	148.95	ug/L		97
18) Carbon Disulfide	2.471	76	1012773	159.58	ug/L		99
19) Acetonitrile	2.580	40	182434m	715.64	ug/L		
20) Allyl Chloride	2.611	76	186314	159.89	ug/L	#	78
21) Methyl Acetate	2.635	43	365719	149.93	ug/L		97
22) Methylene Chloride	2.727	84	370270	144.16	ug/L		96
23) TBA	2.903	59	1015994m	3972.89	ug/L		
24) Acrylonitrile	2.989	53	933639	755.28	ug/L		98
25) Methyl-t-Butyl Ether	3.031	73	1127538	157.41	ug/L		97
26) trans-1,2-Dichloroethene	3.025	96	360955	144.42	ug/L		91
27) 1,1-Diclethane	3.519	63	655133	147.57	ug/L		99
28) Vinyl Acetate	3.617	86	86825	169.59	ug/L	#	88
29) DIPE	3.653	45	1306754	157.62	ug/L		98
30) 2-Chloro-1,3-Butadiene	3.647	53	616416	158.73	ug/L		95
31) ETBE	4.178	59	1089426	165.01	ug/L		99
32) 2,2-Dichloropropane	4.360	77	433164	172.99	ug/L		100
33) cis-1,2-Dichloroethene	4.367	96	403353	147.83	ug/L		87
34) 2-Butanone	4.415	43	248974	151.62	ug/L		97
35) Propionitrile	4.501	54	381664	757.20	ug/L		97
36) Bromochloromethane	4.763	130	256464	150.70	ug/L		98
37) Methacrylonitrile	4.769	67	186639	158.42	ug/L		96
38) Tetrahydrofuran	4.854	42	140172	147.88	ug/L		98
39) Chloroform	4.946	83	629898	146.75	ug/L		97
40) 1,1,1-Trichloroethane	5.244	97	507060	159.20	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	365681	150.39	ug/L	100
44) Carbontetrachloride	5.525	117	410164	166.79	ug/L	95
45) 1,1-Dichloropropene	5.537	75	507998	146.66	ug/L	97
47) Benzene	5.860	78	1460700	144.94	ug/L	98
48) 1,2-Dichloroethane	5.897	62	517916	149.69	ug/L	98
49) Iso-Butyl Alcohol	5.909	43	486356	3029.73	ug/L	96
50) TAME	6.098	73	1031721	168.67	ug/L	99
51) n-Heptane	6.354	43	530038	155.29	ug/L	98
52) 1-Butanol	6.866	56	794866	7616.22	ug/L	92
53) Trichloroethene	6.811	130	377499	138.61	ug/L	96
54) Methylcyclohexane	7.049	55	509283	157.44	ug/L	93
55) 1,2-Diclpropane	7.098	63	400486	151.67	ug/L	97
56) Dibromomethane	7.238	93	243032	147.58	ug/L	92
57) 1,4-Dioxane	7.305	88	134377	3179.08	ug/L	94
58) Methyl Methacrylate	7.323	69	317384	171.09	ug/L	99
59) Bromodichloromethane	7.463	83	466874	154.06	ug/L	96
60) 2-Nitropropane	7.750	41	198914	355.56	ug/L	91
61) 2-Chloroethylvinyl Ether	7.878	63	123129	191.03	ug/L	98
62) cis-1,3-Dichloropropene	8.012	75	604125	148.68	ug/L	99
63) 4-Methyl-2-pentanone	8.219	43	463937	164.30	ug/L	99
65) Toluene	8.384	91	1621643	151.03	ug/L	100
66) trans-1,3-Dichloropropene	8.652	75	521114	148.58	ug/L	98
67) Ethyl Methacrylate	8.793	69	559340	176.33	ug/L	94
68) 1,1,2-Trichloroethane	8.841	97	354756	151.39	ug/L	96
71) Tetrachloroethene	8.975	164	316602	146.63	ug/L	99
72) 2-Hexanone	9.134	43	348658	161.49	ug/L	97
73) 1,3-Dichloropropane	9.012	76	621561	146.16	ug/L	99
74) Dibromochloromethane	9.238	129	378597	168.50	ug/L	98
75) N-Butyl Acetate	9.292	43	744045	179.68	ug/L	97
76) 1,2-Dibromoethane	9.335	107	372774	157.00	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	621767	151.23	ug/L	96
78) Chlorobenzene	9.829	112	1064286	148.22	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	558009	154.12	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	358388	162.55	ug/L	97
81) Ethylbenzene	9.951	106	570994	152.88	ug/L	95
82) (m+p)Xylene	10.061	106	1423645	310.35	ug/L	96
83) o-Xylene	10.420	106	701737	159.38	ug/L	100
84) Styrene	10.432	104	1203239	160.21	ug/L	97
85) Bromoform	10.585	173	264114	147.21	ug/L	92
86) 2-Chlorobenzotrifluoride	10.664	180	620866	157.17	ug/L	94
87) Isopropylbenzene	10.756	105	1828643	157.31	ug/L	99
88) Cyclohexanone	10.823	55	2488953	3417.51	ug/L	100
89) trans-1,4-Dichloro-2-B...	11.066	53	121033	149.08	ug/L	82
91) 1,1,2,2-Tetrachloroethane	11.018	83	550343	146.23	ug/L	96
92) Bromobenzene	10.999	156	486303	148.61	ug/L	91
93) 1,2,3-Trichloropropane	11.042	110	157230	137.50	ug/L	96
94) n-Propylbenzene	11.109	91	2212666	149.79	ug/L	98
95) 2-Chlorotoluene	11.176	91	1292385	145.47	ug/L	99
96) 3-Chlorotoluene	11.225	91	1309709	150.22	ug/L	99
97) 4-Chlorotoluene	11.268	91	1581537	151.32	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	1572366	155.58	ug/L	98
99) tert-Butylbenzene	11.536	119	1350473	149.07	ug/L	98
100) 1,2,4-Trimethylbenzene	11.572	105	1565413	155.70	ug/L	97
101) 3,4-Dichlorobenzotrifl...	11.633	214	540191	150.14	ug/L	99
102) sec-Butylbenzene	11.719	105	2047745	157.44	ug/L	98
103) p-Isopropyltoluene	11.841	119	1716188	160.53	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration

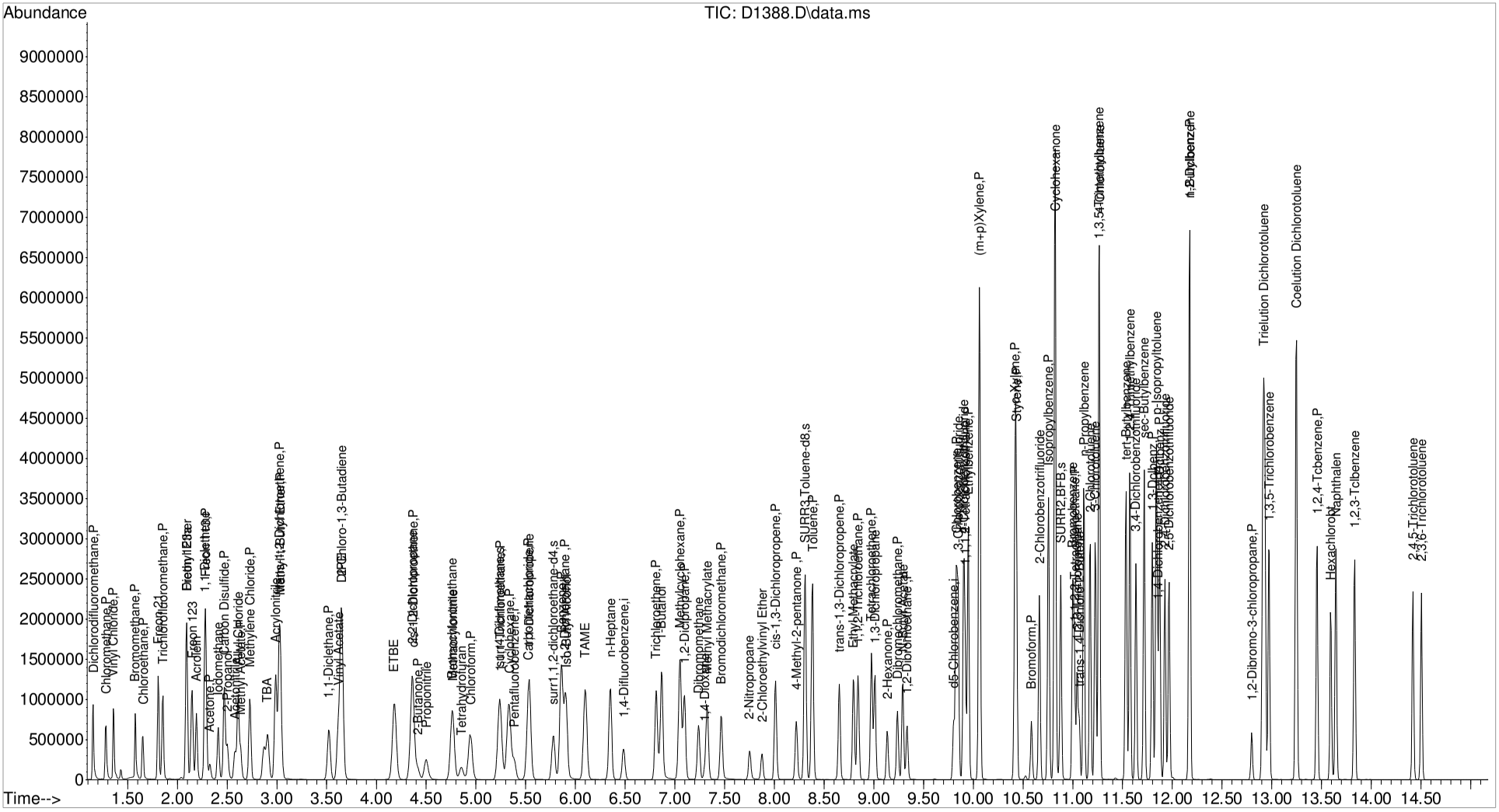
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	923741	146.09	ug/L	97
105) 1,4-Dclbenz	11.871	146	946084	141.97	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	488169	148.64	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	551858	152.90	ug/L	97
108) n-Butylbenzene	12.176	91	1680752	170.19	ug/L	97
109) 1,2-Dclbenz	12.176	146	921747	144.70	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	120249	146.41	ug/L	95
111) Trielution Dichlorotol...	12.920	125	2482106	468.45	ug/L	99
112) 1,3,5-Trichlorobenzene	12.975	180	734312	151.30	ug/L	98
113) Coelution Dichlorotoluene	13.249	125	1793495	319.08	ug/L	98
114) 1,2,4-Tcbenzene	13.456	180	712439	152.91	ug/L	97
115) Hexachlorobt	13.590	225	314624	155.32	ug/L	97
116) Naphthalen	13.645	128	1660024	157.95	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	684534	152.47	ug/L	100
118) 2,4,5-Trichlorotoluene	14.419	159	468990	161.79	ug/L	99
119) 2,3,6-Trichlorotoluene	14.505	159	421688	164.00	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1388.D
Acq On : 12 Feb 2018 4:31 pm
Operator : D.LIPANI
Sample : STD#7 - 150 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 14 10:31:09 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:25:04 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.385	168	248261	50.00	ug/L		0.00
41) 1,4-Difluorobenzene	6.488	114	366283	50.00	ug/L		0.00
70) d5-Chlorobenzene	9.805	117	323763	50.00	ug/L		0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	185714	50.00	ug/L		0.00
System Monitoring Compounds							
43) surr4,Dibrflmethane	5.238	113	112449	50.18	ug/L		0.00
Spiked Amount 50.000	Range 89 - 119		Recovery = 100.36%				
46) surr1,1,2-dichloroetha...	5.781	65	128636	49.65	ug/L		0.00
Spiked Amount 50.000	Range 73 - 125		Recovery = 99.30%				
64) SURR3,Toluene-d8	8.311	98	440165	49.84	ug/L		0.00
Spiked Amount 50.000	Range 87 - 121		Recovery = 99.68%				
69) SURR2,BFB	10.878	95	170696	49.90	ug/L		0.00
Spiked Amount 50.000	Range 85 - 122		Recovery = 99.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.154	85	729951	205.09	ug/L		99
3) Chloromethane	1.282	50	742648	189.38	ug/L		97
4) Vinyl Chloride	1.355	62	755705	204.48	ug/L		99
5) Bromomethane	1.581	94	458934	218.52	ug/L		97
6) Chloroethane	1.660	64	447093	191.57	ug/L		98
7) Freon 21	1.812	67	1098701	193.25	ug/L		99
8) Trichlorofluoromethane	1.855	101	810487	193.01	ug/L		98
9) Diethyl Ether	2.093	59	499780	206.03	ug/L		99
10) Freon 123a	2.093	67	674341	204.87	ug/L		97
11) Freon 123	2.148	83	719218	190.90	ug/L		96
12) Acrolein	2.190	56	690373	994.77	ug/L		98
13) 1,1-Diclethene	2.282	96	495153	203.68	ug/L		92
14) Freon 113	2.288	101	533519	200.91	ug/L		92
15) Acetone	2.324	43	242067	186.85	ug/L		95
16) 2-Propanol	2.465	45	971343	4859.33	ug/L		94
17) Iodomethane	2.410	142	837565	206.14	ug/L		98
18) Carbon Disulfide	2.471	76	1489227	219.09	ug/L		100
19) Acetonitrile	2.574	40	257265	986.50	ug/L		98
20) Allyl Chloride	2.611	76	274111	219.64	ug/L	#	83
21) Methyl Acetate	2.635	43	512809	196.29	ug/L		99
22) Methylene Chloride	2.727	84	540288	196.41	ug/L		95
23) TBA	2.867	59	1435936	4831.20	ug/L		97
24) Acrylonitrile	2.989	53	1337562	1010.31	ug/L		98
25) Methyl-t-Butyl Ether	3.031	73	1639400	213.70	ug/L		96
26) trans-1,2-Dichloroethene	3.025	96	529572	197.84	ug/L		92
27) 1,1-Diclethane	3.525	63	962713	202.48	ug/L		99
28) Vinyl Acetate	3.617	86	125717	229.28	ug/L	#	82
29) DIPE	3.653	45	1889802	212.84	ug/L		96
30) 2-Chloro-1,3-Butadiene	3.647	53	893380	214.80	ug/L		94
31) ETBE	4.184	59	1620093	229.12	ug/L		99
32) 2,2-Dichloropropane	4.361	77	665682	248.22	ug/L		95
33) cis-1,2-Dichloroethene	4.367	96	590325	202.01	ug/L		88
34) 2-Butanone	4.409	43	340907	193.46	ug/L		99
35) Propionitrile	4.495	54	532280	986.01	ug/L		96
36) Bromochloromethane	4.763	130	373765	205.07	ug/L		96
37) Methacrylonitrile	4.769	67	266859	211.50	ug/L		94
38) Tetrahydrofuran	4.854	42	200092	197.10	ug/L		96
39) Chloroform	4.946	83	907990	197.52	ug/L		98
40) 1,1,1-Trichloroethane	5.244	97	749703	219.78	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Cyclohexane	5.330	41	520836	201.44	ug/L		98
44) Carbontetrachloride	5.531	117	618118	236.38	ug/L		91
45) 1,1-Dichloropropene	5.537	75	741929	201.43	ug/L		95
47) Benzene	5.860	78	2110866	196.97	ug/L		98
48) 1,2-Dichloroethane	5.897	62	747753	203.24	ug/L		98
49) Iso-Butyl Alcohol	5.897	43	679973	3918.38	ug/L		96
50) TAME	6.098	73	1528846	235.05	ug/L		99
51) n-Heptane	6.354	43	775312	213.62	ug/L		99
52) 1-Butanol	6.866	56	1094583	9194.08	ug/L		94
53) Trichloroethene	6.811	130	564112	194.79	ug/L		95
54) Methylcyclohexane	7.055	55	719051	209.04	ug/L		95
55) 1,2-Diclpropane	7.098	63	574831	204.72	ug/L		96
56) Dibromomethane	7.238	93	347883	198.66	ug/L		91
57) 1,4-Dioxane	7.305	88	184325	4100.90	ug/L		97
58) Methyl Methacrylate	7.323	69	449290	227.77	ug/L		97
59) Bromodichloromethane	7.464	83	687056	213.20	ug/L		95
60) 2-Nitropropane	7.750	41	296445	498.32	ug/L		91
61) 2-Chloroethylvinyl Ether	7.878	63	180395	263.20	ug/L		100
62) cis-1,3-Dichloropropene	8.012	75	891378	195.56	ug/L		99
63) 4-Methyl-2-pentanone	8.220	43	647823	215.75	ug/L		99
65) Toluene	8.384	91	2331348	204.19	ug/L		99
66) trans-1,3-Dichloropropene	8.652	75	787067	199.31	ug/L		98
67) Ethyl Methacrylate	8.799	69	804500	238.50	ug/L		96
68) 1,1,2-Trichloroethane	8.841	97	512487	205.67	ug/L		97
71) Tetrachloroethene	8.975	164	463606	205.12	ug/L		96
72) 2-Hexanone	9.134	43	474910	210.14	ug/L		97
73) 1,3-Dichloropropane	9.012	76	892364	200.47	ug/L		99
74) Dibromochloromethane	9.238	129	554552	235.78	ug/L		99
75) N-Butyl Acetate	9.286	43	1035283	238.85	ug/L		97
76) 1,2-Dibromoethane	9.335	107	537038	216.09	ug/L		100
77) 3-Chlorobenzotrifluoride	9.847	180	909152	211.25	ug/L		97
78) Chlorobenzene	9.829	112	1529393	203.48	ug/L		96
79) 4-Chlorobenzotrifluoride	9.902	180	814655	214.96	ug/L		98
80) 1,1,1,2-Tetrachloroethane	9.914	131	533394	231.12	ug/L		97
81) Ethylbenzene	9.951	106	824822	210.98	ug/L		92
82) (m+p)Xylene	10.067	106	2062833	429.60	ug/L		97
83) o-Xylene	10.420	106	1011712	219.52	ug/L		99
84) Styrene	10.432	104	1734692	220.66	ug/L		97
85) Bromoform	10.585	173	393857	193.91	ug/L		92
86) 2-Chlorobenzotrifluoride	10.664	180	881383	213.15	ug/L		96
87) Isopropylbenzene	10.756	105	2611550	214.63	ug/L		99
88) Cyclohexanone	10.823	55	3359421	4406.69	ug/L		100
89) trans-1,4-Dichloro-2-B...	11.067	53	172863	195.45	ug/L		80
91) 1,1,2,2-Tetrachloroethane	11.018	83	773634	204.25	ug/L		97
92) Bromobenzene	10.999	156	687928	208.88	ug/L	#	89
93) 1,2,3-Trichloropropane	11.042	110	217788	189.24	ug/L		99
94) n-Propylbenzene	11.115	91	3106061	208.92	ug/L		98
95) 2-Chlorotoluene	11.176	91	1811297	202.58	ug/L		98
96) 3-Chlorotoluene	11.231	91	1881538	214.43	ug/L		99
97) 4-Chlorotoluene	11.268	91	2176247	206.89	ug/L		98
98) 1,3,5-Trimethylbenzene	11.262	105	2201824	216.48	ug/L		99
99) tert-Butylbenzene	11.536	119	1870354	205.13	ug/L		99
100) 1,2,4-Trimethylbenzene	11.573	105	2158179	213.29	ug/L		98
101) 3,4-Dichlorobenzotrifl...	11.640	214	749863	207.09	ug/L		99
102) sec-Butylbenzene	11.719	105	2789451	213.09	ug/L		98
103) p-Isopropyltoluene	11.841	119	2349452	218.36	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration

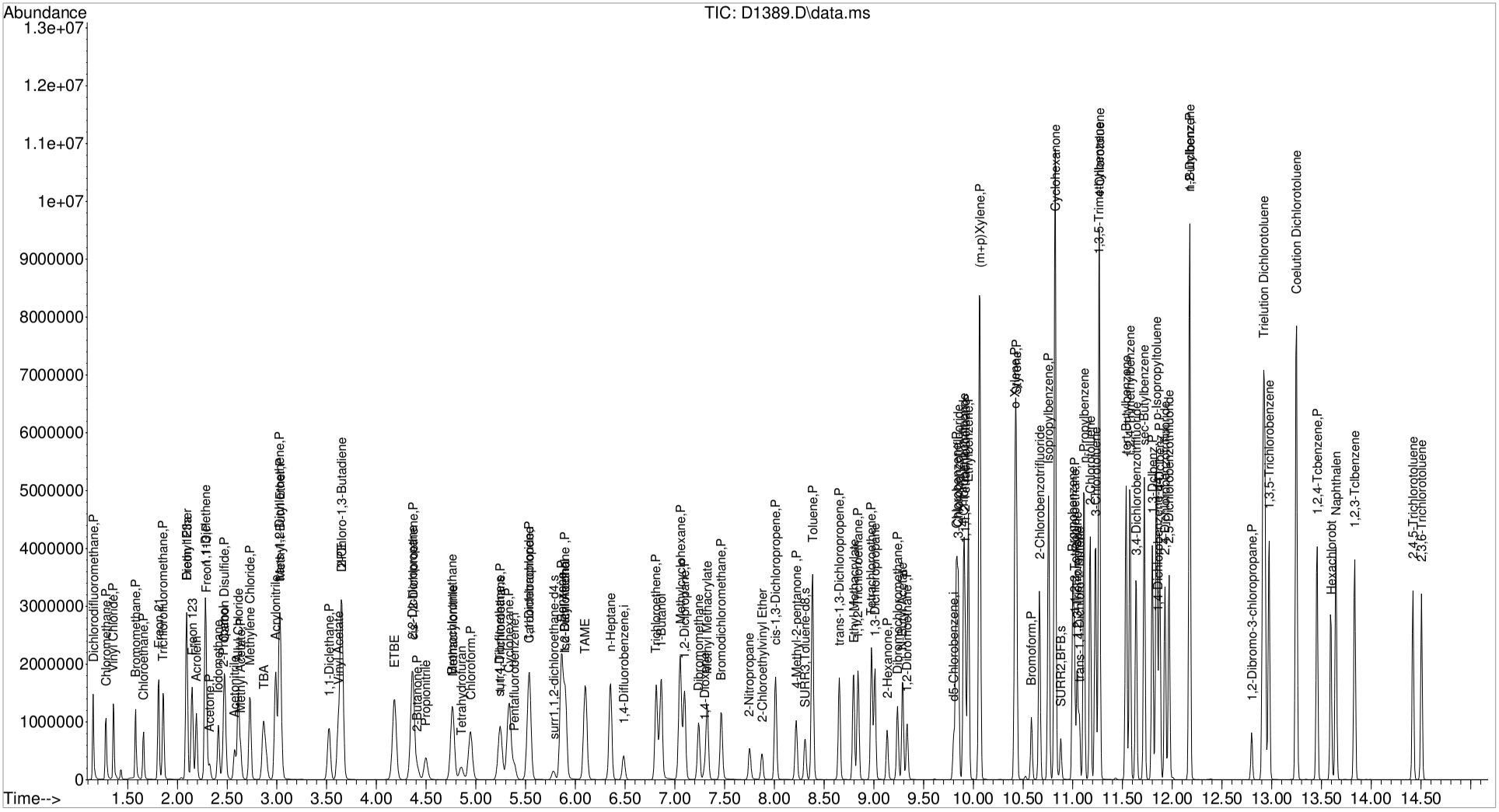
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) 1,3-Dclbenz	11.798	146	1276850	200.65	ug/L	97
105) 1,4-Dclbenz	11.871	146	1303287	194.33	ug/L	96
106) 2,4-Dichlorobenzotrifl...	11.926	214	696876	210.83	ug/L	96
107) 2,5-Dichlorobenzotrifl...	11.969	214	746653	205.55	ug/L	97
108) n-Butylbenzene	12.176	91	2295785	230.98	ug/L	96
109) 1,2-Dclbenz	12.176	146	1269247	197.98	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	169032	199.20	ug/L	96
111) Trielution Dichlorotol...	12.920	125	3467545	650.26	ug/L	98
112) 1,3,5-Trichlorobenzene	12.975	180	1017762	208.37	ug/L	97
113) Coelution Dichlorotoluene	13.249	125	2500629	442.05	ug/L	97
114) 1,2,4-Tcbenzene	13.456	180	993572	211.88	ug/L	99
115) Hexachlorobt	13.597	225	442497	217.05	ug/L	96
116) Naphthalen	13.645	128	2318902	219.23	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	942908	208.68	ug/L	99
118) 2,4,5-Trichlorotoluene	14.420	159	657984	225.54	ug/L	97
119) 2,3,6-Trichlorotoluene	14.505	159	587852	227.16	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoa10\data\021218\
Data File : D1389.D
Acq On : 12 Feb 2018 5:01 pm
Operator : D.LIPANI
Sample : STD#8 - 200 PPB Inst : MSVOA10
Misc : 8260C/624 ICAL MS#10
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 14 10:33:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W021218.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Feb 14 10:33:17 2018
Response via : Initial Calibration



1st DL 02/14/18
2nd FJ 02/15/18

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Aquisition Date
09	RC1800023-09	STD#1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\021218\D1381.D	02/12/2018 13:16
08	RC1800023-08	STD#2 - 1.0 PPB	I:\ACQUDATA\msvoa10\data\021218\D1382.D	02/12/2018 13:38
07	RC1800023-07	STD#3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\021218\D1383.D	02/12/2018 14:17
06	RC1800023-06	STD#4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\021218\D1384.D	02/12/2018 14:43
05	RC1800023-05	STD#5 - 20 PPB	I:\ACQUDATA\msvoa10\data\021218\D1385.D	02/12/2018 15:07
04	RC1800023-04	STD#5 - 50 PPB	I:\ACQUDATA\msvoa10\data\021218\D1386.D	02/12/2018 15:40
03	RC1800023-03	STD#6 - 100 PPB	I:\ACQUDATA\msvoa10\data\021218\D1387.D	02/12/2018 16:02
02	RC1800023-02	STD#7 - 150 PPB	I:\ACQUDATA\msvoa10\data\021218\D1388.D	02/12/2018 16:31
01	RC1800023-01	STD#8 - 200 PPB	I:\ACQUDATA\msvoa10\data\021218\D1389.D	02/12/2018 17:01

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6814	08	1.000	0.6446	07	2.000	0.622	06	5.000	0.6092
05	20.000	0.6806	04	50.000	0.7261	03	100.000	0.735	02	150.000	0.7292
01	200.000	0.755									

1,1,2,2-Tetrachloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.052	08	1.000	0.9128	07	2.000	0.9792	06	5.000	1.066
05	20.000	1.002	04	50.000	1.047	03	100.000	1.084	02	150.000	0.9941
01	200.000	1.041									

1,1,2-Trichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3085	08	1.000	0.3581	07	2.000	0.3207	06	5.000	0.3305
05	20.000	0.3466	04	50.000	0.3493	03	100.000	0.3546	02	150.000	0.3433
01	200.000	0.3498									

1,1,2-Trichloro-1,2,2-trifluoroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6179	08	1.000	0.5862	07	2.000	0.497	06	5.000	0.4647
05	20.000	0.5231	04	50.000	0.5495	03	100.000	0.5128	02	150.000	0.525
01	200.000	0.5373									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.047	08	1.000	0.907	07	2.000	0.901	06	5.000	0.9578
05	20.000	0.9562	04	50.000	0.9731	03	100.000	0.9647	02	150.000	0.9421
01	200.000	0.9695									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5329	08	1.000	0.4723	07	2.000	0.4179	06	5.000	0.5088
05	20.000	0.4907	04	50.000	0.5064	03	100.000	0.4907	02	150.000	0.4882
01	200.000	0.4986									

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

1,2,3-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.215	08	1.000	1.272	07	2.000	1.028	06	5.000	1.132
05	20.000	1.269	04	50.000	1.275	03	100.000	1.252	02	150.000	1.237
01	200.000	1.269									

1,2,4-Trichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.287	08	1.000	1.196	07	2.000	1.137	06	5.000	1.158
05	20.000	1.324	04	50.000	1.352	03	100.000	1.282	02	150.000	1.287
01	200.000	1.338									

1,2-Dibromo-3-chloropropane (DBCP)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
08	1.000	0.1446	07	2.000	0.1509	06	5.000	0.1445	05	20.000	0.1846
04	50.000	0.2074	03	100.000	0.236	02	150.000	0.2172	01	200.000	0.2275

1,2-Dibromoethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3424	08	1.000	0.3533	07	2.000	0.3191	06	5.000	0.397
05	20.000	0.4091	04	50.000	0.3993	03	100.000	0.4178	02	150.000	0.4017
01	200.000	0.4147									

1,2-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	2.019	08	1.000	1.536	07	2.000	1.744	06	5.000	1.657
05	20.000	1.766	04	50.000	1.739	03	100.000	1.7	02	150.000	1.665
01	200.000	1.709									

1,2-Dichloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4154	08	1.000	0.5078	07	2.000	0.5278	06	5.000	0.5036
05	20.000	0.5264	04	50.000	0.5104	03	100.000	0.5172	02	150.000	0.5012
01	200.000	0.5104									

1,2-Dichloropropane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4109	08	1.000	0.3537	07	2.000	0.3502	06	5.000	0.3977
05	20.000	0.3756	04	50.000	0.386	03	100.000	0.3957	02	150.000	0.3876
01	200.000	0.3923									

1,3-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.799	08	1.000	1.725	07	2.000	1.646	06	5.000	1.595
05	20.000	1.798	04	50.000	1.752	03	100.000	1.717	02	150.000	1.669
01	200.000	1.719									

Client: The LiRo Group
Project: Buffalo China

Service Request: R1801449
Calibration Date: 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023
Instrument ID: R-MS-10

Signal ID: 1

Analyte

1,4-Dichlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	2.058	08	1.000	1.859	07	2.000	1.802	06	5.000	1.713
05	20.000	1.792	04	50.000	1.815	03	100.000	1.748	02	150.000	1.709
01	200.000	1.754									

1,4-Dioxane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	10.000	0.004831	08	20.000	0.006564	07	40.000	0.005032	06	100.000	0.006197
05	400.000	0.006337	04	1000.000	0.006472	03	2000.000	0.006996	02	3000.000	0.006502
01	4000.000	0.00629									

2-Butanone (MEK)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	5.000	0.3497	05	20.000	0.3423	04	50.000	0.3543	03	100.000	0.3845
02	150.000	0.358	01	200.000	0.3433						

2-Hexanone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	5.000	0.325	05	20.000	0.3466	04	50.000	0.3561	03	100.000	0.4028
02	150.000	0.3757	01	200.000	0.3667						

4-Methyl-2-pentanone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	2.000	0.3419	06	5.000	0.3848	05	20.000	0.4177	04	50.000	0.4329
03	100.000	0.4772	02	150.000	0.449	01	200.000	0.4422			

Acetone

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	5.000	0.2637	05	20.000	0.2609	04	50.000	0.2601	03	100.000	0.2799
02	150.000	0.2572	01	200.000	0.2438						

Benzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.513	08	1.000	1.545	07	2.000	1.372	06	5.000	1.454
05	20.000	1.478	04	50.000	1.486	03	100.000	1.463	02	150.000	1.414
01	200.000	1.441									

Bromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.329	08	1.000	0.4069	07	2.000	0.3282	06	5.000	0.3644
05	20.000	0.3766	04	50.000	0.375	03	100.000	0.3785	02	150.000	0.3688
01	200.000	0.3764									

Bromodichloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4721	08	1.000	0.409	07	2.000	0.3867	06	5.000	0.4168
05	20.000	0.4333	04	50.000	0.4595	03	100.000	0.461	02	150.000	0.4518
01	200.000	0.4689									

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Bromoform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.1757	08	1.000	0.1789	07	2.000	0.1766	06	5.000	0.203
05	20.000	0.2309	04	50.000	0.2667	03	100.000	0.2884	02	150.000	0.2846
01	200.000	0.3041									

Bromomethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.9922	08	1.000	0.818	07	2.000	0.7005	06	5.000	0.6295
05	20.000	0.5619	04	50.000	0.539	03	100.000	0.4654	02	150.000	0.3949

Carbon Disulfide

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.411	08	1.000	1.294	07	2.000	1.269	06	5.000	1.195
05	20.000	1.378	04	50.000	1.387	03	100.000	1.432	02	150.000	1.456
01	200.000	1.5									

Carbon Tetrachloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.337	08	1.000	0.3093	07	2.000	0.323	06	5.000	0.2914
05	20.000	0.3515	04	50.000	0.388	03	100.000	0.3935	02	150.000	0.3969
01	200.000	0.4219									

Chlorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.161	08	1.000	1.107	07	2.000	1.166	06	5.000	1.174
05	20.000	1.185	04	50.000	1.169	03	100.000	1.157	02	150.000	1.147
01	200.000	1.181									

Chloroethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4358	08	1.000	0.5529	07	2.000	0.4798	06	5.000	0.4365
05	20.000	0.4828	04	50.000	0.4796	03	100.000	0.4638	02	150.000	0.4489
01	200.000	0.4502									

Chloroform

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.039	08	1.000	0.8949	07	2.000	0.8883	06	5.000	0.9035
05	20.000	0.9118	04	50.000	0.9432	03	100.000	0.9314	02	150.000	0.9058
01	200.000	0.9144									

Chloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.9296	08	1.000	0.7982	07	2.000	0.7517	06	5.000	0.7771
05	20.000	0.8136	04	50.000	0.7919	03	100.000	0.761	02	150.000	0.737
01	200.000	0.7479									

Client: The LiRo Group
Project: Buffalo China

Service Request: R1801449
Calibration Date: 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023
Instrument ID: R-MS-10

Signal ID: 1

Analyte

Cyclohexane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3882	08	1.000	0.3516	07	2.000	0.3507	06	5.000	0.3388
05	20.000	0.3514	04	50.000	0.3465	03	100.000	0.3399	02	150.000	0.3539
01	200.000	0.3555									

Dibromochloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3487	08	1.000	0.2661	07	2.000	0.3103	06	5.000	0.344
05	20.000	0.368	04	50.000	0.3854	03	100.000	0.4103	02	150.000	0.408
01	200.000	0.4282									

Dichlorodifluoromethane (CFC 12)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6682	08	1.000	0.6693	07	2.000	0.6474	06	5.000	0.7463
05	20.000	0.7576	04	50.000	0.7635	03	100.000	0.7327	02	150.000	0.7314
01	200.000	0.7351									

Dichloromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5975	08	1.000	0.5446	07	2.000	0.5329	06	5.000	0.5774
05	20.000	0.549	04	50.000	0.5589	03	100.000	0.5492	02	150.000	0.5324
01	200.000	0.5441									

Ethylbenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6389	08	1.000	0.5387	07	2.000	0.5949	06	5.000	0.536
05	20.000	0.6335	04	50.000	0.622	03	100.000	0.6177	02	150.000	0.6154
01	200.000	0.6369									

Isopropylbenzene (Cumene)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.832	08	1.000	1.796	07	2.000	1.707	06	5.000	1.64
05	20.000	1.983	04	50.000	1.999	03	100.000	1.968	02	150.000	1.971
01	200.000	2.017									

Methyl Acetate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5879	08	1.000	0.4999	07	2.000	0.506	06	5.000	0.498
05	20.000	0.5178	04	50.000	0.5307	03	100.000	0.5528	02	150.000	0.5259
01	200.000	0.5164									

Methyl tert-Butyl Ether

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.446	08	1.000	1.459	07	2.000	1.487	06	5.000	1.457
05	20.000	1.53	04	50.000	1.596	03	100.000	1.658	02	150.000	1.621
01	200.000	1.651									

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

Methylcyclohexane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4223	08	1.000	0.5032	07	2.000	0.4369	06	5.000	0.4814
05	20.000	0.4619	04	50.000	0.4765	03	100.000	0.4601	02	150.000	0.4928
01	200.000	0.4908									

Styrene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.083	08	1.000	1.183	07	2.000	1.063	06	5.000	1.101
05	20.000	1.269	04	50.000	1.287	03	100.000	1.304	02	150.000	1.297
01	200.000	1.339									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3886	08	1.000	0.3599	07	2.000	0.324	06	5.000	0.3212
05	20.000	0.3545	04	50.000	0.3534	03	100.000	0.3407	02	150.000	0.3412
01	200.000	0.358									

Toluene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.559	08	1.000	1.568	07	2.000	1.444	06	5.000	1.476
05	20.000	1.6	04	50.000	1.61	03	100.000	1.609	02	150.000	1.569
01	200.000	1.591									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4842	08	1.000	0.4101	07	2.000	0.3721	06	5.000	0.3704
05	20.000	0.4006	04	50.000	0.3907	03	100.000	0.3794	02	150.000	0.3653
01	200.000	0.385									

Trichlorofluoromethane (CFC 11)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.982	08	1.000	0.8872	07	2.000	0.7849	06	5.000	0.8319
05	20.000	0.8453	04	50.000	0.8628	03	100.000	0.8059	02	150.000	0.7954
01	200.000	0.8162									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6489	08	1.000	0.766	07	2.000	0.7012	06	5.000	0.698
05	20.000	0.811	04	50.000	0.7924	03	100.000	0.7697	02	150.000	0.7507
01	200.000	0.761									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.625	08	1.000	0.5977	07	2.000	0.5128	06	5.000	0.5748
05	20.000	0.6001	04	50.000	0.608	03	100.000	0.6039	02	150.000	0.58
01	200.000	0.5945									

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

Analyte

cis-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.4171	08	1.000	0.4191	07	2.000	0.4435	06	5.000	0.4732
05	20.000	0.5009	04	50.000	0.552	03	100.000	0.5842	02	150.000	0.5846
01	200.000	0.6084									

m,p-Xylenes

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	1.000	0.7218	08	2.000	0.6857	07	4.000	0.6679	06	10.000	0.6887
05	40.000	0.7843	04	100.000	0.7861	03	200.000	0.7759	02	300.000	0.7671
01	400.000	0.7964									

o-Xylene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6421	08	1.000	0.6646	07	2.000	0.6457	06	5.000	0.6499
05	20.000	0.7508	04	50.000	0.7599	03	100.000	0.7553	02	150.000	0.7563
01	200.000	0.7812									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.6545	08	1.000	0.5452	07	2.000	0.4904	06	5.000	0.5148
05	20.000	0.5274	04	50.000	0.5355	03	100.000	0.5319	02	150.000	0.5191
01	200.000	0.5333									

trans-1,3-Dichloropropene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3511	08	1.000	0.288	07	2.000	0.2966	06	5.000	0.3363
05	20.000	0.3873	04	50.000	0.456	03	100.000	0.5023	02	150.000	0.5043
01	200.000	0.5372									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.501	05	20.000	0.4395	04	50.000	0.474	03	100.000	0.4702
02	200.000	0.45									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.3393	05	20.000	0.286	04	50.000	0.3135	03	100.000	0.3032
02	200.000	0.2876									

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	1.337	05	20.000	1.149	04	50.000	1.22	03	100.000	1.196
02	200.000	1.126									

Client: The LiRo Group
Project: Buffalo China

Service Request: R1801449
Calibration Date: 2/12/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023
Instrument ID: R-MS-10

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
1,1,1-Trichloroethane (TCA)	TRG	Average RF	% RSD	7.7	≤20	0.687	0.100
1,1,2,2-Tetrachloroethane	TRG	Average RF	% RSD	5.2	≤20	1.02	0.300
1,1,2-Trichloroethane	TRG	Average RF	% RSD	4.9	≤20	0.3401	0.100
1,1,2-Trichloro-1,2,2-trifluoroethane	TRG	Average RF	% RSD	8.6	≤20	0.5348	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	4.4	≤20	0.9576	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	6.5	≤20	0.4896	0.100
1,2,3-Trichlorobenzene	TRG	Average RF	% RSD	6.9	≤20	1.216	
1,2,4-Trichlorobenzene	TRG	Average RF	% RSD	6.3	≤20	1.262	0.200
1,2-Dibromo-3-chloropropane (DBCP)	TRG	Quadratic	COD	0.9919	≥0.99	0.1891	0.050
1,2-Dibromoethane	TRG	Average RF	% RSD	9.4	≤20	0.3838	0.100
1,2-Dichlorobenzene	TRG	Average RF	% RSD	7.5	≤20	1.726	0.400
1,2-Dichloroethane	TRG	Average RF	% RSD	6.7	≤20	0.5022	0.100
1,2-Dichloropropane	TRG	Average RF	% RSD	5.3	≤20	0.3833	0.100
1,3-Dichlorobenzene	TRG	Average RF	% RSD	4.0	≤20	1.713	0.600
1,4-Dichlorobenzene	TRG	Average RF	% RSD	5.9	≤20	1.806	0.500
1,4-Dioxane	TRG	Average RF	% RSD	11.7	≤20	0.006136	
2-Butanone (MEK)	TRG	Average RF	% RSD	4.4	≤20	0.3554	0.05
2-Hexanone	TRG	Average RF	% RSD	7.3	≤20	0.3622	0.05
4-Methyl-2-pentanone	TRG	Average RF	% RSD	10.7	≤20	0.4208	0.05
Acetone	TRG	Average RF	% RSD	4.5	≤20	0.2609	0.05
Benzene	TRG	Average RF	% RSD	3.5	≤20	1.463	0.500
Bromochloromethane	TRG	Average RF	% RSD	6.8	≤20	0.3671	
Bromodichloromethane	TRG	Average RF	% RSD	6.8	≤20	0.4399	0.200
Bromoform	TRG	Quadratic	COD	0.9960	≥0.99	0.2343	0.100
Bromomethane	TRG	Quadratic	COD	0.9999	≥0.99	0.6377	0.100
Carbon Disulfide	TRG	Average RF	% RSD	7.2	≤20	1.369	0.100
Carbon Tetrachloride	TRG	Average RF	% RSD	12.6	≤20	0.357	0.05
Chlorobenzene	TRG	Average RF	% RSD	2.0	≤20	1.161	0.500
Chloroethane	TRG	Average RF	% RSD	7.7	≤20	0.47	0.100
Chloroform	TRG	Average RF	% RSD	5.0	≤20	0.9259	0.200
Chloromethane	TRG	Average RF	% RSD	7.4	≤20	0.7898	0.100
Cyclohexane	TRG	Average RF	% RSD	4.1	≤20	0.3529	0.100
Dibromochloromethane	TRG	Average RF	% RSD	14.4	≤20	0.3632	0.100
Dichlorodifluoromethane (CFC 12)	TRG	Average RF	% RSD	6.0	≤20	0.7168	0.100

Client: The LiRo Group
Project: Buffalo China

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Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023
Instrument ID: R-MS-10

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Dichloromethane	TRG	Average RF	% RSD	3.8	≤20	0.554	0.100
Ethylbenzene	TRG	Average RF	% RSD	6.6	≤20	0.6038	0.100
Isopropylbenzene (Cumene)	TRG	Average RF	% RSD	7.4	≤20	1.879	0.100
Methyl Acetate	TRG	Average RF	% RSD	5.5	≤20	0.5262	0.100
Methyl tert-Butyl Ether	TRG	Average RF	% RSD	5.6	≤20	1.545	0.100
Methylcyclohexane	TRG	Average RF	% RSD	5.7	≤20	0.4695	0.100
Styrene	TRG	Average RF	% RSD	8.9	≤20	1.214	0.300
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	5.9	≤20	0.349	0.200
Toluene	TRG	Average RF	% RSD	3.8	≤20	1.559	0.400
Trichloroethene (TCE)	TRG	Average RF	% RSD	9.2	≤20	0.3953	0.200
Trichlorofluoromethane (CFC 11)	TRG	Average RF	% RSD	7.2	≤20	0.8457	0.100
Vinyl Chloride	TRG	Average RF	% RSD	6.9	≤20	0.7443	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	5.4	≤20	0.5885	0.100
cis-1,3-Dichloropropene	TRG	Average RF	% RSD	14.8	≤20	0.5092	0.200
m,p-Xylenes	TRG	Average RF	% RSD	6.8	≤20	0.7415	0.100
o-Xylene	TRG	Average RF	% RSD	8.3	≤20	0.7117	0.300
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	8.5	≤20	0.5391	0.100
trans-1,3-Dichloropropene	TRG	Quadratic	COD	0.9943	≥0.99	0.4066	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	5.1	≤20	0.4669	
Dibromofluoromethane	SURR	Average RF	% RSD	7.1	≤20	0.3059	
Toluene-d8	SURR	Average RF	% RSD	6.8	≤20	1.206	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: The LiRo Group **Service Request:** R1801449
Project: Buffalo China **Calibration Date:** 2/12/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023 **Signal ID:** 1
Instrument ID: R-MS-10

#	Lab Code	Sample Name	File Location	Aquisition Date
10	RC1800023-10	ICV	I:\ACQUDATA\msvoa10\data\021218\D1393.D	02/12/2018 19:04

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.9	6.87E-1	6.859E-1	-0.165	±30	Average RF
1,1,2,2-Tetrachloroethane	50.0	47.5	1.02E0	9.681E-1	-5.065	±30	Average RF
1,1,2-Trichloroethane	50.0	49.2	3.401E-1	3.344E-1	-1.694	±30	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	44.5	5.348E-1	4.756E-1	-11.068	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	47.9	9.576E-1	9.178E-1	-4.148	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	46.3	4.896E-1	4.537E-1	-7.338	±30	Average RF
1,2,3-Trichlorobenzene	50.0	49.3	1.216E0	1.199E0	-1.454	±30	Average RF
1,2,4-Trichlorobenzene	50.0	49.4	1.262E0	1.246E0	-1.299	±30	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	48.8	1.891E-1	1.878E-1	-2.390	±30	Quadratic
1,2-Dibromoethane	50.0	49.6	3.838E-1	3.804E-1	-0.897	±30	Average RF
1,2-Dichlorobenzene	50.0	48.5	1.726E0	1.674E0	-3.033	±30	Average RF
1,2-Dichloroethane	50.0	49.5	5.022E-1	4.97E-1	-1.050	±30	Average RF
1,2-Dichloropropane	50.0	48.3	3.833E-1	3.706E-1	-3.307	±30	Average RF
1,3-Dichlorobenzene	50.0	49.0	1.713E0	1.677E0	-2.097	±30	Average RF
1,4-Dichlorobenzene	50.0	47.3	1.806E0	1.708E0	-5.430	±30	Average RF
1,4-Dioxane	1000	945	6.136E-3	5.798E-3	-5.495	±30	Average RF
2-Butanone (MEK)	50.0	43.9	3.554E-1	3.122E-1	-12.133	±30	Average RF
2-Hexanone	50.0	43.5	3.622E-1	3.148E-1	-13.074	±30	Average RF
4-Methyl-2-pentanone	50.0	45.6	4.208E-1	3.836E-1	-8.833	±30	Average RF
Acetone	50.0	45.0	2.609E-1	2.348E-1	-9.997	±30	Average RF
Benzene	50.0	48.3	1.463E0	1.414E0	-3.335	±30	Average RF
Bromochloromethane	50.0	47.4	3.671E-1	3.482E-1	-5.132	±30	Average RF
Bromodichloromethane	50.0	49.8	4.399E-1	4.385E-1	-0.329	±30	Average RF
Bromoform	50.0	50.4	2.343E-1	2.427E-1	0.785	±30	Quadratic
Bromomethane	50.0	47.7	6.377E-1	5.111E-1	-4.628	±30	Quadratic
Carbon Disulfide	50.0	48.4	1.369E0	1.324E0	-3.249	±30	Average RF
Carbon Tetrachloride	50.0	51.2	3.57E-1	3.658E-1	2.48	±30	Average RF
Chlorobenzene	50.0	48.2	1.161E0	1.12E0	-3.528	±30	Average RF
Chloroethane	50.0	44.6	4.7E-1	4.196E-1	-10.730	±30	Average RF
Chloroform	50.0	47.8	9.259E-1	8.858E-1	-4.331	±30	Average RF
Chloromethane	50.0	44.2	7.898E-1	6.985E-1	-11.560	±30	Average RF
Cyclohexane	50.0	47.8	3.529E-1	3.372E-1	-4.454	±30	Average RF
Dibromochloromethane	50.0	50.5	3.632E-1	3.667E-1	0.951	±30	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	44.1	7.168E-1	6.321E-1	-11.823	±30	Average RF
Dichloromethane	50.0	46.7	5.54E-1	5.169E-1	-6.693	±30	Average RF

Client: The LiRo Group
Project: Buffalo China

Service Request: R1801449
Calibration Date: 2/12/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800023
Instrument ID: R-MS-10

Signal ID: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
10	RC1800023-10	ICV	I:\ACQUDATA\msvoa10\data\021218\D1393.D	02/12/2018 19:04

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Ethylbenzene	50.0	49.2	6.038E-1	5.941E-1	-1.604	±30	Average RF
Isopropylbenzene (Cumene)	50.0	49.5	1.879E0	1.861E0	-0.966	±30	Average RF
Methyl Acetate	50.0	44.7	5.262E-1	4.708E-1	-10.513	±30	Average RF
Methyl tert-Butyl Ether	50.0	47.3	1.545E0	1.46E0	-5.475	±30	Average RF
Methylcyclohexane	50.0	50.2	4.695E-1	4.718E-1	0.470	±30	Average RF
Styrene	50.0	50.4	1.214E0	1.224E0	0.860	±30	Average RF
Tetrachloroethene (PCE)	50.0	48.5	3.49E-1	3.388E-1	-2.925	±30	Average RF
Toluene	50.0	48.9	1.559E0	1.525E0	-2.129	±30	Average RF
Trichloroethene (TCE)	50.0	46.7	3.953E-1	3.695E-1	-6.523	±30	Average RF
Trichlorofluoromethane (CFC 11)	50.0	49.2	8.457E-1	8.324E-1	-1.574	±30	Average RF
Vinyl Chloride	50.0	47.7	7.443E-1	7.102E-1	-4.590	±30	Average RF
cis-1,2-Dichloroethene	50.0	48.3	5.885E-1	5.682E-1	-3.448	±30	Average RF
cis-1,3-Dichloropropene	50.0	52.8	5.092E-1	5.379E-1	5.62	±30	Average RF
m,p-Xylenes	100	99.0	7.415E-1	7.343E-1	-0.971	±30	Average RF
o-Xylene	50.0	50.4	7.117E-1	7.171E-1	0.756	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.0	5.391E-1	5.063E-1	-6.086	±30	Average RF
trans-1,3-Dichloropropene	50.0	54.2	4.066E-1	4.43E-1	8.37	±30	Quadratic
4-Bromofluorobenzene	50.0	49.2	4.669E-1	4.593E-1	-1.638	±30	Average RF
Dibromofluoromethane	50.0	48.8	3.059E-1	2.989E-1	-2.303	±30	Average RF
Toluene-d8	50.0	49.7	1.206E0	1.199E0	-0.565	±30	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801449
Date Analyzed: 02/23/18 09:46

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\022318\D1564.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 581404
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.7	0.687	0.6826	-0.6	NA	±20	Average RF
1,1,2,2-Tetrachloroethane	50.0	46.4	1.0198	0.9471	-7.1	NA	±20	Average RF
1,1,2-Trichloroethane	50.0	46.8	0.3401	0.3186	-6.3	NA	±20	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.5	0.5348	0.5085	-4.9	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	48.6	0.9576	0.9312	-2.8	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	47.5	0.4896	0.4649	-5.1	NA	±20	Average RF
1,2,3-Trichlorobenzene	50.0	46.7	1.2165	1.137	-6.5	NA	±20	Average RF
1,2,4-Trichlorobenzene	50.0	47.3	1.2625	1.1939	-5.4	NA	±20	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	45.9	0.1891	0.1756	NA	-8.3	±20	Quadratic
1,2-Dibromoethane	50.0	48.3	0.3838	0.3704	-3.5	NA	±20	Average RF
1,2-Dichlorobenzene	50.0	46.0	1.726	1.5863	-8.1	NA	±20	Average RF
1,2-Dichloroethane	50.0	48.8	0.5022	0.49	-2.4	NA	±20	Average RF
1,2-Dichloropropane	50.0	48.1	0.3833	0.3687	-3.8	NA	±20	Average RF
1,3-Dichlorobenzene	50.0	46.4	1.7133	1.5905	-7.2	NA	±20	Average RF
1,4-Dichlorobenzene	50.0	44.8	1.8057	1.6178	-10.4	NA	±20	Average RF
1,4-Dioxane	1000	911	0.0061	0.0056	-8.9	NA	±20	Average RF
2-Butanone (MEK)	50.0	46.1	0.3554	0.3275	-7.8	NA	±20	Average RF
2-Hexanone	50.0	45.0	0.3622	0.3261	-10.0	NA	±20	Average RF
4-Methyl-2-pentanone	50.0	47.9	0.4208	0.4031	-4.2	NA	±20	Average RF
Acetone	50.0	45.3	0.2609	0.2363	-9.4	NA	±20	Average RF
Benzene	50.0	47.3	1.4629	1.3848	-5.3	NA	±20	Average RF
Bromochloromethane	50.0	47.6	0.3671	0.3492	-4.9	NA	±20	Average RF
Bromodichloromethane	50.0	47.4	0.4399	0.4168	-5.3	NA	±20	Average RF
Bromoform	50.0	47.2	0.2343	0.2259	NA	-5.5	±20	Quadratic
Bromomethane	50.0	47.3	0.6377	0.5076	NA	-5.4	±20	Quadratic
Carbon Disulfide	50.0	49.0	1.369	1.3417	-2.0	NA	±20	Average RF
Carbon Tetrachloride	50.0	50.4	0.357	0.3596	0.7	NA	±20	Average RF
Chlorobenzene	50.0	47.1	1.1607	1.0934	-5.8	NA	±20	Average RF
Chloroethane	50.0	47.7	0.47	0.4481	-4.7	NA	±20	Average RF
Chloroform	50.0	47.5	0.9259	0.8801	-4.9	NA	±20	Average RF
Chloromethane	50.0	47.4	0.7898	0.7486	-5.2	NA	±20	Average RF
Cyclohexane	50.0	50.7	0.3529	0.3579	1.4	NA	±20	Average RF
Dibromochloromethane	50.0	48.8	0.3632	0.3548	-2.3	NA	±20	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	46.8	0.7168	0.6712	-6.4	NA	±20	Average RF
Dichloromethane	50.0	47.5	0.554	0.5262	-5.0	NA	±20	Average RF
Ethylbenzene	50.0	47.5	0.6038	0.5735	-5.0	NA	±20	Average RF
Isopropylbenzene (Cumene)	50.0	48.9	1.8791	1.8388	-2.1	NA	±20	Average RF
Methyl Acetate	50.0	50.8	0.5262	0.5344	1.6	NA	±20	Average RF
Methyl tert-Butyl Ether	50.0	47.8	1.5451	1.4767	-4.4	NA	±20	Average RF
Methylcyclohexane	50.0	50.5	0.4695	0.4739	0.9	NA	±20	Average RF
Styrene	50.0	50.0	1.2141	1.2144	0.0	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	46.0	0.349	0.3211	-8.0	NA	±20	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801449
Date Analyzed: 02/23/18 09:46

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\022318\D1564.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 581404
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Toluene	50.0	47.9	1.5586	1.4922	-4.3	NA	±20	Average RF
Trichloroethene (TCE)	50.0	45.2	0.3953	0.3574	-9.6	NA	±20	Average RF
Trichlorofluoromethane (CFC 11)	50.0	45.7	0.8457	0.7736	-8.5	NA	±20	Average RF
Vinyl Chloride	50.0	49.0	0.7443	0.7299	-1.9	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	46.7	0.5885	0.5501	-6.5	NA	±20	Average RF
cis-1,3-Dichloropropene	50.0	50.5	0.5092	0.5141	1.0	NA	±20	Average RF
m,p-Xylenes	100	97.5	0.7415	0.7227	-2.5	NA	±20	Average RF
o-Xylene	50.0	49.2	0.7117	0.6998	-1.7	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	46.3	0.5391	0.4995	-7.4	NA	±20	Average RF
trans-1,3-Dichloropropene	50.0	52.6	0.4066	0.4281	NA	5.2	±20	Quadratic
4-Bromofluorobenzene	50.0	53.3	0.4669	0.4979	6.6	NA	±20	Average RF
Dibromofluoromethane	50.0	52.9	0.3059	0.3238	5.8	NA	±20	Average RF
Toluene-d8	50.0	53.4	1.2055	1.2875	6.8	NA	±20	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801449
Date Analyzed: 02/22/18 10:00

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\022218\D1533.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 581234
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	47.6	0.687	0.6537	-4.8	NA	±20	Average RF
1,1,2,2-Tetrachloroethane	50.0	44.9	1.0198	0.9149	-10.3	NA	±20	Average RF
1,1,2-Trichloroethane	50.0	46.5	0.3401	0.3163	-7.0	NA	±20	Average RF
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	46.0	0.5348	0.4915	-8.1	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	46.4	0.9576	0.8887	-7.2	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.8	0.4896	0.4487	-8.4	NA	±20	Average RF
1,2,3-Trichlorobenzene	50.0	46.8	1.2165	1.1381	-6.4	NA	±20	Average RF
1,2,4-Trichlorobenzene	50.0	47.6	1.2625	1.2008	-4.9	NA	±20	Average RF
1,2-Dibromo-3-chloropropane (DBCP)	50.0	44.2	0.1891	0.1686	NA	-11.7	±20	Quadratic
1,2-Dibromoethane	50.0	47.8	0.3838	0.3665	-4.5	NA	±20	Average RF
1,2-Dichlorobenzene	50.0	46.7	1.726	1.6128	-6.6	NA	±20	Average RF
1,2-Dichloroethane	50.0	47.7	0.5022	0.4788	-4.7	NA	±20	Average RF
1,2-Dichloropropane	50.0	47.6	0.3833	0.3645	-4.9	NA	±20	Average RF
1,3-Dichlorobenzene	50.0	47.1	1.7133	1.6132	-5.8	NA	±20	Average RF
1,4-Dichlorobenzene	50.0	45.2	1.8057	1.6307	-9.7	NA	±20	Average RF
1,4-Dioxane	1000	845	0.0061	0.0052	-15.5	NA	±20	Average RF
2-Butanone (MEK)	50.0	42.5	0.3554	0.3018	-15.1	NA	±20	Average RF
2-Hexanone	50.0	42.8	0.3622	0.3102	-14.4	NA	±20	Average RF
4-Methyl-2-pentanone	50.0	44.9	0.4208	0.3778	-10.2	NA	±20	Average RF
Acetone	50.0	43.6	0.2609	0.2276	-12.8	NA	±20	Average RF
Benzene	50.0	47.0	1.4629	1.3757	-6.0	NA	±20	Average RF
Bromochloromethane	50.0	46.1	0.3671	0.3383	-7.8	NA	±20	Average RF
Bromodichloromethane	50.0	47.2	0.4399	0.4152	-5.6	NA	±20	Average RF
Bromoform	50.0	47.5	0.2343	0.2275	NA	-5.0	±20	Quadratic
Bromomethane	50.0	46.8	0.6377	0.503	NA	-6.3	±20	Quadratic
Carbon Disulfide	50.0	49.2	1.369	1.3474	-1.6	NA	±20	Average RF
Carbon Tetrachloride	50.0	49.3	0.357	0.3523	-1.3	NA	±20	Average RF
Chlorobenzene	50.0	46.9	1.1607	1.0876	-6.3	NA	±20	Average RF
Chloroethane	50.0	46.1	0.47	0.4334	-7.8	NA	±20	Average RF
Chloroform	50.0	46.3	0.9259	0.8579	-7.3	NA	±20	Average RF
Chloromethane	50.0	45.4	0.7898	0.7175	-9.1	NA	±20	Average RF
Cyclohexane	50.0	49.0	0.3529	0.3462	-1.9	NA	±20	Average RF
Dibromochloromethane	50.0	48.9	0.3632	0.3553	-2.2	NA	±20	Average RF
Dichlorodifluoromethane (CFC 12)	50.0	45.3	0.7168	0.6494	-9.4	NA	±20	Average RF
Dichloromethane	50.0	46.0	0.554	0.5093	-8.1	NA	±20	Average RF
Ethylbenzene	50.0	47.6	0.6038	0.5744	-4.9	NA	±20	Average RF
Isopropylbenzene (Cumene)	50.0	49.7	1.8791	1.8682	-0.6	NA	±20	Average RF
Methyl Acetate	50.0	47.5	0.5262	0.4998	-5.0	NA	±20	Average RF
Methyl tert-Butyl Ether	50.0	45.7	1.5451	1.4124	-8.6	NA	±20	Average RF
Methylcyclohexane	50.0	50.5	0.4695	0.4739	0.9	NA	±20	Average RF
Styrene	50.0	49.8	1.2141	1.2093	-0.4	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	45.7	0.349	0.319	-8.6	NA	±20	Average RF

Client: The LiRo Group
Project: Buffalo China/16-344-1389

Service Request: R1801449
Date Analyzed: 02/22/18 10:00

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\022218\D1533.D\

Calibration Date: 2/12/2018
Calibration ID: RC1800023
Analysis Lot: 581234
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Toluene	50.0	46.8	1.5586	1.4571	-6.5	NA	±20	Average RF
Trichloroethene (TCE)	50.0	44.1	0.3953	0.3486	-11.8	NA	±20	Average RF
Trichlorofluoromethane (CFC 11)	50.0	44.6	0.8457	0.7535	-10.9	NA	±20	Average RF
Vinyl Chloride	50.0	48.4	0.7443	0.7203	-3.2	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	46.5	0.5885	0.5476	-7.0	NA	±20	Average RF
cis-1,3-Dichloropropene	50.0	49.9	0.5092	0.5084	-0.2	NA	±20	Average RF
m,p-Xylenes	100	98.4	0.7415	0.7297	-1.6	NA	±20	Average RF
o-Xylene	50.0	50.0	0.7117	0.7117	0.0	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	44.7	0.5391	0.4824	-10.5	NA	±20	Average RF
trans-1,3-Dichloropropene	50.0	52.2	0.4066	0.4245	NA	4.4	±20	Quadratic
4-Bromofluorobenzene	50.0	52.1	0.4669	0.4867	4.2	NA	±20	Average RF
Dibromofluoromethane	50.0	52.5	0.3059	0.3209	4.9	NA	±20	Average RF
Toluene-d8	50.0	53.2	1.2055	1.2834	6.5	NA	±20	Average RF

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C **Analysis Lot:**581234
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
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I:\ACQUDATA\msvoa10\data\022218\D1534.D\	Lab Control Sample	RQ1801697-03	2/22/2018	10:33:00	
I:\ACQUDATA\msvoa10\data\022218\D1536.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	11:33:00	
I:\ACQUDATA\msvoa10\data\022218\D1537.D\	Method Blank	RQ1801697-04	2/22/2018	11:58:00	
I:\ACQUDATA\msvoa10\data\022218\D1538.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	12:25:00	
I:\ACQUDATA\msvoa10\data\022218\D1539.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	12:47:00	
I:\ACQUDATA\msvoa10\data\022218\D1540.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	13:09:00	
I:\ACQUDATA\msvoa10\data\022218\D1541.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	13:30:00	
I:\ACQUDATA\msvoa10\data\022218\D1542.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	13:52:00	
I:\ACQUDATA\msvoa10\data\022218\D1543.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	14:14:00	
I:\ACQUDATA\msvoa10\data\022218\D1545.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	15:07:00	
I:\ACQUDATA\msvoa10\data\022218\D1546.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	15:32:00	
I:\ACQUDATA\msvoa10\data\022218\D1547.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	15:58:00	
I:\ACQUDATA\msvoa10\data\022218\D1547.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	15:58:00	
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I:\ACQUDATA\msvoa10\data\022218\D1551.D\	Trip Blank	R1801449-008	2/22/2018	17:27:00	
I:\ACQUDATA\msvoa10\data\022218\D1552.D\	MW-25A	R1801449-003	2/22/2018	17:49:00	
I:\ACQUDATA\msvoa10\data\022218\D1553.D\	MW-10	R1801449-001	2/22/2018	18:10:00	
I:\ACQUDATA\msvoa10\data\022218\D1554.D\	MW-11	R1801449-002	2/22/2018	18:32:00	
I:\ACQUDATA\msvoa10\data\022218\D1555.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	18:54:00	
I:\ACQUDATA\msvoa10\data\022218\D1556.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	19:16:00	

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C **Analysis Lot:**581234
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\022218\D1557.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	19:37:00	
I:\ACQUDATA\msvoa10\data\022218\D1558.D\	ZZZZZZZ	ZZZZZZZ	2/22/2018	19:59:00	
I:\ACQUDATA\msvoa10\data\022218\D1559.D\	MW-25A MS	RQ1801697-05	2/22/2018	20:21:00	
I:\ACQUDATA\msvoa10\data\022218\D1560.D\	MW-25A DMS	RQ1801697-06	2/22/2018	20:42:00	
I:\ACQUDATA\msvoa10\data\022318\D1563.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	09:00:00	
I:\ACQUDATA\msvoa10\data\022318\D1568.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	11:46:00	
I:\ACQUDATA\msvoa10\data\022318\D1569.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	12:08:00	
I:\ACQUDATA\msvoa10\data\022318\D1570.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	12:30:00	
I:\ACQUDATA\msvoa10\data\022318\D1571.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	12:51:00	
I:\ACQUDATA\msvoa10\data\022318\D1572.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	13:13:00	
I:\ACQUDATA\msvoa10\data\022318\D1573.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	13:35:00	
I:\ACQUDATA\msvoa10\data\022318\D1574.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	13:57:00	
I:\ACQUDATA\msvoa10\data\022318\D1575.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	14:18:00	
I:\ACQUDATA\msvoa10\data\022318\D1576.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	14:40:00	
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I:\ACQUDATA\msvoa10\data\022318\D1587.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	19:00:00	
I:\ACQUDATA\msvoa10\data\022318\D1588.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	19:24:00	
I:\ACQUDATA\msvoa10\data\022318\D1589.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	19:50:00	
I:\ACQUDATA\msvoa10\data\022318\D1590.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	20:11:00	
I:\ACQUDATA\msvoa10\data\022318\D1591.D\	ZZZZZZZ	ZZZZZZZ	2/23/2018	20:33:00	

Client: The LiRo Group **Service Request:**R1801449
Project: Buffalo China/16-344-1389

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C **Analysis Lot:**581404
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\022318 \D1564.D\	Continuing Calibration Verification	RQ1801663-02	2/23/2018	09:46:00	
I:\ACQUDATA\msvoa10\data\022318 \D1565.D\	Lab Control Sample	RQ1801663-03	2/23/2018	10:23:00	
I:\ACQUDATA\msvoa10\data\022318 \D1567.D\	Method Blank	RQ1801663-04	2/23/2018	11:22:00	
I:\ACQUDATA\msvoa10\data\022318 \D1578.D\	MW-22	R1801449-005	2/23/2018	15:24:00	
I:\ACQUDATA\msvoa10\data\022318 \D1579.D\	Duplicate-02	R1801449-004	2/23/2018	15:45:00	
I:\ACQUDATA\msvoa10\data\022318 \D1580.D\	MW-15A	R1801449-007	2/23/2018	16:07:00	
I:\ACQUDATA\msvoa10\data\022318 \D1581.D\	MW-19AR	R1801449-006	2/23/2018	16:29:00	
I:\ACQUDATA\msvoa10\data\022318 \D1584.D\	MW-19AR	R1801449-006	2/23/2018	17:44:00	

DL

Analysis: 5 8260C/624 Analyst: D. Lupan pH strips: Hyd. 206717 Tune Method: DL WT021218.M

Date: 02/22/18 Balance ID: — ResCl strips: HF 100517F Run Method: ↓

Instr. MS#10 50 mL Class A used for dilution FV Syringes: 18111Z LIMS Run#: 581234

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	Residual Chlorine	RL	Tier	Vial	pH	File#	OK?	Comments
1	~50ppb Std								D1530	Y	
2	Blk								31	O.K.	
DL 3	Tune Check								32	Y	
2	CCV								33	Y	
3	LCS-Reg.								34	Y	
4	LCS-EK+								35	N	- shot wrong std?
5	LCS-EK+								36	Y	
6	Met Blk								37	Y	
8	R1801466-002	1.0	(624)	neg	14857	II	1	6	38	Y	
9	R1801398-001	1.0	(8260C)	—	6656	III	1	<2	39	Y	
10	-002	1.0		—			1	<2	D1540	Y	
11	-003	1.0		—			1	<2	41	Y	
12	-004	1.0		—			1	<2	42	Y	
13	-005	1.0		—			1	<2	43	Y	
14	R1801417-016	500	1.0mL/100mL then 10mL/50mL	—	8043	II	1	7	44	(N)	- weak rpt 1/10? sample multi-phase - with water layer
15	R1801466-003	100	1.0mL/100mL	neg	8757	II	2	7	45	Y	= DL rpt 1/10 though
16	R1801417-016	10	5.0mL/50mL	—	8043	II	1	7	46	Y	- weak but foamy!
17	R1801416-001	1.0	(624)	neg	9766	II	1	3-4	47	(Y)	rpt 1/10 acetone†
18	Blk			—	—	—	—	—	48	O.K.	
19	R1801400-001	1.0	(8260C)	—	6656	III	1	<2	49	(Y)	- rpt 1/5 TCFM†
20	-002	1.0		—			1	3-4	D1550	(N)	- TCFM x-over rpt 1.0
21	R1801449-008	1.0	T.B.	—	8043	IV	1	<2	51	Y	
22	-003	1.0		—			1	<2	52	Y	
23	-001	1.0		—			1	<2	53	Y	
24	-002	1.0		—			1	<2	54	Y	
25	R1801400-002	1.0		—	6656	III	2	<2	55	Y	- use
26	R1801466-003	10	5.0mL/10mL (624)	neg	8757	II	2	7	56	(Y)	- use with 1/100
27	R1801472-006	1.0		neg	11868	II	1	7	57	Y	MS/DMS
28	-003	2.5	20mL/50mL	neg		IV	C-1	7	58	Y	187713 4.2µl
29	R1801449-003MS	1.0	(8260C)	—	8043	IV	2	<2	59	Y	187747 ↓ into full vials
30	-003DMS	1.0	↓	—			3	<2	D1560	Y	186658 ↓
31-34	Blks			—	—	—	—	—	61-64	Y	187905 10.6µl } sample.

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Primary TG : 187973 5.0µl
Primary HSL : 187975
Primary OCC : 186749
Primary Fr+ : 188036
Primary : _____
/ 50mL DI = CCV.

Secondary TG : 187713 2.0µl
Secondary HSL : 187747 ↓
Secondary OCC : 186658 ↓
Secondary Fr+ : 187905 5.0µl
Secondary EK+ : 187733 - 5.0µl
/ 50mL DI = LCS.
= EK+ LCS

Combined IS/Surr — : _____
Surrogate 50 : 188009
Internal Std 50 : 188008
Reagents:

Analysis: 8260C/624 | Analyst: D. Lipsam | pH strips: Hyd. 206717 | Tune Method: W021218.M

Date: 02/23/18 | Balance ID: — | ResCl strips: HF 100517F | Run Method: ↓

Instr. MS#10 | 50 mL Class A used for dilution FV | Syringes: 181117 | LIMS Run#: DLT 5814O4

Data Path: j:\acqudata\msvoa(InstID)\(Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	~50ppb Std							D1561	Y	
2	Blk							62	O.K.	
1	Tune Check							63	Y	
2	CCV							64	Y	Acrol. ↓
3	LCS							65	Y	
4	Blk		Residual Chlorine					66	N	x-over
5	Met Blk							67	Y	
6	R1801551-001	1.0	(624) neg	6142	II	1	7	68	Y	out of hold - samp. got to VOA cooler late!
8	R1801269-001	1.0	neg	14838	II	1	<2	69	Y	
9	R1801566-003	1.0	neg	13189	II	1	7	D1570	Y	
10	↓ -001	1.0	↓	↓	↓	1	7	71	Y	
11	R181561-005	1.0	T-B. neg	14885	II	1	7	72	Y	
12	-003	1.0	neg			1	7	73	Y	
13	-001	1.0	neg			1	7	74	Y	
14	-002	1.0	neg			1	7	75	Y	
15	↓ -004	1.0	↓ neg	↓	↓	1	7	76	Y	
16	R1801400-001	5.0	10mL/50mL (8260C) —	6656	II	2	<2	77	Y	= DL
17	R1801449-005	1.0	—	8043	IV	1	<2	78	Y	
18	-004	1.0	—			1	<2	79	Y	
19	-007	1.0	—			1	<2	D1580	Y	
20	↓ -006	1.0	↓ —	↓	↓	1	<2	81	(Y)	high TCE! rpt '5
21	Blk		—	—	—	—	—	82	N	
22	Blk		—	—	—	—	—	83	O.K.	
23	R1801449-006	5.0	10mL/50mL ↓	8043	IV	2	<2	84	Y	= DL
24-25	Blks		—	—	—	—	—	85-86	Y	
26	R1801416-001	10	5.0mL/50mL neg	9766	II	2	N4	87	Y	= DL
27	R1801470-006	1.0	neg	11868	II	1	7	88	Y	
28	↓ -003	2.5	20mL/50mL neg			C-1	7	89	Y	MS/DMS:
29	R1801471-006	1.0	neg			1	7	D1590	Y	187713 2.0µl
30	-003	2.5	20mL/50mL neg			C-1	7	91	Y	187747 2.0µl
31	-003MS	2.5	↓ ↓ neg			C-1	7	92	N	did not run (DL) 186658 187905 5.0µl
32	↓ -003DMS	2.5	↓ ↓ neg	↓	↓	C-1	7	93	N	vial in wrong slot

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Primary TG : 187973 5.0µl
Primary HSL : 187975
Primary OCC : 186749
Primary Fr+ : 188036
Primary : —

50mL DI = CCV.

Secondary TG : 187713 2.0µl
Secondary HSL : 187747
Secondary OCC : 186658
Secondary Fr+ : 187905 5.0µl
Secondary : —

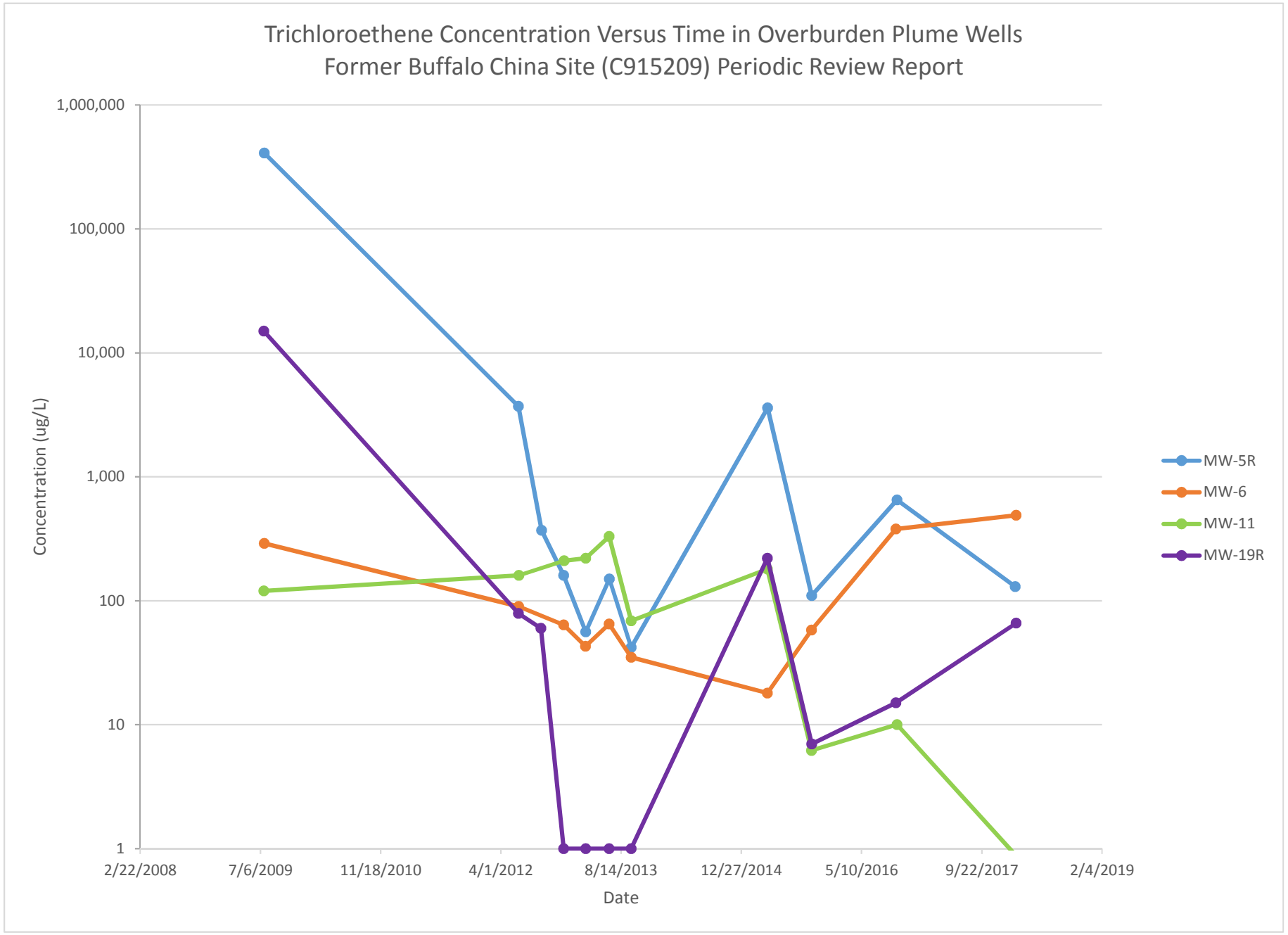
50mL DI = LCS.

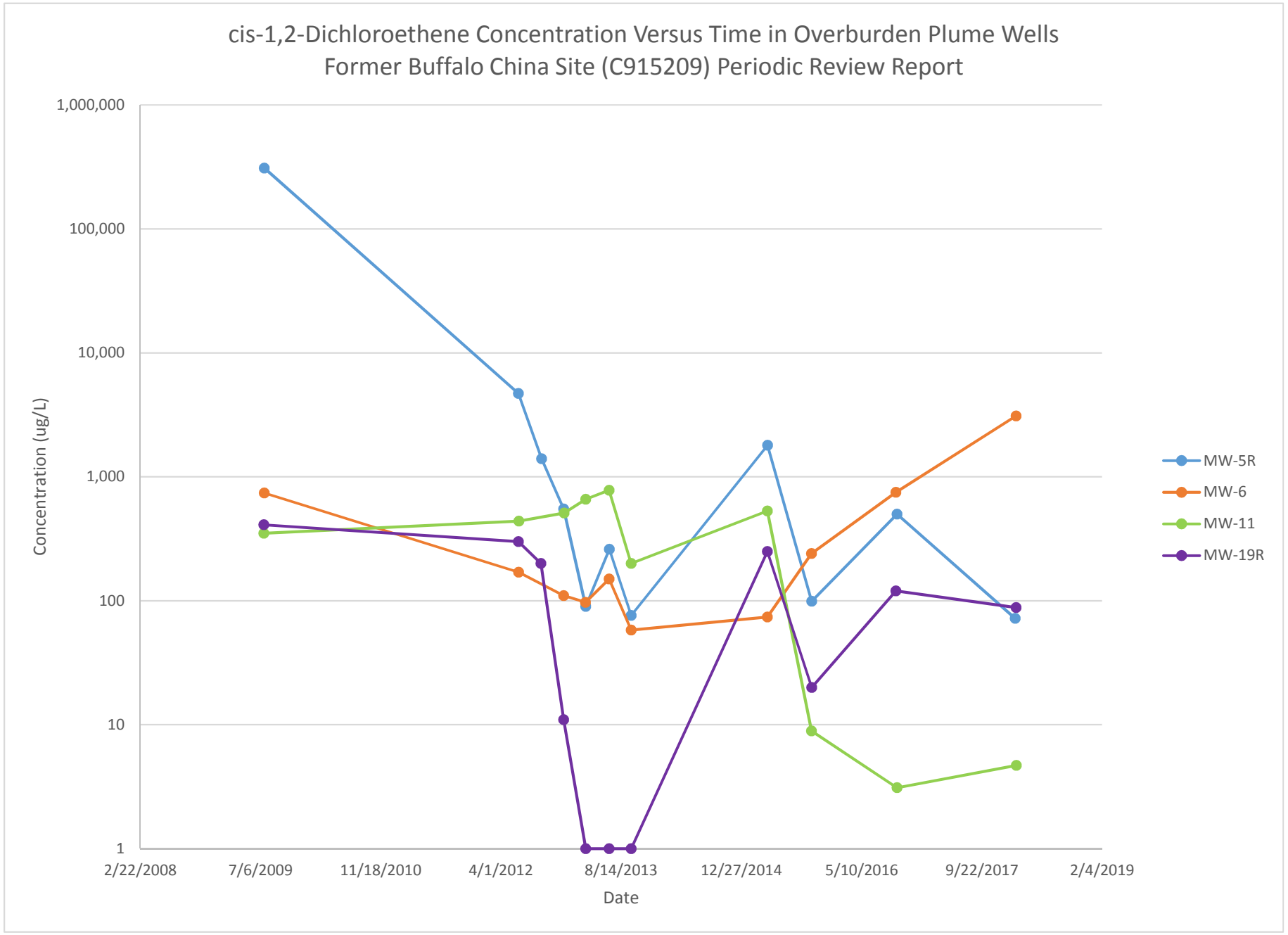
Combined IS/Surr — : —
Surrogate 50 : 188009
Internal Std 50 : 188008
Reagents:

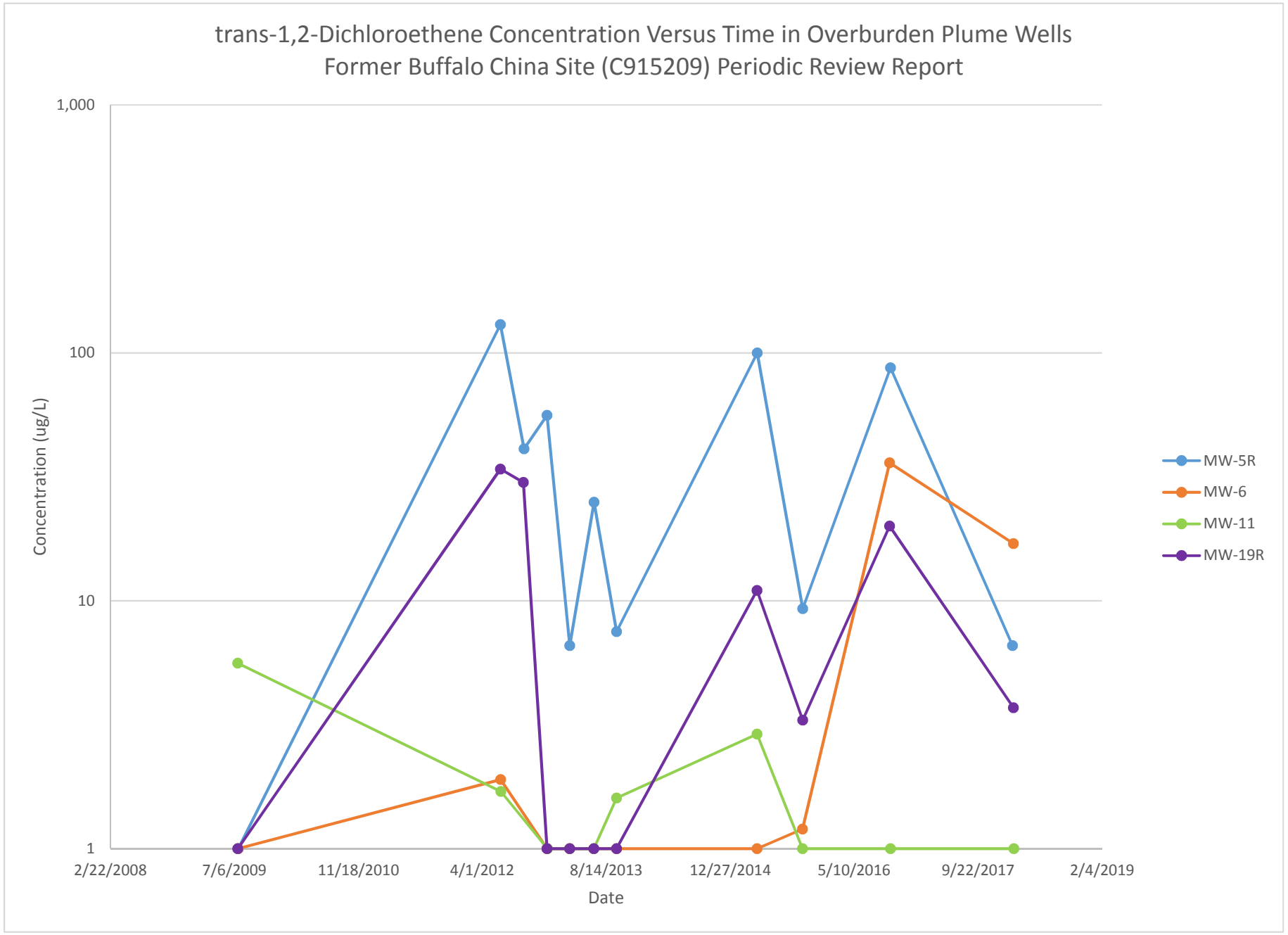
into 50mL samp dilution

Appendix E
Data Usability Summary Reports
(To be Provided Upon Completion)

Appendix F
Concentration versus Time Plots for Contaminants of Concern


Trichloroethene Concentration Versus Time in Overburden Plume Wells
Former Buffalo China Site (C915209) Periodic Review Report
1,000,000
100,000
10,000
1,000
100
10
1
Concentration (ug/L)
2/22/2008
7/6/2009
11/18/2010
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
Date
MW-5R
MW-6
MW-11
MW-19R


cis-1,2-Dichloroethene Concentration Versus Time in Overburden Plume Wells
Former Buffalo China Site (C915209) Periodic Review Report
1,000,000
100,000
10,000
1,000
100
10
1
Concentration (ug/L)
2/22/2008
7/6/2009
11/18/2010
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
Date
MW-5R
MW-6
MW-11
MW-19R


trans-1,2-Dichloroethene Concentration Versus Time in Overburden Plume Wells
Former Buffalo China Site (C915209) Periodic Review Report
1,000
100
10
1
Concentration (ug/L)
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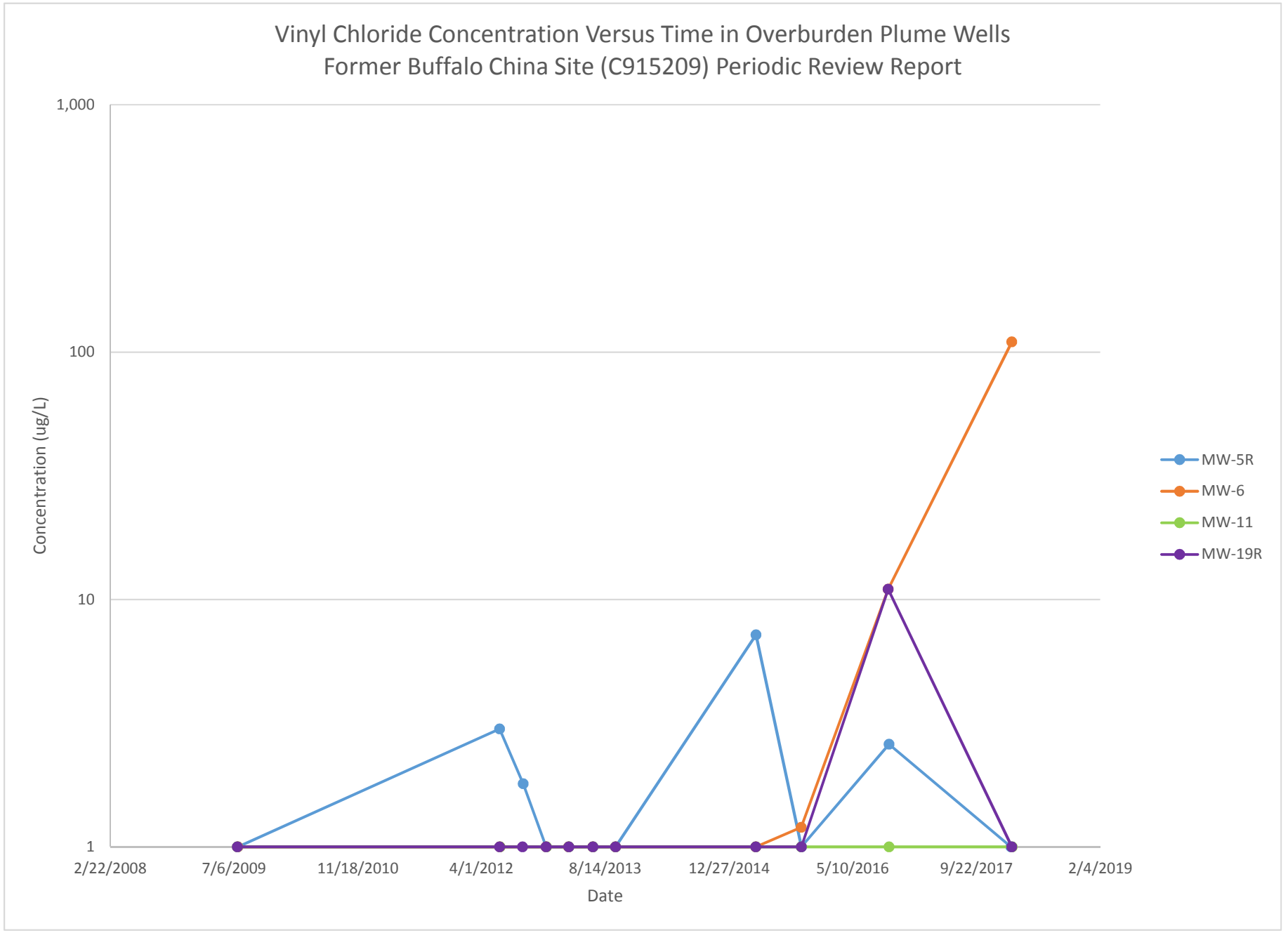
9/22/2017
2/4/2019
Date
MW-5R
MW-6
MW-11
MW-19R


Vinyl Chloride Concentration Versus Time in Overburden Plume Wells
Former Buffalo China Site (C915209) Periodic Review Report
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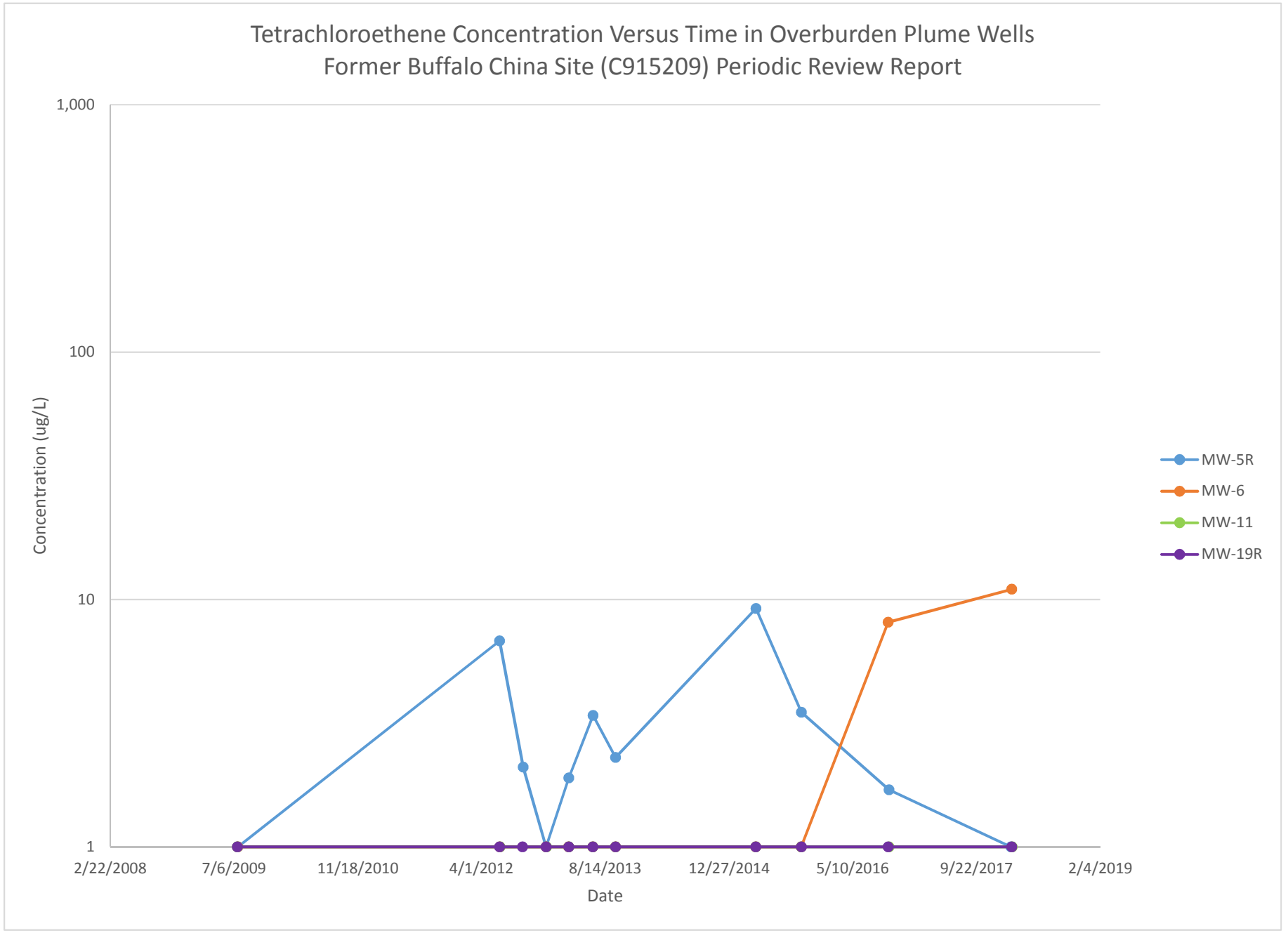
9/22/2017
2/4/2019
Date
MW-5R
MW-6
MW-11
MW-19R


Tetrachloroethene Concentration Versus Time in Overburden Plume Wells
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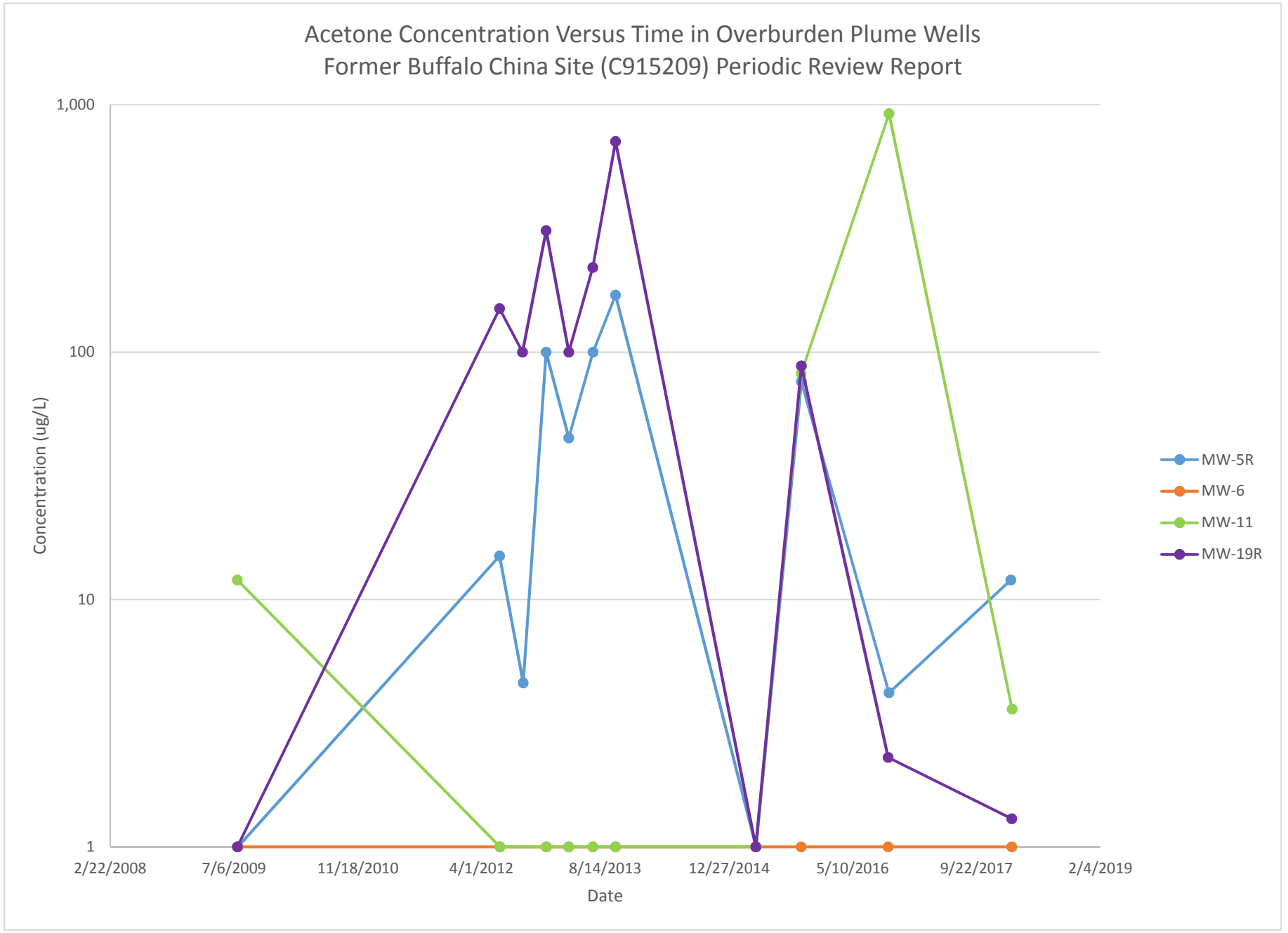
MW-6
MW-11
MW-19R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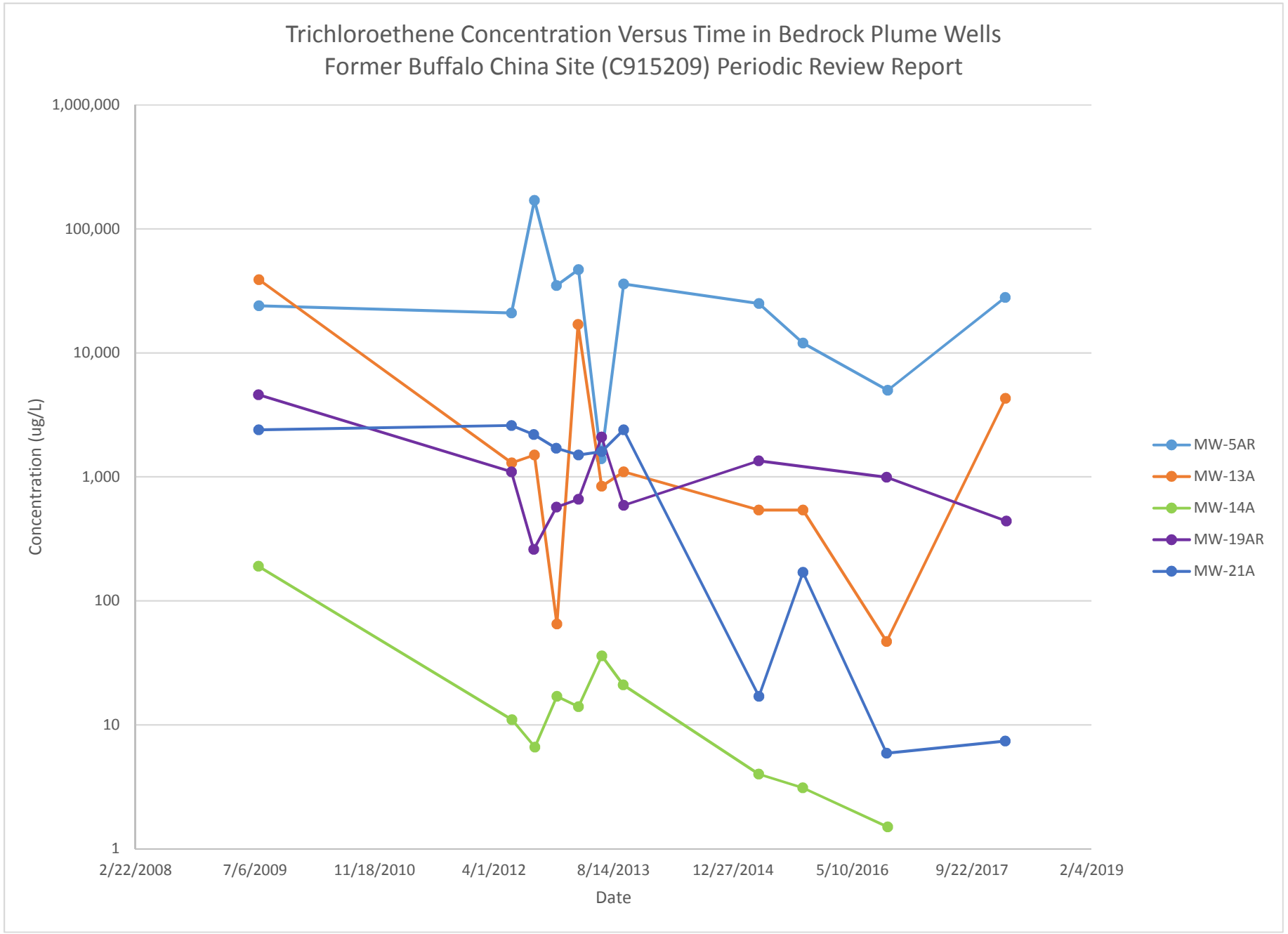
Date
MW-5R
MW-6
MW-11
MW-19R


Trichloroethene Concentration Versus Time in Bedrock Plume Wells
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8/14/2013
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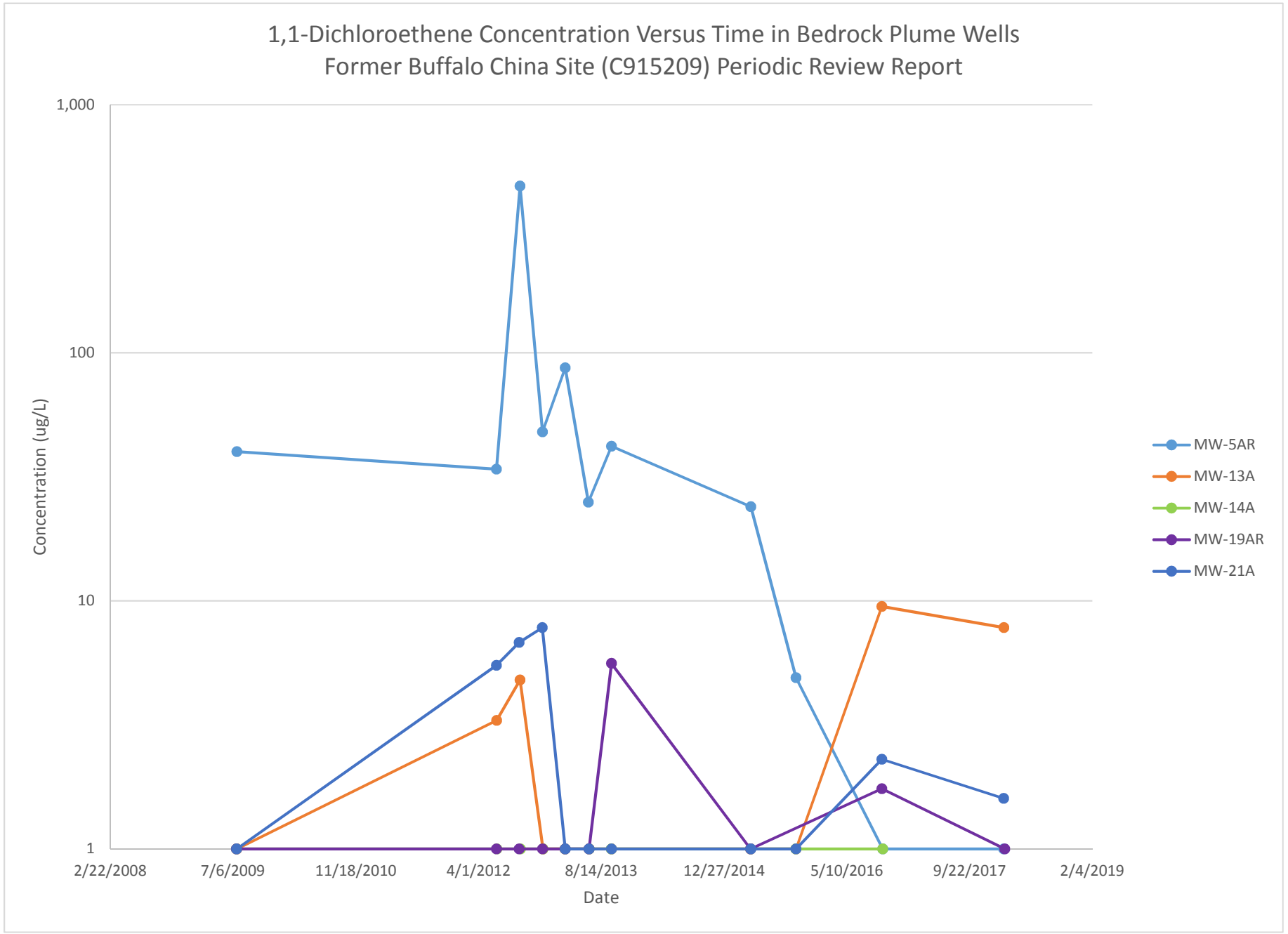
MW-13A
MW-14A
MW-19AR
MW-21A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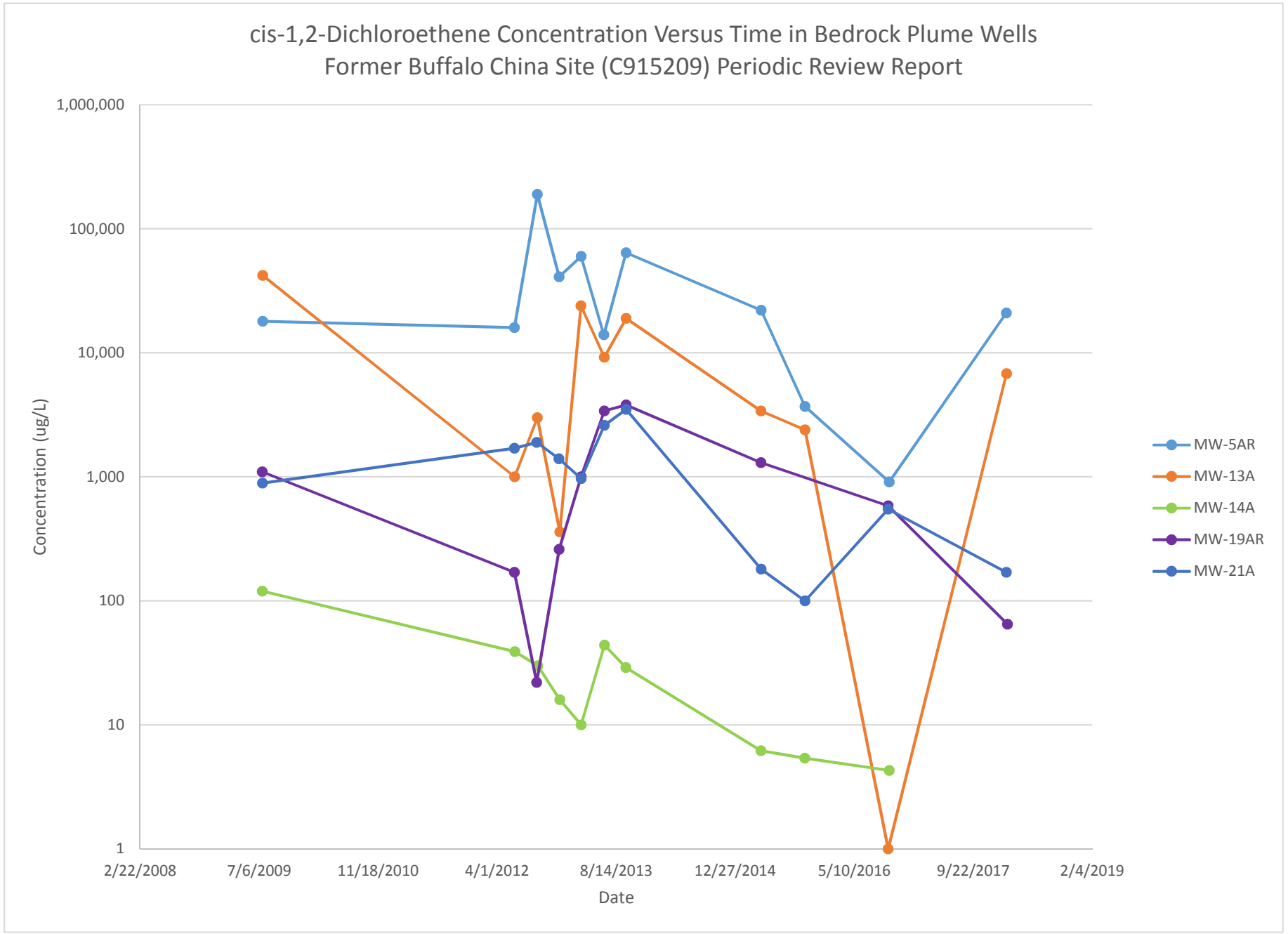
MW-13A
MW-14A
MW-19AR
MW-21A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8/14/2013
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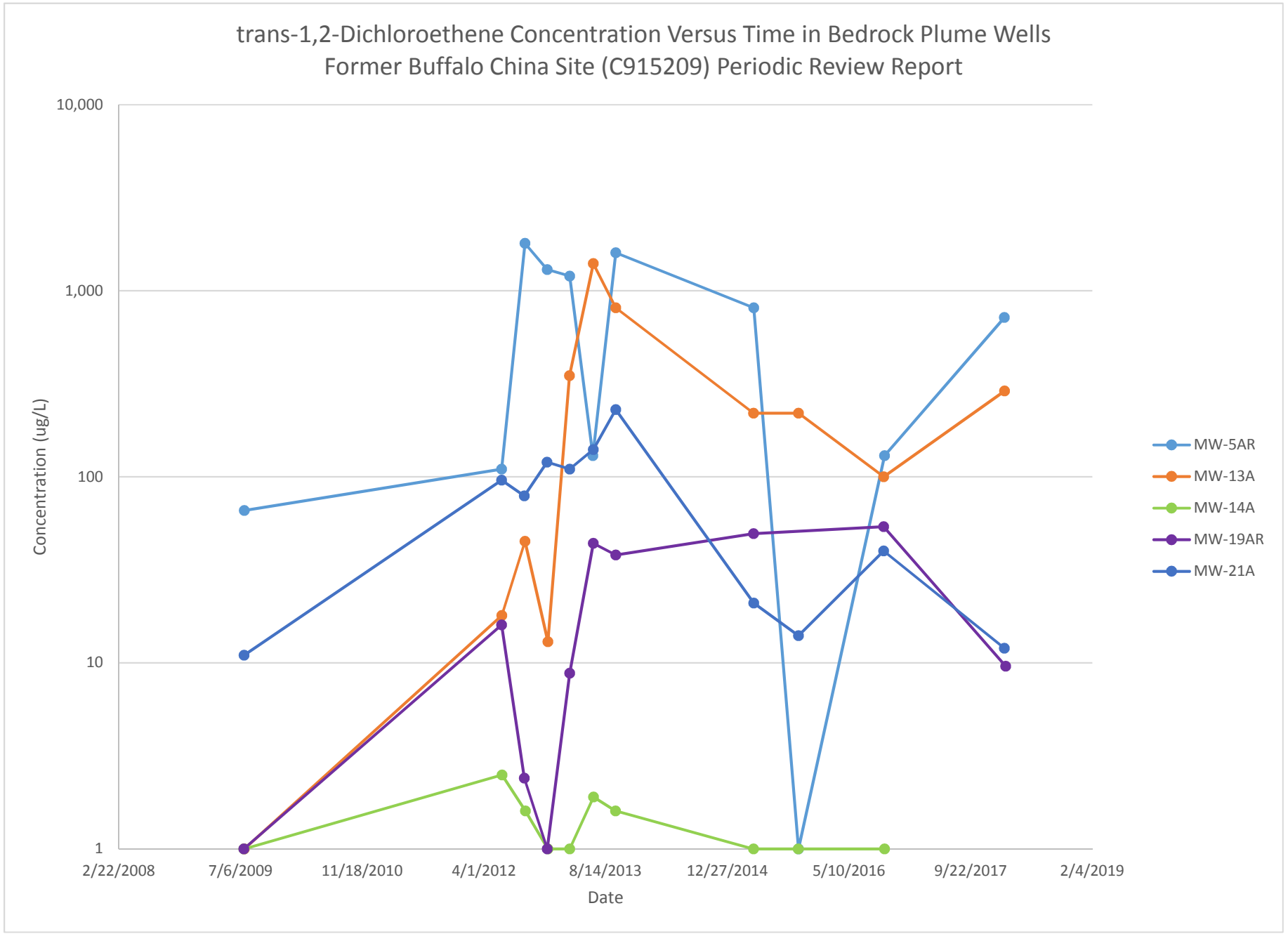
MW-13A
MW-14A
MW-19AR
MW-21A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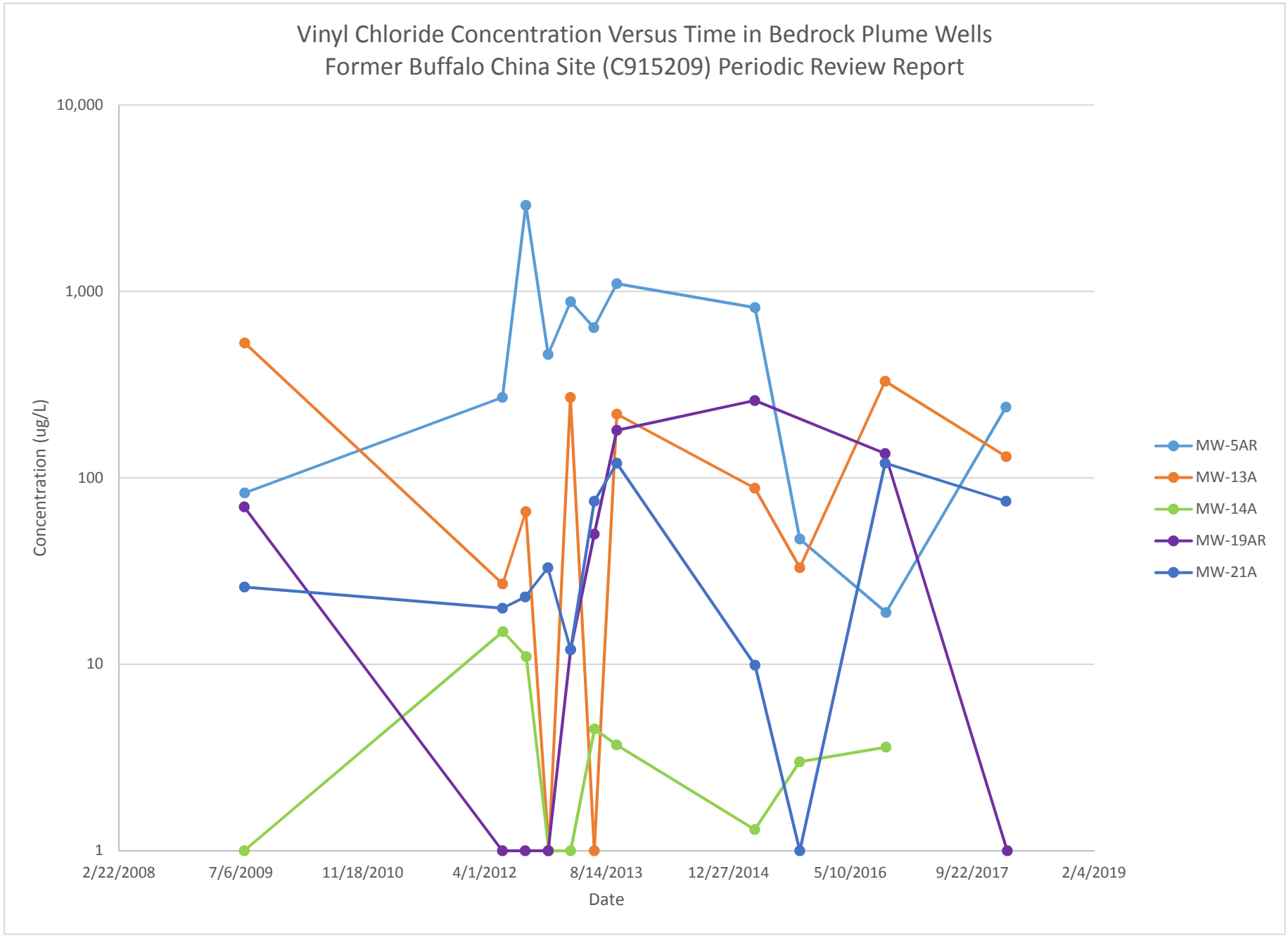
MW-13A
MW-14A
MW-19AR
MW-21A


Vinyl Chloride Concentration Versus Time in Bedrock Plume Wells
Former Buffalo China Site (C915209) Periodic Review Report
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Concentration (ug/L)
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8/14/2013
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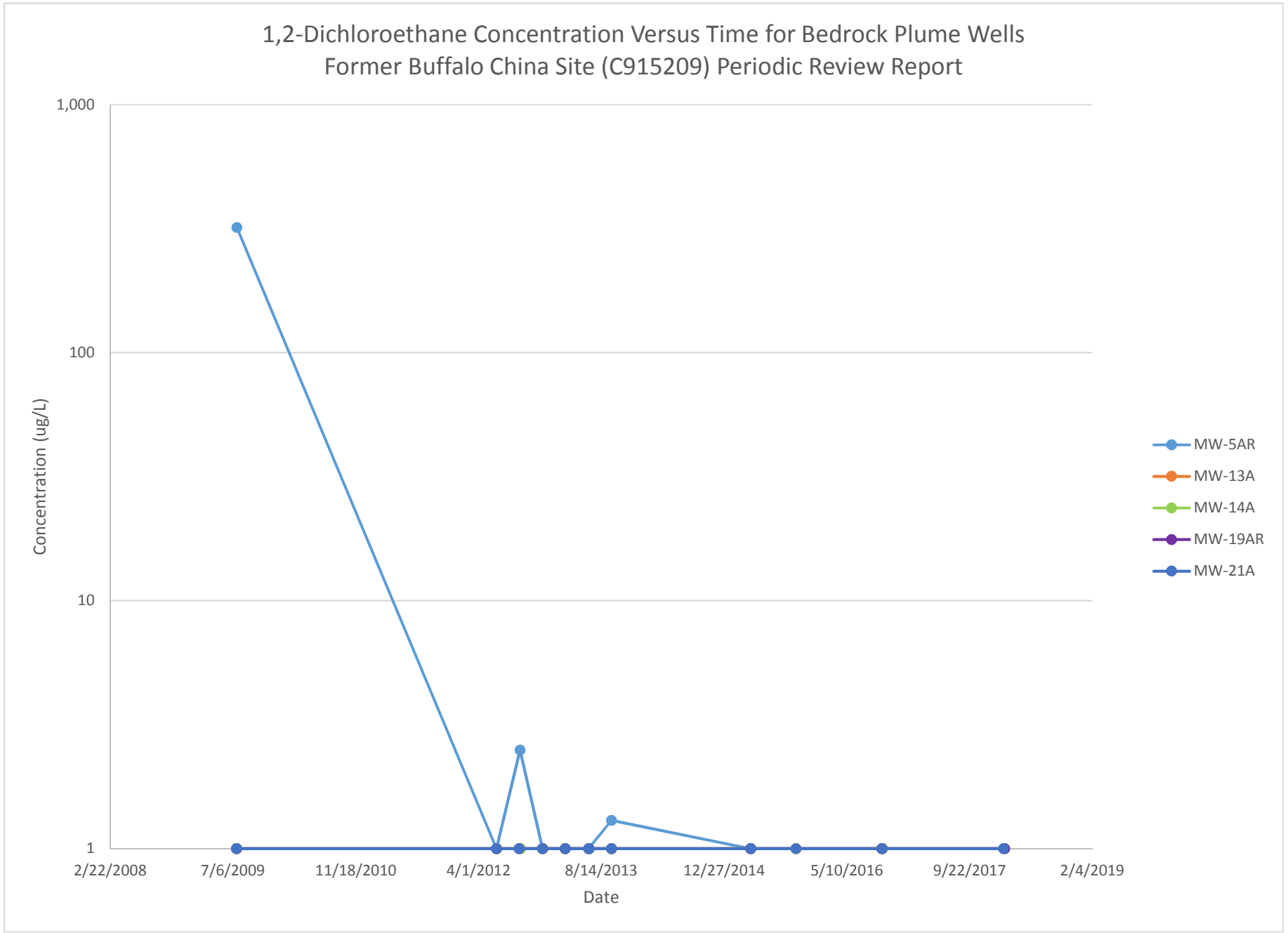
MW-5AR
MW-13A
MW-14A
MW-19AR
MW-21A


1,2-Dichloroethane Concentration Versus Time for Bedrock Plume Wells
Former Buffalo China Site (C915209) Periodic Review Report
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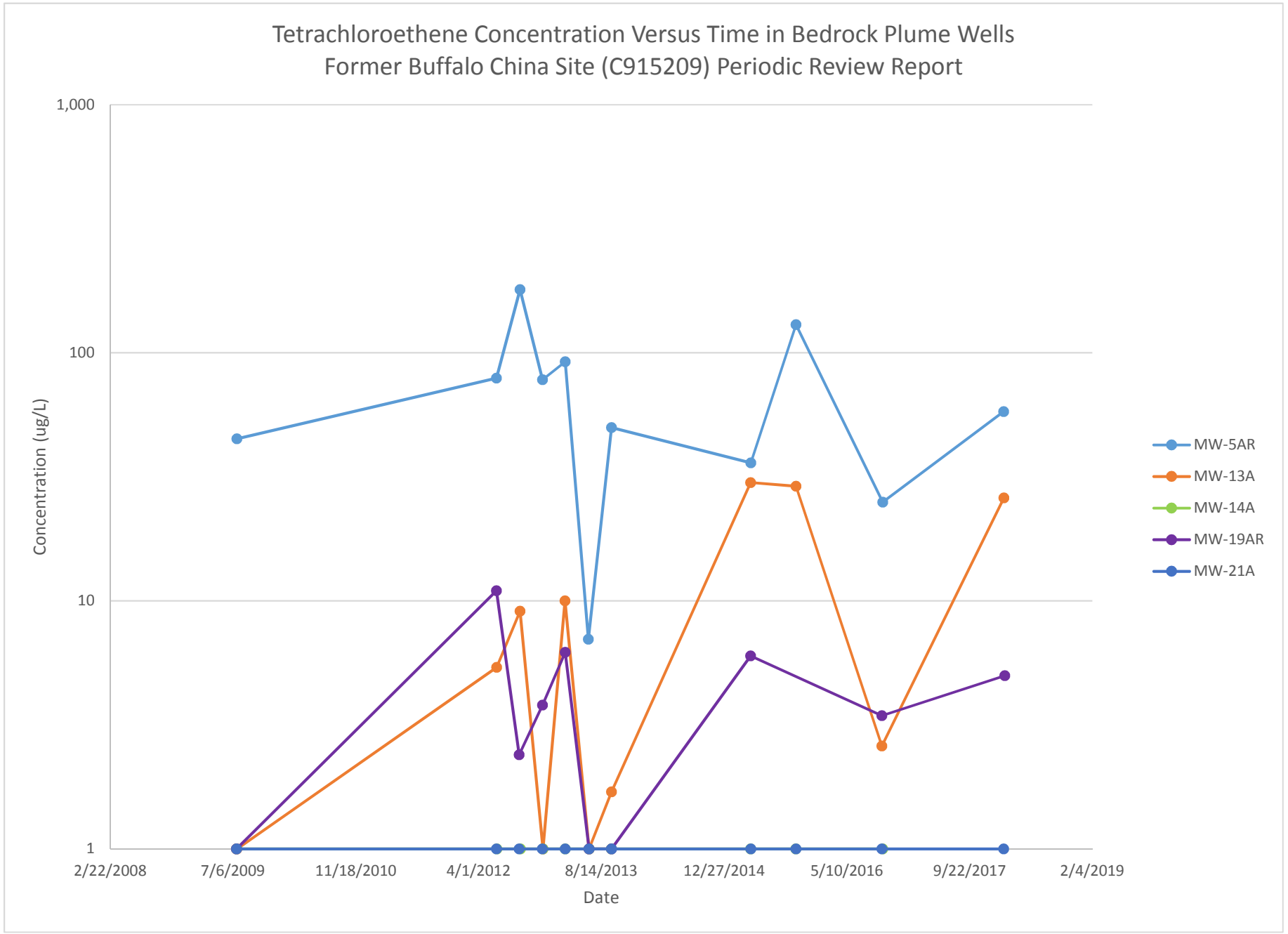
Date
MW-5AR
MW-13A
MW-14A
MW-19AR
MW-21A


Tetrachloroethene Concentration Versus Time in Bedrock Plume Wells
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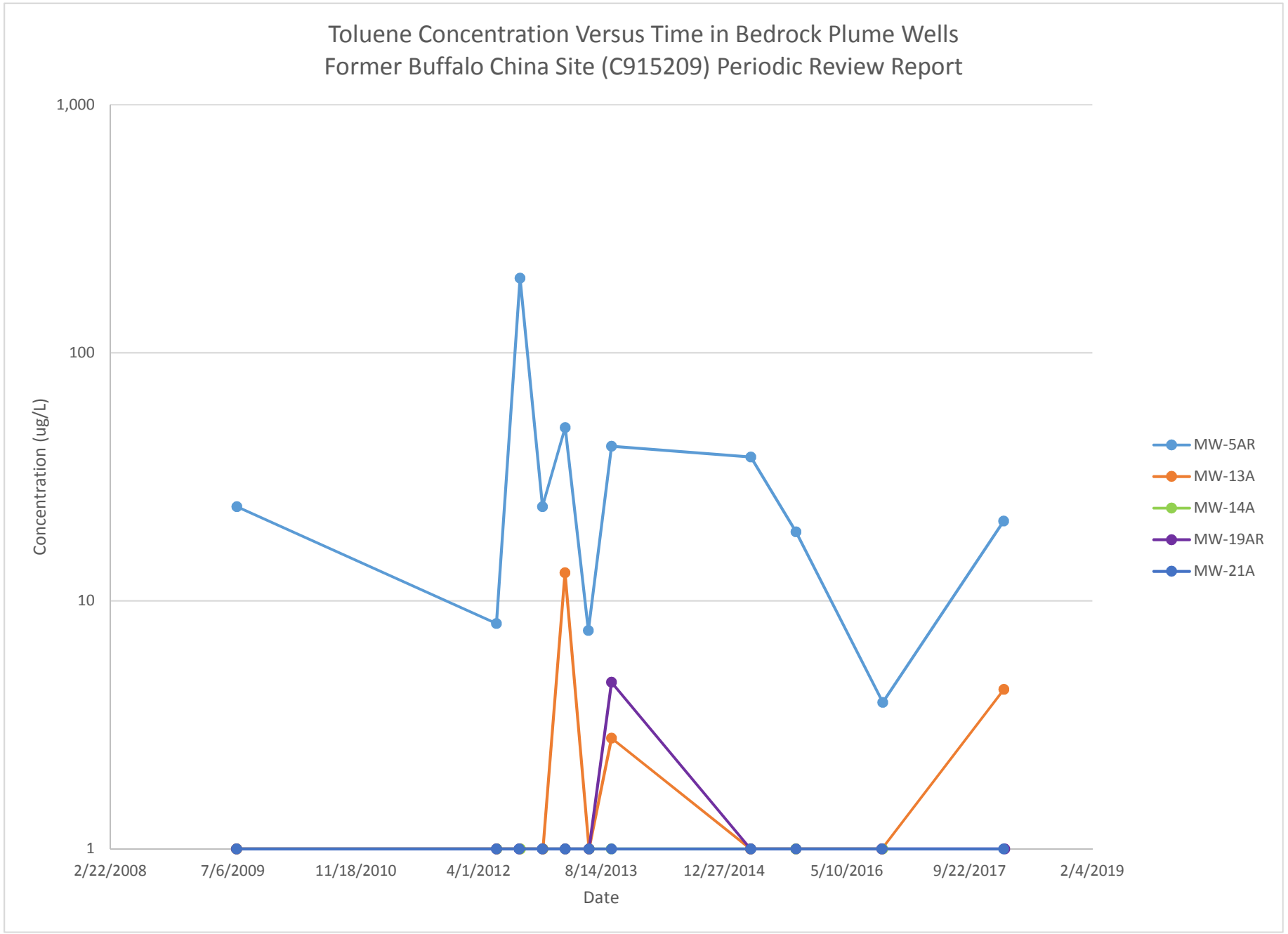
MW-5AR
MW-13A
MW-14A
MW-19AR
MW-21A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4/1/2012
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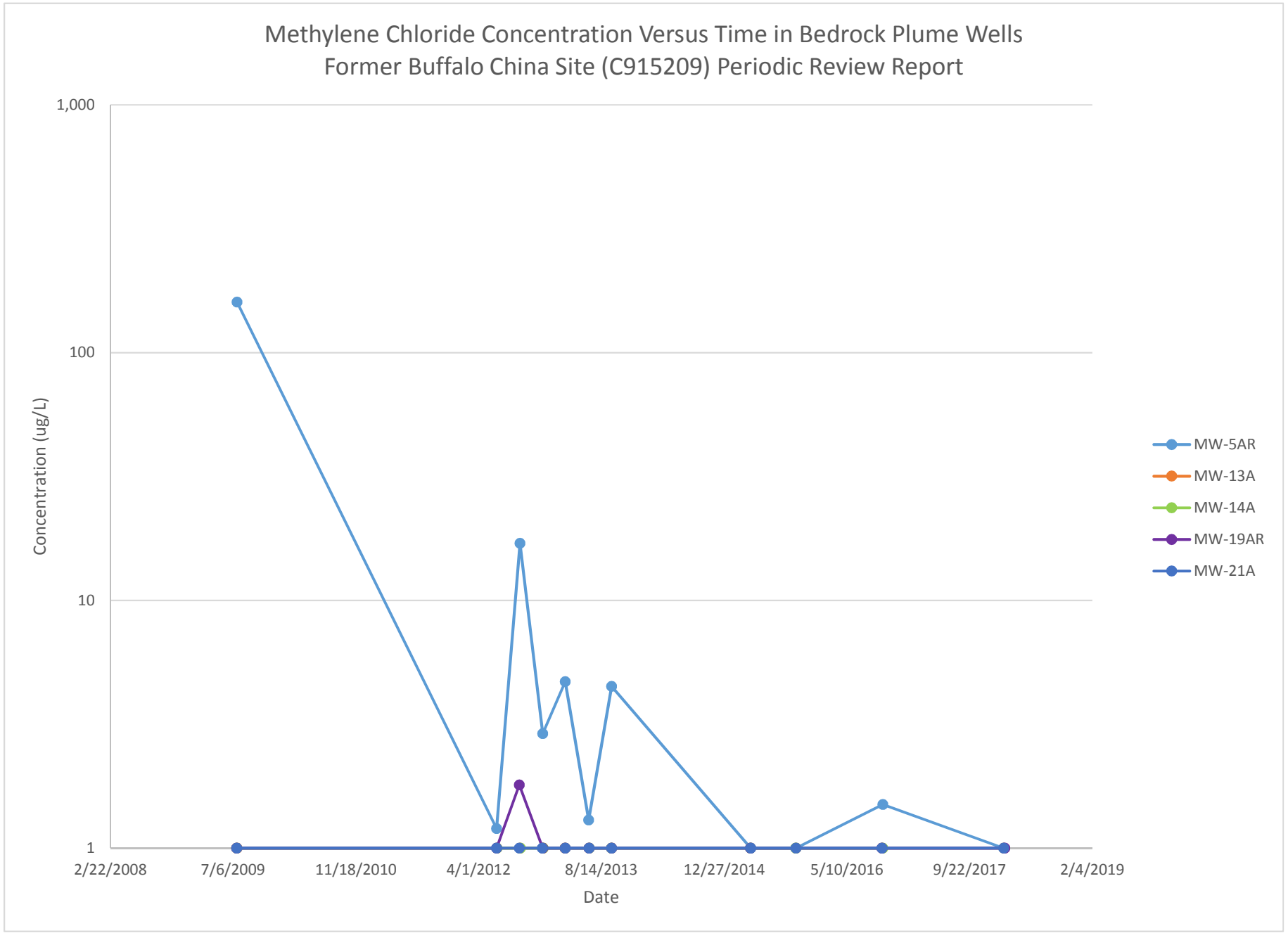
Date
MW-5AR
MW-13A
MW-14A
MW-19AR
MW-21A


Methylene Chloride Concentration Versus Time in Bedrock Plume Wells
Former Buffalo China Site (C915209) Periodic Review Report
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Concentration (ug/L)
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11/18/2010
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
Date
MW-5AR
MW-13A
MW-14A
MW-19AR
MW-21A

Appendix G
Work Plan for Re-Activation of Sodium Persulfate

LiRo Engineers, Inc.
A LiRo Group Company
690 Delaware Avenue, Buffalo, NY 14209 Telephone 716.882.5476 Facsimile 716.882.9640

March 30, 2018

David Szymanski
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Ave.
Buffalo, New York, 14203

Re: Work Plan for Re-Activation of Sodium Persulfate
Former Buffalo China Site C915209

Dear Mr. Szymanski,

Pursuant to the Brownfield Cleanup Agreement Index #B9-0732-06-11 between Buffalo China, Inc. and the New York State Department of Environmental Conservation (NYSDEC) and the Site Management Plan (SMP) prepared for the Former Buffalo China Site, LiRo Engineers, Inc. (LiRo) on behalf of Hayes Place Management Group, Inc. (HPMG) (current owner) is submitting this Work Plan to complete re-activation of remaining sodium persulfate to continue in situ chemical oxidation (ISCO) groundwater treatment. The SMP, which was approved in December 2012, mandates operation, maintenance, monitoring, and reporting measures for the engineering controls (ECs) and institutional controls (ICs) at the Site.

Background

The groundwater treatment system and monitoring well network are ECs that serve as the groundwater remedy for both on-Site and off-Site groundwater contamination. The Operation and Maintenance (O&M) Plan (Section 5.0 of the SMP) for the groundwater remedy prescribed the applications for the ISCO treatment program and the substrate and microbial inoculum and nutrient applications for the in situ enhanced biological (ISEB) follow-up treatment. Section 5.1.1 of the SMP anticipated that the ISCO program would consist of six injection events; however, the plan also allows for the frequency and number of events to be adjusted based on groundwater monitoring results.

To date, eight ISCO injection events have been performed. In general, the contaminant concentrations have decreased and off-site migration has been prevented, however, contaminants remain persistent in a few areas. The most recent groundwater monitoring results indicate that sodium persulfate remains in groundwater at concentrations sufficient to continue chemical oxidation, however, the groundwater pH is lower than what is required to activate the remaining sodium persulfate.

In order to re-activate the remaining sodium persulfate, the groundwater pH needs to be raised to at least 10.5 standard units (s.u.). LiRo proposes to raise the groundwater pH in the vicinities of the monitoring wells with total volatile organic compound (VOC) concentrations in excess of 1,000 parts per billion (ppb) by injecting a catalyst solution (25 % sodium hydroxide) in these areas.

Groundwater Monitoring Data Review

LiRo conducted groundwater monitoring in February 2018 and has reviewed the preliminary analytical data. The analytical data presented in Table 1 indicate that contaminant concentrations in bedrock plume wells have continued to decrease in three of the six wells monitored since the October 2016 groundwater monitoring event; however, the concentrations at monitoring wells MW-5AR and MW-13A have increased and remain greater than the ISEB threshold of 1,000 ppb. MW-14A was not sampled in February 2018 due to a change in ownership of the property; however, historically the VOC concentrations have been very low at this location. The contaminant concentrations found in overburden plume wells has decreased since the October 2016 groundwater sampling event with the exception of MW-6 where there was an increase in VOC concentration to a level that is greater than what is required for effective ISEB.

Catalyst Injections

The catalyst injection event will target the three well locations (MW-5AR, MW-6, and MW-13A) with total VOC concentrations greater than 1,000 ppb. Approximately 800 gallons of 25 percent sodium hydroxide catalyst will be injected during this event. The following areas/wells will be targeted for injections:

- Infiltration Gallery (three standpipes closest to MW-5AR).
- Bedrock Injection Wells IW-1 and IW-4.
- Overburden Injection Wells IW-7, IW-9, and IW-30.

The target areas are shaded on Figure 1. Initially, approximately 100 gallons of catalyst will be injected into the three injection gallery points, 25 gallons of catalyst will be injected into each of the bedrock injection wells, and 5 to 10 gallons of catalyst will be injected into each of the overburden injection wells.

After the initial injection, pH monitoring will be performed daily at MW-5AR, MW-6, MW-13A, the injection gallery, and injection wells. The pH data will be used to determine the frequency of subsequent injections. Approximately 2 to 4 weeks following the last catalyst injection, groundwater samples will be collected from MW-5AR, MW-6, and MW-13A to determine the concentrations of remaining sodium persulfate.

Proposed Schedule

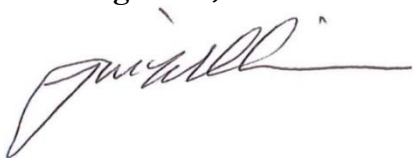
A proposed schedule is attached as Table 2.

A Site-wide groundwater sampling will be scheduled for three months following the sodium persulfate re-activation.

Should you require any additional information or wish to discuss this in more detail, please contact me directly at 716-970-4136 or by email at williamsj@liro.com.

Sincerely,

LiRo Engineers, Inc.



Jon Williams
Senior Geologist

Cc
Scott Brady – Hayes Place Management Group, Inc.
Kevin Callahan – Hayes Place Management Group, Inc.

Attachment

Table 1

VOC Concentrations in Plume Wells
Former Buffalo China Site (No. C915209)

Well I.D.	***Total VOC Contaminants (µg/L)***	***Total VOC (1) Contaminants (µg/L)***
	Oct-16	***Feb-18***
Overburden Wells		
MW-5R	1,248	223
MW-6	1,252	3,754
MW-11	4,735	10.1
MW-19R	204	161
Bedrock Wells		
MW-5AR	6,147	50,302
MW-13A	492	11,627
MW-14A	12	NA
MW-19AR	1,957	622
MW-20A	297	54
MW-21A	728	269

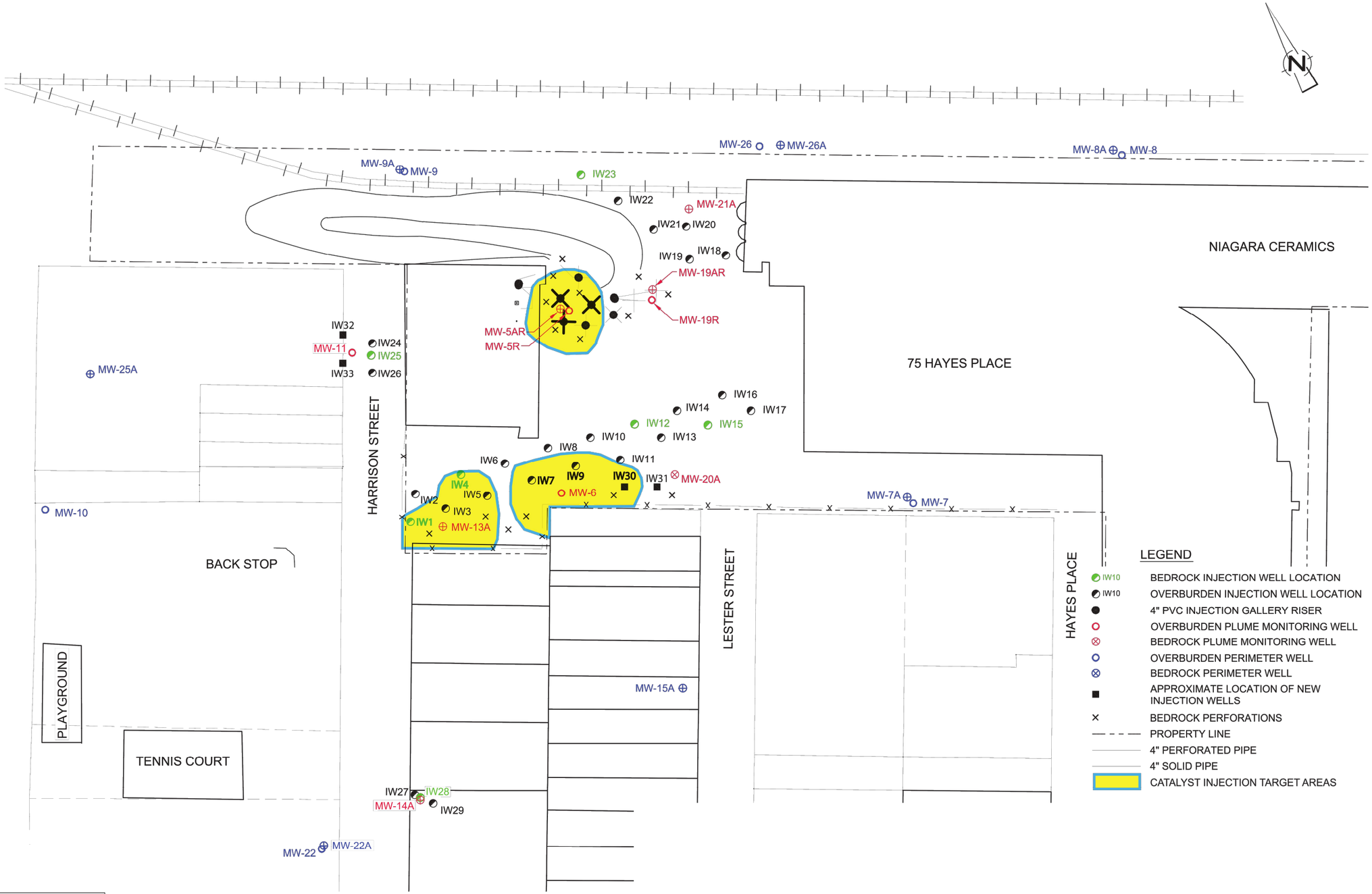
Notes:
(1) - Concentrations based on preliminary laboratory analytical data results.

Table 2

Proposed Project Schedule
Groundwater Treatment/Monitoring Program Activities
Former Buffalo China Site (No. C915209)

Task	*Anticipated Start Date*
Sodium Persulfate Re-Activation	May 14, 2018
Groundwater Monitoring Event	August 13, 2018
Groundwater Monitoring Event	November 12, 2018
The start and duration of the ISEB program is dependent on the groundwater monitoring results	
ISEB Field measurements and Soy Lactate	January 7, 2019
ISEB monitoring event 1	April 1, 2019
ISEB nutrient application 1	May 6, 2019
ISEB monitoring event 2	October 7, 2019
ISEB nutrient application 2	November 1, 2019
ISEB monitoring event 3	April 1, 2020
ISEB nutrient application 3	May 1, 2020
ISEB monitoring event 4	October 1, 2020
ISEB Soy Lactate and nutrient application 4	November 1, 2020
The start of post treatment monitoring is dependent on the groundwater monitoring results	
Post Treatment semiannual monitoring event 1	April 1, 2021
Post Treatment semiannual monitoring event 2	October 1, 2021
Post Treatment semiannual monitoring event 3	April 1, 2022
Post Treatment semiannual monitoring event 4	October 1, 2022
Submit groundwater monitoring report	December 1, 2022
NYSDEC approval of groundwater monitoring report	March 1, 2023
Decommission injection wells, gallery, and monitoring wells	May 1, 2023

* Activities scheduled December through March may be adjusted due to weather conditions.



SOURCE:
THIS BASEMAP IS FOR CONCEPTUAL INFORMATION ONLY AND IS NOT INTENDED FOR DESIGN PURPOSES DUE TO POTENTIAL SPATIALLY INACCURACY. THE SITE INFORMATION ON THIS BASEMAP WAS COMPILED FROM ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWINGS NO. 1, MARCH 2004, CITY OF BUFFALO – GIS INFORMATION SYSTEM.

NO.	DATE	DESCRIPTION
REVISIONS		

LiRo Engineers, Inc.
690 Delaware Avenue
Buffalo, New York

PROJ. ENG.:	
DESIGNED BY:	
CHECKED BY:	
DRAWN BY:	EMM
CLIENT:	HAYES PLACE MANAGEMENT GROUP, INC.
DATE:	MARCH 2018
SCALE:	NOT TO SCALE
JOB TITLE AND LOCATION:	FORMER BUFFALO CHINA
DRAWING TITLE:	INJECTION AND MONITORING WELL LOCATIONS
LIRO JOB NO.:	16–344–1389
SHEET OF	1 1
FIGURE NO.	1

J:\16-344-1389 buffalo china\CAD\ISCO PLAN\MARCH 2018\FORMER CHINA BUFFALO ISCO.dwg 3/29/2018 8:57 AM

Appendix H
PRR Certification Form

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C915209**

Site Name Former Buffalo China Site

Site Address: 51 Hayes Place Zip Code: 14210
City/Town: Buffalo
County: Erie
Site Acreage: 9.7

Reporting Period: February 28, 2017 to February 28, 2018

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

	Box 2A	
	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C915209	**Box 3**
Description of Institutional Controls	

Parcel	Owner	Institutional Control
123.09-4-16.2	Scott Brady	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

INSTITUTIONAL CONTROLS (ICs):

1. The property can be used for industrial use only.
2. Prohibition of use of groundwater.
3. Prohibition of gardening and farming.
4. Annual Certification

ENGINEERING CONTROLS (ECs):

1. Implementation of the Site Management Plan for:
a. Cover System monitoring and maintenance.
b. Soils management and excavation at site area.
c. OM&M of groundwater treatment system.
d. Annual Reporting.

123.09-4-17	Scott Brady	IC/EC Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan

INSTITUTIONAL CONTROLS (ICs):

1. The property can be used for industrial use only.
2. Prohibition of use of groundwater.
3. Prohibition of gardening and farming.
4. Annual Certification

ENGINEERING CONTROLS (ECs):

1. Implementation of the Site Management Plan for:
a. Cover System monitoring and maintenance.
b. Soils management and excavation at site area.
c. OM&M of groundwater treatment system.
d. Annual Reporting.

123.09-4-2	Scott Brady	IC/EC Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan

INSTITUTIONAL CONTROLS (ICs):

1. The property can be used for industrial use only.

2. Prohibition of use of groundwater.
3. Prohibition of gardening and farming.
4. Annual Certification

ENGINEERING CONTROLS (ECs):

1. Implementation of the Site Management Plan for:
a. Cover System monitoring and maintenance.
b. Soils management and excavation at site area.
c. OM&M of groundwater treatment system.
d. Annual Reporting.

123.38-2-1.1 Scott Brady

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

INSTITUTIONAL CONTROLS (ICs):

1. The property can be used for industrial use only.
2. Prohibition of use of groundwater.
3. Prohibition of gardening and farming.
4. Annual Certification

ENGINEERING CONTROLS (ECs):

1. Implementation of the Site Management Plan for:
a. Cover System monitoring and maintenance.
b. Soils management and excavation at site area.
c. OM&M of groundwater treatment system.
d. Annual Reporting.

123.38-2-39 Scott Brady

IC/EC Plan
Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan

INSTITUTIONAL CONTROLS (ICs):

1. The property can be used for industrial use only.
2. Prohibition of use of groundwater.
3. Prohibition of gardening and farming.
4. Annual Certification

ENGINEERING CONTROLS (ECs):

1. Implementation of the Site Management Plan for:
a. Cover System monitoring and maintenance.
b. Soils management and excavation at site area.
c. OM&M of groundwater treatment system.
d. Annual Reporting.

123.38-3-1 Scott Brady

IC/EC Plan
Ground Water Use Restriction

Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan

INSTITUTIONAL CONTROLS (ICs):

1. The property can be used for industrial use only.
2. Prohibition of use of groundwater.
3. Prohibition of gardening and farming.
4. Annual Certification

ENGINEERING CONTROLS (ECs):

1. Implementation of the Site Management Plan for:
a. Cover System monitoring and maintenance.
b. Soils management and excavation at site area.
c. OM&M of groundwater treatment system.
d. Annual Reporting.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
123.09-4-16.2	Groundwater Treatment System Cover System
123.09-4-17	Groundwater Treatment System Cover System
123.09-4-2	Groundwater Treatment System Cover System
123.38-2-1.1	Groundwater Treatment System Cover System
123.38-2-39	Groundwater Treatment System Cover System
123.38-3-1	Groundwater Treatment System Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C915209

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jon Williams at 690 Delaware Avenue, Buffalo, NY, 14209
print name print business address

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification — Date: 3/30/18

IC/EC CERTIFICATIONS

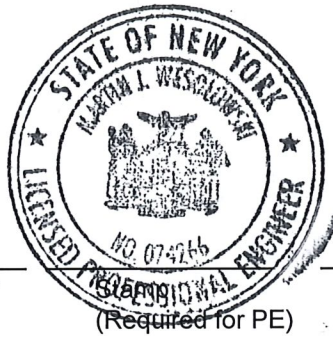
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Martin Wesolowski at 690 Delaware Ave Buffalo, NY 14209,
print name — print business address

am certifying as a Professional Engineer for the Hayes Place Management Group
(Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3/30/2018
Date