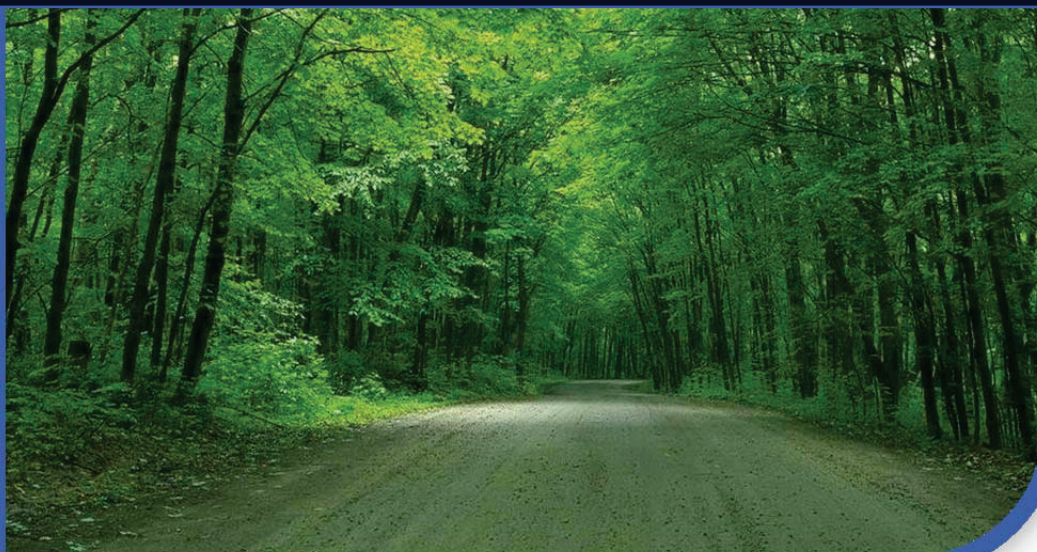




2018 REMEDIAL ACTION PROGRESS REPORT

FORMER BINGHAMTON PLASTICS FACILITY
BINGHAMTON, NEW YORK
NYSDEC SITE NO. 7-04-024



Verina Engineering, P.C.
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January 2019

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INTRODUCTION

This Remedial Action Progress Report (RAPR) was prepared by Verina Engineering, P.C. (VERINA), on behalf of Dover Corporation (Dover), for the remedial activities implemented in 2018 at the former Binghamton Plastics site in Binghamton, Broome County, New York, and New York State Department of Conservation (NYSDEC) Site No. 7-04-024.

The activities implemented in 2018 include:

- Quarterly in-situ chemical oxidation (ISCO) injections;
- Semi-annual groundwater monitoring; and
- Monthly monitoring of the Active Sub-Slab Depressurization (ASD) System.

The project was implemented in accordance with the executed Order on Consent between Dover and the New York State of Environmental Conservation (NYSDEC), dated January 19, 2001, and subsequent approvals from the NYSDEC.

SITE HISTORY AND BACKGROUND

The former Binghamton Plastics site is located at 498 Conklin Avenue in Binghamton, Broome County, New York. The site occupies approximately two acres and consists of a one-story industrial building (approximately 44,800 square feet [ft²]) with associated parking, landscaping, and storage areas. The site is located in a combined industrial and residential setting. Figure 1 shows the site location. A site map is presented on Figure 2.

Binghamton Plastics operated the facility until the early 1980s when Universal Instruments Corporation (UIC), a former subsidiary of Dover, purchased the property and converted the facility into a circuit board manufacturing plant. UIC operated the facility until it was taken over by Dover Electronics Corporation in the late 1980s. Manufacturing activities ceased at the site in the early 1990s. In 1993 Dover Electronics was separated from Dover and re-named Dovatron, Inc. In 1996, Dovatron, Inc. changed its name to DII Group.

In the early 1990s, the property was transferred to Flextronics International, Inc. but UIC retained responsibilities for the remediation of pre-existing environmental conditions. From the early 1990s until August 2001, the facility was leased to and used by McIntosh Laboratories for electronics repair operations. The site was then sold to TeamWorld, Inc., and the building is now used for silk screening, embroidery, packaging of clothing, and storage.

REMEDIAL ACTIVITIES

Remedial actions were implemented following the approval of the Remedial Design (RD) Package (BBL 2002) by the NYSDEC on June 29, 2002. The remedial action consisted of excavating the main source areas of constituents of concern (COCs) within the perched groundwater zone. Excavation and groundwater extraction activities were conducted to remove residual contamination in the form of

phase-separated hydrocarbons (PSH), adsorbed volatile organic compounds (VOCs), and impacted groundwater. Groundwater that drained from the excavated perched-zone soil during the remedial action or that accumulated in the open excavations was removed for offsite treatment and disposal.

Since 2004, the groundwater monitoring program has been implemented to assess the effectiveness of the remedial action in remediating COC concentrations within the perched groundwater at the site. The groundwater monitoring program consists of a baseline groundwater monitoring event that was conducted on April 1, 2002 prior to remedial activities and subsequent post-remedial quarterly groundwater monitoring events. The groundwater monitoring frequency was reduced from a quarterly to a semi-annual basis in 2011 based on the NYSDEC approval on December 23, 2010.

Pursuant to approval from NYSDEC in its letter dated November 14, 2008, the ISCO injection program was initiated in June 2009 to further reduce the residual COCs in groundwater. The injection of sodium permanganate solution has been conducted in the upgradient monitoring wells (MW-9, MW-10, and MW-17) as well as in the source area (MW-8, MW-11, and MW-16). The injection frequency was reduced from quarterly to semi-annual basis in 2011, yet returned to a quarterly injection schedule in 2012. Additionally, one direct-push injection event within the plume area was conducted at the site in May 2013. Based upon a comparison of the March and September 2017 groundwater data, elevated levels of COCs in groundwater were still observed within several site monitoring wells and therefore VERINA continued the quarterly manual injection schedule in 2018. Since June 2009, a total of 36 rounds of sodium permanganate manual injections have been conducted at the site.

In accordance with the 2012 Remedial Design Work Plan - Active Sub-slab Depressurization (ASD) System (VERINA 2012), an ASD system was installed at the site in July 2012 to mitigate the degradation of indoor air quality at the site. Monthly inspections of the ASD system were implemented since its full-time operation in July 2012.

GROUNDWATER MONITORING AND ISCO INJECTION PROGRAM

GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring events were conducted semi-annually in 2018 to monitor site groundwater conditions and to assess the effectiveness of the ISCO injection program to remediate COCs at the site. The first-round groundwater sampling event was conducted between March 20 and 22, 2018 and the second-round groundwater sampling event was conducted on September 20, 2018.

Prior to each sampling event, the depth to groundwater was measured from all 14 monitoring wells (DMW-3, DMW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-16, MW-17, and TMP-A) on site and recorded on VERINA's groundwater gauging logs in order to establish groundwater elevations and groundwater flow direction at the site. Water level measurements were taken with a Solinst® brand laser-marked water level meter equipped with a stainless steel probe and measuring tape graduated in units of 0.01 foot. Groundwater elevation measurements from March 2018 and September 2018 are summarized in Tables 1 and 2, respectively. A map showing the perched groundwater elevation isocontours and groundwater flow direction is included as Figure 3 for the March 2018 event and as Figure 4 for the September 2018 event.

After well gauging was completed, select monitoring wells including MW-8, MW-9, MW-10, MW-16, and MW-17 were sampled in March 2018. In addition to these wells, monitoring wells DMW-3, TMP-A, MW-11, and MW-13 were also included during the September 2018 sampling event in accordance with VERINA'S 2017 Remedial Action Progress Report. Groundwater quality parameters, including pH, dissolved oxygen (DO), conductivity, temperature, turbidity, and oxidation-reduction potential (ORP), were measured via a YSI® 600XL or 556 water quality instrument coupled with a flow-through cell. In addition to measuring field parameters, the purged groundwater from each well was visually inspected for the presence of a purple or pink color, which would indicate the presence of un-reacted permanganate within the groundwater. A change in color of the water in the wells from dark purple to light pink (i.e., > visual concentration of 0.5 milligrams per liter [mg/L]) or clear (i.e., < visual concentration of 0.5 mg/L) indicates that the permanganate would have been consumed, diluted, or transported with groundwater.

Groundwater samples from monitoring wells that exhibited residual permanganate, as indicated by a pink or purple color of the purge water, were collected in laboratory-provided unpreserved vials pre-charged in the field with sodium thiosulfate. The sodium thiosulfate was added to neutralize the residual permanganate in the groundwater sample as it may influence the performance of the laboratory's analytical instruments. During the March 2018 sampling event, monitoring wells MW-8, MW-9, MW-16, and MW-17 exhibited residual permanganate while monitoring wells MW-8, MW-9, MW-11, MW-16, and MW-17 exhibited residual permanganate during the September 2018 sampling event. These wells had their residual sodium permanganate concentration analyzed for in the field immediately subsequent to site-specific parameter list (SSPL) VOC sampling using a Hach® DR890 or DR2800 colorimeter. A summary of the residual sodium permanganate groundwater concentrations is presented in Table 3.

As part of the QA/QC procedures, one duplicate sample, one matrix spike sample, one matrix spike duplicate sample, and one equipment blank sample per sampling date were also collected during each sampling event. All samples were collected in laboratory-supplied glassware, packaged on ice, and shipped to ALS Environmental (formerly Columbia Analytical Services, Inc.), of Rochester, New York (New York Laboratory Certification 10145) for analysis. All samples were analyzed for SSPL VOCs using United States Environmental Protection Agency (USEPA) Method 8260C. The SSPL VOCs analyzed for were: tetrachloroethylene (PCE); trichloroethylene (TCE); 1,1,1-trichloroethane (TCA); 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethene (1,1-DCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); and vinyl chloride (VC).

ISCO INJECTION PROGRAM

As approved by the NYSDEC, sodium permanganate is injected manually at six monitoring wells including MW-8, MW-9, MW-10, MW-11, MW-16, and MW-17 on a quarterly basis to further reduce the dissolved COC mass present in the groundwater. The ISCO injection program was initiated in June 2009. For 2018, manual injections occurred in the months of March, June, September and December. The manual injections were performed at the above mentioned wells, via gravity feed, to deliver a 10 percent by weight sodium permanganate solution during each of the 2018 injection events. A total of 60 gallons were injected during each injection event. The ISCO injection events occurring in March and September were conducted following that month's respective groundwater monitoring activities. A manual injection summary is presented in Table 4.

GROUNDWATER ELEVATION AND FLOW DIRECTION

The groundwater elevation data from March and September 2018 are summarized in Tables 1 and 2, respectively. The groundwater elevation contour map for the March and September 2018 events are provided as Figure 3 and Figure 4, respectively.

The groundwater elevation contour maps indicate that the hydraulic gradient is slight across the site and the groundwater flow within the perched groundwater zone is to the northwest, consistent with historical groundwater flow data. Although the groundwater flow is to the northwest, the slight hydraulic gradient as well as the fact that the groundwater plume has not migrated from the site supports the perched groundwater conceptual model for the site.

GROUNDWATER MONITORING ANALYTICAL RESULTS

The groundwater analytical data for the March and September 2018 monitoring events are summarized in Tables 5 and 6, respectively. The historical distribution of SSPL VOCs, including pre-full scale ISCO injection initiation sampling results, is summarized in Table 7. An isoconcentration map comparing the total molar concentration of PCE and its daughter products as chloride equivalents from June 2009, prior to the start of injection at the site, through September 2018 is presented as Figure 5. A graphical depiction of the decreasing trend of TCE concentrations, the site contaminant of concern with the highest observed historic concentrations, is presented as Figure 6. The groundwater sampling field logs for both the March and September 2018 sampling events are provided in Appendix A. The complete

laboratory data reports for the groundwater sampling events are presented in Appendix B. The electronic data deliverables (EDDs) for each groundwater sampling event have previously been submitted to the NYSDEC via the EQulS Data Processor application and are also included under separate submission.

Based on the information collected during injection and 2018 semi-annual groundwater monitoring events, VERINA made the following conclusions:

- In comparing the September 2018 to the June 2009 total molar concentration of PCE and its daughter products, the plume size of the highest molar concentration as chloride equivalent observed within the source zone near MW-8 and MW-16 has decreased significantly. This indicates an overall COC mass reduction (as represented by both PCE and daughter products) within the perched groundwater beneath the site. Approximately 99% mass reduction of COCs in groundwater was estimated since the ISCO injection was implemented in 2009.
- Contaminant concentrations within the source zone continue to decline since the initiation of ISCO injections.
- The plume of PCE and its daughter products continue to be contained within the perched groundwater on site.
- Several VOCs were detected above their respective NYSDEC groundwater quality standards in wells MW-8, MW-9, and MW-16 during the March 2018 sampling event. These VOCs consist of 1,1-DCA, cis-1,2-DCE and/or TCE. PCE was only detected in well MW-10 and with concentration well below its NYSDEC groundwater quality standard in March 2018.
- During the September 2018 sampling event, 1,1-DCA, cis-1,2-DCE, PCE and/or TCE were detected above their respective NYSDEC groundwater quality standards in wells MW-8, MW-9, MW-10, MW-16 and/or MW-17. PCE was detected above its NYSDEC groundwater quality standard in well MW-16 sampled in September 2018.

ACTIVE SUB-SLAB DEPRESSURIZATION (ASD) OM&M

ASD SYSTEM INSPECTIONS

In accordance with the approved 2012 Remedial Design Work Plan – Active Sub-Slab Depressurization System (VERINA 2012), an ASD system was installed at the site. This system, shown on Figure 7, was installed in July 2012 to serve as a mitigation measure for elevated COC concentrations (specifically PCE and TCE) detected in the indoor air at the facility. Since installation and start-up, the ASD system has been operated continuously without disruption until December 2017 (see discussion below). Two rounds of indoor air sampling were conducted following implementation of the ASD system, on December 19, 2012 and December 10, 2013.

The ASD system has been effective at reducing the indoor air concentrations of COCs when comparing the December 2012 and December 2013 indoor air sampling results to the indoor air sampling results collected in March 2009 prior to the installation of the ASD system. Since no site specific COC concentrations in the indoor air samples exceeded the New York State Department of Health (NYSDOH)'s Indoor Air Guidance Values during the 2013 indoor air sampling event, VERINA proposed that no additional indoor air sampling events being conducted unless changes or modifications to the ASD system and/or to the building are identified during the monthly ASD system inspections in the January 2014 Periodic Review Report (PRP). NYSDEC approved the PRP on August 1, 2014.

During 2018, monthly inspections of the ASD system were implemented including observing and documenting the conditions of ASD system components and any structural changes or modifications to the building, as well as recording the pressure gauge measurements at each of the four vapor extraction points. Monthly ASD inspection logs are included as Appendix C.

INDOOR AIR SAMPLING AND ANALYSIS

During the December 2017 ASD system inspection event, the ASD system fan was found to not be operating properly and was therefore replaced in January 2018. To confirm that the repaired ASD system was working properly and effectively reducing indoor air concentrations of site COCs, VERINA collected indoor air samples at the site building in March 2018. VERINA collected five indoor air samples along with one outdoor ambient air sample over an 8-hour period. The air samples were collected in stainless steel Summa canisters and shipped to ALS Environmental of Rochester, New York. The locations of the air samples are shown on Figure 7 and the air sampling log is provided in Appendix D.

A review of the laboratory analytical results indicated only one compound, methylene chloride, had exceeded its respective New York State Department of Health (NYSDOH)'s Indoor Air Guidance Value in several of the indoor air samples. This compound is not a site COC and therefore the results indicate the ASD system is still effectively reducing indoor air concentrations of site COCs. The analytical results are summarized on Table 8 and the laboratory report is provided in Appendix E. The EDDs for the indoor air sampling event have previously been submitted to the NYSDEC via the EQUIS Data Processor application and are also included under separate submission.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings and conclusions of the groundwater monitoring program, field observation of the ISCO injection events, and ASD System OM&M results, VERINA has drawn the following conclusions:

- Based on the analytical results of the historic and current groundwater sampling events, COCs have not been detected in monitoring wells DMW-3, TMP-A, MW-11, MW-13, and MW-14 during several of the recent sampling events. This data supports the conclusion that the COC plume is contained at the site.
- A comparison of the 2018 groundwater sampling results to the historical sampling results indicates that the total VOC mass in the groundwater at the site has decreased by 99%. The overall total mass of COCs in groundwater have decreased significantly since the remedial action was implemented in June 2009.
- The 2018 groundwater monitoring results indicated several COCs still exceed their respective NYSDEC groundwater quality standards. However, the concentrations of these COCs are within one order of magnitude to the NYSDEC groundwater quality standards, except for PCE in well MW-16 during the September 2018 groundwater sampling event.
- The ASD system fan was replaced in early January 2018 and has been operating continuously since that time. The monthly ASD system inspections conducted in 2018 along with the indoor air sampling conducted in March 2018 confirm the system is now functioning properly.

Based on these conclusions, we recommend the following:

- VERINA will continue the semi-annual groundwater sampling program in March and September 2019. In March 2019, the wells to be sampled will include MW-8, MW-9, MW-10, MW-16, and MW-17. In addition to these wells, monitoring wells DMW-3, TMP-A, MW-11, and MW-13 will also be sampled during the September 2019 event, as shown on Table 9.
- As stated in VERINA'S 2017 RAPR and on the approval of the NYSDEC, VERINA will suspend sodium permanganate injections in 2019. Based upon the analytical results of the semi-annual groundwater sampling program in 2019, VERINA will assess the need for additional ISCO injections in the future.
- VERINA will continue monthly inspections of the ASD system. Additionally, since the ASD system fan was replaced in January 2018, VERINA collected indoor air samples in March 2018 which confirmed the ASD system is operating properly as all site COC were below the are below the NYSDOH Indoor Air Guidance Values.

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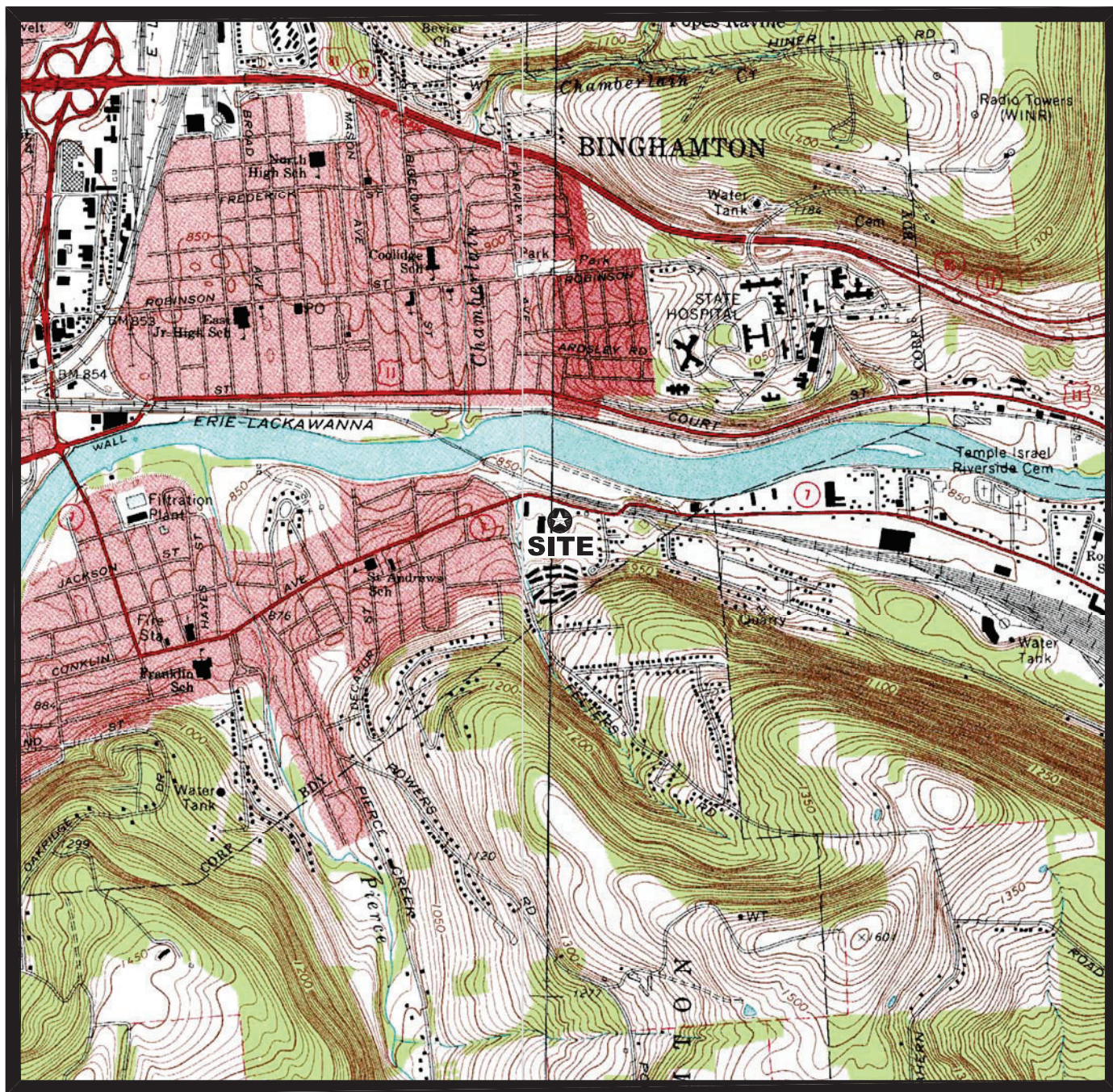
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Figures



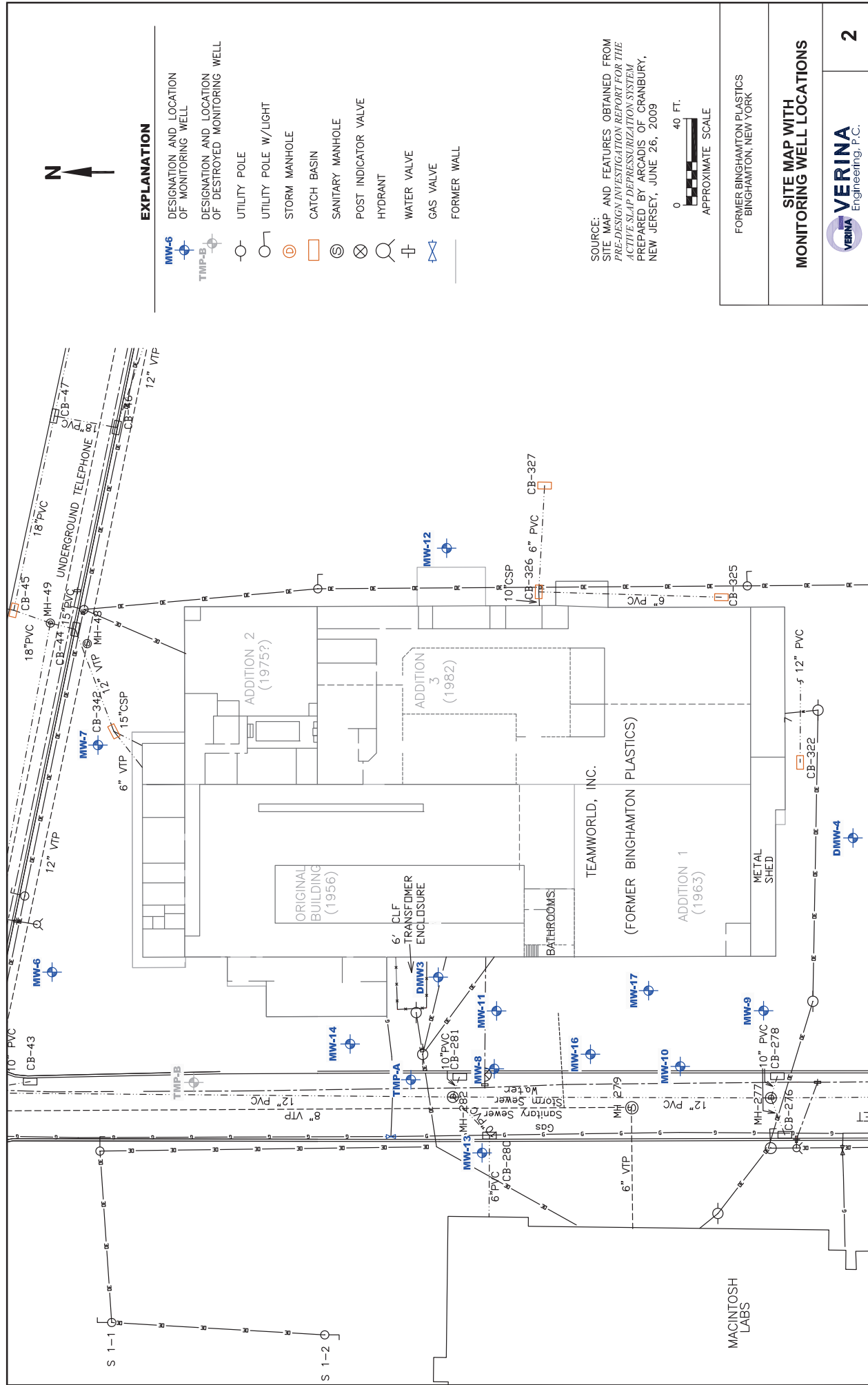
WEST BINGHAMTON AND
EAST BINGHAMTON QUADRANGLES
7.5-MINUTE SERIES



FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

REGIONAL LOCATION MAP





EXPLANATION

MW-6		DESIGNATION AND LOCATION OF MONITORING WELL
TMP-B		DESIGNATION AND LOCATION OF DESTROYED MONITORING WELL
		UTILITY POLE
		UTILITY POLE W/LIGHT
		STORM MANHOLE
		CATCH BASIN
		SANITARY MANHOLE
		POST INDICATOR VALVE
		HYDRANT
		WATER VALVE
		GAS VALVE
		FORMER WALL

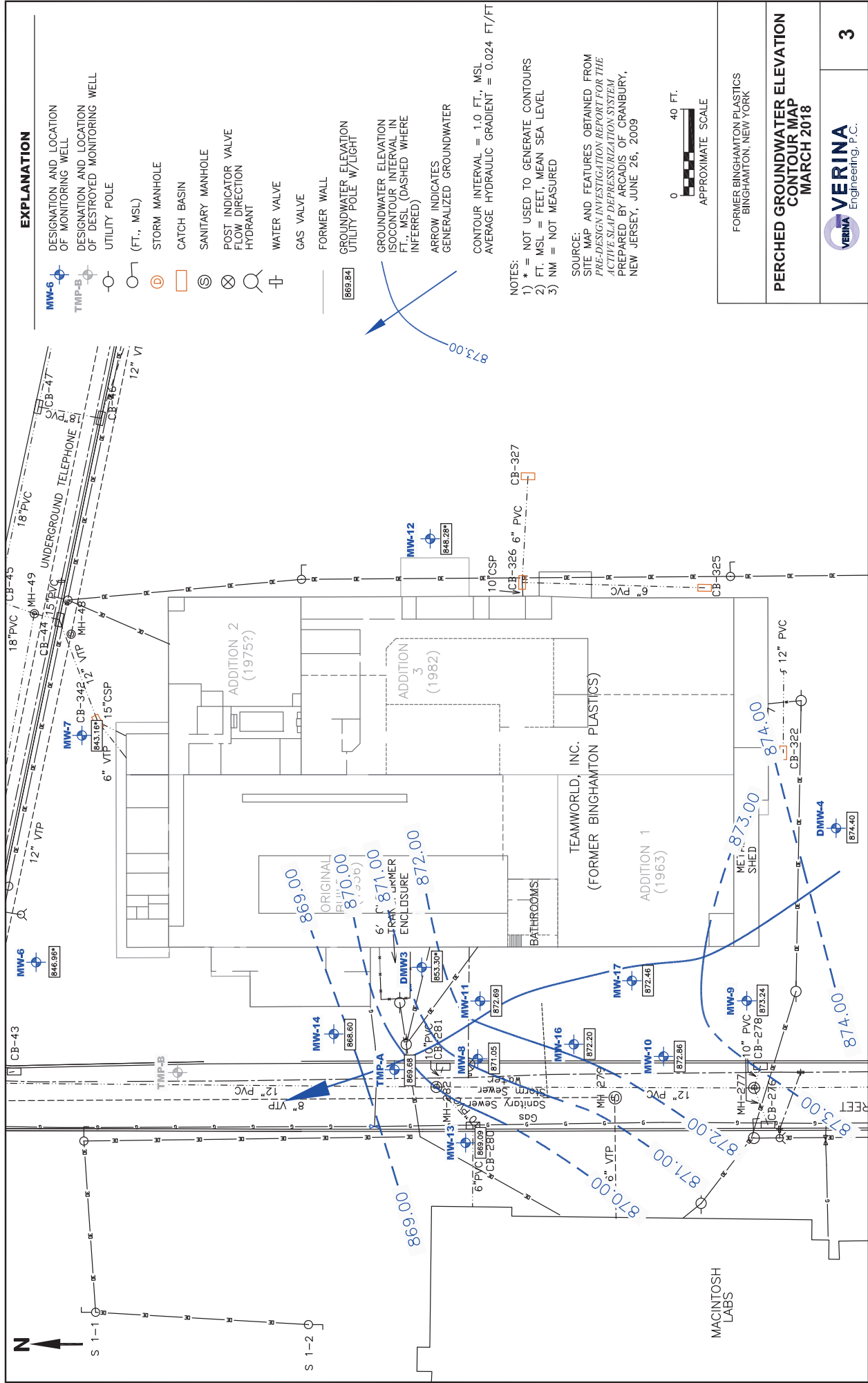
SOURCE: AND FEATURES OBTAINED FROM SITE MAP PRE-DESIGN INVESTIGATION REPORT FOR THE ACTIVE SLAP DEPRESSURIZATION SYSTEM PREPARED BY ARCADIS OF CRANBURY, NEW JERSEY, JUNE 26, 2009



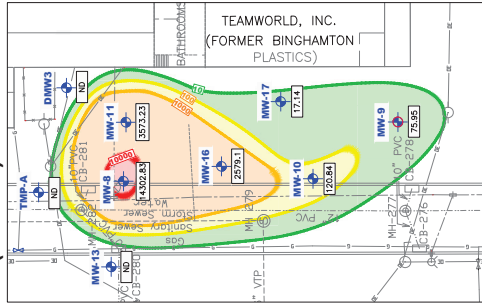
FORMER BINGHAMTON PLASTICS
BINGHAMTON, NEW YORK

**SITE MAP WITH
MONITORING WELL LOCATIONS**

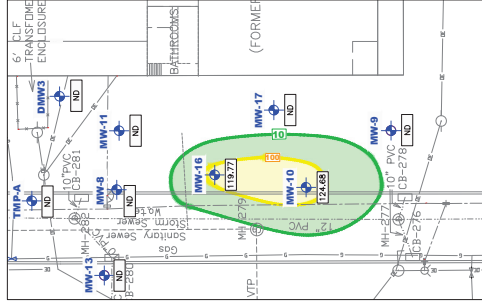
VERINA
Engineering, P.C.



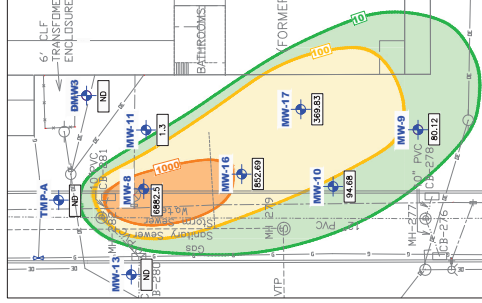
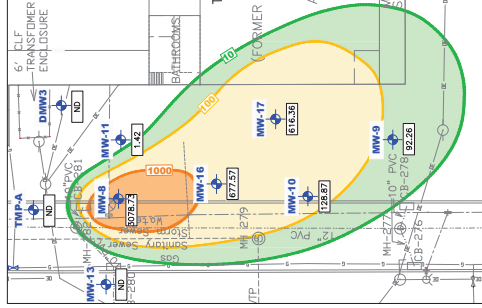
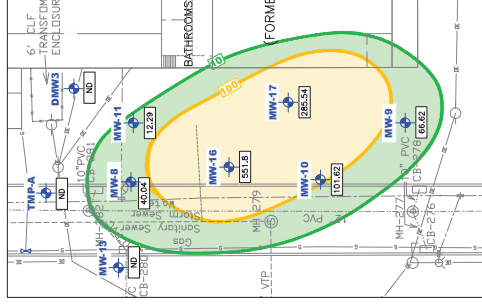
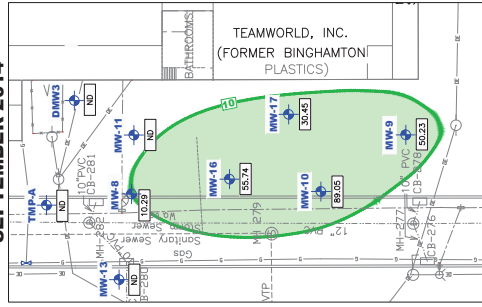
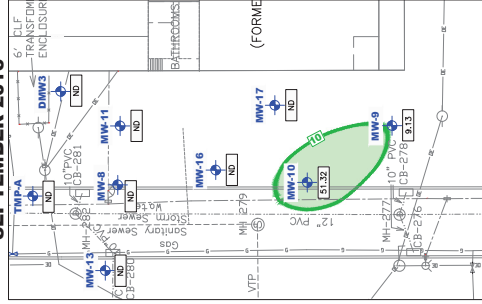
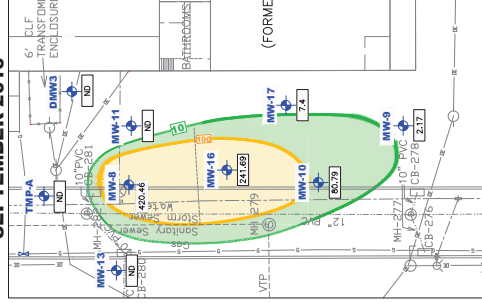
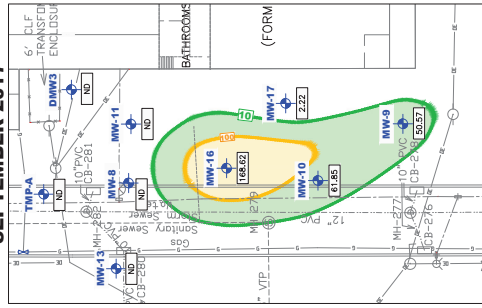
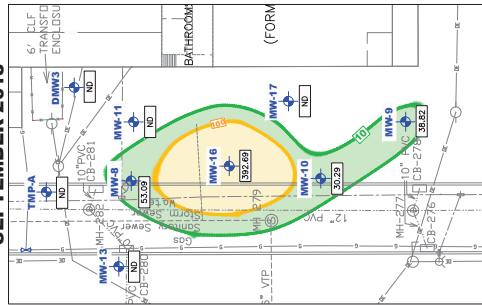
(Baseline) JUNE 2009



DECEMBER 2010



OCTOBER 2011

**SEPTEMBER 2012****SEPTEMBER 2013****SEPTEMBER 2014****SEPTEMBER 2015****SEPTEMBER 2016****SEPTEMBER 2017****SEPTEMBER 2018**

APPROXIMATE SCALE

FORMER BINGHAMTON PLAS-

SOURCE:
SITE MAP AND FEATURES OBTAINED FROM
PRE-DESIGN INVESTIGATION REPORT FOR THE
ACTIVE SLAP DEPRESSURIZATION SYSTEM
PREPARED BY ARCADIS OF CRANBURY,
NEW JERSEY, JUNE 26, 2009

EXPLANATION

	MOLAR CONCENTRATION > 10 (mol x 10 ³)/L (AS CHLORIDE EQUIVALENTS)
	MOLAR CONCENTRATION > 100 (mol x 10 ³)/L (AS CHLORIDE EQUIVALENTS)
	MOLAR CONCENTRATION > 1000 (mol x 10 ³)/L (AS CHLORIDE EQUIVALENTS)
	MOLAR CONCENTRATION > 10000 (mol x 10 ³)/L (AS CHLORIDE EQUIVALENTS)

ESTIMATED PCE AND DAUGHTER



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Tables

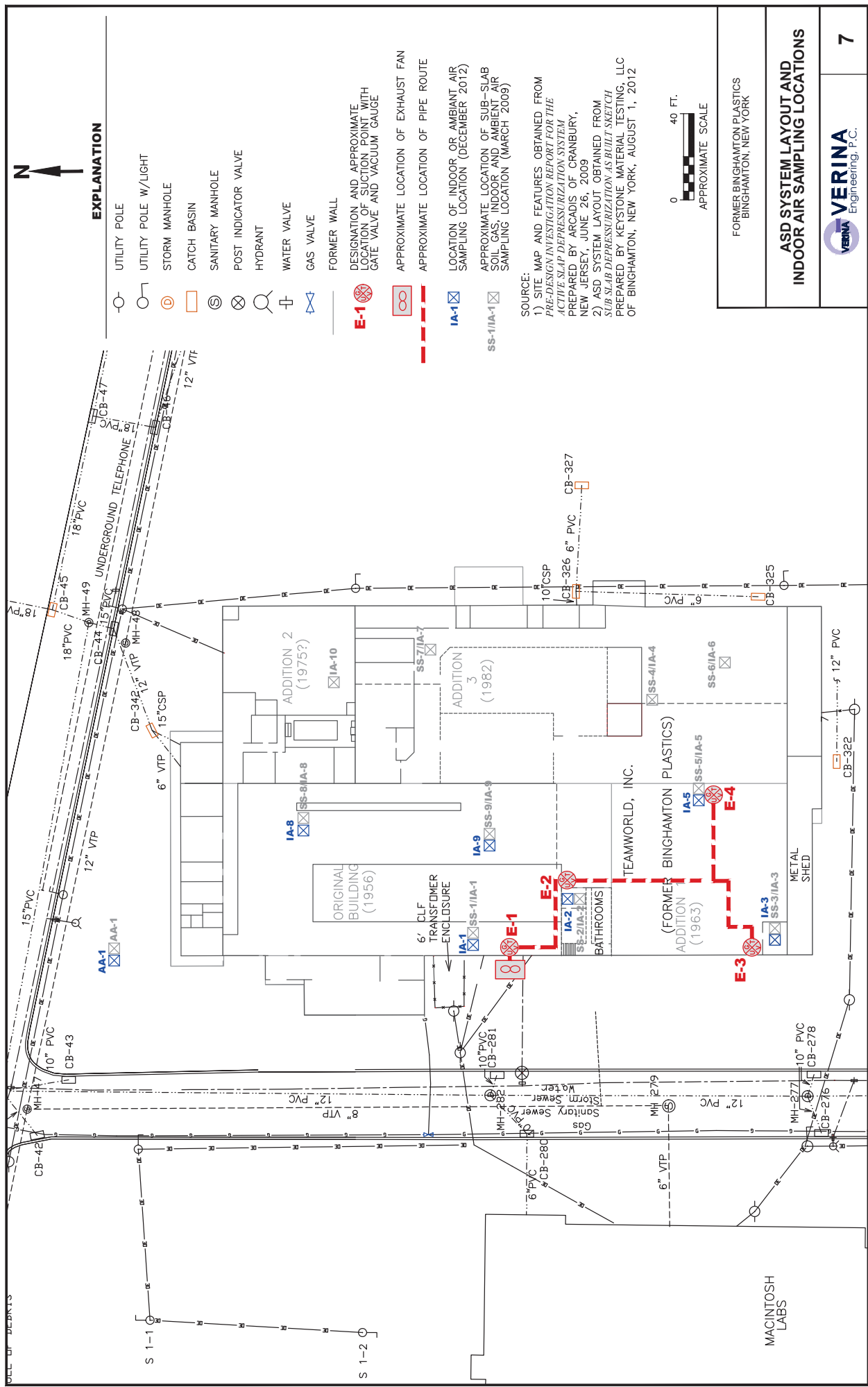


Table 1 - Groundwater Elevation Data - March 2018, Former Binghamton Plastics, Binghamton, New York

Monitoring Well	Well Diameter (in)	Total Depth (ft, bg)	Screened Interval (ft, bg)	Surface Elevation (ft, msl)	Top of Casing Elevation (ft, msl)	Top of PVC Elevation (ft, msl)	Depth to Water (ft, TOC)	Groundwater Elevation (ft, msl)
DMW-1	4	15	5-15	876.19	876.44	874.21	Abandoned	NA
DMW-3	2	48.36	41-48	875.16	875.16	874.22	20.92	853.30
DMW-4	2	15.59	4-14	878.32	878.38	877.91	3.51	874.40
MW-5	2	20	10-20	874.18	874.17	873.83	Abandoned	NA
MW-6	2	39.95	30-40	869.62	869.63	869.37	22.41	846.96
MW-7	2	40.31	30-40	869.96	869.99	869.60	26.44	843.16
MW-8	2	14.24	5-15	873.22	873.18	872.83	1.78	871.05
MW-9	2	14.63	5-15	875.02	875.04	874.76	1.52	873.24
MW-10	2	14.46	5-15	875.70	875.71	875.47	2.61	872.86
MW-11	2	19.31	10-20	874.53	874.52	874.14	1.45	872.69
MW-12	2	44.10	35-45	873.70	873.70	873.38	25.10	848.28
MW-13	2	13.97	5-15	874.08	874.09	873.60	4.51	869.09
MW-14	2	14.38	5-15	871.06	871.07	870.57	1.97	868.60
MW-15	2	15	5-15	874.06	874.16	873.69	Abandoned	NA
MW-16	2	13.27	5-15	874.56	NS	874.11	1.91	872.20
MW-17	2	15.11	5-15	874.03	NS	873.74	1.28	872.46
TMP-A	1	7.36	3-8	871.59	NS	871.39	1.71	869.68
TMP-B	1	10	5-10	869.57	NS	869.36	Abandoned	NA

NOTES:

Elevation is surveyed to National Vertical Datum - 1929

in = Inches

ft, bg = Feet below grade

ft, msl = Feet above mean sea level

ft, TOC = Feet from top of inner well casing

NA = Not available

NM = Not measured

NS = Not surveyed

Groundwater elevation measured on March 21, 2017

Table 2 - Groundwater Elevation Data - September 2018, Former Binghamton Plastics, Binghamton, New York

Monitoring Well	Well Diameter (in)	Total Depth (ft, bg)	Screened Interval (ft, bg)	Surface Elevation (ft, msl)	Top of Casing Elevation (ft, msl)	Top of PVC Elevation (ft, msl)	Depth to Water (ft, TOC)	Groundwater Elevation (ft, msl)
DMW-1	4	15	5-15	876.19	876.44	874.21	Abandoned	NA
DMW-3	2	48.02	41-48	875.16	875.16	874.22	17.98	857.18
DMW-4	2	15.32	4-14	878.32	878.38	877.91	2.57	875.34
MW-5	2	20	10-20	874.18	874.17	873.83	Abandoned	NA
MW-6	2	39.43	30-40	869.62	869.63	869.37	21.44	847.93
MW-7	2	39.90	30-40	869.96	869.99	869.60	26.40	843.20
MW-8	2	14.11	5-15	873.22	873.18	872.83	0.00	872.83
MW-9	2	14.63	5-15	875.02	875.04	874.76	0.00	874.76
MW-10	2	14.43	5-15	875.70	875.71	875.47	1.65	873.82
MW-11	2	19.05	10-20	874.53	874.52	874.14	0.00	874.14
MW-12	2	44.30	35-45	873.70	873.70	873.38	14.30	859.08
MW-13	2	14.00	5-15	874.08	874.09	873.60	1.35	872.25
MW-14	2	14.18	5-15	871.06	871.07	870.57	0.67	869.90
MW-15	2	15	5-15	874.06	874.16	873.69	Abandoned	NA
MW-16	2	13.90	5-15	874.56	NS	874.11	0.00	874.11
MW-17	2	14.83	5-15	874.03	NS	873.74	0.00	873.74
TMP-A	1	7.35	3-8	871.59	NS	871.39	1.65	869.74
TMP-B	1	10	5-10	869.57	NS	869.36	Abandoned	NA

NOTES:

Elevation is surveyed to National Vertical Datum - 1929

in = Inches

ft, bg = Feet below grade

ft, msl = Feet above mean sea level

ft, TOC = Feet from top of inner well casing

NA = Not available

NM = Not measured

NS = Not surveyed

Groundwater elevation measured on September 14, 2017

Table 3 - Summary of Residual Sodium Permanganate Results, Former Binghamton Plastics, Binghamton, New York

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	December 2009	March 2010	June 2010	September 2010	December 2010	March 2011
MW-8	131.5	149	105.50	9.56	>19.8	3.74
MW-9	0.30	1.736	1.47	10.04	NS	18.91
MW-10	3.07	4.268	NS	3.57	>19.8	156.34
MW-11	132.2	149.1	151.70	120.80	>19.8	155.98
MW-16	29.71	95.1	76.99	105.60	>19.8	0.835
MW-17	NS	NS	103.00	11.21	>19.8	155.98

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	October 2011	March 2012	September 2012	March 2013	September 2013	March 2014
MW-8	0.16	17.2	1.3	0.5	70	14
MW-9	NS	7.3	NS	0.2	NS	3.0
MW-10	NS	2.4	NS	NS	NS	NS
MW-11	35.80	26.1	10.7	30	34	20
MW-16	146.46	4.6	1.7	1.1	1.3	3.1
MW-17	NS	NS	4.7	2.5	1.0	2.9

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	March 2014	September 2014	March 2015	September 2015	March 2016	September 2016
MW-8	14.0	10.0	10.3	164	102	35.1
MW-9	3.0	1.1	1.0	24	29	93.8
MW-10	NS	NS	NS	0.8	NS	NS
MW-11	20.0	11.1	NS	6.0	NS	221.2
MW-16	3.1	114	110.8	8.0	12	67
MW-17	2.9	24.4	23.7	104	99	112

Well ID No.	Residual Sodium Permanganate by Permanganate Ion Analysis (ppm)					
	March 2017	September 2017	March 2018	September 2018		
MW-8	81.9	68.6	93.6	1.2		
MW-9	13.7	8.7	16.8	0.1		
MW-10	NS	NS	NS	NS		
MW-11	NS	315.2	NS	22.7		
MW-16	160.0	302.4	93	0.1		
MW-17	12.0	238.5	84.6	2.4		

NOTES:

ppm = parts per million

NS = Not sampled due to no pink or purple color in water

A Hach DR890 or DR2800 colorimeter was used to measure the concentration of residual sodium permanganate

Table 4 - Summary of Sodium Permanganate Manual Injection Events, Former Binghamton Plastics, Binghamton, New York

Well ID No.	Injection Date				
	6/11/2009*	9/18/2009*	12/10/2009*	3/9/2010-3/10/2010*	6/23/2010*
MW-8	5	11	11	12.125	11
MW-9	5	11	11	11	11
MW-10	7	11	11	11	11
MW-11	3	5	5	2.75	5
MW-16	5	11	11	12.125	11
MW-17	5	11	11	11	11
Total	30	60	60	60	60

Well ID No.	Injection Date				
	9/22/2010*	12/16/2010*	3/24/2011**	11/4/2011**	3/22/2012**
MW-8	11	11	11	5	1.25
MW-9	11	11	11	22	35
MW-10	11	11	11	13	4.5
MW-11	5	5	5	2	1.25
MW-16	11	11	11	13	4.5
MW-17	11	11	11	5	1.5
Total	60	60	60	60	48

Well ID No.	Injection Date				
	6/22/2012**	9/17/2012-9/18/2012**	3/12/2013**	6/12/2013**	9/2/2013-9/6/2013*
MW-8	11	12	10	13	12.5
MW-9	11	12	13	10	11
MW-10	12	10	13	10	11
MW-11	3	4	2	4	4.5
MW-16	12	11	13	13	11
MW-17	11	11	9	10	10
Total	60	60	60	60	60

Well ID No.	Injection Date				
	12/10/2013*	3/20/2014-3/21/2014*	6/16/2014*	9/25/2014-9/26/2014*	12/17/2014 *
MW-8	10	10	12	6	6.5
MW-9	10	10	10	18	13
MW-10	12	10	10	15	15.5
MW-11	2	1.5	3	5	2
MW-16	15	12.5	15	13	13
MW-17	11	16	10	10	10
Total	60	60	60	67	60

NOTES:

All units are presented in gallons.

* A 10% of sodium permanganate solution was injected during this event .

** A 5% of sodium permanganate solution was injected during this event .

Table 4 (Continued) - Summary of Sodium Permanganate Manual Injection Events, Former Binghamton Plastics, Binghamton, New York

Well ID No.	Injection Date				
	3/18/2015-3/19/2015*	6/26/2015 *	8/27/2015 *	12/17/2015 *	3/17/2016 *
MW-8	14.5	10	10	10	10
MW-9	10	13	10	10	12
MW-10	10	11	10	10	12
MW-11	2	2	10	10	8
MW-16	13.5	17	10	10	10
MW-17	10	7	10	10	8
Total	60	60	60	60	60

Well ID No.	Injection Date				
	6/23/2016 *	9/29/2016 *	1/10/2017 *	3/22/2017 *	6/21/2017 *
MW-8	12	10	10	10	10
MW-9	10	10	10	10	10
MW-10	10	10	10	10	10
MW-11	6	10	10	10	10
MW-16	12	10	10	10	10
MW-17	10	10	10	10	10
Total	60	60	60	60	60

Well ID No.	Injection Date				
	9/18/2017 *	12/11/2017 *	3/22/2018 *	6/20/2018 *	9/21/2018 *
MW-8	10	10	10	10	12.5
MW-9	10	10	10	10	12.5
MW-10	10	10	10	10	7.5
MW-11	10	10	10	10	2.5
MW-16	10	10	10	10	12.5
MW-17	10	10	10	10	12.5
Total	60	60	60	60	60

Well ID No.	Injection Date				
	12/20/2018 *				
MW-8	10				
MW-9	10				
MW-10	10				
MW-11	10				
MW-16	10				
MW-17	10				
Total	60				

NOTES:

All units are presented in gallons.

* A 10% of sodium permanganate solution was injected during this event .

** A 5% of sodium permanganate solution was injected during this event .

Table 5 - Groundwater Analytical Data - March 2018, Former Binghamton Plastics, Binghamton, New York

Sample ID Laboratory ID Date Sampled Units	NYSDEC GWQS	MW-8 R1802551-004 3/22/2018 µg/l	MW-9 R1802551-006 3/22/2018 µg/l	MW-10 R1802551-002 3/20/2018 µg/l	MW-16 R1802551-005 3/22/2018 µg/l	DUP-032217 R1802551-009 3/22/2018 µg/l
1,1-Dichloroethane	5	2.2	0.20 U	0.72 J	7.7	7.3
1,1-Dichloroethene	5	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
cis-1,2-Dichloroethene	5	67	0.30 U	2.2	15	14
trans-1,2-Dichloroethene	5	0.33 J	0.33 U	0.33 U	0.33 U	0.33 U
Tetrachloroethene	5	0.30 U	0.30 U	0.52 J	0.30 U	0.30 U
1,1,1-Trichloroethane	5	1.9	0.36 U	0.54 J	2.8	2.5
Trichloroethene	5	50	5.9	5.0	2.4	2.3
Vinyl Chloride	2	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U

Sample ID Laboratory ID Date Sampled Units	NYSDEC GWQS	MW-17 R1802551-003 3/22/2018 µg/l	EB-032018 R1802551-007 3/20/2018 µg/l	EB-032218 R1802551-008 3/22/2018 µg/l	TRIP BLANK R1802551-001 3/20/2018 µg/l
1,1-Dichloroethane	5	2.8	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	5	0.57 U	0.57 U	0.57 U	0.57 U
cis-1,2-Dichloroethene	5	0.30 U	0.30 U	0.30 U	0.30 U
trans-1,2-Dichloroethene	5	0.33 U	0.33 U	0.33 U	0.33 U
Tetrachloroethene	5	0.30 U	0.30 U	0.30 U	0.30 U
1,1,1-Trichloroethane	5	0.53 J	0.36 U	0.36 U	0.36 U
Trichloroethene	5	0.22 U	0.22 U	0.22 U	0.22 U
Vinyl Chloride	2	0.32 U	0.32 U	0.32 U	0.32 U

Notes:

J = Estimated value

µg/l = micrograms per liter

Bold = concentration exceeds NYSDEC GWQS

U = Compound analyzed for but not detected above method reporting limit given

"DUP" indicates the sample is a duplicate sample of that sample immediately preceding the duplicate sample on this table

NYSDEC = New York State Department of Environmental Conservation

GWQS = Ground Water Quality Standards

"EB" indicates the sample is an equipment blank sample

Table 6 - Groundwater Analytical Data - September 2018, Former Binghamton Plastics, Binghamton, New York

Sample ID Laboratory ID Date Sampled Units	NYSDEC GWQS	TMP-A R1809120-007 9/20/2018 ug/L	MW-8 R1809120-009 9/20/2018 ug/L	DUP-092018 R1809120-012 9/20/2018 ug/L	MW-9 R1809120-008 9/20/2018 ug/L	MW-10 R1809120-002 9/20/2018 ug/L	MW-11 R1809120-010 9/20/2018 ug/L
1,1-Dichloroethane	5	1.0 U	2.1	2.0	1.0 U	0.79 J	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	11	15	1.0 U	2.6	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J	1.0 U
1,1,1-Trichloroethane	5	1.0 U	0.62 J	0.51 J	0.42 J	1.3	1.0 U
Trichloroethene	5	1.0 U	8.7	9.7	17	10	1.0 U
Vinyl Chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Sample ID Laboratory ID Date Sampled Units	NYSDEC GWQS	MW-13 R1809120-003 9/20/2018 ug/L	MW-16 R1809120-006 9/20/2018 ug/L	MW-17 R1809120-005 9/20/2018 ug/L	DMW-3 R1809120-004 9/20/2018 ug/L	FB-092018 R1809120-011 9/20/2018 ug/L	TRIP BLANK R1809120-001 9/20/2018 ug/L
1,1-Dichloroethane	5	1.0 U	1.0 U	7.1	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.5	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	1.0 U	160	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
Trichloroethene	5	1.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

J = Estimated value

µg/l = micrograms per liter

U = Compound analyzed for but not detected above method reporting limit given

"DUP" indicates the sample is a duplicate sample of that sample immediately preceding the duplicate sample on this table

Bold = concentration exceeds NYSDEC GWQS

NYSDEC = New York State Department of Environmental Conservation

GWQS = Ground Water Quality Standards

"FB" indicates the sample is an equipment blank sample

Table 7 - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
DMW-1	2/8/1999	1000	< 180	< 360	8200	71
DMW-3	12/10/1998	<2.5	<2.5	<0.5	1.1 J	<10
	9/18/2001	< 0.5	< 0.5	< 0.5	0.5 J	< 0.5
	4/1/2002	0.03 J	< 0.5	< 0.5	0.3 J	< 0.5
	9/19/2002	0.2 J	<0.5	0.07 J	0.3 J	<0.5
	3/28/2003	<0.5	<0.5	0.2 J	0.1 J	<0.5
	6/19/2003	0.8	<0.5	0.3 J	0.8	<0.5
	9/16/2003	<0.5	<0.5	0.3 J	0.08 J	<0.5
	1/6/2004	<0.5	0.091 J	0.31 J	0.16 J	<0.5
	4/6/2004	0.2 J	<0.5	0.25 J	0.15 J	<0.5
	6/24/2004	<0.5	<0.5	0.17	<0.5	<0.5
	9/20/2004	<0.5	<0.5	0.23 J	0.13 J	<0.5
	3/23/2005	<0.5	<0.5	<0.5	0.13J	<0.5
	9/27/2005	<2	<2	<1	<1	<2
	3/7/2006	<5	<5	0.43J	<5	<5
	5/25/2006	<5	<5	<5	<5	<5
	9/19/2006	<5	<5	<5	<5	<5
	4/2/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	8/28/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	10/15/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	3/24/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	7/22/2008	<5.0	<5.0	<5.0	0.88 J	<5.0
	10/7/2008	<5.0	<5.0	<5.0	0.40 J	<5.0
	12/2/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	3/11/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	6/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	12/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	3/9/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	6/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/14/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/21/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/27/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	3/14/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/6/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<1.0	<1.0	<1.0	<1.0	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0
DMW-4	12/9/1998	< 2.5	< 2.5	< 5	1.2J	< 10
TMP-A	3/22/2005	<0.5	<0.5	<0.5	<0.5	<0.5
	9/27/2005	<2	<2	<1	<2	<2
	3/7/2006	<5	<5	<5	<5	<5
	5/25/2006	<5	<5	<5	<5	<5
	9/19/2006	<5	<5	<5	<5	<5
	4/2/2007	<5	<5	<5	<5	<5
	7/23/2008	<5	<5	<5	<5	<5
	10/7/2008	<5	<5	<5	<5	<5
	3/9/2009	<5	<5	<5	<5	<5
	6/9/2009	<5	<5	<5	<5	<5
	9/16/2009	<5	<5	<5	<5	<5
	3/8/2010	<5	<5	<5	<5	<5
	10/27/2011	<5	<5	<5	<5	<5
	3/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	3/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/5/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<1.0	<1.0	<1.0	<1.0	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0
MW-2	12/10/1998	7.9	< 2.5	1.3 J	86	< 10
MW-5	12/10/1998	480	11	1	17,000	20
	9/18/2001	370 J	< 500	<500	23,000	< 500
	4/1/2002	0.3 J	< 0.5	0.06 J	48	< 0.5
MW-6	12/9/1998	< 2.5	< 2.5	< 5	< 5	< 10
MW-7	12/8/1998	< 2.5	< 2.5	< 5	< 5	< 10

See notes on last page.

Table 7 (Continued) - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-8	12/10/1998	0.25	< 5	< 0.01	0.35	<20
	9/18/2001	650	< 25	< 25	100	44
	4/1/2002	170	2	6	230	6
	9/18/2002	240	3 J	<6	560	<6
	3/28/2003	370	4	0.4 J	420	16
	6/19/2003	1,000	19	<13	810	36
	9/16/2003	960	14 J	<31	250	240
	1/6/2004	670	7.3 J	<18	500	7.7 J
	4/6/2004	1,900	12 J	<50	420	300
	6/24/2004	2,500	27	83	170	430
	9/20/2004	6,200	75	<210	380	740
	3/23/2005	4,000	44 J	<0.5	930	490
	6/14/2005	<2	<2	<1	<1	<2
	9/27/2005	<2	<2	<1	<1	<2
	3/7/2006	<50	<50	<50	<50	<50
	4/2/2007	110	0.69J	<5.0	360D	<5.0
	10/15/2007	640 D	9.8 J	<13	2700 D	66
	3/24/2008	170	3.3 J	<13	790 D	4.2 J
	7/22/2008	900	14 J	<100	3400	120
	10/7/2008	640	18 J	<100	3200	82 J
	12/2/2008	440	6.4 J	<25	2200 D	3.6 J
	3/10/2009	450	<100	<100	2200	38 J
	6/9/2009	680	14 J	<50	5600 D	53
	9/14/2009	NS	NS	NS	NS	NS
	12/8/2009	NS	NS	NS	NS	NS
	3/8/2010	NS	NS	NS	NS	NS
	6/21/2010	NS	NS	NS	NS	NS
	9/20/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/15/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	100	0.43 J	<5.0	940 D	3.9 J
	10/27/2011	330 D	1.6 J	<5.0	2700 D	21
	3/13/2012	290	3.2 J	<50	1800	32 J
	9/17/2012	360	<50	<50	1000	33 J
	3/11/2013	210	11 J	<50	1200	5.3 J
	9/2/2013	1.7 J	<5.0	<5.0	16	<5.0
	3/17/2014	0.85 J	<5.0	<5.0	12	<5.0
	9/20/2014	0.67 J	<5.0	<5.0	3.9 J	<5.0
	3/18/2015	0.75 J	<5.0	<5.0	6.4	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	3/17/2016	9.1	<1.0	<1.0	27	<1.0
	9/15/2016	71	<1.0	<1.0	120	<1.0
	3/22/2017	29	<1.0	<1.0	26	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	3/22/2018	67	0.33 J	<1.0	50	<1.0
	9/20/2018	11 (15)	<1.0	<1.0 (<1.0)	8.7 (9.7)	<1.0 (<1.0)
MW-9	12/10/1998	7.3	< 2.5	1.2J	77	< 10
	4/1/2002	0.6	< 0.5	0.2 J	20	< 0.5
	9/18/2002	7	0.08 J	1	57 J	0.9 J
	3/28/2003	1	<0.5	0.4 J	16	<0.5
	6/19/2003	3	0.04 J	0.5	26	0.09 J
	9/16/2003	4.1	<1.3	0.61 J	40	<1.3
	1/6/2004	2.4	0.083 J	0.48 J	23	<0.5
	4/6/2004	0.8 J	<1	0.61 J	30	<1
	6/24/2004	4.7	<0.5	0.53	27	0.52
	9/20/2004	6.2	<2.0	0.79 J	57	<2.0
	3/23/2005	0.78	<0.5	0.23 J	17	<0.5
	9/27/2005	5.5	<2	<2	46	<2
	3/7/2006	<5	<5	<5	<5	<5
	4/2/2007	0.85J	<5.0	<5.0	24	<5.0
	8/28/2007	8.4	<5.0	0.88 J	55	0.67 J
	10/15/2007	10	<5.0	0.81 J	55	<5.0
	3/24/2008	0.44 J	<5.0	<5.0	19	<5.0
	7/21/2008	12	<5.0	0.55 J	45	0.55 J
	10/8/2008	7.1	<5.0	0.59 J	49	<5.0
	12/2/2008	5.8	<5.0	0.47 J	49	<5.0
	3/10/2009	2.1 J	<5.0	<5.0	24	<5.0
	6/10/2009	1.4 J	<5.0	<5.0	32	<5.0
	9/16/2009	1.9 J	<5.0	0.83 J	24	<5.0
	12/8/2009	2.2 J	<5.0	0.43 J	32	<5.0
	3/8/2010	0.78 J	<5.0	<5.0	16	<5.0
	6/21/2010	1.60 J	<5.0	<5.0	37	<5.0
	9/20/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/16/2010	<5.0	<5.0	<5.0	3.6 J	<5.0
	3/23/2011	<5.0	<5.0	<5.0	14	<5.0
	10/26/2011	0.76 J	<5.0	0.38 J	34	<5.0
	3/13/2012	0.21 J	<5.0	<5.0	17	<5.0
	9/18/2012	1.1 J	<5.0	0.39 J	39	<5.0
	3/11/2013	<5.0	<5.0	<5.0	14	<5.0
	9/5/2013	0.94 J	<5.0	0.31 J	28	<5.0
	3/17/2014	0.41 J	<5.0	<5.0	14	<5.0
	9/21/2014	<5.0	<5.0	<5.0	22	<5.0
	3/19/2015	0.92 J	<5.0	<5.0	13	<5.0
	9/23/2015	<5.0	<5.0	<5.0	4.0 J	<5.0
	3/17/2016	0.31 J	<1.0	<1.0	10	<1.0
	9/15/2016	<1.0 (<1.0)	<1.0 (<1.0)	<1.0 (<1.0)	0.95 J (0.91 J)	<1.0 (<1.0)
	3/21/2017	<1.0	<1.0	<1.0	7.1	<1.0
	9/14/2017	0.92 J	<1.0	0.30 J	21	<1.0
	3/22/2018	<1.0	<1.0	<1.0	5.9	<1.0
	9/20/2018	<1.0	<1.0	<1.0	17	<1.0

See notes on last page.

Table 7 (Continued) - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-10	12/10/1998	18	< 2.5	54	64	2.3 J
	9/18/2001	10	< 1.4	2	21	18
	4/1/2002	11	0.3 J	1	16	2
	9/18/2002	14	0.4 J	4	53 J	21
	3/28/2003	11	0.2 J	2	25	2
	6/19/2003	13	0.5 J	3	32	9
	9/16/2003	15	0.39 J	2.4	42	12
	1/6/2004	4.3	0.26 J	1.6	13	0.43 J
	4/6/2004	4.7	<0.5	0.89	13	0.38 J
	6/24/2004	16	0.65	2.6	45	8.6
	9/20/2004	3.4	0.15 J	2.7	16	0.9
	3/23/2005	3.8	0.11 J	1.1	12	0.57
	9/27/2005	13	<2	3	50	6.6
	3/7/2006	9.3	<5	1.6J	27	2.5J
	9/19/2006	17	0.48J	2.2J	32	5.9
	8/28/2007	12	0.33 J	2.2 J	31	5.9
	10/15/2007	4.8 J	<5.0	2.1 J	16	1.7 J
	3/24/2008	3.9 J	<5.0	0.53 J	6.6	<5.0
	7/21/2008	3.7 J	<5.0	0.45 J	5.3	0.72 J
	10/8/2008	12	0.26 J	1.4 J	25	5.3
	12/2/2008	4.4 J	<5.0	1.2 J	9.4	<5.0
	3/10/2009	4.3 J	<5.0	0.77 J	9.2	<5.0
	6/8/2009	15	<5.0	1.6 J	36	2.4 J
	9/14/2009	18	<5.0	2.0 J	37	4.8 J
	12/9/2009	13	<5.0	1.3 J	23	1.1 J
	3/8/2010	5.3	<5.0	0.71 J	9.7	<5.0
	6/22/2010	19	0.29 J	1.6 J	37	3.5 J
	9/21/2010	18	0.32 J	1.8 J	33	4.5 J
	12/15/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	86	<5.0	0.67 J	180	1.8 J
	10/26/2011	11	0.21 J	1.7 J	28	2.2 J
	3/13/2012	6	<5.0	0.81 J	18	0.46 J
	9/17/2012	14	<5.0	1.8 J	40	2.7 J
	3/11/2013	7.9	<5.0	0.72 J	18	0.49 J
	9/2/2013	11	<5.0	1.7 J	32	1.1 J
	3/17/2014	3.4 J	<5.0	0.63 J	7.3	<5.0
	9/21/2014	8.9	<5.0	1.4 J	29	0.69 J
	3/18/2015	2.1 J	<5.0	0.66 J	6.2	<5.0
	9/23/2015	3.2 J (3.1 J)	<5.0 (<5.0)	1.5 J (1.3 J)	18 (17)	<5.0 (<5.0)
	3/17/2016	2.9	<1.0	0.76 J	8.2	<1.0
	9/15/2016	6.3	<1.0	1.6	28	0.36 J
	3/21/2017	2.6	<1.0	0.70 J	5.0	<1.0
	9/14/2017	5.1 (4.9)	<1.0 (<1.0)	1.3 (1.4)	21 (21)	0.38 J (<1.0)
	3/20/2018	2.2	<1.0	0.52 J	5.0	<1.0
	9/20/2018	2.6	<1.0	0.87 J	10	<1.0
MW-11	12/9/1998	1,100	11	< 5	1,400	140
	9/18/2001	850	< 31	<31	700	77
	4/1/2002	1,100	12	<50	1,500	23
	9/19/2002	1,600	12 J	<25	2,100	82
	3/28/2003	1,200	11	0.2 J	2,400	58
	6/19/2003	1,300	10 J	<25	2,500	24 J
	9/16/2003	1,700	13 J	<83	2,500	170
	1/6/2004	1,200	31 J	<53	1,500	28 J
	4/6/2004	1,700	17	<83	2,300	6.8
	6/24/2004	1,600	18	<63	1,900	29
	9/20/2004	2,300 D	26 DJ	<63	2,200 D	58 DJ
	3/23/2005	1,500 D	21	<0.5	1,300 D	7.8
	6/14/2005	<2	<2	<1	<1	<2
	9/27/2005	<2	<2	<1	<1	<2
	3/7/2006	<500	<500	<500	<500	<500
	10/15/2007	<5.0	<5.0	<5.0	<5.0	< 5.0
	3/24/2008	130	<25	<25	520	5.2 J
	7/22/2008	1900	15 J	<100	2900	140
	10/7/2008	NS	NS	NS	NS	NS
	12/2/2008	NS	NS	NS	NS	NS
	3/11/2009	990	9.1 J	<25	3200 D	67
	6/8/2009	NS	NS	NS	NS	NS
	9/14/2009	NS	NS	NS	NS	NS
	12/8/2009	NS	NS	NS	NS	NS
	3/9/2010	NS	NS	NS	NS	NS
	6/21/2010	NS	NS	NS	NS	NS
	9/20/2010	NS	NS	NS	NS	NS
	12/16/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/27/2011	<5.0	<5.0	<5.0	0.57 J	<5.0
	3/14/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/17/2012	<5.0	<5.0	<5.0	0.62 J	<5.0
	3/11/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/2/2013	1.2 J	<5.0	<5.0	4.3 J	<5.0
	3/18/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<25	<25	<25	<25	<25
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<10	<10	<10	<10	<10
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0

See notes on last page.

Table 7 (Continued) - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-12	12/7/1998	< 2.5	< 2.5	< 5	< 5	< 10
MW-13	12/9/1998	< 2.5	< 2.5	< 5	< 5	< 10
	3/24/2008	NS	NS	NS	NS	NS
	7/23/2008	NS	NS	NS	NS	NS
	10/9/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	12/2/2008	<5.0	<5.0	<5.0	0.96 J	<5.0
	3/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	6/10/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	12/7/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	3/9/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	6/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/16/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/26/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	3/14/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/6/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2016	<1.0	<1.0	<1.0	<1.0	<1.0
	9/14/2017	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0
MW-14	12/9/1998	< 2.5	< 2.5	< 5	< 5	< 10
	9/18/2001	< 0.5	< 0.5	< 0.5	0.2J	< 0.5
	3/28/2003	<0.5	<0.5	0.08 J	<0.5	<0.5
	6/19/2003	<0.5	<0.5	0.3 J	0.04 J	<0.5
	9/16/2003	<0.5	<0.5	0.087 J	<0.5	<0.5
	1/6/2004	<0.5	<0.5	<0.5	0.064 J	<0.5
	4/6/2004	<0.5	<0.5	<0.5	<0.5	<0.5
	6/24/2004	2.1	<0.5	0.27 J	6.5	<0.5
	9/20/2004	<0.5	<0.5	<0.5	<0.5	<0.5
	3/23/2005	<0.5	<0.5	<0.5	<0.5	<0.5
	3/7/2006	<5.0	<5.0	<5.0	<5.0	<5.0
	5/25/2006	<5.0	<5.0	<5.0	<5.0	<5.0
	9/19/2006	<5.0	<5.0	<5.0	<5.0	<5.0
	4/2/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	8/28/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	10/15/2007	<5.0	<5.0	<5.0	<5.0	<5.0
	3/24/2008	<5.0	<5.0	<5.0	0.62 J	<5.0
	7/23/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	10/7/2008	<5.0	<5.0	<5.0	0.32 J	<5.0
	12/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0
	3/11/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	6/10/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	9/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	12/9/2009	<5.0	<5.0	<5.0	<5.0	<5.0
	3/9/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	6/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/14/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/21/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	10/26/2011	<5.0	<5.0	<5.0	<5.0	<5.0
	3/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/18/2012	<5.0	<5.0	<5.0	<5.0	<5.0
	9/6/2013	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2014	<5.0	<5.0	<5.0	<5.0	<5.0
MW-15	12/10/1998	960	11	14	6,900	23
	9/18/2001	790	< 84	< 84	4,000	68 J
	4/1/2002	510	10	17	3,400	34

See notes on last page.

Table 7 (Continued) - Historical Groundwater Volatile Organic Compound Analytical Results, Former Binghamton Plastics, Binghamton, New York

Sample Location Units:	Sampling Date	cis-1,2-Dichloroethene µg/l	trans-1,2-Dichloroethene µg/l	Tetrachloroethene µg/l	Trichloroethene µg/l	Vinyl Chloride µg/l
MW-16	9/19/2002	1,500	11 J	<32	340	38
	3/28/2003	440	7	0.2 J	15	59
	6/19/2003	400	12	0.3 J	48	58
	9/16/2003	87	4.8	0.323 J	9	24
	1/6/2004	68	3.3	<2.5	6.6	20
	4/6/2004	22	1.1	0.23 J	2.6	5.6
	6/24/2004	6.8	2	0.23 J	4.1	2.3
	9/20/2004	78 D	5.2 D	<2.5	17	27 D
	3/23/2005	9.3	5.4	<0.5	0.95	4.4
	9/25/2005	12	5.4	<1	6.2	11
	3/7/2006	<500	<500	<500	<500	<500
	10/15/2007	240 D	13	0.64 J	110	140
	3/24/2008	NS	NS	NS	NS	NS
	7/22/2008	240	8.7 J	<13	69	87
	10/8/2008	710	13 J	1.1 J	330	180
	12/2/2008	450 D	10	0.94 J	320	88
	3/10/2009	270	4.6 J	1.1 J	280	42
	6/10/2009	650	10 J	<25	480	76
	9/15/2009	<5	<5	0.55 J	<5	<5
	12/8/2009	NS	NS	NS	NS	NS
	3/9/2010	NS	NS	NS	NS	NS
	6/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2010	NS	NS	NS	NS	NS
	12/16/2010	16	<5.0	<5.0	38	<5.0
	3/23/2011	4.1 J	<5.0	0.70 J	7.4	<5.0
	10/27/2011	140	5.6	1.8 J	240 D	<5.0
	3/13/2012	94	2.7 J	0.44 J	96	10
	9/17/2012	140	2.0 J	0.71 J	160	11
	3/11/2013	96	7.5	0.34 J	38	1.9 J
	9/5/2013	170	10	0.50 J	72	9.3
	3/17/2014	49	1.4 J	<5.0	10	14
	9/21/2014	17	<5.0	0.43 J	8.6	<5.0
	3/18/2015	31	0.35 J	<5.0	7.1	15
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	3/17/2016	87 (88)	1.4 (1.7)	0.89 J (0.70 J)	24 (24)	1.2 (0.96 J)
	9/15/2016	83	0.87 J	0.61 J	26	4.9
	3/22/2017	30 (40)	<1.0 (<1.0)	<1.0 (<1.0)	6.1 (7.3)	8.1 (8.7)
	9/14/2017	67	<1.0	0.30 J	13	2.7
	3/22/2018	15 (14)	<1.0 (<1.0)	<1.0 (<1.0)	2.4 (2.3)	<1.0 (<1.0)
	9/20/2018	1.5	<1.0	160	1.6	<1.0
MW-17	9/19/2002	1,800	18 J	<42	2,800	38 J
	3/28/2003	280	11	0.3 J	2	180
	6/19/2003	50	13	<6	1	65
	9/16/2003	4	11	1.6 J	0.74 J	9.1
	1/6/2004	3.3 J	6.4	<4.2	0.81 J	2.4 J
	4/6/2004	3 J	6.8	<5	1.6 J	4.5 J
	6/24/2004	<4.2	9.8	2.2	1.1	1.5
	9/20/2004	3.3 J	11	2.1 J	<5.0	6.7
	3/25/2005	7.9	7.3	<0.5	0.8	5.9
	9/27/2005	150	8	<1	71	24
	3/7/2006	<50	<50	<50	<50	<50
	9/19/2006	0.33	24	3.2	31	17
	8/28/2007	55	2.4 J	0.82 J	110	82
	10/15/2007	37	1.5 J	0.38 J	73	6.6
	3/24/2008	3.0 J	0.33 J	<5.0	1.2 J	0.93 J
	7/21/2008	2.4 J	0.94 J	<5.0	0.66 J	1.1 J
	10/8/2008	16	1.6 J	0.21 J	35	5.7
	12/2/2008	6.6	0.46 J	<5.0	15	1.3 J
	3/10/2009	3.7 J	0.46 J	<5.0	4.4 J	1.9 J
	6/9/2009	2.8 J	0.78 J	<5.0	3.5 J	1.1 J
	9/14/2009	38	2.5 J	0.60 J	110	9.1
	12/8/2009	7.4	0.61 J	<5.0	23	2.1 J
	3/9/2010	4.5 J	<5.0	<5.0	6.5	1.1 J
	6/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	9/20/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	12/15/2010	<5.0	<5.0	<5.0	<5.0	<5.0
	3/23/2011	5.6	<5.0	<5.0	2.2 J	<5.0
	10/26/2011	87	4.2 J	0.53 J	65	20
	3/14/2012	77	3.3 J	0.27 J	40	18
	9/17/2012	200	10	0.44 J	74	8.2
	3/11/2013	53	2.8 J	<5.0	14	0.41 J
	9/5/2013	84	3.6 J	<5.0	45	1.3 J
	3/17/2014	18	1.0 J	<5.0	3.3 J	<5.0
	9/21/2014	10	<5.0	<5.0	4.3 J	<5.0
	3/18/2015	5.8 (7.8)	<5.0 (<5.0)	<5.0 (<5.0)	3.5 J (4.6 J)	<5.0 (<5.0)
	9/23/2015	<5.0	<5.0	<5.0	<5.0	<5.0
	3/17/2016	3.7	<1.0	<1.0	2.4	<1.0
	9/15/2016	1.4	<1.0	0.30 J	1.7	<1.0
	3/21/2017	0.78 J	<1.0	<1.0	0.78 J	<1.0
	9/14/2017	0.40 J	<1.0	<1.0	0.61 J	<1.0
	3/22/2018	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2018	<1.0	<1.0	<1.0	<1.0	<1.0

NOTES:

J = Estimated value; compound detected below Detection Limit.

D = Compound identified in an analysis at a secondary dilution factor

= Baseline result

NS=Not sampled

µg/l = Micrograms per liter

< = Not detected above laboratory reporting limit given

Table 8 Indoor Air Sampling Analytical Results - March 2018, Former Binghamton Plastics Site, Binghamton, New York

Sample ID	NYSDOH Indoor Air Guidance Values (µg/m³)	IA-2				IA-3				IA-5			
Sampling Date		3/21/2018				3/21/2018				3/21/2018			
Laboratory ID		P1801538-003				P1801538-005				P1801538-004			
Units		ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q
Volatile Organic Compounds													
Dichlorodifluoromethane (CFC 12)	NA	0.42		2.1		0.45		2.2		0.43		2.1	
Chloromethane	NA	0.37	U	0.77	U	0.31	U	0.63	U	0.46	U	0.95	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NA	0.11	U	0.77	U	0.090	U	0.63	U	0.14	U	0.95	U
Vinyl Chloride	NA	0.30	U	0.77	U	0.25	U	0.63	U	0.37	U	0.95	U
1,3-Butadiene	NA	0.35	U	0.77	U	0.28	U	0.63	U	0.43	U	0.95	U
Bromomethane	NA	0.20	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
Chloroethane	NA	0.29	U	0.77	U	0.24	U	0.63	U	0.36	U	0.95	U
Ethanol	NA	100		190		100		200		94		180	
Acetonitrile	NA	0.46	U	0.77	U	0.38	U	0.63	U	0.57	U	0.95	U
Acrolein	NA	1.3	U	3.1	U	1.1	U	2.5	U	1.7	U	3.8	U
Acetone	NA	480	D	1100	D	160		370		380		910	
Trichlorofluoromethane	NA	0.39		2.2		0.36		2.0		0.35		2.0	
2-Propanol (Isopropyl Alcohol)	NA	3.8		9.3		4.2		10		3.9	U	9.5	U
Acrylonitrile	NA	0.35	U	0.77	U	0.29	U	0.63	U	0.44	U	0.95	U
1,1-Dichloroethene	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
Methylene Chloride	60	33		120		29		100		30		100	
3-Chloro-1-propene (Allyl Chloride)	NA	0.24	U	0.77	U	0.20	U	0.63	U	0.30	U	0.95	U
Trichlorotrifluoroethane	NA	0.11		0.82		0.13		1.0		0.12	U	0.95	U
Carbon Disulfide	NA	2.5	U	7.7	U	2.0	U	6.3	U	3.1	U	9.5	U
trans-1,2-Dichloroethene	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
1,1-Dichloroethane	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.23	U	0.95	U
Methyl tert-Butyl Ether	NA	0.21	U	0.77	U	0.17	U	0.63	U	0.26	U	0.95	U
Vinyl Acetate	NA	2.2	U	7.7	U	1.8	U	6.3	U	2.7	U	9.5	U
2-Butanone (MEK)	NA	2.6	U	7.7	U	2.1	U	6.3	U	3.2	U	9.5	U
cis-1,2-Dichloroethene	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.24	U	0.95	U
n-Hexane	NA	2.8		9.7		1.1		4.0		2.6		9.2	
Chloroform	NA	0.16	U	0.77	U	0.13	U	0.63	U	0.19	U	0.95	U
1,2-Dichloroethane	NA	0.19	U	0.77	U	0.16	U	0.63	U	0.23	U	0.95	U
1,1,1-Trichloroethane	NA	0.15		0.84		0.24		1.3		0.17	U	0.95	U
Benzene	NA	0.28		0.89		0.25		0.81		0.35		1.1	
Carbon Tetrachloride	NA	0.072		0.45		0.063		0.40		0.030	U	0.19	U
1,2-Dichloropropane	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
Bromodichloromethane	NA	0.11	U	0.77	U	0.094	U	0.63	U	0.14	U	0.95	U
Trichloroethene (TCE)	5	0.71		3.8		0.85		4.5		0.70		3.8	
1,4-Dioxane	NA	0.21	U	0.77	U	0.17	U	0.63	U	0.26	U	0.95	U
cis-1,3-Dichloropropene	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
4-Methyl-2-pentanone	NA	0.19	U	0.77	U	0.15	U	0.63	U	0.23	U	0.95	U
trans-1,3-Dichloropropene	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
1,1,2-Trichloroethane	NA	0.14	U	0.77	U	0.12	U	0.63	U	0.17	U	0.95	U
Toluene	NA	3.0		11		3.8		14		3.8		14	
2-Hexanone	NA	0.19	U	0.77	U	0.15	U	0.63	U	0.23	U	0.95	U
Dibromochloromethane	NA	0.090	U	0.77	U	0.074	U	0.63	U	0.11	U	0.95	U
1,2-Dibromoethane	NA	0.10	U	0.77	U	0.082	U	0.63	U	0.12	U	0.95	U
n-Butyl Acetate	NA	2.5		12		3.8		18		2.1		9.9	
Tetrachloroethene (PCE)	100	2.4		17		1.8		12		2.2		15	
Chlorobenzene	NA	0.17	U	0.77	U	0.14	U	0.63	U	0.21	U	0.95	U
Ethylbenzene	NA	0.51		2.2		0.66		2.9		0.56		2.4	
m,p-Xylenes	NA	2.1		8.9		2.5		11		2.1		8.9	
Bromoform	NA	0.074	U	0.77	U	0.061	U	0.63	U	0.092	U	0.95	U
Styrene	NA	0.18	U	0.77	U	0.15	U	0.63	U	0.22	U	0.95	U
o-Xylene	NA	3.1		13		2.6		11		2.8		12	
n-Nonane	NA	15		77		11		57		13		68	
1,1,2,2-Tetrachloroethane	NA	0.11	U	0.77	U	0.092	U	0.63	U	0.14	U	0.95	U
Cumene	NA	5.4		26		4.2		21		4.7		23	
alpha-Pinene	NA	1.5		8.4		0.80		4.5		1.6		8.9	
4-Ethyltoluene	NA	31		150		24		120		28		140	
1,3,5-Trimethylbenzene	NA	32		160		25		120		27		130	
1,2,4-Trimethylbenzene	NA	62	D	310	D	49	D	240	D	53	D	260	D
Benzyl Chloride	NA	0.30	U	1.5	U	0.24	U	1.3	U	0.37	U	1.9	U
1,3-Dichlorobenzene	NA	0.13	U	0.77	U	0.10	U	0.63	U	0.16	U	0.95	U
1,4-Dichlorobenzene	NA	0.13	U	0.77	U	0.10	U	0.63	U	0.16	U	0.95	U
1,2-Dichlorobenzene	NA	0.13	U	0.77	U	0.10	U	0.63	U	0.16	U	0.95	U
d-Limonene	NA	14		76		11		61		12		68	
1,2-Dibromo-3-chloropropane	NA	0.079	U	0.77	U	0.065	U	0.63	U	0.098	U	0.95	U
1,2,4-Trichlorobenzene	NA	0.10	U	0.77	U	0.085	U	0.63	U	0.13	U	0.95	U
Naphthalene	NA	0.15	U	0.77	U	0.12	U	0.63	U	0.18	U	0.95	U
Hexachlorobutadiene	NA	0.072	U	0.77	U	0.059	U	0.63	U	0.089	U	0.95	U

Notes:

Bold = compounds of concern

µg/m³ = micrograms per cubic meter

ppbv = parts per billion by volume

Q = Qualifier

U = Constituent not detected above reporting limit given

D = Result obtained from sample dilution

Sample AA-1 is an outdoor ambient air sample

Samples analyzed by ALS Environmental of Rochester, NY

Gray shading indicates compound exceeds respective NYSDOH Indoor Air Guidance Value

NYSDOH = New York State Department of Health

NYSDOH Indoor Air Guidance Values in µg/m³ are:

Methylene Chloride - 60

PCE - 100

TCE - 5

Table 8 Indoor Air Sampling Analytical Results - March 2018, Former Binghamton Plastics Site, Binghamton, New York

Sample ID	NYSDOH Indoor Air Guidance Values (µg/m³)	IA-8				IA-9				AA-1			
Sampling Date		3/21/2018				3/21/2018				3/21/2018			
Laboratory ID		P1801538-001				P1801538-002				P1801538-006			
Units		ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q	ppbv	Q	µg/m³	Q
Volatile Organic Compounds													
Dichlorodifluoromethane (CFC 12)	NA	0.49		2.4		0.44		2.2		0.33		1.6	
Chloromethane	NA	0.37	U	0.76	U	0.36	U	0.74	U	0.36	U	0.74	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NA	0.11	U	0.76	U	0.11	U	0.74	U	0.11	U	0.74	U
Vinyl Chloride	NA	0.30	U	0.76	U	0.29	U	0.74	U	0.29	U	0.74	U
1,3-Butadiene	NA	0.34	U	0.76	U	0.33	U	0.74	U	0.33	U	0.74	U
Bromomethane	NA	0.20	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
Chloroethane	NA	0.29	U	0.76	U	0.28	U	0.74	U	0.28	U	0.74	U
Ethanol	NA	120		230		110		200		3.9	U	7.4	
Acetonitrile	NA	0.45	U	0.76	U	0.44	U	0.74	U	0.44	U	0.74	U
Acrolein	NA	1.3	U	3.0	U	1.3	U	3.0	U	1.3	U	3.0	U
Acetone	NA	390	D	920	D	420	D	1,000	D	3.1	U	7.4	U
Trichlorofluoromethane	NA	0.35		2.0		0.35		1.9		0.17		0.95	
2-Propanol (Isopropyl Alcohol)	NA	4.4		11		4.5		11		3.0	U	7.4	U
Acrylonitrile	NA	0.35	U	0.76	U	0.34	U	0.74	U	0.34	U	0.74	U
1,1-Dichloroethene	NA	0.19	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
Methylene Chloride	60	29		99		29		100		0.21	U	0.74	U
3-Chloro-1-propene (Allyl Chloride)	NA	0.24	U	0.76	U	0.24	U	0.74	U	0.24	U	0.74	U
Trichlorotrifluoroethane	NA	0.099	U	0.76	U	0.10	U	0.78	U	0.097	U	0.74	U
Carbon Disulfide	NA	2.4	U	7.6	U	2.4	U	7.4	U	2.4	U	7.4	U
trans-1,2-Dichloroethene	NA	0.19	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
1,1-Dichloroethane	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
Methyl tert-Butyl Ether	NA	0.21	U	0.76	U	0.21	U	0.74	U	0.21	U	0.74	U
Vinyl Acetate	NA	2.2	U	7.6	U	2.1	U	7.4	U	2.1	U	7.4	U
2-Butanone (MEK)	NA	2.6	U	7.6	U	2.5	U	7.4	U	2.5	U	7.4	U
cis-1,2-Dichloroethene	NA	0.19	U	0.76	U	0.19	U	0.74	U	0.19	U	0.74	U
n-Hexane	NA	2.4		8.4		3.1		11		0.21	U	0.74	U
Chloroform	NA	0.16	U	0.76	U	0.15	U	0.74	U	0.15	U	0.74	U
1,2-Dichloroethane	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
1,1,1-Trichloroethane	NA	0.14	U	0.76	U	0.14	U	0.77	U	0.14	U	0.74	U
Benzene	NA	0.32		1.0		0.33		1.1		0.23	U	0.74	U
Carbon Tetrachloride	NA	0.066		0.41		0.068		0.43		0.055		0.34	
1,2-Dichloropropane	NA	0.16	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
Bromodichloromethane	NA	0.11	U	0.76	U	0.11	U	0.74	U	0.11	U	0.74	U
Trichloroethene (TCE)	5	0.83		4.5		0.70		3.8		0.028	U	0.15	U
1,4-Dioxane	NA	0.21	U	0.76	U	0.21	U	0.74	U	0.21	U	0.74	U
cis-1,3-Dichloropropene	NA	0.17	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
4-Methyl-2-pentanone	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
trans-1,3-Dichloropropene	NA	0.17	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
1,1,2-Trichloroethane	NA	0.14	U	0.76	U	0.14	U	0.74	U	0.14	U	0.74	U
Toluene	NA	2.6		9.7		4.7		18		0.45		1.7	
2-Hexanone	NA	0.19	U	0.76	U	0.18	U	0.74	U	0.18	U	0.74	U
Dibromochloromethane	NA	0.089	U	0.76	U	0.087	U	0.74	U	0.087	U	0.74	U
1,2-Dibromoethane	NA	0.099	U	0.76	U	0.096	U	0.74	U	0.096	U	0.74	U
n-Butyl Acetate	NA	2.4		11		2.6		12		0.16	U	0.74	U
Tetrachloroethene (PCE)	100	2.5		17		2.0		13		0.11	U	0.74	U
Chlorobenzene	NA	0.17	U	0.76	U	0.16	U	0.74	U	0.16	U	0.74	U
Ethylbenzene	NA	0.42		1.8		0.69		3.0		0.17	U	0.74	U
m,p-Xylenes	NA	1.7		7.5		2.5		11		0.34	U	1.5	U
Bromoform	NA	0.074	U	0.76	U	0.072	U	0.74	U	0.072	U	0.74	U
Styrene	NA	0.18	U	0.76	U	0.61		2.6		0.17	U	0.74	U
o-Xylene	NA	2.5		11		2.9		12		0.17	U	0.74	U
n-Nonane	NA	13		66		12		64		0.14	U	0.74	U
1,1,2,2-Tetrachloroethane	NA	0.11	U	0.76	U	0.11	U	0.74	U	0.11	U	0.74	U
Cumene	NA	4.2		20		4.4		21		0.15	U	0.74	U
alpha-Pinene	NA	1.8		10		1.6		8.9		0.13	U	0.74	U
4-Ethyltoluene	NA	26		130		27		130		0.15	U	0.74	U
1,3,5-Trimethylbenzene	NA	25		120		26		130		0.15	U	0.74	U
1,2,4-Trimethylbenzene	NA	48	D	230	D	50	D	240	D	0.15	U	0.74	U
Benzyl Chloride	NA	0.29	U	1.5	U	0.29	U	1.5	U	0.29	U	1.5	U
1,3-Dichlorobenzene	NA	0.13	U	0.76	U	0.12	U	0.74	U	0.12	U	0.74	U
1,4-Dichlorobenzene	NA	0.13	U	0.76	U	0.12	U	0.74	U	0.12	U	0.74	U
1,2-Dichlorobenzene	NA	0.13	U	0.76	U	0.12	U	0.74	U	0.12	U	0.74	U
d-Limonene	NA	11		59		12		66		0.13	U	0.74	U
1,2-Dibromo-3-chloropropane	NA	0.079	U	0.76	U	0.077	U	0.74	U	0.077	U	0.74	U
1,2,4-Trichlorobenzene	NA	0.10	U	0.76	U	0.10	U	0.74	U	0.10	U	0.74	U
Naphthalene	NA	0.15	U	0.76	U	0.14	U	0.74	U	0.14	U	0.74	U
Hexachlorobutadiene	NA	0.071	U	0.76	U	0.069	U	0.74	U	0.069	U	0.74	U

Bold = compounds of concern

µg/m³ = micrograms per cubic meter

ppbv = parts per billion by volume

Q = Qualifier

U = Constituent not detected above reporting limit given

D = Result obtained from sample dilution

Sample AA-1 is an outdoor ambient air sample

Samples analyzed by ALS Environmental of Rochester, NY

Gray shading indicates compound exceeds respective NYSDOH Indoor Air Guidance Value

NYSDOH = New York State Department of Health

NYSDOH Indoor Air Guidance Values in µg/m³ are:

Methylene Chloride - 60

PCE - 100

TCE - 5

Table 9 - Proposed 2019 Groundwater Monitoring Matrix, Former Binghamton Plastics, Binghamton, New York

Implemented Monitoring Matrix in 2018		
Well ID	Monitoring Schedule	Analysis
DMW-3	Annual	SSPL VOCs
TMP-A	Annual	SSPL VOCs
MW-8	Semiannual	SSPL VOCs
MW-9	Semiannual	SSPL VOCs
MW-10	Semiannual	SSPL VOCs
MW-11	Annual	SSPL VOCs
MW-13	Annual	SSPL VOCs
MW-16	Semiannual	SSPL VOCs
MW-17	Semiannual	SSPL VOCs

Proposed Monitoring Matrix to be Implemented in 2019		
Well ID	Monitoring Schedule	Analysis
DMW-3	Annual	SSPL VOCs
TMP-A	Annual	SSPL VOCs
MW-8	Semiannual	SSPL VOCs
MW-9	Semiannual	SSPL VOCs
MW-10	Semiannual	SSPL VOCs
MW-11	Annual	SSPL VOCs
MW-13	Annual	SSPL VOCs
MW-16	Semiannual	SSPL VOCs
MW-17	Semiannual	SSPL VOCs

Appendix A

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LOW FLOW GROUND WATER PURGE/SAMPLING LOG
Former Binghamton Plastics Site, Binghamton, NY (5101.0003)

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Appendix B



April 12, 2018

Service Request No:R1802551

Ms. Sarah MacCarter
Verina Consulting Group, LLC
1011 US Highway 22, Suite 302
Bridgewater, NJ 08807

Laboratory Results for: Dover-Binghamton

Dear Ms.MacCarter,

Enclosed are the results of the sample(s) submitted to our laboratory March 23, 2018
For your reference, these analyses have been assigned our service request number **R1802551**.

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 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
For
Janice Jaeger
Project Manager

ADDRESS

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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: Verina Consulting Group, LLC
Project: Dover-Binghamton
Sample Matrix: Water

Service Request: R1802551
Date Received: 03/23/2018

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:

Nine water samples were received for analysis at ALS Environmental on 03/23/2018. 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 03/30/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-10	Lab ID: R1802551-002

Analyte	Results	Flag	MDL	PQL	Units	Method
1,1,1-Trichloroethane (TCA)	0.54	J	0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	0.72	J	0.20	1.0	ug/L	8260C
Tetrachloroethene (PCE)	0.52	J	0.30	1.0	ug/L	8260C
Trichloroethene (TCE)	5.0		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	2.2		0.30	1.0	ug/L	8260C

CLIENT ID: MW-17	Lab ID: R1802551-003

Analyte	Results	Flag	MDL	PQL	Units	Method
1,1,1-Trichloroethane (TCA)	0.53	J	0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.8		0.20	1.0	ug/L	8260C

CLIENT ID: MW-8	Lab ID: R1802551-004

Analyte	Results	Flag	MDL	PQL	Units	Method
1,1,1-Trichloroethane (TCA)	1.9		0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.2		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	50		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	67		0.30	1.0	ug/L	8260C
trans-1,2-Dichloroethene	0.33	J	0.33	1.0	ug/L	8260C

CLIENT ID: MW-16	Lab ID: R1802551-005

Analyte	Results	Flag	MDL	PQL	Units	Method
1,1,1-Trichloroethane (TCA)	2.8		0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.7		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	2.4		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	15		0.30	1.0	ug/L	8260C

CLIENT ID: MW-9	Lab ID: R1802551-006

Analyte	Results	Flag	MDL	PQL	Units	Method
Trichloroethene (TCE)	5.9		0.22	1.0	ug/L	8260C

CLIENT ID: DUP-032218	Lab ID: R1802551-009

Analyte	Results	Flag	MDL	PQL	Units	Method
1,1,1-Trichloroethane (TCA)	2.5		0.36	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.3		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	2.3		0.22	1.0	ug/L	8260C
cis-1,2-Dichloroethene	14		0.30	1.0	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

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

www.alsglobal.com

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request:R1802551

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1802551-001	Trip Blank	3/20/2018	
R1802551-002	MW-10	3/20/2018	1235
R1802551-003	MW-17	3/22/2018	0945
R1802551-004	MW-8	3/22/2018	1035
R1802551-005	MW-16	3/22/2018	1125
R1802551-006	MW-9	3/22/2018	1225
R1802551-007	EB-032018	3/20/2018	1240
R1802551-008	EB-032218	3/22/2018	1220
R1802551-009	DUP-032218	3/22/2018	



PAGE 1 OF 1

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



Cooler Receipt and Preservation Check Form

R1802551

Verina Consulting Group, LLC
Dover-Binghamton

5

Project/Client Verina Consulting Folder Number _____

Cooler received on 3-23-18 by: KE

COURIER: ALS UPS FEDEX VELOCITY CLIENT

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

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

8. Temperature Readings Date: 3-23-18 Time: 09:51 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>6.2</u>	<u>7.1</u>						
Correction Factor (°C)	<u>+1.0</u>	<u>+0.7</u>						
Corrected Temp (°C)	<u>7.2</u>	<u>7.8</u>						
Temp from: Type of bottle	<u>cent tube</u>	<u>VOA vial</u>						
Within 0-6°C?	Y <u>N</u>	Y <u>N</u>	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	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 ms 3/26/18

All samples held in storage location: R-002 by KE on 3-23-18 at 09:58
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 3/23/18 Time: 1335 by: D

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

pH	Lot of test paper	Reagent	Preserved?	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes No						
≥12		NaOH							
≤2		HNO ₃							
≤2		H ₂ SO ₄							
<4		NaHSO ₄							
5-9		For 608pest		No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃							
		Zn Acetate	- -						
		HCl	** **	<u>4/15/20</u>					

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

Bottle lot numbers: 7-249-002, 7-254-004

Explain all Discrepancies/ Other Comments:

* 1 bag of ice set on top of bubble wrapped VOA sets.

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

Labels secondary reviewed by: ms 3/26/18

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: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1802551-001.01	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-001.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-001.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-002.01	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-002.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-002.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-002.04					
		3/23/2018	1347	SMO / DWARD	
R1802551-002.05					
		3/23/2018	1347	SMO / DWARD	
R1802551-002.06					
		3/23/2018	1347	SMO / DWARD	
R1802551-002.07					

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1802551-002.08		3/23/2018	1347	SMO / DWARD	
		3/23/2018	1347	SMO / DWARD	
R1802551-002.09		3/23/2018	1347	SMO / DWARD	
		3/23/2018	1347	SMO / DWARD	
R1802551-003.01	8260C	3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-003.02		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-003.03		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-004.01	8260C	3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-004.02		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-004.03		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	

ALS Group USA, Corp.
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Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1802551-005.01	8260C	3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-005.02		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-005.03		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-006.01	8260C	3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1135	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
R1802551-006.02		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-006.03		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-007.01	8260C	3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-007.02		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1802551-007.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-008.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1134	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-008.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-008.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-009.01					
	8260C				
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
		3/26/2018	1136	In Lab / KRUEST	
		3/26/2018	1155	R-001-S12 / KRUEST	
		3/27/2018	1207	In Lab / KRUEST	
		3/27/2018	1338	R-001-S12 / KRUEST	
R1802551-009.02					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	
R1802551-009.03					
		3/23/2018	1336	SMO / DWARD	
		3/23/2018	1337	R-001 / DWARD	



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

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

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) 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 Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Approved	New Jersey ID # NY004	294100 A/B
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 laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

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.

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551

Sample Name: Trip Blank
Lab Code: R1802551-001
Sample Matrix: Water

Date Collected: 03/20/18**Date Received:** 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-10
Lab Code: R1802551-002
Sample Matrix: Water

Date Collected: 03/20/18**Date Received:** 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-17
Lab Code: R1802551-003
Sample Matrix: Water

Date Collected: 03/22/18**Date Received:** 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-8
Lab Code: R1802551-004
Sample Matrix: Water

Date Collected: 03/22/18**Date Received:** 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: MW-16
Lab Code: R1802551-005
Sample Matrix: Water

Date Collected: 03/22/18**Date Received:** 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551

Sample Name: MW-9
Lab Code: R1802551-006
Sample Matrix: Water

Date Collected: 03/22/18
Date Received: 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: EB-032018
Lab Code: R1802551-007
Sample Matrix: Water

Date Collected: 03/20/18
Date Received: 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: EB-032218
Lab Code: R1802551-008
Sample Matrix: Water

Date Collected: 03/22/18
Date Received: 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: DUP-032218
Lab Code: R1802551-009
Sample Matrix: Water

Date Collected: 03/22/18
Date Received: 03/23/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST



INORGANIC PREPARATION METHODS

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

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
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

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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

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

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/20/18
Date Received: 03/23/18 09:40

Sample Name: Trip Blank
Lab Code: R1802551-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 16:10	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:10	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:10	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:10	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:10	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:10	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:10	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 16:10	
Dibromofluoromethane	89	89 - 119	03/27/18 16:10	
Toluene-d8	98	87 - 121	03/27/18 16:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/20/18 12:35
Date Received: 03/23/18 09:40

Sample Name: MW-10
Lab Code: R1802551-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.54 J	1.0	0.36	1	03/27/18 15:05	
1,1-Dichloroethane (1,1-DCA)	0.72 J	1.0	0.20	1	03/27/18 15:05	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 15:05	
Tetrachloroethene (PCE)	0.52 J	1.0	0.30	1	03/27/18 15:05	
Trichloroethene (TCE)	5.0	1.0	0.22	1	03/27/18 15:05	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 15:05	
cis-1,2-Dichloroethene	2.2	1.0	0.30	1	03/27/18 15:05	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 15:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 15:05	
Dibromofluoromethane	93	89 - 119	03/27/18 15:05	
Toluene-d8	100	87 - 121	03/27/18 15:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/20/18 12:40
Date Received: 03/23/18 09:40

Sample Name: EB-032018
Lab Code: R1802551-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 16:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:32	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:32	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:32	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:32	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:32	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:32	
Dibromofluoromethane	91	89 - 119	03/27/18 16:32	
Toluene-d8	100	87 - 121	03/27/18 16:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 12:20
Date Received: 03/23/18 09:40

Sample Name: EB-032218
Lab Code: R1802551-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 16:54	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:54	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:54	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:54	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:54	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:54	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:54	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:54	
Dibromofluoromethane	92	89 - 119	03/27/18 16:54	
Toluene-d8	100	87 - 121	03/27/18 16:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 09:45
Date Received: 03/23/18 09:40

Sample Name: MW-17
Lab Code: R1802551-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.53 J	1.0	0.36	1	03/27/18 13:15	
1,1-Dichloroethane (1,1-DCA)	2.8	1.0	0.20	1	03/27/18 13:15	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:15	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:15	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 13:15	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:15	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 13:15	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:15	
Dibromofluoromethane	91	89 - 119	03/27/18 13:15	
Toluene-d8	100	87 - 121	03/27/18 13:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 10:35
Date Received: 03/23/18 09:40

Sample Name: MW-8
Lab Code: R1802551-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.9	1.0	0.36	1	03/27/18 13:37	
1,1-Dichloroethane (1,1-DCA)	2.2	1.0	0.20	1	03/27/18 13:37	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:37	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:37	
Trichloroethene (TCE)	50	1.0	0.22	1	03/27/18 13:37	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:37	
cis-1,2-Dichloroethene	67	1.0	0.30	1	03/27/18 13:37	
trans-1,2-Dichloroethene	0.33 J	1.0	0.33	1	03/27/18 13:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:37	
Dibromofluoromethane	92	89 - 119	03/27/18 13:37	
Toluene-d8	100	87 - 121	03/27/18 13:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 11:25
Date Received: 03/23/18 09:40

Sample Name: MW-16
Lab Code: R1802551-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	2.8	1.0	0.36	1	03/27/18 13:59	
1,1-Dichloroethane (1,1-DCA)	7.7	1.0	0.20	1	03/27/18 13:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:59	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:59	
Trichloroethene (TCE)	2.4	1.0	0.22	1	03/27/18 13:59	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:59	
cis-1,2-Dichloroethene	15	1.0	0.30	1	03/27/18 13:59	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 13:59	
Dibromofluoromethane	92	89 - 119	03/27/18 13:59	
Toluene-d8	100	87 - 121	03/27/18 13:59	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 12:25
Date Received: 03/23/18 09:40

Sample Name: MW-9
Lab Code: R1802551-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 14:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 14:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:21	
Trichloroethene (TCE)	5.9	1.0	0.22	1	03/27/18 14:21	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 14:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	03/27/18 14:21	
Dibromofluoromethane	90	89 - 119	03/27/18 14:21	
Toluene-d8	100	87 - 121	03/27/18 14:21	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18
Date Received: 03/23/18 09:40

Sample Name: DUP-032218
Lab Code: R1802551-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	2.5	1.0	0.36	1	03/27/18 14:43	
1,1-Dichloroethane (1,1-DCA)	7.3	1.0	0.20	1	03/27/18 14:43	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:43	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:43	
Trichloroethene (TCE)	2.3	1.0	0.22	1	03/27/18 14:43	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:43	
cis-1,2-Dichloroethene	14	1.0	0.30	1	03/27/18 14:43	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 14:43	
Dibromofluoromethane	92	89 - 119	03/27/18 14:43	
Toluene-d8	99	87 - 121	03/27/18 14:43	



QC Summary Forms

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85 - 122	89 - 119	87 - 121
Trip Blank	R1802551-001	92	89	98
MW-10	R1802551-002	92	93	100
EB-032018	R1802551-007	94	91	100
EB-032218	R1802551-008	94	92	100
Lab Control Sample	RQ1802745-03	94	96	99
Method Blank	RQ1802745-04	91	92	99
MW-10 MS	RQ1802745-05	97	98	102
MW-10 DMS	RQ1802745-06	97	100	100

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/20/18
Date Received: 03/23/18
Date Analyzed: 03/27/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-10
Lab Code: R1802551-002
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1802745-05			Duplicate Matrix Spike RQ1802745-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	0.54 J	53.7	50.0	106	54.3	50.0	108	74-127	1	30
1,1-Dichloroethane (1,1-DCA)	0.72 J	66.5	50.0	132	67.5	50.0	134 *	74-132	1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	57.8	50.0	116	57.8	50.0	116	74-139	<1	30
Tetrachloroethene (PCE)	0.52 J	57.2	50.0	113	58.5	50.0	116	67-137	2	30
Trichloroethene (TCE)	5.0	60.9	50.0	112	61.3	50.0	113	62-142	<1	30
Vinyl Chloride	1.0 U	63.6	50.0	127	65.8	50.0	132	60-157	3	30
cis-1,2-Dichloroethene	2.2	60.8	50.0	117	62.3	50.0	120	72-133	2	30
trans-1,2-Dichloroethene	1.0 U	59.8	50.0	120	62.2	50.0	124	77-125	4	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.

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18 12:22
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1802745-04
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-12
File ID: I:\ACQUDATA\msvoa12\Data\032718\P16698.D\
Analysis Lot: 585036

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1802745-03	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30
MW-10	R1802551-002	I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	03/27/18 15:05
Trip Blank	R1802551-001	I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	03/27/18 16:10
EB-032018	R1802551-007	I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	03/27/18 16:32
EB-032218	R1802551-008	I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	03/27/18 16:54
MW-10	RQ1802745-05	I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	03/27/18 20:11
MW-10	RQ1802745-06	I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	03/27/18 20:33

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dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1802745-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 12:22	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 12:22	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 12:22	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 12:22	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 12:22	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 12:22	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 12:22	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 12:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	03/27/18 12:22	
Dibromofluoromethane	92	89 - 119	03/27/18 12:22	
Toluene-d8	99	87 - 121	03/27/18 12:22	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18 11:30
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1802745-03
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-12
File ID: I:\ACQUDATA\msvoa12\Data\032718\P16696.D\
Analysis Lot: 585036

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22
MW-10	R1802551-002	I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	03/27/18 15:05
Trip Blank	R1802551-001	I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	03/27/18 16:10
EB-032018	R1802551-007	I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	03/27/18 16:32
EB-032218	R1802551-008	I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	03/27/18 16:54
MW-10	RQ1802745-05	I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	03/27/18 20:11
MW-10	RQ1802745-06	I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	03/27/18 20:33

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1802745-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	17.2	20.0	86	74-120
1,1-Dichloroethane (1,1-DCA)	8260C	22.9	20.0	114	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	19.3	20.0	96	74-135
Tetrachloroethene (PCE)	8260C	17.3	20.0	86	78-124
Trichloroethene (TCE)	8260C	18.8	20.0	94	78-123
Vinyl Chloride	8260C	21.5	20.0	108	69-133
cis-1,2-Dichloroethene	8260C	21.0	20.0	105	80-121
trans-1,2-Dichloroethene	8260C	20.7	20.0	103	80-120

ALS Group USA, Corp.
dba ALS Environmental

QC/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:03

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16693.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 585036

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.24	30995	Pass
75	95	30	60	50.14	76771	Pass
95	95	100	100	100.00	153101	Pass
96	95	5	9	6.89	10555	Pass
173	174	0	2	0.00	0	Pass
174	95	50	120	70.91	108565	Pass
175	174	5	9	7.23	7848	Pass
176	174	95	101	96.80	105096	Pass
177	176	5	9	7.53	7909	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1802745-02	I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	03/27/18 10:32	
Lab Control Sample	RQ1802745-03	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30	
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22	
MW-10	R1802551-002	I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	03/27/18 15:05	
Trip Blank	R1802551-001	I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	03/27/18 16:10	
EB-032018	R1802551-007	I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	03/27/18 16:32	
EB-032218	R1802551-008	I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	03/27/18 16:54	
MW-10	RQ1802745-05	I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	03/27/18 20:11	
MW-10	RQ1802745-06	I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	03/27/18 20:33	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:32

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

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code: RQ1802745-02
Analysis Lot: 585036
Signal ID:

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
ICAL Result ==>	234,637	11.84	530,528	6.47	459,768	9.78
Upper Limit ==>	469,274	12.34	1,061,056	6.97	919,536	10.28
Lower Limit ==>	117,319	11.34	265,264	5.97	229,884	9.28

Associated Analyses

Lab Control Sample	RQ1802745-03	225614	11.84	517963	6.47	456652	9.78
Method Blank	RQ1802745-04	202807	11.84	478787	6.47	414857	9.78
MW-10	R1802551-002	209468	11.84	482698	6.47	424525	9.78
Trip Blank	R1802551-001	204404	11.84	475796	6.47	410509	9.78
EB-032018	R1802551-007	210915	11.84	474659	6.47	421343	9.78
EB-032218	R1802551-008	208421	11.84	487658	6.47	425042	9.78
MW-10	RQ1802745-05	215946	11.84	472299	6.47	422527	9.78
MW-10	RQ1802745-06	210824	11.84	471508	6.47	415628	9.78

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:32

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

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code: RQ1802745-02
Analysis Lot: 585036
Signal ID:

	Pentafluorobenzene	
	Area	RT
ICAL Result ==>	315,594	5.38
Upper Limit ==>	631,188	5.88
Lower Limit ==>	157,797	4.88

Associated Analyses

Lab Control Sample	RQ1802745-03	302355	5.38
Method Blank	RQ1802745-04	285373	5.38
MW-10	R1802551-002	285631	5.38
Trip Blank	R1802551-001	281048	5.38
EB-032018	R1802551-007	280405	5.38
EB-032218	R1802551-008	288147	5.38
MW-10	RQ1802745-05	284362	5.38
MW-10	RQ1802745-06	280872	5.38

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85 - 122	89 - 119	87 - 121
MW-17	R1802551-003	92	91	100
MW-8	R1802551-004	92	92	100
MW-16	R1802551-005	93	92	100
MW-9	R1802551-006	95	90	100
DUP-032218	R1802551-009	93	92	99
Lab Control Sample	RQ1802745-03	94	96	99
Method Blank	RQ1802745-04	91	92	99

ALS Group USA, Corp.

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18 12:22
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: Method Blank
Lab Code: RQ1802745-04
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-12
File ID: I:\ACQUADATA\msvoa12\Data\032718\P16698.D\
Analysis Lot: 585036

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1802745-03	I:\ACQUADATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30
MW-17	R1802551-003	I:\ACQUADATA\msvoa12\Data\032718\P16700.D\	03/27/18 13:15
MW-8	R1802551-004	I:\ACQUADATA\msvoa12\Data\032718\P16701.D\	03/27/18 13:37
MW-16	R1802551-005	I:\ACQUADATA\msvoa12\Data\032718\P16702.D\	03/27/18 13:59
MW-9	R1802551-006	I:\ACQUADATA\msvoa12\Data\032718\P16703.D\	03/27/18 14:21
DUP-032218	R1802551-009	I:\ACQUADATA\msvoa12\Data\032718\P16704.D\	03/27/18 14:43

ALS Group USA, Corp.
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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1802745-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 12:22	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 12:22	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 12:22	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 12:22	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 12:22	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 12:22	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 12:22	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 12:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	03/27/18 12:22	
Dibromofluoromethane	92	89 - 119	03/27/18 12:22	
Toluene-d8	99	87 - 121	03/27/18 12:22	

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18 11:30
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: Lab Control Sample
Lab Code: RQ1802745-03
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-12
File ID: I:\ACQUDATA\msvoa12\Data\032718\P16696.D\
Analysis Lot: 585036

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22
MW-17	R1802551-003	I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	03/27/18 13:15
MW-8	R1802551-004	I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	03/27/18 13:37
MW-16	R1802551-005	I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	03/27/18 13:59
MW-9	R1802551-006	I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	03/27/18 14:21
DUP-032218	R1802551-009	I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	03/27/18 14:43

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Analyzed: 03/27/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ1802745-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	17.2	20.0	86	74-120
1,1-Dichloroethane (1,1-DCA)	8260C	22.9	20.0	114	78-117
1,1-Dichloroethene (1,1-DCE)	8260C	19.3	20.0	96	74-135
Tetrachloroethene (PCE)	8260C	17.3	20.0	86	78-124
Trichloroethene (TCE)	8260C	18.8	20.0	94	78-123
Vinyl Chloride	8260C	21.5	20.0	108	69-133
cis-1,2-Dichloroethene	8260C	21.0	20.0	105	80-121
trans-1,2-Dichloroethene	8260C	20.7	20.0	103	80-120

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QC/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:03

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16693.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 585036

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	20.24	30995	Pass
75	95	30	60	50.14	76771	Pass
95	95	100	100	100.00	153101	Pass
96	95	5	9	6.89	10555	Pass
173	174	0	2	0.00	0	Pass
174	95	50	120	70.91	108565	Pass
175	174	5	9	7.23	7848	Pass
176	174	95	101	96.80	105096	Pass
177	176	5	9	7.53	7909	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1802745-02	I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	03/27/18 10:32	
Lab Control Sample	RQ1802745-03	I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	03/27/18 11:30	
Method Blank	RQ1802745-04	I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	03/27/18 12:22	
MW-17	R1802551-003	I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	03/27/18 13:15	
MW-8	R1802551-004	I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	03/27/18 13:37	
MW-16	R1802551-005	I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	03/27/18 13:59	
MW-9	R1802551-006	I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	03/27/18 14:21	
DUP-032218	R1802551-009	I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	03/27/18 14:43	

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:32

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

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code: RQ1802745-02
Analysis Lot: 585036
Signal ID:

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
ICAL Result ==>	234,637	11.84	530,528	6.47	459,768	9.78
Upper Limit ==>	469,274	12.34	1,061,056	6.97	919,536	10.28
Lower Limit ==>	117,319	11.34	265,264	5.97	229,884	9.28

Associated Analyses

Lab Control Sample	RQ1802745-03	225614	11.84	517963	6.47	456652	9.78
Method Blank	RQ1802745-04	202807	11.84	478787	6.47	414857	9.78
MW-17	R1802551-003	236506	11.84	554963	6.47	484861	9.78
MW-8	R1802551-004	207194	11.84	486905	6.47	428671	9.78
MW-16	R1802551-005	206108	11.84	484154	6.47	423298	9.78
MW-9	R1802551-006	213624	11.84	488979	6.47	427171	9.78
DUP-032218	R1802551-009	201775	11.84	479735	6.47	422035	9.78

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request:R1802551
Date Analyzed:03/27/18 10:32

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

File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code:RQ1802745-02
Analysis Lot:585036
Signal ID:

	Pentafluorobenzene	
	Area	RT
ICAL Result ==>	315,594	5.38
Upper Limit ==>	631,188	5.88
Lower Limit ==>	157,797	4.88

Associated Analyses

Lab Control Sample	RQ1802745-03	302355	5.38
Method Blank	RQ1802745-04	285373	5.38
MW-17	R1802551-003	326286	5.38
MW-8	R1802551-004	289539	5.38
MW-16	R1802551-005	285139	5.38
MW-9	R1802551-006	289167	5.38
DUP-032218	R1802551-009	282631	5.38



Raw Data

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/20/18
Date Received: 03/23/18 09:40

Sample Name: Trip Blank
Lab Code: R1802551-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 16:10	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:10	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:10	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:10	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:10	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:10	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:10	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 16:10	
Dibromofluoromethane	89	89 - 119	03/27/18 16:10	
Toluene-d8	98	87 - 121	03/27/18 16:10	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/20/18 12:35
Date Received: 03/23/18 09:40

Sample Name: MW-10
Lab Code: R1802551-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.54 J	1.0	0.36	1	03/27/18 15:05	
1,1-Dichloroethane (1,1-DCA)	0.72 J	1.0	0.20	1	03/27/18 15:05	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 15:05	
Tetrachloroethene (PCE)	0.52 J	1.0	0.30	1	03/27/18 15:05	
Trichloroethene (TCE)	5.0	1.0	0.22	1	03/27/18 15:05	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 15:05	
cis-1,2-Dichloroethene	2.2	1.0	0.30	1	03/27/18 15:05	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 15:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 15:05	
Dibromofluoromethane	93	89 - 119	03/27/18 15:05	
Toluene-d8	100	87 - 121	03/27/18 15:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/20/18 12:40
Date Received: 03/23/18 09:40

Sample Name: EB-032018
Lab Code: R1802551-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 16:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:32	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:32	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:32	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:32	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:32	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:32	
Dibromofluoromethane	91	89 - 119	03/27/18 16:32	
Toluene-d8	100	87 - 121	03/27/18 16:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 12:20
Date Received: 03/23/18 09:40

Sample Name: EB-032218
Lab Code: R1802551-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

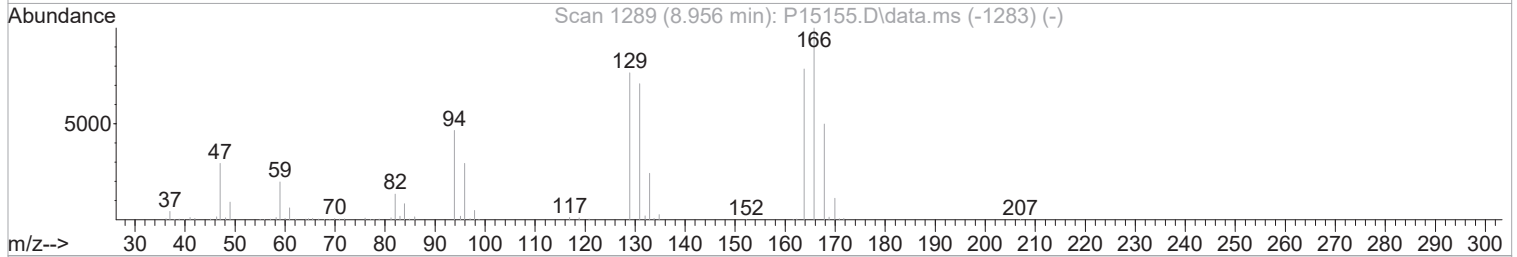
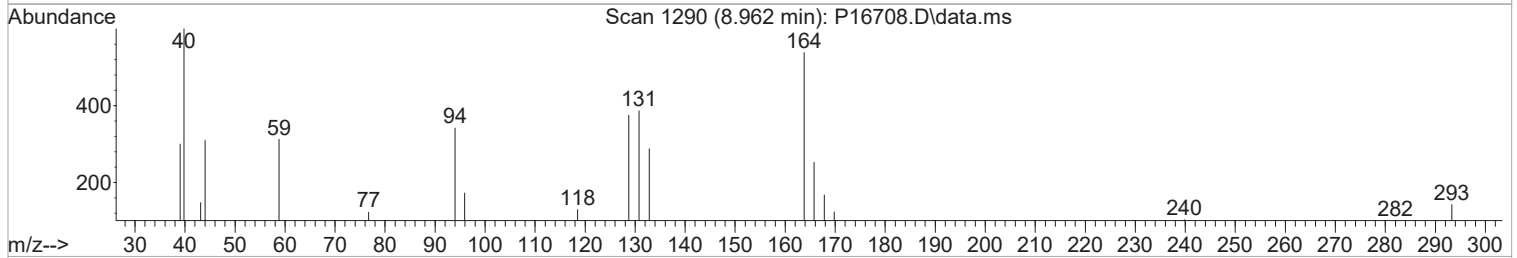
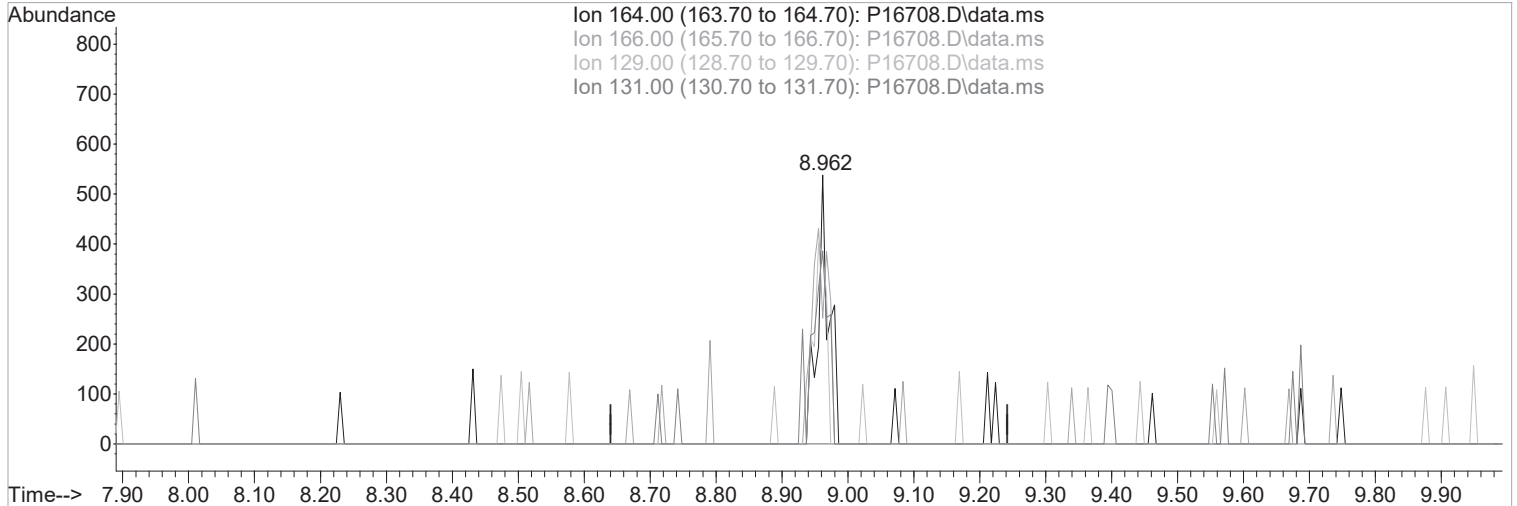
Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 16:54	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 16:54	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 16:54	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 16:54	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 16:54	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 16:54	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 16:54	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 16:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/27/18 16:54	
Dibromofluoromethane	92	89 - 119	03/27/18 16:54	
Toluene-d8	100	87 - 121	03/27/18 16:54	

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16708.D
Acq On : 27 Mar 2018 4:10 pm
Operator : K.Ruest
Sample : R1802551-001|1.0
Misc : VERINA 8260 T4
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 16:43:01 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16708.D\data.ms

(72) Tetrachloroethene (P)

8.962min (-0.006) 0.29 ppb m

response 661

Ion	Exp%	Act%

164.00	100	100

166.00	127.20	46.84#

129.00	97.50	69.70#

131.00	90.20	71.75

Manual Integration:

After

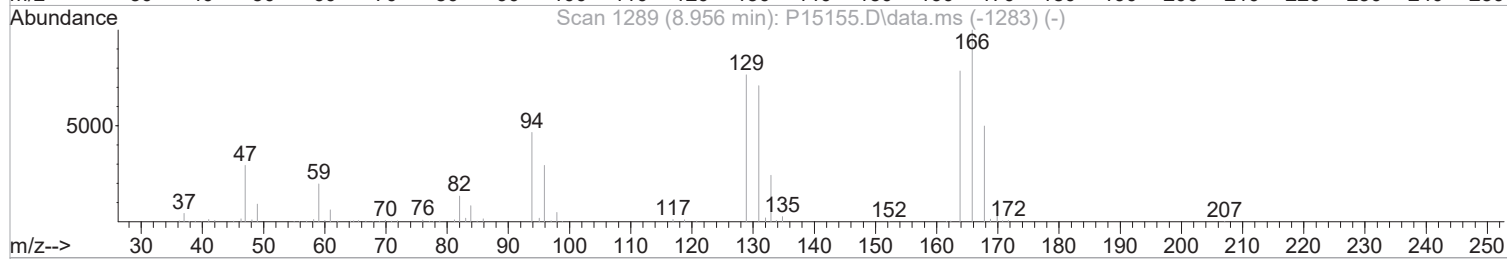
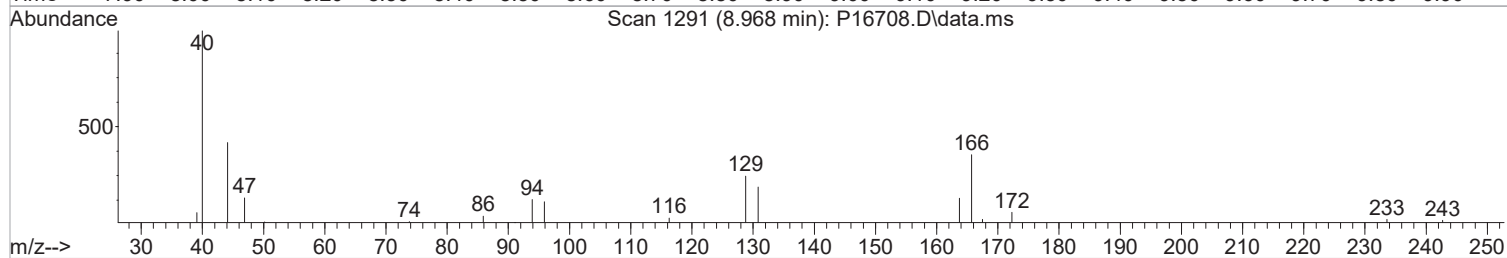
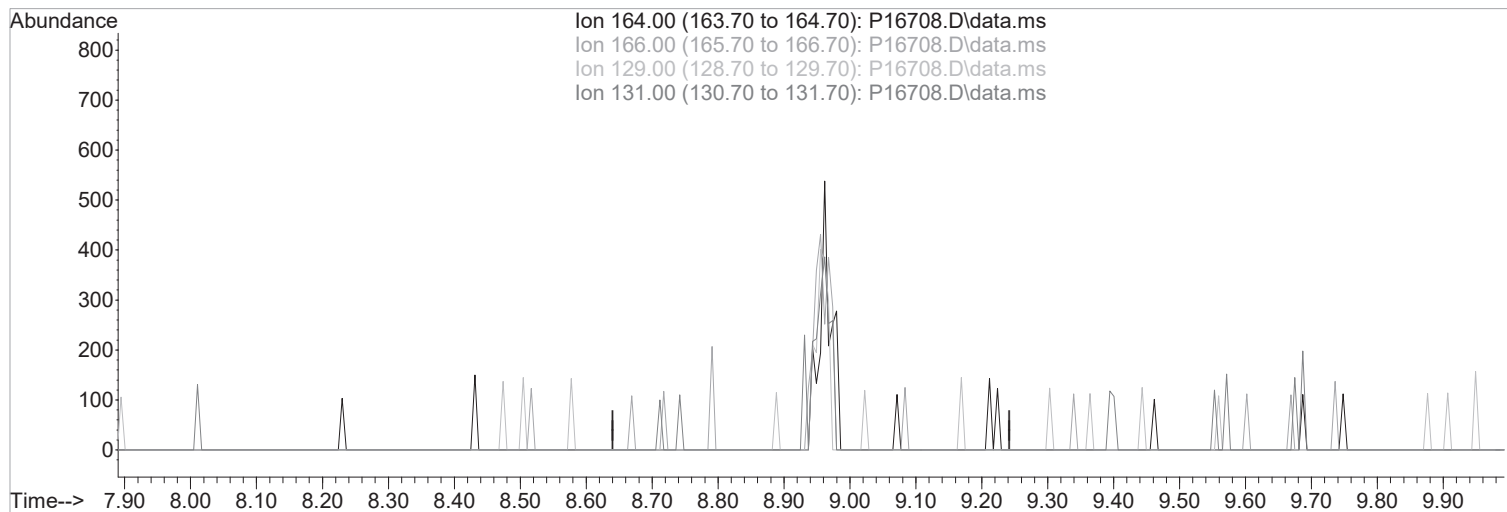
Peak not found.

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16708.D
Acq On : 27 Mar 2018 4:10 pm
Operator : K.Ruest
Sample : R1802551-001|1.0
Misc : VERINA 8260 T4
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 16:43:01 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16708.D\data.ms

(72) Tetrachloroethene (P)

Manual Integration:

8.968min (-8.968) 0.00 ppb

Before

response 0

Ion	Exp%	Act%
164.00	100	0.00
166.00	127.20	0.00#
129.00	97.50	0.00#
131.00	90.20	0.00#

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16708.D
 Acq On : 27 Mar 2018 4:10 pm
 Operator : K.Ruest
 Sample : R1802551-001|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 17:08:03 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	281048	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	475796	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	410509	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	204404	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	125562	44.45	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	88.90%#
48) surr1,1,2-dichloroetha...	5.767	65	186420	48.15	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	96.30%
65) SURR3,Toluene-d8	8.291	98	619979	49.15	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	98.30%
70) SURR2,BFB	10.864	95	224336	45.96	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	91.92%
Target Compounds						
15) Acetone	2.347	43	1530	0.89	ppb	Qvalue 93
16) 2-Propanol	2.481	45	2839	8.63	ppb	97
72) Tetrachloroethene	8.962	164	661m	0.29	ppb	

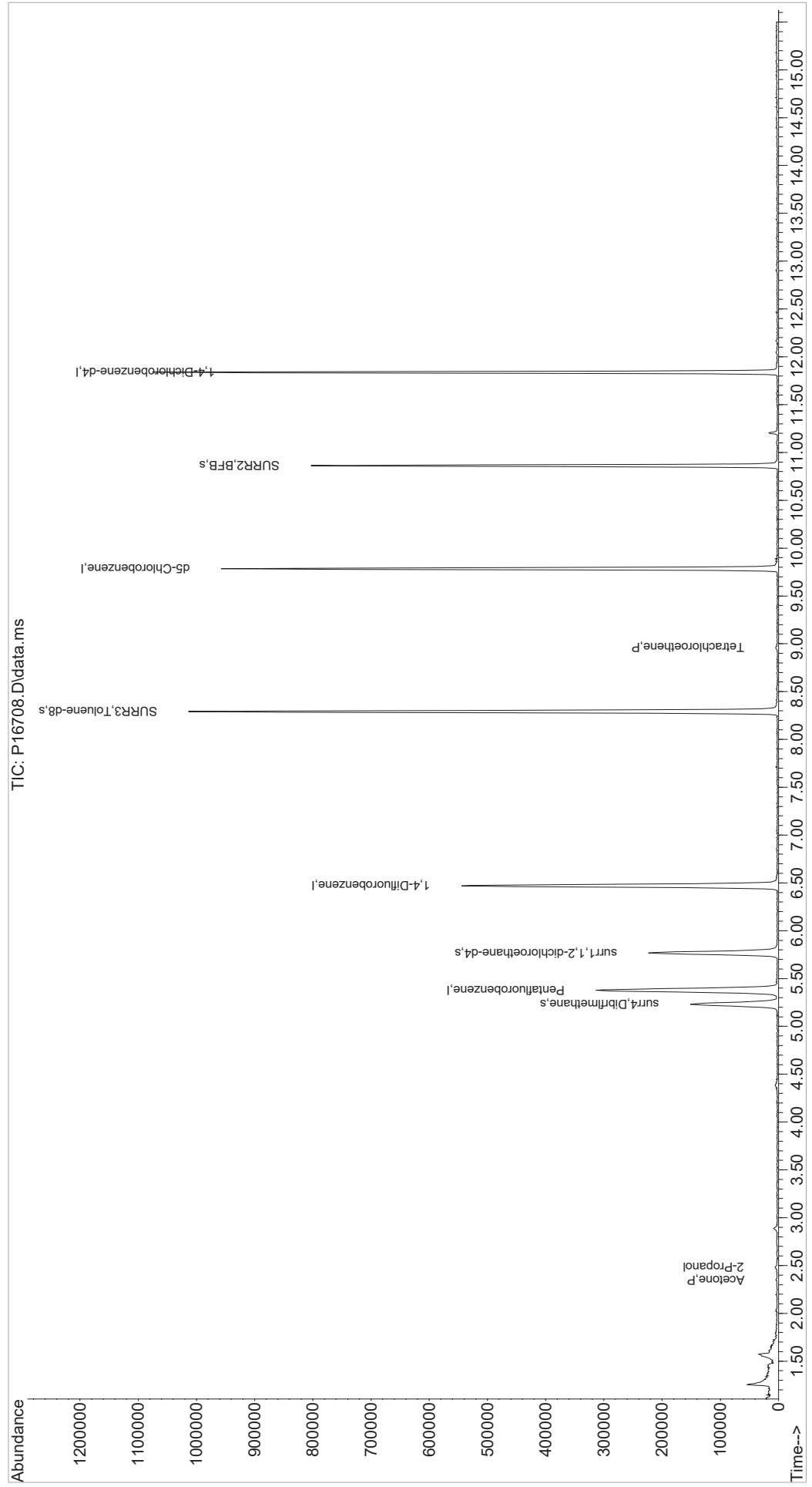
< MRL

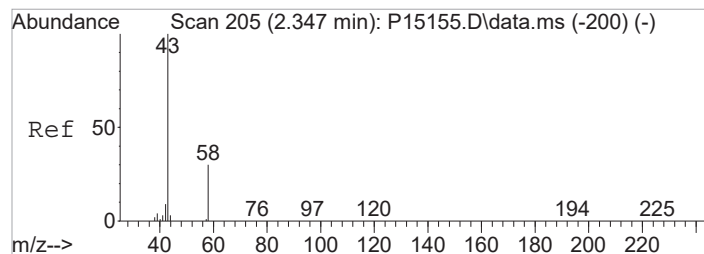
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16708.D
Acq On : 27 Mar 2018 4:10 pm
Operator : K.Ruest
Sample : R1802551-001|1.0
Misc : VERINA 8260 T4
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA-12

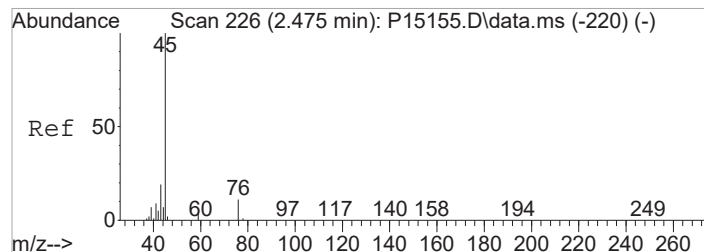
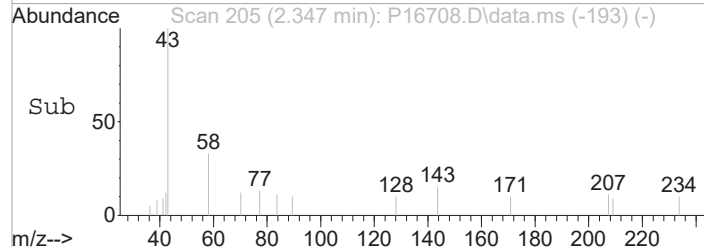
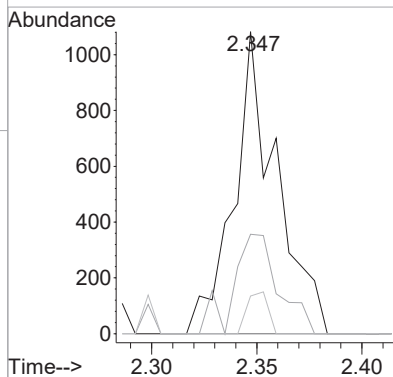
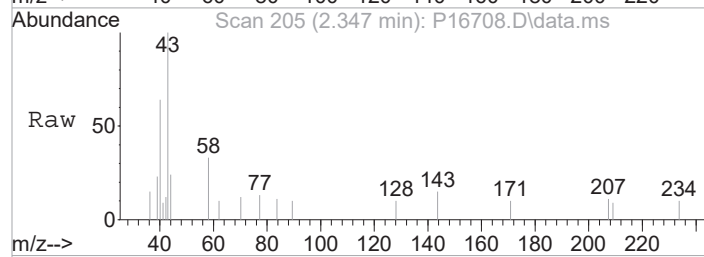
Quant Time: Mar 27 17:08:03 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Qlast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration





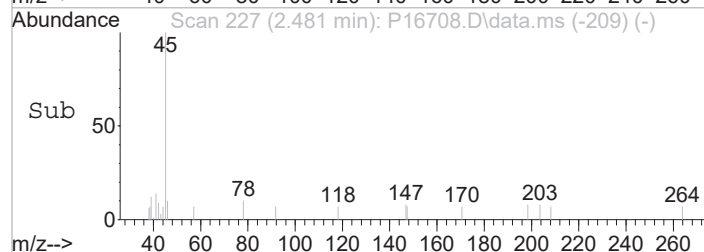
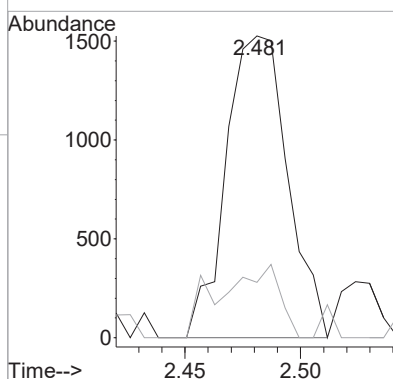
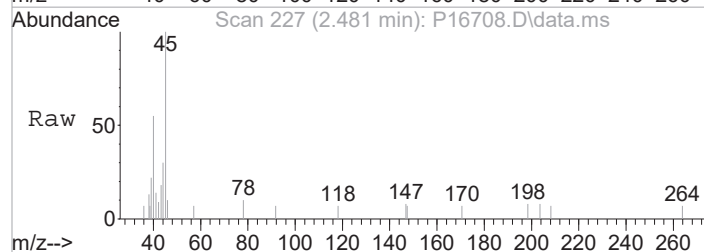
#15
Acetone
Concen: 0.89 ppb
RT: 2.347 min Scan# 205
Delta R.T. -0.000 min
Lab File: P16708.D
Acq: 27 Mar 2018 4:10 pm

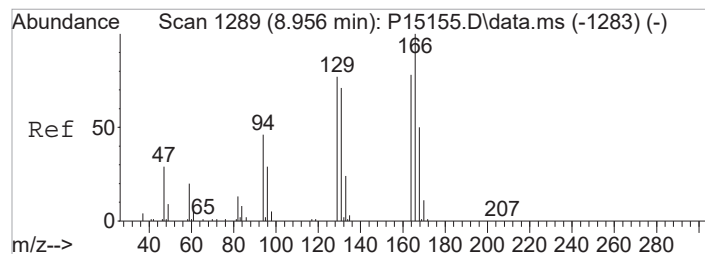
Tgt Ion	43	Resp	1530
Ion Ratio	Lower	Upper	
43	100		
58	32.9	9.7	49.7
42	12.5	0.0	29.2



#16
2-Propanol
Concen: 8.63 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.000 min
Lab File: P16708.D
Acq: 27 Mar 2018 4:10 pm

Tgt Ion	45	Resp	2839
Ion Ratio	Lower	Upper	
45	100		
43	18.3	0.0	39.6





#72

Tetrachloroethene

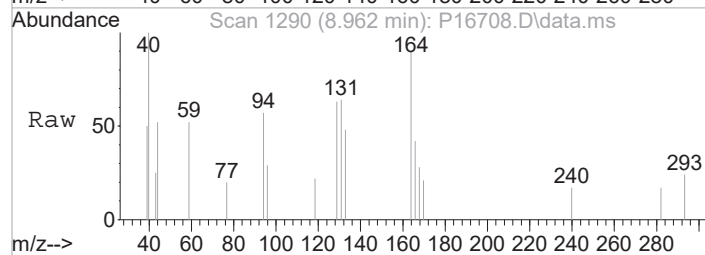
Concen: 0.29 ppb m

RT: 8.962 min Scan# 1290

Delta R.T. -0.006 min

Lab File: P16708.D

Acq: 27 Mar 2018 4:10 pm



Tgt Ion:164 Resp: 661

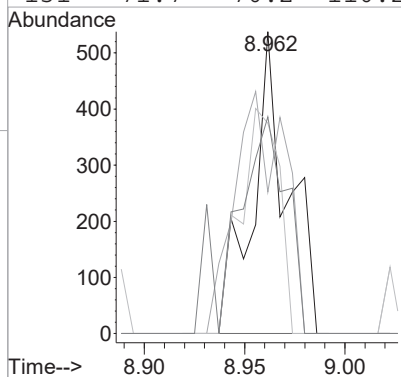
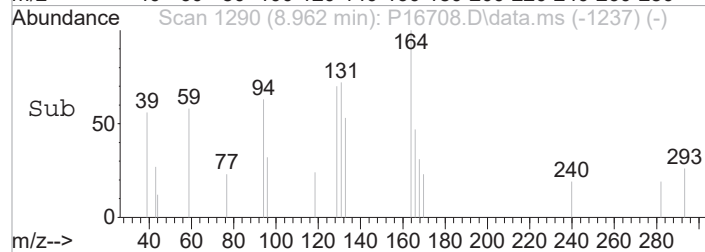
Ion Ratio Lower Upper

164 100

166 46.8 107.2 147.2#

129 69.7 77.5 117.5#

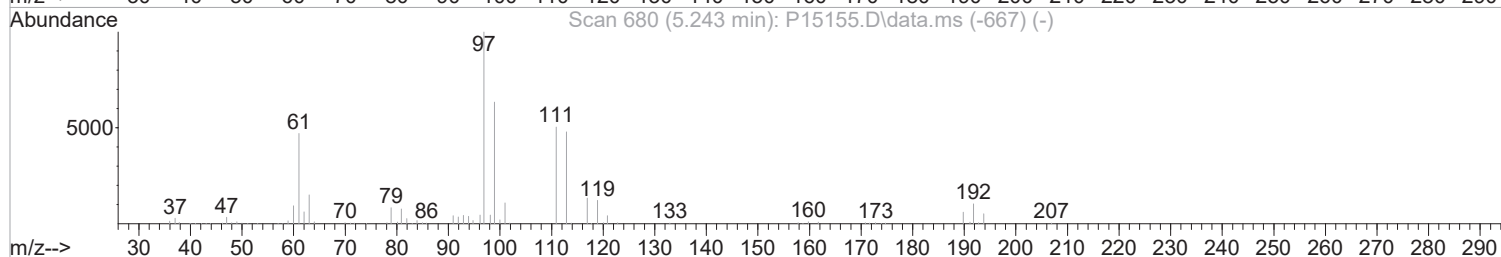
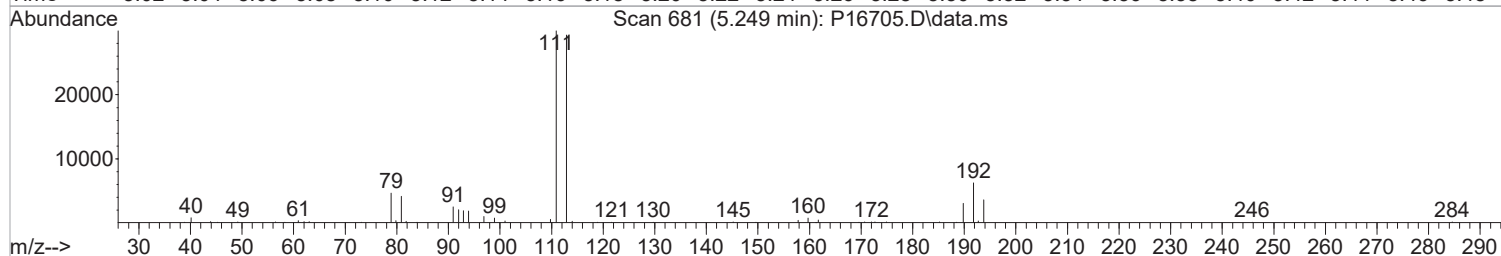
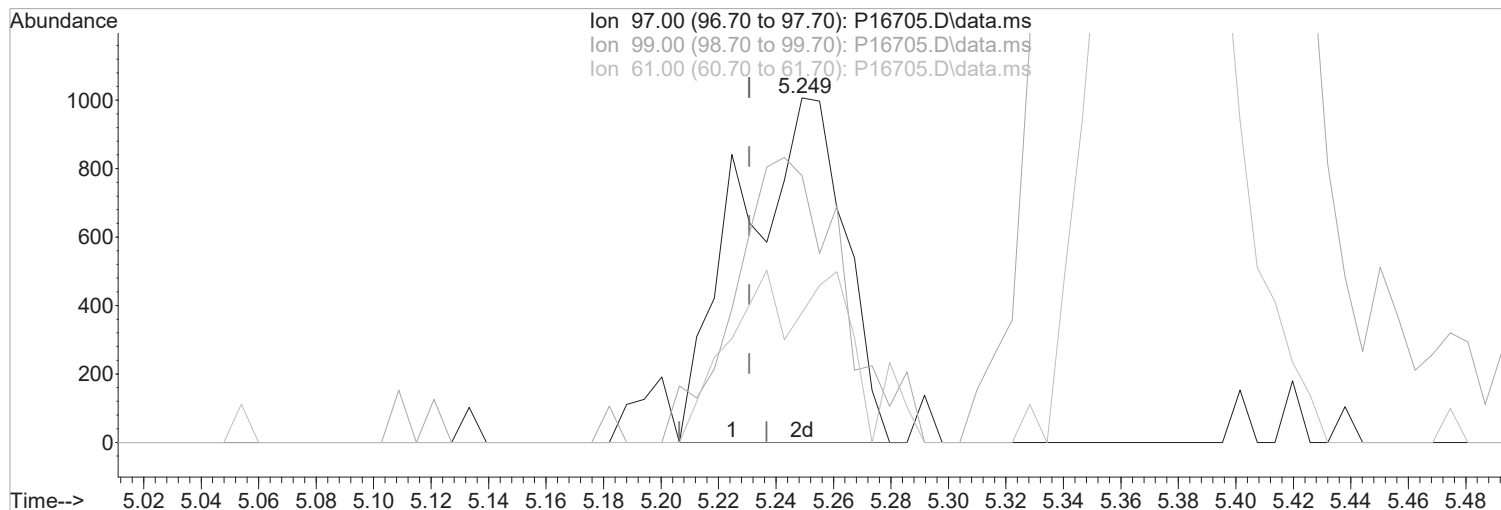
131 71.7 70.2 110.2



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16705.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.249min (+0.018) 0.54 ppb m

response 2539

Ion	Exp%	Act%
97.00	100	100
99.00	63.10	77.36
61.00	46.90	37.64
0.00	0.00	0.00

Manual Integration:

After

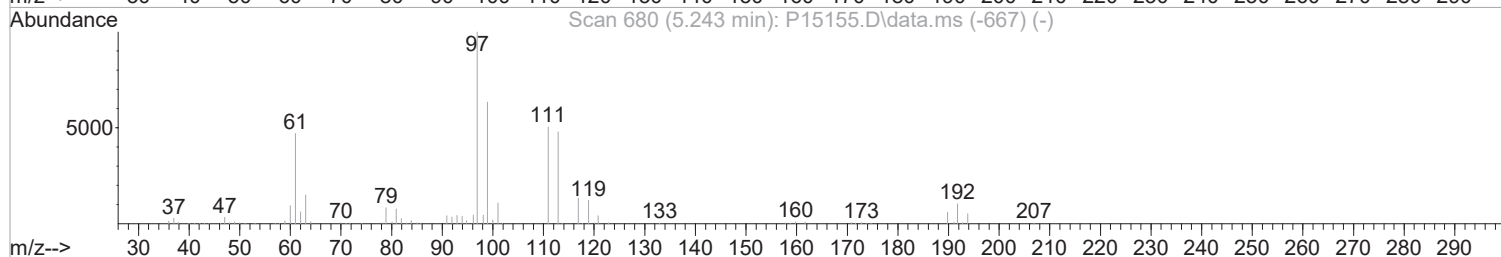
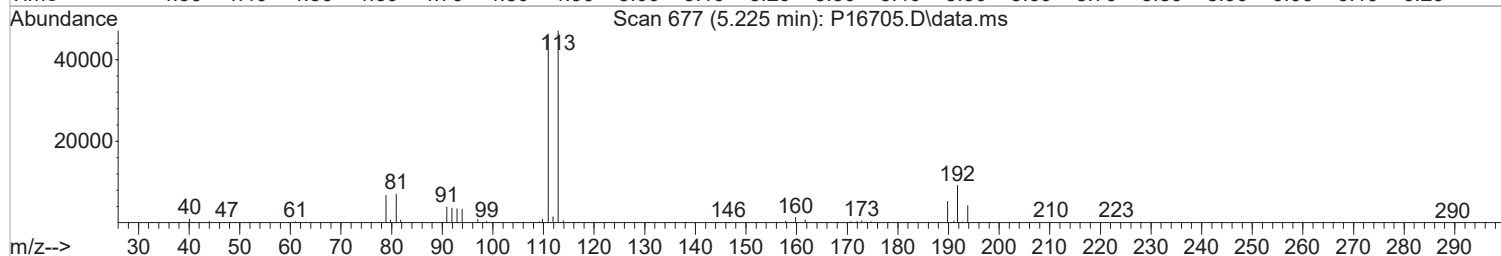
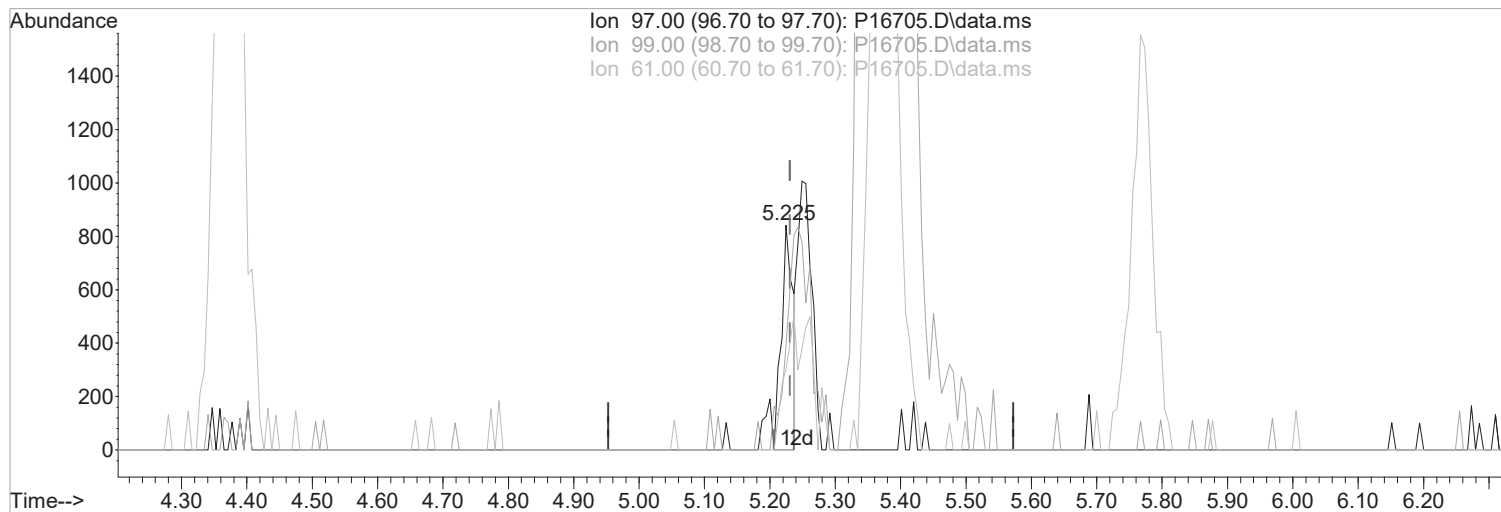
Split Peak

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16705.D\data.ms

(41) 1,1,1-Trichloroethane (P)

Manual Integration:

5.225min (-0.006) 0.22 ppb

Before

response 1023

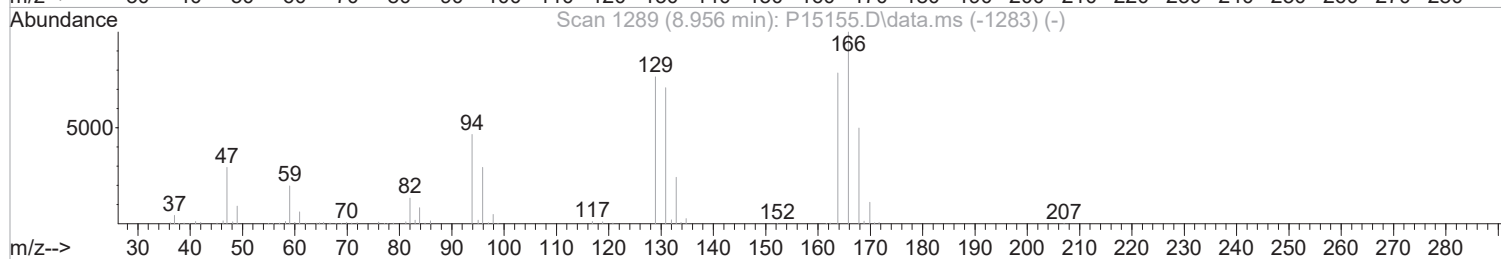
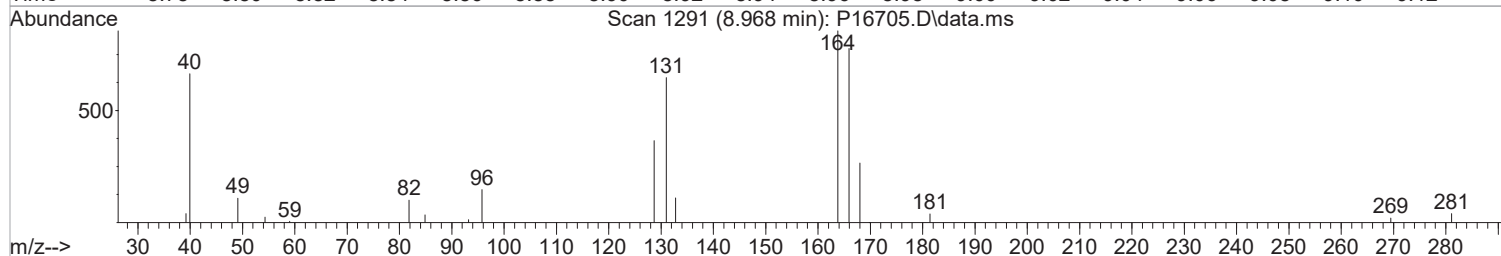
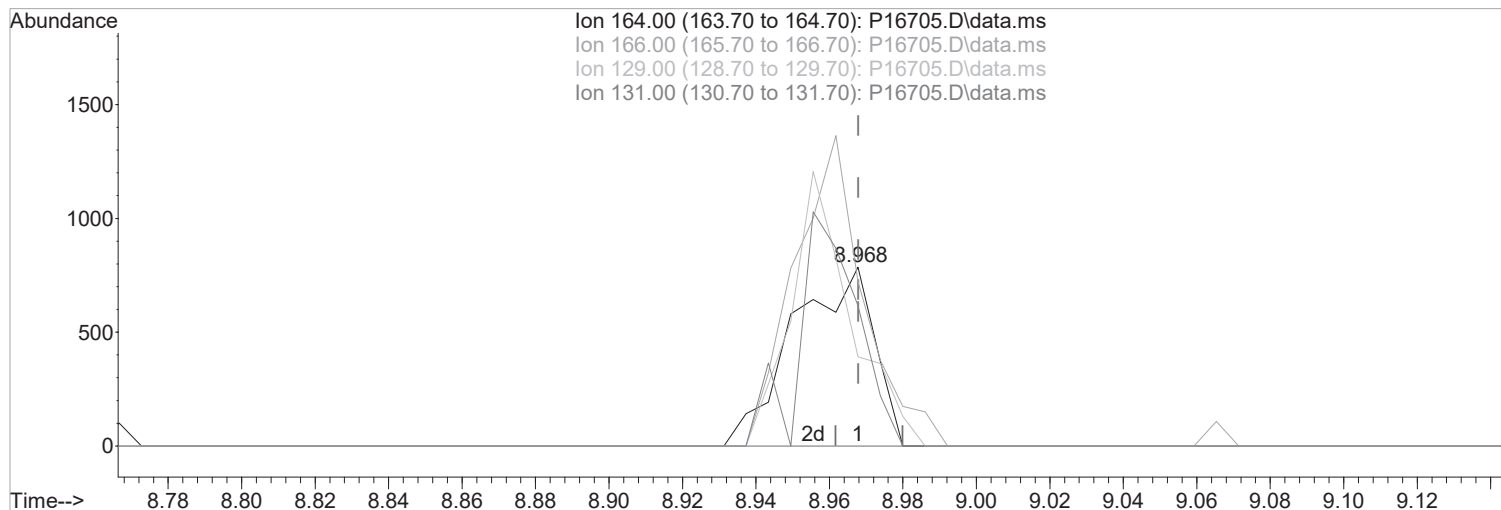
Ion	Exp%	Act%
97.00	100	100
99.00	63.10	46.37
61.00	46.90	36.03
0.00	0.00	0.00

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16705.D\data.ms

(72) Tetrachloroethene (P)

8.968min (-0.000) 0.52 ppb m

response 1207

Ion	Exp%	Act%
164.00	100	100
166.00	127.20	91.97#
129.00	97.50	49.94#
131.00	90.20	78.60

Manual Integration:

After

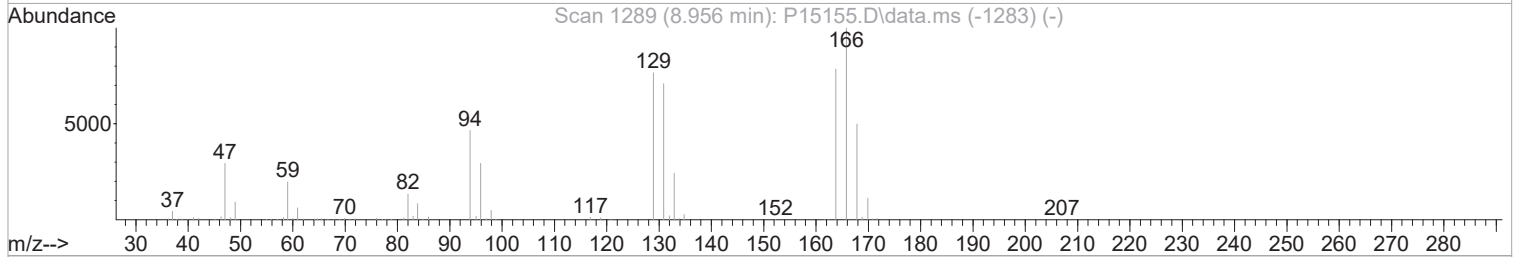
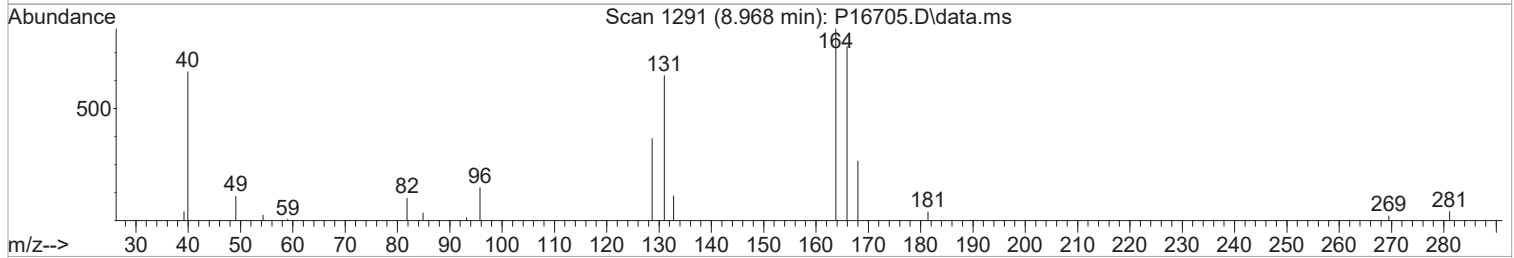
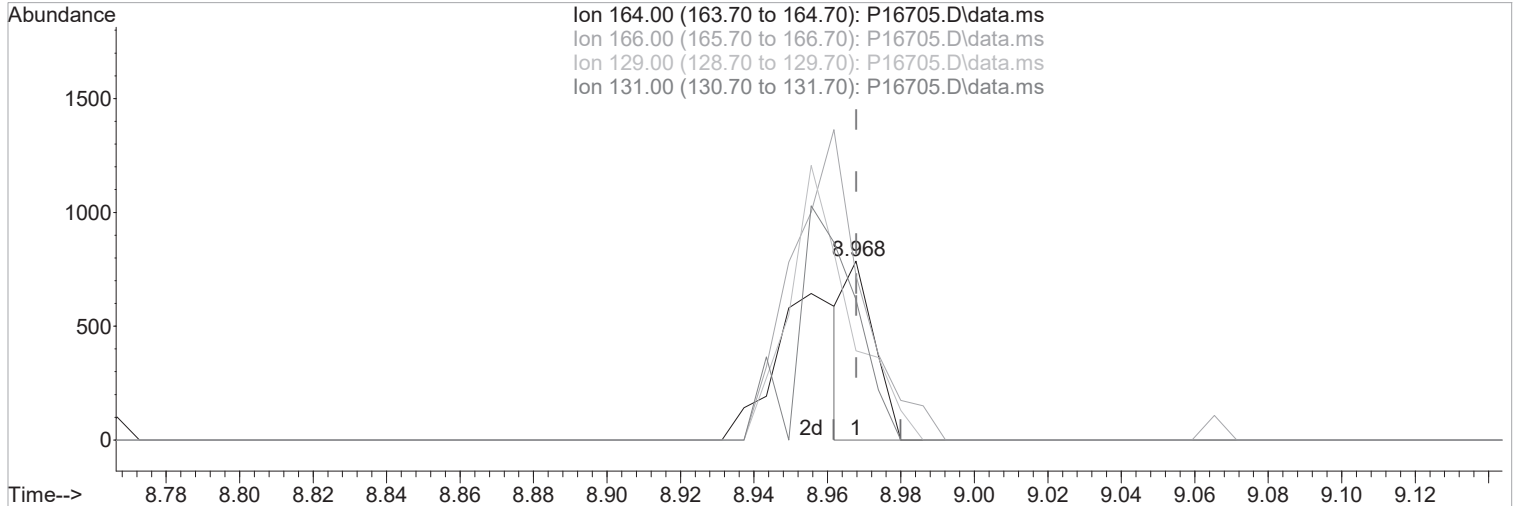
Split Peak

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16705.D
Acq On : 27 Mar 2018 3:05 pm
Operator : K.Ruest
Sample : R1802551-002|1.0
Misc : VERINA 8260 T4
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 15:34:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16705.D\data.ms

(72) Tetrachloroethene (P)

8.968min (-0.000) 0.18 ppb

response 423

Ion	Exp%	Act%
164.00	100	100
166.00	127.20	91.97#
129.00	97.50	49.94#
131.00	90.20	78.60

Manual Integration:

Before

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16705.D
 Acq On : 27 Mar 2018 3:05 pm
 Operator : K.Ruest
 Sample : R1802551-002|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 17:03:45 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

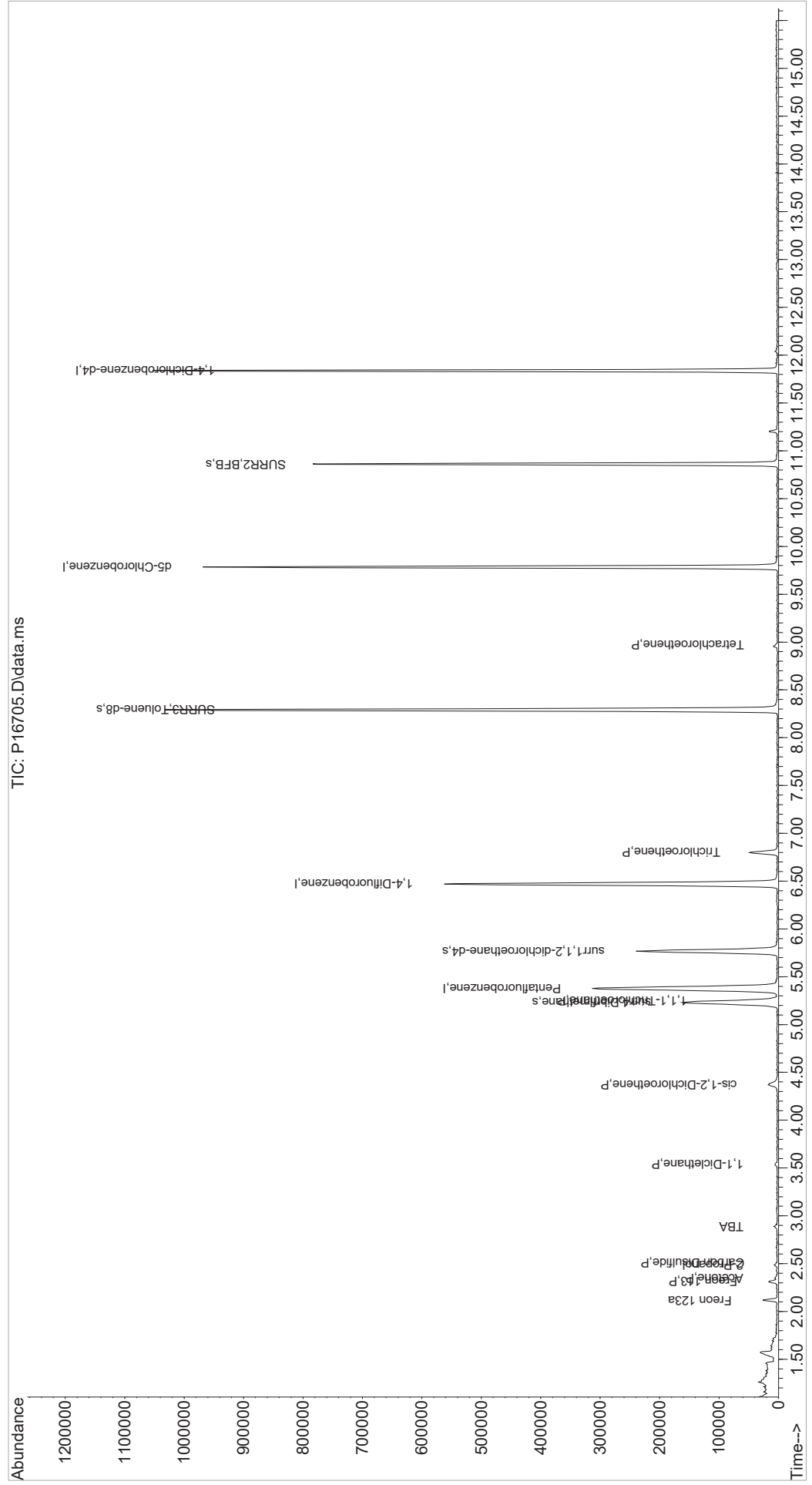
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	285631	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	482698	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	424525	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	209468	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	133809	46.69	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	93.38%	
48) surr1,1,2-dichloroetha...	5.767	65	197579	50.31	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	100.62%	
65) SURR3,Toluene-d8	8.291	98	641524	50.13	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	100.26%	
70) SURR2,BFB	10.858	95	228757	46.20	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	92.40%	
Target Compounds						
10) Freon 123a	2.115	67	9651	2.80	ppb	Qvalue 96
14) Freon 113	2.311	101	4565	1.65	ppb	81
15) Acetone	2.347	43	3526	2.02	ppb	95
16) 2-Propanol	2.481	45	3161	9.46	ppb	91
18) Carbon Disulfide	2.506	76	1973	0.23	ppb	95
23) TBA	2.884	59	2110	3.66	ppb	79
28) 1,1-Dicethane	3.536	63	3976	0.72	ppb	92
34) cis-1,2-Dichloroethene	4.371	96	7420	2.17	ppb	# 73
41) 1,1,1-Trichloroethane	5.249	97	2539m	0.54	ppb	
54) Trichloroethene	6.804	130	16292	5.04	ppb	94
72) Tetrachloroethene	8.968	164	1207m	0.52	ppb	

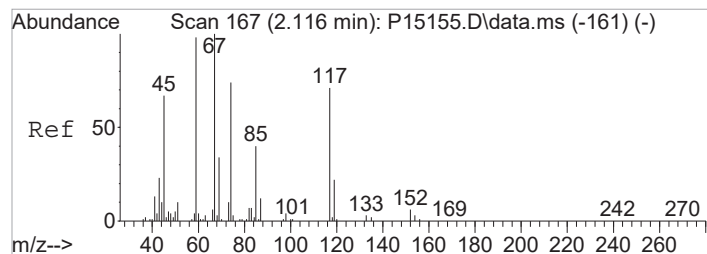
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16705.D
 Acq On : 27 Mar 2018 3:05 pm
 Operator : K.Ruest
 Sample : R1802551-002|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

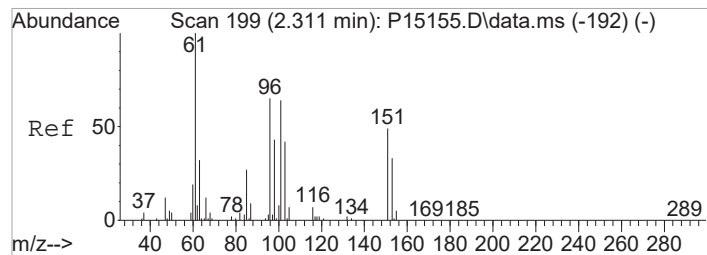
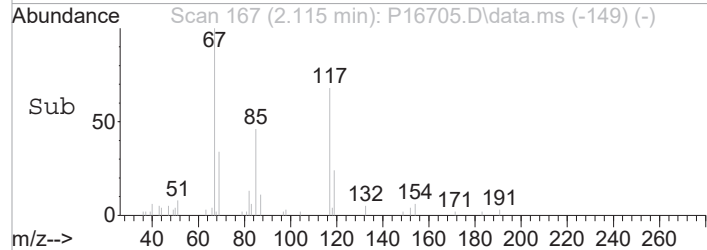
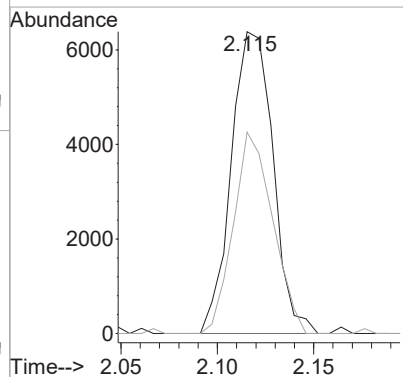
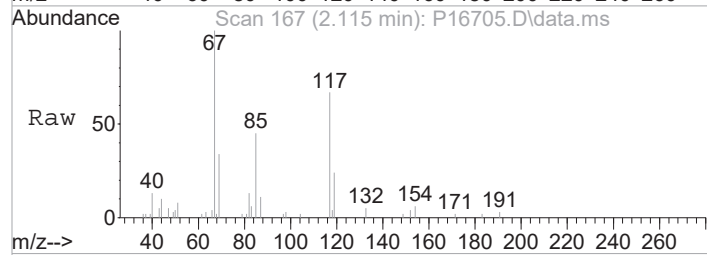
Quant Time: Mar 27 17:03:45 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration





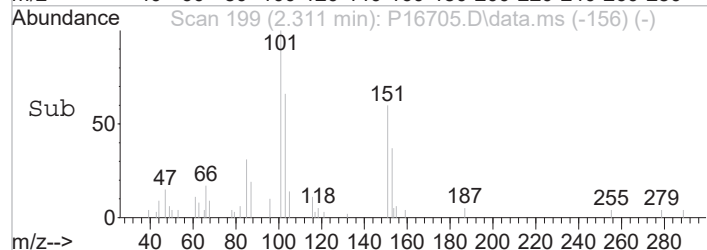
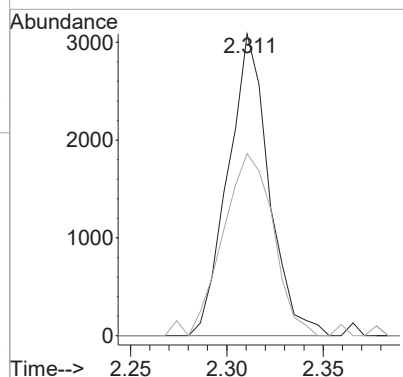
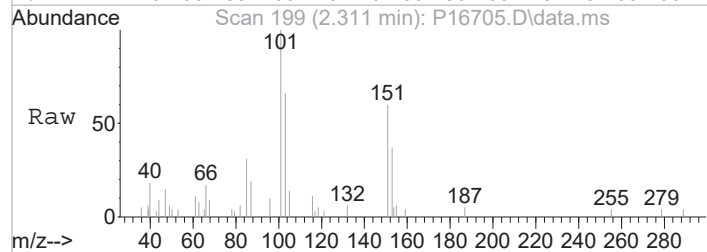
#10
Freon 123a
Concen: 2.80 ppb
RT: 2.115 min Scan# 167
Delta R.T. -0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

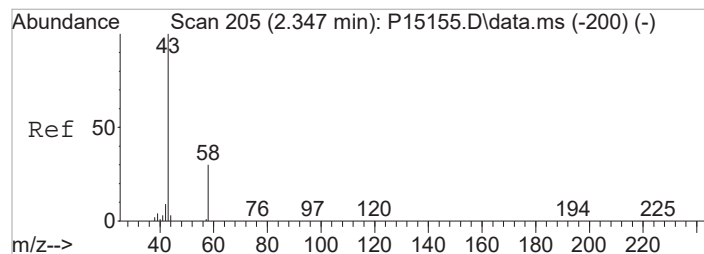
Tgt Ion: 67 Resp: 9651
Ion Ratio Lower Upper
67 100
117 66.6 50.3 90.3



#14
Freon 113
Concen: 1.65 ppb
RT: 2.311 min Scan# 199
Delta R.T. 0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

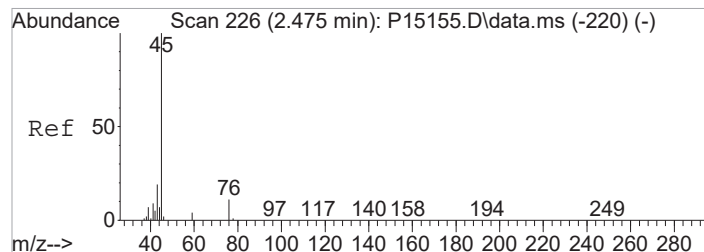
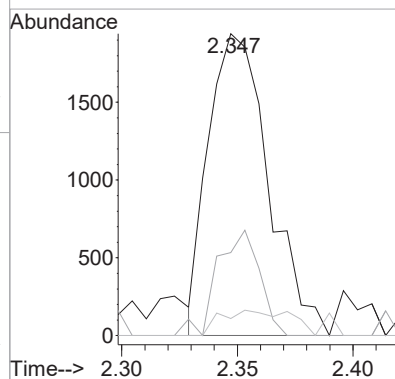
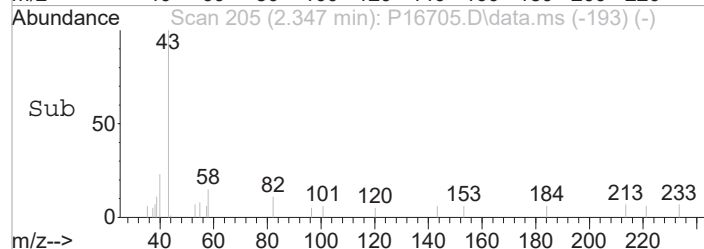
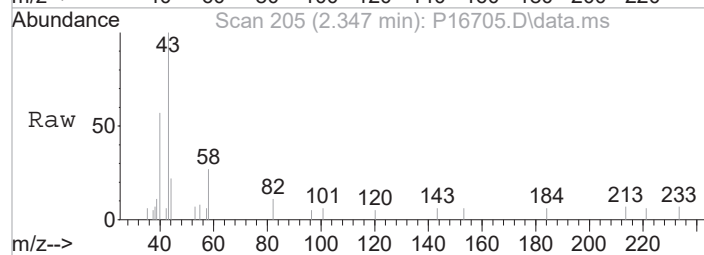
Tgt Ion: 101 Resp: 4565
Ion Ratio Lower Upper
101 100
151 60.3 56.3 96.3





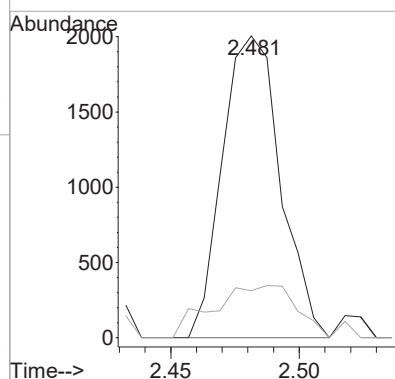
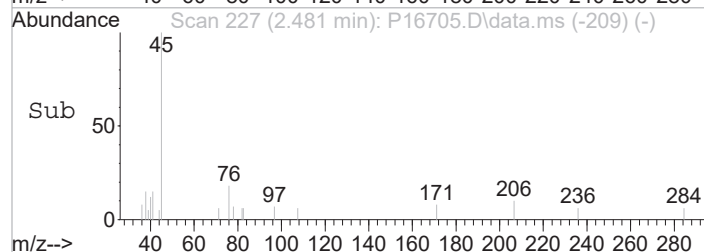
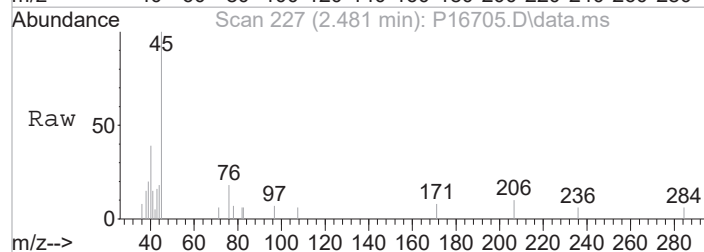
#15
Acetone
Concen: 2.02 ppb
RT: 2.347 min Scan# 205
Delta R.T. 0.000 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

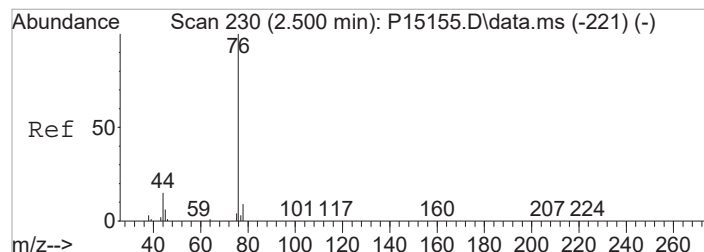
Tgt Ion:	43	Resp:	3526
Ion Ratio	Lower	Upper	
43	100		
58	27.5	9.7	49.7
42	5.6	0.0	29.2



#16
2-Propanol
Concen: 9.46 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.000 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

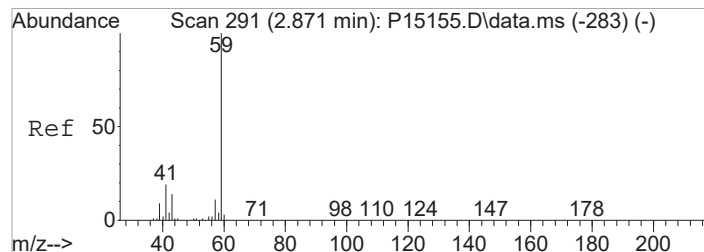
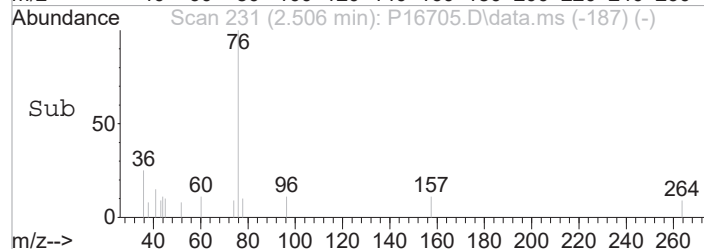
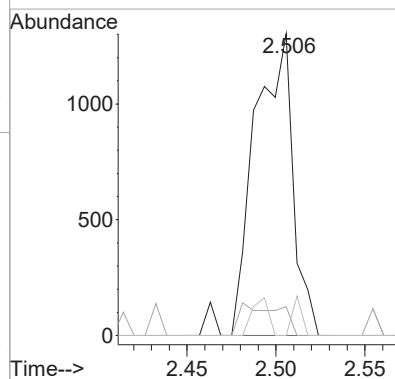
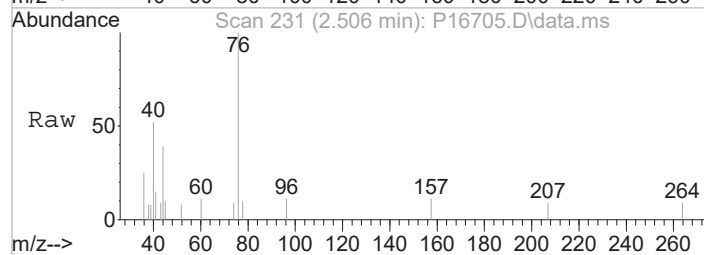
Tgt Ion:	45	Resp:	3161
Ion Ratio	Lower	Upper	
45	100		
43	15.6	0.0	39.6





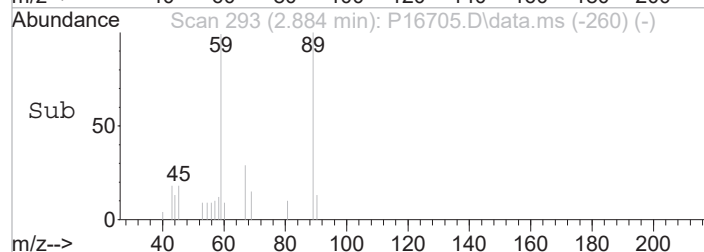
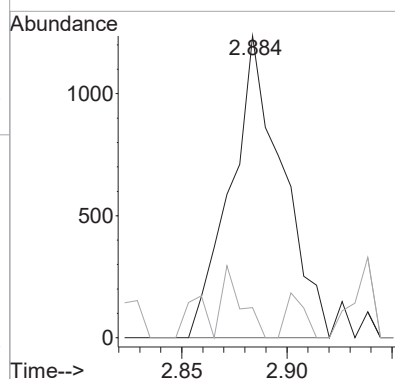
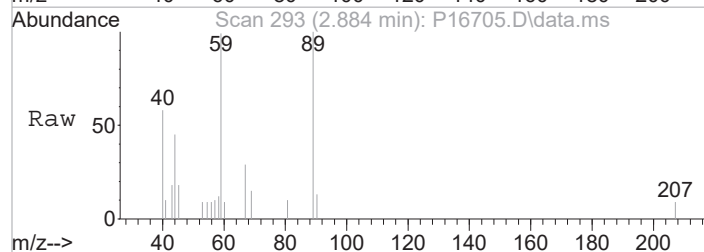
#18
Carbon Disulfide
Concen: 0.23 ppb
RT: 2.506 min Scan# 231
Delta R.T. 0.012 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

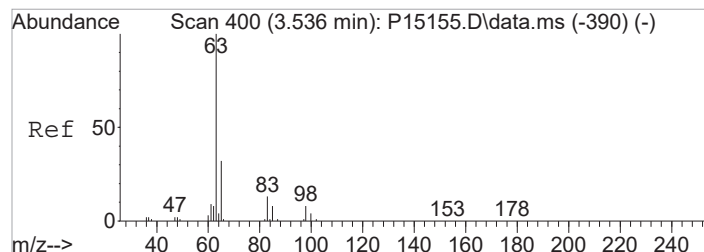
Tgt Ion	76	Resp	1973
Ion Ratio	Lower	Upper	
76	100		
78	9.6	0.0	29.5
77	9.6	0.0	23.1



#23
TBA
Concen: 3.66 ppb
RT: 2.884 min Scan# 293
Delta R.T. 0.012 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

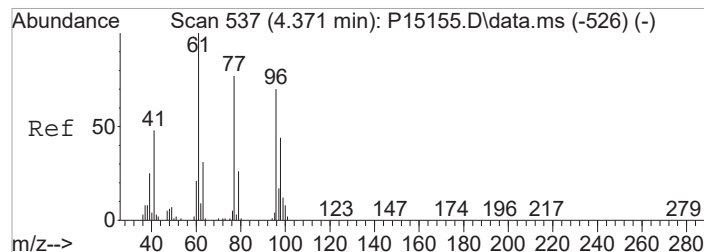
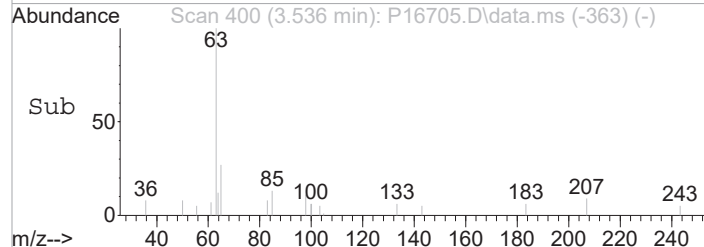
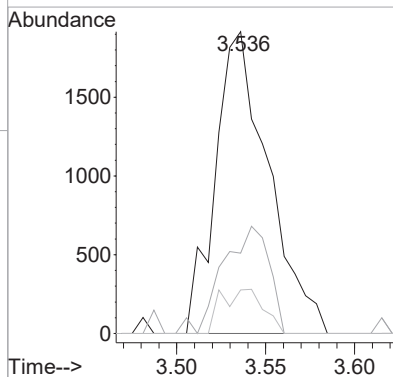
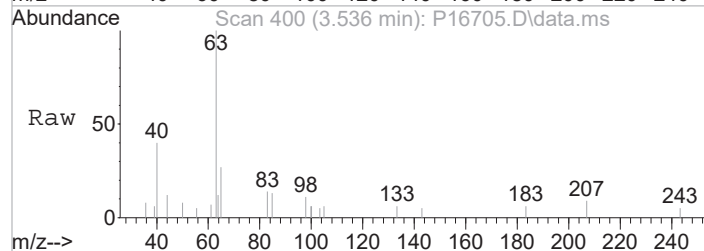
Tgt Ion	59	Resp	2110
Ion Ratio	Lower	Upper	
59	100		
41	9.9	0.0	39.4





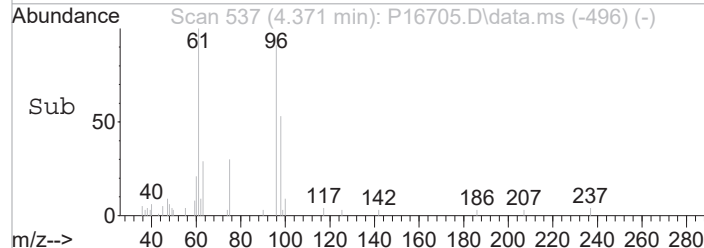
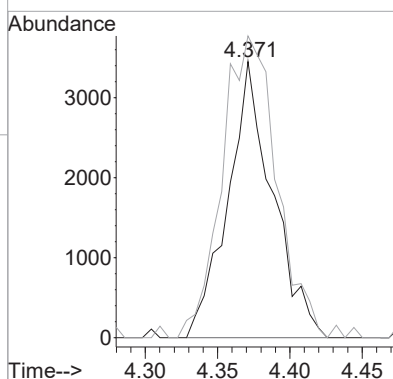
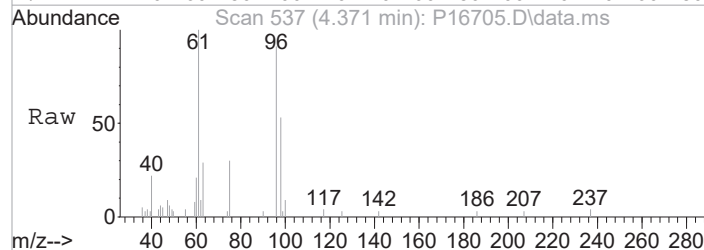
#28
1,1-Dichloroethane
Concen: 0.72 ppb
RT: 3.536 min Scan# 400
Delta R.T. -0.000 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

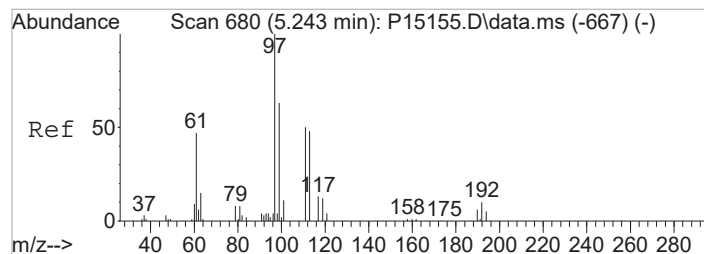
Tgt Ion	Resp	Ion Ratio	Lower	Upper
63	3976	100		
65	26.6	12.3	52.3	
83	14.4	0.0	33.4	



#34
cis-1,2-Dichloroethene
Concen: 2.17 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

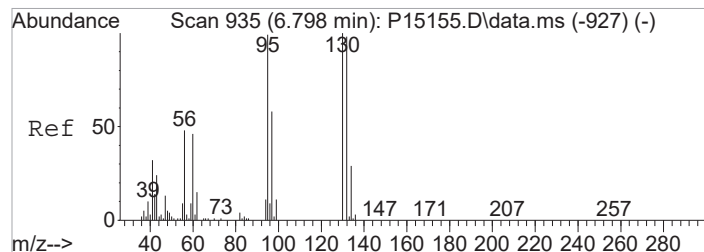
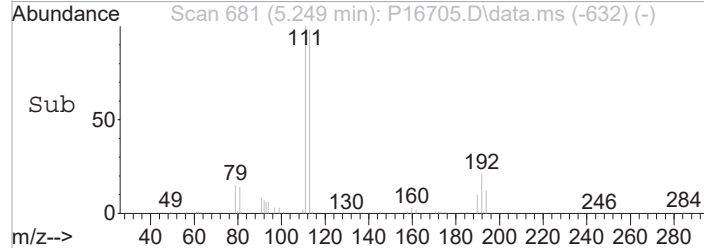
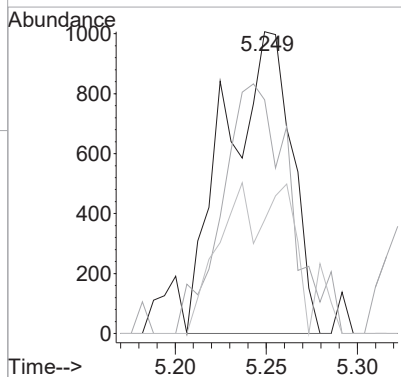
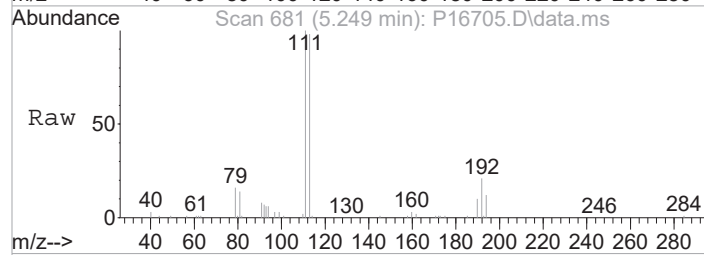
Tgt Ion	Resp	Ion Ratio	Lower	Upper
96	7420	100		
61	109.3	122.8	162.8#	





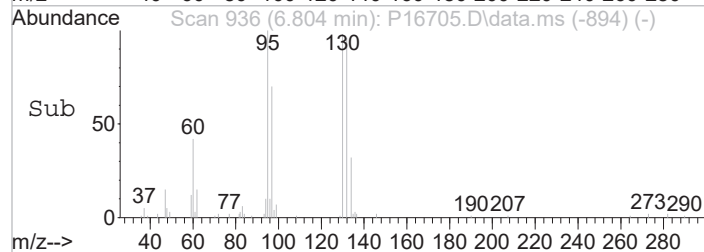
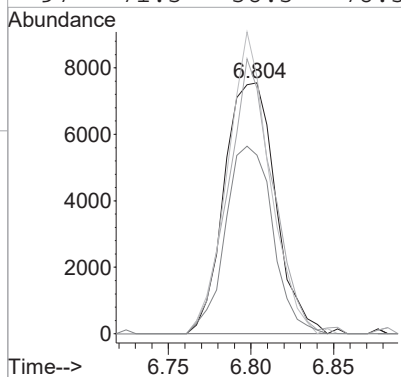
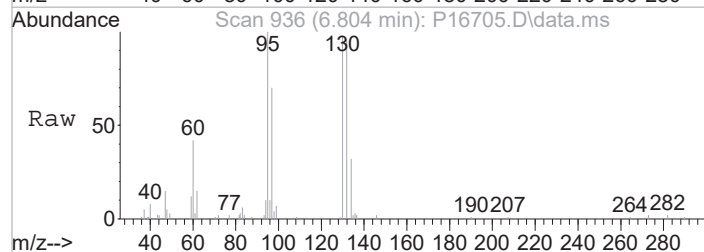
#41
1,1,1-Trichloroethane
Concen: 0.54 ppb m
RT: 5.249 min Scan# 681
Delta R.T. 0.018 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

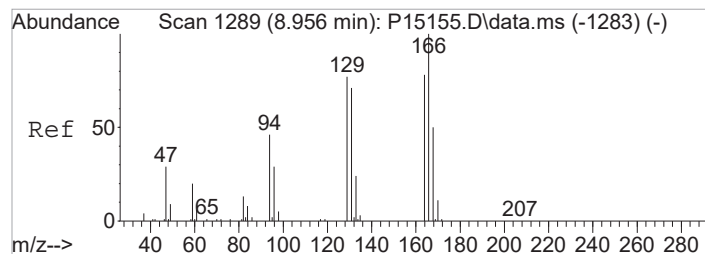
Tgt Ion	97	Resp	2539
Ion Ratio	Lower	Upper	
97	100		
99	77.4	43.1	83.1
61	37.6	26.9	66.9



#54
Trichloroethene
Concen: 5.04 ppb
RT: 6.804 min Scan# 936
Delta R.T. 0.006 min
Lab File: P16705.D
Acq: 27 Mar 2018 3:05 pm

Tgt Ion	130	Resp	16292
Ion Ratio	Lower	Upper	
130	100		
132	97.9	78.3	118.3
95	102.4	78.7	118.7
97	71.3	38.3	78.3





#72

Tetrachloroethene

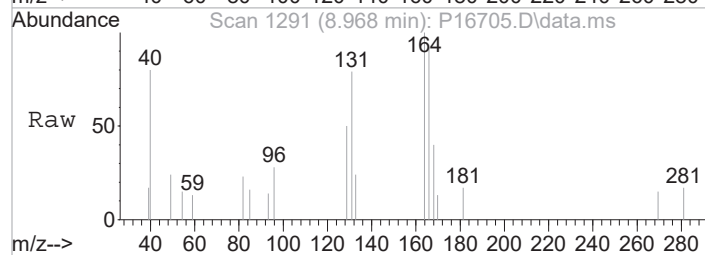
Concen: 0.52 ppb m

RT: 8.968 min Scan# 1291

Delta R.T. -0.000 min

Lab File: P16705.D

Acq: 27 Mar 2018 3:05 pm



Tgt Ion:164 Resp: 1207

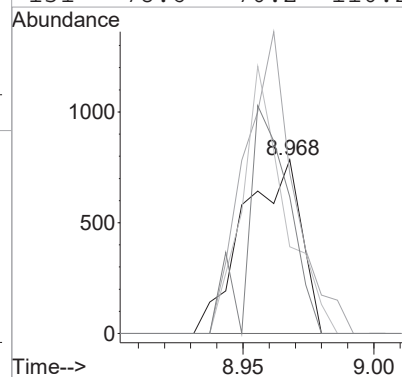
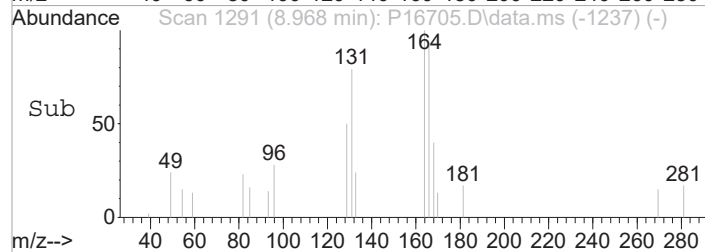
Ion Ratio Lower Upper

164 100

166 92.0 107.2 147.2#

129 49.9 77.5 117.5#

131 78.6 70.2 110.2



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16709.D
Acq On : 27 Mar 2018 4:32 pm
Operator : K.Ruest
Sample : R1802551-007|1.0
Misc : VERINA 8260 T4
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 17:09:19 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

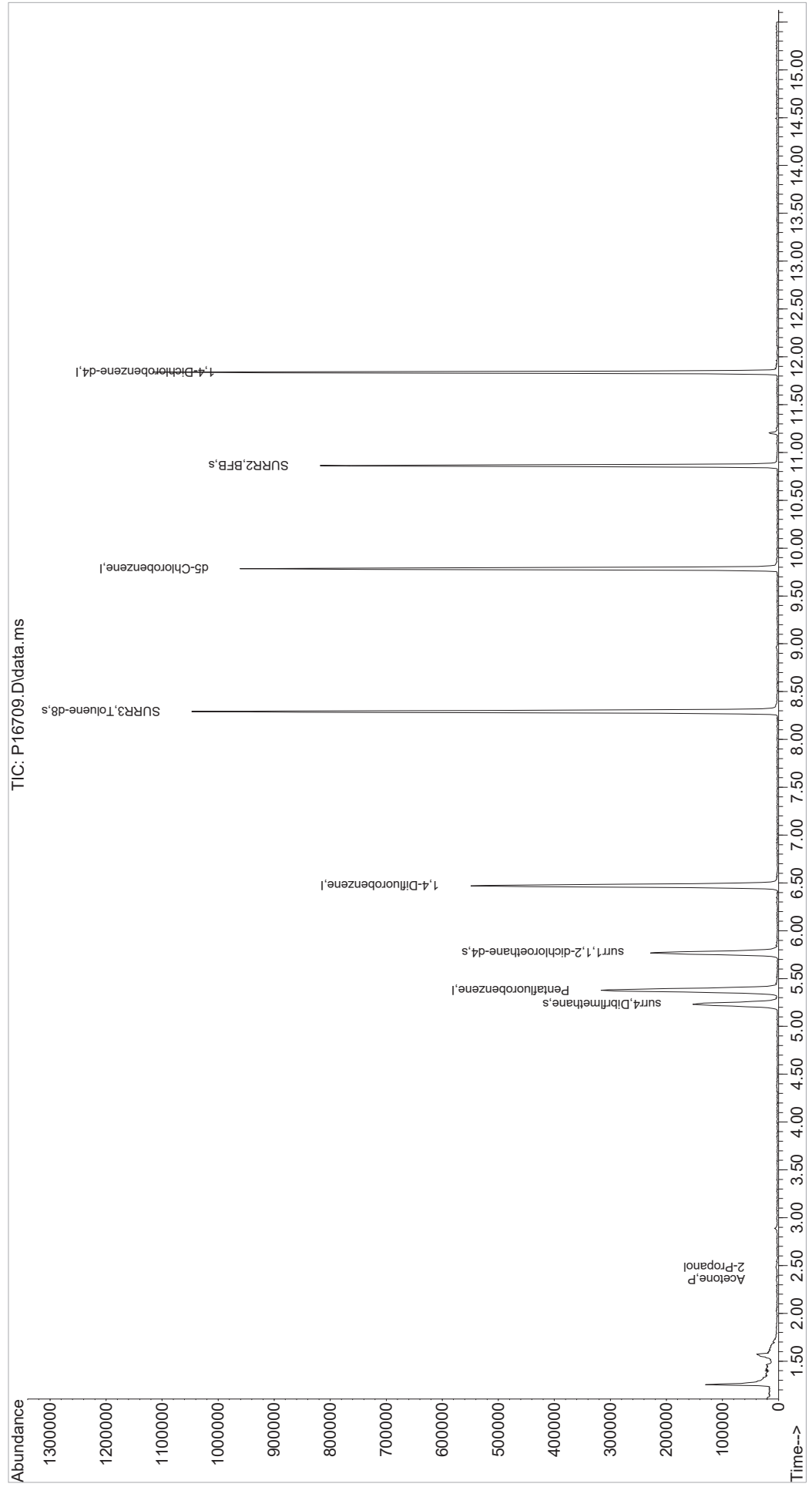
Internal Standards						
1) Pentafluorobenzene	5.377	168	280405	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	474659	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	421343	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	210915	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	128412	45.56	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	91.12%	
48) surr1,1,2-dichloroetha...	5.773	65	191309	49.54	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	99.08%	
65) SURR3,Toluene-d8	8.291	98	627621	49.87	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	99.74%	
70) SURR2,BFB	10.864	95	228204	46.87	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	93.74%	
Target Compounds						
15) Acetone	2.353	43	1957	1.14	ppb	Qvalue 83
16) 2-Propanol	2.481	45	2361	7.20	ppb	95

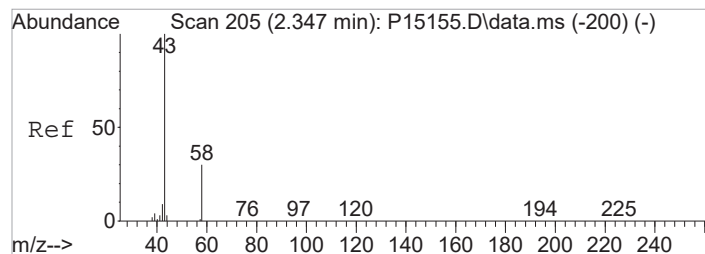
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16709.D
Acq On : 27 Mar 2018 4:32 pm
Operator : K.Ruest
Sample : R1802551-007|1.0
Misc : VERINA 8260 T4
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA-12

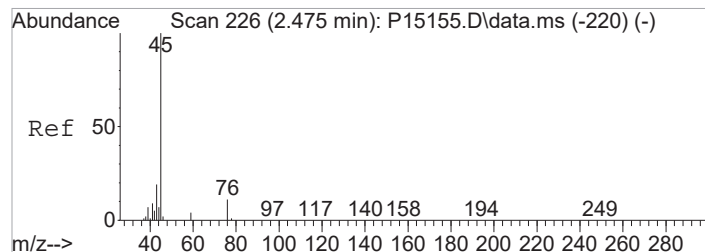
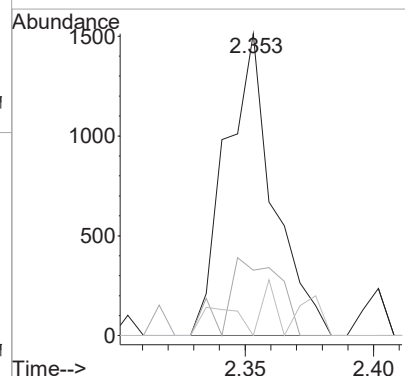
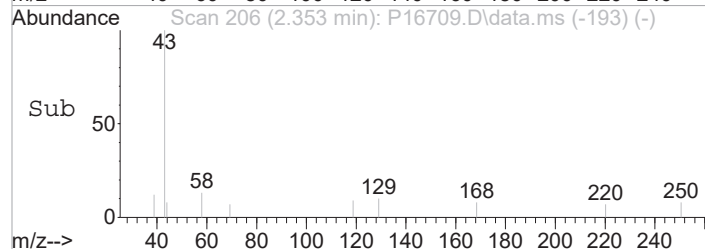
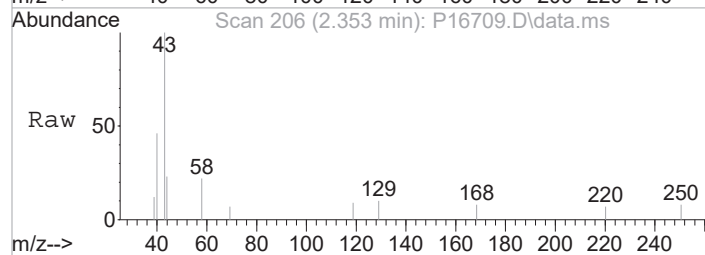
Quant Time: Mar 27 17:09:19 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration





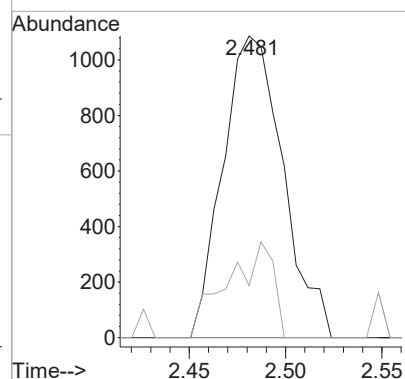
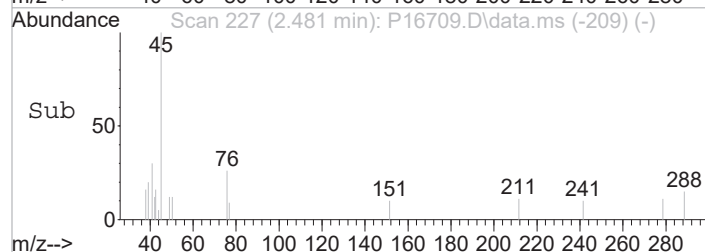
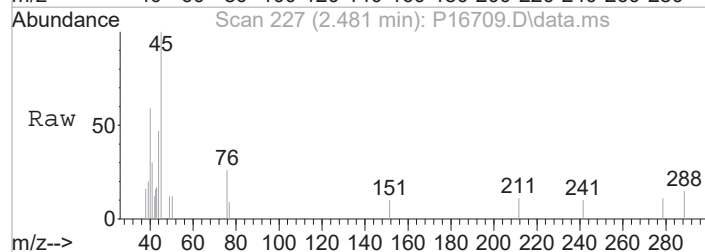
#15
Acetone
Concen: 1.14 ppb
RT: 2.353 min Scan# 206
Delta R.T. 0.006 min
Lab File: P16709.D
Acq: 27 Mar 2018 4:32 pm

Tgt Ion:	43	Resp:	1957
Ion Ratio	Lower	Upper	
43	100		
58	21.7	9.7	49.7
42	0.0	0.0	29.2



#16
2-Propanol
Concen: 7.20 ppb
RT: 2.481 min Scan# 227
Delta R.T. -0.000 min
Lab File: P16709.D
Acq: 27 Mar 2018 4:32 pm

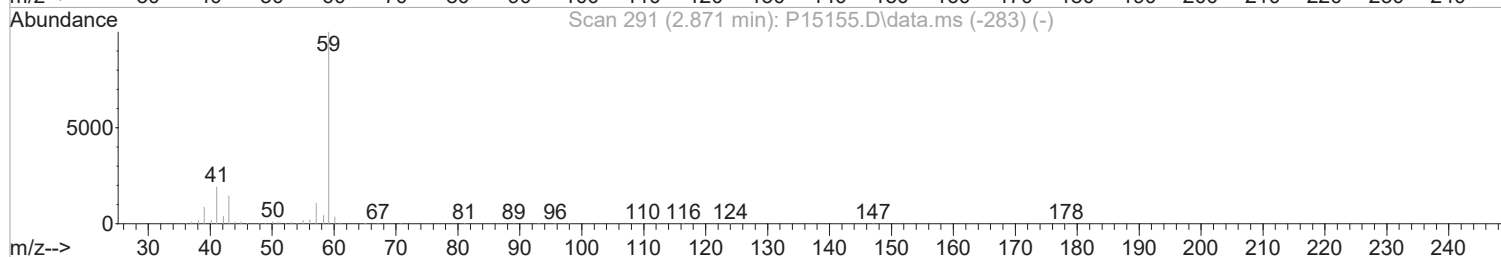
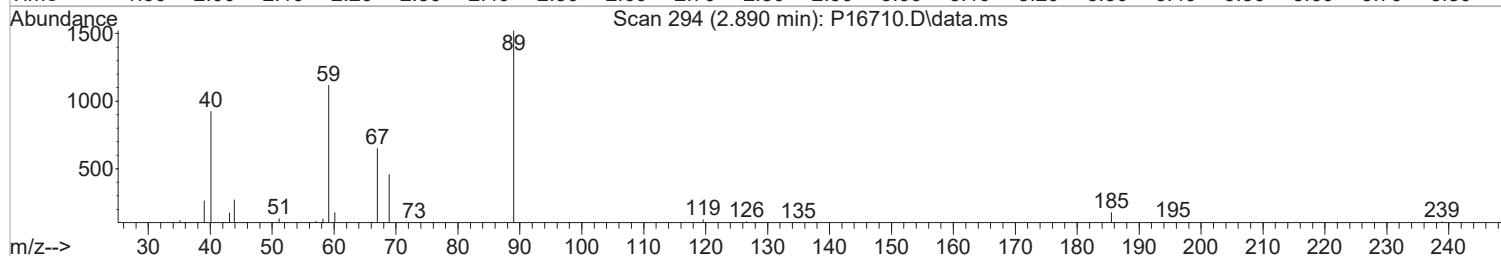
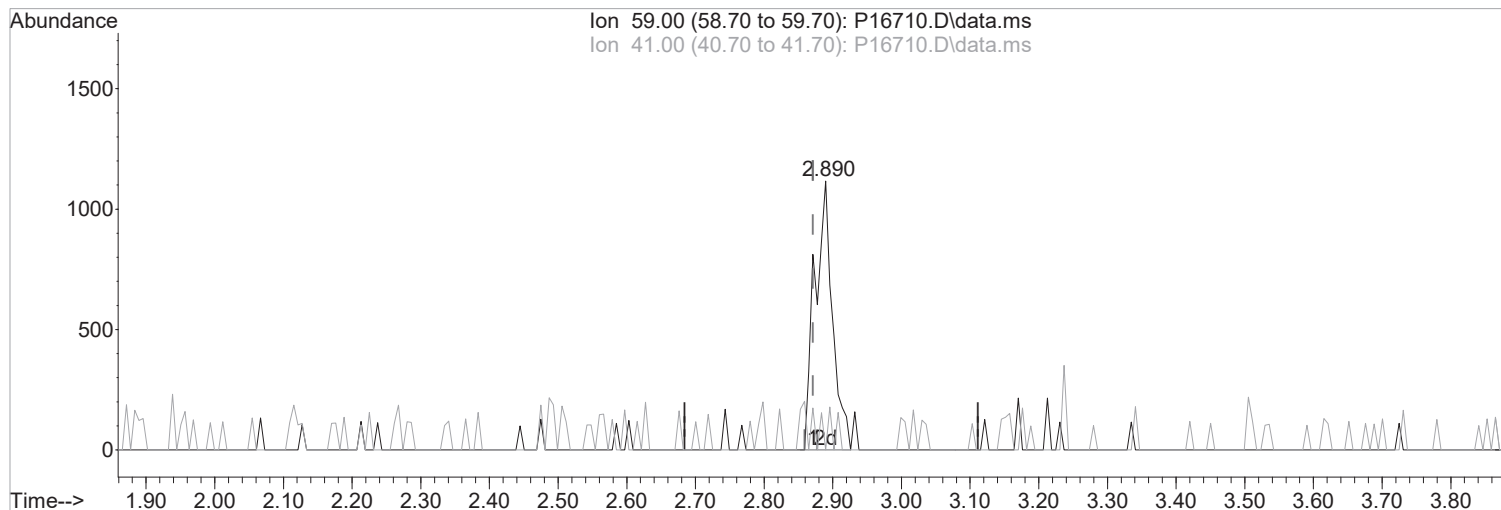
Tgt Ion:	45	Resp:	2361
Ion Ratio	Lower	Upper	
45	100		
43	17.3	0.0	39.6



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16710.D
Acq On : 27 Mar 2018 4:54 pm
Operator : K.Ruest
Sample : R1802551-008|1.0
Misc : VERINA 8260 T4
ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 17:10:30 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16710.D\data.ms

(23) TBA

2.890min (+0.018) 3.42 ppb m

response 1985

Ion	Exp%	Act%
59.00	100	100
41.00	19.40	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

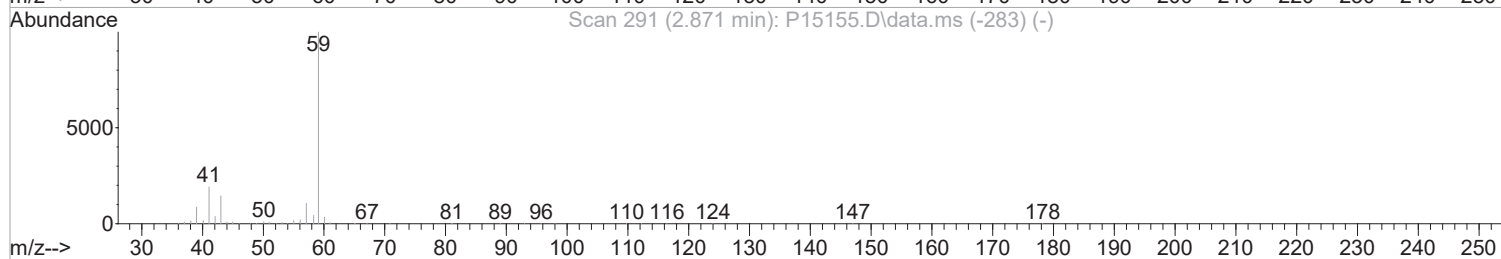
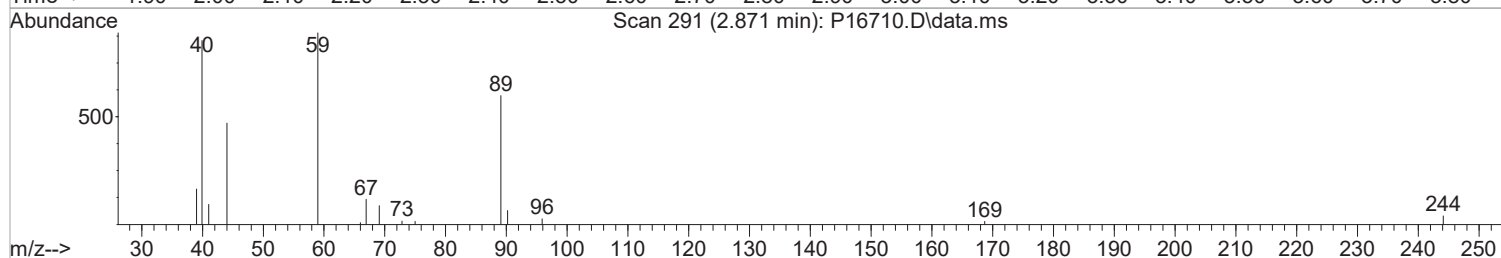
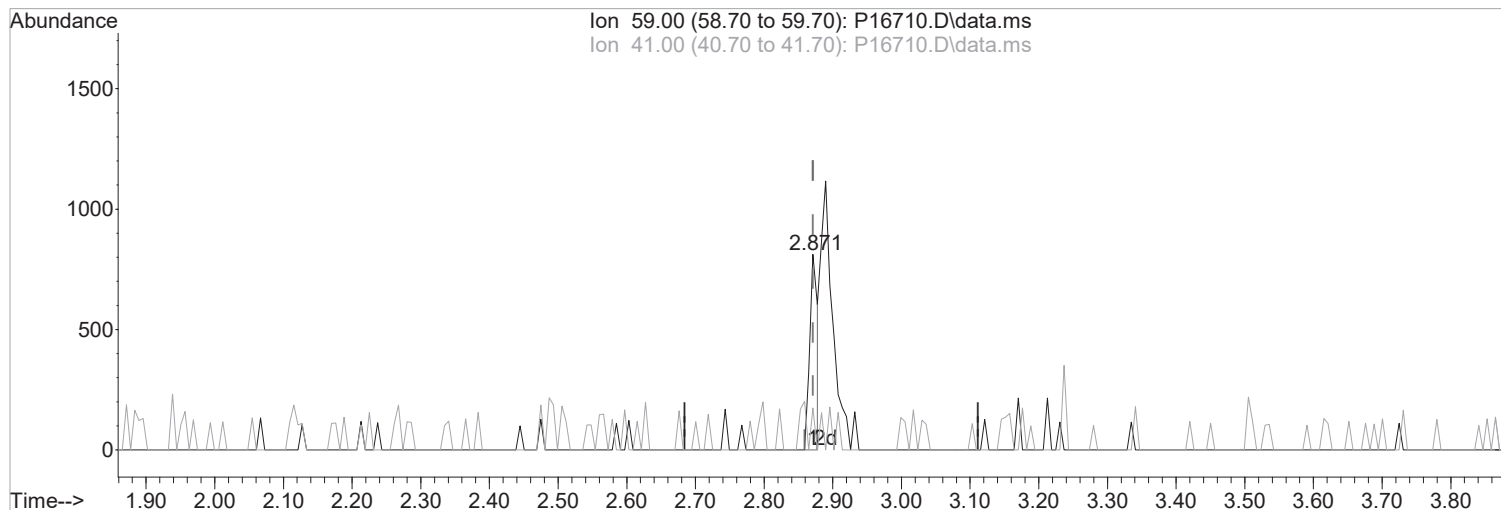
Split Peak

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16710.D
Acq On : 27 Mar 2018 4:54 pm
Operator : K.Ruest
Sample : R1802551-008|1.0
Misc : VERINA 8260 T4
ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 17:10:30 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16710.D\data.ms

(23) TBA

Manual Integration:

2.871min (-0.000) 1.09 ppb

Before

response 636

Ion	Exp%	Act%
59.00	100	100
41.00	19.40	21.43
0.00	0.00	0.00
0.00	0.00	0.00

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16710.D
 Acq On : 27 Mar 2018 4:54 pm
 Operator : K.Ruest
 Sample : R1802551-008|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 17:11:37 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

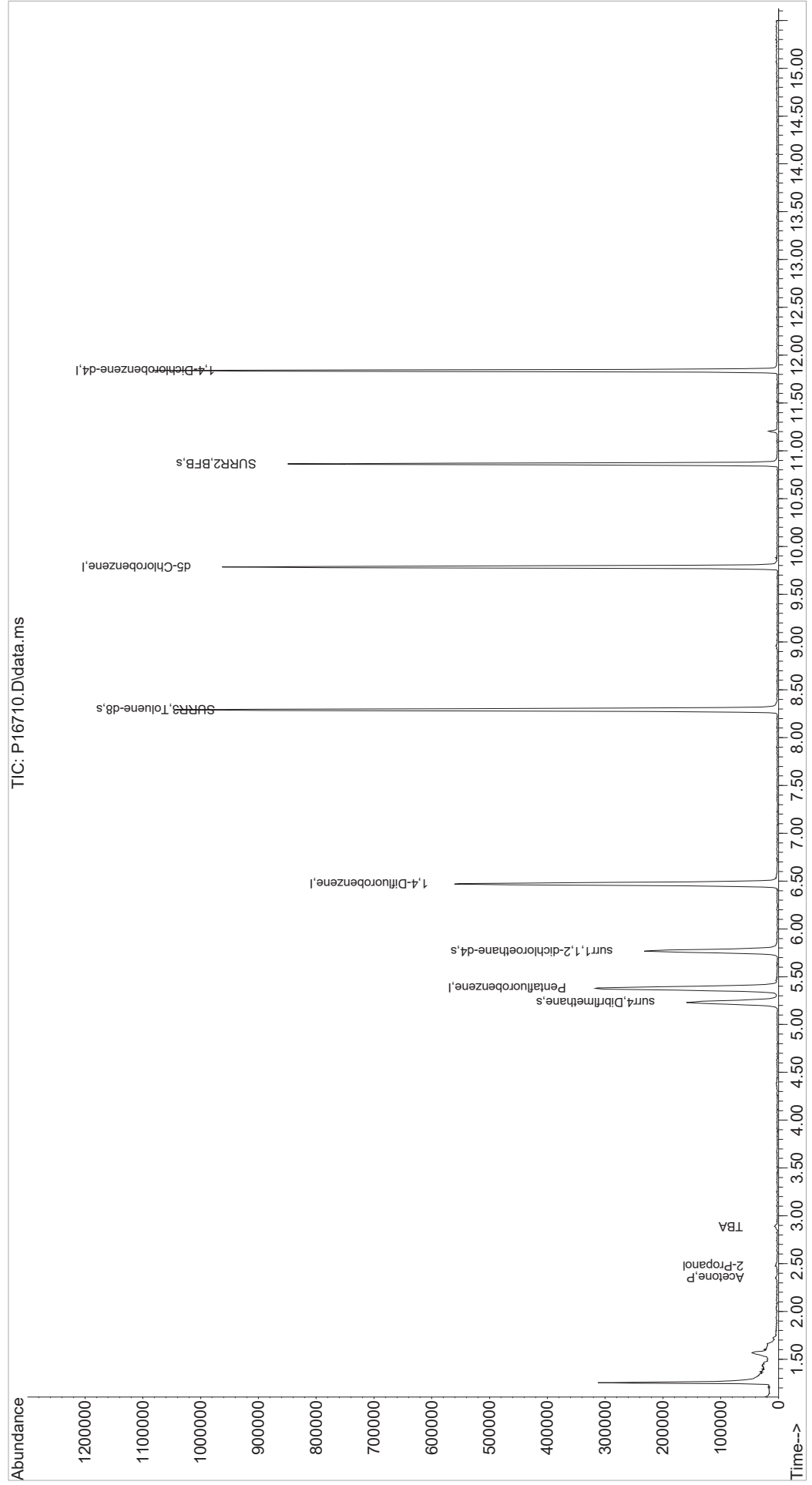
Internal Standards						
1) Pentafluorobenzene	5.383	168	288147	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.474	114	487658	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	425042	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	208421	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	133691	46.17	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	92.34%	
48) surr1,1,2-dichloroetha...	5.767	65	196474	49.52	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	99.04%	
65) SURR3,Toluene-d8	8.291	98	646117	49.97	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	99.94%	
70) SURR2,BFB	10.864	95	234326	46.84	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	93.68%	
Target Compounds						
15) Acetone	2.353	43	1897	1.08	ppb	Qvalue 84
16) 2-Propanol	2.475	45	2427	7.20	ppb	89
23) TBA	2.890	59	1985m	3.42	ppb	

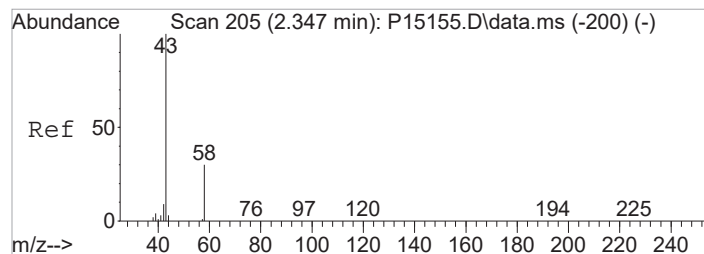
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16710.D
 Acq On : 27 Mar 2018 4:54 pm
 Operator : K.Ruest
 Sample : R1802551-008|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA-12

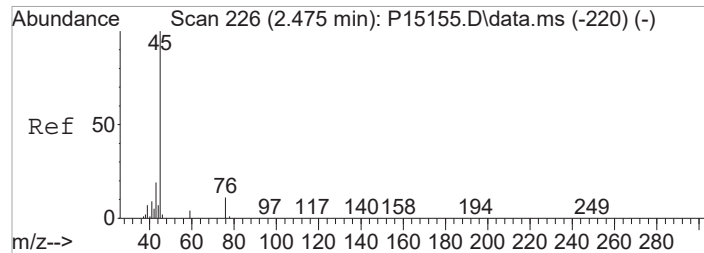
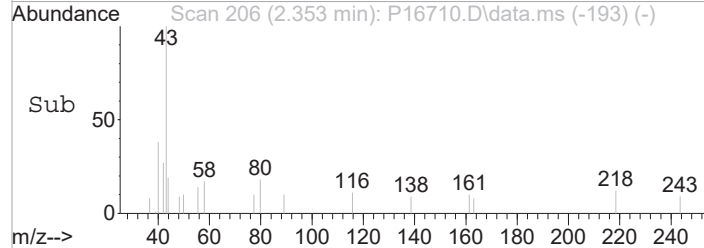
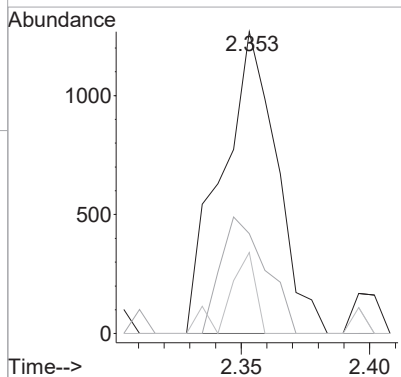
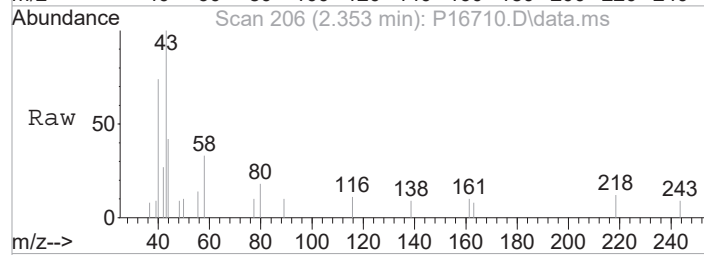
Quant Time: Mar 27 17:11:37 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration





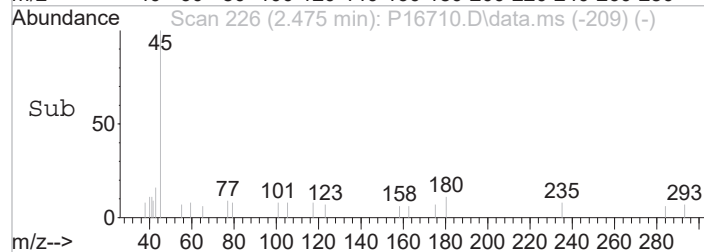
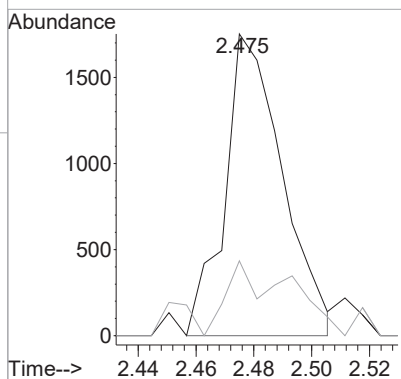
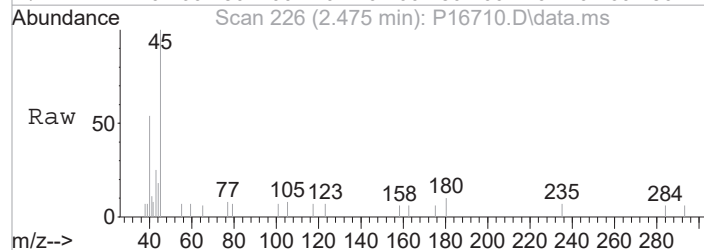
#15
Acetone
Concen: 1.08 ppb
RT: 2.353 min Scan# 206
Delta R.T. 0.006 min
Lab File: P16710.D
Acq: 27 Mar 2018 4:54 pm

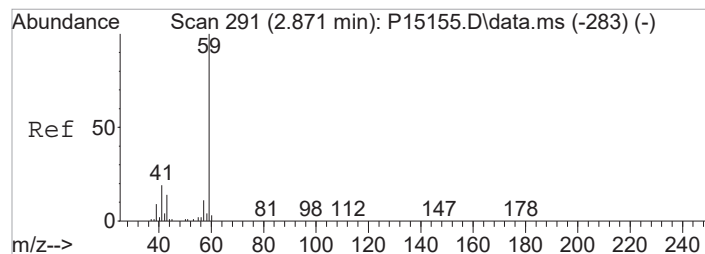
Tgt Ion:	43	Resp:	1897
Ion Ratio	Lower	Upper	
43	100		
58	33.1	9.7	49.7
42	26.9	0.0	29.2



#16
2-Propanol
Concen: 7.20 ppb
RT: 2.475 min Scan# 226
Delta R.T. -0.006 min
Lab File: P16710.D
Acq: 27 Mar 2018 4:54 pm

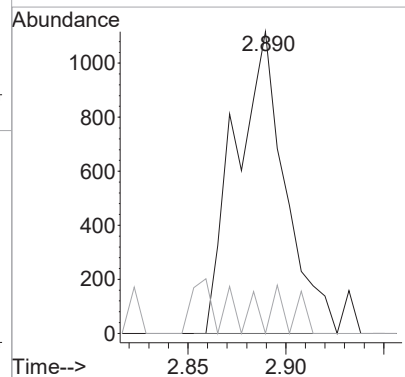
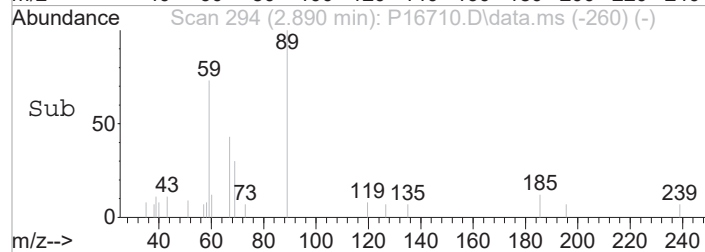
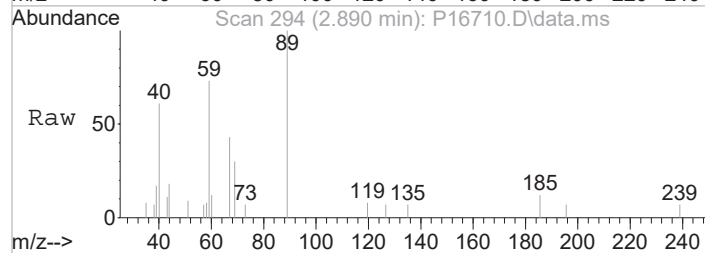
Tgt Ion:	45	Resp:	2427
Ion Ratio	Lower	Upper	
45	100		
43	24.8	0.0	39.6





#23
 TBA
 Concen: 3.42 ppb m
 RT: 2.890 min Scan# 294
 Delta R.T. 0.018 min
 Lab File: P16710.D
 Acq: 27 Mar 2018 4:54 pm

Tgt Ion: 59 Resp: 1985
 Ion Ratio Lower Upper
 59 100
 41 0.0 0.0 39.4



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16698.D
 Acq On : 27 Mar 2018 12:22 pm
 Operator : K.Ruest
 Sample : VBLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 14:17:59 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

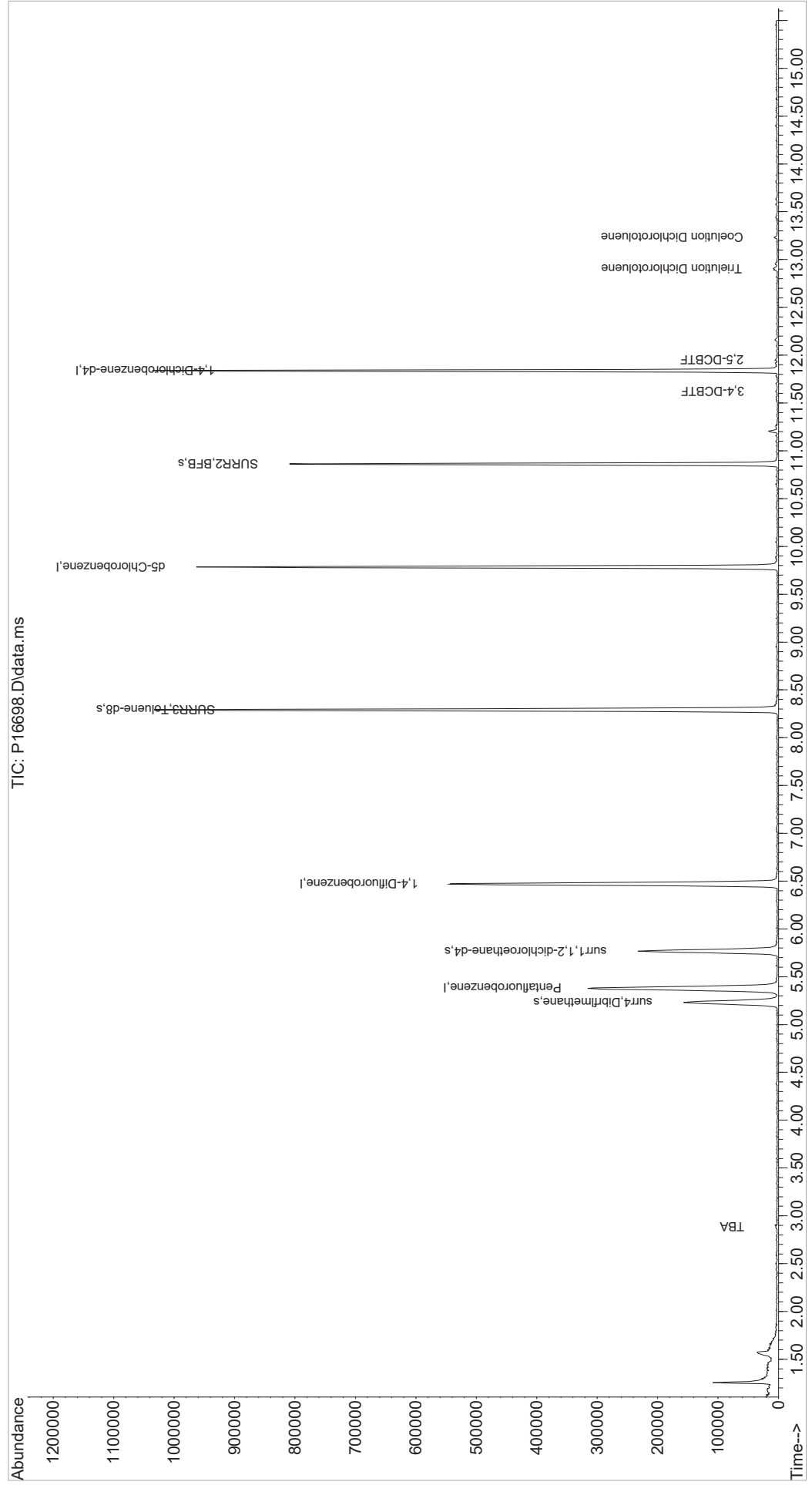
Internal Standards						
1) Pentafluorobenzene	5.383	168	285373	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	478787	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	414857	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	202807	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	130735	45.99	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	91.98%	
48) surr1,1,2-dichloroetha...	5.767	65	191415	49.14	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	98.28%	
65) SURR3,Toluene-d8	8.291	98	627976	49.47	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	98.94%	
70) SURR2,BFB	10.864	95	223476	45.50	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	91.00%	
Target Compounds						
23) TBA	2.884	59	1084	1.88	ppb	Qvalue 100
102) 3,4-DCBTF	11.620	214	668	0.21	ppb	# 61
108) 2,5-DCBTF	11.949	214	662	0.21	ppb	# 76
112) Trielution Dichlorotol...	12.906	125	2786	0.46	ppb	# 81
114) Coelution Dichlorotoluene	13.235	125	1667	0.26	ppb	# 89

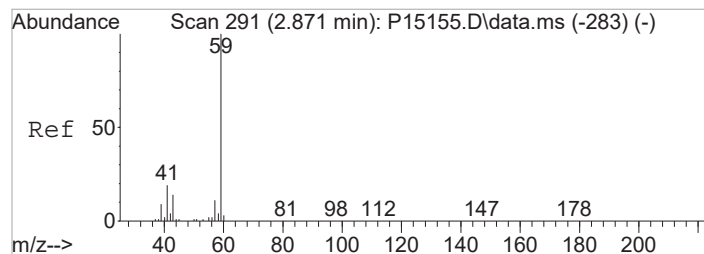
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16698.D
 Acq On : 27 Mar 2018 12:22 pm
 Operator : K.Ruest
 Sample : VBLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

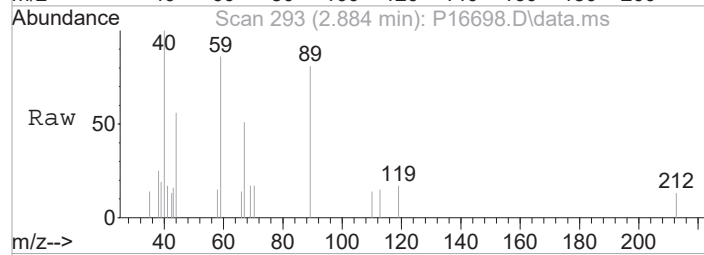
Inst : MSVOA-12

Quant Time: Mar 27 14:17:59 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

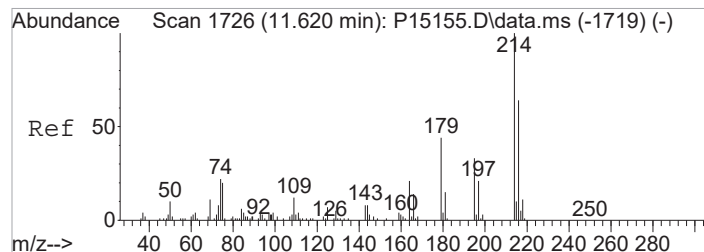
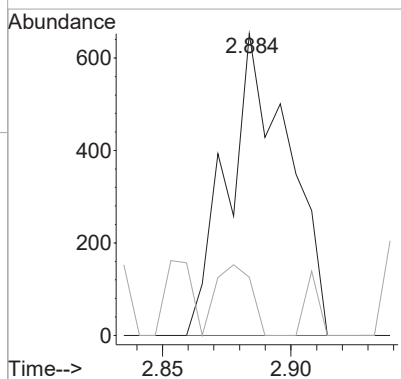
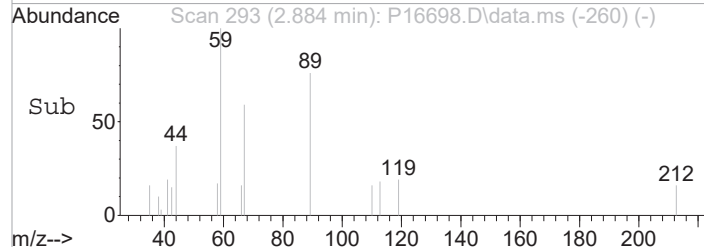




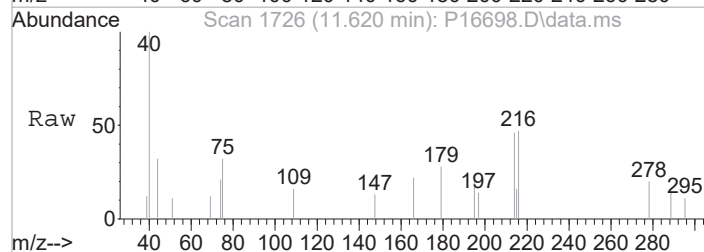
#23
TBA
Concen: 1.88 ppb
RT: 2.884 min Scan# 293
Delta R.T. 0.012 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm



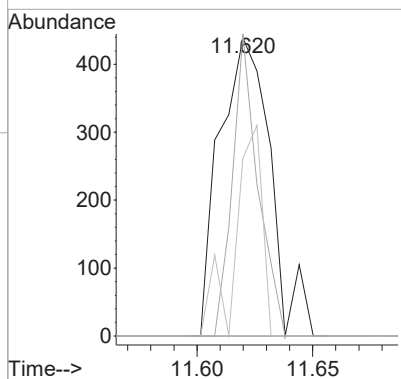
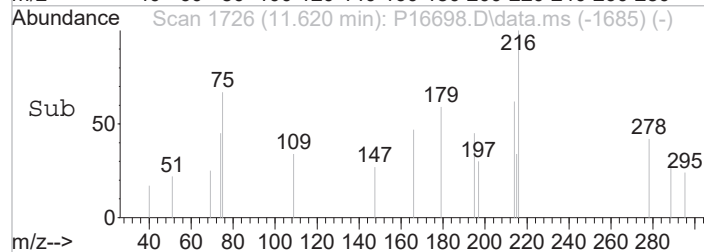
Tgt Ion: 59 Resp: 1084
Ion Ratio Lower Upper
59 100
41 19.3 0.0 39.4

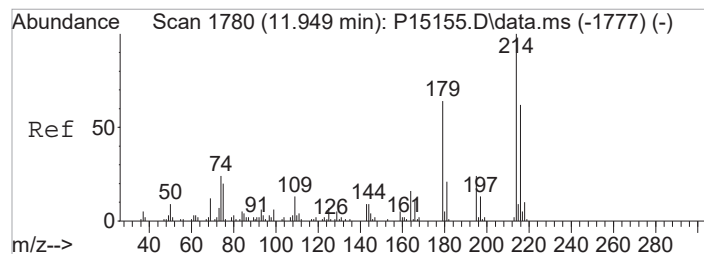


#102
3,4-DCBTF
Concen: 0.21 ppb
RT: 11.620 min Scan# 1726
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm



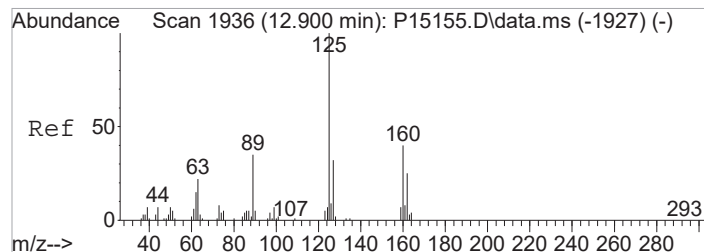
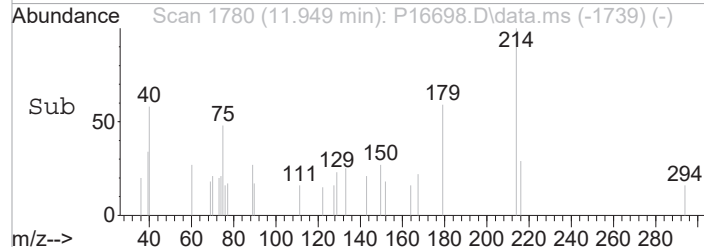
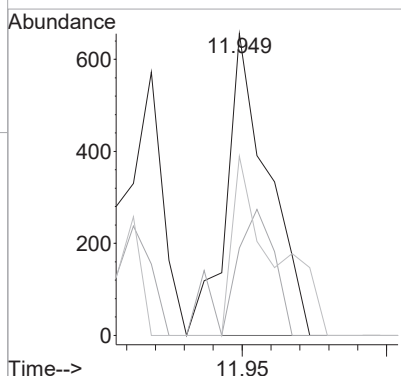
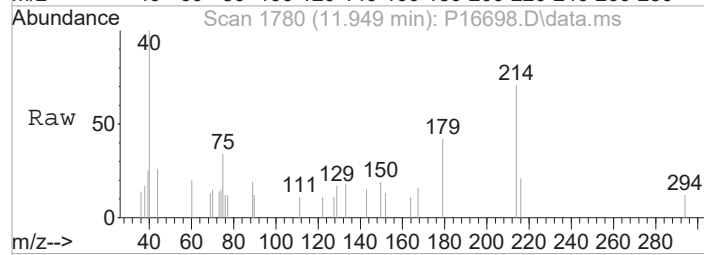
Tgt Ion: 214 Resp: 668
Ion Ratio Lower Upper
214 100
216 101.4 51.0 76.6#
179 59.7 34.9 52.3#





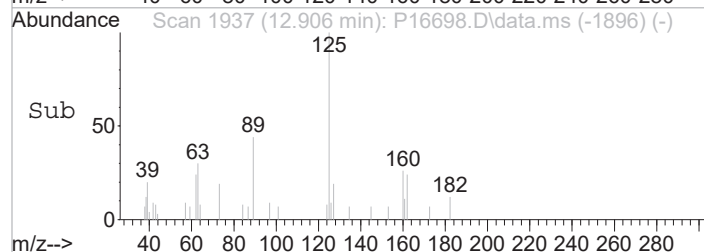
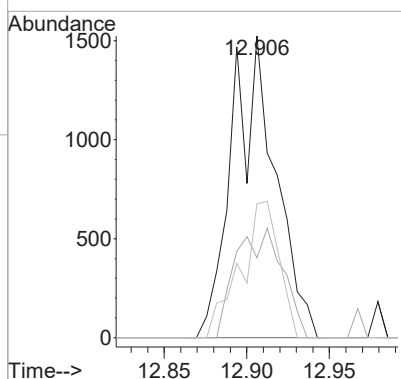
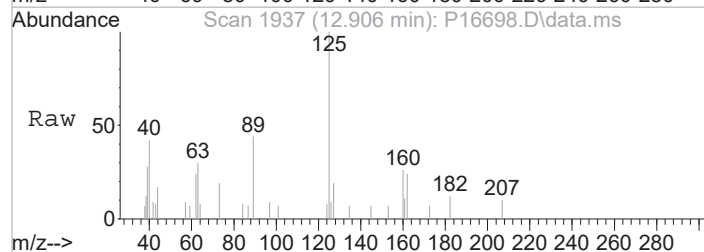
#108
2,5-DCBTF
Concen: 0.21 ppb
RT: 11.949 min Scan# 1780
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

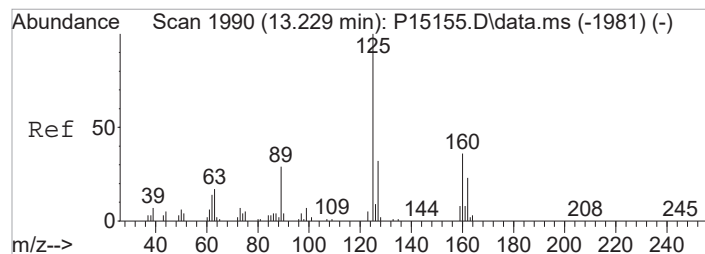
Tgt Ion	214	Resp	662
Ion Ratio	Lower	Upper	
214	100		
216	29.0	49.6	74.4#
179	59.3	51.6	77.4



#112
Trielution Dichlorotoluene
Concen: 0.46 ppb
RT: 12.906 min Scan# 1937
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion	125	Resp	2786
Ion Ratio	Lower	Upper	
125	100		
160	26.5	32.2	48.2#
89	44.5	28.3	42.5#





#114

Coelution Dichlorotoluene

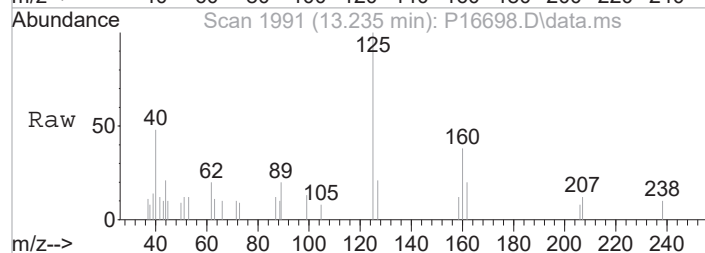
Concen: 0.26 ppb

RT: 13.235 min Scan# 1991

Delta R.T. 0.006 min

Lab File: P16698.D

Acq: 27 Mar 2018 12:22 pm



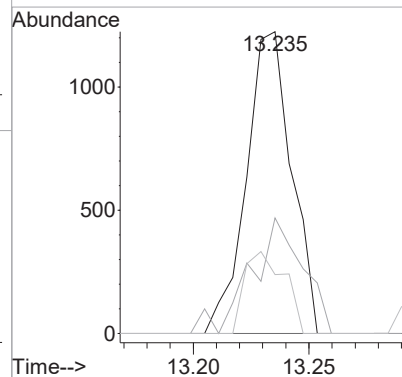
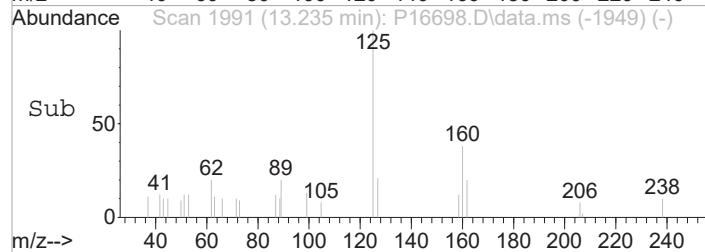
Tgt Ion:125 Resp: 1667

Ion Ratio Lower Upper

125 100

160 38.3 28.4 42.6

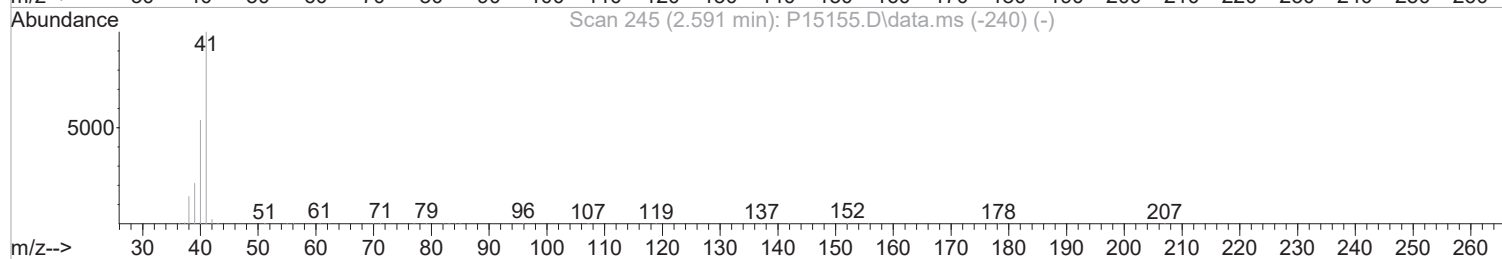
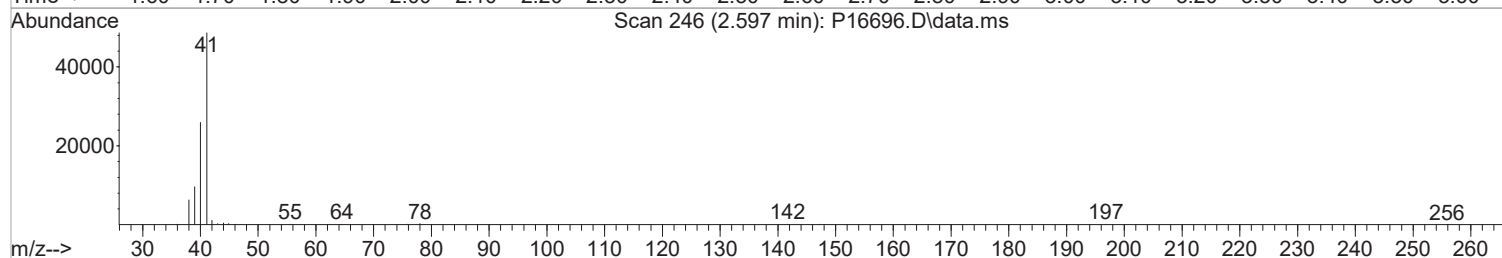
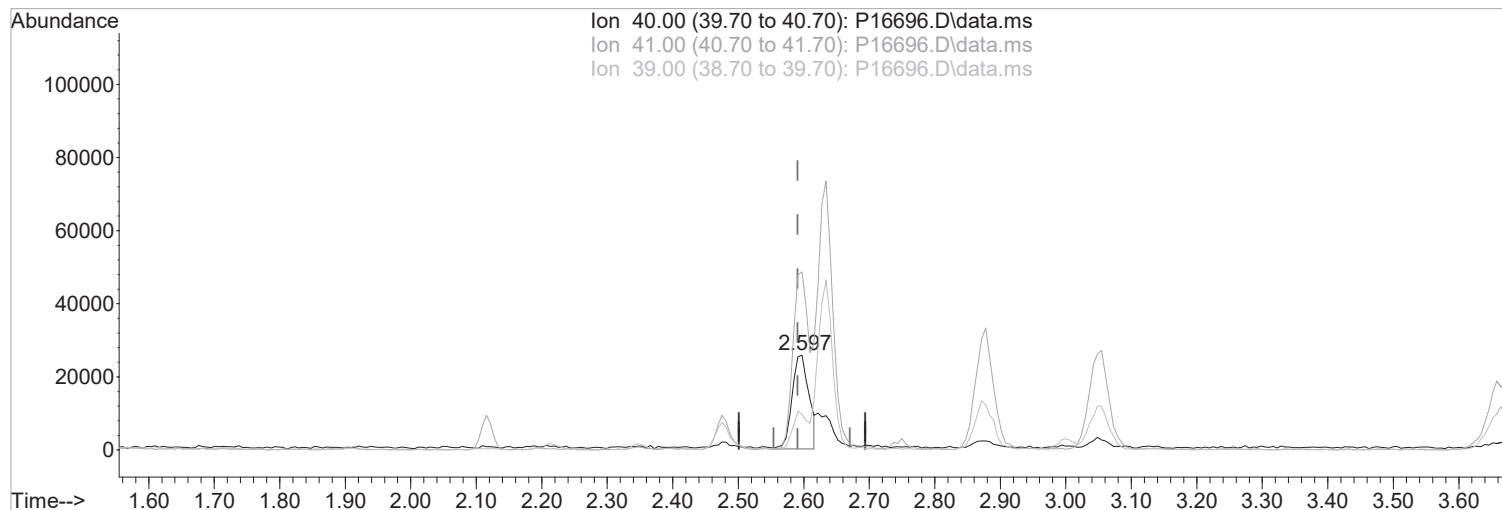
89 19.5 23.2 34.8#



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16696.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 145.74 ppb m

response 45873

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

Manual Integration:

After

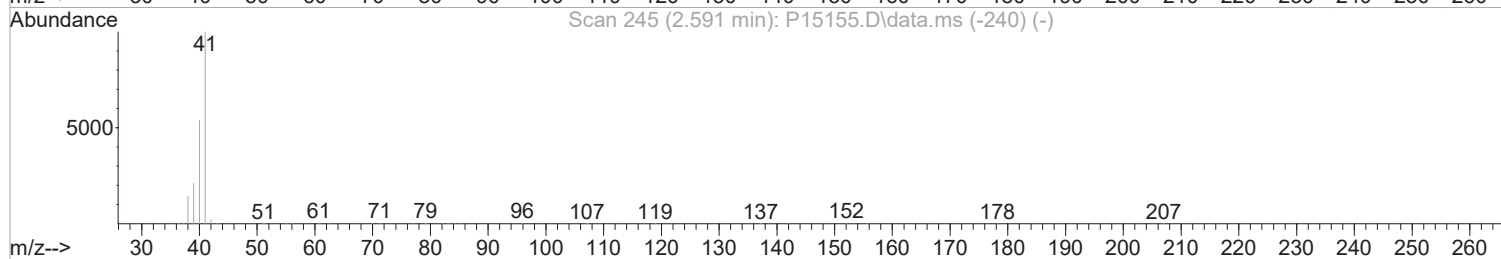
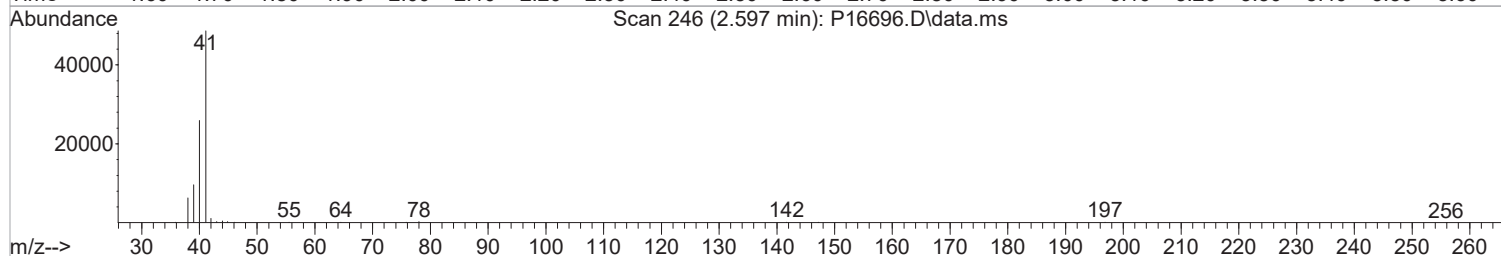
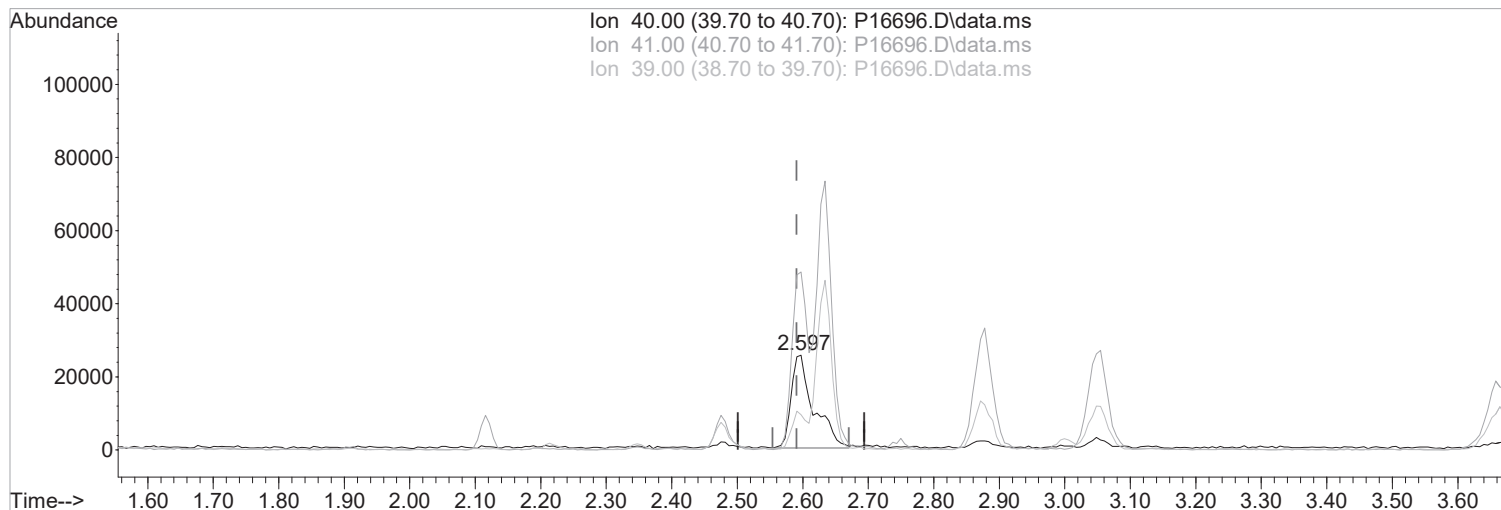
Poor integration.

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16696.D\data.ms

(19) Acetonitrile

Manual Integration:

2.597min (+0.006) 192.49 ppb

Before

response 60588

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16696.D
 Acq On : 27 Mar 2018 11:30 am
 Operator : K.Ruest
 Sample : LCS
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:55:27 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	302355	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	517963	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	456652	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	225614	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	147394	47.93	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	95.86%
48) surr1,1,2-dichloroetha...	5.767	65	203758	48.35	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	96.70%
65) SURR3,Toluene-d8	8.291	98	680879	49.58	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	99.16%
70) SURR2,BFB	10.864	95	250737	47.19	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	94.38%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	93570	25.44	ppb	98
3) Chloromethane	1.311	50	93421	20.32	ppb	97
4) Vinyl Chloride	1.384	62	96363	21.52	ppb	100
5) Bromomethane	1.610	94	40494	10.87	ppb	96
6) Chloroethane	1.689	64	56153	20.08	ppb	93
7) Freon 21	1.835	67	122560	21.20	ppb	98
8) Trichlorofluoromethane	1.884	101	87306	20.23	ppb	99
9) Diethyl Ether	2.116	59	78786	26.23	ppb	93
10) Freon 123a	2.116	67	82500	22.59	ppb	89
11) Freon 123	2.170	83	118901	28.14	ppb	97
12) Acrolein	2.219	56	34358	38.44	ppb	96
13) 1,1-Dicethene	2.305	96	59830	19.26	ppb	98
14) Freon 113	2.311	101	50554	17.23	ppb	98
15) Acetone	2.347	43	52193	28.31	ppb	96
16) 2-Propanol	2.475	45	172752	488.38	ppb	97
17) Iodomethane	2.433	142	71435	21.97	ppb	96
18) Carbon Disulfide	2.500	76	195126	21.54	ppb	97
19) Acetonitrile	2.597	40	45873m	145.74	ppb	
20) Allyl Chloride	2.634	76	36536	22.09	ppb	# 90
21) Methyl Acetate	2.658	43	86315	26.22	ppb	99
22) Methylene Chloride	2.750	84	77580	23.68	ppb	94
23) TBA	2.878	59	290482	476.41	ppb	91
24) Acrylonitrile	3.000	53	240626	135.97	ppb	100
25) Methyl-t-Butyl Ether	3.054	73	265325	23.83	ppb	97
26) trans-1,2-Dichloroethene	3.042	96	65556	20.66	ppb	90
28) 1,1-Dicethane	3.536	63	133024	22.85	ppb	98
29) Vinyl Acetate	3.627	86	20417	21.96	ppb	99
30) DIPE	3.664	45	277248	25.01	ppb	94
31) 2-Chloro-1,3-Butadiene	3.664	53	124595	22.13	ppb	100
32) ETBE	4.188	59	269012	24.06	ppb	98
33) 2,2-Dichloropropane	4.365	77	95167	18.38	ppb	99
34) cis-1,2-Dichloroethene	4.371	96	75813	20.99	ppb	97
35) 2-Butanone	4.408	43	58853	25.41	ppb	97
36) Propionitrile	4.493	54	97752	129.97	ppb	99
37) Bromochloromethane	4.761	130	45791	21.91	ppb	90
38) Methacrylonitrile	4.761	67	48712	27.30	ppb	90
39) Tetrahydrofuran	4.853	42	40156	29.71	ppb	92
40) Chloroform	4.944	83	118205	20.17	ppb	98
41) 1,1,1-Trichloroethane	5.237	97	85282	17.19	ppb	94

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16696.D
 Acq On : 27 Mar 2018 11:30 am
 Operator : K.Ruest
 Sample : LCS
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:55:27 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.090	73	259480	23.78	ppb	96
44) Cyclohexane	5.334	41	70550	20.85	ppb	90
46) Carbontetrachloride	5.523	117	59737	15.36	ppb	91
47) 1,1-Dichloropropene	5.536	75	88834	19.47	ppb	97
49) Benzene	5.847	78	285890	21.13	ppb	99
50) 1,2-Dichloroethane	5.883	62	109177	21.97	ppb	96
51) Iso-Butyl Alcohol	5.859	43	126847	462.20	ppb	97
52) n-Heptane	6.340	43	93059	20.04	ppb	94
53) 1-Butanol	6.822	56	212197	1168.57	ppb	99
54) Trichloroethene	6.798	130	65337	18.83	ppb	93
55) Methylcyclohexane	7.041	55	101785	22.55	ppb	86
56) 1,2-Dicloropropane	7.078	63	80438	22.29	ppb	98
57) Dibromomethane	7.218	93	46022	21.36	ppb	96
58) 1,4-Dioxane	7.279	88	36159	507.53	ppb	89
59) Methyl Methacrylate	7.304	69	75719	22.71	ppb	96
60) Bromodichloromethane	7.450	83	85102	18.73	ppb	98
61) 2-Nitropropane	7.730	41	42958	30.62	ppb	99
62) 2-Chloroethylvinyl Ether	7.858	63	48564	58.22	ppb	89
63) cis-1,3-Dichloropropene	7.992	75	121609	21.21	ppb	97
64) 4-Methyl-2-pentanone	8.200	43	104812	23.80	ppb	96
66) Toluene	8.364	91	291927	19.86	ppb	97
67) trans-1,3-Dichloropropene	8.633	75	108569	20.33	ppb	99
68) Ethyl Methacrylate	8.779	69	127736	23.43	ppb	99
69) 1,1,2-Trichloroethane	8.822	97	72042	21.58	ppb	97
72) Tetrachloroethene	8.956	164	43529	17.27	ppb	95
73) 2-Hexanone	9.114	43	77525	23.06	ppb	92
74) 1,3-Dichloropropane	8.992	76	137501	23.43	ppb	100
75) Dibromochloromethane	9.218	129	58891	19.23	ppb	99
76) N-Butyl Acetate	9.273	43	158618	25.07	ppb	94
77) 1,2-Dibromoethane	9.315	107	71145	21.87	ppb	92
78) Chlorobenzene	9.809	112	183970	20.56	ppb	96
79) 3-CBTF	9.828	180	100492	21.07	ppb	94
80) 4-CBTF	9.882	180	90890	20.85	ppb	98
81) 1,1,1,2-Tetrachloroethane	9.901	131	60134	18.91	ppb	97
82) Ethylbenzene	9.931	106	95321	19.30	ppb	98
83) (m+p)Xylene	10.047	106	233361	39.03	ppb	99
84) o-Xylene	10.401	106	117466	19.62	ppb	97
85) Styrene	10.419	104	202943	20.14	ppb	98
87) Bromoform	10.565	173	38206	19.41	ppb	97
88) 2-CBTF	10.651	180	94593	21.65	ppb	89
89) Isopropylbenzene	10.736	105	279655	18.87	ppb	99
90) Cyclohexanone	10.797	55	406229	360.25	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	28385	24.16	ppb	83
92) 1,1,2,2-Tetrachloroethane	10.998	83	109435	24.46	ppb	99
93) Bromobenzene	10.986	156	77089	21.23	ppb	# 87
94) 1,2,3-Trichloropropane	11.028	110	34313	23.61	ppb	94
95) n-Propylbenzene	11.096	91	337491	19.58	ppb	98
96) 2-Chlorotoluene	11.156	91	216766	20.28	ppb	97
97) 3-Chlorotoluene	11.211	91	249989	22.18	ppb	94
98) 4-Chlorotoluene	11.248	91	244667	19.82	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	234435	18.91	ppb	99
100) tert-Butylbenzene	11.522	119	195781	18.29	ppb	98
101) 1,2,4-Trimethylbenzene	11.559	105	249111	20.06	ppb	99
102) 3,4-DCBTF	11.620	214	81298	23.43	ppb	98
103) sec-Butylbenzene	11.705	105	290893	18.47	ppb	98
104) p-Isopropyltoluene	11.827	119	245832	18.55	ppb	97

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

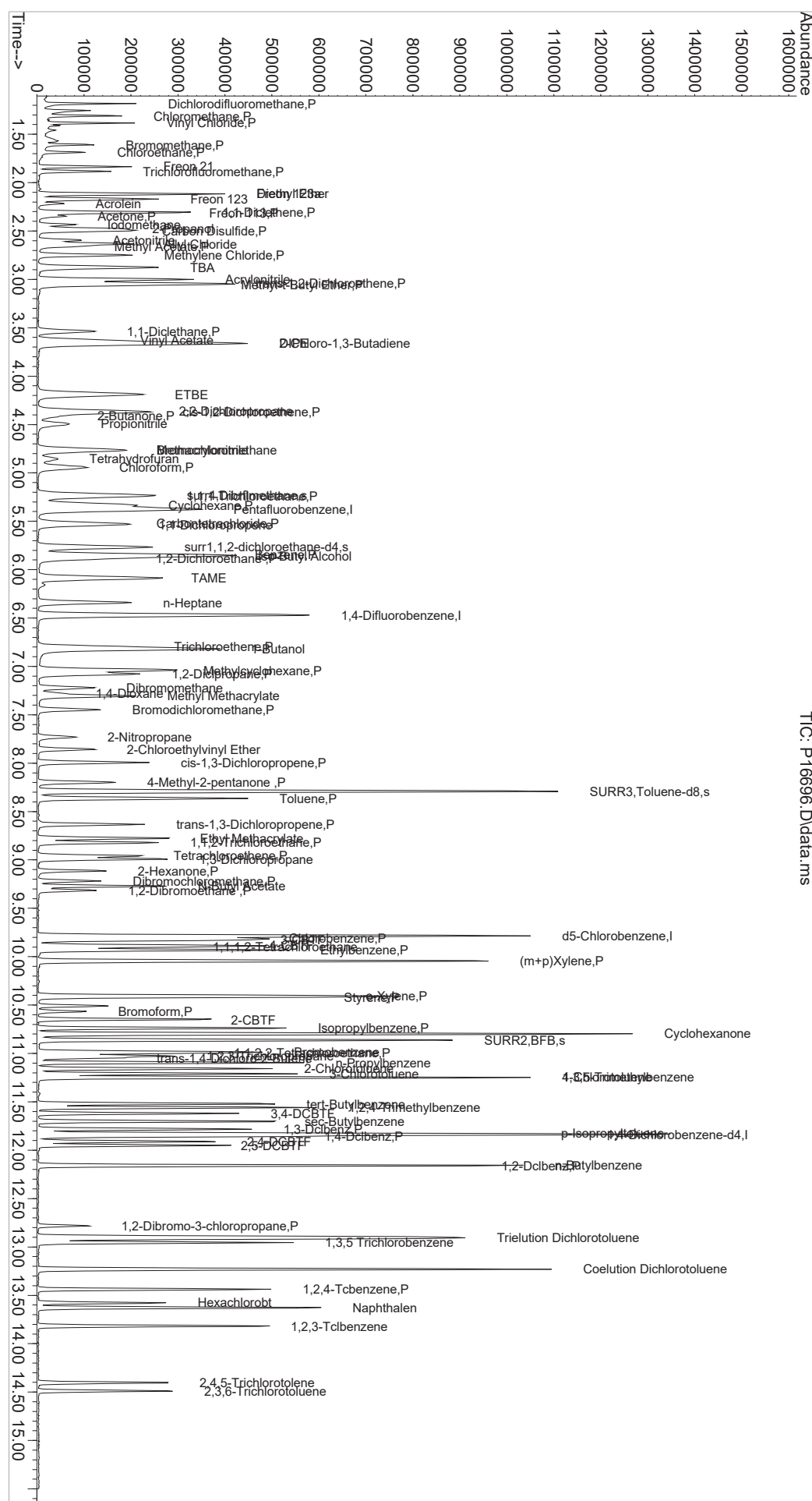
	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,3-Dclbenz	11.784	146	144467	20.93	ppb	97
106)	1,4-Dclbenz	11.858	146	145267	20.06	ppb	99
107)	2,4-DCBTF	11.912	214	73333	22.16	ppb	95
108)	2,5-DCBTF	11.955	214	83967	23.73	ppb	92
109)	n-Butylbenzene	12.156	91	242955	19.65	ppb	99
110)	1,2-Dclbenz	12.162	146	146675	21.30	ppb	99
111)	1,2-Dibromo-3-chloropr...	12.784	157	21962	18.97	ppb	91
112)	Trielution Dichlorotol...	12.906	125	458332	67.65	ppb	98
113)	1,3,5 Trichlorobenzene	12.955	180	124523	23.22	ppb	97
114)	Coelution Dichlorotoluene	13.229	125	338033	47.05	ppb	99
115)	1,2,4-Tcbenzene	13.437	180	116296	23.23	ppb	95
116)	Hexachlorobt	13.577	225	39623	17.05	ppb	98
117)	Naphthalen	13.626	128	357379	25.87	ppb	99
118)	1,2,3-Tclbenzene	13.821	180	117709	24.20	ppb	97
119)	2,4,5-Trichlorotoluene	14.406	159	56947	19.17	ppb	95
120)	2,3,6-Trichlorotoluene	14.491	159	52609	18.81	ppb	94

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

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvao12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Qlast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

```
Operator      : k.Ruest
sample       : ICS
isc           :
PALS Vial    : 1   Sample Multiplier
```

Inst : MSVOA-12



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16719.D
 Acq On : 27 Mar 2018 8:11 pm
 Operator : K.Ruest 2551
 Sample : R1802550-002MS|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 21 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 28 13:51:29 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	284362	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	472299	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	422527	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	215946	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	137775	49.13	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	98.26%
48) surr1,1,2-dichloroetha...	5.767	65	194576	50.63	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	101.26%
65) SURR3,Toluene-d8	8.291	98	640378	51.14	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	102.28%
70) SURR2,BFB	10.864	95	234414	48.39	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	96.78%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	271871	78.59	ppb	98
3) Chloromethane	1.311	50	257152	59.48	ppb	99
4) Vinyl Chloride	1.384	62	267849	63.60	ppb	80
5) Bromomethane	1.603	94	92611	28.09	ppb	99
6) Chloroethane	1.683	64	149857	56.99	ppb	98
7) Freon 21	1.835	67	326155	59.99	ppb	98
8) Trichlorofluoromethane	1.884	101	256319	63.16	ppb	99
9) Diethyl Ether	2.116	59	184644	65.37	ppb	95
10) Freon 123a	2.116	67	223997	65.22	ppb	91
11) Freon 123	2.170	83	324499	81.66	ppb	98
12) Acrolein	2.213	56	65411	77.81	ppb	94
13) 1,1-Dicethene	2.305	96	168742	57.77	ppb	94
14) Freon 113	2.311	101	157332	57.00	ppb	98
15) Acetone	2.347	43	93733	54.06	ppb	94
16) 2-Propanol	2.475	45	462748	1390.98	ppb	99
17) Iodomethane	2.433	142	198468	55.33	ppb	95
18) Carbon Disulfide	2.494	76	490553	57.58	ppb	98
19) Acetonitrile	2.591	40	119590	403.97	ppb	99
20) Allyl Chloride	2.634	76	99415	63.90	ppb	# 88
21) Methyl Acetate	2.658	43	207082	66.88	ppb	99
22) Methylene Chloride	2.750	84	186333	60.48	ppb	89
23) TBA	2.878	59	773879	1349.53	ppb	93
24) Acrylonitrile	3.000	53	597665	359.08	ppb	96
25) Methyl-t-Butyl Ether	3.054	73	609995	58.26	ppb	99
26) trans-1,2-Dichloroethene	3.042	96	178445	59.81	ppb	90
28) 1,1-Dicethane	3.536	63	364250	66.53	ppb	97
29) Vinyl Acetate	3.627	86	50482	57.74	ppb	# 92
30) DIPE	3.664	45	690811	66.26	ppb	95
31) 2-Chloro-1,3-Butadiene	3.658	53	312799	59.07	ppb	92
32) ETBE	4.188	59	640800	60.95	ppb	97
33) 2,2-Dichloropropane	4.365	77	248067	50.95	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	206660	60.84	ppb	100
35) 2-Butanone	4.414	43	148313	68.08	ppb	98
36) Propionitrile	4.493	54	246671	348.72	ppb	96
37) Bromochloromethane	4.761	130	108753	55.33	ppb	# 83
38) Methacrylonitrile	4.761	67	116265	69.29	ppb	94
39) Tetrahydrofuran	4.859	42	98379	77.41	ppb	97
40) Chloroform	4.944	83	304974	55.33	ppb	99
41) 1,1,1-Trichloroethane	5.243	97	250682	53.74	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16719.D
 Acq On : 27 Mar 2018 8:11 pm
 Operator : K.Ruest
 Sample : R1802550-002MS|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 21 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 28 13:51:29 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	609378	59.37	ppb	98
44) Cyclohexane	5.328	41	188727	61.16	ppb	88
46) Carbontetrachloride	5.523	117	186009	52.47	ppb	98
47) 1,1-Dichloropropene	5.530	75	258655	62.17	ppb	99
49) Benzene	5.847	78	780756	63.29	ppb	98
50) 1,2-Dichloroethane	5.883	62	260247	57.42	ppb	98
51) Iso-Butyl Alcohol	5.859	43	349612	1397.08	ppb	98
52) n-Heptane	6.340	43	271871	64.20	ppb	94
53) 1-Butanol	6.822	56	577139	3485.61	ppb	96
54) Trichloroethene	6.798	130	192616	60.88	ppb	95
55) Methylcyclohexane	7.041	55	265571	64.53	ppb	93
56) 1,2-Diclpropane	7.078	63	210685	64.01	ppb	98
57) Dibromomethane	7.218	93	113096	57.56	ppb	98
58) 1,4-Dioxane	7.279	88	86725	1334.96	ppb	97
59) Methyl Methacrylate	7.310	69	185870	61.15	ppb	98
60) Bromodichloromethane	7.450	83	212352	51.26	ppb	96
61) 2-Nitropropane	7.730	41	120822	94.44	ppb	100
63) cis-1,3-Dichloropropene	7.992	75	303710	58.10	ppb	96
64) 4-Methyl-2-pentanone	8.200	43	279525	69.62	ppb	99
66) Toluene	8.364	91	808766	60.35	ppb	99
67) trans-1,3-Dichloropropene	8.633	75	264697	54.36	ppb	98
68) Ethyl Methacrylate	8.779	69	318252	64.02	ppb	99
69) 1,1,2-Trichloroethane	8.822	97	170079	55.87	ppb	95
72) Tetrachloroethene	8.962	164	133281	57.16	ppb	97
73) 2-Hexanone	9.114	43	206429	66.36	ppb	98
74) 1,3-Dichloropropane	8.992	76	325653	59.98	ppb	99
75) Dibromochloromethane	9.218	129	147175	51.94	ppb	95
76) N-Butyl Acetate	9.273	43	411105	70.21	ppb	97
77) 1,2-Dibromoethane	9.315	107	172194	57.20	ppb	99
78) Chlorobenzene	9.809	112	477556	57.69	ppb	96
79) 3-CBTF	9.834	180	257605	58.36	ppb	93
80) 4-CBTF	9.888	180	231885	57.49	ppb	94
81) 1,1,1,2-Tetrachloroethane	9.901	131	155464	52.83	ppb	98
82) Ethylbenzene	9.931	106	268995	58.86	ppb	95
83) (m+p)Xylene	10.047	106	651618	117.80	ppb	95
84) o-Xylene	10.401	106	326599	58.97	ppb	100
85) Styrene	10.419	104	535492	57.43	ppb	98
87) Bromoform	10.565	173	92806	49.27	ppb	100
88) 2-CBTF	10.650	180	253301	60.56	ppb	89
89) Isopropylbenzene	10.736	105	827477	58.32	ppb	100
90) Cyclohexanone	10.797	55	271807	251.83	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	70933	63.09	ppb	88
92) 1,1,2,2-Tetrachloroethane	10.998	83	278290	64.99	ppb	99
93) Bromobenzene	10.986	156	195527	56.27	ppb	94
94) 1,2,3-Trichloropropane	11.028	110	83536	60.06	ppb	92
95) n-Propylbenzene	11.095	91	998390	60.52	ppb	100
96) 2-Chlorotoluene	11.156	91	589936	57.68	ppb	97
97) 3-Chlorotoluene	11.211	91	629589	58.36	ppb	98
98) 4-Chlorotoluene	11.248	91	658611	55.73	ppb	98
99) 1,3,5-Trimethylbenzene	11.248	105	687269	57.92	ppb	99
100) tert-Butylbenzene	11.522	119	592895	57.88	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	695598	58.53	ppb	99
102) 3,4-DCBTF	11.620	214	205273	61.81	ppb	99
103) sec-Butylbenzene	11.705	105	890685	59.09	ppb	97
104) p-Isopropyltoluene	11.827	119	741742	58.47	ppb	98
105) 1,3-Dclbenz	11.784	146	364871	55.24	ppb	97

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16719.D
 Acq On : 27 Mar 2018 8:11 pm
 Operator : K.Ruest
 Sample : R1802550-002MS|1.0 Inst : MSVOA-12
 Misc : VERINA 8260 T4
 ALS Vial : 21 Sample Multiplier: 1

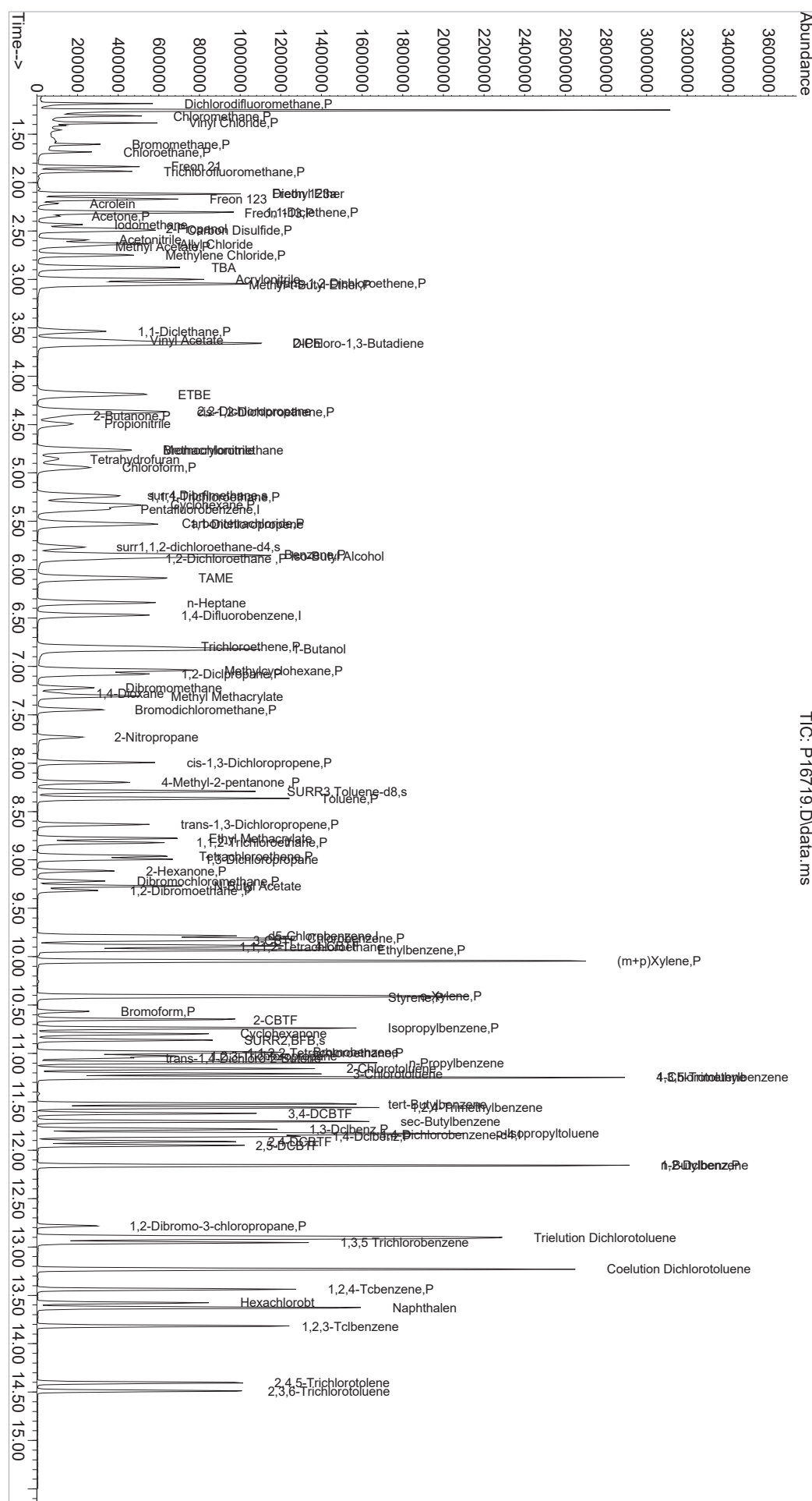
Quant Time: Mar 28 13:51:29 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
106)	1,4-Dclbenz	11.858	146	368042	53.10	ppb	99
107)	2,4-DCBTF	11.912	214	186864	59.00	ppb	97
108)	2,5-DCBTF	11.955	214	211654	62.49	ppb	93
109)	n-Butylbenzene	12.156	91	720861	60.92	ppb	99
110)	1,2-Dclbenz	12.156	146	363414	55.13	ppb	99
111)	1,2-Dibromo-3-chloropr...	12.784	157	60328	54.43	ppb	93
112)	Trielution Dichlorotol...	12.900	125	1153527	177.89	ppb	100
113)	1,3,5 Trichlorobenzene	12.955	180	305513	59.53	ppb	99
114)	Coelution Dichlorotoluene	13.229	125	845795	122.98	ppb	99
115)	1,2,4-Tcbenzene	13.437	180	293912	61.34	ppb	97
116)	Hexachlorobt	13.577	225	121394	54.57	ppb	96
117)	Naphthalen	13.626	128	927673	70.16	ppb	98
118)	1,2,3-Tclbenzene	13.821	180	297846	63.99	ppb	99
119)	2,4,5-Trichlorotoluene	14.406	159	209851	67.11	ppb	97
120)	2,3,6-Trichlorotoluene	14.491	159	184720	63.87	ppb	96

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

Quant Time: Mar 28 13:51:29 2018
Quant Method : I:\ACQDATA\msv012\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Qlast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Inst : MSVOA-12



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16720.D
 Acq On : 27 Mar 2018 8:33 pm
 Operator : K.Ruest 2551
 Sample : R1802550-002DMS|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 22 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 28 13:53:07 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	280872	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	471508	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	415628	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	210824	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	140040	50.02	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	100.04%	
48) surr1,1,2-dichloroetha...	5.767	65	191471	49.91	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	99.82%	
65) SURR3,Toluene-d8	8.291	98	627507	50.20	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	100.40%	
70) SURR2,BFB	10.864	95	233847	48.35	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	96.70%	

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	268796	78.67	ppb	97
3) Chloromethane	1.311	50	257105	60.21	ppb	99
4) Vinyl Chloride	1.384	62	273610	65.77	ppb	85
5) Bromomethane	1.603	94	99053	30.69	ppb	94
6) Chloroethane	1.683	64	154799	59.60	ppb	95
7) Freon 21	1.835	67	328110	61.10	ppb	99
8) Trichlorofluoromethane	1.884	101	252244	62.93	ppb	99
9) Diethyl Ether	2.115	59	194687	69.78	ppb	96
10) Freon 123a	2.115	67	226521	66.78	ppb	87
11) Freon 123	2.170	83	326407	83.16	ppb	98
12) Acrolein	2.213	56	67538	81.34	ppb	98
13) 1,1-Dicethene	2.304	96	166877	57.84	ppb	92
14) Freon 113	2.311	101	158305	58.07	ppb	97
15) Acetone	2.347	43	98728	57.65	ppb	93
16) 2-Propanol	2.475	45	483354	1470.98	ppb	99
17) Iodomethane	2.432	142	203445	57.23	ppb	98
18) Carbon Disulfide	2.493	76	488596	58.07	ppb	99
19) Acetonitrile	2.591	40	120744	412.94	ppb	99
20) Allyl Chloride	2.634	76	104656	68.11	ppb	# 89
21) Methyl Acetate	2.658	43	209915	68.63	ppb	97
22) Methylene Chloride	2.749	84	185574	60.98	ppb	88
23) TBA	2.878	59	803394	1418.40	ppb	95
24) Acrylonitrile	2.999	53	596706	362.96	ppb	98
25) Methyl-t-Butyl Ether	3.048	73	616096	59.57	ppb	97
26) trans-1,2-Dichloroethene	3.042	96	183246	62.18	ppb	92
28) 1,1-Dicethane	3.536	63	364915	67.48	ppb	97
29) Vinyl Acetate	3.633	86	50628	58.63	ppb	# 85
30) DIPE	3.664	45	705447	68.50	ppb	95
31) 2-Chloro-1,3-Butadiene	3.658	53	304736	58.27	ppb	92
32) ETBE	4.188	59	650310	62.62	ppb	97
33) 2,2-Dichloropropane	4.365	77	248840	51.75	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	209054	62.31	ppb	92
35) 2-Butanone	4.414	43	145523	67.63	ppb	98
36) Propionitrile	4.493	54	248990	356.38	ppb	98
37) Bromochloromethane	4.761	130	113152	58.29	ppb	92
38) Methacrylonitrile	4.767	67	116737	70.43	ppb	97
39) Tetrahydrofuran	4.859	42	99830	79.52	ppb	90
40) Chloroform	4.944	83	305638	56.14	ppb	98
41) 1,1,1-Trichloroethane	5.243	97	250321	54.33	ppb	100

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16720.D
 Acq On : 27 Mar 2018 8:33 pm
 Operator : K.Ruest
 Sample : R1802550-002DMS|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 22 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 28 13:53:07 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	617277	60.89	ppb	97
44) Cyclohexane	5.334	41	186955	60.69	ppb	86
46) Carbontetrachloride	5.523	117	188779	53.34	ppb	94
47) 1,1-Dichloropropene	5.529	75	258522	62.24	ppb	99
49) Benzene	5.846	78	783728	63.63	ppb	97
50) 1,2-Dichloroethane	5.889	62	263881	58.32	ppb	98
51) Iso-Butyl Alcohol	5.859	43	363157	1453.64	ppb	98
52) n-Heptane	6.340	43	271672	64.26	ppb	95
53) 1-Butanol	6.822	56	603864	3653.13	ppb	98
54) Trichloroethene	6.797	130	193757	61.34	ppb	94
55) Methylcyclohexane	7.041	55	263688	64.18	ppb	89
56) 1,2-Dicloropropane	7.078	63	211336	64.32	ppb	98
57) Dibromomethane	7.218	93	113051	57.63	ppb	96
58) 1,4-Dioxane	7.279	88	85395	1316.69	ppb	90
59) Methyl Methacrylate	7.310	69	186204	61.36	ppb	98
60) Bromodichloromethane	7.450	83	219130	52.98	ppb	95
61) 2-Nitropropane	7.730	41	125868	98.55	ppb	92
63) cis-1,3-Dichloropropene	7.992	75	309256	59.26	ppb	96
64) 4-Methyl-2-pentanone	8.200	43	278790	69.55	ppb	97
66) Toluene	8.364	91	807961	60.39	ppb	98
67) trans-1,3-Dichloropropene	8.633	75	274092	56.38	ppb	97
68) Ethyl Methacrylate	8.773	69	322907	65.06	ppb	95
69) 1,1,2-Trichloroethane	8.821	97	172117	56.63	ppb	97
72) Tetrachloroethene	8.962	164	134246	58.53	ppb	99
73) 2-Hexanone	9.114	43	204154	66.72	ppb	95
74) 1,3-Dichloropropane	8.992	76	337045	63.11	ppb	98
75) Dibromochloromethane	9.218	129	149223	53.53	ppb	99
76) N-Butyl Acetate	9.267	43	415149	72.08	ppb	98
77) 1,2-Dibromoethane	9.315	107	170830	57.69	ppb	97
78) Chlorobenzene	9.809	112	477189	58.60	ppb	95
79) 3-CBTF	9.827	180	251421	57.91	ppb	98
80) 4-CBTF	9.888	180	227182	57.26	ppb	93
81) 1,1,1,2-Tetrachloroethane	9.901	131	161204	55.69	ppb	99
82) Ethylbenzene	9.931	106	265919	59.15	ppb	99
83) (m+p)Xylene	10.047	106	655498	120.46	ppb	94
84) o-Xylene	10.400	106	321712	59.05	ppb	100
85) Styrene	10.419	104	535715	58.41	ppb	97
87) Bromoform	10.565	173	93523	50.86	ppb	98
88) 2-CBTF	10.650	180	246961	60.48	ppb	92
89) Isopropylbenzene	10.736	105	821083	59.28	ppb	100
90) Cyclohexanone	10.797	55	281020	266.69	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	73266	66.74	ppb	91
92) 1,1,2,2-Tetrachloroethane	10.998	83	278503	66.62	ppb	96
93) Bromobenzene	10.986	156	195959	57.76	ppb	92
94) 1,2,3-Trichloropropane	11.028	110	83402	61.42	ppb	95
95) n-Propylbenzene	11.095	91	987104	61.29	ppb	99
96) 2-Chlorotoluene	11.156	91	592375	59.32	ppb	98
97) 3-Chlorotoluene	11.211	91	625298	59.37	ppb	98
98) 4-Chlorotoluene	11.248	91	660619	57.26	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	689472	59.51	ppb	98
100) tert-Butylbenzene	11.522	119	593815	59.38	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	697043	60.08	ppb	99
102) 3,4-DCBTF	11.620	214	204299	63.01	ppb	97
103) sec-Butylbenzene	11.705	105	888255	60.36	ppb	99
104) p-Isopropyltoluene	11.827	119	733302	59.21	ppb	98
105) 1,3-Dclbenz	11.784	146	371089	57.55	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16720.D
Acq On : 27 Mar 2018 8:33 pm
Operator : K.Ruest
Sample : R1802550-002DMS|1.0
Misc : VERINA 8260 T4
ALS Vial : 22 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 28 13:53:07 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

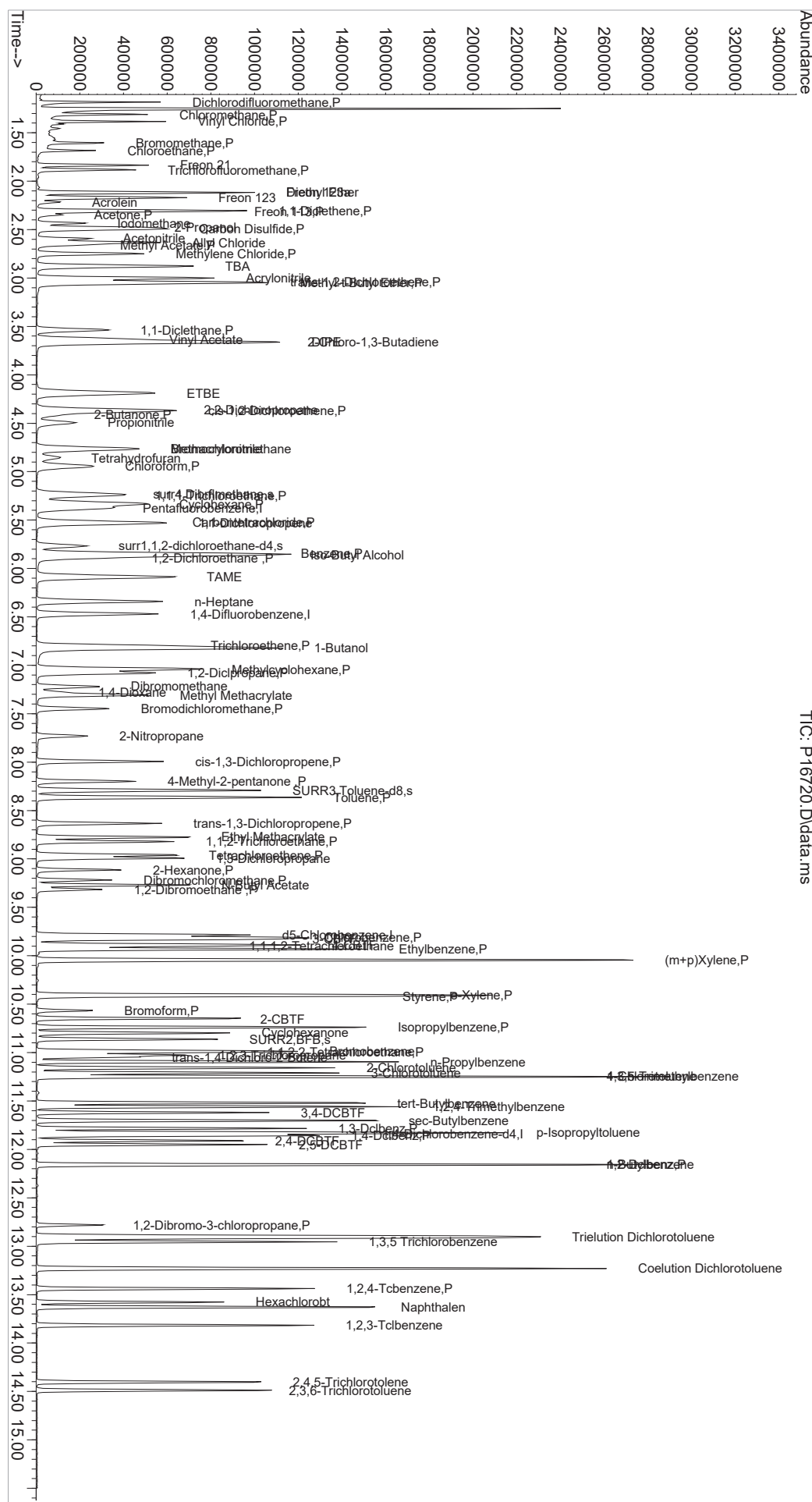
	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
106)	1,4-Dclbenz	11.857	146	368427	54.44	ppb	98
107)	2,4-DCBTF	11.912	214	187350	60.59	ppb	96
108)	2,5-DCBTF	11.949	214	209820	63.46	ppb	95
109)	n-Butylbenzene	12.156	91	732099	63.38	ppb	99
110)	1,2-Dclbenz	12.156	146	360746	56.05	ppb	98
111)	1,2-Dibromo-3-chloropr...	12.784	157	59988	55.44	ppb	93
112)	Trielution Dichlorotol...	12.906	125	1146623	181.12	ppb	98
113)	1,3,5 Trichlorobenzene	12.955	180	308892	61.65	ppb	99
114)	Coelution Dichlorotoluene	13.229	125	851613	126.84	ppb	98
115)	1,2,4-Tcbenzene	13.436	180	297957	63.69	ppb	97
116)	Hexachlorobt	13.577	225	124030	57.11	ppb	98
117)	Naphthalen	13.632	128	938382	72.70	ppb	98
118)	1,2,3-Tclbenzene	13.814	180	305790	67.29	ppb	98
119)	2,4,5-Trichlorotoluene	14.400	159	216562	70.55	ppb	95
120)	2,3,6-Trichlorotoluene	14.491	159	194624	68.51	ppb	95

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

Quant Time: Mar 28 13:53:07 2018
Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Data Path : I:\ACQDATA\msvoa12\Data\032718\
Data File : P16720.D
Acq On : 27 Mar 2018 8:33 pm
Operator : K.Ruest
Sample : R1802550-002DMS|1.0
ISC : VERINA 8260 T4
PALS Vial : 22 Sample Multiplier: 1

Inst : MSVOA-12



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	111	0.00
2 P	Dichlorodifluoromethane	0.6083	0.6226	-2.4	106	0.00
3 P	Chloromethane	0.7602	0.7017	7.7	106	0.00
4 P	Vinyl Chloride	0.7405	0.7573	-2.3	112	0.00
5 P	Bromomethane	0.5812	0.2966	49.3	~~49.0~~ #	70
6 P	Chloroethane	0.4623	0.4754	-2.8	114	0.00
7	Freon 21	0.9560	1.1266	-17.8	129	0.00
8 P	Trichlorofluoromethane	0.7136	0.6744	5.5	105	0.00
9	Diethyl Ether	0.4967	0.5865	-18.1	138	0.00
10	Freon 123a	0.6039	0.7041	-16.6	131	0.00
11	Freon 123	0.6987	0.7902	-13.1	126	0.00
12	Acrolein	0.1478	0.1118	NT	24.4#	86
13 P	1,1-Dicethene	0.5136	0.4806	6.4	113	0.00
14 P	Freon 113	0.4853	0.4490	7.5	106	0.00
15 P	Acetone	0.3049	0.3539	-16.1	128	0.00
16	2-Propanol	0.0585	0.0700	-19.7	143	0.00
17	Iodomethane	0.5271	0.6078	2.4	~~15.3~~	105
18 P	Carbon Disulfide	1.4979	1.4889	0.6	109	0.00
19	Acetonitrile	0.0521	0.0706	NT	-35.5#	162
20	Allyl Chloride	0.2735	0.3010	-10.1	128	0.00
21 P	Methyl Acetate	0.5445	0.7300	NT	-34.1#	156
22 P	Methylene Chloride	0.5417	0.5900	-8.9	124	0.00
23	TBA	0.1008	0.1091	-8.2	128	0.00
24	Acrylonitrile	0.2927	0.3544	NT	-21.1#	141
25 P	Methyl-t-Butyl Ether	1.8411	1.9998	-8.6	123	0.00
26 P	trans-1,2-Dichloroethene	0.5246	0.5226	0.4	113	0.00
27	Halothane	0.0000	0.0000	0.0	0#	-4.00#
28 P	1,1-Dicethane	0.9627	1.0471	-8.8	122	0.00
29	Vinyl Acetate	0.1537	0.1397	9.1	104	0.00
30	DIPE	1.8333	2.1616	-17.9	134	0.00
31	2-Chloro-1,3-Butadiene	0.9310	0.9269	0.4	115	0.00
32	ETBE	1.8488	2.0821	-12.6	123	0.01
33	2,2-Dichloropropane	0.8561	0.7664	10.5	104	0.00
34 P	cis-1,2-Dichloroethene	0.5972	0.6142	-2.8	118	0.00
35 P	2-Butanone	0.3831	0.4559	-19.0	135	0.00
36	Propionitrile	0.1244	0.1442	-15.9	139	-0.01
37	Bromochloromethane	0.3456	0.3550	-2.7	121	0.02
38	Methacrylonitrile	0.2950	0.3537	-19.9	135	0.00
39	Tetrahydrofuran	0.2235	0.2833	NT	-26.8#	143
40 P	Chloroform	0.9692	0.9229	4.8	115	0.00
41 P	1,1,1-Trichloroethane	0.8203	0.7055	14.0	103	0.01
42	TAME	1.8047	1.9352	-7.2	119	0.00
43 I	1,4-Difluorobenzene	1.0000	1.0000	0.0	113	0.00
44 P	Cyclohexane	0.3267	0.3662	-12.1	132	0.00
45 s	surr4,Dibrflmethane	0.2969	0.2784	6.2	106	0.00
46 P	Carbontetrachloride	0.3753	0.3070	18.2	92	0.00
47	1,1-Dichloropropene	0.4404	0.4376	0.6	114	0.02
48 s	surr1,1,2-dichloroethane-d4	0.4068	0.3893	4.3	107	0.00
49 P	Benzene	1.3061	1.3628	-4.3	120	0.00
50 P	1,2-Dichloroethane	0.4798	0.4888	-1.9	117	0.00
51	Iso-Butyl Alcohol	0.0265	0.0296	-11.7	133	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	n-Heptane	0.4483	0.4896	-9.2	125	0.02
53	1-Butanol	0.0175	0.0191	-9.1	124	-0.01
54 P	Trichloroethene	0.3350	0.3113	7.1	105	0.00
55 P	Methylcyclohexane	0.4357	0.5278	NT	-21.1#	134 0.00
56 P	1,2-Dicloropropane	0.3484	0.3835	-10.1	128	0.01
57	Dibromomethane	0.2080	0.2074	0.3	115	0.00
58	1,4-Dioxane	0.0069	0.0074	-7.2	129	0.00
59	Methyl Methacrylate	0.3218	0.3431	-6.6	125	0.00
60 P	Bromodichloromethane	0.4386	0.4044	7.8	111	0.00
61	2-Nitropropane	0.1354	0.1046	NT	22.7#	90 0.00
62	2-Chloroethylvinyl Ether	0.0805	0.2341	NT	-190.8#	338# 0.00
63 P	cis-1,3-Dichloropropene	0.5534	0.5717	-3.3	114	0.00
64 P	4-Methyl-2-pentanone	0.4251	0.4858	-14.3	131	0.00
65 s	SURR3,Toluene-d8	1.3256	1.3097	1.2	111	0.00
66 P	Toluene	1.4187	1.4128	0.4	114	0.00
67 P	trans-1,3-Dichloropropene	0.5155	0.5178	-0.4	112	0.00
68	Ethyl Methacrylate	0.5263	0.5841	-11.0	124	0.00
69 P	1,1,2-Trichloroethane	0.3223	0.3203	0.6	121	0.00
70 s	SURR2,BFB	0.5129	0.4774	6.9	106	0.00
71 I	d5-Chlorobenzene	1.0000	1.0000	0.0	110	0.00
72 P	Tetrachloroethene	0.2759	0.2621	5.0	109	0.00
73 P	2-Hexanone	0.3681	0.4174	-13.4	127	0.00
74	1,3-Dichloropropane	0.6425	0.7305	-13.7	127	0.00
75 P	Dibromochloromethane	0.3353	0.3239	3.4	105	0.00
76	N-Butyl Acetate	0.6929	0.9429	NT	-36.1#	143 0.00
77 P	1,2-Dibromoethane	0.3562	0.3703	-4.0	116	0.00
78 P	Chlorobenzene	0.9796	1.0262	-4.8	115	0.00
79	3-CBTF	0.5223	0.5377	-2.9	118	0.00
80	4-CBTF	0.4773	0.4858	-1.8	118	0.00
81	1,1,1,2-Tetrachloroethane	0.3482	0.3243	6.9	105	0.00
82 P	Ethylbenzene	0.5408	0.5310	1.8	110	0.00
83 P	(m+p)Xylene	0.6546	0.6676	-2.0	113	0.00
84 P	o-Xylene	0.6554	0.6701	-2.2	113	0.00
85 P	Styrene	1.1033	1.1507	-4.3	112	0.00
86 I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	111	0.00
87 P	Bromoform	0.4361	0.4079	6.5	104	0.00
88	2-CBTF	0.9684	1.0295	-6.3	118	0.00
89 P	Isopropylbenzene	3.2851	3.2097	2.3	107	0.00
90	Cyclohexanone	0.2499	0.2593	-3.8	118	0.00
91	trans-1,4-Dichloro-2-Butene	0.2603	0.2759	-6.0	120	0.00
92 P	1,1,2,2-Tetrachloroethane	0.9914	1.1151	-12.5	129	0.00
93	Bromobenzene	0.8046	0.8147	-1.3	114	0.00
94	1,2,3-Trichloropropane	0.3221	0.3363	-4.4	118	0.00
95	n-Propylbenzene	3.8197	3.8884	-1.8	109	0.00
96	2-Chlorotoluene	2.3682	2.3701	-0.1	112	0.00
97	3-Chlorotoluene	2.4978	2.5840	-3.5	113	0.00
98	4-Chlorotoluene	2.7362	2.7524	-0.6	111	0.00
99	1,3,5-Trimethylbenzene	2.7476	2.7124	1.3	107	0.00
100	tert-Butylbenzene	2.3716	2.3040	2.9	106	0.00
101	1,2,4-Trimethylbenzene	2.7517	2.7426	0.3	108	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	3,4-DCBTF	0.7689	0.8783	-14.2	123	0.00
103	sec-Butylbenzene	3.4901	3.4051	2.4	105	0.00
104	p-Isopropyltoluene	2.9371	2.8614	2.6	106	0.00
105 P	1,3-Dclbenz	1.5293	1.5581	-1.9	112	0.00
106 P	1,4-Dclbenz	1.6050	1.6208	-1.0	115	0.00
107	2,4-DCBTF	0.7333	0.7941	-8.3	120	0.00
108	2,5-DCBTF	0.7842	0.8992	-14.7	127	0.00
109	n-Butylbenzene	2.7396	2.7978	-2.1	108	0.00
110 P	1,2-Dclbenz	1.5264	1.5514	-1.6	112	0.00
111 P	1,2-Dibromo-3-chloropropane	0.2566	0.2348	8.5	111	0.00
112	Trielution Dichlorotoluene	1.5014	1.6143	-7.5	116	0.00
113	1,3,5 Trichlorobenzene	1.1884	1.3332	-12.2	121	0.00
114	Coelution Dichlorotoluene	1.5924	1.8072	-13.5	118	0.00
115 P	1,2,4-Tcbenzene	1.1095	1.2841	-15.7	122	0.00
116	Hexachlorobt	0.5150	0.4843	6.0	106	0.00
117	Naphthalen	3.0613	3.7736	NT-23.3#	125	0.00
118	1,2,3-Tclbenzene	1.0777	1.2786	-18.6	125	0.00
119	2,4,5-Trichlorotoluene	0.6534	0.8015	-12.7-22.7#	112	0.00
120	2,3,6-Trichlorotoluene	0.5941	0.7515	-13.3-26.5#	114	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

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Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	315594	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	530528	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	459768	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	234637	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	147702	46.89	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	93.78%
48) surr1,1,2-dichloroetha...	5.767	65	206540	47.85	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	95.70%
65) SURR3,Toluene-d8	8.291	98	694846	49.40	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	98.80%
70) SURR2,BFB	10.864	95	253255	46.54	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	93.08%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	196503	51.18	ppb	99
3) Chloromethane	1.311	50	221463	46.15	ppb	100
4) Vinyl Chloride	1.384	62	239014	51.13	ppb	98
5) Bromomethane	1.610	94	93601	25.34	ppb	95
6) Chloroethane	1.689	64	150039	51.41	ppb	98
7) Freon 21	1.835	67	355557	58.93	ppb	100
8) Trichlorofluoromethane	1.884	101	212824	47.25	ppb	97
9) Diethyl Ether	2.116	59	185093	59.04	ppb	97
10) Freon 123a	2.122	67	222202	58.30	ppb	89
11) Freon 123	2.170	83	249398	56.55	ppb	99
12) Acrolein	2.213	56	176426	189.09	ppb	100
13) 1,1-Dicethene	2.305	96	151659	46.78	ppb	94
14) Freon 113	2.311	101	141691	46.26	ppb	96
15) Acetone	2.347	43	111673	58.03	ppb	98
16) 2-Propanol	2.475	45	442099	1197.40	ppb	100
17) Iodomethane	2.433	142	191812	48.81	ppb	99
18) Carbon Disulfide	2.500	76	469885	49.70	ppb	99
19) Acetonitrile	2.591	40	111382	339.01	ppb	98
20) Allyl Chloride	2.634	76	94988	55.02	ppb	# 89
21) Methyl Acetate	2.658	43	230389	67.04	ppb	98
22) Methylene Chloride	2.750	84	186212	54.46	ppb	92
23) TBA	2.878	59	688496	1081.81	ppb	94
24) Acrylonitrile	3.000	53	559246	302.75	ppb	99
25) Methyl-t-Butyl Ether	3.054	73	631124	54.31	ppb	97
26) trans-1,2-Dichloroethene	3.042	96	164935	49.81	ppb	94
28) 1,1-Dicethane	3.536	63	330453	54.38	ppb	98
29) Vinyl Acetate	3.627	86	44077	45.43	ppb	97
30) DIPE	3.664	45	682201	58.95	ppb	91
31) 2-Chloro-1,3-Butadiene	3.664	53	292534	49.78	ppb	92
32) ETBE	4.188	59	657086	56.31	ppb	97
33) 2,2-Dichloropropane	4.365	77	241875	44.76	ppb	97
34) cis-1,2-Dichloroethene	4.371	96	193851	51.43	ppb	99
35) 2-Butanone	4.414	43	143870	59.50	ppb	98
36) Propionitrile	4.493	54	227508	289.80	ppb	94
37) Bromochloromethane	4.767	130	112034	51.36	ppb	93
38) Methacrylonitrile	4.767	67	111613	59.93	ppb	92
39) Tetrahydrofuran	4.853	42	89393	63.37	ppb	91
40) Chloroform	4.944	83	291259	47.61	ppb	99
41) 1,1,1-Trichloroethane	5.243	97	222639	43.00	ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	610728	53.61	ppb	98
44) Cyclohexane	5.334	41	194295	56.06	ppb	89
46) Carbontetrachloride	5.517	117	162861	40.90	ppb	99
47) 1,1-Dichloropropene	5.536	75	232157	49.68	ppb	97
49) Benzene	5.847	78	722988	52.17	ppb	99
50) 1,2-Dichloroethane	5.889	62	259312	50.94	ppb	97
51) Iso-Butyl Alcohol	5.859	43	313673	1115.89	ppb	91
52) n-Heptane	6.340	43	259728	54.60	ppb	94
53) 1-Butanol	6.822	56	507629	2729.31	ppb	98
54) Trichloroethene	6.798	130	165149	46.47	ppb	99
55) Methylcyclohexane	7.035	55	280003	60.57	ppb	92
56) 1,2-Diclpropane	7.078	63	203449	55.03	ppb	98
57) Dibromomethane	7.218	93	110008	49.84	ppb	95
58) 1,4-Dioxane	7.279	88	78076	1069.92	ppb	96
59) Methyl Methacrylate	7.310	69	182040	53.31	ppb	96
60) Bromodichloromethane	7.450	83	214554	46.11	ppb	97
61) 2-Nitropropane	7.730	41	110992	77.23	ppb	94
62) 2-Chloroethylvinyl Ether	7.858	63	124194	145.36	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	303300	51.66	ppb	98
64) 4-Methyl-2-pentanone	8.200	43	257737	57.14	ppb	99
66) Toluene	8.364	91	749549	49.79	ppb	98
67) trans-1,3-Dichloropropene	8.633	75	274700	50.22	ppb	99
68) Ethyl Methacrylate	8.779	69	309863	55.49	ppb	97
69) 1,1,2-Trichloroethane	8.822	97	169914	49.69	ppb	96
72) Tetrachloroethene	8.962	164	120500	47.49	ppb	97
73) 2-Hexanone	9.114	43	191909	56.69	ppb	95
74) 1,3-Dichloropropane	8.992	76	335854	56.85	ppb	99
75) Dibromochloromethane	9.218	129	148936	48.30	ppb	98
76) N-Butyl Acetate	9.273	43	433524	68.04	ppb	98
77) 1,2-Dibromoethane	9.315	107	170254	51.98	ppb	97
78) Chlorobenzene	9.809	112	471836	52.38	ppb	97
79) 3-CBTF	9.834	180	247218	51.47	ppb	93
80) 4-CBTF	9.888	180	223358	50.89	ppb	95
81) 1,1,1,2-Tetrachloroethane	9.901	131	149107	46.57	ppb	96
82) Ethylbenzene	9.931	106	244148	49.09	ppb	100
83) (m+p)Xylene	10.047	106	613901	101.99	ppb	95
84) o-Xylene	10.401	106	308098	51.12	ppb	96
85) Styrene	10.419	104	529056	52.15	ppb	97
87) Bromoform	10.565	173	95708	46.76	ppb	97
88) 2-CBTF	10.650	180	241567	53.16	ppb	91
89) Isopropylbenzene	10.736	105	753107	48.85	ppb	98
90) Cyclohexanone	10.797	55	1216948	1037.69	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	64744	52.99	ppb	89
92) 1,1,2,2-Tetrachloroethane	10.998	83	261639	56.24	ppb	96
93) Bromobenzene	10.986	156	191151	50.63	ppb	94
94) 1,2,3-Trichloropropane	11.028	110	78919	52.22	ppb	99
95) n-Propylbenzene	11.095	91	912368	50.90	ppb	98
96) 2-Chlorotoluene	11.156	91	556114	50.04	ppb	95
97) 3-Chlorotoluene	11.211	91	606309	51.73	ppb	98
98) 4-Chlorotoluene	11.248	91	645821	50.30	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	636428	49.36	ppb	98
100) tert-Butylbenzene	11.522	119	540603	48.57	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	643526	49.83	ppb	99
102) 3,4-DCBTF	11.620	214	206090	57.11	ppb	97
103) sec-Butylbenzene	11.705	105	798974	48.78	ppb	99
104) p-Isopropyltoluene	11.827	119	671384	48.71	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105) 1,3-Dclbenz	11.784	146	365587	50.94	ppb	98
106) 1,4-Dclbenz	11.858	146	380297	50.49	ppb	96
107) 2,4-DCBTF	11.912	214	186326	54.15	ppb	97
108) 2,5-DCBTF	11.949	214	210976	57.33	ppb	93
109) n-Butylbenzene	12.156	91	656463	51.06	ppb	100
110) 1,2-Dclbenz	12.162	146	364023	50.82	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.784	157	55088	45.75	ppb	90
112) Trielution Dichlorotol...	12.900	125	1136342	161.28	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	312818	56.09	ppb	97
114) Coelution Dichlorotoluene	13.229	125	848065	113.49	ppb	100
115) 1,2,4-Tcbenzene	13.437	180	301288	57.87	ppb	97
116) Hexachlorobt	13.577	225	113643	47.02	ppb	96
117) Naphthalen	13.626	128	885419	61.63	ppb	99
118) 1,2,3-Tclbenzene	13.821	180	300018	59.32	ppb	98
119) 2,4,5-Trichlorotoluene	14.406	159	188060	56.36	ppb	96
120) 2,3,6-Trichlorotoluene	14.491	159	176322	56.66	ppb	98

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

6Data File : F18694.D
Acq On : 27 Mar 2018 10:32 am

Inst : MSVOA-12

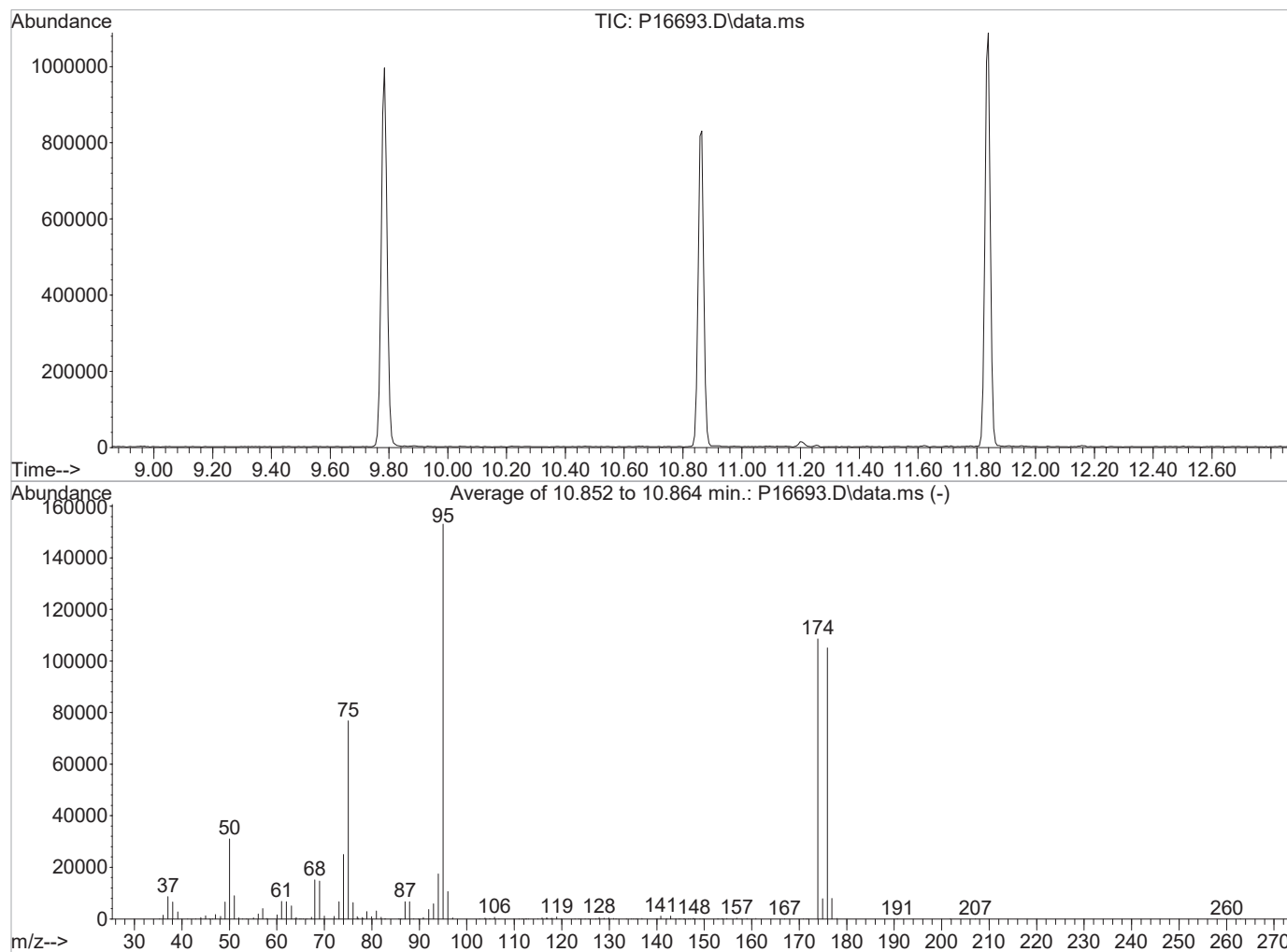


Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16693.D
 Acq On : 27 Mar 2018 10:03 am
 Operator : K.Ruest
 Sample : TUNE
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Integration File: INTP90.P

Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Title : MS#12 - 8260B WATERS 10mL Purge
 Last Update : Tue Jan 02 13:02:22 2018



AutoFind: Scans 1600, 1601, 1602; Background Corrected with Scan 1594

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	30995	PASS
75	95	30	60	50.1	76771	PASS
95	95	100	100	100.0	153101	PASS
96	95	5	9	6.9	10555	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	70.9	108565	PASS
175	174	5	9	7.2	7848	PASS
176	174	95	101	96.8	105096	PASS
177	176	5	9	7.5	7909	PASS

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15162.D
 Acq On : 29 Dec 2017 9:43 pm
 Operator : K.Ruest
 Sample : ICV 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 15:22:52 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	287947	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	479951	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	424833	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	218758	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.225	113	141452	49.64	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	99.28%
48) surr1,1,2-dichloroetha...	5.767	65	193466	49.54	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	99.08%
65) SURR3,Toluene-d8	8.291	98	624876	49.11	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	98.22%
70) SURR2,BFB	10.858	95	237241	48.19	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	96.38%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	134291	38.34	ppb	98
3) Chloromethane	1.305	50	190453	43.50	ppb	99
4) Vinyl Chloride	1.384	62	199400	46.76	ppb	99
5) Bromomethane	1.609	94	142716	45.39	ppb	97
6) Chloroethane	1.689	64	124204	46.65	ppb	97
7) Freon 21	1.835	67	285350	51.83	ppb	98
8) Trichlorofluoromethane	1.884	101	213052	51.84	ppb	96
9) Diethyl Ether	2.115	59	136922	47.87	ppb	98
10) Freon 123a	2.121	67	191670	55.12	ppb	99
11) Freon 123	2.170	83	210567	52.33	ppb	99
12) Acrolein	2.213	56	54829	64.41	ppb	94
13) 1,1-Dicethene	2.304	96	133150	45.02	ppb	99
14) Freon 113	2.310	101	130157	46.57	ppb	95
15) Acetone	2.347	43	85120	48.48	ppb	99
16) 2-Propanol	2.475	45	333226	989.18	ppb	100
17) Iodomethane	2.432	142	126267	36.58	ppb	96
18) Carbon Disulfide	2.499	76	396813	46.00	ppb	98
19) Acetonitrile	2.591	40	71030	236.95	ppb	100
20) Allyl Chloride	2.634	76	73512	46.67	ppb	92
21) Methyl Acetate	2.658	43	157488	50.23	ppb	99
22) Methylene Chloride	2.749	84	150486	48.24	ppb	99
23) TBA	2.877	59	560668	965.55	ppb	99
24) Acrylonitrile	2.999	53	402143	238.60	ppb	99
25) Methyl-t-Butyl Ether	3.048	73	507837	47.90	ppb	99
26) trans-1,2-Dichloroethene	3.042	96	144824	47.94	ppb	97
28) 1,1-Dicethane	3.536	63	274458	49.51	ppb	97
29) Vinyl Acetate	3.627	86	38188	43.14	ppb	# 92
30) DIPE	3.664	45	492688	46.67	ppb	97
31) 2-Chloro-1,3-Butadiene	3.658	53	243854	45.48	ppb	94
32) ETBE	4.188	59	513182	48.20	ppb	97
33) 2,2-Dichloropropane	4.365	77	227846	46.22	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	164996	47.97	ppb	95
35) 2-Butanone	4.408	43	103585	46.96	ppb	98
36) Propionitrile	4.493	54	164268	229.34	ppb	95
37) Bromochloromethane	4.761	130	97230	48.85	ppb	96
38) Methacrylonitrile	4.761	67	88251	51.94	ppb	94
39) Tetrahydrofuran	4.853	42	65186	50.65	ppb	86
40) Chloroform	4.944	83	263420	47.20	ppb	98
41) 1,1,1-Trichloroethane	5.243	97	228157	48.30	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15162.D
 Acq On : 29 Dec 2017 9:43 pm
 Operator : K.Ruest
 Sample : ICV 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 15:22:52 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	507580	48.84	ppb	98
44) Cyclohexane	5.334	41	144705	46.15	ppb	99
46) Carbontetrachloride	5.523	117	183593	50.96	ppb	96
47) 1,1-Dichloropropene	5.529	75	209652	49.59	ppb	98
49) Benzene	5.846	78	620472	49.49	ppb	100
50) 1,2-Dichloroethane	5.883	62	221444	48.08	ppb	98
51) Iso-Butyl Alcohol	5.859	43	240444	945.52	ppb	97
52) n-Heptane	6.340	43	193642	45.00	ppb	96
53) 1-Butanol	6.822	56	419687	2494.27	ppb	99
54) Trichloroethene	6.797	130	162270	50.47	ppb	96
55) Methylcyclohexane	7.035	55	205143	49.05	ppb	98
56) 1,2-Dicloropropane	7.078	63	162105	48.47	ppb	96
57) Dibromomethane	7.218	93	95483	47.82	ppb	98
58) 1,4-Dioxane	7.279	88	64491	976.88	ppb	97
59) Methyl Methacrylate	7.303	69	149451	48.38	ppb	99
60) Bromodichloromethane	7.450	83	202525	48.11	ppb	95
61) 2-Nitropropane	7.724	41	120257	92.50	ppb	98
62) 2-Chloroethylvinyl Ether	7.852	63	38992	50.45	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	263518	49.61	ppb	97
64) 4-Methyl-2-pentanone	8.193	43	188470	46.19	ppb	95
66) Toluene	8.364	91	677037	49.72	ppb	98
67) trans-1,3-Dichloropropene	8.632	75	248645	50.25	ppb	98
68) Ethyl Methacrylate	8.773	69	261322	51.73	ppb	99
69) 1,1,2-Trichloroethane	8.821	97	145623	47.07	ppb	97
72) Tetrachloroethene	8.956	164	111631	47.62	ppb	97
73) 2-Hexanone	9.108	43	146355	46.79	ppb	94
74) 1,3-Dichloropropane	8.992	76	265741	48.68	ppb	98
75) Dibromochloromethane	9.218	129	143505	50.37	ppb	97
76) N-Butyl Acetate	9.266	43	315825	53.65	ppb	96
77) 1,2-Dibromoethane	9.315	107	147070	48.59	ppb	97
78) Chlorobenzene	9.809	112	427179	51.32	ppb	99
79) 3-CBTF	9.827	180	209132	47.12	ppb	95
80) 4-CBTF	9.882	180	186198	45.91	ppb	96
81) 1,1,1,2-Tetrachloroethane	9.894	131	146680	49.58	ppb	95
82) Ethylbenzene	9.931	106	228973	49.83	ppb	98
83) (m+p) Xylene	10.041	106	559632	100.62	ppb	100
84) o-Xylene	10.400	106	276930	49.73	ppb	100
85) Styrene	10.413	104	479273	51.13	ppb	98
87) Bromoform	10.565	173	95178	49.88	ppb	99
88) 2-CBTF	10.644	180	204322	48.23	ppb	94
89) Isopropylbenzene	10.736	105	711427	49.50	ppb	98
90) Cyclohexanone	10.797	55	836747	765.29	ppb	97
91) trans-1,4-Dichloro-2-B...	11.047	53	61025	53.58	ppb	99
92) 1,1,2,2-Tetrachloroethane	10.998	83	207141	47.76	ppb	96
93) Bromobenzene	10.979	156	172547	49.02	ppb	96
94) 1,2,3-Trichloropropane	11.022	110	69365	49.23	ppb	94
95) n-Propylbenzene	11.095	91	844300	50.52	ppb	100
96) 2-Chlorotoluene	11.156	91	532215	51.37	ppb	99
97) 3-Chlorotoluene	11.211	91	537133	49.15	ppb	97
98) 4-Chlorotoluene	11.248	91	589390	49.23	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	616952	51.32	ppb	98
100) tert-Butylbenzene	11.516	119	520317	50.14	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	626900	52.07	ppb	98
102) 3,4-DCBTF	11.620	214	161549	48.02	ppb	98
103) sec-Butylbenzene	11.699	105	776457	50.85	ppb	99
104) p-Isopropyltoluene	11.821	119	664383	51.70	ppb	100

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15162.D
 Acq On : 29 Dec 2017 9:43 pm
 Operator : K.Ruest
 Sample : ICV 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 15:22:52 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105) 1,3-Dclbenz	11.784	146	336727	50.32	ppb	97
106) 1,4-Dclbenz	11.857	146	346237	49.31	ppb	99
107) 2,4-DCBTF	11.912	214	153233	47.76	ppb	97
108) 2,5-DCBTF	11.949	214	162889	47.48	ppb	98
109) n-Butylbenzene	12.156	91	633806	52.88	ppb	99
110) 1,2-Dclbenz	12.156	146	339670	50.86	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.784	157	53218	47.40	ppb	93
112) Trielution Dichlorotol...	12.900	125	973605	148.21	ppb	99
113) 1,3,5 Trichlorobenzene	12.955	180	261939	50.38	ppb	96
114) Coelution Dichlorotoluene	13.229	125	720830	103.46	ppb	100
115) 1,2,4-Tcbenzene	13.436	180	255427	52.62	ppb	96
116) Hexachlorobt	13.577	225	110049	48.84	ppb	98
117) Naphthalen	13.625	128	749449	55.96	ppb	99
118) 1,2,3-Tclbenzene	13.814	180	255017	54.08	ppb	98
119) 2,4,5-Trichlorotoluene	14.400	159	167006	53.91	ppb	99
120) 2,3,6-Trichlorotoluene	14.485	159	158730	54.85	ppb	97

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

1st 01/03/18

Data Path : I:\ACQDATA\msvoa12\Data\122917\
 Data File : P15162.D
 Acq On : 29 Dec 2017 9:43 pm
 Operator : K.Ruest
 Sample : ICV 50ppb
 Vial : 8260 WATER ICAL
 Multiplier: 1

Inst : MSVOA-12

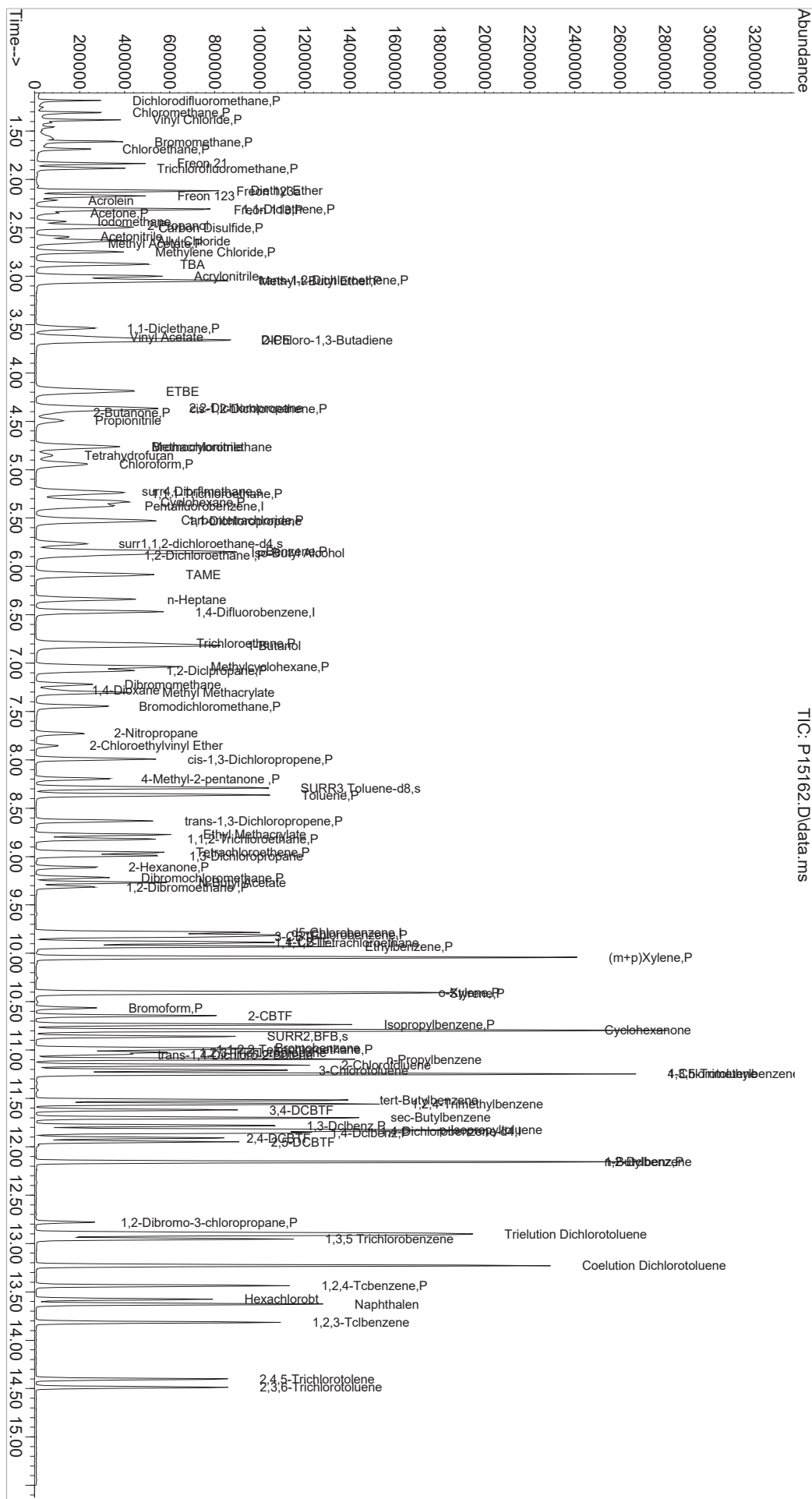
Quant Time: Jan 02 15:22:52 2018

Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M

Quant Title : MS#12 - 8260B WATERS 10mL Purge

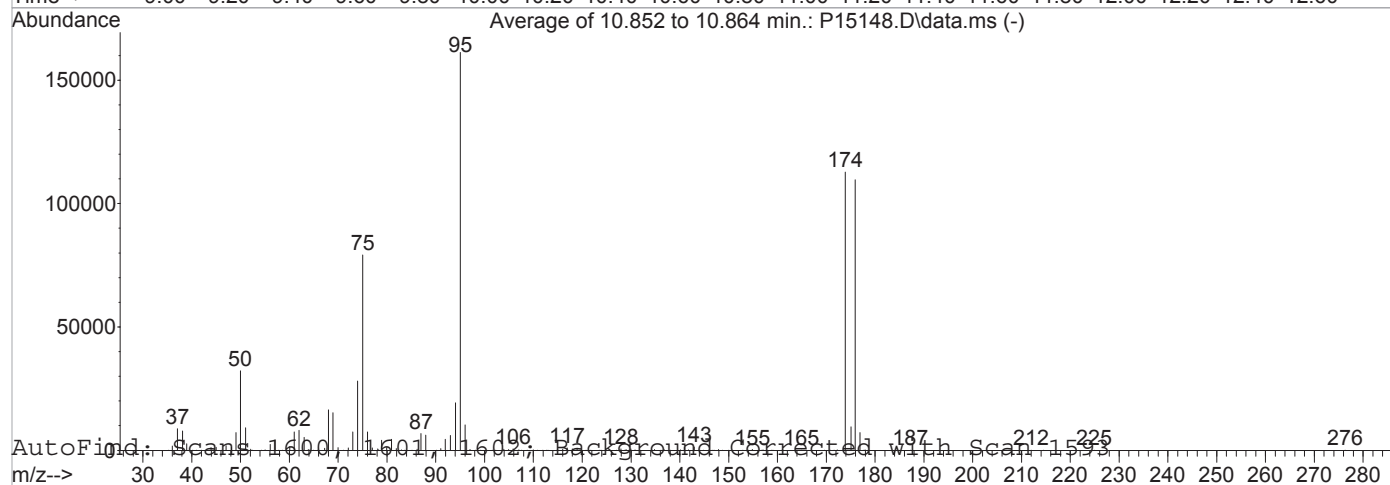
Quant Update : Tue Jan 02 13:02:22 2018

Response via : Initial Calibration



Inst : MSVOA-12

Method : I:\ACQUDATA\msvoal2\Methods\W122917.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Fri Dec 29 09:19:07 2017



Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	32261	PASS
75	95	30	60	49.1	79149	PASS
95	95	100	100	100.0	161277	PASS
96	95	5	9	6.4	10343	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	69.9	112739	PASS
175	174	5	9	8.5	9553	PASS
176	174	95	101	97.2	109600	PASS
177	176	5	9	6.5	7155	PASS

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15149.D
Acq On : 29 Dec 2017 5:01 pm
Operator : K.Ruest
Sample : IBLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 15:24:56 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

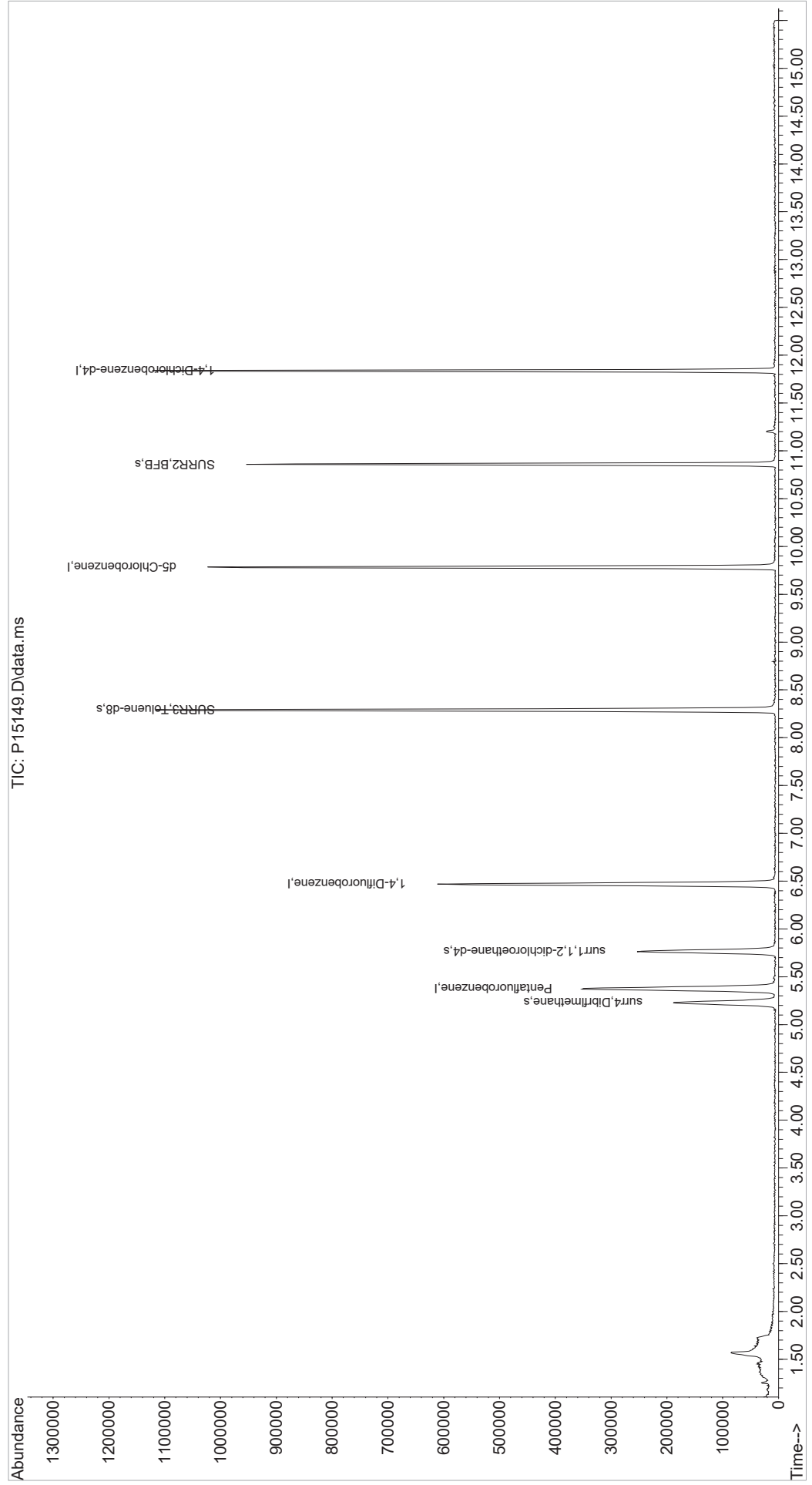
Internal Standards						
1) Pentafluorobenzene	5.377	168	312401	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	516664	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	453641	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	224311	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	153044	49.89	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	99.78%	
48) surr1,1,2-dichloroetha...	5.761	65	209116	49.74	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	99.48%	
65) SURR3,Toluene-d8	8.291	98	677259	49.44	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	98.88%	
70) SURR2,BFB	10.858	95	255019	48.12	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	96.24%	

Target Compounds	Qvalue
-----	-----

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

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15149.D
 Acq On : 29 Dec 2017 5:01 pm
 Operator : K.Ruest
 Sample : IBLK
 Misc :
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSVOA-12

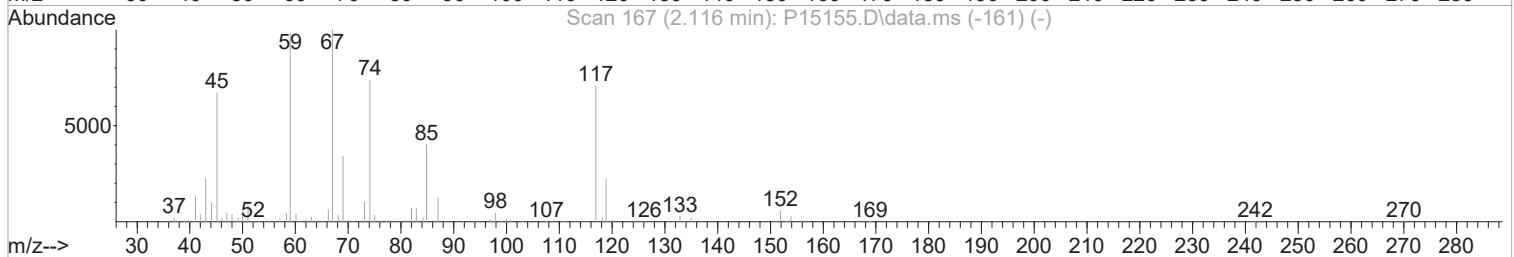
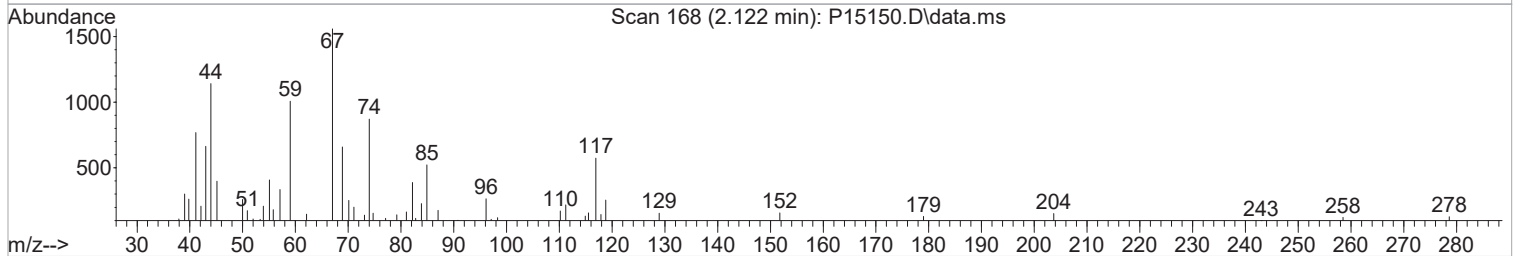
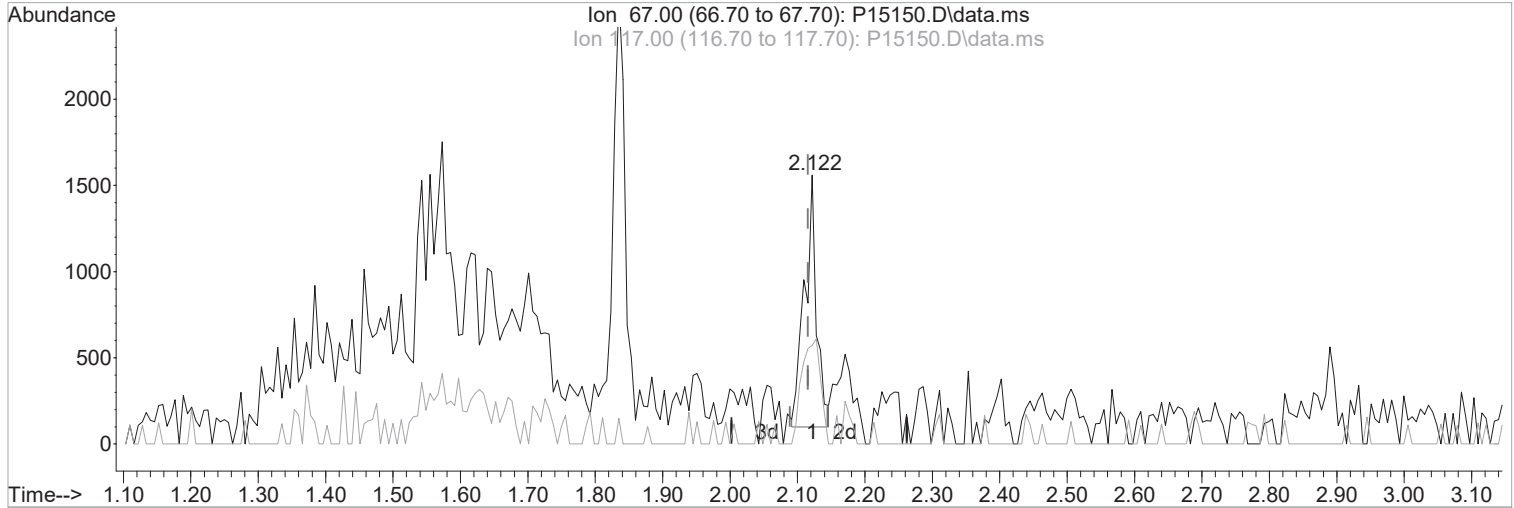
Quant Time: Jan 02 15:24:56 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(10) Freon 123a

2.122min (+0.006) 0.54 ppb m

response 1826

Ion	Exp%	Act%
67.00	100	100
117.00	70.30	36.73#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

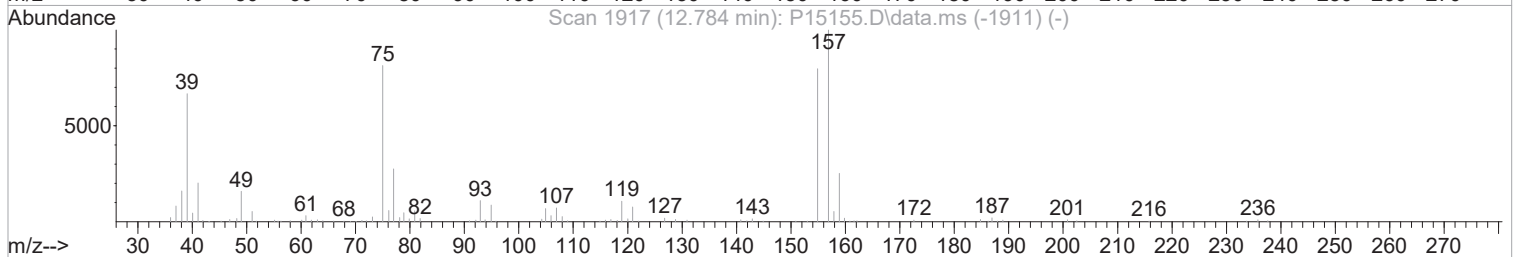
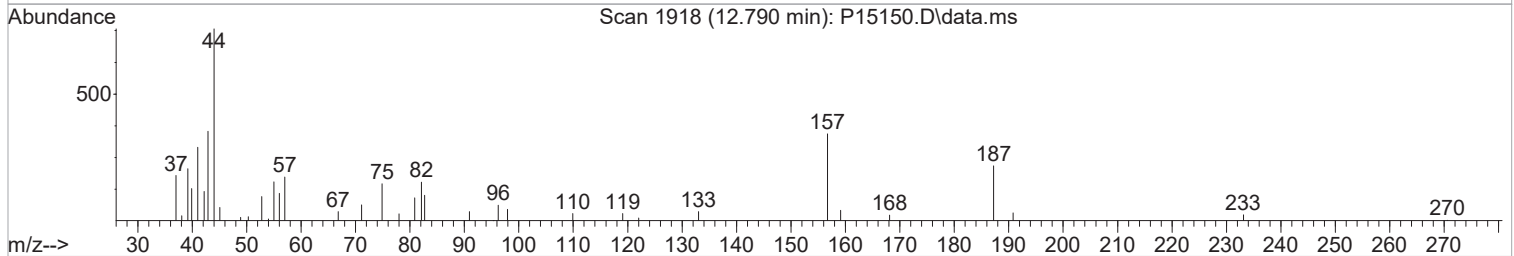
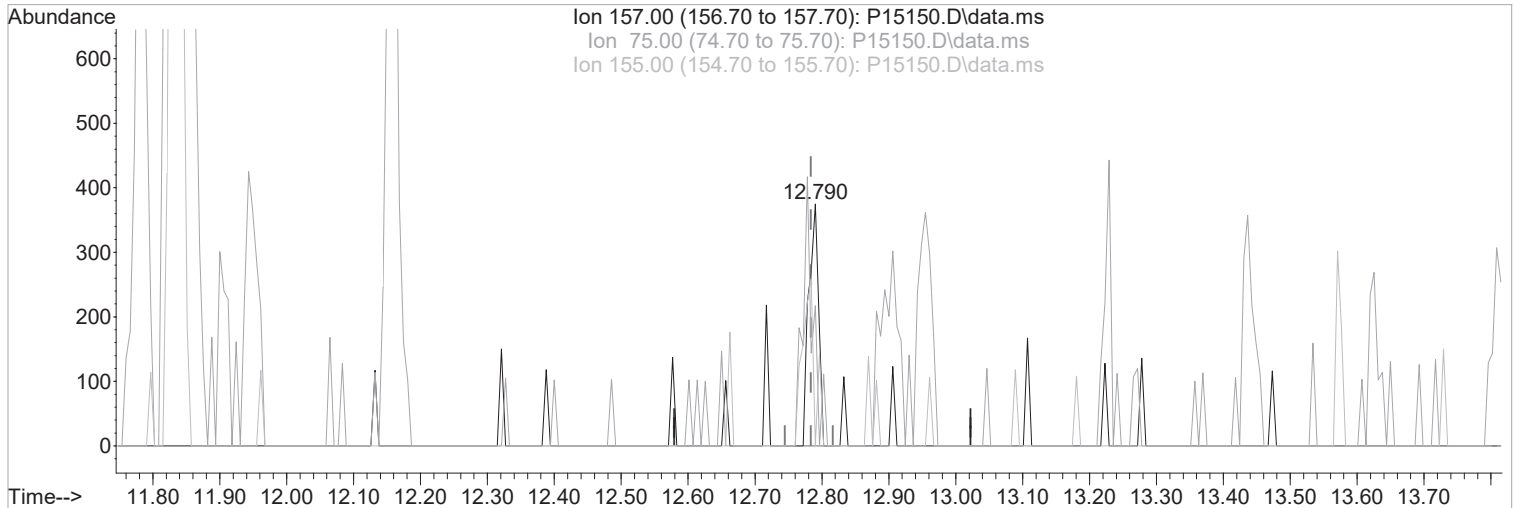
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(111) 1,2-Dibromo-3-chloropropane (P)

12.790min (+0.006) 0.39 ppb m

response 383

Ion	Exp%	Act%
157.00	100	100
75.00	81.40	57.87#
155.00	79.70	0.00#
0.00	0.00	0.00

Manual Integration:

After

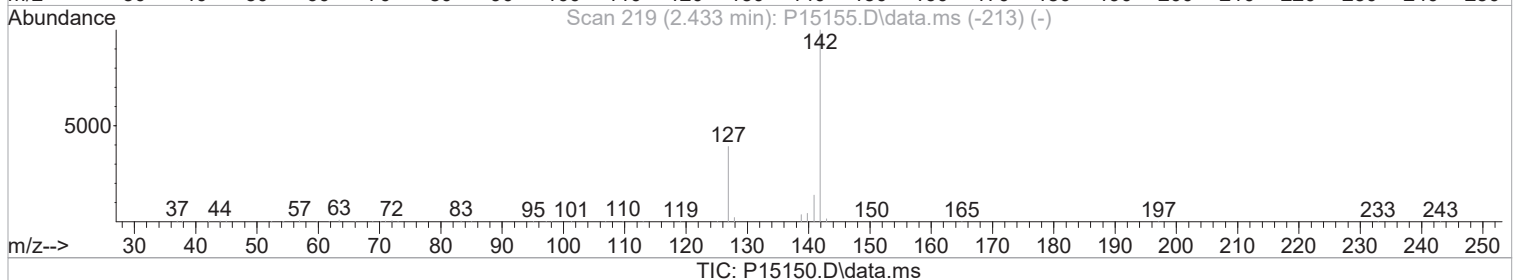
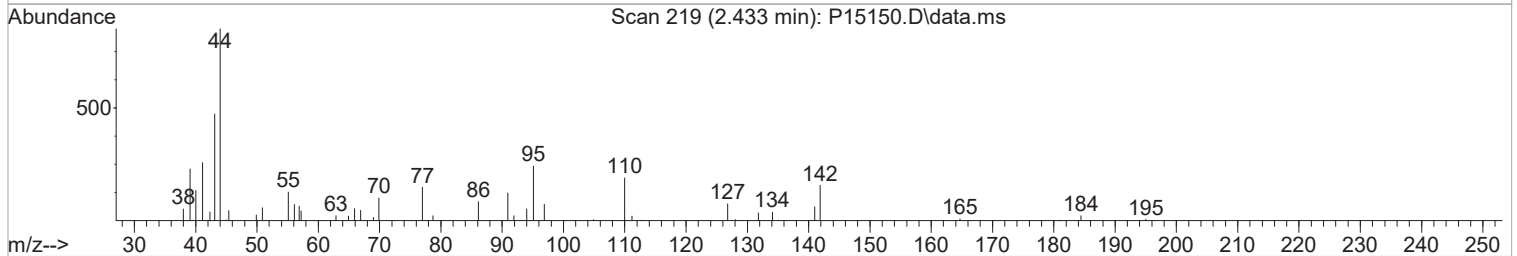
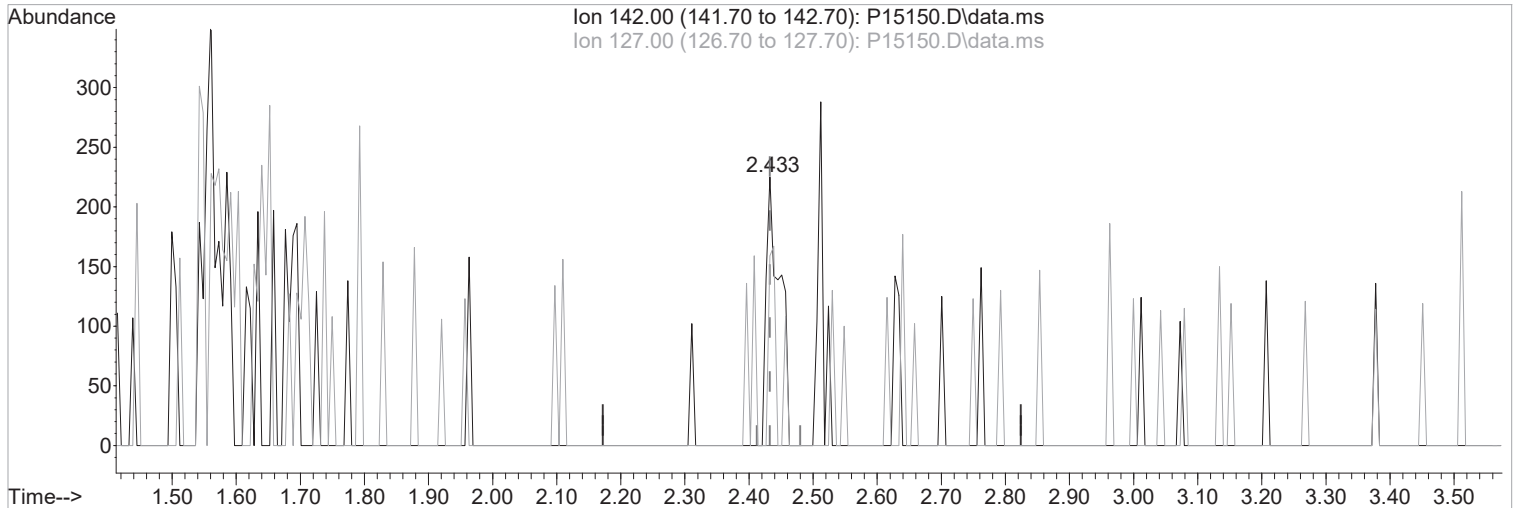
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



(17) Iodomethane

2.433min (+0.000) 0.13 ppb m

response 336

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	70.67#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

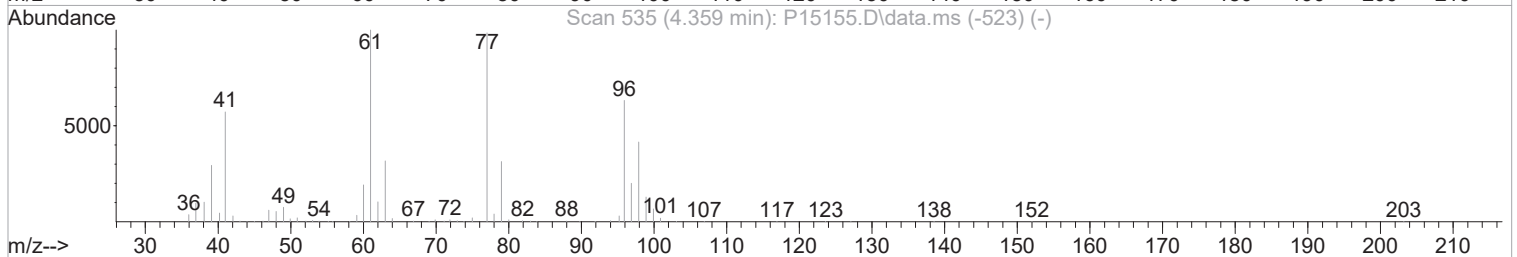
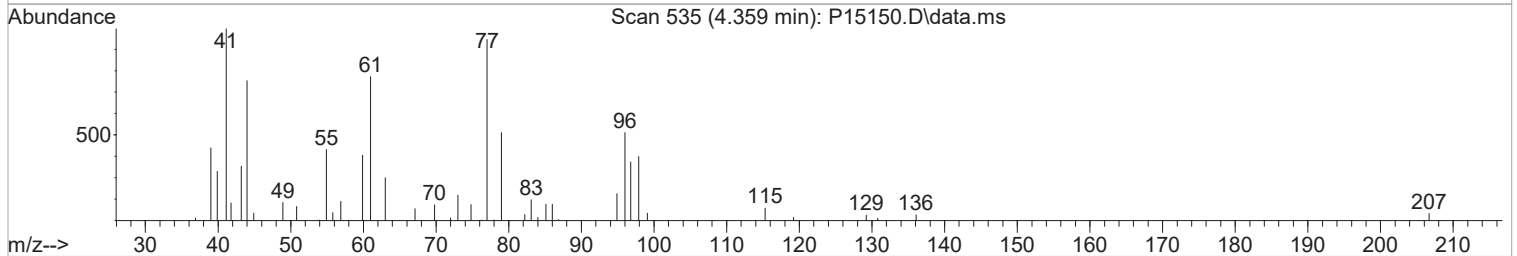
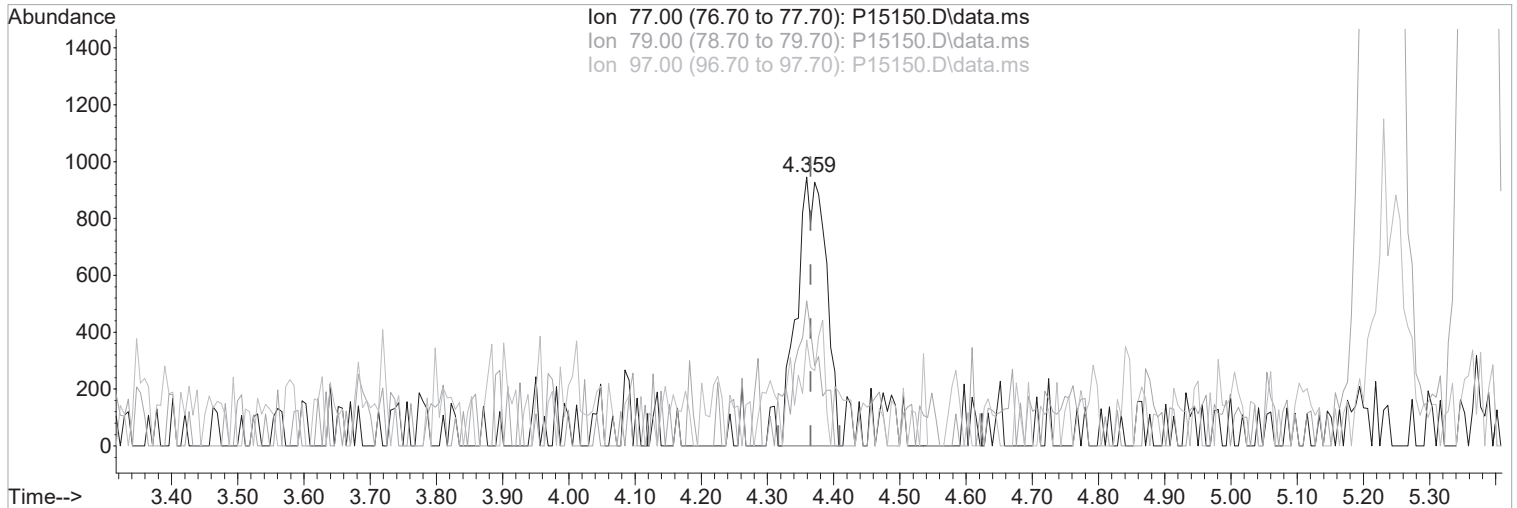
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(33) 2,2-Dichloropropane

4.359min (-0.006) 0.60 ppb m

response 2888

Ion	Exp%	Act%
77.00	100	100
79.00	32.10	53.91#
97.00	20.60	39.43
0.00	0.00	0.00

Manual Integration:

After

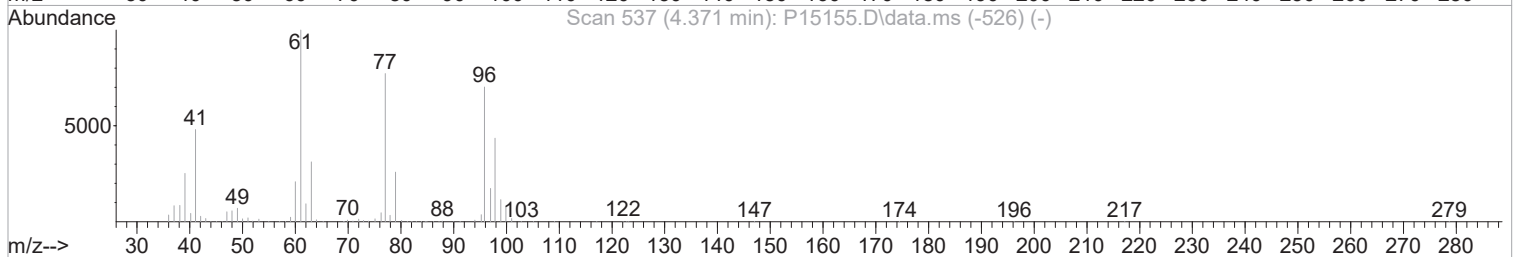
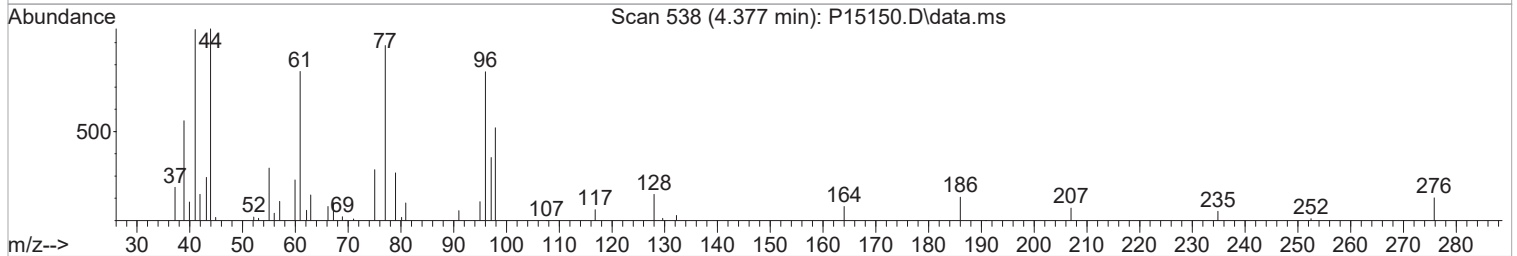
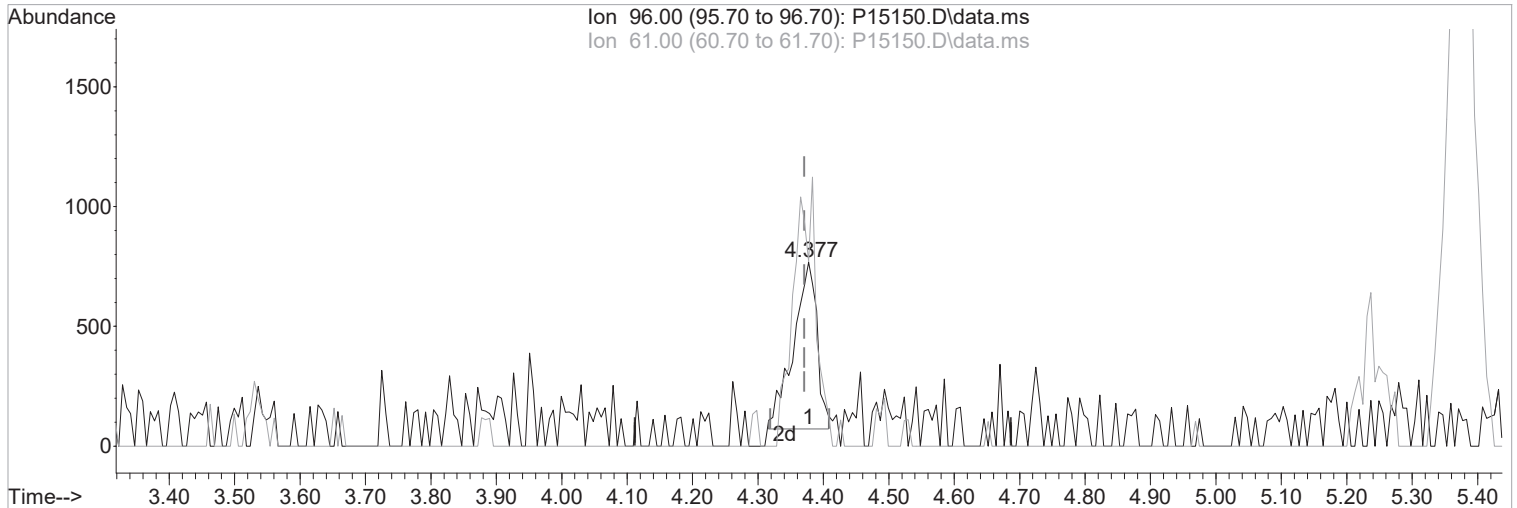
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.377min (+0.006) 0.49 ppb m

response 1739

Ion	Exp%	Act%
96.00	100	100
61.00	142.80	100.26#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

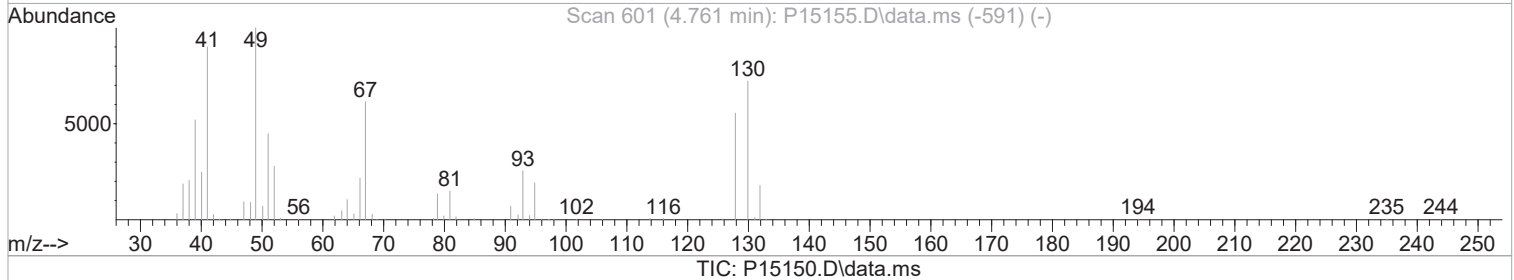
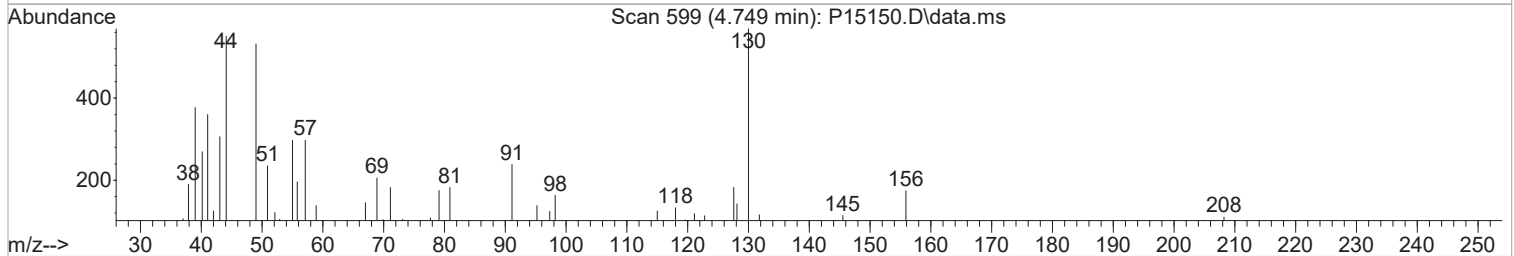
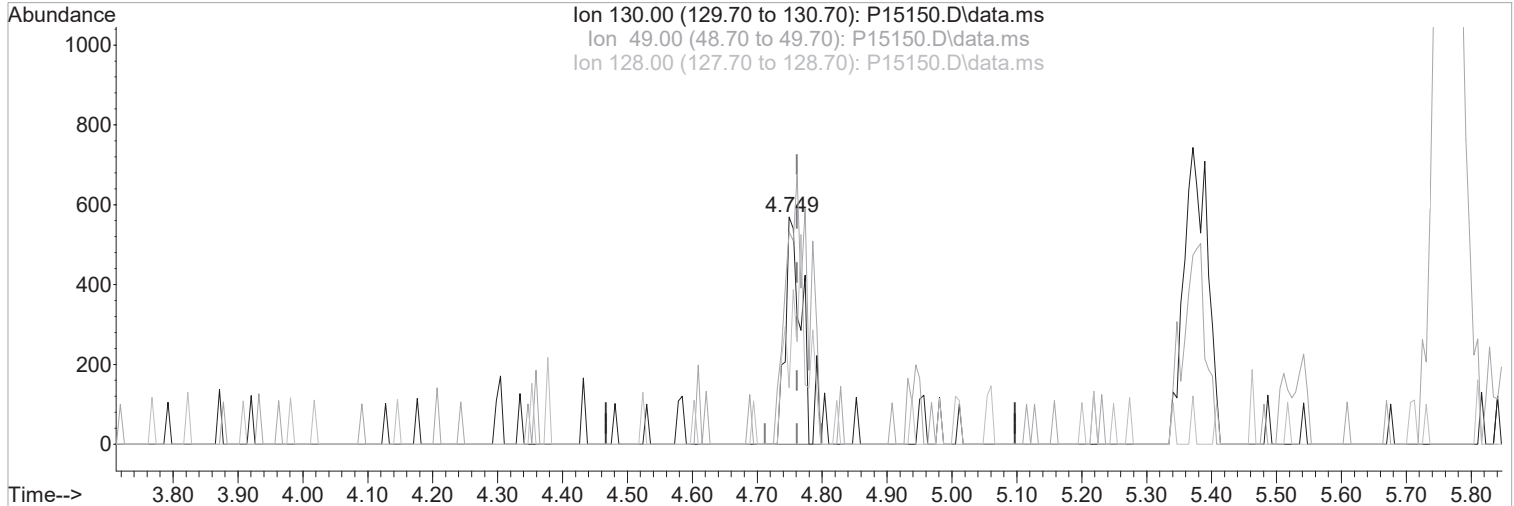
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



(37) Bromochloromethane

4.749min (-0.012) 0.52 ppb m

response 1011

Ion	Exp%	Act%
130.00	100	100
49.00	139.00	93.50#
128.00	77.10	24.96#
0.00	0.00	0.00

Manual Integration:

After

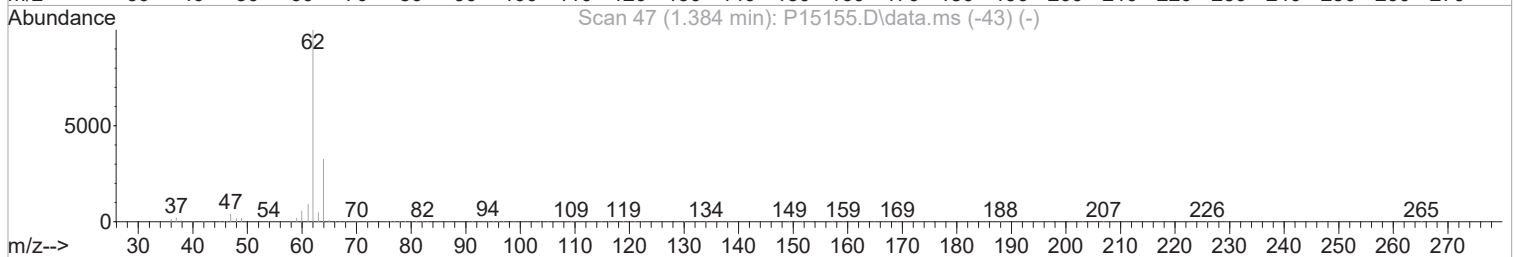
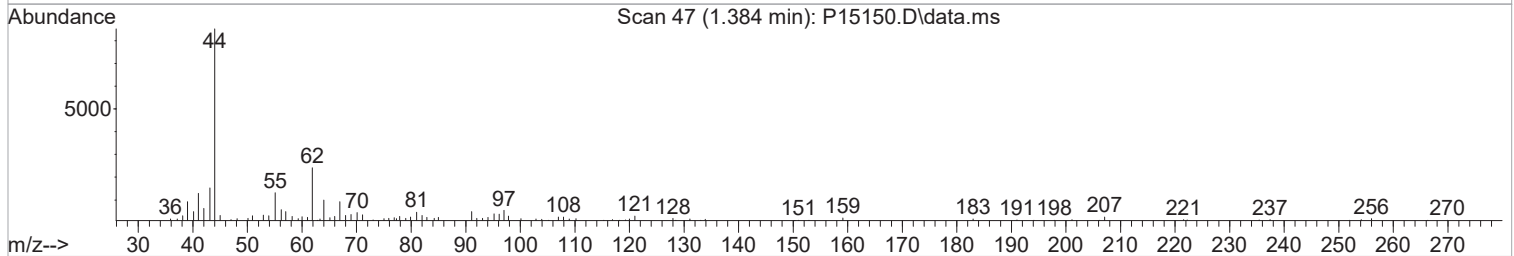
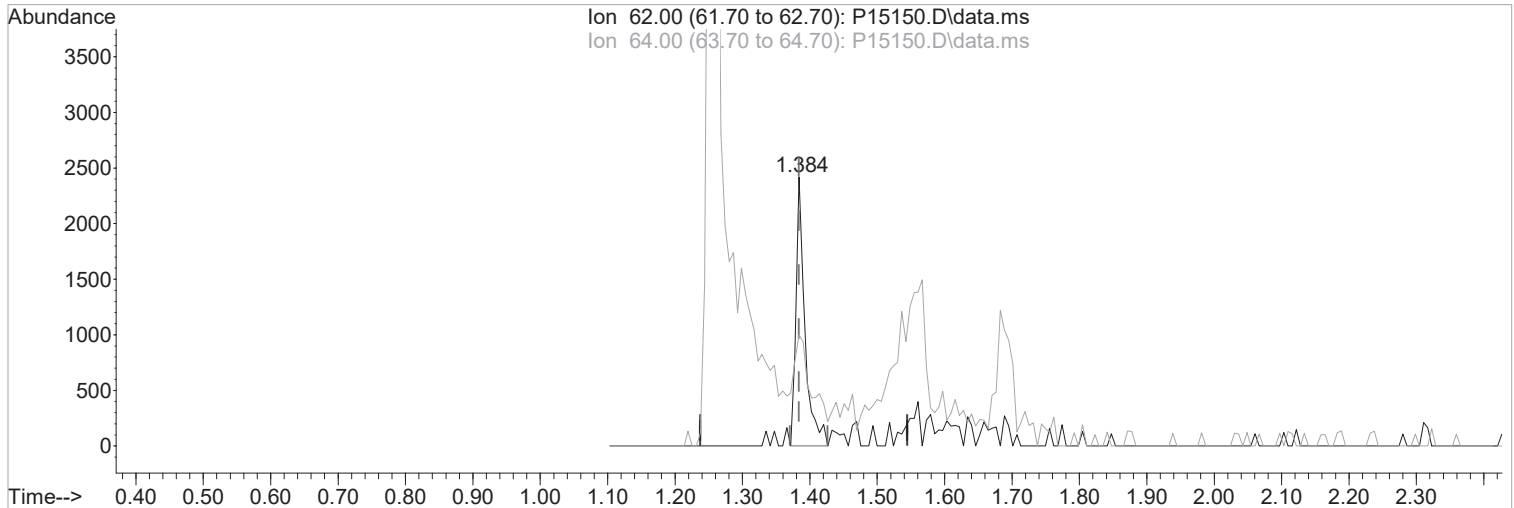
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(4) Vinyl Chloride (P)

1.384min (+0.000) 0.53 ppb m

response 2220

Ion	Exp%	Act%
62.00	100	100
64.00	32.80	41.30
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

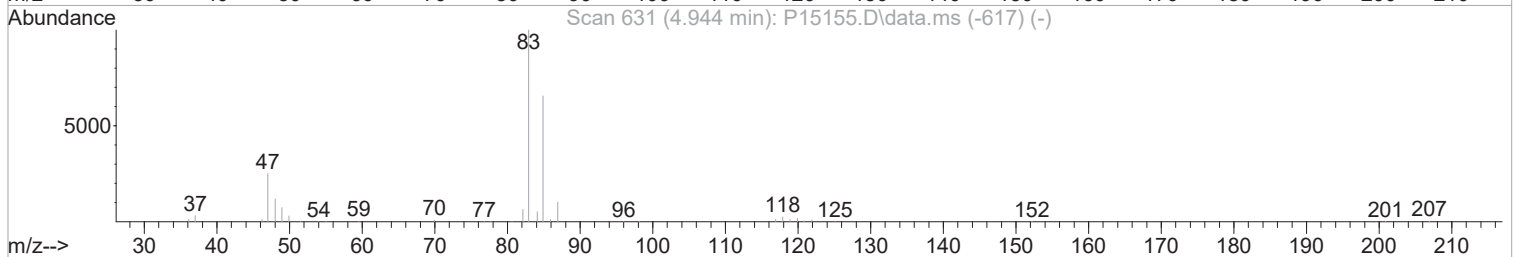
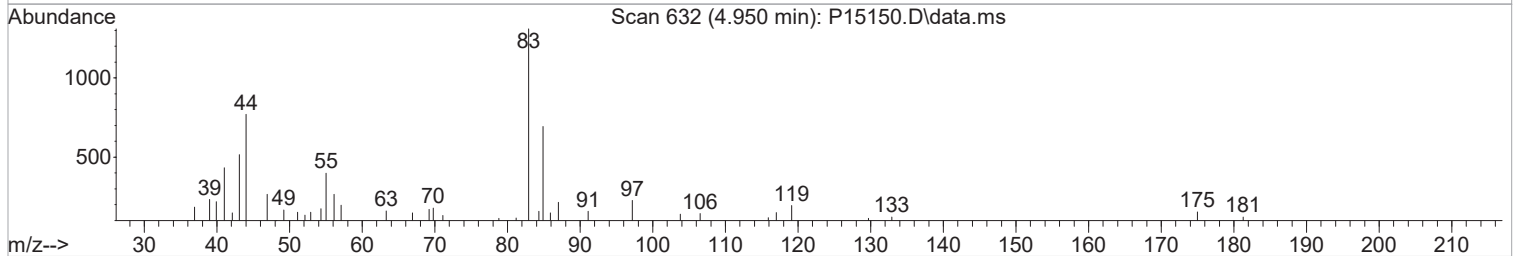
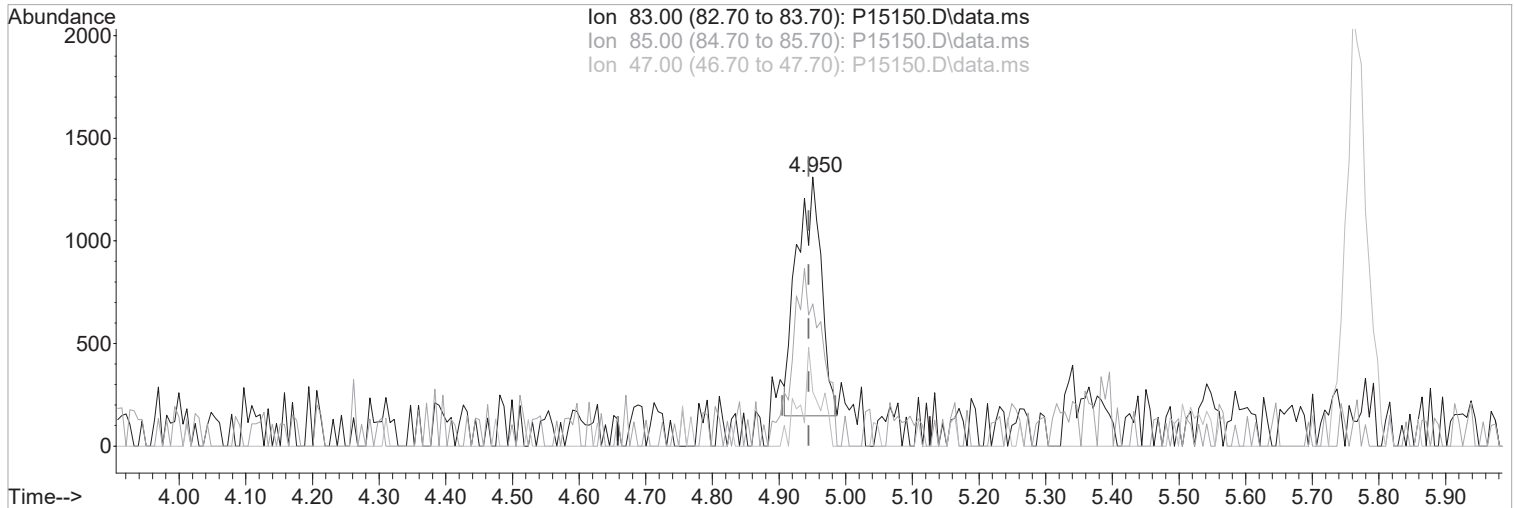
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(40) Chloroform (P)

4.950min (+0.006) 0.51 ppb m

response 2984

Ion	Exp%	Act%
83.00	100	100
85.00	65.60	52.86
47.00	24.90	20.21
0.00	0.00	0.00

Manual Integration:

After

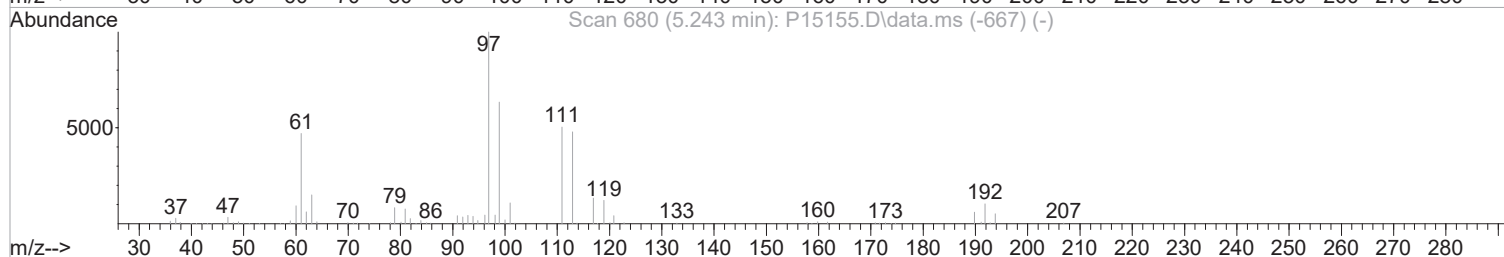
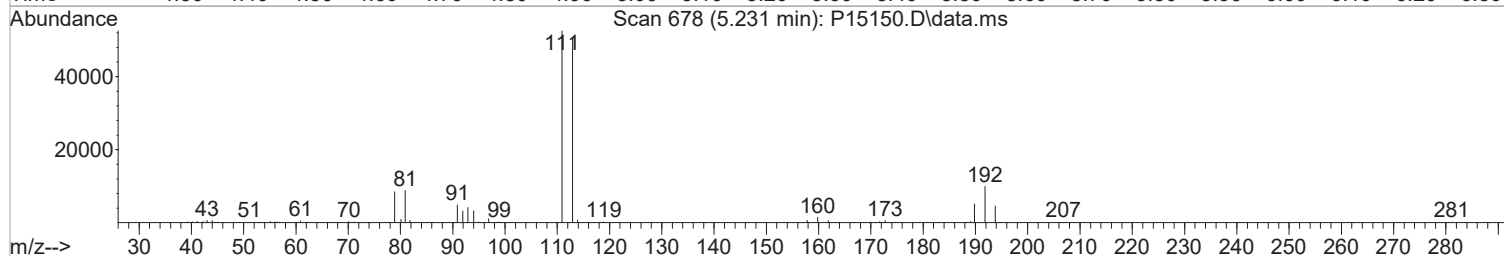
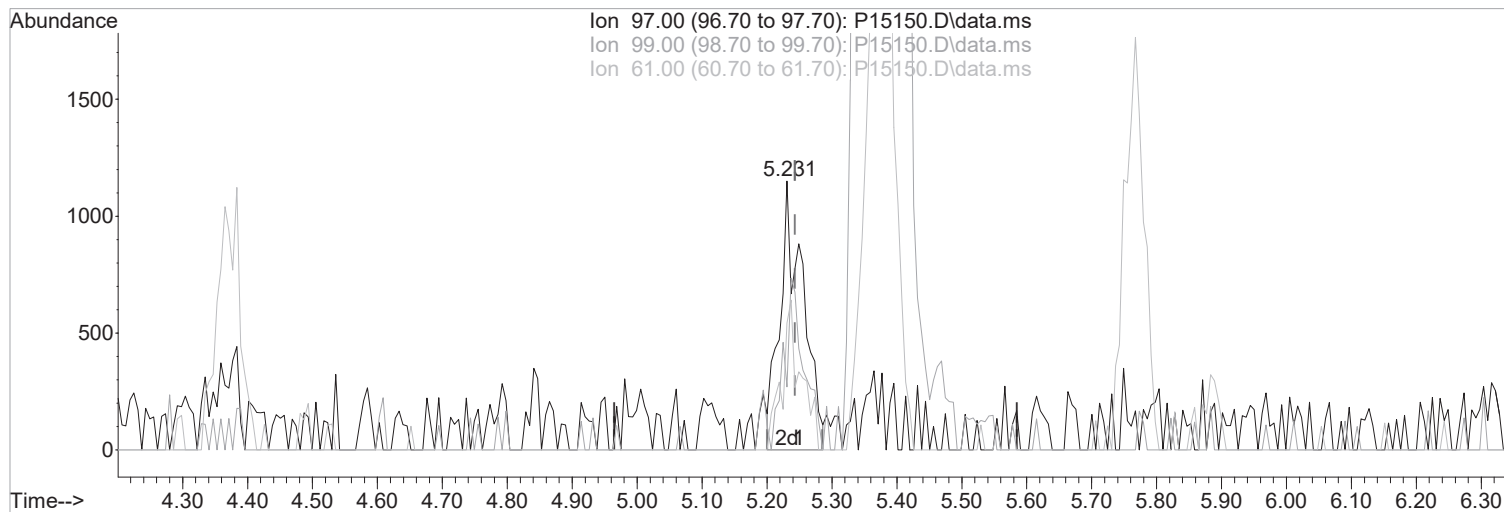
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(41) 1,1,1-Trichloroethane (P)

5.231min (-0.012) 0.61 ppb m

response 2844

Ion	Exp%	Act%
97.00	100	100
99.00	63.10	23.48#
61.00	46.90	47.13
0.00	0.00	0.00

Manual Integration:

After

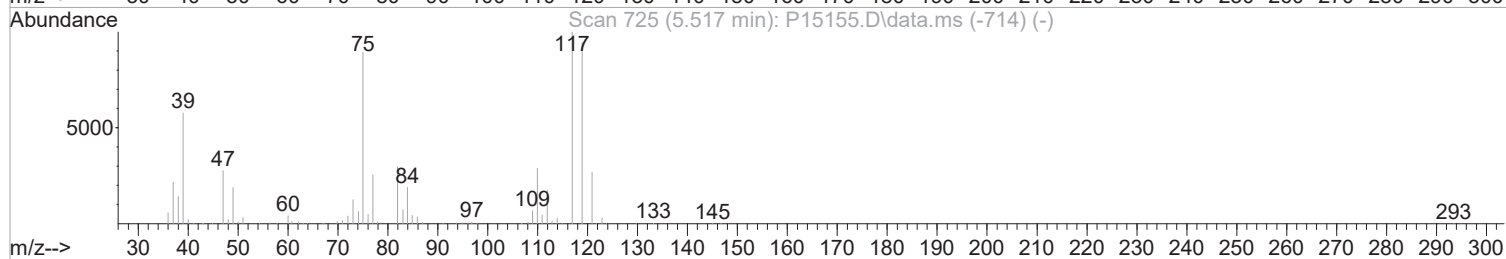
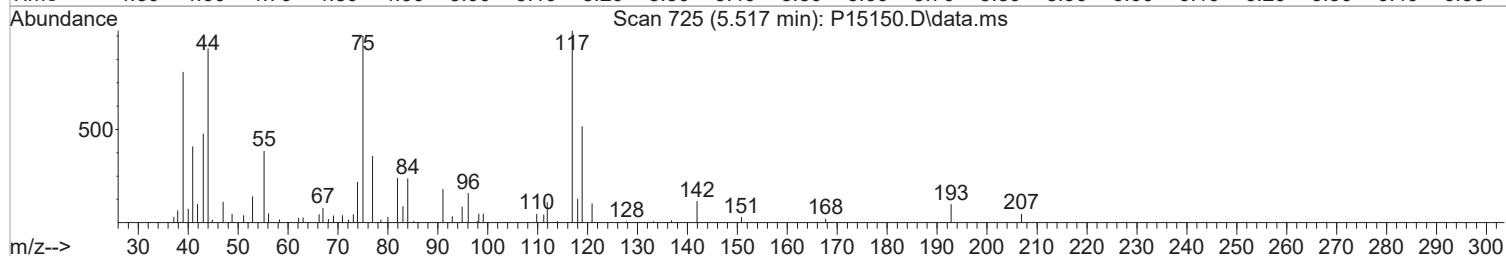
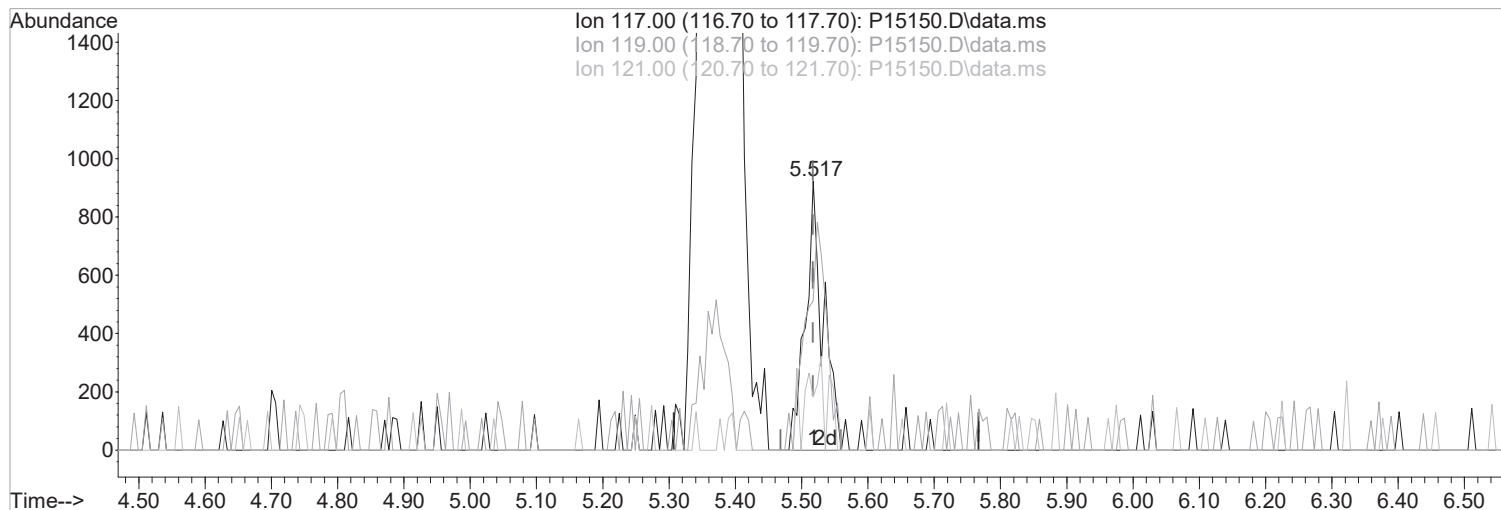
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(46) Carbontetrachloride (P)

5.517min (+0.000) 0.49 ppb m

response 1723

Ion	Exp%	Act%
117.00	100	100
119.00	94.40	55.47#
121.00	26.80	19.72
0.00	0.00	0.00

Manual Integration:

After

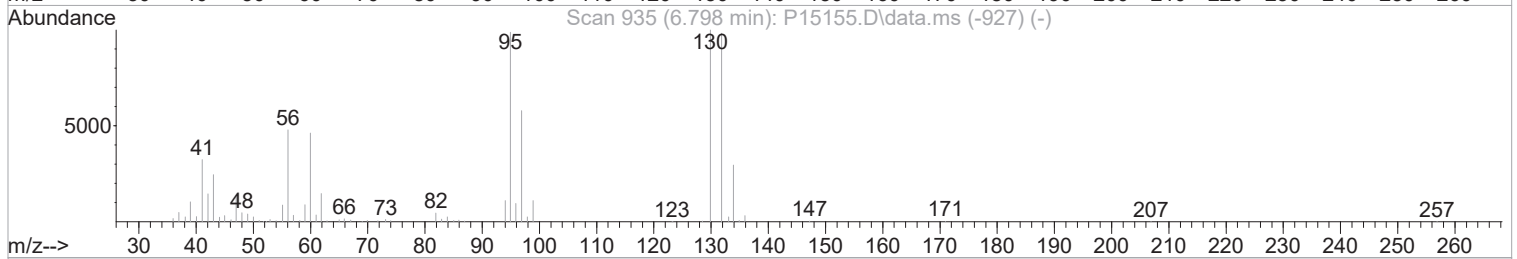
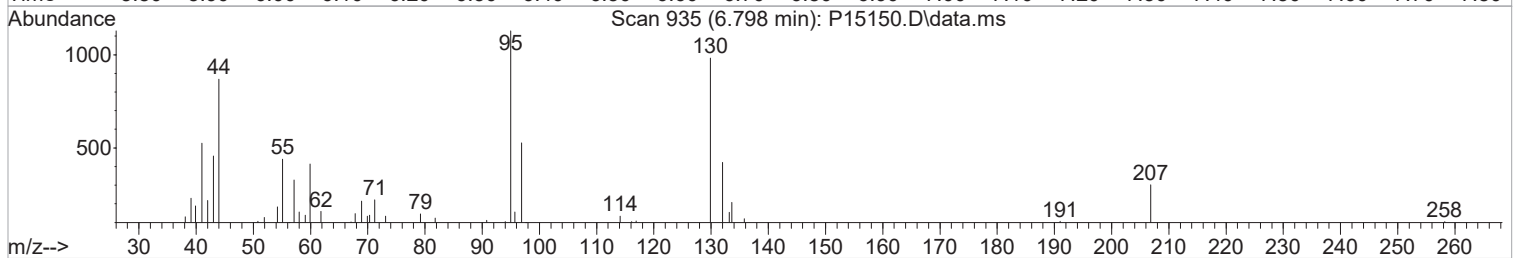
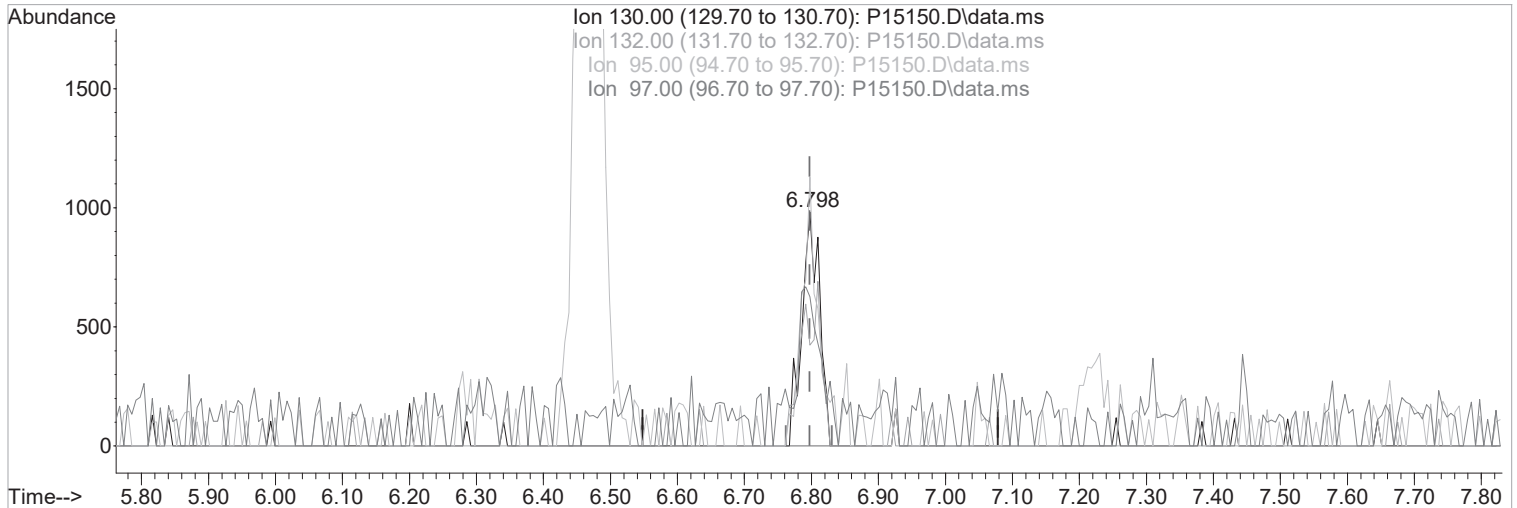
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(54) Trichloroethene (P)

6.798min (+0.000) 0.59 ppb m

response 1823

Ion	Exp%	Act%
130.00	100	100
132.00	98.30	43.03#
95.00	98.70	114.85
97.00	58.30	53.61

Manual Integration:

After

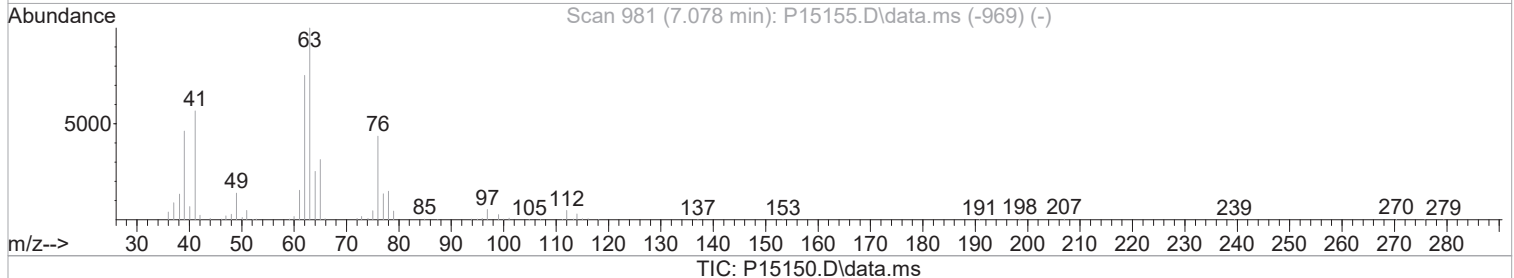
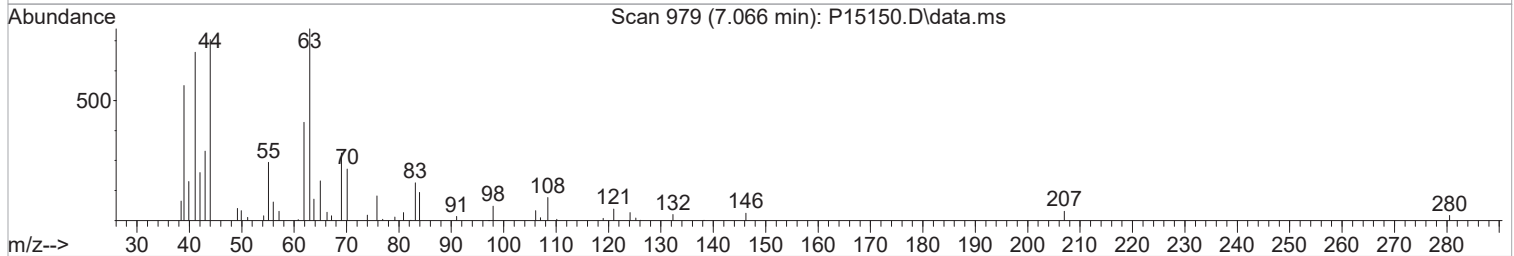
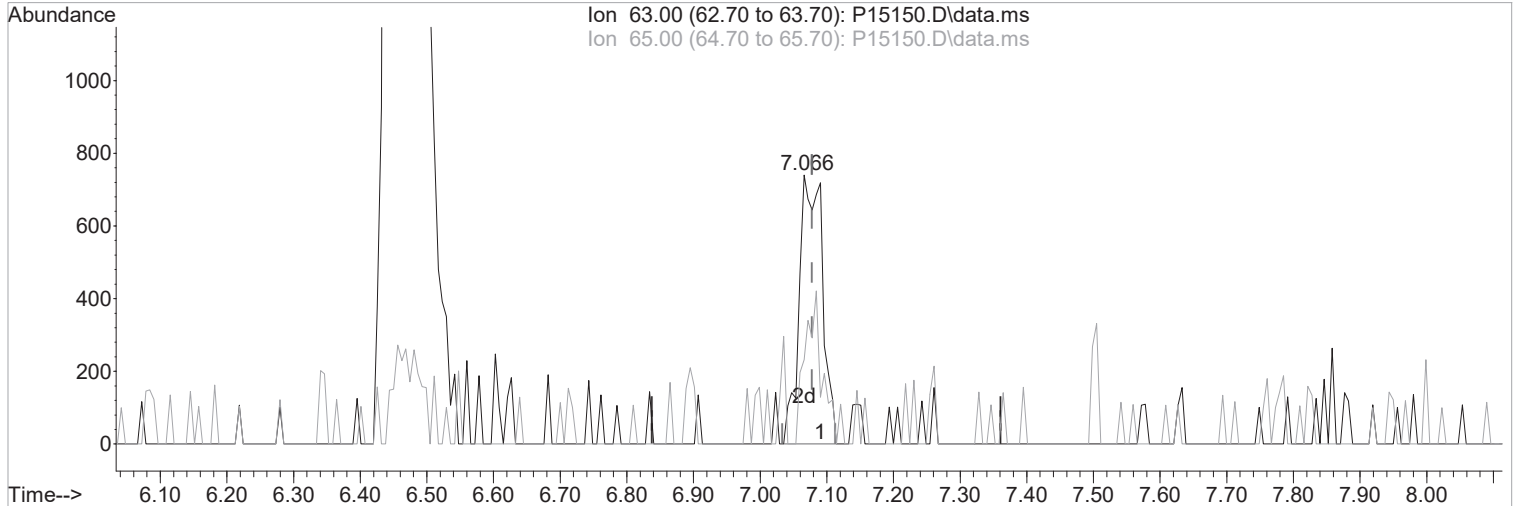
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(56) 1,2-Dichloropropane (P)

7.066min (-0.012) 0.55 ppb m

response 1790

Ion	Exp%	Act%
63.00	100	100
65.00	31.70	31.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

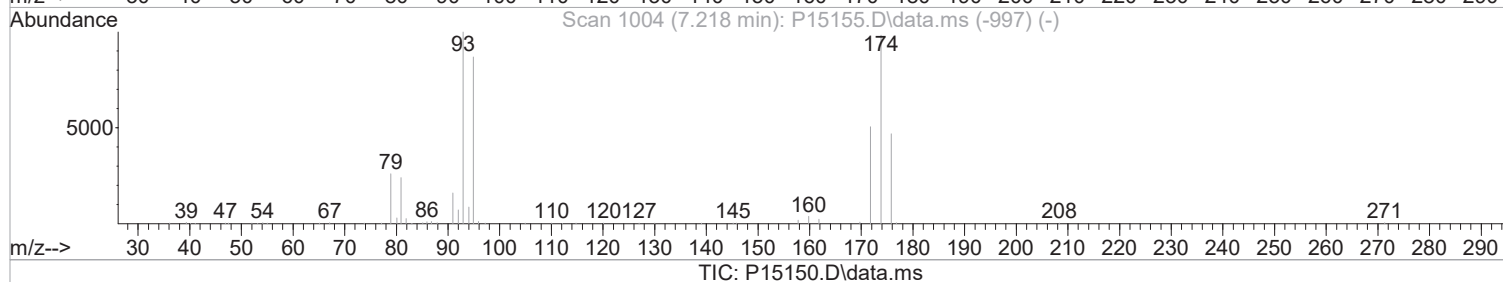
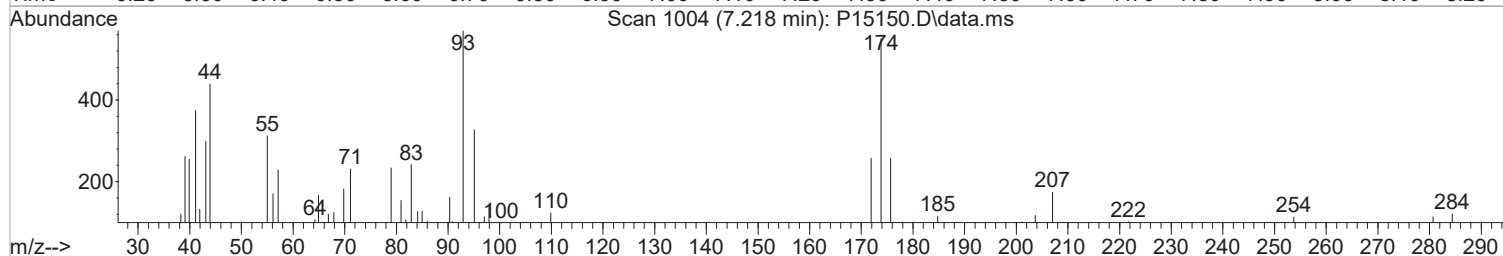
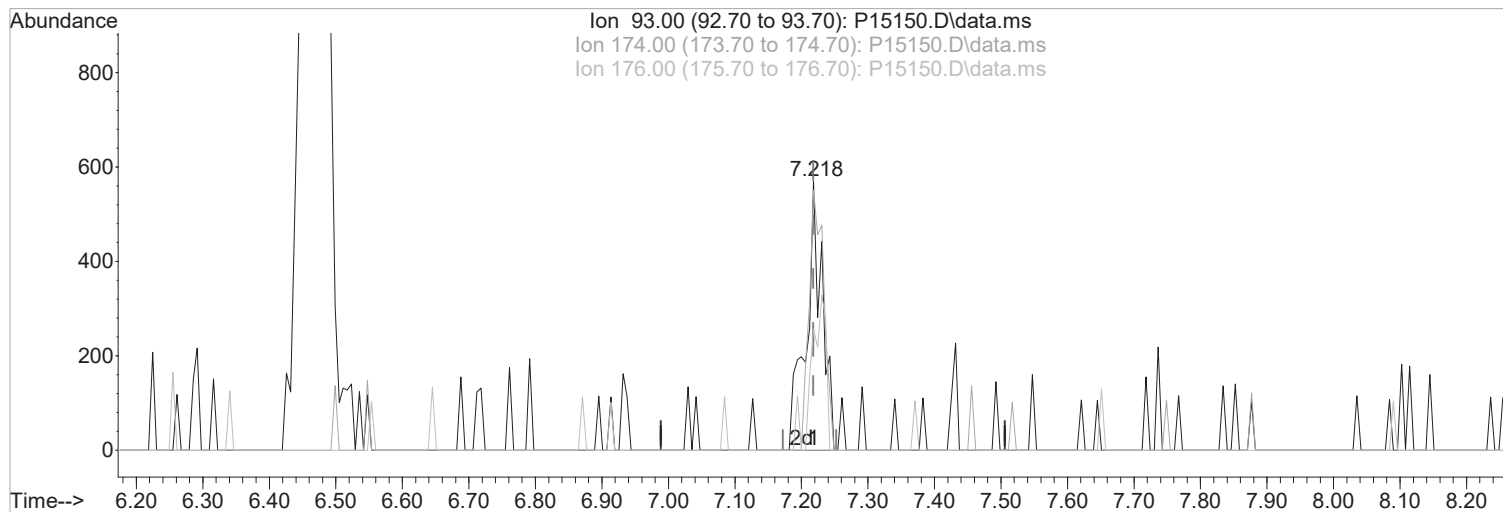
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



(57) Dibromomethane

7.218min (+0.000) 0.50 ppb m

response 969

Ion	Exp%	Act%
93.00	100	100
174.00	98.30	96.67
176.00	46.90	45.09
0.00	0.00	0.00

Manual Integration:

After

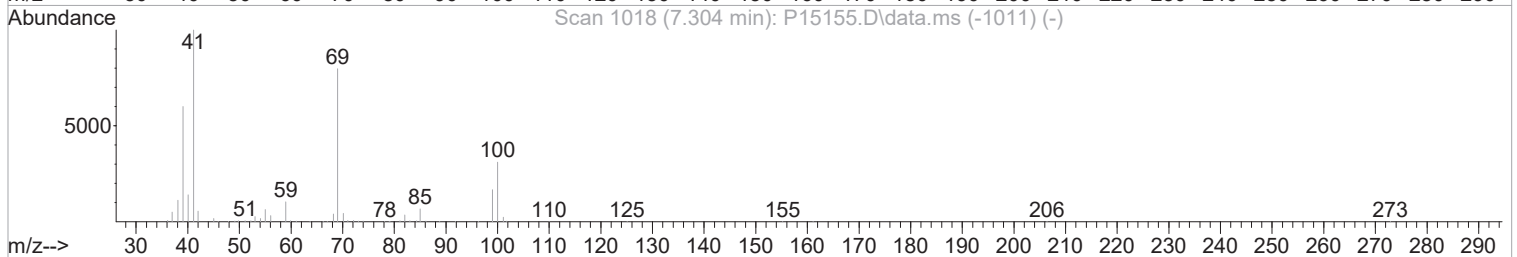
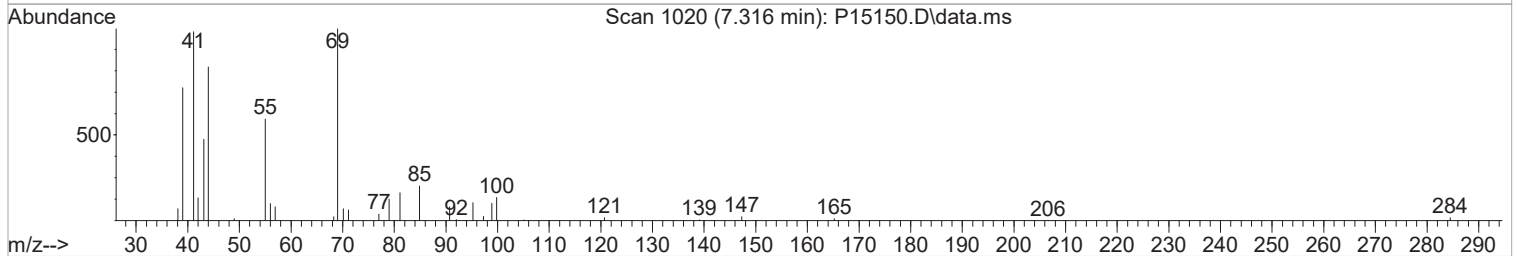
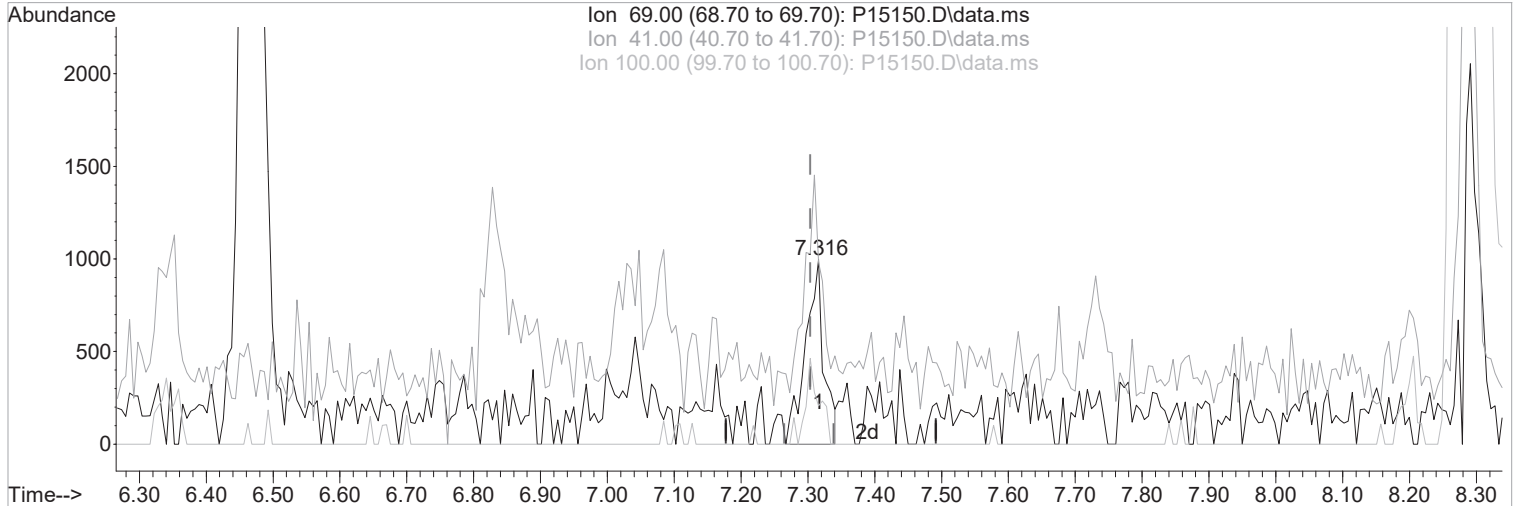
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(59) Methyl Methacrylate

7.316min (+0.012) 0.64 ppb m

response 1906

Ion	Exp%	Act%
69.00	100	100
41.00	126.30	98.60#
100.00	38.80	20.76
0.00	0.00	0.00

Manual Integration:

After

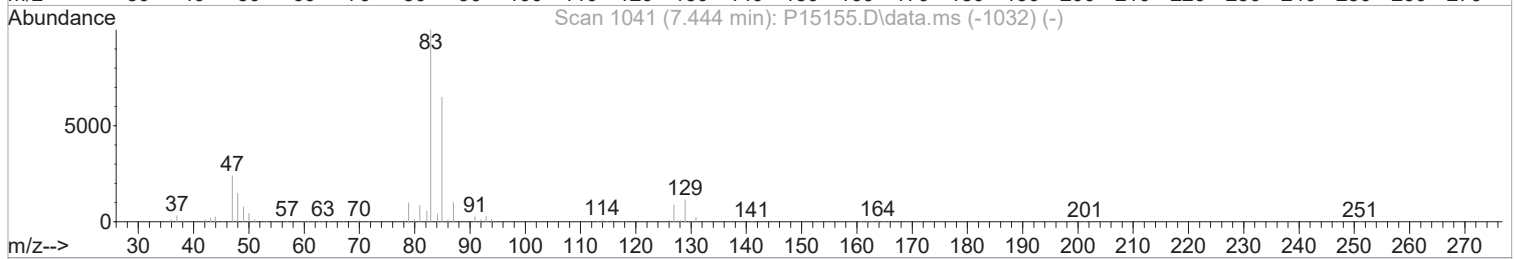
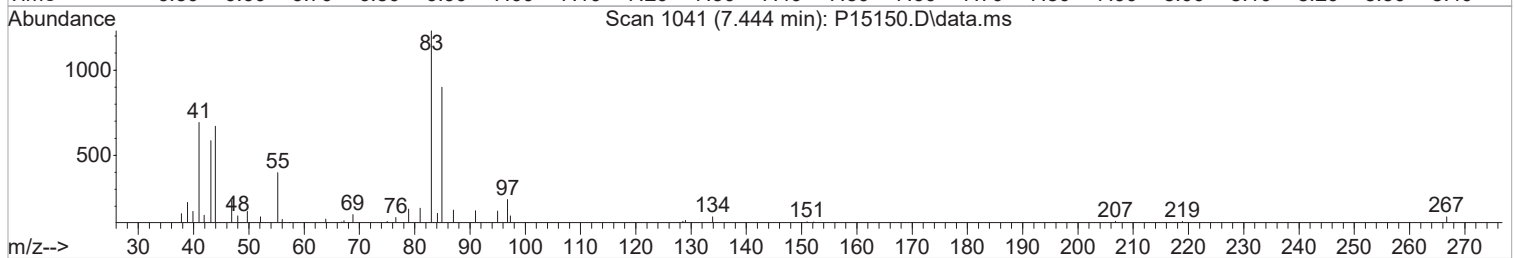
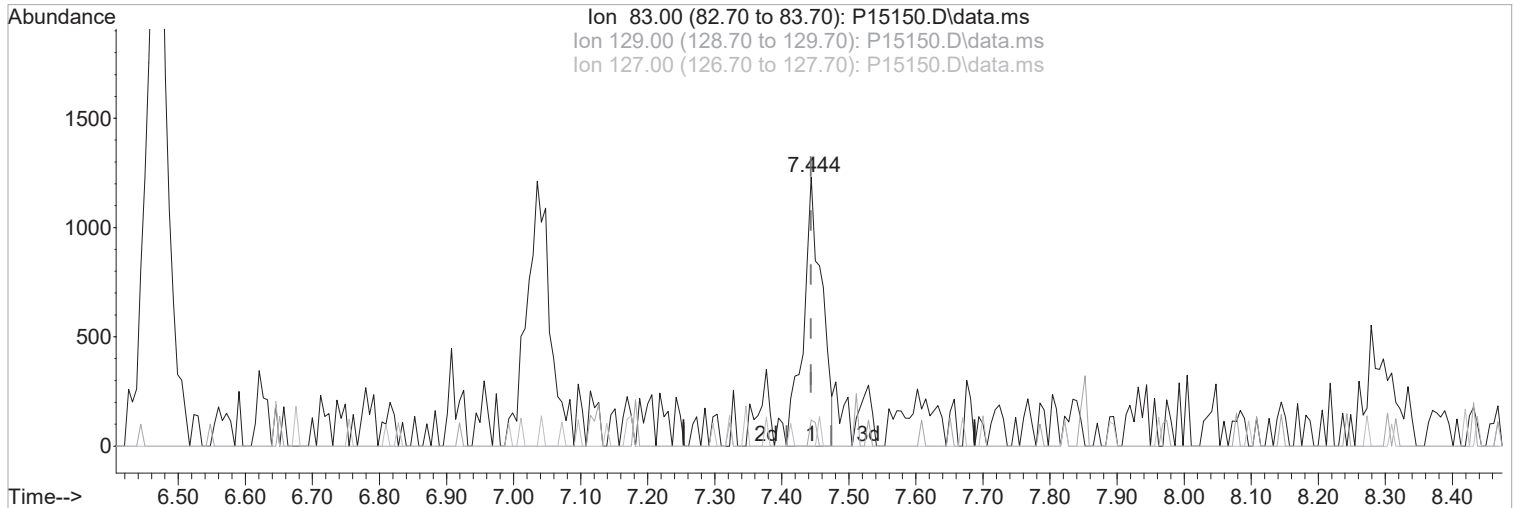
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15150.D\data.ms

(60) Bromodichloromethane (P)

7.444min (+0.000) 0.57 ppb m

response 2345

Ion	Exp%	Act%
83.00	100	100
129.00	11.20	9.67
127.00	9.20	0.00
0.00	0.00	0.00

Manual Integration:

After

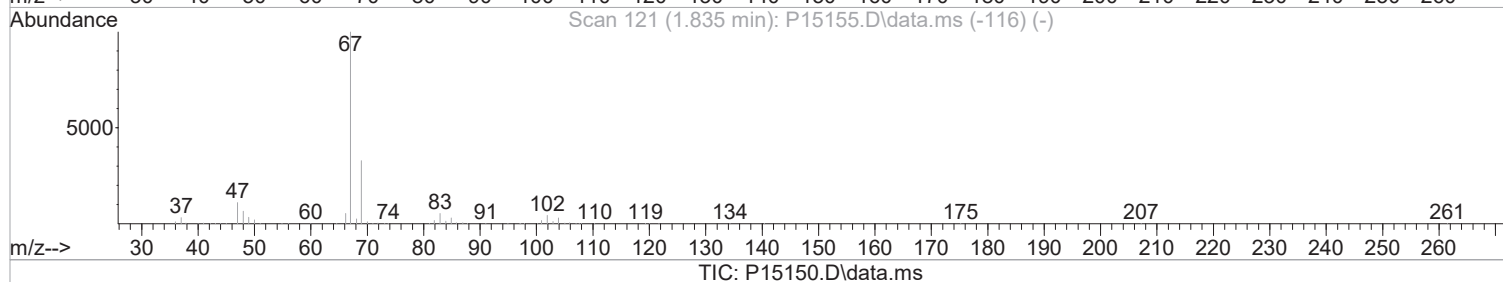
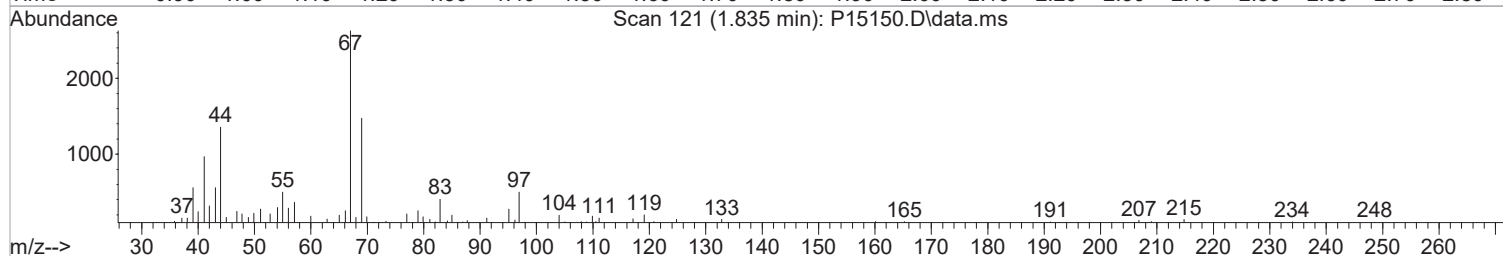
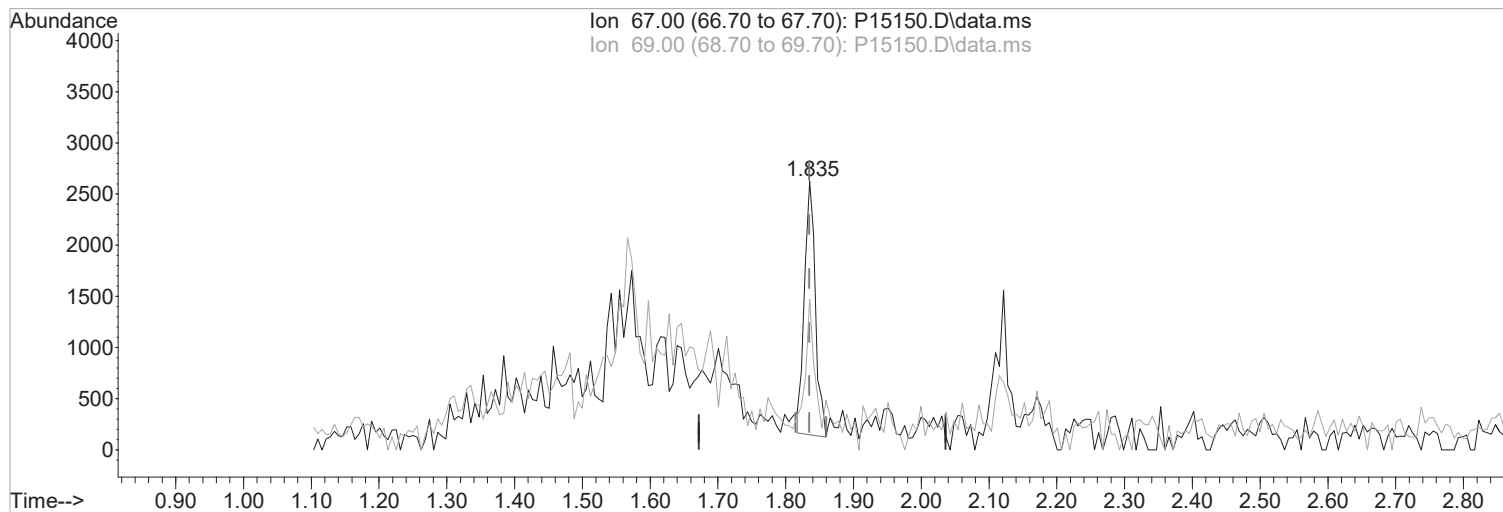
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



(7) Freon 21

1.835min (+0.000) 0.52 ppb m

response 2803

Ion	Exp%	Act%
67.00	100	100
69.00	32.90	56.03#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

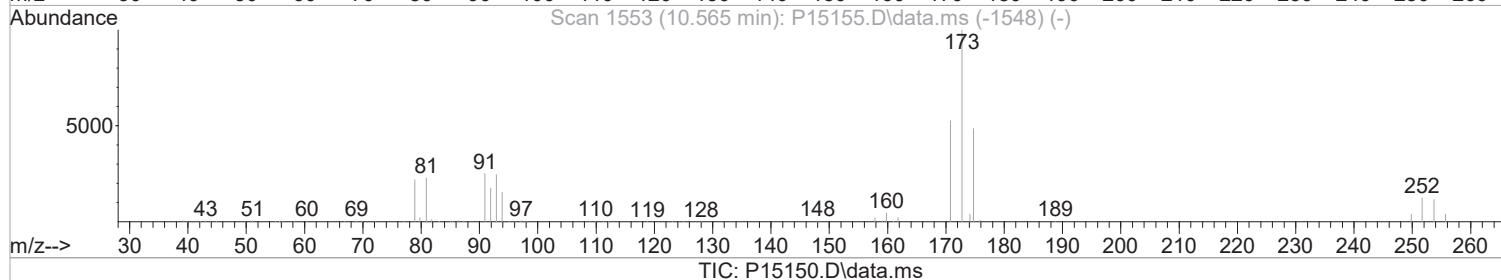
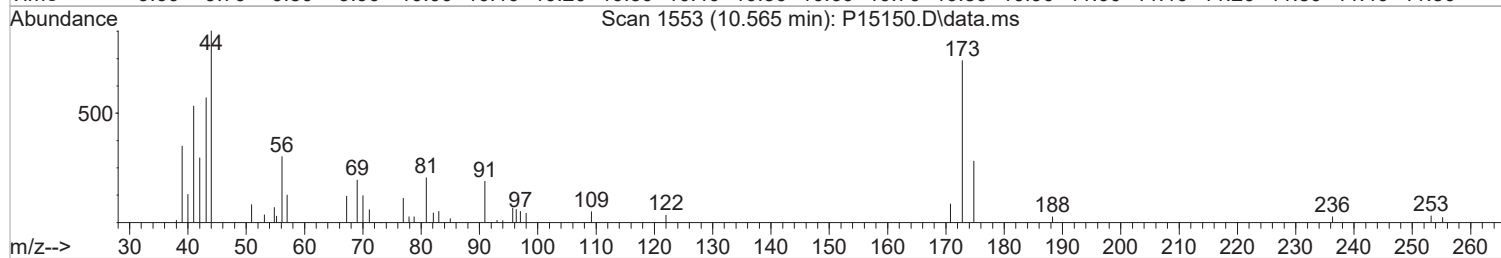
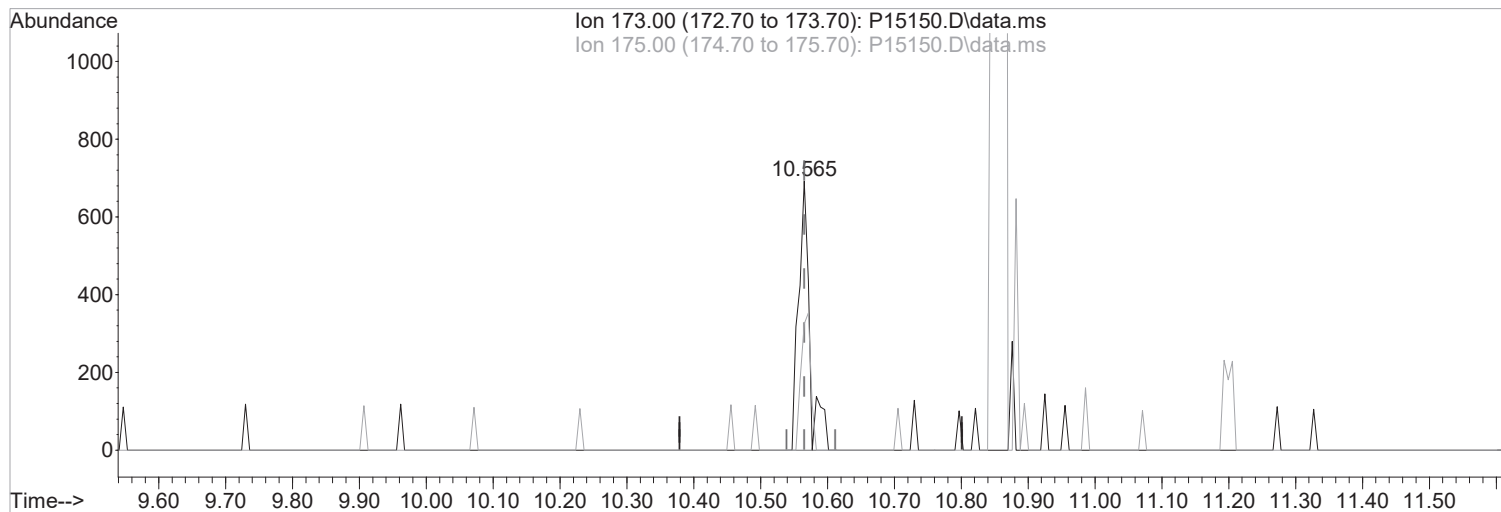
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



(87) Bromoform (P)

10.565min (+0.000) 0.48 ppb m

response 813

Ion	Exp%	Act%
173.00	100	100
175.00	48.70	46.97
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15150.D
 Acq On : 29 Dec 2017 5:22 pm
 Operator : K.Ruest
 Sample : 0.5ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	282050	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	464403	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	412009	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.833	152	195900	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	138045	50.06	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	100.12%
48) surr1,1,2-dichloroetha...	5.767	65	187998	49.75	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	99.50%
65) SURR3,Toluene-d8	8.291	98	605014	49.14	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	98.28%
70) SURR2,BFB	10.858	95	229156	48.11	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	96.22%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	1810	0.52	ppb	89
3) Chloromethane	1.311	50	2458	0.57	ppb	83
4) Vinyl Chloride	1.384	62	2220m	0.53	ppb	
5) Bromomethane	1.616	94	2064	0.65	ppb	88
6) Chloroethane	1.683	64	1545	0.59	ppb	# 46
7) Freon 21	1.835	67	2803m	0.52	ppb	
8) Trichlorofluoromethane	1.884	101	2088	0.52	ppb	93
9) Diethyl Ether	2.122	59	1432	0.51	ppb	# 67
10) Freon 123a	2.122	67	1826m	0.54	ppb	
11) Freon 123	2.170	83	2327	0.59	ppb	87
12) Acrolein	2.219	56	2121	2.54	ppb	100
13) 1,1-Dicethene	2.305	96	1971	0.68	ppb	# 84
14) Freon 113	2.305	101	1528	0.56	ppb	# 54
16) 2-Propanol	2.481	45	3548	10.75	ppb	# 43
18) Carbon Disulfide	2.494	76	4735	0.56	ppb	97
20) Allyl Chloride	2.634	76	939	0.61	ppb	# 92
21) Methyl Acetate	2.658	43	1844	0.60	ppb	88
22) Methylene Chloride	2.750	84	1602	0.52	ppb	95
23) TBA	2.871	59	5850	10.29	ppb	67
24) Acrylonitrile	3.006	53	4397	2.66	ppb	89
25) Methyl-t-Butyl Ether	3.054	73	5166	0.50	ppb	# 59
26) trans-1,2-Dichloroethene	3.048	96	1580	0.52	ppb	97
28) 1,1-Dicethane	3.536	63	2884	0.53	ppb	83
29) Vinyl Acetate	3.621	86	647	0.73	ppb	# 1
30) DIPE	3.664	45	5558	0.54	ppb	94
31) 2-Chloro-1,3-Butadiene	3.670	53	3269	0.62	ppb	78
32) ETBE	4.176	59	5602	0.54	ppb	87
33) 2,2-Dichloropropane	4.359	77	2888m	0.60	ppb	
34) cis-1,2-Dichloroethene	4.377	96	1739m	0.49	ppb	
36) Propionitrile	4.505	54	1898	2.71	ppb	# 18
37) Bromochloromethane	4.749	130	1011m	0.52	ppb	
38) Methacrylonitrile	4.767	67	1026	0.56	ppb	98
40) Chloroform	4.950	83	2984m	0.51	ppb	
41) 1,1,1-Trichloroethane	5.231	97	2844m	0.61	ppb	
42) TAME	6.090	73	5239	0.51	ppb	98
46) Carbontetrachloride	5.517	117	1723m	0.49	ppb	
47) 1,1-Dichloropropene	5.517	75	2124	0.52	ppb	73
49) Benzene	5.847	78	6936	0.57	ppb	88
50) 1,2-Dichloroethane	5.883	62	2410	0.54	ppb	78

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15150.D
 Acq On : 29 Dec 2017 5:22 pm
 Operator : K.Ruest
 Sample : 0.5ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:20:59 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
51) Iso-Butyl Alcohol	5.853	43	2000	8.13	ppb	99
52) n-Heptane	6.322	43	2697	0.64	ppb	# 64
53) 1-Butanol	6.834	56	3870	23.77	ppb	75
54) Trichloroethene	6.798	130	1823m	0.59	ppb	
55) Methylcyclohexane	7.035	55	2009	0.50	ppb	# 78
56) 1,2-Diclp propane	7.066	63	1790m	0.55	ppb	
57) Dibromomethane	7.218	93	969m	0.50	ppb	
58) 1,4-Dioxane	7.279	88	665	10.41	ppb	# 51
59) Methyl Methacrylate	7.316	69	1906m	0.64	ppb	
60) Bromodichloromethane	7.444	83	2345m	0.57	ppb	
61) 2-Nitropropane	7.730	41	1314	1.05	ppb	# 74
63) cis-1,3-Dichloropropene	7.992	75	2789	0.54	ppb	# 77
66) Toluene	8.364	91	7308	0.55	ppb	81
67) trans-1,3-Dichloropropene	8.633	75	2247	0.47	ppb	83
68) Ethyl Methacrylate	8.773	69	1834	0.38	ppb	96
69) 1,1,2-Trichloroethane	8.815	97	1894	0.63	ppb	83
72) Tetrachloroethene	8.968	164	1266	0.56	ppb	# 36
74) 1,3-Dichloropropane	8.986	76	2746	0.52	ppb	# 68
75) Dibromochloromethane	9.212	129	1244	0.45	ppb	93
76) N-Butyl Acetate	9.279	43	2105	0.37	ppb	91
77) 1,2-Dibromoethane	9.315	107	1446	0.49	ppb	94
78) Chlorobenzene	9.809	112	3984	0.49	ppb	88
79) 3-CBTF	9.827	180	2614	0.61	ppb	# 80
80) 4-CBTF	9.882	180	2335	0.59	ppb	92
81) 1,1,1,2-Tetrachloroethane	9.895	131	1547	0.54	ppb	# 77
82) Ethylbenzene	9.931	106	2253	0.51	ppb	# 63
83) (m+p)Xylene	10.041	106	5183	0.96	ppb	# 78
84) o-Xylene	10.400	106	2802	0.52	ppb	# 69
85) Styrene	10.413	104	4502	0.50	ppb	88
87) Bromoform	10.565	173	813m	0.48	ppb	
88) 2-CBTF	10.644	180	2277	0.59	ppb	91
89) Isopropylbenzene	10.736	105	7002	0.54	ppb	93
90) Cyclohexanone	10.797	55	9162	9.36	ppb	88
91) trans-1,4-Dichloro-2-B...	11.041	53	754	0.74	ppb	90
92) 1,1,2,2-Tetrachloroethane	10.998	83	2299	0.59	ppb	# 77
93) Bromobenzene	10.986	156	1549	0.49	ppb	95
94) 1,2,3-Trichloropropane	11.022	110	607	0.48	ppb	# 70
95) n-Propylbenzene	11.089	91	7874	0.53	ppb	86
96) 2-Chlorotoluene	11.156	91	5026	0.54	ppb	90
97) 3-Chlorotoluene	11.211	91	5127	0.52	ppb	# 94
98) 4-Chlorotoluene	11.248	91	5876	0.55	ppb	91
99) 1,3,5-Trimethylbenzene	11.248	105	5889	0.55	ppb	97
100) tert-Butylbenzene	11.516	119	5013	0.54	ppb	87
101) 1,2,4-Trimethylbenzene	11.559	105	5745	0.53	ppb	76
102) 3,4-DCBTF	11.620	214	1903	0.61	ppb	# 85
103) sec-Butylbenzene	11.699	105	7365	0.54	ppb	98
104) p-Isopropyltoluene	11.821	119	6240	0.54	ppb	89
105) 1,3-Dcl benz	11.784	146	3286	0.55	ppb	85
106) 1,4-Dcl benz	11.858	146	3509	0.56	ppb	96
107) 2,4-DCBTF	11.906	214	1816	0.63	ppb	# 65
108) 2,5-DCBTF	11.949	214	1675	0.55	ppb	# 87
109) n-Butylbenzene	12.156	91	5699	0.53	ppb	# 78
110) 1,2-Dcl benz	12.162	146	2831	0.47	ppb	86
111) 1,2-Dibromo-3-chloropr...	12.790	157	383m	0.39	ppb	
112) Trielution Dichlorotol...	12.906	125	9592	1.63	ppb	94
113) 1,3,5 Trichlorobenzene	12.955	180	2514	0.54	ppb	# 88

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15150.D
Acq On : 29 Dec 2017 5:22 pm
Operator : K.Ruest
Sample : 0.5ppb
Misc : 8260 WATER ICAL
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

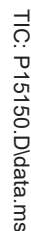
Quant Time: Jan 02 10:20:59 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 *N* 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
114) Coelution Dichlorotoluene	13.229	125	5958	0.95	ppb	# 87
115) 1,2,4-Tcbenzene	13.437	180	2068	0.48	ppb	82
116) Hexachlorobt	13.577	225	1216	0.60	ppb	# 86
117) Naphthalen	13.625	128	4879	0.41	ppb	95
118) 1,2,3-Tclbenzene	13.814	180	1962	0.46	ppb	# 74
119) 2,4,5-Trichlorotoluene	14.400	159	747	0.29	ppb	# 82
120) 2,3,6-Trichlorotoluene	14.485	159	561	0.24	ppb	# 73

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

Inst : MSVOA-12

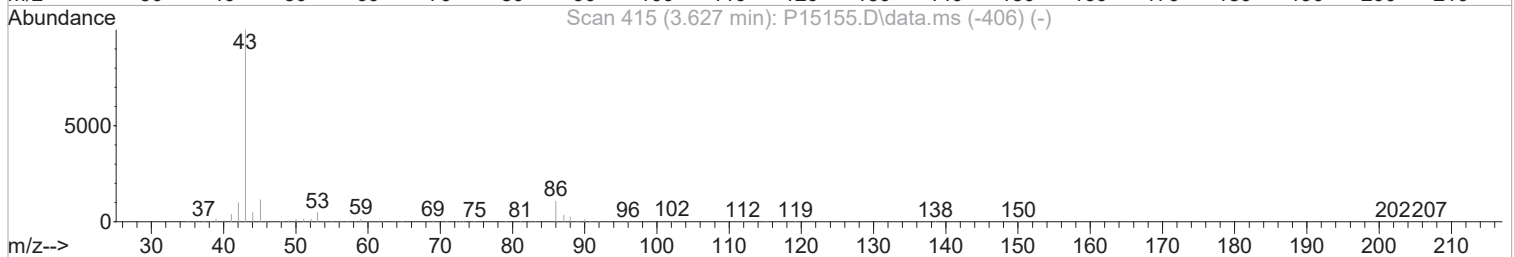
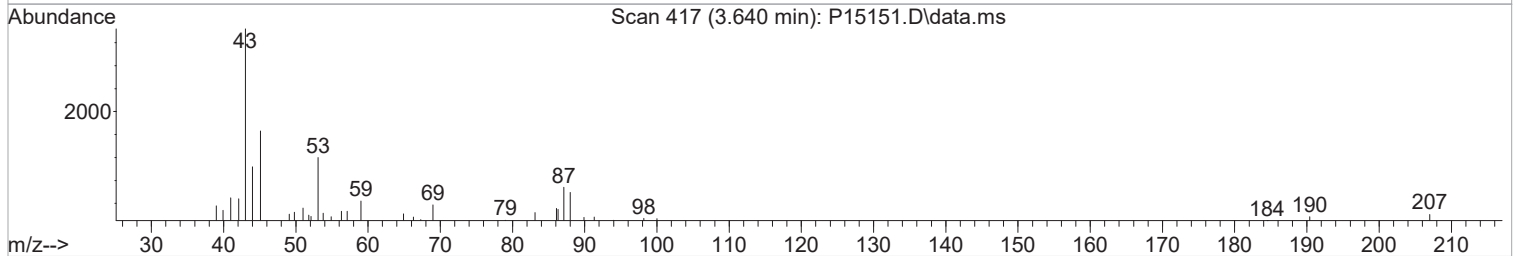
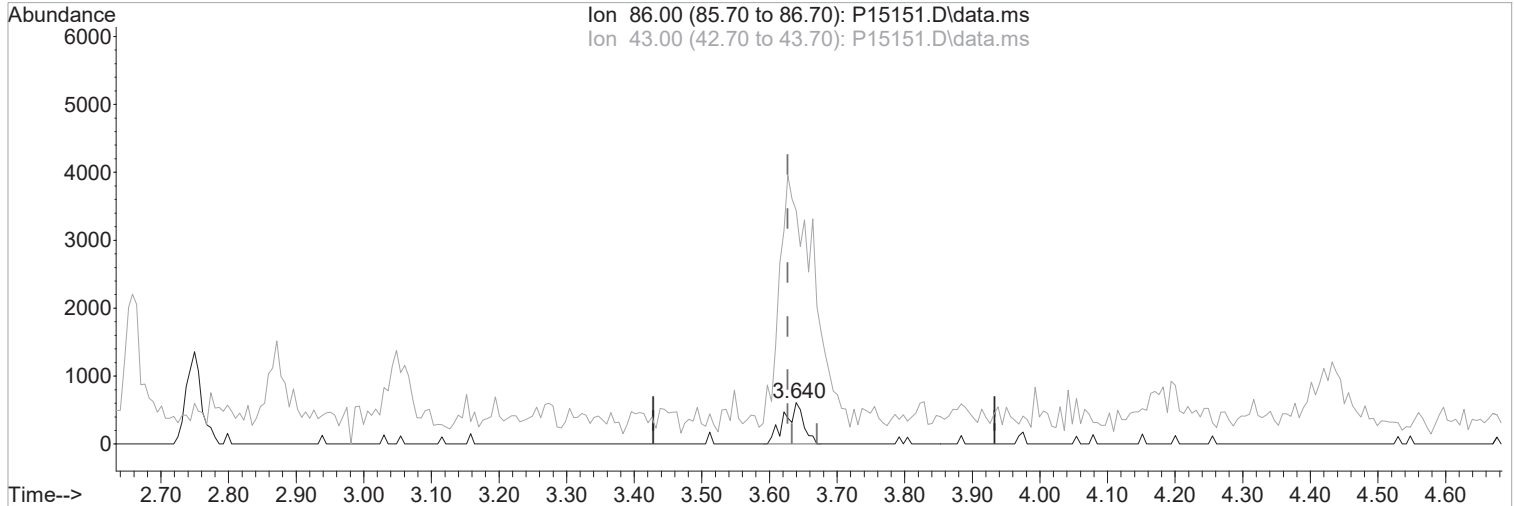
2² FALS Vial : 2 Sample Multiplier: 1



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(29) Vinyl Acetate

3.640min (+0.012) 1.32 ppb m

response 1198

Ion	Exp%	Act%
86.00	100	100
43.00	952.00	1096.50#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

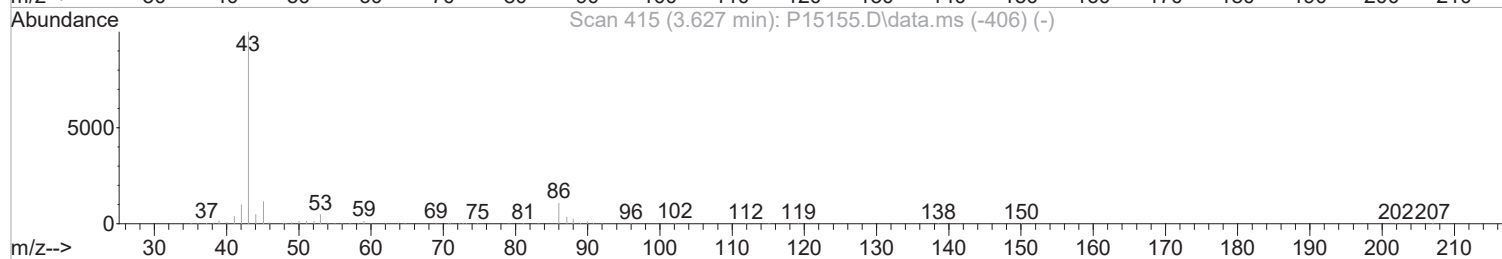
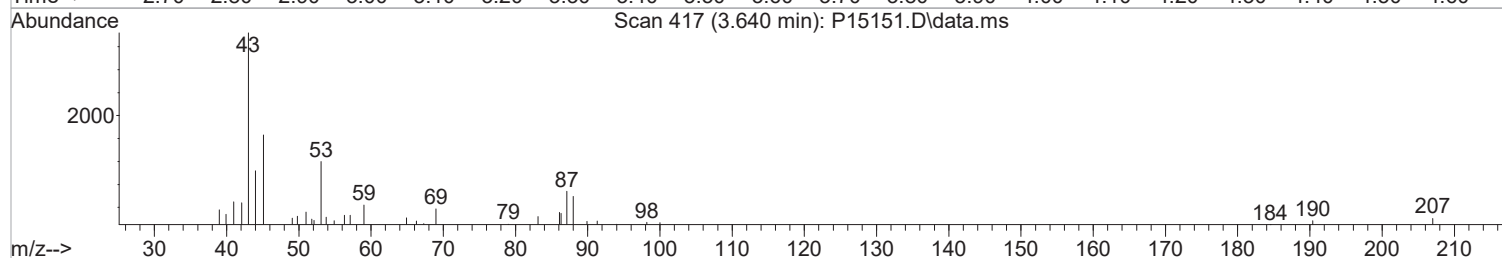
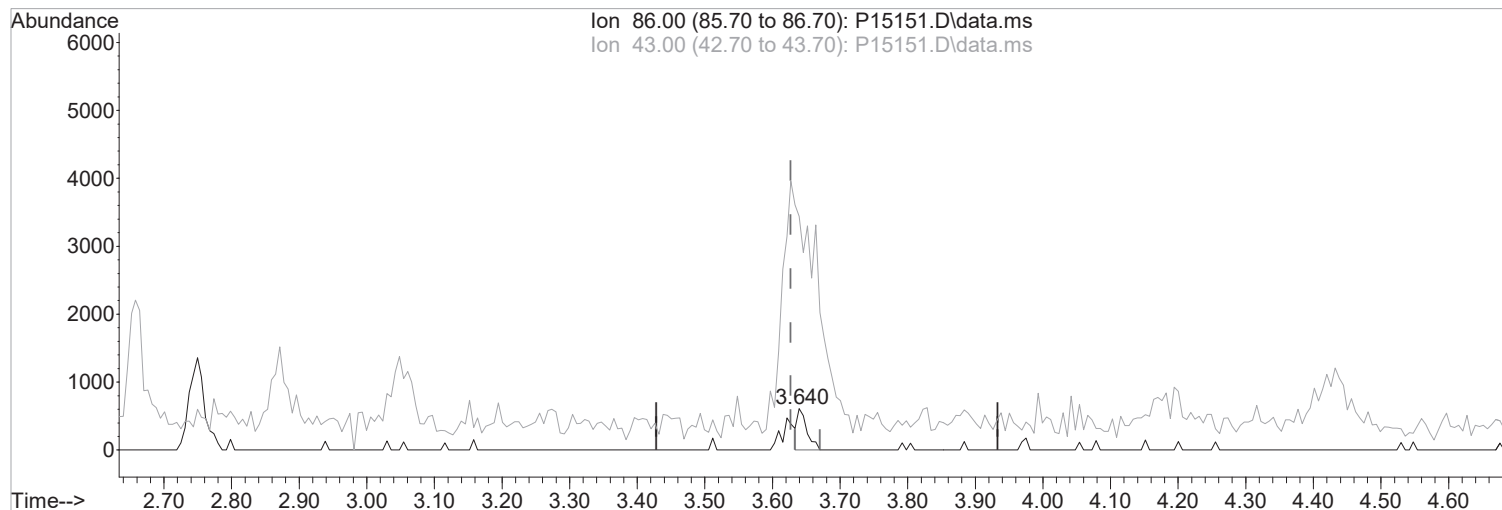
Split Peak

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(29) Vinyl Acetate

Manual Integration:

3.640min (+0.012) 0.65 ppb

Before

response 586

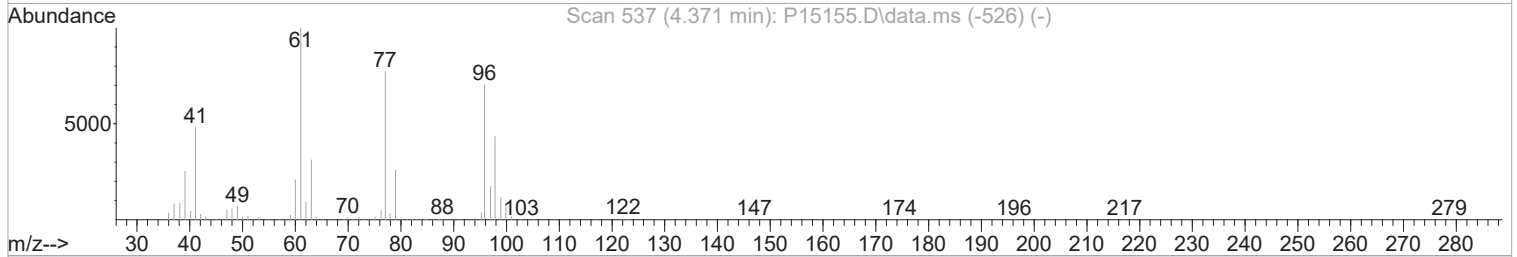
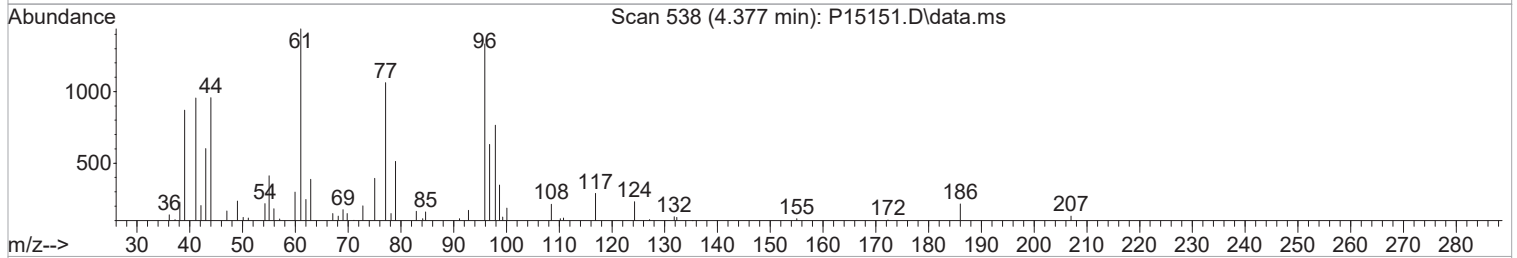
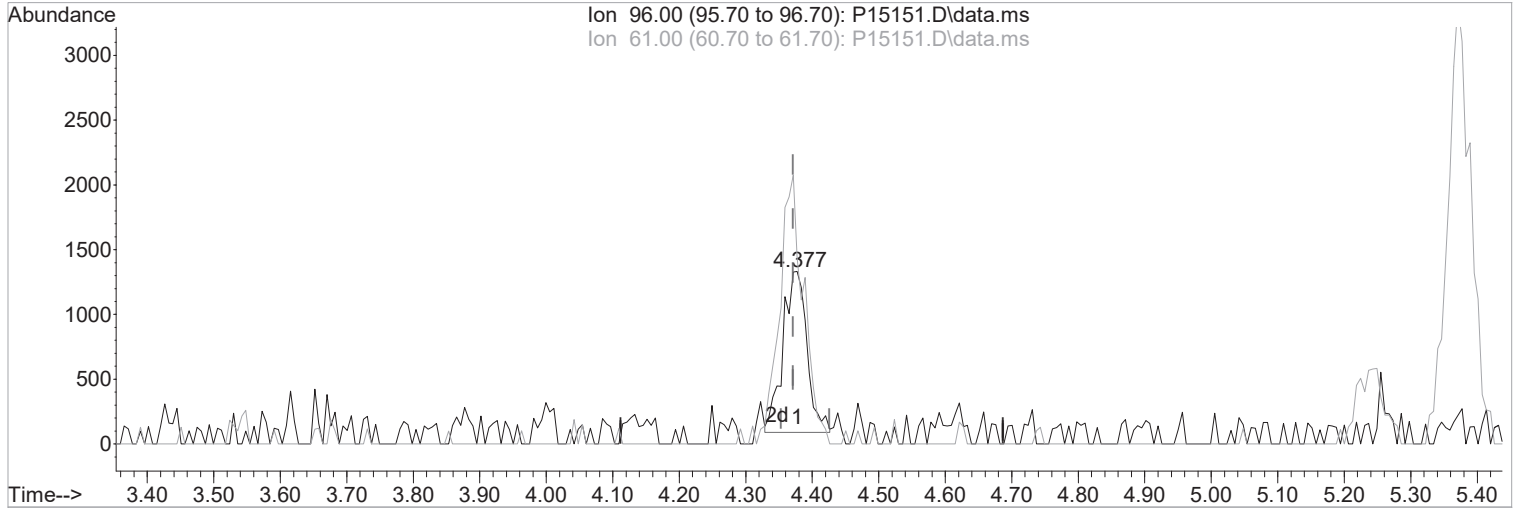
Ion	Exp%	Act%
86.00	100	100
43.00	952.00	565.35#
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.377min (+0.006) 0.86 ppb m

response 3133

Ion	Exp%	Act%

96.00	100	100

61.00	142.80	107.95#

0.00	0.00	0.00

0.00	0.00	0.00

Manual Integration:

After

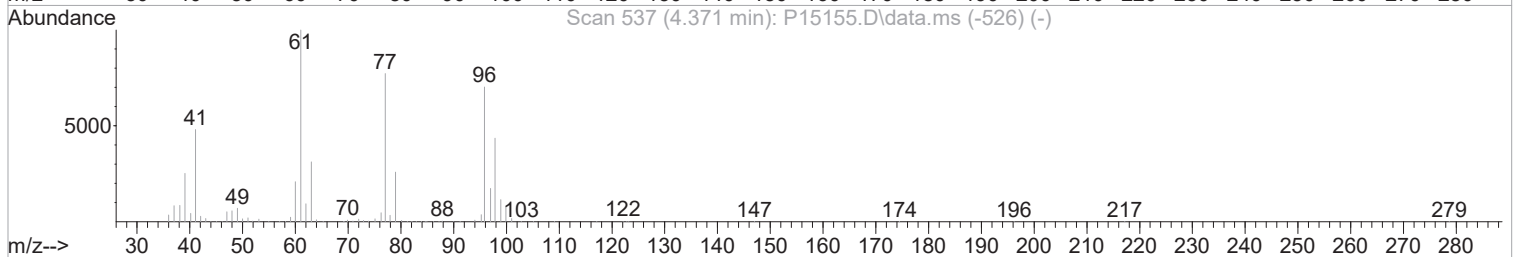
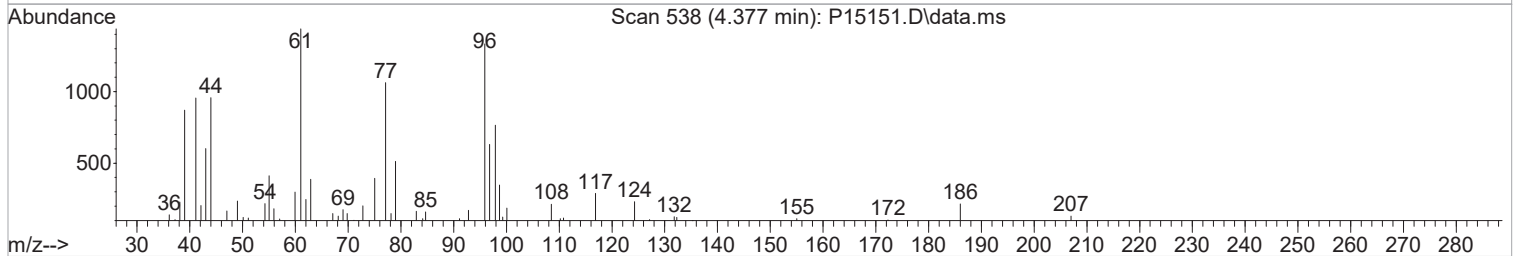
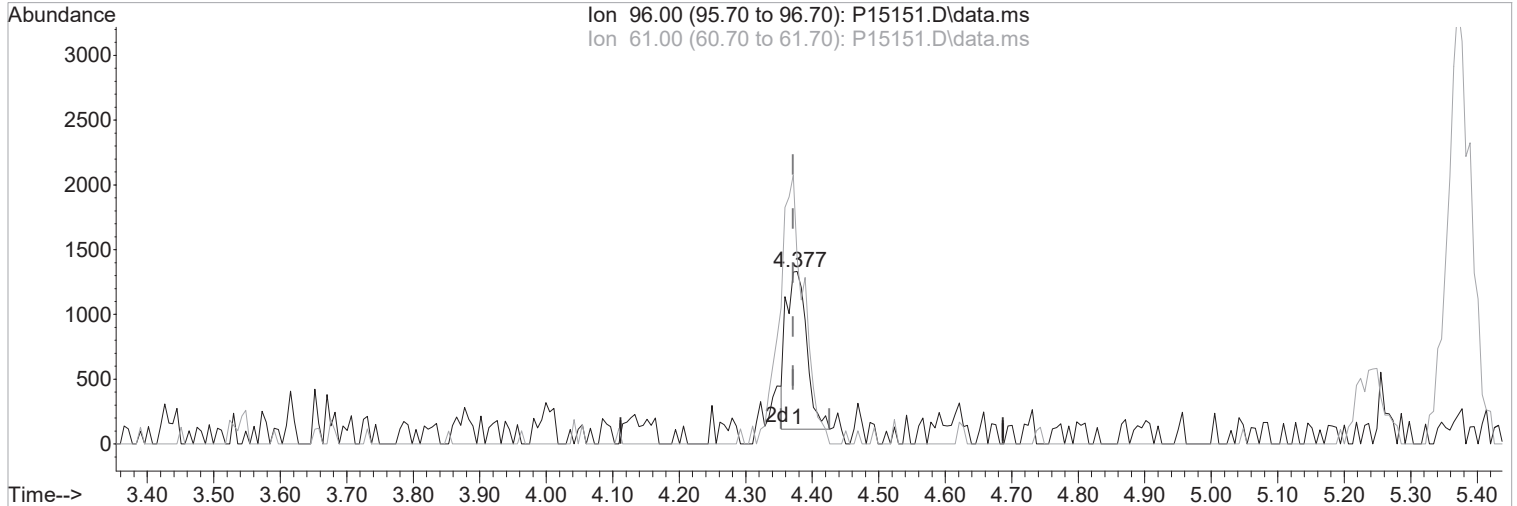
Split Peak

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(34) cis-1,2-Dichloroethene (P)

Manual Integration:

4.377min (+0.006) 0.72 ppb

Before

response 2622

Ion	Exp%	Act%

01/02/18

96.00	100	100

61.00	142.80	107.95#

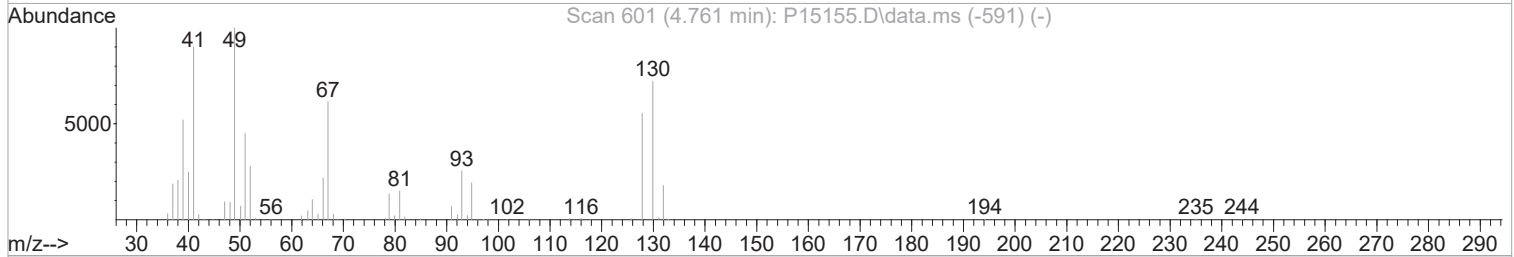
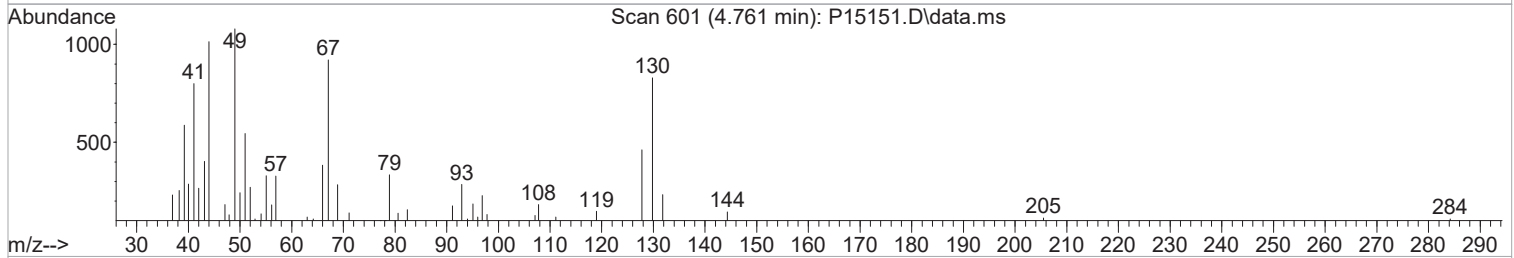
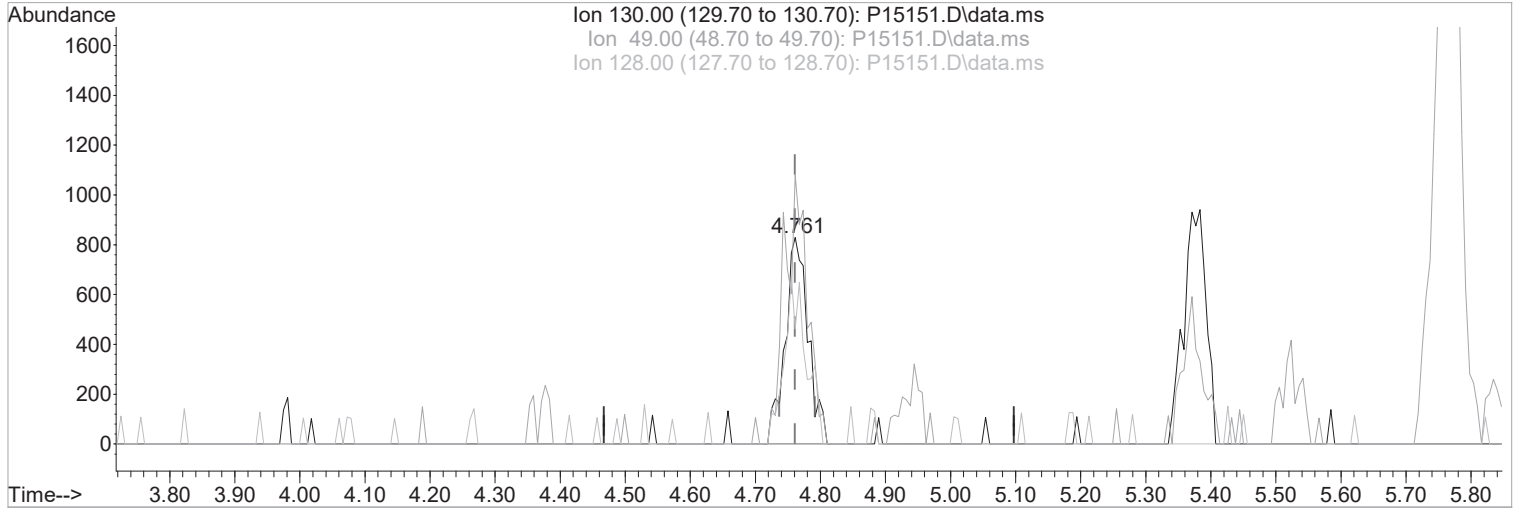
0.00	0.00	0.00

0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(37) Bromochloromethane

4.761min (+0.000) 1.02 ppb m

response 2044

Ion	Exp%	Act%

130.00	100	100

49.00	139.00	130.28

128.00	77.10	55.73#

0.00	0.00	0.00

Manual Integration:

After

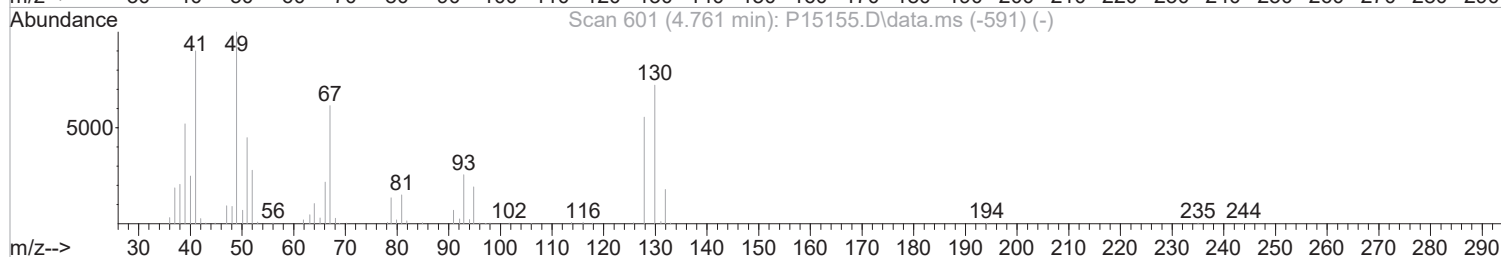
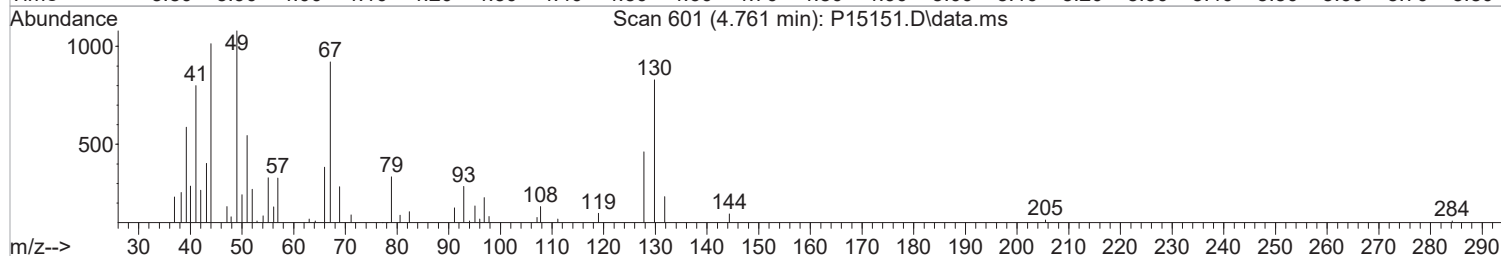
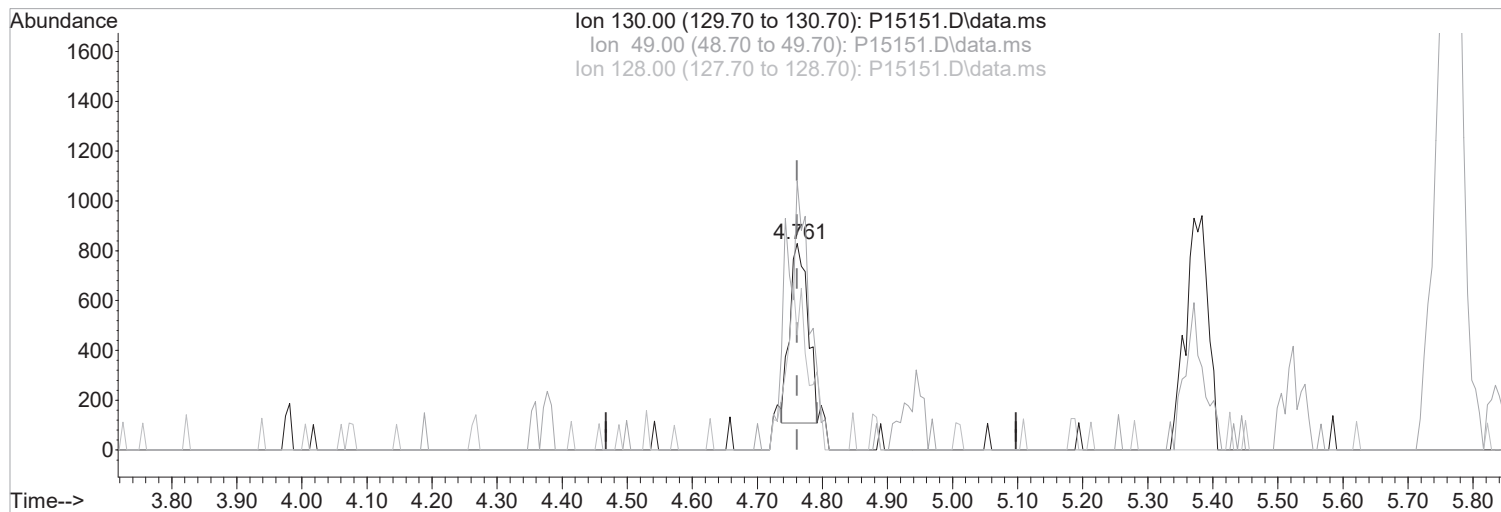
Split Peak

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(37) Bromochloromethane

Manual Integration:

4.761min (+0.000) 0.70 ppb

Before

response 1394

Ion	Exp%	Act%

01/02/18

130.00	100	100

49.00	139.00	130.28

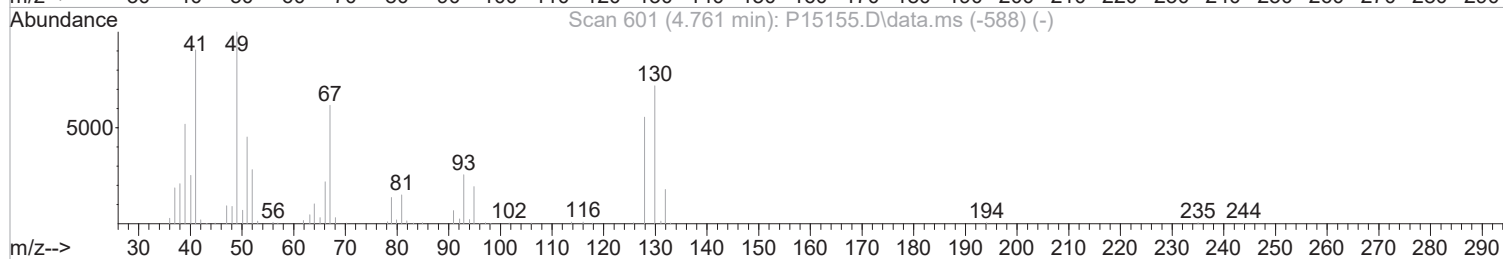
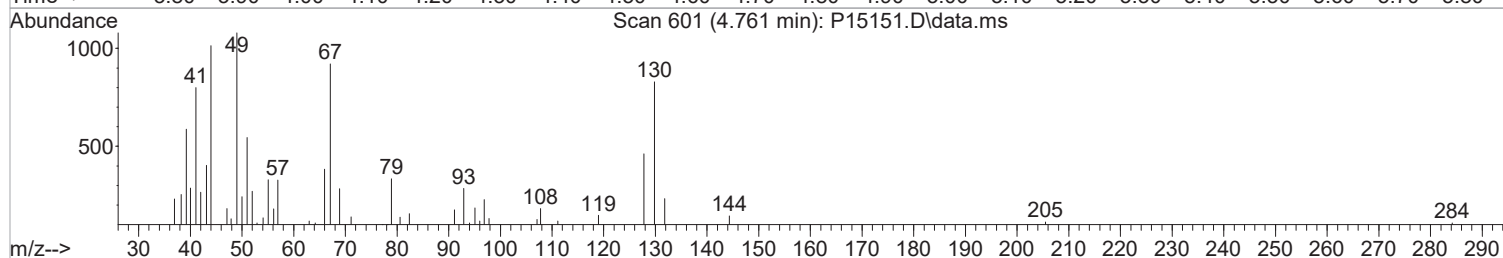
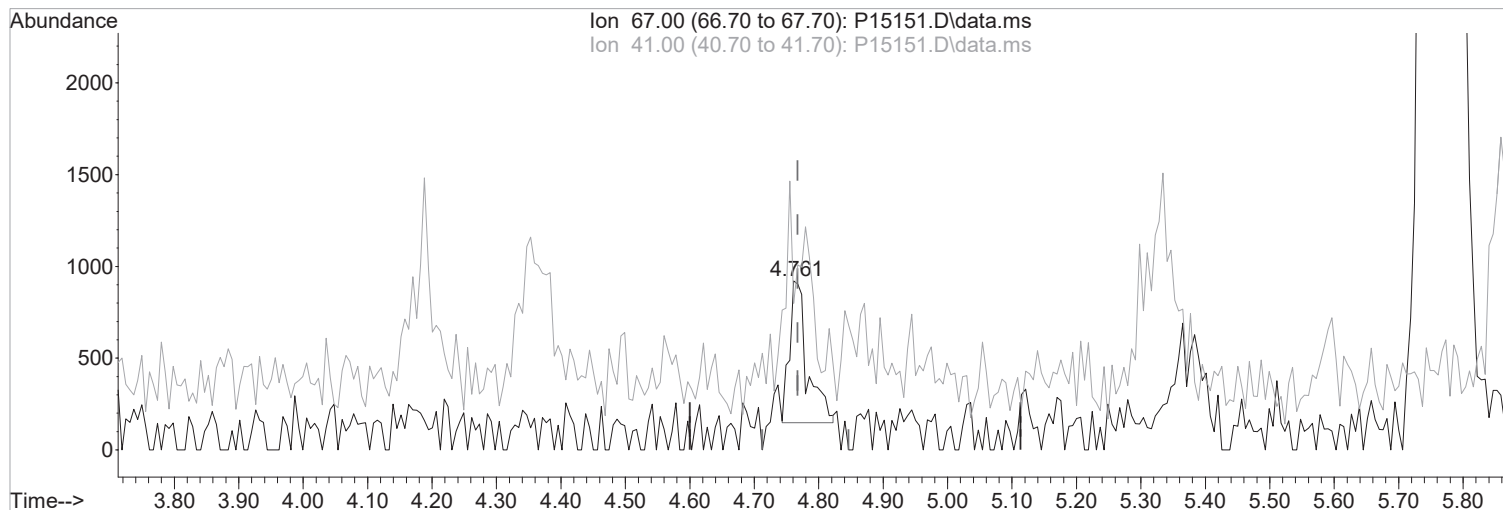
128.00	77.10	55.73#

0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(38) Methacrylonitrile

4.761min (-0.006) 0.80 ppb m

response 1485

Ion	Exp%	Act%
67.00	100	100
41.00	147.70	86.75#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

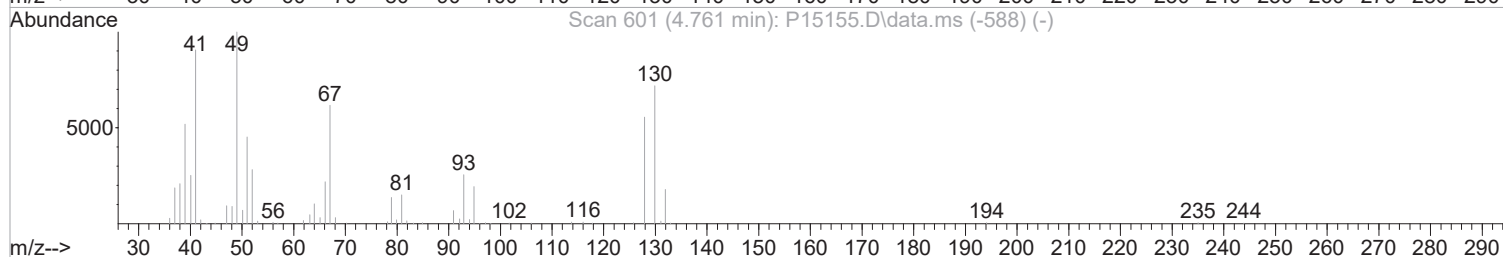
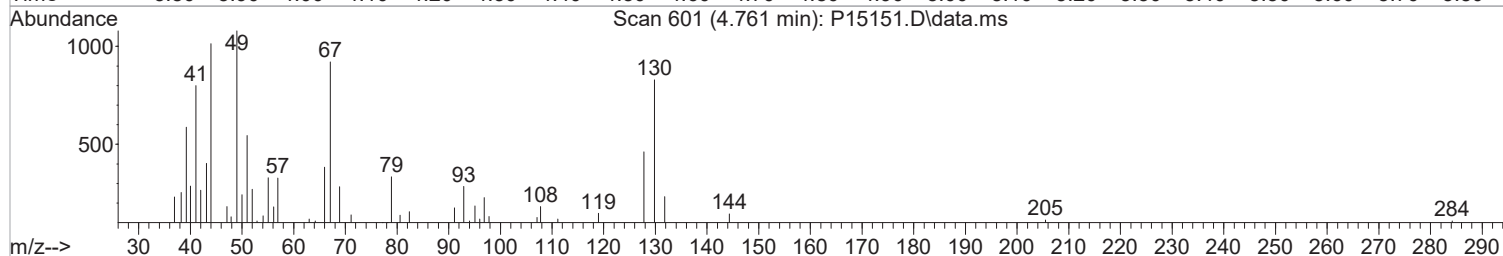
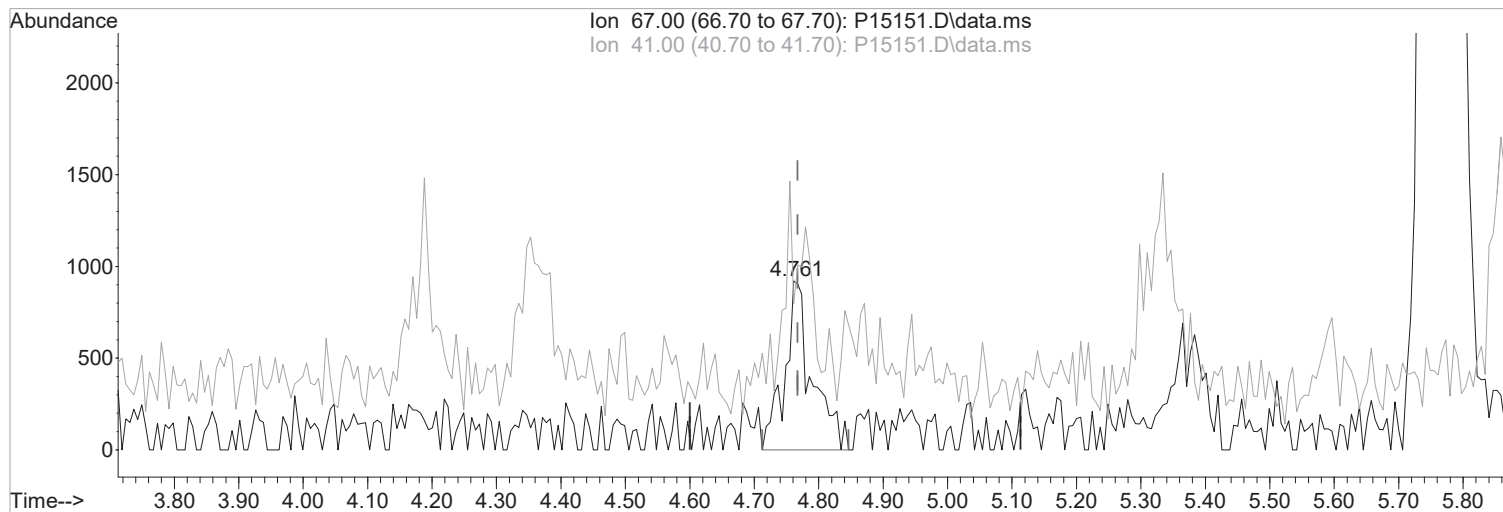
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(38) Methacrylonitrile

Manual Integration:

4.761min (-0.006) 1.48 ppb

Before

response 2730

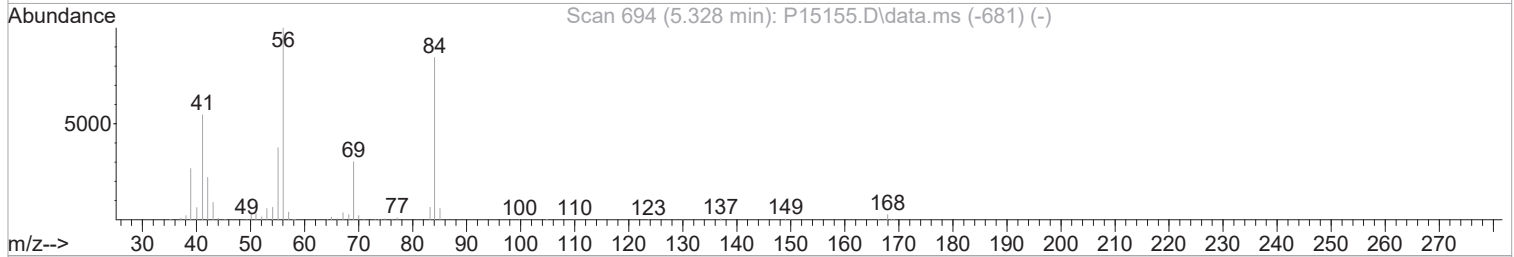
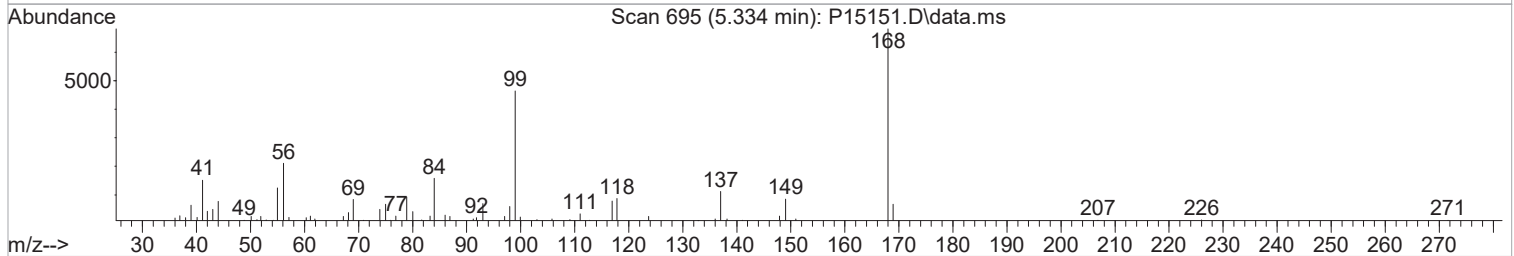
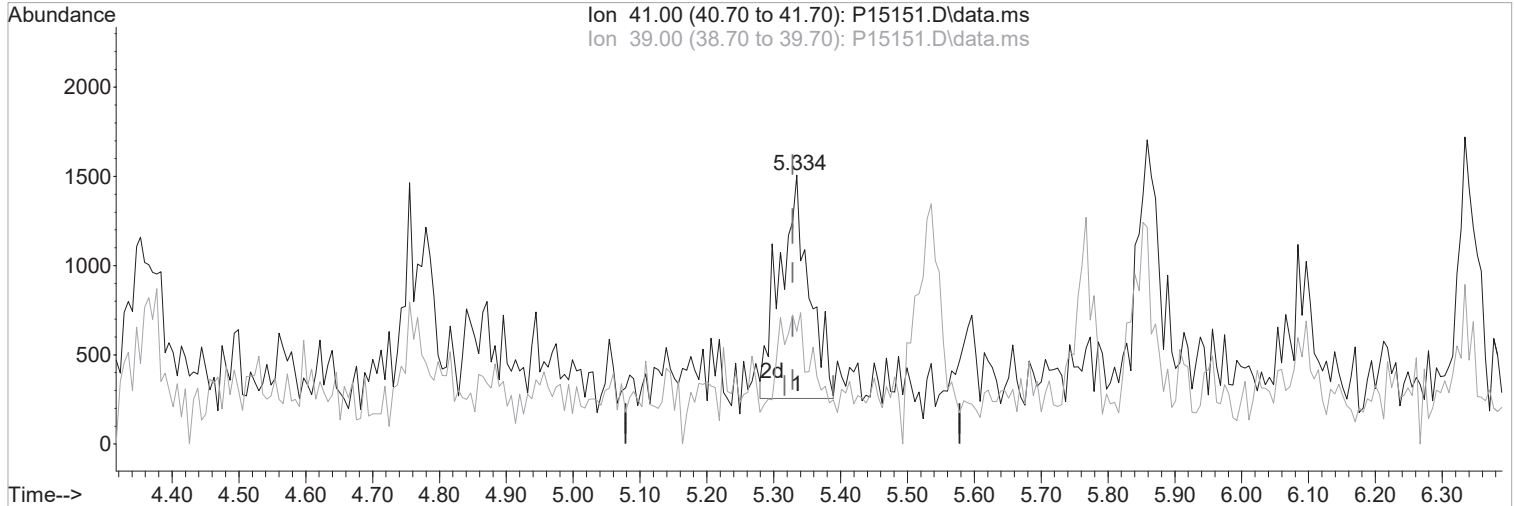
Ion	Exp%	Act%
67.00	100	100
41.00	147.70	86.75#
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(44) Cyclohexane (P)

5.334min (+0.006) 1.22 ppb m

response 3829

Ion	Exp%	Act%
41.00	100	100
39.00	49.10	41.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

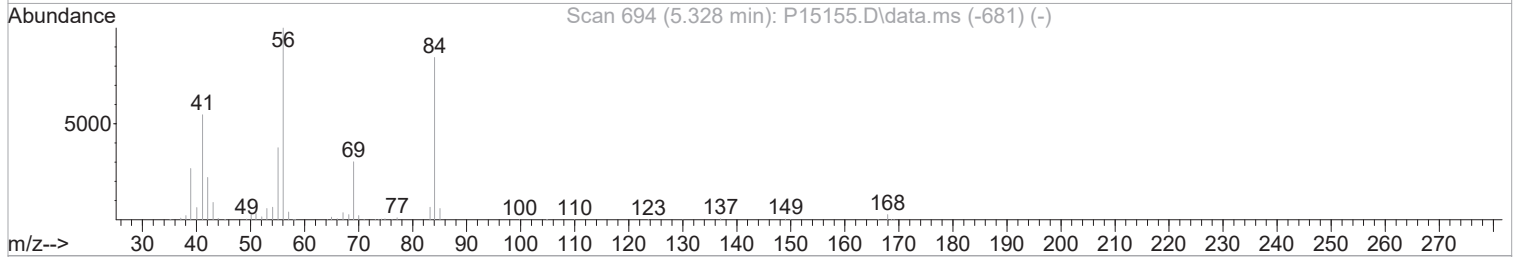
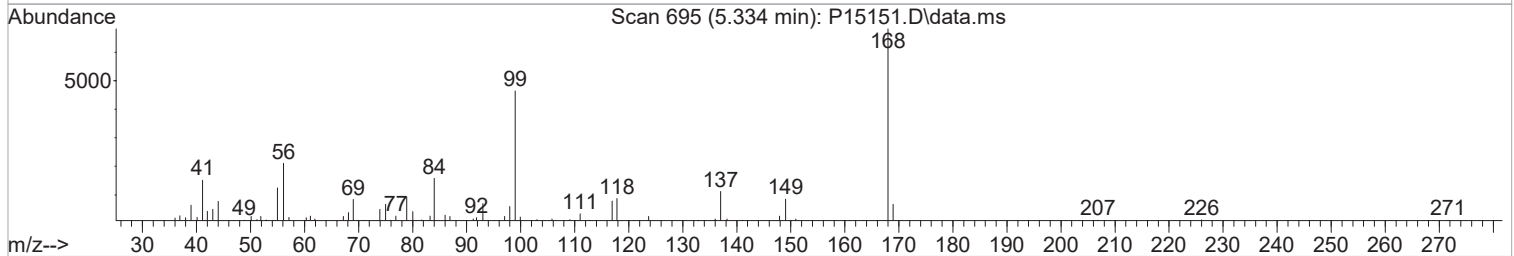
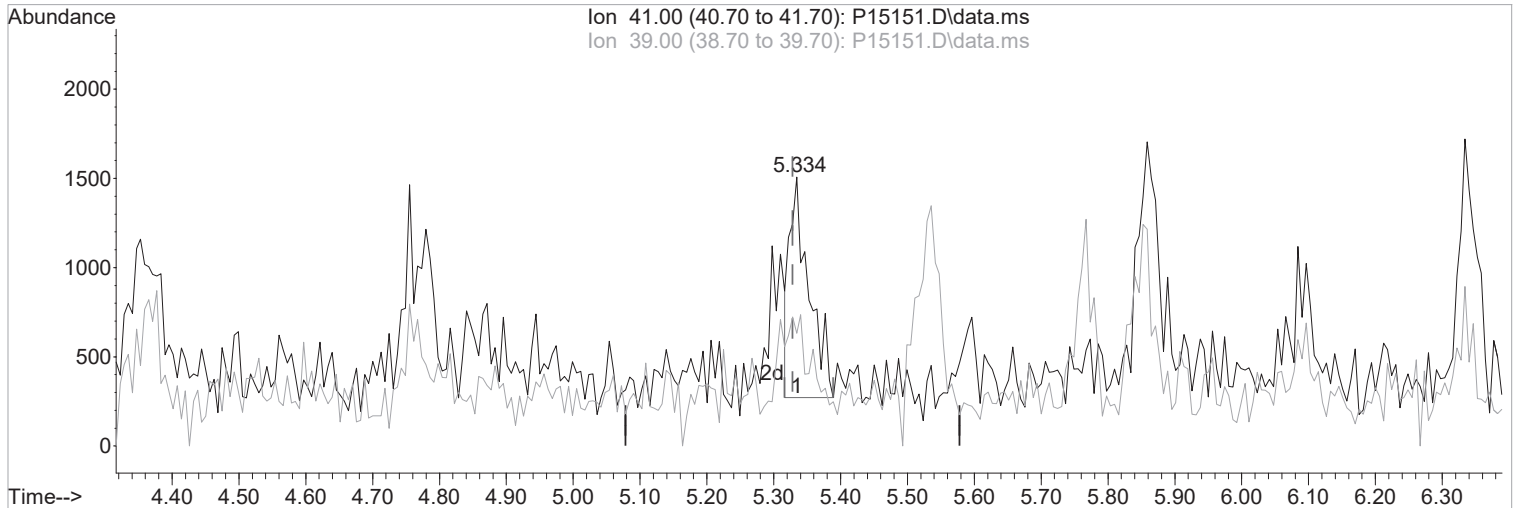
Split Peak

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(44) Cyclohexane (P)

Manual Integration:

5.334min (+0.006) 0.81 ppb

Before

response 2539

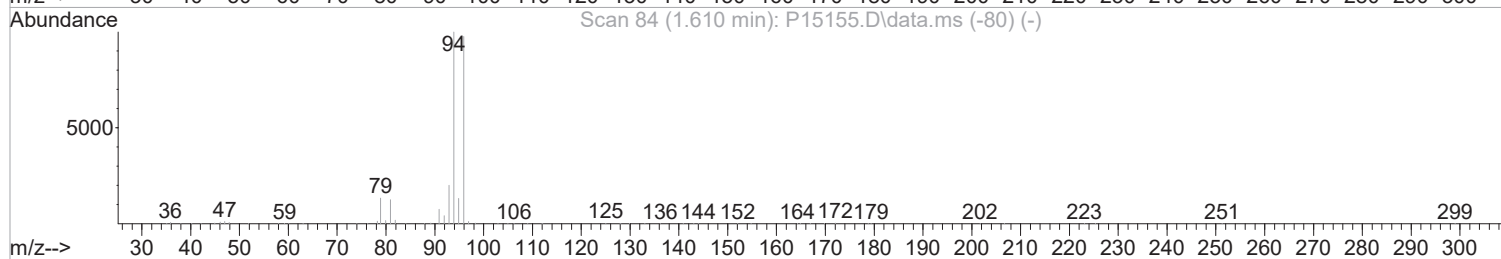
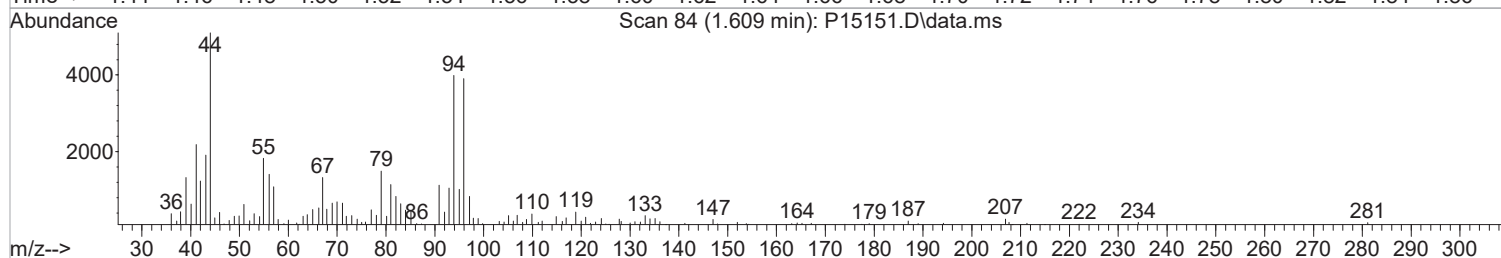
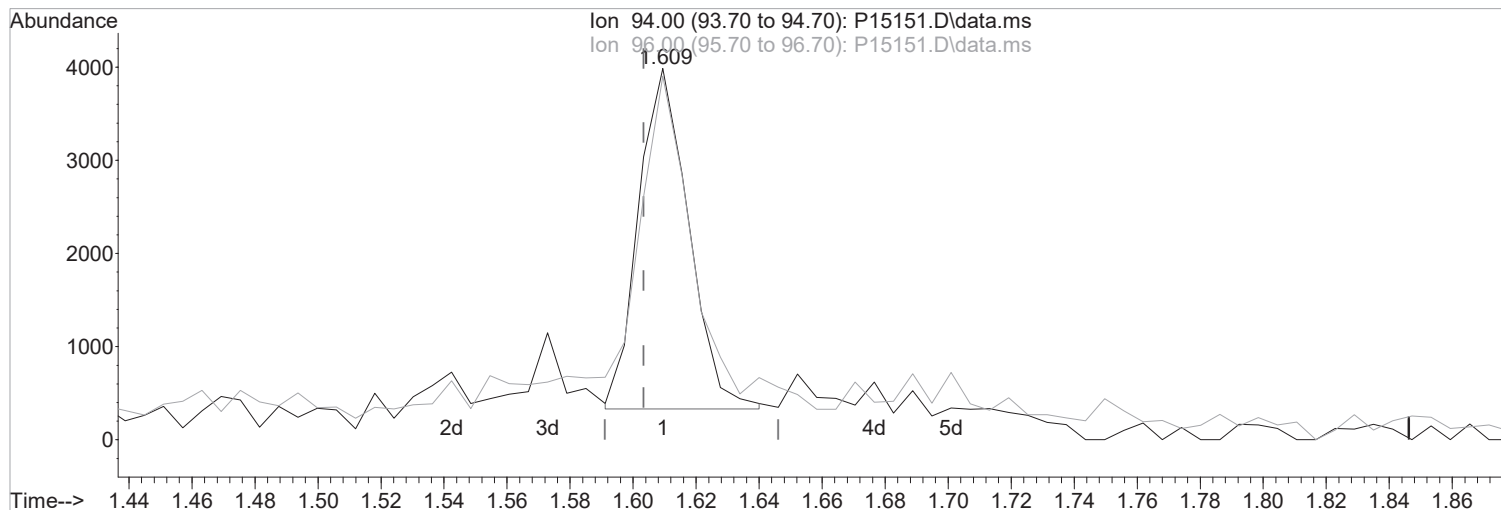
Ion	Exp%	Act%
41.00	100	100
39.00	49.10	41.91
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(5) Bromomethane (P)

1.609min (+0.006) 1.25 ppb m

response 4038

Ion	Exp%	Act%
94.00	100	100
96.00	97.70	97.97
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

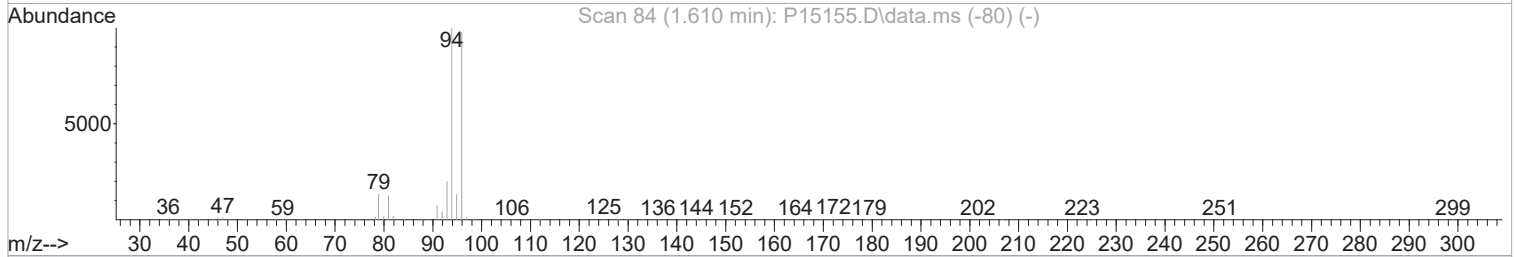
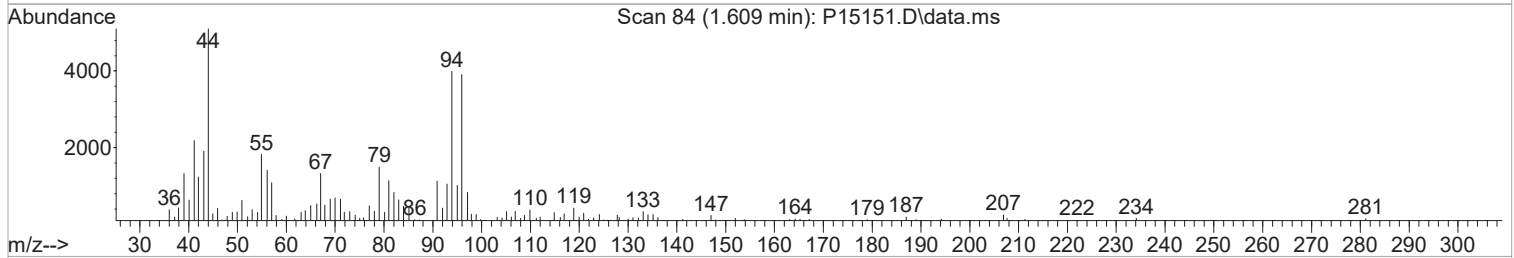
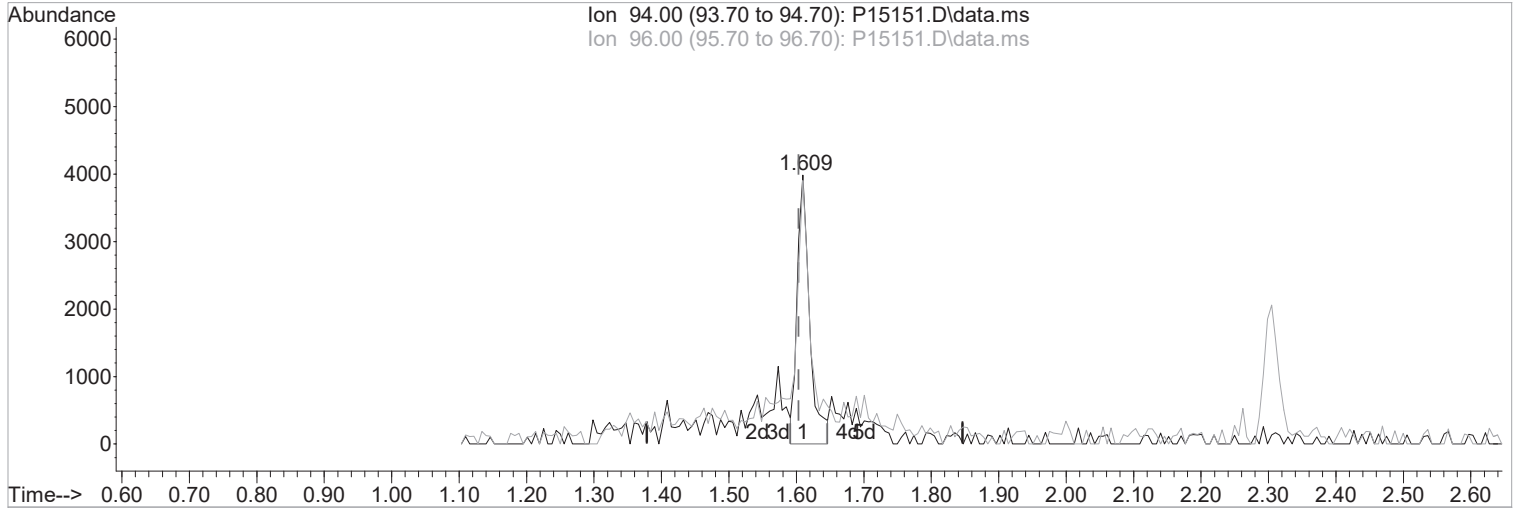
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(5) Bromomethane (P)

Manual Integration:

1.609min (+0.006) 1.59 ppb

Before

response 5131

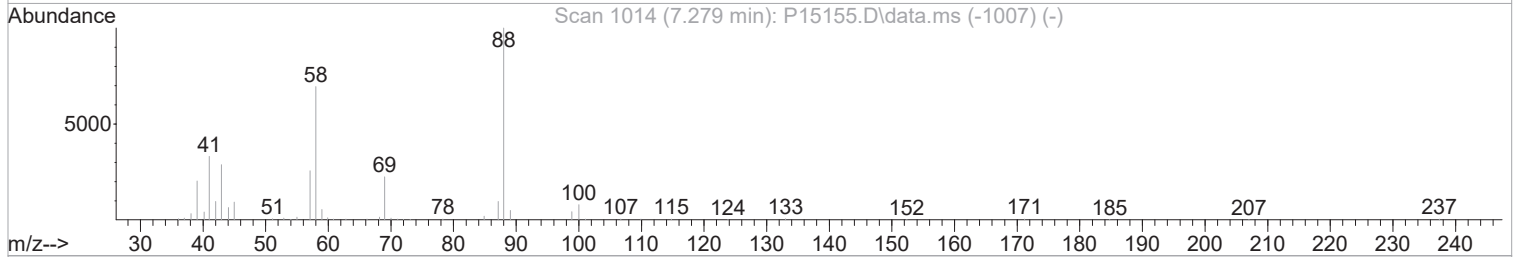
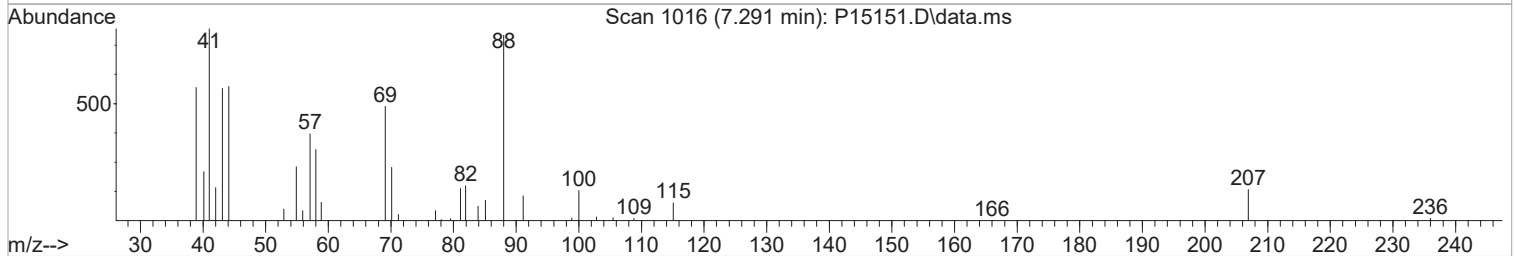
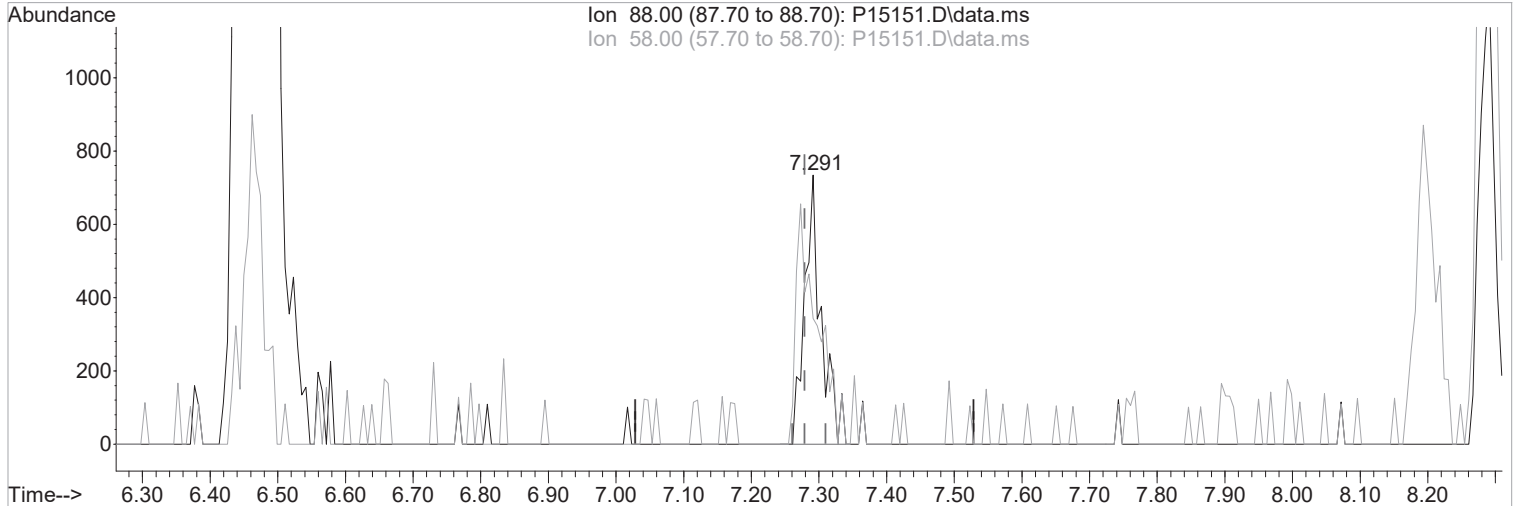
Ion	Exp%	Act%
94.00	100	100
96.00	97.70	97.97
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(58) 1,4-Dioxane

7.291min (+0.012) 19.01 ppb m

response 1262

Ion	Exp%	Act%
88.00	100	100
58.00	70.00	46.73#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

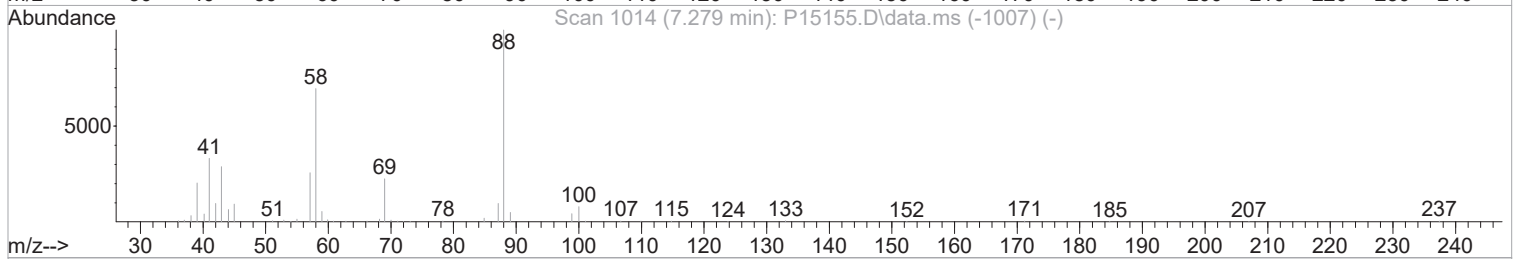
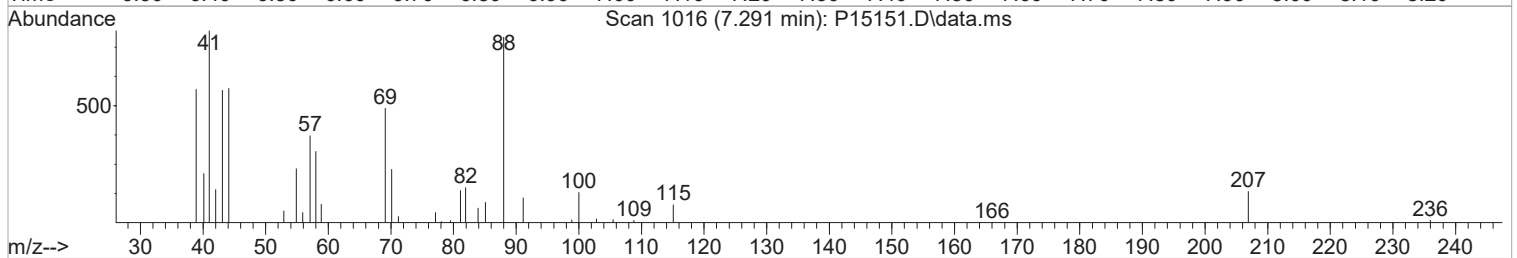
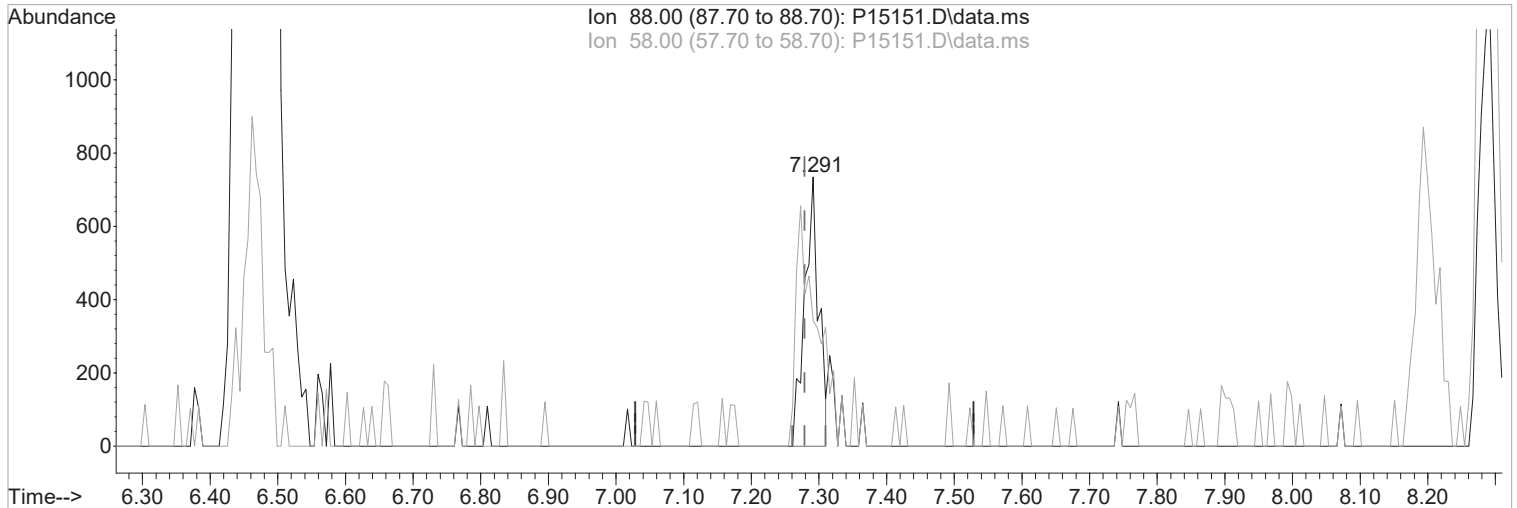
Split Peak

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(58) 1,4-Dioxane

Manual Integration:

7.291min (+0.012) 15.92 ppb

Before

response 1057

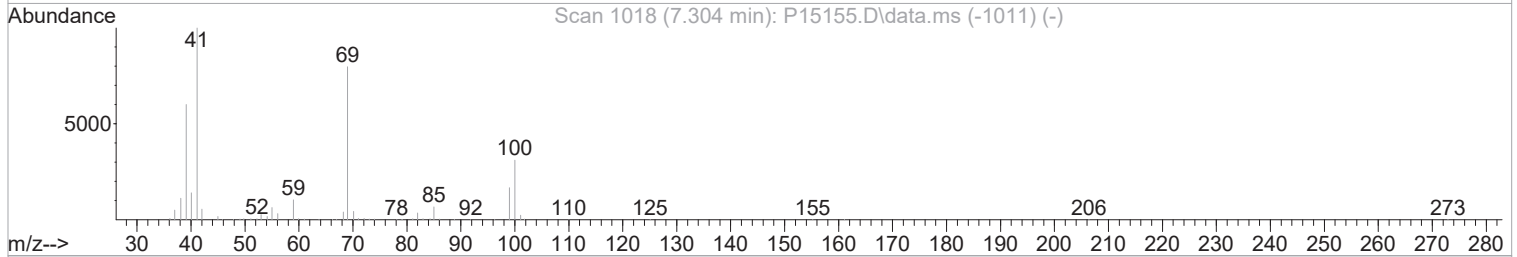
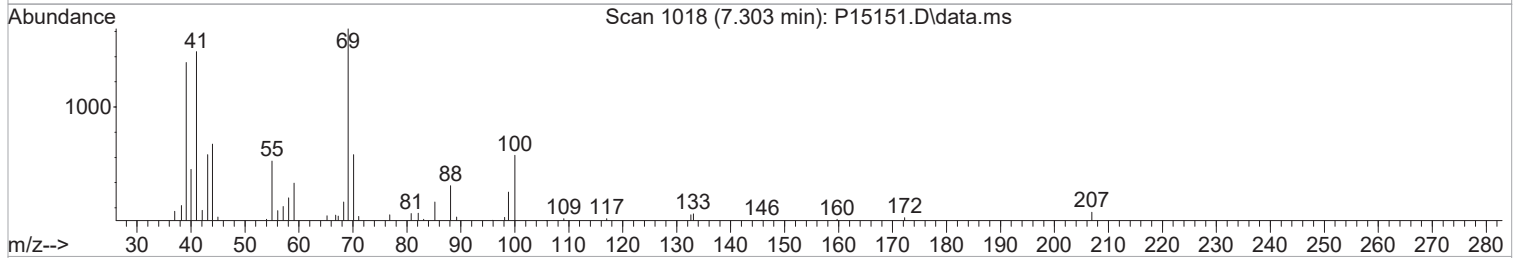
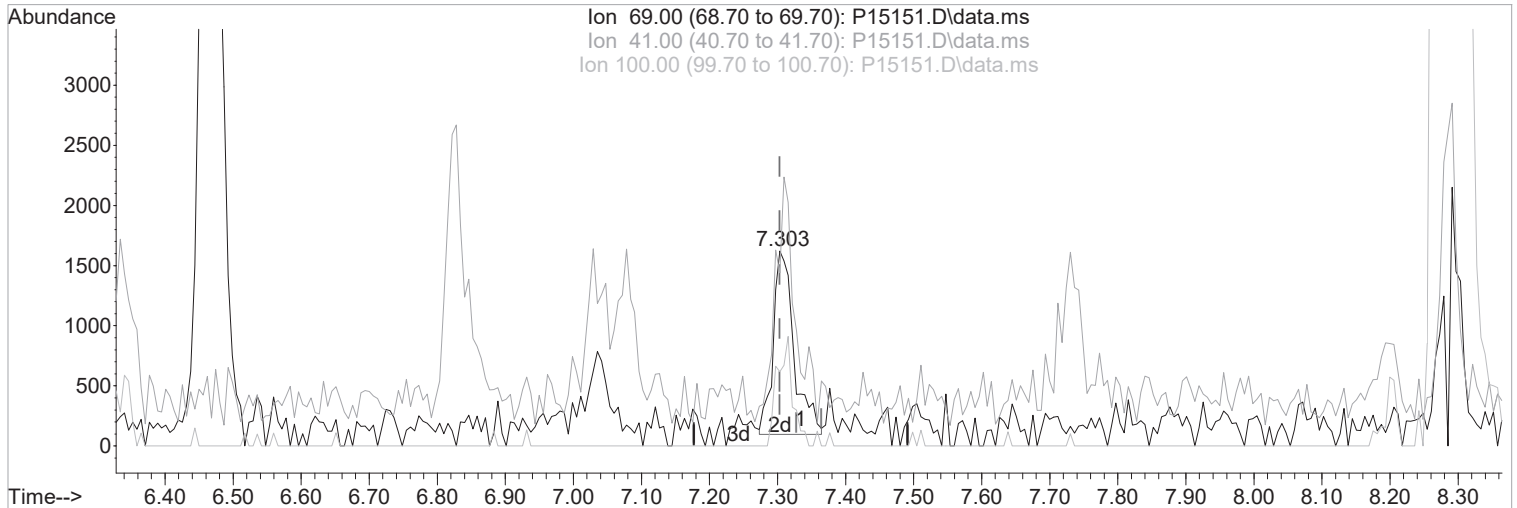
Ion	Exp%	Act%
88.00	100	100
58.00	70.00	46.73#
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(59) Methyl Methacrylate

Manual Integration:

7.303min (+0.000) 1.05 ppb m

After

response 3248

Split Peak

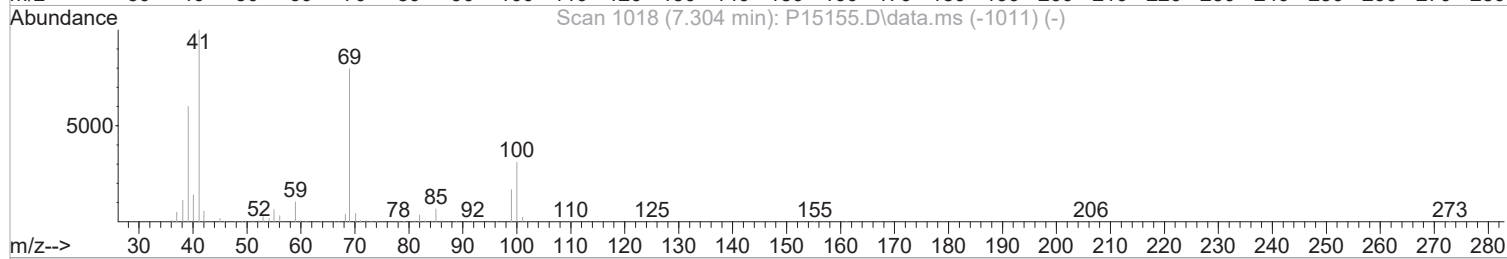
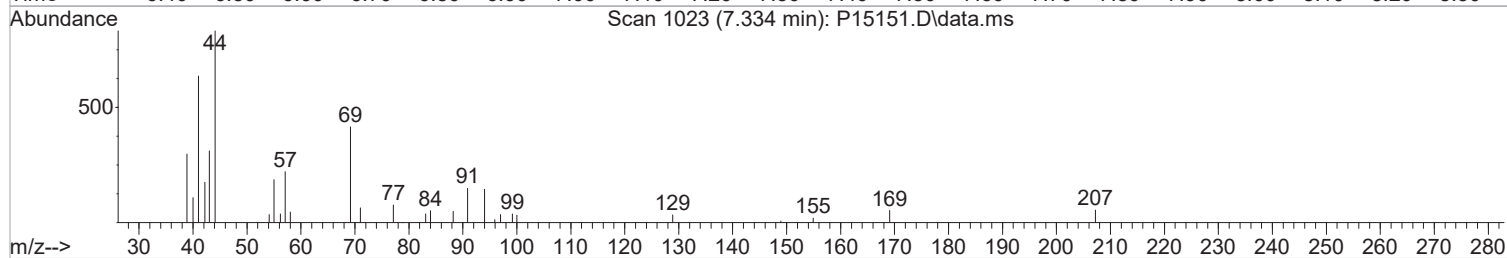
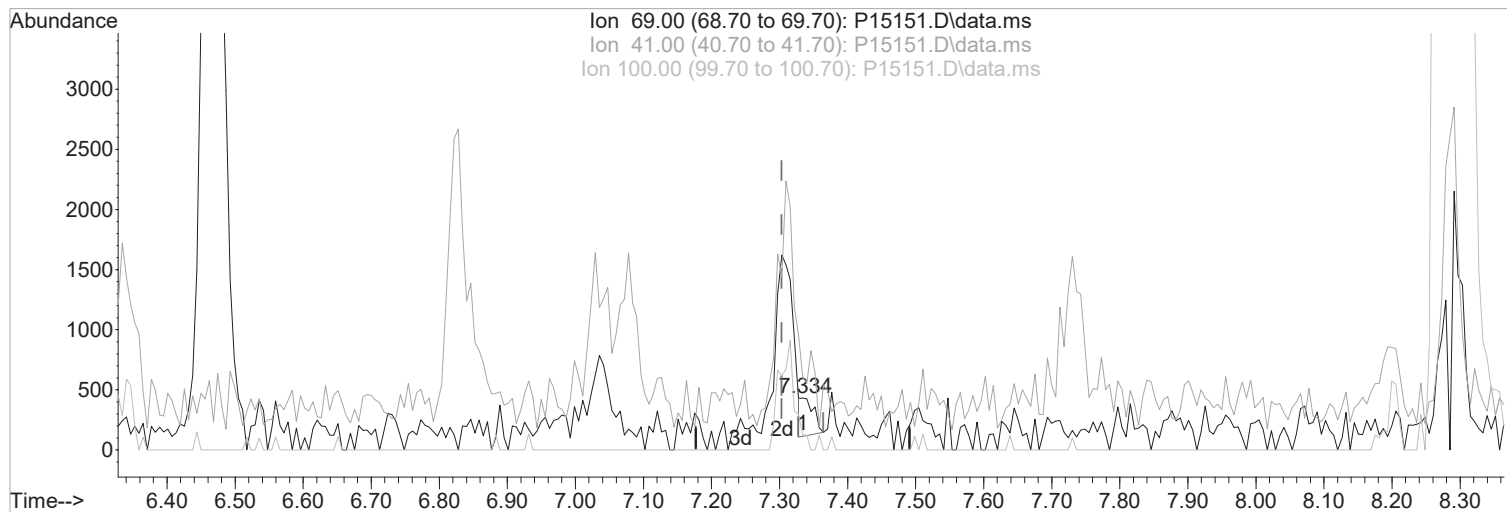
Ion	Exp%	Act%
69.00	100	100
41.00	126.30	88.77#
100.00	38.80	38.06
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(59) Methyl Methacrylate

Manual Integration:

7.334min (+0.031) 0.13 ppb

Before

response 403

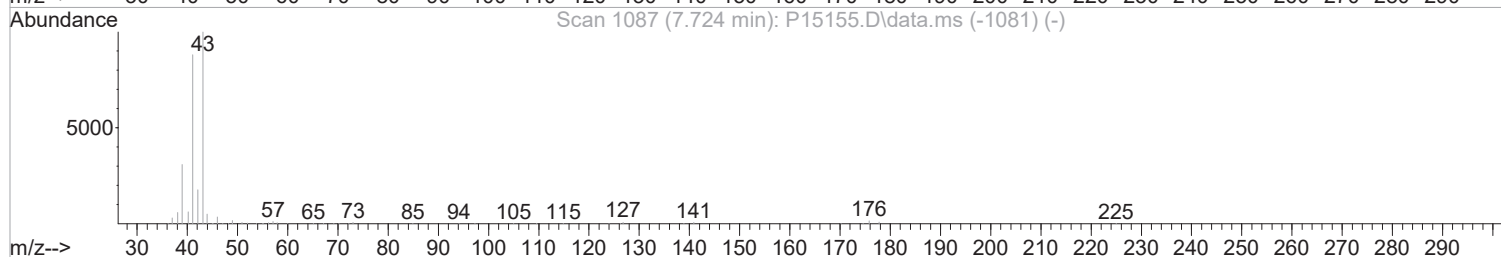
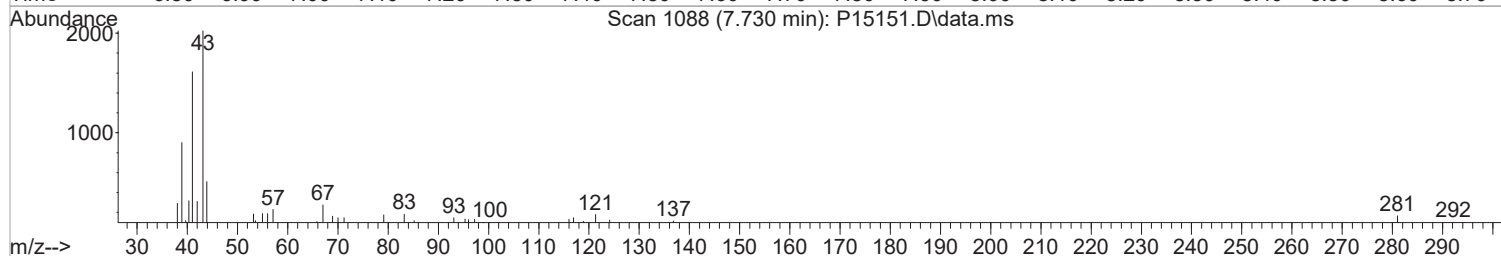
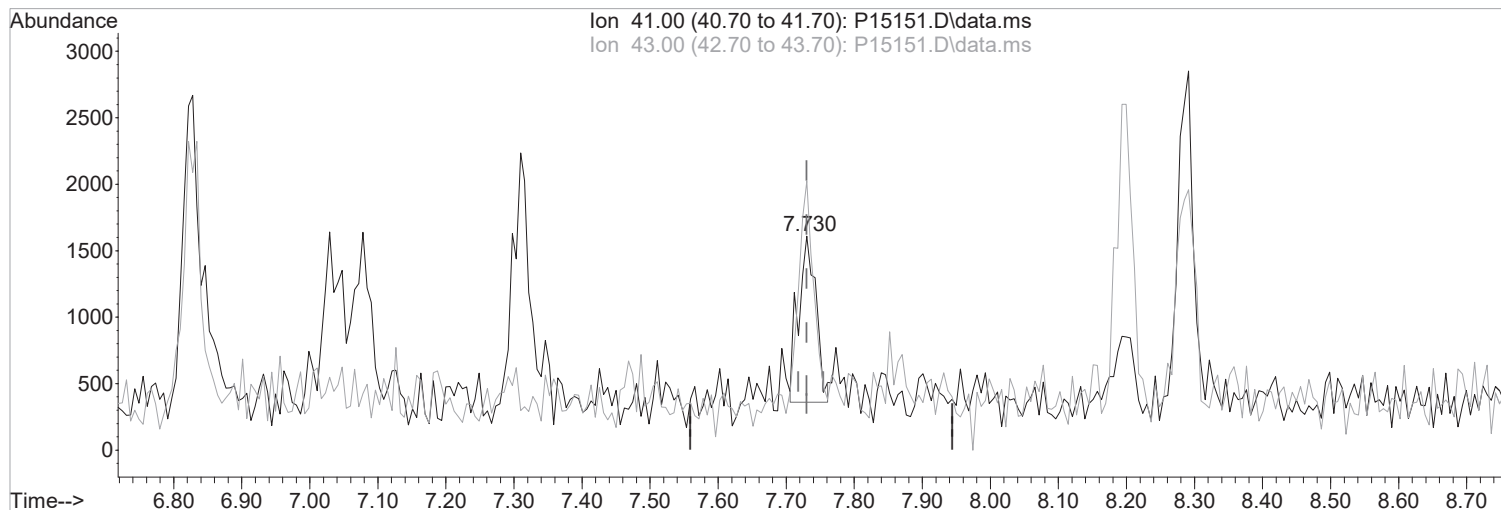
Ion	Exp%	Act%
69.00	100	100
41.00	126.30	140.97
100.00	38.80	28.94
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(61) 2-Nitropropane

Manual Integration:

7.730min (+0.000) 1.74 ppb m

After

response 2254

Split Peak

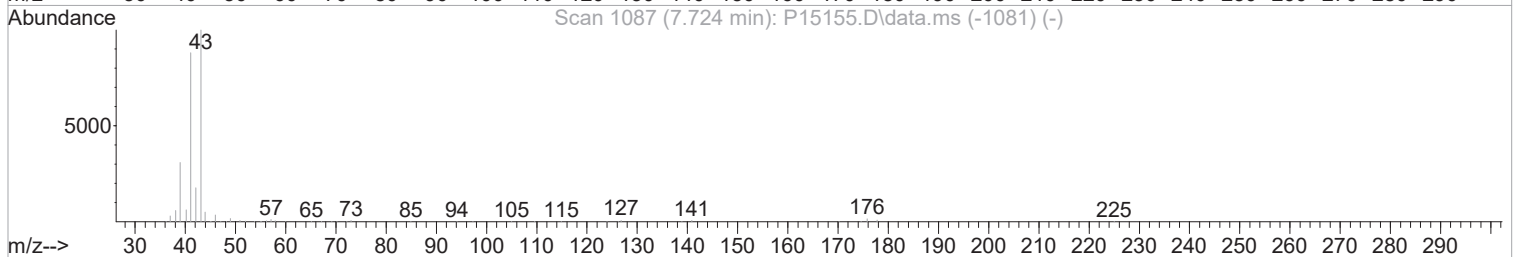
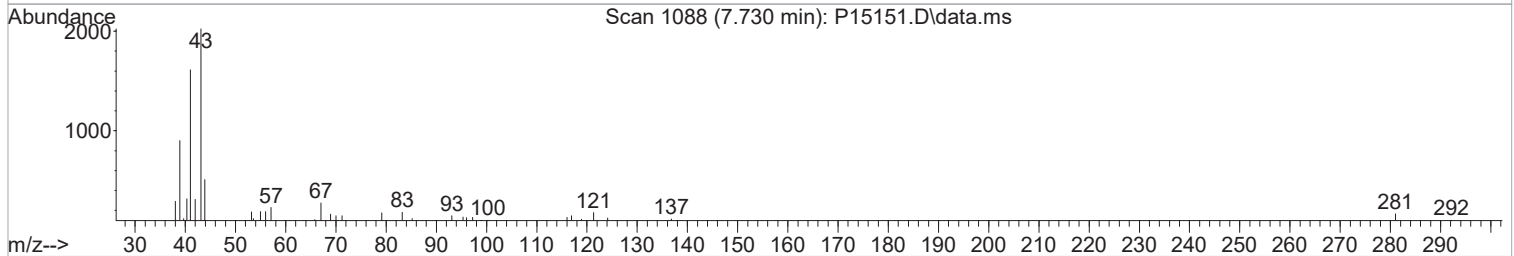
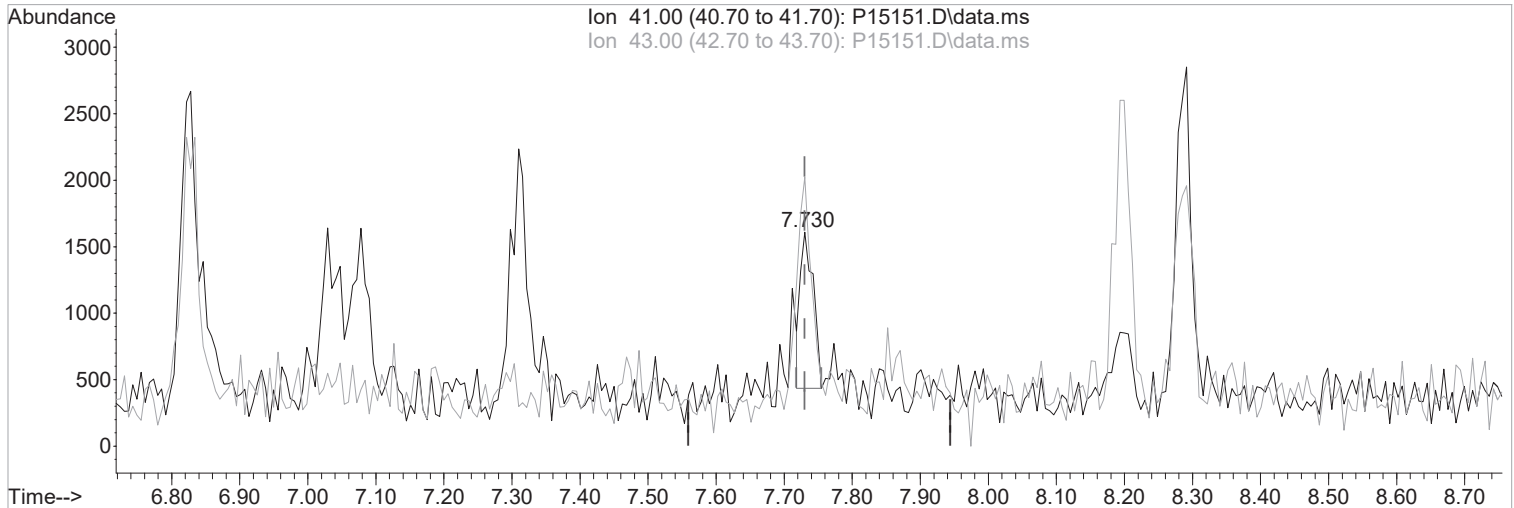
Ion	Exp%	Act%
41.00	100	100
43.00	113.70	125.71
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(61) 2-Nitropropane

Manual Integration:

7.730min (+0.000) 1.19 ppb

Before

response 1546

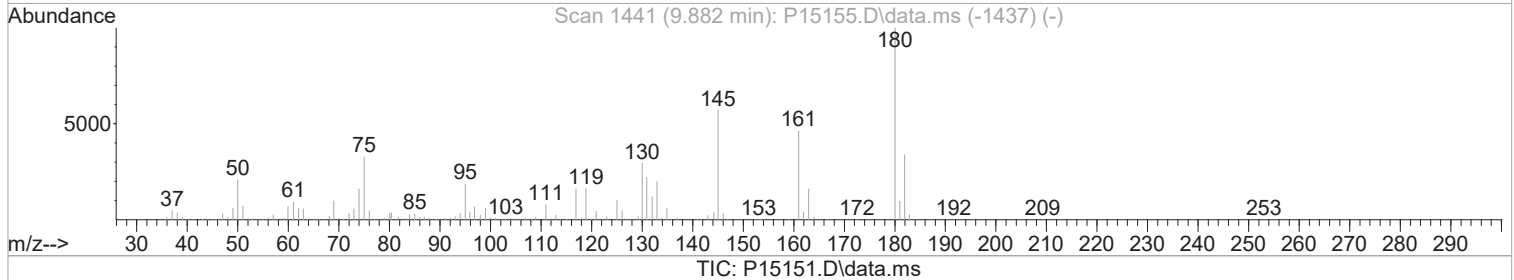
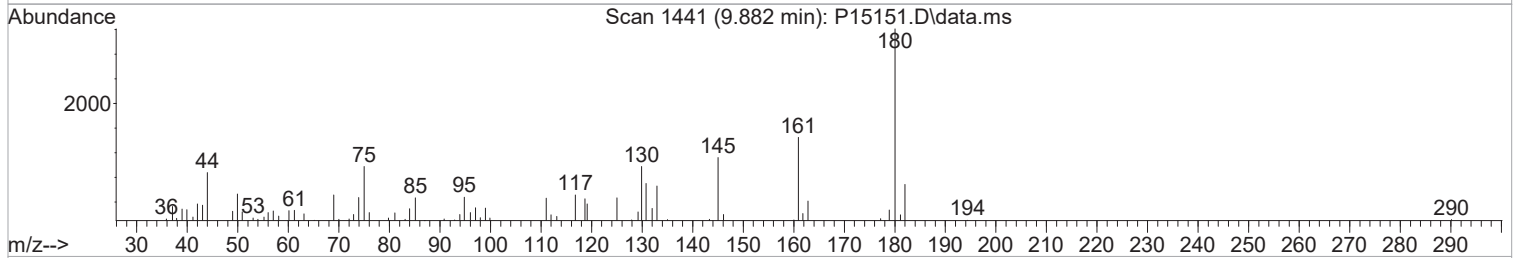
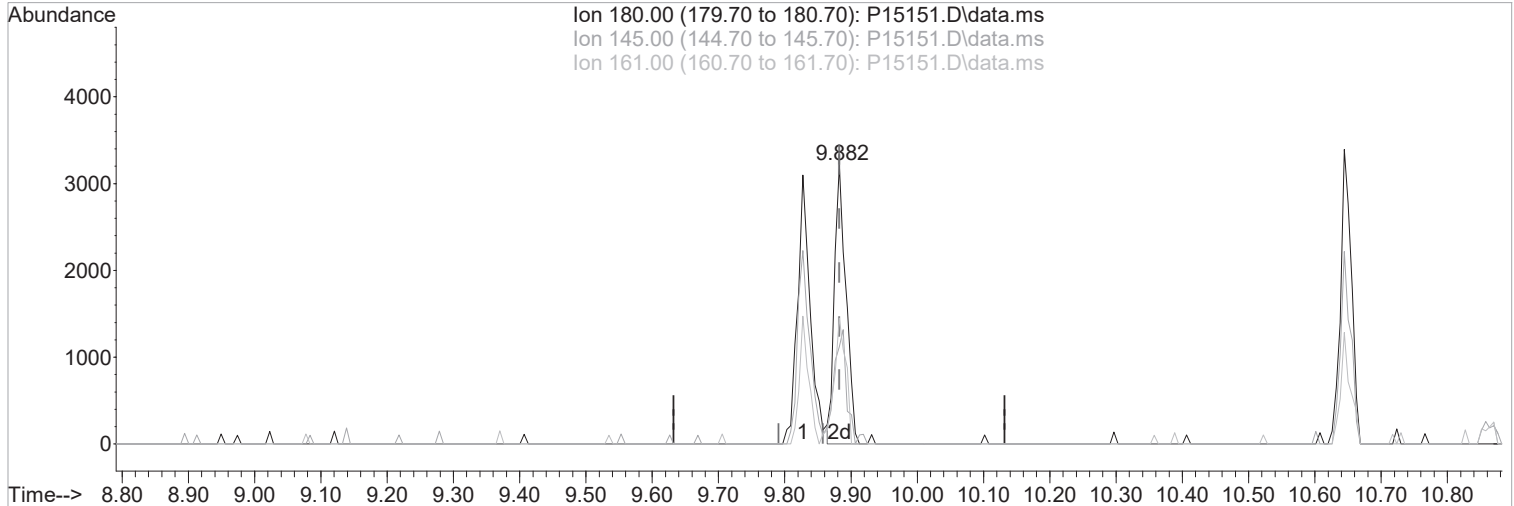
Ion	Exp%	Act%
41.00	100	100
43.00	113.70	125.71
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(80) 4-CBTF

9.882min (+0.000) 0.96 ppb m

response 3872

Ion	Exp%	Act%
180.00	100	100
145.00	57.00	34.96#
161.00	46.00	45.10
0.00	0.00	0.00

Manual Integration:

After

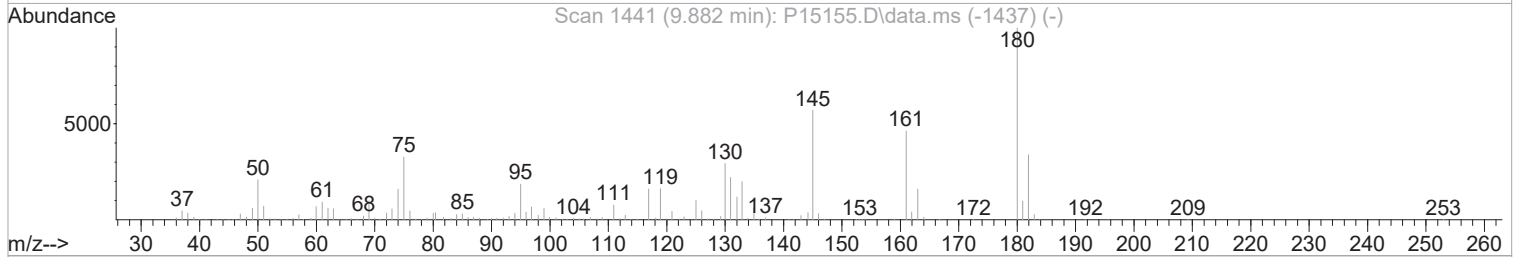
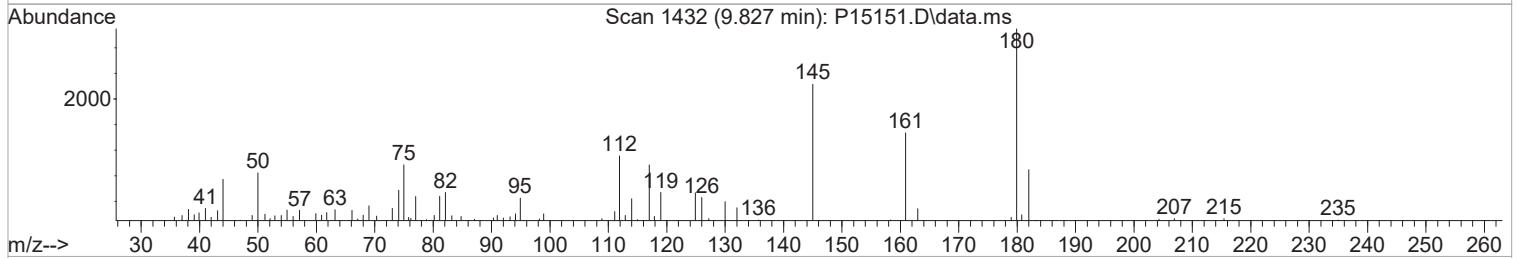
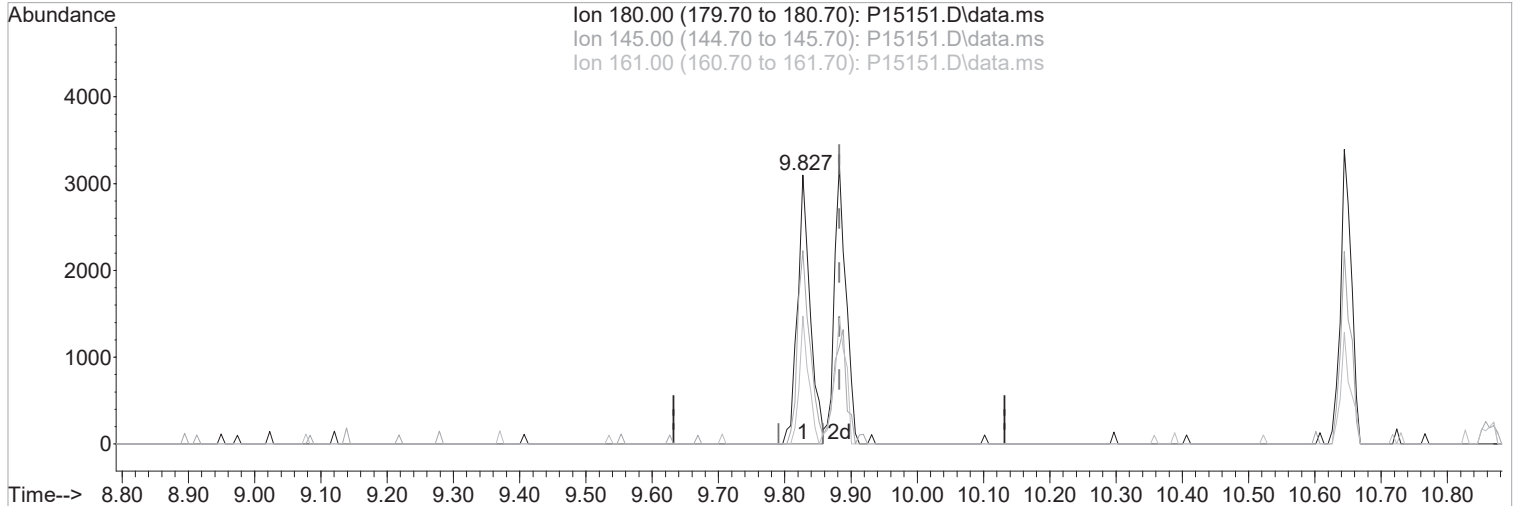
Wrong peak selected.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:41 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15151.D\data.ms

(80) 4-CBTF

Manual Integration:

9.827min (-0.055) 1.03 ppb

Before

response 4151

Ion	Exp%	Act%
180.00	100	100
145.00	57.00	71.93
161.00	46.00	47.47
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15151.D
 Acq On : 29 Dec 2017 5:44 pm
 Operator : K.Ruest
 Sample : 1.0ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:49:20 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	287174	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	482641	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	421648	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	206696	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	140301	48.96	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	97.92%
48) surr1,1,2-dichloroetha...	5.767	65	197838	50.38	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	100.76%
65) SURR3,Toluene-d8	8.291	98	626569	48.97	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	97.94%
70) SURR2,BFB	10.858	95	234667	47.40	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	94.80%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	3092	0.87	ppb	89
3) Chloromethane	1.305	50	4661	1.07	ppb	93
4) Vinyl Chloride	1.384	62	3538	0.83	ppb	# 44
5) Bromomethane	1.609	94	4038m	1.25	ppb	
6) Chloroethane	1.689	64	1872	0.70	ppb	# 34
7) Freon 21	1.835	67	5264	0.95	ppb	97
8) Trichlorofluoromethane	1.884	101	3531	0.86	ppb	80
9) Diethyl Ether	2.115	59	2717	0.96	ppb	# 60
10) Freon 123a	2.115	67	3628	1.06	ppb	95
11) Freon 123	2.170	83	3539	0.88	ppb	90
12) Acrolein	2.219	56	4284	5.05	ppb	80
13) 1,1-Dicethene	2.304	96	3164	1.07	ppb	# 79
14) Freon 113	2.311	101	2912	1.04	ppb	100
15) Acetone	2.353	43	2644	1.52	ppb	91
16) 2-Propanol	2.475	45	6693	19.92	ppb	84
17) Iodomethane	2.439	142	607	0.23	ppb	92
18) Carbon Disulfide	2.500	76	7689	0.89	ppb	99
19) Acetonitrile	2.597	40	1502	5.08	ppb	# 89
20) Allyl Chloride	2.634	76	1334	0.85	ppb	# 54
21) Methyl Acetate	2.658	43	2880	0.92	ppb	95
22) Methylene Chloride	2.743	84	3120	1.00	ppb	90
23) TBA	2.871	59	11158	19.27	ppb	87
24) Acrylonitrile	3.006	53	8428	5.01	ppb	91
25) Methyl-t-Butyl Ether	3.048	73	10288	0.97	ppb	91
26) trans-1,2-Dichloroethene	3.036	96	2908	0.95	ppb	94
28) 1,1-Dicethane	3.536	63	5387	0.97	ppb	93
29) Vinyl Acetate	3.640	86	1198m	1.32	ppb	
30) DIPE	3.658	45	11357	1.08	ppb	95
31) 2-Chloro-1,3-Butadiene	3.664	53	5319	0.99	ppb	97
32) ETBE	4.176	59	9684	0.91	ppb	95
33) 2,2-Dichloropropane	4.353	77	4489	0.91	ppb	88
34) cis-1,2-Dichloroethene	4.377	96	3133m	0.86	ppb	
36) Propionitrile	4.511	54	4096	5.73	ppb	66
37) Bromochloromethane	4.761	130	2044m	1.02	ppb	
38) Methacrylonitrile	4.761	67	1485m	0.80	ppb	
40) Chloroform	4.944	83	5941	0.99	ppb	96
41) 1,1,1-Trichloroethane	5.231	97	4781	1.01	ppb	# 83
42) TAME	6.090	73	10018	0.97	ppb	87
44) Cyclohexane	5.334	41	3829m	1.22	ppb	

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15151.D
 Acq On : 29 Dec 2017 5:44 pm
 Operator : K.Ruest
 Sample : 1.0ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:49:20 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
46) Carbontetrachloride	5.511	117	3082	0.85	ppb	# 81
47) 1,1-Dichloropropene	5.536	75	3874	0.91	ppb	83
49) Benzene	5.840	78	11319	0.90	ppb	86
50) 1,2-Dichloroethane	5.889	62	4380	0.95	ppb	91
51) Iso-Butyl Alcohol	5.846	43	5135	20.08	ppb	85
52) n-Heptane	6.334	43	4453	1.02	ppb	92
53) 1-Butanol	6.828	56	6937	41.00	ppb	85
54) Trichloroethene	6.797	130	3367	1.04	ppb	94
55) Methylcyclohexane	7.035	55	3617	0.86	ppb	88
56) 1,2-Dichloropropane	7.072	63	3310	0.98	ppb	80
57) Dibromomethane	7.212	93	2049	1.02	ppb	# 70
58) 1,4-Dioxane	7.291	88	1262m	19.01	ppb	
59) Methyl Methacrylate	7.303	69	3248m	1.05	ppb	
60) Bromodichloromethane	7.444	83	4463	1.05	ppb	97
61) 2-Nitropropane	7.730	41	2254m	1.74	ppb	
63) cis-1,3-Dichloropropene	7.998	75	4467	0.84	ppb	80
64) 4-Methyl-2-pentanone	8.194	43	4242	1.03	ppb	86
66) Toluene	8.364	91	12447	0.91	ppb	94
67) trans-1,3-Dichloropropene	8.632	75	4602	0.92	ppb	93
68) Ethyl Methacrylate	8.773	69	5274	1.05	ppb	82
69) 1,1,2-Trichloroethane	8.815	97	3198	1.03	ppb	92
72) Tetrachloroethene	8.962	164	2460	1.06	ppb	# 79
73) 2-Hexanone	9.114	43	2578	0.83	ppb	# 69
74) 1,3-Dichloropropane	8.992	76	4841	0.89	ppb	# 80
75) Dibromochloromethane	9.218	129	2631	0.93	ppb	96
76) N-Butyl Acetate	9.273	43	4723	0.81	ppb	96
77) 1,2-Dibromoethane	9.315	107	2980	0.99	ppb	83
78) Chlorobenzene	9.809	112	7570	0.92	ppb	87
79) 3-CBTF	9.827	180	4151	0.94	ppb	# 91
80) 4-CBTF	9.882	180	3872m	0.96	ppb	
81) 1,1,1,2-Tetrachloroethane	9.894	131	2802	0.95	ppb	93
82) Ethylbenzene	9.931	106	4390	0.96	ppb	# 87
83) (m+p)Xylene	10.041	106	9803	1.78	ppb	92
84) o-Xylene	10.400	106	5138	0.93	ppb	98
85) Styrene	10.413	104	8086	0.87	ppb	88
87) Bromoform	10.565	173	1755	0.97	ppb	84
88) 2-CBTF	10.644	180	3906	0.95	ppb	90
89) Isopropylbenzene	10.736	105	13170	0.97	ppb	93
90) Cyclohexanone	10.797	55	20423	19.77	ppb	95
91) trans-1,4-Dichloro-2-B...	11.053	53	978	0.91	ppb	# 82
92) 1,1,2,2-Tetrachloroethane	10.992	83	4102	1.00	ppb	92
93) Bromobenzene	10.980	156	3547	1.07	ppb	# 71
94) 1,2,3-Trichloropropane	11.022	110	1416	1.06	ppb	93
95) n-Propylbenzene	11.095	91	15294	0.97	ppb	98
96) 2-Chlorotoluene	11.156	91	9992	1.02	ppb	95
97) 3-Chlorotoluene	11.211	91	9846	0.95	ppb	97
98) 4-Chlorotoluene	11.248	91	10775	0.95	ppb	97
99) 1,3,5-Trimethylbenzene	11.248	105	10889	0.96	ppb	89
100) tert-Butylbenzene	11.516	119	8854	0.90	ppb	90
101) 1,2,4-Trimethylbenzene	11.559	105	9946	0.87	ppb	92
102) 3,4-DCBTF	11.620	214	2773	0.85	ppb	# 93
103) sec-Butylbenzene	11.699	105	13514	0.94	ppb	98
104) p-Isopropyltoluene	11.821	119	10672	0.88	ppb	93
105) 1,3-Dichlorobenz	11.784	146	5907	0.93	ppb	86
106) 1,4-Dichlorobenz	11.857	146	6523	0.98	ppb	89
107) 2,4-DCBTF	11.912	214	3106	1.02	ppb	# 90

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest
Sample : 1.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:49:20 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
108) 2,5-DCBTF	11.949	214	2824	0.87	ppb	# 81
109) n-Butylbenzene	12.156	91	10165	0.90	ppb	96
110) 1,2-Dclbenz	12.156	146	5863	0.93	ppb	84
111) 1,2-Dibromo-3-chloropr...	12.778	157	1271	1.23	ppb	81
112) Trielution Dichlorotol...	12.900	125	16807	2.71	ppb	92
113) 1,3,5 Trichlorobenzene	12.955	180	4049	0.82	ppb	# 80
114) Coelution Dichlorotoluene	13.229	125	11563	1.76	ppb	97
115) 1,2,4-Tcbenzene	13.443	180	3678	0.80	ppb	87
116) Hexachlorobt	13.577	225	1668	0.78	ppb	91
117) Naphthalen	13.625	128	10607	0.84	ppb	96
118) 1,2,3-Tclbenzene	13.820	180	3810	0.86	ppb	90
119) 2,4,5-Trichlorotolene	14.394	159	1480	0.55	ppb	# 76
120) 2,3,6-Trichlorotoluene	14.491	159	1149	0.47	ppb	# 86

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

```

/Data File : P15151.D
Acq On : 29 Dec 2017 5:44 pm
Operator : K.Ruest

```

Inst : MSVOA-12

2
FALS Vial : 3 Sample Multiplier: 1

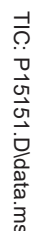
Quant Time: Jan 02 10:49:20 2018

Quant Method : I:\ACQDATA\msvoal2\Methods\W122917.M

Quant Title : MS#12 - 8260B WATERS 10mL Purge

QLast Update : Tue Jan 02 09:43:32 2018

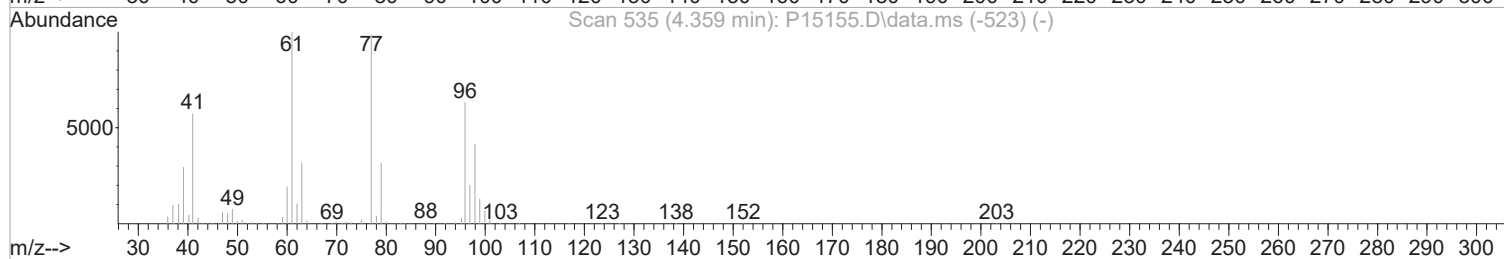
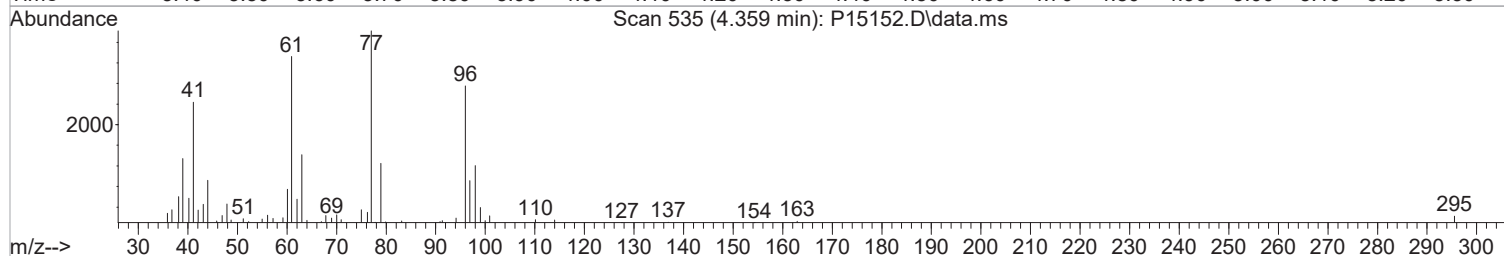
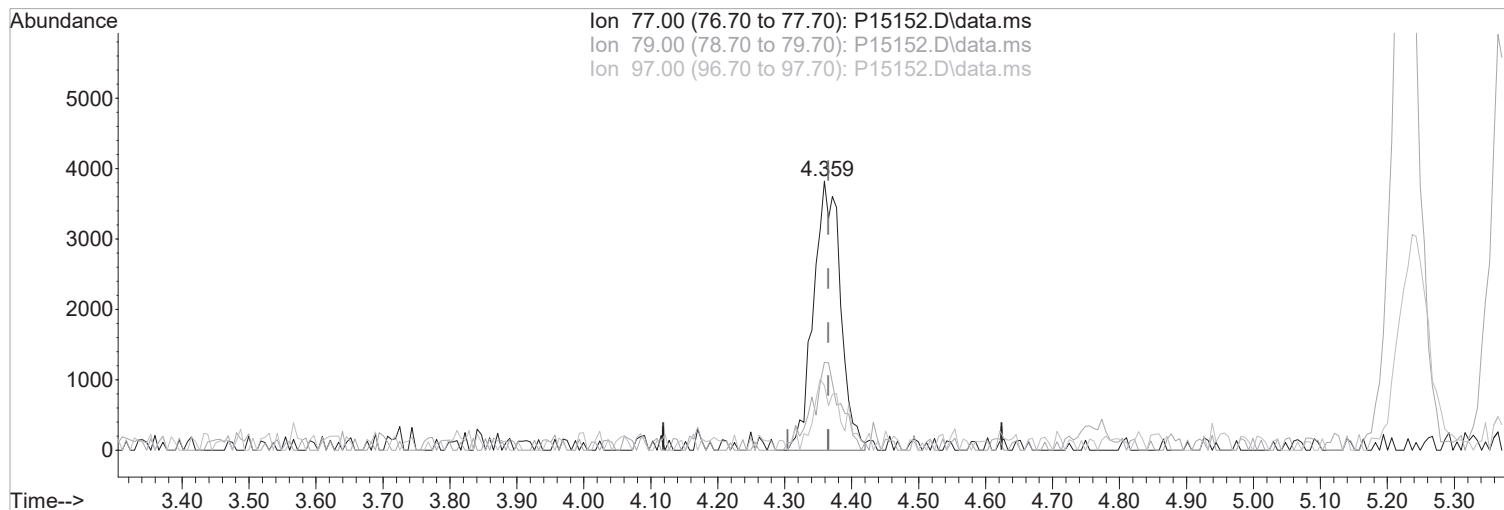
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(33) 2,2-Dichloropropane

4.359min (-0.006) 2.15 ppb m

response 10714

Ion	Exp%	Act%
77.00	100	100
79.00	32.10	32.71
97.00	20.60	23.93
0.00	0.00	0.00

Manual Integration:

After

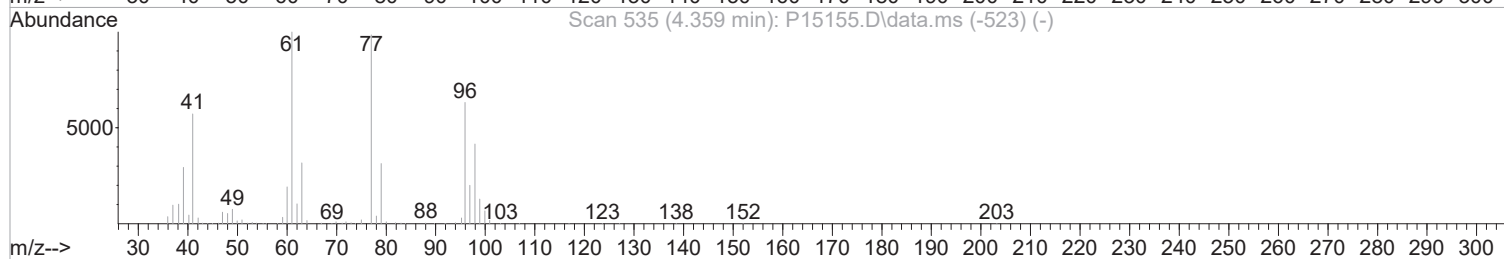
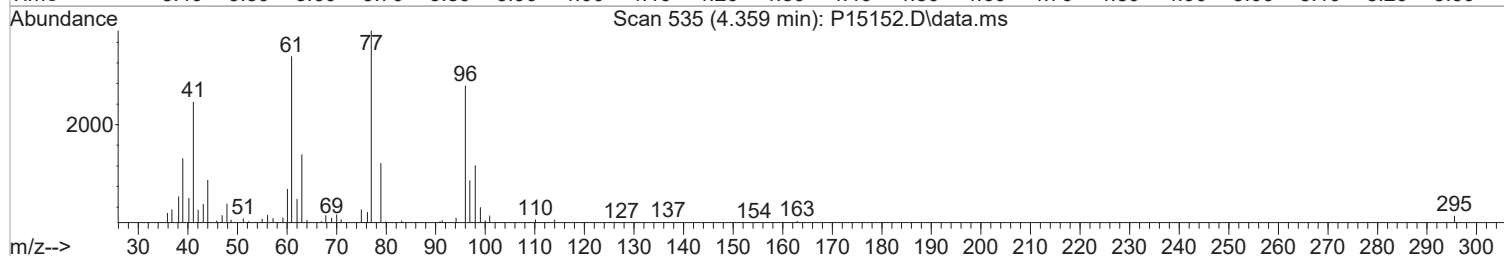
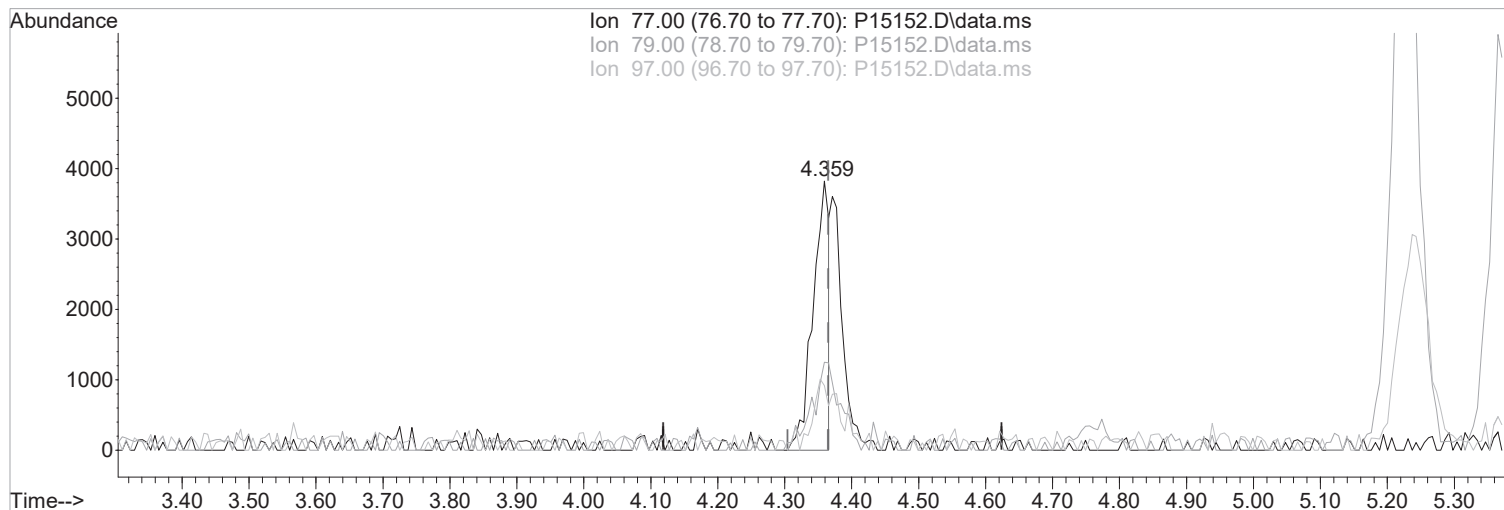
Split Peak

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(33) 2,2-Dichloropropane

Manual Integration:

4.359min (-0.006) 1.27 ppb

Before

response 6313

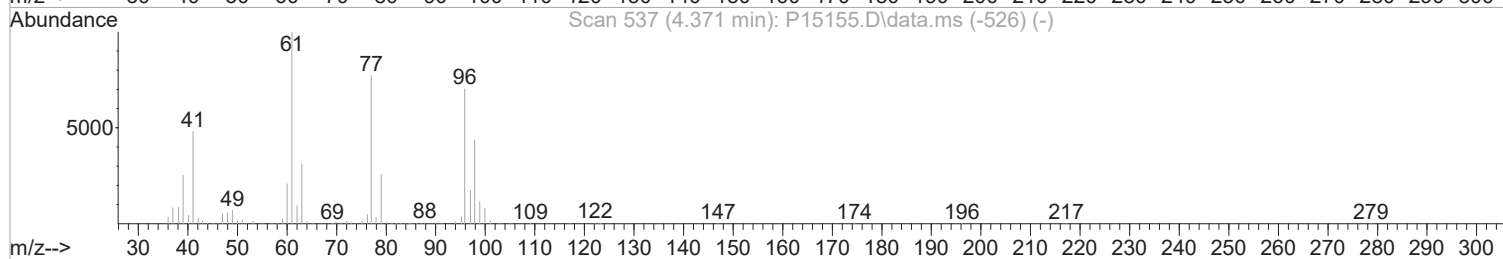
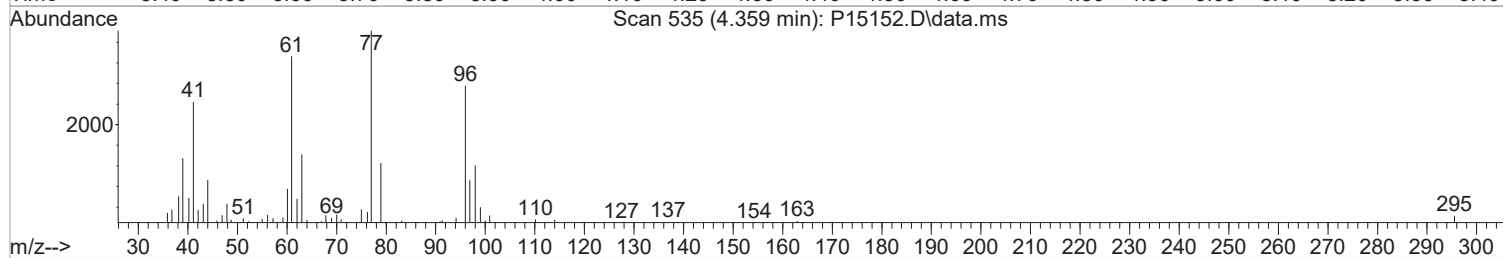
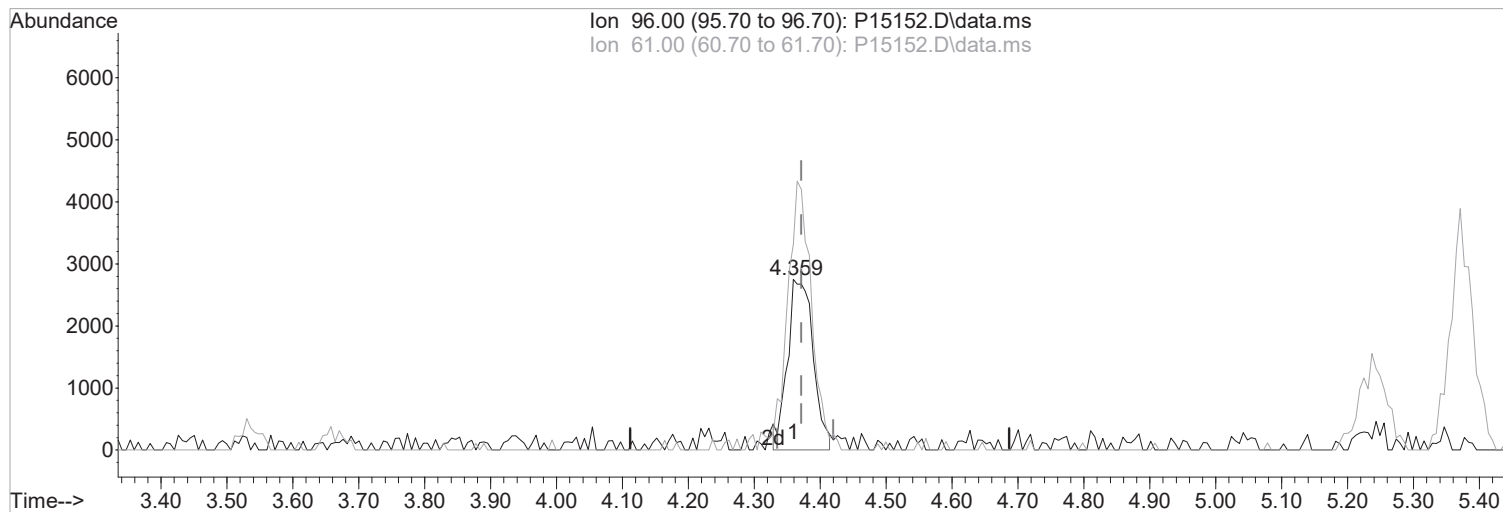
Ion	Exp%	Act%
77.00	100	100
79.00	32.10	32.71
97.00	20.60	23.93
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(34) cis-1,2-Dichloroethene (P)

4.359min (-0.012) 2.01 ppb m

response 7407

Ion	Exp%	Act%
96.00	100	100
61.00	142.80	120.72#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

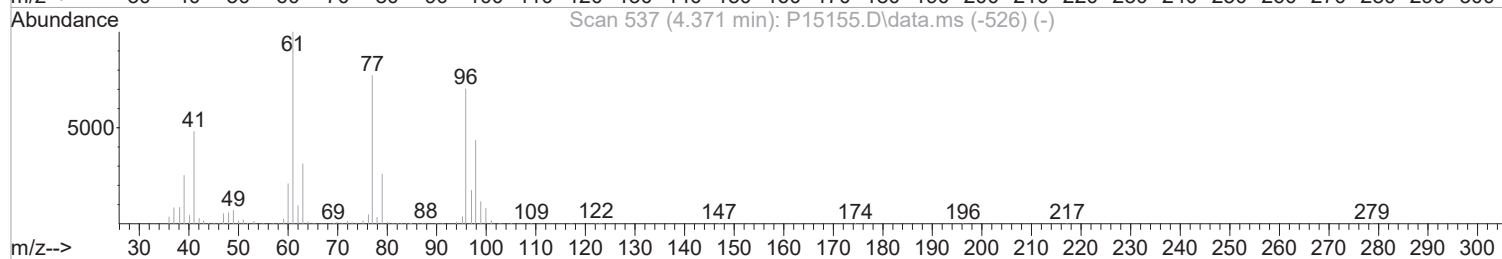
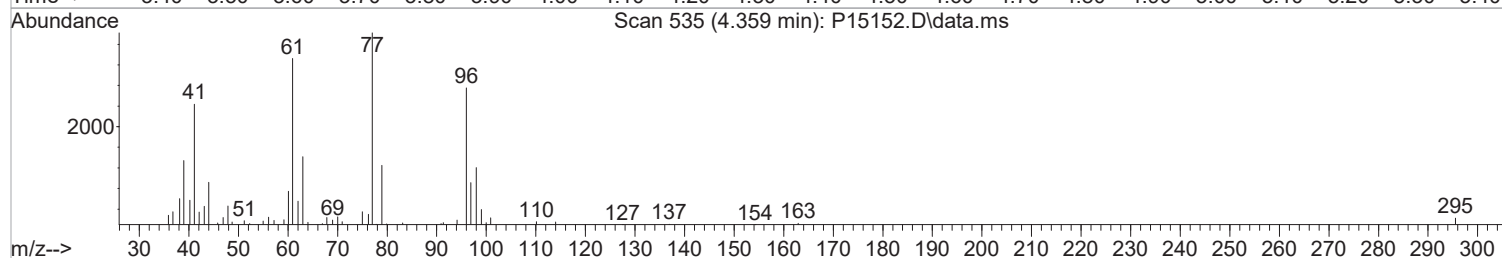
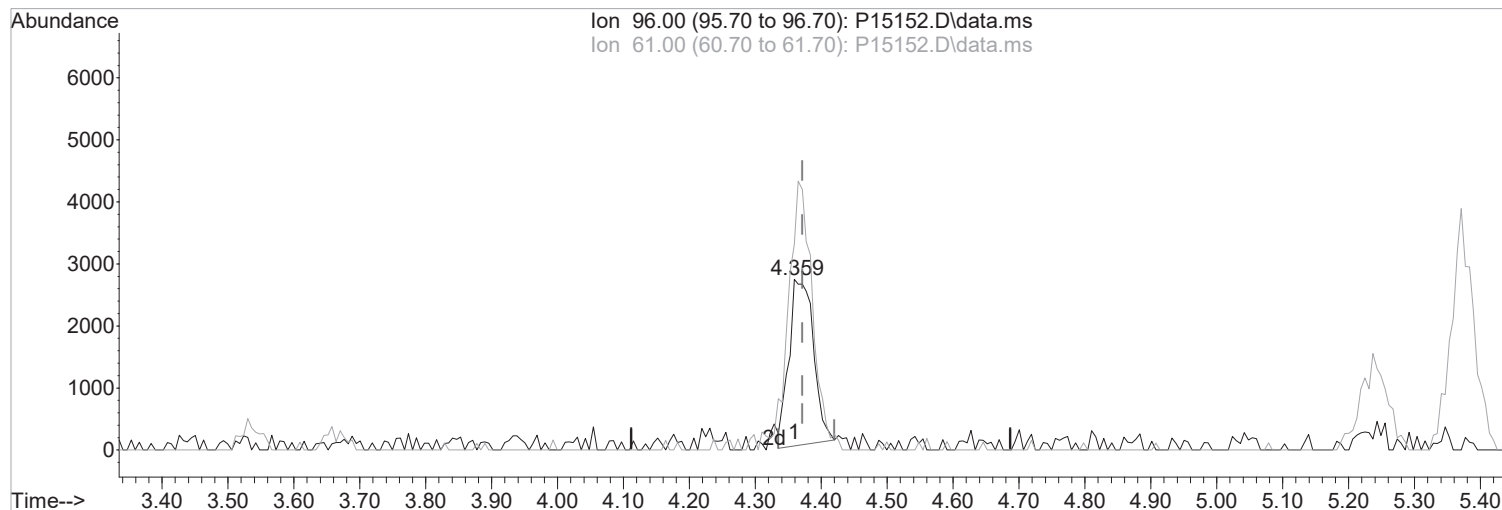
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(34) cis-1,2-Dichloroethene (P)

Manual Integration:

4.359min (-0.012) 1.87 ppb

Before

response 6877

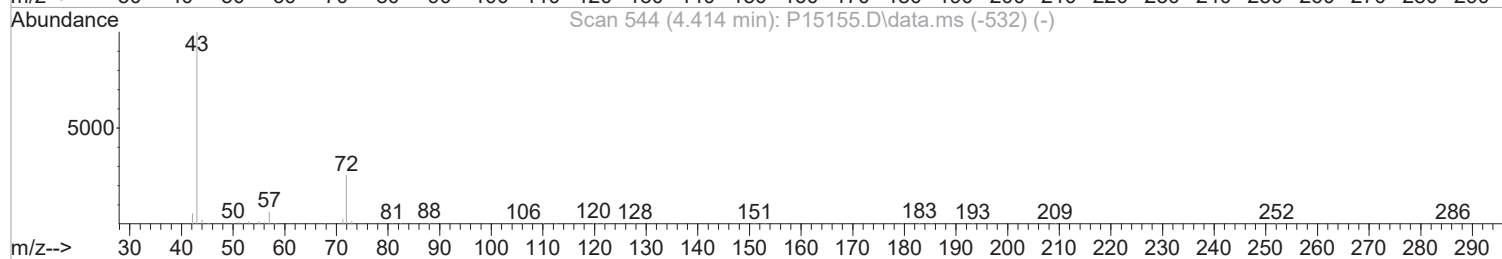
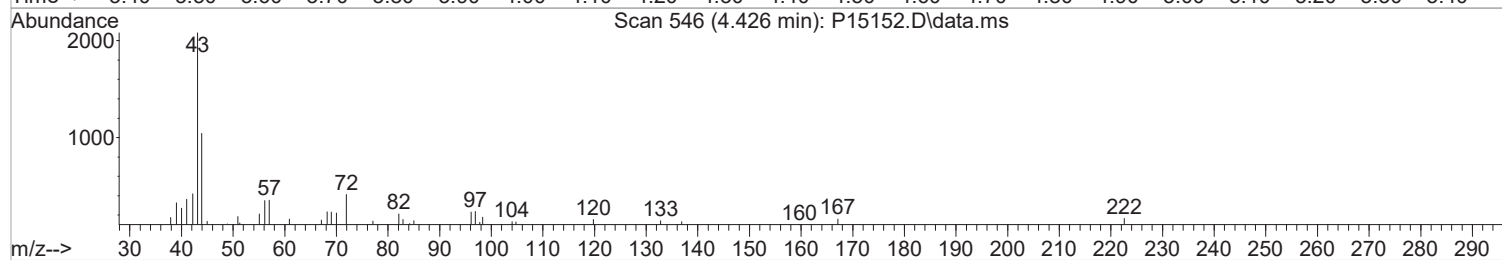
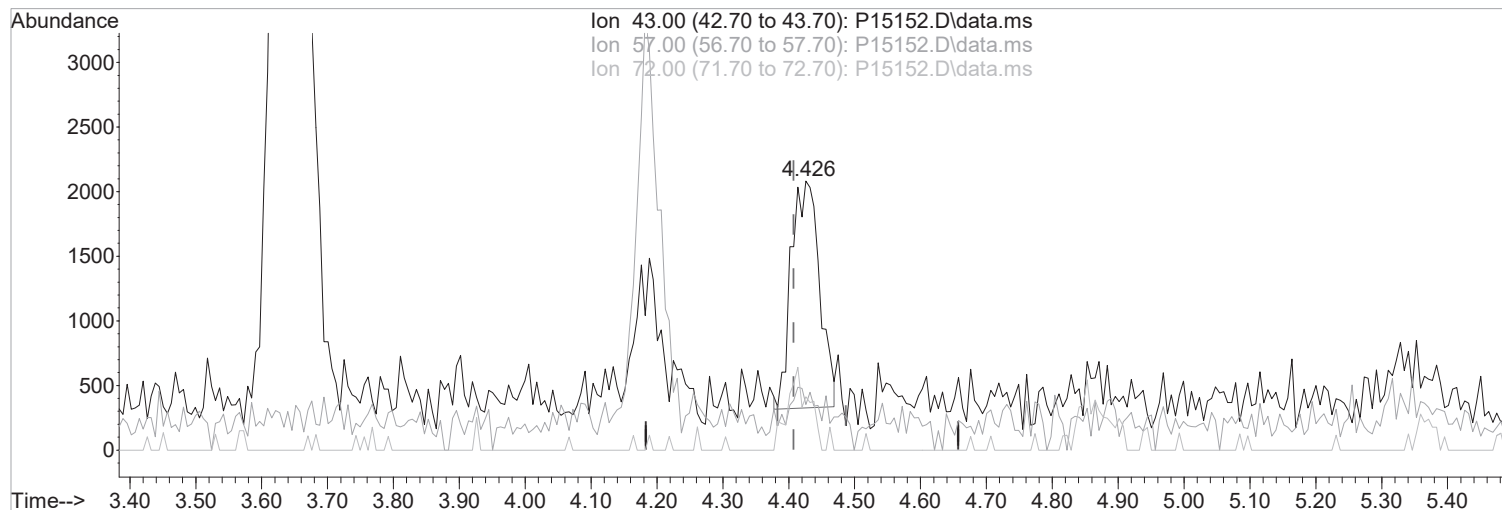
Ion	Exp%	Act%
96.00	100	100
61.00	142.80	120.72#
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(35) 2-Butanone (P)

4.426min (+0.018) 2.34 ppb m

response 5215

Ion	Exp%	Act%
43.00	100	100
57.00	6.70	17.00
72.00	26.10	19.84
0.00	0.00	0.00

Manual Integration:

After

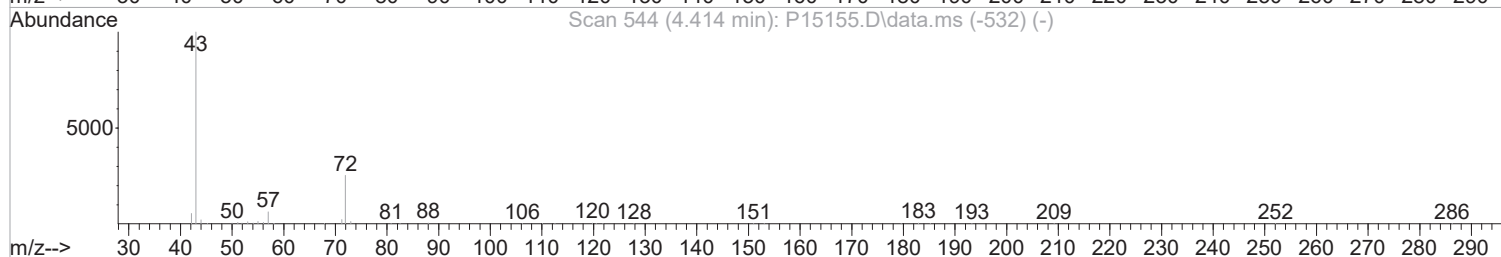
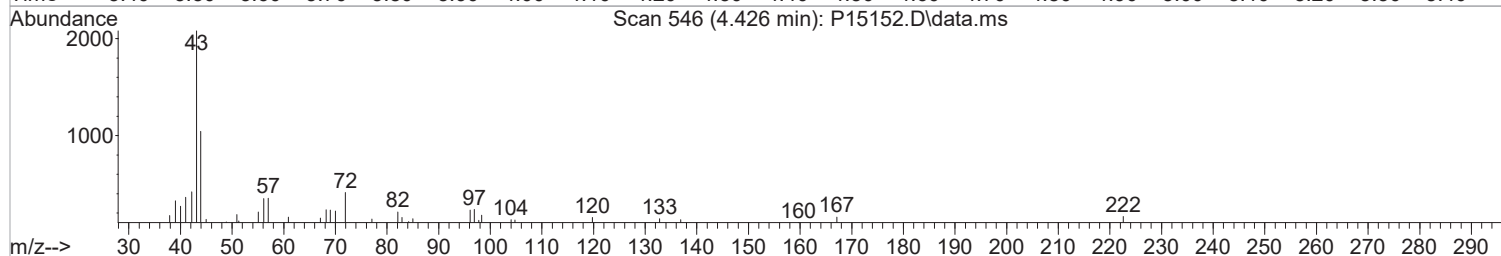
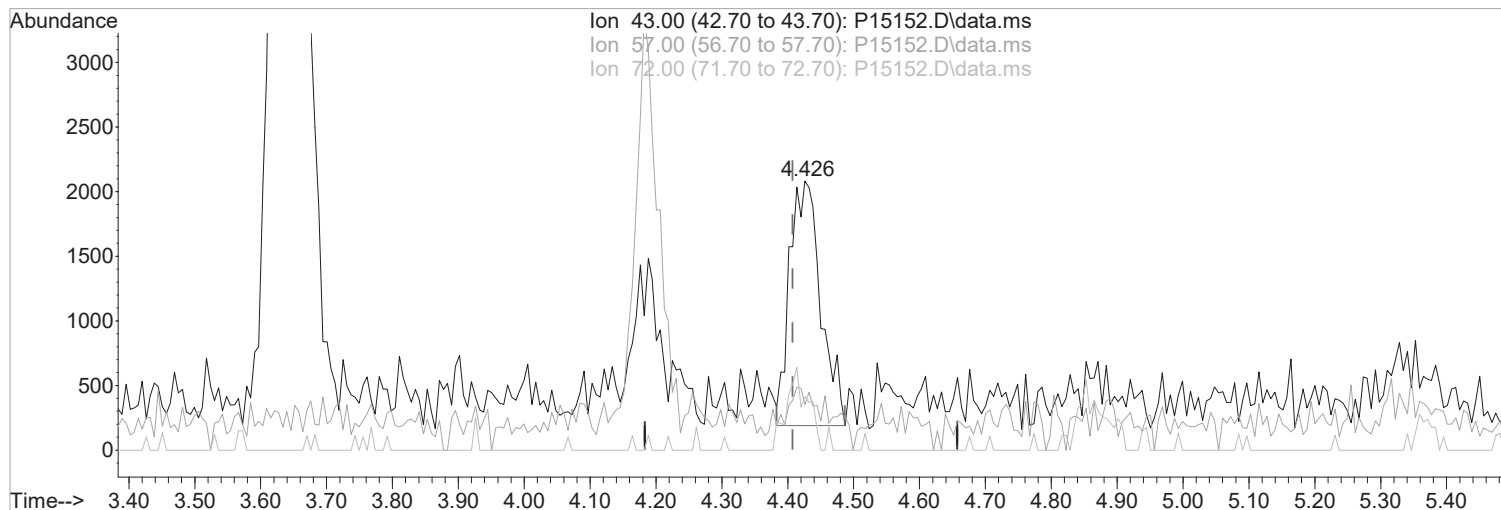
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(35) 2-Butanone (P)

Manual Integration:

4.426min (+0.018) 2.77 ppb

Before

response 6181

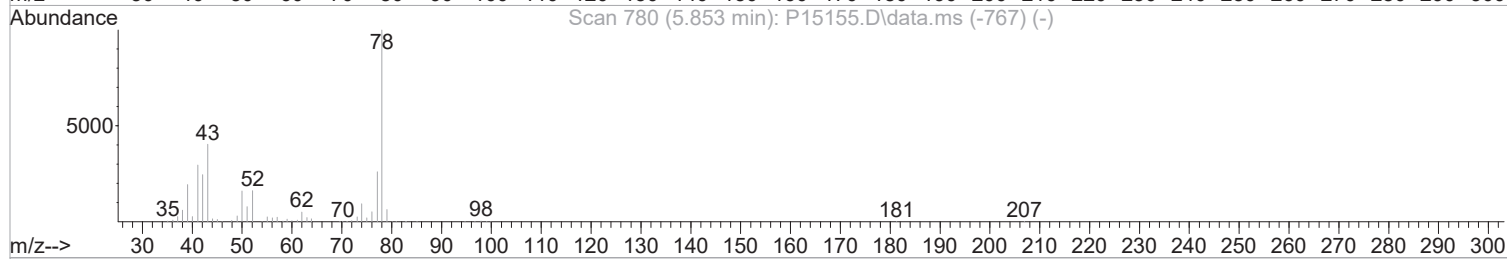
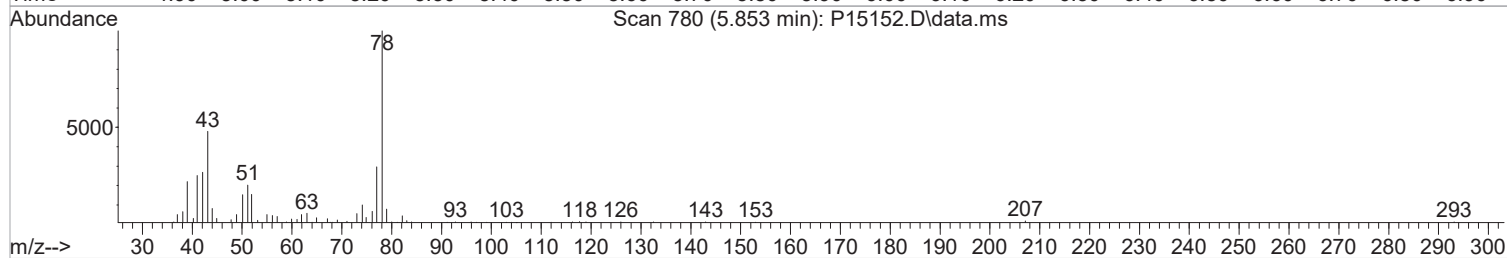
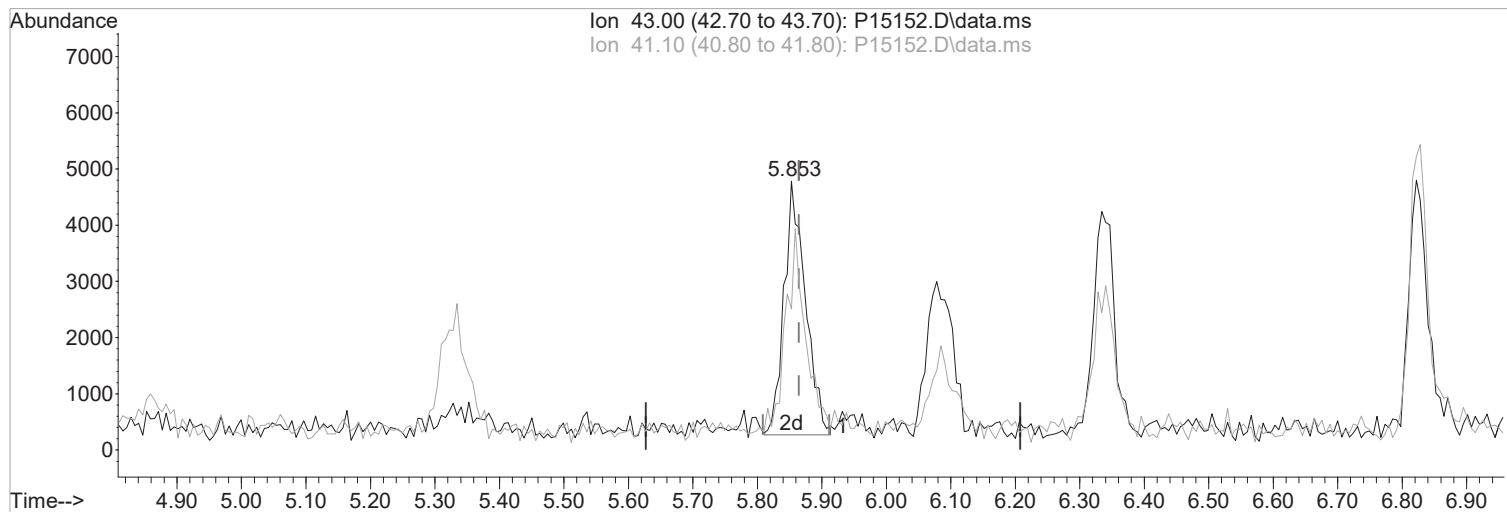
Ion	Exp%	Act%
43.00	100	100
57.00	6.70	17.00
72.00	26.10	19.84
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(51) Iso-Butyl Alcohol

5.853min (-0.012) 41.65 ppb m

response 10416

Ion	Exp%	Act%
43.00	100	100
41.10	73.30	52.44#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

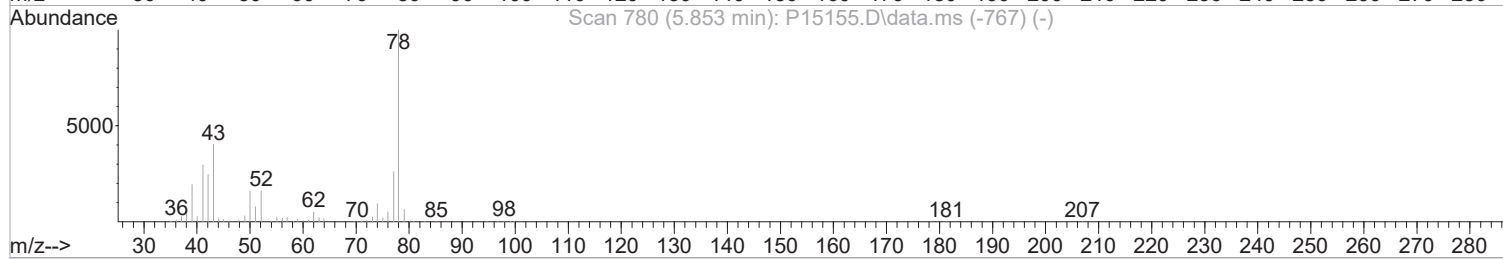
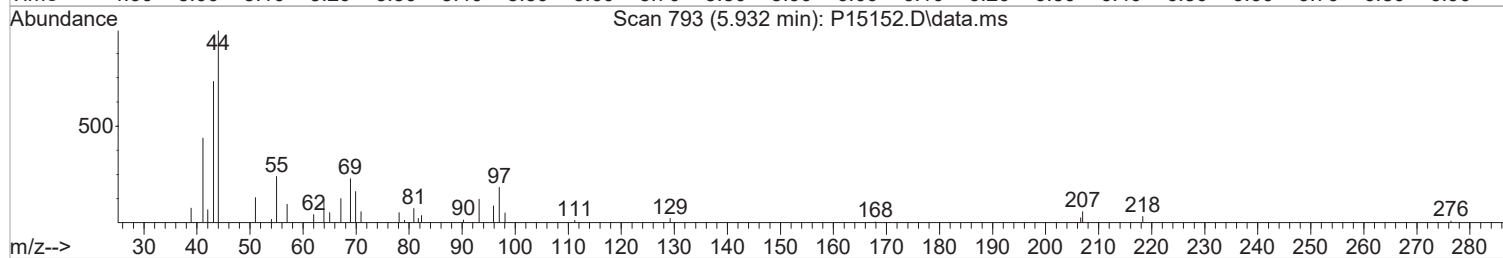
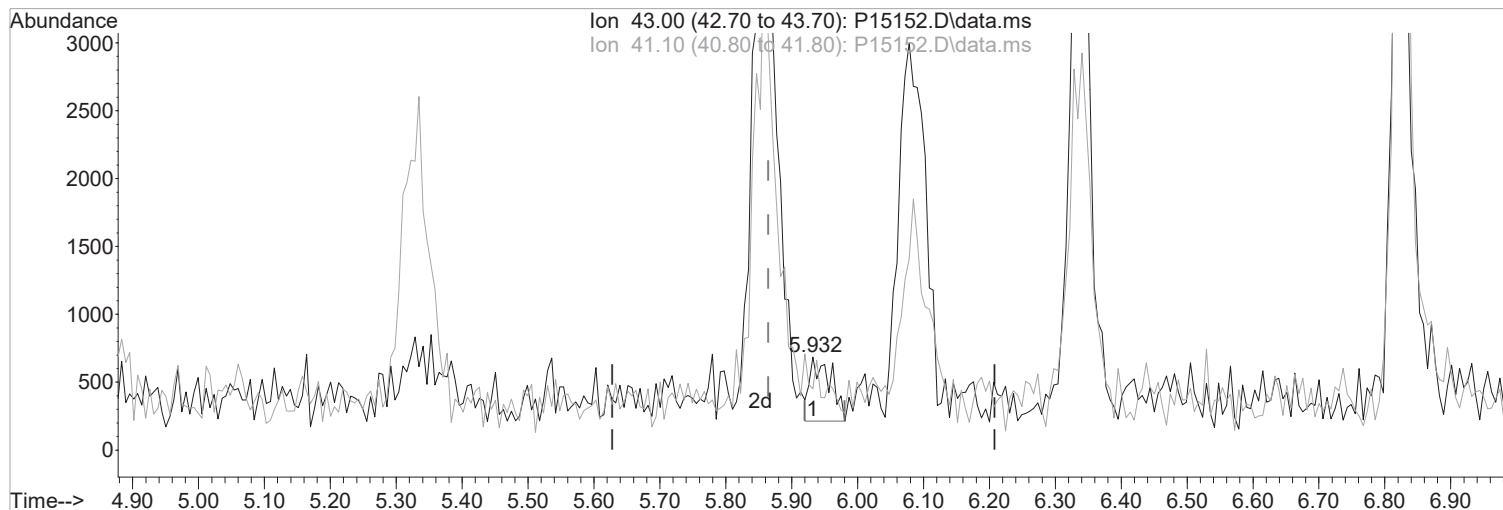
Peak not found.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(51) Iso-Butyl Alcohol

Manual Integration:

5.932min (+0.067) 4.12 ppb

Before

response 1031

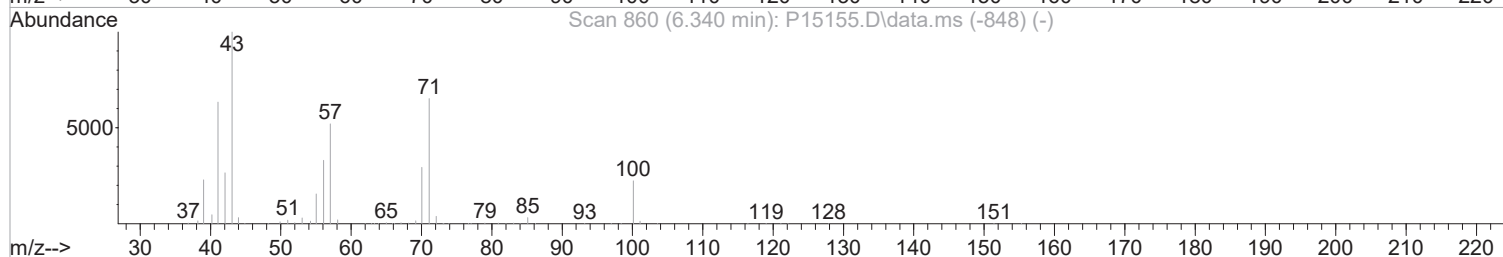
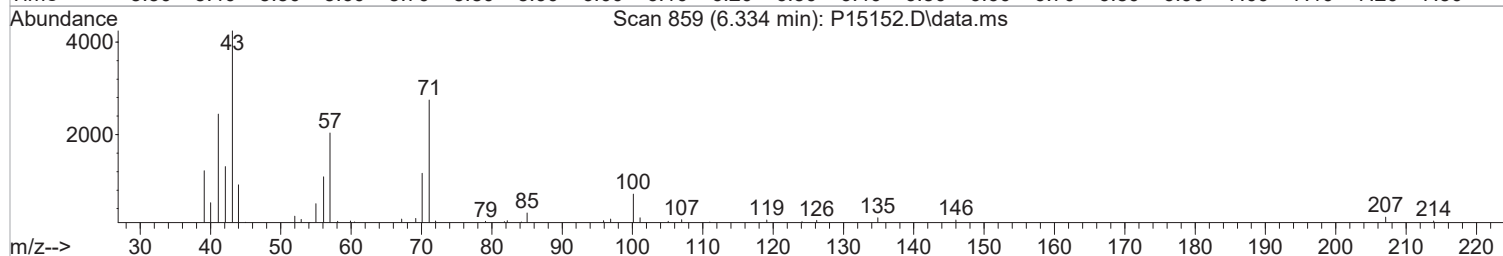
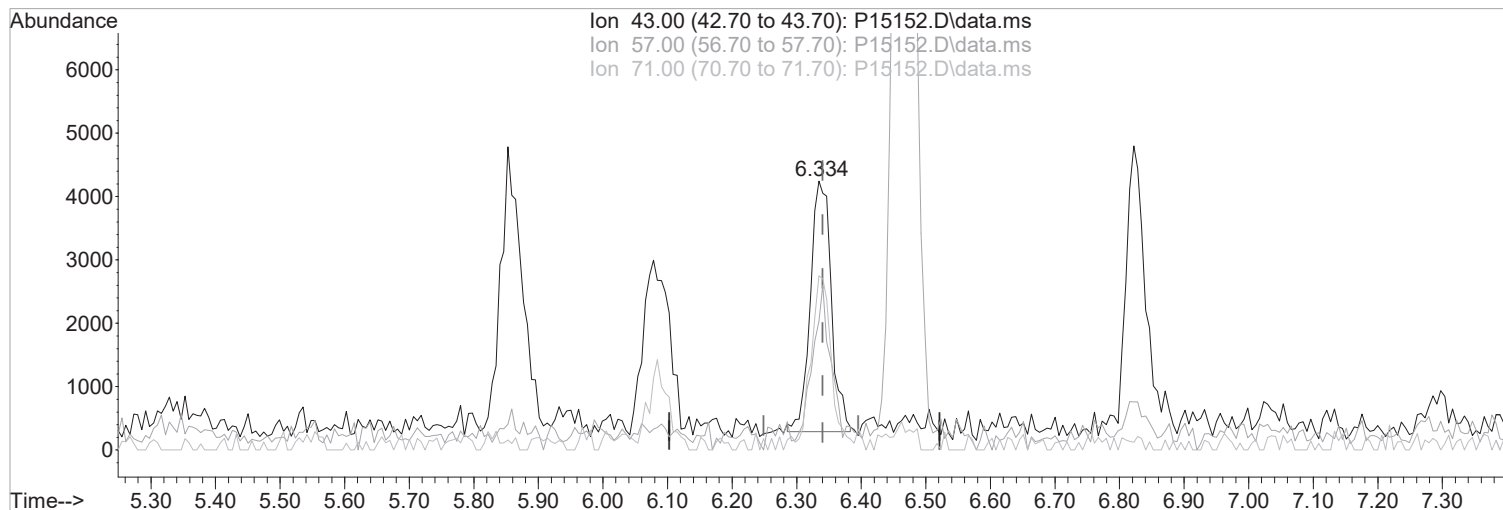
Ion	Exp%	Act%
43.00	100	100
41.10	73.30	65.84
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(52) n-Heptane

6.334min (-0.006) 2.08 ppb m

response 8868

Ion	Exp%	Act%
43.00	100	100
57.00	52.10	47.87
71.00	65.30	64.81
0.00	0.00	0.00

Manual Integration:

After

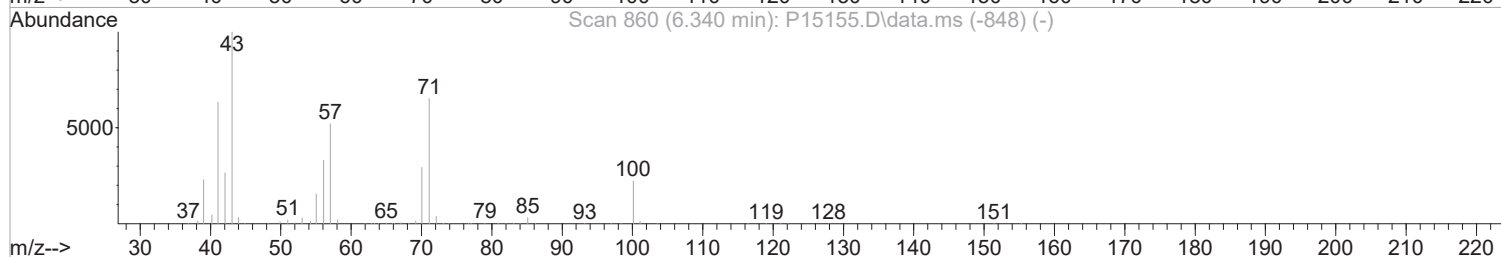
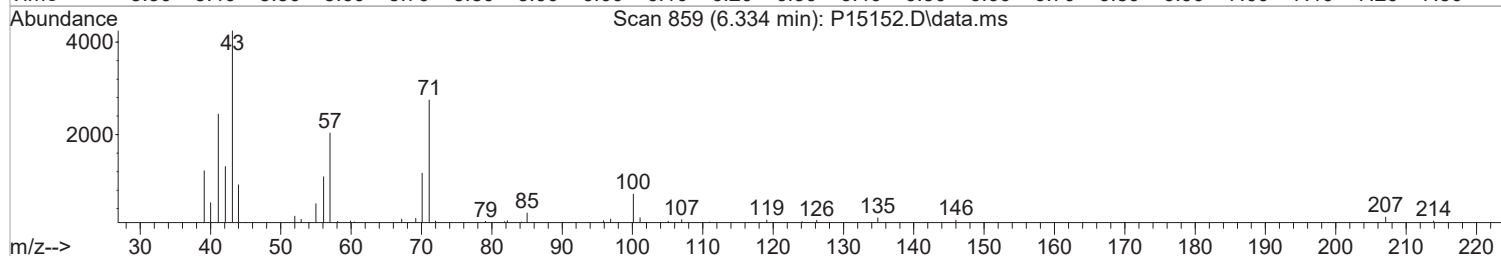
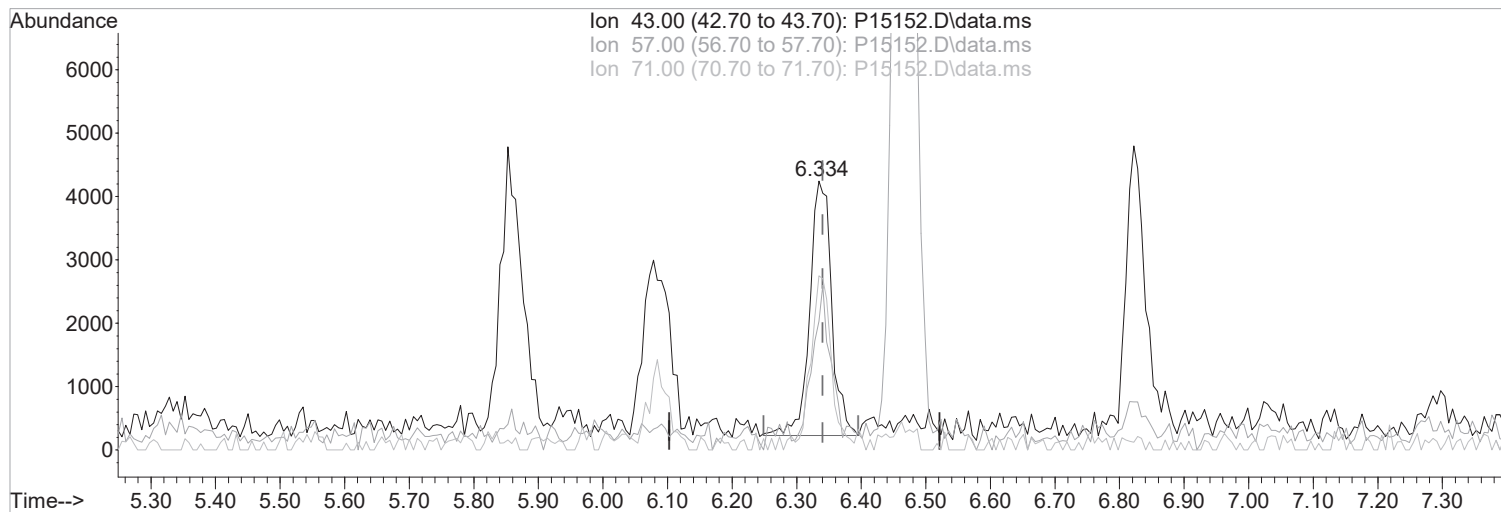
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:44 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15152.D\data.ms

(52) n-Heptane

Manual Integration:

6.334min (-0.006) 2.21 ppb

Before

response 9450

Ion	Exp%	Act%
43.00	100	100
57.00	52.10	47.87
71.00	65.30	64.81
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15152.D
 Acq On : 29 Dec 2017 6:06 pm
 Operator : K.Ruest
 Sample : 2.0ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:27:18 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.371	168	290921	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	471936	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	416493	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	202842	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	140691	50.21	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	100.42%	
48) surr1,1,2-dichloroetha...	5.767	65	192694	50.18	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	100.36%	
65) SURR3,Toluene-d8	8.291	98	616679	49.29	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	98.58%	
70) SURR2,BFB	10.858	95	234627	48.47	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	96.94%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.183	85	6164	1.72	ppb	95
3) Chloromethane	1.305	50	9252	2.09	ppb	87
4) Vinyl Chloride	1.384	62	8466	1.96	ppb	76
5) Bromomethane	1.610	94	7983	2.44	ppb	92
6) Chloroethane	1.683	64	6348	2.36	ppb	81
7) Freon 21	1.835	67	10821	1.93	ppb	88
8) Trichlorofluoromethane	1.884	101	8938	2.15	ppb	92
9) Diethyl Ether	2.116	59	6309	2.19	ppb	90
10) Freon 123a	2.116	67	6930	1.99	ppb	92
11) Freon 123	2.170	83	7698	1.89	ppb	94
12) Acrolein	2.213	56	8734	10.15	ppb	78
13) 1,1-Dicethene	2.305	96	5689	1.90	ppb	94
14) Freon 113	2.311	101	5879	2.08	ppb	80
15) Acetone	2.347	43	4395	2.49	ppb	93
16) 2-Propanol	2.475	45	14316	42.06	ppb	97
17) Iodomethane	2.445	142	891	0.33	ppb	100
18) Carbon Disulfide	2.494	76	17215	1.98	ppb	99
19) Acetonitrile	2.603	40	2940	9.82	ppb	95
20) Allyl Chloride	2.634	76	3647	2.29	ppb	# 86
21) Methyl Acetate	2.658	43	6838	2.16	ppb	93
22) Methylene Chloride	2.743	84	6734	2.14	ppb	93
23) TBA	2.872	59	24620	41.97	ppb	96
24) Acrylonitrile	3.000	53	17097	10.04	ppb	96
25) Methyl-t-Butyl Ether	3.048	73	22969	2.14	ppb	96
26) trans-1,2-Dichloroethene	3.042	96	6244	2.00	ppb	99
28) 1,1-Dicethane	3.530	63	11380	2.03	ppb	96
29) Vinyl Acetate	3.627	86	1385	1.51	ppb	# 46
30) DIPE	3.664	45	21975	2.06	ppb	90
31) 2-Chloro-1,3-Butadiene	3.658	53	10830	2.00	ppb	90
32) ETBE	4.194	59	22402	2.08	ppb	100
33) 2,2-Dichloropropane	4.359	77	10714m	2.15	ppb	
34) cis-1,2-Dichloroethene	4.359	96	7407m	2.01	ppb	
35) 2-Butanone	4.426	43	5215m	2.34	ppb	
36) Propionitrile	4.493	54	7461	10.31	ppb	75
37) Bromochloromethane	4.767	130	4174	2.06	ppb	88
38) Methacrylonitrile	4.767	67	3561	1.90	ppb	97
39) Tetrahydrofuran	4.871	42	2476	1.90	ppb	69
40) Chloroform	4.938	83	12891	2.12	ppb	94
41) 1,1,1-Trichloroethane	5.237	97	9664	2.02	ppb	94

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15152.D
 Acq On : 29 Dec 2017 6:06 pm
 Operator : K.Ruest
 Sample : 2.0ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:27:18 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	21979	2.09	ppb	94
44) Cyclohexane	5.334	41	6707	2.18	ppb	99
46) Carbontetrachloride	5.517	117	7282	2.06	ppb	83
47) 1,1-Dichloropropene	5.530	75	9048	2.18	ppb	85
49) Benzene	5.847	78	25719	2.09	ppb	98
50) 1,2-Dichloroethane	5.883	62	9372	2.07	ppb	96
51) Iso-Butyl Alcohol	5.853	43	10416m	41.65	ppb	
52) n-Heptane	6.334	43	8868m	2.08	ppb	
53) 1-Butanol	6.828	56	17334	104.77	ppb	94
54) Trichloroethene	6.798	130	5834	1.85	ppb	# 71
55) Methylcyclohexane	7.035	55	8960	2.18	ppb	# 80
56) 1,2-Dicloropropane	7.072	63	7144	2.17	ppb	93
57) Dibromomethane	7.218	93	4230	2.15	ppb	98
58) 1,4-Dioxane	7.279	88	2348	36.17	ppb	91
59) Methyl Methacrylate	7.310	69	5422	1.79	ppb	94
60) Bromodichloromethane	7.444	83	8837	2.12	ppb	92
61) 2-Nitropropane	7.730	41	6265	4.94	ppb	92
62) 2-Chloroethylvinyl Ether	7.858	63	1336	1.79	ppb	74
63) cis-1,3-Dichloropropene	7.992	75	9647	1.85	ppb	96
64) 4-Methyl-2-pentanone	8.200	43	8444	2.10	ppb	87
66) Toluene	8.364	91	28677	2.14	ppb	97
67) trans-1,3-Dichloropropene	8.633	75	9847	2.02	ppb	93
68) Ethyl Methacrylate	8.773	69	9763	1.99	ppb	96
69) 1,1,2-Trichloroethane	8.815	97	6436	2.12	ppb	84
72) Tetrachloroethene	8.956	164	4879	2.12	ppb	# 88
73) 2-Hexanone	9.114	43	6125	2.00	ppb	100
74) 1,3-Dichloropropane	8.992	76	11726	2.19	ppb	99
75) Dibromochloromethane	9.218	129	5554	1.99	ppb	96
76) N-Butyl Acetate	9.267	43	11696	2.03	ppb	91
77) 1,2-Dibromoethane	9.315	107	5958	2.01	ppb	90
78) Chlorobenzene	9.809	112	16904	2.07	ppb	95
79) 3-CBTF	9.827	180	8895	2.04	ppb	96
80) 4-CBTF	9.882	180	8674	2.18	ppb	94
81) 1,1,1,2-Tetrachloroethane	9.895	131	5961	2.06	ppb	96
82) Ethylbenzene	9.931	106	9782	2.17	ppb	99
83) (m+p)Xylene	10.041	106	23814	4.37	ppb	91
84) o-Xylene	10.401	106	11433	2.09	ppb	96
85) Styrene	10.413	104	18180	1.98	ppb	96
87) Bromoform	10.565	173	3828	2.16	ppb	85
88) 2-CBTF	10.644	180	9285	2.31	ppb	# 94
89) Isopropylbenzene	10.736	105	28652	2.15	ppb	93
90) Cyclohexanone	10.797	55	45829	45.20	ppb	96
91) trans-1,4-Dichloro-2-B...	11.047	53	2048	1.94	ppb	84
92) 1,1,2,2-Tetrachloroethane	10.992	83	7917	1.97	ppb	89
93) Bromobenzene	10.980	156	7311	2.24	ppb	94
94) 1,2,3-Trichloropropane	11.022	110	2631	2.01	ppb	# 87
95) n-Propylbenzene	11.095	91	32706	2.11	ppb	95
96) 2-Chlorotoluene	11.156	91	20465	2.13	ppb	95
97) 3-Chlorotoluene	11.211	91	23266	2.30	ppb	97
98) 4-Chlorotoluene	11.248	91	24143	2.17	ppb	98
99) 1,3,5-Trimethylbenzene	11.248	105	23960	2.15	ppb	94
100) tert-Butylbenzene	11.516	119	21124	2.20	ppb	95
101) 1,2,4-Trimethylbenzene	11.559	105	25245	2.26	ppb	99
102) 3,4-DCBTF	11.620	214	7094	2.21	ppb	93
103) sec-Butylbenzene	11.705	105	29905	2.11	ppb	96
104) p-Isopropyltoluene	11.827	119	26248	2.20	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15152.D
Acq On : 29 Dec 2017 6:06 pm
Operator : K.Ruest
Sample : 2.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:27:18 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,3-Dclbenz	11.784	146	12674	2.04	ppb	98
106)	1,4-Dclbenz	11.858	146	13809	2.12	ppb	93
107)	2,4-DCBTF	11.912	214	6322	2.13	ppb #	80
108)	2,5-DCBTF	11.949	214	7133	2.24	ppb	88
109)	n-Butylbenzene	12.156	91	22604	2.03	ppb	98
110)	1,2-Dclbenz	12.156	146	12688	2.05	ppb	97
111)	1,2-Dibromo-3-chloropr...	12.784	157	2165	2.14	ppb	95
112)	Trielution Dichlorotol...	12.906	125	37014	6.08	ppb	94
113)	1,3,5 Trichlorobenzene	12.955	180	10137	2.10	ppb	91
114)	Coelution Dichlorotoluene	13.229	125	25573	3.96	ppb	96
115)	1,2,4-Tcbenzene	13.437	180	9011	2.00	ppb	99
116)	Hexachlorobt	13.577	225	4926	2.36	ppb	88
117)	Naphthalen	13.626	128	24217	1.95	ppb	98
118)	1,2,3-Tclbenzene	13.814	180	9296	2.13	ppb	90
119)	2,4,5-Trichlorotolene	14.406	159	3689	1.39	ppb #	91
120)	2,3,6-Trichlorotoluene	14.485	159	3383	1.40	ppb #	86

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

01/02/18

```
%Data Path : I:\ACQUDATA\msvoa12\Data\122917\
%Data File : D1FE1C.D
```

0/10 Acq On : 29 Dec 2017 6:06 pm

Example : 2.0ppb

AISC : 8260 WATER ICAL
 TALS Vial : 4 Sample Multiplier: 1
 2

Inst : MSVOA-12

Quant Time: Jan 02 11:27:18 2018

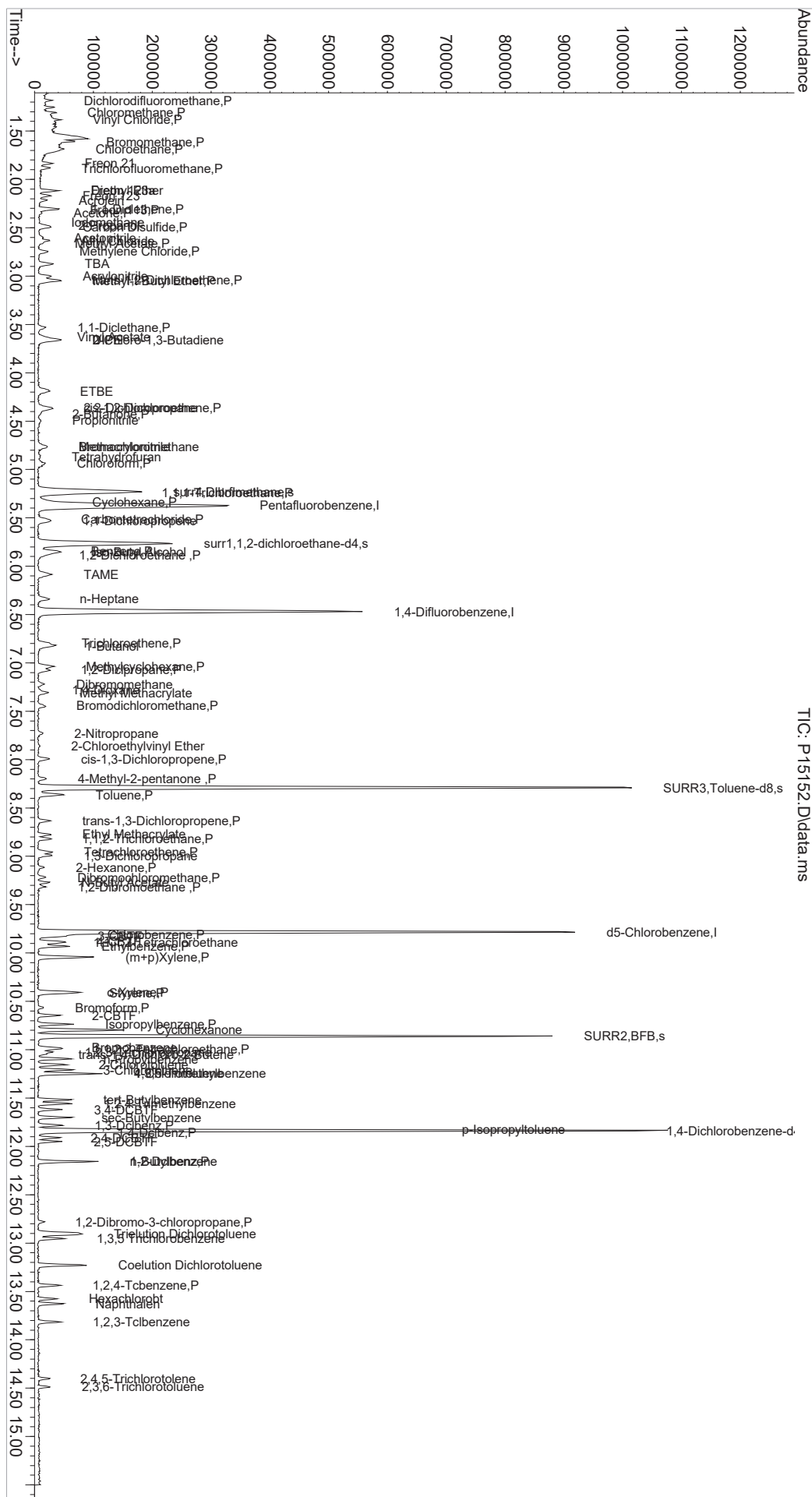
Quant Title : MS#12 - 8260B WATERS 10mL, Purge
Quant Method : I:\ACQ\DATA\msvoa12\Methods\W122917.M

Quant	Title	MS#	Time	Temp	Flow	Pressure	Volume	Conc	Dilution	Notes
	MS#12 - 8260B WATERS 10mL Purge		00:00:43	30.0	0.1	10.0	10.0			

```

qlast update : Tue Jan 02 09:43:32
Response via : Initial Calibration

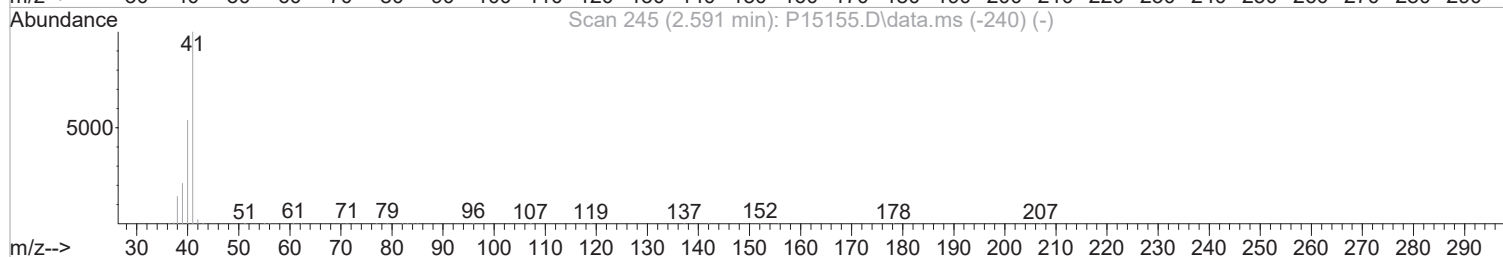
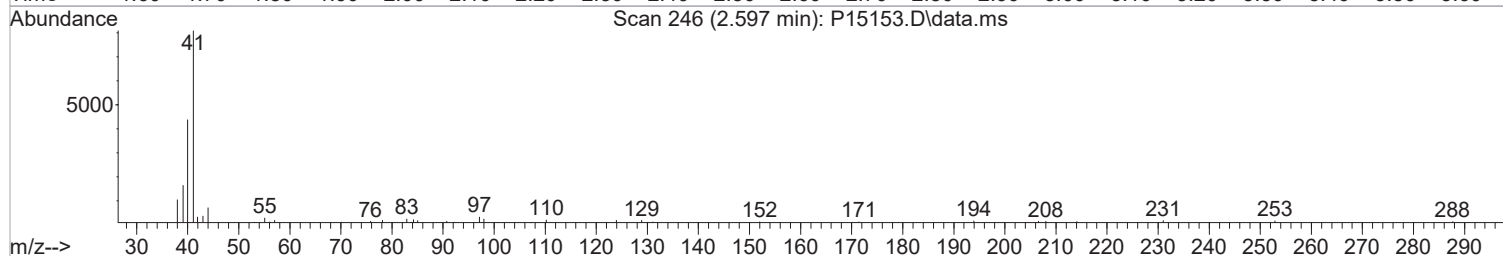
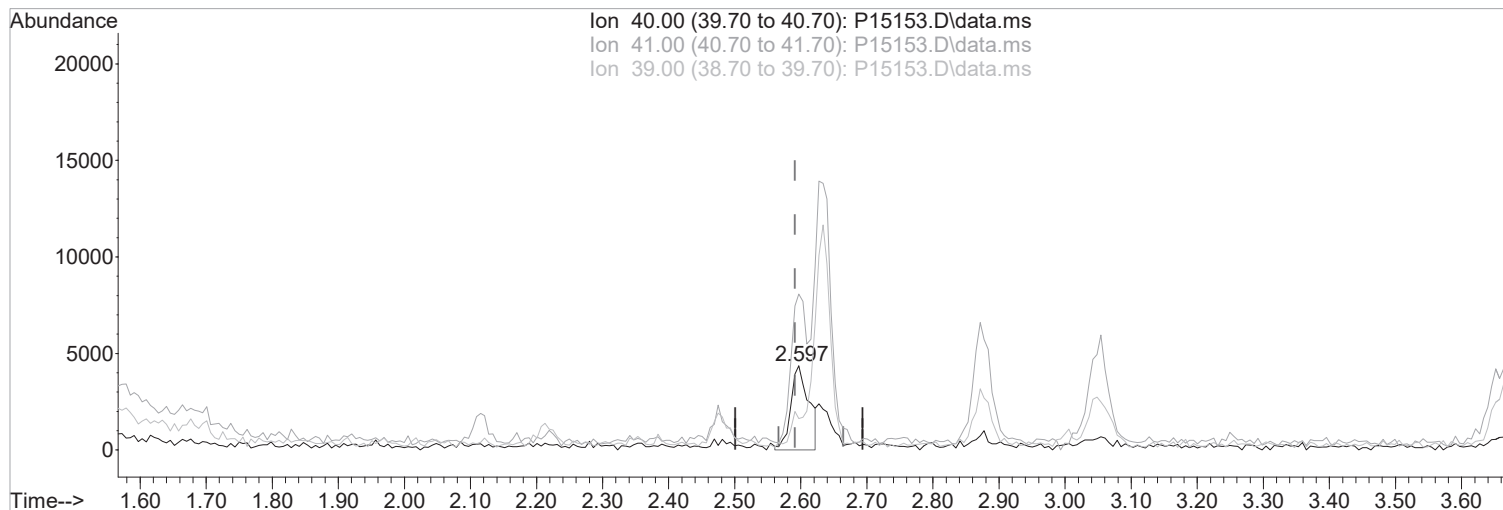
```



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15153.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 28.53 ppb m

response 8323

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	184.90
39.00	40.10	37.44
0.00	0.00	0.00

Manual Integration:

After

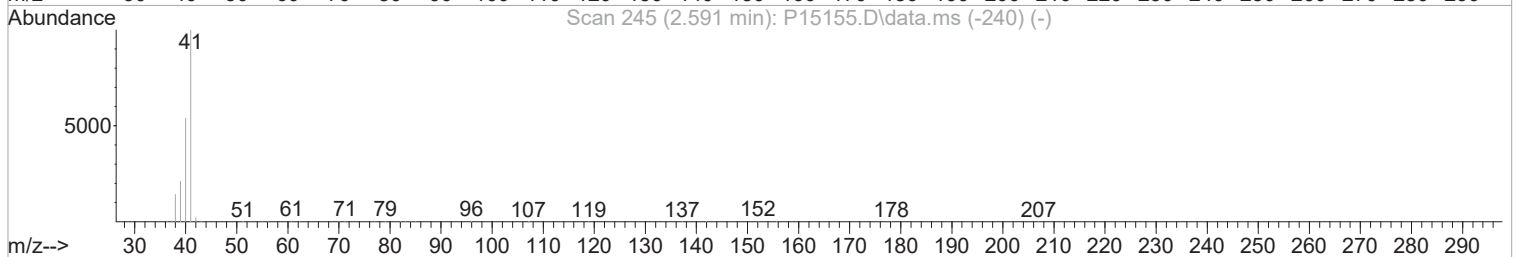
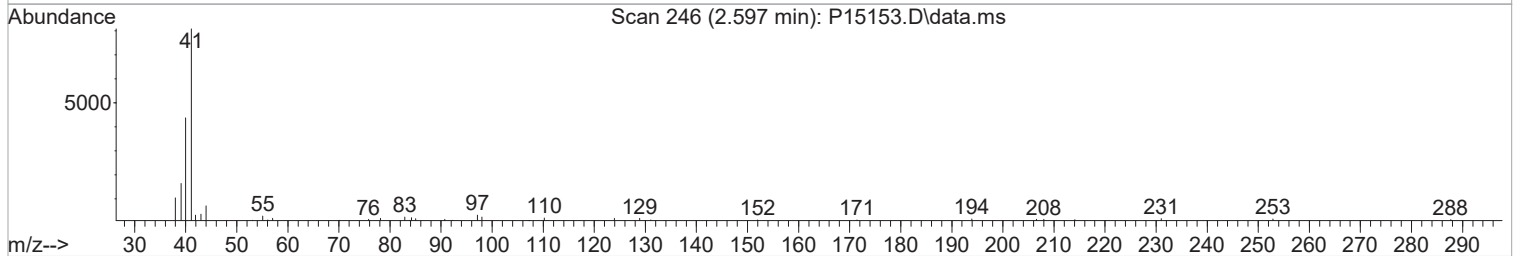
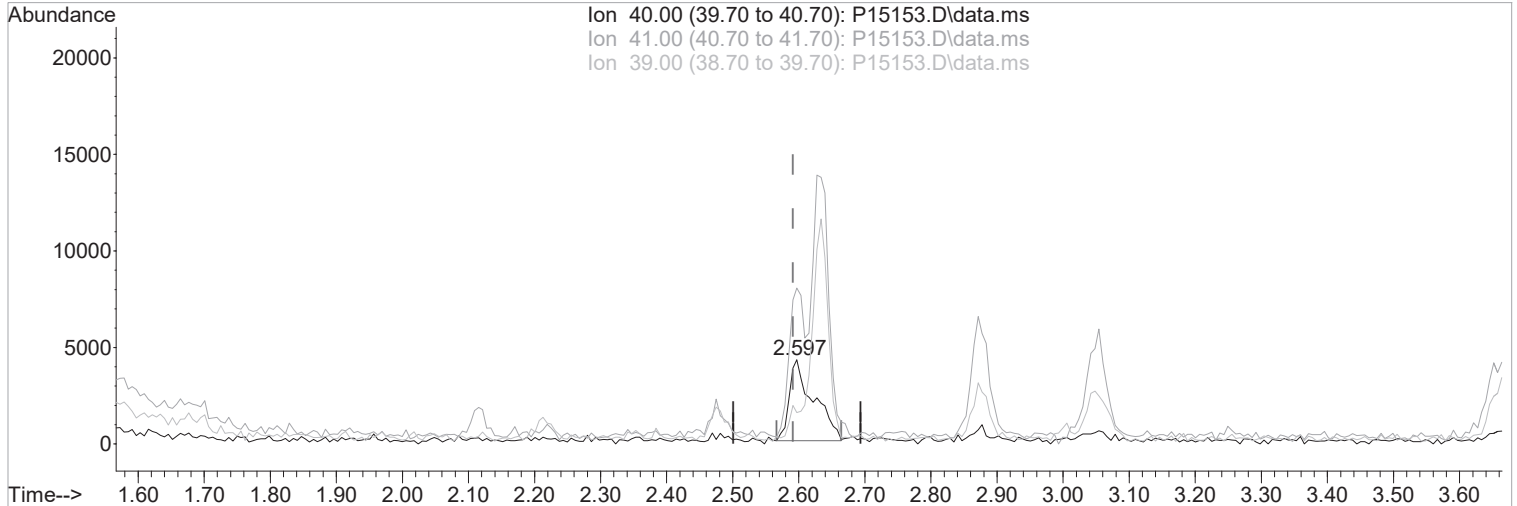
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15153.D\data.ms

(19) Acetonitrile

Manual Integration:

2.597min (+0.006) 36.98 ppb

Before

response 10787

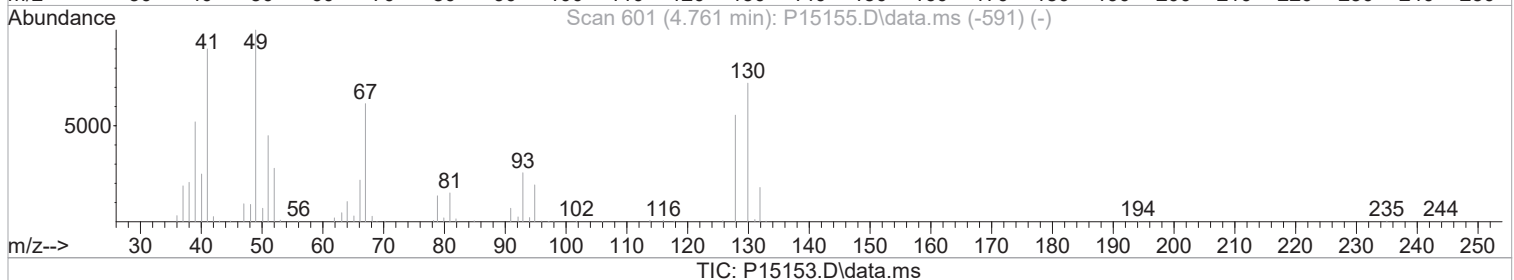
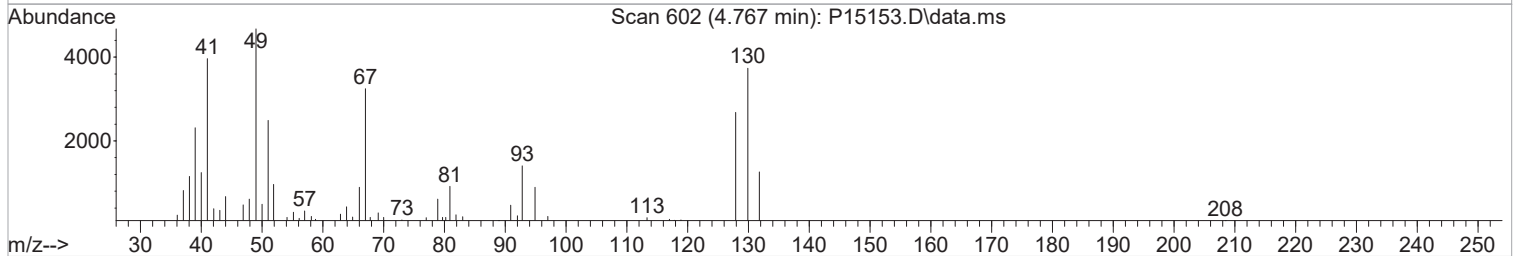
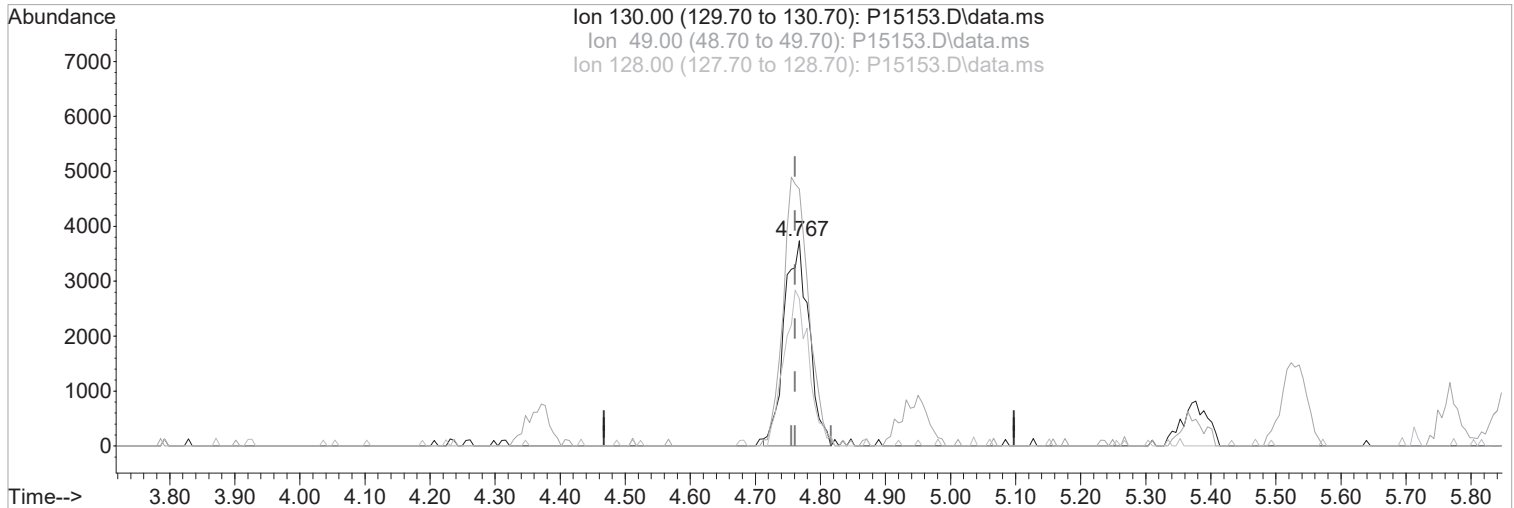
Ion	Exp%	Act%
40.00	100	100
41.00	186.50	184.90
39.00	40.10	37.44
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



(37) Bromochloromethane

Manual Integration:

4.767min (+0.006) 5.02 ppb m

After

response 9891

Split Peak

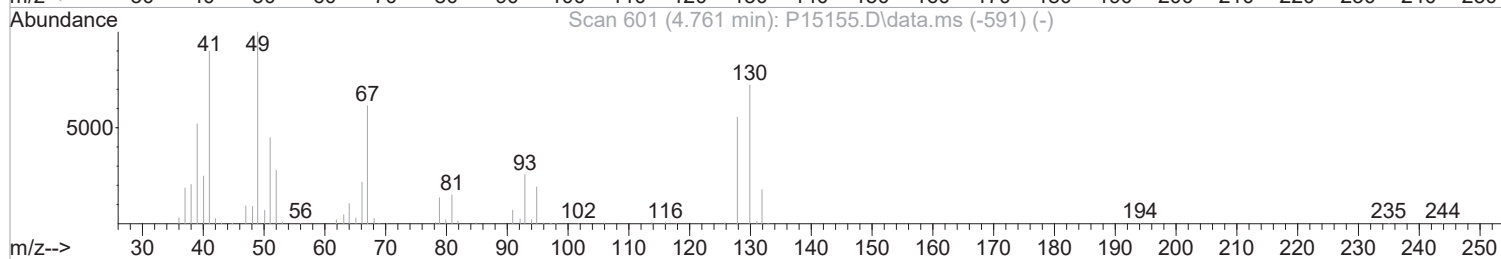
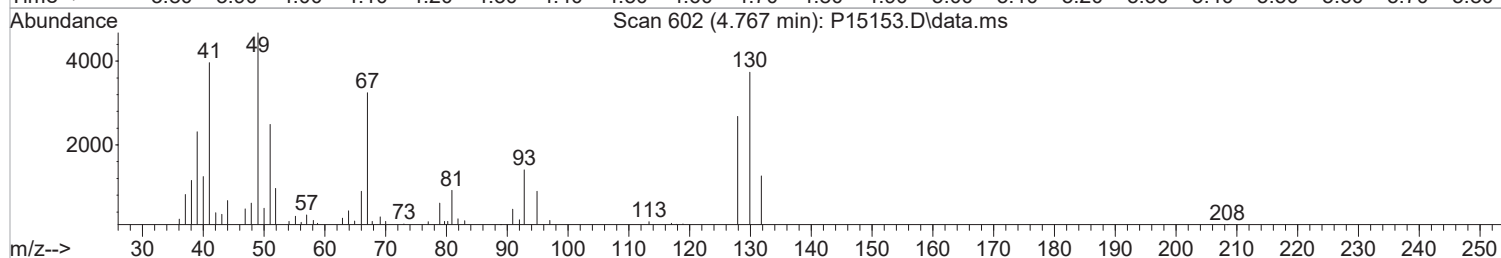
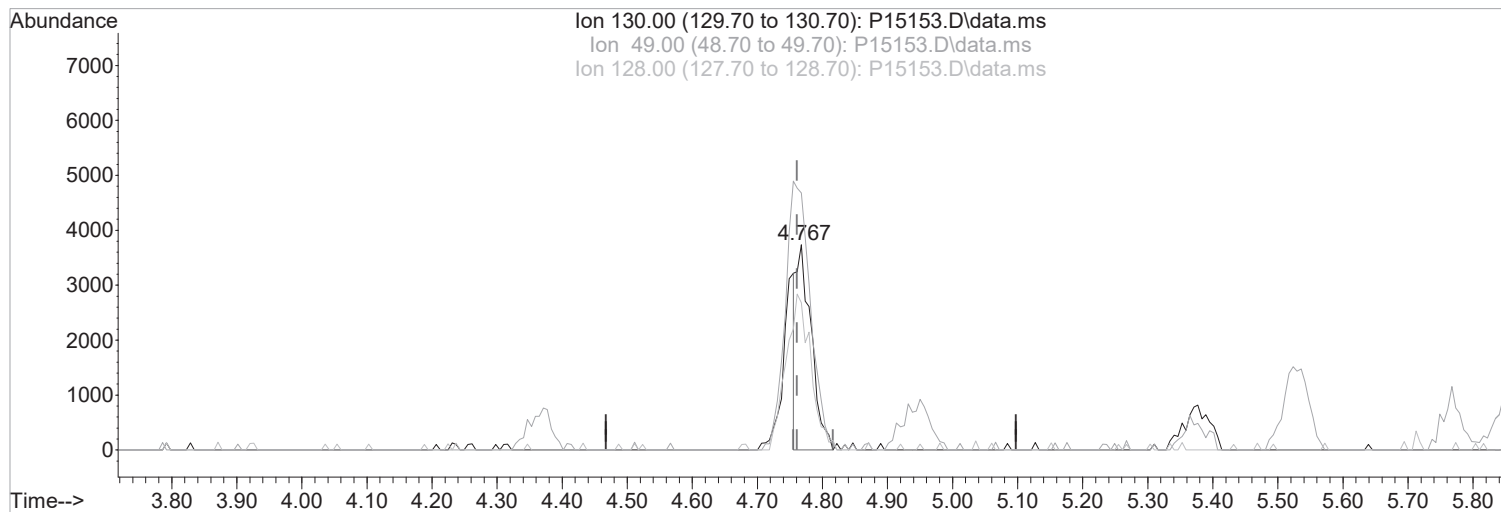
Ion	Exp%	Act%
130.00	100	100
49.00	139.00	125.22
128.00	77.10	71.83
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15153.D\data.ms

(37) Bromochloromethane

Manual Integration:

4.767min (+0.006) 3.03 ppb

Before

response 5965

Ion	Exp%	Act%

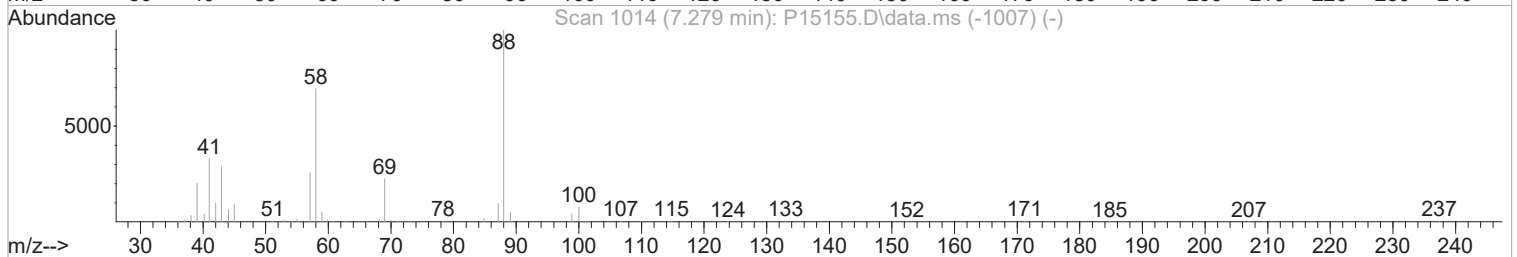
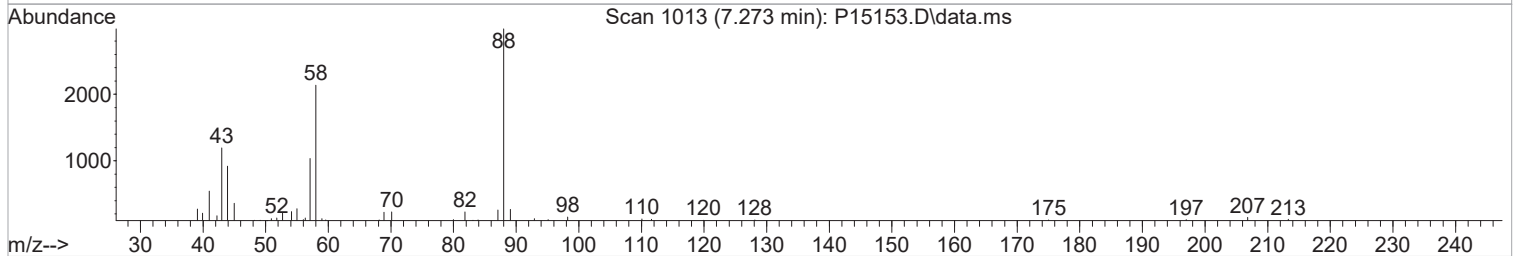
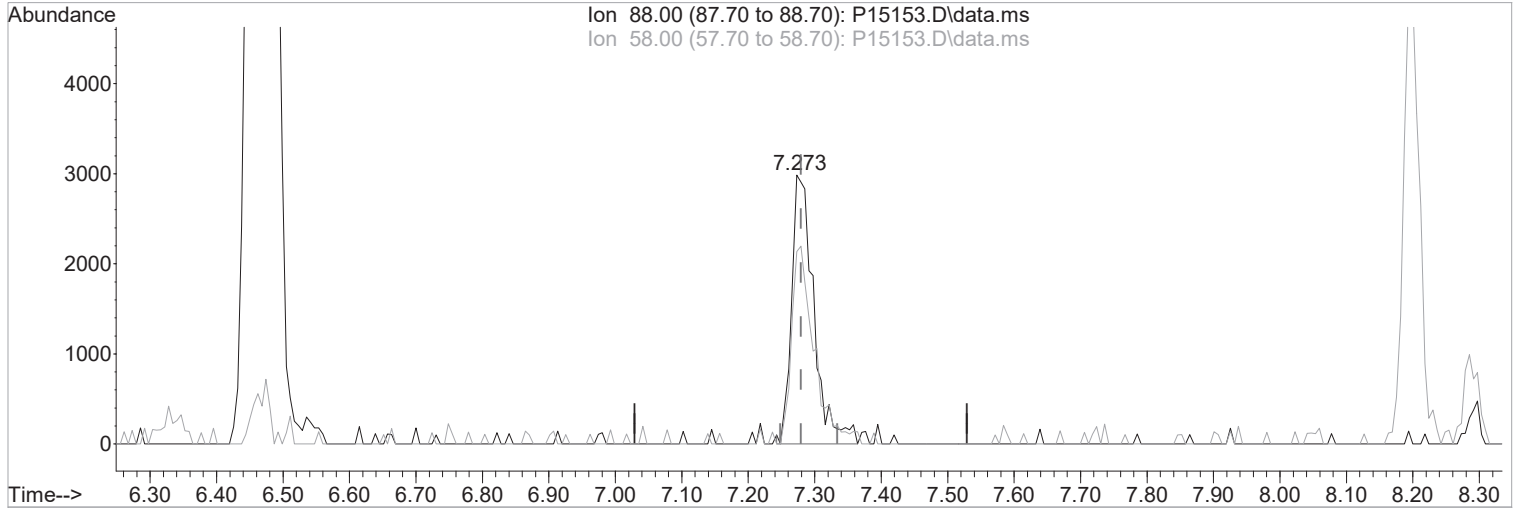
01/02/18

130.00	100	100
49.00	139.00	125.22
128.00	77.10	71.83
0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15153.D\data.ms

(58) 1,4-Dioxane

7.273min (-0.006) 108.11 ppb m

response 6912

Ion	Exp%	Act%
88.00	100	100
58.00	70.00	71.57
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

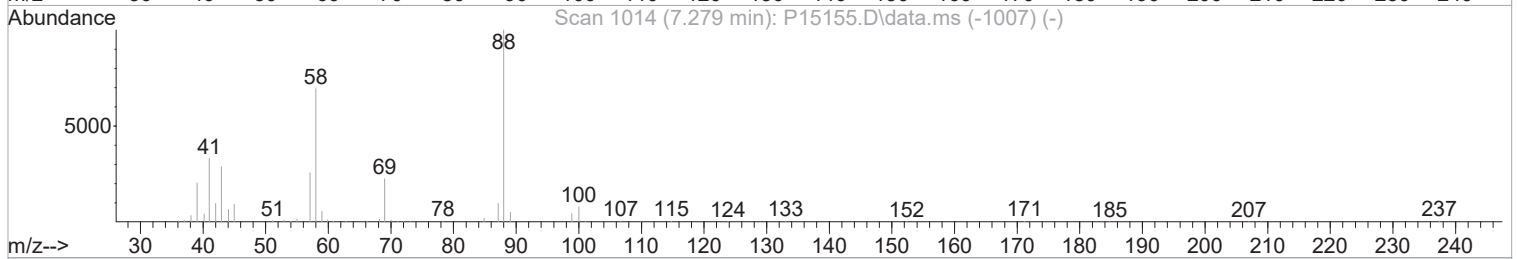
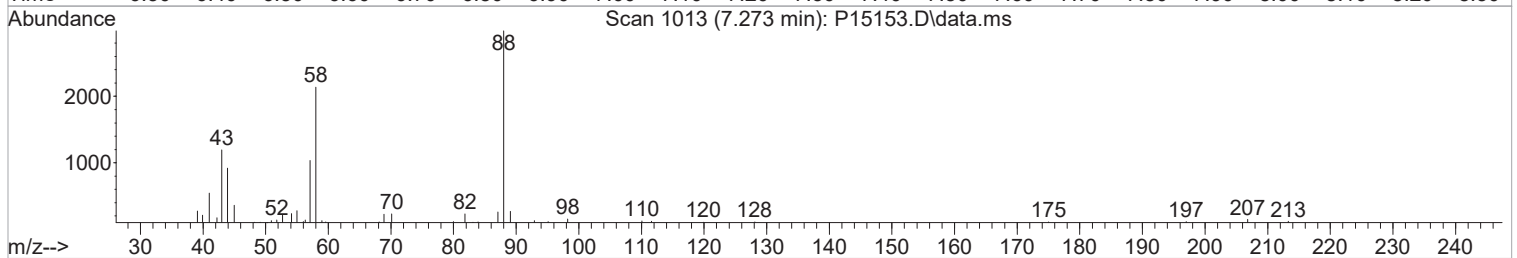
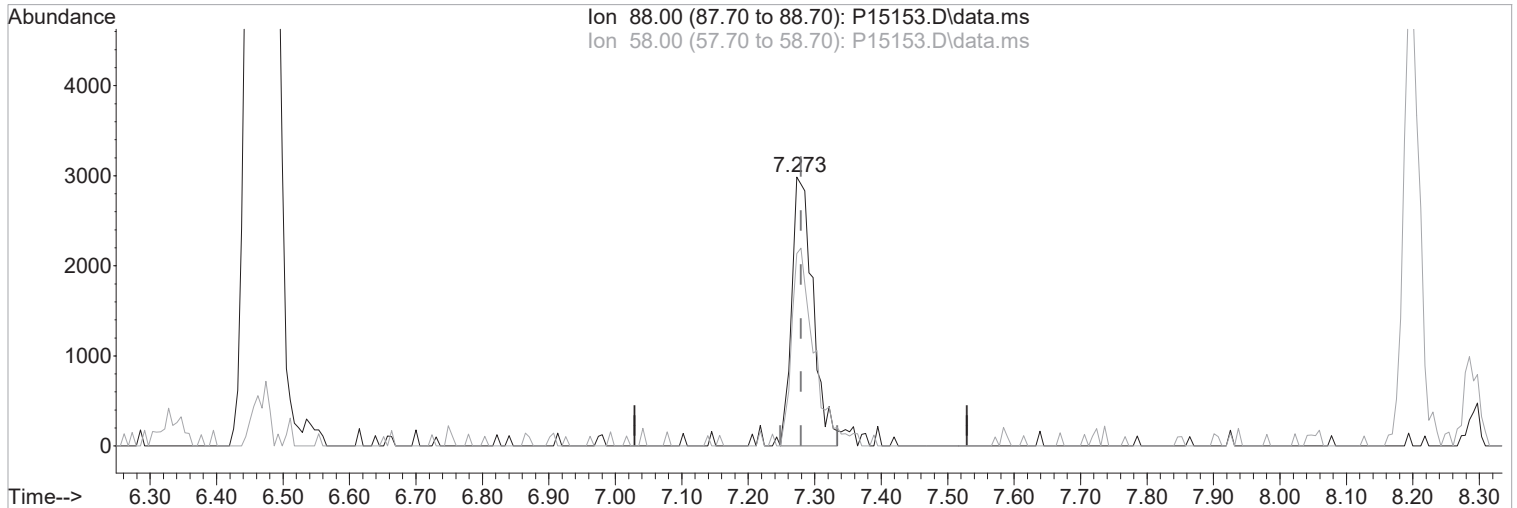
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:47 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15153.D\data.ms

(58) 1,4-Dioxane

Manual Integration:

7.273min (-0.006) 104.03 ppb

Before

response 6651

Ion	Exp%	Act%
88.00	100	100
58.00	70.00	71.57
0.00	0.00	0.00
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15153.D
 Acq On : 29 Dec 2017 6:28 pm
 Operator : K.Ruest
 Sample : 5.0ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:30:54 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	283392	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	464816	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	405388	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	203033	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.225	113	31481	11.41	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	22.82%#
48) surr1,1,2-dichloroetha...	5.767	65	43811	11.58	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	23.16%#
65) SURR3,Toluene-d8	8.291	98	146183	11.86	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	23.72%#
70) SURR2,BFB	10.858	95	55730	11.69	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	23.38%#

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	14887	4.26	ppb	96
3) Chloromethane	1.305	50	19472	4.52	ppb	97
4) Vinyl Chloride	1.384	62	21225	5.06	ppb	92
5) Bromomethane	1.609	94	19391	6.08	ppb	99
6) Chloroethane	1.689	64	13123	5.01	ppb	88
7) Freon 21	1.835	67	26792	4.91	ppb	95
8) Trichlorofluoromethane	1.884	101	20344	5.03	ppb	96
9) Diethyl Ether	2.115	59	14851	5.29	ppb	91
10) Freon 123a	2.122	67	17126	5.05	ppb	97
11) Freon 123	2.170	83	20299	5.12	ppb	96
12) Acrolein	2.219	56	21665	25.86	ppb	87
13) 1,1-Dicethene	2.304	96	14844	5.10	ppb	93
14) Freon 113	2.311	101	13449	4.89	ppb	93
15) Acetone	2.347	43	9058	5.26	ppb	96
16) 2-Propanol	2.475	45	32422	97.79	ppb	96
17) Iodomethane	2.445	142	2790	1.06	ppb	89
18) Carbon Disulfide	2.499	76	42597	5.02	ppb	99
19) Acetonitrile	2.597	40	8323m	28.53	ppb	
20) Allyl Chloride	2.634	76	8487	5.47	ppb	89
21) Methyl Acetate	2.658	43	15122	4.90	ppb	95
22) Methylene Chloride	2.749	84	15458	5.03	ppb	# 82
23) TBA	2.877	59	60237	105.40	ppb	100
24) Acrylonitrile	2.999	53	43295	26.10	ppb	96
25) Methyl-t-Butyl Ether	3.054	73	52999	5.08	ppb	98
26) trans-1,2-Dichloroethene	3.042	96	15100	4.98	ppb	98
28) 1,1-Dicethane	3.536	63	26838	4.92	ppb	96
29) Vinyl Acetate	3.627	86	4036	4.51	ppb	# 93
30) DIPE	3.658	45	52453	5.05	ppb	88
31) 2-Chloro-1,3-Butadiene	3.664	53	26425	5.01	ppb	83
32) ETBE	4.188	59	53172	5.07	ppb	98
33) 2,2-Dichloropropane	4.359	77	23967	4.94	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	18079	5.03	ppb	98
35) 2-Butanone	4.420	43	11921	5.49	ppb	90
36) Propionitrile	4.493	54	18077	25.64	ppb	86
37) Bromochloromethane	4.767	130	9891m	5.02	ppb	
38) Methacrylonitrile	4.767	67	8723	4.78	ppb	# 80
39) Tetrahydrofuran	4.859	42	6134	4.84	ppb	98
40) Chloroform	4.950	83	29677	5.01	ppb	93
41) 1,1,1-Trichloroethane	5.243	97	23417	5.04	ppb	100

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15153.D
 Acq On : 29 Dec 2017 6:28 pm
 Operator : K.Ruest
 Sample : 5.0ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:30:54 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	52164	5.10	ppb	97
44) Cyclohexane	5.322	41	14483	4.79	ppb	92
46) Carbontetrachloride	5.523	117	18447	5.29	ppb	90
47) 1,1-Dichloropropene	5.529	75	21281	5.20	ppb	94
49) Benzene	5.846	78	61250	5.04	ppb	98
50) 1,2-Dichloroethane	5.883	62	22893	5.13	ppb	97
51) Iso-Butyl Alcohol	5.859	43	23860	96.86	ppb	91
52) n-Heptane	6.340	43	22156	5.27	ppb	96
53) 1-Butanol	6.822	56	40479	248.41	ppb	90
54) Trichloroethene	6.797	130	15019	4.82	ppb	# 88
55) Methylcyclohexane	7.035	55	21785	5.38	ppb	92
56) 1,2-Dicloropropane	7.078	63	15535	4.80	ppb	100
57) Dibromomethane	7.218	93	9298	4.81	ppb	91
58) 1,4-Dioxane	7.273	88	6912m	108.11	ppb	
59) Methyl Methacrylate	7.303	69	14282	4.79	ppb	95
60) Bromodichloromethane	7.444	83	20116	4.90	ppb	96
61) 2-Nitropropane	7.730	41	12041	9.64	ppb	94
62) 2-Chloroethylvinyl Ether	7.858	63	3483	4.74	ppb	91
63) cis-1,3-Dichloropropene	7.992	75	26383	5.13	ppb	93
64) 4-Methyl-2-pentanone	8.200	43	20060	5.08	ppb	98
66) Toluene	8.364	91	68544	5.20	ppb	99
67) trans-1,3-Dichloropropene	8.632	75	23633	4.93	ppb	94
68) Ethyl Methacrylate	8.773	69	25902	5.36	ppb	96
69) 1,1,2-Trichloroethane	8.821	97	13951	4.66	ppb	91
72) Tetrachloroethene	8.956	164	11519	5.15	ppb	85
73) 2-Hexanone	9.114	43	15141	5.07	ppb	97
74) 1,3-Dichloropropane	8.992	76	27611	5.30	ppb	97
75) Dibromochloromethane	9.218	129	14239	5.24	ppb	99
76) N-Butyl Acetate	9.266	43	31060	5.53	ppb	97
77) 1,2-Dibromoethane	9.315	107	14526	5.03	ppb	91
78) Chlorobenzene	9.809	112	42337	5.33	ppb	95
79) 3-CBTF	9.827	180	22269	5.26	ppb	# 89
80) 4-CBTF	9.882	180	20165	5.21	ppb	97
81) 1,1,1,2-Tetrachloroethane	9.894	131	14163	5.02	ppb	95
82) Ethylbenzene	9.931	106	22757	5.19	ppb	99
83) (m+p)Xylene	10.041	106	56709	10.68	ppb	96
84) o-Xylene	10.400	106	27065	5.09	ppb	98
85) Styrene	10.413	104	45533	5.09	ppb	97
87) Bromoform	10.565	173	8444	4.77	ppb	96
88) 2-CBTF	10.644	180	21787	5.42	ppb	94
89) Isopropylbenzene	10.736	105	73755	5.53	ppb	95
90) Cyclohexanone	10.797	55	108884	107.30	ppb	97
91) trans-1,4-Dichloro-2-B...	11.047	53	5580	5.28	ppb	82
92) 1,1,2,2-Tetrachloroethane	10.992	83	19803	4.92	ppb	84
93) Bromobenzene	10.986	156	17774	5.44	ppb	# 90
94) 1,2,3-Trichloropropane	11.022	110	6876	5.26	ppb	97
95) n-Propylbenzene	11.095	91	84531	5.45	ppb	99
96) 2-Chlorotoluene	11.156	91	51609	5.37	ppb	95
97) 3-Chlorotoluene	11.211	91	53980	5.32	ppb	94
98) 4-Chlorotoluene	11.248	91	58405	5.26	ppb	95
99) 1,3,5-Trimethylbenzene	11.248	105	57897	5.19	ppb	92
100) tert-Butylbenzene	11.516	119	51279	5.32	ppb	97
101) 1,2,4-Trimethylbenzene	11.559	105	57468	5.14	ppb	98
102) 3,4-DCBTF	11.620	214	15851	4.93	ppb	96
103) sec-Butylbenzene	11.699	105	74838	5.28	ppb	100
104) p-Isopropyltoluene	11.821	119	62091	5.21	ppb	97

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15153.D
 Acq On : 29 Dec 2017 6:28 pm
 Operator : K.Ruest
 Sample : 5.0ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:30:54 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105) 1,3-Dclbenz	11.784	146	32275	5.20	ppb	97
106) 1,4-Dclbenz	11.857	146	34253	5.26	ppb	94
107) 2,4-DCBTF	11.912	214	15481	5.20	ppb	95
108) 2,5-DCBTF	11.949	214	15937	5.01	ppb	93
109) n-Butylbenzene	12.156	91	55352	4.98	ppb	98
110) 1,2-Dclbenz	12.156	146	33230	5.36	ppb	99
111) 1,2-Dibromo-3-chloropr...	12.784	157	5017	4.95	ppb	88
112) Trielution Dichlorotol...	12.900	125	92375	15.15	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	24138	5.00	ppb	92
114) Coelution Dichlorotoluene	13.229	125	66434	10.27	ppb	97
115) 1,2,4-Tcbenzene	13.436	180	22876	5.08	ppb	98
116) Hexachlorobt	13.577	225	10295	4.92	ppb	94
117) Naphthalen	13.625	128	62322	5.01	ppb	97
118) 1,2,3-Tclbenzene	13.814	180	20632	4.71	ppb	96
119) 2,4,5-Trichlorotoluene	14.400	159	10252	3.86	ppb	91
120) 2,3,6-Trichlorotoluene	14.491	159	10012	4.15	ppb	88

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

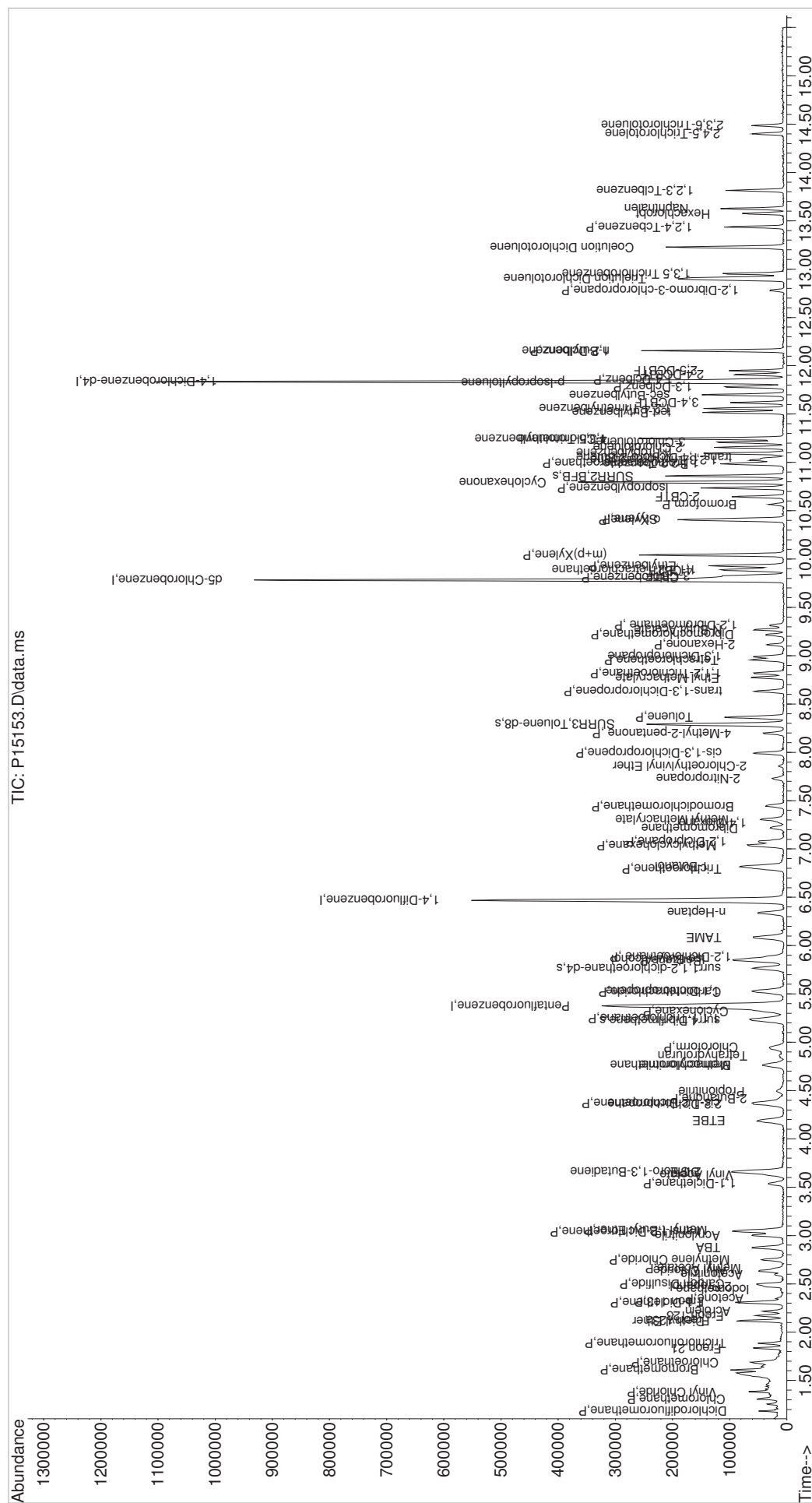
Quantitation Report (QT Reviewed)

Data Path : I:\ACQUDATA\msvoal2\Data\122917\
Data File : P15153.D
Acq On : 29 Dec 2017 6:28 pm
Operator : K.Ruest
Sample : 5.0ppb
Misc : 8260 WATER ICAL
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 02 11:30:54 2018
Quant Method : I:\ACQUDATA\msvoal2\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15154.D
 Acq On : 29 Dec 2017 6:49 pm
 Operator : K.Ruest
 Sample : 20ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:51 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	291966	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	486988	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	432595	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.833	152	217884	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	52724	18.23	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	36.46%#
48) surr1,1,2-dichloroetha...	5.767	65	72765	18.36	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	36.72%#
65) SURR3,Toluene-d8	8.291	98	239896	18.58	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	37.16%#
70) SURR2,BFB	10.858	95	88358	17.69	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	35.38%#

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	73723	20.50	ppb	97
3) Chloromethane	1.305	50	84655	19.07	ppb	97
4) Vinyl Chloride	1.384	62	87767	20.30	ppb	99
5) Bromomethane	1.616	94	65257	19.87	ppb	95
6) Chloroethane	1.689	64	52850	19.58	ppb	96
7) Freon 21	1.835	67	115862	20.59	ppb	99
8) Trichlorofluoromethane	1.884	101	82363	19.77	ppb	98
9) Diethyl Ether	2.116	59	56515	19.54	ppb	98
10) Freon 123a	2.122	67	67133	19.21	ppb	98
11) Freon 123	2.170	83	80114	19.63	ppb	95
12) Acrolein	2.213	56	91390	105.88	ppb	99
13) 1,1-Dicethene	2.305	96	53573	17.86	ppb	97
14) Freon 113	2.311	101	53019	18.71	ppb	94
15) Acetone	2.347	43	36137	20.38	ppb	98
16) 2-Propanol	2.475	45	134988	395.20	ppb	97
17) Iodomethane	2.439	142	48129	17.81	ppb	99
18) Carbon Disulfide	2.500	76	180345	20.62	ppb	98
19) Acetonitrile	2.591	40	28858	96.02	ppb	95
20) Allyl Chloride	2.634	76	31637	19.81	ppb	95
21) Methyl Acetate	2.652	43	66029	20.77	ppb	99
22) Methylene Chloride	2.750	84	60822	19.23	ppb	91
23) TBA	2.872	59	230923	392.21	ppb	99
24) Acrylonitrile	3.000	53	170824	99.96	ppb	99
25) Methyl-t-Butyl Ether	3.048	73	214622	19.96	ppb	99
26) trans-1,2-Dichloroethene	3.042	96	58955	18.86	ppb	97
28) 1,1-Dicethane	3.536	63	109240	19.43	ppb	99
29) Vinyl Acetate	3.621	86	19750	21.42	ppb	# 84
30) DIPE	3.658	45	210759	19.69	ppb	96
31) 2-Chloro-1,3-Butadiene	3.658	53	108371	19.93	ppb	94
32) ETBE	4.182	59	218829	20.27	ppb	96
33) 2,2-Dichloropropane	4.365	77	96726	19.35	ppb	96
34) cis-1,2-Dichloroethene	4.371	96	67570	18.26	ppb	96
35) 2-Butanone	4.408	43	45812	20.46	ppb	97
36) Propionitrile	4.487	54	67409	92.82	ppb	95
37) Bromochloromethane	4.767	130	39264	19.33	ppb	92
38) Methacrylonitrile	4.767	67	35031	18.62	ppb	98
39) Tetrahydrofuran	4.853	42	26454	20.27	ppb	94
40) Chloroform	4.938	83	103219	16.93	ppb	97
41) 1,1,1-Trichloroethane	5.243	97	88142	18.40	ppb	97

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15154.D
 Acq On : 29 Dec 2017 6:49 pm
 Operator : K.Ruest
 Sample : 20ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:51 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	213627	20.27	ppb	98
44) Cyclohexane	5.328	41	59944	18.91	ppb	96
46) Carbontetrachloride	5.523	117	71449	19.55	ppb	93
47) 1,1-Dichloropropene	5.530	75	82271	19.18	ppb	98
49) Benzene	5.847	78	247133	19.43	ppb	98
50) 1,2-Dichloroethane	5.883	62	90128	19.29	ppb	95
51) Iso-Butyl Alcohol	5.853	43	97223	376.70	ppb	98
52) n-Heptane	6.334	43	83119	18.88	ppb	96
53) 1-Butanol	6.816	56	168954	989.61	ppb	99
54) Trichloroethene	6.798	130	61608	18.88	ppb	96
55) Methylcyclohexane	7.035	55	82601	19.46	ppb	98
56) 1,2-Diclpropane	7.078	63	65021	19.16	ppb	95
57) Dibromomethane	7.218	93	39938	19.71	ppb	97
58) 1,4-Dioxane	7.279	88	25673	383.26	ppb	97
59) Methyl Methacrylate	7.304	69	59811	19.16	ppb	96
60) Bromodichloromethane	7.450	83	79062	18.36	ppb	97
61) 2-Nitropropane	7.724	41	50922	38.91	ppb	94
62) 2-Chloroethylvinyl Ether	7.858	63	13441	17.45	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	109564	20.33	ppb	98
64) 4-Methyl-2-pentanone	8.194	43	83525	20.18	ppb	99
66) Toluene	8.364	91	267628	19.37	ppb	97
67) trans-1,3-Dichloropropene	8.633	75	100595	20.04	ppb	99
68) Ethyl Methacrylate	8.773	69	106139	20.96	ppb	97
69) 1,1,2-Trichloroethane	8.822	97	58878	18.76	ppb	98
72) Tetrachloroethene	8.956	164	42833	17.94	ppb	95
73) 2-Hexanone	9.108	43	63596	19.97	ppb	88
74) 1,3-Dichloropropane	8.986	76	109832	19.76	ppb	99
75) Dibromochloromethane	9.218	129	56561	19.50	ppb	99
76) N-Butyl Acetate	9.267	43	128752	21.48	ppb	97
77) 1,2-Dibromoethane	9.315	107	63198	20.51	ppb	97
78) Chlorobenzene	9.809	112	167284	19.74	ppb	98
79) 3-CBTF	9.827	180	88226	19.52	ppb	99
80) 4-CBTF	9.882	180	80584	19.51	ppb	96
81) 1,1,1,2-Tetrachloroethane	9.895	131	56794	18.85	ppb	99
82) Ethylbenzene	9.931	106	87997	18.81	ppb	96
83) (m+p)Xylene	10.041	106	219646	38.78	ppb	100
84) o-Xylene	10.401	106	108435	19.12	ppb	94
85) Styrene	10.413	104	187928	19.69	ppb	97
87) Bromoform	10.565	173	38186	20.09	ppb	96
88) 2-CBTF	10.644	180	86163	19.97	ppb	98
89) Isopropylbenzene	10.736	105	282882	19.76	ppb	99
90) Cyclohexanone	10.797	55	429744	394.62	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	22558	19.88	ppb	95
92) 1,1,2,2-Tetrachloroethane	10.992	83	83898	19.42	ppb	98
93) Bromobenzene	10.980	156	67536	19.26	ppb	96
94) 1,2,3-Trichloropropane	11.022	110	29041	20.69	ppb	100
95) n-Propylbenzene	11.095	91	333066	20.01	ppb	100
96) 2-Chlorotoluene	11.156	91	200054	19.39	ppb	100
97) 3-Chlorotoluene	11.205	91	224096	20.59	ppb	92
98) 4-Chlorotoluene	11.248	91	230591	19.34	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	232544	19.42	ppb	97
100) tert-Butylbenzene	11.516	119	200065	19.36	ppb	98
101) 1,2,4-Trimethylbenzene	11.559	105	233419	19.47	ppb	98
102) 3,4-DCBTF	11.620	214	68300	19.80	ppb	99
103) sec-Butylbenzene	11.699	105	294650	19.37	ppb	99
104) p-Isopropyltoluene	11.821	119	240243	18.77	ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15154.D
 Acq On : 29 Dec 2017 6:49 pm
 Operator : K.Ruest
 Sample : 20ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:51 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105) 1,3-Dclbenz	11.784	146	128325	19.26	ppb	99
106) 1,4-Dclbenz	11.858	146	132721	18.98	ppb	98
107) 2,4-DCBTF	11.906	214	63318	19.82	ppb	98
108) 2,5-DCBTF	11.949	214	68912	20.18	ppb	96
109) n-Butylbenzene	12.156	91	223403	18.71	ppb	97
110) 1,2-Dclbenz	12.156	146	132338	19.90	ppb	98
111) 1,2-Dibromo-3-chloropr...	12.778	157	20568	18.89	ppb	88
112) Trielution Dichlorotol...	12.900	125	390759	59.72	ppb	99
113) 1,3,5 Trichlorobenzene	12.955	180	103199	19.93	ppb	99
114) Coelution Dichlorotoluene	13.229	125	280855	40.47	ppb	99
115) 1,2,4-Tcbenzene	13.437	180	92621	19.16	ppb	97
116) Hexachlorobt	13.577	225	40099	17.87	ppb	97
117) Naphthalen	13.626	128	274709	20.59	ppb	98
118) 1,2,3-Tclbenzene	13.814	180	90401	19.25	ppb	95
119) 2,4,5-Trichlorotoluene	14.400	159	55914	19.64	ppb	96
120) 2,3,6-Trichlorotoluene	14.485	159	52554	20.31	ppb	86

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

7Data File : P15154.D
Acq On : 29 Dec 2017 6:49 pm
Operator : J. D. ...

Inst : MSVOA-12

2
FALS Vial : 6 Sample Multiplier: 1

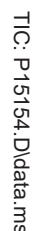
Quant Method : T:\ACOMDATA\msysa

Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M

Quant Title : MS#12 - 8260B WATERS 10mL Purge

QLast Update : Tue Jan 02 09:43:32 2018

Response via : Initial calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15155.D
 Acq On : 29 Dec 2017 7:11 pm
 Operator : K.Ruest
 Sample : 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:54 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	285166	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	470666	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	417045	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	212180	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.225	113	139572	49.94	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	99.88%
48) surr1,1,2-dichloroetha...	5.767	65	193216	50.45	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	100.90%
65) SURR3,Toluene-d8	8.291	98	626059	50.17	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	100.34%
70) SURR2,BFB	10.858	95	238144	49.33	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	98.66%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	185458	52.80	ppb	100
3) Chloromethane	1.305	50	209194	48.25	ppb	100
4) Vinyl Chloride	1.384	62	213326	50.51	ppb	100
5) Bromomethane	1.610	94	132984	41.46	ppb	100
6) Chloroethane	1.689	64	132064	50.08	ppb	100
7) Freon 21	1.835	67	274910	50.02	ppb	100
8) Trichlorofluoromethane	1.884	101	202491	49.75	ppb	100
9) Diethyl Ether	2.116	59	133898	47.40	ppb	100
10) Freon 123a	2.116	67	169452	49.64	ppb	100
11) Freon 123	2.170	83	197460	49.54	ppb	100
12) Acrolein	2.213	56	205270	243.48	ppb	100
13) 1,1-Dicethene	2.305	96	133942	45.73	ppb	100
14) Freon 113	2.311	101	133342	48.17	ppb	100
15) Acetone	2.347	43	87260	50.38	ppb	100
16) 2-Propanol	2.475	45	309128	926.59	ppb	100
17) Iodomethane	2.433	142	183051	69.36	ppb	100
18) Carbon Disulfide	2.500	76	431946	50.56	ppb	100
19) Acetonitrile	2.591	40	68723	234.11	ppb	100
20) Allyl Chloride	2.634	76	74459	47.73	ppb	100
21) Methyl Acetate	2.652	43	147727	47.57	ppb	100
22) Methylene Chloride	2.750	84	149710	48.46	ppb	100
23) TBA	2.871	59	538425	936.28	ppb	100
24) Acrylonitrile	3.000	53	395382	236.88	ppb	100
25) Methyl-t-Butyl Ether	3.048	73	511794	48.74	ppb	100
26) trans-1,2-Dichloroethene	3.042	96	146262	47.90	ppb	100
28) 1,1-Dicethane	3.536	63	269876	49.15	ppb	100
29) Vinyl Acetate	3.627	86	42409	47.10	ppb	100
30) DIPE	3.658	45	509501	48.73	ppb	100
31) 2-Chloro-1,3-Butadiene	3.658	53	254374	47.89	ppb	100
32) ETBE	4.188	59	532219	50.48	ppb	100
33) 2,2-Dichloropropane	4.359	77	233299	47.78	ppb	100
34) cis-1,2-Dichloroethene	4.371	96	164684	45.56	ppb	100
35) 2-Butanone	4.414	43	106486	48.70	ppb	100
36) Propionitrile	4.493	54	163133	229.97	ppb	100
37) Bromochloromethane	4.761	130	92520	46.64	ppb	100
38) Methacrylonitrile	4.761	67	82633	44.98	ppb	100
39) Tetrahydrofuran	4.853	42	62628	49.14	ppb	100
40) Chloroform	4.944	83	253260	42.52	ppb	100
41) 1,1,1-Trichloroethane	5.243	97	216329	46.24	ppb	100

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15155.D
 Acq On : 29 Dec 2017 7:11 pm
 Operator : K.Ruest
 Sample : 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:54 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	512669	49.81	ppb	100
44) Cyclohexane	5.328	41	146746	47.90	ppb	100
46) Carbontetrachloride	5.517	117	177487	50.24	ppb	100
47) 1,1-Dichloropropene	5.529	75	204387	49.30	ppb	100
49) Benzene	5.847	78	603170	49.06	ppb	100
50) 1,2-Dichloroethane	5.883	62	221777	49.10	ppb	100
51) Iso-Butyl Alcohol	5.853	43	235620	944.60	ppb	100
52) n-Heptane	6.340	43	207731	48.81	ppb	100
53) 1-Butanol	6.822	56	408921	2478.23	ppb	100
54) Trichloroethene	6.798	130	157782	50.04	ppb	100
55) Methylcyclohexane	7.035	55	209380	51.03	ppb	100
56) 1,2-Dicloropropane	7.078	63	159102	48.51	ppb	100
57) Dibromomethane	7.218	93	95701	48.87	ppb	100
58) 1,4-Dioxane	7.279	88	60464	933.95	ppb	100
59) Methyl Methacrylate	7.304	69	145402	48.19	ppb	100
60) Bromodichloromethane	7.444	83	192925	46.36	ppb	100
61) 2-Nitropropane	7.724	41	123250	97.43	ppb	100
62) 2-Chloroethylvinyl Ether	7.858	63	36696	49.29	ppb	100
63) cis-1,3-Dichloropropene	7.992	75	265008	50.88	ppb	100
64) 4-Methyl-2-pentanone	8.194	43	197235	49.30	ppb	100
66) Toluene	8.364	91	660262	49.44	ppb	100
67) trans-1,3-Dichloropropene	8.633	75	246121	50.72	ppb	100
68) Ethyl Methacrylate	8.773	69	250836	51.26	ppb	100
69) 1,1,2-Trichloroethane	8.822	97	140459	46.30	ppb	100
72) Tetrachloroethene	8.956	164	110238	47.90	ppb	100
73) 2-Hexanone	9.108	43	151603	49.37	ppb	100
74) 1,3-Dichloropropane	8.986	76	264897	49.43	ppb	100
75) Dibromochloromethane	9.218	129	141283	50.51	ppb	100
76) N-Butyl Acetate	9.267	43	304141	52.63	ppb	100
77) 1,2-Dibromoethane	9.315	107	147371	49.60	ppb	100
78) Chlorobenzene	9.809	112	409247	50.09	ppb	100
79) 3-CBTF	9.827	180	209587	48.11	ppb	100
80) 4-CBTF	9.882	180	188719	47.40	ppb	100
81) 1,1,1,2-Tetrachloroethane	9.895	131	142685	49.13	ppb	100
82) Ethylbenzene	9.931	106	221739	49.16	ppb	100
83) (m+p) Xylene	10.041	106	544255	99.68	ppb	100
84) o-Xylene	10.400	106	273570	50.04	ppb	100
85) Styrene	10.413	104	473047	51.40	ppb	100
87) Bromoform	10.565	173	91728	49.56	ppb	100
88) 2-CBTF	10.644	180	204437	48.67	ppb	100
89) Isopropylbenzene	10.736	105	703200	50.44	ppb	100
90) Cyclohexanone	10.797	55	1032485	973.58	ppb	100
91) trans-1,4-Dichloro-2-B...	11.047	53	54132	48.99	ppb	100
92) 1,1,2,2-Tetrachloroethane	10.998	83	202168	48.05	ppb	100
93) Bromobenzene	10.980	156	167317	49.01	ppb	100
94) 1,2,3-Trichloropropane	11.022	110	67110	49.10	ppb	100
95) n-Propylbenzene	11.095	91	837261	51.65	ppb	100
96) 2-Chlorotoluene	11.156	91	496293	49.38	ppb	100
97) 3-Chlorotoluene	11.211	91	535859	50.55	ppb	100
98) 4-Chlorotoluene	11.248	91	583666	50.27	ppb	100
99) 1,3,5-Trimethylbenzene	11.248	105	592259	50.79	ppb	100
100) tert-Butylbenzene	11.516	119	510291	50.70	ppb	100
101) 1,2,4-Trimethylbenzene	11.559	105	598582	51.26	ppb	100
102) 3,4-DCBTF	11.620	214	168206	50.08	ppb	100
103) sec-Butylbenzene	11.699	105	758675	51.23	ppb	100
104) p-Isopropyltoluene	11.821	119	636264	51.05	ppb	100

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15155.D
 Acq On : 29 Dec 2017 7:11 pm
 Operator : K.Ruest
 Sample : 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:54 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

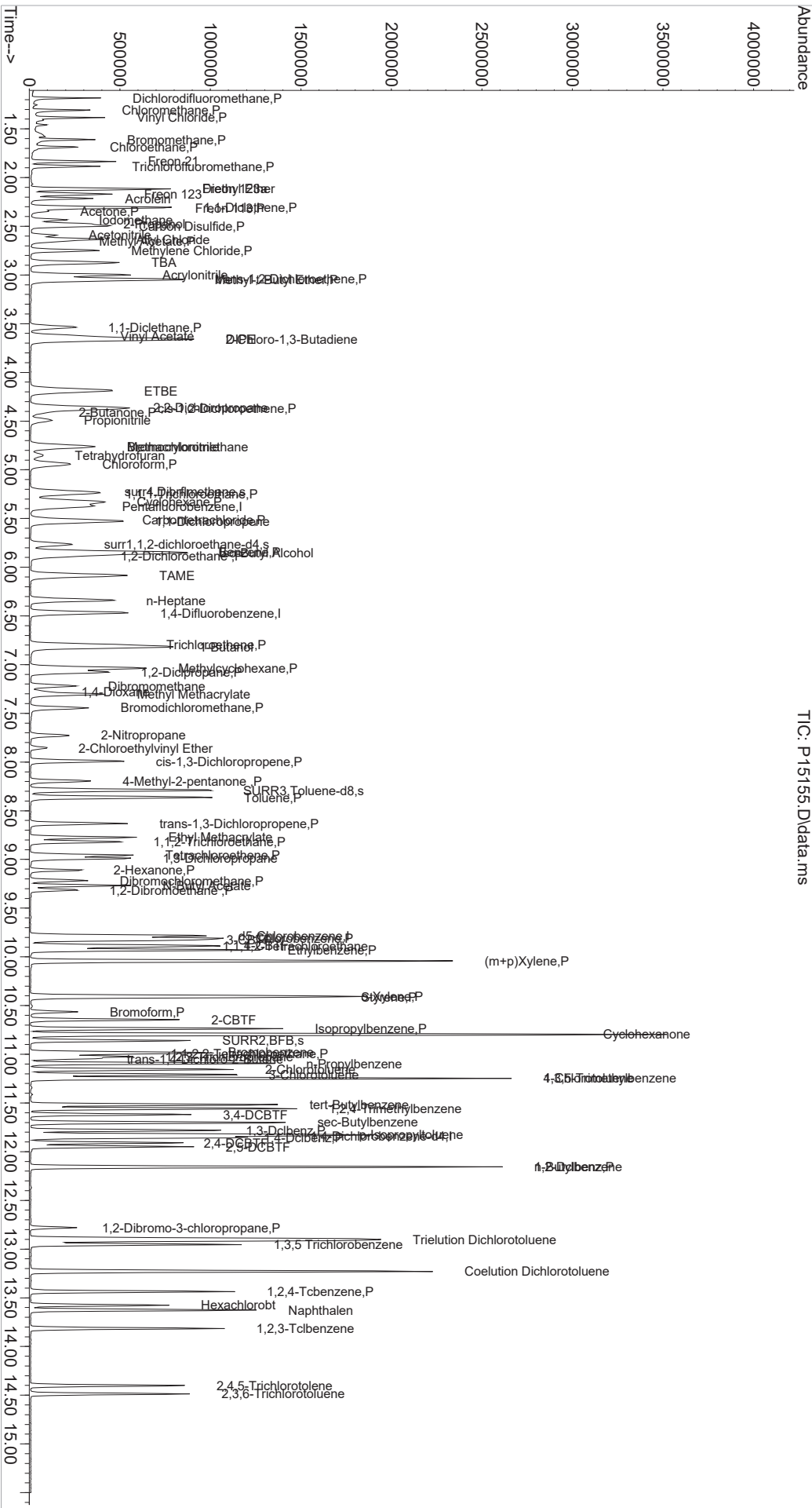
	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,3-Dclbenz	11.784	146	327576	50.47	ppb	100
106)	1,4-Dclbenz	11.858	146	330531	48.53	ppb	100
107)	2,4-DCBTF	11.912	214	155261	49.89	ppb	100
108)	2,5-DCBTF	11.949	214	166686	50.13	ppb	100
109)	n-Butylbenzene	12.156	91	606320	52.15	ppb	100
110)	1,2-Dclbenz	12.156	146	326328	50.38	ppb	100
111)	1,2-Dibromo-3-chloropr...	12.784	157	49528	46.72	ppb	100
112)	Trielution Dichlorotol...	12.900	125	979295	153.70	ppb	100
113)	1,3,5 Trichlorobenzene	12.955	180	258128	51.19	ppb	100
114)	Coelution Dichlorotoluene	13.229	125	718040	106.26	ppb	100
115)	1,2,4-Tcbenzene	13.437	180	247574	52.58	ppb	100
116)	Hexachlorobt	13.577	225	107495	49.18	ppb	100
117)	Naphthalen	13.625	128	706889	54.41	ppb	100
118)	1,2,3-Tclbenzene	13.814	180	240331	52.55	ppb	100
119)	2,4,5-Trichlorotoluene	14.400	159	168073	60.62	ppb	100
120)	2,3,6-Trichlorotoluene	14.485	159	154183	61.18	ppb	100

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

Data Path : I:\ACQDATA\msvoa12\Data\122917\
 Data File : P15155.D
 Acq On : 29 Dec 2017 7:11 pm
 Operator : K.Ruest
 Sample : 50ppb
 Conc : 8260 WATER ICAL
 PALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:54 2018
 Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15156.D
 Acq On : 29 Dec 2017 7:32 pm
 Operator : K.Ruest
 Sample : 100ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:57 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	291479	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	485941	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	437945	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	232083	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	291015	100.86	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	201.72%#
48) surr1,1,2-dichloroetha...	5.767	65	393053	99.41	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	198.82%#
65) SURR3,Toluene-d8	8.291	98	1270821	98.64	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	197.28%#
70) SURR2,BFB	10.858	95	503121	100.94	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	201.88%#

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	406406	113.20	ppb	97
3) Chloromethane	1.305	50	457343	103.19	ppb	100
4) Vinyl Chloride	1.384	62	471329	109.18	ppb	98
5) Bromomethane	1.603	94	267383	81.55	ppb	98
6) Chloroethane	1.683	64	281603	104.48	ppb	98
7) Freon 21	1.835	67	570720	101.59	ppb	100
8) Trichlorofluoromethane	1.878	101	450983	108.41	ppb	99
9) Diethyl Ether	2.115	59	296654	102.75	ppb	97
10) Freon 123a	2.115	67	352884	101.14	ppb	98
11) Freon 123	2.170	83	416503	102.22	ppb	98
12) Acrolein	2.213	56	420814	488.34	ppb	99
13) 1,1-Dicethene	2.304	96	295926	98.84	ppb	96
14) Freon 113	2.310	101	295983	104.62	ppb	99
15) Acetone	2.347	43	173977	98.27	ppb	98
16) 2-Propanol	2.481	45	687919	2017.34	ppb	99
17) Iodomethane	2.432	142	397156	147.24	ppb	96
18) Carbon Disulfide	2.493	76	869002	99.52	ppb	99
19) Acetonitrile	2.591	40	152773	509.17	ppb	99
20) Allyl Chloride	2.634	76	159380	99.95	ppb	98
21) Methyl Acetate	2.652	43	314450	99.07	ppb	99
22) Methylene Chloride	2.749	84	327410	103.68	ppb	98
23) TBA	2.877	59	1208755	2056.41	ppb	99
24) Acrylonitrile	2.999	53	871837	511.02	ppb	98
25) Methyl-t-Butyl Ether	3.048	73	1106707	103.11	ppb	100
26) trans-1,2-Dichloroethene	3.042	96	321201	102.90	ppb	96
28) 1,1-Dicethane	3.536	63	596191	106.24	ppb	99
29) Vinyl Acetate	3.621	86	91108	99.00	ppb	# 88
30) DIPE	3.658	45	1041698	97.47	ppb	98
31) 2-Chloro-1,3-Butadiene	3.658	53	512752	94.45	ppb	95
32) ETBE	4.188	59	1081591	100.36	ppb	98
33) 2,2-Dichloropropane	4.365	77	515652	103.33	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	362470	98.11	ppb	99
35) 2-Butanone	4.408	43	216443	96.85	ppb	96
36) Propionitrile	4.493	54	359375	495.65	ppb	98
37) Bromochloromethane	4.761	130	207820	102.50	ppb	97
38) Methacrylonitrile	4.761	67	181165	96.47	ppb	98
39) Tetrahydrofuran	4.853	42	140292	107.69	ppb	92
40) Chloroform	4.944	83	552967	90.83	ppb	99
41) 1,1,1-Trichloroethane	5.237	97	489285	102.31	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15156.D
 Acq On : 29 Dec 2017 7:32 pm
 Operator : K.Ruest
 Sample : 100ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:57 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	1052920	100.08	ppb	99
44) Cyclohexane	5.328	41	308776	97.62	ppb	97
46) Carbontetrachloride	5.517	117	401975	110.20	ppb	97
47) 1,1-Dichloropropene	5.529	75	450211	105.18	ppb	93
49) Benzene	5.846	78	1326681	104.52	ppb	99
50) 1,2-Dichloroethane	5.883	62	481513	103.26	ppb	98
51) Iso-Butyl Alcohol	5.859	43	537047	2085.33	ppb	98
52) n-Heptane	6.334	43	458826	104.42	ppb	97
53) 1-Butanol	6.828	56	896835	5264.34	ppb	99
54) Trichloroethene	6.797	130	342516	105.22	ppb	97
55) Methylcyclohexane	7.035	55	436058	102.94	ppb	95
56) 1,2-Diclpropane	7.078	63	349111	103.09	ppb	100
57) Dibromomethane	7.218	93	210104	103.93	ppb	99
58) 1,4-Dioxane	7.279	88	141678	2119.63	ppb	97
59) Methyl Methacrylate	7.303	69	317131	101.80	ppb	96
60) Bromodichloromethane	7.444	83	432910	100.77	ppb	96
61) 2-Nitropropane	7.730	41	273028	209.06	ppb	97
62) 2-Chloroethylvinyl Ether	7.852	63	89516	116.45	ppb	97
63) cis-1,3-Dichloropropene	7.992	75	584323	108.65	ppb	97
64) 4-Methyl-2-pentanone	8.193	43	408070	98.80	ppb	100
66) Toluene	8.364	91	1433672	103.98	ppb	99
67) trans-1,3-Dichloropropene	8.632	75	545723	108.92	ppb	100
68) Ethyl Methacrylate	8.773	69	557135	110.26	ppb	100
69) 1,1,2-Trichloroethane	8.821	97	312299	99.70	ppb	98
72) Tetrachloroethene	8.956	164	246661	102.06	ppb	99
73) 2-Hexanone	9.108	43	318266	98.71	ppb	98
74) 1,3-Dichloropropane	8.992	76	577284	102.58	ppb	97
75) Dibromochloromethane	9.218	129	318785	108.54	ppb	99
76) N-Butyl Acetate	9.266	43	649156	106.97	ppb	98
77) 1,2-Dibromoethane	9.315	107	323633	103.73	ppb	96
78) Chlorobenzene	9.809	112	904858	105.46	ppb	99
79) 3-CBTF	9.827	180	437770	95.69	ppb	96
80) 4-CBTF	9.882	180	397310	95.03	ppb	97
81) 1,1,1,2-Tetrachloroethane	9.894	131	315863	103.56	ppb	99
82) Ethylbenzene	9.931	106	493080	104.09	ppb	96
83) (m+p)Xylene	10.047	106	1229191	214.38	ppb	91
84) o-Xylene	10.400	106	604232	105.25	ppb	100
85) Styrene	10.413	104	1053244	108.99	ppb	99
87) Bromoform	10.565	173	216146	106.77	ppb	98
88) 2-CBTF	10.644	180	430768	93.75	ppb	95
89) Isopropylbenzene	10.736	105	1573603	103.20	ppb	100
90) Cyclohexanone	10.797	55	2355466	2030.61	ppb	97
91) trans-1,4-Dichloro-2-B...	11.047	53	127881	105.82	ppb	97
92) 1,1,2,2-Tetrachloroethane	10.998	83	463179	100.65	ppb	100
93) Bromobenzene	10.986	156	379408	101.60	ppb	# 85
94) 1,2,3-Trichloropropane	11.022	110	150724	100.82	ppb	96
95) n-Propylbenzene	11.095	91	1857463	104.76	ppb	99
96) 2-Chlorotoluene	11.156	91	1134081	103.17	ppb	99
97) 3-Chlorotoluene	11.211	91	1133645	97.76	ppb	98
98) 4-Chlorotoluene	11.248	91	1309812	103.13	ppb	98
99) 1,3,5-Trimethylbenzene	11.248	105	1335384	104.71	ppb	97
100) tert-Butylbenzene	11.522	119	1156415	105.05	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	1356626	106.21	ppb	99
102) 3,4-DCBTF	11.620	214	364062	99.10	ppb	99
103) sec-Butylbenzene	11.699	105	1721017	106.24	ppb	100
104) p-Isopropyltoluene	11.827	119	1462620	107.29	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15156.D
 Acq On : 29 Dec 2017 7:32 pm
 Operator : K.Ruest
 Sample : 100ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:04:57 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

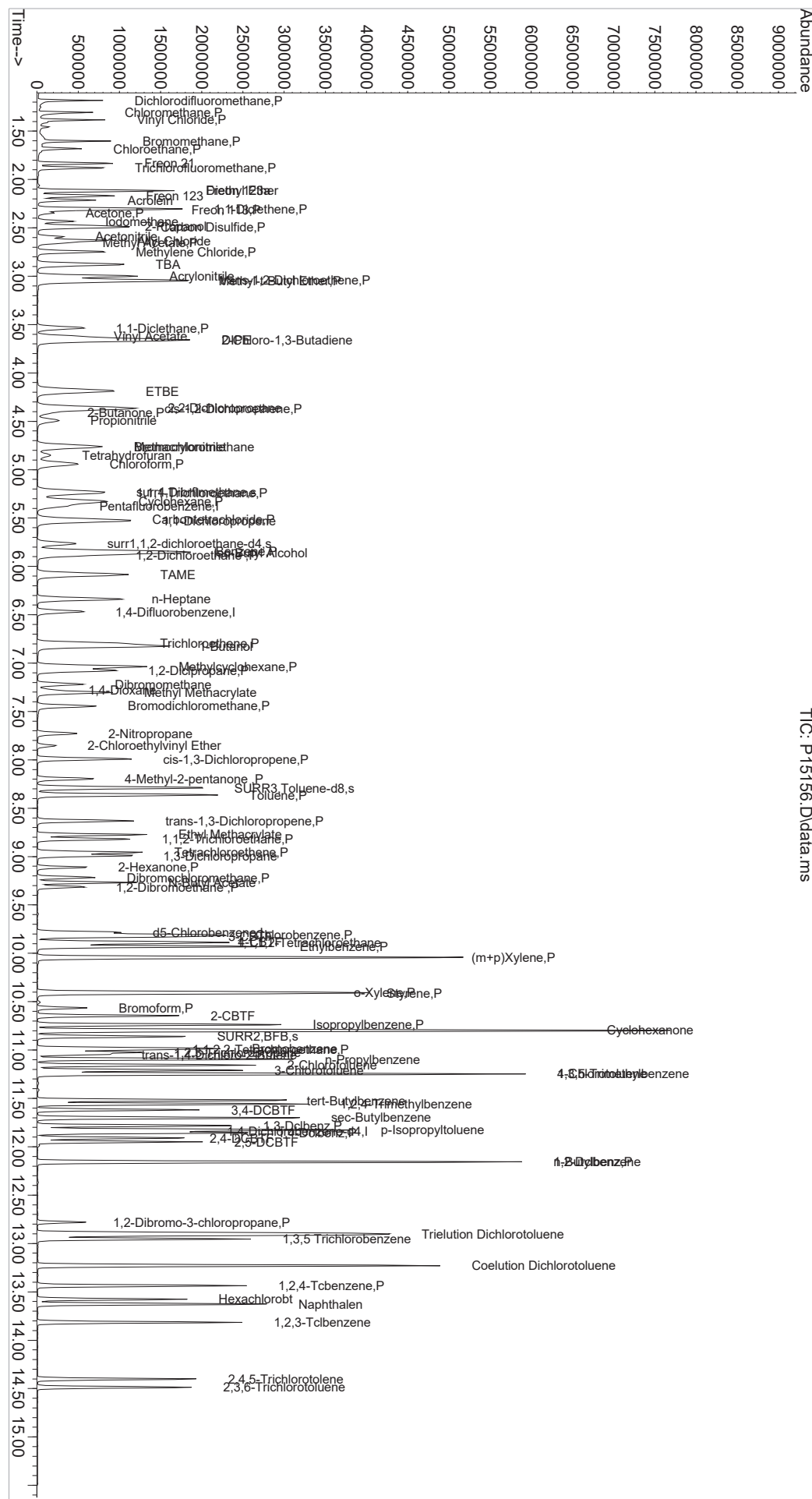
	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,3-Dclbenz	11.784	146	745361	105.00	ppb	99
106)	1,4-Dclbenz	11.857	146	759898	102.00	ppb	100
107)	2,4-DCBTF	11.912	214	342135	100.52	ppb	98
108)	2,5-DCBTF	11.949	214	375116	103.14	ppb	96
109)	n-Butylbenzene	12.156	91	1412911	111.11	ppb	99
110)	1,2-Dclbenz	12.156	146	757996	106.99	ppb	99
111)	1,2-Dibromo-3-chloropr...	12.784	157	121453	104.74	ppb	97
112)	Trielution Dichlorotol...	12.900	125	2132804	306.04	ppb	99
113)	1,3,5 Trichlorobenzene	12.955	180	566591	102.72	ppb	99
114)	Coelution Dichlorotoluene	13.229	125	1564602	211.68	ppb	98
115)	1,2,4-Tcbenzene	13.436	180	573904	111.44	ppb	97
116)	Hexachlorobt	13.577	225	253403	106.00	ppb	97
117)	Naphthalen	13.625	128	1624030	114.29	ppb	100
118)	1,2,3-Tclbenzene	13.814	180	562316	112.41	ppb	98
119)	2,4,5-Trichlorotoluene	14.400	159	389200	128.33	ppb	96
120)	2,3,6-Trichlorotoluene	14.485	159	350481	127.14	ppb	97

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

1st 01/02/18
 2nd 01/04/18
 Data Path : I:\ACQDATA\msvoa12\Data\122917\
 Data File : P15156.D
 Acq On : 29 Dec 2017 7:32 pm
 Operator : K.Ruest
 Sample : 100ppb
 Conc : 8260 WATER ICAL
 PALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA-12

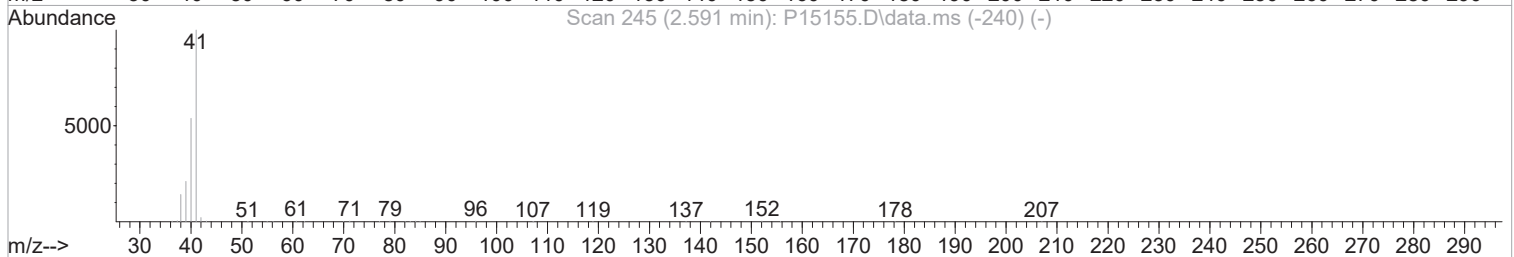
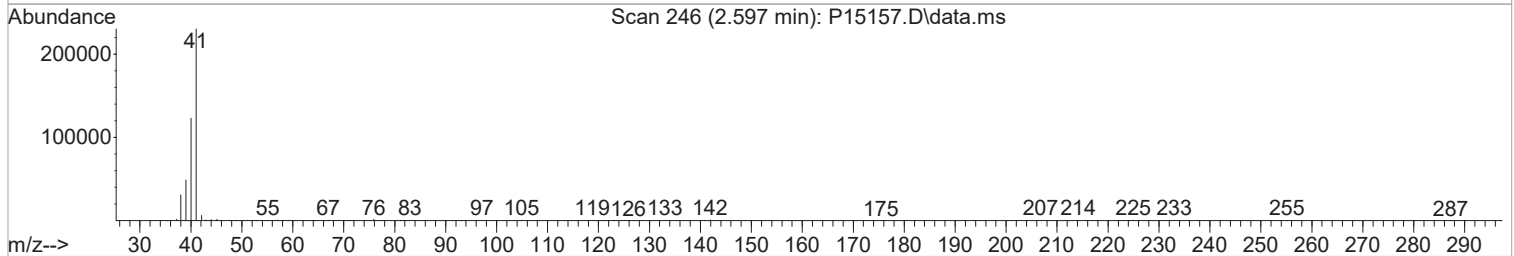
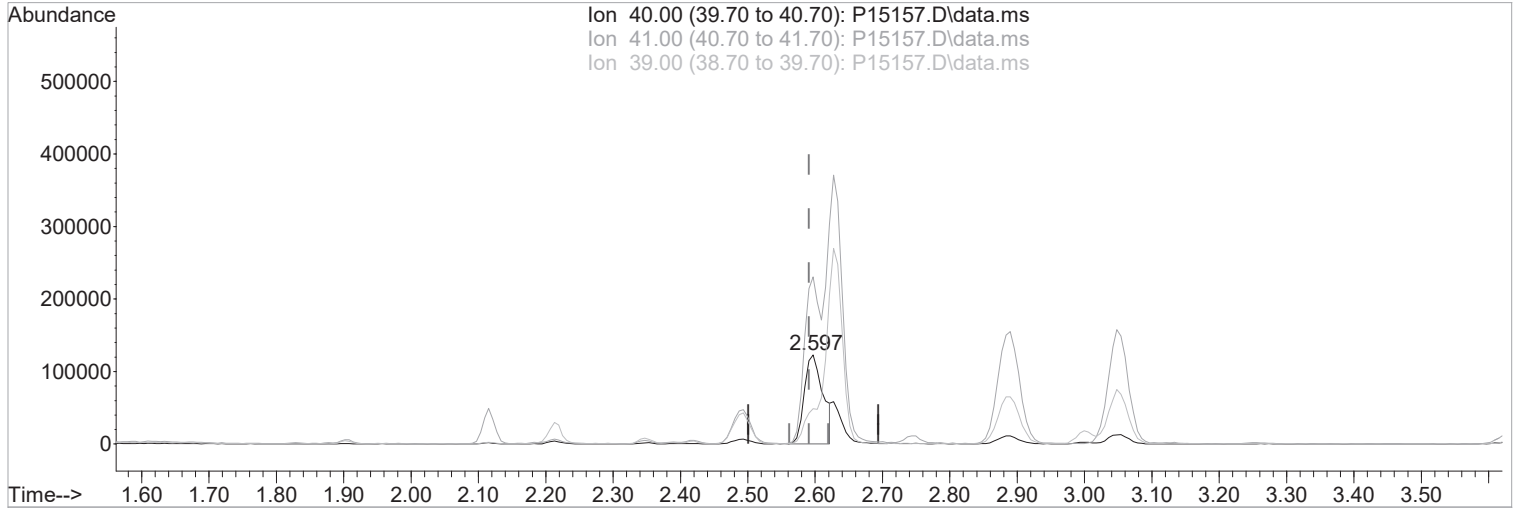
Quant Time: Jan 02 10:04:57 2018
 Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:05:00 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15157.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 790.36 ppb m

response 238029

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.65
39.00	40.10	39.75
0.00	0.00	0.00

Manual Integration:

After

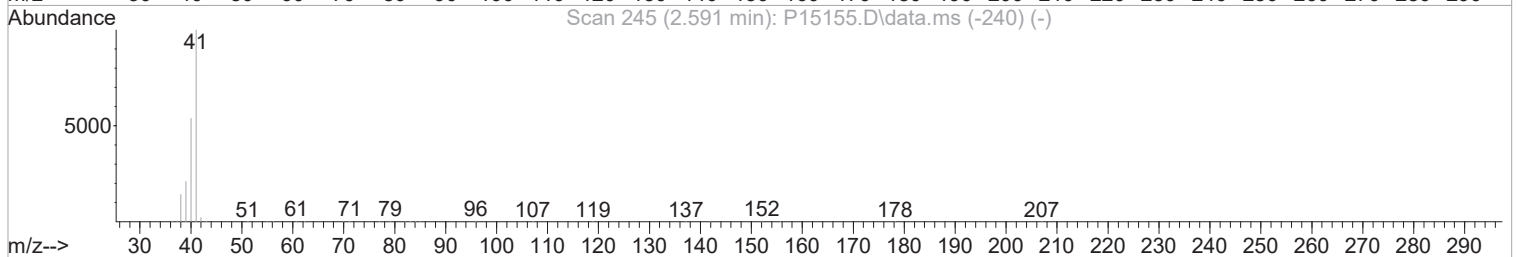
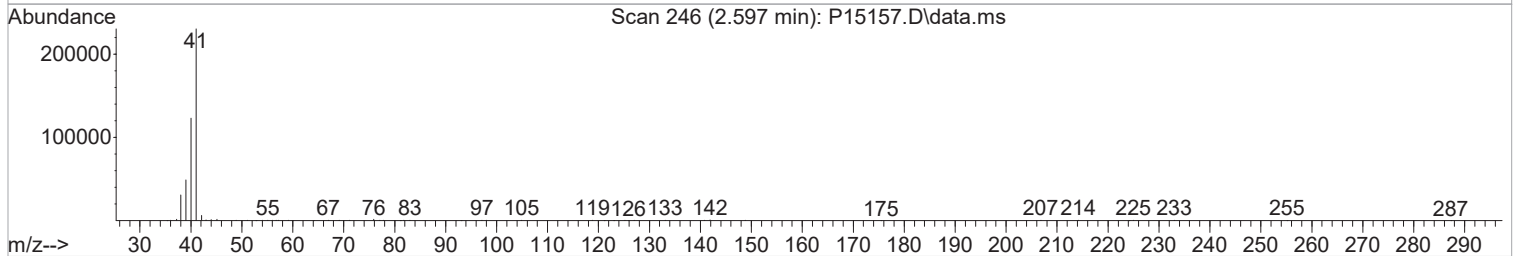
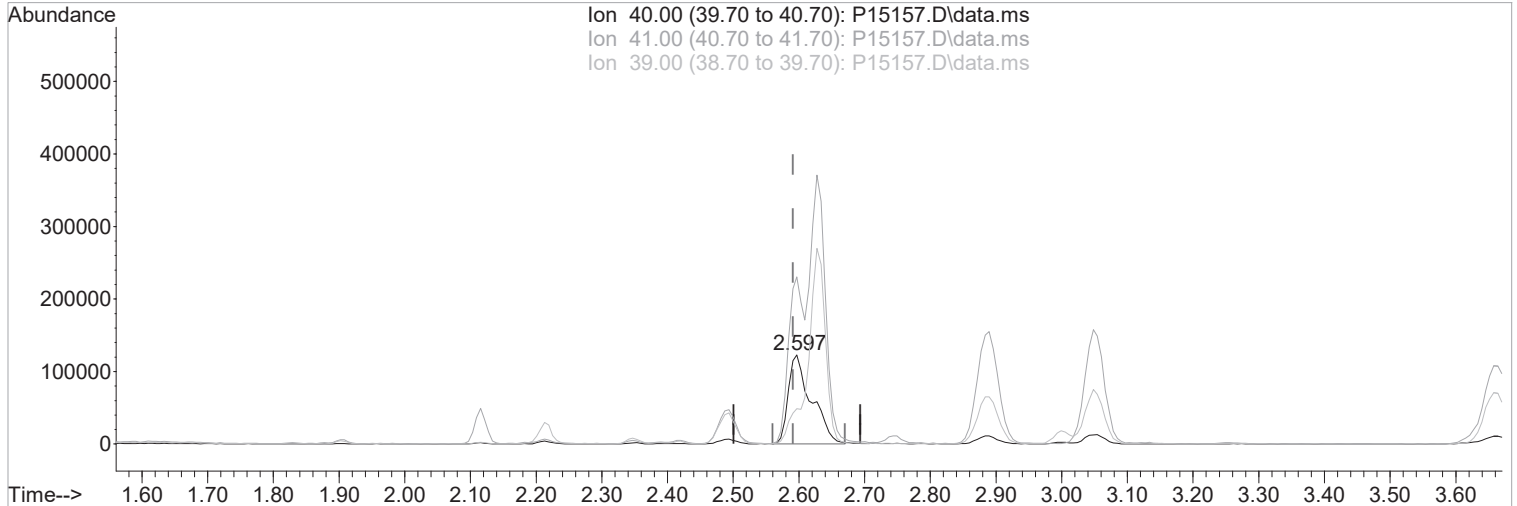
Poor integration.

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:05:00 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



TIC: P15157.D\data.ms

(19) Acetonitrile

Manual Integration:

2.597min (+0.006) 989.46 ppb

Before

response 297991

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.65
39.00	40.10	39.75
0.00	0.00	0.00

01/02/18

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15157.D
 Acq On : 29 Dec 2017 7:54 pm
 Operator : K.Ruest
 Sample : 150ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:37:06 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	292569	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	490455	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	434110	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	247756	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	547527	188.02	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	376.04%#
48) surr1,1,2-dichloroetha...	5.761	65	734391	184.03	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	368.06%#
65) SURR3,Toluene-d8	8.291	98	2327638	179.00	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	358.00%#
70) SURR2,BFB	10.858	95	956833	190.21	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	380.42%#

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	539738	149.77	ppb	99
3) Chloromethane	1.305	50	622907	140.03	ppb	100
4) Vinyl Chloride	1.384	62	641459	148.03	ppb	98
5) Bromomethane	1.603	94	316635	96.21	ppb	96
6) Chloroethane	1.670	64	374393	138.39	ppb	97
7) Freon 21	1.829	67	814269	144.40	ppb	100
8) Trichlorofluoromethane	1.878	101	602038	144.19	ppb	99
9) Diethyl Ether	2.115	59	416000	143.54	ppb	99
10) Freon 123a	2.115	67	513832	146.71	ppb	99
11) Freon 123	2.170	83	600366	146.80	ppb	100
12) Acrolein	2.213	56	615460	711.56	ppb	99
13) 1,1-Dicethene	2.298	96	397720	132.35	ppb	99
14) Freon 113	2.304	101	392173	138.10	ppb	99
15) Acetone	2.347	43	258006	145.20	ppb	99
16) 2-Propanol	2.493	45	1065868	3114.04	ppb	97
17) Iodomethane	2.432	142	556437	205.52	ppb	98
18) Carbon Disulfide	2.493	76	1268697	144.75	ppb	99
19) Acetonitrile	2.597	40	238029m	790.36	ppb	
20) Allyl Chloride	2.627	76	201357	125.80	ppb	90
21) Methyl Acetate	2.652	43	462488	145.17	ppb	98
22) Methylene Chloride	2.743	84	445429	140.53	ppb	94
23) TBA	2.890	59	1786989	3028.82	ppb	100
24) Acrylonitrile	2.999	53	1218100	711.32	ppb	98
25) Methyl-t-Butyl Ether	3.048	73	1557430	144.57	ppb	99
26) trans-1,2-Dichloroethene	3.036	96	440239	140.51	ppb	96
28) 1,1-Dicethane	3.536	63	815707	144.81	ppb	99
29) Vinyl Acetate	3.627	86	122751	132.88	ppb	# 85
30) DIPE	3.658	45	1499391	139.77	ppb	99
31) 2-Chloro-1,3-Butadiene	3.658	53	749401	137.52	ppb	98
32) ETBE	4.182	59	1553259	143.58	ppb	99
33) 2,2-Dichloropropane	4.359	77	693672	138.48	ppb	99
34) cis-1,2-Dichloroethene	4.365	96	506031	136.46	ppb	99
35) 2-Butanone	4.414	43	320247	142.76	ppb	95
36) Propionitrile	4.493	54	514127	706.44	ppb	100
37) Bromochloromethane	4.761	130	288792	141.90	ppb	99
38) Methacrylonitrile	4.761	67	256359	136.00	ppb	97
39) Tetrahydrofuran	4.853	42	194913	149.06	ppb	95
40) Chloroform	4.944	83	758817	124.18	ppb	99
41) 1,1,1-Trichloroethane	5.237	97	663489	138.22	ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15157.D
 Acq On : 29 Dec 2017 7:54 pm
 Operator : K.Ruest
 Sample : 150ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:37:06 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	1515937	143.56	ppb	99
44) Cyclohexane	5.328	41	445198	139.45	ppb	99
46) Carbontetrachloride	5.517	117	544735	147.96	ppb	96
47) 1,1-Dichloropropene	5.529	75	612237	141.71	ppb	96
49) Benzene	5.846	78	1818984	141.98	ppb	99
50) 1,2-Dichloroethane	5.883	62	682917	145.10	ppb	99
51) Iso-Butyl Alcohol	5.871	43	821240	3159.49	ppb	98
52) n-Heptane	6.334	43	595523	134.29	ppb	98
53) 1-Butanol	6.834	56	1390226	8085.40	ppb	99
54) Trichloroethene	6.797	130	462521	140.77	ppb	97
55) Methylcyclohexane	7.035	55	614887	143.82	ppb	99
56) 1,2-Diclpropane	7.078	63	480907	140.71	ppb	99
57) Dibromomethane	7.218	93	294803	144.48	ppb	100
58) 1,4-Dioxane	7.279	88	212207	3145.58	ppb	99
59) Methyl Methacrylate	7.303	69	446487	142.01	ppb	98
60) Bromodichloromethane	7.444	83	595001	137.22	ppb	97
61) 2-Nitropropane	7.730	41	391518	297.02	ppb	95
62) 2-Chloroethylvinyl Ether	7.852	63	144721	186.53	ppb	96
63) cis-1,3-Dichloropropene	7.992	75	810061	149.24	ppb	99
64) 4-Methyl-2-pentanone	8.200	43	602146	144.44	ppb	97
66) Toluene	8.364	91	1934015	138.98	ppb	100
67) trans-1,3-Dichloropropene	8.632	75	759648	150.23	ppb	99
68) Ethyl Methacrylate	8.773	69	783521	153.64	ppb	98
69) 1,1,2-Trichloroethane	8.821	97	437457	138.37	ppb	97
72) Tetrachloroethene	8.955	164	332311	138.72	ppb	98
73) 2-Hexanone	9.114	43	484165	151.49	ppb	96
74) 1,3-Dichloropropane	8.992	76	791974	141.97	ppb	98
75) Dibromochloromethane	9.218	129	445592	153.05	ppb	99
76) N-Butyl Acetate	9.266	43	968879	161.06	ppb	98
77) 1,2-Dibromoethane	9.315	107	451565	146.01	ppb	100
78) Chlorobenzene	9.809	112	1238808	145.66	ppb	98
79) 3-CBTF	9.827	180	622531	137.28	ppb	99
80) 4-CBTF	9.882	180	562205	135.66	ppb	96
81) 1,1,1,2-Tetrachloroethane	9.900	131	443581	146.72	ppb	97
82) Ethylbenzene	9.931	106	673420	143.42	ppb	# 91
83) (m+p)Xylene	10.047	106	1644308	289.32	ppb	91
84) o-Xylene	10.400	106	825179	145.01	ppb	99
85) Styrene	10.413	104	1451842	151.56	ppb	98
87) Bromoform	10.565	173	317619	146.97	ppb	99
88) 2-CBTF	10.644	180	618636	126.12	ppb	97
89) Isopropylbenzene	10.742	105	2092787	128.56	ppb	97
90) Cyclohexanone	10.803	55	3524297	2846.05	ppb	97
91) trans-1,4-Dichloro-2-B...	11.047	53	197069	152.75	ppb	96
92) 1,1,2,2-Tetrachloroethane	10.998	83	711154	144.76	ppb	97
93) Bromobenzene	10.986	156	525400	131.79	ppb	# 87
94) 1,2,3-Trichloropropane	11.028	110	229053	143.53	ppb	92
95) n-Propylbenzene	11.095	91	2472471	130.63	ppb	98
96) 2-Chlorotoluene	11.156	91	1540580	131.28	ppb	99
97) 3-Chlorotoluene	11.211	91	1619765	130.85	ppb	98
98) 4-Chlorotoluene	11.248	91	1816544	133.98	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	1806839	132.71	ppb	96
100) tert-Butylbenzene	11.522	119	1573501	133.89	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	1867526	136.96	ppb	98
102) 3,4-DCBTF	11.620	214	534041	136.18	ppb	98
103) sec-Butylbenzene	11.705	105	2330647	134.77	ppb	97
104) p-Isopropyltoluene	11.827	119	2002602	137.60	ppb	97

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb
Misc : 8260 WATER ICAL
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:37:06 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration

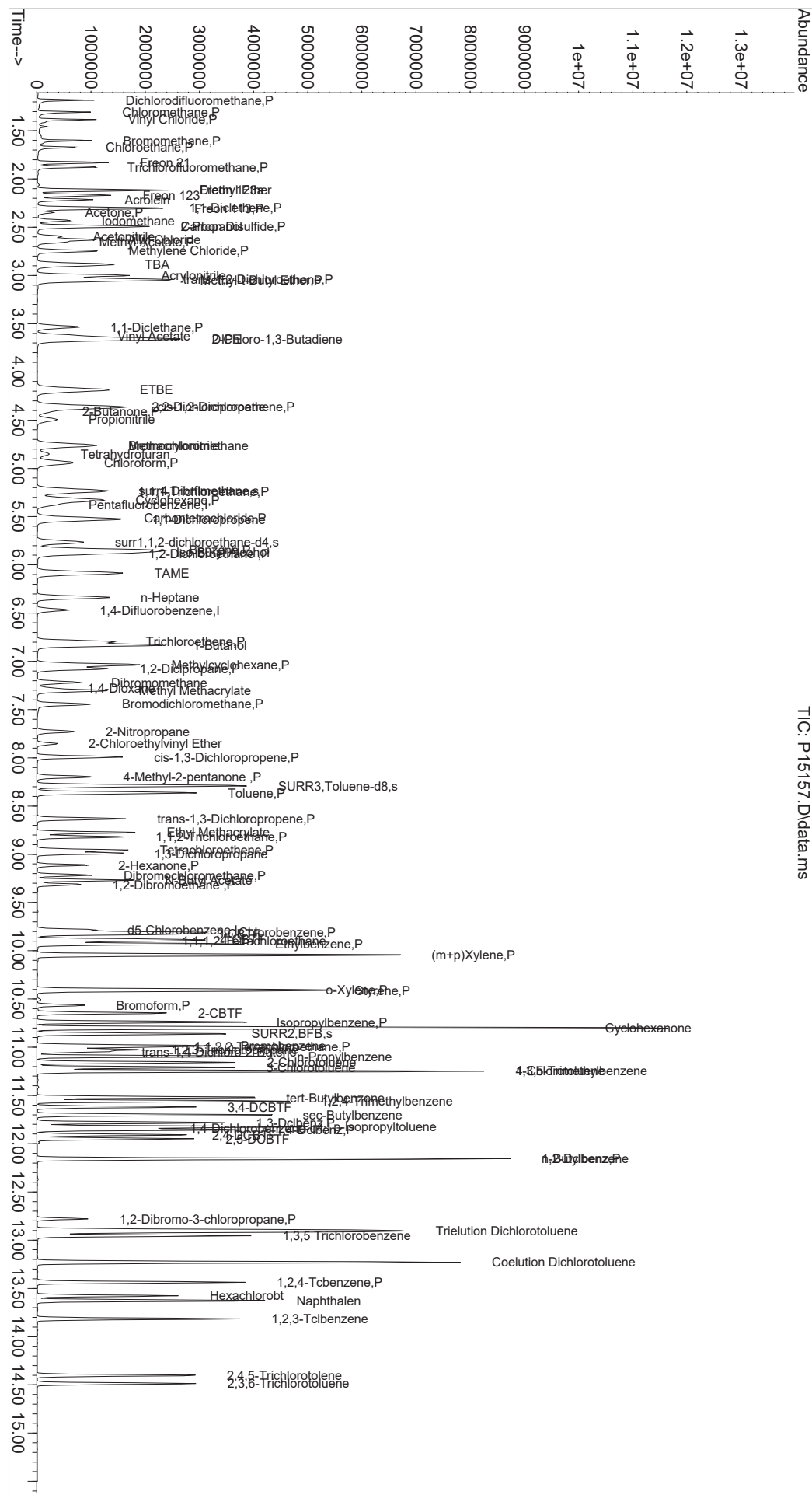
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105) 1,3-Dclbenz	11.784	146	1067793	140.91	ppb	97
106) 1,4-Dclbenz	11.857	146	1100174	138.34	ppb	100
107) 2,4-DCBTF	11.912	214	504051	138.72	ppb	96
108) 2,5-DCBTF	11.949	214	565452	145.64	ppb	98
109) n-Butylbenzene	12.156	91	1957468	144.19	ppb	97
110) 1,2-Dclbenz	12.156	146	1119097	147.96	ppb	97
111) 1,2-Dibromo-3-chloropr...	12.778	157	188568	152.33	ppb	89
112) Trielution Dichlorotol...	12.906	125	3274890	440.19	ppb	95
113) 1,3,5 Trichlorobenzene	12.955	180	873495	148.34	ppb	99
114) Coelution Dichlorotoluene	13.229	125	2410195	305.46	ppb	98
115) 1,2,4-Tcbenzene	13.436	180	872721	158.74	ppb	96
116) Hexachlorobt	13.577	225	365403	143.18	ppb	99
117) Naphthalen	13.625	128	2437047	160.66	ppb	99
118) 1,2,3-Tclbenzene	13.814	180	838162	156.95	ppb	99
119) 2,4,5-Trichlorotoluene	14.400	159	607215	187.55	ppb	99
120) 2,3,6-Trichlorotoluene	14.485	159	543243	184.61	ppb	97

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

1st 01/02/18
Data Path : I:\ACQDATA\msvoa12\Data\122917\
Data File : P15157.D
Acq On : 29 Dec 2017 7:54 pm
Operator : K.Ruest
Sample : 150ppb
Disc : 8260 WATER ICAL
PALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 11:37:06 2018
Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Update : Tue Jan 02 09:43:32 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15158.D
 Acq On : 29 Dec 2017 8:16 pm
 Operator : K.Ruest
 Sample : 200ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:05:03 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	290912	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	487367	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	437596	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	247869	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.225	113	144272	49.86	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	99.72%
48) surr1,1,2-dichloroetha...	5.767	65	197998	49.93	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	99.86%
65) SURR3,Toluene-d8	8.291	98	644017	49.84	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	99.68%
70) SURR2,BFB	10.858	95	257652	51.54	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	103.08%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	751240	209.65	ppb	98
3) Chloromethane	1.305	50	842475	190.47	ppb	99
4) Vinyl Chloride	1.384	62	868455	201.56	ppb	100
5) Bromomethane	1.603	94	461003	140.87	ppb	96
6) Chloroethane	1.683	64	527822	196.21	ppb	97
7) Freon 21	1.835	67	1111626	198.26	ppb	100
8) Trichlorofluoromethane	1.878	101	821925	197.97	ppb	99
9) Diethyl Ether	2.115	59	566315	196.52	ppb	99
10) Freon 123a	2.115	67	693482	199.14	ppb	98
11) Freon 123	2.170	83	806074	198.22	ppb	99
12) Acrolein	2.213	56	845277	982.83	ppb	98
13) 1,1-Dicethene	2.304	96	547719	183.30	ppb	96
14) Freon 113	2.311	101	538979	190.88	ppb	98
15) Acetone	2.347	43	351188	198.76	ppb	98
16) 2-Propanol	2.481	45	1373962	4037.03	ppb	100
17) Iodomethane	2.432	142	808369	300.27	ppb	100
18) Carbon Disulfide	2.493	76	1729359	198.43	ppb	99
19) Acetonitrile	2.591	40	294271	982.67	ppb	99
20) Allyl Chloride	2.634	76	289745	182.05	ppb	98
21) Methyl Acetate	2.652	43	628591	198.43	ppb	98
22) Methylene Chloride	2.749	84	610961	193.85	ppb	98
23) TBA	2.884	59	2296991	3915.41	ppb	100
24) Acrylonitrile	2.999	53	1645062	966.12	ppb	100
25) Methyl-t-Butyl Ether	3.048	73	2091958	195.29	ppb	98
26) trans-1,2-Dichloroethene	3.042	96	599623	192.48	ppb	98
28) 1,1-Dicethane	3.536	63	1099476	196.30	ppb	100
29) Vinyl Acetate	3.627	86	169659	184.71	ppb	# 86
30) DIPE	3.664	45	2008391	188.29	ppb	96
31) 2-Chloro-1,3-Butadiene	3.658	53	1021309	188.49	ppb	98
32) ETBE	4.188	59	2094666	194.73	ppb	99
33) 2,2-Dichloropropane	4.365	77	944252	189.58	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	679606	184.32	ppb	99
35) 2-Butanone	4.408	43	437404	196.10	ppb	99
36) Propionitrile	4.493	54	675244	933.11	ppb	99
37) Bromochloromethane	4.761	130	397989	196.67	ppb	95
38) Methacrylonitrile	4.767	67	343737	183.40	ppb	95
39) Tetrahydrofuran	4.853	42	263268	202.48	ppb	95
40) Chloroform	4.944	83	1035776	170.47	ppb	99
41) 1,1,1-Trichloroethane	5.243	97	903387	189.27	ppb	99

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15158.D
 Acq On : 29 Dec 2017 8:16 pm
 Operator : K.Ruest
 Sample : 200ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 10:05:03 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	2037262	194.02	ppb	99
44) Cyclohexane	5.328	41	604103	190.42	ppb	95
46) Carbontetrachloride	5.517	117	735485	201.04	ppb	97
47) 1,1-Dichloropropene	5.529	75	842599	196.27	ppb	97
49) Benzene	5.846	78	2449784	192.43	ppb	99
50) 1,2-Dichloroethane	5.883	62	902735	193.02	ppb	98
51) Iso-Butyl Alcohol	5.865	43	1039787	4025.64	ppb	100
52) n-Heptane	6.340	43	845487	191.86	ppb	97
53) 1-Butanol	6.834	56	1754566	10269.01	ppb	99
54) Trichloroethene	6.797	130	629327	192.75	ppb	96
55) Methylcyclohexane	7.035	55	841747	198.13	ppb	99
56) 1,2-Dicloropropane	7.078	63	656968	193.44	ppb	99
57) Dibromomethane	7.218	93	394147	194.39	ppb	99
58) 1,4-Dioxane	7.279	88	271954	4056.76	ppb	99
59) Methyl Methacrylate	7.303	69	602614	192.88	ppb	99
60) Bromodichloromethane	7.444	83	805927	187.04	ppb	97
61) 2-Nitropropane	7.730	41	530882	405.30	ppb	96
62) 2-Chloroethylvinyl Ether	7.852	63	197975	256.79	ppb	99
63) cis-1,3-Dichloropropene	7.992	75	1093652	202.76	ppb	98
64) 4-Methyl-2-pentanone	8.200	43	818222	197.52	ppb	98
66) Toluene	8.364	91	2622312	189.63	ppb	99
67) trans-1,3-Dichloropropene	8.632	75	1036667	206.31	ppb	99
68) Ethyl Methacrylate	8.773	69	1047414	206.69	ppb	100
69) 1,1,2-Trichloroethane	8.821	97	587034	186.86	ppb	98
72) Tetrachloroethene	8.956	164	452798	187.50	ppb	98
73) 2-Hexanone	9.114	43	645998	200.51	ppb	95
74) 1,3-Dichloropropane	8.992	76	1085040	192.96	ppb	96
75) Dibromochloromethane	9.218	129	608537	207.35	ppb	100
76) N-Butyl Acetate	9.266	43	1292182	213.09	ppb	98
77) 1,2-Dibromoethane	9.315	107	614032	196.96	ppb	97
78) Chlorobenzene	9.809	112	1680665	196.04	ppb	97
79) 3-CBTF	9.827	180	876297	191.70	ppb	97
80) 4-CBTF	9.882	180	784651	187.83	ppb	97
81) 1,1,1,2-Tetrachloroethane	9.900	131	608273	199.59	ppb	97
82) Ethylbenzene	9.931	106	929718	196.43	ppb	# 89
83) (m+p)Xylene	10.047	106	2264539	395.27	ppb	# 84
84) o-Xylene	10.400	106	1136660	198.16	ppb	96
85) Styrene	10.413	104	1971122	204.13	ppb	97
87) Bromoform	10.565	173	430898	199.29	ppb	99
88) 2-CBTF	10.644	180	864752	176.21	ppb	98
89) Isopropylbenzene	10.742	105	2851948	175.12	ppb	96
90) Cyclohexanone	10.803	55	4382480	3537.46	ppb	93
91) trans-1,4-Dichloro-2-B...	11.047	53	262051	203.03	ppb	97
92) 1,1,2,2-Tetrachloroethane	10.998	83	927526	188.72	ppb	97
93) Bromobenzene	10.986	156	721898	180.99	ppb	# 87
94) 1,2,3-Trichloropropane	11.028	110	298297	186.83	ppb	# 90
95) n-Propylbenzene	11.095	91	3339751	176.37	ppb	96
96) 2-Chlorotoluene	11.156	91	2098787	178.77	ppb	99
97) 3-Chlorotoluene	11.211	91	2217961	179.09	ppb	99
98) 4-Chlorotoluene	11.248	91	2483738	183.11	ppb	97
99) 1,3,5-Trimethylbenzene	11.248	105	2494924	183.17	ppb	95
100) tert-Butylbenzene	11.522	119	2187207	186.03	ppb	98
101) 1,2,4-Trimethylbenzene	11.559	105	2528724	185.37	ppb	96
102) 3,4-DCBTF	11.620	214	739979	188.61	ppb	98
103) sec-Butylbenzene	11.705	105	3183145	183.98	ppb	95
104) p-Isopropyltoluene	11.827	119	2749131	188.81	ppb	97

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15158.D
 Acq On : 29 Dec 2017 8:16 pm
 Operator : K.Ruest
 Sample : 200ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA-12

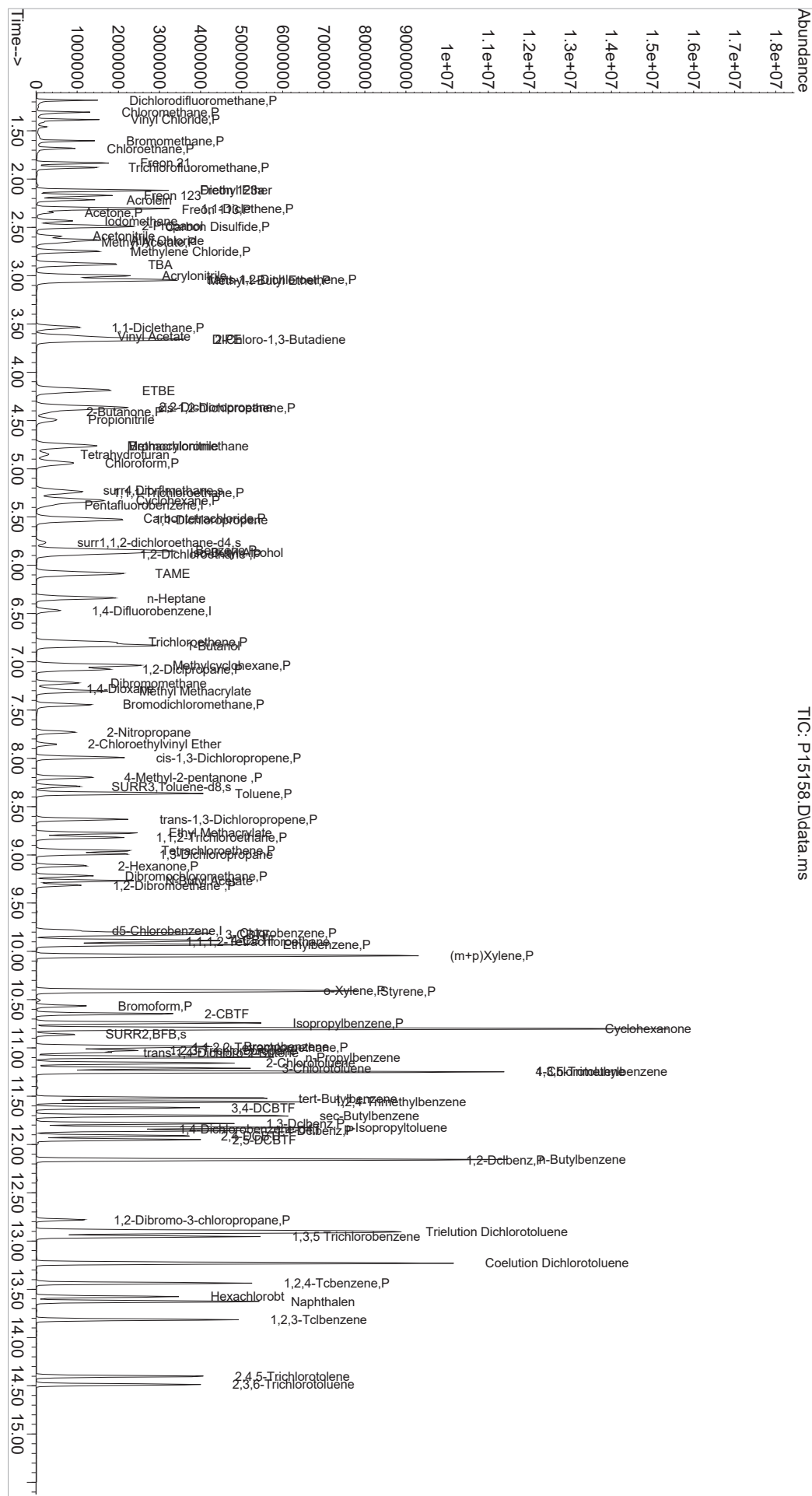
Quant Time: Jan 02 10:05:03 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105) 1,3-Dclbenz	11.784	146	1435051	189.28	ppb	97
106) 1,4-Dclbenz	11.857	146	1475977	185.51	ppb	98
107) 2,4-DCBTF	11.912	214	693879	190.88	ppb	98
108) 2,5-DCBTF	11.949	214	774579	199.41	ppb	97
109) n-Butylbenzene	12.156	91	2655114	195.50	ppb	96
110) 1,2-Dclbenz	12.162	146	1466109	193.75	ppb	97
111) 1,2-Dibromo-3-chloropr...	12.784	157	244588	197.50	ppb	99
112) Trielution Dichlorotol...	12.900	125	4327505	581.41	ppb	98
113) 1,3,5 Trichlorobenzene	12.955	180	1187560	201.58	ppb	99
114) Coelution Dichlorotoluene	13.229	125	3153338	399.46	ppb	96
115) 1,2,4-Tcbenzene	13.436	180	1152706	209.58	ppb	98
116) Hexachlorobt	13.577	225	488363	191.28	ppb	98
117) Naphthalen	13.625	128	3152851	207.75	ppb	99
118) 1,2,3-Tclbenzene	13.814	180	1096108	205.16	ppb	98
119) 2,4,5-Trichlorotoluene	14.400	159	813315	251.10	ppb	99
120) 2,3,6-Trichlorotoluene	14.485	159	743055	252.39	ppb	98

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

1st 01/02/18
 2nd
 Data Path : I:\ACQDATA\msvoa12\Data\122917\
 Data File : P15158.D
 Acq On : 29 Dec 2017 8:16 pm
 Operator : K.Ruest
 Sample : 200ppb
 Vial : 10 Sample Multiplier: 1
 Inst : MSVOA-12

Quant Time: Jan 02 10:05:03 2018
 Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 Quant Update : Tue Jan 02 09:43:32 2018
 Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15162.D
 Acq On : 29 Dec 2017 9:43 pm
 Operator : K.Ruest
 Sample : ICV 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 15:22:52 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	50.0000	50.0000	0.0	101	0.00
2 P	Dichlorodifluoromethane	50.0000	38.3364	23.3#	72	0.00
3 P	Chloromethane	50.0000	43.5025	13.0	91	0.00
4 P	Vinyl Chloride	50.0000	46.7558	6.5	93	0.00
5 P	Bromomethane	50.0000	45.3858	9.2	107	0.00
6 P	Chloroethane	50.0000	46.6469	6.7	94	0.00
7	Freon 21	50.0000	51.8310	-3.7	104	0.00
8 P	Trichlorofluoromethane	50.0000	51.8442	-3.7	105	0.00
9	Diethyl Ether	50.0000	47.8708	4.3	102	0.00
10	Freon 123a	50.0000	55.1162	-10.2	113	0.00
11	Freon 123	50.0000	52.3280	-4.7	107	0.00
12	Acrolein	250.0000	64.4076	74.2#	27	0.00
13 P	1,1-Dicethene	50.0000	45.0181	10.0	99	0.00
14 P	Freon 113	50.0000	46.5695	6.9	98	0.00
15 P	Acetone	50.0000	48.4806	3.0	98	0.00
16	2-Propanol	1000.0000	989.1796	1.1	108	0.00
17	Iodomethane	50.0000	36.5844	26.8#	69	0.00
18 P	Carbon Disulfide	50.0000	45.9999	8.0	92	0.00
19	Acetonitrile	250.0000	236.9515	5.2	103	0.00
20	Allyl Chloride	50.0000	46.6651	6.7	99	0.00
21 P	Methyl Acetate	50.0000	50.2279	-0.5	107	0.00
22 P	Methylene Chloride	50.0000	48.2385	3.5	101	0.00
23	TBA	1000.0000	965.5453	3.4	104	0.00
24	Acrylonitrile	250.0000	238.6045	4.6	102	0.00
25 P	Methyl-t-Butyl Ether	50.0000	47.8966	4.2	99	0.00
26 P	trans-1,2-Dichloroethene	50.0000	47.9361	4.1	99	0.00
27	Halothane	-1.0000	0.0000	0.0	0	-4.00#
28 P	1,1-Dicethane	50.0000	49.5055	1.0	102	0.00
29	Vinyl Acetate	50.0000	43.1364	13.7	90	0.00
30	DIPE	50.0000	46.6654	6.7	97	0.00
31	2-Chloro-1,3-Butadiene	50.0000	45.4804	9.0	96	-0.01
32	ETBE	50.0000	48.2001	3.6	96	0.01
33	2,2-Dichloropropane	50.0000	46.2159	7.6	98	0.00
34 P	cis-1,2-Dichloroethene	50.0000	47.9734	4.1	100	0.00
35 P	2-Butanone	50.0000	46.9551	6.1	97	0.00
36	Propionitrile	250.0000	229.3379	8.3	101	-0.01
37	Bromochloromethane	50.0000	48.8549	2.3	105	0.01
38	Methacrylonitrile	50.0000	51.9388	-3.9	107	0.00
39	Tetrahydrofuran	50.0000	50.6503	-1.3	104	0.00
40 P	Chloroform	50.0000	47.1963	5.6	104	0.00
41 P	1,1,1-Trichloroethane	50.0000	48.2984	3.4	105	0.01
42	TAME	50.0000	48.8381	2.3	99	0.00
43 I	1,4-Difluorobenzene	50.0000	50.0000	0.0	102	0.00
44 P	Cyclohexane	50.0000	46.1498	7.7	99	0.00
45 s	surr4,Dibrflmethane	50.0000	49.6375	0.7	101	0.00
46 P	Carbontetrachloride	50.0000	50.9593	-1.9	103	0.00
47	1,1-Dichloropropene	50.0000	49.5886	0.8	103	0.01
48 s	surr1,1,2-dichloroethane-d4	50.0000	49.5422	0.9	100	0.00
49 P	Benzene	50.0000	49.4920	1.0	103	0.00
50 P	1,2-Dichloroethane	50.0000	48.0812	3.8	100	0.00
51	Iso-Butyl Alcohol	1000.0000	945.5165	5.4	102	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15162.D
 Acq On : 29 Dec 2017 9:43 pm
 Operator : K.Ruest
 Sample : ICV 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 15:22:52 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	Amount	Calc.	%Dev	Area%	Dev(min)
52	n-Heptane	50.0000	44.9998	10.0	93	0.02
53	1-Butanol	2500.0000	2494.2713	0.2	103	-0.01
54 P	Trichloroethene	50.0000	50.4687	-0.9	103	0.00
55 P	Methylcyclohexane	50.0000	49.0548	1.9	98	0.00
56 P	1,2-Dichloropropane	50.0000	48.4676	3.1	102	0.01
57	Dibromomethane	50.0000	47.8199	4.4	100	0.00
58	1,4-Dioxane	1000.0000	976.8829	2.3	107	0.00
59	Methyl Methacrylate	50.0000	48.3817	3.2	103	-0.01
60 P	Bromodichloromethane	50.0000	48.1066	3.8	105	0.00
61	2-Nitropropane	100.0000	92.4985	7.5	98	0.00
62	2-Chloroethylvinyl Ether	50.0000	50.4464	-0.9	106	0.00
63 P	cis-1,3-Dichloropropene	50.0000	49.6107	0.8	99	0.00
64 P	4-Methyl-2-pentanone	50.0000	46.1898	7.6	96	0.00
65 s	SURR3,Toluene-d8	50.0000	49.1066	1.8	100	0.00
66 P	Toluene	50.0000	49.7158	0.6	103	0.00
67 P	trans-1,3-Dichloropropene	50.0000	50.2479	-0.5	101	0.00
68	Ethyl Methacrylate	50.0000	51.7282	-3.5	104	0.00
69 P	1,1,2-Trichloroethane	50.0000	47.0703	5.9	104	0.00
70 s	SURR2,BFB	50.0000	48.1879	3.6	100	0.00
71 I	d5-Chlorobenzene	50.0000	50.0000	0.0	102	0.00
72 P	Tetrachloroethene	50.0000	47.6152	4.8	101	-0.01
73 P	2-Hexanone	50.0000	46.7916	6.4	97	0.00
74	1,3-Dichloropropane	50.0000	48.6785	2.6	100	0.00
75 P	Dibromochloromethane	50.0000	50.3673	-0.7	102	0.00
76	N-Butyl Acetate	50.0000	53.6467	-7.3	104	-0.01
77 P	1,2-Dibromoethane	50.0000	48.5922	2.8	100	0.00
78 P	Chlorobenzene	50.0000	51.3244	-2.6	104	0.00
79	3-CBTF	50.0000	47.1241	5.8	100	0.00
80	4-CBTF	50.0000	45.9124	8.2	99	0.00
81	1,1,1,2-Tetrachloroethane	50.0000	49.5753	0.8	103	0.00
82 P	Ethylbenzene	50.0000	49.8294	0.3	103	0.00
83 P	(m+p)Xylene	100.0000	100.6183	-0.6	103	0.00
84 P	o-Xylene	50.0000	49.7286	0.5	101	0.00
85 P	Styrene	50.0000	51.1258	-2.3	101	0.00
86 I	1,4-Dichlorobenzene-d4	50.0000	50.0000	0.0	103	0.00
87 P	Bromoform	50.0000	49.8785	0.2	104	0.00
88	2-CBTF	50.0000	48.2256	3.5	100	0.00
89 P	Isopropylbenzene	50.0000	49.4973	1.0	101	0.00
90	Cyclohexanone	1000.0000	765.2859	23.5#	81	0.00
91	trans-1,4-Dichloro-2-Butene	50.0000	53.5761	-7.2	113	0.00
92 P	1,1,2,2-Tetrachloroethane	50.0000	47.7556	4.5	102	0.00
93	Bromobenzene	50.0000	49.0177	2.0	103	0.00
94	1,2,3-Trichloropropane	50.0000	49.2272	1.5	103	0.00
95	n-Propylbenzene	50.0000	50.5206	-1.0	101	0.00
96	2-Chlorotoluene	50.0000	51.3652	-2.7	107	0.00
97	3-Chlorotoluene	50.0000	49.1502	1.7	100	0.00
98	4-Chlorotoluene	50.0000	49.2336	1.5	101	0.00
99	1,3,5-Trimethylbenzene	50.0000	51.3216	-2.6	104	0.00
100	tert-Butylbenzene	50.0000	50.1446	-0.3	102	0.00
101	1,2,4-Trimethylbenzene	50.0000	52.0713	-4.1	105	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\122917\
 Data File : P15162.D
 Acq On : 29 Dec 2017 9:43 pm
 Operator : K.Ruest
 Sample : ICV 50ppb
 Misc : 8260 WATER ICAL
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Jan 02 15:22:52 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	Amount	Calc.	%Dev	Area%	Dev(min)
102	3,4-DCBTF	50.0000	48.0202	4.0	96	0.00
103	sec-Butylbenzene	50.0000	50.8496	-1.7	102	0.00
104	p-Isopropyltoluene	50.0000	51.7027	-3.4	104	0.00
105 P	1,3-Dclbenz	50.0000	50.3245	-0.6	103	0.00
106 P	1,4-Dclbenz	50.0000	49.3074	1.4	105	0.00
107	2,4-DCBTF	50.0000	47.7617	4.5	99	0.00
108	2,5-DCBTF	50.0000	47.4753	5.0	98	0.00
109	n-Butylbenzene	50.0000	52.8775	-5.8	105	0.00
110 P	1,2-Dclbenz	50.0000	50.8620	-1.7	104	0.00
111 P	1,2-Dibromo-3-chloropropane	50.0000	47.4017	5.2	107	0.00
112	Trielution Dichlorotoluene	150.0000	148.2131	1.2	99	0.00
113	1,3,5 Trichlorobenzene	50.0000	50.3797	-0.8	101	0.00
114	Coelution Dichlorotoluene	100.0000	103.4644	-3.5	100	0.00
115 P	1,2,4-Tcbenzene	50.0000	52.6198	-5.2	103	0.00
116	Hexachlorobt	50.0000	48.8387	2.3	102	0.00
117	Naphthalen	50.0000	55.9552	-11.9	106	0.00
118	1,2,3-Tclbenzene	50.0000	54.0830	-8.2	106	0.00
119	2,4,5-Trichlorotoluene	50.0000	53.9078	-7.8	99	0.00
120	2,3,6-Trichlorotoluene	50.0000	54.8488	-9.7	103	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001
Instrument ID: R-MS-12

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1800001-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\122917\P15150.D	12/29/2017 17:22
02	RC1800001-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15151.D	12/29/2017 17:44
03	RC1800001-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15152.D	12/29/2017 18:06
04	RC1800001-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15153.D	12/29/2017 18:28
05	RC1800001-05	20ppb	I:\ACQUDATA\msvoa12\Data\122917\P15154.D	12/29/2017 18:49
06	RC1800001-06	50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15155.D	12/29/2017 19:11
07	RC1800001-07	100ppb	I:\ACQUDATA\msvoa12\Data\122917\P15156.D	12/29/2017 19:32
08	RC1800001-08	150ppb	I:\ACQUDATA\msvoa12\Data\122917\P15157.D	12/29/2017 19:54
09	RC1800001-09	200ppb	I:\ACQUDATA\msvoa12\Data\122917\P15158.D	12/29/2017 20:16

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.008	02	1.000	0.8324	03	2.000	0.8305	04	5.000	0.8263
05	20.000	0.7547	06	50.000	0.7586	07	100.000	0.8393	08	150.000	0.7559
09	200.000	0.7763									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.023	02	1.000	0.9379	03	2.000	0.9779	04	5.000	0.947
05	20.000	0.9354	06	50.000	0.9464	07	100.000	1.023	08	150.000	0.9294
09	200.000	0.9449									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6988	02	1.000	0.5509	03	2.000	0.4889	04	5.000	0.5238
05	20.000	0.4587	06	50.000	0.4697	07	100.000	0.5076	08	150.000	0.4531
09	200.000	0.4707									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.5995	05	20.000	0.4536	06	50.000	0.506	07	100.000	0.5177
08	200.000	0.4877									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.3386	05	20.000	0.2707	06	50.000	0.2965	07	100.000	0.2994
08	200.000	0.2791									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3073	02	1.000	0.2917	03	2.000	0.2929	04	5.000	0.2841
05	20.000	0.2475	06	50.000	0.2643	07	100.000	0.2816	08	150.000	0.2552
09	200.000	0.2587									

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001
Instrument ID: R-MS-12

Signal ID: 1

Analyte

Toluene-d8

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	1.572	05	20.000	1.232	06	50.000	1.33	07	100.000	1.308
08	200.000	1.186									

Trichloroethene (TCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3925	02	1.000	0.3488	03	2.000	0.309	04	5.000	0.3231
05	20.000	0.3163	06	50.000	0.3352	07	100.000	0.3524	08	150.000	0.3143
09	200.000	0.3228									

Vinyl Chloride

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7871	02	1.000	0.616	03	2.000	0.7275	04	5.000	0.749
05	20.000	0.7515	06	50.000	0.7481	07	100.000	0.8085	08	150.000	0.7308
09	200.000	0.7463									

cis-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6166	02	1.000	0.5455	03	2.000	0.6365	04	5.000	0.638
05	20.000	0.5786	06	50.000	0.5775	07	100.000	0.6218	08	150.000	0.5765
09	200.000	0.584									

trans-1,2-Dichloroethene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5602	02	1.000	0.5063	03	2.000	0.5366	04	5.000	0.5328
05	20.000	0.5048	06	50.000	0.5129	07	100.000	0.551	08	150.000	0.5016
09	200.000	0.5153									

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Summary Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001
Instrument ID: R-MS-12

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	9.7	≤20	0.8203	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.8	≤20	0.9627	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	14.9	≤20	0.5136	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	10.6	≤20	0.5129	
Dibromofluoromethane	SURR	Average RF	% RSD	8.8	≤20	0.2969	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.3	≤20	0.2759	0.200
Toluene-d8	SURR	Average RF	% RSD	11.3	≤20	1.326	
Trichloroethene (TCE)	TRG	Average RF	% RSD	7.9	≤20	0.335	0.200
Vinyl Chloride	TRG	Average RF	% RSD	7.2	≤20	0.7405	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	5.4	≤20	0.5972	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	4.1	≤20	0.5246	0.100

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800001

Signal ID: 1

Instrument ID: R-MS-12

#	Lab Code	Sample Name	File Location	Acquisition Date
11	RC1800001-11	ICV/LCS	I:\ACQUDATA\msvoa12\Data\010318\P15169.D	01/03/2018 11:34
10	RC1800001-10	ICV 50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15162.D	12/29/2017 21:43

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	48.3	8.203E-1	7.924E-1	-3.403	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	49.5	9.627E-1	9.532E-1	-0.989	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.0	5.136E-1	4.624E-1	-9.964	±30	Average RF
Tetrachloroethene (PCE)	50.0	47.6	2.759E-1	2.628E-1	-4.770	±30	Average RF
Trichloroethene (TCE)	50.0	50.5	3.35E-1	3.381E-1	0.937	±30	Average RF
Vinyl Chloride	50.0	46.8	7.405E-1	6.925E-1	-6.488	±30	Average RF
cis-1,2-Dichloroethene	50.0	48.0	5.972E-1	5.73E-1	-4.053	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.9	5.246E-1	5.03E-1	-4.128	±30	Average RF
4-Bromofluorobenzene	50.0	48.2	5.129E-1	4.943E-1	-3.624	±30	Average RF
Dibromofluoromethane	50.0	49.6	2.969E-1	2.947E-1	-0.725	±30	Average RF
Toluene-d8	50.0	49.1	1.326E0	1.302E0	-1.787	±30	Average RF

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:32

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\
Signal ID: 1

Calibration Date: 12/29/2017
Calibration ID: RC1800001
Analysis Lot: 585036
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	43.0	0.8203	0.7055	-14.0	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	54.4	0.9627	1.0471	8.8	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	46.8	0.5136	0.4806	-6.4	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	47.5	0.2759	0.2621	-5.0	NA	±20	Average RF
Trichloroethene (TCE)	50.0	46.5	0.335	0.3113	-7.1	NA	±20	Average RF
Vinyl Chloride	50.0	51.1	0.7405	0.7573	2.3	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	51.4	0.5972	0.6142	2.9	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	49.8	0.5246	0.5226	-0.4	NA	±20	Average RF
4-Bromofluorobenzene	50.0	46.5	0.5129	0.4774	-6.9	NA	±20	Average RF
Dibromofluoromethane	50.0	46.9	0.2969	0.2784	-6.2	NA	±20	Average RF
Toluene-d8	50.0	49.4	1.3256	1.3097	-1.2	NA	±20	Average RF

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request:R1802551

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method:

Analysis Lot:585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718\P16693.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	10:03:00	
I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	Continuing Calibration Verification	RQ1802745-02	3/27/2018	10:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	Lab Control Sample	RQ1802745-03	3/27/2018	11:30:00	
I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	Method Blank	RQ1802745-04	3/27/2018	12:22:00	
I:\ACQUDATA\msvoa12\Data\032718\P16699.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	12:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	13:15:00	
I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	13:37:00	
I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	13:59:00	
I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	14:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	14:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	MW-10	R1802551-002	3/27/2018	15:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16706.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	15:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	Trip Blank	R1802551-001	3/27/2018	16:10:00	
I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	EB-032018	R1802551-007	3/27/2018	16:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	EB-032218	R1802551-008	3/27/2018	16:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16711.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	17:16:00	
I:\ACQUDATA\msvoa12\Data\032718\P16712.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	17:38:00	
I:\ACQUDATA\msvoa12\Data\032718\P16713.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	18:00:00	
I:\ACQUDATA\msvoa12\Data\032718\P16714.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	18:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16715.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	18:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16716.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	19:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16717.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	19:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16718.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	19:49:00	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request:R1802551

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method:

Analysis Lot:585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	MW-10 MS	RQ1802745-05	3/27/2018	20:11:00	
I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	MW-10 DMS	RQ1802745-06	3/27/2018	20:33:00	

Tune Method: W122917

Run Method: ↘

LIMS Run#: 595036

SECRET

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	BUL							P16091		↑ ENV
2	↓							P16092		
3	TUNE		PQ1502745 - 01					P16093	✓	(cont'd) 10:23
1	CCV		02					P16094	✓	
1	LCS		—					P16095	(✓)	↑ PT-SWIFT
1	LCS		03					P16096	✓	
1	MBUL		—					P16097	(✓)	not c/o
2	↓		04					P16098	✓	
1	P150255D-002	1.0				2	(22)	P16099	✓	
2	P1502451-003	1.0				1	8	P16700	✓	
3	↓					1	8	P16701	✓	
4	↓					1	8	P16702	✓	
5	↓					1	8	P16703	✓	
6	↓					1	8	P16704	✓	
7	↓					1	(22)	P16705	✓	
8	~~P150255D~~ 021	1.0	5/50mils P150255D			3	6	P16706	✓	
9	BUL					—	—	P16707	—	
10	P1502551-001	1.0				1	22	P16708	✓	
11	↓					1	22	P16709	✓	
12	↓					1	22	P16710	✓	
13	P150235D-024	1.0				1	22	P16711	✓	
14	↓					1	22	P16712	✓	
15	↓					1	22	P16713	✓	
16	↓					1	22	P16714	✓	
17	↓					1	22	P16715	✓	
18	↓					1	22	P16716	✓	
19	↓					1	22	P16717	✓	
20	↓					1	22	P16718	✓	
21	ms	1.0	PQ1502745-05 (2551) (✓)			2	22	P16719	✓	
22	msd	1.0	↓			3	22	P16720	✓	
23	BUL					—	—	P16721	—	

Combined IS/Surr

- H.C. 100

Internal Std 50 : 14666051

Reagents: _____

$$v_{\text{eff}} = m_s / \rho$$

Runlog-MSVOA

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 09:45
Date Received: 03/23/18 09:40

Sample Name: MW-17
Lab Code: R1802551-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.53 J	1.0	0.36	1	03/27/18 13:15	
1,1-Dichloroethane (1,1-DCA)	2.8	1.0	0.20	1	03/27/18 13:15	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:15	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:15	
Trichloroethene (TCE)	1.0 U	1.0	0.22	1	03/27/18 13:15	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:15	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 13:15	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:15	
Dibromofluoromethane	91	89 - 119	03/27/18 13:15	
Toluene-d8	100	87 - 121	03/27/18 13:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 10:35
Date Received: 03/23/18 09:40

Sample Name: MW-8
Lab Code: R1802551-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.9	1.0	0.36	1	03/27/18 13:37	
1,1-Dichloroethane (1,1-DCA)	2.2	1.0	0.20	1	03/27/18 13:37	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:37	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:37	
Trichloroethene (TCE)	50	1.0	0.22	1	03/27/18 13:37	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:37	
cis-1,2-Dichloroethene	67	1.0	0.30	1	03/27/18 13:37	
trans-1,2-Dichloroethene	0.33 J	1.0	0.33	1	03/27/18 13:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	03/27/18 13:37	
Dibromofluoromethane	92	89 - 119	03/27/18 13:37	
Toluene-d8	100	87 - 121	03/27/18 13:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 11:25
Date Received: 03/23/18 09:40

Sample Name: MW-16
Lab Code: R1802551-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	2.8	1.0	0.36	1	03/27/18 13:59	
1,1-Dichloroethane (1,1-DCA)	7.7	1.0	0.20	1	03/27/18 13:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 13:59	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 13:59	
Trichloroethene (TCE)	2.4	1.0	0.22	1	03/27/18 13:59	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 13:59	
cis-1,2-Dichloroethene	15	1.0	0.30	1	03/27/18 13:59	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 13:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 13:59	
Dibromofluoromethane	92	89 - 119	03/27/18 13:59	
Toluene-d8	100	87 - 121	03/27/18 13:59	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18 12:25
Date Received: 03/23/18 09:40

Sample Name: MW-9
Lab Code: R1802551-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.36	1	03/27/18 14:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/27/18 14:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:21	
Trichloroethene (TCE)	5.9	1.0	0.22	1	03/27/18 14:21	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.30	1	03/27/18 14:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	03/27/18 14:21	
Dibromofluoromethane	90	89 - 119	03/27/18 14:21	
Toluene-d8	100	87 - 121	03/27/18 14:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1802551
Date Collected: 03/22/18
Date Received: 03/23/18 09:40

Sample Name: DUP-032218
Lab Code: R1802551-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

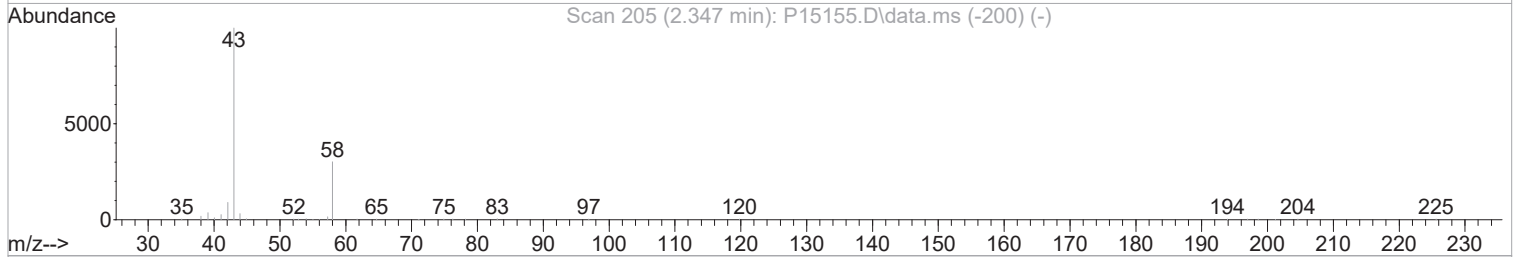
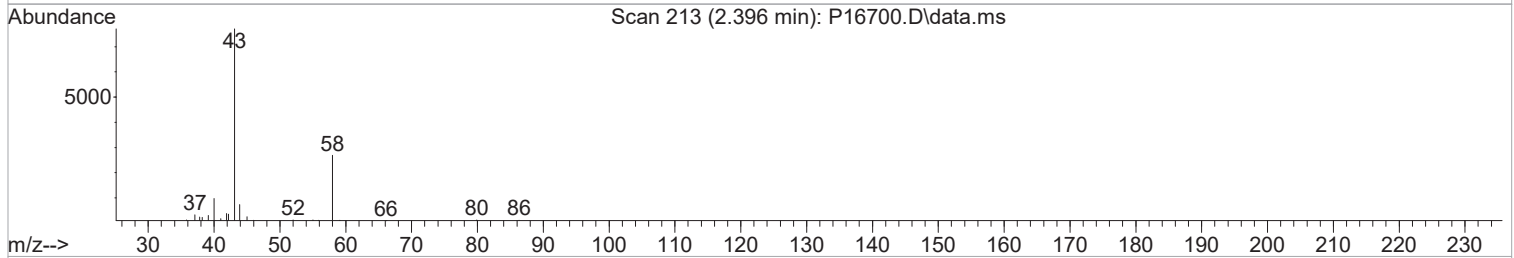
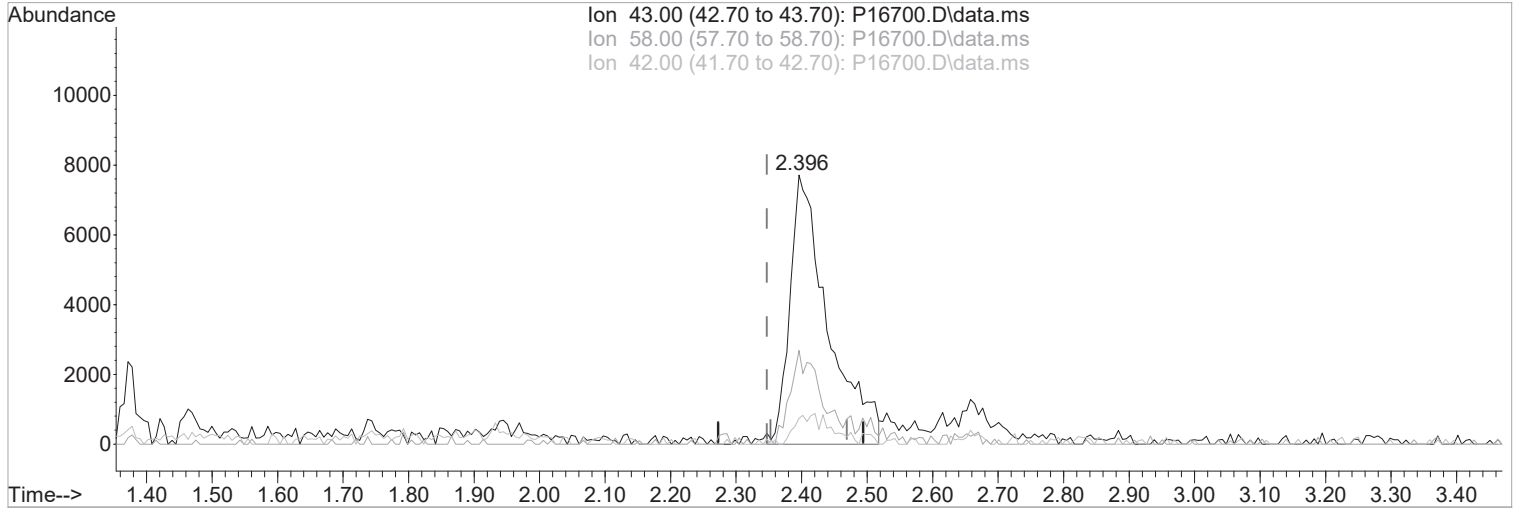
Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	2.5	1.0	0.36	1	03/27/18 14:43	
1,1-Dichloroethane (1,1-DCA)	7.3	1.0	0.20	1	03/27/18 14:43	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.57	1	03/27/18 14:43	
Tetrachloroethene (PCE)	1.0 U	1.0	0.30	1	03/27/18 14:43	
Trichloroethene (TCE)	2.3	1.0	0.22	1	03/27/18 14:43	
Vinyl Chloride	1.0 U	1.0	0.32	1	03/27/18 14:43	
cis-1,2-Dichloroethene	14	1.0	0.30	1	03/27/18 14:43	
trans-1,2-Dichloroethene	1.0 U	1.0	0.33	1	03/27/18 14:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	03/27/18 14:43	
Dibromofluoromethane	92	89 - 119	03/27/18 14:43	
Toluene-d8	99	87 - 121	03/27/18 14:43	

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16700.D\data.ms

(15) Acetone (P)

2.396min (+0.049) 15.64 ppb m

response 31109

Ion	Exp%	Act%
43.00	100	100
58.00	29.70	34.78
42.00	9.20	4.94
0.00	0.00	0.00

Manual Integration:

After

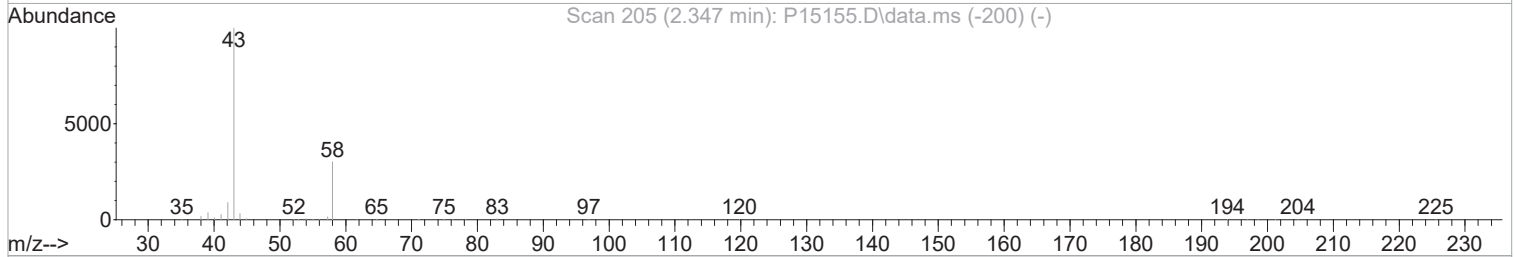
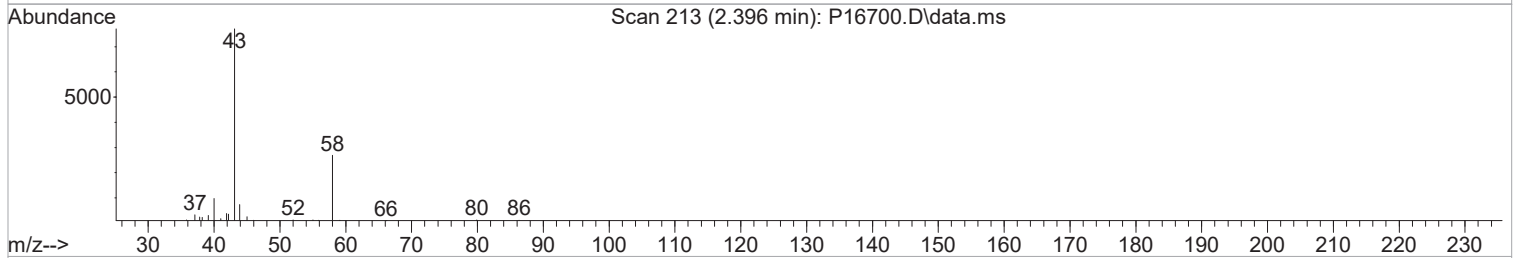
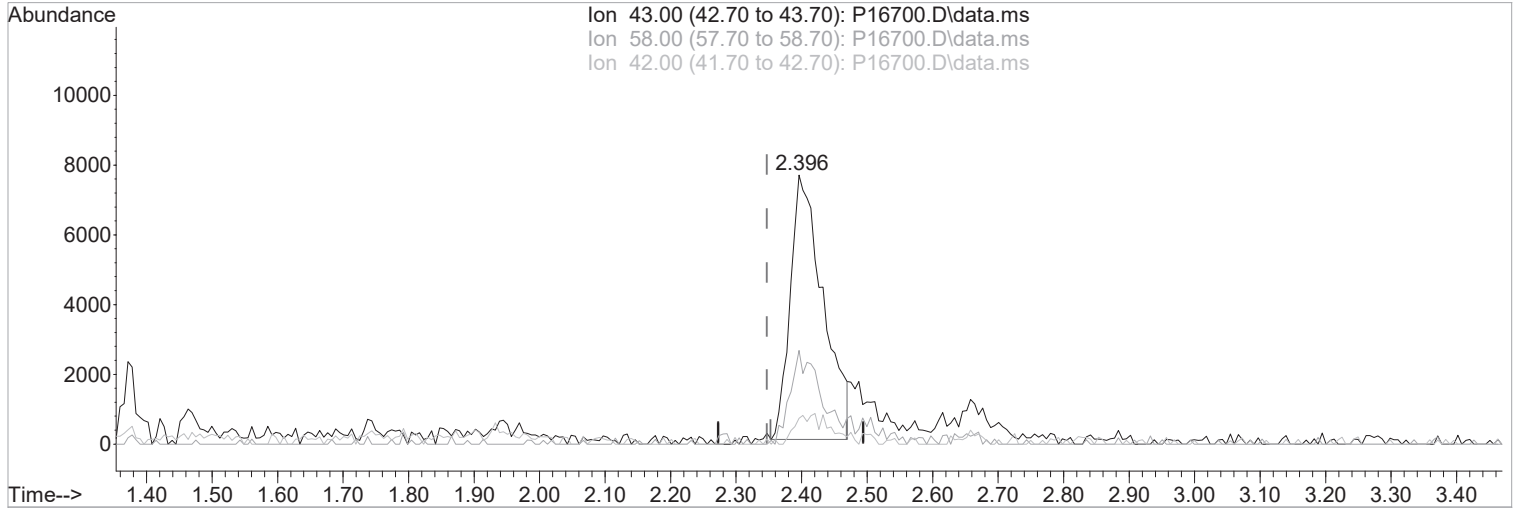
Poor integration.

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16700.D\data.ms

(15) Acetone (P)

Manual Integration:

2.396min (+0.049) 13.22 ppb

Before

response 26298

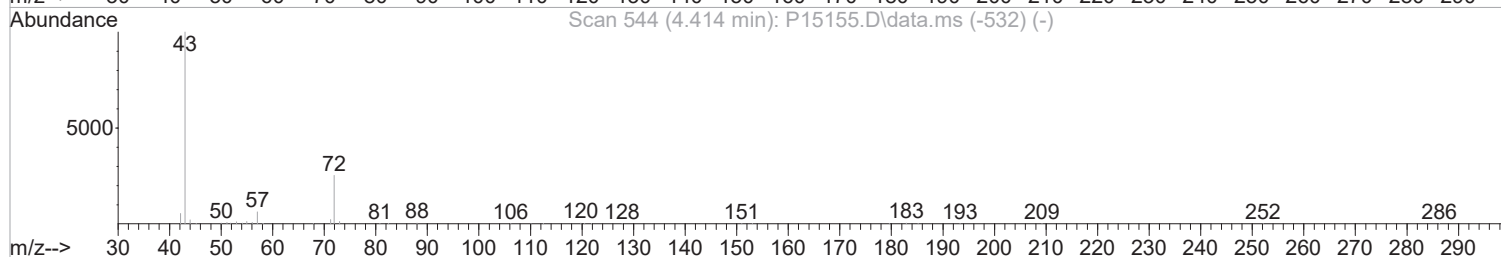
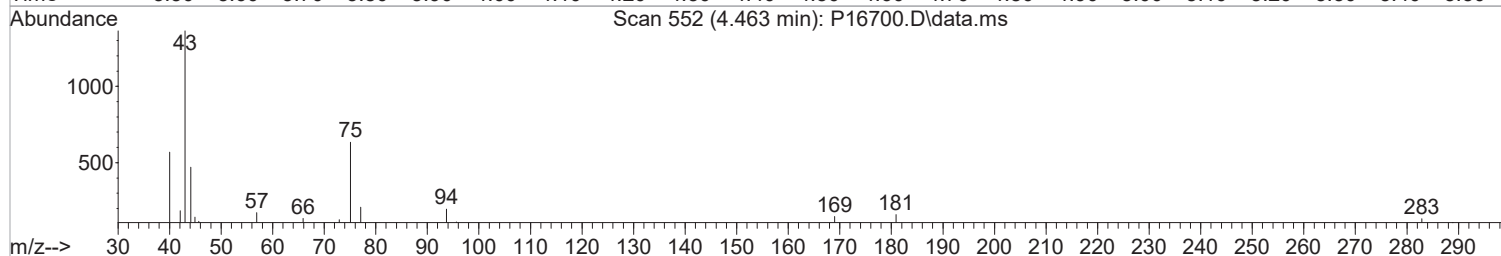
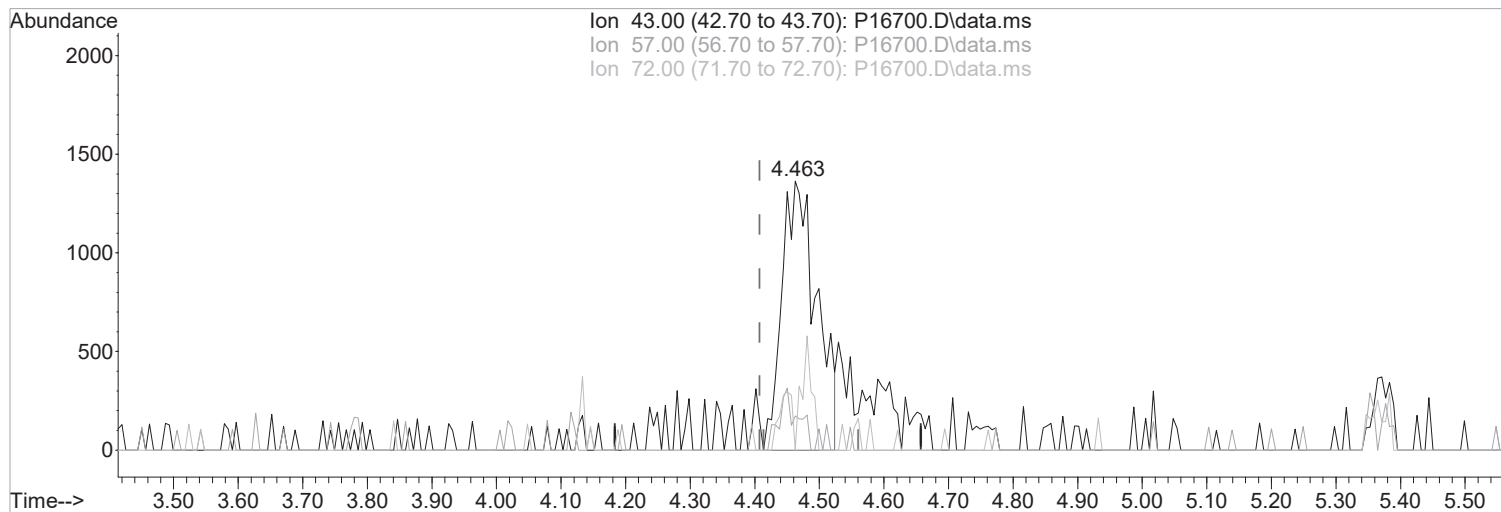
Ion	Exp%	Act%
43.00	100	100
58.00	29.70	34.78
42.00	9.20	9.57
0.00	0.00	0.00

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16700.D\data.ms

(35) 2-Butanone (P)

4.463min (+0.055) 2.04 ppb m

response 5102

Ion	Exp%	Act%
43.00	100	100
57.00	6.70	12.68
72.00	26.10	0.00#
0.00	0.00	0.00

Manual Integration:

After

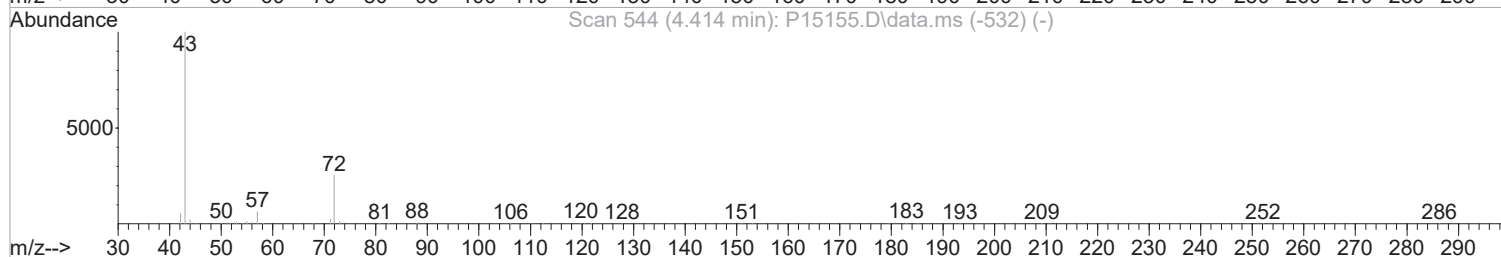
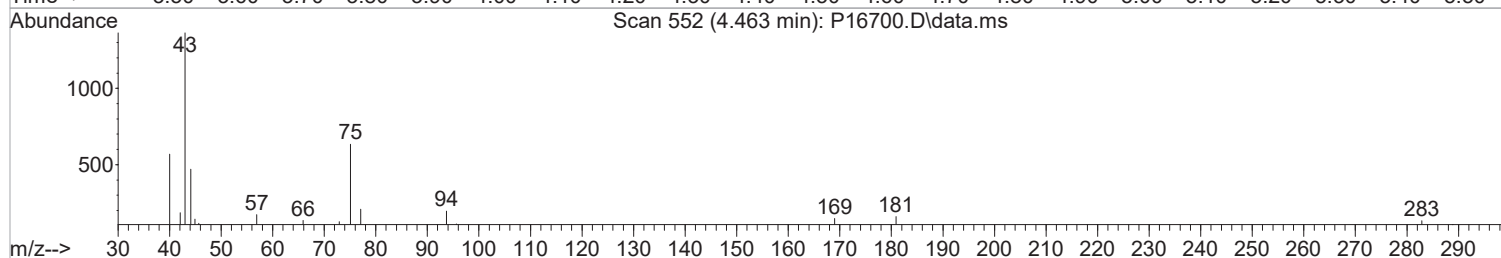
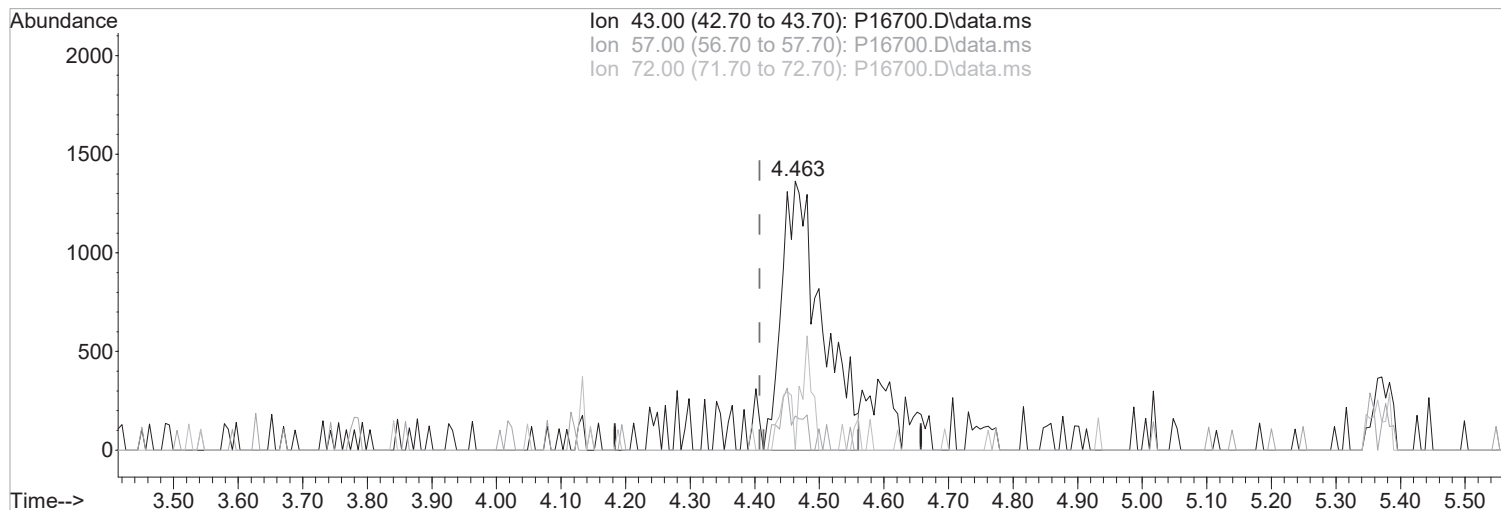
Poor integration.

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16700.D
Acq On : 27 Mar 2018 1:15 pm
Operator : K.Ruest
Sample : R1802551-003|1.0
Misc : VERINA 8260 T4
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 13:39:29 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16700.D\data.ms

(35) 2-Butanone (P)

Manual Integration:

4.463min (+0.055) 2.35 ppb

Before

response 5864

Ion	Exp%	Act%
43.00	100	100
57.00	6.70	12.68
72.00	26.10	0.00#
0.00	0.00	0.00

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16700.D
 Acq On : 27 Mar 2018 1:15 pm
 Operator : K.Ruest
 Sample : R1802551-003|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 16:53:22 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

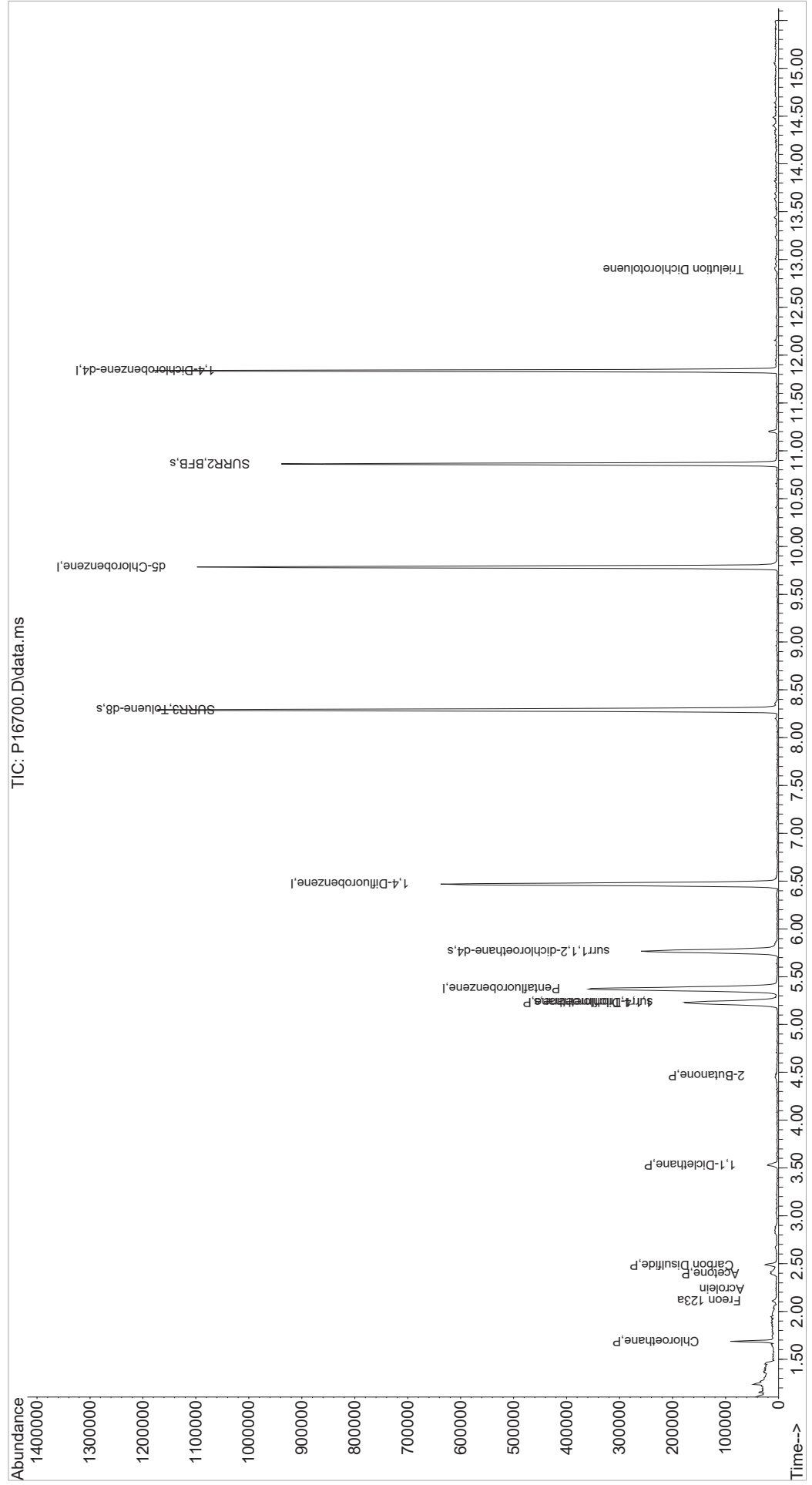
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	326286	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	554963	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	484861	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	236506	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	149424	45.35	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	90.70%	
48) surr1,1,2-dichloroetha...	5.767	65	222605	49.30	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	98.60%	
65) SURR3,Toluene-d8	8.291	98	732224	49.76	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	99.52%	
70) SURR2,BFB	10.864	95	263187	46.23	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	92.46%	
Target Compounds						
6) Chloroethane	1.689	64	44718	14.82	ppb	Qvalue 97
10) Freon 123a	2.109	67	3347	0.85	ppb	86
12) Acrolein	2.237	56	1073	1.11	ppb	87
15) Acetone	2.396	43	31109m	15.64	ppb	
18) Carbon Disulfide	2.487	76	22321	2.28	ppb	95
28) 1,1-Dicethane	3.530	63	17304	2.75	ppb	97
35) 2-Butanone	4.463	43	5102m	2.04	ppb	
41) 1,1,1-Trichloroethane	5.231	97	2849	0.53	ppb	# 79
112) Trielution Dichlorotol...	12.894	125	1712	0.24	ppb	95

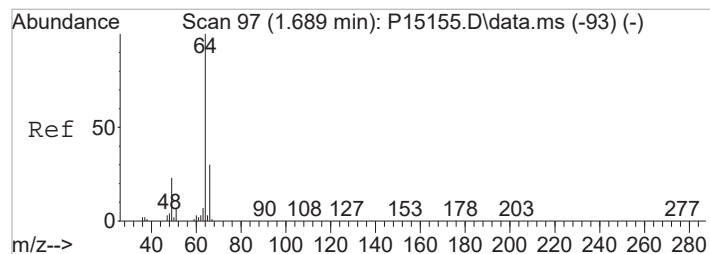
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16700.D
 Acq On : 27 Mar 2018 1:15 pm
 Operator : K.Ruest
 Sample : R1802551-003|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

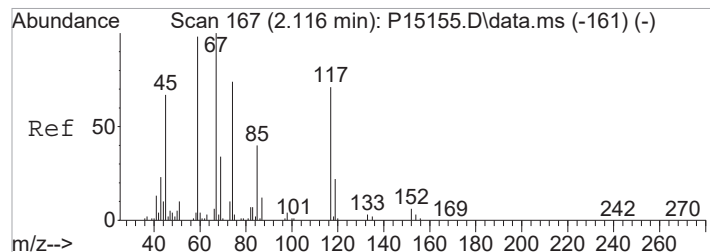
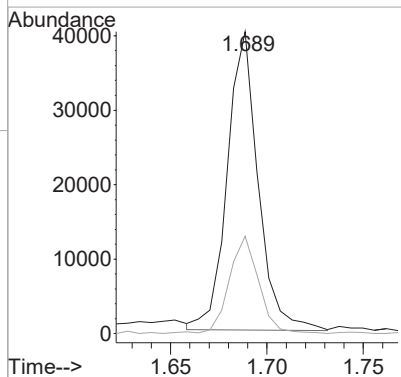
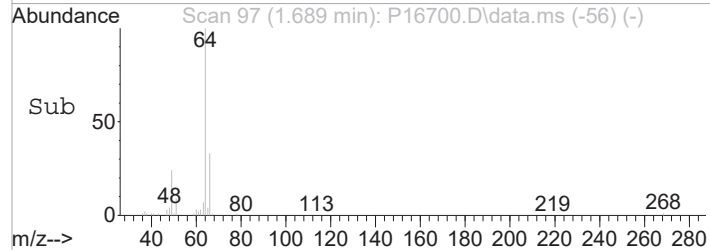
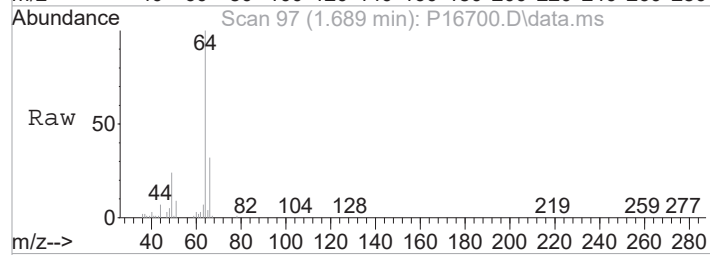
Quant Time: Mar 27 16:53:22 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration





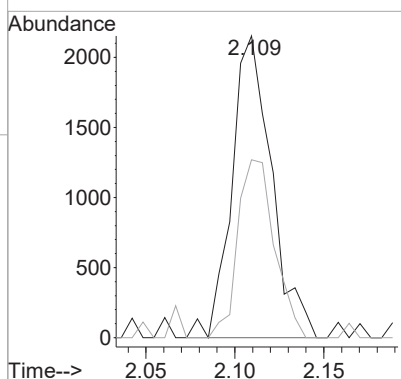
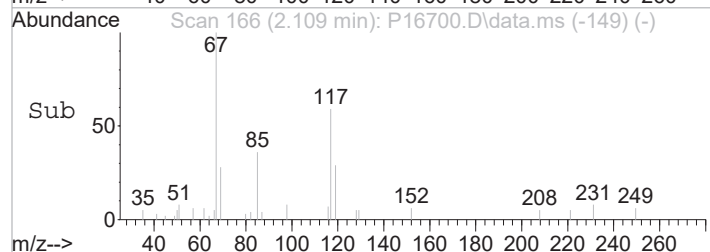
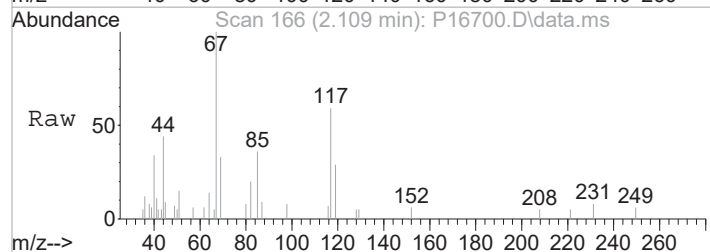
#6
Chloroethane
Concen: 14.82 ppb
RT: 1.689 min Scan# 97
Delta R.T. 0.006 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

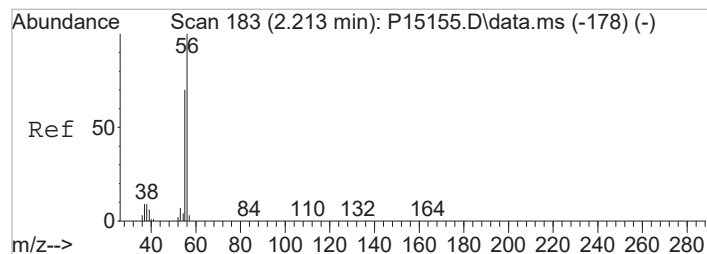
Tgt Ion: 64 Resp: 44718
Ion Ratio Lower Upper
64 100
66 32.2 10.4 50.4



#10
Freon 123a
Concen: 0.85 ppb
RT: 2.109 min Scan# 166
Delta R.T. -0.012 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

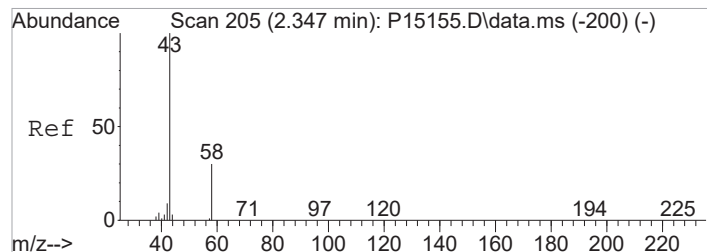
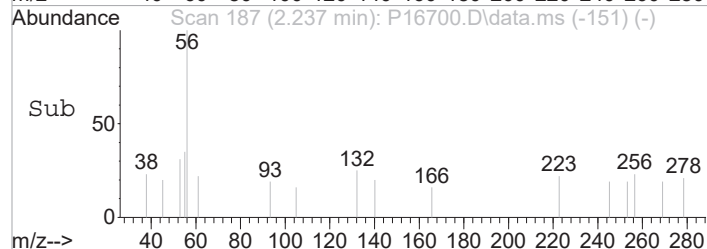
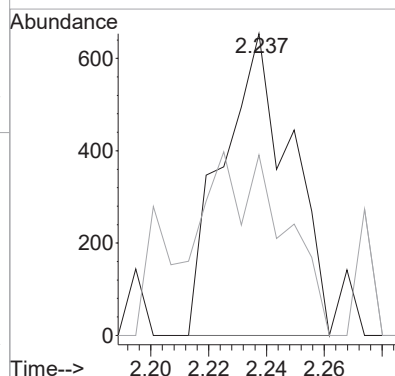
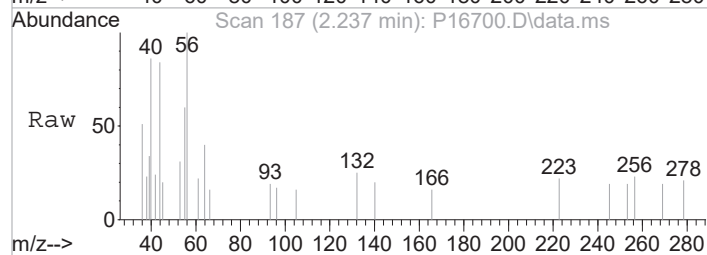
Tgt Ion: 67 Resp: 3347
Ion Ratio Lower Upper
67 100
117 59.0 50.3 90.3





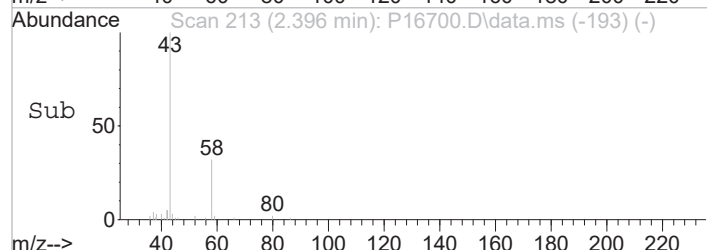
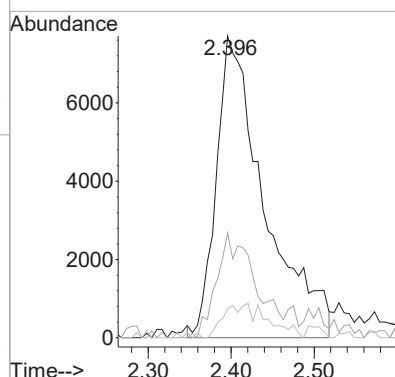
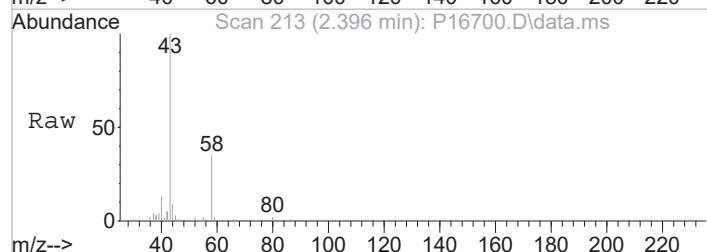
#12
Acrolein
Concen: 1.11 ppb
RT: 2.237 min Scan# 187
Delta R.T. 0.018 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

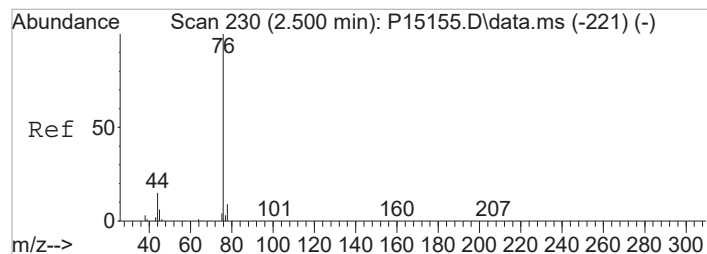
Tgt Ion: 56 Resp: 1073
Ion Ratio Lower Upper
56 100
55 59.8 50.5 90.5



#15
Acetone
Concen: 15.64 ppb m
RT: 2.396 min Scan# 213
Delta R.T. 0.049 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

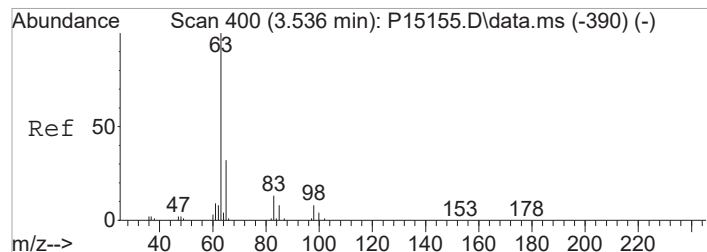
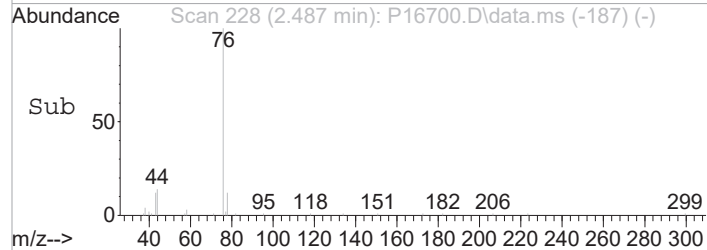
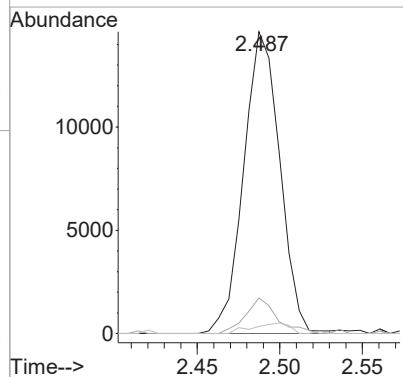
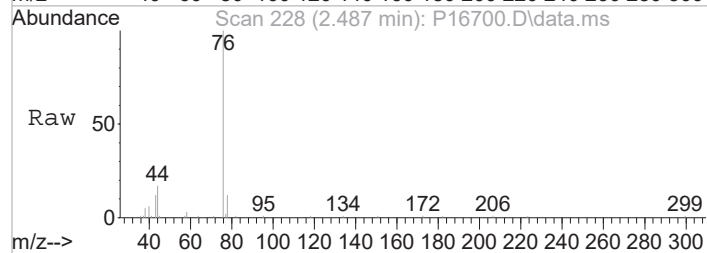
Tgt Ion: 43 Resp: 31109
Ion Ratio Lower Upper
43 100
58 34.8 9.7 49.7
42 4.9 0.0 29.2





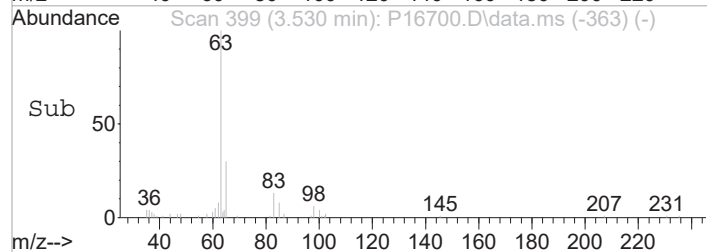
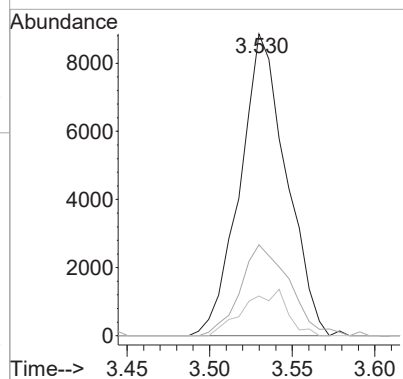
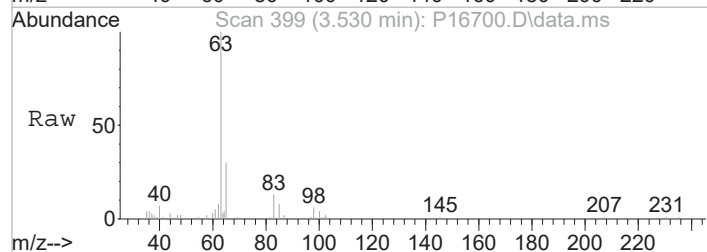
#18
Carbon Disulfide
Concen: 2.28 ppb
RT: 2.487 min Scan# 228
Delta R.T. -0.006 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

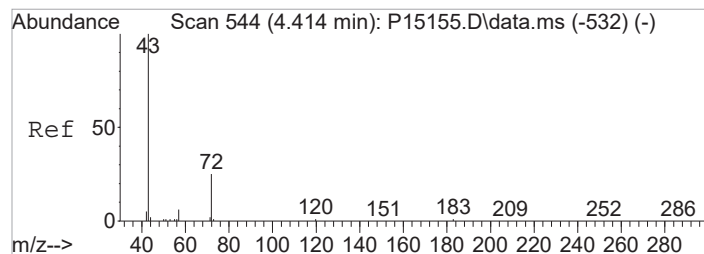
Tgt Ion	76	Resp	22321
Ion Ratio	Lower	Upper	
76	100		
78	11.8	0.0	29.5
77	2.4	0.0	23.1



#28
1,1-Dichloroethane
Concen: 2.75 ppb
RT: 3.530 min Scan# 399
Delta R.T. -0.006 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

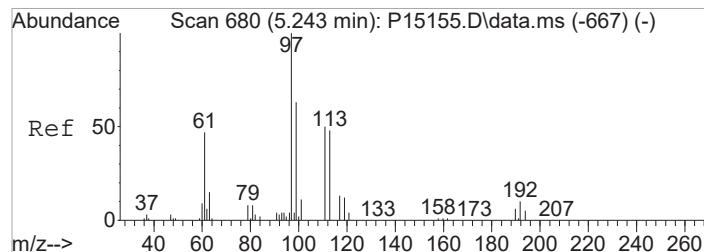
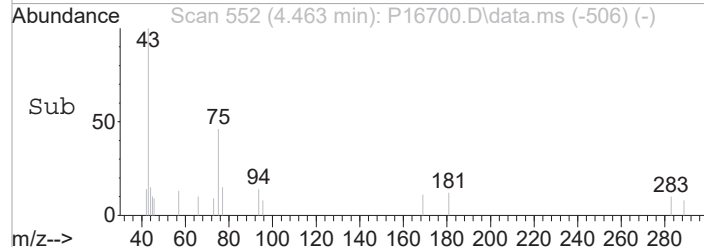
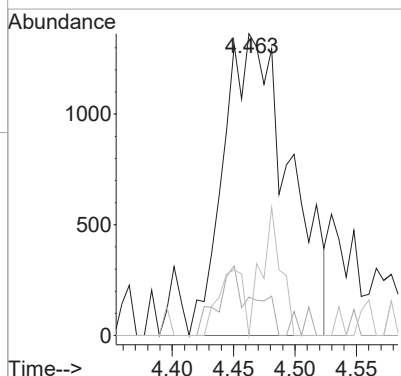
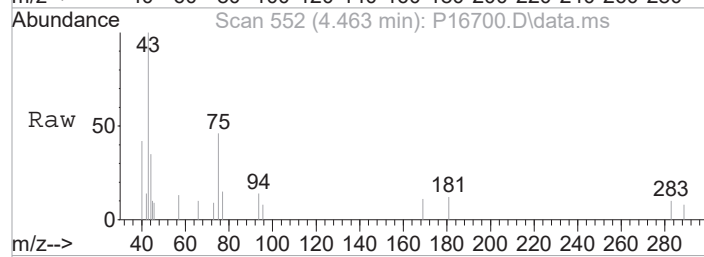
Tgt Ion	63	Resp	17304
Ion Ratio	Lower	Upper	
63	100		
65	30.1	12.3	52.3
83	13.1	0.0	33.4





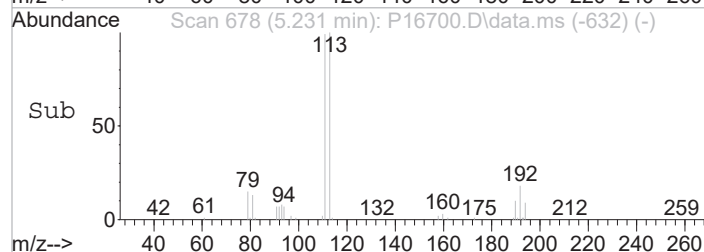
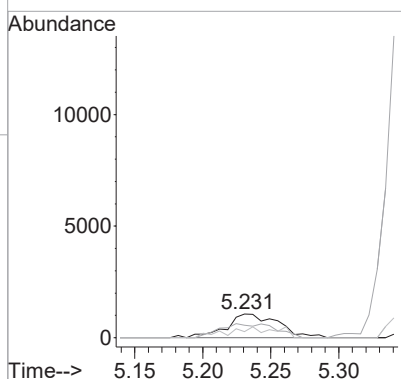
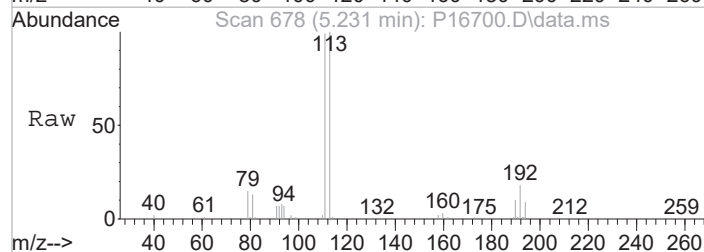
#35
2-Butanone
Concen: 2.04 ppb m
RT: 4.463 min Scan# 552
Delta R.T. 0.055 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

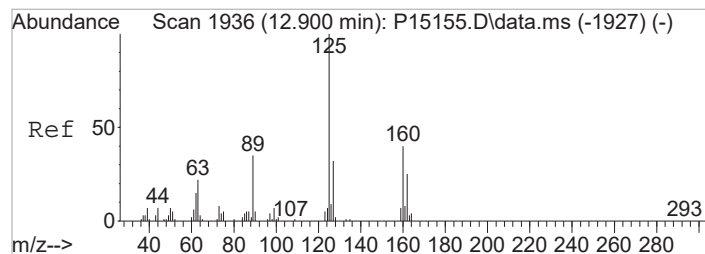
Tgt Ion	43	Resp	5102
Ion Ratio	Lower	Upper	
43	100		
57	12.7	0.0	26.7
72	0.0	6.1	46.1#



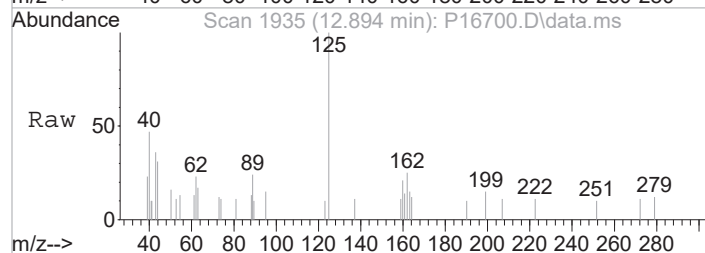
#41
1,1,1-Trichloroethane
Concen: 0.53 ppb
RT: 5.231 min Scan# 678
Delta R.T. -0.000 min
Lab File: P16700.D
Acq: 27 Mar 2018 1:15 pm

Tgt Ion	97	Resp	2849
Ion Ratio	Lower	Upper	
97	100		
99	52.5	43.1	83.1
61	26.5	26.9	66.9#

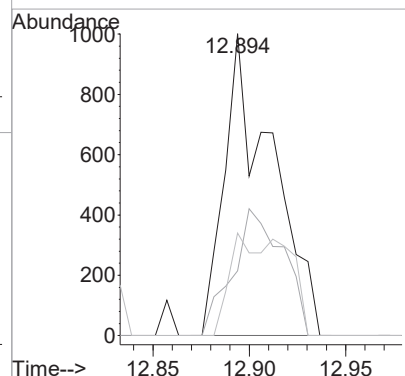
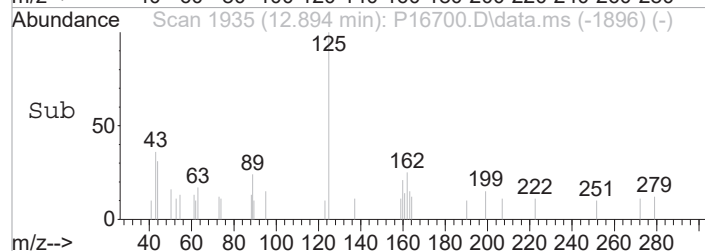




#112
 Trielution Dichlorotoluene
 Concen: 0.24 ppb
 RT: 12.894 min Scan# 1935
 Delta R.T. -0.012 min
 Lab File: P16700.D
 Acq: 27 Mar 2018 1:15 pm



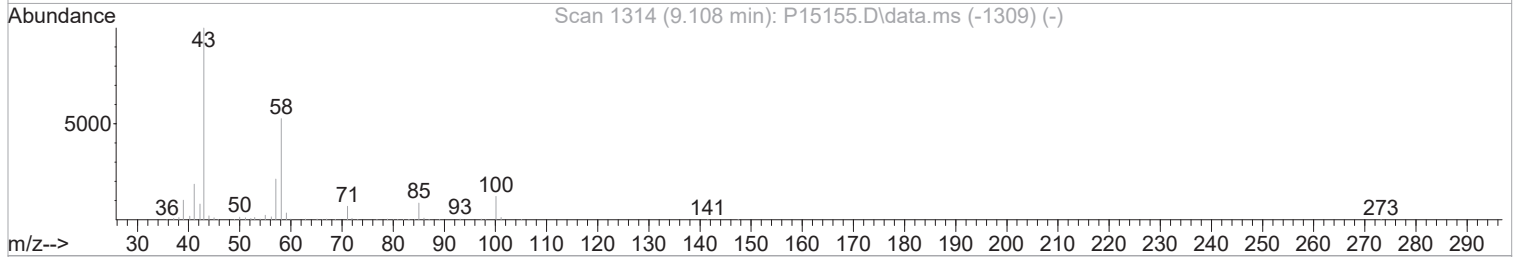
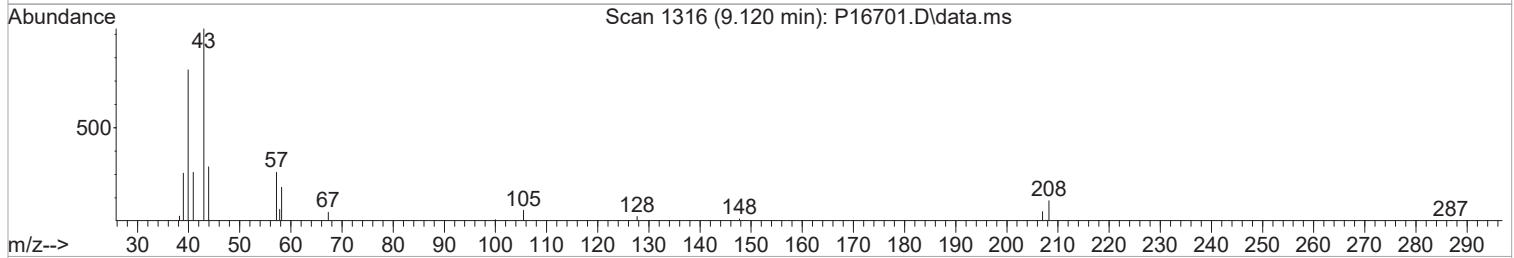
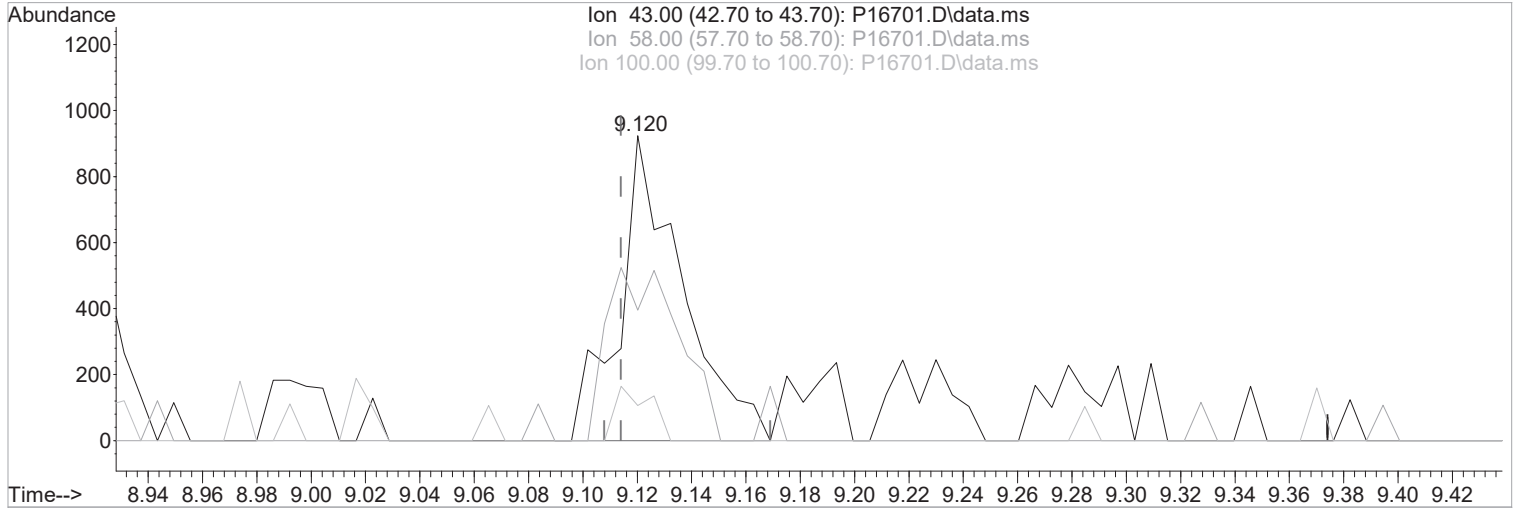
Tgt Ion:	125	Resp:	1712
Ion Ratio	Lower	Upper	
125	100		
160	35.8	32.2	48.2
89	33.9	28.3	42.5



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16701.D
Acq On : 27 Mar 2018 1:37 pm
Operator : K.Ruest
Sample : R1802551-004|1.0
Misc : VERINA 8260 T4
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 14:16:21 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16701.D\data.ms

(73) 2-Hexanone (P)

9.120min (+0.006) 0.47 ppb m

response 1499

Ion	Exp%	Act%
43.00	100	100
58.00	52.50	26.52#
100.00	12.00	11.47
0.00	0.00	0.00

Manual Integration:

After

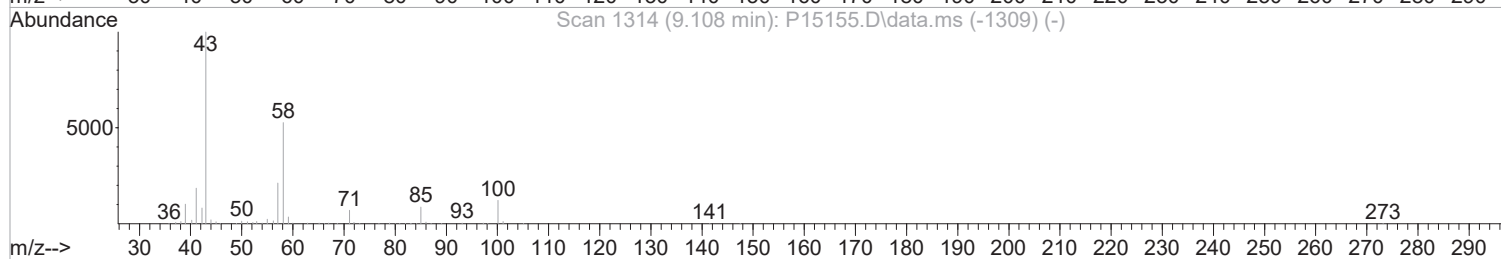
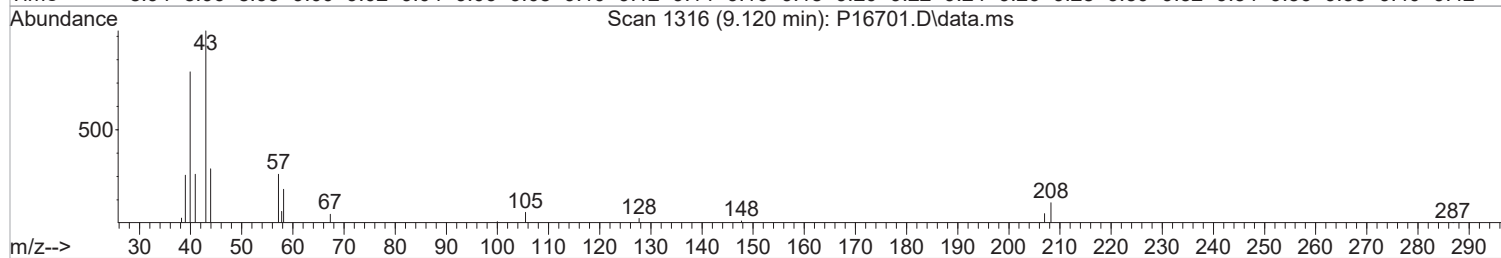
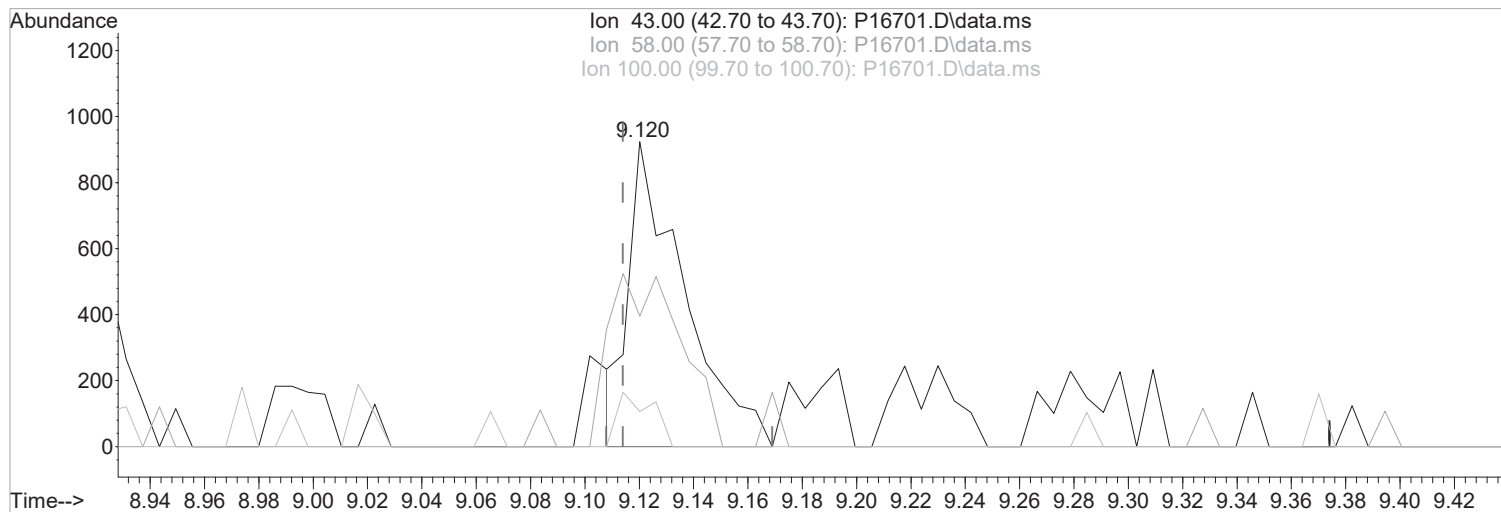
Split Peak

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16701.D
Acq On : 27 Mar 2018 1:37 pm
Operator : K.Ruest
Sample : R1802551-004|1.0
Misc : VERINA 8260 T4
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 14:16:21 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16701.D\data.ms

(73) 2-Hexanone (P)

Manual Integration:

9.120min (+0.006) 0.42 ppb

Before

response 1313

Ion	Exp%	Act%
43.00	100	100
58.00	52.50	42.75
100.00	12.00	11.47
0.00	0.00	0.00

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16701.D
 Acq On : 27 Mar 2018 1:37 pm
 Operator : K.Ruest
 Sample : R1802551-004|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 16:55:02 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

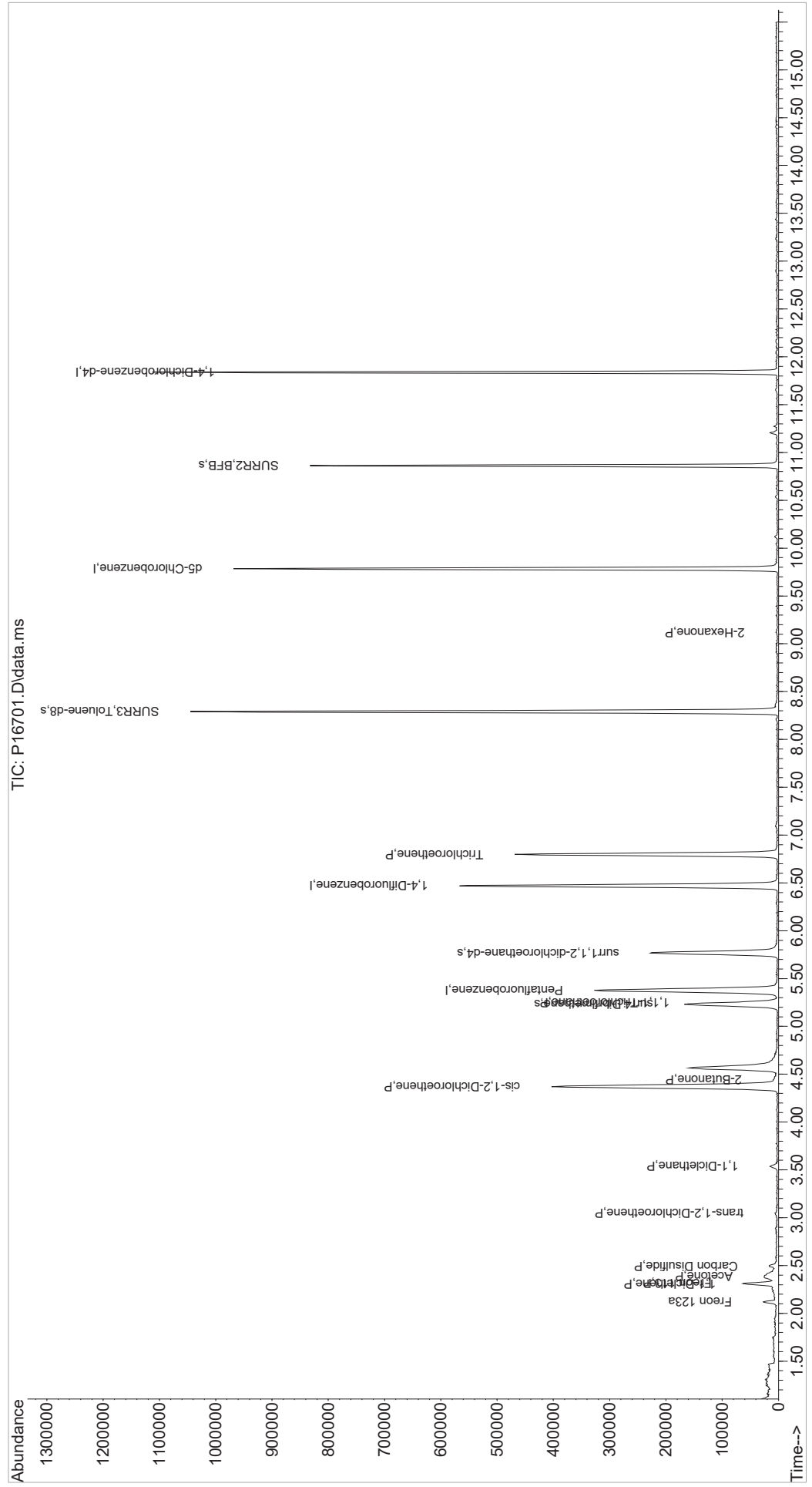
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	289539	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	486905	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	428671	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	207194	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	132407	45.80	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	91.60%	
48) surr1,1,2-dichloroetha...	5.767	65	197709	49.91	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	99.82%	
65) SURR3,Toluene-d8	8.291	98	642366	49.76	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	99.52%	
70) SURR2,BFB	10.864	95	229806	46.01	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	92.02%	
Target Compounds						
10) Freon 123a	2.122	67	9536	2.73	ppb	Qvalue 95
13) 1,1-Dicethene	2.304	96	918	0.31	ppb	# 63
14) Freon 113	2.311	101	19327	6.88	ppb	94
15) Acetone	2.384	43	39012	22.10	ppb	96
18) Carbon Disulfide	2.493	76	12765	1.47	ppb	98
26) trans-1,2-Dichloroethene	3.048	96	1011	0.33	ppb	89
28) 1,1-Dicethane	3.536	63	12298	2.21	ppb	100
34) cis-1,2-Dichloroethene	4.371	96	232453	67.22	ppb	98
35) 2-Butanone	4.444	43	6914	3.12	ppb	90
41) 1,1,1-Trichloroethane	5.243	97	9142	1.92	ppb	88
54) Trichloroethene	6.797	130	164305	50.37	ppb	94
73) 2-Hexanone	9.120	43	1499m	0.47	ppb	

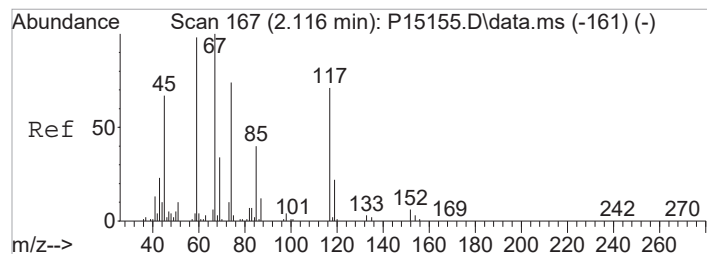
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16701.D
Acq On : 27 Mar 2018 1:37 pm
Operator : K.Ruest
Sample : R1802551-004|1.0
Misc : VERINA 8260 T4
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

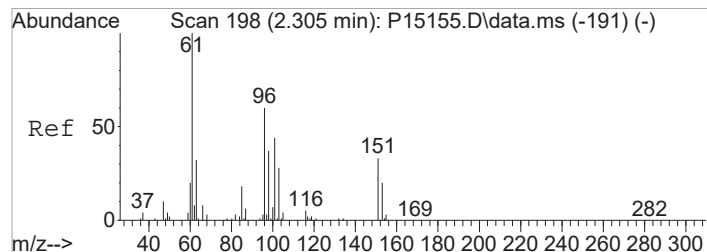
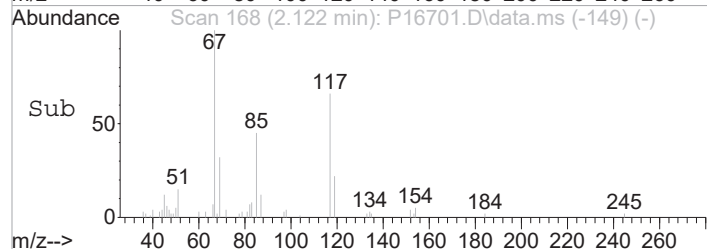
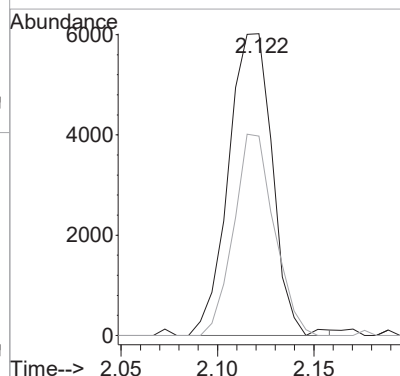
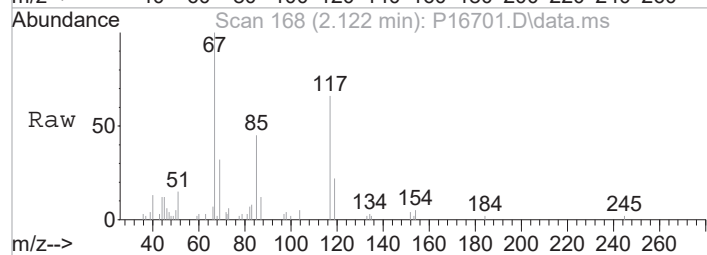
Quant Time: Mar 27 16:55:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration





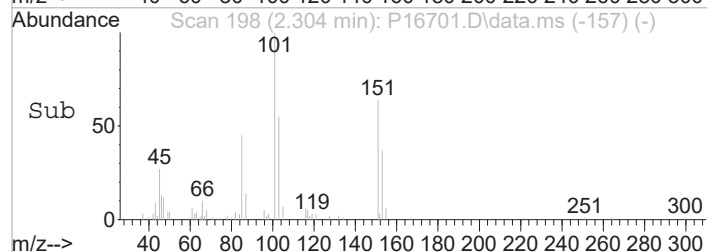
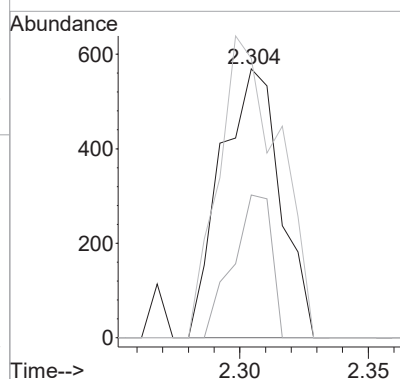
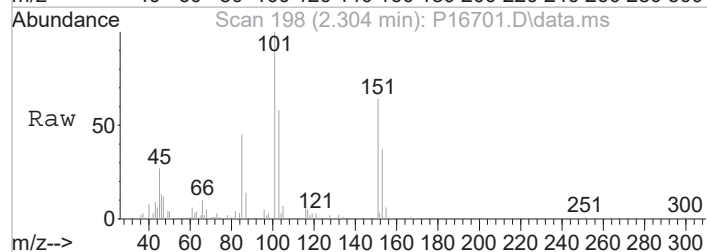
#10
Freon 123a
Concen: 2.73 ppb
RT: 2.122 min Scan# 168
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

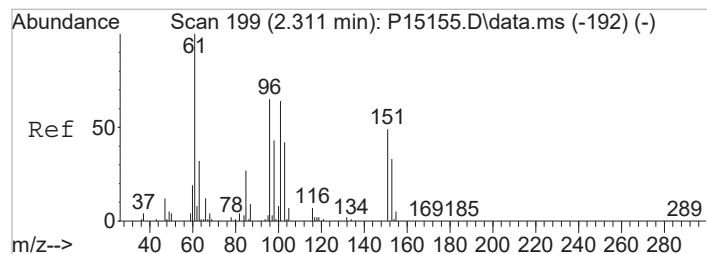
Tgt Ion: 67 Resp: 9536
Ion Ratio Lower Upper
67 100
117 66.0 50.3 90.3



#13
1,1-Dicethene
Concen: 0.31 ppb
RT: 2.304 min Scan# 198
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 96 Resp: 918
Ion Ratio Lower Upper
96 100
98 53.1 42.0 82.0
61 103.9 146.0 186.0#





#14

Freon 113

Concen: 6.88 ppb

RT: 2.311 min Scan# 199

Delta R.T. 0.006 min

Lab File: P16701.D

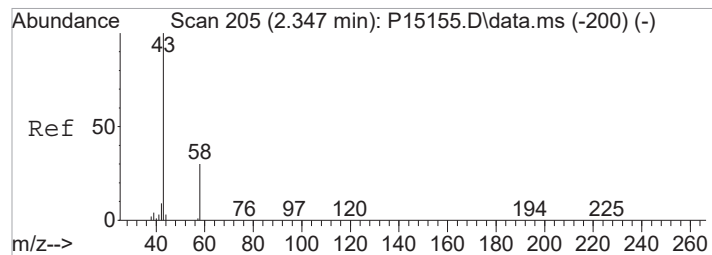
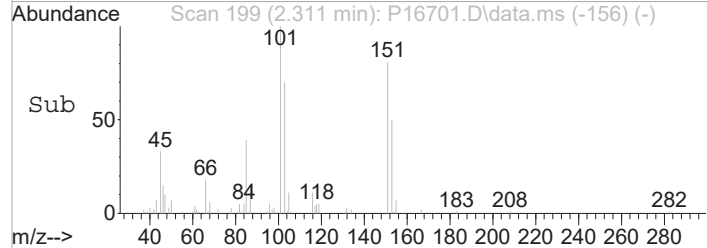
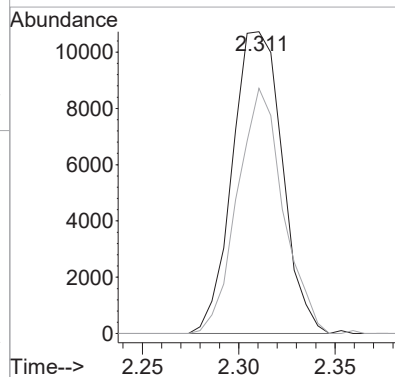
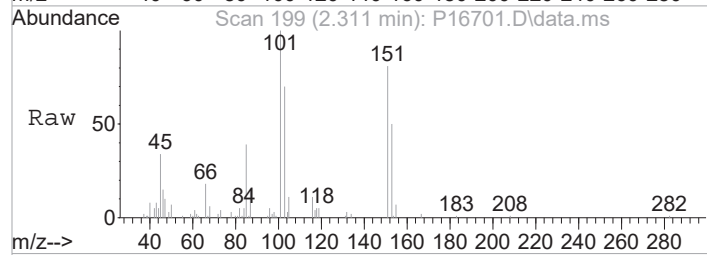
Acq: 27 Mar 2018 1:37 pm

Tgt Ion: 101 Resp: 19327

Ion Ratio Lower Upper

101 100

151 81.2 56.3 96.3



#15

Acetone

Concen: 22.10 ppb

RT: 2.384 min Scan# 211

Delta R.T. 0.037 min

Lab File: P16701.D

Acq: 27 Mar 2018 1:37 pm

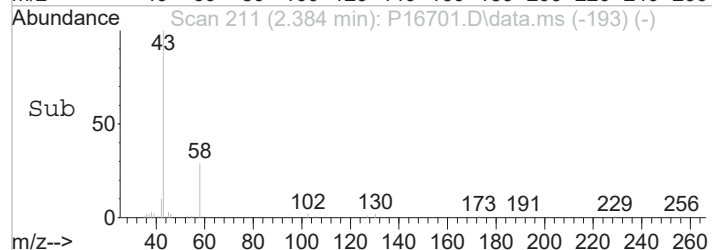
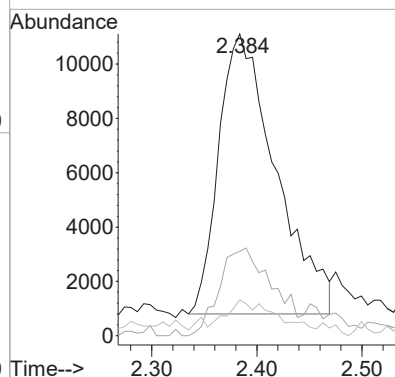
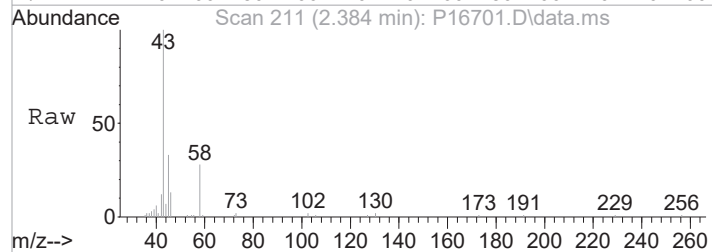
Tgt Ion: 43 Resp: 39012

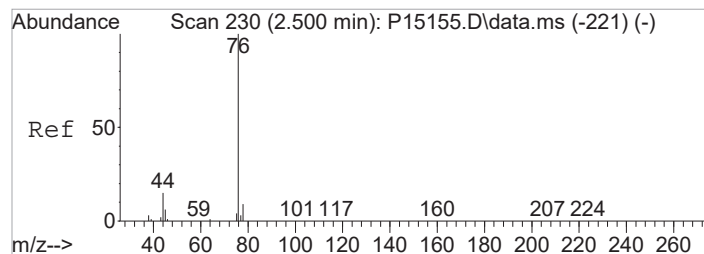
Ion Ratio Lower Upper

43 100

58 27.9 9.7 49.7

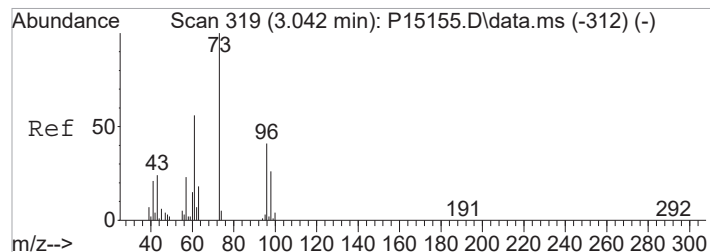
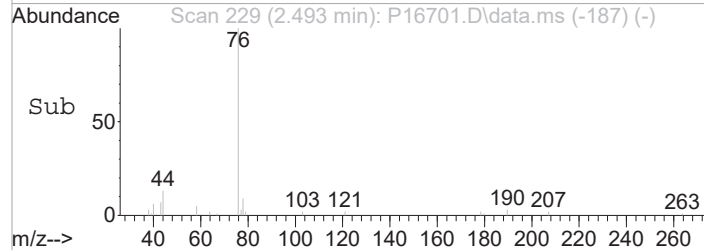
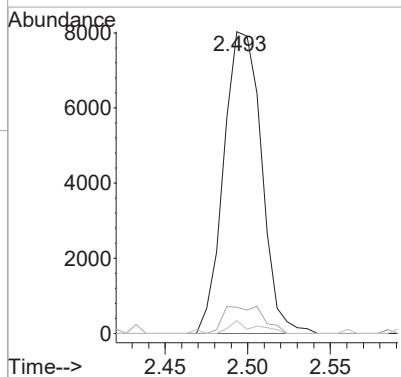
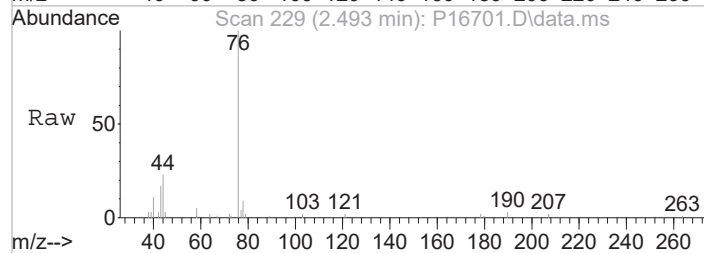
42 11.9 0.0 29.2





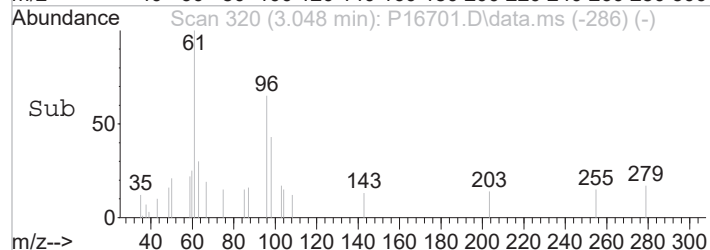
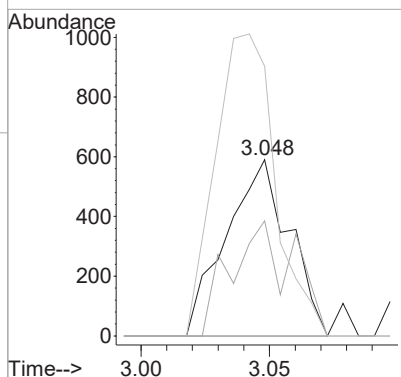
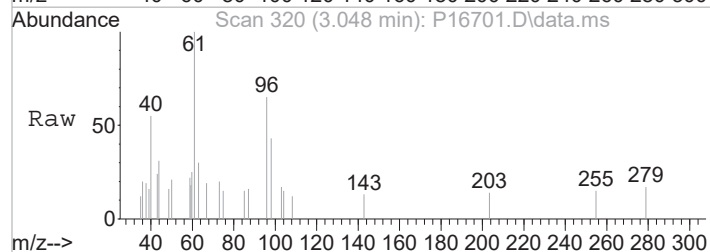
#18
Carbon Disulfide
Concen: 1.47 ppb
RT: 2.493 min Scan# 229
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

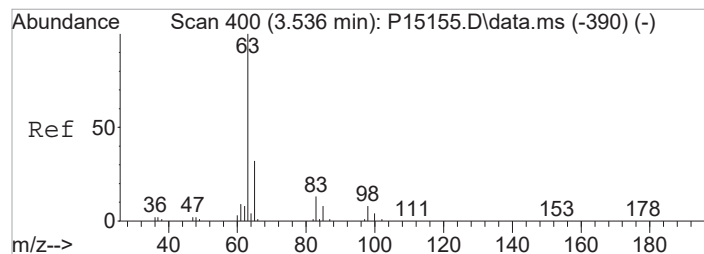
Tgt Ion	76	Resp	12765
Ion Ratio	Lower	Upper	
76	100		
78	8.7	0.0	29.5
77	4.3	0.0	23.1



#26
trans-1,2-Dichloroethene
Concen: 0.33 ppb
RT: 3.048 min Scan# 320
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

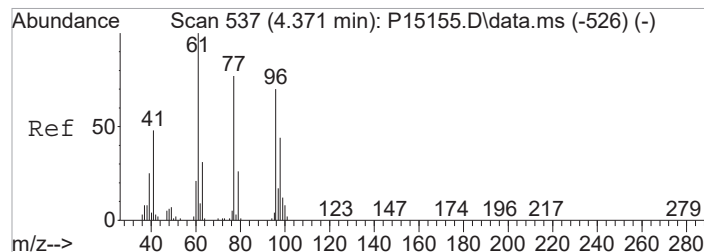
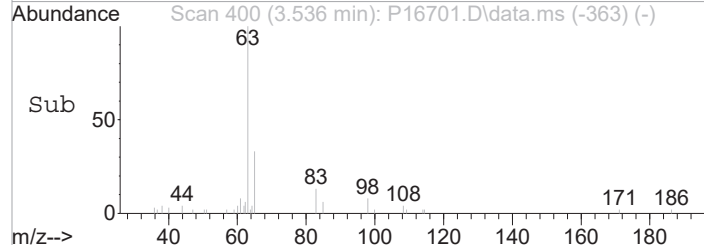
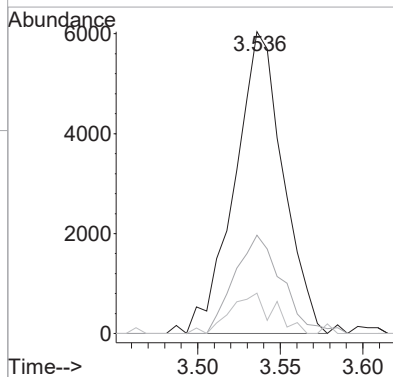
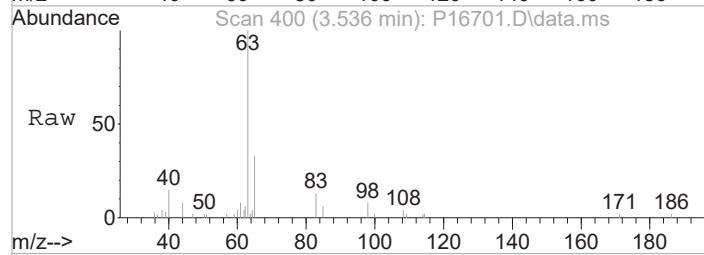
Tgt Ion	96	Resp	1011
Ion Ratio	Lower	Upper	
96	100		
98	65.3	42.7	82.7
61	153.1	116.4	156.4





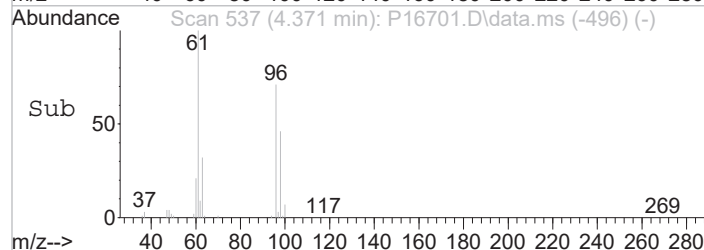
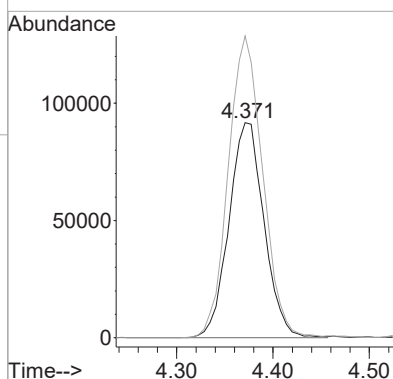
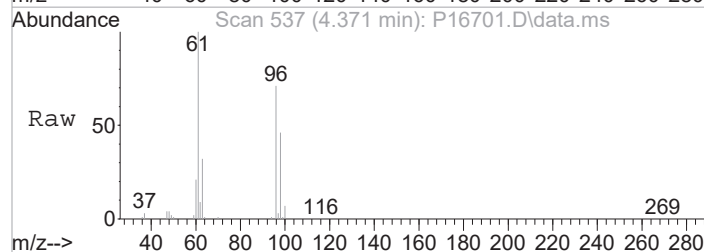
#28
1,1-Dichloroethane
Concen: 2.21 ppb
RT: 3.536 min Scan# 400
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

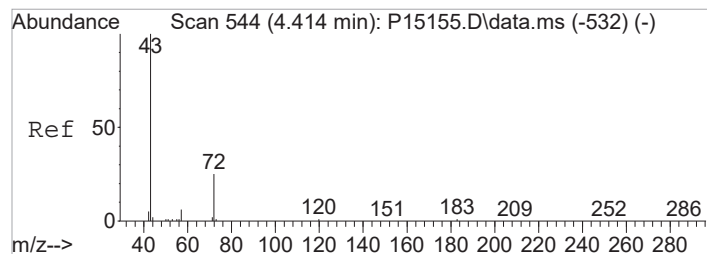
Tgt Ion:	63	Resp:	12298
Ion Ratio	Lower	Upper	
63	100		
65	32.5	12.3	52.3
83	13.4	0.0	33.4



#34
cis-1,2-Dichloroethene
Concen: 67.22 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

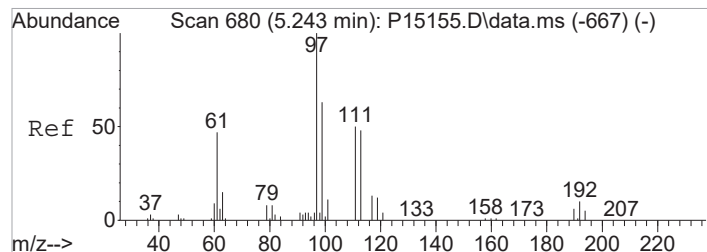
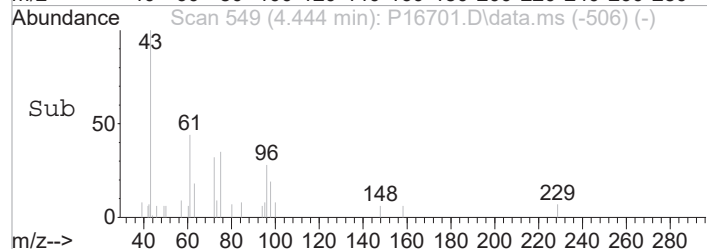
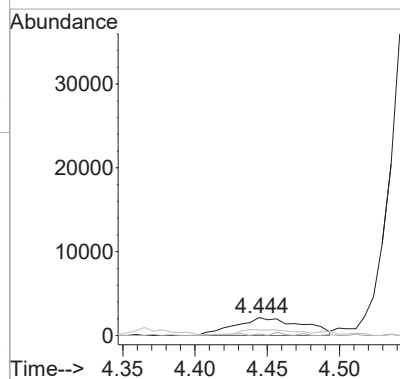
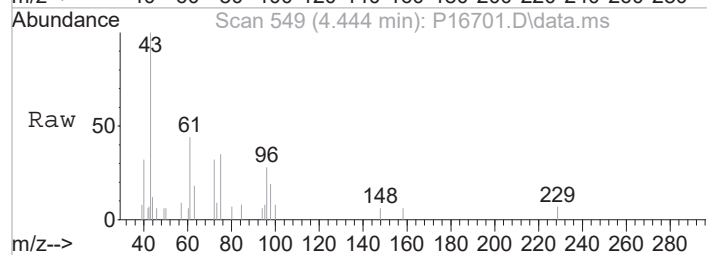
Tgt Ion:	96	Resp:	232453
Ion Ratio	Lower	Upper	
96	100		
61	140.3	122.8	162.8





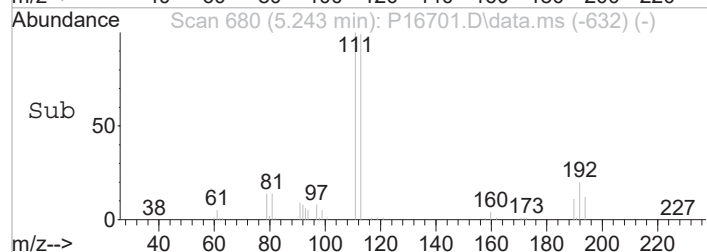
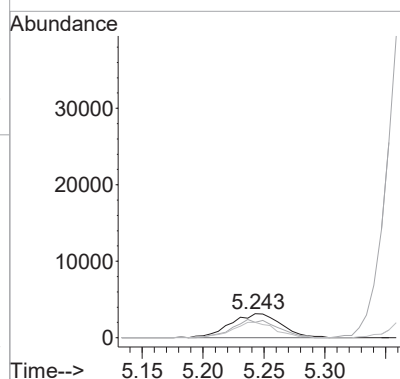
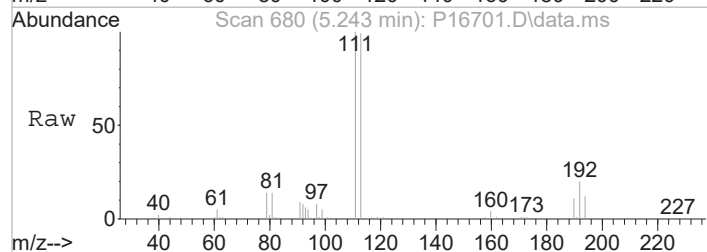
#35
2-Butanone
Concen: 3.12 ppb
RT: 4.444 min Scan# 549
Delta R.T. 0.037 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

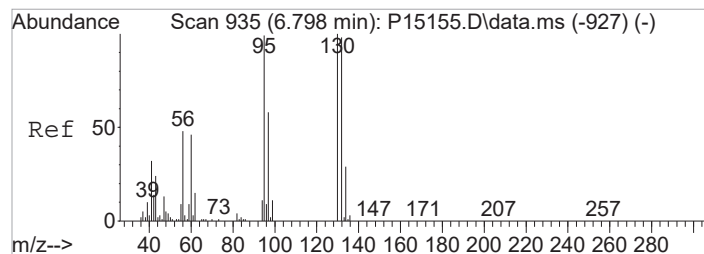
Tgt Ion:	43	Resp:	6914
Ion Ratio	Lower	Upper	
43	100		
57	8.9	0.0	26.7
72	31.7	6.1	46.1



#41
1,1,1-Trichloroethane
Concen: 1.92 ppb
RT: 5.243 min Scan# 680
Delta R.T. 0.012 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

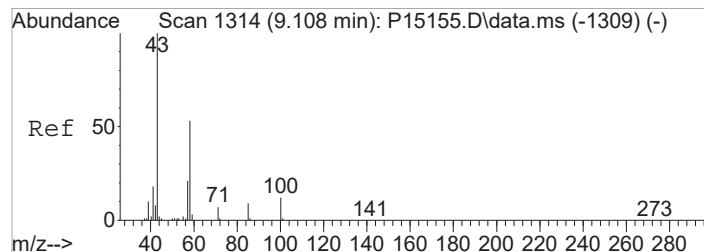
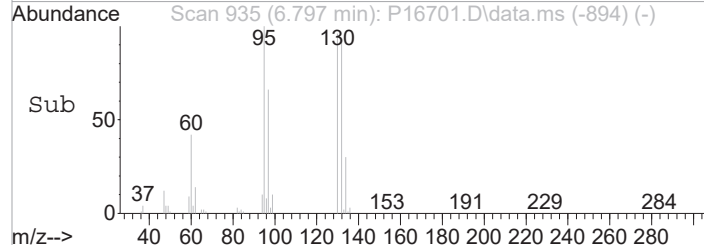
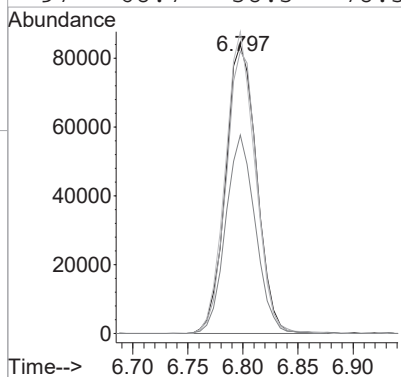
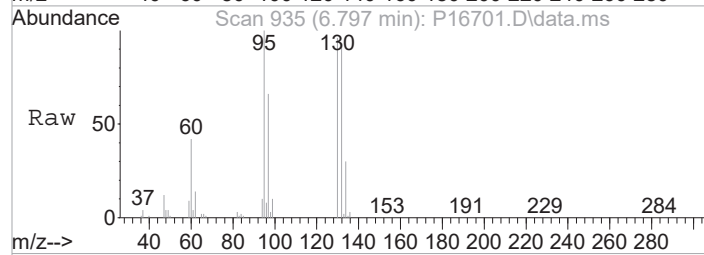
Tgt Ion:	97	Resp:	9142
Ion Ratio	Lower	Upper	
97	100		
99	64.2	43.1	83.1
61	63.9	26.9	66.9





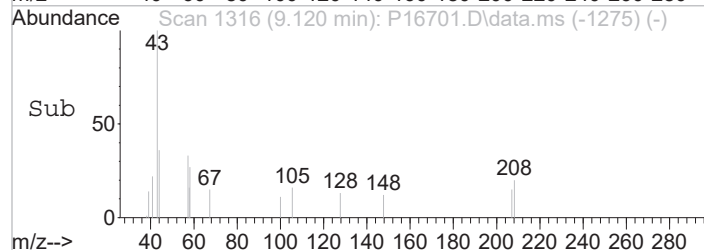
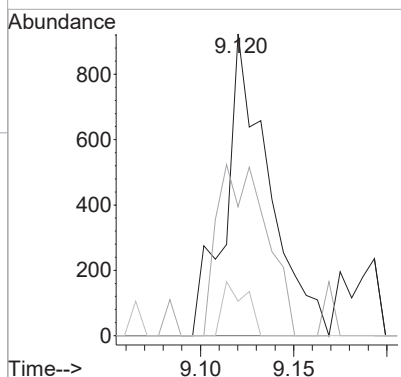
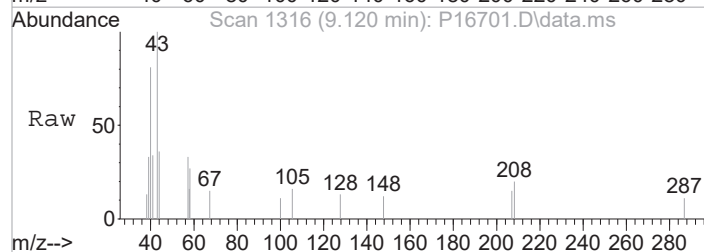
#54
Trichloroethene
Concen: 50.37 ppb
RT: 6.797 min Scan# 935
Delta R.T. -0.000 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion	Ratio	Lower	Upper
130	100		
132	97.7	78.3	118.3
95	104.6	78.7	118.7
97	68.7	38.3	78.3



#73
2-Hexanone
Concen: 0.47 ppb m
RT: 9.120 min Scan# 1316
Delta R.T. 0.006 min
Lab File: P16701.D
Acq: 27 Mar 2018 1:37 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	26.5	32.5	72.5#
100	11.5	0.0	32.0



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16702.D
 Acq On : 27 Mar 2018 1:59 pm
 Operator : K.Ruest
 Sample : R1802551-005|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 16:57:05 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

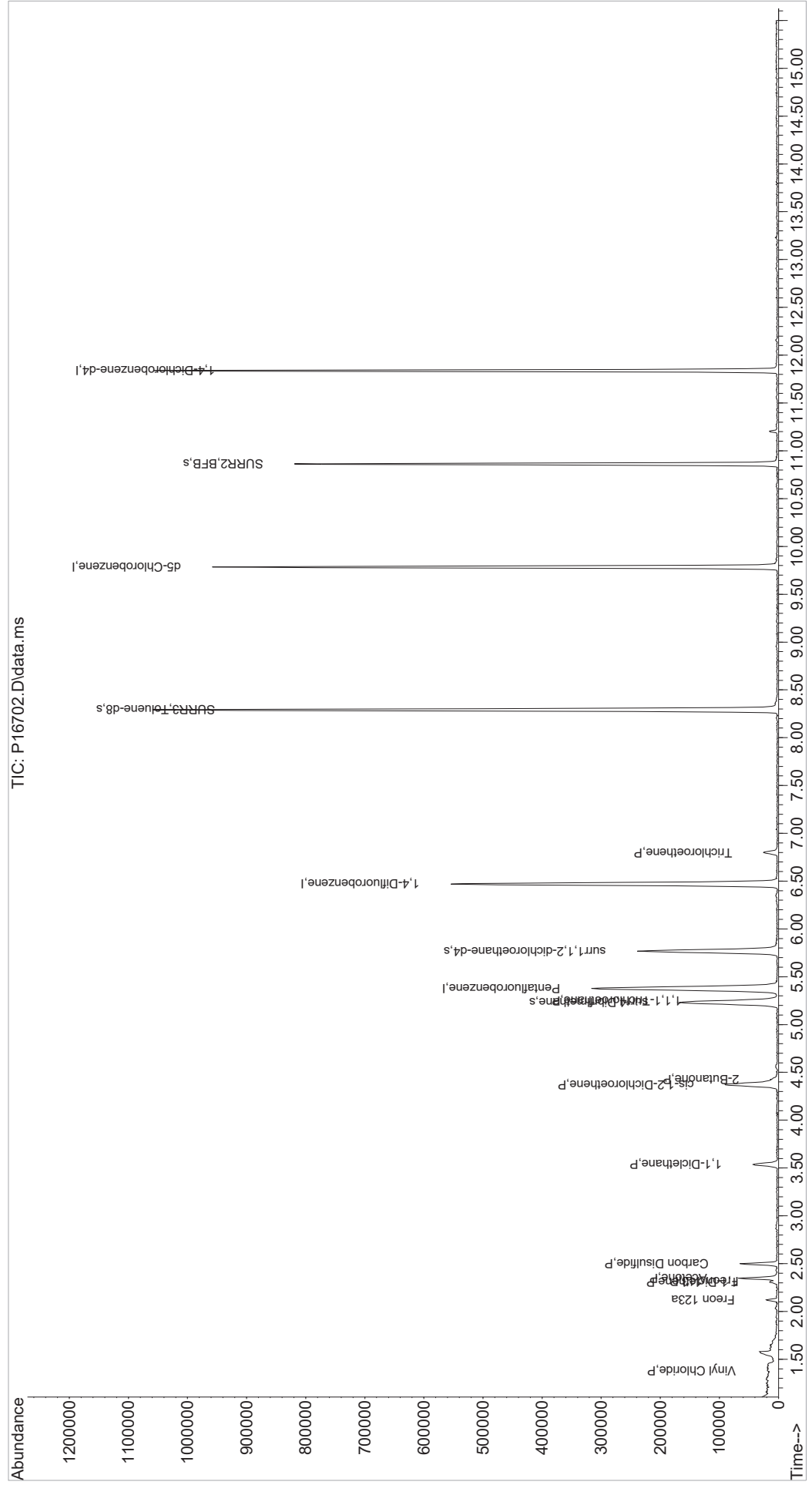
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.377	168	285139	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	484154	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	423298	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	206108	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	132245	46.00	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	92.00%	
48) surr1,1,2-dichloroetha...	5.767	65	196954	50.00	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	100.00%	
65) SURR3,Toluene-d8	8.291	98	640069	49.86	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	99.72%	
70) SURR2,BFB	10.864	95	230961	46.51	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	93.02%	
Target Compounds						
4) Vinyl Chloride	1.384	62	1123	0.27	ppb	Qvalue # 1
10) Freon 123a	2.122	67	7173	2.08	ppb	92
13) 1,1-Dicethene	2.305	96	865	0.30	ppb	# 81
14) Freon 113	2.311	101	3930	1.42	ppb	89
15) Acetone	2.347	43	58374	33.57	ppb	97
18) Carbon Disulfide	2.500	76	66256	7.76	ppb	98
28) 1,1-Dicethane	3.536	63	42276	7.70	ppb	94
34) cis-1,2-Dichloroethene	4.371	96	49698	14.59	ppb	# 78
35) 2-Butanone	4.426	43	17544	8.03	ppb	99
41) 1,1,1-Trichloroethane	5.249	97	13087	2.80	ppb	95
54) Trichloroethene	6.798	130	7889	2.43	ppb	# 90

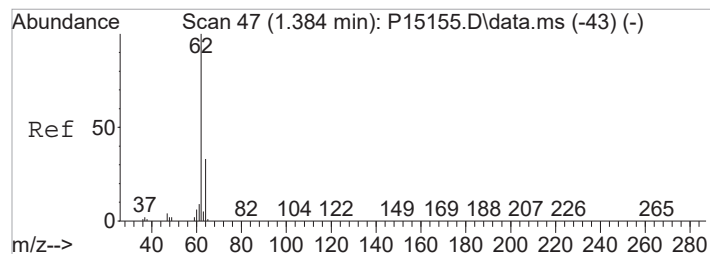
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16702.D
 Acq On : 27 Mar 2018 1:59 pm
 Operator : K.Ruest
 Sample : R1802551-005|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 16:57:05 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration





#4

Vinyl Chloride

Concen: 0.27 ppb

RT: 1.384 min Scan# 47

Delta R.T. 0.000 min

Lab File: P16702.D

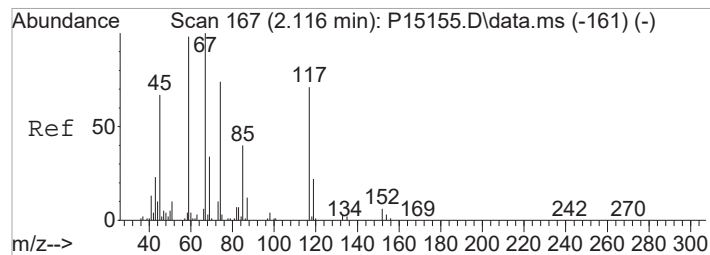
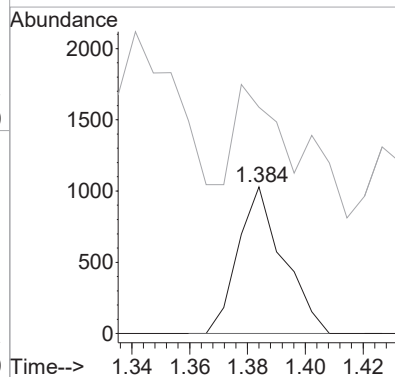
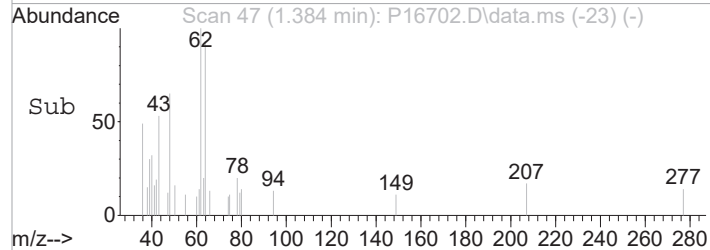
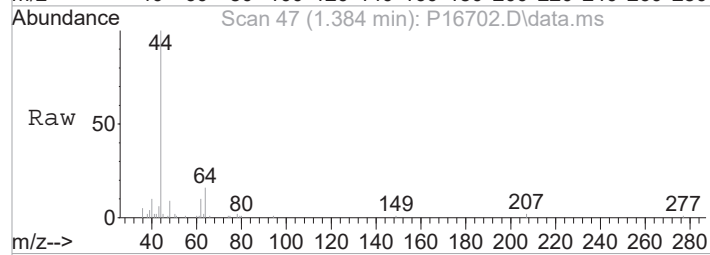
Acq: 27 Mar 2018 1:59 pm

Tgt Ion: 62 Resp: 1123

Ion Ratio Lower Upper

62 100

64 154.2 12.8 52.8#



#10

Freon 123a

Concen: 2.08 ppb

RT: 2.122 min Scan# 168

Delta R.T. -0.000 min

Lab File: P16702.D

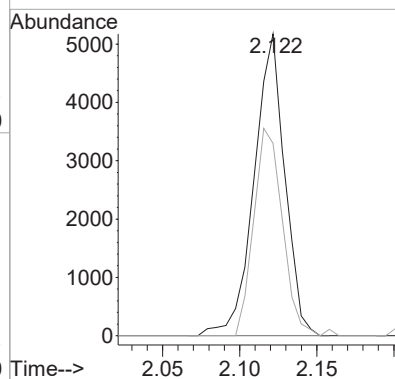
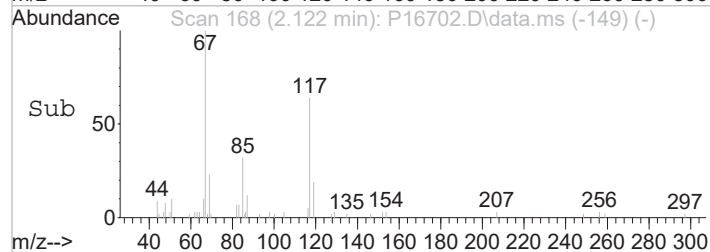
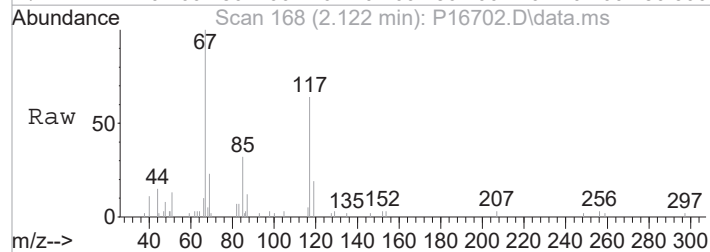
Acq: 27 Mar 2018 1:59 pm

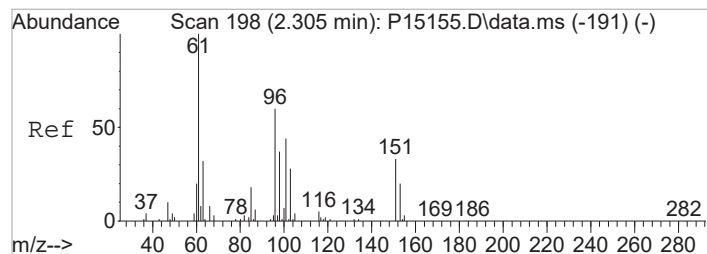
Tgt Ion: 67 Resp: 7173

Ion Ratio Lower Upper

67 100

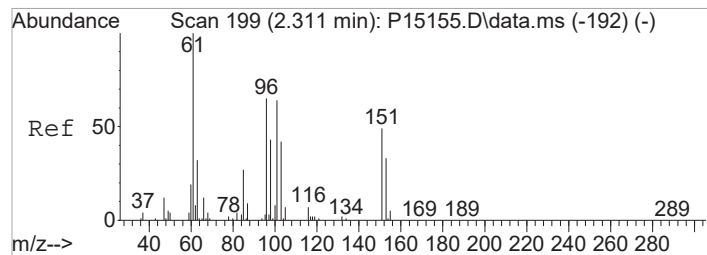
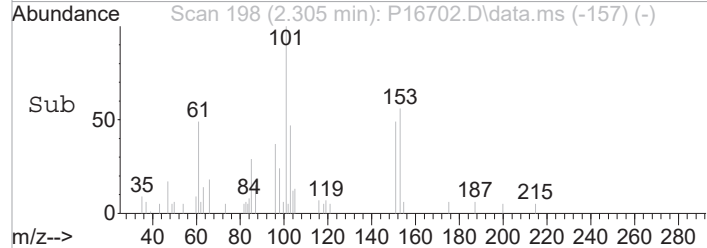
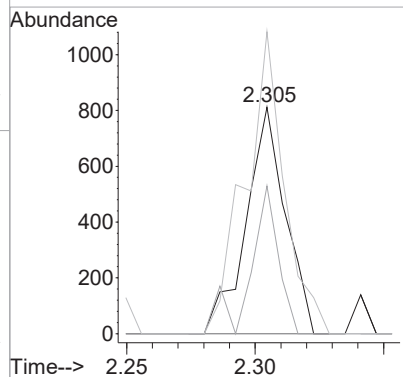
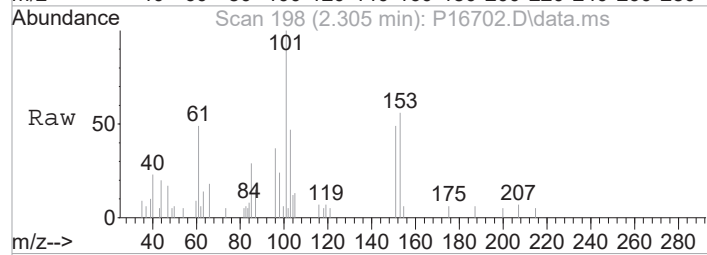
117 63.7 50.3 90.3





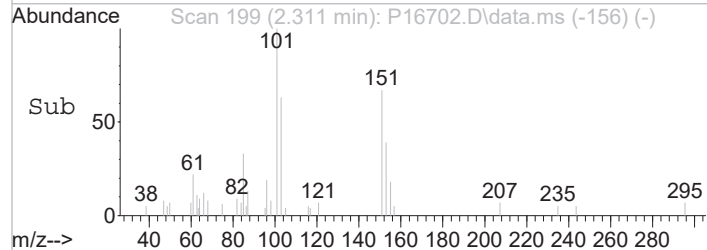
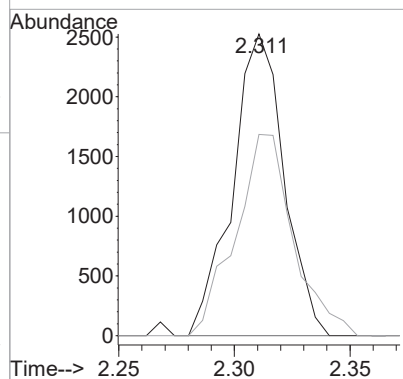
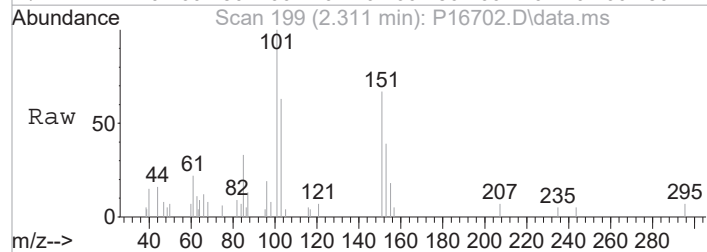
#13
1,1-Dicloroethene
Concen: 0.30 ppb
RT: 2.305 min Scan# 198
Delta R.T. -0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

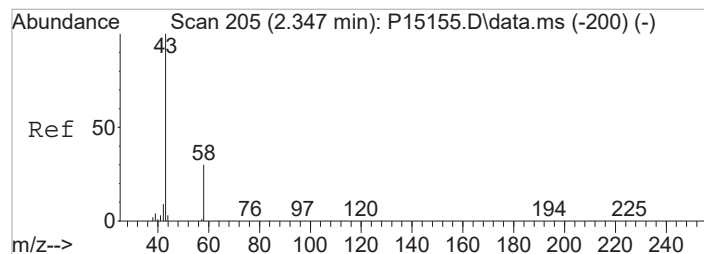
Tgt Ion	96	Resp	865
Ion Ratio	Lower	Upper	
96	100		
98	65.1	42.0	82.0
61	133.4	146.0	186.0#



#14
Freon 113
Concen: 1.42 ppb
RT: 2.311 min Scan# 199
Delta R.T. 0.006 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

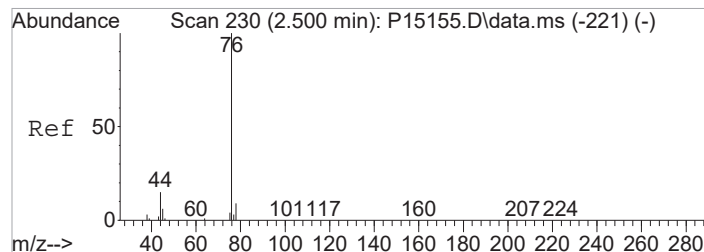
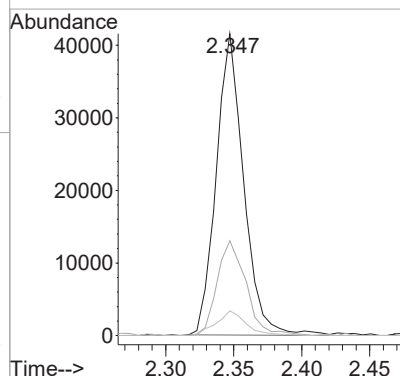
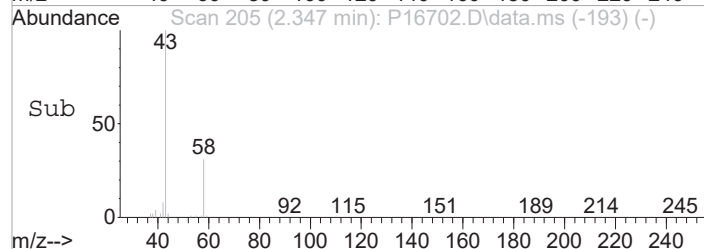
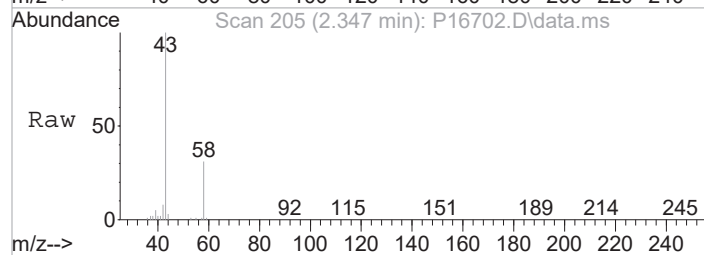
Tgt Ion	101	Resp	3930
Ion Ratio	Lower	Upper	
101	100		
151	66.7	56.3	96.3





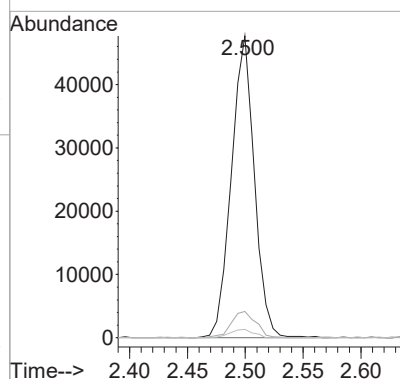
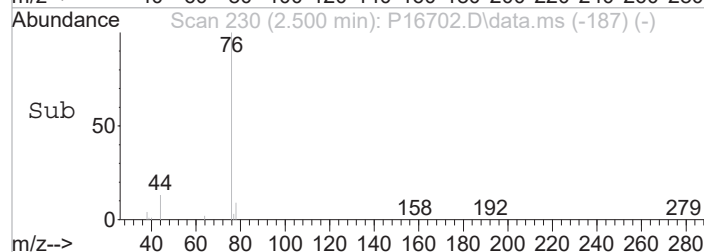
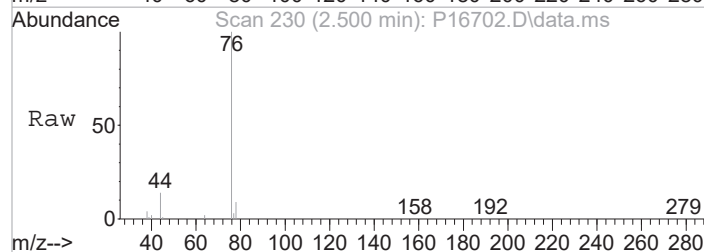
#15
Acetone
Concen: 33.57 ppb
RT: 2.347 min Scan# 205
Delta R.T. 0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

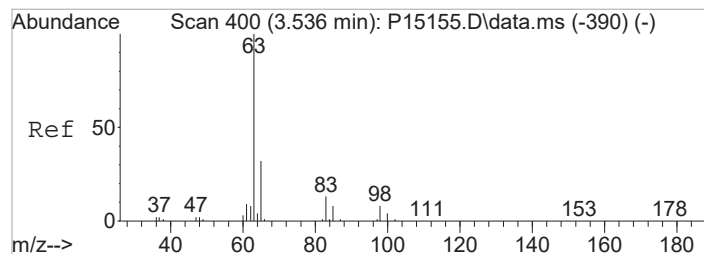
Tgt Ion:	43	Resp:	58374
Ion Ratio	Lower	Upper	
43	100		
58	31.4	9.7	49.7
42	8.2	0.0	29.2



#18
Carbon Disulfide
Concen: 7.76 ppb
RT: 2.500 min Scan# 230
Delta R.T. 0.006 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

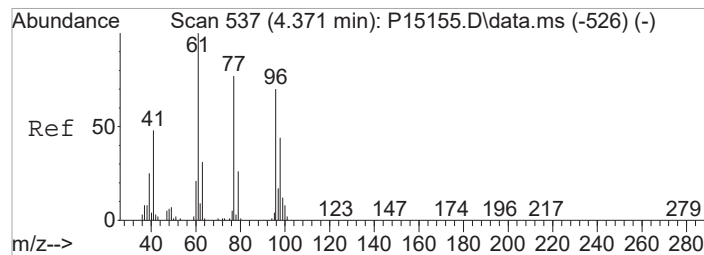
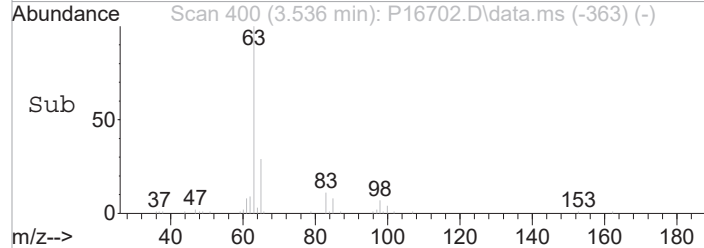
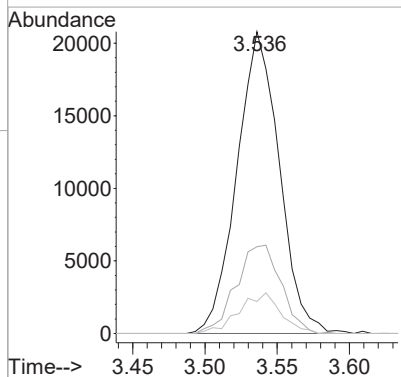
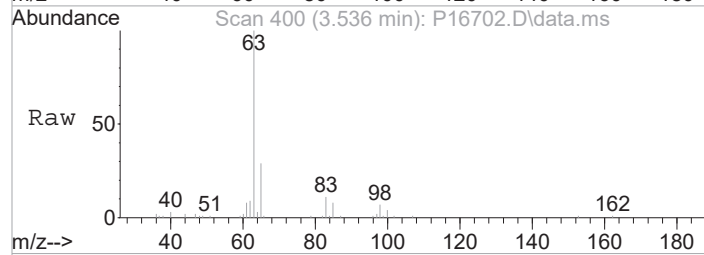
Tgt Ion:	76	Resp:	66256
Ion Ratio	Lower	Upper	
76	100		
78	8.7	0.0	29.5
77	2.8	0.0	23.1





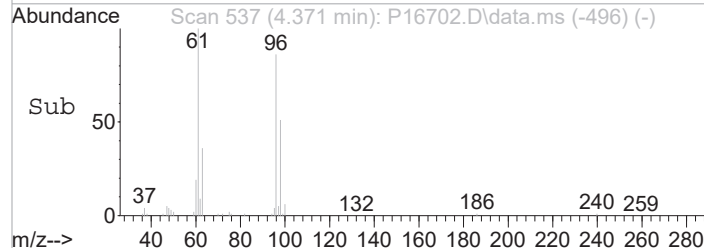
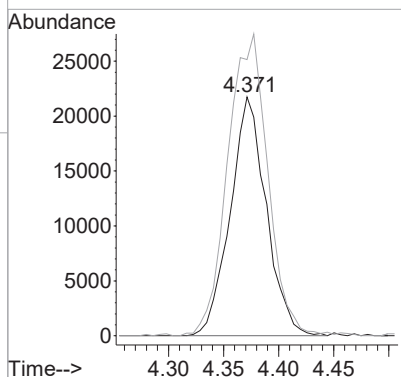
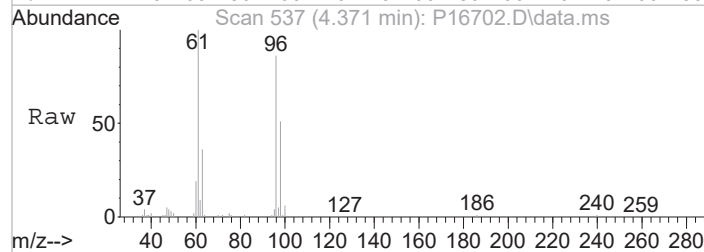
#28
1,1-Dichloroethane
Concen: 7.70 ppb
RT: 3.536 min Scan# 400
Delta R.T. -0.000 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

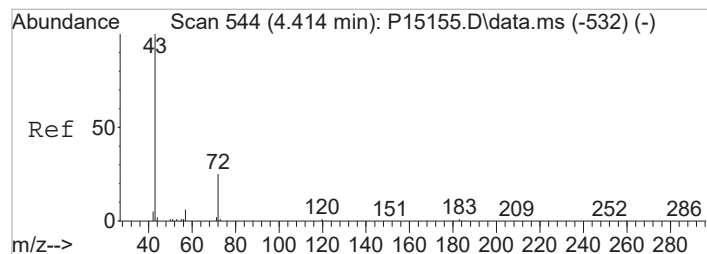
Tgt Ion:	63	Resp:	42276
Ion Ratio	Lower	Upper	
63	100		
65	28.8	12.3	52.3
83	10.6	0.0	33.4



#34
cis-1,2-Dichloroethene
Concen: 14.59 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

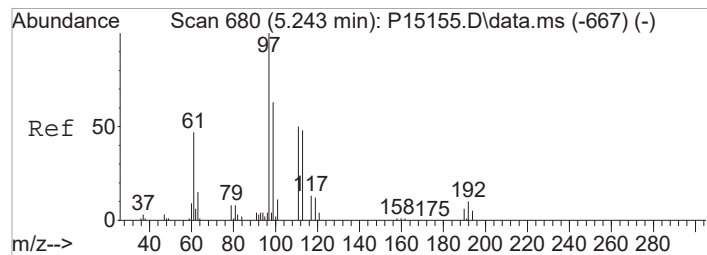
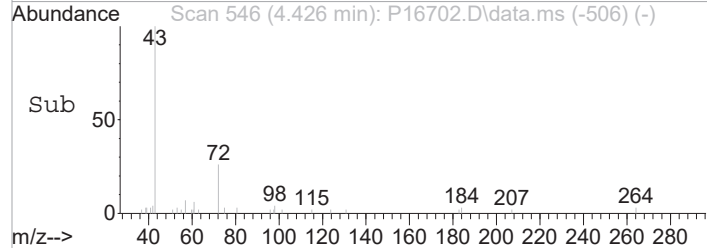
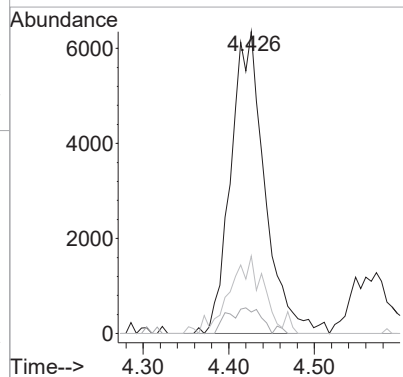
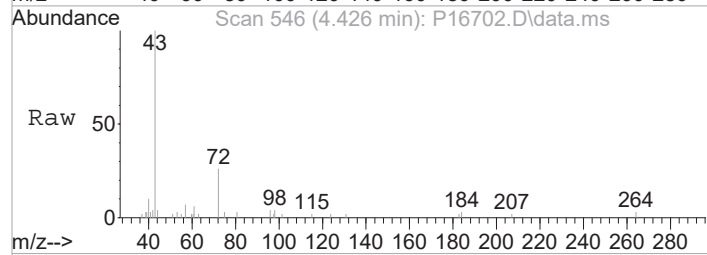
Tgt Ion:	96	Resp:	49698
Ion Ratio	Lower	Upper	
96	100		
61	115.7	122.8	162.8#





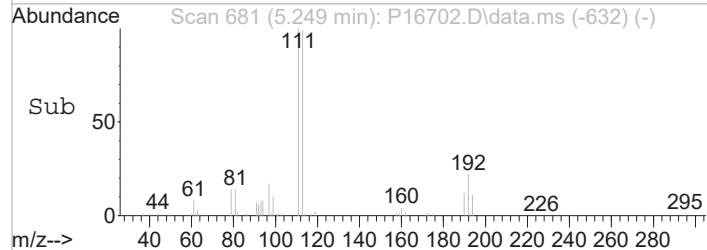
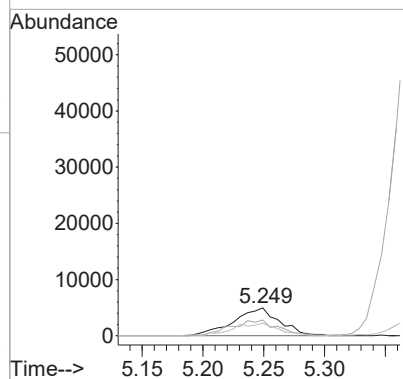
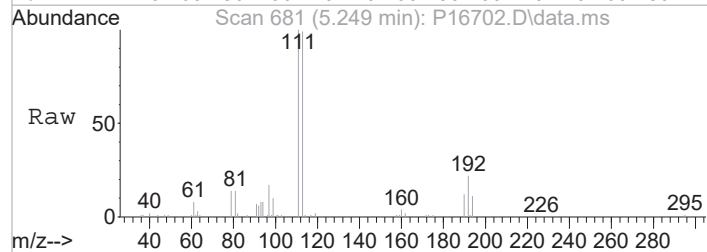
#35
2-Butanone
Concen: 8.03 ppb
RT: 4.426 min Scan# 546
Delta R.T. 0.018 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

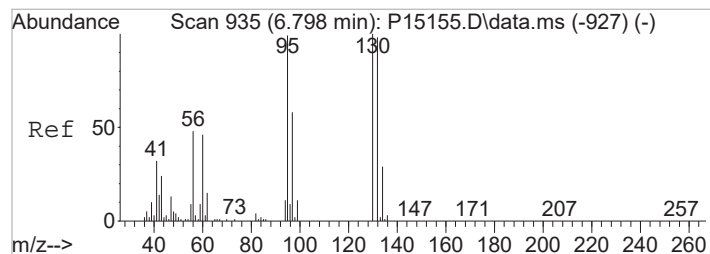
Tgt Ion	43	Resp	17544
Ion Ratio	Lower	Upper	
43	100		
57	7.1	0.0	26.7
72	25.7	6.1	46.1



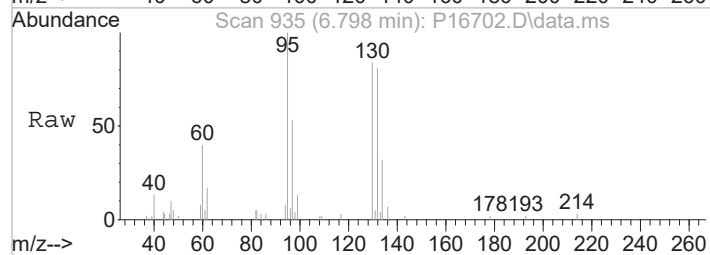
#41
1,1,1-Trichloroethane
Concen: 2.80 ppb
RT: 5.249 min Scan# 681
Delta R.T. 0.018 min
Lab File: P16702.D
Acq: 27 Mar 2018 1:59 pm

Tgt Ion	97	Resp	13087
Ion Ratio	Lower	Upper	
97	100		
99	57.0	43.1	83.1
61	45.5	26.9	66.9

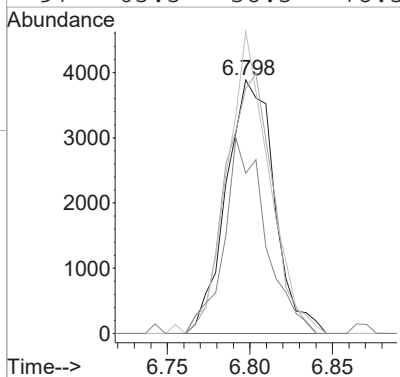
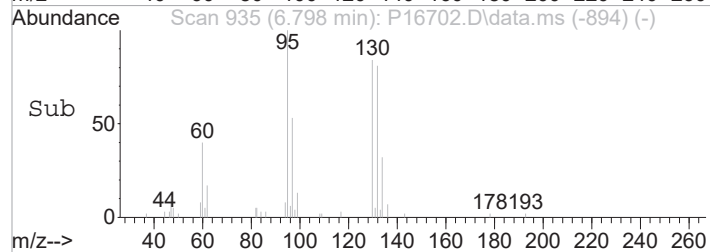




#54
 Trichloroethene
 Concen: 2.43 ppb
 RT: 6.798 min Scan# 935
 Delta R.T. -0.000 min
 Lab File: P16702.D
 Acq: 27 Mar 2018 1:59 pm



Tgt Ion:	130	Resp:	7889
Ion Ratio	Lower	Upper	
130	100		
132	96.8	78.3	118.3
95	119.2	78.7	118.7#
97	63.3	38.3	78.3



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16703.D
 Acq On : 27 Mar 2018 2:21 pm
 Operator : K.Ruest
 Sample : R1802551-006|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 16:59:27 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

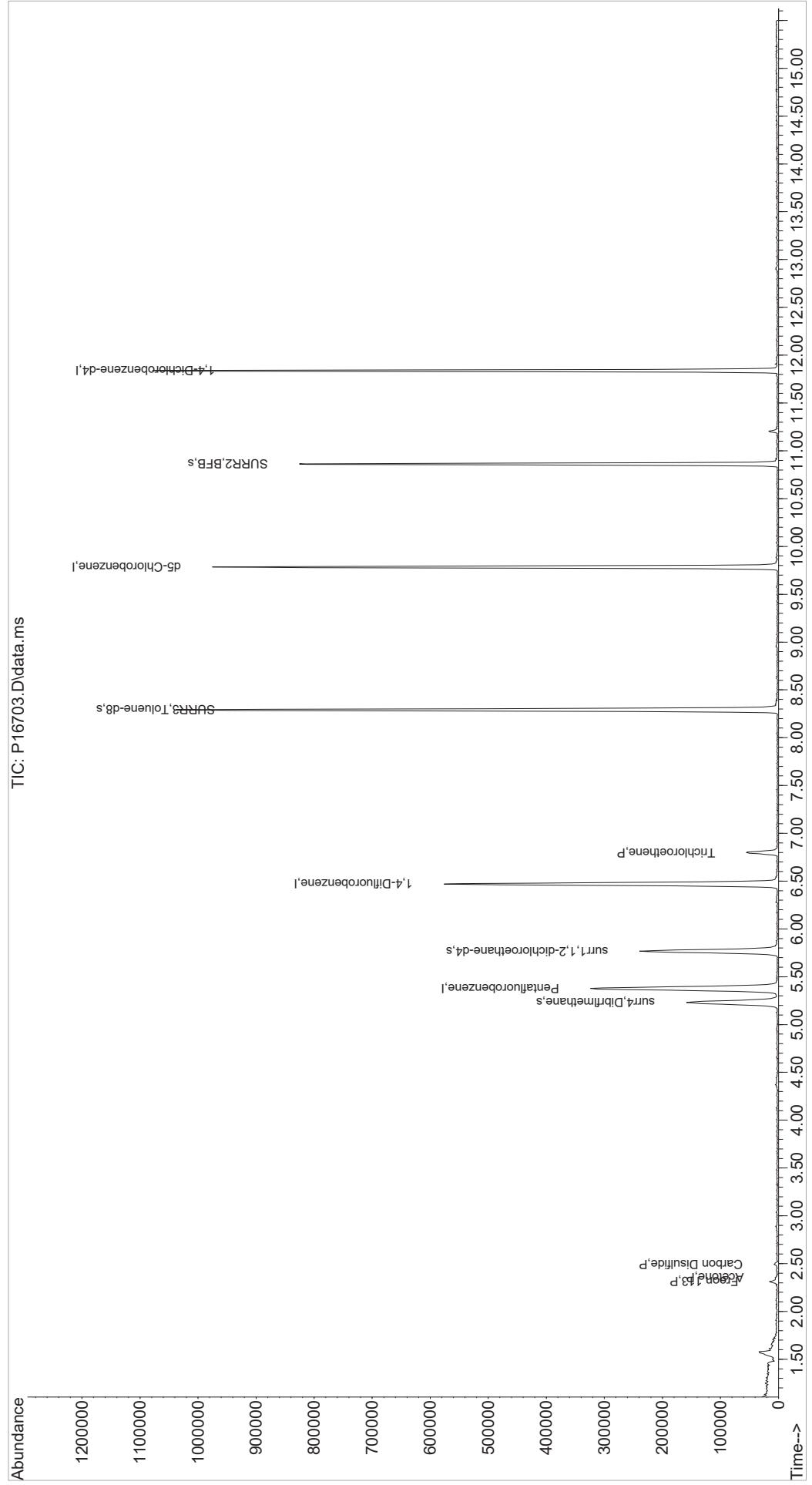
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

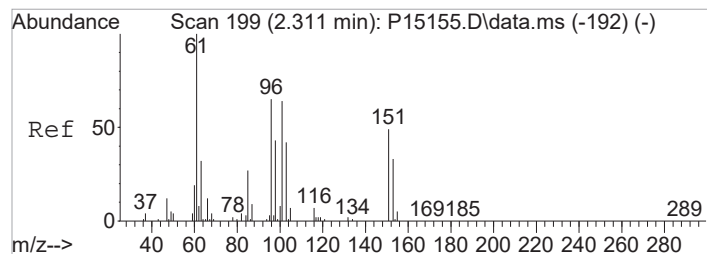
Internal Standards						
1) Pentafluorobenzene	5.377	168	289167	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	488979	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	427171	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	213624	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	130572	44.97	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	89.94%
48) surr1,1,2-dichloroetha...	5.767	65	200864	50.49	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	100.98%
65) SURR3,Toluene-d8	8.291	98	645909	49.82	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	99.64%
70) SURR2,BFB	10.864	95	238265	47.50	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	95.00%
Target Compounds						
14) Freon 113	2.311	101	3716	1.32	ppb	Qvalue # 68
15) Acetone	2.353	43	3015	1.71	ppb	80
18) Carbon Disulfide	2.494	76	4924	0.57	ppb	95
54) Trichloroethene	6.798	130	19251	5.88	ppb	93

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

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16703.D
 Acq On : 27 Mar 2018 2:21 pm
 Operator : K.Ruest
 Sample : R1802551-006|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 5 Sample Multiplier: 1
 Inst : MSVOA-12

Quant Time: Mar 27 16:59:27 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration





#14

Freon 113

Concen: 1.32 ppb

RT: 2.311 min Scan# 199

Delta R.T. 0.006 min

Lab File: P16703.D

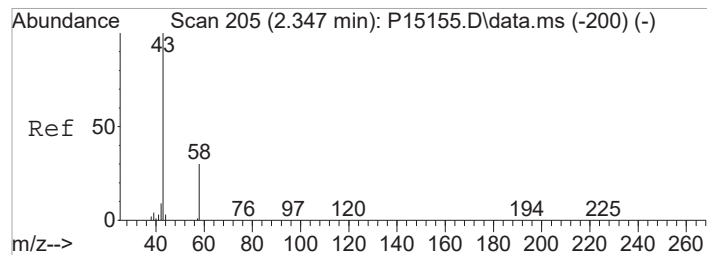
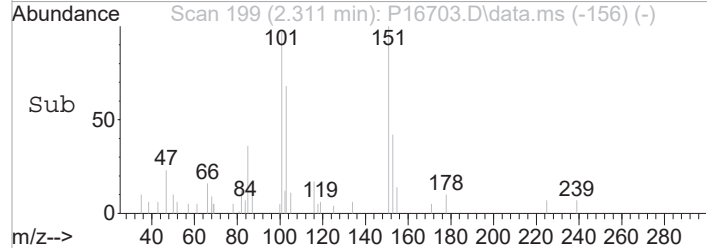
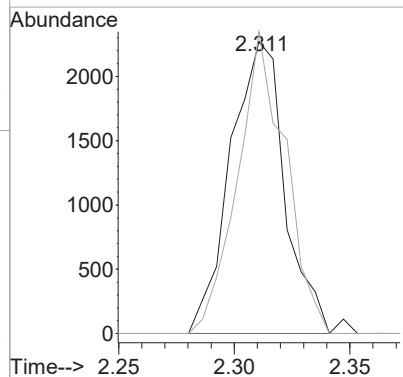
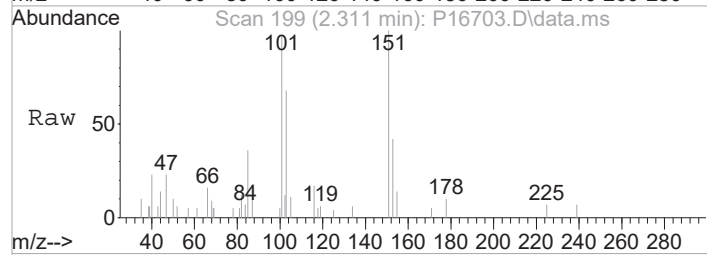
Acq: 27 Mar 2018 2:21 pm

Tgt Ion: 101 Resp: 3716

Ion Ratio Lower Upper

101 100

151 103.5 56.3 96.3#



#15

Acetone

Concen: 1.71 ppb

RT: 2.353 min Scan# 206

Delta R.T. 0.006 min

Lab File: P16703.D

Acq: 27 Mar 2018 2:21 pm

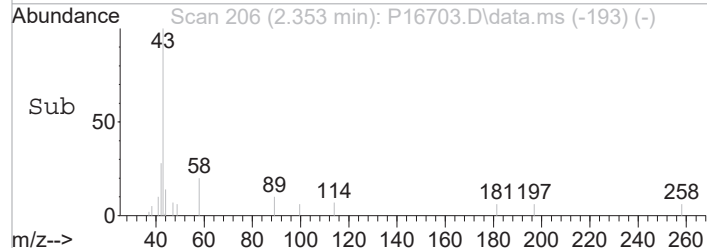
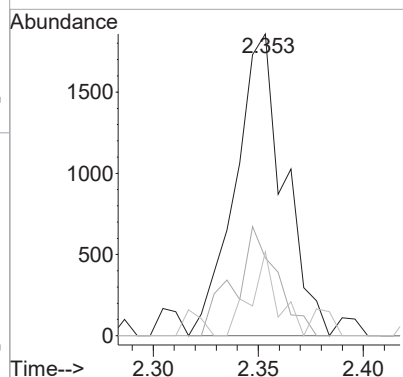
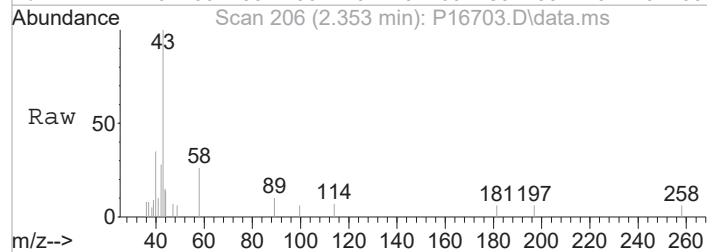
Tgt Ion: 43 Resp: 3015

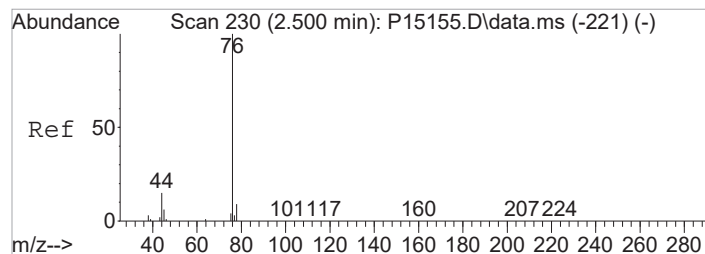
Ion Ratio Lower Upper

43 100

58 22.3 9.7 49.7

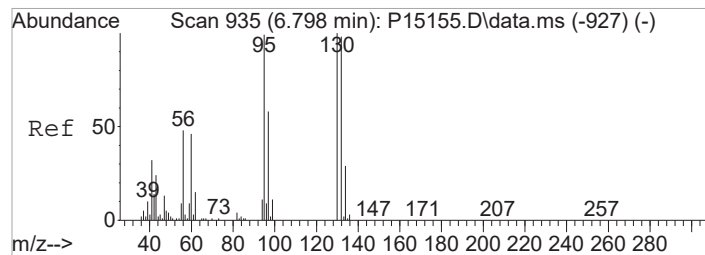
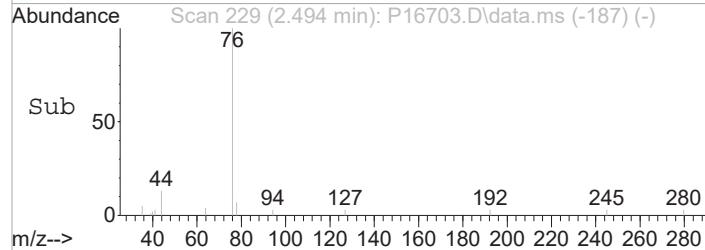
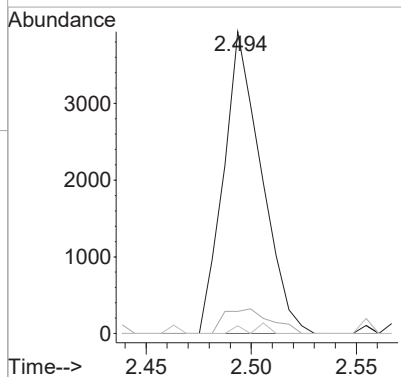
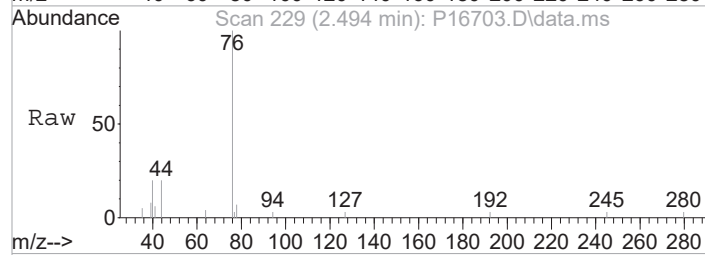
42 24.1 0.0 29.2





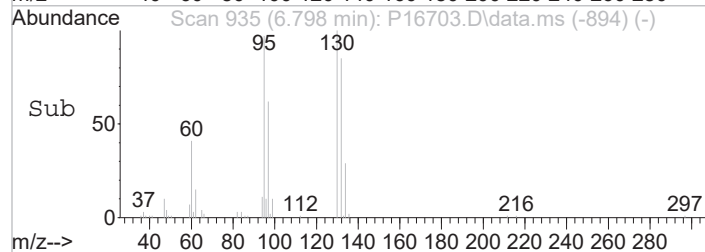
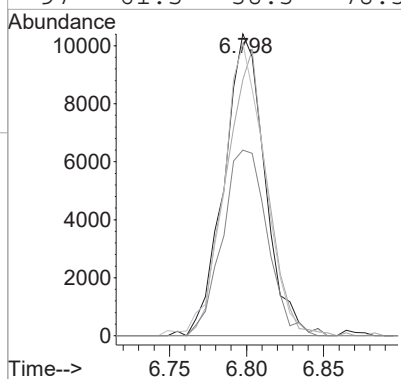
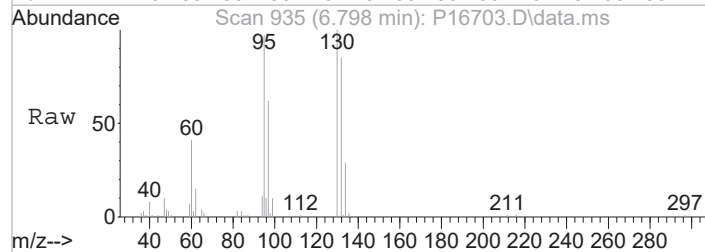
#18
Carbon Disulfide
Concen: 0.57 ppb
RT: 2.494 min Scan# 229
Delta R.T. 0.000 min
Lab File: P16703.D
Acq: 27 Mar 2018 2:21 pm

Tgt Ion	76	Resp	4924
Ion Ratio	Lower	Upper	
76	100		
78	7.3	0.0	29.5
77	2.6	0.0	23.1



#54
Trichloroethene
Concen: 5.88 ppb
RT: 6.798 min Scan# 935
Delta R.T. 0.000 min
Lab File: P16703.D
Acq: 27 Mar 2018 2:21 pm

Tgt Ion	130	Resp	19251
Ion Ratio	Lower	Upper	
130	100		
132	84.8	78.3	118.3
95	96.7	78.7	118.7
97	61.5	38.3	78.3



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16704.D
 Acq On : 27 Mar 2018 2:43 pm
 Operator : K.Ruest
 Sample : R1802551-009|1.0
 Misc : VERINA 8260 T4
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 17:01:02 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

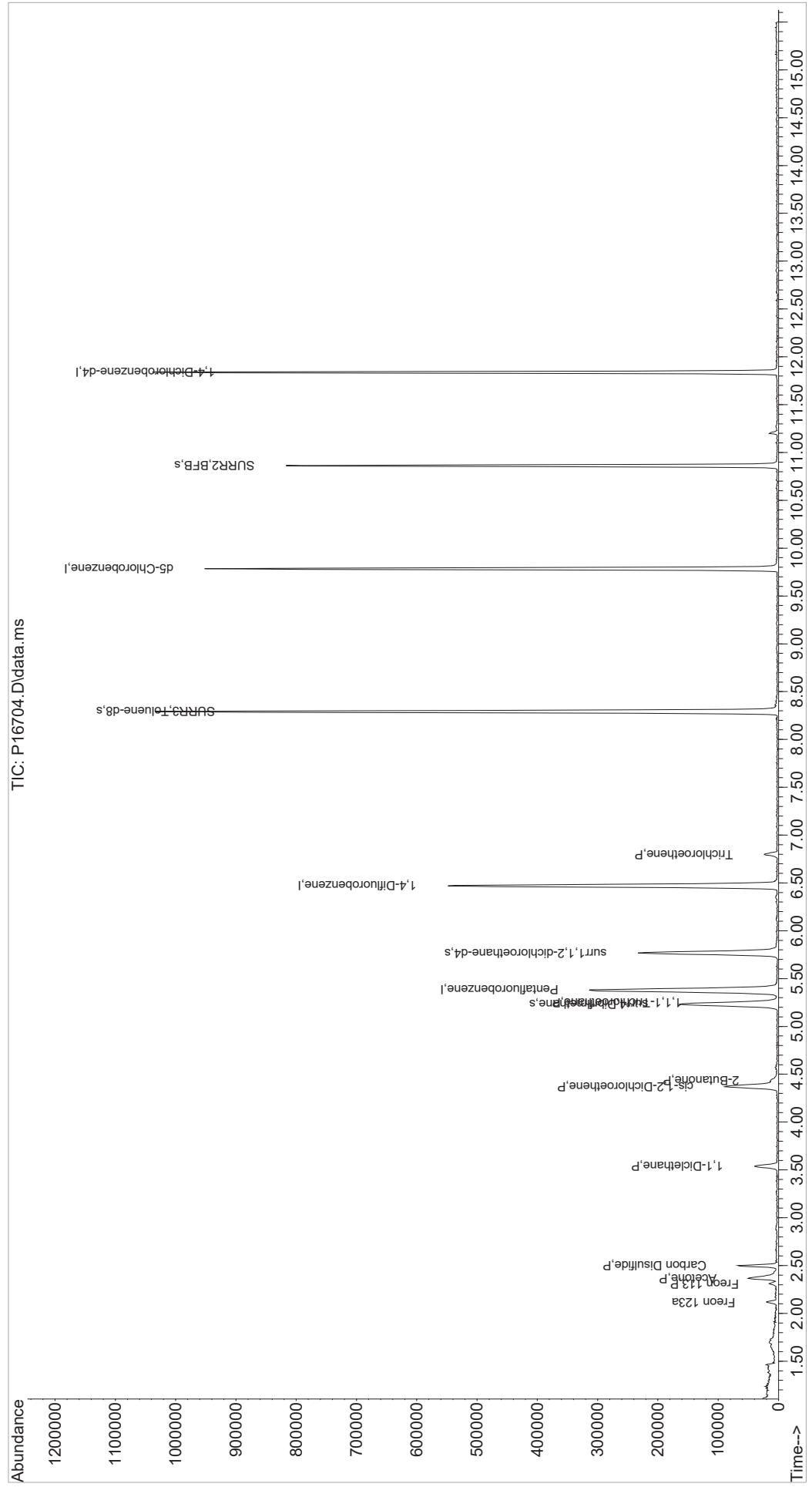
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.383	168	282631	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	479735	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	422035	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	201775	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	130485	45.81	ppb	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	91.62%	
48) surr1,1,2-dichloroetha...	5.767	65	194853	49.92	ppb	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	99.84%	
65) SURR3,Toluene-d8	8.291	98	630816	49.60	ppb	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	99.20%	
70) SURR2,BFB	10.864	95	228907	46.52	ppb	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	93.04%	
Target Compounds						
10) Freon 123a	2.116	67	6480	1.90	ppb	Qvalue # 72
14) Freon 113	2.305	101	4007	1.46	ppb	# 73
15) Acetone	2.366	43	71348	41.40	ppb	97
18) Carbon Disulfide	2.500	76	69896	8.25	ppb	98
28) 1,1-Dicethane	3.536	63	39537	7.27	ppb	98
34) cis-1,2-Dichloroethene	4.371	96	48207	14.28	ppb	98
35) 2-Butanone	4.432	43	19116	8.83	ppb	84
41) 1,1,1-Trichloroethane	5.249	97	11540	2.49	ppb	94
54) Trichloroethene	6.798	130	7462	2.32	ppb	93

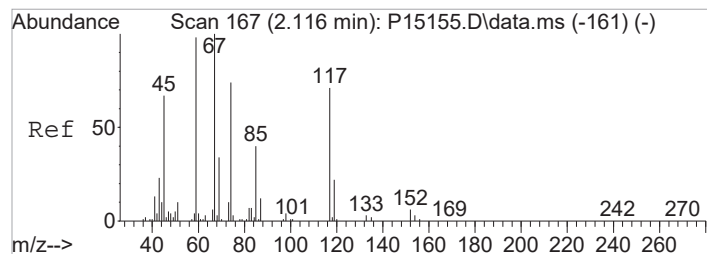
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16704.D
Acq On : 27 Mar 2018 2:43 pm
Operator : K.Ruest
Sample : R1802551-009|1.0
Misc : VERINA 8260 T4
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA-12

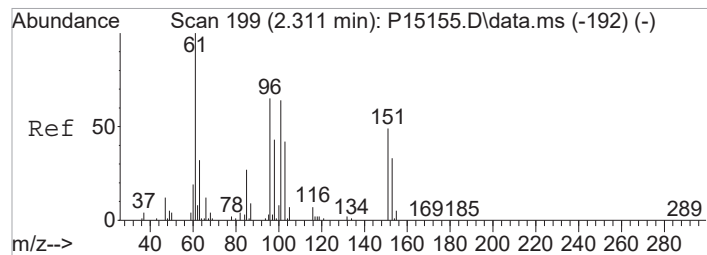
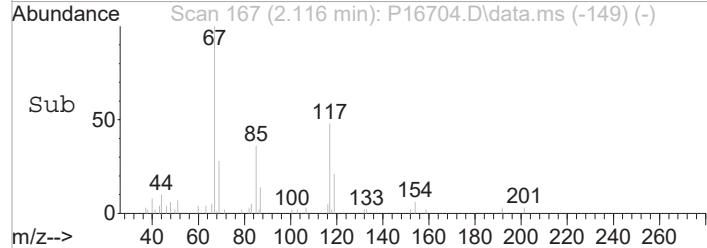
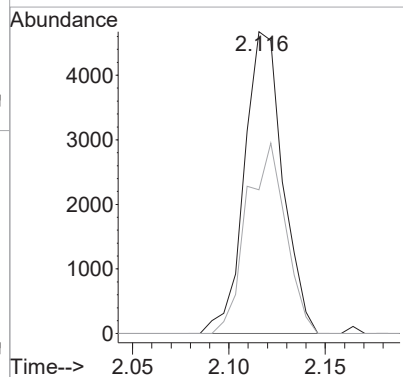
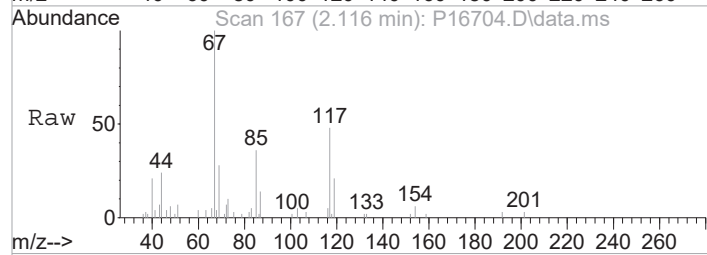
Quant Time: Mar 27 17:01:02 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Qlast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration





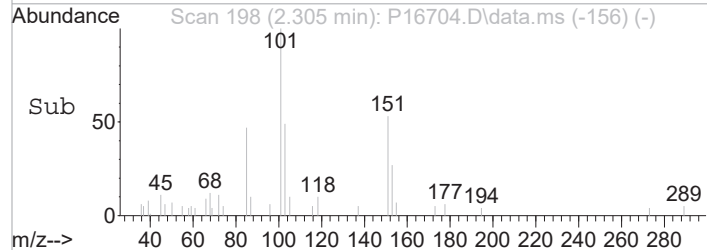
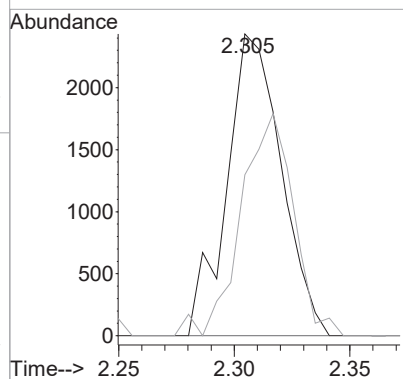
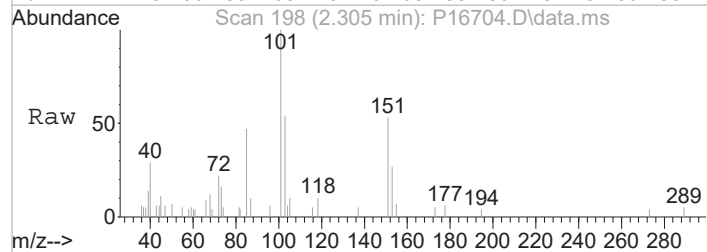
#10
Freon 123a
Concen: 1.90 ppb
RT: 2.116 min Scan# 167
Delta R.T. -0.006 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

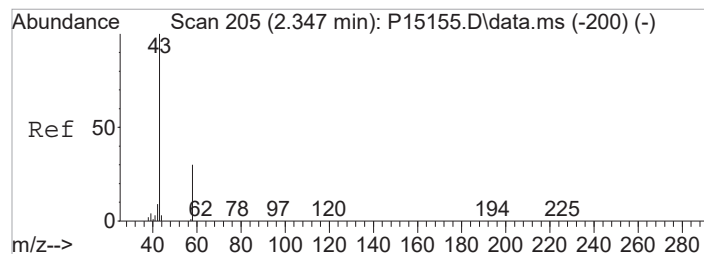
Tgt Ion: 67 Resp: 6480
Ion Ratio Lower Upper
67 100
117 47.6 50.3 90.3#



#14
Freon 113
Concen: 1.46 ppb
RT: 2.305 min Scan# 198
Delta R.T. 0.000 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

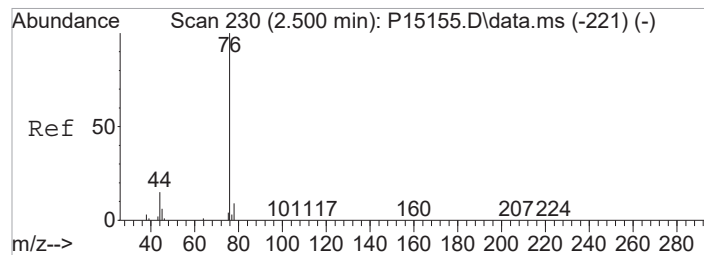
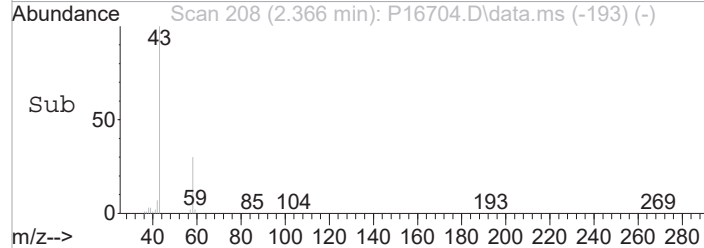
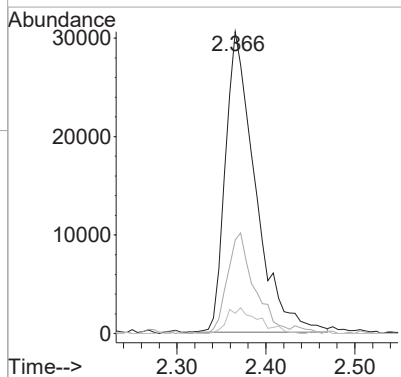
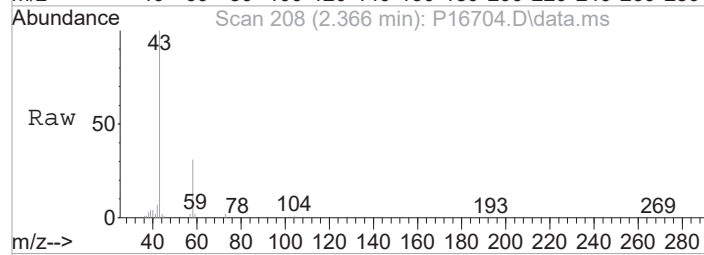
Tgt Ion: 101 Resp: 4007
Ion Ratio Lower Upper
101 100
151 53.4 56.3 96.3#





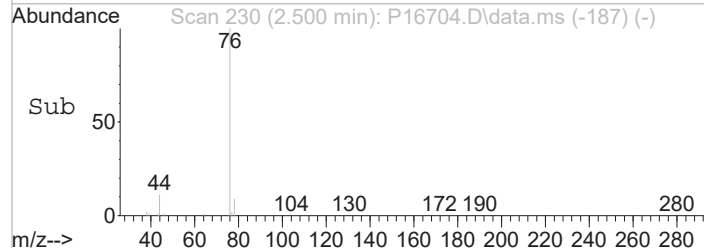
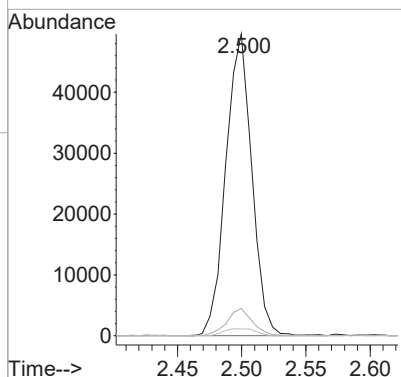
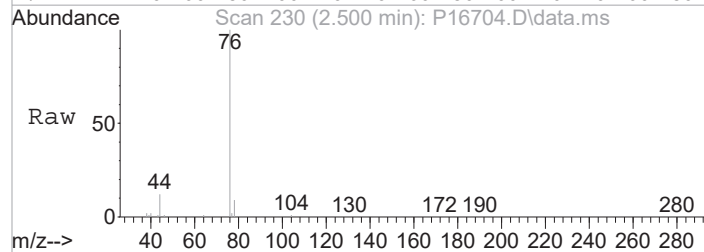
#15
Acetone
Concen: 41.40 ppb
RT: 2.366 min Scan# 208
Delta R.T. 0.018 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

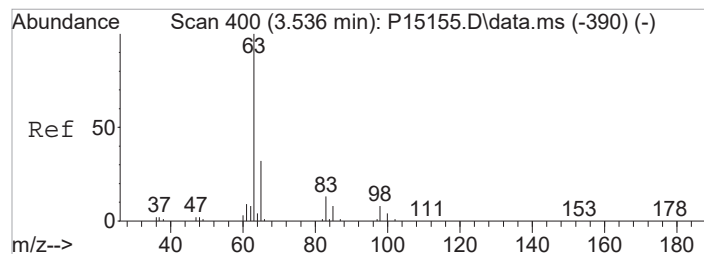
Tgt Ion:	43	Resp:	71348
Ion Ratio	Lower	Upper	
43	100		
58	31.0	9.7	49.7
42	6.7	0.0	29.2



#18
Carbon Disulfide
Concen: 8.25 ppb
RT: 2.500 min Scan# 230
Delta R.T. 0.006 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

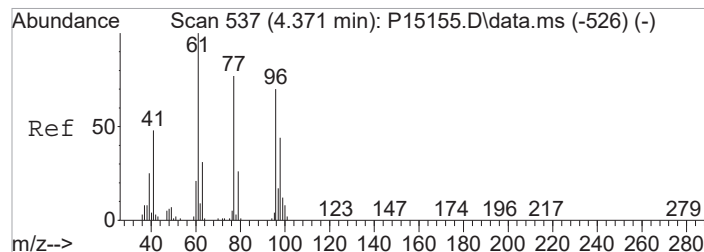
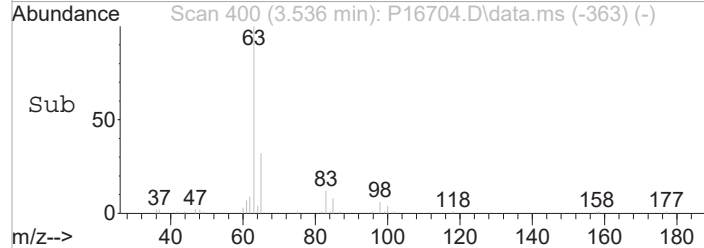
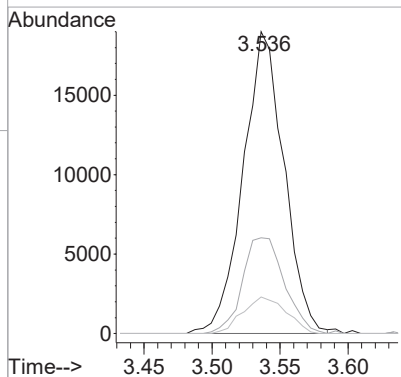
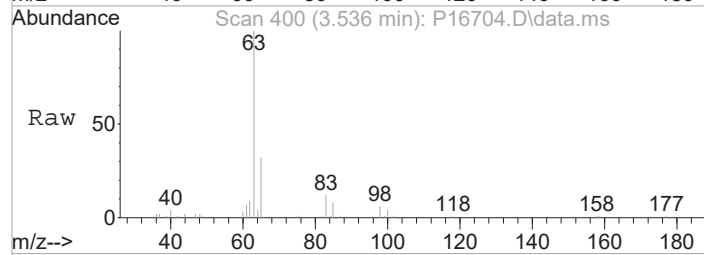
Tgt Ion:	76	Resp:	69896
Ion Ratio	Lower	Upper	
76	100		
78	9.0	0.0	29.5
77	2.2	0.0	23.1





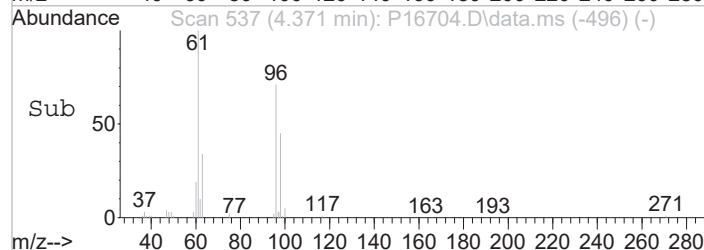
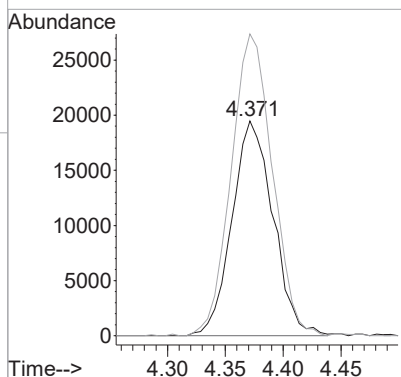
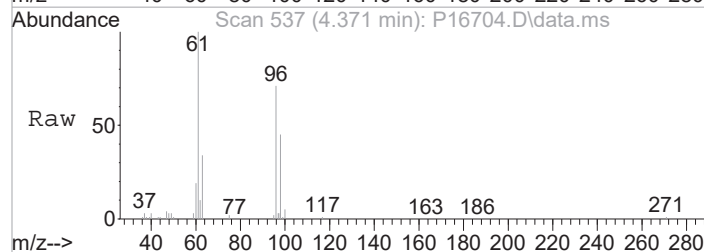
#28
1,1-Dichloroethane
Concen: 7.27 ppb
RT: 3.536 min Scan# 400
Delta R.T. 0.000 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

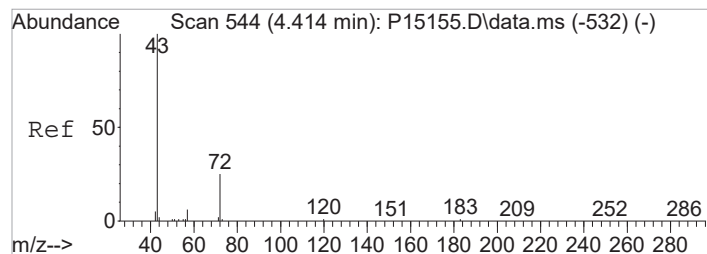
Tgt Ion: 63	Resp: 39537
Ion Ratio	Lower Upper
63	100
65	31.7 12.3 52.3
83	12.1 0.0 33.4



#34
cis-1,2-Dichloroethene
Concen: 14.28 ppb
RT: 4.371 min Scan# 537
Delta R.T. -0.006 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

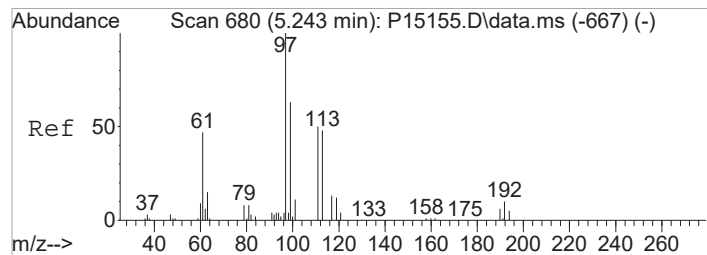
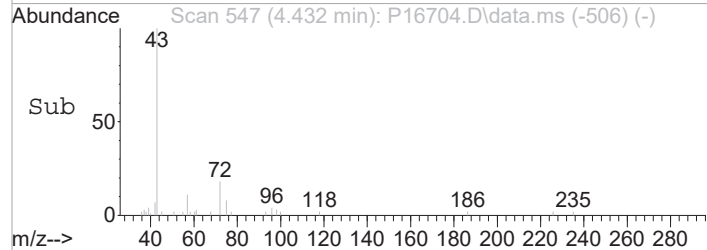
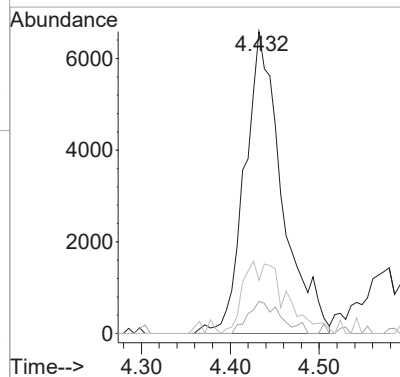
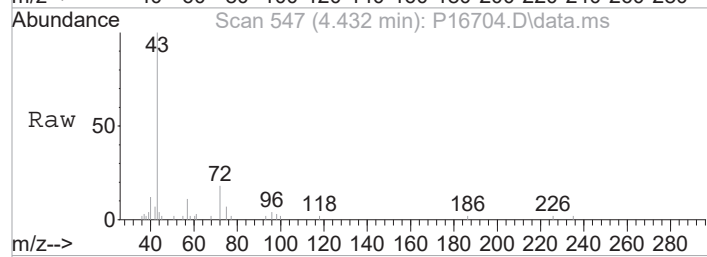
Tgt Ion: 96	Resp: 48207
Ion Ratio	Lower Upper
96	100
61	140.6 122.8 162.8





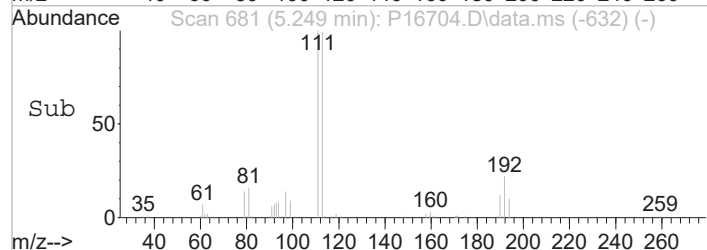
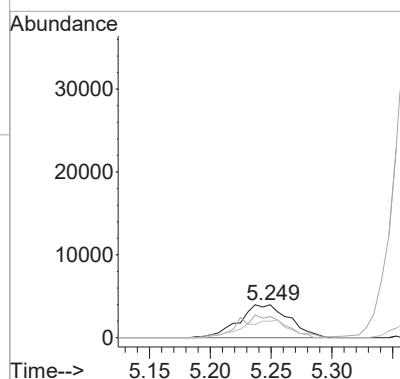
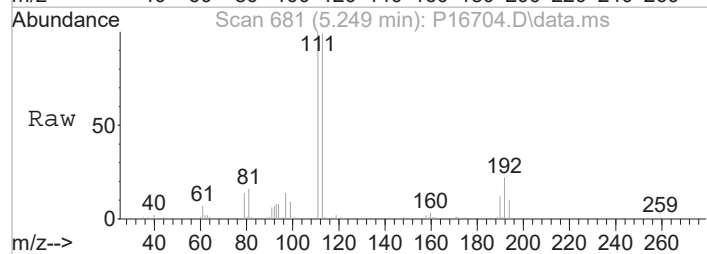
#35
2-Butanone
Concen: 8.83 ppb
RT: 4.432 min Scan# 547
Delta R.T. 0.025 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

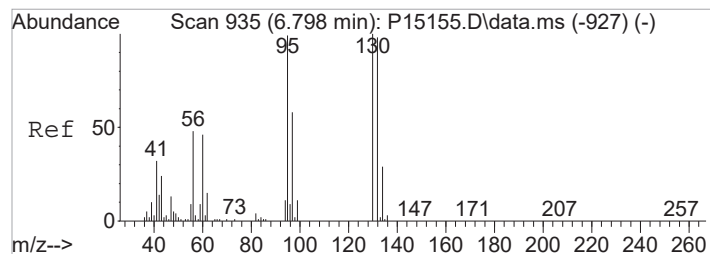
Tgt Ion	43	Resp	19116
Ion Ratio	Lower	Upper	
43	100		
57	10.6	0.0	26.7
72	17.6	6.1	46.1



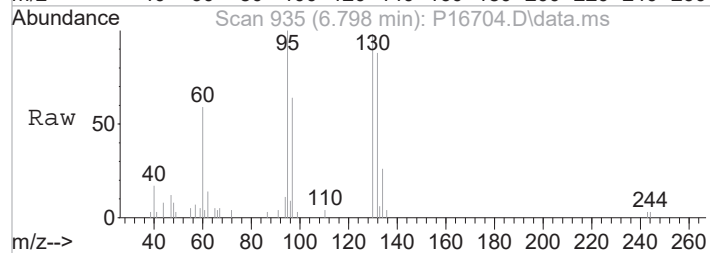
#41
1,1,1-Trichloroethane
Concen: 2.49 ppb
RT: 5.249 min Scan# 681
Delta R.T. 0.018 min
Lab File: P16704.D
Acq: 27 Mar 2018 2:43 pm

Tgt Ion	97	Resp	11540
Ion Ratio	Lower	Upper	
97	100		
99	67.8	43.1	83.1
61	50.2	26.9	66.9

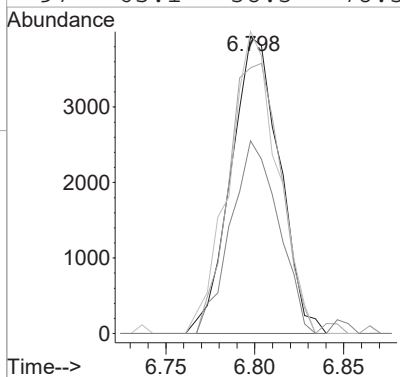
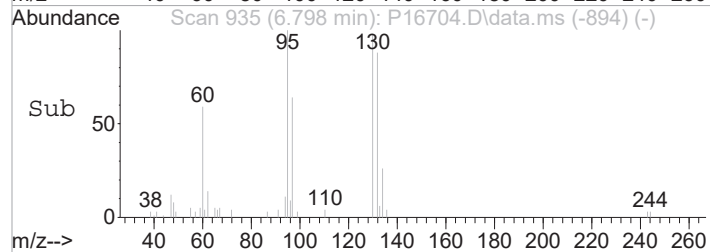




#54
 Trichloroethene
 Concen: 2.32 ppb
 RT: 6.798 min Scan# 935
 Delta R.T. 0.000 min
 Lab File: P16704.D
 Acq: 27 Mar 2018 2:43 pm



Tgt Ion:130	Resp:	7462
Ion Ratio	Lower	Upper
130	100	
132	89.7	78.3 118.3
95	101.9	78.7 118.7
97	65.1	38.3 78.3



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16698.D
 Acq On : 27 Mar 2018 12:22 pm
 Operator : K.Ruest
 Sample : VBLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 14:17:59 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

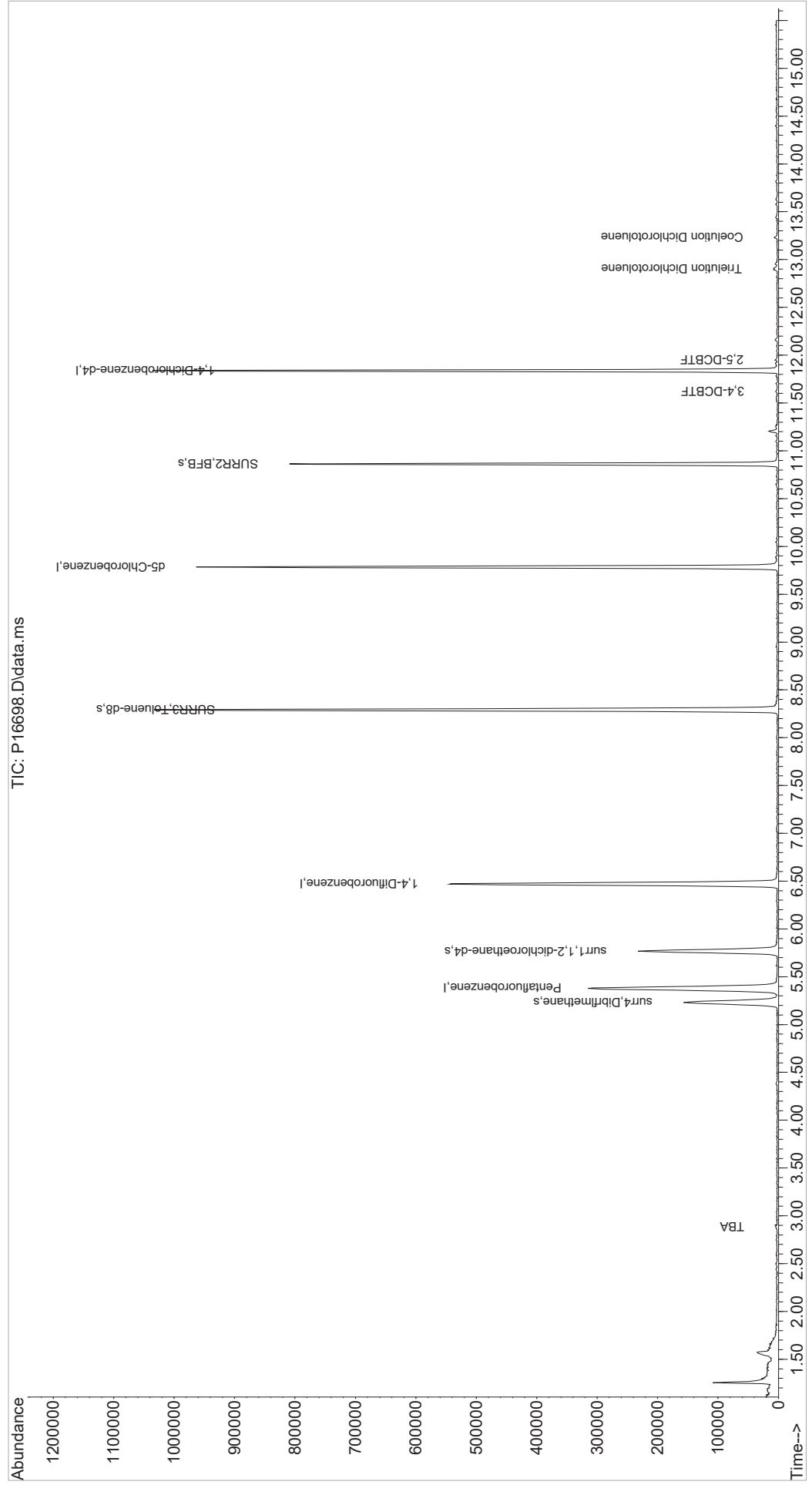
Internal Standards						
1) Pentafluorobenzene	5.383	168	285373	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	478787	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	414857	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	202807	50.00	ppb	0.00
System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	130735	45.99	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	91.98%
48) surr1,1,2-dichloroetha...	5.767	65	191415	49.14	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	98.28%
65) SURR3,Toluene-d8	8.291	98	627976	49.47	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	98.94%
70) SURR2,BFB	10.864	95	223476	45.50	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	91.00%
Target Compounds						
23) TBA	2.884	59	1084	1.88	ppb	Qvalue 100
102) 3,4-DCBTF	11.620	214	668	0.21	ppb	# 61
108) 2,5-DCBTF	11.949	214	662	0.21	ppb	# 76
112) Trielution Dichlorotol...	12.906	125	2786	0.46	ppb	# 81
114) Coelution Dichlorotoluene	13.235	125	1667	0.26	ppb	# 89

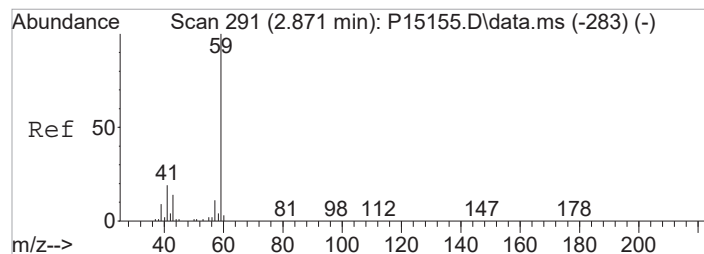
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16698.D
 Acq On : 27 Mar 2018 12:22 pm
 Operator : K.Ruest
 Sample : VBLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

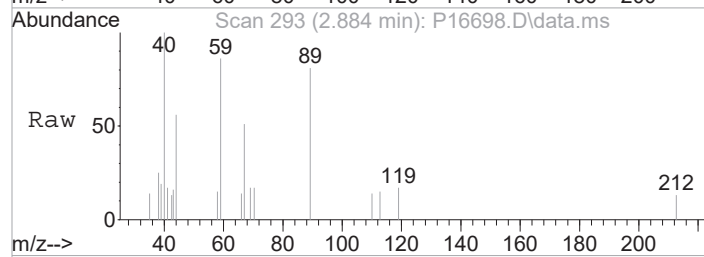
Inst : MSVOA-12

Quant Time: Mar 27 14:17:59 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

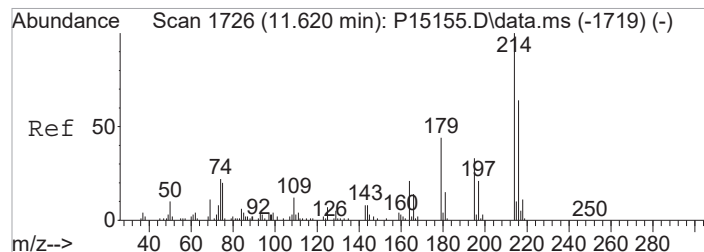
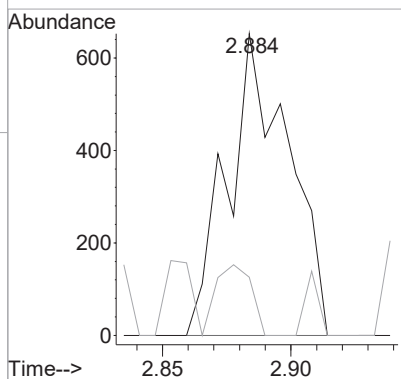
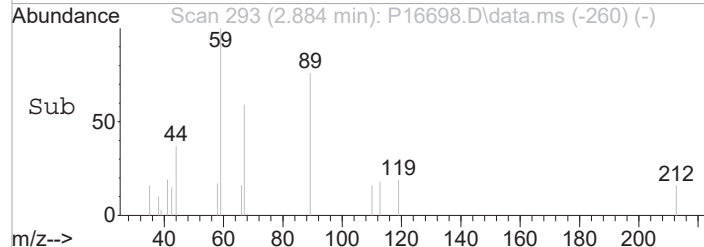




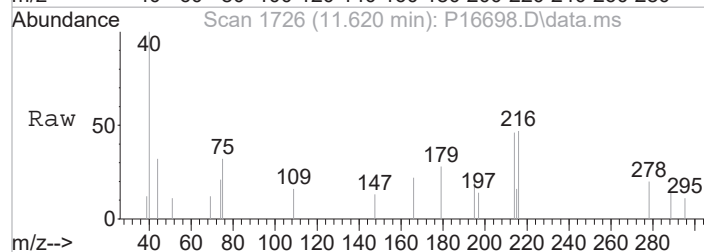
#23
TBA
Concen: 1.88 ppb
RT: 2.884 min Scan# 293
Delta R.T. 0.012 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm



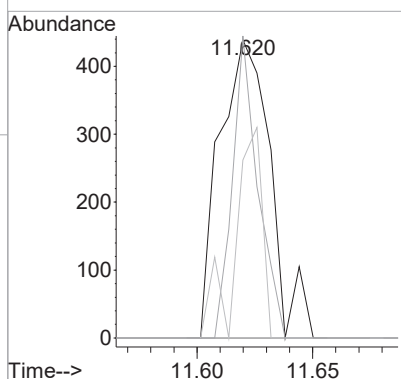
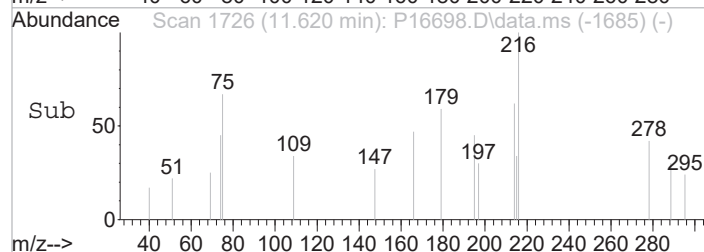
Tgt Ion: 59 Resp: 1084
Ion Ratio Lower Upper
59 100
41 19.3 0.0 39.4

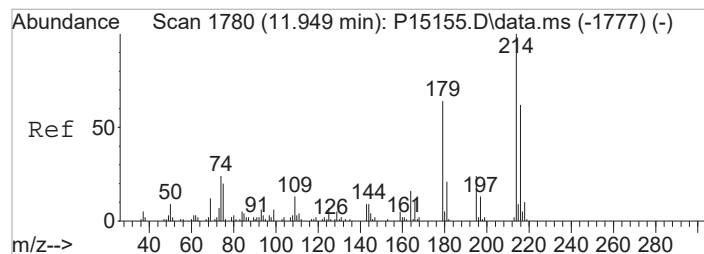


#102
3,4-DCBTF
Concen: 0.21 ppb
RT: 11.620 min Scan# 1726
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm



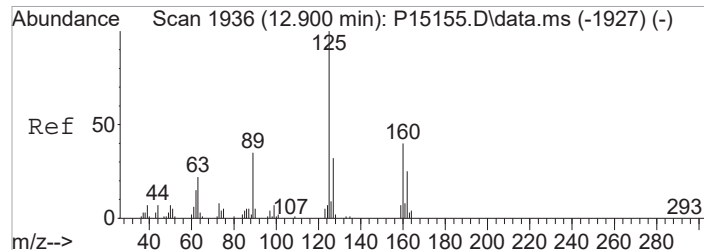
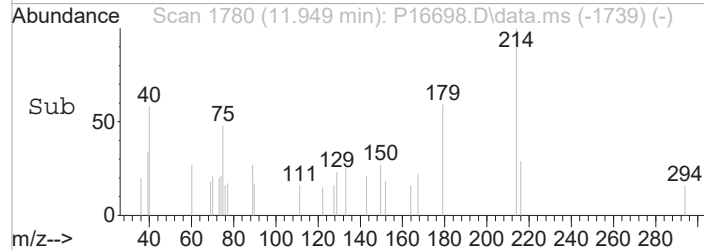
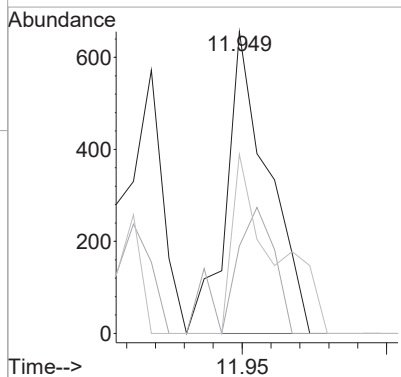
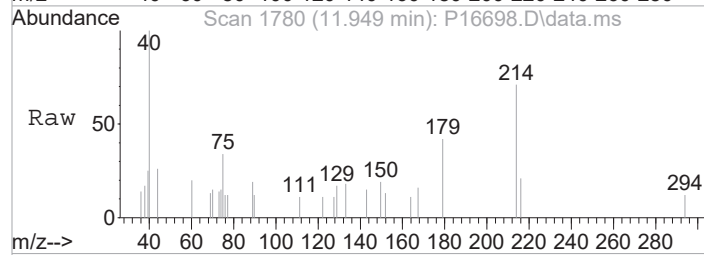
Tgt Ion: 214 Resp: 668
Ion Ratio Lower Upper
214 100
216 101.4 51.0 76.6#
179 59.7 34.9 52.3#





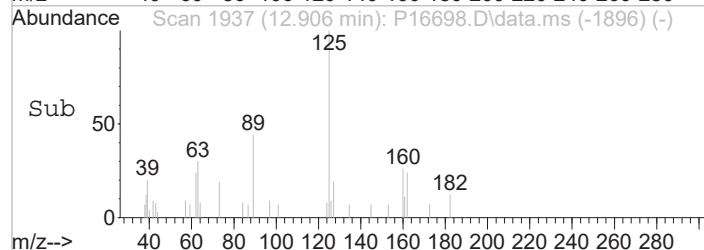
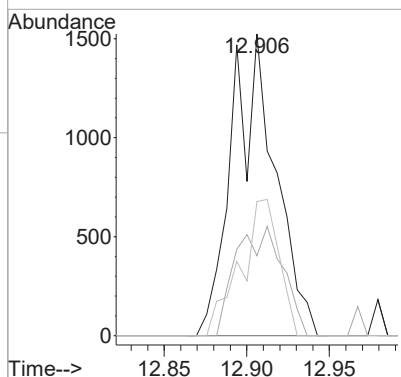
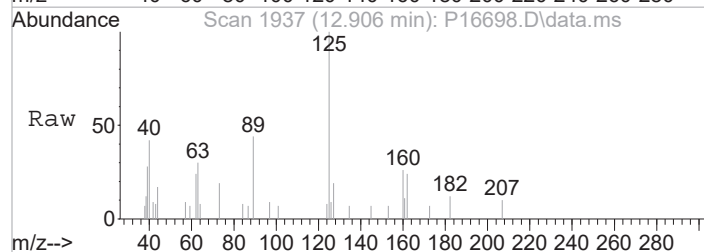
#108
2,5-DCBTF
Concen: 0.21 ppb
RT: 11.949 min Scan# 1780
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

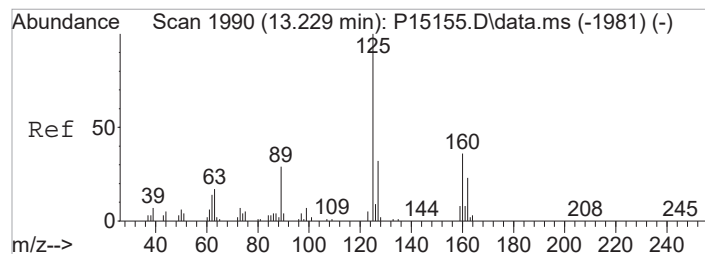
Tgt Ion	214	Resp	662
Ion Ratio	Lower	Upper	
214	100		
216	29.0	49.6	74.4#
179	59.3	51.6	77.4



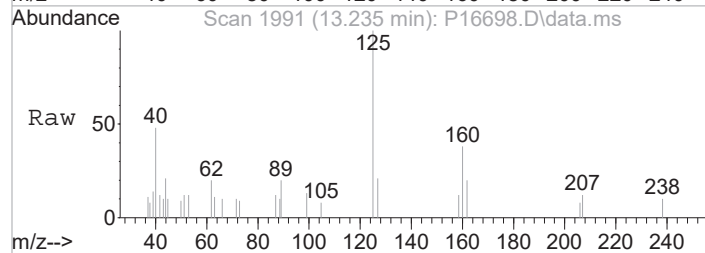
#112
Trielution Dichlorotoluene
Concen: 0.46 ppb
RT: 12.906 min Scan# 1937
Delta R.T. 0.000 min
Lab File: P16698.D
Acq: 27 Mar 2018 12:22 pm

Tgt Ion	125	Resp	2786
Ion Ratio	Lower	Upper	
125	100		
160	26.5	32.2	48.2#
89	44.5	28.3	42.5#

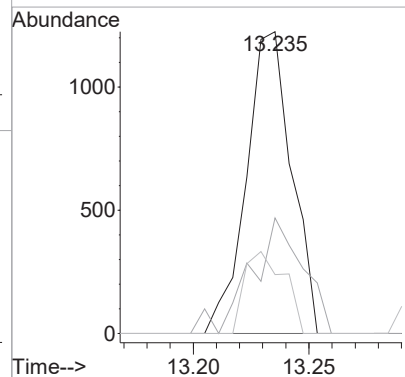
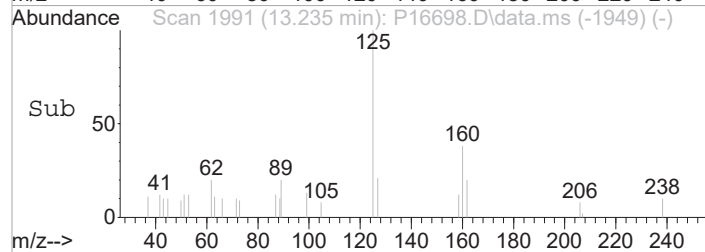




#114
 Coelution Dichlorotoluene
 Concen: 0.26 ppb
 RT: 13.235 min Scan# 1991
 Delta R.T. 0.006 min
 Lab File: P16698.D
 Acq: 27 Mar 2018 12:22 pm



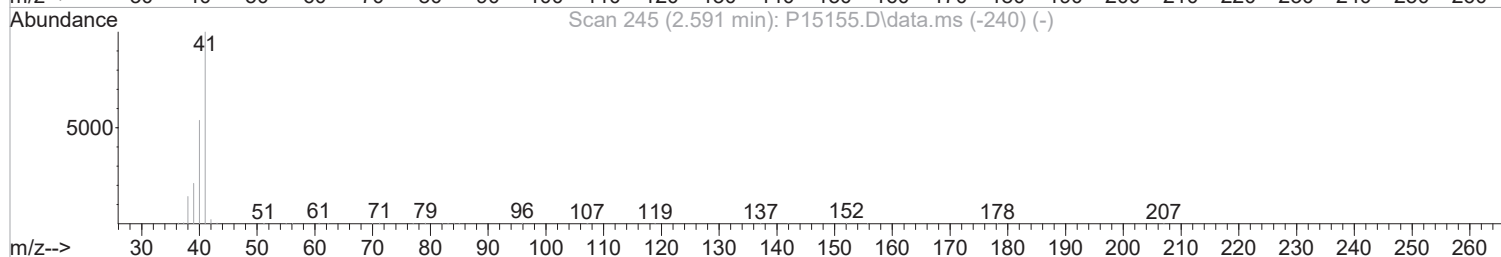
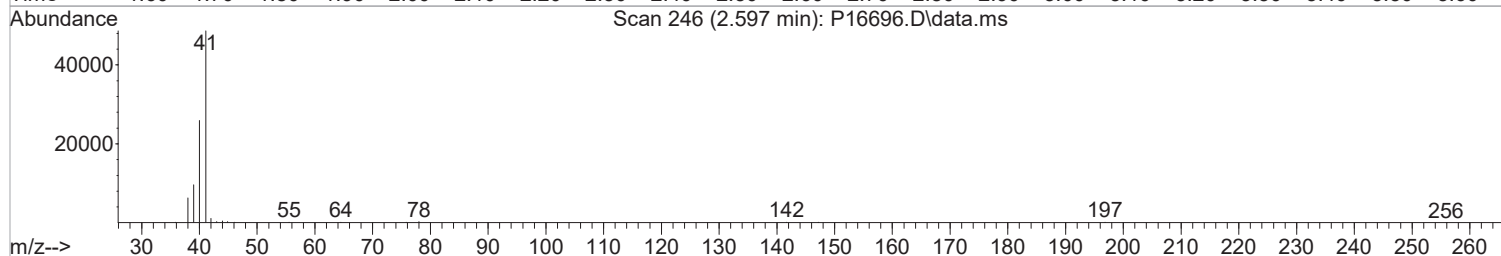
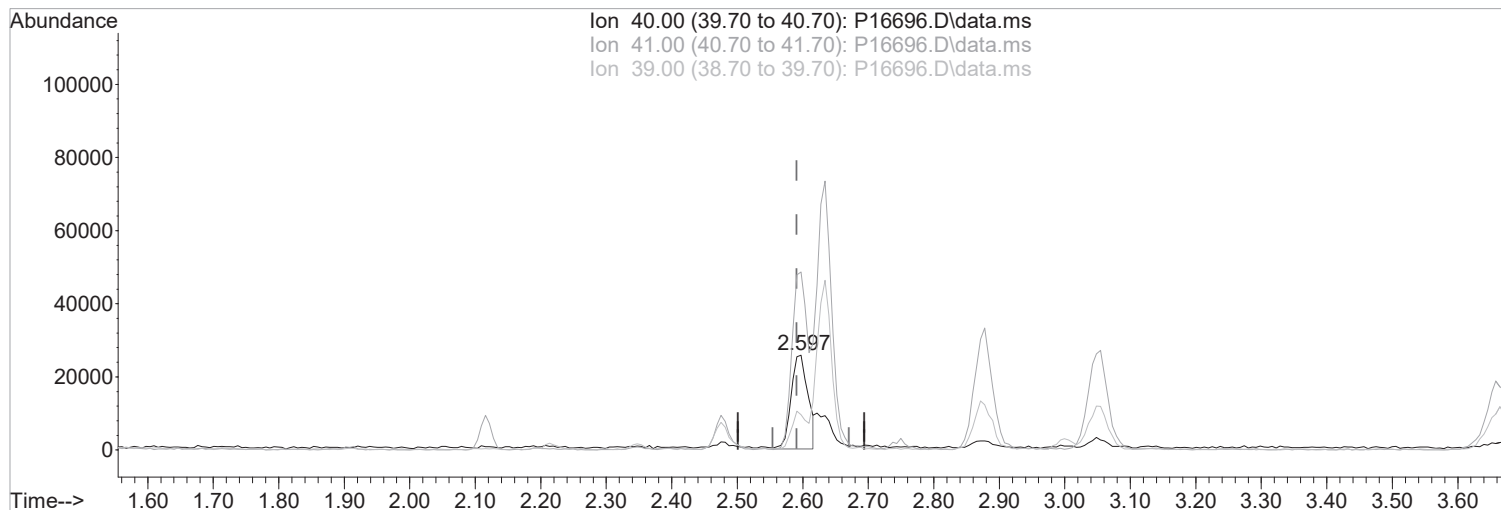
Tgt Ion:	125	Resp:	1667
Ion Ratio	Lower	Upper	
125	100		
160	38.3	28.4	42.6
89	19.5	23.2	34.8#



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



TIC: P16696.D\data.ms

(19) Acetonitrile

2.597min (+0.006) 145.74 ppb m

response 45873

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

Manual Integration:

After

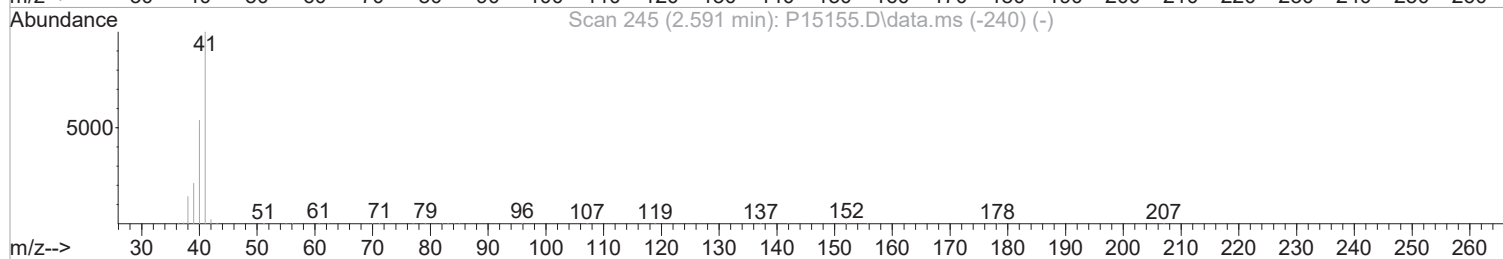
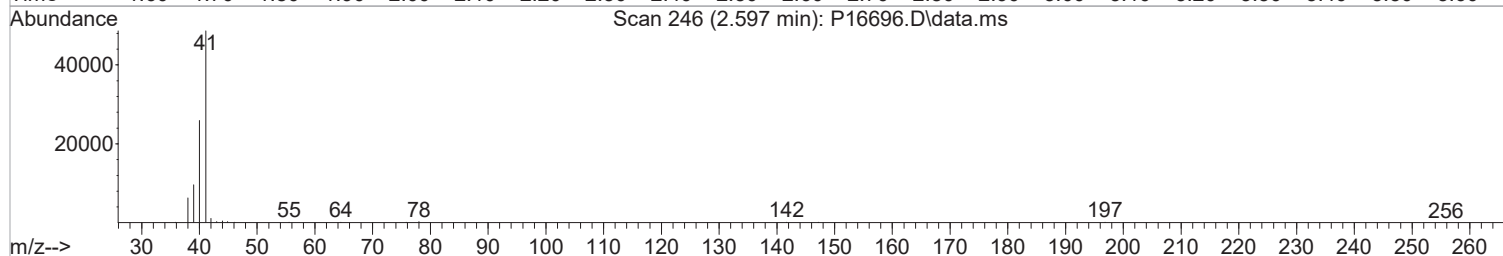
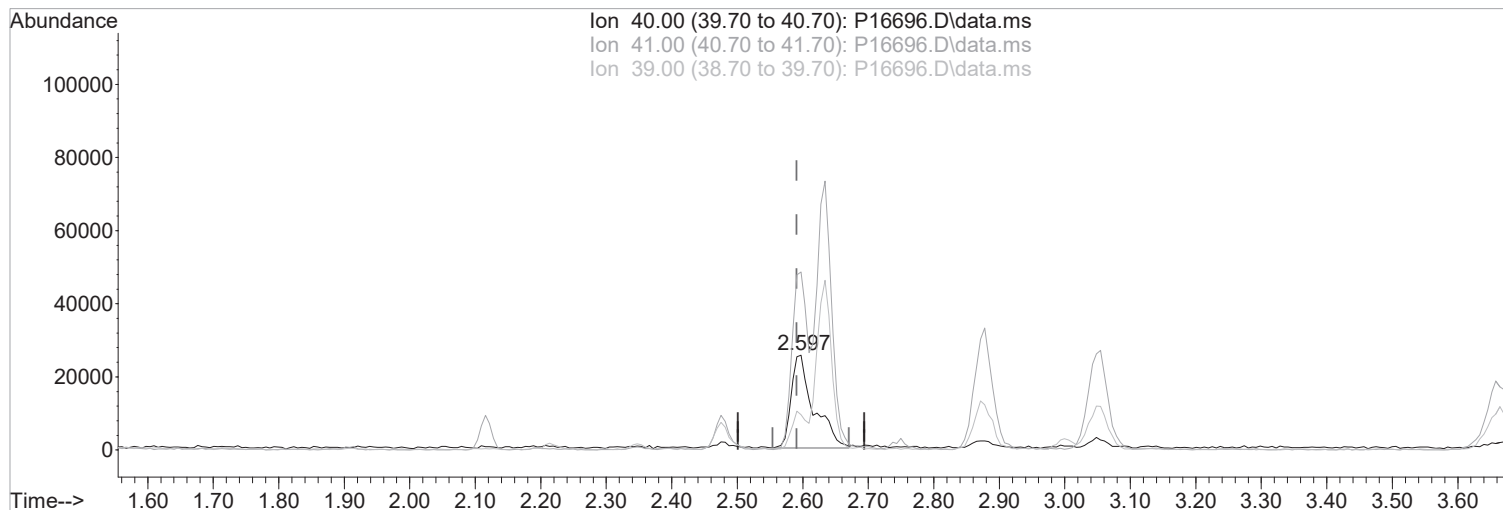
Poor integration.

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:54:53 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
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TIC: P16696.D\data.ms

(19) Acetonitrile

Manual Integration:

2.597min (+0.006) 192.49 ppb

Before

response 60588

Ion	Exp%	Act%
40.00	100	100
41.00	186.50	187.54
39.00	40.10	37.20
0.00	0.00	0.00

03/27/18

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16696.D
 Acq On : 27 Mar 2018 11:30 am
 Operator : K.Ruest
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 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:55:27 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	302355	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	517963	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	456652	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	225614	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	147394	47.93	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	95.86%
48) surr1,1,2-dichloroetha...	5.767	65	203758	48.35	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	96.70%
65) SURR3,Toluene-d8	8.291	98	680879	49.58	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	99.16%
70) SURR2,BFB	10.864	95	250737	47.19	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	94.38%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	93570	25.44	ppb	98
3) Chloromethane	1.311	50	93421	20.32	ppb	97
4) Vinyl Chloride	1.384	62	96363	21.52	ppb	100
5) Bromomethane	1.610	94	40494	10.87	ppb	96
6) Chloroethane	1.689	64	56153	20.08	ppb	93
7) Freon 21	1.835	67	122560	21.20	ppb	98
8) Trichlorofluoromethane	1.884	101	87306	20.23	ppb	99
9) Diethyl Ether	2.116	59	78786	26.23	ppb	93
10) Freon 123a	2.116	67	82500	22.59	ppb	89
11) Freon 123	2.170	83	118901	28.14	ppb	97
12) Acrolein	2.219	56	34358	38.44	ppb	96
13) 1,1-Dicethene	2.305	96	59830	19.26	ppb	98
14) Freon 113	2.311	101	50554	17.23	ppb	98
15) Acetone	2.347	43	52193	28.31	ppb	96
16) 2-Propanol	2.475	45	172752	488.38	ppb	97
17) Iodomethane	2.433	142	71435	21.97	ppb	96
18) Carbon Disulfide	2.500	76	195126	21.54	ppb	97
19) Acetonitrile	2.597	40	45873m	145.74	ppb	
20) Allyl Chloride	2.634	76	36536	22.09	ppb	# 90
21) Methyl Acetate	2.658	43	86315	26.22	ppb	99
22) Methylene Chloride	2.750	84	77580	23.68	ppb	94
23) TBA	2.878	59	290482	476.41	ppb	91
24) Acrylonitrile	3.000	53	240626	135.97	ppb	100
25) Methyl-t-Butyl Ether	3.054	73	265325	23.83	ppb	97
26) trans-1,2-Dichloroethene	3.042	96	65556	20.66	ppb	90
28) 1,1-Dicethane	3.536	63	133024	22.85	ppb	98
29) Vinyl Acetate	3.627	86	20417	21.96	ppb	99
30) DIPE	3.664	45	277248	25.01	ppb	94
31) 2-Chloro-1,3-Butadiene	3.664	53	124595	22.13	ppb	100
32) ETBE	4.188	59	269012	24.06	ppb	98
33) 2,2-Dichloropropane	4.365	77	95167	18.38	ppb	99
34) cis-1,2-Dichloroethene	4.371	96	75813	20.99	ppb	97
35) 2-Butanone	4.408	43	58853	25.41	ppb	97
36) Propionitrile	4.493	54	97752	129.97	ppb	99
37) Bromochloromethane	4.761	130	45791	21.91	ppb	90
38) Methacrylonitrile	4.761	67	48712	27.30	ppb	90
39) Tetrahydrofuran	4.853	42	40156	29.71	ppb	92
40) Chloroform	4.944	83	118205	20.17	ppb	98
41) 1,1,1-Trichloroethane	5.237	97	85282	17.19	ppb	94

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16696.D
 Acq On : 27 Mar 2018 11:30 am
 Operator : K.Ruest
 Sample : LCS
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:55:27 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.090	73	259480	23.78	ppb	96
44) Cyclohexane	5.334	41	70550	20.85	ppb	90
46) Carbontetrachloride	5.523	117	59737	15.36	ppb	91
47) 1,1-Dichloropropene	5.536	75	88834	19.47	ppb	97
49) Benzene	5.847	78	285890	21.13	ppb	99
50) 1,2-Dichloroethane	5.883	62	109177	21.97	ppb	96
51) Iso-Butyl Alcohol	5.859	43	126847	462.20	ppb	97
52) n-Heptane	6.340	43	93059	20.04	ppb	94
53) 1-Butanol	6.822	56	212197	1168.57	ppb	99
54) Trichloroethene	6.798	130	65337	18.83	ppb	93
55) Methylcyclohexane	7.041	55	101785	22.55	ppb	86
56) 1,2-Dicloropropane	7.078	63	80438	22.29	ppb	98
57) Dibromomethane	7.218	93	46022	21.36	ppb	96
58) 1,4-Dioxane	7.279	88	36159	507.53	ppb	89
59) Methyl Methacrylate	7.304	69	75719	22.71	ppb	96
60) Bromodichloromethane	7.450	83	85102	18.73	ppb	98
61) 2-Nitropropane	7.730	41	42958	30.62	ppb	99
62) 2-Chloroethylvinyl Ether	7.858	63	48564	58.22	ppb	89
63) cis-1,3-Dichloropropene	7.992	75	121609	21.21	ppb	97
64) 4-Methyl-2-pentanone	8.200	43	104812	23.80	ppb	96
66) Toluene	8.364	91	291927	19.86	ppb	97
67) trans-1,3-Dichloropropene	8.633	75	108569	20.33	ppb	99
68) Ethyl Methacrylate	8.779	69	127736	23.43	ppb	99
69) 1,1,2-Trichloroethane	8.822	97	72042	21.58	ppb	97
72) Tetrachloroethene	8.956	164	43529	17.27	ppb	95
73) 2-Hexanone	9.114	43	77525	23.06	ppb	92
74) 1,3-Dichloropropane	8.992	76	137501	23.43	ppb	100
75) Dibromochloromethane	9.218	129	58891	19.23	ppb	99
76) N-Butyl Acetate	9.273	43	158618	25.07	ppb	94
77) 1,2-Dibromoethane	9.315	107	71145	21.87	ppb	92
78) Chlorobenzene	9.809	112	183970	20.56	ppb	96
79) 3-CBTF	9.828	180	100492	21.07	ppb	94
80) 4-CBTF	9.882	180	90890	20.85	ppb	98
81) 1,1,1,2-Tetrachloroethane	9.901	131	60134	18.91	ppb	97
82) Ethylbenzene	9.931	106	95321	19.30	ppb	98
83) (m+p)Xylene	10.047	106	233361	39.03	ppb	99
84) o-Xylene	10.401	106	117466	19.62	ppb	97
85) Styrene	10.419	104	202943	20.14	ppb	98
87) Bromoform	10.565	173	38206	19.41	ppb	97
88) 2-CBTF	10.651	180	94593	21.65	ppb	89
89) Isopropylbenzene	10.736	105	279655	18.87	ppb	99
90) Cyclohexanone	10.797	55	406229	360.25	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	28385	24.16	ppb	83
92) 1,1,2,2-Tetrachloroethane	10.998	83	109435	24.46	ppb	99
93) Bromobenzene	10.986	156	77089	21.23	ppb	# 87
94) 1,2,3-Trichloropropane	11.028	110	34313	23.61	ppb	94
95) n-Propylbenzene	11.096	91	337491	19.58	ppb	98
96) 2-Chlorotoluene	11.156	91	216766	20.28	ppb	97
97) 3-Chlorotoluene	11.211	91	249989	22.18	ppb	94
98) 4-Chlorotoluene	11.248	91	244667	19.82	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	234435	18.91	ppb	99
100) tert-Butylbenzene	11.522	119	195781	18.29	ppb	98
101) 1,2,4-Trimethylbenzene	11.559	105	249111	20.06	ppb	99
102) 3,4-DCBTF	11.620	214	81298	23.43	ppb	98
103) sec-Butylbenzene	11.705	105	290893	18.47	ppb	98
104) p-Isopropyltoluene	11.827	119	245832	18.55	ppb	97

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS
Misc :
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
QLast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

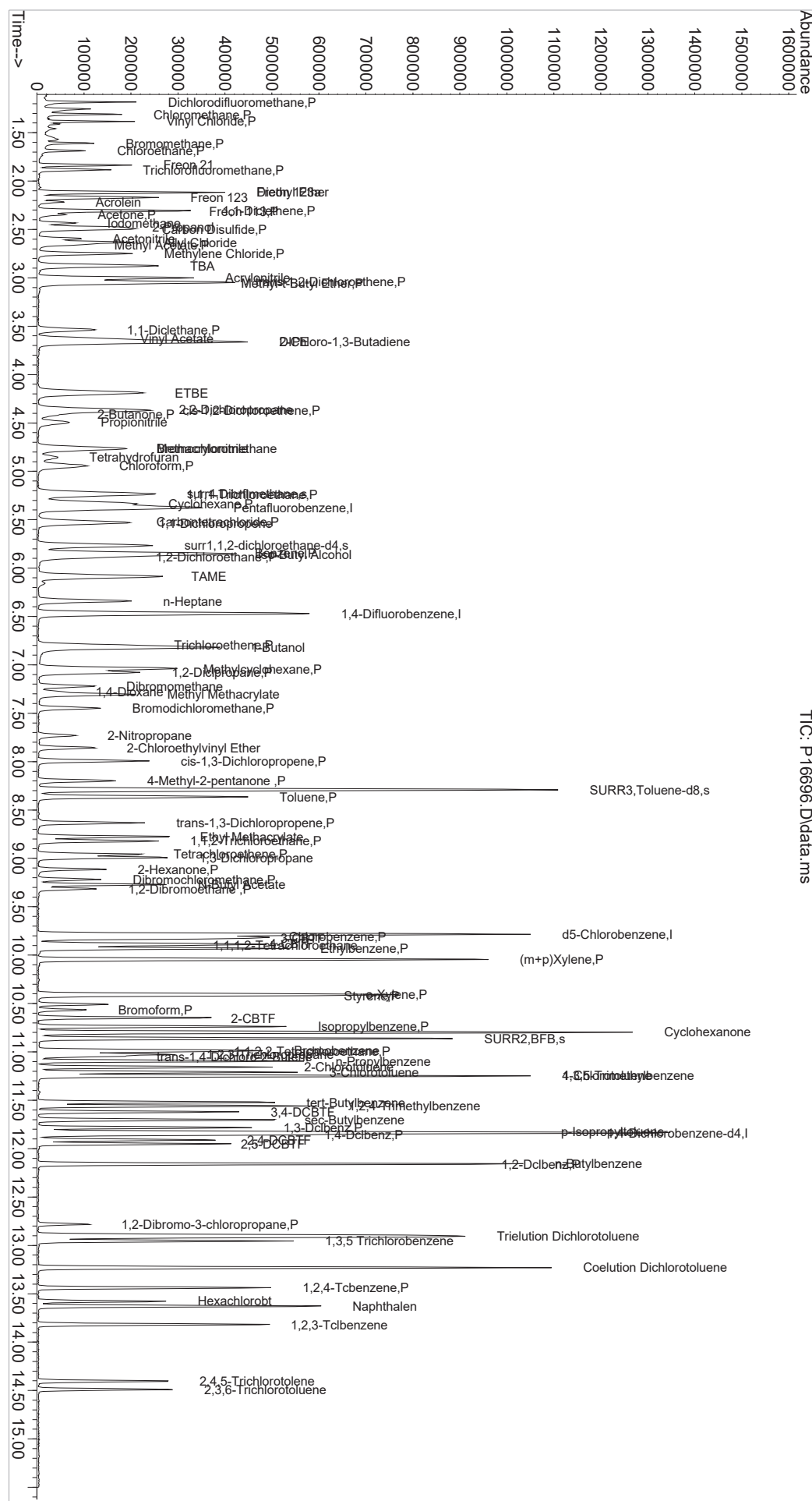
	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,3-Dclbenz	11.784	146	144467	20.93	ppb	97
106)	1,4-Dclbenz	11.858	146	145267	20.06	ppb	99
107)	2,4-DCBTF	11.912	214	73333	22.16	ppb	95
108)	2,5-DCBTF	11.955	214	83967	23.73	ppb	92
109)	n-Butylbenzene	12.156	91	242955	19.65	ppb	99
110)	1,2-Dclbenz	12.162	146	146675	21.30	ppb	99
111)	1,2-Dibromo-3-chloropr...	12.784	157	21962	18.97	ppb	91
112)	Trielution Dichlorotol...	12.906	125	458332	67.65	ppb	98
113)	1,3,5 Trichlorobenzene	12.955	180	124523	23.22	ppb	97
114)	Coelution Dichlorotoluene	13.229	125	338033	47.05	ppb	99
115)	1,2,4-Tcbenzene	13.437	180	116296	23.23	ppb	95
116)	Hexachlorobt	13.577	225	39623	17.05	ppb	98
117)	Naphthalen	13.626	128	357379	25.87	ppb	99
118)	1,2,3-Tclbenzene	13.821	180	117709	24.20	ppb	97
119)	2,4,5-Trichlorotoluene	14.406	159	56947	19.17	ppb	95
120)	2,3,6-Trichlorotoluene	14.491	159	52609	18.81	ppb	94

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

1st 03/27/18

Data Path : I:\ACQDATA\msvoa12\Data\032718\
Data File : P16696.D
Acq On : 27 Mar 2018 11:30 am
Operator : K.Ruest
Sample : LCS
Inst : MSVOA-12
PALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:55:27 2018
Quant Method : I:\ACQDATA\msvoa12\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Quant Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	111	0.00
2 P	Dichlorodifluoromethane	0.6083	0.6226	-2.4	106	0.00
3 P	Chloromethane	0.7602	0.7017	7.7	106	0.00
4 P	Vinyl Chloride	0.7405	0.7573	-2.3	112	0.00
5 P	Bromomethane	0.5812	0.2966	49.3	~~49.0~~ #	70
6 P	Chloroethane	0.4623	0.4754	-2.8	114	0.00
7	Freon 21	0.9560	1.1266	-17.8	129	0.00
8 P	Trichlorofluoromethane	0.7136	0.6744	5.5	105	0.00
9	Diethyl Ether	0.4967	0.5865	-18.1	138	0.00
10	Freon 123a	0.6039	0.7041	-16.6	131	0.00
11	Freon 123	0.6987	0.7902	-13.1	126	0.00
12	Acrolein	0.1478	0.1118	NT	24.4#	86
13 P	1,1-Dicethene	0.5136	0.4806	6.4	113	0.00
14 P	Freon 113	0.4853	0.4490	7.5	106	0.00
15 P	Acetone	0.3049	0.3539	-16.1	128	0.00
16	2-Propanol	0.0585	0.0700	-19.7	143	0.00
17	Iodomethane	0.5271	0.6078	2.4	~~15.3~~	105
18 P	Carbon Disulfide	1.4979	1.4889	0.6	109	0.00
19	Acetonitrile	0.0521	0.0706	NT	-35.5#	162
20	Allyl Chloride	0.2735	0.3010	-10.1	128	0.00
21 P	Methyl Acetate	0.5445	0.7300	NT	-34.1#	156
22 P	Methylene Chloride	0.5417	0.5900	-8.9	124	0.00
23	TBA	0.1008	0.1091	-8.2	128	0.00
24	Acrylonitrile	0.2927	0.3544	NT	-21.1#	141
25 P	Methyl-t-Butyl Ether	1.8411	1.9998	-8.6	123	0.00
26 P	trans-1,2-Dichloroethene	0.5246	0.5226	0.4	113	0.00
27	Halothane	0.0000	0.0000	0.0	0#	-4.00#
28 P	1,1-Dicethane	0.9627	1.0471	-8.8	122	0.00
29	Vinyl Acetate	0.1537	0.1397	9.1	104	0.00
30	DIPE	1.8333	2.1616	-17.9	134	0.00
31	2-Chloro-1,3-Butadiene	0.9310	0.9269	0.4	115	0.00
32	ETBE	1.8488	2.0821	-12.6	123	0.01
33	2,2-Dichloropropane	0.8561	0.7664	10.5	104	0.00
34 P	cis-1,2-Dichloroethene	0.5972	0.6142	-2.8	118	0.00
35 P	2-Butanone	0.3831	0.4559	-19.0	135	0.00
36	Propionitrile	0.1244	0.1442	-15.9	139	-0.01
37	Bromochloromethane	0.3456	0.3550	-2.7	121	0.02
38	Methacrylonitrile	0.2950	0.3537	-19.9	135	0.00
39	Tetrahydrofuran	0.2235	0.2833	NT	-26.8#	143
40 P	Chloroform	0.9692	0.9229	4.8	115	0.00
41 P	1,1,1-Trichloroethane	0.8203	0.7055	14.0	103	0.01
42	TAME	1.8047	1.9352	-7.2	119	0.00
43 I	1,4-Difluorobenzene	1.0000	1.0000	0.0	113	0.00
44 P	Cyclohexane	0.3267	0.3662	-12.1	132	0.00
45 s	surr4,Dibrflmethane	0.2969	0.2784	6.2	106	0.00
46 P	Carbontetrachloride	0.3753	0.3070	18.2	92	0.00
47	1,1-Dichloropropene	0.4404	0.4376	0.6	114	0.02
48 s	surr1,1,2-dichloroethane-d4	0.4068	0.3893	4.3	107	0.00
49 P	Benzene	1.3061	1.3628	-4.3	120	0.00
50 P	1,2-Dichloroethane	0.4798	0.4888	-1.9	117	0.00
51	Iso-Butyl Alcohol	0.0265	0.0296	-11.7	133	0.00

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 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	n-Heptane	0.4483	0.4896	-9.2	125	0.02
53	1-Butanol	0.0175	0.0191	-9.1	124	-0.01
54 P	Trichloroethene	0.3350	0.3113	7.1	105	0.00
55 P	Methylcyclohexane	0.4357	0.5278	NT	-21.1#	134 0.00
56 P	1,2-Dicloropropane	0.3484	0.3835	-10.1	128	0.01
57	Dibromomethane	0.2080	0.2074	0.3	115	0.00
58	1,4-Dioxane	0.0069	0.0074	-7.2	129	0.00
59	Methyl Methacrylate	0.3218	0.3431	-6.6	125	0.00
60 P	Bromodichloromethane	0.4386	0.4044	7.8	111	0.00
61	2-Nitropropane	0.1354	0.1046	NT	22.7#	90 0.00
62	2-Chloroethylvinyl Ether	0.0805	0.2341	NT	-190.8#	338# 0.00
63 P	cis-1,3-Dichloropropene	0.5534	0.5717	-3.3	114	0.00
64 P	4-Methyl-2-pentanone	0.4251	0.4858	-14.3	131	0.00
65 s	SURR3,Toluene-d8	1.3256	1.3097	1.2	111	0.00
66 P	Toluene	1.4187	1.4128	0.4	114	0.00
67 P	trans-1,3-Dichloropropene	0.5155	0.5178	-0.4	112	0.00
68	Ethyl Methacrylate	0.5263	0.5841	-11.0	124	0.00
69 P	1,1,2-Trichloroethane	0.3223	0.3203	0.6	121	0.00
70 s	SURR2,BFB	0.5129	0.4774	6.9	106	0.00
71 I	d5-Chlorobenzene	1.0000	1.0000	0.0	110	0.00
72 P	Tetrachloroethene	0.2759	0.2621	5.0	109	0.00
73 P	2-Hexanone	0.3681	0.4174	-13.4	127	0.00
74	1,3-Dichloropropane	0.6425	0.7305	-13.7	127	0.00
75 P	Dibromochloromethane	0.3353	0.3239	3.4	105	0.00
76	N-Butyl Acetate	0.6929	0.9429	NT	-36.1#	143 0.00
77 P	1,2-Dibromoethane	0.3562	0.3703	-4.0	116	0.00
78 P	Chlorobenzene	0.9796	1.0262	-4.8	115	0.00
79	3-CBTF	0.5223	0.5377	-2.9	118	0.00
80	4-CBTF	0.4773	0.4858	-1.8	118	0.00
81	1,1,1,2-Tetrachloroethane	0.3482	0.3243	6.9	105	0.00
82 P	Ethylbenzene	0.5408	0.5310	1.8	110	0.00
83 P	(m+p)Xylene	0.6546	0.6676	-2.0	113	0.00
84 P	o-Xylene	0.6554	0.6701	-2.2	113	0.00
85 P	Styrene	1.1033	1.1507	-4.3	112	0.00
86 I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	111	0.00
87 P	Bromoform	0.4361	0.4079	6.5	104	0.00
88	2-CBTF	0.9684	1.0295	-6.3	118	0.00
89 P	Isopropylbenzene	3.2851	3.2097	2.3	107	0.00
90	Cyclohexanone	0.2499	0.2593	-3.8	118	0.00
91	trans-1,4-Dichloro-2-Butene	0.2603	0.2759	-6.0	120	0.00
92 P	1,1,2,2-Tetrachloroethane	0.9914	1.1151	-12.5	129	0.00
93	Bromobenzene	0.8046	0.8147	-1.3	114	0.00
94	1,2,3-Trichloropropane	0.3221	0.3363	-4.4	118	0.00
95	n-Propylbenzene	3.8197	3.8884	-1.8	109	0.00
96	2-Chlorotoluene	2.3682	2.3701	-0.1	112	0.00
97	3-Chlorotoluene	2.4978	2.5840	-3.5	113	0.00
98	4-Chlorotoluene	2.7362	2.7524	-0.6	111	0.00
99	1,3,5-Trimethylbenzene	2.7476	2.7124	1.3	107	0.00
100	tert-Butylbenzene	2.3716	2.3040	2.9	106	0.00
101	1,2,4-Trimethylbenzene	2.7517	2.7426	0.3	108	0.00

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
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 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 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	3,4-DCBTF	0.7689	0.8783	-14.2	123	0.00
103	sec-Butylbenzene	3.4901	3.4051	2.4	105	0.00
104	p-Isopropyltoluene	2.9371	2.8614	2.6	106	0.00
105 P	1,3-Dclbenz	1.5293	1.5581	-1.9	112	0.00
106 P	1,4-Dclbenz	1.6050	1.6208	-1.0	115	0.00
107	2,4-DCBTF	0.7333	0.7941	-8.3	120	0.00
108	2,5-DCBTF	0.7842	0.8992	-14.7	127	0.00
109	n-Butylbenzene	2.7396	2.7978	-2.1	108	0.00
110 P	1,2-Dclbenz	1.5264	1.5514	-1.6	112	0.00
111 P	1,2-Dibromo-3-chloropropane	0.2566	0.2348	8.5	111	0.00
112	Trielution Dichlorotoluene	1.5014	1.6143	-7.5	116	0.00
113	1,3,5 Trichlorobenzene	1.1884	1.3332	-12.2	121	0.00
114	Coelution Dichlorotoluene	1.5924	1.8072	-13.5	118	0.00
115 P	1,2,4-Tcbenzene	1.1095	1.2841	-15.7	122	0.00
116	Hexachlorobt	0.5150	0.4843	6.0	106	0.00
117	Naphthalen	3.0613	3.7736	NT-23.3#	125	0.00
118	1,2,3-Tclbenzene	1.0777	1.2786	-18.6	125	0.00
119	2,4,5-Trichlorotoluene	0.6534	0.8015	-12.7-22.7#	112	0.00
120	2,3,6-Trichlorotoluene	0.5941	0.7515	-13.3-26.5#	114	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

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 Quant Title : MS#12 - 8260B WATERS 10mL Purge
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Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.377	168	315594	50.00	ppb	0.00
43) 1,4-Difluorobenzene	6.468	114	530528	50.00	ppb	0.00
71) d5-Chlorobenzene	9.785	117	459768	50.00	ppb	0.00
86) 1,4-Dichlorobenzene-d4	11.839	152	234637	50.00	ppb	0.00

System Monitoring Compounds						
45) surr4,Dibrflmethane	5.231	113	147702	46.89	ppb	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	93.78%
48) surr1,1,2-dichloroetha...	5.767	65	206540	47.85	ppb	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	95.70%
65) SURR3,Toluene-d8	8.291	98	694846	49.40	ppb	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	98.80%
70) SURR2,BFB	10.864	95	253255	46.54	ppb	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	93.08%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.183	85	196503	51.18	ppb	99
3) Chloromethane	1.311	50	221463	46.15	ppb	100
4) Vinyl Chloride	1.384	62	239014	51.13	ppb	98
5) Bromomethane	1.610	94	93601	25.34	ppb	95
6) Chloroethane	1.689	64	150039	51.41	ppb	98
7) Freon 21	1.835	67	355557	58.93	ppb	100
8) Trichlorofluoromethane	1.884	101	212824	47.25	ppb	97
9) Diethyl Ether	2.116	59	185093	59.04	ppb	97
10) Freon 123a	2.122	67	222202	58.30	ppb	89
11) Freon 123	2.170	83	249398	56.55	ppb	99
12) Acrolein	2.213	56	176426	189.09	ppb	100
13) 1,1-Dicethene	2.305	96	151659	46.78	ppb	94
14) Freon 113	2.311	101	141691	46.26	ppb	96
15) Acetone	2.347	43	111673	58.03	ppb	98
16) 2-Propanol	2.475	45	442099	1197.40	ppb	100
17) Iodomethane	2.433	142	191812	48.81	ppb	99
18) Carbon Disulfide	2.500	76	469885	49.70	ppb	99
19) Acetonitrile	2.591	40	111382	339.01	ppb	98
20) Allyl Chloride	2.634	76	94988	55.02	ppb	# 89
21) Methyl Acetate	2.658	43	230389	67.04	ppb	98
22) Methylene Chloride	2.750	84	186212	54.46	ppb	92
23) TBA	2.878	59	688496	1081.81	ppb	94
24) Acrylonitrile	3.000	53	559246	302.75	ppb	99
25) Methyl-t-Butyl Ether	3.054	73	631124	54.31	ppb	97
26) trans-1,2-Dichloroethene	3.042	96	164935	49.81	ppb	94
28) 1,1-Dicethane	3.536	63	330453	54.38	ppb	98
29) Vinyl Acetate	3.627	86	44077	45.43	ppb	97
30) DIPE	3.664	45	682201	58.95	ppb	91
31) 2-Chloro-1,3-Butadiene	3.664	53	292534	49.78	ppb	92
32) ETBE	4.188	59	657086	56.31	ppb	97
33) 2,2-Dichloropropane	4.365	77	241875	44.76	ppb	97
34) cis-1,2-Dichloroethene	4.371	96	193851	51.43	ppb	99
35) 2-Butanone	4.414	43	143870	59.50	ppb	98
36) Propionitrile	4.493	54	227508	289.80	ppb	94
37) Bromochloromethane	4.767	130	112034	51.36	ppb	93
38) Methacrylonitrile	4.767	67	111613	59.93	ppb	92
39) Tetrahydrofuran	4.853	42	89393	63.37	ppb	91
40) Chloroform	4.944	83	291259	47.61	ppb	99
41) 1,1,1-Trichloroethane	5.243	97	222639	43.00	ppb	99

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 Quant Title : MS#12 - 8260B WATERS 10mL Purge
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Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) TAME	6.084	73	610728	53.61	ppb	98
44) Cyclohexane	5.334	41	194295	56.06	ppb	89
46) Carbontetrachloride	5.517	117	162861	40.90	ppb	99
47) 1,1-Dichloropropene	5.536	75	232157	49.68	ppb	97
49) Benzene	5.847	78	722988	52.17	ppb	99
50) 1,2-Dichloroethane	5.889	62	259312	50.94	ppb	97
51) Iso-Butyl Alcohol	5.859	43	313673	1115.89	ppb	91
52) n-Heptane	6.340	43	259728	54.60	ppb	94
53) 1-Butanol	6.822	56	507629	2729.31	ppb	98
54) Trichloroethene	6.798	130	165149	46.47	ppb	99
55) Methylcyclohexane	7.035	55	280003	60.57	ppb	92
56) 1,2-Diclpropane	7.078	63	203449	55.03	ppb	98
57) Dibromomethane	7.218	93	110008	49.84	ppb	95
58) 1,4-Dioxane	7.279	88	78076	1069.92	ppb	96
59) Methyl Methacrylate	7.310	69	182040	53.31	ppb	96
60) Bromodichloromethane	7.450	83	214554	46.11	ppb	97
61) 2-Nitropropane	7.730	41	110992	77.23	ppb	94
62) 2-Chloroethylvinyl Ether	7.858	63	124194	145.36	ppb	94
63) cis-1,3-Dichloropropene	7.992	75	303300	51.66	ppb	98
64) 4-Methyl-2-pentanone	8.200	43	257737	57.14	ppb	99
66) Toluene	8.364	91	749549	49.79	ppb	98
67) trans-1,3-Dichloropropene	8.633	75	274700	50.22	ppb	99
68) Ethyl Methacrylate	8.779	69	309863	55.49	ppb	97
69) 1,1,2-Trichloroethane	8.822	97	169914	49.69	ppb	96
72) Tetrachloroethene	8.962	164	120500	47.49	ppb	97
73) 2-Hexanone	9.114	43	191909	56.69	ppb	95
74) 1,3-Dichloropropane	8.992	76	335854	56.85	ppb	99
75) Dibromochloromethane	9.218	129	148936	48.30	ppb	98
76) N-Butyl Acetate	9.273	43	433524	68.04	ppb	98
77) 1,2-Dibromoethane	9.315	107	170254	51.98	ppb	97
78) Chlorobenzene	9.809	112	471836	52.38	ppb	97
79) 3-CBTF	9.834	180	247218	51.47	ppb	93
80) 4-CBTF	9.888	180	223358	50.89	ppb	95
81) 1,1,1,2-Tetrachloroethane	9.901	131	149107	46.57	ppb	96
82) Ethylbenzene	9.931	106	244148	49.09	ppb	100
83) (m+p)Xylene	10.047	106	613901	101.99	ppb	95
84) o-Xylene	10.401	106	308098	51.12	ppb	96
85) Styrene	10.419	104	529056	52.15	ppb	97
87) Bromoform	10.565	173	95708	46.76	ppb	97
88) 2-CBTF	10.650	180	241567	53.16	ppb	91
89) Isopropylbenzene	10.736	105	753107	48.85	ppb	98
90) Cyclohexanone	10.797	55	1216948	1037.69	ppb	99
91) trans-1,4-Dichloro-2-B...	11.047	53	64744	52.99	ppb	89
92) 1,1,2,2-Tetrachloroethane	10.998	83	261639	56.24	ppb	96
93) Bromobenzene	10.986	156	191151	50.63	ppb	94
94) 1,2,3-Trichloropropane	11.028	110	78919	52.22	ppb	99
95) n-Propylbenzene	11.095	91	912368	50.90	ppb	98
96) 2-Chlorotoluene	11.156	91	556114	50.04	ppb	95
97) 3-Chlorotoluene	11.211	91	606309	51.73	ppb	98
98) 4-Chlorotoluene	11.248	91	645821	50.30	ppb	99
99) 1,3,5-Trimethylbenzene	11.248	105	636428	49.36	ppb	98
100) tert-Butylbenzene	11.522	119	540603	48.57	ppb	99
101) 1,2,4-Trimethylbenzene	11.559	105	643526	49.83	ppb	99
102) 3,4-DCBTF	11.620	214	206090	57.11	ppb	97
103) sec-Butylbenzene	11.705	105	798974	48.78	ppb	99
104) p-Isopropyltoluene	11.827	119	671384	48.71	ppb	98

Data Path : I:\ACQUDATA\msvoa12\Data\032718\
 Data File : P16694.D
 Acq On : 27 Mar 2018 10:32 am
 Operator : K.Ruest
 Sample : CCV
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA-12

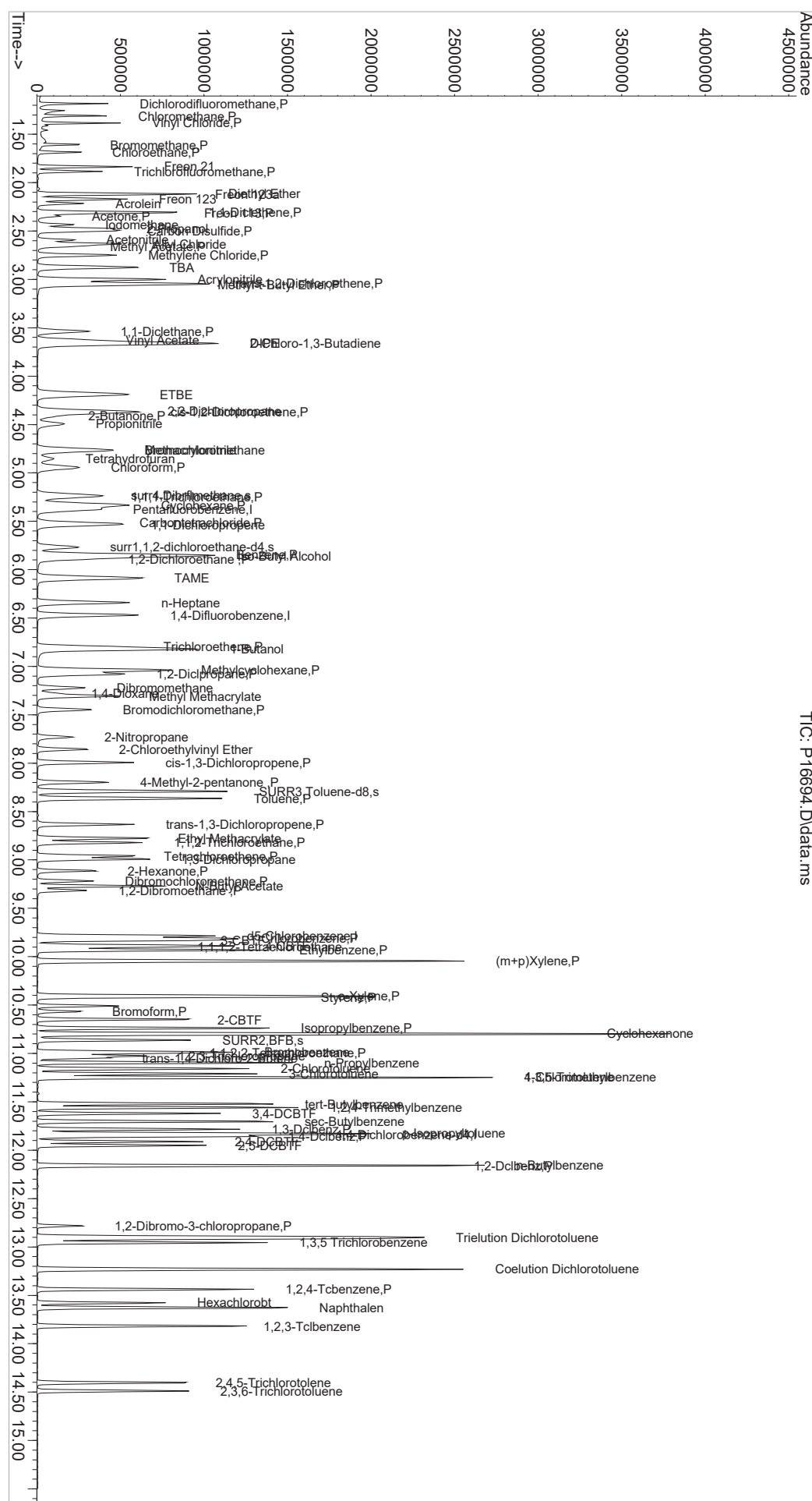
Quant Time: Mar 27 10:47:38 2018
 Quant Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
 Quant Title : MS#12 - 8260B WATERS 10mL Purge
 QLast Update : Tue Jan 02 13:02:22 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,3-Dclbenz	11.784	146	365587	50.94	ppb	98
106)	1,4-Dclbenz	11.858	146	380297	50.49	ppb	96
107)	2,4-DCBTF	11.912	214	186326	54.15	ppb	97
108)	2,5-DCBTF	11.949	214	210976	57.33	ppb	93
109)	n-Butylbenzene	12.156	91	656463	51.06	ppb	100
110)	1,2-Dclbenz	12.162	146	364023	50.82	ppb	98
111)	1,2-Dibromo-3-chloropr...	12.784	157	55088	45.75	ppb	90
112)	Trielution Dichlorotol...	12.900	125	1136342	161.28	ppb	98
113)	1,3,5 Trichlorobenzene	12.955	180	312818	56.09	ppb	97
114)	Coelution Dichlorotoluene	13.229	125	848065	113.49	ppb	100
115)	1,2,4-Tcbenzene	13.437	180	301288	57.87	ppb	97
116)	Hexachlorobt	13.577	225	113643	47.02	ppb	96
117)	Naphthalen	13.626	128	885419	61.63	ppb	99
118)	1,2,3-Tclbenzene	13.821	180	300018	59.32	ppb	98
119)	2,4,5-Trichlorotoluene	14.406	159	188060	56.36	ppb	96
120)	2,3,6-Trichlorotoluene	14.491	159	176322	56.66	ppb	98

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

Quant Time: Mar 27 10:47:38 2018
Quant Method : I:\ACQDATA\msv012\Methods\W122917.M
Quant Title : MS#12 - 8260B WATERS 10mL Purge
Qlast Update : Tue Jan 02 13:02:22 2018
Response via : Initial Calibration

Inst : MSVOA-12

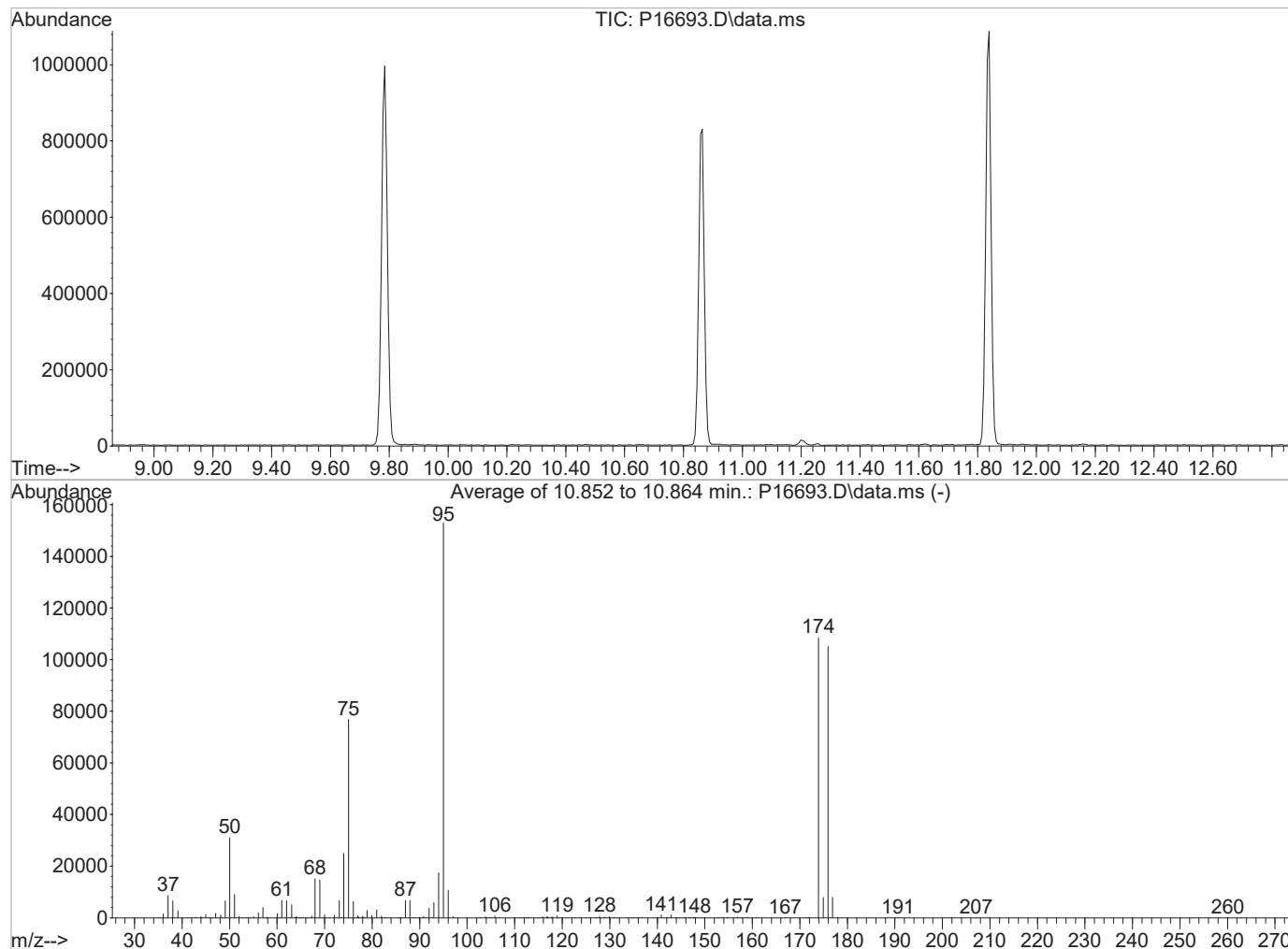


Data Path : I:\ACQUDATA\msvoa12\Data\032718\
Data File : P16693.D
Acq On : 27 Mar 2018 10:03 am
Operator : K.Ruest
Sample : TUNE
Misc :
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA-12

Integration File: INTP90.P

Method : I:\ACQUDATA\msvoa12\Methods\W122917.M
Title : MS#12 - 8260B WATERS 10mL Purge
Last Update : Tue Jan 02 13:02:22 2018



AutoFind: Scans 1600, 1601, 1602; Background Corrected with Scan 1594

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	30995	PASS
75	95	30	60	50.1	76771	PASS
95	95	100	100	100.0	153101	PASS
96	95	5	9	6.9	10555	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	70.9	108565	PASS
175	174	5	9	7.2	7848	PASS
176	174	95	101	96.8	105096	PASS
177	176	5	9	7.5	7909	PASS

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001
Instrument ID: R-MS-12

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	RC1800001-01	0.5ppb	I:\ACQUDATA\msvoa12\Data\122917\P15150.D	12/29/2017 17:22
02	RC1800001-02	1.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15151.D	12/29/2017 17:44
03	RC1800001-03	2.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15152.D	12/29/2017 18:06
04	RC1800001-04	5.0ppb	I:\ACQUDATA\msvoa12\Data\122917\P15153.D	12/29/2017 18:28
05	RC1800001-05	20ppb	I:\ACQUDATA\msvoa12\Data\122917\P15154.D	12/29/2017 18:49
06	RC1800001-06	50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15155.D	12/29/2017 19:11
07	RC1800001-07	100ppb	I:\ACQUDATA\msvoa12\Data\122917\P15156.D	12/29/2017 19:32
08	RC1800001-08	150ppb	I:\ACQUDATA\msvoa12\Data\122917\P15157.D	12/29/2017 19:54
09	RC1800001-09	200ppb	I:\ACQUDATA\msvoa12\Data\122917\P15158.D	12/29/2017 20:16

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.008	02	1.000	0.8324	03	2.000	0.8305	04	5.000	0.8263
05	20.000	0.7547	06	50.000	0.7586	07	100.000	0.8393	08	150.000	0.7559
09	200.000	0.7763									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	1.023	02	1.000	0.9379	03	2.000	0.9779	04	5.000	0.947
05	20.000	0.9354	06	50.000	0.9464	07	100.000	1.023	08	150.000	0.9294
09	200.000	0.9449									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6988	02	1.000	0.5509	03	2.000	0.4889	04	5.000	0.5238
05	20.000	0.4587	06	50.000	0.4697	07	100.000	0.5076	08	150.000	0.4531
09	200.000	0.4707									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.5995	05	20.000	0.4536	06	50.000	0.506	07	100.000	0.5177
08	200.000	0.4877									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	0.3386	05	20.000	0.2707	06	50.000	0.2965	07	100.000	0.2994
08	200.000	0.2791									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3073	02	1.000	0.2917	03	2.000	0.2929	04	5.000	0.2841
05	20.000	0.2475	06	50.000	0.2643	07	100.000	0.2816	08	150.000	0.2552
09	200.000	0.2587									

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001
Instrument ID: R-MS-12

Signal ID: 1

Analyte

Toluene-d8											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
04	10.000	1.572	05	20.000	1.232	06	50.000	1.33	07	100.000	1.308
08	200.000	1.186									
Trichloroethene (TCE)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.3925	02	1.000	0.3488	03	2.000	0.309	04	5.000	0.3231
05	20.000	0.3163	06	50.000	0.3352	07	100.000	0.3524	08	150.000	0.3143
09	200.000	0.3228									
Vinyl Chloride											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.7871	02	1.000	0.616	03	2.000	0.7275	04	5.000	0.749
05	20.000	0.7515	06	50.000	0.7481	07	100.000	0.8085	08	150.000	0.7308
09	200.000	0.7463									
cis-1,2-Dichloroethene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.6166	02	1.000	0.5455	03	2.000	0.6365	04	5.000	0.638
05	20.000	0.5786	06	50.000	0.5775	07	100.000	0.6218	08	150.000	0.5765
09	200.000	0.584									
trans-1,2-Dichloroethene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.500	0.5602	02	1.000	0.5063	03	2.000	0.5366	04	5.000	0.5328
05	20.000	0.5048	06	50.000	0.5129	07	100.000	0.551	08	150.000	0.5016
09	200.000	0.5153									

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001
Instrument ID: R-MS-12

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	9.7	≤20	0.8203	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.8	≤20	0.9627	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	14.9	≤20	0.5136	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	10.6	≤20	0.5129	
Dibromofluoromethane	SURR	Average RF	% RSD	8.8	≤20	0.2969	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.3	≤20	0.2759	0.200
Toluene-d8	SURR	Average RF	% RSD	11.3	≤20	1.326	
Trichloroethene (TCE)	TRG	Average RF	% RSD	7.9	≤20	0.335	0.200
Vinyl Chloride	TRG	Average RF	% RSD	7.2	≤20	0.7405	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	5.4	≤20	0.5972	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	4.1	≤20	0.5246	0.100

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton

Service Request: R1802551
Calibration Date: 12/29/2017

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800001
Instrument ID: R-MS-12

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
11	RC1800001-11	ICV/LCS	I:\ACQUDATA\msvoa12\Data\010318\P15169.D	01/03/2018 11:34
10	RC1800001-10	ICV 50ppb	I:\ACQUDATA\msvoa12\Data\122917\P15162.D	12/29/2017 21:43

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	48.3	8.203E-1	7.924E-1	-3.403	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	49.5	9.627E-1	9.532E-1	-0.989	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.0	5.136E-1	4.624E-1	-9.964	±30	Average RF
Tetrachloroethene (PCE)	50.0	47.6	2.759E-1	2.628E-1	-4.770	±30	Average RF
Trichloroethene (TCE)	50.0	50.5	3.35E-1	3.381E-1	0.937	±30	Average RF
Vinyl Chloride	50.0	46.8	7.405E-1	6.925E-1	-6.488	±30	Average RF
cis-1,2-Dichloroethene	50.0	48.0	5.972E-1	5.73E-1	-4.053	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.9	5.246E-1	5.03E-1	-4.128	±30	Average RF
4-Bromofluorobenzene	50.0	48.2	5.129E-1	4.943E-1	-3.624	±30	Average RF
Dibromofluoromethane	50.0	49.6	2.969E-1	2.947E-1	-0.725	±30	Average RF
Toluene-d8	50.0	49.1	1.326E0	1.302E0	-1.787	±30	Average RF

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request: R1802551
Date Analyzed: 03/27/18 10:32

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa12\Data\032718\P16694.D\
Signal ID: 1

Calibration Date: 12/29/2017
Calibration ID: RC1800001
Analysis Lot: 585036
Units: ppb

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	43.0	0.8203	0.7055	-14.0	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	54.4	0.9627	1.0471	8.8	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	46.8	0.5136	0.4806	-6.4	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	47.5	0.2759	0.2621	-5.0	NA	±20	Average RF
Trichloroethene (TCE)	50.0	46.5	0.335	0.3113	-7.1	NA	±20	Average RF
Vinyl Chloride	50.0	51.1	0.7405	0.7573	2.3	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	51.4	0.5972	0.6142	2.9	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	49.8	0.5246	0.5226	-0.4	NA	±20	Average RF
4-Bromofluorobenzene	50.0	46.5	0.5129	0.4774	-6.9	NA	±20	Average RF
Dibromofluoromethane	50.0	46.9	0.2969	0.2784	-6.2	NA	±20	Average RF
Toluene-d8	50.0	49.4	1.3256	1.3097	-1.2	NA	±20	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request:R1802551

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method:

Analysis Lot:585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718\P16693.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	10:03:00	
I:\ACQUDATA\msvoa12\Data\032718\P16694.D\	Continuing Calibration Verification	RQ1802745-02	3/27/2018	10:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16696.D\	Lab Control Sample	RQ1802745-03	3/27/2018	11:30:00	
I:\ACQUDATA\msvoa12\Data\032718\P16698.D\	Method Blank	RQ1802745-04	3/27/2018	12:22:00	
I:\ACQUDATA\msvoa12\Data\032718\P16699.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	12:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16700.D\	MW-17	R1802551-003	3/27/2018	13:15:00	
I:\ACQUDATA\msvoa12\Data\032718\P16701.D\	MW-8	R1802551-004	3/27/2018	13:37:00	
I:\ACQUDATA\msvoa12\Data\032718\P16702.D\	MW-16	R1802551-005	3/27/2018	13:59:00	
I:\ACQUDATA\msvoa12\Data\032718\P16703.D\	MW-9	R1802551-006	3/27/2018	14:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16704.D\	DUP-032218	R1802551-009	3/27/2018	14:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16705.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	15:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16706.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	15:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16708.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	16:10:00	
I:\ACQUDATA\msvoa12\Data\032718\P16709.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	16:32:00	
I:\ACQUDATA\msvoa12\Data\032718\P16710.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	16:54:00	
I:\ACQUDATA\msvoa12\Data\032718\P16711.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	17:16:00	
I:\ACQUDATA\msvoa12\Data\032718\P16712.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	17:38:00	
I:\ACQUDATA\msvoa12\Data\032718\P16713.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	18:00:00	
I:\ACQUDATA\msvoa12\Data\032718\P16714.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	18:21:00	
I:\ACQUDATA\msvoa12\Data\032718\P16715.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	18:43:00	
I:\ACQUDATA\msvoa12\Data\032718\P16716.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	19:05:00	
I:\ACQUDATA\msvoa12\Data\032718\P16717.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	19:27:00	
I:\ACQUDATA\msvoa12\Data\032718\P16718.D\	ZZZZZZZZ	ZZZZZZZZ	3/27/2018	19:49:00	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton/5101.0003

Service Request:R1802551

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method:

Analysis Lot:585036
Instrument ID:R-MS-12

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa12\Data\032718\P16719.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	20:11:00	
I:\ACQUDATA\msvoa12\Data\032718\P16720.D\	ZZZZZZZ	ZZZZZZZ	3/27/2018	20:33:00	

Analysis: 8260620202 Analyst: K. Bux pH strips: 206717 Tune Method: 12122917
 Date: 3/27/18 Balance ID: N/A ResCl strips: 0/A Run Method: ✓
 Instr: 12 50 mL Class A used for dilution FV Syringes: 177916 LIMS Run#: 585036

Data Path: \\jacqueline\msvoa4\InstID\Date

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	BUL							P16691		↑ EMV
2	↓							P16692		
3	NVE		P1608745-01					P16693	✓	Length 10:23
1	CCV		02					P16694	✓	
1	LCS		03					P16695	✓	API - PT SWIFT
1	LCS		03					P16696	✓	
1	VBUL							P16697	✓	not c/o
2	↓		04					P16698	✓	
1	P1602550-002	1.0		6646	4	2	22	P16699	✓	
2	P1602551-003	1.0		7979	1	8	8	P16700	✓	
3								P16701	✓	
4								P16702	✓	
5								P16703	✓	
6								P16704	✓	
7	↓							P16705	✓	
8	BUL (P1602551-001)	1.0	5/50mL P1602550	6646	1	8	8	P16706	✓	
9	BUL			7979	1	8	8	P16707	✓	
10	P1602551-001	1.0		6646	4	1	22	P16708	✓	
11	↓							P16709	✓	
12	↓							P16710	✓	
13	P1602550-004	1.0						P16711	✓	
14								P16712	✓	
15								P16713	✓	
16								P16714	✓	
17								P16715	✓	
18								P16716	✓	
19								P16717	✓	
20	↓							P16718	✓	
21	MS	1.0	P1602545-05 (2551) (P1602545-05)					P16719	✓	
22	MS	1.0	06					P16720	✓	
23	BUL							P16721	✓	

All samples = 5 mL + 5 mL combined IS/Surr. 5 mL purged

500 Primary CC+ : 188712
 Primary FT+ : 188685
 Primary T6 : 188593
 Primary H2L : 188586
 Primary
 200 Secondary FT+ : 188511
 200 Secondary CC+ : 188751
 200 Secondary H2L : 188309
 Secondary T6 : 188809
 Secondary
 Combined IS/Surr : 188052
 Surrogate SD : 188051
 Internal Std SD : 188051
 Reagents :
 50mL / 4.2mL
 10mL vial = MS/D



October 03, 2018

Service Request No:R1809120

Ms. Sarah MacCarter
Verina Consulting Group, LLC
1011 US Highway 22, Suite 302
Bridgewater, NJ 08807

Laboratory Results for: Dover - Binghamton

Dear Ms.MacCarter,

Enclosed are the results of the sample(s) submitted to our laboratory September 21, 2018
For your reference, these analyses have been assigned our service request number **R1809120**.

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 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ADDRESS

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ALS Group USA, Corp.
dba ALS Environmental



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Narrative Documents

ALS Environmental—Rochester Laboratory

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

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

www.alsglobal.com

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton
Sample Matrix: Water

Service Request: R1809120
Date Received: 09/21/2018

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:

Twelve water samples were received for analysis at ALS Environmental on 09/21/2018. 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 10/03/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: MW-10		Lab ID: R1809120-002				
Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,1-Trichloroethane (TCA)	1.3		0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	0.79	J	0.20	1.0	ug/L	8260C
Tetrachloroethene (PCE)	0.87	J	0.28	1.0	ug/L	8260C
Trichloroethene (TCE)	10		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	2.6		0.26	1.0	ug/L	8260C

CLIENT ID: MW-17		Lab ID: R1809120-005				
Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,1-Trichloroethane (TCA)	1.5		0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	7.1		0.20	1.0	ug/L	8260C

CLIENT ID: MW-16		Lab ID: R1809120-006				
Analyte	Results	Flag	MDL	MRL	Units	Method
Tetrachloroethene (PCE)	160		0.28	1.0	ug/L	8260C
Trichloroethene (TCE)	1.6		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	1.5		0.26	1.0	ug/L	8260C

CLIENT ID: MW-9		Lab ID: R1809120-008				
Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,1-Trichloroethane (TCA)	0.42	J	0.25	1.0	ug/L	8260C
Trichloroethene (TCE)	17		0.20	1.0	ug/L	8260C

CLIENT ID: MW-8		Lab ID: R1809120-009				
Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,1-Trichloroethane (TCA)	0.62	J	0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.1		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	8.7		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	11		0.26	1.0	ug/L	8260C

CLIENT ID: DUP-092018		Lab ID: R1809120-012				
Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,1-Trichloroethane (TCA)	0.51	J	0.25	1.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	2.0		0.20	1.0	ug/L	8260C
Trichloroethene (TCE)	9.7		0.20	1.0	ug/L	8260C
cis-1,2-Dichloroethene	15		0.26	1.0	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: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1809120-001	Trip Blank - 092018	9/20/2018	
R1809120-002	MW-10	9/20/2018	1115
R1809120-003	MW-13	9/20/2018	1115
R1809120-004	DMW-3	9/20/2018	1120
R1809120-005	MW-17	9/20/2018	1214
R1809120-006	MW-16	9/20/2018	1223
R1809120-007	TMP-A	9/20/2018	1245
R1809120-008	MW-9	9/20/2018	1518
R1809120-009	MW-8	9/20/2018	1530
R1809120-010	MW-11	9/20/2018	1535
R1809120-011	FB-092018	9/20/2018	1630
R1809120-012	DUP-092018	9/20/2018	



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 53417

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 Dover - Binghamton		Project Number 5101.000.3		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																							
Project Manager Sarah MacCarter		Report CC		PRESERVATIVE		PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other																					
Company/Address 1011 US Highway, Suite 302 Bridgeville, NJ 08807-2550																											
Phone # 908 864 4400		Email smacarter@vcg-llc.com																									
Sampler's Signature Rita De Almeida		Sampler's Printed Name Rita De Almeida																									
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		NUMBER OF CONTAINERS		GC/MS VOCs • 8260 • 624 • CLP • 8270 • 825		GC/MS SVOCs • 821 • 801/802		PESTICIDES • 8081 • 808		PCBS • 8082 • 808		METALS, TOTAL (List in comments below)		AGENTS, DISCLOSED (List in comments below)		VC PCE TCE GAS-1,2-DCE TRANS-1,2-DCE 1,1-DCE 1,1,1-DCA 1,1,1-TCA		REMARKS/ ALTERNATE DESCRIPTION	
Trip Blank - 092018				09/26/18		11:15		Blank		3																HCL preservative	
MW-10						11:15		GW		3																HCL	
MW-13						11:20		GW		3																HCL	
DNW-3						12:14		GW		9																HCL	
MW-17, MS, MSD						12:23		GW		3																NaHSO4	
MW-16						12:45		GW		3																NaHSO4	
TMP-A						15:15		GW		3																NaHSO4	
MW-5						15:30		GW		3																NaHSO4	
MW-8						15:35		GW		3																NaHSO4	
MW-11						16:30		Blank		3																HCL	
FB-092018																											
SPECIAL INSTRUCTIONS/COMMENTS Metals																											
See QAPP ☐																											
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY	
Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature	
Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name	
Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time	
09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703		09/20/18 1703	
VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING		VERMA CONSULTING	
R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120		R1809120	
Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC		Verina Consulting Group, LLC	
Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton		Dover - Binghamton	
5		5		5		5		5		5		5		5		5		5		5		5		5		5	
J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group		J.S. Group	

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM - 53416

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[illegible]



Cooler Receipt and Preservation Check Form

R1809120
Verina Consulting Group, LLC
Dover - Binghamton

5

Project/Client Verina Folder Number _____Cooler received on 9/21/18 by: [Signature] COURIER: ALS UPS ~~FEDEX~~ VELOCITY CLIENT

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

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

8. Temperature Readings Date: 9/21/18 Time: 0957 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>2.9</u>						
Correction Factor (°C)	<u>+0.4</u>						
Corrected Temp (°C)	<u>3.3</u>						
Temp from: Type of bottle	<u>cool tank</u>						
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 [Signature] on 9/21/18 at ROC
5035 samples placed in storage location: _____ by _____ on _____ at _____Cooler Breakdown/Preservation Check**: Date: 9/21/18 Time: 1605 by: [Signature]

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 with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>411 7090</u>	<u>9/18</u>				

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

Bottle lot numbers: 8-039-001, 8-039-004

Explain all Discrepancies/ Other Comments:

headspace: all.

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

Labels secondary reviewed by: [Signature]PC Secondary Review: [Signature] 9/24/18 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1809120-001.01	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-001.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-001.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-002.01	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-002.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-002.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-003.01	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-003.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-003.03					
		9/21/2018	1609	SMO / GLAFORCE	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1809120-004.01	8260C	9/21/2018	1609	R-001 / GLAFORCE	
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-004.02		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-004.03		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-005.01	8260C	9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1055	In Lab / DLIPANI	
		9/24/2018	1911	R-001-S10 / DLIPANI	
R1809120-005.02		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-005.03		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-005.04		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.05		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.06		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.07		9/21/2018	1612	SMO / GLAFORCE	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1809120-005.08		9/21/2018	1612	SMO / GLAFORCE	
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-005.09		9/21/2018	1612	SMO / GLAFORCE	
		9/21/2018	1612	SMO / GLAFORCE	
R1809120-006.01	8260C	9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-006.02		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-006.03		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-007.01	8260C	9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
		9/21/2018	1609	SMO / GLAFORCE	
R1809120-007.02		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-007.03		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-008.01		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	SMO / GLAFORCE	

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-008.02					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/25/2018	1202	In Lab / DLIPANI	
		9/25/2018	1801	R-001-S10 / DLIPANI	
R1809120-008.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-009.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-009.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-009.03					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-010.01					
	8260C				
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-010.02					
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-010.03					
		9/21/2018	1609	SMO / GLAFORCE	

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Internal Chain of Custody Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1809120-011.01	8260C	9/21/2018	1609	R-001 / GLAFORCE	
		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/28/2018	1055	In Lab / DLIPANI	
		9/28/2018	1844	R-001-S11 / DLIPANI	
R1809120-011.02		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-011.03		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-012.01	8260C	9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
		9/24/2018	1056	In Lab / DLIPANI	
		9/24/2018	1909	R-001-S10 / DLIPANI	
R1809120-012.02		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	
R1809120-012.03		9/21/2018	1609	SMO / GLAFORCE	
		9/21/2018	1609	R-001 / GLAFORCE	



Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) 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 Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

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

ALS Laboratory Group

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.

ALS Group USA, Corp.

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Analyst Summary report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Sample Name: Trip Blank - 092018
Lab Code: R1809120-001
Sample Matrix: Water

Date Collected: 09/20/18
Date Received: 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: MW-10
Lab Code: R1809120-002
Sample Matrix: Water

Date Collected: 09/20/18
Date Received: 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: MW-13
Lab Code: R1809120-003
Sample Matrix: Water

Date Collected: 09/20/18
Date Received: 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: DMW-3
Lab Code: R1809120-004
Sample Matrix: Water

Date Collected: 09/20/18
Date Received: 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: MW-17
Lab Code: R1809120-005
Sample Matrix: Water

Date Collected: 09/20/18
Date Received: 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Sample Name: MW-16
Lab Code: R1809120-006
Sample Matrix: Water

Date Collected: 09/20/18**Date Received:** 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: TMP-A
Lab Code: R1809120-007
Sample Matrix: Water

Date Collected: 09/20/18**Date Received:** 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: MW-9
Lab Code: R1809120-008
Sample Matrix: Water

Date Collected: 09/20/18**Date Received:** 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: MW-8
Lab Code: R1809120-009
Sample Matrix: Water

Date Collected: 09/20/18**Date Received:** 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: MW-11
Lab Code: R1809120-010
Sample Matrix: Water

Date Collected: 09/20/18**Date Received:** 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120

Sample Name: FB-092018
Lab Code: R1809120-011
Sample Matrix: Water

Date Collected: 09/20/18
Date Received: 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: DUP-092018
Lab Code: R1809120-012
Sample Matrix: Water

Date Collected: 09/20/18
Date Received: 09/21/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI



INORGANIC PREPARATION METHODS

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

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
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

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18
Date Received: 09/21/18 09:50

Sample Name: Trip Blank - 092018
Lab Code: R1809120-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 11:34	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:34	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:34	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:34	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/28/18 11:34	
Dibromofluoromethane	96	89 - 119	09/28/18 11:34	
Toluene-d8	94	87 - 121	09/28/18 11:34	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 11:15
Date Received: 09/21/18 09:50

Sample Name: MW-10
Lab Code: R1809120-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.3	1.0	0.25	1	09/28/18 12:18	
1,1-Dichloroethane (1,1-DCA)	0.79 J	1.0	0.20	1	09/28/18 12:18	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 12:18	
Tetrachloroethene (PCE)	0.87 J	1.0	0.28	1	09/28/18 12:18	
Trichloroethene (TCE)	10	1.0	0.20	1	09/28/18 12:18	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 12:18	
cis-1,2-Dichloroethene	2.6	1.0	0.26	1	09/28/18 12:18	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	09/28/18 12:18	
Dibromofluoromethane	97	89 - 119	09/28/18 12:18	
Toluene-d8	95	87 - 121	09/28/18 12:18	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 11:15
Date Received: 09/21/18 09:50

Sample Name: MW-13
Lab Code: R1809120-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 12:40	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 12:40	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 12:40	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 12:40	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 12:40	
Dibromofluoromethane	101	89 - 119	09/28/18 12:40	
Toluene-d8	104	87 - 121	09/28/18 12:40	

ALS Group USA, Corp.
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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 11:20
Date Received: 09/21/18 09:50

Sample Name: DMW-3
Lab Code: R1809120-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 13:01	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:01	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:01	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:01	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 13:01	
Dibromofluoromethane	100	89 - 119	09/28/18 13:01	
Toluene-d8	102	87 - 121	09/28/18 13:01	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 12:45
Date Received: 09/21/18 09:50

Sample Name: TMP-A
Lab Code: R1809120-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 13:23	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:23	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:23	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:23	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	09/28/18 13:23	
Dibromofluoromethane	101	89 - 119	09/28/18 13:23	
Toluene-d8	103	87 - 121	09/28/18 13:23	

ALS Group USA, Corp.
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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 16:30
Date Received: 09/21/18 09:50

Sample Name: FB-092018
Lab Code: R1809120-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 11:56	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:56	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:56	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:56	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	09/28/18 11:56	
Dibromofluoromethane	99	89 - 119	09/28/18 11:56	
Toluene-d8	98	87 - 121	09/28/18 11:56	

ALS Group USA, Corp.
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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 12:14
Date Received: 09/21/18 09:50

Sample Name: MW-17
Lab Code: R1809120-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.5	1.0	0.25	1	09/24/18 17:38	
1,1-Dichloroethane (1,1-DCA)	7.1	1.0	0.20	1	09/24/18 17:38	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 17:38	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 17:38	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 17:38	
Dibromofluoromethane	97	89 - 119	09/24/18 17:38	
Toluene-d8	99	87 - 121	09/24/18 17:38	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 12:23
Date Received: 09/21/18 09:50

Sample Name: MW-16
Lab Code: R1809120-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 18:00	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 18:00	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 18:00	
Tetrachloroethene (PCE)	160	1.0	0.28	1	09/24/18 18:00	
Trichloroethene (TCE)	1.6	1.0	0.20	1	09/24/18 18:00	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 18:00	
cis-1,2-Dichloroethene	1.5	1.0	0.26	1	09/24/18 18:00	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 18:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	09/24/18 18:00	
Dibromofluoromethane	93	89 - 119	09/24/18 18:00	
Toluene-d8	95	87 - 121	09/24/18 18:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 15:18
Date Received: 09/21/18 09:50

Sample Name: MW-9
Lab Code: R1809120-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.42 J	1.0	0.25	1	09/25/18 12:53	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/25/18 12:53	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/25/18 12:53	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/25/18 12:53	
Trichloroethene (TCE)	17	1.0	0.20	1	09/25/18 12:53	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/25/18 12:53	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:53	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/25/18 12:53	
Dibromofluoromethane	95	89 - 119	09/25/18 12:53	
Toluene-d8	96	87 - 121	09/25/18 12:53	

ALS Group USA, Corp.
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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 15:30
Date Received: 09/21/18 09:50

Sample Name: MW-8
Lab Code: R1809120-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.62 J	1.0	0.25	1	09/24/18 18:44	
1,1-Dichloroethane (1,1-DCA)	2.1	1.0	0.20	1	09/24/18 18:44	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 18:44	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 18:44	
Trichloroethene (TCE)	8.7	1.0	0.20	1	09/24/18 18:44	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 18:44	
cis-1,2-Dichloroethene	11	1.0	0.26	1	09/24/18 18:44	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 18:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 18:44	
Dibromofluoromethane	98	89 - 119	09/24/18 18:44	
Toluene-d8	99	87 - 121	09/24/18 18:44	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 15:35
Date Received: 09/21/18 09:50

Sample Name: MW-11
Lab Code: R1809120-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 19:30	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 19:30	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 19:30	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 19:30	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	09/24/18 19:30	
Dibromofluoromethane	92	89 - 119	09/24/18 19:30	
Toluene-d8	97	87 - 121	09/24/18 19:30	

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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18
Date Received: 09/21/18 09:50

Sample Name: DUP-092018
Lab Code: R1809120-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.51 J	1.0	0.25	1	09/24/18 19:08	
1,1-Dichloroethane (1,1-DCA)	2.0	1.0	0.20	1	09/24/18 19:08	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 19:08	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 19:08	
Trichloroethene (TCE)	9.7	1.0	0.20	1	09/24/18 19:08	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 19:08	
cis-1,2-Dichloroethene	15	1.0	0.26	1	09/24/18 19:08	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/24/18 19:08	
Dibromofluoromethane	102	89 - 119	09/24/18 19:08	
Toluene-d8	102	87 - 121	09/24/18 19:08	



QC Summary Forms

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
Trip Blank - 092018	R1809120-001	89	96	94
MW-10	R1809120-002	90	97	95
MW-13	R1809120-003	95	101	104
DMW-3	R1809120-004	95	100	102
TMP-A	R1809120-007	97	101	103
FB-092018	R1809120-011	92	99	98
Method Blank	RQ1810434-04	89	95	93
Lab Control Sample	RQ1810434-03	92	97	95
MW-10 MS	RQ1810434-05	98	98	97
MW-10 DMS	RQ1810434-06	95	99	97

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18
Date Received: 09/21/18
Date Analyzed: 09/28/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-10
Lab Code: R1809120-002
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1810434-05			Duplicate Matrix Spike RQ1810434-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	1.3	52.6	50.0	103	52.5	50.0	102	74-127	<1	30
1,1-Dichloroethane (1,1-DCA)	0.79 J	56.0	50.0	110	57.9	50.0	114	74-132	3	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	51.1	50.0	102	49.6	50.0	99	71-118	3	30
Tetrachloroethene (PCE)	0.87 J	48.6	50.0	95	51.3	50.0	101	72-125	6	30
Trichloroethene (TCE)	10	56.5	50.0	93	58.7	50.0	97	74-122	4	30
Vinyl Chloride	1.0 U	47.9	50.0	96	49.4	50.0	99	74-159	3	30
cis-1,2-Dichloroethene	2.6	53.3	50.0	101	54.5	50.0	104	77-127	2	30
trans-1,2-Dichloroethene	1.0 U	52.3	50.0	105	53.3	50.0	107	73-118	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.

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/28/18 11:05
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1810434-04
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\092818\D6244.D\
Analysis Lot: 608727

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1810434-03	I:\ACQUDATA\msvoa10\data\092818\D6242.D\	09/28/18 10:13
Trip Blank - 092018	R1809120-001	I:\ACQUDATA\msvoa10\data\092818\D6245.D\	09/28/18 11:34
FB-092018	R1809120-011	I:\ACQUDATA\msvoa10\data\092818\D6246.D\	09/28/18 11:56
MW-10	R1809120-002	I:\ACQUDATA\msvoa10\data\092818\D6247.D\	09/28/18 12:18
MW-13	R1809120-003	I:\ACQUDATA\msvoa10\data\092818\D6248.D\	09/28/18 12:40
DMW-3	R1809120-004	I:\ACQUDATA\msvoa10\data\092818\D6249.D\	09/28/18 13:01
TMP-A	R1809120-007	I:\ACQUDATA\msvoa10\data\092818\D6250.D\	09/28/18 13:23
MW-10MS	RQ1810434-05	I:\ACQUDATA\msvoa10\data\092818\D6266.D\	09/28/18 20:18
MW-10DMS	RQ1810434-06	I:\ACQUDATA\msvoa10\data\092818\D6267.D\	09/28/18 20:39

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dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1810434-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 11:05	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:05	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:05	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:05	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:05	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:05	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:05	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/28/18 11:05	
Dibromofluoromethane	95	89 - 119	09/28/18 11:05	
Toluene-d8	93	87 - 121	09/28/18 11:05	

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/28/18 10:13
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample
Lab Code: RQ1810434-03
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\092818\D6242.D\
Analysis Lot: 608727

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1810434-04	I:\ACQUDATA\msvoa10\data\092818\D6244.D\	09/28/18 11:05
Trip Blank - 092018	R1809120-001	I:\ACQUDATA\msvoa10\data\092818\D6245.D\	09/28/18 11:34
FB-092018	R1809120-011	I:\ACQUDATA\msvoa10\data\092818\D6246.D\	09/28/18 11:56
MW-10	R1809120-002	I:\ACQUDATA\msvoa10\data\092818\D6247.D\	09/28/18 12:18
MW-13	R1809120-003	I:\ACQUDATA\msvoa10\data\092818\D6248.D\	09/28/18 12:40
DMW-3	R1809120-004	I:\ACQUDATA\msvoa10\data\092818\D6249.D\	09/28/18 13:01
TMP-A	R1809120-007	I:\ACQUDATA\msvoa10\data\092818\D6250.D\	09/28/18 13:23
MW-10MS	RQ1810434-05	I:\ACQUDATA\msvoa10\data\092818\D6266.D\	09/28/18 20:18
MW-10DMS	RQ1810434-06	I:\ACQUDATA\msvoa10\data\092818\D6267.D\	09/28/18 20:39

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/28/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1810434-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.0	20.0	100	75-125
1,1-Dichloroethane (1,1-DCA)	8260C	22.4	20.0	112	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.8	20.0	104	71-118
Tetrachloroethene (PCE)	8260C	18.9	20.0	95	72-125
Trichloroethene (TCE)	8260C	19.7	20.0	98	74-122
Vinyl Chloride	8260C	20.0	20.0	100	74-159
cis-1,2-Dichloroethene	8260C	20.4	20.0	102	80-121
trans-1,2-Dichloroethene	8260C	21.7	20.0	108	73-118

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QC/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/28/18 08:46

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\092818\D6240.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot: 608727

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	24.87	17532	Pass
75	95	30	60	55.43	39074	Pass
95	95	100	100	100.00	70496	Pass
96	95	5	9	6.75	4758	Pass
173	174	0	2	1.11	655	Pass
174	95	50	120	83.59	58931	Pass
175	174	5	9	8.55	5041	Pass
176	174	95	101	95.62	56347	Pass
177	176	5	9	6.24	3517	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1810434-02	I:\ACQUDATA\msvoa10\data\092818\D6241.D\	09/28/18 09:24	
Lab Control Sample	RQ1810434-03	I:\ACQUDATA\msvoa10\data\092818\D6242.D\	09/28/18 10:13	
Method Blank	RQ1810434-04	I:\ACQUDATA\msvoa10\data\092818\D6244.D\	09/28/18 11:05	
Trip Blank - 092018	R1809120-001	I:\ACQUDATA\msvoa10\data\092818\D6245.D\	09/28/18 11:34	
FB-092018	R1809120-011	I:\ACQUDATA\msvoa10\data\092818\D6246.D\	09/28/18 11:56	
MW-10	R1809120-002	I:\ACQUDATA\msvoa10\data\092818\D6247.D\	09/28/18 12:18	
MW-13	R1809120-003	I:\ACQUDATA\msvoa10\data\092818\D6248.D\	09/28/18 12:40	
DMW-3	R1809120-004	I:\ACQUDATA\msvoa10\data\092818\D6249.D\	09/28/18 13:01	
TMP-A	R1809120-007	I:\ACQUDATA\msvoa10\data\092818\D6250.D\	09/28/18 13:23	
MW-10	RQ1810434-05	I:\ACQUDATA\msvoa10\data\092818\D6266.D\	09/28/18 20:18	
MW-10	RQ1810434-06	I:\ACQUDATA\msvoa10\data\092818\D6267.D\	09/28/18 20:39	

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/28/18 09:24

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

File ID: I:\ACQUADATA\msvoa10\data\092818\D6241.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code: RQ1810434-02
Analysis Lot: 608727
Signal ID: 1

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Result ==>	161,881	11.85	328,097	6.49	291,551	9.80
Upper Limit ==>	323,762	12.35	656,194	6.99	583,102	10.30
Lower Limit ==>	80,941	11.35	164,049	5.99	145,776	9.30

Associated Analyses

Lab Control Sample	RQ1810434-03	146987	11.85	327087	6.49	288286	9.80
Method Blank	RQ1810434-04	132919	11.85	297924	6.49	264725	9.80
Trip Blank - 092018	R1809120-001	116308	11.85	266012	6.49	227275	9.80
FB-092018	R1809120-011	131866	11.85	304410	6.49	262112	9.80
MW-10	R1809120-002	130928	11.85	300384	6.49	268036	9.80
MW-13	R1809120-003	132150	11.85	297921	6.49	263979	9.80
DMW-3	R1809120-004	130009	11.85	292035	6.49	257763	9.80
TMP-A	R1809120-007	131180	11.85	280932	6.49	248941	9.80
MW-10MS	RQ1810434-05	159718	11.85	323940	6.49	289190	9.80
MW-10DMS	RQ1810434-06	167459	11.85	330867	6.49	295512	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120
Date Analyzed:09/28/18 09:24

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

File ID: I:\ACQUDATA\msvoa10\data\092818\D6241.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code:RQ1810434-02
Analysis Lot:608727
Signal ID:1

	Pentafluorobenzene	
	Area	RT
Result ==>	210,430	5.40
Upper Limit ==>	420,860	5.90
Lower Limit ==>	105,215	4.90

Associated Analyses

Lab Control Sample	RQ1810434-03	209448	5.39
Method Blank	RQ1810434-04	189784	5.39
Trip Blank - 092018	R1809120-001	175507	5.40
FB-092018	R1809120-011	192548	5.39
MW-10	R1809120-002	190786	5.39
MW-13	R1809120-003	190419	5.39
DMW-3	R1809120-004	184974	5.39
TMP-A	R1809120-007	177736	5.39
MW-10MS	RQ1810434-05	206967	5.39
MW-10DMS	RQ1810434-06	218885	5.39

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
MW-17	R1809120-005	91	97	99
MW-16	R1809120-006	86	93	95
MW-9	R1809120-008	89	95	96
MW-8	R1809120-009	91	98	99
MW-11	R1809120-010	88	92	97
DUP-092018	R1809120-012	96	102	102
Method Blank	RQ1810325-04	91	93	96
Method Blank	RQ1810327-05	92	99	100
Lab Control Sample	RQ1810325-08	97	96	99
Lab Control Sample	RQ1810327-04	93	96	96
MW-17 MS	RQ1810325-05	99	97	97
MW-17 DMS	RQ1810325-06	92	93	93

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18
Date Received: 09/21/18
Date Analyzed: 09/24/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: MW-17 **Units:** ug/L
Lab Code: R1809120-005 **Basis:** NA
Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Sample Result	Matrix Spike RQ1810325-05			Duplicate Matrix Spike RQ1810325-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	1.5	49.6	50.0	96	48.8	50.0	94	74-127	2	30
1,1-Dichloroethane (1,1-DCA)	7.1	60.2	50.0	106	59.8	50.0	105	74-132	<1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	48.2	50.0	96	47.1	50.0	94	71-118	2	30
Tetrachloroethene (PCE)	1.0 U	47.4	50.0	95	47.2	50.0	94	72-125	<1	30
Trichloroethene (TCE)	1.0 U	48.9	50.0	98	48.4	50.0	97	74-122	1	30
Vinyl Chloride	1.0 U	46.3	50.0	93	45.5	50.0	91	74-159	2	30
cis-1,2-Dichloroethene	1.0 U	50.3	50.0	101	48.2	50.0	96	77-127	4	30
trans-1,2-Dichloroethene	1.0 U	50.7	50.0	101	50.5	50.0	101	73-118	<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.

ALS Group USA, Corp.

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/24/18 11:21
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: Method Blank
Lab Code: RQ1810325-04
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\092418\D6064.D\
Analysis Lot: 607883

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1810325-08	I:\ACQUDATA\msvoa10\data\092418\D6062.D\	09/24/18 10:35
MW-17	R1809120-005	I:\ACQUDATA\msvoa10\data\092418\D6080.D\	09/24/18 17:38
MW-16	R1809120-006	I:\ACQUDATA\msvoa10\data\092418\D6081.D\	09/24/18 18:00
MW-8	R1809120-009	I:\ACQUDATA\msvoa10\data\092418\D6083.D\	09/24/18 18:44
DUP-092018	R1809120-012	I:\ACQUDATA\msvoa10\data\092418\D6084.D\	09/24/18 19:08
MW-11	R1809120-010	I:\ACQUDATA\msvoa10\data\092418\D6085.D\	09/24/18 19:30
MW-17MS	RQ1810325-05	I:\ACQUDATA\msvoa10\data\092418\D6088.D\	09/24/18 20:36
MW-17DMS	RQ1810325-06	I:\ACQUDATA\msvoa10\data\092418\D6089.D\	09/24/18 20:57

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/25/18 12:32
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: Method Blank
Lab Code: RQ1810327-05
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\092518\D6103.D\
Analysis Lot: 608092

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1810327-04	I:\ACQUDATA\msvoa10\data\092518\D6101.D\	09/25/18 11:48
MW-9	R1809120-008	I:\ACQUDATA\msvoa10\data\092518\D6104.D\	09/25/18 12:53

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dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1810325-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 11:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 11:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 11:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 11:21	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 11:21	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 11:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 11:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 11:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 11:21	
Dibromofluoromethane	93	89 - 119	09/24/18 11:21	
Toluene-d8	96	87 - 121	09/24/18 11:21	

ALS Group USA, Corp.
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Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1810327-05

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/25/18 12:32	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/25/18 12:32	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/25/18 12:32	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/25/18 12:32	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/25/18 12:32	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/25/18 12:32	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:32	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	09/25/18 12:32	
Dibromofluoromethane	99	89 - 119	09/25/18 12:32	
Toluene-d8	100	87 - 121	09/25/18 12:32	

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/24/18 10:35
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: Lab Control Sample
Lab Code: RQ1810325-08
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\092418\D6062.D\
Analysis Lot: 607883

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1810325-04	I:\ACQUDATA\msvoa10\data\092418\D6064.D\	09/24/18 11:21
MW-17	R1809120-005	I:\ACQUDATA\msvoa10\data\092418\D6080.D\	09/24/18 17:38
MW-16	R1809120-006	I:\ACQUDATA\msvoa10\data\092418\D6081.D\	09/24/18 18:00
MW-8	R1809120-009	I:\ACQUDATA\msvoa10\data\092418\D6083.D\	09/24/18 18:44
DUP-092018	R1809120-012	I:\ACQUDATA\msvoa10\data\092418\D6084.D\	09/24/18 19:08
MW-11	R1809120-010	I:\ACQUDATA\msvoa10\data\092418\D6085.D\	09/24/18 19:30
MW-17MS	RQ1810325-05	I:\ACQUDATA\msvoa10\data\092418\D6088.D\	09/24/18 20:36
MW-17DMS	RQ1810325-06	I:\ACQUDATA\msvoa10\data\092418\D6089.D\	09/24/18 20:57

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/25/18 11:48
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name: Lab Control Sample
Lab Code: RQ1810327-04
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-10
File ID: I:\ACQUADATA\msvoa10\data\092518\D6101.D\
Analysis Lot: 608092

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1810327-05	I:\ACQUADATA\msvoa10\data\092518\D6103.D\	09/25/18 12:32
MW-9	R1809120-008	I:\ACQUADATA\msvoa10\data\092518\D6104.D\	09/25/18 12:53

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dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/24/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ1810325-08

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.6	20.0	93	75-125
1,1-Dichloroethane (1,1-DCA)	8260C	20.9	20.0	105	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.6	20.0	98	71-118
Tetrachloroethene (PCE)	8260C	18.7	20.0	93	72-125
Trichloroethene (TCE)	8260C	18.8	20.0	94	74-122
Vinyl Chloride	8260C	18.1	20.0	91	74-159
cis-1,2-Dichloroethene	8260C	19.6	20.0	98	80-121
trans-1,2-Dichloroethene	8260C	18.8	20.0	94	73-118

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Analyzed: 09/25/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ1810327-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.6	20.0	98	75-125
1,1-Dichloroethane (1,1-DCA)	8260C	21.4	20.0	107	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.7	20.0	99	71-118
Tetrachloroethene (PCE)	8260C	20.3	20.0	102	72-125
Trichloroethene (TCE)	8260C	19.5	20.0	97	74-122
Vinyl Chloride	8260C	18.5	20.0	93	74-159
cis-1,2-Dichloroethene	8260C	19.9	20.0	100	80-121
trans-1,2-Dichloroethene	8260C	20.1	20.0	100	73-118

ALS Group USA, Corp.
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QC/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/24/18 09:03

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa10\data\092418\D6059.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot: 607883

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	25.10	29029	Pass
75	95	30	60	55.90	64645	Pass
95	95	100	100	100.00	115651	Pass
96	95	5	9	6.67	7717	Pass
173	174	0	2	0.98	963	Pass
174	95	50	120	85.22	98552	Pass
175	174	5	9	7.56	7447	Pass
176	174	95	101	95.13	93752	Pass
177	176	5	9	6.87	6439	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1810325-02	I:\ACQUDATA\msvoa10\data\092418\D6060.D\	09/24/18 09:41	
Lab Control Sample	RQ1810325-08	I:\ACQUDATA\msvoa10\data\092418\D6062.D\	09/24/18 10:35	
Method Blank	RQ1810325-04	I:\ACQUDATA\msvoa10\data\092418\D6064.D\	09/24/18 11:21	
MW-17	R1809120-005	I:\ACQUDATA\msvoa10\data\092418\D6080.D\	09/24/18 17:38	
MW-16	R1809120-006	I:\ACQUDATA\msvoa10\data\092418\D6081.D\	09/24/18 18:00	
MW-8	R1809120-009	I:\ACQUDATA\msvoa10\data\092418\D6083.D\	09/24/18 18:44	
DUP-092018	R1809120-012	I:\ACQUDATA\msvoa10\data\092418\D6084.D\	09/24/18 19:08	
MW-11	R1809120-010	I:\ACQUDATA\msvoa10\data\092418\D6085.D\	09/24/18 19:30	
MW-17	RQ1810325-05	I:\ACQUDATA\msvoa10\data\092418\D6088.D\	09/24/18 20:36	
MW-17	RQ1810325-06	I:\ACQUDATA\msvoa10\data\092418\D6089.D\	09/24/18 20:57	

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QC/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/25/18 10:01

Tune Summary
Volatile Organic Compounds by GC/MS, Unpreserved

File ID: I:\ACQUDATA\msvoa10\data\092518\D6098.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot: 608092

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	24.96	16952	Pass
75	95	30	60	56.76	38552	Pass
95	95	100	100	100.00	67923	Pass
96	95	5	9	6.83	4637	Pass
173	174	0	2	1.97	1150	Pass
174	95	50	120	85.79	58274	Pass
175	174	5	9	7.92	4613	Pass
176	174	95	101	96.14	56026	Pass
177	176	5	9	6.27	3513	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1810327-02	I:\ACQUDATA\msvoa10\data\092518\D6099.D\	09/25/18 10:36	
Lab Control Sample	RQ1810327-04	I:\ACQUDATA\msvoa10\data\092518\D6101.D\	09/25/18 11:48	
Method Blank	RQ1810327-05	I:\ACQUDATA\msvoa10\data\092518\D6103.D\	09/25/18 12:32	
MW-9	R1809120-008	I:\ACQUDATA\msvoa10\data\092518\D6104.D\	09/25/18 12:53	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/24/18 09:41

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

File ID: I:\ACQUDATA\msvoa10\data\092418\D6060.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code: RQ1810325-02
Analysis Lot: 607883
Signal ID: 1

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Result ==>	184,693	11.85	348,015	6.49	314,261	9.80
Upper Limit ==>	369,386	12.35	696,030	6.99	628,522	10.30
Lower Limit ==>	92,347	11.35	174,008	5.99	157,131	9.30

Associated Analyses

Lab Control Sample	RQ1810325-08	175141	11.85	352269	6.49	313024	9.80
Method Blank	RQ1810325-04	150721	11.85	335947	6.49	297745	9.80
MW-17	R1809120-005	135896	11.85	314860	6.49	269323	9.80
MW-16	R1809120-006	141137	11.85	325767	6.49	276091	9.80
MW-8	R1809120-009	138001	11.85	310169	6.49	268335	9.80
DUP-092018	R1809120-012	128777	11.85	294696	6.49	259037	9.80
MW-11	R1809120-010	140451	11.85	326046	6.49	280530	9.80
MW-17MS	RQ1810325-05	170846	11.85	338596	6.49	300725	9.80
MW-17DMS	RQ1810325-06	173814	11.85	360184	6.49	314193	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120
Date Analyzed:09/24/18 09:41

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

File ID: I:\ACQUDATA\msvoa10\data\092418\D6060.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code:RQ1810325-02
Analysis Lot:607883
Signal ID:1

	Pentafluorobenzene	
	Area	RT
Result ==>	229,317	5.39
Upper Limit ==>	458,634	5.89
Lower Limit ==>	114,659	4.89

Associated Analyses

Lab Control Sample	RQ1810325-08	231000	5.39
Method Blank	RQ1810325-04	222881	5.39
MW-17	R1809120-005	196977	5.39
MW-16	R1809120-006	204753	5.39
MW-8	R1809120-009	201911	5.39
DUP-092018	R1809120-012	188218	5.40
MW-11	R1809120-010	207507	5.39
MW-17MS	RQ1810325-05	222379	5.39
MW-17DMS	RQ1810325-06	237391	5.39

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/25/18 10:36

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

File ID: I:\ACQUDATA\msvoa10\data\092518\D6099.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code: RQ1810327-02
Analysis Lot: 608092
Signal ID: 1

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Result ==>	171,125	11.85	329,483	6.49	291,886	9.80
Upper Limit ==>	342,250	12.35	658,966	6.99	583,772	10.30
Lower Limit ==>	85,563	11.35	164,742	5.99	145,943	9.30

Associated Analyses

Lab Control Sample	RQ1810327-04	161335	11.85	339718	6.49	296166	9.80
Method Blank	RQ1810327-05	137102	11.85	314548	6.49	277877	9.80
MW-9	R1809120-008	141508	11.85	325199	6.49	282716	9.80

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/25/18 10:36

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

File ID: I:\ACQUDATA\msvoa10\data\092518\D6099.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code: RQ1810327-02
Analysis Lot: 608092
Signal ID: 1

	Pentafluorobenzene	
	Area	RT
Result ==>	214,177	5.39
Upper Limit ==>	428,354	5.89
Lower Limit ==>	107,089	4.89

Associated Analyses

Lab Control Sample	RQ1810327-04	224537	5.39
Method Blank	RQ1810327-05	199456	5.39
MW-9	R1809120-008	208301	5.39



Raw Data

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18
Date Received: 09/21/18 09:50

Sample Name: Trip Blank - 092018
Lab Code: R1809120-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 11:34	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:34	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:34	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:34	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:34	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/28/18 11:34	
Dibromofluoromethane	96	89 - 119	09/28/18 11:34	
Toluene-d8	94	87 - 121	09/28/18 11:34	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 11:15
Date Received: 09/21/18 09:50

Sample Name: MW-10
Lab Code: R1809120-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.3	1.0	0.25	1	09/28/18 12:18	
1,1-Dichloroethane (1,1-DCA)	0.79 J	1.0	0.20	1	09/28/18 12:18	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 12:18	
Tetrachloroethene (PCE)	0.87 J	1.0	0.28	1	09/28/18 12:18	
Trichloroethene (TCE)	10	1.0	0.20	1	09/28/18 12:18	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 12:18	
cis-1,2-Dichloroethene	2.6	1.0	0.26	1	09/28/18 12:18	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	09/28/18 12:18	
Dibromofluoromethane	97	89 - 119	09/28/18 12:18	
Toluene-d8	95	87 - 121	09/28/18 12:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 11:15
Date Received: 09/21/18 09:50

Sample Name: MW-13
Lab Code: R1809120-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 12:40	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 12:40	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 12:40	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 12:40	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 12:40	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 12:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 12:40	
Dibromofluoromethane	101	89 - 119	09/28/18 12:40	
Toluene-d8	104	87 - 121	09/28/18 12:40	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 11:20
Date Received: 09/21/18 09:50

Sample Name: DMW-3
Lab Code: R1809120-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 13:01	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:01	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:01	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:01	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:01	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:01	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	09/28/18 13:01	
Dibromofluoromethane	100	89 - 119	09/28/18 13:01	
Toluene-d8	102	87 - 121	09/28/18 13:01	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 12:45
Date Received: 09/21/18 09:50

Sample Name: TMP-A
Lab Code: R1809120-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 13:23	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 13:23	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 13:23	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 13:23	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 13:23	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 13:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	09/28/18 13:23	
Dibromofluoromethane	101	89 - 119	09/28/18 13:23	
Toluene-d8	103	87 - 121	09/28/18 13:23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 16:30
Date Received: 09/21/18 09:50

Sample Name: FB-092018
Lab Code: R1809120-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/28/18 11:56	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/28/18 11:56	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/28/18 11:56	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/28/18 11:56	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/28/18 11:56	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/28/18 11:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	09/28/18 11:56	
Dibromofluoromethane	99	89 - 119	09/28/18 11:56	
Toluene-d8	98	87 - 121	09/28/18 11:56	

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6245.D
 Acq On : 28 Sep 2018 11:34 am
 Operator : D.LIPANI
 Sample : R1809120-001|1.0
 Misc : Verina 6646 T4
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 14:54:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

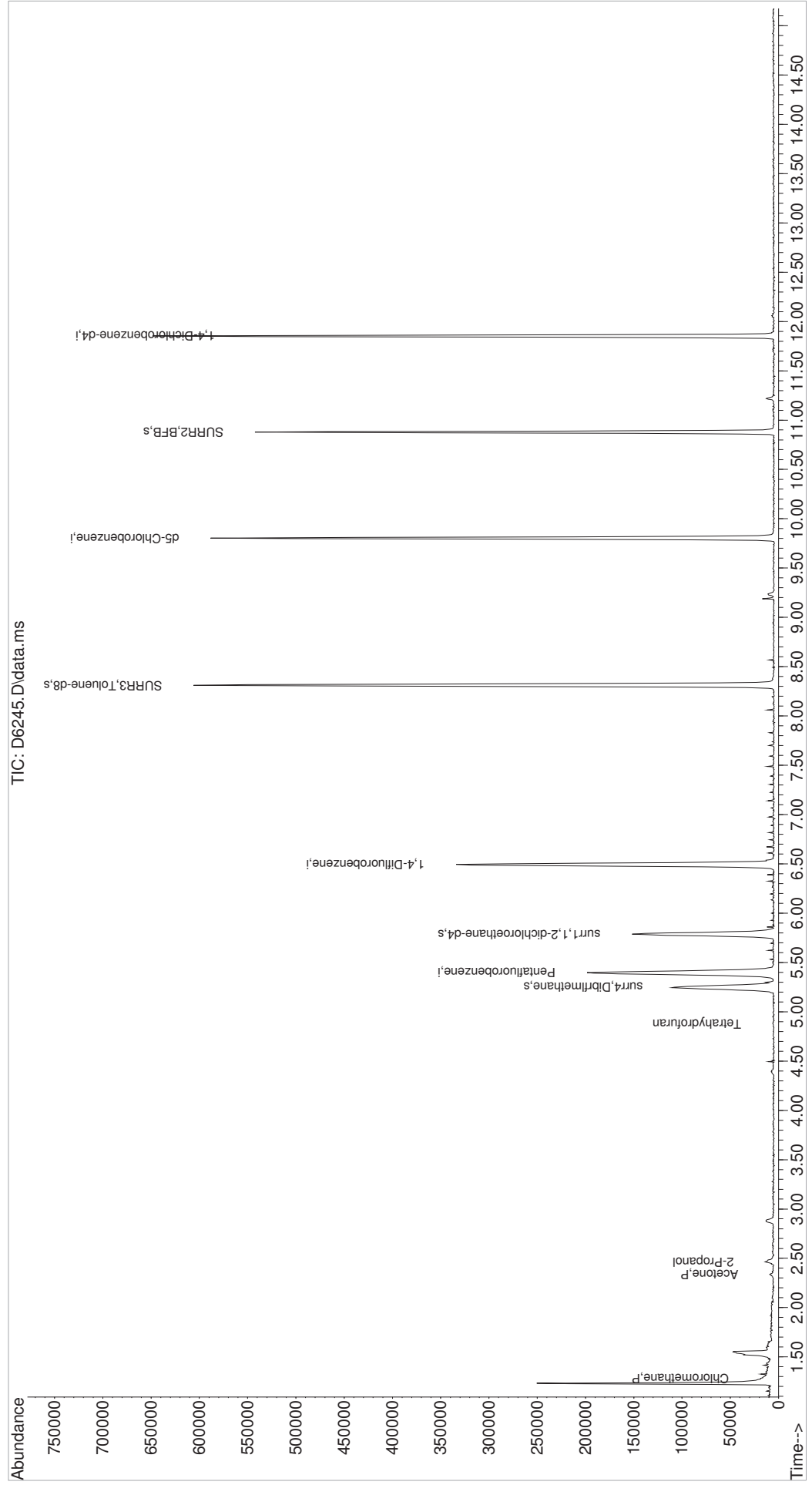
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

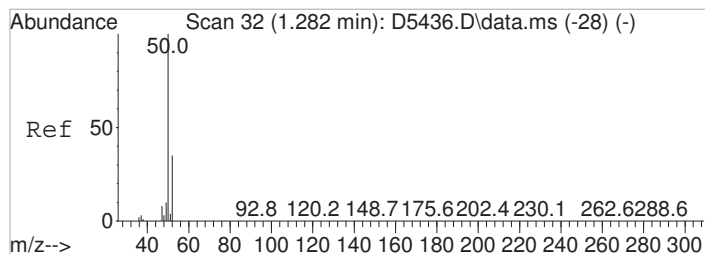
Internal Standards						
1) Pentafluorobenzene	5.397	168	175507	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	266012	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	227275	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	116308	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.251	113	86215	48.09	ug/L	0.01
Spiked Amount	50.000	Range	89 - 119	Recovery	=	96.18%
46) surr1,1,2-dichloroetha...	5.787	65	122152	51.81	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	103.62%
64) SURR3,Toluene-d8	8.311	98	341627	47.00	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	94.00%
69) SURR2,BFB	10.878	95	124648	44.62	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	89.24%
Target Compounds						
					Qvalue	
3) Chloromethane	1.282	50	685	0.27	ug/L	85
15) Acetone	2.337	43	3213	3.11	ug/L	94
16) 2-Propanol	2.465	45	8729	43.72	ug/L	74
38) Tetrahydrofuran	4.879	42	450	0.52	ug/L	74

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

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6245.D
 Acq On : 28 Sep 2018 11:34 am
 Operator : D.LIPANI
 Sample : R1809120-001|1.0
 Misc : Verina 6646 T4
 ALS Vial : 8 Sample Multiplier: 1
 Inst : MSVOA10

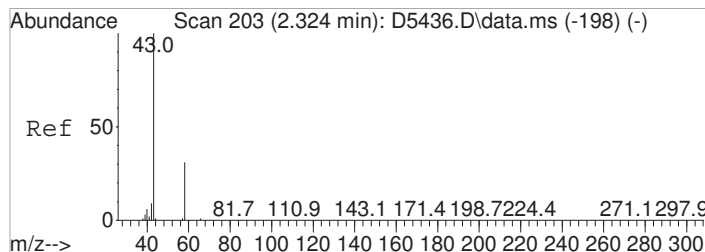
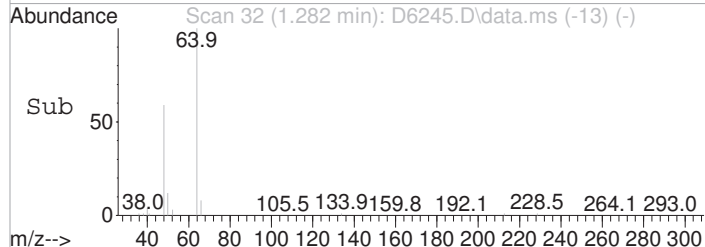
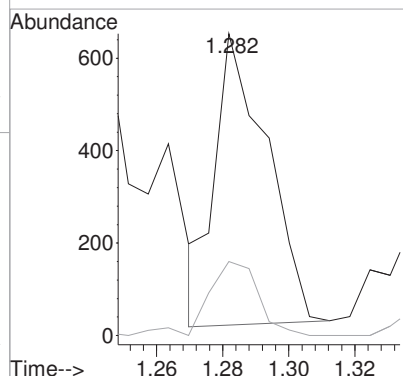
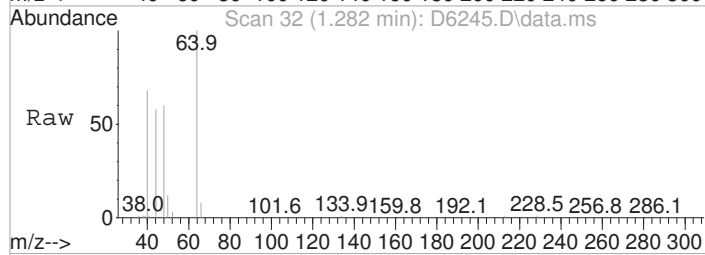
Quant Time: Oct 01 14:54:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration





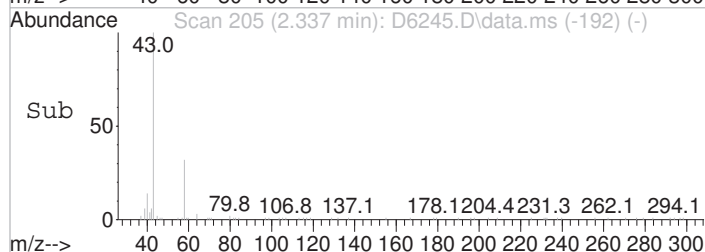
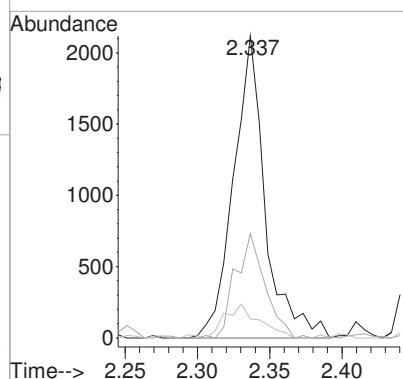
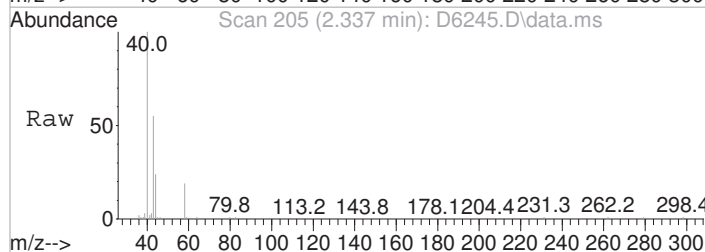
#3
 Chloromethane
 Concen: 0.27 ug/L
 RT: 1.282 min Scan# 32
 Delta R.T. -0.000 min
 Lab File: D6245.D
 Acq: 28 Sep 2018 11:34 am

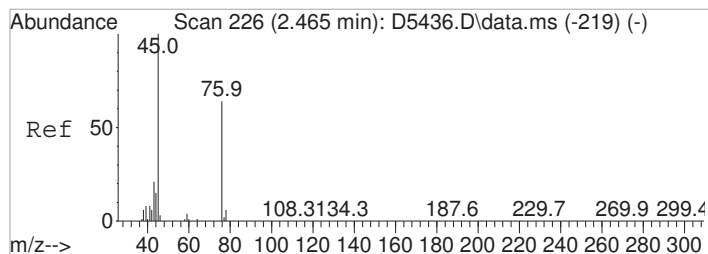
Tgt Ion: 50 Resp: 685
 Ion Ratio Lower Upper
 50 100
 52 26.0 15.0 55.0



#15
 Acetone
 Concen: 3.11 ug/L
 RT: 2.337 min Scan# 205
 Delta R.T. 0.006 min
 Lab File: D6245.D
 Acq: 28 Sep 2018 11:34 am

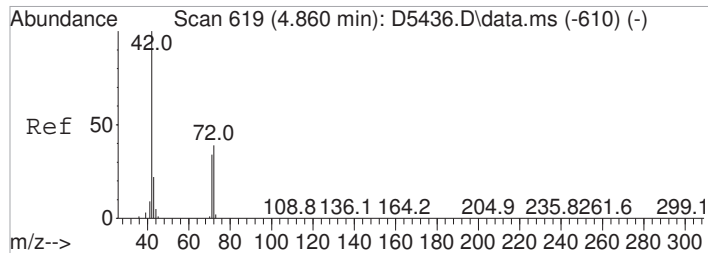
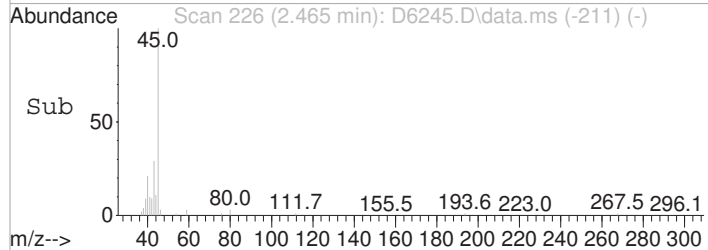
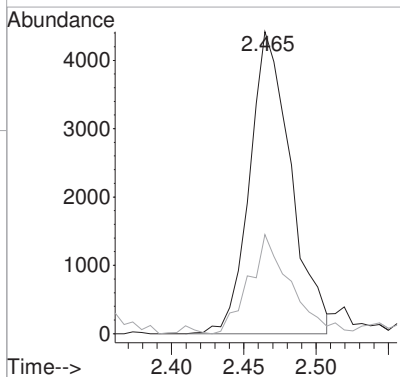
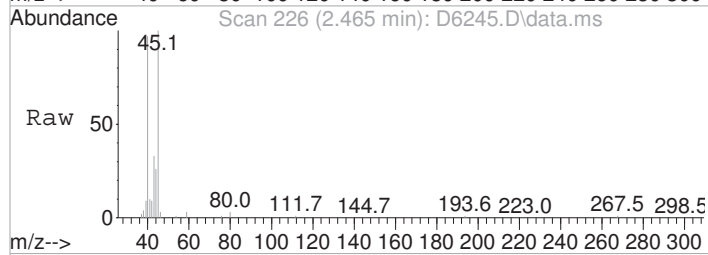
Tgt Ion: 43 Resp: 3213
 Ion Ratio Lower Upper
 43 100
 58 34.7 11.2 51.2
 42 6.2 0.0 28.6





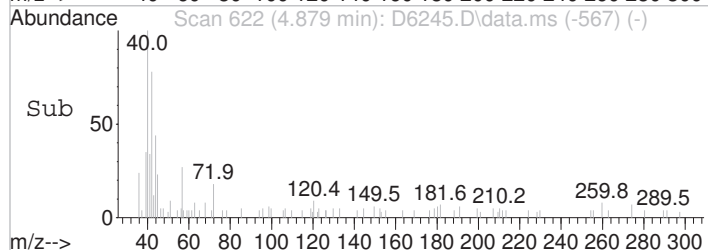
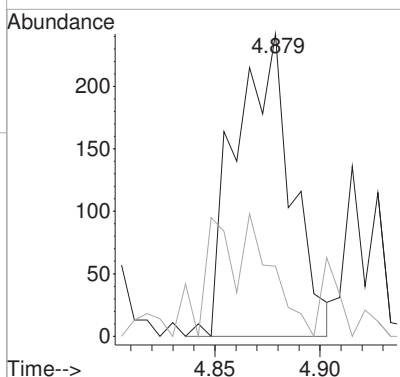
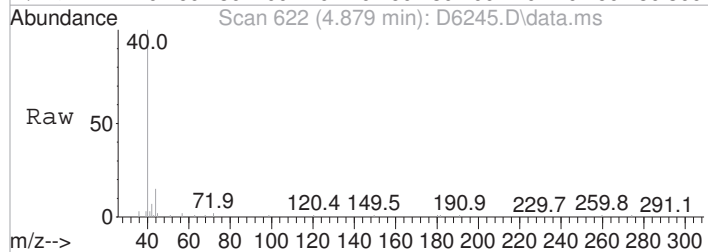
#16
 2-Propanol
 Concen: 43.72 ug/L
 RT: 2.465 min Scan# 226
 Delta R.T. -0.018 min
 Lab File: D6245.D
 Acq: 28 Sep 2018 11:34 am

Tgt Ion: 45 Resp: 8729
 Ion Ratio Lower Upper
 45 100
 43 32.8 0.8 40.8



#38
 Tetrahydrofuran
 Concen: 0.52 ug/L
 RT: 4.879 min Scan# 622
 Delta R.T. 0.018 min
 Lab File: D6245.D
 Acq: 28 Sep 2018 11:34 am

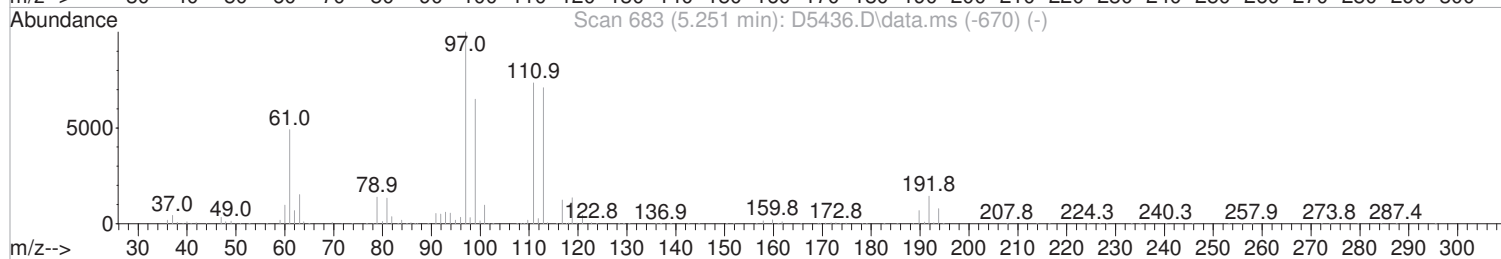
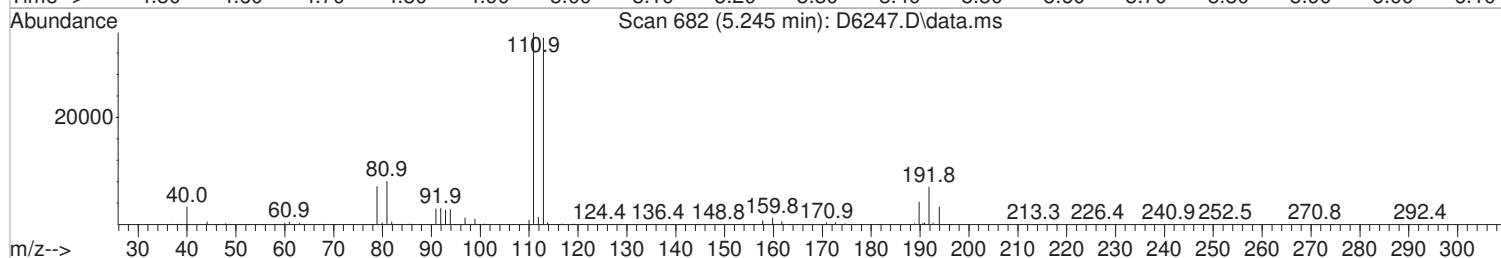
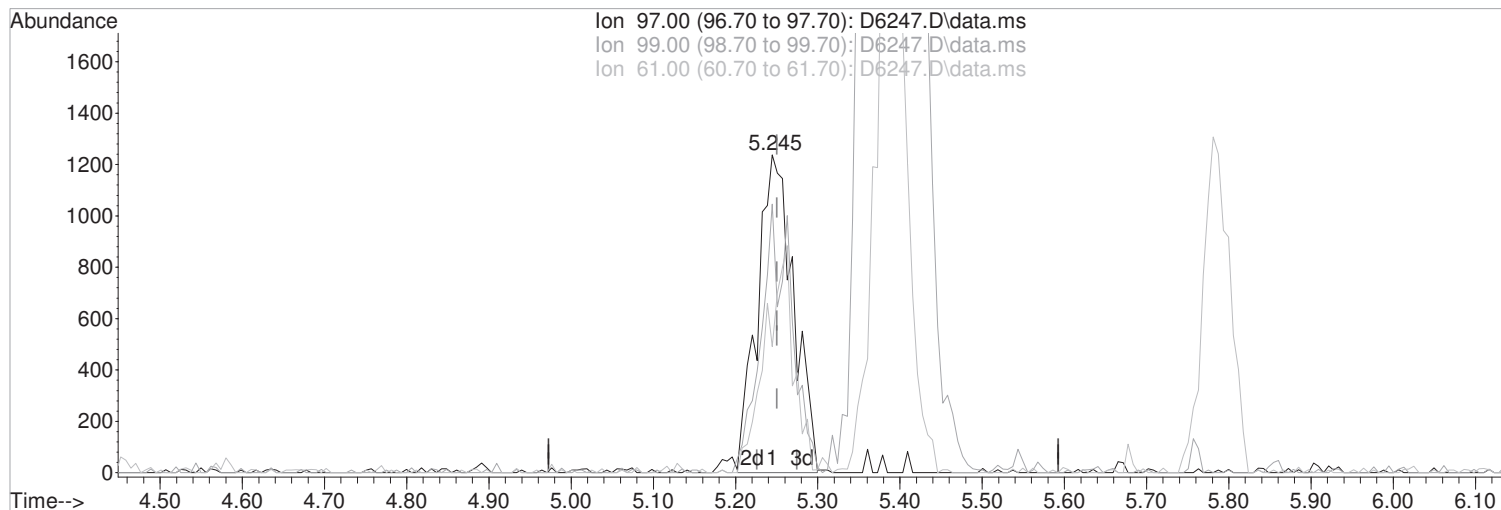
Tgt Ion: 42 Resp: 450
 Ion Ratio Lower Upper
 42 100
 72 23.1 18.8 58.8



Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6247.D
Acq On : 28 Sep 2018 12:18 pm
Operator : D.LIPANI
Sample : R1809120-002|1.0
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 12:32:59 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6247.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.245min (-0.006) 1.32 ug/L m

response 3760

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	84.56
61.00	49.10	39.69
0.00	0.00	0.00

Manual Integration:

After

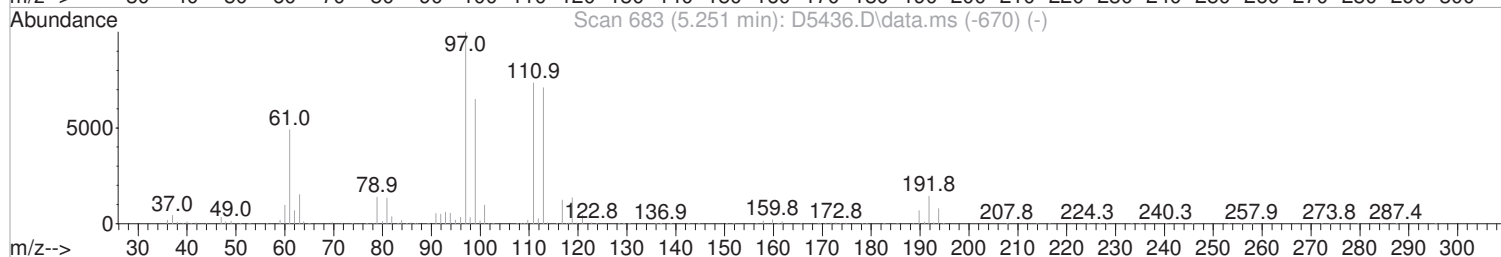
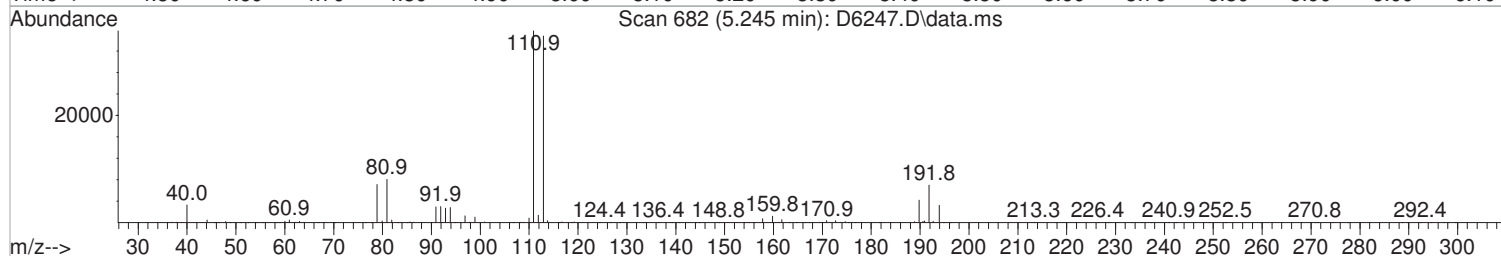
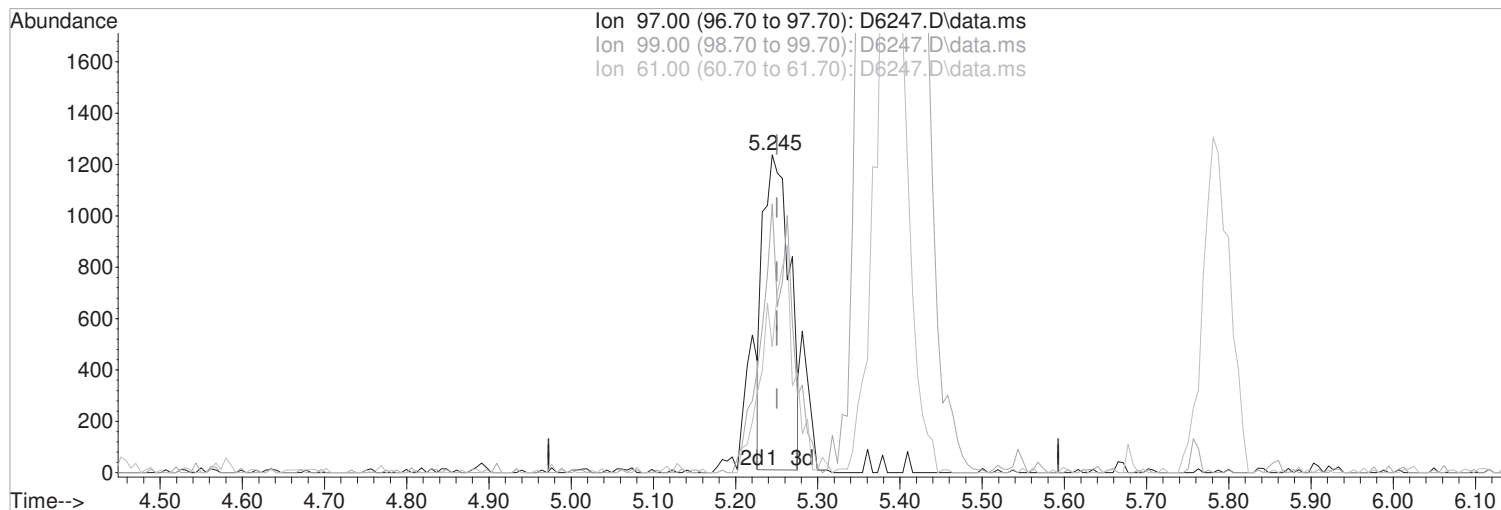
Poor integration.

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6247.D
Acq On : 28 Sep 2018 12:18 pm
Operator : D.LIPANI
Sample : R1809120-002|1.0
Misc : Verina 6646 T4
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 12:32:59 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6247.D\data.ms

(40) 1,1,1-Trichloroethane (P)

Manual Integration:

5.245min (-0.006) 0.96 ug/L

Before

response 2731

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	84.56
61.00	49.10	39.69
0.00	0.00	0.00

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6247.D
 Acq On : 28 Sep 2018 12:18 pm
 Operator : D.LIPANI
 Sample : R1809120-002|1.0
 Misc : Verina 6646 T4
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 15:05:32 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

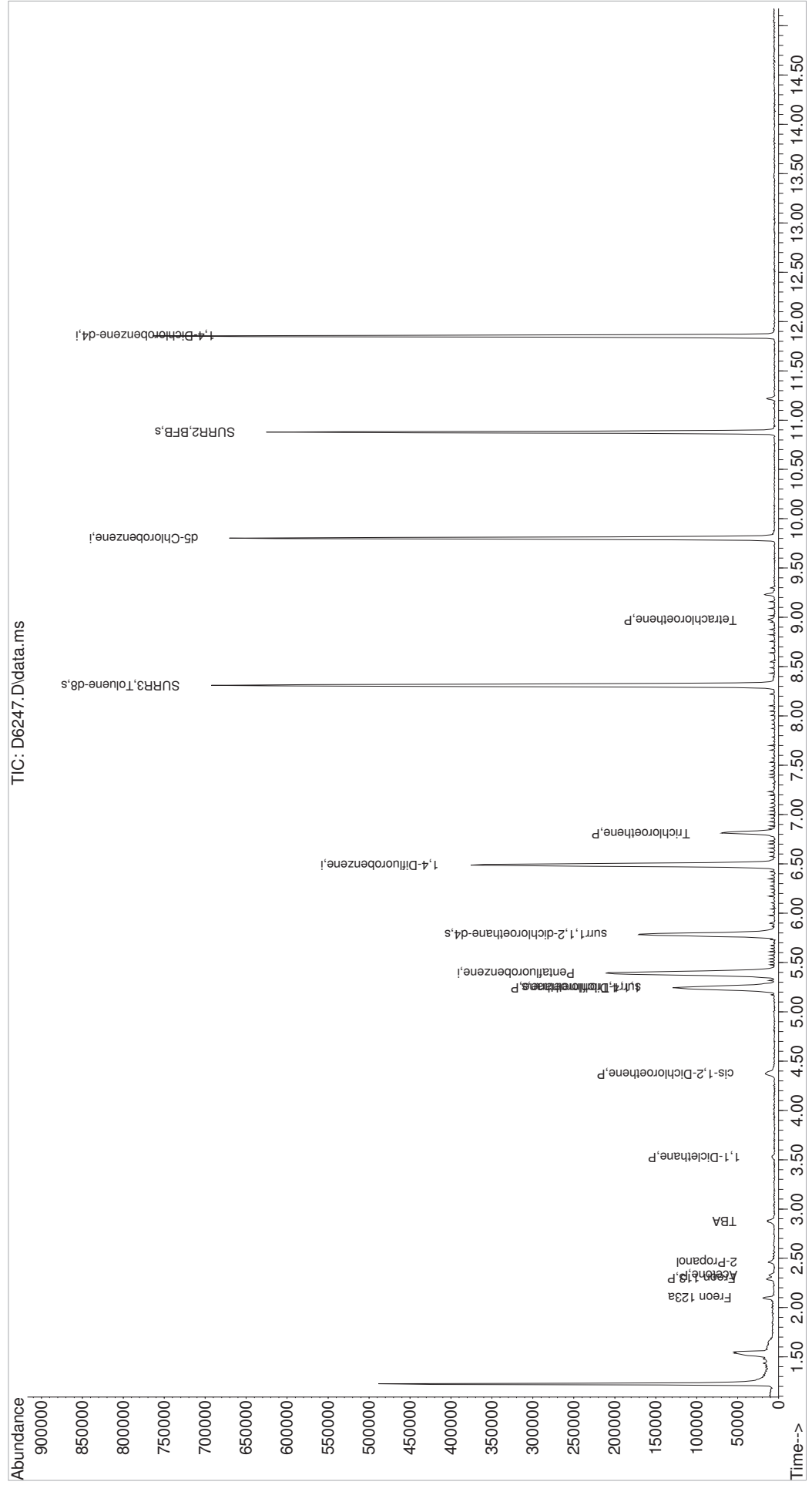
Internal Standards						
1) Pentafluorobenzene	5.391	168	190786	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	300384	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	268036	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	130928	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	98528	48.67	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	97.34%
46) surr1,1,2-dichloroetha...	5.781	65	141142	53.02	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	106.04%
64) SURR3,Toluene-d8	8.311	98	391263	47.67	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	95.34%
69) SURR2,BFB	10.878	95	142152	45.07	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	90.14%
Target Compounds						
					Qvalue	
5) Bromomethane	1.587	94	438	Below Cal		87
10) Freon 123a	2.099	67	5144	2.12 ug/L		94
14) Freon 113	2.294	101	3044	1.74 ug/L		86
15) Acetone	2.331	43	6304	5.62 ug/L		92
16) 2-Propanol	2.465	45	7400	34.10 ug/L		92
23) TBA	2.879	59	5052	15.54 ug/L		70
27) 1,1-Dicethane	3.525	63	2899	0.79 ug/L		78
33) cis-1,2-Dichloroethene	4.373	96	5456	2.60 ug/L #		83
40) 1,1,1-Trichloroethane	5.245	97	3760m	1.32 ug/L		
53) Trichloroethene	6.811	130	20921	10.01 ug/L		85
71) Tetrachloroethene	8.976	164	1454	0.87 ug/L #		76

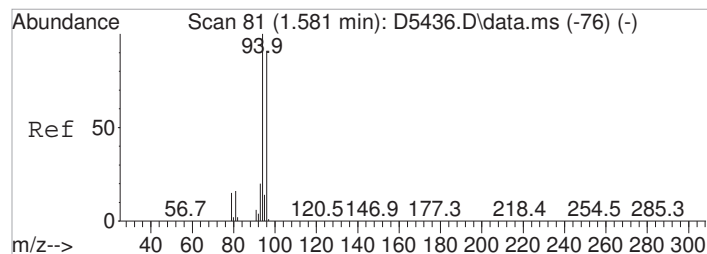
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6247.D
 Acq On : 28 Sep 2018 12:18 pm
 Operator : D.LIPANI
 Sample : R1809120-002|1.0
 Misc : Verina 6646 T4
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

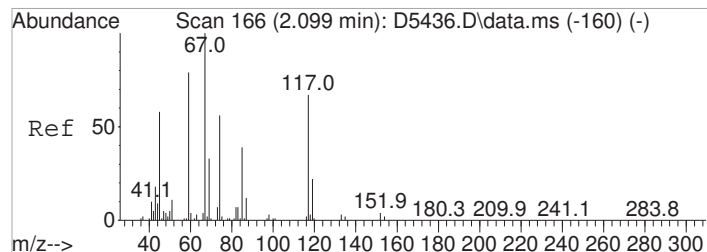
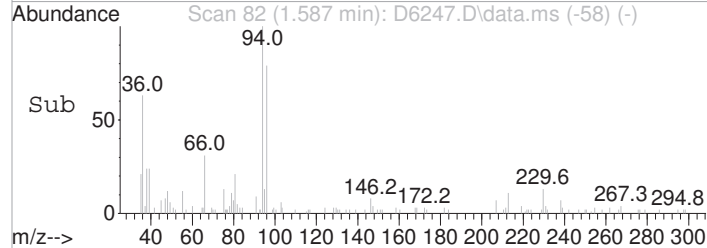
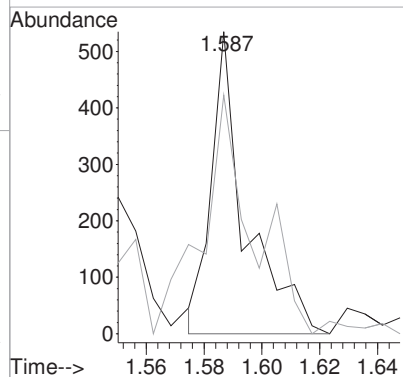
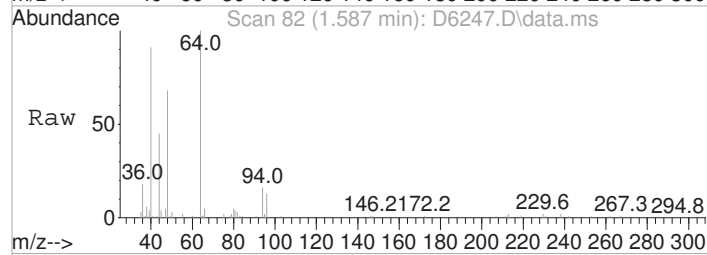
Quant Time: Oct 01 15:05:32 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration





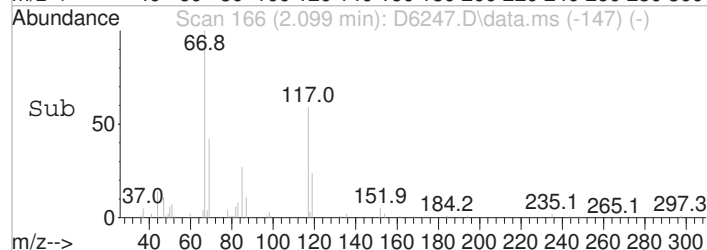
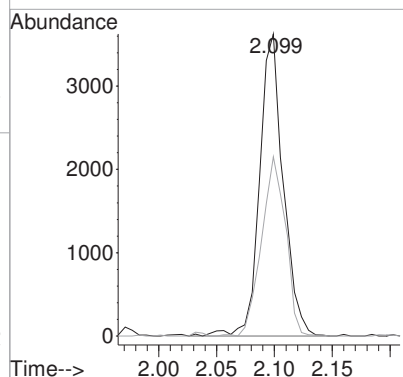
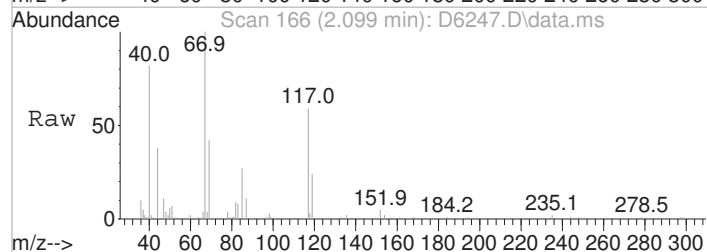
#5
 Bromomethane
 Concen: Below Cal
 RT: 1.587 min Scan# 82
 Delta R.T. 0.006 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

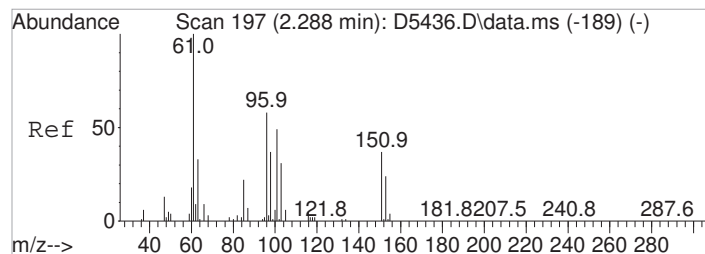
Tgt Ion: 94 Resp: 438
 Ion Ratio Lower Upper
 94 100
 96 79.1 71.1 111.1



#10
 Freon 123a
 Concen: 2.12 ug/L
 RT: 2.099 min Scan# 166
 Delta R.T. 0.000 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

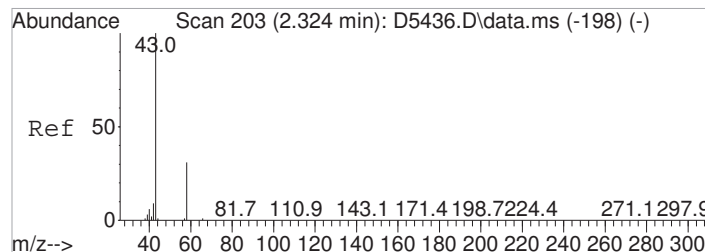
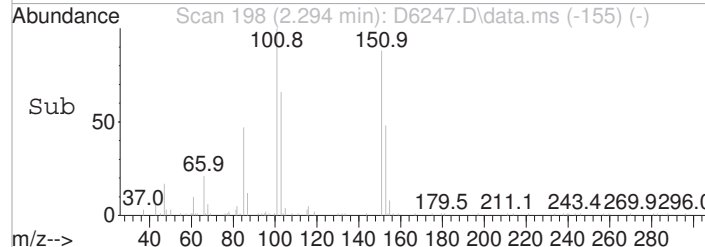
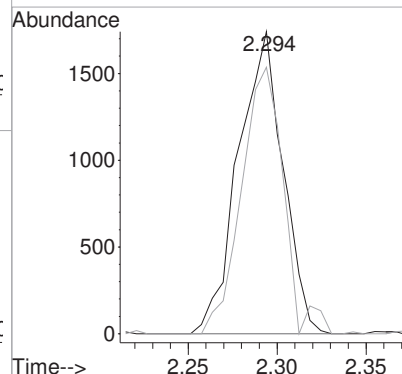
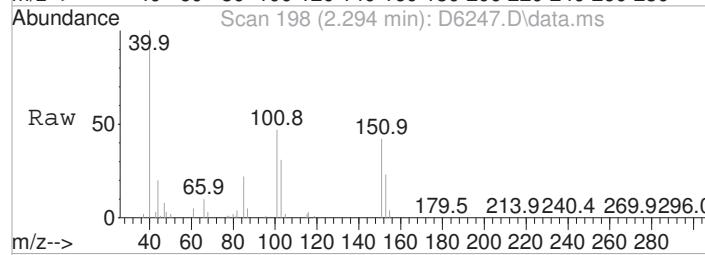
Tgt Ion: 67 Resp: 5144
 Ion Ratio Lower Upper
 67 100
 117 62.3 47.5 87.5





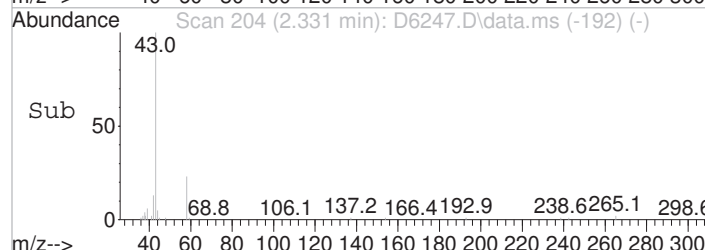
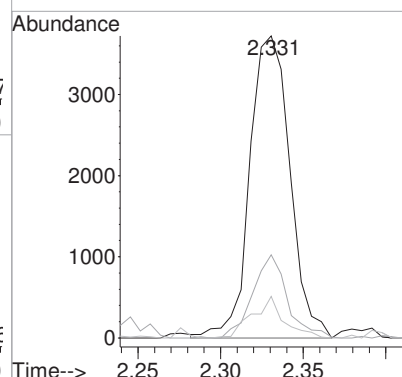
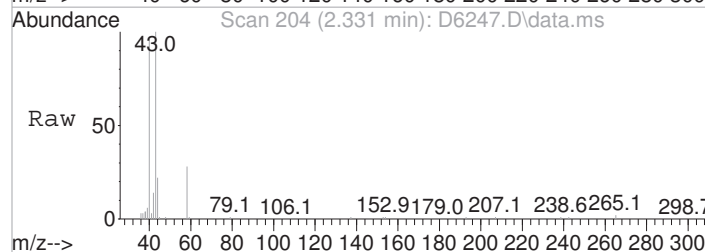
#14
 Freon 113
 Concen: 1.74 ug/L
 RT: 2.294 min Scan# 198
 Delta R.T. 0.006 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

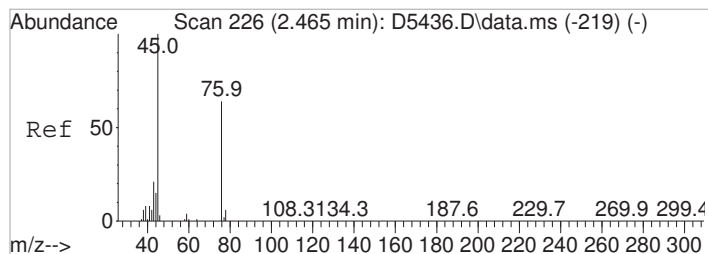
Tgt Ion: 101 Resp: 3044
 Ion Ratio Lower Upper
 101 100
 151 88.3 56.1 96.1



#15
 Acetone
 Concen: 5.62 ug/L
 RT: 2.331 min Scan# 204
 Delta R.T. 0.000 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

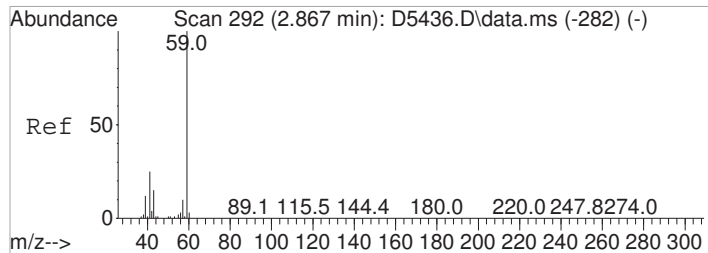
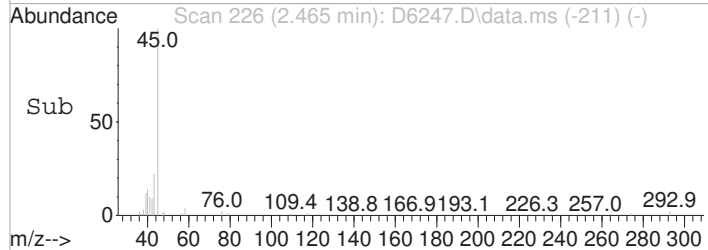
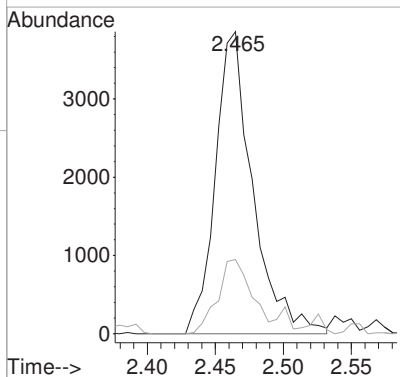
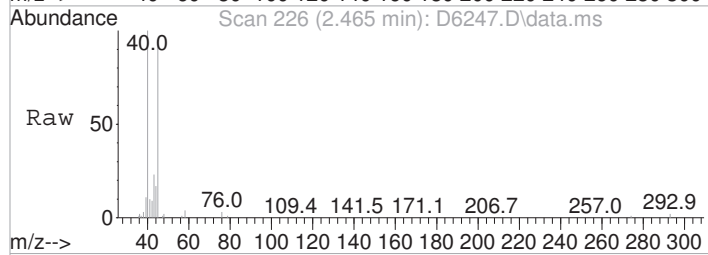
Tgt Ion: 43 Resp: 6304
 Ion Ratio Lower Upper
 43 100
 58 27.6 11.2 51.2
 42 13.7 0.0 28.6





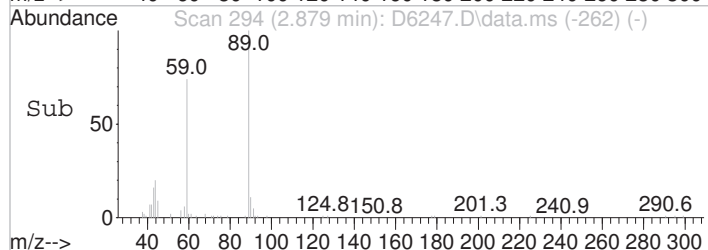
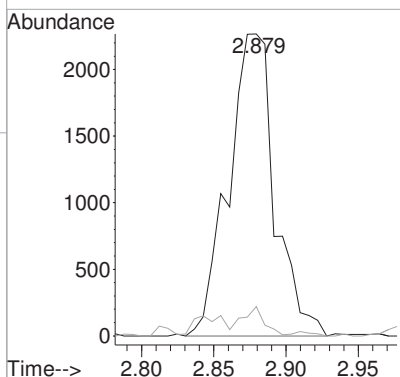
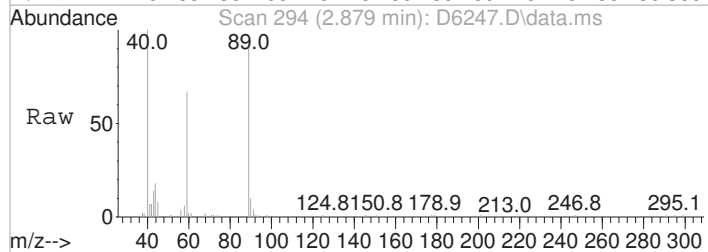
#16
 2-Propanol
 Concen: 34.10 ug/L
 RT: 2.465 min Scan# 226
 Delta R.T. -0.018 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

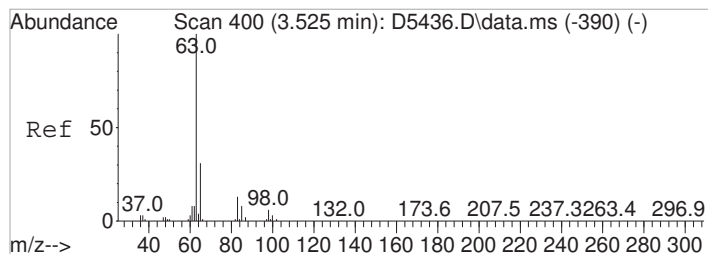
Tgt Ion: 45 Resp: 7400
 Ion Ratio Lower Upper
 45 100
 43 24.5 0.8 40.8



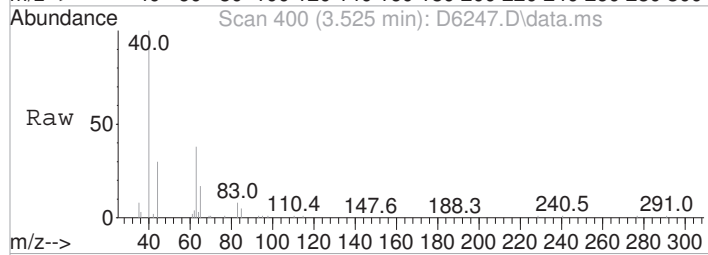
#23
 TBA
 Concen: 15.54 ug/L
 RT: 2.879 min Scan# 294
 Delta R.T. 0.006 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

Tgt Ion: 59 Resp: 5052
 Ion Ratio Lower Upper
 59 100
 41 9.7 4.8 44.8

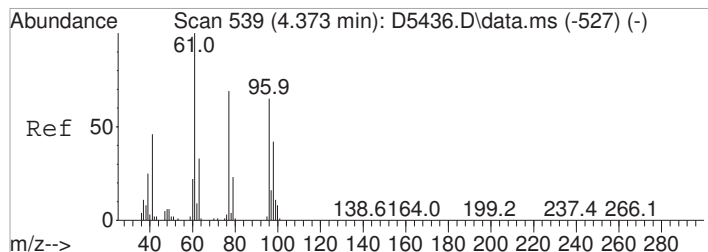
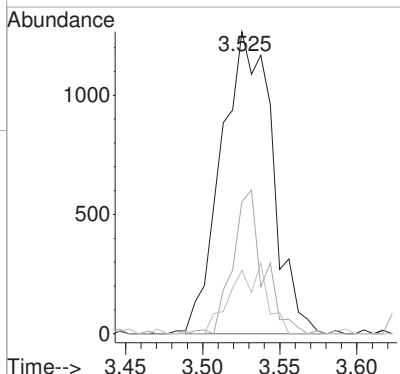
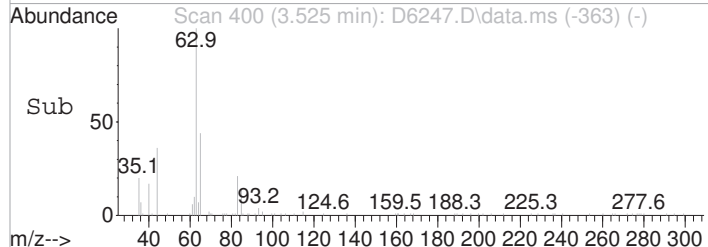




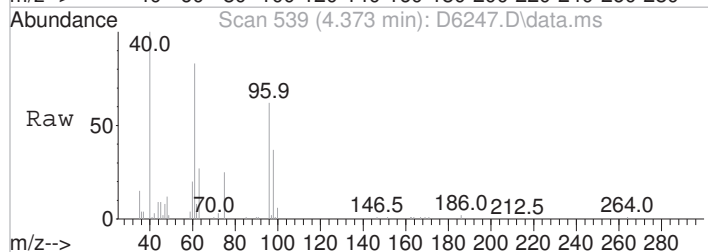
#27
 1,1-Dicloroethane
 Concen: 0.79 ug/L
 RT: 3.525 min Scan# 400
 Delta R.T. 0.000 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm



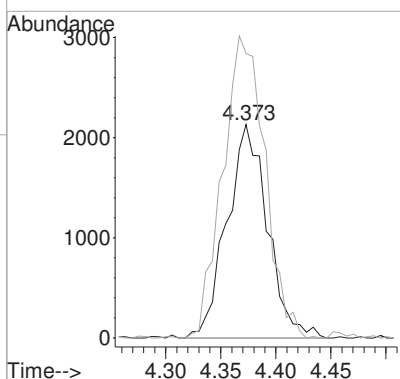
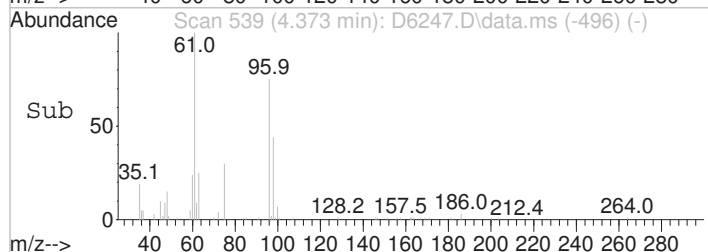
Tgt Ion: 63 Resp: 2899
 Ion Ratio Lower Upper
 63 100
 65 43.7 11.4 51.4
 83 21.0 0.0 32.6

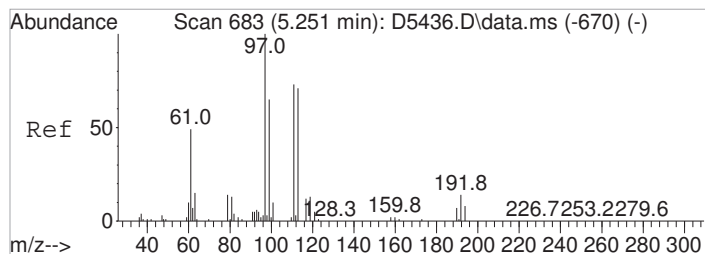


#33
 cis-1,2-Dichloroethene
 Concen: 2.60 ug/L
 RT: 4.373 min Scan# 539
 Delta R.T. 0.000 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm



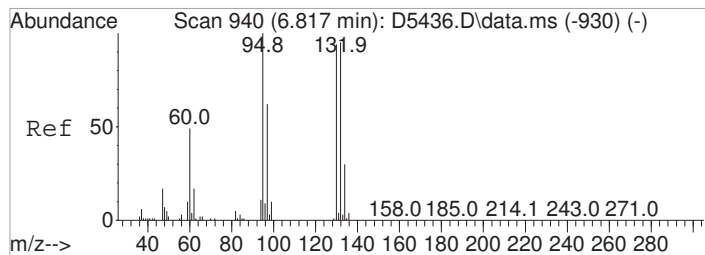
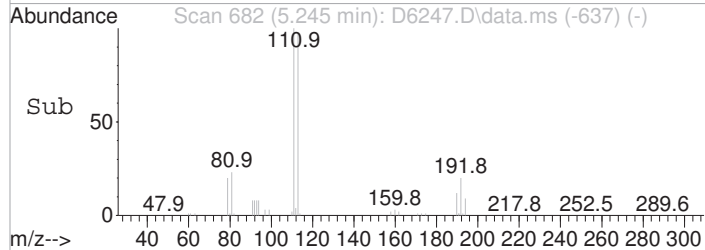
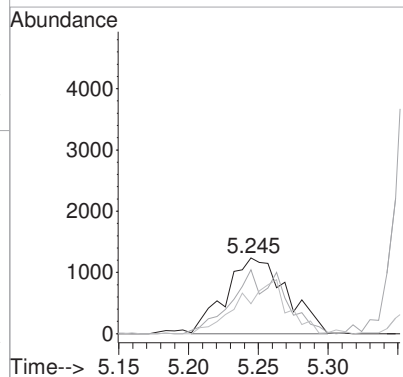
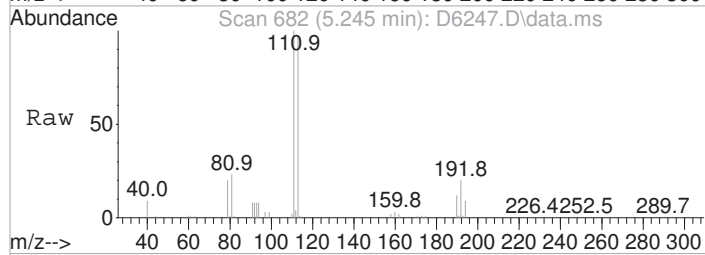
Tgt Ion: 96 Resp: 5456
 Ion Ratio Lower Upper
 96 100
 61 133.3 134.7 174.7#





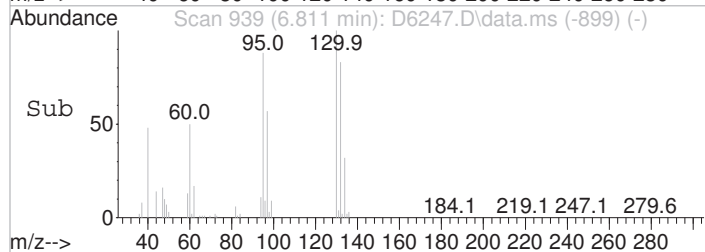
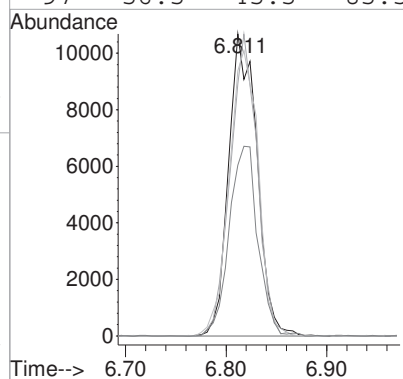
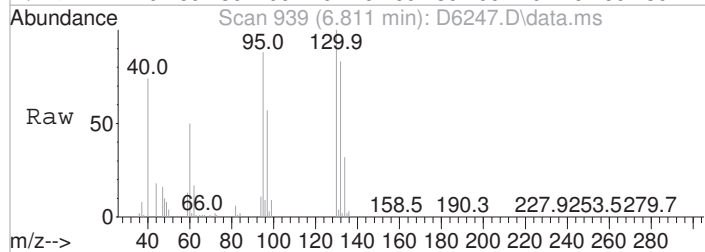
#40
 1,1,1-Trichloroethane
 Concen: 1.32 ug/L m
 RT: 5.245 min Scan# 682
 Delta R.T. -0.006 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

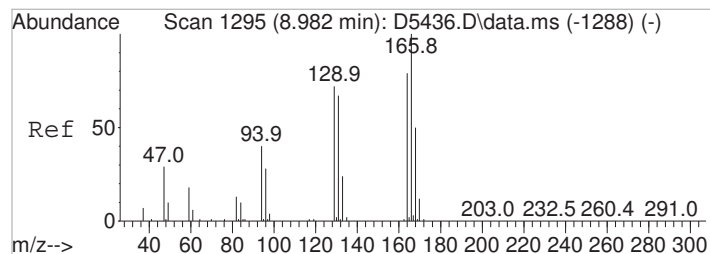
Tgt Ion	Resp	Lower	Upper
97	100		
99	84.6	45.0	85.0
61	39.7	29.1	69.1



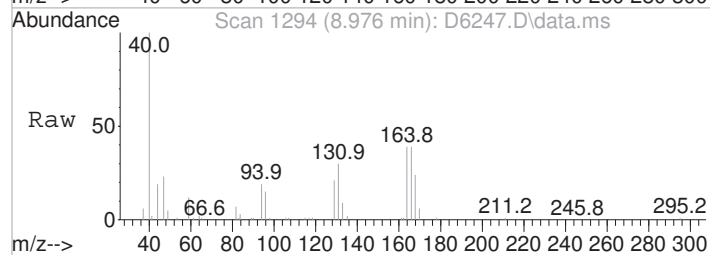
#53
 Trichloroethene
 Concen: 10.01 ug/L
 RT: 6.811 min Scan# 939
 Delta R.T. -0.006 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm

Tgt Ion	Resp	Lower	Upper
130	100		
132	85.8	80.7	120.7
95	87.8	86.1	126.1
97	56.5	45.5	85.5

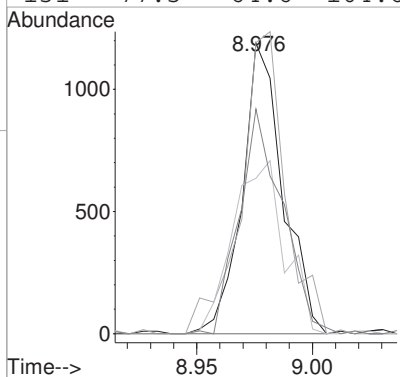
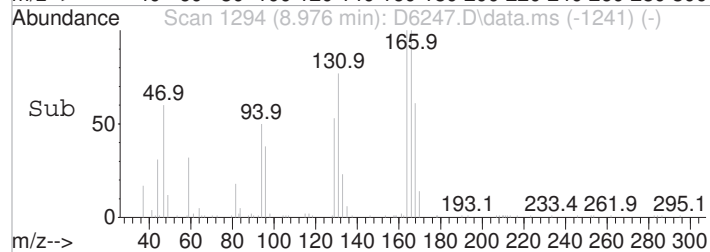




#71
 Tetrachloroethene
 Concen: 0.87 ug/L
 RT: 8.976 min Scan# 1294
 Delta R.T. -0.006 min
 Lab File: D6247.D
 Acq: 28 Sep 2018 12:18 pm



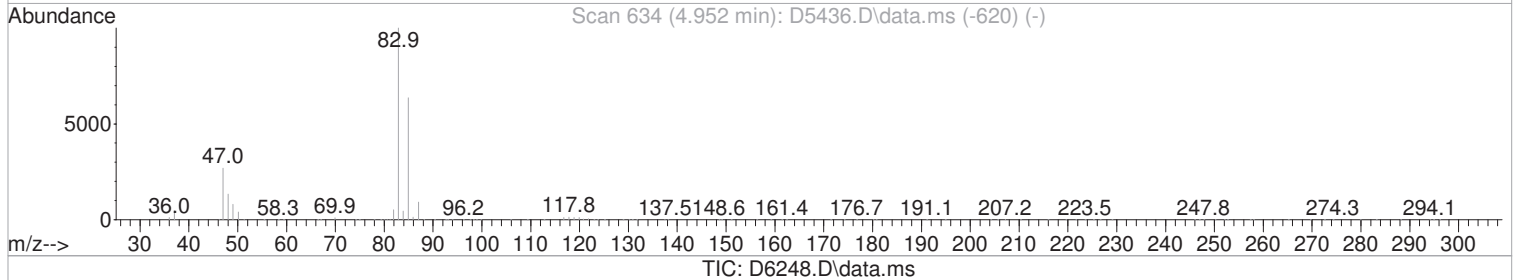
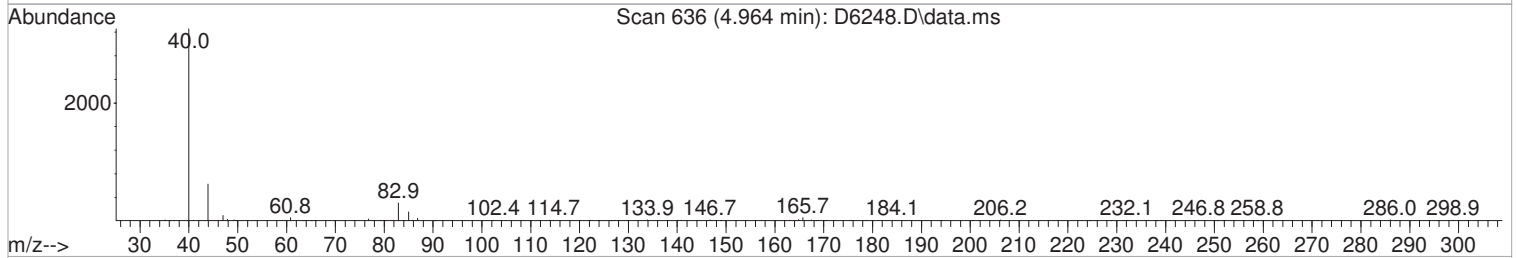
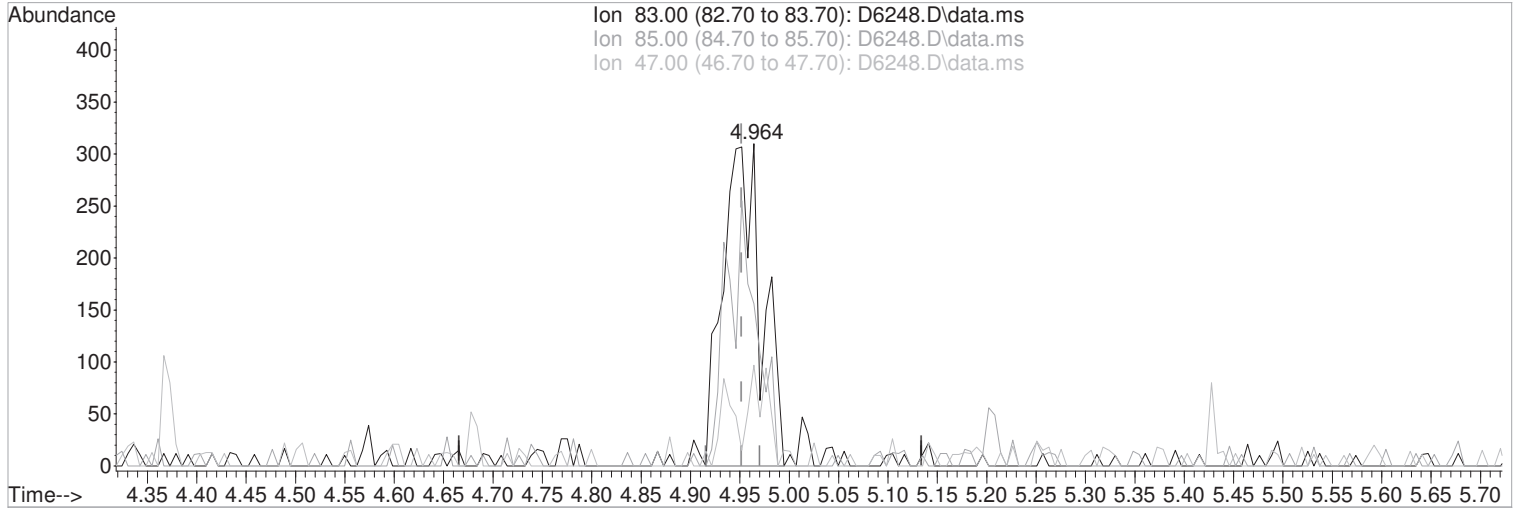
Tgt Ion	Ratio	Resp	Lower	Upper
164	100			
166	100.2	106.8	146.8#	
129	53.5	71.9	111.9#	
131	77.3	64.6	104.6	



Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6248.D
Acq On : 28 Sep 2018 12:40 pm
Operator : D.LIPANI
Sample : R1809120-003|1.0
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 12:54:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(39) Chloroform (P)

Manual Integration:

4.964min (+0.012) 0.25 ug/L m

After

response 842

Poor integration.

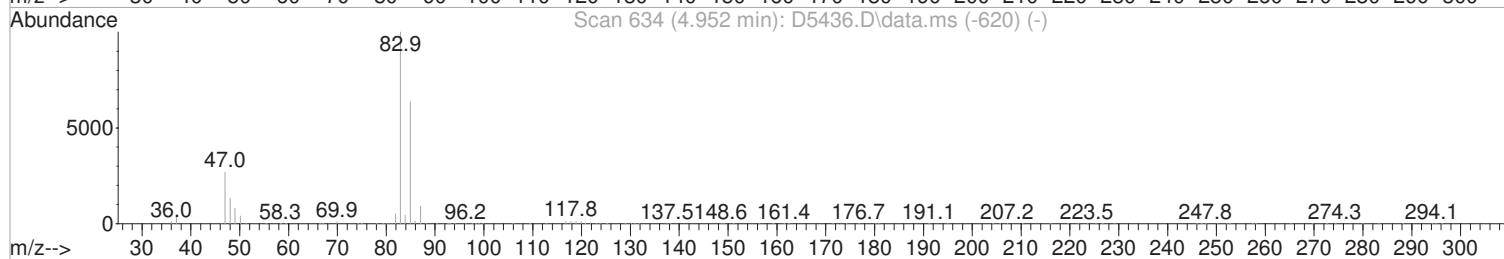
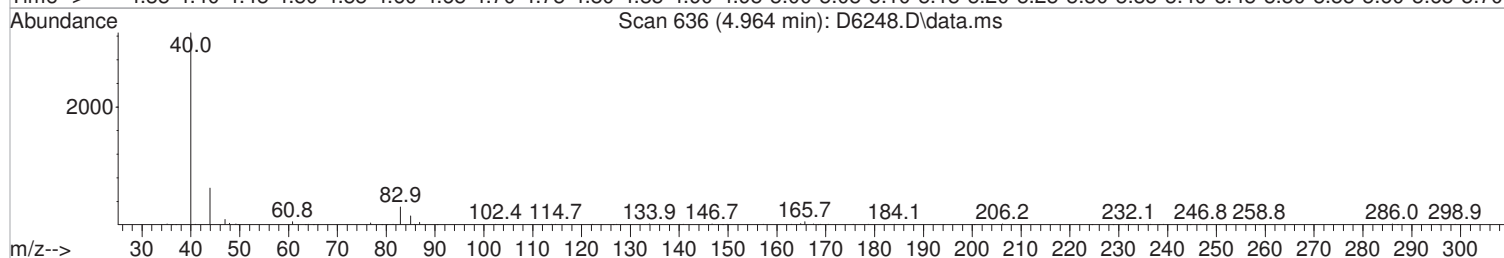
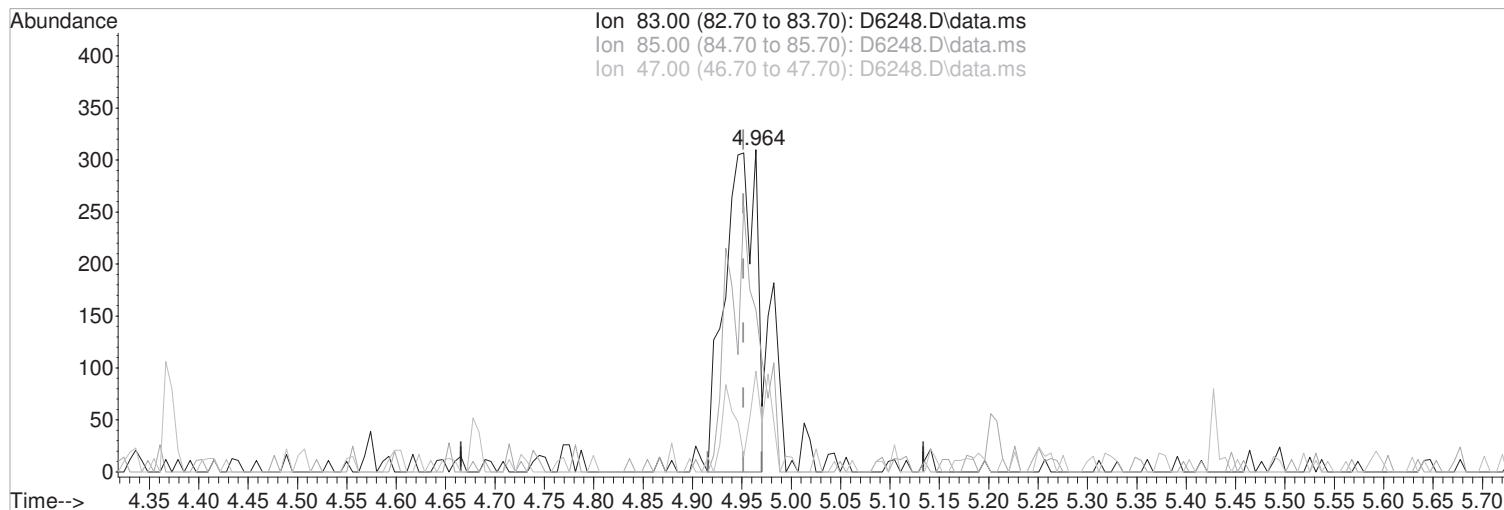
Ion	Exp%	Act%
83.00	100	100
85.00	63.70	50.32
47.00	26.90	31.29
0.00	0.00	0.00

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6248.D
Acq On : 28 Sep 2018 12:40 pm
Operator : D.LIPANI
Sample : R1809120-003|1.0
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 12:54:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6248.D\data.ms

(39) Chloroform (P)

Manual Integration:

4.964min (+0.012) 0.20 ug/L

Before

response 688

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	50.32
47.00	26.90	31.29
0.00	0.00	0.00

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6248.D
 Acq On : 28 Sep 2018 12:40 pm
 Operator : D.LIPANI
 Sample : R1809120-003|1.0
 Misc : Verina 6646 T4
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 15:08:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

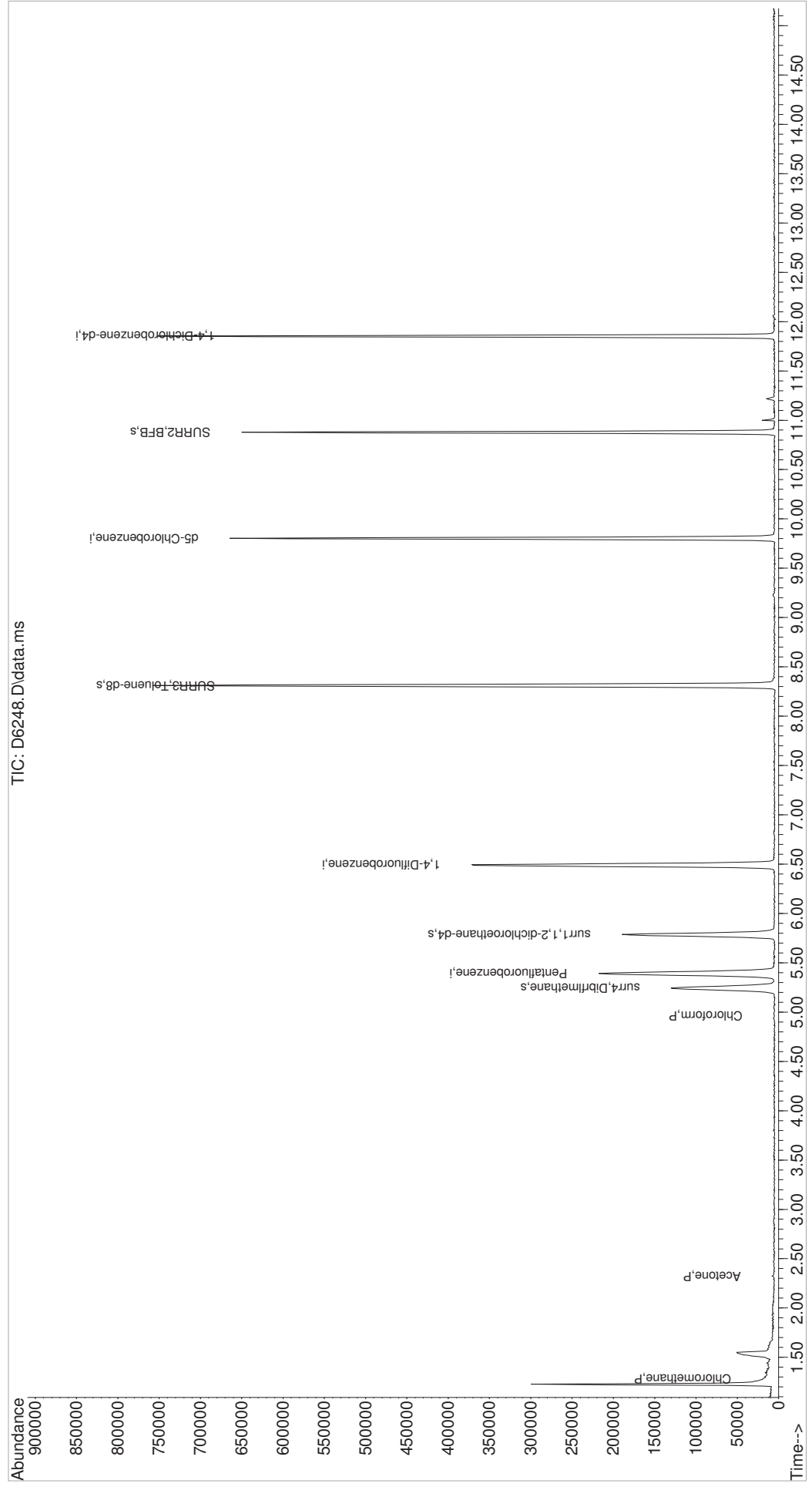
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

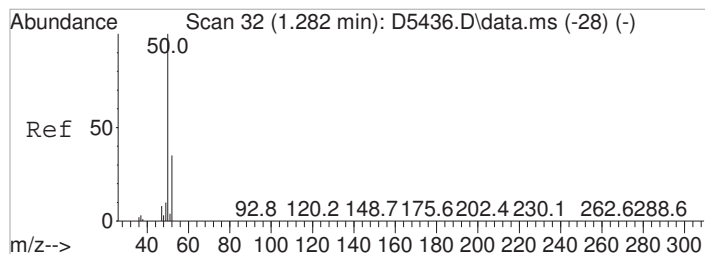
Internal Standards						
1) Pentafluorobenzene	5.391	168	190419	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	297921	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	263979	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132150	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	100985	50.30	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	100.60%
46) surr1,1,2-dichloroetha...	5.787	65	149451	56.60	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	113.20%
64) SURR3,Toluene-d8	8.311	98	421427	51.77	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	103.54%
69) SURR2,BFB	10.878	95	148646	47.52	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	95.04%
Target Compounds						
3) Chloromethane	1.282	50	642	0.23	ug/L	Qvalue 84
5) Bromomethane	1.599	94	684	Below Cal	#	27
15) Acetone	2.325	43	1988	1.77	ug/L	74
39) Chloroform	4.964	83	842m	0.25	ug/L	

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

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6248.D
 Acq On : 28 Sep 2018 12:40 pm
 Operator : D.LIPANI
 Sample : R1809120-003|1.0
 Misc : Verina 6646 T4
 ALS Vial : 9 Sample Multiplier: 1
 Inst : MSVOA10

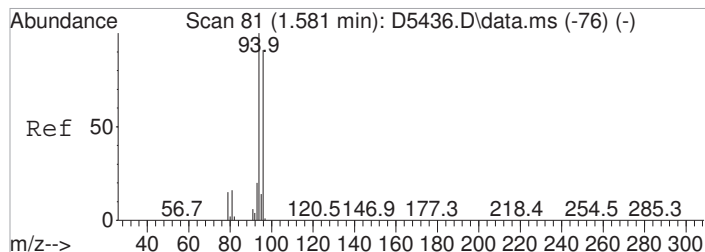
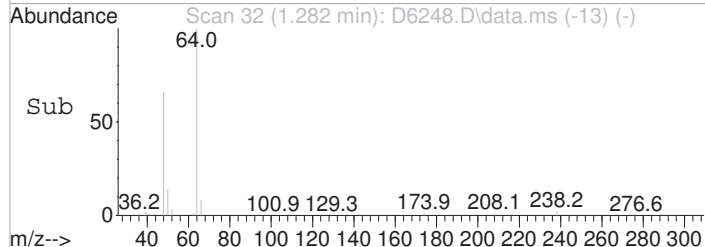
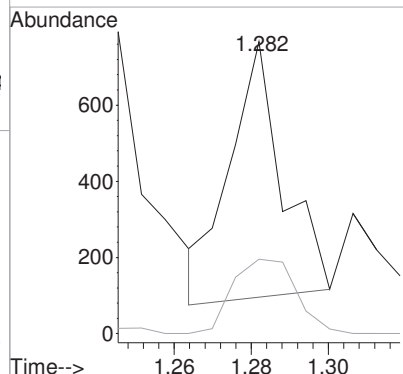
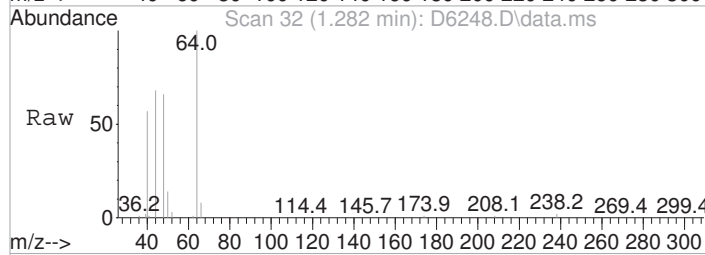
Quant Time: Oct 01 15:08:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration





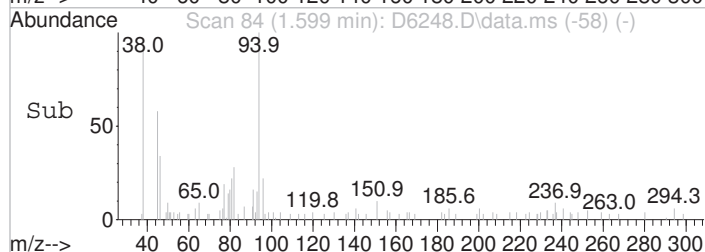
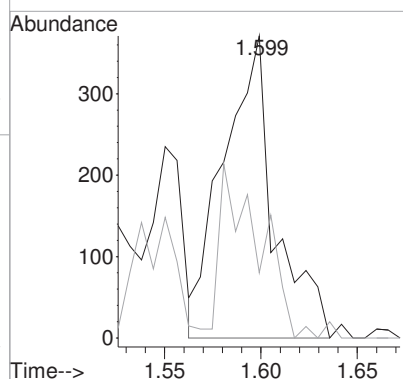
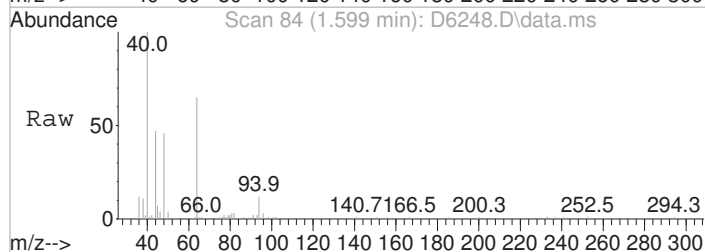
#3
 Chloromethane
 Concen: 0.23 ug/L
 RT: 1.282 min Scan# 32
 Delta R.T. 0.000 min
 Lab File: D6248.D
 Acq: 28 Sep 2018 12:40 pm

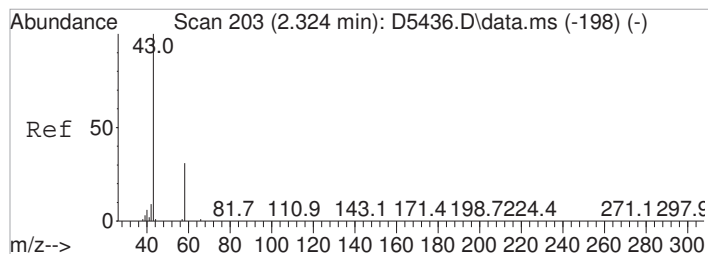
Tgt Ion: 50 Resp: 642
 Ion Ratio Lower Upper
 50 100
 52 25.4 15.0 55.0



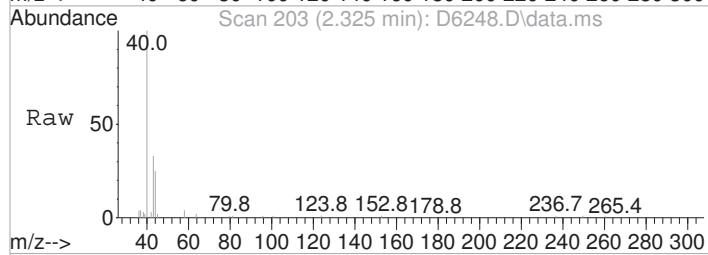
#5
 Bromomethane
 Concen: Below Cal
 RT: 1.599 min Scan# 84
 Delta R.T. 0.018 min
 Lab File: D6248.D
 Acq: 28 Sep 2018 12:40 pm

Tgt Ion: 94 Resp: 684
 Ion Ratio Lower Upper
 94 100
 96 21.6 71.1 111.1#

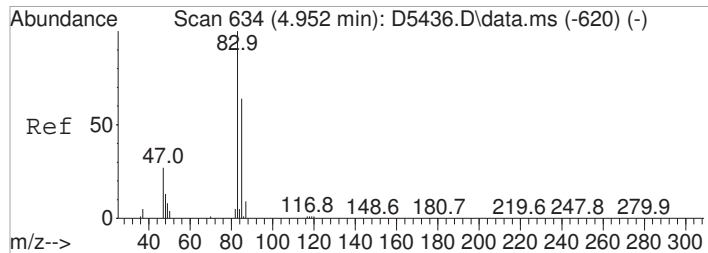
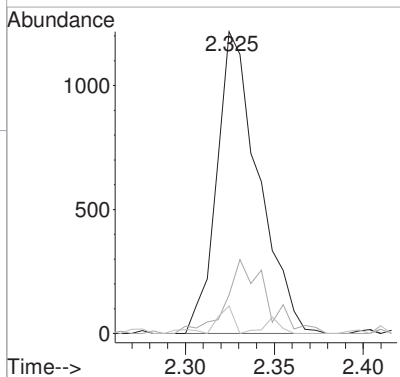
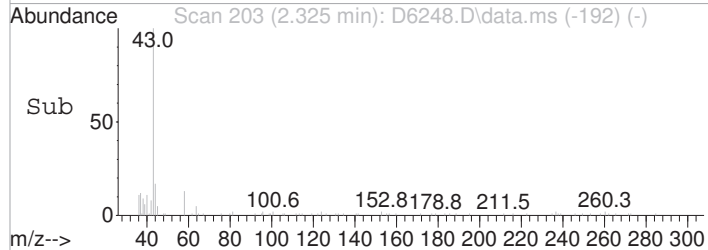




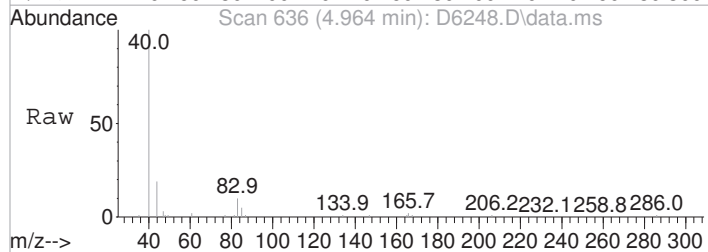
#15
 Acetone
 Concen: 1.77 ug/L
 RT: 2.325 min Scan# 203
 Delta R.T. -0.006 min
 Lab File: D6248.D
 Acq: 28 Sep 2018 12:40 pm



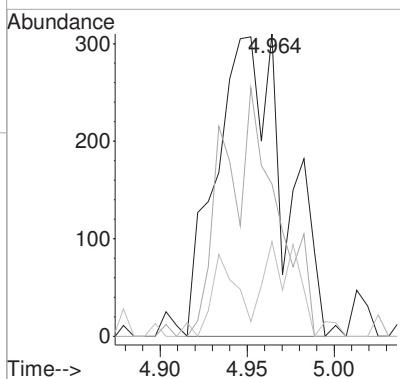
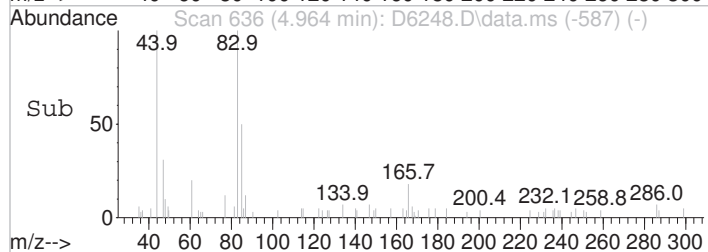
Tgt Ion: 43 Resp: 1988
 Ion Ratio Lower Upper
 43 100
 58 12.9 11.2 51.2
 42 9.1 0.0 28.6



#39
 Chloroform
 Concen: 0.25 ug/L m
 RT: 4.964 min Scan# 636
 Delta R.T. 0.012 min
 Lab File: D6248.D
 Acq: 28 Sep 2018 12:40 pm



Tgt Ion: 83 Resp: 842
 Ion Ratio Lower Upper
 83 100
 85 50.3 43.7 83.7
 47 31.3 6.9 46.9



Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6249.D
 Acq On : 28 Sep 2018 1:01 pm
 Operator : D.LIPANI
 Sample : R1809120-004|1.0
 Misc : Verina 6646 T4
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 15:26:03 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

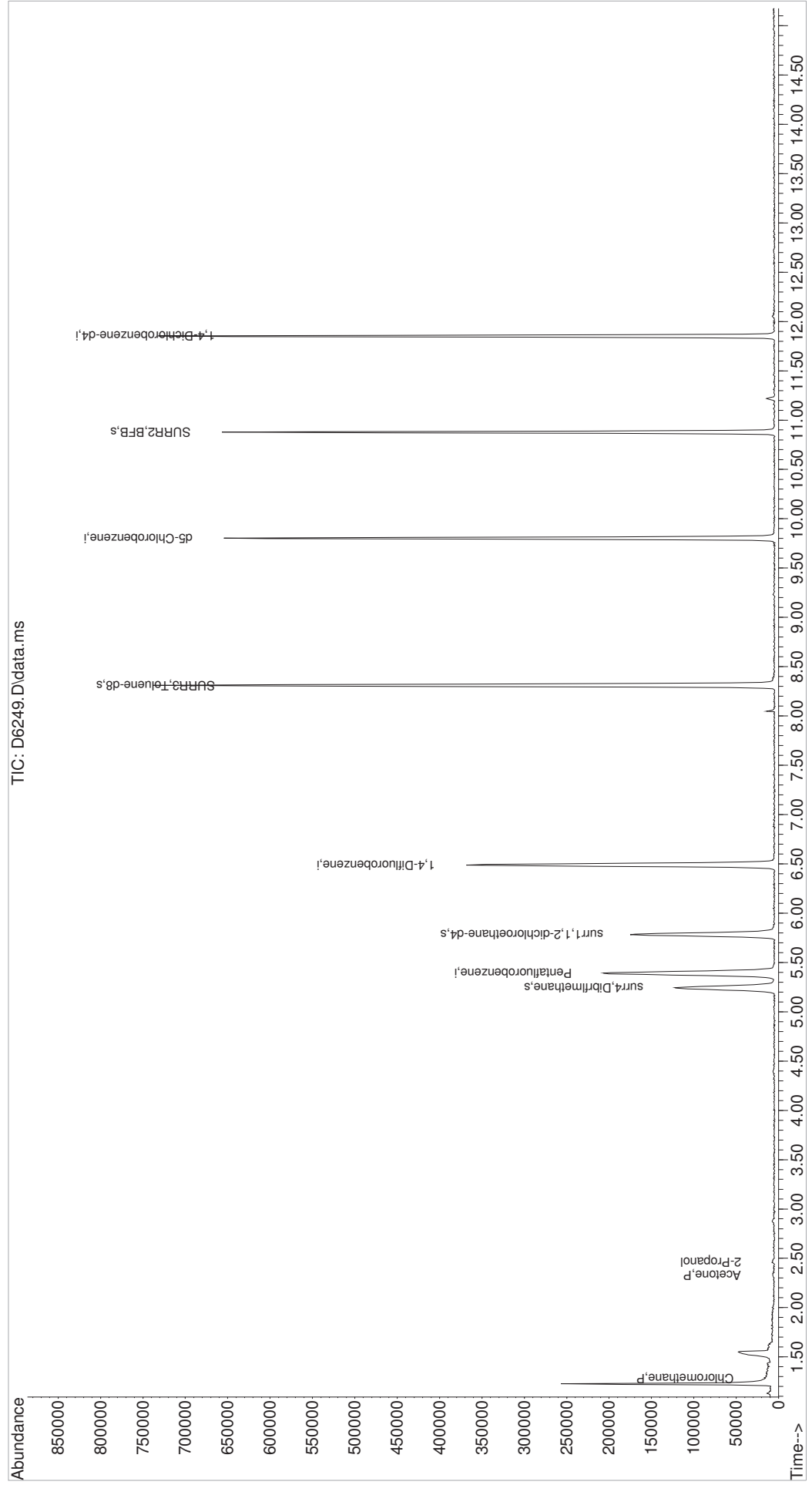
Internal Standards						
1) Pentafluorobenzene	5.391	168	184974	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	292035	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	257763	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	130009	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	98387	49.99	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	99.98%
46) surr1,1,2-dichloroetha...	5.787	65	145523	56.23	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	112.46%
64) SURR3,Toluene-d8	8.311	98	407661	51.09	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	102.18%
69) SURR2,BFB	10.878	95	144904	47.25	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	94.50%
Target Compounds						
3) Chloromethane	1.282	50	584	0.22	ug/L	72
15) Acetone	2.331	43	2079	1.91	ug/L	81
16) 2-Propanol	2.465	45	2342	11.13	ug/L	93

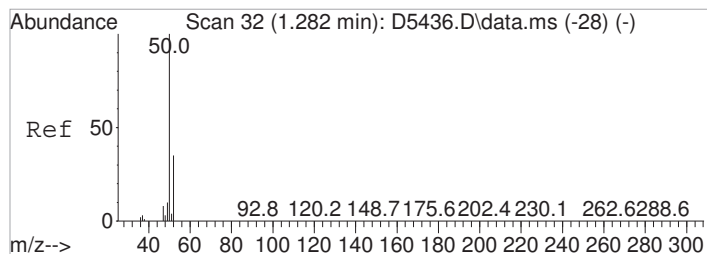
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6249.D
 Acq On : 28 Sep 2018 1:01 pm
 Operator : D.LIPANI
 Sample : R1809120-004|1.0
 Misc : Verina 6646 T4
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

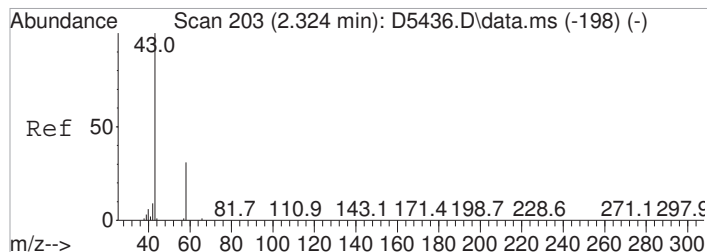
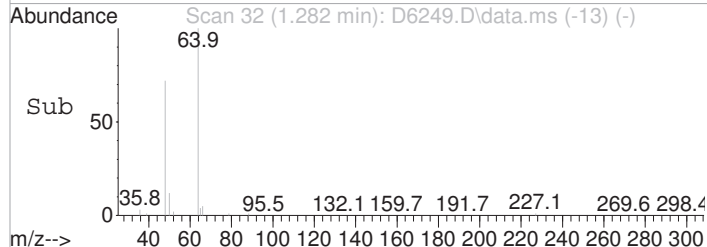
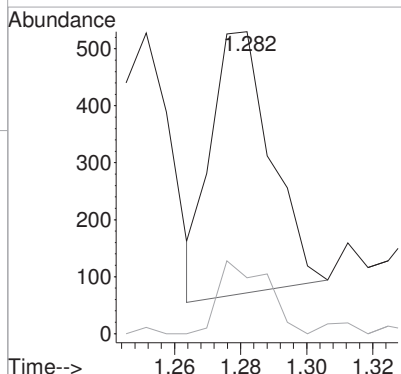
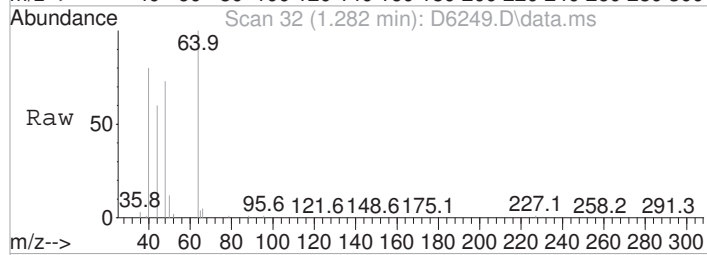
Quant Time: Oct 01 15:26:03 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration





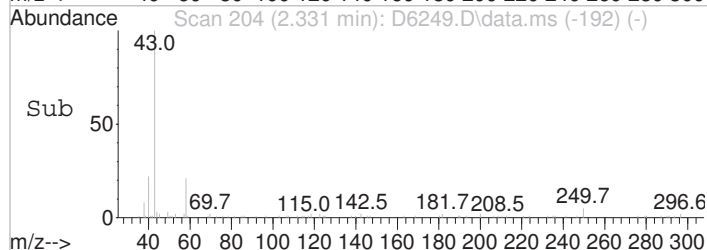
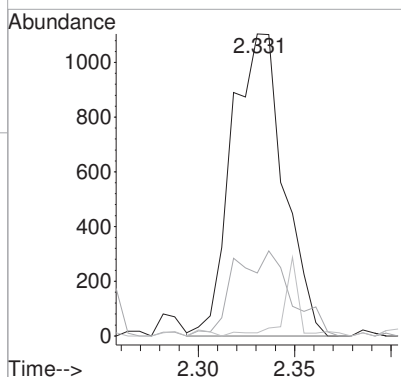
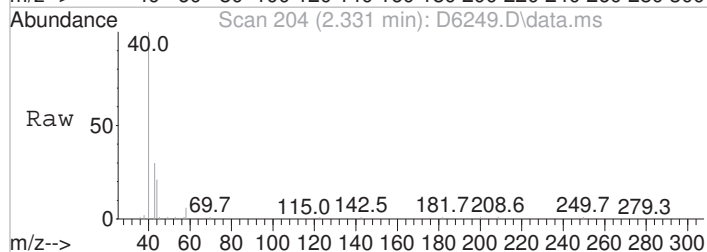
#3
 Chloromethane
 Concen: 0.22 ug/L
 RT: 1.282 min Scan# 32
 Delta R.T. 0.000 min
 Lab File: D6249.D
 Acq: 28 Sep 2018 1:01 pm

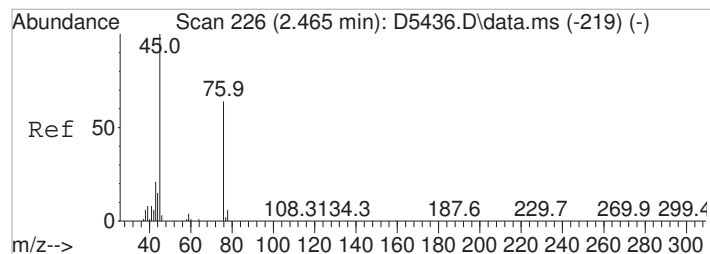
Tgt Ion: 50 Resp: 584
 Ion Ratio Lower Upper
 50 100
 52 18.5 15.0 55.0



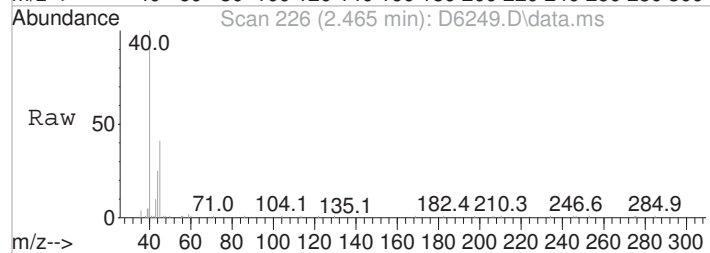
#15
 Acetone
 Concen: 1.91 ug/L
 RT: 2.331 min Scan# 204
 Delta R.T. 0.000 min
 Lab File: D6249.D
 Acq: 28 Sep 2018 1:01 pm

Tgt Ion: 43 Resp: 2079
 Ion Ratio Lower Upper
 43 100
 58 20.8 11.2 51.2
 42 1.1 0.0 28.6

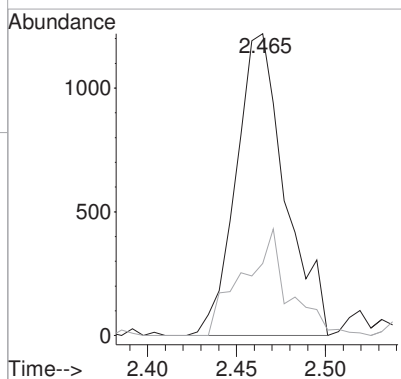
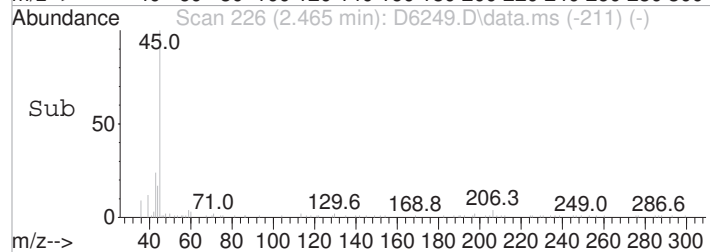




#16
 2-Propanol
 Concen: 11.13 ug/L
 RT: 2.465 min Scan# 226
 Delta R.T. -0.018 min
 Lab File: D6249.D
 Acq: 28 Sep 2018 1:01 pm



Tgt Ion: 45 Resp: 2342
 Ion Ratio Lower Upper
 45 100
 43 23.9 0.8 40.8



Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6250.D
 Acq On : 28 Sep 2018 1:23 pm
 Operator : D.LIPANI
 Sample : R1809120-007|1.0
 Misc : Verina 6646 T4
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 15:30:19 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

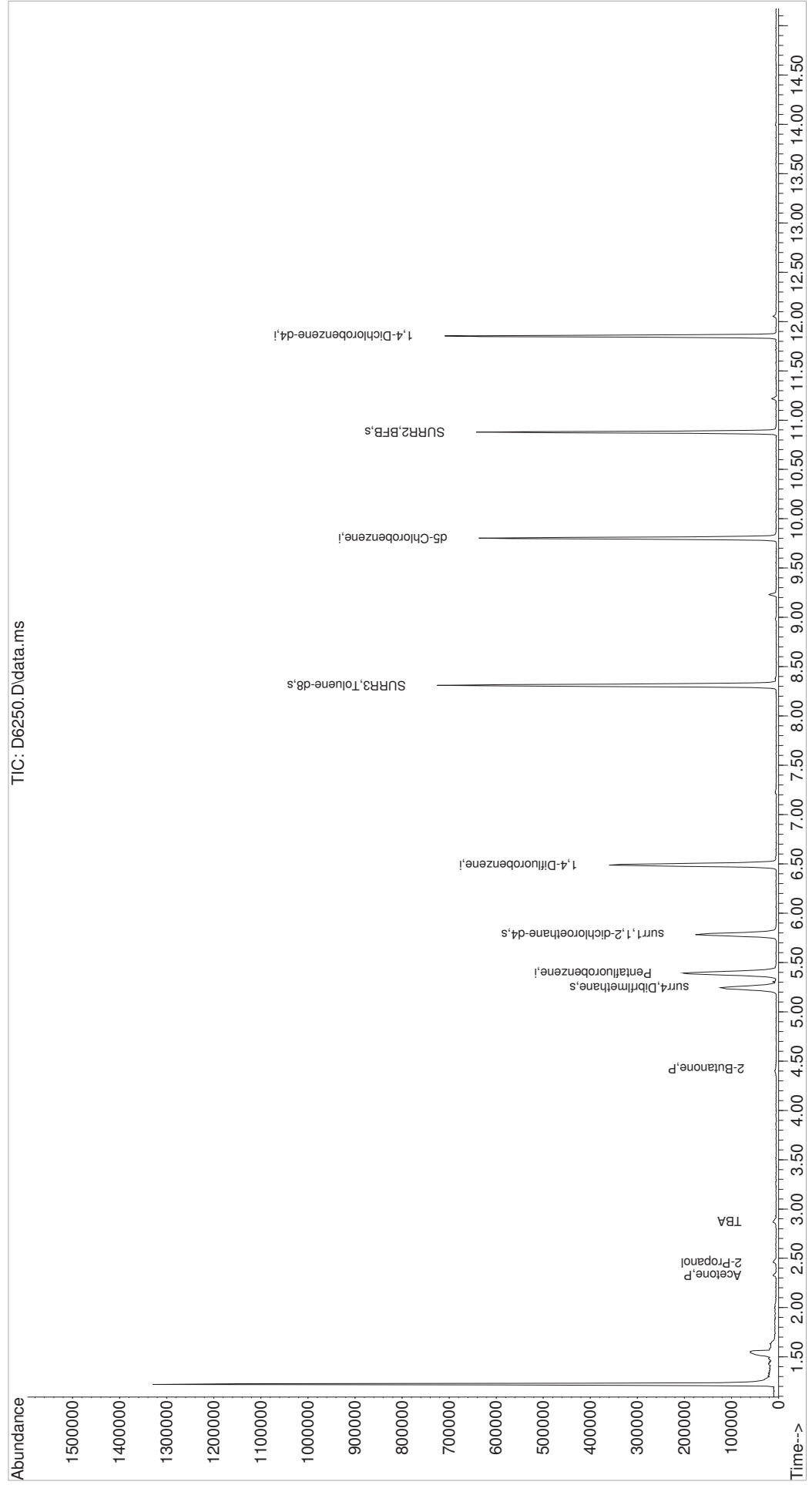
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

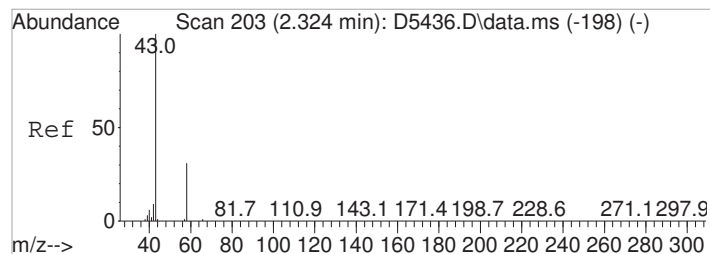
Internal Standards						
1) Pentafluorobenzene	5.391	168	177736	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	280932	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	248941	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	131180	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	95581	50.49	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	100.98%
46) surr1,1,2-dichloroetha...	5.781	65	141569	56.86	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	113.72%
64) SURR3,Toluene-d8	8.311	98	394936	51.45	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	102.90%
69) SURR2,BFB	10.878	95	142462	48.29	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	96.58%
Target Compounds						
15) Acetone	2.330	43	6097	5.83	ug/L	95
16) 2-Propanol	2.458	45	7443	36.82	ug/L	96
23) TBA	2.879	59	4048	13.37	ug/L	64
34) 2-Butanone	4.428	43	1570	1.11	ug/L	80

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

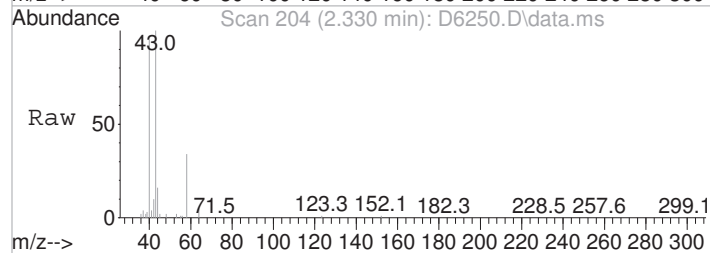
Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6250.D
 Acq On : 28 Sep 2018 1:23 pm
 Operator : D.LIPANI
 Sample : R1809120-007|1.0
 Misc : Verina 6646 T4
 ALS Vial : 11 Sample Multiplier: 1
 Inst : MSVOA10

Quant Time: Oct 01 15:30:19 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

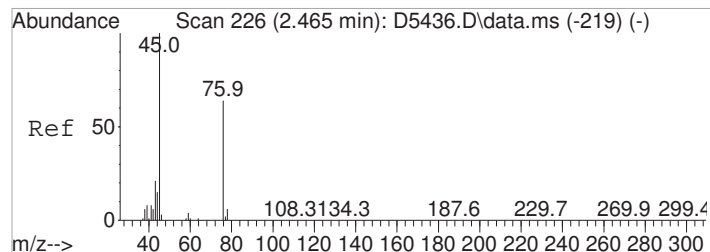
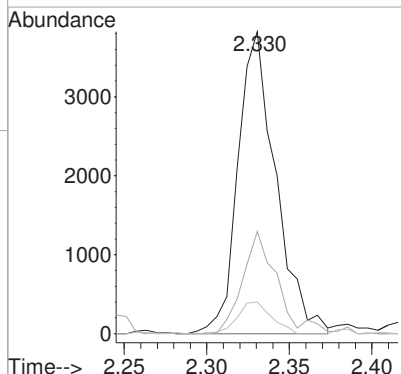
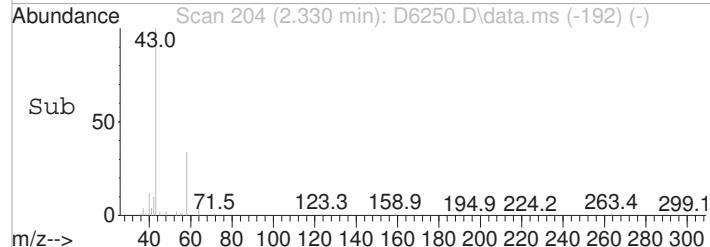




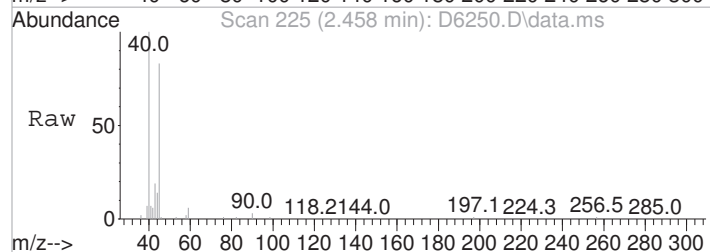
#15
 Acetone
 Concen: 5.83 ug/L
 RT: 2.330 min Scan# 204
 Delta R.T. -0.000 min
 Lab File: D6250.D
 Acq: 28 Sep 2018 1:23 pm



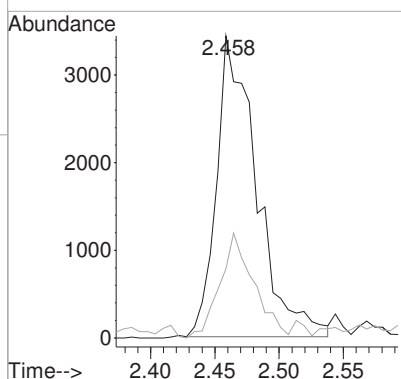
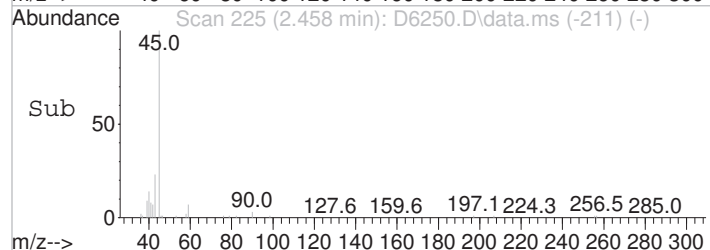
Tgt Ion: 43 Resp: 6097
 Ion Ratio Lower Upper
 43 100
 58 33.9 11.2 51.2
 42 10.5 0.0 28.6

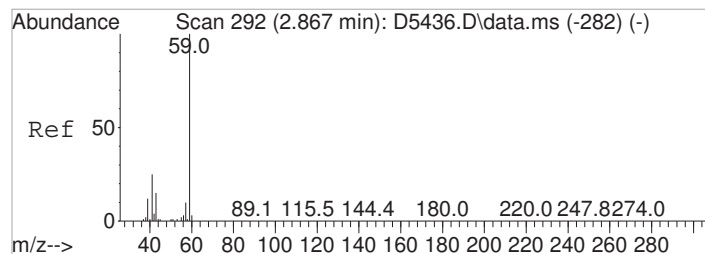


#16
 2-Propanol
 Concen: 36.82 ug/L
 RT: 2.458 min Scan# 225
 Delta R.T. -0.024 min
 Lab File: D6250.D
 Acq: 28 Sep 2018 1:23 pm



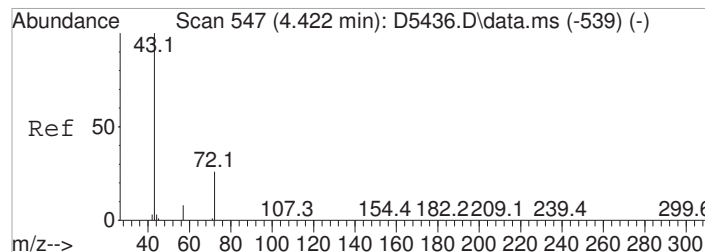
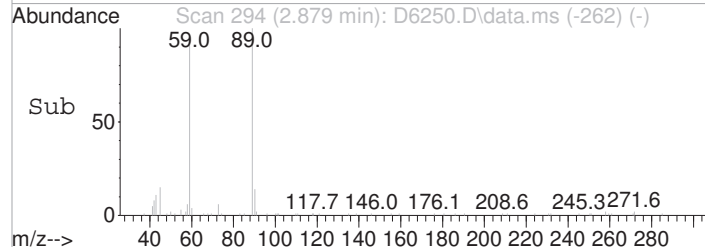
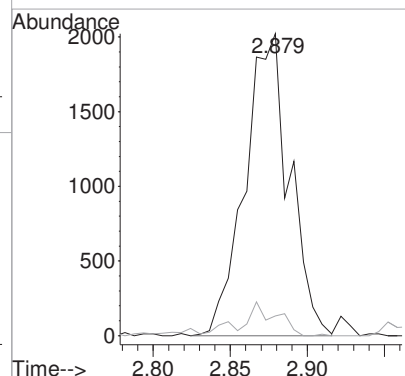
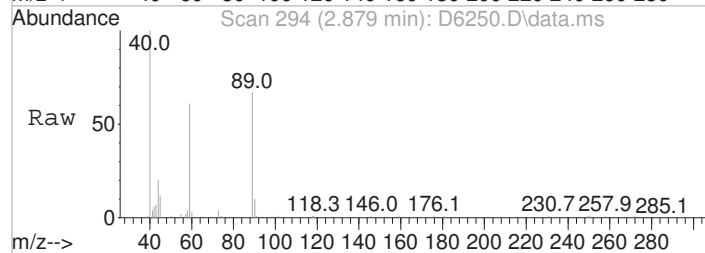
Tgt Ion: 45 Resp: 7443
 Ion Ratio Lower Upper
 45 100
 43 22.9 0.8 40.8





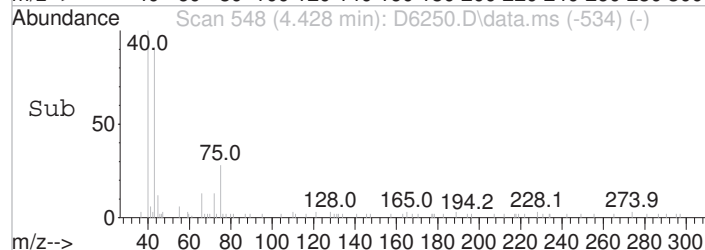
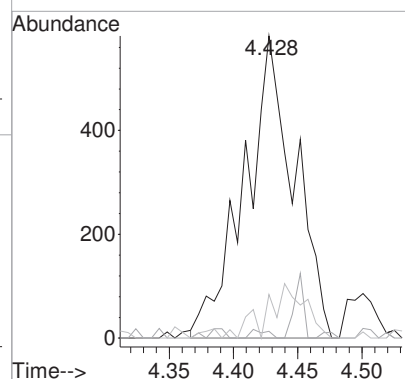
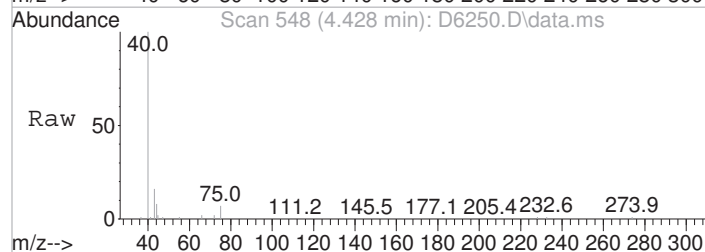
#23
 TBA
 Concen: 13.37 ug/L
 RT: 2.879 min Scan# 294
 Delta R.T. 0.006 min
 Lab File: D6250.D
 Acq: 28 Sep 2018 1:23 pm

Tgt Ion: 59 Resp: 4048
 Ion Ratio Lower Upper
 59 100
 41 6.6 4.8 44.8



#34
 2-Butanone
 Concen: 1.11 ug/L
 RT: 4.428 min Scan# 548
 Delta R.T. 0.012 min
 Lab File: D6250.D
 Acq: 28 Sep 2018 1:23 pm

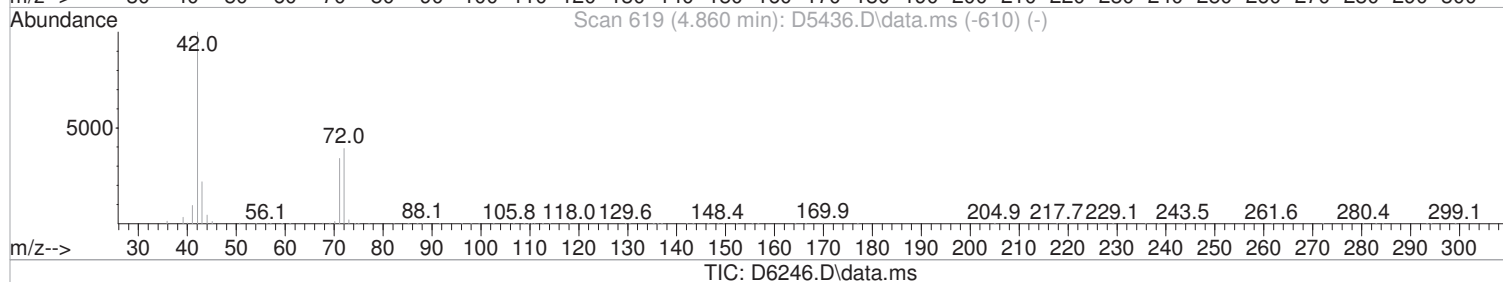
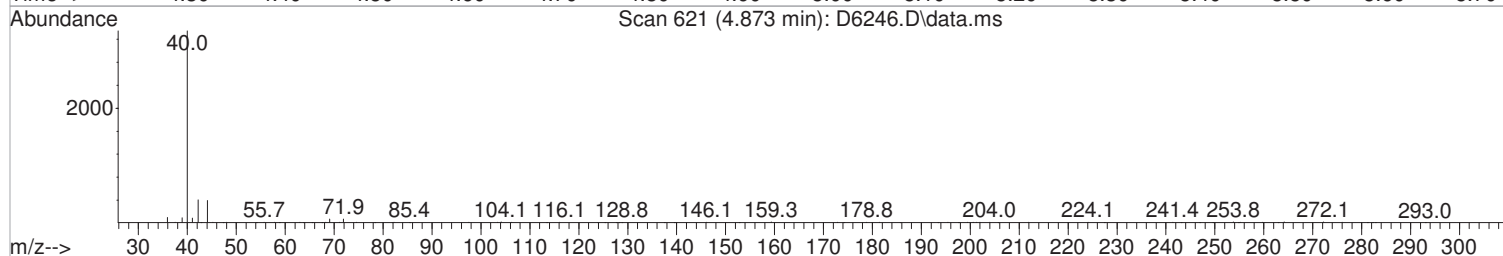
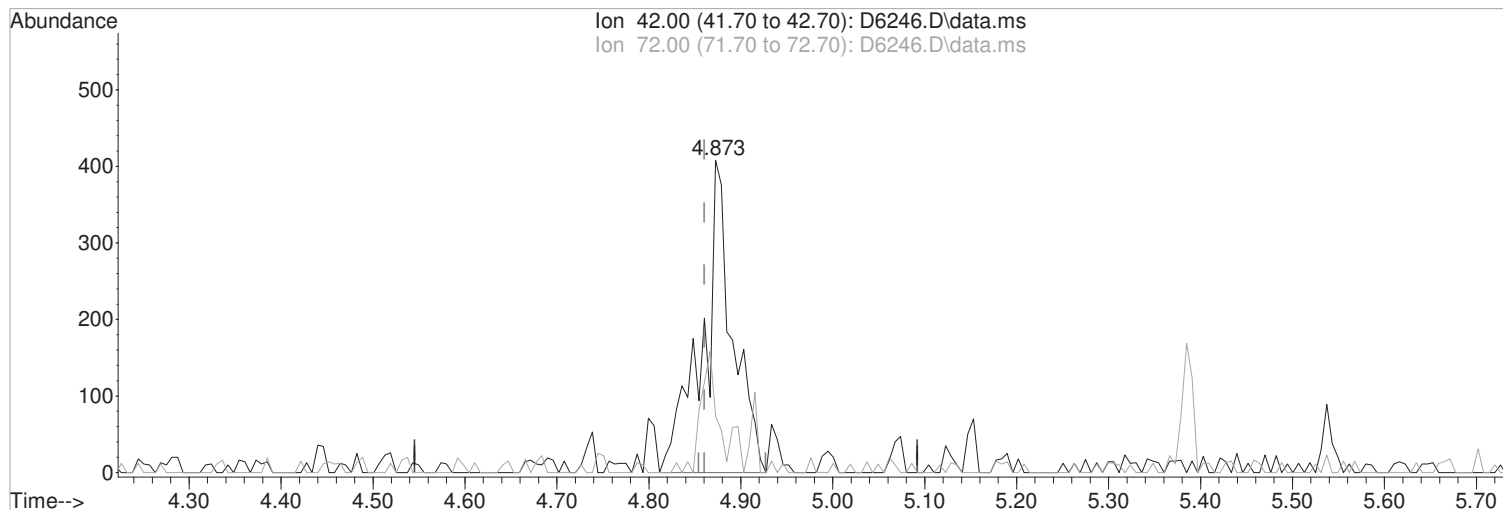
Tgt Ion: 43 Resp: 1570
 Ion Ratio Lower Upper
 43 100
 57 2.2 0.0 27.8
 72 14.4 5.1 45.1



Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6246.D
Acq On : 28 Sep 2018 11:56 am
Operator : D.LIPANI
Sample : R1809120-011|1.0
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 12:11:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6246.D\data.ms

(38) Tetrahydrofuran

4.873min (+0.012) 0.98 ug/L m

response 927

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	18.14#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

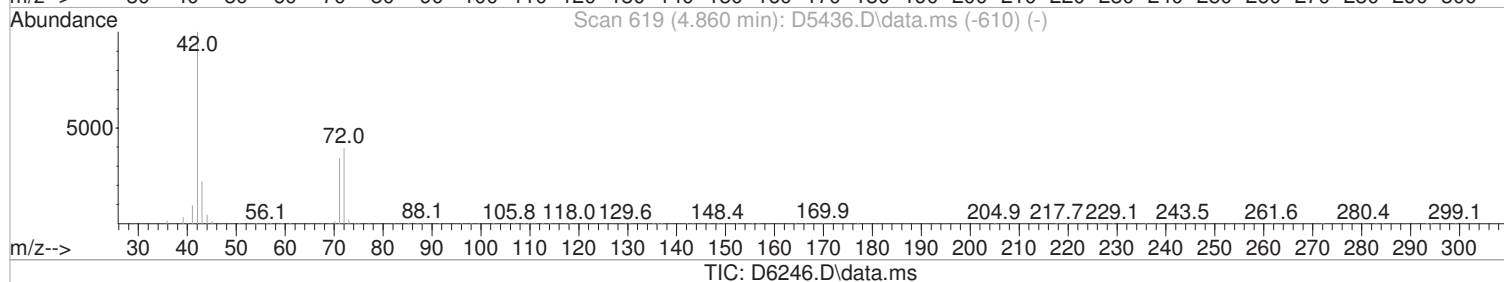
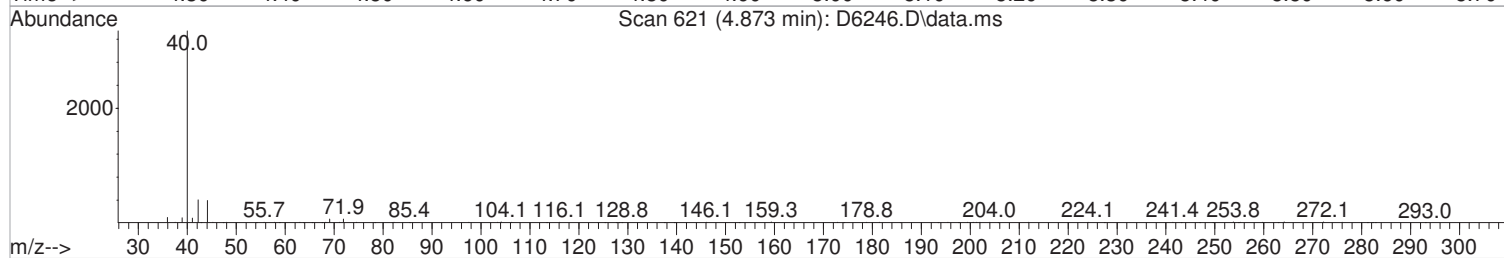
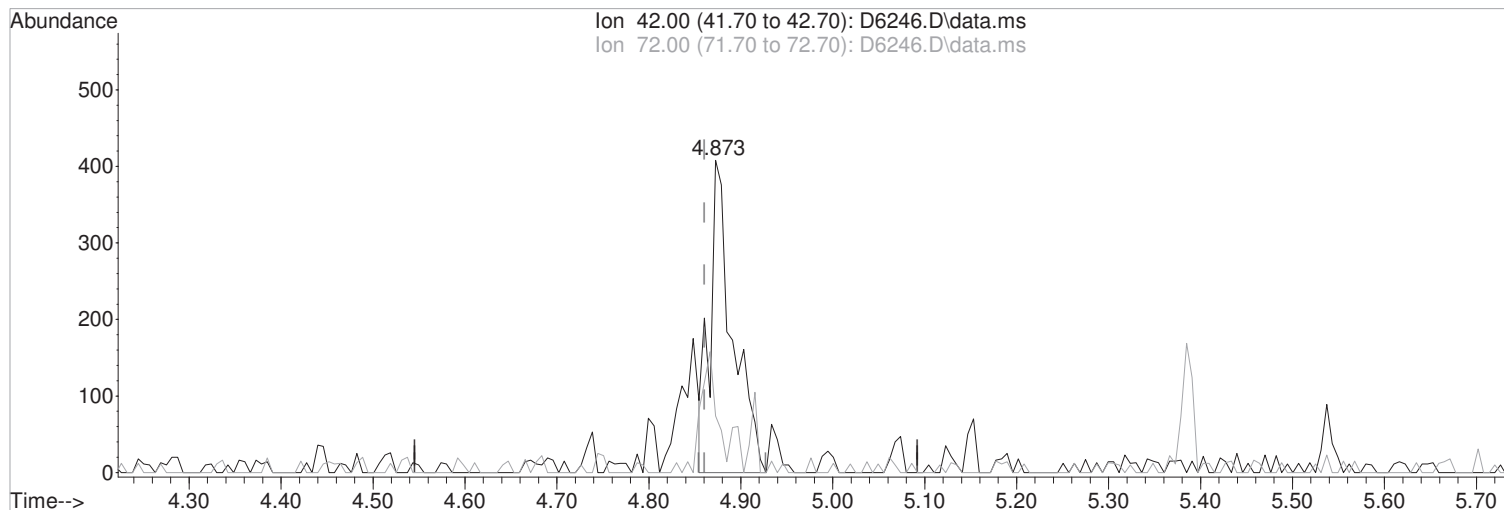
Poor integration.

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6246.D
Acq On : 28 Sep 2018 11:56 am
Operator : D.LIPANI
Sample : R1809120-011|1.0
Misc : Verina 6646 T4
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 12:11:03 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6246.D\data.ms

(38) Tetrahydrofuran

Manual Integration:

4.873min (+0.012) 0.74 ug/L

Before

response 699

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	18.14#
0.00	0.00	0.00
0.00	0.00	0.00

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6246.D
 Acq On : 28 Sep 2018 11:56 am
 Operator : D.LIPANI
 Sample : R1809120-011|1.0
 Misc : Verina 6646 T4
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 14:58:02 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

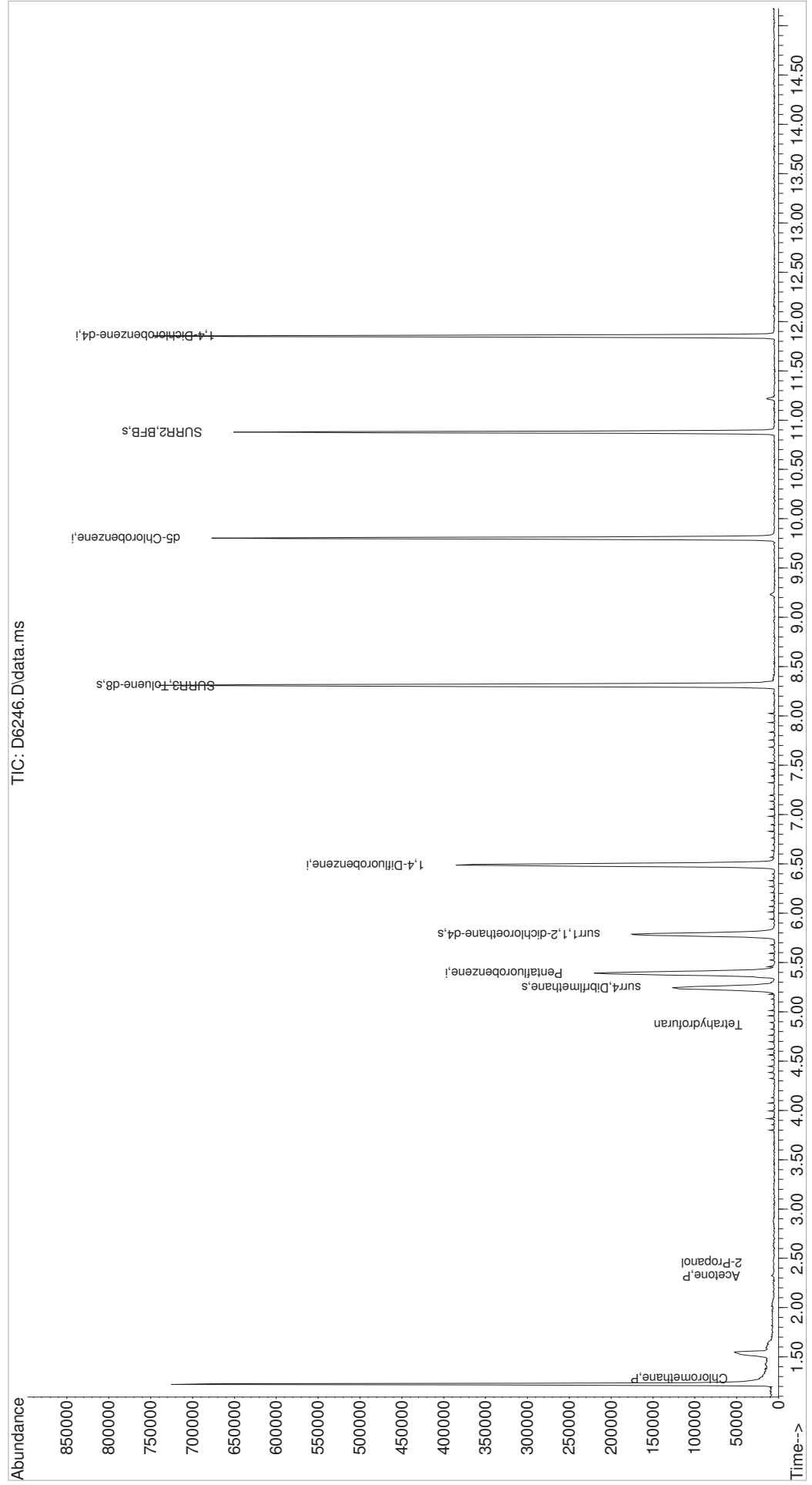
Internal Standards						
1) Pentafluorobenzene	5.391	168	192548	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	304410	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	262112	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	131866	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	101368	49.41	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	98.82%
46) surr1,1,2-dichloroetha...	5.787	65	147442	54.65	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	109.30%
64) SURR3,Toluene-d8	8.311	98	408714	49.14	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	98.28%
69) SURR2,BFB	10.878	95	147074	46.01	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	92.02%
Target Compounds						
3) Chloromethane	1.282	50	600	0.21	ug/L	Qvalue # 52
5) Bromomethane	1.593	94	315	Below	Cal	95
15) Acetone	2.324	43	2619	2.31	ug/L	80
16) 2-Propanol	2.458	45	1348	6.15	ug/L	83
38) Tetrahydrofuran	4.873	42	927m	0.98	ug/L	

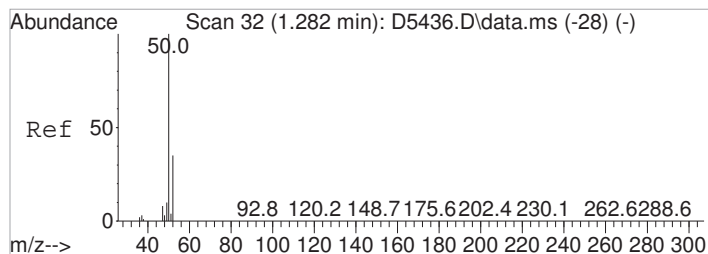
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6246.D
 Acq On : 28 Sep 2018 11:56 am
 Operator : D.LIPANI
 Sample : R1809120-011|1.0
 Misc : Verina 6646 T4
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA10

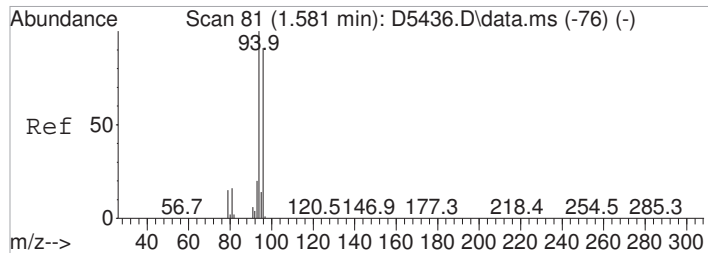
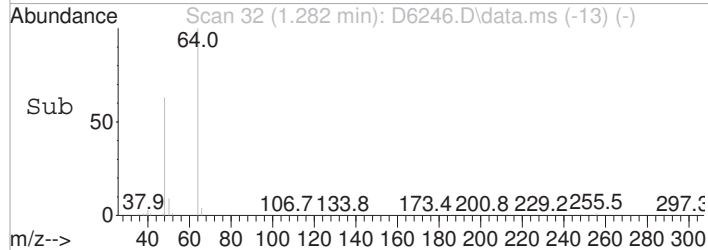
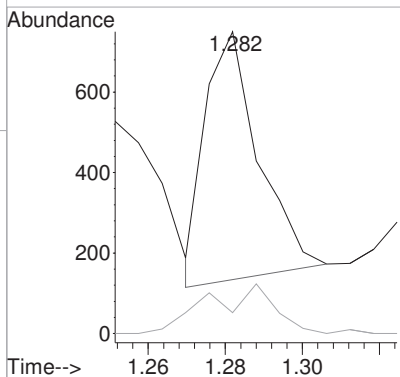
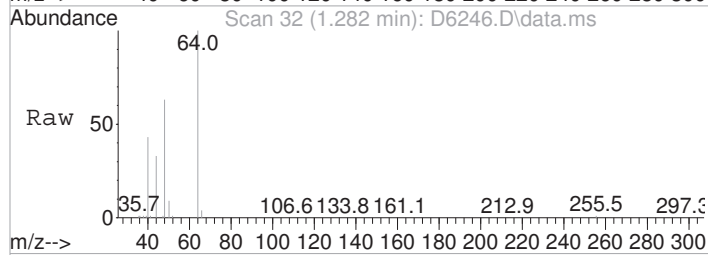
Quant Time: Oct 01 14:58:02 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration





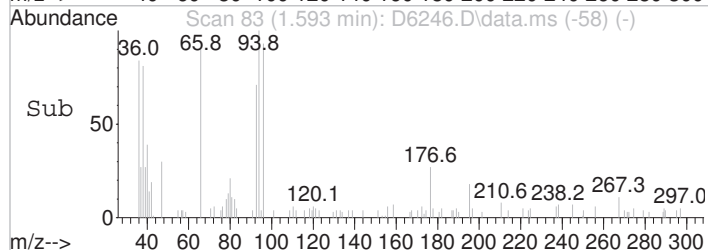
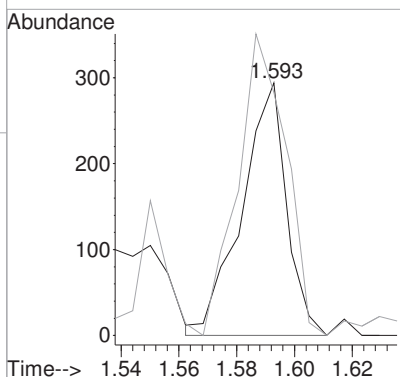
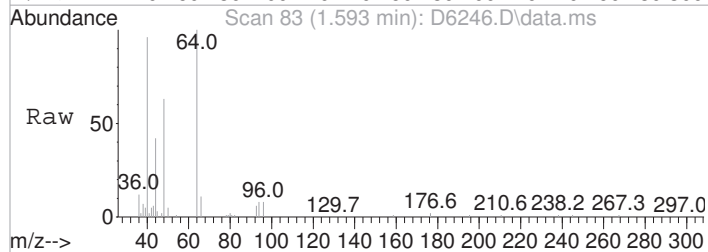
#3
 Chloromethane
 Concen: 0.21 ug/L
 RT: 1.282 min Scan# 32
 Delta R.T. -0.000 min
 Lab File: D6246.D
 Acq: 28 Sep 2018 11:56 am

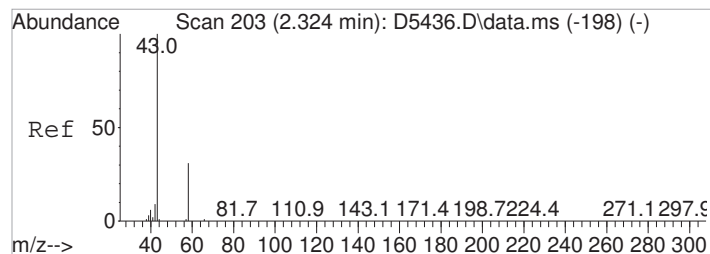
Tgt Ion: 50 Resp: 600
 Ion Ratio Lower Upper
 50 100
 52 6.9 15.0 55.0#



#5
 Bromomethane
 Concen: Below Cal
 RT: 1.593 min Scan# 83
 Delta R.T. 0.012 min
 Lab File: D6246.D
 Acq: 28 Sep 2018 11:56 am

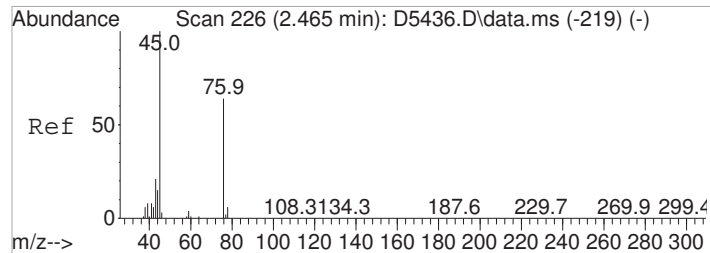
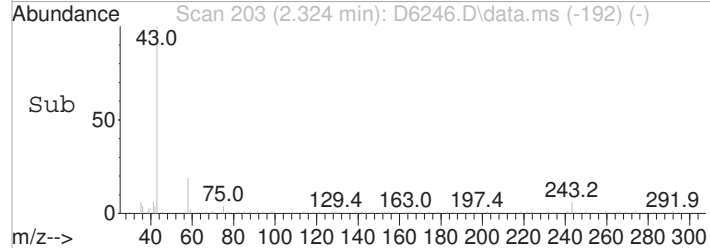
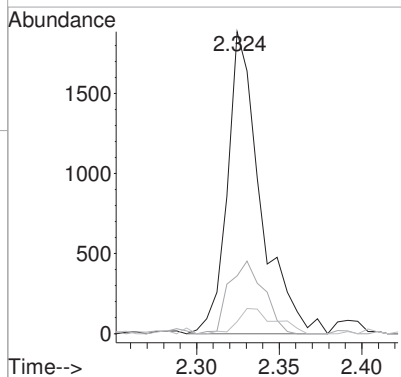
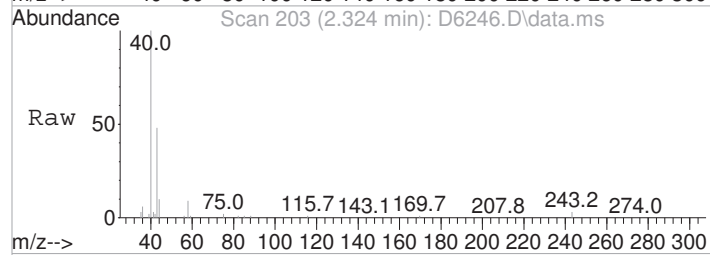
Tgt Ion: 94 Resp: 315
 Ion Ratio Lower Upper
 94 100
 96 96.3 71.1 111.1





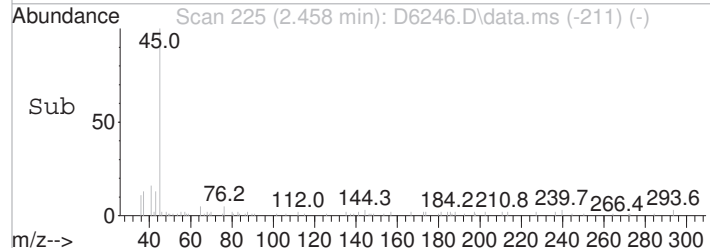
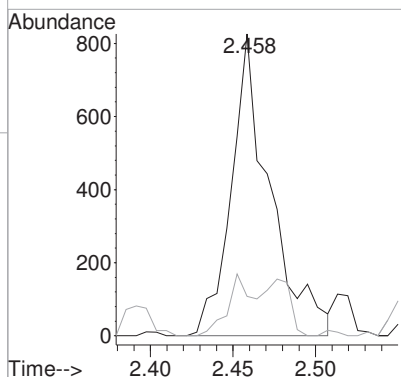
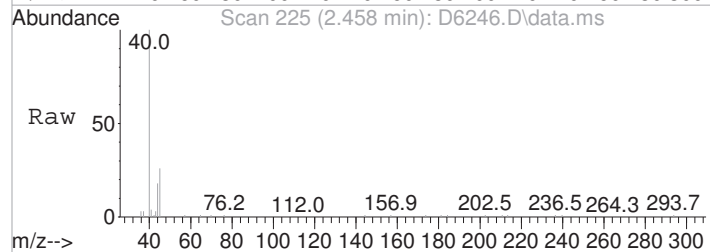
#15
 Acetone
 Concen: 2.31 ug/L
 RT: 2.324 min Scan# 203
 Delta R.T. -0.006 min
 Lab File: D6246.D
 Acq: 28 Sep 2018 11:56 am

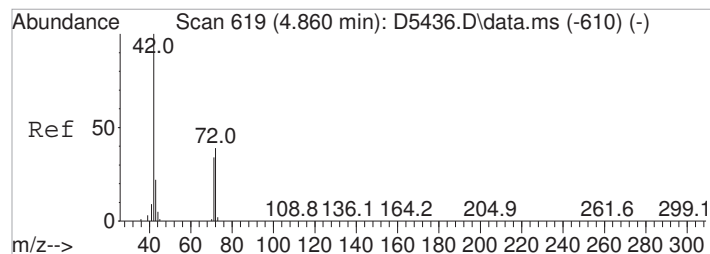
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	2619		
58	19.1	11.2	51.2	
42	4.0	0.0	28.6	



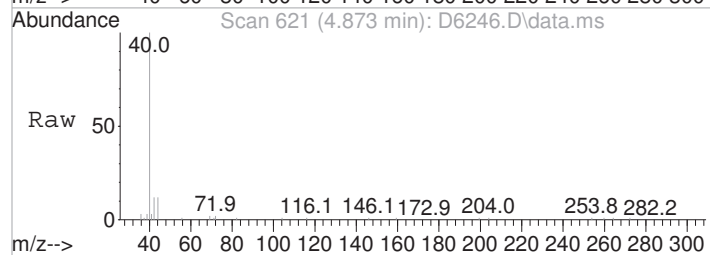
#16
 2-Propanol
 Concen: 6.15 ug/L
 RT: 2.458 min Scan# 225
 Delta R.T. -0.024 min
 Lab File: D6246.D
 Acq: 28 Sep 2018 11:56 am

Tgt Ion	Ratio	Resp	Lower	Upper
45	100	1348		
43	13.1	0.8	40.8	

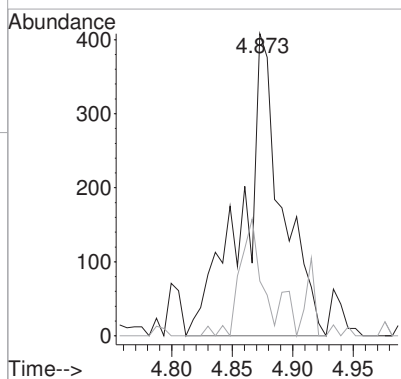
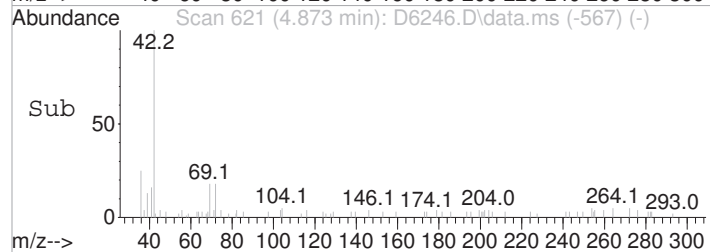




#38
 Tetrahydrofuran
 Concen: 0.98 ug/L m
 RT: 4.873 min Scan# 621
 Delta R.T. 0.012 min
 Lab File: D6246.D
 Acq: 28 Sep 2018 11:56 am



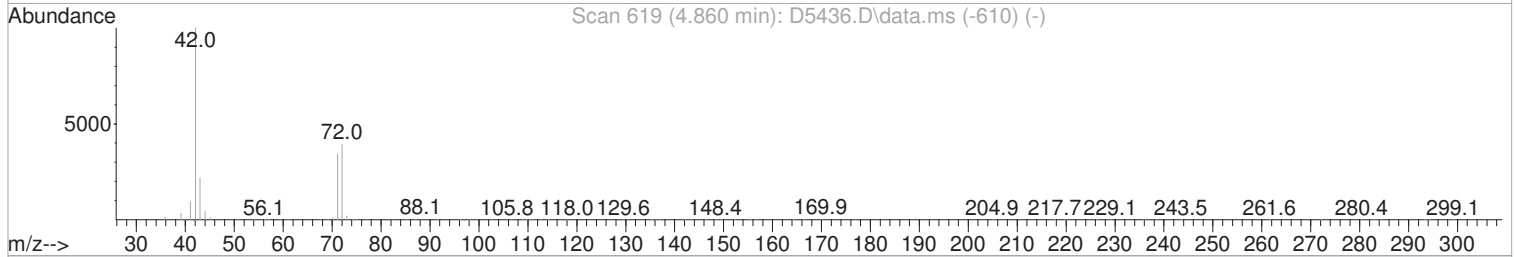
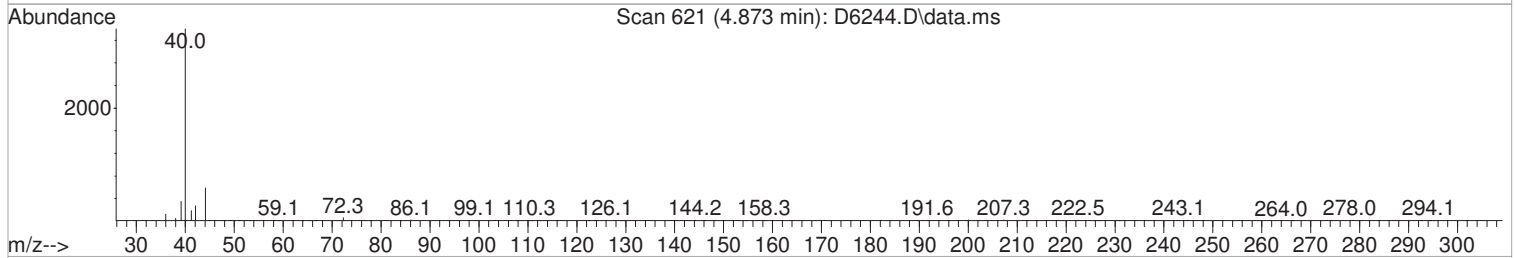
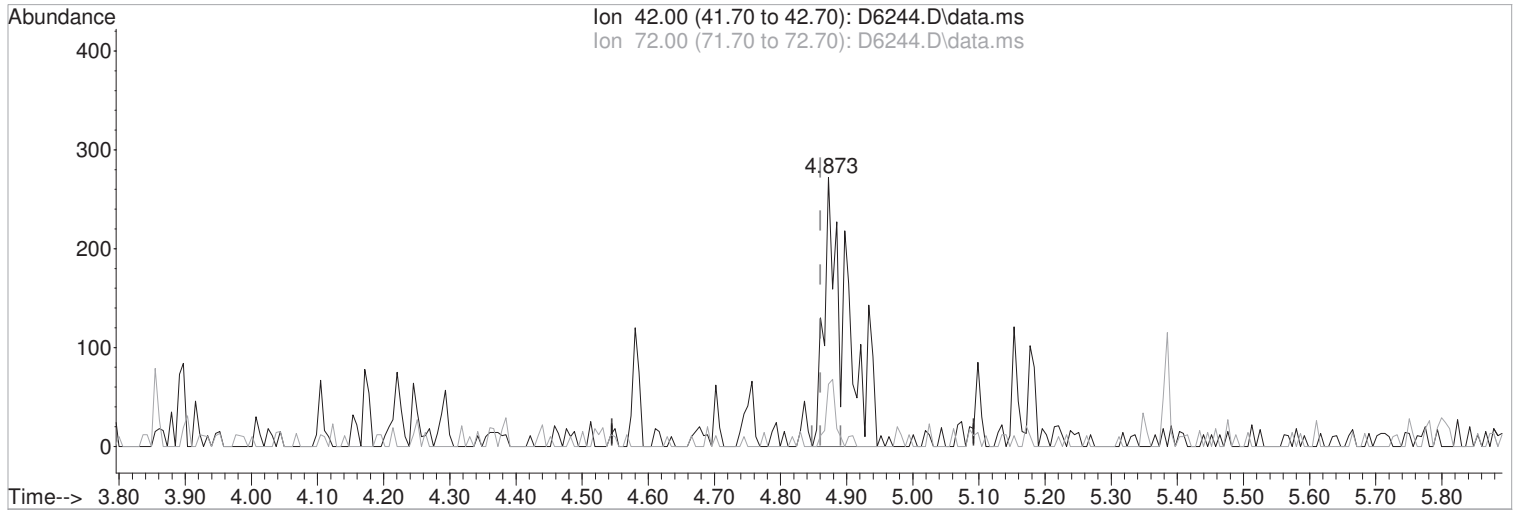
Tgt Ion: 42 Resp: 927
 Ion Ratio Lower Upper
 42 100
 72 18.1 18.8 58.8#



Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6244.D
Acq On : 28 Sep 2018 11:05 am
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 11:19:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6244.D\data.ms

(38) Tetrahydrofuran

4.873min (+0.012) 0.70 ug/L m

response 654

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	23.16
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

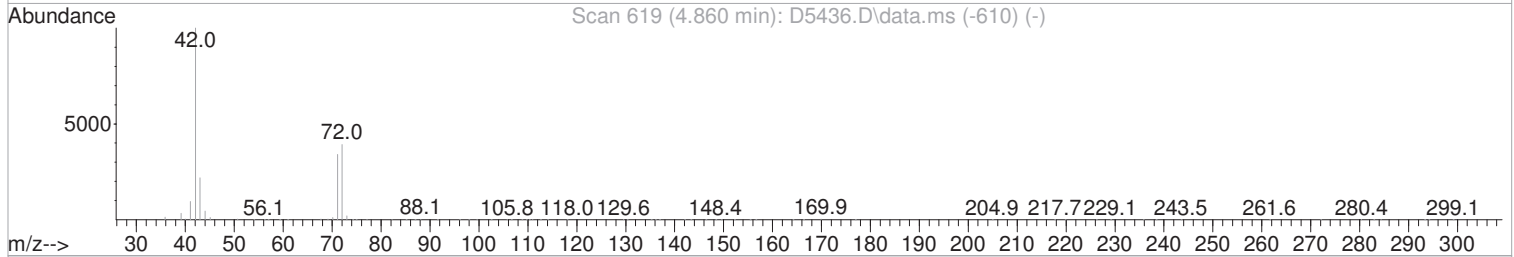
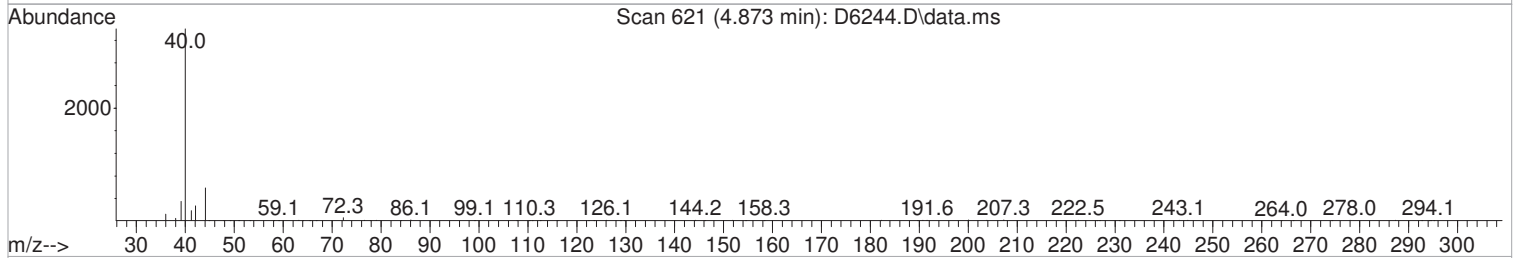
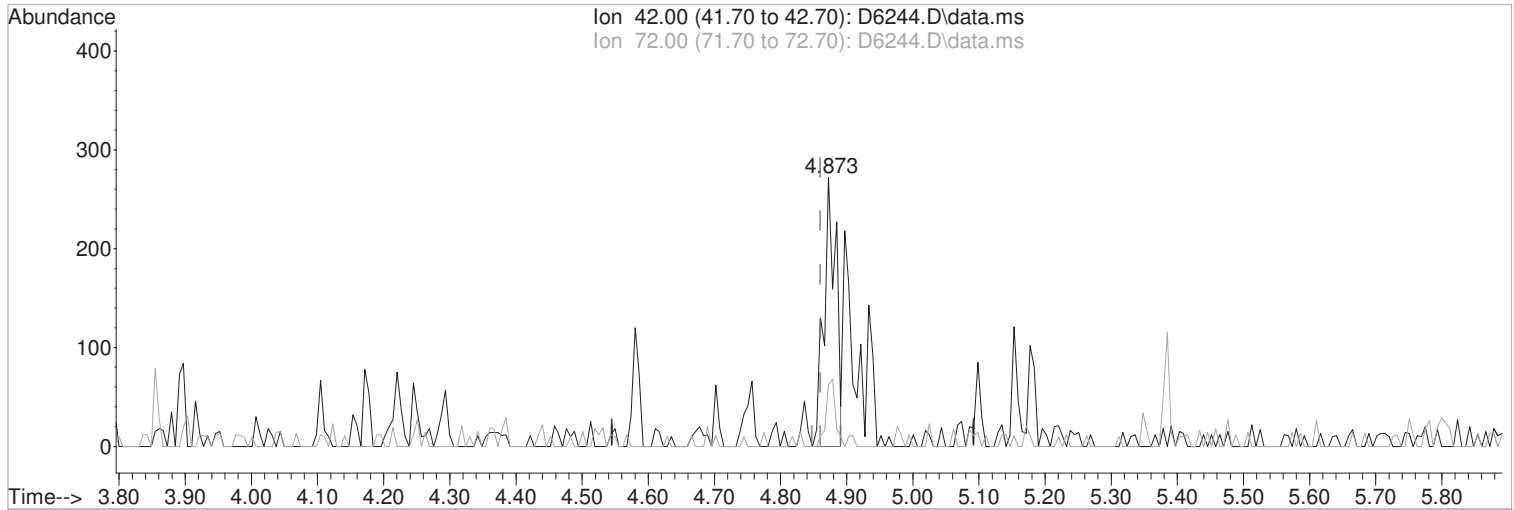
Poor integration.

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6244.D
Acq On : 28 Sep 2018 11:05 am
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 11:19:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6244.D\data.ms

(38) Tetrahydrofuran

Manual Integration:

4.873min (+0.012) 0.37 ug/L

Before

response 346

Ion	Exp%	Act%
42.00	100	100
72.00	38.80	23.16
0.00	0.00	0.00
0.00	0.00	0.00

10/01/18

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6244.D
 Acq On : 28 Sep 2018 11:05 am
 Operator : D.LIPANI
 Sample : MET BLK
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 14:08:45 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

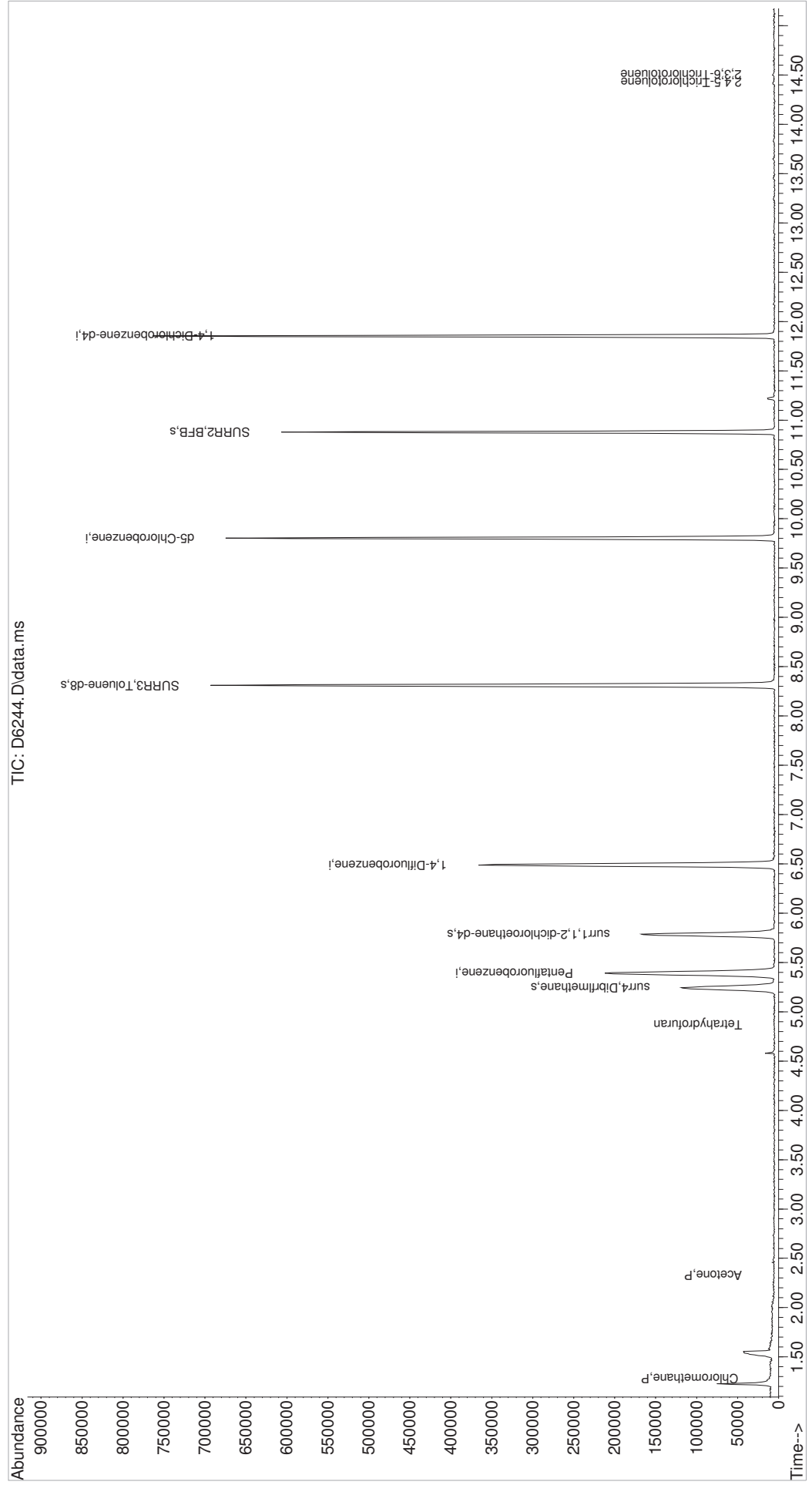
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	189784	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	297924	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	264725	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	132919	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	95385	47.51	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	95.02%
46) surr1,1,2-dichloroetha...	5.787	65	137549	52.10	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	104.20%
64) SURR3,Toluene-d8	8.311	98	379986	46.68	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	93.36%
69) SURR2,BFB	10.878	95	138467	44.26	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	88.52%
Target Compounds						
3) Chloromethane	1.282	50	693	0.25	ug/L #	45
5) Bromomethane	1.593	94	378	Below	Cal #	59
15) Acetone	2.330	43	614	0.55	ug/L #	69
38) Tetrahydrofuran	4.873	42	654m	0.70	ug/L	
118) 2,4,5-Trichlorotoluene	14.426	159	548	0.30	ug/L #	72
119) 2,3,6-Trichlorotoluene	14.505	159	592	0.34	ug/L #	66

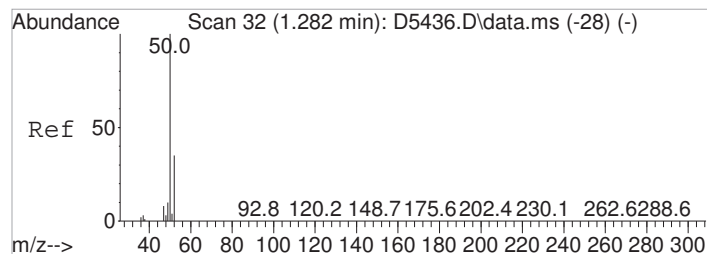
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6244.D
 Acq On : 28 Sep 2018 11:05 am
 Operator : D.LIPANI
 Sample : MET BLK
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA10

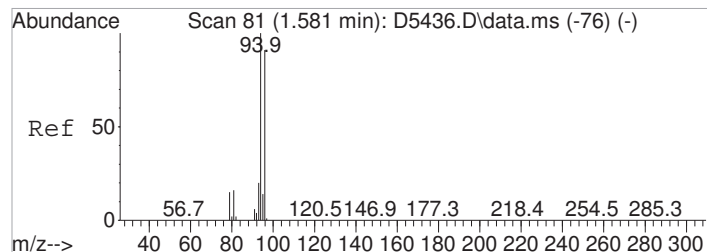
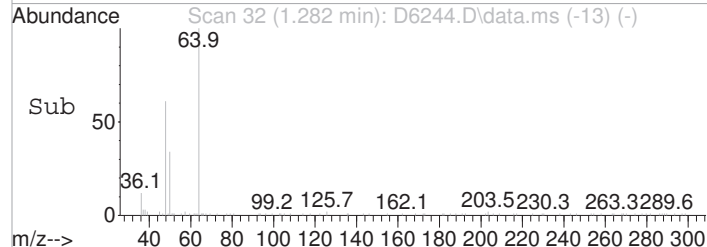
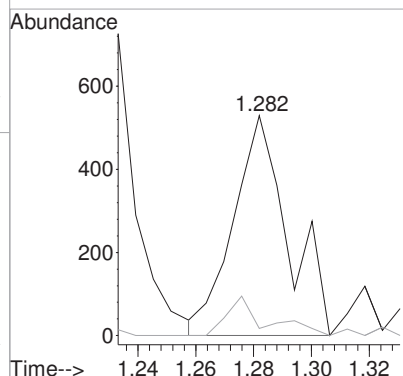
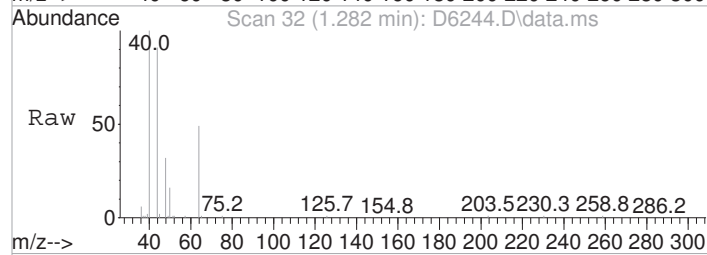
Quant Time: Oct 01 14:08:45 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration





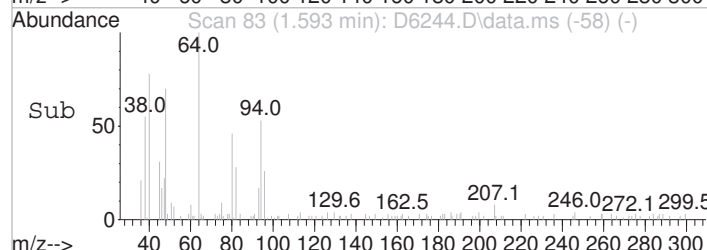
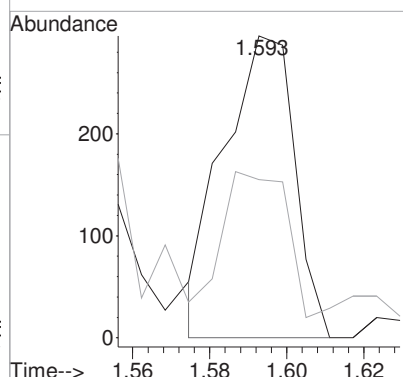
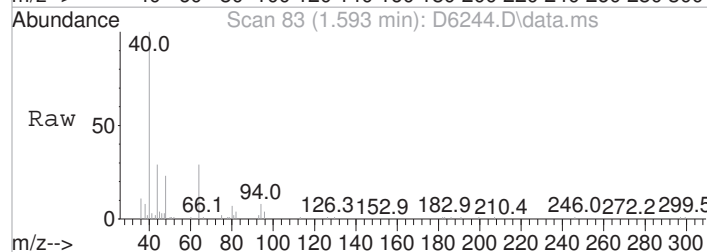
#3
Chloromethane
Concen: 0.25 ug/L
RT: 1.282 min Scan# 32
Delta R.T. 0.000 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

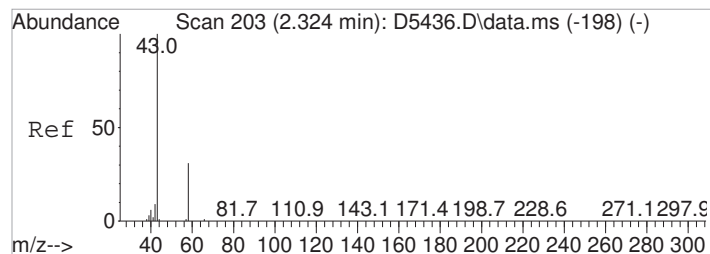
Tgt Ion: 50 Resp: 693
Ion Ratio Lower Upper
50 100
52 3.2 15.0 55.0#



#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6244.D
Acq: 28 Sep 2018 11:05 am

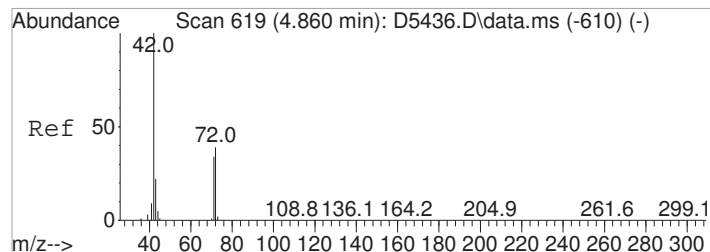
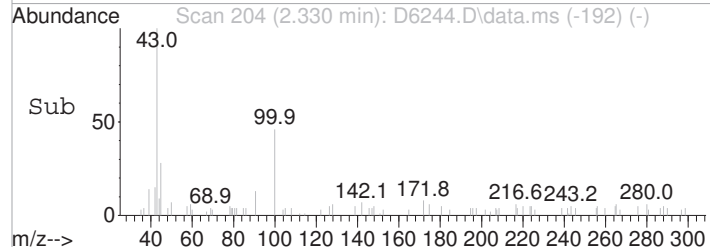
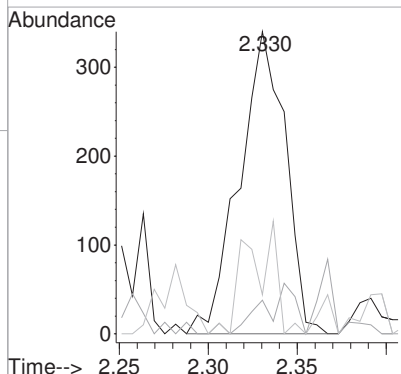
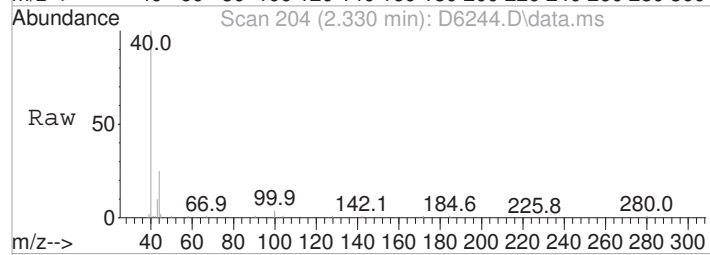
Tgt Ion: 94 Resp: 378
Ion Ratio Lower Upper
94 100
96 52.4 71.1 111.1#





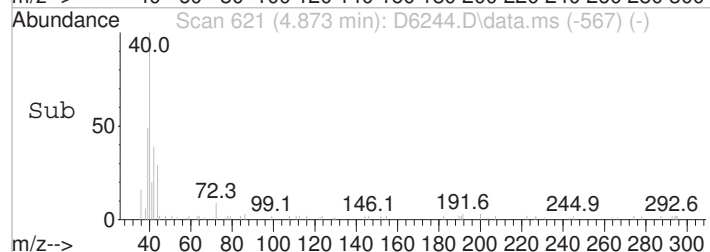
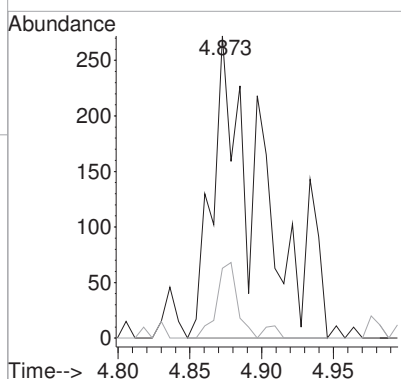
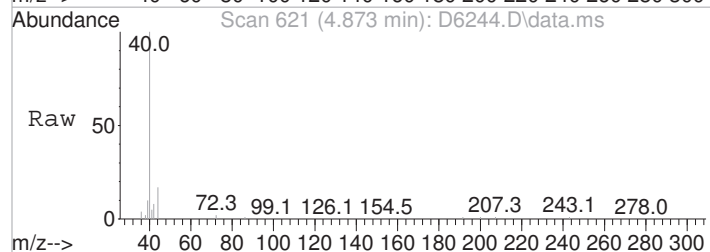
#15
 Acetone
 Concen: 0.55 ug/L
 RT: 2.330 min Scan# 204
 Delta R.T. 0.000 min
 Lab File: D6244.D
 Acq: 28 Sep 2018 11:05 am

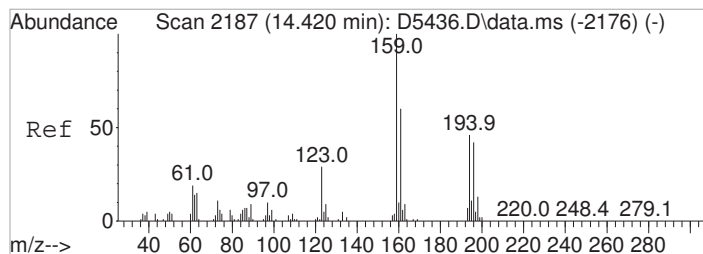
Tgt Ion	Ratio	Lower	Upper
43	100		
58	11.2	11.2	51.2#
42	12.9	0.0	28.6



#38
 Tetrahydrofuran
 Concen: 0.70 ug/L m
 RT: 4.873 min Scan# 621
 Delta R.T. 0.012 min
 Lab File: D6244.D
 Acq: 28 Sep 2018 11:05 am

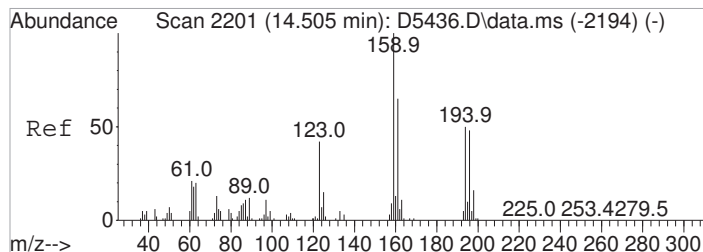
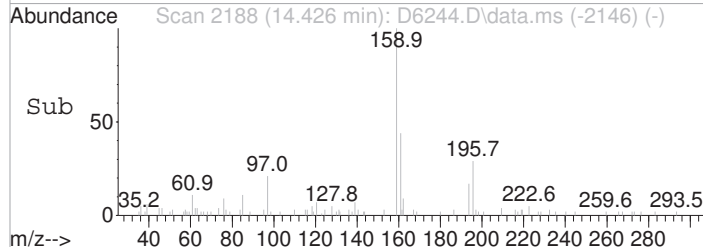
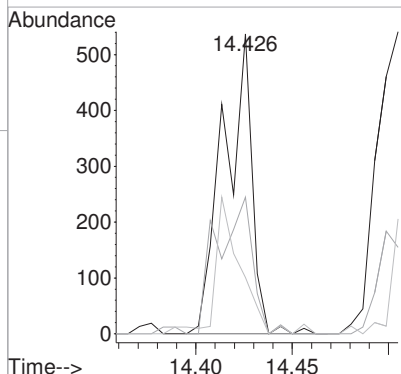
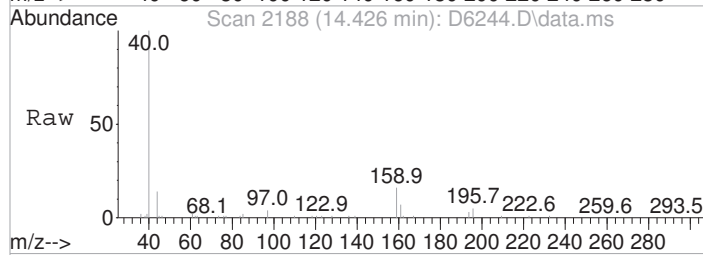
Tgt Ion	Ratio	Lower	Upper
42	100		
72	23.2	18.8	58.8





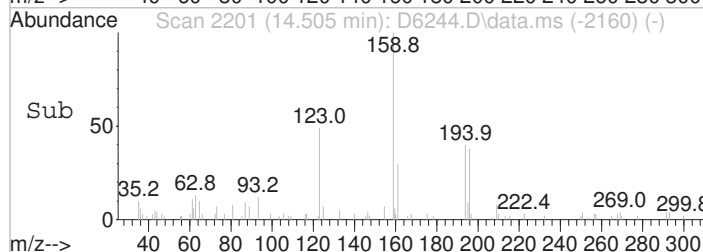
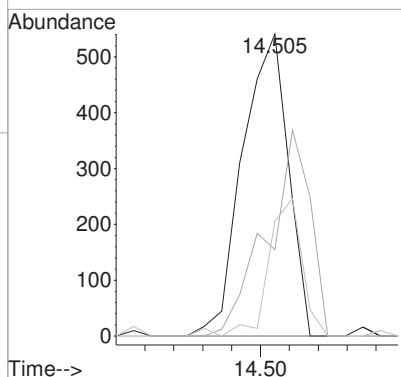
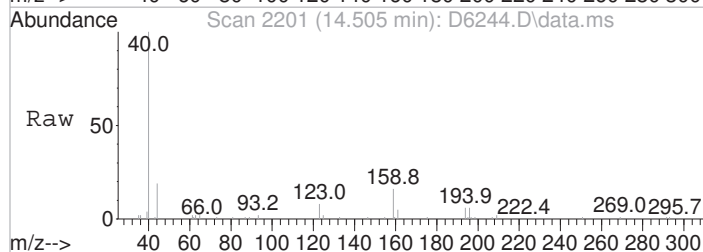
#118
 2,4,5-Trichlorotoluene
 Concen: 0.30 ug/L
 RT: 14.426 min Scan# 2188
 Delta R.T. 0.006 min
 Lab File: D6244.D
 Acq: 28 Sep 2018 11:05 am

Tgt Ion	159	161	194	Resp	Lower	Upper
159	100			548		
161	45.6			39.9		79.9
194	18.8			25.6		65.6#



#119
 2,3,6-Trichlorotoluene
 Concen: 0.34 ug/L
 RT: 14.505 min Scan# 2201
 Delta R.T. 0.000 min
 Lab File: D6244.D
 Acq: 28 Sep 2018 11:05 am

Tgt Ion	159	161	194	Resp	Lower	Upper
159	100			592		
161	28.7			45.1		85.1#
194	38.1			30.2		70.2



Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6242.D
 Acq On : 28 Sep 2018 10:13 am
 Operator : D.LIPANI
 Sample : LCS-Acid
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 10:27:56 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.391	168	209448	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	327087	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	288286	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	146987	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	106676	48.40	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	96.80%
46) surr1,1,2-dichloroetha...	5.787	65	149361	51.53	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	103.06%
64) SURR3,Toluene-d8	8.311	98	424564	47.51	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	95.02%
69) SURR2,BFB	10.878	95	157994	46.00	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	92.00%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	67285	24.06	ug/L	98
3) Chloromethane	1.282	50	66055	21.63	ug/L	93
4) Vinyl Chloride	1.361	62	60647	20.00	ug/L	100
5) Bromomethane	1.587	94	33457	14.37	ug/L	97
6) Chloroethane	1.666	64	32931	17.38	ug/L	94
7) Freon 21	1.812	67	85907	18.55	ug/L	100
8) Trichlorofluoromethane	1.861	101	69012	20.25	ug/L	98
9) Diethyl Ether	2.093	59	43133	22.36	ug/L	93
10) Freon 123a	2.099	67	54101	20.35	ug/L	97
11) Freon 123	2.148	83	79881	27.07	ug/L	99
12) Acrolein	2.196	56	24375	39.15	ug/L	85
13) 1,1-Dicethene	2.288	96	40158	20.80	ug/L	97
14) Freon 113	2.288	101	42471	22.08	ug/L	94
15) Acetone	2.330	43	28875	23.43	ug/L	87
16) 2-Propanol	2.458	45	101531	426.16	ug/L	87
17) Iodomethane	2.416	142	52952	23.24	ug/L	98
18) Carbon Disulfide	2.477	76	115596	21.96	ug/L	99
19) Acetonitrile	2.580	41	53421	119.27	ug/L	82
20) Allyl Chloride	2.617	76	22827	24.25	ug/L	# 82
21) Methyl Acetate	2.641	43	60108	24.48	ug/L	95
22) Methylene Chloride	2.733	84	46458	20.63	ug/L	93
23) TBA	2.867	59	140778	394.46	ug/L	92
24) Acrylonitrile	2.989	53	139370	114.42	ug/L	99
25) Methyl-t-Butyl Ether	3.038	73	145974	20.38	ug/L	96
26) trans-1,2-Dichloroethene	3.032	96	44780	21.69	ug/L	95
27) 1,1-Dicethane	3.531	63	90771	22.43	ug/L	99
28) Vinyl Acetate	3.623	86	9942	21.34	ug/L	# 51
29) DIPE	3.653	45	189346	25.27	ug/L	93
30) 2-Chloro-1,3-Butadiene	3.653	53	81500	23.43	ug/L	93
31) ETBE	4.184	59	135610	19.99	ug/L	97
32) 2,2-Dichloropropane	4.367	77	56281	18.25	ug/L	93
33) cis-1,2-Dichloroethene	4.367	96	46841	20.36	ug/L	93
34) 2-Butanone	4.415	43	38232	22.95	ug/L	81
35) Propionitrile	4.495	54	54884	111.21	ug/L	99
36) Bromochloromethane	4.775	130	27746	19.51	ug/L	85
37) Methacrylonitrile	4.769	67	24783	20.87	ug/L	# 74
38) Tetrahydrofuran	4.860	42	26884	26.06	ug/L	94
39) Chloroform	4.952	83	78209	21.11	ug/L	95
40) 1,1,1-Trichloroethane	5.245	97	62648	20.02	ug/L	97

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6242.D
 Acq On : 28 Sep 2018 10:13 am
 Operator : D.LIPANI
 Sample : LCS-Acid
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 10:27:56 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.342	41	58318	24.28	ug/L	91
44) Carbontetrachloride	5.531	117	45715	18.94	ug/L	99
45) 1,1-Dichloropropene	5.549	75	61412	20.09	ug/L	95
47) Benzene	5.866	78	181300	20.79	ug/L	92
48) 1,2-Dichloroethane	5.897	62	74652	21.52	ug/L	95
49) Iso-Butyl Alcohol	5.879	43	68677	422.45	ug/L	99
50) TAME	6.104	73	126572	19.75	ug/L	95
51) n-Heptane	6.354	43	78770	26.70	ug/L	94
52) 1-Butanol	6.854	56	87761	1079.49	ug/L	95
53) Trichloroethene	6.817	130	44755	19.66	ug/L	91
54) Methylcyclohexane	7.055	55	64493	22.24	ug/L	93
55) 1,2-Diclp propane	7.098	63	52672	21.72	ug/L	96
56) Dibromomethane	7.238	93	30497	21.14	ug/L	83
57) 1,4-Dioxane	7.305	88	15631	372.55	ug/L	92
58) Methyl Methacrylate	7.330	69	38508	20.27	ug/L	95
59) Bromodichloromethane	7.470	83	55208	20.54	ug/L	98
60) 2-Nitropropane	7.756	41	21843	47.98	ug/L	96
61) 2-Chloroethylvinyl Ether	7.878	63	849	0.65	ug/L	97
62) cis-1,3-Dichloropropene	8.012	75	67521	20.49	ug/L	99
63) 4-Methyl-2-pentanone	8.220	43	71750	22.69	ug/L	92
65) Toluene	8.384	91	189452	20.22	ug/L	99
66) trans-1,3-Dichloropropene	8.652	75	56669	18.98	ug/L	97
67) Ethyl Methacrylate	8.793	69	65385	21.04	ug/L	89
68) 1,1,2-Trichloroethane	8.841	97	40905	19.73	ug/L	97
71) Tetrachloroethene	8.976	164	33953	18.94	ug/L	96
72) 2-Hexanone	9.134	43	52244	21.48	ug/L	93
73) 1,3-Dichloropropane	9.012	76	77791	21.17	ug/L	89
74) Dibromochloromethane	9.238	129	35472	18.54	ug/L	99
75) N-Butyl Acetate	9.293	43	103065	22.36	ug/L	92
76) 1,2-Dibromoethane	9.335	107	42019	19.86	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	61525	19.03	ug/L	99
78) Chlorobenzene	9.829	112	116233	19.08	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	54850	19.06	ug/L	97
80) 1,1,1,2-Tetrachloroethane	9.920	131	35863	18.98	ug/L	99
81) Ethylbenzene	9.951	106	62447	19.57	ug/L #	88
82) (m+p)Xylene	10.061	106	156631	39.50	ug/L	99
83) o-Xylene	10.420	106	74441	18.87	ug/L	99
84) Styrene	10.433	104	127674	20.12	ug/L	93
85) Bromoform	10.585	173	22308	19.93	ug/L	90
86) 2-Chlorobenzotrifluoride	10.664	180	60013	19.24	ug/L	95
87) Isopropylbenzene	10.756	105	195473	19.52	ug/L	99
88) Cyclohexanone	10.817	55	53836	112.16	ug/L	92
89) trans-1,4-Dichloro-2-B...	11.060	53	14971	22.41	ug/L	80
91) 1,1,2,2-Tetrachloroethane	11.012	83	62949	22.54	ug/L	97
92) Bromobenzene	11.000	156	50230	20.43	ug/L	90
93) 1,2,3-Trichloropropane	11.042	110	17567	20.40	ug/L #	88
94) n-Propylbenzene	11.109	91	245414	22.64	ug/L	97
95) 2-Chlorotoluene	11.176	91	140434	21.48	ug/L	98
96) 3-Chlorotoluene	11.225	91	131371	20.34	ug/L	93
97) 4-Chlorotoluene	11.268	91	164232	21.06	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	167287	22.21	ug/L	97
99) tert-Butylbenzene	11.536	119	140271	21.23	ug/L	99
100) 1,2,4-Trimethylbenzene	11.573	105	164903	21.99	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.634	214	51215	21.26	ug/L	88
102) sec-Butylbenzene	11.719	105	216270	22.64	ug/L	96
103) p-Isopropyltoluene	11.841	119	169846	20.83	ug/L	98

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6242.D
 Acq On : 28 Sep 2018 10:13 am
 Operator : D.LIPANI
 Sample : LCS-Acid
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 10:27:56 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
104)	1,3-Dclbenz	11.798	146	93987	20.79	ug/L	100
105)	1,4-Dclbenz	11.871	146	93168	19.51	ug/L	98
106)	2,4-Dichlorobenzotrifl...	11.926	214	44272	20.61	ug/L	95
107)	2,5-Dichlorobenzotrifl...	11.969	214	50127	20.20	ug/L	98
108)	n-Butylbenzene	12.176	91	174130	22.34	ug/L	97
109)	1,2-Dclbenz	12.176	146	91487	19.94	ug/L	99
110)	1,2-Dibromo-3-chloropr...	12.804	157	10445	18.26	ug/L	89
111)	Trielution Dichlorotol...	12.920	125	231680	61.86	ug/L	98
112)	1,3,5-Trichlorobenzene	12.975	180	67181	20.20	ug/L	98
113)	Coelution Dichlorotoluene	13.249	125	163961	39.65	ug/L	96
114)	1,2,4-Tcbenzene	13.456	180	68868	21.12	ug/L	98
115)	Hexachlorobt	13.597	225	31951	22.42	ug/L	99
116)	Naphthalen	13.645	128	175261	20.73	ug/L	99
117)	1,2,3-Tclbenzene	13.834	180	66041	20.60	ug/L	96
118)	2,4,5-Trichlorotoluene	14.420	159	40790	20.04	ug/L	98
119)	2,3,6-Trichlorotoluene	14.505	159	39199	20.45	ug/L	95

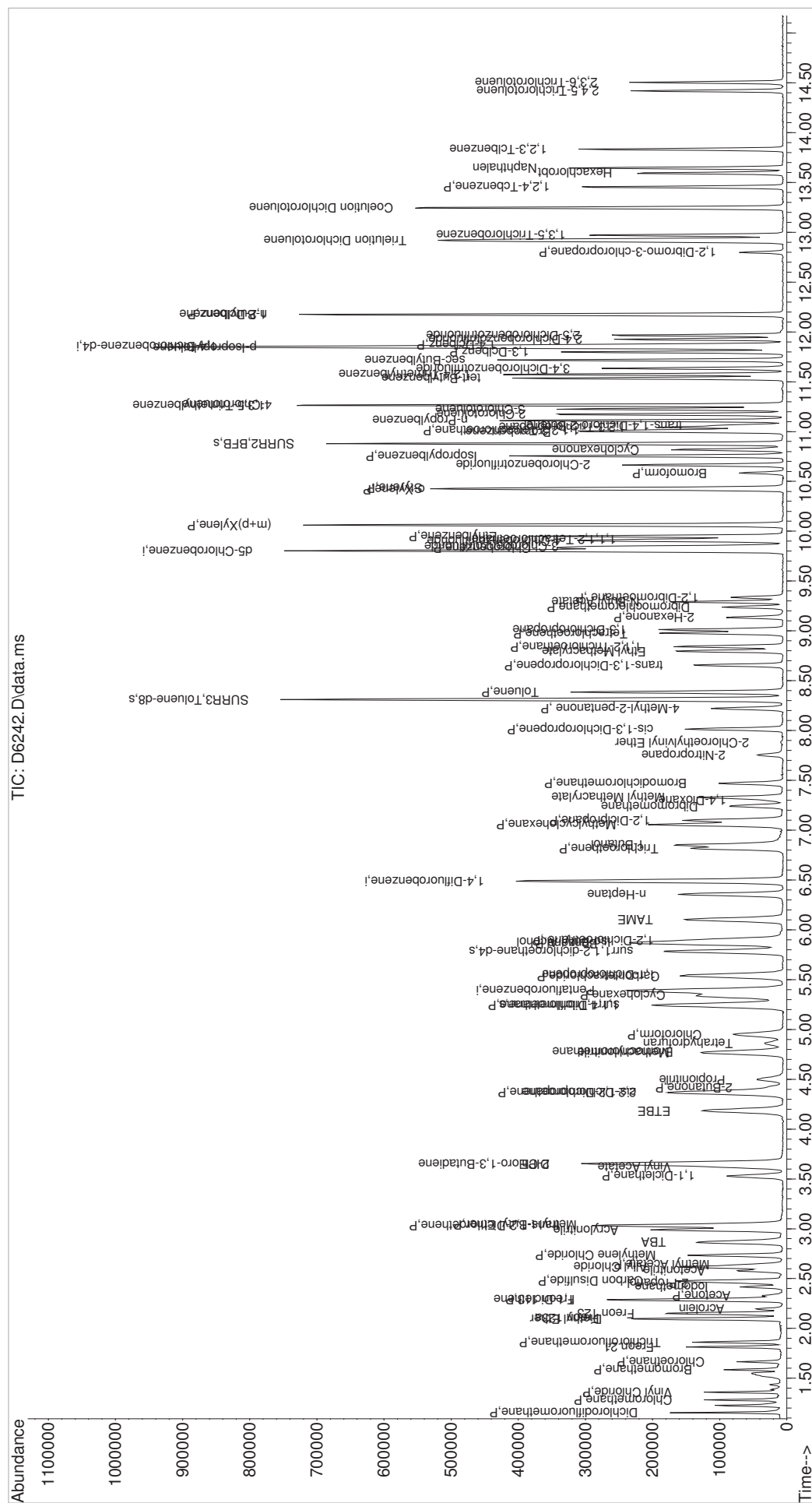
(#) = qualifier out of range (m) = manual integration (+) = signals summed


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Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6242.D
Acq On : 28 Sep 2018 10:13 am
Operator : D.LIPANI
Sample : LCS-Acid
Misc :
ALS Vial : 5 Sample Multiplier: 1
```

Inst : MSVOA10

ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6242.D
 Acq On : 28 Sep 2018 10:13 am
 Operator : D.LIPANI
 Sample : LCS
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 10:27:56 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.391	168	209448	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	327087	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	288286	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	146987	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	106676	48.40	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	96.80%
46) surr1,1,2-dichloroetha...	5.787	65	149361	51.53	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	103.06%
64) SURR3,Toluene-d8	8.311	98	424564	47.51	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	95.02%
69) SURR2,BFB	10.878	95	157994	46.00	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	92.00%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	67285	24.06	ug/L	98
3) Chloromethane	1.282	50	66055	21.63	ug/L	93
4) Vinyl Chloride	1.361	62	60647	20.00	ug/L	100
5) Bromomethane	1.587	94	33457	14.37	ug/L	97
6) Chloroethane	1.666	64	32931	17.38	ug/L	94
7) Freon 21	1.812	67	85907	18.55	ug/L	100
8) Trichlorofluoromethane	1.861	101	69012	20.25	ug/L	98
9) Diethyl Ether	2.093	59	43133	22.36	ug/L	93
10) Freon 123a	2.099	67	54101	20.35	ug/L	97
11) Freon 123	2.148	83	79881	27.07	ug/L	99
12) Acrolein	2.196	56	24375	39.15	ug/L	85
13) 1,1-Dicethene	2.288	96	40158	20.80	ug/L	97
14) Freon 113	2.288	101	42471	22.08	ug/L	94
15) Acetone	2.330	43	28875	23.43	ug/L	87
16) 2-Propanol	2.458	45	101531	426.16	ug/L	87
17) Iodomethane	2.416	142	52952	23.24	ug/L	98
18) Carbon Disulfide	2.477	76	115596	21.96	ug/L	99
19) Acetonitrile	2.580	41	53421	119.27	ug/L	82
20) Allyl Chloride	2.617	76	22827	24.25	ug/L	# 82
21) Methyl Acetate	2.641	43	60108	24.48	ug/L	95
22) Methylene Chloride	2.733	84	46458	20.63	ug/L	93
23) TBA	2.867	59	140778	394.46	ug/L	92
24) Acrylonitrile	2.989	53	139370	114.42	ug/L	99
25) Methyl-t-Butyl Ether	3.038	73	145974	20.38	ug/L	96
26) trans-1,2-Dichloroethene	3.032	96	44780	21.69	ug/L	95
27) 1,1-Dicethane	3.531	63	90771	22.43	ug/L	99
28) Vinyl Acetate	3.623	86	9942	21.34	ug/L	# 51
29) DIPE	3.653	45	189346	25.27	ug/L	93
30) 2-Chloro-1,3-Butadiene	3.653	53	81500	23.43	ug/L	93
31) ETBE	4.184	59	135610	19.99	ug/L	97
32) 2,2-Dichloropropane	4.367	77	56281	18.25	ug/L	93
33) cis-1,2-Dichloroethene	4.367	96	46841	20.36	ug/L	93
34) 2-Butanone	4.415	43	38232	22.95	ug/L	81
35) Propionitrile	4.495	54	54884	111.21	ug/L	99
36) Bromochloromethane	4.775	130	27746	19.51	ug/L	85
37) Methacrylonitrile	4.769	67	24783	20.87	ug/L	# 74
38) Tetrahydrofuran	4.860	42	26884	26.06	ug/L	94
39) Chloroform	4.952	83	78209	21.11	ug/L	95
40) 1,1,1-Trichloroethane	5.245	97	62648	20.02	ug/L	97

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6242.D
 Acq On : 28 Sep 2018 10:13 am
 Operator : D.LIPANI
 Sample : LCS
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 10:27:56 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.342	41	58318	24.28	ug/L	91
44) Carbontetrachloride	5.531	117	45715	18.94	ug/L	99
45) 1,1-Dichloropropene	5.549	75	61412	20.09	ug/L	95
47) Benzene	5.866	78	181300	20.79	ug/L	92
48) 1,2-Dichloroethane	5.897	62	74652	21.52	ug/L	95
49) Iso-Butyl Alcohol	5.879	43	68677	422.45	ug/L	99
50) TAME	6.104	73	126572	19.75	ug/L	95
51) n-Heptane	6.354	43	78770	26.70	ug/L	94
52) 1-Butanol	6.854	56	87761	1079.49	ug/L	95
53) Trichloroethene	6.817	130	44755	19.66	ug/L	91
54) Methylcyclohexane	7.055	55	64493	22.24	ug/L	93
55) 1,2-Diclpropane	7.098	63	52672	21.72	ug/L	96
56) Dibromomethane	7.238	93	30497	21.14	ug/L	83
57) 1,4-Dioxane	7.305	88	15631	372.55	ug/L	92
58) Methyl Methacrylate	7.330	69	38508	20.27	ug/L	95
59) Bromodichloromethane	7.470	83	55208	20.54	ug/L	98
60) 2-Nitropropane	7.756	41	21843	47.98	ug/L	96
61) 2-Chloroethylvinyl Ether	7.878	63	849	0.65	ug/L	97
62) cis-1,3-Dichloropropene	8.012	75	67521	20.49	ug/L	99
63) 4-Methyl-2-pentanone	8.220	43	71750	22.69	ug/L	92
65) Toluene	8.384	91	189452	20.22	ug/L	99
66) trans-1,3-Dichloropropene	8.652	75	56669	18.98	ug/L	97
67) Ethyl Methacrylate	8.793	69	65385	21.04	ug/L	89
68) 1,1,2-Trichloroethane	8.841	97	40905	19.73	ug/L	97
71) Tetrachloroethene	8.976	164	33953	18.94	ug/L	96
72) 2-Hexanone	9.134	43	52244	21.48	ug/L	93
73) 1,3-Dichloropropane	9.012	76	77791	21.17	ug/L	89
74) Dibromochloromethane	9.238	129	35472	18.54	ug/L	99
75) N-Butyl Acetate	9.293	43	103065	22.36	ug/L	92
76) 1,2-Dibromoethane	9.335	107	42019	19.86	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	61525	19.03	ug/L	99
78) Chlorobenzene	9.829	112	116233	19.08	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	54850	19.06	ug/L	97
80) 1,1,1,2-Tetrachloroethane	9.920	131	35863	18.98	ug/L	99
81) Ethylbenzene	9.951	106	62447	19.57	ug/L #	88
82) (m+p)Xylene	10.061	106	156631	39.50	ug/L	99
83) o-Xylene	10.420	106	74441	18.87	ug/L	99
84) Styrene	10.433	104	127674	20.12	ug/L	93
85) Bromoform	10.585	173	22308	19.93	ug/L	90
86) 2-Chlorobenzotrifluoride	10.664	180	60013	19.24	ug/L	95
87) Isopropylbenzene	10.756	105	195473	19.52	ug/L	99
88) Cyclohexanone	10.817	55	53836	112.16	ug/L	92
89) trans-1,4-Dichloro-2-B...	11.060	53	14971	22.41	ug/L	80
91) 1,1,2,2-Tetrachloroethane	11.012	83	62949	22.54	ug/L	97
92) Bromobenzene	11.000	156	50230	20.43	ug/L	90
93) 1,2,3-Trichloropropane	11.042	110	17567	20.40	ug/L #	88
94) n-Propylbenzene	11.109	91	245414	22.64	ug/L	97
95) 2-Chlorotoluene	11.176	91	140434	21.48	ug/L	98
96) 3-Chlorotoluene	11.225	91	131371	20.34	ug/L	93
97) 4-Chlorotoluene	11.268	91	164232	21.06	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	167287	22.21	ug/L	97
99) tert-Butylbenzene	11.536	119	140271	21.23	ug/L	99
100) 1,2,4-Trimethylbenzene	11.573	105	164903	21.99	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.634	214	51215	21.26	ug/L	88
102) sec-Butylbenzene	11.719	105	216270	22.64	ug/L	96
103) p-Isopropyltoluene	11.841	119	169846	20.83	ug/L	98

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6242.D
 Acq On : 28 Sep 2018 10:13 am
 Operator : D.LIPANI
 Sample : LCS
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 10:27:56 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

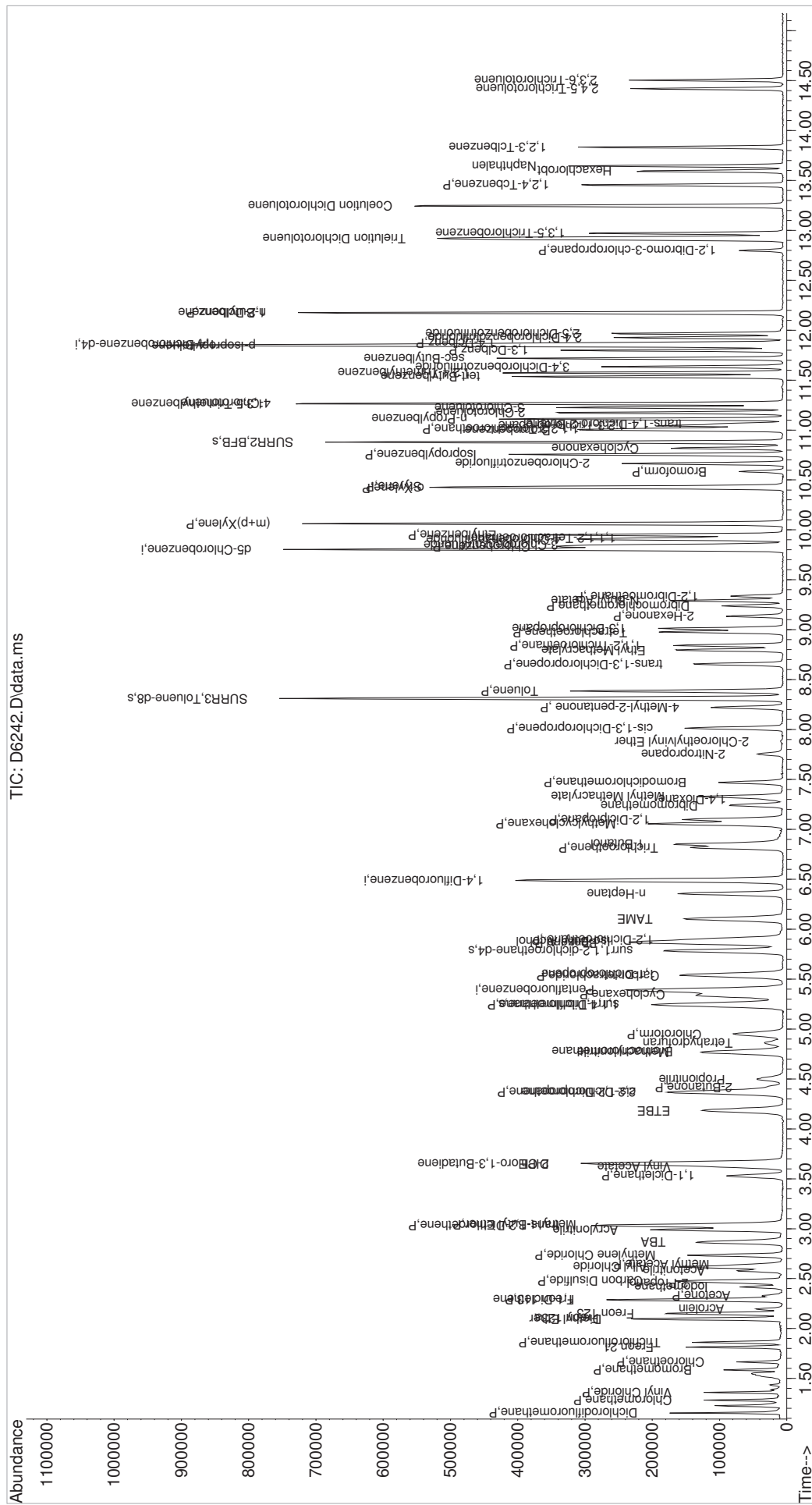
	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
104)	1,3-Dclbenz	11.798	146	93987	20.79	ug/L	100
105)	1,4-Dclbenz	11.871	146	93168	19.51	ug/L	98
106)	2,4-Dichlorobenzotrifl...	11.926	214	44272	20.61	ug/L	95
107)	2,5-Dichlorobenzotrifl...	11.969	214	50127	20.20	ug/L	98
108)	n-Butylbenzene	12.176	91	174130	22.34	ug/L	97
109)	1,2-Dclbenz	12.176	146	91487	19.94	ug/L	99
110)	1,2-Dibromo-3-chloropr...	12.804	157	10445	18.26	ug/L	89
111)	Trielution Dichlorotol...	12.920	125	231680	61.86	ug/L	98
112)	1,3,5-Trichlorobenzene	12.975	180	67181	20.20	ug/L	98
113)	Coelution Dichlorotoluene	13.249	125	163961	39.65	ug/L	96
114)	1,2,4-Tcbenzene	13.456	180	68868	21.12	ug/L	98
115)	Hexachlorobt	13.597	225	31951	22.42	ug/L	99
116)	Naphthalen	13.645	128	175261	20.73	ug/L	99
117)	1,2,3-Tclbenzene	13.834	180	66041	20.60	ug/L	96
118)	2,4,5-Trichlorotoluene	14.420	159	40790	20.04	ug/L	98
119)	2,3,6-Trichlorotoluene	14.505	159	39199	20.45	ug/L	95

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

Inst : MSVOA10

```
ALS Vial : 5 Sample Multiplier: 1
```

Quant Time: Sep 28 10:27:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6266.D
 Acq On : 28 Sep 2018 8:18 pm
 Operator : D.LIPANI
 Sample : R1809120-002MS|1.0
 Misc : APTIM 13429 T2
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 20:32:21 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	206967	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	323940	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	289190	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	159718	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	106901	48.97	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	97.94%
46) surr1,1,2-dichloroetha...	5.787	65	148988	51.90	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	103.80%
64) SURR3,Toluene-d8	8.311	98	431441	48.74	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	97.48%
69) SURR2,BFB	10.878	95	165875	48.76	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	97.52%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	153582	55.57	ug/L	99
3) Chloromethane	1.282	50	140076	46.41	ug/L	95
4) Vinyl Chloride	1.361	62	143543	47.91	ug/L	87
5) Bromomethane	1.581	94	46799	20.14	ug/L	95
6) Chloroethane	1.660	64	90933	48.56	ug/L	97
7) Freon 21	1.812	67	217253	47.46	ug/L	98
8) Trichlorofluoromethane	1.861	101	167089	49.61	ug/L	97
9) Diethyl Ether	2.093	59	105975	55.58	ug/L	90
10) Freon 123a	2.099	67	149438	56.87	ug/L	92
11) Freon 123	2.148	83	200883	68.88	ug/L	96
12) Acrolein	2.196	56	54632	88.80	ug/L	93
13) 1,1-Dicethene	2.282	96	97390	51.05	ug/L	97
14) Freon 113	2.294	101	103552	54.49	ug/L	100
15) Acetone	2.324	43	63439	52.10	ug/L	91
16) 2-Propanol	2.465	45	259943	1104.15	ug/L	92
17) Iodomethane	2.416	142	129129	51.53	ug/L	100
18) Carbon Disulfide	2.477	76	305183	58.67	ug/L	99
19) Acetonitrile	2.580	41	131703	297.57	ug/L	93
20) Allyl Chloride	2.617	76	56413	60.66	ug/L #	71
21) Methyl Acetate	2.641	43	141821	58.45	ug/L	94
22) Methylene Chloride	2.733	84	109911	49.38	ug/L #	87
23) TBA	2.867	59	357608	1014.04	ug/L	89
24) Acrylonitrile	2.989	53	335957	279.12	ug/L	98
25) Methyl-t-Butyl Ether	3.038	73	357664	50.54	ug/L	100
26) trans-1,2-Dichloroethene	3.032	96	106667	52.28	ug/L	100
27) 1,1-Dicethane	3.525	63	223802	55.97	ug/L	100
28) Vinyl Acetate	3.617	86	23868	51.85	ug/L #	43
29) DIPE	3.653	45	483255	65.27	ug/L	91
30) 2-Chloro-1,3-Butadiene	3.653	53	206093	59.96	ug/L	90
31) ETBE	4.184	59	333532	49.75	ug/L	95
32) 2,2-Dichloropropane	4.367	77	134913	44.26	ug/L	98
33) cis-1,2-Dichloroethene	4.367	96	121276	53.34	ug/L	95
34) 2-Butanone	4.415	43	97847	59.44	ug/L	90
35) Propionitrile	4.501	54	136484	279.87	ug/L	99
36) Bromochloromethane	4.769	130	69010	49.12	ug/L #	82
37) Methacrylonitrile	4.769	67	60861	51.87	ug/L #	84
38) Tetrahydrofuran	4.860	42	64541	63.30	ug/L	90
39) Chloroform	4.946	83	197066	53.82	ug/L	97
40) 1,1,1-Trichloroethane	5.251	97	162623	52.60	ug/L	95

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6266.D
 Acq On : 28 Sep 2018 8:18 pm
 Operator : D.LIPANI
 Sample : R1809120-002MS|1.0
 Misc : APTIM 13429 T2
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 20:32:21 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.336	41	151136	63.53	ug/L	94
44) Carbontetrachloride	5.531	117	119367	49.92	ug/L	97
45) 1,1-Dichloropropene	5.543	75	155375	51.31	ug/L	98
47) Benzene	5.866	78	455741	52.78	ug/L	92
48) 1,2-Dichloroethane	5.903	62	184367	53.67	ug/L	98
49) Iso-Butyl Alcohol	5.885	43	188218	1169.02	ug/L	99
50) TAME	6.104	73	326449	51.43	ug/L	94
51) n-Heptane	6.354	43	188620	64.56	ug/L	92
52) 1-Butanol	6.854	56	243159	2734.35	ug/L	99
53) Trichloroethene	6.817	130	127309	56.46	ug/L	98
54) Methylcyclohexane	7.055	55	173833	60.51	ug/L	90
55) 1,2-Diclpropane	7.098	63	130539	54.35	ug/L	99
56) Dibromomethane	7.244	93	72410	50.69	ug/L	98
57) 1,4-Dioxane	7.299	88	39837	958.70	ug/L	95
58) Methyl Methacrylate	7.330	69	98323	52.26	ug/L	90
59) Bromodichloromethane	7.470	83	137571	51.68	ug/L	98
60) 2-Nitropropane	7.756	41	61639	136.72	ug/L	94
62) cis-1,3-Dichloropropene	8.012	75	177297	54.31	ug/L	98
63) 4-Methyl-2-pentanone	8.220	43	193205	61.70	ug/L	91
65) Toluene	8.384	91	483841	52.13	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	151455	51.23	ug/L	98
67) Ethyl Methacrylate	8.799	69	175933	57.17	ug/L	92
68) 1,1,2-Trichloroethane	8.841	97	103038	50.19	ug/L	97
71) Tetrachloroethene	8.982	164	87358	48.57	ug/L	96
72) 2-Hexanone	9.134	43	142513	58.42	ug/L	95
73) 1,3-Dichloropropane	9.012	76	191975	52.07	ug/L	91
74) Dibromochloromethane	9.238	129	96226	50.14	ug/L	96
75) N-Butyl Acetate	9.286	43	295268	63.85	ug/L	90
76) 1,2-Dibromoethane	9.335	107	106928	50.38	ug/L	100
77) 3-Chlorobenzotrifluoride	9.847	180	160318	49.42	ug/L	99
78) Chlorobenzene	9.829	112	299085	48.94	ug/L	96
79) 4-Chlorobenzotrifluoride	9.902	180	146120	50.62	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	96384	50.85	ug/L	98
81) Ethylbenzene	9.951	106	166374	51.98	ug/L	94
82) (m+p)Xylene	10.061	106	409581	102.95	ug/L	95
83) o-Xylene	10.420	106	198684	50.21	ug/L	97
84) Styrene	10.433	104	337245	52.97	ug/L	99
85) Bromoform	10.585	173	63611	50.36	ug/L	96
86) 2-Chlorobenzotrifluoride	10.664	180	161283	51.56	ug/L	97
87) Isopropylbenzene	10.756	105	514475	51.22	ug/L	99
88) Cyclohexanone	10.817	55	146807	304.89	ug/L	96
89) trans-1,4-Dichloro-2-B...	11.060	53	41889	57.58	ug/L	82
91) 1,1,2,2-Tetrachloroethane	11.012	83	166582	54.89	ug/L	99
92) Bromobenzene	11.000	156	130357	48.79	ug/L	93
93) 1,2,3-Trichloropropane	11.042	110	48417	51.75	ug/L	93
94) n-Propylbenzene	11.109	91	633817	53.81	ug/L	98
95) 2-Chlorotoluene	11.170	91	364865	51.36	ug/L	96
96) 3-Chlorotoluene	11.225	91	361973	51.58	ug/L	98
97) 4-Chlorotoluene	11.268	91	423272	49.96	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	429507	52.49	ug/L	99
99) tert-Butylbenzene	11.536	119	362499	50.48	ug/L	98
100) 1,2,4-Trimethylbenzene	11.573	105	425956	52.27	ug/L	98
101) 3,4-Dichlorobenzotrifl...	11.634	214	132317	50.55	ug/L	96
102) sec-Butylbenzene	11.719	105	551571	53.13	ug/L	99
103) p-Isopropyltoluene	11.841	119	459645	51.88	ug/L	98
104) 1,3-Dclbenz	11.798	146	240689	48.99	ug/L	98

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6266.D
Acq On : 28 Sep 2018 8:18 pm
Operator : D.LIPANI
Sample : R1809120-002MS|1.0
Misc : APTIM 13429 T2
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 20:32:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,4-Dclbenz	11.871	146	243091	46.86	ug/L	98
106)	2,4-Dichlorobenzotrifl...	11.926	214	122331	52.41	ug/L	98
107)	2,5-Dichlorobenzotrifl...	11.969	214	136196	50.51	ug/L	99
108)	n-Butylbenzene	12.170	91	450827	53.22	ug/L	100
109)	1,2-Dclbenz	12.176	146	232475	46.64	ug/L	98
110)	1,2-Dibromo-3-chloropr...	12.798	157	29844	48.02	ug/L	96
111)	Trielution Dichlorotol...	12.920	125	613494	150.74	ug/L	97
112)	1,3,5-Trichlorobenzene	12.969	180	179723	49.74	ug/L	99
113)	Coelution Dichlorotoluene	13.243	125	447045	99.48	ug/L	93
114)	1,2,4-Tcbenzene	13.456	180	178269	50.32	ug/L	96
115)	Hexachlorobt	13.590	225	74587	48.16	ug/L	98
116)	Naphthalen	13.645	128	481896	52.46	ug/L	100
117)	1,2,3-Tclbenzene	13.834	180	170437	48.92	ug/L	96
118)	2,4,5-Trichlorotoluene	14.420	159	108835	49.21	ug/L	96
119)	2,3,6-Trichlorotoluene	14.505	159	106555	51.17	ug/L	95

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

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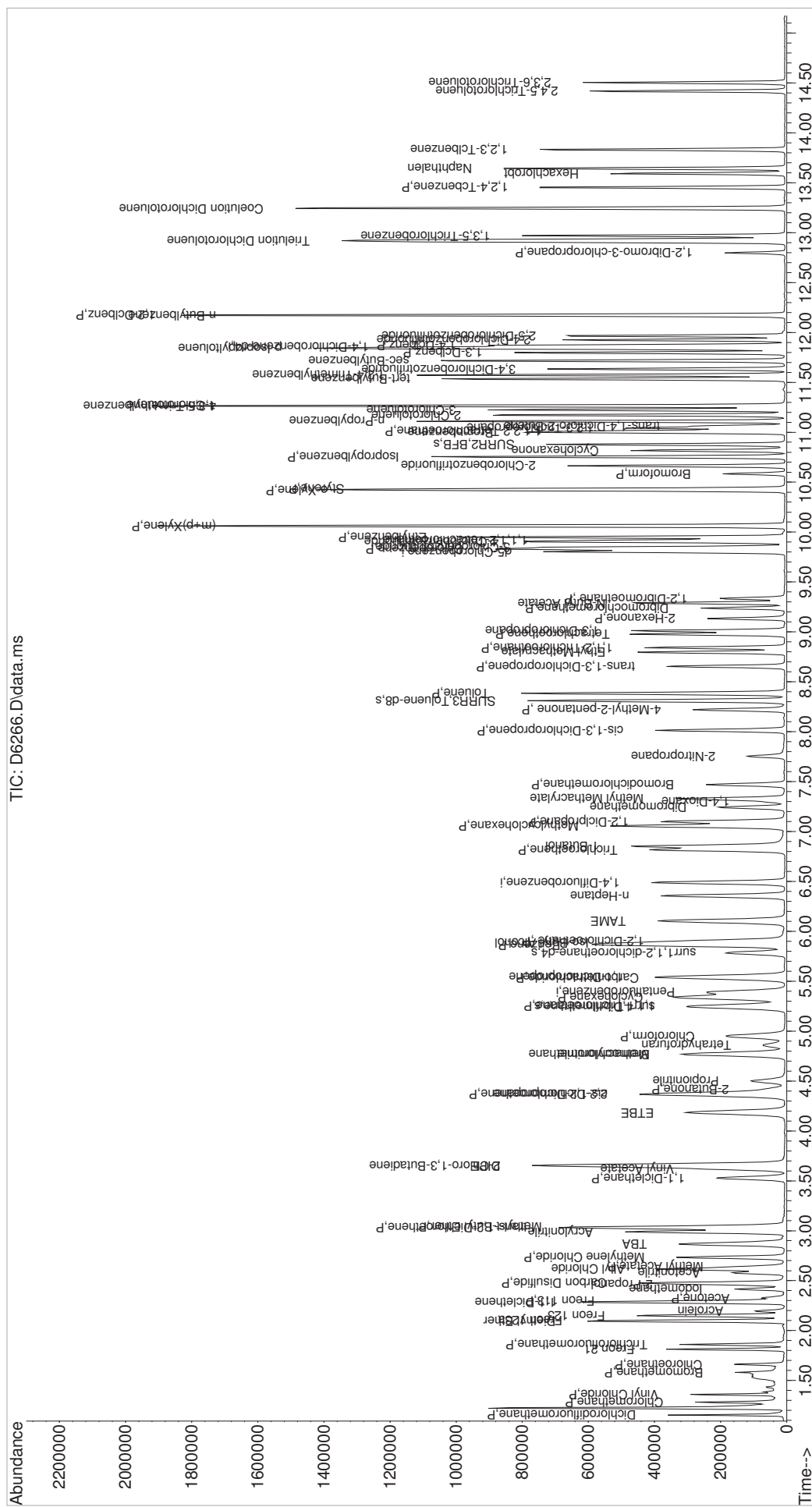
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Data File : D6266.D
Acq On : 28 Sep 2018 8:18 pm
Operator : D.LIPANI
Sample : R1809120-002MS|1.0
Misc : APTIM 13429 T2
ALS Vial : 27 Sample Multiplier: 1

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Inst : MSVOA10

ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 28 20:32:21 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6267.D
 Acq On : 28 Sep 2018 8:39 pm
 Operator : D.LIPANI
 Sample : R1809120-002DMS|1.0
 Misc : APTIM 13429 T2
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 17:01:16 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.391	168	218885	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	330867	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	295512	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	167459	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	110044	49.35	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	98.70%
46) surr1,1,2-dichloroetha...	5.781	65	152299	51.94	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	103.88%
64) SURR3,Toluene-d8	8.311	98	437568	48.40	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	96.80%
69) SURR2,BFB	10.878	95	164973	47.48	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	94.96%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	165678	56.69	ug/L	99
3) Chloromethane	1.282	50	155599	48.74	ug/L	95
4) Vinyl Chloride	1.361	62	156352	49.35	ug/L	89
5) Bromomethane	1.581	94	48254	19.66	ug/L	95
6) Chloroethane	1.660	64	102559	51.79	ug/L	96
7) Freon 21	1.812	67	229767	47.46	ug/L	99
8) Trichlorofluoromethane	1.861	101	174795	49.08	ug/L	98
9) Diethyl Ether	2.093	59	106139	52.64	ug/L	96
10) Freon 123a	2.099	67	147229	52.98	ug/L	94
11) Freon 123	2.148	83	209909	68.06	ug/L	99
12) Acrolein	2.196	56	56368	86.63	ug/L	100
13) 1,1-Dicethene	2.282	96	100086	49.61	ug/L	96
14) Freon 113	2.288	101	110988	55.22	ug/L	99
15) Acetone	2.324	43	68821	53.45	ug/L	93
16) 2-Propanol	2.465	45	297618	1195.35	ug/L	97
17) Iodomethane	2.416	142	150186	55.98	ug/L	100
18) Carbon Disulfide	2.477	76	326795	59.40	ug/L	100
19) Acetonitrile	2.574	41	144964	309.70	ug/L	93
20) Allyl Chloride	2.617	76	61262	62.28	ug/L #	72
21) Methyl Acetate	2.641	43	153400	59.78	ug/L	96
22) Methylene Chloride	2.733	84	114257	48.54	ug/L #	87
23) TBA	2.867	59	408486	1095.24	ug/L	93
24) Acrylonitrile	2.989	53	364506	286.35	ug/L	100
25) Methyl-t-Butyl Ether	3.038	73	392332	52.42	ug/L	98
26) trans-1,2-Dichloroethene	3.032	96	114943	53.27	ug/L	95
27) 1,1-Dicethane	3.531	63	244735	57.87	ug/L	98
28) Vinyl Acetate	3.617	86	26012	53.43	ug/L #	53
29) DIPE	3.653	45	515475	65.83	ug/L	94
30) 2-Chloro-1,3-Butadiene	3.653	53	224419	61.74	ug/L	93
31) ETBE	4.184	59	361519	50.99	ug/L	98
32) 2,2-Dichloropropane	4.361	77	156097	48.42	ug/L	99
33) cis-1,2-Dichloroethene	4.373	96	130916	54.45	ug/L	90
34) 2-Butanone	4.415	43	106808	61.36	ug/L	89
35) Propionitrile	4.495	54	144194	279.58	ug/L	97
36) Bromochloromethane	4.769	130	75839	51.04	ug/L	86
37) Methacrylonitrile	4.769	67	68000	54.80	ug/L #	70
38) Tetrahydrofuran	4.854	42	71800	66.59	ug/L	86
39) Chloroform	4.952	83	212670	54.92	ug/L	99
40) 1,1,1-Trichloroethane	5.251	97	171562	52.47	ug/L	97

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6267.D
 Acq On : 28 Sep 2018 8:39 pm
 Operator : D.LIPANI
 Sample : R1809120-002DMS|1.0
 Misc : APTIM 13429 T2
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Oct 01 17:01:16 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.336	41	155500	64.00	ug/L	97
44) Carbontetrachloride	5.531	117	130158	53.30	ug/L	97
45) 1,1-Dichloropropene	5.543	75	168275	54.41	ug/L	94
47) Benzene	5.860	78	487568	55.28	ug/L	94
48) 1,2-Dichloroethane	5.903	62	197805	56.38	ug/L	97
49) Iso-Butyl Alcohol	5.885	43	208528	1268.05	ug/L	99
50) TAME	6.104	73	345544	53.30	ug/L	92
51) n-Heptane	6.354	43	195080	65.38	ug/L	94
52) 1-Butanol	6.854	56	269770	2937.28	ug/L	96
53) Trichloroethene	6.817	130	135067	58.65	ug/L	96
54) Methylcyclohexane	7.055	55	181528	61.87	ug/L	86
55) 1,2-Diclpropane	7.098	63	138036	56.26	ug/L	91
56) Dibromomethane	7.244	93	78374	53.72	ug/L	98
57) 1,4-Dioxane	7.305	88	41741	983.49	ug/L	99
58) Methyl Methacrylate	7.330	69	107839	56.12	ug/L	89
59) Bromodichloromethane	7.470	83	150629	55.40	ug/L	98
60) 2-Nitropropane	7.756	41	69254	150.39	ug/L	94
62) cis-1,3-Dichloropropene	8.012	75	189346	56.79	ug/L	97
63) 4-Methyl-2-pentanone	8.220	43	203610	63.66	ug/L	96
65) Toluene	8.384	91	515735	54.40	ug/L	99
66) trans-1,3-Dichloropropene	8.652	75	164752	54.56	ug/L	98
67) Ethyl Methacrylate	8.793	69	188797	60.07	ug/L	87
68) 1,1,2-Trichloroethane	8.841	97	108410	51.70	ug/L	95
71) Tetrachloroethene	8.976	164	94356	51.34	ug/L	98
72) 2-Hexanone	9.134	43	152367	61.12	ug/L	91
73) 1,3-Dichloropropane	9.012	76	205291	54.49	ug/L	91
74) Dibromochloromethane	9.238	129	105886	54.00	ug/L	97
75) N-Butyl Acetate	9.286	43	308664	65.32	ug/L	93
76) 1,2-Dibromoethane	9.335	107	113478	52.33	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	173139	52.23	ug/L	98
78) Chlorobenzene	9.829	112	309294	49.52	ug/L	94
79) 4-Chlorobenzotrifluoride	9.902	180	150592	51.05	ug/L	97
80) 1,1,1,2-Tetrachloroethane	9.914	131	108069	55.80	ug/L	93
81) Ethylbenzene	9.951	106	172344	52.70	ug/L #	89
82) (m+p)Xylene	10.061	106	432138	106.30	ug/L	96
83) o-Xylene	10.420	106	206213	51.00	ug/L	96
84) Styrene	10.433	104	353348	54.32	ug/L	98
85) Bromoform	10.585	173	68384	52.57	ug/L	98
86) 2-Chlorobenzotrifluoride	10.664	180	170788	53.43	ug/L	97
87) Isopropylbenzene	10.756	105	540724	52.68	ug/L	99
88) Cyclohexanone	10.817	55	158745	322.63	ug/L	97
89) trans-1,4-Dichloro-2-B...	11.061	53	44312	59.39	ug/L	86
91) 1,1,2,2-Tetrachloroethane	11.012	83	178783	56.19	ug/L	98
92) Bromobenzene	11.000	156	140664	50.22	ug/L	96
93) 1,2,3-Trichloropropane	11.042	110	48903	49.85	ug/L #	85
94) n-Propylbenzene	11.109	91	669061	54.18	ug/L	99
95) 2-Chlorotoluene	11.170	91	382110	51.31	ug/L	99
96) 3-Chlorotoluene	11.225	91	379885	51.63	ug/L	97
97) 4-Chlorotoluene	11.268	91	449102	50.56	ug/L	98
98) 1,3,5-Trimethylbenzene	11.262	105	452101	52.69	ug/L	99
99) tert-Butylbenzene	11.536	119	389021	51.67	ug/L	98
100) 1,2,4-Trimethylbenzene	11.573	105	448990	52.55	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.634	214	144099	52.50	ug/L	98
102) sec-Butylbenzene	11.719	105	590257	54.23	ug/L	99
103) p-Isopropyltoluene	11.841	119	487917	52.53	ug/L	99
104) 1,3-Dclbenz	11.798	146	256017	49.70	ug/L	99

Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6267.D
Acq On : 28 Sep 2018 8:39 pm
Operator : D.LIPANI
Sample : R1809120-002DMS|1.0 Inst : MSVOA10
Misc : APTIM 13429 T2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 01 17:01:16 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

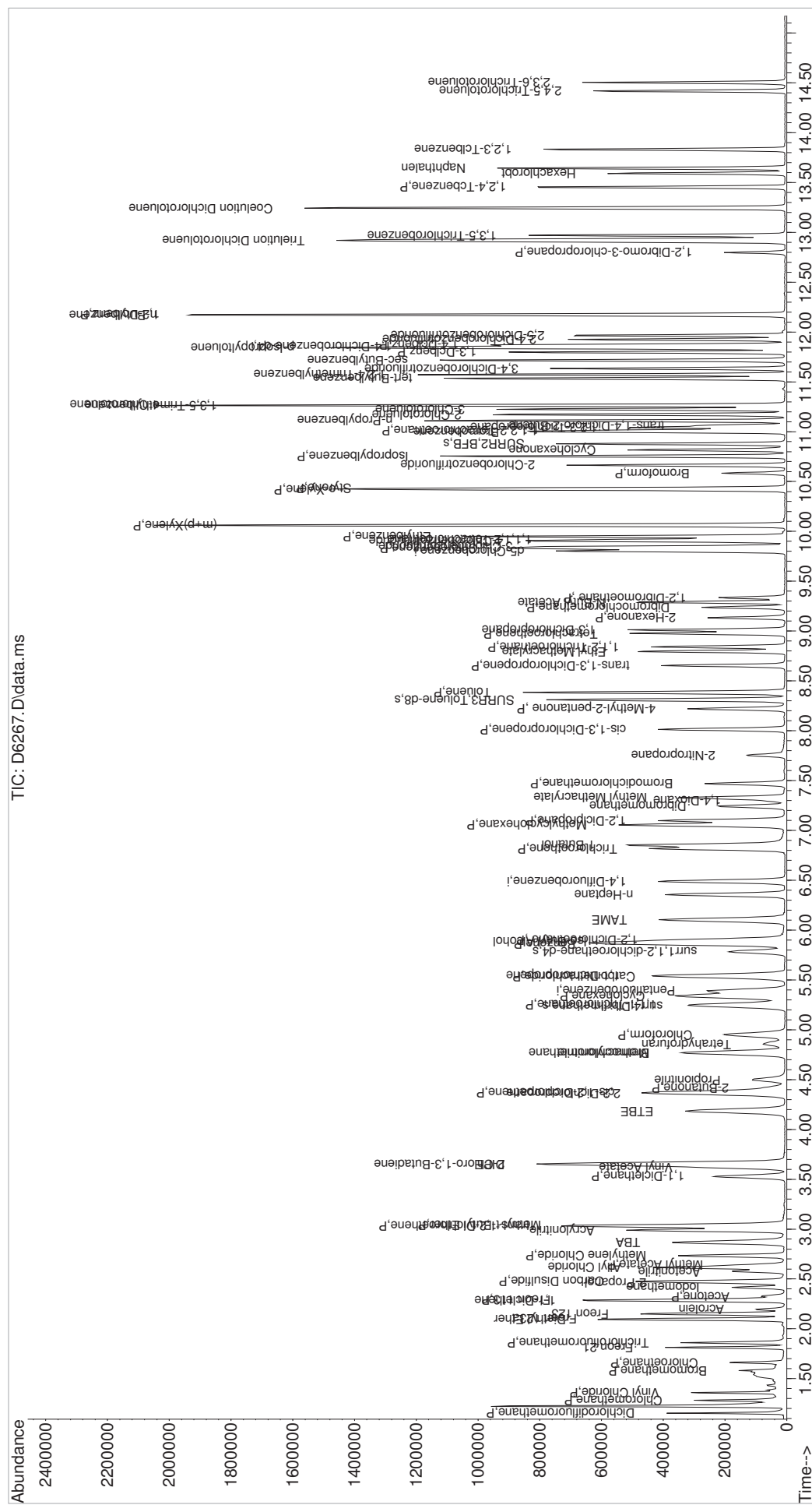
	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
105)	1,4-Dclbenz	11.871	146	261362	48.05	ug/L	98
106)	2,4-Dichlorobenzotrifl...	11.926	214	128940	52.68	ug/L	99
107)	2,5-Dichlorobenzotrifl...	11.969	214	144847	51.23	ug/L	97
108)	n-Butylbenzene	12.170	91	482543	54.33	ug/L	99
109)	1,2-Dclbenz	12.176	146	249807	47.80	ug/L	99
110)	1,2-Dibromo-3-chloropr...	12.798	157	30910	47.43	ug/L	87
111)	Trielution Dichlorotol...	12.920	125	651998	152.80	ug/L	98
112)	1,3,5-Trichlorobenzene	12.969	180	193055	50.96	ug/L	99
113)	Coelution Dichlorotoluene	13.243	125	468280	99.39	ug/L	95
114)	1,2,4-Tcbenzene	13.456	180	186956	50.33	ug/L	97
115)	Hexachlorobt	13.591	225	80698	49.69	ug/L	97
116)	Naphthalen	13.645	128	515451	53.52	ug/L	100
117)	1,2,3-Tclbenzene	13.834	180	184543	50.52	ug/L	94
118)	2,4,5-Trichlorotoluene	14.420	159	120901	52.14	ug/L	99
119)	2,3,6-Trichlorotoluene	14.505	159	110675	50.69	ug/L	98

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

Inst : MSVOA10

ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 01 17:01:16 2018
Quant Method : I:\ACQDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6241.D
 Acq On : 28 Sep 2018 9:24 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 09:38:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	97	0.00
2 P	Dichlorodifluoromethane	0.6676	0.7478	-12.0	110	0.00
3 P	Chloromethane	0.7292	0.8133	-11.5	112	0.00
4 P	Vinyl Chloride	0.7238	0.7454	-3.0	104	0.00
5 P	Bromomethane	0.6792	0.4253	-27.5	84	0.00 (1)
6 P	Chloroethane	0.4524	0.4720	-4.3	103	0.00
7	Freon 21	1.1058	1.1314	-2.3	108	0.00
8 P	Trichlorofluoromethane	0.8136	0.8059	0.9	102	0.00
9	Diethyl Ether	0.4606	0.5421	-17.7	116	0.00
10	Freon 123a	0.6348	0.7060	-11.2	121	0.00
11	Freon 123	0.7045	0.7422	-5.4	115	0.00
12	Acrolein	0.1486	0.1567	-5.5	105	0.00
13	1,1-Dicethene	0.4609	0.4964	-7.7	108	0.00
14 P	Freon 113	0.4591	0.4990	-8.7	111	0.00
15 P	Acetone	0.2941	0.3677	-25.0#	129	0.00 (2)
16	2-Propanol	0.0569	0.0593	-4.2	108	-0.02
17	Iodomethane	0.5454	0.7399	+19.5	107	0.00
18 P	Carbon Disulfide	1.2567	1.4575	-16.0	111	0.00
19	Acetonitrile	0.1069	0.1283	-20.0#	126	0.00
20	Allyl Chloride	0.2247	0.2419	-7.7	108	0.00
21 P	Methyl Acetate	0.5862	0.7167	-22.3#	126	0.00 NT
22 P	Methylene Chloride	0.5377	0.5529	-2.8	107	0.00
23	TBA	0.0852	0.0860	-0.9	102	0.00
24	Acrylonitrile	0.2908	0.3437	-18.2	119	0.00
25 P	Methyl-t-Butyl Ether	1.7095	1.8155	-6.2	106	0.00
26 P	trans-1,2-Dichloroethene	0.4929	0.5253	-6.6	104	0.00
27 P	1,1-Dicethane	0.9660	1.0924	-13.1	113	0.00
28	Vinyl Acetate	0.1112	0.1164	-4.7	105	0.00
29	DIPE	1.7888	2.4004	-34.2#	136	0.00 NT
30	2-Chloro-1,3-Butadiene	0.8303	1.0268	-23.7#	124	0.00 NT
31	ETBE	1.6197	1.8205	-12.4	114	0.00
32	2,2-Dichloropropane	0.7364	0.6942	5.7	91	0.00
33 P	cis-1,2-Dichloroethene	0.5493	0.5757	-4.8	103	0.00
34 P	2-Butanone	0.3977	0.4905	-23.3#	131	0.00 (3)
35	Propionitrile	0.1178	0.1325	-12.5	116	0.00
36	Bromochloromethane	0.3394	0.3382	0.4	100	0.00
37	Methacrylonitrile	0.2835	0.3047	-7.5	109	0.00
38	Tetrahydrofuran	0.2463	0.2890	-17.3	120	0.00
39 P	Chloroform	0.8846	0.9501	-7.4	106	0.00
40 P	1,1,1-Trichloroethane	0.7469	0.7590	-1.6	101	0.00
41 i	1,4-Difluorobenzene	1.0000	1.0000	0.0	99	0.00
42 P	Cyclohexane	0.3672	0.4634	-26.2#	139	0.00 NT
43 s	surr4,Dibrflmethane	0.3369	0.3178	5.7	88	0.00
44 P	Carbontetrachloride	0.3690	0.3639	1.4	96	0.00
45	1,1-Dichloropropene	0.4674	0.4982	-6.6	107	0.00
46 s	surr1,1,2-dichloroethane-d4	0.4431	0.4458	-0.6	95	0.00
47 P	Benzene	1.3327	1.4147	-6.2	107	0.00
48 P	1,2-Dichloroethane	0.5302	0.5775	-8.9	114	0.00
49	Iso-Butyl Alcohol	0.0249	0.0283	-13.7	118	-0.01
50	TAME	0.9798	1.0521	-7.4	108	0.00
51	n-Heptane	0.4509	0.6209	-37.7#	137	0.00 NT

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6241.D
 Acq On : 28 Sep 2018 9:24 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 09:38:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	0.0136	0.0152	-11.8	112	-0.01
53 P	Trichloroethene	0.3480	0.3371	3.1	101	0.00
54 P	Methylcyclohexane	0.4434	0.5487	-23.7#	132	0.00 NT
55 P	1,2-Dichloropropane	0.3707	0.4172	-12.5	112	0.00
56	Dibromomethane	0.2205	0.2297	-4.2	104	0.00
57	1,4-Dioxane	0.0064	0.0063	1.6	102	0.00
58	Methyl Methacrylate	0.2904	0.3090	-6.4	107	0.00
59 P	Bromodichloromethane	0.4109	0.4406	-7.2	105	0.00
60	2-Nitropropane	0.0696	0.0913	-31.2#	132	0.00 NT
61	2-Chloroethylvinyl Ether	0.2002	0.1954	2.4	95	0.00
62 P	cis-1,3-Dichloropropene	0.5039	0.5665	-12.4	103	0.00
63 P	4-Methyl-2-pentanone	0.4833	0.5824	-20.5#	122	0.00
64 s	SURR3,Toluene-d8	1.3662	1.2873	5.8	89	0.00
65 P	Toluene	1.4326	1.5248	-6.4	106	0.00
66 P	trans-1,3-Dichloropropene	0.4563	0.4847	-6.2	98	0.00
67	Ethyl Methacrylate	0.4749	0.5483	-15.5	112	0.00
68 P	1,1,2-Trichloroethane	0.3169	0.3256	-2.7	104	0.00
69 s	SURR2,BFB	0.5250	0.5080	3.2	90	0.00
70 i	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00
71 P	Tetrachloroethene	0.3110	0.3088	0.7	106	0.00
72 P	2-Hexanone	0.4218	0.5013	-18.8	124	0.00
73	1,3-Dichloropropane	0.6375	0.6999	-9.8	109	0.00
74 P	Dibromochloromethane	0.3318	0.3436	-3.6	100	0.00
75	N-Butyl Acetate	0.7995	1.0075	-26.0#	126	0.00 NT
76 P	1,2-Dibromoethane	0.3669	0.3817	-4.0	104	0.00
77	3-Chlorobenzotrifluoride	0.5609	0.6163	-9.9	124	0.00
78 P	Chlorobenzene	1.0567	1.0800	-2.2	104	0.00
79	4-Chlorobenzotrifluoride	0.4991	0.5483	-9.9	123	0.00
80	1,1,1,2-Tetrachloroethane	0.3277	0.3337	-1.8	98	0.00
81 P	Ethylbenzene	0.5533	0.5767	-4.2	104	0.00
82 P	(m+p)Xylene	0.6878	0.7213	-4.9	105	0.00
83 P	o-Xylene	0.6841	0.7041	-2.9	104	0.00
84 P	Styrene	1.1007	1.1922	-8.3	102	0.00
85 P	Bromoform	0.2127	0.2261	+3.1	98	0.00
86	2-Chlorobenzotrifluoride	0.5409	0.6046	-11.8	120	0.00
87 P	Isopropylbenzene	1.7367	1.8677	-7.5	105	0.00
88	Cyclohexanone	0.0833	0.1072	-28.7#	123	0.00 NT
89	trans-1,4-Dichloro-2-Butene	0.1183	0.1351	+8.2	105	0.00
90 i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	96	0.00
91 P	1,1,2,2-Tetrachloroethane	0.9501	1.0277	-8.2	107	0.00
92	Bromobenzene	0.8364	0.8496	-1.6	101	0.00
93	1,2,3-Trichloropropane	0.2929	0.2967	-1.3	98	0.00
94	n-Propylbenzene	3.6871	4.1312	-12.0	107	0.00
95	2-Chlorotoluene	2.2238	2.3551	-5.9	105	0.00
96	3-Chlorotoluene	2.1968	2.4721	-12.5	118	0.00
97	4-Chlorotoluene	2.6522	2.7566	-3.9	102	0.00
98	1,3,5-Trimethylbenzene	2.5618	2.7857	-8.7	103	0.00
99	tert-Butylbenzene	2.2480	2.3618	-5.1	102	0.00
100	1,2,4-Trimethylbenzene	2.5509	2.7738	-8.7	104	0.00
101	3,4-Dichlorobenzotrifluorid	0.8195	0.9338	-13.9	118	0.00

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6241.D
 Acq On : 28 Sep 2018 9:24 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 09:38:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	3.2497	3.6131	-11.2	106	0.00
103	p-Isopropyltoluene	2.7735	3.0400	-9.6	106	0.00
104 P	1,3-Dclbenz	1.5381	1.5774	-2.6	101	0.00
105 P	1,4-Dclbenz	1.6241	1.6040	1.2	100	0.00
106	2,4-Dichlorobenzotrifluorid	0.7307	0.8501	-16.3	119	0.00
107	2,5-Dichlorobenzotrifluorid	0.8442	0.9606	-13.8	120	0.00
108	n-Butylbenzene	2.6519	2.9266	-10.4	106	0.00
109 P	1,2-Dclbenz	1.5604	1.5562	0.3	101	0.00
110 P	1,2-Dibromo-3-chloropropane	0.1946	0.1800	7.5	89	0.00
111	Trielution Dichlorotoluene	1.2741	1.3939	-9.4	111	0.00
112	1,3,5-Trichlorobenzene	1.1311	1.2345	-9.1	113	0.00
113	Coelution Dichlorotoluene	1.4068	1.5069	-7.1	107	0.00
114 P	1,2,4-Tcbenzene	1.1092	1.1631	-4.9	101	0.00
115	Hexachlorobt	0.4849	0.5288	-9.1	104	0.00
116	Naphthalen	2.8757	3.0018	-4.4	96	0.00
117	1,2,3-Tclbenzene	1.0907	1.1056	-1.4	100	0.00
118	2,4,5-Trichlorotoluene	0.6924	0.8072	-16.6	107	0.00
119	2,3,6-Trichlorotoluene	0.6519	0.7173	-10.0	108	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6241.D
 Acq On : 28 Sep 2018 9:24 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 09:38:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.397	168	210430	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	328097	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	291551	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	161881	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	104270	47.16	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	94.32%
46) surr1,1,2-dichloroetha...	5.781	65	146273	50.31	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	100.62%
64) SURR3,Toluene-d8	8.311	98	422374	47.12	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	94.24%
69) SURR2,BFB	10.877	95	166667	48.38	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	96.76%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	157356	56.00	ug/L	98
3) Chloromethane	1.282	50	171141	55.77	ug/L	96
4) Vinyl Chloride	1.361	62	156849	51.49	ug/L	99
5) Bromomethane	1.587	94	89500	36.23	ug/L	95
6) Chloroethane	1.666	64	99318	52.16	ug/L	97
7) Freon 21	1.812	67	238076	51.16	ug/L	98
8) Trichlorofluoromethane	1.861	101	169587	49.53	ug/L	99
9) Diethyl Ether	2.093	59	114082	58.85	ug/L	91
10) Freon 123a	2.099	67	148555	55.61	ug/L	95
11) Freon 123	2.147	83	156190	52.68	ug/L	98
12) Acrolein	2.196	56	164856	263.55	ug/L	96
13) 1,1-Dicethene	2.282	96	104460	53.86	ug/L	99
14) Freon 113	2.288	101	105003	54.34	ug/L	98
15) Acetone	2.324	43	77385	62.51	ug/L	93
16) 2-Propanol	2.464	45	249594	1042.75	ug/L	94
17) Iodomethane	2.416	142	155699	59.76	ug/L	99
18) Carbon Disulfide	2.477	76	306711	57.99	ug/L	100
19) Acetonitrile	2.580	41	135033	300.07	ug/L	92
20) Allyl Chloride	2.617	76	50909	53.84	ug/L #	83
21) Methyl Acetate	2.641	43	150823	61.13	ug/L	95
22) Methylene Chloride	2.733	84	116338	51.41	ug/L	90
23) TBA	2.867	59	361977	1009.53	ug/L	93
24) Acrylonitrile	2.989	53	361656	295.53	ug/L	97
25) Methyl-t-Butyl Ether	3.038	73	382046	53.10	ug/L	97
26) trans-1,2-Dichloroethene	3.031	96	110541	53.29	ug/L	96
27) 1,1-Dicethane	3.525	63	229880	56.54	ug/L	99
28) Vinyl Acetate	3.623	86	24492	52.33	ug/L #	31
29) DIPE	3.653	45	505126	67.10	ug/L	94
30) 2-Chloro-1,3-Butadiene	3.653	53	216068	61.83	ug/L	91
31) ETBE	4.184	59	383092	56.20	ug/L	97
32) 2,2-Dichloropropane	4.367	77	146079	47.14	ug/L	98
33) cis-1,2-Dichloroethene	4.373	96	121141	52.40	ug/L	95
34) 2-Butanone	4.415	43	103210	61.67	ug/L	93
35) Propionitrile	4.501	54	139401	281.15	ug/L	95
36) Bromochloromethane	4.769	130	71162	49.82	ug/L #	86
37) Methacrylonitrile	4.769	67	64118	53.75	ug/L #	74
38) Tetrahydrofuran	4.860	42	60814	58.67	ug/L	87
39) Chloroform	4.952	83	199924	53.70	ug/L	95
40) 1,1,1-Trichloroethane	5.251	97	159710	50.81	ug/L	95

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6241.D
 Acq On : 28 Sep 2018 9:24 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 09:38:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.336	41	152040	63.10	ug/L	99
44) Carbontetrachloride	5.531	117	119384	49.30	ug/L	96
45) 1,1-Dichloropropene	5.549	75	163472	53.30	ug/L	97
47) Benzene	5.866	78	464171	53.08	ug/L	94
48) 1,2-Dichloroethane	5.903	62	189479	54.46	ug/L	98
49) Iso-Butyl Alcohol	5.885	43	185454	1137.26	ug/L	99
50) TAME	6.104	73	345205	53.69	ug/L	94
51) n-Heptane	6.360	43	203726	68.85	ug/L	92
52) 1-Butanol	6.854	56	249925	2769.47	ug/L	94
53) Trichloroethene	6.817	130	110589	48.43	ug/L	96
54) Methylcyclohexane	7.055	55	180021	61.87	ug/L	94
55) 1,2-Diclpropane	7.098	63	136883	56.27	ug/L	99
56) Dibromomethane	7.238	93	75353	52.08	ug/L	85
57) 1,4-Dioxane	7.305	88	41498	986.02	ug/L	95
58) Methyl Methacrylate	7.329	69	101384	53.20	ug/L	90
59) Bromodichloromethane	7.470	83	144570	53.62	ug/L	96
60) 2-Nitropropane	7.750	41	59903	131.18	ug/L	98
61) 2-Chloroethylvinyl Ether	7.878	63	64104	48.80	ug/L	90
62) cis-1,3-Dichloropropene	8.012	75	185852	56.21	ug/L	98
63) 4-Methyl-2-pentanone	8.219	43	191069	60.24	ug/L	93
65) Toluene	8.384	91	500296	53.22	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	159026	53.11	ug/L	99
67) Ethyl Methacrylate	8.799	69	179884	57.72	ug/L	92
68) 1,1,2-Trichloroethane	8.841	97	106816	51.37	ug/L	94
71) Tetrachloroethene	8.975	164	90037	49.66	ug/L	98
72) 2-Hexanone	9.134	43	146156	59.43	ug/L	96
73) 1,3-Dichloropropane	9.012	76	204066	54.90	ug/L	92
74) Dibromochloromethane	9.238	129	100173	51.78	ug/L	98
75) N-Butyl Acetate	9.292	43	293749	63.01	ug/L	92
76) 1,2-Dibromoethane	9.335	107	111288	52.01	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	179691	54.94	ug/L	98
78) Chlorobenzene	9.829	112	314889	51.11	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	159851	54.92	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.920	131	97293	50.92	ug/L	98
81) Ethylbenzene	9.951	106	168150	52.11	ug/L	94
82) (m+p)Xylene	10.061	106	420612	104.87	ug/L	96
83) o-Xylene	10.420	106	205271	51.46	ug/L	98
84) Styrene	10.432	104	347586	54.16	ug/L	96
85) Bromoform	10.585	173	65919	51.55	ug/L	94
86) 2-Chlorobenzotrifluoride	10.664	180	176261	55.89	ug/L	98
87) Isopropylbenzene	10.756	105	544521	53.77	ug/L	99
88) Cyclohexanone	10.817	55	624965	1287.43	ug/L	94
89) trans-1,4-Dichloro-2-B...	11.066	53	39398	54.11	ug/L	93
91) 1,1,2,2-Tetrachloroethane	11.018	83	166365	54.08	ug/L	99
92) Bromobenzene	10.999	156	137537	50.79	ug/L	94
93) 1,2,3-Trichloropropane	11.042	110	48022	50.64	ug/L #	90
94) n-Propylbenzene	11.109	91	668757	56.02	ug/L	98
95) 2-Chlorotoluene	11.176	91	381254	52.95	ug/L	100
96) 3-Chlorotoluene	11.225	91	400192	56.27	ug/L	98
97) 4-Chlorotoluene	11.268	91	446242	51.97	ug/L	98
98) 1,3,5-Trimethylbenzene	11.262	105	450959	54.37	ug/L	99
99) tert-Butylbenzene	11.536	119	382324	52.53	ug/L	98
100) 1,2,4-Trimethylbenzene	11.572	105	449026	54.37	ug/L	100
101) 3,4-Dichlorobenzotrifl...	11.633	214	151157	56.97	ug/L	96
102) sec-Butylbenzene	11.719	105	584888	55.59	ug/L	97
103) p-Isopropyltoluene	11.841	119	492114	54.80	ug/L	98

Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6241.D
 Acq On : 28 Sep 2018 9:24 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 28 09:38:40 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
104)	1,3-Dclbenz	11.798	146	255343	51.27	ug/L	99
105)	1,4-Dclbenz	11.871	146	259655	49.38	ug/L	97
106)	2,4-Dichlorobenzotrifl...	11.926	214	137608	58.16	ug/L	97
107)	2,5-Dichlorobenzotrifl...	11.969	214	155499	56.89	ug/L	97
108)	n-Butylbenzene	12.176	91	473768	55.18	ug/L	97
109)	1,2-Dclbenz	12.176	146	251916	49.86	ug/L	99
110)	1,2-Dibromo-3-chloropr...	12.798	157	29138	46.25	ug/L	95
111)	Trielution Dichlorotol...	12.920	125	676957	164.11	ug/L	99
112)	1,3,5-Trichlorobenzene	12.975	180	199845	54.57	ug/L	98
113)	Coelution Dichlorotoluene	13.249	125	487870	107.12	ug/L	95
114)	1,2,4-Tcbenzene	13.456	180	188281	52.43	ug/L	98
115)	Hexachlorobt	13.590	225	85601	54.53	ug/L	98
116)	Naphthalen	13.645	128	485929	52.19	ug/L	100
117)	1,2,3-Tclbenzene	13.834	180	178971	50.68	ug/L	98
118)	2,4,5-Trichlorotoluene	14.419	159	130667	58.29	ug/L	98
119)	2,3,6-Trichlorotoluene	14.505	159	116113	55.02	ug/L	98

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

```

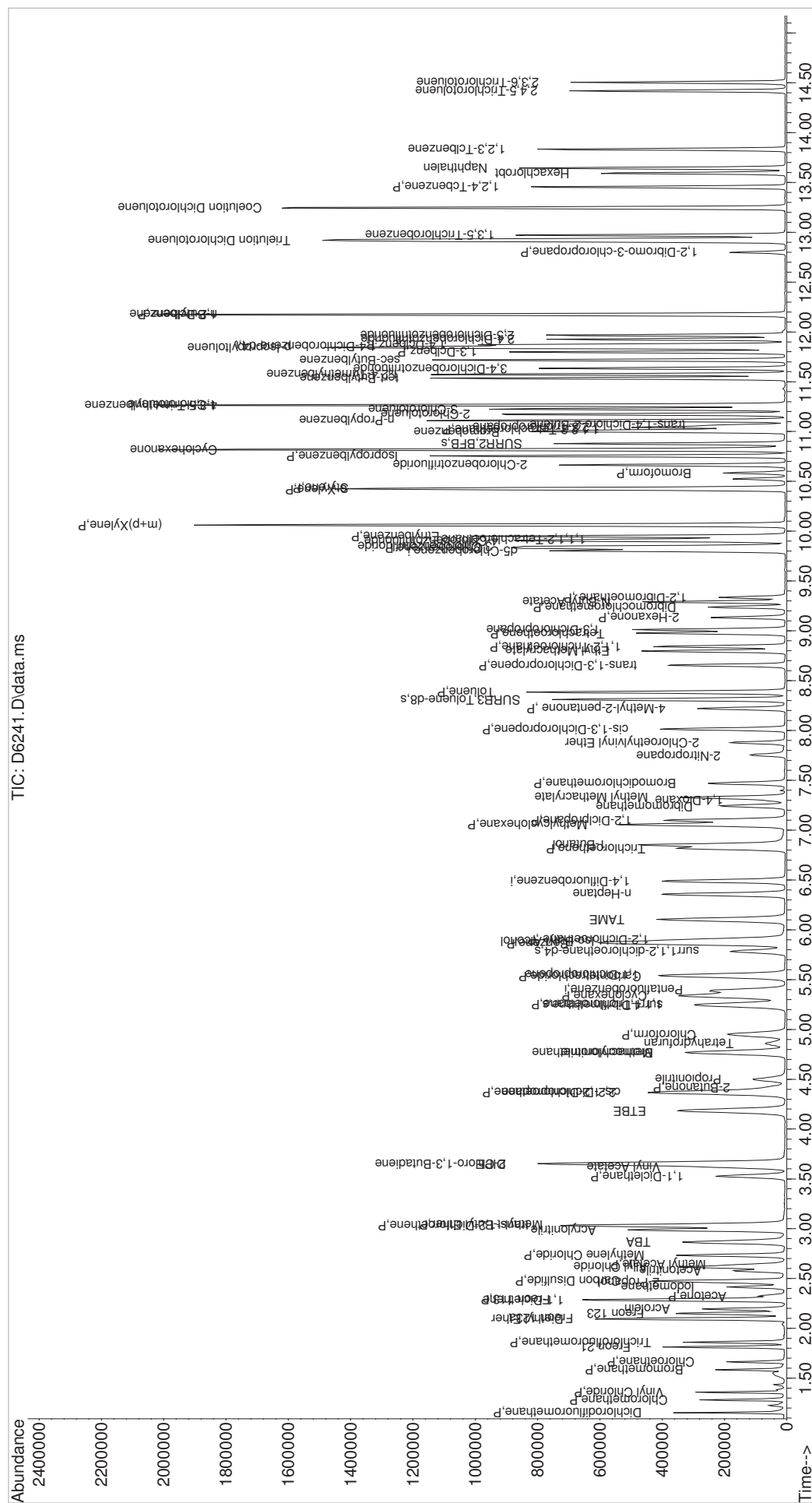
Data Path : I:\ACQUDATA\msvoa10\data\092818\
Data File : D6241.D
Acq On : 28 Sep 2018 9:24 am
Operator : D.LIPANI
Sample : CCV
Misc :
ALS Vial : 4 Sample Multiplier: 1

```

Inst : MSVOA10

ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 28 09:38:40 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

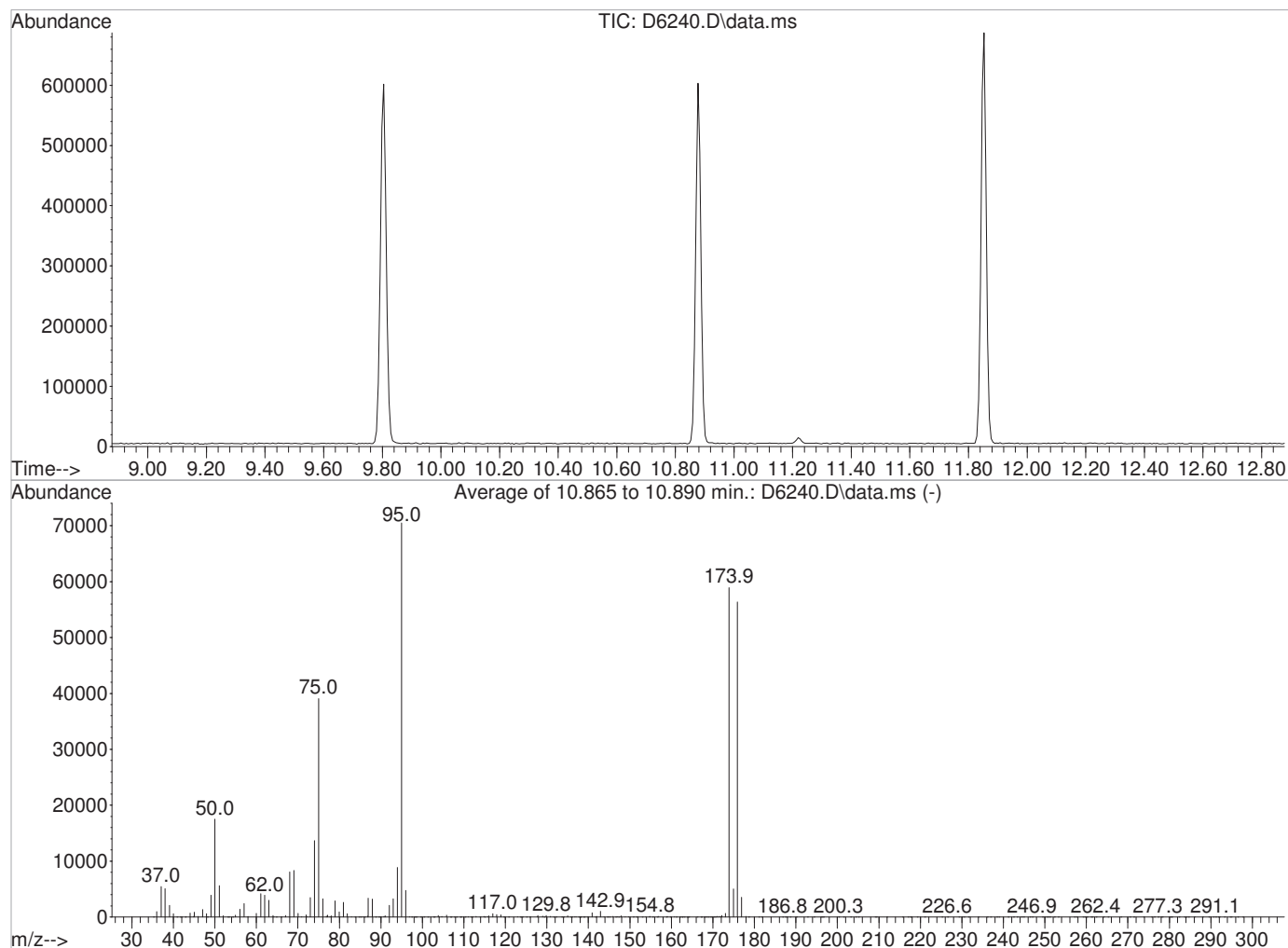


Data Path : I:\ACQUDATA\msvoa10\data\092818\
 Data File : D6240.D
 Acq On : 28 Sep 2018 8:46 am
 Operator : D.LIPANI
 Sample : TUNE CHECK
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA10

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Title : MS#10 - 8260B WATERS 5.0mL Purge
 Last Update : Wed Aug 22 12:58:20 2018



Spectrum Information: Average of 10.865 to 10.890 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.9	17532	PASS
75	95	30	60	55.4	39074	PASS
95	95	100	100	100.0	70496	PASS
96	95	5	9	6.7	4758	PASS
173	174	0.00	2	1.1	655	PASS
174	95	50	120	83.6	58931	PASS
175	174	5	9	8.6	5041	PASS
176	174	95	101	95.6	56347	PASS
177	176	5	9	6.2	3517	PASS

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095
Instrument ID: R-MS-10

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
09	RC1800095-09	STD #1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\082118\D5431.D	08/21/2018 14:58
08	RC1800095-08	STD #2 - 1.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5432.D	08/21/2018 15:20
07	RC1800095-07	STD #3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5433.D	08/21/2018 15:42
06	RC1800095-06	STD #4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5434.D	08/21/2018 16:03
05	RC1800095-05	STD #5 - 20 PPB	I:\ACQUDATA\msvoa10\data\082118\D5435.D	08/21/2018 16:25
04	RC1800095-04	STD #6 - 50 PPB	I:\ACQUDATA\msvoa10\data\082118\D5436.D	08/21/2018 16:47
03	RC1800095-03	STD #7 - 100 PPB	I:\ACQUDATA\msvoa10\data\082118\D5437.D	08/21/2018 17:09
02	RC1800095-02	STD #8 - 150 PPB	I:\ACQUDATA\msvoa10\data\082118\D5438.D	08/21/2018 17:31
01	RC1800095-01	STD #9 - 200 PPB	I:\ACQUDATA\msvoa10\data\082118\D5439.D	08/21/2018 17:53

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.8757	08	1.000	0.7331	07	2.000	0.7119	06	5.000	0.7032
05	20.000	0.7316	04	50.000	0.728	03	100.000	0.751	02	150.000	0.746
01	200.000	0.7416									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.046	08	1.000	0.985	07	2.000	0.9764	06	5.000	0.943
05	20.000	0.9708	04	50.000	0.9369	03	100.000	0.9651	02	150.000	0.9414
01	200.000	0.9299									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5024	08	1.000	0.437	07	2.000	0.4419	06	5.000	0.4712
05	20.000	0.4629	04	50.000	0.4463	03	100.000	0.4632	02	150.000	0.4637
01	200.000	0.4592									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.5925	05	20.000	0.4991	04	50.000	0.5551	03	100.000	0.4954
02	200.000	0.483									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.3863	05	20.000	0.3219	04	50.000	0.3561	03	100.000	0.3143
02	200.000	0.3062									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3572	08	1.000	0.3121	07	2.000	0.3045	06	5.000	0.279
05	20.000	0.301	04	50.000	0.2871	03	100.000	0.309	02	150.000	0.3241
01	200.000	0.3245									

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095
Instrument ID: R-MS-10

Signal ID: 1

Analyte

Toluene-d8											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	1.643	05	20.000	1.284	04	50.000	1.427	03	100.000	1.269
02	200.000	1.207									
Trichloroethene (TCE)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3826	08	1.000	0.3369	07	2.000	0.3521	06	5.000	0.3404
05	20.000	0.3566	04	50.000	0.3304	03	100.000	0.3431	02	150.000	0.3452
01	200.000	0.3448									
Vinyl Chloride											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.7256	08	1.000	0.7718	07	2.000	0.7174	06	5.000	0.7172
05	20.000	0.7297	04	50.000	0.6977	03	100.000	0.7117	02	150.000	0.7269
01	200.000	0.716									
cis-1,2-Dichloroethene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5299	08	1.000	0.5929	07	2.000	0.5369	06	5.000	0.5306
05	20.000	0.5602	04	50.000	0.5423	03	100.000	0.5614	02	150.000	0.5452
01	200.000	0.544									
trans-1,2-Dichloroethene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5259	08	1.000	0.4833	07	2.000	0.4621	06	5.000	0.4805
05	20.000	0.5014	04	50.000	0.4907	03	100.000	0.5051	02	150.000	0.4941
01	200.000	0.4929									

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Summary Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095
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	6.8	≤20	0.7469	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.7	≤20	0.966	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	4.2	≤20	0.4609	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	8.9	≤20	0.525	
Dibromofluoromethane	SURR	Average RF	% RSD	9.9	≤20	0.3369	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.4	≤20	0.311	0.200
Toluene-d8	SURR	Average RF	% RSD	12.8	≤20	1.366	
Trichloroethene (TCE)	TRG	Average RF	% RSD	4.3	≤20	0.348	0.200
Vinyl Chloride	TRG	Average RF	% RSD	2.8	≤20	0.7238	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.5493	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.4929	0.100

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS

Calibration ID: RC1800095
Instrument ID: R-MS-10

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
10	RC1800095-10	ICV 50	I:\ACQUDATA\msvoa10\data\082118\D5444.D	08/21/2018 19:42
11	RC1800095-11	ICV	I:\ACQUDATA\msvoa10\data\082218\D5449.D	08/22/2018 10:27

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	46.8	7.469E-1	6.992E-1	-6.384	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	47.9	9.66E-1	9.252E-1	-4.230	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.3	4.609E-1	4.177E-1	-9.370	±30	Average RF
Tetrachloroethene (PCE)	50.0	46.5	3.11E-1	2.889E-1	-7.081	±30	Average RF
Trichloroethene (TCE)	50.0	47.8	3.48E-1	3.326E-1	-4.434	±30	Average RF
Vinyl Chloride	50.0	45.0	7.238E-1	6.516E-1	-9.969	±30	Average RF
cis-1,2-Dichloroethene	50.0	47.2	5.493E-1	5.185E-1	-5.601	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.5	4.929E-1	4.686E-1	-4.932	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	52.8	5.25E-1	5.542E-1	5.55	±30	Average RF
Dibromofluoromethane	50.0	52.4	3.369E-1	3.53E-1	4.76	±30	Average RF
Toluene-d8	50.0	53.0	1.366E0	1.449E0	6.03	±30	Average RF

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/28/18 09:24

Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\092818\D6241.D\
Signal ID: 1

Calibration Date: 8/21/2018
Calibration ID: RC1800095
Analysis Lot: 608727
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	0.7469	0.759	1.6	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	56.5	0.966	1.0924	13.1	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	53.9	0.4609	0.4964	7.7	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	49.7	0.311	0.3088	-0.7	NA	±20	Average RF
Trichloroethene (TCE)	50.0	48.4	0.348	0.3371	-3.1	NA	±20	Average RF
Vinyl Chloride	50.0	51.5	0.7238	0.7454	3.0	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	52.4	0.5493	0.5757	4.8	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	53.3	0.4929	0.5253	6.6	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	48.4	0.525	0.508	-3.2	NA	±20	Average RF
Dibromofluoromethane	50.0	47.2	0.3369	0.3178	-5.7	NA	±20	Average RF
Toluene-d8	50.0	47.1	1.3662	1.2873	-5.8	NA	±20	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method:

Analysis Lot:608727
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092818\D6240.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	08:46:00	
I:\ACQUDATA\msvoa10\data\092818\D6241.D\	Continuing Calibration Verification	RQ1810434-02	9/28/2018	09:24:00	
I:\ACQUDATA\msvoa10\data\092818\D6242.D\	Lab Control Sample	RQ1810434-03	9/28/2018	10:13:00	
I:\ACQUDATA\msvoa10\data\092818\D6244.D\	Method Blank	RQ1810434-04	9/28/2018	11:05:00	
I:\ACQUDATA\msvoa10\data\092818\D6245.D\	Trip Blank - 092018	R1809120-001	9/28/2018	11:34:00	
I:\ACQUDATA\msvoa10\data\092818\D6246.D\	FB-092018	R1809120-011	9/28/2018	11:56:00	
I:\ACQUDATA\msvoa10\data\092818\D6247.D\	MW-10	R1809120-002	9/28/2018	12:18:00	
I:\ACQUDATA\msvoa10\data\092818\D6248.D\	MW-13	R1809120-003	9/28/2018	12:40:00	
I:\ACQUDATA\msvoa10\data\092818\D6249.D\	DMW-3	R1809120-004	9/28/2018	13:01:00	
I:\ACQUDATA\msvoa10\data\092818\D6250.D\	TMP-A	R1809120-007	9/28/2018	13:23:00	
I:\ACQUDATA\msvoa10\data\092818\D6251.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	13:45:00	
I:\ACQUDATA\msvoa10\data\092818\D6252.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	14:07:00	
I:\ACQUDATA\msvoa10\data\092818\D6254.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	14:51:00	
I:\ACQUDATA\msvoa10\data\092818\D6255.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	15:12:00	
I:\ACQUDATA\msvoa10\data\092818\D6256.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	16:32:00	
I:\ACQUDATA\msvoa10\data\092818\D6257.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	16:59:00	
I:\ACQUDATA\msvoa10\data\092818\D6258.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	17:23:00	
I:\ACQUDATA\msvoa10\data\092818\D6260.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	18:07:00	
I:\ACQUDATA\msvoa10\data\092818\D6261.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	18:29:00	
I:\ACQUDATA\msvoa10\data\092818\D6262.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	18:50:00	
I:\ACQUDATA\msvoa10\data\092818\D6264.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	19:34:00	
I:\ACQUDATA\msvoa10\data\092818\D6265.D\	ZZZZZZZZ	ZZZZZZZZ	9/28/2018	19:56:00	
I:\ACQUDATA\msvoa10\data\092818\D6266.D\	MW-10 MS	RQ1810434-05	9/28/2018	20:18:00	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120

Analysis Run Log
Volatile Organic Compounds by GC/MS

Analysis Method:

Analysis Lot:608727
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092818 \D6267.D\	MW-10 DMS	RQ1810434-06	9/28/2018	20:39:00	

Analysis: 8260C Analyst: P. Nymy pH strips: Hyd 204018 Tune Method: W082118.M
 Date: 9/28/18 Balance ID: --- ResCl strips: --- Run Method: ↓
 Instr: MS#10 50 mL Class A used for dilution FV Syringes: 181117 LIMS Run#: 608727

Data Path: j:\acquadata\msvoa4\instid\ (Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	Time Check		(Run as a B/K)					D6240	Y	
2	CCV							41	Y	Acetone + MEK ↑
3	LCS-Acid							42	Y	
4	B/K							43	N	
5	Met B/K							44	Y	
6	R1809120-001	1.0		6646	IV	1	<2	45	Y	
7	-011	1.0				1	<2	46	Y	
8	-002	1.0				1	<2	47	Y	
9	-003	1.0				1	<2	48	Y	
10	-004	1.0				1	<2	49	Y	
11	↓	-007	1.0			1	<2	D6250	Y	
12	R1809119-002	1.0		13429	II	1	<2	51	Y	rpt 1/5 VC, MeCl ₂ , cis, TCE all ↑
13	↓	-004	2.0			1	<2	52	Y	
14	B/K							53	O.K.	
15	R1809119-001	2.5	20mL/50mL	13429	II	1	<2	54	Y	rpt 1/10 VC, MeCl ₂ , TCE ↑
16	-003	2.50	1.0mL/2.50mL			1	<2	55	Y	rpt 1/500 cis ↑
17	↓	-003	5.00			2	<2	56	Y	= DL
18	↓	-002	5.0			2	<2	57	Y	= DL slight weak
19	↓	-001	10			2	<2	58	Y	= DL
20	B/K							59	O.K.	
21	R1809051-003	1.0		14733	II	1	<2	D6260	Y	
22	↓	-001	1.0			1	<2	61	Y	
23	↓	-002	2.0			1	<2	62	Y	
24	↓	-002	5.0			2	<2	63	O.K.	not needed
25	R1809052-001	2.0	25mL/50mL			2	<2	64	Y	rpt 1/10 VC, Tel, CB, 2-CT ↑
26	↓	-001	10			2	<2	65	Y	= DL
27	R1809120-002MS	1.0		13429	II	2	<2	66	Y	
28	↓	-002BMS	1.0			3	<2	67	Y	
29	B/K							68	O.K.	
30	High Gaseous							69	Y	
31-43	B/KS							D6270	Y	

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Combined IS/Surr

Primary TG: 193538 5.0mL
 Primary HSL: 193469
 Primary OCC: 193366
 Primary Frt: 193220
 Primary
 Secondary TG: 193547 2.0mL
 Secondary HSL: 193388
 Secondary OCC: 191355
 Secondary Frt: 193559 5.0mL
 Secondary
 50mL DI
 50mL
 42mL vial + 50mL = MS/BMS
 Reagents: Internal Std 50: 193099
 Runlog-MSVOA4 1/17/17

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 12:14
Date Received: 09/21/18 09:50

Sample Name: MW-17
Lab Code: R1809120-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.5	1.0	0.25	1	09/24/18 17:38	
1,1-Dichloroethane (1,1-DCA)	7.1	1.0	0.20	1	09/24/18 17:38	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 17:38	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 17:38	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 17:38	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 17:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 17:38	
Dibromofluoromethane	97	89 - 119	09/24/18 17:38	
Toluene-d8	99	87 - 121	09/24/18 17:38	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 12:23
Date Received: 09/21/18 09:50

Sample Name: MW-16
Lab Code: R1809120-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 18:00	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 18:00	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 18:00	
Tetrachloroethene (PCE)	160	1.0	0.28	1	09/24/18 18:00	
Trichloroethene (TCE)	1.6	1.0	0.20	1	09/24/18 18:00	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 18:00	
cis-1,2-Dichloroethene	1.5	1.0	0.26	1	09/24/18 18:00	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 18:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	85 - 122	09/24/18 18:00	
Dibromofluoromethane	93	89 - 119	09/24/18 18:00	
Toluene-d8	95	87 - 121	09/24/18 18:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 15:18
Date Received: 09/21/18 09:50

Sample Name: MW-9
Lab Code: R1809120-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.42 J	1.0	0.25	1	09/25/18 12:53	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/25/18 12:53	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/25/18 12:53	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/25/18 12:53	
Trichloroethene (TCE)	17	1.0	0.20	1	09/25/18 12:53	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/25/18 12:53	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:53	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/25/18 12:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	09/25/18 12:53	
Dibromofluoromethane	95	89 - 119	09/25/18 12:53	
Toluene-d8	96	87 - 121	09/25/18 12:53	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 15:30
Date Received: 09/21/18 09:50

Sample Name: MW-8
Lab Code: R1809120-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.62 J	1.0	0.25	1	09/24/18 18:44	
1,1-Dichloroethane (1,1-DCA)	2.1	1.0	0.20	1	09/24/18 18:44	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 18:44	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 18:44	
Trichloroethene (TCE)	8.7	1.0	0.20	1	09/24/18 18:44	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 18:44	
cis-1,2-Dichloroethene	11	1.0	0.26	1	09/24/18 18:44	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 18:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	09/24/18 18:44	
Dibromofluoromethane	98	89 - 119	09/24/18 18:44	
Toluene-d8	99	87 - 121	09/24/18 18:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18 15:35
Date Received: 09/21/18 09:50

Sample Name: MW-11
Lab Code: R1809120-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.25	1	09/24/18 19:30	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	09/24/18 19:30	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 19:30	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	09/24/18 19:30	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 19:30	
cis-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	85 - 122	09/24/18 19:30	
Dibromofluoromethane	92	89 - 119	09/24/18 19:30	
Toluene-d8	97	87 - 121	09/24/18 19:30	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003
Sample Matrix: Water

Service Request: R1809120
Date Collected: 09/20/18
Date Received: 09/21/18 09:50

Sample Name: DUP-092018
Lab Code: R1809120-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 8260C
Prep Method: EPA 5030C

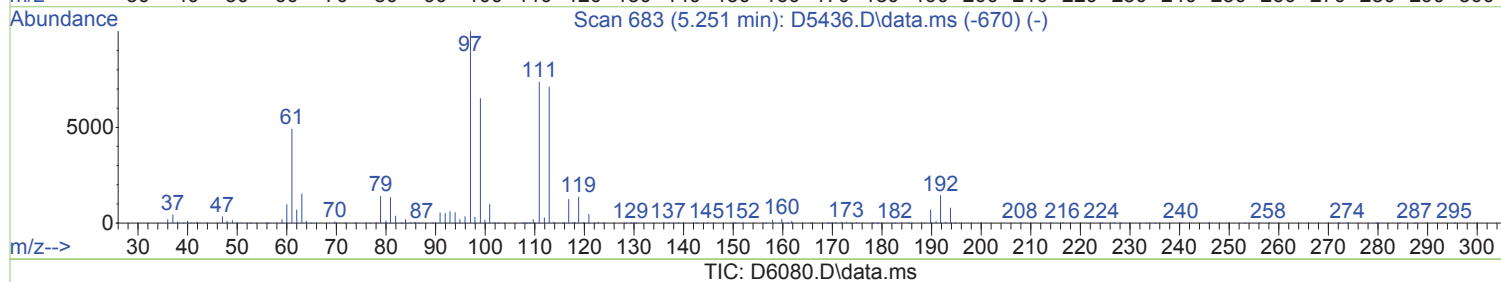
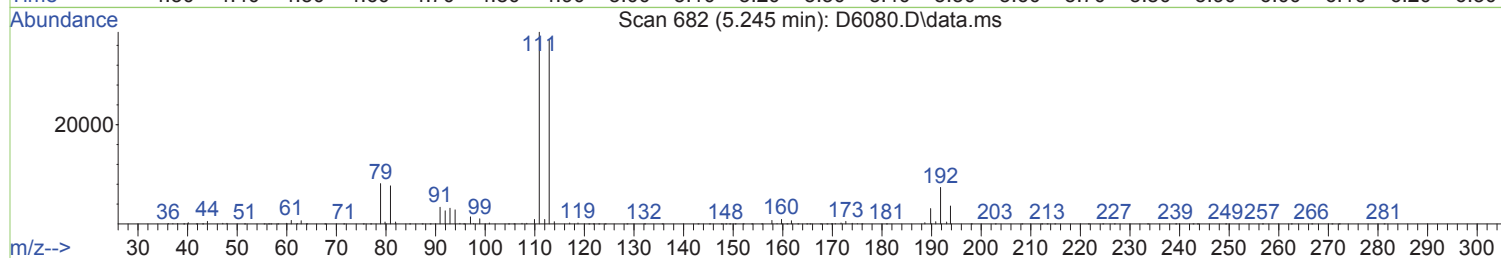
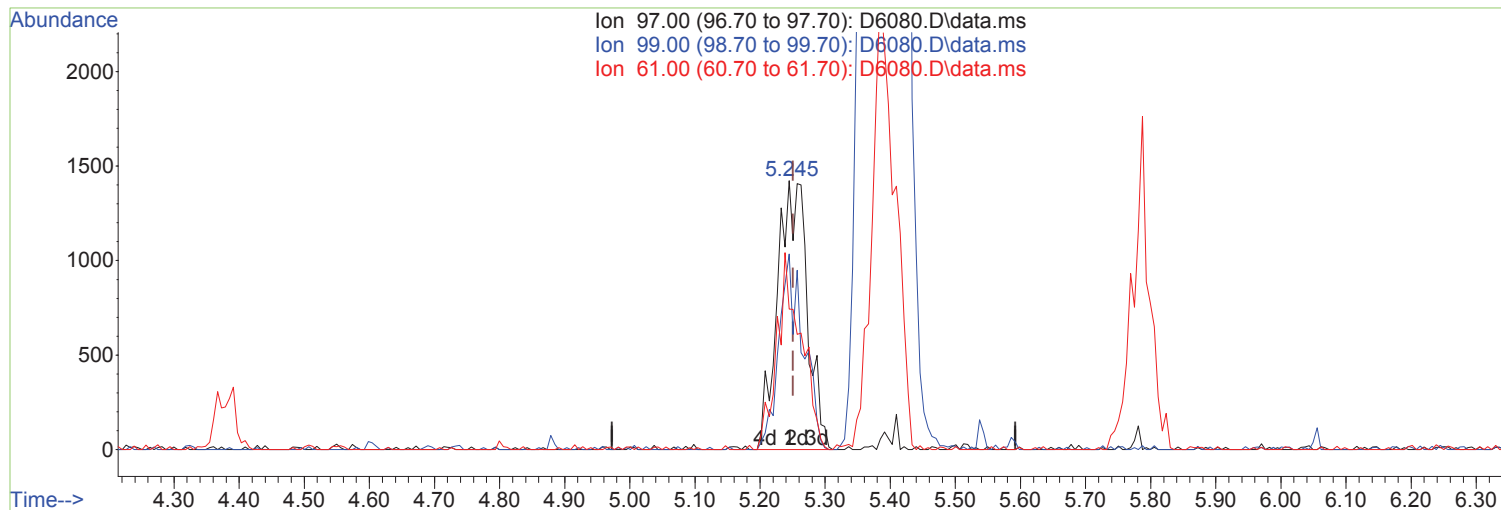
Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	0.51 J	1.0	0.25	1	09/24/18 19:08	
1,1-Dichloroethane (1,1-DCA)	2.0	1.0	0.20	1	09/24/18 19:08	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.28	1	09/24/18 19:08	
Tetrachloroethene (PCE)	1.0 U	1.0	0.28	1	09/24/18 19:08	
Trichloroethene (TCE)	9.7	1.0	0.20	1	09/24/18 19:08	
Vinyl Chloride	1.0 U	1.0	0.22	1	09/24/18 19:08	
cis-1,2-Dichloroethene	15	1.0	0.26	1	09/24/18 19:08	
trans-1,2-Dichloroethene	1.0 U	1.0	0.26	1	09/24/18 19:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	09/24/18 19:08	
Dibromofluoromethane	102	89 - 119	09/24/18 19:08	
Toluene-d8	102	87 - 121	09/24/18 19:08	

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(40) 1,1,1-Trichloroethane (P)

5.245min (-0.006) 1.54 ug/L m

response 4542

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	72.73
61.00	49.10	52.28
0.00	0.00	0.00

Manual Integration:

After

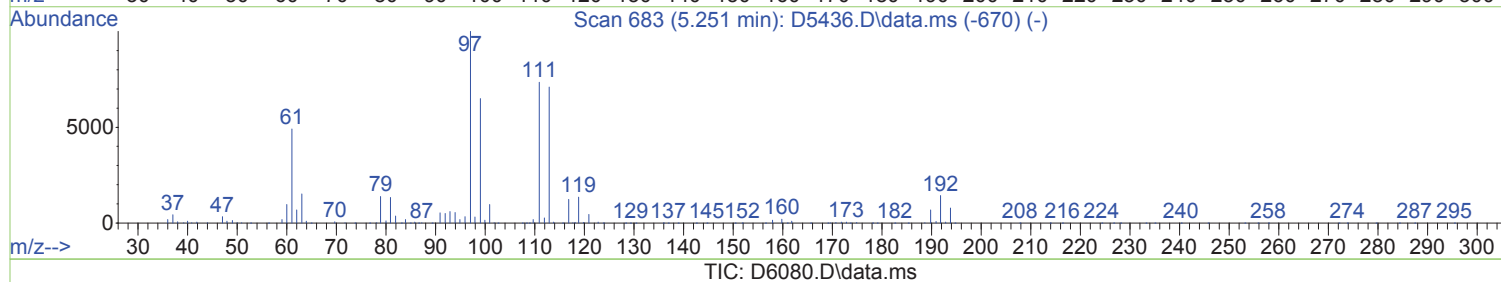
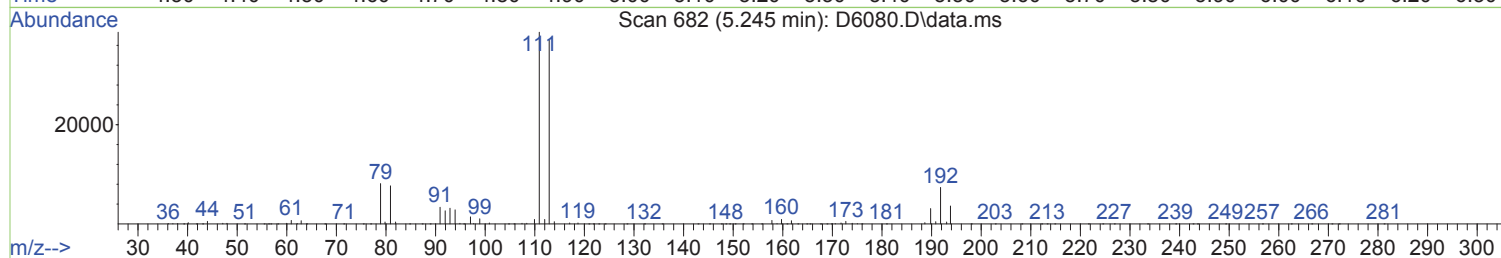
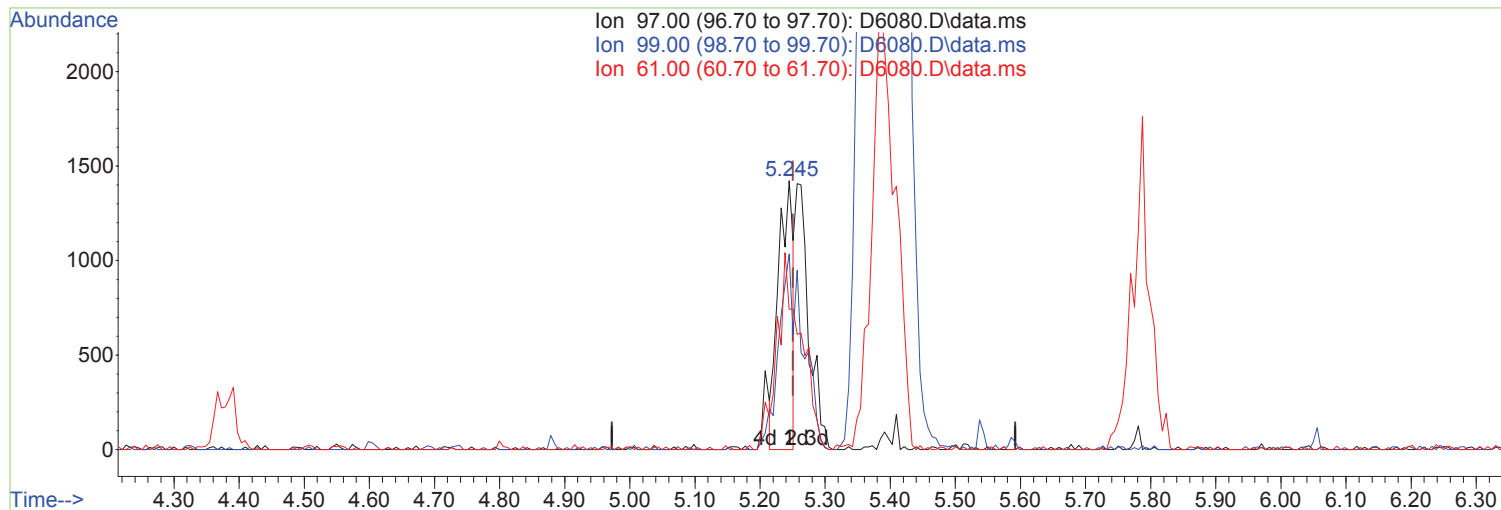
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(40) 1,1,1-Trichloroethane (P)

Manual Integration:

5.245min (-0.006) 0.76 ug/L

Before

response 2250

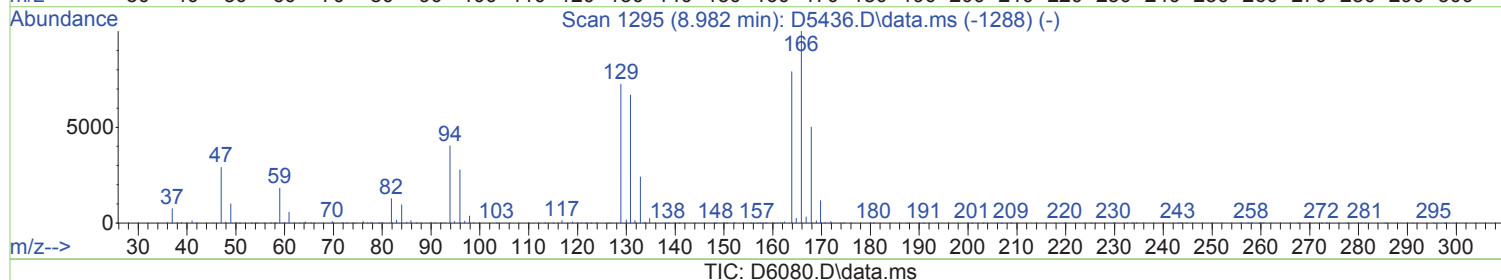
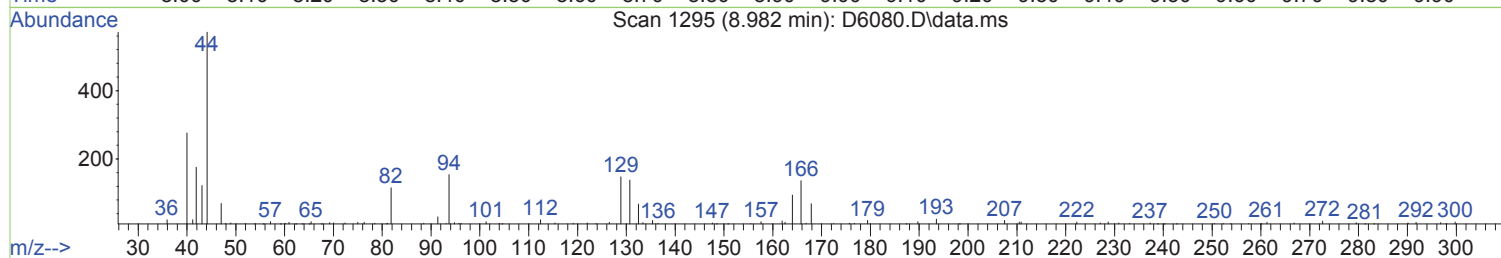
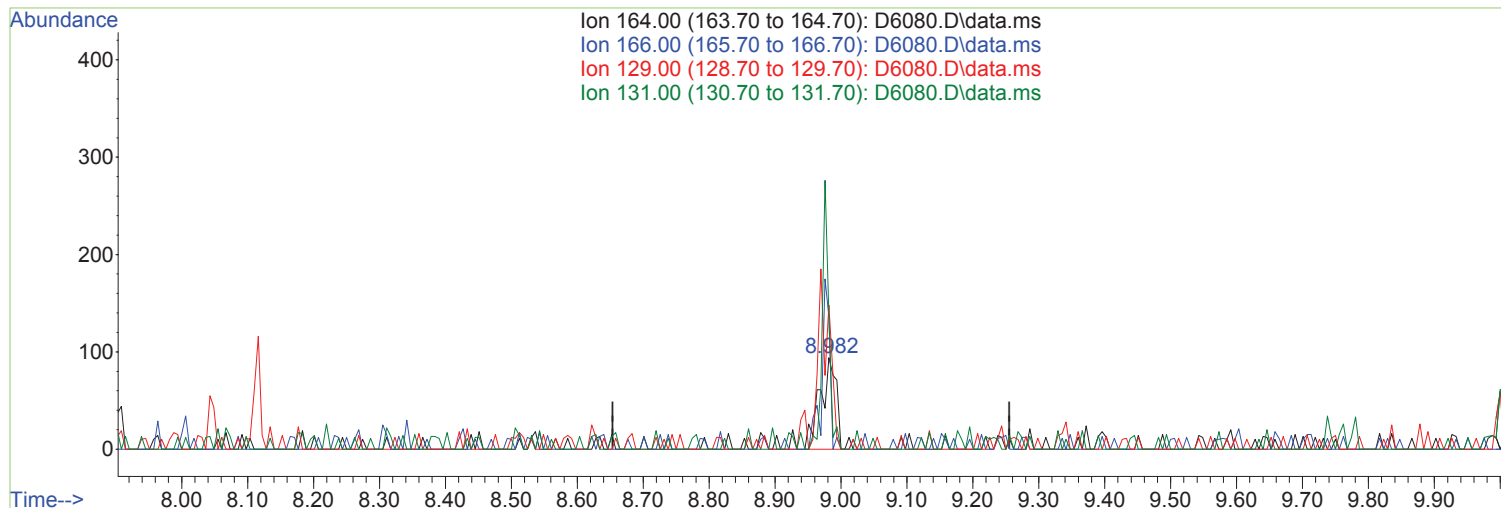
Ion	Exp%	Act%
97.00	100	100
99.00	65.00	69.65
61.00	49.10	50.07
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(71) Tetrachloroethene (P)

8.982min (+0.000) 0.10 ug/L m

response 163

Ion	Exp%	Act%
164.00	100	100
166.00	126.80	144.68
129.00	91.90	157.45#
131.00	84.60	146.81#

Manual Integration:

After

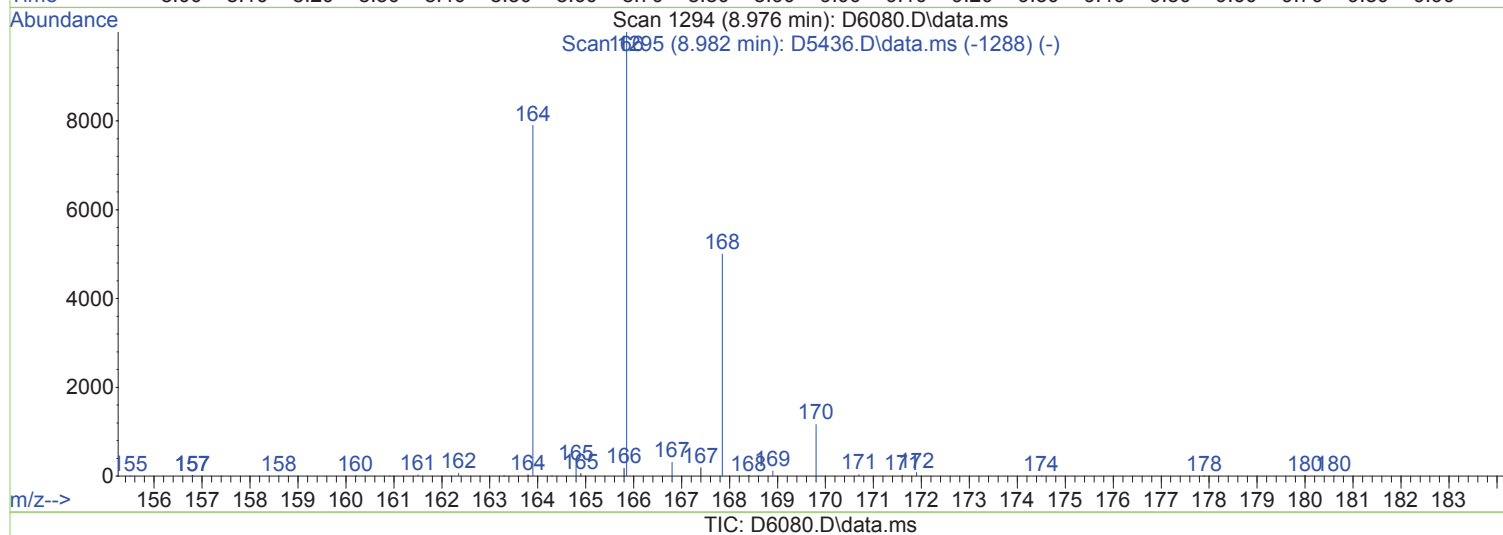
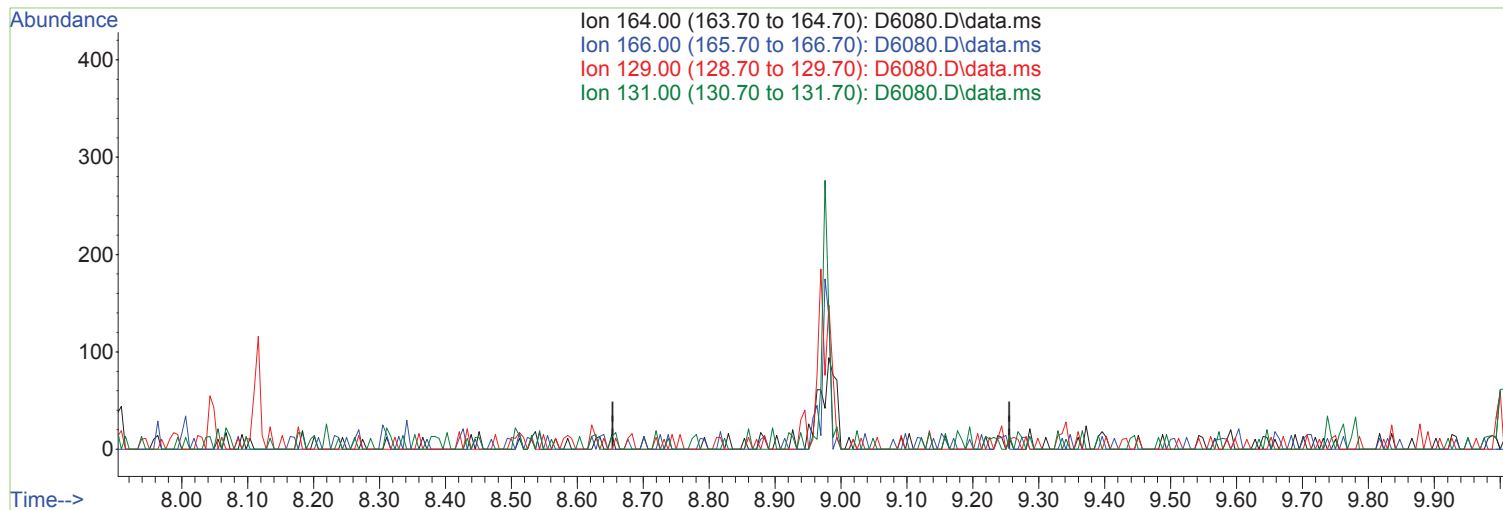
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 17:53:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(71) Tetrachloroethene (P)

Manual Integration:

8.982min (-8.982) 0.00 ug/L

Before

response 0

Ion	Exp%	Act%

09/27/18

164.00	100	0.00

166.00	126.80	0.00#

129.00	91.90	0.00#

131.00	84.60	0.00#

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6080.D
 Acq On : 24 Sep 2018 5:38 pm
 Operator : D.LIPANI
 Sample : R1809120-005|1.0
 Misc : Verina 7979 T4
 ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:06:00 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

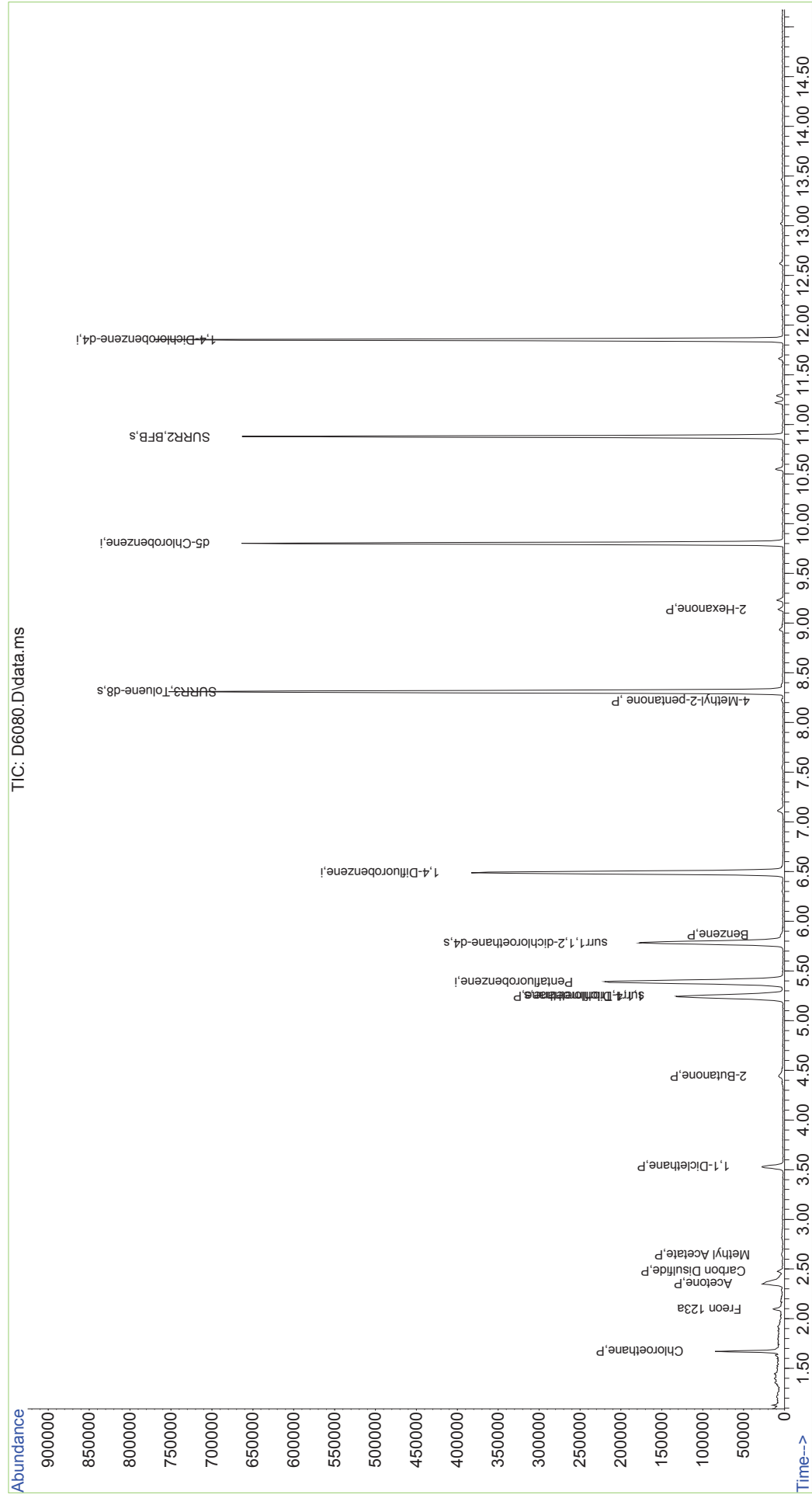
Internal Standards						
1) Pentafluorobenzene	5.391	168	196977	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	314860	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	269323	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	135896	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	103348	48.71	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	97.42%	
46) surr1,1,2-dichloroetha...	5.781	65	148663	53.28	ug/L	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	106.56%	
64) SURR3,Toluene-d8	8.311	98	425369	49.44	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	98.88%	
69) SURR2,BFB	10.878	95	150251	45.45	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	90.90%	
Target Compounds						
						Qvalue
6) Chloroethane	1.672	64	44390	24.91	ug/L	94
10) Freon 123a	2.099	67	3956	1.58	ug/L	97
15) Acetone	2.355	43	54216	46.79	ug/L	88
18) Carbon Disulfide	2.477	76	5530	1.12	ug/L	98
21) Methyl Acetate	2.648	43	1231	0.53	ug/L	84
27) 1,1-Dicethane	3.531	63	27202	7.15	ug/L	96
34) 2-Butanone	4.440	43	12387	7.91	ug/L	88
40) 1,1,1-Trichloroethane	5.245	97	4542m	1.54	ug/L	
47) Benzene	5.860	78	2567	0.31	ug/L #	56
63) 4-Methyl-2-pentanone	8.220	43	1443	0.47	ug/L	80
72) 2-Hexanone	9.140	43	3950	1.74	ug/L	95

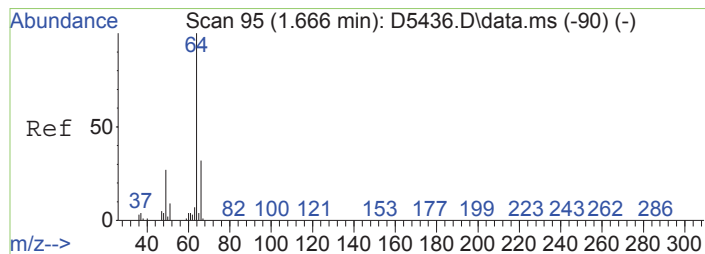
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6080.D
Acq On : 24 Sep 2018 5:38 pm
Operator : D.LIPANI
Sample : R1809120-005|1.0
Misc : Verina 7979 T4
ALS Vial : 24 Sample Multiplier: 1

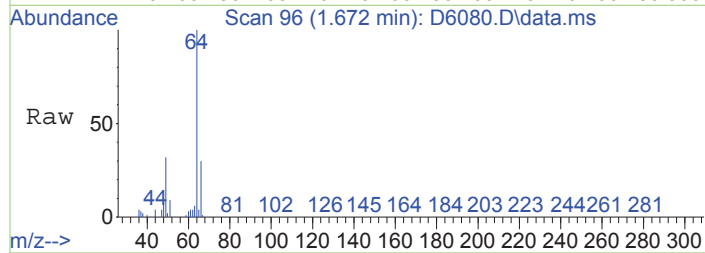
Inst : MSVOA10

Quant Time: Sep 27 15:06:00 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
Qlast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

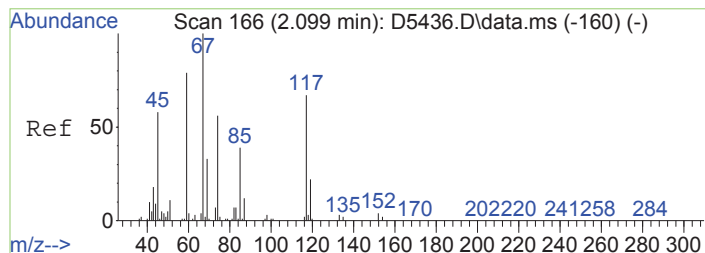
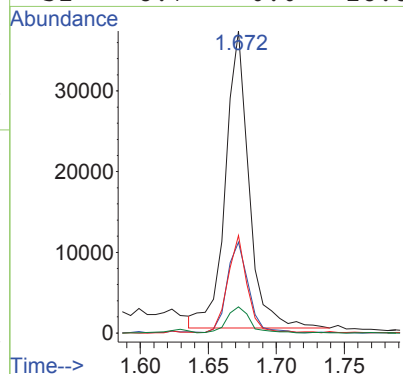
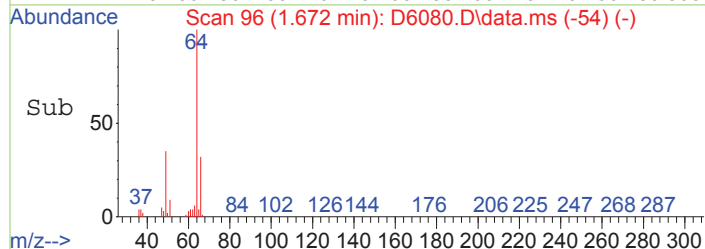




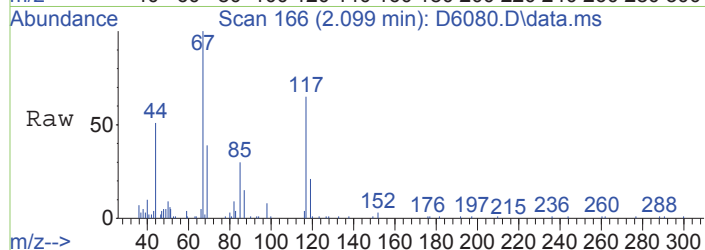
#6
Chloroethane
Concen: 24.91 ug/L
RT: 1.672 min Scan# 96
Delta R.T. 0.012 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm



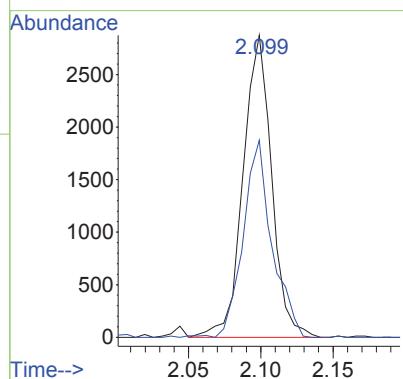
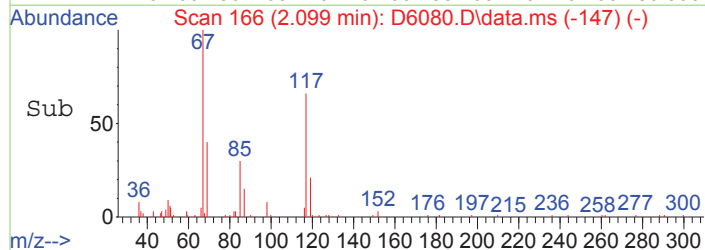
Tgt Ion: 64 Resp: 44390
Ion Ratio Lower Upper
64 100
66 30.1 12.1 52.1
49 32.3 6.6 46.6
51 8.7 0.0 28.8

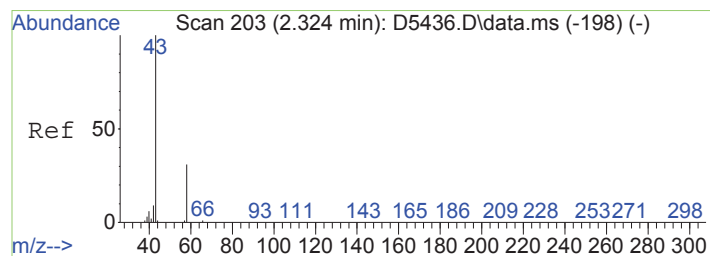


#10
Freon 123a
Concen: 1.58 ug/L
RT: 2.099 min Scan# 166
Delta R.T. 0.000 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm



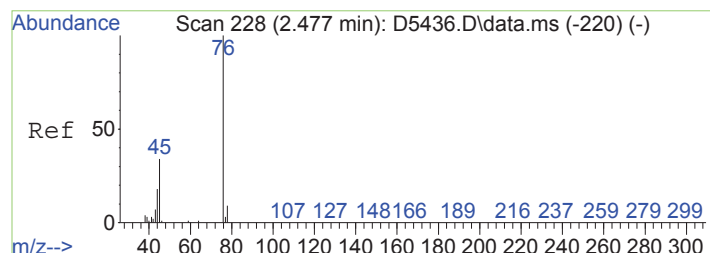
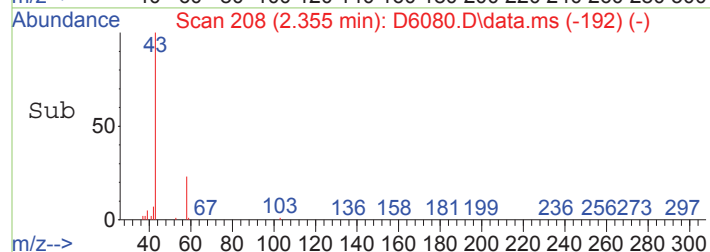
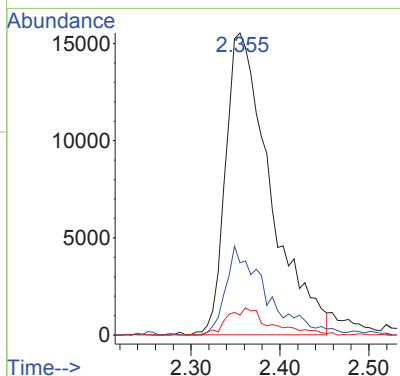
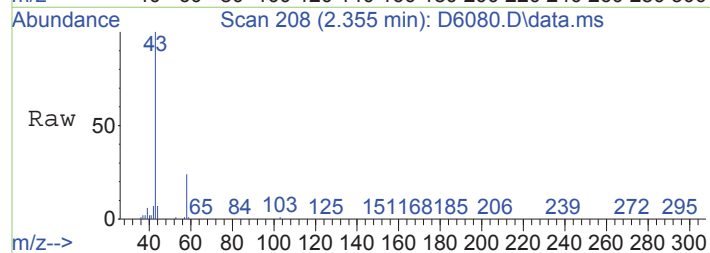
Tgt Ion: 67 Resp: 3956
Ion Ratio Lower Upper
67 100
117 65.3 47.5 87.5





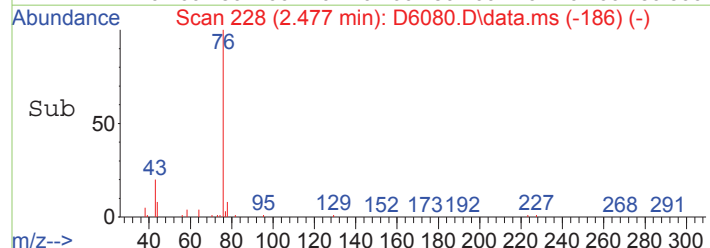
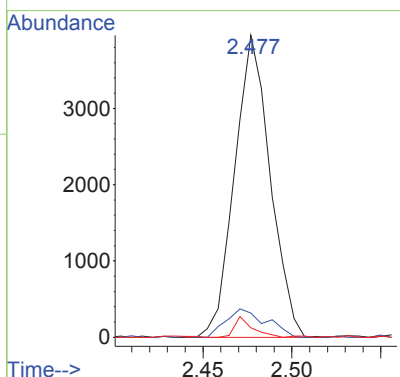
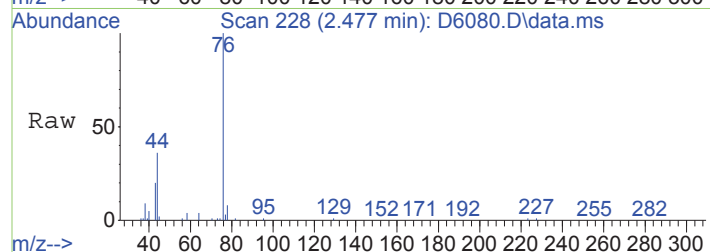
#15
Acetone
Concen: 46.79 ug/L
RT: 2.355 min Scan# 208
Delta R.T. 0.024 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

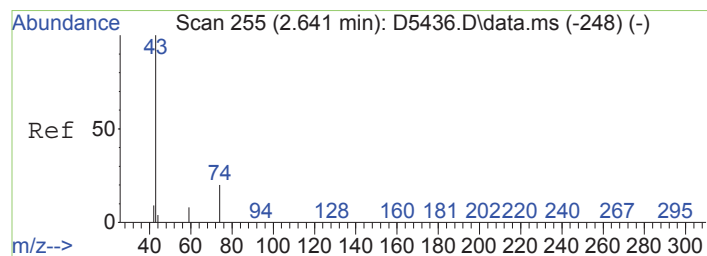
Tgt Ion: 43 Resp: 54216
Ion Ratio Lower Upper
43 100
58 23.9 11.2 51.2
42 6.6 0.0 28.6



#18
Carbon Disulfide
Concen: 1.12 ug/L
RT: 2.477 min Scan# 228
Delta R.T. 0.000 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

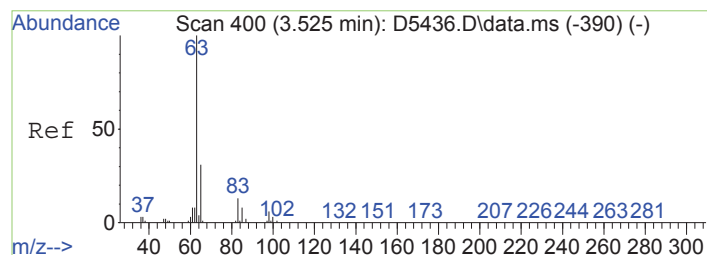
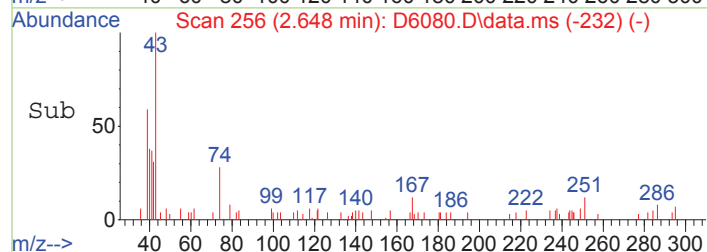
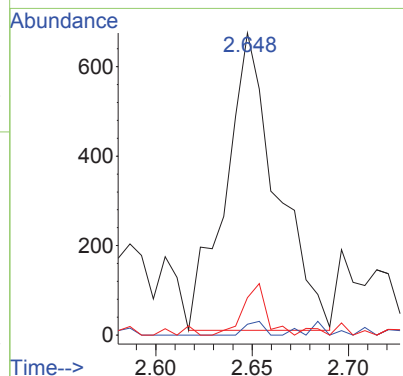
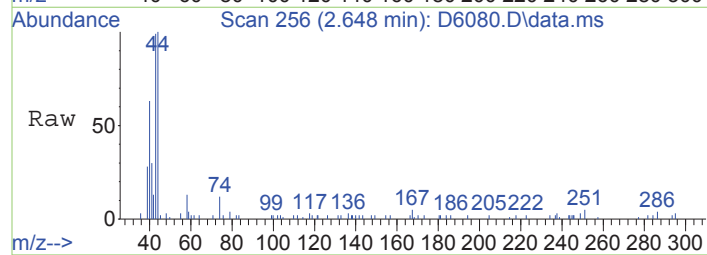
Tgt Ion: 76 Resp: 5530
Ion Ratio Lower Upper
76 100
78 8.0 0.0 28.8
77 3.2 0.0 22.9





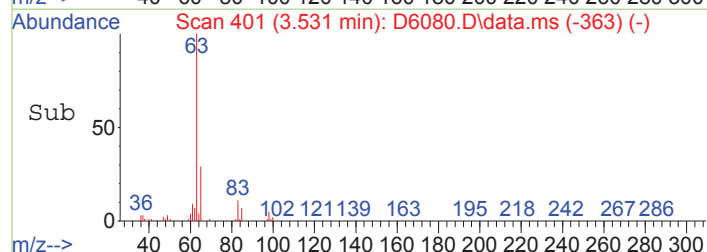
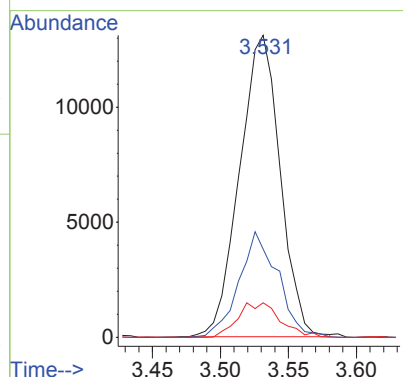
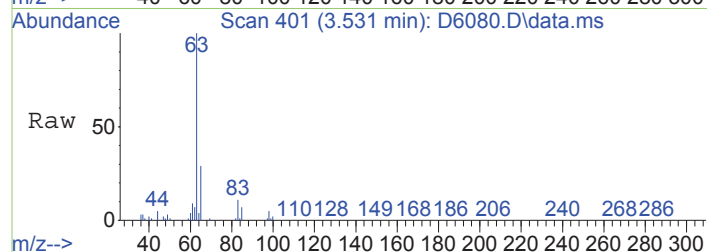
#21
Methyl Acetate
Concen: 0.53 ug/L
RT: 2.648 min Scan# 256
Delta R.T. 0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

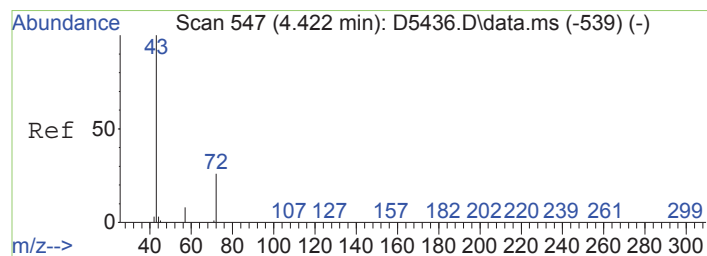
Tgt Ion: 43	Resp: 1231
Ion Ratio	Lower Upper
43	100
59	3.6 0.0 28.1
74	12.4 0.2 40.2



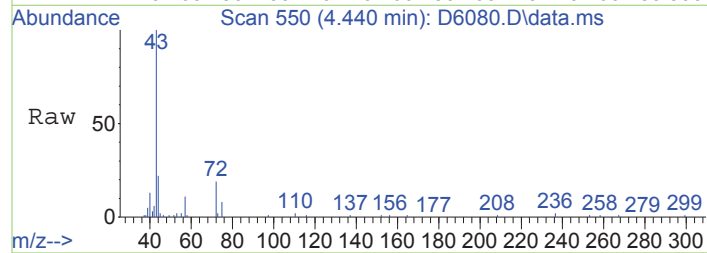
#27
1,1-Dicethane
Concen: 7.15 ug/L
RT: 3.531 min Scan# 401
Delta R.T. 0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion: 63	Resp: 27202
Ion Ratio	Lower Upper
63	100
65	29.2 11.4 51.4
83	11.4 0.0 32.6

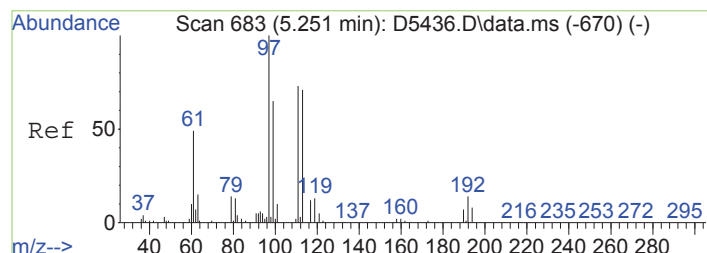
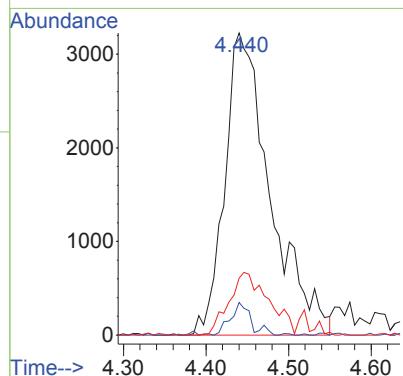
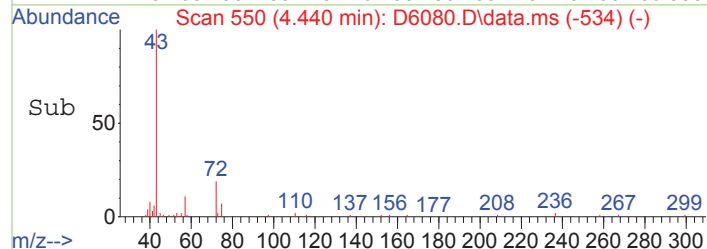




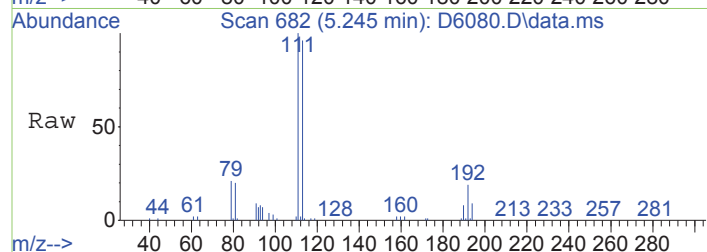
#34
2-Butanone
Concen: 7.91 ug/L
RT: 4.440 min Scan# 550
Delta R.T. 0.024 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm



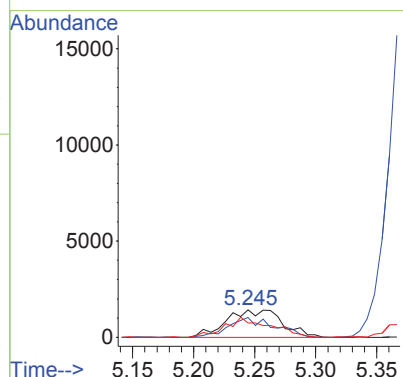
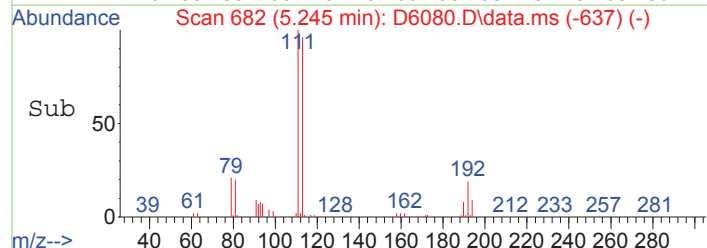
Tgt Ion: 43 Resp: 12387
Ion Ratio Lower Upper
43 100
57 10.8 0.0 27.8
72 18.8 5.1 45.1

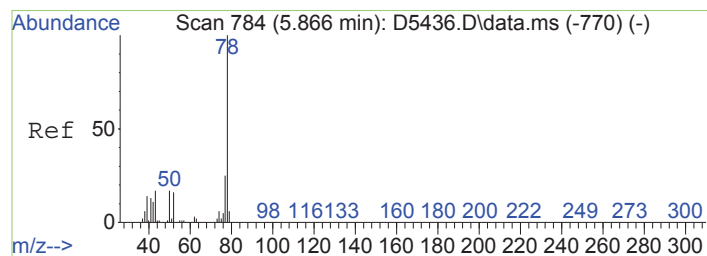


#40
1,1,1-Trichloroethane
Concen: 1.54 ug/L m
RT: 5.245 min Scan# 682
Delta R.T. -0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm



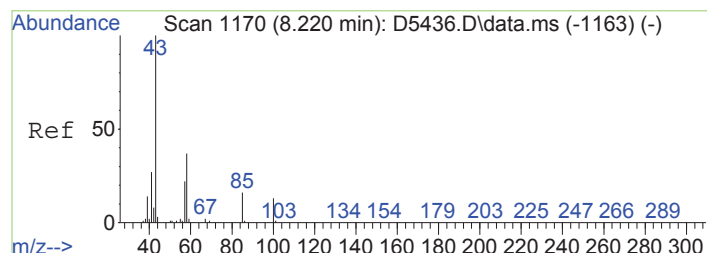
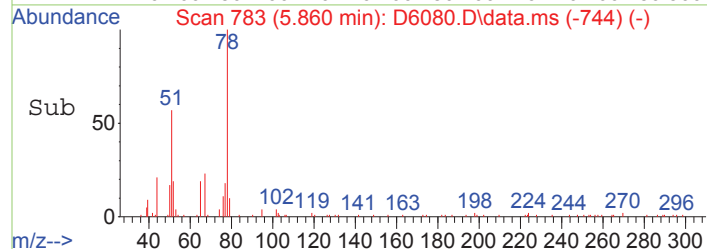
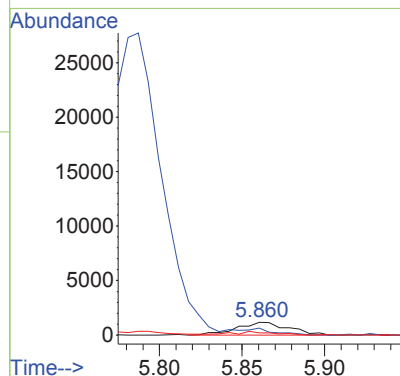
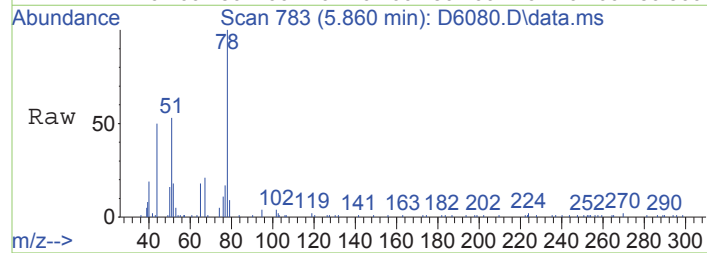
Tgt Ion: 97 Resp: 4542
Ion Ratio Lower Upper
97 100
99 72.7 45.0 85.0
61 52.3 29.1 69.1





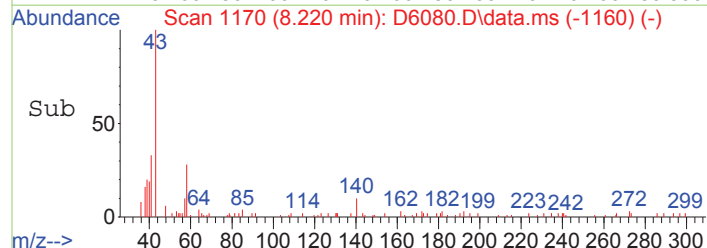
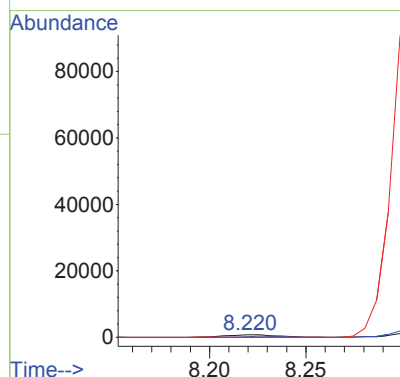
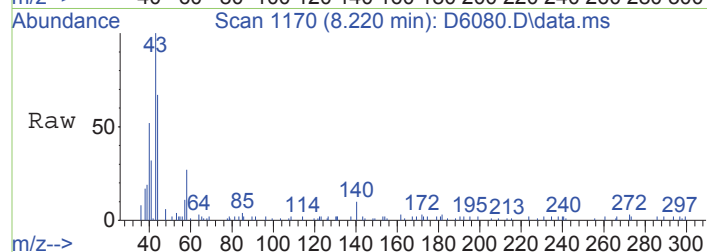
#47
Benzene
Concen: 0.31 ug/L
RT: 5.860 min Scan# 783
Delta R.T. -0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

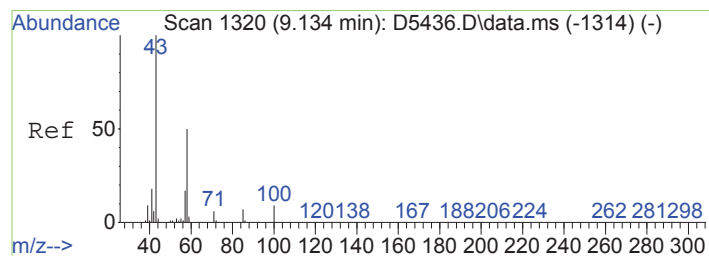
Tgt Ion	Ratio	Lower	Upper
78	100		
51	53.4	0.0	37.5#
52	17.8	0.0	36.3



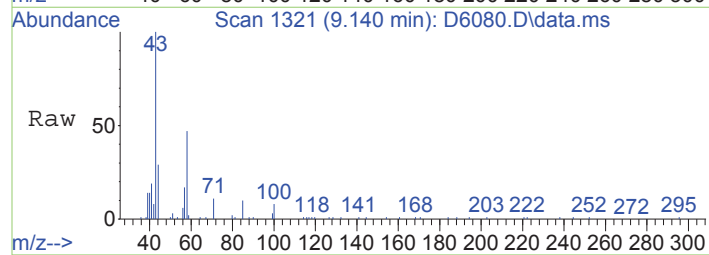
#63
4-Methyl-2-pentanone
Concen: 0.47 ug/L
RT: 8.220 min Scan# 1170
Delta R.T. 0.000 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	27.4	16.6	56.6
100	0.0	0.0	32.7

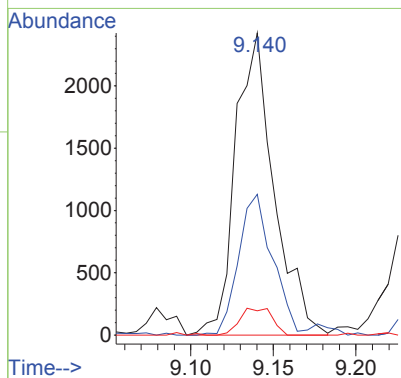
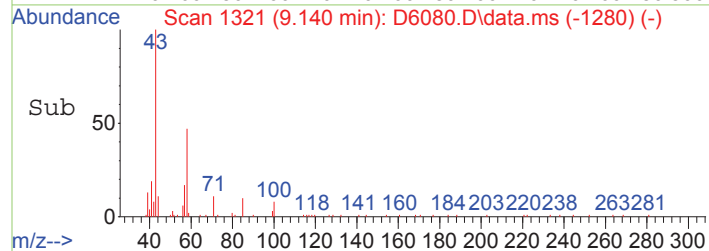




#72
2-Hexanone
Concen: 1.74 ug/L
RT: 9.140 min Scan# 1321
Delta R.T. 0.006 min
Lab File: D6080.D
Acq: 24 Sep 2018 5:38 pm



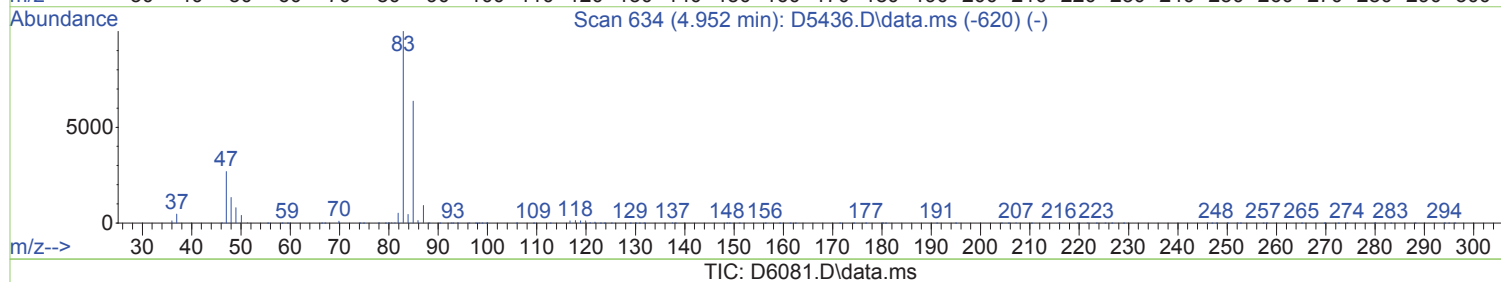
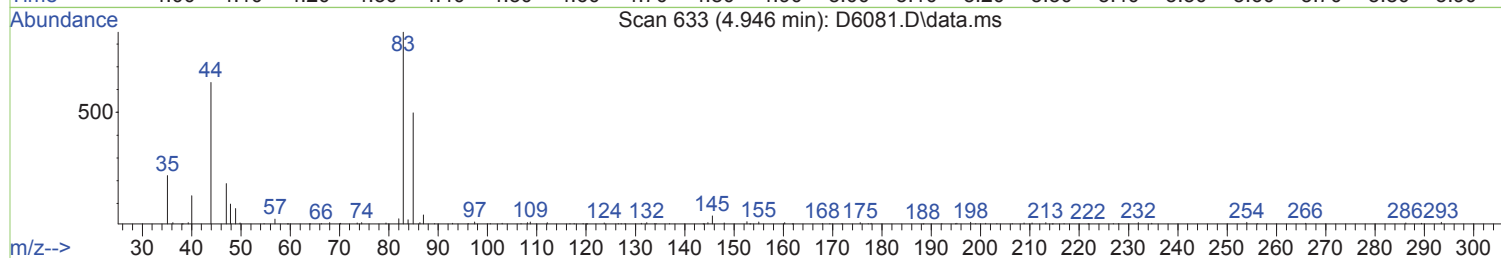
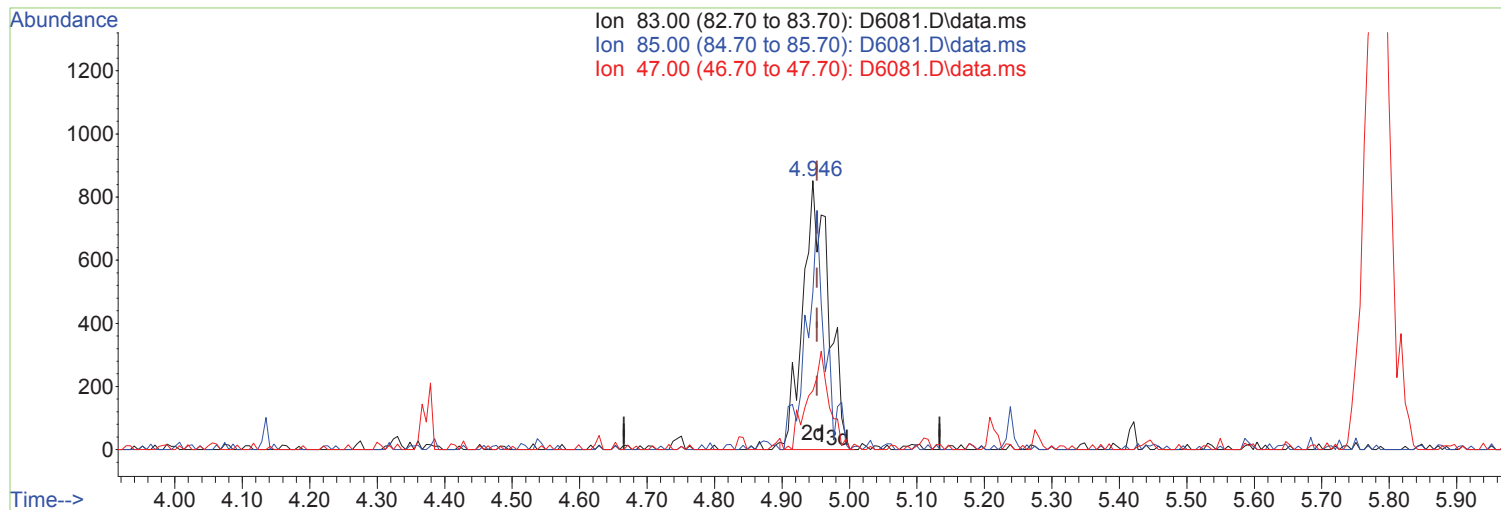
Tgt Ion: 43 Resp: 3950
Ion Ratio Lower Upper
43 100
58 46.6 30.1 70.1
100 8.0 0.0 28.6



Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6081.D
Acq On : 24 Sep 2018 6:00 pm
Operator : D.LIPANI
Sample : R1809120-006|1.0
Misc : Verina 7979 T4
ALS Vial : 25 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:14:48 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(39) Chloroform (P)

4.946min (-0.006) 0.63 ug/L m

response 2269

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	58.45
47.00	26.90	21.95
0.00	0.00	0.00

Manual Integration:

After

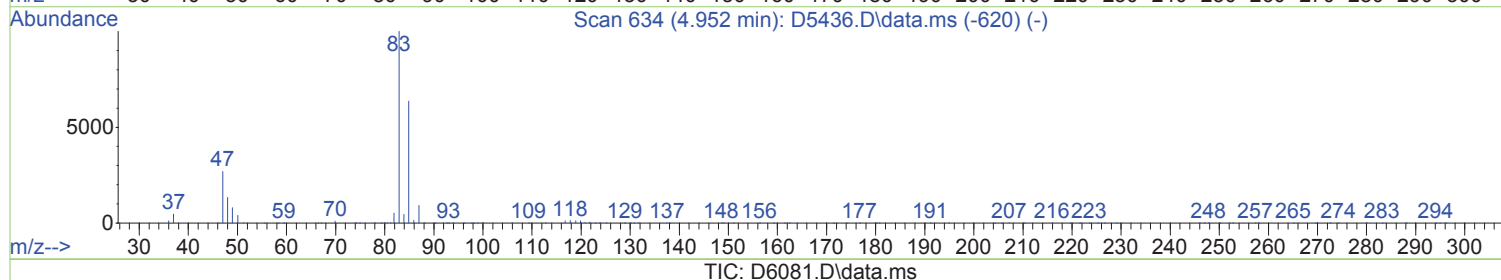
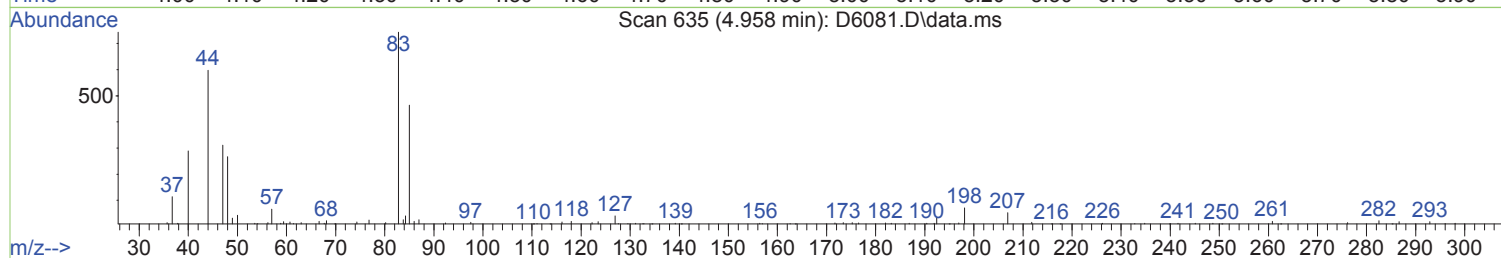
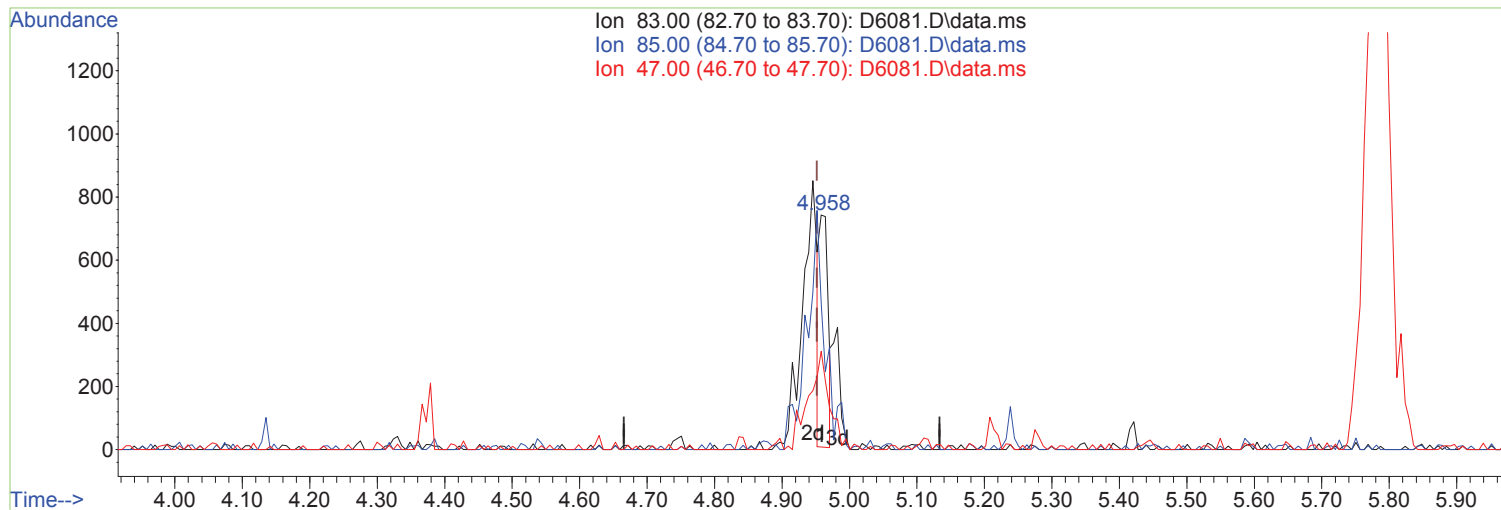
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6081.D
Acq On : 24 Sep 2018 6:00 pm
Operator : D.LIPANI
Sample : R1809120-006|1.0
Misc : Verina 7979 T4
ALS Vial : 25 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:14:48 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(39) Chloroform (P)

Manual Integration:

4.958min (+0.006) 0.18 ug/L

Before

response 651

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	62.45
47.00	26.90	41.86
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6081.D
 Acq On : 24 Sep 2018 6:00 pm
 Operator : D.LIPANI
 Sample : R1809120-006|1.0
 Misc : Verina 7979 T4
 ALS Vial : 25 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:07:54 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

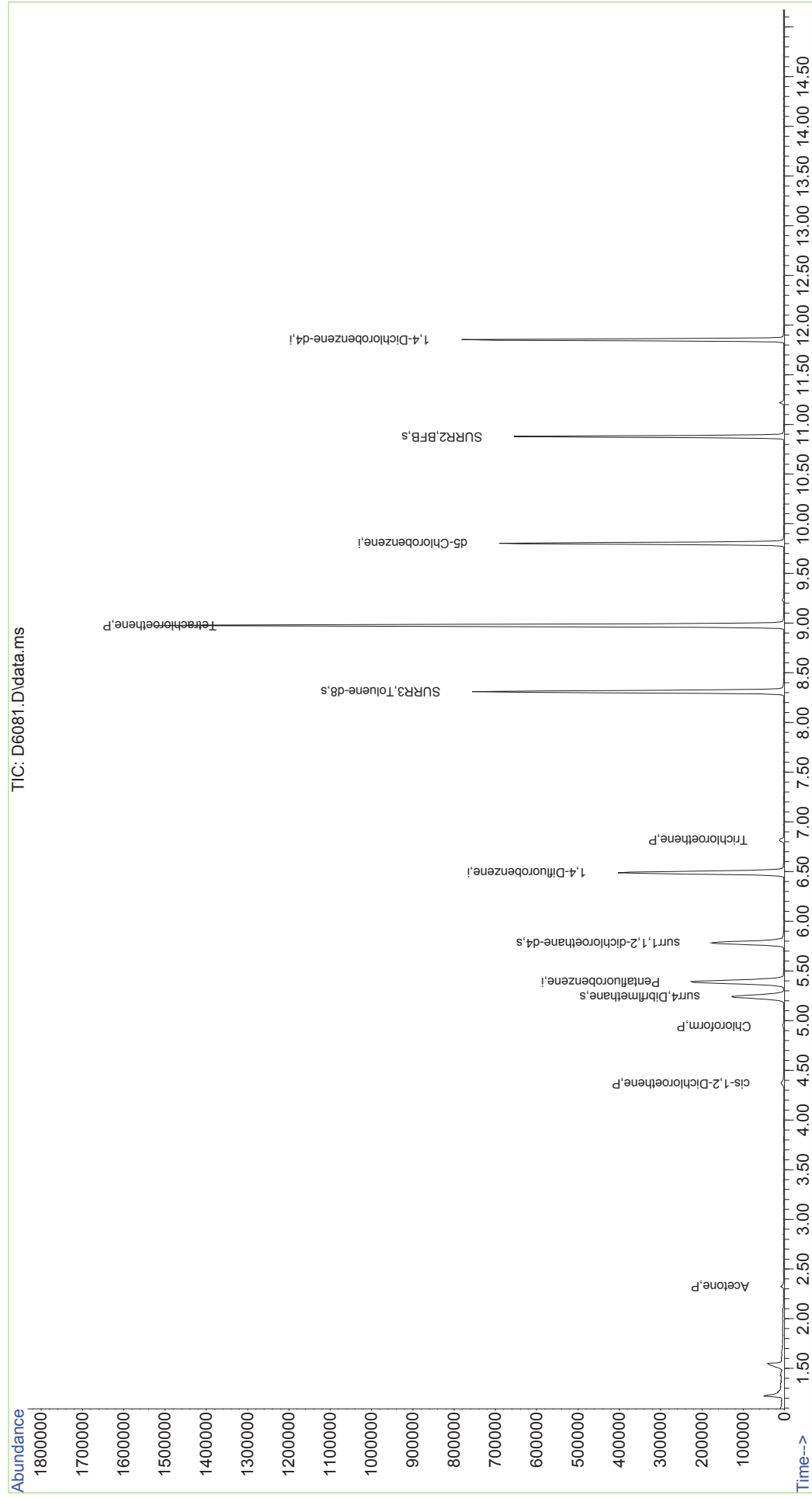
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	204753	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	325767	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	276091	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	141137	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	102017	46.47	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	92.94%
46) surr1,1,2-dichloroetha...	5.781	65	148682	51.50	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	103.00%
64) SURR3,Toluene-d8	8.311	98	421843	47.39	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	94.78%
69) SURR2,BFB	10.878	95	147610	43.15	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	86.30%
Target Compounds						
5) Bromomethane	1.593	94	274	Below Cal	#	44
15) Acetone	2.324	43	6063	5.03	ug/L	98
33) cis-1,2-Dichloroethene	4.361	96	3341	1.49	ug/L	# 48
39) Chloroform	4.946	83	2269m	0.63	ug/L	
53) Trichloroethene	6.817	130	3561	1.57	ug/L	# 81
71) Tetrachloroethene	8.976	164	279143	162.57	ug/L	97

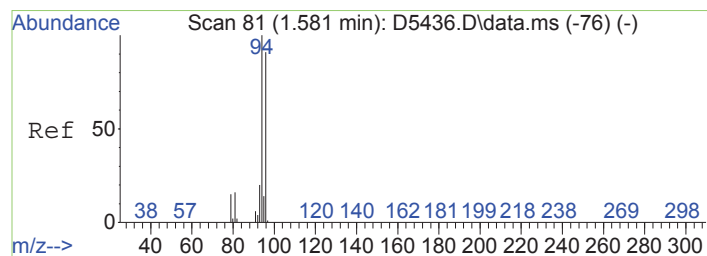
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6081.D
Acq On : 24 Sep 2018 6:00 pm
Operator : D.LIPANI
Sample : R1809120-006|1.0
Misc : Verina 7979 T4
ALS Vial : 25 Sample Multiplier: 1

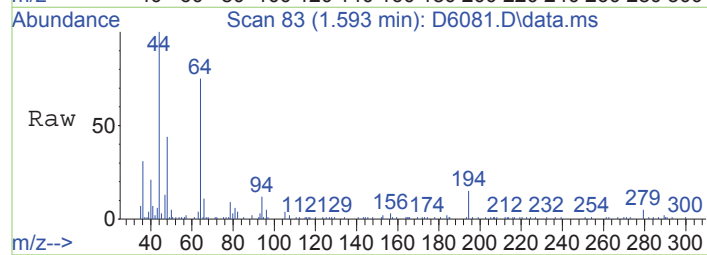
Inst : MSVOA10

Quant Time: Sep 27 15:07:54 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
Qlast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

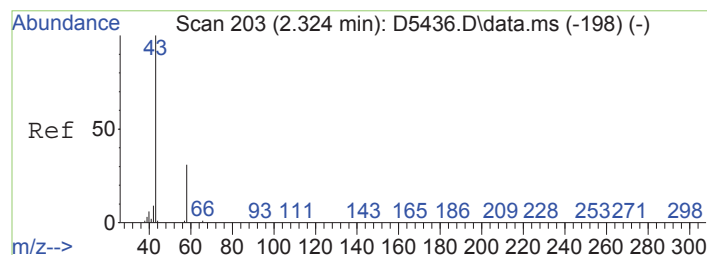
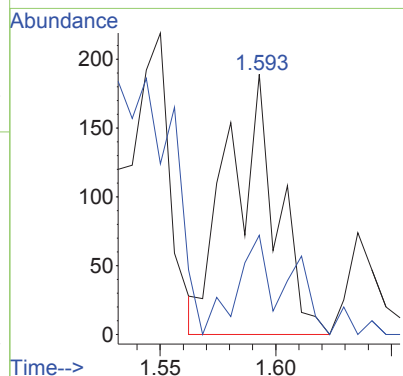
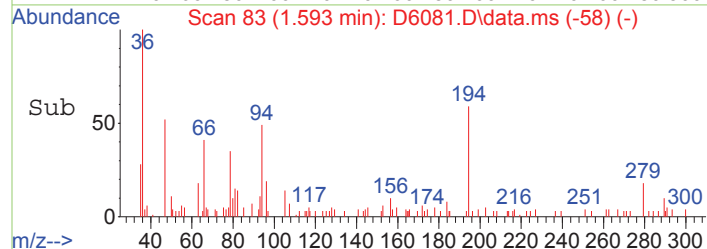




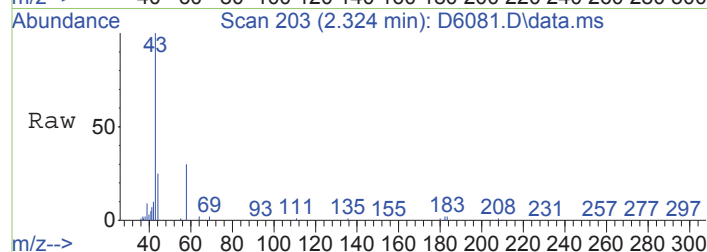
#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm



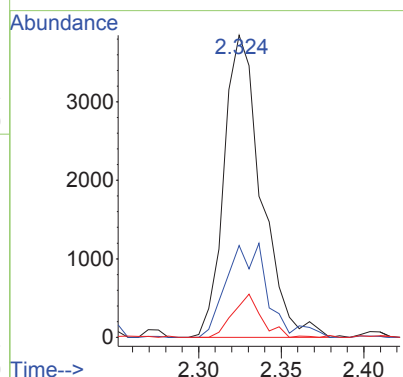
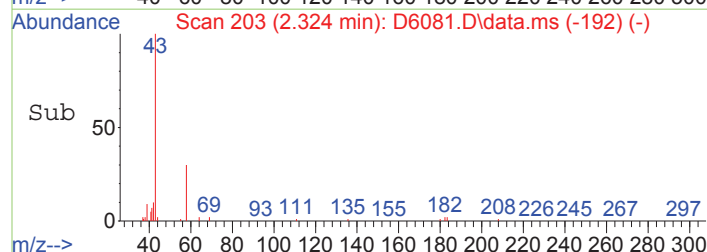
Tgt Ion: 94 Resp: 274
Ion Ratio Lower Upper
94 100
96 38.1 71.1 111.1#

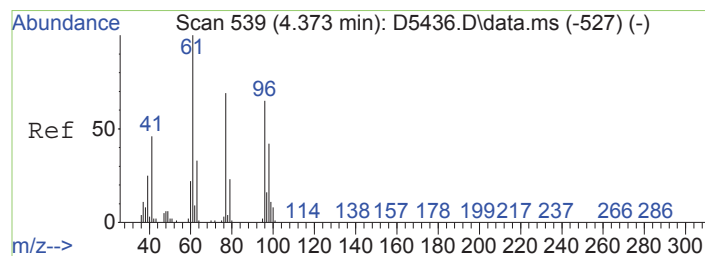


#15
Acetone
Concen: 5.03 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.006 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm



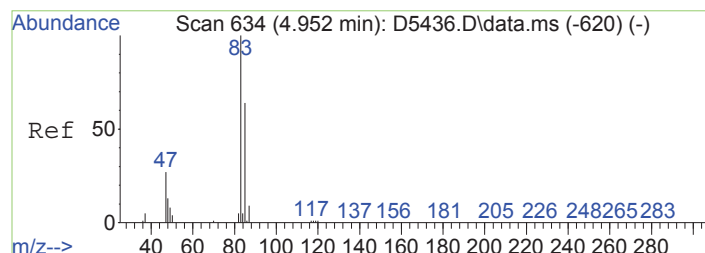
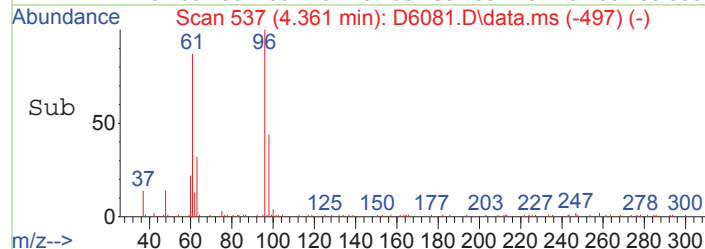
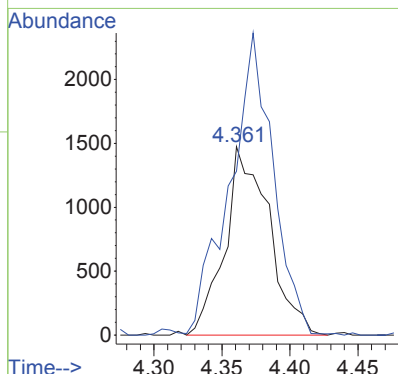
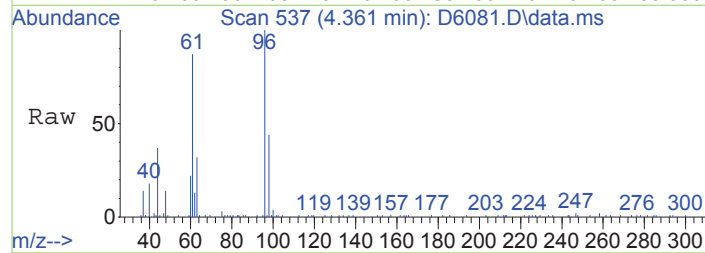
Tgt Ion: 43 Resp: 6063
Ion Ratio Lower Upper
43 100
58 30.4 11.2 51.2
42 10.4 0.0 28.6





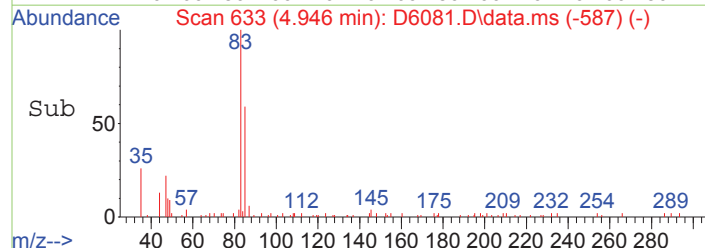
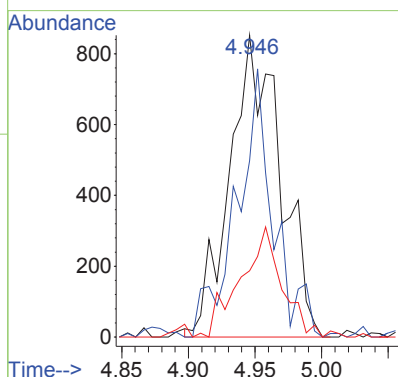
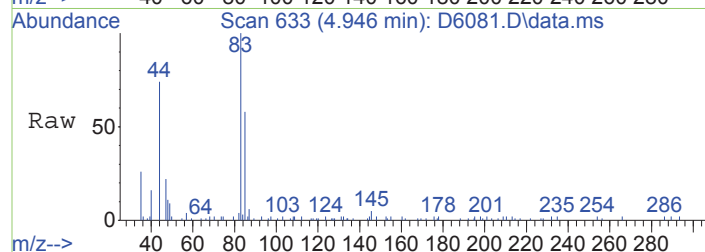
#33
cis-1,2-Dichloroethene
Concen: 1.49 ug/L
RT: 4.361 min Scan# 537
Delta R.T. -0.012 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

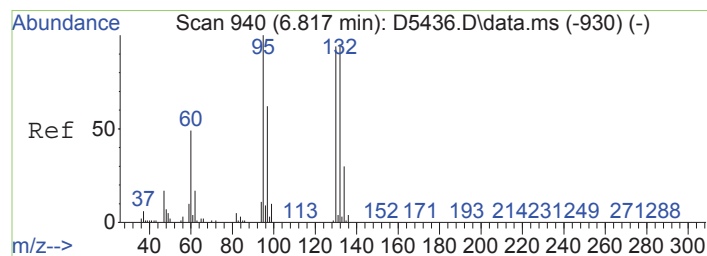
Tgt Ion: 96 Resp: 3341
Ion Ratio Lower Upper
96 100
61 86.9 134.7 174.7#



#39
Chloroform
Concen: 0.63 ug/L m
RT: 4.946 min Scan# 633
Delta R.T. -0.006 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

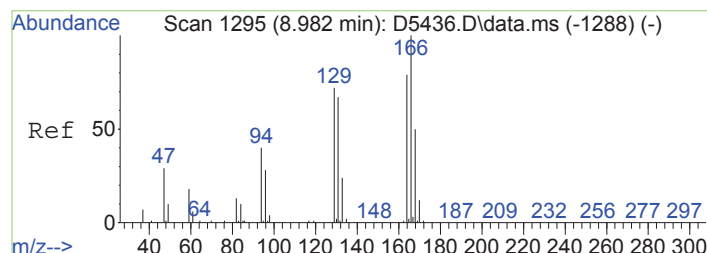
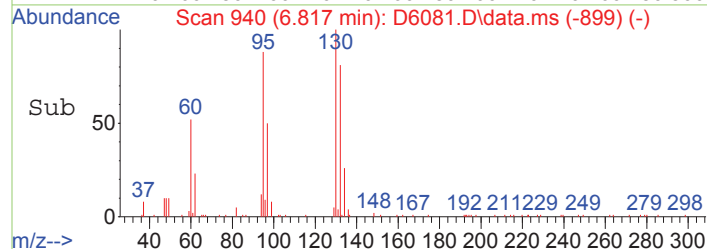
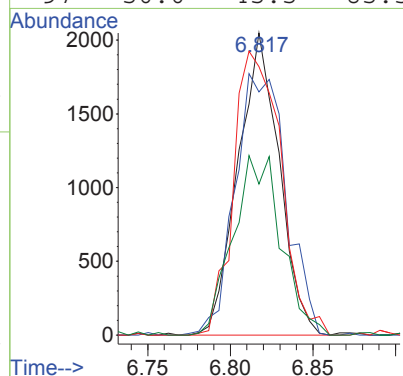
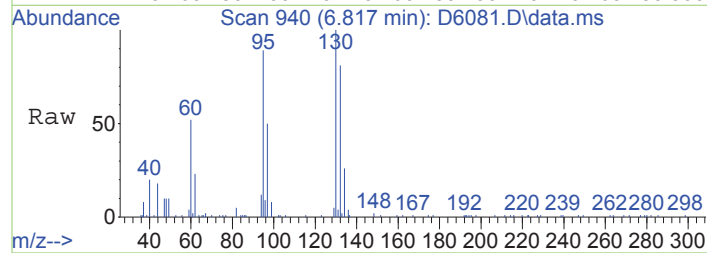
Tgt Ion: 83 Resp: 2269
Ion Ratio Lower Upper
83 100
85 58.5 43.7 83.7
47 21.9 6.9 46.9





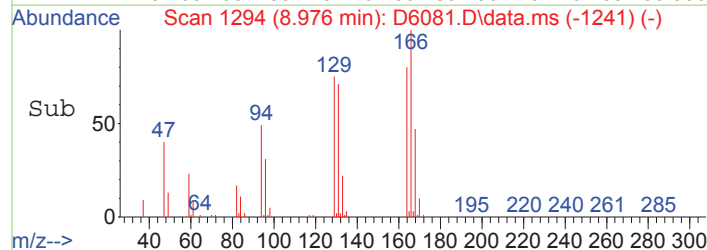
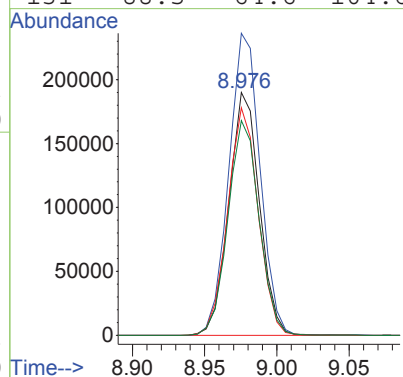
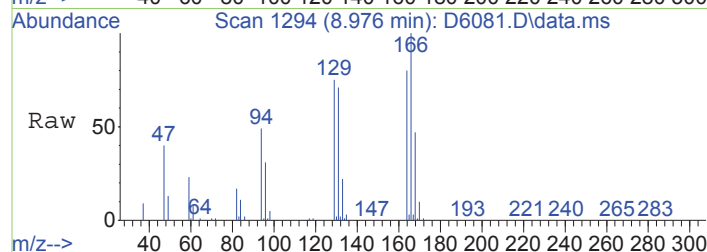
#53
Trichloroethene
Concen: 1.57 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

Tgt Ion:	130	Resp:	3561
Ion Ratio	Lower	Upper	
130	100		
132	80.5	80.7	120.7#
95	88.9	86.1	126.1
97	50.0	45.5	85.5



#71
Tetrachloroethene
Concen: 162.57 ug/L
RT: 8.976 min Scan# 1294
Delta R.T. -0.006 min
Lab File: D6081.D
Acq: 24 Sep 2018 6:00 pm

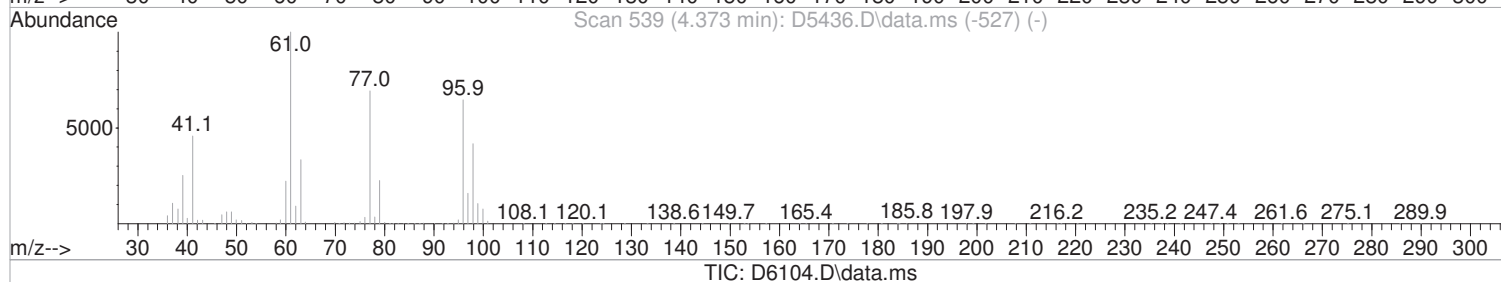
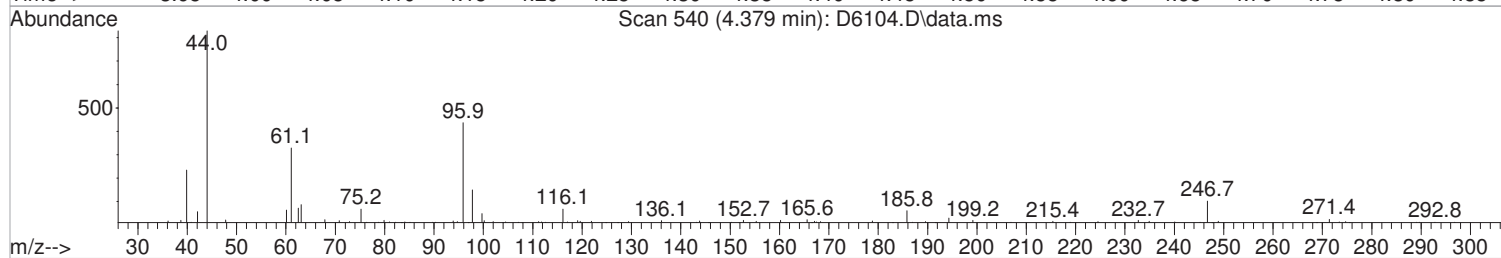
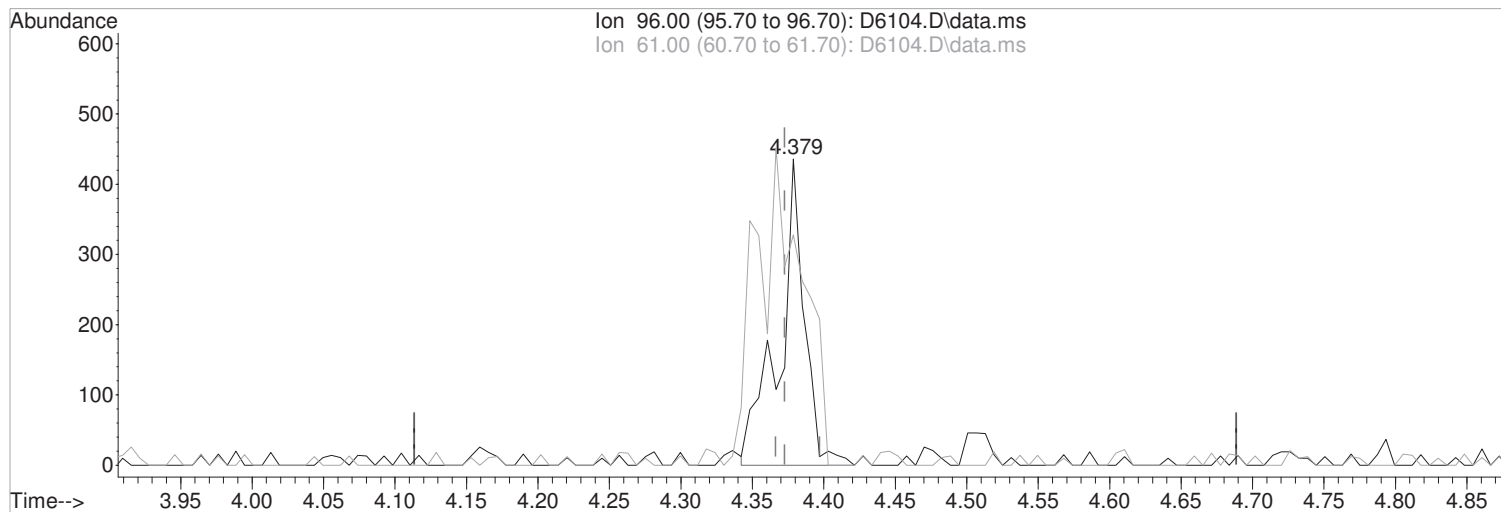
Tgt Ion:	164	Resp:	279143
Ion Ratio	Lower	Upper	
164	100		
166	124.4	106.8	146.8
129	93.8	71.9	111.9
131	88.5	64.6	104.6



Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(33) cis-1,2-Dichloroethene (P)

4.379min (+0.006) 0.23 ug/L m

response 533

Ion	Exp%	Act%

96.00	100	100

61.00	154.70	75.23#

0.00	0.00	0.00

0.00	0.00	0.00

Manual Integration:

After

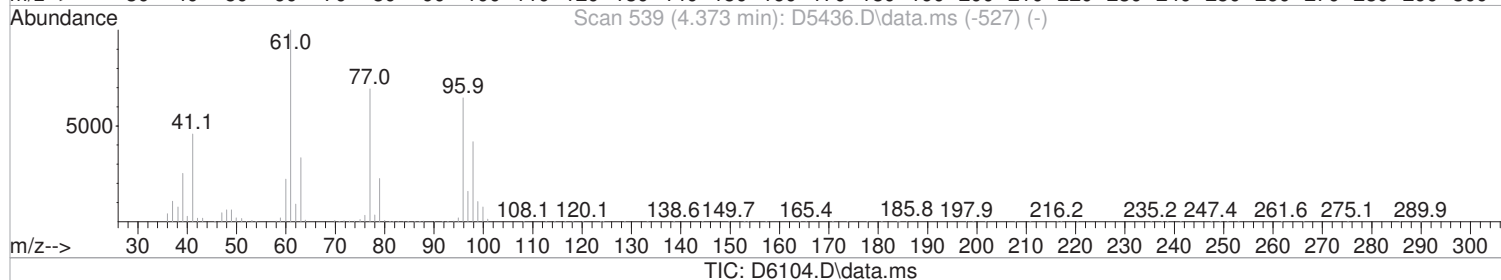
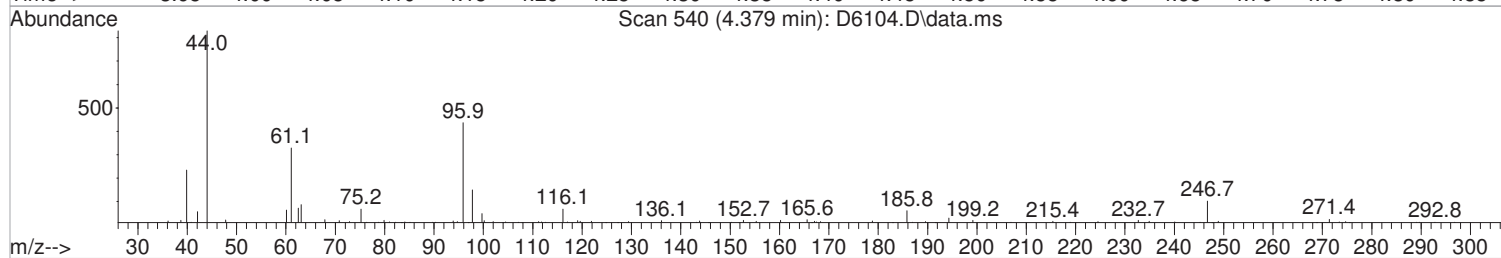
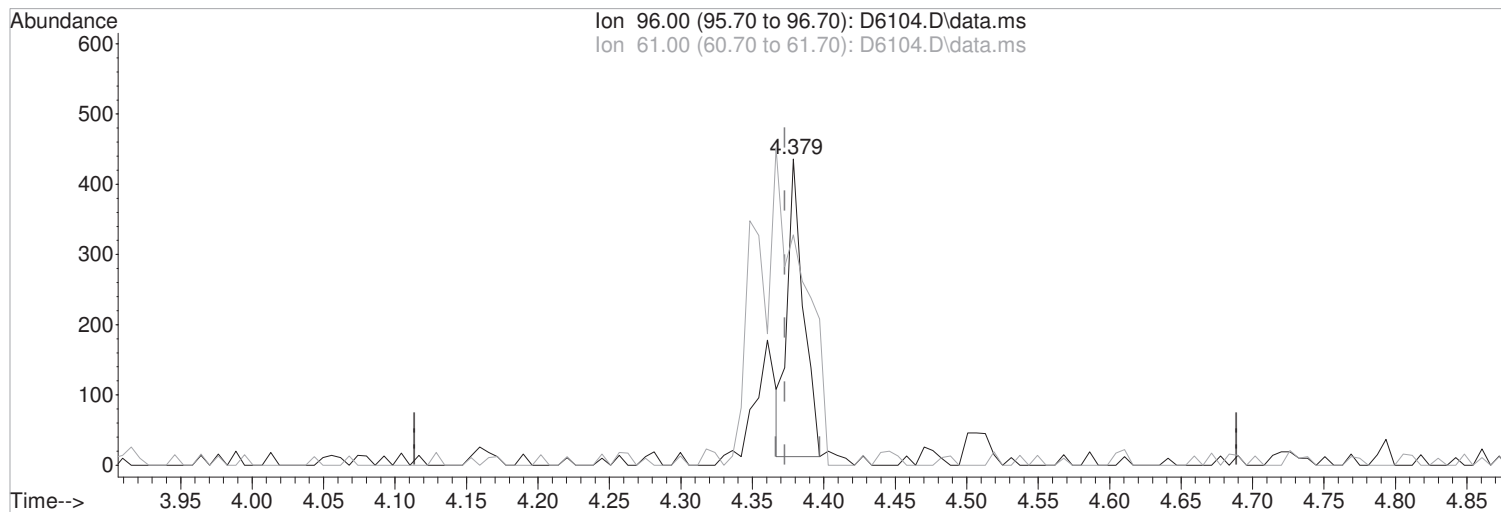
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(33) cis-1,2-Dichloroethene (P)

Manual Integration:

4.379min (+0.006) 0.14 ug/L

Before

response 327

Ion	Exp%	Act%

09/27/18

96.00	100	100

61.00	154.70	75.23#

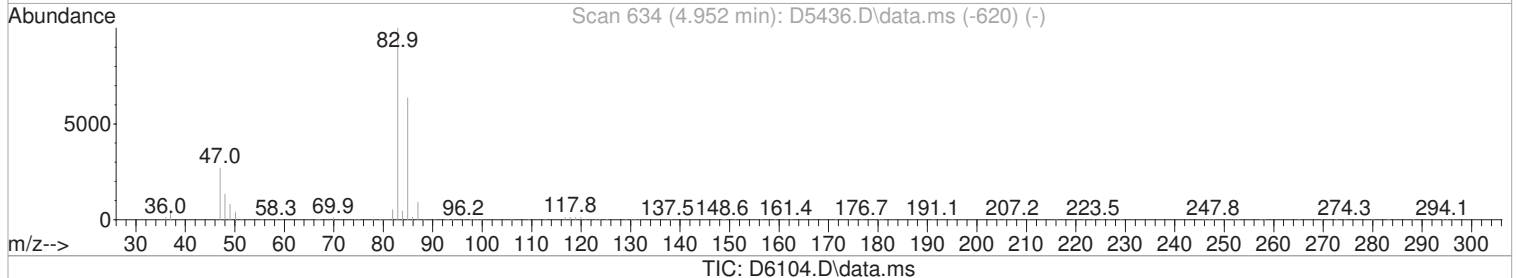
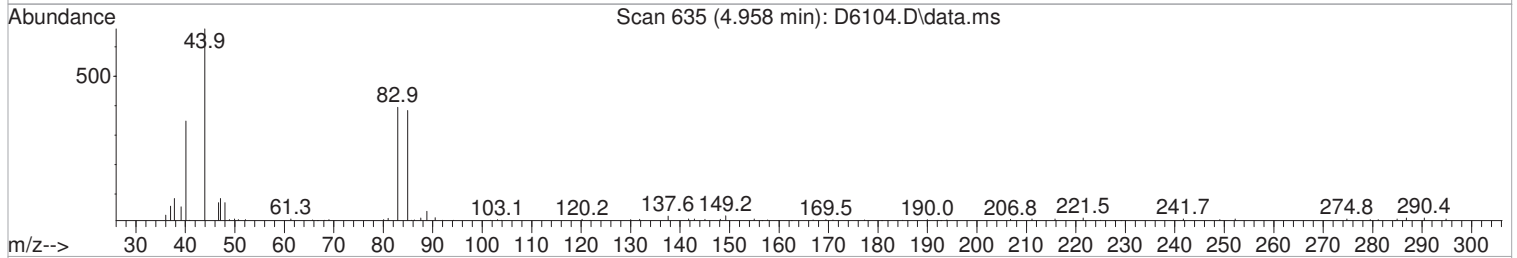
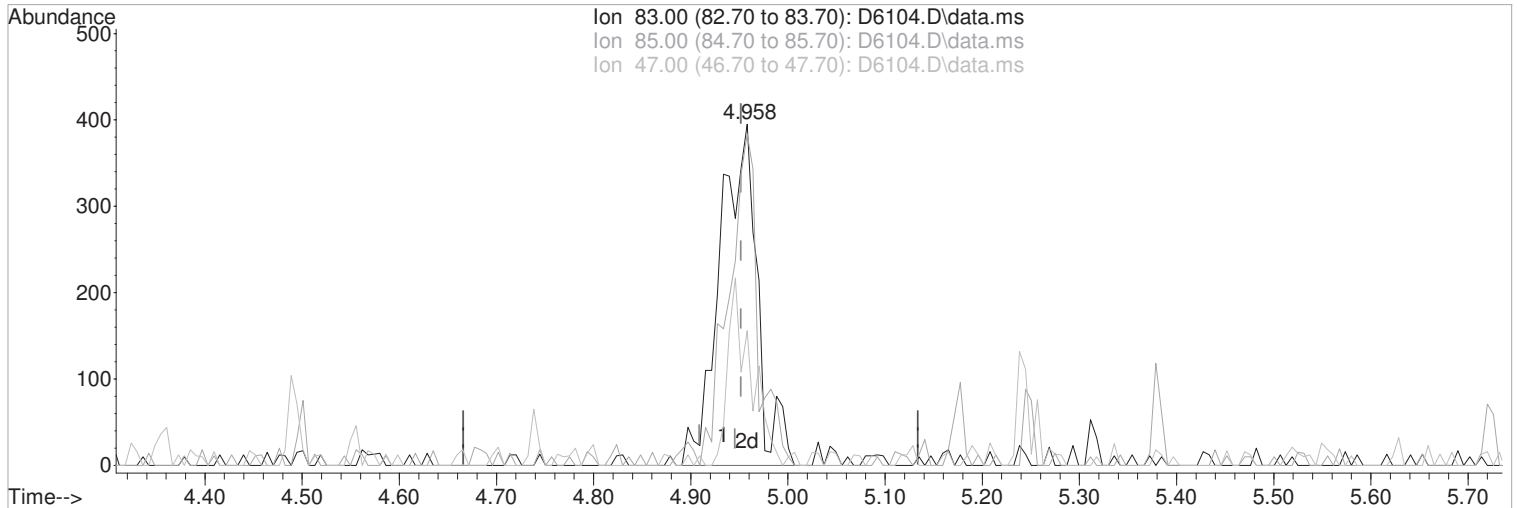
0.00	0.00	0.00

0.00	0.00	0.00

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(39) Chloroform (P)

4.958min (+0.006) 0.29 ug/L m

response 1058

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	97.22#
47.00	26.90	21.52
0.00	0.00	0.00

Manual Integration:

After

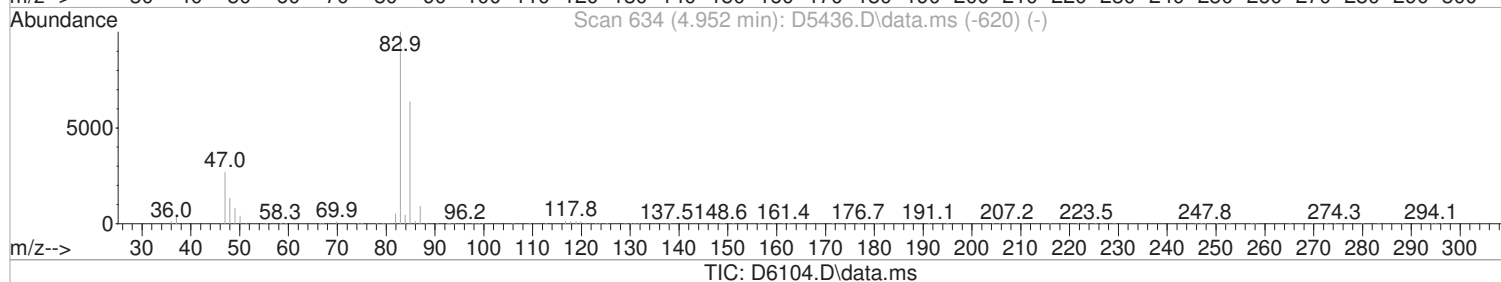
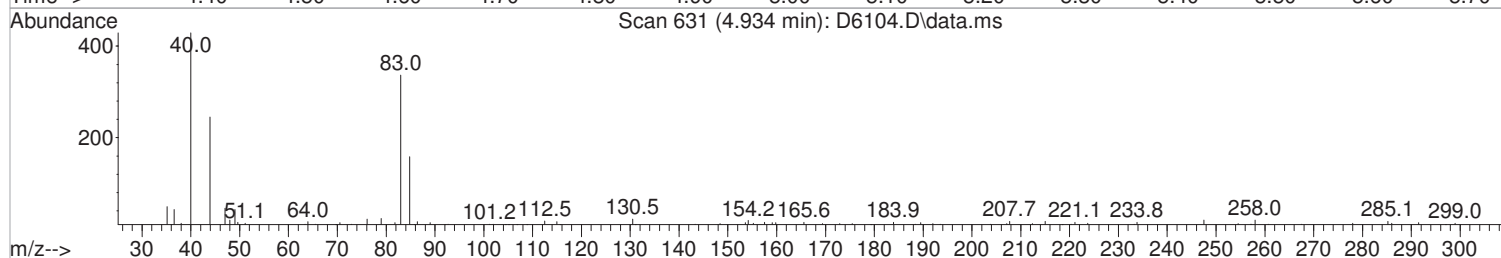
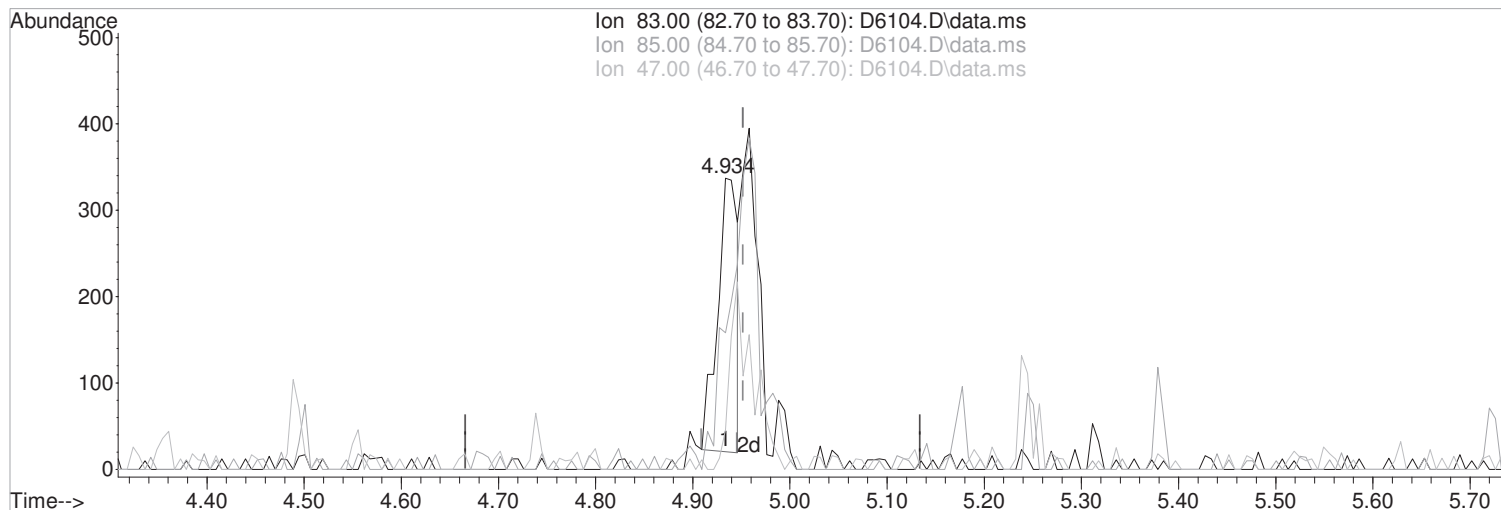
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 13:08:12 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(39) Chloroform (P)

Manual Integration:

4.934min (-0.018) 0.12 ug/L

Before

response 457

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	46.88
47.00	26.90	13.65
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6104.D
 Acq On : 25 Sep 2018 12:53 pm
 Operator : D.LIPANI
 Sample : R1809120-008|1.0
 Misc : Verina 7979 T4
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:19:47 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

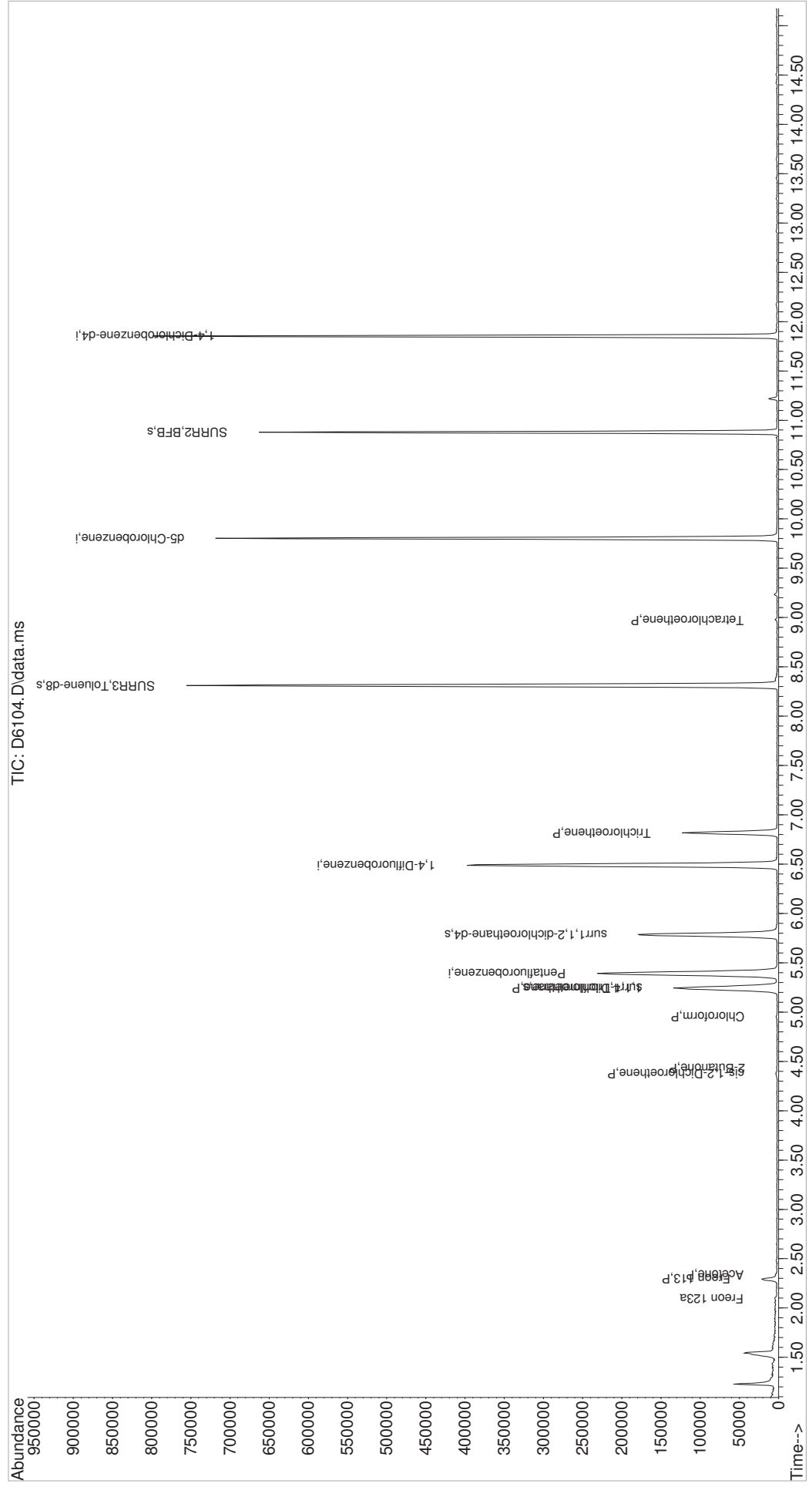
Internal Standards						
1) Pentafluorobenzene	5.391	168	208301	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	325199	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	282716	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	141508	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	104197	47.55	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	95.10%	
46) surr1,1,2-dichloroetha...	5.787	65	151710	52.64	ug/L	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	105.28%	
64) SURR3,Toluene-d8	8.311	98	427368	48.10	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	96.20%	
69) SURR2,BFB	10.878	95	152191	44.57	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	89.14%	
Target Compounds						
					Qvalue	
5) Bromomethane	1.593	94	433	Below Cal		89
10) Freon 123a	2.093	67	930	0.35 ug/L		97
14) Freon 113	2.294	101	6613	3.46 ug/L		99
15) Acetone	2.336	43	2177	1.78 ug/L #		63
33) cis-1,2-Dichloroethene	4.379	96	533m	0.23 ug/L		
34) 2-Butanone	4.434	43	832	0.50 ug/L #		65
39) Chloroform	4.958	83	1058m	0.29 ug/L		
40) 1,1,1-Trichloroethane	5.244	97	1297	0.42 ug/L #		78
53) Trichloroethene	6.817	130	37355	16.50 ug/L		92
71) Tetrachloroethene	8.975	164	391	0.22 ug/L #		70

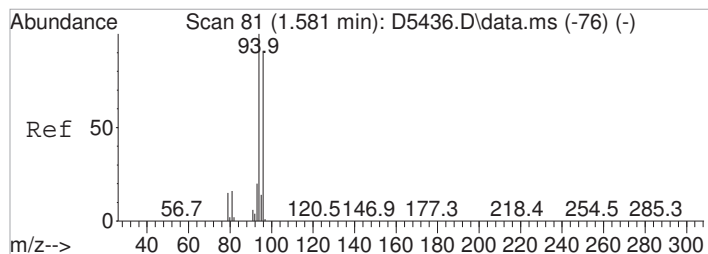
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6104.D
Acq On : 25 Sep 2018 12:53 pm
Operator : D.LIPANI
Sample : R1809120-008|1.0
Misc : Verina 7979 T4
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA10

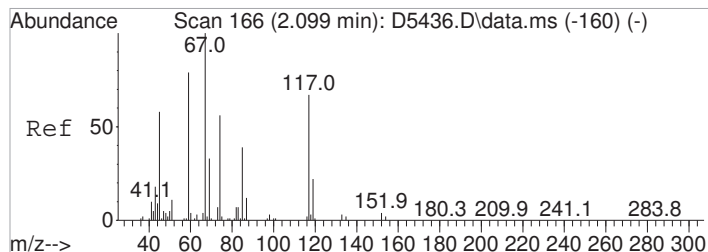
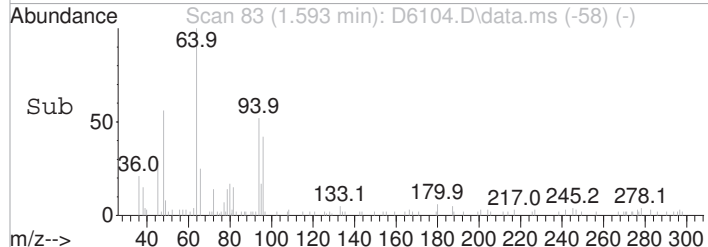
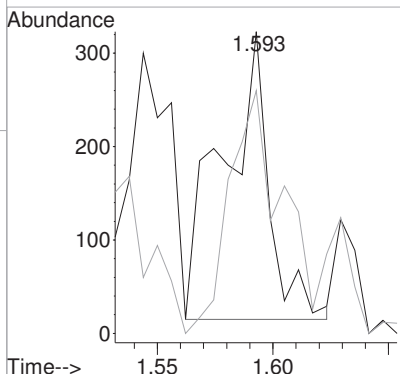
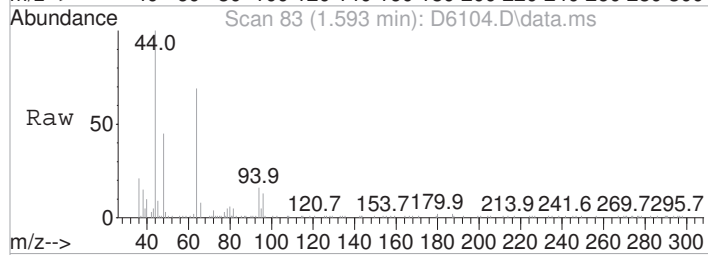
Quant Time: Sep 27 15:19:47 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration





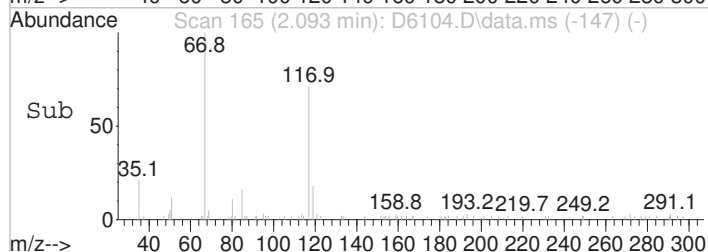
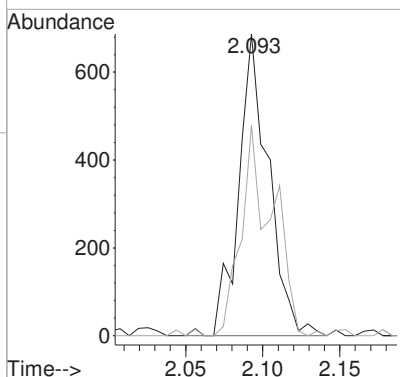
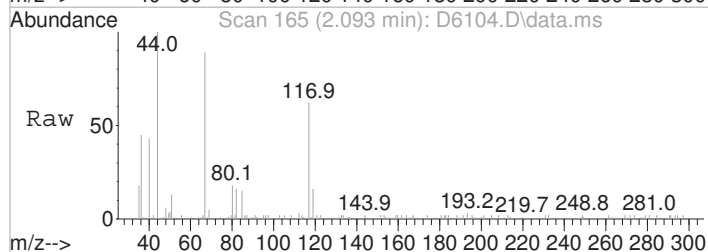
#5
 Bromomethane
 Concen: Below Cal
 RT: 1.593 min Scan# 83
 Delta R.T. 0.012 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

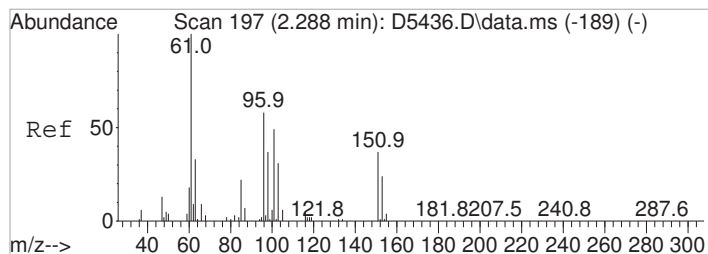
Tgt Ion: 94 Resp: 433
 Ion Ratio Lower Upper
 94 100
 96 80.5 71.1 111.1



#10
 Freon 123a
 Concen: 0.35 ug/L
 RT: 2.093 min Scan# 165
 Delta R.T. -0.006 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

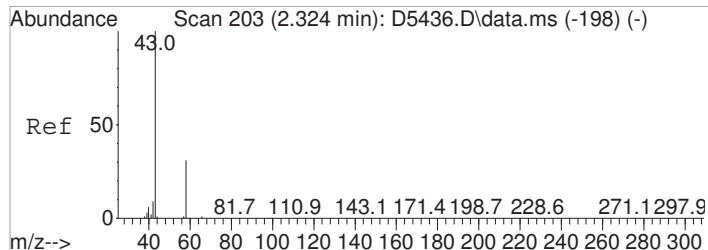
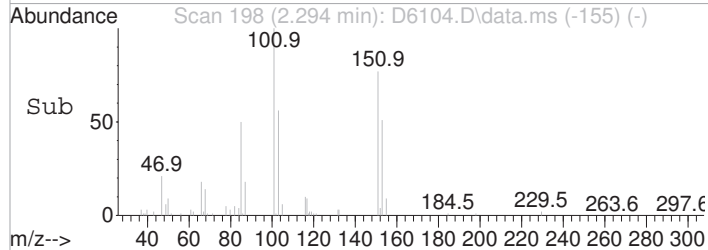
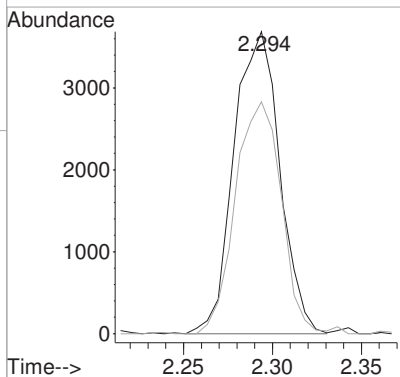
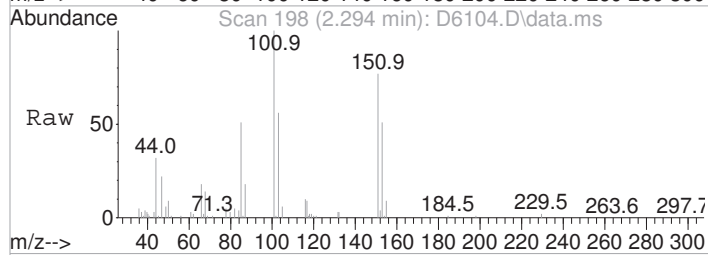
Tgt Ion: 67 Resp: 930
 Ion Ratio Lower Upper
 67 100
 117 69.7 47.5 87.5





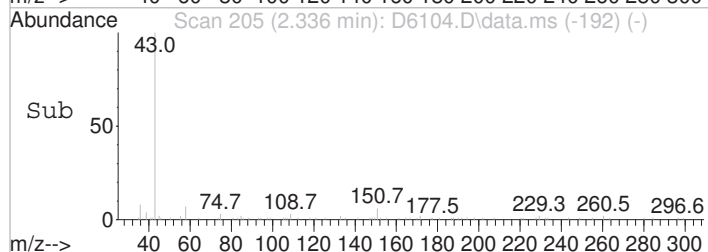
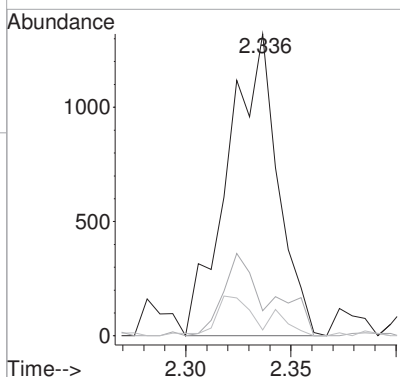
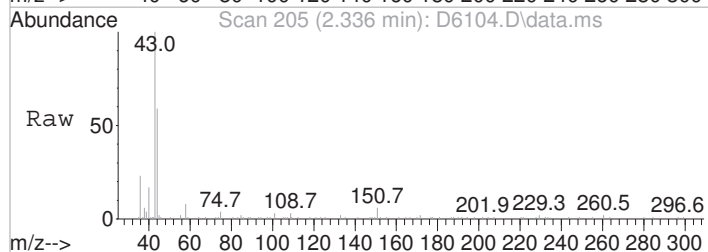
#14
 Freon 113
 Concen: 3.46 ug/L
 RT: 2.294 min Scan# 198
 Delta R.T. 0.006 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

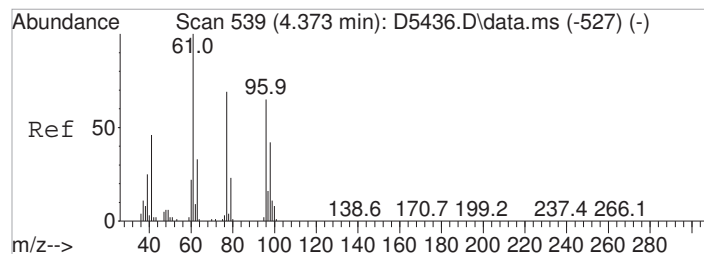
Tgt Ion: 101 Resp: 6613
 Ion Ratio Lower Upper
 101 100
 151 76.8 56.1 96.1



#15
 Acetone
 Concen: 1.78 ug/L
 RT: 2.336 min Scan# 205
 Delta R.T. 0.006 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

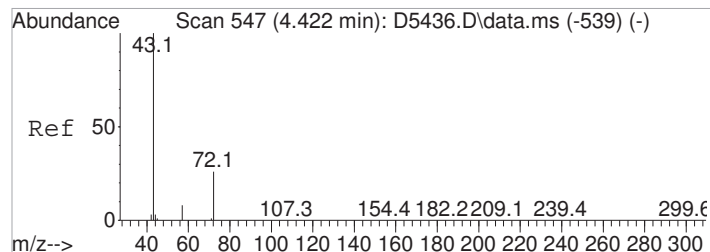
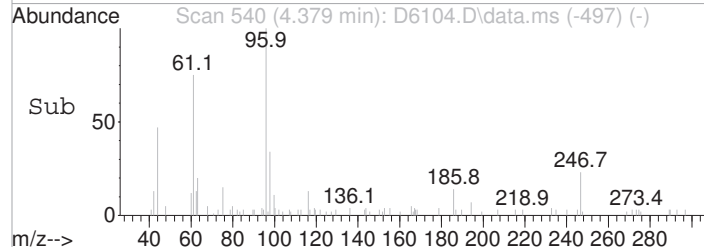
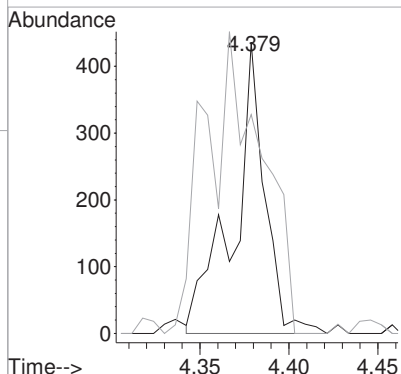
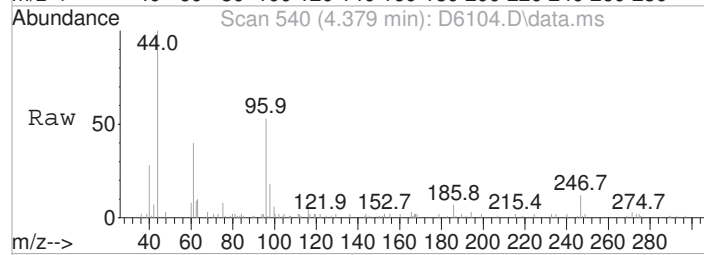
Tgt Ion: 43 Resp: 2177
 Ion Ratio Lower Upper
 43 100
 58 8.3 11.2 51.2#
 42 2.0 0.0 28.6





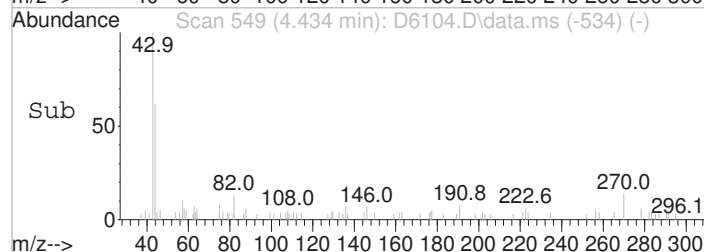
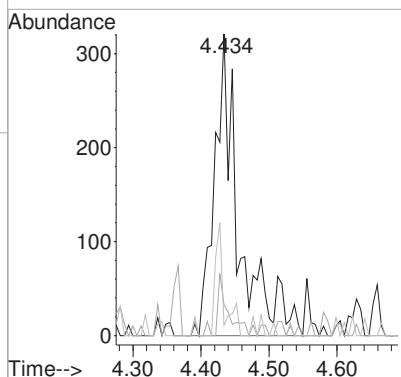
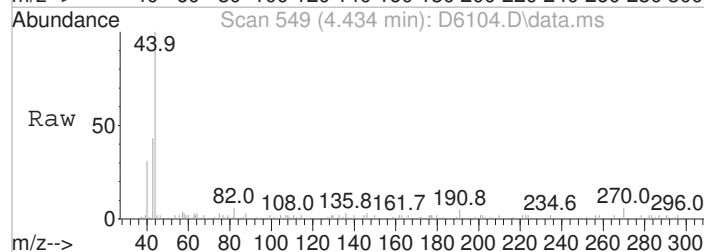
#33
 cis-1,2-Dichloroethene
 Concen: 0.23 ug/L m
 RT: 4.379 min Scan# 540
 Delta R.T. 0.006 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

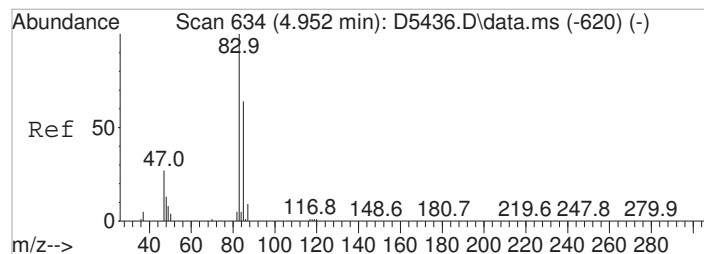
Tgt Ion: 96 Resp: 533
 Ion Ratio Lower Upper
 96 100
 61 75.2 134.7 174.7#



#34
 2-Butanone
 Concen: 0.50 ug/L
 RT: 4.434 min Scan# 549
 Delta R.T. 0.018 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

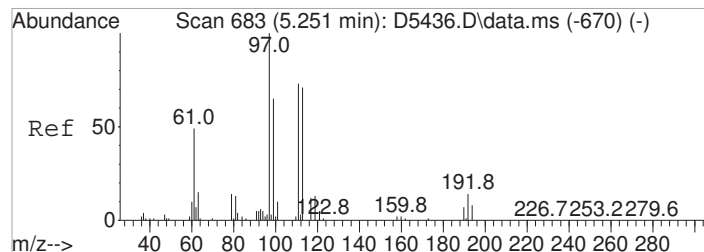
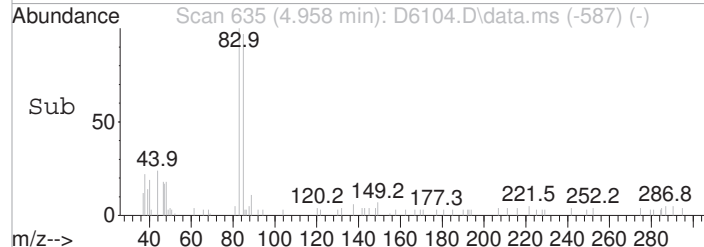
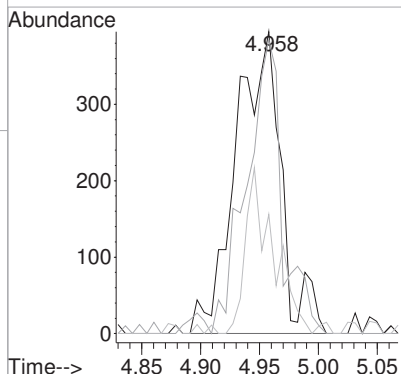
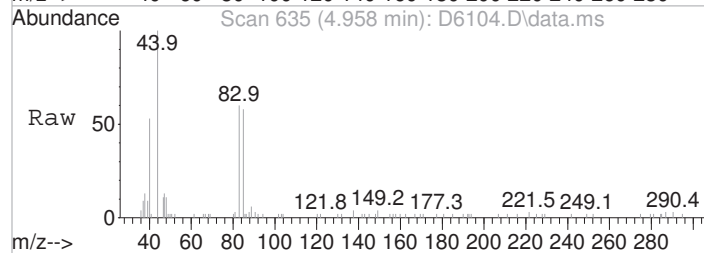
Tgt Ion: 43 Resp: 832
 Ion Ratio Lower Upper
 43 100
 57 10.3 0.0 27.8
 72 3.4 5.1 45.1#





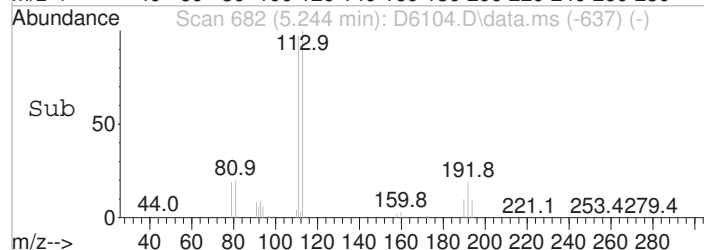
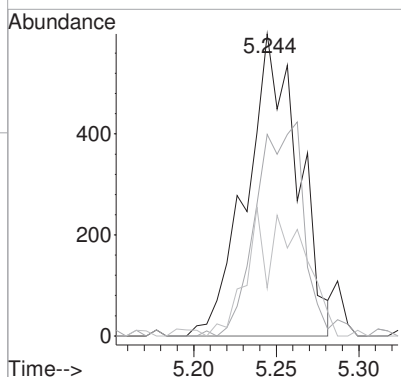
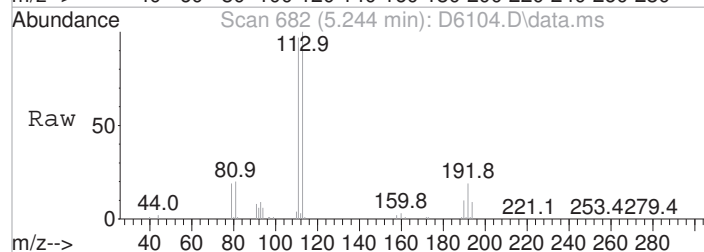
#39
 Chloroform
 Concen: 0.29 ug/L m
 RT: 4.958 min Scan# 635
 Delta R.T. 0.006 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

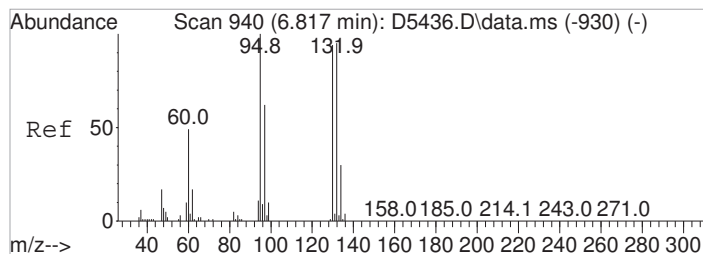
Tgt Ion	83	Resp	1058
Ion Ratio	100	Lower	Upper
83	100		
85	97.2	43.7	83.7#
47	21.5	6.9	46.9



#40
 1,1,1-Trichloroethane
 Concen: 0.42 ug/L
 RT: 5.244 min Scan# 682
 Delta R.T. -0.006 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

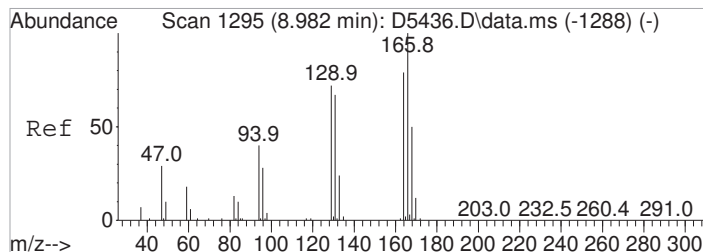
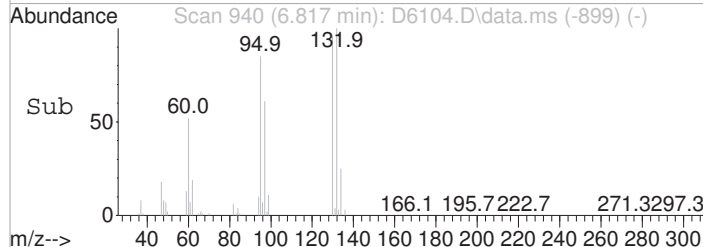
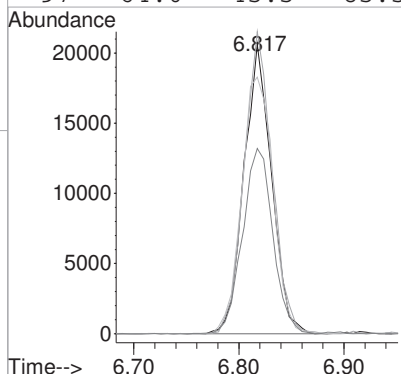
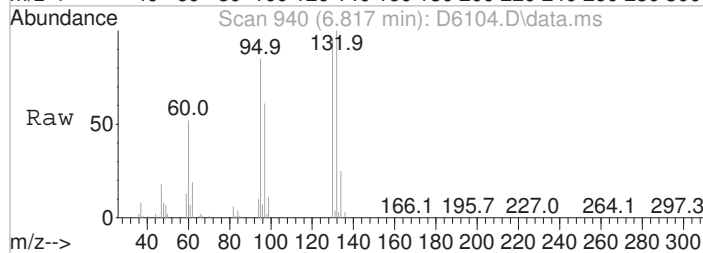
Tgt Ion	97	Resp	1297
Ion Ratio	100	Lower	Upper
97	100		
99	66.7	45.0	85.0
61	15.9	29.1	69.1#





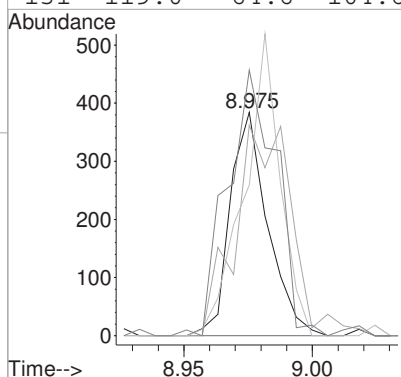
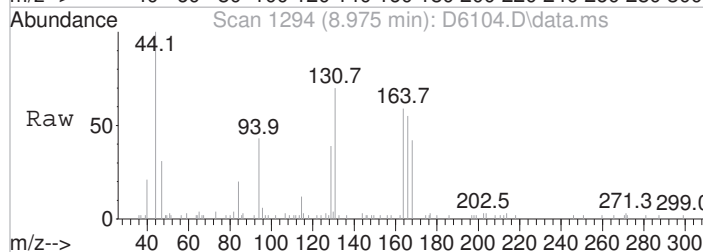
#53
 Trichloroethene
 Concen: 16.50 ug/L
 RT: 6.817 min Scan# 940
 Delta R.T. -0.000 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

Tgt Ion	130	Resp	37355
Ion Ratio	Lower	Upper	
130	100		
132	104.3	80.7	120.7
95	88.6	86.1	126.1
97	64.0	45.5	85.5



#71
 Tetrachloroethene
 Concen: 0.22 ug/L
 RT: 8.975 min Scan# 1294
 Delta R.T. -0.006 min
 Lab File: D6104.D
 Acq: 25 Sep 2018 12:53 pm

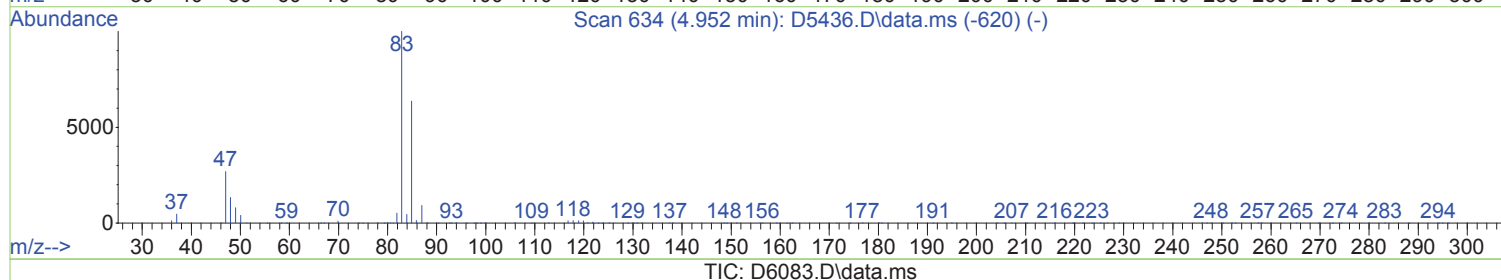
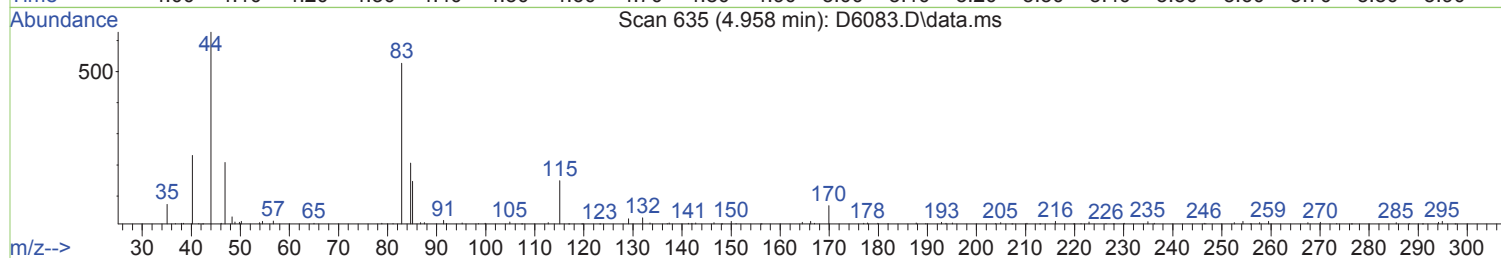
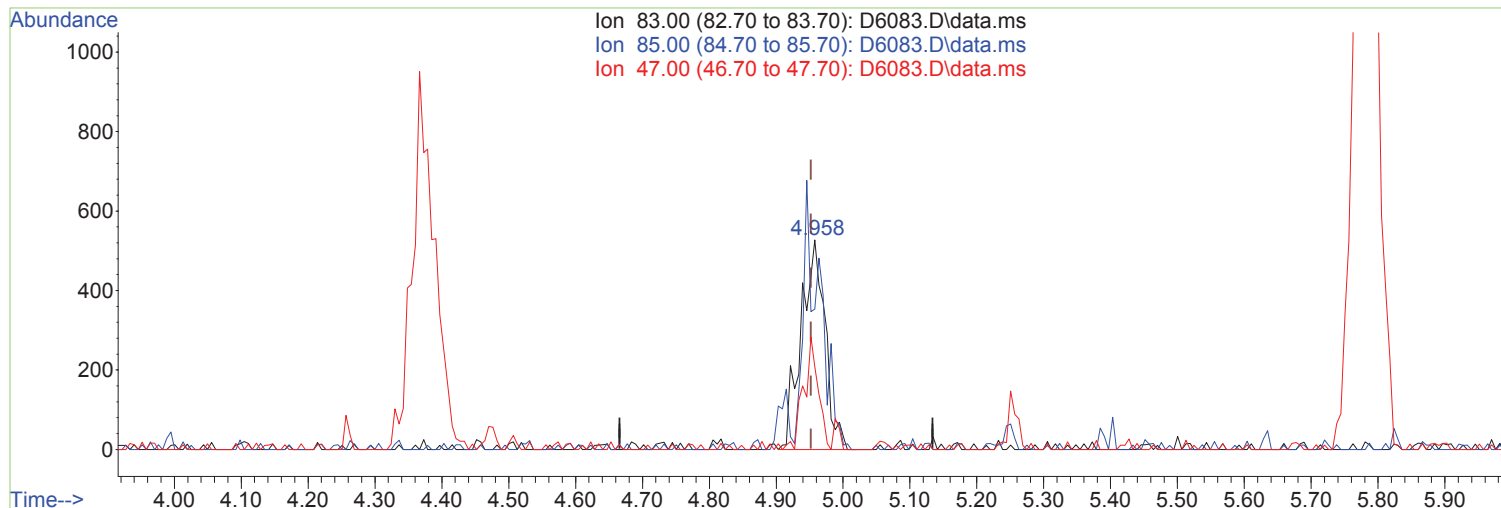
Tgt Ion	164	Resp	391
Ion Ratio	Lower	Upper	
164	100		
166	94.3	106.8	146.8#
129	67.4	71.9	111.9#
131	119.0	64.6	104.6#



Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(39) Chloroform (P)

4.958min (+0.006) 0.37 ug/L m

response 1319

Ion	Exp%	Act%
83.00	100	100
85.00	63.70	39.09#
47.00	26.90	39.47
0.00	0.00	0.00

Manual Integration:

After

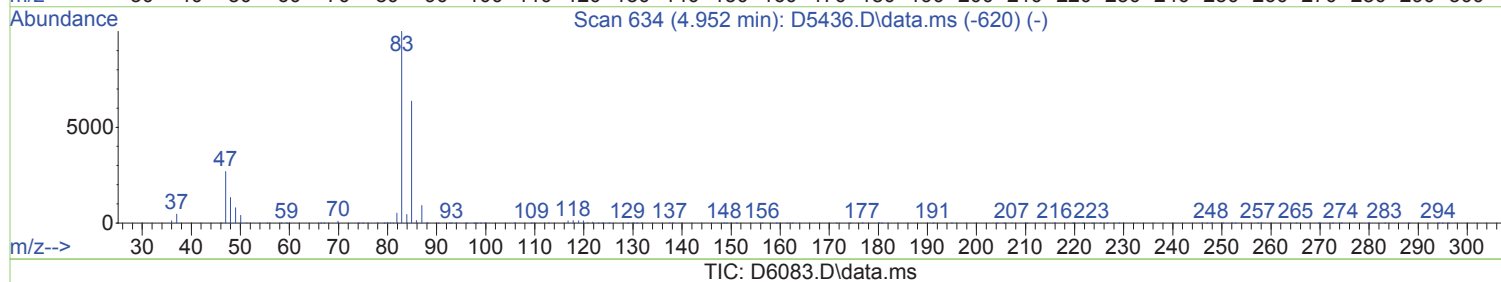
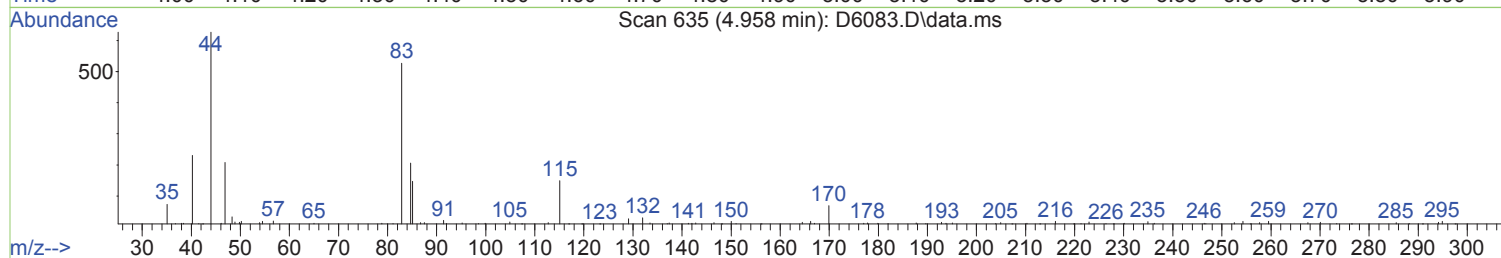
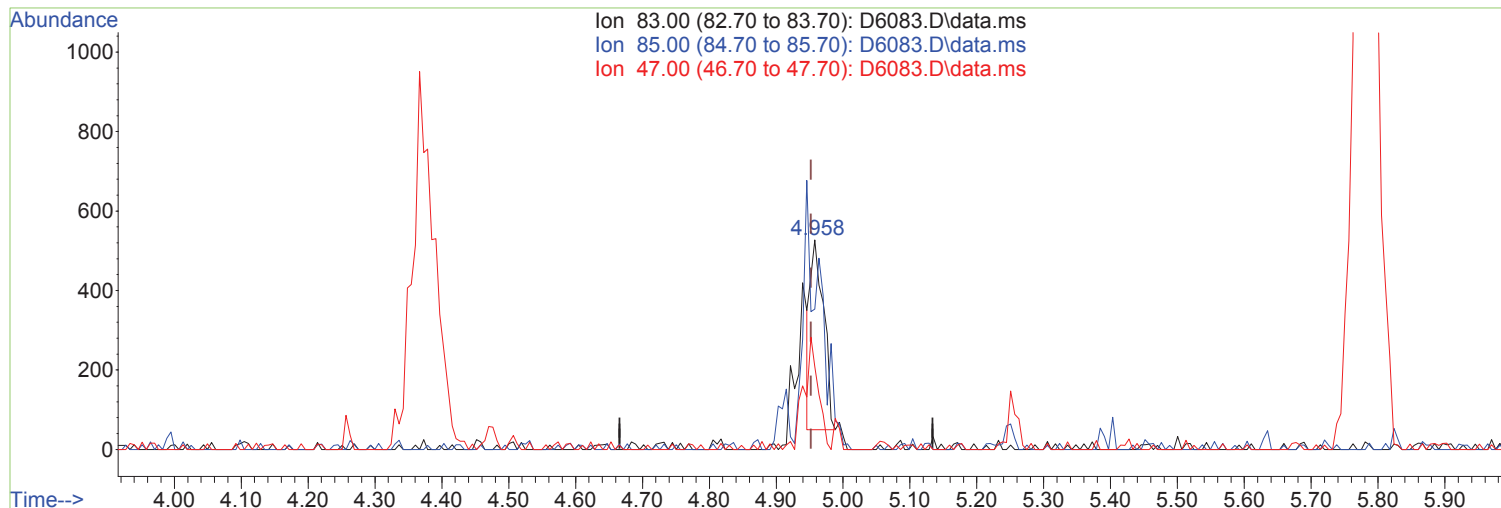
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(39) Chloroform (P)

Manual Integration:

4.958min (+0.006) 0.19 ug/L

Before

response 664

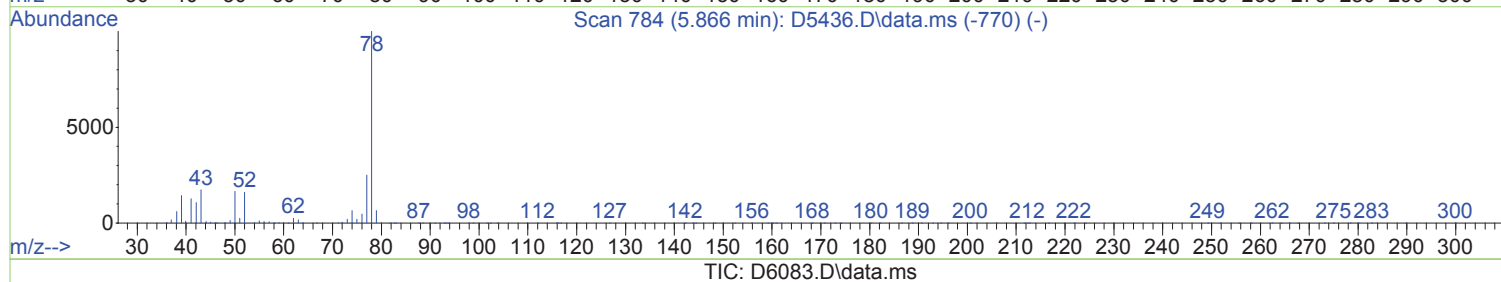
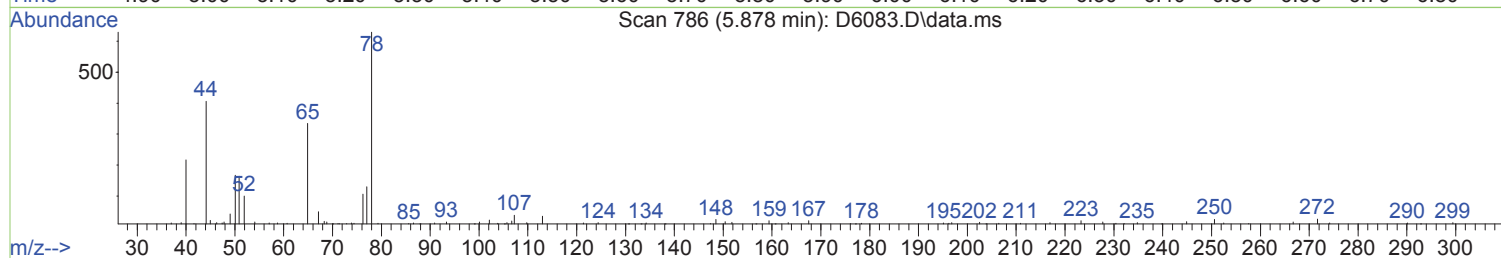
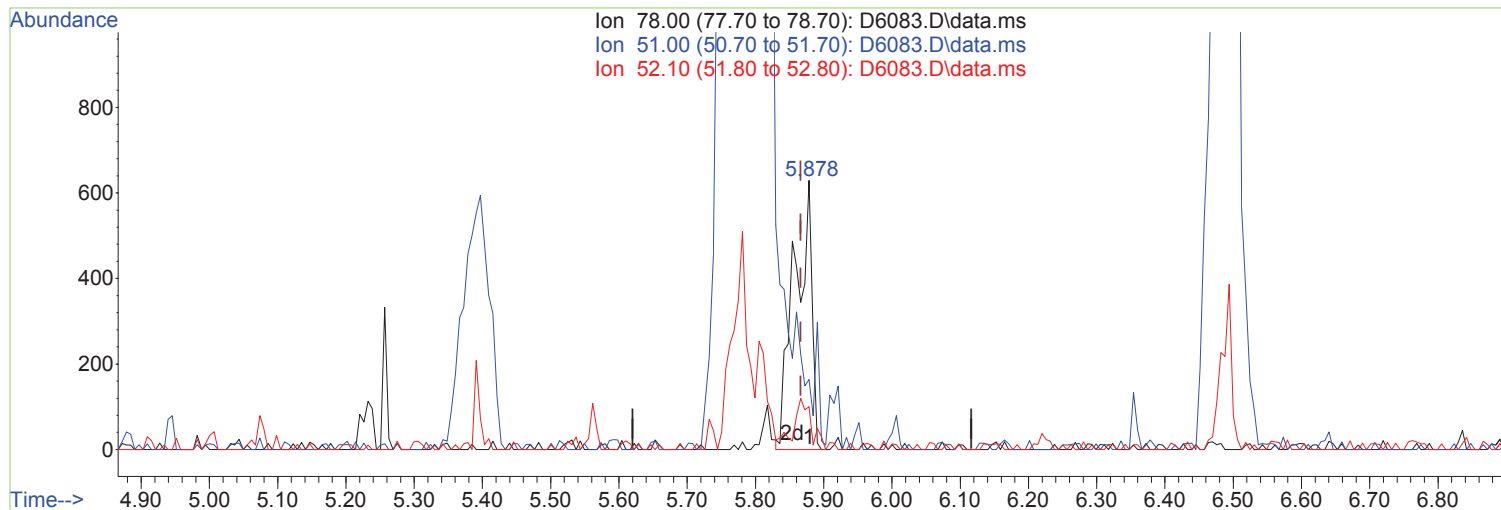
Ion	Exp%	Act%
83.00	100	100
85.00	63.70	66.98
47.00	26.90	39.47
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(47) Benzene (P)

5.878min (+0.012) 0.13 ug/L m

response 1116

Ion	Exp%	Act%
78.00	100	100
51.00	17.50	26.07
52.10	16.30	15.90
0.00	0.00	0.00

Manual Integration:

After

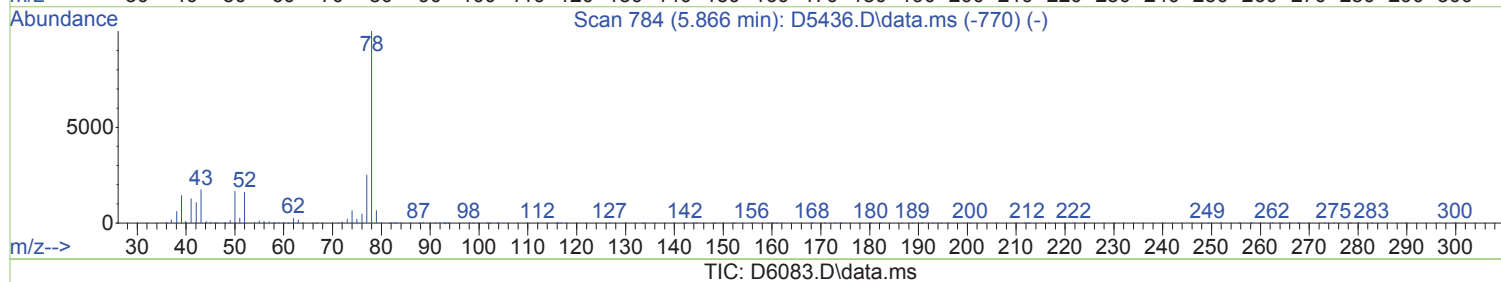
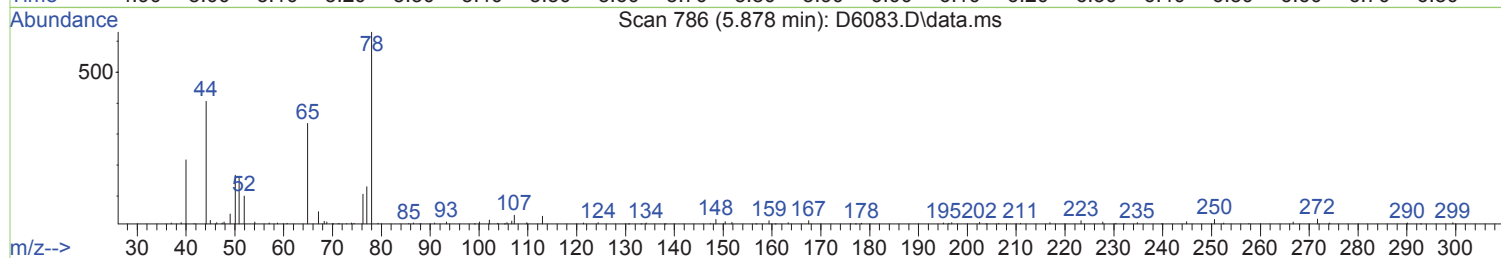
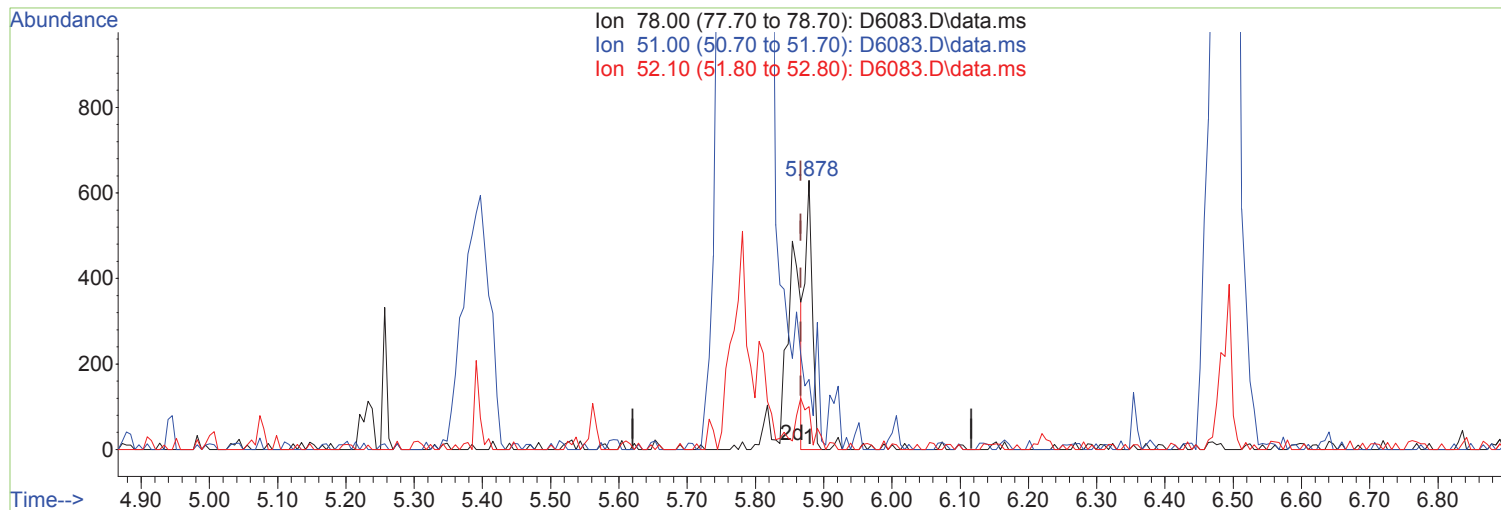
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(47) Benzene (P)

Manual Integration:

5.878min (+0.012) 0.06 ug/L

Before

response 476

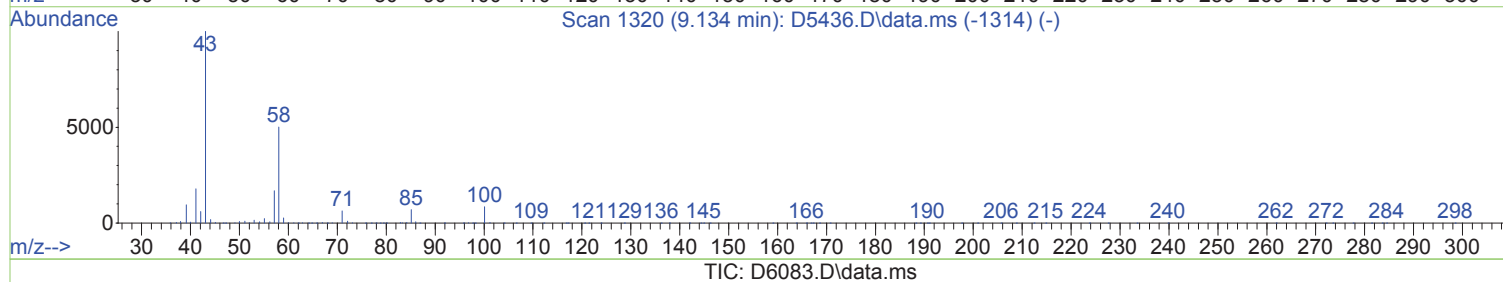
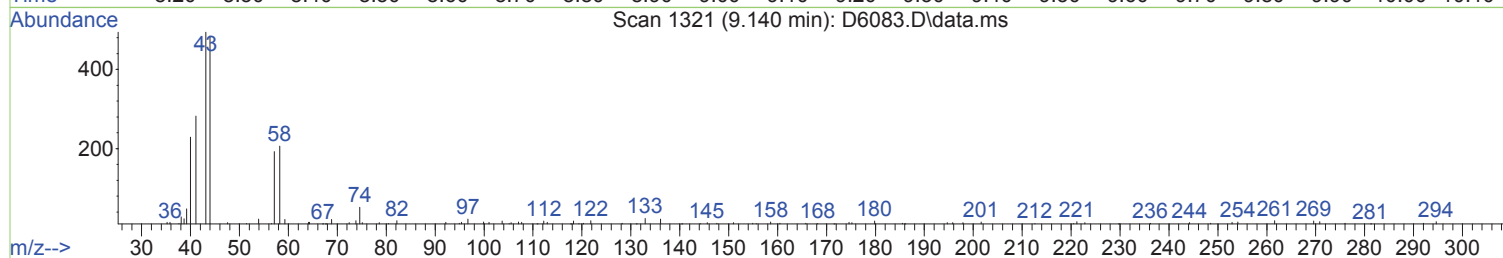
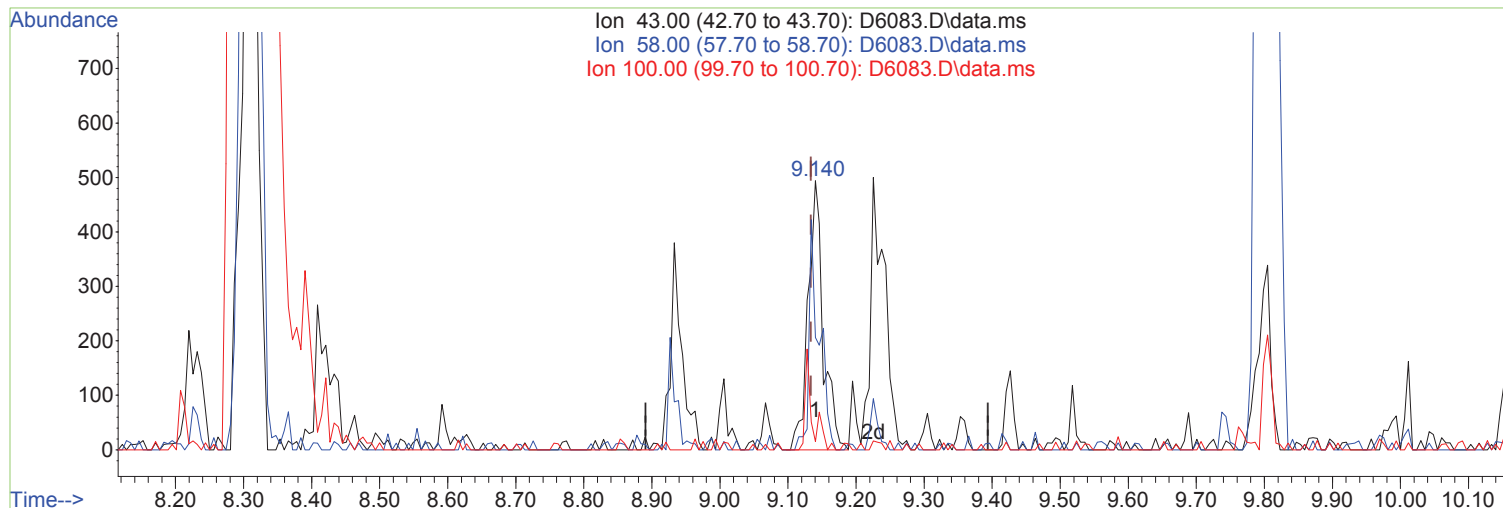
Ion	Exp%	Act%
78.00	100	100
51.00	17.50	26.07
52.10	16.30	15.90
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(72) 2-Hexanone (P)

9.140min (+0.006) 0.34 ug/L m

response 774

Ion	Exp%	Act%
43.00	100	100
58.00	50.10	41.70
100.00	8.60	3.04
0.00	0.00	0.00

Manual Integration:

After

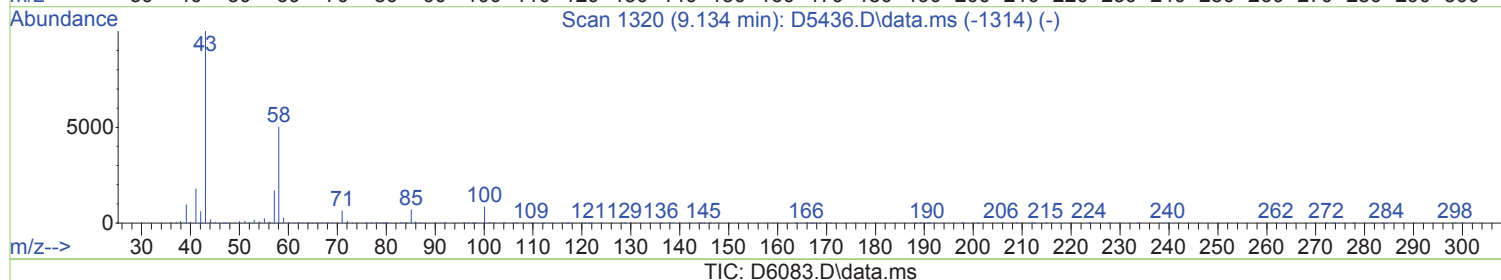
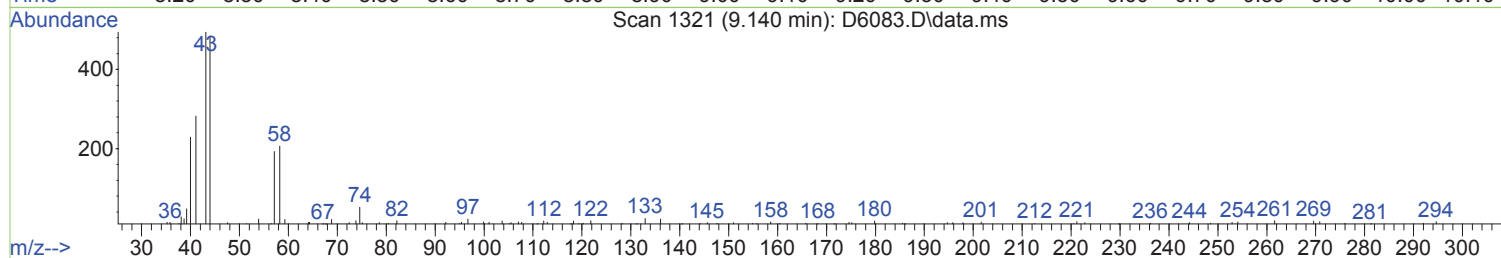
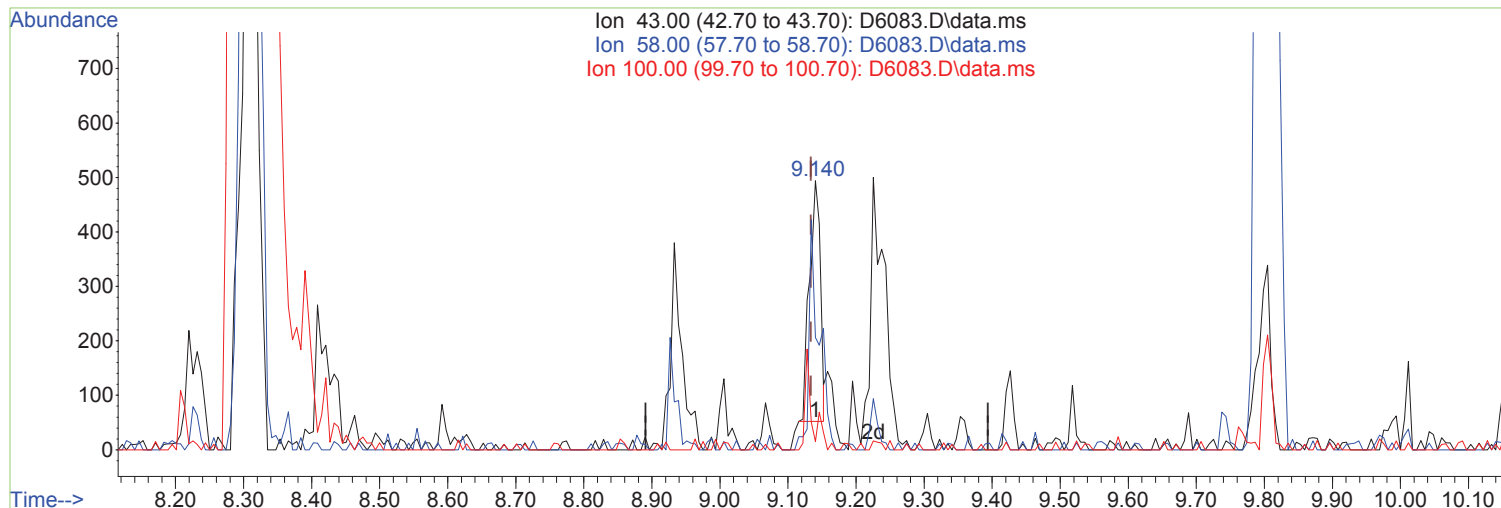
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 18:58:22 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(72) 2-Hexanone (P)

Manual Integration:

9.140min (+0.006) 0.22 ug/L

Before

response 506

Ion	Exp%	Act%
43.00	100	100
58.00	50.10	41.70
100.00	8.60	3.04
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6083.D
 Acq On : 24 Sep 2018 6:44 pm
 Operator : D.LIPANI
 Sample : R1809120-009|1.0
 Misc : Verina 7979 T4
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:13:51 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

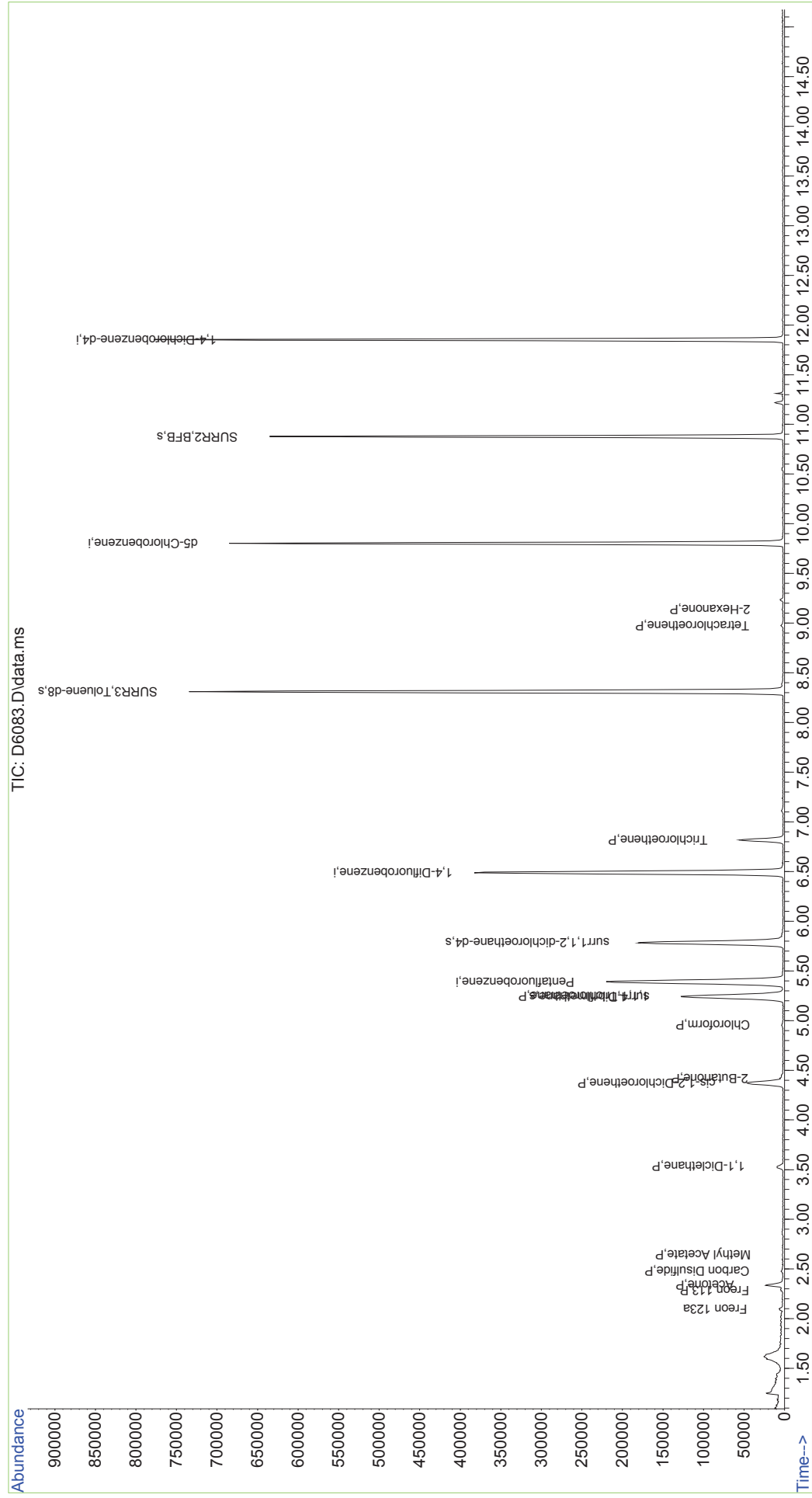
Internal Standards						
1) Pentafluorobenzene	5.391	168	201911	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	310169	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	268335	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	138001	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	102535	49.05	ug/L	0.00
Spiked Amount 50.000	Range 89	- 119	Recovery	=	98.10%	
46) surr1,1,2-dichloroetha...	5.787	65	148680	54.09	ug/L	0.00
Spiked Amount 50.000	Range 73	- 125	Recovery	=	108.18%	
64) SURR3,Toluene-d8	8.311	98	418886	49.43	ug/L	0.00
Spiked Amount 50.000	Range 87	- 121	Recovery	=	98.86%	
69) SURR2,BFB	10.877	95	147617	45.32	ug/L	0.00
Spiked Amount 50.000	Range 85	- 122	Recovery	=	90.64%	
Target Compounds						
						Qvalue
5) Bromomethane	1.593	94	638	Below Cal	#	61
10) Freon 123a	2.099	67	2011	0.78	ug/L	81
14) Freon 113	2.288	101	1060	0.57	ug/L	82
15) Acetone	2.336	43	23419	19.72	ug/L	91
18) Carbon Disulfide	2.477	76	1781	0.35	ug/L	96
21) Methyl Acetate	2.641	43	571	0.24	ug/L #	67
27) 1,1-Dicethane	3.531	63	8340	2.14	ug/L	80
33) cis-1,2-Dichloroethene	4.373	96	23485	10.59	ug/L	99
34) 2-Butanone	4.421	43	4308	2.68	ug/L	94
39) Chloroform	4.958	83	1319m	0.37	ug/L	
40) 1,1,1-Trichloroethane	5.244	97	1858	0.62	ug/L #	76
53) Trichloroethene	6.817	130	18784	8.70	ug/L	89
71) Tetrachloroethene	8.975	164	395	0.24	ug/L #	41
72) 2-Hexanone	9.140	43	774m	0.34	ug/L	

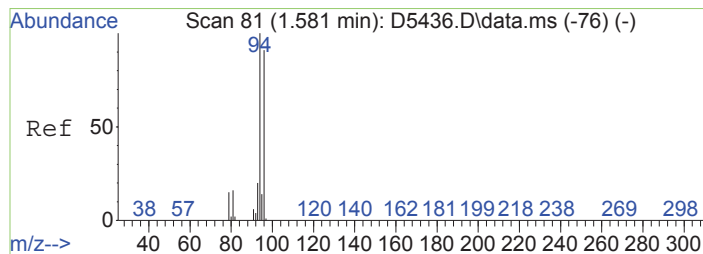
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6083.D
Acq On : 24 Sep 2018 6:44 pm
Operator : D.LIPANI
Sample : R1809120-009|1.0
Misc : Verina 7979 T4
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA10

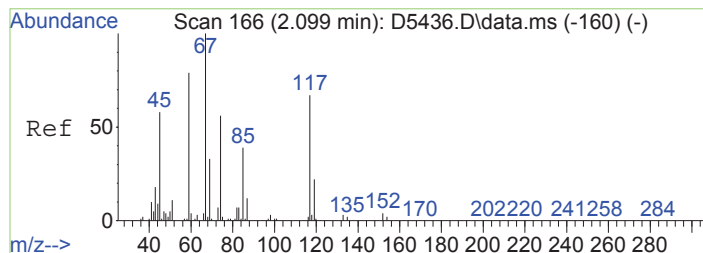
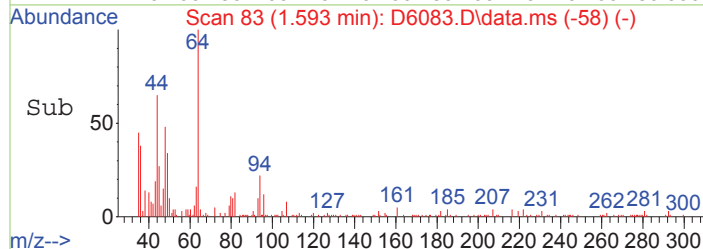
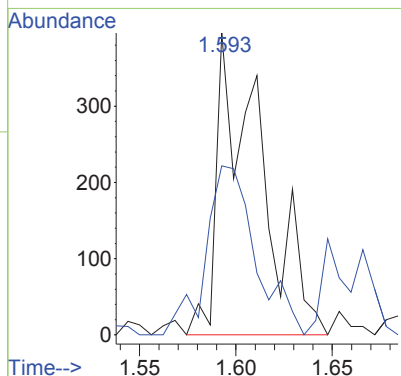
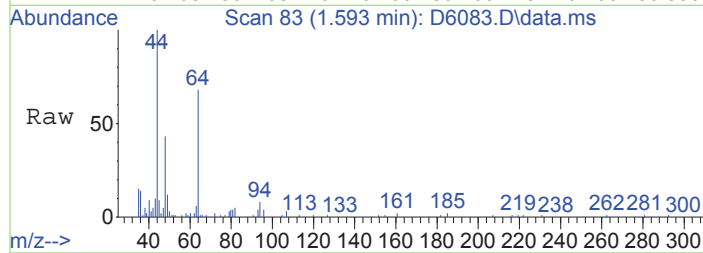
Quant Time: Sep 27 15:13:51 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
Qlast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration





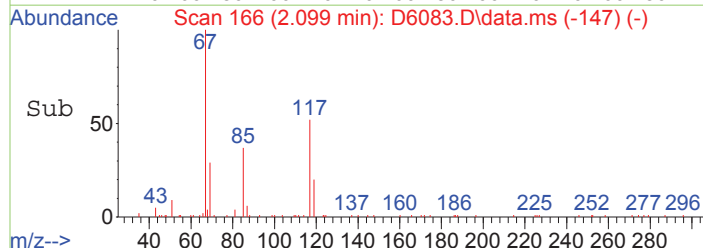
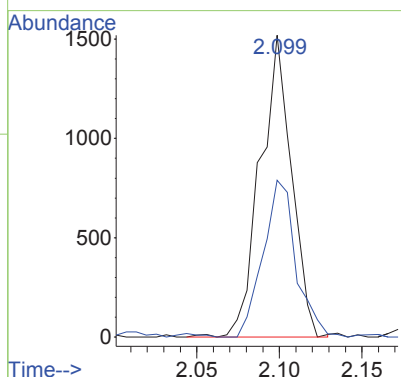
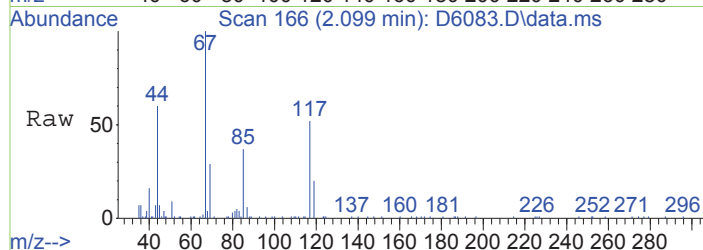
#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

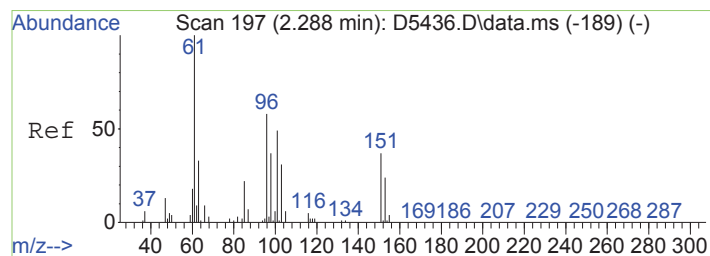
Tgt Ion: 94 Resp: 638
Ion Ratio Lower Upper
94 100
96 54.5 71.1 111.1#



#10
Freon 123a
Concen: 0.78 ug/L
RT: 2.099 min Scan# 166
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

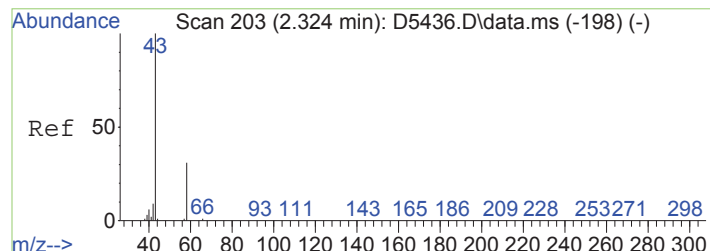
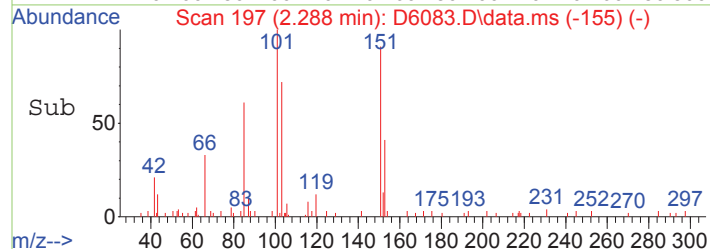
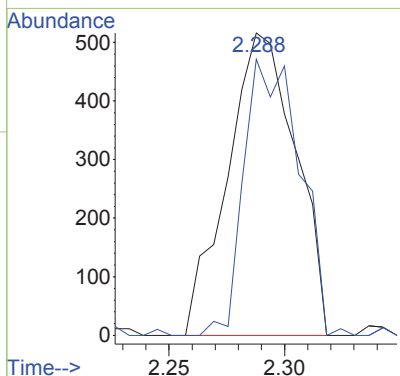
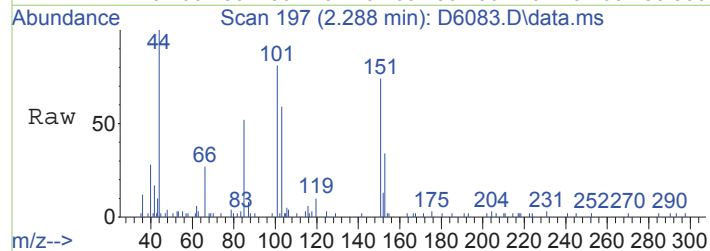
Tgt Ion: 67 Resp: 2011
Ion Ratio Lower Upper
67 100
117 52.0 47.5 87.5





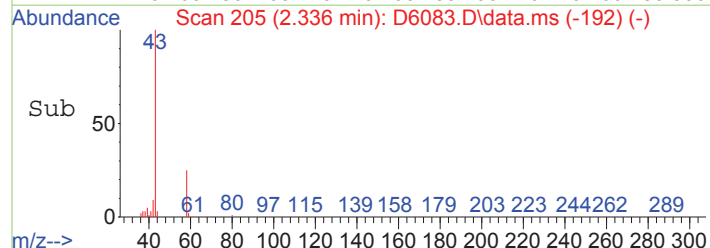
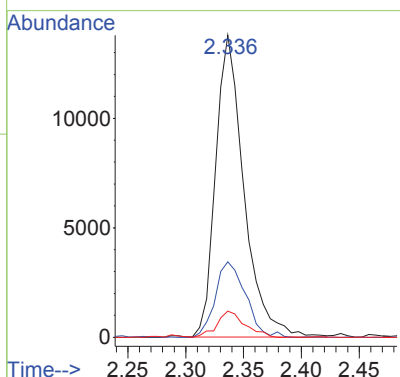
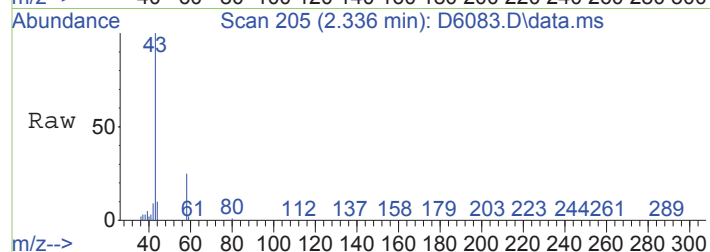
#14
Freon 113
Concen: 0.57 ug/L
RT: 2.288 min Scan# 197
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

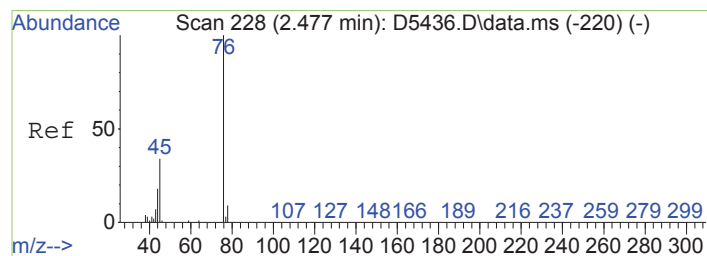
Tgt Ion: 101 Resp: 1060
Ion Ratio Lower Upper
101 100
151 91.3 56.1 96.1



#15
Acetone
Concen: 19.72 ug/L
RT: 2.336 min Scan# 205
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

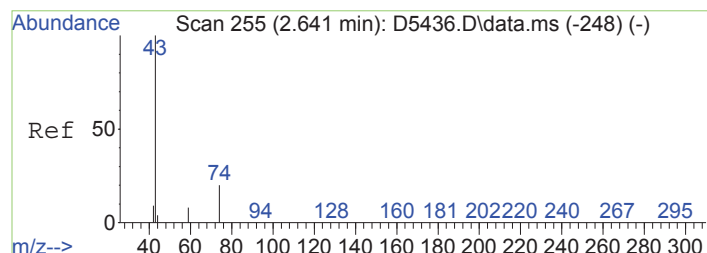
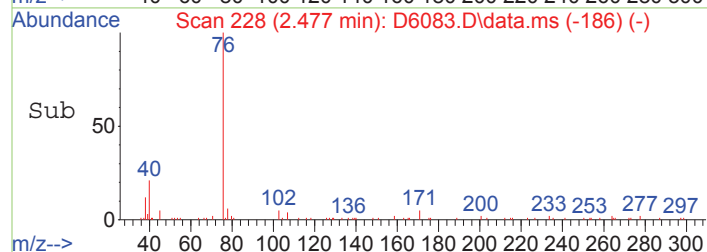
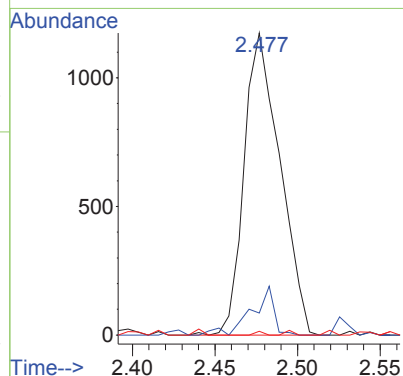
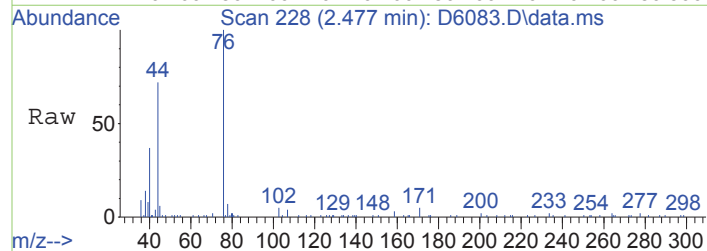
Tgt Ion: 43 Resp: 23419
Ion Ratio Lower Upper
43 100
58 25.0 11.2 51.2
42 8.6 0.0 28.6





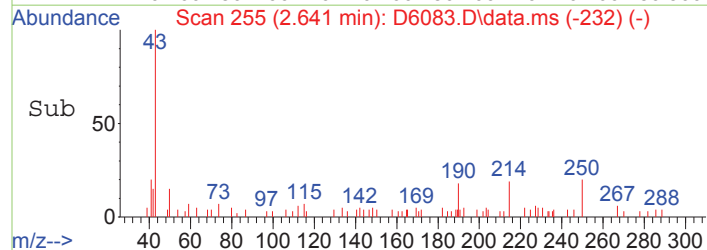
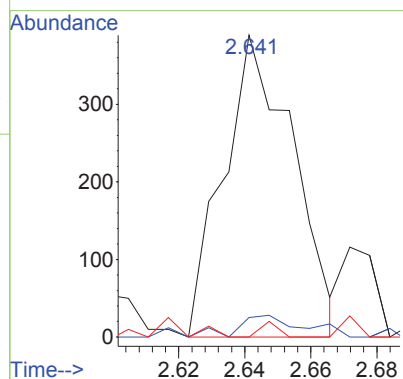
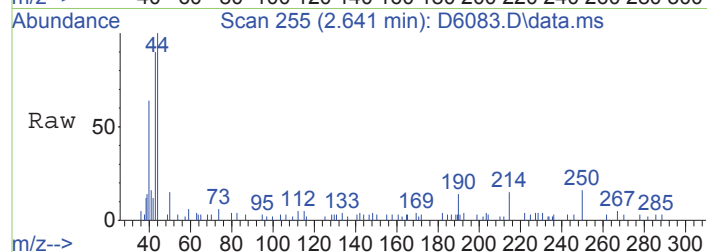
#18
Carbon Disulfide
Concen: 0.35 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

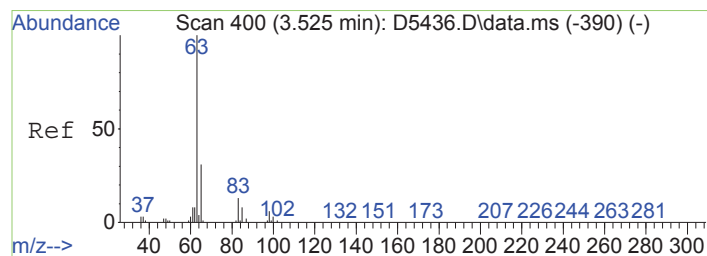
Tgt Ion:	76	Resp:	1781
Ion Ratio		Lower	Upper
76	100		
78	7.3	0.0	28.8
77	1.3	0.0	22.9



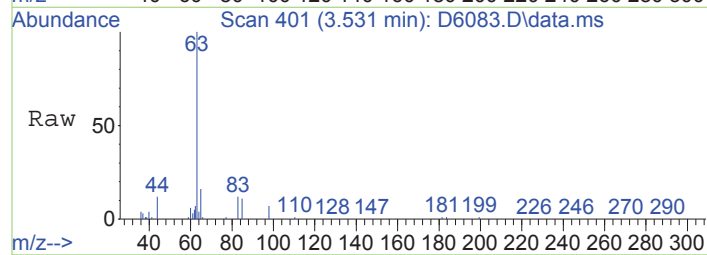
#21
Methyl Acetate
Concen: 0.24 ug/L
RT: 2.641 min Scan# 255
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion:	43	Resp:	571
Ion Ratio		Lower	Upper
43	100		
59	6.4	0.0	28.1
74	0.0	0.2	40.2#

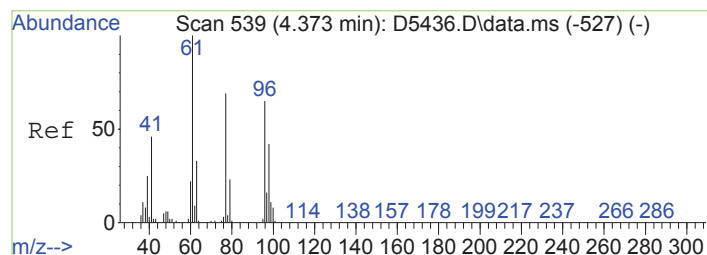
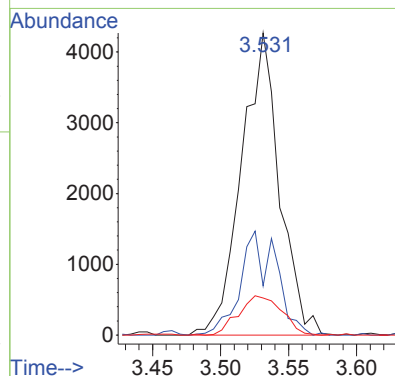
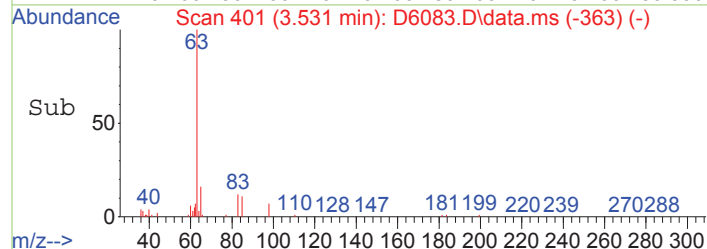




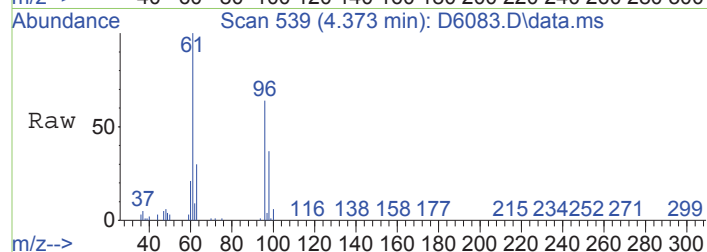
#27
1,1-Dicloroethane
Concen: 2.14 ug/L
RT: 3.531 min Scan# 401
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm



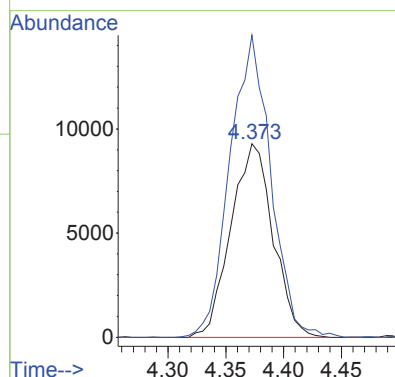
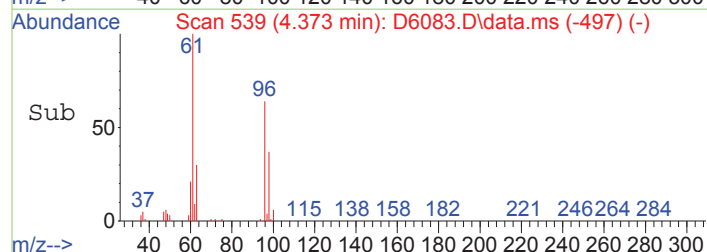
Tgt Ion: 63 Resp: 8340
Ion Ratio Lower Upper
63 100
65 16.2 11.4 51.4
83 12.7 0.0 32.6

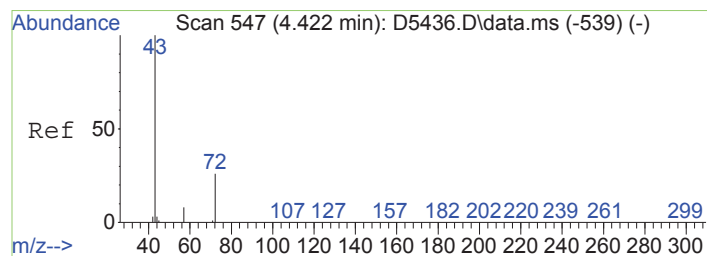


#33
cis-1,2-Dichloroethene
Concen: 10.59 ug/L
RT: 4.373 min Scan# 539
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm



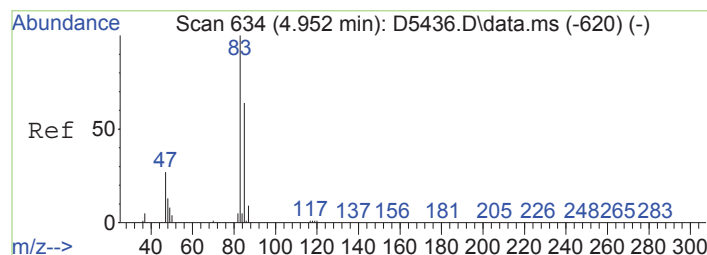
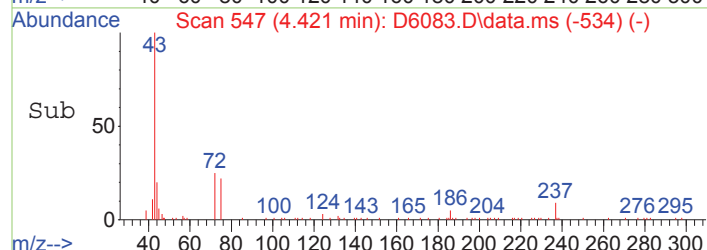
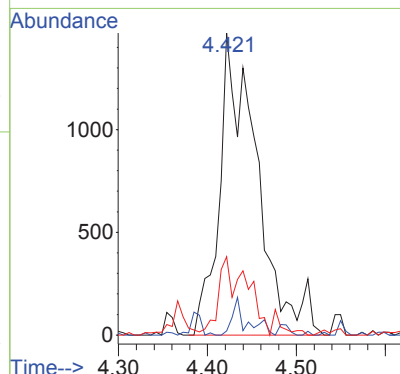
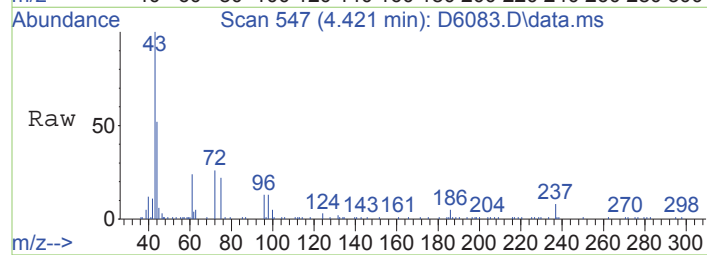
Tgt Ion: 96 Resp: 23485
Ion Ratio Lower Upper
96 100
61 156.0 134.7 174.7





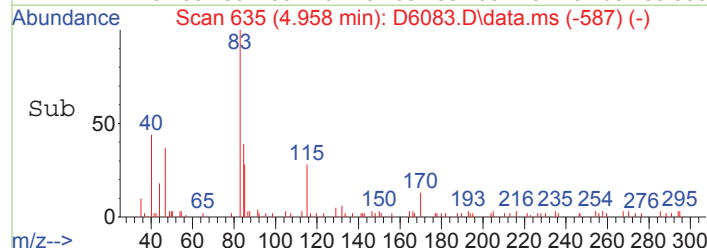
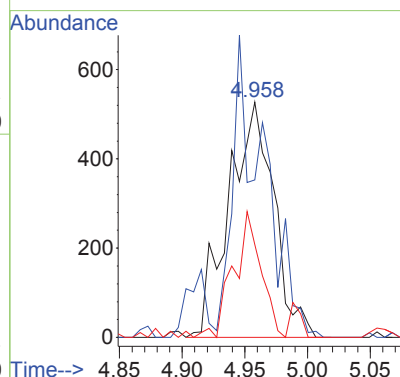
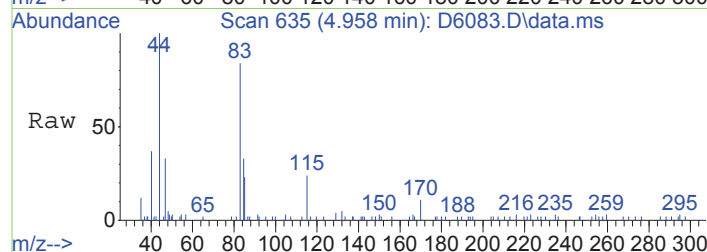
#34
2-Butanone
Concen: 2.68 ug/L
RT: 4.421 min Scan# 547
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

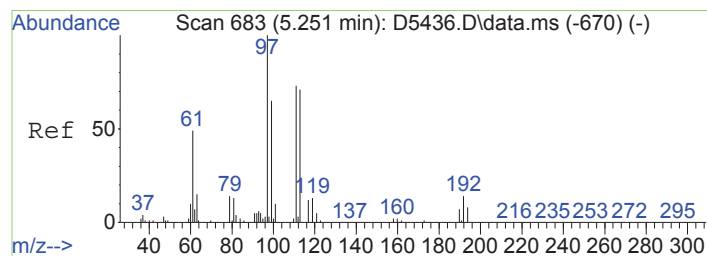
Tgt Ion	Ratio	Lower	Upper
43	100		
57	1.4	0.0	27.8
72	26.0	5.1	45.1



#39
Chloroform
Concen: 0.37 ug/L m
RT: 4.958 min Scan# 635
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

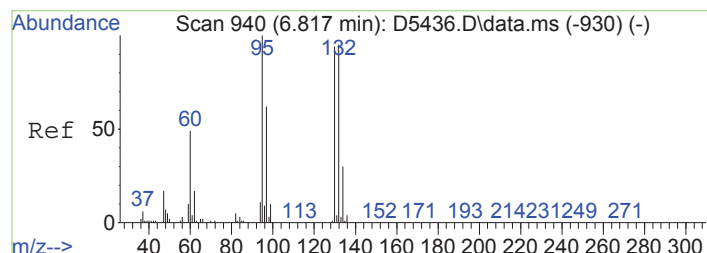
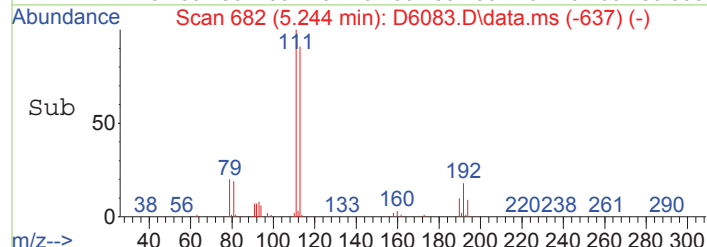
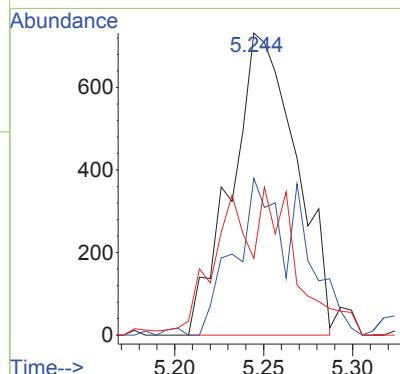
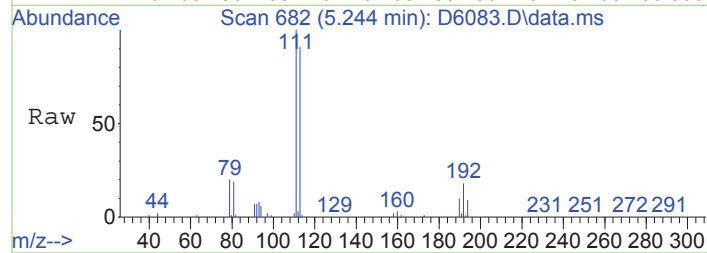
Tgt Ion	Ratio	Lower	Upper
83	100		
85	39.1	43.7	83.7#
47	39.5	6.9	46.9





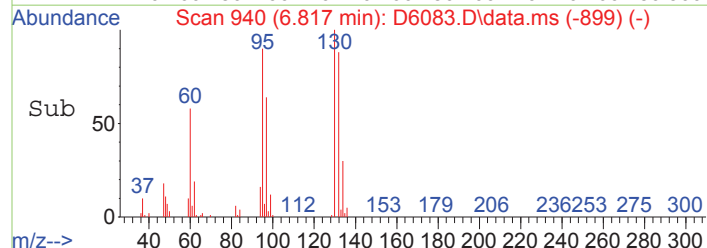
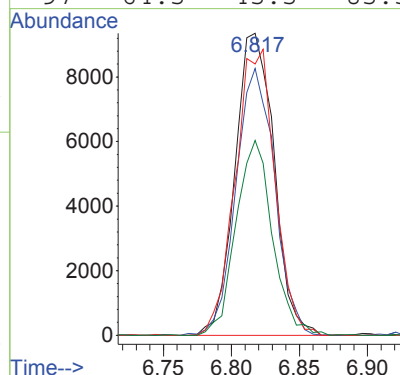
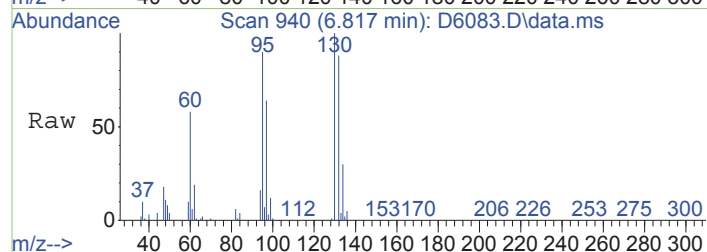
#40
1,1,1-Trichloroethane
Concen: 0.62 ug/L
RT: 5.244 min Scan# 682
Delta R.T. -0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

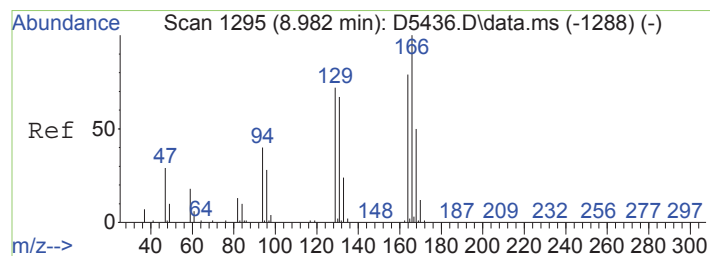
Tgt Ion:	97	Resp:	1858
Ion Ratio	Lower	Upper	
97	100		
99	51.9	45.0	85.0
61	25.4	29.1	69.1#



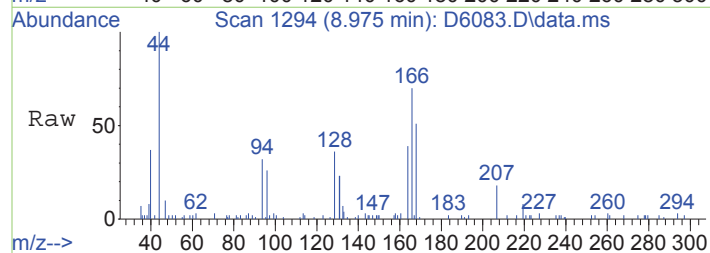
#53
Trichloroethene
Concen: 8.70 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm

Tgt Ion:	130	Resp:	18784
Ion Ratio	Lower	Upper	
130	100		
132	88.3	80.7	120.7
95	89.8	86.1	126.1
97	64.5	45.5	85.5

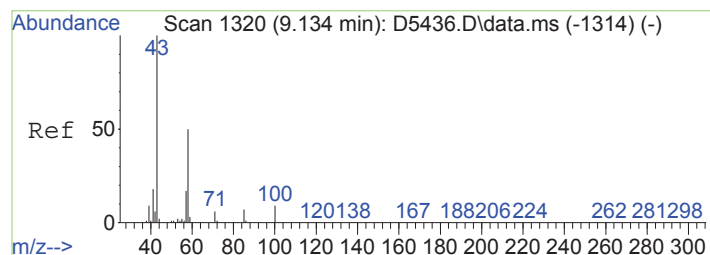
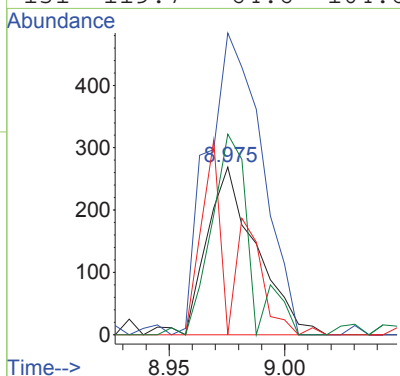
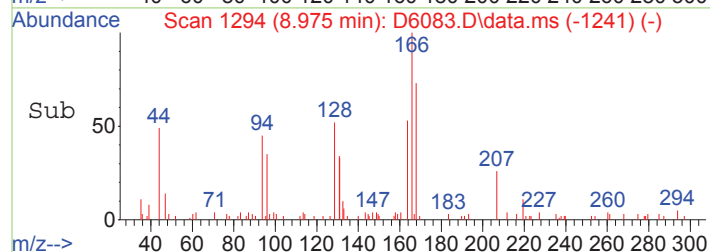




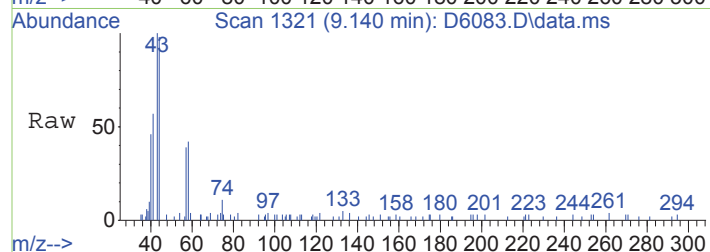
#71
Tetrachloroethene
Concen: 0.24 ug/L
RT: 8.975 min Scan# 1294
Delta R.T. -0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm



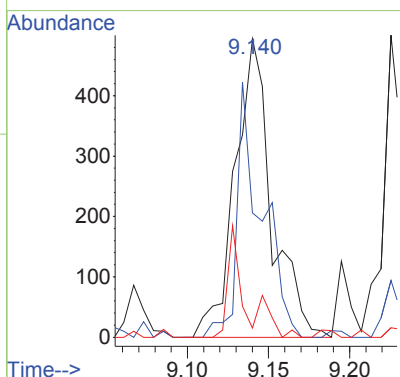
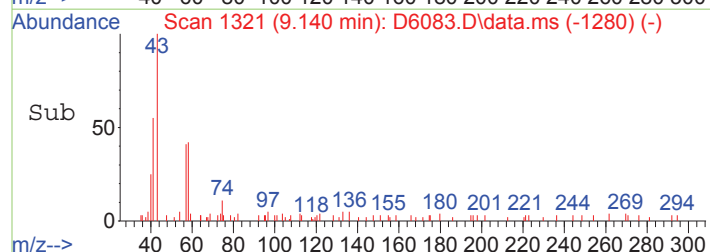
Tgt Ion: 164 Resp: 395
Ion Ratio Lower Upper
164 100
166 179.9 106.8 146.8#
129 0.0 71.9 111.9#
131 119.7 64.6 104.6#



#72
2-Hexanone
Concen: 0.34 ug/L m
RT: 9.140 min Scan# 1321
Delta R.T. 0.006 min
Lab File: D6083.D
Acq: 24 Sep 2018 6:44 pm



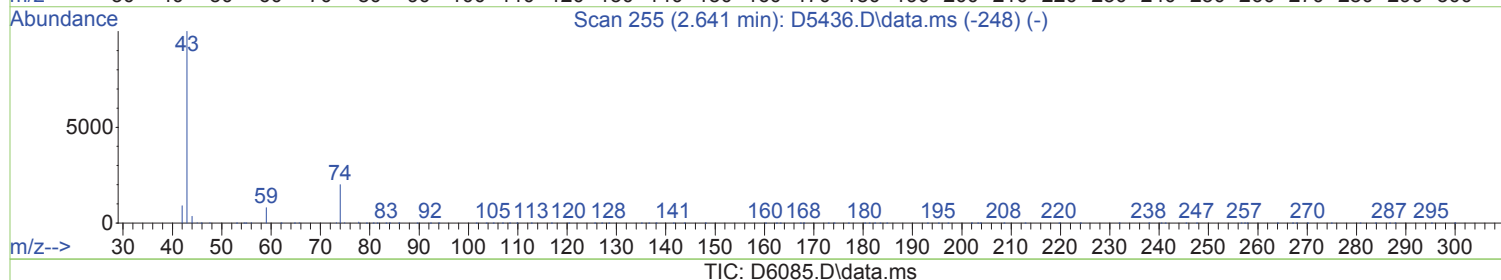
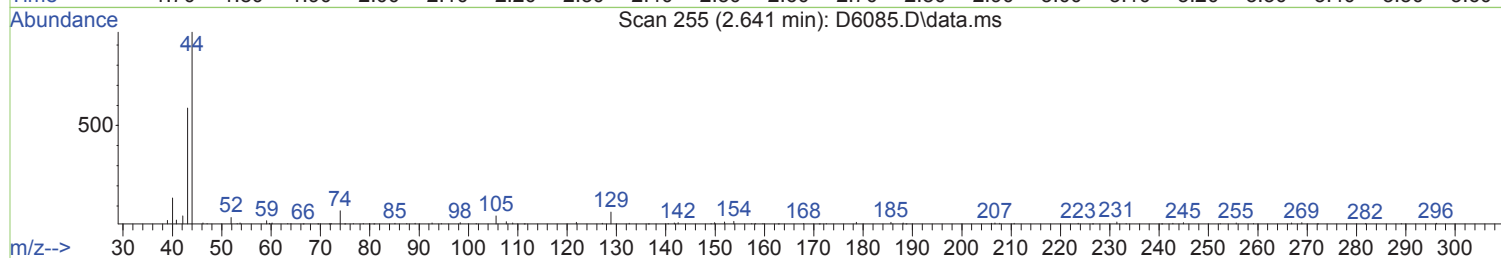
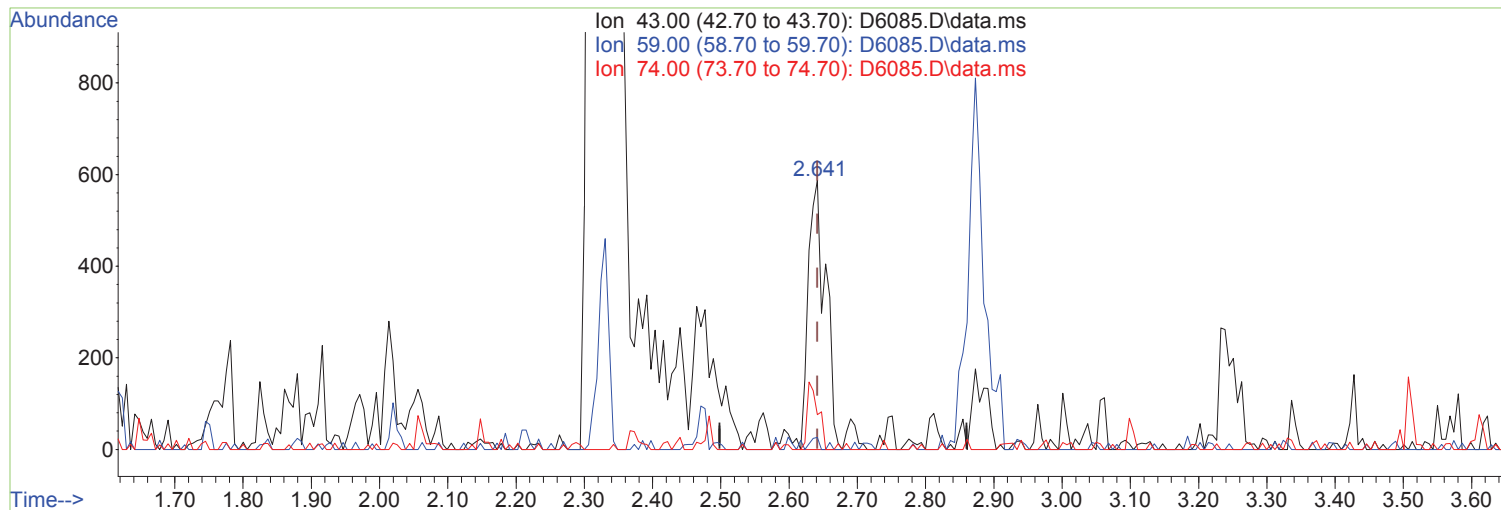
Tgt Ion: 43 Resp: 774
Ion Ratio Lower Upper
43 100
58 41.7 30.1 70.1
100 3.0 0.0 28.6



Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(21) Methyl Acetate (P)

2.641min (-0.000) 0.42 ug/L m

response 1028

Ion	Exp%	Act%
43.00	100	100
59.00	8.10	4.43
74.00	20.20	12.95
0.00	0.00	0.00

Manual Integration:

After

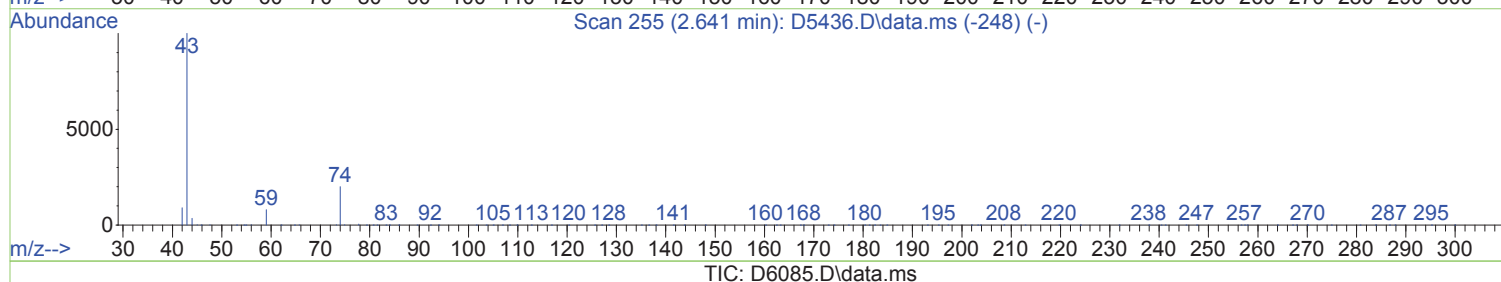
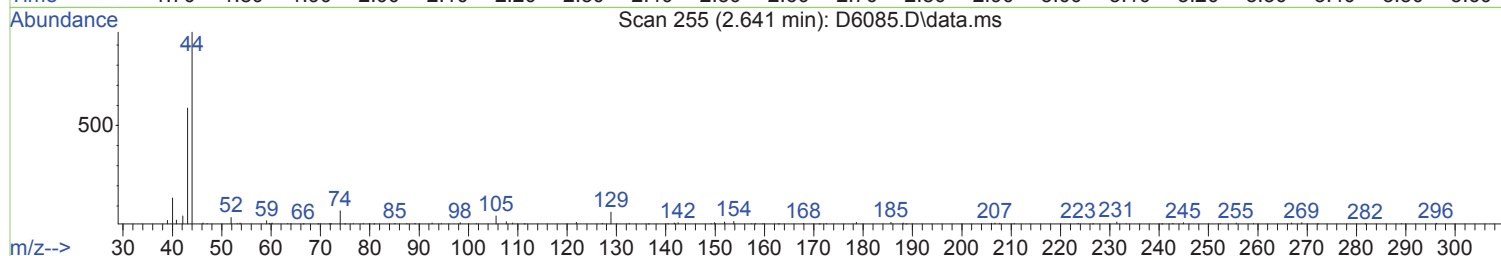
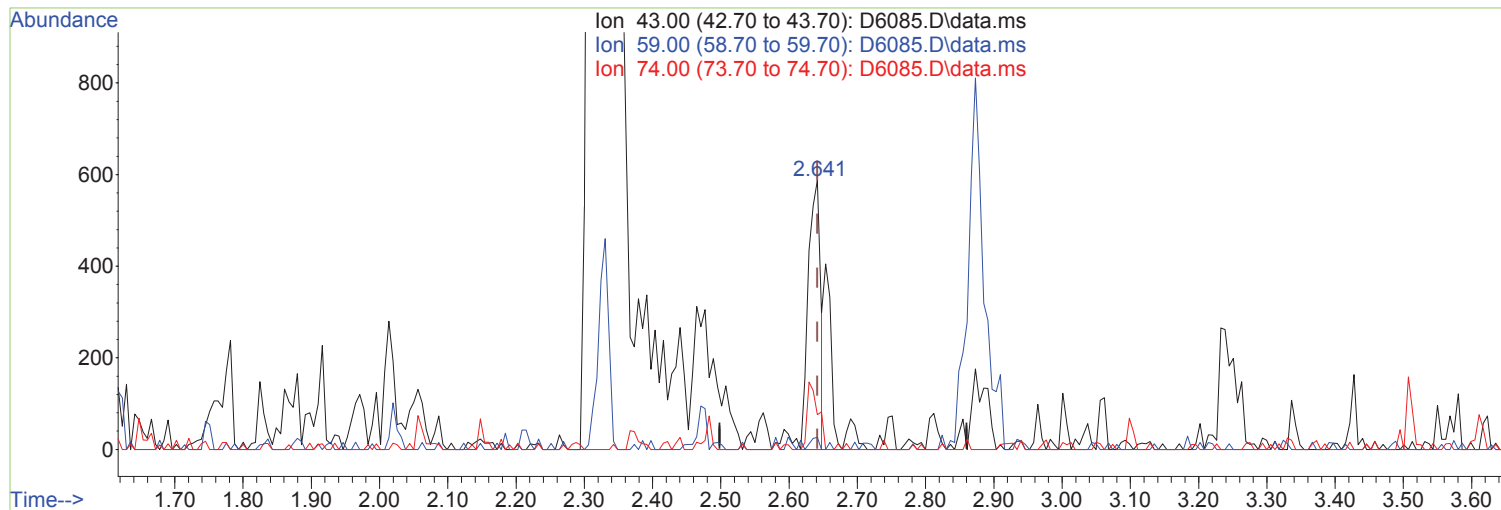
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(21) Methyl Acetate (P)

Manual Integration:

2.641min (-0.000) 0.30 ug/L

Before

response 733

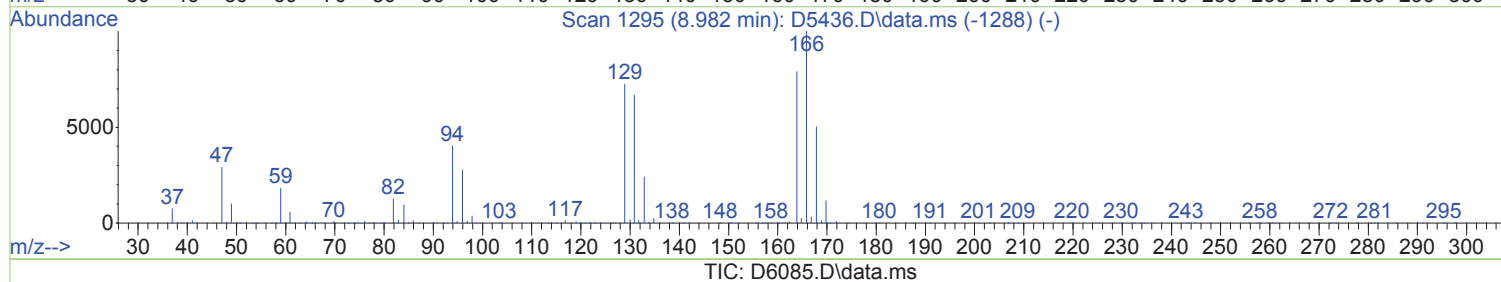
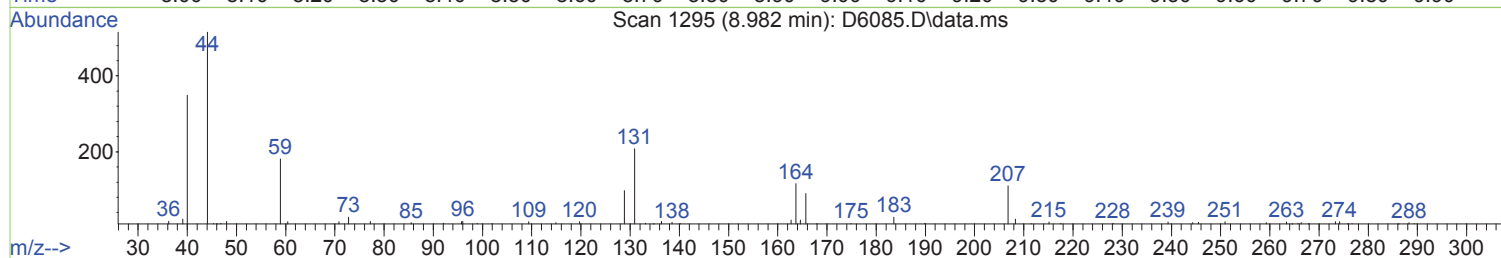
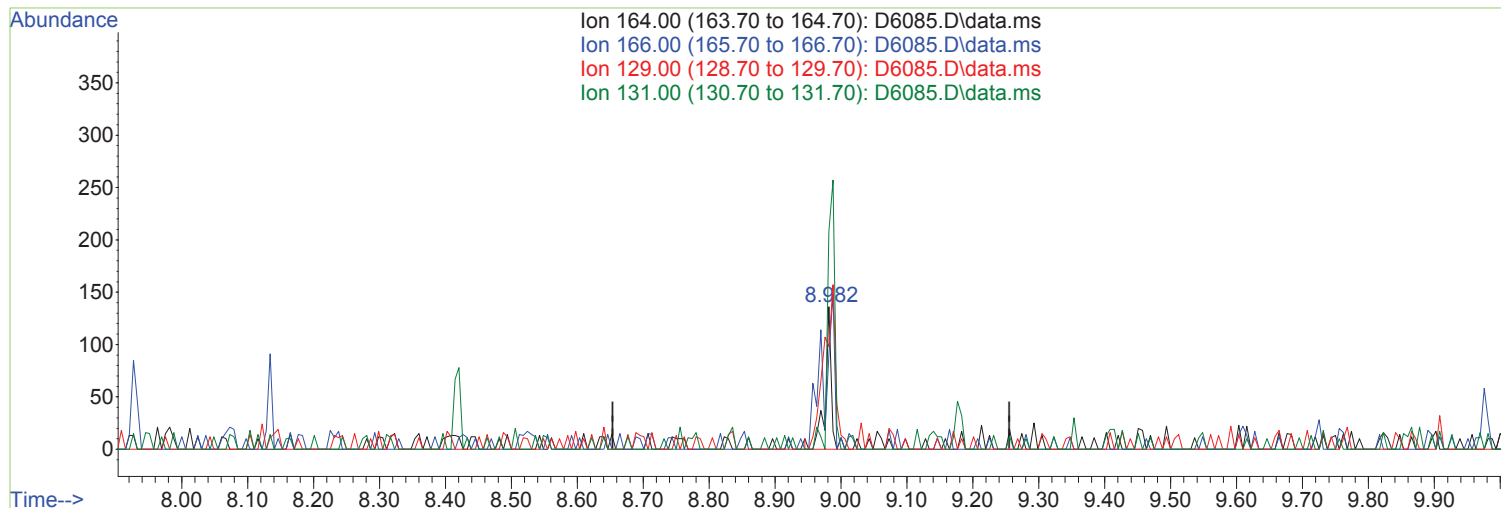
Ion	Exp%	Act%
43.00	100	100
59.00	8.10	6.64
74.00	20.20	12.95
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(71) Tetrachloroethene (P)

8.982min (-0.000) 0.05 ug/L m

response 85

Ion	Exp%	Act%
164.00	100	100
166.00	126.80	77.59#
129.00	91.90	84.48
131.00	84.60	179.31#

Manual Integration:

After

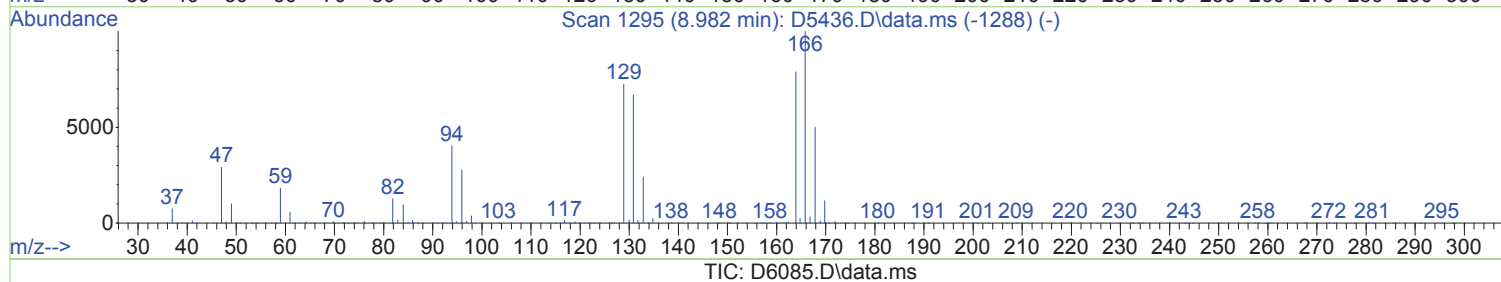
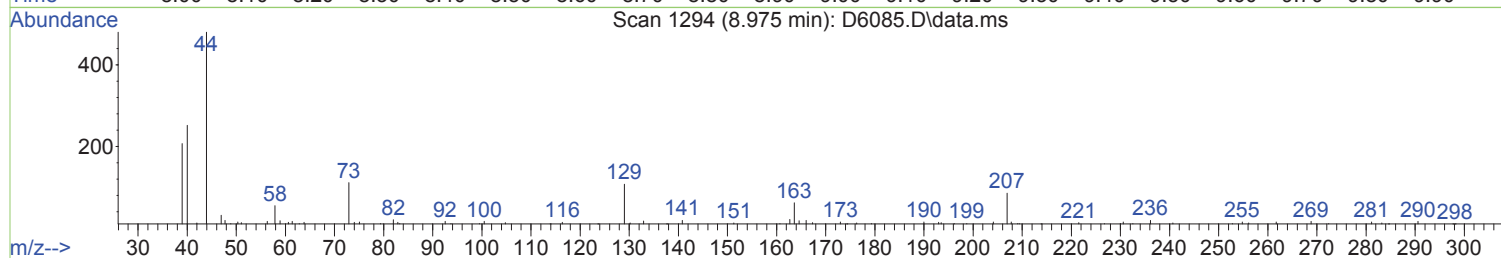
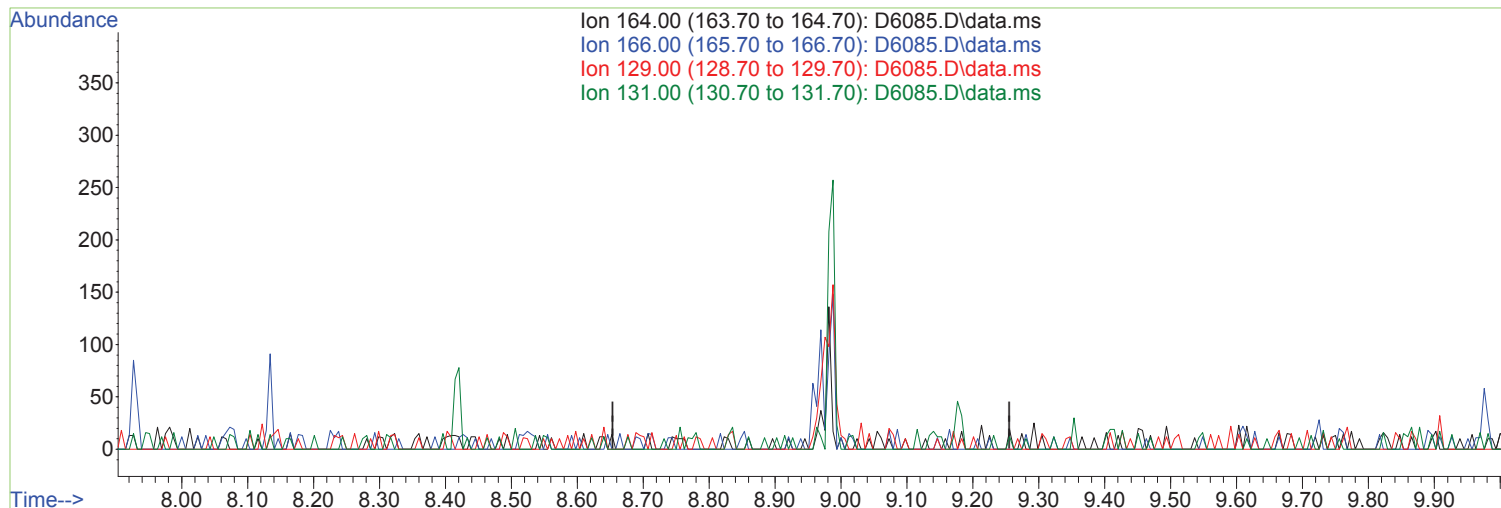
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6085.D
Acq On : 24 Sep 2018 7:30 pm
Operator : D.LIPANI
Sample : R1809120-010|1.0
Misc : Verina 7979 T4
ALS Vial : 29 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 19:45:15 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(71) Tetrachloroethene (P)

Manual Integration:

8.982min (-8.982) 0.00 ug/L

Before

response 0

Ion	Exp%	Act%
164.00	100	0.00
166.00	126.80	0.00#
129.00	91.90	0.00#
131.00	84.60	0.00#

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6085.D
 Acq On : 24 Sep 2018 7:30 pm
 Operator : D.LIPANI
 Sample : R1809120-010|1.0
 Misc : Verina 7979 T4
 ALS Vial : 29 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:19:11 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	207507	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	326046	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	280530	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	140451	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	101205	46.06	ug/L	0.00
Spiked Amount	50.000	Range 89 - 119	Recovery	=	92.12%	
46) surr1,1,2-dichloroetha...	5.781	65	153045	52.97	ug/L	0.00
Spiked Amount	50.000	Range 73 - 125	Recovery	=	105.94%	
64) SURR3,Toluene-d8	8.311	98	430764	48.35	ug/L	0.00
Spiked Amount	50.000	Range 87 - 121	Recovery	=	96.70%	
69) SURR2,BFB	10.878	95	150409	43.93	ug/L	0.00
Spiked Amount	50.000	Range 85 - 122	Recovery	=	87.86%	
Target Compounds						
5) Bromomethane	1.581	94	933	Below Cal	#	74
15) Acetone	2.324	43	41479	33.98	ug/L	92
16) 2-Propanol	2.465	45	1063	4.50	ug/L	# 2
18) Carbon Disulfide	2.477	76	40149	7.70	ug/L	97
21) Methyl Acetate	2.641	43	1028m	0.42	ug/L	
23) TBA	2.873	59	1234	3.49	ug/L	# 54
34) 2-Butanone	4.434	43	5650	3.42	ug/L	81
51) n-Heptane	6.366	43	1331	0.45	ug/L	# 29

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

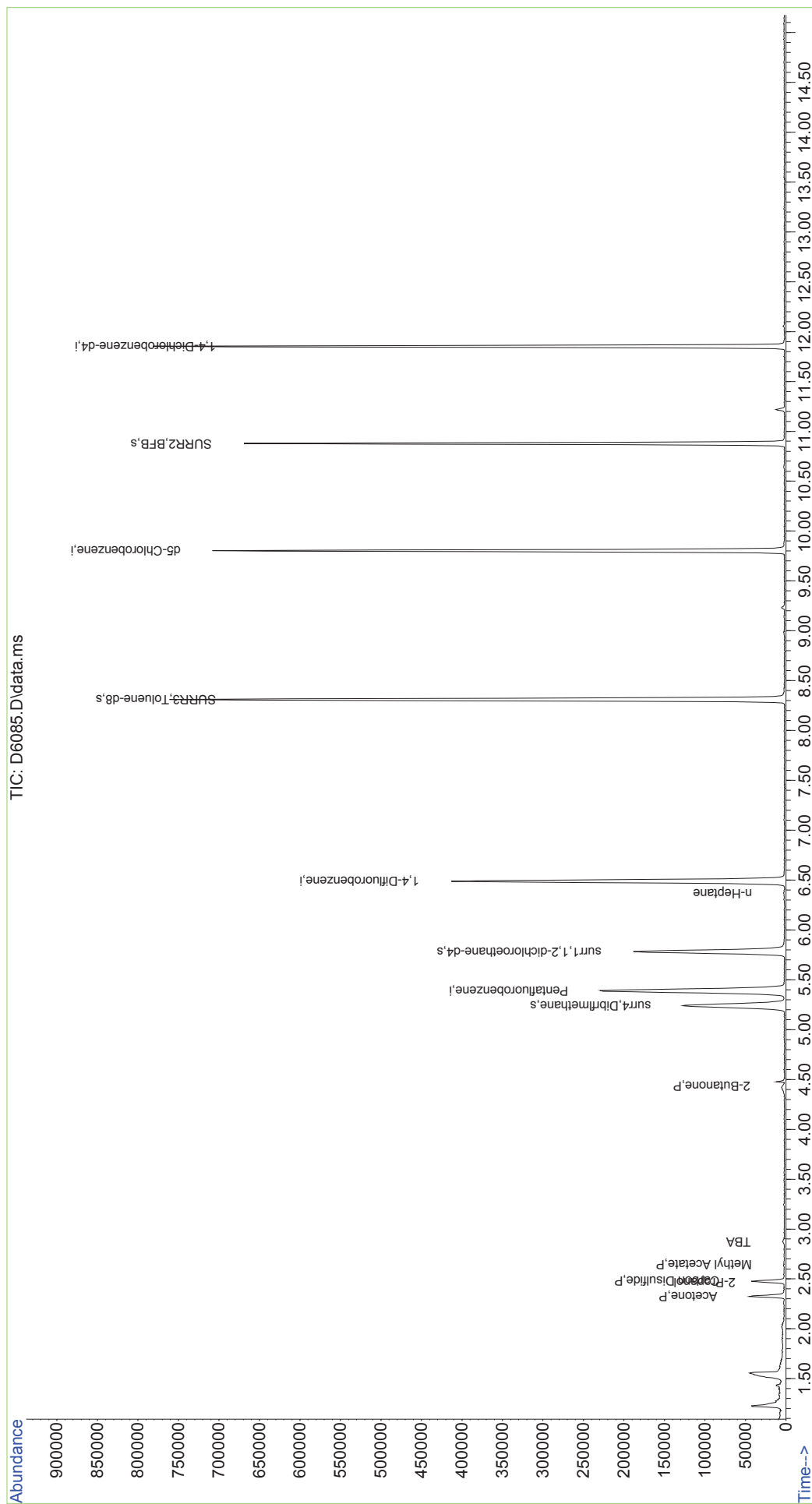
Quantitation Report (QT Reviewed)

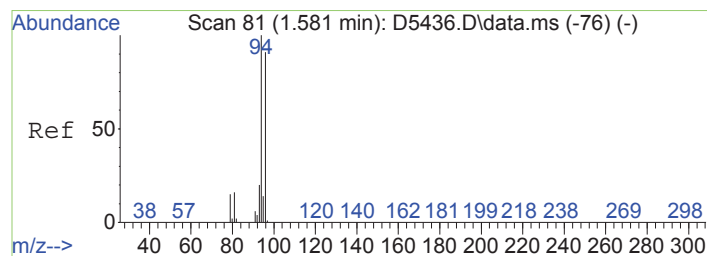
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Data Path      : I:\ACQUDDATA\msvoa10\data\092418\
Data File     : D6085.D
Acq On        : 24 Sep 2018    7:30 pm
Operator       : D.LIPANI
Sample        : R1809120-010|1.0
Misc          : Verina 7979 T4
ALS Vial      : 29    Sample Multiplier: 1
Inst          : MSV0A10

```

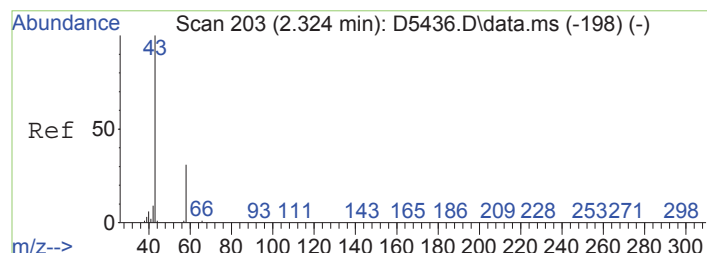
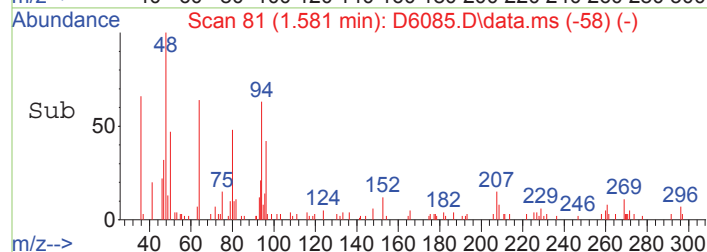
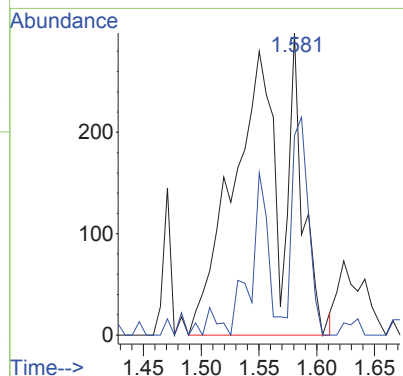
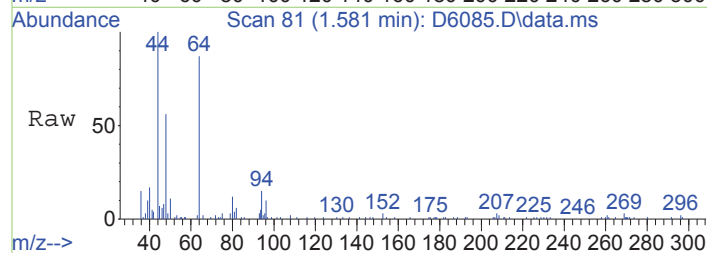
Quant Time: Sep 27 15:19:11 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration





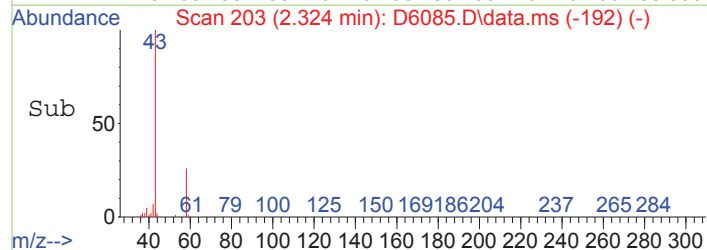
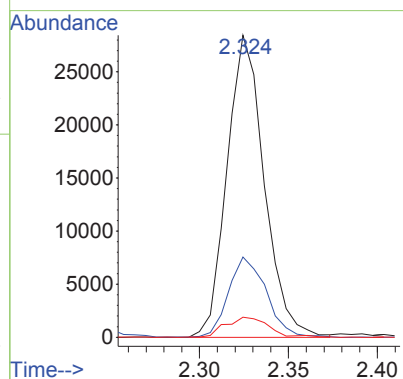
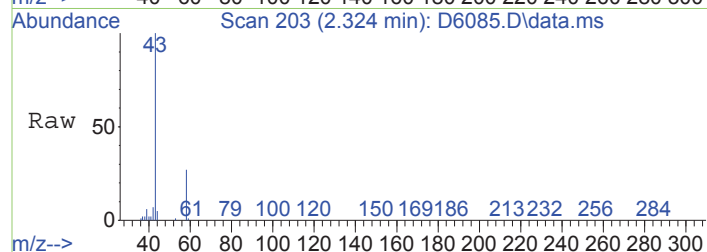
#5
Bromomethane
Concen: Below Cal
RT: 1.581 min Scan# 81
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

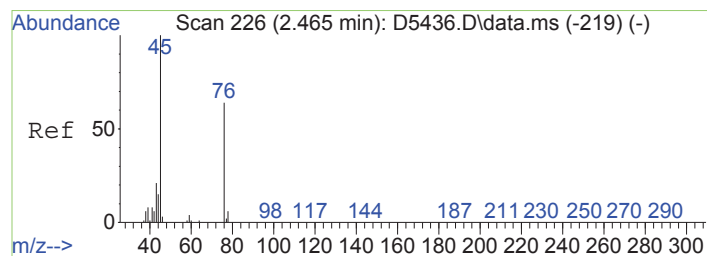
Tgt Ion: 94 Resp: 933
Ion Ratio Lower Upper
94 100
96 66.1 71.1 111.1#



#15
Acetone
Concen: 33.98 ug/L
RT: 2.324 min Scan# 203
Delta R.T. -0.006 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

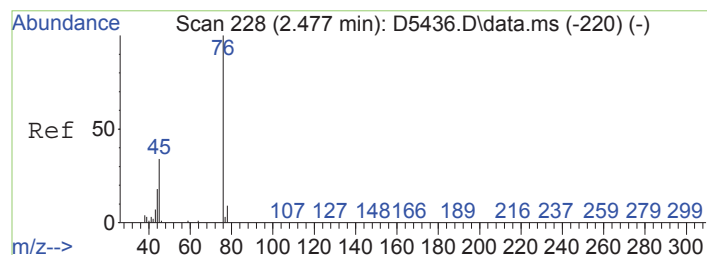
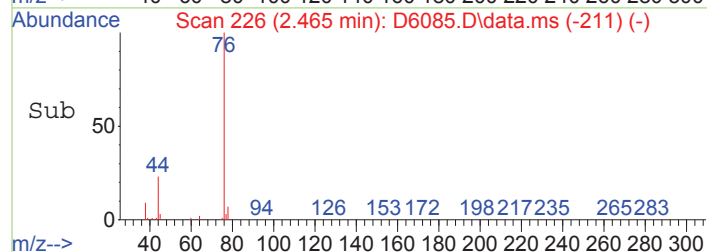
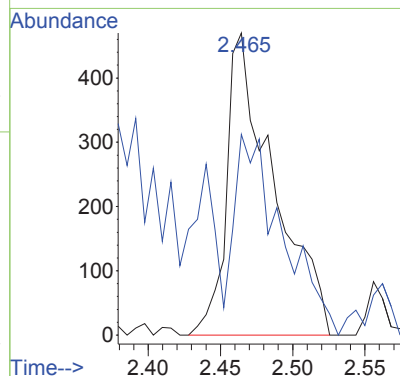
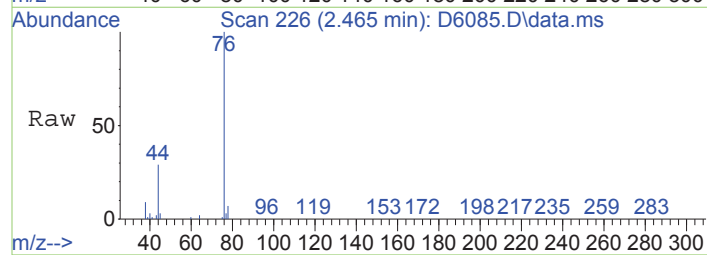
Tgt Ion: 43 Resp: 41479
Ion Ratio Lower Upper
43 100
58 26.6 11.2 51.2
42 6.7 0.0 28.6





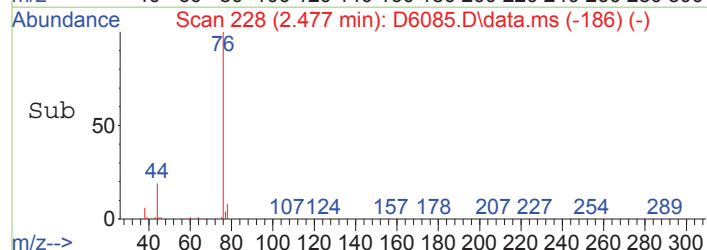
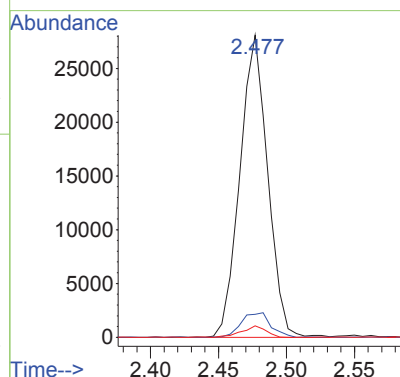
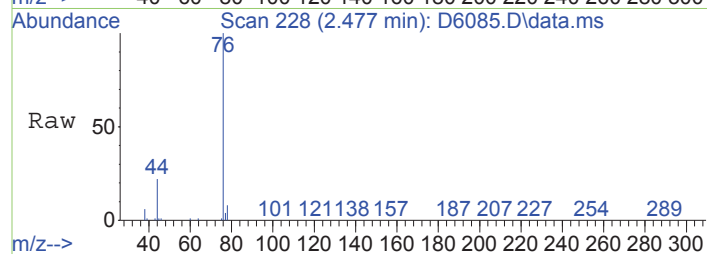
#16
2-Propanol
Concen: 4.50 ug/L
RT: 2.465 min Scan# 226
Delta R.T. -0.018 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

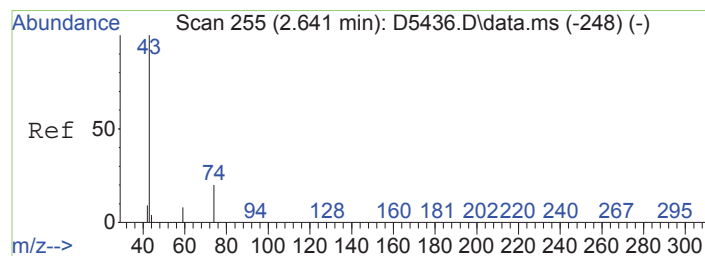
Tgt Ion: 45 Resp: 1063
Ion Ratio Lower Upper
45 100
43 66.4 0.8 40.8#



#18
Carbon Disulfide
Concen: 7.70 ug/L
RT: 2.477 min Scan# 228
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

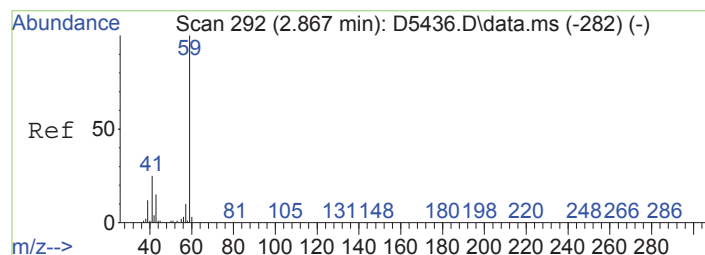
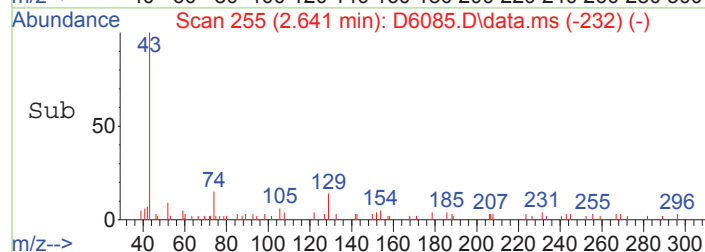
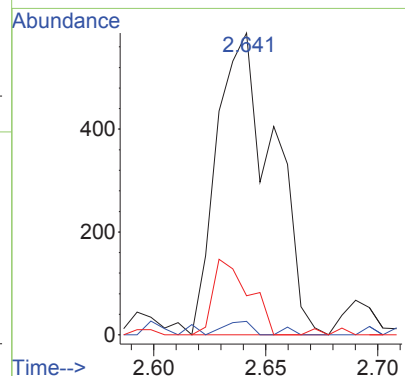
Tgt Ion: 76 Resp: 40149
Ion Ratio Lower Upper
76 100
78 7.6 0.0 28.8
77 3.8 0.0 22.9





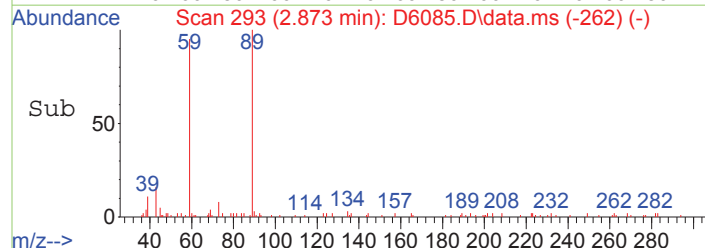
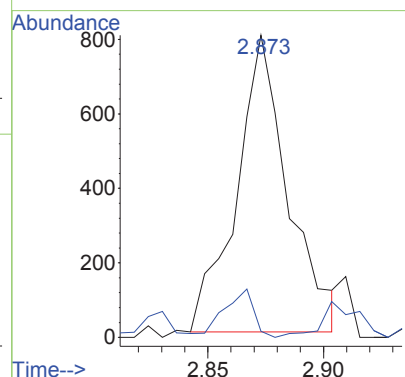
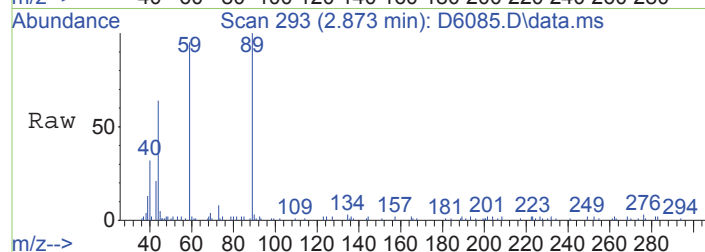
#21
Methyl Acetate
Concen: 0.42 ug/L m
RT: 2.641 min Scan# 255
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

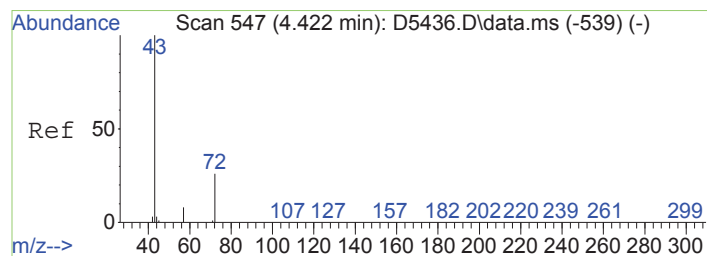
Tgt Ion:	43	Resp:	1028
Ion Ratio		Lower	Upper
43	100		
59	4.4	0.0	28.1
74	12.9	0.2	40.2



#23
TBA
Concen: 3.49 ug/L
RT: 2.873 min Scan# 293
Delta R.T. -0.000 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

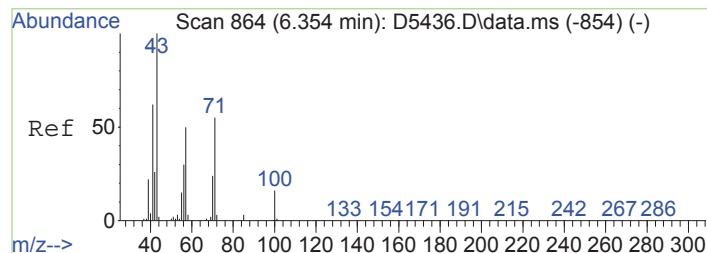
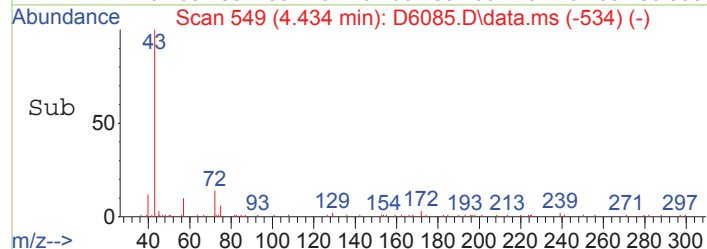
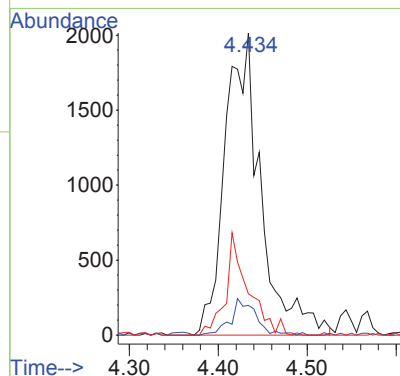
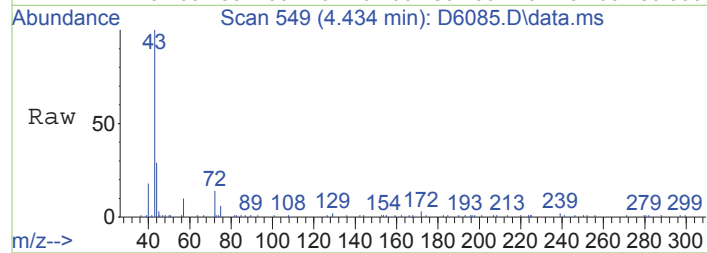
Tgt Ion:	59	Resp:	1234
Ion Ratio		Lower	Upper
59	100		
41	2.0	4.8	44.8#





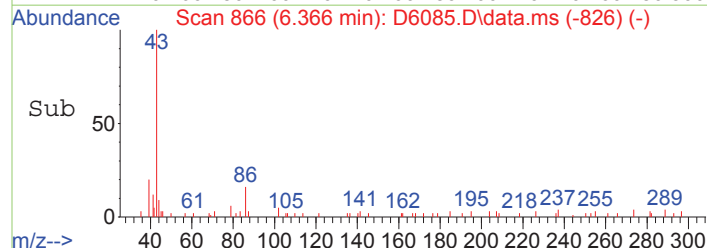
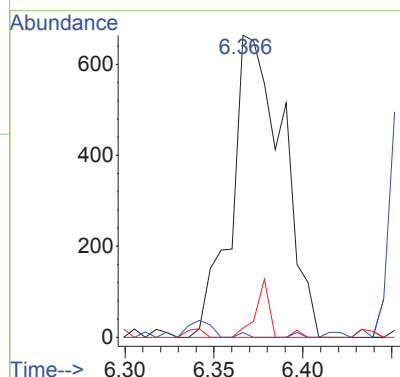
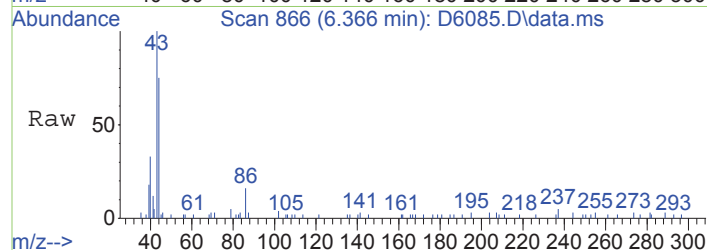
#34
2-Butanone
Concen: 3.42 ug/L
RT: 4.434 min Scan# 549
Delta R.T. 0.018 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

Tgt Ion: 43	Resp: 5650
Ion Ratio	Lower Upper
43	100
57	9.9 0.0 27.8
72	13.7 5.1 45.1



#51
n-Heptane
Concen: 0.45 ug/L
RT: 6.366 min Scan# 866
Delta R.T. 0.006 min
Lab File: D6085.D
Acq: 24 Sep 2018 7:30 pm

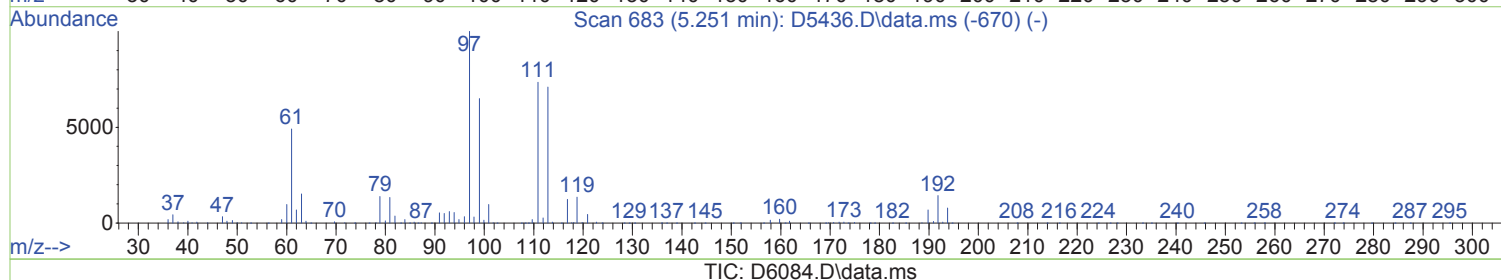
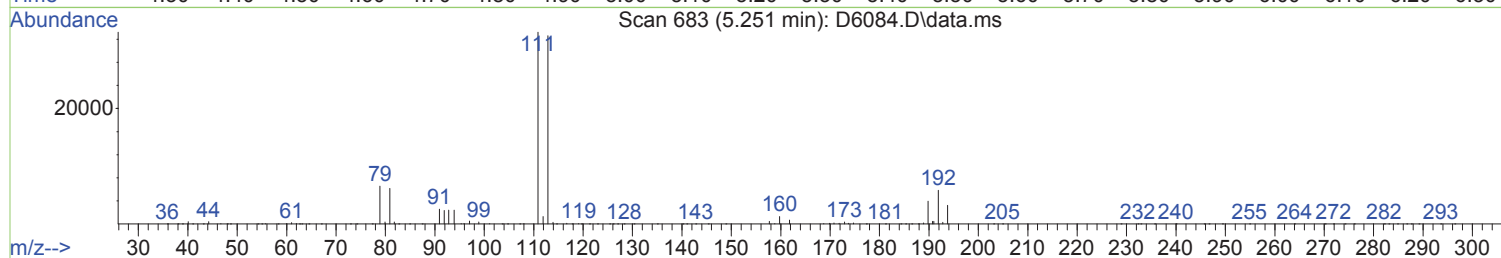
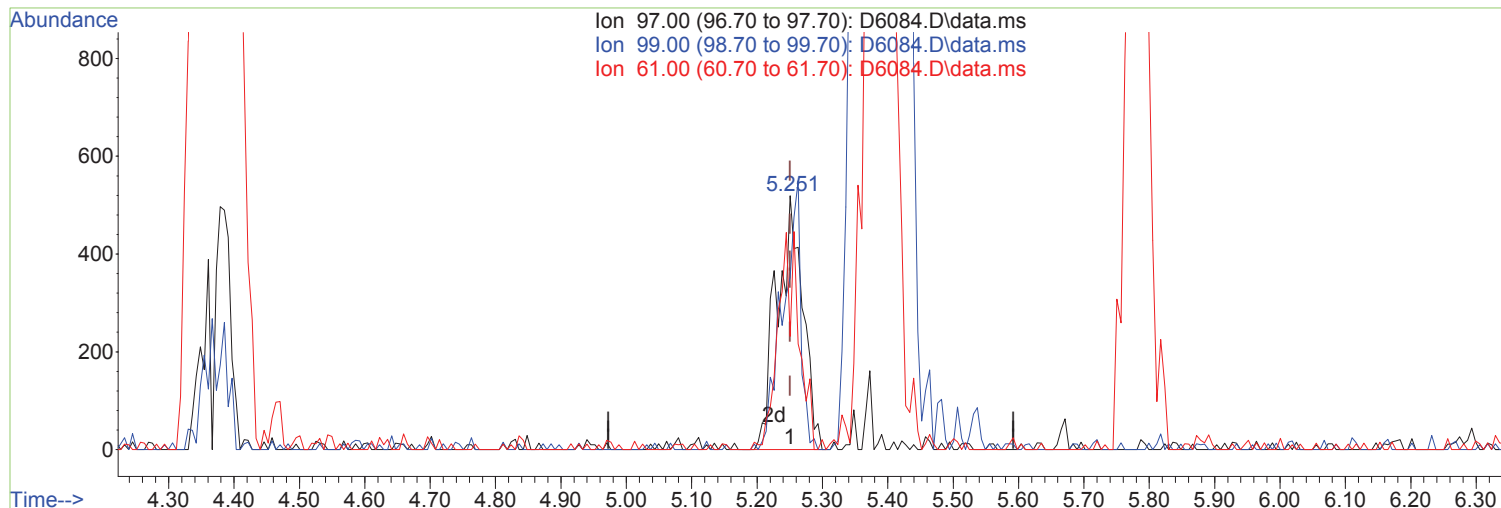
Tgt Ion: 43	Resp: 1331
Ion Ratio	Lower Upper
43	100
57	1.5 30.0 70.0#
71	3.0 35.1 75.1#



Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6084.D
Acq On : 24 Sep 2018 7:08 pm
Operator : D.LIPANI
Sample : R1809120-012|1.0
Misc : Verina 7979 T4
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 19:23:13 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(40) 1,1,1-Trichloroethane (P)

5.251min (-0.000) 0.51 ug/L m

response 1426

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	67.82
61.00	49.10	44.70
0.00	0.00	0.00

Manual Integration:

After

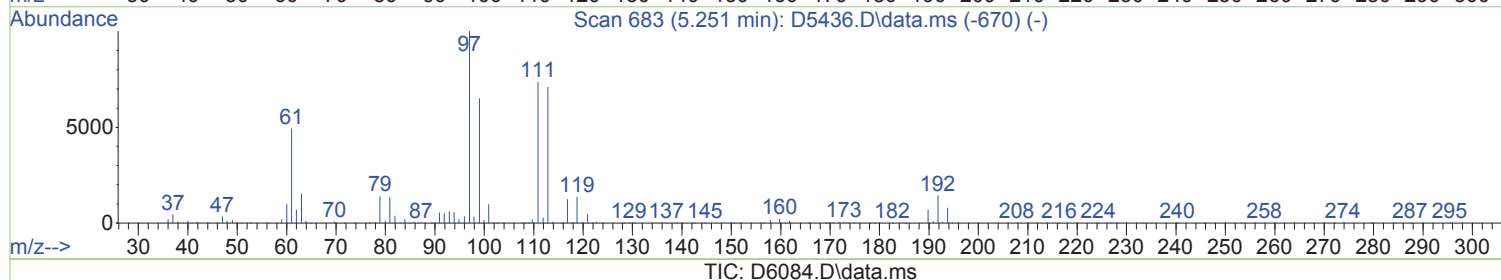
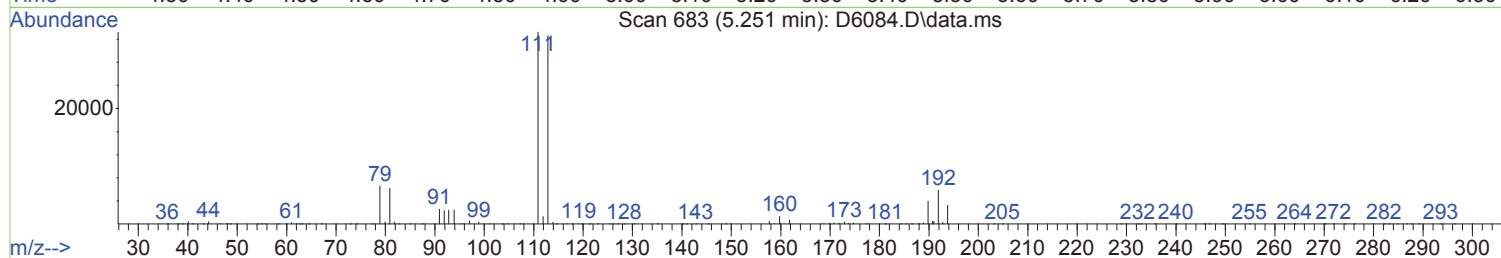
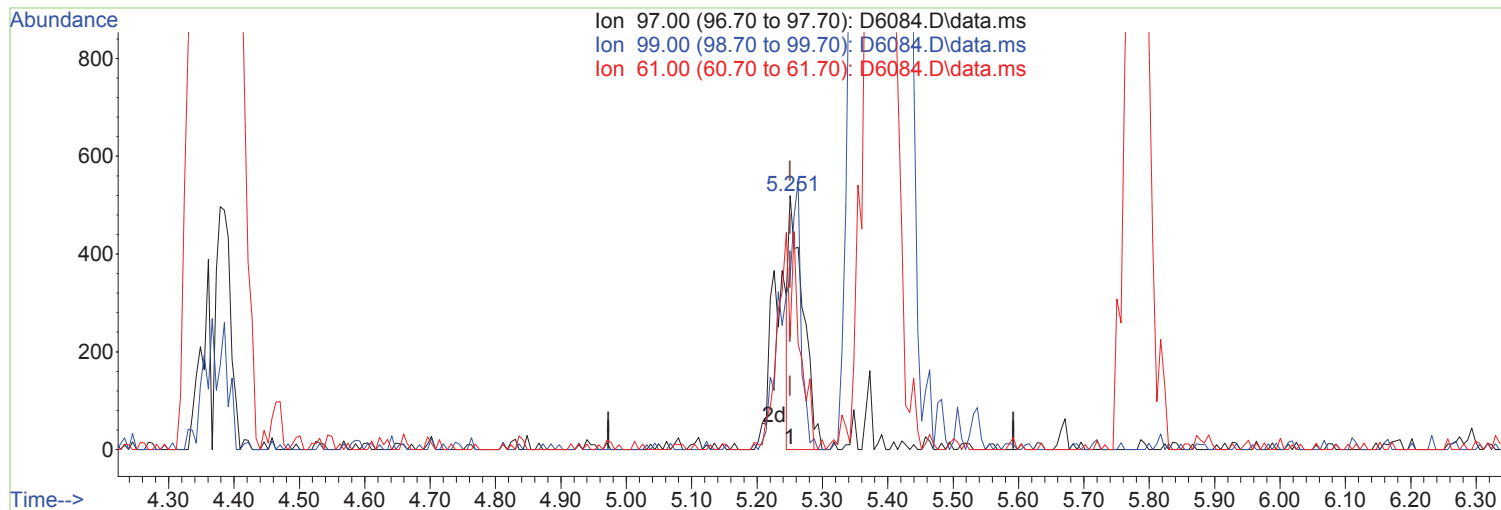
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6084.D
Acq On : 24 Sep 2018 7:08 pm
Operator : D.LIPANI
Sample : R1809120-012|1.0
Misc : Verina 7979 T4
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 19:23:13 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(40) 1,1,1-Trichloroethane (P)

Manual Integration:

5.251min (-0.000) 0.28 ug/L

Before

response 794

Ion	Exp%	Act%
97.00	100	100
99.00	65.00	67.82
61.00	49.10	44.70
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6084.D
 Acq On : 24 Sep 2018 7:08 pm
 Operator : D.LIPANI
 Sample : R1809120-012|1.0
 Misc : Verina 7979 T4
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:15:56 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

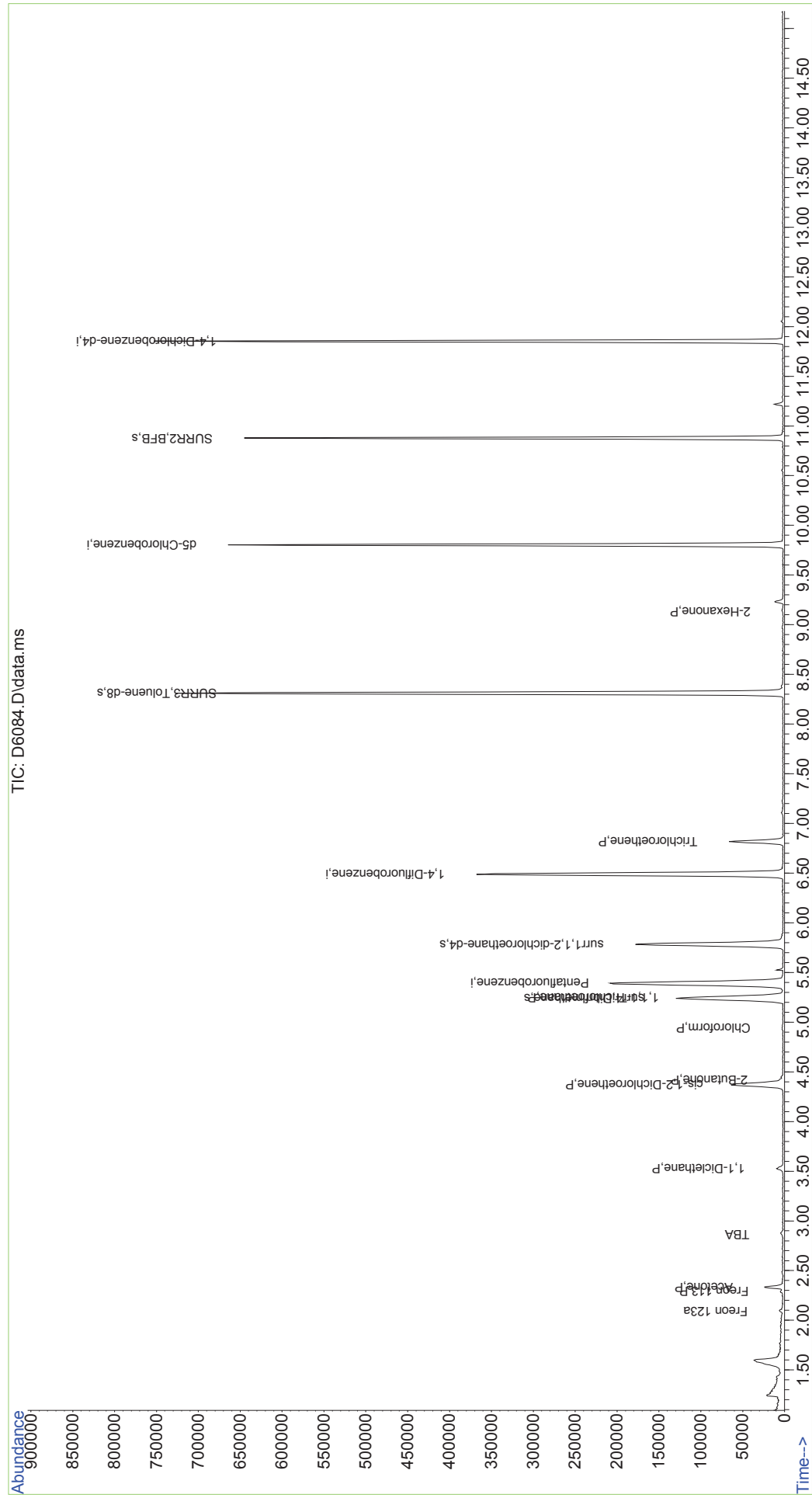
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.397	168	188218	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	294696	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	259037	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	128777	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	101472	51.10	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	102.20%
46) surr1,1,2-dichloroetha...	5.781	65	147446	56.46	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	112.92%
64) SURR3,Toluene-d8	8.311	98	411459	51.10	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	102.20%
69) SURR2,BFB	10.878	95	148070	47.85	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	95.70%
Target Compounds						
5) Bromomethane	1.593	94	702	Below Cal	#	73
10) Freon 123a	2.093	67	1477	0.62	ug/L #	47
14) Freon 113	2.294	101	849	0.49	ug/L	77
15) Acetone	2.330	43	22769	20.56	ug/L	92
23) TBA	2.867	59	1365	4.26	ug/L #	58
27) 1,1-Dicethane	3.525	63	7305	2.01	ug/L	84
33) cis-1,2-Dichloroethene	4.373	96	31201	15.09	ug/L	93
34) 2-Butanone	4.421	43	4847	3.24	ug/L	95
39) Chloroform	4.946	83	1181	0.35	ug/L	73
40) 1,1,1-Trichloroethane	5.251	97	1426m	0.51	ug/L	
53) Trichloroethene	6.817	130	19894	9.70	ug/L	93
72) 2-Hexanone	9.134	43	840	0.38	ug/L #	47

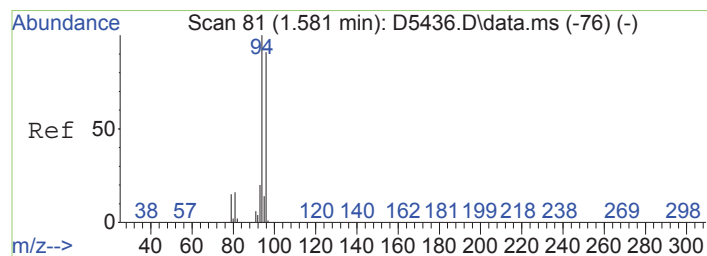
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6084.D
Acq On : 24 Sep 2018 7:08 pm
Operator : D.LIPANI
Sample : R1809120-012|1.0
Misc : Verina 7979 T4
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA10

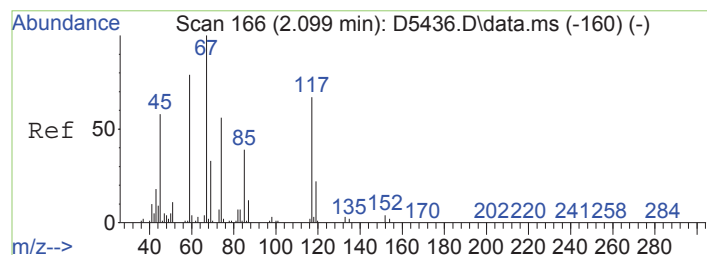
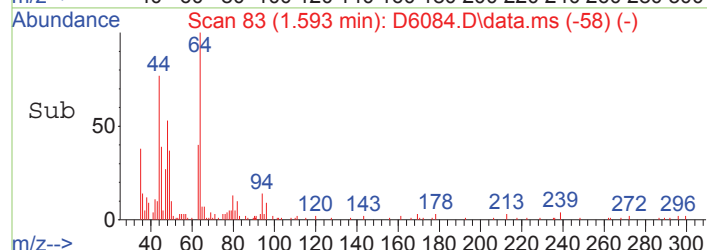
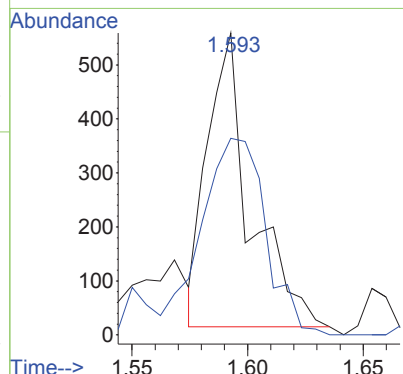
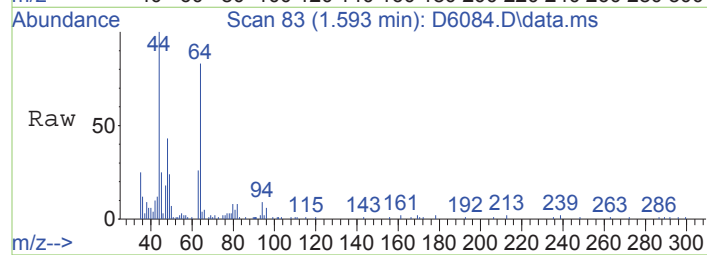
Quant Time: Sep 27 15:15:56 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
Qlast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration





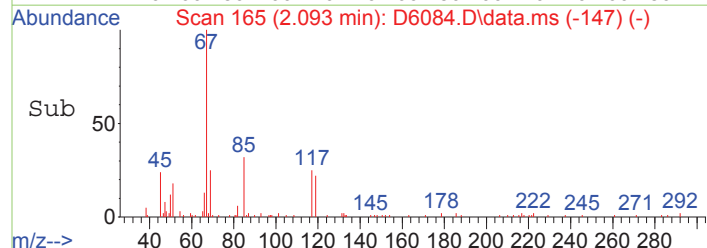
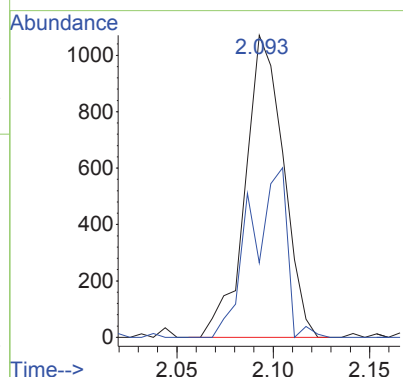
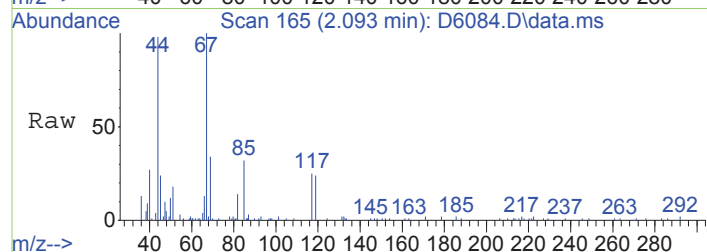
#5
Bromomethane
Concen: Below Cal
RT: 1.593 min Scan# 83
Delta R.T. 0.012 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

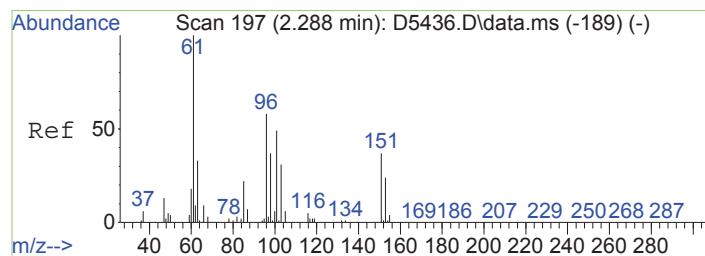
Tgt Ion: 94 Resp: 702
Ion Ratio Lower Upper
94 100
96 65.1 71.1 111.1#



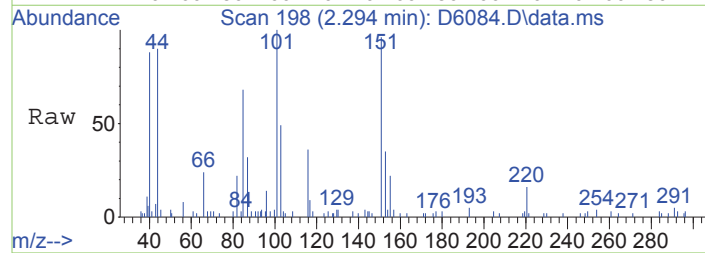
#10
Freon 123a
Concen: 0.62 ug/L
RT: 2.093 min Scan# 165
Delta R.T. -0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 67 Resp: 1477
Ion Ratio Lower Upper
67 100
117 24.6 47.5 87.5#

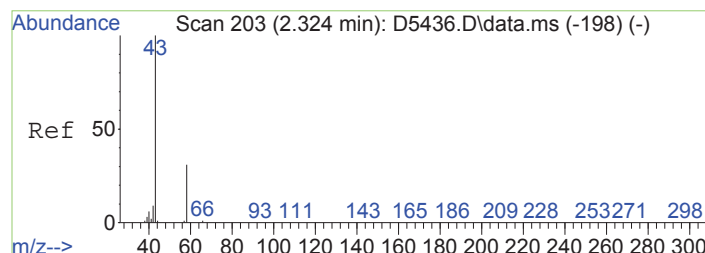
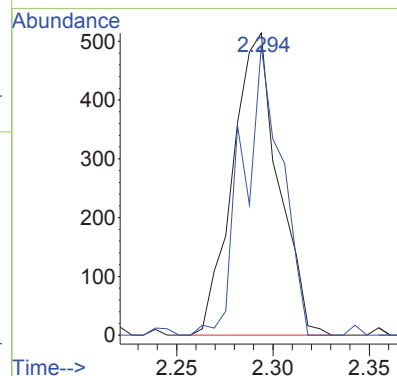
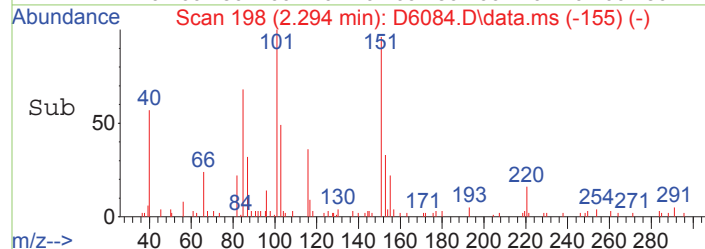




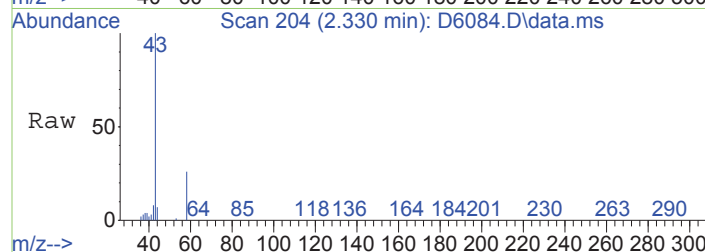
#14
Freon 113
Concen: 0.49 ug/L
RT: 2.294 min Scan# 198
Delta R.T. 0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm



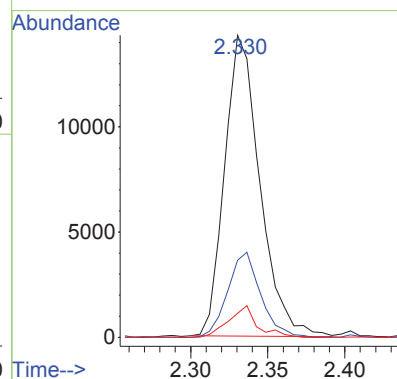
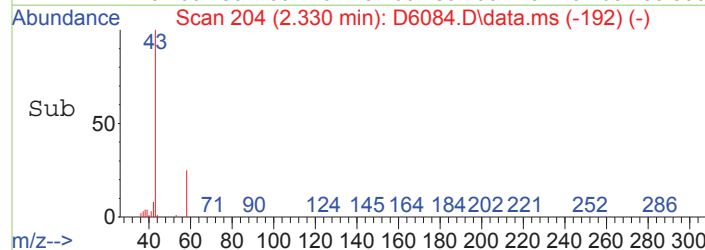
Tgt Ion: 101 Resp: 849
Ion Ratio Lower Upper
101 100
151 95.7 56.1 96.1

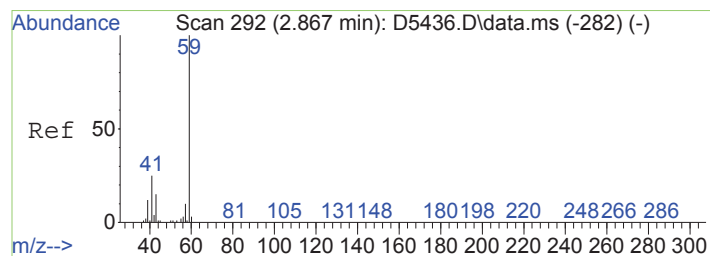


#15
Acetone
Concen: 20.56 ug/L
RT: 2.330 min Scan# 204
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

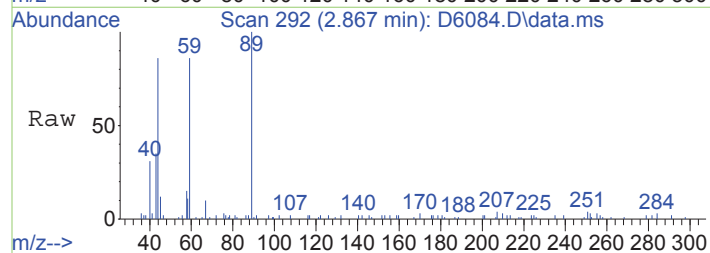


Tgt Ion: 43 Resp: 22769
Ion Ratio Lower Upper
43 100
58 25.5 11.2 51.2
42 7.9 0.0 28.6

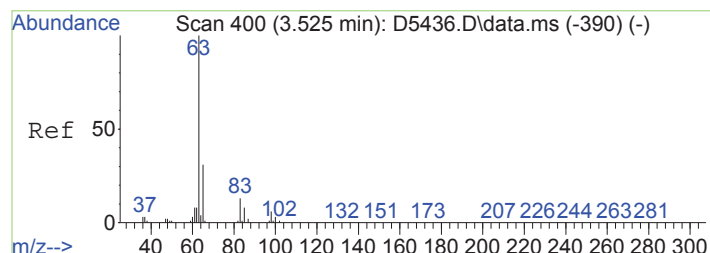
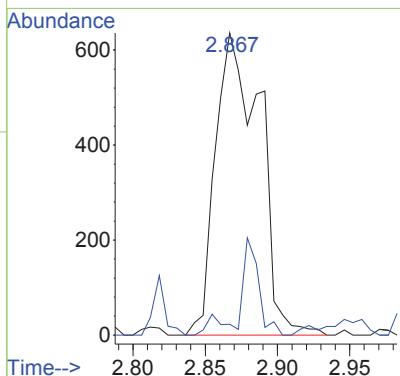
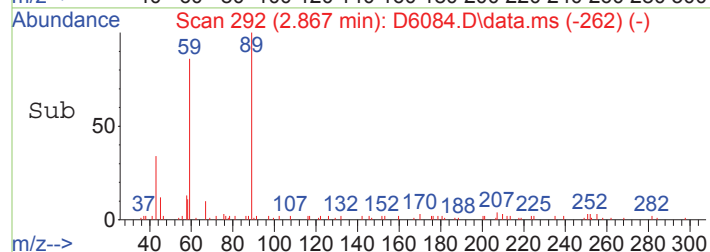




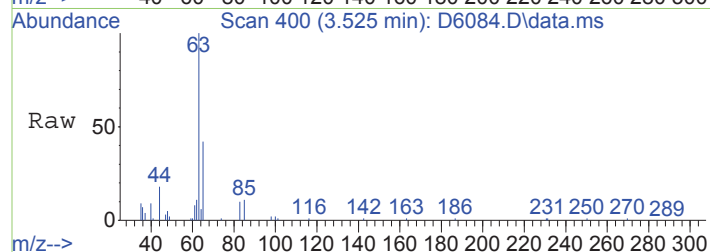
#23
TBA
Concen: 4.26 ug/L
RT: 2.867 min Scan# 292
Delta R.T. -0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm



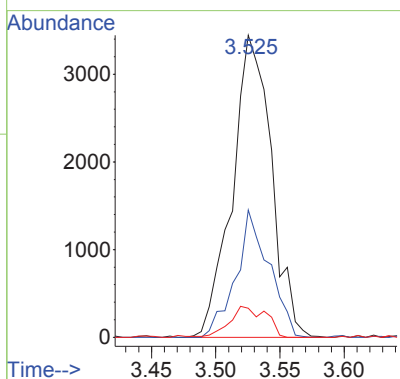
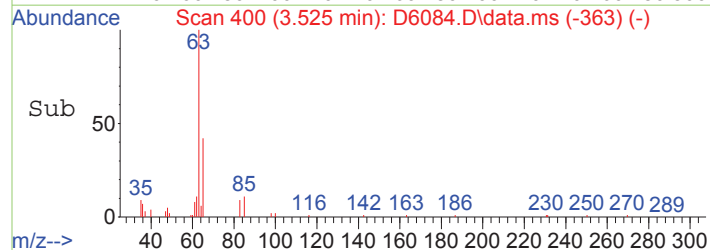
Tgt Ion: 59 Resp: 1365
Ion Ratio Lower Upper
59 100
41 3.6 4.8 44.8#

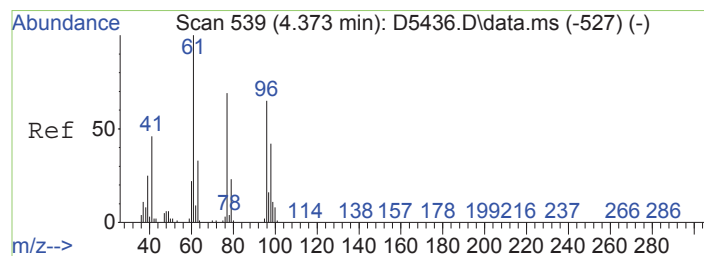


#27
1,1-Dicethane
Concen: 2.01 ug/L
RT: 3.525 min Scan# 400
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm



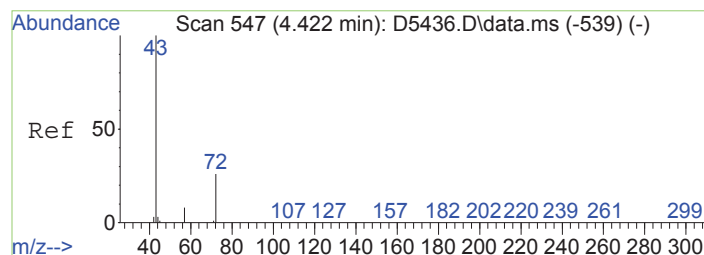
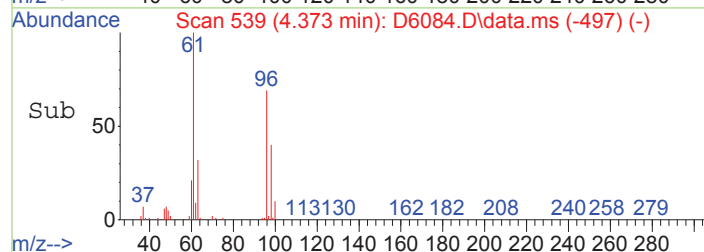
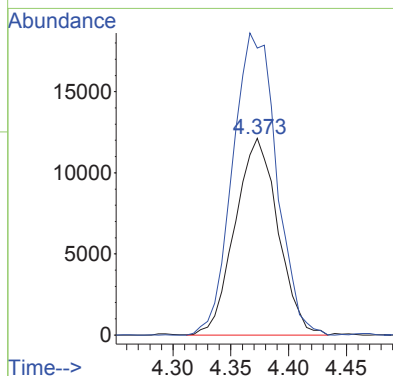
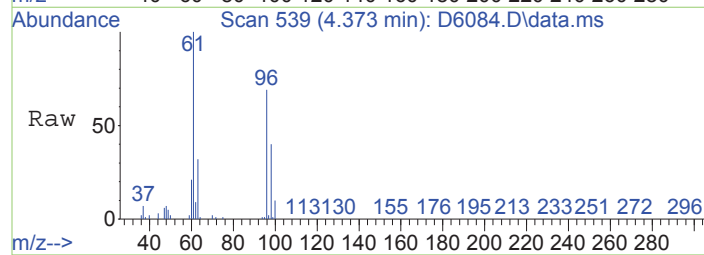
Tgt Ion: 63 Resp: 7305
Ion Ratio Lower Upper
63 100
65 42.1 11.4 51.4
83 9.7 0.0 32.6





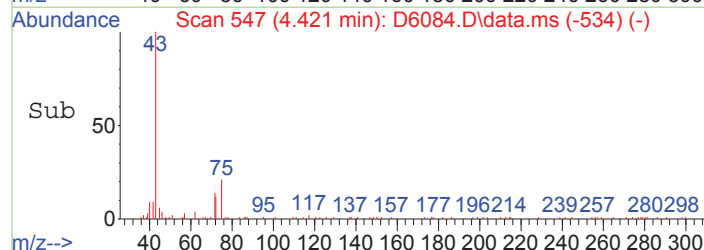
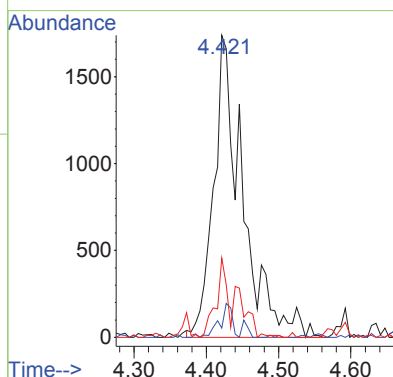
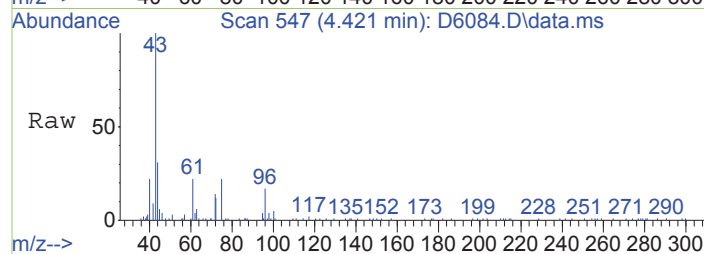
#33
cis-1,2-Dichloroethene
Concen: 15.09 ug/L
RT: 4.373 min Scan# 539
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

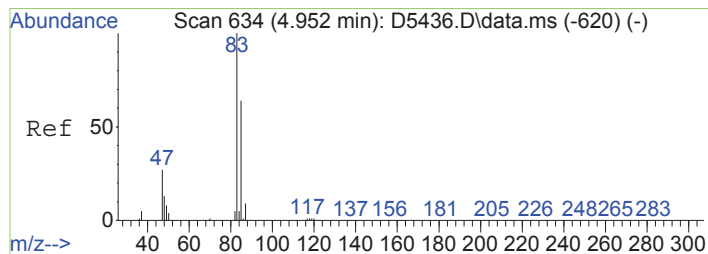
Tgt Ion: 96 Resp: 31201
Ion Ratio Lower Upper
96 100
61 146.0 134.7 174.7



#34
2-Butanone
Concen: 3.24 ug/L
RT: 4.421 min Scan# 547
Delta R.T. 0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

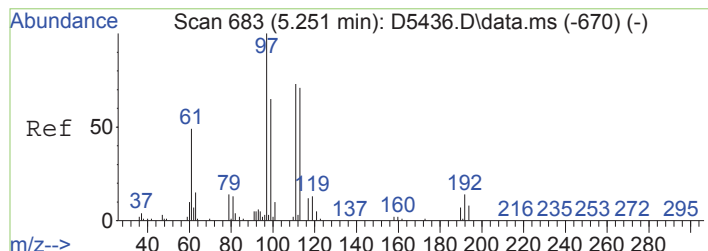
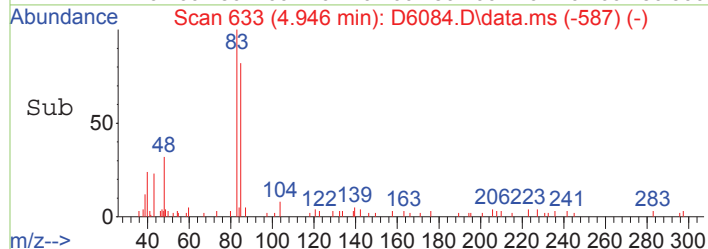
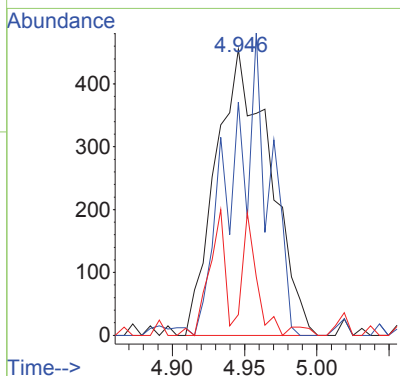
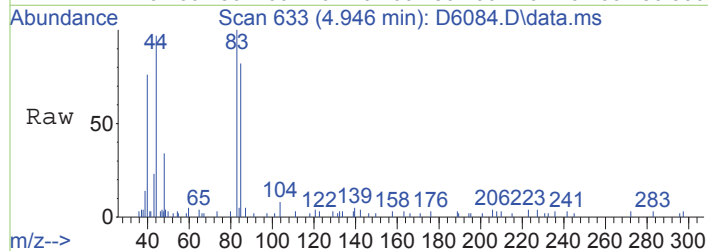
Tgt Ion: 43 Resp: 4847
Ion Ratio Lower Upper
43 100
57 3.0 0.0 27.8
72 26.3 5.1 45.1





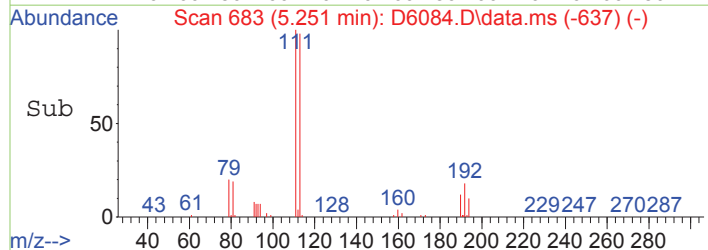
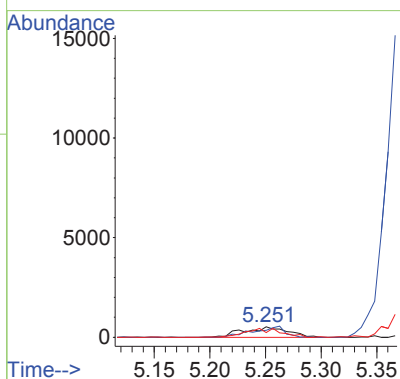
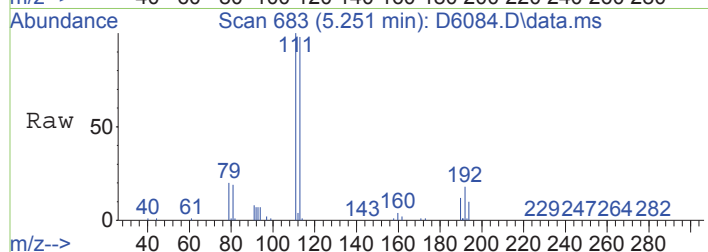
#39
Chloroform
Concen: 0.35 ug/L
RT: 4.946 min Scan# 633
Delta R.T. -0.006 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

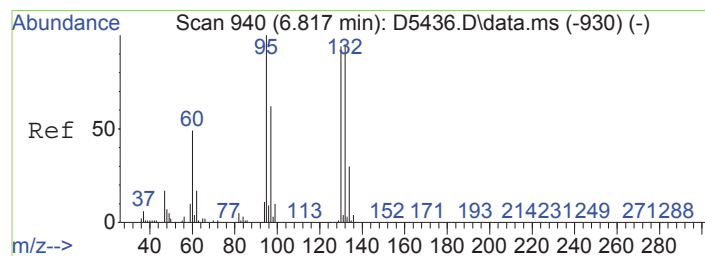
Tgt Ion: 83 Resp: 1181
Ion Ratio Lower Upper
83 100
85 81.5 43.7 83.7
47 7.3 6.9 46.9



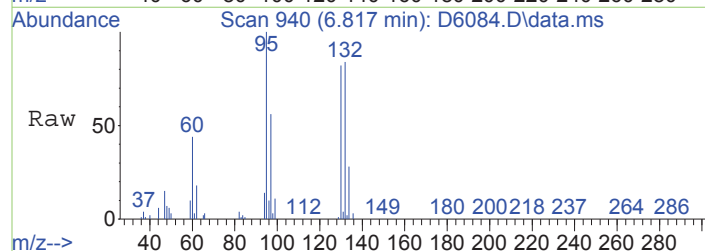
#40
1,1,1-Trichloroethane
Concen: 0.51 ug/L m
RT: 5.251 min Scan# 683
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm

Tgt Ion: 97 Resp: 1426
Ion Ratio Lower Upper
97 100
99 67.8 45.0 85.0
61 44.7 29.1 69.1

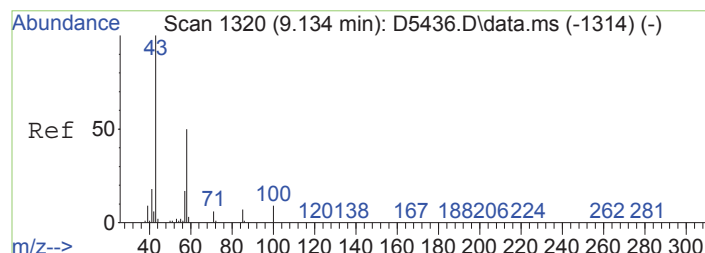
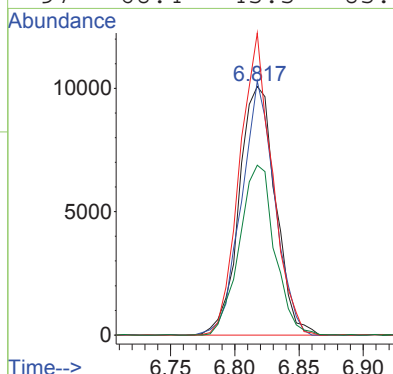
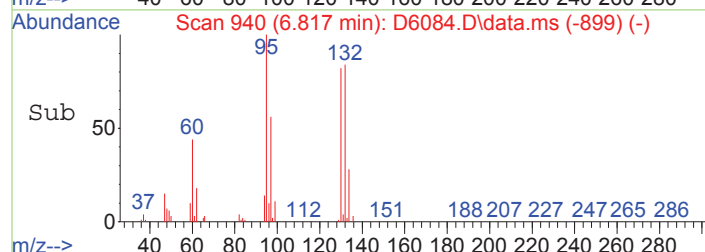




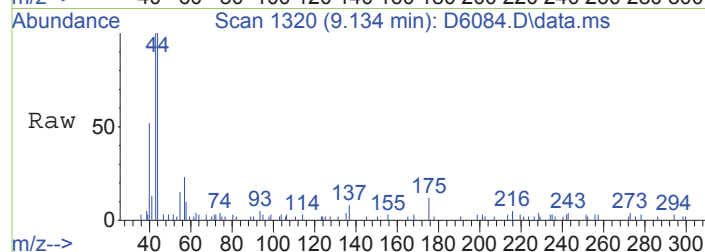
#53
Trichloroethene
Concen: 9.70 ug/L
RT: 6.817 min Scan# 940
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm



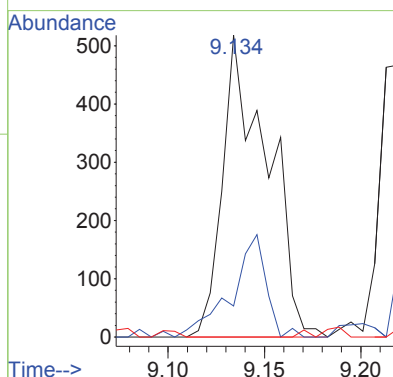
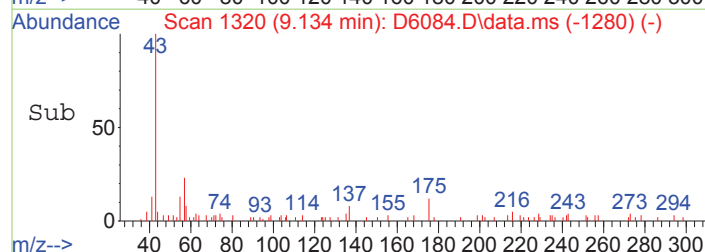
Tgt Ion	Ratio	Lower	Upper
130	100		
132	102.2	80.7	120.7
95	121.5	86.1	126.1
97	68.4	45.5	85.5



#72
2-Hexanone
Concen: 0.38 ug/L
RT: 9.134 min Scan# 1320
Delta R.T. -0.000 min
Lab File: D6084.D
Acq: 24 Sep 2018 7:08 pm



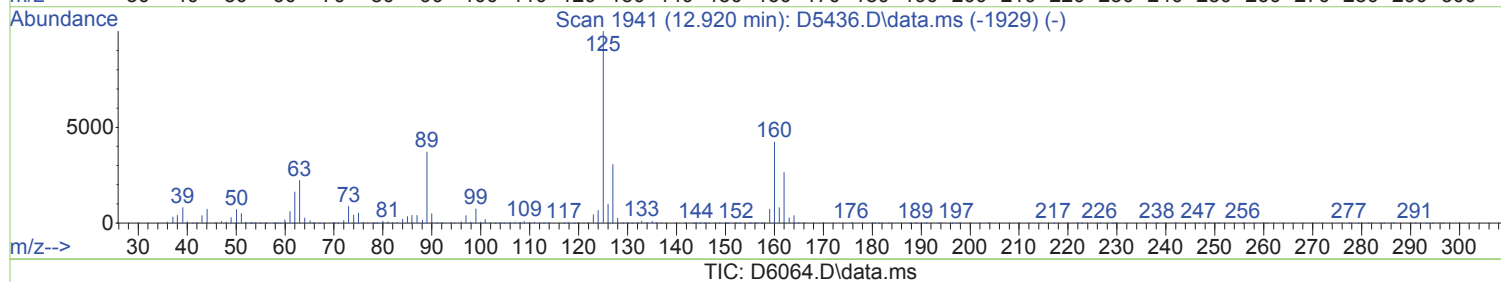
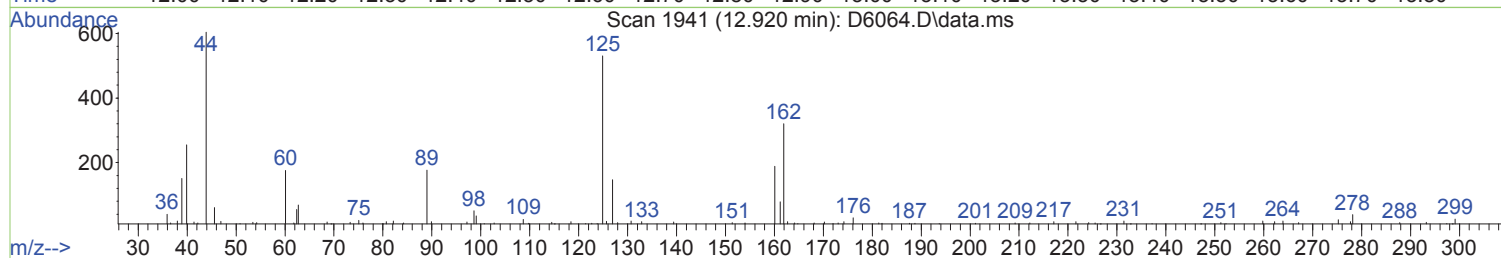
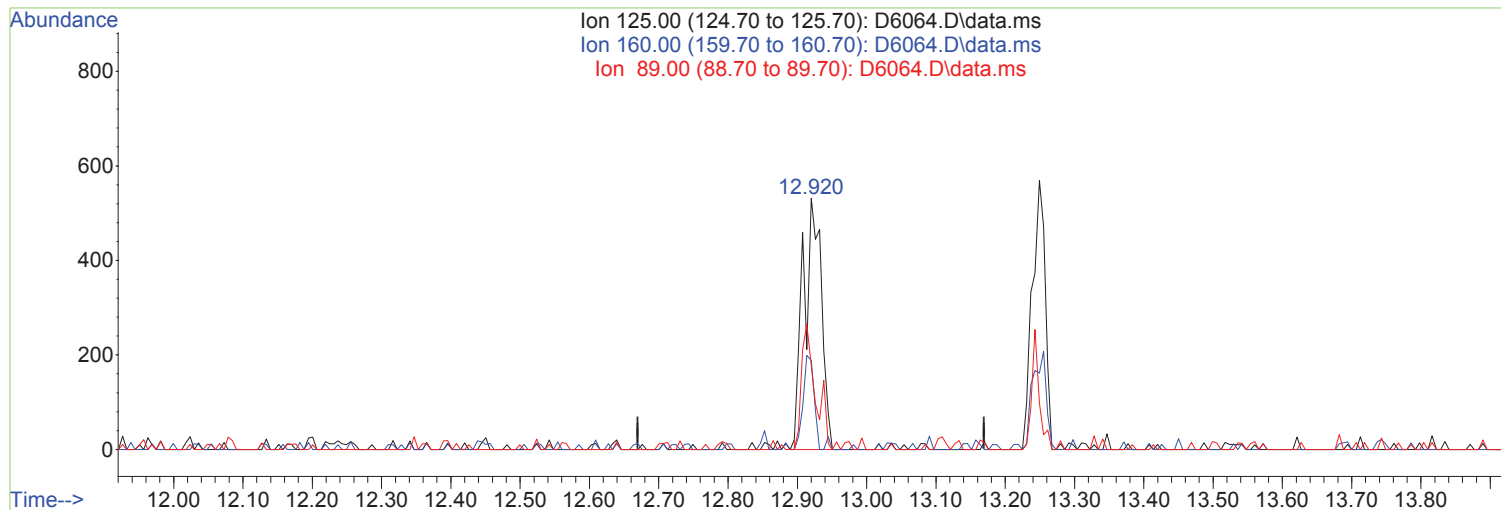
Tgt Ion	Ratio	Lower	Upper
43	100		
58	10.2	30.1	70.1#
100	0.0	0.0	28.6



Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 11:35:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(111) Trilution Dichlorotoluene

12.920min (+0.000) 0.25 ug/L m

response 955

Ion	Exp%	Act%
125.00	100	100
160.00	42.30	35.59
89.00	37.10	33.33
0.00	0.00	0.00

Manual Integration:

After

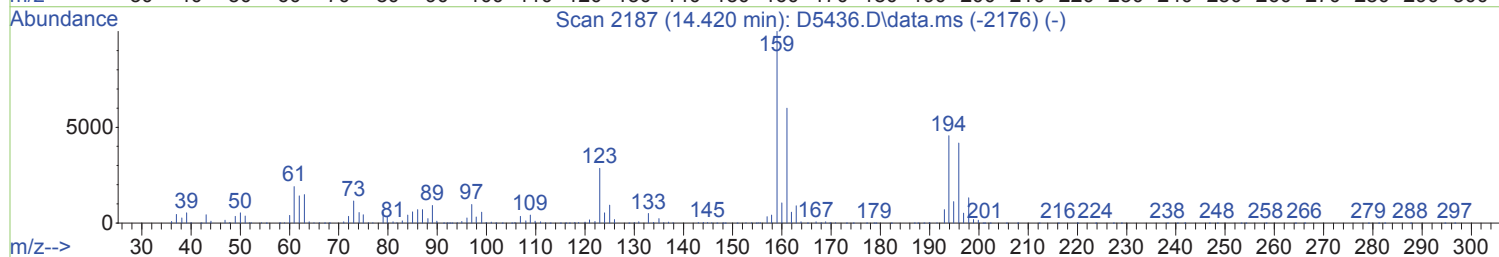
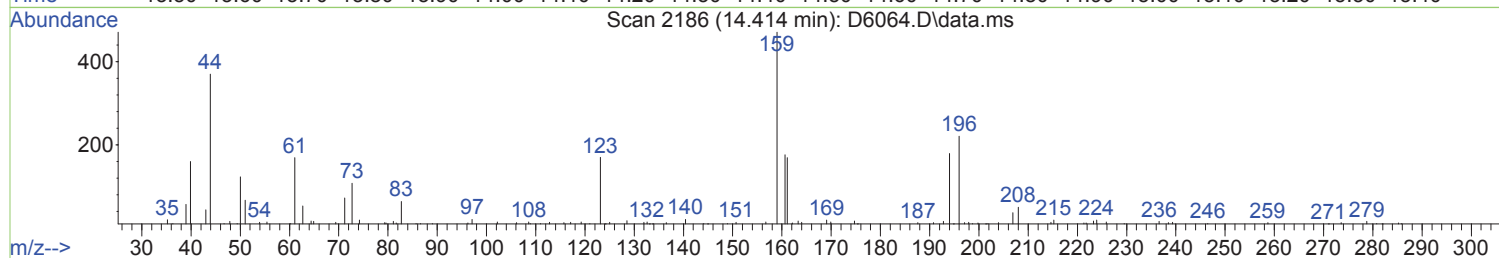
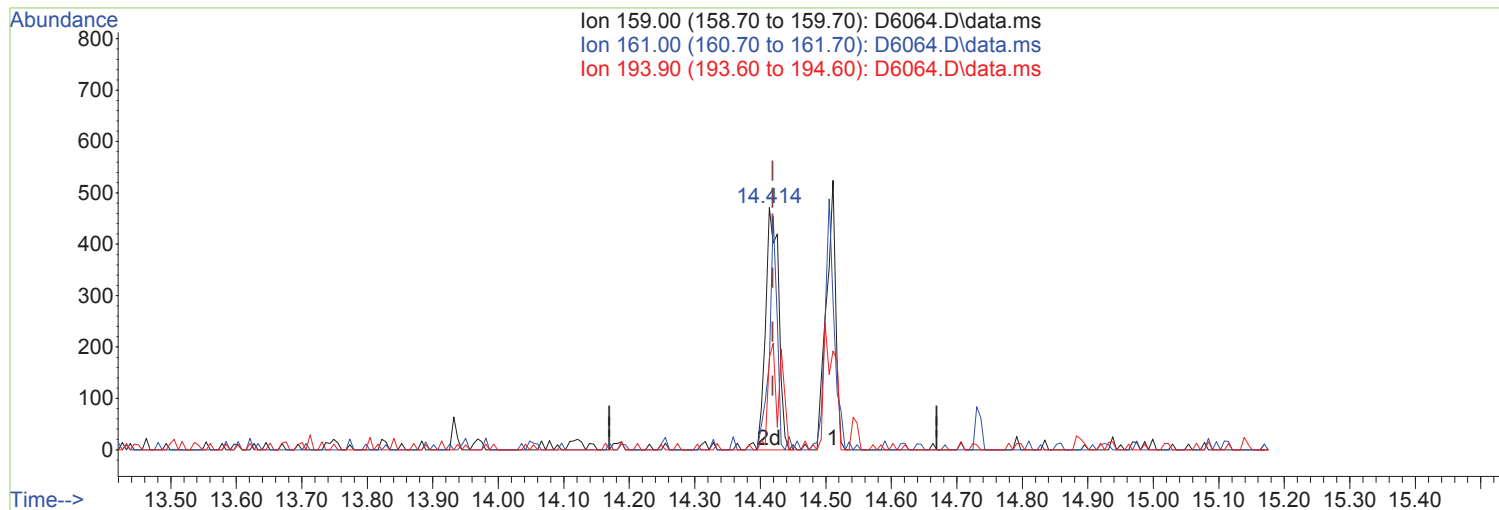
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 11:35:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6064.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.414min (-0.006) 0.31 ug/L m

response 647

Ion	Exp%	Act%
159.00	100	100
161.00	59.90	35.88#
193.90	45.60	38.00
0.00	0.00	0.00

Manual Integration:

After

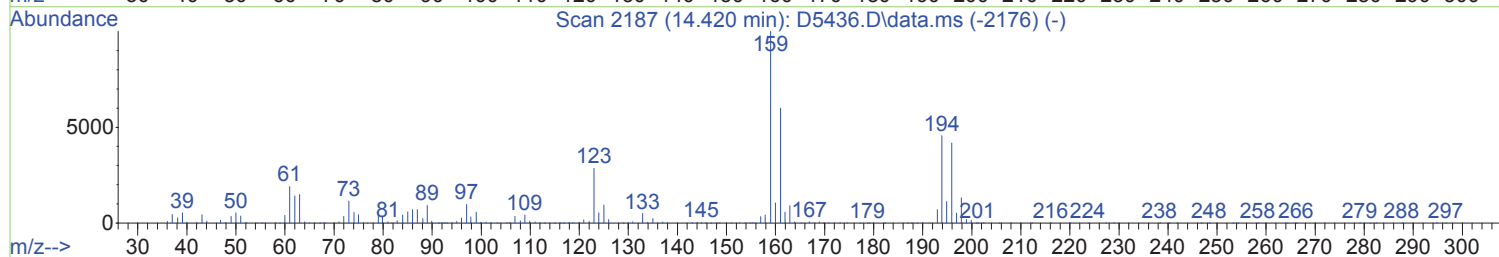
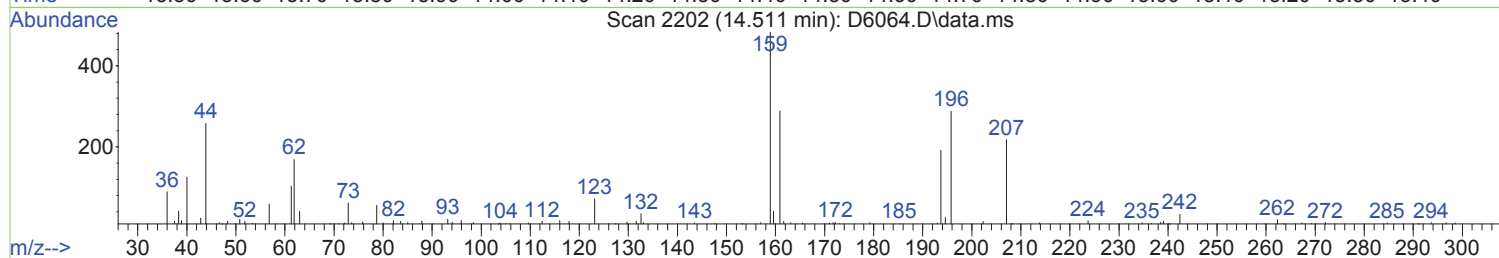
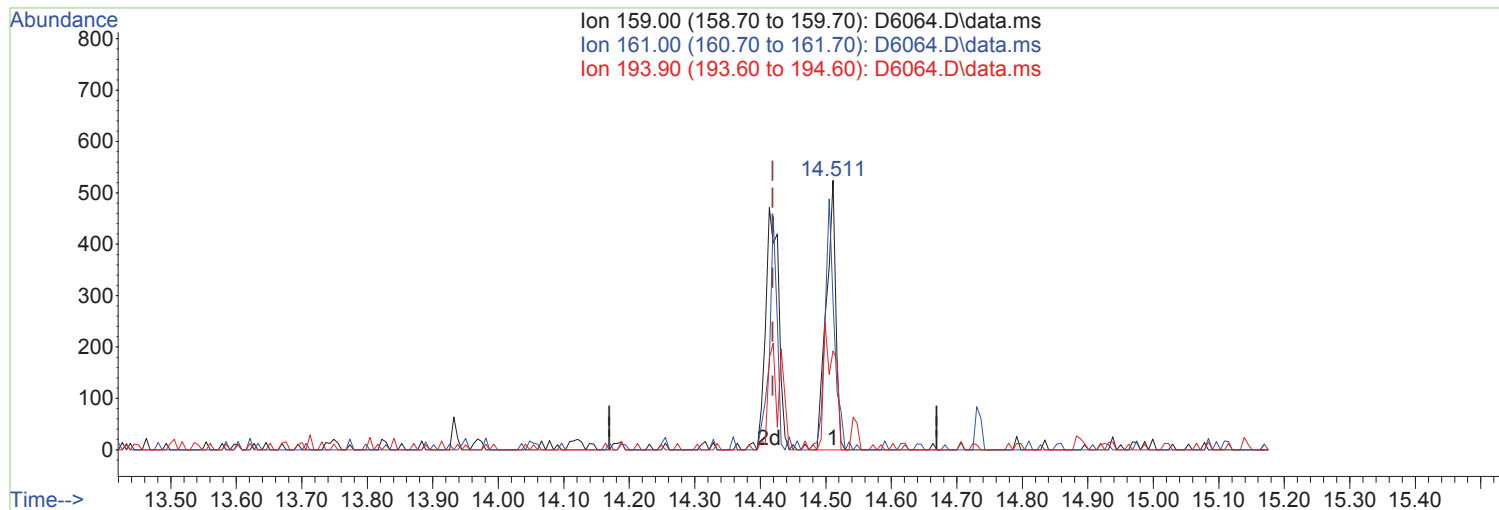
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6064.D
Acq On : 24 Sep 2018 11:21 am
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 11:35:42 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6064.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.511min (+0.092) 0.25 ug/L

response 529

Ion	Exp%	Act%
159.00	100	100
161.00	59.90	58.21
193.90	45.60	41.60
0.00	0.00	0.00

Manual Integration:

Before

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6064.D
 Acq On : 24 Sep 2018 11:21 am
 Operator : D.LIPANI
 Sample : MET BLK
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 14:26:58 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

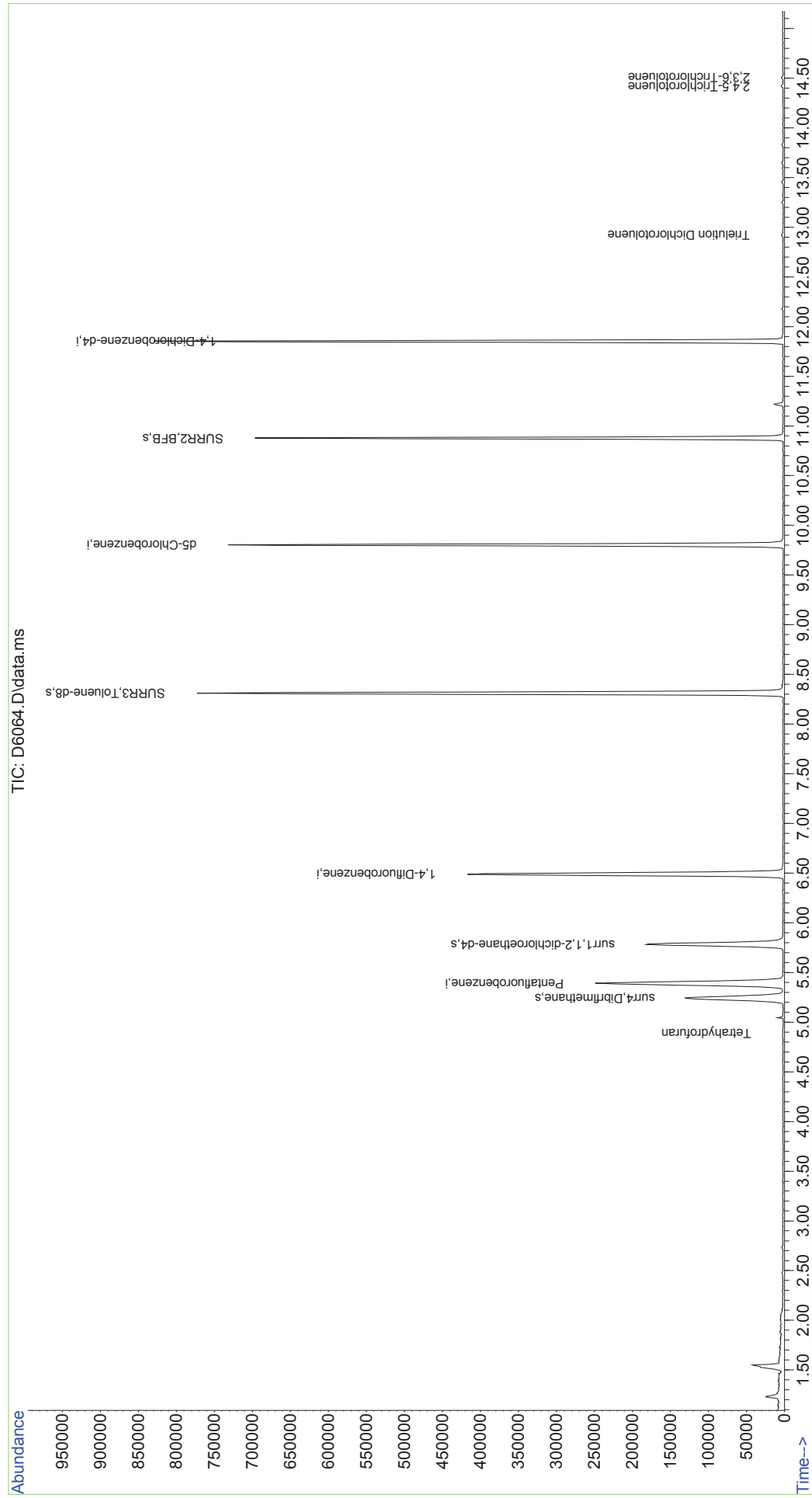
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	222881	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	335947	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	297745	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	150721	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	105031	46.39	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	92.78%
46) surr1,1,2-dichloroetha...	5.781	65	151321	50.83	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	101.66%
64) SURR3,Toluene-d8	8.311	98	440320	47.97	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	95.94%
69) SURR2,BFB	10.878	95	159874	45.32	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	90.64%
Target Compounds						
5) Bromomethane	1.538	94	698	Below Cal	#	26
38) Tetrahydrofuran	4.885	42	755	0.69 ug/L	#	53
111) Trielution Dichlorotol...	12.920	125	955m	0.25 ug/L		
118) 2,4,5-Trichlorotoluene	14.414	159	647m	0.31 ug/L		
119) 2,3,6-Trichlorotoluene	14.511	159	529	0.27 ug/L		90

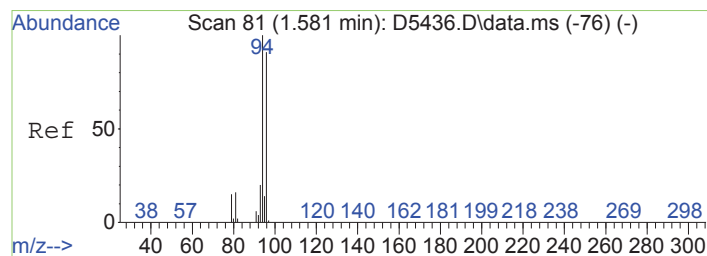
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6064.D
 Acq On : 24 Sep 2018 11:21 am
 Operator : D.LIPANI
 Sample : MET BLK
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

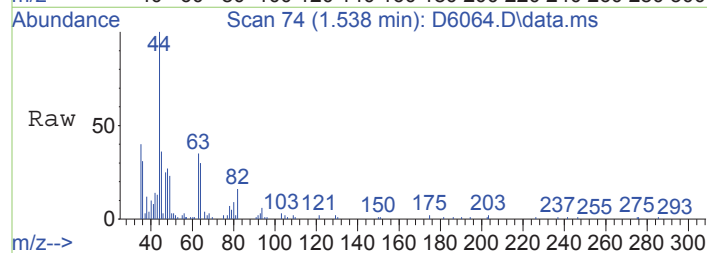
Inst : MSVOA10

Quant Time: Sep 27 14:26:58 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 Qlast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

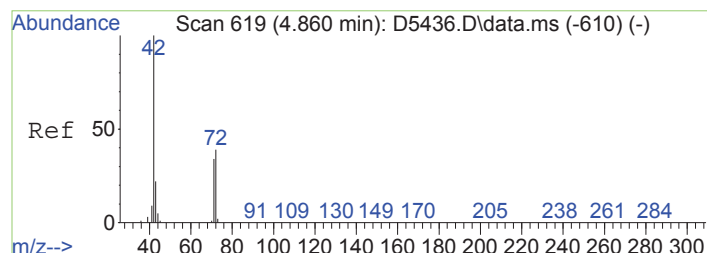
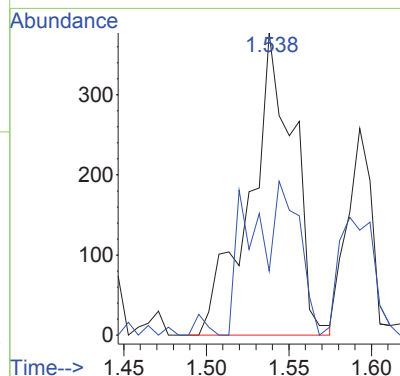
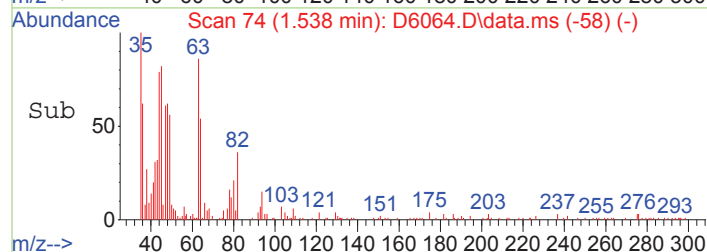




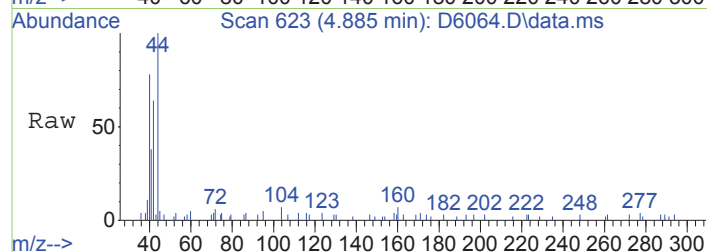
#5
Bromomethane
Concen: Below Cal
RT: 1.538 min Scan# 74
Delta R.T. -0.043 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am



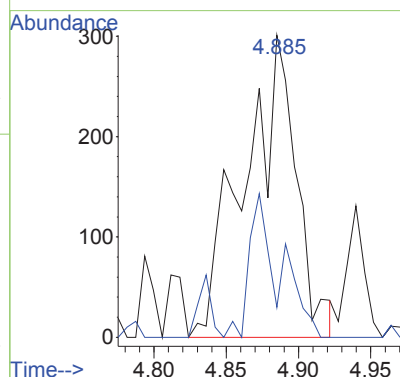
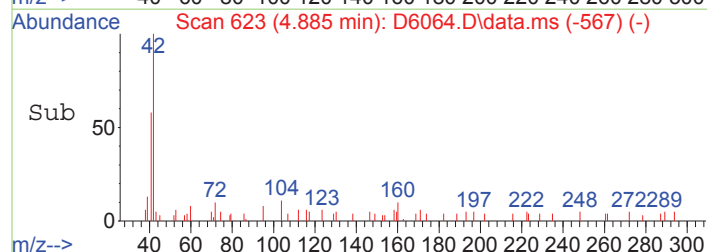
Tgt Ion: 94 Resp: 698
Ion Ratio Lower Upper
94 100
96 21.2 71.1 111.1#

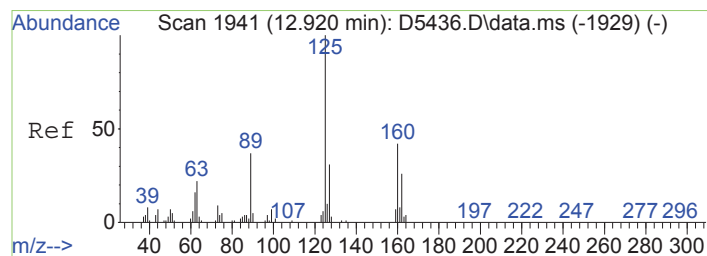


#38
Tetrahydrofuran
Concen: 0.69 ug/L
RT: 4.885 min Scan# 623
Delta R.T. 0.024 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am



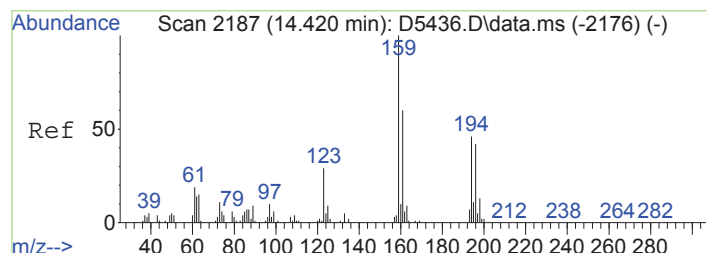
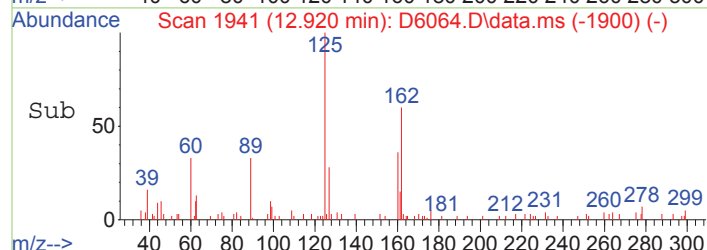
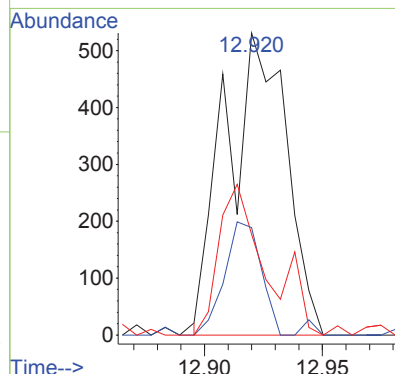
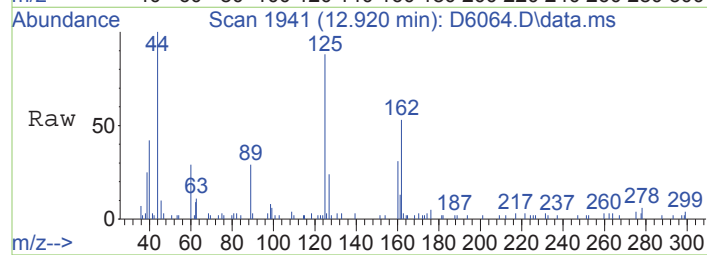
Tgt Ion: 42 Resp: 755
Ion Ratio Lower Upper
42 100
72 10.0 18.8 58.8#





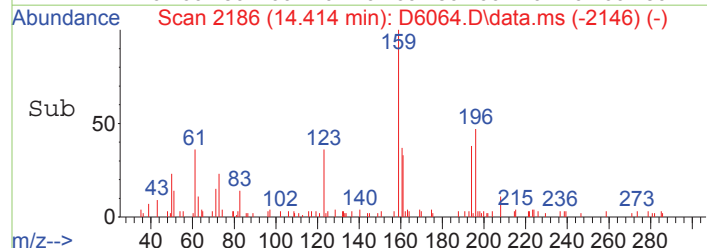
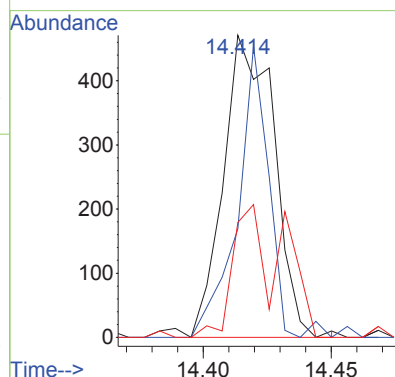
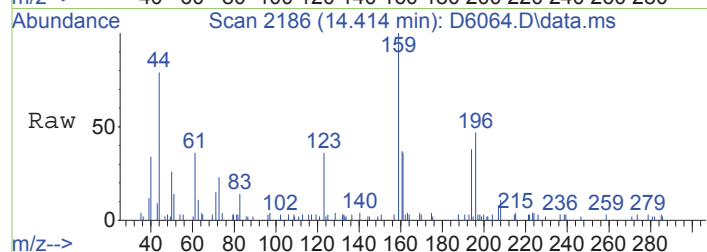
#111
Trielution Dichlorotoluene
Concen: 0.25 ug/L m
RT: 12.920 min Scan# 1941
Delta R.T. 0.000 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am

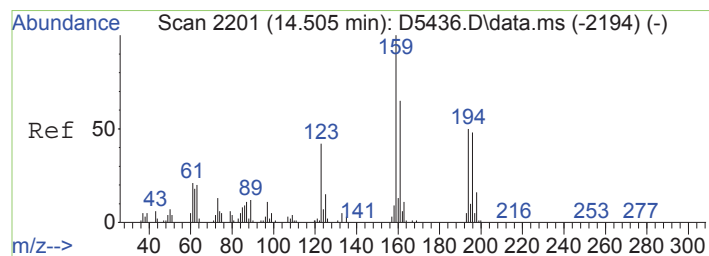
Tgt Ion:	125	Resp:	955
Ion Ratio	Lower	Upper	
125	100		
160	35.6	22.3	62.3
89	33.3	17.1	57.1



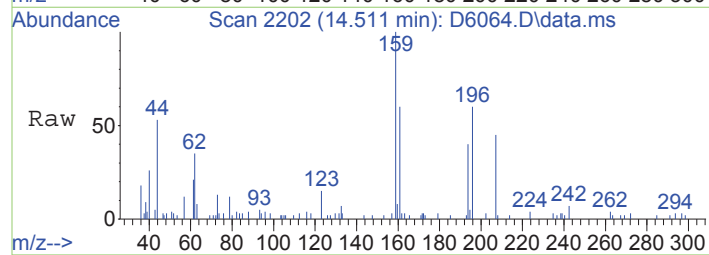
#118
2,4,5-Trichlorotoluene
Concen: 0.31 ug/L m
RT: 14.414 min Scan# 2186
Delta R.T. -0.006 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am

Tgt Ion:	159	Resp:	647
Ion Ratio	Lower	Upper	
159	100		
161	35.9	39.9	79.9#
194	38.0	25.6	65.6

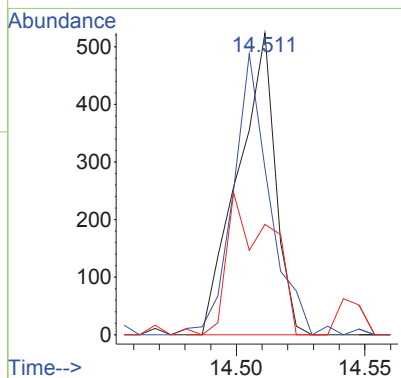
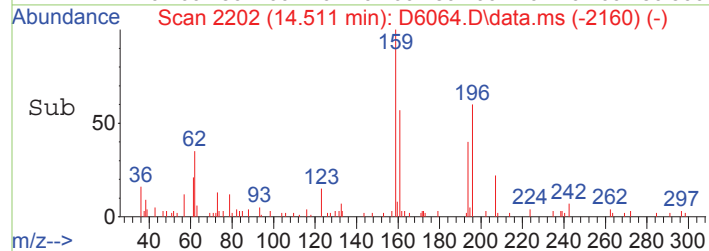




#119
2,3,6-Trichlorotoluene
Concen: 0.27 ug/L
RT: 14.511 min Scan# 2202
Delta R.T. 0.006 min
Lab File: D6064.D
Acq: 24 Sep 2018 11:21 am



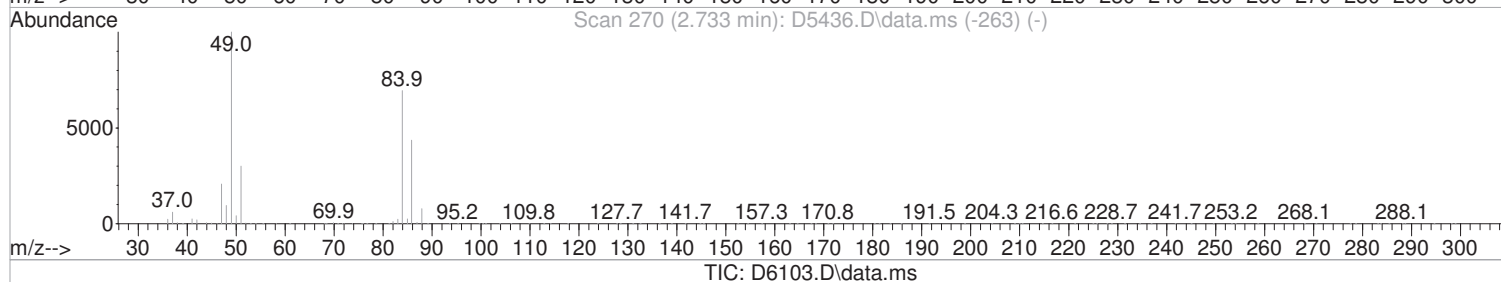
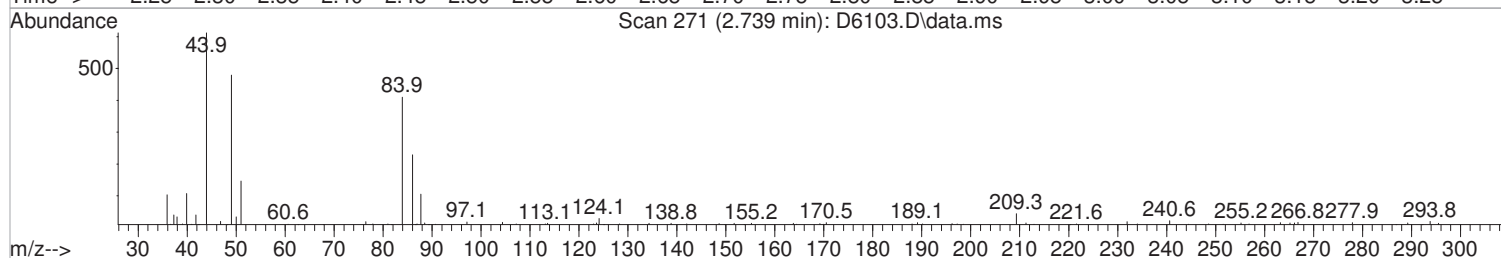
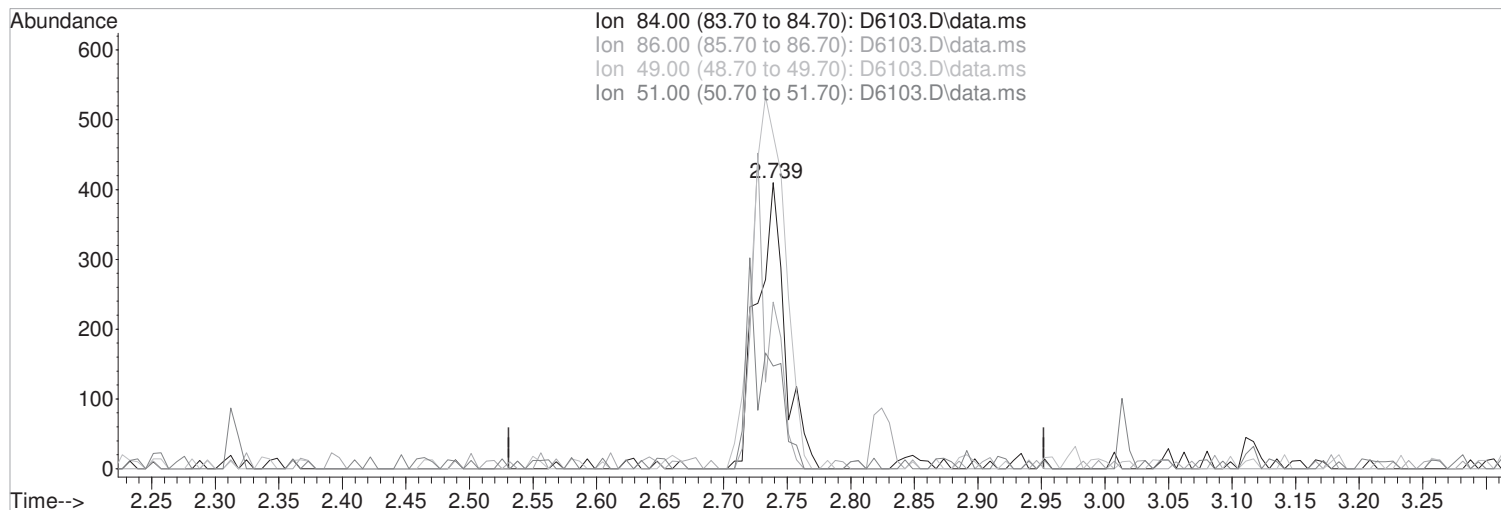
Tgt Ion:	159	Resp:	529
Ion Ratio	Lower	Upper	
159	100		
161	58.2	45.1	85.1
194	41.6	30.2	70.2



Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 12:46:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(22) Methylene Chloride (P)

2.739min (+0.006) 0.29 ug/L m

response 629

Ion	Exp%	Act%
84.00	100	100
86.00	62.80	55.85
49.00	143.90	116.83#
51.00	43.20	35.85

Manual Integration:

After

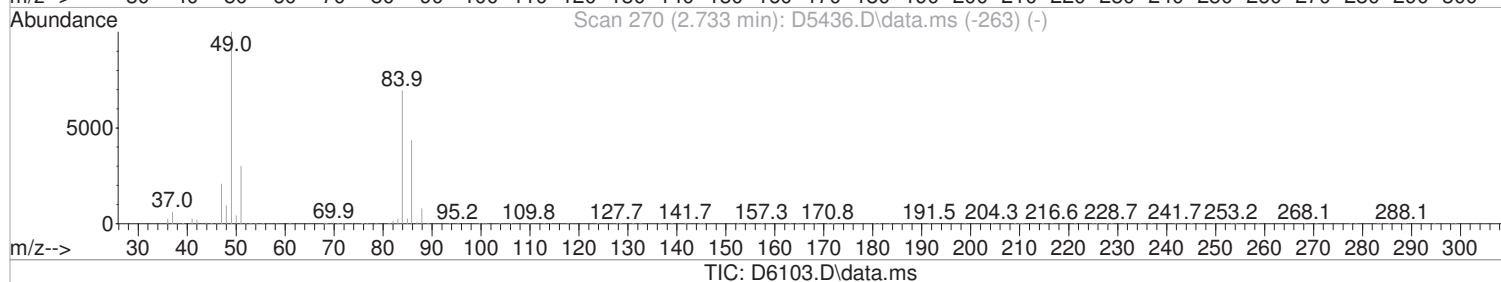
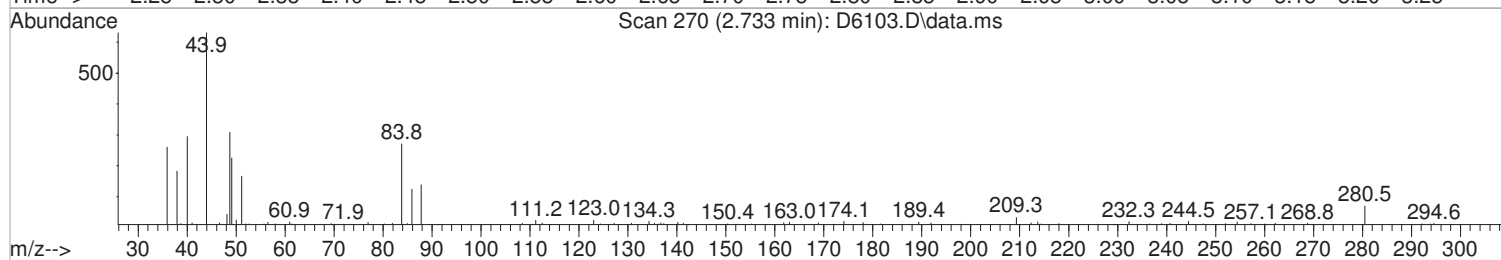
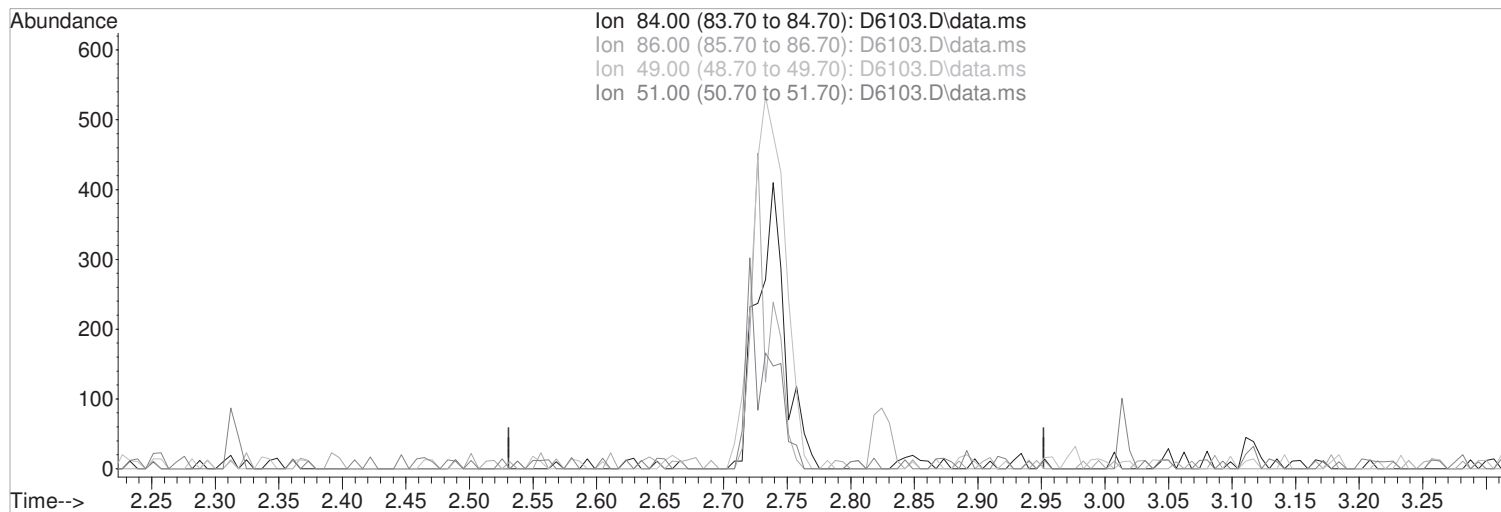
Peak not found.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 12:46:30 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(22) Methylene Chloride (P)

Manual Integration:

2.733min (-2.733) 0.00 ug/L

Before

response 0

Ion	Exp%	Act%
84.00	100	0.00
86.00	62.80	0.00#
49.00	143.90	0.00#
51.00	43.20	0.00#

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6103.D
 Acq On : 25 Sep 2018 12:32 pm
 Operator : D.LIPANI
 Sample : MET BLK
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:12:30 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

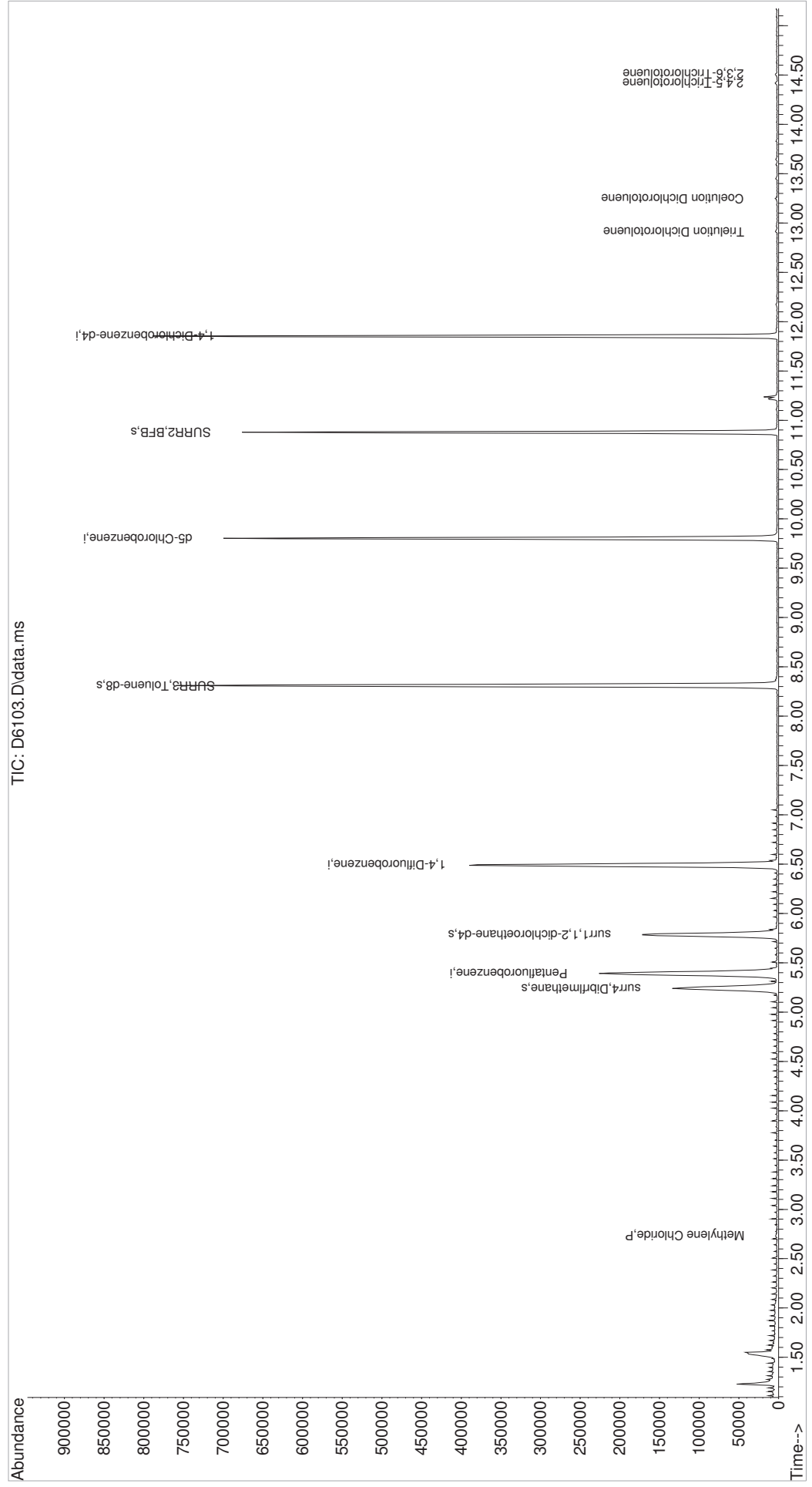
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

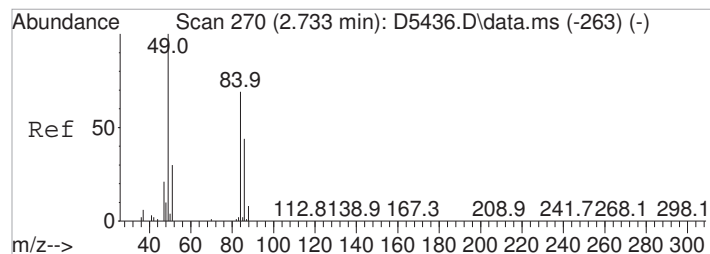
Internal Standards						
1) Pentafluorobenzene	5.391	168	199456	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.494	114	314548	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	277877	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	137102	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	104897	49.49	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	98.98%
46) surr1,1,2-dichloroetha...	5.781	65	149565	53.65	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	107.30%
64) SURR3,Toluene-d8	8.311	98	431104	50.16	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	100.32%
69) SURR2,BFB	10.878	95	151603	45.90	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	91.80%
Target Compounds						
22) Methylene Chloride	2.739	84	629m	0.29	ug/L	Qvalue
111) Trielution Dichlorotol...	12.908	125	926	0.27	ug/L	88
113) Coelution Dichlorotoluene	13.249	125	807	0.21	ug/L	85
118) 2,4,5-Trichlorotoluene	14.420	159	736	0.39	ug/L	77
119) 2,3,6-Trichlorotoluene	14.511	159	414	0.23	ug/L #	61

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

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6103.D
 Acq On : 25 Sep 2018 12:32 pm
 Operator : D.LIPANI
 Sample : MET BLK
 Misc :
 ALS Vial : 10 Sample Multiplier: 1
 Inst : MSVOA10

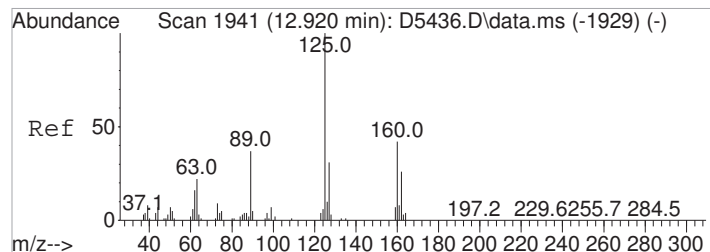
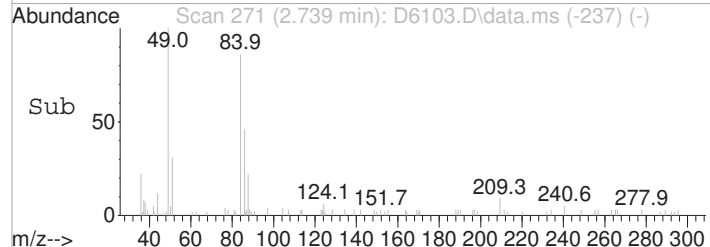
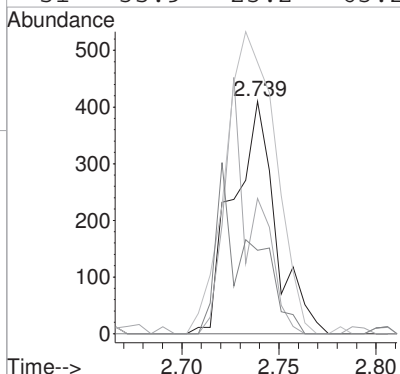
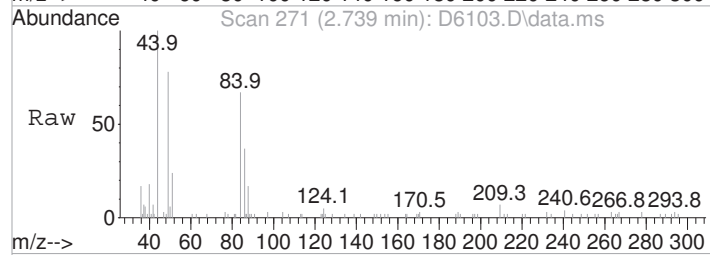
Quant Time: Sep 27 15:12:30 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration





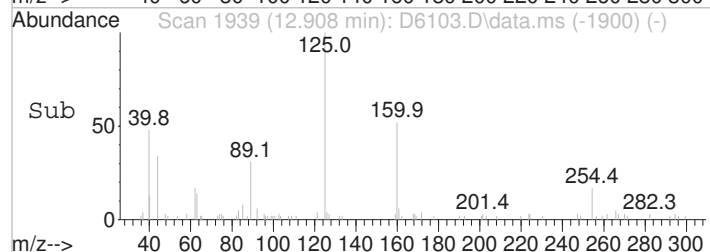
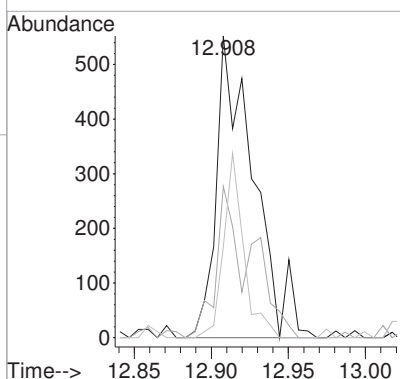
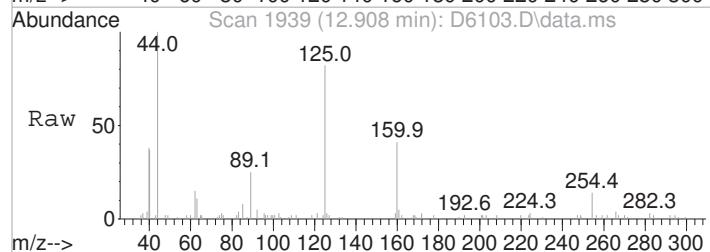
#22
 Methylene Chloride
 Concen: 0.29 ug/L m
 RT: 2.739 min Scan# 271
 Delta R.T. 0.006 min
 Lab File: D6103.D
 Acq: 25 Sep 2018 12:32 pm

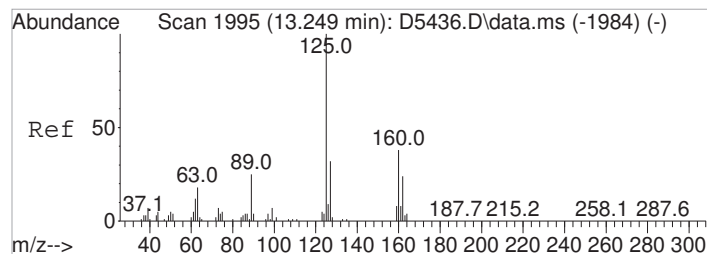
Tgt Ion: 84 Resp: 629
 Ion Ratio Lower Upper
 84 100
 86 55.9 42.8 82.8
 49 116.8 123.9 163.9#
 51 35.9 23.2 63.2



#111
 Trilution Dichlorotoluene
 Concen: 0.27 ug/L
 RT: 12.908 min Scan# 1939
 Delta R.T. -0.012 min
 Lab File: D6103.D
 Acq: 25 Sep 2018 12:32 pm

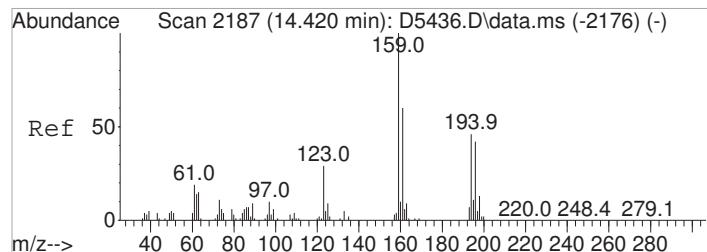
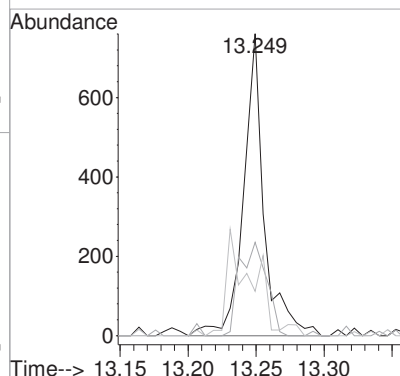
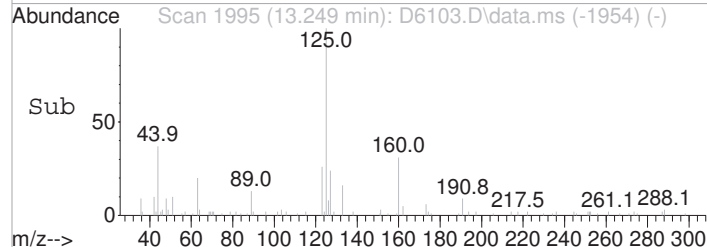
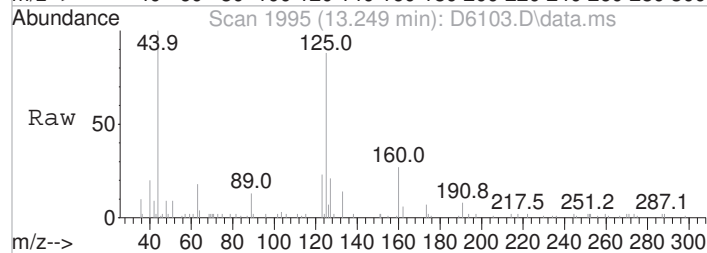
Tgt Ion: 125 Resp: 926
 Ion Ratio Lower Upper
 125 100
 160 50.2 22.3 62.3
 89 30.1 17.1 57.1





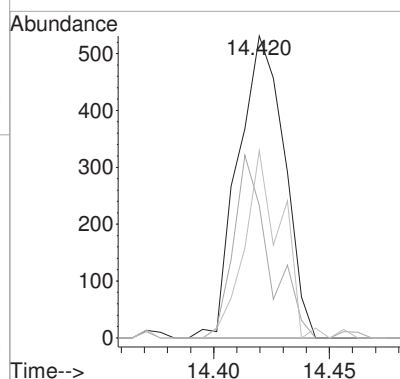
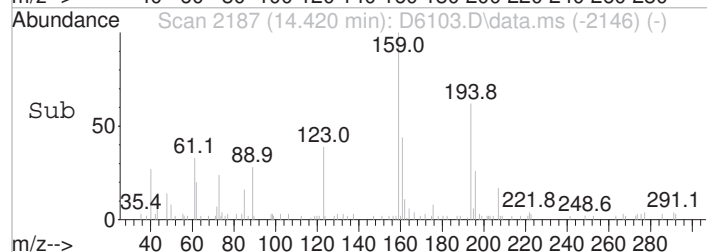
#113
Coelution Dichlorotoluene
Concen: 0.21 ug/L
RT: 13.249 min Scan# 1995
Delta R.T. 0.000 min
Lab File: D6103.D
Acq: 25 Sep 2018 12:32 pm

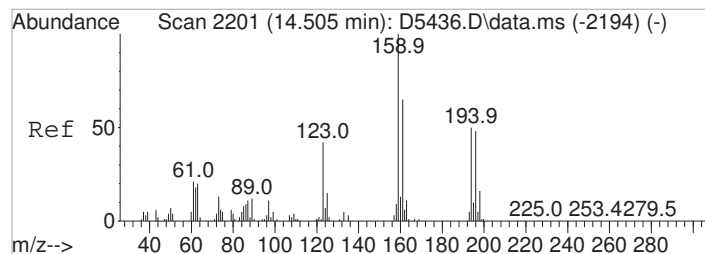
Tgt Ion	125	Resp	807
Ion Ratio	Lower	Upper	
125	100		
160	30.9	17.8	57.8
89	14.7	5.2	45.2



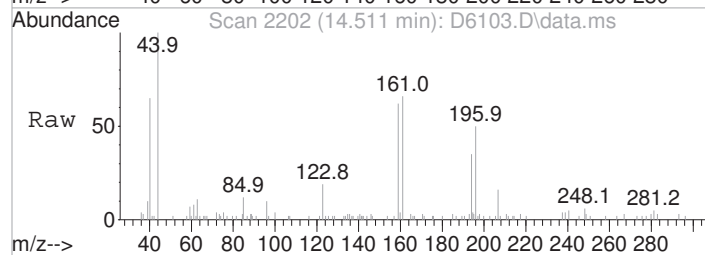
#118
2,4,5-Trichlorotoluene
Concen: 0.39 ug/L
RT: 14.420 min Scan# 2187
Delta R.T. 0.000 min
Lab File: D6103.D
Acq: 25 Sep 2018 12:32 pm

Tgt Ion	159	Resp	736
Ion Ratio	Lower	Upper	
159	100		
161	43.9	39.9	79.9
194	62.0	25.6	65.6

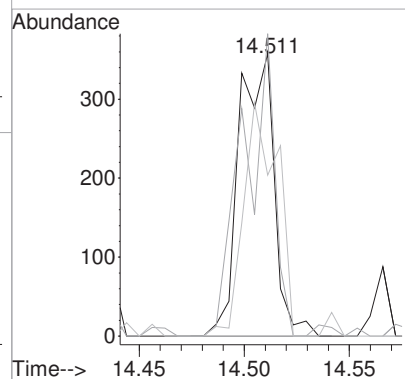
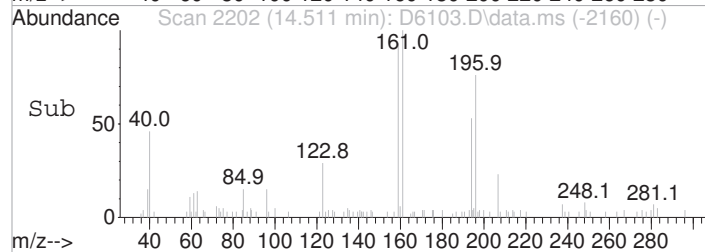




#119
 2,3,6-Trichlorotoluene
 Concen: 0.23 ug/L
 RT: 14.511 min Scan# 2202
 Delta R.T. 0.006 min
 Lab File: D6103.D
 Acq: 25 Sep 2018 12:32 pm



Tgt Ion	Ratio	Lower	Upper
159	100		
161	107.0	45.1	85.1#
194	64.0	30.2	70.2



Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK Inst : MSVOA10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 300 Area counts
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\W082118.M
Title : MS#10 - 8260B WATERS 5.0mL Purge

Signal : TIC: D6103.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.227	20	23	30	rBV	46397	67074	5.57%	1.073%
2	1.538	65	74	75	rBV3	33321	66669	5.54%	1.067%
3	5.238	671	681	692	rBV3	131447	352471	29.29%	5.639%
4	5.391	695	706	718	rVB	224015	590251	49.05%	9.443%
5	5.781	760	770	778	rBV	169624	420324	34.93%	6.724%
6	6.488	875	886	896	rBV	387789	787275	65.42%	12.595%
7	8.311	1177	1185	1193	rBV	757547	1203419	100.00%	19.252%
8	9.805	1422	1430	1440	rBV	697881	964622	80.16%	15.432%
9	10.878	1600	1606	1612	rBV	674269	826073	68.64%	13.216%
10	11.219	1657	1662	1664	rBV2	10802	13779	1.14%	0.220%
11	11.853	1760	1766	1775	rBV	787024	958808	79.67%	15.339%

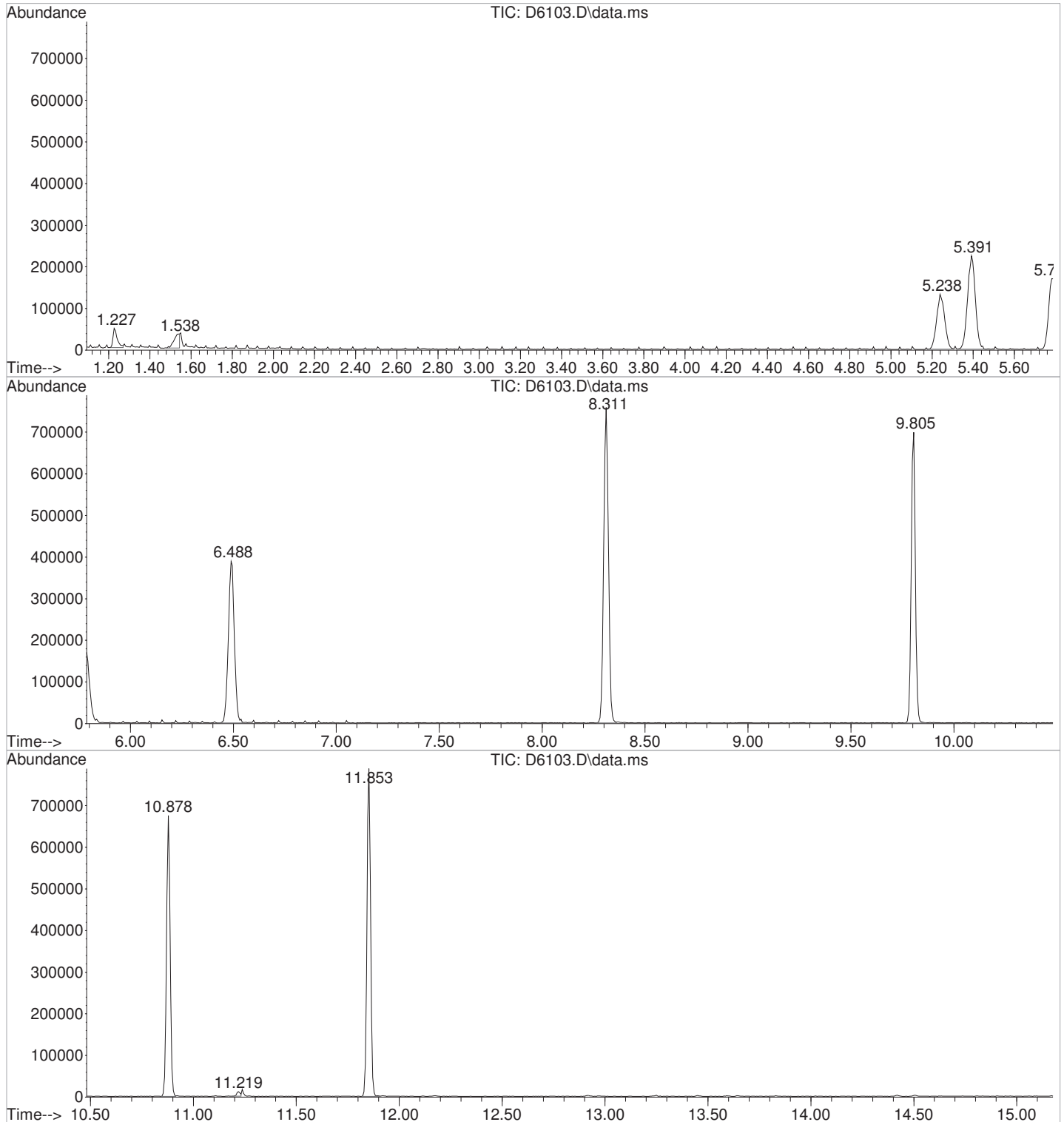
Sum of corrected areas: 6250765

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P



Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

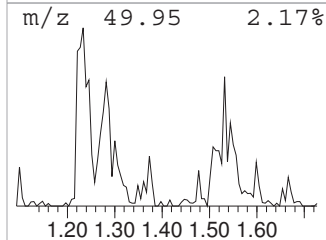
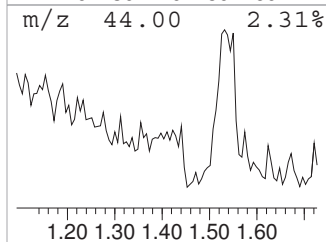
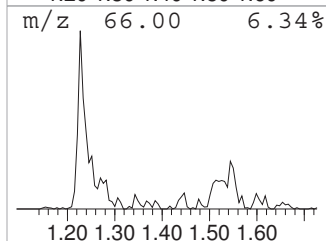
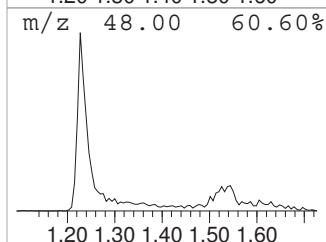
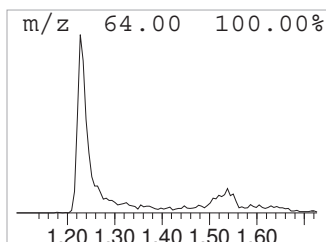
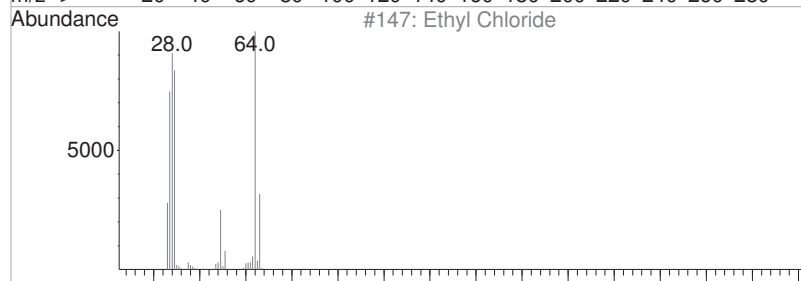
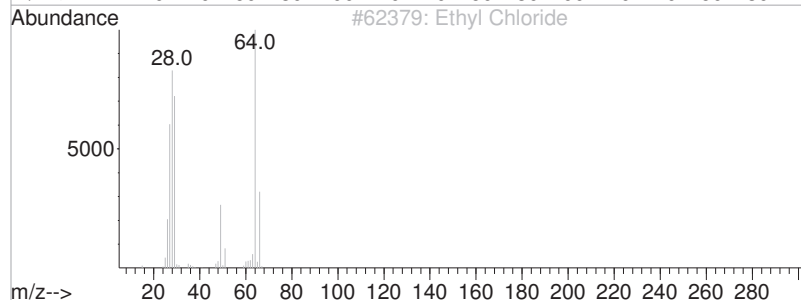
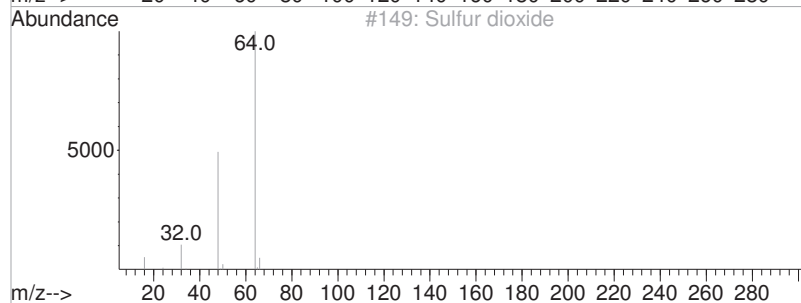
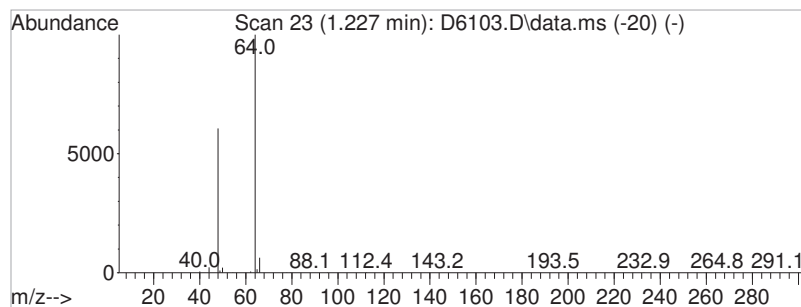
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

Peak Number 1 Sulfur dioxide Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.227	5.68 ug/L	67074	Pentafluorobenzene	5.391

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1	Sulfur dioxide		64	O2S	007446-09-5	90
2	Ethyl Chloride		64	C2H5Cl	000075-00-3	3
3	Ethyl Chloride		64	C2H5Cl	000075-00-3	3
4	Ethene, 1,2-difluoro-		64	C2H2F2	001691-13-0	3
5	Ethene, 1,1-difluoro-		64	C2H2F2	000075-38-7	3



Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

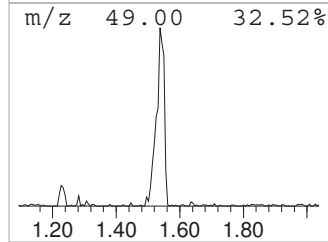
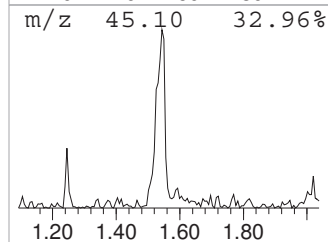
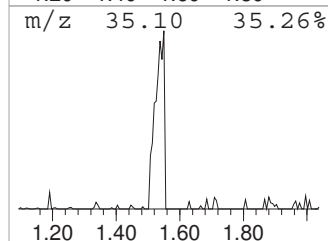
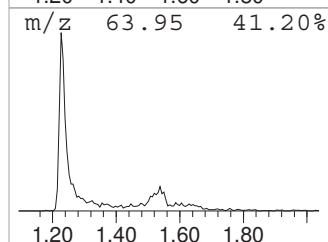
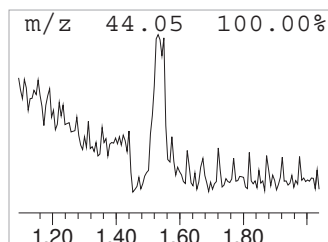
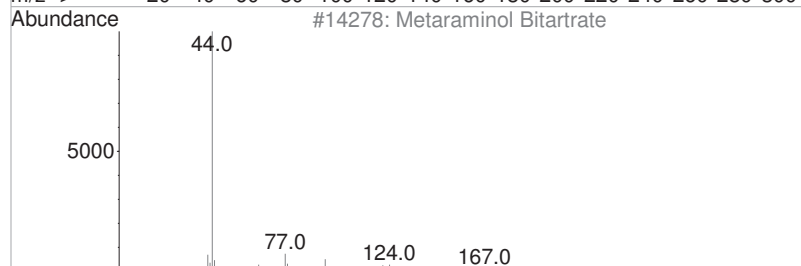
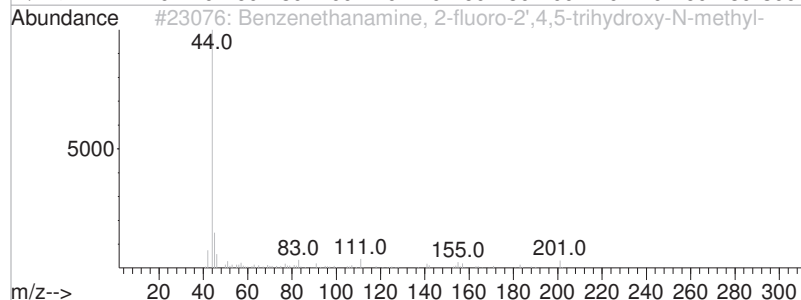
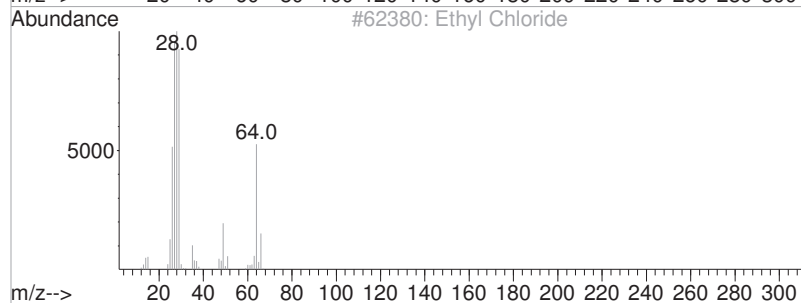
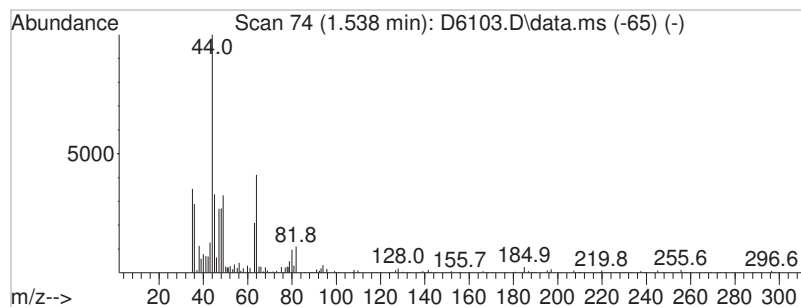
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

Peak Number 2 unknown Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.538	5.65 ug/L	66669	Pentafluorobenzene	5.391

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Ethyl Chloride	64	C2H5Cl	000075-00-3	32
2			Benzenethanamine, 2-fluoro-2',4,...	201	C9H12FNO3	000000-00-0	9
3			Metaraminol Bitartrate	167	C9H13NO2	033402-03-8	9
4			Benzenethanamine, 4-methoxy-.alph...	165	C10H15NO	023239-32-9	9
5			Phenylpropanolamine	151	C9H13NO	000492-41-1	9



Tentatively Identified Compound (LSC) summary

1st *DL* 09/27/18
2nd *FJ* 09/28/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6103.D
Acq On : 25 Sep 2018 12:32 pm
Operator : D.LIPANI
Sample : MET BLK
Misc :
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA10

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

TIC Library : I:\ACQUDATA\DATABASE\NBS75K.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
Sulfur dioxide	1.227	5.7	ug/L	67074	1	5.391	590251	50.0
unknown	1.538	5.7	ug/L	66669	1	5.391	590251	50.0

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6062.D
 Acq On : 24 Sep 2018 10:35 am
 Operator : D.LIPANI
 Sample : LCS-Unp.
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 10:50:04 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.391	168	231000	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	352269	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	313024	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	175141	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	113757	47.92	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	95.84%
46) surr1,1,2-dichloroetha...	5.781	65	159305	51.03	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	102.06%
64) SURR3,Toluene-d8	8.311	98	477516	49.61	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	99.22%
69) SURR2,BFB	10.878	95	178876	48.36	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	96.72%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	56383	18.28	ug/L	98
3) Chloromethane	1.282	50	65680	19.50	ug/L	96
4) Vinyl Chloride	1.361	62	60663	18.14	ug/L	99
5) Bromomethane	1.587	94	41135	15.99	ug/L	97
6) Chloroethane	1.666	64	34319	16.42	ug/L	94
7) Freon 21	1.812	67	81479	15.95	ug/L	97
8) Trichlorofluoromethane	1.861	101	70811	18.84	ug/L	98
9) Diethyl Ether	2.093	59	46218	21.72	ug/L	93
10) Freon 123a	2.099	67	51698	17.63	ug/L	93
11) Freon 123	2.148	83	73177	22.48	ug/L	99
12) Acrolein	2.196	56	26429	38.49	ug/L	94
13) 1,1-Dicethene	2.282	96	41772	19.62	ug/L	95
14) Freon 113	2.294	101	39169	18.47	ug/L	100
15) Acetone	2.324	43	29731	21.88	ug/L	93
16) 2-Propanol	2.459	45	104419	397.39	ug/L	99
17) Iodomethane	2.416	142	57332	22.86	ug/L	99
18) Carbon Disulfide	2.477	76	120944	20.83	ug/L	98
19) Acetonitrile	2.581	41	66280	134.17	ug/L	97
20) Allyl Chloride	2.617	76	24920	24.01	ug/L	# 85
21) Methyl Acetate	2.641	43	61445	22.69	ug/L	94
22) Methylene Chloride	2.733	84	48391	19.48	ug/L	93
23) TBA	2.867	59	152489	387.41	ug/L	89
24) Acrylonitrile	2.989	53	153005	113.89	ug/L	100
25) Methyl-t-Butyl Ether	3.038	73	155818	19.73	ug/L	100
26) trans-1,2-Dichloroethene	3.026	96	42796	18.79	ug/L	91
27) 1,1-Dicethane	3.525	63	93360	20.92	ug/L	99
28) Vinyl Acetate	3.623	86	10491	20.42	ug/L	# 49
29) DIPE	3.660	45	190033	23.00	ug/L	97
30) 2-Chloro-1,3-Butadiene	3.653	53	81038	21.12	ug/L	93
31) ETBE	4.184	59	137256	18.34	ug/L	96
32) 2,2-Dichloropropane	4.367	77	57284	16.84	ug/L	95
33) cis-1,2-Dichloroethene	4.373	96	49835	19.64	ug/L	97
34) 2-Butanone	4.416	43	43920	23.91	ug/L	85
35) Propionitrile	4.495	54	59898	110.05	ug/L	93
36) Bromochloromethane	4.763	130	29720	18.95	ug/L	# 83
37) Methacrylonitrile	4.769	67	26752	20.43	ug/L	92
38) Tetrahydrofuran	4.867	42	25542	22.45	ug/L	99
39) Chloroform	4.946	83	84381	20.65	ug/L	98
40) 1,1,1-Trichloroethane	5.251	97	64342	18.65	ug/L	97

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6062.D
 Acq On : 24 Sep 2018 10:35 am
 Operator : D.LIPANI
 Sample : LCS-Unp.
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 10:50:04 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.336	41	51445	19.89	ug/L	98
44) Carbontetrachloride	5.531	117	48268	18.56	ug/L	87
45) 1,1-Dichloropropene	5.543	75	66141	20.09	ug/L	96
47) Benzene	5.860	78	195486	20.82	ug/L	99
48) 1,2-Dichloroethane	5.903	62	78517	21.02	ug/L	95
49) Iso-Butyl Alcohol	5.885	43	72397	413.50	ug/L	94
50) TAME	6.104	73	135480	19.63	ug/L	94
51) n-Heptane	6.354	43	72906	22.95	ug/L	90
52) 1-Butanol	6.854	56	94064	1074.67	ug/L	96
53) Trichloroethene	6.817	130	45999	18.76	ug/L	95
54) Methylcyclohexane	7.055	55	59857	19.16	ug/L	91
55) 1,2-Diclpropane	7.098	63	53464	20.47	ug/L	98
56) Dibromomethane	7.244	93	32350	20.82	ug/L	96
57) 1,4-Dioxane	7.305	88	19434	430.08	ug/L	96
58) Methyl Methacrylate	7.330	69	42175	20.61	ug/L	92
59) Bromodichloromethane	7.470	83	59123	20.43	ug/L	98
60) 2-Nitropropane	7.756	41	25309	51.62	ug/L	99
61) 2-Chloroethylvinyl Ether	7.878	63	29589	20.98	ug/L	89
62) cis-1,3-Dichloropropene	8.012	75	72124	20.32	ug/L	96
63) 4-Methyl-2-pentanone	8.220	43	79998	23.49	ug/L	97
65) Toluene	8.384	91	205865	20.40	ug/L	98
66) trans-1,3-Dichloropropene	8.653	75	62549	19.46	ug/L	99
67) Ethyl Methacrylate	8.799	69	70450	21.05	ug/L	94
68) 1,1,2-Trichloroethane	8.841	97	44042	19.73	ug/L	94
71) Tetrachloroethene	8.976	164	36378	18.69	ug/L	94
72) 2-Hexanone	9.134	43	57291	21.70	ug/L	94
73) 1,3-Dichloropropane	9.012	76	80769	20.24	ug/L	94
74) Dibromochloromethane	9.238	129	40298	19.40	ug/L	95
75) N-Butyl Acetate	9.293	43	105377	21.05	ug/L	95
76) 1,2-Dibromoethane	9.335	107	46035	20.04	ug/L	100
77) 3-Chlorobenzotrifluoride	9.847	180	61933	17.64	ug/L	96
78) Chlorobenzene	9.829	112	125150	18.92	ug/L	93
79) 4-Chlorobenzotrifluoride	9.902	180	55862	17.88	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.914	131	40108	19.55	ug/L	97
81) Ethylbenzene	9.951	106	67684	19.54	ug/L #	88
82) (m+p)Xylene	10.061	106	168405	39.11	ug/L	97
83) o-Xylene	10.420	106	83538	19.50	ug/L	93
84) Styrene	10.433	104	139593	20.26	ug/L	97
85) Bromoform	10.585	173	25850	21.16	ug/L	97
86) 2-Chlorobenzotrifluoride	10.664	180	62887	18.57	ug/L	93
87) Isopropylbenzene	10.756	105	211716	19.47	ug/L	99
88) Cyclohexanone	10.817	55	99056	190.06	ug/L	95
89) trans-1,4-Dichloro-2-B...	11.061	53	13100	18.29	ug/L	86
91) 1,1,2,2-Tetrachloroethane	11.012	83	69646	20.93	ug/L	97
92) Bromobenzene	11.000	156	53912	18.40	ug/L #	81
93) 1,2,3-Trichloropropane	11.042	110	20439	19.92	ug/L	98
94) n-Propylbenzene	11.109	91	256185	19.84	ug/L	99
95) 2-Chlorotoluene	11.170	91	150644	19.34	ug/L	96
96) 3-Chlorotoluene	11.225	91	138455	17.99	ug/L	96
97) 4-Chlorotoluene	11.268	91	175383	18.88	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	180873	20.16	ug/L	99
99) tert-Butylbenzene	11.536	119	152903	19.42	ug/L	100
100) 1,2,4-Trimethylbenzene	11.573	105	181001	20.26	ug/L	97
101) 3,4-Dichlorobenzotrifl...	11.634	214	50931	17.74	ug/L	90
102) sec-Butylbenzene	11.719	105	225497	19.81	ug/L	98
103) p-Isopropyltoluene	11.841	119	194488	20.02	ug/L	99

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6062.D
 Acq On : 24 Sep 2018 10:35 am
 Operator : D.LIPANI
 Sample : LCS-Unp.
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

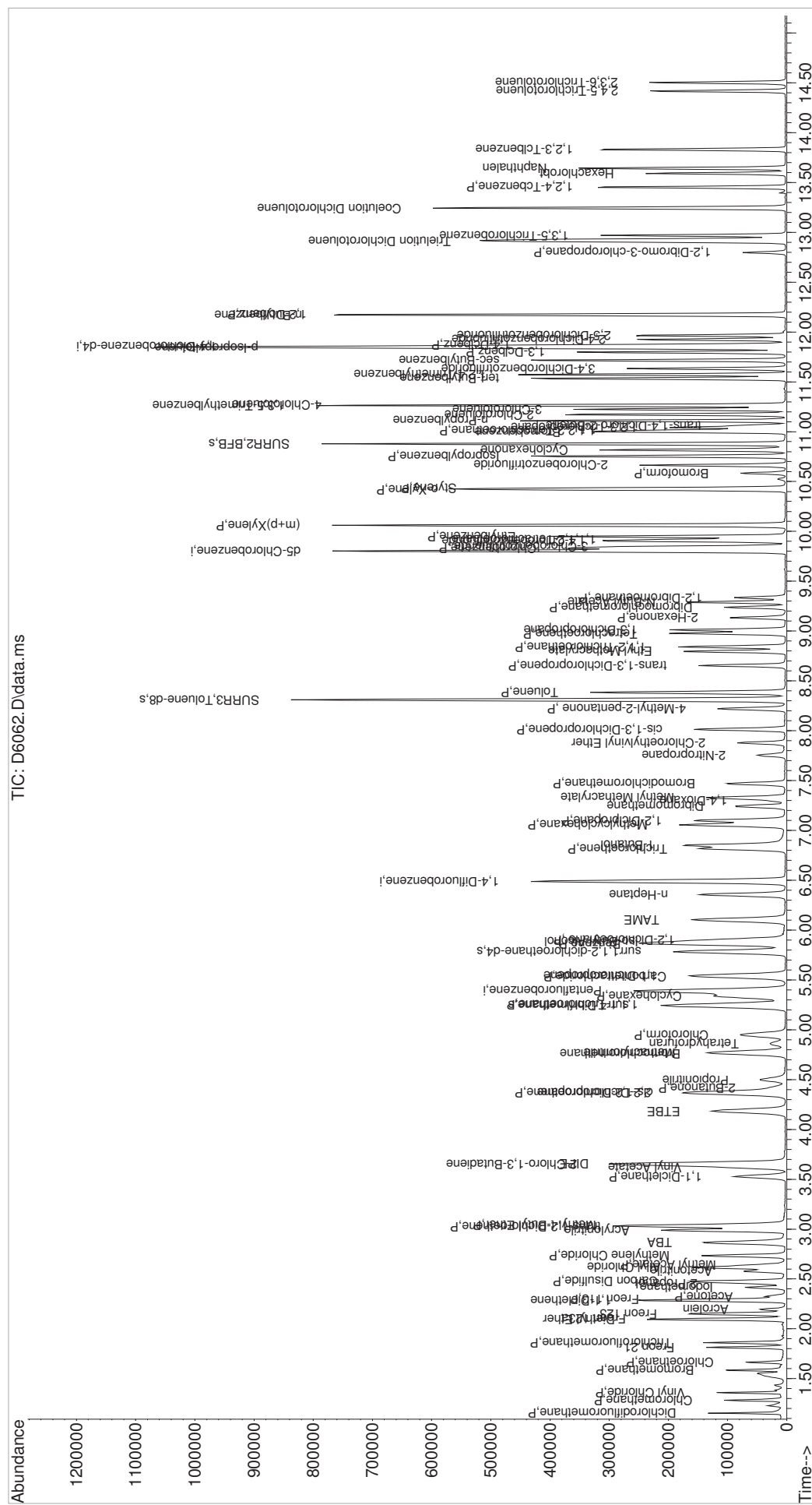
Quant Time: Sep 24 10:50:04 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
104)	1,3-Dclbenz	11.798	146	101878	18.91	ug/L	99
105)	1,4-Dclbenz	11.871	146	104745	18.41	ug/L	99
106)	2,4-Dichlorobenzotrifl...	11.926	214	46667	18.23	ug/L	97
107)	2,5-Dichlorobenzotrifl...	11.969	214	52867	17.88	ug/L	97
108)	n-Butylbenzene	12.170	91	190418	20.50	ug/L	98
109)	1,2-Dclbenz	12.176	146	102537	18.76	ug/L	100
110)	1,2-Dibromo-3-chloropr...	12.798	157	10953	16.07	ug/L	83
111)	Trielution Dichlorotol...	12.914	125	234845	52.62	ug/L	98
112)	1,3,5-Trichlorobenzene	12.969	180	70403	17.77	ug/L	98
113)	Coelution Dichlorotoluene	13.243	125	174388	35.39	ug/L	94
114)	1,2,4-Tcbenzene	13.456	180	73414	18.90	ug/L	98
115)	Hexachlorobt	13.591	225	33764	19.88	ug/L	99
116)	Naphthalen	13.645	128	203292	20.18	ug/L	99
117)	1,2,3-Tclbenzene	13.834	180	72258	18.91	ug/L	99
118)	2,4,5-Trichlorotoluene	14.420	159	45491	18.76	ug/L	97
119)	2,3,6-Trichlorotoluene	14.505	159	42201	18.48	ug/L	93

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

ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 24 10:50:04 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6101.D
 Acq On : 25 Sep 2018 11:48 am
 Operator : D.LIPANI
 Sample : LCS-Unp.
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 12:02:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.391	168	224537	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	339718	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	296166	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	161335	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	109638	47.89	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	95.78%
46) surr1,1,2-dichloroetha...	5.781	65	157745	52.39	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	104.78%
64) SURR3,Toluene-d8	8.311	98	443475	47.78	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	95.56%
69) SURR2,BFB	10.878	95	166246	46.60	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	93.20%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	56943	18.99	ug/L	99
3) Chloromethane	1.282	50	66765	20.39	ug/L	96
4) Vinyl Chloride	1.361	62	60210	18.52	ug/L	98
5) Bromomethane	1.587	94	35691	14.30	ug/L	93
6) Chloroethane	1.666	64	34373	16.92	ug/L	97
7) Freon 21	1.812	67	83641	16.84	ug/L	99
8) Trichlorofluoromethane	1.861	101	69606	19.05	ug/L	100
9) Diethyl Ether	2.093	59	44355	21.44	ug/L	97
10) Freon 123a	2.099	67	53982	18.94	ug/L	91
11) Freon 123	2.148	83	75859	23.98	ug/L	92
12) Acrolein	2.196	56	24885	37.28	ug/L	95
13) 1,1-Dicethene	2.288	96	40819	19.72	ug/L	93
14) Freon 113	2.288	101	39758	19.28	ug/L	96
15) Acetone	2.330	43	30779	23.30	ug/L	93
16) 2-Propanol	2.458	45	103387	404.79	ug/L	91
17) Iodomethane	2.416	142	50449	20.95	ug/L	97
18) Carbon Disulfide	2.477	76	115684	20.50	ug/L	97
19) Acetonitrile	2.574	41	58231	121.27	ug/L	95
20) Allyl Chloride	2.617	76	24297	24.08	ug/L #	90
21) Methyl Acetate	2.641	43	61273	23.28	ug/L	99
22) Methylene Chloride	2.733	84	48389	20.04	ug/L #	87
23) TBA	2.861	59	147391	385.24	ug/L	93
24) Acrylonitrile	2.989	53	149300	114.34	ug/L	98
25) Methyl-t-Butyl Ether	3.038	73	148527	19.35	ug/L	99
26) trans-1,2-Dichloroethene	3.031	96	44441	20.08	ug/L	95
27) 1,1-Dicethane	3.525	63	92927	21.42	ug/L	99
28) Vinyl Acetate	3.617	86	9935	19.89	ug/L #	61
29) DIPE	3.659	45	196072	24.41	ug/L	95
30) 2-Chloro-1,3-Butadiene	3.653	53	78286	20.99	ug/L	96
31) ETBE	4.184	59	141618	19.47	ug/L	97
32) 2,2-Dichloropropane	4.360	77	55223	16.70	ug/L	97
33) cis-1,2-Dichloroethene	4.367	96	49152	19.93	ug/L	96
34) 2-Butanone	4.415	43	40923	22.92	ug/L	86
35) Propionitrile	4.501	54	57296	108.30	ug/L	99
36) Bromochloromethane	4.769	130	28368	18.61	ug/L #	80
37) Methacrylonitrile	4.769	67	25809	20.27	ug/L #	82
38) Tetrahydrofuran	4.866	42	25920	23.43	ug/L	86
39) Chloroform	4.946	83	83918	21.13	ug/L	97
40) 1,1,1-Trichloroethane	5.251	97	65675	19.58	ug/L	92

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6101.D
 Acq On : 25 Sep 2018 11:48 am
 Operator : D.LIPANI
 Sample : LCS-Unp.
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 12:02:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.336	41	57780	23.16	ug/L	98
44) Carbontetrachloride	5.531	117	47480	18.94	ug/L	95
45) 1,1-Dichloropropene	5.549	75	64757	20.39	ug/L	96
47) Benzene	5.866	78	190581	21.05	ug/L	93
48) 1,2-Dichloroethane	5.903	62	77157	21.42	ug/L	94
49) Iso-Butyl Alcohol	5.885	43	74134	439.06	ug/L	95
50) TAME	6.104	73	133709	20.09	ug/L	92
51) n-Heptane	6.360	43	80736	26.35	ug/L	85
52) 1-Butanol	6.854	56	89546	1061.79	ug/L	97
53) Trichloroethene	6.817	130	45999	19.45	ug/L	94
54) Methylcyclohexane	7.055	55	63732	21.16	ug/L	93
55) 1,2-Diclp propane	7.098	63	53118	21.09	ug/L	98
56) Dibromomethane	7.238	93	31569	21.07	ug/L	86
57) 1,4-Dioxane	7.305	88	17793	408.31	ug/L	100
58) Methyl Methacrylate	7.329	69	41358	20.96	ug/L	89
59) Bromodichloromethane	7.470	83	56796	20.35	ug/L	98
60) 2-Nitropropane	7.750	41	24692	52.22	ug/L	93
61) 2-Chloroethylvinyl Ether	7.878	63	28704	21.10	ug/L	91
62) cis-1,3-Dichloropropene	8.012	75	69714	20.36	ug/L	97
63) 4-Methyl-2-pentanone	8.219	43	77109	23.48	ug/L	89
65) Toluene	8.384	91	198318	20.37	ug/L	96
66) trans-1,3-Dichloropropene	8.652	75	58002	18.71	ug/L	94
67) Ethyl Methacrylate	8.799	69	70266	21.77	ug/L	96
68) 1,1,2-Trichloroethane	8.841	97	41819	19.43	ug/L	98
71) Tetrachloroethene	8.975	164	37438	20.33	ug/L	99
72) 2-Hexanone	9.134	43	53979	21.61	ug/L	92
73) 1,3-Dichloropropane	9.012	76	82425	21.83	ug/L	95
74) Dibromochloromethane	9.238	129	38264	19.47	ug/L	93
75) N-Butyl Acetate	9.292	43	105647	22.31	ug/L	95
76) 1,2-Dibromoethane	9.335	107	43562	20.04	ug/L	99
77) 3-Chlorobenzotrifluoride	9.847	180	66929	20.15	ug/L	98
78) Chlorobenzene	9.829	112	122486	19.57	ug/L	96
79) 4-Chlorobenzotrifluoride	9.902	180	59203	20.03	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	37962	19.56	ug/L	92
81) Ethylbenzene	9.951	106	66305	20.23	ug/L	91
82) (m+p)Xylene	10.061	106	164597	40.40	ug/L	97
83) o-Xylene	10.420	106	80180	19.79	ug/L	100
84) Styrene	10.432	104	135144	20.73	ug/L	93
85) Bromoform	10.585	173	24807	21.44	ug/L	86
86) 2-Chlorobenzotrifluoride	10.664	180	62591	19.54	ug/L	93
87) Isopropylbenzene	10.756	105	206291	20.05	ug/L	98
88) Cyclohexanone	10.817	55	122095	247.60	ug/L	97
89) trans-1,4-Dichloro-2-B...	11.060	53	12210	18.04	ug/L #	70
91) 1,1,2,2-Tetrachloroethane	11.012	83	65072	21.23	ug/L	98
92) Bromobenzene	10.999	156	53866	19.96	ug/L #	89
93) 1,2,3-Trichloropropane	11.042	110	19539	20.68	ug/L	93
94) n-Propylbenzene	11.109	91	263927	22.18	ug/L	96
95) 2-Chlorotoluene	11.170	91	148934	20.76	ug/L	97
96) 3-Chlorotoluene	11.225	91	147935	20.87	ug/L	97
97) 4-Chlorotoluene	11.268	91	174563	20.40	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	172385	20.85	ug/L	96
99) tert-Butylbenzene	11.536	119	151400	20.87	ug/L	100
100) 1,2,4-Trimethylbenzene	11.573	105	178757	21.72	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.633	214	55148	20.86	ug/L	93
102) sec-Butylbenzene	11.719	105	229841	21.92	ug/L	99
103) p-Isopropyltoluene	11.841	119	192883	21.55	ug/L	99

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6101.D
Acq On : 25 Sep 2018 11:48 am
Operator : D.LIPANI
Sample : LCS-Unp.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 12:02:38 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
104)	1,3-Dclbenz	11.798	146	98594	19.87	ug/L	97
105)	1,4-Dclbenz	11.871	146	102962	19.65	ug/L	99
106)	2,4-Dichlorobenzotrifl...	11.926	214	50576	21.45	ug/L	96
107)	2,5-Dichlorobenzotrifl...	11.969	214	56432	20.72	ug/L	98
108)	n-Butylbenzene	12.170	91	189506	22.15	ug/L	96
109)	1,2-Dclbenz	12.176	146	95136	18.89	ug/L	96
110)	1,2-Dibromo-3-chloropr...	12.798	157	10882	17.33	ug/L	95
111)	Trielution Dichlorotol...	12.920	125	250124	60.84	ug/L	98
112)	1,3,5-Trichlorobenzene	12.975	180	72830	19.95	ug/L	94
113)	Coelution Dichlorotoluene	13.243	125	179212	39.48	ug/L	94
114)	1,2,4-Tcbenzene	13.456	180	73468	20.53	ug/L	93
115)	Hexachlorobt	13.590	225	31776	20.31	ug/L	94
116)	Naphthalen	13.645	128	194335	20.94	ug/L	98
117)	1,2,3-Tclbenzene	13.834	180	70747	20.10	ug/L	99
118)	2,4,5-Trichlorotoluene	14.419	159	45776	20.49	ug/L	99
119)	2,3,6-Trichlorotoluene	14.505	159	43774	20.81	ug/L	97

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

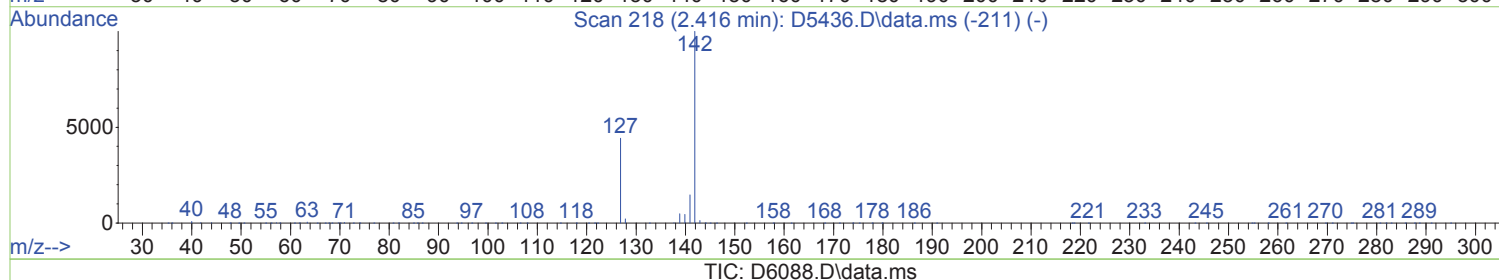
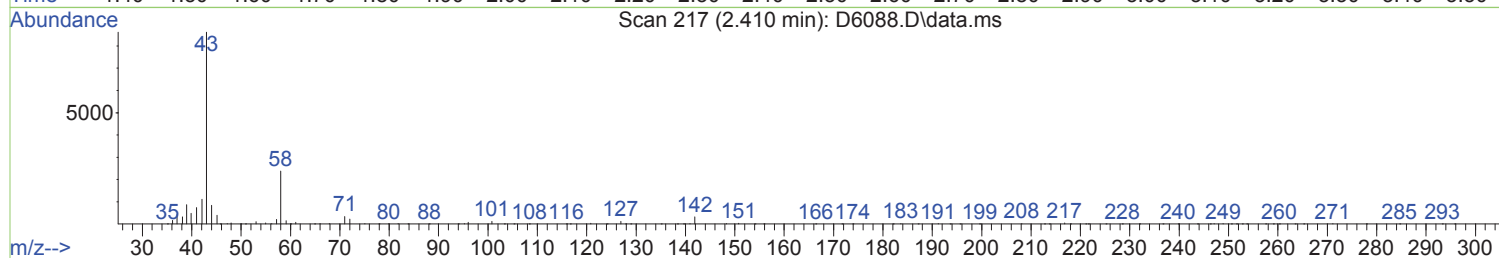
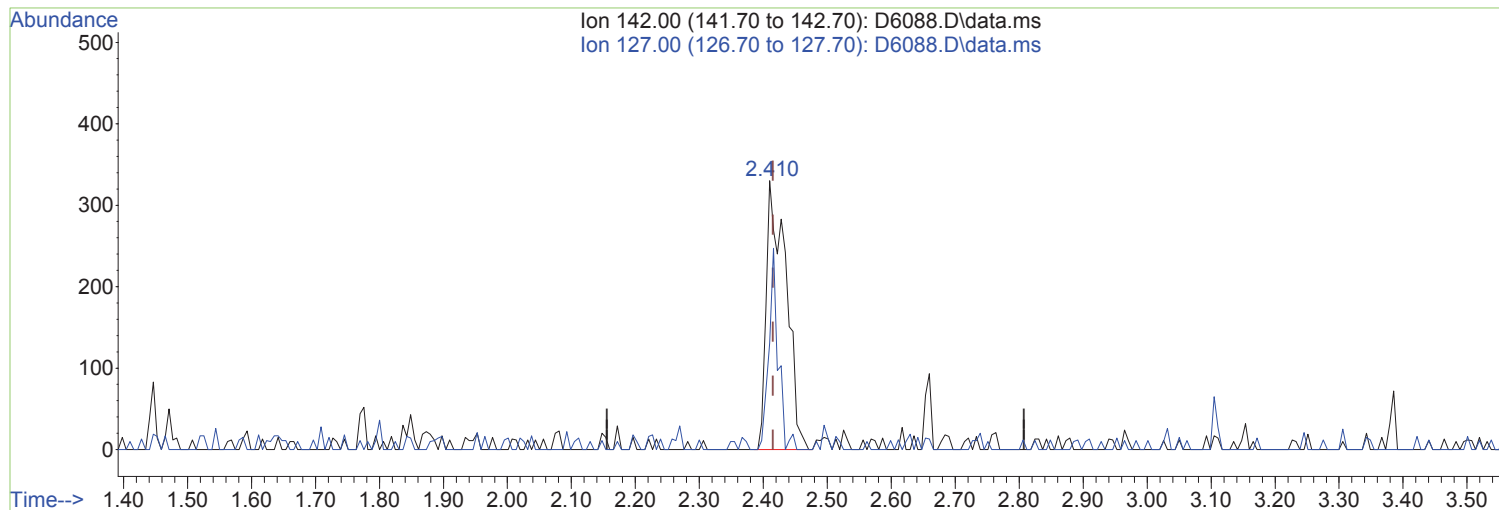
Quant Time: Sep 25 12:02:38 2018
Quant Method : I:\ACQDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(17) Iodomethane

2.410min (-0.006) 2.04 ug/L m

response 705

Ion	Exp%	Act%
142.00	100	100
127.00	44.30	39.70
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

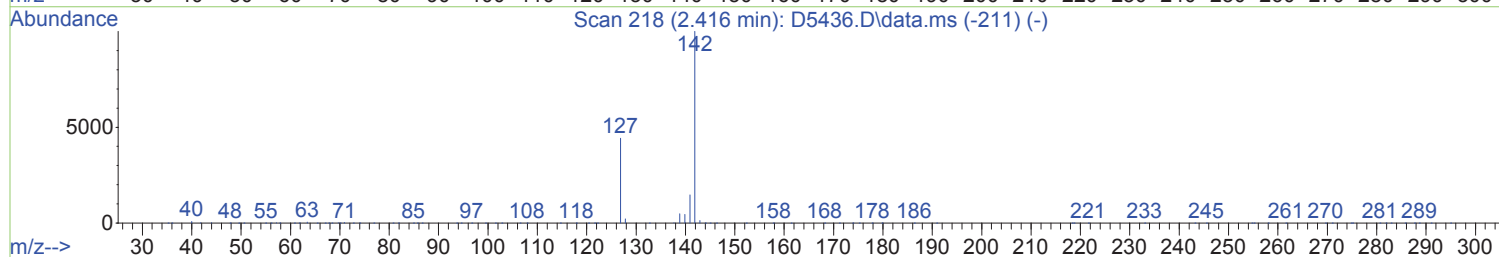
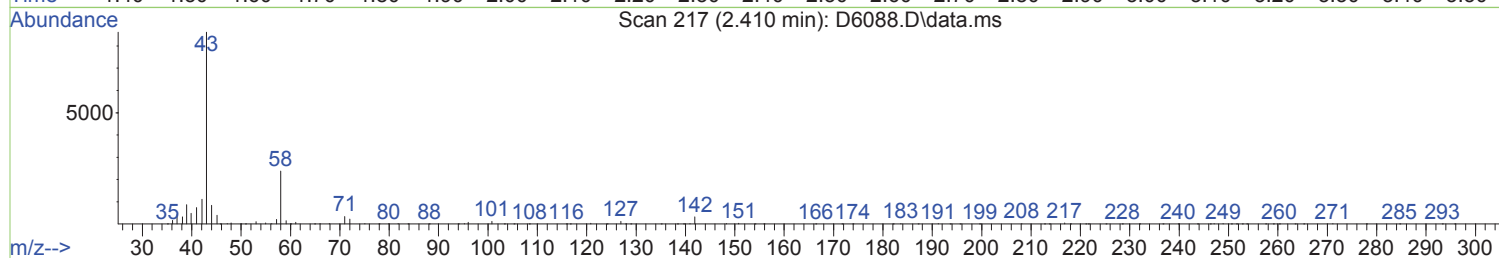
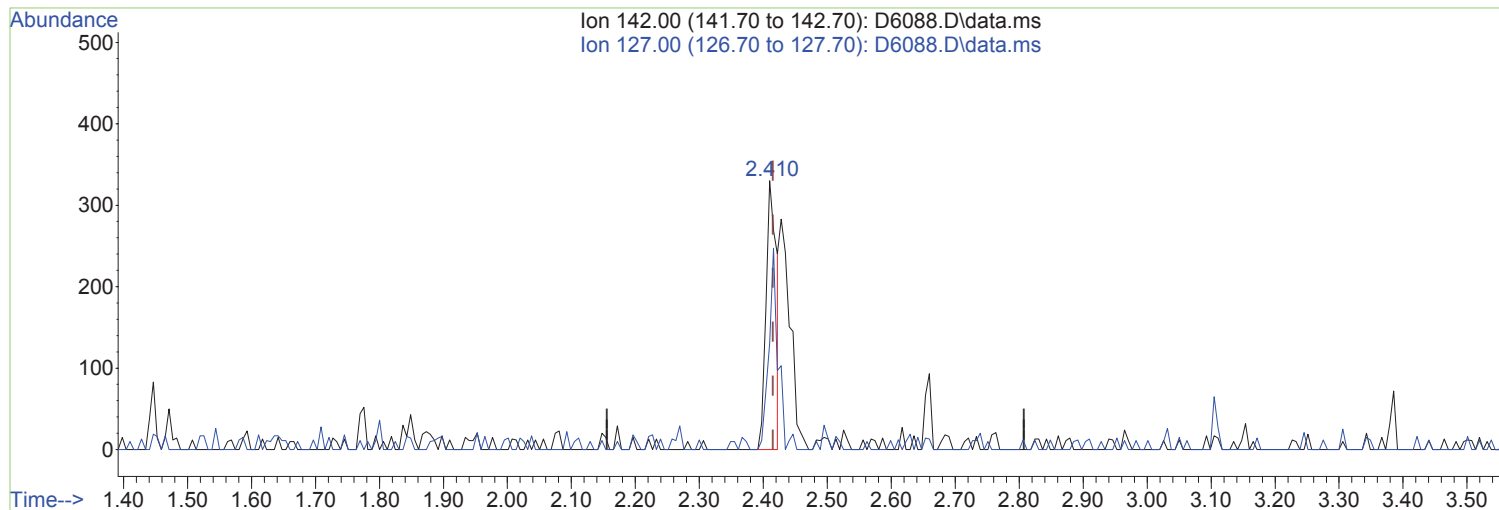
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6088.D\data.ms

(17) Iodomethane

Manual Integration:

2.410min (-0.006) 1.91 ug/L

Before

response 382

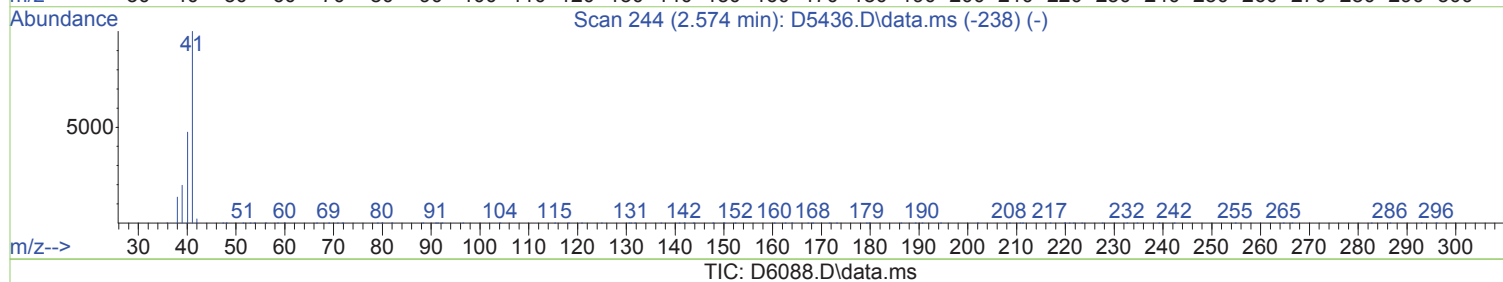
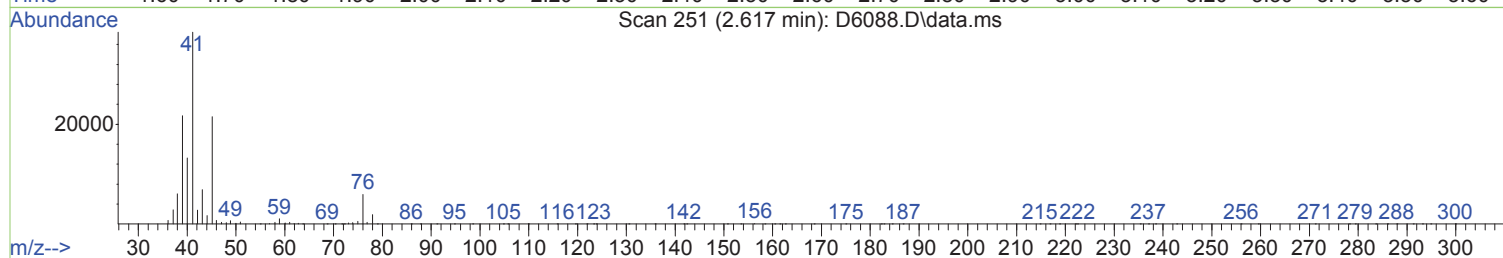
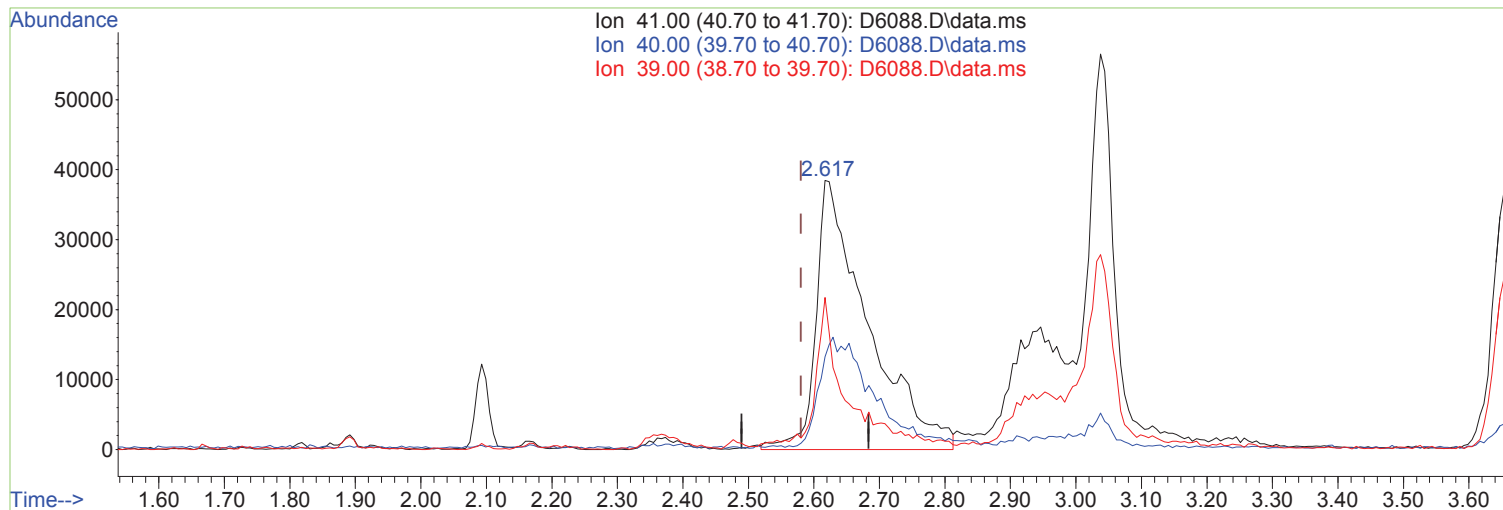
Ion	Exp%	Act%
142.00	100	100
127.00	44.30	39.70
0.00	0.00	0.00
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(19) Acetonitrile

2.617min (+0.037) 444.01 ug/L m

response 211149

Ion	Exp%	Act%
41.00	100	100
40.00	49.60	34.49
39.00	20.20	56.45#
0.00	0.00	0.00

Manual Integration:

After

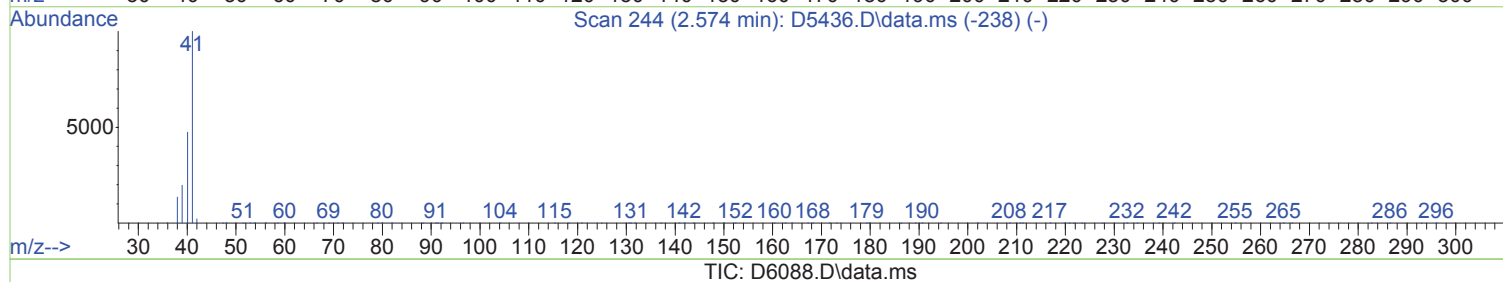
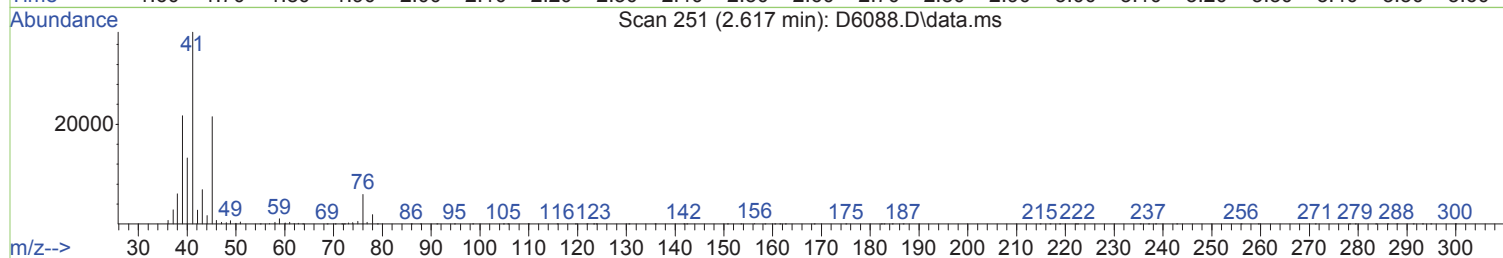
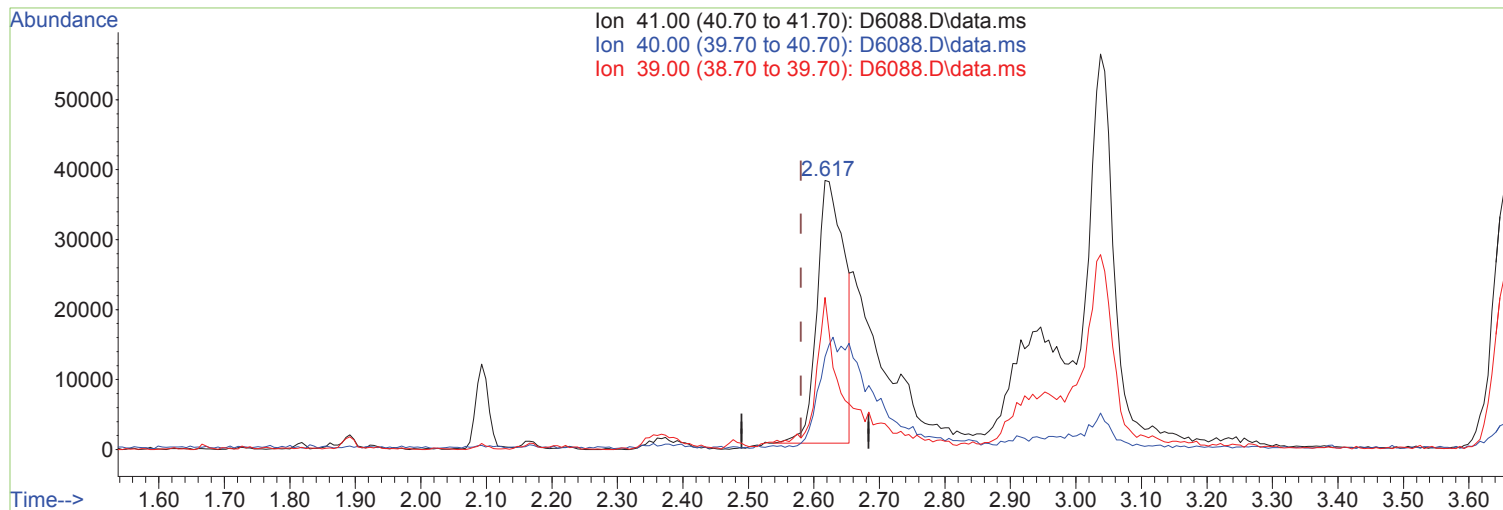
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 20:50:57 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(19) Acetonitrile

Manual Integration:

2.617min (+0.037) 227.96 ug/L

Before

response 108407

Ion	Exp%	Act%
41.00	100	100
40.00	49.60	34.49
39.00	20.20	56.45#
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6088.D
 Acq On : 24 Sep 2018 8:36 pm
 Operator : D.LIPANI
 Sample : R1809120-005MS|1.0
 Misc : Verina 7979 T4
 ALS Vial : 32 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:36:50 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	5.391	168	222379	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	338596	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	300725	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	170846	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.239	113	111200	48.73	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	97.46%
46) surr1,1,2-dichloroetha...	5.781	65	157397	52.45	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	104.90%
64) SURR3,Toluene-d8	8.311	98	450536	48.70	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	97.40%
69) SURR2,BFB	10.878	95	175722	49.42	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	98.84%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	140476	47.31	ug/L	97
3) Chloromethane	1.282	50	105464	32.52	ug/L	94
4) Vinyl Chloride	1.361	62	149159	46.34	ug/L	85
5) Bromomethane	1.605	94	1166	Below	Cal #	58
6) Chloroethane	1.672	64	136873	68.03	ug/L	99
7) Freon 21	1.812	67	277773	56.48	ug/L	99
8) Trichlorofluoromethane	1.861	101	212562	58.74	ug/L	99
9) Diethyl Ether	2.093	59	113666	55.49	ug/L	95
10) Freon 123a	2.099	67	150826	53.42	ug/L	94
11) Freon 123	2.148	83	203419	64.92	ug/L	99
12) Acrolein	2.203	56	8893	13.45	ug/L	98
13) 1,1-Dicethene	2.282	96	98734	48.17	ug/L	96
14) Freon 113	2.288	101	98296	48.14	ug/L	99
15) Acetone	2.355	43	134157	102.55	ug/L	91
17) Iodomethane	2.410	142	705m	2.04	ug/L	
18) Carbon Disulfide	2.477	76	310397	55.53	ug/L	99
19) Acetonitrile	2.617	41	211149m	444.01	ug/L	
20) Allyl Chloride	2.617	76	9056	9.06	ug/L #	1
21) Methyl Acetate	2.648	43	162274	62.24	ug/L	96
22) Methylene Chloride	2.733	84	113942	47.65	ug/L #	87
23) TBA	2.952	59	391623	1033.53	ug/L	91
24) Acrylonitrile	3.001	53	382083	295.44	ug/L	99
25) Methyl-t-Butyl Ether	3.038	73	392811	51.66	ug/L	98
26) trans-1,2-Dichloroethene	3.032	96	111050	50.66	ug/L	93
27) 1,1-Dicethane	3.525	63	258723	60.22	ug/L	100
28) Vinyl Acetate	3.623	86	26294	53.16	ug/L #	31
29) DIPE	3.660	45	508694	63.94	ug/L	95
30) 2-Chloro-1,3-Butadiene	3.653	53	188818	51.13	ug/L	89
31) ETBE	4.190	59	351772	48.83	ug/L	96
32) 2,2-Dichloropropane	4.367	77	135904	41.50	ug/L	97
33) cis-1,2-Dichloroethene	4.373	96	122914	50.31	ug/L	90
35) Propionitrile	4.531	54	150947	288.08	ug/L	95
36) Bromochloromethane	4.769	130	72503	48.03	ug/L #	84
37) Methacrylonitrile	4.781	67	71613	56.80	ug/L #	81
38) Tetrahydrofuran	4.879	42	66035	60.28	ug/L	92
39) Chloroform	4.946	83	207293	52.69	ug/L	97
40) 1,1,1-Trichloroethane	5.251	97	164846	49.62	ug/L	97
42) Cyclohexane	5.336	41	152127	61.18	ug/L	97
44) Carbontetrachloride	5.537	117	121305	48.54	ug/L	99

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6088.D
 Acq On : 24 Sep 2018 8:36 pm
 Operator : D.LIPANI
 Sample : R1809120-005MS|1.0
 Misc : Verina 7979 T4
 ALS Vial : 32 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:36:50 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) 1,1-Dichloropropene	5.543	75	166893	52.73	ug/L	97
47) Benzene	5.866	78	484074	53.64	ug/L	93
48) 1,2-Dichloroethane	5.903	62	195161	54.35	ug/L	97
49) Iso-Butyl Alcohol	5.933	43	201752	1198.84	ug/L	94
50) TAME	6.104	73	344971	51.99	ug/L	90
51) n-Heptane	6.354	43	176813	57.90	ug/L	89
52) 1-Butanol	6.909	56	263802	2824.12	ug/L	94
53) Trichloroethene	6.817	130	115200	48.88	ug/L	93
54) Methylcyclohexane	7.055	55	184311	61.38	ug/L	89
55) 1,2-Dichloropropane	7.098	63	140136	55.82	ug/L	95
56) Dibromomethane	7.244	93	79180	53.03	ug/L	96
57) 1,4-Dioxane	7.391	88	39233	903.30	ug/L	92
58) Methyl Methacrylate	7.330	69	115584	58.77	ug/L	92
59) Bromodichloromethane	7.470	83	145633	52.34	ug/L	98
60) 2-Nitropropane	7.756	41	65988	140.03	ug/L	97
61) 2-Chloroethylvinyl Ether	7.878	63	89273	65.85	ug/L	87
63) 4-Methyl-2-pentanone	8.220	43	233856	71.45	ug/L	91
65) Toluene	8.384	91	512260	52.80	ug/L	98
66) trans-1,3-Dichloropropene	8.652	75	6235	2.02	ug/L	91
67) Ethyl Methacrylate	8.799	69	195495	60.78	ug/L	92
68) 1,1,2-Trichloroethane	8.841	97	110448	51.47	ug/L	96
71) Tetrachloroethene	8.976	164	88675	47.41	ug/L	97
72) 2-Hexanone	9.134	43	180907	71.31	ug/L	94
73) 1,3-Dichloropropane	9.012	76	203052	52.96	ug/L	92
74) Dibromochloromethane	9.238	129	98089	49.15	ug/L	98
75) N-Butyl Acetate	9.293	43	331221	68.88	ug/L	95
76) 1,2-Dibromoethane	9.335	107	108487	49.16	ug/L	95
77) 3-Chlorobenzotrifluoride	9.847	180	171775	50.92	ug/L	100
78) Chlorobenzene	9.829	112	309628	48.72	ug/L	95
79) 4-Chlorobenzotrifluoride	9.902	180	153448	51.12	ug/L	98
80) 1,1,1,2-Tetrachloroethane	9.921	131	100302	50.89	ug/L	93
81) Ethylbenzene	9.951	106	171070	51.40	ug/L	91
82) (m+p)Xylene	10.061	106	424212	102.54	ug/L	97
83) o-Xylene	10.420	106	205184	49.87	ug/L	97
84) Styrene	10.433	104	347808	52.54	ug/L	98
85) Bromoform	10.585	173	67201	51.04	ug/L	91
86) 2-Chlorobenzotrifluoride	10.664	180	171726	52.79	ug/L	97
87) Isopropylbenzene	10.756	105	530861	50.82	ug/L	100
88) Cyclohexanone	10.829	55	690326	1378.69	ug/L	96
89) trans-1,4-Dichloro-2-B...	11.109	53	3938	6.15	ug/L #	1
91) 1,1,2,2-Tetrachloroethane	11.012	83	180801	55.69	ug/L	95
92) Bromobenzene	11.000	156	138682	48.53	ug/L	92
93) 1,2,3-Trichloropropane	11.042	110	53721	53.68	ug/L	92
94) n-Propylbenzene	11.109	91	644506	51.16	ug/L	98
95) 2-Chlorotoluene	11.170	91	381100	50.16	ug/L	97
96) 3-Chlorotoluene	11.225	91	386706	51.52	ug/L	99
97) 4-Chlorotoluene	11.268	91	447651	49.40	ug/L	97
98) 1,3,5-Trimethylbenzene	11.262	105	442539	50.56	ug/L	99
99) tert-Butylbenzene	11.536	119	373402	48.61	ug/L	96
100) 1,2,4-Trimethylbenzene	11.573	105	444402	50.99	ug/L	97
101) 3,4-Dichlorobenzotrifl...	11.634	214	143096	51.11	ug/L	93
102) sec-Butylbenzene	11.719	105	548760	49.42	ug/L	100
103) p-Isopropyltoluene	11.841	119	457852	48.31	ug/L	99
104) 1,3-Dichlorobenz	11.798	146	252022	47.95	ug/L	98
105) 1,4-Dichlorobenz	11.871	146	257228	46.35	ug/L	99
106) 2,4-Dichlorobenzotrifl...	11.926	214	131261	52.57	ug/L	99

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0 Inst : MSVOA10
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 27 15:36:50 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 2,5-Dichlorobenzotrifl...	11.969	214	148369	51.44	ug/L	97
108) n-Butylbenzene	12.176	91	445665	49.18	ug/L	97
109) 1,2-Dclbenz	12.176	146	251317	47.14	ug/L	98
110) 1,2-Dibromo-3-chloropr...	12.798	157	32227	48.47	ug/L	94
111) Trielution Dichlorotol...	12.920	125	671555	154.26	ug/L	97
112) 1,3,5-Trichlorobenzene	12.969	180	195028	50.46	ug/L	97
113) Coelution Dichlorotoluene	13.243	125	483501	100.59	ug/L	95
114) 1,2,4-Tcbenzene	13.456	180	184871	48.78	ug/L	99
115) Hexachlorobt	13.591	225	75092	45.32	ug/L	95
116) Naphthalen	13.645	128	559499	56.94	ug/L	99
117) 1,2,3-Tclbenzene	13.834	180	184359	49.47	ug/L	95
118) 2,4,5-Trichlorotoluene	14.420	159	122782	51.90	ug/L	100
119) 2,3,6-Trichlorotoluene	14.505	159	112952	50.71	ug/L	97

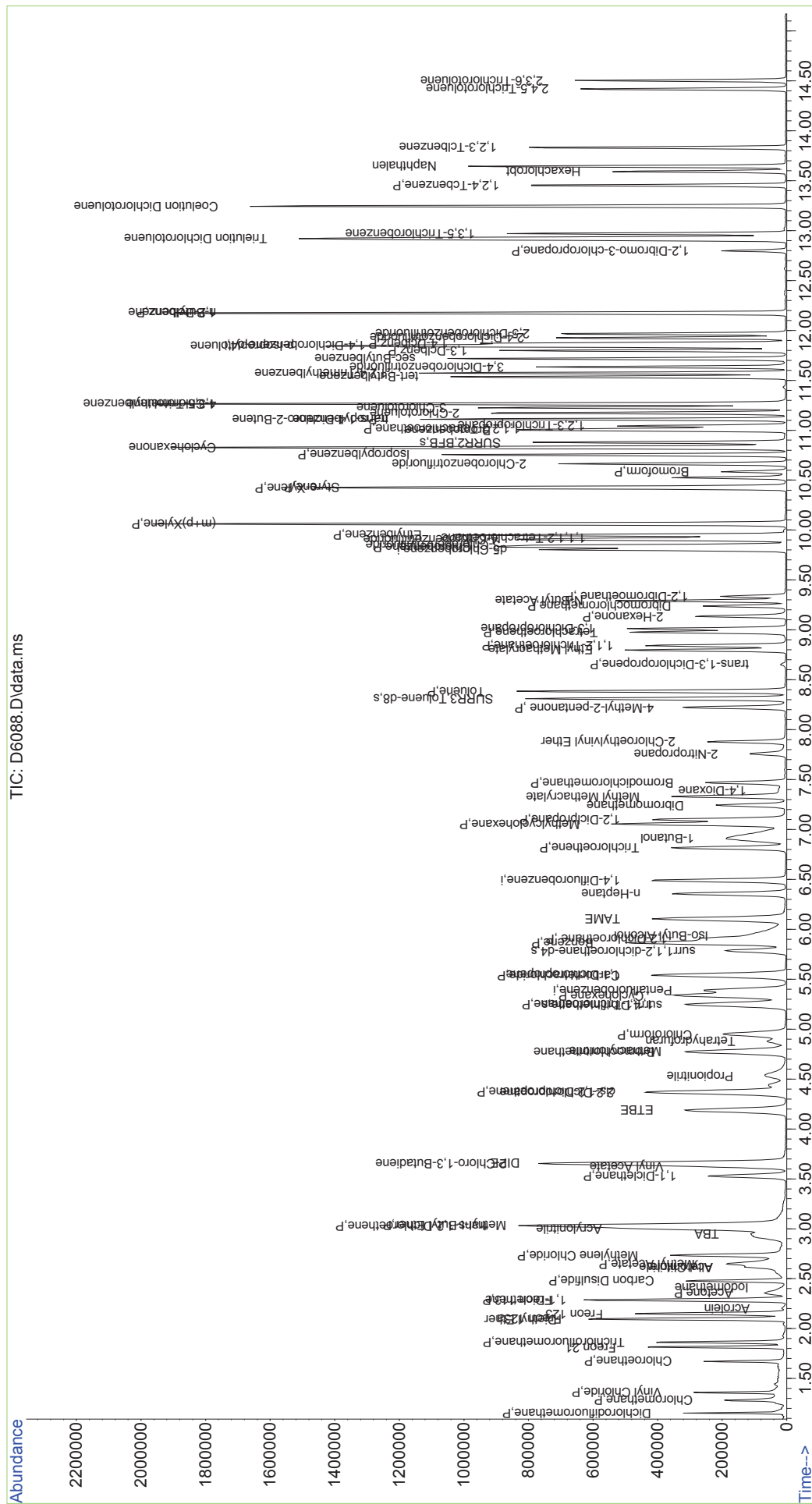
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6088.D
Acq On : 24 Sep 2018 8:36 pm
Operator : D.LIPANI
Sample : R1809120-005MS|1.0
Misc : Verina 7979 T4
ALS Vial : 32 Sample Multiplier: 1
```

Inst : MSVOA10

ALS Vial : 32 Sample Multiplier: 1

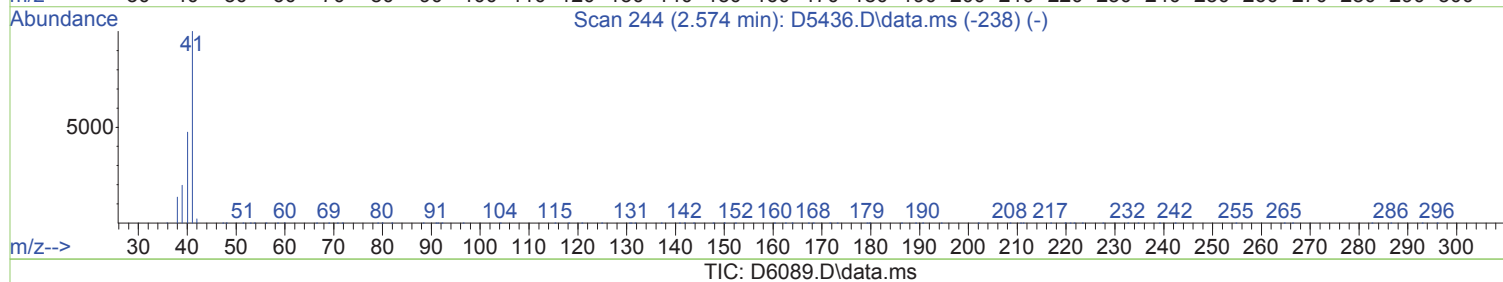
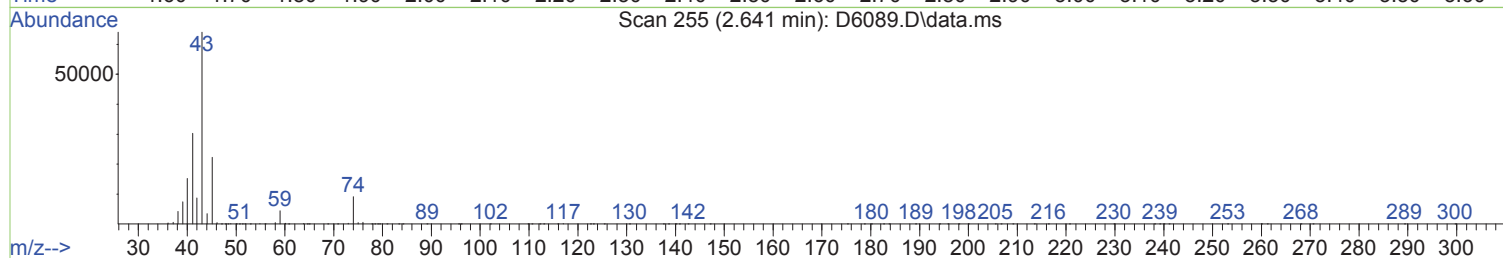
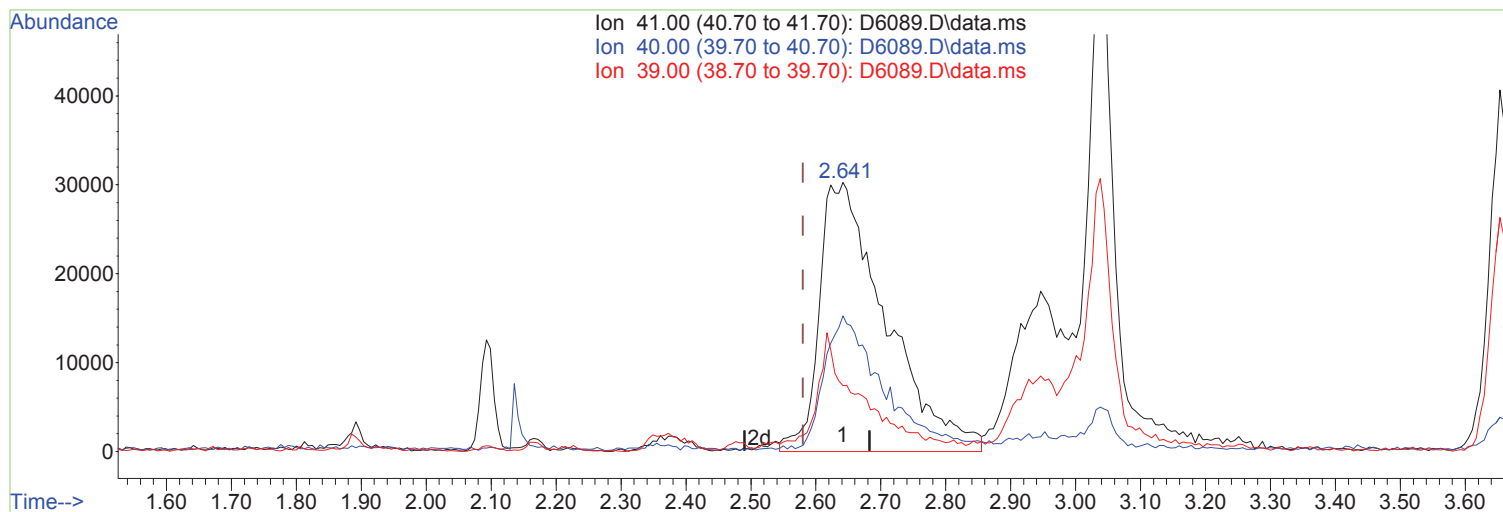
Quant Time: Sep 27 15:36:50 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 21:12:44 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(19) Acetonitrile

2.641min (+0.061) 426.11 ug/L m

response 216318

Ion	Exp%	Act%
41.00	100	100
40.00	49.60	50.38
39.00	20.20	24.45
0.00	0.00	0.00

Manual Integration:

After

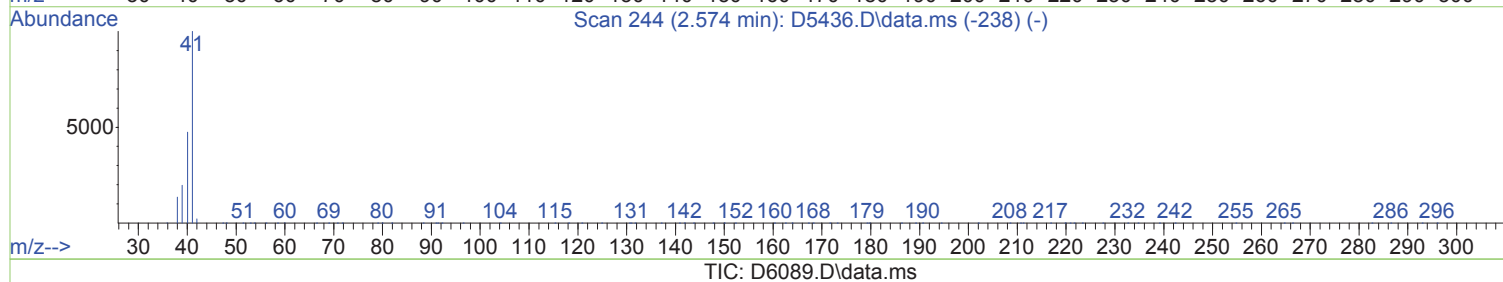
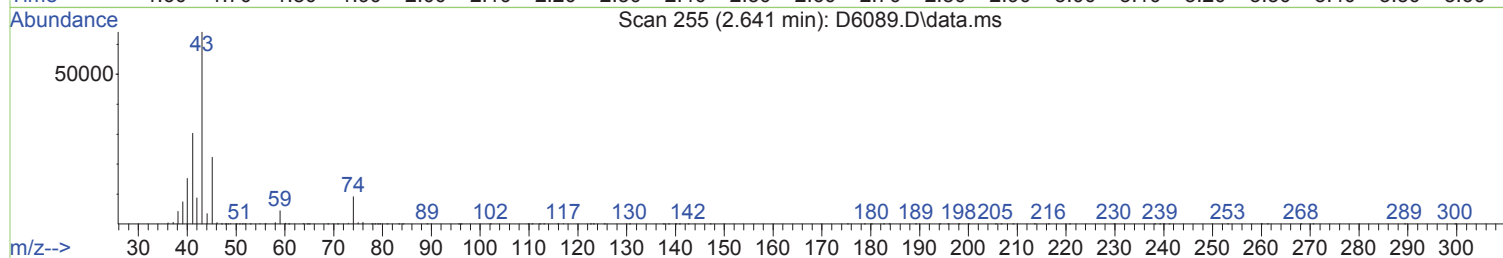
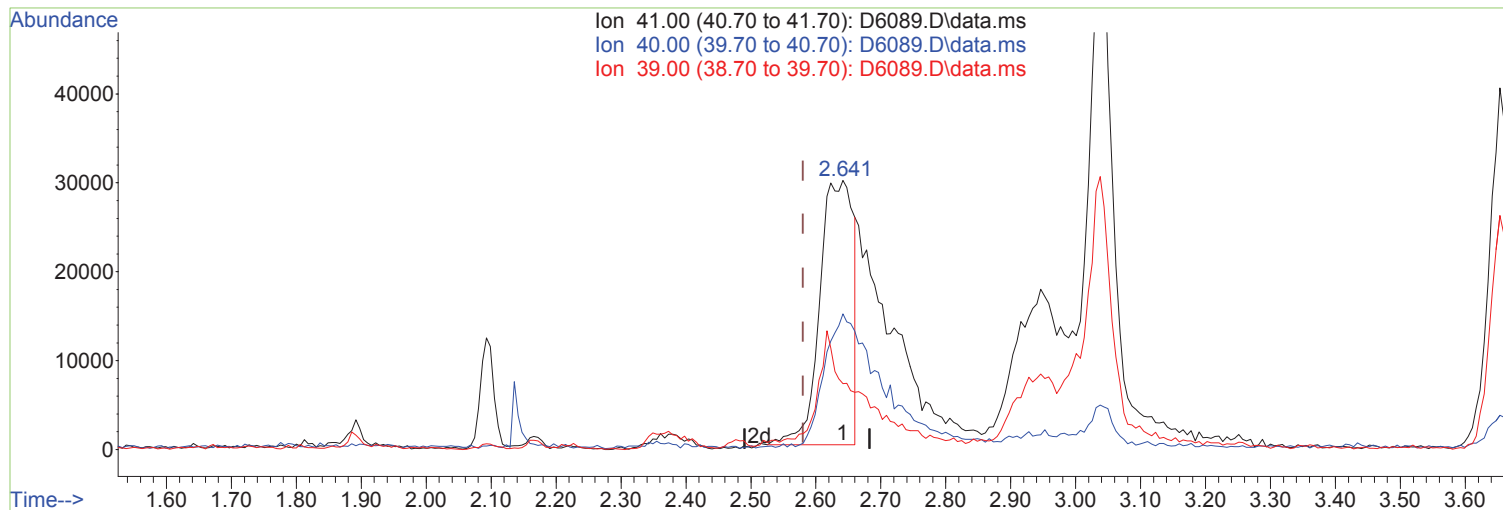
Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 21:12:44 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(19) Acetonitrile

Manual Integration:

2.641min (+0.061) 208.89 ug/L

Before

response 106042

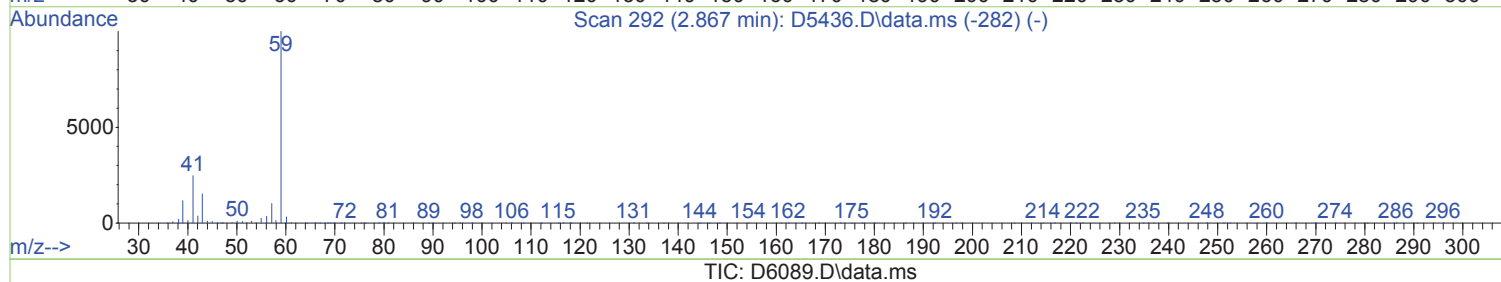
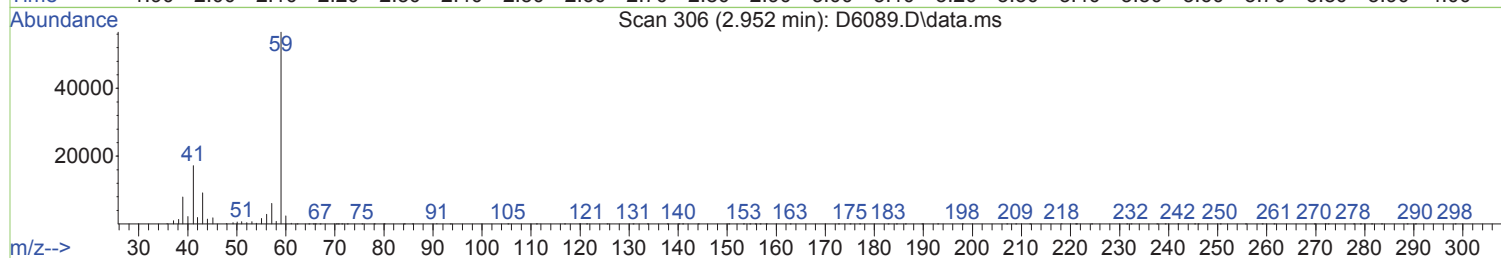
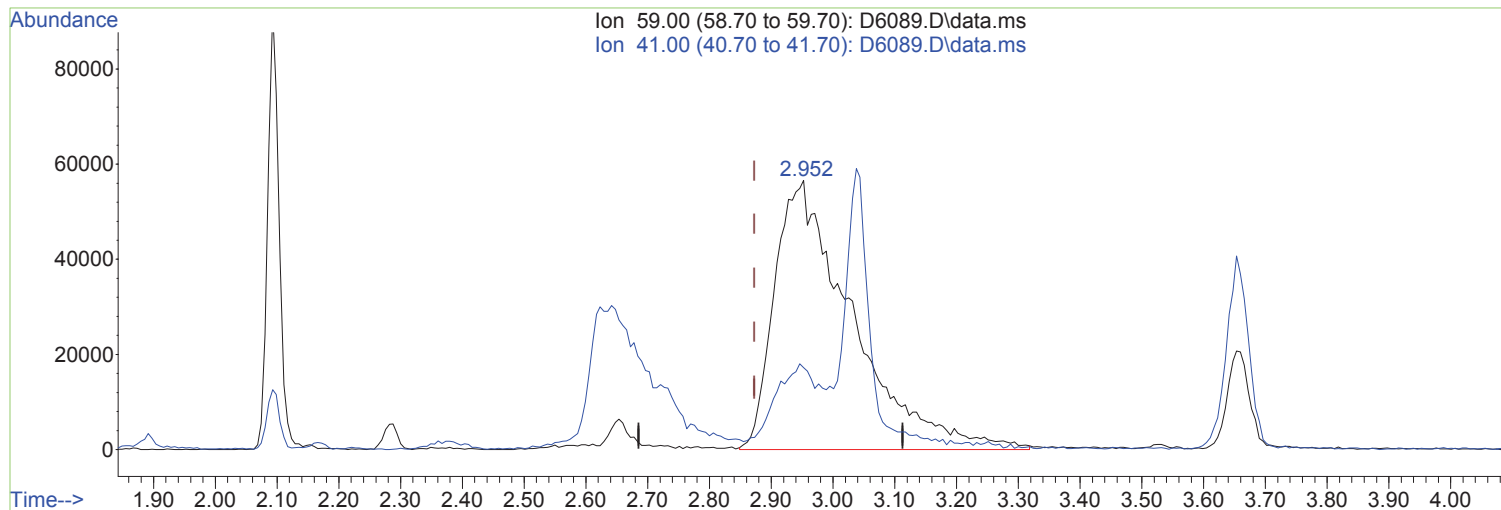
Ion	Exp%	Act%
41.00	100	100
40.00	49.60	50.38
39.00	20.20	24.45
0.00	0.00	0.00

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 21:12:44 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



(23) TBA

2.952min (+0.079) 1218.68 ug/L m

response 492955

Ion	Exp%	Act%
59.00	100	100
41.00	24.80	30.44
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Poor integration.

09/27/18

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6089.D
 Acq On : 24 Sep 2018 8:57 pm
 Operator : D.LIPANI
 Sample : R1809120-005DMS|1.0
 Misc : Verina 7979 T4
 ALS Vial : 33 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:42:08 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	237391	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	360184	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	314193	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	173814	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	112504	46.35	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	92.70%
46) surr1,1,2-dichloroetha...	5.781	65	160174	50.18	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	100.36%
64) SURR3,Toluene-d8	8.311	98	455160	46.25	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	92.50%
69) SURR2,BFB	10.878	95	173928	45.99	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	91.98%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.154	85	147430	46.51	ug/L	98
3) Chloromethane	1.282	50	99000	28.60	ug/L	93
4) Vinyl Chloride	1.361	62	156440	45.53	ug/L	90
5) Bromomethane	1.599	94	960	Below Cal	#	72
6) Chloroethane	1.672	64	133167	62.00	ug/L	98
7) Freon 21	1.812	67	276429	52.65	ug/L	99
8) Trichlorofluoromethane	1.861	101	219471	56.82	ug/L	98
9) Diethyl Ether	2.093	59	119008	54.42	ug/L	93
10) Freon 123a	2.099	67	155309	51.53	ug/L	94
11) Freon 123	2.148	83	208646	62.38	ug/L	95
12) Acrolein	2.202	56	8310	11.78	ug/L	80
13) 1,1-Dicethene	2.282	96	102970	47.06	ug/L	99
14) Freon 113	2.288	101	101452	46.54	ug/L	95
15) Acetone	2.355	43	143051	102.43	ug/L	93
16) 2-Propanol	2.404	45	659	2.44	ug/L	# 1
17) Iodomethane	2.422	142	450	1.93	ug/L	99
18) Carbon Disulfide	2.477	76	334488	56.06	ug/L	99
19) Acetonitrile	2.641	41	216318m	426.11	ug/L	
20) Allyl Chloride	2.617	76	4207	3.94	ug/L	# 1
21) Methyl Acetate	2.648	43	171222	61.52	ug/L	93
22) Methylene Chloride	2.733	84	119061	46.64	ug/L	# 89
23) TBA	2.952	59	492955m	1218.68	ug/L	
24) Acrylonitrile	3.001	53	396782	287.41	ug/L	96
25) Methyl-t-Butyl Ether	3.038	73	403481	49.71	ug/L	95
26) trans-1,2-Dichloroethene	3.032	96	118087	50.46	ug/L	97
27) 1,1-Dicethane	3.525	63	274276	59.80	ug/L	99
28) Vinyl Acetate	3.623	86	27656	52.38	ug/L	# 36
29) DIPE	3.660	45	524857	61.80	ug/L	95
30) 2-Chloro-1,3-Butadiene	3.653	53	195695	49.64	ug/L	96
31) ETBE	4.184	59	370003	48.11	ug/L	97
32) 2,2-Dichloropropane	4.361	77	145335	41.57	ug/L	99
33) cis-1,2-Dichloroethene	4.373	96	125773	48.23	ug/L	86
34) 2-Butanone	4.440	43	128483	68.05	ug/L	90
35) Propionitrile	4.537	54	158196	282.82	ug/L	98
36) Bromochloromethane	4.769	130	73707	45.74	ug/L	# 85
37) Methacrylonitrile	4.781	67	73778	54.82	ug/L	# 79
38) Tetrahydrofuran	4.879	42	69475	59.41	ug/L	86
39) Chloroform	4.952	83	213992	50.95	ug/L	95
40) 1,1,1-Trichloroethane	5.251	97	172968	48.78	ug/L	94

Data Path : I:\ACQUDATA\msvoa10\data\092418\

Data File : D6089.D

Acq On : 24 Sep 2018 8:57 pm

Operator : D.LIPANI

Sample : R1809120-005DMS|1.0

Inst : MSVOA10

Misc : Verina 7979 T4

ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 27 15:42:08 2018

Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M

Quant Title : MS#10 - 8260B WATERS 5.0mL Purge

QLast Update : Wed Aug 22 12:58:20 2018

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.342	41	162807	61.55	ug/L	95
44) Carbontetrachloride	5.531	117	129584	48.74	ug/L	99
45) 1,1-Dichloropropene	5.549	75	172205	51.15	ug/L	94
47) Benzene	5.866	78	497571	51.83	ug/L	96
48) 1,2-Dichloroethane	5.903	62	201507	52.76	ug/L	97
49) Iso-Butyl Alcohol	5.933	43	224475	1253.91	ug/L	97
50) TAME	6.104	73	364048	51.58	ug/L	93
51) n-Heptane	6.354	43	199219	61.33	ug/L	95
52) 1-Butanol	6.921	56	291027	2914.43	ug/L	99
53) Trichloroethene	6.817	130	121223	48.35	ug/L	96
54) Methylcyclohexane	7.055	55	190225	59.56	ug/L	92
55) 1,2-Dicloropropane	7.098	63	141109	52.84	ug/L	97
56) Dibromomethane	7.244	93	78052	49.14	ug/L	99
57) 1,4-Dioxane	7.397	88	37685	815.65	ug/L	88
58) Methyl Methacrylate	7.330	69	119631	57.19	ug/L	90
59) Bromodichloromethane	7.470	83	151480	51.18	ug/L	98
60) 2-Nitropropane	7.762	41	70185	140.01	ug/L	97
61) 2-Chloroethylvinyl Ether	7.878	63	93668	64.96	ug/L	90
63) 4-Methyl-2-pentanone	8.226	43	237619	68.24	ug/L	97
65) Toluene	8.384	91	523542	50.73	ug/L	98
66) trans-1,3-Dichloropropene	8.659	75	2184	0.66	ug/L	85
67) Ethyl Methacrylate	8.799	69	200106	58.49	ug/L	89
68) 1,1,2-Trichloroethane	8.841	97	112700	49.38	ug/L	98
71) Tetrachloroethene	8.982	164	92181	47.17	ug/L	97
72) 2-Hexanone	9.134	43	191284	72.17	ug/L	95
73) 1,3-Dichloropropane	9.012	76	213585	53.32	ug/L	91
74) Dibromochloromethane	9.238	129	101266	48.57	ug/L	99
75) N-Butyl Acetate	9.293	43	346192	68.91	ug/L	94
76) 1,2-Dibromoethane	9.335	107	108707	47.15	ug/L	95
77) 3-Chlorobenzotrifluoride	9.847	180	177908	50.48	ug/L	95
78) Chlorobenzene	9.829	112	321073	48.35	ug/L	98
79) 4-Chlorobenzotrifluoride	9.902	180	158425	50.51	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	103168	50.10	ug/L	94
81) Ethylbenzene	9.951	106	173852	50.00	ug/L #	90
82) (m+p)Xylene	10.061	106	435068	100.66	ug/L	99
83) o-Xylene	10.420	106	213016	49.55	ug/L	97
84) Styrene	10.433	104	359492	51.98	ug/L	97
85) Bromoform	10.585	173	70154	51.01	ug/L	96
86) 2-Chlorobenzotrifluoride	10.664	180	175891	51.75	ug/L	99
87) Isopropylbenzene	10.756	105	548398	50.25	ug/L	99
88) Cyclohexanone	10.829	55	734577	1404.18	ug/L	93
89) trans-1,4-Dichloro-2-B...	11.109	53	3655	5.52	ug/L #	1
91) 1,1,2,2-Tetrachloroethane	11.012	83	181339	54.91	ug/L	99
92) Bromobenzene	11.000	156	144168	49.59	ug/L	94
93) 1,2,3-Trichloropropane	11.042	110	53815	52.86	ug/L	97
94) n-Propylbenzene	11.109	91	673716	52.56	ug/L	99
95) 2-Chlorotoluene	11.170	91	392902	50.83	ug/L	98
96) 3-Chlorotoluene	11.225	91	386396	50.60	ug/L	97
97) 4-Chlorotoluene	11.268	91	454957	49.35	ug/L	95
98) 1,3,5-Trimethylbenzene	11.262	105	465573	52.28	ug/L	99
99) tert-Butylbenzene	11.536	119	398225	50.96	ug/L	99
100) 1,2,4-Trimethylbenzene	11.573	105	460924	51.98	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.634	214	144441	50.70	ug/L	97
102) sec-Butylbenzene	11.719	105	594148	52.59	ug/L	98
103) p-Isopropyltoluene	11.841	119	493876	51.22	ug/L	99
104) 1,3-Dclbenz	11.798	146	260881	48.79	ug/L	99

Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 27 15:42:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration

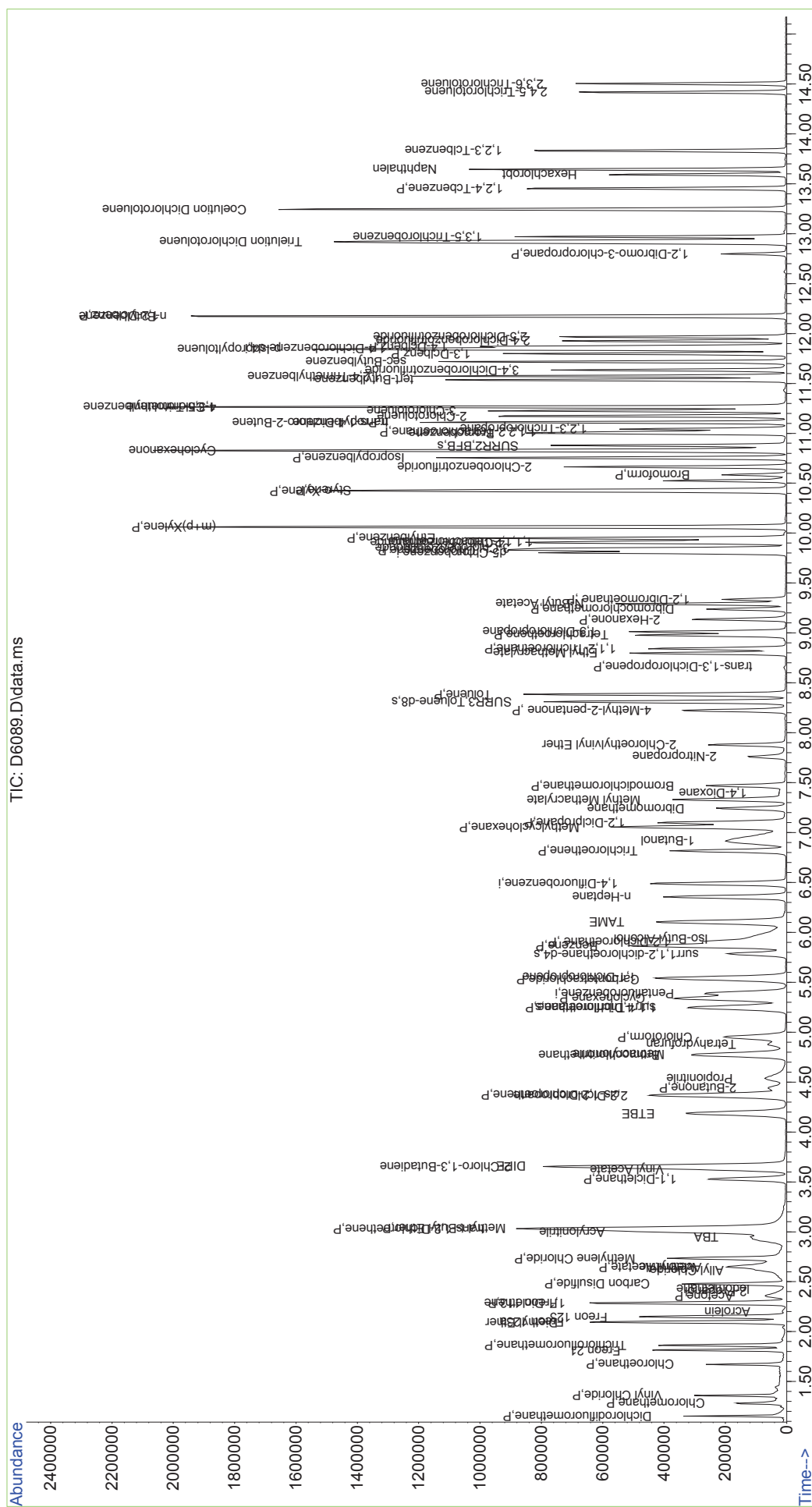
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105)	1,4-Dclbenz	11.871	146	263782	46.72	ug/L	98
106)	2,4-Dichlorobenzotrifl...	11.926	214	133985	52.74	ug/L	98
107)	2,5-Dichlorobenzotrifl...	11.969	214	154721	52.72	ug/L	98
108)	n-Butylbenzene	12.170	91	477252	51.77	ug/L	98
109)	1,2-Dclbenz	12.176	146	252752	46.59	ug/L	97
110)	1,2-Dibromo-3-chloropr...	12.798	157	33750	49.90	ug/L	96
111)	Trielution Dichlorotol...	12.920	125	672801	151.91	ug/L	99
112)	1,3,5-Trichlorobenzene	12.969	180	198868	50.58	ug/L	99
113)	Coelution Dichlorotoluene	13.243	125	491302	100.47	ug/L	94
114)	1,2,4-Tcbenzene	13.456	180	200515	52.00	ug/L	98
115)	Hexachlorobt	13.591	225	80044	47.49	ug/L	97
116)	Naphthalen	13.645	128	582007	58.22	ug/L	100
117)	1,2,3-Tclbenzene	13.834	180	195923	51.67	ug/L	97
118)	2,4,5-Trichlorotoluene	14.420	159	127551	52.99	ug/L	95
119)	2,3,6-Trichlorotoluene	14.505	159	120597	53.22	ug/L	94

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

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Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6089.D
Acq On : 24 Sep 2018 8:57 pm
Operator : D.LIPANI
Sample : R1809120-005DMS|1.0
Misc : Verina 7979 T4
ALS Vial : 33 Sample Multiplier: 1
```

Inst : MSVOA10

Quant Time: Sep 27 15:42:08 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6060.D
 Acq On : 24 Sep 2018 9:41 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:55:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	0.6676	0.5892	11.7	95	0.00
3 P	Chloromethane	0.7292	0.7434	-1.9	112	0.00
4 P	Vinyl Chloride	0.7238	0.6773	6.4	103	0.00
5 P	Bromomethane	0.6792	0.4887	28.0#	106	0.00
6 P	Chloroethane	0.4524	0.4477	1.0	107	0.00
7	Freon 21	1.1058	1.0732	2.9	112	0.00
8 P	Trichlorofluoromethane	0.8136	0.7576	6.9	105	0.00
9	Diethyl Ether	0.4606	0.4859	-5.5	113	0.00
10	Freon 123a	0.6348	0.6329	0.3	118	0.00
11	Freon 123	0.7045	0.7111	-0.9	120	0.00
12	Acrolein	0.1486	0.1229	17.3	89	0.00
13	1,1-Dicethene	0.4609	0.4540	1.5	108	0.00
14 P	Freon 113	0.4591	0.4581	0.2	111	0.00
15 P	Acetone	0.2941	0.3411	-16.0	130	0.00
16	2-Propanol	0.0569	0.0525	7.7	105	-0.02
17	Iodomethane	0.5454	0.6138	-12.5	96	0.00
18 P	Carbon Disulfide	1.2567	1.3406	-6.7	111	0.00
19	Acetonitrile	0.1069	0.1144	-7.0	122	0.00
20	Allyl Chloride	0.2247	0.2265	-0.8	110	0.00
21 P	Methyl Acetate	0.5862	0.6420	-9.5	123	0.00
22 P	Methylene Chloride	0.5377	0.5175	3.8	110	0.00
23	TBA	0.0852	0.0740	13.1	96	0.00
24	Acrylonitrile	0.2908	0.3128	-7.6	118	0.00
25 P	Methyl-t-Butyl Ether	1.7095	1.6946	0.9	108	0.00
26 P	trans-1,2-Dichloroethene	0.4929	0.5077	-3.0	109	0.00
27 P	1,1-Dicethane	0.9660	1.0254	-6.1	116	0.00
28	Vinyl Acetate	0.1112	0.1106	0.5	109	0.00
29	DIPE	1.7888	2.1470	-20.0#	132	0.00
30	2-Chloro-1,3-Butadiene	0.8303	0.9286	-11.8	122	0.00
31	ETBE	1.6197	1.6341	-0.9	111	0.00
32	2,2-Dichloropropane	0.7364	0.6375	13.4	91	0.00
33 P	cis-1,2-Dichloroethene	0.5493	0.5593	-1.8	109	0.00
34 P	2-Butanone	0.3977	0.4559	-14.6	133	0.00
35	Propionitrile	0.1178	0.1194	-1.4	114	0.00
36	Bromochloromethane	0.3394	0.3361	1.0	108	0.00
37	Methacrylonitrile	0.2835	0.2806	1.0	109	0.00
38	Tetrahydrofuran	0.2463	0.2689	-9.2	122	0.00
39 P	Chloroform	0.8846	0.9191	-3.9	111	0.00
40 P	1,1,1-Trichloroethane	0.7469	0.7358	1.5	107	0.00
41 i	1,4-Difluorobenzene	1.0000	1.0000	0.0	105	0.00
42 P	Cyclohexane	0.3672	0.4350	-18.5	138	0.00
43 s	surr4,Dibrflmethane	0.3369	0.3398	-0.9	100	0.00
44 P	Carbontetrachloride	0.3690	0.3722	-0.9	105	0.00
45	1,1-Dichloropropene	0.4674	0.4957	-6.1	113	0.00
46 s	surr1,1,2-dichloroethane-d4	0.4431	0.4704	-6.2	107	0.00
47 P	Benzene	1.3327	1.4077	-5.6	113	0.00
48 P	1,2-Dichloroethane	0.5302	0.5579	-5.2	116	0.00
49	Iso-Butyl Alcohol	0.0249	0.0250	-0.4	110	-0.01
50	TAME	0.9798	0.9898	-1.0	108	0.00
51	n-Heptane	0.4509	0.5959	-32.2#	139	0.00

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6060.D
 Acq On : 24 Sep 2018 9:41 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:55:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	0.0136	0.0140	-2.9	109	-0.01
53 P	Trichloroethene	0.3480	0.3343	3.9	106	0.00
54 P	Methylcyclohexane	0.4434	0.5120	-15.5	131	0.00
55 P	1,2-Dichloropropane	0.3707	0.4045	-9.1	115	0.00
56	Dibromomethane	0.2205	0.2275	-3.2	110	0.00
57	1,4-Dioxane	0.0064	0.0059	7.8	100	0.00
58	Methyl Methacrylate	0.2904	0.2979	-2.6	109	0.00
59 P	Bromodichloromethane	0.4109	0.4371	-6.4	111	0.00
60	2-Nitropropane	0.0696	0.1020	-46.6#	157	0.00
61	2-Chloroethylvinyl Ether	0.2002	0.2006	-0.2	104	0.00
62 P	cis-1,3-Dichloropropene	0.5039	0.5510	-9.3	106	0.00
63 P	4-Methyl-2-pentanone	0.4833	0.5322	-10.1	119	0.00
64 s	SURR3,Toluene-d8	1.3662	1.4369	-5.2	105	0.00
65 P	Toluene	1.4326	1.4958	-4.4	111	0.00
66 P	trans-1,3-Dichloropropene	0.4563	0.4728	-3.6	101	0.00
67	Ethyl Methacrylate	0.4749	0.5124	-7.9	111	0.00
68 P	1,1,2-Trichloroethane	0.3169	0.3222	-1.7	109	0.00
69 s	SURR2,BFB	0.5250	0.5744	-9.4	108	0.00
70 i	d5-Chlorobenzene	1.0000	1.0000	0.0	106	0.00
71 P	Tetrachloroethene	0.3110	0.3063	1.5	113	0.00
72 P	2-Hexanone	0.4218	0.4524	-7.3	120	0.00
73	1,3-Dichloropropane	0.6375	0.6518	-2.2	109	0.00
74 P	Dibromochloromethane	0.3318	0.3501	-5.5	109	0.00
75	N-Butyl Acetate	0.7995	0.8837	-10.5	119	0.00
76 P	1,2-Dibromoethane	0.3669	0.3764	-2.6	111	0.00
77	3-Chlorobenzotrifluoride	0.5609	0.5539	1.2	120	0.00
78 P	Chlorobenzene	1.0567	1.0421	1.4	108	0.00
79	4-Chlorobenzotrifluoride	0.4991	0.4899	1.8	118	0.00
80	1,1,1,2-Tetrachloroethane	0.3277	0.3350	-2.2	106	0.00
81 P	Ethylbenzene	0.5533	0.5513	0.4	108	0.00
82 P	(m+p)Xylene	0.6878	0.7081	-3.0	111	0.00
83 P	o-Xylene	0.6841	0.6812	0.4	108	0.00
84 P	Styrene	1.1007	1.1685	-6.2	108	0.00
85 P	Bromoform	0.2127	0.2358	-10.9	110	0.00
86	2-Chlorobenzotrifluoride	0.5409	0.5358	0.9	115	0.00
87 P	Isopropylbenzene	1.7367	1.8112	-4.3	109	0.00
88	Cyclohexanone	0.0833	0.0898	-7.8	111	0.00
89	trans-1,4-Dichloro-2-Butene	0.1183	0.1231	-4.1	103	0.00
90 i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	109	0.00
91 P	1,1,2,2-Tetrachloroethane	0.9501	0.9306	2.1	110	0.00
92	Bromobenzene	0.8364	0.7909	5.4	108	0.00
93	1,2,3-Trichloropropane	0.2929	0.2694	8.0	102	0.00
94	n-Propylbenzene	3.6871	3.8244	-3.7	113	0.00
95	2-Chlorotoluene	2.2238	2.1497	3.3	109	0.00
96	3-Chlorotoluene	2.1968	2.0447	6.9	111	0.00
97	4-Chlorotoluene	2.6522	2.5656	3.3	108	0.00
98	1,3,5-Trimethylbenzene	2.5618	2.5815	-0.8	109	0.00
99	tert-Butylbenzene	2.2480	2.2296	0.8	110	0.00
100	1,2,4-Trimethylbenzene	2.5509	2.5767	-1.0	110	0.00
101	3,4-Dichlorobenzotrifluorid	0.8195	0.8116	1.0	117	0.00

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6060.D
 Acq On : 24 Sep 2018 9:41 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:55:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	3.2497	3.3425	-2.9	112	0.00
103	p-Isopropyltoluene	2.7735	2.8138	-1.5	112	0.00
104 P	1,3-Dclbenz	1.5381	1.4890	3.2	109	0.00
105 P	1,4-Dclbenz	1.6241	1.5461	4.8	109	0.00
106	2,4-Dichlorobenzotrifluorid	0.7307	0.7567	-3.6	121	0.00
107	2,5-Dichlorobenzotrifluorid	0.8442	0.8088	4.2	115	0.00
108	n-Butylbenzene	2.6519	2.7418	-3.4	114	0.00
109 P	1,2-Dclbenz	1.5604	1.4623	6.3	108	0.00
110 P	1,2-Dibromo-3-chloropropane	0.1946	0.1669	14.2	95	0.00
111	Trielution Dichlorotoluene	1.2741	1.2092	5.1	110	0.00
112	1,3,5-Trichlorobenzene	1.1311	1.0886	3.8	113	0.00
113	Coelution Dichlorotoluene	1.4068	1.3423	4.6	108	0.00
114 P	1,2,4-Tcbenzene	1.1092	1.1300	-1.9	112	0.00
115	Hexachlorobt	0.4849	0.5041	-4.0	113	0.00
116	Naphthalen	2.8757	2.8030	2.5	102	0.00
117	1,2,3-Tclbenzene	1.0907	1.0512	3.6	109	0.00
118	2,4,5-Trichlorotoluene	0.6924	0.6882	0.6	105	0.00
119	2,3,6-Trichlorotoluene	0.6519	0.6197	4.9	106	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6060.D
 Acq On : 24 Sep 2018 9:41 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:55:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	229317	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	348015	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.804	117	314261	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	184693	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.238	113	118244	50.42	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	100.84%
46) surr1,1,2-dichloroetha...	5.781	65	163705	53.08	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	106.16%
64) SURR3,Toluene-d8	8.311	98	500065	52.59	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	105.18%
69) SURR2,BFB	10.877	95	199896	54.70	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	109.40%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.154	85	135113	44.13	ug/L	99
3) Chloromethane	1.282	50	170481	50.98	ug/L	95
4) Vinyl Chloride	1.361	62	155308	46.79	ug/L	98
5) Bromomethane	1.587	94	112060	41.02	ug/L	100
6) Chloroethane	1.666	64	102661	49.48	ug/L	96
7) Freon 21	1.812	67	246108	48.53	ug/L	99
8) Trichlorofluoromethane	1.861	101	173737	46.56	ug/L	98
9) Diethyl Ether	2.092	59	111415	52.74	ug/L	95
10) Freon 123a	2.099	67	145139	49.85	ug/L	97
11) Freon 123	2.147	83	163073	50.47	ug/L	99
12) Acrolein	2.190	56	140945	206.76	ug/L	97
13) 1,1-Dicethene	2.281	96	104110	49.25	ug/L	95
14) Freon 113	2.288	101	105044	49.89	ug/L	99
15) Acetone	2.324	43	78220	57.98	ug/L	99
16) 2-Propanol	2.464	45	240875	923.44	ug/L	93
17) Iodomethane	2.416	142	140754	50.80	ug/L	98
18) Carbon Disulfide	2.477	76	307412	53.34	ug/L	99
19) Acetonitrile	2.580	41	131203	267.55	ug/L	94
20) Allyl Chloride	2.617	76	51934	50.40	ug/L	# 73
21) Methyl Acetate	2.641	43	147230	54.76	ug/L	95
22) Methylene Chloride	2.733	84	118679	48.13	ug/L	# 88
23) TBA	2.867	59	339588	869.09	ug/L	92
24) Acrylonitrile	2.989	53	358658	268.94	ug/L	99
25) Methyl-t-Butyl Ether	3.037	73	388607	49.56	ug/L	99
26) trans-1,2-Dichloroethene	3.031	96	116423	51.50	ug/L	98
27) 1,1-Dicethane	3.525	63	235149	53.07	ug/L	98
28) Vinyl Acetate	3.623	86	25361	49.73	ug/L	# 83
29) DIPE	3.653	45	492352	60.01	ug/L	93
30) 2-Chloro-1,3-Butadiene	3.653	53	212938	55.92	ug/L	90
31) ETBE	4.184	59	374738	50.45	ug/L	98
32) 2,2-Dichloropropane	4.366	77	146194	43.29	ug/L	99
33) cis-1,2-Dichloroethene	4.373	96	128253	50.91	ug/L	93
34) 2-Butanone	4.415	43	104553	57.33	ug/L	91
35) Propionitrile	4.501	54	136872	253.31	ug/L	96
36) Bromochloromethane	4.769	130	77076	49.51	ug/L	90
37) Methacrylonitrile	4.769	67	64338	49.49	ug/L	# 81
38) Tetrahydrofuran	4.860	42	61671	54.59	ug/L	93
39) Chloroform	4.946	83	210768	51.95	ug/L	98
40) 1,1,1-Trichloroethane	5.250	97	168730	49.26	ug/L	98

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6060.D
 Acq On : 24 Sep 2018 9:41 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:55:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Cyclohexane	5.336	41	151378	59.23	ug/L	96
44) Carbontetrachloride	5.531	117	129548	50.43	ug/L	94
45) 1,1-Dichloropropene	5.543	75	172521	53.03	ug/L	96
47) Benzene	5.860	78	489911	52.81	ug/L	94
48) 1,2-Dichloroethane	5.903	62	194166	52.61	ug/L	96
49) Iso-Butyl Alcohol	5.884	43	173777	1004.66	ug/L	99
50) TAME	6.104	73	344460	50.51	ug/L	92
51) n-Heptane	6.354	43	207376	66.07	ug/L	92
52) 1-Butanol	6.854	56	242962	2566.87	ug/L	100
53) Trichloroethene	6.817	130	116330	48.03	ug/L	95
54) Methylcyclohexane	7.055	55	178190	57.74	ug/L	95
55) 1,2-Dicloropropane	7.098	63	140764	54.55	ug/L	94
56) Dibromomethane	7.244	93	79167	51.59	ug/L	99
57) 1,4-Dioxane	7.299	88	40985	918.10	ug/L	99
58) Methyl Methacrylate	7.329	69	103685	51.30	ug/L	93
59) Bromodichloromethane	7.470	83	152104	53.19	ug/L	98
60) 2-Nitropropane	7.756	41	70983	146.55	ug/L	98
61) 2-Chloroethylvinyl Ether	7.878	63	69828	50.12	ug/L	95
62) cis-1,3-Dichloropropene	8.012	75	191754	54.68	ug/L	100
63) 4-Methyl-2-pentanone	8.219	43	185220	55.06	ug/L	95
65) Toluene	8.384	91	520560	52.21	ug/L	100
66) trans-1,3-Dichloropropene	8.652	75	164545	51.81	ug/L	99
67) Ethyl Methacrylate	8.799	69	178317	53.94	ug/L	91
68) 1,1,2-Trichloroethane	8.841	97	112141	50.85	ug/L	97
71) Tetrachloroethene	8.975	164	96243	49.24	ug/L	94
72) 2-Hexanone	9.134	43	142162	53.63	ug/L	97
73) 1,3-Dichloropropane	9.012	76	204847	51.13	ug/L	92
74) Dibromochloromethane	9.237	129	110017	52.76	ug/L	100
75) N-Butyl Acetate	9.292	43	277714	55.27	ug/L	94
76) 1,2-Dibromoethane	9.335	107	118293	51.29	ug/L	98
77) 3-Chlorobenzotrifluoride	9.847	180	174064	49.38	ug/L	98
78) Chlorobenzene	9.829	112	327484	49.31	ug/L	96
79) 4-Chlorobenzotrifluoride	9.902	180	153944	49.07	ug/L	97
80) 1,1,1,2-Tetrachloroethane	9.920	131	105279	51.11	ug/L	97
81) Ethylbenzene	9.951	106	173263	49.82	ug/L #	89
82) (m+p)Xylene	10.067	106	445047	102.94	ug/L	94
83) o-Xylene	10.420	106	214084	49.79	ug/L	98
84) Styrene	10.432	104	367205	53.08	ug/L	97
85) Bromoform	10.585	173	74099	53.41	ug/L	92
86) 2-Chlorobenzotrifluoride	10.664	180	168369	49.53	ug/L	97
87) Isopropylbenzene	10.755	105	569183	52.14	ug/L	100
88) Cyclohexanone	10.816	55	564634	1079.09	ug/L	95
89) trans-1,4-Dichloro-2-B...	11.066	53	38679	49.74	ug/L	90
91) 1,1,2,2-Tetrachloroethane	11.018	83	171878	48.98	ug/L	97
92) Bromobenzene	11.099	156	146074	47.28	ug/L	95
93) 1,2,3-Trichloropropane	11.042	110	49757	45.99	ug/L #	85
94) n-Propylbenzene	11.109	91	706348	51.86	ug/L	99
95) 2-Chlorotoluene	11.176	91	397038	48.34	ug/L	99
96) 3-Chlorotoluene	11.225	91	377635	46.54	ug/L	97
97) 4-Chlorotoluene	11.268	91	473850	48.37	ug/L	98
98) 1,3,5-Trimethylbenzene	11.261	105	476794	50.38	ug/L	99
99) tert-Butylbenzene	11.536	119	411796	49.59	ug/L	99
100) 1,2,4-Trimethylbenzene	11.572	105	475891	50.51	ug/L	99
101) 3,4-Dichlorobenzotrifl...	11.633	214	149888	49.52	ug/L	94
102) sec-Butylbenzene	11.719	105	617335	51.43	ug/L	98
103) p-Isopropyltoluene	11.841	119	519687	50.73	ug/L	99

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6060.D
 Acq On : 24 Sep 2018 9:41 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:55:38 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104)	1,3-Dclbenz	11.798	146	275017	48.40	ug/L	97
105)	1,4-Dclbenz	11.871	146	285557	47.60	ug/L	99
106)	2,4-Dichlorobenzotrifl...	11.926	214	139764	51.78	ug/L	97
107)	2,5-Dichlorobenzotrifl...	11.969	214	149382	47.90	ug/L	95
108)	n-Butylbenzene	12.176	91	506396	51.70	ug/L	98
109)	1,2-Dclbenz	12.176	146	270080	46.86	ug/L	99
110)	1,2-Dibromo-3-chloropr...	12.798	157	30824	42.89	ug/L	93
111)	Trielution Dichlorotol...	12.920	125	670012	142.37	ug/L	96
112)	1,3,5-Trichlorobenzene	12.975	180	201057	48.12	ug/L	98
113)	Coelution Dichlorotoluene	13.249	125	495812	95.42	ug/L	97
114)	1,2,4-Tcbenzene	13.456	180	208704	50.94	ug/L	97
115)	Hexachlorobt	13.596	225	93109	51.98	ug/L	94
116)	Naphthalen	13.645	128	517686	48.73	ug/L	98
117)	1,2,3-Tclbenzene	13.834	180	194148	48.19	ug/L	97
118)	2,4,5-Trichlorotoluene	14.419	159	127098	49.69	ug/L	98
119)	2,3,6-Trichlorotoluene	14.505	159	114452	47.53	ug/L	97

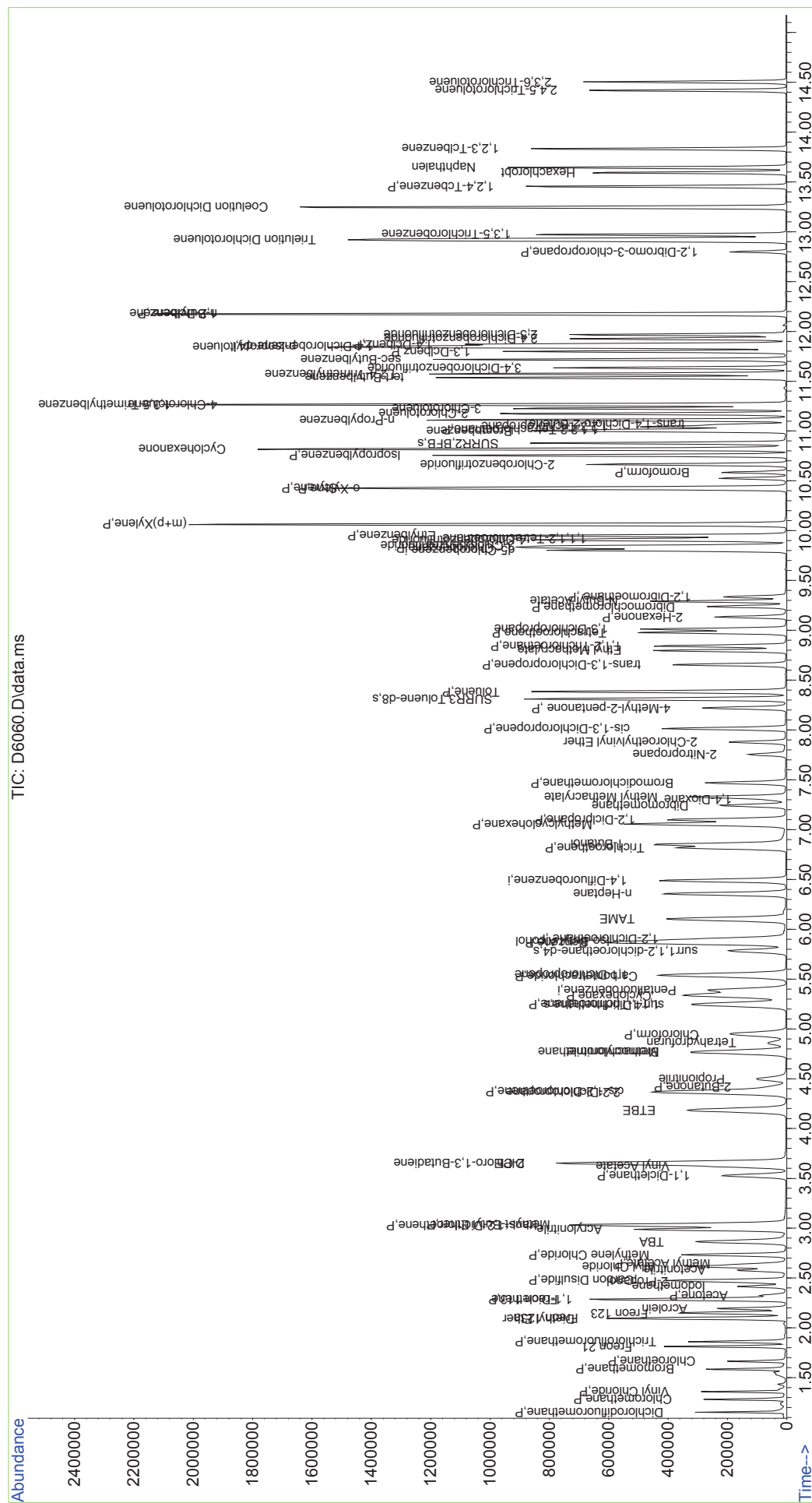
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data Path : I:\ACQUDATA\msvoa10\data\092418\
Data File : D6060.D
Acq On : 24 Sep 2018 9:41 am
Operator : D.LIPANI
Sample : CCV
Misc :
ALS Vial : 4 Sample Multiplier: 1
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Inst : MSVOA10

ALS Vial : 4 Sample Multiplier: 1

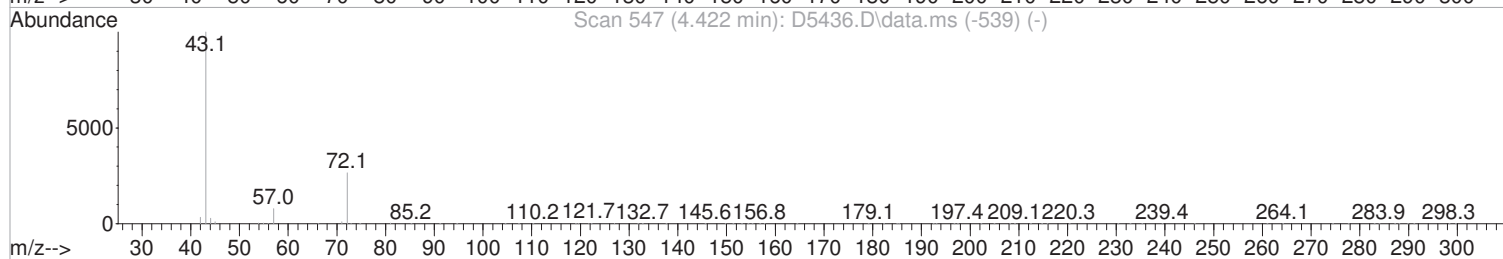
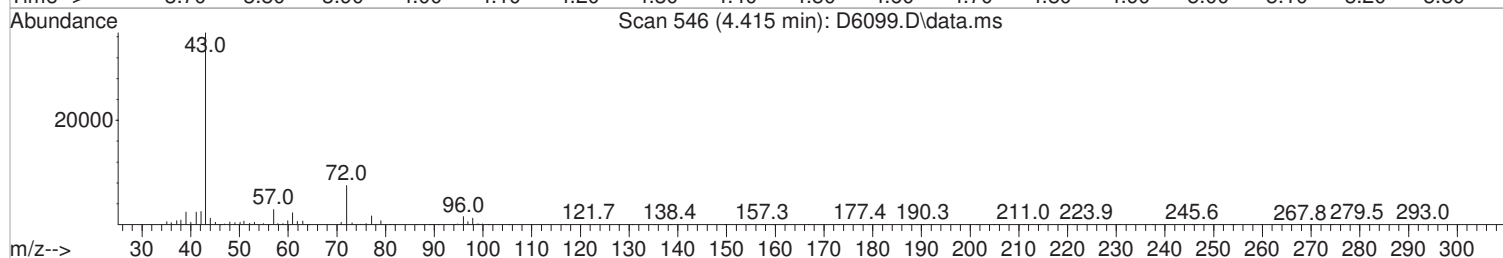
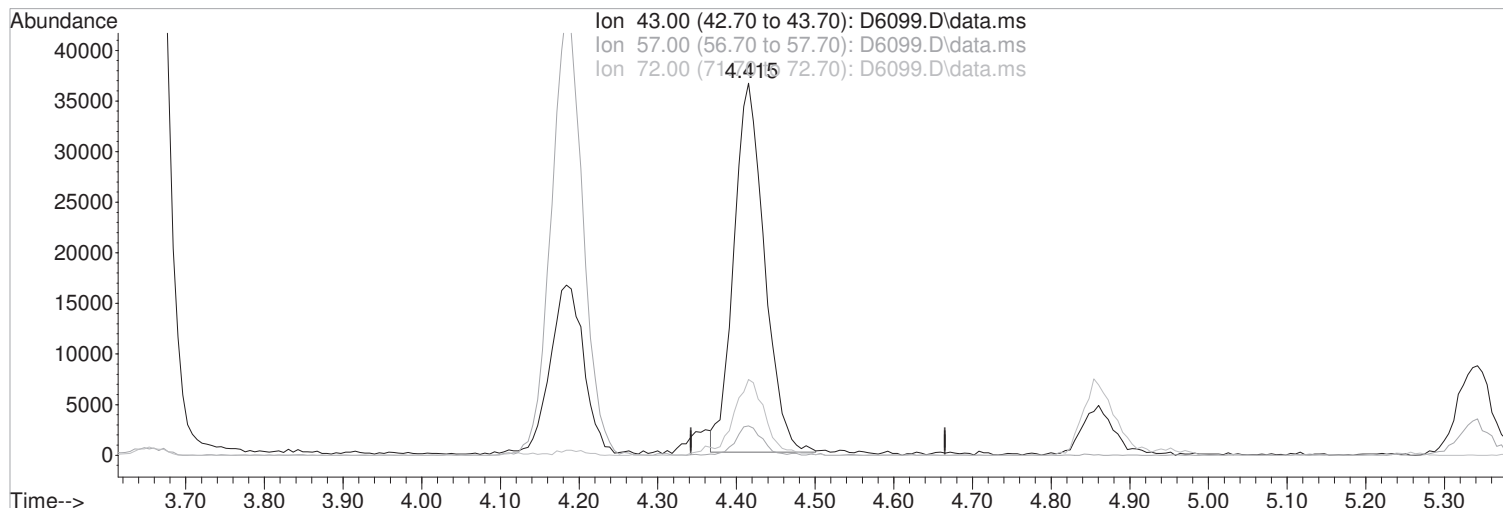
Quant Time: Sep 24 09:55:38 2018
Quant Method : I:\ACQDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV
Misc :
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:51:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6099.D\data.ms

(34) 2-Butanone (P)

4.415min (+0.000) 57.89 ug/L m

response 98613

Ion	Exp%	Act%
43.00	100	100
57.00	7.80	7.92
72.00	25.10	20.40
0.00	0.00	0.00

Manual Integration:

After

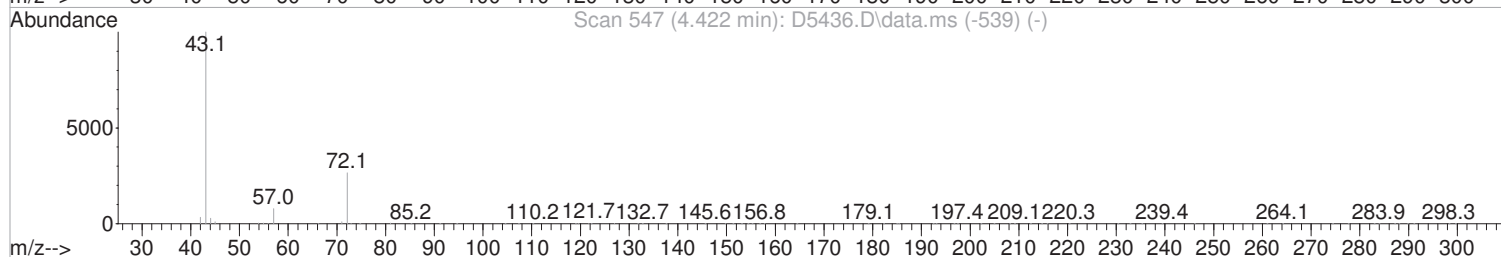
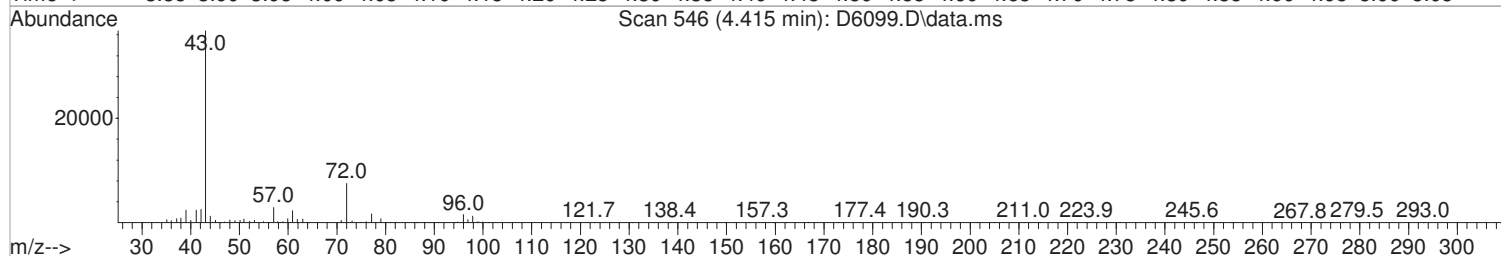
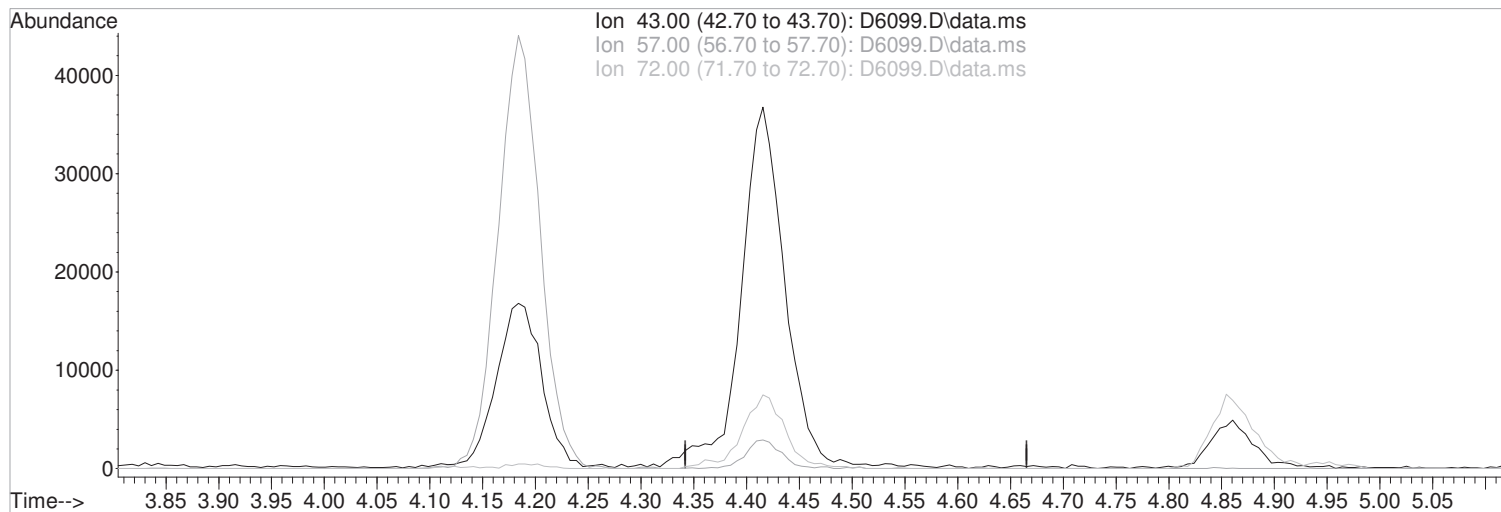
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09/25/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
Data File : D6099.D
Acq On : 25 Sep 2018 10:36 am
Operator : D.LIPANI
Sample : CCV
Misc :
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:51:29 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



TIC: D6099.D\data.ms

(34) 2-Butanone (P)

Manual Integration:

4.415min (-4.415) 0.00 ug/L

Before

response 0

Ion	Exp%	Act%
43.00	100	0.00
57.00	7.80	0.00
72.00	25.10	0.00#
0.00	0.00	0.00

09/25/18

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6099.D
 Acq On : 25 Sep 2018 10:36 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:58:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	99	0.00
2 P	Dichlorodifluoromethane	0.6676	0.6096	8.7	92	0.00
3 P	Chloromethane	0.7292	0.8033	-10.2	113	0.00
4 P	Vinyl Chloride	0.7238	0.7201	0.5	102	0.00
5 P	Bromomethane	0.6792	0.5060	-15.4	25.5#	102 0.00
6 P	Chloroethane	0.4524	0.4418	2.3	98	0.00
7	Freon 21	1.1058	1.0826	2.1	106	0.00
8 P	Trichlorofluoromethane	0.8136	0.7922	2.6	103	0.00
9	Diethyl Ether	0.4606	0.5108	-10.9	111	0.00
10	Freon 123a	0.6348	0.6769	-6.6	118	0.00
11	Freon 123	0.7045	0.7040	0.1	111	0.00
12	Acrolein	0.1486	0.1633	-9.9	111	0.00
13	1,1-Dicethene	0.4609	0.4744	-2.9	105	0.00
14 P	Freon 113	0.4591	0.4835	-5.3	109	0.00
15 P	Acetone	0.2941	0.3517	-19.6	125	0.00
16	2-Propanol	0.0569	0.0542	4.7	101	-0.02
17	Iodomethane	0.5454	0.6048	+0.3	-10.9	89 0.00
18 P	Carbon Disulfide	1.2567	1.4454	-15.0	112	0.00
19	Acetonitrile	0.1069	0.1257	-17.6	125	0.00
20	Allyl Chloride	0.2247	0.2193	2.4	100	0.00
21 P	Methyl Acetate	0.5862	0.6717	-14.6	121	0.00
22 P	Methylene Chloride	0.5377	0.5612	-4.4	111	0.00
23	TBA	0.0852	0.0792	7.0	95	0.00
24	Acrylonitrile	0.2908	0.3340	-14.9	117	0.00
25 P	Methyl-t-Butyl Ether	1.7095	1.7817	-4.2	106	0.00
26 P	trans-1,2-Dichloroethene	0.4929	0.5336	-8.3	107	0.00
27 P	1,1-Dicethane	0.9660	1.0740	-11.2	113	0.00
28	Vinyl Acetate	0.1112	0.1144	-2.9	106	0.00
29	DIPE	1.7888	2.3365	-30.6#	134	0.00 NT
30	2-Chloro-1,3-Butadiene	0.8303	1.0295	-24.0#	126	0.00 (1)
31	ETBE	1.6197	1.7486	-8.0	111	0.00
32	2,2-Dichloropropane	0.7364	0.6615	10.2	88	0.00
33 P	cis-1,2-Dichloroethene	0.5493	0.5820	-6.0	106	0.00
34 P	2-Butanone	0.3977	0.4604	-15.8	125	0.00
35	Propionitrile	0.1178	0.1320	-12.1	117	0.00
36	Bromochloromethane	0.3394	0.3531	-4.0	106	0.00
37	Methacrylonitrile	0.2835	0.2974	-4.9	108	0.00
38	Tetrahydrofuran	0.2463	0.2941	-19.4	124	0.00
39 P	Chloroform	0.8846	0.9686	-9.5	110	0.00
40 P	1,1,1-Trichloroethane	0.7469	0.7500	-0.4	102	0.00
41 i	1,4-Difluorobenzene	1.0000	1.0000	0.0	99	0.00
42 P	Cyclohexane	0.3672	0.4379	-19.3	132	0.00
43 s	surr4,Dibrflmethane	0.3369	0.3240	3.8	90	0.00
44 P	Carbontetrachloride	0.3690	0.3806	-3.1	101	0.00
45	1,1-Dichloropropene	0.4674	0.5097	-9.1	110	0.00
46 s	surr1,1,2-dichloroethane-d4	0.4431	0.4472	-0.9	96	0.00
47 P	Benzene	1.3327	1.4479	-8.6	110	0.00
48 P	1,2-Dichloroethane	0.5302	0.5938	-12.0	117	0.00
49	Iso-Butyl Alcohol	0.0249	0.0269	-8.0	113	-0.01
50	TAME	0.9798	1.0332	-5.5	107	0.00
51	n-Heptane	0.4509	0.6295	-39.6#	139	0.00 NT

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6099.D
 Acq On : 25 Sep 2018 10:36 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:58:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	0.0136	0.0149	-9.6	110	-0.01
53 P	Trichloroethene	0.3480	0.3448	0.9	103	0.00
54 P	Methylcyclohexane	0.4434	0.5143	-16.0	124	0.00
55 P	1,2-Dichloropropane	0.3707	0.4075	-9.9	110	0.00
56	Dibromomethane	0.2205	0.2381	-8.0	109	0.00
57	1,4-Dioxane	0.0064	0.0061	4.7	99	0.00
58	Methyl Methacrylate	0.2904	0.3084	-6.2	107	0.00
59 P	Bromodichloromethane	0.4109	0.4538	-10.4	109	0.00
60	2-Nitropropane	0.0696	0.0966	-38.8#	141	0.00 NT
61	2-Chloroethylvinyl Ether	0.2002	0.2050	-2.4	100	0.00
62 P	cis-1,3-Dichloropropene	0.5039	0.5743	-14.0	105	0.00
63 P	4-Methyl-2-pentanone	0.4833	0.5688	-17.7	120	0.00
64 s	SURR3,Toluene-d8	1.3662	1.3265	2.9	92	0.00
65 P	Toluene	1.4326	1.5567	-8.7	109	0.00
66 P	trans-1,3-Dichloropropene	0.4563	0.4801	-5.2	97	0.00
67	Ethyl Methacrylate	0.4749	0.5291	-11.4	108	0.00
68 P	1,1,2-Trichloroethane	0.3169	0.3246	-2.4	104	0.00
69 s	SURR2,BFB	0.5250	0.5309	-1.1	95	0.00
70 i	d5-Chlorobenzene	1.0000	1.0000	0.0	98	0.00
71 P	Tetrachloroethene	0.3110	0.3139	-0.9	108	0.00
72 P	2-Hexanone	0.4218	0.4670	-10.7	115	0.00
73	1,3-Dichloropropane	0.6375	0.6903	-8.3	107	0.00
74 P	Dibromochloromethane	0.3318	0.3539	-6.7	103	0.00
75	N-Butyl Acetate	0.7995	0.9313	-16.5	117	0.00
76 P	1,2-Dibromoethane	0.3669	0.3807	-3.8	104	0.00
77	3-Chlorobenzotrifluoride	0.5609	0.6155	-9.7	124	0.00
78 P	Chlorobenzene	1.0567	1.0950	-3.6	105	0.00
79	4-Chlorobenzotrifluoride	0.4991	0.5585	-11.9	125	0.00
80	1,1,1,2-Tetrachloroethane	0.3277	0.3513	-7.2	103	0.00
81 P	Ethylbenzene	0.5533	0.5867	-6.0	106	0.00
82 P	(m+p)Xylene	0.6878	0.7486	-8.8	109	0.00
83 P	o-Xylene	0.6841	0.7178	-4.9	106	0.00
84 P	Styrene	1.1007	1.2476	-13.3	107	0.00
85 P	Bromoform	0.2127	0.2398	+8.3	~~12.7~~	104 0.00
86	2-Chlorobenzotrifluoride	0.5409	0.5893	-8.9	118	0.00
87 P	Isopropylbenzene	1.7367	1.9161	-10.3	107	0.00
88	Cyclohexanone	0.0833	0.0954	-14.5	110	0.00
89	trans-1,4-Dichloro-2-Butene	0.1183	0.1330	+6.7	~~12.4~~	104 0.00
90 i	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	101	0.00
91 P	1,1,2,2-Tetrachloroethane	0.9501	1.0052	-5.8	110	0.00
92	Bromobenzene	0.8364	0.8344	0.2	105	0.00
93	1,2,3-Trichloropropane	0.2929	0.2867	2.1	100	0.00
94	n-Propylbenzene	3.6871	4.1053	-11.3	112	0.00
95	2-Chlorotoluene	2.2238	2.2954	-3.2	108	0.00
96	3-Chlorotoluene	2.1968	2.2896	-4.2	116	0.00
97	4-Chlorotoluene	2.6522	2.8303	-6.7	111	0.00
98	1,3,5-Trimethylbenzene	2.5618	2.7739	-8.3	108	0.00
99	tert-Butylbenzene	2.2480	2.3674	-5.3	109	0.00
100	1,2,4-Trimethylbenzene	2.5509	2.7159	-6.5	108	0.00
101	3,4-Dichlorobenzotrifluorid	0.8195	0.9011	-10.0	121	0.00

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6099.D
 Acq On : 25 Sep 2018 10:36 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:58:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 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	3.2497	3.5853	-10.3	111	0.00
103	p-Isopropyltoluene	2.7735	2.9858	-7.7	110	0.00
104 P	1,3-Dclbenz	1.5381	1.5831	-2.9	107	0.00
105 P	1,4-Dclbenz	1.6241	1.6159	0.5	106	0.00
106	2,4-Dichlorobenzotrifluorid	0.7307	0.8157	-11.6	121	0.00
107	2,5-Dichlorobenzotrifluorid	0.8442	0.9149	-8.4	121	0.00
108	n-Butylbenzene	2.6519	2.9501	-11.2	113	0.00
109 P	1,2-Dclbenz	1.5604	1.5172	2.8	104	0.00
110 P	1,2-Dibromo-3-chloropropane	0.1946	0.1715	11.9	90	0.00
111	Trielution Dichlorotoluene	1.2741	1.3465	-5.7	113	0.00
112	1,3,5-Trichlorobenzene	1.1311	1.2013	-6.2	116	0.00
113	Coelution Dichlorotoluene	1.4068	1.4725	-4.7	110	0.00
114 P	1,2,4-Tcbenzene	1.1092	1.1833	-6.7	109	0.00
115	Hexachlorobt	0.4849	0.5409	-11.5	112	0.00
116	Naphthalen	2.8757	3.0313	-5.4	102	0.00
117	1,2,3-Tclbenzene	1.0907	1.1130	-2.0	106	0.00
118	2,4,5-Trichlorotoluene	0.6924	0.7666	-10.7	108	0.00
119	2,3,6-Trichlorotoluene	0.6519	0.7099	-8.9	113	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6099.D
 Acq On : 25 Sep 2018 10:36 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:58:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) Pentafluorobenzene	5.391	168	214177	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	329483	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	291886	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	171125	50.00	ug/L	0.00

System Monitoring Compounds						
43) surr4,Dibrflmethane	5.245	113	106739	48.07	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	96.14%
46) surr1,1,2-dichloroetha...	5.787	65	147360	50.47	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	100.94%
64) SURR3,Toluene-d8	8.311	98	437069	48.55	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	97.10%
69) SURR2,BFB	10.878	95	174931	50.56	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	101.12%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.154	85	130566	45.66	ug/L	98
3) Chloromethane	1.282	50	172042	55.08	ug/L	93
4) Vinyl Chloride	1.361	62	154236	49.75	ug/L	97
5) Bromomethane	1.587	94	108382	42.30	ug/L	99
6) Chloroethane	1.666	64	94632	48.83	ug/L	94
7) Freon 21	1.812	67	231863	48.95	ug/L	99
8) Trichlorofluoromethane	1.861	101	169669	48.68	ug/L	100
9) Diethyl Ether	2.093	59	109400	55.45	ug/L	93
10) Freon 123a	2.099	67	144972	53.32	ug/L	94
11) Freon 123	2.148	83	150780	49.96	ug/L	99
12) Acrolein	2.196	56	174923	274.75	ug/L	97
13) 1,1-Dicethene	2.282	96	101605	51.47	ug/L	91
14) Freon 113	2.294	101	103559	52.66	ug/L	97
15) Acetone	2.324	43	75331	59.79	ug/L	91
16) 2-Propanol	2.465	45	232117	952.77	ug/L	96
17) Iodomethane	2.416	142	129543	50.16	ug/L	97
18) Carbon Disulfide	2.477	76	309578	57.51	ug/L	97
19) Acetonitrile	2.574	41	134634	293.95	ug/L	95
20) Allyl Chloride	2.617	76	46970	48.80	ug/L	# 69
21) Methyl Acetate	2.635	43	143857	57.29	ug/L	96
22) Methylene Chloride	2.733	84	120204	52.19	ug/L	92
23) TBA	2.867	59	339358	929.89	ug/L	91
24) Acrylonitrile	2.989	53	357709	287.19	ug/L	98
25) Methyl-t-Butyl Ether	3.038	73	381592	52.11	ug/L	97
26) trans-1,2-Dichloroethene	3.032	96	114287	54.13	ug/L	97
27) 1,1-Dicethane	3.531	63	230024	55.59	ug/L	98
28) Vinyl Acetate	3.623	86	24506	51.45	ug/L	# 36
29) DIPE	3.653	45	500428	65.31	ug/L	94
30) 2-Chloro-1,3-Butadiene	3.653	53	220490	61.99	ug/L	93
31) ETBE	4.184	59	374503	53.98	ug/L	97
32) 2,2-Dichloropropane	4.367	77	141669	44.91	ug/L	98
33) cis-1,2-Dichloroethene	4.367	96	124655	52.98	ug/L	92
34) 2-Butanone	4.415	43	98613m	57.89	ug/L	
35) Propionitrile	4.501	54	141405	280.20	ug/L	95
36) Bromochloromethane	4.769	130	75619	52.01	ug/L	86
37) Methacrylonitrile	4.769	67	63690	52.45	ug/L	# 79
38) Tetrahydrofuran	4.861	42	62983	59.70	ug/L	91
39) Chloroform	4.952	83	207454	54.75	ug/L	93
40) 1,1,1-Trichloroethane	5.257	97	160642	50.21	ug/L	97

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6099.D
 Acq On : 25 Sep 2018 10:36 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:58:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
42) Cyclohexane	5.336	41	144276	59.63	ug/L	98
44) Carbontetrachloride	5.531	117	125388	51.56	ug/L	94
45) 1,1-Dichloropropene	5.543	75	167928	54.52	ug/L	95
47) Benzene	5.860	78	477073	54.32	ug/L	94
48) 1,2-Dichloroethane	5.903	62	195633	55.99	ug/L	96
49) Iso-Butyl Alcohol	5.885	43	177196	1082.04	ug/L	100
50) TAME	6.104	73	340417	52.73	ug/L	93
51) n-Heptane	6.354	43	207407	69.80	ug/L	94
52) 1-Butanol	6.854	56	245150	2713.48	ug/L	99
53) Trichloroethene	6.817	130	113597	49.53	ug/L	98
54) Methylcyclohexane	7.055	55	169452	58.00	ug/L	92
55) 1,2-Diclpropane	7.104	63	134255	54.95	ug/L	96
56) Dibromomethane	7.244	93	78458	54.00	ug/L	93
57) 1,4-Dioxane	7.299	88	40404	955.99	ug/L	85
58) Methyl Methacrylate	7.330	69	101619	53.10	ug/L	93
59) Bromodichloromethane	7.470	83	149509	55.22	ug/L	99
60) 2-Nitropropane	7.756	41	63644	138.79	ug/L	94
61) 2-Chloroethylvinyl Ether	7.878	63	67557	51.21	ug/L	92
62) cis-1,3-Dichloropropene	8.012	75	189211	56.99	ug/L	98
63) 4-Methyl-2-pentanone	8.220	43	187422	58.84	ug/L	94
65) Toluene	8.384	91	512918	54.33	ug/L	96
66) trans-1,3-Dichloropropene	8.652	75	158188	52.61	ug/L	96
67) Ethyl Methacrylate	8.799	69	174317	55.70	ug/L	94
68) 1,1,2-Trichloroethane	8.841	97	106964	51.23	ug/L	93
71) Tetrachloroethene	8.982	164	91622	50.47	ug/L	96
72) 2-Hexanone	9.134	43	136317	55.36	ug/L	95
73) 1,3-Dichloropropane	9.012	76	201487	54.14	ug/L	90
74) Dibromochloromethane	9.238	129	103305	53.34	ug/L	99
75) N-Butyl Acetate	9.293	43	271842	58.24	ug/L	94
76) 1,2-Dibromoethane	9.335	107	111120	51.88	ug/L	100
77) 3-Chlorobenzotrifluoride	9.847	180	179644	54.87	ug/L	98
78) Chlorobenzene	9.829	112	319614	51.81	ug/L	94
79) 4-Chlorobenzotrifluoride	9.902	180	163004	55.94	ug/L	99
80) 1,1,1,2-Tetrachloroethane	9.914	131	102539	53.60	ug/L	94
81) Ethylbenzene	9.951	106	171240	53.01	ug/L	93
82) (m+p)Xylene	10.061	106	436998	108.83	ug/L	100
83) o-Xylene	10.420	106	209512	52.46	ug/L	97
84) Styrene	10.433	104	364169	56.68	ug/L	99
85) Bromoform	10.585	173	69994	54.17	ug/L	96
86) 2-Chlorobenzotrifluoride	10.664	180	172013	54.48	ug/L	98
87) Isopropylbenzene	10.756	105	559283	55.17	ug/L	99
88) Cyclohexanone	10.817	55	556952	1146.01	ug/L	95
89) trans-1,4-Dichloro-2-B...	11.061	53	38830	53.35	ug/L	84
91) 1,1,2,2-Tetrachloroethane	11.018	83	172013	52.90	ug/L	97
92) Bromobenzene	11.000	156	142781	49.88	ug/L	90
93) 1,2,3-Trichloropropane	11.042	110	49055	48.94	ug/L	# 86
94) n-Propylbenzene	11.109	91	702511	55.67	ug/L	98
95) 2-Chlorotoluene	11.176	91	392803	51.61	ug/L	99
96) 3-Chlorotoluene	11.225	91	391800	52.11	ug/L	97
97) 4-Chlorotoluene	11.268	91	484341	53.36	ug/L	96
98) 1,3,5-Trimethylbenzene	11.262	105	474684	54.14	ug/L	98
99) tert-Butylbenzene	11.536	119	405116	52.66	ug/L	100
100) 1,2,4-Trimethylbenzene	11.573	105	464766	53.24	ug/L	100
101) 3,4-Dichlorobenzotrifl...	11.634	214	154208	54.98	ug/L	97
102) sec-Butylbenzene	11.719	105	613528	55.16	ug/L	99
103) p-Isopropyltoluene	11.841	119	510943	53.83	ug/L	98

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6099.D
 Acq On : 25 Sep 2018 10:36 am
 Operator : D.LIPANI
 Sample : CCV
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 25 10:58:06 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
104)	1,3-Dclbenz	11.798	146	270905	51.46	ug/L	100
105)	1,4-Dclbenz	11.871	146	276517	49.75	ug/L	99
106)	2,4-Dichlorobenzotrifl...	11.926	214	139591	55.81	ug/L	96
107)	2,5-Dichlorobenzotrifl...	11.969	214	156564	54.19	ug/L	99
108)	n-Butylbenzene	12.176	91	504832	55.62	ug/L	98
109)	1,2-Dclbenz	12.176	146	259624	48.61	ug/L	98
110)	1,2-Dibromo-3-chloropr...	12.798	157	29350	44.07	ug/L	88
111)	Trielution Dichlorotol...	12.920	125	691273	158.53	ug/L	95
112)	1,3,5-Trichlorobenzene	12.975	180	205565	53.10	ug/L	94
113)	Coelution Dichlorotoluene	13.249	125	503953	104.67	ug/L	96
114)	1,2,4-Tcbenzene	13.456	180	202485	53.34	ug/L	99
115)	Hexachlorobt	13.597	225	92553	55.77	ug/L	98
116)	Naphthalen	13.645	128	518732	52.70	ug/L	100
117)	1,2,3-Tclbenzene	13.834	180	190457	51.02	ug/L	98
118)	2,4,5-Trichlorotoluene	14.420	159	131192	55.36	ug/L	97
119)	2,3,6-Trichlorotoluene	14.505	159	121476	54.45	ug/L	97

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

```

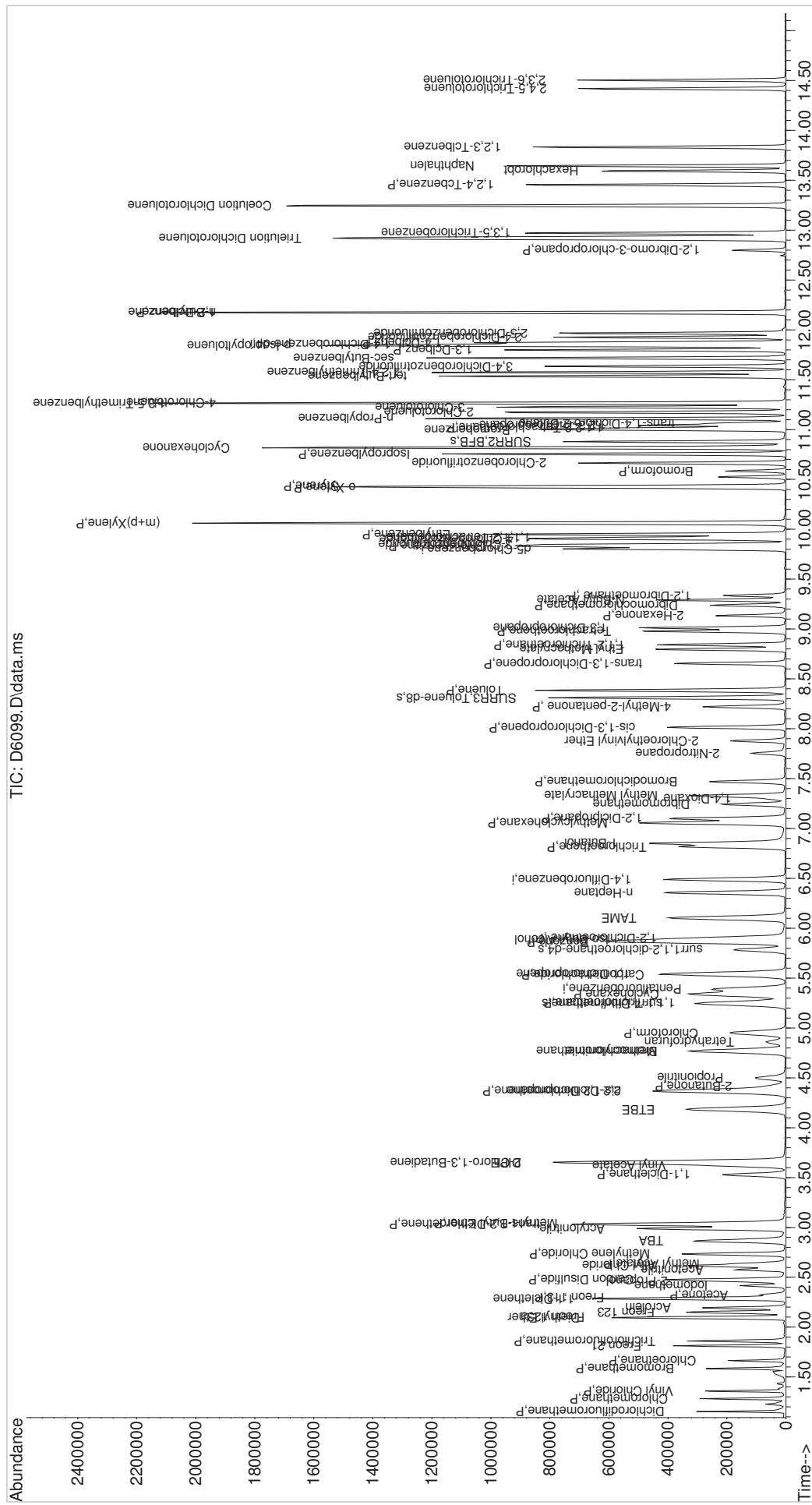
Data Path      : I:\ACQUDATA\msvoa10\data\092518\
Data File     : D6099.D
Acq On        : 25 Sep 2018  10:36 am
Operator      : D.LIPANI
Sample        : CCV
Misc          :
ALS Vial      : 6      Sample Multiplier: 1

```

Inst : MSVOA10

ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 10:58:06 2018
Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
QLast Update : Wed Aug 22 12:58:20 2018
Response via : Initial Calibration



Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6059.D
 Acq On : 24 Sep 2018 9:03 am
 Operator : D.LIPANI
 Sample : TUNE CHECK
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:18:01 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 QLast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

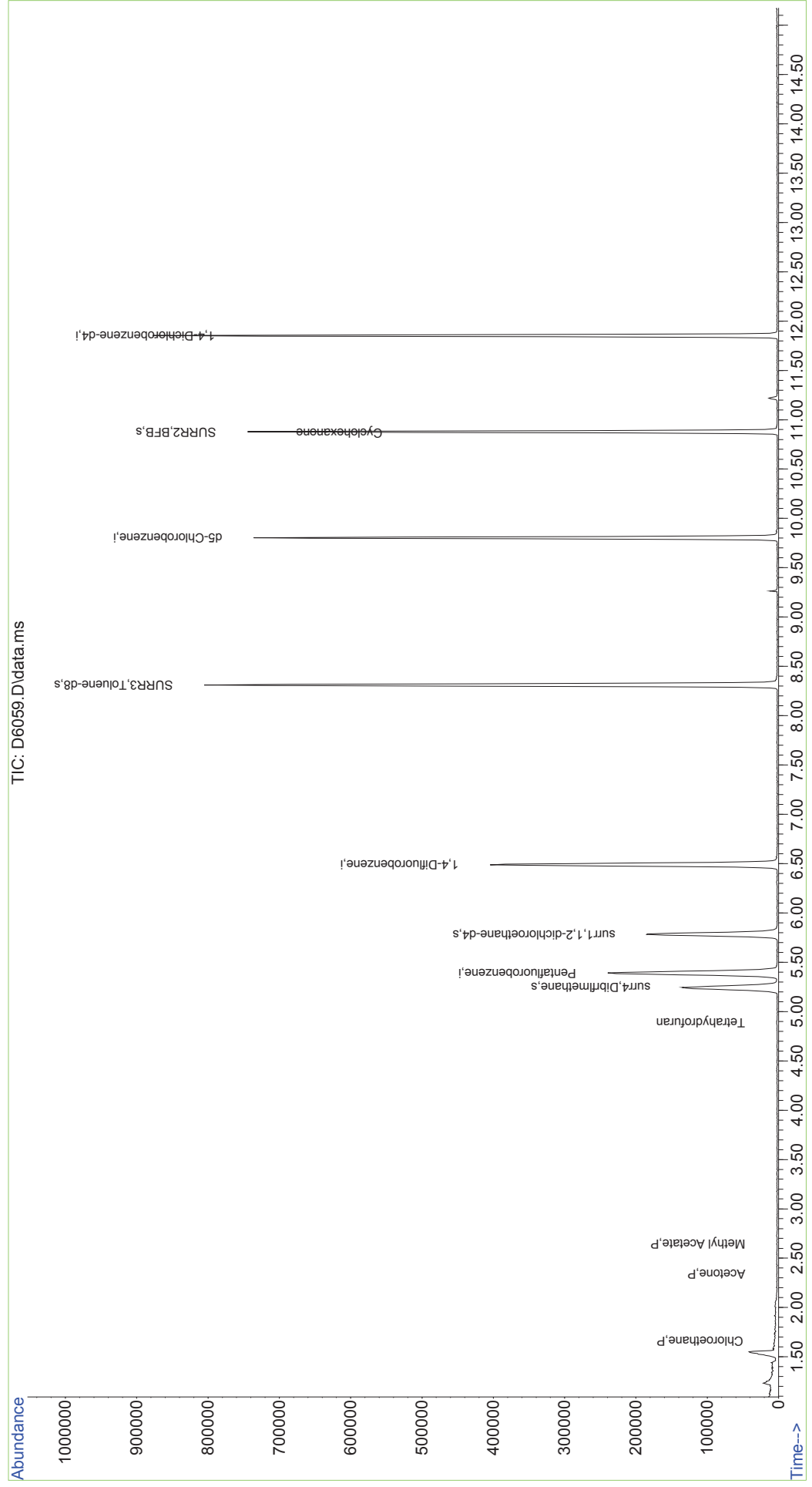
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.391	168	214932	50.00	ug/L	0.00
41) 1,4-Difluorobenzene	6.488	114	330891	50.00	ug/L	0.00
70) d5-Chlorobenzene	9.805	117	293339	50.00	ug/L	0.00
90) 1,4-Dichlorobenzene-d4	11.853	152	155064	50.00	ug/L	0.00
System Monitoring Compounds						
43) surr4,Dibrflmethane	5.244	113	108724	48.76	ug/L	0.00
Spiked Amount	50.000	Range	89 - 119	Recovery	=	97.52%
46) surr1,1,2-dichloroetha...	5.781	65	156588	53.40	ug/L	0.00
Spiked Amount	50.000	Range	73 - 125	Recovery	=	106.80%
64) SURR3,Toluene-d8	8.311	98	458969	50.77	ug/L	0.00
Spiked Amount	50.000	Range	87 - 121	Recovery	=	101.54%
69) SURR2,BFB	10.878	95	169601	48.81	ug/L	0.00
Spiked Amount	50.000	Range	85 - 122	Recovery	=	97.62%
Target Compounds						
5) Bromomethane	1.587	94	361	Below Cal	#	36
6) Chloroethane	1.660	64	698	0.36	ug/L #	52
15) Acetone	2.337	43	468	0.37	ug/L #	50
21) Methyl Acetate	2.641	43	546	0.22	ug/L #	51
38) Tetrahydrofuran	4.891	42	479	0.45	ug/L #	51
88) Cyclohexanone	10.871	55	627	1.28	ug/L #	14

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

Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6059.D
 Acq On : 24 Sep 2018 9:03 am
 Operator : D.LIPANI
 Sample : TUNE CHECK
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA10

Quant Time: Sep 24 09:18:01 2018
 Quant Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Quant Title : MS#10 - 8260B WATERS 5.0mL Purge
 Qlast Update : Wed Aug 22 12:58:20 2018
 Response via : Initial Calibration

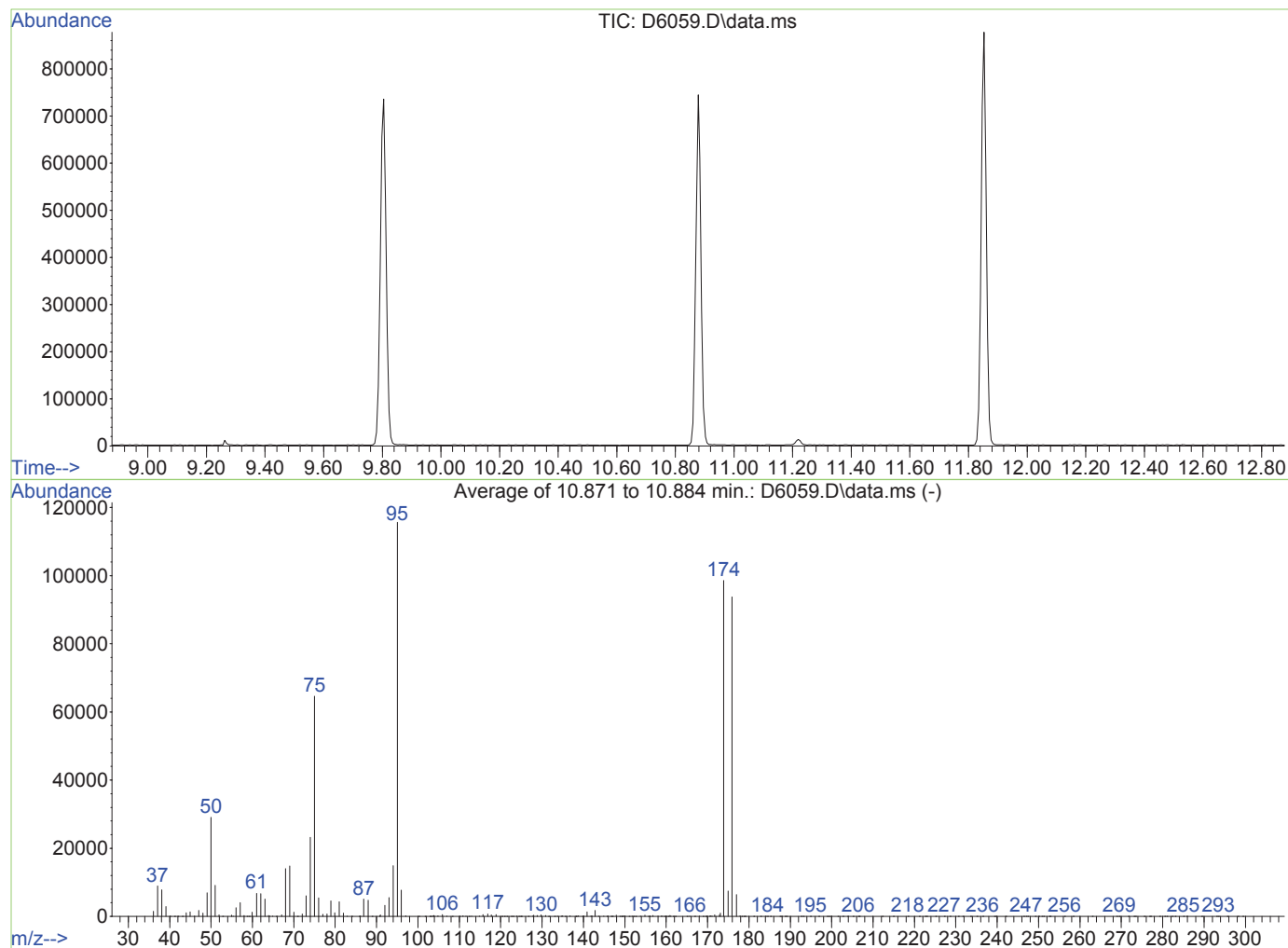


Data Path : I:\ACQUDATA\msvoa10\data\092418\
 Data File : D6059.D
 Acq On : 24 Sep 2018 9:03 am
 Operator : D.LIPANI
 Sample : TUNE CHECK
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA10

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Title : MS#10 - 8260B WATERS 5.0mL Purge
 Last Update : Wed Aug 22 12:58:20 2018



AutoFind: Scans 1605, 1606, 1607; Background Corrected with Scan 1598

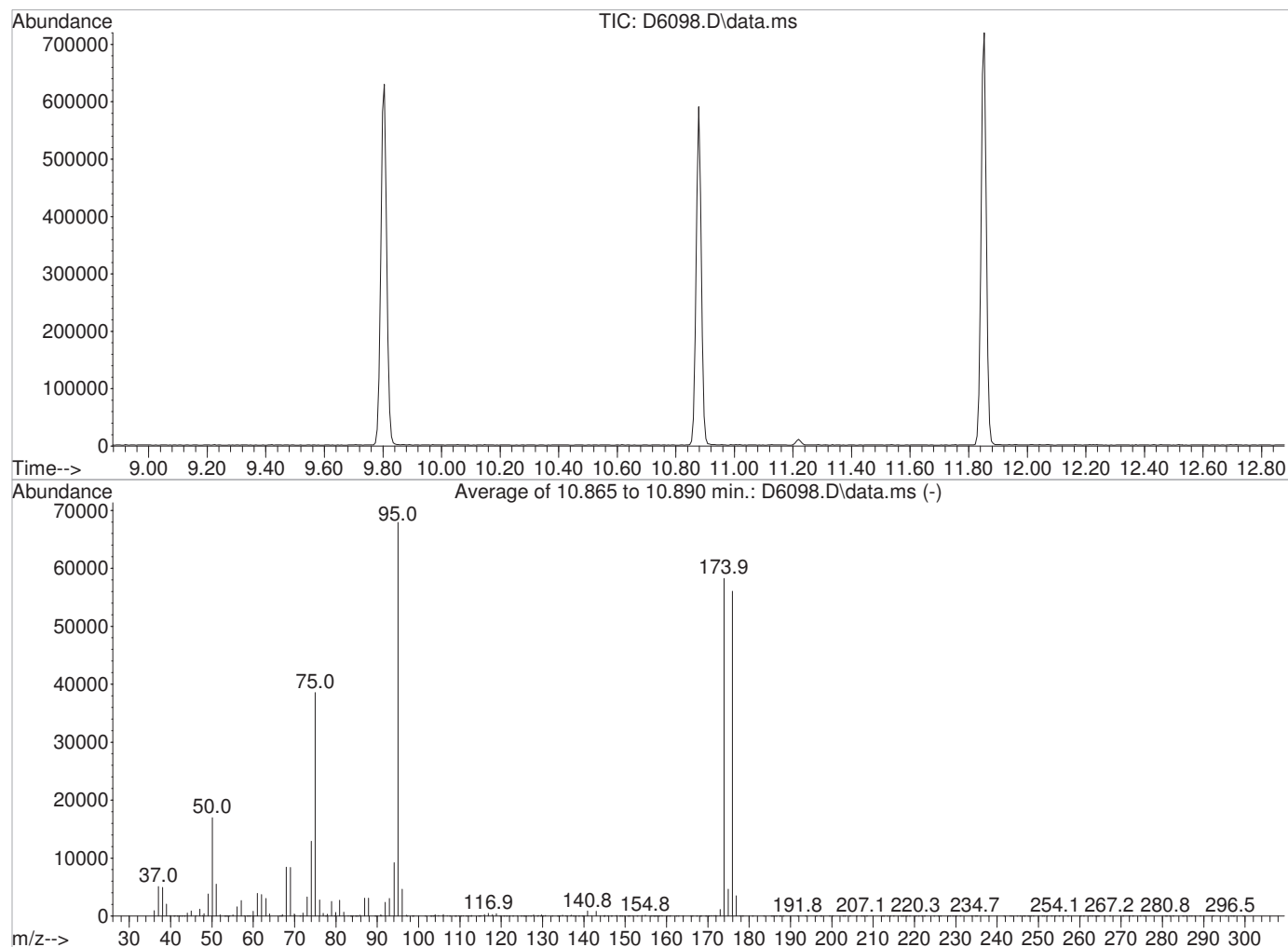
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.1	29029	PASS
75	95	30	60	55.9	64645	PASS
95	95	100	100	100.0	115651	PASS
96	95	5	9	6.7	7717	PASS
173	174	0.00	2	1.0	963	PASS
174	95	50	120	85.2	98552	PASS
175	174	5	9	7.6	7447	PASS
176	174	95	101	95.1	93752	PASS
177	176	5	9	6.9	6439	PASS

Data Path : I:\ACQUDATA\msvoa10\data\092518\
 Data File : D6098.D
 Acq On : 25 Sep 2018 10:01 am
 Operator : D.LIPANI
 Sample : TUNE CHECK
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA10

Integration File: RTEINT.P

Method : I:\ACQUDATA\MSVOA10\METHODS\W082118.M
 Title : MS#10 - 8260B WATERS 5.0mL Purge
 Last Update : Wed Aug 22 12:58:20 2018



Spectrum Information: Average of 10.865 to 10.890 min.

Sub. Scan = 1600

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.0	16952	PASS
75	95	30	60	56.8	38552	PASS
95	95	100	100	100.0	67923	PASS
96	95	5	9	6.8	4637	PASS
173	174	0.00	2	2.0	1150	PASS
174	95	50	120	85.8	58274	PASS
175	174	5	9	7.9	4613	PASS
176	174	95	101	96.1	56026	PASS
177	176	5	9	6.3	3513	PASS

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095
Instrument ID: R-MS-10

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
09	RC1800095-09	STD #1 - 0.5 PPB	I:\ACQUDATA\msvoa10\data\082118\D5431.D	08/21/2018 14:58
08	RC1800095-08	STD #2 - 1.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5432.D	08/21/2018 15:20
07	RC1800095-07	STD #3 - 2.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5433.D	08/21/2018 15:42
06	RC1800095-06	STD #4 - 5.0 PPB	I:\ACQUDATA\msvoa10\data\082118\D5434.D	08/21/2018 16:03
05	RC1800095-05	STD #5 - 20 PPB	I:\ACQUDATA\msvoa10\data\082118\D5435.D	08/21/2018 16:25
04	RC1800095-04	STD #6 - 50 PPB	I:\ACQUDATA\msvoa10\data\082118\D5436.D	08/21/2018 16:47
03	RC1800095-03	STD #7 - 100 PPB	I:\ACQUDATA\msvoa10\data\082118\D5437.D	08/21/2018 17:09
02	RC1800095-02	STD #8 - 150 PPB	I:\ACQUDATA\msvoa10\data\082118\D5438.D	08/21/2018 17:31
01	RC1800095-01	STD #9 - 200 PPB	I:\ACQUDATA\msvoa10\data\082118\D5439.D	08/21/2018 17:53

Analyte

1,1,1-Trichloroethane (TCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.8757	08	1.000	0.7331	07	2.000	0.7119	06	5.000	0.7032
05	20.000	0.7316	04	50.000	0.728	03	100.000	0.751	02	150.000	0.746
01	200.000	0.7416									

1,1-Dichloroethane (1,1-DCA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	1.046	08	1.000	0.985	07	2.000	0.9764	06	5.000	0.943
05	20.000	0.9708	04	50.000	0.9369	03	100.000	0.9651	02	150.000	0.9414
01	200.000	0.9299									

1,1-Dichloroethene (1,1-DCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5024	08	1.000	0.437	07	2.000	0.4419	06	5.000	0.4712
05	20.000	0.4629	04	50.000	0.4463	03	100.000	0.4632	02	150.000	0.4637
01	200.000	0.4592									

4-Bromofluorobenzene

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.5925	05	20.000	0.4991	04	50.000	0.5551	03	100.000	0.4954
02	200.000	0.483									

Dibromofluoromethane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	0.3863	05	20.000	0.3219	04	50.000	0.3561	03	100.000	0.3143
02	200.000	0.3062									

Tetrachloroethene (PCE)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3572	08	1.000	0.3121	07	2.000	0.3045	06	5.000	0.279
05	20.000	0.301	04	50.000	0.2871	03	100.000	0.309	02	150.000	0.3241
01	200.000	0.3245									

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095
Instrument ID: R-MS-10

Signal ID: 1

Analyte

Toluene-d8											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
06	10.000	1.643	05	20.000	1.284	04	50.000	1.427	03	100.000	1.269
02	200.000	1.207									
Trichloroethene (TCE)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.3826	08	1.000	0.3369	07	2.000	0.3521	06	5.000	0.3404
05	20.000	0.3566	04	50.000	0.3304	03	100.000	0.3431	02	150.000	0.3452
01	200.000	0.3448									
Vinyl Chloride											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.7256	08	1.000	0.7718	07	2.000	0.7174	06	5.000	0.7172
05	20.000	0.7297	04	50.000	0.6977	03	100.000	0.7117	02	150.000	0.7269
01	200.000	0.716									
cis-1,2-Dichloroethene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5299	08	1.000	0.5929	07	2.000	0.5369	06	5.000	0.5306
05	20.000	0.5602	04	50.000	0.5423	03	100.000	0.5614	02	150.000	0.5452
01	200.000	0.544									
trans-1,2-Dichloroethene											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
09	0.500	0.5259	08	1.000	0.4833	07	2.000	0.4621	06	5.000	0.4805
05	20.000	0.5014	04	50.000	0.4907	03	100.000	0.5051	02	150.000	0.4941
01	200.000	0.4929									

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095

Signal ID: 1

Instrument ID: R-MS-10

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	6.8	≤20	0.7469	0.100
1,1-Dichloroethane (1,1-DCA)	TRG	Average RF	% RSD	3.7	≤20	0.966	0.200
1,1-Dichloroethene (1,1-DCE)	TRG	Average RF	% RSD	4.2	≤20	0.4609	0.100
4-Bromofluorobenzene	SURR	Average RF	% RSD	8.9	≤20	0.525	
Dibromofluoromethane	SURR	Average RF	% RSD	9.9	≤20	0.3369	
Tetrachloroethene (PCE)	TRG	Average RF	% RSD	7.4	≤20	0.311	0.200
Toluene-d8	SURR	Average RF	% RSD	12.8	≤20	1.366	
Trichloroethene (TCE)	TRG	Average RF	% RSD	4.3	≤20	0.348	0.200
Vinyl Chloride	TRG	Average RF	% RSD	2.8	≤20	0.7238	0.100
cis-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.5493	0.100
trans-1,2-Dichloroethene	TRG	Average RF	% RSD	3.6	≤20	0.4929	0.100

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton

Service Request: R1809120
Calibration Date: 8/21/2018

Initial Calibration Verification Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Calibration ID: RC1800095
Instrument ID: R-MS-10

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
10	RC1800095-10	ICV 50	I:\ACQUDATA\msvoa10\data\082118\D5444.D	08/21/2018 19:42
11	RC1800095-11	ICV	I:\ACQUDATA\msvoa10\data\082218\D5449.D	08/22/2018 10:27

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	46.8	7.469E-1	6.992E-1	-6.384	±30	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	47.9	9.66E-1	9.252E-1	-4.230	±30	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	45.3	4.609E-1	4.177E-1	-9.370	±30	Average RF
Tetrachloroethene (PCE)	50.0	46.5	3.11E-1	2.889E-1	-7.081	±30	Average RF
Trichloroethene (TCE)	50.0	47.8	3.48E-1	3.326E-1	-4.434	±30	Average RF
Vinyl Chloride	50.0	45.0	7.238E-1	6.516E-1	-9.969	±30	Average RF
cis-1,2-Dichloroethene	50.0	47.2	5.493E-1	5.185E-1	-5.601	±30	Average RF
trans-1,2-Dichloroethene	50.0	47.5	4.929E-1	4.686E-1	-4.932	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	52.8	5.25E-1	5.542E-1	5.55	±30	Average RF
Dibromofluoromethane	50.0	52.4	3.369E-1	3.53E-1	4.76	±30	Average RF
Toluene-d8	50.0	53.0	1.366E0	1.449E0	6.03	±30	Average RF

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/24/18 09:41

**Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS, Unpreserved**

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\092418\D6060.D\
Signal ID: 1

Calibration Date: 8/21/2018
Calibration ID: RC1800095
Analysis Lot: 607883
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	49.3	0.7469	0.7358	-1.5	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	53.1	0.966	1.0254	6.1	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	49.3	0.4609	0.454	-1.5	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	49.2	0.311	0.3063	-1.5	NA	±20	Average RF
Trichloroethene (TCE)	50.0	48.0	0.348	0.3343	-3.9	NA	±20	Average RF
Vinyl Chloride	50.0	46.8	0.7238	0.6773	-6.4	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	50.9	0.5493	0.5593	1.8	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	51.5	0.4929	0.5077	3.0	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	54.7	0.525	0.5744	9.4	NA	±20	Average RF
Dibromofluoromethane	50.0	50.4	0.3369	0.3398	0.8	NA	±20	Average RF
Toluene-d8	50.0	52.6	1.3662	1.4369	5.2	NA	±20	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request: R1809120
Date Analyzed: 09/25/18 10:36

**Continuing Calibration Verification (CCV) Summary
Volatile Organic Compounds by GC/MS, Unpreserved**

Analysis Method: 8260C
File ID: I:\ACQUDATA\msvoa10\data\092518\D6099.D\
Signal ID: 1

Calibration Date: 8/21/2018
Calibration ID: RC1800095
Analysis Lot: 608092
Units: ug/L

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
1,1,1-Trichloroethane (TCA)	50.0	50.2	0.7469	0.75	0.4	NA	±20	Average RF
1,1-Dichloroethane (1,1-DCA)	50.0	55.6	0.966	1.074	11.2	NA	±20	Average RF
1,1-Dichloroethene (1,1-DCE)	50.0	51.5	0.4609	0.4744	2.9	NA	±20	Average RF
Tetrachloroethene (PCE)	50.0	50.5	0.311	0.3139	0.9	NA	±20	Average RF
Trichloroethene (TCE)	50.0	49.5	0.348	0.3448	-0.9	NA	±20	Average RF
Vinyl Chloride	50.0	49.8	0.7238	0.7201	-0.5	NA	±20	Average RF
cis-1,2-Dichloroethene	50.0	53.0	0.5493	0.582	6.0	NA	±20	Average RF
trans-1,2-Dichloroethene	50.0	54.1	0.4929	0.5336	8.3	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
4-Bromofluorobenzene	50.0	50.6	0.525	0.5309	1.1	NA	±20	Average RF
Dibromofluoromethane	50.0	48.1	0.3369	0.324	-3.9	NA	±20	Average RF
Toluene-d8	50.0	48.6	1.3662	1.3265	-2.9	NA	±20	Average RF

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method:

Analysis Lot:607883
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092418\D6059.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	09:03:00	
I:\ACQUDATA\msvoa10\data\092418\D6060.D\	Continuing Calibration Verification	RQ1810325-02	9/24/2018	09:41:00	
I:\ACQUDATA\msvoa10\data\092418\D6061.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	10:13:00	
I:\ACQUDATA\msvoa10\data\092418\D6062.D\	Lab Control Sample	RQ1810325-08	9/24/2018	10:35:00	
I:\ACQUDATA\msvoa10\data\092418\D6064.D\	Method Blank	RQ1810325-04	9/24/2018	11:21:00	
I:\ACQUDATA\msvoa10\data\092418\D6065.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	11:52:00	
I:\ACQUDATA\msvoa10\data\092418\D6066.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	12:14:00	
I:\ACQUDATA\msvoa10\data\092418\D6067.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	12:36:00	
I:\ACQUDATA\msvoa10\data\092418\D6068.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	12:58:00	
I:\ACQUDATA\msvoa10\data\092418\D6069.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	13:19:00	
I:\ACQUDATA\msvoa10\data\092418\D6070.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	13:45:00	
I:\ACQUDATA\msvoa10\data\092418\D6071.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	14:12:00	
I:\ACQUDATA\msvoa10\data\092418\D6073.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	14:56:00	
I:\ACQUDATA\msvoa10\data\092418\D6074.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	15:27:00	
I:\ACQUDATA\msvoa10\data\092418\D6078.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	16:55:00	
I:\ACQUDATA\msvoa10\data\092418\D6079.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	17:16:00	
I:\ACQUDATA\msvoa10\data\092418\D6080.D\	MW-17	R1809120-005	9/24/2018	17:38:00	
I:\ACQUDATA\msvoa10\data\092418\D6081.D\	MW-16	R1809120-006	9/24/2018	18:00:00	
I:\ACQUDATA\msvoa10\data\092418\D6083.D\	MW-8	R1809120-009	9/24/2018	18:44:00	
I:\ACQUDATA\msvoa10\data\092418\D6084.D\	DUP-092018	R1809120-012	9/24/2018	19:08:00	
I:\ACQUDATA\msvoa10\data\092418\D6085.D\	MW-11	R1809120-010	9/24/2018	19:30:00	
I:\ACQUDATA\msvoa10\data\092418\D6086.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	19:52:00	
I:\ACQUDATA\msvoa10\data\092418\D6087.D\	ZZZZZZZZ	ZZZZZZZZ	9/24/2018	20:14:00	

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method:

Analysis Lot:607883
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092418\D6088.D\	MW-17 MS	RQ1810325-05	9/24/2018	20:36:00	
I:\ACQUDATA\msvoa10\data\092418\D6089.D\	MW-17 DMS	RQ1810325-06	9/24/2018	20:57:00	

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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method:

Analysis Lot:608092
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092518\D6098.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	10:01:00	
I:\ACQUDATA\msvoa10\data\092518\D6099.D\	Continuing Calibration Verification	RQ1810327-02	9/25/2018	10:36:00	
I:\ACQUDATA\msvoa10\data\092518\D6100.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	11:24:00	
I:\ACQUDATA\msvoa10\data\092518\D6101.D\	Lab Control Sample	RQ1810327-04	9/25/2018	11:48:00	
I:\ACQUDATA\msvoa10\data\092518\D6103.D\	Method Blank	RQ1810327-05	9/25/2018	12:32:00	
I:\ACQUDATA\msvoa10\data\092518\D6104.D\	MW-9	R1809120-008	9/25/2018	12:53:00	
I:\ACQUDATA\msvoa10\data\092518\D6105.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	13:17:00	
I:\ACQUDATA\msvoa10\data\092518\D6107.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	14:01:00	
I:\ACQUDATA\msvoa10\data\092518\D6108.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	14:23:00	
I:\ACQUDATA\msvoa10\data\092518\D6109.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	14:45:00	
I:\ACQUDATA\msvoa10\data\092518\D6110.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	15:06:00	
I:\ACQUDATA\msvoa10\data\092518\D6111.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	15:28:00	
I:\ACQUDATA\msvoa10\data\092518\D6112.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	15:50:00	
I:\ACQUDATA\msvoa10\data\092518\D6113.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	16:12:00	
I:\ACQUDATA\msvoa10\data\092518\D6114.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	16:34:00	
I:\ACQUDATA\msvoa10\data\092518\D6115.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	16:55:00	
I:\ACQUDATA\msvoa10\data\092518\D6116.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	17:17:00	
I:\ACQUDATA\msvoa10\data\092518\D6117.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	17:39:00	
I:\ACQUDATA\msvoa10\data\092518\D6119.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	18:23:00	
I:\ACQUDATA\msvoa10\data\092518\D6120.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	18:44:00	
I:\ACQUDATA\msvoa10\data\092518\D6121.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	19:06:00	
I:\ACQUDATA\msvoa10\data\092518\D6122.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	19:28:00	
I:\ACQUDATA\msvoa10\data\092518\D6123.D\	ZZZZZZZZ	ZZZZZZZZ	9/25/2018	19:50:00	

ALS Group USA, Corp.
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QA/QC Report

Client: Verina Consulting Group, LLC
Project: Dover - Binghamton/5101.0003

Service Request:R1809120

Analysis Run Log
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method:

Analysis Lot:608092
Instrument ID:R-MS-10

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
I:\ACQUDATA\msvoa10\data\092518\D6124.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	20:12:00	
I:\ACQUDATA\msvoa10\data\092518\D6125.D\	ZZZZZZZ	ZZZZZZZ	9/25/2018	20:33:00	

Analysis: 8260C Analyst: P. Lyman pH strips: Hyl. 204018 Tune Method: W082118.M
 Date: 09/24/18 Balance ID: 50 mL Class A used for dilution FV ResCl strips: 181117 Run Method: ↓
 Instr: MS #10 Syringes: 181117 LIMS Run#: 607883

Data Path: j:\acquadat\msvoa\InstID\Date

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1	B/K							D6057	OK	
2	B/K							58	Y	
3	Tune Check		(Run as B/K)					59	Y	
4	CSV							D6060	Y	
5	LCS-Acid							61	Y	
6	LCS-Wmp.							62	Y	
7	B/K							63	N	x-over
8	Met B/K							64	Y	
9	R1808818-003	1.0	T.B.	14733	II	2	<2	65	Y	
10	↓ -001	1.0		646	IV	1	<2	66	Y	
11	R1808968-032	1.0		7979	I	2	<2	67	Y	
12	-015	5.0	10mL/50mL					68	Y	↓ diluted for matrix effect
13	-019	5.0	10mL/50mL					69	Y	
14	-029	5.0	10mL/50mL					D6070	Y	
15	-017	25	2.0mL/50mL					71	Y	
16	-031	2.0	25mL/50mL					72	N	weak - could go 1/1
17	-030	1.0						73	N	not 1/2.5
18	↓ -030	2.5	20mL/50mL					74	Y	= DL
19-21	B/Ks							D6075	Y	
22	R1808968-027	1.0	T.B.	6646	IV	1	<2	78	Y	
23	↓ -031	1.0		7979	I	2	<2	79	Y	
24	R1809120-005	1.0						D6080	Y	
25	-006	1.0						81	Y	wasn't expecting PCE
26	-008	1.0						82	N	likely PCE x-over ppt 1.0
27	-009	1.0						83	Y	
28	-012	1.0						84	Y	
29	↓ -010	1.0						85	Y	
30	R1808819-001	2.0	25mL/50mL	14733	II	1	<2	86	Y	
31	↓ -001	10	5.0mL/50mL					87	Y	
32	R1809120-005 MS	1.0		7979	IV	2	<2	88	Y	
33	↓ -005 DMS	1.0						89	Y	
34	High Grade + B/Ks							D6090	Y	

All samples = 5.0 mL + 5.0 mL combined IS/Surr. 5.0 mL purged

Primary TG : 193033 5.9mL / 50mL DI
 Primary HSL : 192928
 Primary OCC : 193366
 Primary Fw+ : 193220
 Primary :
 Secondary TG : 192785 2.9mL
 Secondary HSL : 193388
 Secondary OCC : 191355
 Secondary Fw+ : 192808 5.9mL
 Secondary :
 Combined IS/Surr : 193101
 Surrogate SO : 193099
 Internal Std SO : 193099
 Reagents:

50mL
 10.6mL
 42mL vials samp.
 = MS/BMS
 Runlog-MSVQA4 1/17/17

Analysis: 8260C/624.1 Analyst: R. L. Linn pH strips: Hyd. 204018 Tune Method: W082118.M
 Date: 09/25/18 Run# 1 Balance ID: 1 ResCl strips: HF 100517F Run Method: 1
 Instr. MS#10 50 mL Class A used for dilution FV Syringes: 181117 LIMS Run#: 608092

Data Path: j:\acq\data\msv04\instID\ (Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1-2	B/KS							D6094	95Y	
3	High Gaseous Std							D6096	Y	
4	B/K							97	Y	
5	Tune Check		(Run as a B/K)					98	Y	
6	CCV							99	Y	
7	LCS-Acid							D6100	Y	
8	LCS-Ump.							01	Y	
9	B/K							02	N	x-over
10	Met B/K							03	Y	
11	R1809120-008	1.0		7979	IV	2	7	04	Y	
12	R1809111-002	1.0		8974	IV	1	<2	05	Y	
13	↓ ~001	10	5.0mL/50mL	↓	↓	1	<2	06	N	weak-not very foamy - rpt 1.0
14	R1809062-001	1.0		6656	III	1	<2	07	Y	
15	↓ ~002	1.0		↓	↓	1	<2	08	Y	
16	R1809107-019	1.0	T.B.	6675	II	1	<2	09	Y	
17	R1809111-001	1.0		8974	IV	2	<2	D6110	Y	
18	R1809107-003	1.0		6675	II	1	<2	11	Y	
19	↓ ~017	1.0		↓	↓	1	<2	12	Y	
20	↓ ~004	1.0		↓	↓	1	<2	13	Y	
21	↓ ~005	1.0		↓	↓	1	<2	14	Y	
22	↓ ~001	1.0		↓	↓	1	<2	15	Y	
23	↓ ~006	1.0		↓	↓	1	<2	16	Y	
24	↓ ~002	1.0		↓	↓	1	<2	17	Y	
25	R1809121-001	1.0	(G24.1) (Composited)	17464	II	C-1	7	18	(N)	? TCE "J" x-over? rpt 1.0
26	↓ ~002	1.0		↓	↓	1	7	19	Y	
27	R1809107-007	1.0	(8260C)	6675	II	1	=2	D6120	Y	
28	R1809104-006	1.0	(G24.1)	11868	II	1	7	21	Y	
29	↓ ~003	2.5	20mL/50mL	↓	↓	C-1	7	22	Y	
30	R1808968-028	1.0	(8260C)	6646	IV	1	<2	23	Y	
31	R1809062-001MS	1.0		6656	III	2	<2	24	Y	
31	↓ ~001DMS	1.0		↓	↓	2	<2	25	Y	
32-33	High Gaseous + B/K							26-27		

All samples = 5.0 mL + 5.0 uL combined IS/Surr. 5.0 mL purged

Combined IS/Surr

Primary TG : 193033
 Primary HSL : 193469
 Primary OCC : 193366
 Primary Frt : 193220

Secondary TG : 192785
 Secondary HSL : 193388
 Secondary OCC : 191355
 Secondary Frt : 192808

Surrogate 50 : 193101
 Internal Std 50 : 193099

Reagents:

Primary :
 Secondary :

Secondary TG :
 Secondary HSL :
 Secondary OCC :
 Secondary Frt :

Runlog-MSV04 1/17/17

Analysis: 8260C/624.1 Analyst: P. Ingram pH strips: HxL 204018 Tune Method: W082118.M
 Date: 09/25/18 Run# 1 Balance ID: _____ ResCl strips: HF 100517F Run Method: _____
 Instr: MS#10 50 mL Class A used for dilution FV Syringes: 181117 LIMS Run#: 608092

Data Path: j:\acquadata\msvoa\instld\ (Date)

Pos.	Sample	Diln.	Diln. Prep./	RL	Tier	Vial	pH	File#	OK?	Comments
1-2	Blks							D6094-95	Y	
3	High Gas A Std							D6096	Y	
4	Blk							97	Y	
5	Tune Check		(Run aa a Blk)					98	Y	
6	CCV							99	Y	
7	LCS-Acid							D6100	Y	
8	LCS-Uhp.							01	Y	
9	Blk							02	N	x-over
10	Met Blk							03	Y	
11	R1809120-008	1.0		7979	IV	2	7	64	Y	
12	R1809111-002	1.0		8974	IV	1	<2	05	Y	
13	↓ -001	10	5.0mL/50mL	↓	1	<2	<2	06	N	weak-not very foamy- rpt 1.0
14	R1809062-001	1.0		6656	III	1	<2	07	Y	
15	↓ -002	1.0		↓	1	<2	<2	08	Y	
16	R1809107-019	1.0	T.B.	6675	IV	1	<2	09	Y	
17	R1809111-001	1.0		8974	IV	2	<2	D6110	Y	
18	R1809107-003	1.0		6675	IV	1	<2	11	Y	
19	↓ -017	1.0			1	<2	<2	12	Y	
20	~004	1.0			1	<2	<2	13	Y	
21	-005	1.0			1	<2	<2	14	Y	
22	-001	1.0			1	<2	<2	15	Y	
23	-006	1.0			1	<2	<2	16	Y	
24	↓ -002	1.0		Residual	1	<2	<2	17	Y	
25	R1809121-001	1.0	(624.1) (composited)	Chlorine	1	<2	<2	18	Y	
26	↓ -002	1.0	"	17464	II	C-1	7	19	(N)	? TCE "J" x-over? rpt 1.0
27	R1809107-007	1.0	(8260C)	neg	1	7	7	20	Y	
28	R1809104-006	1.0	(624.1)	neg	1	7	7	D6120	Y	
29	↓ -003	2.5	20mL/50mL	neg	1	7	7	21	Y	
30	R1808968-028	1.0	(8260C)	neg	1	C-1	7	22	Y	
31	R1809062-001MS	1.0		6646	IV	1	<2	23	Y	
32	↓ -001DMS	1.0		6656	III	2	<2	24	Y	
33	High Gas A + Blk	1.0		↓	2	<2	<2	25	Y	

All samples = 5.0 mL + 5.0 mL combined IS/Surr. 5.0 mL purged

Combined IS/Surr

Primary TG : 193033 ~~45~~ 5.0mL
 Primary HSL : 193469 ~~05~~
 Primary OCC : 193366
 Primary Fr + : 193220
 Primary :
 Secondary :

Secondary TG : 192785 2.9mL
 Secondary HSL : 193388
 Secondary OCC : 191355
 Secondary Fr + : 192808 5.0mL
 Secondary :
 Secondary :

50mL
 10.6mL
 42mL vial sample
 = MS/DMS
 O-996 Page 22

Surrogate 50 : 193101
 Internal Std 50 : 193099
 Reagents:

Appendix C

ACTIVE SUB-SLAB DEPRESSURIZATION (ASD) INSPECTION LOG
Former Dover Electronics Site, Binghamton, NY (5101.0003)

Date	Time	System On? (Y/N)	E-1	E-2	E-3	E-4	Comments
			Vacuum	Vacuum	Vacuum	Vacuum	
1/10/2017	10:00	Y	3.50	3.00	0.13	2.75	
2/23/2017	8:00	Y	3.12	3.00	0.13	2.88	
3/22/2017	9:40	Y	3.25	3.00	0.13	2.75	
4/13/2017	8:00	Y	3.50	3.13	0.13	3.13	
5/11/2017	8:00	Y	3.25	3.13	0.13	2.88	
6/21/2017	8:20	Y	3.25	3.13	0.25	3.13	
7/13/2017	7:50	Y	3.33	3.13	0.25	3.00	
8/25/2017	8:00	Y	3.50	3.25	0.25	3.00	
9/15/2017	8:00	Y	3.33	3.25	0.25	2.88	
11/17/2017	8:00	Y	3.50	3.13	0.13	3.13	
12/13/2017	9:00	N	--	--	--	--	System off. Fan may have been damaged during power outage week prior
1/17/2018	9:00	Y	4.50	4.00	0.13	3.75	ASD system back on after fan replacement
2/22/2018	8:35	Y	4.50	4.00	0.13	3.75	
3/21/2018	16:20	Y	4.50	3.75	0.25	3.75	IA sampling prior to inspection, ASD system on
4/11/2018	7:45	Y	4.00	3.75	0.13	3.75	
5/23/2018	10:00	Y	3.88	3.75	0.25	3.50	
6/20/2018	8:20	Y	4.00	3.13	0.50	3.63	
7/11/2018	8:20	Y	4.25	3.57	0.38	3.50	
8/15/2018	8:40	Y	4.13	4.00	0.25	3.75	
9/21/2018	10:15	Y	4.13	3.88	0.25	3.75	
10/10/2018	12:45	Y	4.13	3.75	1.13	3.50	
11/15/2018	9:35	Y	2.50	2.25	1.00	1.75	
12/20/2018	9:30	Y	2.39	2.00	0.88	1.39	

Appendix D



INDOOR/AMBIENT AIR SAMPLING LOG
Former Binghamton Plastics Site, Binghamton, NY
VERINA Job No. 5101.0003

Date: 3/21/2018

Personnel: BSN, MWG

Weather: 20's, Cold, Cloudy

Canister Type: 6.0L Stainless Summa

Sample ID	Start Time	Start Canister Pressure	End Time	End Canister Pressure	Temperature (F)	Air Speed (mph)	Indoor/ Outdoor	Canister ID	Canister Size (L)	Flow Control ID	Sample Height (ft)
IA-8	8:04	27	15:58	4	69	NA	Indoor	AC02061	6L	FCS00068	6
IA-9	8:08	28	16:00	6	69	NA	Indoor	AC01887	6L	FCS00006	5
IA-2	8:10	30	16:01	5	69	NA	Indoor	AS00925	6L	FCS00111	4
IA-5	8:16	26	16:03	22	69	NA	Indoor	AC02261	6L	FCA00313	4
IA-3	8:19	26	16:05	1	69	NA	Indoor	AC00716	6L	FCA01014	4
AA-1	8:30	27	16:15	5	26	~10	Outdoor	AC00982	6L	FCA00093	3

Comments:

Appendix E



2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
www.alsglobal.com

LABORATORY REPORT

April 10, 2018

Sarah MacCarter
Verina Consulting Group, LLC
1011 US Highway 22, Suite 302
Bridgewater, NJ 08807

RE: Dover-Binghamton / 5101.0003

Dear Sarah:

Enclosed are the results of the samples submitted to our laboratory on March 27, 2018. For your reference, these analyses have been assigned our service request number P1801538.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Kate Kaneko at 11:08 am, 04/10/18

Kate Kaneko
Project Manager



2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
F: +1 805 526 7270
www.alsglobal.com

Client: Verina Consulting Group, LLC
Project: Dover-Binghamton / 5101.0003

Service Request No: P1801538
NJ Certification ID: CA009

CASE NARRATIVE

The samples were received intact under chain of custody on March 27, 2018 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The lower control criterion was exceeded for chloromethane in the Continuing Calibration Verification (CCV) analyzed on April 2, 2018. However, the reported sample results associated with this CCV were for the dilutions of acetone and 1,2,4-trimethylbenzene only, therefore, the results were not affected. No corrective action was necessary.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.



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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2016036
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1347317
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-005
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-17-8
Utah DOH (NELAP)	http://health.utah.gov/lab/environmental-lab-certification/	CA016272017-8
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Verina Consulting Group, LLC
 Project ID: Dover-Binghamton / 5101.0003

Service Request: P1801538

Date Received: 3/27/2018
 Time Received: 09:30

TO-15 - VOC Cans

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	
IA-8	P1801538-001	Air	3/21/2018	15:58	AC02061	-2.54	3.76	X
IA-9	P1801538-002	Air	3/21/2018	16:00	AC01887	-2.31	3.67	X
IA-2	P1801538-003	Air	3/21/2018	16:01	AS00925	-2.62	3.74	X
IA-5	P1801538-004	Air	3/21/2018	16:03	AC02261	-4.98	3.77	X
IA-3	P1801538-005	Air	3/21/2018	16:05	AC00716	-0.06	3.70	X
AA-1	P1801538-006	Air	3/21/2018	16:15	AC00982	-2.17	3.79	X



Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Company Name & Address (Reporting Information)				Requested Turnaround Time in Business Days (Surcharges) please circle 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10-Day-Standard				ALS Project No D1301538	
Verina Consulting Group, LLC.				Project Name Dover - Binghamton				ALS Contact: Kate Kaneko	
Project Manager Sarah MacCarter				Project Number 5101.0003				Analysis Method	
Phone 908-864-4400				P.O. # / Billing Information 5101.0002 invoice Verina					
Email Address for Result Reporting smaccarter@vcg-llc.com				Sampler (Print & Sign) Matthew Gandy					
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AG, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Comments e.g. Actual Preservative or specific instructions
IA-8	1	3/21/18	8:04-15:18	AC02061	FC500068	-27	-4	6L	
IA-9	2		8:08-16:00	AC01887	FC500006	-28	-6	6L	
IA-2	3		8:10-16:01	AS00925	FC500111	-30	-5	6L	
IA-5	4		8:16-16:03	AC02261	FC000313	-26	-22	6L	
IA-3	5		8:19-16:05	AC00716	FC01014	-26	-1	6L	
AA-1	6		8:30-16:15	AC00982	FC000093	-27	-5	6L	
Report Tier Levels - please select Tier I - Results (Default in not specified) _____ Tier II (Results + QC Summaries) ☒ _____ Tier III (Results + QC & Calibration Summaries) _____ Tier IV (Date Validation Package) 10% Surcharge _____				EDD required (YES/No) Type: NY State Units: _____		Chain of Custody Seal: (Circle) INTACT BROKEN		Project Requirements (MRLs, QAPP)	
Relinquished by: (Signature) [Signature]				Received by: (Signature) [Signature]		Date: 3-27-18		Time: 0930	
Relinquished by: (Signature) [Signature]				Received by: (Signature) [Signature]		Date: 3-27-18		Time: 0930	

ALS Environmental Sample Acceptance Check Form

Client: Verina Consulting Group, LLC

Work order: P1801538

Project: Dover-Binghamton / 5101.0003

Sample(s) received on: 3/27/18

Date opened: 3/27/18

by: E.PEREZ

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were sample containers properly marked with client sample ID?	☐	☒	☐
2	Did sample containers arrive in good condition?	☒	☐	☐
3	Were chain-of-custody papers used and filled out?	☒	☐	☐
4	Did sample container labels and/or tags agree with custody papers?	☐	☒	☐
5	Was sample volume received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper temperature (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were custody seals on outside of cooler/Box/Container?	☐	☒	☐
	Location of seal(s) _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate preservation , according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are pH preserved?	☐	☐	☒
	Were VOA vials checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?	☐	☐	☒
10	Tubes: Are the tubes capped and intact?	☐	☐	☒
11	Badges: Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

[illegible]

Explain any discrepancies: (include lab sample ID numbers):

All Samples are Missing Tags

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: IA-8
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC02061

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.54 Final Pressure (psig): 3.76

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.4	0.76	0.49	0.15	
74-87-3	Chloromethane	ND	0.76	ND	0.37	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.76	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.76	ND	0.30	
106-99-0	1,3-Butadiene	ND	0.76	ND	0.34	
74-83-9	Bromomethane	ND	0.76	ND	0.20	
75-00-3	Chloroethane	ND	0.76	ND	0.29	
64-17-5	Ethanol	230	7.6	120	4.0	
75-05-8	Acetonitrile	ND	0.76	ND	0.45	
107-02-8	Acrolein	ND	3.0	ND	1.3	
67-64-1	Acetone	920	76	390	32	D
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	0.76	0.35	0.14	
67-63-0	2-Propanol (Isopropyl Alcohol)	11	7.6	4.4	3.1	
107-13-1	Acrylonitrile	ND	0.76	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.76	ND	0.19	
75-09-2	Methylene Chloride	99	0.76	29	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.76	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.76	ND	0.099	
75-15-0	Carbon Disulfide	ND	7.6	ND	2.4	
156-60-5	trans-1,2-Dichloroethene	ND	0.76	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.76	ND	0.19	
1634-04-4	Methyl tert-Butyl Ether	ND	0.76	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.6	ND	2.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: IA-8
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC02061

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.54 **Final Pressure (psig):** 3.76

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.6	ND	2.6	
156-59-2	cis-1,2-Dichloroethene	ND	0.76	ND	0.19	
110-54-3	n-Hexane	8.4	0.76	2.4	0.22	
67-66-3	Chloroform	ND	0.76	ND	0.16	
107-06-2	1,2-Dichloroethane	ND	0.76	ND	0.19	
71-55-6	1,1,1-Trichloroethane	ND	0.76	ND	0.14	
71-43-2	Benzene	1.0	0.76	0.32	0.24	
56-23-5	Carbon Tetrachloride	0.41	0.15	0.066	0.024	
78-87-5	1,2-Dichloropropane	ND	0.76	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.76	ND	0.11	
79-01-6	Trichloroethene	4.5	0.15	0.83	0.028	
123-91-1	1,4-Dioxane	ND	0.76	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.76	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.76	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.76	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.76	ND	0.14	
108-88-3	Toluene	9.7	0.76	2.6	0.20	
591-78-6	2-Hexanone	ND	0.76	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.76	ND	0.089	
106-93-4	1,2-Dibromoethane	ND	0.76	ND	0.099	
123-86-4	n-Butyl Acetate	11	0.76	2.4	0.16	
127-18-4	Tetrachloroethene	17	0.76	2.5	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-8
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC02061

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.54 **Final Pressure (psig):** 3.76

Container Dilution Factor: 1.52

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.76	ND	0.17	
100-41-4	Ethylbenzene	1.8	0.76	0.42	0.18	
179601-23-1	m,p-Xylenes	7.5	1.5	1.7	0.35	
75-25-2	Bromoform	ND	0.76	ND	0.074	
100-42-5	Styrene	ND	0.76	ND	0.18	
95-47-6	o-Xylene	11	0.76	2.5	0.18	
111-84-2	n-Nonane	66	0.76	13	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.76	ND	0.11	
98-82-8	Cumene	20	0.76	4.2	0.15	
80-56-8	alpha-Pinene	10	0.76	1.8	0.14	
622-96-8	4-Ethyltoluene	130	0.76	26	0.15	
108-67-8	1,3,5-Trimethylbenzene	120	0.76	25	0.15	
95-63-6	1,2,4-Trimethylbenzene	230	7.6	48	1.5	D
100-44-7	Benzyl Chloride	ND	1.5	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	0.76	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.76	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.76	ND	0.13	
5989-27-5	d-Limonene	59	0.76	11	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.76	ND	0.079	
120-82-1	1,2,4-Trichlorobenzene	ND	0.76	ND	0.10	
91-20-3	Naphthalene	ND	0.76	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.76	ND	0.071	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: IA-9
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC01887

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.31 Final Pressure (psig): 3.67

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.74	0.44	0.15	
74-87-3	Chloromethane	ND	0.74	ND	0.36	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.74	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.74	ND	0.29	
106-99-0	1,3-Butadiene	ND	0.74	ND	0.33	
74-83-9	Bromomethane	ND	0.74	ND	0.19	
75-00-3	Chloroethane	ND	0.74	ND	0.28	
64-17-5	Ethanol	200	7.4	110	3.9	
75-05-8	Acetonitrile	ND	0.74	ND	0.44	
107-02-8	Acrolein	ND	3.0	ND	1.3	
67-64-1	Acetone	1,000	74	420	31	D
75-69-4	Trichlorofluoromethane (CFC 11)	1.9	0.74	0.35	0.13	
67-63-0	2-Propanol (Isopropyl Alcohol)	11	7.4	4.5	3.0	
107-13-1	Acrylonitrile	ND	0.74	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.74	ND	0.19	
75-09-2	Methylene Chloride	100	0.74	29	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.74	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.78	0.74	0.10	0.097	
75-15-0	Carbon Disulfide	ND	7.4	ND	2.4	
156-60-5	trans-1,2-Dichloroethene	ND	0.74	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.74	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.74	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.4	ND	2.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-9
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC01887

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.31 **Final Pressure (psig):** 3.67

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.4	ND	2.5	
156-59-2	cis-1,2-Dichloroethene	ND	0.74	ND	0.19	
110-54-3	n-Hexane	11	0.74	3.1	0.21	
67-66-3	Chloroform	ND	0.74	ND	0.15	
107-06-2	1,2-Dichloroethane	ND	0.74	ND	0.18	
71-55-6	1,1,1-Trichloroethane	0.77	0.74	0.14	0.14	
71-43-2	Benzene	1.1	0.74	0.33	0.23	
56-23-5	Carbon Tetrachloride	0.43	0.15	0.068	0.024	
78-87-5	1,2-Dichloropropane	ND	0.74	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.74	ND	0.11	
79-01-6	Trichloroethene	3.8	0.15	0.70	0.028	
123-91-1	1,4-Dioxane	ND	0.74	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.74	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.74	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.74	ND	0.14	
108-88-3	Toluene	18	0.74	4.7	0.20	
591-78-6	2-Hexanone	ND	0.74	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.74	ND	0.087	
106-93-4	1,2-Dibromoethane	ND	0.74	ND	0.096	
123-86-4	n-Butyl Acetate	12	0.74	2.6	0.16	
127-18-4	Tetrachloroethene	13	0.74	2.0	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-9
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC01887

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.31 **Final Pressure (psig):** 3.67

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.74	ND	0.16	
100-41-4	Ethylbenzene	3.0	0.74	0.69	0.17	
179601-23-1	m,p-Xylenes	11	1.5	2.5	0.34	
75-25-2	Bromoform	ND	0.74	ND	0.072	
100-42-5	Styrene	2.6	0.74	0.61	0.17	
95-47-6	o-Xylene	12	0.74	2.9	0.17	
111-84-2	n-Nonane	64	0.74	12	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.74	ND	0.11	
98-82-8	Cumene	21	0.74	4.4	0.15	
80-56-8	alpha-Pinene	8.9	0.74	1.6	0.13	
622-96-8	4-Ethyltoluene	130	0.74	27	0.15	
108-67-8	1,3,5-Trimethylbenzene	130	0.74	26	0.15	
95-63-6	1,2,4-Trimethylbenzene	240	7.4	50	1.5	D
100-44-7	Benzyl Chloride	ND	1.5	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	0.74	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.74	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.74	ND	0.12	
5989-27-5	d-Limonene	66	0.74	12	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.74	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.74	ND	0.10	
91-20-3	Naphthalene	ND	0.74	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.74	ND	0.069	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: IA-2

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P1801538-003

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Silonite Canister

Test Notes:

Container ID: AS00925

Date Collected: 3/21/18

Date Received: 3/27/18

Date Analyzed: 3/30/18 & 4/2/18

Volume(s) Analyzed: 1.00 Liter(s)

0.10 Liter(s)

Initial Pressure (psig): -2.62 Final Pressure (psig): 3.74

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.77	0.42	0.15	
74-87-3	Chloromethane	ND	0.77	ND	0.37	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.77	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.77	ND	0.30	
106-99-0	1,3-Butadiene	ND	0.77	ND	0.35	
74-83-9	Bromomethane	ND	0.77	ND	0.20	
75-00-3	Chloroethane	ND	0.77	ND	0.29	
64-17-5	Ethanol	190	7.7	100	4.1	
75-05-8	Acetonitrile	ND	0.77	ND	0.46	
107-02-8	Acrolein	ND	3.1	ND	1.3	
67-64-1	Acetone	1,100	77	480	32	D
75-69-4	Trichlorofluoromethane (CFC 11)	2.2	0.77	0.39	0.14	
67-63-0	2-Propanol (Isopropyl Alcohol)	9.3	7.7	3.8	3.1	
107-13-1	Acrylonitrile	ND	0.77	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.77	ND	0.19	
75-09-2	Methylene Chloride	120	0.77	33	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.77	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	0.82	0.77	0.11	0.10	
75-15-0	Carbon Disulfide	ND	7.7	ND	2.5	
156-60-5	trans-1,2-Dichloroethene	ND	0.77	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.77	ND	0.19	
1634-04-4	Methyl tert-Butyl Ether	ND	0.77	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.7	ND	2.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: IA-2
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS00925

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.62 **Final Pressure (psig):** 3.74

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.7	ND	2.6	
156-59-2	cis-1,2-Dichloroethene	ND	0.77	ND	0.19	
110-54-3	n-Hexane	9.7	0.77	2.8	0.22	
67-66-3	Chloroform	ND	0.77	ND	0.16	
107-06-2	1,2-Dichloroethane	ND	0.77	ND	0.19	
71-55-6	1,1,1-Trichloroethane	0.84	0.77	0.15	0.14	
71-43-2	Benzene	0.89	0.77	0.28	0.24	
56-23-5	Carbon Tetrachloride	0.45	0.15	0.072	0.024	
78-87-5	1,2-Dichloropropane	ND	0.77	ND	0.17	
75-27-4	Bromodichloromethane	ND	0.77	ND	0.11	
79-01-6	Trichloroethene	3.8	0.15	0.71	0.028	
123-91-1	1,4-Dioxane	ND	0.77	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.77	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.77	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.77	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.77	ND	0.14	
108-88-3	Toluene	11	0.77	3.0	0.20	
591-78-6	2-Hexanone	ND	0.77	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.77	ND	0.090	
106-93-4	1,2-Dibromoethane	ND	0.77	ND	0.10	
123-86-4	n-Butyl Acetate	12	0.77	2.5	0.16	
127-18-4	Tetrachloroethene	17	0.77	2.4	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-2
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS00925

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -2.62 **Final Pressure (psig):** 3.74

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.77	ND	0.17	
100-41-4	Ethylbenzene	2.2	0.77	0.51	0.18	
179601-23-1	m,p-Xylenes	8.9	1.5	2.1	0.35	
75-25-2	Bromoform	ND	0.77	ND	0.074	
100-42-5	Styrene	ND	0.77	ND	0.18	
95-47-6	o-Xylene	13	0.77	3.1	0.18	
111-84-2	n-Nonane	77	0.77	15	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.77	ND	0.11	
98-82-8	Cumene	26	0.77	5.4	0.16	
80-56-8	alpha-Pinene	8.4	0.77	1.5	0.14	
622-96-8	4-Ethyltoluene	150	0.77	31	0.16	
108-67-8	1,3,5-Trimethylbenzene	160	0.77	32	0.16	
95-63-6	1,2,4-Trimethylbenzene	310	7.7	62	1.6	D
100-44-7	Benzyl Chloride	ND	1.5	ND	0.30	
541-73-1	1,3-Dichlorobenzene	ND	0.77	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.77	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.77	ND	0.13	
5989-27-5	d-Limonene	76	0.77	14	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.77	ND	0.079	
120-82-1	1,2,4-Trichlorobenzene	ND	0.77	ND	0.10	
91-20-3	Naphthalene	ND	0.77	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.77	ND	0.072	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: IA-5
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC02261

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -4.98 **Final Pressure (psig):** 3.77

Container Dilution Factor: 1.90

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.95	0.43	0.19	
74-87-3	Chloromethane	ND	0.95	ND	0.46	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.95	ND	0.14	
75-01-4	Vinyl Chloride	ND	0.95	ND	0.37	
106-99-0	1,3-Butadiene	ND	0.95	ND	0.43	
74-83-9	Bromomethane	ND	0.95	ND	0.24	
75-00-3	Chloroethane	ND	0.95	ND	0.36	
64-17-5	Ethanol	180	9.5	94	5.0	
75-05-8	Acetonitrile	ND	0.95	ND	0.57	
107-02-8	Acrolein	ND	3.8	ND	1.7	
67-64-1	Acetone	910	9.5	380	4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	0.95	0.35	0.17	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	9.5	ND	3.9	
107-13-1	Acrylonitrile	ND	0.95	ND	0.44	
75-35-4	1,1-Dichloroethene	ND	0.95	ND	0.24	
75-09-2	Methylene Chloride	100	0.95	30	0.27	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.95	ND	0.30	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.95	ND	0.12	
75-15-0	Carbon Disulfide	ND	9.5	ND	3.1	
156-60-5	trans-1,2-Dichloroethene	ND	0.95	ND	0.24	
75-34-3	1,1-Dichloroethane	ND	0.95	ND	0.23	
1634-04-4	Methyl tert-Butyl Ether	ND	0.95	ND	0.26	
108-05-4	Vinyl Acetate	ND	9.5	ND	2.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-5
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC02261

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -4.98 **Final Pressure (psig):** 3.77

Container Dilution Factor: 1.90

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	9.5	ND	3.2	
156-59-2	cis-1,2-Dichloroethene	ND	0.95	ND	0.24	
110-54-3	n-Hexane	9.2	0.95	2.6	0.27	
67-66-3	Chloroform	ND	0.95	ND	0.19	
107-06-2	1,2-Dichloroethane	ND	0.95	ND	0.23	
71-55-6	1,1,1-Trichloroethane	ND	0.95	ND	0.17	
71-43-2	Benzene	1.1	0.95	0.35	0.30	
56-23-5	Carbon Tetrachloride	ND	0.19	ND	0.030	
78-87-5	1,2-Dichloropropane	ND	0.95	ND	0.21	
75-27-4	Bromodichloromethane	ND	0.95	ND	0.14	
79-01-6	Trichloroethene	3.8	0.19	0.70	0.035	
123-91-1	1,4-Dioxane	ND	0.95	ND	0.26	
10061-01-5	cis-1,3-Dichloropropene	ND	0.95	ND	0.21	
108-10-1	4-Methyl-2-pentanone	ND	0.95	ND	0.23	
10061-02-6	trans-1,3-Dichloropropene	ND	0.95	ND	0.21	
79-00-5	1,1,2-Trichloroethane	ND	0.95	ND	0.17	
108-88-3	Toluene	14	0.95	3.8	0.25	
591-78-6	2-Hexanone	ND	0.95	ND	0.23	
124-48-1	Dibromochloromethane	ND	0.95	ND	0.11	
106-93-4	1,2-Dibromoethane	ND	0.95	ND	0.12	
123-86-4	n-Butyl Acetate	9.9	0.95	2.1	0.20	
127-18-4	Tetrachloroethene	15	0.95	2.2	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-5
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC02261

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -4.98 **Final Pressure (psig):** 3.77

Container Dilution Factor: 1.90

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.95	ND	0.21	
100-41-4	Ethylbenzene	2.4	0.95	0.56	0.22	
179601-23-1	m,p-Xylenes	8.9	1.9	2.1	0.44	
75-25-2	Bromoform	ND	0.95	ND	0.092	
100-42-5	Styrene	ND	0.95	ND	0.22	
95-47-6	o-Xylene	12	0.95	2.8	0.22	
111-84-2	n-Nonane	68	0.95	13	0.18	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.95	ND	0.14	
98-82-8	Cumene	23	0.95	4.7	0.19	
80-56-8	alpha-Pinene	8.9	0.95	1.6	0.17	
622-96-8	4-Ethyltoluene	140	0.95	28	0.19	
108-67-8	1,3,5-Trimethylbenzene	130	0.95	27	0.19	
95-63-6	1,2,4-Trimethylbenzene	260	9.5	53	1.9	D
100-44-7	Benzyl Chloride	ND	1.9	ND	0.37	
541-73-1	1,3-Dichlorobenzene	ND	0.95	ND	0.16	
106-46-7	1,4-Dichlorobenzene	ND	0.95	ND	0.16	
95-50-1	1,2-Dichlorobenzene	ND	0.95	ND	0.16	
5989-27-5	d-Limonene	68	0.95	12	0.17	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.95	ND	0.098	
120-82-1	1,2,4-Trichlorobenzene	ND	0.95	ND	0.13	
91-20-3	Naphthalene	ND	0.95	ND	0.18	
87-68-3	Hexachlorobutadiene	ND	0.95	ND	0.089	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: IA-3
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC00716

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -0.06 Final Pressure (psig): 3.70

Container Dilution Factor: 1.26

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.63	0.45	0.13	
74-87-3	Chloromethane	ND	0.63	ND	0.31	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.63	ND	0.090	
75-01-4	Vinyl Chloride	ND	0.63	ND	0.25	
106-99-0	1,3-Butadiene	ND	0.63	ND	0.28	
74-83-9	Bromomethane	ND	0.63	ND	0.16	
75-00-3	Chloroethane	ND	0.63	ND	0.24	
64-17-5	Ethanol	200	6.3	100	3.3	
75-05-8	Acetonitrile	ND	0.63	ND	0.38	
107-02-8	Acrolein	ND	2.5	ND	1.1	
67-64-1	Acetone	370	6.3	160	2.7	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	0.63	0.36	0.11	
67-63-0	2-Propanol (Isopropyl Alcohol)	10	6.3	4.2	2.6	
107-13-1	Acrylonitrile	ND	0.63	ND	0.29	
75-35-4	1,1-Dichloroethene	ND	0.63	ND	0.16	
75-09-2	Methylene Chloride	100	0.63	29	0.18	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.63	ND	0.20	
76-13-1	Trichlorotrifluoroethane (CFC 113)	1.0	0.63	0.13	0.082	
75-15-0	Carbon Disulfide	ND	6.3	ND	2.0	
156-60-5	trans-1,2-Dichloroethene	ND	0.63	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.63	ND	0.16	
1634-04-4	Methyl tert-Butyl Ether	ND	0.63	ND	0.17	
108-05-4	Vinyl Acetate	ND	6.3	ND	1.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-3
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC00716

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -0.06 **Final Pressure (psig):** 3.70

Container Dilution Factor: 1.26

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	6.3	ND	2.1	
156-59-2	cis-1,2-Dichloroethene	ND	0.63	ND	0.16	
110-54-3	n-Hexane	4.0	0.63	1.1	0.18	
67-66-3	Chloroform	ND	0.63	ND	0.13	
107-06-2	1,2-Dichloroethane	ND	0.63	ND	0.16	
71-55-6	1,1,1-Trichloroethane	1.3	0.63	0.24	0.12	
71-43-2	Benzene	0.81	0.63	0.25	0.20	
56-23-5	Carbon Tetrachloride	0.40	0.13	0.063	0.020	
78-87-5	1,2-Dichloropropane	ND	0.63	ND	0.14	
75-27-4	Bromodichloromethane	ND	0.63	ND	0.094	
79-01-6	Trichloroethene	4.5	0.13	0.85	0.023	
123-91-1	1,4-Dioxane	ND	0.63	ND	0.17	
10061-01-5	cis-1,3-Dichloropropene	ND	0.63	ND	0.14	
108-10-1	4-Methyl-2-pentanone	ND	0.63	ND	0.15	
10061-02-6	trans-1,3-Dichloropropene	ND	0.63	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.63	ND	0.12	
108-88-3	Toluene	14	0.63	3.8	0.17	
591-78-6	2-Hexanone	ND	0.63	ND	0.15	
124-48-1	Dibromochloromethane	ND	0.63	ND	0.074	
106-93-4	1,2-Dibromoethane	ND	0.63	ND	0.082	
123-86-4	n-Butyl Acetate	18	0.63	3.8	0.13	
127-18-4	Tetrachloroethene	12	0.63	1.8	0.093	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: IA-3
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC00716

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18 & 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)
 0.10 Liter(s)

Initial Pressure (psig): -0.06 **Final Pressure (psig):** 3.70

Container Dilution Factor: 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.63	ND	0.14	
100-41-4	Ethylbenzene	2.9	0.63	0.66	0.15	
179601-23-1	m,p-Xylenes	11	1.3	2.5	0.29	
75-25-2	Bromoform	ND	0.63	ND	0.061	
100-42-5	Styrene	ND	0.63	ND	0.15	
95-47-6	o-Xylene	11	0.63	2.6	0.15	
111-84-2	n-Nonane	57	0.63	11	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.63	ND	0.092	
98-82-8	Cumene	21	0.63	4.2	0.13	
80-56-8	alpha-Pinene	4.5	0.63	0.80	0.11	
622-96-8	4-Ethyltoluene	120	0.63	24	0.13	
108-67-8	1,3,5-Trimethylbenzene	120	0.63	25	0.13	
95-63-6	1,2,4-Trimethylbenzene	240	6.3	49	1.3	D
100-44-7	Benzyl Chloride	ND	1.3	ND	0.24	
541-73-1	1,3-Dichlorobenzene	ND	0.63	ND	0.10	
106-46-7	1,4-Dichlorobenzene	ND	0.63	ND	0.10	
95-50-1	1,2-Dichlorobenzene	ND	0.63	ND	0.10	
5989-27-5	d-Limonene	61	0.63	11	0.11	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.63	ND	0.065	
120-82-1	1,2,4-Trichlorobenzene	ND	0.63	ND	0.085	
91-20-3	Naphthalene	ND	0.63	ND	0.12	
87-68-3	Hexachlorobutadiene	ND	0.63	ND	0.059	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: AA-1
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC00982

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.17 **Final Pressure (psig):** 3.79

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	1.6	0.74	0.33	0.15	
74-87-3	Chloromethane	ND	0.74	ND	0.36	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.74	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.74	ND	0.29	
106-99-0	1,3-Butadiene	ND	0.74	ND	0.33	
74-83-9	Bromomethane	ND	0.74	ND	0.19	
75-00-3	Chloroethane	ND	0.74	ND	0.28	
64-17-5	Ethanol	ND	7.4	ND	3.9	
75-05-8	Acetonitrile	ND	0.74	ND	0.44	
107-02-8	Acrolein	ND	3.0	ND	1.3	
67-64-1	Acetone	ND	7.4	ND	3.1	
75-69-4	Trichlorofluoromethane (CFC 11)	0.95	0.74	0.17	0.13	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	7.4	ND	3.0	
107-13-1	Acrylonitrile	ND	0.74	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.74	ND	0.19	
75-09-2	Methylene Chloride	ND	0.74	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.74	ND	0.24	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.74	ND	0.097	
75-15-0	Carbon Disulfide	ND	7.4	ND	2.4	
156-60-5	trans-1,2-Dichloroethene	ND	0.74	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.74	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.74	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.4	ND	2.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: AA-1
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC00982

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.17 **Final Pressure (psig):** 3.79

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	7.4	ND	2.5	
156-59-2	cis-1,2-Dichloroethene	ND	0.74	ND	0.19	
110-54-3	n-Hexane	ND	0.74	ND	0.21	
67-66-3	Chloroform	ND	0.74	ND	0.15	
107-06-2	1,2-Dichloroethane	ND	0.74	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.74	ND	0.14	
71-43-2	Benzene	ND	0.74	ND	0.23	
56-23-5	Carbon Tetrachloride	0.34	0.15	0.055	0.024	
78-87-5	1,2-Dichloropropane	ND	0.74	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.74	ND	0.11	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
123-91-1	1,4-Dioxane	ND	0.74	ND	0.21	
10061-01-5	cis-1,3-Dichloropropene	ND	0.74	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.74	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.74	ND	0.14	
108-88-3	Toluene	1.7	0.74	0.45	0.20	
591-78-6	2-Hexanone	ND	0.74	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.74	ND	0.087	
106-93-4	1,2-Dibromoethane	ND	0.74	ND	0.096	
123-86-4	n-Butyl Acetate	ND	0.74	ND	0.16	
127-18-4	Tetrachloroethene	ND	0.74	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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Client: Verina Consulting Group, LLC
Client Sample ID: AA-1
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P1801538-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC00982

Date Collected: 3/21/18
Date Received: 3/27/18
Date Analyzed: 3/30/18
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.17 **Final Pressure (psig):** 3.79

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.74	ND	0.16	
100-41-4	Ethylbenzene	ND	0.74	ND	0.17	
179601-23-1	m,p-Xylenes	ND	1.5	ND	0.34	
75-25-2	Bromoform	ND	0.74	ND	0.072	
100-42-5	Styrene	ND	0.74	ND	0.17	
95-47-6	o-Xylene	ND	0.74	ND	0.17	
111-84-2	n-Nonane	ND	0.74	ND	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.74	ND	0.11	
98-82-8	Cumene	ND	0.74	ND	0.15	
80-56-8	alpha-Pinene	ND	0.74	ND	0.13	
622-96-8	4-Ethyltoluene	ND	0.74	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.74	ND	0.15	
95-63-6	1,2,4-Trimethylbenzene	ND	0.74	ND	0.15	
100-44-7	Benzyl Chloride	ND	1.5	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	0.74	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.74	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.74	ND	0.12	
5989-27-5	d-Limonene	ND	0.74	ND	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.74	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.74	ND	0.10	
91-20-3	Naphthalene	ND	0.74	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.74	ND	0.069	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Method Blank

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180330-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Wida Ang

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 3/30/18

Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Method Blank

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180330-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Wida Ang

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 3/30/18

Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Method Blank

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180330-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Wida Ang

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 3/30/18

Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 1 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Method Blank

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180402-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 4/2/18

Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 2 of 3

Client: Verina Consulting Group, LLC
Client Sample ID: Method Blank
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538
 ALS Sample ID: P180402-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao
Sample Type: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/2/18
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 3 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Method Blank

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180402-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 4/2/18

Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

Client: Verina Consulting Group, LLC
Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Simon Cao/Wida Ang
Sample Type: 6.0 L Summa Canister(s)
Test Notes:

Date(s) Collected: 3/21/18
Date(s) Received: 3/27/18
Date(s) Analyzed: 3/30 - 4/2/18

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P180330-MB	102	99	94	70-130	
Method Blank	P180402-MB	94	102	100	70-130	
Lab Control Sample	P180330-LCS	103	98	96	70-130	
Lab Control Sample	P180402-LCS	93	100	101	70-130	
IA-8	P1801538-001	103	97	99	70-130	
IA-9	P1801538-002	94	99	101	70-130	
IA-2	P1801538-003	90	100	102	70-130	
IA-5	P1801538-004	89	101	103	70-130	
IA-3	P1801538-005	87	101	104	70-130	
AA-1	P1801538-006	88	101	104	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Lab Control Sample

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180330-LCS

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Wida Ang

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 3/30/18

Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	213	187	88	64-115	
74-87-3	Chloromethane	210	203	97	47-140	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	189	90	60-112	
75-01-4	Vinyl Chloride	211	193	91	63-127	
106-99-0	1,3-Butadiene	210	208	99	57-149	
74-83-9	Bromomethane	210	191	91	63-132	
75-00-3	Chloroethane	210	205	98	68-129	
64-17-5	Ethanol	1,040	1060	102	62-131	
75-05-8	Acetonitrile	210	214	102	56-136	
107-02-8	Acrolein	209	200	96	60-132	
67-64-1	Acetone	1,050	1060	101	63-124	
75-69-4	Trichlorofluoromethane (CFC 11)	208	187	90	65-113	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	420	100	62-135	
107-13-1	Acrylonitrile	212	216	102	68-138	
75-35-4	1,1-Dichloroethene	213	196	92	72-118	
75-09-2	Methylene Chloride	213	189	89	67-116	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	212	215	101	61-143	
76-13-1	Trichlorotrifluoroethane (CFC 113)	214	188	88	68-113	
75-15-0	Carbon Disulfide	214	207	97	68-120	
156-60-5	trans-1,2-Dichloroethene	214	211	99	71-125	
75-34-3	1,1-Dichloroethane	212	194	92	68-118	
1634-04-4	Methyl tert-Butyl Ether	213	202	95	60-123	
108-05-4	Vinyl Acetate	1,060	1230	116	73-135	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Lab Control Sample

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180330-LCS

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Wida Ang

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 3/30/18

Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	212	204	96	70-129	
156-59-2	cis-1,2-Dichloroethene	212	204	96	69-121	
110-54-3	n-Hexane	213	208	98	61-124	
67-66-3	Chloroform	212	191	90	69-113	
107-06-2	1,2-Dichloroethane	212	190	90	62-120	
71-55-6	1,1,1-Trichloroethane	212	193	91	65-116	
71-43-2	Benzene	213	185	87	66-111	
56-23-5	Carbon Tetrachloride	214	193	90	64-122	
78-87-5	1,2-Dichloropropane	212	202	95	69-121	
75-27-4	Bromodichloromethane	214	209	98	69-123	
79-01-6	Trichloroethene	212	179	84	69-112	
123-91-1	1,4-Dioxane	213	205	96	74-123	
10061-01-5	cis-1,3-Dichloropropene	208	207	100	74-129	
108-10-1	4-Methyl-2-pentanone	213	223	105	66-138	
10061-02-6	trans-1,3-Dichloropropene	213	208	98	75-130	
79-00-5	1,1,2-Trichloroethane	212	198	93	73-117	
108-88-3	Toluene	211	183	87	66-114	
591-78-6	2-Hexanone	211	204	97	58-146	
124-48-1	Dibromochloromethane	212	197	93	67-130	
106-93-4	1,2-Dibromoethane	211	185	88	70-127	
123-86-4	n-Butyl Acetate	215	212	99	62-140	
127-18-4	Tetrachloroethene	212	182	86	62-119	

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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Lab Control Sample

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180330-LCS

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Wida Ang

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 3/30/18

Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	212	178	84	66-115	
100-41-4	Ethylbenzene	212	189	89	69-117	
179601-23-1	m,p-Xylenes	424	386	91	67-117	
75-25-2	Bromoform	212	191	90	67-135	
100-42-5	Styrene	211	192	91	70-128	
95-47-6	o-Xylene	211	194	92	67-118	
111-84-2	n-Nonane	212	204	96	61-127	
79-34-5	1,1,2,2-Tetrachloroethane	212	208	98	70-125	
98-82-8	Cumene	212	190	90	68-116	
80-56-8	alpha-Pinene	213	204	96	69-122	
622-96-8	4-Ethyltoluene	211	199	94	69-124	
108-67-8	1,3,5-Trimethylbenzene	212	194	92	65-117	
95-63-6	1,2,4-Trimethylbenzene	212	197	93	67-124	
100-44-7	Benzyl Chloride	212	203	96	75-142	
541-73-1	1,3-Dichlorobenzene	212	179	84	70-124	
106-46-7	1,4-Dichlorobenzene	214	173	81	63-124	
95-50-1	1,2-Dichlorobenzene	214	186	87	66-125	
5989-27-5	d-Limonene	213	213	100	64-135	
96-12-8	1,2-Dibromo-3-chloropropane	210	197	94	73-136	
120-82-1	1,2,4-Trichlorobenzene	218	176	81	70-141	
91-20-3	Naphthalene	209	158	76	71-146	
87-68-3	Hexachlorobutadiene	212	188	89	63-126	

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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Lab Control Sample

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180402-LCS

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 4/2/18

Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	213	165	77	64-115	
74-87-3	Chloromethane	210	166	79	47-140	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	211	189	90	60-112	
75-01-4	Vinyl Chloride	211	165	78	63-127	
106-99-0	1,3-Butadiene	210	166	79	57-149	
74-83-9	Bromomethane	210	184	88	63-132	
75-00-3	Chloroethane	210	204	97	68-129	
64-17-5	Ethanol	1,040	974	94	62-131	
75-05-8	Acetonitrile	210	196	93	56-136	
107-02-8	Acrolein	209	196	94	60-132	
67-64-1	Acetone	1,050	1030	98	63-124	
75-69-4	Trichlorofluoromethane (CFC 11)	208	182	88	65-113	
67-63-0	2-Propanol (Isopropyl Alcohol)	422	390	92	62-135	
107-13-1	Acrylonitrile	212	207	98	68-138	
75-35-4	1,1-Dichloroethene	213	201	94	72-118	
75-09-2	Methylene Chloride	213	191	90	67-116	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	212	204	96	61-143	
76-13-1	Trichlorotrifluoroethane (CFC 113)	214	199	93	68-113	
75-15-0	Carbon Disulfide	214	205	96	68-120	
156-60-5	trans-1,2-Dichloroethene	214	205	96	71-125	
75-34-3	1,1-Dichloroethane	212	189	89	68-118	
1634-04-4	Methyl tert-Butyl Ether	213	199	93	60-123	
108-05-4	Vinyl Acetate	1,060	1250	118	73-135	

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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Lab Control Sample

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180402-LCS

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 4/2/18

Volume(s) Analyzed: 0.125 Liter(s)

CAS #	Compound	Spike Amount µg/m ³	Result µg/m ³	% Recovery	ALS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	212	202	95	70-129	
156-59-2	cis-1,2-Dichloroethene	212	197	93	69-121	
110-54-3	n-Hexane	213	200	94	61-124	
67-66-3	Chloroform	212	187	88	69-113	
107-06-2	1,2-Dichloroethane	212	179	84	62-120	
71-55-6	1,1,1-Trichloroethane	212	188	89	65-116	
71-43-2	Benzene	213	185	87	66-111	
56-23-5	Carbon Tetrachloride	214	191	89	64-122	
78-87-5	1,2-Dichloropropane	212	195	92	69-121	
75-27-4	Bromodichloromethane	214	203	95	69-123	
79-01-6	Trichloroethene	212	188	89	69-112	
123-91-1	1,4-Dioxane	213	205	96	74-123	
10061-01-5	cis-1,3-Dichloropropene	208	205	99	74-129	
108-10-1	4-Methyl-2-pentanone	213	213	100	66-138	
10061-02-6	trans-1,3-Dichloropropene	213	206	97	75-130	
79-00-5	1,1,2-Trichloroethane	212	200	94	73-117	
108-88-3	Toluene	211	194	92	66-114	
591-78-6	2-Hexanone	211	200	95	58-146	
124-48-1	Dibromochloromethane	212	210	99	67-130	
106-93-4	1,2-Dibromoethane	211	201	95	70-127	
123-86-4	n-Butyl Acetate	215	208	97	62-140	
127-18-4	Tetrachloroethene	212	203	96	62-119	

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ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

Client: Verina Consulting Group, LLC

Client Sample ID: Lab Control Sample

Client Project ID: Dover-Binghamton / 5101.0003

ALS Project ID: P1801538

ALS Sample ID: P180402-LCS

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Simon Cao

Sample Type: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 4/2/18

Volume(s) Analyzed: 0.125 Liter(s)

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100-41-4	Ethylbenzene	212	199	94	69-117	
179601-23-1	m,p-Xylenes	424	401	95	67-117	
75-25-2	Bromoform	212	207	98	67-135	
100-42-5	Styrene	211	207	98	70-128	
95-47-6	o-Xylene	211	200	95	67-118	
111-84-2	n-Nonane	212	198	93	61-127	
79-34-5	1,1,2,2-Tetrachloroethane	212	212	100	70-125	
98-82-8	Cumene	212	199	94	68-116	
80-56-8	alpha-Pinene	213	211	99	69-122	
622-96-8	4-Ethyltoluene	211	208	99	69-124	
108-67-8	1,3,5-Trimethylbenzene	212	199	94	65-117	
95-63-6	1,2,4-Trimethylbenzene	212	200	94	67-124	
100-44-7	Benzyl Chloride	212	217	102	75-142	
541-73-1	1,3-Dichlorobenzene	212	194	92	70-124	
106-46-7	1,4-Dichlorobenzene	214	192	90	63-124	
95-50-1	1,2-Dichlorobenzene	214	195	91	66-125	
5989-27-5	d-Limonene	213	210	99	64-135	
96-12-8	1,2-Dibromo-3-chloropropane	210	198	94	73-136	
120-82-1	1,2,4-Trichlorobenzene	218	187	86	70-141	
91-20-3	Naphthalene	209	167	80	71-146	
87-68-3	Hexachlorobutadiene	212	182	86	63-126	

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