

31 January 2020

Mr. Payson Long
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action
625 Broadway
Albany, New York 12233

RE: National Heatset Printing Site
Operation & Maintenance and Monitoring Report (October–December 2018)
Soil Vapor Extraction System, In-Well Stripping Systems, and Groundwater Monitoring
1 Adams Boulevard, Town of Babylon, New York
New York State Department of Environmental Conservation Site Number 152140
EA Project No. 14907.16

Dear Mr. Long:

This letter report provides an overview of the ongoing operation of the site remediation systems (i.e., soil vapor extraction [SVE] system, onsite density-driven convection [DDC] systems, and offsite DDC system), as well as groundwater monitoring activities at the National Heatset Printing Site in the Town of Babylon, New York (Figure 1). EA Engineering, P.C. and its affiliate EA Science and Technology (EA) assumed management of the onsite SVE system under New York State Department of Environmental Conservation (NYSDEC) Work Assignment Number (No.) D004441-29. EA is currently performing site management under NYSDEC Work Assignment No. D007624-16, which was approved on 6 November 2012 and amended in April 2013 (EA assumed responsibility for management of the onsite and offsite DDC systems beginning on 12 April 2013). EA's task assignment includes monthly/quarterly visits for the DDC systems, a monthly visit for the SVE system, and quarterly groundwater sampling. The activities are being conducted under the NYSDEC State Superfund Standby Contract. Remedial system details are presented in the NYSDEC-approved Site Management Plan,¹ which includes the Operation & Maintenance (O&M) Manual for each system.

During the reporting period (October–December 2018), an O&M visit was performed on the following dates by EA and/or one of EA's subcontractors (i.e., Preferred Environmental Services [PES], D&D Electric [D&D]).

¹ EA. 2013. *National Heatset Printing Co. State Superfund Site, Suffolk County, Town of Babylon, New York. Site Management Plan. Final.* June.



Site Visit and System Maintenance Log

Date	System	Purpose	Personnel
22–24 October 2018	Onsite and offsite	Quarterly visit. Groundwater sampling conducted at onsite and offsite wells. O&M completed at SVE system, onsite DDC System #2, and offsite DDC System, detailed in Section 1 of this report.	EA, PES, D&D
27 November 2018	Onsite and offsite	Monthly visit. Conducted O&M activities at onsite and offsite systems, detailed in Section 1 of this report.	EA
12–20 December 2019	Onsite and offsite	Monthly visit. Conducted O&M at onsite and offsite systems, detailed in Section 1 of this report. Carbon changeout at onsite DDC System #1 and SVE system.	EA

In addition, quarterly groundwater monitoring activities were performed at the onsite and offsite wells by EA and PES on 22–24 October 2018

1. SYSTEM OPERATION

1.1 SOIL VAPOR EXTRACTION

The SVE system was not operational during the majority of the previous reporting period until 10 August 2018. The SVE System was operational for a total of 2,349 hours out of an available 2,351 hours (99.9 percent of the total available) from October–December 2018. A summary of the operational time associated with the SVE system is presented in Table 1. The location of the SVE system and associated monitoring wells are shown in Figure 2.

The SVE system was temporarily shut down during monthly O&M visits to drain the knock-out tank. The treatment media (granular activated carbon [GAC]) at the SVE system was changed out the week of 19 December 2018 by General Carbon Corporation of Paterson, New Jersey.

1.2 ONSITE DENSITY-DRIVEN CONVECTION

There are two separate DDC systems located in the vicinity of the source area referred to as “onsite DDC System #1” and “onsite DDC System #2”. Onsite DDC System #1 operates using DDC wells 1 and 2, and onsite DDC System #2 operates using DDC wells 3 and 4. During this reporting period (October–December 2018), onsite DDC System #1 was non-operational; onsite DDC System #2 was operational for a total of 1,979 hours out of an available 2,352 hours (84 percent of the total available). A summary of the operational time associated with the onsite DDC systems is presented in Table 1. The locations of the onsite DDC systems and associated monitoring wells are shown in Figure 3.

Onsite DDC System #1 was shut down on 20 March 2018 upon arrival due to a malfunction of the moisture separator. The system has and will remain off until the moisture separator and GAC can be replaced. During the December 2018 monthly visit, EA installed new knockout vessels in onsite DDC System #1 and performed additional troubleshooting of electrical



components. The GAC at onsite system #1 was also changed out the week of 19 December 2018 by General Carbon Corporation of Paterson, New Jersey. Despite replacing the moisture separator tanks and GAC, the system remained down for further troubleshooting of the electrical components.

The onsite DDC System #2 was shut down briefly on 27 November 2018 because it was suspected that the pump associated with the DDC-4 sump was no longer operational. The sump pump was observed to be operational on a second evaluation, a few hours later.

Onsite DDC System #2 was shut down upon arrival on 20 December 2018 due to a high knock-out alarm. Based on the system runtime, it appears that the alarm was triggered around 4 December 2018. The alarm was cleared, and the system was restarted.

1.3 OFFSITE DENSITY-DRIVEN CONVECTION

The offsite DDC system is located along the downgradient edge of the dissolved-phase groundwater plume and is currently equipped with two blowers (designated as “B-501” and “B-502”). Blowers B-501 and B-502 are used interchangeably to operate all DDC wells (5, 6, 7, 8, 9, and 10). During this reporting period (October–December 2018), Blower B-501 was operational for a total of 0 hours out of an available 2,352 hours (0 percent of the total available for the reporting period). Blower B-502 was operational for a total of 2,351 hours out of an available 2352 hours (99.9 percent of the total available for the reporting period). System status during the reporting period and just prior is summarized in the following table.

Date	Status of B-501	Status of B-502
10 August 2018	B-501 off since June 2018;* taken offsite by D&D Motors for troubleshooting and repairs on 10 August 2018	Reinstalled with new blower motor; system restarted with Blower B-502
22 August 2018	Full offsite DDC system found down upon arrival;** alarms were triggered at the control panel including high injection temperatures at the DDC wells, high blower temperature, high motor temperature, and re-injection high pressure. Was not able to be re-started by PES. Blower B-501 is still down for offsite repairs.	
10–13 September 2018	Down; B-501 motor offsite for troubleshooting and repair.	System down from previous site visit; system checked and restarted without issue.
22–24 October 2018	Removed and taken offsite by D&D Motors for troubleshooting and repair	Operational.
19 December 2018	Blower motor reinstalled and restarted; full system shut down due to DDC-8 well head leaking and down sump pump	Shut down for restart of B-501; full system shut down due to DDC-8 well head leaking and down sump pump.
* During the June 2018 O&M site visit, a persistent vibration (similar to the previous vibration noticed in Blower B-502) was observed in B-501 and the chiller unit was non-operational. The offsite DDC system was shut down and remained off beginning 7 June 2018 until blower B-502 was reinstalled and restarted on 10 August 2018 with blower B-502 running. ** A “power-failure” alarm from Onsite DDC System #1 was received on 19 August 2018, initiating a system check of all treatment systems associated with the National Heatset Printing Site. PES checked the offsite DDC system on 22 August 2018 following the alarm received 19 August 2018.		

A summary of the operational time associated with the offsite DDC system is presented in Table 1. The locations of the offsite DDC system and associated monitoring wells are shown in Figure 4.



2. SYSTEM PERFORMANCE MONITORING

2.1 SOIL VAPOR EXTRACTION SYSTEM

Operational data for this period have been based on the system measurements and vapor sample data collected during the October–December 2018 monthly visits. EA operated the SVE system with three legs (1, 4, and 5) to target areas of high volatile organic compound (VOC) concentrations. The average SVE blower flow rate for this period when the system was running was 178 cubic feet/minute (cfm), at an applied vacuum of 73 inches (in.) of water. A complete set of operational data collected is presented in Table 2A, as well as Attachment A.

2.2 ONSITE DDC SYSTEMS

System measurements were not collected from onsite DDC System #1 as the system was shut down for the entire reporting period. Operational data for onsite system #2 for this period have been based on the monthly system measurements. For onsite DDC System #2, the average vapor extraction flow rate was 341 cfm at an average applied vacuum of 43 in. of water.

Operational data are summarized in Tables 2B and 2C, and on the site visit data collection forms provided in Attachment A.

2.3 OFFSITE DENSITY-DRIVEN CONVECTION SYSTEM

Operational data for this period have been based on the monthly system measurements. The average vapor extraction flow rate was 485 cfm at an average applied vacuum of 56 in. of water.

Operational data are summarized in Tables 2D and 2E, and on the site visit data collection forms provided in Attachment A.

3. GROUNDWATER MONITORING

Groundwater monitoring activities performed during the October 2018 quarterly events included well gauging and collection of groundwater samples for offsite laboratory analysis. Well gauging and groundwater sampling activities were performed in accordance with the Site Management Plan.¹ Groundwater samples were obtained at the onsite wells on 23 October 2018 and from the offsite wells on 22–24 October 2018. Duplicate samples were obtained from onsite wells MW-15S (onsite) (sample number “152140-FD-01,” collected on 23 October 2018) and MW-1D (onsite) (sample number “152140-FD-02,” collected on 23 October 2018), and from offsite well MW-1D (offsite). All groundwater samples were analyzed for VOCs using United States Environmental Protection Agency (EPA) Method 8260B.



4. RESULTS

4.1 SOIL VAPOR EXTRACTION SYSTEM

The SVE System was sampled monthly on 23 October 2018, 27 November 2018, and 20 December 2018. EA personnel collected grab air samples from the system influent and effluent using Summa® canisters. Samples were submitted to Eurofins Air Toxics, Inc. and analyzed for VOCs using EPA Method TO-15.

Based on the difference between the influent and effluent sampling results at the SVE system, 1.80 pounds (lbs) of tetrachloroethylene (PCE), a negligible amount of trichloroethene (TCE), and 0.02 lb of cis-1,2-dichloroethene (DCE) were recovered from the source area during the reporting period.

Based on the effluent sampling results, 3.58 lb of PCE has been discharged during the year 2018 toward the permitted annual discharge limit of 270 lb. In addition, 1.36 lb of TCE has been discharged during the year 2018 toward the permitted annual discharge limit of 120 lb. Lastly, 0.28 lb of DCE has also been discharged during the year 2018 (the annual discharge limit is 5,510 lb).

A summary of the field monitoring results, laboratory air discharge analytical results, and estimated mass recovery are presented in Table 2A; the laboratory data reports are presented in Attachment B.

4.2 ONSITE DDC SYSTEMS

Onsite DDC System #2 was sampled on 23 October 2018. Onsite DDC System #1 was not sampled during the reporting period as it was down for repairs. EA personnel collected grab air samples from the system influent and effluent at onsite DDC System #2 using Summa® canisters and submitted the samples to Eurofins Air Toxics, Inc. Grab samples were also obtained between the carbon vessels. The samples were analyzed for VOCs using EPA Method TO-15.

A summary of the field monitoring results, laboratory air discharge analytical results, and estimated mass recovery are presented in Tables 2B and 2C; the laboratory data reports are presented in Attachment B.

Based on the difference between the influent and effluent sampling results, an estimated total of 4.99 lb of PCE and 0.02 lbs of TCE were recovered from the subsurface by onsite DDC System #2 in the vicinity of the source area during the reporting period. A negligible amount of DCE was recovered from the subsurface by onsite DDC System #2 during the reporting period.

4.3 OFFSITE DENSITY-DRIVEN CONVECTION SYSTEM

The offsite DDC system was sampled on 23 October 2018. EA personnel collected grab air samples from the system influent, mid-1, mid-2, and effluent at the offsite DDC system



(Blower B-502) using Summa® canisters and submitted the samples to Eurofins Air Toxics, Inc. Grab samples were also obtained between the carbon vessels at both onsite DDC systems. The samples were analyzed for VOCs using EPA Method TO-15.

A summary of the field monitoring results, laboratory air discharge analytical results, and estimated mass recovery are presented in Tables 2D and 2E; the laboratory data reports are presented in Attachment B.

Based on the difference between the influent and effluent sampling results at the offsite DDC system, 0.56 lb of PCE, 0.60 lb of TCE, and 0.94 lbs of DCE were recovered from the offsite area during the reporting period.

4.4 GROUNDWATER MONITORING

4.4.1 Well Gauging

Based on gauging data obtained from the onsite and offsite wells, the groundwater flow direction across the site is to the southeast onsite and to the south offsite, as depicted in Figures 5 and 6. Figure 5 shows groundwater elevations collected from 7 onsite well locations. Onsite groundwater elevations ranged from 42.01 feet (ft) above mean sea level (amsl) in MW15S to 42.53 in MW-1S. Figure 6 shows groundwater elevations collected from 3 offsite well locations. Offsite groundwater elevations ranged from 28.42 ft amsl in MW-3S to 29.81 ft amsl in MW-1S. Gauging data are provided in Table 3, and on Figures 5 and 6, as well as the field data sheets (Attachment A).

4.4.2 Groundwater Laboratory Analytical Results

Onsite Monitoring Wells

A summary of the detected VOC concentrations for groundwater samples obtained from the onsite monitoring wells are presented in Table 4A for the October 2018 quarterly sampling event. Laboratory analytical results are included in Attachment C. PCE, TCE, and/or DCE were identified at concentrations greater than the corresponding ambient water quality standard in 6 of the 17 samples collected. VOCs were detected in 15 of 17 onsite samples. Concentrations of compounds detected in onsite groundwater samples collected during the October 2018 sampling event are shown in Figure 7.

Offsite Monitoring Wells

A summary of the detected VOC concentrations for groundwater samples obtained from the offsite monitoring wells are presented in Table 4B for the October 2018 quarterly sampling event. Laboratory analytical results are included in Attachment C.



PCE, TCE, and DCE were identified at concentrations greater than the corresponding ambient water quality standard in 9 of the 18 samples collected. VOCs were detected in 17 of 18 offsite samples. Concentrations of compounds detected in offsite groundwater samples collected during the October 2018 sampling event are shown in Figure 8.

5. CONCLUSIONS AND RECOMMENDATIONS

Based on the data collected from the remediation systems and site groundwater during this reporting period, EA recommends continued operation of each system (i.e., SVE, onsite DDC, and offsite DDC).

Please do not hesitate to contact me at 315-565-6557 with any questions you might have regarding this report.

Sincerely,

EA SCIENCE AND TECHNOLOGY

A handwritten signature in black ink that reads 'Megan Miller'.

Megan Miller, EIT
Project Manager

Figures

- 1 Site Location Map
- 2 Onsite Treatment System Location SVE System
- 3 Onsite Treatment System Location DDC #1 and DDC #2
- 4 Offsite System Location
- 5 Onsite Groundwater Flow Direction (October 2018)
- 6 Offsite Groundwater Flow Direction (October 2018)
- 7 Onsite Groundwater Quality (October 2018)
- 8 Offsite Groundwater Quality (October 2018)



Tables

1	Treatment System Runtime
2A	Summary of Estimated Recovery Rate via Soil Vapor Extraction System
2B	Summary of Estimated Recovery Rate via Onsite DDC System #1
2C	Summary of Estimated Recovery Rate via Onsite DDC System #2
2D	Summary of Estimated Recovery Rate via Offsite DDC System (Blower B501)
2E	Summary of Estimated Recovery Rate via Offsite DDC System (Blower B502)
3	Well Gauging Data – July 2018
4A	Summary of Detected Volatile Organic Compounds in Onsite Groundwater Samples Quarterly Sampling Event – July 2018
4B	Summary of Detected Volatile Organic Compounds in Offsite Groundwater Samples Quarterly Sampling Event – July 2018

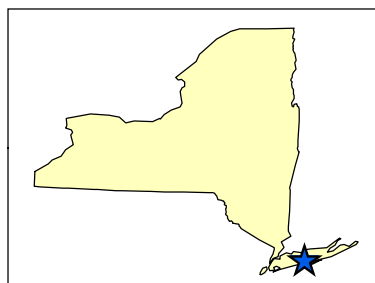
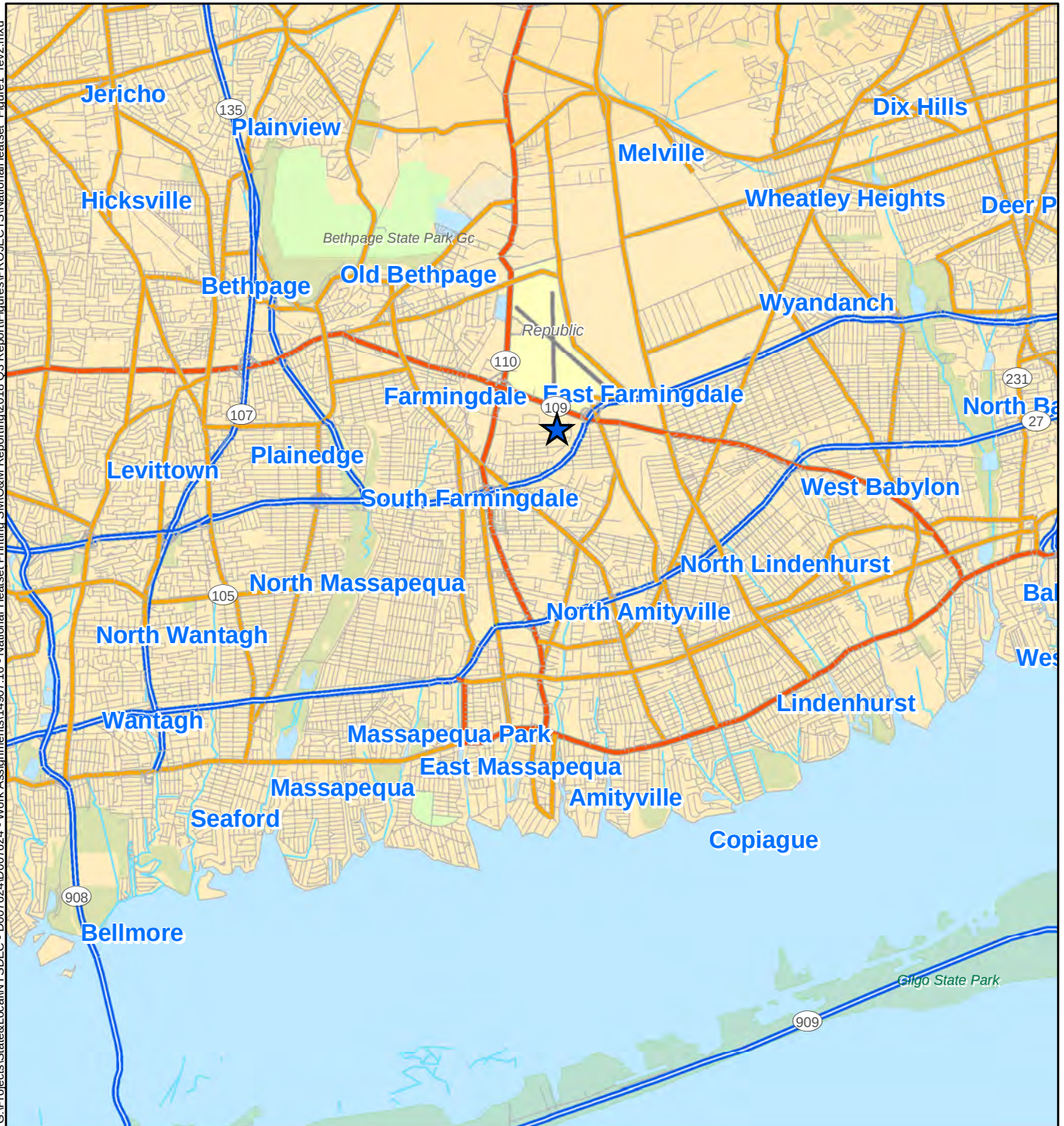
Attachments

A	System Data Sheets
B	Laboratory Analytical Data – System Vapor Samples
C	Laboratory Analytical Data – Groundwater Samples

Figures

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Legend

★ Site Location

0 0.5 1 2
Miles

1 inch = 1.5 miles

N

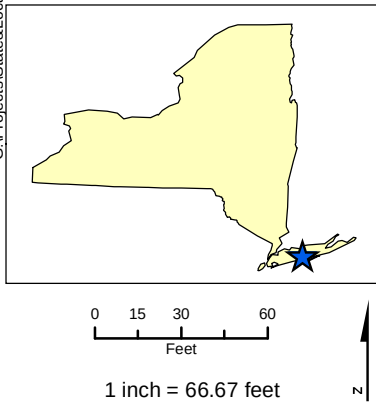
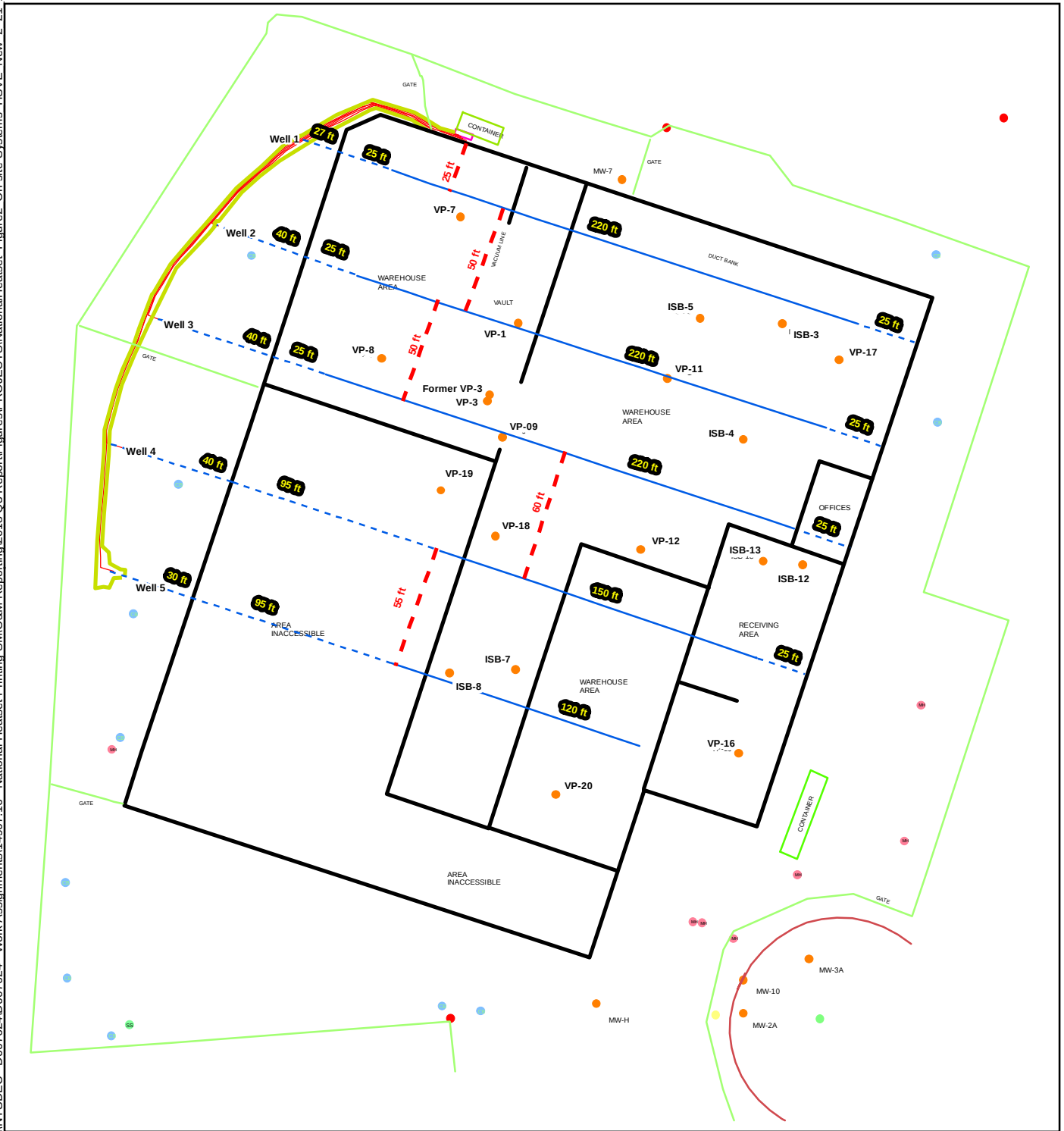
Figure 1
SITE LOCATION MAP
NATIONAL HEATSET SITE (152140)
BABYLON, NEW YORK
SUFFOLK COUNTY

Map Date: 7/1/2019
Source: ESRI, 2011



NEW YORK
STATE OF
OPPORTUNITY
Department of
Environmental
Conservation

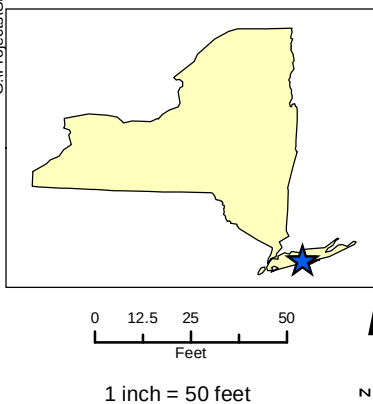
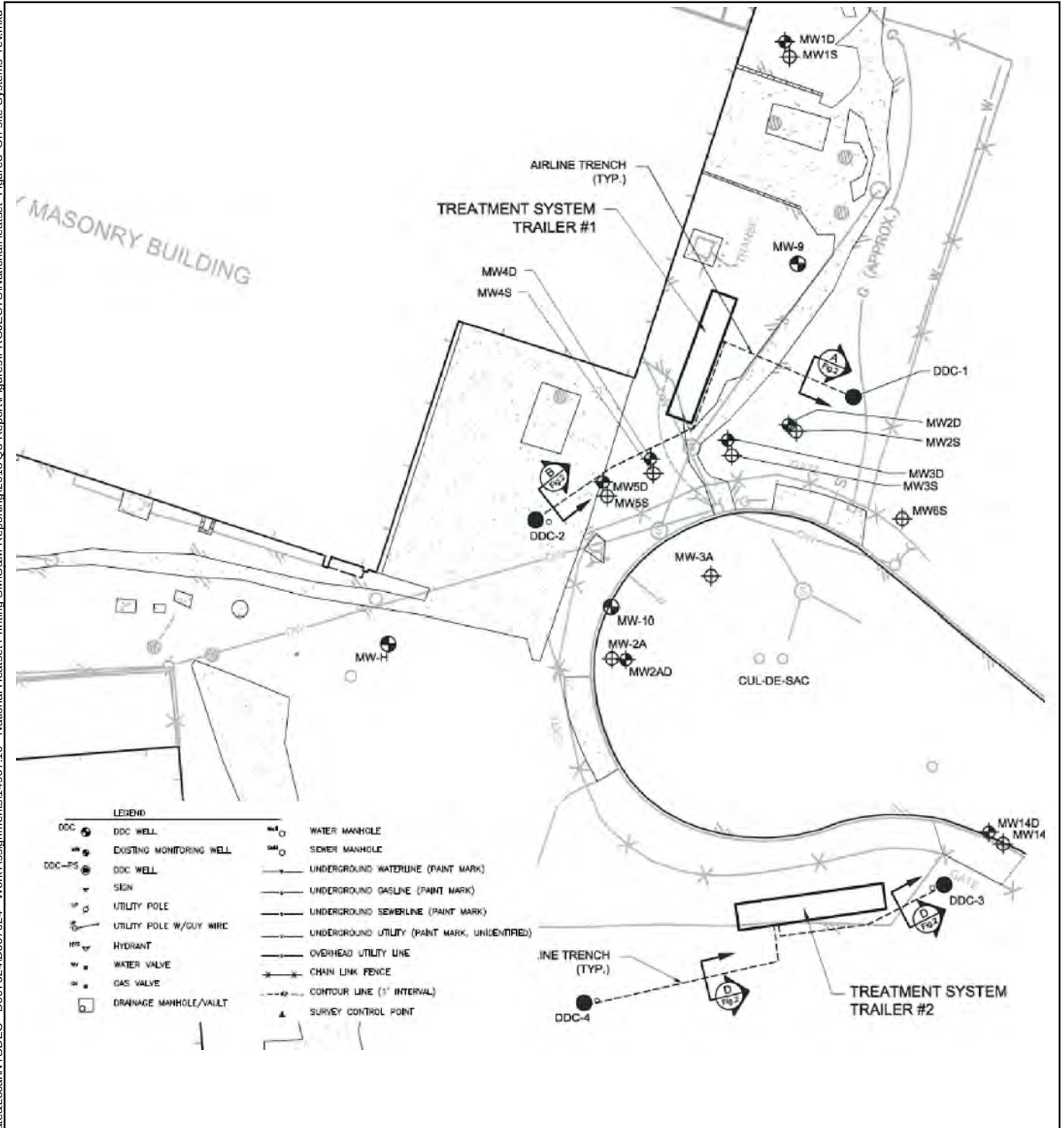




Legend

- HSVE Solid PVC Pipe
- HSVE Well Screen
- HSVE Well Piping (EA Installed)
- HSVE Trench
- HSVE Manifold Shed
- 1 Adams Blvd Building Outline
- ★ Site Location
- Catch Basin Square
- Catch Basin Round
- Manhole
- Sanitary Manhole
- Soil Boring / Vapor Point
- Soil Boring
- Monitoring Well
- Chainlink Fence

Figure 2
ONSITE TREATMENT
SYSTEM LOCATION
SVE System
NATIONAL HEATSET SITE (152140)
BABYLON, NEW YORK
SUFFOLK COUNTY
 Map Date: 7/11/2019
 Source: ESRI, 2011



Legend

★ Site Location

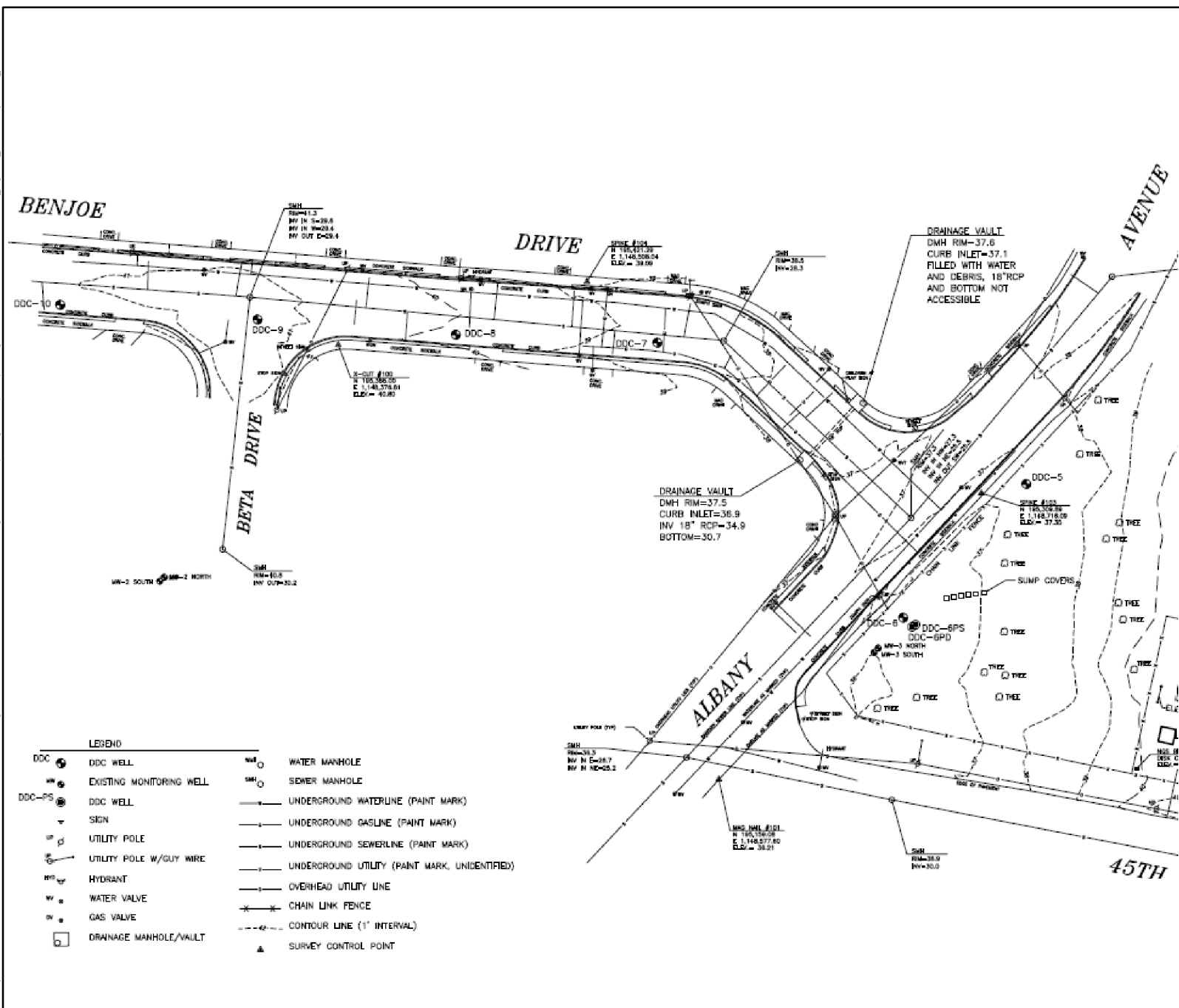
Figure 3
ONSITE TREATMENT SYSTEM LOCATION
 DDC #1 and DDC #2
 NATIONAL HEATSET SITE (152140)
 BABYLON, NEW YORK
 SUFFOLK COUNTY

Map Date: 7/11/2019
 Source: ESRI, 2011

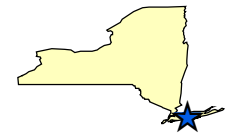


Department of
Environmental
Conservation





VICINITY MAP



Map Date: 7/11/2019
Source:
Projection:



0 25 50 100
Feet

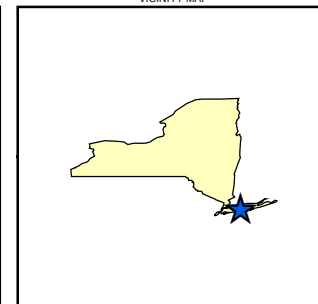
1 inch = 100 feet



Figure 4
OFFSITE SYSTEM
LOCATION
NATIONAL HEATSET
SITE (152140)
BABYLON, NEW YORK
SUFFOLK COUNTY



VICINITY MAP



Legend

-  Groundwater Monitoring Well
-  Inferred Groundwater Contours
-  Interpreted Groundwater Contours
-  Groundwater Flow Direction

Map Date: 7/12/2019

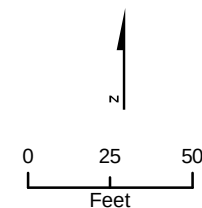
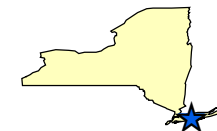


Figure 5
ONSITE GROUNDWATER
FLOW DIRECTION
(October 2018)
 NATIONAL HEATSET
 SITE (152140)
 BABYLON, NEW YORK
 SUFFOLK COUNTY



VICINITY MAP



Legend

-  DDC Well Cluster
-  Groundwater Monitoring Well
-  Inferred Groundwater Contours
-  Groundwater Flow Direction

Map Date: 7/12/2019

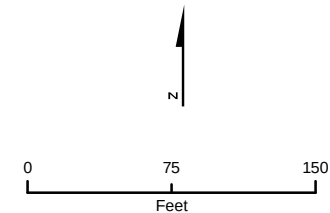
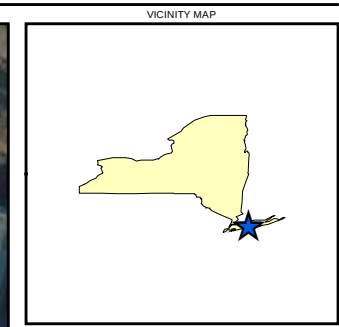
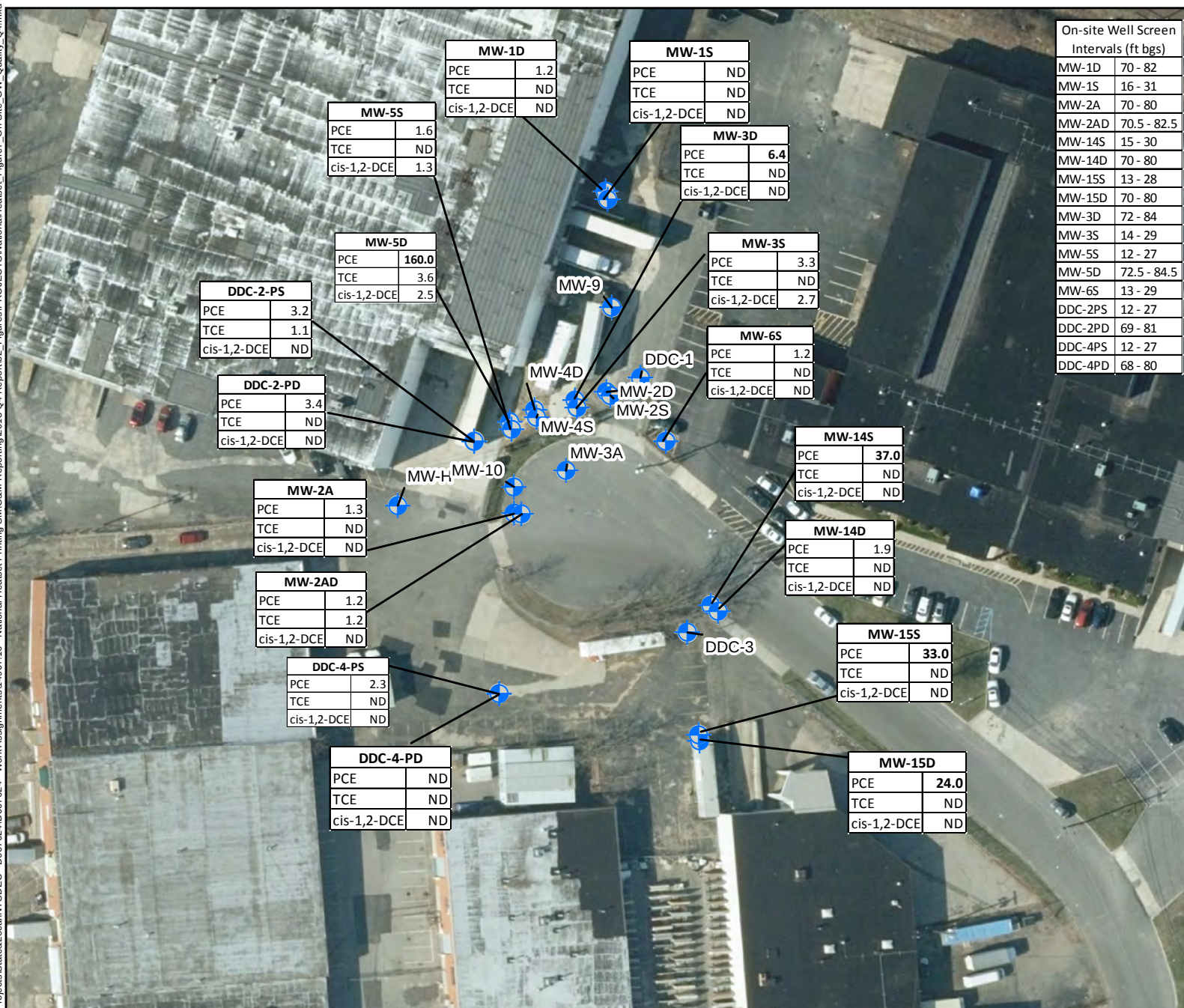


Figure 6
OFFSITE GROUNDWATER
FLOW DIRECTION
(October 2018)
 NATIONAL HEATSET
 SITE (152140)
 BABYLON, NEW YORK
 SUFFOLK COUNTY



Legend

Groundwater Monitoring Well

PCE - Tetrachloroethene
TCE - Trichloroethene
CIS-1,2-DCE - cis-1,2-Dichloroethene
ND - Non detect

Results are reported in µg/L
Bold values indicate exceedance of NYS AWQS (5 µg/L)

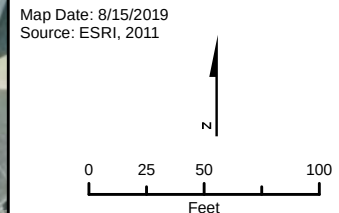
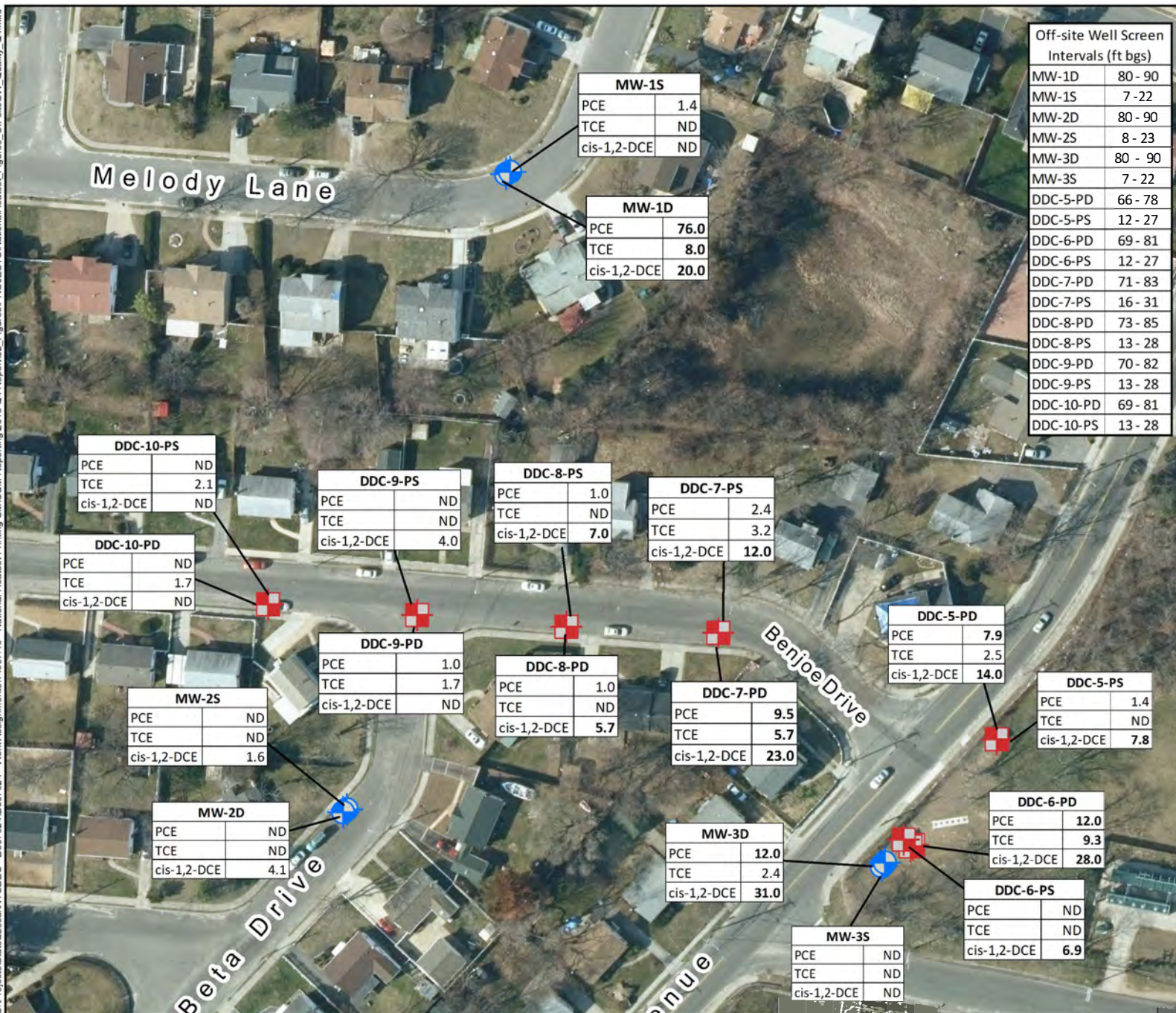


Figure 7
ONSITE GROUNDWATER QUALITY
(October 2018)
NATIONAL HEATSET SITE (152140)
BABYLON, NEW YORK
SUFFOLK COUNTY



VICINITY MAP



Legend

- DDC Well Cluster
- Groundwater Monitoring Well

PCE - Tetrachloroethene
TCE - Trichloroethene
CIS-1,2-DCE - cis-1,2-Dichloroethene
ND - Non detect

Results are reported in µg/L
Bold values indicate exceedance of
NYS AWQS (5 µg/L)

Map Date: 8/16/2019
Source: ESRI, 2011

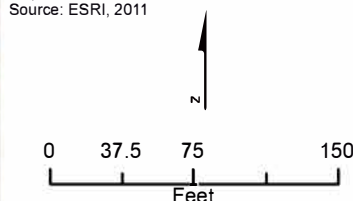


Figure 8
OFFSITE GROUNDWATER
QUALITY (October 2018)
NATIONAL HEATSET
SITE (152140)
BABYLON, NEW YORK
SUFFOLK COUNTY

Tables

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Table 1 Treatment System Runtime

System Readings																										
Date	Notes	SVE System					Onsite DDC Treatment System										Offsite DDC Treatment System									
		SVE Blower					System #1					System #2					Blower B-501					Blower B-502				
		Meter Reading (Hours)	Time	Elapsed Runtime (Hours)	Elapsed Available (Hours)	Runtime (%)	Meter Reading (Hours)	Time	Elapsed Runtime (Hours)	Elapsed Available (Hours)	Runtime (%)	Meter Reading (Hours)	Time	Elapsed Runtime (Hours)	Elapsed Available (Hours)	Runtime (%)	Meter Reading (Hours)	Time	Elapsed Runtime (Hours)	Elapsed Available (Hours)	Runtime (%)	Meter Reading (Hours)	Time	Elapsed Runtime (Hours)	Elapsed Available (Hours)	Runtime (%)
10/17/17		30828.62	14:15	626.05	626.3	100	46249.30	9:00	625.30	620.33	100.80	52549.50	13:20	624.70	624.50	100.0	26002.40	14:30	625.90	625.17	100	23285.00	14:30	--	--	--
11/30/17		31879.50	8:10	1050.88	1049.9	100	47301.80	9:30	1052.50	1056.50	99.62	53601.70	10:00	1052.20	1052.67	99.96	27051.10	10:30	1048.70	1052.00	99.69	23285.00	10:30	--	--	--
12/13/17		32190.12	8:00	310.62	311.8	100	47617.88	13:35	316.08	316.08	100.00	53912.00	10:00	310.30	312.00	99.46	27364.00	11:30	312.90	313.00	99.97	23285.00	11:30	--	--	--
Quarterly Run-Time				1988	1988	100			1993	1993	100			1987	1989	99.9			1988	1990	99.9					
01/24/18	A, B	32960.38	7:17	770	1007.28	76	48619.70	7:17	1002	1002	100	54664.80	7:30	753	1006	74.9	28351.80	14:00	988	1011	97.8	23285.00	14:00	--	--	--
02/09/18	A ,B	32960.38	9:30	0	386.22	0	49005.92	9:30	386	386	100	54664.80	10:00	0	386	0.0	28753.00	7:30	401	377	106.3	23285.00	7:30	--	--	--
03/20/18	C	32960.38	6:48	0	933.30	0	49939.22	6:48	933	933	100	54666.00	11:00	1	937	0.1	29688.10	7:40	935	936	99.9	23285.00	7:40	--	--	--
Quarterly Run-Time				770	2327	33			2321	2321	100			754	2329	32			2324	2324	100					
04/16/18	A	32960.38	8:20	0	649.53	0	49939.22	8:20	0.00	649.53	0.00	55311.70	8:20	646	645	100	30333.70	10:30	645.60	650.83	99.20	23285.00	10:30	--	--	--
05/14/18	A	32960.38	7:30	0	671.17	0	49939.22	7:30	0.00	671.17	0.00	55982.00	7:24	670	671	99.9	31004.00	8:17	670.30	669.78	100.08	23285.00	8:17	--	--	--
06/07/18	A, D	32960.38	12:00	0	580.50	0	49939.22	12:00	0.00	580.50	0.00	56564.40	13:15	582	582	100	31463.05	14:00	459.05	581.72	78.91	23285.00	14:00	--	--	--
Quarterly Run-Time				0	1901	0			0	1901	0			1898	1898	100			1775	1902	93					
07/05/18		32960.38	16:00	0	676.00	0	49939.22	16:00	0.00	676.00	0.00	57254.00	16:10	690	675	100	31463.05	14:00	0.00	672.00	0.00	23285.00	14:00	0.00	672.00	0.00
08/10/18		32960.38	11:00	0	859.00	0	49939.22	11:00	0.00	859.00	0.00	57803.00	11:00	549	859	63.9	31463.05	10:00	0.00	860.00	0.00	23285.50	10:00	0.50	860.00	0.06
09/13/18		33707.80	13:00	747	818.00	91	49939.22	13:00	0.00	818.00	0.00	58503.00	11:58	700	817	85.7	31510.50	14:38	47.45	820.63	5.78	23364.20	14:38	78.70	820.63	9.59
Quarterly Run-Time				747	2353	32			0	2353	0			1939	2351	82			47	2353	2			79	2353	3
10/23/18		34663.63	8:50	956	955.83	100	49939.22	8:50	0.00	955.83	0.00	59458.50	16:10	956	964	100	31510.50	14:45	0.00	960.12	0.00	24323.90	14:45	959.70	960.12	99.96
11/27/18		35506.47	11:00	843	842.17	100	49939.22	11:00	0.00	842.17	0.00	60298.70	11:00	840	835	101	31510.50	7:45	0.00	833.00	0.00	25156.00	7:45	832.10	833.00	99.89
12/20/18		36056.64	12:12	550	553.20	99	49939.22	12:12	0.00	553.20	0.00	60481.70	11:58	183	553	33	31510.50	14:38	0.00	558.88	0.00	25714.88	14:38	558.88	558.88	100.00
Quarterly Run-Time				2349	2351	99.91			0	2351	0			1979	2352	84			0	2352	0			2351	2352	100
NOTES:		SVE = Soil vapor extraction DDC = Density-driven convection --- = N/A A = SVE System down, Hour reading only parameter collected B = Onsite DDC System #2 down in January, was not restarted until March C = Onsite DDC System #1 down upon arrival, remains off pending repairs D = Offsite System shut down Shaded cells indicate O&M events performed during a previous reporting period.																								

Table 2A Summary of Estimated Recovery Rate via Soil Vapor Extraction System

Date	Field/System Data			Elapsed Run-Time (day)	Laboratory Results						Mass Discharged						Recovery based on Laboratory Results									
	SVE Blower Flow Rate (cfm)	Applied Vacuum (in. H ₂ O)	System Discharge VOC Concentration (ppmv)		SYS INFLUENT			SYS EFFLUENT			PCE Discharge During Period: lb/hour	PCE Discharge During Period (lb)	TCE Discharge During Period (lb/hr)	TCE Discharge During Period (lb)	cis-1,2-DCE Discharge During Period (lb/hr)	cis-1,2-DCE Discharge During Period (lb)	PCE Recovery During Period: lb/hr	PCE Recovery During Period (lb)	TCE Recovery During Period (lb/hr)	TCE Recovery During Period (lb)	cis-1,2-DCE Recovery During Period (lb/hr)	cis-1,2-DCE Recovery During Period (lb)				
					PCE (mg/m ³)	TCE (mg/m ³)	cis-1,2-DCE (mg/m3)	PCE (mg/cu m.)	TCE (mg/cu m.)	cis-1,2-DCE (mg/cu m.)																
07/18/17	200	63	0.0	21	7.40	0.63	0.16	0.024	0.000	0.2200	0.0000	0.009	0.0000	0.00	0.0000	0.00	0.0055	2.7874	0.0005	0.2381	0.000	0.0000				
08/28/17	230	55	0.0	41	7.10	0.52	0.08	0.000	0.000	0.1100	0.0000	0.000	0.0000	0.00	0.0000	0.00	0.0061	6.0242	0.0004	0.4412	0.000	0.0000				
09/21/17	230	55	0.1	24	6.90	0.46	0.10	0.000	0.000	0.1400	0.0000	0.000	0.0000	0.00	0.0000	0.00	0.0059	3.4270	0.0004	0.2285	0.000	0.0000				
10/17/17	230	55	0.0	26	2.80	0.24	0.03	0.037	0.000	0.0000	0.0000	0.020	0.0000	0.00	0.0000	0.00	0.0024	1.4867	0.0002	0.1291	0.000	0.0161				
11/30/17	180	75	0.0	44	0.00	0.00	0.00	0.000	0.000	0.0000	0.0000	0.000	0.0000	0.00	0.0000	0.00	0.0000	0.0000	0.0000	0.0000	0.000	0.0000				
12/13/17	175	75	0.0	13	0.98	0.08	0.02	0.000	0.000	0.0082	0.0000	0.000	0.0000	0.00	0.0000	0.00	0.0006	0.2006	0.0000	0.0156	0.000	0.0022				
01/24/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
02/09/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
03/20/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
04/16/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
05/14/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
06/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
07/05/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
08/10/18	195	65	0.0	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
09/13/18	185	68	0.0	34	--	--	--	0.000	0.180	0.1600	0.0000	0.000	0.0001	0.22	0.0001	0.19	--	--	--	--	--	--				
10/23/18	185	70	1.13	40	4.90	0.31	0.09	2.20	1.30	0.06	0.00	1.46	0.00	0.87	0.00	0.04	0.0019	1.7977	0.0000	0.0000	0.000	0.0166				
11/27/18	175	75	0.82	35	1.40	0.08	0.04	1.80	0.42	0.05	0.00	0.99	0.00	0.23	0.00	0.03	0.0000	0.0000	0.0000	0.0000	0.000	0.0000				
12/20/18	175	75	0.0	23	0.01	0.00	0.00	3.10	0.13	0.06	0.00	1.12	0.00	0.05	0.00	0.02	0.0000	0.0000	0.0000	0.0000	0.000	0.0000				
PERIOD TOTALS =												3.58	1.36			0.28			1.80			0.00			0.02	
NOTES: SVE = Soil vapor extraction cfm = Cubic feet per minute ppmv = Part(s) per million (vol./vol.) mg/m ³ = Milligram(s) per cubic meter PCE = Tetrachloroethylene TCE = Trichloroethene lb = Pound(s) cis-1,2-DCE = cis-1,2-Dichloroethene Mass Recovery (Lab Res., lb/hr) = flow (cfm)*effluent conc. (mg/cu. m.)*1g/1000mg*1lb/453.6g*1cu. m./35.31cu. ft*60min/1 hr Mass Recovery (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day Permit limit for PCE is 0.031 lb/hr and 270 lb/yr; TCE is 0.014 lb/hr and 120 lb/year; cis-1,2-DCE is 0.63 lb/hr and 5,510 lb/year Samples for month of September 2016 were collected on 9/30/16, while sample measurements were taken on 9/12/16 Shaded cells indicate O&M events performed during a previous reporting period. Carbon changeout performed on 12/19/18. No samples were collected during the first quarter of 2018. The system was down for repairs from January 2018 to August 2018.																										

Table 2B Summary of Estimated Recovery Rate via Onsite DDC System #1

Date	Field/System Data			Elapsed Run-Time (days)	Laboratory Results									Recovery based on Laboratory Results					
	Vacuum Flow Rate (cfm)	Applied Vacuum (in. H ₂ O)	System Influent VOC Concentration (ppmv)		SYS1-INF1			SYS1-MIDGAC			SYS1-EFF			PCE Recovery During Period: lb/hr	PCE Recovery During Period (lb)	TCE Recovery During Period (lb/hr)	TCE Recovery During Period (lb)	cis -1,2-DCE Recovery During Period (lb/hr)	cis -1,2-DCE Recovery During Period (lb)
					PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)						
07/18/17	236	38	2.051	21	3.8000	0.0000	0.0000	0.0130	0.0000	0.0071	0.022	0.0000	0.0063	0.0056	11.5084	0.0000	0.0000	0.0000	0.0000
08/28/17	470	44	1.032	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/21/17	475	32	0.952	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/17/17	180	35	0	26	1.4000	0.0000	0.0000	0.3600	0.0000	0.0052	0.0087	0.0000	0.0034	0.0011	2.1300	0.0000	0.0000	0.0000	0.0000
11/30/17	220	45	0.441	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/13/17	215	44	1.583	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
01/24/18	221	44	1.382	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/09/18	200	44	1.39	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/20/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
04/16/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
05/14/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/05/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/10/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/23/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/20/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PERIOD TOTALS = --																			
NOTE: cfm = cubic feet per minute VOC = Volatile organic compound ppmv = parts per million (vol./vol.) mg/m ³ = milligrams per cubic meter PCE = Tetrachloroethylene TCE = Trichloroethene cis -1,2-DCE = cis-1,2-Dichloroethene Mass Recovery (Lab Res., lb/hr) = flow (cfm)*effluent conc. (mg/cu. m.)*1g/1000mg*1lb/453.6g*1cu. m./35.31cu. ft*60min/1 hr Mass Recovery (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day Shaded cells indicate O&M events performed during a previous reporting period. Samples were not collected from on-site DDC system #1 during this reporting period as the system was shut down for repairs.																			

Table 2C Summary of Estimated Recovery Rate via Onsite DDC System #2																				
Date	Field/System Data			Elapsed Run-Time (day)	Laboratory Results									Recovery based on Laboratory Results						
	Vacuum Flow Rate (cfm)	Applied Vacuum (in. H ₂ O)	System Influent VOC Concentration (ppmv)		SYS2-INF1			SYS2-INF2			SYS2-EFF			PCE Recovery During Period: lb/hr	PCE Recovery During Period (lb)	TCE Recovery During Period (lb/hr)	TCE Recovery During Period (lb)	cis -1,2-DCE Recovery During Period (lb/hr)	cis -1,2-DCE Recovery During Period (lb)	
					PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)							
07/18/17	256	13.6	0.262	21	0.3	0	0.044	0.28	0	0.04	0	0	0.044	0.0003	0.6469	0.0000	0.0000	0.0000	0.0000	
08/28/17	266	13.6	0.051	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/21/17	314	13.6	0.069	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
10/17/17	325	13.6	0	26	0.24	0	0.022	.250	0	0.024	0	0	0.027	0.000295421	0.58847903	0.0000	0.0000	0.0000	0.0000	
11/30/17	340	5.4	-	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/13/17	320	13.6	0.116	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
01/24/18	-	-	-	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02/09/18	-	-	-	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
03/20/18	350	54.4	0.806	39	0.61	0.013	0.047	0.43	0.011	0.046	0	0	0.053	0.0008	0.7492	0.0000	0.0160	0.0000	0.0000	
04/16/18	310	40.8	0	27	0.46	0.0063	0.044	0.32	0.0052	0.043	0	0	0.043	0.0005	1.0332	0.0000	0.0142	0.0000	0.0022	
05/14/18	330	1.4	0.95	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/07/18	308	34.0	4.89	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07/05/18	320	2.7	0.732	28	1.4	0.0076	0.032	1.4	0.0077	0.033	0	0	0.37	0.0017	3.9174	0.0000	0.0213	-0.0004	0.0000	
08/10/18	300	1.4	1.211	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/13/18	332	46.2	0.02	34	1.8	0.01	0.029	2.3	0.011	0.039	0	0	0.044	0.0021	5.0366	0.0000	0.0280	0.0000	0.0000	
10/23/18	322	46.2	0.143	40	1.7	0.013	0.046	1.8	0.014	0.047	0.038	0.0063	0.057	0.0021	4.9924	0.0000	0.0201	0.0000	0.0000	
11/27/18	408	40.8	1.075	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/20/18	292	40.8	8.746	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PERIOD TOTALS =															4.99	0.02		0.00		
NOTE: cfm = cubic feet per minute VOC = Volatile organic compound ppmv = parts per million (vol./vol.) mg/m ³ = milligrams per cubic meter PCE = Tetrachloroethylene TCE = Trichloroethene cis -1,2-DCE = cis-1,2-Dichloroethene Mass Recovery (Lab Res., lb/hr) = flow (cfm)*effluent conc. (mg/cu. m.)*1g/1000mg*1lb/453.6g*1cu. m./35.31cu. ft*60min/1 hr Mass Recovery (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day Shaded cells indicate O&M events performed during a previous reporting period.																				

Table 2D Summary of Estimated Recovery Rate via Offsite DDC System (Blower B501)

Date	Field/System Data			Elapsed Run-Time (day)	Laboratory Results												Recovery based on Laboratory Results					
	Vacuum Flow Rate (cfm)	Applied Vacuum (in. H ₂ O)	System Influent VOC Concentration (ppmv)		B501-INF1			B501-INTER1			B501-INTER2			B501-EFF			PCE Recovery During Period: lb/hr	PCE Recovery During Period (lb)	TCE Recovery During Period (lb/hr)	TCE Recovery During Period (lb)	cis -1,2-DCE Recovery During Period (lb/hr)	cis -1,2-DCE Recovery During Period (lb)
					PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)						
07/18/17	541	55	--	21	0.0430	0.0500	0.7900	0.0000	0.350	0.660	0.000	0.0000	1.0000	0.0000	0.0000	0.8500	0.0001	0.1856	0.0001	0.2158	-0.0001	0.00
08/28/17	612	55	0.000	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/21/17	520	55	0.019	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/17/17	--	56	0.000	26	0.0730	0.0600	0.8400	0.0690	0.064	1.000	0.000	0.0000	1.0000	0.0000	0.0000	0.9000	0.0001	0.2878	0.0001	0.2366	0.0000	0.00
11/30/17	564	48	0.000	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/13/17	492	55	0.000	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
01/24/18	517	54	0.000	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/09/18	491	50	0.000	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/20/18	558	48	0.000	39	0.094	0.092	1.200	0.340	0.270	1.100	0.000	0.0230	0.1000	0.0000	0.0000	1.1000	0.0002	0.4282	0.0002	0.4191	0.0002	0.46
04/16/18	703	55	0.000	27	0.130	0.100	1.400	0.620	0.320	1.500	0.000	0.4300	1.6000	0.0000	0.0000	1.7000	0.0003	0.3979	0.0002	0.3061	0.0000	0.00
05/14/18	534	46	0.000	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/05/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8/10/2018**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/13/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/23/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/20/2018***	519	54	--	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PERIOD TOTALS = 0.40 0.31 0.00																						
NOTE: cfm = cubic feet per minute VOC = Volatile organic compound ppmv = parts per million (vol./vol.) mg/m ³ = milligrams per cubic meter PCE = Tetrachloroethylene TCE = Trichloroethene cis -1,2-DCE = cis-1,2-Dichloroethene Mass Recovery (Lab Res., lb/hr) = flow (cfm)*effluent conc. (mg/cu. m.)*1g/1000mg*1lb/453.6g*1cu. m./35.31cu. ft*60min/1 hr Mass Recovery (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day Shaded cells indicate O&M events performed during a previous reporting period. **Blower B-502 replaced and B-501 turned off for repairs. ***Blower B-501 replaced; O&M readings carried from B-501 were carried over to Table 2E for purposes of calculation.																						

Table 2E Summary of Estimated Recovery Rate via Offsite DDC System (Blower B502)																							
Date	Field/System Data			Elapsed Run-Time (dav)	Laboratory Results												Recovery based on Laboratory Results						
	Vacuum Flow Rate (cfm)	Applied Vacuum (in. H ₂ O)	System Influent VOC Concentration (ppmv)		B502-INF1			B502-INTER1			B502-INTER2			B502-EFF			PCE Recovery During Period: lb/hr	PCE Recovery During Period (lb)	TCE Recovery During Period (lb/hr)	TCE Recovery During Period (lb)	cis -1,2-DCE Recovery During Period (lb/hr)	cis -1,2-DCE Recovery During Period (lb)	
					PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)	PCE (mg/m ³)	TCE (mg/m ³)	cis -1,2-DCE (mg/m ³)							
10/17/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
11/30/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/13/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1/24/2018*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02/09/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
03/20/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4/16/2018*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/07/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07/05/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
8/10/2018**	165	55	0.000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/13/18	452	62	0.000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
10/23/18	507	60	0.000	40	0.130	0.140	0.500	0.000	0.060	0.670	0.000	0.000	0.360	0.000	0.000	0.280	0.000	0.556	0.000	0.599	0.000	0.941	
11/27/18	429	54	0.179	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/20/2018***	519	54	--	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PERIOD TOTALS =																		0.56		0.60		0.94	
NOTE: cfm = cubic feet per minute VOC = Volatile organic compound ppmv = parts per million (vol./vol.) mg/m ³ = milligrams per cubic meter PCE = Tetrachloroethylene TCE = Trichloroethene cis -1,2-DCE = cis-1,2-Dichloroethene Mass Recovery (Lab Res., lb/hr) = flow (cfm)*effluent conc. (mg/cu. m.)*1g/1000mg*1lb/453.6g*1cu. m./35.31cu. ft*60min/1 hr Mass Recovery (Lab Res., lb) = Discharge Rate (lb/hr) * # of days*24hours/day Shaded cells indicate O&M events performed during a previous reporting period. * Offsite system running with Blower B-501 while blower B-502 is turned off for repairs. **Blower B-502 replaced and B-501 turned off for repairs. ***Blower B-501 replaced; O&M readings carried over from B-501 for purposes of calculation																							

**Table 3 Well Gauging Data
October 2018**

Onsite				Offsite			
Well ID	DTW	Top of Casing	ft AMSL	Well ID	DTW	Top of Casing	ft AMSL
MW-1S	15.30	57.83	42.53	MW-1S	7.07	36.88	29.81
MW-1D	15.49	58.17	42.68	MW-1D	7.90		
MW-2A	15.76	58.20	42.44	MW-2S	11.41	40.34	28.93
MW-2AD	16.33	58.51	42.18	MW-2D	11.50		
MW-3S	16.09	58.60	42.51	MW-3S	7.45	35.87	28.42
MW-3D	14.75	58.65	43.90	MW-3D	7.58		
MW-5S	14.56	56.88	42.32	DDC-5-PS	13.15		
MW-5D	16.15	56.19	40.04	DDC-5-PD	9.29		
MW-6S	15.60	58.08	42.48	DDC-6-PS	7.86		
MW-14S	14.90	57.19	42.29	DDC-6-PD	7.78		
MW-14D	15.10	57.31	42.21	DDC-7-PS	7.91		
MW-15S	15.28	57.29	42.01	DDC-7-PD	10.10		
MW-15D	15.32	57.25	41.93	DDC-8-PS	7.39		
DDC-2-PS	13.40	56.70	43.30	DDC-8-PD	12.30		
DDC-2-PD	13.54	56.70	43.16	DDC-9-PS	8.20		
DDC-4-PS	6.35	56.50	50.15	DDC-9-PD	12.25		
DDC-4-PD	14.13	56.50	42.37	DDC-10-PS	10.10		
				DDC-10-PD	9.95		
Static water levels gauged before purging onsite and offsite wells.							
NOTES:							
AMSL = Above mean sea level							
DTW = Depth to water							
ID = Identification							

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Table 4A Summary of Detected Volatile Organic Compounds in Onsite Groundwater Samples Quarterly Sampling Event - October 2018

Parameters List EPA Method 8260B	Sample ID	DDC-2-PD		DDC-2-PS		DDC-4-PD		DDC-4-PS		MW-1D		MW-1S		MW-2A		MW-2AD		152140-FD-01		NYSDEC AWQS (µg/L)
	Sample Type	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Duplicate		
	Sample Date	10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		
cis - 1,2-Dichloroethene	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
trans -1,2-Dichloroethene	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
Trichloroethene	(µg/L)	(<1)	U	1.1		(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	1.2		(<1)	U	5 (s)
Tetrachloroethene	(µg/L)	3.4		3.2		(<1)	U	2.3		1.2		(<1)	U	1.3		1.2		35		5 (s)
Vinyl Chloride	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	6.6		(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
Parameters List EPA Method 8260B	Sample ID	MW-6S		MW-3D		MW-3S		MW-5D		MW-5S		MW-14D		MW-14S		MW-15D		MW-15S		NYSDEC AWQS (µg/L)
	Sample Type	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		
	Sample Date	10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		
cis - 1,2-Dichloroethene	(µg/L)	(<1)	U	(<1)	U	2.7		2.5		1.3		(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
trans -1,2-Dichloroethene	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
Trichloroethene	(µg/L)	(<1)	U	(<1)	U	(<1)	U	3.6		(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
Tetrachloroethene	(µg/L)	1.2		6.4		3.3		160		1.6		1.9		37		24		33		5 (s)
Vinyl Chloride	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
NOTE: EPA = U.S. Environmental Protection Agency ID = Identification NYSDEC = New York State Department of Environmental Conservation AWQS = Ambient Water Quality Standard µg/L = Micrograms per liter (parts per billion) U = Analyte not detected at the listed laboratory reporting limit. 152140-FD-01 was a blind field duplicate quality assurance/quality control sample of on-site sample MW-15S for this sampling event. Bold values indicate that the analyte was detected greater than the NYSDEC AWQS.																				

Table 4B Summary of Detected Volatile Organic Compounds in Offsite Groundwater Samples Quarterly Sampling Event - October 2018

Parameters List EPA Method 8260B	Sample ID	DDC-5-PD		DDC-5-PS		DDC-6-PD		DDC-6-PS		DDC-7-PD		DDC-7-PS		DDC-8-PD		DDC-8-PS		152140-FD-02			NYSDEC AWQS (µg/L)	
	Sample Type	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Duplicate				
	Sample Date	10/22/2018		10/22/2018		10/22/2018		10/22/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018				
cis - 1,2-Dichloroethene	(µg/L)	14		7.8		28		6.9		23		12		5.7		7		20				
trans -1,2-Dichloroethene	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U			
Vinyl Chloride	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U			
Trichloroethene	(µg/L)	2.5		(<1)	U	9.3		(<1)	U	5.7		3.2		(<1)	U	(<1)	U	8.7				
Tetrachloroethene	(µg/L)	7.9		1.4		12		(<1)	U	9.5		2.4		1		1		78		5 (s)		
Parameters List EPA Method 8260B	Sample ID	DDC-9-PD		DDC-9-PS		DDC-10-PD		DDC-10-PS		MW-2D		MW-2S		MW-1D		MW-1S		MW-3D		MW-3S		NYSDEC AWQS (µg/L)
	Sample Type	Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		
	Sample Date	10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/23/2018		10/24/2018		10/24/2018		10/22/2018		10/22/2018		
cis - 1,2-Dichloroethene	(µg/L)	(<1)	U	4		(<1)	U	3.4		4.1		1.6		20		(<1)	U	31		(<1)	U	5 (s)
trans -1,2-Dichloroethene	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
Vinyl Chloride	(µg/L)	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	5 (s)
Trichloroethene	(µg/L)	1.7		(<1)	U	1.7		(<1)	U	(<1)	U	(<1)	U	8		(<1)	U	2.4		(<1)	U	5 (s)
Tetrachloroethene	(µg/L)	1		(<1)	U	(<1)	U	(<1)	U	(<1)	U	(<1)	U	76		1.4		12		(<1)	U	5 (s)
NOTE: EPA = U.S. Environmental Protection Agency ID = Identification NYSDEC = New York State Department of Environmental Conservation AWQS = Ambient Water Quality Standard µg/L = Micrograms per liter (parts per billion) U = Analyte not detected at the listed laboratory reporting limit. 152140-FD-02 was a blind field duplicate quality assurance/quality control sample of on-site sample MW-1D for this sampling event. Bold values indicate that the analyte was detected greater than the NYSDEC AWQS.																						

Attachment A

System Data Sheets

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A-1: SVE O&M

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National Heatset Printing
1 Adams Boulevard, Farmingdale, New York
EA Engineering

Personnel: E.Cummings Time: 8:50
Weather: Overcast 60F Date: 10/23/2018

System Status:

Arrival: Running
Departure: Running
Run Timer Reading:
Electric Meter Reading: -

System Data:

Extraction Well F Gate Valve: 100 % Open
Dilution Valve: 0 % Open

Blower Inlet (Extraction Well)

Flow: 185 CFM
Vacuum: 70 "H2O
PID Reading: - PPB
Temperature: 169 °F

Blower Outlet / Carbon Influent

Flow: 176 CFM
Pressure: - "H2O
PID Reading: 2,241 PPB
Temperature: 151.0 °F

SVE Effluent

Flow: 161 CFM
Pressure: - "H2O
PID Reading: 1,226 PPB
Temperature: 137.0 °F

Carbon Monitoring:

Pre: 2,241 PPB
Mid: 3,636 PPB
Effluent: 1,226 PPB

Carbon influent & effluent sample collected & shipped to lab? Yes

Knockout Tank Drained? Yes
Gallons:

Monitoring Well Gauging / Vapor Point Monitoring:

Well/V.P. ID:	MW-G	MW-E	VP-1	VP-2	VP-3	VP-3 (Former)	VP-7	VP-8	VP-9	VP-10	VP-11	VP-12	VP-13	VP-14	VP-15
PID (ppb)					16	38					40				
Diff. Pressure (in. H2O)					-0.094	0					-0.008				
Well/V.P. ID:	VP-16	VP-17	VP-18	VP-19	VP-20										
PID (ppb)	357	2533	2454		11600										
Diff. Pressure (in. H2O)	-0.047	-0.046	-0.094		-0.522										

Comments: Wells 1,4 & 5 Running

National Heatset Printing
1 Adams Boulevard, Farmingdale, New York
EA Engineering

Personnel: E.Cummings Time: 11:00
Weather: Overcast 70F Date: 11/27/2018

System Status:

Arrival: Running
Departure: Running
Run Timer Reading: 35,506.47
Electric Meter Reading: -

System Data:

Extraction Well F Gate Valve: 100 % Open
Dilution Valve: 0 % Open

Blower Inlet (Extraction Well)

Flow: 175 CFM
Vacuum: 75 "H2O
PID Reading: - PPB
Temperature: 173 °F

Blower Outlet / Carbon Influent

Flow: 160 CFM
Pressure: 13 "H2O
PID Reading: 861 PPB
Temperature: 171.0 °F

SVE Effluent

Flow: 142 CFM
Pressure: - "H2O
PID Reading: 823 PPB
Temperature: 131.6 °F

Carbon Monitoring:

Pre: 861 PPB
Mid: 1,257 PPB
Effluent: 823 PPB

Carbon influent & effluent sample collected & shipped to lab? Yes

Knockout Tank Drained? No
Gallons:

Monitoring Well Gauging / Vapor Point Monitoring:

Well/V.P. ID:	MW-G	MW-E	VP-1	VP-2	VP-3	VP-3 (Former)	VP-7	VP-8	VP-9	VP-10	VP-11	VP-12	VP-13	VP-14	VP-15
PID (ppb)					174	199					169				
Diff. Pressure (in. H2O)					-0.002	0					-0.002				
Well/V.P. ID:	VP-16	VP-17	VP-18	VP-19	VP-20										
PID (ppb)	901			833	462										
Diff. Pressure (in. H2O)	0.024			-0.032	-0.006										

Comments: Wells 1, 4 & 5 Running

National Heatset Printing
1 Adams Boulevard, Farmingdale, New York
EA Engineering

Personnel: S. Underwood Time: 12:12
Weather: Overcast 48F Date: 12/20/2018

System Status:

Arrival: Running
Departure: Running
Run Timer Reading: 36,056.64
Electric Meter Reading: -

System Data:

Extraction Well F Gate Valve: 100 % Open
Dilution Valve: 0 % Open

Blower Inlet (Extraction Well)

Flow: 175 CFM
Vacuum: 75 "H2O
PID Reading: - PPB
Temperature: 173 °F

Blower Outlet / Carbon Influent

Flow: 169 CFM
Pressure: 14.5 "H2O
PID Reading: 1,185 PPB
Temperature: - °F

SVE Effluent

Flow: 216 CFM
Pressure: - "H2O
PID Reading: 0 PPB
Temperature: - °F

Carbon Monitoring:

Pre: 1,185 PPB
Mid: 0 PPB
Effluent: 0 PPB

Carbon influent & effluent sample collected & shipped to lab? Yes

Knockout Tank Drained? Yes
Gallons: _____

Monitoring Well Gauging / Vapor Point Monitoring:

Well/V.P. ID:	MW-G	MW-E	VP-1	VP-2	VP-3	VP-3 (Former)	VP-7	VP-8	VP-9	VP-10	VP-11	VP-12	VP-13	VP-14	VP-15
PID (ppb)															
Diff. Pressure (in. H2O)															
Well/V.P. ID:	VP-16	VP-17	VP-18	VP-19	VP-20										
PID (ppb)															
Diff. Pressure (in. H2O)															

Comments: Wells 1, 4 & 5 Running ; Carbon Changeout

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A-2: Onsite DDC O&M

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O&M DATA SHEET - NATIONAL HEATSET - ON-SITE SYSTEM #1

Date: 10/23/2018

Time: 0:00

Weather: 50 F / Partly Cloudy

Treatment System #1 Status on Arrival: Up / Down / **OFF**

Alarm Light Status on Arrival: ON / **OFF** Alarm Light Reset on Arrival: YES / **NO**

SYSTEM OPERATING DATA

ID	Hours	Blower Speed
Hours	-	-Hz

Time	Location	TI-ID	Temperature deg. C	Temperature deg. F	Comments
1240	Extracted From Well	TI-01	-	-	DDC-1
1240	Extracted From Well	TI-02	-	-	DDC-2
1241	Pre-Heater Outlet	TI-03	-	-	Post Shell and Tubing
1241	Pre-Heater Input	TI-04	-	-	Before Shell and Tubing
1242	After Cooler Outlet	TI-05	-	-	Post Cooler Reading
1242	After Cooler Input	TI-06	-	-	Before Cooler Reading
1243	Blower Outlet	TI-07	-	-	Going to Pre-heater
1243	Between GAC Units	TI-08	-	-	After GAC #1
1244	GAC Unit Output	TI-09	-	-	After GAC #2

Pressure/Vacuum Monitoring

Time	Location	PI/VI-ID	Pressure	Comments
1250	Discharge to Well	PI-01		DDC-1
1250	Discharge to Well	PI-02		DDC-2
1250	Drum	PI-03	- in. H2O	Vacuum Reading to Blower

FLOW RATES

Time	Location	IF-ID	Flow (SCFM)	Comments
1240	Extracted From DDC-1	FI-01		
1240	Extracted From DDC-2	FI-02		

VOC Monitoring (ppb)

Time	Location	PID VOC (ppb)	Temp. (F)	COMMENTS
1250	Influent			
1250	Between Vessels			
1251	Effluent			

System Observations

Water Column in DDC Wells

Well ID	Comments
DDC-1	Bubbling in well is sufficient
DDC-2	Bubbling in well is sufficient

Sump Inspection

Well ID	Comments
DDC-1	No sump associated with well
DDC-2	No water observed in sump

Additional Comments/Recommendations

System remains off following failure of the knockout tanks. Old KO tanks scavenged for parts in replacement. Sought assistance from D&D regarding logic for floats in control panel. Determined outlets operating floats/ pump for KO are non-operational (no power) - cause of failure.

O&M DATA SHEET - NATIONAL HEATSET - ON-SITE SYSTEM #2

Date: 10/23/2018

Time: 7:40

Weather: 50 F / Partly Cloudy

Treatment System #2 Status on Arrival: **UP** / Down / Off

Alarm Light Status on Arrival: ON / **OFF** Alarm Light Reset on Arrival: YES / **NO**

SYSTEM OPERATING DATA

ID	Hours	Blower Speed
Hours	59,458.5	37 Hz

Temperature Monitoring

Time	Location	TI-ID	Temperature deg. C	Temperature deg. F	Comments
1020	Carbon Unit Inlet	CA01	20.0	68.0	Carbon Unit #1
1020	Pre-Heater	PHA01	27.2	81.0	After Shell and Tubing
1020	Blower Panel	B01	64.0	147.2	Exiting Blower
1020	After Cooler Outlet	AC01	37.8	100.0	Post Cooler Piping
1020	Pre-Heater	PHB01	65.6	150.0	Before Shell and Tubing

Pressure/Vacuum Monitoring

Time	Location	PI/VI-ID	Pressure	Comments
1020	Knock-Out Tank	T01	0	Vacuum gauge on knock-out tank
1020	Carbon-Unit #1 Outlet	CA1	-3.5 in. Hg	Vacuum exiting GAC #1
1020	Discharge to Wells	WD2	3.1 PSI	Pressure before splicing off to both wells
1020	Blower Panel	BP01	3.4 in. Hg	Vacuum coming off of blower
1020	Carbon Unit #2 Outlet	CA2	3.5 in. Hg	Vacuum exiting GAC #2
1020	DDC-3	N/A	PSI	Pressure gauge on well head
1020	DDC-4	N/A	PSI	Pressure gauge on well head

FLOW RATES

Time	Location	IF-ID	Flow (SCFM)	Comments
1042	Injected to DDC-3	WD01	196	
1342	Injection to DDC-4	WD02	126	

VOC Monitoring (ppb)

Time	Location	PID VOC (ppb)	Temp. (C)	COMMENTS
1050	Influent #1	3	71.5	
1050	Influent #2	140	62.2	
1050	Effluent	0	65.7	

System Observations

Water Column in DDC Wells

Well ID	Comments
DDC-3	Bubbling in well is sufficient
DDC-4	Bubbling in well is sufficient

Sump Inspection

Well ID	Comments
DDC-3	No water pooled in well
DDC-4	No water pooled in well

Additional Comments/Recommendations

O&M DATA SHEET - NATIONAL HEATSET - ON-SITE SYSTEM #1

Date: 11/27/2018

Time: 7:15

Weather: 40 F / Partly Cloudy

Treatment System #1 Status on Arrival: Up / Down / **OFF**

Alarm Light Status on Arrival: ON / **OFF** Alarm Light Reset on Arrival: YES / **NO**

SYSTEM OPERATING DATA

ID	Hours	Blower Speed
Hours	-	-Hz

Time	Location	TI-ID	Temperature deg. C	Temperature deg. F	Comments
1240	Extracted From Well	TI-01	-	-	DDC-1
1240	Extracted From Well	TI-02	-	-	DDC-2
1241	Pre-Heater Outlet	TI-03	-	-	Post Shell and Tubing
1241	Pre-Heater Input	TI-04	-	-	Before Shell and Tubing
1242	After Cooler Outlet	TI-05	-	-	Post Cooler Reading
1242	After Cooler Input	TI-06	-	-	Before Cooler Reading
1243	Blower Outlet	TI-07	-	-	Going to Pre-heater
1243	Between GAC Units	TI-08	-	-	After GAC #1
1244	GAC Unit Output	TI-09	-	-	After GAC #2

Pressure/Vacuum Monitoring

Time	Location	PI/VI-ID	Pressure	Comments
1250	Discharge to Well	PI-01		DDC-1
1250	Discharge to Well	PI-02		DDC-2
1250	Drum	PI-03	- in. H2O	Vacuum Reading to Blower

FLOW RATES

Time	Location	IF-ID	Flow (SCFM)	Comments
1240	Extracted From DDC-1	FI-01		
1240	Extracted From DDC-2	FI-02		

VOC Monitoring (ppb)

Time	Location	PID VOC (ppb)	Temp. (F)	COMMENTS
1250	Influent			
1250	Between Vessels			
1251	Effluent			

System Observations

Water Column in DDC Wells

Well ID	Comments
DDC-1	Bubbling in well is sufficient
DDC-2	Bubbling in well is sufficient

Sump Inspection

Well ID	Comments
DDC-1	No sump associated with well
DDC-2	No water observed in sump

Additional Comments/Recommendations

System remains off following failure of the knockout tanks. System awaiting repair.

O&M DATA SHEET - NATIONAL HEATSET - ON-SITE SYSTEM #2

Date: 11/27/2018

Time: 7:15

Weather: 40 F / Partly Cloudy

Treatment System #2 Status on Arrival: **UP** / Down / Off

Alarm Light Status on Arrival: ON / **OFF** Alarm Light Reset on Arrival: YES / **NO**

SYSTEM OPERATING DATA

ID	Hours	Blower Speed
Hours	60,298.7	37 Hz

Temperature Monitoring

Time	Location	TI-ID	Temperature deg. C	Temperature deg. F	Comments
1020	Carbon Unit Inlet	CA01	17.0	62.6	Carbon Unit #1
1020	Pre-Heater	PHA01	21.1	70.0	After Shell and Tubing
1020	Blower Panel	B01	66.0	150.8	Exiting Blower
1020	After Cooler Outlet	AC01	37.8	100.0	Post Cooler Piping
1020	Pre-Heater	PHB01	57.2	135.0	Before Shell and Tubing

Pressure/Vacuum Monitoring

Time	Location	PI/VI-ID	Pressure	Comments
1020	Knock-Out Tank	T01	0	Vacuum gauge on knock-out tank
1020	Carbon-Unit #1 Outlet	CA1	-2.5 in. Hg	Vacuum exiting GAC #1
1020	Discharge to Wells	WD2	3.6 PSI	Pressure before splicing off to both wells
1020	Blower Panel	BP01	3.0 in. Hg	Vacuum coming off of blower
1020	Carbon Unit #2 Outlet	CA2	2.5 in. Hg	Vacuum exiting GAC #2
1020	DDC-3	N/A	PSI	Pressure gauge on well head
1020	DDC-4	N/A	PSI	Pressure gauge on well head

FLOW RATES

Time	Location	IF-ID	Flow (SCFM)	Comments
1042	Injected to DDC-3	WD01	210	
1342	Injection to DDC-4	WD02	198	

VOC Monitoring (ppb)

Time	Location	PID VOC (ppb)	Temp. (C)	COMMENTS
1050	Influent #1	568	61.0	
1050	Influent #2	507	53.2	
1050	Effluent	159	61.0	

System Observations

Water Column in DDC Wells

Well ID	Comments
DDC-3	Bubbling in well is sufficient
DDC-4	Bubbling in well is sufficient

Sump Inspection

Well ID	Comments
DDC-3	No water pooled in well
DDC-4	No water pooled in well

Additional Comments/Recommendaations

System shut down briefly during O&M visit. Thought sump pump for DDC-4 was not operating properly. Pump was operating on second check.

O&M DATA SHEET - NATIONAL HEATSET - ON-SITE SYSTEM #1

Date: 12/19/2018

Time: 7:00

Weather: 40 F / Partly Cloudy

Treatment System #1 Status on Arrival: Up / Down / **OFF**

Alarm Light Status on Arrival: ON / **OFF** Alarm Light Reset on Arrival: YES / **NO**

SYSTEM OPERATING DATA

ID	Hours	Blower Speed
Hours	-	-Hz

Time	Location	TI-ID	Temperature deg. C	Temperature deg. F	Comments
1240	Extracted From Well	TI-01	-	-	DDC-1
1240	Extracted From Well	TI-02	-	-	DDC-2
1241	Pre-Heater Outlet	TI-03	-	-	Post Shell and Tubing
1241	Pre-Heater Input	TI-04	-	-	Before Shell and Tubing
1242	After Cooler Outlet	TI-05	-	-	Post Cooler Reading
1242	After Cooler Input	TI-06	-	-	Before Cooler Reading
1243	Blower Outlet	TI-07	-	-	Going to Pre-heater
1243	Between GAC Units	TI-08	-	-	After GAC #1
1244	GAC Unit Output	TI-09	-	-	After GAC #2

Pressure/Vacuum Monitoring

Time	Location	PI/VI-ID	Pressure	Comments
1250	Discharge to Well	PI-01		DDC-1
1250	Discharge to Well	PI-02		DDC-2
1250	Drum	PI-03	- in. H2O	Vacuum Reading to Blower

FLOW RATES

Time	Location	IF-ID	Flow (SCFM)	Comments
1240	Extracted From DDC-1	FI-01		
1240	Extracted From DDC-2	FI-02		

VOC Monitoring (ppb)

Time	Location	PID VOC (ppb)	Temp. (F)	COMMENTS
1250	Influent			
1250	Between Vessels			
1251	Effluent			

System Observations

Water Column in DDC Wells

Well ID	Comments
DDC-1	Bubbling in well is sufficient
DDC-2	Bubbling in well is sufficient

Sump Inspection

Well ID	Comments
DDC-1	No sump associated with well
DDC-2	No water observed in sump

Additional Comments/Recommendations

System remains off following failure of the knockout tanks. System awaiting repair and is currently non-operational. Began assembling KO tanks delivered from vendor. Need power / logic organized before system can be restarted.

O&M DATA SHEET - NATIONAL HEATSET - ON-SITE SYSTEM #2

Date: 12/19/2018 Time: 12:26 Weather: 40 F / Overcast

Treatment System #2 Status on Arrival: **UP** / Down / Off

Alarm Light Status on Arrival: ON / **OFF** Alarm Light Reset on Arrival: YES / **NO**

SYSTEM OPERATING DATA

ID	Hours	Blower Speed
Hours	60,481.7	37 Hz

Temperature Monitoring

Time	Location	TI-ID	Temperature deg. C	Temperature deg. F	Comments
1020	Carbon Unit Inlet	CA01	15.0	59.0	Carbon Unit #1
1020	Pre-Heater	PHA01	26.7	80.0	After Shell and Tubing
1020	Blower Panel	B01	62.0	143.6	Exiting Blower
1020	After Cooler Outlet	AC01	40.6	105.0	Post Cooler Piping
1020	Pre-Heater	PHB01	54.4	130.0	Before Shell and Tubing

Pressure/Vacuum Monitoring

Time	Location	PI/VI-ID	Pressure	Comments
1020	Knock-Out Tank	T01	0	Vacuum gauge on knock-out tank
1020	Carbon-Unit #1 Outlet	CA1	-3.25 in. Hg	Vacuum exiting GAC #1
1020	Discharge to Wells	WD2	3.6 PSI	Pressure before splicing off to both wells
1020	Blower Panel	BP01	3.0 in. Hg	Vacuum coming off of blower
1020	Carbon Unit #2 Outlet	CA2	2.75 in. Hg	Vacuum exiting GAC #2
1020	DDC-3	N/A	PSI	Pressure gauge on well head
1020	DDC-4	N/A	PSI	Pressure gauge on well head

FLOW RATES

Time	Location	IF-ID	Flow (SCFM)	Comments
1042	Injected to DDC-3	WD01	196	
1342	Injection to DDC-4	WD02	96	

VOC Monitoring (ppb)

Time	Location	PID VOC (ppb)	Temp. (C)	COMMENTS
1050	Influent #1	4639	-	
1050	Influent #2	4107	58.7	
1050	Effluent	632	57.3	

System Observations

Water Column in DDC Wells

Well ID	Comments
DDC-3	Bubbling in well is sufficient
DDC-4	Bubbling in well is sufficient

Sump Inspection

Well ID	Comments
DDC-3	No water pooled in well
DDC-4	No water pooled in well

Additional Comments/Recommendations

High KO tank Alarm triggered. Transfer pump does not appear to be running in Auto mode. Will need to check logic. Emptied KO tank and restarted system.

A-3: Offsite DDC O&M

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O&M DATA SHEET - NATIONAL HEATSET - OFF-SITE SYSTEM

Date: 10/23/2018

Time: 14:45

Weather: Sun / 60 F

 B-501 Status on Arrival: Up / **Down** / Off

 B-502 Status on Arrival: **Up** / Down / Off

 Alarm Light Status on Arrival: **ON** / OFF

 Alarm Light Reset on Arrival: **YES** / NO

SYSTEM OPERATING DATA

ID	B-501	TP-211	B-502	TP-212	B-503	TP-213	Time
Hours			24,323.9	-	-	-	14:45
VI-501	-		IWC	VI-502	-54		IWC
SP-501	-		ppb / ppm	SP-502	0		ppb / ppm
TI-501	-		°F	TI-502	66		°F
VI-501A	-		IWC	VI-502A	-60		IWC

INJECTION& EXTRACTION MANIFOLD OPERATING DATA

Well ID	4" - INJECTION		6" - EXTRACTION		
	Temp (°F)	Pressure (PSI)	Temp (°F)	Flow (CFM)	VOCs (ppb or ppm)
DDC-05	80.0	5.6	66.0	75	2
DDC-10	80.0	5.5	67.0	71	9
DDC-09	80.0	6.0	68.0	104	0
DDC-08	77.0	5.0	69.0	119	85
DDC-07	75.0	6.0	102.0	64	885
DDC-06	75.0	5.3	70.0	74	38

DDC WELLHEAD OPERATING DATA

WELL ID	PZ SHALLOW (FT)	PZ DEEP (FT)	Air Space (FT)	COMMENTS	MW ID	DTW (FT)
DDC-05	9.29	13.15	3.9	Good bubbling	MW-1D	7.90
DDC-10	10.10	9.95	-0.2	Good Bubbling	MW-1S	7.07
DDC-09	8.20	12.25	4.1	Good bubbling	MW-2D	11.50
DDC-08	7.39	12.30	4.9	Good bubbling	MW-2S	11.41
DDC-07	7.91	10.10	2.2	Good bubbling	MW-3D	7.58
DDC-06	7.86	7.78	-0.1	Good bubbling	MW-3S	7.45

AIR SAMPLING DATA

B-501			B-502		
Sample Port Position	SAMPLE PORT ID	VOC Reading (ppb / ppm)	Sample Port Position	SAMPLE PORT ID	VOC Reading (ppb / ppm)
Influent	SP-401B	-	Influent	SP-402B	0.0
Intermediate #1	SP-403B	-	Intermedia	SP-403A	0.0
Intermediate #2	SP-401A	-	Intermedia	SP-402A	0.0
Effluent	SP-501	-	Effluent	SP-502	0.0

CHILLER

Set Temp. (°F)	NA
Actual Temp. (°F)	NA
Pump Pressure (PSI)	NA
Freon High Pres. (PSI)	NA
Freon Low Pres. (PSI)	NA

TECHNICIAN COMMENTS/NOTES:

Motor for B-501 pulled 10/24/18.

O&M DATA SHEET - NATIONAL HEATSET - OFF-SITE SYSTEM

Date: 11/27/2018

Time: 7:45

Weather: 40 F / Partly cloudy

B-501 Status on Arrival: Up / **Down** / Off

B-502 Status on Arrival: **Up** / Down / Off

Alarm Light Status on Arrival: **ON** / OFF

Alarm Light Reset on Arrival: **YES** / NO

SYSTEM OPERATING DATA

ID	B-501	TP-211	B-502	TP-212	B-503	TP-213	Time
Hours			25,156.0	40.3	-	-	7:45
VI-501	-		IWC	VI-502	-60		IWC
SP-501	-		ppb / ppm	SP-502	32		ppb / ppm
TI-501	-		°F	TI-502	60		°F
VI-501A	-		IWC	VI-502A	-54		IWC

INJECTION& EXTRACTION MANIFOLD OPERATING DATA

Well ID	4" - INJECTION		6" - EXTRACTION		
	Temp (°F)	Pressure (PSI)	Temp (°F)	Flow (CFM)	VOCs (ppb or ppm)
DDC-05	60.0	6.5	58.0	89	108
DDC-10	60.0	6.0	58.0	59	22
DDC-09	65.0	6.5	58.0	96	45
DDC-08	70.0	6.0	59.0	102	93
DDC-07	70.0	6.5	90.0	76	91
DDC-06	55.0	7.0	58.0	7	75

DDC WELLHEAD OPERATING DATA

WELL ID	PZ SHALLOW (FT)	PZ DEEP (FT)	Air Space (FT)	COMMENTS	MW ID	DTW (FT)
DDC-05	7.69	8.24	0.6	Good bubbling	MW-1D	
DDC-10	7.67	7.67	0.0	Good Bubbling	MW-1S	
DDC-09	6.94	11.80	4.9	Good bubbling	MW-2D	
DDC-08	5.02	11.62	6.6	Good bubbling	MW-2S	
DDC-07	6.32	8.24	1.9	Good bubbling	MW-3D	
DDC-06	6.46	6.49	0.0	Good bubbling	MW-3S	

AIR SAMPLING DATA

B-501			B-502		
Sample Port Position	SAMPLE PORT ID	VOC Reading (ppb / ppm)	Sample Port Position	SAMPLE PORT ID	VOC Reading (ppb / ppm)
Influent	SP-401B	-	Influent	SP-402B	179.0
Intermediate #1	SP-403B	-	Intermedia	SP-403A	116.0
Intermediate #2	SP-401A	-	Intermedia	SP-402A	113.0
Effluent	SP-501	-	Effluent	SP-502	32.0

CHILLER

Set Temp. (°F)	NA
Actual Temp. (°F)	NA
Pump Pressure (PSI)	NA
Freon High Pres. (PSI)	NA
Freon Low Pres. (PSI)	NA

TECHNICIAN COMMENTS/NOTES:

Sump closest to DDC 6 down - replaced and restarted system.

O&M DATA SHEET - NATIONAL HEATSET - OFF-SITE SYSTEM

Date: 12/19/2018

Time: 13:47

Weather: 40 F / Partly cloudy

B-501 Status on Arrival: **Up** / Down / Off

B-502 Status on Arrival: Up / Down / Off

Alarm Light Status on Arrival: ON / OFF

Alarm Light Reset on Arrival: YES / NO

SYSTEM OPERATING DATA

ID	B-501	TP-211	B-502	TP-212	B-503	TP-213	Time
Hours	31,511.0		25,714.9	40.3	-	-	13:47
VI-501	-54		IWC	VI-502	-60		IWC
SP-501	-		ppb / ppm	SP-502	32		ppb / ppm
TI-501	62		°F	TI-502	60		°F
VI-501A	-		IWC	VI-502A	-54		IWC

INJECTION& EXTRACTION MANIFOLD OPERATING DATA

Well ID	4" - INJECTION		6" - EXTRACTION		
	Temp (°F)	Pressure (PSI)	Temp (°F)	Flow (CFM)	VOCs (ppb or ppm)
DDC-05	65.0	6.5	56.0	90	253
DDC-10	65.0	6.5	57.0	75	47
DDC-09	70.0	6.8	60.0	110	118
DDC-08	70.0	6.5	50.0	5	0
DDC-07	60.0	6.5	70.0	85	511
DDC-06	50.0	7.0	56.0	154	0

DDC WELLHEAD OPERATING DATA

WELL ID	PZ SHALLOW (FT)	PZ DEEP (FT)	Air Space (FT)	COMMENTS	MW ID	DTW (FT)
DDC-05	7.70	12.10	4.4	Good bubbling	MW-1D	
DDC-10	7.60	8.80	1.2	Good Bubbling	MW-1S	
DDC-09	6.90	11.39	4.5	Good bubbling	MW-2D	
DDC-08	5.97	10.00	4.0	Good bubbling	MW-2S	
DDC-07	6.31	8.22	1.9	Good bubbling	MW-3D	
DDC-06	6.42	6.61	0.2	Good bubbling	MW-3S	

AIR SAMPLING DATA

B-501			B-502		
Sample Port Position	SAMPLE PORT ID	VOC Reading (ppb / ppm)	Sample Port Position	SAMPLE PORT ID	VOC Reading (ppb / ppm)
Influent	SP-401B	-	Influent	SP-402B	-
Intermediate #1	SP-403B	-	Intermedia	SP-403A	-
Intermediate #2	SP-401A	-	Intermedia	SP-402A	-
Effluent	SP-501	-	Effluent	SP-502	-

CHILLER

Set Temp. (°F)	NA
Actual Temp. (°F)	NA
Pump Pressure (PSI)	NA
Freon High Pres. (PSI)	NA
Freon Low Pres. (PSI)	NA

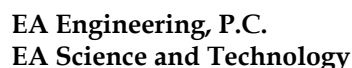
TECHNICIAN COMMENTS/NOTES:

DDC-8 well head leaking on 12/20 from top of well head. Water accumulated in vault. Turned system off. DDC-8 Sump pump down. Blower B-501 replaced on 12/19/18. Do not collect vapor reading before shutting system down. System shut down due to leaking DDC-8 well head.

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A-4: Onsite Groundwater Monitoring Field Data

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Well I.D.: MW-1S (onsite)	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good, no bolts	Weather: 60F, partly cloudy, calm
Sounding Method: Heron Skinny Dipper 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1227	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down ~4" bgs	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0 in

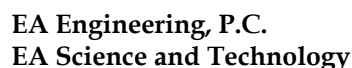
Purge Date: 23-Oct-18	Purge Time: 1055
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/PES

A. Well Depth (ft): 30.44	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down ~4" bgs
B. Depth to Water (ft): 15.30	E. Well Volume (gal) (C*D): 2.46782	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 15.14	F. Three Well Volumes (gal) (E3): 7.40346	Pump Intake Depth: NA

[illegible]

Total Quantity of Water Removed (gal):	1.37	Sampling Time:	1117
Samplers:	ET/SS	Split Sample With:	-
Sampling Date:	10/23/2018	Sample Type:	VOC-GW Grab

COMMENTS AND OBSERVATIONS:



Well I.D.: MW-1D (onsite)	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Ok, no bolts	Weather: 60F, partly cloudy, calm
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1230	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 0.5-ft	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0 in

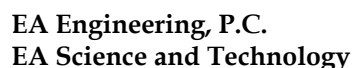
Purge Date: 23-Oct-18	Purge Time: 1126
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/PES

A. Well Depth (ft): 81.80	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down 0.5-ft
B. Depth to Water (ft): 15.49	E. Well Volume (gal) (C*D): 10.80853	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 66.31	F. Three Well Volumes (gal) (E3): 32.42559	Pump Intake Depth: NA

[illegible]

Total Quantity of Water Removed (gal):	1.11	Sampling Time:	1147
Samplers:	ET/SS	Split Sample With:	--
Sampling Date:	10/23/2018	Sample Type:	VOC-GW Grab

COMMENTS AND OBSERVATIONS:



Well I.D.: MW-2AD		EA Personnel: S.Soldner/E.Thieleman/PES		Client: NYSDEC					
Location: National Heatset Printing, Babylon, NY		Well Condition: Good, No bolts		Weather: 53F, overcast. S 22 mph					
Sounding Method: Solinst 100-ft water level tape		Gauge Date: 10/22/2018		Measurement Ref:					
Stick Up/Down (ft): Down 0.16-ft		Gauge Time: 1301		Top of Casing (TOC)					
		PID Headspace Reading (ppb): 36		Well Diameter (in): 1					
Purge Date: 23-Oct-18		Purge Time: 842							
Purge Method: Low Flow via Peristaltic Pump		Field Technician: ET/SS							
Well Volume									
A. Well Depth (ft): 78.22		D. Well Volume (ft): 0.041		Depth/Height of Top of PVC: Down 0.16-ft					
B. Depth to Water (ft): 16.33		E. Well Volume (gal) (C*D): 2.53749		Pump Type: Peristaltic Pump					
C. Liquid Depth (ft) (A-B): 61.89		F. Three Well Volumes (gal) (E3): 7.61247		Pump Intake Depth: NA					
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
844	5.55	0.275	59.1	0.11	15.63	162	16.34	0.30	0.00
847	5.41	0.478	32.8	0.00	17.12	146	16.34	0.30	0.9
850	5.47	0.521	0.4	0.00	16.86	165	16.34	0.30	1.8
853	5.49	0.522	0.0	0.00	16.94	174	16.34	0.30	2.7
856	5.51	0.522	0.0	0.00	17.13	180	16.34	0.30	3.6
859	5.53	0.522	0.0	0.00	17.26	182	16.34	0.30	4.5
902	5.53	0.522	0.0	0.00	17.22	186	16.34	0.30	5.4
905	5.54	0.522	0.0	0.00	17.19	187	16.34	0.30	6.3
Total Quantity of Water Removed (gal):	1.66				Sampling Time:		908		
Samplers:	ET/SS				Split Sample With:		--		
Sampling Date:	10/23/2018				Sample Type:		GW Grab		
COMMENTS AND OBSERVATIONS: Clear, colorless, odorless throughout									



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-5S (onsite)	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good, No bolts	Weather: 55F, Partly Cloudy, E 5 mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1239	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Flush 3"bgs	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0 in

Purge Date: 23-Oct-18	Purge Time: 1020
Purge Method: Low Flow via Peristaltic Pump	Field Technician: S.Soldner/E.Thieleman/PES

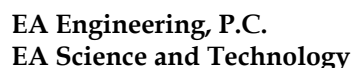
Well Volume

A. Well Depth (ft): 26.92	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Flush 3"bgs
B. Depth to Water (ft): 14.56	E. Well Volume (gal) (C*D): 2.01468	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 12.36	F. Three Well Volumes (gal) (E3): 6.04404	Pump Intake Depth: NA

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1023	6.24	0.533	1.1	0	19.69	18	14.61	0.30	0.00
1026	6.24	0.521	0.0	0.00	19.78	4	14.83	0.30	0.90
1029	6.21	0.408	0.0	0.00	19.89	7	14.89	0.30	1.80
1032	6.2	0.369	0.0	0.00	19.97	14.0	14.89	0.30	2.70
1035	6.2	0.352	0.0	0.16	20.03	17	14.77	0.30	3.60
1038	6.18	0.347	0.0	0.14	20.05	20	14.80	0.30	4.50
1041	6.17	0.344	0.0	0.14	20.06	21	14.59	0.30	5.40
1044	6.14	0.341	0.0	0.14	20.06	22	14.58	0.30	6.30
1047	6.15	0.34	0.0	0.13	20.05	23	14.59	0.30	7.20

Total Quantity of Water Removed (gal):	1.90	Sampling Time:	1050
Samplers:	ET/SS	Split Sample With:	--



Well I.D.: MW-14D	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good, no bolts	Weather: 55°F/Partly Cloudy/E 5 mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1205	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 0.5-ft	PID Headspace Reading (ppb): 0	Well Diameter (in): 1.0 in

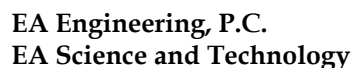
Purge Date: 23-Oct-18	Purge Time: 1100
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

A. Well Depth (ft): 77.59	D. Well Volume (ft): 0.043	Depth/Height of Top of PVC: Down 0.5-ft
B. Depth to Water (ft): 15.1	E. Well Volume (gal) (C*D): 2.68707	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 62.49	F. Three Well Volumes (gal) (E3): 8.06121	Pump Intake Depth: NA

[illegible]

Total Quantity of Water Removed (gal):	1.66	Sampling Time:	1125
Samplers:	ET/SS	Split Sample With:	-
Sampling Date:	10/23/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS: Clear, colorless, odorless throughout.



Well I.D.: MW-15S	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good-No bolts	Weather: 50F, overcast, N 2 mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/23/2018 Gauge Time: 710	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down ~0.166' bgs	PID Headspace Reading (ppb): 0	Well Diameter (in): 1

Purge Date: 23-Oct-18	Purge Time: 736
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

A. Well Depth (ft): 27.45	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: Down ~0.166' bgs
B. Depth to Water (ft): 15.28	E. Well Volume (gal) (C*D): 0.49897	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 12.17	F. Three Well Volumes (gal) (E3): 1.49691	Pump Intake Depth: NA

[illegible]

Total Quantity of Water Removed (gal):	1.19	Sampling Time:	754
Samplers:	ET/SS	Split Sample With:	FD-01
Sampling Date:	10/23/2018	Sample Type:	VOC- GW Grab

COMMENTS AND OBSERVATIONS: FD-01 Collected



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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-15D	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good, no bolts	Weather: 50F, overcast, N 2 mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/23/2018 Gauge Time: 715	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Flush 2"bgs	PID Headspace Reading (ppb): 5120	Well Diameter (in): 1

Purge Date: 23-Oct-18	Purge Time: 726
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

Well Volume

A. Well Depth (ft): 78.51	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: Flush 2"bgs
B. Depth to Water (ft): 15.32	E. Well Volume (gal) (C*D): 2.59079	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 63.19	F. Three Well Volumes (gal) (E3): 7.77237	Pump Intake Depth: NA

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
729	4.26	0.179	2.7	8.76	9.54	299	15.33	0.30	0
732	5.8	0.478	14.1	2.53	15.14	152	15.34	0.30	0.9
735	5.91	0.463	5.6	5.19	15.36	154	15.34	0.30	1.8
738	5.94	0.459	6.7	5.81	15.4	161	15.34	0.30	2.7
741	5.95	0.455	9.4	6.77	15.39	171	15.34	0.30	3.6
744	5.95	0.452	9.8	7.33	15.42	180	15.34	0.30	4.5
747	5.94	0.449	7.6	7.65	15.47	183	15.34	0.30	5.4
750	5.92	0.449	8.5	7.84	15.42	191	15.34	0.30	6.3
753	5.91	0.448	8.5	7.82	15.44	191	15.34	0.30	7.2
756	5.91	0.448	8.4	7.85	15.47	192	15.34	0.30	8.1

Total Quantity of Water Removed (gal): 2.14	Sampling Time: 759
Samplers: ET/SS	Split Sample With: MS/MSD
Sampling Date: 10/23/2018	Sample Type: GW Grab

COMMENTS AND OBSERVATIONS: Clear, colorless, odorless throughout. Collected MS/MSD.



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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-2-PS	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 55F, Partly Cloudy, E 5mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1243	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 1' bgs	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0 in

Purge Date: 23-Oct-18	Purge Time: 945
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

Well Volume

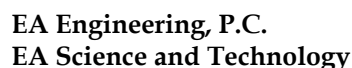
A. Well Depth (ft): 26.66	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down 1' bgs
B. Depth to Water (ft): 13.40	E. Well Volume (gal) (C*D): 2.16138	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 13.26	F. Three Well Volumes (gal) (E3): 6.48414	Pump Intake Depth: NA

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
948	5.67	0.478	9.1	5.25	16.86	209	13.4	0.30	0.00
951	5.89	0.423	0.0	0.00	18.21	204	13.39	0.30	0.90
954	5.96	0.341	0.0	0.00	18.41	199.0	13.39	0.30	1.80
957	5.97	0.323	0.0	0.00	18.38	195.0	13.39	0.30	2.70
1000	5.98	0.326	0.0	0.00	18.41	190.0	13.39	0.30	3.60
1003	5.99	0.327	0.0	0.00	18.51	189	13.39	0.30	4.50
1006	6.07	0.279	0.0	0.00	19.01	190	13.39	0.30	5.40
1009	6.05	0.279	0.0	0.00	19.05	191	13.39	0.30	6.30
1012	6.06	0.277	0.0	0.00	19.06	191	13.39	0.30	7.20

Total Quantity of Water Removed (gal): 1.90	Sampling Time: 1015
Samplers: ET/SS	Split Sample With: --
Sampling Date: 10/23/2018	Sample Type: VOC- GW Grab

COMMENTS AND OBSERVATIONS: Clear, colorless, odorless throughout



Well I.D.: DDC-2-PD	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 65F, Partly Cloudy, Calm
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1252	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down -1ft	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0 in

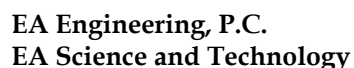
Purge Date: 23-Oct-18	Purge Time: 952
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

A. Well Depth (ft): 76.2	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down -1ft
B. Depth to Water (ft): 14.13	E. Well Volume (gal) (C*D): 10.11741	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 62.07	F. Three Well Volumes (gal) (E3): 30.35223	Pump Intake Depth: NA

[illegible]

Total Quantity of Water Removed (gal):	1.39	Sampling Time:	1014
Samplers:	ET/SS	Split Sample With:	--
Sampling Date:	10/23/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS:

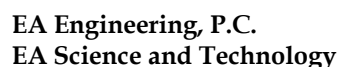


Well I.D.: DDC-4-PS			EA Personnel: S.Soldner/E.Thieleman/PES			Client: NYSDEC			
Location: National Heatset Printing, Babylon, NY			Well Condition: Good/No well cap			Weather: 50F, Overcast, N 2mph			
Sounding Method: Solinst 100-ft water level tape			Gauge Date: 10/22/2018			Measurement Ref:			
			Gauge Time: 1251			Top of Casing (TOC)			
Stick Up/Down (ft): Down 1.5-ft			PID Headspace Reading (ppb): 1			Well Diameter (in): 2.0 in			
Purge Date: 23-Oct-18						Purge Time: 812			
Purge Method: Low Flow via Peristaltic Pump						Field Technician: S.Soldner/E.Thieleman/PES			
Well Volume									
A. Well Depth (ft): 25.98			D. Well Volume (ft): 0.163			Depth/Height of Top of PVC: Down 1.5-ft			
B. Depth to Water (ft): 6.35			E. Well Volume (gal) (C*D): 3.19969			Pump Type: Peristaltic Pump			
C. Liquid Depth (ft) (A-B): 19.63			F. Three Well Volumes (gal) (E3): 9.59907			Pump Intake Depth: NA			
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
812	6.42	0.263	0.0	7.87	14.07	216	6.41	0.24	0.00
815	6.40	0.26	0.0	7.97	14.2	223	6.35	0.24	0.72
818	6.4	0.257	0.0	7.66	14.48	227	6.39	0.24	1.44
821	6.41	0.256	0.0	7.80	14.4	230	6.33	0.24	2.16
824	6.41	0.256	0.0	7.80	14.44	232	6.35	0.24	2.88
827	6.41	0.256	0.0	8.17	14.46	234	6.36	0.24	3.60
830	6.4	0.257	0	7.88	14.38	235	6.34	0.24	4.32
833	6.41	0.257	0	8.06	14.36	236	6.31	0.24	5.04
Total Quantity of Water Removed (gal):				1.33		Sampling Time:		833	
Samplers:				ET/SS		Split Sample With:		--	
Sampling Date:				10/23/2018		Sample Type:		VOC- GW Grab	
COMMENTS AND OBSERVATIONS:									

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A-5: Offsite Groundwater Monitoring Field Data

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Well I.D.: MW-1S (offsite)	EA Personnel: S.Soldner / E.Thieleman / PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 45F, partly cloudy, NW 7 mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1422	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): 5" bgs	PID Headspace Reading (ppb): 0	Well Diameter (in): 1.0-in

Purge Date: 24-Oct-18	Purge Time: 848
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

A. Well Depth (ft): 21.69	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: 5" bgs
B. Depth to Water (ft): 7.07	E. Well Volume (gal) (C*D): 0.59942	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 14.62	F. Three Well Volumes (gal) (E3): 1.79826	Pump Intake Depth: NA

[illegible]

Total Quantity of Water Removed (gal):	1.39	Sampling Time:	911
Samplers:	ET/SS	Split Sample With:	MS/MSD
Sampling Date:	10/24/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS: MS/MSD collected here



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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-1D (offsite)	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 34°F/Overcast
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1423	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): ~4" bgs	PID Headspace Reading (ppb): 1515	Well Diameter (in): 1

Purge Date: 24-Oct-18	Purge Time: 800
Purge Method: Low Flow via Peristaltic Pump	Field Technician: S.Soldner/E.Thieleman/PES

Well Volume

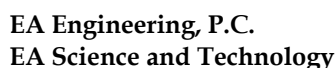
A. Well Depth (ft): 84.90	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: ~4" bgs
B. Depth to Water (ft): 7.9	E. Well Volume (gal) (C*D): 12.551	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 77	F. Three Well Volumes (gal) (E3): 37.653	Pump Intake Depth: NA

Water Quality Parameters

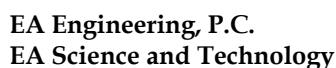
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
802	4.75	0.155	0.0	0.13	11.82	289	8.02	0.24	0.00
805	4.97	0.058	0.0	0.00	13.46	271	8.02	0.24	0.72
808	5.23	0.048	0.0	0.00	13.72	269	8.02	0.24	1.44
811	5.37	0.051	0.0	0.00	13.66	265	8.02	0.24	2.16
814	5.44	0.089	0.0	0.00	13.59	265	8.02	0.24	2.88
817	5.43	0.108	0.0	0.00	13.64	267	8.02	0.24	3.6
820	5.43	0.113	0.0	0.00	13.68	268	8.02	0.24	4.32
823	5.41	0.118	0.0	0.00	13.67	271	8.02	0.24	5.04
826	5.38	0.12	0.0	0.00	13.68	273	8.02	0.24	5.76
829	5.4	0.126	0.0	0.00	13.66	274	8.02	0.24	6.48
832	5.38	0.126	0.0	0.00	13.65	276	8.02	0.24	7.2
835	5.37	0.126	0.0	0.00	13.69	277	8.02	0.24	7.92

Total Quantity of Water Removed (gal): 2.09	Sampling Time: 835
Samplers: ET/SS	Split Sample With: FD02
Sampling Date: 10/24/2018	Sample Type: GW Grab

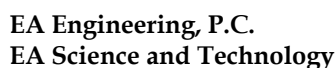
COMMENTS AND OBSERVATIONS: FD-02 Collected here



Well I.D.: MW-2S (offsite)			EA Personnel: S.Soldner/E.Thieleman/PES			Client: NYSDEC			
Location: National Heatset Printing, Babylon, NY			Well Condition: Good			Weather: 34°F/Overcast			
Sounding Method: Solinst 100-ft water level tape			Gauge Date: 10/22/2018			Measurement Ref:			
Stick Up/Down (ft): Down 0.25-ft			Gauge Time: 1423			Top of Casing (TOC)			
			PID Headspace Reading (ppb): 8680			Well Diameter (in): 1.0-in			
Purge Date: 23-Oct-18					Purge Time: 1550				
Purge Method: Low Flow via Peristaltic Pump					Field Technician: ET/PES				
Well Volume									
A. Well Depth (ft): 22.81			D. Well Volume (ft): 0.163			Depth/Height of Top of PVC: Down 0.25-ft			
B. Depth to Water (ft): 11.41			E. Well Volume (gal) (C*D): 1.8582			Pump Type: Peristaltic Pump			
C. Liquid Depth (ft) (A-B): 11.4			F. Three Well Volumes (gal) (E3): 5.5746			Pump Intake Depth: NA			
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1551	6.34	0.193	36.7	6.62	17.84	242	11.43	0.25	0.00
1554	6.32	0.193	14.5	7.21	17.97	246	11.4	0.25	0.75
1557	6.32	0.192	12.2	7.20	18.06	248	11.41	0.25	1.50
1600	6.33	0.192	9.9	7.34	18.13	250	11.42	0.25	2.25
1603	6.33	0.191	6.9	7.28	18.19	251	11.42	0.25	3.00
1606	6.32	0.190	3.5	7.28	18.26	253	11.41	0.25	3.75
1609	6.32	0.190	2.2	7.30	18.3	254	11.42	0.25	4.50
1612	6.33	0.189	1.5	7.43	18.31	256	11.41	0.25	5.25
Total Quantity of Water Removed (gal):			1.39			Sampling Time:		1612	
Samplers:		ET/SS			Split Sample With:		--		
Sampling Date:		10/23/2018			Sample Type:		GW Grab		
COMMENTS AND OBSERVATIONS:									



Well I.D.: MW-2D (offsite)			EA Personnel: S.Soldner/E.Thieleman/PES			Client: NYSDEC			
Location: National Heatset Printing, Babylon, NY			Well Condition: Good			Weather: 50F, clear, E 5mph			
Sounding Method: Solinst 100-ft water level tape			Gauge Date: 10/22/2018 Gauge Time: 1411			Measurement Ref: Top of Casing (TOC)			
Stick Up/Down (ft): Down 0.25-ft			PID Headspace Reading (ppb): 0			Well Diameter (in): 1.0-in			
Purge Date: 23-Oct-18					Purge Time: 1545				
Purge Method: Low Flow via Peristaltic Pump					Field Technician: S.Soldner/E.Thieleman/PES				
Well Volume									
A. Well Depth (ft): 87.57			D. Well Volume (ft): 0.041			Depth/Height of Top of PVC: Down 0.25-ft			
B. Depth to Water (ft): 11.5			E. Well Volume (gal) (C*D): 3.11887			Pump Type: Peristaltic Pump			
C. Liquid Depth (ft) (A-B): 76.07			F. Three Well Volumes (gal) (E3): 9.35661			Pump Intake Depth: NA			
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1547	5.97	0.219	8.3	7.95	16.95	228	11.5	0.30	0.00
1550	5.47	0.249	0.0	0.27	17.06	230	11.51	0.30	0.9
1553	5.23	0.298	0.0	3.63	16.81	245	11.51	0.30	1.8
1556	5.18	0.309	0.0	4.14	16.59	257.0	11.52	0.30	2.7
1559	5.18	0.31	0.0	4.14	16.68	258	11.52	0.30	3.6
1602	5.18	0.312	0.0	4.29	16.52	260	11.52	0.30	4.5
1605	5.17	0.313	0.0	4.32	16.52	261	11.52	0.30	5.4
1608	5.17	0.313	0.0	4.35	16.54	262	11.52	0.30	6.3
Total Quantity of Water Removed (gal):	1.66					Sampling Time:		1610	
Samplers:	ET/SS					Split Sample With:		--	
Sampling Date:	10/23/2018					Sample Type:		GW Grab	
COMMENTS AND OBSERVATIONS:									
Clear, colorless, odorless throughout									

[illegible]



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GROUNDWATER SAMPLING PURGE FORM

Well I.D.: MW-3D (offsite)	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 50F, overcast, SW 7mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1454	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): ~1" bgs	PID Headspace Reading (ppb): 9	Well Diameter (in): 1.0 in

Purge Date: 22-Oct-18	Purge Time: 1510
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/PES

Well Volume

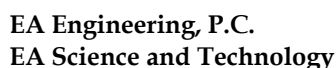
A. Well Depth (ft): 88.89	D. Well Volume (ft): 0.041	Depth/Height of Top of PVC: ~1" bgs
B. Depth to Water (ft): 7.58	E. Well Volume (gal) (C*D): 3.33371	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 81.31	F. Three Well Volumes (gal) (E3): 10.00113	Pump Intake Depth: NA

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1511	5.56	0.213	77.2	1.6	14.24	16	7.61	0.30	0.00
1514	6.06	0.164	30.8	2.83	14.55	15	7.62	0.30	0.9
1517	6.08	0.157	18.1	4.73	14.75	44	7.61	0.30	1.8
1520	5.97	0.153	9.7	5.65	14.88	70	7.61	0.30	2.7
1523	5.89	0.151	4	6.04	14.97	89	7.62	0.30	3.6
1526	5.86	0.15	0	6.19	15.04	107	7.62	0.30	4.5
1529	5.83	0.149	0	6.36	15.06	119	7.62	0.30	5.4
1532	5.87	0.149	0	6.42	15.06	121	7.62	0.30	6.3
1535	5.89	0.148	0	6.4	15.05	126	7.62	0.30	7.2

Total Quantity of Water Removed (gal):	1.90	Sampling Time:	1535
Samplers:	ET/SS	Split Sample With:	--
Sampling Date:	10/22/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS:



Well I.D.: DDC-5-PS			EA Personnel: S.Soldner/E.Thieleman/PES			Client: NYSDEC			
Location: National Heatset Printing, Babylon, NY			Well Condition: Good			Weather: 50F, overcast, SW 7mph			
Sounding Method: Solinst 100-ft water level tape			Gauge Date: 10/22/2018			Measurement Ref:			
			Gauge Time: 1443			Top of Casing (TOC)			
Stick Up/Down (ft): Up 3.0 ft			PID Headspace Reading (ppb): 0			Well Diameter (in): 2			
Purge Date: 22-Oct-18					Purge Time: 1613				
Purge Method: Low Flow via Peristaltic Pump					Field Technician: ET/PES				
Well Volume									
A. Well Depth (ft): 29.87			D. Well Volume (ft): 0.163			Depth/Height of Top of PVC: Up 3.0 ft			
B. Depth to Water (ft): 9.29			E. Well Volume (gal) (C*D): 3.35454			Pump Type: Peristaltic Pump			
C. Liquid Depth (ft) (A-B): 20.58			F. Three Well Volumes (gal) (E3): 10.06362			Pump Intake Depth: NA			
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1613	6.63	0.246	0	8.35	13.61	174	9.4	0.25	0.00
1616	6.52	0.246	0	6.91	13.29	191	9.32	0.25	0.75
1619	6.49	0.246	0	6.86	13.21	198	9.3	0.25	1.5
1622	6.46	0.247	0	7.48	13.16	203	9.35	0.25	2.25
1625	6.45	0.247	0	8.46	13.15	206	9.44	0.25	3
1628	6.46	0.247	0	8.50	13.15	209	9.39	0.25	3.75
1631	6.45	0.247	0	8.60	13.14	211	9.32	0.25	4.5
Total Quantity of Water Removed (gal):	1.19					Sampling Time:	1631		
Samplers:	ET/SS					Split Sample With:	--		
Sampling Date:	10/22/2018					Sample Type:	GW Grab		
COMMENTS AND OBSERVATIONS:									



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-5-PD	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 52° F/ Overcast / ESE 10mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Up 3.0 ft.	Gauge Time: 1444	Well Diameter (in): 2
PID Headspace Reading (ppb): 0		

Purge Date: 22-Oct-18	Purge Time: 1605
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET

Well Volume

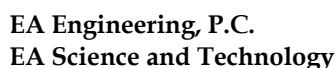
A. Well Depth (ft): 82.73	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Up 3.0 ft.
B. Depth to Water (ft): 13.15	E. Well Volume (gal) (C*D): 11.34154	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 69.58	F. Three Well Volumes (gal) (E3): 34.02462	Pump Intake Depth: NA

Water Quality Parameters

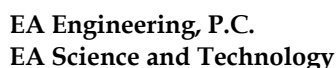
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1608	6.06	0.157	0	6.71	14.21	223	13.05	0.30	0.00
1611	5.58	0.185	0	5.90	13.41	234	13.17	0.30	0.9
1614	5.61	0.217	0	5.21	12.89	246	13.25	0.30	1.8
1617	5.62	0.222	0	5.27	12.97	245	13.07	0.30	2.7
1620	5.65	0.223	0	5.27	12.96	246	13.13	0.30	3.6
1623	5.67	0.231	0	3.63	12.96	245	13.1	0.30	4.5
1626	5.68	0.232	0	2.60	12.96	246.0	13.41	0.30	5.4
1629	5.7	0.234	0	2.11	12.96	245.0	13.4	0.30	6.3
1632	5.7	0.235	0	1.53	12.94	245	13.49	0.30	7.2
1635	5.7	0.235	0	1.49	12.94	246	13.01	0.30	8.1
1638	5.72	0.235	0	1.45	12.91	245	13.27	0.30	9

Total Quantity of Water Removed (gal): 2.38	Sampling Time: 1638
Samplers: ET/SS	Split Sample With: --
Sampling Date: 10/22/2018	Sample Type: GW Grab

COMMENTS AND OBSERVATIONS: DTW inconsistent because system is running. Clear, colorless, odorless throughout.



Well I.D.: DDC-6-PS		EA Personnel: S.Soldner/E.Thieleman/PES		Client: NYSDEC					
Location: National Heatset Printing, Babylon, NY		Well Condition: OK		Weather: 52 F / Overcast / ESE 10mph					
Sounding Method: Solinst 100-ft water level tape		Gauge Date: 10/22/2018	Measurement Ref:						
Stick Up/Water (ft): Down 0.5-ft		Gauge Time: 1448	Top of Casing (TOC)						
		PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0-in						
Purge Date: 22-Oct-18			Purge Time: 1535						
Purge Method: Low Flow via Peristaltic Pump			Field Technician: S.Soldner/E.Thieleman/PES						
Well Volume									
A. Well Depth (ft): 29.37		D. Well Volume (ft): 0.163		Depth/Height of Top of PVC: Down 0.5-ft					
B. Depth to Water (ft): 7.86		E. Well Volume (gal) (C*D): 3.50613		Pump Type: Peristaltic Pump					
C. Liquid Depth (ft) (A-B): 21.51		F. Three Well Volumes (gal) (E3): 10.51839		Pump Intake Depth: NA					
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1539	5.68	0.149	1.7	5.98	15.74	204	7.85	0.30	0.00
1542	5.51	0.174	1.4	5.60	14.79	226	7.85	0.30	0.9
1545	5.49	0.183	0	5.73	14.66	234	7.85	0.30	1.8
1548	5.51	0.187	0.0	5.59	14.63	237	7.85	0.30	2.7
1551	5.54	0.188	0.0	5.65	14.57	238	7.85	0.30	3.6
1554	5.59	0.190	0.0	5.79	14.53	240	7.85	0.30	4.5
1557	5.59	0.190	0.0	5.86	14.52	241	7.85	0.30	5.4
1600	5.60	0.190	0.0	5.76	14.53	241	7.85	0.30	6.3
Total Quantity of Water Removed (gal):	1.66					Sampling Time:	1602		
Samplers:	ET/SS					Split Sample With:	--		
Sampling Date:	10/22/2018					Sample Type:	GW Grab		
COMMENTS AND OBSERVATIONS: Clear, colorless, odorless throughout.									



GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-6-PD	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 51F, Overcast, SW 7mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1449	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down ~0.33-ft	PID Headspace Reading (ppb): 80	Well Diameter (in): 2.0-in

Purge Date: 22-Oct-18	Purge Time: 1544
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

Well Volume

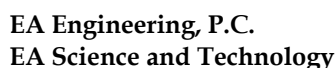
A. Well Depth (ft): 81.08	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down ~0.33-ft
B. Depth to Water (ft): 7.78	E. Well Volume (gal) (C*D): 11.9479	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 73.3	F. Three Well Volumes (gal) (E3): 35.8437	Pump Intake Depth: NA

Water Quality Parameters

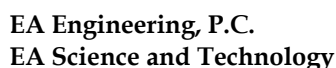
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Total Quantity of Water Removed (gal):	1.43	Sampling Time:	1602
Samplers: ET/SS		Split Sample With:	--
Sampling Date:	10/22/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS:



Well I.D.: DDC-7-PS			EA Personnel: S.Soldner/E.Thieleman/PES			Client: NYSDEC			
Location: National Heatset Printing, Babylon, NY			Well Condition: Good			Weather: 50F, clear, E 10mph			
Sounding Method: Solinst 100-ft water level tape			Gauge Date: 10/22/2018			Measurement Ref:			
			Gauge Time: 1356			Top of Casing (TOC)			
Stick Up/Down (ft): Down ~8"			PID Headspace Reading (ppb): 148			Well Diameter (in): 2.0-in			
Purge Date: 23-Oct-18					Purge Time: 1502				
Purge Method: Low Flow via Peristaltic Pump					Field Technician: S.Soldner/E.Thieleman/PES				
Well Volume									
A. Well Depth (ft): 27.9			D. Well Volume (ft): 0.163			Depth/Height of Top of PVC: Down ~8"			
B. Depth to Water (ft): 7.91			E. Well Volume (gal) (C*D): 3.25837			Pump Type: Peristaltic Pump			
C. Liquid Depth (ft) (A-B): 19.99			F. Three Well Volumes (gal) (E3): 9.77511			Pump Intake Depth: NA			
Water Quality Parameters									
Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1506	5.62	0.464	0.0	8.28	15.94	232	7.8	0.30	0.00
1509	5.44	0.479	0.0	8.04	15.11	249	8.04	0.30	0.9
1512	5.29	0.479	0.0	8.06	14.93	258	7.77	0.30	1.8
1515	5.25	0.48	0.0	8.01	14.86	263	7.84	0.30	2.7
1518	5.25	0.48	0.0	7.98	14.87	264	7.97	0.30	3.6
1521	5.26	0.48	0.0	7.99	14.77	264		0.30	4.5
1524	5.29	0.48	0.0	7.95	14.76	264		0.30	5.4
1527	5.31	0.48	0.0	7.94	14.78	263		0.30	6.3
Total Quantity of Water Removed (gal):	1.66				Sampling Time:			1530	
Samplers:	ET/SS				Split Sample With:			--	
Sampling Date:	10/23/2018				Sample Type:			GW Grab	
COMMENTS AND OBSERVATIONS: Clear, colorless, odorless throughout									



GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-7-PD	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 60F, Partly cloudy, SSW 7mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1357	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 1.0-ft	PID Headspace Reading (ppb): 72	Well Diameter (in): 2.0-in

Purge Date: 23-Oct-18	Purge Time: 1515
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

Well Volume

A. Well Depth (ft): 83.41	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down 1.0-ft
B. Depth to Water (ft): 10.1	E. Well Volume (gal) (C*D): 11.94953	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 73.31	F. Three Well Volumes (gal) (E3): 35.84859	Pump Intake Depth: NA

Water Quality Parameters

[illegible]

Total Quantity of Water Removed (gal):	1.50	Sampling Time:	1538
Samplers: ET/SS		Split Sample With:	--
Sampling Date:	10/23/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS:



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-8-PS	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 55F, Clear, E 10mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1348	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 1.0-ft	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0-in

Purge Date: 23-Oct-18	Purge Time: 1417
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

Well Volume

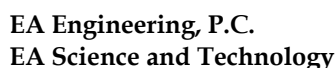
A. Well Depth (ft): 26.18	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down 1.0-ft
B. Depth to Water (ft): 7.39	E. Well Volume (gal) (C*D): 3.06277	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 18.79	F. Three Well Volumes (gal) (E3): 9.18831	Pump Intake Depth: NA

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1420	5.60	0.23	18	6.99	21.27	216	7.08	0.30	0.00
1423	5.54	0.415	4.5	7.46	16.90	226.0	7.08	0.30	0.9
1426	5.27	0.415	0	8.18	16.59	241.0	7.08	0.30	1.8
1429	5.14	0.420	0	7.90	15.97	251	7.08	0.30	2.7
1432	5.07	0.422	0	8.18	15.78	258	7.08	0.30	3.6
1435	5.08	0.414	0	7.77	15.74	260	7.08	0.30	4.5
1438	5.01	0.419	0	8.18	15.64	268	7.08	0.30	5.4
1441	5.04	0.42	0.0	8.11	15.66	268	7.08	0.30	6.3
1444	5.04	0.421	0	8.2	15.68	268	7.08	0.30	7.2

Total Quantity of Water Removed (gal): 1.90	Sampling Time: 1445
Samplers: ET/SS	Split Sample With: --
Sampling Date: 10/23/2018	Sample Type: GW Grab

COMMENTS AND OBSERVATIONS: Clear, colorless, odorless throughout



GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-8-PD	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 55F, Partly Cloudy, SW 7mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1349	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 1.0-ft	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0-in

Purge Date: 23-Oct-18	Purge Time: 1435
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

Well Volume

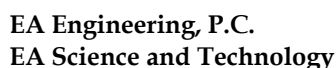
A. Well Depth (ft): 84.3	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down 1.0-ft
B. Depth to Water (ft): 12.3	E. Well Volume (gal) (C*D): 11.736	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 72	F. Three Well Volumes (gal) (E3): 35.208	Pump Intake Depth: NA

Water Quality Parameters

[illegible]

Total Quantity of Water Removed (gal):	1.50	Sampling Time:	1457
Samplers:	ET/SS	Split Sample With:	--
Sampling Date:	10/23/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS:



GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-9-PS	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: Good	Weather: 55F/clear/E 7-10mph
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1340	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 1.0-ft	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0-in

Purge Date: 23-Oct-18	Purge Time: 1340
Purge Method: Low Flow via Peristaltic Pump	Field Technician: ET/SS

Well Volume

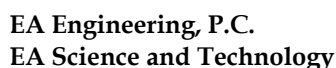
A. Well Depth (ft): 28.78	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down 1.0-ft
B. Depth to Water (ft): 8.2	E. Well Volume (gal) (C*D): 3.35454	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 20.58	F. Three Well Volumes (gal) (E3): 10.06362	Pump Intake Depth: NA

Water Quality Parameters

[illegible]

Total Quantity of Water Removed (gal):	1.66	Sampling Time:	1408
Samplers:	ET/SS	Split Sample With:	--
Sampling Date:	10/23/2018	Sample Type:	GW Grab

COMMENTS AND OBSERVATIONS:	Clear, colorless, odorless throughout

[illegible]



EA Engineering, P.C.
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

Well I.D.: DDC-10-PS	EA Personnel: S.Soldner/E.Thieleman/PES	Client: NYSDEC
Location: National Heatset Printing, Babylon, NY	Well Condition: OK	Weather: 60F, partly cloudy, calm
Sounding Method: Solinst 100-ft water level tape	Gauge Date: 10/22/2018 Gauge Time: 1333	Measurement Ref: Top of Casing (TOC)
Stick Up/Down (ft): Down 0.5-ft	PID Headspace Reading (ppb): 0	Well Diameter (in): 2.0-in

Purge Date: 23-Oct-18	Purge Time: 1307
Purge Method: Low Flow via Peristaltic Pump	Field Technician: S.Soldner/E.Thieleman/PES

Well Volume

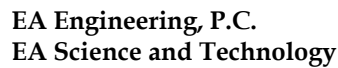
A. Well Depth (ft): 27.8	D. Well Volume (ft): 0.163	Depth/Height of Top of PVC: Down 0.5-ft
B. Depth to Water (ft): 10.1	E. Well Volume (gal) (C*D): 2.8851	Pump Type: Peristaltic Pump
C. Liquid Depth (ft) (A-B): 17.7	F. Three Well Volumes (gal) (E3): 8.6553	Pump Intake Depth: NA

Water Quality Parameters

Time (hrs)	pH (pH units)	Conductivity (mS/cm)	Turbidity (ntu)	DO (mg/L)	Temperature (°C)	ORP (mV)	DTW (ft btoc)	Rate (Lpm)	Volume (liters)
1307	6.69	0.21	0	8.05	20.18	207	9.95	0.20	0.00
1310	6.38	0.208	0	6.61	19.76	230	9.9	0.20	0.6
1313	6.27	0.211	0.0	6.11	18.9	238	9.6	0.20	1.2
1316	6.24	0.214	0	5.97	18.46	241	9.65	0.20	1.8
1319	6.25	0.214	0	5.95	18.38	243	10.42	0.20	2.4
1322	6.25	0.216	0	5.56	18.69	244.0	10.05	0.20	3
1325	6.24	0.217	0	5.53	18.83	245	9.6	0.20	3.6
1328	6.24	0.219	0	6.37	18.5	247	10.05	0.20	4.2
1331	6.24	0.214	0	6.26	18.3	249	9.32	0.20	4.8
1334	6.24	0.215	0	6.24	18.02	250	9.95	0.20	5.4

Total Quantity of Water Removed (gal): 1.43	Sampling Time: 1334
Samplers: ET/SS	Split Sample With: --
Sampling Date: 10/23/2018	Sample Type: GW Grab

COMMENTS AND OBSERVATIONS:



Well I.D.:			EA Personnel:			Client:			
DDC-10-PD			S.Soldner/E.Thieleman/PES			NYSDEC			
Location:			Well Condition:			Weather:			
National Heatset Printing, Babylon, NY			Good			55F, clear, E 5mph			
Sounding Method:			Gauge Date:			Measurement Ref:			
Solinst 100-ft water level tape			10/22/2018			Top of Casing (TOC)			
Stick Up/Down (ft):			PID Headspace Reading (ppb):			Well Diameter (in):			
Down 0.5 ft			0			2.0-in			
Purge Date:					Purge Time:				
23-Oct-18					1300				
Purge Method:					Field Technician:				
Low Flow via Peristaltic Pump					S.Soldner/E.Thieleman/PES				
Well Volume									
A. Well Depth (ft):			D. Well Volume (ft):			Depth/Height of Top of PVC:			
81.11			0.163			Down 0.5 ft			
B. Depth to Water (ft):			E. Well Volume (gal) (C*D):			Pump Type:			
9.95			11.59908			Peristaltic Pump			
C. Liquid Depth (ft) (A-B):			F. Three Well Volumes (gal) (E3):			Pump Intake Depth:			
71.16			34.79724			NA			
Water Quality Parameters									
Time	pH	Conductivity	Turbidity	DO	Temperature	ORP	DTW	Rate	Volume
(hrs)	(pH units)	(mS/cm)	(ntu)	(mg/L)	(oC)	(mV)	(ft btoc)	(Lpm)	(liters)
1304	5.91	0.395	0	4.74	22.54	149.0	9.5	0.30	0.00
1307	5.59	0.422	0	4.28	18.77	183.0	11.55	0.30	0.9
1310	5.31	0.427	0	4.04	17.69	204.0	8.89	0.30	1.8
1313	4.92	0.433	0	3.93	16.87	238		0.30	2.7
1316	4.81	0.432	0	4.12	16.559	247		0.30	3.6
1319	4.78	0.436	0	4.10	16.52	254		0.30	4.5
1322	4.77	0.436	0	4.24	16.54	255		0.30	5.4
1325	4.82	0.437	0	4.20	16.56	256		0.30	6.3
Total Quantity of Water Removed (gal):			1.66			Sampling Time:		1330	
Samplers:		ET/SS				Split Sample With:		--	
Sampling Date:				10/23/2018		Sample Type:		GW Grab	
COMMENTS AND OBSERVATIONS:									
Clear, colorless, odorless throughout.									

Attachment B

Laboratory Analytical Data – System Vapor Samples

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10/4/2018
Mr. Jim Hayward
EA Engineering
6712 Brooklawn Parkway
Suite 104
Syracuse NY 13211

Project Name: National Heatset
Project #: 1490716
Workorder #: 1809438

Dear Mr. Jim Hayward

The following report includes the data for the above referenced project for sample(s) received on 9/24/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis
Project Manager

WORK ORDER #: 1809438

Work Order Summary

CLIENT:	Mr. Jim Hayward EA Engineering 6712 Brooklawn Parkway Suite 104 Syracuse, NY 13211	BILL TO:	Accounts Payable EA Engineering 3 Washington Center Newburgh, NY 12550
PHONE:	315-431-4610	P.O. #	10991m6
FAX:	315-431-4280	PROJECT #	1490716 National Heatset
DATE RECEIVED:	09/24/2018	CONTACT:	Rachel Selenis
DATE COMPLETED:	10/04/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Onsite System #2-Influent #1	TO-15	6.3 "Hg	5.3 psi
02A	Onsite System #2-Influent #2	TO-15	9 "Hg	4.9 psi
03A	Onsite System #2-Effluent	TO-15	9 "Hg	5 psi
04A(cancelled)	SVE System-Influent	TO-15	0 psi	4.8 psi
05A	SVE System-Effluent	TO-15	9.2 "Hg	4.9 psi
06A	Lab Blank	TO-15	NA	NA
07A	CCV	TO-15	NA	NA
08A	LCS	TO-15	NA	NA
08AA	LCSD	TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 10/04/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
EA Engineering
Workorder# 1809438

Five 6 Liter Summa Canister samples were received on September 24, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A time was not provided by the field sampler.

The Chain of Custody (COC) information for sample Onsite System #2-Effluent did not match the information on the canister with regard to canister identification. The sample labeled 03996 on the COC is labeled as 33996 on the canister. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

The canister valve on sample SVE System-Influent was received open and a brass plug was present. Sample vented to ambient pressure during shipment. The sample was cancelled per client request.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Dilution was performed on samples Onsite System #2-Influent #1 and Onsite System #2-Influent #2 due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



Air Toxics

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: Onsite System #2-Influent #1**Lab ID#: 1809438-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	5.7	55 J0	11	100 J0
2-Propanol	5.7	11	14	26
cis-1,2-Dichloroethene	1.4	7.4	5.7	29
Chloroform	1.4	3.6	7.0	17
Trichloroethene	1.4	1.9	7.7	10
Toluene	1.4	2.1	5.4	7.8
Tetrachloroethene	1.4	270	9.7	1800

Client Sample ID: Onsite System #2-Influent #2**Lab ID#: 1809438-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.7	9.9	6.8	39
Chloroform	1.7	4.7	8.4	23
Trichloroethene	1.7	2.1	9.3	11
Tetrachloroethene	1.7	340	12	2300

Client Sample ID: Onsite System #2-Effluent**Lab ID#: 1809438-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.96	11	3.8	44
Chloroform	0.96	5.0	4.7	24

Client Sample ID: SVE System-Effluent**Lab ID#: 1809438-05A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	3.8	8.6 J0	7.2	16 J0
Acetone	9.6	12	23	29
trans-1,2-Dichloroethene	0.96	1.0	3.8	4.0
cis-1,2-Dichloroethene	0.96	41	3.8	160

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVE System-Effluent

Lab ID#: 1809438-05A

Tetrahydrofuran	0.96	1.9	2.8	5.7
Chloroform	0.96	1.6	4.7	8.1
1,1,1-Trichloroethane	0.96	13	5.2	70
Cyclohexane	0.96	3.7	3.3	13
Trichloroethene	0.96	33	5.2	180



Air Toxics

Client Sample ID: Onsite System #2-Influent #1

Lab ID#: 1809438-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092622	Date of Collection:	9/13/18 4:05:00 PM
Dil. Factor:	2.87	Date of Analysis:	9/27/18 12:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	Not Detected	7.1	Not Detected
Freon 114	1.4	Not Detected	10	Not Detected
Chloromethane	14	Not Detected	30	Not Detected
Vinyl Chloride	1.4	Not Detected	3.7	Not Detected
1,3-Butadiene	1.4	Not Detected	3.2	Not Detected
Bromomethane	14	Not Detected	56	Not Detected
Chloroethane	5.7	Not Detected	15	Not Detected
Freon 11	1.4	Not Detected	8.1	Not Detected
Ethanol	5.7	55 J0	11	100 J0
Freon 113	1.4	Not Detected	11	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Acetone	14	Not Detected	34	Not Detected
2-Propanol	5.7	11	14	26
Carbon Disulfide	5.7	Not Detected	18	Not Detected
3-Chloropropene	5.7	Not Detected	18	Not Detected
Methylene Chloride	14	Not Detected	50	Not Detected
Methyl tert-butyl ether	5.7	Not Detected	21	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Hexane	1.4	Not Detected	5.0	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.7	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	1.4	7.4	5.7	29
Tetrahydrofuran	1.4	Not Detected	4.2	Not Detected
Chloroform	1.4	3.6	7.0	17
1,1,1-Trichloroethane	1.4	Not Detected	7.8	Not Detected
Cyclohexane	1.4	Not Detected	4.9	Not Detected
Carbon Tetrachloride	1.4	Not Detected	9.0	Not Detected
2,2,4-Trimethylpentane	1.4	Not Detected	6.7	Not Detected
Benzene	1.4	Not Detected	4.6	Not Detected
1,2-Dichloroethane	1.4	Not Detected	5.8	Not Detected
Heptane	1.4	Not Detected	5.9	Not Detected
Trichloroethene	1.4	1.9	7.7	10
1,2-Dichloropropane	1.4	Not Detected	6.6	Not Detected
1,4-Dioxane	5.7	Not Detected	21	Not Detected
Bromodichloromethane	1.4	Not Detected	9.6	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.5	Not Detected
4-Methyl-2-pentanone	1.4	Not Detected	5.9	Not Detected
Toluene	1.4	2.1	5.4	7.8
trans-1,3-Dichloropropene	1.4	Not Detected	6.5	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.8	Not Detected
Tetrachloroethene	1.4	270	9.7	1800
2-Hexanone	5.7	Not Detected	24	Not Detected



Air Toxics

Client Sample ID: Onsite System #2-Influent #1

Lab ID#: 1809438-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092622	Date of Collection:	9/13/18 4:05:00 PM
Dil. Factor:	2.87	Date of Analysis:	9/27/18 12:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.6	Not Detected
Ethyl Benzene	1.4	Not Detected	6.2	Not Detected
m,p-Xylene	1.4	Not Detected	6.2	Not Detected
o-Xylene	1.4	Not Detected	6.2	Not Detected
Styrene	1.4	Not Detected	6.1	Not Detected
Bromoform	1.4	Not Detected	15	Not Detected
Cumene	1.4	Not Detected	7.0	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.8	Not Detected
Propylbenzene	1.4	Not Detected	7.0	Not Detected
4-Ethyltoluene	1.4	Not Detected	7.0	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,2,4-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,3-Dichlorobenzene	1.4	Not Detected	8.6	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.6	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.4	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.6	Not Detected
1,2,4-Trichlorobenzene	5.7	Not Detected	43	Not Detected
Hexachlorobutadiene	5.7	Not Detected	61	Not Detected

J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Onsite System #2-Influent #2

Lab ID#: 1809438-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092621	Date of Collection:	9/13/18 4:52:00 PM
Dil. Factor:	3.46	Date of Analysis:	9/27/18 12:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.7	Not Detected	8.6	Not Detected
Freon 114	1.7	Not Detected	12	Not Detected
Chloromethane	17	Not Detected	36	Not Detected
Vinyl Chloride	1.7	Not Detected	4.4	Not Detected
1,3-Butadiene	1.7	Not Detected	3.8	Not Detected
Bromomethane	17	Not Detected	67	Not Detected
Chloroethane	6.9	Not Detected	18	Not Detected
Freon 11	1.7	Not Detected	9.7	Not Detected
Ethanol	6.9	Not Detected	13	Not Detected
Freon 113	1.7	Not Detected	13	Not Detected
1,1-Dichloroethene	1.7	Not Detected	6.8	Not Detected
Acetone	17	Not Detected	41	Not Detected
2-Propanol	6.9	Not Detected	17	Not Detected
Carbon Disulfide	6.9	Not Detected	22	Not Detected
3-Chloropropene	6.9	Not Detected	22	Not Detected
Methylene Chloride	17	Not Detected	60	Not Detected
Methyl tert-butyl ether	6.9	Not Detected	25	Not Detected
trans-1,2-Dichloroethene	1.7	Not Detected	6.8	Not Detected
Hexane	1.7	Not Detected	6.1	Not Detected
1,1-Dichloroethane	1.7	Not Detected	7.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	6.9	Not Detected	20	Not Detected
cis-1,2-Dichloroethene	1.7	9.9	6.8	39
Tetrahydrofuran	1.7	Not Detected	5.1	Not Detected
Chloroform	1.7	4.7	8.4	23
1,1,1-Trichloroethane	1.7	Not Detected	9.4	Not Detected
Cyclohexane	1.7	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.7	Not Detected	11	Not Detected
2,2,4-Trimethylpentane	1.7	Not Detected	8.1	Not Detected
Benzene	1.7	Not Detected	5.5	Not Detected
1,2-Dichloroethane	1.7	Not Detected	7.0	Not Detected
Heptane	1.7	Not Detected	7.1	Not Detected
Trichloroethene	1.7	2.1	9.3	11
1,2-Dichloropropane	1.7	Not Detected	8.0	Not Detected
1,4-Dioxane	6.9	Not Detected	25	Not Detected
Bromodichloromethane	1.7	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	1.7	Not Detected	7.8	Not Detected
4-Methyl-2-pentanone	1.7	Not Detected	7.1	Not Detected
Toluene	1.7	Not Detected	6.5	Not Detected
trans-1,3-Dichloropropene	1.7	Not Detected	7.8	Not Detected
1,1,2-Trichloroethane	1.7	Not Detected	9.4	Not Detected
Tetrachloroethene	1.7	340	12	2300
2-Hexanone	6.9	Not Detected	28	Not Detected



Air Toxics

Client Sample ID: Onsite System #2-Influent #2

Lab ID#: 1809438-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092621	Date of Collection:	9/13/18 4:52:00 PM
Dil. Factor:	3.46	Date of Analysis:	9/27/18 12:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.7	Not Detected	15	Not Detected
1,2-Dibromoethane (EDB)	1.7	Not Detected	13	Not Detected
Chlorobenzene	1.7	Not Detected	8.0	Not Detected
Ethyl Benzene	1.7	Not Detected	7.5	Not Detected
m,p-Xylene	1.7	Not Detected	7.5	Not Detected
o-Xylene	1.7	Not Detected	7.5	Not Detected
Styrene	1.7	Not Detected	7.4	Not Detected
Bromoform	1.7	Not Detected	18	Not Detected
Cumene	1.7	Not Detected	8.5	Not Detected
1,1,2,2-Tetrachloroethane	1.7	Not Detected	12	Not Detected
Propylbenzene	1.7	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.7	Not Detected	8.5	Not Detected
1,3,5-Trimethylbenzene	1.7	Not Detected	8.5	Not Detected
1,2,4-Trimethylbenzene	1.7	Not Detected	8.5	Not Detected
1,3-Dichlorobenzene	1.7	Not Detected	10	Not Detected
1,4-Dichlorobenzene	1.7	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.7	Not Detected	9.0	Not Detected
1,2-Dichlorobenzene	1.7	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	6.9	Not Detected	51	Not Detected
Hexachlorobutadiene	6.9	Not Detected	74	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: Onsite System #2-Effluent

Lab ID#: 1809438-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092620	Date of Collection:	9/13/18 5:26:00 PM
Dil. Factor:	1.91	Date of Analysis:	9/26/18 11:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.96	Not Detected	4.7	Not Detected
Freon 114	0.96	Not Detected	6.7	Not Detected
Chloromethane	9.6	Not Detected	20	Not Detected
Vinyl Chloride	0.96	Not Detected	2.4	Not Detected
1,3-Butadiene	0.96	Not Detected	2.1	Not Detected
Bromomethane	9.6	Not Detected	37	Not Detected
Chloroethane	3.8	Not Detected	10	Not Detected
Freon 11	0.96	Not Detected	5.4	Not Detected
Ethanol	3.8	Not Detected	7.2	Not Detected
Freon 113	0.96	Not Detected	7.3	Not Detected
1,1-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Acetone	9.6	Not Detected	23	Not Detected
2-Propanol	3.8	Not Detected	9.4	Not Detected
Carbon Disulfide	3.8	Not Detected	12	Not Detected
3-Chloropropene	3.8	Not Detected	12	Not Detected
Methylene Chloride	9.6	Not Detected	33	Not Detected
Methyl tert-butyl ether	3.8	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Hexane	0.96	Not Detected	3.4	Not Detected
1,1-Dichloroethane	0.96	Not Detected	3.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.96	11	3.8	44
Tetrahydrofuran	0.96	Not Detected	2.8	Not Detected
Chloroform	0.96	5.0	4.7	24
1,1,1-Trichloroethane	0.96	Not Detected	5.2	Not Detected
Cyclohexane	0.96	Not Detected	3.3	Not Detected
Carbon Tetrachloride	0.96	Not Detected	6.0	Not Detected
2,2,4-Trimethylpentane	0.96	Not Detected	4.5	Not Detected
Benzene	0.96	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.96	Not Detected	3.9	Not Detected
Heptane	0.96	Not Detected	3.9	Not Detected
Trichloroethene	0.96	Not Detected	5.1	Not Detected
1,2-Dichloropropane	0.96	Not Detected	4.4	Not Detected
1,4-Dioxane	3.8	Not Detected	14	Not Detected
Bromodichloromethane	0.96	Not Detected	6.4	Not Detected
cis-1,3-Dichloropropene	0.96	Not Detected	4.3	Not Detected
4-Methyl-2-pentanone	0.96	Not Detected	3.9	Not Detected
Toluene	0.96	Not Detected	3.6	Not Detected
trans-1,3-Dichloropropene	0.96	Not Detected	4.3	Not Detected
1,1,2-Trichloroethane	0.96	Not Detected	5.2	Not Detected
Tetrachloroethene	0.96	Not Detected	6.5	Not Detected
2-Hexanone	3.8	Not Detected	16	Not Detected



Air Toxics

Client Sample ID: Onsite System #2-Effluent

Lab ID#: 1809438-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092620	Date of Collection:	9/13/18 5:26:00 PM
Dil. Factor:	1.91	Date of Analysis:	9/26/18 11:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.96	Not Detected	8.1	Not Detected
1,2-Dibromoethane (EDB)	0.96	Not Detected	7.3	Not Detected
Chlorobenzene	0.96	Not Detected	4.4	Not Detected
Ethyl Benzene	0.96	Not Detected	4.1	Not Detected
m,p-Xylene	0.96	Not Detected	4.1	Not Detected
o-Xylene	0.96	Not Detected	4.1	Not Detected
Styrene	0.96	Not Detected	4.1	Not Detected
Bromoform	0.96	Not Detected	9.9	Not Detected
Cumene	0.96	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	0.96	Not Detected	6.6	Not Detected
Propylbenzene	0.96	Not Detected	4.7	Not Detected
4-Ethyltoluene	0.96	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,2,4-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,3-Dichlorobenzene	0.96	Not Detected	5.7	Not Detected
1,4-Dichlorobenzene	0.96	Not Detected	5.7	Not Detected
alpha-Chlorotoluene	0.96	Not Detected	4.9	Not Detected
1,2-Dichlorobenzene	0.96	Not Detected	5.7	Not Detected
1,2,4-Trichlorobenzene	3.8	Not Detected	28	Not Detected
Hexachlorobutadiene	3.8	Not Detected	41	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: SVE System-Effluent

Lab ID#: 1809438-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092619	Date of Collection:	9/13/18 4:48:00 PM
Dil. Factor:	1.92	Date of Analysis:	9/26/18 11:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.96	Not Detected	4.7	Not Detected
Freon 114	0.96	Not Detected	6.7	Not Detected
Chloromethane	9.6	Not Detected	20	Not Detected
Vinyl Chloride	0.96	Not Detected	2.4	Not Detected
1,3-Butadiene	0.96	Not Detected	2.1	Not Detected
Bromomethane	9.6	Not Detected	37	Not Detected
Chloroethane	3.8	Not Detected	10	Not Detected
Freon 11	0.96	Not Detected	5.4	Not Detected
Ethanol	3.8	8.6 J0	7.2	16 J0
Freon 113	0.96	Not Detected	7.4	Not Detected
1,1-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Acetone	9.6	12	23	29
2-Propanol	3.8	Not Detected	9.4	Not Detected
Carbon Disulfide	3.8	Not Detected	12	Not Detected
3-Chloropropene	3.8	Not Detected	12	Not Detected
Methylene Chloride	9.6	Not Detected	33	Not Detected
Methyl tert-butyl ether	3.8	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	0.96	1.0	3.8	4.0
Hexane	0.96	Not Detected	3.4	Not Detected
1,1-Dichloroethane	0.96	Not Detected	3.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.96	41	3.8	160
Tetrahydrofuran	0.96	1.9	2.8	5.7
Chloroform	0.96	1.6	4.7	8.1
1,1,1-Trichloroethane	0.96	13	5.2	70
Cyclohexane	0.96	3.7	3.3	13
Carbon Tetrachloride	0.96	Not Detected	6.0	Not Detected
2,2,4-Trimethylpentane	0.96	Not Detected	4.5	Not Detected
Benzene	0.96	Not Detected	3.1	Not Detected
1,2-Dichloroethane	0.96	Not Detected	3.9	Not Detected
Heptane	0.96	Not Detected	3.9	Not Detected
Trichloroethene	0.96	33	5.2	180
1,2-Dichloropropane	0.96	Not Detected	4.4	Not Detected
1,4-Dioxane	3.8	Not Detected	14	Not Detected
Bromodichloromethane	0.96	Not Detected	6.4	Not Detected
cis-1,3-Dichloropropene	0.96	Not Detected	4.4	Not Detected
4-Methyl-2-pentanone	0.96	Not Detected	3.9	Not Detected
Toluene	0.96	Not Detected	3.6	Not Detected
trans-1,3-Dichloropropene	0.96	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	0.96	Not Detected	5.2	Not Detected
Tetrachloroethene	0.96	Not Detected	6.5	Not Detected
2-Hexanone	3.8	Not Detected	16	Not Detected



Air Toxics

Client Sample ID: SVE System-Effluent

Lab ID#: 1809438-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092619	Date of Collection:	9/13/18 4:48:00 PM
Dil. Factor:	1.92	Date of Analysis:	9/26/18 11:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.96	Not Detected	8.2	Not Detected
1,2-Dibromoethane (EDB)	0.96	Not Detected	7.4	Not Detected
Chlorobenzene	0.96	Not Detected	4.4	Not Detected
Ethyl Benzene	0.96	Not Detected	4.2	Not Detected
m,p-Xylene	0.96	Not Detected	4.2	Not Detected
o-Xylene	0.96	Not Detected	4.2	Not Detected
Styrene	0.96	Not Detected	4.1	Not Detected
Bromoform	0.96	Not Detected	9.9	Not Detected
Cumene	0.96	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	0.96	Not Detected	6.6	Not Detected
Propylbenzene	0.96	Not Detected	4.7	Not Detected
4-Ethyltoluene	0.96	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,2,4-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,3-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
1,4-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
alpha-Chlorotoluene	0.96	Not Detected	5.0	Not Detected
1,2-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
1,2,4-Trichlorobenzene	3.8	Not Detected	28	Not Detected
Hexachlorobutadiene	3.8	Not Detected	41	Not Detected

J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1809438-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 01:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1809438-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 01:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1809438-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 10:45 AM

Compound	%Recovery

Freon 12	102
Freon 114	97
Chloromethane	122
Vinyl Chloride	112
1,3-Butadiene	119
Bromomethane	108
Chloroethane	117
Freon 11	101
Ethanol	133 Q
Freon 113	98
1,1-Dichloroethene	107
Acetone	122
2-Propanol	120
Carbon Disulfide	106
3-Chloropropene	109
Methylene Chloride	114
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	110
Hexane	112
1,1-Dichloroethane	112
2-Butanone (Methyl Ethyl Ketone)	107
cis-1,2-Dichloroethene	106
Tetrahydrofuran	125
Chloroform	106
1,1,1-Trichloroethane	99
Cyclohexane	105
Carbon Tetrachloride	102
2,2,4-Trimethylpentane	108
Benzene	104
1,2-Dichloroethane	111
Heptane	108
Trichloroethene	104
1,2-Dichloropropane	106
1,4-Dioxane	104
Bromodichloromethane	105
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	104
Toluene	96
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	103
Tetrachloroethene	100
2-Hexanone	105



Air Toxics

Client Sample ID: CCV

Lab ID#: 1809438-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 10:45 AM

Compound	%Recovery
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	105
Chlorobenzene	101
Ethyl Benzene	102
m,p-Xylene	103
o-Xylene	106
Styrene	98
Bromoform	107
Cumene	102
1,1,2,2-Tetrachloroethane	100
Propylbenzene	100
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	94

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1809438-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 11:40 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	98	70-130
Chloromethane	120	70-130
Vinyl Chloride	111	70-130
1,3-Butadiene	119	70-130
Bromomethane	109	70-130
Chloroethane	121	70-130
Freon 11	99	70-130
Ethanol	121	70-130
Freon 113	96	70-130
1,1-Dichloroethene	106	70-130
Acetone	113	70-130
2-Propanol	119	70-130
Carbon Disulfide	108	70-130
3-Chloropropene	108	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	104	70-130
trans-1,2-Dichloroethene	119	70-130
Hexane	112	70-130
1,1-Dichloroethane	107	70-130
2-Butanone (Methyl Ethyl Ketone)	109	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	123	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	100	70-130
2,2,4-Trimethylpentane	109	70-130
Benzene	102	70-130
1,2-Dichloroethane	107	70-130
Heptane	110	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	103	70-130
1,4-Dioxane	103	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	111	70-130
4-Methyl-2-pentanone	101	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	109	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	97	70-130
2-Hexanone	103	70-130

Client Sample ID: LCS

Lab ID#: 1809438-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 11:40 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	105	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	101	70-130
o-Xylene	103	70-130
Styrene	99	70-130
Bromoform	106	70-130
Cumene	98	70-130
1,1,2,2-Tetrachloroethane	94	70-130
Propylbenzene	97	70-130
4-Ethyltoluene	100	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	94	70-130
alpha-Chlorotoluene	104	70-130
1,2-Dichlorobenzene	91	70-130
1,2,4-Trichlorobenzene	77	70-130
Hexachlorobutadiene	79	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1809438-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 12:05 PM

Compound	%Recovery	Method Limits
Freon 12	104	70-130
Freon 114	100	70-130
Chloromethane	126	70-130
Vinyl Chloride	117	70-130
1,3-Butadiene	117	70-130
Bromomethane	111	70-130
Chloroethane	121	70-130
Freon 11	102	70-130
Ethanol	123	70-130
Freon 113	98	70-130
1,1-Dichloroethene	106	70-130
Acetone	117	70-130
2-Propanol	122	70-130
Carbon Disulfide	110	70-130
3-Chloropropene	116	70-130
Methylene Chloride	118	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	120	70-130
Hexane	116	70-130
1,1-Dichloroethane	113	70-130
2-Butanone (Methyl Ethyl Ketone)	116	70-130
cis-1,2-Dichloroethene	101	70-130
Tetrahydrofuran	130	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	109	70-130
Carbon Tetrachloride	105	70-130
2,2,4-Trimethylpentane	113	70-130
Benzene	103	70-130
1,2-Dichloroethane	108	70-130
Heptane	113	70-130
Trichloroethene	104	70-130
1,2-Dichloropropane	105	70-130
1,4-Dioxane	104	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	102	70-130
2-Hexanone	110	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1809438-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a092604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/26/18 12:05 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	105	70-130
o-Xylene	106	70-130
Styrene	102	70-130
Bromoform	112	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	99	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	101	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	102	70-130

11/12/2018
Mr. Jim Hayward
EA Engineering
6712 Brooklawn Parkway
Suite 104
Syracuse NY 13211

Project Name: National Heatset
Project #: 1490716
Workorder #: 1810677

Dear Mr. Jim Hayward

The following report includes the data for the above referenced project for sample(s) received on 10/31/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis
Project Manager

WORK ORDER #: 1810677

Work Order Summary

CLIENT:	Mr. Jim Hayward EA Engineering 6712 Brooklawn Parkway Suite 104 Syracuse, NY 13211	BILL TO:	Accounts Payable EA Engineering 3 Washington Center Newburgh, NY 12550
PHONE:	315-431-4610	P.O. #	10991m6
FAX:	315-431-4280	PROJECT #	1490716 National Heatset
DATE RECEIVED:	10/31/2018	CONTACT:	Rachel Selenis
DATE COMPLETED:	11/12/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	System #2-Influent #2	TO-15	9.8 "Hg	4.9 psi
02A	System #2-Influent #1	TO-15	7.1 "Hg	5 psi
03A	System #2-Effluent	TO-15	7.6 "Hg	5 psi
04A	SVE-Influent	TO-15	6.5 "Hg	5.3 psi
05A	SVE-Effluent	TO-15	6.9 "Hg	4.9 psi
06A	Offsite Sys-Influent	TO-15	8 "Hg	4.9 psi
07A	Offsite Sys-Intermediate + #2	TO-15	8 "Hg	5 psi
08A	Offsite Sys-Effluent	TO-15	8.4 "Hg	4.8 psi
09A	Offsite Sys-Intermediate #1	TO-15	6.3 "Hg	5.1 psi
10A	Lab Blank	TO-15	NA	NA
11A	CCV	TO-15	NA	NA
12A	LCS	TO-15	NA	NA
12AA	LCSD	TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 11/12/18

Certification numbers: AZ Licensure AZ0775, FL NELAP - E8 , LA NELAP - 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP CA009332018-10, VA NELAP - 9505, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2018, Expiration date: 10/17/2019.

Eurofins Air Toxics LLC. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
EA Engineering
Workorder# 1810677

Nine 6 Liter Summa Canister samples were received on October 31, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) information for sample SVE-Effluent did not match the information on the canister with regard to canister identification. The sample labeled 30546 on the COC is labeled as 30846 on the canister. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Analytical Notes

Dilution was performed on samples System #2-Influent #2, System #2-Influent #1, SVE-Influent and SVE-Effluent due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: System #2-Influent #2

Lab ID#: 1810677-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1.4	2.5	5.0	8.9
cis-1,2-Dichloroethene	1.4	12	5.6	47
Chloroform	1.4	9.8	6.9	48
Cyclohexane	1.4	1.9	4.9	6.5
Carbon Tetrachloride	1.4	1.9	8.9	12
Benzene	1.4	1.9	4.5	6.2
Trichloroethene	1.4	2.6	7.6	14
Tetrachloroethene	1.4	270	9.6	1800

Client Sample ID: System #2-Influent #1

Lab ID#: 1810677-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1.4	2.6	4.8	9.1
cis-1,2-Dichloroethene	1.4	12	5.4	46
Chloroform	1.4	9.6	6.6	47
Cyclohexane	1.4	1.8	4.6	6.1
Carbon Tetrachloride	1.4	1.7	8.5	11
Benzene	1.4	1.9	4.3	6.0
Trichloroethene	1.4	2.4	7.2	13
Tetrachloroethene	1.4	260	9.2	1700

Client Sample ID: System #2-Effluent

Lab ID#: 1810677-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.90	1.1	4.4	5.7
Hexane	0.90	2.8	3.2	10
cis-1,2-Dichloroethene	0.90	14	3.5	57
Chloroform	0.90	11	4.4	53
Cyclohexane	0.90	1.9	3.1	6.6
Carbon Tetrachloride	0.90	1.4	5.6	8.8
Benzene	0.90	2.3	2.8	7.3

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: System #2-Effluent

Lab ID#: 1810677-03A

Trichloroethene	0.90	1.2	4.8	6.3
Tetrachloroethene	0.90	5.6	6.1	38

Client Sample ID: SVE-Influent

Lab ID#: 1810677-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	3.5	22	14	87
Trichloroethene	3.5	58	19	310
Tetrachloroethene	3.5	720	24	4900

Client Sample ID: SVE-Effluent

Lab ID#: 1810677-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1.7	27	6.1	95
cis-1,2-Dichloroethene	1.7	16	6.8	62
1,1,1-Trichloroethane	1.7	3.6	9.4	20
Cyclohexane	1.7	1.9	6.0	6.5
Benzene	1.7	12	5.5	38
Trichloroethene	1.7	240	9.3	1300
Tetrachloroethene	1.7	330	12	2200

Client Sample ID: Offsite Sys-Influent

Lab ID#: 1810677-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.91	0.97	4.5	4.8
Vinyl Chloride	0.91	6.4	2.3	16
trans-1,2-Dichloroethene	0.91	2.0	3.6	7.8
cis-1,2-Dichloroethene	0.91	120	3.6	500
Chloroform	0.91	5.5	4.4	27
Benzene	0.91	0.92	2.9	2.9
Trichloroethene	0.91	26	4.9	140

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: Offsite Sys-Influent

Lab ID#: 1810677-06A

Tetrachloroethene	0.91	19	6.2	130

Client Sample ID: Offsite Sys-Intermediate +#2

Lab ID#: 1810677-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.92	5.8	2.3	15
trans-1,2-Dichloroethene	0.92	1.2	3.6	5.0
1,1-Dichloroethane	0.92	1.2	3.7	4.9
cis-1,2-Dichloroethene	0.92	92	3.6	360
Chloroform	0.92	4.2	4.5	21

Client Sample ID: Offsite Sys-Effluent

Lab ID#: 1810677-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.92	0.92	4.5	4.5
Vinyl Chloride	0.92	6.4	2.4	16
trans-1,2-Dichloroethene	0.92	1.3	3.6	5.3
cis-1,2-Dichloroethene	0.92	71	3.6	280
Chloroform	0.92	1.4	4.5	6.8

Client Sample ID: Offsite Sys-Intermediate #1

Lab ID#: 1810677-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.85	0.99	4.2	4.9
Vinyl Chloride	0.85	6.4	2.2	16
trans-1,2-Dichloroethene	0.85	2.2	3.4	8.8
1,1-Dichloroethane	0.85	1.8	3.4	7.1
2-Butanone (Methyl Ethyl Ketone)	3.4	4.1	10	12
cis-1,2-Dichloroethene	0.85	170	3.4	670
Chloroform	0.85	11	4.2	53
Trichloroethene	0.85	11	4.6	60



Air Toxics

Client Sample ID: System #2-Influent #2

Lab ID#: 1810677-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110612	Date of Collection:	10/23/18 14:04:00
Dil. Factor:	2.83	Date of Analysis:	11/6/18 07:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	Not Detected	7.0	Not Detected
Freon 114	1.4	Not Detected	9.9	Not Detected
Chloromethane	14	Not Detected	29	Not Detected
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
1,3-Butadiene	1.4	Not Detected	3.1	Not Detected
Bromomethane	14	Not Detected	55	Not Detected
Chloroethane	5.7	Not Detected	15	Not Detected
Freon 11	1.4	Not Detected	8.0	Not Detected
Ethanol	5.7	Not Detected	11	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Acetone	14	Not Detected	34	Not Detected
2-Propanol	5.7	Not Detected	14	Not Detected
Carbon Disulfide	5.7	Not Detected	18	Not Detected
3-Chloropropene	5.7	Not Detected	18	Not Detected
Methylene Chloride	14	Not Detected	49	Not Detected
Methyl tert-butyl ether	5.7	Not Detected	20	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Hexane	1.4	2.5	5.0	8.9
1,1-Dichloroethane	1.4	Not Detected	5.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.7	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	1.4	12	5.6	47
Tetrahydrofuran	1.4	Not Detected	4.2	Not Detected
Chloroform	1.4	9.8	6.9	48
1,1,1-Trichloroethane	1.4	Not Detected	7.7	Not Detected
Cyclohexane	1.4	1.9	4.9	6.5
Carbon Tetrachloride	1.4	1.9	8.9	12
2,2,4-Trimethylpentane	1.4	Not Detected	6.6	Not Detected
Benzene	1.4	1.9	4.5	6.2
1,2-Dichloroethane	1.4	Not Detected	5.7	Not Detected
Heptane	1.4	Not Detected	5.8	Not Detected
Trichloroethene	1.4	2.6	7.6	14
1,2-Dichloropropane	1.4	Not Detected	6.5	Not Detected
1,4-Dioxane	5.7	Not Detected	20	Not Detected
Bromodichloromethane	1.4	Not Detected	9.5	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.4	Not Detected
4-Methyl-2-pentanone	1.4	Not Detected	5.8	Not Detected
Toluene	1.4	Not Detected	5.3	Not Detected
trans-1,3-Dichloropropene	1.4	Not Detected	6.4	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.7	Not Detected
Tetrachloroethene	1.4	270	9.6	1800
2-Hexanone	5.7	Not Detected	23	Not Detected



Air Toxics

Client Sample ID: System #2-Influent #2

Lab ID#: 1810677-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110612	Date of Collection:	10/23/18 14:04:00
Dil. Factor:	2.83	Date of Analysis:	11/6/18 07:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.5	Not Detected
Ethyl Benzene	1.4	Not Detected	6.1	Not Detected
m,p-Xylene	1.4	Not Detected	6.1	Not Detected
o-Xylene	1.4	Not Detected	6.1	Not Detected
Styrene	1.4	Not Detected	6.0	Not Detected
Bromoform	1.4	Not Detected	15	Not Detected
Cumene	1.4	Not Detected	7.0	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.7	Not Detected
Propylbenzene	1.4	Not Detected	7.0	Not Detected
4-Ethyltoluene	1.4	Not Detected	7.0	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,2,4-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,3-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.3	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
1,2,4-Trichlorobenzene	5.7	Not Detected	42	Not Detected
Hexachlorobutadiene	5.7	Not Detected	60	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	85	70-130



Air Toxics

Client Sample ID: System #2-Influent #1

Lab ID#: 1810677-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110613	Date of Collection:	10/23/18 15:05:00
Dil. Factor:	2.70	Date of Analysis:	11/6/18 07:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	Not Detected	6.7	Not Detected
Freon 114	1.4	Not Detected	9.4	Not Detected
Chloromethane	14	Not Detected	28	Not Detected
Vinyl Chloride	1.4	Not Detected	3.4	Not Detected
1,3-Butadiene	1.4	Not Detected	3.0	Not Detected
Bromomethane	14	Not Detected	52	Not Detected
Chloroethane	5.4	Not Detected	14	Not Detected
Freon 11	1.4	Not Detected	7.6	Not Detected
Ethanol	5.4	Not Detected	10	Not Detected
Freon 113	1.4	Not Detected	10	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.4	Not Detected
Acetone	14	Not Detected	32	Not Detected
2-Propanol	5.4	Not Detected	13	Not Detected
Carbon Disulfide	5.4	Not Detected	17	Not Detected
3-Chloropropene	5.4	Not Detected	17	Not Detected
Methylene Chloride	14	Not Detected	47	Not Detected
Methyl tert-butyl ether	5.4	Not Detected	19	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.4	Not Detected
Hexane	1.4	2.6	4.8	9.1
1,1-Dichloroethane	1.4	Not Detected	5.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.4	Not Detected	16	Not Detected
cis-1,2-Dichloroethene	1.4	12	5.4	46
Tetrahydrofuran	1.4	Not Detected	4.0	Not Detected
Chloroform	1.4	9.6	6.6	47
1,1,1-Trichloroethane	1.4	Not Detected	7.4	Not Detected
Cyclohexane	1.4	1.8	4.6	6.1
Carbon Tetrachloride	1.4	1.7	8.5	11
2,2,4-Trimethylpentane	1.4	Not Detected	6.3	Not Detected
Benzene	1.4	1.9	4.3	6.0
1,2-Dichloroethane	1.4	Not Detected	5.5	Not Detected
Heptane	1.4	Not Detected	5.5	Not Detected
Trichloroethene	1.4	2.4	7.2	13
1,2-Dichloropropane	1.4	Not Detected	6.2	Not Detected
1,4-Dioxane	5.4	Not Detected	19	Not Detected
Bromodichloromethane	1.4	Not Detected	9.0	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	1.4	Not Detected	5.5	Not Detected
Toluene	1.4	Not Detected	5.1	Not Detected
trans-1,3-Dichloropropene	1.4	Not Detected	6.1	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.4	Not Detected
Tetrachloroethene	1.4	260	9.2	1700
2-Hexanone	5.4	Not Detected	22	Not Detected



Air Toxics

Client Sample ID: System #2-Influent #1

Lab ID#: 1810677-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110613	Date of Collection:	10/23/18 15:05:00
Dil. Factor:	2.70	Date of Analysis:	11/6/18 07:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	10	Not Detected
Chlorobenzene	1.4	Not Detected	6.2	Not Detected
Ethyl Benzene	1.4	Not Detected	5.9	Not Detected
m,p-Xylene	1.4	Not Detected	5.9	Not Detected
o-Xylene	1.4	Not Detected	5.9	Not Detected
Styrene	1.4	Not Detected	5.8	Not Detected
Bromoform	1.4	Not Detected	14	Not Detected
Cumene	1.4	Not Detected	6.6	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.3	Not Detected
Propylbenzene	1.4	Not Detected	6.6	Not Detected
4-Ethyltoluene	1.4	Not Detected	6.6	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	6.6	Not Detected
1,2,4-Trimethylbenzene	1.4	Not Detected	6.6	Not Detected
1,3-Dichlorobenzene	1.4	Not Detected	8.1	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.1	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.0	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.1	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected	40	Not Detected
Hexachlorobutadiene	5.4	Not Detected	58	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	85	70-130



Air Toxics

Client Sample ID: System #2-Effluent

Lab ID#: 1810677-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110611	Date of Collection:	10/23/18 15:05:00
Dil. Factor:	1.79	Date of Analysis:	11/6/18 06:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.90	1.1	4.4	5.7
Freon 114	0.90	Not Detected	6.2	Not Detected
Chloromethane	9.0	Not Detected	18	Not Detected
Vinyl Chloride	0.90	Not Detected	2.3	Not Detected
1,3-Butadiene	0.90	Not Detected	2.0	Not Detected
Bromomethane	9.0	Not Detected	35	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
Freon 11	0.90	Not Detected	5.0	Not Detected
Ethanol	3.6	Not Detected	6.7	Not Detected
Freon 113	0.90	Not Detected	6.8	Not Detected
1,1-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Acetone	9.0	Not Detected	21	Not Detected
2-Propanol	3.6	Not Detected	8.8	Not Detected
Carbon Disulfide	3.6	Not Detected	11	Not Detected
3-Chloropropene	3.6	Not Detected	11	Not Detected
Methylene Chloride	9.0	Not Detected	31	Not Detected
Methyl tert-butyl ether	3.6	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Hexane	0.90	2.8	3.2	10
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	0.90	14	3.5	57
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.90	11	4.4	53
1,1,1-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Cyclohexane	0.90	1.9	3.1	6.6
Carbon Tetrachloride	0.90	1.4	5.6	8.8
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.90	2.3	2.8	7.3
1,2-Dichloroethane	0.90	Not Detected	3.6	Not Detected
Heptane	0.90	Not Detected	3.7	Not Detected
Trichloroethene	0.90	1.2	4.8	6.3
1,2-Dichloropropane	0.90	Not Detected	4.1	Not Detected
1,4-Dioxane	3.6	Not Detected	13	Not Detected
Bromodichloromethane	0.90	Not Detected	6.0	Not Detected
cis-1,3-Dichloropropene	0.90	Not Detected	4.1	Not Detected
4-Methyl-2-pentanone	0.90	Not Detected	3.7	Not Detected
Toluene	0.90	Not Detected	3.4	Not Detected
trans-1,3-Dichloropropene	0.90	Not Detected	4.1	Not Detected
1,1,2-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Tetrachloroethene	0.90	5.6	6.1	38
2-Hexanone	3.6	Not Detected	15	Not Detected



Air Toxics

Client Sample ID: System #2-Effluent

Lab ID#: 1810677-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110611	Date of Collection:	10/23/18 15:05:00
Dil. Factor:	1.79	Date of Analysis:	11/6/18 06:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.90	Not Detected	7.6	Not Detected
1,2-Dibromoethane (EDB)	0.90	Not Detected	6.9	Not Detected
Chlorobenzene	0.90	Not Detected	4.1	Not Detected
Ethyl Benzene	0.90	Not Detected	3.9	Not Detected
m,p-Xylene	0.90	Not Detected	3.9	Not Detected
o-Xylene	0.90	Not Detected	3.9	Not Detected
Styrene	0.90	Not Detected	3.8	Not Detected
Bromoform	0.90	Not Detected	9.2	Not Detected
Cumene	0.90	Not Detected	4.4	Not Detected
1,1,2,2-Tetrachloroethane	0.90	Not Detected	6.1	Not Detected
Propylbenzene	0.90	Not Detected	4.4	Not Detected
4-Ethyltoluene	0.90	Not Detected	4.4	Not Detected
1,3,5-Trimethylbenzene	0.90	Not Detected	4.4	Not Detected
1,2,4-Trimethylbenzene	0.90	Not Detected	4.4	Not Detected
1,3-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
1,4-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
alpha-Chlorotoluene	0.90	Not Detected	4.6	Not Detected
1,2-Dichlorobenzene	0.90	Not Detected	5.4	Not Detected
1,2,4-Trichlorobenzene	3.6	Not Detected	26	Not Detected
Hexachlorobutadiene	3.6	Not Detected	38	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	85	70-130



Air Toxics

Client Sample ID: SVE-Influent

Lab ID#: 1810677-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110614	Date of Collection:	10/23/18 13:30:00
Dil. Factor:	6.95	Date of Analysis:	11/6/18 08:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.5	Not Detected	17	Not Detected
Freon 114	3.5	Not Detected	24	Not Detected
Chloromethane	35	Not Detected	72	Not Detected
Vinyl Chloride	3.5	Not Detected	8.9	Not Detected
1,3-Butadiene	3.5	Not Detected	7.7	Not Detected
Bromomethane	35	Not Detected	130	Not Detected
Chloroethane	14	Not Detected	37	Not Detected
Freon 11	3.5	Not Detected	20	Not Detected
Ethanol	14	Not Detected	26	Not Detected
Freon 113	3.5	Not Detected	27	Not Detected
1,1-Dichloroethene	3.5	Not Detected	14	Not Detected
Acetone	35	Not Detected	82	Not Detected
2-Propanol	14	Not Detected	34	Not Detected
Carbon Disulfide	14	Not Detected	43	Not Detected
3-Chloropropene	14	Not Detected	44	Not Detected
Methylene Chloride	35	Not Detected	120	Not Detected
Methyl tert-butyl ether	14	Not Detected	50	Not Detected
trans-1,2-Dichloroethene	3.5	Not Detected	14	Not Detected
Hexane	3.5	Not Detected	12	Not Detected
1,1-Dichloroethane	3.5	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	Not Detected	41	Not Detected
cis-1,2-Dichloroethene	3.5	22	14	87
Tetrahydrofuran	3.5	Not Detected	10	Not Detected
Chloroform	3.5	Not Detected	17	Not Detected
1,1,1-Trichloroethane	3.5	Not Detected	19	Not Detected
Cyclohexane	3.5	Not Detected	12	Not Detected
Carbon Tetrachloride	3.5	Not Detected	22	Not Detected
2,2,4-Trimethylpentane	3.5	Not Detected	16	Not Detected
Benzene	3.5	Not Detected	11	Not Detected
1,2-Dichloroethane	3.5	Not Detected	14	Not Detected
Heptane	3.5	Not Detected	14	Not Detected
Trichloroethene	3.5	58	19	310
1,2-Dichloropropane	3.5	Not Detected	16	Not Detected
1,4-Dioxane	14	Not Detected	50	Not Detected
Bromodichloromethane	3.5	Not Detected	23	Not Detected
cis-1,3-Dichloropropene	3.5	Not Detected	16	Not Detected
4-Methyl-2-pentanone	3.5	Not Detected	14	Not Detected
Toluene	3.5	Not Detected	13	Not Detected
trans-1,3-Dichloropropene	3.5	Not Detected	16	Not Detected
1,1,2-Trichloroethane	3.5	Not Detected	19	Not Detected
Tetrachloroethene	3.5	720	24	4900
2-Hexanone	14	Not Detected	57	Not Detected



Air Toxics

Client Sample ID: SVE-Influent

Lab ID#: 1810677-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110614	Date of Collection:	10/23/18 13:30:00
Dil. Factor:	6.95	Date of Analysis:	11/6/18 08:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	3.5	Not Detected	30	Not Detected
1,2-Dibromoethane (EDB)	3.5	Not Detected	27	Not Detected
Chlorobenzene	3.5	Not Detected	16	Not Detected
Ethyl Benzene	3.5	Not Detected	15	Not Detected
m,p-Xylene	3.5	Not Detected	15	Not Detected
o-Xylene	3.5	Not Detected	15	Not Detected
Styrene	3.5	Not Detected	15	Not Detected
Bromoform	3.5	Not Detected	36	Not Detected
Cumene	3.5	Not Detected	17	Not Detected
1,1,2,2-Tetrachloroethane	3.5	Not Detected	24	Not Detected
Propylbenzene	3.5	Not Detected	17	Not Detected
4-Ethyltoluene	3.5	Not Detected	17	Not Detected
1,3,5-Trimethylbenzene	3.5	Not Detected	17	Not Detected
1,2,4-Trimethylbenzene	3.5	Not Detected	17	Not Detected
1,3-Dichlorobenzene	3.5	Not Detected	21	Not Detected
1,4-Dichlorobenzene	3.5	Not Detected	21	Not Detected
alpha-Chlorotoluene	3.5	Not Detected	18	Not Detected
1,2-Dichlorobenzene	3.5	Not Detected	21	Not Detected
1,2,4-Trichlorobenzene	14	Not Detected	100	Not Detected
Hexachlorobutadiene	14	Not Detected	150	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	85	70-130



Air Toxics

Client Sample ID: SVE-Effluent

Lab ID#: 1810677-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110619	Date of Collection:	10/23/18 15:30:00
Dil. Factor:	3.46	Date of Analysis:	11/6/18 11:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.7	Not Detected	8.6	Not Detected
Freon 114	1.7	Not Detected	12	Not Detected
Chloromethane	17	Not Detected	36	Not Detected
Vinyl Chloride	1.7	Not Detected	4.4	Not Detected
1,3-Butadiene	1.7	Not Detected	3.8	Not Detected
Bromomethane	17	Not Detected	67	Not Detected
Chloroethane	6.9	Not Detected	18	Not Detected
Freon 11	1.7	Not Detected	9.7	Not Detected
Ethanol	6.9	Not Detected	13	Not Detected
Freon 113	1.7	Not Detected	13	Not Detected
1,1-Dichloroethene	1.7	Not Detected	6.8	Not Detected
Acetone	17	Not Detected	41	Not Detected
2-Propanol	6.9	Not Detected	17	Not Detected
Carbon Disulfide	6.9	Not Detected	22	Not Detected
3-Chloropropene	6.9	Not Detected	22	Not Detected
Methylene Chloride	17	Not Detected	60	Not Detected
Methyl tert-butyl ether	6.9	Not Detected	25	Not Detected
trans-1,2-Dichloroethene	1.7	Not Detected	6.8	Not Detected
Hexane	1.7	27	6.1	95
1,1-Dichloroethane	1.7	Not Detected	7.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	6.9	Not Detected	20	Not Detected
cis-1,2-Dichloroethene	1.7	16	6.8	62
Tetrahydrofuran	1.7	Not Detected	5.1	Not Detected
Chloroform	1.7	Not Detected	8.4	Not Detected
1,1,1-Trichloroethane	1.7	3.6	9.4	20
Cyclohexane	1.7	1.9	6.0	6.5
Carbon Tetrachloride	1.7	Not Detected	11	Not Detected
2,2,4-Trimethylpentane	1.7	Not Detected	8.1	Not Detected
Benzene	1.7	12	5.5	38
1,2-Dichloroethane	1.7	Not Detected	7.0	Not Detected
Heptane	1.7	Not Detected	7.1	Not Detected
Trichloroethene	1.7	240	9.3	1300
1,2-Dichloropropane	1.7	Not Detected	8.0	Not Detected
1,4-Dioxane	6.9	Not Detected	25	Not Detected
Bromodichloromethane	1.7	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	1.7	Not Detected	7.8	Not Detected
4-Methyl-2-pentanone	1.7	Not Detected	7.1	Not Detected
Toluene	1.7	Not Detected	6.5	Not Detected
trans-1,3-Dichloropropene	1.7	Not Detected	7.8	Not Detected
1,1,2-Trichloroethane	1.7	Not Detected	9.4	Not Detected
Tetrachloroethene	1.7	330	12	2200
2-Hexanone	6.9	Not Detected	28	Not Detected



Air Toxics

Client Sample ID: SVE-Effluent

Lab ID#: 1810677-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110619	Date of Collection:	10/23/18 15:30:00
Dil. Factor:	3.46	Date of Analysis:	11/6/18 11:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.7	Not Detected	15	Not Detected
1,2-Dibromoethane (EDB)	1.7	Not Detected	13	Not Detected
Chlorobenzene	1.7	Not Detected	8.0	Not Detected
Ethyl Benzene	1.7	Not Detected	7.5	Not Detected
m,p-Xylene	1.7	Not Detected	7.5	Not Detected
o-Xylene	1.7	Not Detected	7.5	Not Detected
Styrene	1.7	Not Detected	7.4	Not Detected
Bromoform	1.7	Not Detected	18	Not Detected
Cumene	1.7	Not Detected	8.5	Not Detected
1,1,2,2-Tetrachloroethane	1.7	Not Detected	12	Not Detected
Propylbenzene	1.7	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.7	Not Detected	8.5	Not Detected
1,3,5-Trimethylbenzene	1.7	Not Detected	8.5	Not Detected
1,2,4-Trimethylbenzene	1.7	Not Detected	8.5	Not Detected
1,3-Dichlorobenzene	1.7	Not Detected	10	Not Detected
1,4-Dichlorobenzene	1.7	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.7	Not Detected	9.0	Not Detected
1,2-Dichlorobenzene	1.7	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	6.9	Not Detected	51	Not Detected
Hexachlorobutadiene	6.9	Not Detected	74	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	84	70-130



Air Toxics

Client Sample ID: Offsite Sys-Influent

Lab ID#: 1810677-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110618	Date of Collection:	10/23/18 15:27:00
Dil. Factor:	1.82	Date of Analysis:	11/6/18 11:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.91	0.97	4.5	4.8
Freon 114	0.91	Not Detected	6.4	Not Detected
Chloromethane	9.1	Not Detected	19	Not Detected
Vinyl Chloride	0.91	6.4	2.3	16
1,3-Butadiene	0.91	Not Detected	2.0	Not Detected
Bromomethane	9.1	Not Detected	35	Not Detected
Chloroethane	3.6	Not Detected	9.6	Not Detected
Freon 11	0.91	Not Detected	5.1	Not Detected
Ethanol	3.6	Not Detected	6.8	Not Detected
Freon 113	0.91	Not Detected	7.0	Not Detected
1,1-Dichloroethene	0.91	Not Detected	3.6	Not Detected
Acetone	9.1	Not Detected	22	Not Detected
2-Propanol	3.6	Not Detected	8.9	Not Detected
Carbon Disulfide	3.6	Not Detected	11	Not Detected
3-Chloropropene	3.6	Not Detected	11	Not Detected
Methylene Chloride	9.1	Not Detected	32	Not Detected
Methyl tert-butyl ether	3.6	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	0.91	2.0	3.6	7.8
Hexane	0.91	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.91	Not Detected	3.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.91	120	3.6	500
Tetrahydrofuran	0.91	Not Detected	2.7	Not Detected
Chloroform	0.91	5.5	4.4	27
1,1,1-Trichloroethane	0.91	Not Detected	5.0	Not Detected
Cyclohexane	0.91	Not Detected	3.1	Not Detected
Carbon Tetrachloride	0.91	Not Detected	5.7	Not Detected
2,2,4-Trimethylpentane	0.91	Not Detected	4.2	Not Detected
Benzene	0.91	0.92	2.9	2.9
1,2-Dichloroethane	0.91	Not Detected	3.7	Not Detected
Heptane	0.91	Not Detected	3.7	Not Detected
Trichloroethene	0.91	26	4.9	140
1,2-Dichloropropane	0.91	Not Detected	4.2	Not Detected
1,4-Dioxane	3.6	Not Detected	13	Not Detected
Bromodichloromethane	0.91	Not Detected	6.1	Not Detected
cis-1,3-Dichloropropene	0.91	Not Detected	4.1	Not Detected
4-Methyl-2-pentanone	0.91	Not Detected	3.7	Not Detected
Toluene	0.91	Not Detected	3.4	Not Detected
trans-1,3-Dichloropropene	0.91	Not Detected	4.1	Not Detected
1,1,2-Trichloroethane	0.91	Not Detected	5.0	Not Detected
Tetrachloroethene	0.91	19	6.2	130
2-Hexanone	3.6	Not Detected	15	Not Detected



Air Toxics

Client Sample ID: Offsite Sys-Influent

Lab ID#: 1810677-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110618	Date of Collection:	10/23/18 15:27:00
Dil. Factor:	1.82	Date of Analysis:	11/6/18 11:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.91	Not Detected	7.8	Not Detected
1,2-Dibromoethane (EDB)	0.91	Not Detected	7.0	Not Detected
Chlorobenzene	0.91	Not Detected	4.2	Not Detected
Ethyl Benzene	0.91	Not Detected	4.0	Not Detected
m,p-Xylene	0.91	Not Detected	4.0	Not Detected
o-Xylene	0.91	Not Detected	4.0	Not Detected
Styrene	0.91	Not Detected	3.9	Not Detected
Bromoform	0.91	Not Detected	9.4	Not Detected
Cumene	0.91	Not Detected	4.5	Not Detected
1,1,2,2-Tetrachloroethane	0.91	Not Detected	6.2	Not Detected
Propylbenzene	0.91	Not Detected	4.5	Not Detected
4-Ethyltoluene	0.91	Not Detected	4.5	Not Detected
1,3,5-Trimethylbenzene	0.91	Not Detected	4.5	Not Detected
1,2,4-Trimethylbenzene	0.91	Not Detected	4.5	Not Detected
1,3-Dichlorobenzene	0.91	Not Detected	5.5	Not Detected
1,4-Dichlorobenzene	0.91	Not Detected	5.5	Not Detected
alpha-Chlorotoluene	0.91	Not Detected	4.7	Not Detected
1,2-Dichlorobenzene	0.91	Not Detected	5.5	Not Detected
1,2,4-Trichlorobenzene	3.6	Not Detected	27	Not Detected
Hexachlorobutadiene	3.6	Not Detected	39	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	86	70-130



Air Toxics

Client Sample ID: Offsite Sys-Intermediate + #2

Lab ID#: 1810677-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110617	Date of Collection:	10/23/18 15:28:00
Dil. Factor:	1.83	Date of Analysis:	11/6/18 10:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.92	Not Detected	4.5	Not Detected
Freon 114	0.92	Not Detected	6.4	Not Detected
Chloromethane	9.2	Not Detected	19	Not Detected
Vinyl Chloride	0.92	5.8	2.3	15
1,3-Butadiene	0.92	Not Detected	2.0	Not Detected
Bromomethane	9.2	Not Detected	36	Not Detected
Chloroethane	3.7	Not Detected	9.6	Not Detected
Freon 11	0.92	Not Detected	5.1	Not Detected
Ethanol	3.7	Not Detected	6.9	Not Detected
Freon 113	0.92	Not Detected	7.0	Not Detected
1,1-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Acetone	9.2	Not Detected	22	Not Detected
2-Propanol	3.7	Not Detected	9.0	Not Detected
Carbon Disulfide	3.7	Not Detected	11	Not Detected
3-Chloropropene	3.7	Not Detected	11	Not Detected
Methylene Chloride	9.2	Not Detected	32	Not Detected
Methyl tert-butyl ether	3.7	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	0.92	1.2	3.6	5.0
Hexane	0.92	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.92	1.2	3.7	4.9
2-Butanone (Methyl Ethyl Ketone)	3.7	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.92	92	3.6	360
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.92	4.2	4.5	21
1,1,1-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Cyclohexane	0.92	Not Detected	3.1	Not Detected
Carbon Tetrachloride	0.92	Not Detected	5.8	Not Detected
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
Benzene	0.92	Not Detected	2.9	Not Detected
1,2-Dichloroethane	0.92	Not Detected	3.7	Not Detected
Heptane	0.92	Not Detected	3.7	Not Detected
Trichloroethene	0.92	Not Detected	4.9	Not Detected
1,2-Dichloropropane	0.92	Not Detected	4.2	Not Detected
1,4-Dioxane	3.7	Not Detected	13	Not Detected
Bromodichloromethane	0.92	Not Detected	6.1	Not Detected
cis-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
4-Methyl-2-pentanone	0.92	Not Detected	3.7	Not Detected
Toluene	0.92	Not Detected	3.4	Not Detected
trans-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Tetrachloroethene	0.92	Not Detected	6.2	Not Detected
2-Hexanone	3.7	Not Detected	15	Not Detected



Air Toxics

Client Sample ID: Offsite Sys-Intermediate + #2

Lab ID#: 1810677-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110617	Date of Collection:	10/23/18 15:28:00
Dil. Factor:	1.83	Date of Analysis:	11/6/18 10:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.92	Not Detected	7.8	Not Detected
1,2-Dibromoethane (EDB)	0.92	Not Detected	7.0	Not Detected
Chlorobenzene	0.92	Not Detected	4.2	Not Detected
Ethyl Benzene	0.92	Not Detected	4.0	Not Detected
m,p-Xylene	0.92	Not Detected	4.0	Not Detected
o-Xylene	0.92	Not Detected	4.0	Not Detected
Styrene	0.92	Not Detected	3.9	Not Detected
Bromoform	0.92	Not Detected	9.4	Not Detected
Cumene	0.92	Not Detected	4.5	Not Detected
1,1,2,2-Tetrachloroethane	0.92	Not Detected	6.3	Not Detected
Propylbenzene	0.92	Not Detected	4.5	Not Detected
4-Ethyltoluene	0.92	Not Detected	4.5	Not Detected
1,3,5-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,2,4-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,3-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,4-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
alpha-Chlorotoluene	0.92	Not Detected	4.7	Not Detected
1,2-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,2,4-Trichlorobenzene	3.7	Not Detected	27	Not Detected
Hexachlorobutadiene	3.7	Not Detected	39	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	86	70-130



Air Toxics

Client Sample ID: Offsite Sys-Effluent

Lab ID#: 1810677-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110615	Date of Collection:	10/23/18 16:30:00
Dil. Factor:	1.84	Date of Analysis:	11/6/18 09:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.92	0.92	4.5	4.5
Freon 114	0.92	Not Detected	6.4	Not Detected
Chloromethane	9.2	Not Detected	19	Not Detected
Vinyl Chloride	0.92	6.4	2.4	16
1,3-Butadiene	0.92	Not Detected	2.0	Not Detected
Bromomethane	9.2	Not Detected	36	Not Detected
Chloroethane	3.7	Not Detected	9.7	Not Detected
Freon 11	0.92	Not Detected	5.2	Not Detected
Ethanol	3.7	Not Detected	6.9	Not Detected
Freon 113	0.92	Not Detected	7.0	Not Detected
1,1-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Acetone	9.2	Not Detected	22	Not Detected
2-Propanol	3.7	Not Detected	9.0	Not Detected
Carbon Disulfide	3.7	Not Detected	11	Not Detected
3-Chloropropene	3.7	Not Detected	12	Not Detected
Methylene Chloride	9.2	Not Detected	32	Not Detected
Methyl tert-butyl ether	3.7	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	0.92	1.3	3.6	5.3
Hexane	0.92	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.92	Not Detected	3.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.92	71	3.6	280
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.92	1.4	4.5	6.8
1,1,1-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Cyclohexane	0.92	Not Detected	3.2	Not Detected
Carbon Tetrachloride	0.92	Not Detected	5.8	Not Detected
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
Benzene	0.92	Not Detected	2.9	Not Detected
1,2-Dichloroethane	0.92	Not Detected	3.7	Not Detected
Heptane	0.92	Not Detected	3.8	Not Detected
Trichloroethene	0.92	Not Detected	4.9	Not Detected
1,2-Dichloropropane	0.92	Not Detected	4.2	Not Detected
1,4-Dioxane	3.7	Not Detected	13	Not Detected
Bromodichloromethane	0.92	Not Detected	6.2	Not Detected
cis-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
4-Methyl-2-pentanone	0.92	Not Detected	3.8	Not Detected
Toluene	0.92	Not Detected	3.5	Not Detected
trans-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Tetrachloroethene	0.92	Not Detected	6.2	Not Detected
2-Hexanone	3.7	Not Detected	15	Not Detected



Air Toxics

Client Sample ID: Offsite Sys-Effluent

Lab ID#: 1810677-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110615	Date of Collection:	10/23/18 16:30:00
Dil. Factor:	1.84	Date of Analysis:	11/6/18 09:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.92	Not Detected	7.8	Not Detected
1,2-Dibromoethane (EDB)	0.92	Not Detected	7.1	Not Detected
Chlorobenzene	0.92	Not Detected	4.2	Not Detected
Ethyl Benzene	0.92	Not Detected	4.0	Not Detected
m,p-Xylene	0.92	Not Detected	4.0	Not Detected
o-Xylene	0.92	Not Detected	4.0	Not Detected
Styrene	0.92	Not Detected	3.9	Not Detected
Bromoform	0.92	Not Detected	9.5	Not Detected
Cumene	0.92	Not Detected	4.5	Not Detected
1,1,2,2-Tetrachloroethane	0.92	Not Detected	6.3	Not Detected
Propylbenzene	0.92	Not Detected	4.5	Not Detected
4-Ethyltoluene	0.92	Not Detected	4.5	Not Detected
1,3,5-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,2,4-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,3-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,4-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
alpha-Chlorotoluene	0.92	Not Detected	4.8	Not Detected
1,2-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,2,4-Trichlorobenzene	3.7	Not Detected	27	Not Detected
Hexachlorobutadiene	3.7	Not Detected	39	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: Offsite Sys-Intermediate #1

Lab ID#: 1810677-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110616	Date of Collection:	10/23/18 16:20:00
Dil. Factor:	1.70	Date of Analysis:	11/6/18 10:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.85	0.99	4.2	4.9
Freon 114	0.85	Not Detected	5.9	Not Detected
Chloromethane	8.5	Not Detected	18	Not Detected
Vinyl Chloride	0.85	6.4	2.2	16
1,3-Butadiene	0.85	Not Detected	1.9	Not Detected
Bromomethane	8.5	Not Detected	33	Not Detected
Chloroethane	3.4	Not Detected	9.0	Not Detected
Freon 11	0.85	Not Detected	4.8	Not Detected
Ethanol	3.4	Not Detected	6.4	Not Detected
Freon 113	0.85	Not Detected	6.5	Not Detected
1,1-Dichloroethene	0.85	Not Detected	3.4	Not Detected
Acetone	8.5	Not Detected	20	Not Detected
2-Propanol	3.4	Not Detected	8.4	Not Detected
Carbon Disulfide	3.4	Not Detected	10	Not Detected
3-Chloropropene	3.4	Not Detected	11	Not Detected
Methylene Chloride	8.5	Not Detected	30	Not Detected
Methyl tert-butyl ether	3.4	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	0.85	2.2	3.4	8.8
Hexane	0.85	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.85	1.8	3.4	7.1
2-Butanone (Methyl Ethyl Ketone)	3.4	4.1	10	12
cis-1,2-Dichloroethene	0.85	170	3.4	670
Tetrahydrofuran	0.85	Not Detected	2.5	Not Detected
Chloroform	0.85	11	4.2	53
1,1,1-Trichloroethane	0.85	Not Detected	4.6	Not Detected
Cyclohexane	0.85	Not Detected	2.9	Not Detected
Carbon Tetrachloride	0.85	Not Detected	5.3	Not Detected
2,2,4-Trimethylpentane	0.85	Not Detected	4.0	Not Detected
Benzene	0.85	Not Detected	2.7	Not Detected
1,2-Dichloroethane	0.85	Not Detected	3.4	Not Detected
Heptane	0.85	Not Detected	3.5	Not Detected
Trichloroethene	0.85	11	4.6	60
1,2-Dichloropropane	0.85	Not Detected	3.9	Not Detected
1,4-Dioxane	3.4	Not Detected	12	Not Detected
Bromodichloromethane	0.85	Not Detected	5.7	Not Detected
cis-1,3-Dichloropropene	0.85	Not Detected	3.8	Not Detected
4-Methyl-2-pentanone	0.85	Not Detected	3.5	Not Detected
Toluene	0.85	Not Detected	3.2	Not Detected
trans-1,3-Dichloropropene	0.85	Not Detected	3.8	Not Detected
1,1,2-Trichloroethane	0.85	Not Detected	4.6	Not Detected
Tetrachloroethene	0.85	Not Detected	5.8	Not Detected
2-Hexanone	3.4	Not Detected	14	Not Detected



Air Toxics

Client Sample ID: Offsite Sys-Intermediate #1

Lab ID#: 1810677-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110616	Date of Collection:	10/23/18 16:20:00
Dil. Factor:	1.70	Date of Analysis:	11/6/18 10:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.85	Not Detected	7.2	Not Detected
1,2-Dibromoethane (EDB)	0.85	Not Detected	6.5	Not Detected
Chlorobenzene	0.85	Not Detected	3.9	Not Detected
Ethyl Benzene	0.85	Not Detected	3.7	Not Detected
m,p-Xylene	0.85	Not Detected	3.7	Not Detected
o-Xylene	0.85	Not Detected	3.7	Not Detected
Styrene	0.85	Not Detected	3.6	Not Detected
Bromoform	0.85	Not Detected	8.8	Not Detected
Cumene	0.85	Not Detected	4.2	Not Detected
1,1,2,2-Tetrachloroethane	0.85	Not Detected	5.8	Not Detected
Propylbenzene	0.85	Not Detected	4.2	Not Detected
4-Ethyltoluene	0.85	Not Detected	4.2	Not Detected
1,3,5-Trimethylbenzene	0.85	Not Detected	4.2	Not Detected
1,2,4-Trimethylbenzene	0.85	Not Detected	4.2	Not Detected
1,3-Dichlorobenzene	0.85	Not Detected	5.1	Not Detected
1,4-Dichlorobenzene	0.85	Not Detected	5.1	Not Detected
alpha-Chlorotoluene	0.85	Not Detected	4.4	Not Detected
1,2-Dichlorobenzene	0.85	Not Detected	5.1	Not Detected
1,2,4-Trichlorobenzene	3.4	Not Detected	25	Not Detected
Hexachlorobutadiene	3.4	Not Detected	36	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	85	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1810677-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/6/18 11:20 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1810677-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/6/18 11:20 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	86	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1810677-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17110602
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 11/6/18 09:59 AM

Compound	%Recovery

Freon 12	96
Freon 114	92
Chloromethane	108
Vinyl Chloride	98
1,3-Butadiene	99
Bromomethane	101
Chloroethane	101
Freon 11	89
Ethanol	88
Freon 113	88
1,1-Dichloroethene	91
Acetone	92
2-Propanol	82
Carbon Disulfide	100
3-Chloropropene	94
Methylene Chloride	94
Methyl tert-butyl ether	91
trans-1,2-Dichloroethene	94
Hexane	92
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	93
Tetrahydrofuran	92
Chloroform	104
1,1,1-Trichloroethane	101
Cyclohexane	96
Carbon Tetrachloride	96
2,2,4-Trimethylpentane	102
Benzene	112
1,2-Dichloroethane	104
Heptane	109
Trichloroethene	108
1,2-Dichloropropane	112
1,4-Dioxane	106
Bromodichloromethane	113
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	104
Toluene	111
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	113
Tetrachloroethene	99
2-Hexanone	110

Client Sample ID: CCV

Lab ID#: 1810677-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/6/18 09:59 AM

Compound	%Recovery
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	106
Chlorobenzene	105
Ethyl Benzene	106
m,p-Xylene	106
o-Xylene	103
Styrene	109
Bromoform	98
Cumene	107
1,1,2,2-Tetrachloroethane	118
Propylbenzene	112
4-Ethyltoluene	110
1,3,5-Trimethylbenzene	108
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	116
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: LCS

Lab ID#: 1810677-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17110603
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 11/6/18 10:25 AM

Compound	%Recovery	Method Limits
Freon 12	98	70-130
Freon 114	96	70-130
Chloromethane	112	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	101	70-130
Bromomethane	104	70-130
Chloroethane	104	70-130
Freon 11	91	70-130
Ethanol	92	70-130
Freon 113	88	70-130
1,1-Dichloroethene	93	70-130
Acetone	94	70-130
2-Propanol	86	70-130
Carbon Disulfide	104	70-130
3-Chloropropene	101	70-130
Methylene Chloride	95	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	97	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	106	70-130
cis-1,2-Dichloroethene	88	70-130
Tetrahydrofuran	96	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	103	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	111	70-130
1,2-Dichloroethane	102	70-130
Heptane	108	70-130
Trichloroethene	109	70-130
1,2-Dichloropropane	111	70-130
1,4-Dioxane	110	70-130
Bromodichloromethane	113	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	109	70-130
Toluene	110	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	114	70-130
Tetrachloroethene	98	70-130
2-Hexanone	117	70-130

Client Sample ID: LCS

Lab ID#: 1810677-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17110603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/6/18 10:25 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	107	70-130
o-Xylene	106	70-130
Styrene	113	70-130
Bromoform	105	70-130
Cumene	109	70-130
1,1,2,2-Tetrachloroethane	120	70-130
Propylbenzene	115	70-130
4-Ethyltoluene	116	70-130
1,3,5-Trimethylbenzene	109	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	127	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	90	70-130
Hexachlorobutadiene	89	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: LCSD

Lab ID#: 1810677-12AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17110604
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 11/6/18 10:52 AM

Compound	%Recovery	Method Limits
Freon 12	98	70-130
Freon 114	94	70-130
Chloromethane	112	70-130
Vinyl Chloride	103	70-130
1,3-Butadiene	101	70-130
Bromomethane	104	70-130
Chloroethane	104	70-130
Freon 11	91	70-130
Ethanol	95	70-130
Freon 113	87	70-130
1,1-Dichloroethene	91	70-130
Acetone	93	70-130
2-Propanol	87	70-130
Carbon Disulfide	103	70-130
3-Chloropropene	98	70-130
Methylene Chloride	95	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	104	70-130
Hexane	96	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	87	70-130
Tetrahydrofuran	96	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	102	70-130
Cyclohexane	101	70-130
Carbon Tetrachloride	97	70-130
2,2,4-Trimethylpentane	104	70-130
Benzene	112	70-130
1,2-Dichloroethane	103	70-130
Heptane	108	70-130
Trichloroethene	109	70-130
1,2-Dichloropropane	111	70-130
1,4-Dioxane	112	70-130
Bromodichloromethane	115	70-130
cis-1,3-Dichloropropene	114	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	112	70-130
trans-1,3-Dichloropropene	109	70-130
1,1,2-Trichloroethane	113	70-130
Tetrachloroethene	99	70-130
2-Hexanone	116	70-130

Client Sample ID: LCSD

Lab ID#: 1810677-12AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17110604
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 11/6/18 10:52 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	108	70-130
o-Xylene	106	70-130
Styrene	112	70-130
Bromoform	104	70-130
Cumene	109	70-130
1,1,2,2-Tetrachloroethane	118	70-130
Propylbenzene	114	70-130
4-Ethyltoluene	114	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	107	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	127	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	93	70-130
Hexachlorobutadiene	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	92	70-130

12/19/2018

Mr. Jim Hayward

EA Engineering

6712 Brooklawn Parkway

Suite 104

Syracuse NY 13211

Project Name: National Heatset

Project #: 1490716

Workorder #: 1812123

Dear Mr. Jim Hayward

The following report includes the data for the above referenced project for sample(s) received on 12/7/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis

Project Manager

WORK ORDER #: 1812123

Work Order Summary

CLIENT:	Mr. Jim Hayward EA Engineering 6712 Brooklawn Parkway Suite 104 Syracuse, NY 13211	BILL TO:	Accounts Payable EA Engineering 3 Washington Center Newburgh, NY 12550
PHONE:	315-431-4610	P.O. #	10991m6
FAX:	315-431-4280	PROJECT #	1490716 National Heatset
DATE RECEIVED:	12/07/2018	CONTACT:	Rachel Selenis
DATE COMPLETED:	12/19/2018		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVE-Influent	TO-15	5.0 "Hg	5 psi
02A	SVE-Effluent	TO-15	7.0 "Hg	5 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 12/19/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
EA Engineering
Workorder# 1812123

Two 6 Liter Summa Canister samples were received on December 07, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) information for samples SVE-Influent and SVE-Effluent did not match the entries on the sample tags with regard to sample identification. Therefore the information on the COC was used to process and report the samples.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVE-Influent

Lab ID#: 1812123-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	0.80	2.0	2.8	7.1
2-Butanone (Methyl Ethyl Ketone)	3.2	4.2	9.5	12
cis-1,2-Dichloroethene	0.80	10	3.2	40
Trichloroethene	0.80	16	4.3	83
Tetrachloroethene	0.80	200	5.5	1400

Client Sample ID: SVE-Effluent

Lab ID#: 1812123-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	3.5	4.6	6.6	8.7
Hexane	0.88	19	3.1	66
2-Butanone (Methyl Ethyl Ketone)	3.5	4.8	10	14
cis-1,2-Dichloroethene	0.88	12	3.5	48
Chloroform	0.88	0.89	4.3	4.4
1,1,1-Trichloroethane	0.88	1.8	4.8	9.9
Cyclohexane	0.88	1.1	3.0	3.7
Benzene	0.88	4.0	2.8	13
Trichloroethene	0.88	78	4.7	420
Tetrachloroethene	0.88	260	5.9	1800
m,p-Xylene	0.88	0.94	3.8	4.1



Air Toxics

Client Sample ID: SVE-Influent

Lab ID#: 1812123-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121024	Date of Collection:	11/29/18 1:30:00 PM
Dil. Factor:	1.61	Date of Analysis:	12/10/18 11:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.80	Not Detected	4.0	Not Detected
Freon 114	0.80	Not Detected	5.6	Not Detected
Chloromethane	8.0	Not Detected	17	Not Detected
Vinyl Chloride	0.80	Not Detected	2.0	Not Detected
1,3-Butadiene	0.80	Not Detected	1.8	Not Detected
Bromomethane	8.0	Not Detected	31	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
Freon 11	0.80	Not Detected	4.5	Not Detected
Ethanol	3.2	Not Detected	6.1	Not Detected
Freon 113	0.80	Not Detected	6.2	Not Detected
1,1-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Acetone	8.0	Not Detected	19	Not Detected
2-Propanol	3.2	Not Detected	7.9	Not Detected
Carbon Disulfide	3.2	Not Detected	10	Not Detected
3-Chloropropene	3.2	Not Detected	10	Not Detected
Methylene Chloride	8.0	Not Detected	28	Not Detected
Methyl tert-butyl ether	3.2	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Hexane	0.80	2.0	2.8	7.1
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	4.2	9.5	12
cis-1,2-Dichloroethene	0.80	10	3.2	40
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.80	Not Detected	3.9	Not Detected
1,1,1-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Cyclohexane	0.80	Not Detected	2.8	Not Detected
Carbon Tetrachloride	0.80	Not Detected	5.1	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.80	Not Detected	2.6	Not Detected
1,2-Dichloroethane	0.80	Not Detected	3.2	Not Detected
Heptane	0.80	Not Detected	3.3	Not Detected
Trichloroethene	0.80	16	4.3	83
1,2-Dichloropropane	0.80	Not Detected	3.7	Not Detected
1,4-Dioxane	3.2	Not Detected	12	Not Detected
Bromodichloromethane	0.80	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	0.80	Not Detected	3.6	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.3	Not Detected
Toluene	0.80	Not Detected	3.0	Not Detected
trans-1,3-Dichloropropene	0.80	Not Detected	3.6	Not Detected
1,1,2-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Tetrachloroethene	0.80	200	5.5	1400
2-Hexanone	3.2	Not Detected	13	Not Detected



Air Toxics

Client Sample ID: SVE-Influent

Lab ID#: 1812123-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121024	Date of Collection:	11/29/18 1:30:00 PM
Dil. Factor:	1.61	Date of Analysis:	12/10/18 11:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.80	Not Detected	6.8	Not Detected
1,2-Dibromoethane (EDB)	0.80	Not Detected	6.2	Not Detected
Chlorobenzene	0.80	Not Detected	3.7	Not Detected
Ethyl Benzene	0.80	Not Detected	3.5	Not Detected
m,p-Xylene	0.80	Not Detected	3.5	Not Detected
o-Xylene	0.80	Not Detected	3.5	Not Detected
Styrene	0.80	Not Detected	3.4	Not Detected
Bromoform	0.80	Not Detected	8.3	Not Detected
Cumene	0.80	Not Detected	4.0	Not Detected
1,1,2,2-Tetrachloroethane	0.80	Not Detected	5.5	Not Detected
Propylbenzene	0.80	Not Detected	4.0	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
1,3,5-Trimethylbenzene	0.80	Not Detected	4.0	Not Detected
1,2,4-Trimethylbenzene	0.80	Not Detected	4.0	Not Detected
1,3-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
1,4-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
alpha-Chlorotoluene	0.80	Not Detected	4.2	Not Detected
1,2-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
1,2,4-Trichlorobenzene	3.2	Not Detected	24	Not Detected
Hexachlorobutadiene	3.2	Not Detected	34	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SVE-Effluent

Lab ID#: 1812123-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121023	Date of Collection:	11/29/18 2:24:00 PM
Dil. Factor:	1.75	Date of Analysis:	12/10/18 11:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.88	Not Detected	4.3	Not Detected
Freon 114	0.88	Not Detected	6.1	Not Detected
Chloromethane	8.8	Not Detected	18	Not Detected
Vinyl Chloride	0.88	Not Detected	2.2	Not Detected
1,3-Butadiene	0.88	Not Detected	1.9	Not Detected
Bromomethane	8.8	Not Detected	34	Not Detected
Chloroethane	3.5	Not Detected	9.2	Not Detected
Freon 11	0.88	Not Detected	4.9	Not Detected
Ethanol	3.5	4.6	6.6	8.7
Freon 113	0.88	Not Detected	6.7	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Acetone	8.8	Not Detected	21	Not Detected
2-Propanol	3.5	Not Detected	8.6	Not Detected
Carbon Disulfide	3.5	Not Detected	11	Not Detected
3-Chloropropene	3.5	Not Detected	11	Not Detected
Methylene Chloride	8.8	Not Detected	30	Not Detected
Methyl tert-butyl ether	3.5	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Hexane	0.88	19	3.1	66
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.5	4.8	10	14
cis-1,2-Dichloroethene	0.88	12	3.5	48
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.88	0.89	4.3	4.4
1,1,1-Trichloroethane	0.88	1.8	4.8	9.9
Cyclohexane	0.88	1.1	3.0	3.7
Carbon Tetrachloride	0.88	Not Detected	5.5	Not Detected
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.88	4.0	2.8	13
1,2-Dichloroethane	0.88	Not Detected	3.5	Not Detected
Heptane	0.88	Not Detected	3.6	Not Detected
Trichloroethene	0.88	78	4.7	420
1,2-Dichloropropane	0.88	Not Detected	4.0	Not Detected
1,4-Dioxane	3.5	Not Detected	13	Not Detected
Bromodichloromethane	0.88	Not Detected	5.9	Not Detected
cis-1,3-Dichloropropene	0.88	Not Detected	4.0	Not Detected
4-Methyl-2-pentanone	0.88	Not Detected	3.6	Not Detected
Toluene	0.88	Not Detected	3.3	Not Detected
trans-1,3-Dichloropropene	0.88	Not Detected	4.0	Not Detected
1,1,2-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Tetrachloroethene	0.88	260	5.9	1800
2-Hexanone	3.5	Not Detected	14	Not Detected



Air Toxics

Client Sample ID: SVE-Effluent

Lab ID#: 1812123-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121023	Date of Collection:	11/29/18 2:24:00 PM
Dil. Factor:	1.75	Date of Analysis:	12/10/18 11:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.88	Not Detected	7.4	Not Detected
1,2-Dibromoethane (EDB)	0.88	Not Detected	6.7	Not Detected
Chlorobenzene	0.88	Not Detected	4.0	Not Detected
Ethyl Benzene	0.88	Not Detected	3.8	Not Detected
m,p-Xylene	0.88	0.94	3.8	4.1
o-Xylene	0.88	Not Detected	3.8	Not Detected
Styrene	0.88	Not Detected	3.7	Not Detected
Bromoform	0.88	Not Detected	9.0	Not Detected
Cumene	0.88	Not Detected	4.3	Not Detected
1,1,2,2-Tetrachloroethane	0.88	Not Detected	6.0	Not Detected
Propylbenzene	0.88	Not Detected	4.3	Not Detected
4-Ethyltoluene	0.88	Not Detected	4.3	Not Detected
1,3,5-Trimethylbenzene	0.88	Not Detected	4.3	Not Detected
1,2,4-Trimethylbenzene	0.88	Not Detected	4.3	Not Detected
1,3-Dichlorobenzene	0.88	Not Detected	5.3	Not Detected
1,4-Dichlorobenzene	0.88	Not Detected	5.3	Not Detected
alpha-Chlorotoluene	0.88	Not Detected	4.5	Not Detected
1,2-Dichlorobenzene	0.88	Not Detected	5.3	Not Detected
1,2,4-Trichlorobenzene	3.5	Not Detected	26	Not Detected
Hexachlorobutadiene	3.5	Not Detected	37	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1812123-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 3121006
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 12/10/18 11:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1812123-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121006	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/10/18 11:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: CCV

Lab ID#: 1812123-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/10/18 09:00 AM

Compound	%Recovery
Freon 12	110
Freon 114	110
Chloromethane	104
Vinyl Chloride	104
1,3-Butadiene	101
Bromomethane	108
Chloroethane	106
Freon 11	98
Ethanol	94
Freon 113	96
1,1-Dichloroethene	101
Acetone	96
2-Propanol	94
Carbon Disulfide	95
3-Chloropropene	92
Methylene Chloride	93
Methyl tert-butyl ether	93
trans-1,2-Dichloroethene	91
Hexane	94
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	97
Tetrahydrofuran	95
Chloroform	97
1,1,1-Trichloroethane	93
Cyclohexane	95
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	98
Benzene	97
1,2-Dichloroethane	93
Heptane	93
Trichloroethene	95
1,2-Dichloropropane	97
1,4-Dioxane	100
Bromodichloromethane	98
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	94
Toluene	97
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	94
Tetrachloroethene	99
2-Hexanone	97

Client Sample ID: CCV

Lab ID#: 1812123-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/10/18 09:00 AM

Compound	%Recovery
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	98
Chlorobenzene	98
Ethyl Benzene	97
m,p-Xylene	98
o-Xylene	98
Styrene	98
Bromoform	102
Cumene	98
1,1,2,2-Tetrachloroethane	94
Propylbenzene	97
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	99
Hexachlorobutadiene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 1812123-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/10/18 09:41 AM

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	109	70-130
Chloromethane	103	70-130
Vinyl Chloride	103	70-130
1,3-Butadiene	96	70-130
Bromomethane	108	70-130
Chloroethane	108	70-130
Freon 11	95	70-130
Ethanol	92	70-130
Freon 113	95	70-130
1,1-Dichloroethene	98	70-130
Acetone	92	70-130
2-Propanol	93	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	93	70-130
Methylene Chloride	91	70-130
Methyl tert-butyl ether	93	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	93	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	88	70-130
Tetrahydrofuran	92	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	93	70-130
2,2,4-Trimethylpentane	97	70-130
Benzene	96	70-130
1,2-Dichloroethane	91	70-130
Heptane	96	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	96	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	98	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	97	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	98	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	99	70-130
2-Hexanone	99	70-130

Client Sample ID: LCS

Lab ID#: 1812123-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/10/18 09:41 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	101	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	99	70-130
o-Xylene	100	70-130
Styrene	100	70-130
Bromoform	105	70-130
Cumene	99	70-130
1,1,2,2-Tetrachloroethane	95	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	101	70-130
1,2,4-Trichlorobenzene	92	70-130
Hexachlorobutadiene	99	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1812123-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/10/18 10:06 AM

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	110	70-130
Chloromethane	99	70-130
Vinyl Chloride	105	70-130
1,3-Butadiene	96	70-130
Bromomethane	109	70-130
Chloroethane	106	70-130
Freon 11	95	70-130
Ethanol	92	70-130
Freon 113	95	70-130
1,1-Dichloroethene	99	70-130
Acetone	91	70-130
2-Propanol	93	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	96	70-130
Methylene Chloride	90	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	98	70-130
Hexane	94	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	86	70-130
Tetrahydrofuran	93	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	94	70-130
2,2,4-Trimethylpentane	98	70-130
Benzene	98	70-130
1,2-Dichloroethane	92	70-130
Heptane	95	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	99	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	98	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	100	70-130
2-Hexanone	99	70-130

Client Sample ID: LCSD

Lab ID#: 1812123-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/10/18 10:06 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	99	70-130
o-Xylene	101	70-130
Styrene	100	70-130
Bromoform	105	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	101	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	103	70-130
alpha-Chlorotoluene	107	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	104	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	101	70-130

1/16/2019

Mr. Jim Hayward
EA Engineering
6712 Brooklawn Parkway
Suite 104
Syracuse NY 13211

Project Name: National Heatset

Project #: 1490716

Workorder #: 1901020

Dear Mr. Jim Hayward

The following report includes the data for the above referenced project for sample(s) received on 1/3/2019 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Rachel Selenis at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Rachel Selenis
Project Manager

WORK ORDER #: 1901020

Work Order Summary

CLIENT:	Mr. Jim Hayward EA Engineering 6712 Brooklawn Parkway Suite 104 Syracuse, NY 13211	BILL TO:	Accounts Payable EA Engineering 3 Washington Center Newburgh, NY 12550
PHONE:	315-431-4610	P.O. #	10991m6
FAX:	315-431-4280	PROJECT #	1490716 National Heatset
DATE RECEIVED:	01/03/2019	CONTACT:	Rachel Selenis
DATE COMPLETED:	01/16/2019		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVE Influent	TO-15	8.2 "Hg	5 psi
02A	SVE Effluent	TO-15	8.6 "Hg	5 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 01/15/19

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
EA Engineering
Workorder# 1901020**

Two 6 Liter Summa Canister samples were received on January 03, 2019. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on samples SVE Effluent due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

- J - Estimated value.

- E - Exceeds instrument calibration range.

- S - Saturated peak.

- Q - Exceeds quality control limits.

- U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

- UJ- Non-detected compound associated with low bias in the CCV

- N - The identification is based on presumptive evidence.

- M - Reported value may be biased due to apparent matrix interferences.

- CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified

- b-File was quantified by a second column and detector

- r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVE Influent

Lab ID#: 1901020-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	3.7	3.9	6.9	7.4
Tetrachloroethene	0.92	1.8	6.2	12

Client Sample ID: SVE Effluent

Lab ID#: 1901020-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.4	15	5.7	60
Chloroform	1.4	1.8	7.0	8.7
Trichloroethene	1.4	24	7.8	130
Tetrachloroethene	1.4	450	9.8	3100



Air Toxics

Client Sample ID: SVE Influent

Lab ID#: 1901020-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17010707	Date of Collection:	12/20/18 4:15:00 PM
Dil. Factor:	1.84	Date of Analysis:	1/7/19 01:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.92	Not Detected	4.5	Not Detected
Freon 114	0.92	Not Detected	6.4	Not Detected
Chloromethane	9.2	Not Detected	19	Not Detected
Vinyl Chloride	0.92	Not Detected	2.4	Not Detected
1,3-Butadiene	0.92	Not Detected	2.0	Not Detected
Bromomethane	9.2	Not Detected	36	Not Detected
Chloroethane	3.7	Not Detected	9.7	Not Detected
Freon 11	0.92	Not Detected	5.2	Not Detected
Ethanol	3.7	3.9	6.9	7.4
Freon 113	0.92	Not Detected	7.0	Not Detected
1,1-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Acetone	9.2	Not Detected	22	Not Detected
2-Propanol	3.7	Not Detected	9.0	Not Detected
Carbon Disulfide	3.7	Not Detected	11	Not Detected
3-Chloropropene	3.7	Not Detected	12	Not Detected
Methylene Chloride	9.2	Not Detected	32	Not Detected
Methyl tert-butyl ether	3.7	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Hexane	0.92	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.92	Not Detected	3.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.92	Not Detected	4.5	Not Detected
1,1,1-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Cyclohexane	0.92	Not Detected	3.2	Not Detected
Carbon Tetrachloride	0.92	Not Detected	5.8	Not Detected
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
Benzene	0.92	Not Detected	2.9	Not Detected
1,2-Dichloroethane	0.92	Not Detected	3.7	Not Detected
Heptane	0.92	Not Detected	3.8	Not Detected
Trichloroethene	0.92	Not Detected	4.9	Not Detected
1,2-Dichloropropane	0.92	Not Detected	4.2	Not Detected
1,4-Dioxane	3.7	Not Detected	13	Not Detected
Bromodichloromethane	0.92	Not Detected	6.2	Not Detected
cis-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
4-Methyl-2-pentanone	0.92	Not Detected	3.8	Not Detected
Toluene	0.92	Not Detected	3.5	Not Detected
trans-1,3-Dichloropropene	0.92	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Tetrachloroethene	0.92	1.8	6.2	12
2-Hexanone	3.7	Not Detected	15	Not Detected



Air Toxics

Client Sample ID: SVE Influent

Lab ID#: 1901020-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17010707	Date of Collection:	12/20/18 4:15:00 PM
Dil. Factor:	1.84	Date of Analysis:	1/7/19 01:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.92	Not Detected	7.8	Not Detected
1,2-Dibromoethane (EDB)	0.92	Not Detected	7.1	Not Detected
Chlorobenzene	0.92	Not Detected	4.2	Not Detected
Ethyl Benzene	0.92	Not Detected	4.0	Not Detected
m,p-Xylene	0.92	Not Detected	4.0	Not Detected
o-Xylene	0.92	Not Detected	4.0	Not Detected
Styrene	0.92	Not Detected	3.9	Not Detected
Bromoform	0.92	Not Detected	9.5	Not Detected
Cumene	0.92	Not Detected	4.5	Not Detected
1,1,2,2-Tetrachloroethane	0.92	Not Detected	6.3	Not Detected
Propylbenzene	0.92	Not Detected	4.5	Not Detected
4-Ethyltoluene	0.92	Not Detected	4.5	Not Detected
1,3,5-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,2,4-Trimethylbenzene	0.92	Not Detected	4.5	Not Detected
1,3-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,4-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
alpha-Chlorotoluene	0.92	Not Detected	4.8	Not Detected
1,2-Dichlorobenzene	0.92	Not Detected	5.5	Not Detected
1,2,4-Trichlorobenzene	3.7	Not Detected	27	Not Detected
Hexachlorobutadiene	3.7	Not Detected	39	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SVE Effluent

Lab ID#: 1901020-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17010711	Date of Collection:	12/20/18 4:15:00 PM
Dil. Factor:	2.89	Date of Analysis:	1/7/19 05:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	Not Detected	7.1	Not Detected
Freon 114	1.4	Not Detected	10	Not Detected
Chloromethane	14	Not Detected	30	Not Detected
Vinyl Chloride	1.4	Not Detected	3.7	Not Detected
1,3-Butadiene	1.4	Not Detected	3.2	Not Detected
Bromomethane	14	Not Detected	56	Not Detected
Chloroethane	5.8	Not Detected	15	Not Detected
Freon 11	1.4	Not Detected	8.1	Not Detected
Ethanol	5.8	Not Detected	11	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Acetone	14	Not Detected	34	Not Detected
2-Propanol	5.8	Not Detected	14	Not Detected
Carbon Disulfide	5.8	Not Detected	18	Not Detected
3-Chloropropene	5.8	Not Detected	18	Not Detected
Methylene Chloride	14	Not Detected	50	Not Detected
Methyl tert-butyl ether	5.8	Not Detected	21	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.7	Not Detected
Hexane	1.4	Not Detected	5.1	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.8	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	1.4	15	5.7	60
Tetrahydrofuran	1.4	Not Detected	4.3	Not Detected
Chloroform	1.4	1.8	7.0	8.7
1,1,1-Trichloroethane	1.4	Not Detected	7.9	Not Detected
Cyclohexane	1.4	Not Detected	5.0	Not Detected
Carbon Tetrachloride	1.4	Not Detected	9.1	Not Detected
2,2,4-Trimethylpentane	1.4	Not Detected	6.8	Not Detected
Benzene	1.4	Not Detected	4.6	Not Detected
1,2-Dichloroethane	1.4	Not Detected	5.8	Not Detected
Heptane	1.4	Not Detected	5.9	Not Detected
Trichloroethene	1.4	24	7.8	130
1,2-Dichloropropane	1.4	Not Detected	6.7	Not Detected
1,4-Dioxane	5.8	Not Detected	21	Not Detected
Bromodichloromethane	1.4	Not Detected	9.7	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.6	Not Detected
4-Methyl-2-pentanone	1.4	Not Detected	5.9	Not Detected
Toluene	1.4	Not Detected	5.4	Not Detected
trans-1,3-Dichloropropene	1.4	Not Detected	6.6	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.9	Not Detected
Tetrachloroethene	1.4	450	9.8	3100
2-Hexanone	5.8	Not Detected	24	Not Detected



Air Toxics

Client Sample ID: SVE Effluent

Lab ID#: 1901020-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17010711	Date of Collection:	12/20/18 4:15:00 PM
Dil. Factor:	2.89	Date of Analysis:	1/7/19 05:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.4	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.6	Not Detected
Ethyl Benzene	1.4	Not Detected	6.3	Not Detected
m,p-Xylene	1.4	Not Detected	6.3	Not Detected
o-Xylene	1.4	Not Detected	6.3	Not Detected
Styrene	1.4	Not Detected	6.2	Not Detected
Bromoform	1.4	Not Detected	15	Not Detected
Cumene	1.4	Not Detected	7.1	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.9	Not Detected
Propylbenzene	1.4	Not Detected	7.1	Not Detected
4-Ethyltoluene	1.4	Not Detected	7.1	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	7.1	Not Detected
1,2,4-Trimethylbenzene	1.4	Not Detected	7.1	Not Detected
1,3-Dichlorobenzene	1.4	Not Detected	8.7	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.7	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.5	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.7	Not Detected
1,2,4-Trichlorobenzene	5.8	Not Detected	43	Not Detected
Hexachlorobutadiene	5.8	Not Detected	62	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1901020-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17010706
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/7/19 11:08 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1901020-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17010706	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/19 11:08 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 1901020-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17010702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/19 08:32 AM

Compound	%Recovery
Freon 12	101
Freon 114	105
Chloromethane	102
Vinyl Chloride	109
1,3-Butadiene	90
Bromomethane	110
Chloroethane	106
Freon 11	104
Ethanol	115
Freon 113	103
1,1-Dichloroethene	105
Acetone	110
2-Propanol	118
Carbon Disulfide	107
3-Chloropropene	106
Methylene Chloride	110
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	102
Hexane	104
1,1-Dichloroethane	108
2-Butanone (Methyl Ethyl Ketone)	107
cis-1,2-Dichloroethene	108
Tetrahydrofuran	104
Chloroform	109
1,1,1-Trichloroethane	103
Cyclohexane	100
Carbon Tetrachloride	107
2,2,4-Trimethylpentane	104
Benzene	108
1,2-Dichloroethane	109
Heptane	102
Trichloroethene	111
1,2-Dichloropropane	106
1,4-Dioxane	124
Bromodichloromethane	109
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	114
Toluene	108
trans-1,3-Dichloropropene	110
1,1,2-Trichloroethane	103
Tetrachloroethene	106
2-Hexanone	119

Client Sample ID: CCV

Lab ID#: 1901020-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17010702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/19 08:32 AM

Compound	%Recovery
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	108
Chlorobenzene	104
Ethyl Benzene	106
m,p-Xylene	106
o-Xylene	106
Styrene	104
Bromoform	109
Cumene	106
1,1,2,2-Tetrachloroethane	109
Propylbenzene	108
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	106
1,4-Dichlorobenzene	107
alpha-Chlorotoluene	127
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1901020-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17010703
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/7/19 09:00 AM

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	114	70-130
Chloromethane	71	70-130
Vinyl Chloride	122	70-130
1,3-Butadiene	91	70-130
Bromomethane	121	70-130
Chloroethane	116	70-130
Freon 11	114	70-130
Ethanol	119	70-130
Freon 113	110	70-130
1,1-Dichloroethene	112	70-130
Acetone	117	70-130
2-Propanol	122	70-130
Carbon Disulfide	118	70-130
3-Chloropropene	125	70-130
Methylene Chloride	118	70-130
Methyl tert-butyl ether	110	70-130
trans-1,2-Dichloroethene	124	70-130
Hexane	116	70-130
1,1-Dichloroethane	115	70-130
2-Butanone (Methyl Ethyl Ketone)	121	70-130
cis-1,2-Dichloroethene	109	70-130
Tetrahydrofuran	114	70-130
Chloroform	117	70-130
1,1,1-Trichloroethane	111	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	115	70-130
2,2,4-Trimethylpentane	111	70-130
Benzene	113	70-130
1,2-Dichloroethane	113	70-130
Heptane	108	70-130
Trichloroethene	121	70-130
1,2-Dichloropropane	112	70-130
1,4-Dioxane	125	70-130
Bromodichloromethane	117	70-130
cis-1,3-Dichloropropene	123	70-130
4-Methyl-2-pentanone	117	70-130
Toluene	114	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	109	70-130
Tetrachloroethene	110	70-130
2-Hexanone	120	70-130

Client Sample ID: LCS

Lab ID#: 1901020-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17010703
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/7/19 09:00 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	115	70-130
1,2-Dibromoethane (EDB)	114	70-130
Chlorobenzene	112	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	111	70-130
o-Xylene	110	70-130
Styrene	101	70-130
Bromoform	117	70-130
Cumene	111	70-130
1,1,2,2-Tetrachloroethane	109	70-130
Propylbenzene	113	70-130
4-Ethyltoluene	107	70-130
1,3,5-Trimethylbenzene	115	70-130
1,2,4-Trimethylbenzene	112	70-130
1,3-Dichlorobenzene	111	70-130
1,4-Dichlorobenzene	114	70-130
alpha-Chlorotoluene	132 Q	70-130
1,2-Dichlorobenzene	113	70-130
1,2,4-Trichlorobenzene	119	70-130
Hexachlorobutadiene	111	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1901020-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17010704
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/7/19 09:28 AM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	114	70-130
Chloromethane	90	70-130
Vinyl Chloride	121	70-130
1,3-Butadiene	94	70-130
Bromomethane	123	70-130
Chloroethane	114	70-130
Freon 11	115	70-130
Ethanol	116	70-130
Freon 113	110	70-130
1,1-Dichloroethene	114	70-130
Acetone	118	70-130
2-Propanol	120	70-130
Carbon Disulfide	117	70-130
3-Chloropropene	126	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	110	70-130
trans-1,2-Dichloroethene	123	70-130
Hexane	115	70-130
1,1-Dichloroethane	116	70-130
2-Butanone (Methyl Ethyl Ketone)	121	70-130
cis-1,2-Dichloroethene	108	70-130
Tetrahydrofuran	115	70-130
Chloroform	117	70-130
1,1,1-Trichloroethane	112	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	115	70-130
2,2,4-Trimethylpentane	111	70-130
Benzene	112	70-130
1,2-Dichloroethane	110	70-130
Heptane	107	70-130
Trichloroethene	121	70-130
1,2-Dichloropropane	111	70-130
1,4-Dioxane	126	70-130
Bromodichloromethane	116	70-130
cis-1,3-Dichloropropene	122	70-130
4-Methyl-2-pentanone	120	70-130
Toluene	112	70-130
trans-1,3-Dichloropropene	116	70-130
1,1,2-Trichloroethane	110	70-130
Tetrachloroethene	112	70-130
2-Hexanone	122	70-130

Client Sample ID: LCSD

Lab ID#: 1901020-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 17010704
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/7/19 09:28 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	116	70-130
1,2-Dibromoethane (EDB)	116	70-130
Chlorobenzene	113	70-130
Ethyl Benzene	114	70-130
m,p-Xylene	111	70-130
o-Xylene	113	70-130
Styrene	102	70-130
Bromoform	119	70-130
Cumene	112	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	114	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	113	70-130
1,3-Dichlorobenzene	113	70-130
1,4-Dichlorobenzene	115	70-130
alpha-Chlorotoluene	136 Q	70-130
1,2-Dichlorobenzene	112	70-130
1,2,4-Trichlorobenzene	119	70-130
Hexachlorobutadiene	112	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	100	70-130

Attachment C

Laboratory Analytical Data – Groundwater Samples

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Project: NYSDEC National Heatset

Client PO: 1490716

Report To: EA Engineering, Science & Technology
6712 Brooklawn Pkwy.
Suite 104
Syracuse, NY 13211

Attn: Jim Hayward/E.Cummings

Received Date: 10/26/2018

Report Date: 11/27/2018

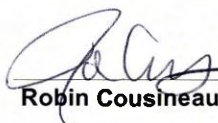
Deliverables: NYDOH-CatB

Lab ID: AD07391

Lab Project No: 8102901

This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAP Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Hampton-Clarke to all parties shall not exceed Hampton-Clarke's total fee for analytical services rendered.


Robin Cousineau - Quality Assurance Director

OR

Jean Revolus - Laboratory Director

NJ (07071)
PA (68-00463)

NY (ELAP11408)
KY (90124)

CT (PH-0671)





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SDG Narrative

HC Case Narrative

Client: EA Engineering, Science, & Technology
Project: NYSDEC National Heatset

HC Project: 8102901

Hampton-Clarke (HC) received the following samples on 10/26/2018:

Client ID	HC Sample ID	Matrix	Analysis
152140-MW-1D(ONSITE)	AD07391-001	Aqueous	Volatile Organics (8260C)
152140-MW-1S(ONSITE)	AD07391-002	Aqueous	Volatile Organics (8260C)
152140-MW-2A	AD07391-003	Aqueous	Volatile Organics (8260C)
152140-MW-2AD	AD07391-004	Aqueous	Volatile Organics (8260C)
152140-MW-3D(ONSITE)	AD07391-005	Aqueous	Volatile Organics (8260C)
152140-MW-3S(ONSITE)	AD07391-006	Aqueous	Volatile Organics (8260C)
152140-MW-5D	AD07391-007	Aqueous	Volatile Organics (8260C)
152140-MW-5S	AD07391-008	Aqueous	Volatile Organics (8260C)
152140-MW-6S	AD07391-009	Aqueous	Volatile Organics (8260C)
152140-MW-14S	AD07391-010	Aqueous	Volatile Organics (8260C)
152140-MW-14D	AD07391-011	Aqueous	Volatile Organics (8260C)
152140-MW-15S	AD07391-012	Aqueous	Volatile Organics (8260C)
152140-MW-15D	AD07391-013	Aqueous	Volatile Organics (8260C)
152140-MW-15D MS	AD07391-014	Aqueous	Volatile Organics (8260C)
152140-MW-15D MSD	AD07391-015	Aqueous	Volatile Organics (8260C)
152140-DDC-2-PS	AD07391-016	Aqueous	Volatile Organics (8260C)
152140-DDC-2-PD	AD07391-017	Aqueous	Volatile Organics (8260C)
152140-DDC-4-PS	AD07391-018	Aqueous	Volatile Organics (8260C)
152140-DDC-4-PD	AD07391-019	Aqueous	Volatile Organics (8260C)
152140-FD-01	AD07391-020	Aqueous	Volatile Organics (8260C)
152140-MW-1D(OFFSITE)	AD07391-021	Aqueous	Volatile Organics (8260C)
152140-MW-1S(OFFSITE)	AD07391-022	Aqueous	Volatile Organics (8260C)
152140-MW-1S(OFFSITE) MS	AD07391-023	Aqueous	Volatile Organics (8260C)
152140-MW-1S(OFFSITE) MSD	AD07391-024	Aqueous	Volatile Organics (8260C)
152140-DDC-07-PS	AD07391-025	Aqueous	Volatile Organics (8260C)
152140-DDC-07-PD	AD07391-026	Aqueous	Volatile Organics (8260C)
152140-DDC-08-PS	AD07391-027	Aqueous	Volatile Organics (8260C)
152140-DDC-08-PD	AD07391-028	Aqueous	Volatile Organics (8260C)
152140-DDC-09-PS	AD07391-029	Aqueous	Volatile Organics (8260C)
152140-DDC-09-PD	AD07391-030	Aqueous	Volatile Organics (8260C)
152140-DDC-10-PS	AD07391-031	Aqueous	Volatile Organics (8260C)
152140-DDC-10-PD	AD07391-032	Aqueous	Volatile Organics (8260C)
152140-FD-02	AD07391-033	Aqueous	Volatile Organics (8260C)
152140-TRIP BLANK	AD07391-034	Aqueous	Volatile Organics (8260C)
152140-DDC-06-PS	AD07391-035	Aqueous	Volatile Organics (8260C)
152140-DDC-06-PD	AD07391-036	Aqueous	Volatile Organics (8260C)
152140-DDC-05-PS	AD07391-037	Aqueous	Volatile Organics (8260C)
152140-DDC-05-PD	AD07391-038	Aqueous	Volatile Organics (8260C)
152140-MW-2D	AD07391-039	Aqueous	Volatile Organics (8260C)
152140-MW-2S	AD07391-040	Aqueous	Volatile Organics (8260C)
152140-MW-3D(OFFSITE)	AD07391-041	Aqueous	Volatile Organics (8260C)
152140-MW-3S(OFFSITE)	AD07391-042	Aqueous	Volatile Organics (8260C)

This case narrative is in the form of an exception report. Method specific and/or QA/QC anomalies related to this report only are detailed below.

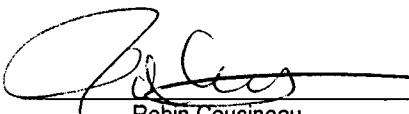
Volatile Organic Analysis:

The Method Blank Spike for batches 73571, 73573, 73583, and 73584 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

The MS/MSD RPD, Matrix Spike and/or Matrix Spike Duplicate for batches 73571, 73573, 73583, and 73584 had recoveries outside QC limits. Please refer to the applicable Form 3 for the recoveries.

2-Chloroethylvinylether did not recover in the Matrix Spike and Matrix Spike Duplicate in batches 73571, 73573, 73583, and 73584 due to acid preservation of sample. 2-Chloroethylvinylether readily decomposes under acidic conditions. The recovery of 2-Chloroethylvinylether is within QC limits in the Laboratory Control Sample. Please refer to the applicable Form 3 for the recoveries.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data has been authorized by the Laboratory Manager or his designee, as verified by the following signature.


Robin Cousineau
Quality Assurance Director

Or

Jean Revolus
Laboratory Director

11/28/18
Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-I

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	Analytical Requirements					
		VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
152140-MW-1D(ONSITE)	AD07391-001	8260C	-	-	-	-	-
152140-MW-1S(ONSITE)	AD07391-002	8260C	-	-	-	-	-
152140-MW-2A	AD07391-003	8260C	-	-	-	-	-
152140-MW-2AD	AD07391-004	8260C	-	-	-	-	-
152140-MW-3D(ONSITE)	AD07391-005	8260C	-	-	-	-	-
152140-MW-3S(ONSITE)	AD07391-006	8260C	-	-	-	-	-
152140-MW-5D	AD07391-007	8260C	-	-	-	-	-
152140-MW-5S	AD07391-008	8260C	-	-	-	-	-
152140-MW-6S	AD07391-009	8260C	-	-	-	-	-
152140-MW-14S	AD07391-010	8260C	-	-	-	-	-
152140-MW-14D	AD07391-011	8260C	-	-	-	-	-
152140-MW-15S	AD07391-012	8260C	-	-	-	-	-
152140-MW-15D	AD07391-013	8260C	-	-	-	-	-
152140-MW-15D MS	AD07391-014	8260C	-	-	-	-	-
152140-MW-15D MSD	AD07391-015	8260C	-	-	-	-	-
152140-DDC-2-PS	AD07391-016	8260C	-	-	-	-	-
152140-DDC-2-PD	AD07391-017	8260C	-	-	-	-	-
152140-DDC-4-PS	AD07391-018	8260C	-	-	-	-	-
152140-DDC-4-PD	AD07391-019	8260C	-	-	-	-	-
152140-FD-01	AD07391-020	8260C	-	-	-	-	-
152140-MW-1D(OFFSITE)	AD07391-021	8260C	-	-	-	-	-
152140-MW-1S(OFFSITE)	AD07391-022	8260C	-	-	-	-	-
152140-MW-1S(OFFSITE) MS	AD07391-023	8260C	-	-	-	-	-
152140-MW-1S(OFFSITE) MSD	AD07391-024	8260C	-	-	-	-	-
152140-DDC-07-PS	AD07391-025	8260C	-	-	-	-	-
152140-DDC-07-PD	AD07391-026	8260C	-	-	-	-	-
152140-DDC-08-PS	AD07391-027	8260C	-	-	-	-	-
152140-DDC-08-PD	AD07391-028	8260C	-	-	-	-	-
152140-DDC-09-PS	AD07391-029	8260C	-	-	-	-	-
152140-DDC-09-PD	AD07391-030	8260C	-	-	-	-	-
152140-DDC-10-PS	AD07391-031	8260C	-	-	-	-	-
152140-DDC-10-PD	AD07391-032	8260C	-	-	-	-	-
152140-FD-02	AD07391-033	8260C	-	-	-	-	-
152140-TRIP BLANK	AD07391-034	8260C	-	-	-	-	-
152140-DDC-06-PS	AD07391-035	8260C	-	-	-	-	-
152140-DDC-06-PD	AD07391-036	8260C	-	-	-	-	-
152140-DDC-05-PS	AD07391-037	8260C	-	-	-	-	-

152140-DDC-05-PD	AD07391-038	8260C	-	-	-	-	-
152140-MW-2D	AD07391-039	8260C	-	-	-	-	-
152140-MW-2S	AD07391-040	8260C	-	-	-	-	-
152140-MW-3D(OFFSITE)	AD07391-041	8260C	-	-	-	-	-
152140-MW-3S(OFFSITE)	AD07391-042	8260C	-	-	-	-	-

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

**SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES**

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
AD07391-001	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-002	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-003	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-004	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-005	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-006	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-007	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-008	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-009	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-010	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-011	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-012	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-013	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-014	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-015	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-016	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-017	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-018	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-019	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-020	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-021	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-022	Aqueous	10/23/2018	10/26/2018	N/A	11/05/2018
AD07391-023	Aqueous	10/23/2018	10/26/2018	N/A	11/05/2018
AD07391-024	Aqueous	10/23/2018	10/26/2018	N/A	11/05/2018
AD07391-025	Aqueous	10/23/2018	10/26/2018	N/A	11/03/2018
AD07391-026	Aqueous	10/23/2018	10/26/2018	N/A	11/03/2018
AD07391-027	Aqueous	10/23/2018	10/26/2018	N/A	11/03/2018
AD07391-028	Aqueous	10/23/2018	10/26/2018	N/A	11/03/2018
AD07391-029	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-030	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-031	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-032	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-033	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-034	Aqueous	10/22/2018	10/26/2018	N/A	11/04/2018
AD07391-035	Aqueous	10/22/2018	10/26/2018	N/A	11/04/2018
AD07391-036	Aqueous	10/22/2018	10/26/2018	N/A	11/04/2018
AD07391-037	Aqueous	10/22/2018	10/26/2018	N/A	11/04/2018
AD07391-038	Aqueous	10/22/2018	10/26/2018	N/A	11/04/2018
AD07391-039	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-040	Aqueous	10/23/2018	10/26/2018	N/A	11/04/2018
AD07391-041	Aqueous	10/22/2018	10/26/2018	N/A	11/04/2018
AD07391-042	Aqueous	10/22/2018	10/26/2018	N/A	11/04/2018

Reporting Limit Definitions

HC Reporting Limit Definitions/Data Qualifiers

REPORTING DEFINITIONS

DF = Dilution Factor

MDL = Method Detection Limit

RL* = Reporting Limit

ND = Not Detected

RT = Retention Time

NA = Not Applicable

**Samples with elevated Reporting Limits (RLs) as a result of a dilution may not achieve client reporting limits in some cases. The elevated RLs are unavoidable consequences of sample dilution required to quantitate target analytes that exceed the calibration range of the instrument.*

DATA QUALIFIERS

- A-** Indicates that the Tentatively Identified Compound (TIC) is suspected to be an aldol-condensation product. These compounds are by-products of acetone and methylene chloride used in the extraction process.
- B-** Indicates analyte was present in the Method Blank and sample.
- d-** For Pesticide and PCB analysis, the concentration between primary and secondary columns is greater than 40%. The lower concentration is generally reported.
- E-** Indicates the concentration exceeded the upper calibration range of the instrument.
- J-** Indicates the value is estimated because it is either a Tentatively Identified Compound (TIC) or the reported concentration is greater than the MDL but less than the RL. For samples results between the MDL and RL there is a possibility of false positives or misidentification at the quantitation levels. Additionally, the acceptance criteria for QC samples may not be met.
- R-** Retention Time is out.
- Y-** Indicates a contaminant found in the blank at less than 10% of the concentration of a contaminant found in the sample.

Data Package Summary Forms

HC Report of Analysis

Client: EA Engineering, Science & Technology
Project: NYSDEC National Heatset

HC Project #: 8102901

Sample ID: 152140-MW-1D(ONSITE)
Lab#: AD07391-001
Matrix: Aqueous

Collection Date: 10/23/2018
Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	6.6
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	1.2
Trichlorofluoromethane	1	ug/l	1.0	ND

Sample ID: 152140-MW-1D(ONSITE)**Lab#: AD07391-001****Matrix: Aqueous****Collection Date: 10/23/2018****Receipt Date: 10/26/2018**

Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-1S(ONSITE)

Lab#: AD07391-002

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-2A

Lab#: AD07391-003

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.3
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-2AD

Lab#: AD07391-004

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.2
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	1.2
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-3D(ONSITE)

Lab#: AD07391-005

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	6.4
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-3S(ONSITE)

Collection Date: 10/23/2018

Lab#: AD07391-006

Receipt Date: 10/26/2018

Matrix: Aqueous

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	2.7
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	3.3
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-5D

Lab#: AD07391-007

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	2.5
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	160
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	3.6
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-5S

Lab#: AD07391-008

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	1.3
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.6
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-6S

Lab#: AD07391-009

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.2
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-14S

Lab#: AD07391-010

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	37
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-14D

Lab#: AD07391-011

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.9
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-15S

Lab#: AD07391-012

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	33
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-15D

Lab#: AD07391-013

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	24
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-15D MS

Lab#: AD07391-014

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	14
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	18
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	18
1,1,2-Trichloroethane	1	ug/l	1.0	21
1,1-Dichloroethane	1	ug/l	1.0	16
1,1-Dichloroethene	1	ug/l	1.0	17
1,2,4-Trichlorobenzene	1	ug/l	1.0	15
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	16
1,2-Dibromoethane	1	ug/l	1.0	16
1,2-Dichlorobenzene	1	ug/l	1.0	15
1,2-Dichloroethane	1	ug/l	0.50	19
1,2-Dichloropropane	1	ug/l	1.0	20
1,3-Dichlorobenzene	1	ug/l	1.0	17
1,4-Dichlorobenzene	1	ug/l	1.0	17
2-Butanone	1	ug/l	1.0	15
2-Hexanone	1	ug/l	1.0	18
4-Methyl-2-pentanone	1	ug/l	1.0	18
Acetone	1	ug/l	5.0	78
Benzene	1	ug/l	0.50	20
Bromodichloromethane	1	ug/l	1.0	17
Bromoform	1	ug/l	1.0	15
Bromomethane	1	ug/l	1.0	18
Carbon disulfide	1	ug/l	1.0	16
Carbon tetrachloride	1	ug/l	1.0	16
Chlorobenzene	1	ug/l	1.0	16
Chloroethane	1	ug/l	1.0	20
Chloroform	1	ug/l	1.0	15
Chloromethane	1	ug/l	1.0	26
cis-1,2-Dichloroethene	1	ug/l	1.0	17
cis-1,3-Dichloropropene	1	ug/l	1.0	17
Cyclohexane	1	ug/l	1.0	18
Dibromochloromethane	1	ug/l	1.0	15
Dichlorodifluoromethane	1	ug/l	1.0	22
Ethylbenzene	1	ug/l	1.0	18
Isopropylbenzene	1	ug/l	1.0	18
m&p-Xylenes	1	ug/l	1.0	36
Methyl Acetate	1	ug/l	1.0	15
Methylcyclohexane	1	ug/l	1.0	17
Methylene chloride	1	ug/l	1.0	18
Methyl-t-butyl ether	1	ug/l	0.50	16
o-Xylene	1	ug/l	1.0	18
Styrene	1	ug/l	1.0	19
Tetrachloroethene	1	ug/l	1.0	46
Toluene	1	ug/l	1.0	17
trans-1,2-Dichloroethene	1	ug/l	1.0	16
trans-1,3-Dichloropropene	1	ug/l	1.0	16
Trichloroethene	1	ug/l	1.0	15
Trichlorofluoromethane	1	ug/l	1.0	13
Vinyl chloride	1	ug/l	1.0	20
Xylenes (Total)	1	ug/l	1.0	54

Sample ID: 152140-MW-15D MSD

Lab#: AD07391-015

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	15
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	19
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	20
1,1,2-Trichloroethane	1	ug/l	1.0	19
1,1-Dichloroethane	1	ug/l	1.0	18
1,1-Dichloroethene	1	ug/l	1.0	18
1,2,4-Trichlorobenzene	1	ug/l	1.0	16
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	17
1,2-Dibromoethane	1	ug/l	1.0	14
1,2-Dichlorobenzene	1	ug/l	1.0	16
1,2-Dichloroethane	1	ug/l	0.50	19
1,2-Dichloropropane	1	ug/l	1.0	19
1,3-Dichlorobenzene	1	ug/l	1.0	16
1,4-Dichlorobenzene	1	ug/l	1.0	16
2-Butanone	1	ug/l	1.0	18
2-Hexanone	1	ug/l	1.0	19
4-Methyl-2-pentanone	1	ug/l	1.0	17
Acetone	1	ug/l	5.0	84
Benzene	1	ug/l	0.50	20
Bromodichloromethane	1	ug/l	1.0	17
Bromoform	1	ug/l	1.0	16
Bromomethane	1	ug/l	1.0	21
Carbon disulfide	1	ug/l	1.0	16
Carbon tetrachloride	1	ug/l	1.0	16
Chlorobenzene	1	ug/l	1.0	15
Chloroethane	1	ug/l	1.0	20
Chloroform	1	ug/l	1.0	16
Chloromethane	1	ug/l	1.0	28
cis-1,2-Dichloroethene	1	ug/l	1.0	18
cis-1,3-Dichloropropene	1	ug/l	1.0	16
Cyclohexane	1	ug/l	1.0	20
Dibromochloromethane	1	ug/l	1.0	15
Dichlorodifluoromethane	1	ug/l	1.0	25
Ethylbenzene	1	ug/l	1.0	19
Isopropylbenzene	1	ug/l	1.0	18
m&p-Xylenes	1	ug/l	1.0	36
Methyl Acetate	1	ug/l	1.0	16
Methylcyclohexane	1	ug/l	1.0	17
Methylene chloride	1	ug/l	1.0	18
Methyl-t-butyl ether	1	ug/l	0.50	16
o-Xylene	1	ug/l	1.0	18
Styrene	1	ug/l	1.0	18
Tetrachloroethene	1	ug/l	1.0	43
Toluene	1	ug/l	1.0	17
trans-1,2-Dichloroethene	1	ug/l	1.0	16
trans-1,3-Dichloropropene	1	ug/l	1.0	15
Trichloroethene	1	ug/l	1.0	16
Trichlorofluoromethane	1	ug/l	1.0	15
Vinyl chloride	1	ug/l	1.0	23
Xylenes (Total)	1	ug/l	1.0	54

Sample ID: 152140-DDC-2-PS

Lab#: AD07391-016

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	3.2
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	1.1
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-2-PD

Lab#: AD07391-017

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	3.4
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-4-PS

Lab#: AD07391-018

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	2.3
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-4-PD

Lab#: AD07391-019

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-FD-01

Lab#: AD07391-020

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	35
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-1D(OFFSITE)

Lab#: AD07391-021

Matrix: Aqueous

Collection Date: 10/24/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	20
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	76
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	8.0
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-1S(OFFSITE)

Lab#: AD07391-022

Matrix: Aqueous

Collection Date: 10/24/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.4
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-1S(OFFSITE) MS

Lab#: AD07391-023

Matrix: Aqueous

Collection Date: 10/24/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	15
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	19
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	18
1,1,2-Trichloroethane	1	ug/l	1.0	19
1,1-Dichloroethane	1	ug/l	1.0	17
1,1-Dichloroethene	1	ug/l	1.0	17
1,2,4-Trichlorobenzene	1	ug/l	1.0	16
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	16
1,2-Dibromoethane	1	ug/l	1.0	16
1,2-Dichlorobenzene	1	ug/l	1.0	16
1,2-Dichloroethane	1	ug/l	0.50	18
1,2-Dichloropropane	1	ug/l	1.0	19
1,3-Dichlorobenzene	1	ug/l	1.0	17
1,4-Dichlorobenzene	1	ug/l	1.0	16
2-Butanone	1	ug/l	1.0	17
2-Hexanone	1	ug/l	1.0	19
4-Methyl-2-pentanone	1	ug/l	1.0	18
Acetone	1	ug/l	5.0	77
Benzene	1	ug/l	0.50	20
Bromodichloromethane	1	ug/l	1.0	18
Bromoform	1	ug/l	1.0	15
Bromomethane	1	ug/l	1.0	17
Carbon disulfide	1	ug/l	1.0	16
Carbon tetrachloride	1	ug/l	1.0	16
Chlorobenzene	1	ug/l	1.0	18
Chloroethane	1	ug/l	1.0	19
Chloroform	1	ug/l	1.0	15
Chloromethane	1	ug/l	1.0	30
cis-1,2-Dichloroethene	1	ug/l	1.0	18
cis-1,3-Dichloropropene	1	ug/l	1.0	17
Cyclohexane	1	ug/l	1.0	19
Dibromochloromethane	1	ug/l	1.0	16
Dichlorodifluoromethane	1	ug/l	1.0	23
Ethylbenzene	1	ug/l	1.0	18
Isopropylbenzene	1	ug/l	1.0	18
m&p-Xylenes	1	ug/l	1.0	36
Methyl Acetate	1	ug/l	1.0	15
Methylcyclohexane	1	ug/l	1.0	18
Methylene chloride	1	ug/l	1.0	20
Methyl-4-butyl ether	1	ug/l	0.50	15
o-Xylene	1	ug/l	1.0	18
Styrene	1	ug/l	1.0	18
Tetrachloroethene	1	ug/l	1.0	22
Toluene	1	ug/l	1.0	17
trans-1,2-Dichloroethene	1	ug/l	1.0	13
trans-1,3-Dichloropropene	1	ug/l	1.0	17
Trichloroethene	1	ug/l	1.0	16
Trichlorofluoromethane	1	ug/l	1.0	13
Vinyl chloride	1	ug/l	1.0	19
Xylenes (Total)	1	ug/l	1.0	54

Sample ID: 152140-MW-1S(OFFSITE) MSD

Collection Date: 10/24/2018

Lab#: AD07391-024

Receipt Date: 10/26/2018

Matrix: Aqueous

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	16
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	18
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	19
1,1,2-Trichloroethane	1	ug/l	1.0	20
1,1-Dichloroethane	1	ug/l	1.0	18
1,1-Dichloroethene	1	ug/l	1.0	16
1,2,4-Trichlorobenzene	1	ug/l	1.0	16
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	16
1,2-Dibromoethane	1	ug/l	1.0	15
1,2-Dichlorobenzene	1	ug/l	1.0	16
1,2-Dichloroethane	1	ug/l	0.50	19
1,2-Dichloropropane	1	ug/l	1.0	20
1,3-Dichlorobenzene	1	ug/l	1.0	17
1,4-Dichlorobenzene	1	ug/l	1.0	17
2-Butanone	1	ug/l	1.0	17
2-Hexanone	1	ug/l	1.0	19
4-Methyl-2-pentanone	1	ug/l	1.0	18
Acetone	1	ug/l	5.0	75
Benzene	1	ug/l	0.50	20
Bromodichloromethane	1	ug/l	1.0	16
Bromoform	1	ug/l	1.0	16
Bromomethane	1	ug/l	1.0	18
Carbon disulfide	1	ug/l	1.0	16
Carbon tetrachloride	1	ug/l	1.0	17
Chlorobenzene	1	ug/l	1.0	17
Chloroethane	1	ug/l	1.0	20
Chloroform	1	ug/l	1.0	15
Chloromethane	1	ug/l	1.0	28
cis-1,2-Dichloroethene	1	ug/l	1.0	18
cis-1,3-Dichloropropene	1	ug/l	1.0	17
Cyclohexane	1	ug/l	1.0	19
Dibromochloromethane	1	ug/l	1.0	16
Dichlorodifluoromethane	1	ug/l	1.0	22
Ethylbenzene	1	ug/l	1.0	17
Isopropylbenzene	1	ug/l	1.0	19
m&p-Xylenes	1	ug/l	1.0	38
Methyl Acetate	1	ug/l	1.0	15
Methylcyclohexane	1	ug/l	1.0	19
Methylene chloride	1	ug/l	1.0	20
Methyl-t-butyl ether	1	ug/l	0.50	15
o-Xylene	1	ug/l	1.0	19
Styrene	1	ug/l	1.0	19
Tetrachloroethene	1	ug/l	1.0	22
Toluene	1	ug/l	1.0	17
trans-1,2-Dichloroethene	1	ug/l	1.0	17
trans-1,3-Dichloropropene	1	ug/l	1.0	17
Trichloroethene	1	ug/l	1.0	16
Trichlorofluoromethane	1	ug/l	1.0	15
Vinyl chloride	1	ug/l	1.0	20
Xylenes (Total)	1	ug/l	1.0	57

Sample ID: 152140-DDC-07-PS

Lab#: AD07391-025

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	12
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	2.4
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	3.2
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-07-PD

Lab#: AD07391-026

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	23
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	9.5
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	5.7
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-08-PS

Lab#: AD07391-027

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	7.0
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.0
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-08-PD

Lab#: AD07391-028

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	5.7
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.0
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-09-PS

Lab#: AD07391-029

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	4.0
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-09-PD

Lab#: AD07391-030

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	2.6
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	3.6
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	1.6
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.0
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	1.7
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-10-PS

Lab#: AD07391-031

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	3.4
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-10-PD

Lab#: AD07391-032

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	1.7
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-FD-02

Lab#: AD07391-033

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	20
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	78
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	8.7
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-TRIP BLANK

Lab#: AD07391-034

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-06-PS

Collection Date: 10/22/2018

Lab#: AD07391-035

Receipt Date: 10/26/2018

Matrix: Aqueous

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	6.9
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-06-PD

Lab#: AD07391-036

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	28
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	12
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	9.3
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-05-PS

Lab#: AD07391-037

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	7.8
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	1.4
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-DDC-05-PD

Lab#: AD07391-038

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	14
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	7.9
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	2.5
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-2D

Lab#: AD07391-039

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	1.6
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	3.0
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	4.1
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-2S

Lab#: AD07391-040

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	1.1
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	1.6
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-3D(OFFSITE)

Lab#: AD07391-041

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	31
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	12
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	2.4
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Sample ID: 152140-MW-3S(OFFSITE)

Lab#: AD07391-042

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dibromoethane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND
Xylenes (Total)	1	ug/l	1.0	ND

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-001

Client Id: 152140-MW-1D(ONSITE)

Data File: 3M139726.D

Analysis Date: 11/04/18 17:53

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	6.6
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.2
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487387

Total Target Concentration 7.8

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-002

Client Id: 152140-MW-1S(ONSITE)

Data File: 3M139727.D

Analysis Date: 11/04/18 18:07

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-003

Client Id: 152140-MW-2A

Data File: 3M139728.D

Analysis Date: 11/04/18 18:27

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.3
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.3

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-004

Client Id: 152140-MW-2AD

Data File: 3M139729.D

Analysis Date: 11/04/18 18:45

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.2
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.2
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 2.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-005

Client Id: 152140-MW-3D(ONSITE)

Data File: 3M139730.D

Analysis Date: 11/04/18 19:02

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	6.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-006

Client Id: 152140-MW-3S(ONSITE)

Data File: 3M139731.D

Analysis Date: 11/04/18 19:19

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	2.7
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	3.3
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-007

Client Id: 152140-MW-5D

Data File: 3M139732.D

Analysis Date: 11/04/18 19:37

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	2.5
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	160
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	3.6
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 170

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-008

Client Id: 152140-MW-5S

Data File: 3M139733.D

Analysis Date: 11/04/18 19:54

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	1.3
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.6
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487387

Total Target Concentration 2.9

ColumnID: (*) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-009

Client Id: 152140-MW-6S

Data File: 3M139734.D

Analysis Date: 11/04/18 20:11

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.2
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-010

Client Id: 152140-MW-14S

Data File: 3M139735.D

Analysis Date: 11/04/18 20:28

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	37
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 37

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-011

Client Id: 152140-MW-14D

Data File: 3M139736.D

Analysis Date: 11/04/18 20:45

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.9
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487387

Total Target Concentration 1.9

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-012

Client Id: 152140-MW-15S

Data File: 3M139737.D

Analysis Date: 11/04/18 21:02

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	33
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 33

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-013

Client Id: 152140-MW-15D

Data File: 3M139739.D

Analysis Date: 11/04/18 21:36

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	24
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 24

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-014(MS:AD07

Client Id: 152140-MW-15D MS

Data File: 3M139740.D

Analysis Date: 11/04/18 21:53

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	14	75-00-3	Chloroethane	1.0	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0	18	67-66-3	Chloroform	1.0	15
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	18	74-87-3	Chloromethane	1.0	26
79-00-5	1,1,2-Trichloroethane	1.0	21	156-59-2	cis-1,2-Dichloroethene	1.0	17
75-34-3	1,1-Dichloroethane	1.0	16	10061-01-5	cis-1,3-Dichloropropene	1.0	17
75-35-4	1,1-Dichloroethene	1.0	17	110-82-7	Cyclohexane	1.0	18
120-82-1	1,2,4-Trichlorobenzene	1.0	15	124-48-1	Dibromochloromethane	1.0	15
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	16	75-71-8	Dichlorodifluoromethane	1.0	22
106-93-4	1,2-Dibromoethane	1.0	16	100-41-4	Ethylbenzene	1.0	18
95-50-1	1,2-Dichlorobenzene	1.0	15	98-82-8	Isopropylbenzene	1.0	18
107-06-2	1,2-Dichloroethane	0.50	19	79601-23-1	m&p-Xylenes	1.0	36
78-87-5	1,2-Dichloropropane	1.0	20	79-20-9	Methyl Acetate	1.0	15
541-73-1	1,3-Dichlorobenzene	1.0	17	108-87-2	Methylcyclohexane	1.0	17
106-46-7	1,4-Dichlorobenzene	1.0	17	75-09-2	Methylene Chloride	1.0	18
78-93-3	2-Butanone	1.0	15	1634-04-4	Methyl-t-butyl ether	0.50	16
591-78-6	2-Hexanone	1.0	18	95-47-6	o-Xylene	1.0	18
108-10-1	4-Methyl-2-Pentanone	1.0	18	100-42-5	Styrene	1.0	19
67-64-1	Acetone	5.0	78	127-18-4	Tetrachloroethene	1.0	46
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	17	156-60-5	trans-1,2-Dichloroethene	1.0	16
75-25-2	Bromoform	1.0	15	10061-02-6	trans-1,3-Dichloropropene	1.0	16
74-83-9	Bromomethane	1.0	18	79-01-6	Trichloroethene	1.0	15
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	13
56-23-5	Carbon Tetrachloride	1.0	16	75-01-4	Vinyl Chloride	1.0	20
108-90-7	Chlorobenzene	1.0	16	1330-20-7	Xylenes (Total)	1.0	54

Worksheet #: 487384

Total Target Concentration 950

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-015(MSD:AD

Client Id: 152140-MW-15D MSD

Data File: 3M139741.D

Analysis Date: 11/04/18 22:10

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	15	75-00-3	Chloroethane	1.0	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0	19	67-66-3	Chloroform	1.0	16
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	20	74-87-3	Chloromethane	1.0	28
79-00-5	1,1,2-Trichloroethane	1.0	19	156-59-2	cis-1,2-Dichloroethene	1.0	18
75-34-3	1,1-Dichloroethane	1.0	18	10061-01-5	cis-1,3-Dichloropropene	1.0	16
75-35-4	1,1-Dichloroethene	1.0	18	110-82-7	Cyclohexane	1.0	20
120-82-1	1,2,4-Trichlorobenzene	1.0	16	124-48-1	Dibromochloromethane	1.0	15
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	17	75-71-8	Dichlorodifluoromethane	1.0	25
106-93-4	1,2-Dibromoethane	1.0	14	100-41-4	Ethylbenzene	1.0	19
95-50-1	1,2-Dichlorobenzene	1.0	16	98-82-8	Isopropylbenzene	1.0	18
107-06-2	1,2-Dichloroethane	0.50	19	79601-23-1	m&p-Xylenes	1.0	36
78-87-5	1,2-Dichloropropane	1.0	19	79-20-9	Methyl Acetate	1.0	16
541-73-1	1,3-Dichlorobenzene	1.0	16	108-87-2	Methylcyclohexane	1.0	17
106-46-7	1,4-Dichlorobenzene	1.0	16	75-09-2	Methylene Chloride	1.0	18
78-93-3	2-Butanone	1.0	18	1634-04-4	Methyl-t-butyl ether	0.50	16
591-78-6	2-Hexanone	1.0	19	95-47-6	o-Xylene	1.0	18
108-10-1	4-Methyl-2-Pentanone	1.0	17	100-42-5	Styrene	1.0	18
67-64-1	Acetone	5.0	84	127-18-4	Tetrachloroethene	1.0	43
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	17	156-60-5	trans-1,2-Dichloroethene	1.0	16
75-25-2	Bromoform	1.0	16	10061-02-6	trans-1,3-Dichloropropene	1.0	15
74-83-9	Bromomethane	1.0	21	79-01-6	Trichloroethene	1.0	16
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	15
56-23-5	Carbon Tetrachloride	1.0	16	75-01-4	Vinyl Chloride	1.0	23
108-90-7	Chlorobenzene	1.0	15	1330-20-7	Xylenes (Total)	1.0	54

Worksheet #: 487384

Total Target Concentration 980

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-016

Client Id: 152140-DDC-2-PS

Data File: 3M139687.D

Analysis Date: 11/04/18 08:13

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	3.2
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.1
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 4.3

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-017

Client Id: 152140-DDC-2-PD

Data File: 3M139686.D

Analysis Date: 11/04/18 07:56

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	3.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 3.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-018

Client Id: 152140-DDC-4-PS

Data File: 3M139685.D

Analysis Date: 11/04/18 07:39

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	2.3
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 2.3

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-019

Client Id: 152140-DDC-4-PD

Data File: 3M139684.D

Analysis Date: 11/04/18 07:22

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-020
Client Id: 152140-FD-01
Data File: 3M139683.D
Analysis Date: 11/04/18 07:04
Date Rec/Extracted: 10/26/18-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethane	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	35
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 35

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-021

Client Id: 152140-MW-1D(OFFSITE)

Data File: 3M139682.D

Analysis Date: 11/04/18 06:47

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	20
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	76
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-8	Trichloroethene	1.0	8.0
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 100

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-022

Client Id: 152140-MW-1S(OFFSITE)

Data File: 3M139751.D

Analysis Date: 11/05/18 01:01

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration useu

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-023(MS:AD07

Client Id: 152140-MW-1S(OFFSITE)

Data File: 3M139753.D

Analysis Date: 11/05/18 01:36

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	15	75-00-3	Chloroethane	1.0	19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	19	67-66-3	Chloroform	1.0	15
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	18	74-87-3	Chloromethane	1.0	30
79-00-5	1,1,2-Trichloroethane	1.0	19	156-59-2	cis-1,2-Dichloroethene	1.0	18
75-34-3	1,1-Dichloroethane	1.0	17	10061-01-5	cis-1,3-Dichloropropene	1.0	17
75-35-4	1,1-Dichloroethene	1.0	17	110-82-7	Cyclohexane	1.0	19
120-82-1	1,2,4-Trichlorobenzene	1.0	16	124-48-1	Dibromochloromethane	1.0	16
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	16	75-71-8	Dichlorodifluoromethane	1.0	23
106-93-4	1,2-Dibromoethane	1.0	16	100-41-4	Ethylbenzene	1.0	18
95-50-1	1,2-Dichlorobenzene	1.0	16	98-82-8	Isopropylbenzene	1.0	18
107-06-2	1,2-Dichloroethane	0.50	18	79601-23-1	m&p-Xylenes	1.0	36
78-87-5	1,2-Dichloropropane	1.0	19	79-20-9	Methyl Acetate	1.0	15
541-73-1	1,3-Dichlorobenzene	1.0	17	108-87-2	Methylcyclohexane	1.0	18
106-46-7	1,4-Dichlorobenzene	1.0	16	75-09-2	Methylene Chloride	1.0	20
78-93-3	2-Butanone	1.0	17	1634-04-4	Methyl-t-butyl ether	0.50	15
591-78-6	2-Hexanone	1.0	19	95-47-6	o-Xylene	1.0	18
108-10-1	4-Methyl-2-Pentanone	1.0	18	100-42-5	Styrene	1.0	18
67-64-1	Acetone	5.0	77	127-18-4	Tetrachloroethene	1.0	22
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	18	156-60-5	trans-1,2-Dichloroethene	1.0	13
75-25-2	Bromoform	1.0	15	10061-02-6	trans-1,3-Dichloropropene	1.0	17
74-83-9	Bromomethane	1.0	17	79-01-6	Trichloroethene	1.0	16
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	13
56-23-5	Carbon Tetrachloride	1.0	16	75-01-4	Vinyl Chloride	1.0	19
108-90-7	Chlorobenzene	1.0	18	1330-20-7	Xylenes (Total)	1.0	54

Worksheet #: 487384

Total Target Concentration 940

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-024(MSD:AD

Client Id: 152140-MW-1S(OFFSITE)

Data File: 3M139754.D

Analysis Date: 11/05/18 01:52

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	16	75-00-3	Chloroethane	1.0	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0	18	67-66-3	Chloroform	1.0	15
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	19	74-87-3	Chloromethane	1.0	28
79-00-5	1,1,2-Trichloroethane	1.0	20	156-59-2	cis-1,2-Dichloroethene	1.0	18
75-34-3	1,1-Dichloroethane	1.0	18	10061-01-5	cis-1,3-Dichloropropene	1.0	17
75-35-4	1,1-Dichloroethene	1.0	16	110-82-7	Cyclohexane	1.0	19
120-82-1	1,2,4-Trichlorobenzene	1.0	16	124-48-1	Dibromochloromethane	1.0	16
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	16	75-71-8	Dichlorodifluoromethane	1.0	22
106-93-4	1,2-Dibromoethane	1.0	15	100-41-4	Ethylbenzene	1.0	17
95-50-1	1,2-Dichlorobenzene	1.0	16	98-82-8	Isopropylbenzene	1.0	19
107-06-2	1,2-Dichloroethane	0.50	19	79601-23-1	m&p-Xylenes	1.0	38
78-87-5	1,2-Dichloropropane	1.0	20	79-20-9	Methyl Acetate	1.0	15
541-73-1	1,3-Dichlorobenzene	1.0	17	108-87-2	Methylcyclohexane	1.0	19
106-46-7	1,4-Dichlorobenzene	1.0	17	75-09-2	Methylene Chloride	1.0	20
78-93-3	2-Butanone	1.0	17	1634-04-4	Methyl-t-butyl ether	0.50	15
591-78-6	2-Hexanone	1.0	19	95-47-6	o-Xylene	1.0	19
108-10-1	4-Methyl-2-Pentanone	1.0	18	100-42-5	Styrene	1.0	19
67-64-1	Acetone	5.0	75	127-18-4	Tetrachloroethene	1.0	22
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	16	156-60-5	trans-1,2-Dichloroethene	1.0	17
75-25-2	Bromoform	1.0	16	10061-02-6	trans-1,3-Dichloropropene	1.0	17
74-83-9	Bromomethane	1.0	18	79-01-6	Trichloroethene	1.0	16
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	15
56-23-5	Carbon Tetrachloride	1.0	17	75-01-4	Vinyl Chloride	1.0	20
108-90-7	Chlorobenzene	1.0	17	1330-20-7	Xylenes (Total)	1.0	57

Worksheet #: 487384

Total Target Concentration 950

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-025

Client Id: 152140-DDC-07-PS

Data File: 3M139655.D

Analysis Date: 11/03/18 23:06

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	12
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	2.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	3.2
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 18

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-026

Client Id: 152140-DDC-07-PD

Data File: 3M139656.D

Analysis Date: 11/03/18 23:20

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	23
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	9.5
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	5.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 38

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-027

Client Id: 152140-DDC-08-PS

Data File: 3M139657.D

Analysis Date: 11/03/18 23:38

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	7.0
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.0
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 8

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-028

Client Id: 152140-DDC-08-PD

Data File: 3M139658.D

Analysis Date: 11/03/18 23:55

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	5.7
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.0
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used.

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-029

Client Id: 152140-DDC-09-PS

Data File: 3M139659.D

Analysis Date: 11/04/18 00:15

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	4.0
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-030

Client Id: 152140-DDC-09-PD

Data File: 3M139660.D

Analysis Date: 11/04/18 00:32

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	3.6
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	1.6
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.0
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	2.6	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 10

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-031

Client Id: 152140-DDC-10-PS

Data File: 3M139661.D

Analysis Date: 11/04/18 00:49

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	3.4
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 3.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-032

Client Id: 152140-DDC-10-PD

Data File: 3M139662.D

Analysis Date: 11/04/18 01:06

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-033

Client Id: 152140-FD-02

Data File: 3M139725.D

Analysis Date: 11/04/18 17:36

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Gas #	Compound	RL	Conc	Gas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	20
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	78
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	8.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 110

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-034

Client Id: 152140-TRIP BLANK

Data File: 3M139722.D

Analysis Date: 11/04/18 16:44

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-035

Client Id: 152140-DDC-06-PS

Data File: 3M139663.D

Analysis Date: 11/04/18 01:23

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	6.9
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6.9

ColumnID: (*) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration uses

Chlordane (Total) is sum of *a*-Chlordane and *y*-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-036

Client Id: 152140-DDC-06-PD

Data File: 3M139664.D

Analysis Date: 11/04/18 01:40

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	28
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	12
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	9.3
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 49

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-037

Client Id: 152140-DDC-05-PS

Data File: 3M139665.D

Analysis Date: 11/04/18 01:57

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	7.8
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 9.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-038

Client Id: 152140-DDC-05-PD

Data File: 3M139677.D

Analysis Date: 11/04/18 05:21

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	14
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	7.9
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	2.5
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 24

ColumnID: (*) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration uses

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-039

Client Id: 152140-MW-2D

Data File: 3M139678.D

Analysis Date: 11/04/18 05:38

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	3.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	4.1
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	1.6	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 8.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-040

Client Id: 152140-MW-2S

Data File: 3M139679.D

Analysis Date: 11/04/18 05:55

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	1.1
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	1.6
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 2.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-041

Client Id: 152140-MW-3D(OFFSITE)

Data File: 3M139680.D

Analysis Date: 11/04/18 06:12

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	31
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	12
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	2.4
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 45

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-042

Client Id: 152140-MW-3S(OFFSITE)

Data File: 3M139681.D

Analysis Date: 11/04/18 06:29

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

Chain of Custody Forms

HamptonClarke-Veritech Laboratories 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004 Ph: 800-426-9992 973-244-9770 Fax: 973-244-9787 973-439-1488 Service Center: 137-D Galther Drive, Mount Laurel, New Jersey 08054 Ph (Service Center): 856-780-6067 Fax: 856-780-6066 NE/LAC/NJ #07071 PA #68-00463 NY #11408 CT #PH-0671 KY #90124				HC-V CHAIN OF CUSTODY RECORD		Project # (Lab Use Only) 8102901 Page 1 of 4	
Customer Information 1a) Customer: EA Engineering Address: 6712 Brooklawn Parkway, Suite 104 Syracuse, NY 13211 1b) Email/Calfax/Ph: ecummings@eaest.com 1c) Send Invoice to: northeastap@eaest.com 1d) Send Report to: jhayward@eaest.com; ecummings@eaest.com				Project Information 2a) Project: National Heatset Printing Site 2b) Project Mgr: Jim Hayward 2c) Project Location (City/State): Babylon, NY 2d) Quote/PO # (if Applicable): 1490716			
FOR LAB USE ONLY Batch # AB07391 Matrix Codes: DW - Drinking Water S - Soil A - Air GW - Ground Water SL - Sludge WW - Waste Water OL - Oil OT - Other (please specify under item 9, Comments)				Check if Contingent ==> Sample Type: ☐ Composite (C) ☒ Grab (G) VOC 8260C			
Lab Sample # 4) Customer Sample ID 5) Matrix 6) Sample Date Time 7) Analysis Request				8) # of Bottles None ☐ MeOH ☐ En Core ☐ NaOH ☐ HCl ☐ H2SO4 ☐ HNO3 ☐ Other: _____ 9) Comments			
10) Relinquished by: STEPHEN S. LOYCE Accepted by: UPS Date: 10/21/18 Time: 9:36				Comments, Notes, Special Requirements, HAZARDS Note: Check if low-level groundwater methods required to meet current standards in NJ or PA: ☐ BN or BNA (8270C SIM) ☐ VOC (8260B SIM or 8011) ☐ Metals (ICP-MS 200.8 or 6020) ☐ Metals-Soil (ICP-MS 6020 for Be & Ag) Note: Check if applicable: ☐ Project-Specific Reporting Limits ☐ High Contaminant Concentrations ☐ NUSRP Project 11) Sampler (print name): STEPHEN S. LOYCE Date: 10/24/18 Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$50/sample will be assessed for storage should sample not be activated for any analysis.			
Additional Notes STEPHEN S. LOYCE UPS 10/26/18 9:36 Samples: 550/6000 eaest.com				Cooler Temperature: 2-6			

Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY		Check If Contingent ==>		7) Analysis Request		Check If Contingent	
Batch #	Matrix Codes DW - Drinking Water GW - Ground Water WW - Waste Water OT - Other (please specify under item 9, Comments)	S - Soil SL - Sludge OL - Oil	A - Air	Sample Type	VOC 8260C	# of Bottles	
Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	Composite (C) Grab (G)	None	MeOH	En
011	152140-MW-14D	GW	10/23/18	X	X		
012	152140-MW-15S	GW	10/23/18	X	X		
013/04/05	152140-MW-15D	GW	10/23/18	X	X		
016	152140-DDC-2-PS	GW	10/23/18	X	X		
017	152140-DDC-2-PD	GW	10/23/18	X	X		
018	152140-DDC-4-PS	GW	10/23/18	X	X		
019	152140-DDC-4-PD	GW	10/23/18	X	X		
020	152140-FD-01	GW	10/23/18	X	X		
021	152140-MW-1D(Offsite)	GW	10/24/18	X	X		
022/02/04	152140-MW-1S(Offsite)	GW	10/24/18	X	X		
Relinquished by:		Accepted by:		Date	Time	Comments, Notes, Special Requirements, HAZARDS	
Steven S. O. M. A. - 11/1/18		UPS		10/23/18		Note: Check if low-level groundwater methods required to meet current standards in NJ or PA. BN or BNA (8270C SIM) VOC (8260B SIM or 8011) Metals (ICP-MS 200.8 or 6020) Metals-Soil (ICP-MS 6020 for Be & Ag)	
CPS		K. O. P. C. U. W.		10/24/18	9:30	Project-Specific Reporting Limits High Contaminant Concentrations NJ LSRP Project	
Additional Notes						11) Sampler (print name): Steven S. O. M. A. Date: 10/24/18	
						Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$55/sample will be assessed for storage should sample not be activated for any analysis.	
						Cooler Temperature 12-6	

HamptonClarke-Veritech Laboratories 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004 Ph: 800-426-8992 973-244-9770 Fax: 973-244-9787 973-439-1468 Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054 PH (Service Center): 856-780-6057 Fax: 856-780-6056 NELAC/NJ #07071 PA #68-00463 NY #11408 CT #PH-0671 KY #90124				HC-V HAMPTONCLARKE-VERITECH LABORATORIES CHAIN OF CUSTODY RECORD				Project/Lab Use Only 8/02/96		Page 3 of 4			
Customer Information 1a) Customer: EA Engineering Address: 6712 Brooklawn Parkway, Suite 104 Syracuse, NY 13211 1b) Email/Ce/fax/Ph: ecummings@eaest.com 1c) Send Invoice to: northeastap@eaest.com 1d) Send Report to: jhayward@eaest.com; ecummings@eaest.com				Project Information 2a) Project: National Heisel Printing Site 2b) Project Mgr: Jim Hayward 2c) Project Location (City/State): Babylon, NY 2d) Quote/PO # (if Applicable): 1490716				3) Reporting Requirements (Please Circle) Turnaround 24 Hours (100%) 48 Hours (75%) 72 Hours (50%) 4 Days (35%, TPH) 1 Week (25%, EPH) 10 Days (10%) 2 Weeks Other:		Report Type Data Summary Waste Red - NJ / NY / PA CLP Full / Category B Category A Other:		Electronic Deliv. HazMat/CSV EQUIS EPA Region 2 or 5 Excel - NJ Regulatory Excel - NY Regulatory Excel - PA Regulatory PDF Other:	
FOR LAB USE ONLY													
Matrix Codes DW - Drinking Water S - Soil A - Air GW - Ground Water SL - Sludge WW - Waste Water OL - Oil OT - Other (please specify under item 9, Comments)													
Batch # AB2391													
Check if Contingent ==>													
5) Matrix Date Time Sample													
6) Sample													
Composite (C) Grab (G) VOC 8260C													
7) Analysis Request													
8) # of Bottles None MeOH En Core NaOH HCl H2SO4 HNO3 Other:													
9) Comments													
10) Relinquished by: Accepted by: Date Time													
11) Sampler (print name): TERREN S. COVICK Date: 10/24/18													
Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$3/sample will be assessed for storage should sample not be activated for any analysis.													

HamptonClarke-Veritech Laboratories 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004 Ph: 800-426-9992 973-244-9770 Fax: 973-244-9787 973-439-1456 Service Center: 137-D Gaffner Drive, Mount Laurel, New Jersey 08054 Ph (Service Center): 856-780-6067 Fax: 856-780-6056 NELAC/NU #07071 PA #68-00463 NY #11408 CT #PH-0671 KY #90124				HC-V CHAIN OF CUSTODY RECORD		Project/Lab Use Only 8102901		Page 4 of 4					
Customer Information 1a) Customer: EA Engineering Address: 6712 Brooklawn Parkway, Suite 104 Syracuse, NY 13211 1b) Email: ealr@ea.com ecummings@ea.com 1c) Send Invoice to: northeastap@ea.com 1d) Send Report to: jhayward@ea.com, ecummings@ea.com				Project Information 2a) Project: National Heist Printing Site 2b) Project Mgr: Jim Hayward 2c) Project Location (City/State): Babylon, NY 2d) Quote/PO # (if Applicable): 1490716				3) Reporting Requirements (Please Circle) Turnaround: 24 Hours (100%) 48 Hours (75%) 72 Hours (50%) 4 Days (35%, TP) 1 Week (25%, EP) 10 Days (10%) 2 Weeks Other:		Report Type: Data Summary Waste Red - NJ / NY / PA CLP Full / Category B Category A Other:		Electronic Deliv. HazSlid/CSV EQUIS 4-FW / EZ / NYS EQUIS EPA Region 2 or 5 Excel - NJ Regulatory Excel - NY Regulatory Excel - PA Regulatory PDF Other:	
FOR LAB USE ONLY Batch # <u>AD7391</u> Matrix Codes: DW - Drinking Water S - Soil A - Air GW - Ground Water SL - Sludge MW - Waste Water OL - Oil OT - Other (please specify under item 9, Comments)													
4) Customer Sample ID		5) Matrix Date Time		6) Sample Composite (C) Grab (G)		7) Analysis Request							
Lab Sample #	4) Customer Sample ID	5) Matrix	Date	Time	Composite (C)	Grab (G)	VOC 8260C						
035	152140-DDC-06-PS	GW	10/22/18	1602	X	X							
036	152140-DDC-06-PD	GW	10/22/18	1602	X	X							
037	152140-DDC-05-PS	GW	10/22/18	1631	X	X							
038	152140-DDC-05-PD	GW	10/22/18	1658	X	X							
039	152140-MW-2D	GW	10/23/18	1610	X	X							
040	152140-MW-2S	GW	10/23/18	1612	X	X							
041	152140-MW-3D(offsite)	GW	10/22/18	1535	X	X							
042	152140-MW-3S(offsite)	GW	10/22/18	1538	X	X							
10) Relinquished by: _____ Accepted by: _____ Date: _____ Time: _____													
Comments, Notes, Special Requirements, HAZARDS Note: Check if low-level groundwater methods required to meet current standards in NJ or PA: BN or BNA (8270C SIM) VOC (8260B SIM or 8011) Metals (ICP-MS 200.8 or 6020) Metals-Soil (ICP-MS 6020 for Be & Ag) Note: Check if applicable: Project-Specific Reporting Limits High Contaminant Concentrations NJ LSRP Project 11) Sampler (print name): <u>Stephen Sadovnik</u> Date: <u>10/24/18</u> Please note NUMBERED items. If not completed your analytical work may be delayed. A fee of \$35/sample will be assessed for storage should sample not be analyzed for any analysis.													

CONDITION UPON RECEIPT

Batch Number AD07391

Entered By: maxwell

Date Entered 10/29/2018 9:24:00 AM

- 1 Yes Is there a corresponding COC included with the samples?
- 2 Yes Are the samples in a container such as a cooler or Ice chest?
- 3 Yes Are the COC seals intact?
- 4 T0054 <--- Thermometer ID. Please specify the Temperature inside the container (in degC).
2.6
- 5 Yes Are the samples refrigerated (where required)/have they arrived on ice?
- 6 Yes Are the samples within the holding times for the parameters listed on the COC? IF no, list parameters and samples:
- 7 Yes Are all of the sample bottles intact? If no, specify sample numbers broken/leaking
- 8 Yes Are all of the sample labels or numbers legible? If no specify:
- 9 Yes Do the contents match the COC? If no, specify
- 10 Yes Is there enough sample sent for the analyses listed on the COC? If no, specify:
- 11 Yes Are samples preserved correctly?
- 12 Yes Was temperature blank present (Place comment below if not)? If not was temperature of samples verified?
- 13 Yes Other comments ...Specify
TRIP BLANK DATE 10/17/18
- 14 NA Corrective actions (Specify item number and corrective action taken).

PRESERVATION DOCUMENT

Batch Number AD07391

Entered By: maxwell

Date Entered 10/29/2018 9:37:00 AM

Lab#	Container Size	Container/Vial Check	Parameter	Preservative	Preservative Lot#	PH	pH Lot#
AD07391-001	40ML	G	VO	HCL	189699	1	HC849161
AD07391-002	40ML	G	VO	HCL	189699	1	HC849161
AD07391-003	40ML	G	VO	HCL	189699	1	HC849161
AD07391-004	40ML	G	VO	HCL	189699	1	HC849161
AD07391-005	40ML	G	VO	HCL	189699	1	HC849161
AD07391-006	40ML	G	VO	HCL	189699	1	HC849161
AD07391-007	40ML	G	VO	HCL	189699	1	HC849161
AD07391-008	40ML	G	VO	HCL	189699	1	HC849161
AD07391-009	40ML	G	VO	HCL	189699	1	HC849161
AD07391-010	40ML	G	VO	HCL	189699	1	HC849161
AD07391-011	40ML	G	VO	HCL	189699	1	HC849161
AD07391-012	40ML	G	VO	HCL	189699	1	HC849161
AD07391-013	40ML	G	VO	HCL	189699	1	HC849161
AD07391-014	40ML	G	VO	HCL	189699	1	HC849161
AD07391-015	40ML	G	VO	HCL	189699	1	HC849161
AD07391-016	40ML	G	VO	HCL	189699	1	HC849161
AD07391-017	40ML	G	VO	HCL	189699	1	HC849161
AD07391-018	40ML	G	VO	HCL	189699	1	HC849161
AD07391-019	40ML	G	VO	HCL	189699	1	HC849161
AD07391-020	40ML	G	VO	HCL	189699	1	HC849161
AD07391-021	40ML	G	VO	HCL	189699	1	HC849161
AD07391-022	40ML	G	VO	HCL	189699	1	HC849161
AD07391-023	40ML	G	VO	HCL	189699	1	HC849161
AD07391-024	40ML	G	VO	HCL	189699	1	HC849161
AD07391-025	40ML	G	VO	HCL	189699	1	HC849161
AD07391-026	40ML	G	VO	HCL	189699	1	HC849161
AD07391-027	40ML	G	VO	HCL	189699	1	HC849161
AD07391-028	40ML	G	VO	HCL	189699	1	HC849161
AD07391-029	40ML	G	VO	HCL	189699	1	HC849161
AD07391-030	40ML	G	VO	HCL	189699	1	HC849161
AD07391-031	40ML	G	VO	HCL	189699	1	HC849161
AD07391-032	40ML	G	VO	HCL	189699	1	HC849161
AD07391-033	40ML	G	VO	HCL	189699	1	HC849161
AD07391-034	40ML	G	VO	HCL	189699	1	HC849161
AD07391-035	40ML	G	VO	HCL	189699	1	HC849161
AD07391-036	40ML	G	VO	HCL	189699	1	HC849161
AD07391-037	40ML	G	VO	HCL	189699	1	HC849161
AD07391-038	40ML	G	VO	HCL	189699	1	HC849161
AD07391-039	40ML	G	VO	HCL	189699	1	HC849161
AD07391-040	40ML	G	VO	HCL	189699	1	HC849161
AD07391-041	40ML	G	VO	HCL	189699	1	HC849161
AD07391-042	40ML	G	VO	HCL	189699	1	HC849161

Internal Chain of Custody

8102901 0103

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AD07391-027	10/29/18 11:13	R31	1	A	NONE
AD07391-027	10/29/18 11:13	R31	2	A	NONE
AD07391-027	10/29/18 11:08	R31	3	A	NONE
AD07391-028	10/26/18 09:30	MAXW	0	M	Received
AD07391-028	10/29/18 09:24	MAXW	0	M	Login
AD07391-028	10/29/18 11:13	R31	1	A	NONE
AD07391-028	10/29/18 11:13	R31	2	A	NONE
AD07391-028	10/29/18 11:08	R31	3	A	NONE
AD07391-029	10/26/18 09:30	MAXW	0	M	Received
AD07391-029	10/29/18 09:24	MAXW	0	M	Login
AD07391-029	10/29/18 11:13	R31	1	A	NONE
AD07391-029	10/29/18 11:13	R31	2	A	NONE
AD07391-029	10/29/18 11:08	R31	3	A	NONE
AD07391-030	10/26/18 09:30	MAXW	0	M	Received
AD07391-030	10/29/18 09:24	MAXW	0	M	Login
AD07391-030	10/29/18 11:13	R31	1	A	NONE
AD07391-030	10/29/18 11:13	R31	2	A	NONE
AD07391-030	10/29/18 11:08	R31	3	A	NONE
AD07391-031	10/26/18 09:30	MAXW	0	M	Received
AD07391-031	10/29/18 09:24	MAXW	0	M	Login
AD07391-031	10/29/18 11:13	R31	1	A	NONE
AD07391-031	10/29/18 11:13	R31	2	A	NONE
AD07391-031	10/29/18 11:08	R31	4	A	NONE
AD07391-032	10/26/18 09:30	MAXW	0	M	Received
AD07391-032	10/29/18 09:24	MAXW	0	M	Login
AD07391-032	10/29/18 11:13	R31	1	A	NONE
AD07391-032	10/29/18 11:13	R31	2	A	NONE
AD07391-032	10/29/18 11:08	R31	3	A	NONE
AD07391-033	10/26/18 09:30	MAXW	0	M	Received
AD07391-033	10/29/18 09:24	MAXW	0	M	Login
AD07391-033	10/29/18 11:13	R31	1	A	NONE
AD07391-033	10/29/18 11:13	R31	2	A	NONE
AD07391-033	11/04/18 14:55	WP	2	A	VOA
AD07391-033	10/29/18 11:08	R31	3	A	NONE
AD07391-034	10/26/18 09:30	MAXW	0	M	Received
AD07391-034	10/29/18 09:24	MAXW	0	M	Login
AD07391-034	10/29/18 11:13	R31	1	A	NONE
AD07391-034	10/29/18 11:13	R31	2	A	NONE
AD07391-034	11/04/18 14:55	WP	2	A	VOA
AD07391-034	10/29/18 11:08	R31	3	A	NONE
AD07391-035	10/26/18 09:30	MAXW	0	M	Received
AD07391-035	10/29/18 09:24	MAXW	0	M	Login
AD07391-035	10/29/18 11:13	R31	1	A	NONE
AD07391-035	10/29/18 11:13	R31	2	A	NONE
AD07391-035	10/29/18 11:08	R31	3	A	NONE
AD07391-036	10/26/18 09:30	MAXW	0	M	Received
AD07391-036	10/29/18 09:24	MAXW	0	M	Login
AD07391-036	10/29/18 11:13	R31	1	A	NONE
AD07391-036	10/29/18 11:13	R31	2	A	NONE
AD07391-036	10/29/18 11:08	R31	3	A	NONE
AD07391-037	10/26/18 09:30	MAXW	0	M	Received
AD07391-037	10/29/18 09:24	MAXW	0	M	Login
AD07391-037	10/29/18 11:13	R31	1	A	NONE
AD07391-037	10/29/18 11:13	R31	2	A	NONE
AD07391-037	10/29/18 11:08	R31	3	A	NONE
AD07391-038	10/26/18 09:30	MAXW	0	M	Received
AD07391-038	10/29/18 09:24	MAXW	0	M	Login
AD07391-038	10/29/18 11:13	R31	1	A	NONE
AD07391-038	10/29/18 11:13	R31	2	A	NONE
AD07391-038	10/29/18 11:08	R31	3	A	NONE
AD07391-039	10/26/18 09:30	MAXW	0	M	Received
AD07391-039	10/29/18 09:24	MAXW	0	M	Login
AD07391-039	10/29/18 11:13	R31	1	A	NONE
AD07391-039	10/29/18 11:13	R31	2	A	NONE
AD07391-039	10/29/18 11:08	R31	3	A	NONE
AD07391-040	10/26/18 09:30	MAXW	0	M	Received
AD07391-040	10/29/18 09:24	MAXW	0	M	Login
AD07391-040	10/29/18 11:13	R31	1	A	NONE
AD07391-040	10/29/18 11:13	R31	2	A	NONE
AD07391-040	10/29/18 11:08	R31	3	A	NONE
AD07391-041	10/26/18 09:30	MAXW	0	M	Received
AD07391-041	10/29/18 09:24	MAXW	0	M	Login
AD07391-041	10/29/18 11:13	R31	1	A	NONE
AD07391-041	10/29/18 11:13	R31	2	A	NONE
AD07391-041	10/29/18 11:08	R31	3	A	NONE

Lab#:	DateTime:	Loc or User	Bot Nu	A/ M	Analysis
AD07391-042	10/26/18 09:30	MAXW	0	M	Received
AD07391-042	10/29/18 09:24	MAXW	0	M	Login
AD07391-042	10/29/18 11:13	R31	1	A	NONE
AD07391-042	10/29/18 11:13	R31	2	A	NONE
AD07391-042	10/29/18 11:08	R31	3	A	NONE

Samples marked as received are stored in coolers or refrigerator R12, or R24 at 4 deg C until Login

GC/MS Volatile Data

GC/MS Volatile Data
QC Summary

FORM2

Surrogate Recovery

Method: EPA 8260C

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column1 S3 Recov	Column1 S4 Recov	Column0 S5 Recov	Column0 S6 Recov
3M139633.D	DAILY BLANK	A	11/03/18 16:44	1		96	99	99	100		
3M139672.D	DAILY BLANK	A	11/04/18 03:56	1		107	107	95	102		
3M139674.D	AD07391-040(MS)	A	11/04/18 04:30	1		95	97	100	98		
3M139675.D	AD07391-040(MSD)	A	11/04/18 04:45	1		99	96	102	99		
3M139708.D	DAILY BLANK	A	11/04/18 13:44	1		97	99	101	104		
3M139750.D	DAILY BLANK	A	11/05/18 00:44	1		95	103	99	98		
3M139726.D	AD07391-001	A	11/04/18 17:53	1		98	101	97	99		
3M139727.D	AD07391-002	A	11/04/18 18:07	1		100	101	97	104		
3M139728.D	AD07391-003	A	11/04/18 18:27	1		103	92	100	103		
3M139729.D	AD07391-004	A	11/04/18 18:45	1		99	103	103	107		
3M139730.D	AD07391-005	A	11/04/18 19:02	1		100	97	94	99		
3M139731.D	AD07391-006	A	11/04/18 19:19	1		102	103	96	101		
3M139732.D	AD07391-007	A	11/04/18 19:37	1		101	105	99	103		
3M139733.D	AD07391-008	A	11/04/18 19:54	1		104	97	101	101		
3M139734.D	AD07391-009	A	11/04/18 20:11	1		100	99	98	105		
3M139735.D	AD07391-010	A	11/04/18 20:28	1		104	113	99	100		
3M139736.D	AD07391-011	A	11/04/18 20:45	1		102	97	98	103		
3M139737.D	AD07391-012	A	11/04/18 21:02	1		98	97	98	102		
3M139739.D	AD07391-013	A	11/04/18 21:36	1		102	92	97	98		
3M139740.D	AD07391-014(MS:AD07	A	11/04/18 21:53	1		101	97	103	96		
3M139741.D	AD07391-015(MSD:AD0	A	11/04/18 22:10	1		97	92	96	96		
3M139687.D	AD07391-016	A	11/04/18 08:13	1		97	95	94	103		
3M139686.D	AD07391-017	A	11/04/18 07:56	1		107	107	97	101		
3M139685.D	AD07391-018	A	11/04/18 07:39	1		97	96	97	103		
3M139684.D	AD07391-019	A	11/04/18 07:22	1		97	96	100	99		
3M139683.D	AD07391-020	A	11/04/18 07:04	1		101	96	97	96		
3M139682.D	AD07391-021	A	11/04/18 06:47	1		100	96	95	105		
3M139751.D	AD07391-022	A	11/05/18 01:01	1		97	103	100	97		
3M139753.D	AD07391-023(MS:AD07	A	11/05/18 01:36	1		95	97	103	96		
3M139754.D	AD07391-024(MSD:AD0	A	11/05/18 01:52	1		97	96	100	98		
3M139655.D	AD07391-025	A	11/03/18 23:06	1		101	104	99	100		
3M139656.D	AD07391-026	A	11/03/18 23:20	1		102	92	96	107		
3M139657.D	AD07391-027	A	11/03/18 23:38	1		100	96	100	101		
3M139658.D	AD07391-028	A	11/03/18 23:55	1		101	103	98	97		
3M139659.D	AD07391-029	A	11/04/18 00:15	1		101	95	95	101		
3M139660.D	AD07391-030	A	11/04/18 00:32	1		102	105	98	104		
3M139661.D	AD07391-031	A	11/04/18 00:49	1		100	99	98	100		
3M139662.D	AD07391-032	A	11/04/18 01:06	1		106	93	98	100		
3M139725.D	AD07391-033	A	11/04/18 17:36	1		94	102	98	98		
3M139722.D	AD07391-034	A	11/04/18 16:44	1		98	102	106	99		
3M139663.D	AD07391-035	A	11/04/18 01:23	1		98	100	98	105		
3M139664.D	AD07391-036	A	11/04/18 01:40	1		99	102	98	103		
3M139665.D	AD07391-037	A	11/04/18 01:57	1		102	99	103	99		
3M139677.D	AD07391-038	A	11/04/18 05:21	1		104	104	100	101		
3M139678.D	AD07391-039	A	11/04/18 05:38	1		102	96	99	103		
3M139679.D	AD07391-040	A	11/04/18 05:55	1		100	102	95	100		
3M139680.D	AD07391-041	A	11/04/18 06:12	1		104	96	100	100		
3M139681.D	AD07391-042	A	11/04/18 06:29	1		98	101	103	101		
3M139634.D	MBS73573	A	11/03/18 17:05	1		101	94	99	100		

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8260C

Aqueous Laboratory Limits

Compound	Spike Amt	Limits
S1=Dibromofluoromethane	30	73-131
S2=1,2-Dichloroethane-d4	30	78-128
S3=Toluene-d8	30	79-111
S4=Bromofluorobenzene	30	82-112

FORM2

Surrogate Recovery

Method: EPA 8260C

Dfile	Sample#	Matrix	Date/Time	Surr Dil	Dilute Out Flag	Column1 S1 Recov	Column1 S2 Recov	Column1 S3 Recov	Column1 S4 Recov	Column0 S5 Recov	Column0 S6 Recov
3M139640.D	AD07350-005(MS)	A	11/03/18 18:47	1		91	95	102	97		
3M139641.D	AD07350-005(MSD)	A	11/03/18 19:05	1		96	92	101	98		
3M139654.D	AD07350-005	A	11/03/18 22:48	1		94	92	99	99		
3M139673.D	MBS73571	A	11/04/18 04:13	1		98	95	100	97		
3M139742.D	MBS73583	A	11/04/18 22:24	1		95	93	97	99		
3M139752.D	MBS73584	A	11/05/18 01:18	1		99	99	100	95		

Flags: SD=Surrogate diluted out

*=Surrogate out

Method: EPA 8260C

Aqueous Laboratory Limits

Compound	Spike Amt	Limits
S1=Dibromofluoromethane	30	73-131
S2=1,2-Dichloroethane-d4	30	78-128
S3=Toluene-d8	30	79-111
S4=Bromofluorobenzene	30	82-112

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73571

8102901 0108

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139673.D		MBS73571		11/4/2018 4:13:00 AM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	39.7611	0	20	199*	50	150
Dichlorodifluoromethane	1	26.5927	0	20	133	50	150
Chloromethane	1	31.9461	0	20	160*	50	150
Bromomethane	1	24.7886	0	20	124	50	150
Vinyl Chloride	1	21.8583	0	20	109	50	150
Chloroethane	1	23.999	0	20	120	50	150
Trichlorofluoromethane	1	18.1668	0	20	91	50	150
Ethyl ether	1	14.1472	0	20	71	50	150
Furan	1	16.3972	0	20	82	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	21.3029	0	20	107	50	150
Methylene Chloride	1	21.1915	0	20	106	70	130
Acrolein	1	75.7498	0	100	76	50	150
Acrylonitrile	1	18.4825	0	20	92	50	150
Iodomethane	1	18.3555	0	20	92	50	150
Acetone	1	94.0495	0	100	94	50	150
Carbon Disulfide	1	18.5297	0	20	93	50	150
t-Butyl Alcohol	1	83.2546	0	100	83	50	150
n-Hexane	1	19.8714	0	20	99	70	130
Di-isopropyl-ether	1	21.5375	0	20	108	70	130
1,1-Dichloroethene	1	19.204	0	20	96	70	130
Methyl Acetate	1	17.795	0	20	89	50	150
Methyl-t-butyl ether	1	17.7759	0	20	89	70	130
1,1-Dichloroethane	1	19.8674	0	20	99	70	130
trans-1,2-Dichloroethene	1	18.7968	0	20	94	70	130
Ethyl-t-butyl ether	1	19.0617	0	20	95	70	130
cis-1,2-Dichloroethene	1	19.9953	0	20	100	70	130
Bromochloromethane	1	19.3377	0	20	97	70	130
2,2-Dichloropropane	1	18.322	0	20	92	70	130
Ethyl acetate	1	19.2898	0	20	96	50	150
1,4-Dioxane	1	814.2095	0	1000	81	50	150
1,1-Dichloropropene	1	20.8777	0	20	104	70	130
Chloroform	1	17.0536	0	20	85	70	130
Cyclohexane	1	21.1006	0	20	106	70	130
1,2-Dichloroethane	1	20.4739	0	20	102	70	130
2-Butanone	1	19.727	0	20	99	50	150
1,1,1-Trichloroethane	1	17.2256	0	20	86	70	130
Carbon Tetrachloride	1	18.8557	0	20	94	50	150
Vinyl Acetate	1	17.9558	0	20	90	50	150
Bromodichloromethane	1	18.7844	0	20	94	70	130
Methylcyclohexane	1	20.8104	0	20	104	70	130
Dibromomethane	1	22.7197	0	20	114	70	130
1,2-Dichloropropane	1	22.6251	0	20	113	70	130
Trichloroethene	1	19.8829	0	20	99	70	130
Benzene	1	23.0459	0	20	115	70	130
tert-Amyl methyl ether	1	18.9379	0	20	95	70	130
Iso-propylacetate	1	19.9939	0	20	100	70	130
Methyl methacrylate	1	20.2187	0	20	101	70	130
Dibromochloromethane	1	17.2826	0	20	86	70	130
2-Chloroethylvinylether	1	20.8602	0	20	104	70	130
cis-1,3-Dichloropropene	1	18.6089	0	20	93	70	130
trans-1,3-Dichloropropene	1	17.9763	0	20	90	70	130
Ethyl methacrylate	1	17.7648	0	20	89	70	130
1,1,2-Trichloroethane	1	22.1065	0	20	111	70	130
1,2-Dibromoethane	1	17.4679	0	20	87	70	130
1,3-Dichloropropane	1	22.6095	0	20	113	70	130
4-Methyl-2-Pentanone	1	18.8685	0	20	94	50	150
2-Hexanone	1	20.1388	0	20	101	50	150
Tetrachloroethene	1	24.8613	0	20	124	50	150
Toluene	1	19.324	0	20	97	70	130
1,1,1,2-Tetrachloroethane	1	22.2021	0	20	111	70	130
Chlorobenzene	1	18.4497	0	20	92	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

QC Batch: MBS73571

n-Butyl acrylate	1	19.8351	0	20	99	70	130
n-Amyl acetate	1	20.7853	0	20	104	70	130
Bromoform	1	17.7049	0	20	89	70	130
Ethylbenzene	1	19.8838	0	20	99	70	130
1,1,2,2-Tetrachloroethane	1	19.6761	0	20	98	70	130
Styrene	1	21.3224	0	20	107	70	130
m&p-Xylenes	1	41.8973	0	40	105	70	130
o-Xylene	1	21.3889	0	20	107	70	130
trans-1,4-Dichloro-2-butene	1	17.3401	0	20	87	50	150
1,3-Dichlorobenzene	1	19.075	0	20	95	70	130
1,4-Dichlorobenzene	1	17.1165	0	20	86	70	130
1,2-Dichlorobenzene	1	18.5341	0	20	93	70	130
Isopropylbenzene	1	21.0434	0	20	105	70	130
Cyclohexanone	1	106.8244	0	100	107	50	150
Camphene	1	19.4387	0	20	97	70	130
1,2,3-Trichloropropane	1	20.2019	0	20	101	70	130
2-Chlorotoluene	1	20.9441	0	20	105	70	130
p-Ethyltoluene	1	18.3576	0	20	92	70	130
4-Chlorotoluene	1	20.8174	0	20	104	70	130
n-Propylbenzene	1	20.3184	0	20	102	70	130
Bromobenzene	1	17.9538	0	20	90	70	130
1,3,5-Trimethylbenzene	1	21.1493	0	20	106	70	130
Butyl methacrylate	1	20.4641	0	20	102	70	130
t-Butylbenzene	1	19.2129	0	20	96	70	130
1,2,4-Trimethylbenzene	1	18.9074	0	20	95	70	130
sec-Butylbenzene	1	20.5049	0	20	103	70	130
4-Isopropyltoluene	1	19.9861	0	20	100	70	130
n-Butylbenzene	1	18.9421	0	20	95	70	130
p-Diethylbenzene	1	17.4424	0	20	87	70	130
1,2,4,5-Tetramethylbenzene	1	16.9099	0	20	85	70	130
1,2-Dibromo-3-Chloropropane	1	18.2998	0	20	91	50	150
Camphor	1	77.289	0	200	39	20	150
Hexachlorobutadiene	1	17.7145	0	20	89	50	150
1,2,4-Trichlorobenzene	1	17.3007	0	20	87	70	130
1,2,3-Trichlorobenzene	1	14.7547	0	20	74	70	130
Naphthalene	1	15.3542	0	20	77	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73573

8102901 0110

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139634.D		MBS73573		11/3/2018 5:05:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.2668	0	20	181 *	50	150
Dichlorodifluoromethane	1	14.9234	0	20	75	50	150
Chloromethane	1	28.9144	0	20	145	50	150
Bromomethane	1	26.1707	0	20	131	50	150
Vinyl Chloride	1	18.9163	0	20	95	50	150
Chloroethane	1	21.6666	0	20	108	50	150
Trichlorofluoromethane	1	18.9133	0	20	95	50	150
Ethyl ether	1	19.5638	0	20	98	50	150
Furan	1	18.3143	0	20	92	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	19.3895	0	20	97	50	150
Methylene Chloride	1	22.8444	0	20	114	70	130
Acrolein	1	59.3096	0	100	59	50	150
Acrylonitrile	1	16.745	0	20	84	50	150
Iodomethane	1	19.0768	0	20	95	50	150
Acetone	1	94.2426	0	100	94	50	150
Carbon Disulfide	1	17.0265	0	20	85	50	150
t-Butyl Alcohol	1	66.8768	0	100	67	50	150
n-Hexane	1	18.8451	0	20	94	70	130
Di-isopropyl-ether	1	23.9814	0	20	120	70	130
1,1-Dichloroethene	1	18.1187	0	20	91	70	130
Methyl Acetate	1	18.8504	0	20	94	50	150
Methyl-t-butyl ether	1	17.6778	0	20	88	70	130
1,1-Dichloroethane	1	20.4123	0	20	102	70	130
trans-1,2-Dichloroethene	1	18.1323	0	20	91	70	130
Ethyl-t-butyl ether	1	21.6773	0	20	108	70	130
cis-1,2-Dichloroethene	1	21.9421	0	20	110	70	130
Bromochloromethane	1	20.4514	0	20	102	70	130
2,2-Dichloropropane	1	23.9831	0	20	120	70	130
Ethyl acetate	1	17.6021	0	20	88	50	150
1,4-Dioxane	1	799.8502	0	1000	80	50	150
1,1-Dichloropropene	1	21.6586	0	20	108	70	130
Chloroform	1	19.4264	0	20	97	70	130
Cyclohexane	1	25.2668	0	20	126	70	130
1,2-Dichloroethane	1	21.5475	0	20	108	70	130
2-Butanone	1	21.2976	0	20	106	50	150
1,1,1-Trichloroethane	1	19.0296	0	20	95	70	130
Carbon Tetrachloride	1	19.4805	0	20	97	50	150
Vinyl Acetate	1	24.997	0	20	125	50	150
Bromodichloromethane	1	19.8784	0	20	99	70	130
Methylcyclohexane	1	24.9014	0	20	125	70	130
Dibromomethane	1	22.7714	0	20	114	70	130
1,2-Dichloropropane	1	23.5296	0	20	118	70	130
Trichloroethene	1	19.633	0	20	98	70	130
Benzene	1	22.9556	0	20	115	70	130
tert-Amyl methyl ether	1	22.259	0	20	111	70	130
Iso-propylacetate	1	22.0855	0	20	110	70	130
Methyl methacrylate	1	19.9267	0	20	100	70	130
Dibromochloromethane	1	19.5376	0	20	98	70	130
2-Chloroethylvinylether	1	23.6086	0	20	118	70	130
cis-1,3-Dichloropropene	1	22.5456	0	20	113	70	130
trans-1,3-Dichloropropene	1	21.332	0	20	107	70	130
Ethyl methacrylate	1	21.6304	0	20	108	70	130
1,1,2-Trichloroethane	1	23.1277	0	20	116	70	130
1,2-Dibromoethane	1	17.2601	0	20	86	70	130
1,3-Dichloropropane	1	25.9672	0	20	130	70	130
4-Methyl-2-Pentanone	1	20.6226	0	20	103	50	150
2-Hexanone	1	19.4722	0	20	97	50	150
Tetrachloroethene	1	25.3687	0	20	127	50	150
Toluene	1	20.1289	0	20	101	70	130
1,1,1,2-Tetrachloroethane	1	24.4247	0	20	122	70	130
Chlorobenzene	1	20.1708	0	20	101	70	130

* - Indicates outside of limits

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Form3

Recovery Data Laboratory Limits

QC Batch: MBS73573

n-Butyl acrylate	1	23.6871	0	20	118	70	130
n-Amyl acetate	1	24.8961	0	20	124	70	130
Bromoform	1	19.1875	0	20	96	70	130
Ethylbenzene	1	22.6577	0	20	113	70	130
1,1,2,2-Tetrachloroethane	1	22.0198	0	20	110	70	130
Styrene	1	24.538	0	20	123	70	130
m&p-Xylenes	1	44.442	0	40	111	70	130
o-Xylene	1	23.2331	0	20	116	70	130
trans-1,4-Dichloro-2-butene	1	24.0746	0	20	120	50	150
1,3-Dichlorobenzene	1	21.3941	0	20	107	70	130
1,4-Dichlorobenzene	1	20.6498	0	20	103	70	130
1,2-Dichlorobenzene	1	20.4826	0	20	102	70	130
Isopropylbenzene	1	23.5022	0	20	118	70	130
Cyclohexanone	1	168.132	0	100	168 *	50	150
Camphene	1	24.2027	0	20	121	70	130
1,2,3-Trichloropropane	1	21.5244	0	20	108	70	130
2-Chlorotoluene	1	23.3341	0	20	117	70	130
p-Ethyltoluene	1	25.009	0	20	125	70	130
4-Chlorotoluene	1	23.6542	0	20	118	70	130
n-Propylbenzene	1	24.1695	0	20	121	70	130
Bromobenzene	1	20.4219	0	20	102	70	130
1,3,5-Trimethylbenzene	1	24.5949	0	20	123	70	130
Butyl methacrylate	1	25.4066	0	20	127	70	130
t-Butylbenzene	1	21.3679	0	20	107	70	130
1,2,4-Trimethylbenzene	1	22.1981	0	20	111	70	130
sec-Butylbenzene	1	23.5391	0	20	118	70	130
4-Isopropyltoluene	1	23.468	0	20	117	70	130
n-Butylbenzene	1	23.8058	0	20	119	70	130
p-Diethylbenzene	1	24.3946	0	20	122	70	130
1,2,4,5-Tetramethylbenzene	1	22.8668	0	20	114	70	130
1,2-Dibromo-3-Chloropropane	1	17.4179	0	20	87	50	150
Camphor	1	88.9895	0	200	44	20	150
Hexachlorobutadiene	1	22.0051	0	20	110	50	150
1,2,4-Trichlorobenzene	1	21.1201	0	20	106	70	130
1,2,3-Trichlorobenzene	1	18.6843	0	20	93	70	130
Naphthalene	1	18.1406	0	20	91	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73583

8102901 0112

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139742.D		MBS73583		11/4/2018 10:24:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	34.0421	0	20	170 *	50	150
Dichlorodifluoromethane	1	21.2563	0	20	106	50	150
Chloromethane	1	29.7539	0	20	149	50	150
Bromomethane	1	18.8887	0	20	94	50	150
Vinyl Chloride	1	21.4837	0	20	107	50	150
Chloroethane	1	22.0565	0	20	110	50	150
Trichlorofluoromethane	1	16.1135	0	20	81	50	150
Ethyl ether	1	13.4804	0	20	67	50	150
Furan	1	14.6389	0	20	73	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	17.4146	0	20	87	50	150
Methylene Chloride	1	17.6734	0	20	88	70	130
Acrolein	1	77.7866	0	100	78	50	150
Acrylonitrile	1	16.4075	0	20	82	50	150
Iodomethane	1	14.1904	0	20	71	50	150
Acetone	1	79.4028	0	100	79	50	150
Carbon Disulfide	1	16.4598	0	20	82	50	150
t-Butyl Alcohol	1	68.5747	0	100	69	50	150
n-Hexane	1	18.1837	0	20	91	70	130
Di-isopropyl-ether	1	19.1596	0	20	96	70	130
1,1-Dichloroethene	1	17.9037	0	20	90	70	130
Methyl Acetate	1	16.3923	0	20	82	50	150
Methyl-t-butyl ether	1	15.3836	0	20	77	70	130
1,1-Dichloroethane	1	17.6991	0	20	88	70	130
trans-1,2-Dichloroethene	1	16.4303	0	20	82	70	130
Ethyl-t-butyl ether	1	16.2655	0	20	81	70	130
cis-1,2-Dichloroethene	1	18.1467	0	20	91	70	130
Bromochloromethane	1	21.2493	0	20	106	70	130
2,2-Dichloropropane	1	16.967	0	20	85	70	130
Ethyl acetate	1	17.9584	0	20	90	50	150
1,4-Dioxane	1	766.4837	0	1000	77	50	150
1,1-Dichloropropene	1	18.5442	0	20	93	70	130
Chloroform	1	15.2424	0	20	76	70	130
Cyclohexane	1	19.1955	0	20	96	70	130
1,2-Dichloroethane	1	18.8965	0	20	94	70	130
2-Butanone	1	19.3526	0	20	97	50	150
1,1,1-Trichloroethane	1	15.8516	0	20	79	70	130
Carbon Tetrachloride	1	15.6927	0	20	78	50	150
Vinyl Acetate	1	17.0187	0	20	85	50	150
Bromodichloromethane	1	16.3898	0	20	82	70	130
Methylcyclohexane	1	15.9239	0	20	80	70	130
Dibromomethane	1	19.1705	0	20	96	70	130
1,2-Dichloropropane	1	20.2754	0	20	101	70	130
Trichloroethene	1	16.6155	0	20	83	70	130
Benzene	1	19.9266	0	20	100	70	130
tert-Amyl methyl ether	1	16.7835	0	20	84	70	130
Iso-propylacetate	1	18.4877	0	20	92	70	130
Methyl methacrylate	1	17.9484	0	20	90	70	130
Dibromochloromethane	1	15.1394	0	20	76	70	130
2-Chloroethylvinylether	1	18.7418	0	20	94	70	130
cis-1,3-Dichloropropene	1	17.217	0	20	86	70	130
trans-1,3-Dichloropropene	1	16.6865	0	20	83	70	130
Ethyl methacrylate	1	17.3752	0	20	87	70	130
1,1,2-Trichloroethane	1	19.415	0	20	97	70	130
1,2-Dibromoethane	1	14.7869	0	20	74	70	130
1,3-Dichloropropane	1	20.352	0	20	102	70	130
4-Methyl-2-Pentanone	1	18.4892	0	20	92	50	150
2-Hexanone	1	18.4663	0	20	92	50	150
Tetrachloroethene	1	20.7144	0	20	104	50	150
Toluene	1	16.817	0	20	84	70	130
1,1,1,2-Tetrachloroethane	1	18.4662	0	20	92	70	130
Chlorobenzene	1	16.066	0	20	80	70	130

* - Indicates outside of limits

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Recovery Data Laboratory Limits

QC Batch: MBS73583

n-Butyl acrylate	1	18.9906	0	20	95	70	130
n-Amyl acetate	1	21.113	0	20	106	70	130
Bromoform	1	16.3102	0	20	82	70	130
Ethylbenzene	1	19.7586	0	20	99	70	130
1,1,2,2-Tetrachloroethane	1	18.893	0	20	94	70	130
Styrene	1	19.1687	0	20	96	70	130
m&p-Xylenes	1	38.7645	0	40	97	70	130
o-Xylene	1	19.5451	0	20	98	70	130
trans-1,4-Dichloro-2-butene	1	16.7278	0	20	84	50	150
1,3-Dichlorobenzene	1	16.8653	0	20	84	70	130
1,4-Dichlorobenzene	1	16.1985	0	20	81	70	130
1,2-Dichlorobenzene	1	16.3398	0	20	82	70	130
Isopropylbenzene	1	18.4164	0	20	92	70	130
Cyclohexanone	1	63.4881	0	100	63	50	150
Camphene	1	15.9268	0	20	80	70	130
1,2,3-Trichloropropane	1	17.6545	0	20	88	70	130
2-Chlorotoluene	1	21.1798	0	20	106	70	130
p-Ethyltoluene	1	15.2089	0	20	76	70	130
4-Chlorotoluene	1	18.2598	0	20	91	70	130
n-Propylbenzene	1	18.7263	0	20	94	70	130
Bromobenzene	1	17.256	0	20	86	70	130
1,3,5-Trimethylbenzene	1	21.3932	0	20	107	70	130
Butyl methacrylate	1	21.1849	0	20	106	70	130
t-Butylbenzene	1	15.8914	0	20	79	70	130
1,2,4-Trimethylbenzene	1	17.9943	0	20	90	70	130
sec-Butylbenzene	1	17.498	0	20	87	70	130
4-Isopropyltoluene	1	17.5253	0	20	88	70	130
n-Butylbenzene	1	18.2112	0	20	91	70	130
p-Diethylbenzene	1	17.0866	0	20	85	70	130
1,2,4,5-Tetramethylbenzene	1	16.5126	0	20	83	70	130
1,2-Dibromo-3-Chloropropane	1	18.6247	0	20	93	50	150
Camphor	1	132.3414	0	200	66	20	150
Hexachlorobutadiene	1	15.7509	0	20	79	50	150
1,2,4-Trichlorobenzene	1	19.1755	0	20	96	70	130
1,2,3-Trichlorobenzene	1	16.5818	0	20	83	70	130
Naphthalene	1	16.8742	0	20	84	50	150

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73584

8102901 0114

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139752.D		MBS73584		11/5/2018 1:18:00 AM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	43.9436	0	20	220 *	50	150
Dichlorodifluoromethane	1	24.7197	0	20	124	50	150
Chloromethane	1	37.6666	0	20	188 *	50	150
Bromomethane	1	24.9183	0	20	125	50	150
Vinyl Chloride	1	26.0962	0	20	130	50	150
Chloroethane	1	27.4353	0	20	137	50	150
Trichlorofluoromethane	1	19.0729	0	20	95	50	150
Ethyl ether	1	17.7984	0	20	89	50	150
Furan	1	19.3497	0	20	97	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.082	0	20	100	50	150
Methylene Chloride	1	23.118	0	20	116	70	130
Acrolein	1	94.3868	0	100	94	50	150
Acrylonitrile	1	23.782	0	20	119	50	150
Iodomethane	1	18.3228	0	20	92	50	150
Acetone	1	93.9456	0	100	94	50	150
Carbon Disulfide	1	19.8687	0	20	99	50	150
t-Butyl Alcohol	1	78.2962	0	100	78	50	150
n-Hexane	1	17.8567	0	20	89	70	130
Di-isopropyl-ether	1	24.115	0	20	121	70	130
1,1-Dichloroethene	1	21.6267	0	20	108	70	130
Methyl Acetate	1	20.0445	0	20	100	50	150
Methyl-t-butyl ether	1	19.411	0	20	97	70	130
1,1-Dichloroethane	1	22.7868	0	20	114	70	130
trans-1,2-Dichloroethene	1	18.3879	0	20	92	70	130
Ethyl-t-butyl ether	1	20.2221	0	20	101	70	130
cis-1,2-Dichloroethene	1	21.9526	0	20	110	70	130
Bromochloromethane	1	21.5386	0	20	108	70	130
2,2-Dichloropropane	1	18.2197	0	20	91	70	130
Ethyl acetate	1	20.7009	0	20	104	50	150
1,4-Dioxane	1	1003.424	0	1000	100	50	150
1,1-Dichloropropene	1	21.9702	0	20	110	70	130
Chloroform	1	18.91	0	20	95	70	130
Cyclohexane	1	21.2061	0	20	106	70	130
1,2-Dichloroethane	1	23.5004	0	20	118	70	130
2-Butanone	1	29.0546	0	20	145	50	150
1,1,1-Trichloroethane	1	18.4521	0	20	92	70	130
Carbon Tetrachloride	1	19.105	0	20	96	50	150
Vinyl Acetate	1	21.6174	0	20	108	50	150
Bromodichloromethane	1	19.8074	0	20	99	70	130
Methylcyclohexane	1	17.7055	0	20	89	70	130
Dibromomethane	1	22.092	0	20	110	70	130
1,2-Dichloropropane	1	23.7825	0	20	119	70	130
Trichloroethene	1	19.5767	0	20	98	70	130
Benzene	1	24.7146	0	20	124	70	130
tert-Amyl methyl ether	1	20.1156	0	20	101	70	130
Iso-propylacetate	1	21.8312	0	20	109	70	130
Methyl methacrylate	1	22.779	0	20	114	70	130
Dibromochloromethane	1	18.3543	0	20	92	70	130
2-Chloroethylvinylether	1	23.3492	0	20	117	70	130
cis-1,3-Dichloropropene	1	20.7098	0	20	104	70	130
trans-1,3-Dichloropropene	1	19.104	0	20	96	70	130
Ethyl methacrylate	1	20.2013	0	20	101	70	130
1,1,2-Trichloroethane	1	23.5583	0	20	118	70	130
1,2-Dibromoethane	1	19.2244	0	20	96	70	130
1,3-Dichloropropane	1	24.0965	0	20	120	70	130
4-Methyl-2-Pentanone	1	21.5304	0	20	108	50	150
2-Hexanone	1	21.5016	0	20	108	50	150
Tetrachloroethene	1	23.6007	0	20	118	50	150
Toluene	1	19.9765	0	20	100	70	130
1,1,1,2-Tetrachloroethane	1	23.0062	0	20	115	70	130
Chlorobenzene	1	19.3876	0	20	97	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73584

n-Butyl acrylate	1	20.3763	0	20	102	70	130
n-Amyl acetate	1	22.8095	0	20	114	70	130
Bromoform	1	18.722	0	20	94	70	130
Ethylbenzene	1	20.4949	0	20	102	70	130
1,1,2,2-Tetrachloroethane	1	22.2064	0	20	111	70	130
Styrene	1	21.9902	0	20	110	70	130
m&p-Xylenes	1	43.8605	0	40	110	70	130
o-Xylene	1	21.5449	0	20	108	70	130
trans-1,4-Dichloro-2-butene	1	20.4657	0	20	102	50	150
1,3-Dichlorobenzene	1	18.4137	0	20	92	70	130
1,4-Dichlorobenzene	1	18.1541	0	20	91	70	130
1,2-Dichlorobenzene	1	18.4497	0	20	92	70	130
Isopropylbenzene	1	19.8662	0	20	99	70	130
Cyclohexanone	1	98.3226	0	100	98	50	150
Camphene	1	14.858	0	20	74	70	130
1,2,3-Trichloropropane	1	20.2579	0	20	101	70	130
2-Chlorotoluene	1	24.3398	0	20	122	70	130
p-Ethyltoluene	1	17.598	0	20	88	70	130
4-Chlorotoluene	1	20.0073	0	20	100	70	130
n-Propylbenzene	1	20.3284	0	20	102	70	130
Bromobenzene	1	18.4027	0	20	92	70	130
1,3,5-Trimethylbenzene	1	23.4463	0	20	117	70	130
Butyl methacrylate	1	24.5602	0	20	123	70	130
t-Butylbenzene	1	19.1208	0	20	96	70	130
1,2,4-Trimethylbenzene	1	19.9105	0	20	100	70	130
sec-Butylbenzene	1	18.2327	0	20	91	70	130
4-Isopropyltoluene	1	17.7109	0	20	89	70	130
n-Butylbenzene	1	18.0767	0	20	90	70	130
p-Diethylbenzene	1	16.1193	0	20	81	70	130
1,2,4,5-Tetramethylbenzene	1	15.6647	0	20	78	70	130
1,2-Dibromo-3-Chloropropane	1	19.8232	0	20	99	50	150
Camphor	1	86.5165	0	200	43	20	150
Hexachlorobutadiene	1	15.6365	0	20	78	50	150
1,2,4-Trichlorobenzene	1	17.0243	0	20	85	70	130
1,2,3-Trichlorobenzene	1	15.811	0	20	79	70	130
Naphthalene	1	17.0817	0	20	85	50	150

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS73571

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139674.D		AD07391-040(MS)		11/4/2018 4:30:00 AM			
Non Spike(If applicable): 3M139679.D		AD07391-040		11/4/2018 5:55:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	38.7478	0	20	194 *	50	150
Dichlorodifluoromethane	1	28.913	0	20	145	50	150
Chloromethane	1	33.0332	0	20	165 *	50	150
Bromomethane	1	21.7006	0	20	109	50	150
Vinyl Chloride	1	24.205	0	20	121	50	150
Chloroethane	1	24.3963	0	20	122	50	150
Trichlorofluoromethane	1	19.019	0	20	95	50	150
Ethyl ether	1	14.4697	0	20	72	50	150
Furan	1	17.94	0	20	90	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	24.5217	0	20	123	50	150
Methylene Chloride	1	22.0418	0	20	110	70	130
Acrolein	1	87.6778	0	100	88	50	150
Acrylonitrile	1	21.4319	0	20	107	50	150
Iodomethane	1	17.9308	0	20	90	50	150
Acetone	1	88.2563	0	100	88	50	150
Carbon Disulfide	1	19.8013	0	20	99	50	150
t-Butyl Alcohol	1	86.8499	0	100	87	50	150
n-Hexane	1	21.291	0	20	106	70	130
Di-isopropyl-ether	1	22.0832	0	20	110	70	130
1,1-Dichloroethene	1	19.0272	0	20	95	70	130
Methyl Acetate	1	17.5183	0	20	88	50	150
Methyl-t-butyl ether	1	17.2517	0	20	86	70	130
1,1-Dichloroethane	1	19.941	0	20	100	70	130
trans-1,2-Dichloroethene	1	18.3775	0	20	92	70	130
Ethyl-t-butyl ether	1	19.5293	0	20	98	70	130
cis-1,2-Dichloroethene	1	20.0149	1.5634	20	92	70	130
Bromochloromethane	1	20.7422	0	20	104	70	130
2,2-Dichloropropane	1	18.58	0	20	93	70	130
Ethyl acetate	1	21.4504	0	20	107	50	150
1,4-Dioxane	1	1008.572	0	1000	101	50	150
1,1-Dichloropropene	1	21.9061	0	20	110	70	130
Chloroform	1	17.5352	1.0654	20	82	70	130
Cyclohexane	1	24.6701	0	20	123	70	130
1,2-Dichloroethane	1	21.7891	0	20	109	70	130
2-Butanone	1	18.1742	0	20	91	50	150
1,1,1-Trichloroethane	1	17.8133	0	20	89	70	130
Carbon Tetrachloride	1	19.6333	0	20	98	50	150
Vinyl Acetate	1	20.4722	0	20	102	50	150
Bromodichloromethane	1	18.415	0	20	92	70	130
Methylcyclohexane	1	20.5885	0	20	103	70	130
Dibromomethane	1	23.6685	0	20	118	70	130
1,2-Dichloropropane	1	22.1876	0	20	111	70	130
Trichloroethene	1	18.8197	0	20	94	70	130
Benzene	1	23.3031	0	20	117	70	130
tert-Amyl methyl ether	1	19.4846	0	20	97	70	130
Iso-propylacetate	1	21.3869	0	20	107	70	130
Methyl methacrylate	1	20.7404	0	20	104	70	130
Dibromochloromethane	1	17.7745	0	20	89	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	18.5015	0	20	93	70	130
trans-1,3-Dichloropropene	1	19.5992	0	20	98	70	130
Ethyl methacrylate	1	19.5711	0	20	98	70	130
1,1,2-Trichloroethane	1	23.5884	0	20	118	70	130
1,2-Dibromoethane	1	17.3263	0	20	87	70	130
1,3-Dichloropropane	1	24.1851	0	20	121	70	130
4-Methyl-2-Pentanone	1	20.6641	0	20	103	50	150
2-Hexanone	1	22.1217	0	20	111	50	150
Tetrachloroethene	1	25.5707	0	20	128	50	150
Toluene	1	19.904	0	20	100	70	130
1,1,1,2-Tetrachloroethane	1	22.9051	0	20	115	70	130
Chlorobenzene	1	18.9026	0	20	95	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73571

n-Butyl acrylate	1	21.3931	0	20	107	70	130
n-Amyl acetate	1	22.5453	0	20	113	70	130
Bromoform	1	19.0555	0	20	95	70	130
Ethylbenzene	1	21.3607	0	20	107	70	130
1,1,2,2-Tetrachloroethane	1	20.1356	0	20	101	70	130
Styrene	1	22.0605	0	20	110	70	130
m&p-Xylenes	1	43.5522	0	40	109	70	130
o-Xylene	1	21.1053	0	20	106	70	130
trans-1,4-Dichloro-2-butene	1	14.636	0	20	73	50	150
1,3-Dichlorobenzene	1	19.1421	0	20	96	70	130
1,4-Dichlorobenzene	1	19.1984	0	20	96	70	130
1,2-Dichlorobenzene	1	19.0466	0	20	95	70	130
Isopropylbenzene	1	20.9474	0	20	105	70	130
Cyclohexanone	1	72.5974	0	100	73	50	150
Camphene	1	5.0556	0	20	25*	70	130
1,2,3-Trichloropropane	1	19.7144	0	20	99	70	130
2-Chlorotoluene	1	21.1049	0	20	106	70	130
p-Ethyltoluene	1	18.5395	0	20	93	70	130
4-Chlorotoluene	1	19.9738	0	20	100	70	130
n-Propylbenzene	1	21.894	0	20	109	70	130
Bromobenzene	1	17.3889	0	20	87	70	130
1,3,5-Trimethylbenzene	1	22.7659	0	20	114	70	130
Butyl methacrylate	1	23.2485	0	20	116	70	130
t-Butylbenzene	1	20.2365	0	20	101	70	130
1,2,4-Trimethylbenzene	1	19.6485	0	20	98	70	130
sec-Butylbenzene	1	20.7468	0	20	104	70	130
4-Isopropyltoluene	1	20.5071	0	20	103	70	130
n-Butylbenzene	1	20.5264	0	20	103	70	130
p-Diethylbenzene	1	19.0551	0	20	95	70	130
1,2,4,5-Tetramethylbenzene	1	18.6299	0	20	93	70	130
1,2-Dibromo-3-Chloropropane	1	20.781	0	20	104	50	150
Camphor	1	133.7226	0	200	67	20	150
Hexachlorobutadiene	1	19.811	0	20	99	50	150
1,2,4-Trichlorobenzene	1	20.346	0	20	102	70	130
1,2,3-Trichlorobenzene	1	20.0088	0	20	100	70	130
Naphthalene	1	18.7914	0	20	94	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73571

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139675.D		AD07391-040(MSD)		11/4/2018 4:45:00 AM			
Non Spike(If applicable): 3M139679.D		AD07391-040		11/4/2018 5:55:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	34.4368	0	20	172 *	50	150
Dichlorodifluoromethane	1	26.8352	0	20	134	50	150
Chloromethane	1	30.7996	0	20	154 *	50	150
Bromomethane	1	21.5845	0	20	108	50	150
Vinyl Chloride	1	21.6157	0	20	108	50	150
Chloroethane	1	20.9236	0	20	105	50	150
Trichlorofluoromethane	1	15.28	0	20	76	50	150
Ethyl ether	1	13.5683	0	20	68	50	150
Furan	1	16.1878	0	20	81	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.7968	0	20	104	50	150
Methylene Chloride	1	21.2665	0	20	106	70	130
Acrolein	1	91.06	0	100	91	50	150
Acrylonitrile	1	18.8037	0	20	94	50	150
Iodomethane	1	17.6211	0	20	88	50	150
Acetone	1	93.0395	0	100	93	50	150
Carbon Disulfide	1	17.4519	0	20	87	50	150
t-Butyl Alcohol	1	89.1625	0	100	89	50	150
n-Hexane	1	18.5705	0	20	93	70	130
Di-isopropyl-ether	1	22.7309	0	20	114	70	130
1,1-Dichloroethene	1	20.2444	0	20	101	70	130
Methyl Acetate	1	17.3213	0	20	87	50	150
Methyl-t-butyl ether	1	18.5139	0	20	93	70	130
1,1-Dichloroethane	1	19.2989	0	20	96	70	130
trans-1,2-Dichloroethene	1	18.5545	0	20	93	70	130
Ethyl-t-butyl ether	1	19.4692	0	20	97	70	130
cis-1,2-Dichloroethene	1	19.2296	1.5634	20	88	70	130
Bromochloromethane	1	18.9338	0	20	95	70	130
2,2-Dichloropropane	1	17.8386	0	20	89	70	130
Ethyl acetate	1	20.8965	0	20	104	50	150
1,4-Dioxane	1	991.7535	0	1000	99	50	150
1,1-Dichloropropene	1	20.5821	0	20	103	70	130
Chloroform	1	17.4965	1.0654	20	82	70	130
Cyclohexane	1	21.4574	0	20	107	70	130
1,2-Dichloroethane	1	20.4509	0	20	102	70	130
2-Butanone	1	18.2253	0	20	91	50	150
1,1,1-Trichloroethane	1	17.4662	0	20	87	70	130
Carbon Tetrachloride	1	18.2875	0	20	91	50	150
Vinyl Acetate	1	19.6211	0	20	98	50	150
Bromodichloromethane	1	19.9517	0	20	100	70	130
Methylcyclohexane	1	19.7782	0	20	99	70	130
Dibromomethane	1	22.5621	0	20	113	70	130
1,2-Dichloropropane	1	23.0096	0	20	115	70	130
Trichloroethene	1	19.159	0	20	96	70	130
Benzene	1	24.053	0	20	120	70	130
tert-Amyl methyl ether	1	20.3512	0	20	102	70	130
Iso-propylacetate	1	20.751	0	20	104	70	130
Methyl methacrylate	1	19.9718	0	20	100	70	130
Dibromochloromethane	1	17.2559	0	20	86	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	18.835	0	20	94	70	130
trans-1,3-Dichloropropene	1	18.4972	0	20	92	70	130
Ethyl methacrylate	1	19.8607	0	20	99	70	130
1,1,2-Trichloroethane	1	23.4182	0	20	117	70	130
1,2-Dibromoethane	1	17.58	0	20	88	70	130
1,3-Dichloropropane	1	22.466	0	20	112	70	130
4-Methyl-2-Pentanone	1	21.1645	0	20	106	50	150
2-Hexanone	1	20.1755	0	20	101	50	150
Tetrachloroethene	1	24.7712	0	20	124	50	150
Toluene	1	19.6186	0	20	98	70	130
1,1,1,2-Tetrachloroethane	1	22.5039	0	20	113	70	130
Chlorobenzene	1	19.1114	0	20	96	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3 Recovery Data Laboratory Limits

QC Batch: MBS73571

n-Butyl acrylate	1	21.0939	0	20	105	70	130
n-Amyl acetate	1	21.9178	0	20	110	70	130
Bromoform	1	18.2248	0	20	91	70	130
Ethylbenzene	1	22.0735	0	20	110	70	130
1,1,2,2-Tetrachloroethane	1	20.2797	0	20	101	70	130
Styrene	1	20.9824	0	20	105	70	130
m&p-Xylenes	1	40.9778	0	40	102	70	130
o-Xylene	1	20.1524	0	20	101	70	130
trans-1,4-Dichloro-2-butene	1	15.6384	0	20	78	50	150
1,3-Dichlorobenzene	1	18.4436	0	20	92	70	130
1,4-Dichlorobenzene	1	19.1052	0	20	96	70	130
1,2-Dichlorobenzene	1	18.1791	0	20	91	70	130
Isopropylbenzene	1	20.6602	0	20	103	70	130
Cyclohexanone	1	71.1766	0	100	71	50	150
Camphene	1	3.2964	0	20	16*	70	130
1,2,3-Trichloropropane	1	19.3036	0	20	97	70	130
2-Chlorotoluene	1	21.7554	0	20	109	70	130
p-Ethyltoluene	1	18.1853	0	20	91	70	130
4-Chlorotoluene	1	20.3001	0	20	102	70	130
n-Propylbenzene	1	20.2588	0	20	101	70	130
Bromobenzene	1	17.8277	0	20	89	70	130
1,3,5-Trimethylbenzene	1	21.5475	0	20	108	70	130
Butyl methacrylate	1	24.4275	0	20	122	70	130
t-Butylbenzene	1	19.5828	0	20	98	70	130
1,2,4-Trimethylbenzene	1	18.6477	0	20	93	70	130
sec-Butylbenzene	1	20.8878	0	20	104	70	130
4-Isopropyltoluene	1	20.3462	0	20	102	70	130
n-Butylbenzene	1	21.1035	0	20	106	70	130
p-Diethylbenzene	1	19.3373	0	20	97	70	130
1,2,4,5-Tetramethylbenzene	1	19.4826	0	20	97	70	130
1,2-Dibromo-3-Chloropropane	1	17.1584	0	20	86	50	150
Camphor	1	148.156	0	200	74	20	150
Hexachlorobutadiene	1	21.0079	0	20	105	50	150
1,2,4-Trichlorobenzene	1	19.5935	0	20	98	70	130
1,2,3-Trichlorobenzene	1	18.4744	0	20	92	70	130
Naphthalene	1	19.4528	0	20	97	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3 RPD Data Laboratory Limits

8102901 0120

QC Batch: MBS73571

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139675.D	AD07391-040(MSD)	11/4/2018 4:45:00 AM
Duplicate(If applicable): 3M139674.D	AD07391-040(MS)	11/4/2018 4:30:00 AM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	34.4368	38.7478	12	30
Dichlorodifluoromethane	1	26.8352	28.913	7.5	30
Chloromethane	1	30.7996	33.0332	7	30
Bromomethane	1	21.5845	21.7006	0.54	30
Vinyl Chloride	1	21.6157	24.205	11	40
Chloroethane	1	20.9236	24.3963	15	30
Trichlorofluoromethane	1	15.28	19.019	22	30
Ethyl ether	1	13.5683	14.4697	6.4	30
Furan	1	16.1878	17.94	10	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.7968	24.5217	16	30
Methylene Chloride	1	21.2665	22.0418	3.6	30
Acrolein	1	91.06	87.6778	3.8	30
Acrylonitrile	1	18.8037	21.4319	13	30
Iodomethane	1	17.6211	17.9308	1.7	30
Acetone	1	93.0395	88.2563	5.3	30
Carbon Disulfide	1	17.4519	19.8013	13	30
t-Butyl Alcohol	1	89.1625	86.8499	2.6	30
n-Hexane	1	18.5705	21.291	14	30
Di-isopropyl-ether	1	22.7309	22.0832	2.9	30
1,1-Dichloroethene	1	20.2444	19.0272	6.2	40
Methyl Acetate	1	17.3213	17.5183	1.1	30
Methyl-t-butyl ether	1	18.5139	17.2517	7.1	30
1,1-Dichloroethane	1	19.2989	19.941	3.3	40
trans-1,2-Dichloroethene	1	18.5545	18.3775	0.96	30
Ethyl-t-butyl ether	1	19.4692	19.5293	0.31	30
cis-1,2-Dichloroethene	1	19.2296	20.0149	4	30
Bromochloromethane	1	18.9338	20.7422	9.1	30
2,2-Dichloropropane	1	17.8386	18.58	4.1	30
Ethyl acetate	1	20.8965	21.4504	2.6	30
1,4-Dioxane	1	991.7535	1008.572	1.7	30
1,1-Dichloropropene	1	20.5821	21.9061	6.2	30
Chloroform	1	17.4965	17.5352	0.22	40
Cyclohexane	1	21.4574	24.6701	14	30
1,2-Dichloroethane	1	20.4509	21.7891	6.3	40
2-Butanone	1	18.2253	18.1742	0.28	40
1,1,1-Trichloroethane	1	17.4662	17.8133	2	30
Carbon Tetrachloride	1	18.2875	19.6333	7.1	40
Vinyl Acetate	1	19.6211	20.4722	4.2	30
Bromodichloromethane	1	19.9517	18.415	8	30
Methylcyclohexane	1	19.7782	20.5885	4	30
Dibromomethane	1	22.5621	23.6685	4.8	30
1,2-Dichloropropane	1	23.0096	22.1876	3.6	30
Trichloroethene	1	19.159	18.8197	1.8	40
Benzene	1	24.053	23.3031	3.2	40
tert-Amyl methyl ether	1	20.3512	19.4846	4.4	30
Iso-propylacetate	1	20.751	21.3869	3	30
Methyl methacrylate	1	19.9718	20.7404	3.8	30
Dibromochloromethane	1	17.2559	17.7745	3	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	18.835	18.5015	1.8	30
trans-1,3-Dichloropropene	1	18.4972	19.5992	5.8	30
Ethyl methacrylate	1	19.8607	19.5711	1.5	30
1,1,2-Trichloroethane	1	23.4182	23.5884	0.72	30
1,2-Dibromoethane	1	17.58	17.3263	1.5	30
1,3-Dichloropropane	1	22.466	24.1851	7.4	30
4-Methyl-2-Pentanone	1	21.1645	20.6641	2.4	30
2-Hexanone	1	20.1755	22.1217	9.2	30
Tetrachloroethene	1	24.7712	25.5707	3.2	40
Toluene	1	19.6186	19.904	1.4	40
1,1,1,2-Tetrachloroethane	1	22.5039	22.9051	1.8	30
Chlorobenzene	1	19.1114	18.9026	1.1	40
n-Butyl acrylate	1	21.0939	21.3931	1.4	30
n-Amyl acetate	1	21.9178	22.5453	2.8	30

Form3

RPD Data Laboratory Limits

QC Batch: MBS73571

Bromoform	1	18.2248	19.0555	4.5	30
Ethylbenzene	1	22.0735	21.3607	3.3	30
1,1,2,2-Tetrachloroethane	1	20.2797	20.1356	0.71	30
Styrene	1	20.9824	22.0605	5	30
m&p-Xylenes	1	40.9778	43.5522	6.1	30
o-Xylene	1	20.1524	21.1053	4.6	30
trans-1,4-Dichloro-2-butene	1	15.6384	14.636	6.6	30
1,3-Dichlorobenzene	1	18.4436	19.1421	3.7	30
1,4-Dichlorobenzene	1	19.1052	19.1984	0.49	40
1,2-Dichlorobenzene	1	18.1791	19.0466	4.7	40
Isopropylbenzene	1	20.6602	20.9474	1.4	30
Cyclohexanone	1	71.1766	72.5974	2	30
Camphene	1	3.2964	5.0556	42 *	30
1,2,3-Trichloropropane	1	19.3036	19.7144	2.1	30
2-Chlorotoluene	1	21.7554	21.1049	3	30
p-Ethyltoluene	1	18.1853	18.5395	1.9	30
4-Chlorotoluene	1	20.3001	19.9738	1.6	30
n-Propylbenzene	1	20.2588	21.894	7.8	40
Bromobenzene	1	17.8277	17.3889	2.5	30
1,3,5-Trimethylbenzene	1	21.5475	22.7659	5.5	30
Butyl methacrylate	1	24.4275	23.2485	4.9	30
t-Butylbenzene	1	19.5828	20.2365	3.3	30
1,2,4-Trimethylbenzene	1	18.6477	19.6485	5.2	30
sec-Butylbenzene	1	20.8878	20.7468	0.68	40
4-Isopropyltoluene	1	20.3462	20.5071	0.79	30
n-Butylbenzene	1	21.1035	20.5264	2.8	30
p-Diethylbenzene	1	19.3373	19.0551	1.5	30
1,2,4,5-Tetramethylbenzene	1	19.4826	18.6299	4.5	30
1,2-Dibromo-3-Chloropropane	1	17.1584	20.781	19	30
Camphor	1	148.156	133.7226	10	30
Hexachlorobutadiene	1	21.0079	19.811	5.9	30
1,2,4-Trichlorobenzene	1	19.5935	20.346	3.8	30
1,2,3-Trichlorobenzene	1	18.4744	20.0088	8	30
Naphthalene	1	19.4528	18.7914	3.5	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73573

8102901 0122

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139640.D		AD07350-005(MS)		11/3/2018 6:47:00 PM			
Non Spike(If applicable): 3M139654.D		AD07350-005		11/3/2018 10:48:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	25.823	0	20	129	50	150
Dichlorodifluoromethane	1	25.4135	0	20	127	50	150
Chloromethane	1	24.7235	0	20	124	50	150
Bromomethane	1	20.8624	0	20	104	50	150
Vinyl Chloride	1	37.5264	0	20	188 *	50	150
Chloroethane	1	17.425	0	20	87	50	150
Trichlorofluoromethane	1	14.6675	0	20	73	50	150
Ethyl ether	1	12.3517	0	20	62	50	150
Furan	1	13.9025	0	20	70	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.2444	0	20	91	50	150
Methylene Chloride	1	17.1546	0	20	86	70	130
Acrolein	1	64.337	0	100	64	50	150
Acrylonitrile	1	14.7582	0	20	74	50	150
Iodomethane	1	14.8027	0	20	74	50	150
Acetone	1	59.5977	0	100	60	50	150
Carbon Disulfide	1	15.4812	0	20	77	50	150
t-Butyl Alcohol	1	63.5886	0	100	64	50	150
n-Hexane	1	18.3829	0	20	92	70	130
Di-isopropyl-ether	1	18.0636	0	20	90	70	130
1,1-Dichloroethene	1	15.4908	0	20	77	70	130
Methyl Acetate	1	14.5047	0	20	73	50	150
Methyl-t-butyl ether	1	14.5247	0	20	73	70	130
1,1-Dichloroethane	1	16.5283	0	20	83	70	130
trans-1,2-Dichloroethene	1	15.3354	0	20	77	70	130
Ethyl-t-butyl ether	1	16.3576	0	20	82	70	130
cis-1,2-Dichloroethene	1	110.8508	0	20	554 *	70	130
Bromochloromethane	1	20.7569	0	20	104	70	130
2,2-Dichloropropane	1	18.3228	0	20	92	70	130
Ethyl acetate	1	13.6443	0	20	68	50	150
1,4-Dioxane	1	603.3075	0	1000	60	50	150
1,1-Dichloropropene	1	17.5882	0	20	88	70	130
Chloroform	1	14.138	0	20	71	70	130
Cyclohexane	1	19.316	0	20	97	70	130
1,2-Dichloroethane	1	17.0707	0	20	85	70	130
2-Butanone	1	18.3405	0	20	92	50	150
1,1,1-Trichloroethane	1	13.8686	0	20	69 *	70	130
Carbon Tetrachloride	1	15.5363	0	20	78	50	150
Vinyl Acetate	1	16.5286	0	20	83	50	150
Bromodichloromethane	1	16.0044	0	20	80	70	130
Methylcyclohexane	1	17.7042	0	20	89	70	130
Dibromomethane	1	17.6536	0	20	88	70	130
1,2-Dichloropropane	1	18.0647	0	20	90	70	130
Trichloroethene	1	26.5526	0	20	133 *	70	130
Benzene	1	19.2166	0	20	96	70	130
tert-Amyl methyl ether	1	15.7698	0	20	79	70	130
Iso-propylacetate	1	17.2696	0	20	86	70	130
Methyl methacrylate	1	15.2766	0	20	76	70	130
Dibromochloromethane	1	14.6048	0	20	73	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	16.6243	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.103	0	20	81	70	130
Ethyl methacrylate	1	16.1815	0	20	81	70	130
1,1,2-Trichloroethane	1	19.5659	0	20	98	70	130
1,2-Dibromoethane	1	14.894	0	20	74	70	130
1,3-Dichloropropane	1	19.7361	0	20	99	70	130
4-Methyl-2-Pentanone	1	15.957	0	20	80	50	150
2-Hexanone	1	15.2254	0	20	76	50	150
Tetrachloroethene	1	21.1131	0	20	106	50	150
Toluene	1	16.9949	0	20	85	70	130
1,1,1,2-Tetrachloroethane	1	18.0112	0	20	90	70	130
Chlorobenzene	1	16.0903	0	20	80	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73573

n-Butyl acrylate	1	16.0409	0	20	80	70	130
n-Amyl acetate	1	17.1129	0	20	86	70	130
Bromoform	1	14.5587	0	20	73	70	130
Ethylbenzene	1	17.895	0	20	89	70	130
1,1,2,2-Tetrachloroethane	1	15.5943	0	20	78	70	130
Styrene	1	17.1245	0	20	86	70	130
m&p-Xylenes	1	36.1931	0	40	90	70	130
o-Xylene	1	17.9635	0	20	90	70	130
trans-1,4-Dichloro-2-butene	1	13.5066	0	20	68	50	150
1,3-Dichlorobenzene	1	15.6113	0	20	78	70	130
1,4-Dichlorobenzene	1	15.7312	0	20	79	70	130
1,2-Dichlorobenzene	1	14.4538	0	20	72	70	130
Isopropylbenzene	1	17.5848	0	20	88	70	130
Cyclohexanone	1	44.445	0	100	44 *	50	150
Camphene	1	11.7581	0	20	59 *	70	130
1,2,3-Trichloropropane	1	15.3358	0	20	77	70	130
2-Chlorotoluene	1	19.2499	0	20	96	70	130
p-Ethyltoluene	1	16.7685	0	20	84	70	130
4-Chlorotoluene	1	17.1008	0	20	86	70	130
n-Propylbenzene	1	17.5939	0	20	88	70	130
Bromobenzene	1	15.1884	0	20	76	70	130
1,3,5-Trimethylbenzene	1	18.0641	0	20	90	70	130
Butyl methacrylate	1	18.2542	0	20	91	70	130
t-Butylbenzene	1	17.4567	0	20	87	70	130
1,2,4-Trimethylbenzene	1	17.2206	0	20	86	70	130
sec-Butylbenzene	1	18.1107	0	20	91	70	130
4-Isopropyltoluene	1	16.9055	0	20	85	70	130
n-Butylbenzene	1	16.8553	0	20	84	70	130
p-Diethylbenzene	1	15.4418	0	20	77	70	130
1,2,4,5-Tetramethylbenzene	1	16.2644	0	20	81	70	130
1,2-Dibromo-3-Chloropropane	1	13.9087	0	20	70	50	150
Camphor	1	53.8619	0	200	27	20	150
Hexachlorobutadiene	1	17.6546	0	20	88	50	150
1,2,4-Trichlorobenzene	1	15.8938	0	20	79	70	130
1,2,3-Trichlorobenzene	1	15.0274	0	20	75	70	130
Naphthalene	1	13.9086	0	20	70	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73573

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139641.D		AD07350-005(MSD)		11/3/2018 7:05:00 PM			
Non Spike (If applicable): 3M139654.D		AD07350-005		11/3/2018 10:48:00 PM			
Inst Blank (If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	35.4145	0	20	177 *	50	150
Dichlorodifluoromethane	1	29.4938	0	20	147	50	150
Chloromethane	1	29.9478	0	20	150	50	150
Bromomethane	1	23.5146	0	20	118	50	150
Vinyl Chloride	1	26.858	0	20	134	50	150
Chloroethane	1	23.0073	0	20	115	50	150
Trichlorofluoromethane	1	17.3393	0	20	87	50	150
Ethyl ether	1	13.7883	0	20	69	50	150
Furan	1	16.7434	0	20	84	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	22.2347	0	20	111	50	150
Methylene Chloride	1	21.4315	0	20	107	70	130
Acrolein	1	76.6221	0	100	77	50	150
Acrylonitrile	1	19.1805	0	20	96	50	150
Iodomethane	1	17.2959	0	20	86	50	150
Acetone	1	81.0756	0	100	81	50	150
Carbon Disulfide	1	18.0848	0	20	90	50	150
t-Butyl Alcohol	1	65.0944	0	100	65	50	150
n-Hexane	1	23.6539	0	20	118	70	130
Di-isopropyl-ether	1	21.3561	0	20	107	70	130
1,1-Dichloroethene	1	20.0522	0	20	100	70	130
Methyl Acetate	1	17.1592	0	20	86	50	150
Methyl-t-butyl ether	1	18.2813	0	20	91	70	130
1,1-Dichloroethane	1	19.1544	0	20	96	70	130
trans-1,2-Dichloroethene	1	18.9792	0	20	95	70	130
Ethyl-t-butyl ether	1	19.641	0	20	98	70	130
cis-1,2-Dichloroethene	1	41.504	0	20	208 *	70	130
Bromochloromethane	1	23.2469	0	20	116	70	130
2,2-Dichloropropane	1	22.1797	0	20	111	70	130
Ethyl acetate	1	20.2537	0	20	101	50	150
1,4-Dioxane	1	813.7377	0	1000	81	50	150
1,1-Dichloropropene	1	20.5297	0	20	103	70	130
Chloroform	1	16.9736	0	20	85	70	130
Cyclohexane	1	23.437	0	20	117	70	130
1,2-Dichloroethane	1	20.3953	0	20	102	70	130
2-Butanone	1	19.6897	0	20	98	50	150
1,1,1-Trichloroethane	1	18.2191	0	20	91	70	130
Carbon Tetrachloride	1	18.4283	0	20	92	50	150
Vinyl Acetate	1	19.1413	0	20	96	50	150
Bromodichloromethane	1	18.0945	0	20	90	70	130
Methylcyclohexane	1	21.0564	0	20	105	70	130
Dibromomethane	1	21.7809	0	20	109	70	130
1,2-Dichloropropane	1	23.1741	0	20	116	70	130
Trichloroethene	1	22.4438	0	20	112	70	130
Benzene	1	23.5166	0	20	118	70	130
tert-Amyl methyl ether	1	20.4149	0	20	102	70	130
Iso-propylacetate	1	19.7224	0	20	99	70	130
Methyl methacrylate	1	19.4875	0	20	97	70	130
Dibromochloromethane	1	16.5596	0	20	83	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	20.3123	0	20	102	70	130
trans-1,3-Dichloropropene	1	18.758	0	20	94	70	130
Ethyl methacrylate	1	19.9112	0	20	100	70	130
1,1,2-Trichloroethane	1	22.0672	0	20	110	70	130
1,2-Dibromoethane	1	17.796	0	20	89	70	130
1,3-Dichloropropane	1	24.2064	0	20	121	70	130
4-Methyl-2-Pentanone	1	18.6142	0	20	93	50	150
2-Hexanone	1	19.7763	0	20	99	50	150
Tetrachloroethene	1	23.9441	0	20	120	50	150
Toluene	1	19.9715	0	20	100	70	130
1,1,1,2-Tetrachloroethane	1	22.6332	0	20	113	70	130
Chlorobenzene	1	19.3935	0	20	97	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

QC Batch: MBS73573

n-Butyl acrylate	1	21.2889	0	20	106	70	130
n-Amyl acetate	1	22.3344	0	20	112	70	130
Bromoform	1	17.4471	0	20	87	70	130
Ethylbenzene	1	21.706	0	20	109	70	130
1,1,2,2-Tetrachloroethane	1	20.3585	0	20	102	70	130
Styrene	1	22.0433	0	20	110	70	130
m&p-Xylenes	1	43.5094	0	40	109	70	130
o-Xylene	1	22.1656	0	20	111	70	130
trans-1,4-Dichloro-2-butene	1	16.7554	0	20	84	50	150
1,3-Dichlorobenzene	1	18.9589	0	20	95	70	130
1,4-Dichlorobenzene	1	18.5093	0	20	93	70	130
1,2-Dichlorobenzene	1	18.5769	0	20	93	70	130
Isopropylbenzene	1	21.5257	0	20	108	70	130
Cyclohexanone	1	73.4148	0	100	73	50	150
Camphene	1	12.4587	0	20	62 *	70	130
1,2,3-Trichloropropane	1	19.8781	0	20	99	70	130
2-Chlorotoluene	1	22.7921	0	20	114	70	130
p-Ethyltoluene	1	20.1002	0	20	101	70	130
4-Chlorotoluene	1	21.2648	0	20	106	70	130
n-Propylbenzene	1	21.9026	0	20	110	70	130
Bromobenzene	1	18.9085	0	20	95	70	130
1,3,5-Trimethylbenzene	1	22.6214	0	20	113	70	130
Butyl methacrylate	1	22.9761	0	20	115	70	130
t-Butylbenzene	1	20.6475	0	20	103	70	130
1,2,4-Trimethylbenzene	1	21.0502	0	20	105	70	130
sec-Butylbenzene	1	21.8368	0	20	109	70	130
4-Isopropyltoluene	1	20.4613	0	20	102	70	130
n-Butylbenzene	1	21.9685	0	20	110	70	130
p-Diethylbenzene	1	20.0955	0	20	100	70	130
1,2,4,5-Tetramethylbenzene	1	20.7349	0	20	104	70	130
1,2-Dibromo-3-Chloropropane	1	19.3474	0	20	97	50	150
Camphor	1	117.2727	0	200	59	20	150
Hexachlorobutadiene	1	20.1911	0	20	101	50	150
1,2,4-Trichlorobenzene	1	19.5258	0	20	98	70	130
1,2,3-Trichlorobenzene	1	17.8653	0	20	89	70	130
Naphthalene	1	19.6679	0	20	98	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits

8102901 0126

QC Batch: MBS73573

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139641.D	AD07350-005(MSD)	11/3/2018 7:05:00 PM
Duplicate(If applicable): 3M139640.D	AD07350-005(MS)	11/3/2018 6:47:00 PM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	35.4145	25.823	31 *	30
Dichlorodifluoromethane	1	29.4938	25.4135	15	30
Chloromethane	1	29.9478	24.7235	19	30
Bromomethane	1	23.5146	20.8624	12	30
Vinyl Chloride	1	26.858	37.5264	33	40
Chloroethane	1	23.0073	17.425	28	30
Trichlorofluoromethane	1	17.3393	14.6675	17	30
Ethyl ether	1	13.7883	12.3517	11	30
Furan	1	16.7434	13.9025	19	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	22.2347	18.2444	20	30
Methylene Chloride	1	21.4315	17.1546	22	30
Acrolein	1	76.6221	64.337	17	30
Acrylonitrile	1	19.1805	14.7582	26	30
Iodomethane	1	17.2959	14.8027	16	30
Acetone	1	81.0756	59.5977	31 *	30
Carbon Disulfide	1	18.0848	15.4812	16	30
t-Butyl Alcohol	1	65.0944	63.5886	2.3	30
n-Hexane	1	23.6539	18.3829	25	30
Di-isopropyl-ether	1	21.3561	18.0636	17	30
1,1-Dichloroethene	1	20.0522	15.4908	26	40
Methyl Acetate	1	17.1592	14.5047	17	30
Methyl-t-butyl ether	1	18.2813	14.5247	23	30
1,1-Dichloroethane	1	19.1544	16.5283	15	40
trans-1,2-Dichloroethene	1	18.9792	15.3354	21	30
Ethyl-t-butyl ether	1	19.641	16.3576	18	30
cis-1,2-Dichloroethene	1	41.504	110.8508	91 *	30
Bromochloromethane	1	23.2469	20.7569	11	30
2,2-Dichloropropane	1	22.1797	18.3228	19	30
Ethyl acetate	1	20.2537	13.6443	39 *	30
1,4-Dioxane	1	813.7377	603.3075	30	30
1,1-Dichloropropene	1	20.5297	17.5882	15	30
Chloroform	1	16.9736	14.138	18	40
Cyclohexane	1	23.437	19.316	19	30
1,2-Dichloroethane	1	20.3953	17.0707	18	40
2-Butanone	1	19.6897	18.3405	7.1	40
1,1,1-Trichloroethane	1	18.2191	13.8686	27	30
Carbon Tetrachloride	1	18.4283	15.5363	17	40
Vinyl Acetate	1	19.1413	16.5286	15	30
Bromodichloromethane	1	18.0945	16.0044	12	30
Methylcyclohexane	1	21.0564	17.7042	17	30
Dibromomethane	1	21.7809	17.6536	21	30
1,2-Dichloropropane	1	23.1741	18.0647	25	30
Trichloroethene	1	22.4438	26.5526	17	40
Benzene	1	23.5166	19.2166	20	40
tert-Amyl methyl ether	1	20.4149	15.7698	26	30
Iso-propylacetate	1	19.7224	17.2696	13	30
Methyl methacrylate	1	19.4875	15.2766	24	30
Dibromochloromethane	1	16.5596	14.6048	13	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	20.3123	16.6243	20	30
trans-1,3-Dichloropropene	1	18.758	16.103	15	30
Ethyl methacrylate	1	19.9112	16.1815	21	30
1,1,2-Trichloroethane	1	22.0672	19.5659	12	30
1,2-Dibromoethane	1	17.796	14.894	18	30
1,3-Dichloropropane	1	24.2064	19.7361	20	30
4-Methyl-2-Pentanone	1	18.6142	15.957	15	30
2-Hexanone	1	19.7763	15.2254	26	30
Tetrachloroethene	1	23.9441	21.1131	13	40
Toluene	1	19.9715	16.9949	16	40
1,1,1,2-Tetrachloroethane	1	22.6332	18.0112	23	30
Chlorobenzene	1	19.3935	16.0903	19	40
n-Butyl acrylate	1	21.2889	16.0409	28	30
n-Amyl acetate	1	22.3344	17.1129	26	30

Form3
RPD Data Laboratory Limits

8102901 0127

QC Batch: MBS73573

Bromoform	1	17.4471	14.5587	18	30
Ethylbenzene	1	21.706	17.895	19	30
1,1,2,2-Tetrachloroethane	1	20.3585	15.5943	27	30
Styrene	1	22.0433	17.1245	25	30
m&p-Xylenes	1	43.5094	36.1931	18	30
o-Xylene	1	22.1656	17.9635	21	30
trans-1,4-Dichloro-2-butene	1	16.7554	13.5066	21	30
1,3-Dichlorobenzene	1	18.9589	15.6113	19	30
1,4-Dichlorobenzene	1	18.5093	15.7312	16	40
1,2-Dichlorobenzene	1	18.5769	14.4538	25	40
Isopropylbenzene	1	21.5257	17.5848	20	30
Cyclohexanone	1	73.4148	44.445	49*	30
Camphene	1	12.4587	11.7581	5.8	30
1,2,3-Trichloropropane	1	19.8781	15.3358	26	30
2-Chlorotoluene	1	22.7921	19.2499	17	30
p-Ethyltoluene	1	20.1002	16.7685	18	30
4-Chlorotoluene	1	21.2648	17.1008	22	30
n-Propylbenzene	1	21.9026	17.5939	22	40
Bromobenzene	1	18.9085	15.1884	22	30
1,3,5-Trimethylbenzene	1	22.6214	18.0641	22	30
Butyl methacrylate	1	22.9761	18.2542	23	30
t-Butylbenzene	1	20.6475	17.4567	17	30
1,2,4-Trimethylbenzene	1	21.0502	17.2206	20	30
sec-Butylbenzene	1	21.8368	18.1107	19	40
4-Isopropyltoluene	1	20.4613	16.9055	19	30
n-Butylbenzene	1	21.9685	16.8553	26	30
p-Diethylbenzene	1	20.0955	15.4418	26	30
1,2,4,5-Tetramethylbenzene	1	20.7349	16.2644	24	30
1,2-Dibromo-3-Chloropropane	1	19.3474	13.9087	33*	30
Camphor	1	117.2727	53.8619	74*	30
Hexachlorobutadiene	1	20.1911	17.6546	13	30
1,2,4-Trichlorobenzene	1	19.5258	15.8938	21	30
1,2,3-Trichlorobenzene	1	17.8653	15.0274	17	30
Naphthalene	1	19.6679	13.9086	34*	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS73583

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139740.D		AD07391-014(MS:AD07391-013		11/4/2018 9:53:00 PM			
Non Spike(If applicable): 3M139739.D		AD07391-013		11/4/2018 9:36:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	35.7439	0	20	179*	50	150
Dichlorodifluoromethane	1	21.627	0	20	108	50	150
Chloromethane	1	25.7074	0	20	129	50	150
Bromomethane	1	18.1382	0	20	91	50	150
Vinyl Chloride	1	19.6368	0	20	98	50	150
Chloroethane	1	20.3062	0	20	102	50	150
Trichlorofluoromethane	1	12.5624	0	20	63	50	150
Ethyl ether	1	12.7026	0	20	64	50	150
Furan	1	14.3364	0	20	72	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	17.648	0	20	88	50	150
Methylene Chloride	1	17.8647	0	20	89	70	130
Acrolein	1	72.6776	0	100	73	50	150
Acrylonitrile	1	16.7636	0	20	84	50	150
Iodomethane	1	14.0696	0	20	70	50	150
Acetone	1	77.8599	0	100	78	50	150
Carbon Disulfide	1	16.4822	0	20	82	50	150
t-Butyl Alcohol	1	60.2714	0	100	60	50	150
n-Hexane	1	15.6961	0	20	78	70	130
Di-isopropyl-ether	1	18.43	0	20	92	70	130
1,1-Dichloroethene	1	16.9868	0	20	85	70	130
Methyl Acetate	1	14.5821	0	20	73	50	150
Methyl-t-butyl ether	1	15.527	0	20	78	70	130
1,1-Dichloroethane	1	16.1974	0	20	81	70	130
trans-1,2-Dichloroethene	1	16.4025	0	20	82	70	130
Ethyl-t-butyl ether	1	15.45	0	20	77	70	130
cis-1,2-Dichloroethene	1	17.4971	0	20	87	70	130
Bromochloromethane	1	17.7264	0	20	89	70	130
2,2-Dichloropropane	1	17.7064	0	20	89	70	130
Ethyl acetate	1	16.0543	0	20	80	50	150
1,4-Dioxane	1	742.2696	0	1000	74	50	150
1,1-Dichloropropene	1	17.4767	0	20	87	70	130
Chloroform	1	15.1356	0	20	76	70	130
Cyclohexane	1	17.8142	0	20	89	70	130
1,2-Dichloroethane	1	18.9072	0	20	95	70	130
2-Butanone	1	14.561	0	20	73	50	150
1,1,1-Trichloroethane	1	14.4854	0	20	72	70	130
Carbon Tetrachloride	1	15.9348	0	20	80	50	150
Vinyl Acetate	1	16.3054	0	20	82	50	150
Bromodichloromethane	1	16.7268	0	20	84	70	130
Methylcyclohexane	1	17.1397	0	20	86	70	130
Dibromomethane	1	18.0576	0	20	90	70	130
1,2-Dichloropropane	1	19.7327	0	20	99	70	130
Trichloroethene	1	15.0424	0	20	75	70	130
Benzene	1	20.0385	0	20	100	70	130
tert-Amyl methyl ether	1	15.6278	0	20	78	70	130
Iso-propylacetate	1	18.5446	0	20	93	70	130
Methyl methacrylate	1	15.1128	0	20	76	70	130
Dibromochloromethane	1	15.1966	0	20	76	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	16.5896	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.3903	0	20	82	70	130
Ethyl methacrylate	1	17.5973	0	20	88	70	130
1,1,2-Trichloroethane	1	20.5271	0	20	103	70	130
1,2-Dibromoethane	1	16.1102	0	20	81	70	130
1,3-Dichloropropane	1	20.2707	0	20	101	70	130
4-Methyl-2-Pentanone	1	18.3557	0	20	92	50	150
2-Hexanone	1	18.1308	0	20	91	50	150
Tetrachloroethene	1	45.6214	24.414	20	106	50	150
Toluene	1	17.1684	0	20	86	70	130
1,1,1,2-Tetrachloroethane	1	19.4078	0	20	97	70	130
Chlorobenzene	1	16.0927	0	20	80	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3

Recovery Data Laboratory Limits

QC Batch: MBS73583

n-Butyl acrylate	1	17.5379	0	20	88	70	130
n-Amyl acetate	1	17.5659	0	20	88	70	130
Bromoform	1	14.8179	0	20	74	70	130
Ethylbenzene	1	18.3145	0	20	92	70	130
1,1,2,2-Tetrachloroethane	1	17.9008	0	20	90	70	130
Styrene	1	18.9009	0	20	95	70	130
m&p-Xylenes	1	36.4706	0	40	91	70	130
o-Xylene	1	18.2472	0	20	91	70	130
trans-1,4-Dichloro-2-butene	1	13.6519	0	20	68	50	150
1,3-Dichlorobenzene	1	16.5198	0	20	83	70	130
1,4-Dichlorobenzene	1	16.5566	0	20	83	70	130
1,2-Dichlorobenzene	1	15.3686	0	20	77	70	130
Isopropylbenzene	1	18.2376	0	20	91	70	130
Cyclohexanone	1	55.4657	0	100	55	50	150
Camphene	1	2.7307	0	20	14 *	70	130
1,2,3-Trichloropropane	1	17.2353	0	20	86	70	130
2-Chlorotoluene	1	20.365	0	20	102	70	130
p-Ethyltoluene	1	16.964	0	20	85	70	130
4-Chlorotoluene	1	18.7404	0	20	94	70	130
n-Propylbenzene	1	17.7054	0	20	89	70	130
Bromobenzene	1	14.9277	0	20	75	70	130
1,3,5-Trimethylbenzene	1	17.7194	0	20	89	70	130
Butyl methacrylate	1	19.5843	0	20	98	70	130
t-Butylbenzene	1	16.3859	0	20	82	70	130
1,2,4-Trimethylbenzene	1	16.4192	0	20	82	70	130
sec-Butylbenzene	1	17.4094	0	20	87	70	130
4-Isopropyltoluene	1	16.6273	0	20	83	70	130
n-Butylbenzene	1	16.8537	0	20	84	70	130
p-Diethylbenzene	1	15.4921	0	20	77	70	130
1,2,4,5-Tetramethylbenzene	1	13.921	0	20	70	70	130
1,2-Dibromo-3-Chloropropane	1	15.8834	0	20	79	50	150
Camphor	1	66.5534	0	200	33	20	150
Hexachlorobutadiene	1	15.2578	0	20	76	50	150
1,2,4-Trichlorobenzene	1	14.6025	0	20	73	70	130
1,2,3-Trichlorobenzene	1	14.4955	0	20	72	70	130
Naphthalene	1	14.3326	0	20	72	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73583

8102901 0130

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139741.D		AD07391-015(MSD:AD07391-0		11/4/2018 10:10:00 PM			
Non Spike(If applicable): 3M139739.D		AD07391-013		11/4/2018 9:36:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.077	0	20	180 *	50	150
Dichlorodifluoromethane	1	24.818	0	20	124	50	150
Chloromethane	1	28.3143	0	20	142	50	150
Bromomethane	1	20.5977	0	20	103	50	150
Vinyl Chloride	1	23.224	0	20	116	50	150
Chloroethane	1	20.1011	0	20	101	50	150
Trichlorofluoromethane	1	15.0249	0	20	75	50	150
Ethyl ether	1	13.0855	0	20	65	50	150
Furan	1	14.5528	0	20	73	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.1754	0	20	101	50	150
Methylene Chloride	1	18.4801	0	20	92	70	130
Acrolein	1	68.7423	0	100	69	50	150
Acrylonitrile	1	18.7391	0	20	94	50	150
Iodomethane	1	14.0361	0	20	70	50	150
Acetone	1	84.0866	0	100	84	50	150
Carbon Disulfide	1	16.2858	0	20	81	50	150
t-Butyl Alcohol	1	76.4275	0	100	76	50	150
n-Hexane	1	16.6979	0	20	83	70	130
Di-isopropyl-ether	1	19.4542	0	20	97	70	130
1,1-Dichloroethene	1	17.5599	0	20	88	70	130
Methyl Acetate	1	16.1212	0	20	81	50	150
Methyl-t-butyl ether	1	15.6222	0	20	78	70	130
1,1-Dichloroethane	1	18.3242	0	20	92	70	130
trans-1,2-Dichloroethene	1	15.8239	0	20	79	70	130
Ethyl-t-butyl ether	1	16.962	0	20	85	70	130
cis-1,2-Dichloroethene	1	18.0108	0	20	90	70	130
Bromochloromethane	1	21.7327	0	20	109	70	130
2,2-Dichloropropane	1	17.6627	0	20	88	70	130
Ethyl acetate	1	17.9289	0	20	90	50	150
1,4-Dioxane	1	806.7953	0	1000	81	50	150
1,1-Dichloropropene	1	18.4156	0	20	92	70	130
Chloroform	1	15.769	0	20	79	70	130
Cyclohexane	1	20.1197	0	20	101	70	130
1,2-Dichloroethane	1	18.5411	0	20	93	70	130
2-Butanone	1	17.6029	0	20	88	50	150
1,1,1-Trichloroethane	1	15.0144	0	20	75	70	130
Carbon Tetrachloride	1	16.036	0	20	80	50	150
Vinyl Acetate	1	17.7392	0	20	89	50	150
Bromodichloromethane	1	16.9202	0	20	85	70	130
Methylcyclohexane	1	16.6743	0	20	83	70	130
Dibromomethane	1	18.8185	0	20	94	70	130
1,2-Dichloropropane	1	19.1136	0	20	96	70	130
Trichloroethene	1	15.7257	0	20	79	70	130
Benzene	1	20.1552	0	20	101	70	130
tert-Amyl methyl ether	1	17.1849	0	20	86	70	130
Iso-propylacetate	1	17.9013	0	20	90	70	130
Methyl methacrylate	1	18.4719	0	20	92	70	130
Dibromochloromethane	1	14.6605	0	20	73	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	16.4023	0	20	82	70	130
trans-1,3-Dichloropropene	1	15.2449	0	20	76	70	130
Ethyl methacrylate	1	17.4693	0	20	87	70	130
1,1,2-Trichloroethane	1	19.3129	0	20	97	70	130
1,2-Dibromoethane	1	14.1397	0	20	71	70	130
1,3-Dichloropropane	1	19.4106	0	20	97	70	130
4-Methyl-2-Pentanone	1	17.4792	0	20	87	50	150
2-Hexanone	1	19.3299	0	20	97	50	150
Tetrachloroethene	1	42.8543	24.414	20	92	50	150
Toluene	1	16.5098	0	20	83	70	130
1,1,1,2-Tetrachloroethane	1	19.0462	0	20	95	70	130
Chlorobenzene	1	15.4066	0	20	77	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3

Recovery Data Laboratory Limits

QC Batch: MBS73583

n-Butyl acrylate	1	18.6345	0	20	93	70	130
n-Amyl acetate	1	19.3621	0	20	97	70	130
Bromoform	1	15.7075	0	20	79	70	130
Ethylbenzene	1	19.3894	0	20	97	70	130
1,1,2,2-Tetrachloroethane	1	18.5831	0	20	93	70	130
Styrene	1	17.5003	0	20	88	70	130
m&p-Xylenes	1	35.9688	0	40	90	70	130
o-Xylene	1	18.4273	0	20	92	70	130
trans-1,4-Dichloro-2-butene	1	13.1327	0	20	66	50	150
1,3-Dichlorobenzene	1	15.7191	0	20	79	70	130
1,4-Dichlorobenzene	1	15.5658	0	20	78	70	130
1,2-Dichlorobenzene	1	16.233	0	20	81	70	130
Isopropylbenzene	1	17.5707	0	20	88	70	130
Cyclohexanone	1	68.9398	0	100	69	50	150
Camphene	1	3.5144	0	20	18*	70	130
1,2,3-Trichloropropane	1	17.078	0	20	85	70	130
2-Chlorotoluene	1	20.3169	0	20	102	70	130
p-Ethyltoluene	1	17.0402	0	20	85	70	130
4-Chlorotoluene	1	18.1516	0	20	91	70	130
n-Propylbenzene	1	17.9692	0	20	90	70	130
Bromobenzene	1	15.331	0	20	77	70	130
1,3,5-Trimethylbenzene	1	17.2396	0	20	86	70	130
Butyl methacrylate	1	20.57	0	20	103	70	130
t-Butylbenzene	1	16.512	0	20	83	70	130
1,2,4-Trimethylbenzene	1	16.2301	0	20	81	70	130
sec-Butylbenzene	1	17.6294	0	20	88	70	130
4-Isopropyltoluene	1	16.6324	0	20	83	70	130
n-Butylbenzene	1	17.4669	0	20	87	70	130
p-Diethylbenzene	1	15.8329	0	20	79	70	130
1,2,4,5-Tetramethylbenzene	1	14.5426	0	20	73	70	130
1,2-Dibromo-3-Chloropropane	1	17.3363	0	20	87	50	150
Camphor	1	109.3148	0	200	55	20	150
Hexachlorobutadiene	1	16.5152	0	20	83	50	150
1,2,4-Trichlorobenzene	1	15.8819	0	20	79	70	130
1,2,3-Trichlorobenzene	1	14.6805	0	20	73	70	130
Naphthalene	1	15.6419	0	20	78	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits
QC Batch: MBS73583

8102901 0132

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139741.D	AD07391-015(MSD:AD07391-0	11/4/2018 10:10:00 PM
Duplicate(If applicable): 3M139740.D	AD07391-014(MS:AD07391-013	11/4/2018 9:53:00 PM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	36.077	35.7439	0.93	30
Dichlorodifluoromethane	1	24.818	21.627	14	30
Chloromethane	1	28.3143	25.7074	9.7	30
Bromomethane	1	20.5977	18.1382	13	30
Vinyl Chloride	1	23.224	19.6368	17	40
Chloroethane	1	20.1011	20.3062	1	30
Trichlorofluoromethane	1	15.0249	12.5624	18	30
Ethyl ether	1	13.0855	12.7026	3	30
Furan	1	14.5528	14.3364	1.5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.1754	17.648	13	30
Methylene Chloride	1	18.4801	17.8647	3.4	30
Acrolein	1	68.7423	72.6776	5.6	30
Acrylonitrile	1	18.7391	16.7636	11	30
Iodomethane	1	14.0361	14.0696	0.24	30
Acetone	1	84.0866	77.8599	7.7	30
Carbon Disulfide	1	16.2858	16.4822	1.2	30
t-Butyl Alcohol	1	76.4275	60.2714	24	30
n-Hexane	1	16.6979	15.6961	6.2	30
Di-isopropyl-ether	1	19.4542	18.43	5.4	30
1,1-Dichloroethene	1	17.5599	16.9868	3.3	40
Methyl Acetate	1	16.1212	14.5821	10	30
Methyl-t-butyl ether	1	15.6222	15.527	0.61	30
1,1-Dichloroethane	1	18.3242	16.1974	12	40
trans-1,2-Dichloroethene	1	15.8239	16.4025	3.6	30
Ethyl-t-butyl ether	1	16.962	15.45	9.3	30
cis-1,2-Dichloroethene	1	18.0108	17.4971	2.9	30
Bromochloromethane	1	21.7327	17.7264	20	30
2,2-Dichloropropane	1	17.6627	17.7064	0.25	30
Ethyl acetate	1	17.9289	16.0543	11	30
1,4-Dioxane	1	806.7953	742.2696	8.3	30
1,1-Dichloropropene	1	18.4156	17.4767	5.2	30
Chloroform	1	15.769	15.1356	4.1	40
Cyclohexane	1	20.1197	17.8142	12	30
1,2-Dichloroethane	1	18.5411	18.9072	2	40
2-Butanone	1	17.6029	14.561	19	40
1,1,1-Trichloroethane	1	15.0144	14.4854	3.6	30
Carbon Tetrachloride	1	16.036	15.9348	0.63	40
Vinyl Acetate	1	17.7392	16.3054	8.4	30
Bromodichloromethane	1	16.9202	16.7268	1.1	30
Methylcyclohexane	1	16.6743	17.1397	2.8	30
Dibromomethane	1	18.8185	18.0576	4.1	30
1,2-Dichloropropane	1	19.1136	19.7327	3.2	30
Trichloroethene	1	15.7257	15.0424	4.4	40
Benzene	1	20.1552	20.0385	0.58	40
tert-Amyl methyl ether	1	17.1849	15.6278	9.5	30
Iso-propylacetate	1	17.9013	18.5446	3.5	30
Methyl methacrylate	1	18.4719	15.1128	20	30
Dibromochloromethane	1	14.6605	15.1966	3.6	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	16.4023	16.5896	1.1	30
trans-1,3-Dichloropropene	1	15.2449	16.3903	7.2	30
Ethyl methacrylate	1	17.4693	17.5973	0.73	30
1,1,2-Trichloroethane	1	19.3129	20.5271	6.1	30
1,2-Dibromoethane	1	14.1397	16.1102	13	30
1,3-Dichloropropane	1	19.4106	20.2707	4.3	30
4-Methyl-2-Pentanone	1	17.4792	18.3557	4.9	30
2-Hexanone	1	19.3299	18.1308	6.4	30
Tetrachloroethene	1	42.8543	45.6214	6.3	40
Toluene	1	16.5098	17.1684	3.9	40
1,1,1,2-Tetrachloroethane	1	19.0462	19.4078	1.9	30
Chlorobenzene	1	15.4066	16.0927	4.4	40
n-Butyl acrylate	1	18.6345	17.5379	6.1	30
n-Amyl acetate	1	19.3621	17.5659	9.7	30

Form3
RPD Data Laboratory Limits

8102901 0133

QC Batch: MBS73583

Bromoform	1	15.7075	14.8179	5.8	30
Ethylbenzene	1	19.3894	18.3145	5.7	30
1,1,2,2-Tetrachloroethane	1	18.5831	17.9008	3.7	30
Styrene	1	17.5003	18.9009	7.7	30
m&p-Xylenes	1	35.9688	36.4706	1.4	30
o-Xylene	1	18.4273	18.2472	0.98	30
trans-1,4-Dichloro-2-butene	1	13.1327	13.6519	3.9	30
1,3-Dichlorobenzene	1	15.7191	16.5198	5	30
1,4-Dichlorobenzene	1	15.5658	16.5566	6.2	40
1,2-Dichlorobenzene	1	16.233	15.3686	5.5	40
Isopropylbenzene	1	17.5707	18.2376	3.7	30
Cyclohexanone	1	68.9398	55.4657	22	30
Camphene	1	3.5144	2.7307	25	30
1,2,3-Trichloropropane	1	17.078	17.2353	0.92	30
2-Chlorotoluene	1	20.3169	20.365	0.24	30
p-Ethyltoluene	1	17.0402	16.964	0.45	30
4-Chlorotoluene	1	18.1516	18.7404	3.2	30
n-Propylbenzene	1	17.9692	17.7054	1.5	40
Bromobenzene	1	15.331	14.9277	2.7	30
1,3,5-Trimethylbenzene	1	17.2396	17.7194	2.7	30
Butyl methacrylate	1	20.57	19.5843	4.9	30
t-Butylbenzene	1	16.512	16.3859	0.77	30
1,2,4-Trimethylbenzene	1	16.2301	16.4192	1.2	30
sec-Butylbenzene	1	17.6294	17.4094	1.3	40
4-Isopropyltoluene	1	16.6324	16.6273	0.03	30
n-Butylbenzene	1	17.4669	16.8537	3.6	30
p-Diethylbenzene	1	15.8329	15.4921	2.2	30
1,2,4,5-Tetramethylbenzene	1	14.5426	13.921	4.4	30
1,2-Dibromo-3-Chloropropane	1	17.3363	15.8834	8.7	30
Camphor	1	109.3148	66.5534	49*	30
Hexachlorobutadiene	1	16.5152	15.2578	7.9	30
1,2,4-Trichlorobenzene	1	15.8819	14.6025	8.4	30
1,2,3-Trichlorobenzene	1	14.6805	14.4955	1.3	30
Naphthalene	1	15.6419	14.3326	8.7	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS73584

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139753.D		AD07391-023(MS:AD07391-022		11/5/2018 1:36:00 AM			
Non Spike(If applicable): 3M139751.D		AD07391-022		11/5/2018 1:01:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.5744	0	20	183*	50	150
Dichlorodifluoromethane	1	22.5247	0	20	113	50	150
Chloromethane	1	29.7368	0	20	149	50	150
Bromomethane	1	16.6102	0	20	83	50	150
Vinyl Chloride	1	19.2878	0	20	96	50	150
Chloroethane	1	18.8779	0	20	94	50	150
Trichlorofluoromethane	1	13.269	0	20	66	50	150
Ethyl ether	1	13.3049	0	20	67	50	150
Furan	1	13.6576	0	20	68	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.3018	0	20	92	50	150
Methylene Chloride	1	19.6109	0	20	98	70	130
Acrolein	1	68.7604	0	100	69	50	150
Acrylonitrile	1	19.276	0	20	96	50	150
Iodomethane	1	14.4311	0	20	72	50	150
Acetone	1	76.7036	0	100	77	50	150
Carbon Disulfide	1	16.2922	0	20	81	50	150
t-Butyl Alcohol	1	74.7716	0	100	75	50	150
n-Hexane	1	16.9378	0	20	85	70	130
Di-isopropyl-ether	1	19.4656	0	20	97	70	130
1,1-Dichloroethene	1	17.4218	0	20	87	70	130
Methyl Acetate	1	14.5487	0	20	73	50	150
Methyl-t-butyl ether	1	15.44	0	20	77	70	130
1,1-Dichloroethane	1	17.3213	0	20	87	70	130
trans-1,2-Dichloroethene	1	13.4984	0	20	67*	70	130
Ethyl-t-butyl ether	1	16.6553	0	20	83	70	130
cis-1,2-Dichloroethene	1	17.9943	0	20	90	70	130
Bromochloromethane	1	19.6061	0	20	98	70	130
2,2-Dichloropropane	1	15.4974	0	20	77	70	130
Ethyl acetate	1	16.6786	0	20	83	50	150
1,4-Dioxane	1	852.4635	0	1000	85	50	150
1,1-Dichloropropene	1	17.6874	0	20	88	70	130
Chloroform	1	15.3912	0	20	77	70	130
Cyclohexane	1	19.3096	0	20	97	70	130
1,2-Dichloroethane	1	18.0964	0	20	90	70	130
2-Butanone	1	17.0189	0	20	85	50	150
1,1,1-Trichloroethane	1	15.2637	0	20	76	70	130
Carbon Tetrachloride	1	15.7011	0	20	79	50	150
Vinyl Acetate	1	17.288	0	20	86	50	150
Bromodichloromethane	1	17.719	0	20	89	70	130
Methylcyclohexane	1	18.1448	0	20	91	70	130
Dibromomethane	1	19.5074	0	20	98	70	130
1,2-Dichloropropane	1	19.3279	0	20	97	70	130
Trichloroethene	1	16.1013	0	20	81	70	130
Benzene	1	19.9882	0	20	100	70	130
tert-Amyl methyl ether	1	16.2782	0	20	81	70	130
Iso-propylacetate	1	18.2577	0	20	91	70	130
Methyl methacrylate	1	17.904	0	20	90	70	130
Dibromochloromethane	1	16.0412	0	20	80	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	16.6503	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.5635	0	20	83	70	130
Ethyl methacrylate	1	16.9199	0	20	85	70	130
1,1,2-Trichloroethane	1	19.1748	0	20	96	70	130
1,2-Dibromoethane	1	15.5259	0	20	78	70	130
1,3-Dichloropropane	1	20.8606	0	20	104	70	130
4-Methyl-2-Pentanone	1	17.9325	0	20	90	50	150
2-Hexanone	1	18.7333	0	20	94	50	150
Tetrachloroethene	1	22.1314	1.4378	20	103	50	150
Toluene	1	17.1829	0	20	86	70	130
1,1,1,2-Tetrachloroethane	1	20.0138	0	20	100	70	130
Chlorobenzene	1	17.6133	0	20	88	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73584

n-Butyl acrylate	1	17.9951	0	20	90	70	130
n-Amyl acetate	1	17.7052	0	20	89	70	130
Bromoform	1	15.2607	0	20	76	70	130
Ethylbenzene	1	17.6205	0	20	88	70	130
1,1,2,2-Tetrachloroethane	1	18.6164	0	20	93	70	130
Styrene	1	18.1916	0	20	91	70	130
m&p-Xylenes	1	36.4187	0	40	91	70	130
o-Xylene	1	18.4127	0	20	92	70	130
trans-1,4-Dichloro-2-butene	1	13.5562	0	20	68	50	150
1,3-Dichlorobenzene	1	16.5229	0	20	83	70	130
1,4-Dichlorobenzene	1	16.0359	0	20	80	70	130
1,2-Dichlorobenzene	1	15.6128	0	20	78	70	130
Isopropylbenzene	1	17.8914	0	20	89	70	130
Cyclohexanone	1	57.0058	0	100	57	50	150
Camphene	1	3.88	0	20	19*	70	130
1,2,3-Trichloropropane	1	17.5192	0	20	88	70	130
2-Chlorotoluene	1	18.6191	0	20	93	70	130
p-Ethyltoluene	1	14.8066	0	20	74	70	130
4-Chlorotoluene	1	16.658	0	20	83	70	130
n-Propylbenzene	1	17.4288	0	20	87	70	130
Bromobenzene	1	15.2807	0	20	76	70	130
1,3,5-Trimethylbenzene	1	17.1117	0	20	86	70	130
Butyl methacrylate	1	19.3411	0	20	97	70	130
t-Butylbenzene	1	16.2776	0	20	81	70	130
1,2,4-Trimethylbenzene	1	17.0044	0	20	85	70	130
sec-Butylbenzene	1	17.9364	0	20	90	70	130
4-Isopropyltoluene	1	17.9455	0	20	90	70	130
n-Butylbenzene	1	16.8804	0	20	84	70	130
p-Diethylbenzene	1	16.3821	0	20	82	70	130
1,2,4,5-Tetramethylbenzene	1	15.349	0	20	77	70	130
1,2-Dibromo-3-Chloropropane	1	15.6169	0	20	78	50	150
Camphor	1	115.2166	0	200	58	20	150
Hexachlorobutadiene	1	15.4377	0	20	77	50	150
1,2,4-Trichlorobenzene	1	16.3715	0	20	82	70	130
1,2,3-Trichlorobenzene	1	14.9936	0	20	75	70	130
Naphthalene	1	15.704	0	20	79	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS73584

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139754.D		AD07391-024(MSD:AD07391-0		11/5/2018 1:52:00 AM			
Non Spike(If applicable): 3M139751.D		AD07391-022		11/5/2018 1:01:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.5767	0	20	183 *	50	150
Dichlorodifluoromethane	1	21.9916	0	20	110	50	150
Chloromethane	1	27.6595	0	20	138	50	150
Bromomethane	1	18.1649	0	20	91	50	150
Vinyl Chloride	1	20.3569	0	20	102	50	150
Chloroethane	1	20.4333	0	20	102	50	150
Trichlorofluoromethane	1	14.9296	0	20	75	50	150
Ethyl ether	1	13.0384	0	20	65	50	150
Furan	1	14.4675	0	20	72	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.6457	0	20	93	50	150
Methylene Chloride	1	19.504	0	20	98	70	130
Acrolein	1	71.0226	0	100	71	50	150
Acrylonitrile	1	17.6462	0	20	88	50	150
Iodomethane	1	13.8181	0	20	69	50	150
Acetone	1	74.8069	0	100	75	50	150
Carbon Disulfide	1	15.9382	0	20	80	50	150
t-Butyl Alcohol	1	69.8015	0	100	70	50	150
n-Hexane	1	17.1915	0	20	86	70	130
Di-isopropyl-ether	1	19.2248	0	20	96	70	130
1,1-Dichloroethene	1	15.7228	0	20	79	70	130
Methyl Acetate	1	14.5129	0	20	73	50	150
Methyl-t-butyl ether	1	14.8014	0	20	74	70	130
1,1-Dichloroethane	1	18.2377	0	20	91	70	130
trans-1,2-Dichloroethene	1	16.9102	0	20	85	70	130
Ethyl-t-butyl ether	1	16.3038	0	20	82	70	130
cis-1,2-Dichloroethene	1	17.7749	0	20	89	70	130
Bromochloromethane	1	21.0717	0	20	105	70	130
2,2-Dichloropropane	1	15.6191	0	20	78	70	130
Ethyl acetate	1	15.2405	0	20	76	50	150
1,4-Dioxane	1	798.4946	0	1000	80	50	150
1,1-Dichloropropene	1	18.1599	0	20	91	70	130
Chloroform	1	15.4767	0	20	77	70	130
Cyclohexane	1	18.5121	0	20	93	70	130
1,2-Dichloroethane	1	18.7086	0	20	94	70	130
2-Butanone	1	16.8664	0	20	84	50	150
1,1,1-Trichloroethane	1	15.6789	0	20	78	70	130
Carbon Tetrachloride	1	16.8296	0	20	84	50	150
Vinyl Acetate	1	16.2904	0	20	81	50	150
Bromodichloromethane	1	16.1654	0	20	81	70	130
Methylcyclohexane	1	18.5866	0	20	93	70	130
Dibromomethane	1	17.9211	0	20	90	70	130
1,2-Dichloropropane	1	19.9275	0	20	100	70	130
Trichloroethene	1	16.0738	0	20	80	70	130
Benzene	1	20.245	0	20	101	70	130
tert-Amyl methyl ether	1	17.0699	0	20	85	70	130
Iso-propylacetate	1	16.4879	0	20	82	70	130
Methyl methacrylate	1	16.4099	0	20	82	70	130
Dibromochloromethane	1	16.0244	0	20	80	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	17.3254	0	20	87	70	130
trans-1,3-Dichloropropene	1	16.6405	0	20	83	70	130
Ethyl methacrylate	1	18.1541	0	20	91	70	130
1,1,2-Trichloroethane	1	20.3171	0	20	102	70	130
1,2-Dibromoethane	1	15.1935	0	20	76	70	130
1,3-Dichloropropane	1	20.6589	0	20	103	70	130
4-Methyl-2-Pentanone	1	17.6359	0	20	88	50	150
2-Hexanone	1	19.1654	0	20	96	50	150
Tetrachloroethene	1	21.8186	1.4378	20	102	50	150
Toluene	1	16.7221	0	20	84	70	130
1,1,1,2-Tetrachloroethane	1	20.2361	0	20	101	70	130
Chlorobenzene	1	17.1827	0	20	86	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73584

n-Butyl acrylate	1	19.2474	0	20	96	70	130
n-Amyl acetate	1	17.3872	0	20	87	70	130
Bromoform	1	15.882	0	20	79	70	130
Ethylbenzene	1	16.6407	0	20	83	70	130
1,1,2,2-Tetrachloroethane	1	18.2623	0	20	91	70	130
Styrene	1	19.0843	0	20	95	70	130
m&p-Xylenes	1	38.4664	0	40	96	70	130
o-Xylene	1	19.4785	0	20	97	70	130
trans-1,4-Dichloro-2-butene	1	12.7898	0	20	64	50	150
1,3-Dichlorobenzene	1	17.0136	0	20	85	70	130
1,4-Dichlorobenzene	1	16.5895	0	20	83	70	130
1,2-Dichlorobenzene	1	16.0974	0	20	80	70	130
Isopropylbenzene	1	19.0549	0	20	95	70	130
Cyclohexanone	1	53.0626	0	100	53	50	150
Camphene	1	3.55	0	20	18*	70	130
1,2,3-Trichloropropane	1	18.2492	0	20	91	70	130
2-Chlorotoluene	1	20.2987	0	20	101	70	130
p-Ethyltoluene	1	15.6433	0	20	78	70	130
4-Chlorotoluene	1	17.5533	0	20	88	70	130
n-Propylbenzene	1	19.0089	0	20	95	70	130
Bromobenzene	1	15.9534	0	20	80	70	130
1,3,5-Trimethylbenzene	1	20.84	0	20	104	70	130
Butyl methacrylate	1	21.515	0	20	108	70	130
t-Butylbenzene	1	17.2375	0	20	86	70	130
1,2,4-Trimethylbenzene	1	17.6137	0	20	88	70	130
sec-Butylbenzene	1	18.6824	0	20	93	70	130
4-Isopropyltoluene	1	17.6474	0	20	88	70	130
n-Butylbenzene	1	18.1775	0	20	91	70	130
p-Diethylbenzene	1	16.2416	0	20	81	70	130
1,2,4,5-Tetramethylbenzene	1	16.3635	0	20	82	70	130
1,2-Dibromo-3-Chloropropane	1	16.2186	0	20	81	50	150
Camphor	1	116.1392	0	200	58	20	150
Hexachlorobutadiene	1	18.0715	0	20	90	50	150
1,2,4-Trichlorobenzene	1	16.4299	0	20	82	70	130
1,2,3-Trichlorobenzene	1	15.0243	0	20	75	70	130
Naphthalene	1	16.2773	0	20	81	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3

RPD Data Laboratory Limits

QC Batch: MBS73584

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139754.D	AD07391-024(MSD:AD07391-0	11/5/2018 1:52:00 AM
Duplicate(If applicable): 3M139753.D	AD07391-023(MS:AD07391-022	11/5/2018 1:36:00 AM
Inst Blank(If applicable):		

Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBS Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	36.5767	36.5744	0.01	30
Dichlorodifluoromethane	1	21.9916	22.5247	2.4	30
Chloromethane	1	27.6595	29.7368	7.2	30
Bromomethane	1	18.1649	16.6102	8.9	30
Vinyl Chloride	1	20.3569	19.2878	5.4	40
Chloroethane	1	20.4333	18.8779	7.9	30
Trichlorofluoromethane	1	14.9296	13.269	12	30
Ethyl ether	1	13.0384	13.3049	2	30
Furan	1	14.4675	13.6576	5.8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.6457	18.3018	1.9	30
Methylene Chloride	1	19.504	19.6109	0.55	30
Acrolein	1	71.0226	68.7604	3.2	30
Acrylonitrile	1	17.6462	19.276	8.8	30
Iodomethane	1	13.8181	14.4311	4.3	30
Acetone	1	74.8069	76.7036	2.5	30
Carbon Disulfide	1	15.9382	16.2922	2.2	30
t-Butyl Alcohol	1	69.8015	74.7716	6.9	30
n-Hexane	1	17.1915	16.9378	1.5	30
Di-isopropyl-ether	1	19.2248	19.4656	1.2	30
1,1-Dichloroethene	1	15.7228	17.4218	10	40
Methyl Acetate	1	14.5129	14.5487	0.25	30
Methyl-t-butyl ether	1	14.8014	15.44	4.2	30
1,1-Dichloroethane	1	18.2377	17.3213	5.2	40
trans-1,2-Dichloroethene	1	16.9102	13.4984	22	30
Ethyl-t-butyl ether	1	16.3038	16.6553	2.1	30
cis-1,2-Dichloroethene	1	17.7749	17.9943	1.2	30
Bromochloromethane	1	21.0717	19.6061	7.2	30
2,2-Dichloropropane	1	15.6191	15.4974	0.78	30
Ethyl acetate	1	15.2405	16.6786	9	30
1,4-Dioxane	1	798.4946	852.4635	6.5	30
1,1-Dichloropropene	1	18.1599	17.6874	2.6	30
Chloroform	1	15.4767	15.3912	0.55	40
Cyclohexane	1	18.5121	19.3096	4.2	30
1,2-Dichloroethane	1	18.7086	18.0964	3.3	40
2-Butanone	1	16.8664	17.0189	0.9	40
1,1,1-Trichloroethane	1	15.6789	15.2637	2.7	30
Carbon Tetrachloride	1	16.8296	15.7011	6.9	40
Vinyl Acetate	1	16.2904	17.288	5.9	30
Bromodichloromethane	1	16.1654	17.719	9.2	30
Methylcyclohexane	1	18.5866	18.1448	2.4	30
Dibromomethane	1	17.9211	19.5074	8.5	30
1,2-Dichloropropane	1	19.9275	19.3279	3.1	30
Trichloroethene	1	16.0738	16.1013	0.17	40
Benzene	1	20.245	19.9882	1.3	40
tert-Amyl methyl ether	1	17.0699	16.2782	4.7	30
Iso-propylacetate	1	16.4879	18.2577	10	30
Methyl methacrylate	1	16.4099	17.904	8.7	30
Dibromochloromethane	1	16.0244	16.0412	0.1	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	17.3254	16.6503	4	30
trans-1,3-Dichloropropene	1	16.6405	16.5635	0.46	30
Ethyl methacrylate	1	18.1541	16.9199	7	30
1,1,2-Trichloroethane	1	20.3171	19.1748	5.8	30
1,2-Dibromoethane	1	15.1935	15.5259	2.2	30
1,3-Dichloropropane	1	20.6589	20.8606	0.97	30
4-Methyl-2-Pentanone	1	17.6359	17.9325	1.7	30
2-Hexanone	1	19.1654	18.7333	2.3	30
Tetrachloroethene	1	21.8186	22.1314	1.4	40
Toluene	1	16.7221	17.1829	2.7	40
1,1,1,2-Tetrachloroethane	1	20.2361	20.0138	1.1	30
Chlorobenzene	1	17.1827	17.6133	2.5	40
n-Butyl acrylate	1	19.2474	17.9951	6.7	30
n-Amyl acetate	1	17.3872	17.7052	1.8	30

Form3
RPD Data Laboratory Limits

8102901 0139

QC Batch: MBS73584

Bromoform	1	15.882	15.2607	4	30
Ethylbenzene	1	16.6407	17.6205	5.7	30
1,1,2,2-Tetrachloroethane	1	18.2623	18.6164	1.9	30
Styrene	1	19.0843	18.1916	4.8	30
m&p-Xylenes	1	38.4664	36.4187	5.5	30
o-Xylene	1	19.4785	18.4127	5.6	30
trans-1,4-Dichloro-2-butene	1	12.7898	13.5562	5.8	30
1,3-Dichlorobenzene	1	17.0136	16.5229	2.9	30
1,4-Dichlorobenzene	1	16.5895	16.0359	3.4	40
1,2-Dichlorobenzene	1	16.0974	15.6128	3.1	40
Isopropylbenzene	1	19.0549	17.8914	6.3	30
Cyclohexanone	1	53.0626	57.0058	7.2	30
Camphene	1	3.55	3.88	8.9	30
1,2,3-Trichloropropane	1	18.2492	17.5192	4.1	30
2-Chlorotoluene	1	20.2987	18.6191	8.6	30
p-Ethyltoluene	1	15.6433	14.8066	5.5	30
4-Chlorotoluene	1	17.5533	16.658	5.2	30
n-Propylbenzene	1	19.0089	17.4288	8.7	40
Bromobenzene	1	15.9534	15.2807	4.3	30
1,3,5-Trimethylbenzene	1	20.84	17.1117	20	30
Butyl methacrylate	1	21.515	19.3411	11	30
t-Butylbenzene	1	17.2375	16.2776	5.7	30
1,2,4-Trimethylbenzene	1	17.6137	17.0044	3.5	30
sec-Butylbenzene	1	18.6824	17.9364	4.1	40
4-Isopropyltoluene	1	17.6474	17.9455	1.7	30
n-Butylbenzene	1	18.1775	16.8804	7.4	30
p-Diethylbenzene	1	16.2416	16.3821	0.86	30
1,2,4,5-Tetramethylbenzene	1	16.3635	15.349	6.4	30
1,2-Dibromo-3-Chloropropane	1	16.2186	15.6169	3.8	30
Camphor	1	116.1392	115.2166	0.8	30
Hexachlorobutadiene	1	18.0715	15.4377	16	30
1,2,4-Trichlorobenzene	1	16.4299	16.3715	0.36	30
1,2,3-Trichlorobenzene	1	15.0243	14.9936	0.2	30
Naphthalene	1	16.2773	15.704	3.6	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

FORM 4
Blank SummaryBlank Number: DAILY BLANK
Blank Data File: 3M139633.D
Matrix: AqueousBlank Analysis Date: 11/03/18 16:44
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260C

Sample Number	Data File	Analysis Date
AD07391-025	3M139655.D	11/03/18 23:06
AD07391-026	3M139656.D	11/03/18 23:20
AD07391-027	3M139657.D	11/03/18 23:38
AD07391-028	3M139658.D	11/03/18 23:55
AD07391-029	3M139659.D	11/04/18 00:15
AD07391-030	3M139660.D	11/04/18 00:32
AD07391-031	3M139661.D	11/04/18 00:49
AD07391-032	3M139662.D	11/04/18 01:06
AD07391-035	3M139663.D	11/04/18 01:23
AD07391-036	3M139664.D	11/04/18 01:40
AD07391-037	3M139665.D	11/04/18 01:57
MBS73573	3M139634.D	11/03/18 17:05
AD07350-005	3M139654.D	11/03/18 22:48
AD07350-005(MS)	3M139640.D	11/03/18 18:47
AD07350-005(MSD)	3M139641.D	11/03/18 19:05

FORM 4
Blank Summary

Blank Number: DAILY BLANK
Blank Data File: 3M139672.D
Matrix: Aqueous

Blank Analysis Date: 11/04/18 03:56
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260C

Sample Number	Data File	Analysis Date
AD07391-016	3M139687.D	11/04/18 08:13
AD07391-017	3M139686.D	11/04/18 07:56
AD07391-018	3M139685.D	11/04/18 07:39
AD07391-019	3M139684.D	11/04/18 07:22
AD07391-020	3M139683.D	11/04/18 07:04
AD07391-021	3M139682.D	11/04/18 06:47
AD07391-038	3M139677.D	11/04/18 05:21
AD07391-039	3M139678.D	11/04/18 05:38
AD07391-040	3M139679.D	11/04/18 05:55
AD07391-041	3M139680.D	11/04/18 06:12
AD07391-042	3M139681.D	11/04/18 06:29
AD07391-040(MSD)	3M139675.D	11/04/18 04:45
AD07391-040(MS)	3M139674.D	11/04/18 04:30
MBS73571	3M139673.D	11/04/18 04:13

FORM 4
Blank SummaryBlank Number: DAILY BLANK
Blank Data File: 3M139708.D
Matrix: AqueousBlank Analysis Date: 11/04/18 13:44
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260C

Sample Number	Data File	Analysis Date
AD07391-001	3M139726.D	11/04/18 17:53
AD07391-002	3M139727.D	11/04/18 18:07
AD07391-003	3M139728.D	11/04/18 18:27
AD07391-004	3M139729.D	11/04/18 18:45
AD07391-005	3M139730.D	11/04/18 19:02
AD07391-006	3M139731.D	11/04/18 19:19
AD07391-007	3M139732.D	11/04/18 19:37
AD07391-008	3M139733.D	11/04/18 19:54
AD07391-009	3M139734.D	11/04/18 20:11
AD07391-010	3M139735.D	11/04/18 20:28
AD07391-011	3M139736.D	11/04/18 20:45
AD07391-012	3M139737.D	11/04/18 21:02
AD07391-013	3M139739.D	11/04/18 21:36
AD07391-014(MS:	3M139740.D	11/04/18 21:53
AD07391-015(MSD	3M139741.D	11/04/18 22:10
AD07391-033	3M139725.D	11/04/18 17:36
AD07391-034	3M139722.D	11/04/18 16:44
MBS73583	3M139742.D	11/04/18 22:24

FORM 4
Blank Summary

Blank Number: DAILY BLANK
Blank Data File: 3M139750.D
Matrix: Aqueous

Blank Analysis Date: 11/05/18 00:44
Blank Extraction Date: NA
(If Applicable)
Method: EPA 8260C

Sample Number	Data File	Analysis Date
AD07391-022	3M139751.D	11/05/18 01:01
AD07391-023(MS:	3M139753.D	11/05/18 01:36
AD07391-024(MSD	3M139754.D	11/05/18 01:52
MBS73584	3M139752.D	11/05/18 01:18

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M137821.D
Analysis Date: 10/10/18 07:11
Method: EPA 8260C

Tune Scan/Time Range: Average of 4.872 to 4.951 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	23.6	5618	PASS
75	95	30	60	51.6	12301	PASS
95	95	100	100	100.0	23826	PASS
96	95	5	9	7.1	1688	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.1	18380	PASS
175	174	5	9	6.1	1127	PASS
176	174	95	101	99.1	18221	PASS
177	176	5	9	6.5	1186	PASS

Data File	Sample Number	Analysis Date:
3M137824.D	CAL @ 0.5 PPB	10/10/18 07:52
3M137825.D	CAL @ 1 PPB	10/10/18 08:10
3M137826.D	CAL @ 5 PPB	10/10/18 08:27
3M137827.D	CAL @ 10 PPB	10/10/18 08:44
3M137828.D	CAL @ 20 PPB	10/10/18 09:01
3M137829.D	CAL @ 50 PPB	10/10/18 09:18
3M137830.D	CAL @ 500 PPB	10/10/18 09:35
3M137832.D	CAL @ 250 PPB	10/10/18 10:10
3M137834.D	CAL @ 100 PPB	10/10/18 10:45
3M137837.D	ICV	10/10/18 11:38

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M139626.D
Analysis Date: 11/03/18 14:51
Method: EPA 8260C

Tune Scan/Time Range: Scan 43

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	27.9	10463	PASS
75	95	30	60	55.9	20968	PASS
95	95	100	100	100.0	37520	PASS
96	95	5	9	7.1	2655	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.9	31480	PASS
175	174	5	9	8.6	2699	PASS
176	174	95	101	96.8	30488	PASS
177	176	5	9	7.8	2385	PASS

Data File	Sample Number	Analysis Date:
3M139628.D	CAL @ 20 PPB	11/03/18 15:18
3M139630.D	BLK	11/03/18 15:53
3M139631.D	BLK	11/03/18 16:10
3M139632.D	DAILY BLANK	11/03/18 16:27
3M139633.D	DAILY BLANK	11/03/18 16:44
3M139634.D	MBS73573	11/03/18 17:05
3M139635.D	AD07257-001	11/03/18 17:22
3M139636.D	AD07257-011	11/03/18 17:39
3M139637.D	AD07279-003	11/03/18 17:56
3M139638.D	AD07336-009	11/03/18 18:14
3M139639.D	AD07310-001	11/03/18 18:31
3M139640.D	AD07350-005(MS)	11/03/18 18:47
3M139641.D	AD07350-005(MSD)	11/03/18 19:05
3M139642.D	MBS73574	11/03/18 19:22
3M139643.D	AD07298-015(MS)	11/03/18 19:39
3M139644.D	AD07298-015(MSD)	11/03/18 19:56
3M139645.D	MBS73575	11/03/18 20:14
3M139646.D	BLK	11/03/18 20:30
3M139647.D	AD07298-015	11/03/18 20:48
3M139648.D	AD07298-017	11/03/18 21:06
3M139649.D	AD07298-019	11/03/18 21:23
3M139650.D	AD07298-023	11/03/18 21:40
3M139651.D	AD07350-011	11/03/18 21:57
3M139652.D	AD07350-009	11/03/18 22:14
3M139653.D	AD07350-006	11/03/18 22:30
3M139654.D	AD07350-005	11/03/18 22:48
3M139655.D	AD07391-025	11/03/18 23:06
3M139656.D	AD07391-026	11/03/18 23:20
3M139657.D	AD07391-027	11/03/18 23:38
3M139658.D	AD07391-028	11/03/18 23:55
3M139659.D	AD07391-029	11/04/18 00:15
3M139660.D	AD07391-030	11/04/18 00:32
3M139661.D	AD07391-031	11/04/18 00:49
3M139662.D	AD07391-032	11/04/18 01:06
3M139663.D	AD07391-035	11/04/18 01:23
3M139664.D	AD07391-036	11/04/18 01:40
3M139665.D	AD07391-037	11/04/18 01:57

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M139667.D
Analysis Date: 11/04/18 02:31
Method: EPA 8260C

Tune Scan/Time Range: Average of 4.946 to 5.045 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	20.7	2434	PASS
75	95	30	60	48.2	5674	PASS
95	95	100	100	100.0	11775	PASS
96	95	5	9	6.0	710	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.6	10194	PASS
175	174	5	9	7.7	789	PASS
176	174	95	101	100.1	10206	PASS
177	176	5	9	6.1	626	PASS

Data File	Sample Number	Analysis Date:
3M139668.D	20 PPB	11/04/18 02:48
3M139669.D	CAL @ 20 PPB	11/04/18 03:05
3M139670.D	BLK	11/04/18 03:22
3M139671.D	BLK	11/04/18 03:39
3M139672.D	DAILY BLANK	11/04/18 03:56
3M139673.D	MBS73571	11/04/18 04:13
3M139674.D	AD07391-040(MS)	11/04/18 04:30
3M139675.D	AD07391-040(MSD)	11/04/18 04:45
3M139676.D	BLK	11/04/18 05:04
3M139677.D	AD07391-038	11/04/18 05:21
3M139678.D	AD07391-039	11/04/18 05:38
3M139679.D	AD07391-040	11/04/18 05:55
3M139680.D	AD07391-041	11/04/18 06:12
3M139681.D	AD07391-042	11/04/18 06:29
3M139682.D	AD07391-021	11/04/18 06:47
3M139683.D	AD07391-020	11/04/18 07:04
3M139684.D	AD07391-019	11/04/18 07:22
3M139685.D	AD07391-018	11/04/18 07:39
3M139686.D	AD07391-017	11/04/18 07:56
3M139687.D	AD07391-016	11/04/18 08:13
3M139688.D	MBS73572	11/04/18 08:31
3M139689.D	BLK	11/04/18 08:47

Form 5

Tune Name: BFB TUNE

Data File: 3M139703.D

Instrument: GCMS 3

Analysis Date: 11/04/18 12:17

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.930 to 5.028 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	22.6	2310	PASS
75	95	30	60	48.1	4910	PASS
95	95	100	100	100.0	10203	PASS
96	95	5	9	5.8	593	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.5	8522	PASS
175	174	5	9	5.0	430	PASS
176	174	95	101	95.3	8118	PASS
177	176	5	9	6.1	494	PASS

Data File	Sample Number	Analysis Date:
3M139705.D	CAL @ 20 PPB	11/04/18 12:51
3M139707.D	DAILY BLANK	11/04/18 13:26
3M139708.D	DAILY BLANK	11/04/18 13:44
3M139709.D	AD07270-001	11/04/18 14:00
3M139710.D	AD07349-009(T)	11/04/18 14:17
3M139711.D	MBS73581	11/04/18 14:35
3M139712.D	AD07349-010(T)	11/04/18 14:52
3M139713.D	AD07349-011(T)	11/04/18 15:10
3M139714.D	AD07387-002(T)	11/04/18 15:27
3M139715.D	AD07389-002(T)	11/04/18 15:44
3M139716.D	AD07154-005(T)	11/04/18 16:02
3M139717.D	MBS73582	11/04/18 15:19
3M139718.D	AD07349-009(T:M)	11/04/18 15:36
3M139719.D	AD07349-009(T:M)	11/04/18 15:53
3M139720.D	AD07322-003(MS)	11/04/18 16:10
3M139721.D	AD07322-003(MSD)	11/04/18 16:27
3M139722.D	AD07391-034	11/04/18 16:44
3M139723.D	AD07322-003	11/04/18 17:02
3M139724.D	AD07322-007	11/04/18 17:18
3M139725.D	AD07391-033	11/04/18 17:36
3M139726.D	AD07391-001	11/04/18 17:53
3M139727.D	AD07391-002	11/04/18 18:07
3M139728.D	AD07391-003	11/04/18 18:27
3M139729.D	AD07391-004	11/04/18 18:45
3M139730.D	AD07391-005	11/04/18 19:02
3M139731.D	AD07391-006	11/04/18 19:19
3M139732.D	AD07391-007	11/04/18 19:37
3M139733.D	AD07391-008	11/04/18 19:54
3M139734.D	AD07391-009	11/04/18 20:11
3M139735.D	AD07391-010	11/04/18 20:28
3M139736.D	AD07391-011	11/04/18 20:45
3M139737.D	AD07391-012	11/04/18 21:02
3M139738.D	BLK	11/04/18 21:19
3M139739.D	AD07391-013	11/04/18 21:36
3M139740.D	AD07391-014(MS)	11/04/18 21:53
3M139741.D	AD07391-015(MSD)	11/04/18 22:10
3M139742.D	MBS73583	11/04/18 22:24

Form 5

Tune Name: BFB TUNE

Data File: 3M139744.D

Instrument: GCMS 3

Analysis Date: 11/04/18 23:01

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.966 to 4.995 min

Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	23.6	6216	PASS
75	95	30	60	49.4	12999	PASS
95	95	100	100	100.0	26320	PASS
96	95	5	9	7.4	1960	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.2	21643	PASS
175	174	5	9	8.7	1875	PASS
176	174	95	101	97.9	21180	PASS
177	176	5	9	6.3	1335	PASS

Data File	Sample Number	Analysis Date:
3M139745.D	CAL @ 20 PPB	11/04/18 23:18
3M139746.D	20 PPB	11/04/18 23:35
3M139747.D	BLK	11/04/18 23:52
3M139748.D	BLK	11/05/18 00:09
3M139749.D	DAILY BLANK	11/05/18 00:26
3M139750.D	DAILY BLANK	11/05/18 00:44
3M139751.D	AD07391-022	11/05/18 01:01
3M139752.D	MBS73584	11/05/18 01:18
3M139753.D	AD07391-023(MS)	11/05/18 01:36
3M139754.D	AD07391-024(MSD)	11/05/18 01:52
3M139755.D	MBS73585	11/05/18 02:10
3M139756.D	AD07268-009(MS)	11/05/18 02:27
3M139757.D	AD07268-009(MSD)	11/05/18 02:44
3M139758.D	BLK	11/05/18 03:01
3M139759.D	AD07271-004	11/05/18 03:18
3M139760.D	AD07271-006	11/05/18 03:35
3M139761.D	AD07268-010	11/05/18 03:52
3M139762.D	AD07268-009	11/05/18 04:09
3M139763.D	AD07271-005	11/05/18 04:26
3M139764.D	AD07271-001	11/05/18 04:43
3M139765.D	AD07298-011	11/05/18 05:00
3M139766.D	AD07298-012	11/05/18 05:16
3M139767.D	AD07298-010	11/05/18 05:33
3M139768.D	AD07298-013	11/05/18 05:50
3M139769.D	AD07268-012	11/05/18 06:07
3M139770.D	BLK	11/05/18 06:24
3M139771.D	AD07390-002(T)	11/05/18 06:41
3M139772.D	AD07390-004(T)	11/05/18 06:57
3M139773.D	AD07432-002(T)	11/05/18 07:14
3M139774.D	MBS73586	11/05/18 07:31
3M139775.D	AD07349-010(T:M)	11/05/18 07:48
3M139776.D	AD07349-010(T:M)	11/05/18 08:26
3M139777.D	EF-1-V-291003(110)	11/05/18 08:43
3M139778.D	AD07322-001	11/05/18 09:00
3M139779.D	AD07322-006	11/05/18 09:17
3M139780.D	AD07322-004	11/05/18 09:35
3M139781.D	AD07300-012	11/05/18 09:52
3M139782.D	AD07300-006	11/05/18 10:09

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M137828.D

Method: EPA 8260C

Analysis Date/Time: 10/10/18 09:01

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	308583	4.91	246414	6.76	112449	8.21								
Eval File Area Limit:	154292-617166		123207-492828		56224-224898									
Eval File RT Limit:	4.41-5.41		6.26-7.26		7.71-8.71									

Data File	Sample													
3M137824.D	CAL @ 0.5 PPB	306666	4.91	251889	6.76	102288	8.21							
3M137825.D	CAL @ 1 PPB	307867	4.91	251278	6.76	109117	8.21							
3M137826.D	CAL @ 5 PPB	288718	4.91	234022	6.76	106368	8.21							
3M137827.D	CAL @ 10 PPB	230586	4.91	186244	6.76	89051	8.21							
3M137828.D	CAL @ 20 PPB	308583	4.91	246414	6.76	112449	8.21							
3M137829.D	CAL @ 50 PPB	336959	4.91	271671	6.76	124228	8.21							
3M137830.D	CAL @ 500 PPB	352847	4.91	272696	6.76	117881	8.21							
3M137832.D	CAL @ 250 PPB	370701	4.91	311989	6.76	129180	8.21							
3M137834.D	CAL @ 100 PPB	377477	4.91	311752	6.76	138468	8.20							
3M137837.D	ICV	304645	4.92	254590	6.77	115112	8.21							

11 =	Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M139628.D

Method: EPA 8260C

Analysis Date/Time: 11/03/18 15:18

Lab File ID: CAL @ 20 PPB

Eval File Area/RT	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
248907	4.92		199112	6.77	84356	8.21								
Eval File Area Limit:	124454-497814		99556-398224		42178-168712									
Eval File RT Limit:	4.42-5.42		6.27-7.27		7.71-8.71									

Data File Sample															
3M139630.D	BLK	220239	4.91	188289	6.77	76284	8.21								
3M139631.D	BLK	219051	4.91	182835	6.76	76350	8.21								
3M139632.D	DAILY BLANK	242429	4.92	208852	6.76	83279	8.21								
3M139633.D	DAILY BLANK	252905	4.92	210321	6.77	83307	8.21								
3M139634.D	MBS73573	221226	4.91	178710	6.76	77487	8.21								
3M139635.D	AD07257-001	239464	4.91	202537	6.76	81470	8.21								
3M139636.D	AD07257-011	258124	4.91	209504	6.76	85759	8.21								
3M139637.D	AD07279-003	240838	4.91	200073	6.76	80950	8.21								
3M139638.D	AD07336-009	250912	4.92	205471	6.77	86009	8.21								
3M139639.D	AD07310-001	236281	4.92	210400	6.76	85134	8.21								
3M139640.D	AD07350-005(MS)	261123	4.91	213202	6.76	95111	8.20								
3M139641.D	AD07350-005(MSD)	252917	4.91	207829	6.76	91780	8.20								
3M139642.D	MBS73574	272078	4.91	217346	6.76	96644	8.21								
3M139643.D	AD07298-015(MS)	185218	4.90	151569	6.75	71353	8.20								
3M139644.D	AD07298-015(MSD)	182897	4.90	157748	6.76	70453	8.20								
3M139645.D	MBS73575	255830	4.90	211590	6.75	94572	8.20								
3M139646.D	BLK	245890	4.90	201188	6.75	89172	8.20								
3M139647.D	AD07298-015	252630	4.90	214104	6.75	96343	8.20								
3M139648.D	AD07298-017	258389	4.90	220361	6.75	93664	8.20								
3M139649.D	AD07298-019	252736	4.90	215527	6.75	96675	8.20								
3M139650.D	AD07298-023	253268	4.90	205426	6.75	91097	8.20								
3M139651.D	AD07350-011	216584	4.90	185801	6.75	76277	8.20								
3M139652.D	AD07350-009	252498	4.90	219108	6.75	86208	8.20								
3M139653.D	AD07350-006	229081	4.90	195220	6.75	82775	8.20								
3M139654.D	AD07350-005	255484	4.90	208987	6.75	85766	8.20								
3M139655.D	AD07391-025	246957	4.90	207998	6.75	88218	8.20								
3M139656.D	AD07391-026	243271	4.90	207891	6.75	82090	8.20								
3M139657.D	AD07391-027	233343	4.90	195855	6.75	81938	8.20								
3M139658.D	AD07391-028	229599	4.90	196382	6.75	82932	8.20								
3M139659.D	AD07391-029	240158	4.90	202441	6.75	83801	8.20								
3M139660.D	AD07391-030	225229	4.90	189521	6.75	79525	8.20								
3M139661.D	AD07391-031	210878	4.90	174680	6.75	73427	8.19								

11 = Fluorobenzene
12 = Chlorobenzene-d5
13 = 1,4-Dichlorobenzene-d4

14 =

15 =

16 =

625/8270 Internal Standard concentration = 40 mg/L (in final extract)

624/8260 Internal Standard concentration = 30mg/L

524 Internal Standard concentration = 5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

0151 0102901 0102901

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M139628.D

Analysis Date/Time: 11/03/18 15:18

Lab File ID: CAL @ 20 PPB

Method: EPA 8260C

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	248907	4.92	199112	6.77	84356	8.21								
Eval File Area Limit:	124454-497814		99556-398224		42178-168712									
Eval File RT Limit:	4.42-5.42		6.27-7.27		7.71-8.71									

Data File	Sample													
3M139662.D	AD07391-032	172466	4.90	140022	6.75	59330	8.20							
3M139663.D	AD07391-035	209104	4.90	174212	6.75	71689	8.20							
3M139664.D	AD07391-036	205624	4.90	172350	6.75	70295	8.20							
3M139665.D	AD07391-037	222492	4.90	178513	6.75	78972	8.19							

11 =	Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M139669.D

Method: EPA 8260C

Analysis Date/Time: 11/04/18 03:05

Lab File ID: CAL @ 20 PPB

11		12		13		14		15		16		17	
Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
211241	4.91	181625	6.76	80867	8.21								
Eval File Area Limit:		105620-422482	90812-363250	40434-161734									
Eval File RT Limit:		4.41-5.41	6.26-7.26	7.71-8.71									

Data File	Sample												
3M139668.D	20 PPB	252930	4.90	209862	6.75	97516	8.19						
3M139670.D	BLK	221806	4.90	189629	6.75	78625	8.20						
3M139671.D	BLK	232913	4.90	196088	6.75	83079	8.19						
3M139672.D	DAILY BLANK	200099	4.90	172737	6.75	71097	8.20						
3M139673.D	MBS73571	244222	4.90	204611	6.75	90757	8.19						
3M139674.D	AD07391-040(MS)	221845	4.90	183734	6.75	83904	8.20						
3M139675.D	AD07391-040(MSD)	246705	4.90	204029	6.75	93178	8.19						
3M139676.D	BLK	203971	4.89	175530	6.75	75183	8.19						
3M139677.D	AD07391-038	222609	4.90	189296	6.75	77153	8.20						
3M139678.D	AD07391-039	209233	4.90	173204	6.75	71464	8.19						
3M139679.D	AD07391-040	205931	4.90	179316	6.75	70514	8.19						
3M139680.D	AD07391-041	225152	4.91	182888	6.76	73727	8.21						
3M139681.D	AD07391-042	243647	4.90	192927	6.75	80000	8.20						
3M139682.D	AD07391-021	243101	4.90	207896	6.75	78893	8.19						
3M139683.D	AD07391-020	218100	4.90	186747	6.74	75267	8.19						
3M139684.D	AD07391-019	240807	4.90	195800	6.74	81193	8.19						
3M139685.D	AD07391-018	233718	4.89	199697	6.74	77796	8.19						
3M139686.D	AD07391-017	232131	4.89	203537	6.74	79914	8.19						
3M139687.D	AD07391-016	222207	4.90	188219	6.75	73741	8.19						
3M139688.D	MBS73572	221052	4.90	188713	6.74	81116	8.19						
3M139689.D	BLK	236811	4.89	195720	6.74	84495	8.18						

11 = Fluorobenzene
12 = Chlorobenzene-d5
13 = 1,4-Dichlorobenzene-d4

14 =
15 =
16 =

625/8270 Internal Standard concentration = 40 mg/L (in final extract)
624/8260 Internal Standard concentration = 30mg/L
524 Internal Standard concentration = 5mg/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M139705.D

Method: EPA 8260C

Analysis Date/Time: 11/04/18 12:51

Lab File ID: CAL @ 20 PPB

Eval File Area/RT	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
227179	4.89		190429	6.74	81217	8.18								
Eval File Area Limit:	113590-454358		95214-380858		40608-162434									
Eval File RT Limit:	4.39-5.39		6.24-7.24		7.68-8.68									

Data File		Sample													
3M139707.D	DAILY BLANK	265672	4.90	214656	6.74	88097	8.19								
3M139708.D	DAILY BLANK	236583	4.90	196695	6.74	78827	8.19								
3M139709.D	AD07270-001	233604	4.89	191304	6.74	82101	8.19								
3M139710.D	AD07349-009(T)	247493	4.90	201454	6.74	79380	8.19								
3M139711.D	MBS73581	251066	4.90	195992	6.75	90316	8.19								
3M139712.D	AD07349-010(T)	213543	4.90	187742	6.75	76861	8.20								
3M139713.D	AD07349-011(T)	212673	4.90	182920	6.74	73565	8.19								
3M139714.D	AD07387-002(T)	241467	4.90	205395	6.74	82390	8.19								
3M139715.D	AD07389-002(T)	238722	4.90	200250	6.74	82996	8.19								
3M139716.D	AD07154-005(T)	224647	4.90	188599	6.74	78635	8.19								
3M139717.D	MBS73582	231803	4.90	189718	6.75	87601	8.19								
3M139718.D	AD07349-009(T.MS)	248309	4.90	208051	6.74	93213	8.19								
3M139719.D	AD07349-009(T.MSD)	227002	4.90	192187	6.74	82423	8.19								
3M139720.D	AD07322-003(MS)	177131	4.89	142404	6.75	65148	8.19								
3M139721.D	AD07322-003(MSD)	240528	4.89	202191	6.74	86196	8.19								
3M139722.D	AD07391-034	238471	4.90	193023	6.75	80938	8.19								
3M139723.D	AD07322-003	230003	4.89	184757	6.74	83948	8.19								
3M139724.D	AD07322-007	214639	4.89	179952	6.74	75813	8.19								
3M139725.D	AD07391-033	237768	4.90	195169	6.74	78528	8.19								
3M139726.D	AD07391-001	204154	4.90	172368	6.75	66365	8.19								
3M139727.D	AD07391-002	223797	4.90	183294	6.74	70978	8.19								
3M139728.D	AD07391-003	213155	4.90	171035	6.75	69427	8.19								
3M139729.D	AD07391-004	217707	4.90	175372	6.74	69478	8.19								
3M139730.D	AD07391-005	202802	4.90	169988	6.75	69246	8.19								
3M139731.D	AD07391-006	229451	4.89	199306	6.74	77061	8.19								
3M139732.D	AD07391-007	229997	4.90	191621	6.74	77319	8.19								
3M139733.D	AD07391-008	225082	4.90	184717	6.74	76592	8.19								
3M139734.D	AD07391-009	225080	4.90	189636	6.75	73820	8.20								
3M139735.D	AD07391-010	225084	4.90	195486	6.75	78807	8.20								
3M139736.D	AD07391-011	234455	4.90	191329	6.75	75229	8.19								
3M139737.D	AD07391-012	228688	4.89	192684	6.74	73643	8.19								
3M139738.D	BLK	227390	4.90	188271	6.75	77649	8.20								

11 =	Fluorobenzene	14 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =	624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =	524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M139705.D

Method: EPA 8260C

Analysis Date/Time: 11/04/18 12:51

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	227179	4.89	190429	6.74	81217	8.18								
Eval File Area Limit:	113590-454358		95214-380858		40608-162434									
Eval File RT Limit:	4.39-5.39		6.24-7.24		7.68-8.68									

Data File	Sample													
3M139739.D	AD07391-013	232662	4.90	192943	6.74	78398	8.19							
3M139740.D	AD07391-014(MS:AD	240479	4.90	192986	6.75	86450	8.19							
3M139741.D	AD07391-015(MSD:A	230608	4.89	200315	6.74	86605	8.19							
3M139742.D	MBS73583	242073	4.89	205825	6.74	87054	8.19							

Internal Standard Areas

Flags:

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

A - Indicates the compound failed the internal standard area criteria

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

11 =	Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5ug/L

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M139745.D

Analysis Date/Time: 11/04/18 23:18

Lab File ID: CAL @ 20 PPB

Method. EPA 8260C

[illegible][illegible]

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Retention Times:

Limit = within ± 0.5 min of internal standard retention time from the daily cal or mid p.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria

FORM8

Internal Standard Areas

Evaluation Std Data File: 3M139745.D

Method: EPA 8260C

Analysis Date/Time: 11/04/18 23:18

Lab File ID: CAL @ 20 PPB

	11		12		13		14		15		16		17	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
Eval File Area/RT:	255284	4.89	210387	6.74	89299	8.19								
Eval File Area Limit:	127642-510568		105194-420774		44650-178598									
Eval File RT Limit:	4.39-5.39		6.24-7.24		7.69-8.69									

Data File	Sample													
3M139778.D	AD07322-001	219720	4.90	182917	6.75	81818	8.20							
3M139779.D	AD07322-006	229279	4.89	187347	6.75	82337	8.20							
3M139780.D	AD07322-004	233502	4.90	192905	6.75	80847	8.20							
3M139781.D	AD07300-012	208311	4.90	164872	6.75	75336	8.20							
3M139782.D	AD07300-006	226286	4.89	196986	6.75	89405	8.20							

11 =	Fluorobenzene	14 =	17 =	625/8270 Internal Standard concentration = 40 mg/L (in final extract)
12 =	Chlorobenzene-d5	15 =		624/8260 Internal Standard concentration = 30ug/L
13 =	1,4-Dichlorobenzene-d4	16 =		524 Internal Standard concentration = 5ug/L

Internal Standard Areas

Upper Limit = + 100% of internal standard area from daily cal or mid pt.

Lower Limit = - 50% of internal standard area from daily cal or mid pt.

Flags:

A - Indicates the compound failed the internal standard area criteria

R - Indicates the compound failed the internal standard retention time criteria.

Retention Times:

Limit = within +/- 0.5 min of internal standard retention time from the daily cal or mid pt.

GC/MS Volatile Data
Sample Data

Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-001

Client Id: 152140-MW-1D(ONSITE)

Data File: 3M139726.D

Analysis Date: 11/04/18 17:53

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	6.6
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.2
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487387

Total Target Concentration 7.8

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-001
Data File: 3M139726.D
Acq On : 11/ 4/18 17:53

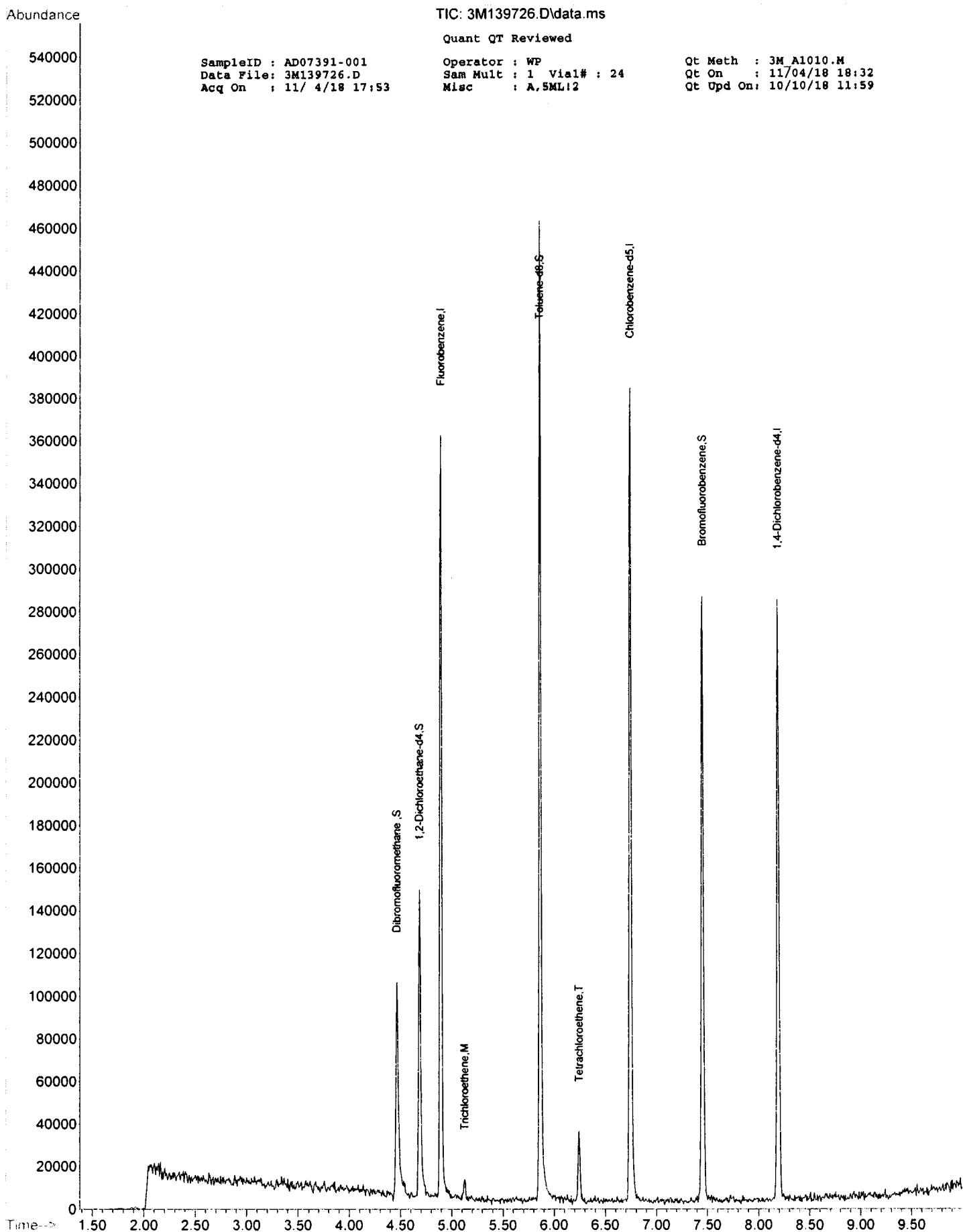
Operator : WP
Sam Mult : 1 Vial# : 24
Misc : A,5ML!2

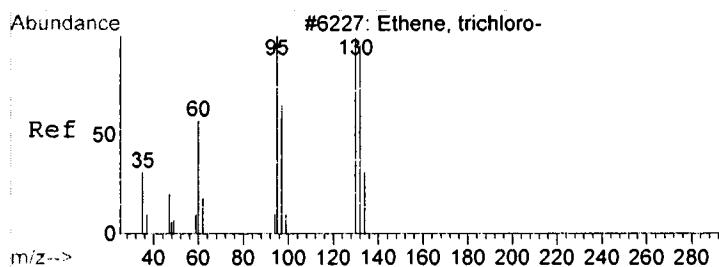
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 18:32
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.897	96	204154	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	172368	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.189	152	66365	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.464	111	53154	29.25	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.50%	
39) 1,2-Dichloroethane-d4	4.687	67	38576	30.23	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.77%	
66) Toluene-d8	5.864	98	210442	29.21	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.37%	
76) Bromofluorobenzene	7.456	174	68304	29.71	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.03%	
Target Compounds						
49) Trichloroethene	5.125	130	2221	1.2496	ug/l	72
65) Tetrachloroethene	6.242	164	6512	6.5761	ug/l	85

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





#49

Trichloroethene

Concen: 1.25 ug/l

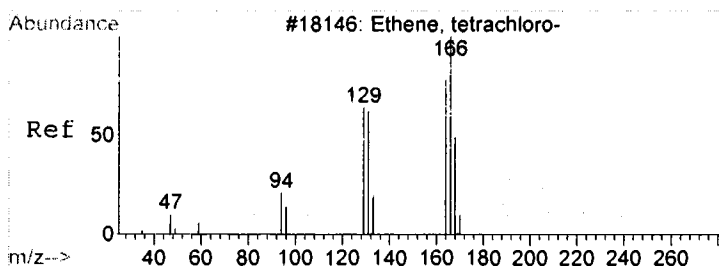
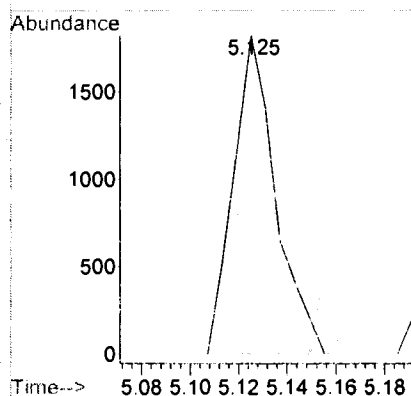
RT: 5.125 min Scan# 553

Delta R.T. -0.014 min

Lab File: 3M139726.D

Acq: 4 Nov 2018 17:53

Tgt Ion:130	Resp:	2221
Ion Ratio	Lower	Upper
130	100	
132	88.8	40.0 200.0
95	71.9	40.0 160.0



#65

Tetrachloroethene

Concen: 6.58 ug/l

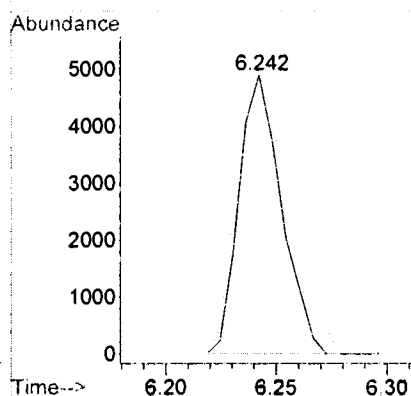
RT: 6.242 min Scan# 739

Delta R.T. -0.014 min

Lab File: 3M139726.D

Acq: 4 Nov 2018 17:53

Tgt Ion:164	Resp:	6512
Ion Ratio	Lower	Upper
164	100	
166	113.9	61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-002

Client Id: 152140-MW-1S(ONSITE)

Data File: 3M139727.D

Analysis Date: 11/04/18 18:07

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-002
Data File: 3M139727.D
Acq On : 11/ 4/18 18:07

Operator : WP
Sam Mult : 1 Vial# : 25
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 18:32
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

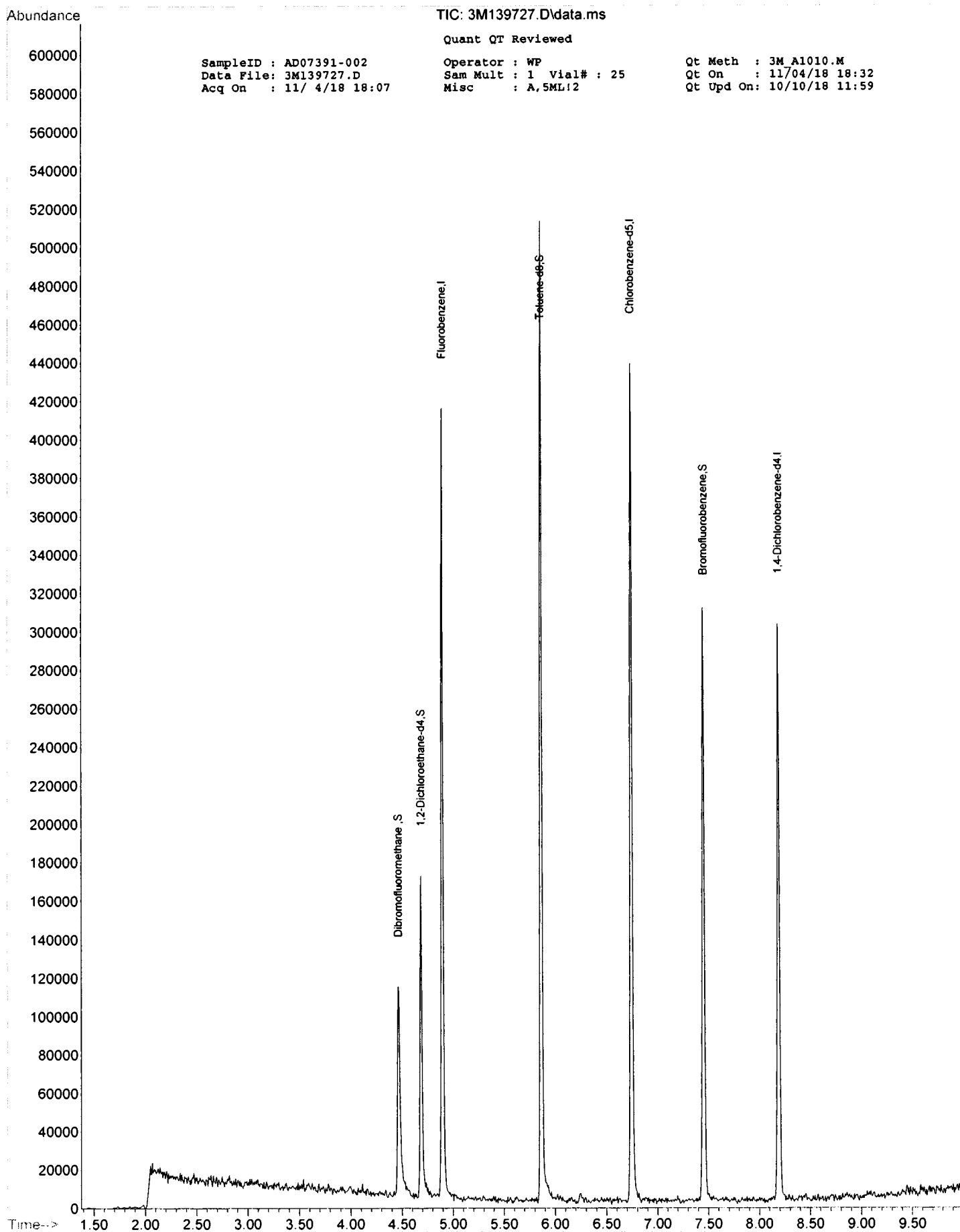
Internal Standards						
4) Fluorobenzene	4.897	96	223797	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.741	117	183294	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.189	152	70978	30.00	ug/l	-0.02

System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	59546	29.89	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	99.63%	
39) 1,2-Dichloroethane-d4	4.687	67	42241	30.19	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	100.63%	
66) Toluene-d8	5.864	98	223757	29.20	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	97.33%	
76) Bromofluorobenzene	7.456	174	76938	31.29	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	104.30%	

Target Compounds	Qvalue

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





Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-003

Client Id: 152140-MW-2A

Data File: 3M139728.D

Analysis Date: 11/04/18 18:27

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.3
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.3

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-003
Data File: 3M139728.D
Acq On : 11/ 4/18 18:27

Operator : WP
Sam Mult : 1 Vial# : 26
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:37
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.897	96	213155	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	171035	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.189	152	69427	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.470	111	58508	30.84	ug/l	0.00
Spiked Amount	30.000		Recovery	=	102.80%	
39) 1,2-Dichloroethane-d4	4.687	67	36670	27.52	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	91.73%	
66) Toluene-d8	5.864	98	213721	29.89	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	99.63%	
76) Bromofluorobenzene	7.456	174	74300	30.89	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	102.97%	
Target Compounds						
65) Tetrachloroethene	6.243	164	1269	1.2896	ug/l	Qvalue 72

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

u

Abundance

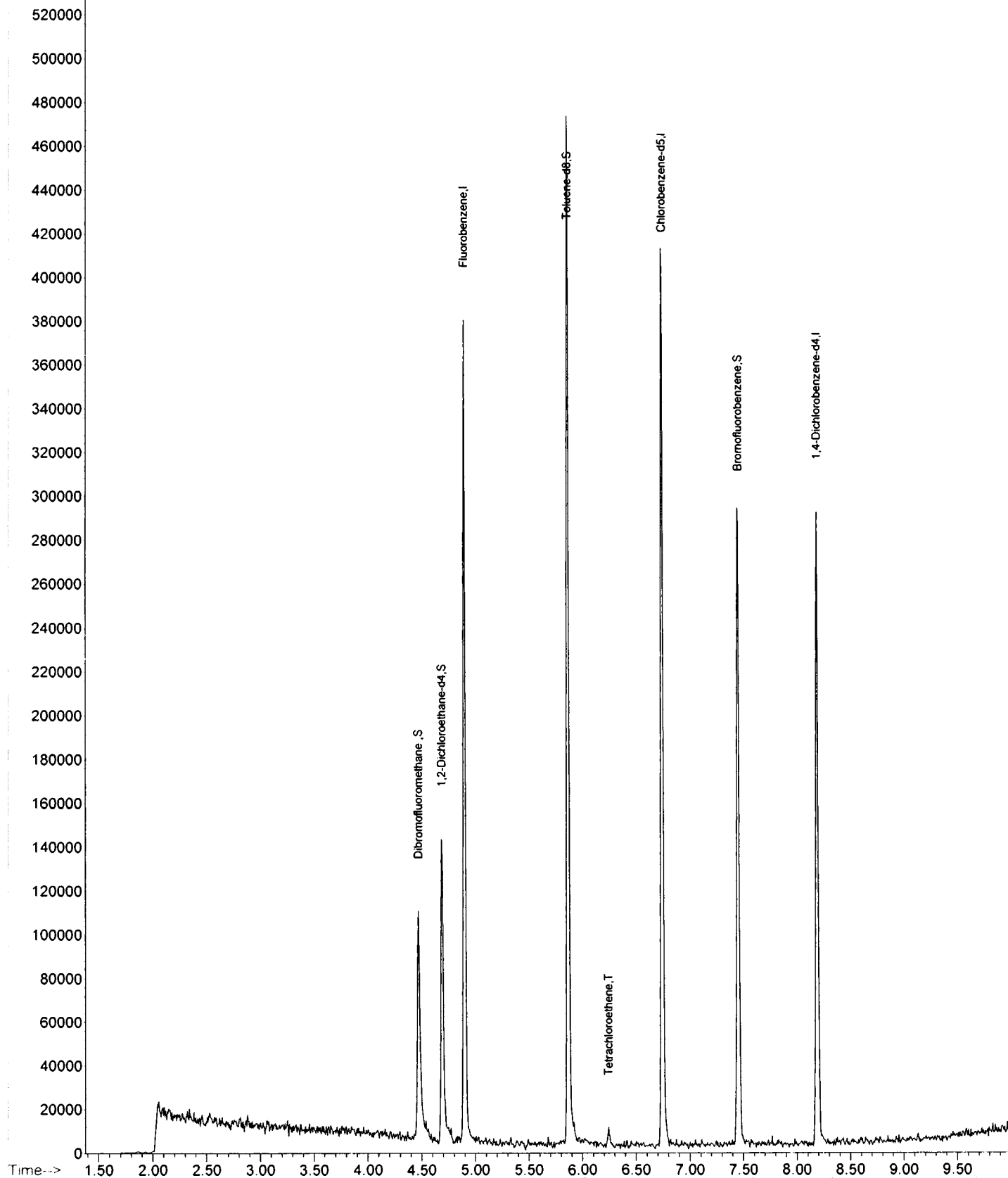
TIC: 3M139728.D\data.ms

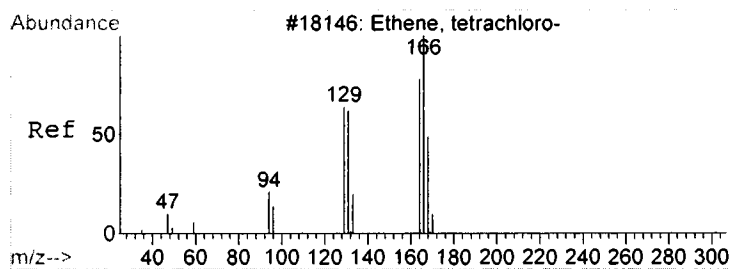
Quant QT Reviewed

SampleID : AD07391-003
Data File: 3M139728.D
Acq On : 11/ 4/18 18:27

Operator : WP
Sam Mult : 1 Vial# : 26
Misc : A,5ML12

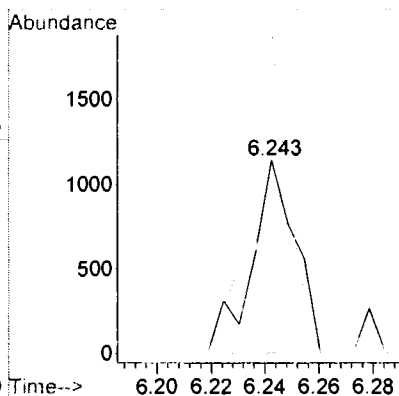
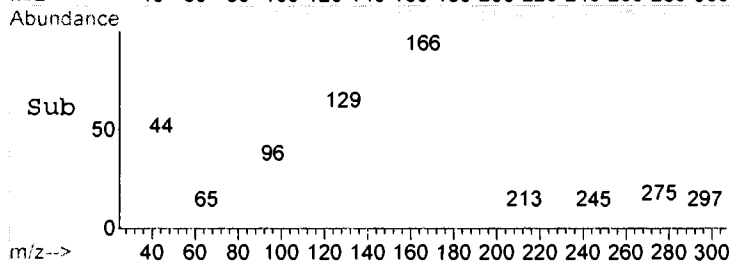
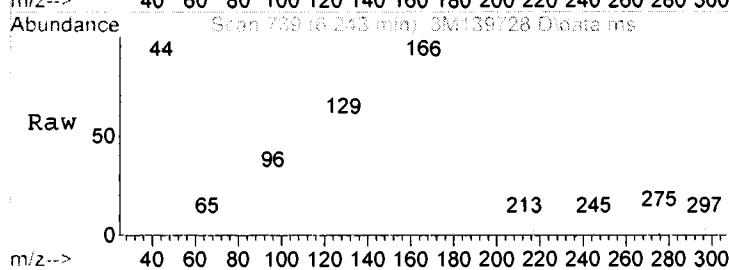
Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:37
Qt Upd On: 10/10/18 11:59





#65
Tetrachloroethene
Concen: 1.29 ug/l
RT: 6.243 min Scan# 739
Delta R.T. -0.013 min
Lab File: 3M139728.D
Acq: 4 Nov 2018 18:27

Tgt Ion: 164 Resp: 1269
Ion Ratio Lower Upper
164 100
166 164.4 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-004

Client Id: 152140-MW-2AD

Data File: 3M139729.D

Analysis Date: 11/04/18 18:45

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.2
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.2
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 2.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-004
 Data File: 3M139729.D
 Acq On : 11/ 4/18 18:45

Operator : WP
 Sam Mult : 1 Vial# : 27
 Misc : A,5ML!2

Qt Meth : 3M_A1010.M
 Qt On : 11/05/18 08:37
 Qt Upd On: 10/10/18 11:59

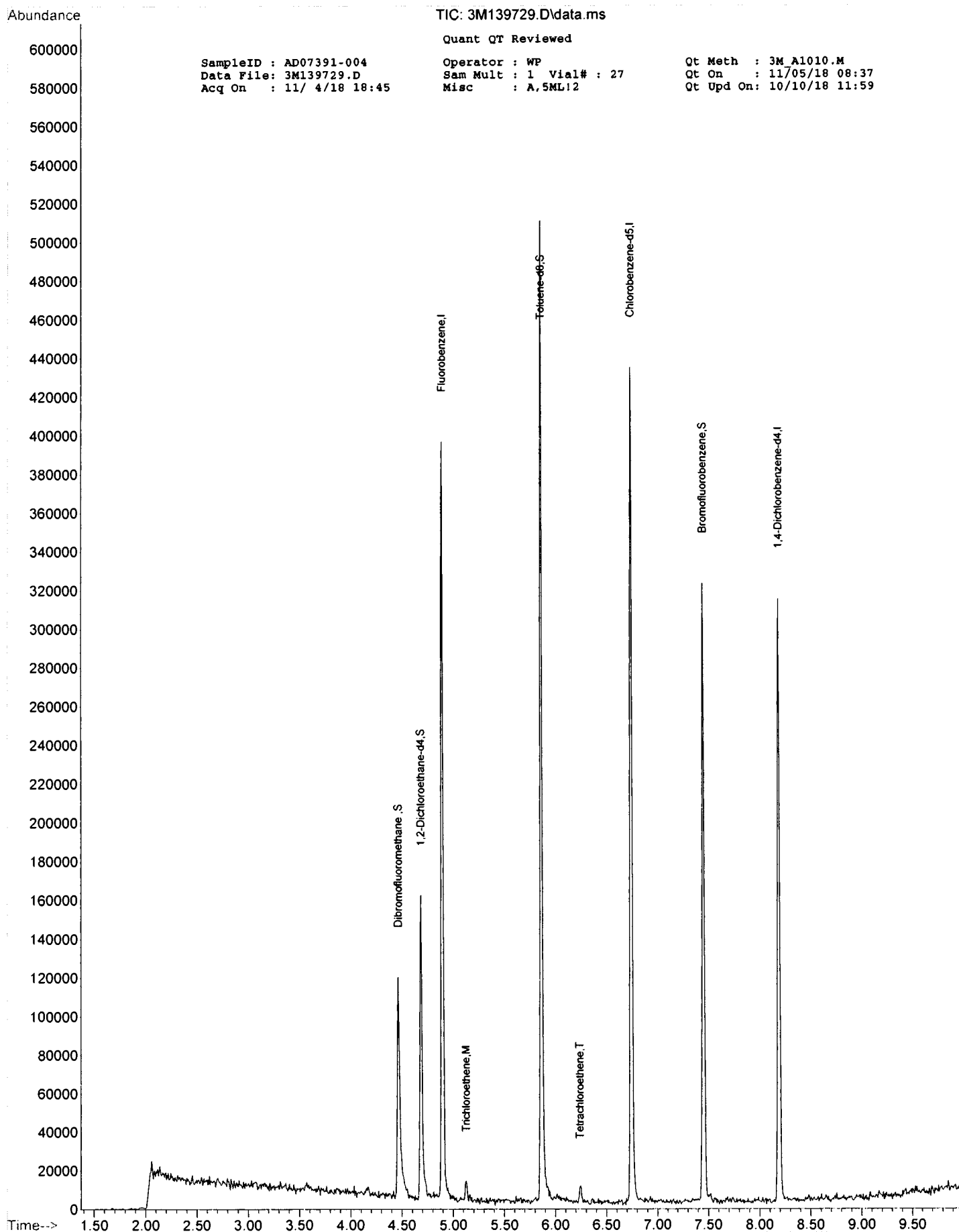
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 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

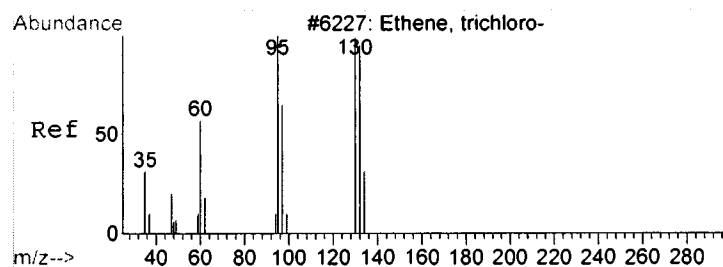
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.898	96	217707	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.742	117	175372	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	69478	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	57367	29.60	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.67%	
39) 1,2-Dichloroethane-d4	4.688	67	42111	30.94	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.13%	
66) Toluene-d8	5.865	98	226535	30.90	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.00%	
76) Bromofluorobenzene	7.451	174	77351	32.14	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	107.13%	
Target Compounds						
49) Trichloroethene	5.126	130	2197	1.1591	ug/l	88
65) Tetrachloroethene	6.238	164	1180	1.1694	ug/l	74

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

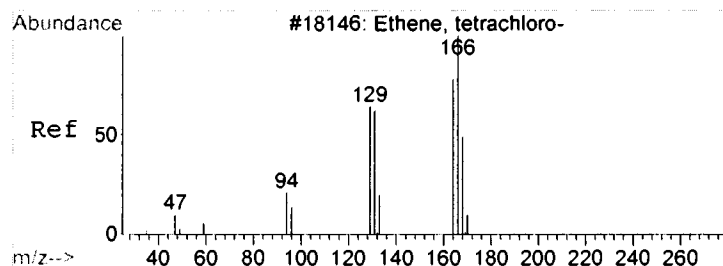
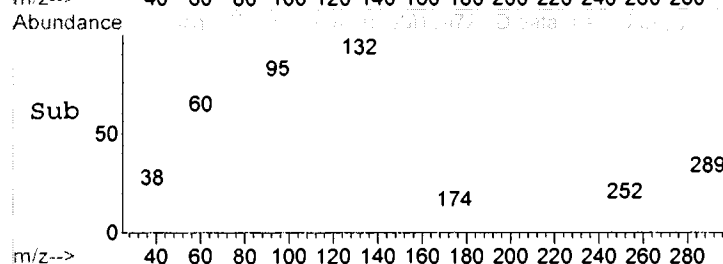
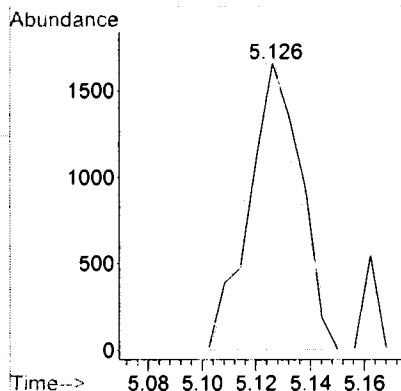
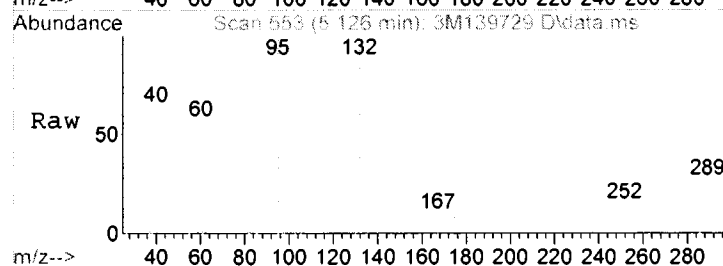
ben





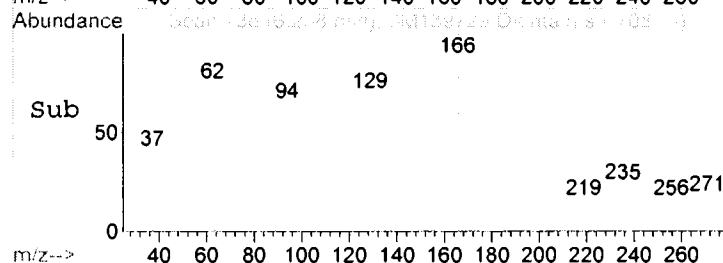
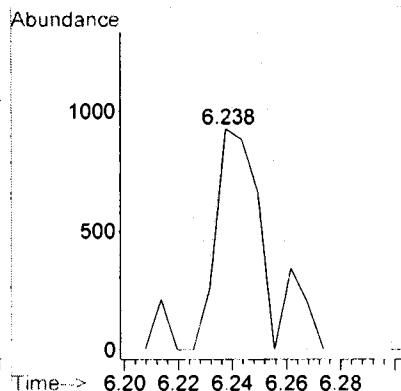
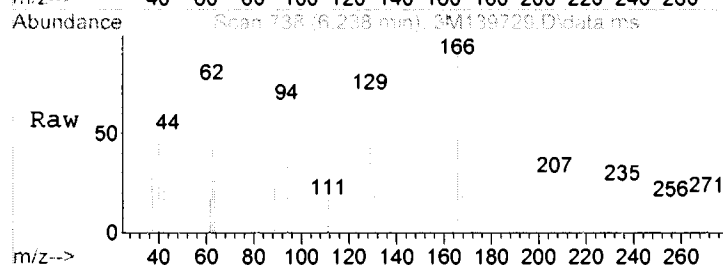
#49
Trichloroethene
Concen: 1.16 ug/l
RT: 5.126 min Scan# 553
Delta R.T. -0.012 min
Lab File: 3M139729.D
Acq: 4 Nov 2018 18:45

Tgt Ion	Ratio	Lower	Upper
130	100		
132	106.8	40.0	200.0
95	111.3	40.0	160.0



#65
Tetrachloroethene
Concen: 1.17 ug/l
RT: 6.238 min Scan# 738
Delta R.T. -0.018 min
Lab File: 3M139729.D
Acq: 4 Nov 2018 18:45

Tgt Ion	Ratio	Lower	Upper
164	100		
166	101.7	61.8	201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-005

Client Id: 152140-MW-3D(ONSITE)

Data File: 3M139730.D

Analysis Date: 11/04/18 19:02

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	6.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-005
Data File: 3M139730.D
Acq On : 11/ 4/18 19:02

Operator : WP
Sam Mult : 1 Vial# : 28
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:37
Qt Upd On: 10/10/18 11:59

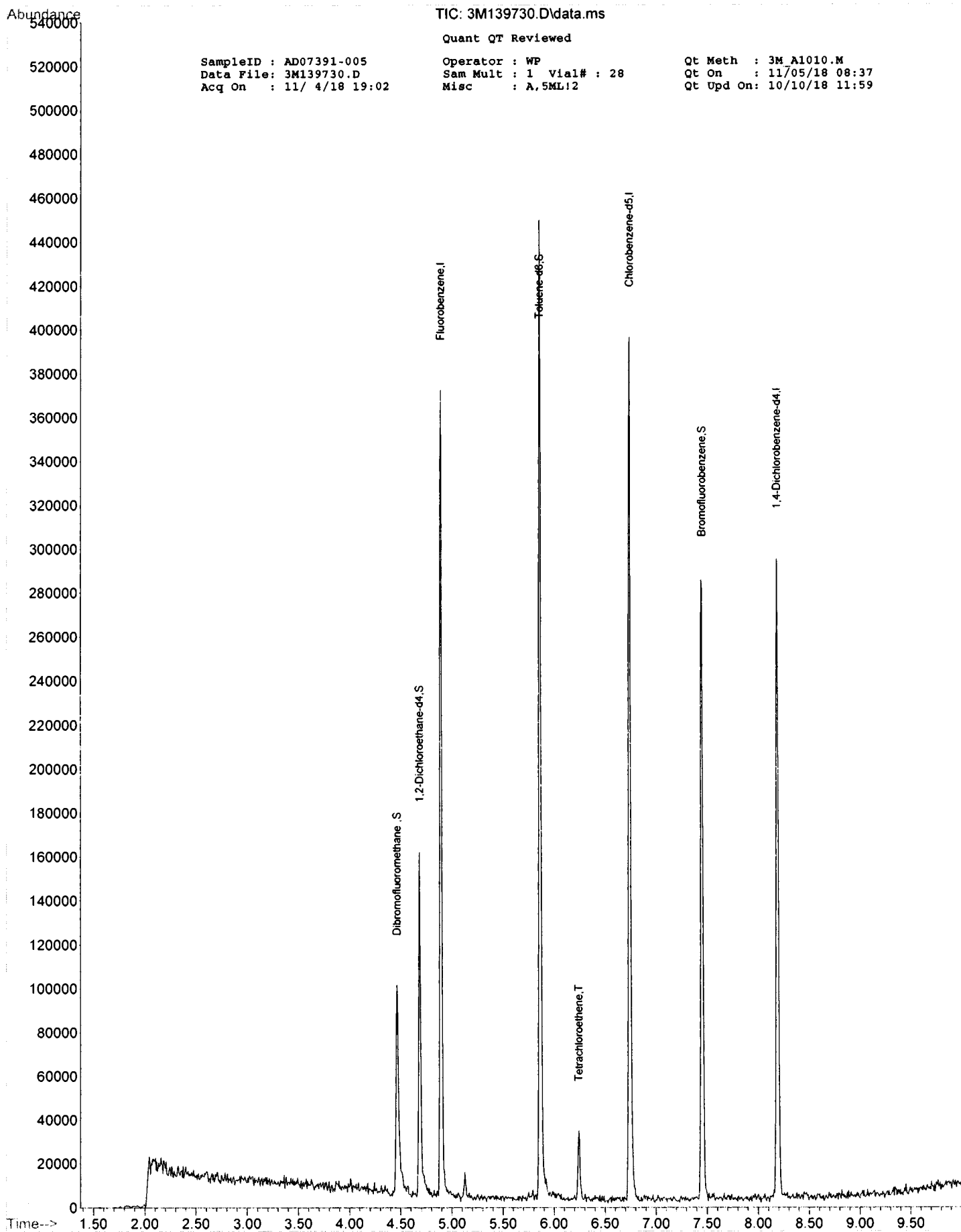
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Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

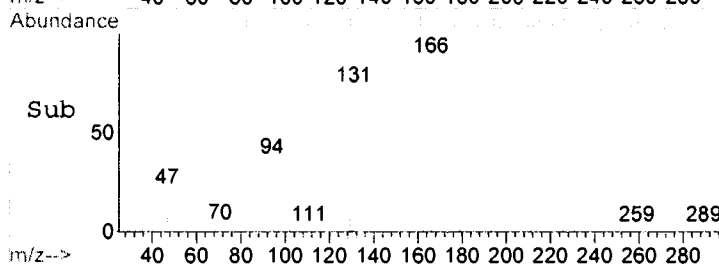
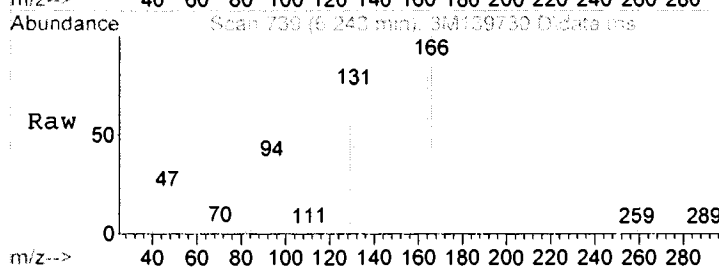
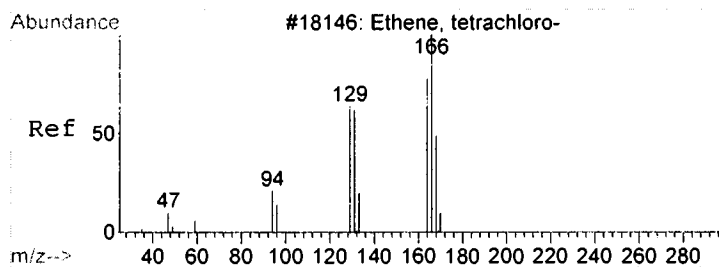
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.897	96	202802	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	169988	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.189	152	69246	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	54051	29.94	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.80%	
39) 1,2-Dichloroethane-d4	4.687	67	37039	29.22	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.40%	
66) Toluene-d8	5.864	98	199907	28.13	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	93.77%	
76) Bromofluorobenzene	7.456	174	71534	29.82	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.40%	
Target Compounds						
65) Tetrachloroethene	6.243	164	6235	6.3842	ug/l	Qvalue 77

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

2





#65

Tetrachloroethene

Concen: 6.38 ug/l

RT: 6.243 min Scan# 739

Delta R.T. -0.013 min

Lab File: 3M139730.D

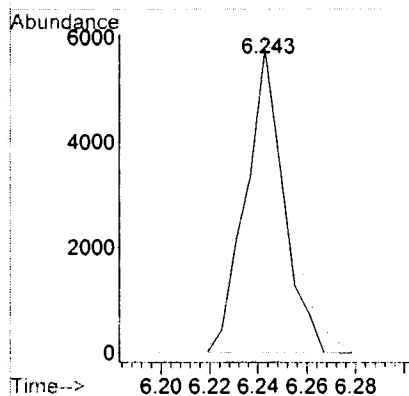
Acq: 4 Nov 2018 19:02

Tgt Ion:164 Resp: 6235

Ion Ratio Lower Upper

164 100

166 105.0 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-006

Client Id: 152140-MW-3S(ONSITE)

Data File: 3M139731.D

Analysis Date: 11/04/18 19:19

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	2.7
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	3.3
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-006
Data File: 3M139731.D
Acq On : 11/ 4/18 19:19

Operator : WP
Sam Mult : 1 Vial# : 29
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:37
Qt Upd On: 10/10/18 11:59

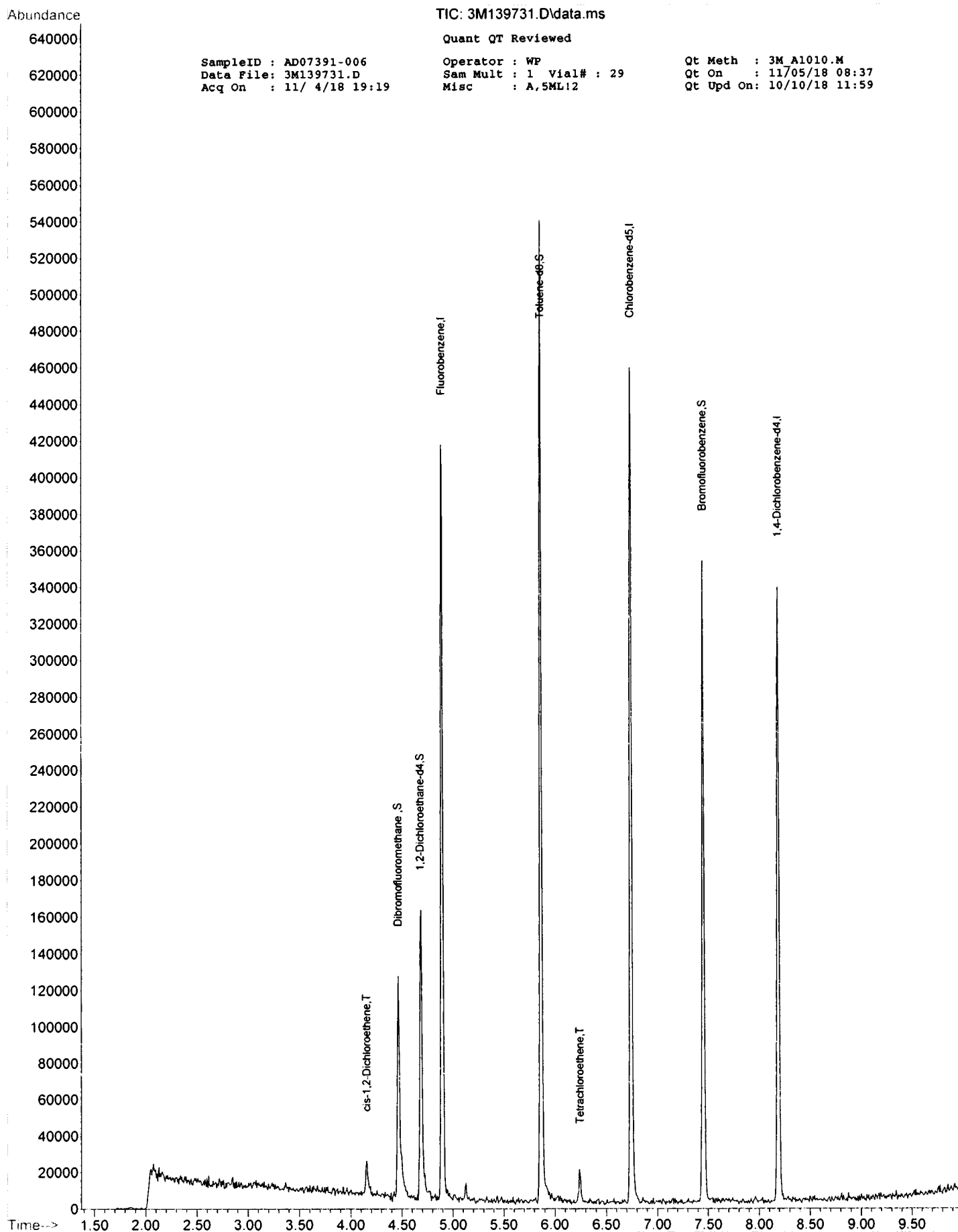
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Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

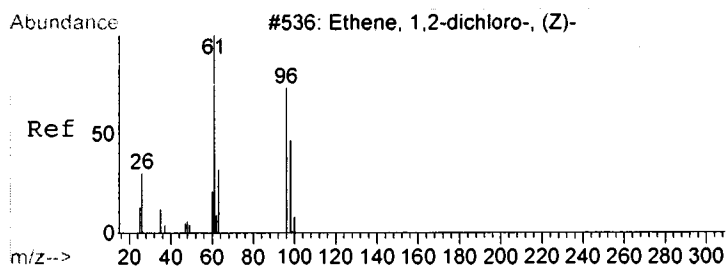
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.892	96	229451	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.742	117	199306	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	77061	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	62261	30.49	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	101.63%	
39) 1,2-Dichloroethane-d4	4.682	67	44487	31.02	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	103.40%	
66) Toluene-d8	5.865	98	240447	28.86	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.20%	
76) Bromofluorobenzene	7.451	174	81099	30.38	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	101.27%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.153	61	9361	2.6698	ug/l	64
65) Tetrachloroethene	6.244	164	3820	3.3332	ug/l	67

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

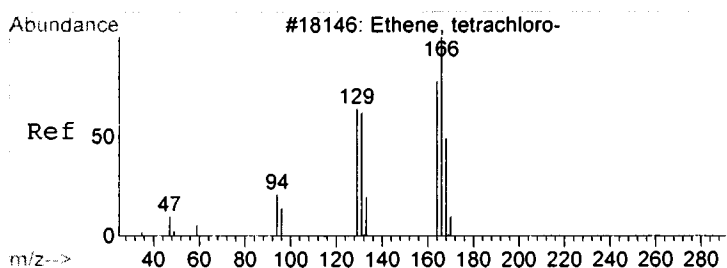
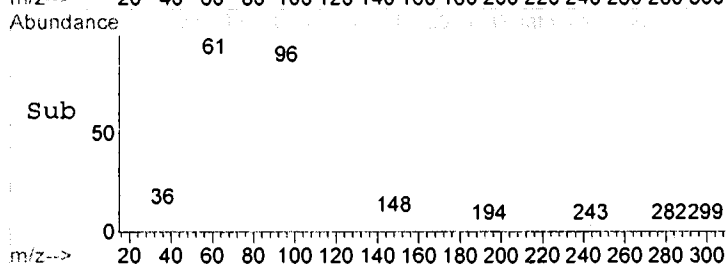
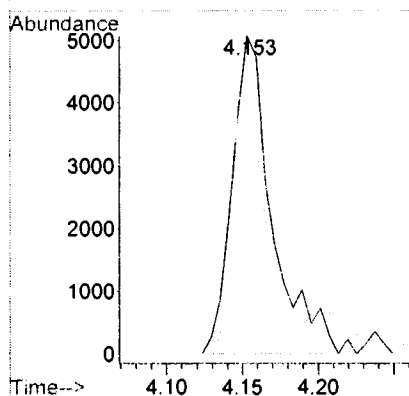
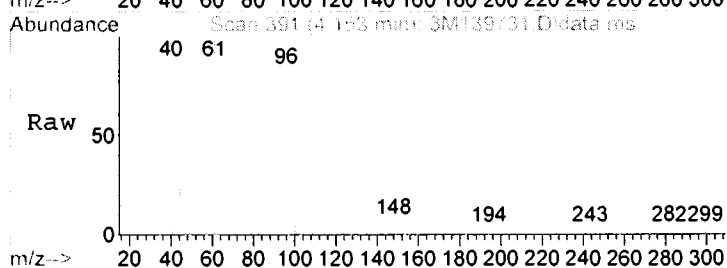






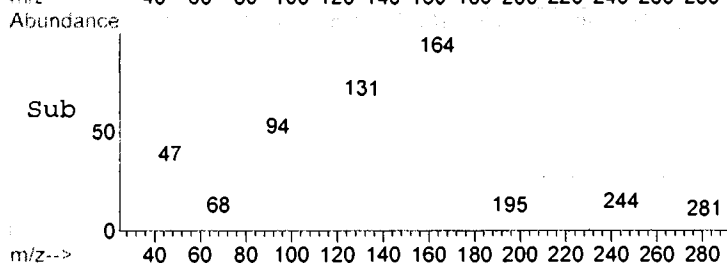
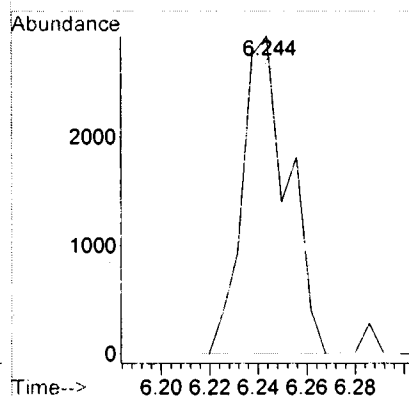
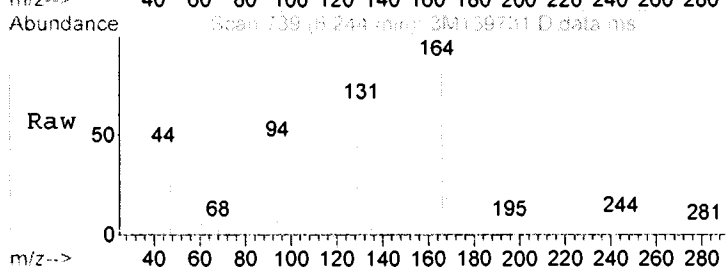
#30
 cis-1,2-Dichloroethene
 Concen: 2.67 ug/l
 RT: 4.153 min Scan# 391
 Delta R.T. -0.012 min
 Lab File: 3M139731.D
 Acq: 4 Nov 2018 19:19

Tgt Ion: 61 Resp: 9361
 Ion Ratio Lower Upper
 61 100
 96 84.4 8.8 88.8
 98 39.3 0.0 72.8



#65
 Tetrachloroethene
 Concen: 3.33 ug/l
 RT: 6.244 min Scan# 739
 Delta R.T. -0.012 min
 Lab File: 3M139731.D
 Acq: 4 Nov 2018 19:19

Tgt Ion: 164 Resp: 3820
 Ion Ratio Lower Upper
 164 100
 166 93.1 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-007

Client Id: 152140-MW-5D

Data File: 3M139732.D

Analysis Date: 11/04/18 19:37

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	2.5
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	160
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	3.6
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 170

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration uses

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-007
Data File: 3M139732.D
Acq On : 11/ 4/18 19:37

Operator : WP
Sam Mult : 1 Vial# : 30
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:37
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	229997	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.742	117	191621	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.189	152	77319	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	61942	30.26	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.87%	
39) 1,2-Dichloroethane-d4	4.687	67	45165	31.41	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	104.70%	
66) Toluene-d8	5.865	98	238352	29.76	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.20%	
76) Bromofluorobenzene	7.456	174	82929	30.96	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.20%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.153	61	8650	2.4611	ug/l	72
49) Trichloroethene	5.126	130	7159	3.5753	ug/l	82
65) Tetrachloroethene	6.243	164	170000	161.3498	ug/l	99

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

Abundance

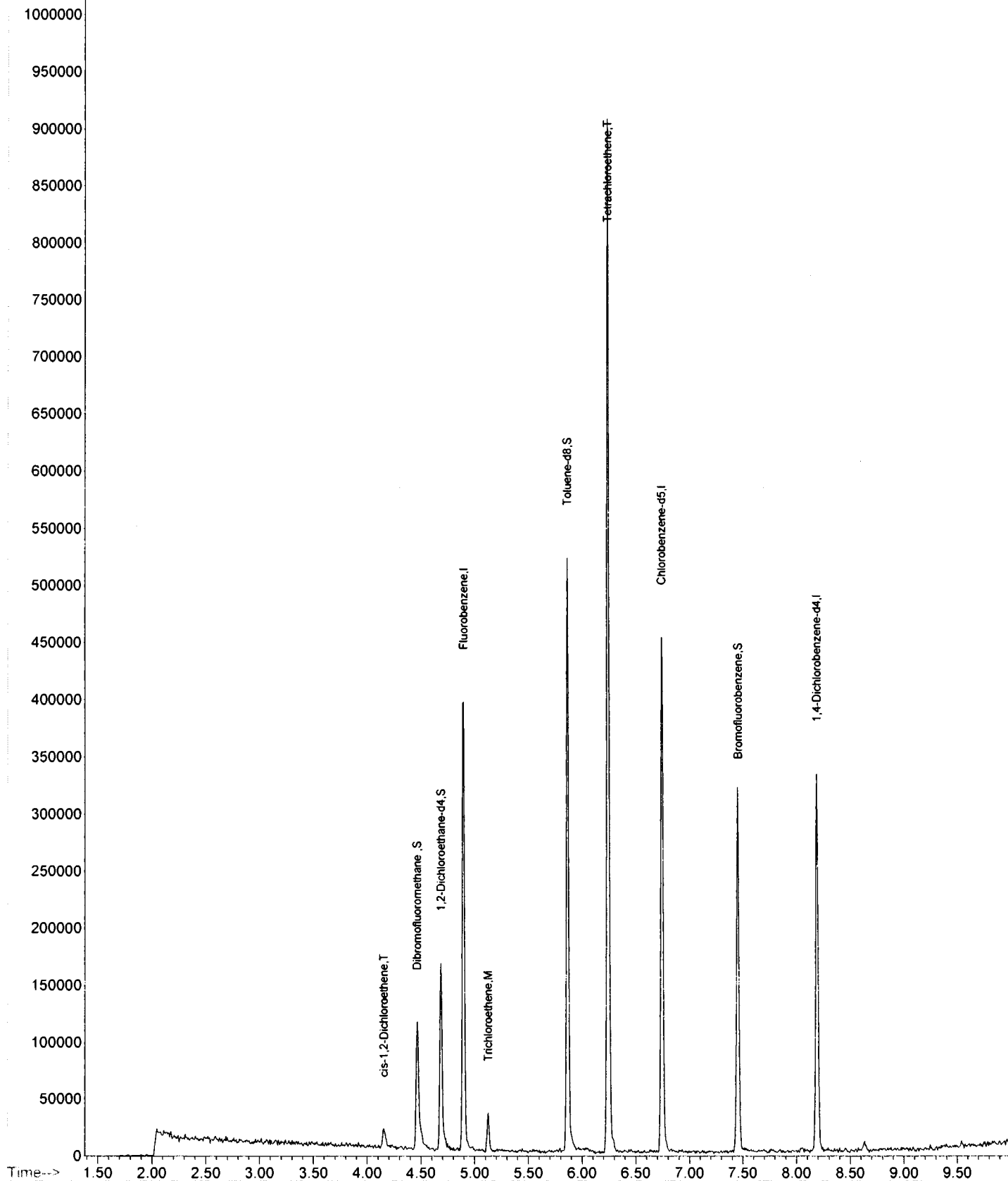
TIC: 3M139732.D\data.ms

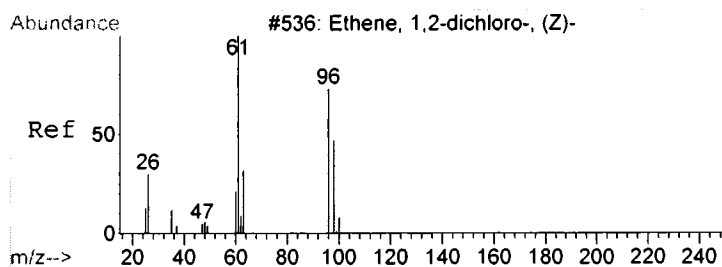
Quant QT Reviewed

SampleID : AD07391-007
Data File: 3M139732.D
Acq On : 11/ 4/18 19:37

Operator : WP
Sam Mult : 1 Vial# : 30
Misc : A,5ML12

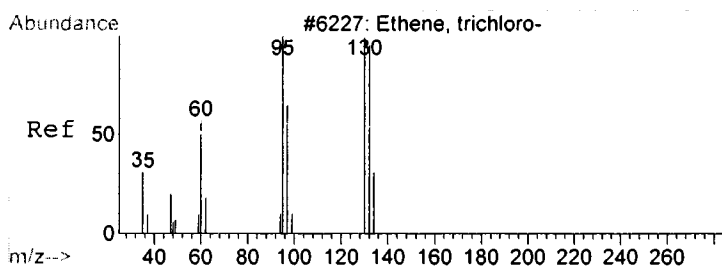
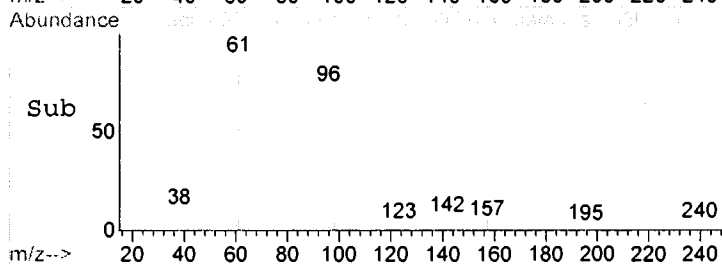
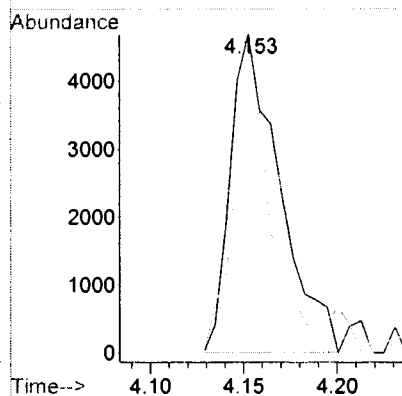
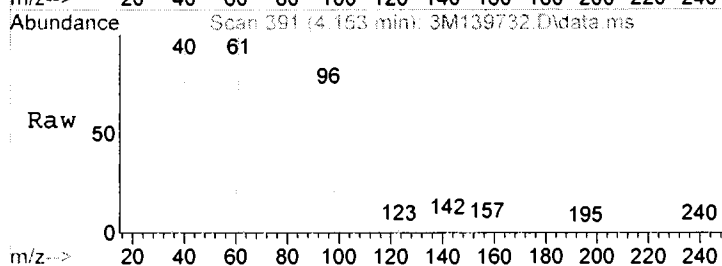
Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:37
Qt Upd On: 10/10/18 11:59





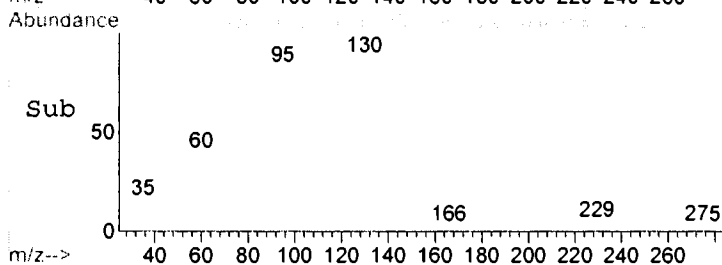
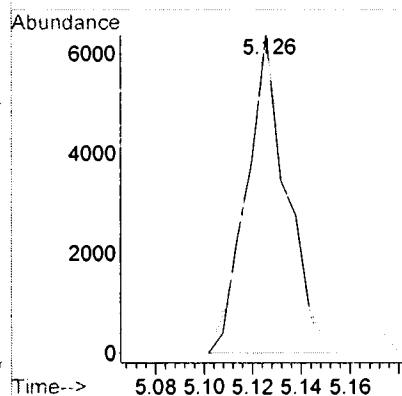
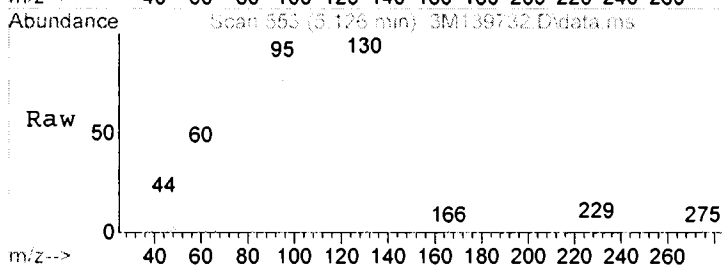
#30
cis-1,2-Dichloroethene
Concen: 2.46 ug/l
RT: 4.153 min Scan# 391
Delta R.T. -0.013 min
Lab File: 3M139732.D
Acq: 4 Nov 2018 19:37

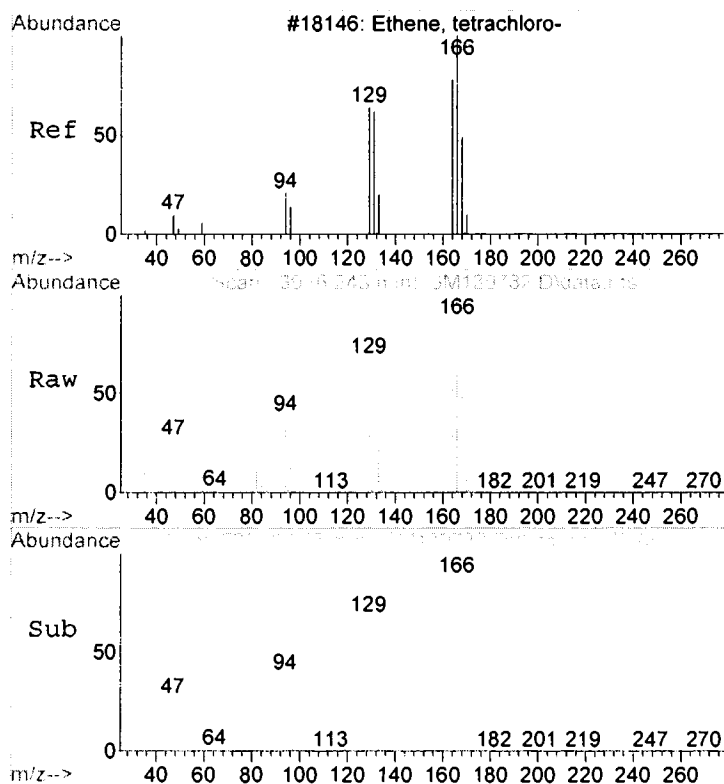
Tgt Ion: 61 Resp: 8650
Ion Ratio Lower Upper
61 100
96 72.8 8.8 88.8
98 43.1 0.0 72.8



#49
Trichloroethene
Concen: 3.58 ug/l
RT: 5.126 min Scan# 553
Delta R.T. -0.013 min
Lab File: 3M139732.D
Acq: 4 Nov 2018 19:37

Tgt Ion: 130 Resp: 7159
Ion Ratio Lower Upper
130 100
132 96.6 40.0 200.0
95 85.9 40.0 160.0





#65

Tetrachloroethene

Concen: 161.35 ug/l

RT: 6.243 min Scan# 739

Delta R.T. -0.013 min

Lab File: 3M139732.D

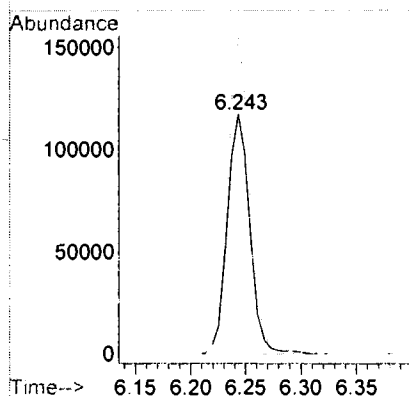
Acq: 4 Nov 2018 19:37

Tgt Ion:164 Resp: 170000

Ion Ratio Lower Upper

164 100

166 133.0 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-008

Client Id: 152140-MW-5S

Data File: 3M139733.D

Analysis Date: 11/04/18 19:54

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	1.3
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.6
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487387

Total Target Concentration 2.9

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-008
 Data File: 3M139733.D
 Acq On : 11/ 4/18 19:54

Operator : WP
 Sam Mult : 1 Vial# : 31
 Misc : A,5ML!2

Qt Meth : 3M_A1010.M
 Qt On : 11/05/18 08:38
 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.899	96	225082	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.743	117	184717	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	76592	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	62502	31.20	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	104.00%	
39) 1,2-Dichloroethane-d4	4.688	67	40795	28.99	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.63%	
66) Toluene-d8	5.866	98	233250	30.21	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.70%	
76) Bromofluorobenzene	7.452	174	80623	30.38	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	101.27%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.154	61	4639	1.3487	ug/l	85
65) Tetrachloroethene	6.244	164	1699	1.5988	ug/l	84

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

ue

Abundance

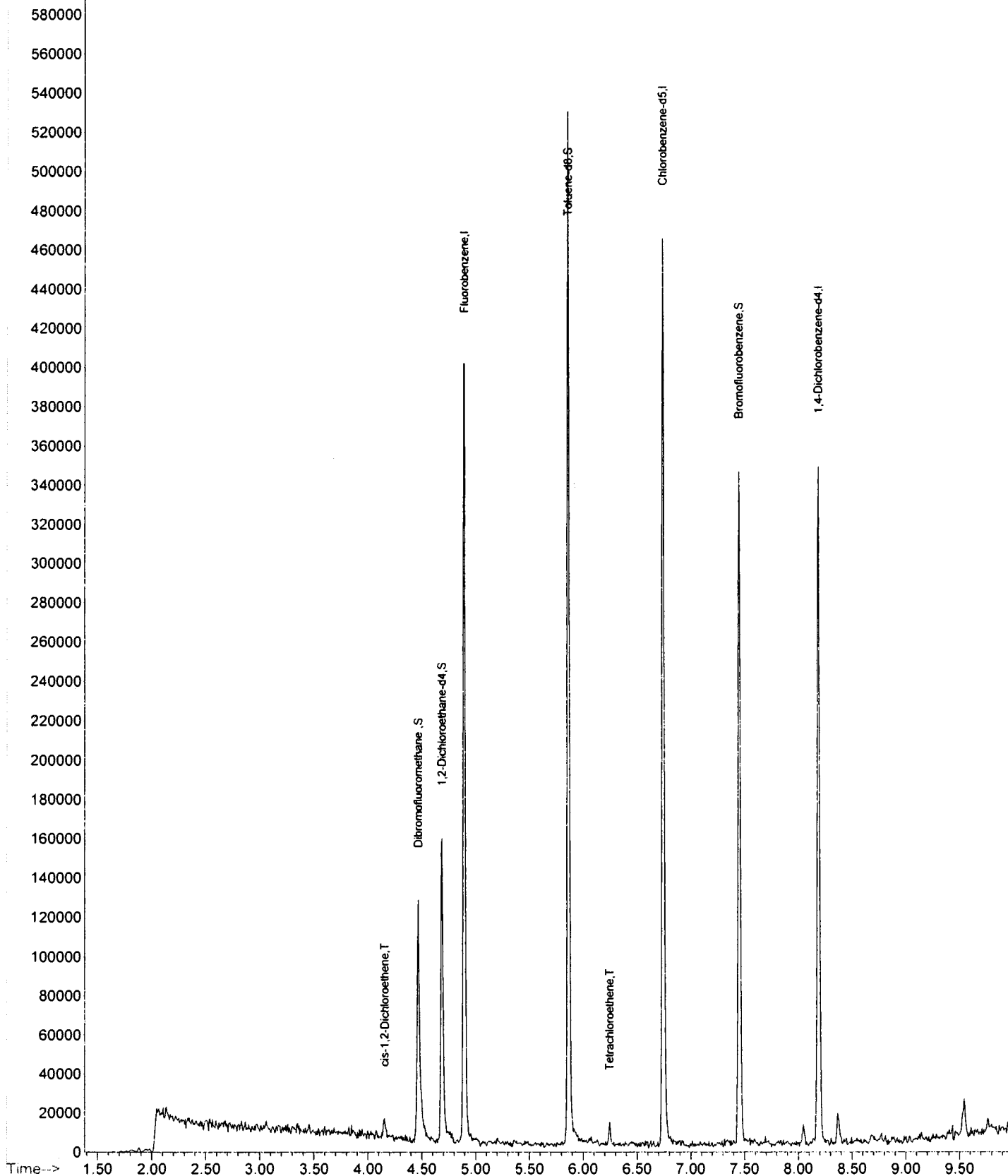
TIC: 3M139733.D\data.ms

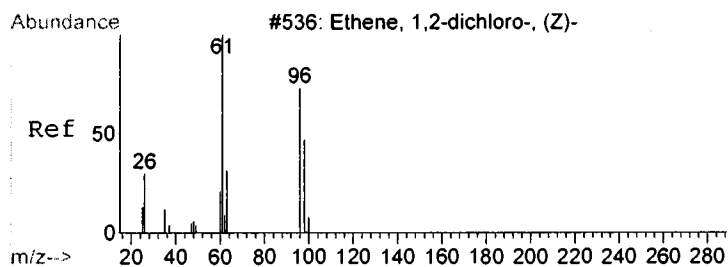
Quant QT Reviewed

SampleID : AD07391-008
Data File: 3M139733.D
Acq On : 11/ 4/18 19:54

Operator : WP
Sam Mult : 1 Vial# : 31
Misc : A,5ML12

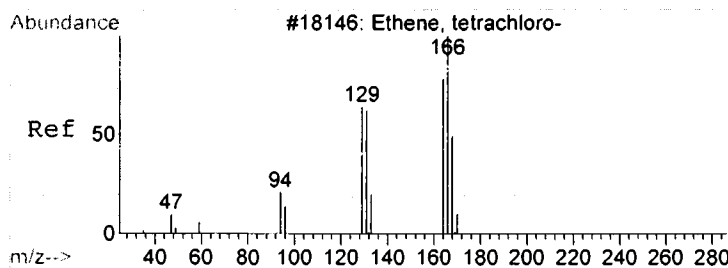
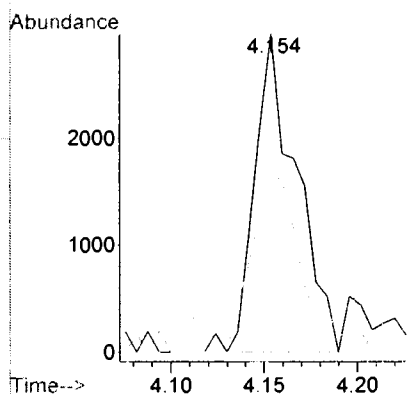
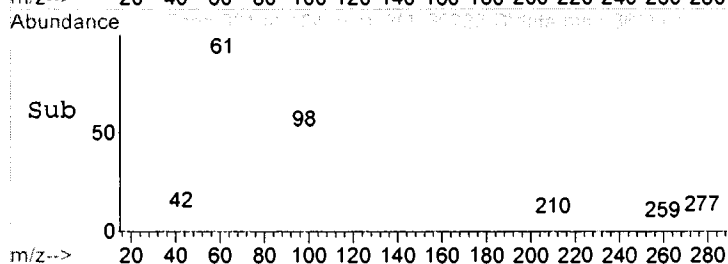
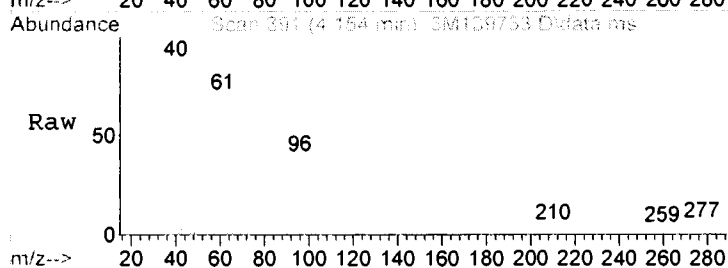
Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59





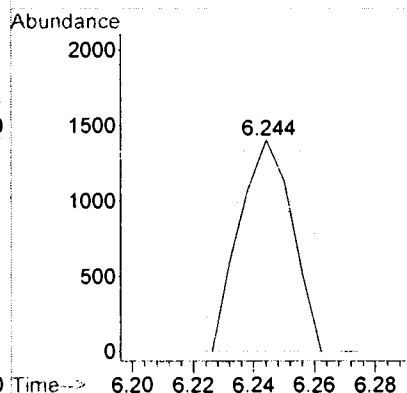
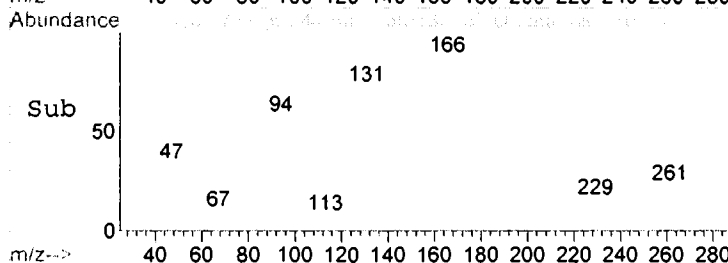
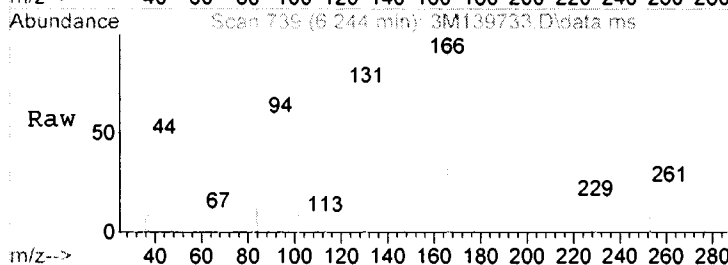
#30
cis-1,2-Dichloroethene
Concen: 1.35 ug/l
RT: 4.154 min Scan# 391
Delta R.T. -0.012 min
Lab File: 3M139733.D
Acq: 4 Nov 2018 19:54

Tgt Ion: 61 Resp: 4639
Ion Ratio Lower Upper
61 100
96 46.1 8.8 88.8
98 51.1 0.0 72.8



#65
Tetrachloroethene
Concen: 1.60 ug/l
RT: 6.244 min Scan# 739
Delta R.T. -0.012 min
Lab File: 3M139733.D
Acq: 4 Nov 2018 19:54

Tgt Ion: 164 Resp: 1699
Ion Ratio Lower Upper
164 100
166 150.1 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-009

Client Id: 152140-MW-6S

Data File: 3M139734.D

Analysis Date: 11/04/18 20:11

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.2
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-009
Data File: 3M139734.D
Acq On : 11/ 4/18 20:11

Operator : WP
Sam Mult : 1 Vial# : 32
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.899	96	225080	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.749	117	189636	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	73820	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	60060	29.98	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.93%	
39) 1,2-Dichloroethane-d4	4.688	67	41953	29.82	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.40%	
66) Toluene-d8	5.872	98	233601	29.47	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.23%	
76) Bromofluorobenzene	7.458	174	80507	31.48	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	104.93%	
Target Compounds						
65) Tetrachloroethene	6.244	164	1363	1.2492	ug/l	Qvalue 92

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



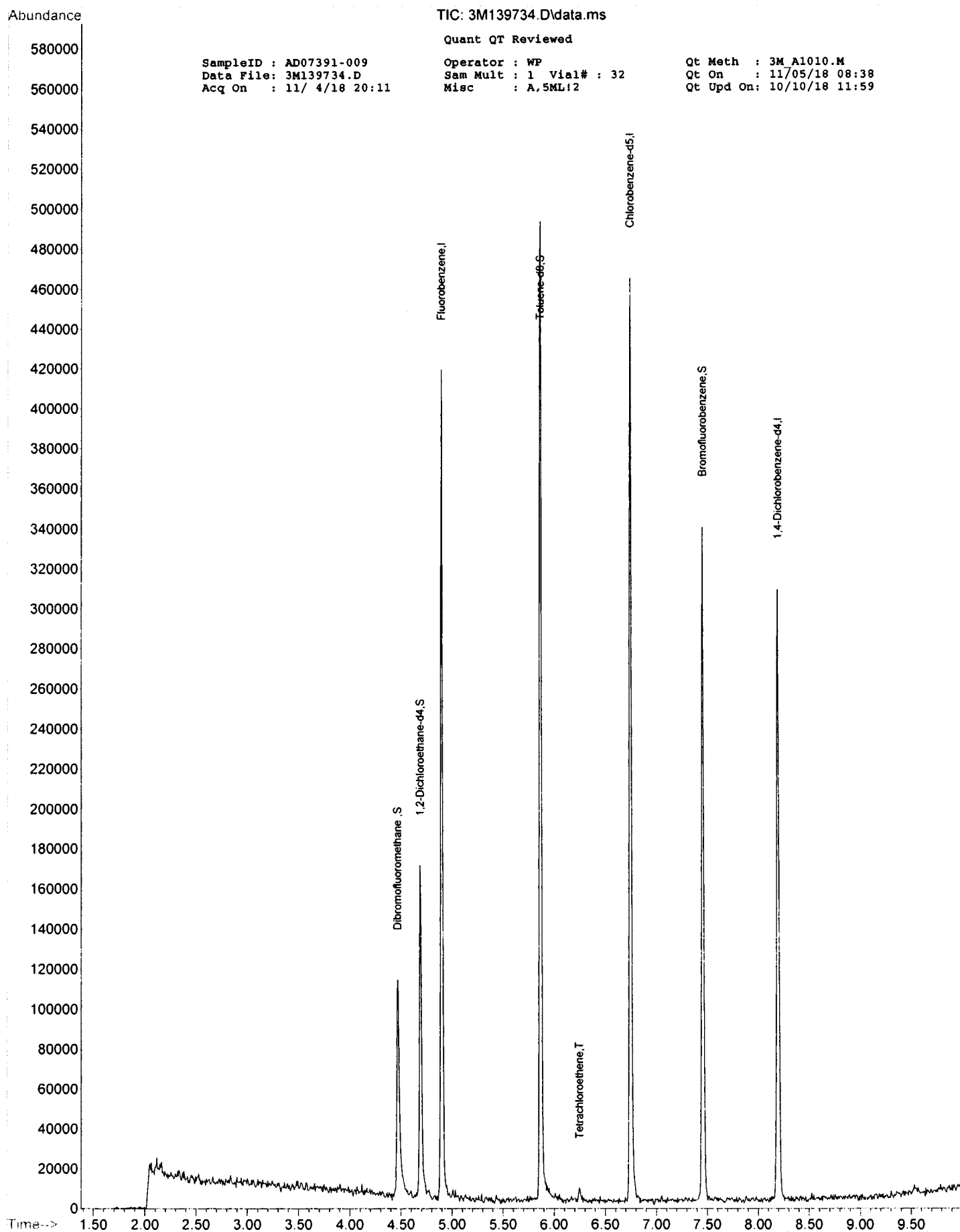
TIC: 3M139734.D\data.ms

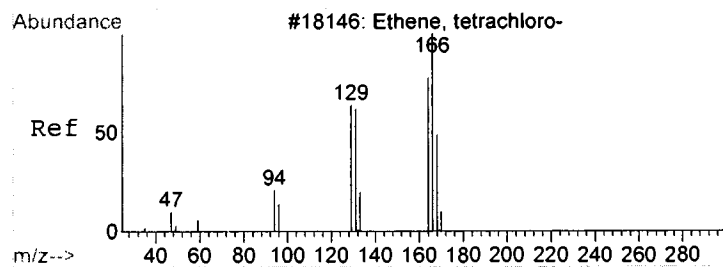
Quant QT Reviewed

SampleID : AD07391-009
Data File: 3M139734.D
Acq On : 11/ 4/18 20:11

Operator : WP
Sam Mult : 1 Vial# : 32
Misc : A,5ML12

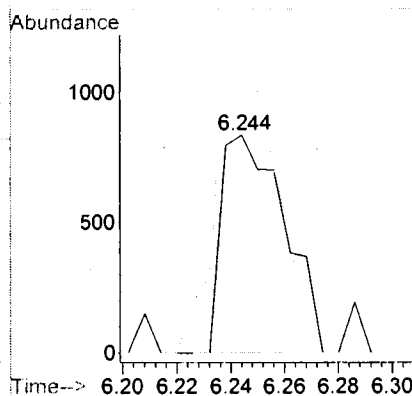
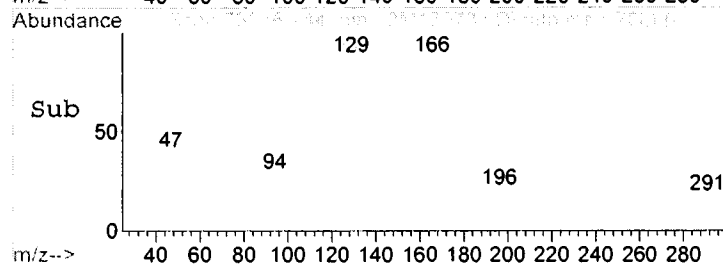
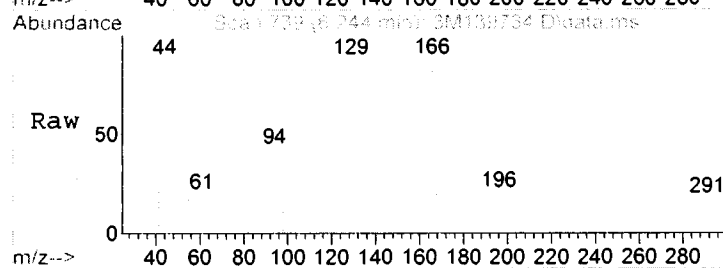
Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59





#65
Tetrachloroethene
Concen: 1.25 ug/l
RT: 6.244 min Scan# 739
Delta R.T. -0.012 min
Lab File: 3M139734.D
Acq: 4 Nov 2018 20:11

Tgt Ion: 164 Resp: 1363
Ion Ratio Lower Upper
164 100
166 122.2 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-010

Client Id: 152140-MW-14S

Data File: 3M139735.D

Analysis Date: 11/04/18 20:28

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	37
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 37

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-010
Data File: 3M139735.D
Acq On : 11/ 4/18 20:28

Operator : WP
Sam Mult : 1 Vial# : 33
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.904	96	225084	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.748	117	195486	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	78807	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	62638	31.26	ug/l	0.00
Spiked Amount 30.000			Recovery	=	104.20%	
39) 1,2-Dichloroethane-d4	4.694	67	47712	33.91	ug/l	0.00
Spiked Amount 30.000			Recovery	=	113.03%	
66) Toluene-d8	5.871	98	242904	29.73	ug/l	0.00
Spiked Amount 30.000			Recovery	=	99.10%	
76) Bromofluorobenzene	7.463	174	81847	29.98	ug/l	0.00
Spiked Amount 30.000			Recovery	=	99.93%	
Target Compounds						
65) Tetrachloroethene	6.249	164	41351	37.1344	ug/l	Qvalue 93

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

20

Abundance

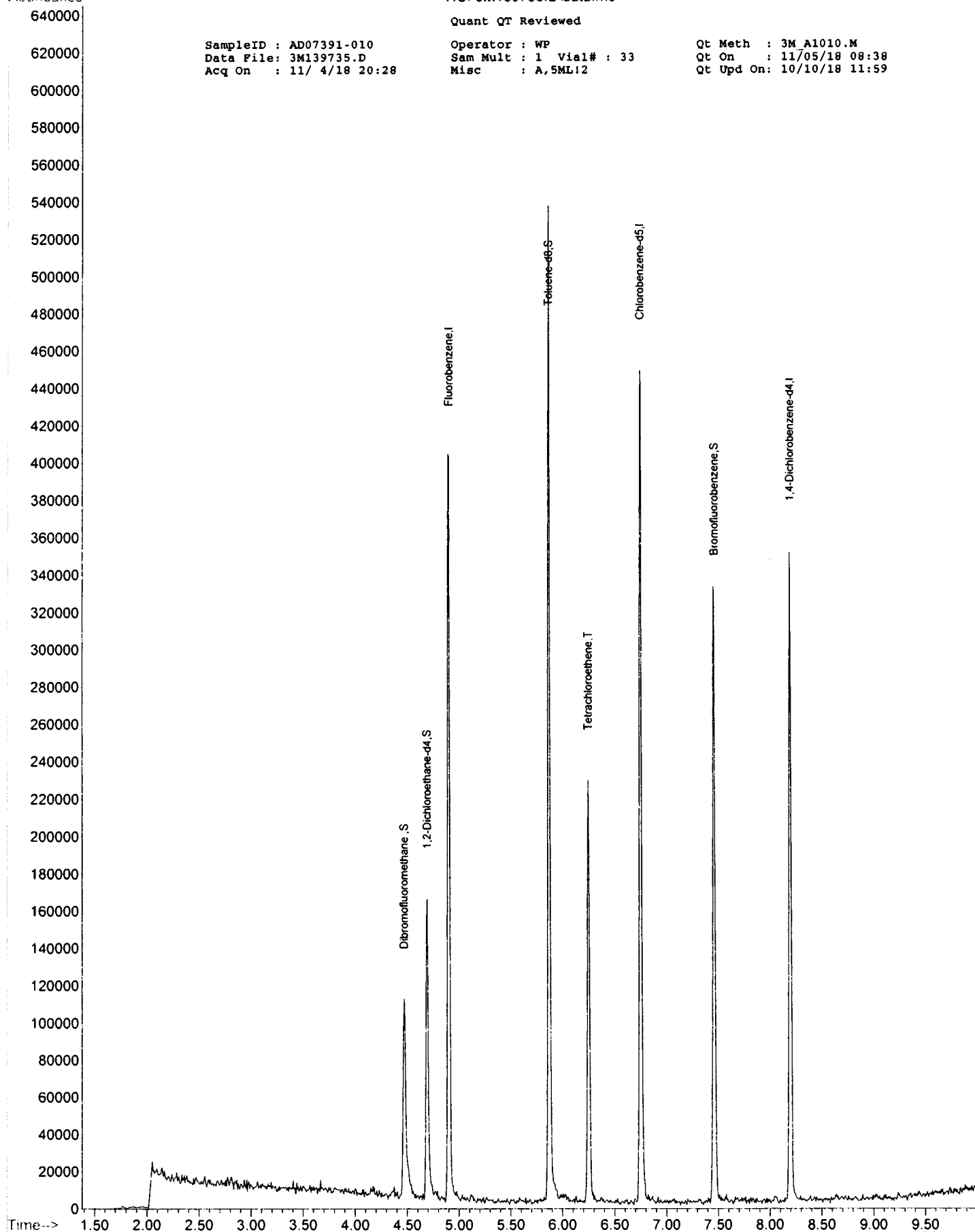
TIC: 3M139735.D\data.ms

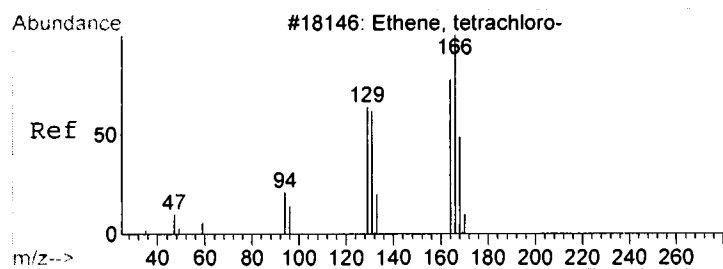
Quant QT Reviewed

SampleID : AD07391-010
Data File: 3M139735.D
Acq On : 11/ 4/18 20:28

Operator : WP
Sam Mult : 1 Vial# : 33
Misc : A,5ML12

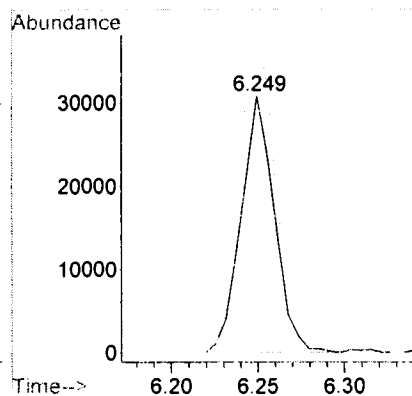
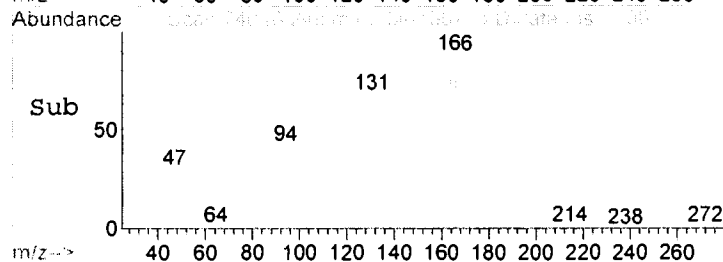
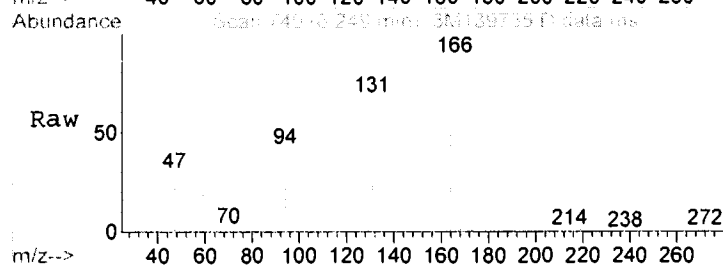
Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59





#65
Tetrachloroethene
Concen: 37.13 ug/l
RT: 6.249 min Scan# 740
Delta R.T. -0.007 min
Lab File: 3M139735.D
Acq: 4 Nov 2018 20:28

Tgt Ion: 164 Resp: 41351
Ion Ratio Lower Upper
164 100
166 123.7 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-011

Client Id: 152140-MW-14D

Data File: 3M139736.D

Analysis Date: 11/04/18 20:45

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.9
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487387

Total Target Concentration 1.9

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-011
Data File: 3M139736.D
Acq On : 11/ 4/18 20:45

Operator : WP
Sam Mult : 1 Vial# : 34
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59

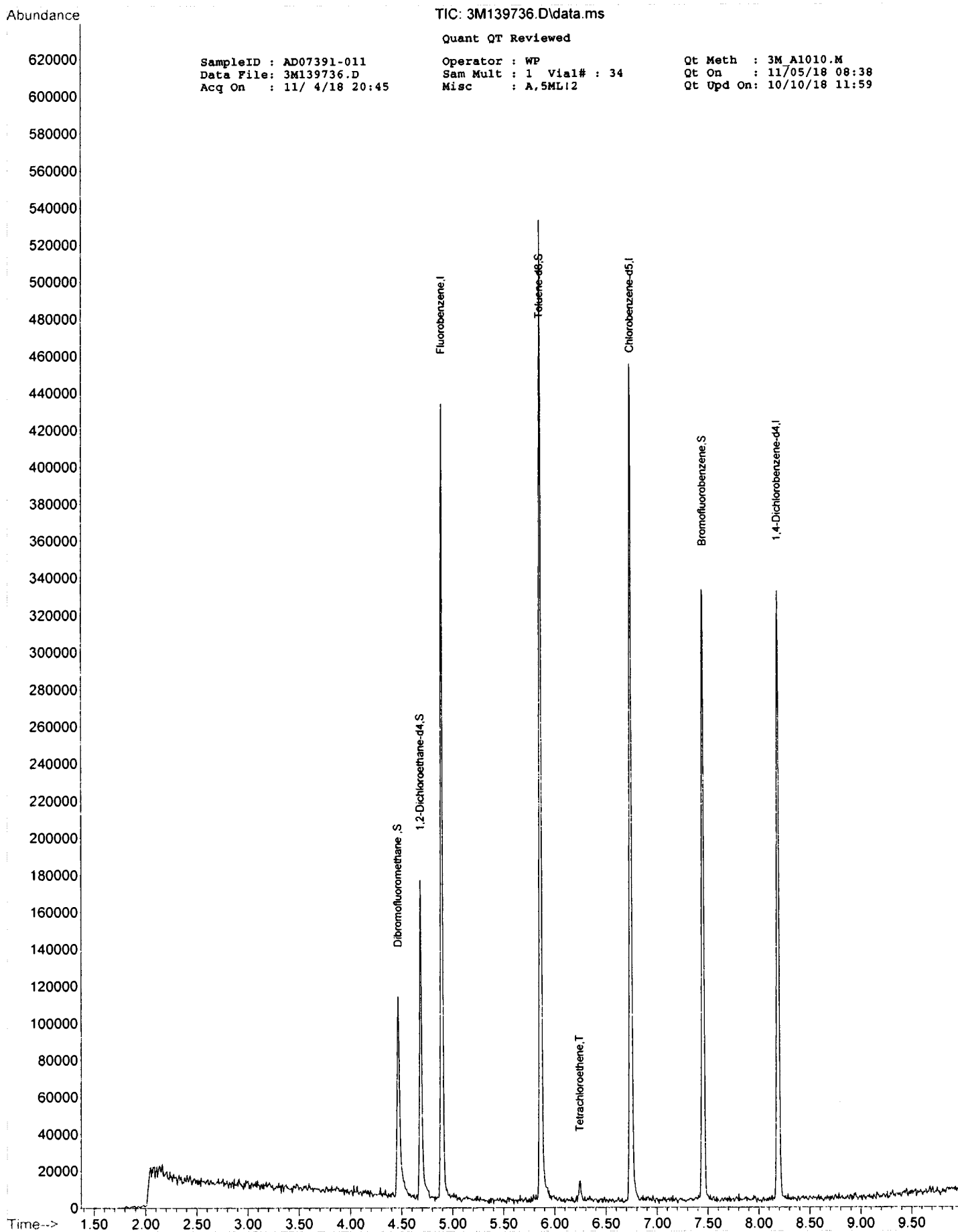
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

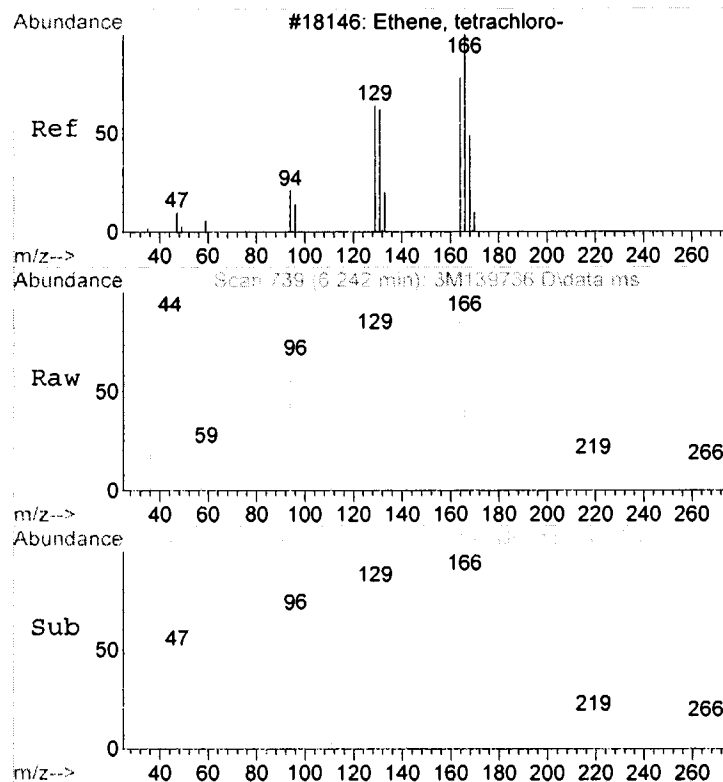
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.897	96	234455	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	191329	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.189	152	75229	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.464	111	63753	30.55	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	101.83%	
39) 1,2-Dichloroethane-d4	4.687	67	42854	29.24	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	97.47%	
66) Toluene-d8	5.864	98	236112	29.52	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	98.40%	
76) Bromofluorobenzene	7.456	174	80848	31.02	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	103.40%	
Target Compounds						
65) Tetrachloroethene	6.242	164	2140	1.9444	ug/l	Qvalue 74

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

20





#65

Tetrachloroethene

Concen: 1.94 ug/l

RT: 6.242 min Scan# 739

Delta R.T. -0.014 min

Lab File: 3M139736.D

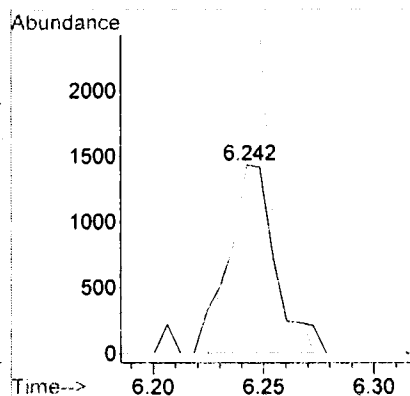
Acq: 4 Nov 2018 20:45

Tgt Ion: 164 Resp: 2140

Ion Ratio Lower Upper

164 100

166 101.0 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-012

Client Id: 152140-MW-15S

Data File: 3M139737.D

Analysis Date: 11/04/18 21:02

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	33
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 33

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-012
Data File: 3M139737.D
Acq On : 11/ 4/18 21:02

Operator : WP
Sam Mult : 1 Vial# : 35
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.892	96	228888	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.742	117	192684	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	73643	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	60161	29.53	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	98.43%	
39) 1,2-Dichloroethane-d4	4.688	67	41699	29.14	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	97.13%	
66) Toluene-d8	5.865	98	237315	29.46	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	98.20%	
76) Bromofluorobenzene	7.451	174	78036	30.59	ug/l	-0.02
Spiked Amount	30.000		Recovery	=	101.97%	
Target Compounds						
65) Tetrachloroethene	6.244	164	36737	33.4360	ug/l	94

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

2

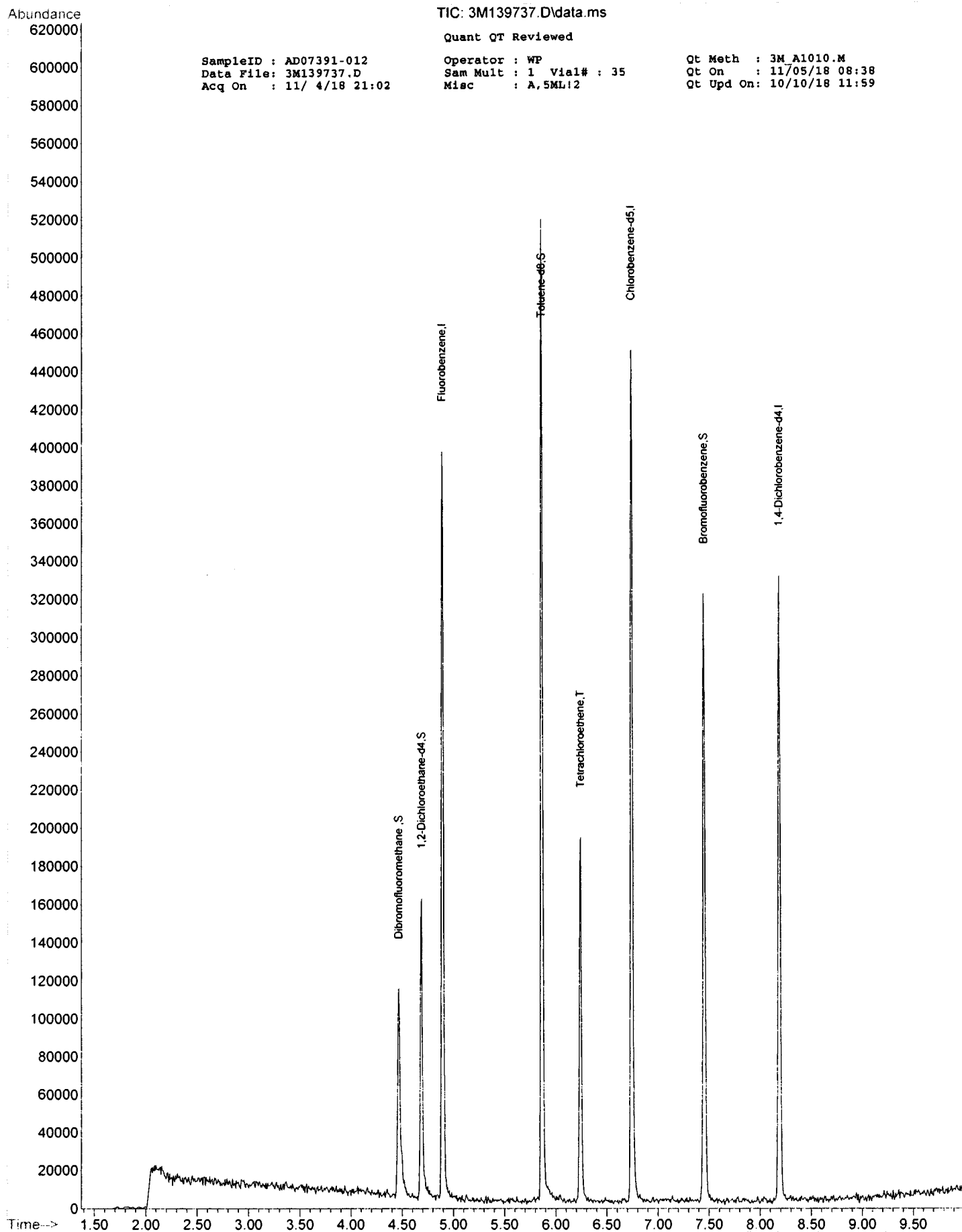
TIC: 3M139737.D\data.ms

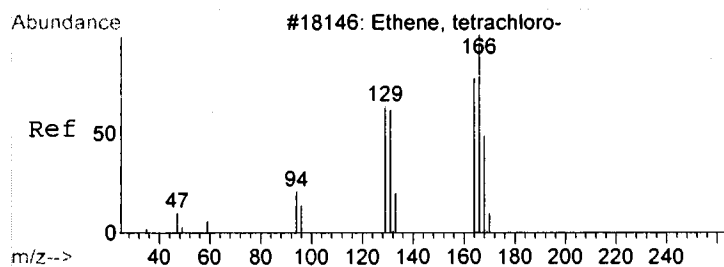
Quant QT Reviewed

SampleID : AD07391-012
Data File: 3M139737.D
Acq On : 11/ 4/18 21:02

Operator : WP
Sam Mult : 1 Vial# : 35
Misc : A, 5ML:2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59





#65

Tetrachloroethene

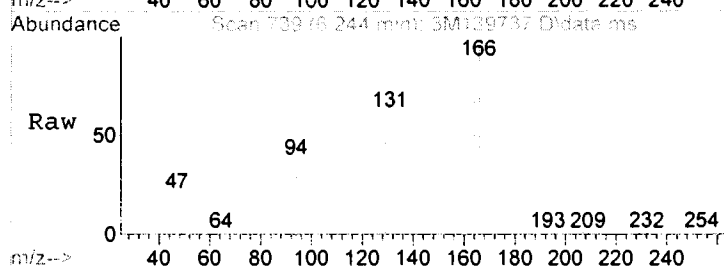
Concen: 33.44 ug/l

RT: 6.244 min Scan# 739

Delta R.T. -0.012 min

Lab File: 3M139737.D

Acq: 4 Nov 2018 21:02

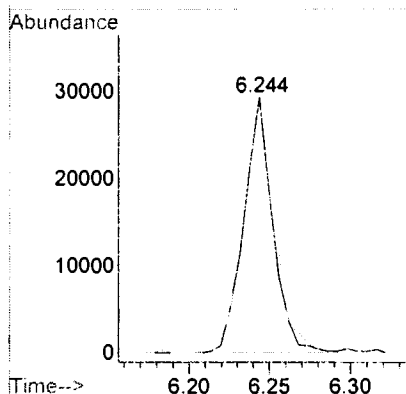
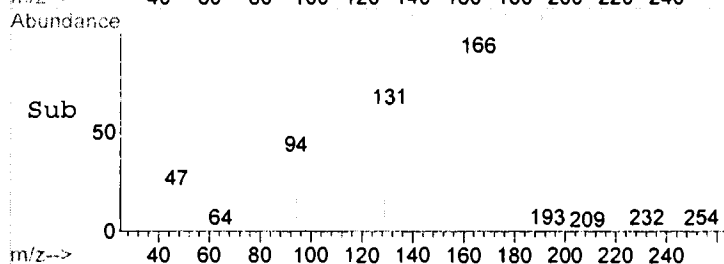


Tgt Ion:164 Resp: 36737

Ion Ratio Lower Upper

164 100

166 124.6 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-013

Client Id: 152140-MW-15D

Data File: 3M139739.D

Analysis Date: 11/04/18 21:36

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	24
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 24

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-013
Data File: 3M139739.D
Acq On : 11/ 4/18 21:36

Operator : WP
Sam Mult : 1 Vial# : 37
Misc : A.5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59

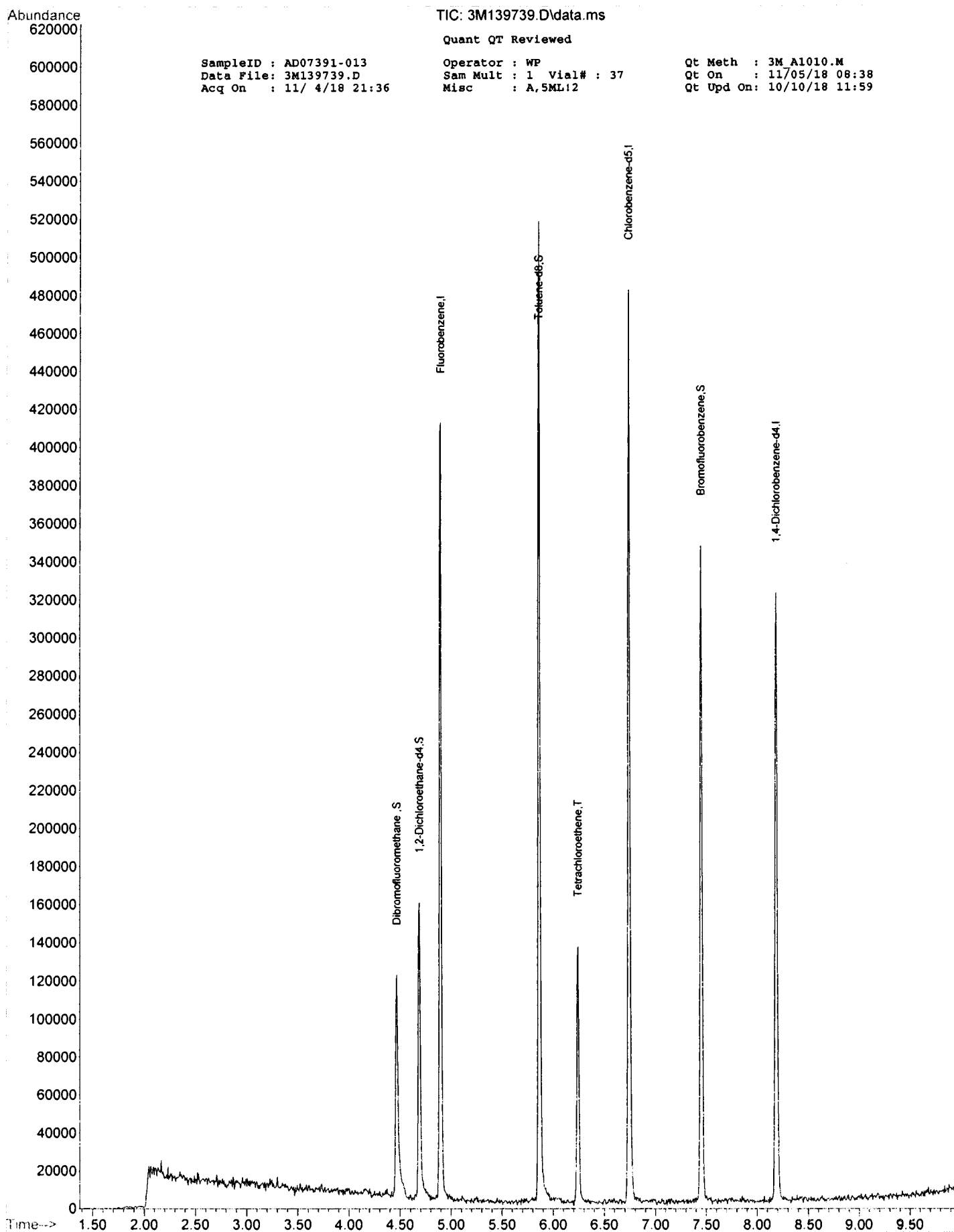
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Qt Resp Via : Initial Calibration

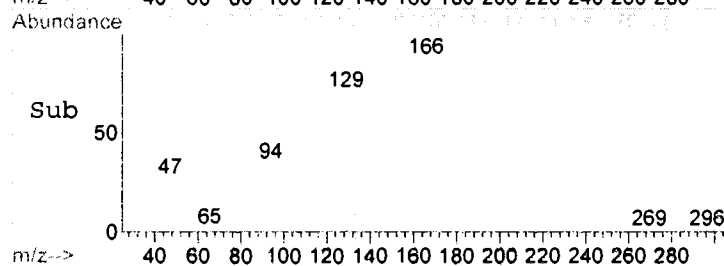
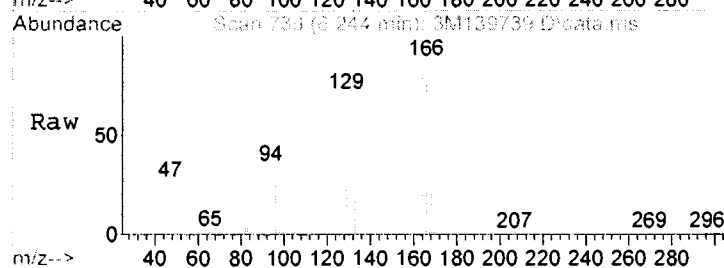
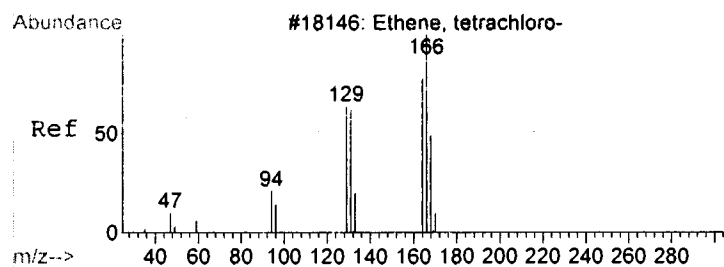
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.898	96	232662	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.742	117	192943	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	78398	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	63338	30.58	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	101.93%	
39) 1,2-Dichloroethane-d4	4.688	67	40185	27.63	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	92.10%	
66) Toluene-d8	5.865	98	234614	29.09	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.97%	
76) Bromofluorobenzene	7.451	174	79814	29.39	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	97.97%	
Target Compounds						
65) Tetrachloroethene	6.244	164	26928	24.4140	ug/l	Qvalue 95

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

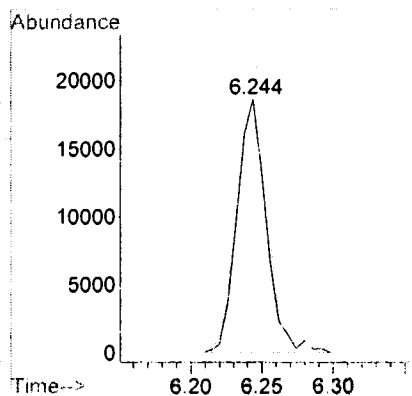
2





#65
Tetrachloroethene
Concen: 24.41 ug/l
RT: 6.244 min Scan# 739
Delta R.T. -0.012 min
Lab File: 3M139739.D
Acq: 4 Nov 2018 21:36

Tgt Ion	164	Resp	26928
Ion	Ratio	Lower	Upper
164	100		
166	125.7	61.8	201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-014(MS:AD07

Client Id: 152140-MW-15D MS

Data File: 3M139740.D

Analysis Date: 11/04/18 21:53

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	14	75-00-3	Chloroethane	1.0	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0	18	67-66-3	Chloroform	1.0	15
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	18	74-87-3	Chloromethane	1.0	26
79-00-5	1,1,2-Trichloroethane	1.0	21	156-59-2	cis-1,2-Dichloroethene	1.0	17
75-34-3	1,1-Dichloroethane	1.0	16	10061-01-5	cis-1,3-Dichloropropene	1.0	17
75-35-4	1,1-Dichloroethene	1.0	17	110-82-7	Cyclohexane	1.0	18
120-82-1	1,2,4-Trichlorobenzene	1.0	15	124-48-1	Dibromochloromethane	1.0	15
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	16	75-71-8	Dichlorodifluoromethane	1.0	22
106-93-4	1,2-Dibromoethane	1.0	16	100-41-4	Ethylbenzene	1.0	18
95-50-1	1,2-Dichlorobenzene	1.0	15	98-82-8	Isopropylbenzene	1.0	18
107-06-2	1,2-Dichloroethane	0.50	19	79601-23-1	m&p-Xylenes	1.0	36
78-87-5	1,2-Dichloropropane	1.0	20	79-20-9	Methyl Acetate	1.0	15
541-73-1	1,3-Dichlorobenzene	1.0	17	108-87-2	Methylcyclohexane	1.0	17
106-46-7	1,4-Dichlorobenzene	1.0	17	75-09-2	Methylene Chloride	1.0	18
78-93-3	2-Butanone	1.0	15	1634-04-4	Methyl-t-butyl ether	0.50	16
591-78-6	2-Hexanone	1.0	18	95-47-6	o-Xylene	1.0	18
108-10-1	4-Methyl-2-Pentanone	1.0	18	100-42-5	Styrene	1.0	19
67-64-1	Acetone	5.0	78	127-18-4	Tetrachloroethene	1.0	46
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	17	156-60-5	trans-1,2-Dichloroethene	1.0	16
75-25-2	Bromoform	1.0	15	10061-02-6	trans-1,3-Dichloropropene	1.0	16
74-83-9	Bromomethane	1.0	18	79-01-6	Trichloroethene	1.0	15
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	13
56-23-5	Carbon Tetrachloride	1.0	16	75-01-4	Vinyl Chloride	1.0	20
108-90-7	Chlorobenzene	1.0	16	1330-20-7	Xylenes (Total)	1.0	54

Worksheet #: 487384

Total Target Concentration 950

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-014 (MS:AD07 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139740.D Sam Mult : 1 Vial# : 38 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 21:53 Misc : A,5ML:2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.897	96	240479	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	192986	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.195	152	86450	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	65170	30.45	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.50%	
39) 1,2-Dichloroethane-d4	4.687	67	43875	29.19	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.30%	
66) Toluene-d8	5.870	98	249526	30.93	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.10%	
76) Bromofluorobenzene	7.456	174	86607	28.92	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.40%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.548	51	79680	35.7439	ug/l	73
6) Dichlorodifluoromethane	1.531	85	31530	21.6270	ug/l	86
7) Chloromethane	1.681	50	40148	25.7074	ug/l	83
8) Bromomethane	2.050	94	14577	18.1382	ug/l	82
9) Vinyl Chloride	1.764	62	30462	19.6368	ug/l	94
10) Chloroethane	2.128	64	14494	20.3062	ug/l	96
11) Trichlorofluoromethane	2.338	101	29477	12.5624	ug/l	90
12) Ethyl ether	2.560	59	25782	12.7026	ug/l	87
13) Furan	2.596	39	71881	14.3364	ug/l	97
14) 1,1,2-Trichloro-1,2,2-...	2.747	101	16764	17.6480	ug/l	92
15) Methylene Chloride	3.143	84	33460	17.8647	ug/l	85
16) Acrolein	2.674	56	27729	72.6776	ug/l	88
17) Acrylonitrile	3.347	53	14369	16.7636	ug/l	87
18) Iodomethane	2.891	142	31961	14.0696	ug/l	99
19) Acetone	2.795	43	60992	77.8599	ug/l	98
20) Carbon Disulfide	2.957	76	106608	16.4822	ug/l	100
21) t-Butyl Alcohol	3.215	59	9972	60.2714	ug/l	92
22) n-Hexane	3.599	57	14287m	15.6961	ug/l	
23) Di-isopropyl-ether	3.756	45	125981	18.4300	ug/l	80
24) 1,1-Dichloroethene	2.759	61	49459	16.9868	ug/l	88
25) Methyl Acetate	3.059	43	39273	14.5821	ug/l	100
26) Methyl-t-butyl ether	3.365	73	72331	15.5270	ug/l	74
27) 1,1-Dichloroethane	3.726	63	58986	16.1974	ug/l	92
28) trans-1,2-Dichloroethene	3.377	96	31318	16.4025	ug/l	84
29) Ethyl-t-butyl ether	4.032	59	84457	15.4500	ug/l	98
30) cis-1,2-Dichloroethene	4.158	61	64299	17.4971	ug/l	84
31) Bromochloromethane	4.320	49	39553	17.7264	ug/l	71
32) 2,2-Dichloropropane	4.158	77	40434	17.7064	ug/l	86
33) Ethyl acetate	4.188	43	41383	16.0543	ug/l	98
34) 1,4-Dioxane	5.342	88	16749	742.2696	ug/l	91
35) 1,1-Dichloropropene	4.597	75	44045	17.4767	ug/l	93
36) Chloroform	4.362	83	58893	15.1356	ug/l	82
38) Cyclohexane	4.543	56	29652	17.8142	ug/l	85
40) 1,2-Dichloroethane	4.735	62	55441	18.9072	ug/l	97
41) 2-Butanone	4.158	43	15532	14.5610	ug/l	85
42) 1,1,1-Trichloroethane	4.501	97	42334	14.4854	ug/l	92
43) Carbon Tetrachloride	4.609	117	34845	15.9348	ug/l	95
44) Vinyl Acetate	3.756	43	82325	16.3054	ug/l	100
45) Bromodichloromethane	5.426	83	51140	16.7268	ug/l	85
46) Methylcyclohexane	5.257	83	19900	17.1397	ug/l	94
47) Dibromomethane	5.348	174	25684	18.0576	ug/l	88
48) 1,2-Dichloropropane	5.269	63	43454	19.7327	ug/l	96
49) Trichloroethene	5.125	130	31493	15.0424	ug/l	88
50) Benzene	4.735	78	137962	20.0385	ug/l	100
51) tert-Amyl methyl ether	4.783	73	76920	15.6278	ug/l	84
53) Iso-propylacetate	4.735	43	78619	18.5446	ug/l	91
54) Methyl methacrylate	5.305	41	38055	15.1128	ug/l	91
55) Dibromochloromethane	6.393	129	34616	15.1966	ug/l	89
57) cis-1,3-Dichloropropene	5.696	75	54873	16.5896	ug/l	95
58) trans-1,3-Dichloropropene	6.020	75	51070	16.3903	ug/l	84
59) Ethyl methacrylate	6.044	41	45355	17.5973	ug/l	94
60) 1,1,2-Trichloroethane	6.140	97	34096	20.5271	ug/l	86
61) 1,2-Dibromoethane	6.477	107	33017	16.1102	ug/l	91
62) 1,3-Dichloropropane	6.249	76	61045	20.2707	ug/l	98
63) 4-Methyl-2-Pentanone	5.774	43	42388	18.3557	ug/l	100
64) 2-Hexanone	6.267	43	27255	18.1308	ug/l	92
65) Tetrachloroethene	6.243	164	50033	45.6214	ug/l	94
67) Toluene	5.906	92	79062	17.1684	ug/l	91
68) 1,1,1,2-Tetrachloroethane	6.807	133	29728	19.4078	ug/l	94

Quantitation Report (QT Reviewed)

SampleID : AD07391-014 (MS:AD07 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139740.D Sam Mult : 1 Vial# : 38 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 21:53 Misc : A,5ML12 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.765	112	82199	16.0927	ug/l	95
71) n-Butyl acrylate	7.042	55	61350	17.5379	ug/l	98
72) n-Amyl acetate	7.174	43	61574	17.5659	ug/l	85
73) Bromoform	7.276	173	24945	14.8179	ug/l	82
74) Ethylbenzene	6.813	106	26672	18.3145	ug/l	94
75) 1,1,2,2-Tetrachloroethane	7.516	83	46448	17.9008	ug/l	84
77) Styrene	7.132	104	84922	18.9009	ug/l	100
78) m&p-Xylenes	6.879	106	86231	36.4706	ug/l	81
79) o-Xylene	7.132	106	44090	18.2472	ug/l	53
80) trans-1,4-Dichloro-2-b...	7.546	53	12614	13.6519	ug/l	58
81) 1,3-Dichlorobenzene	8.159	146	50451	16.5198	ug/l	91
82) 1,4-Dichlorobenzene	8.213	146	54300	16.5566	ug/l	93
83) 1,2-Dichlorobenzene	8.465	146	49107	15.3686	ug/l	89
84) Isopropylbenzene	7.348	105	86172	18.2376	ug/l	93
85) Cyclohexanone	7.432	55	5523	55.4657	ug/l	86
86) Camphene	7.546	93	3560	2.7307	ug/l	100
87) 1,2,3-Trichloropropane	7.558	75	51175	17.2353	ug/l	92
88) 2-Chlorotoluene	7.678	91	58336	20.3650	ug/l	95
89) p-Ethyltoluene	7.666	105	89526	16.9640	ug/l	79
90) 4-Chlorotoluene	7.744	91	59024	18.7404	ug/l	91
91) n-Propylbenzene	7.600	91	98201	17.7054	ug/l	95
92) Bromobenzene	7.570	77	75560	14.9277	ug/l	95
93) 1,3,5-Trimethylbenzene	7.696	105	60136	17.7194	ug/l	78
94) Butyl methacrylate	7.702	41	56785	19.5843	ug/l	73
95) t-Butylbenzene	7.919	119	54858	16.3859	ug/l	82
96) 1,2,4-Trimethylbenzene	7.943	105	70060	16.4192	ug/l	86
97) sec-Butylbenzene	8.057	105	67950	17.4094	ug/l	97
98) 4-Isopropyltoluene	8.135	119	55137	16.6273	ug/l	89
99) n-Butylbenzene	8.399	91	62988	16.8537	ug/l	94
100) p-Diethylbenzene	8.381	119	29964m	15.4921	ug/l	
101) 1,2,4,5-Tetramethylben...	8.892	119	40920	13.9210	ug/l	90
102) 1,2-Dibromo-3-Chloropr...	8.970	157	7761	15.8834	ug/l	72
103) Camphor	9.450	95	10597	66.5534	ug/l	95
104) Hexachlorobutadiene	9.606	225	14350	15.2578	ug/l	95
105) 1,2,4-Trichlorobenzene	9.510	180	24307	14.6025	ug/l	97
106) 1,2,3-Trichlorobenzene	9.853	180	24013	14.4955	ug/l	90
107) Naphthalene	9.697	128	57660	14.3326	ug/l	100

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

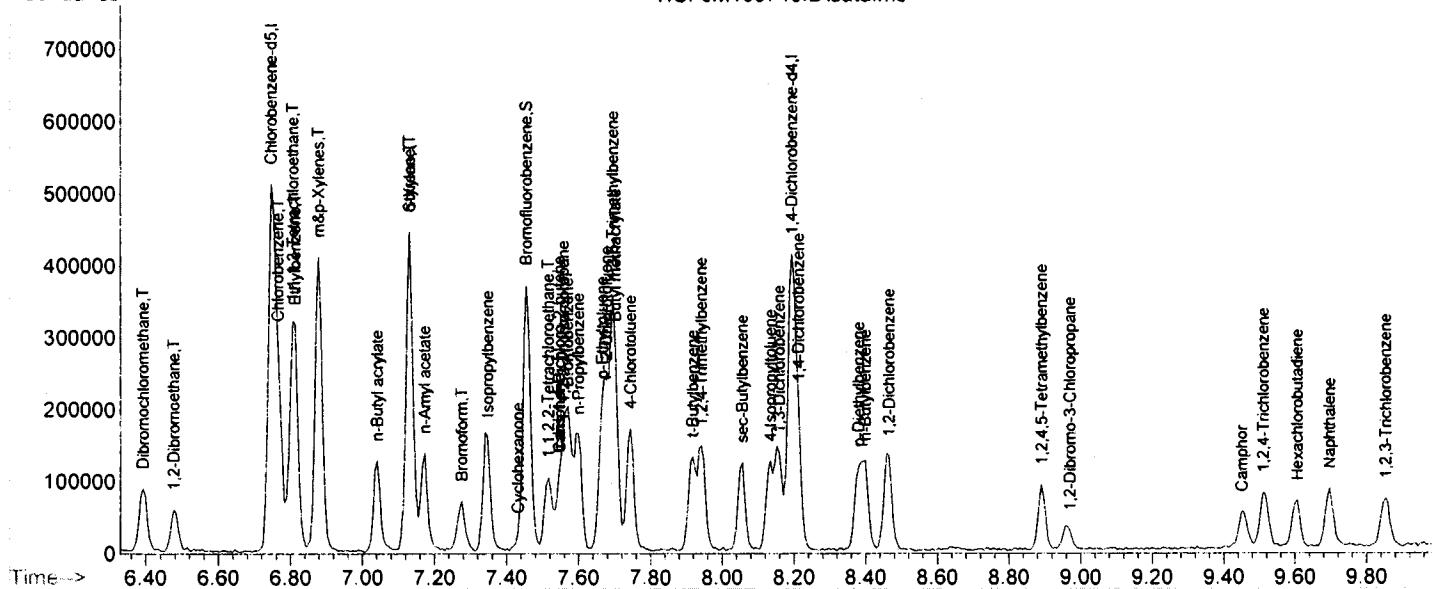
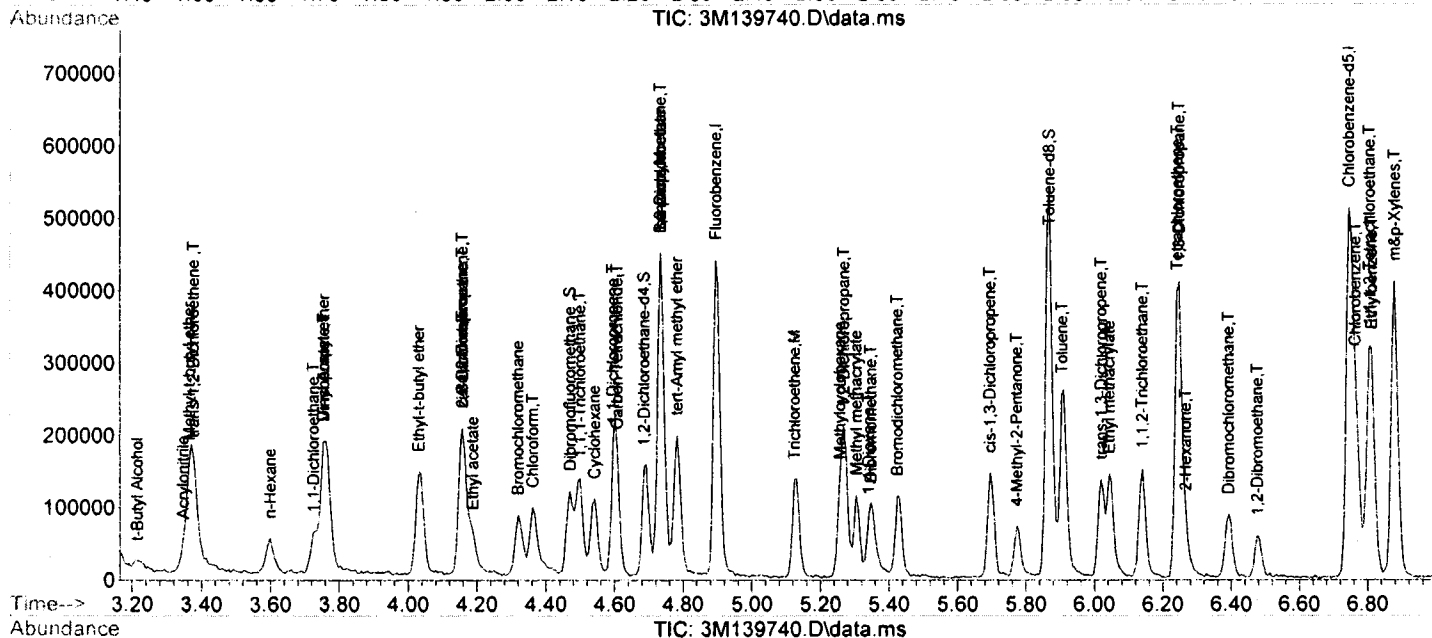
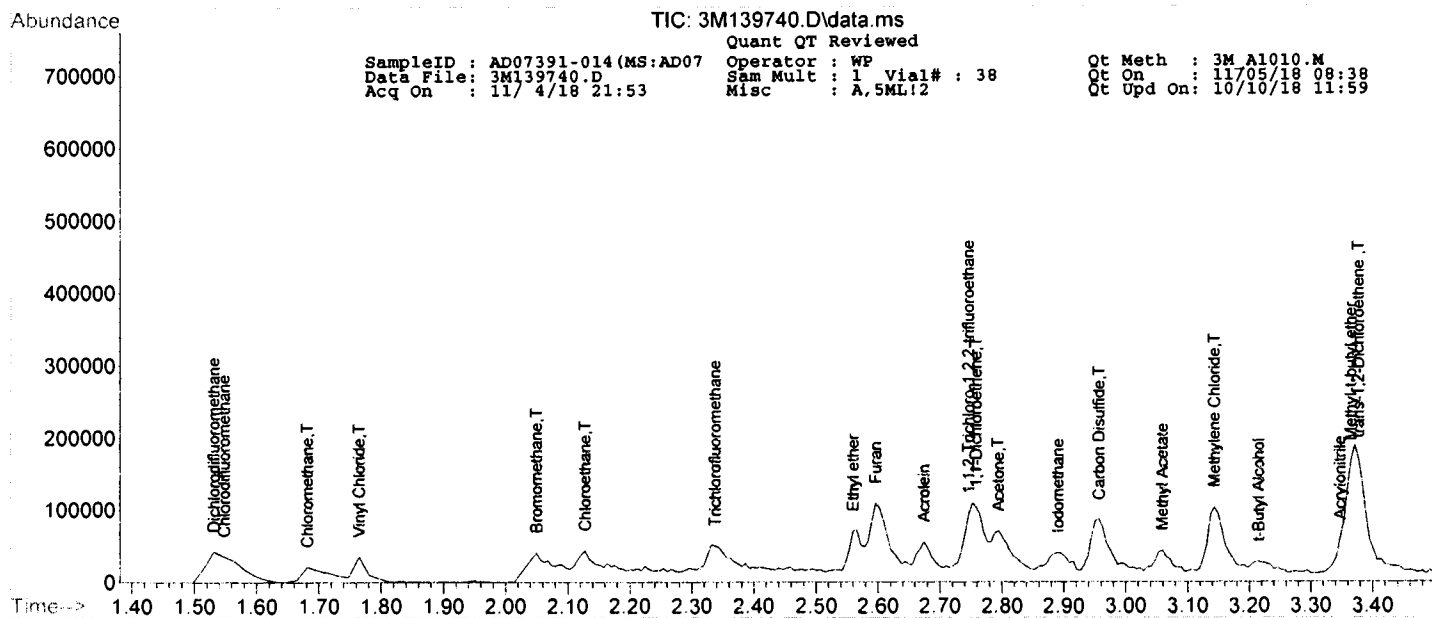
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Quant QT Reviewed

SampleID : AD07391-014 (MS:AD07
Data File: 3M139740.D
Acq On : 11/ 4/18 21:53

Operator : WP
Sam Mult : 1 Vial# : 38
Misc : A, 5ML12

Qt Meth : 3M A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-015(MSD:AD

Client Id: 152140-MW-15D MSD

Data File: 3M139741.D

Analysis Date: 11/04/18 22:10

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	15	75-00-3	Chloroethane	1.0	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0	19	67-66-3	Chloroform	1.0	16
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	20	74-87-3	Chloromethane	1.0	28
79-00-5	1,1,2-Trichloroethane	1.0	19	156-59-2	cis-1,2-Dichloroethene	1.0	18
75-34-3	1,1-Dichloroethane	1.0	18	10061-01-5	cis-1,3-Dichloropropene	1.0	16
75-35-4	1,1-Dichloroethene	1.0	18	110-82-7	Cyclohexane	1.0	20
120-82-1	1,2,4-Trichlorobenzene	1.0	16	124-48-1	Dibromochloromethane	1.0	15
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	17	75-71-8	Dichlorodifluoromethane	1.0	25
106-93-4	1,2-Dibromoethane	1.0	14	100-41-4	Ethylbenzene	1.0	19
95-50-1	1,2-Dichlorobenzene	1.0	16	98-82-8	Isopropylbenzene	1.0	18
107-06-2	1,2-Dichloroethane	0.50	19	79601-23-1	m&p-Xylenes	1.0	36
78-87-5	1,2-Dichloropropane	1.0	19	79-20-9	Methyl Acetate	1.0	16
541-73-1	1,3-Dichlorobenzene	1.0	16	108-87-2	Methylcyclohexane	1.0	17
106-46-7	1,4-Dichlorobenzene	1.0	16	75-09-2	Methylene Chloride	1.0	18
78-93-3	2-Butanone	1.0	18	1634-04-4	Methyl-t-butyl ether	0.50	16
591-78-6	2-Hexanone	1.0	19	95-47-6	o-Xylene	1.0	18
108-10-1	4-Methyl-2-Pentanone	1.0	17	100-42-5	Styrene	1.0	18
67-64-1	Acetone	5.0	84	127-18-4	Tetrachloroethene	1.0	43
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	17	156-60-5	trans-1,2-Dichloroethene	1.0	16
75-25-2	Bromoform	1.0	18	10061-02-8	trans-1,3-Dichloropropene	1.0	15
74-83-9	Bromomethane	1.0	21	79-01-6	Trichloroethene	1.0	16
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	16
56-23-5	Carbon Tetrachloride	1.0	16	75-01-4	Vinyl Chloride	1.0	23
108-90-7	Chlorobenzene	1.0	15	1330-20-7	Xylenes (Total)	1.0	54

Worksheet #: 487384

Total Target Concentration 980

ColumnID: (*) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-015 (MSD:AD0 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139741.D Sam Mult : 1 Vial# : 39 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 22:10 Misc : A,5ML:2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.892	96	230608	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.742	117	200315	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	86605	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	59751	29.11	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.03%	
39) 1,2-Dichloroethane-d4	4.688	67	39985	27.74	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	92.47%	
66) Toluene-d8	5.865	98	241423	28.83	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.10%	
76) Bromofluorobenzene	7.451	174	86751	28.91	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	96.37%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.543	51	77124	36.0770	ug/l	80
6) Dichlorodifluoromethane	1.526	85	34697	24.8180	ug/l	79
7) Chloromethane	1.676	50	42439	28.3143	ug/l	85
8) Bromomethane	2.045	94	15824	20.5977	ug/l	95
9) Vinyl Chloride	1.759	62	34548	23.2240	ug/l	100
10) Chloroethane	2.123	64	13760	20.1011	ug/l	89
11) Trichlorofluoromethane	2.333	101	33808	15.0249	ug/l	88
12) Ethyl ether	2.561	59	25469	13.0855	ug/l	78
13) Furan	2.591	39	69971	14.5528	ug/l	85
14) 1,1,2-Trichloro-1,2,2-...	2.742	101	18377	20.1754	ug/l	95
15) Methylene Chloride	3.138	84	33192	18.4801	ug/l	81
16) Acrolein	2.675	56	25151	68.7423	ug/l	97
17) Acrylonitrile	3.342	53	15403	18.7391	ug/l	91
18) Iodomethane	2.886	142	30576	14.0361	ug/l	95
19) Acetone	2.796	43	63166	84.0866	ug/l	95
20) Carbon Disulfide	2.952	76	101014	16.2858	ug/l	100
21) t-Butyl Alcohol	3.210	59	12126	76.4275	ug/l	99
22) n-Hexane	3.595	57	14575m	16.6979	ug/l	
23) Di-isopropyl-ether	3.757	45	127523	19.4542	ug/l	87
24) 1,1-Dichloroethene	2.754	61	49029	17.5599	ug/l	90
25) Methyl Acetate	3.054	43	41636	16.1212	ug/l	100
26) Methyl-t-butyl ether	3.366	73	69787	15.6222	ug/l	77
27) 1,1-Dichloroethane	3.733	63	63992	18.3242	ug/l	96
28) trans-1,2-Dichloroethene	3.372	96	28973	15.8239	ug/l	87
29) Ethyl-t-butyl ether	4.033	59	88916	16.9620	ug/l	94
30) cis-1,2-Dichloroethene	4.153	61	63470	18.0108	ug/l	93
31) Bromochloromethane	4.315	49	46502	21.7327	ug/l	69
32) 2,2-Dichloropropane	4.153	77	38679	17.6627	ug/l	100
33) Ethyl acetate	4.183	43	44318m	17.9289	ug/l	
34) 1,4-Dioxane	5.349	88	17455	806.7953	ug/l	88
35) 1,1-Dichloropropene	4.598	75	44506	18.4156	ug/l	94
36) Chloroform	4.363	83	58839	15.7690	ug/l	77
38) Cyclohexane	4.538	56	32115	20.1197	ug/l	86
40) 1,2-Dichloroethane	4.736	62	52144	18.5411	ug/l	97
41) 2-Butanone	4.153	43	18006m	17.6029	ug/l	
42) 1,1,1-Trichloroethane	4.496	97	42079	15.0144	ug/l	98
43) Carbon Tetrachloride	4.604	117	33627	16.0360	ug/l	98
44) Vinyl Acetate	3.757	43	85888	17.7392	ug/l	100
45) Bromodichloromethane	5.427	83	49608	16.9202	ug/l	91
46) Methylcyclohexane	5.252	83	18565	16.6743	ug/l	95
47) Dibromomethane	5.343	174	25662	18.8185	ug/l	86
48) 1,2-Dichloropropane	5.265	63	40363	19.1136	ug/l	93
49) Trichloroethene	5.126	130	31572	15.7257	ug/l	90
50) Benzene	4.730	78	133060	20.1552	ug/l	100
51) tert-Amyl methyl ether	4.784	73	81112	17.1849	ug/l	79
53) Iso-propylacetate	4.736	43	78774	17.9013	ug/l	94
54) Methyl methacrylate	5.301	41	48280	18.4719	ug/l	98
55) Dibromochloromethane	6.388	129	34663	14.6605	ug/l	96
57) cis-1,3-Dichloropropene	5.691	75	56314	16.4023	ug/l	86
58) trans-1,3-Dichloropropene	6.015	75	49305	15.2449	ug/l	95
59) Ethyl methacrylate	6.045	41	46735	17.4693	ug/l	85
60) 1,1,1-Trichloroethane	6.136	97	33293	19.3129	ug/l	89
61) 1,2-Dibromoethane	6.472	107	30079	14.1397	ug/l	76
62) 1,3-Dichloropropane	6.238	76	60688	19.4106	ug/l	98
63) 4-Methyl-2-Pentanone	5.769	43	41897	17.4792	ug/l	98
64) 2-Hexanone	6.262	43	30161	19.3299	ug/l	93
65) Tetrachloroethene	6.244	164	48821	42.8543	ug/l	96
67) Toluene	5.907	92	78916	16.5098	ug/l	96
68) 1,1,1,2-Tetrachloroethane	6.802	133	30285	19.0462	ug/l	94

Quantitation Report (QT Reviewed)

SampleID : AD07391-015 (MSD:AD0 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139741.D Sam Mult : 1 Vial# : 39 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 22:10 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.760	112	81683	15.4066	ug/l	94
71) n-Butyl acrylate	7.037	55	65303	18.6345	ug/l	99
72) n-Amyl acetate	7.163	43	67992	19.3621	ug/l	95
73) Bromoform	7.265	173	26490	15.7075	ug/l	82
74) Ethylbenzene	6.808	106	28288	19.3894	ug/l	74
75) 1,1,2,2-Tetrachloroethane	7.511	83	48305	18.5831	ug/l	88
77) Styrene	7.127	104	78770	17.5003	ug/l	91
78) m&p-Xylenes	6.874	106	85197	35.9688	ug/l	92
79) o-Xylene	7.127	106	44605	18.4273	ug/l	63
80) trans-1,4-Dichloro-2-b...	7.541	53	12156	13.1327	ug/l	64
81) 1,3-Dichlorobenzene	8.154	146	48092	15.7191	ug/l	87
82) 1,4-Dichlorobenzene	8.208	146	51142	15.5658	ug/l	91
83) 1,2-Dichlorobenzene	8.454	146	51962	16.2330	ug/l	87
84) Isopropylbenzene	7.337	105	83170	17.5707	ug/l	94
85) Cyclohexanone	7.421	55	6877	68.9398	ug/l	69
86) Camphene	7.535	93	4590	3.5144	ug/l	99
87) 1,2,3-Trichloropropane	7.559	75	50799	17.0780	ug/l	88
88) 2-Chlorotoluene	7.673	91	58304	20.3169	ug/l	93
89) p-Ethyltoluene	7.661	105	90088	17.0402	ug/l	78
90) 4-Chlorotoluene	7.739	91	57272	18.1516	ug/l	94
91) n-Propylbenzene	7.589	91	99843	17.9692	ug/l	96
92) Bromobenzene	7.565	77	77741	15.3310	ug/l	93
93) 1,3,5-Trimethylbenzene	7.691	105	58629	17.2396	ug/l	81
94) Butyl methacrylate	7.691	41	59750	20.5700	ug/l	77
95) t-Butylbenzene	7.914	119	55379	16.5120	ug/l	85
96) 1,2,4-Trimethylbenzene	7.938	105	69377	16.2301	ug/l	86
97) sec-Butylbenzene	8.046	105	68932	17.6294	ug/l	98
98) 4-Isopropyltoluene	8.124	119	55253	16.6324	ug/l	93
99) n-Butylbenzene	8.394	91	65397	17.4669	ug/l	92
100) p-Diethylbenzene	8.376	119	30678m	15.8329	ug/l	
101) 1,2,4,5-Tetramethylben...	8.887	119	42824	14.5426	ug/l	86
102) 1,2-Dibromo-3-Chloropr...	8.959	157	8492	17.3363	ug/l	64
103) Camphor	9.451	95	17402	109.3148	ug/l	97
104) Hexachlorobutadiene	9.602	225	15557	16.5152	ug/l	96
105) 1,2,4-Trichlorobenzene	9.511	180	26484	15.8819	ug/l	94
106) 1,2,3-Trichlorobenzene	9.848	180	24363	14.6805	ug/l	97
107) Naphthalene	9.686	128	63040	15.6419	ug/l	100

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



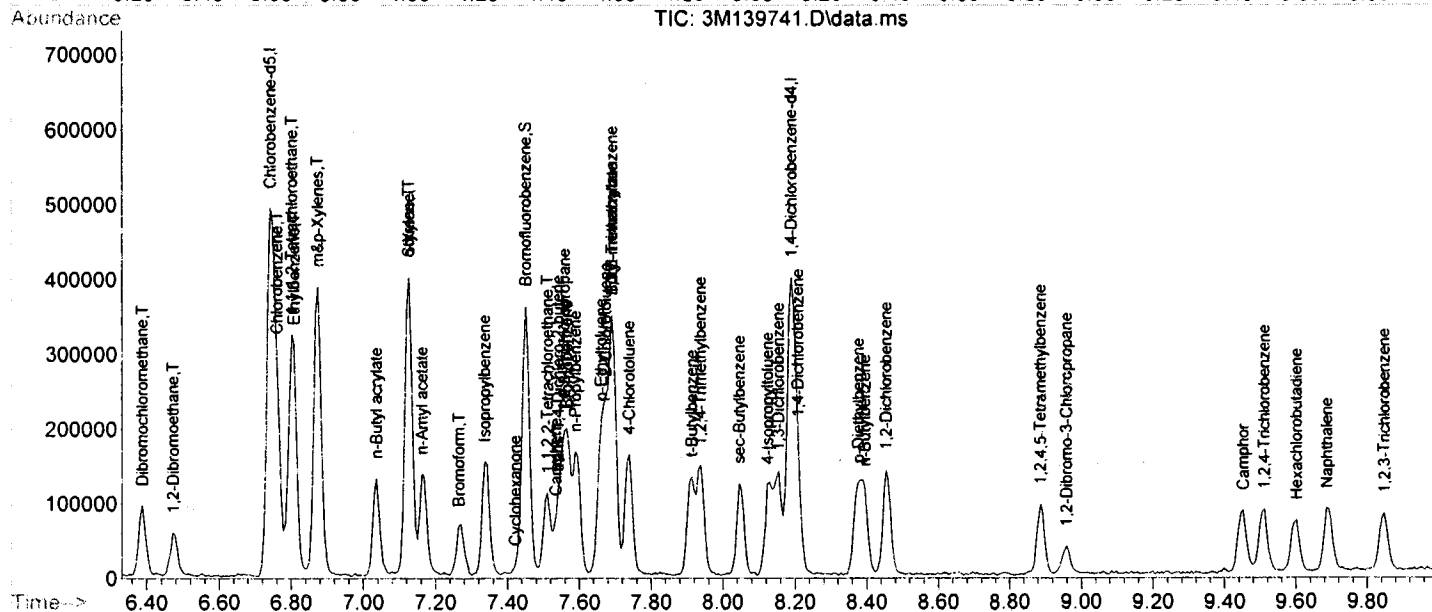
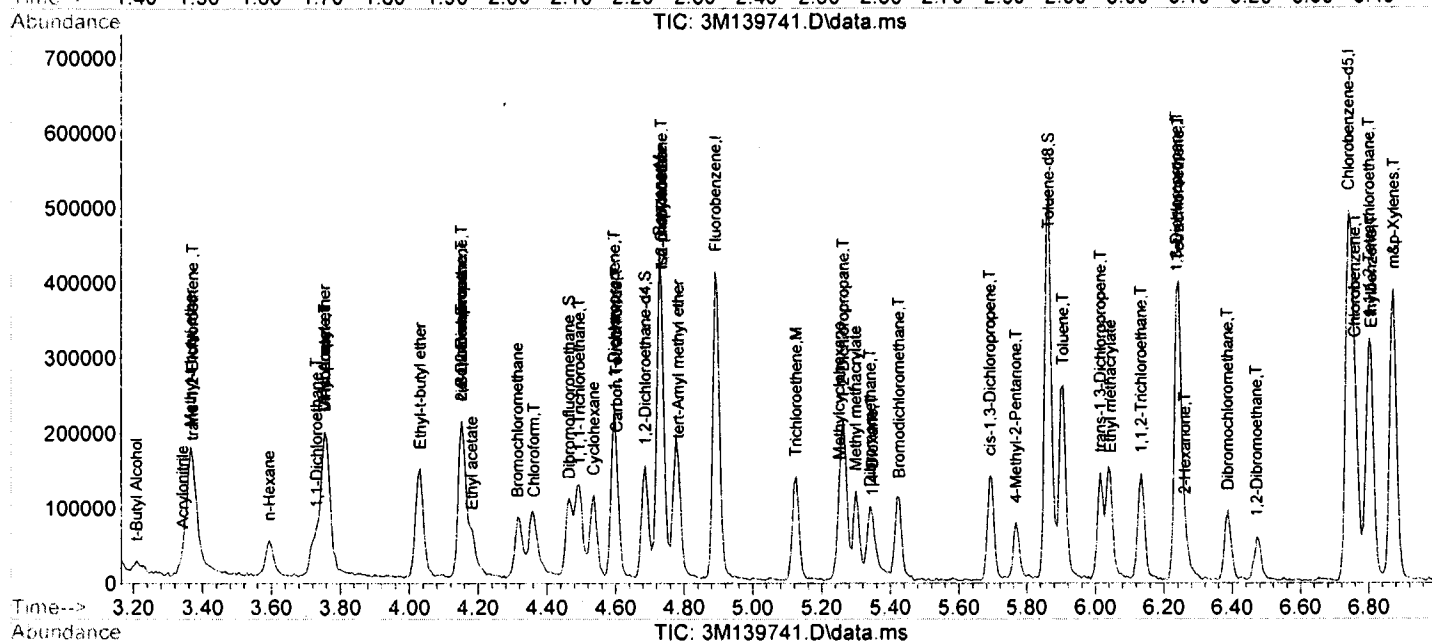
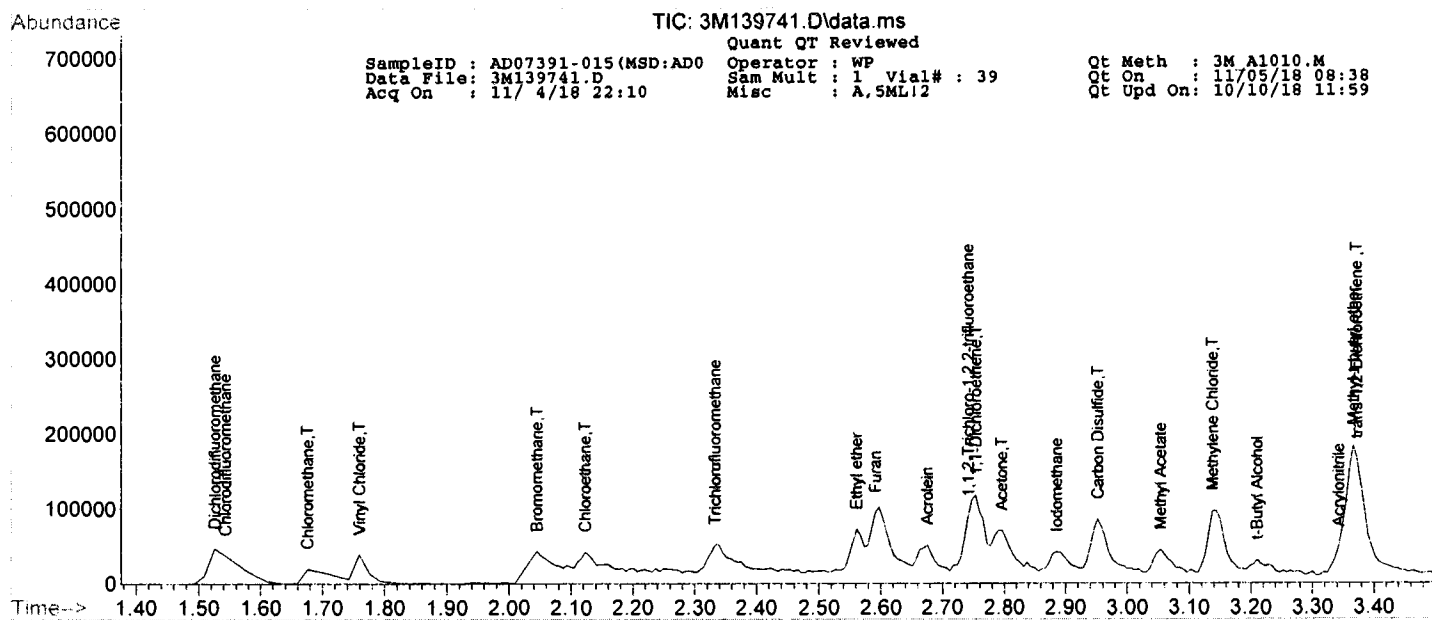
TIC: 3M139741.D\data.ms

Quant QT Reviewed

SampleID : AD07391-015 (MSD:ADO
Data File: 3M139741.D
Acq On : 11/ 4/18 22:10

Operator : WP
Sam Mult : 1 Vial# : 39
Misc : A, 5ML12

Qt Meth : 3M A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-016

Client Id: 152140-DDC-2-PS

Data File: 3M139687.D

Analysis Date: 11/04/18 08:13

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	3.2
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.1
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 4.3

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-016
Data File: 3M139687.D
Acq On : 11/ 4/18 08:13

Operator : SG
Sam Mult : 1 Vial# : 61
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.897	96	222207	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	188219	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.189	152	73741	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	57619	29.13	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.10%	
39) 1,2-Dichloroethane-d4	4.687	67	39390	28.36	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	94.53%	
66) Toluene-d8	5.865	98	221581	28.16	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	93.87%	
76) Bromofluorobenzene	7.456	174	79046	30.94	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.13%	
Target Compounds						
49) Trichloroethene	5.132	130	2100	1.0855	ug/l	86
65) Tetrachloroethene	6.243	164	3471	3.2070	ug/l	69

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

26

Abundance

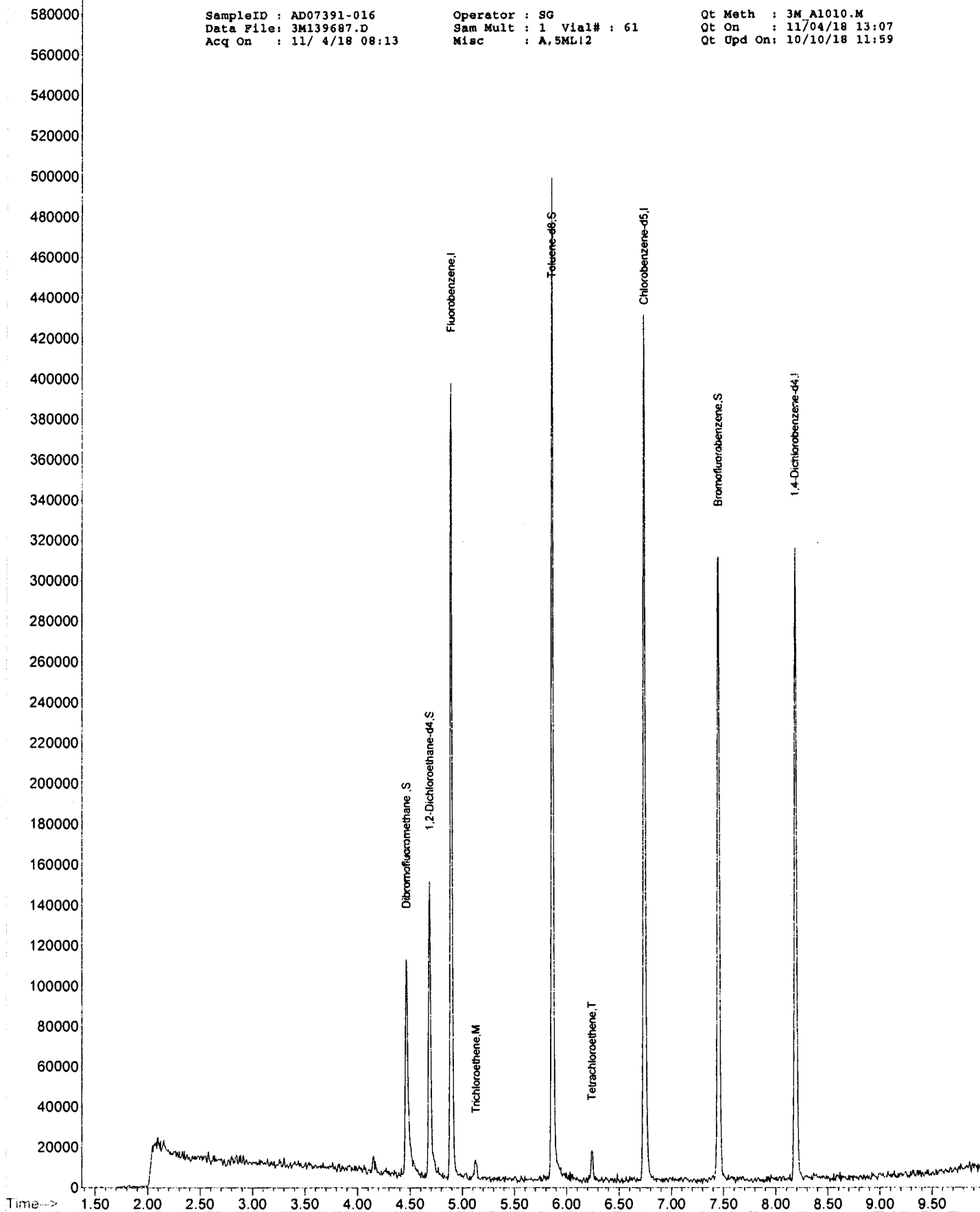
TIC: 3M139687.D\data.ms

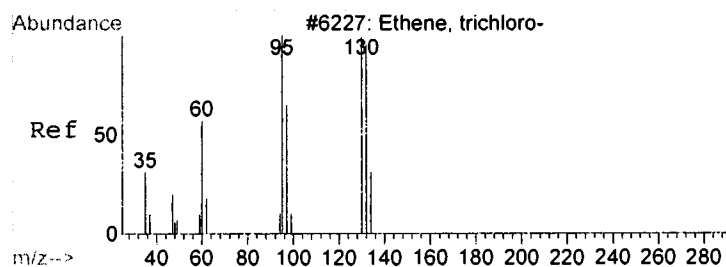
Quant QT Reviewed

SampleID : AD07391-016
Data File: 3M139687.D
Acq On : 11/ 4/18 08:13

Operator : SG
Sam Mult : 1 Vial# : 61
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59





#49

Trichloroethene

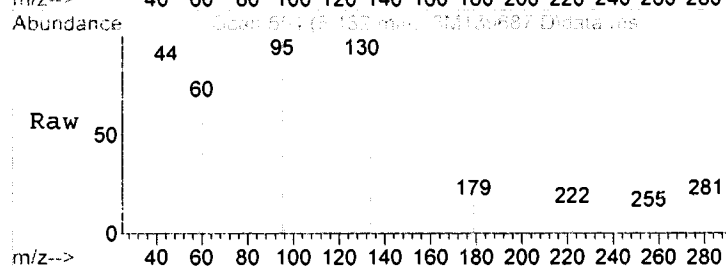
Concen: 1.09 ug/l

RT: 5.132 min Scan# 554

Delta R.T. -0.007 min

Lab File: 3M139687.D

Acq: 4 Nov 2018 8:13



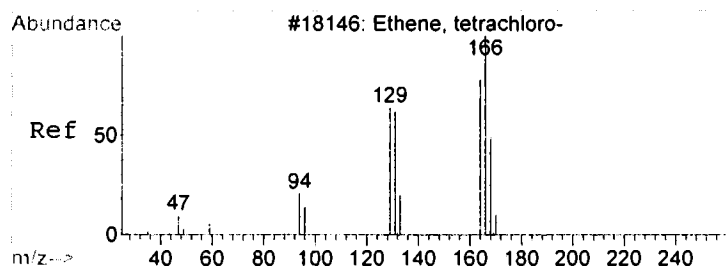
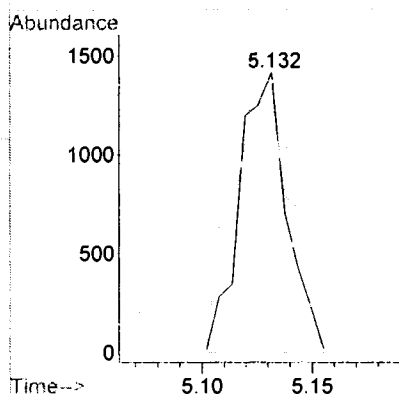
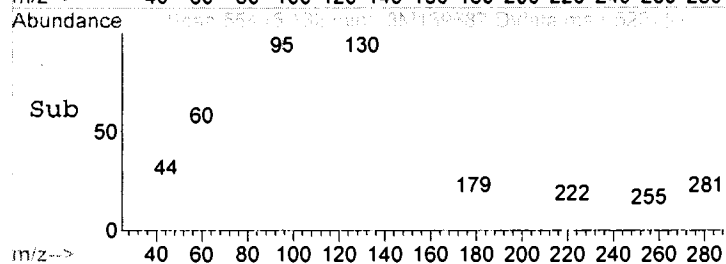
Tgt Ion:130 Resp: 2100

Ion Ratio Lower Upper

130 100

132 92.8 40.0 200.0

95 97.7 40.0 160.0



#65

Tetrachloroethene

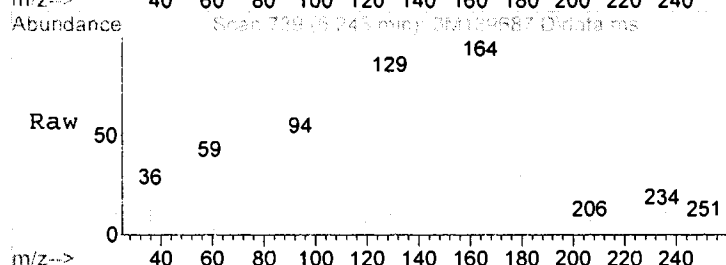
Concen: 3.21 ug/l

RT: 6.243 min Scan# 739

Delta R.T. -0.013 min

Lab File: 3M139687.D

Acq: 4 Nov 2018 8:13

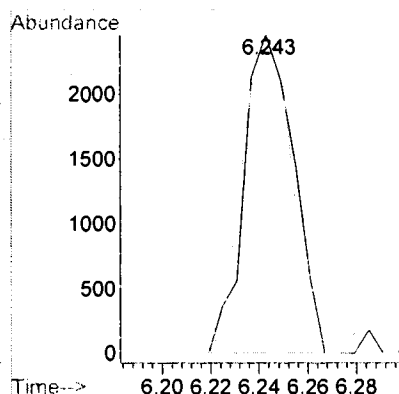
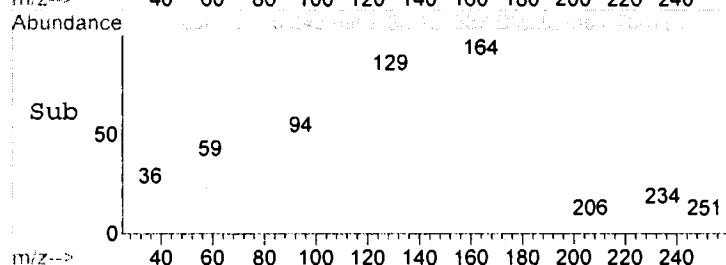


Tgt Ion:164 Resp: 3471

Ion Ratio Lower Upper

164 100

166 95.5 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-017

Client Id: 152140-DDC-2-PD

Data File: 3M139686.D

Analysis Date: 11/04/18 07:56

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	3.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 3.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-017
Data File: 3M139686.D
Acq On : 11/ 4/18 07:56

Operator : SG
Sam Mult : 1 Vial# : 60
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.892	96	232131	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.742	117	203537	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	79914	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	66241	32.06	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	106.87%	
39) 1,2-Dichloroethane-d4	4.688	67	46655	32.15	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	107.17%	
66) Toluene-d8	5.865	98	248231	29.18	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.27%	
76) Bromofluorobenzene	7.451	174	83540	30.17	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	100.57%	
Target Compounds						
65) Tetrachloroethene	6.243	164	3965	3.3879	ug/l	Qvalue 97

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

26

Abundance

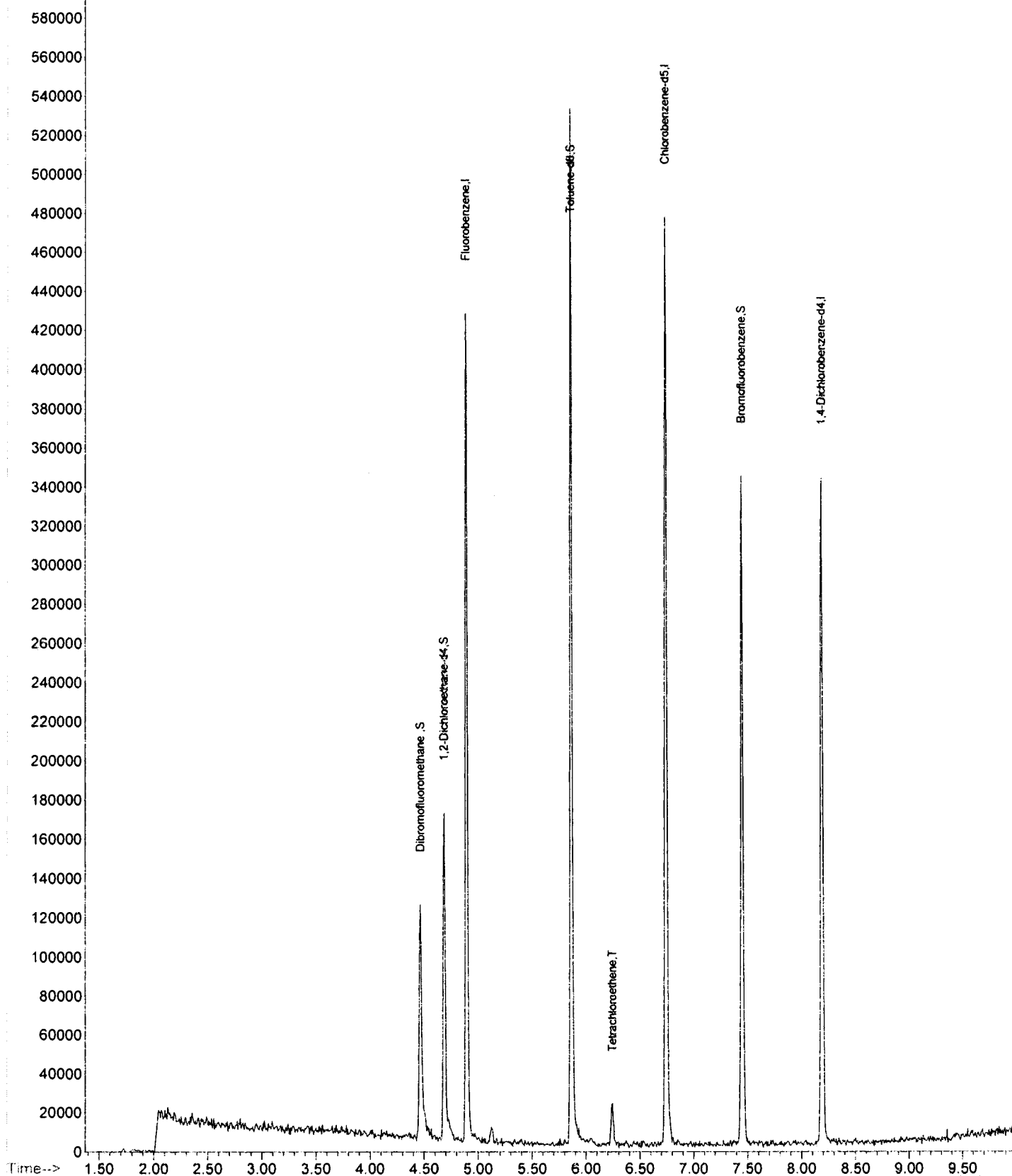
TIC: 3M139686.D\data.ms

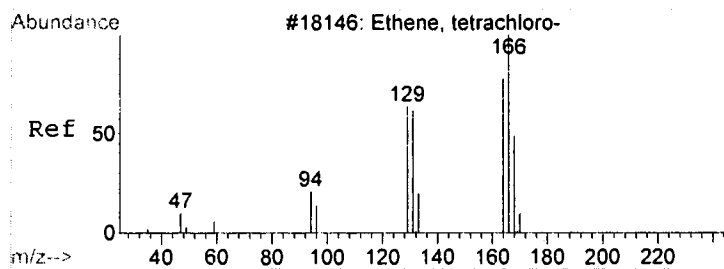
Quant QT Reviewed

SampleID : AD07391-017
Data File: 3M139686.D
Acq On : 11/ 4/18 07:56

Operator : SG
Sam Mult : 1 Vial# : 60
Misc : A,5ML12

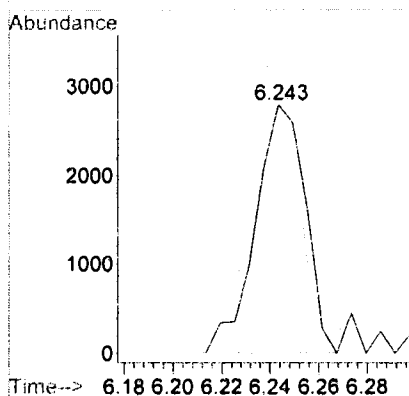
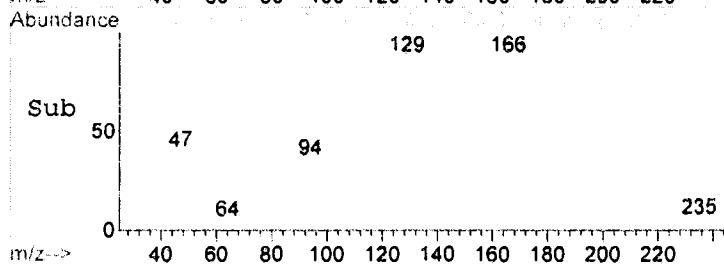
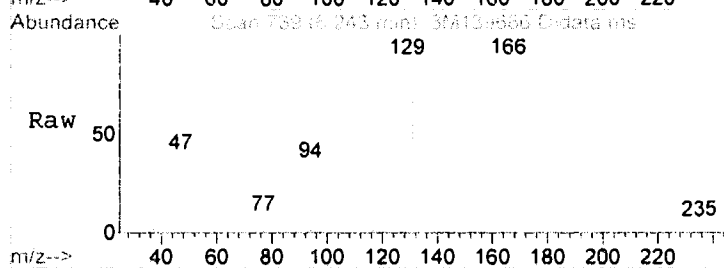
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59





#65
Tetrachloroethene
Concen: 3.39 ug/l
RT: 6.243 min Scan# 739
Delta R.T. -0.013 min
Lab File: 3M139686.D
Acq: 4 Nov 2018 7:56

Tgt Ion:164 Resp: 3965
Ion Ratio Lower Upper
164 100
166 128.3 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-018

Client Id: 152140-DDC-4-PS

Data File: 3M139685.D

Analysis Date: 11/04/18 07:39

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	2.3
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 2.3

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration uses

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-018
Data File: 3M139685.D
Acq On : 11/ 4/18 07:39

Operator : SG
Sam Mult : 1 Vial# : 59
Misc : A,SML!2

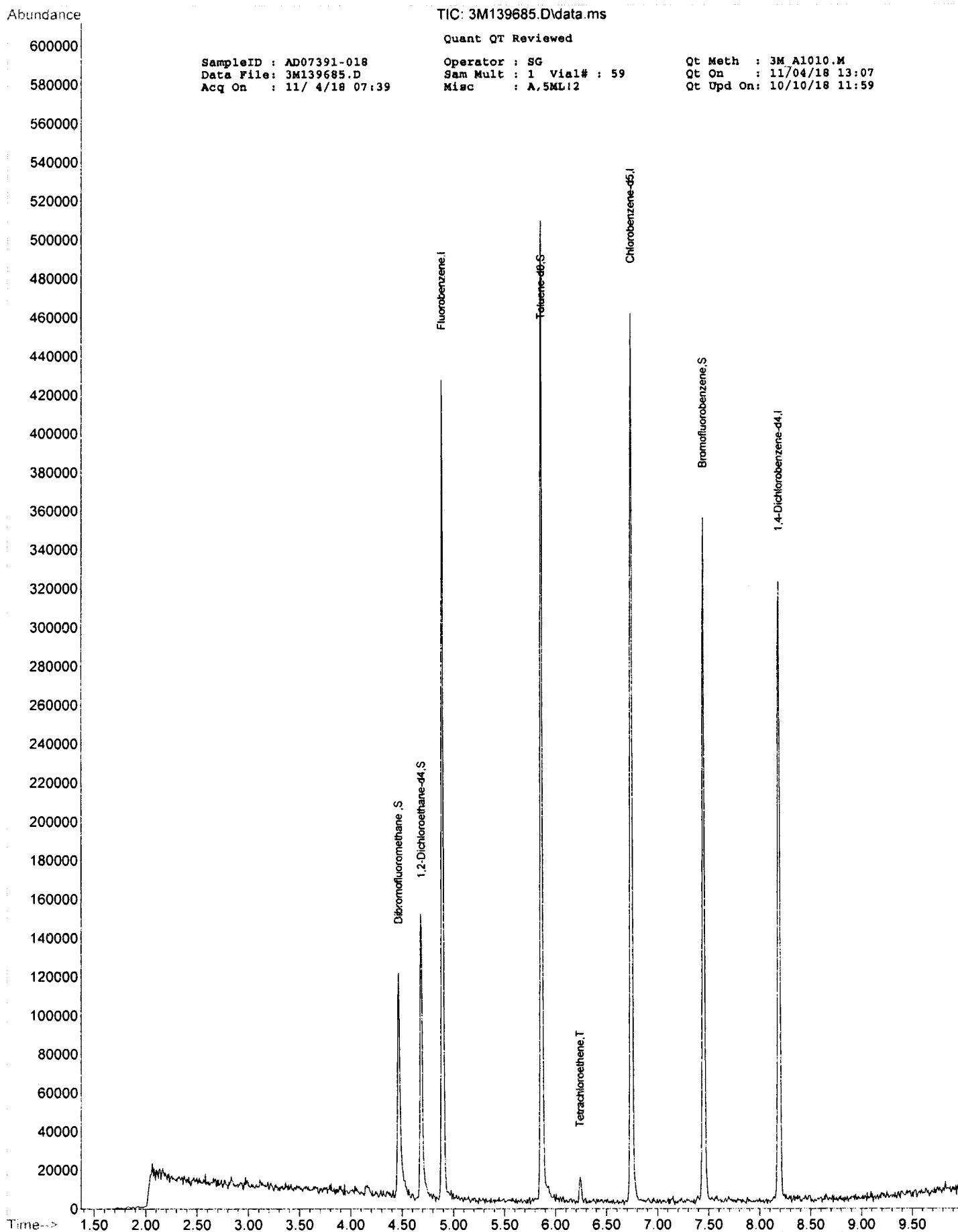
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

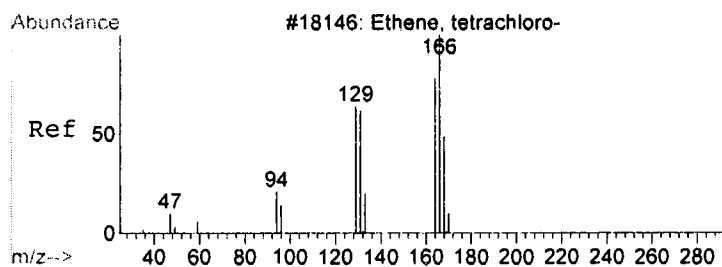
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.893	96	233718	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.743	117	199697	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.191	152	77796	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	60674	29.17	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.23%	
39) 1,2-Dichloroethane-d4	4.689	67	42263	28.93	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.43%	
66) Toluene-d8	5.866	98	242809	29.09	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.97%	
76) Bromofluorobenzene	7.452	174	83174	30.86	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	102.87%	
Target Compounds						
65) Tetrachloroethene	6.239	164	2589	2.2540	ug/l	96

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





#65

Tetrachloroethene

Concen: 2.25 ug/l

RT: 6.239 min Scan# 738

Delta R.T. -0.017 min

Lab File: 3M139685.D

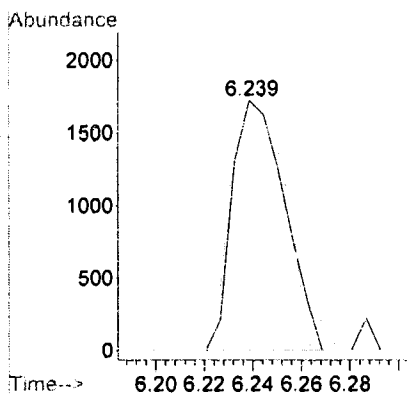
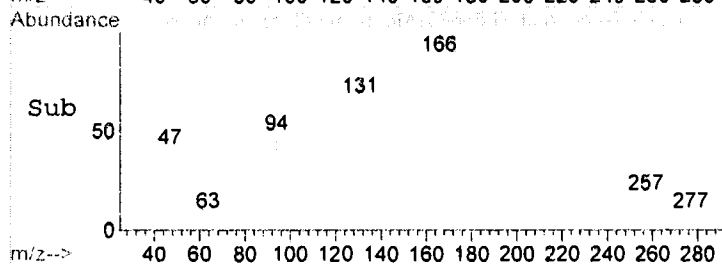
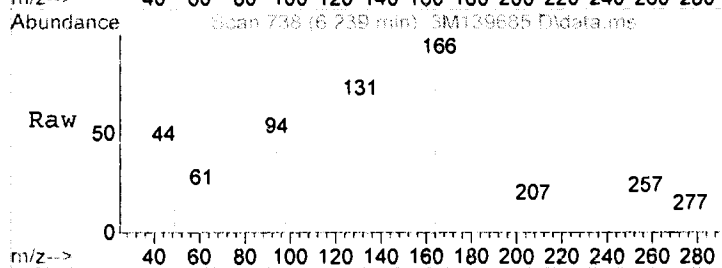
Acq: 4 Nov 2018 7:39

Tgt Ion:164 Resp: 2589

Ion Ratio Lower Upper

164 100

166 127.6 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-019

Client Id: 152140-DDC-4-PD

Data File: 3M139684.D

Analysis Date: 11/04/18 07:22

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-019
Data File: 3M139684.D
Acq On : 11/ 4/18 07:22

Operator : SG
Sam Mult : 1 Vial# : 58
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.897	96	240807	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.741	117	195800	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.189	152	81193	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	62359	29.09	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	96.97%	
39) 1,2-Dichloroethane-d4	4.687	67	43444	28.86	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	96.20%	
66) Toluene-d8	5.864	98	244686	29.90	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	99.67%	
76) Bromofluorobenzene	7.450	174	83794	29.79	ug/l	-0.02
Spiked Amount	30.000		Recovery	=	99.30%	
Target Compounds						Qvalue

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

2

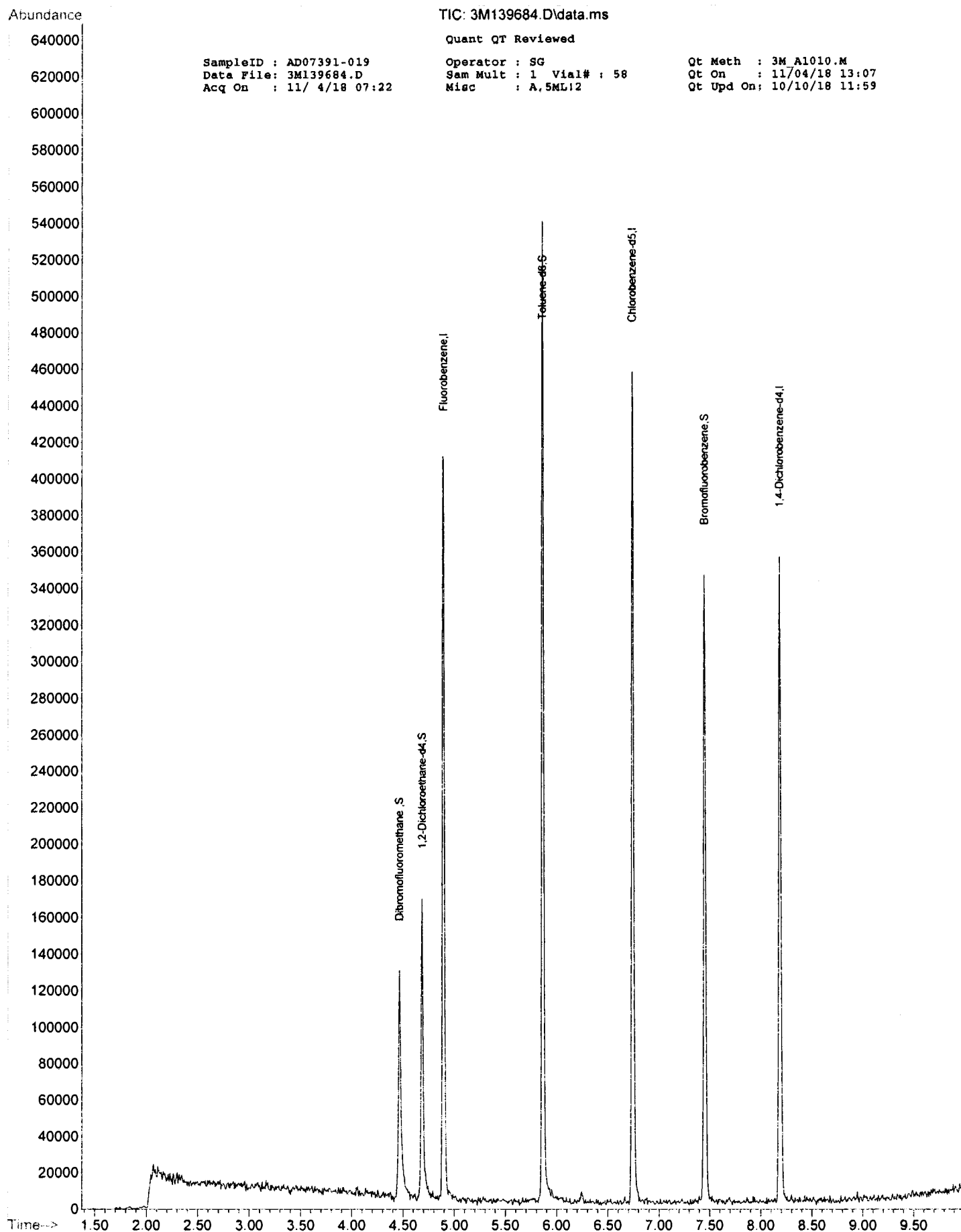
TIC: 3M139684.D\data.ms

Quant QT Reviewed

SampleID : AD07391-019
Data File: 3M139684.D
Acq On : 11/ 4/18 07:22

Operator : SG
Sam Mult : 1 Vial# : 58
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-020

Client Id: 152140-FD-01

Data File: 3M139683.D

Analysis Date: 11/04/18 07:04

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	35
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 35

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-020
Data File: 3M139683.D
Acq On : 11/ 4/18 07:04

Operator : SG
Sam Mult : 1 Vial# : 57
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	218100	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.742	117	186747	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	75267	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	58553	30.16	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.53%	
39) 1,2-Dichloroethane-d4	4.682	67	39116	28.69	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	95.63%	
66) Toluene-d8	5.865	98	227560	29.15	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.17%	
76) Bromofluorobenzene	7.451	174	75367	28.90	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	96.33%	
Target Compounds						
65) Tetrachloroethene	6.244	164	37170	34.9201	ug/l	Qvalue 92

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



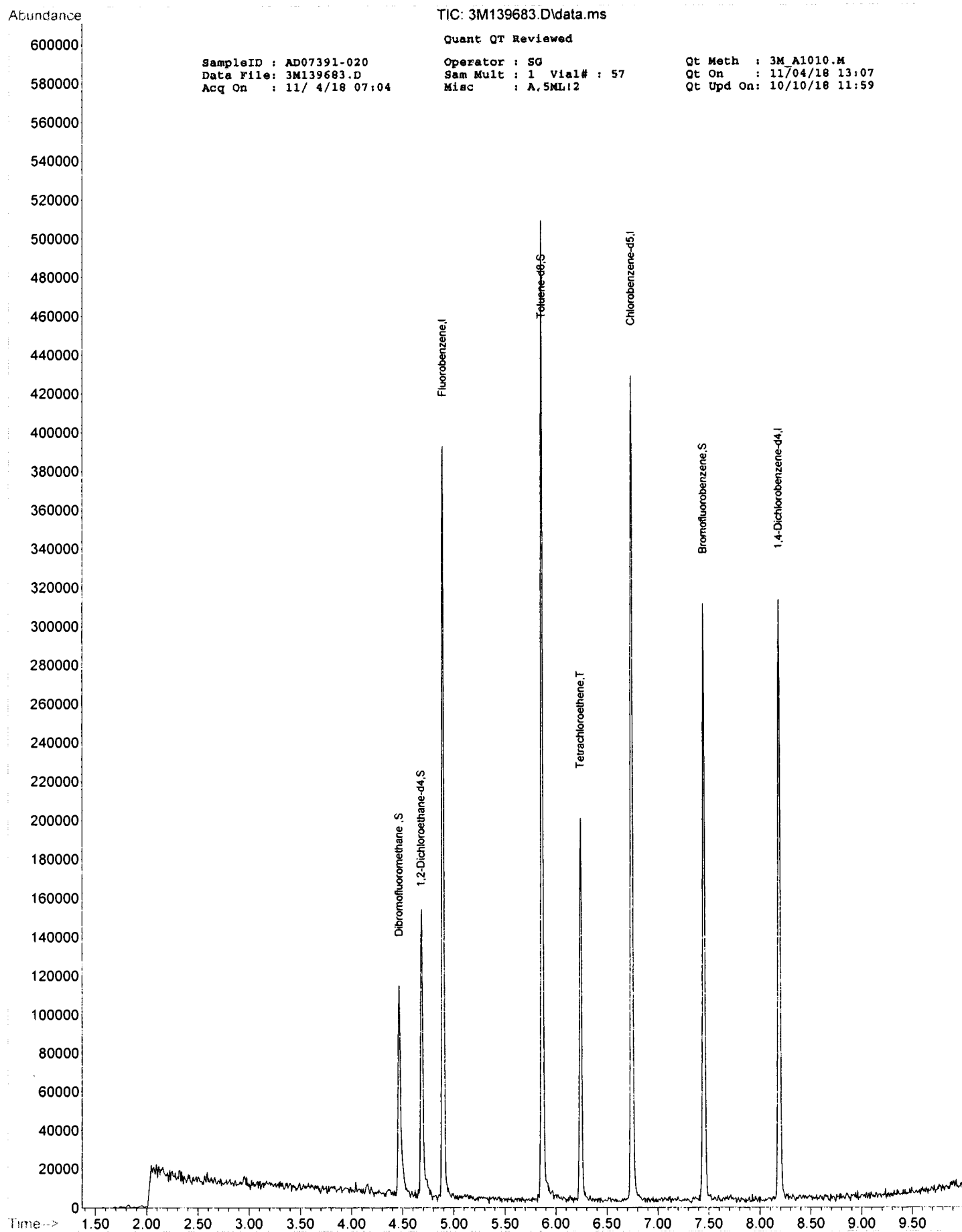
TIC: 3M139683.D\data.ms

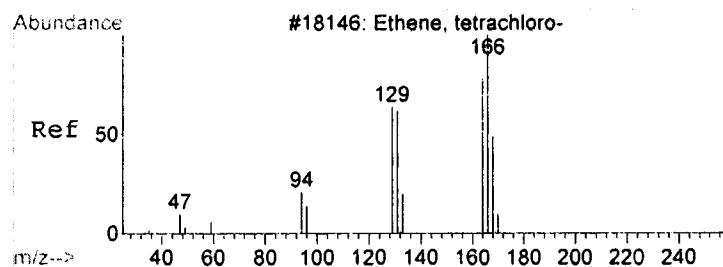
Quant QT Reviewed

SampleID : AD07391-020
Data File: 3M139683.D
Acq On : 11/ 4/18 07:04

Operator : SG
Sam Mult : 1 Vial# : 57
Misc : A,5MLi2

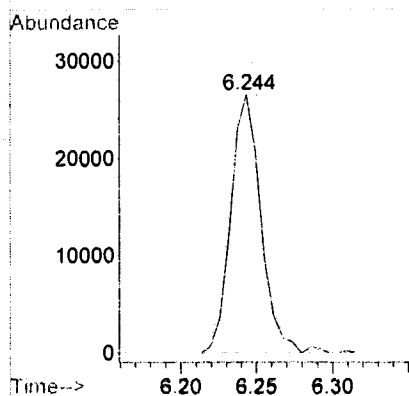
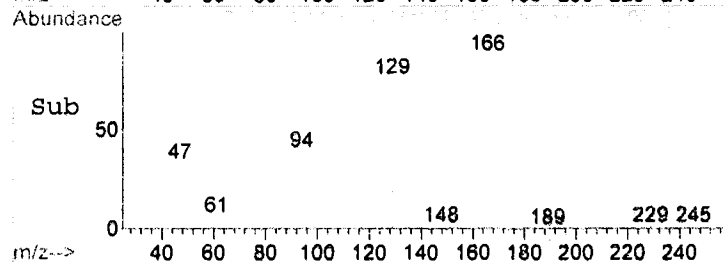
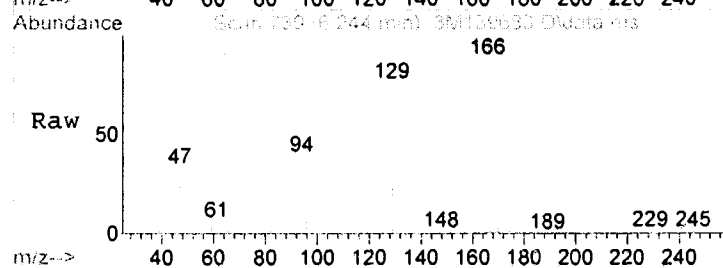
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59





#65
Tetrachloroethene
Concen: 34.92 ug/l
RT: 6.244 min Scan# 739
Delta R.T. -0.013 min
Lab File: 3M139683.D
Acq: 4 Nov 2018 7:04

Tgt Ion:164 Resp: 37170
Ion Ratio Lower Upper
164 100
166 122.3 61.8 201.8



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-021

Client Id: 152140-MW-1D(OFFSITE)

Data File: 3M139682.D

Analysis Date: 11/04/18 06:47

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	20
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	76
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	8.0
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 100

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-021
Data File: 3M139682.D
Acq On : 11/ 4/18 06:47

Operator : SG
Sam Mult : 1 Vial# : 56
Misc : A,5ML12

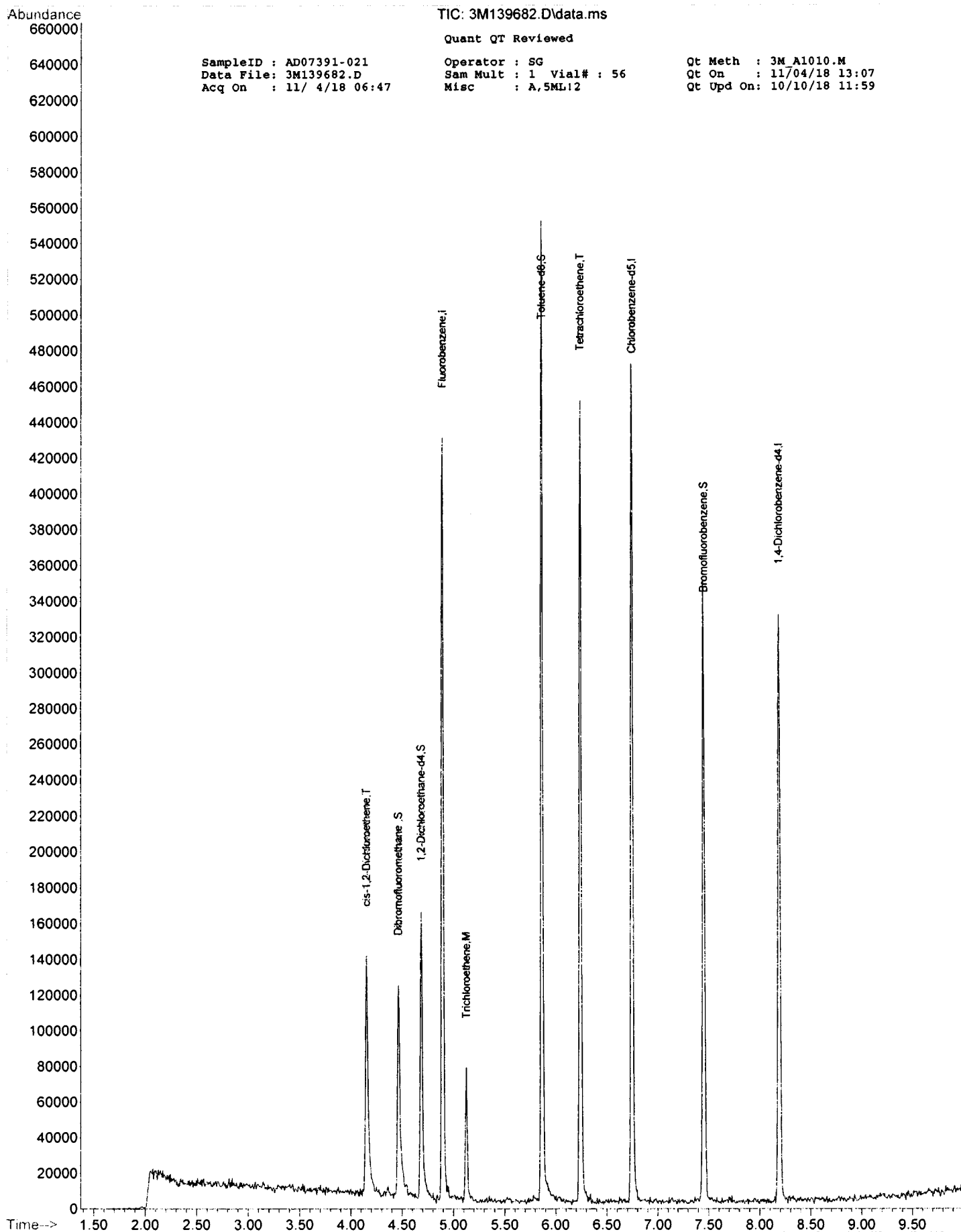
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

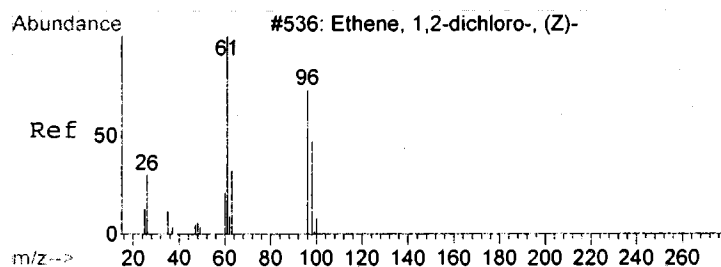
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.898	96	243101	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	207896	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.190	152	78893	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	64821	29.96	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.87%	
39) 1,2-Dichloroethane-d4	4.688	67	43570	28.67	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	95.57%	
66) Toluene-d8	5.865	98	246418	28.36	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	94.53%	
76) Bromofluorobenzene	7.457	174	86252	31.56	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	105.20%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.153	61	74315	20.0046	ug/l	75
49) Trichloroethene	5.127	130	16904	7.9870	ug/l	85
65) Tetrachloroethene	6.244	164	89394	76.3229	ug/l	90

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

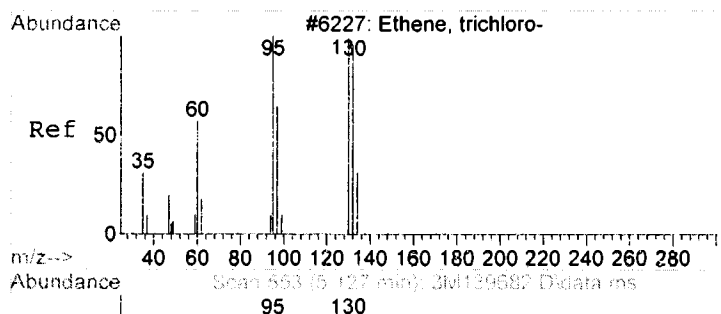
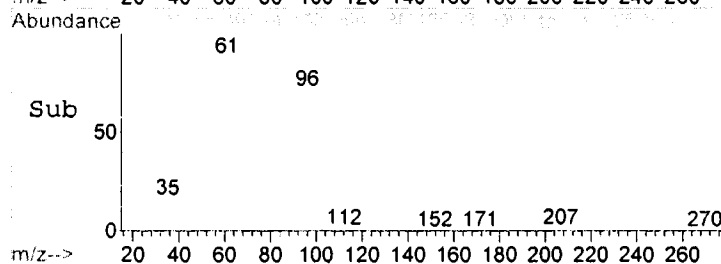
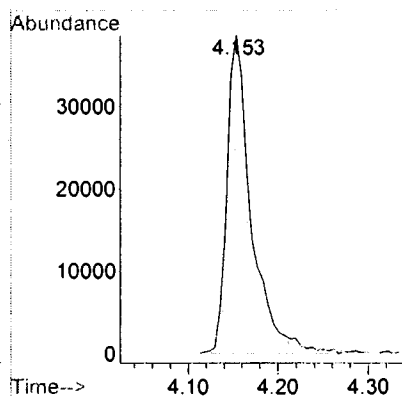
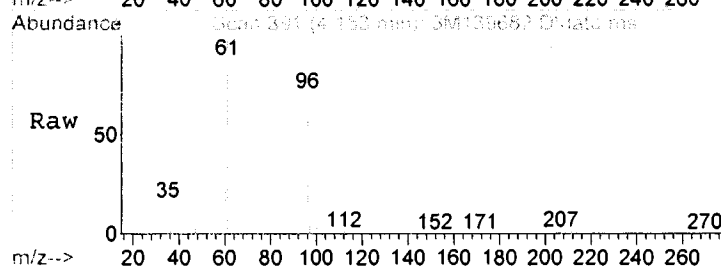
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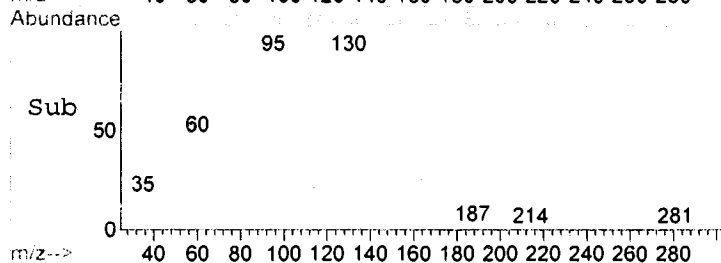
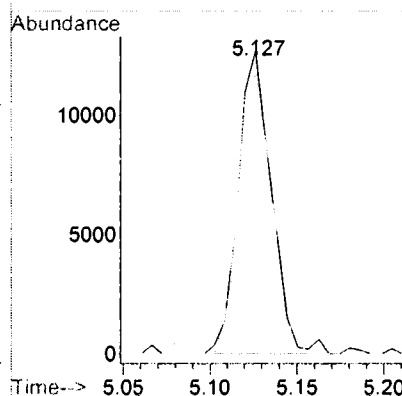
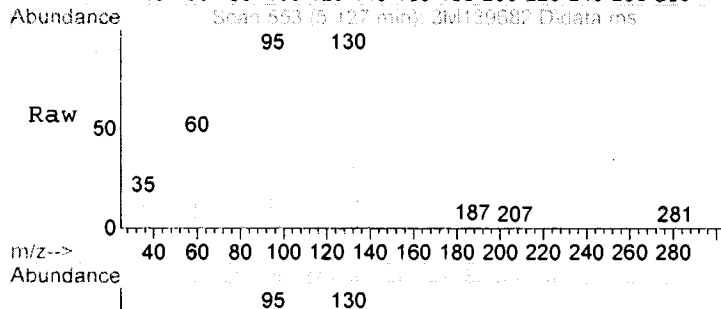
#30
cis-1,2-Dichloroethene
Concen: 20.00 ug/l
RT: 4.153 min Scan# 391
Delta R.T. -0.012 min
Lab File: 3M139682.D
Acq: 4 Nov 2018 6:47

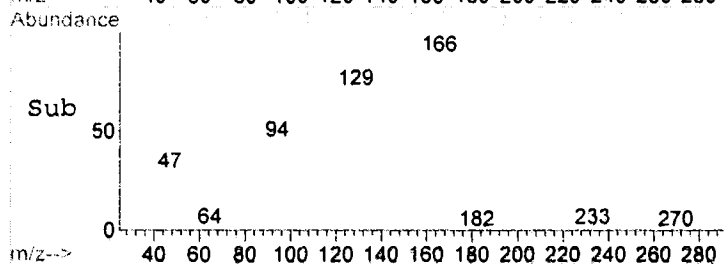
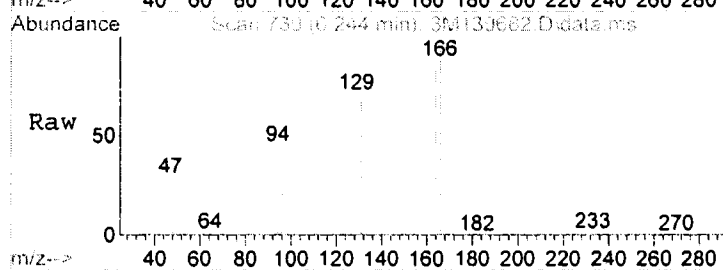
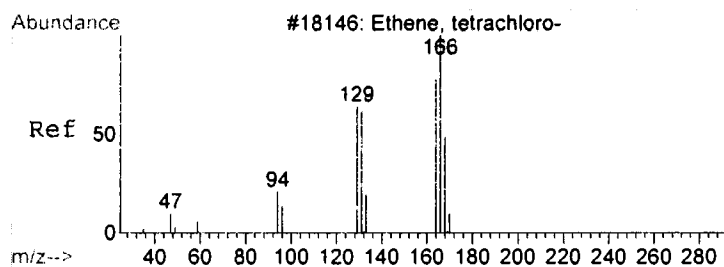
Tgt Ion: 61 Resp: 74315
Ion Ratio Lower Upper
61 100
96 70.8 8.8 88.8
98 40.9 0.0 72.8



#49
Trichloroethene
Concen: 7.99 ug/l
RT: 5.127 min Scan# 553
Delta R.T. -0.012 min
Lab File: 3M139682.D
Acq: 4 Nov 2018 6:47

Tgt Ion: 130 Resp: 16904
Ion Ratio Lower Upper
130 100
132 93.0 40.0 200.0
95 104.9 40.0 160.0





#65

Tetrachloroethene

Concen: 76.32 ug/l

RT: 6.244 min Scan# 739

Delta R.T. -0.012 min

Lab File: 3M139682.D

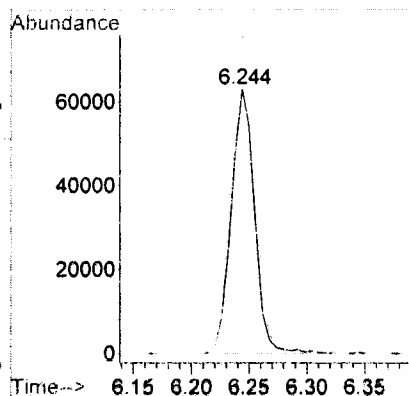
Acq: 4 Nov 2018 6:47

Tgt Ion:164 Resp: 89394

Ion Ratio Lower Upper

164 100

166 120.5 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-022

Client Id: 152140-MW-1S(OFFSITE)

Data File: 3M139751.D

Analysis Date: 11/05/18 01:01

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-022
Data File: 3M139751.D
Acq On : 11/ 5/18 01:01

Operator : WP
Sam Mult : 1 Vial# : 41
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:46
Qt Upd On: 10/10/18 11:59

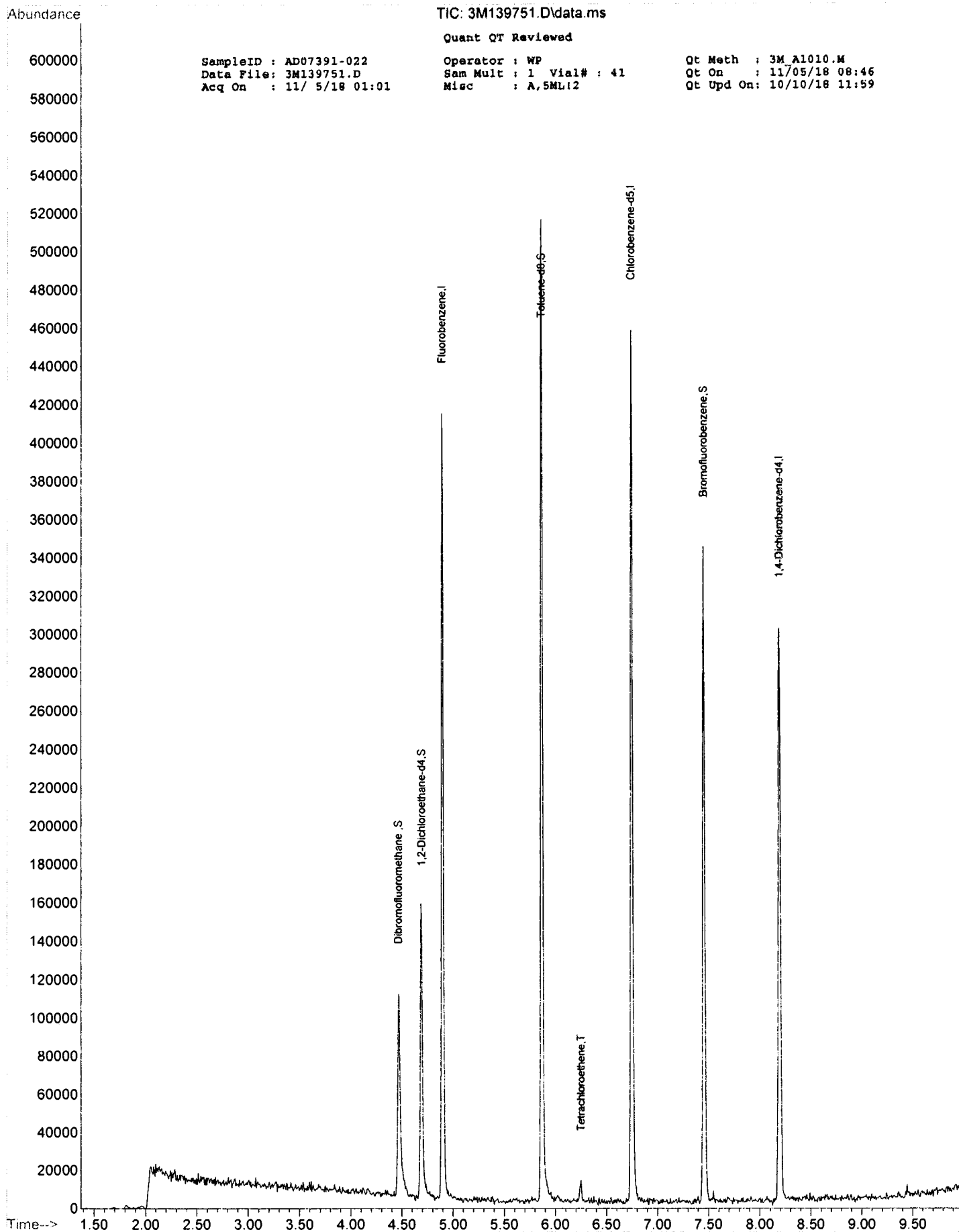
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

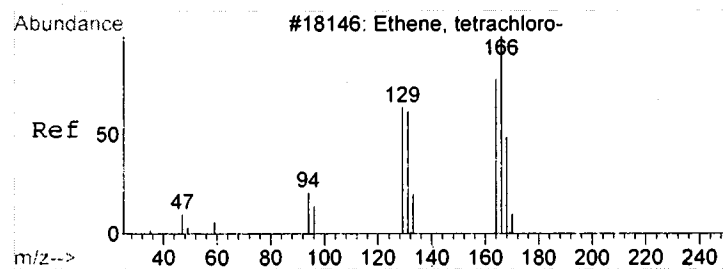
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.898	96	223700	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	187497	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	77496	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	57950	29.10	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.00%	
39) 1,2-Dichloroethane-d4	4.694	67	43276	30.95	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.17%	
66) Toluene-d8	5.871	98	236100	30.13	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.43%	
76) Bromofluorobenzene	7.457	174	77855	29.00	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.67%	
Target Compounds						
65) Tetrachloroethene	6.249	164	1551	1.4378	ug/l	Qvalue 60

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

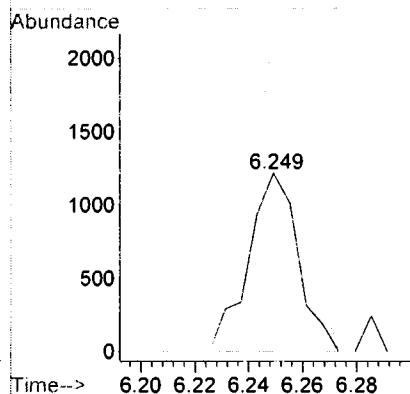
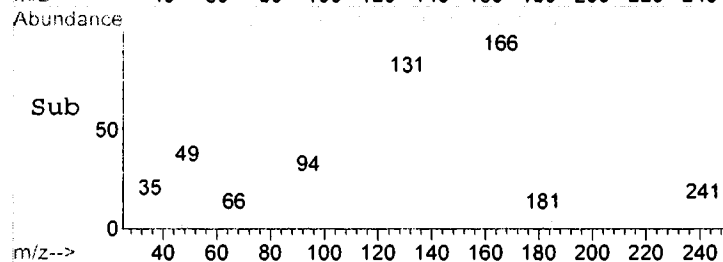
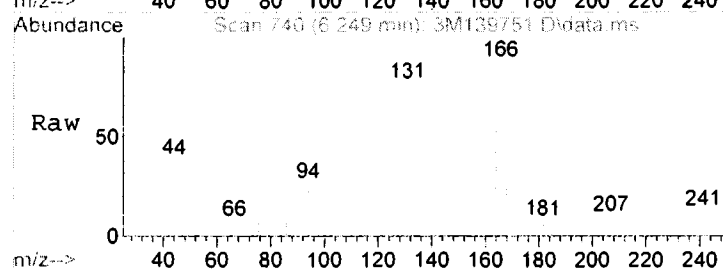
22





#65
Tetrachloroethene
Concen: 1.44 ug/l
RT: 6.249 min Scan# 740
Delta R.T. -0.007 min
Lab File: 3M139751.D
Acq: 5 Nov 2018 1:01

Tgt Ion:164 Resp: 1551
Ion Ratio Lower Upper
164 100
166 178.2 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-023(MS:AD07

Client Id: 152140-MW-1S(OFFSITE)

Data File: 3M139753.D

Analysis Date: 11/05/18 01:36

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	15	75-00-3	Chloroethane	1.0	19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	19	67-66-3	Chloroform	1.0	15
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	18	74-87-3	Chloromethane	1.0	30
79-00-5	1,1,2-Trichloroethane	1.0	19	156-59-2	cis-1,2-Dichloroethene	1.0	18
75-34-3	1,1-Dichloroethane	1.0	17	10061-01-5	cis-1,3-Dichloropropene	1.0	17
75-35-4	1,1-Dichloroethene	1.0	17	110-82-7	Cyclohexane	1.0	19
120-82-1	1,2,4-Trichlorobenzene	1.0	16	124-48-1	Dibromochloromethane	1.0	16
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	16	75-71-8	Dichlorodifluoromethane	1.0	23
106-93-4	1,2-Dibromoethane	1.0	16	100-41-4	Ethylbenzene	1.0	18
95-50-1	1,2-Dichlorobenzene	1.0	16	98-82-8	Isopropylbenzene	1.0	18
107-06-2	1,2-Dichloroethane	0.50	18	79601-23-1	m&p-Xylenes	1.0	36
78-87-5	1,2-Dichloropropane	1.0	19	79-20-9	Methyl Acetate	1.0	15
541-73-1	1,3-Dichlorobenzene	1.0	17	108-87-2	Methylcyclohexane	1.0	18
106-46-7	1,4-Dichlorobenzene	1.0	16	75-09-2	Methylene Chloride	1.0	20
78-93-3	2-Butanone	1.0	17	1634-04-4	Methyl-t-butyl ether	0.50	15
591-78-6	2-Hexanone	1.0	19	95-47-6	o-Xylene	1.0	18
108-10-1	4-Methyl-2-Pentanone	1.0	18	100-42-5	Styrene	1.0	18
67-64-1	Acetone	5.0	77	127-18-4	Tetrachloroethene	1.0	22
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	18	156-60-5	trans-1,2-Dichloroethene	1.0	13
75-25-2	Bromoform	1.0	15	10061-02-6	trans-1,3-Dichloropropene	1.0	17
74-83-9	Bromomethane	1.0	17	79-01-6	Trichloroethene	1.0	16
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	13
56-23-5	Carbon Tetrachloride	1.0	16	75-01-4	Vinyl Chloride	1.0	19
108-90-7	Chlorobenzene	1.0	18	1330-20-7	Xylenes (Total)	1.0	54

Worksheet #: 487384

Total Target Concentration 940

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-023 (MS:AD07
Data File: 3M139753.D
Acq On : 11/ 5/18 01:36

Operator : WP
Sam Mult : 1 Vial# : 43
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:46
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.897	96	242363	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.741	117	197265	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.189	152	89262	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.464	111	61795	28.65	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	95.50%	
39) 1,2-Dichloroethane-d4	4.687	67	44021	29.06	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.87%	
66) Toluene-d8	5.864	98	254043	30.81	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	102.70%	
76) Bromofluorobenzene	7.456	174	88783	28.71	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	95.70%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.530	51	82177	36.5744	ug/l	74
6) Dichlorodifluoromethane	1.513	85	33096	22.5247	ug/l	86
7) Chloromethane	1.680	50	46864	29.7368	ug/l	89
8) Bromomethane	2.050	94	13480	16.6102	ug/l	75
9) Vinyl Chloride	1.763	62	30155	19.2878	ug/l	95
10) Chloroethane	2.122	64	13589	18.8779	ug/l	94
11) Trichlorofluoromethane	2.338	101	31379	13.2690	ug/l	89
12) Ethyl ether	2.560	59	27216	13.3049	ug/l	93
13) Furan	2.596	39	69014	13.6576	ug/l	95
14) 1,1,2-Trichloro-1,2,2-...	2.746	101	17521	18.3018	ug/l	94
15) Methylene Chloride	3.143	84	37019	19.6109	ug/l	98
16) Acrolein	2.674	56	26440	68.7604	ug/l	89
17) Acrylonitrile	3.341	53	16652	19.2760	ug/l	79
18) Iodomethane	2.885	142	33039	14.4311	ug/l	96
19) Acetone	2.794	43	60557	76.7036	ug/l	98
20) Carbon Disulfide	2.951	76	106205	16.2922	ug/l	100
21) t-Butyl Alcohol	3.209	59	12468	74.7716	ug/l	70
22) n-Hexane	3.593	57	15538m	16.9378	ug/l	
23) Di-isopropyl-ether	3.756	45	134102	19.4656	ug/l	85
24) 1,1-Dichloroethene	2.758	61	51123	17.4218	ug/l	93
25) Methyl Acetate	3.053	43	39490	14.5487	ug/l	100
26) Methyl-t-butyl ether	3.365	73	72489	15.4400	ug/l	74
27) 1,1-Dichloroethane	3.732	63	63573	17.3213	ug/l	91
28) trans-1,2-Dichloroethene	3.377	96	25975	13.4984	ug/l	96
29) Ethyl-t-butyl ether	4.026	59	91759	16.6553	ug/l	95
30) cis-1,2-Dichloroethene	4.152	61	66644	17.9943	ug/l	86
31) Bromochloromethane	4.314	49	44090	19.6061	ug/l	53
32) 2,2-Dichloropropane	4.152	77	35688	15.4974	ug/l	96
33) Ethyl acetate	4.182	43	43329	16.6786	ug/l	99
34) 1,4-Dioxane	5.341	88	19381	852.4635	ug/l	79
35) 1,1-Dichloropropene	4.597	75	44925	17.6874	ug/l	92
36) Chloroform	4.356	83	60357	15.3912	ug/l	83
38) Cyclohexane	4.536	56	32393	19.3096	ug/l	84
40) 1,2-Dichloroethane	4.735	62	53498	18.0964	ug/l	90
41) 2-Butanone	4.152	43	18296	17.0189	ug/l	97
42) 1,1,1-Trichloroethane	4.494	97	44958	15.2637	ug/l	95
43) Carbon Tetrachloride	4.603	117	34603	15.7011	ug/l	91
44) Vinyl Acetate	3.756	43	87970	17.2880	ug/l	100
45) Bromodichloromethane	5.425	83	54598	17.7190	ug/l	97
46) Methylcyclohexane	5.251	83	21232	18.1448	ug/l	98
47) Dibromomethane	5.347	174	27952	19.5074	ug/l	81
48) 1,2-Dichloropropane	5.263	63	42896	19.3279	ug/l	96
49) Trichloroethene	5.125	130	33974	16.1013	ug/l	86
50) Benzene	4.729	78	138698	19.9882	ug/l	100
51) tert-Amyl methyl ether	4.783	73	80749	16.2782	ug/l	84
53) Iso-propylacetate	4.735	43	79119	18.2577	ug/l	92
54) Methyl methacrylate	5.299	41	46083	17.9040	ug/l	94
55) Dibromochloromethane	6.387	129	37350	16.0412	ug/l	95
57) cis-1,3-Dichloropropene	5.690	75	56295	16.6503	ug/l	88
58) trans-1,3-Dichloropropene	6.014	75	52754	16.5635	ug/l	97
59) Ethyl methacrylate	6.038	41	44576	16.9199	ug/l	82
60) 1,1,2-Trichloroethane	6.134	97	32551	19.1748	ug/l	83
61) 1,2-Dibromoethane	6.471	107	32525	15.5259	ug/l	92
62) 1,3-Dichloropropane	6.242	76	64205	20.8606	ug/l	100
63) 4-Methyl-2-Pentanone	5.768	43	42329	17.9325	ug/l	99
64) 2-Hexanone	6.260	43	28785	18.7333	ug/l	94
65) Tetrachloroethene	6.242	164	24973	22.1314	ug/l	80
67) Toluene	5.906	92	80883	17.1829	ug/l	75
68) 1,1,1,2-Tetrachloroethane	6.795	133	31331	20.0138	ug/l	89

Quantitation Report (QT Reviewed)

SampleID : AD07391-023(MS:AD07 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139753.D Sam Mult : 1 Vial# : 43 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:36 Misc : A,5ML12 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.759	112	91961	17.6133	ug/l	99
71) n-Butyl acrylate	7.035	55	64997	17.9951	ug/l	93
72) n-Amyl acetate	7.168	43	64081	17.7052	ug/l	88
73) Bromoform	7.270	173	26526	15.2607	ug/l	94
74) Ethylbenzene	6.807	106	26496	17.6205	ug/l	93
75) 1,1,2,2-Tetrachloroethane	7.510	83	49876	18.6164	ug/l	89
77) Styrene	7.125	104	84394	18.1916	ug/l	89
78) m&p-Xylenes	6.873	106	88909	36.4187	ug/l	87
79) o-Xylene	7.125	106	45937	18.4127	ug/l	84
80) trans-1,4-Dichloro-2-b...	7.540	53	12933	13.5562	ug/l	55
81) 1,3-Dichlorobenzene	8.153	146	52102	16.5229	ug/l	89
82) 1,4-Dichlorobenzene	8.207	146	54303	16.0359	ug/l	93
83) 1,2-Dichlorobenzene	8.459	146	51510	15.6128	ug/l	89
84) Isopropylbenzene	7.342	105	87286	17.8914	ug/l	95
85) Cyclohexanone	7.426	55	5861m	57.0058	ug/l	
86) Camphene	7.534	93	5223	3.8800	ug/l	96
87) 1,2,3-Trichloropropane	7.558	75	53710	17.5192	ug/l	93
88) 2-Chlorotoluene	7.672	91	55112	18.6191	ug/l	96
89) p-Ethyltoluene	7.660	105	80725	14.8066	ug/l	81
90) 4-Chlorotoluene	7.738	91	54172	16.6580	ug/l	88
91) n-Propylbenzene	7.594	91	99811	17.4288	ug/l	98
92) Bromobenzene	7.564	77	79863	15.2607	ug/l	94
93) 1,3,5-Trimethylbenzene	7.690	105	59984	17.1117	ug/l	68
94) Butyl methacrylate	7.690	41	57904	19.3411	ug/l	83
95) t-Butylbenzene	7.912	119	56268	16.2776	ug/l	85
96) 1,2,4-Trimethylbenzene	7.936	105	74917	17.0044	ug/l	91
97) sec-Butylbenzene	8.051	105	72284	17.9364	ug/l	96
98) 4-Isopropyltoluene	8.129	119	61444	17.9455	ug/l	90
99) n-Butylbenzene	8.393	91	65140	16.8804	ug/l	96
100) p-Diethylbenzene	8.375	119	32716m	16.3821	ug/l	
101) 1,2,4,5-Tetramethylben...	8.892	119	46585	15.3490	ug/l	91
102) 1,2-Dibromo-3-Chloropr...	8.958	157	7878	15.6169	ug/l	78
103) Camphor	9.450	95	18899	115.2166	ug/l	92
104) Hexachlorobutadiene	9.600	225	14991	15.4377	ug/l	93
105) 1,2,4-Trichlorobenzene	9.510	180	28138	16.3715	ug/l	92
106) 1,2,3-Trichlorobenzene	9.853	180	25646	14.9936	ug/l	94
107) Naphthalene	9.690	128	65232	15.7040	ug/l	100

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

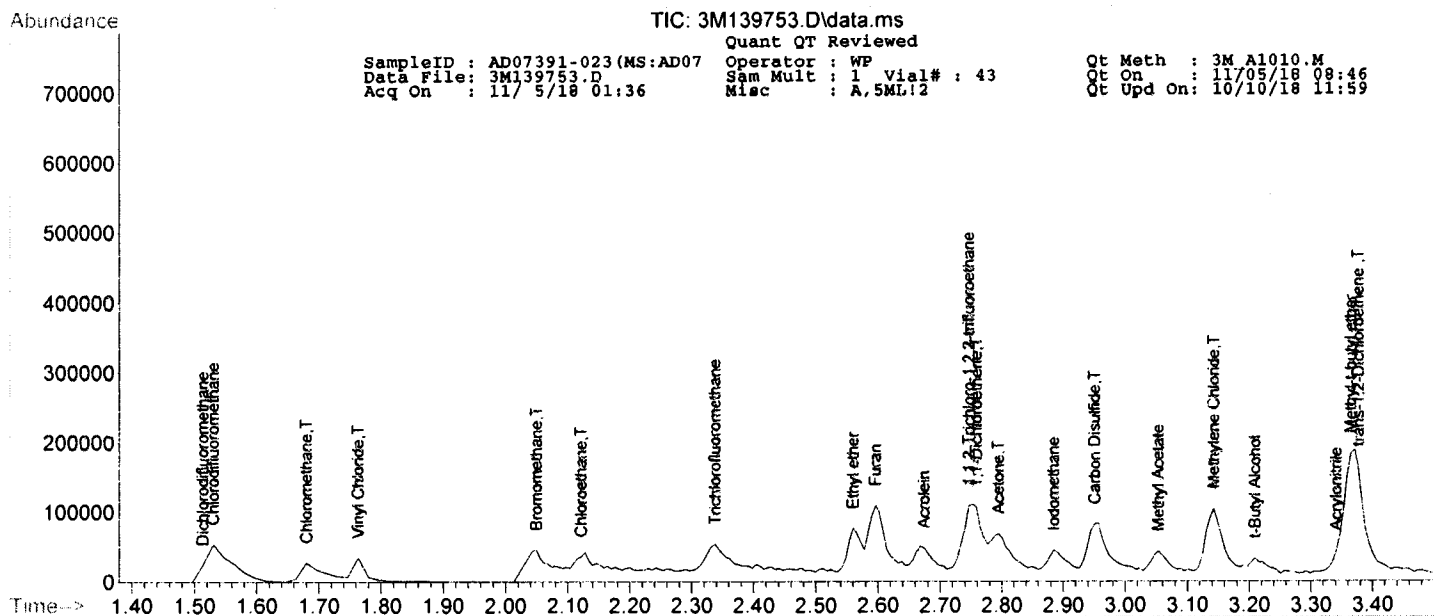
TIC: 3M139753.D\data.ms

Quant QT Reviewed

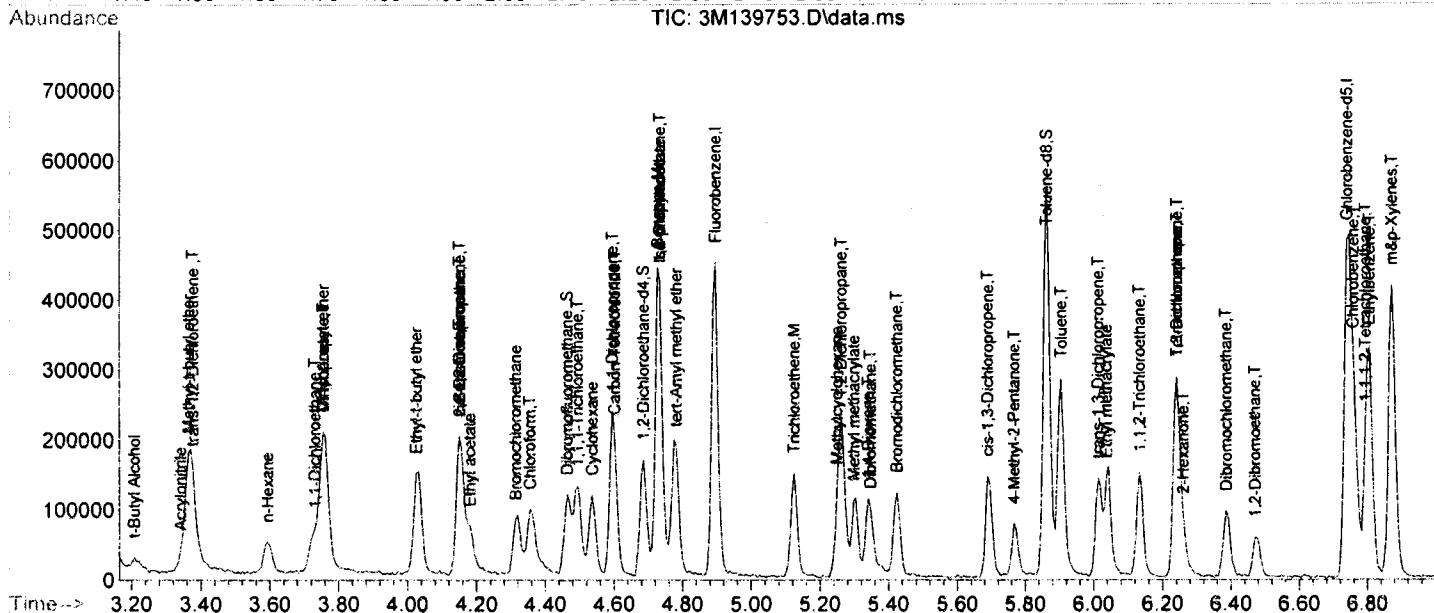
SampleID : AD07391-023 (MS:AD07
Data File: 3M139753.D
Acq On : 11/ 5/18 01:36

Operator : WP
Sam Mult : 1 Vial# : 43
Misc : A, 5ML/2

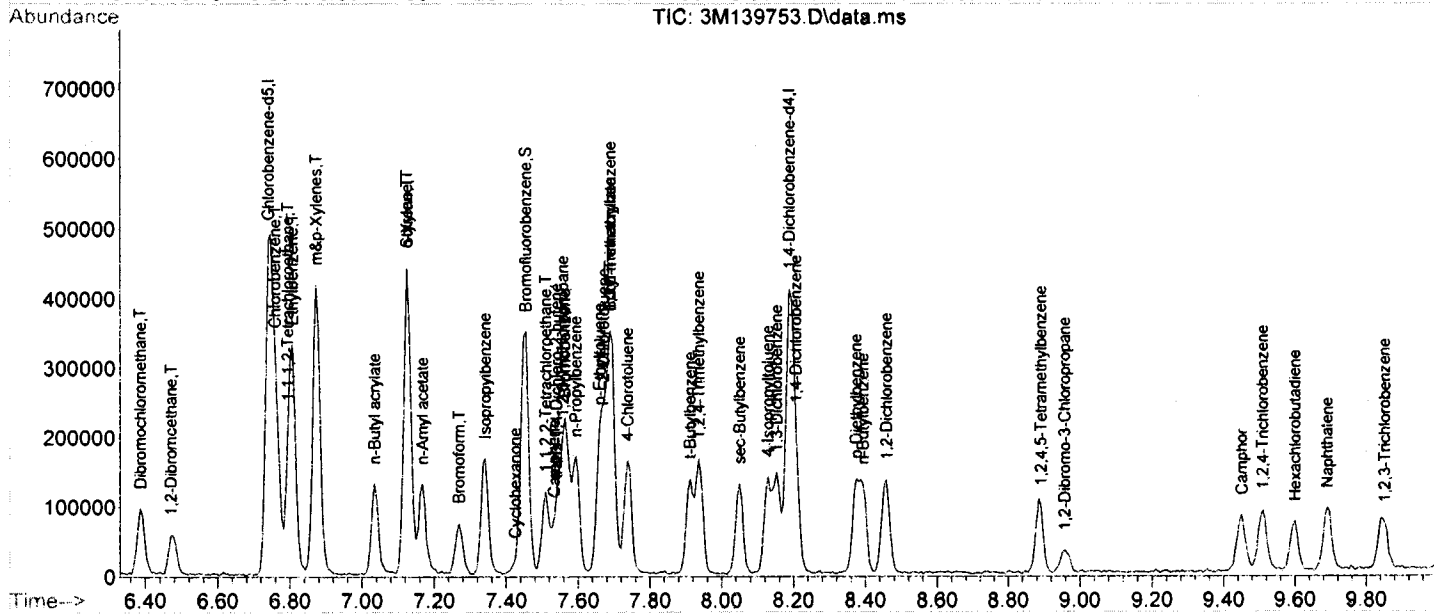
Qt Meth : 3M A1010.M
Qt On : 11/05/18 08:46
Qt Upd On : 10/10/18 11:59



TIC: 3M139753.D\data.ms



TIC: 3M139753.D\data.ms



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-024(MSD:AD)

Client Id: 152140-MW-1S(OFFSITE)

Data File: 3M139754.D

Analysis Date: 11/05/18 01:52

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	16	75-00-3	Chloroethane	1.0	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0	18	67-66-3	Chloroform	1.0	15
76-13-1	1,1,2-Trichloro-1,2,2-triflu	1.0	19	74-87-3	Chloromethane	1.0	28
79-00-5	1,1,2-Trichloroethane	1.0	20	156-59-2	cis-1,2-Dichloroethene	1.0	18
75-34-3	1,1-Dichloroethane	1.0	18	10061-01-5	cis-1,3-Dichloropropene	1.0	17
75-35-4	1,1-Dichloroethene	1.0	16	110-82-7	Cyclohexane	1.0	19
120-82-1	1,2,4-Trichlorobenzene	1.0	16	124-48-1	Dibromochloromethane	1.0	16
96-12-8	1,2-Dibromo-3-Chloroprop	1.0	16	75-71-8	Dichlorodifluoromethane	1.0	22
106-93-4	1,2-Dibromoethane	1.0	15	100-41-4	Ethylbenzene	1.0	17
95-50-1	1,2-Dichlorobenzene	1.0	16	98-82-8	Isopropylbenzene	1.0	19
107-06-2	1,2-Dichloroethane	0.50	19	79601-23-1	m&p-Xylenes	1.0	38
78-87-5	1,2-Dichloropropane	1.0	20	79-20-9	Methyl Acetate	1.0	15
541-73-1	1,3-Dichlorobenzene	1.0	17	108-87-2	Methylcyclohexane	1.0	19
106-46-7	1,4-Dichlorobenzene	1.0	17	75-09-2	Methylene Chloride	1.0	20
78-93-3	2-Butanone	1.0	17	1634-04-4	Methyl-t-butyl ether	0.50	15
591-78-6	2-Hexanone	1.0	19	95-47-6	o-Xylene	1.0	19
108-10-1	4-Methyl-2-Pentanone	1.0	18	100-42-5	Styrene	1.0	19
67-64-1	Acetone	5.0	76	127-18-4	Tetrachloroethene	1.0	22
71-43-2	Benzene	0.50	20	108-88-3	Toluene	1.0	17
75-27-4	Bromodichloromethane	1.0	16	156-60-5	trans-1,2-Dichloroethene	1.0	17
75-25-2	Bromoform	1.0	16	10061-02-6	trans-1,3-Dichloropropene	1.0	17
74-83-9	Bromomethane	1.0	18	79-01-6	Trichloroethene	1.0	16
75-15-0	Carbon Disulfide	1.0	16	75-69-4	Trichlorofluoromethane	1.0	15
56-23-5	Carbon Tetrachloride	1.0	17	75-01-4	Vinyl Chloride	1.0	20
108-90-7	Chlorobenzene	1.0	17	1330-20-7	Xylenes (Total)	1.0	57

Worksheet #: 487384

Total Target Concentration 950

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-024 (MSD:AD0
Data File: 3M139754.D
Acq On : 11/ 5/18 01:52

Operator : WP
Sam Mult : 1 Vial# : 44
Misc : A,5ML:2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:46
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.893	96	239755	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.743	117	193802	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.191	152	86242	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	62174	29.13	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.10%	
39) 1,2-Dichloroethane-d4	4.689	67	43318	28.90	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.33%	
66) Toluene-d8	5.866	98	243363	30.04	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.13%	
76) Bromofluorobenzene	7.452	174	88013	29.46	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	98.20%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.542	51	81298	36.5767	ug/l	73
6) Dichlorodifluoromethane	1.525	85	31965	21.9916	ug/l	93
7) Chloromethane	1.675	50	43093	27.6595	ug/l	91
8) Bromomethane	2.051	94	14554	18.1649	ug/l	94
9) Vinyl Chloride	1.759	62	31484	20.3569	ug/l	94
10) Chloroethane	2.124	64	14540	20.4333	ug/l	89
11) Trichlorofluoromethane	2.340	101	34926	14.9296	ug/l	79
12) Ethyl ether	2.568	59	26384	13.0384	ug/l	99
13) Furan	2.598	39	72320	14.4675	ug/l	93
14) 1,1,2-Trichloro-1,2,2-...	2.742	101	17658	18.6457	ug/l	99
15) Methylene Chloride	3.145	84	36421	19.5040	ug/l	80
16) Acrolein	2.670	56	27016	71.0226	ug/l	97
17) Acrylonitrile	3.349	53	15080	17.6462	ug/l	82
18) Iodomethane	2.886	142	31295	13.8181	ug/l	96
19) Acetone	2.796	43	58424	74.8069	ug/l	96
20) Carbon Disulfide	2.952	76	102779	15.9382	ug/l	100
21) t-Butyl Alcohol	3.211	59	11514	69.8015	ug/l	65
22) n-Hexane	3.595	57	15601m	17.1915	ug/l	
23) Di-isopropyl-ether	3.757	45	131018	19.2248	ug/l	87
24) 1,1-Dichloroethene	2.754	61	45641	15.7228	ug/l	93
25) Methyl Acetate	3.055	43	38969	14.5129	ug/l	100
26) Methyl-t-butyl ether	3.367	73	68743	14.8014	ug/l	74
27) 1,1-Dichloroethane	3.727	63	66216	18.2377	ug/l	97
28) trans-1,2-Dichloroethene	3.373	96	32190	16.9102	ug/l	91
29) Ethyl-t-butyl ether	4.034	59	88856	16.3038	ug/l	98
30) cis-1,2-Dichloroethene	4.154	61	65123	17.7749	ug/l	85
31) Bromochloromethane	4.316	49	46876	21.0717	ug/l	63
32) 2,2-Dichloropropane	4.160	77	35580	15.6191	ug/l	97
33) Ethyl acetate	4.178	43	39167	15.2405	ug/l	100
34) 1,4-Dioxane	5.343	88	17961	798.4946	ug/l	79
35) 1,1-Dichloropropene	4.598	75	45629	18.1599	ug/l	93
36) Chloroform	4.358	83	60039	15.4767	ug/l	89
38) Cyclohexane	4.538	56	30721	18.5121	ug/l	90
40) 1,2-Dichloroethane	4.737	62	54698	18.7086	ug/l	94
41) 2-Butanone	4.148	43	17937	16.8664	ug/l	88
42) 1,1,1-Trichloroethane	4.496	97	45684	15.6789	ug/l	90
43) Carbon Tetrachloride	4.604	117	36691	16.8296	ug/l	78
44) Vinyl Acetate	3.757	43	82002	16.2904	ug/l	100
45) Bromodichloromethane	5.427	83	49275	16.1654	ug/l	97
46) Methylcyclohexane	5.253	83	21515	18.5866	ug/l	92
47) Dibromomethane	5.343	174	25414	17.9211	ug/l	93
48) 1,2-Dichloropropane	5.265	63	43751	19.9275	ug/l	84
49) Trichloroethene	5.121	130	33551	16.0738	ug/l	88
50) Benzene	4.731	78	138947	20.2450	ug/l	100
51) tert-Amyl methyl ether	4.779	73	83765	17.0699	ug/l	81
53) Iso-propylacetate	4.737	43	70195	16.4879	ug/l	98
54) Methyl methacrylate	5.301	41	41496	16.4099	ug/l	98
55) Dibromochloromethane	6.388	129	36656	16.0244	ug/l	96
57) cis-1,3-Dichloropropene	5.692	75	57549	17.3254	ug/l	95
58) trans-1,3-Dichloropropene	6.016	75	52069	16.6405	ug/l	96
59) Ethyl methacrylate	6.040	41	46988	18.1541	ug/l	95
60) 1,1,2-Trichloroethane	6.136	97	33889	20.3171	ug/l	87
61) 1,2-Dibromoethane	6.473	107	31270	15.1935	ug/l	82
62) 1,3-Dichloropropane	6.238	76	62471	20.6589	ug/l	96
63) 4-Methyl-2-Pentanone	5.770	43	40898	17.6359	ug/l	93
64) 2-Hexanone	6.262	43	28932	19.1654	ug/l	95
65) Tetrachloroethene	6.244	164	24190	21.8186	ug/l	91
67) Toluene	5.902	92	77332	16.7221	ug/l	92
68) 1,1,1,2-Tetrachloroethane	6.797	133	31121	20.2361	ug/l	86

Quantitation Report (QT Reviewed)

SampleID : AD07391-024 (MSD:AD0) Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139754.D Sam Mult : 1 Vial# : 44 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:52 Misc : A,5ML12 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.761	112	88138	17.1827	ug/l	92
71) n-Butyl acrylate	7.037	55	67168	19.2474	ug/l	99
72) n-Amyl acetate	7.163	43	60801	17.3872	ug/l	85
73) Bromoform	7.265	173	26672	15.8820	ug/l	96
74) Ethylbenzene	6.803	106	24176	16.6407	ug/l	84
75) 1,1,2,2-Tetrachloroethane	7.512	83	47272	18.2623	ug/l	77
77) Styrene	7.127	104	85540	19.0843	ug/l	100
78) m&p-Xylenes	6.875	106	90731	38.4664	ug/l	89
79) o-Xylene	7.121	106	46952	19.4785	ug/l	68
80) trans-1,4-Dichloro-2-b...	7.536	53	11789	12.7898	ug/l	56
81) 1,3-Dichlorobenzene	8.155	146	51834	17.0136	ug/l	86
82) 1,4-Dichlorobenzene	8.203	146	54277	16.5895	ug/l	91
83) 1,2-Dichlorobenzene	8.461	146	51312	16.0974	ug/l	92
84) Isopropylbenzene	7.338	105	89817	19.0549	ug/l	93
85) Cyclohexanone	7.434	55	5271	53.0626	ug/l	92
86) Camphene	7.536	93	4617	3.5500	ug/l	77
87) 1,2,3-Trichloropropane	7.554	75	54055	18.2492	ug/l	88
88) 2-Chlorotoluene	7.674	91	58008	20.2987	ug/l	93
89) p-Ethyltoluene	7.662	105	82384	15.6433	ug/l	84
90) 4-Chlorotoluene	7.740	91	55152	17.5533	ug/l	89
91) n-Propylbenzene	7.590	91	105177	19.0089	ug/l	99
92) Bromobenzene	7.566	77	80558	15.9534	ug/l	95
93) 1,3,5-Trimethylbenzene	7.692	105	70426	20.8400	ug/l	88
94) Butyl methacrylate	7.692	41	62233	21.5150	ug/l	75
95) t-Butylbenzene	7.914	119	57570	17.2375	ug/l	84
96) 1,2,4-Trimethylbenzene	7.938	105	74976	17.6137	ug/l	84
97) sec-Butylbenzene	8.052	105	72743	18.6824	ug/l	98
98) 4-Isopropyltoluene	8.124	119	58379	17.6474	ug/l	89
99) n-Butylbenzene	8.389	91	67772	18.1775	ug/l	84
100) p-Diethylbenzene	8.371	119	31338m	16.2416	ug/l	
101) 1,2,4,5-Tetramethylben...	8.887	119	47984	16.3635	ug/l	89
102) 1,2-Dibromo-3-Chloropr...	8.959	157	7907	16.2186	ug/l	71
103) Camphor	9.452	95	18405	116.1392	ug/l	96
104) Hexachlorobutadiene	9.602	225	16947	18.0715	ug/l	98
105) 1,2,4-Trichlorobenzene	9.512	180	27283	16.4299	ug/l	95
106) 1,2,3-Trichlorobenzene	9.848	180	24829	15.0243	ug/l	95
107) Naphthalene	9.692	128	65326	16.2773	ug/l	100

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

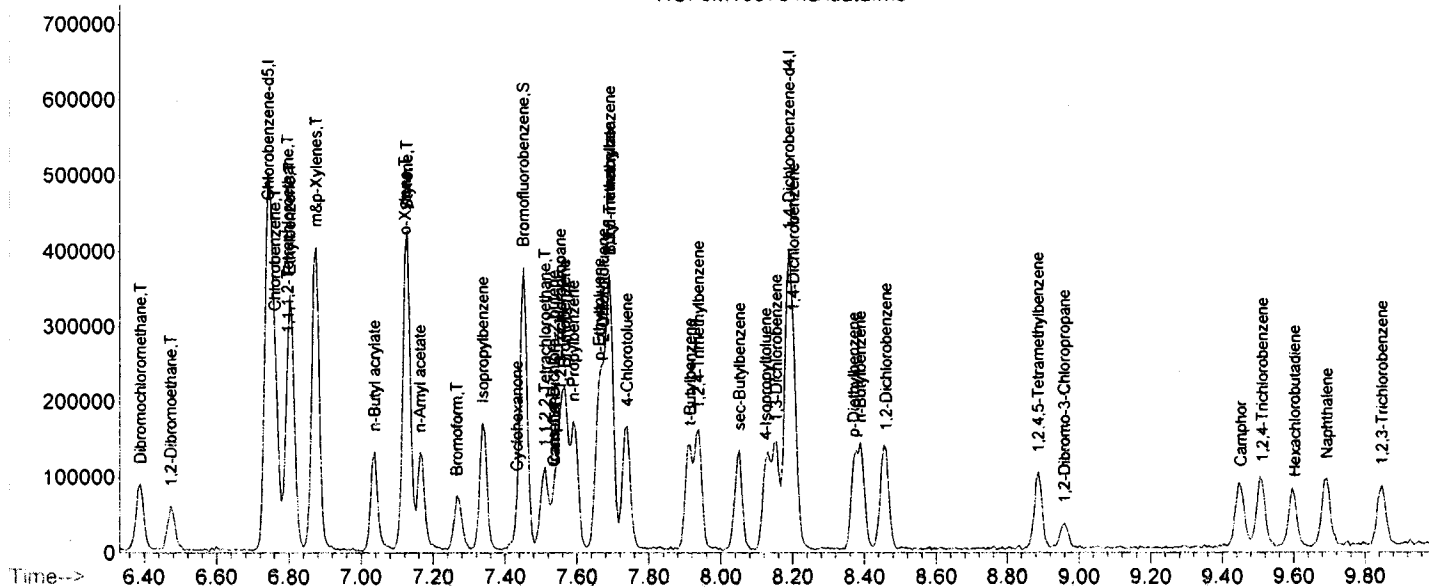
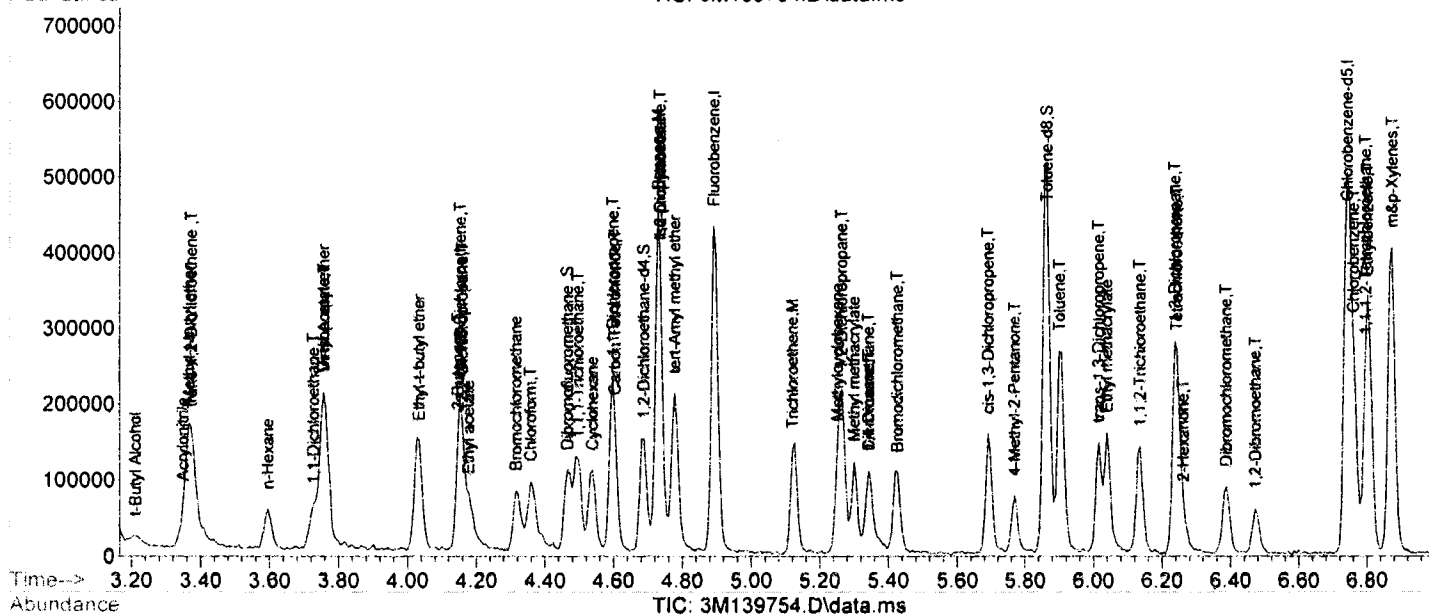
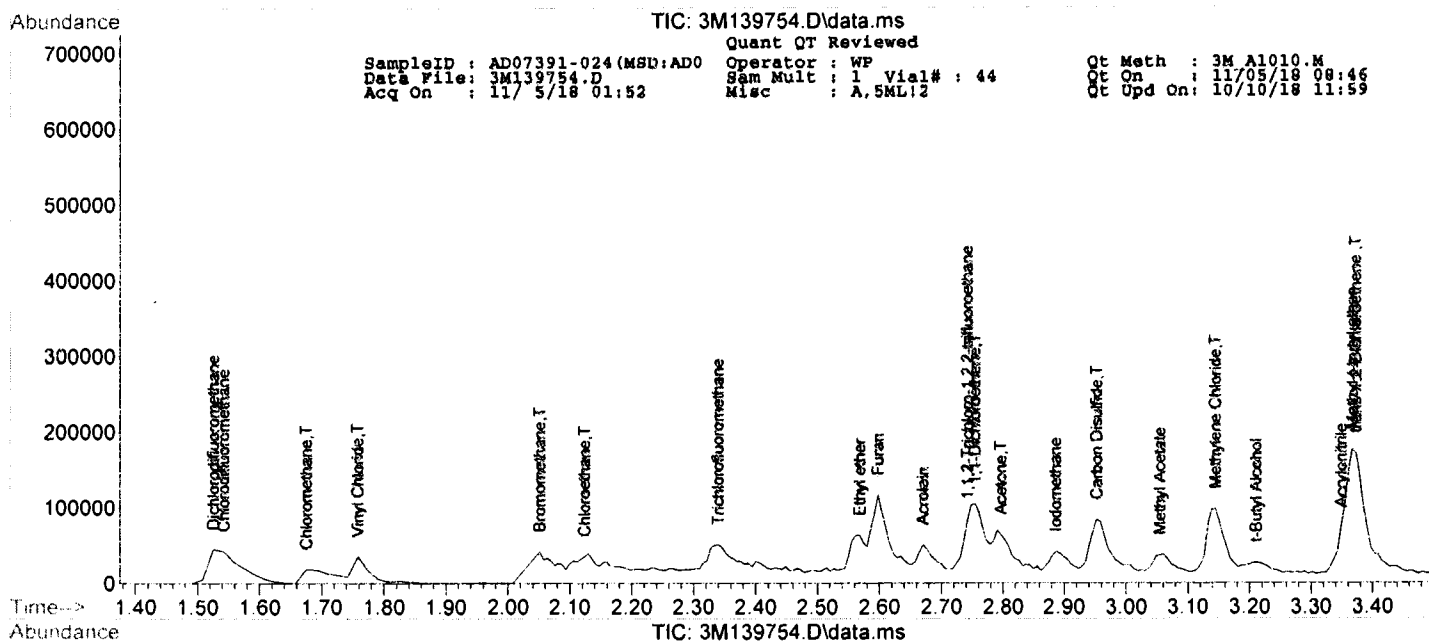
TIC: 3M139754.D\data.ms

Quant QT Reviewed

SampleID : AD07391-024 (MSD:AD0
 Data File: 3M139754.D
 Acq On : 11/5/18 01:52

Operator : WP
 Sam Mult : 1 Vial# : 44
 Misc : A, 5ML12

Qt Meth : 3M A1010.M
 Qt On : 11/7/09/18 08:46
 Qt Upd On: 10/10/18 11:59



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-025

Client Id: 152140-DDC-07-PS

Data File: 3M139655.D

Analysis Date: 11/03/18 23:06

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	12
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	2.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	3.2
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 18

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-025
 Data File: 3M139655.D
 Acq On : 11/ 3/18 23:06

Operator : SG
 Sam Mult : 1 Vial# : 29
 Misc : A,5ML!2

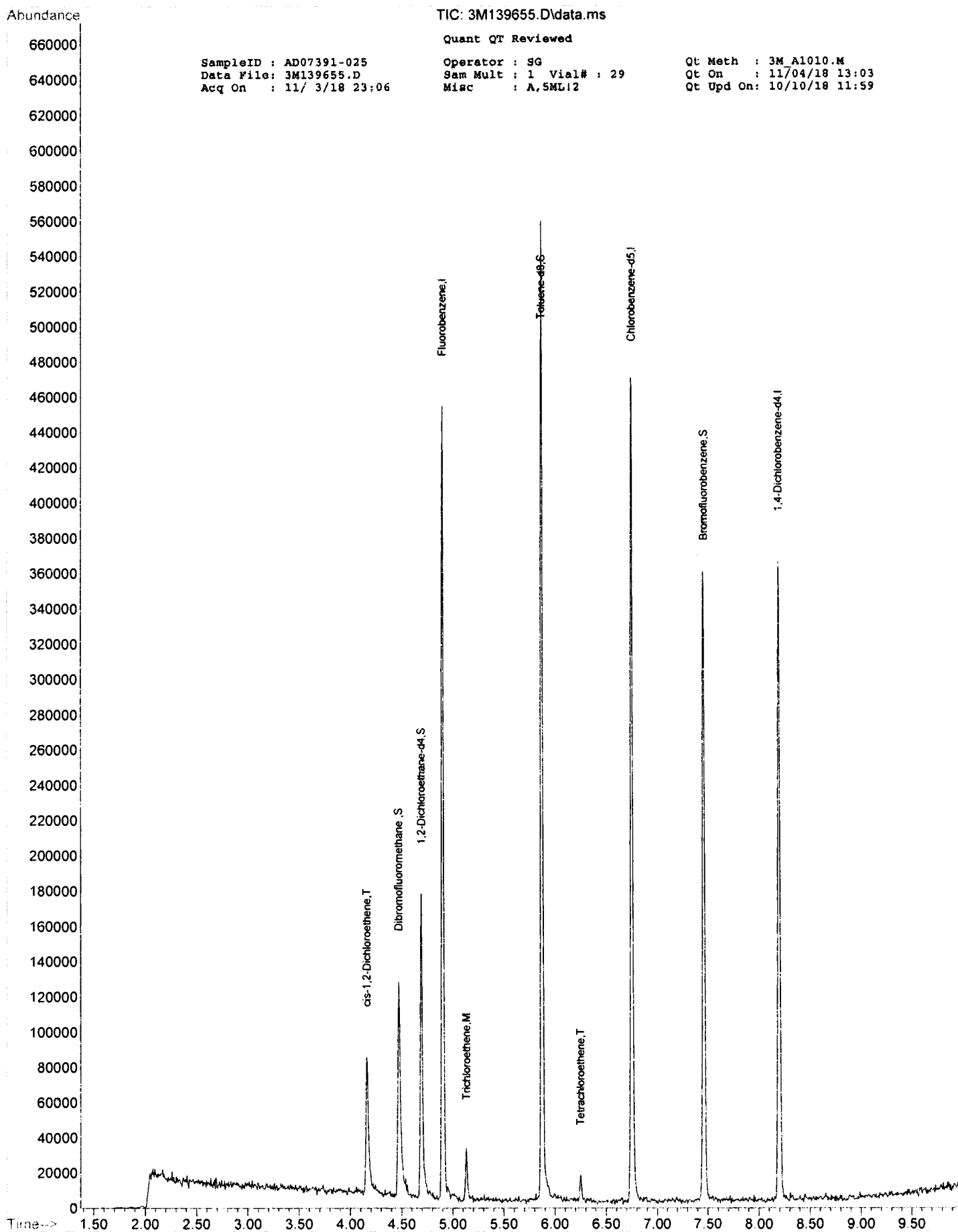
Qt Meth : 3M A1010.M
 Qt On : 11/04/18 13:03
 Qt Upd On: 10/10/18 11:59

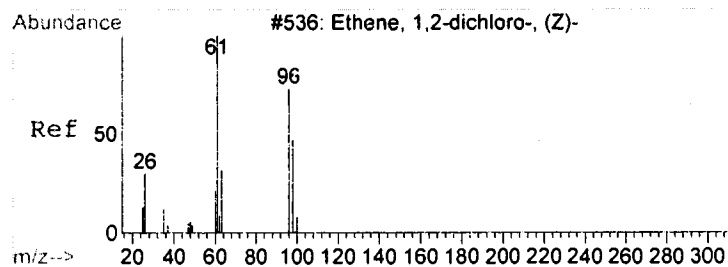
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 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.904	96	246957	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.754	117	207998	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.196	152	88218	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.472	111	66375	30.20	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.67%	
39) 1,2-Dichloroethane-d4	4.694	67	47999	31.09	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.63%	
66) Toluene-d8	5.871	98	258829	29.77	ug/l	0.00
Spiked Amount 30.000			Recovery	=	99.23%	
76) Bromofluorobenzene	7.463	174	91384	29.90	ug/l	0.00
Spiked Amount 30.000			Recovery	=	99.67%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.159	61	44285	11.7348	ug/l	73
49) Trichloroethene	5.132	130	6813	3.1688	ug/l	80
65) Tetrachloroethene	6.250	164	2848	2.3806	ug/l	86

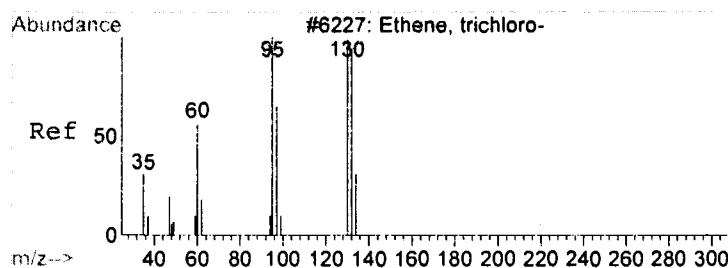
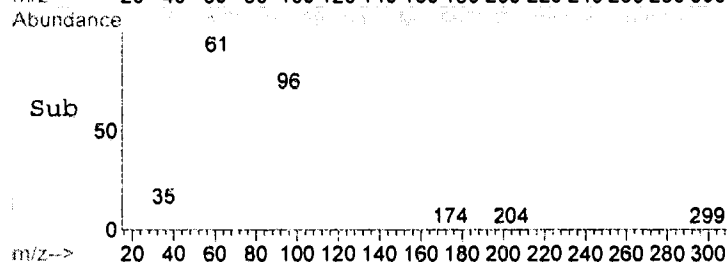
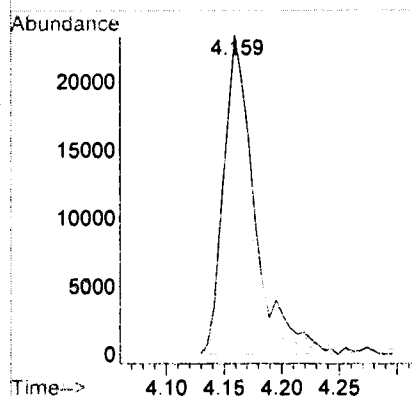
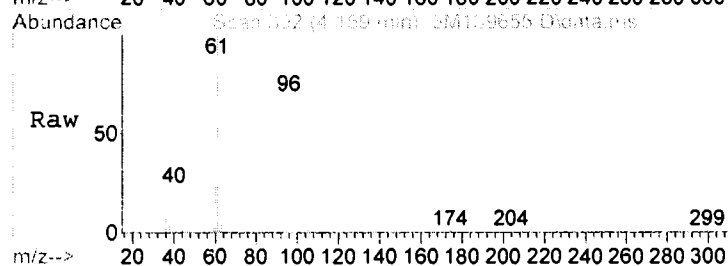
(#) = qualifier out of range (m) = manual integration (+) = signals summed





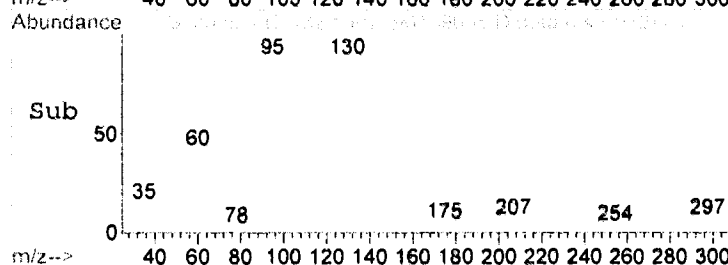
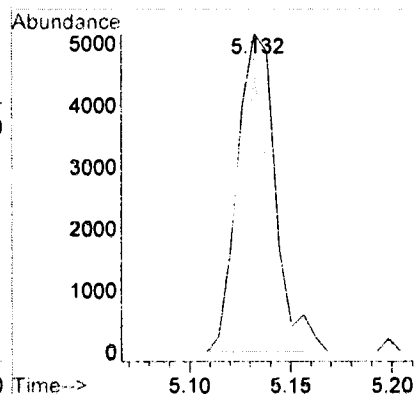
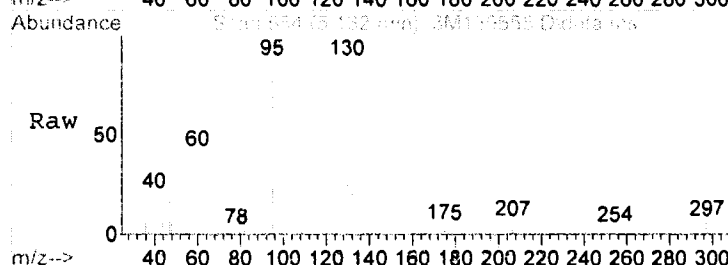
#30
cis-1,2-Dichloroethene
Concen: 11.73 ug/l
RT: 4.159 min Scan# 392
Delta R.T. -0.006 min
Lab File: 3M139655.D
Acq: 3 Nov 2018 23:06

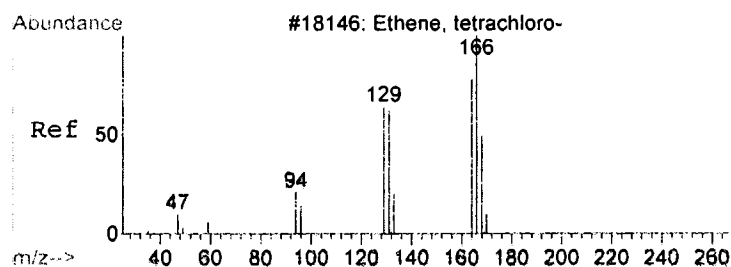
Tgt Ion	Ratio	Resp	Lower	Upper
61	100			
96	68.9	8.8	88.8	
98	45.8	0.0	72.8	



#49
Trichloroethene
Concen: 3.17 ug/l
RT: 5.132 min Scan# 554
Delta R.T. -0.006 min
Lab File: 3M139655.D
Acq: 3 Nov 2018 23:06

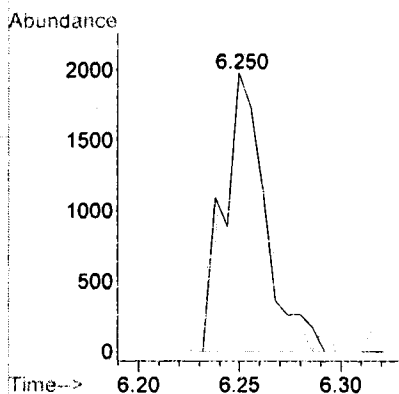
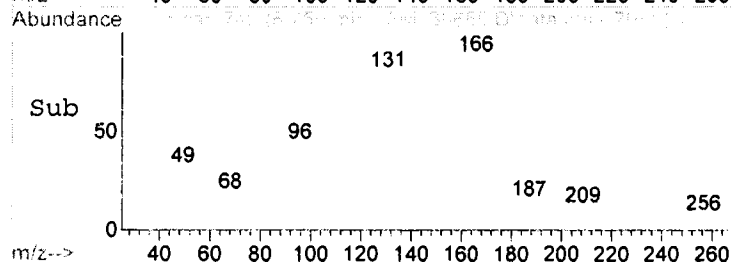
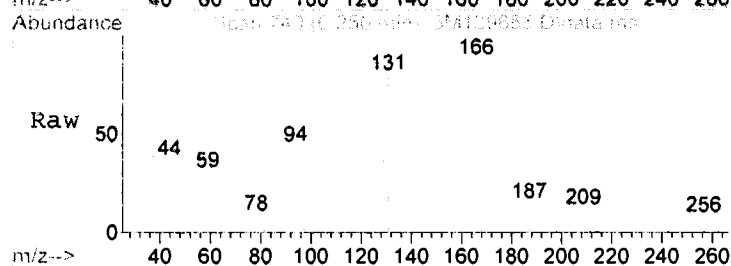
Tgt Ion	Ratio	Resp	Lower	Upper
130	100			
132	86.4	40.0	200.0	
95	92.6	40.0	160.0	





#65
Tetrachloroethene
Concen: 2.38 ug/l
RT: 6.250 min Scan# 740
Delta R.T. -0.006 min
Lab File: 3M139655.D
Acq: 3 Nov 2018 23:06

Tgt Ion: 164 Resp: 2848
Ion Ratio Lower Upper
164 100
166 114.8 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-026

Client Id: 152140-DDC-07-PD

Data File: 3M139656.D

Analysis Date: 11/03/18 23:20

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	23
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	9.5
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	5.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 38

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-026
Data File: 3M139656.D
Acq On : 11/ 3/18 23:20

Operator : SG
Sam Mult : 1 Vial# : 30
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.903	96	243271	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.753	117	207891	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.195	152	82090	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	66509	30.72	ug/l	0.00
Spiked Amount 30.000			Recovery	=	102.40%	
39) 1,2-Dichloroethane-d4	4.693	67	42063	27.66	ug/l	0.00
Spiked Amount 30.000			Recovery	=	92.20%	
66) Toluene-d8	5.870	98	249395	28.70	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.67%	
76) Bromofluorobenzene	7.462	174	90944	31.98	ug/l	0.00
Spiked Amount 30.000			Recovery	=	106.60%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.158	61	86366	23.2323	ug/l	87
49) Trichloroethene	5.132	130	12121	5.7231	ug/l	79
65) Tetrachloroethene	6.249	164	11366	9.5244	ug/l	87

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

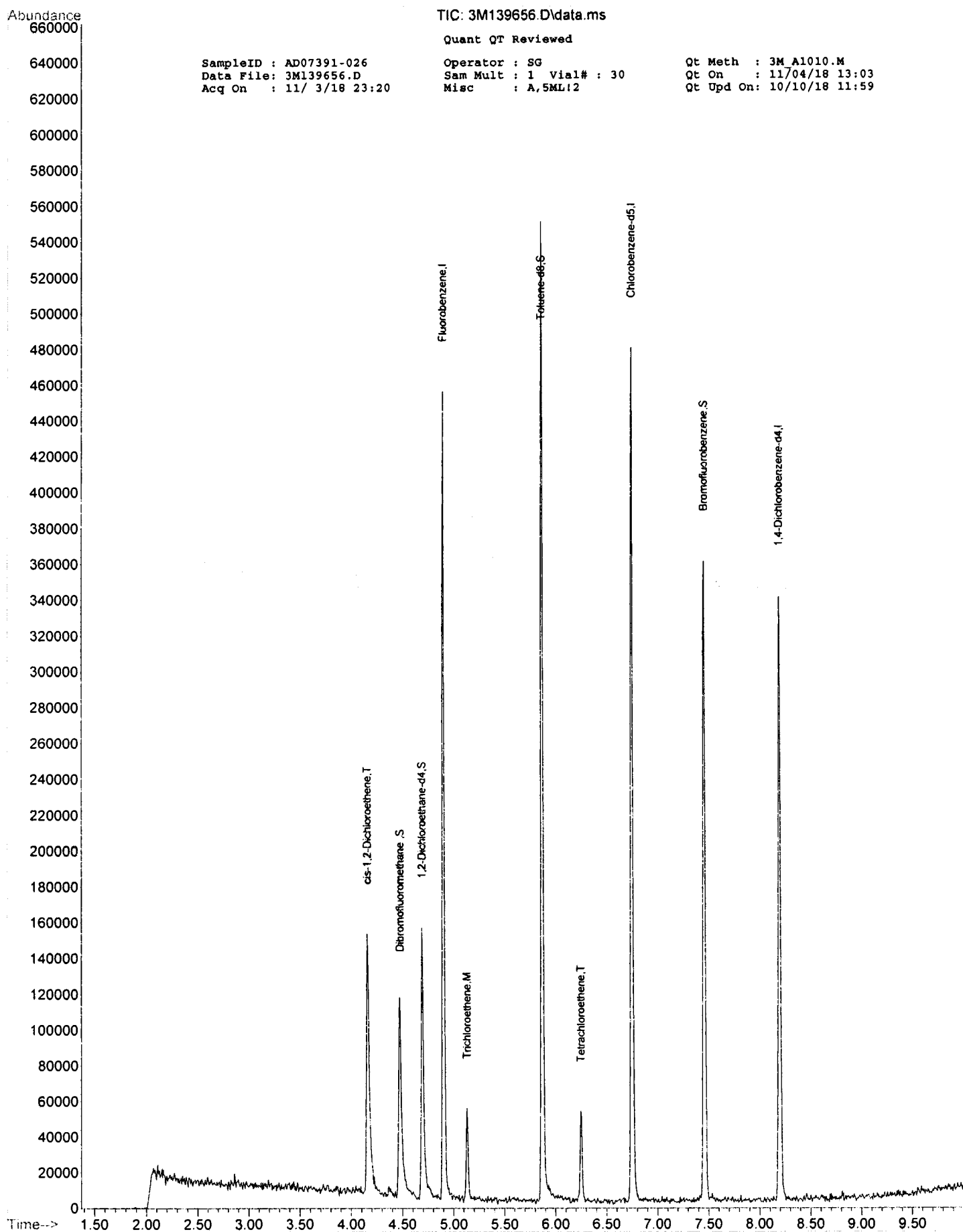
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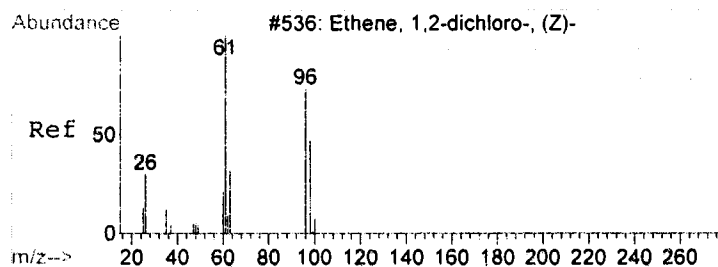
Quant QT Reviewed

SampleID : AD07391-026
Data File: 3M139656.D
Acq On : 11/ 3/18 23:20

Operator : SG
Sam Mult : 1 Vial# : 30
Misc : A,5ML12

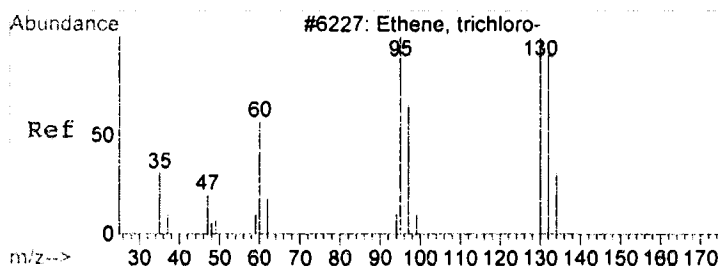
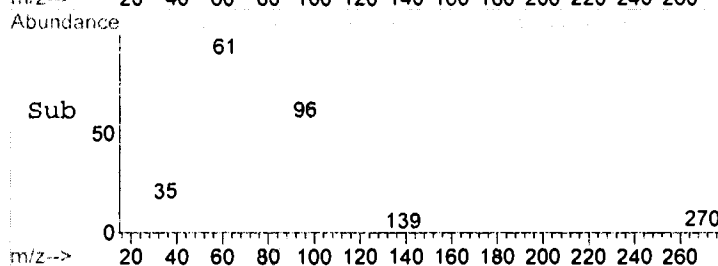
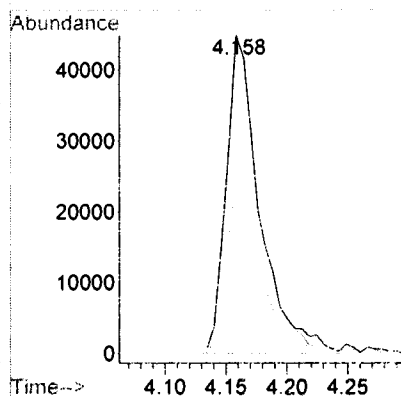
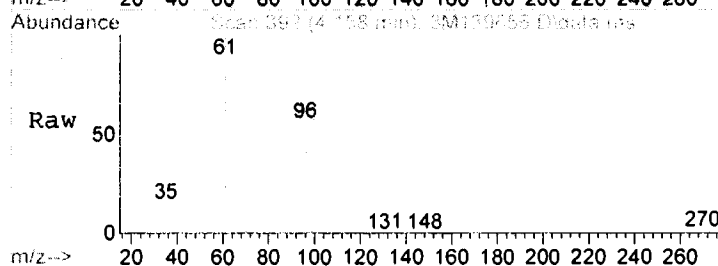
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59





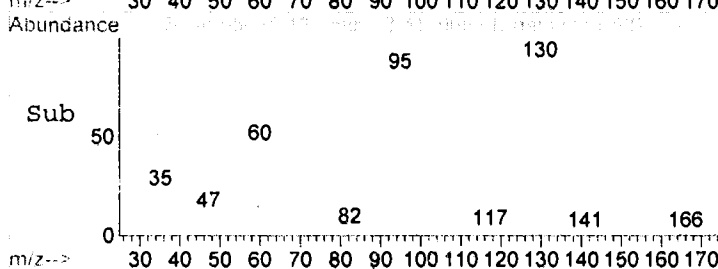
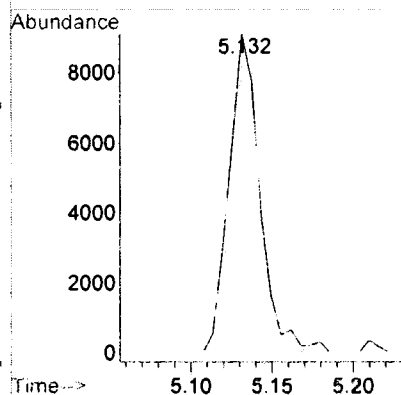
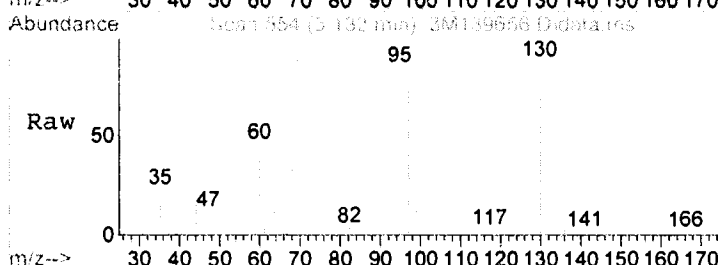
#30
cis-1,2-Dichloroethene
Concen: 23.23 ug/l
RT: 4.158 min Scan# 392
Delta R.T. -0.007 min
Lab File: 3M139656.D
Acq: 3 Nov 2018 23:20

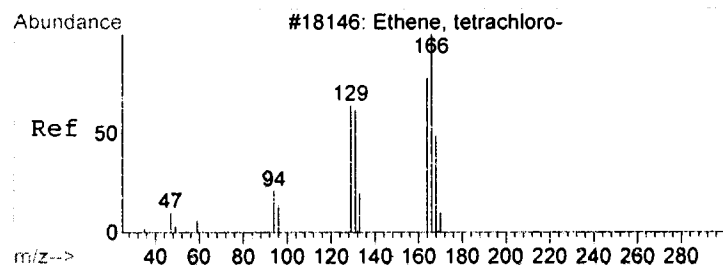
Tgt Ion: 61 Resp: 86366
Ion Ratio Lower Upper
61 100
96 56.0 8.8 88.8
98 42.0 0.0 72.8



#49
Trichloroethene
Concen: 5.72 ug/l
RT: 5.132 min Scan# 554
Delta R.T. -0.007 min
Lab File: 3M139656.D
Acq: 3 Nov 2018 23:20

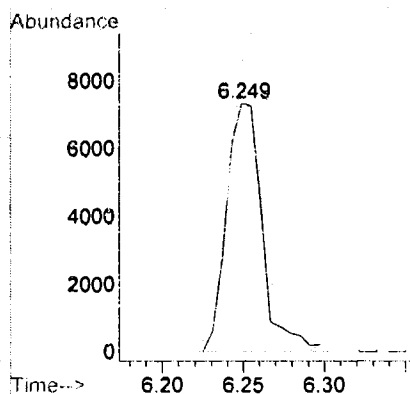
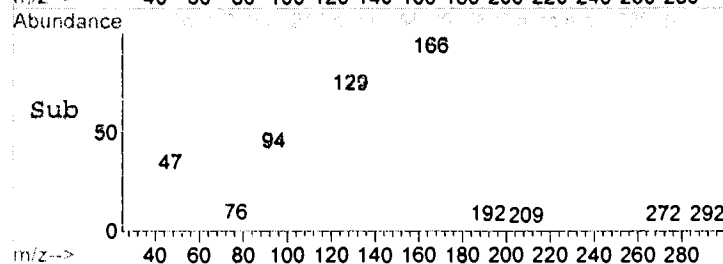
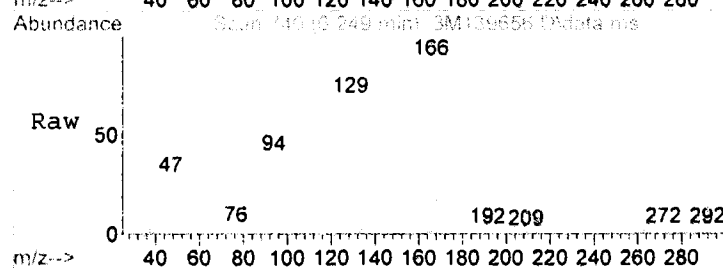
Tgt Ion: 130 Resp: 12121
Ion Ratio Lower Upper
130 100
132 91.6 40.0 200.0
95 85.3 40.0 160.0





#65
Tetrachloroethene
Concen: 9.52 ug/l
RT: 6.249 min Scan# 740
Delta R.T. -0.007 min
Lab File: 3M139656.D
Acq: 3 Nov 2018 23:20

Tgt Ion:164 Resp: 11366
Ion Ratio Lower Upper
164 100
166 116.5 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-027

Client Id: 152140-DDC-08-PS

Data File: 3M139657.D

Analysis Date: 11/03/18 23:38

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	7.0
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.0
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 8

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-027
Data File: 3M139657.D
Acq On : 11/ 3/18 23:38

Operator : SG
Sam Mult : 1 Vial# : 31
Misc : A,5ML!2

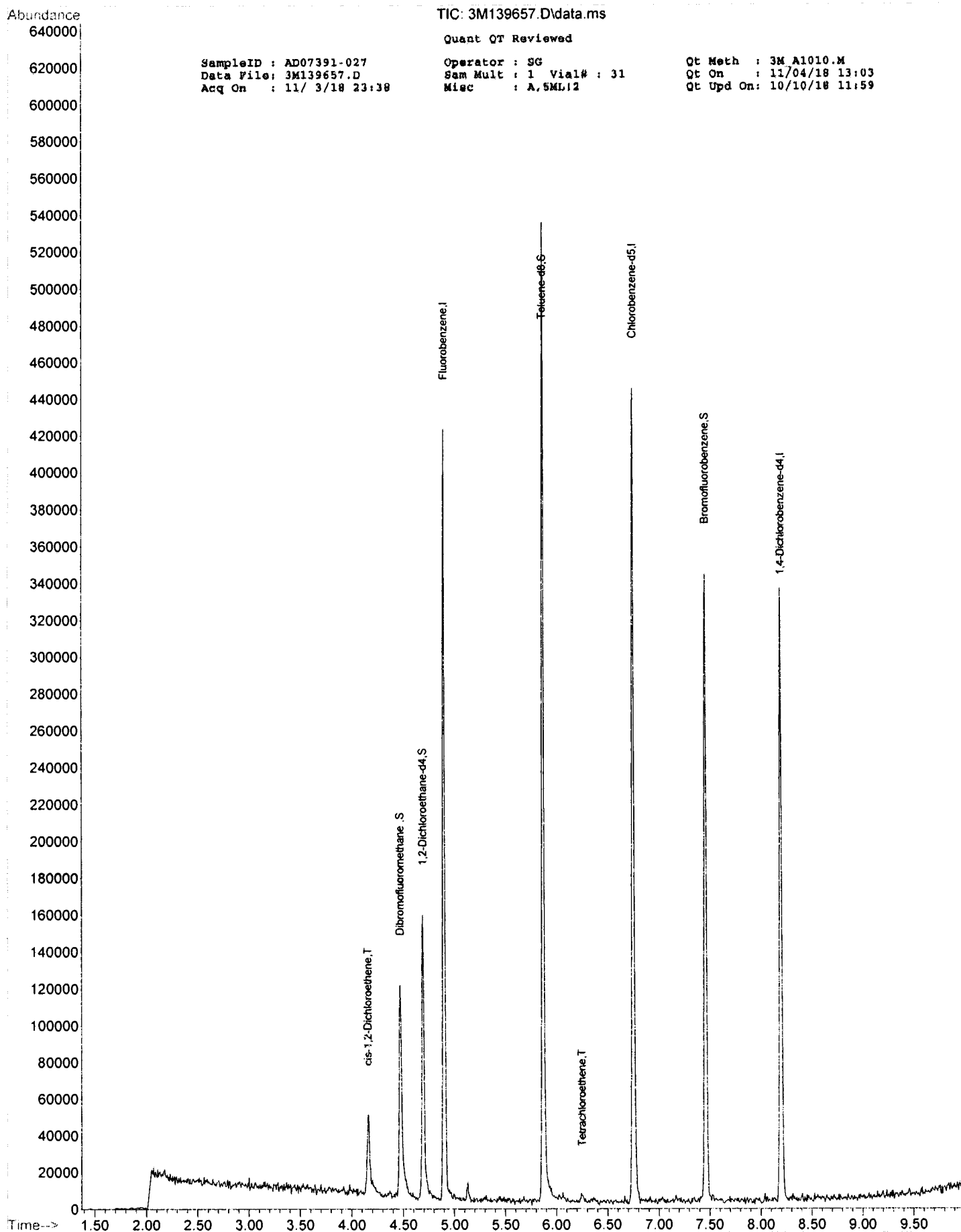
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

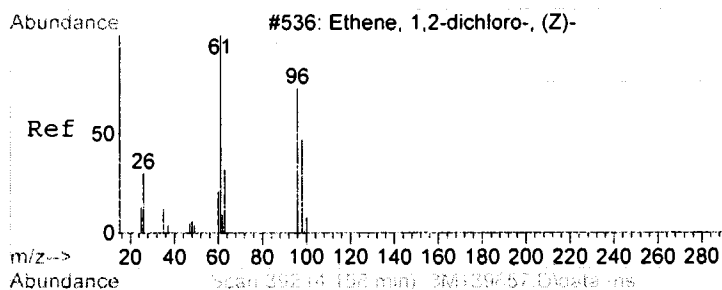
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.903	96	233343	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.753	117	195855	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.201	152	81938	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	62501	30.09	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.30%	
39) 1,2-Dichloroethane-d4	4.693	67	42004	28.80	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.00%	
66) Toluene-d8	5.870	98	244540	29.87	ug/l	0.00
Spiked Amount 30.000			Recovery	=	99.57%	
76) Bromofluorobenzene	7.462	174	86357	30.42	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.40%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.158	61	25031	7.0198	ug/l	95
65) Tetrachloroethene	6.249	164	1150	1.0205	ug/l	91

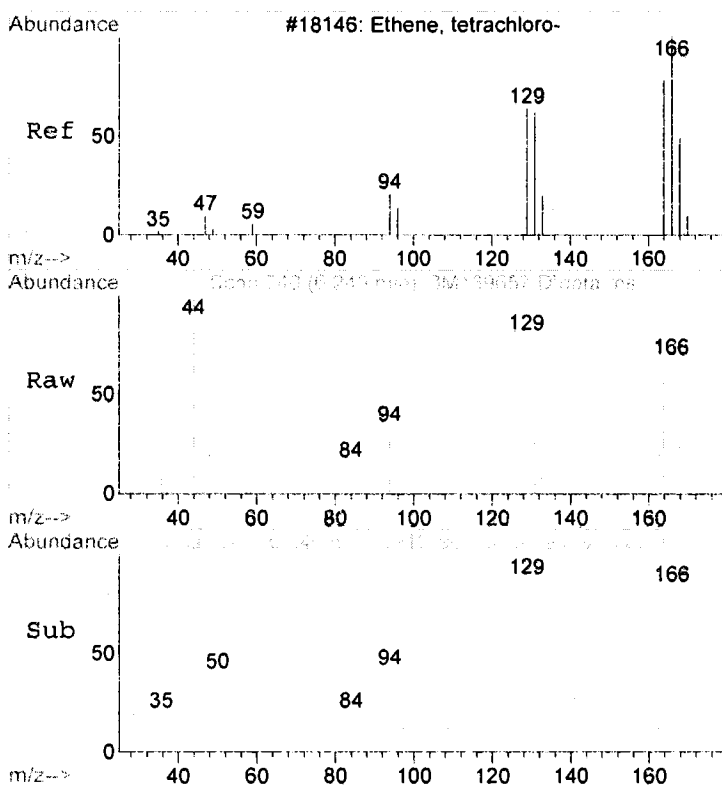
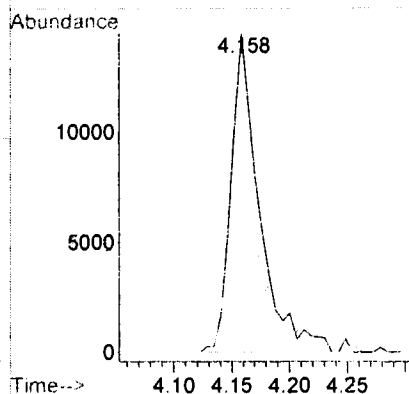
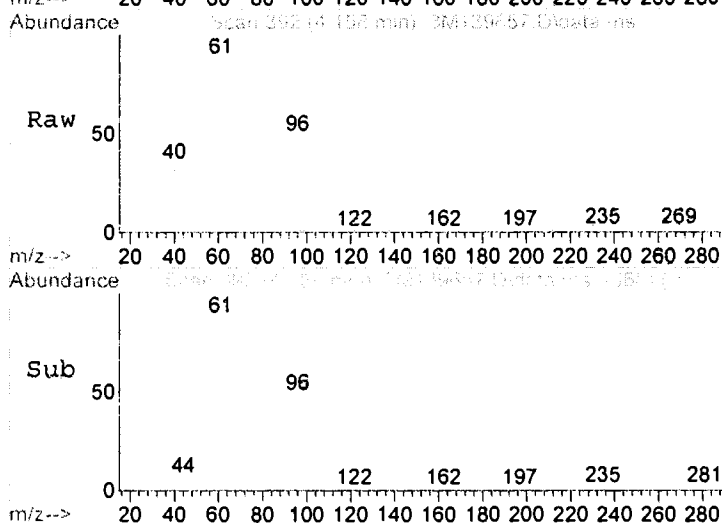
(#) = qualifier out of range (m) = manual integration (+) = signals summed





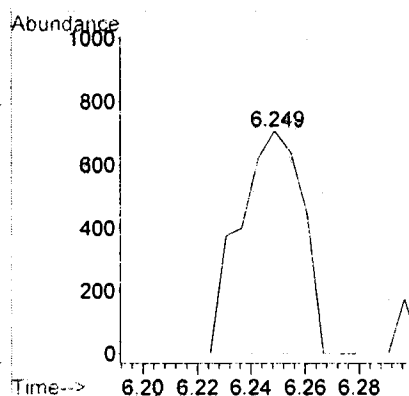
#30
cis-1,2-Dichloroethene
Concen: 7.02 ug/l
RT: 4.158 min Scan# 392
Delta R.T. -0.007 min
Lab File: 3M139657.D
Acq: 3 Nov 2018 23:38

Tgt Ion: 61 Resp: 25031
Ion Ratio Lower Upper
61 100
96 48.5 8.8 88.8
98 39.7 0.0 72.8



#65
Tetrachloroethene
Concen: 1.02 ug/l
RT: 6.249 min Scan# 740
Delta R.T. -0.007 min
Lab File: 3M139657.D
Acq: 3 Nov 2018 23:38

Tgt Ion: 164 Resp: 1150
Ion Ratio Lower Upper
164 100
166 121.8 61.8 201.8



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-028
Client Id: 152140-DDC-08-PD
Data File: 3M139658.D
Analysis Date: 11/03/18 23:55
Date Rec/Extracted: 10/26/18-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	5.7
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.0
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-028
Data File: 3M139658.D
Acq On : 11/ 3/18 23:55

Operator : SG
Sam Mult : 1 Vial# : 32
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

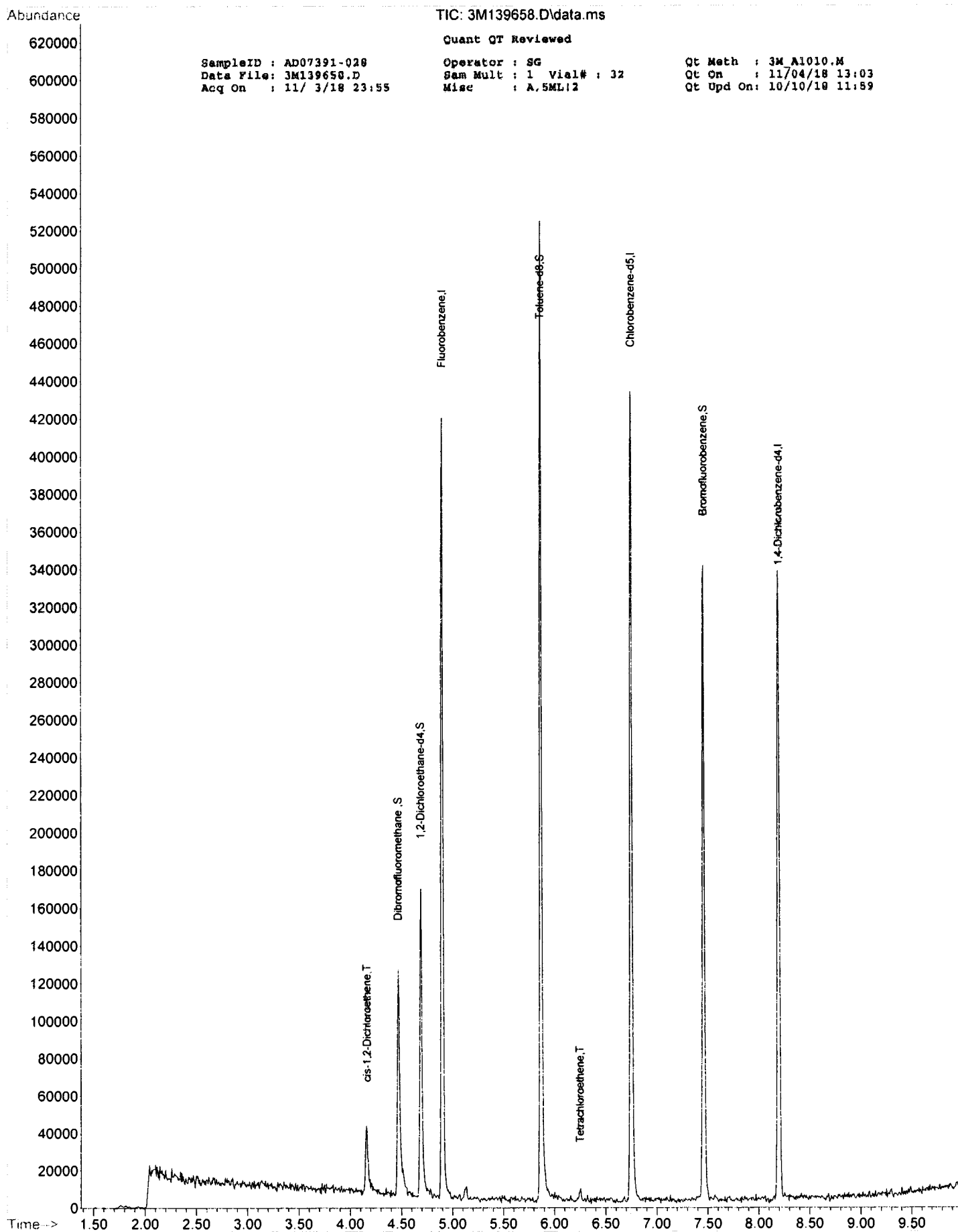
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Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

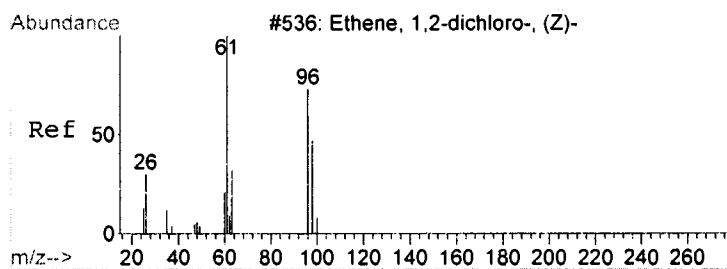
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.903	96	229599	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.753	117	196382	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.201	152	82932	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	62148	30.41	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.37%	
39) 1,2-Dichloroethane-d4	4.693	67	44451	30.97	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.23%	
66) Toluene-d8	5.870	98	240270	29.27	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.57%	
76) Bromofluorobenzene	7.462	174	83894	29.20	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.33%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.164	61	20009	5.7029	ug/l	79
65) Tetrachloroethene	6.249	164	1161	1.0275	ug/l	84

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

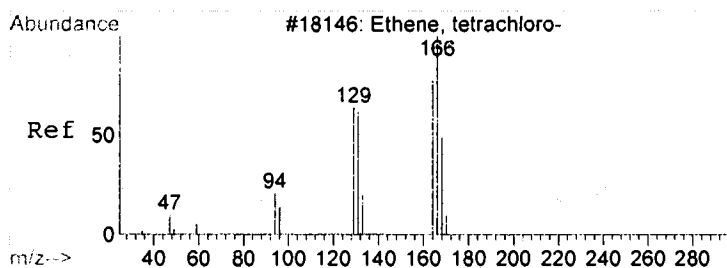
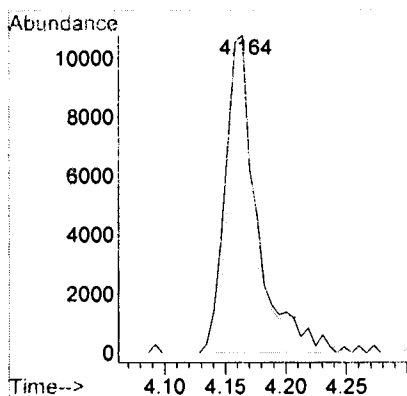
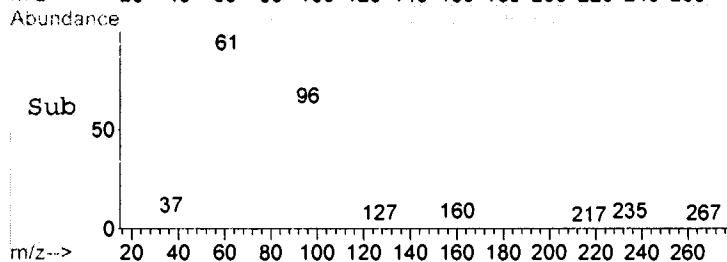
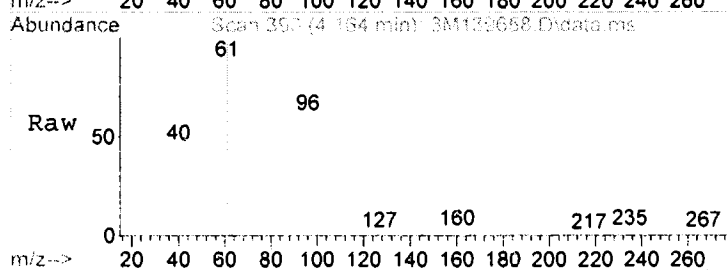
261





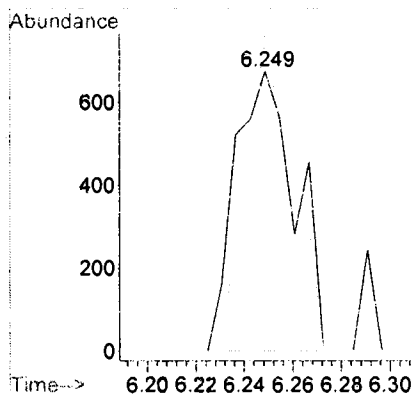
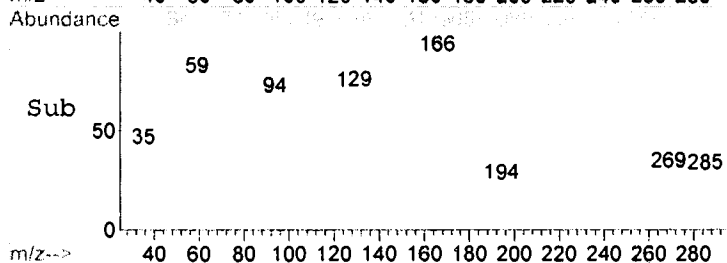
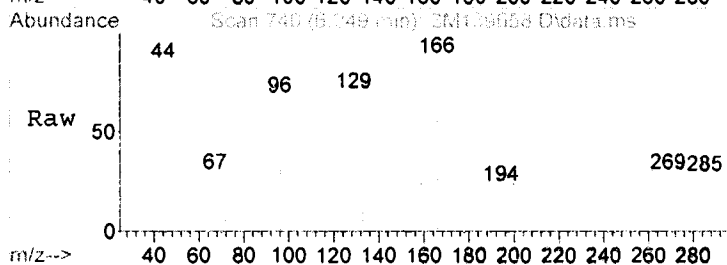
#30
 cis-1,2-Dichloroethene
 Concen: 5.70 ug/l
 RT: 4.164 min Scan# 393
 Delta R.T. -0.001 min
 Lab File: 3M139658.D
 Acq: 3 Nov 2018 23:55

Tgt Ion: 61 Resp: 20009
 Ion Ratio Lower Upper
 61 100
 96 60.9 8.8 88.8
 98 47.9 0.0 72.8



#65
 Tetrachloroethene
 Concen: 1.03 ug/l
 RT: 6.249 min Scan# 740
 Delta R.T. -0.007 min
 Lab File: 3M139658.D
 Acq: 3 Nov 2018 23:55

Tgt Ion: 164 Resp: 1161
 Ion Ratio Lower Upper
 164 100
 166 113.5 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-029

Client Id: 152140-DDC-09-PS

Data File: 3M139659.D

Analysis Date: 11/04/18 00:15

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	4.0
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-029
Data File: 3M139659.D
Acq On : 11/ 4/18 00:15

Operator : SG
Sam Mult : 1 Vial# : 33
Misc : A,5ML!2

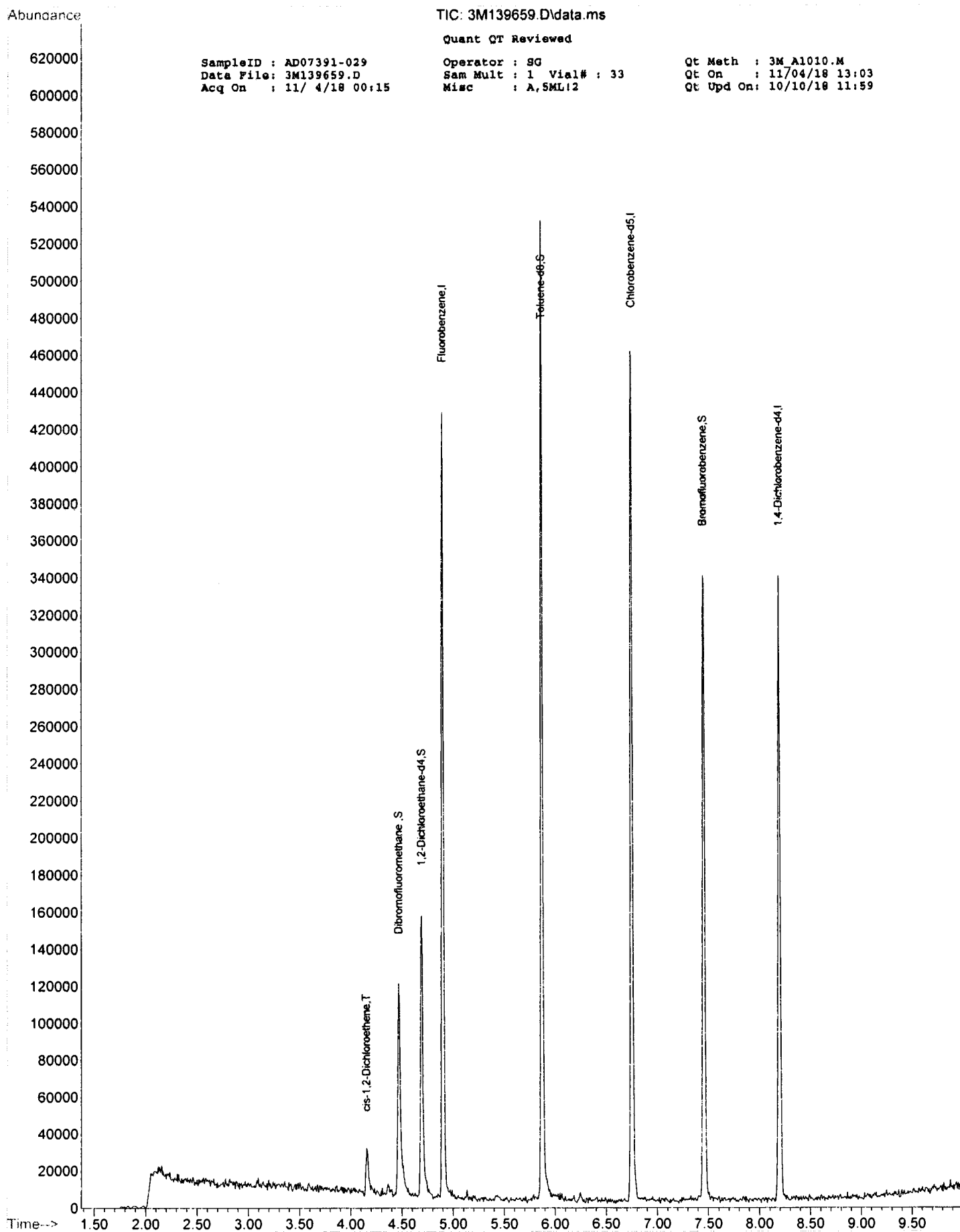
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

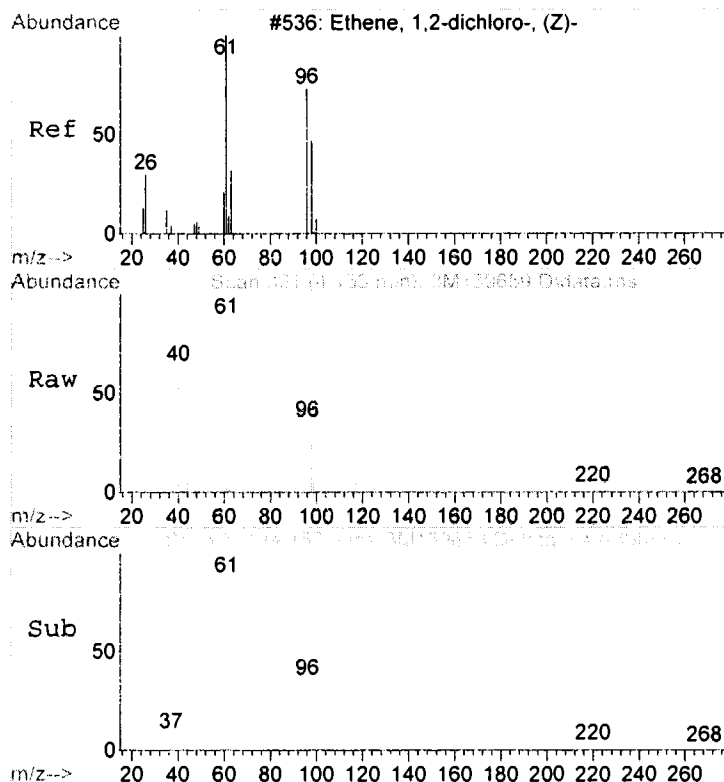
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.903	96	240158	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.754	117	202441	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.195	152	83801	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	64962	30.39	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.30%	
39) 1,2-Dichloroethane-d4	4.693	67	42831	28.53	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.10%	
66) Toluene-d8	5.871	98	240100	28.37	ug/l	0.00
Spiked Amount 30.000			Recovery	=	94.57%	
76) Bromofluorobenzene	7.456	174	88278	30.41	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	101.37%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.153	61	14532	3.9598	ug/l	Qvalue 78

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







#30

cis-1,2-Dichloroethene

Concen: 3.96 ug/l

RT: 4.153 min Scan# 391

Delta R.T. -0.013 min

Lab File: 3M139659.D

Acq: 4 Nov 2018 00:15

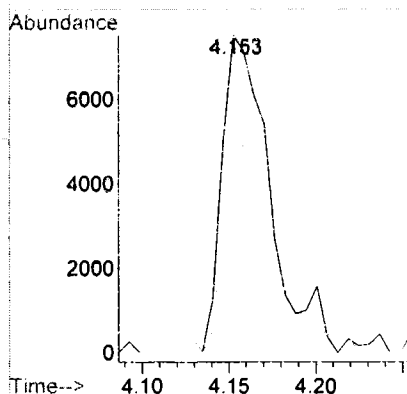
Tgt Ion: 61 Resp: 14532

Ion Ratio Lower Upper

61 100

96 31.3 8.8 88.8

98 23.9 0.0 72.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-030

Client Id: 152140-DDC-09-PD

Data File: 3M139660.D

Analysis Date: 11/04/18 00:32

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	3.6
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	1.6
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.0
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	2.6	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 10

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration uses

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-030
 Data File: 3M139660.D
 Acq On : 11/ 4/18 00:32

Operator : SG
 Sam Mult : 1 Vial# : 34
 Misc : A,5ML!2

Qt Meth : 3M_A1010.M
 Qt On : 11/04/18 13:03
 Qt Upd On: 10/10/18 11:59

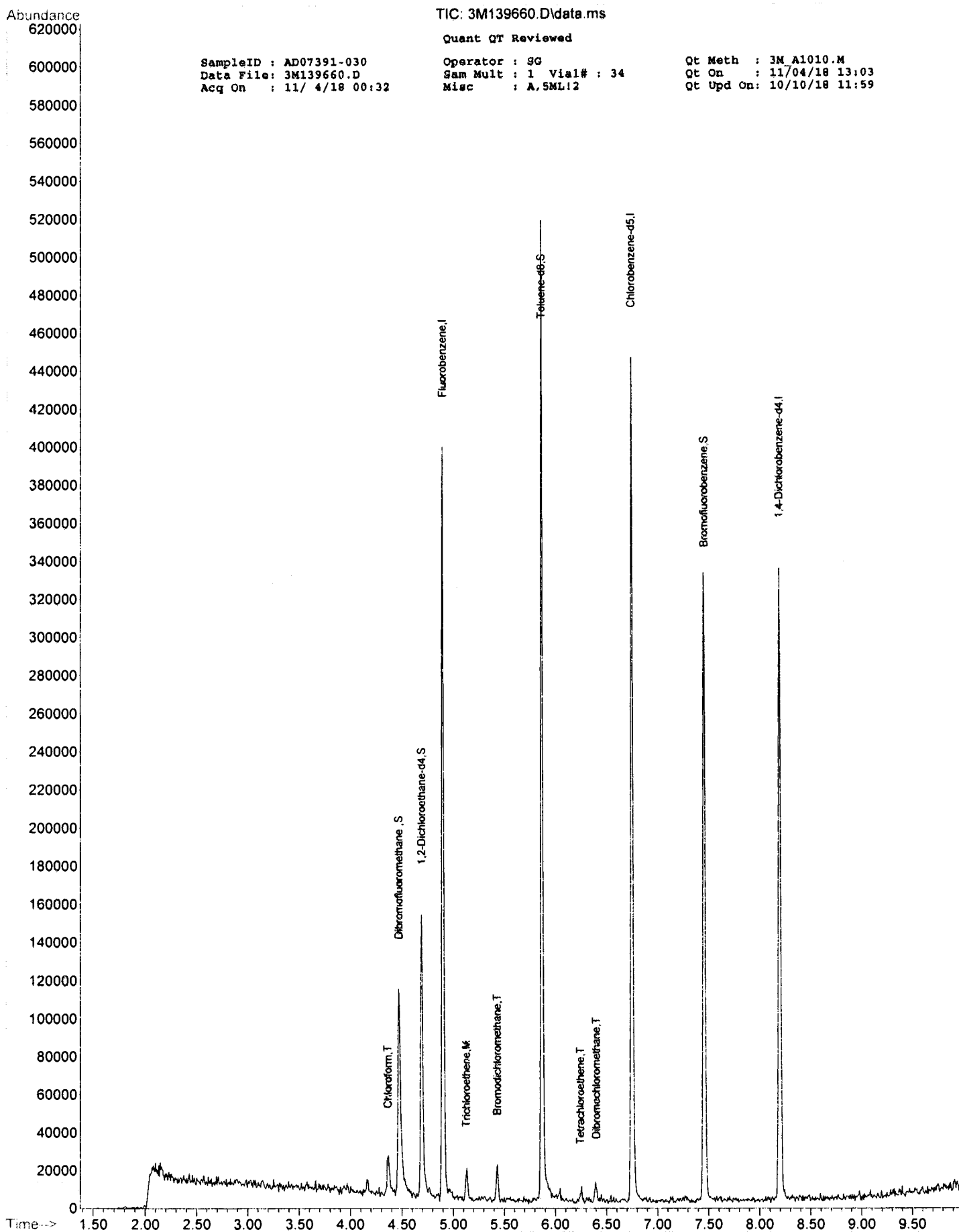
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

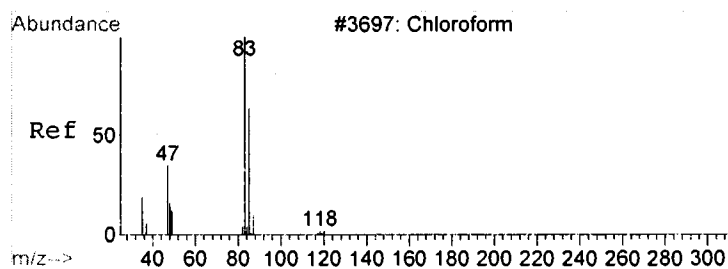
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.903	96	225229	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.748	117	189521	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.195	152	79525	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	61308	30.58	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.93%	
39) 1,2-Dichloroethane-d4	4.693	67	44186	31.38	ug/l	0.00
Spiked Amount 30.000			Recovery	=	104.60%	
66) Toluene-d8	5.871	98	233358	29.46	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.20%	
76) Bromofluorobenzene	7.462	174	86211	31.29	ug/l	0.00
Spiked Amount 30.000			Recovery	=	104.30%	
Target Compounds						
36) Chloroform	4.363	83	13293	3.6476	ug/l	98
45) Bromodichloromethane	5.432	83	7515	2.6244	ug/l	93
49) Trichloroethene	5.126	130	3339	1.7028	ug/l	74
55) Dibromochloromethane	6.399	129	3518	1.5727	ug/l	95
65) Tetrachloroethene	6.243	164	1127	1.0335	ug/l	78

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

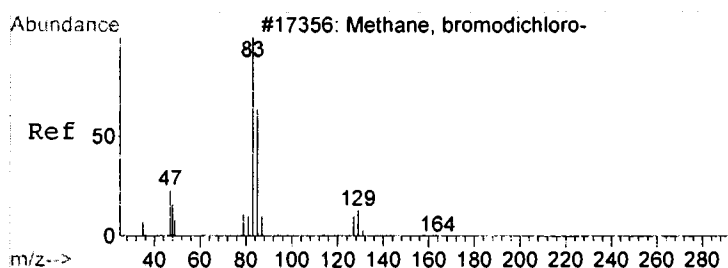
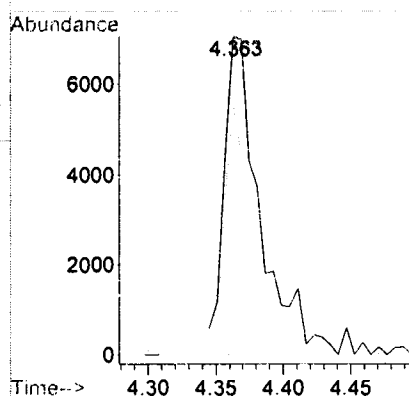
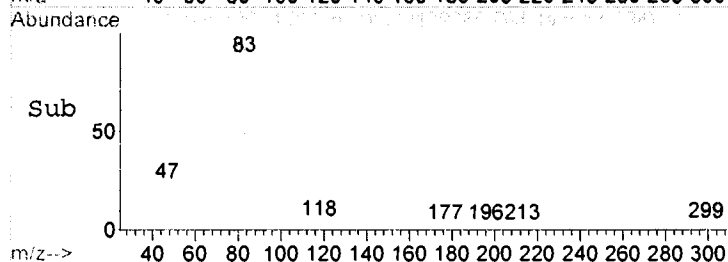
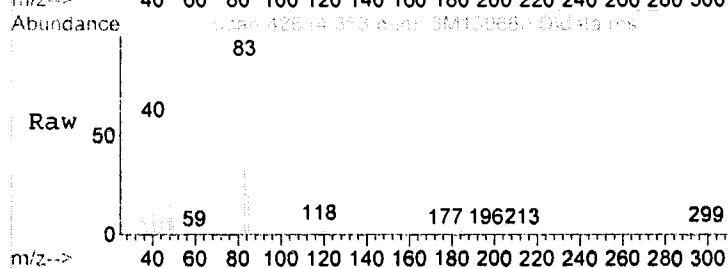
See





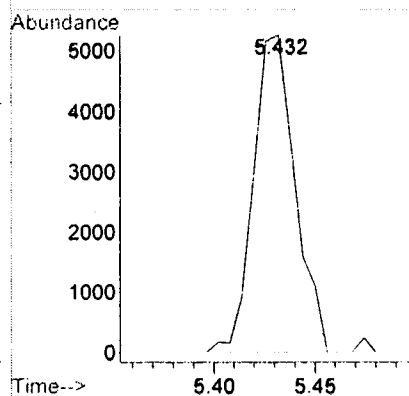
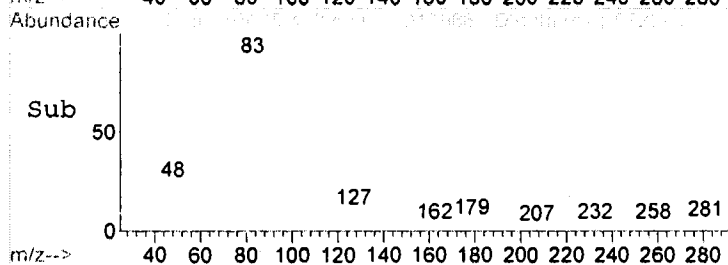
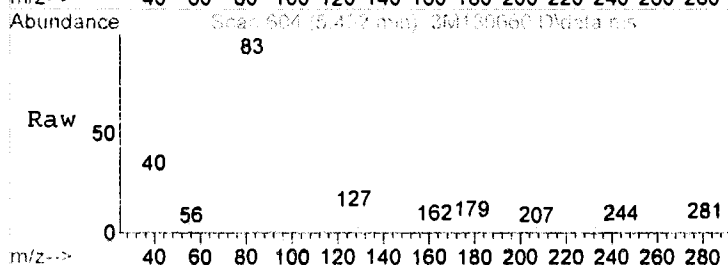
#36
Chloroform
Concen: 3.65 ug/l
RT: 4.363 min Scan# 426
Delta R.T. -0.007 min
Lab File: 3M139660.D
Acq: 4 Nov 2018 00:32

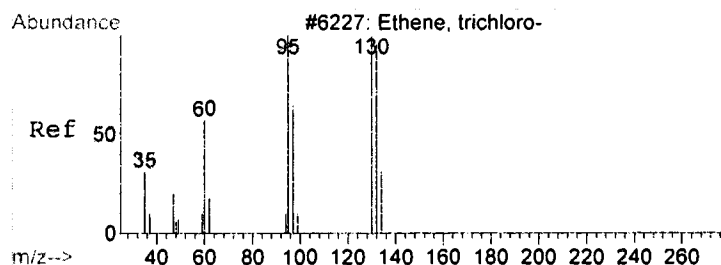
Tgt Ion: 83 Resp: 13293
Ion Ratio Lower Upper
83 100
85 77.6 36.0 116.0



#45
Bromodichloromethane
Concen: 2.62 ug/l
RT: 5.432 min Scan# 604
Delta R.T. -0.007 min
Lab File: 3M139660.D
Acq: 4 Nov 2018 00:32

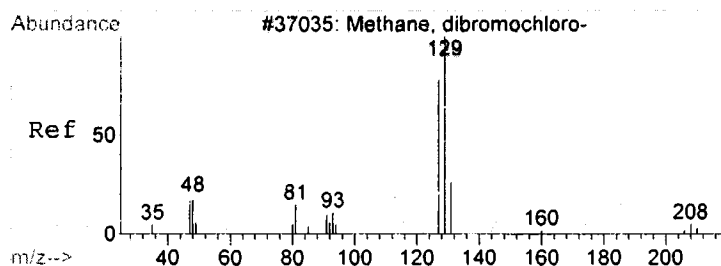
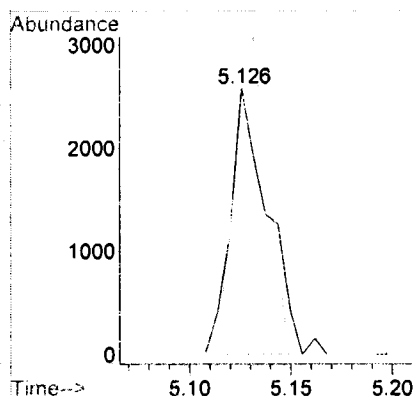
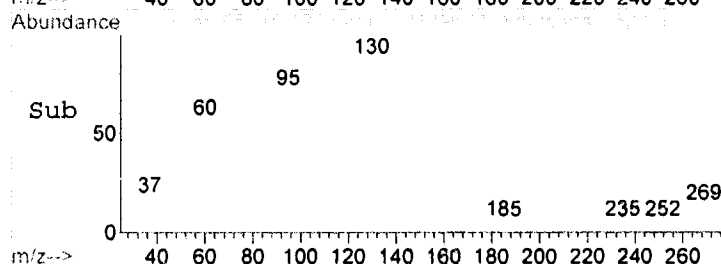
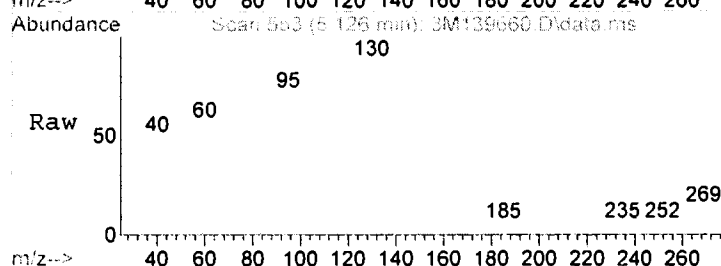
Tgt Ion: 83 Resp: 7515
Ion Ratio Lower Upper
83 100
85 74.9 28.9 108.9





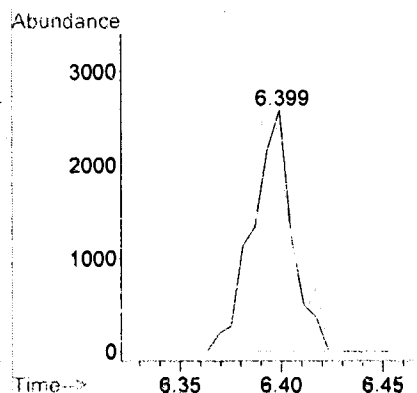
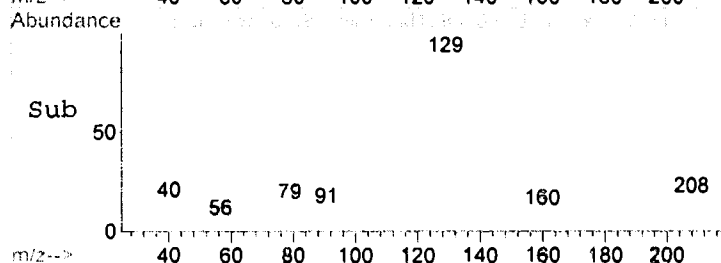
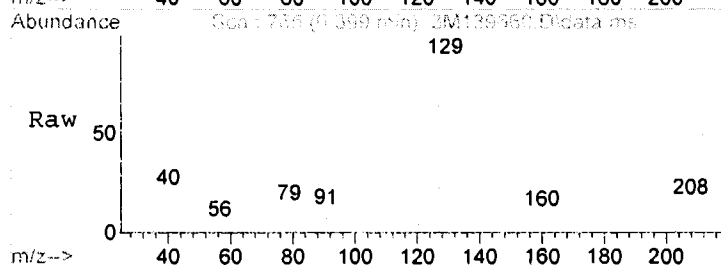
#49
Trichloroethene
Concen: 1.70 ug/l
RT: 5.126 min Scan# 553
Delta R.T. -0.013 min
Lab File: 3M139660.D
Acq: 4 Nov 2018 00:32

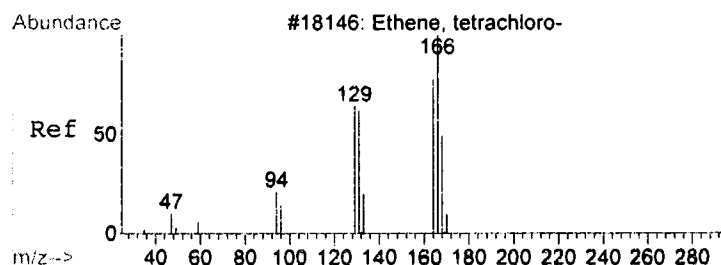
Tgt Ion	Ratio	Lower	Upper
130	100		
132	92.9	40.0	200.0
95	71.7	40.0	160.0



#55
Dibromochloromethane
Concen: 1.57 ug/l
RT: 6.399 min Scan# 765
Delta R.T. -0.001 min
Lab File: 3M139660.D
Acq: 4 Nov 2018 00:32

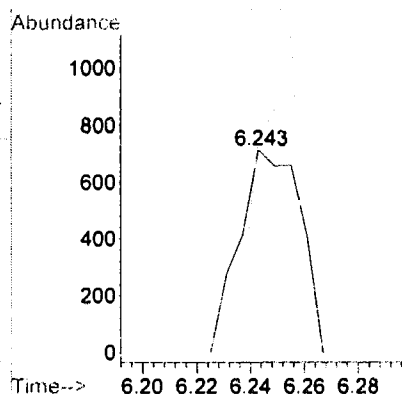
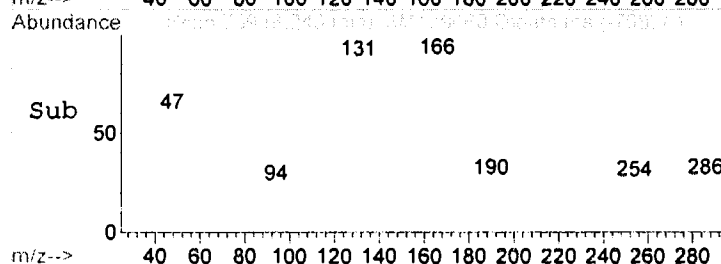
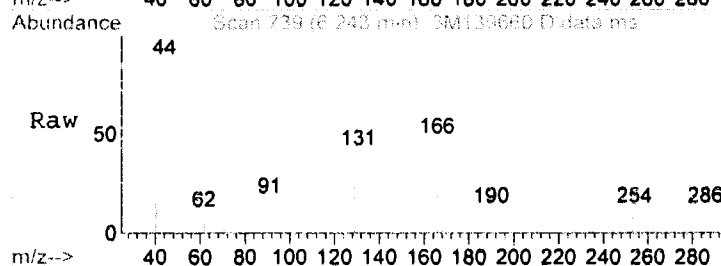
Tgt Ion	Ratio	Lower	Upper
129	100		
127	79.4	34.8	114.8





#65
Tetrachloroethene
Concen: 1.03 ug/l
RT: 6.243 min Scan# 739
Delta R.T. -0.013 min
Lab File: 3M139660.D
Acq: 4 Nov 2018 00:32

Tgt Ion: 164 Resp: 1127
Ion Ratio Lower Upper
164 100
166 106.0 61.8 201.8



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-031

Client Id: 152140-DDC-10-PS

Data File: 3M139661.D

Analysis Date: 11/04/18 00:49

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	3.4
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 3.4

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-031
Data File: 3M139661.D
Acq On : 11/ 4/18 00:49

Operator : SG
Sam Mult : 1 Vial# : 35
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.903	96	210878	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.753	117	174680	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.195	152	73427	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.470	111	56479	30.09	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.30%	
39) 1,2-Dichloroethane-d4	4.693	67	39027	29.61	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.70%	
66) Toluene-d8	5.870	98	214353	29.36	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.87%	
76) Bromofluorobenzene	7.456	174	76527	30.08	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.27%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.158	61	11101	3.4449	ug/l	Qvalue 92

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

ber'

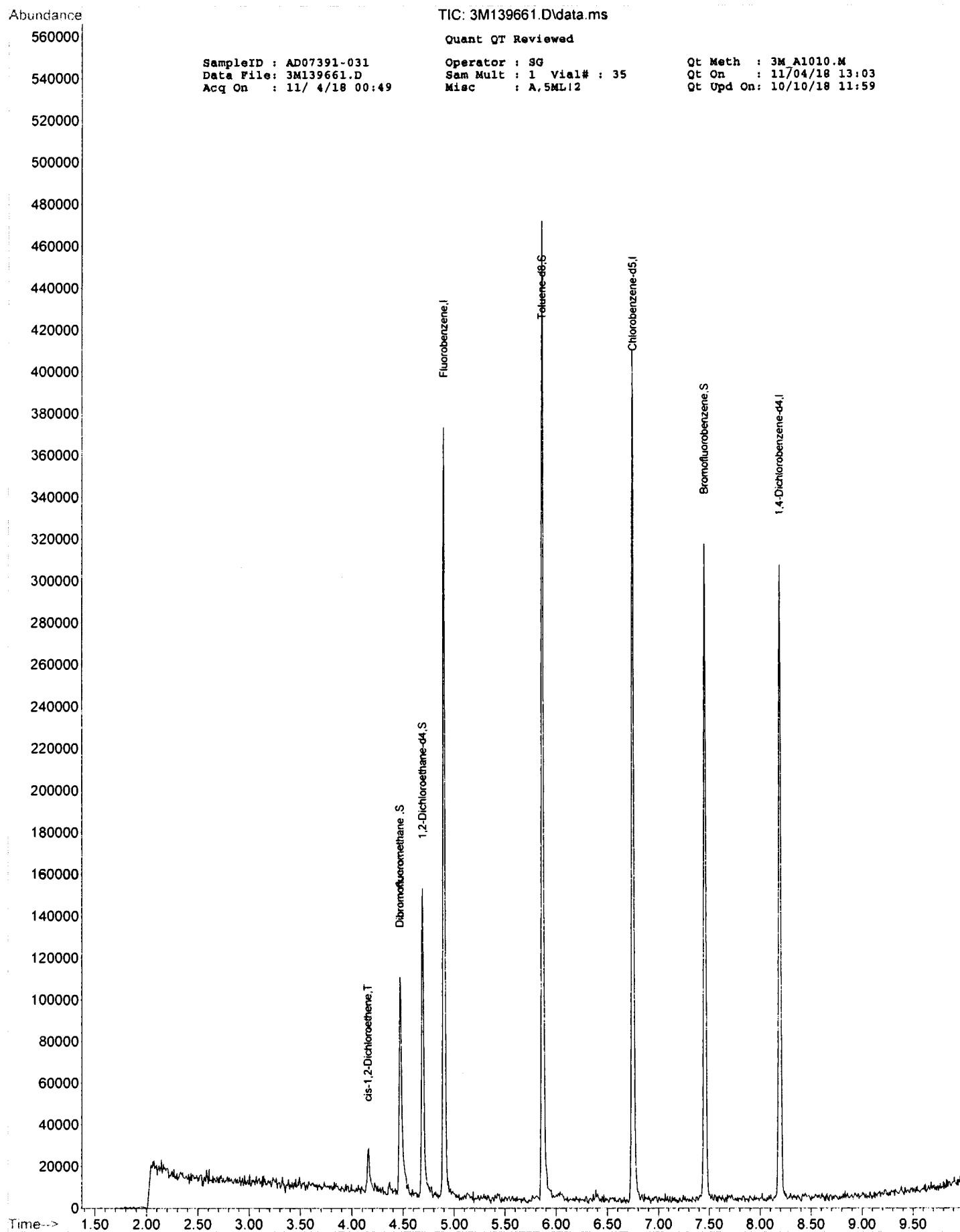
TIC: 3M139661.D\data.ms

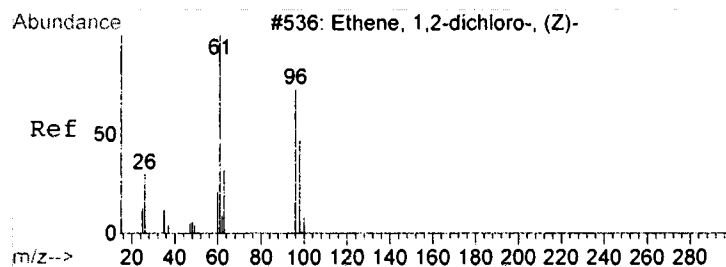
Quant QT Reviewed

SampleID : AD07391-031
Data File: 3M139661.D
Acq On : 11/ 4/18 00:49

Operator : SG
Sam Mult : 1 Vial# : 35
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59





#30

cis-1,2-Dichloroethene

Concen: 3.44 ug/l

RT: 4.158 min Scan# 392

Delta R.T. -0.008 min

Lab File: 3M139661.D

Acq: 4 Nov 2018 00:49

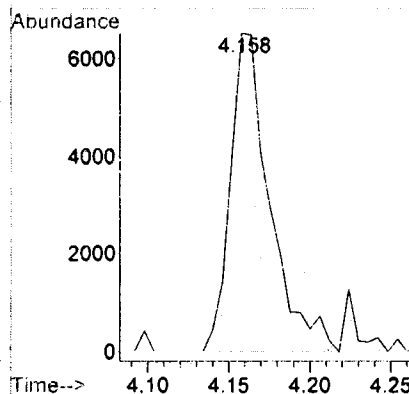
Tgt Ion: 61 Resp: 11101

Ion Ratio Lower Upper

61 100

96 46.5 8.8 88.8

98 41.6 0.0 72.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-032

Client Id: 152140-DDC-10-PD

Data File: 3M139662.D

Analysis Date: 11/04/18 01:06

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	1.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 1.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-032
Data File: 3M139662.D
Acq On : 11/ 4/18 01:06

Operator : SG
Sam Mult : 1 Vial# : 36
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

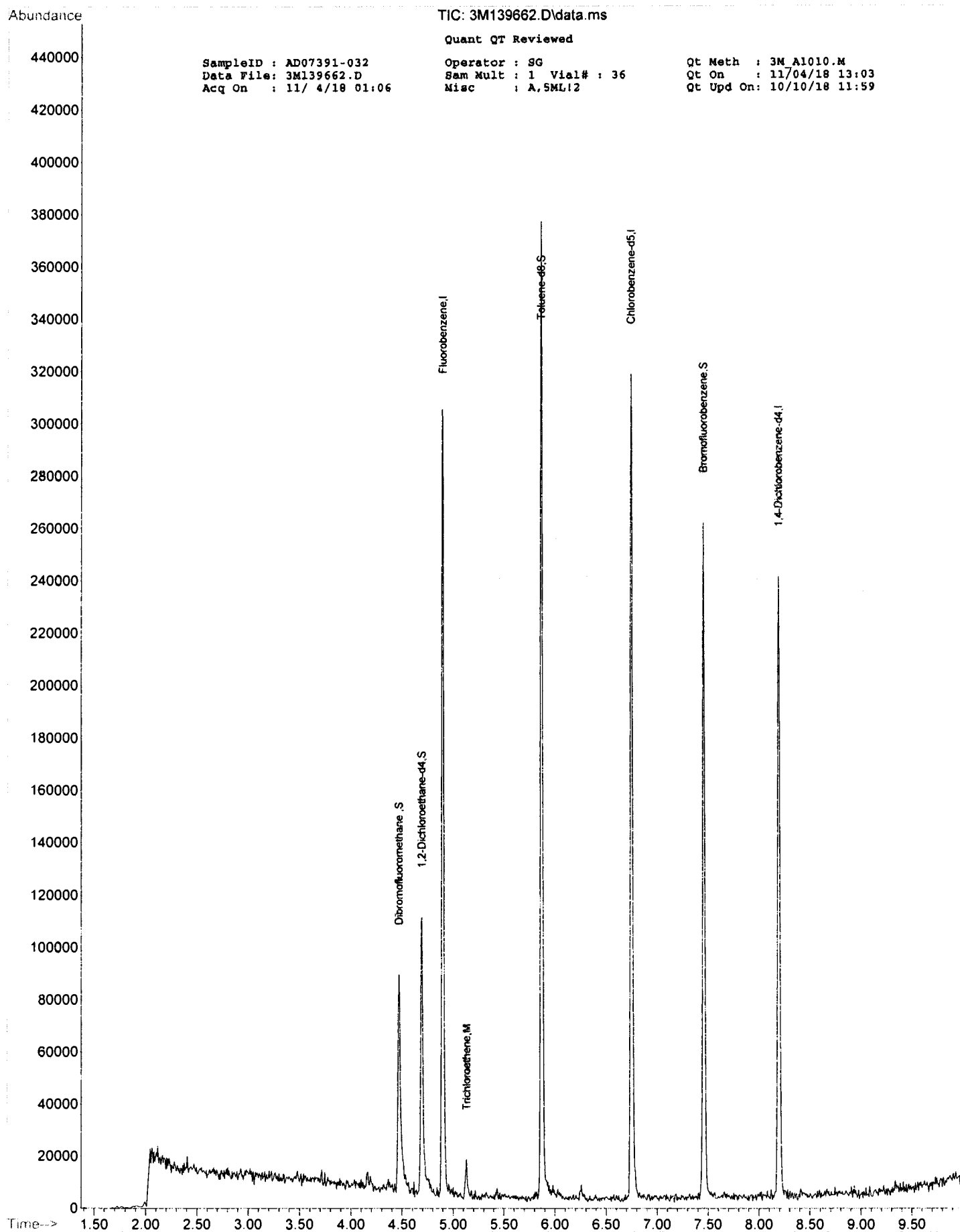
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

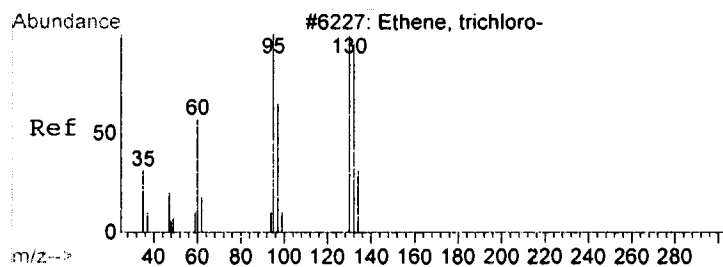
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.904	96	172466	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.748	117	140022	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.195	152	59330	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	48605	31.66	ug/l	0.00
Spiked Amount	30.000		Recovery	=	105.53%	
39) 1,2-Dichloroethane-d4	4.693	67	30130	27.95	ug/l	0.00
Spiked Amount	30.000		Recovery	=	93.17%	
66) Toluene-d8	5.871	98	172936	29.55	ug/l	0.00
Spiked Amount	30.000		Recovery	=	98.50%	
76) Bromofluorobenzene	7.457	174	61469	29.91	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	99.70%	
Target Compounds						
49) Trichloroethene	5.132	130	2607	1.7363	ug/l	54

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

201





#49

Trichloroethene

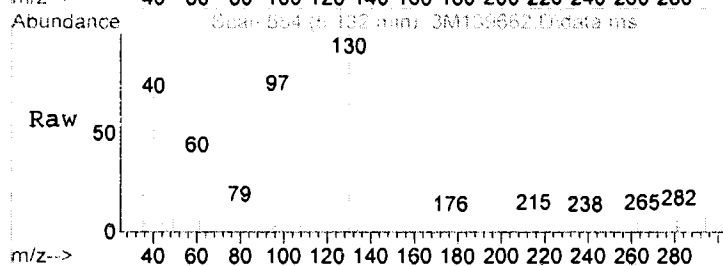
Concen: 1.74 ug/l

RT: 5.132 min Scan# 554

Delta R.T. -0.007 min

Lab File: 3M139662.D

Acq: 4 Nov 2018 1:06



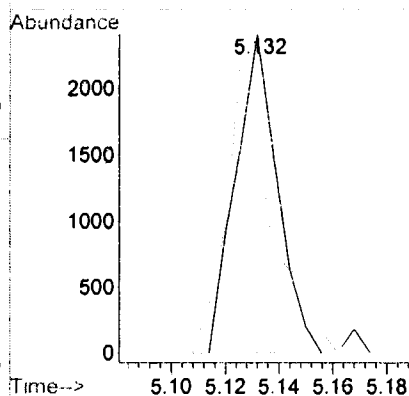
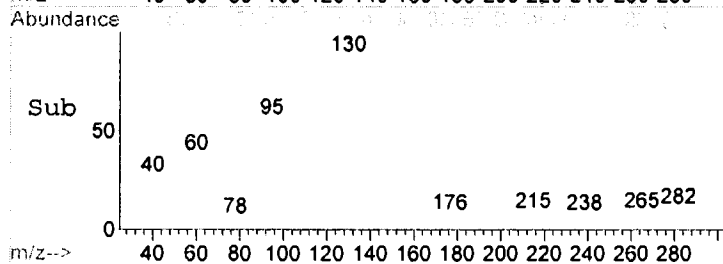
Tgt Ion: 130 Resp: 2607

Ion Ratio Lower Upper

130 100

132 67.5 40.0 200.0

95 56.0 40.0 160.0



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-033
Client Id: 152140-FD-02
Data File: 3M139725.D
Analysis Date: 11/04/18 17:36
Date Rec/Extracted: 10/26/18-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	20
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	78
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	8.7
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 110

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-033
 Data File: 3M139725.D
 Acq On : 11/ 4/18 17:36

Operator : WP
 Sam Mult : 1 Vial# : 23
 Misc : A,SML!2

Qt Meth : 3M_A1010.M
 Qt On : 11/04/18 18:32
 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.899	96	237768	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.743	117	195169	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	78528	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	59647	28.18	ug/l	-0.01
Spiked Amount 30.000			Recovery =	93.93%		
39) 1,2-Dichloroethane-d4	4.688	67	45415	30.55	ug/l	-0.01
Spiked Amount 30.000			Recovery =	101.83%		
66) Toluene-d8	5.866	98	239682	29.38	ug/l	-0.01
Spiked Amount 30.000			Recovery =	97.93%		
76) Bromofluorobenzene	7.452	174	79782	29.33	ug/l	-0.02
Spiked Amount 30.000			Recovery =	97.77%		
Target Compounds						
30) cis-1,2-Dichloroethene	4.154	61	73612	20.2598	ug/l	80
49) Trichloroethene	5.121	130	17914	8.6541	ug/l	81
65) Tetrachloroethene	6.244	164	85728	78.0029	ug/l	96

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



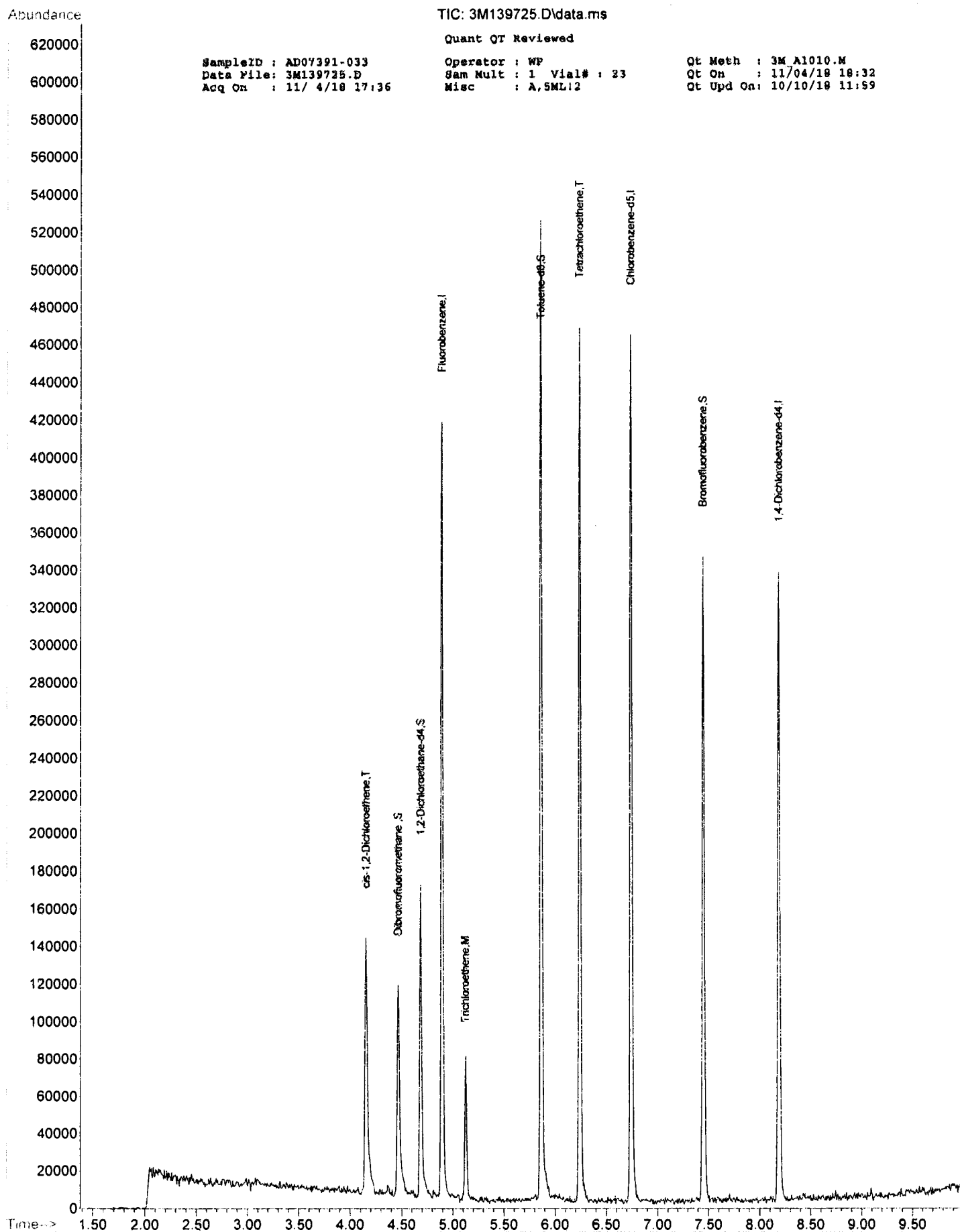
TIC: 3M139725.D\data.ms

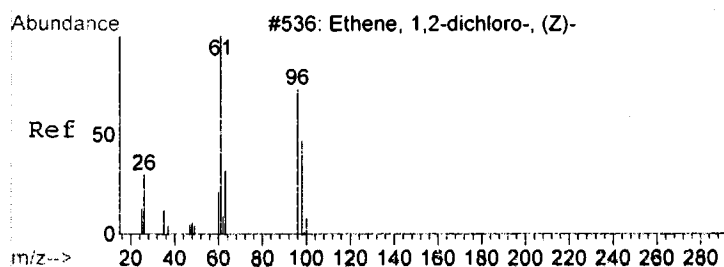
Quant QT Reviewed

SampleID : AD07391-033
Data File: 3M139725.D
Acq On : 11/ 4/18 17:36

Operator : WP
Sam Mult : 1 Vial# : 23
Misc : A,5ML12

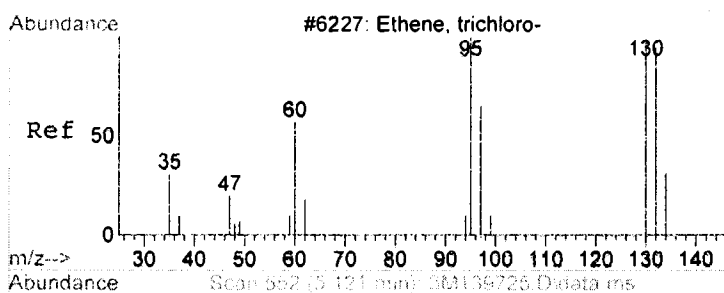
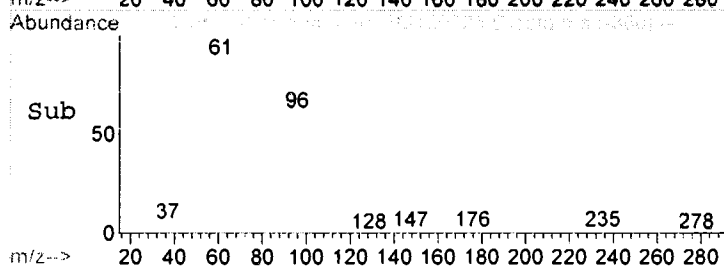
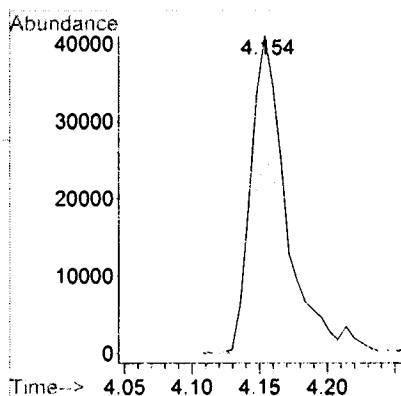
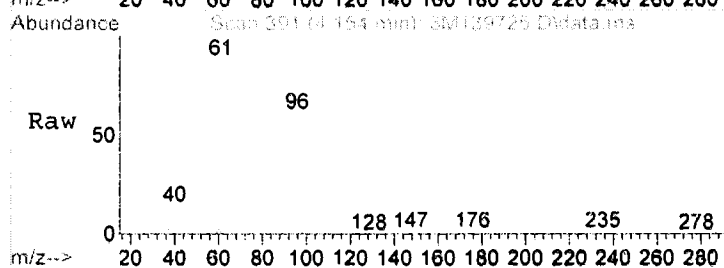
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 18:32
Qt Upd On: 10/10/18 11:59





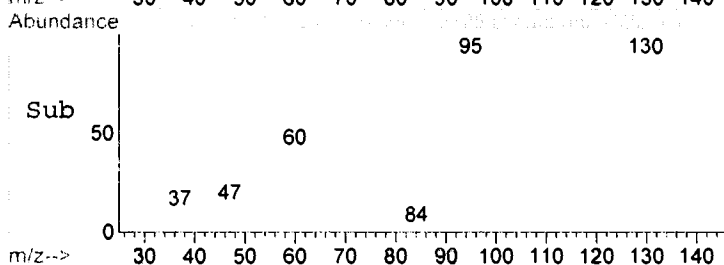
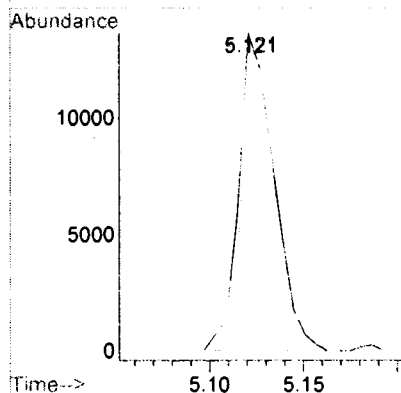
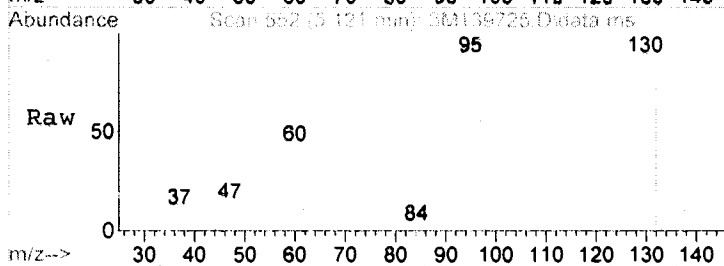
#30
 cis-1,2-Dichloroethene
 Concen: 20.26 ug/l
 RT: 4.154 min Scan# 391
 Delta R.T. -0.012 min
 Lab File: 3M139725.D
 Acq: 4 Nov 2018 17:36

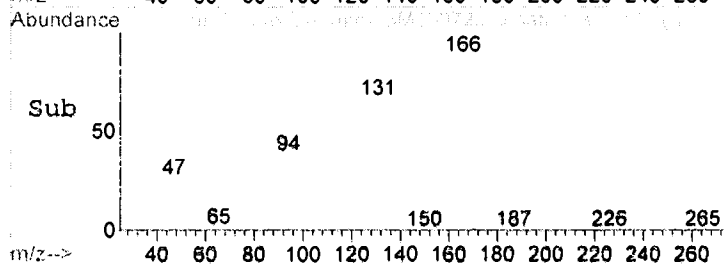
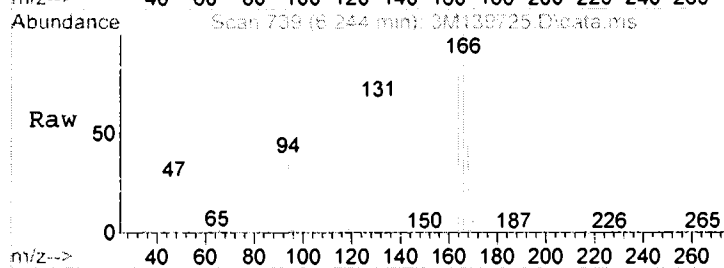
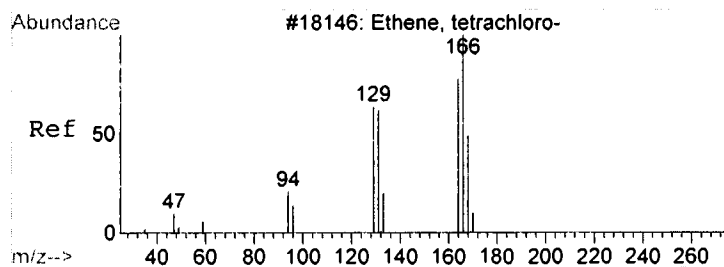
Tgt Ion: 61 Resp: 73612
 Ion Ratio Lower Upper
 61 100
 96 61.2 8.8 88.8
 98 46.0 0.0 72.8



#49
 Trichloroethene
 Concen: 8.65 ug/l
 RT: 5.121 min Scan# 552
 Delta R.T. -0.018 min
 Lab File: 3M139725.D
 Acq: 4 Nov 2018 17:36

Tgt Ion: 130 Resp: 17914
 Ion Ratio Lower Upper
 130 100
 132 84.8 40.0 200.0
 95 97.2 40.0 160.0





#65

Tetrachloroethene

Concen: 78.00 ug/l

RT: 6.244 min Scan# 739

Delta R.T. -0.012 min

Lab File: 3M139725.D

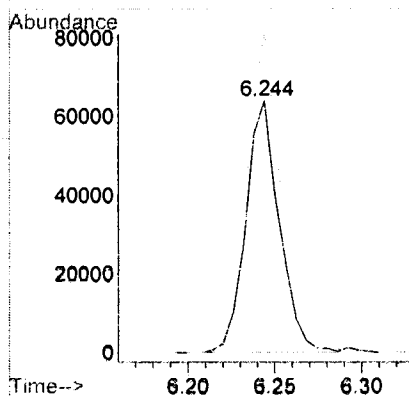
Acq: 4 Nov 2018 17:36

Tgt Ion: 164 Resp: 85728

Ion Ratio Lower Upper

164 100

166 126.6 61.8 201.8



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-034

Client Id: 152140-TRIP BLANK

Data File: 3M139722.D

Analysis Date: 11/04/18 16:44

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-86-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-8	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (*) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-034
Data File: 3M139722.D
Acq On : 11/ 4/18 16:44

Operator : WP
Sam Mult : 1 Vial# : 19
Misc : A,SML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 18:32
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	238471	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	193023	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.190	152	80938	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	62297	29.35	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	97.83%	
39) 1,2-Dichloroethane-d4	4.688	67	45588	30.58	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	101.93%	
66) Toluene-d8	5.865	98	255996	31.73	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	105.77%	
76) Bromofluorobenzene	7.451	174	83587	29.81	ug/l	-0.02
Spiked Amount	30.000		Recovery	=	99.37%	
Target Compounds						Qvalue

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

ren

Abundance

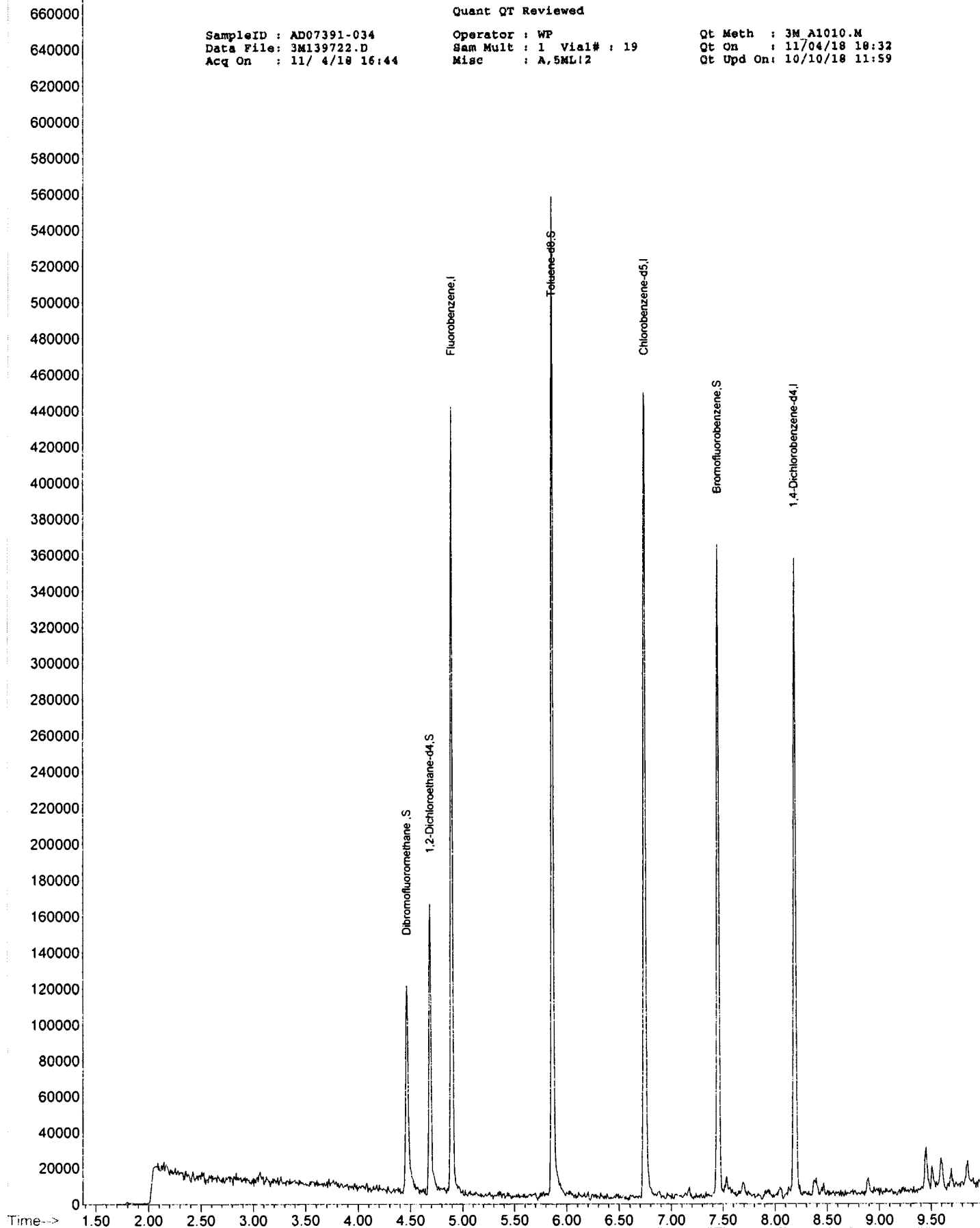
TIC: 3M139722.D\data.ms

Quant QT Reviewed

SampleID : AD07391-034
Data File: 3M139722.D
Acq On : 11/ 4/18 16:44

Operator : WP
Sam Mult : 1 Vial# : 19
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 18:32
Qt Upd On: 10/10/18 11:59



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-035

Client Id: 152140-DDC-06-PS

Data File: 3M139663.D

Analysis Date: 11/04/18 01:23

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	6.9
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 6.9

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-035
Data File: 3M139663.D
Acq On : 11/ 4/18 01:23

Operator : SG
Sam Mult : 1 Vial# : 37
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.904	96	209104	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.748	117	174212	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	71689	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.472	111	54926	29.51	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.37%	
39) 1,2-Dichloroethane-d4	4.688	67	39330	30.09	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.30%	
66) Toluene-d8	5.871	98	214993	29.52	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.40%	
76) Bromofluorobenzene	7.457	174	78022	31.42	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	104.73%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.159	61	22055	6.9021	ug/l	Qvalue 69

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

Veri

Abundance

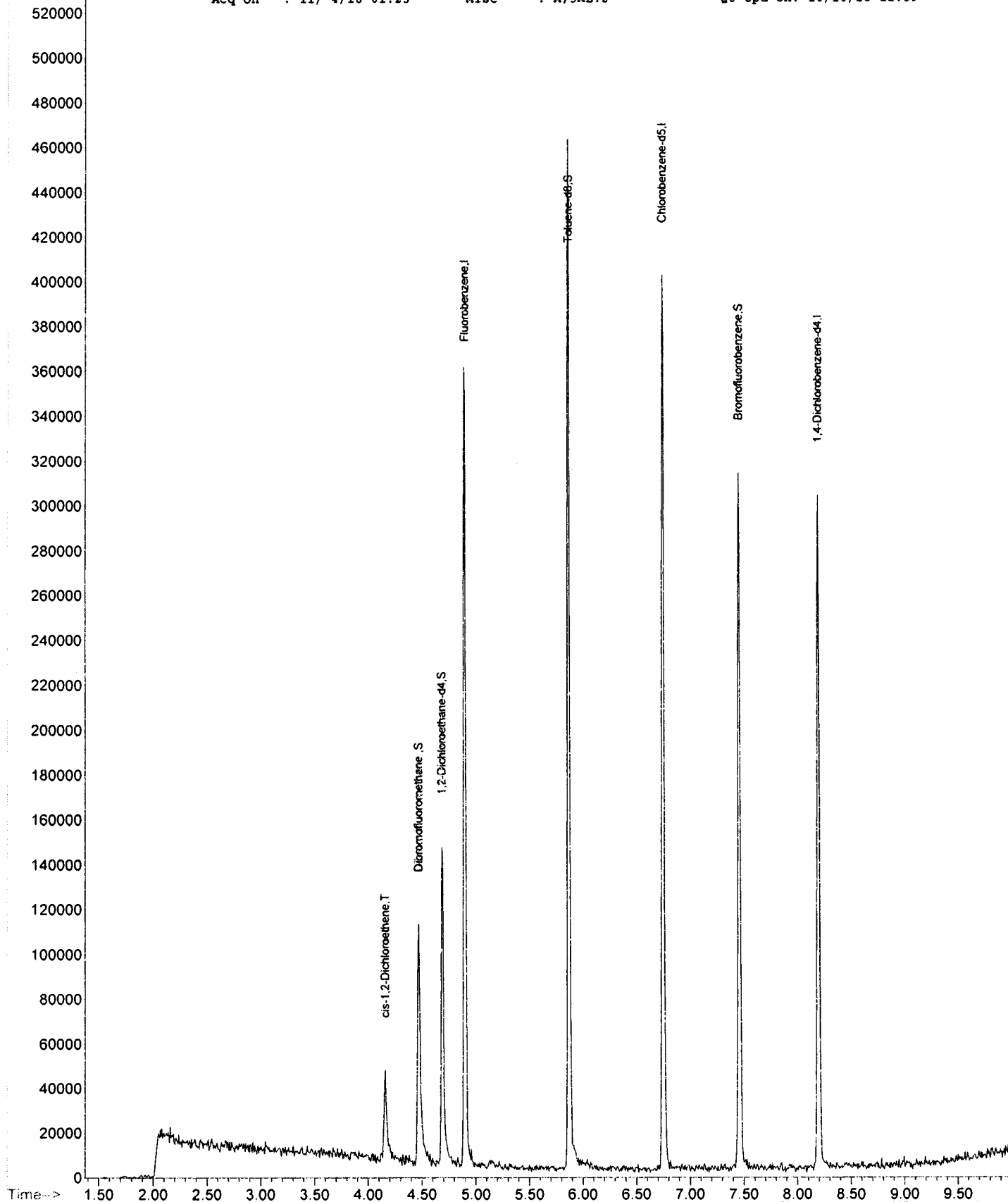
TIC: 3M139663.D\data.ms

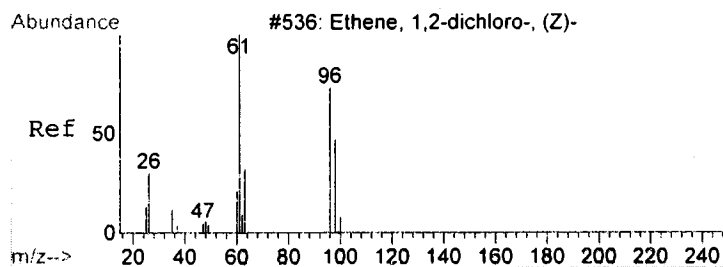
Quant QT Reviewed

SampleID : AD07391-035
Data File: 3M139663.D
Acq On : 11/ 4/18 01:23

Operator : SG
Sam Mult : 1 Vial# : 37
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59





#30

cis-1,2-Dichloroethene

Concen: 6.90 ug/l

RT: 4.159 min Scan# 392

Delta R.T. -0.006 min

Lab File: 3M139663.D

Acq: 4 Nov 2018 1:23

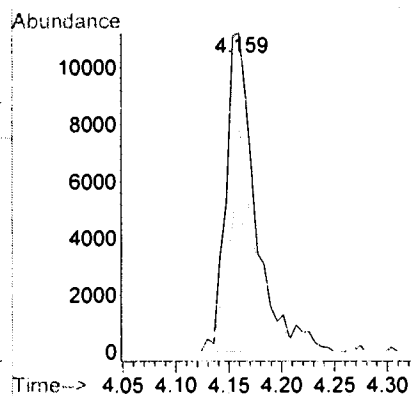
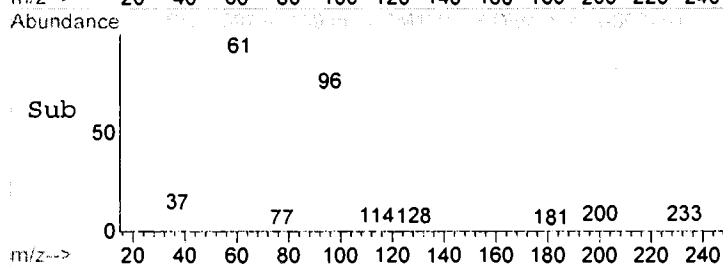
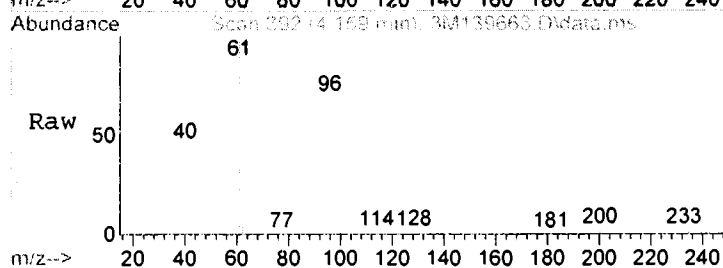
Tgt Ion: 61 Resp: 22055

Ion Ratio Lower Upper

61 100

96 69.7 8.8 88.8

98 49.8 0.0 72.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-036

Client Id: 152140-DDC-06-PD

Data File: 3M139664.D

Analysis Date: 11/04/18 01:40

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	28
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	12
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	9.3
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 49

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-036
Data File: 3M139664.D
Acq On : 11/ 4/18 01:40

Operator : SG
Sam Mult : 1 Vial# : 38
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.899	96	205624	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.749	117	172350	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	70295	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.472	111	54258	29.65	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.83%	
39) 1,2-Dichloroethane-d4	4.694	67	39431	30.68	ug/l	0.00
Spiked Amount 30.000			Recovery	=	102.27%	
66) Toluene-d8	5.872	98	211457	29.35	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.83%	
76) Bromofluorobenzene	7.458	174	74894	30.75	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	102.50%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.160	61	89399	28.4511	ug/l	81
49) Trichloroethene	5.133	130	16621	9.2846	ug/l	67
65) Tetrachloroethene	6.250	164	11695	11.8286	ug/l	89

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

Ver

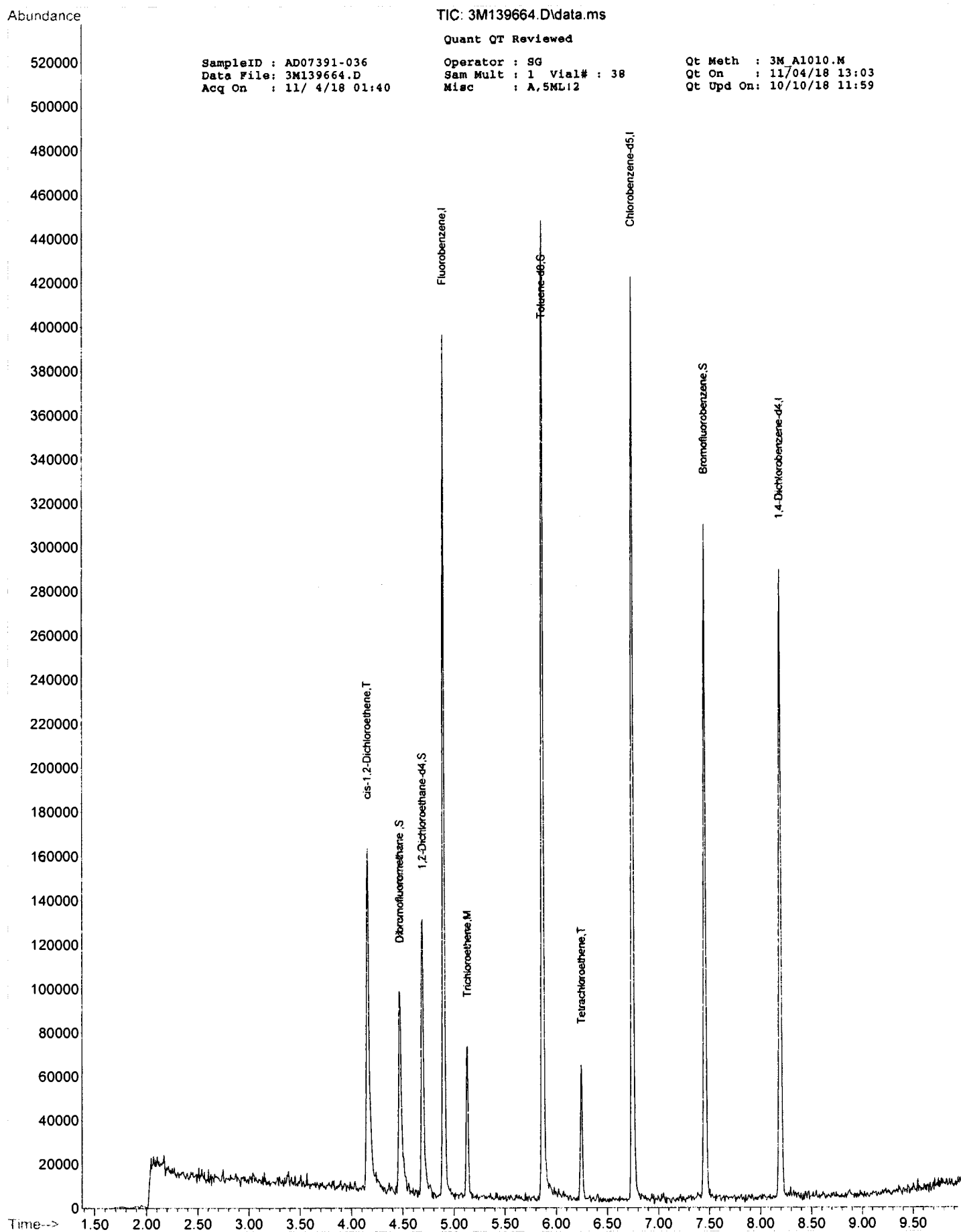
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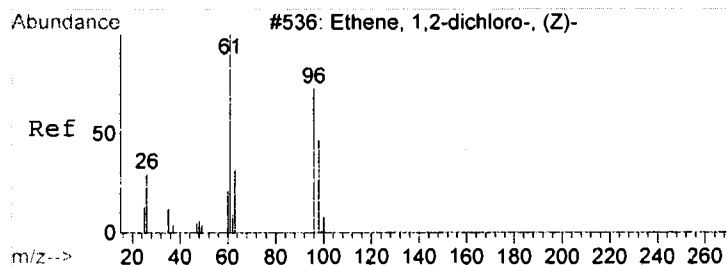
Quant QT Reviewed

SampleID : AD07391-036
Data File: 3M139664.D
Acq On : 11/ 4/18 01:40

Operator : SG
Sam Mult : 1 Vial# : 38
Misc : A,5ML12

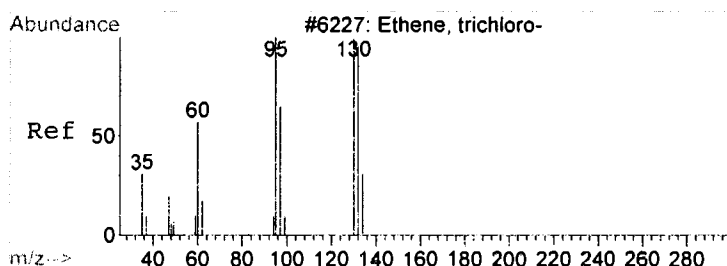
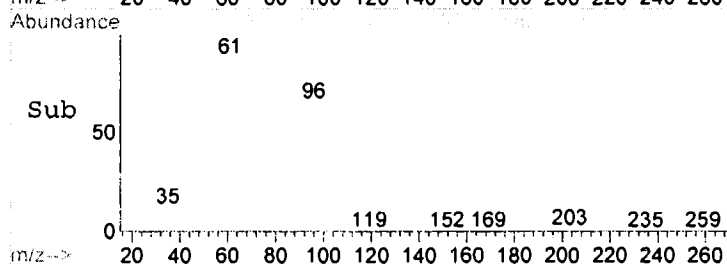
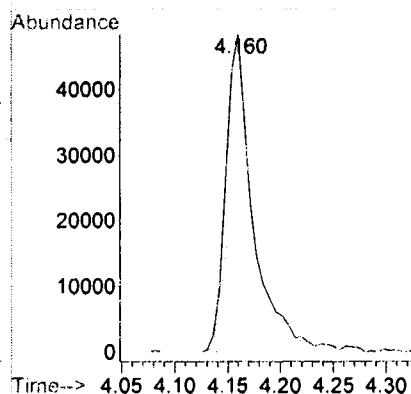
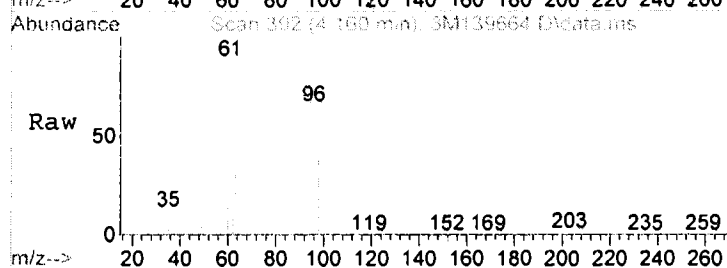
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59





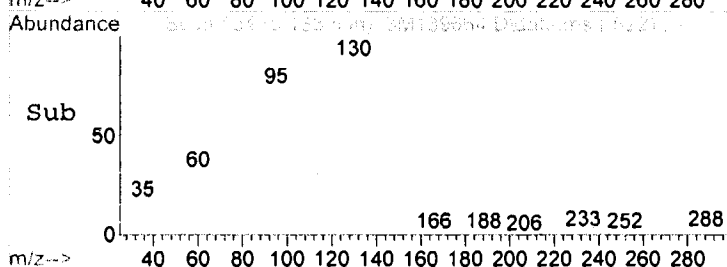
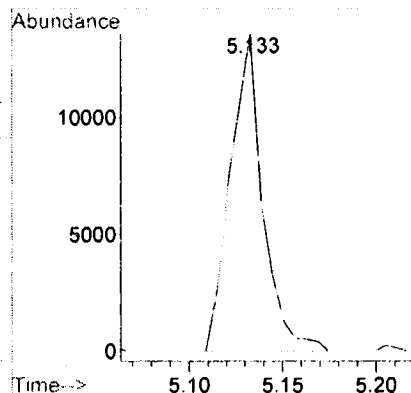
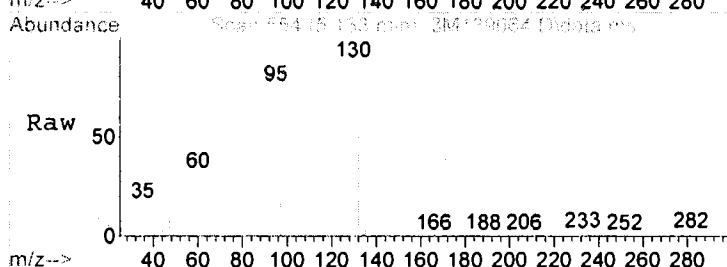
#30
cis-1,2-Dichloroethene
Concen: 28.45 ug/l
RT: 4.160 min Scan# 392
Delta R.T. -0.006 min
Lab File: 3M139664.D
Acq: 4 Nov 2018 1:40

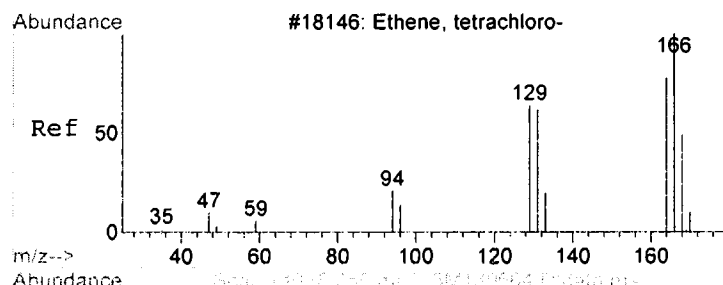
Tgt Ion	Ratio	Lower	Upper
61	100		
96	65.2	8.8	88.8
98	39.7	0.0	72.8



#49
Trichloroethene
Concen: 9.28 ug/l
RT: 5.133 min Scan# 554
Delta R.T. -0.006 min
Lab File: 3M139664.D
Acq: 4 Nov 2018 1:40

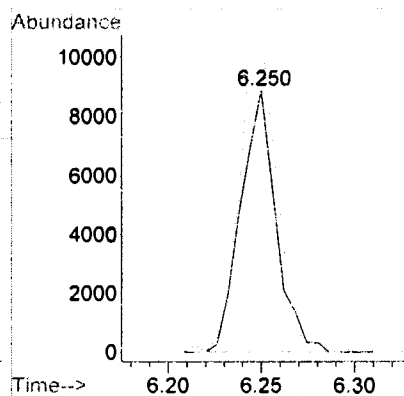
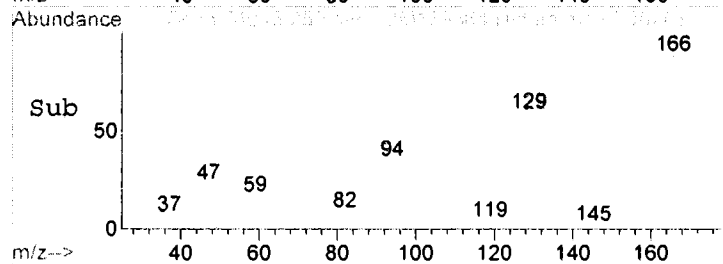
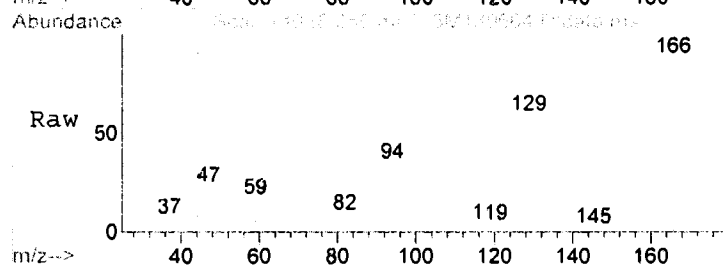
Tgt Ion	Ratio	Lower	Upper
130	100		
132	77.2	40.0	200.0
95	74.5	40.0	160.0





#65
Tetrachloroethene
Concen: 11.83 ug/l
RT: 6.250 min Scan# 740
Delta R.T. -0.006 min
Lab File: 3M139664.D
Acq: 4 Nov 2018 1:40

Tgt Ion:164 Resp: 11695
Ion Ratio Lower Upper
164 100
166 118.8 61.8 201.8



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-037

Client Id: 152140-DDC-05-PS

Data File: 3M139665.D

Analysis Date: 11/04/18 01:57

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	7.8
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	1.4
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 9.2

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-037
Data File: 3M139665.D
Acq On : 11/ 4/18 01:57

Operator : SG
Sam Mult : 1 Vial# : 39
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

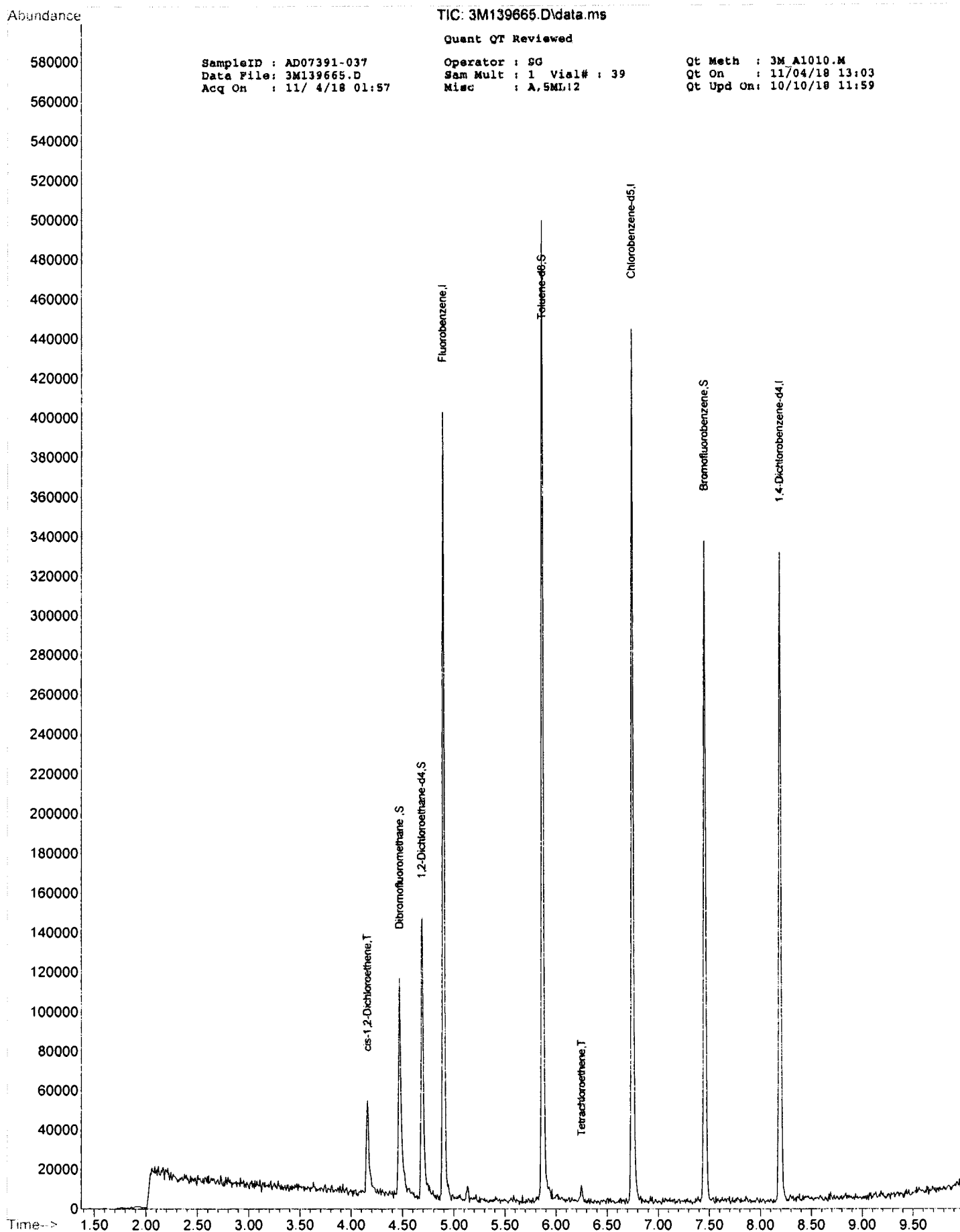
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

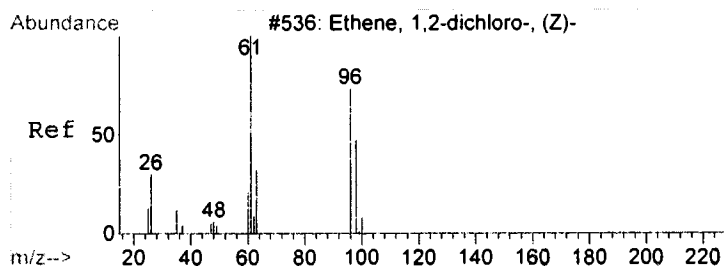
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.897	96	222492	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	178513	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.195	152	78972	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	60862	30.73	ug/l	0.00
Spiked Amount 30.000			Recovery	=	102.43%	
39) 1,2-Dichloroethane-d4	4.687	67	41147	29.58	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.60%	
66) Toluene-d8	5.870	98	231582	31.04	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.47%	
76) Bromofluorobenzene	7.456	174	80883	29.56	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.53%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.158	61	26411	7.7680	ug/l	84
65) Tetrachloroethene	6.249	164	1439	1.4011	ug/l	59

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

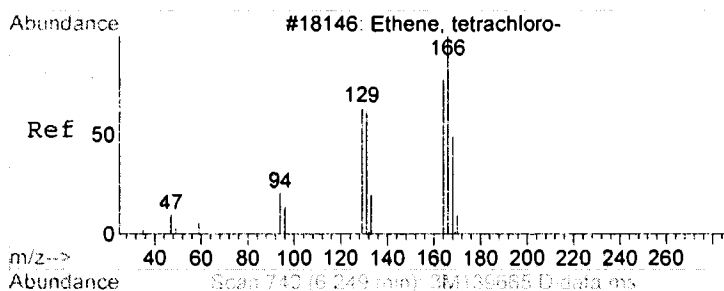
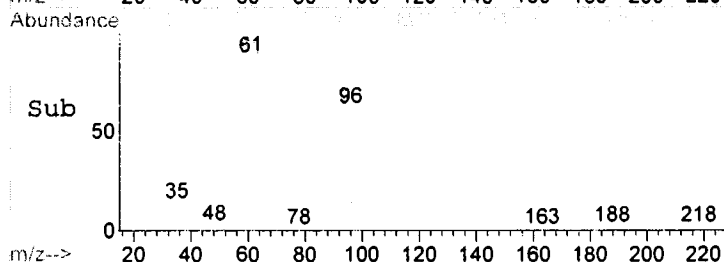
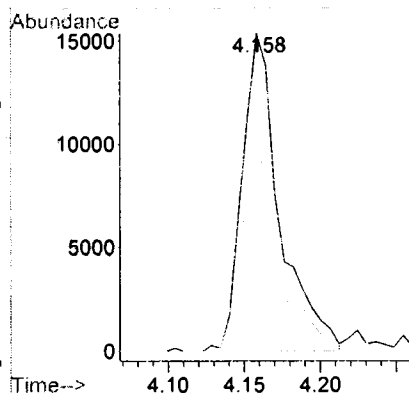
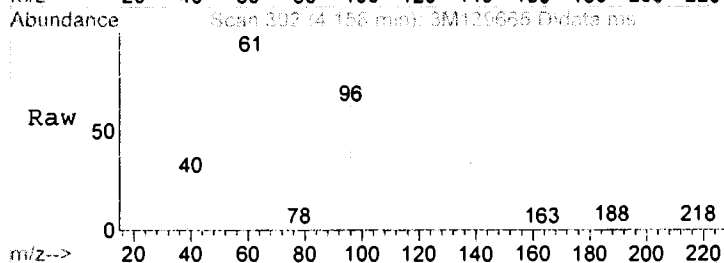
See





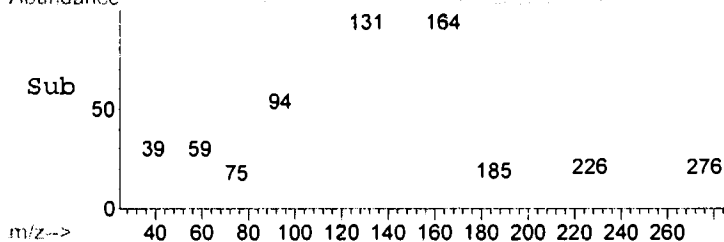
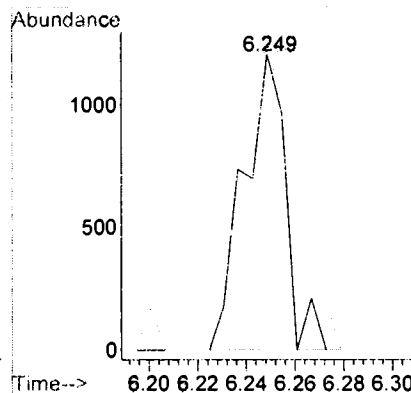
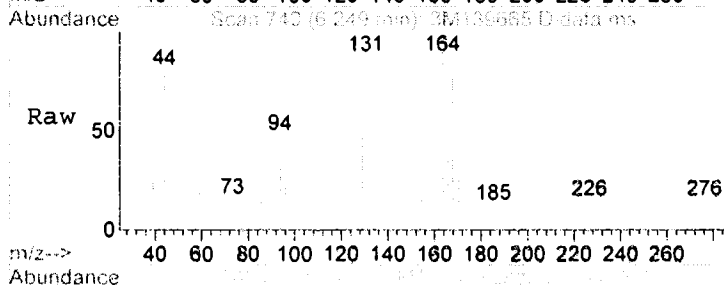
#30
 cis-1,2-Dichloroethene
 Concen: 7.77 ug/l
 RT: 4.158 min Scan# 392
 Delta R.T. -0.007 min
 Lab File: 3M139665.D
 Acq: 4 Nov 2018 1:57

Tgt Ion: 61 Resp: 26411
 Ion Ratio Lower Upper
 61 100
 96 63.0 8.8 88.8
 98 37.3 0.0 72.8



#65
 Tetrachloroethene
 Concen: 1.40 ug/l
 RT: 6.249 min Scan# 740
 Delta R.T. -0.007 min
 Lab File: 3M139665.D
 Acq: 4 Nov 2018 1:57

Tgt Ion: 164 Resp: 1439
 Ion Ratio Lower Upper
 164 100
 166 84.2 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-038

Client Id: 152140-DDC-05-PD

Data File: 3M139677.D

Analysis Date: 11/04/18 05:21

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	14
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	7.9
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-8	Trichloroethene	1.0	2.5
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 24

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-038
Data File: 3M139677.D
Acq On : 11/ 4/18 05:21

Operator : SG
Sam Mult : 1 Vial# : 51
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:06
Qt Upd On: 10/10/18 11:59

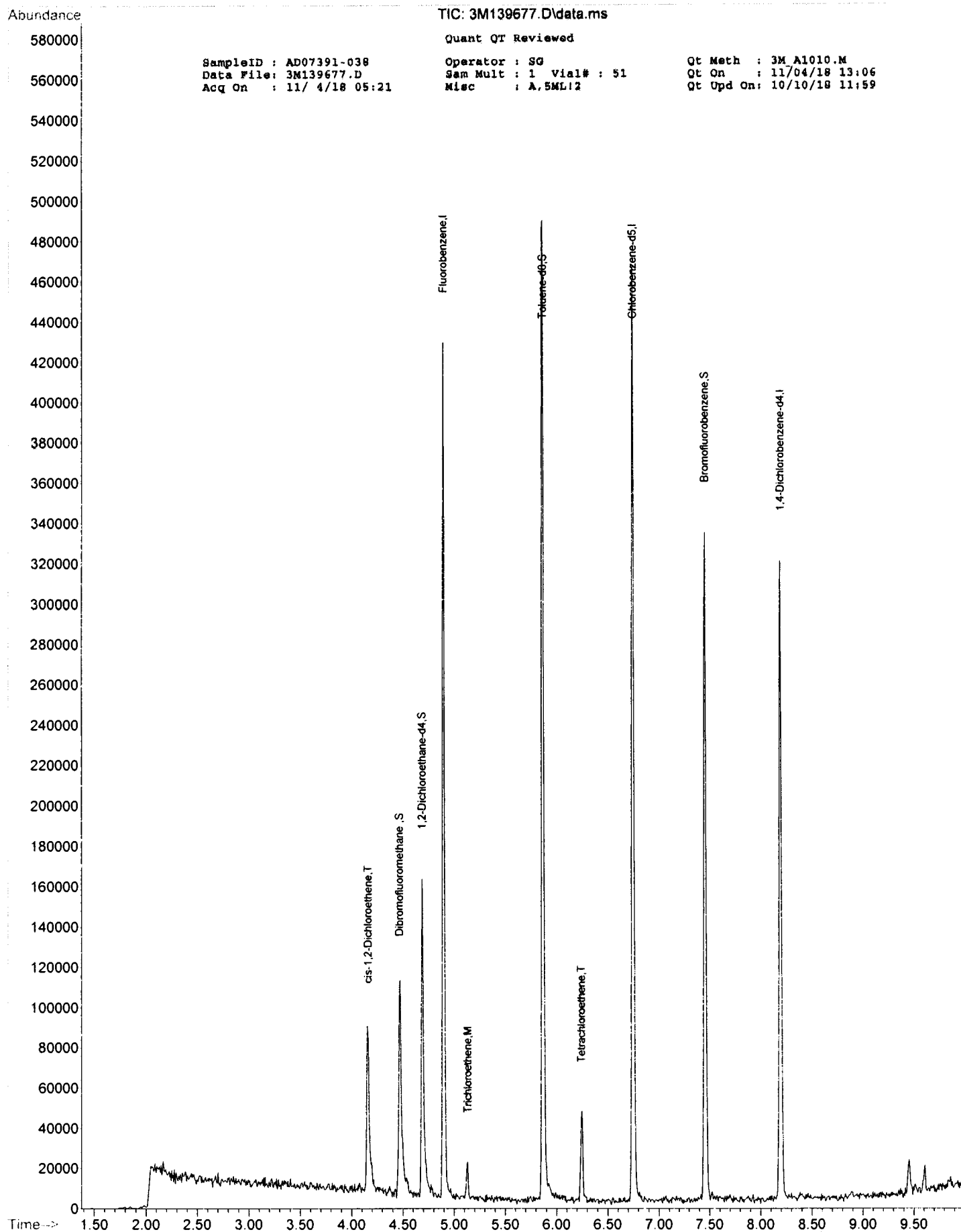
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

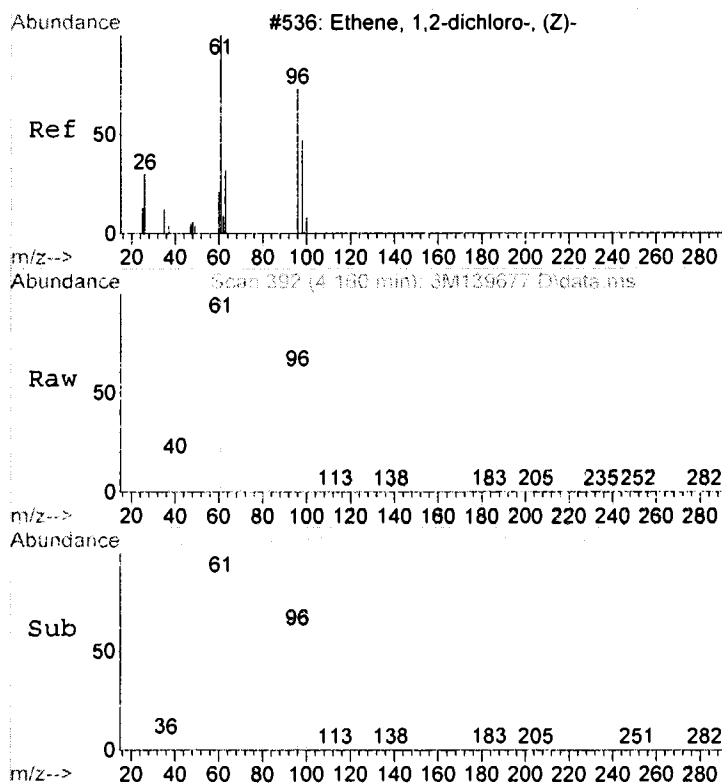
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.898	96	222609	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.749	117	189296	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	77153	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	61731	31.15	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.83%	
39) 1,2-Dichloroethane-d4	4.688	67	43403	31.19	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	103.97%	
66) Toluene-d8	5.872	98	237135	29.97	ug/l	0.00
Spiked Amount 30.000			Recovery	=	99.90%	
76) Bromofluorobenzene	7.457	174	80651	30.17	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.57%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.160	61	48492	14.2550	ug/l	86
49) Trichloroethene	5.133	130	4895	2.5258	ug/l	74
65) Tetrachloroethene	6.244	164	8604	7.9146	ug/l	84

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

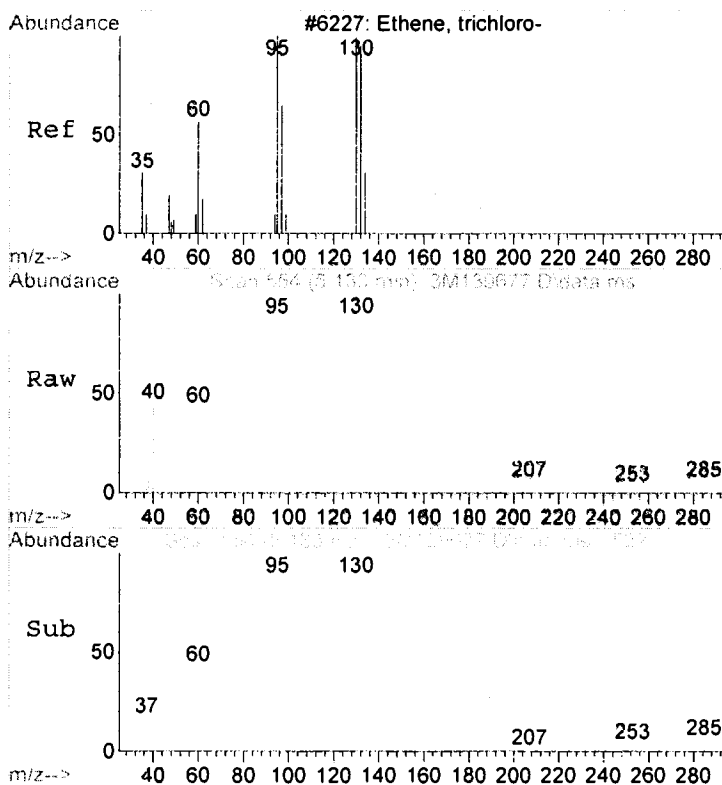
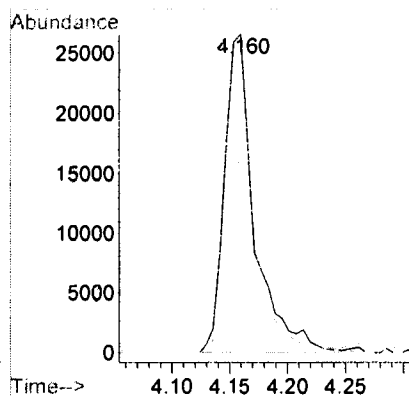
be'





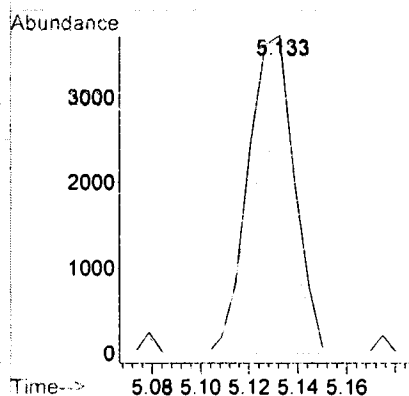
#30
cis-1,2-Dichloroethene
Concen: 14.25 ug/l
RT: 4.160 min Scan# 392
Delta R.T. -0.006 min
Lab File: 3M139677.D
Acq: 4 Nov 2018 5:21

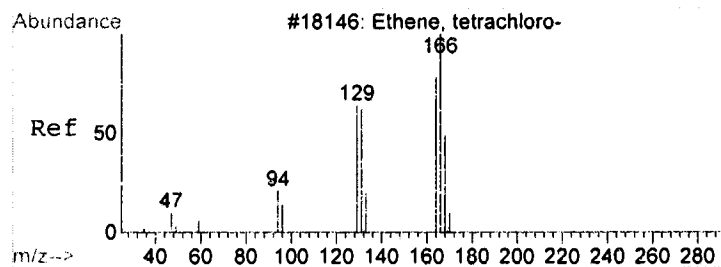
Tgt Ion	Ratio	Resp	Lower	Upper
61	100	48492		
96	61.3	8.8	88.8	
98	37.3	0.0	72.8	



#49
Trichloroethene
Concen: 2.53 ug/l
RT: 5.133 min Scan# 554
Delta R.T. -0.006 min
Lab File: 3M139677.D
Acq: 4 Nov 2018 5:21

Tgt Ion	Ratio	Resp	Lower	Upper
130	100	4895		
132	75.3	40.0	200.0	
95	91.8	40.0	160.0	





#65

Tetrachloroethene

Concen: 7.91 ug/l

RT: 6.244 min Scan# 739

Delta R.T. -0.012 min

Lab File: 3M139677.D

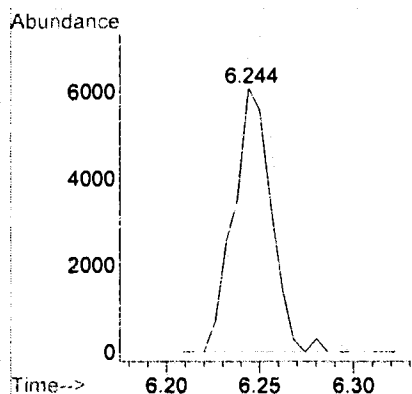
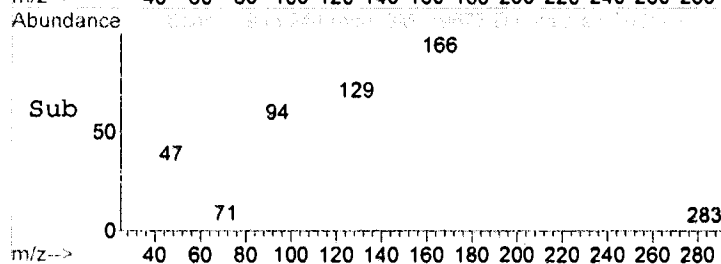
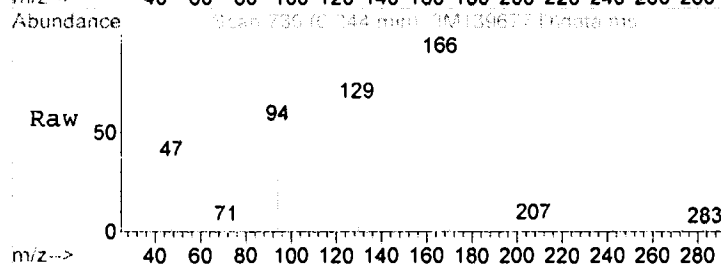
Acq: 4 Nov 2018 5:21

Tgt Ion:164 Resp: 8604

Ion Ratio Lower Upper

164 100

166 112.9 61.8 201.8



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-039
Client Id: 152140-MW-2D
Data File: 3M139678.D
Analysis Date: 11/04/18 05:38
Date Rec/Extracted: 10/26/18-NA
Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C
Matrix: Aqueous
Initial Vol: 5ml
Final Vol: NA
Dilution: 1.00
Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	3.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	4.1
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	1.6	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 8.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration uses

Chlordane (Total) is sum of α-Chlordane and γ-Chlordane.

SampleID : AD07391-039
Data File: 3M139678.D
Acq On : 11/ 4/18 05:38

Operator : SG
Sam Mult : 1 Vial# : 52
Misc : A,5ML:2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.897	96	209233	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	173204	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.189	152	71464	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	56953	30.58	ug/l	0.00
Spiked Amount	30.000		Recovery	=	101.93%	
39) 1,2-Dichloroethane-d4	4.687	67	37764	28.87	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	96.23%	
66) Toluene-d8	5.864	98	214820	29.67	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	98.90%	
76) Bromofluorobenzene	7.456	174	76331	30.83	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	102.77%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.158	61	13047	4.0806	ug/l	80
36) Chloroform	4.363	83	10314m	3.0466	ug/l	
45) Bromodichloromethane	5.426	83	4359	1.6386	ug/l	85

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

un

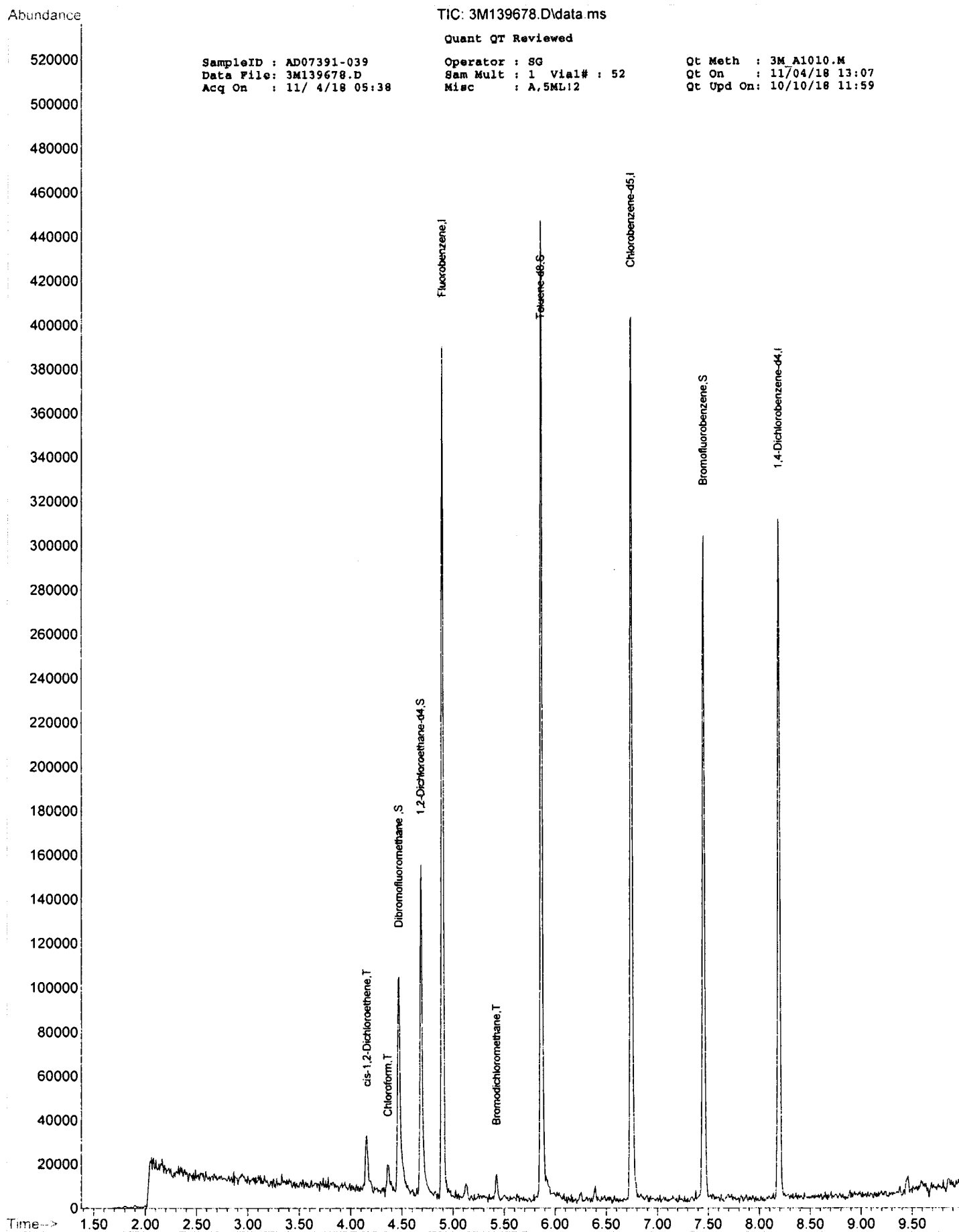
TIC: 3M139678.D\data.ms

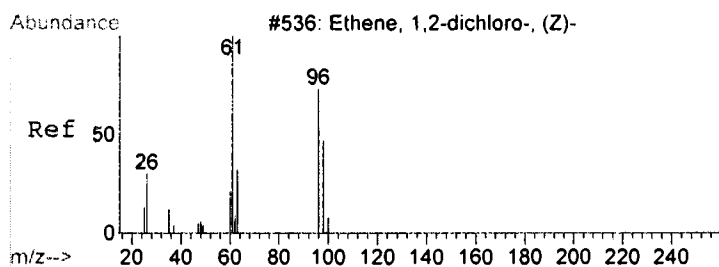
Quant QT Reviewed

SampleID : AD07391-039
Data File: 3M139678.D
Acq On : 11/ 4/18 05:38

Operator : SG
Sam Mult : 1 Vial# : 52
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59





#30

cis-1,2-Dichloroethene

Concen: 4.08 ug/l

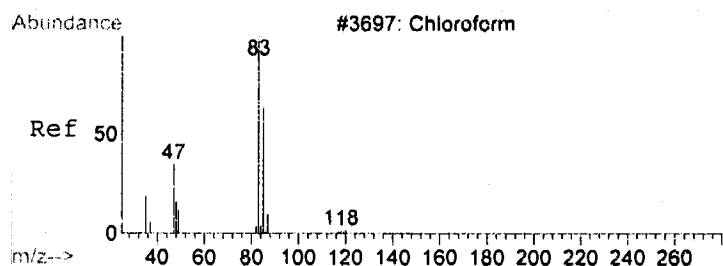
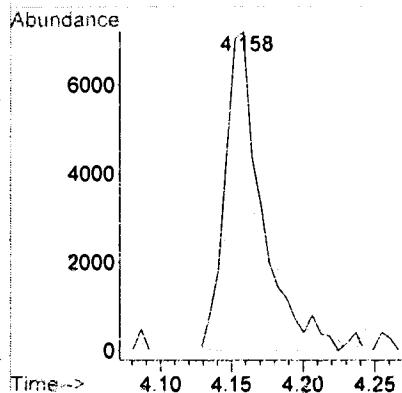
RT: 4.158 min Scan# 392

Delta R.T. -0.007 min

Lab File: 3M139678.D

Acq: 4 Nov 2018 5:38

Tgt Ion:	61	Resp:	13047
Ion	Ratio	Lower	Upper
61	100		
96	66.7	8.8	88.8
98	38.4	0.0	72.8



#36

Chloroform

Concen: 3.05 ug/l m

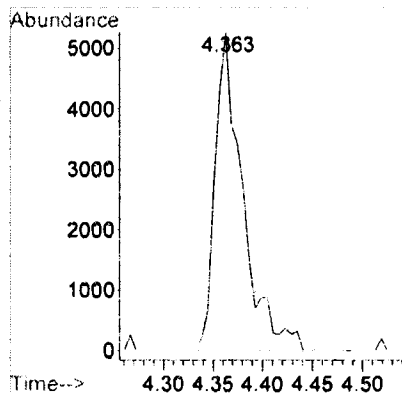
RT: 4.363 min Scan# 426

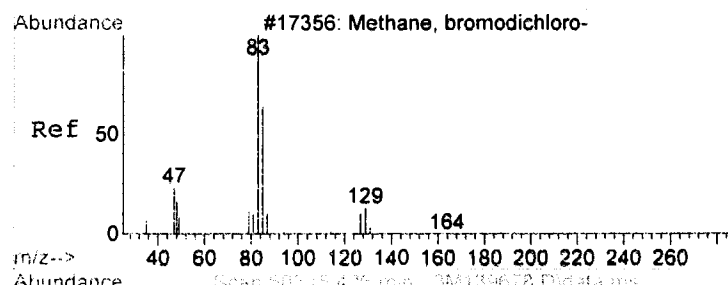
Delta R.T. -0.007 min

Lab File: 3M139678.D

Acq: 4 Nov 2018 5:38

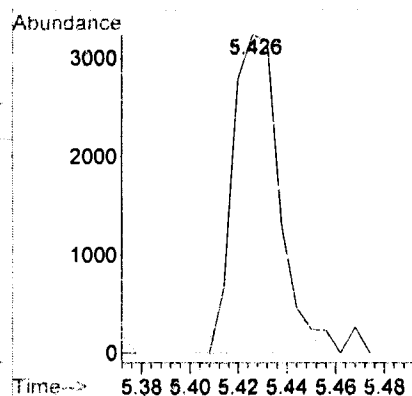
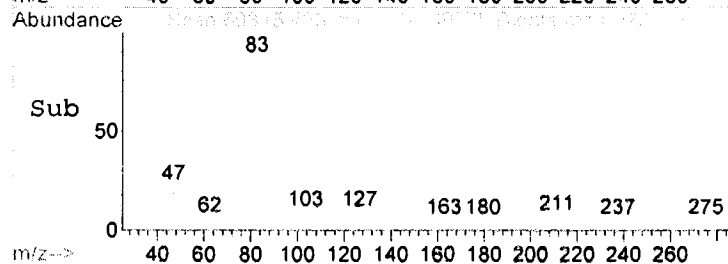
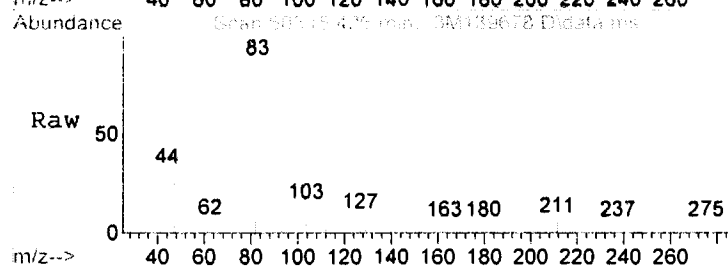
Tgt Ion:	83	Resp:	10314
Ion	Ratio	Lower	Upper
83	100		
85	68.7	36.0	116.0





#45
Bromodichloromethane
Concen: 1.64 ug/l
RT: 5.426 min Scan# 603
Delta R.T. -0.013 min
Lab File: 3M139678.D
Acq: 4 Nov 2018 5:38

Tgt Ion: 83 Resp: 4359
Ion Ratio Lower Upper
83 100
85 56.3 28.9 108.9



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-040

Client Id: 152140-MW-2S

Data File: 3M139679.D

Analysis Date: 11/04/18 05:55

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	1.1
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	1.6
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-80-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 2.7

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-040
Data File: 3M139679.D
Acq On : 11/ 4/18 05:55

Operator : SG
Sam Mult : 1 Vial# : 53
Misc : A,SML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

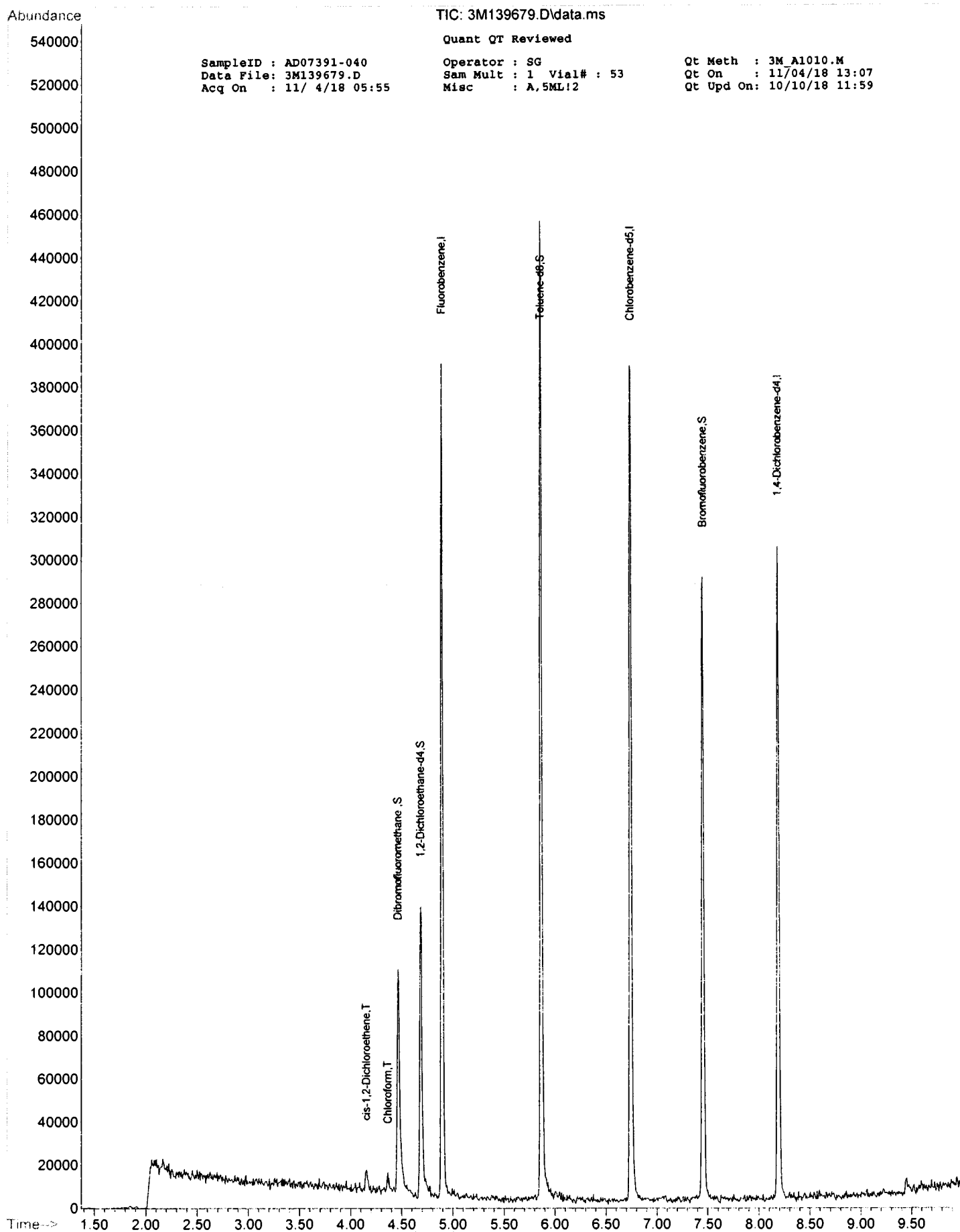
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

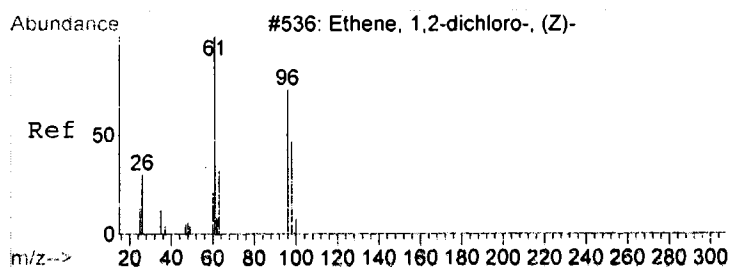
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
4) Fluorobenzene	4.898	96	205931	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	179316	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.190	152	70514	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	54767	29.88	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.60%	
39) 1,2-Dichloroethane-d4	4.688	67	39235	30.48	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	101.60%	
66) Toluene-d8	5.865	98	213033	28.42	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	94.73%	
76) Bromofluorobenzene	7.457	174	73408	30.05	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.17%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.153	61	4920	1.5634	ug/l	93
36) Chloroform	4.363	83	3550	1.0654	ug/l	80

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

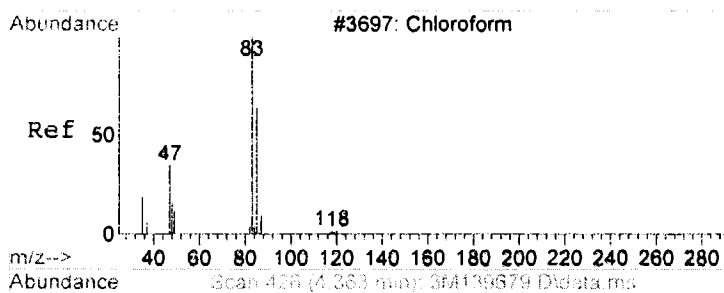
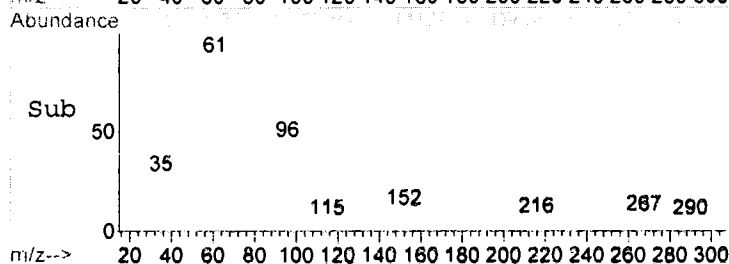
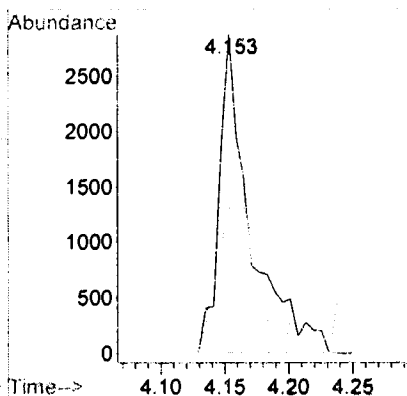
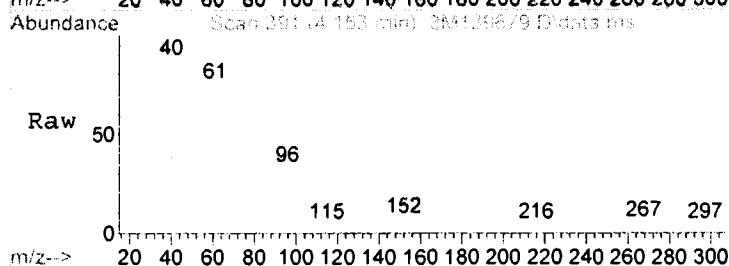
ue





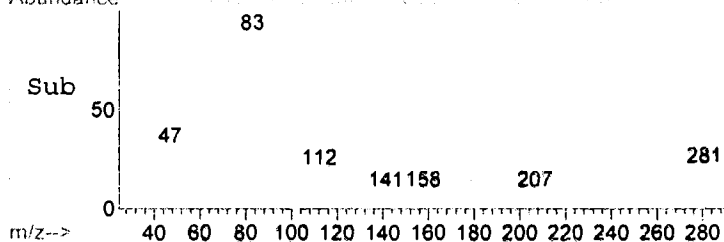
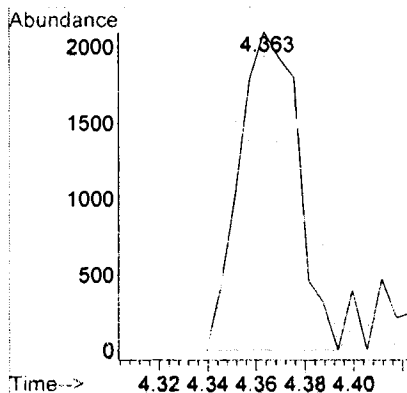
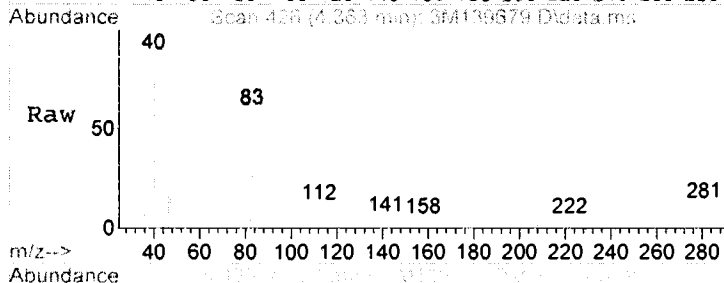
#30
cis-1,2-Dichloroethene
Concen: 1.56 ug/l
RT: 4.153 min Scan# 391
Delta R.T. -0.012 min
Lab File: 3M139679.D
Acq: 4 Nov 2018 5:55

Tgt Ion:	61	Resp:	4920
Ion	Ratio	Lower	Upper
61	100		
96	44.9	8.8	88.8
98	28.2	0.0	72.8



#36
Chloroform
Concen: 1.07 ug/l
RT: 4.363 min Scan# 426
Delta R.T. -0.006 min
Lab File: 3M139679.D
Acq: 4 Nov 2018 5:55

Tgt Ion:	83	Resp:	3550
Ion	Ratio	Lower	Upper
83	100		
85	93.0	36.0	116.0



Form1
ORGANICS VOLATILE REPORT

Sample Number: AD07391-041

Client Id: 152140-MW-3D(OFFSITE)

Data File: 3M139680.D

Analysis Date: 11/04/18 06:12

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	31
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	12
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	2.4
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 45

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : AD07391-041
Data File: 3M139680.D
Acq On : 11/ 4/18 06:12

Operator : SG
Sam Mult : 1 Vial# : 54
Misc : A,5ML!2

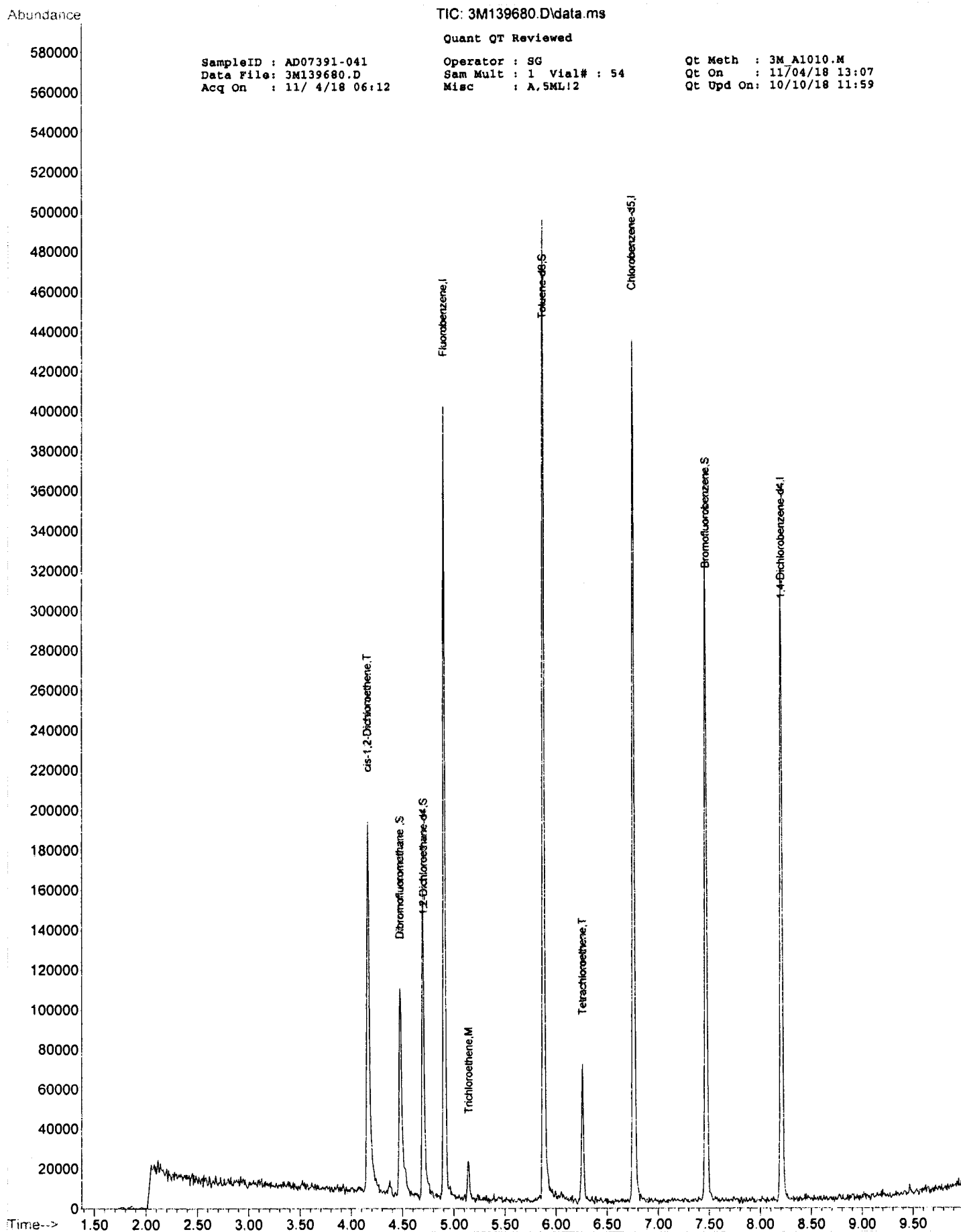
Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

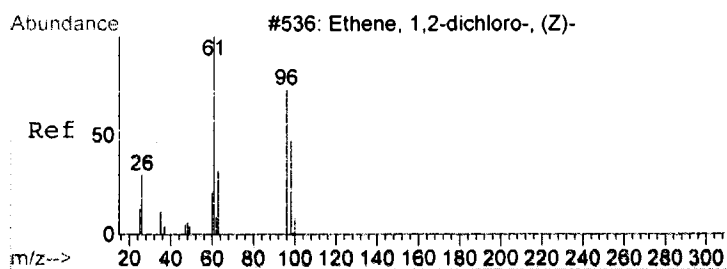
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.909	96	225152	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.759	117	182888	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.213	152	73727	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	62807	31.34	ug/l	0.00
Spiked Amount	30.000		Recovery	=	104.47%	
39) 1,2-Dichloroethane-d4	4.705	67	40422	28.72	ug/l	0.00
Spiked Amount	30.000		Recovery	=	95.73%	
66) Toluene-d8	5.882	98	228431	29.88	ug/l	0.00
Spiked Amount	30.000		Recovery	=	99.60%	
76) Bromofluorobenzene	7.474	174	76340	29.89	ug/l	0.00
Spiked Amount	30.000		Recovery	=	99.63%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.164	61	108096	31.4176	ug/l	82
49) Trichloroethene	5.144	130	4774	2.4355	ug/l	59
65) Tetrachloroethene	6.261	164	12866	12.2646	ug/l	100

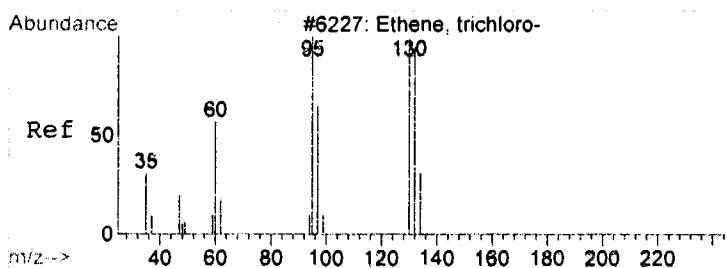
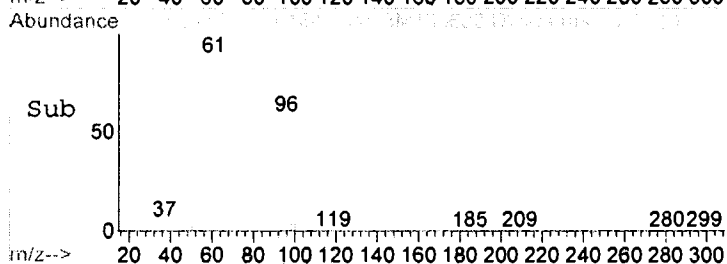
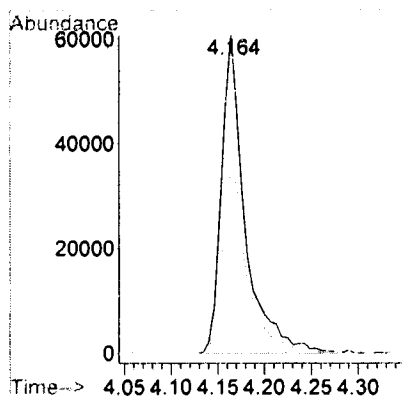
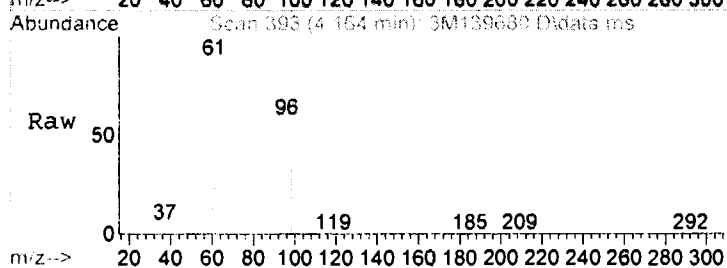
(#) = qualifier out of range (m) = manual integration (+) = signals summed





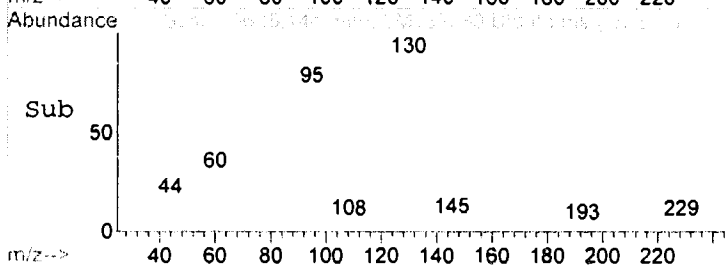
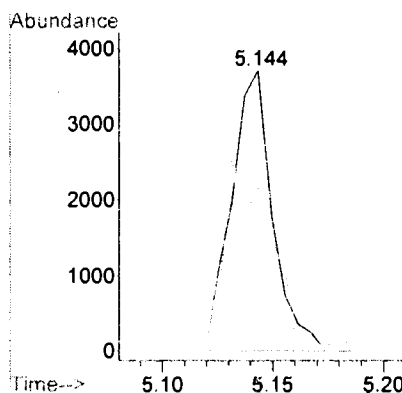
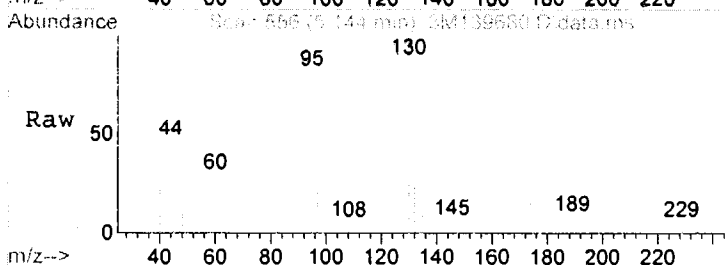
#30
cis-1,2-Dichloroethene
Concen: 31.42 ug/l
RT: 4.164 min Scan# 393
Delta R.T. -0.001 min
Lab File: 3M139680.D
Acq: 4 Nov 2018 6:12

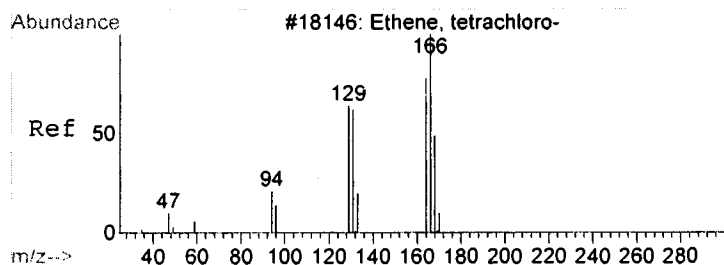
Tgt Ion:	61	Resp:	108096
Ion	Ratio	Lower	Upper
61	100		
96	58.0	8.8	88.8
98	46.1	0.0	72.8



#49
Trichloroethene
Concen: 2.44 ug/l
RT: 5.144 min Scan# 556
Delta R.T. 0.005 min
Lab File: 3M139680.D
Acq: 4 Nov 2018 6:12

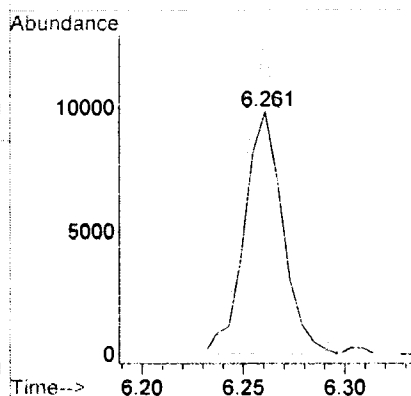
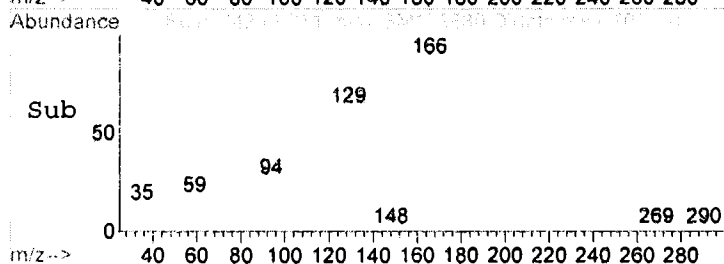
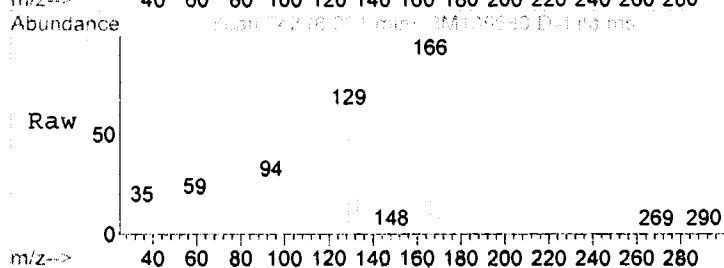
Tgt Ion:	130	Resp:	4774
Ion	Ratio	Lower	Upper
130	100		
132	53.4	40.0	200.0
95	81.9	40.0	160.0





#65
Tetrachloroethene
Concen: 12.26 ug/l
RT: 6.261 min Scan# 742
Delta R.T. 0.005 min
Lab File: 3M139680.D
Acq: 4 Nov 2018 6:12

Tgt Ion:164 Resp: 12866
Ion Ratio Lower Upper
164 100
166 131.3 61.8 201.8



Form1

ORGANICS VOLATILE REPORT

Sample Number: AD07391-042

Client Id: 152140-MW-3S(OFFSITE)

Data File: 3M139681.D

Analysis Date: 11/04/18 06:29

Date Rec/Extracted: 10/26/18-NA

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U	1330-20-7	Xylenes (Total)	1.0	U

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration used

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : AD07391-042
Data File: 3M139681.D
Acq On : 11/ 4/18 06:29

Operator : SG
Sam Mult : 1 Vial# : 55
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.904	96	243647	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.754	117	192927	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.201	152	80000	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	63496	29.28	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.60%	
39) 1,2-Dichloroethane-d4	4.693	67	46084	30.26	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.87%	
66) Toluene-d8	5.871	98	248050	30.76	ug/l	0.00
Spiked Amount 30.000			Recovery	=	102.53%	
76) Bromofluorobenzene	7.462	174	84211	30.38	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.27%	
Target Compounds						Qvalue

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

21

Abundance

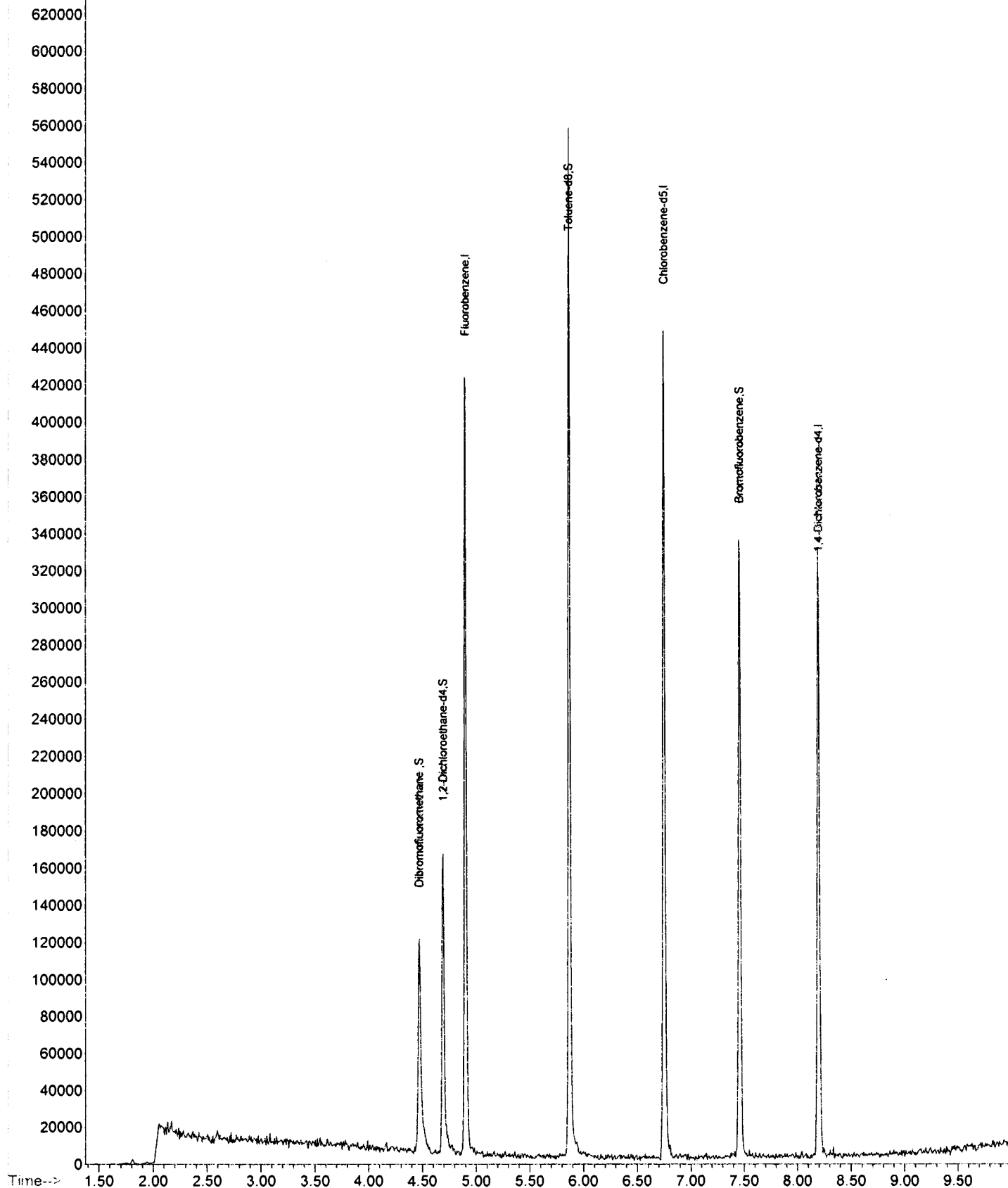
TIC: 3M139681.D\data.ms

Quant Q1 Reviewed

SampleID : AD07191-042
Data File: 3M139681.D
Acq On : 11/ 4/18 06:29

Operator : SG
Sam Mult : 1 Vial# : 55
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59



GC/MS Volatile Data
Standards Data

Level #	Data File	Cal Identifier	Analysis Date/Time					Level #	Data File	Cal Identifier	Analysis Date/Time															
			RF1	RF2	RF3	RF4	RF5				RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7
1	3M137828.D	CAL @ 20 PPB	0.3337	0.4331	0.5109	0.3100	0.2758	0.2814	0.2917	0.3801	---	0.3521	5.4	0.999	1.00	24	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
3	3M137827.D	CAL @ 10 PPB	0.1780	0.2008	0.2309	0.1689	0.1519	0.1635	0.1789	0.1818	---	0.1821	5.3	0.998	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
5	3M137834.D	CAL @ 100 PPB	0.2689	0.3183	0.3427	0.2430	0.2112	0.2006	0.2247	0.4651	---	0.2841	6.9	0.997	0.999	31	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
7	3M137830.D	CAL @ 500 PPB	0.1119	0.1184	0.1524	0.1023	0.0868	0.0703	0.0382	0.2253	---	0.1132	0.5	0.865	0.999	50	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
9	3M137824.D	CAL @ 0.5 PPB	0.2046	0.2135	0.2412	0.1788	0.1638	0.1689	0.1677	0.2094	---	0.1941	7.6	1.00	1.00	14	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Compound	Chlorodifluoromethane	1 0 Qua	0.3337	0.4331	0.5109	0.3100	0.2758	0.2814	0.2917	0.3801	---	0.3521	5.4	0.999	1.00	24	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Dichlorodifluorometha	1 0 Avg	0.1780	0.2008	0.2309	0.1689	0.1519	0.1635	0.1789	0.1818	---	0.1821	5.3	0.998	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Chloromethane	1 0 Qua	0.2689	0.3183	0.3427	0.2430	0.2112	0.2006	0.2247	0.4651	---	0.2841	6.9	0.997	0.999	31	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Bromomethane	1 0 Qua	0.1119	0.1184	0.1524	0.1023	0.0868	0.0703	0.0382	0.2253	---	0.1132	0.5	0.865	0.999	50	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Vinyl Chloride	1 0 Avg	0.2046	0.2135	0.2412	0.1788	0.1638	0.1689	0.1677	0.2094	---	0.1941	7.6	1.00	1.00	14	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Chloroethane	1 0 Qua	0.1028	0.1103	0.1341	0.1033	0.0839	0.0786	0.0695	0.1686	---	0.1062	2.14	0.995	0.999	30	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Trichlorofluoromethan	1 0 Avg	0.3175	0.2697	0.3647	0.2506	0.2395	0.2566	0.2667	0.3761	---	0.2932	2.34	0.999	1.00	18	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Ethyl ether	1 0 Avg	0.2411	0.2711	0.3132	0.2363	0.2297	0.2189	0.2208	0.2941	---	0.2532	2.57	1.00	1.00	14	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Furan	1 0 Avg	0.5821	0.7316	0.8010	0.5858	0.5194	0.5476	0.5469	0.6892	---	0.6252	6.0	1.00	1.00	16	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	1,1,2-Trichloro-1,2,2-tr	1 0 Qua	0.1426	0.1778	0.2277	0.1228	0.1195	0.1165	0.1173	0.1793	---	0.1502	7.5	1.00	1.00	27	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Methylene Chloride	1 0 Qua	0.2797	0.2730	0.3665	0.2665	0.2311	0.2314	0.2349	0.4193	---	0.2883	3.16	1.00	1.00	24	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Acrolein	1 0 Avg	0.0464	0.0466	0.0636	0.0477	0.0448	0.0427	0.0432	0.0454	---	0.0476	2.68	1.00	1.00	14	---	100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	5.00	
	Acrylonitrile	1 0 Avg	0.1096	0.1201	0.1304	0.1055	0.1033	0.0974	0.1033	0.0854	---	0.1073	3.36	0.999	1.00	13	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Iodomethane	1 0 Avg	0.3074	0.2850	0.3734	0.2930	0.2750	0.2535	0.2672	0.2123	---	0.2832	9.0	0.999	0.999	16	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Acetone	1 0 Avg	0.1031	0.1097	0.1295	0.0874	0.0864	0.0826	0.0846	0.0982	---	0.0977	2.80	1.00	1.00	16	0.10	100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	5.00	
	Carbon Disulfide	1 0 Avg	0.8512	0.8297	1.0826	0.7664	0.6856	0.6881	0.6884	0.8658	---	0.8072	9.6	1.00	1.00	17	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	t-Butyl Alcohol	1 0 Avg	0.0177	0.0193	0.0247	0.0171	0.0196	0.0188	0.0202	0.0273	---	0.0206	3.22	0.999	1.00	17	---	100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	5.00	
	n-Hexane	1 0 Avg	0.0965	0.1190	0.1618	0.1028	0.0985	0.1117	0.1194	0.0984	---	0.1143	6.1	0.998	1.00	19	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Di-isopropyl-ether	1 0 Avg	0.9075	0.8796	1.1165	0.8534	0.8002	0.7650	0.6980	0.8015	---	0.8533	7.7	0.998	1.00	15	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	1,1-Dichloroethene	1 0 Avg	0.3700	0.3684	0.4830	0.3547	0.3140	0.3216	0.3143	0.3795	---	0.3632	7.7	1.00	1.00	15	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Methyl Acetate	1 0 Avg	0.3264	0.3533	0.4097	0.2927	0.2879	0.3026	0.3067	0.4082	---	0.3363	3.07	1.00	1.00	15	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Methyl-t-butyl ether	1 0 Avg	0.5773	0.5806	0.7810	0.5791	0.5505	0.5235	0.4797	0.6298	0.5284	---	0.5813	3.38	0.998	1.00	15	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
	1,1-Dichloroethane	1 0 Avg	0.4532	0.4854	0.6236	0.4405	0.4024	0.3942	0.3959	0.4388	---	0.4543	7.4	1.00	1.00	17	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	trans-1,2-Dichloroethane	1 0 Avg	0.2312	0.2329	0.3032	0.2409	0.2170	0.2030	0.1963	0.2807	---	0.2383	3.38	0.999	1.00	16	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
	Ethyl-t-butyl ether	1 0 Avg	0.7179	0.6719	0.9202	0.7002	0.6731	0.6483	0.6006	0.5230	---	0.6824	4.04	0.998	1.00	17	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
cis-1,2-Dichloroethene	1 0 Avg	0.4802	0.4848	0.6313	0.4633	0.4192	0.4006	0.3815	0.4062	---	0.4584	4.17	0.999	1.00	17	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Bromochloromethane	1 0 Avg	0.3162	0.3642	0.3306	0.2291	0.2194	0.2703	0.2166	0.2799	---	0.2784	4.33	0.987	0.995	20	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
2,2-Dichloropropane	1 0 Qua	0.3397	0.3578	0.4516	0.3075	0.2735	0.2654	0.2483	0.2914	---	0.3174	4.17	0.999	1.00	21	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Ethyl acetate	1 0 Avg	0.3301	0.3070	0.4692	0.3145	0.2930	0.2835	0.2988	0.2762	---	0.3224	4.20	0.999	1.00	19	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,4-Dioxane	1 0 Qua	0.0030	0.0029	0.0037	0.0027	0.0028	0.0027	0.0026	0.0013	---	0.0027	6.5	1.00	1.00	24	---	100.0	25.00	50.00	250.0	500.0	1250.0	2500.0	50.00		
1,1-Dichloropropene	1 0 Avg	0.3356	0.3007	0.4454	0.3101	0.2826	0.2718	0.2491	0.3196	---	0.3144	4.61	0.998	1.00	19	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Chloroform	1 0 Avg	0.4897	0.5436	0.6780	0.4451	0.4113	0.4005	0.4025	0.5123	---	0.4854	4.37	1.00	1.00	19	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
Dibromofluoromethan	1 0 Avg	0.2579	0.2781	0.2833	0.2736	0.2602	0.2493	0.2329	0.2812	0.2865	---	0.2674	4.48	1.00	6.8	---	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00		
Cyclohexane	1 0 Avg	0.1864	0.1887	0.2603	0.1923	0.1909	0.2041	0.2042	0.2339	---	0.2084	5.4	1.00	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00		
1,2-Dichloroethane-d4	1 0 Avg	0.1975	0.1924	0.1949	0.1884	0.1892	0.1668	0.1671	0.1965	0.1937	---	0.1884	4.70	1.00	6.4	---	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00		
1,2-Dichloroethane	1 0 Qua	0.4530	0.4863	0.6366	0.4159	0.3620	0.3208	0.2904	0.4907	0.4421	---	0.4334	4.75	0.996	0.999	24	0.10	20.00	5.00	10.00	50.00					

Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria (if applicable)

Note:

Corr 1 = Correlation Coefficient for linear Eq.
Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

Level #:	Data File:	Cal Identifier:	Analysis Date/Time	Level #:	Data File:	Cal Identifier:	Analysis Date/Time																			
1	3M137828.D	CAL @ 20 PPB	10/10/18 09:01	2	3M137826.D	CAL @ 5 PPB	10/10/18 08:27																			
3	3M137827.D	CAL @ 10 PPB	10/10/18 08:44	4	3M137829.D	CAL @ 50 PPB	10/10/18 09:18																			
5	3M137834.D	CAL @ 100 PPB	10/10/18 10:45	6	3M137832.D	CAL @ 250 PPB	10/10/18 10:10																			
7	3M137830.D	CAL @ 500 PPB	10/10/18 09:35	8	3M137825.D	CAL @ 1 PPB	10/10/18 08:10																			
9	3M137824.D	CAL @ 0.5 PPB	10/10/18 07:52																							
Compound	Col	Mr	Fit	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Lvl1	Lvl2	Lvl3	Lvl4	Lvl5	Lvl6	Lvl7	Lvl8	Lvl9
Methylcyclohexane	1	0	Avq	0.1466	0.1345	0.1828	0.1459	0.1380	0.1445	0.1403	0.1258	---	0.145	5.26	1.00	1.00	12	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Dibromomethane	1	0	Qua	0.2210	0.2521	0.2942	0.1991	0.1772	0.1622	0.1537	0.1864	---	0.206	5.35	0.999	1.00	23	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dichloropropane	1	0	Avq	0.2797	0.2659	0.3640	0.2577	0.2390	0.2295	0.2244	0.3371	---	0.275	5.28	1.00	1.00	19	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Trichloroethene	1	0	Avq	0.2731	0.2483	0.3455	0.2558	0.2327	0.2206	0.2114	0.3016	---	0.261	5.14	0.999	1.00	17	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Benzene	1	0	Qua	1.0089	0.9983	1.2874	0.9349	0.8334	0.7280	0.6159	0.9507	0.9154	0.919	4.74	0.990	1.00	21	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	0.50
tert-Amyl methyl ether	1	0	Avq	0.6293	0.6138	0.8063	0.6266	0.6015	0.5716	0.5304	0.5323	---	0.614	4.79	0.998	1.00	14	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Iso-propylacetate	1	0	Avq	0.7116	0.6235	0.9098	0.6715	0.6378	0.5742	0.5455	0.5980	---	0.659	4.75	0.999	1.00	17	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Methyl methacrylate	1	0	Avq	0.3897	0.3979	0.5131	0.4156	0.4060	0.3570	0.3794	0.2725	---	0.391	5.31	0.999	0.999	17	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Dibromochloromethan	1	0	Avq	0.3610	0.3574	0.4464	0.3479	0.3131	0.2997	0.3245	0.3822	---	0.354	6.40	0.998	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
2-Chloroethylvinylthe	1	0	Qua	0.1491	0.1299	0.1544	0.1665	0.1690	0.1712	0.1953	0.0821	---	0.152	5.60	0.997	1.00	22	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
cis-1,3-Dichloropropen	1	0	Avq	0.5335	0.5204	0.6710	0.5258	0.4809	0.4619	0.4889	0.4307	---	0.514	5.70	0.999	1.00	14	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
trans-1,3-Dichloroprop	1	0	Avq	0.4988	0.4659	0.6330	0.5031	0.4567	0.4375	0.4569	0.4227	---	0.484	6.03	0.999	1.00	14	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Ethyl methacrylate	1	0	Avq	0.4101	0.3832	0.4943	0.3953	0.3797	0.3736	0.3916	0.3771	---	0.401	6.06	0.999	1.00	9.9	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,2-Trichloroethane	1	0	Qua	0.3277	0.3280	0.4414	0.2975	0.2738	0.2570	0.2726	0.4161	---	0.327	6.15	0.999	1.00	21	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dibromoethane	1	0	Avq	0.3362	0.3158	0.3901	0.3087	0.2761	0.2721	0.2901	0.3592	---	0.319	6.49	0.999	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,3-Dichloropropane	1	0	Qua	0.5882	0.5580	0.7870	0.5374	0.4718	0.4297	0.4125	0.4118	---	0.525	6.26	0.999	0.999	24	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
4-Methyl-2-Pentanone	1	0	Avq	0.3460	0.3492	0.4359	0.3531	0.3524	0.3493	0.3834	0.3021	---	0.359	5.79	0.998	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
2-Hexanone	1	0	Avq	0.2335	0.1900	0.2704	0.2423	0.2395	0.2340	0.2581	0.2012	---	0.234	6.27	0.998	1.00	11	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Tetrachloroethene	1	0	Qua	0.2351	0.2228	0.3384	0.2124	0.1688	0.1560	0.1492	0.2306	---	0.214	6.26	0.998	0.999	28	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Toluene-d8	1	0	Avq	1.2483	1.2761	1.2842	1.2516	1.2495	1.2444	1.3229	1.2223	1.1862	1.25	5.88	-1	-1	3.1	---	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Toluene	1	0	Avq	0.7612	0.8136	0.9822	0.7097	0.6395	0.5820	0.5763	0.6621	---	0.716	5.92	0.999	1.00	19	0.40	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,1,2-Tetrachloroeth	1	0	Qua	0.3188	0.3331	0.3946	0.2778	0.2417	0.2167	0.2085	0.2668	---	0.282	6.81	0.999	0.999	22	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Chlorobenzene	1	0	Avq	0.8182	0.8892	1.0587	0.7660	0.6788	0.6413	0.6301	0.8696	---	0.794	6.78	1.00	1.00	18	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
n-Butyl acrylate	1	0	Avq	1.1927	0.8893	1.3090	1.2797	1.3097	1.4261	1.4194	0.8850	---	1.21	7.05	1.00	1.00	18	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
n-Amyl acetate	1	0	Avq	1.2296	0.9465	1.4814	1.2570	1.2611	1.3109	1.3408	0.9037	---	1.22	7.18	1.00	1.00	16	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Bromoforn	1	0	Avq	0.5726	0.6058	0.7418	0.5764	0.5249	0.5481	0.5671	0.5364	---	0.584	7.28	0.999	1.00	12	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Ethylbenzene	1	0	Avq	0.5069	0.5319	0.6573	0.4956	0.4426	0.4403	0.3766	0.5916	---	0.505	6.82	0.994	1.00	18	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,1,2,2-Tetrachloroeth	1	0	Avq	0.9323	1.0010	1.1543	0.8463	0.8284	0.8418	0.8540	0.7450	---	0.900	7.52	1.00	1.00	14	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Bromofluorobenzene	1	0	Avq	1.0473	1.0322	1.0033	1.0307	0.9884	1.0572	1.1343	0.9829	1.0771	1.04	7.47	-1	-1	4.6	---	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Styrene	1	0	Avq	1.6966	1.5068	2.0747	1.7040	1.5539	1.4549	1.2609	1.2212	---	1.56	7.15	0.994	1.00	18	0.30	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
m,p-Xylenes	1	0	Avq	0.8973	0.9104	1.0576	0.8514	0.7555	0.7239	0.6377	0.8184	0.7317	0.821	6.89	0.996	1.00	15	0.10	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
o-Xylene	1	0	Avq	0.9365	0.8925	1.1062	0.8868	0.7853	0.7587	0.6808	0.6609	---	0.838	7.14	0.997	1.00	18	0.30	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
trans-1,4-Dichloro-2-b	1	0	Avq	0.3198	0.3117	0.3682	0.3394	0.3158	0.3225	0.3250	0.2622	---	0.321	7.55	1.00	1.00	9.2	---	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,3-Dichlorobenzene	1	0	Avq	1.0950	1.0732	1.3987	1.0750	0.9476	0.9488	0.9090	1.0307	---	1.06	8.17	0.999	1.00	14	0.60	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,4-Dichlorobenzene	1	0	Avq	1.1463	1.1532	1.4321	1.0921	0.9570	0.9941	0.9616	1.3680	---	1.14	8.22	1.00	1.00	16	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
1,2-Dichlorobenzene	1	0	Avq	1.1577	1.1297	1.4187	1.0556	0.9464	0.9776	0.9612	1.2234	---	1.11	8.47	1.00	1.00	14	0.40	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00
Isopropylbenzene	1	0	Avq	1.1758	1.3947	2.0437	1.7304	1.6101	1.6858	1.5981	1.3383	---	1.64	7.36	0.999	1.00	13	0.10	20.00	5.00	10.00	50.00	100.0	250.0	5	

Flags

a - failed the min rf criteria

c - failed the minimum correlation coeff criteria(if applicable)

Note:

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Ft = Indicates whether Avg Rt, Linear, or Quadratic Curve was used for compound.

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03																										
1																										
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Level #:	Data File:	Cal Identifier:	Analysis Date/Time					Level #:	Data File:	Cal Identifier:	Analysis Date/Time															
1	3M137828.D	CAL @ 20 PPB	10/10/18 09:01					2	3M137826.D	CAL @ 5 PPB	10/10/18 08:27															
3	3M137827.D	CAL @ 10 PPB	10/10/18 08:44					4	3M137829.D	CAL @ 50 PPB	10/10/18 09:18															
5	3M137834.D	CAL @ 100 PPB	10/10/18 10:45					6	3M137832.D	CAL @ 250 PPB	10/10/18 10:10															
7	3M137830.D	CAL @ 500 PPB	10/10/18 09:35					8	3M137825.D	CAL @ 1 PPB	10/10/18 08:10															
9	3M137824.D	CAL @ 0.5 PPB	10/10/18 07:52																							
Compound	Col	Mr	Fil	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	AvgRt	RT	Corr1	Corr2	%Rsd	Calibration Level Concentrations								
p-Ethyltoluene	1	0	Qua	1.8545	1.6766	2.2803	1.8376	1.6414	1.7633	1.6123	0.9303	---	1.707.67	0.998	0.999	22		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
4-Chlorotoluene	1	0	Avg	1.1460	1.2089	1.4154	1.1095	1.0109	1.0250	0.9348	0.8929	---	1.097.75	0.998	1.00	15		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
n-Propylbenzene	1	0	Avg	2.0413	1.8092	2.3965	1.9377	1.7791	1.8148	1.7067	1.9121	---	1.927.61	0.999	1.00	11		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Bromobenzene	1	0	Avg	1.8112	1.7936	2.2608	1.6742	1.5206	1.5191	1.4385	2.0339	---	1.767.58	0.999	1.00	16		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,3,5-Trimethylbenzen	1	0	Qua	1.4154	1.3412	1.7557	1.3781	1.1512	0.9867	0.8442	1.1231	---	1.257.70	0.991	0.999	23		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Butyl methacrylate	1	0	Avg	1.0884	0.8887	1.2255	1.0658	1.0558	1.0468	0.9730	0.7052	---	1.017.71	0.999	1.00	15	0.50	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
t-Butylbenzene	1	0	Avg	1.1527	0.9795	1.4986	1.2102	1.1140	1.2032	1.1644	0.9713	---	1.167.93	1.00	1.00	14		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,4-Trimethylbenzen	1	0	Avg	1.5557	1.4939	1.9670	1.5487	1.4042	1.4257	1.3573	1.0928	---	1.487.96	0.999	1.00	17		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
sec-Butylbenzene	1	0	Avg	1.3450	1.2435	1.7595	1.4040	1.2936	1.4226	1.3806	0.9864	---	1.358.06	1.00	1.00	16		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
4-Isopropyltoluene	1	0	Avg	1.2242	1.0100	1.4599	1.2385	1.1135	1.1919	1.1484	0.8193	---	1.158.14	1.00	1.00	16		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
n-Butylbenzene	1	0	Avg	1.3365	1.1597	1.6678	1.3311	1.2234	1.3259	1.2919	1.0189	---	1.308.41	1.00	1.00	15		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
p-Diethylbenzene	1	0	Avg	0.6666	0.5940	0.8059	0.7215	0.6654	0.7298	0.7037	0.4822	---	0.6718.39	0.999	1.00	15		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,4,5-Tetramethylbe	1	0	Avg	1.0407	0.8435	1.0581	1.1267	1.1211	1.1867	1.1082	0.6749	---	1.028.91	0.999	1.00	17		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2-Dibromo-3-Chloro	1	0	Qua	0.1843	0.1833	0.2094	0.1750	0.1822	0.1864	0.2088	0.0827	---	0.1778.97	0.997	1.00	23	0.05	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Campbor	1	0	Qua	0.0302	0.0295	0.0358	0.0331	0.0586	0.0493	0.0424	0.0537	0.1088	0.04919.46	0.989	0.997	50		200.0	50.00	100.0	500.0	1000.0	2500.0	5000.0	10.00	5.00
Hexachlorobutadiene	1	0	Qua	0.3307	0.3285	0.4380	0.3256	0.3215	0.3122	0.2983	0.5080	---	0.3589.61	0.999	1.00	21		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,4-Trichlorobenzen	1	0	Avg	0.6146	0.5984	0.7507	0.5661	0.5236	0.5341	0.5314	0.5020	---	0.5789.52	1.00	1.00	14	0.20	20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
1,2,3-Trichlorobenzen	1	0	Avg	0.5893	0.6262	0.7267	0.5347	0.5001	0.5118	0.5132	0.5966	---	0.5759.87	1.00	1.00	13		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	
Naphtalene	1	0	Avg	1.4534	1.2273	1.5526	1.4160	1.4578	1.4541	1.3972	1.2097	---	1.409.70	1.00	1.00	8.5		20.00	5.00	10.00	50.00	100.0	250.0	500.0	1.00	

Flags

a - failed the min of criteria

c - failed the minimum correlation coeff criteria (if applicable)

Note:

Avg Rsd: 16.8

Corr 1 = Correlation Coefficient for linear Eq.

Corr 2 = Correlation Coefficient for quad Eq.

Fit = Indicates whether Avg RF, Linear, or Quadratic Curve was used for compound.

SampleID : CAL @ 20 PPB
 Data File: 3M137828.D
 Acq On : 10/10/18 09:01

Operator : WP
 Sam Mult : 1 Vial# : 9
 Misc : A, 5ML

Qt Meth : 3M_A1010.M
 Qt On : 10/10/18 09:48
 Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.910	96	308583	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.761	117	246414	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.208	152	112449	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.478	111	79593	29.64	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.80%		
39) 1,2-Dichloroethane-d4	4.700	67	60945	33.17	ug/l	0.00
Spiked Amount 30.000			Recovery =	110.57%		
66) Toluene-d8	5.878	98	307615	29.43	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.10%		
76) Bromofluorobenzene	7.469	174	117775	29.17	ug/l	0.00
Spiked Amount 30.000			Recovery =	97.23%		
Target Compounds						
5) Chlorodifluoromethane	1.545	51	68656	18.5418	ug/l	91
6) Dichlorodifluoromethane	1.528	85	36625	18.0005	ug/l	84
7) Chloromethane	1.695	50	55328	18.9420	ug/l	79
8) Bromomethane	2.051	94	23021m	24.8882	ug/l	
9) Vinyl Chloride	1.761	62	42091	24.0502	ug/l	95
10) Chloroethane	2.135	64	21155	27.8480	ug/l	90
11) Trichlorofluoromethane	2.339	101	65320	23.7997	ug/l	84
12) Ethyl ether	2.568	59	49609	21.9089	ug/l	75
13) Furan	2.604	39	119759	21.8434	ug/l	97
14) 1,1,2-Trichloro-1,2,2-...	2.754	101	29335	27.5573	ug/l	95
15) Methylene Chloride	3.156	84	57551	22.5271	ug/l	94
16) Acrolein	2.682	56	47755	131.8503	ug/l	96
17) Acrylonitrile	3.361	53	22565	23.0111	ug/l	87
18) Iodomethane	2.904	142	63248	24.7202	ug/l	91
19) Acetone	2.802	43	106146	118.0392	ug/l	97
20) Carbon Disulfide	2.958	76	175129	26.9907	ug/l	100
21) t-Butyl Alcohol	3.223	59	18275	93.8840	ug/l	72
22) n-Hexane	3.613	57	19858m	24.9593	ug/l	
23) Di-isopropyl-ether	3.769	45	186704	24.8847	ug/l	91
24) 1,1-Dichloroethene	2.766	61	76123	22.6592	ug/l	95
25) Methyl Acetate	3.066	43	67152	21.8221	ug/l	100
26) Methyl-t-butyl ether	3.379	73	118764	25.6364	ug/l	73
27) 1,1-Dichloroethane	3.739	63	93235	21.4603	ug/l	95
28) trans-1,2-Dichloroethene	3.385	96	47568	22.2732	ug/l	84
29) Ethyl-t-butyl ether	4.039	59	147701	23.0514	ug/l	98
30) cis-1,2-Dichloroethene	4.166	61	98797	23.2603	ug/l	81
31) Bromochloromethane	4.328	49	65067	23.4172	ug/l	75
32) 2,2-Dichloropropane	4.166	77	69900	27.3586	ug/l	100
33) Ethyl acetate	4.196	43	67910m	24.9238	ug/l	
34) 1,4-Dioxane	5.361	88	31630	1354.6755	ug/l	89
35) 1,1-Dichloropropene	4.610	75	69040	23.6282	ug/l	94
36) Chloroform	4.370	83	100742	23.7294	ug/l	81
38) Cyclohexane	4.544	56	38361	20.2251	ug/l	99
40) 1,2-Dichloroethane	4.748	62	93210	24.8934	ug/l	96
41) 2-Butanone	4.166	43	28906m	24.7852	ug/l	
42) 1,1,1-Trichloroethane	4.502	97	77127	22.9505	ug/l	99
43) Carbon Tetrachloride	4.616	117	58258	22.0673	ug/l	99
44) Vinyl Acetate	3.763	43	129792	22.7588	ug/l	100
45) Bromodichloromethane	5.439	83	81094	24.2089	ug/l	95
46) Methylcyclohexane	5.265	83	30174	22.3087	ug/l	89
47) Dibromomethane	5.355	174	45482	19.3733	ug/l	96
48) 1,2-Dichloropropane	5.277	63	57550	22.5991	ug/l	99
49) Trichloroethene	5.139	130	56202	23.3692	ug/l	79
50) Benzene	4.742	78	207560	24.6303	ug/l	100
51) tert-Amyl methyl ether	4.790	73	129470	21.7866	ug/l	85
53) Iso-propylacetate	4.748	43	116900	22.4978	ug/l	98
54) Methyl methacrylate	5.313	41	64018	21.1274	ug/l	91
55) Dibromochloromethane	6.400	129	59319	22.4826	ug/l	95
56) 2-Chloroethylvinylether	5.595	63	24506	17.0375	ug/l	79
57) cis-1,3-Dichloropropene	5.703	75	87641	23.3623	ug/l	97
58) trans-1,3-Dichloropropene	6.034	75	81944	23.0160	ug/l	99
59) Ethyl methacrylate	6.058	41	67373	24.4512	ug/l	83
60) 1,1,2-Trichloroethane	6.148	97	53844	23.1300	ug/l	89
61) 1,2-Dibromoethane	6.490	107	55240	23.6337	ug/l	83
62) 1,3-Dichloropropane	6.256	76	96640	23.8896	ug/l	96
63) 4-Methyl-2-Pentanone	5.787	43	56843	21.2607	ug/l	95
64) 2-Hexanone	6.274	43	38361	19.9078	ug/l	86
65) Tetrachloroethene	6.256	164	38623	21.4438	ug/l	91
67) Toluene	5.920	92	125048	23.4097	ug/l	97

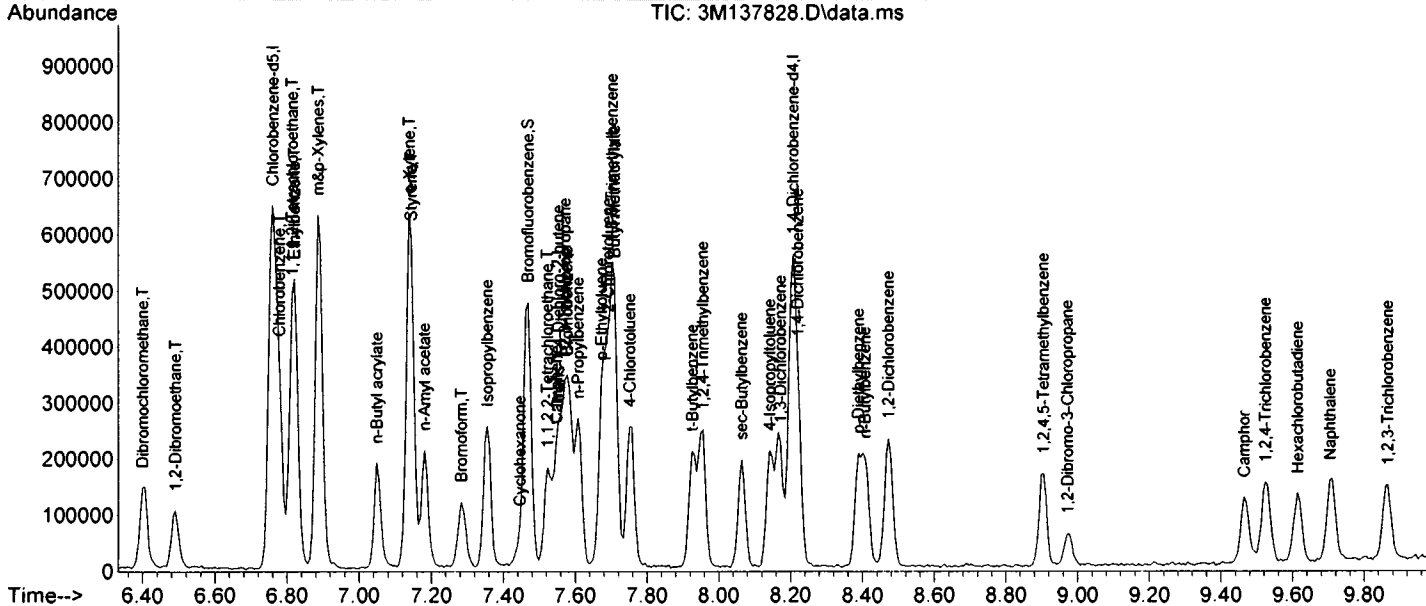
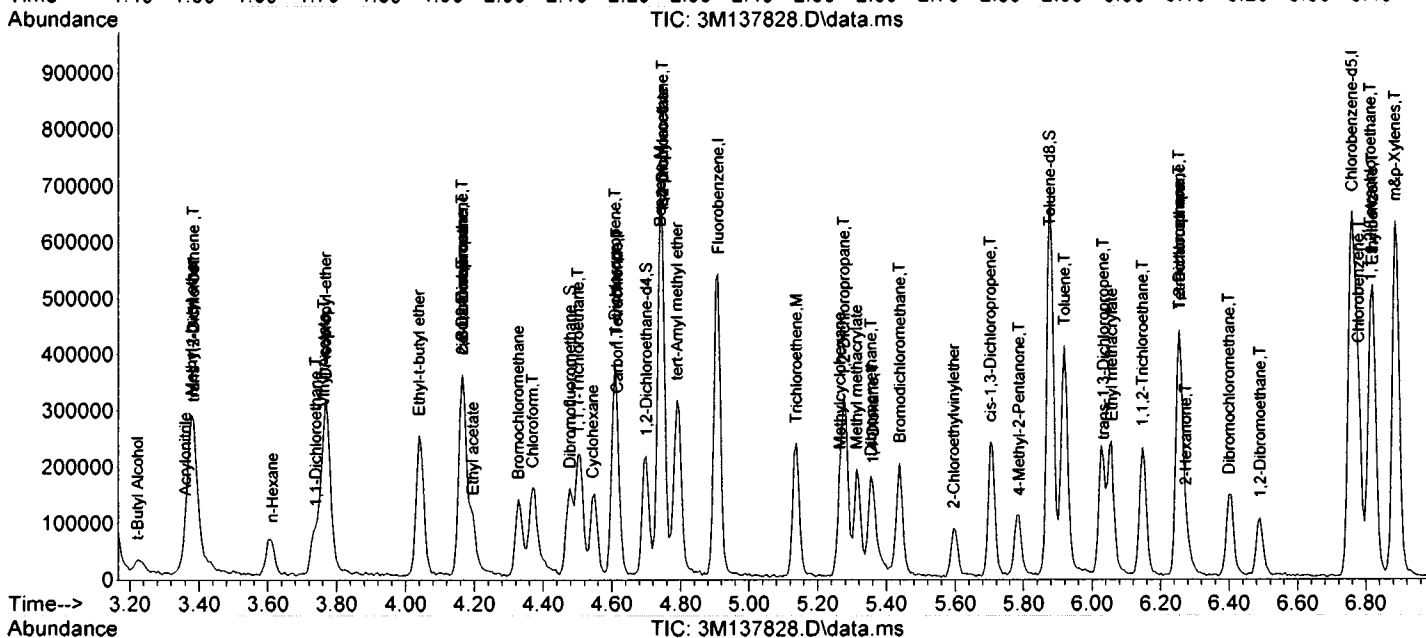
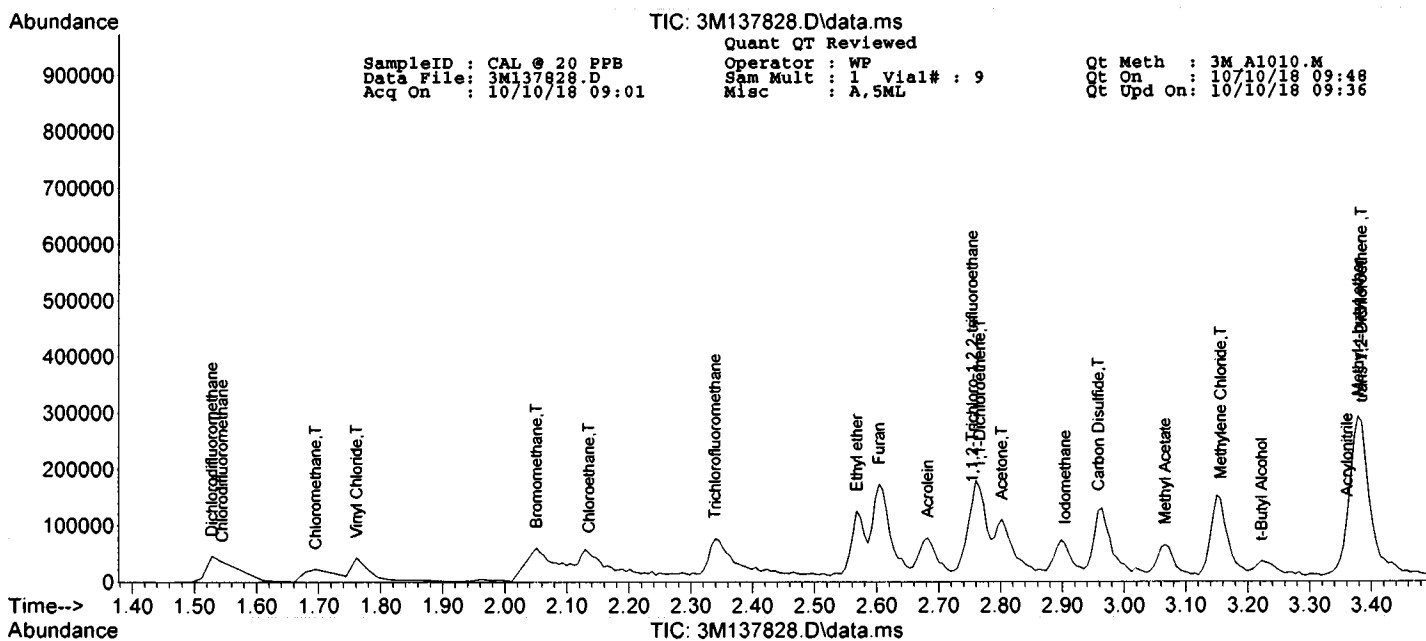
Quantitation Report (QT Reviewed)

SampleID : CAL @ 20 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137828.D Sam Mult : 1 Vial# : 9 Qt On : 10/10/18 09:48
 Acq On : 10/10/18 09:01 Misc : A,5ML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.815	133	52375	24.1053	ug/l	88
69) Chlorobenzene	6.779	112	134422	23.3656	ug/l	92
71) n-Butyl acrylate	7.049	55	89419	21.7789	ug/l	99
72) n-Amyl acetate	7.181	43	92178	21.0863	ug/l	89
73) Bromoform	7.283	173	42927	20.1014	ug/l	100
74) Ethylbenzene	6.821	106	38000	25.8162	ug/l	88
75) 1,1,2,2-Tetrachloroethane	7.524	83	69894	23.9552	ug/l	91
77) Styrene	7.145	104	127192	26.5747	ug/l	99
78) m&p-Xylenes	6.887	106	134540	56.4496	ug/l	98
79) o-Xylene	7.139	106	70208	26.4396	ug/l	76
80) trans-1,4-Dichloro-2-b...	7.554	53	23979	27.4305	ug/l	66
81) 1,3-Dichlorobenzene	8.172	146	82092	22.8979	ug/l	88
82) 1,4-Dichlorobenzene	8.220	146	85939	22.7891	ug/l	94
83) 1,2-Dichlorobenzene	8.473	146	86788	23.1111	ug/l	89
84) Isopropylbenzene	7.355	105	128628	25.0767	ug/l	93
85) Cyclohexanone	7.445	55	10761	82.9174	ug/l	82
86) Camphene	7.548	93	34199	23.8126	ug/l	94
87) 1,2,3-Trichloropropane	7.572	75	80375	24.0353	ug/l	97
88) 2-Chlorotoluene	7.692	91	91568	27.5483	ug/l	93
89) p-Ethyltoluene	7.674	105	139027	25.1010	ug/l	80
90) 4-Chlorotoluene	7.752	91	85912	24.6234	ug/l	91
91) n-Propylbenzene	7.608	91	153031	25.8498	ug/l	95
92) Bromobenzene	7.578	77	135780	25.3727	ug/l	92
93) 1,3,5-Trimethylbenzene	7.704	105	106112	28.0132	ug/l	84
94) Butyl methacrylate	7.710	41	81596	23.9391	ug/l	80
95) t-Butylbenzene	7.926	119	86413	24.2067	ug/l	89
96) 1,2,4-Trimethylbenzene	7.956	105	116631	25.0810	ug/l	86
97) sec-Butylbenzene	8.064	105	100831	23.4168	ug/l	98
98) 4-Isopropyltoluene	8.142	119	91774	25.0437	ug/l	93
99) n-Butylbenzene	8.407	91	100196	24.7741	ug/l	94
100) p-Diethylbenzene	8.389	119	49976	23.2716	ug/l	90
101) 1,2,4,5-Tetramethylben...	8.905	119	78023	21.5156	ug/l	89
102) 1,2-Dibromo-3-Chloropr...	8.971	157	13818	20.7142	ug/l	85
103) Camphor	9.464	95	22675	105.7516	ug/l	95
104) Hexachlorobutadiene	9.614	225	24798	16.7435	ug/l	97
105) 1,2,4-Trichlorobenzene	9.524	180	46076	20.7241	ug/l	97
106) 1,2,3-Trichlorobenzene	9.866	180	44183	19.7476	ug/l	95
107) Naphthalene	9.704	128	108958	23.7506	ug/l	100

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



SampleID : CAL @ 5 PPB
Data File: 3M137826.D
Acq On : 10/10/18 08:27

Operator : WP
Sam Mult : 1 Vial# : 7
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 10/10/18 09:44
Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.909	96	288718	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.759	117	234022	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.207	152	106368	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	80306	31.96	ug/l	0.00
Spiked Amount 30.000			Recovery	=	106.53%	
39) 1,2-Dichloroethane-d4	4.693	67	55548	32.31	ug/l	0.00
Spiked Amount 30.000			Recovery	=	107.70%	
66) Toluene-d8	5.876	98	298640	30.08	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.27%	
76) Bromofluorobenzene	7.468	174	109799	28.75	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.83%	
Target Compounds						
5) Chlorodifluoromethane	1.531	51	20841	6.0157	ug/l	82
6) Dichlorodifluoromethane	1.531	85	9666	5.0775	ug/l	88
7) Chloromethane	1.698	50	15321	5.6062	ug/l	62
8) Bromomethane	2.050	94	5698	6.5840	ug/l	81
9) Vinyl Chloride	1.764	62	10275	6.2749	ug/l	95
10) Chloroethane	2.134	64	5310	7.4709	ug/l	97
11) Trichlorofluoromethane	2.338	101	12982	5.0555	ug/l	71
12) Ethyl ether	2.567	59	13046	6.1579	ug/l	93
13) Furan	2.597	39	35205	6.8630	ug/l	86
14) 1,1,2-Trichloro-1,2,2-...	2.747	101	8560	8.5945	ug/l	82
15) Methylene Chloride	3.149	84	13141	5.4977	ug/l	97
16) Acrolein	2.687	56	11221	33.1125	ug/l	89
17) Acrylonitrile	3.360	53	5779m	6.2987	ug/l	
18) Iodomethane	2.897	142	13716	5.7297	ug/l	94
19) Acetone	2.807	43	26394	31.3708	ug/l	89
20) Carbon Disulfide	2.963	76	39929	6.5772	ug/l	100
21) t-Butyl Alcohol	3.233	59	4648	25.5210	ug/l	34
22) n-Hexane	3.606	57	5727m	7.6935	ug/l	
23) Di-isopropyl-ether	3.768	45	42326	6.0295	ug/l	89
24) 1,1-Dichloroethene	2.771	61	17730	5.6407	ug/l	91
25) Methyl Acetate	3.071	43	17002	5.9052	ug/l	100
26) Methyl-t-butyl ether	3.372	73	27939	6.4459	ug/l	75
27) 1,1-Dichloroethane	3.738	63	23359	5.7466	ug/l	92
28) trans-1,2-Dichloroethene	3.378	96	11209	5.6096	ug/l	69
29) Ethyl-t-butyl ether	4.044	59	32335	5.3937	ug/l	97
30) cis-1,2-Dichloroethene	4.164	61	23330	5.8706	ug/l	76
31) Bromochloromethane	4.333	49	17528	6.7422	ug/l	75
32) 2,2-Dichloropropane	4.164	77	17219	7.2032	ug/l	96
33) Ethyl acetate	4.201	43	14775m	5.7957	ug/l	
34) 1,4-Dioxane	5.360	88	6997	320.2920	ug/l	78
35) 1,1-Dichloropropene	4.603	75	14472	5.2937	ug/l	91
36) Chloroform	4.375	83	26158	6.5853	ug/l	86
38) Cyclohexane	4.549	56	9081	5.1172	ug/l	98
40) 1,2-Dichloroethane	4.747	62	23405	6.6808	ug/l	98
41) 2-Butanone	4.170	43	6352m	5.8212	ug/l	
42) 1,1,1-Trichloroethane	4.507	97	18227	5.7969	ug/l	91
43) Carbon Tetrachloride	4.615	117	14507	5.8731	ug/l	99
44) Vinyl Acetate	3.768	43	32613	6.1121	ug/l	100
45) Bromodichloromethane	5.438	83	20969	6.6906	ug/l	86
46) Methylcyclohexane	5.270	83	6473	5.1150	ug/l	97
47) Dibromomethane	5.360	174	12132	5.5233	ug/l	89
48) 1,2-Dichloropropane	5.276	63	12799	5.3718	ug/l	93
49) Trichloroethene	5.138	130	11951	5.3112	ug/l	94
50) Benzene	4.741	78	48041	6.0931	ug/l	100
51) tert-Amyl methyl ether	4.795	73	29539	5.3127	ug/l	85
53) Iso-propylacetate	4.747	43	24320	4.9283	ug/l	92
54) Methyl methacrylate	5.318	41	15523	5.3942	ug/l	91
55) Dibromochloromethane	6.399	129	13942	5.5640	ug/l	94
56) 2-Chloroethylvinylether	5.600	63	5070	3.7115	ug/l	74
57) cis-1,3-Dichloropropene	5.708	75	20301	5.6982	ug/l	94
58) trans-1,3-Dichloropropene	6.027	75	18173	5.3746	ug/l	89
59) Ethyl methacrylate	6.051	41	14948	5.7122	ug/l	89
60) 1,1,2-Trichloroethane	6.147	97	12794	5.7870	ug/l	82
61) 1,2-Dibromoethane	6.495	107	12321	5.5505	ug/l	99
62) 1,3-Dichloropropane	6.255	76	21767	5.6658	ug/l	94
63) 4-Methyl-2-Pentanone	5.786	43	13622	5.3648	ug/l	85
64) 2-Hexanone	6.273	43	7413	4.0508	ug/l	85
65) Tetrachloroethene	6.255	164	8691	5.0808	ug/l	71
67) Toluene	5.919	92	31734	6.2554	ug/l	97

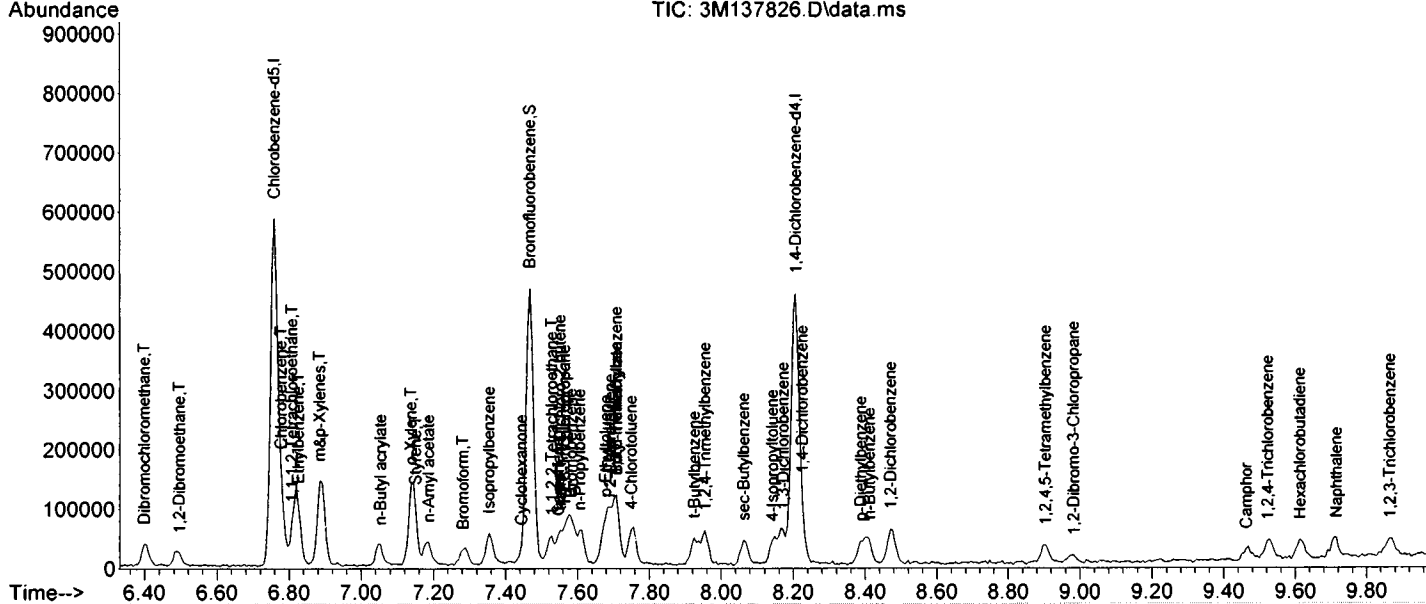
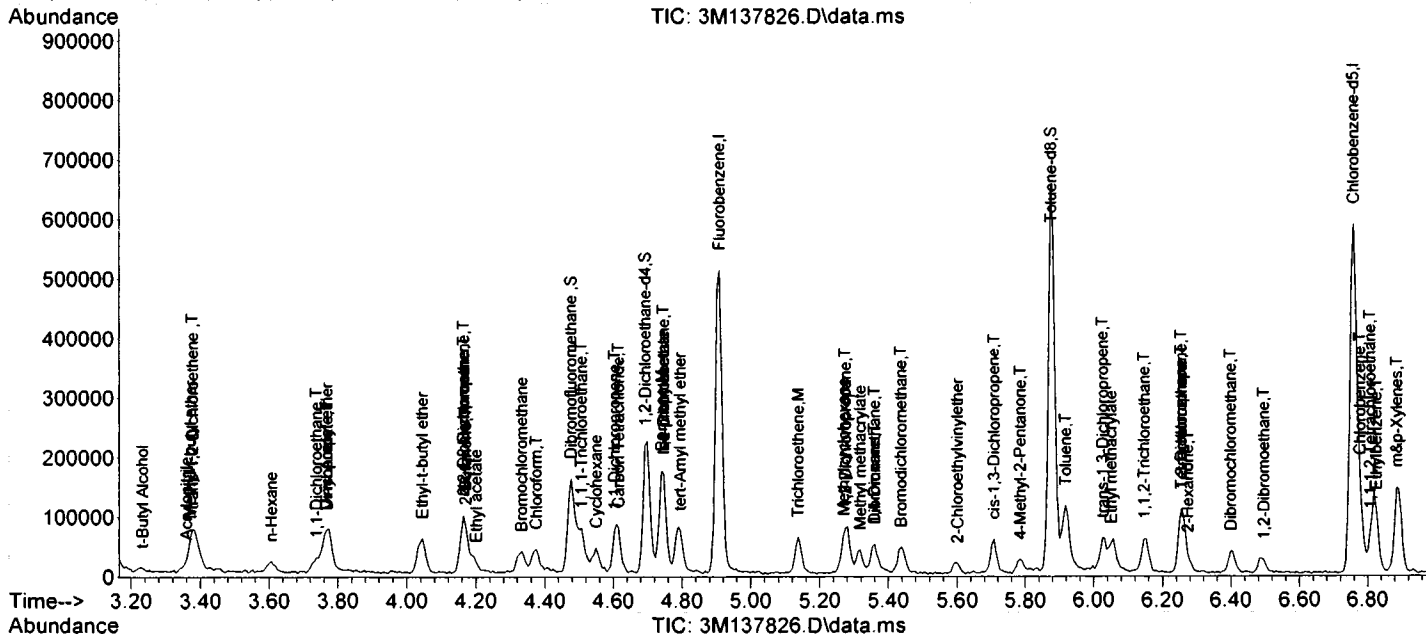
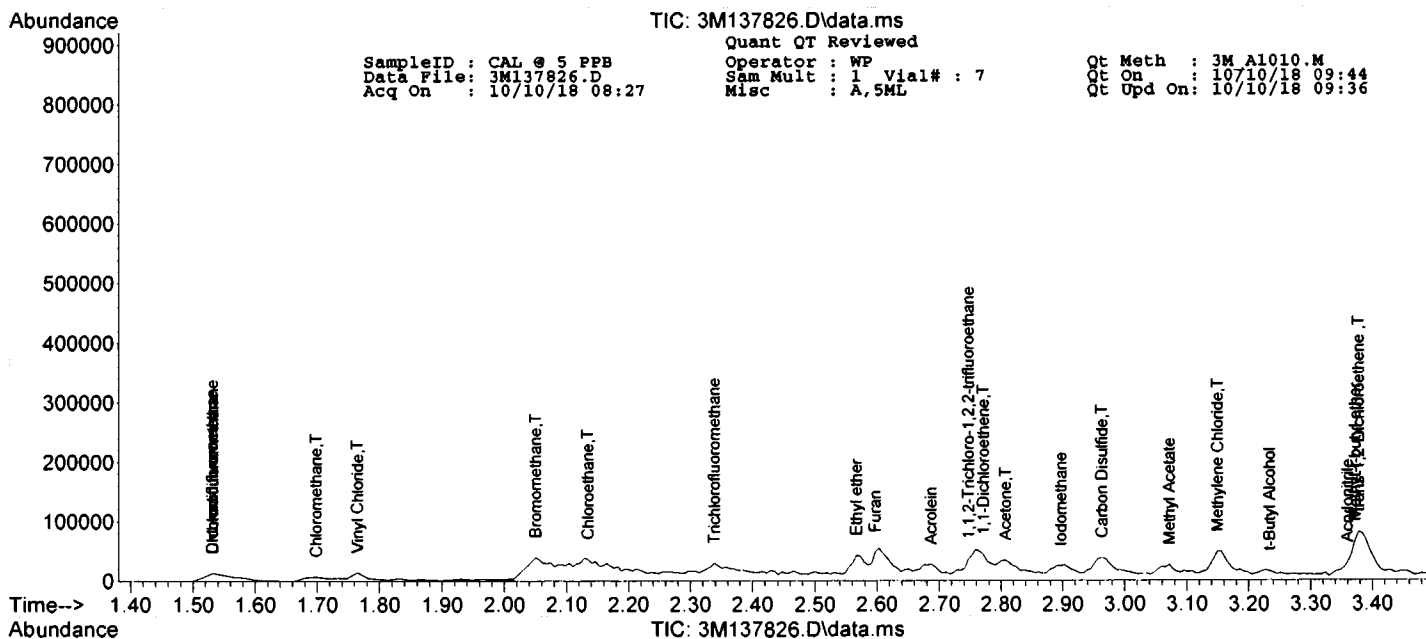
Quantitation Report (QT Reviewed)

SampleID : CAL @ 5 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137826.D Sam Mult : 1 Vial# : 7 Qt On : 10/10/18 09:44
 Acq On : 10/10/18 08:27 Misc : A,5ML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QI	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.808	133	12994	6.2971	ug/l	64
69)	Chlorobenzene	6.777	112	34682	6.3478	ug/l	94
71)	n-Butyl acrylate	7.054	55	15766	4.0595	ug/l	89
72)	n-Amyl acetate	7.186	43	16781	4.0582	ug/l	69
73)	Bromoform	7.282	173	10740	5.3167	ug/l	87
74)	Ethylbenzene	6.826	106	9431	6.7735	ug/l	77
75)	1,1,2,2-Tetrachloroethane	7.528	83	17747	6.4303	ug/l	99
77)	Styrene	7.150	104	26714	5.9005	ug/l	99
78)	m&p-Xylenes	6.886	106	32282	14.3191	ug/l	84
79)	o-Xylene	7.138	106	15823	6.2994	ug/l	91
80)	trans-1,4-Dichloro-2-b...	7.552	53	5527	6.6840	ug/l	90
81)	1,3-Dichlorobenzene	8.171	146	19027	5.6106	ug/l	93
82)	1,4-Dichlorobenzene	8.225	146	20445	5.7315	ug/l	94
83)	1,2-Dichlorobenzene	8.471	146	20028	5.6382	ug/l	93
84)	Isopropylbenzene	7.354	105	24726	5.0960	ug/l	87
85)	Cyclohexanone	7.444	55	3347m	27.2643	ug/l	
86)	Camphene	7.546	93	6991	5.1461	ug/l	96
87)	1,2,3-Trichloropropane	7.564	75	18510	5.8517	ug/l	98
88)	2-Chlorotoluene	7.691	91	23816	7.5747	ug/l	94
89)	p-Ethyltoluene	7.679	105	29724	5.6734	ug/l	87
90)	4-Chlorotoluene	7.751	91	21432	6.4938	ug/l	89
91)	n-Propylbenzene	7.606	91	32075	5.7278	ug/l	87
92)	Bromobenzene	7.582	77	31798	6.2817	ug/l	94
93)	1,3,5-Trimethylbenzene	7.709	105	23778	6.6362	ug/l	82
94)	Butyl methacrylate	7.709	41	15756	4.8869	ug/l	81
95)	t-Butylbenzene	7.925	119	17366	5.1428	ug/l	92
96)	1,2,4-Trimethylbenzene	7.955	105	26485	6.0211	ug/l	93
97)	sec-Butylbenzene	8.063	105	22046	5.4126	ug/l	91
98)	4-Isopropyltoluene	8.141	119	17906	5.1656	ug/l	95
99)	n-Butylbenzene	8.411	91	20560	5.3742	ug/l	89
100)	p-Diethylbenzene	8.387	119	10531m	5.1842	ug/l	
101)	1,2,4,5-Tetramethylben...	8.904	119	14954	4.3595	ug/l	100
102)	1,2-Dibromo-3-Chloropr...	8.982	157	3251	5.1521	ug/l	76
103)	Camphor	9.463	95	5237	25.8206	ug/l	84
104)	Hexachlorobutadiene	9.613	225	5824	4.1572	ug/l	76
105)	1,2,4-Trichlorobenzene	9.523	180	10609	5.0445	ug/l	92
106)	1,2,3-Trichlorobenzene	9.865	180	11102	5.2457	ug/l	88
107)	Naphthalene	9.715	128	21759	5.0142	ug/l	100

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



SampleID : CAL @ 10 PPB
Data File: 3M137827.D
Acq On : 10/10/18 08:44

Operator : WP
Sam Mult : 1 Vial# : 8
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 10/10/18 09:46
Qt Upd On: 10/10/18 09:36

Data Path : G:\GCMSData\2018\GCMS_3\Data\10-10-18\
Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.910	96	230586	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.760	117	186244	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.208	152	89051	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	65339	32.56	ug/l	0.00
Spiked Amount 30.000			Recovery	=	108.53%	
39) 1,2-Dichloroethane-d4	4.700	67	44956	32.74	ug/l	0.00
Spiked Amount 30.000			Recovery	=	109.13%	
66) Toluene-d8	5.883	98	239176	30.27	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.90%	
76) Bromofluorobenzene	7.475	174	89346	27.95	ug/l	0.00
Spiked Amount 30.000			Recovery	=	93.17%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.542	51	39274	14.1944	ug/l	82
6) Dichlorodifluoromethane	1.525	85	17752	11.6760	ug/l	99
7) Chloromethane	1.692	50	26345	12.0703	ug/l	82
8) Bromomethane	2.051	94	11721	16.9580	ug/l	92
9) Vinyl Chloride	1.758	62	18541	14.1775	ug/l	98
10) Chloroethane	2.135	64	10307	18.1573	ug/l	97
11) Trichlorofluoromethane	2.339	101	28033	13.6689	ug/l	95
12) Ethyl ether	2.573	59	24078	14.2305	ug/l	63
13) Furan	2.603	39	61571	15.0289	ug/l	96
14) 1,1,2-Trichloro-1,2,2-...	2.753	101	17502	22.0028	ug/l	84
15) Methylene Chloride	3.156	84	28172	14.7574	ug/l	93
16) Acrolein	2.687	56	24448	90.3327	ug/l	89
17) Acrylonitrile	3.360	53	10027	13.6839	ug/l	92
18) Iodomethane	2.898	142	28701	15.0121	ug/l	94
19) Acetone	2.807	43	49768	74.0648	ug/l	76
20) Carbon Disulfide	2.964	76	83216	17.1634	ug/l	100
21) t-Butyl Alcohol	3.234	59	9519m	65.4432	ug/l	
22) n-Hexane	3.612	57	12441	20.9262	ug/l	73
23) Di-isopropyl-ether	3.775	45	85818	15.3072	ug/l	90
24) 1,1-Dichloroethene	2.765	61	37126	14.7892	ug/l	84
25) Methyl Acetate	3.072	43	31490m	13.6946	ug/l	
26) Methyl-t-butyl ether	3.378	73	60032	17.3418	ug/l	72
27) 1,1-Dichloroethane	3.739	63	47934	14.7652	ug/l	85
28) trans-1,2-Dichloroethene	3.390	96	23307	14.6047	ug/l	88
29) Ethyl-t-butyl ether	4.045	59	70730	14.7726	ug/l	99
30) cis-1,2-Dichloroethene	4.171	61	48528	15.2898	ug/l	79
31) Bromochloromethane	4.333	49	25416	12.2411	ug/l	89
32) 2,2-Dichloropropane	4.171	77	34717	18.1844	ug/l	95
33) Ethyl acetate	4.201	43	36065m	17.7135	ug/l	
34) 1,4-Dioxane	5.360	88	14307	820.0186	ug/l	82
35) 1,1-Dichloropropene	4.610	75	34241	15.6825	ug/l	89
36) Chloroform	4.375	83	52114	16.4274	ug/l	79
38) Cyclohexane	4.556	56	20012	14.1198	ug/l	93
40) 1,2-Dichloroethane	4.748	62	48932	17.4885	ug/l	92
41) 2-Butanone	4.165	43	13497m	15.4875	ug/l	
42) 1,1,1-Trichloroethane	4.507	97	38572	15.3602	ug/l	96
43) Carbon Tetrachloride	4.616	117	29723	15.0669	ug/l	96
44) Vinyl Acetate	3.769	43	64540	15.1450	ug/l	100
45) Bromodichloromethane	5.439	83	39723	15.8697	ug/l	82
46) Methylcyclohexane	5.276	83	14051	13.9023	ug/l	93
47) Dibromomethane	5.360	174	22616	12.8920	ug/l	91
48) 1,2-Dichloropropane	5.282	63	27981	14.7045	ug/l	91
49) Trichloroethene	5.138	130	26557	14.7778	ug/l	79
50) Benzene	4.748	78	98959	15.7152	ug/l	100
51) tert-Amyl methyl ether	4.796	73	61980	13.9576	ug/l	88
53) Iso-propylacetate	4.748	43	56487	14.3833	ug/l	99
54) Methyl methacrylate	5.318	41	31856	13.9097	ug/l	94
55) Dibromochloromethane	6.406	129	27716	13.8985	ug/l	95
56) 2-Chloroethylvinylether	5.601	63	9589	8.8204	ug/l	91
57) cis-1,3-Dichloropropene	5.709	75	41659	14.6927	ug/l	86
58) trans-1,3-Dichloropropene	6.033	75	39299	14.6042	ug/l	90
59) Ethyl methacrylate	6.057	41	30692	14.7374	ug/l	80
60) 1,1,2-Trichloroethane	6.153	97	27403	15.5747	ug/l	86
61) 1,2-Dibromoethane	6.490	107	24220	13.7099	ug/l	99
62) 1,3-Dichloropropane	6.255	76	48863	15.9814	ug/l	99
63) 4-Methyl-2-Pentanone	5.781	43	27067	13.3944	ug/l	89
64) 2-Hexanone	6.279	43	16790	11.5283	ug/l	95
65) Tetrachloroethene	6.261	164	21011	15.4342	ug/l	73
67) Toluene	5.925	92	60982	15.1044	ug/l	90

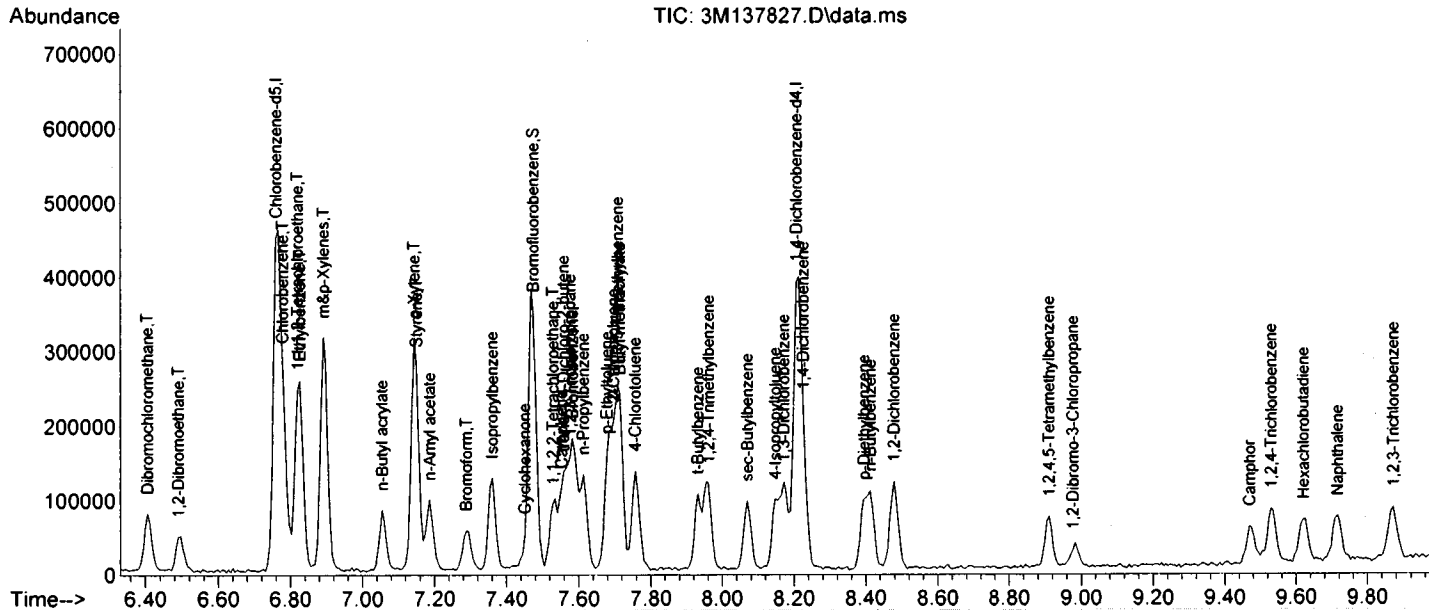
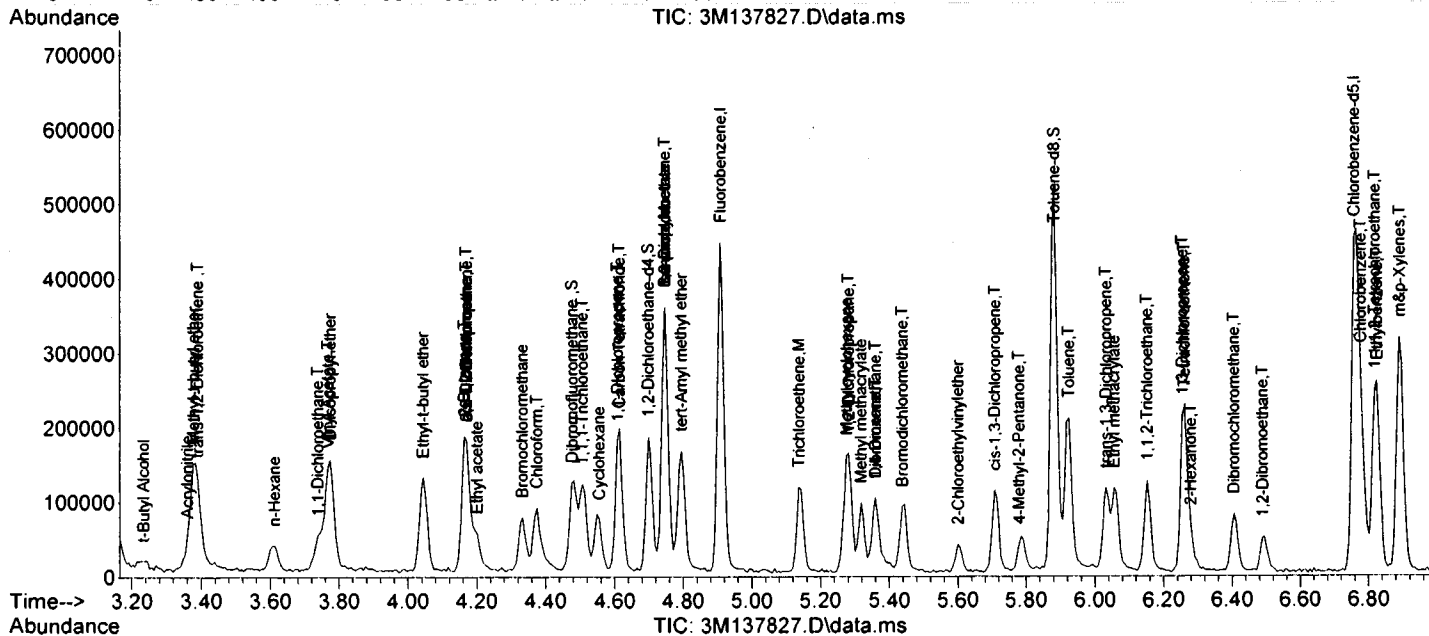
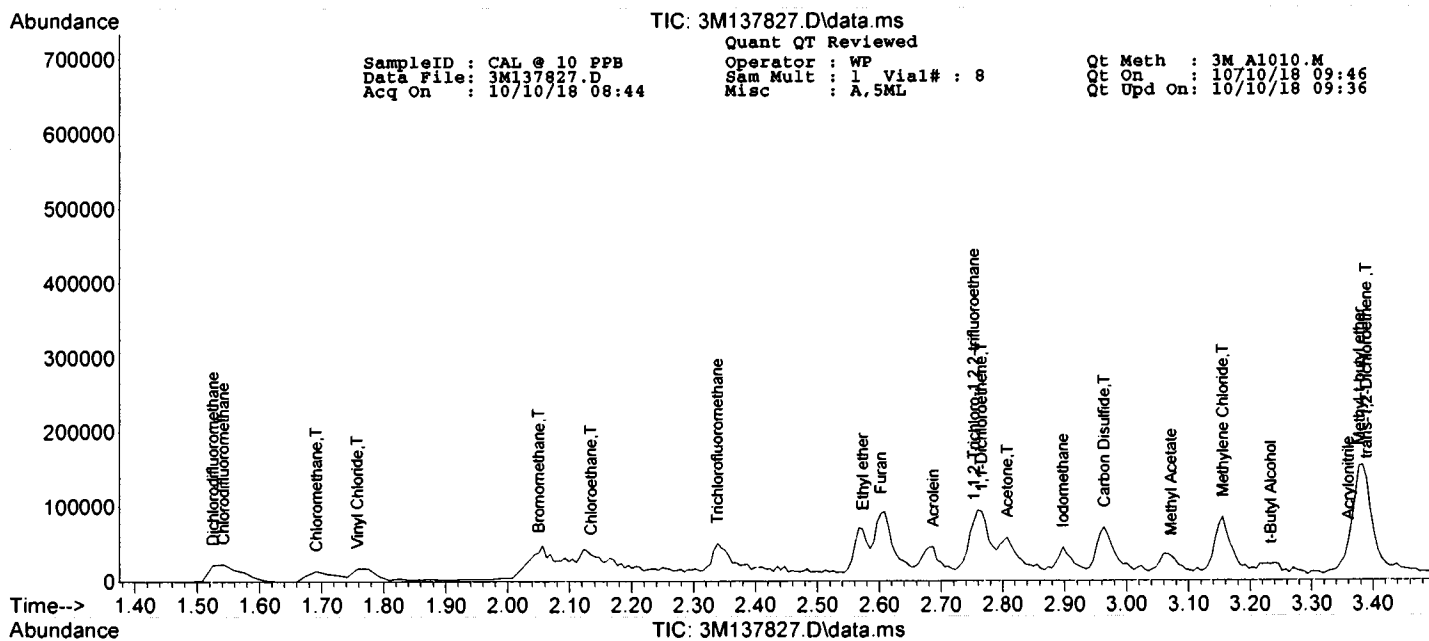
Quantitation Report (QT Reviewed)

SampleID : CAL @ 10 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137827.D Sam Mult : 1 Vial# : 8 Qt On : 10/10/18 09:46
 Acq On : 10/10/18 08:44 Misc : A,5ML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.820	133	24500	14.9189	ug/l	89
69)	Chlorobenzene	6.778	112	65729	15.1164	ug/l	98
71)	n-Butyl acrylate	7.054	55	38858	11.9510	ug/l	94
72)	n-Amyl acetate	7.187	43	43974	12.7024	ug/l	89
73)	Bromoform	7.289	173	22021	13.0211	ug/l	94
74)	Ethylbenzene	6.826	106	19512	16.7389	ug/l	89
75)	1,1,2,2-Tetrachloroethane	7.529	83	34265	14.8295	ug/l	94
77)	Styrene	7.151	104	61585	16.2480	ug/l	85
78)	m&p-Xylenes	6.892	106	62792	33.2683	ug/l	98
79)	o-Xylene	7.144	106	32836	15.6147	ug/l	86
80)	trans-1,4-Dichloro-2-b...	7.559	53	10931	15.7899	ug/l	76
81)	1,3-Dichlorobenzene	8.172	146	41519	14.6237	ug/l	90
82)	1,4-Dichlorobenzene	8.226	146	42511	14.2349	ug/l	93
83)	1,2-Dichlorobenzene	8.478	146	42114	14.1614	ug/l	92
84)	Isopropylbenzene	7.361	105	60666	14.9347	ug/l	93
85)	Cyclohexanone	7.451	55	5807	56.5017	ug/l	93
86)	Camphene	7.553	93	17281	15.1942	ug/l	96
87)	1,2,3-Trichloropropane	7.577	75	37314	14.0902	ug/l	98
88)	2-Chlorotoluene	7.697	91	44880	17.0499	ug/l	96
89)	p-Ethyltoluene	7.679	105	67689	15.4322	ug/l	85
90)	4-Chlorotoluene	7.757	91	42016	15.2064	ug/l	89
91)	n-Propylbenzene	7.613	91	71137	15.1737	ug/l	99
92)	Bromobenzene	7.583	77	67110	15.8356	ug/l	93
93)	1,3,5-Trimethylbenzene	7.709	105	52117	17.3738	ug/l	86
94)	Butyl methacrylate	7.715	41	36379	13.4774	ug/l	79
95)	t-Butylbenzene	7.931	119	44485	15.7357	ug/l	81
96)	1,2,4-Trimethylbenzene	7.961	105	58388	15.8552	ug/l	91
97)	sec-Butylbenzene	8.070	105	52229	15.3166	ug/l	96
98)	4-Isopropyltoluene	8.148	119	43336	14.9329	ug/l	90
99)	n-Butylbenzene	8.412	91	50101	15.6427	ug/l	97
100)	p-Diethylbenzene	8.394	119	23924m	14.0674	ug/l	
101)	1,2,4,5-Tetramethylben...	8.911	119	31411	10.9378	ug/l	90
102)	1,2-Dibromo-3-Chloropr...	8.977	157	6217	11.7685	ug/l	95
103)	Camphor	9.469	95	10636	62.6375	ug/l	78
104)	Hexachlorobutadiene	9.619	225	13002	11.0855	ug/l	92
105)	1,2,4-Trichlorobenzene	9.529	180	22284	12.6564	ug/l	94
106)	1,2,3-Trichlorobenzene	9.872	180	21571	12.1744	ug/l	96
107)	Naphthalene	9.715	128	46088	12.6858	ug/l	100

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



SampleID : CAL @ 50 PPB
Data File: 3M137829.D
Acq On : 10/10/18 09:18

Operator : WP
Sam Mult : 1 Vial# : 10
Misc : A,SML

Qt Meth : 3M_A1010.M
Qt On : 10/10/18 09:36
Qt Upd On: 10/10/18 09:36

Data Path : G:\GCMSData\2018\GCMS_3\Data\10-10-18\
Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.909	96	336959	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.759	117	271671	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.207	152	124228	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	92191	31.44	ug/l	0.00
Spiked Amount 30.000			Recovery	=	104.80%	
39) 1,2-Dichloroethane-d4	4.699	67	63821	31.81	ug/l	0.00
Spiked Amount 30.000			Recovery	=	106.03%	
66) Toluene-d8	5.876	98	340029	29.51	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.37%	
76) Bromofluorobenzene	7.468	174	128049	28.71	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.70%	
Target Compounds						
5) Chlorodifluoromethane	1.543	51	174126	43.0656	ug/l	93
6) Dichlorodifluoromethane	1.526	85	94855	42.6935	ug/l	86
7) Chloromethane	1.693	50	136466	42.7859	ug/l	80
8) Bromomethane	2.050	94	57450	56.8794	ug/l	96
9) Vinyl Chloride	1.759	62	100448	52.5612	ug/l	97
10) Chloroethane	2.128	64	58018	69.9420	ug/l	93
11) Trichlorofluoromethane	2.344	101	140782	46.9751	ug/l	86
12) Ethyl ether	2.573	59	132721	53.6778	ug/l	85
13) Furan	2.609	39	329010	54.9561	ug/l	93
14) 1,1,2-Trichloro-1,2,2-...	2.759	101	69014	59.3722	ug/l	97
15) Methylene Chloride	3.155	84	149676	53.6536	ug/l	90
16) Acrolein	2.681	56	134179	339.2672	ug/l	90
17) Acrylonitrile	3.353	53	59273	55.3545	ug/l	93
18) Iodomethane	2.897	142	164553	58.8986	ug/l	98
19) Acetone	2.801	43	245579	250.0973	ug/l	93
20) Carbon Disulfide	2.963	76	430417	60.7493	ug/l	100
21) t-Butyl Alcohol	3.227	59	48079	226.1958	ug/l	77
22) n-Hexane	3.606	57	57778m	66.5050	ug/l	
23) Di-isopropyl-ether	3.774	45	479312	58.5049	ug/l	93
24) 1,1-Dichloroethene	2.771	61	199232	54.3103	ug/l	94
25) Methyl Acetate	3.065	43	164404	48.9266	ug/l	100
26) Methyl-t-butyl ether	3.377	73	325245	64.2951	ug/l	70
27) 1,1-Dichloroethane	3.738	63	247429	52.1557	ug/l	93
28) trans-1,2-Dichloroethene	3.383	96	135340	58.0348	ug/l	84
29) Ethyl-t-butyl ether	4.044	59	393230	56.2024	ug/l	99
30) cis-1,2-Dichloroethene	4.164	61	260218	56.1052	ug/l	88
31) Bromochloromethane	4.327	49	128684	42.4124	ug/l	86
32) 2,2-Dichloropropane	4.170	77	172690	61.8983	ug/l	94
33) Ethyl acetate	4.194	43	176633	59.3672	ug/l	95
34) 1,4-Dioxane	5.354	88	76760	3010.6895	ug/l	81
35) 1,1-Dichloropropene	4.609	75	174187	54.5935	ug/l	97
36) Chloroform	4.375	83	249967	53.9204	ug/l	84
38) Cyclohexane	4.549	56	108007	52.1491	ug/l	95
40) 1,2-Dichloroethane	4.747	62	233587	57.1301	ug/l	97
41) 2-Butanone	4.164	43	73692	57.8654	ug/l	96
42) 1,1,1-Trichloroethane	4.507	97	194266	52.9392	ug/l	97
43) Carbon Tetrachloride	4.615	117	152569	52.9242	ug/l	92
44) Vinyl Acetate	3.768	43	369198	59.2865	ug/l	100
45) Bromodichloromethane	5.438	83	209225	57.1999	ug/l	100
46) Methylcyclohexane	5.270	83	81986	55.5106	ug/l	94
47) Dibromomethane	5.360	174	111838	43.6264	ug/l	93
48) 1,2-Dichloropropane	5.282	63	144766	52.0605	ug/l	95
49) Trichloroethene	5.138	130	143704	54.7212	ug/l	84
50) Benzene	4.741	78	525087	57.0626	ug/l	100
51) tert-Amyl methyl ether	4.789	73	351935	54.2348	ug/l	82
53) Iso-propylacetate	4.747	43	304050	53.0753	ug/l	98
54) Methyl methacrylate	5.312	41	188195	56.3344	ug/l	94
55) Dibromochloromethane	6.405	129	157564	54.1666	ug/l	99
56) 2-Chloroethylvinylether	5.594	63	75396	47.5450	ug/l	81
57) cis-1,3-Dichloropropene	5.708	75	238107	57.5708	ug/l	91
58) trans-1,3-Dichloropropene	6.027	75	227827	58.0418	ug/l	99
59) Ethyl methacrylate	6.057	41	178987	58.9193	ug/l	81
60) 1,1,2-Trichloroethane	6.147	97	134716	52.4903	ug/l	92
61) 1,2-Dibromoethane	6.489	107	139797	54.2498	ug/l	91
62) 1,3-Dichloropropane	6.255	76	243366	54.5674	ug/l	100
63) 4-Methyl-2-Pentanone	5.780	43	159903	54.2475	ug/l	91
64) 2-Hexanone	6.273	43	109720	51.6465	ug/l	93
65) Tetrachloroethene	6.255	164	96195	48.4428	ug/l	99
67) Toluene	5.918	92	321381	54.5710	ug/l	100

Quantitation Report (QT Reviewed)

SampleID : CAL @ 50 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137829.D Sam Mult : 1 Vial# : 10 Qt On : 10/10/18 09:36
 Acq On : 10/10/18 09:18 Misc : A,5ML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.813	133	125806	52.5185	ug/l	92
69) Chlorobenzene	6.777	112	346870	54.6885	ug/l	99
71) n-Butyl acrylate	7.048	55	264977	58.4184	ug/l	97
72) n-Amyl acetate	7.180	43	260271	53.8934	ug/l	87
73) Bromoform	7.282	173	119360	50.5930	ug/l	96
74) Ethylbenzene	6.825	106	102616	63.1044	ug/l	82
75) 1,1,2,2-Tetrachloroethane	7.528	83	175231	54.3635	ug/l	93
77) Styrene	7.144	104	352821	66.7267	ug/l	96
78) m&p-Xylenes	6.892	106	352590	133.9109	ug/l	84
79) o-Xylene	7.138	106	183616	62.5914	ug/l	73
80) trans-1,4-Dichloro-2-b...	7.552	53	70285	72.7782	ug/l	75
81) 1,3-Dichlorobenzene	8.171	146	222577	56.1967	ug/l	88
82) 1,4-Dichlorobenzene	8.225	146	226131	54.2791	ug/l	93
83) 1,2-Dichlorobenzene	8.477	146	218566	52.6842	ug/l	91
84) Isopropylbenzene	7.354	105	358284	63.2263	ug/l	93
85) Cyclohexanone	7.444	55	30685	214.0206	ug/l	99
86) Camphene	7.552	93	91962	57.9613	ug/l	99
87) 1,2,3-Trichloropropane	7.570	75	216136	58.5048	ug/l	93
88) 2-Chlorotoluene	7.690	91	228682	62.2758	ug/l	94
89) p-Ethyltoluene	7.672	105	380487	62.1825	ug/l	84
90) 4-Chlorotoluene	7.757	91	229736	59.6018	ug/l	93
91) n-Propylbenzene	7.612	91	401195	61.3437	ug/l	96
92) Bromobenzene	7.582	77	346657	58.6364	ug/l	91
93) 1,3,5-Trimethylbenzene	7.708	105	285349	68.1883	ug/l	90
94) Butyl methacrylate	7.708	41	220689	58.6078	ug/l	81
95) t-Butylbenzene	7.925	119	250585	63.5401	ug/l	85
96) 1,2,4-Trimethylbenzene	7.955	105	320667	62.4195	ug/l	89
97) sec-Butylbenzene	8.063	105	290698	61.1099	ug/l	98
98) 4-Isopropyltoluene	8.147	119	256443	63.3440	ug/l	91
99) n-Butylbenzene	8.411	91	275615	61.6859	ug/l	93
100) p-Diethylbenzene	8.387	119	149399	62.9721	ug/l	93
101) 1,2,4,5-Tetramethylben...	8.904	119	233295	58.2334	ug/l	91
102) 1,2-Dibromo-3-Chloropr...	8.976	157	36243	49.1794	ug/l	75
103) Camphor	9.469	95	68634	289.7443	ug/l	94
104) Hexachlorobutadiene	9.619	225	67423	41.2073	ug/l	93
105) 1,2,4-Trichlorobenzene	9.529	180	117210	47.7202	ug/l	93
106) 1,2,3-Trichlorobenzene	9.865	180	110724	44.7958	ug/l	93
107) Naphthalene	9.709	128	293185	57.8486	ug/l	100

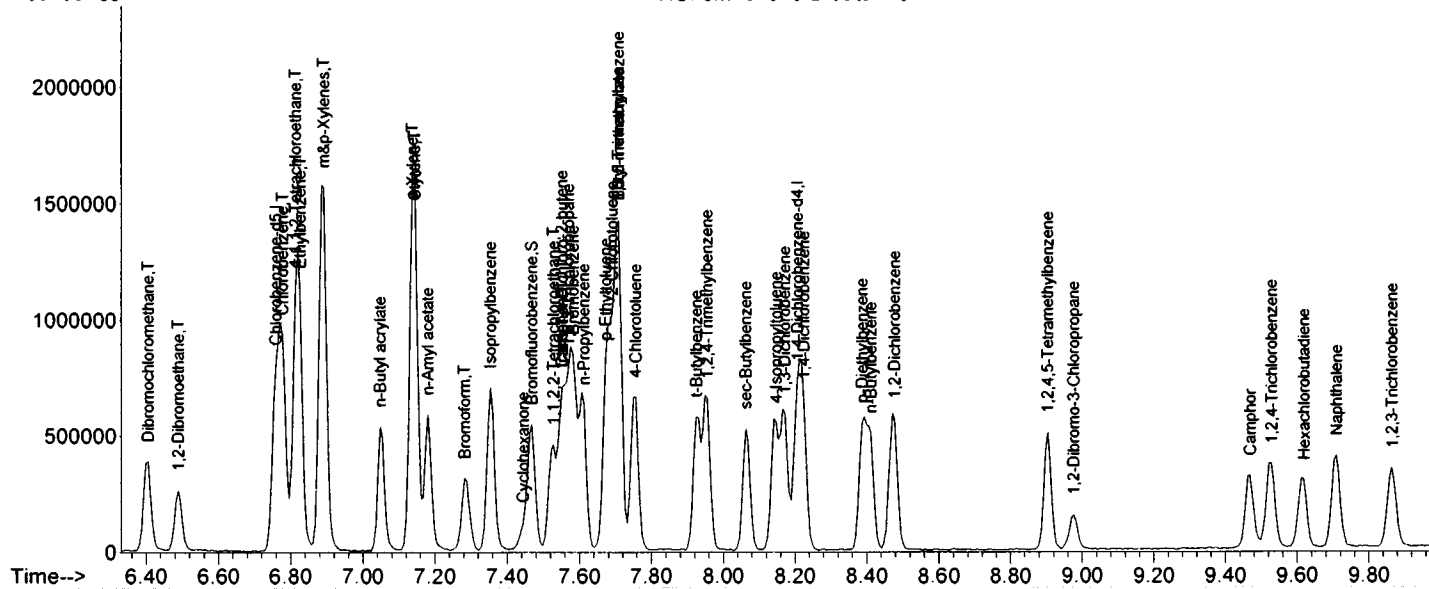
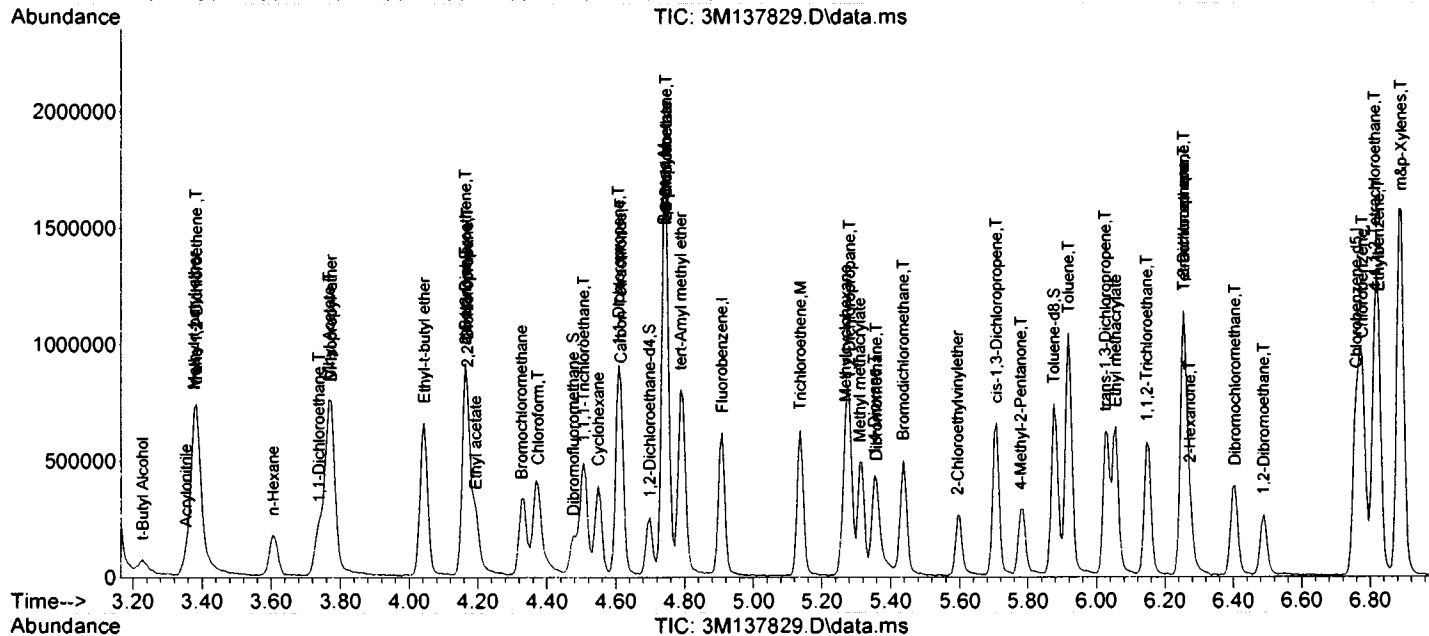
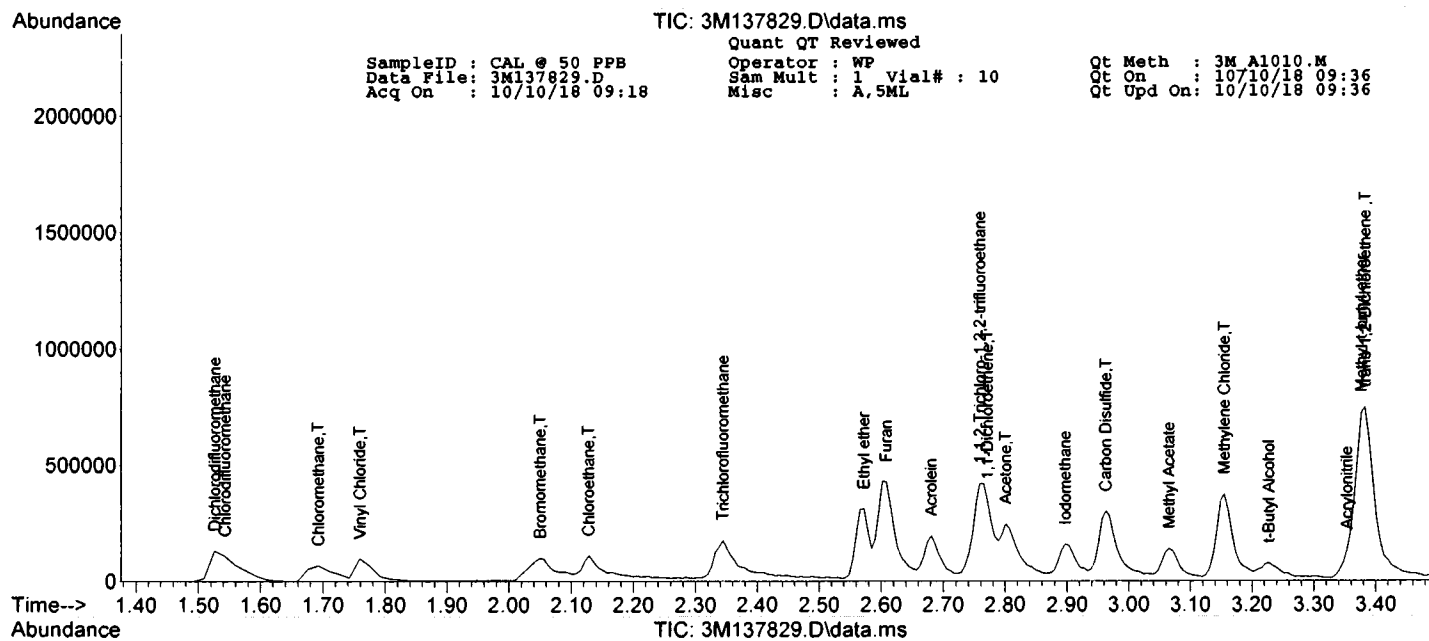
(#) = qualifier out of range (m) = manual integration (+) = signals summed

TIC: 3M137829.D\data.ms

SampleID : CAL @ 50 PPB
Data File: 3M137829.D
Acq On : 10/10/18 09:18

Quant QT Reviewed
Operator : WP
Sam Mult : 1 Vial# : 10
Misc : A,5ML

Of Meth : 3M A1010.M
On : 10/10/18 09:36
Upd On : 10/10/18 09:36



SampleID : CAL @ 100 PPB
 Data File: 3M137834.D
 Acq On : 10/10/18 10:45

Operator : WP
 Sam Mult : 1 Vial# : 15
 Misc : A,5ML

Qt Meth : 3M_A1010.M
 Qt On : 10/10/18 11:25
 Qt Upd On: 10/10/18 09:36

Data Path : G:\GCMSData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.910	96	377477	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.760	117	311752	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.202	152	138468	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.478	111	98227	29.90	ug/l	0.00
Spiked Amount 30.000			Recovery =	99.67%		
39) 1,2-Dichloroethane-d4	4.700	67	71434	31.78	ug/l	0.00
Spiked Amount 30.000			Recovery =	105.93%		
66) Toluene-d8	5.877	98	389560	29.46	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.20%		
76) Bromofluorobenzene	7.469	174	136870	27.53	ug/l	0.00
Spiked Amount 30.000			Recovery =	91.77%		
Target Compounds						
5) Chlorodifluoromethane	1.542	51	347058	76.6224	ug/l	93
6) Dichlorodifluoromethane	1.525	85	191127	76.7910	ug/l	91
7) Chloromethane	1.692	50	265768	74.3815	ug/l	80
8) Bromomethane	2.051	94	109335	96.6297	ug/l	78
9) Vinyl Chloride	1.759	62	206159	96.2970	ug/l	97
10) Chloroethane	2.129	64	105657	113.6999	ug/l	94
11) Trichlorofluoromethane	2.345	101	301429	89.7826	ug/l	93
12) Ethyl ether	2.567	59	289119	104.3802	ug/l	87
13) Furan	2.604	39	653571	97.4510	ug/l	98
14) 1,1,2-Trichloro-1,2,2-...	2.754	101	150461	115.5463	ug/l	92
15) Methylene Chloride	3.156	84	290855	93.0700	ug/l	92
16) Acrolein	2.682	56	282292	637.1512	ug/l	96
17) Acrylonitrile	3.354	53	130082	108.4426	ug/l	99
18) Iodomethane	2.898	142	346102	110.5834	ug/l	97
19) Acetone	2.802	43	544054	494.5911	ug/l	86
20) Carbon Disulfide	2.964	76	862683	108.6900	ug/l	100
21) t-Butyl Alcohol	3.228	59	123807	519.9491	ug/l	86
22) n-Hexane	3.607	57	123939m	127.3463	ug/l	
23) Di-isopropyl-ether	3.775	45	1006915	109.7118	ug/l	96
24) 1,1-Dichloroethene	2.766	61	395163	96.1580	ug/l	97
25) Methyl Acetate	3.066	43	362262	96.2371	ug/l	100
26) Methyl-t-butyl ether	3.378	73	692689	122.2341	ug/l	69
27) 1,1-Dichloroethane	3.739	63	506418	95.2899	ug/l	97
28) trans-1,2-Dichloroethene	3.390	96	273103	104.5382	ug/l	84
29) Ethyl-t-butyl ether	4.045	59	847019	108.0657	ug/l	99
30) cis-1,2-Dichloroethene	4.165	61	527521	101.5294	ug/l	87
31) Bromochloromethane	4.328	49	276172	81.2521	ug/l	72
32) 2,2-Dichloropropane	4.165	77	344150	110.1149	ug/l	94
33) Ethyl acetate	4.195	43	368749	110.6349	ug/l	98
34) 1,4-Dioxane	5.355	88	181994	6371.9835	ug/l	88
35) 1,1-Dichloropropene	4.610	75	355599	99.4883	ug/l	97
36) Chloroform	4.376	83	517577	99.6625	ug/l	84
38) Cyclohexane	4.550	56	240298	103.5694	ug/l	92
40) 1,2-Dichloroethane	4.748	62	455603	99.4693	ug/l	96
41) 2-Butanone	4.165	43	167790	117.6119	ug/l	100
42) 1,1,1-Trichloroethane	4.508	97	393538	95.7312	ug/l	100
43) Carbon Tetrachloride	4.616	117	300311	92.9920	ug/l	95
44) Vinyl Acetate	3.769	43	783142	112.2596	ug/l	100
45) Bromodichloromethane	5.439	83	425251	103.7800	ug/l	92
46) Methylcyclohexane	5.271	83	173745	105.0111	ug/l	95
47) Dibromomethane	5.361	174	223060	77.6727	ug/l	92
48) 1,2-Dichloropropane	5.283	63	300747	96.5449	ug/l	95
49) Trichloroethene	5.138	130	292864	99.5496	ug/l	83
50) Benzene	4.742	78	1048675	101.7297	ug/l	100
51) tert-Amyl methyl ether	4.790	73	756837	104.1129	ug/l	80
53) Iso-propylacetate	4.748	43	662869	100.8345	ug/l	97
54) Methyl methacrylate	5.313	41	421937	110.0645	ug/l	96
55) Dibromochloromethane	6.400	129	325434	97.4927	ug/l	98
56) 2-Chloroethylvinylether	5.595	63	175691	96.5472	ug/l	83
57) cis-1,3-Dichloropropene	5.709	75	499739	105.2950	ug/l	93
58) trans-1,3-Dichloropropene	6.027	75	474662	105.3789	ug/l	99
59) Ethyl methacrylate	6.058	41	394661	113.2125	ug/l	81
60) 1,1,2-Trichloroethane	6.148	97	284561	96.6205	ug/l	87
61) 1,2-Dibromoethane	6.490	107	286979	97.0476	ug/l	90
62) 1,3-Dichloropropane	6.256	76	490373	95.8151	ug/l	95
63) 4-Methyl-2-Pentanone	5.781	43	366211	108.2652	ug/l	95
64) 2-Hexanone	6.274	43	248922	102.1063	ug/l	92
65) Tetrachloroethene	6.256	164	175451	76.9958	ug/l	98
67) Toluene	5.919	92	664628	98.3454	ug/l	96

Quantitation Report (QT Reviewed)

SampleID : CAL @ 100 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137834.D Sam Mult : 1 Vial# : 15 Qt On : 10/10/18 11:25
 Acq On : 10/10/18 10:45 Misc : A,5ML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.814	133	251201	91.3831	ug/l	88
69)	Chlorobenzene	6.778	112	705387	96.9150	ug/l	95
71)	n-Butyl acrylate	7.049	55	604545	119.5750	ug/l	96
72)	n-Amyl acetate	7.181	43	582115	108.1406	ug/l	87
73)	Bromoform	7.283	173	242301	92.1418	ug/l	98
74)	Ethylbenzene	6.826	106	204288	112.7086	ug/l	79
75)	1,1,2,2-Tetrachloroethane	7.523	83	382354	106.4222	ug/l	95
77)	Styrene	7.145	104	717236	121.6963	ug/l	89
78)	m&p-Xylenes	6.886	106	697462	237.6493	ug/l	90
79)	o-Xylene	7.139	106	362472	110.8532	ug/l	75
80)	trans-1,4-Dichloro-2-b...	7.553	53	145763	135.4117	ug/l	63
81)	1,3-Dichlorobenzene	8.172	146	437407	99.0801	ug/l	88
82)	1,4-Dichlorobenzene	8.220	146	441731	95.1262	ug/l	93
83)	1,2-Dichlorobenzene	8.472	146	436854	94.4722	ug/l	91
84)	Isopropylbenzene	7.355	105	743201	117.6649	ug/l	94
85)	Cyclohexanone	7.445	55	64279	402.2245	ug/l	96
86)	Camphene	7.547	93	187586	106.0718	ug/l	100
87)	1,2,3-Trichloropropane	7.571	75	449203	109.0880	ug/l	92
88)	2-Chlorotoluene	7.691	91	433234	105.8474	ug/l	96
89)	p-Ethyltoluene	7.673	105	757630	111.0851	ug/l	83
90)	4-Chlorotoluene	7.752	91	466590	108.6015	ug/l	92
91)	n-Propylbenzene	7.607	91	821184	112.6484	ug/l	96
92)	Bromobenzene	7.583	77	701850	106.5079	ug/l	90
93)	1,3,5-Trimethylbenzene	7.703	105	531387	113.9239	ug/l	88
94)	Butyl methacrylate	7.709	41	487344	116.1130	ug/l	82
95)	t-Butylbenzene	7.926	119	514188	116.9729	ug/l	85
96)	1,2,4-Trimethylbenzene	7.956	105	648154	113.1917	ug/l	87
97)	sec-Butylbenzene	8.064	105	597098	112.6122	ug/l	98
98)	4-Isopropyltoluene	8.142	119	513948	113.8947	ug/l	93
99)	n-Butylbenzene	8.406	91	564691	113.3873	ug/l	94
100)	p-Diethylbenzene	8.388	119	307139	116.1463	ug/l	95
101)	1,2,4,5-Tetramethylben...	8.905	119	517480	115.8859	ug/l	89
102)	1,2-Dibromo-3-Chloropr...	8.977	157	84139	102.4299	ug/l	74
103)	Camphor	9.463	95	270706	1025.2825	ug/l	92
104)	Hexachlorobutadiene	9.614	225	148399	81.3706	ug/l	93
105)	1,2,4-Trichlorobenzene	9.524	180	241713	88.2893	ug/l	95
106)	1,2,3-Trichlorobenzene	9.866	180	230831	83.7838	ug/l	97
107)	Naphthalene	9.710	128	672888	119.1143	ug/l	100

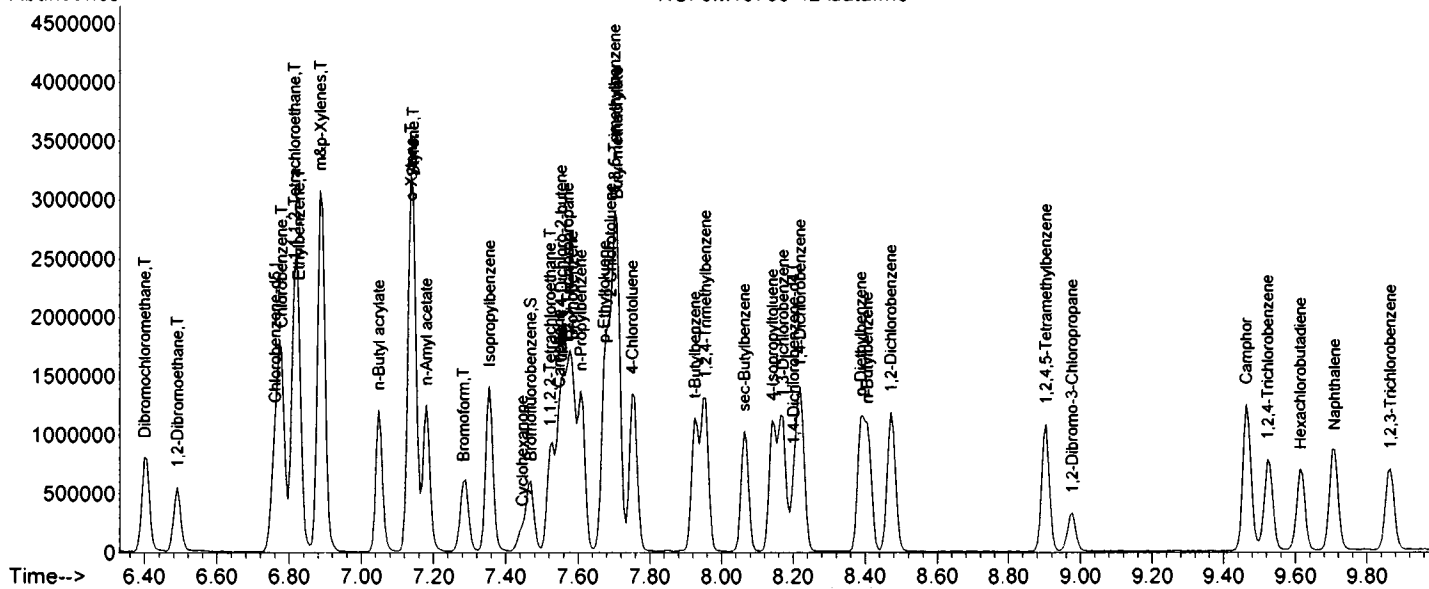
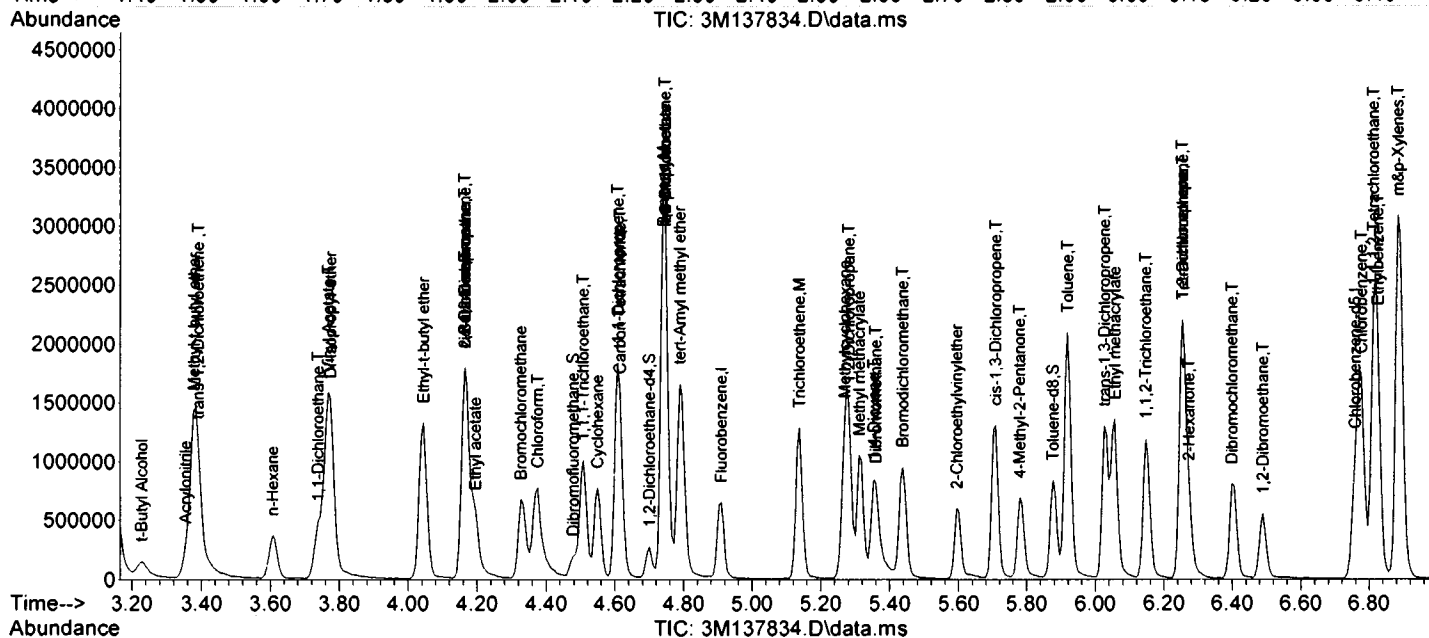
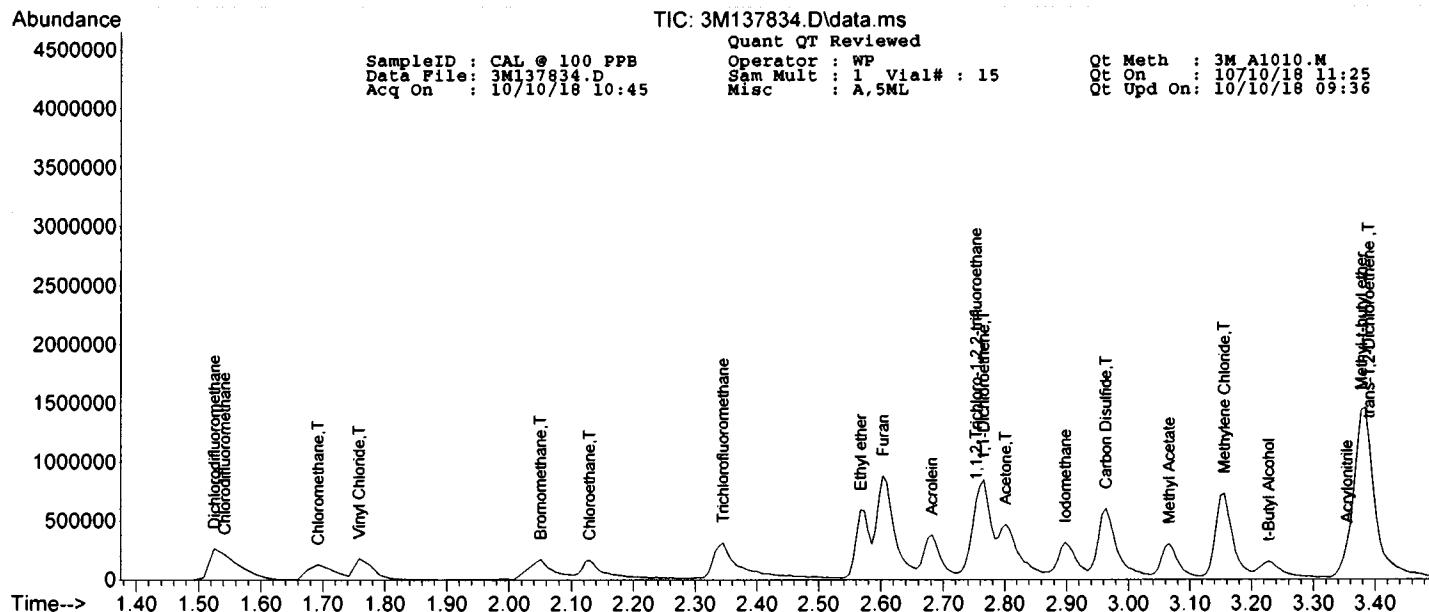
(#) = qualifier out of range (m) = manual integration (+) = signals summed

TIC: 3M137834.D\data.ms

SampleID : CAL @ 100 PPB
 Data File : 3M137834.D
 Acq On : 10/10/18 10:45

Quant QT Reviewed
 Operator : WP
 Sam Mult : 1 Vial# : 15
 Misc : A,5ML

Or Meth : 3M A1010.M
 On : 10/10/18 09:25
 Upd On : 10/10/18 09:36



SampleID : CAL @ 250 PPB
Data File: 3M137832.D
Acq On : 10/10/18 10:10

Operator : WP
Sam Mult : 1 Vial# : 13
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 10/10/18 10:45
Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.910	96	370701	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.760	117	311989	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.208	152	129180	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.483	111	92419	28.64	ug/l	0.00
Spiked Amount 30.000			Recovery =	95.47%		
39) 1,2-Dichloroethane-d4	4.700	67	61849	28.02	ug/l	0.00
Spiked Amount 30.000			Recovery =	93.40%		
66) Toluene-d8	5.883	98	388260	29.34	ug/l	0.00
Spiked Amount 30.000			Recovery =	97.80%		
76) Bromofluorobenzene	7.469	174	136579	29.45	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.17%		
Target Compounds						
5) Chlorodifluoromethane	1.559	51	869529	195.4811	ug/l	98
6) Dichlorodifluoromethane	1.526	85	505238	206.7050	ug/l	90
7) Chloromethane	1.709	50	619925	176.6722	ug/l	80
8) Bromomethane	2.044	94	217385	195.6355	ug/l	89
9) Vinyl Chloride	1.759	62	522018	248.2919	ug/l	95
10) Chloroethane	2.123	64	243101	266.3884	ug/l	96
11) Trichlorofluoromethane	2.339	101	792901	240.4878	ug/l	94
12) Ethyl ether	2.573	59	676403	248.6644	ug/l	82
13) Furan	2.603	39	1691800	256.8675	ug/l	91
14) 1,1,2-Trichloro-1,2,2-...	2.753	101	359912	281.4461	ug/l	93
15) Methylene Chloride	3.156	84	714884	232.9355	ug/l	96
16) Acrolein	2.681	56	660418	1517.8524	ug/l	94
17) Acrylonitrile	3.354	53	301028	255.5386	ug/l	93
18) Iodomethane	2.897	142	783306	254.8496	ug/l	98
19) Acetone	2.801	43	1275905	1181.1073	ug/l	90
20) Carbon Disulfide	2.964	76	2116500	271.5335	ug/l	100
21) t-Butyl Alcohol	3.234	59	291706	1247.4631	ug/l	73
22) n-Hexane	3.606	57	345296m	361.2738	ug/l	
23) Di-isopropyl-ether	3.774	45	2363208	262.1980	ug/l	93
24) 1,1-Dichloroethene	2.765	61	993618	246.2042	ug/l	96
25) Methyl Acetate	3.066	43	935054	252.9432	ug/l	100
26) Methyl-t-butyl ether	3.378	73	1617393	290.6273	ug/l	69
27) 1,1-Dichloroethane	3.744	63	1218002	233.3739	ug/l	97
28) trans-1,2-Dichloroethene	3.390	96	627145m	244.4462	ug/l	
29) Ethyl-t-butyl ether	4.045	59	2002792	260.1939	ug/l	100
30) cis-1,2-Dichloroethene	4.165	61	1237779	242.5840	ug/l	87
31) Bromochloromethane	4.333	49	835286	250.2402	ug/l	78
32) 2,2-Dichloropropane	4.171	77	819856	267.1176	ug/l	96
33) Ethyl acetate	4.195	43	875787	267.5633	ug/l	98
34) 1,4-Dioxane	5.360	88	418014	14903.0493	ug/l	88
35) 1,1-Dichloropropene	4.609	75	839712	239.2261	ug/l	95
36) Chloroform	4.375	83	1237482	242.6401	ug/l	88
38) Cyclohexane	4.549	56	630538	276.7320	ug/l	90
40) 1,2-Dichloroethane	4.748	62	991157	220.3493	ug/l	94
41) 2-Butanone	4.165	43	373704	266.7349	ug/l	97
42) 1,1,1-Trichloroethane	4.507	97	937956	232.3358	ug/l	100
43) Carbon Tetrachloride	4.615	117	696473	219.6066	ug/l	93
44) Vinyl Acetate	3.768	43	1607259	234.6041	ug/l	100
45) Bromodichloromethane	5.438	83	1028140	255.4980	ug/l	96
46) Methylcyclohexane	5.270	83	446384	274.7252	ug/l	96
47) Dibromomethane	5.360	174	501115	177.6850	ug/l	91
48) 1,2-Dichloropropane	5.282	63	709232	231.8373	ug/l	91
49) Trichloroethene	5.138	130	681510	235.8917	ug/l	86
50) Benzene	4.742	78	2249012	222.1597	ug/l	100
51) tert-Amyl methyl ether	4.796	73	1765833	247.3538	ug/l	79
53) Iso-propylacetate	4.748	43	1493110	226.9569	ug/l	98
54) Methyl methacrylate	5.318	41	928246	241.9540	ug/l	91
55) Dibromochloromethane	6.406	129	779389	233.3099	ug/l	94
56) 2-Chloroethylvinylether	5.601	63	445182	244.4543	ug/l	84
57) cis-1,3-Dichloropropene	5.709	75	1201005	252.8595	ug/l	93
58) trans-1,3-Dichloropropene	6.033	75	1137451	252.3318	ug/l	97
59) Ethyl methacrylate	6.057	41	971559	278.4897	ug/l	83
60) 1,1,2-Trichloroethane	6.153	97	668351	226.7611	ug/l	88
61) 1,2-Dibromoethane	6.490	107	707503	239.0743	ug/l	93
62) 1,3-Dichloropropane	6.255	76	1117376	218.1608	ug/l	99
63) 4-Methyl-2-Pentanone	5.787	43	908310	268.3252	ug/l	92
64) 2-Hexanone	6.279	43	608610	249.4584	ug/l	90
65) Tetrachloroethene	6.255	164	405826	177.9594	ug/l	94
67) Toluene	5.919	92	1513192	223.7378	ug/l	97

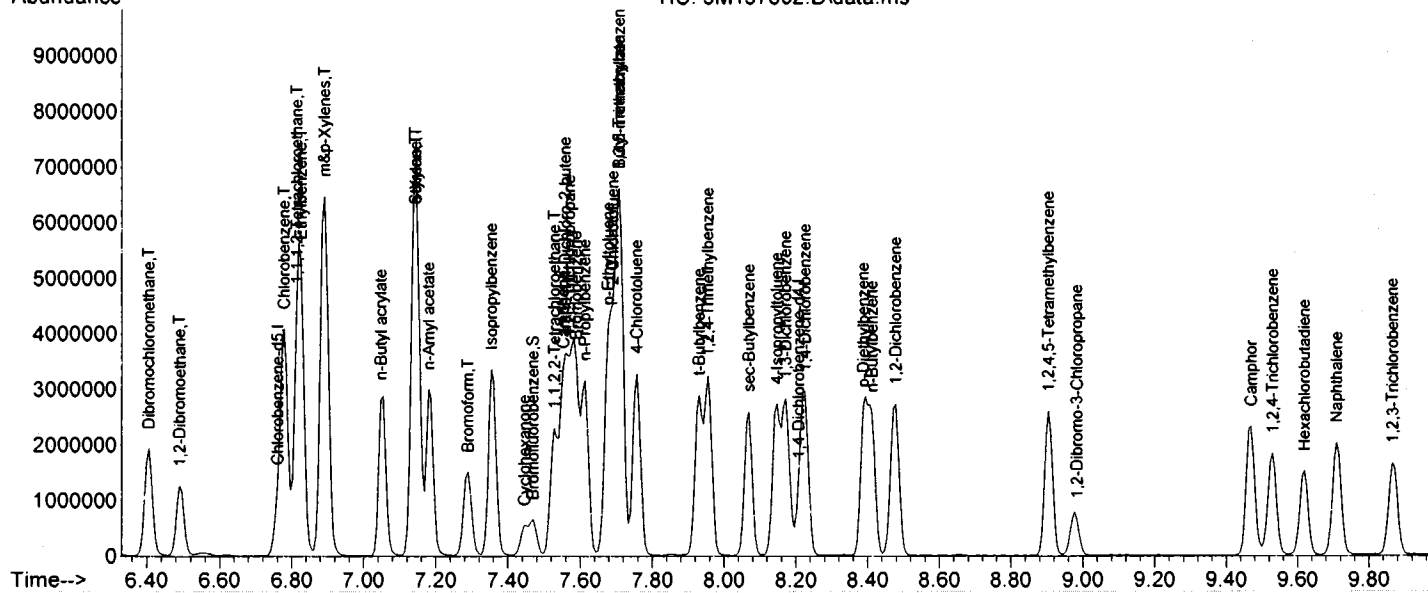
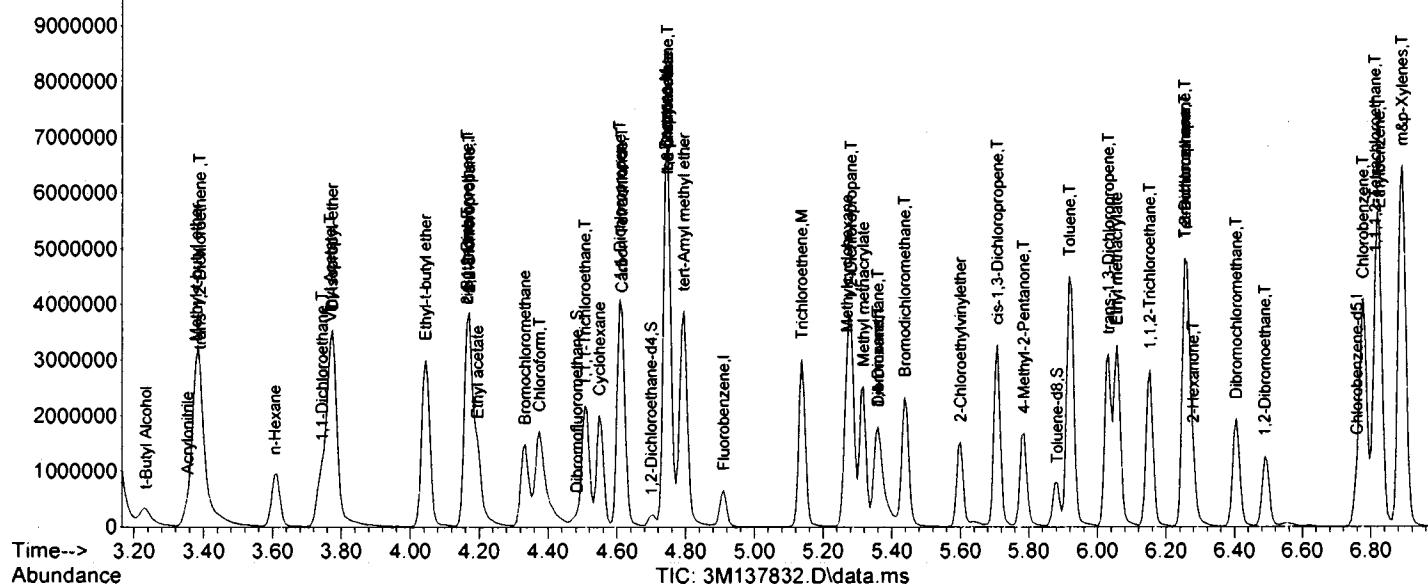
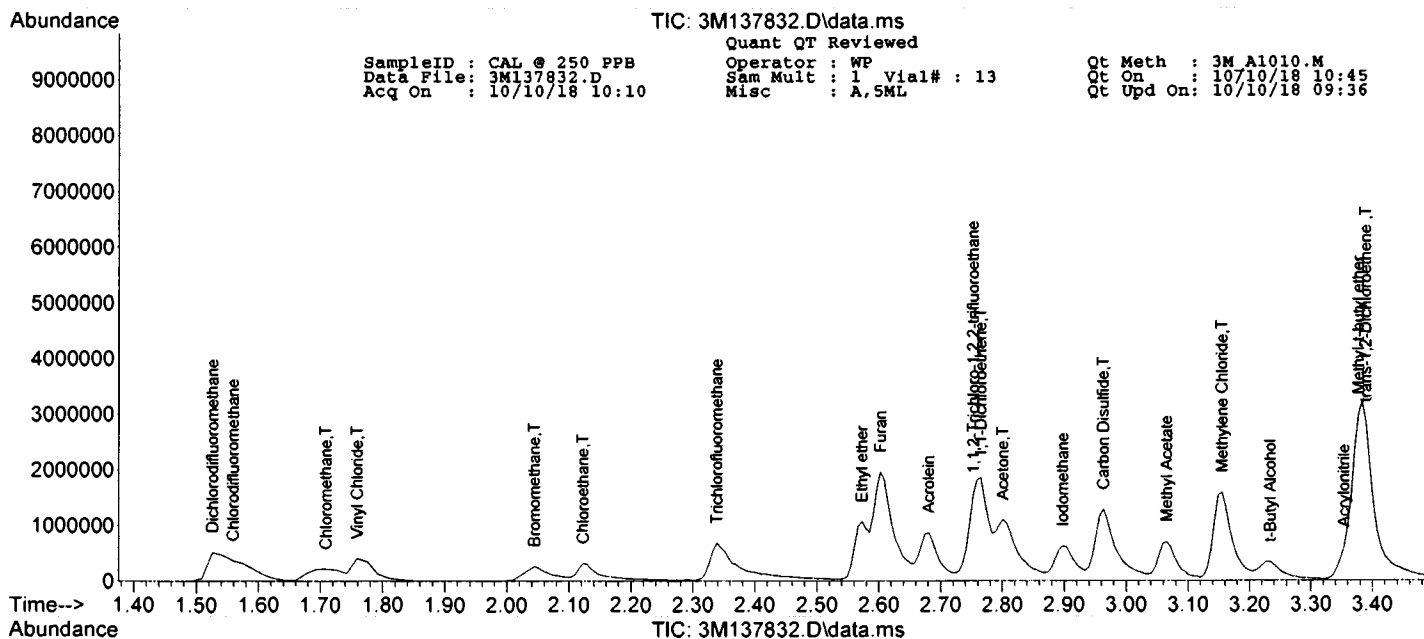
Quantitation Report (QT Reviewed)

SampleID : CAL @ 250 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137832.D Sam Mult : 1 Vial# : 13 Qt On : 10/10/18 10:45
 Acq On : 10/10/18 10:10 Misc : A,5ML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.814	133	563573	204.8636	ug/l	94
69) Chlorobenzene	6.778	112	1667412	228.9161	ug/l	96
71) n-Butyl acrylate	7.048	55	1535267	325.4991	ug/l	96
72) n-Amyl acetate	7.180	43	1411262	281.0230	ug/l	85
73) Bromoform	7.289	173	590118	240.5441	ug/l	89
74) Ethylbenzene	6.826	106	473984	280.3059	ug/l	78
75) 1,1,2,2-Tetrachloroethane	7.529	83	906261	270.3796	ug/l	91
77) Styrene	7.144	104	1566224	284.8545	ug/l	97
78) m&p-Xylenes	6.892	106	1558663	569.2753	ug/l	80
79) o-Xylene	7.144	106	816814	267.7634	ug/l	67
80) trans-1,4-Dichloro-2-b...	7.559	53	347251	345.7852	ug/l	64
81) 1,3-Dichlorobenzene	8.172	146	1021453	248.0124	ug/l	90
82) 1,4-Dichlorobenzene	8.226	146	1070241	247.0462	ug/l	94
83) 1,2-Dichlorobenzene	8.478	146	1052438	243.9599	ug/l	92
84) Isopropylbenzene	7.355	105	1814846	307.9885	ug/l	93
85) Cyclohexanone	7.445	55	181312	1216.1304	ug/l	99
86) Camphene	7.553	93	482953	292.7241	ug/l	98
87) 1,2,3-Trichloropropane	7.571	75	1023360	266.3894	ug/l	91
88) 2-Chlorotoluene	7.691	91	952975	249.5706	ug/l	95
89) p-Ethyltoluene	7.679	105	1898247	298.3359	ug/l	79
90) 4-Chlorotoluene	7.757	91	1103436	275.2970	ug/l	93
91) n-Propylbenzene	7.613	91	1953678	287.2710	ug/l	94
92) Bromobenzene	7.589	77	1635401	266.0209	ug/l	90
93) 1,3,5-Trimethylbenzene	7.709	105	1062257	244.1111	ug/l	75
94) Butyl methacrylate	7.709	41	1126875	287.7896	ug/l	82
95) t-Butylbenzene	7.931	119	1295340	315.8647	ug/l	85
96) 1,2,4-Trimethylbenzene	7.955	105	1534805	287.3054	ug/l	85
97) sec-Butylbenzene	8.069	105	1531524	309.6120	ug/l	97
98) 4-Isopropyltoluene	8.148	119	1283076	304.7831	ug/l	91
99) n-Butylbenzene	8.412	91	1427389	307.2203	ug/l	94
100) p-Diethylbenzene	8.388	119	785704	318.4810	ug/l	94
101) 1,2,4,5-Tetramethylben...	8.904	119	1277580	306.6756	ug/l	90
102) 1,2-Dibromo-3-Chloropr...	8.983	157	200673	261.8621	ug/l	73
103) Camphor	9.469	95	531437	2157.5040	ug/l	91
104) Hexachlorobutadiene	9.619	225	336146	197.5689	ug/l	96
105) 1,2,4-Trichlorobenzene	9.529	180	574968	225.1157	ug/l	96
106) 1,2,3-Trichlorobenzene	9.866	180	551004	214.3752	ug/l	96
107) Naphthalene	9.709	128	1565432	297.0362	ug/l	100

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



SampleID : CAL @ 500 PPB
Data File: 3M137830.D
Acq On : 10/10/18 09:35

Operator : WP
Sam Mult : 1 Vial# : 11
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 10/10/18 09:49
Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.909	96	352847	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.759	117	272696	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.207	152	117881	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.482	111	82179	26.76	ug/l	0.00
Spiked Amount 30.000			Recovery =	89.20%		
39) 1,2-Dichloroethane-d4	4.699	67	58988	28.07	ug/l	0.00
Spiked Amount 30.000			Recovery =	93.57%		
66) Toluene-d8	5.876	98	360757	31.19	ug/l	0.00
Spiked Amount 30.000			Recovery =	103.97%		
76) Bromofluorobenzene	7.468	174	133720	31.60	ug/l	0.00
Spiked Amount 30.000			Recovery =	105.33%		
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.559	51	1715780	405.2467	ug/l	98
6) Dichlorodifluoromethane	1.526	85	1052358	452.3304	ug/l	90
7) Chloromethane	1.692	50	1321426	395.6483	ug/l	82
8) Bromomethane	2.044	94	224953	212.6900	ug/l	77
9) Vinyl Chloride	1.776	62	986378	492.8988	ug/l	94
10) Chloroethane	2.116	64	409237	471.1300	ug/l	93
11) Trichlorofluoromethane	2.338	101	1568427	499.7763	ug/l	89
12) Ethyl ether	2.572	59	1298766	501.6218	ug/l	86
13) Furan	2.602	39	3216300	513.0434	ug/l	91
14) 1,1,2-Trichloro-1,2,2-...	2.752	101	689833	566.7353	ug/l	93
15) Methylene Chloride	3.155	84	1381606	472.9570	ug/l	95
16) Acrolein	2.680	56	1271263	3069.6113	ug/l	99
17) Acrylonitrile	3.353	53	607957	542.2003	ug/l	100
18) Iodomethane	2.897	142	1571589	537.1912	ug/l	99
19) Acetone	2.806	43	2488671	2420.3369	ug/l	90
20) Carbon Disulfide	2.963	76	4048878	545.7291	ug/l	100
21) t-Butyl Alcohol	3.239	59	594494	2670.9585	ug/l	79
22) n-Hexane	3.611	57	702345	772.0276	ug/l	79
23) Di-isopropyl-ether	3.774	45	4105040	478.5002	ug/l	95
24) 1,1-Dichloroethene	2.764	61	1848320	481.1611	ug/l	89
25) Methyl Acetate	3.065	43	1804171	512.7448	ug/l	100
26) Methyl-t-butyl ether	3.383	73	2821176	532.5843	ug/l	69
27) 1,1-Dichloroethane	3.738	63	2328354	468.6953	ug/l	98
28) trans-1,2-Dichloroethene	3.389	96	1154675	472.8381	ug/l	94
29) Ethyl-t-butyl ether	4.044	59	3532237	482.1125	ug/l	98
30) cis-1,2-Dichloroethene	4.164	61	2243754	461.9889	ug/l	85
31) Bromochloromethane	4.326	49	1274208	401.0510	ug/l	74
32) 2,2-Dichloropropane	4.170	77	1460265	499.8434	ug/l	93
33) Ethyl acetate	4.194	43	1757409	564.0768	ug/l	98
34) 1,4-Dioxane	5.359	88	779870	29210.8271	ug/l	82
35) 1,1-Dichloropropene	4.609	75	1465096	438.5121	ug/l	96
36) Chloroform	4.374	83	2367406	487.6786	ug/l	86
38) Cyclohexane	4.548	56	1201322	553.9173	ug/l	91
40) 1,2-Dichloroethane	4.747	62	1708048	398.9392	ug/l	94
41) 2-Butanone	4.164	43	666803	500.0195	ug/l	99
42) 1,1,1-Trichloroethane	4.506	97	1767875	460.0686	ug/l	100
43) Carbon Tetrachloride	4.615	117	1255911	416.0422	ug/l	90
44) Vinyl Acetate	3.768	43	3065523	470.1014	ug/l	100
45) Bromodichloromethane	5.438	83	1894008	494.4864	ug/l	96
46) Methylcyclohexane	5.269	83	825454	533.7281	ug/l	96
47) Dibromomethane	5.359	174	904349	336.8889	ug/l	94
48) 1,2-Dichloropropane	5.281	63	1319871	453.2771	ug/l	95
49) Trichloroethene	5.137	130	1243395	452.1545	ug/l	87
50) Benzene	4.741	78	3622475	375.9380	ug/l	100
51) tert-Amyl methyl ether	4.795	73	3119599	459.0976	ug/l	80
53) Iso-propylacetate	4.747	43	2479278	431.1589	ug/l	98
54) Methyl methacrylate	5.317	41	1724426	514.2506	ug/l	89
55) Dibromochloromethane	6.405	129	1475241	505.2455	ug/l	95
56) 2-Chloroethylvinylether	5.600	63	887908	557.8130	ug/l	84
57) cis-1,3-Dichloropropene	5.708	75	2222332	535.3081	ug/l	95
58) trans-1,3-Dichloropropene	6.032	75	2076932	527.1353	ug/l	95
59) Ethyl methacrylate	6.056	41	1779794	583.6738	ug/l	84
60) 1,1,2-Trichloroethane	6.152	97	1239328	481.0728	ug/l	89
61) 1,2-Dibromoethane	6.489	107	1318711	509.8176	ug/l	94
62) 1,3-Dichloropropane	6.254	76	1874966	418.8237	ug/l	98
63) 4-Methyl-2-Pentanone	5.786	43	1742831	589.0379	ug/l	89
64) 2-Hexanone	6.279	43	1173422	550.2674	ug/l	88
65) Tetrachloroethene	6.254	164	678507	340.4050	ug/l	90
67) Toluene	5.918	92	2619281	443.0859	ug/l	91

Quantitation Report (QT Reviewed)

SampleID : CAL @ 500 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137830.D Sam Mult : 1 Vial# : 11 Qt On : 10/10/18 09:49
 Acq On : 10/10/18 09:35 Misc : A,SML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.813	133	947596	394.0927	ug/l	93
69)	Chlorobenzene	6.777	112	2863862	449.8275	ug/l	91
71)	n-Butyl acrylate	7.047	55	2788857	647.9531	ug/l	96
72)	n-Amyl acetate	7.180	43	2634322	574.8500	ug/l	84
73)	Bromoform	7.288	173	1114336	497.7639	ug/l	93
74)	Ethylbenzene	6.825	106	739954	479.5398	ug/l	68
75)	1,1,2,2-Tetrachloroethane	7.528	83	1677942	548.5914	ug/l	92
77)	Styrene	7.144	104	2477361	493.7533	ug/l	100
78)	m&p-Xylenes	6.891	106	2505934	1002.9776	ug/l	72
79)	o-Xylene	7.138	106	1337603	480.5148	ug/l	71
80)	trans-1,4-Dichloro-2-b...	7.558	53	638707	696.9732	ug/l	63
81)	1,3-Dichlorobenzene	8.171	146	1785989	475.2096	ug/l	91
82)	1,4-Dichlorobenzene	8.225	146	1889387	477.9351	ug/l	95
83)	1,2-Dichlorobenzene	8.477	146	1888508	479.7249	ug/l	91
84)	Isopropylbenzene	7.354	105	3139790	583.9112	ug/l	93
85)	Cyclohexanone	7.444	55	376374	2766.4617	ug/l	98
86)	Camphene	7.552	93	832225	552.7717	ug/l	97
87)	1,2,3-Trichloropropane	7.570	75	1780213	507.8226	ug/l	90
88)	2-Chlorotoluene	7.690	91	1542645	442.7202	ug/l	95
89)	p-Ethyltoluene	7.678	105	3167665	545.5612	ug/l	80
90)	4-Chlorotoluene	7.756	91	1836596	502.1338	ug/l	91
91)	n-Propylbenzene	7.612	91	3353157	540.3115	ug/l	91
92)	Bromobenzene	7.588	77	2826215	503.7885	ug/l	89
93)	1,3,5-Trimethylbenzene	7.708	105	1658706	417.7138	ug/l	73
94)	Butyl methacrylate	7.714	41	1911700	535.0206	ug/l	80
95)	t-Butylbenzene	7.930	119	2287698	611.3184	ug/l	85
96)	1,2,4-Trimethylbenzene	7.954	105	2666813	547.0595	ug/l	87
97)	sec-Butylbenzene	8.069	105	2712477	600.9129	ug/l	96
98)	4-Isopropyltoluene	8.147	119	2256428	587.3697	ug/l	92
99)	n-Butylbenzene	8.411	91	2538167	598.6586	ug/l	93
100)	p-Diethylbenzene	8.387	119	1382684	614.1846	ug/l	94
101)	1,2,4,5-Tetramethylben...	8.904	119	2177327	572.7515	ug/l	88
102)	1,2-Dibromo-3-Chloropr...	8.976	157	410242	586.6448	ug/l	73
103)	Camphor	9.462	95	833387	3707.6439	ug/l	94
104)	Hexachlorobutadiene	9.618	225	586176	377.5462	ug/l	98
105)	1,2,4-Trichlorobenzene	9.528	180	1044104	447.9786	ug/l	96
106)	1,2,3-Trichlorobenzene	9.865	180	1008456	429.9602	ug/l	97
107)	Naphthalene	9.708	128	2745185	570.8188	ug/l	100

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

Abundance

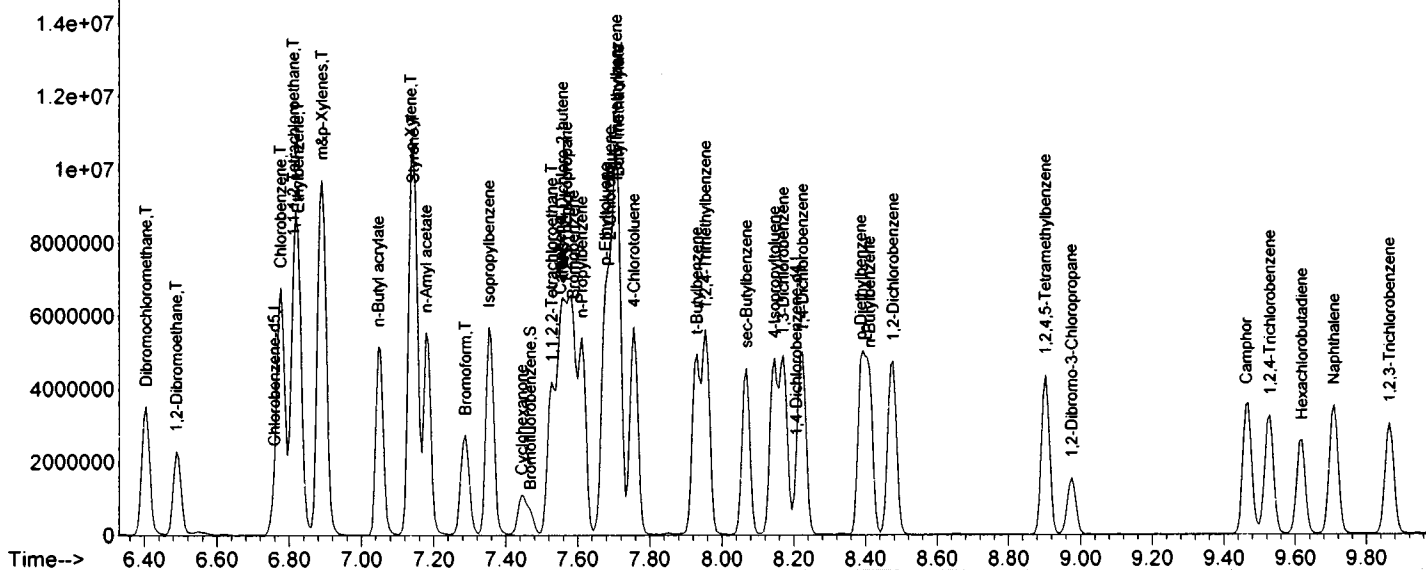
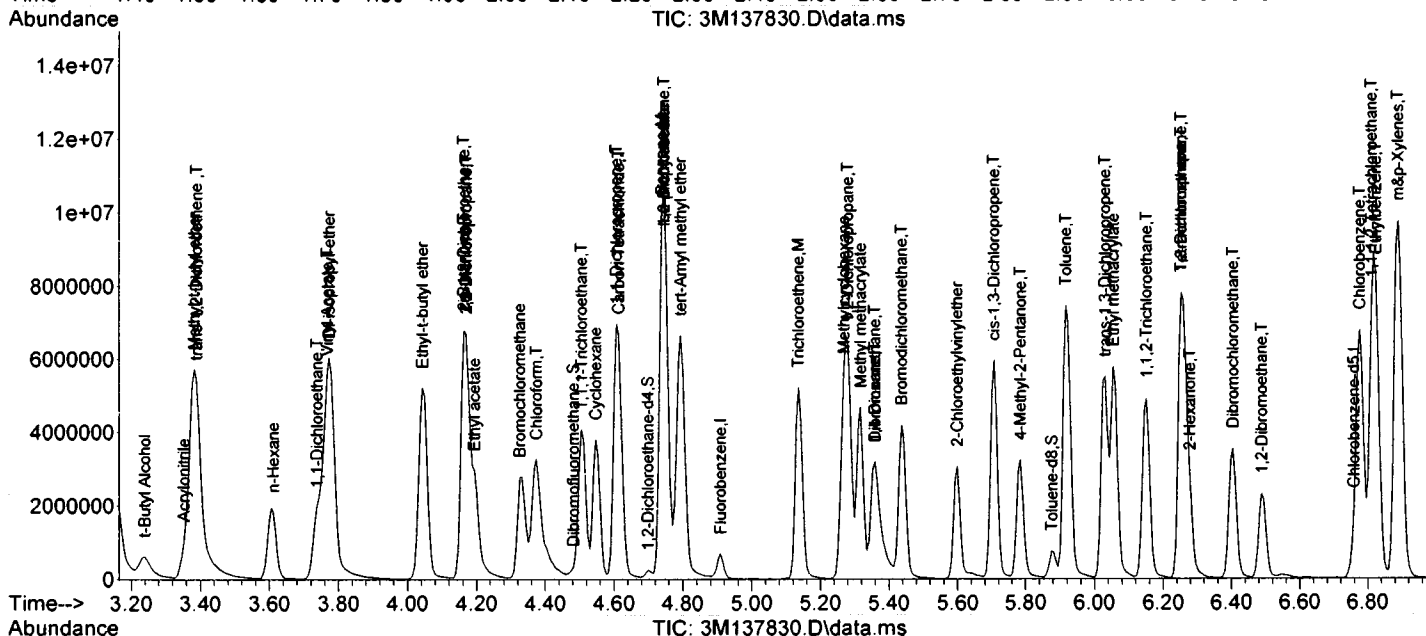
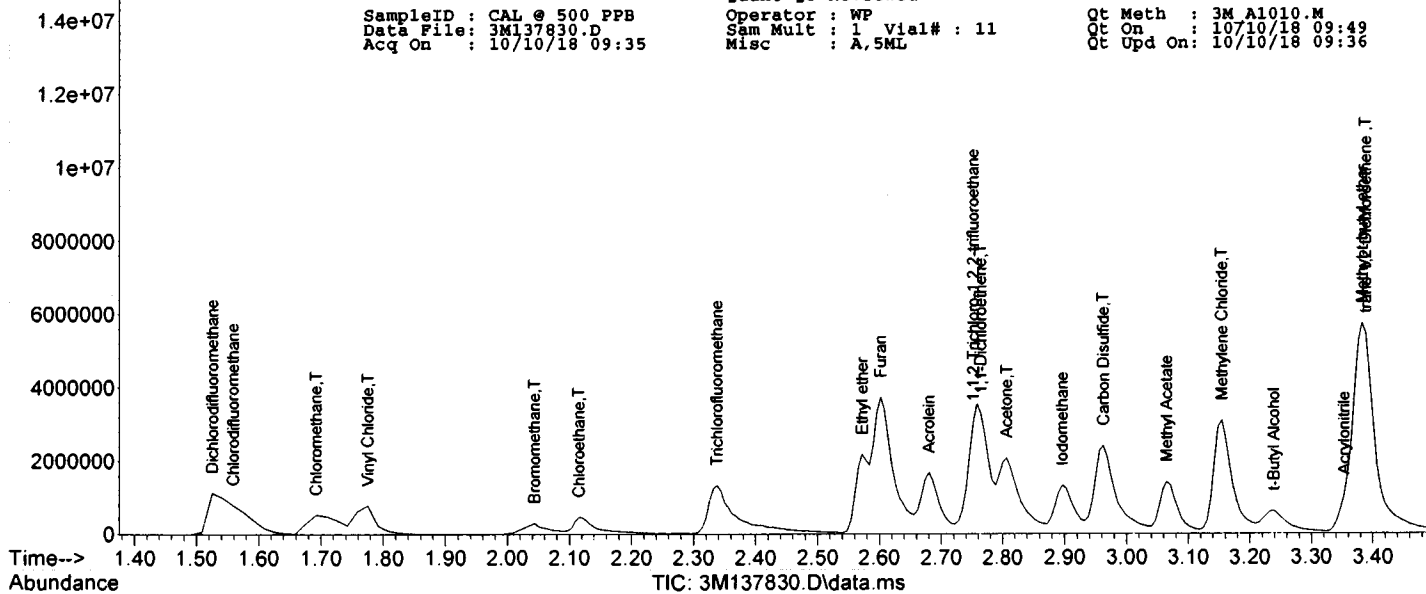
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SampleID : CAL @ 500 PPB
Data File: 3M137830.D
Acq On : 10/10/18 09:35

Quant QT Reviewed

Operator : WP
Sam Mult : 1 Vial# : 11
Misc : A,5ML

QC Meth : 3M A1010.M
On : 10/10/18 09:49
Upd On: 10/10/18 09:36



SampleID : CAL @ 1 PPB
 Data File: 3M137825.D
 Acq On : 10/10/18 08:10

Operator : WP
 Sam Mult : 1 Vial# : 6
 Misc : A,5ML

Qt Meth : 3M_A1010.M
 Qt On : 10/10/18 09:39
 Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.910	96	307867	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.760	117	251278	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.207	152	109117	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	86584	32.31	ug/l	0.00
Spiked Amount 30.000			Recovery	=	107.70%	
39) 1,2-Dichloroethane-d4	4.699	67	60524	33.01	ug/l	0.00
Spiked Amount 30.000			Recovery	=	110.03%	
66) Toluene-d8	5.883	98	307158	28.82	ug/l	0.00
Spiked Amount 30.000			Recovery	=	96.07%	
76) Bromofluorobenzene	7.469	174	107252	27.38	ug/l	0.00
Spiked Amount 30.000			Recovery	=	91.27%	
Target Compounds						
5) Chlorodifluoromethane	1.545	51	3901	1.0560	ug/l	84
6) Dichlorodifluoromethane	1.529	85	1866m	0.9192	ug/l	
7) Chloromethane	1.712	50	4773	1.6379	ug/l	91
8) Bromomethane	2.056	94	2313	2.5064	ug/l	85
9) Vinyl Chloride	1.762	62	2149	1.2308	ug/l	77
10) Chloroethane	2.134	64	1731	2.2839	ug/l	46
11) Trichlorofluoromethane	2.345	101	3860m	1.4097	ug/l	
12) Ethyl ether	2.573	59	3019	1.3364	ug/l	96
13) Furan	2.615	39	7073	1.2931	ug/l	80
14) 1,1,2-Trichloro-1,2,2-...	2.747	101	1816	1.7099	ug/l	73
15) Methylene Chloride	3.156	84	4303	1.6882	ug/l	79
16) Acrolein	2.687	56	2332	6.4536	ug/l	54
17) Acrylonitrile	3.372	53	877	0.8964	ug/l	87
18) Iodomethane	2.903	142	2179	0.8536	ug/l	84
19) Acetone	2.807	43	5040	5.6177	ug/l	91
20) Carbon Disulfide	2.969	76	8885	1.3725	ug/l	100
21) t-Butyl Alcohol	3.234	59	1404	7.2295	ug/l	96
22) n-Hexane	3.594	57	1010m	1.2724	ug/l	
23) Di-isopropyl-ether	3.774	45	8226	1.0989	ug/l	93
24) 1,1-Dichloroethene	2.771	61	3895	1.1621	ug/l	68
25) Methyl Acetate	3.065	43	4190	1.3648	ug/l	100
26) Methyl-t-butyl ether	3.378	73	6464m	1.3986	ug/l	
27) 1,1-Dichloroethane	3.744	63	4504	1.0391	ug/l	100
28) trans-1,2-Dichloroethene	3.396	96	2881m	1.3521	ug/l	
29) Ethyl-t-butyl ether	4.045	59	5368	0.8397	ug/l	96
30) cis-1,2-Dichloroethene	4.165	61	4169	0.9838	ug/l	64
31) Bromochloromethane	4.327	49	2873	1.0364	ug/l	68
32) 2,2-Dichloropropane	4.171	77	2991	1.1734	ug/l	67
33) Ethyl acetate	4.201	43	2835m	1.0429	ug/l	
34) 1,4-Dioxane	5.348	88	704	30.2216	ug/l	65
35) 1,1-Dichloropropene	4.609	75	3280	1.1252	ug/l	86
36) Chloroform	4.369	83	5258	1.2414	ug/l	61
38) Cyclohexane	4.555	56	2401	1.2688	ug/l	70
40) 1,2-Dichloroethane	4.747	62	5036	1.3481	ug/l	48
41) 2-Butanone	4.171	43	1206m	1.0365	ug/l	
42) 1,1,1-Trichloroethane	4.507	97	4087m	1.2190	ug/l	
43) Carbon Tetrachloride	4.621	117	2685	1.0194	ug/l	69
44) Vinyl Acetate	3.774	43	5841	1.0266	ug/l	100
45) Bromodichloromethane	5.438	83	3480	1.0413	ug/l	79
46) Methylcyclohexane	5.270	83	1291	0.9567	ug/l	92
47) Dibromomethane	5.360	174	1913m	0.8167	ug/l	
48) 1,2-Dichloropropane	5.282	63	3460	1.3619	ug/l	96
49) Trichloroethene	5.138	130	3096	1.2903	ug/l	68
50) Benzene	4.741	78	9757	1.1605	ug/l	100
51) tert-Amyl methyl ether	4.789	73	5463	0.9214	ug/l	74
53) Iso-propylacetate	4.747	43	5009	0.9453	ug/l	92
54) Methyl methacrylate	5.312	41	2283m	0.7389	ug/l	
55) Dibromochloromethane	6.405	129	3202m	1.1901	ug/l	
56) 2-Chloroethylvinylether	5.594	63	688	0.4691	ug/l	87
57) cis-1,3-Dichloropropene	5.708	75	3608m	0.9432	ug/l	
58) trans-1,3-Dichloropropene	6.033	75	3541	0.9753	ug/l	92
59) Ethyl methacrylate	6.051	41	3159	1.1243	ug/l	91
60) 1,1,2-Trichloroethane	6.147	97	3486m	1.4685	ug/l	
61) 1,2-Dibromoethane	6.489	107	3009	1.2624	ug/l	91
62) 1,3-Dichloropropane	6.249	76	3450	0.8363	ug/l	68
63) 4-Methyl-2-Pentanone	5.787	43	2531	0.9283	ug/l	98
64) 2-Hexanone	6.273	43	1686m	0.8580	ug/l	
65) Tetrachloroethene	6.255	164	1932	1.0519	ug/l	66
67) Toluene	5.925	92	5546	1.0181	ug/l	82

Quantitation Report (QT Reviewed)

SampleID : CAL @ 1 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137825.D Sam Mult : 1 Vial# : 6 Qt On : 10/10/18 09:39
 Acq On : 10/10/18 08:10 Misc : A,5ML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.826	133	2235m	1.0087	ug/l	
69) Chlorobenzene	6.778	112	7284	1.2416	ug/l	86
71) n-Butyl acrylate	7.054	55	3219	0.8080	ug/l	96
72) n-Amyl acetate	7.186	43	3287	0.7749	ug/l	81
73) Bromoform	7.276	173	1951	0.9415	ug/l	99
74) Ethylbenzene	6.826	106	2152	1.5067	ug/l	69
75) 1,1,2,2-Tetrachloroethane	7.529	83	2710	0.9572	ug/l	62
77) Styrene	7.150	104	4442	0.9564	ug/l	81
78) m&p-Xylenes	6.892	106	5954	2.5744	ug/l	93
79) o-Xylene	7.132	106	2404m	0.9330	ug/l	
80) trans-1,4-Dichloro-2-b...	7.559	53	954m	1.1246	ug/l	
81) 1,3-Dichlorobenzene	8.171	146	3749m	1.0776	ug/l	
82) 1,4-Dichlorobenzene	8.219	146	4976	1.3598	ug/l	86
83) 1,2-Dichlorobenzene	8.472	146	4450	1.2212	ug/l	88
84) Isopropylbenzene	7.354	105	4868	0.9780	ug/l	93
85) Cyclohexanone	7.469	55	752m	5.9714	ug/l	
86) Camphene	7.547	93	1687	1.2105	ug/l	97
87) 1,2,3-Trichloropropane	7.571	75	3622	1.1162	ug/l	96
88) 2-Chlorotoluene	7.691	91	3711	1.1506	ug/l	83
89) p-Ethyltoluene	7.679	105	3384	0.6296	ug/l	92
90) 4-Chlorotoluene	7.757	91	3248	0.9593	ug/l	64
91) n-Propylbenzene	7.613	91	6955	1.2107	ug/l	86
92) Bromobenzene	7.583	77	7398	1.4247	ug/l	81
93) 1,3,5-Trimethylbenzene	7.703	105	4085	1.1114	ug/l	97
94) Butyl methacrylate	7.709	41	2565	0.7755	ug/l	70
95) t-Butylbenzene	7.925	119	3533	1.0199	ug/l	79
96) 1,2,4-Trimethylbenzene	7.949	105	3975	0.8809	ug/l	97
97) sec-Butylbenzene	8.063	105	3588	0.8587	ug/l	77
98) 4-Isopropyltoluene	8.147	119	2980	0.8380	ug/l	82
99) n-Butylbenzene	8.412	91	3706	0.9443	ug/l	74
100) p-Diethylbenzene	8.388	119	1754m	0.8417	ug/l	
101) 1,2,4,5-Tetramethylben...	8.904	119	2455	0.6977	ug/l	71
102) 1,2-Dibromo-3-Chloropr...	8.970	157	301	0.4650	ug/l	50
103) Camphor	9.469	95	1954	9.3913	ug/l	94
104) Hexachlorobutadiene	9.619	225	1848	1.2859	ug/l	79
105) 1,2,4-Trichlorobenzene	9.523	180	1826m	0.8464	ug/l	
106) 1,2,3-Trichlorobenzene	9.865	180	2170m	0.9995	ug/l	
107) Naphthalene	9.709	128	4400m	0.9884	ug/l	

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

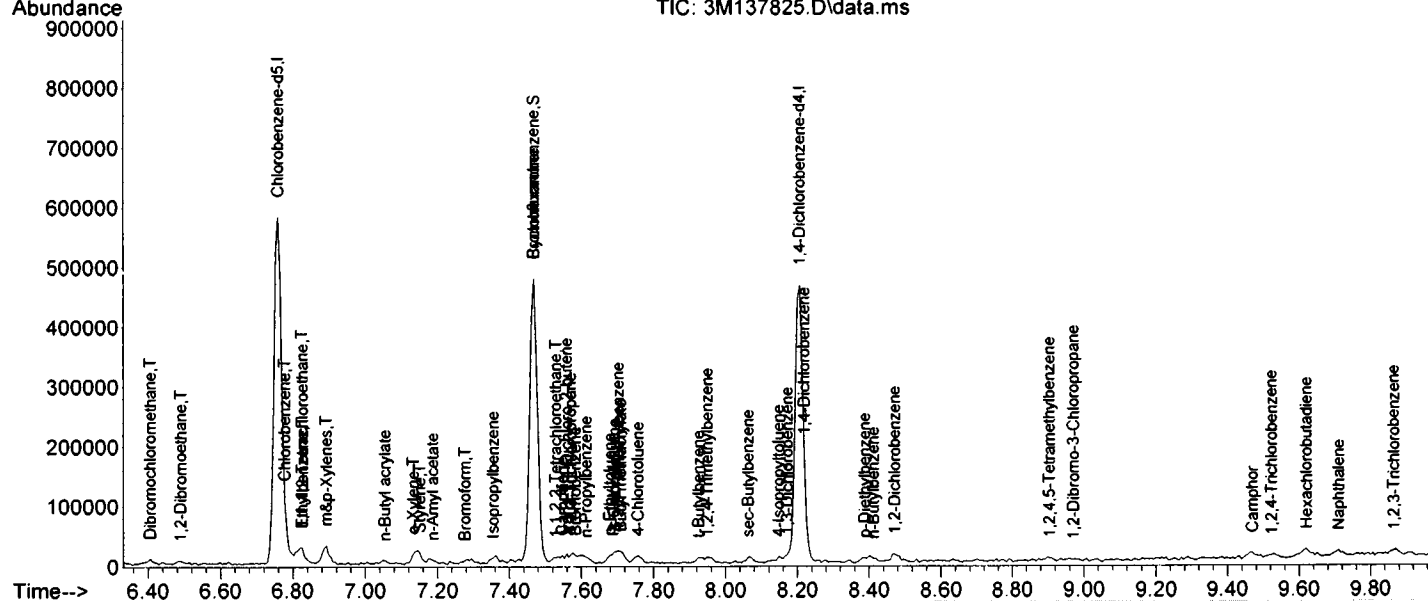
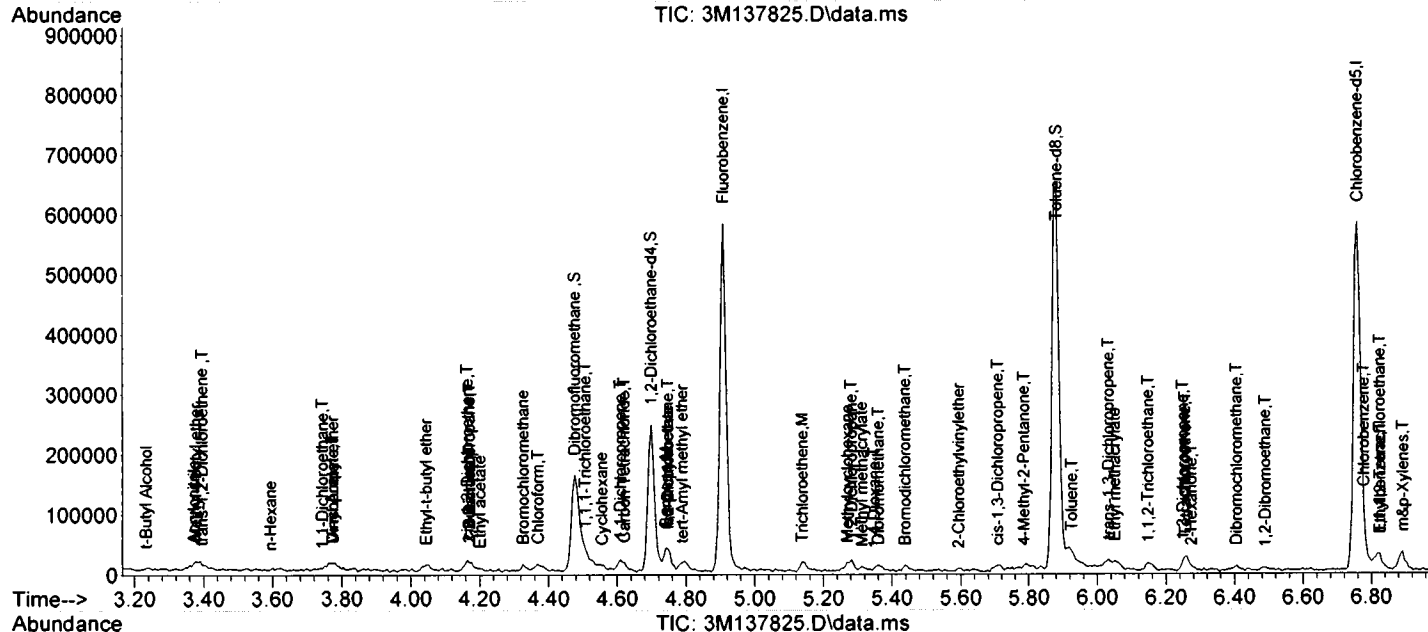
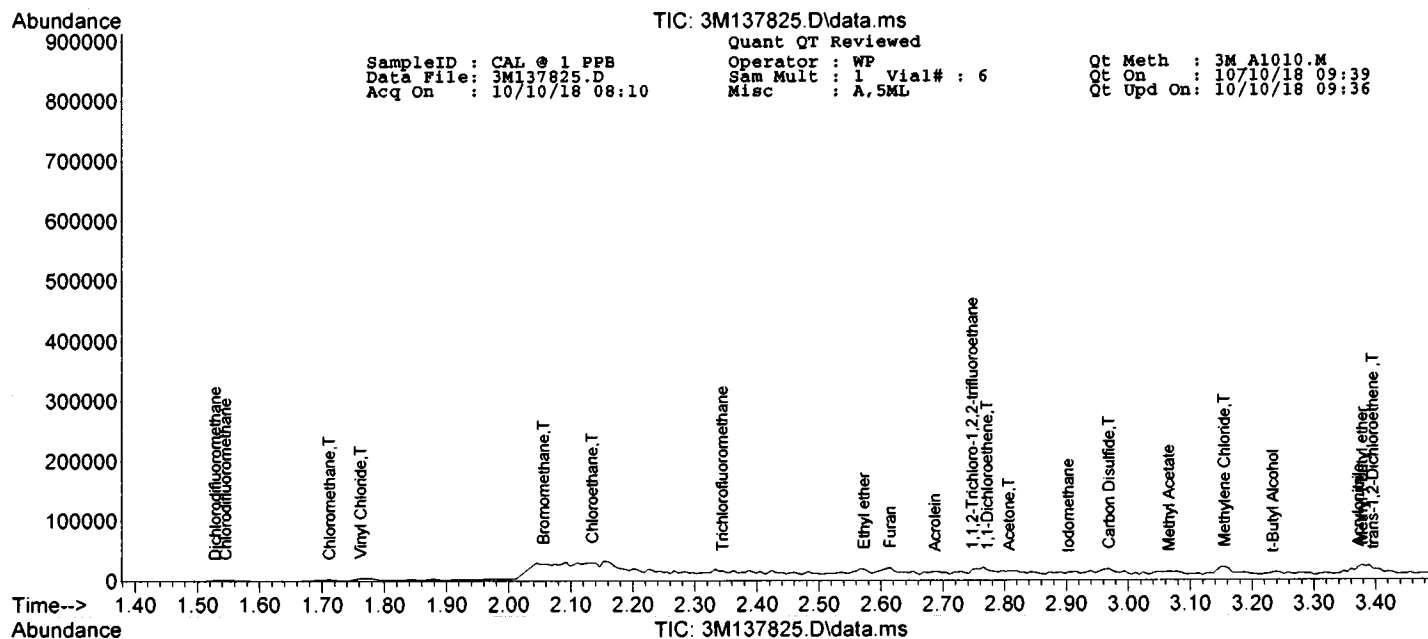
TIC: 3M137825.D\data.ms

Quant QT Reviewed

SampleID : CAL @ 1 PPB
 Data File : 3M137825.D
 Acq On : 10/10/18 08:10

Operator : WP
 Sam Mult : 1 Vial# : 6
 Misc : A,5ML

Qt Meth : 3M A1010.M
 Qt On : 10/10/18 09:39
 Qt Upd On : 10/10/18 09:36



SampleID : CAL @ 0.5 PPB
 Data File: 3M137824.D
 Acq On : 10/10/18 07:52

Operator : WP
 Sam Mult : 1 Vial# : 5
 Misc : A,5ML

Qt Meth : 3M_A1010.M
 Qt On : 10/10/18 09:37
 Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.911	96	306666	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.761	117	251889	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.208	152	102288	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.478	111	87878	32.92	ug/l	0.00
Spiked Amount 30.000			Recovery =	109.73%		
39) 1,2-Dichloroethane-d4	4.694	67	59407	32.53	ug/l	0.00
Spiked Amount 30.000			Recovery =	108.43%		
66) Toluene-d8	5.878	98	298809	27.97	ug/l	0.00
Spiked Amount 30.000			Recovery =	93.23%		
76) Bromofluorobenzene	7.470	174	110175	30.00	ug/l	0.00
Spiked Amount 30.000			Recovery =	100.00%		
Target Compounds						Qvalue
5) Chlorodifluoromethane	0.000		0	N.D.	d	
6) Dichlorodifluoromethane	0.000		0	N.D.	d	
7) Chloromethane	0.000		0	N.D.	d	
8) Bromomethane	0.000		0	N.D.	d	
9) Vinyl Chloride	0.000		0	N.D.	d	
10) Chloroethane	0.000		0	N.D.	d	
11) Trichlorofluoromethane	0.000		0	N.D.	d	
12) Ethyl ether	0.000		0	N.D.	d	
13) Furan	0.000		0	N.D.	d	
14) 1,1,2-Trichloro-1,2,2-...	0.000		0	N.D.	d	
15) Methylene Chloride	0.000		0	N.D.	d	
16) Acrolein	0.000		0	N.D.	d	
17) Acrylonitrile	0.000		0	N.D.	d	
18) Iodomethane	0.000		0	N.D.	d	
19) Acetone	0.000		0	N.D.	d	
20) Carbon Disulfide	0.000		0	N.D.	d	
21) t-Butyl Alcohol	0.000		0	N.D.	d	
22) n-Hexane	0.000		0	N.D.	d	
23) Di-isopropyl-ether	0.000		0	N.D.	d	
24) 1,1-Dichloroethene	0.000		0	N.D.	d	
25) Methyl Acetate	0.000		0	N.D.	d	
26) Methyl-t-butyl ether	3.373	73	2701m	0.5867	ug/l	
27) 1,1-Dichloroethane	0.000		0	N.D.	d	
28) trans-1,2-Dichloroethene	0.000		0	N.D.	d	
29) Ethyl-t-butyl ether	0.000		0	N.D.	d	
30) cis-1,2-Dichloroethene	0.000		0	N.D.	d	
31) Bromochloromethane	0.000		0	N.D.	d	
32) 2,2-Dichloropropane	0.000		0	N.D.	d	
33) Ethyl acetate	0.000		0	N.D.	d	
34) 1,4-Dioxane	0.000		0	N.D.	d	
35) 1,1-Dichloropropene	0.000		0	N.D.	d	
36) Chloroform	0.000		0	N.D.	d	
38) Cyclohexane	0.000		0	N.D.	d	
40) 1,2-Dichloroethane	4.736	62	2260m	0.6073	ug/l	
41) 2-Butanone	0.000		0	N.D.	d	
42) 1,1,1-Trichloroethane	0.000		0	N.D.	d	
43) Carbon Tetrachloride	0.000		0	N.D.	d	
44) Vinyl Acetate	0.000		0	N.D.	d	
45) Bromodichloromethane	0.000		0	N.D.	d	
46) Methylcyclohexane	0.000		0	N.D.	d	
47) Dibromomethane	0.000		0	N.D.	d	
48) 1,2-Dichloropropane	0.000		0	N.D.	d	
49) Trichloroethene	0.000		0	N.D.	d	
50) Benzene	4.748	78	4679m	0.5587	ug/l	
51) tert-Amyl methyl ether	0.000		0	N.D.	d	
53) Iso-propylacetate	0.000		0	N.D.	d	
54) Methyl methacrylate	0.000		0	N.D.	d	
55) Dibromochloromethane	0.000		0	N.D.	d	
56) 2-Chloroethylvinylether	0.000		0	N.D.	d	
57) cis-1,3-Dichloropropene	0.000		0	N.D.	d	
58) trans-1,3-Dichloropropene	0.000		0	N.D.	d	
59) Ethyl methacrylate	0.000		0	N.D.	d	
60) 1,1,2-Trichloroethane	0.000		0	N.D.	d	
61) 1,2-Dibromoethane	0.000		0	N.D.	d	
62) 1,3-Dichloropropane	0.000		0	N.D.	d	
63) 4-Methyl-2-Pentanone	0.000		0	N.D.	d	
64) 2-Hexanone	0.000		0	N.D.	d	
65) Tetrachloroethene	0.000		0	N.D.	d	
67) Toluene	0.000		0	N.D.	d	

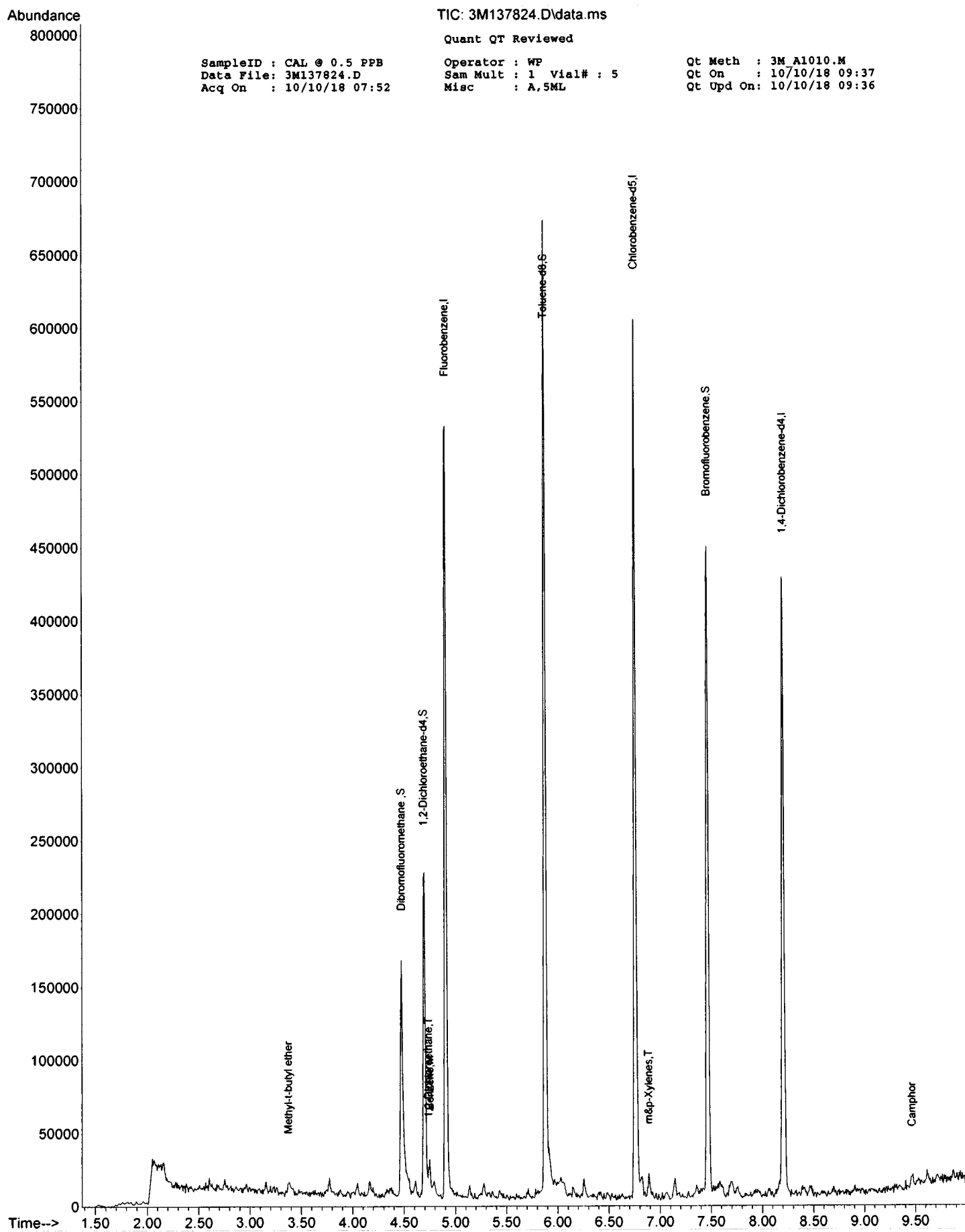
Quantitation Report (QT Reviewed)

SampleID : CAL @ 0.5 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M137824.D Sam Mult : 1 Vial# : 5 Qt On : 10/10/18 09:37
 Acq On : 10/10/18 07:52 Misc : A,SML Qt Upd On: 10/10/18 09:36

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	d	
69) Chlorobenzene	0.000		0	N.D.	d	
71) n-Butyl acrylate	0.000		0	N.D.	d	
72) n-Amyl acetate	0.000		0	N.D.	d	
73) Bromoform	0.000		0	N.D.	d	
74) Ethylbenzene	0.000		0	N.D.	d	
75) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	d	
77) Styrene	0.000		0	N.D.	d	
78) m&p-Xylenes	6.887	106	2495	1.1508	ug/l	93
79) o-Xylene	0.000		0	N.D.	d	
80) trans-1,4-Dichloro-2-b...	0.000		0	N.D.	d	
81) 1,3-Dichlorobenzene	0.000		0	N.D.	d	
82) 1,4-Dichlorobenzene	0.000		0	N.D.	d	
83) 1,2-Dichlorobenzene	0.000		0	N.D.	d	
84) Isopropylbenzene	0.000		0	N.D.	d	
85) Cyclohexanone	0.000		0	N.D.	d	
86) Camphene	0.000		0	N.D.	d	
87) 1,2,3-Trichloropropane	0.000		0	N.D.	d	
88) 2-Chlorotoluene	0.000		0	N.D.	d	
89) p-Ethyltoluene	0.000		0	N.D.	d	
90) 4-Chlorotoluene	0.000		0	N.D.	d	
91) n-Propylbenzene	0.000		0	N.D.	d	
92) Bromobenzene	0.000		0	N.D.	d	
93) 1,3,5-Trimethylbenzene	0.000		0	N.D.	d	
94) Butyl methacrylate	0.000		0	N.D.	d	
95) t-Butylbenzene	0.000		0	N.D.	d	
96) 1,2,4-Trimethylbenzene	0.000		0	N.D.	d	
97) sec-Butylbenzene	0.000		0	N.D.	d	
98) 4-Isopropyltoluene	0.000		0	N.D.	d	
99) n-Butylbenzene	0.000		0	N.D.	d	
100) p-Diethylbenzene	0.000		0	N.D.	d	
101) 1,2,4,5-Tetramethylben...	0.000		0	N.D.	d	
102) 1,2-Dibromo-3-Chloropr...	0.000		0	N.D.	d	
103) Camphor	9.464	95	1855	9.5107	ug/l #	64
104) Hexachlorobutadiene	0.000		0	N.D.	d	
105) 1,2,4-Trichlorobenzene	0.000		0	N.D.	d	
106) 1,2,3-Trichlorobenzene	0.000		0	N.D.	d	
107) Naphthalene	0.000		0	N.D.	d	

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



Compound	bytCol Num:	bytMr Num:	Type	sngConc:	Exp Conc	Rec	Flag	sngLoLim:	sngHiLim:
Chlorodifluoromethane	1	0		23.8151	20	119		70	130
Dichlorodifluoromethane	1	0		19.4585	20	97		50	150
Chloromethane	1	0		27.7095	20	139	*	70	130
Bromomethane	1	0		29.2805	20	146	*	70	130
Vinyl Chloride	1	0		21.1262	20	106		70	130
Chloroethane	1	0		27.1761	20	136	*	70	130
Trichlorofluoromethane	1	0		20.5444	20	103		70	130
Ethyl ether	1	0		18.2438	20	91		70	130
Furan	1	0		17.4919	20	87		70	130
1,1,2-Trichloro-1,2,2-trifluoroethane	1	0		25.7817	20	129		70	130
Methylene Chloride	1	0		25.4539	20	127		70	130
Acrolein	1	0		92.8502	100	93		50	150
Acrylonitrile	1	0		22.6574	20	113		50	150
Iodomethane	1	0		23.2907	20	116		70	130
Acetone	1	0		111.1686	100	111		50	150
Carbon Disulfide	1	0		21.1492	20	106		70	130
t-Butyl Alcohol	1	0		106.6994	100	107		50	150
n-Hexane	1	0		21.0502	20	105		70	130
Di-isopropyl-ether	1	0		22.2379	20	111		70	130
1,1-Dichloroethene	1	0		21.3027	20	107		70	130
Methyl Acetate	1	0		20.0847	20	100		70	130
Methyl-t-butyl ether	1	0		22.9555	20	115		70	130
1,1-Dichloroethane	1	0		20.6998	20	103		70	130
trans-1,2-Dichloroethene	1	0		21.7794	20	109		70	130
Ethyl-t-butyl ether	1	0		22.469	20	112		70	130
cis-1,2-Dichloroethene	1	0		21.6337	20	108		70	130
Bromochloromethane	1	0		21.0027	20	105		70	130
2,2-Dichloropropane	1	0		24.448	20	122		70	130
Ethyl acetate	1	0		32.3858	20	162	*	70	130
1,4-Dioxane	1	0		1076.597	1000	108		70	130
1,1-Dichloropropene	1	0		21.7054	20	109		70	130
Chloroform	1	0		20.2525	20	101		70	130
Cyclohexane	1	0		20.0678	20	100		70	130
1,2-Dichloroethane	1	0		26.7498	20	134	*	70	130
2-Butanone	1	0		78.2614	20	391	*	70	130
1,1,1-Trichloroethane	1	0		20.3558	20	102		70	130
Carbon Tetrachloride	1	0		20.8158	20	104		70	130
Vinyl Acetate	1	0		22.2148	20	111		70	130
Bromodichloromethane	1	0		21.6936	20	108		70	130
Methylcyclohexane	1	0		20.3971	20	102		70	130
Dibromomethane	1	0		25.854	20	129		70	130
1,2-Dichloropropane	1	0		20.4641	20	102		70	130
Trichloroethene	1	0		21.6308	20	108		70	130
Benzene	1	0		24.6001	20	123		70	130
Iso-propylacetate	1	0		22.6343	20	113		70	130
Methyl methacrylate	1	0		22.0433	20	110		70	130
Dibromochloromethane	1	0		20.0528	20	100		70	130
2-Chloroethylvinylether	1	0		20.5589	20	103		70	130
cis-1,3-Dichloropropene	1	0		21.109	20	106		70	130
trans-1,3-Dichloropropene	1	0		20.3929	20	102		70	130
Ethyl methacrylate	1	0		21.0009	20	105		70	130
1,1,2-Trichloroethane	1	0		26.1538	20	131	*	70	130
1,2-Dibromoethane	1	0		21.2005	20	106		70	130
1,3-Dichloropropane	1	0		25.5301	20	128		70	130
4-Methyl-2-Pentanone	1	0		20.8642	20	104		70	130
2-Hexanone	1	0		21.1498	20	106		70	130
Tetrachloroethene	1	0		27.7359	20	139	*	70	130
Toluene	1	0		21.7748	20	109		70	130
1,1,1,2-Tetrachloroethane	1	0		24.9441	20	125		70	130
Chlorobenzene	1	0		20.8915	20	104		70	130
n-Butyl acrylate	1	0		21.7444	20	109		70	130
n-Amvl acetate	1	0		20.2533	20	101		70	130
Bromoform	1	0		19.961	20	100		70	130
Ethylbenzene	1	0		22.5623	20	113		70	130
1,1,2,2-Tetrachloroethane	1	0		20.3837	20	102		70	130
Styrene	1	0		23.3861	20	117		70	130
m&p-Xylenes	1	0		44.7372	40	112		70	130
o-Xylene	1	0		23.6051	20	118		70	130
trans-1,4-Dichloro-2-butene	1	0		22.1968	20	111		70	130
1,3-Dichlorobenzene	1	0		21.6857	20	108		70	130
1,4-Dichlorobenzene	1	0		21.3645	20	107		70	130
1,2-Dichlorobenzene	1	0		20.7077	20	104		70	130
Isopropylbenzene	1	0		22.6477	20	113		70	130
1,2,3-Trichloropropane	1	0		21.4414	20	107		70	130
2-Chlorotoluene	1	0		25.8808	20	129		70	130
4-Chlorotoluene	1	0		20.9797	20	105		70	130
n-Propylbenzene	1	0		21.5153	20	108		70	130
Bromobenzene	1	0		20.7527	20	104		70	130
1,3,5-Trimethylbenzene	1	0		24.2711	20	121		70	130
Butyl methacrylate	1	0		22.52	20	113		70	130
t-Butylbenzene	1	0		21.4328	20	107		70	130
1,2,4-Trimethylbenzene	1	0		21.2665	20	106		70	130
sec-Butylbenzene	1	0		21.6213	20	108		70	130
4-Isopropyltoluene	1	0		21.3476	20	107		70	130
n-Butylbenzene	1	0		21.0884	20	105		70	130
1,2-Dibromo-3-Chloropropane	1	0		21.9857	20	110		70	130
Hexachlorobutadiene	1	0		28.8956	20	144	*	70	130
1,2,4-Trichlorobenzene	1	0		21.8083	20	109		70	130
1,2,3-Trichlorobenzene	1	0		21.656	20	108		70	130
Naphthalene	1	0		23.0943	20	115		70	130

Form7

Continuing Calibration

8102901 0365

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 11/3/2018 3:18:00 P

Data File: 3M139628.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.92	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.54	31.45	20	20	0.1	0.352	0.437	57.25	C1
Dichlorodifluoromethane	1	0		1.53	13.09	20	20	0.1	0.182	0.119	34.54	C1
Chloromethane	1	0		1.69	26.13	20	20	0.1	0.284	0.255	30.65	C1
Bromomethane	1	0		2.06	23.38	20	20	0.1	0.113	0.116	16.89	
Vinyl Chloride	1	0		1.78	16.74	20	20	0.1	0.194	0.162	16.31	
Chloroethane	1	0		2.14	22.26	20	20	0.1	0.106	0.099	11.29	
Trichlorofluoromethane	1	0		2.35	16.20	20	20	0.1	0.293	0.237	18.99	
Ethyl ether	1	0		2.58	16.68	20	20	0.5	0.253	0.211	16.62	
Furan	1	0		2.62	17.93	20	20	0.5	0.625	0.561	10.33	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.77	17.74	20	20	0.1	0.150	0.105	11.32	
Methylene Chloride	1	0		3.16	19.31	20	20	0.1	0.288	0.226	3.45	
Acrolein	1	0		2.69	60.56	100	20		0.048	0.029	39.44	C1
Acrylonitrile	1	0		3.37	15.90	20	20		0.107	0.085	20.50	
Iodomethane	1	0		2.91	16.48	20	20		0.283	0.233	17.62	
Acetone	1	0		2.81	81.18	100	20	0.1	0.098	0.079	18.82	
Carbon Disulfide	1	0		2.97	15.23	20	20	0.1	0.807	0.615	23.84	C1
t-Butyl Alcohol	1	0		3.24	71.11	100	20		0.021	0.015	28.89	C1
n-Hexane	1	0		3.61	18.82	20	20		0.114	0.107	5.92	
Di-isopropyl-ether	1	0		3.78	21.52	20	20		0.853	0.917	7.59	
1,1-Dichloroethene	1	0		2.77	16.82	20	20	0.1	0.363	0.306	15.88	
Methyl Acetate	1	0		3.07	16.17	20	20	0.1	0.336	0.272	19.16	
Methyl-t-butyl ether	1	0		3.38	16.55	20	20	0.1	0.581	0.481	17.27	
1,1-Dichloroethane	1	0		3.74	17.78	20	20	0.2	0.454	0.404	11.08	
trans-1,2-Dichloroethene	1	0		3.39	15.91	20	20	0.1	0.238	0.189	20.45	
Ethyl-t-butyl ether	1	0		4.05	17.55	20	20	0.5	0.682	0.598	12.24	
cis-1,2-Dichloroethene	1	0		4.17	18.00	20	20	0.1	0.458	0.413	10.02	
Bromochloromethane	1	0		4.33	17.11	20	20		0.278	0.238	14.46	
2,2-Dichloropropane	1	0		4.17	20.80	20	20		0.317	0.296	4.01	
Ethyl acetate	1	0		4.20	18.12	20	20		0.322	0.291	9.41	
1,4-Dioxane	1	0		5.37	666.83	1000	20		0.003	0.002	33.32	C1
1,1-Dichloropropene	1	0		4.61	17.01	20	20		0.314	0.267	14.97	
Chloroform	1	0		4.38	17.15	20	20	0.2	0.485	0.416	14.23	
Dibromofluoromethane	1	0	S	4.48	29.55	30	**		0.267	0.263	1.51	
Cyclohexane	1	0		4.56	22.07	20	20	0.1	0.208	0.229	10.36	
1,2-Dichloroethane-d4	1	0	S	4.71	28.32	30	**		0.188	0.177	5.60	
1,2-Dichloroethane	1	0		4.75	19.72	20	20	0.1	0.433	0.360	1.42	
2-Butanone	1	0		4.19	21.51	20	20	0.1	0.133	0.143	7.53	
1,1,1-Trichloroethane	1	0		4.51	15.33	20	20	0.1	0.365	0.279	23.36	C1
Carbon Tetrachloride	1	0		4.62	17.68	20	20	0.1	0.273	0.241	11.59	
Vinyl Acetate	1	0		3.78	19.76	20	20		0.630	0.622	1.22	
Bromodichloromethane	1	0		5.44	16.41	20	20	0.2	0.381	0.313	17.95	
Methylcyclohexane	1	0		5.28	24.73	20	20	0.1	0.145	0.179	23.65	C1
Dibromomethane	1	0		5.36	19.98	20	20		0.206	0.177	0.12	
1,2-Dichloropropane	1	0		5.28	19.19	20	20	0.1	0.275	0.264	4.05	
Trichloroethene	1	0		5.14	16.82	20	20	0.2	0.261	0.220	15.92	
Benzene	1	0		4.75	19.64	20	20	0.5	0.919	0.844	1.79	
tert-Amyl methyl ether	1	0		4.80	17.88	20	20		0.614	0.549	10.58	
Chlorobenzene-d5	1	0	I	6.77	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.75	17.29	20	20	0.5	0.659	0.570	13.53	
Methyl methacrylate	1	0		5.32	17.07	20	20	0.5	0.391	0.334	14.65	
Dibromochloromethane	1	0		6.41	16.82	20	20	0.1	0.354	0.298	15.88	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

Form7

8102901 0366

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 11/3/2018 3:18:00 P

Data File: 3M139628.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.61	19.98	20	20		0.152	0.154	0.12	
cis-1,3-Dichloropropene	1	0		5.71	18.59	20	20	0.2	0.514	0.478	7.06	
trans-1,3-Dichloropropene	1	0		6.03	19.16	20	20	0.1	0.484	0.464	4.22	
Ethyl methacrylate	1	0		6.06	16.55	20	20	0.5	0.401	0.332	17.24	
1,1,2-Trichloroethane	1	0		6.15	20.16	20	20	0.1	0.327	0.260	0.81	
1,2-Dibromoethane	1	0		6.49	15.67	20	20	0.1	0.319	0.250	21.64	C1
1,3-Dichloropropane	1	0		6.26	21.73	20	20		0.525	0.508	8.66	
4-Methyl-2-Pentanone	1	0		5.79	15.00	20	20	0.1	0.359	0.269	25.02	C1
2-Hexanone	1	0		6.28	17.04	20	20	0.1	0.234	0.199	14.79	
Tetrachloroethene	1	0		6.26	20.96	20	20	0.2	0.214	0.180	4.78	
Toluene-d8	1	0	S	5.88	29.71	30	**		1.254	1.242	0.96	
Toluene	1	0		5.93	16.60	20	20	0.4	0.716	0.594	17.00	
1,1,1,2-Tetrachloroethane	1	0		6.82	21.14	20	20		0.282	0.252	5.70	
Chlorobenzene	1	0		6.78	16.65	20	20	0.5	0.794	0.661	16.73	
1,4-Dichlorobenzene-d4	1	0	I	8.21	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.05	20.49	20	20	0.5	1.214	1.244	2.44	
n-Amyl acetate	1	0		7.19	20.02	20	20	0.5	1.216	1.217	0.08	
Bromoform	1	0		7.30	16.41	20	20	0.1	0.584	0.479	17.97	
Ethylbenzene	1	0		6.83	19.93	20	20	0.1	0.505	0.504	0.36	
1,1,2,2-Tetrachloroethane	1	0		7.53	19.71	20	20	0.1	0.900	0.888	1.43	
Bromofluorobenzene	1	0	S	7.48	30.86	30	**		1.039	1.069	2.87	
Styrene	1	0		7.15	20.23	20	20	0.3	1.559	1.577	1.16	
m&p-Xylenes	1	0		6.89	41.77	40	20	0.1	0.821	0.857	4.42	
o-Xylene	1	0		7.14	21.72	20	20	0.3	0.838	0.911	8.62	
trans-1,4-Dichloro-2-butene	1	0		7.56	20.60	20	20		0.321	0.330	3.01	
1,3-Dichlorobenzene	1	0		8.17	19.22	20	20	0.6	1.060	1.018	3.90	
1,4-Dichlorobenzene	1	0		8.23	18.35	20	20	0.5	1.138	1.044	8.26	
1,2-Dichlorobenzene	1	0		8.48	17.81	20	20	0.4	1.109	0.987	10.95	
Isopropylbenzene	1	0		7.36	21.05	20	20	0.1	1.640	1.725	5.23	
Cyclohexanone	1	0		7.45	136.87	100	20		0.035	0.047	36.87	C1
Camphene	1	0		7.56	22.89	20	20		0.452	0.518	14.46	
1,2,3-Trichloropropane	1	0		7.57	19.88	20	20		1.030	1.024	0.59	
2-Chlorotoluene	1	0		7.69	21.40	20	20		1.101	1.063	7.02	
p-Ethyltoluene	1	0		7.68	21.23	20	20		1.700	1.942	6.13	
4-Chlorotoluene	1	0		7.76	20.75	20	20		1.093	1.134	3.77	
n-Propylbenzene	1	0		7.61	21.76	20	20		1.925	2.094	8.79	
Bromobenzene	1	0		7.59	18.63	20	20		1.757	1.636	6.87	
1,3,5-Trimethylbenzene	1	0		7.71	22.20	20	20		1.250	1.304	10.98	
Butyl methacrylate	1	0		7.72	23.23	20	20	0.5	1.006	1.168	16.13	
t-Butylbenzene	1	0		7.93	20.81	20	20		1.162	1.209	4.06	
1,2,4-Trimethylbenzene	1	0		7.96	19.41	20	20		1.481	1.437	2.97	
sec-Butylbenzene	1	0		8.07	22.97	20	20		1.354	1.556	14.85	
4-Isopropyltoluene	1	0		8.15	22.22	20	20		1.151	1.278	11.08	
n-Butylbenzene	1	0		8.41	23.17	20	20		1.297	1.503	15.85	
p-Diethylbenzene	1	0		8.39	23.25	20	20		0.671	0.780	16.25	
1,2,4,5-Tetramethylbenzene	1	0		8.91	21.32	20	20		1.020	1.088	6.62	
1,2-Dibromo-3-Chloropropane	1	0		8.98	18.54	20	20	0.05	0.177	0.157	7.28	
Camphor	1	0		9.48	70.61	200	20		0.049	0.020	64.69	C1
Hexachlorobutadiene	1	0		9.62	20.93	20	20		0.358	0.341	4.65	
1,2,4-Trichlorobenzene	1	0		9.53	18.41	20	20	0.2	0.578	0.532	7.95	
1,2,3-Trichlorobenzene	1	0		9.87	18.12	20	20		0.575	0.521	9.39	
Naphthalene	1	0		9.72	15.53	20	20		1.396	1.084	22.37	C1

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

** - No limit specified in method

Page 2 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

SampleID : CAL @ 20 PPB
Data File: 3M139628.D
Acq On : 11/ 3/18 15:18

Operator : SG
Sam Mult : 1 Vial# : 3
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/03/18 14:46
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.916	96	248907	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.766	117	199112	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.208	152	84356	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.478	111	65464	29.55	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.50%		
39) 1,2-Dichloroethane-d4	4.706	67	44065	28.32	ug/l	0.00
Spiked Amount 30.000			Recovery =	94.40%		
66) Toluene-d8	5.883	98	247286	29.71	ug/l	0.00
Spiked Amount 30.000			Recovery =	99.03%		
76) Bromofluorobenzene	7.475	174	90192	30.86	ug/l	0.00
Spiked Amount 30.000			Recovery =	102.87%		
Target Compounds						
5) Chlorodifluoromethane	1.543	51	72534	31.4505	ug/l	57
6) Dichlorodifluoromethane	1.526	85	19756	13.0922	ug/l	94
7) Chloromethane	1.693	50	42245	26.1307	ug/l	84
8) Bromomethane	2.057	94	19315	23.3772	ug/l	98
9) Vinyl Chloride	1.776	62	26876	16.7385	ug/l	85
10) Chloroethane	2.141	64	16429	22.2577	ug/l	97
11) Trichlorofluoromethane	2.351	101	39348	16.2014	ug/l	89
12) Ethyl ether	2.580	59	35034	16.6765	ug/l	83
13) Furan	2.616	39	93071	17.9342	ug/l	90
14) 1,1,2-Trichloro-1,2,2-...	2.766	101	17439	17.7370	ug/l	94
15) Methylene Chloride	3.162	84	37435	19.3100	ug/l	87
16) Acrolein	2.694	56	23915m	60.5587	ug/l	
17) Acrylonitrile	3.373	53	14107	15.9006	ug/l	65
18) Iodomethane	2.910	142	38739	16.4760	ug/l	95
19) Acetone	2.814	43	65823	81.1818	ug/l	92
20) Carbon Disulfide	2.970	76	101978	15.2325	ug/l	100
21) t-Butyl Alcohol	3.240	59	12177	71.1066	ug/l	83
22) n-Hexane	3.613	57	17728m	18.8170	ug/l	
23) Di-isopropyl-ether	3.781	45	152248	21.5185	ug/l	84
24) 1,1-Dichloroethene	2.772	61	50702m	16.8241	ug/l	
25) Methyl Acetate	3.072	43	45070	16.1679	ug/l	100
26) Methyl-t-butyl ether	3.385	73	79778	16.5458	ug/l	73
27) 1,1-Dichloroethane	3.745	63	67032	17.7836	ug/l	98
28) trans-1,2-Dichloroethene	3.391	96	31442	15.9099	ug/l	84
29) Ethyl-t-butyl ether	4.045	59	99308	17.5517	ug/l	97
30) cis-1,2-Dichloroethene	4.171	61	68453	17.9968	ug/l	85
31) Bromochloromethane	4.334	49	39512	17.1084	ug/l	77
32) 2,2-Dichloropropane	4.171	77	49129	20.8028	ug/l	93
33) Ethyl acetate	4.202	43	48339m	18.1179	ug/l	
34) 1,4-Dioxane	5.367	88	15577	666.8334	ug/l	76
35) 1,1-Dichloropropene	4.610	75	44363	17.0069	ug/l	98
36) Chloroform	4.376	83	69087	17.1542	ug/l	83
38) Cyclohexane	4.556	56	38027	22.0721	ug/l	90
40) 1,2-Dichloroethane	4.748	62	59818	19.7161	ug/l	86
41) 2-Butanone	4.189	43	23744m	21.5059	ug/l	
42) 1,1,1-Trichloroethane	4.514	97	46368	15.3285	ug/l	92
43) Carbon Tetrachloride	4.622	117	40023	17.6830	ug/l	90
44) Vinyl Acetate	3.775	43	103247	19.7568	ug/l	100
45) Bromodichloromethane	5.439	83	51932	16.4107	ug/l	98
46) Methylcyclohexane	5.277	83	29719	24.7300	ug/l	95
47) Dibromomethane	5.361	174	29394	19.9770	ug/l	89
48) 1,2-Dichloropropane	5.283	63	43742	19.1909	ug/l	92
49) Trichloroethene	5.145	130	36439	16.8155	ug/l	88
50) Benzene	4.748	78	140007	19.6424	ug/l	100
51) tert-Amyl methyl ether	4.796	73	91111	17.8842	ug/l	81
53) Iso-propylacetate	4.748	43	75644	17.2939	ug/l	98
54) Methyl methacrylate	5.319	41	44346	17.0693	ug/l	91
55) Dibromochloromethane	6.406	129	39540	16.8242	ug/l	100
56) 2-Chloroethylvinylether	5.607	63	20462	19.9755	ug/l	84
57) cis-1,3-Dichloropropene	5.709	75	63433	18.5875	ug/l	96
58) trans-1,3-Dichloropropene	6.034	75	61582	19.1559	ug/l	95
59) Ethyl methacrylate	6.058	41	44016	16.5523	ug/l	72
60) 1,1,2-Trichloroethane	6.154	97	34551	20.1619	ug/l	91
61) 1,2-Dibromoethane	6.490	107	33140	15.6727	ug/l	96
62) 1,3-Dichloropropane	6.262	76	67498	21.7319	ug/l	89
63) 4-Methyl-2-Pentanone	5.787	43	35731	14.9969	ug/l	79
64) 2-Hexanone	6.280	43	26433	17.0430	ug/l	94
65) Tetrachloroethene	6.262	164	23877	20.9569	ug/l	91
67) Toluene	5.926	92	78875	16.6009	ug/l	92

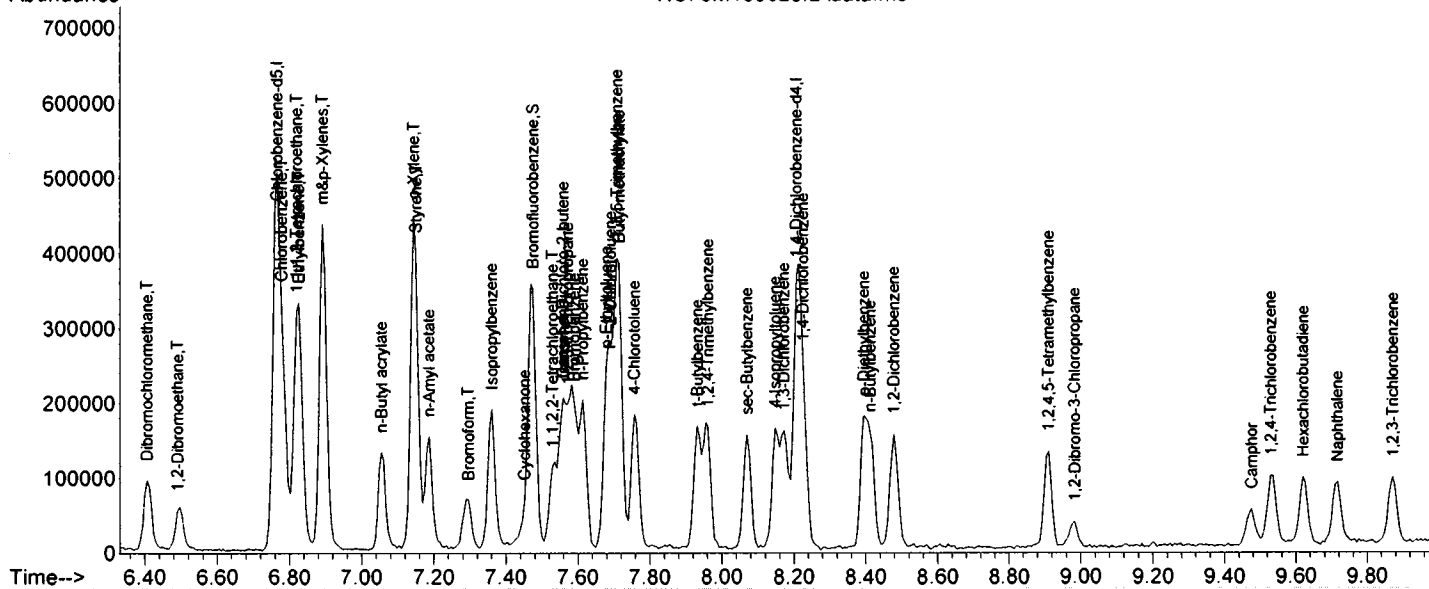
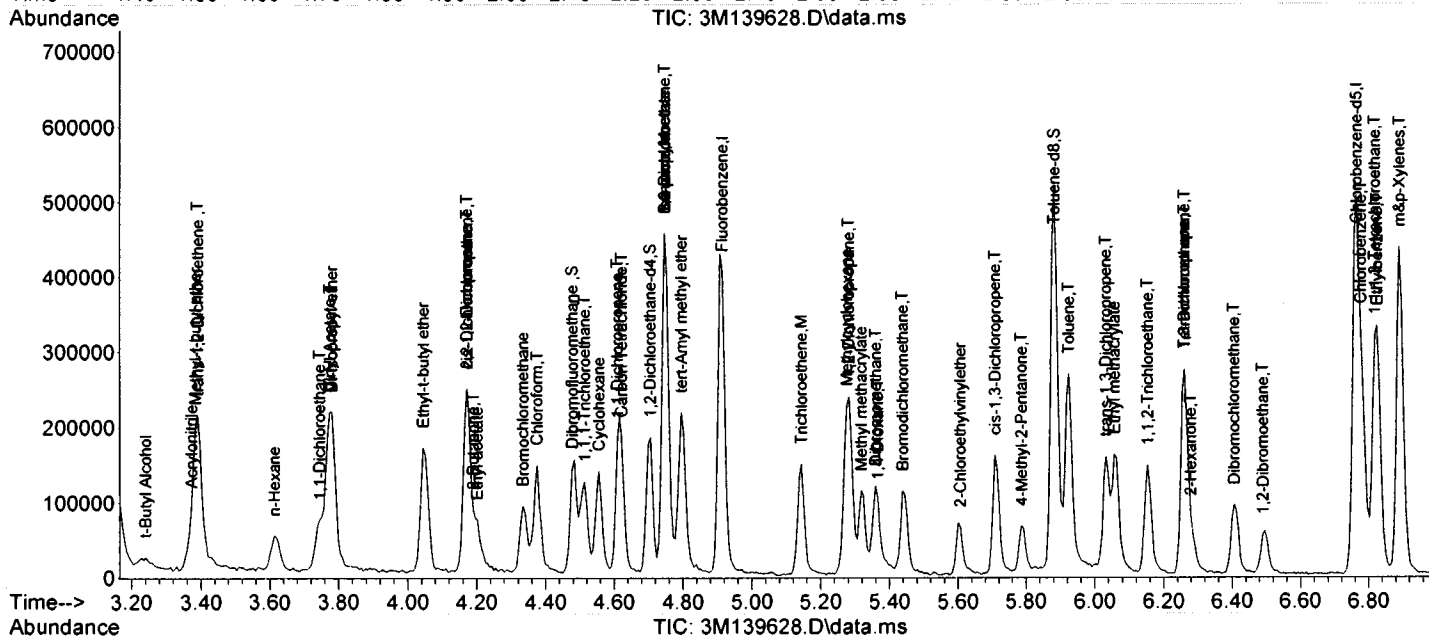
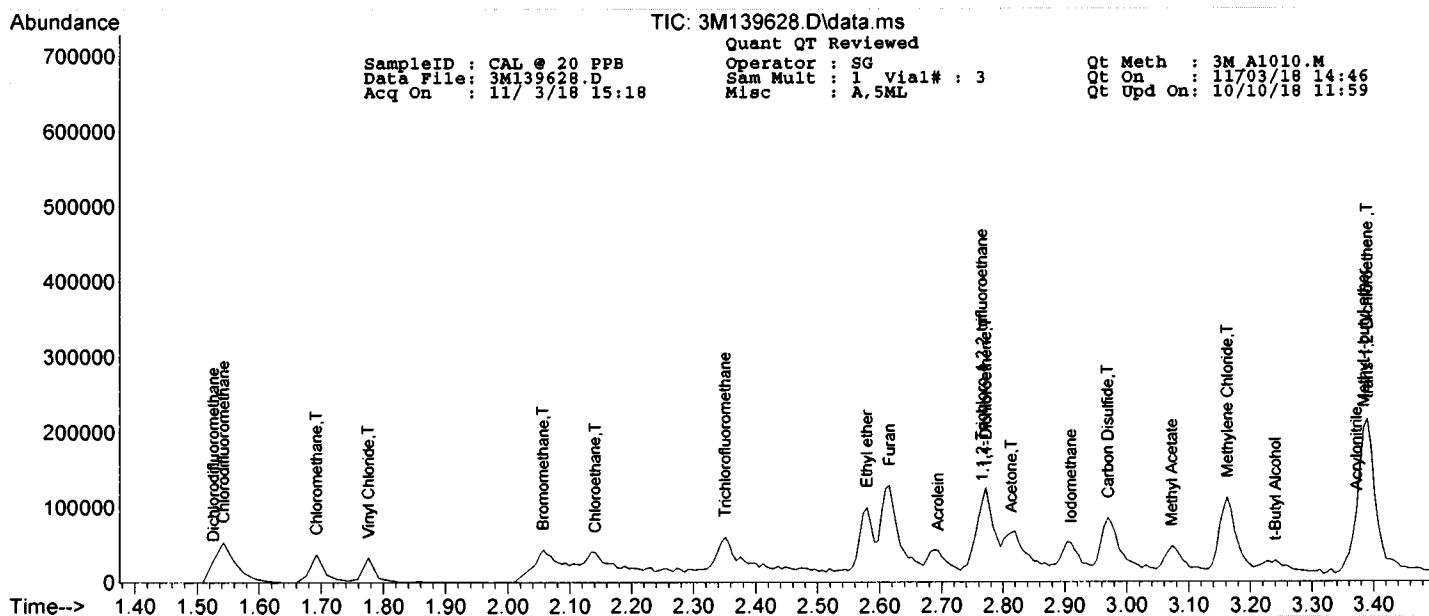
Quantitation Report (QT Reviewed)

SampleID : CAL @ 20 PPB Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139628.D Sam Mult : 1 Vial# : 3 Qt On : 11/03/18 14:46
 Acq On : 11/ 3/18 15:18 Misc : A,5ML Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.821	133	33394	21.1401	ug/l	93
69)	Chlorobenzene	6.779	112	87763	16.6534	ug/l	98
71)	n-Butyl acrylate	7.055	55	69935	20.4883	ug/l	97
72)	n-Amyl acetate	7.187	43	68465	20.0166	ug/l	78
73)	Bromoform	7.295	173	26948	16.4051	ug/l	83
74)	Ethylbenzene	6.827	106	28320	19.9289	ug/l	83
75)	1,1,2,2-Tetrachloroethane	7.529	83	49912	19.7133	ug/l	89
77)	Styrene	7.151	104	88705	20.2329	ug/l	92
78)	m&p-Xylenes	6.893	106	96360	41.7663	ug/l	76
79)	o-Xylene	7.145	106	51218	21.7234	ug/l	58
80)	trans-1,4-Dichloro-2-b...	7.559	53	18575	20.6024	ug/l	72
81)	1,3-Dichlorobenzene	8.172	146	57273	19.2191	ug/l	86
82)	1,4-Dichlorobenzene	8.226	146	58716	18.3475	ug/l	94
83)	1,2-Dichlorobenzene	8.478	146	55527	17.8092	ug/l	88
84)	Isopropylbenzene	7.361	105	97034	21.0462	ug/l	93
85)	Cyclohexanone	7.451	55	13299	136.8728	ug/l	88
86)	Camphene	7.559	93	29121	22.8914	ug/l	94
87)	1,2,3-Trichloropropane	7.571	75	57603	19.8818	ug/l	88
88)	2-Chlorotoluene	7.692	91	59799	21.4037	ug/l	94
89)	p-Ethyltoluene	7.680	105	109197	21.2270	ug/l	79
90)	4-Chlorotoluene	7.758	91	63784	20.7545	ug/l	90
91)	n-Propylbenzene	7.613	91	117751	21.7572	ug/l	99
92)	Bromobenzene	7.589	77	92000	18.6267	ug/l	89
93)	1,3,5-Trimethylbenzene	7.710	105	73307	22.1954	ug/l	78
94)	Butyl methacrylate	7.716	41	65713	23.2260	ug/l	81
95)	t-Butylbenzene	7.932	119	67985	20.8110	ug/l	82
96)	1,2,4-Trimethylbenzene	7.962	105	80797	19.4056	ug/l	85
97)	sec-Butylbenzene	8.070	105	87483	22.9704	ug/l	99
98)	4-Isopropyltoluene	8.148	119	71887	22.2166	ug/l	89
99)	n-Butylbenzene	8.412	91	84498	23.1704	ug/l	92
100)	p-Diethylbenzene	8.394	119	43878m	23.2491	ug/l	
101)	1,2,4,5-Tetramethylben...	8.911	119	61164	21.3245	ug/l	87
102)	1,2-Dibromo-3-Chloropr...	8.983	157	8853	18.5445	ug/l	61
103)	Camphor	9.476	95	10969	70.6132	ug/l	88
104)	Hexachlorobutadiene	9.620	225	19189	20.9304	ug/l	92
105)	1,2,4-Trichlorobenzene	9.530	180	29902	18.4097	ug/l	93
106)	1,2,3-Trichlorobenzene	9.872	180	29293	18.1218	ug/l	93
107)	Naphthalene	9.716	128	60946	15.5255	ug/l	100

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



Form7

8102901 0370

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 11/4/2018 3:05:00 A

Data File: 3M139669.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.91	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.54	34.41	20	20	0.1	0.352	0.478	72.06	C1
Dichlorodifluoromethane	1	0		1.53	13.92	20	20	0.1	0.182	0.127	30.41	C1
Chloromethane	1	0		1.68	24.47	20	20	0.1	0.284	0.238	22.35	C1
Bromomethane	1	0		2.04	18.39	20	20	0.1	0.113	0.092	8.03	
Vinyl Chloride	1	0		1.76	19.20	20	20	0.1	0.194	0.186	3.98	
Chloroethane	1	0		2.13	20.39	20	20	0.1	0.106	0.091	1.97	
Trichlorofluoromethane	1	0		2.34	18.96	20	20	0.1	0.293	0.277	5.21	
Ethyl ether	1	0		2.57	16.53	20	20	0.5	0.253	0.209	17.37	
Furan	1	0		2.60	18.23	20	20	0.5	0.625	0.570	8.85	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.75	19.54	20	20	0.1	0.150	0.116	2.29	
Methylene Chloride	1	0		3.15	20.34	20	20	0.1	0.288	0.238	1.69	
Acrolein	1	0		2.68	53.03	100	20		0.048	0.025	46.97	C1
Acrylonitrile	1	0		3.36	18.57	20	20		0.107	0.099	7.17	
Iodomethane	1	0		2.89	17.54	20	20		0.283	0.249	12.29	
Acetone	1	0		2.80	103.85	100	20	0.1	0.098	0.101	3.85	
Carbon Disulfide	1	0		2.96	15.77	20	20	0.1	0.807	0.636	21.17	C1
t-Butyl Alcohol	1	0		3.22	84.03	100	20		0.021	0.017	15.97	
n-Hexane	1	0		3.61	14.04	20	20		0.114	0.080	29.82	C1
Di-isopropyl-ether	1	0		3.77	22.99	20	20		0.853	0.980	14.94	
1,1-Dichloroethene	1	0		2.77	16.06	20	20	0.1	0.363	0.292	19.69	
Methyl Acetate	1	0		3.07	17.34	20	20	0.1	0.336	0.291	13.29	
Methyl-t-butyl ether	1	0		3.37	16.83	20	20	0.1	0.581	0.489	15.83	
1,1-Dichloroethane	1	0		3.74	18.54	20	20	0.2	0.454	0.421	7.29	
trans-1,2-Dichloroethene	1	0		3.38	15.65	20	20	0.1	0.238	0.186	21.77	C1
Ethyl-t-butyl ether	1	0		4.04	20.42	20	20	0.5	0.682	0.696	2.09	
cis-1,2-Dichloroethene	1	0		4.17	18.27	20	20	0.1	0.458	0.419	8.67	
Bromochloromethane	1	0		4.33	18.60	20	20		0.278	0.259	6.99	
2,2-Dichloropropane	1	0		4.16	17.22	20	20		0.317	0.245	13.89	
Ethyl acetate	1	0		4.19	21.24	20	20		0.322	0.341	6.19	
1,4-Dioxane	1	0		5.36	1024.20	1000	20		0.003	0.003	2.42	
1,1-Dichloropropene	1	0		4.61	18.87	20	20		0.314	0.297	5.64	
Chloroform	1	0		4.38	17.30	20	20	0.2	0.485	0.420	13.52	
Dibromofluoromethane	1	0	S	4.48	29.44	30	**		0.267	0.262	1.87	
Cyclohexane	1	0		4.55	21.80	20	20	0.1	0.208	0.226	9.01	
1,2-Dichloroethane-d4	1	0	S	4.70	29.95	30	**		0.188	0.187	0.16	
1,2-Dichloroethane	1	0		4.75	20.77	20	20	0.1	0.433	0.380	3.85	
2-Butanone	1	0		4.16	21.15	20	20	0.1	0.133	0.141	5.76	
1,1,1-Trichloroethane	1	0		4.51	16.14	20	20	0.1	0.365	0.294	19.32	
Carbon Tetrachloride	1	0		4.62	17.05	20	20	0.1	0.273	0.233	14.76	
Vinyl Acetate	1	0		3.77	18.04	20	20		0.630	0.568	9.79	
Bromodichloromethane	1	0		5.44	19.93	20	20	0.2	0.381	0.380	0.33	
Methylcyclohexane	1	0		5.27	21.05	20	20	0.1	0.145	0.152	5.26	
Dibromomethane	1	0		5.36	22.09	20	20		0.206	0.196	10.43	
1,2-Dichloropropane	1	0		5.28	20.69	20	20	0.1	0.275	0.284	3.45	
Trichloroethene	1	0		5.14	19.34	20	20	0.2	0.261	0.253	3.32	
Benzene	1	0		4.75	21.60	20	20	0.5	0.919	0.927	8.00	
tert-Amyl methyl ether	1	0		4.79	21.33	20	20		0.614	0.655	6.63	
Chlorobenzene-d5	1	0	I	6.76	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.75	21.89	20	20	0.5	0.659	0.721	9.43	
Methyl methacrylate	1	0		5.32	22.80	20	20	0.5	0.391	0.446	13.98	
Dibromochloromethane	1	0		6.41	16.94	20	20	0.1	0.354	0.300	15.29	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

** - No limit specified in method
Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

8102901 0371

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 11/4/2018 3:05:00 A

Data File: 3M139669.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.60	22.13	20	20		0.152	0.171	10.63	
cis-1,3-Dichloropropene	1	0		5.71	18.90	20	20	0.2	0.514	0.486	5.51	
trans-1,3-Dichloropropene	1	0		6.03	18.27	20	20	0.1	0.484	0.442	8.64	
Ethyl methacrylate	1	0		6.06	20.15	20	20	0.5	0.401	0.404	0.74	
1,1,2-Trichloroethane	1	0		6.15	23.27	20	20	0.1	0.327	0.300	16.33	
1,2-Dibromoethane	1	0		6.49	18.04	20	20	0.1	0.319	0.287	9.80	
1,3-Dichloropropane	1	0		6.26	22.87	20	20		0.525	0.535	14.37	
4-Methyl-2-Pentanone	1	0		5.79	21.41	20	20	0.1	0.359	0.384	7.05	
2-Hexanone	1	0		6.28	20.97	20	20	0.1	0.234	0.245	4.85	
Tetrachloroethene	1	0		6.26	21.83	20	20	0.2	0.214	0.187	9.17	
Toluene-d8	1	0	S	5.88	29.65	30	**		1.254	1.239	1.16	
Toluene	1	0		5.92	16.92	20	20	0.4	0.716	0.606	15.40	
1,1,1,2-Tetrachloroethane	1	0		6.82	21.63	20	20		0.282	0.257	8.13	
Chlorobenzene	1	0		6.78	17.84	20	20	0.5	0.794	0.708	10.78	
1,4-Dichlorobenzene-d4	1	0	I	8.21	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.05	21.80	20	20	0.5	1.214	1.323	9.02	
n-Amyl acetate	1	0		7.19	23.46	20	20	0.5	1.216	1.427	17.29	
Bromoform	1	0		7.29	19.56	20	20	0.1	0.584	0.571	2.20	
Ethylbenzene	1	0		6.83	20.45	20	20	0.1	0.505	0.517	2.27	
1,1,2,2-Tetrachloroethane	1	0		7.53	19.89	20	20	0.1	0.900	0.896	0.53	
Bromofluorobenzene	1	0	S	7.47	30.44	30	**		1.039	1.054	1.46	
Styrene	1	0		7.15	20.82	20	20	0.3	1.559	1.623	4.09	
m&p-Xylenes	1	0		6.89	39.84	40	20	0.1	0.821	0.817	0.39	
o-Xylene	1	0		7.14	20.28	20	20	0.3	0.838	0.850	1.42	
trans-1,4-Dichloro-2-butene	1	0		7.56	22.67	20	20		0.321	0.363	13.35	
1,3-Dichlorobenzene	1	0		8.17	17.78	20	20	0.6	1.060	0.942	11.09	
1,4-Dichlorobenzene	1	0		8.23	18.95	20	20	0.5	1.138	1.078	5.25	
1,2-Dichlorobenzene	1	0		8.48	17.42	20	20	0.4	1.109	0.966	12.89	
Isopropylbenzene	1	0		7.36	19.35	20	20	0.1	1.640	1.586	3.25	
Cyclohexanone	1	0		7.45	151.62	100	20		0.035	0.052	51.62	C1
Camphene	1	0		7.55	21.71	20	20		0.452	0.491	8.57	
1,2,3-Trichloropropane	1	0		7.58	20.87	20	20		1.030	1.075	4.37	
2-Chlorotoluene	1	0		7.70	22.64	20	20		1.101	1.124	13.21	
p-Ethyltoluene	1	0		7.68	19.95	20	20		1.700	1.825	0.27	
4-Chlorotoluene	1	0		7.76	19.72	20	20		1.093	1.078	1.39	
n-Propylbenzene	1	0		7.61	19.46	20	20		1.925	1.873	2.70	
Bromobenzene	1	0		7.59	18.94	20	20		1.757	1.664	5.30	
1,3,5-Trimethylbenzene	1	0		7.71	21.76	20	20		1.250	1.278	8.81	
Butyl methacrylate	1	0		7.72	24.11	20	20	0.5	1.006	1.213	20.53	C1
t-Butylbenzene	1	0		7.93	18.59	20	20		1.162	1.080	7.03	
1,2,4-Trimethylbenzene	1	0		7.96	17.93	20	20		1.481	1.328	10.33	
sec-Butylbenzene	1	0		8.07	19.29	20	20		1.354	1.307	3.53	
4-Isopropyltoluene	1	0		8.15	19.02	20	20		1.151	1.094	4.92	
n-Butylbenzene	1	0		8.41	20.01	20	20		1.297	1.298	0.05	
p-Diethylbenzene	1	0		8.39	18.70	20	20		0.671	0.628	6.49	
1,2,4,5-Tetramethylbenzene	1	0		8.91	20.45	20	20		1.020	1.043	2.24	
1,2-Dibromo-3-Chloropropane	1	0		8.98	18.86	20	20	0.05	0.177	0.160	5.70	
Camphor	1	0		9.47	130.76	200	20		0.049	0.036	34.62	C1
Hexachlorobutadiene	1	0		9.62	19.08	20	20		0.358	0.311	4.61	
1,2,4-Trichlorobenzene	1	0		9.53	18.46	20	20	0.2	0.578	0.533	7.69	
1,2,3-Trichlorobenzene	1	0		9.87	19.69	20	20		0.575	0.566	1.56	
Naphthalene	1	0		9.71	18.17	20	20		1.396	1.268	9.14	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

Page 2 of 2
** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

SampleID : CAL @ 20 PPB
Data File: 3M139669.D
Acq On : 11/ 4/18 03:05

Operator : SG
Sam Mult : 1 Vial# : 43
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 11:44
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.910	96	211241	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.760	117	181625	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.208	152	80867	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	55352	29.44	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.13%	
39) 1,2-Dichloroethane-d4	4.700	67	39552	29.95	ug/l	0.00
Spiked Amount 30.000			Recovery	=	99.83%	
66) Toluene-d8	5.883	98	225122	29.65	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.83%	
76) Bromofluorobenzene	7.475	174	85272	30.44	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.47%	
Target Compounds						
5) Chlorodifluoromethane	1.543	51	67374	34.4115	ug/l	56
6) Dichlorodifluoromethane	1.526	85	17824	13.9180	ug/l	91
7) Chloromethane	1.676	50	33555	24.4692	ug/l	96
8) Bromomethane	2.044	94	12981	18.3940	ug/l	94
9) Vinyl Chloride	1.759	62	26168	19.2035	ug/l	97
10) Chloroethane	2.135	64	12786	20.3935	ug/l	93
11) Trichlorofluoromethane	2.345	101	39075m	18.9578	ug/l	
12) Ethyl ether	2.567	59	29465	16.5265	ug/l	82
13) Furan	2.603	39	80287	18.2294	ug/l	89
14) 1,1,2-Trichloro-1,2,2-...	2.753	101	16305	19.5415	ug/l	90
15) Methylene Chloride	3.150	84	33463	20.3387	ug/l	97
16) Acrolein	2.675	56	17773	53.0305	ug/l	90
17) Acrylonitrile	3.360	53	13979m	18.5659	ug/l	
18) Iodomethane	2.891	142	35004	17.5420	ug/l	79
19) Acetone	2.801	43	71460	103.8491	ug/l	81
20) Carbon Disulfide	2.958	76	89574m	15.7654	ug/l	
21) t-Butyl Alcohol	3.222	59	12213	84.0331	ug/l	99
22) n-Hexane	3.606	57	11223m	14.0365	ug/l	
23) Di-isopropyl-ether	3.768	45	138037	22.9888	ug/l	90
24) 1,1-Dichloroethene	2.765	61	41081	16.0623	ug/l	96
25) Methyl Acetate	3.066	43	41029	17.3427	ug/l	100
26) Methyl-t-butyl ether	3.372	73	68883	16.8335	ug/l	74
27) 1,1-Dichloroethane	3.738	63	59312	18.5412	ug/l	98
28) trans-1,2-Dichloroethene	3.384	96	26243	15.6469	ug/l	65
29) Ethyl-t-butyl ether	4.045	59	98044	20.4180	ug/l	98
30) cis-1,2-Dichloroethene	4.171	61	58963	18.2659	ug/l	91
31) Bromochloromethane	4.327	49	36461	18.6023	ug/l	59
32) 2,2-Dichloropropane	4.165	77	34552	17.2226	ug/l	96
33) Ethyl acetate	4.195	43	48088	21.2376	ug/l	96
34) 1,4-Dioxane	5.360	88	20287	1024.2037	ug/l	77
35) 1,1-Dichloropropene	4.609	75	41780	18.8726	ug/l	96
36) Chloroform	4.375	83	59116	17.2957	ug/l	83
38) Cyclohexane	4.549	56	31879	21.8029	ug/l	86
40) 1,2-Dichloroethane	4.748	62	53456	20.7703	ug/l	90
41) 2-Butanone	4.165	43	19819	21.1516	ug/l	96
42) 1,1,1-Trichloroethane	4.507	97	41425	16.1362	ug/l	85
43) Carbon Tetrachloride	4.621	117	32745	17.0471	ug/l	96
44) Vinyl Acetate	3.768	43	80022	18.0429	ug/l	100
45) Bromodichloromethane	5.444	83	53534	19.9333	ug/l	81
46) Methylcyclohexane	5.270	83	21471	21.0524	ug/l	96
47) Dibromomethane	5.360	174	27562	22.0851	ug/l	86
48) 1,2-Dichloropropane	5.282	63	40022	20.6897	ug/l	99
49) Trichloroethene	5.138	130	35561	19.3365	ug/l	94
50) Benzene	4.748	78	130514	21.6005	ug/l	100
51) tert-Amyl methyl ether	4.790	73	92205	21.3262	ug/l	83
53) Iso-propylacetate	4.748	43	87326	21.8869	ug/l	94
54) Methyl methacrylate	5.318	41	54022	22.7957	ug/l	92
55) Dibromochloromethane	6.406	129	36318	16.9411	ug/l	90
56) 2-Chloroethylvinylether	5.601	63	20698	22.1252	ug/l	80
57) cis-1,3-Dichloropropene	5.709	75	58828	18.8978	ug/l	88
58) trans-1,3-Dichloropropene	6.033	75	53579	18.2711	ug/l	93
59) Ethyl methacrylate	6.063	41	48872	20.1479	ug/l	88
60) 1,1,2-Trichloroethane	6.153	97	36381	23.2658	ug/l	83
61) 1,2-Dibromoethane	6.490	107	34797	18.0408	ug/l	97
62) 1,3-Dichloropropane	6.261	76	64788	22.8744	ug/l	100
63) 4-Methyl-2-Pentanone	5.787	43	46531	21.4101	ug/l	98
64) 2-Hexanone	6.279	43	29667	20.9699	ug/l	90
65) Tetrachloroethene	6.255	164	22685	21.8330	ug/l	84
67) Toluene	5.925	92	73334	16.9207	ug/l	89

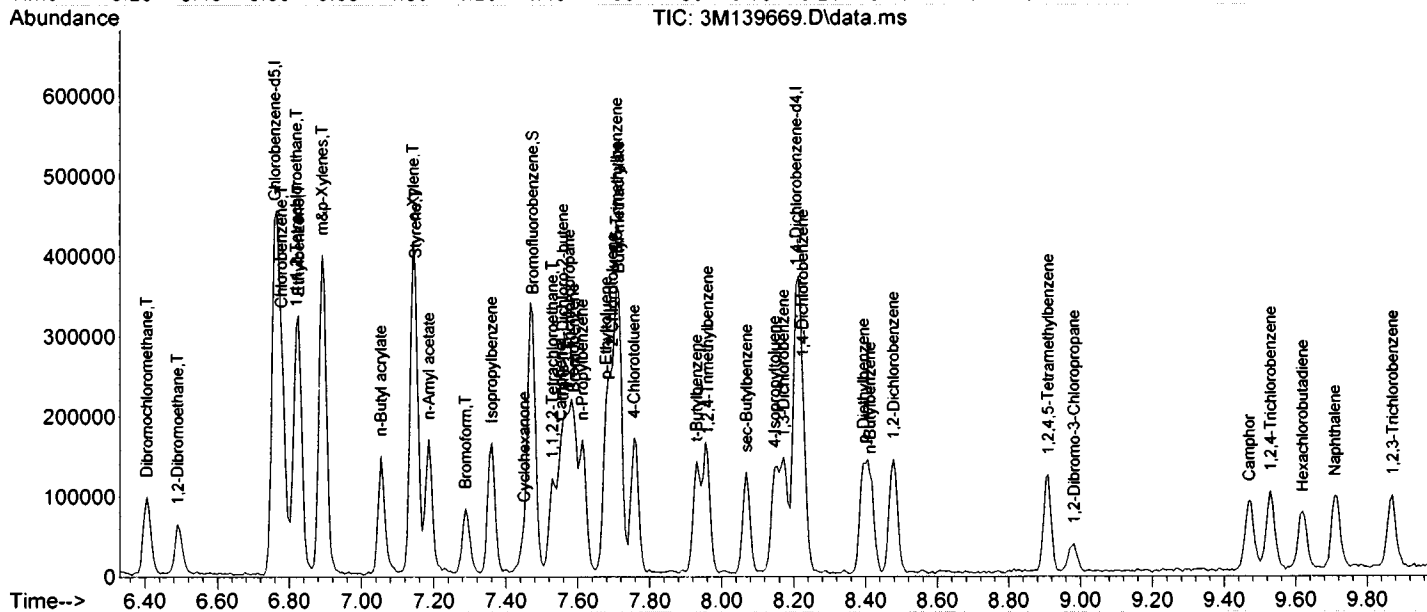
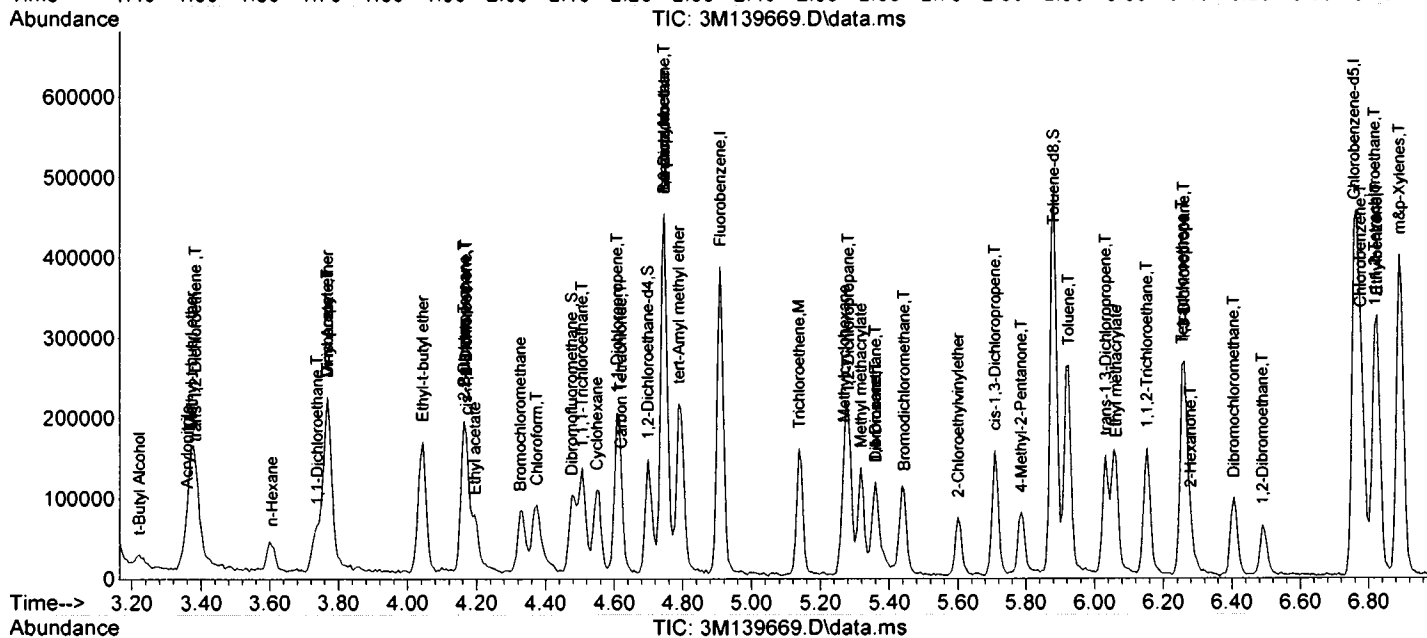
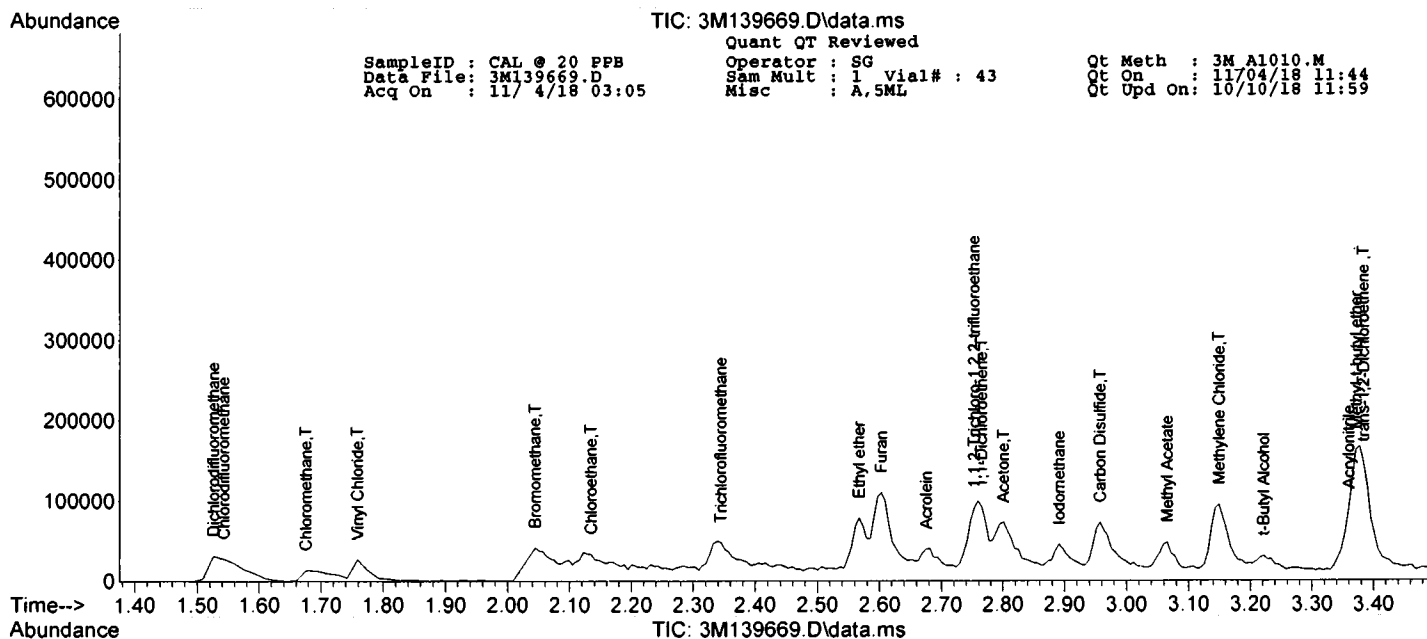
Quantitation Report (QT Reviewed)

SampleID : CAL @ 20 PPB Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139669.D Sam Mult : 1 Vial# : 43 Qt On : 11/04/18 11:44
 Acq On : 11/ 4/18 03:05 Misc : A,5ML Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.820	133	31157	21.6258	ug/l	82
69)	Chlorobenzene	6.778	112	85781	17.8444	ug/l	94
71)	n-Butyl acrylate	7.054	55	71345	21.8032	ug/l	96
72)	n-Amyl acetate	7.186	43	76916	23.4575	ug/l	85
73)	Bromoform	7.289	173	30803	19.5609	ug/l	93
74)	Ethylbenzene	6.826	106	27864	20.4540	ug/l	81
75)	1,1,2,2-Tetrachloroethane	7.529	83	48284	19.8931	ug/l	90
77)	Styrene	7.150	104	87492	20.8173	ug/l	88
78)	m&p-Xylenes	6.892	106	88119	39.8422	ug/l	85
79)	o-Xylene	7.144	106	45845	20.2834	ug/l	70
80)	trans-1,4-Dichloro-2-b...	7.559	53	19593	22.6692	ug/l	76
81)	1,3-Dichlorobenzene	8.172	146	50797	17.7814	ug/l	87
82)	1,4-Dichlorobenzene	8.226	146	58136	18.9500	ug/l	91
83)	1,2-Dichlorobenzene	8.478	146	52074	17.4223	ug/l	90
84)	Isopropylbenzene	7.361	105	85526	19.3505	ug/l	92
85)	Cyclohexanone	7.451	55	14123	151.6247	ug/l	96
86)	Camphene	7.553	93	26480	21.7135	ug/l	92
87)	1,2,3-Trichloropropane	7.577	75	57978	20.8746	ug/l	88
88)	2-Chlorotoluene	7.697	91	60608	22.6415	ug/l	94
89)	p-Ethyltoluene	7.679	105	98390	19.9452	ug/l	85
90)	4-Chlorotoluene	7.757	91	58104	19.7220	ug/l	93
91)	n-Propylbenzene	7.613	91	100966	19.4607	ug/l	99
92)	Bromobenzene	7.589	77	89683	18.9410	ug/l	89
93)	1,3,5-Trimethylbenzene	7.709	105	68921	21.7622	ug/l	91
94)	Butyl methacrylate	7.715	41	65379	24.1050	ug/l	75
95)	t-Butylbenzene	7.931	119	58228	18.5933	ug/l	82
96)	1,2,4-Trimethylbenzene	7.961	105	71583	17.9344	ug/l	81
97)	sec-Butylbenzene	8.069	105	70440	19.2934	ug/l	95
98)	4-Isopropyltoluene	8.148	119	58986	19.0160	ug/l	86
99)	n-Butylbenzene	8.412	91	69952	20.0093	ug/l	93
100)	p-Diethylbenzene	8.394	119	33838m	18.7029	ug/l	
101)	1,2,4,5-Tetramethylben...	8.910	119	56226	20.4487	ug/l	90
102)	1,2-Dibromo-3-Chloropr...	8.982	157	8633	18.8610	ug/l	74
103)	Camphor	9.469	95	19417	130.7587	ug/l	93
104)	Hexachlorobutadiene	9.619	225	16772	19.0771	ug/l	95
105)	1,2,4-Trichlorobenzene	9.529	180	28746	18.4616	ug/l	97
106)	1,2,3-Trichlorobenzene	9.872	180	30509	19.6884	ug/l	93
107)	Naphthalene	9.709	128	68386	18.1724	ug/l	100

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



Form7

8102901 0375

Continuing Calibration

Calibration Name: CAL @ 20 PPB
 Cont Calibration Date/Time 11/4/2018 12:51:00 P

Data File: 3M139705.D
 Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.89	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.54	35.29	20	20	0.1	0.352	0.491	76.46	C1
Dichlorodifluoromethane	1	0		1.53	11.06	20	20	0.1	0.182	0.101	44.68	C1
Chloromethane	1	0		1.69	23.44	20	20	0.1	0.284	0.228	17.18	
Bromomethane	1	0		2.05	20.10	20	20	0.1	0.113	0.100	0.49	
Vinyl Chloride	1	0		1.76	19.15	20	20	0.1	0.194	0.185	4.26	
Chloroethane	1	0		2.12	19.99	20	20	0.1	0.106	0.089	0.05	
Trichlorofluoromethane	1	0		2.33	17.53	20	20	0.1	0.293	0.257	12.35	
Ethyl ether	1	0		2.56	18.03	20	20	0.5	0.253	0.228	9.84	
Furan	1	0		2.60	17.75	20	20	0.5	0.625	0.555	11.23	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.74	16.30	20	20	0.1	0.150	0.097	18.49	
Methylene Chloride	1	0		3.14	21.41	20	20	0.1	0.288	0.250	7.07	
Acrolein	1	0		2.67	65.79	100	20		0.048	0.031	34.21	C1
Acrylonitrile	1	0		3.35	21.34	20	20		0.107	0.114	6.71	
Iodomethane	1	0		2.88	16.22	20	20		0.283	0.230	18.92	
Acetone	1	0		2.79	107.84	100	20	0.1	0.098	0.105	7.84	
Carbon Disulfide	1	0		2.95	15.44	20	20	0.1	0.807	0.623	22.78	C1
t-Butyl Alcohol	1	0		3.21	93.92	100	20		0.021	0.019	6.08	
n-Hexane	1	0		3.59	16.23	20	20		0.114	0.092	18.84	
Di-isopropyl-ether	1	0		3.76	23.77	20	20		0.853	1.014	18.86	
1,1-Dichloroethene	1	0		2.75	16.07	20	20	0.1	0.363	0.292	19.64	
Methyl Acetate	1	0		3.05	18.13	20	20	0.1	0.336	0.305	9.36	
Methyl-t-butyl ether	1	0		3.36	17.91	20	20	0.1	0.581	0.520	10.45	
1,1-Dichloroethane	1	0		3.72	19.15	20	20	0.2	0.454	0.435	4.24	
trans-1,2-Dichloroethene	1	0		3.38	16.81	20	20	0.1	0.238	0.200	15.97	
Ethyl-t-butyl ether	1	0		4.03	20.72	20	20	0.5	0.682	0.706	3.58	
cis-1,2-Dichloroethene	1	0		4.15	19.40	20	20	0.1	0.458	0.445	3.01	
Bromochloromethane	1	0		4.32	19.45	20	20		0.278	0.271	2.73	
2,2-Dichloropropane	1	0		4.15	20.07	20	20		0.317	0.286	0.37	
Ethyl acetate	1	0		4.18	23.60	20	20		0.322	0.380	18.02	
1,4-Dioxane	1	0		5.34	1065.54	1000	20		0.003	0.003	6.55	
1,1-Dichloropropene	1	0		4.59	18.51	20	20		0.314	0.291	7.43	
Chloroform	1	0		4.36	17.83	20	20	0.2	0.485	0.433	10.84	
Dibromofluoromethane	1	0	S	4.47	28.62	30	**		0.267	0.255	4.62	
Cyclohexane	1	0		4.54	21.85	20	20	0.1	0.208	0.227	9.24	
1,2-Dichloroethane-d4	1	0	S	4.69	28.58	30	**		0.188	0.179	4.74	
1,2-Dichloroethane	1	0		4.73	21.31	20	20	0.1	0.433	0.389	6.55	
2-Butanone	1	0		4.15	20.78	20	20	0.1	0.133	0.138	3.90	
1,1,1-Trichloroethane	1	0		4.50	16.07	20	20	0.1	0.365	0.293	19.67	
Carbon Tetrachloride	1	0		4.60	16.75	20	20	0.1	0.273	0.228	16.27	
Vinyl Acetate	1	0		3.75	21.49	20	20		0.630	0.677	7.47	
Bromodichloromethane	1	0		5.43	18.27	20	20	0.2	0.381	0.348	8.66	
Methylcyclohexane	1	0		5.25	20.90	20	20	0.1	0.145	0.151	4.52	
Dibromomethane	1	0		5.34	22.53	20	20		0.206	0.200	12.64	
1,2-Dichloropropane	1	0		5.26	22.23	20	20	0.1	0.275	0.305	11.15	
Trichloroethene	1	0		5.12	17.12	20	20	0.2	0.261	0.224	14.42	
Benzene	1	0		4.73	21.22	20	20	0.5	0.919	0.911	6.09	
tert-Amyl methyl ether	1	0		4.78	22.00	20	20		0.614	0.675	10.01	
Chlorobenzene-d5	1	0	I	6.74	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.73	23.96	20	20	0.5	0.659	0.790	19.82	
Methyl methacrylate	1	0		5.30	22.37	20	20	0.5	0.391	0.438	11.87	
Dibromochloromethane	1	0		6.39	18.03	20	20	0.1	0.354	0.319	9.86	

S-Surrogate Compound
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
 C1-Compound %Diff exceeds limits

** - No limit specified in method

Page 1 of 2

Note: 8260/8270 limits are compared against the %DIFF/R.F.
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
 524.2 limits are compared against the %DIFF

Form7

8102901 0376

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 11/4/2018 12:51:00 P

Data File: 3M139705.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.58	23.87	20	20		0.152	0.185	19.37	
cis-1,3-Dichloropropene	1	0		5.69	20.33	20	20	0.2	0.514	0.523	1.67	
trans-1,3-Dichloropropene	1	0		6.02	19.42	20	20	0.1	0.484	0.470	2.91	
Ethyl methacrylate	1	0		6.04	22.08	20	20	0.5	0.401	0.442	10.40	
1,1,2-Trichloroethane	1	0		6.14	22.23	20	20	0.1	0.327	0.287	11.16	
1,2-Dibromoethane	1	0		6.47	17.49	20	20	0.1	0.319	0.279	12.54	
1,3-Dichloropropane	1	0		6.24	23.10	20	20		0.525	0.540	15.48	
4-Methyl-2-Pentanone	1	0		5.77	23.99	20	20	0.1	0.359	0.431	19.93	
2-Hexanone	1	0		6.26	23.29	20	20	0.1	0.234	0.272	16.46	
Tetrachloroethene	1	0		6.24	22.06	20	20	0.2	0.214	0.189	10.30	
Toluene-d8	1	0	S	5.86	29.75	30	**		1.254	1.244	0.82	
Toluene	1	0		5.90	18.66	20	20	0.4	0.716	0.668	6.69	
1,1,1,2-Tetrachloroethane	1	0		6.80	22.32	20	20		0.282	0.266	11.59	
Chlorobenzene	1	0		6.76	18.43	20	20	0.5	0.794	0.731	7.88	
1,4-Dichlorobenzene-d4	1	0	I	8.18	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.03	25.62	20	20	0.5	1.214	1.555	28.10	C1
n-Amyl acetate	1	0		7.16	27.33	20	20	0.5	1.216	1.663	36.67	C1
Bromoform	1	0		7.27	20.25	20	20	0.1	0.584	0.591	1.24	
Ethylbenzene	1	0		6.80	21.49	20	20	0.1	0.505	0.543	7.44	
1,1,2,2-Tetrachloroethane	1	0		7.51	23.49	20	20	0.1	0.900	1.058	17.47	
Bromofluorobenzene	1	0	S	7.45	29.04	30	**		1.039	1.006	3.21	
Styrene	1	0		7.13	21.63	20	20	0.3	1.559	1.686	8.16	
m&p-Xylenes	1	0		6.87	41.62	40	20	0.1	0.821	0.854	4.05	
o-Xylene	1	0		7.12	20.54	20	20	0.3	0.838	0.861	2.68	
trans-1,4-Dichloro-2-butene	1	0		7.54	23.93	20	20		0.321	0.384	19.63	
1,3-Dichlorobenzene	1	0		8.15	18.74	20	20	0.6	1.060	0.993	6.28	
1,4-Dichlorobenzene	1	0		8.20	18.97	20	20	0.5	1.138	1.079	5.16	
1,2-Dichlorobenzene	1	0		8.45	17.96	20	20	0.4	1.109	0.996	10.20	
Isopropylbenzene	1	0		7.34	20.74	20	20	0.1	1.640	1.701	3.71	
Cyclohexanone	1	0		7.43	168.26	100	20		0.035	0.058	68.26	C1
Camphene	1	0		7.54	19.78	20	20		0.452	0.448	1.08	
1,2,3-Trichloropropane	1	0		7.55	22.73	20	20		1.030	1.171	13.65	
2-Chlorotoluene	1	0		7.67	22.12	20	20		1.101	1.098	10.58	
p-Ethyltoluene	1	0		7.66	20.55	20	20		1.700	1.880	2.76	
4-Chlorotoluene	1	0		7.74	19.42	20	20		1.093	1.061	2.91	
n-Propylbenzene	1	0		7.60	19.95	20	20		1.925	1.920	0.27	
Bromobenzene	1	0		7.57	19.89	20	20		1.757	1.747	0.57	
1,3,5-Trimethylbenzene	1	0		7.69	22.15	20	20		1.250	1.301	10.74	
Butyl methacrylate	1	0		7.69	28.37	20	20	0.5	1.006	1.427	41.86	C1
t-Butylbenzene	1	0		7.91	19.59	20	20		1.162	1.138	2.04	
1,2,4-Trimethylbenzene	1	0		7.94	19.45	20	20		1.481	1.440	2.73	
sec-Butylbenzene	1	0		8.05	20.21	20	20		1.354	1.369	1.07	
4-Isopropyltoluene	1	0		8.13	19.24	20	20		1.151	1.107	3.81	
n-Butylbenzene	1	0		8.39	20.98	20	20		1.297	1.360	4.90	
p-Diethylbenzene	1	0		8.37	21.45	20	20		0.671	0.720	7.26	
1,2,4,5-Tetramethylbenzene	1	0		8.89	21.97	20	20		1.020	1.121	9.85	
1,2-Dibromo-3-Chloropropane	1	0		8.96	20.34	20	20	0.05	0.177	0.173	1.69	
Camphor	1	0		9.45	143.86	200	20		0.049	0.040	28.07	C1
Hexachlorobutadiene	1	0		9.60	18.22	20	20		0.358	0.297	8.90	
1,2,4-Trichlorobenzene	1	0		9.51	21.21	20	20	0.2	0.578	0.613	6.06	
1,2,3-Trichlorobenzene	1	0		9.85	18.27	20	20		0.575	0.525	8.66	
Naphthalene	1	0		9.69	20.16	20	20		1.396	1.407	0.79	

S-Surrogate Compound
N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
C1-Compound %Diff exceeds limits

Page 2 of 2
**- No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

SampleID : CAL @ 20 PPB
Data File: 3M139705.D
Acq On : 11/ 4/18 12:51

Operator : WP
Sam Mult : 1 Vial# : 4
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 12:10
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
4) Fluorobenzene	4.892	96	227179	30.00	ug/l	-0.02	
52) Chlorobenzene-d5	6.742	117	190429	30.00	ug/l	-0.02	
70) 1,4-Dichlorobenzene-d4	8.184	152	81217	30.00	ug/l	-0.02	
System Monitoring Compounds							
37) Dibromofluoromethane	4.466	111	57863	28.62	ug/l	-0.01	
Spiked Amount	30.000		Recovery	=	95.40%		
39) 1,2-Dichloroethane-d4	4.688	67	40583	28.58	ug/l	-0.01	
Spiked Amount	30.000		Recovery	=	95.27%		
66) Toluene-d8	5.859	98	236843	29.75	ug/l	-0.02	
Spiked Amount	30.000		Recovery	=	99.17%		
76) Bromofluorobenzene	7.451	174	81699	29.04	ug/l	-0.02	
Spiked Amount	30.000		Recovery	=	96.80%		
Target Compounds							Qvalue
5) Chlorodifluoromethane	1.542	51	74318	35.2920	ug/l		48
6) Dichlorodifluoromethane	1.525	85	15239	11.0646	ug/l		86
7) Chloromethane	1.692	50	34552	23.4362	ug/l		85
8) Bromomethane	2.045	94	15220	20.0976	ug/l		75
9) Vinyl Chloride	1.758	62	28061	19.1480	ug/l		81
10) Chloroethane	2.123	64	13481m	19.9898	ug/l		
11) Trichlorofluoromethane	2.333	101	38860m	17.5308	ug/l		
12) Ethyl ether	2.562	59	34573	18.0311	ug/l		89
13) Furan	2.598	39	84096	17.7546	ug/l		95
14) 1,1,2-Trichloro-1,2,2-...	2.742	101	14630	16.3026	ug/l		99
15) Methylene Chloride	3.144	84	37892	21.4147	ug/l		86
16) Acrolein	2.670	56	23714	65.7930	ug/l		88
17) Acrylonitrile	3.349	53	17281m	21.3411	ug/l		
18) Iodomethane	2.880	142	34798m	16.2153	ug/l		
19) Acetone	2.790	43	79802	107.8359	ug/l		98
20) Carbon Disulfide	2.952	76	94366	15.4436	ug/l		100
21) t-Butyl Alcohol	3.210	59	14680m	93.9213	ug/l		
22) n-Hexane	3.595	57	13958m	16.2324	ug/l		
23) Di-isopropyl-ether	3.757	45	153506m	23.7714	ug/l		
24) 1,1-Dichloroethene	2.754	61	44210	16.0730	ug/l		93
25) Methyl Acetate	3.054	43	46123	18.1281	ug/l		100
26) Methyl-t-butyl ether	3.361	73	78814	17.9092	ug/l		76
27) 1,1-Dichloroethane	3.721	63	65887	19.1516	ug/l		99
28) trans-1,2-Dichloroethene	3.379	96	30313	16.8056	ug/l		88
29) Ethyl-t-butyl ether	4.033	59	106977	20.7154	ug/l		97
30) cis-1,2-Dichloroethene	4.153	61	67342	19.3980	ug/l		89
31) Bromochloromethane	4.316	49	41006	19.4534	ug/l		72
32) 2,2-Dichloropropane	4.153	77	43278	20.0741	ug/l		88
33) Ethyl acetate	4.177	43	57480m	23.6046	ug/l		
34) 1,4-Dioxane	5.343	88	22696	1065.5440	ug/l		64
35) 1,1-Dichloropropene	4.592	75	44080	18.5146	ug/l		93
36) Chloroform	4.358	83	65548	17.8321	ug/l		75
38) Cyclohexane	4.538	56	34355	21.8479	ug/l		81
40) 1,2-Dichloroethane	4.730	62	58971	21.3107	ug/l		91
41) 2-Butanone	4.147	43	20939m	20.7792	ug/l		
42) 1,1,1-Trichloroethane	4.496	97	44354	16.0651	ug/l		89
43) Carbon Tetrachloride	4.598	117	34593	16.7457	ug/l		96
44) Vinyl Acetate	3.751	43	102522	21.4944	ug/l		100
45) Bromodichloromethane	5.427	83	52764	18.2683	ug/l		84
46) Methylcyclohexane	5.253	83	22929	20.9047	ug/l		96
47) Dibromomethane	5.343	174	30233	22.5286	ug/l		95
48) 1,2-Dichloropropane	5.265	63	46247	22.2305	ug/l		93
49) Trichloroethene	5.121	130	33852	17.1158	ug/l		85
50) Benzene	4.730	78	137903	21.2174	ug/l		100
51) tert-Amyl methyl ether	4.778	73	102300	22.0011	ug/l		81
53) Iso-propylacetate	4.730	43	100244	23.9630	ug/l		95
54) Methyl methacrylate	5.301	41	55595	22.3749	ug/l		97
55) Dibromochloromethane	6.388	129	40521	18.0278	ug/l		96
56) 2-Chloroethylvinylether	5.583	63	23440	23.8749	ug/l		82
57) cis-1,3-Dichloropropene	5.691	75	66368	20.3343	ug/l		95
58) trans-1,3-Dichloropropene	6.016	75	59704	19.4185	ug/l		97
59) Ethyl methacrylate	6.040	41	56154	22.0797	ug/l		87
60) 1,1,2-Trichloroethane	6.136	97	36444	22.2312	ug/l		88
61) 1,2-Dibromoethane	6.472	107	35375	17.4925	ug/l		97
62) 1,3-Dichloropropane	6.238	76	68580	23.0950	ug/l		98
63) 4-Methyl-2-Pentanone	5.769	43	54656m	23.9860	ug/l		
64) 2-Hexanone	6.256	43	34548m	23.2910	ug/l		
65) Tetrachloroethene	6.244	164	24030	22.0597	ug/l		89
67) Toluene	5.901	92	84803	18.6624	ug/l		91

Quantitation Report (QT Reviewed)

SampleID : CAL @ 20 PPB
 Data File: 3M139705.D
 Acq On : 11/ 4/18 12:51

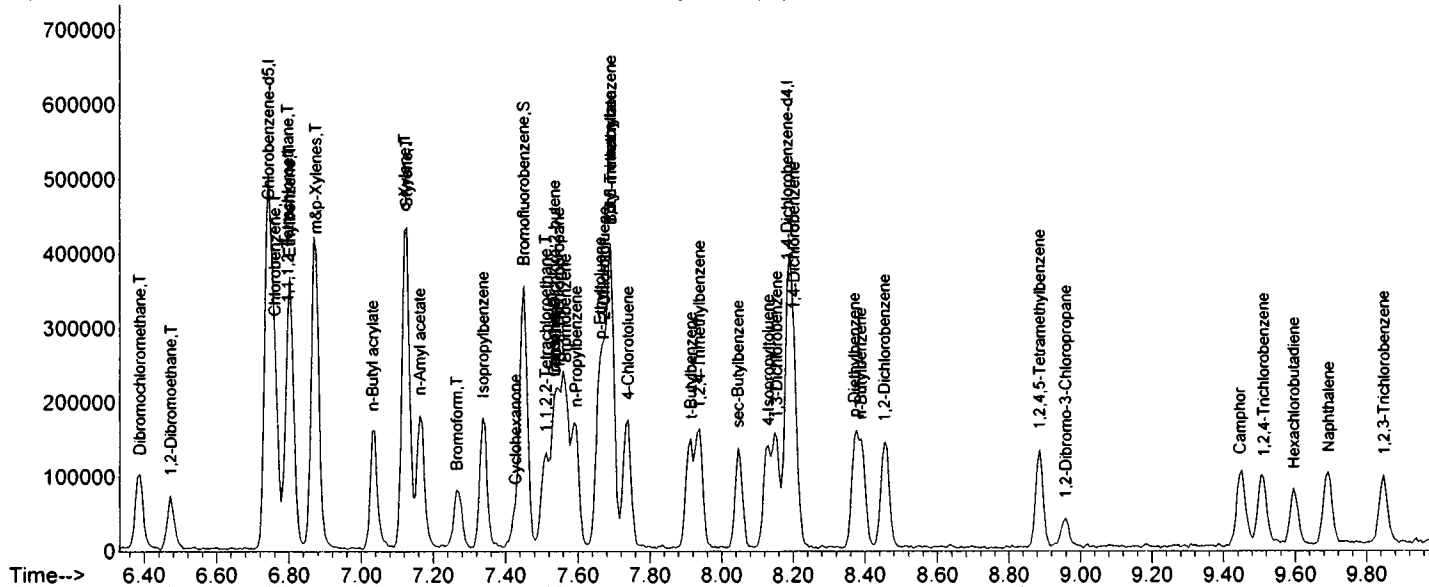
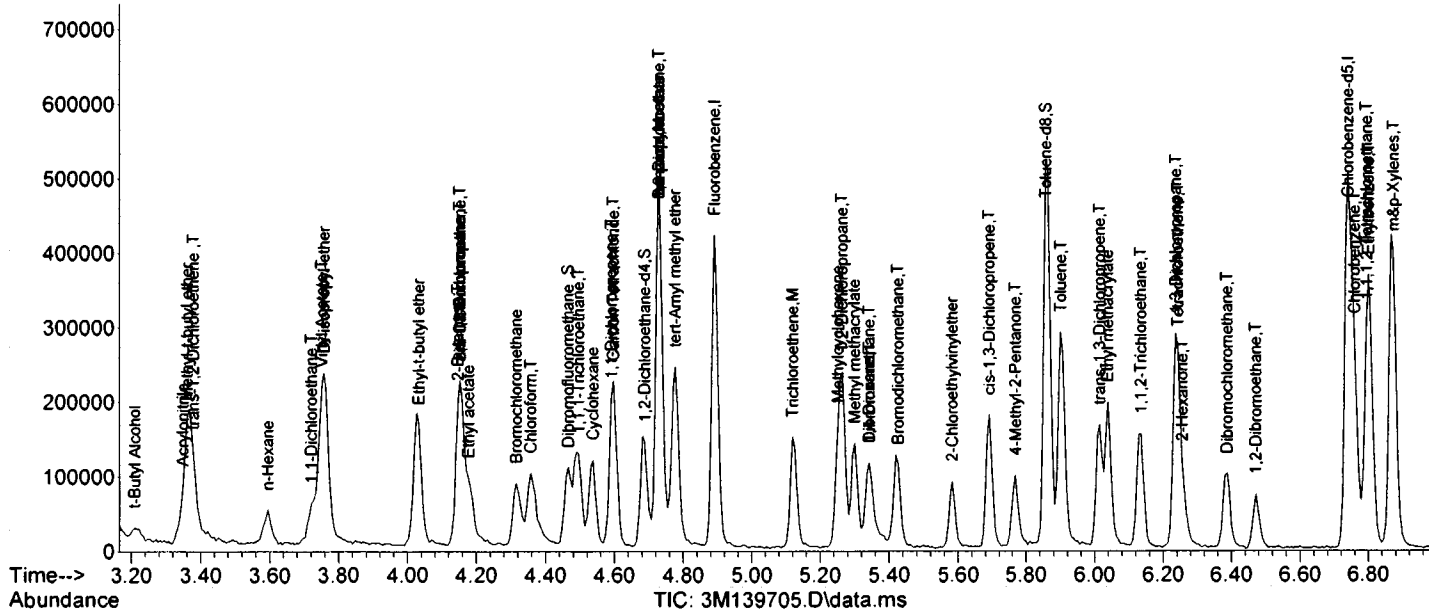
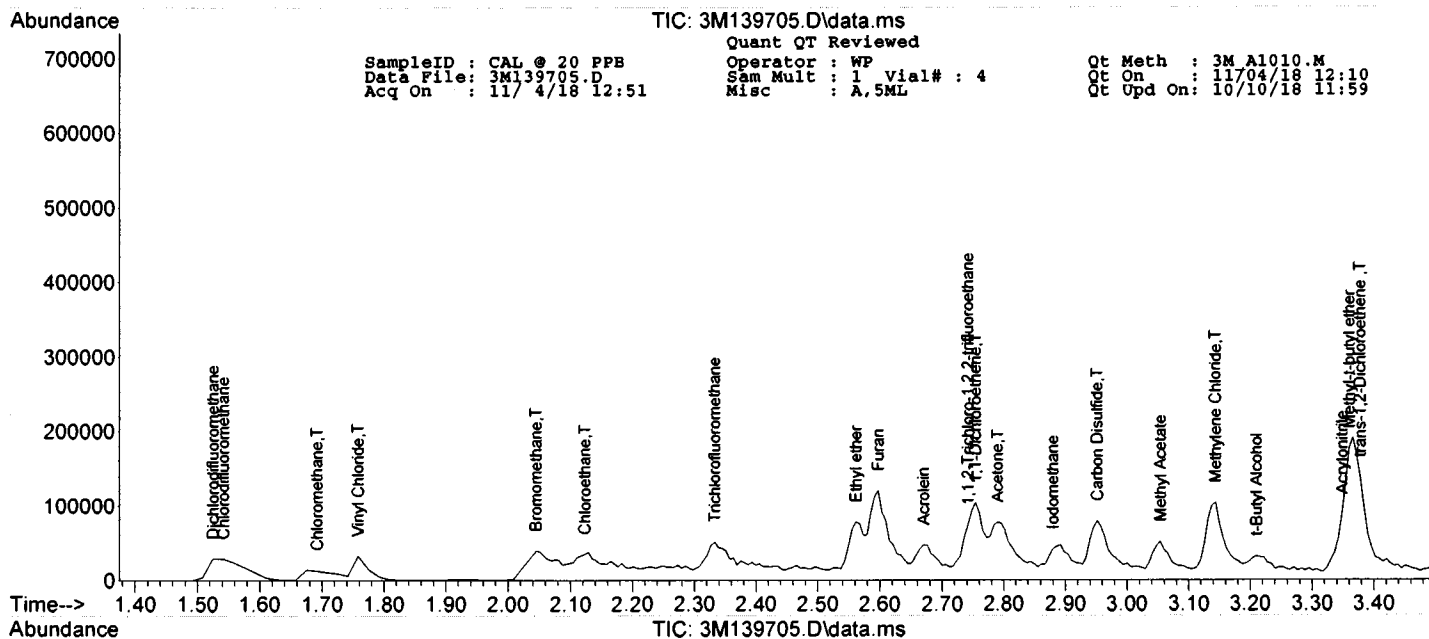
Operator : WP
 Sam Mult : 1 Vial# : 4
 Misc : A,5ML

Qt Meth : 3M_A1010.M
 Qt On : 11/04/18 12:10
 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QI	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.797	133	33706	22.3175	ug/l	92
69)	Chlorobenzene	6.760	112	92865	18.4250	ug/l	95
71)	n-Butyl acrylate	7.031	55	84196	25.6196	ug/l	97
72)	n-Amyl acetate	7.163	43	90017	27.3347	ug/l	86
73)	Bromoform	7.265	173	32022	20.2474	ug/l	93
74)	Ethylbenzene	6.803	106	29400	21.4885	ug/l	76
75)	1,1,2,2-Tetrachloroethane	7.511	83	57270	23.4936	ug/l	88
77)	Styrene	7.127	104	91307	21.6314	ug/l	92
78)	m&p-Xylenes	6.875	106	92451	41.6207	ug/l	83
79)	o-Xylene	7.121	106	46618	20.5366	ug/l	80
80)	trans-1,4-Dichloro-2-b...	7.535	53	20769m	23.9262	ug/l	
81)	1,3-Dichlorobenzene	8.154	146	53781	18.7448	ug/l	89
82)	1,4-Dichlorobenzene	8.202	146	58443	18.9680	ug/l	92
83)	1,2-Dichlorobenzene	8.454	146	53914	17.9602	ug/l	93
84)	Isopropylbenzene	7.337	105	92076	20.7427	ug/l	96
85)	Cyclohexanone	7.427	55	15740	168.2566	ug/l	95
86)	Camphene	7.535	93	24231	19.7837	ug/l	91
87)	1,2,3-Trichloropropane	7.547	75	63402	22.7291	ug/l	87
88)	2-Chlorotoluene	7.674	91	59472	22.1163	ug/l	88
89)	p-Ethyltoluene	7.662	105	101805	20.5516	ug/l	84
90)	4-Chlorotoluene	7.740	91	57456	19.4180	ug/l	87
91)	n-Propylbenzene	7.595	91	103934	19.9465	ug/l	95
92)	Bromobenzene	7.565	77	94568	19.8867	ug/l	87
93)	1,3,5-Trimethylbenzene	7.692	105	70432	22.1485	ug/l	82
94)	Butyl methacrylate	7.692	41	77286	28.3722	ug/l	71
95)	t-Butylbenzene	7.914	119	61619	19.5913	ug/l	82
96)	1,2,4-Trimethylbenzene	7.938	105	77987	19.4546	ug/l	85
97)	sec-Butylbenzene	8.046	105	74123	20.2146	ug/l	97
98)	4-Isopropyltoluene	8.130	119	59931	19.2374	ug/l	90
99)	n-Butylbenzene	8.388	91	73661	20.9794	ug/l	94
100)	p-Diethylbenzene	8.370	119	38979m	21.4516	ug/l	
101)	1,2,4,5-Tetramethylben...	8.887	119	60672	21.9705	ug/l	94
102)	1,2-Dibromo-3-Chloropr...	8.959	157	9356	20.3383	ug/l	74
103)	Camphor	9.446	95	21441	143.8550	ug/l	100
104)	Hexachlorobutadiene	9.596	225	16090	18.2197	ug/l	94
105)	1,2,4-Trichlorobenzene	9.512	180	33171	21.2116	ug/l	90
106)	1,2,3-Trichlorobenzene	9.848	180	28430	18.2677	ug/l	91
107)	Naphthalene	9.692	128	76183	20.1571	ug/l	100

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



Form7

Continuing Calibration

Calibration Name: CAL @ 20 PPB
Cont Calibration Date/Time 11/4/2018 11:18:00 PData File: 3M139745.D
Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
Fluorobenzene	1	0	I	4.89	30.00	30	**			0.000	0.00	
Chlorodifluoromethane	1	0		1.54	32.98	20	20	0.1	0.352	0.458	64.89	C1
Dichlorodifluoromethane	1	0		1.53	10.48	20	20	0.1	0.182	0.095	47.59	C1
Chloromethane	1	0		1.68	21.10	20	20	0.1	0.284	0.205	5.49	
Bromomethane	1	0		2.04	16.92	20	20	0.1	0.113	0.085	15.40	
Vinyl Chloride	1	0		1.76	16.69	20	20	0.1	0.194	0.161	16.55	
Chloroethane	1	0		2.12	22.14	20	20	0.1	0.106	0.098	10.71	
Trichlorofluoromethane	1	0		2.34	16.07	20	20	0.1	0.293	0.235	19.66	
Ethyl ether	1	0		2.56	18.38	20	20	0.5	0.253	0.233	8.09	
Furan	1	0		2.60	18.73	20	20	0.5	0.625	0.586	6.37	
1,1,2-Trichloro-1,2,2-trifluoroetha	1	0		2.75	15.99	20	20	0.1	0.150	0.095	20.03	
Methylene Chloride	1	0		3.14	20.02	20	20	0.1	0.288	0.234	0.10	
Acrolein	1	0		2.68	53.18	100	20		0.048	0.025	46.82	C1
Acrylonitrile	1	0		3.34	21.23	20	20		0.107	0.113	6.13	
Iodomethane	1	0		2.89	15.13	20	20		0.283	0.214	24.36	C1
Acetone	1	0		2.80	102.38	100	20	0.1	0.098	0.100	2.38	
Carbon Disulfide	1	0		2.95	15.01	20	20	0.1	0.807	0.606	24.94	C1
t-Butyl Alcohol	1	0		3.22	100.00	100	20		0.021	0.021	0.00	
n-Hexane	1	0		3.59	14.21	20	20		0.114	0.081	28.93	C1
Di-isopropyl-ether	1	0		3.76	22.39	20	20		0.853	0.955	11.96	
1,1-Dichloroethene	1	0		2.76	16.70	20	20	0.1	0.363	0.303	16.51	
Methyl Acetate	1	0		3.05	18.61	20	20	0.1	0.336	0.313	6.97	
Methyl-t-butyl ether	1	0		3.37	17.65	20	20	0.1	0.581	0.513	11.77	
1,1-Dichloroethane	1	0		3.73	18.70	20	20	0.2	0.454	0.425	6.52	
trans-1,2-Dichloroethene	1	0		3.38	15.92	20	20	0.1	0.238	0.190	20.40	
Ethyl-t-butyl ether	1	0		4.03	18.86	20	20	0.5	0.682	0.643	5.68	
cis-1,2-Dichloroethene	1	0		4.15	18.17	20	20	0.1	0.458	0.416	9.17	
Bromochloromethane	1	0		4.32	18.79	20	20		0.278	0.262	6.05	
2,2-Dichloropropane	1	0		4.15	17.02	20	20		0.317	0.242	14.92	
Ethyl acetate	1	0		4.18	21.41	20	20		0.322	0.344	7.04	
1,4-Dioxane	1	0		5.34	1065.01	1000	20		0.003	0.003	6.50	
1,1-Dichloropropene	1	0		4.60	17.16	20	20		0.314	0.270	14.20	
Chloroform	1	0		4.36	16.27	20	20	0.2	0.485	0.395	18.65	
Dibromofluoromethane	1	0	S	4.47	28.74	30	**		0.267	0.256	4.21	
Cyclohexane	1	0		4.54	20.05	20	20	0.1	0.208	0.208	0.24	
1,2-Dichloroethane-d4	1	0	S	4.69	29.53	30	**		0.188	0.185	1.58	
1,2-Dichloroethane	1	0		4.74	19.39	20	20	0.1	0.433	0.355	3.05	
2-Butanone	1	0		4.15	23.01	20	20	0.1	0.133	0.153	15.04	
1,1,1-Trichloroethane	1	0		4.50	15.48	20	20	0.1	0.365	0.282	22.61	C1
Carbon Tetrachloride	1	0		4.60	17.09	20	20	0.1	0.273	0.233	14.57	
Vinyl Acetate	1	0		3.76	17.54	20	20		0.630	0.552	12.29	
Bromodichloromethane	1	0		5.42	18.04	20	20	0.2	0.381	0.344	9.79	
Methylcyclohexane	1	0		5.26	18.56	20	20	0.1	0.145	0.134	7.19	
Dibromomethane	1	0		5.34	19.92	20	20		0.206	0.177	0.38	
1,2-Dichloropropane	1	0		5.27	21.23	20	20	0.1	0.275	0.292	6.17	
Trichloroethene	1	0		5.13	16.73	20	20	0.2	0.261	0.218	16.37	
Benzene	1	0		4.73	20.96	20	20	0.5	0.919	0.900	4.79	
tert-Amyl methyl ether	1	0		4.78	19.62	20	20		0.614	0.602	1.90	
Chlorobenzene-d5	1	0	I	6.74	30.00	30	**			0.000	0.00	
Iso-propylacetate	1	0		4.74	22.25	20	20	0.5	0.659	0.733	11.23	
Methyl methacrylate	1	0		5.30	21.37	20	20	0.5	0.391	0.418	6.84	
Dibromochloromethane	1	0		6.39	16.60	20	20	0.1	0.354	0.294	16.99	

S-Surrogate Compound
N/O or N/Q - Not applicable for this runI-Internal Standard Compound
CI-Compound %Diff exceeds limitsPage 1 of 2
** - No limit specified in methodNote: 8260/8270 limits are compared against the %DIFF/R.F.
624 limits are compared against the concentration found.625 limits are compared against the %DIFF.
524.2 limits are compared against the %DIFF

Form7

Continuing Calibration

Calibration Name: CAL @ 20 PPB
 Cont Calibration Date/Time 11/4/2018 11:18:00 P

Data File: 3M139745.D
 Method: EPA 8260C

Instrument: GCMS 3

TxtCompd:	Col#	Multi Num	Type	RT	Conc	Conc Exp	Lo Lim	MIN RF	Initial RF	RF	%Diff	Flag
2-Chloroethylvinylether	1	0		5.58	23.24	20	20		0.152	0.180	16.18	
cis-1,3-Dichloropropene	1	0		5.69	17.92	20	20	0.2	0.514	0.461	10.42	
trans-1,3-Dichloropropene	1	0		6.01	17.61	20	20	0.1	0.484	0.427	11.95	
Ethyl methacrylate	1	0		6.04	21.27	20	20	0.5	0.401	0.426	6.37	
1,1,2-Trichloroethane	1	0		6.14	22.38	20	20	0.1	0.327	0.289	11.92	
1,2-Dibromoethane	1	0		6.47	16.73	20	20	0.1	0.319	0.266	16.37	
1,3-Dichloropropane	1	0		6.24	22.66	20	20		0.525	0.530	13.29	
4-Methyl-2-Pentanone	1	0		5.77	23.19	20	20	0.1	0.359	0.416	15.95	
2-Hexanone	1	0		6.26	21.71	20	20	0.1	0.234	0.254	8.57	
Tetrachloroethene	1	0		6.24	21.52	20	20	0.2	0.214	0.185	7.61	
Toluene-d8	1	0	S	5.86	29.65	30	**		1.254	1.239	1.18	
Toluene	1	0		5.91	18.04	20	20	0.4	0.716	0.646	9.80	
1,1,1,2-Tetrachloroethane	1	0		6.80	19.92	20	20		0.282	0.237	0.41	
Chlorobenzene	1	0		6.76	16.33	20	20	0.5	0.794	0.648	18.35	
1,4-Dichlorobenzene-d4	1	0	I	8.19	30.00	30	**			0.000	0.00	
n-Butyl acrylate	1	0		7.04	23.02	20	20	0.5	1.214	1.397	15.08	
n-Amyl acetate	1	0		7.16	23.11	20	20	0.5	1.216	1.405	15.54	
Bromoform	1	0		7.26	17.80	20	20	0.1	0.584	0.520	10.98	
Ethylbenzene	1	0		6.81	21.33	20	20	0.1	0.505	0.539	6.67	
1,1,2,2-Tetrachloroethane	1	0		7.51	19.38	20	20	0.1	0.900	0.872	3.11	
Bromofluorobenzene	1	0	S	7.45	28.84	30	**		1.039	0.999	3.88	
Styrene	1	0		7.13	20.20	20	20	0.3	1.559	1.575	0.98	
m&p-Xylenes	1	0		6.87	39.39	40	20	0.1	0.821	0.808	1.52	
o-Xylene	1	0		7.12	20.33	20	20	0.3	0.838	0.852	1.65	
trans-1,4-Dichloro-2-butene	1	0		7.54	19.43	20	20		0.321	0.311	2.85	
1,3-Dichlorobenzene	1	0		8.15	16.68	20	20	0.6	1.060	0.884	16.58	
1,4-Dichlorobenzene	1	0		8.21	16.72	20	20	0.5	1.138	0.951	16.41	
1,2-Dichlorobenzene	1	0		8.46	17.29	20	20	0.4	1.109	0.959	13.54	
Isopropylbenzene	1	0		7.34	18.53	20	20	0.1	1.640	1.520	7.33	
Cyclohexanone	1	0		7.43	164.96	100	20		0.035	0.057	64.96	C1
Camphene	1	0		7.53	18.36	20	20		0.452	0.415	8.19	
1,2,3-Trichloropropane	1	0		7.55	20.95	20	20		1.030	1.079	4.76	
2-Chlorotoluene	1	0		7.67	19.94	20	20		1.101	0.991	0.31	
p-Ethyltoluene	1	0		7.66	17.67	20	20		1.700	1.618	11.64	
4-Chlorotoluene	1	0		7.74	18.70	20	20		1.093	1.022	6.50	
n-Propylbenzene	1	0		7.59	18.59	20	20		1.925	1.789	7.03	
Bromobenzene	1	0		7.56	18.17	20	20		1.757	1.596	9.13	
1,3,5-Trimethylbenzene	1	0		7.69	18.12	20	20		1.250	1.067	9.38	
Butyl methacrylate	1	0		7.69	23.41	20	20	0.5	1.006	1.178	17.04	
t-Butylbenzene	1	0		7.91	17.43	20	20		1.162	1.013	12.83	
1,2,4-Trimethylbenzene	1	0		7.94	18.05	20	20		1.481	1.336	9.75	
sec-Butylbenzene	1	0		8.05	17.92	20	20		1.354	1.213	10.41	
4-Isopropyltoluene	1	0		8.12	17.36	20	20		1.151	0.999	13.22	
n-Butylbenzene	1	0		8.39	17.44	20	20		1.297	1.131	12.80	
p-Diethylbenzene	1	0		8.38	17.65	20	20		0.671	0.592	11.77	
1,2,4,5-Tetramethylbenzene	1	0		8.89	17.14	20	20		1.020	0.874	14.29	
1,2-Dibromo-3-Chloropropane	1	0		8.96	18.59	20	20	0.05	0.177	0.158	7.05	
Camphor	1	0		9.45	112.12	200	20		0.049	0.031	43.94	C1
Hexachlorobutadiene	1	0		9.60	15.94	20	20		0.358	0.260	20.31	
1,2,4-Trichlorobenzene	1	0		9.51	15.94	20	20	0.2	0.578	0.460	20.28	
1,2,3-Trichlorobenzene	1	0		9.85	15.18	20	20		0.575	0.436	24.08	C1
Naphthalene	1	0		9.69	15.99	20	20		1.396	1.116	20.07	

S-Surrogate Compound
 N/O or N/Q - Not applicable for this run

I-Internal Standard Compound
 C1-Compound %Diff exceeds limits

Page 2 of 2

** - No limit specified in method

Note: 8260/8270 limits are compared against the %DIFF/R.F.
 624 limits are compared against the concentration found.

625 limits are compared against the %DIFF.
 524.2 limits are compared against the %DIFF

SampleID : CAL @ 20 PPB
Data File: 3M139745.D
Acq On : 11/ 4/18 23:18

Operator : WP
Sam Mult : 1 Vial# : 43
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:42
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards							
4) Fluorobenzene	4.892	96	255284	30.00	ug/l	-0.02	
52) Chlorobenzene-d5	6.742	117	210387	30.00	ug/l	-0.02	
70) 1,4-Dichlorobenzene-d4	8.190	152	89299	30.00	ug/l	-0.02	
System Monitoring Compounds							
37) Dibromofluoromethane	4.465	111	65299	28.74	ug/l	-0.01	
Spiked Amount 30.000			Recovery	=	95.80%		
39) 1,2-Dichloroethane-d4	4.687	67	47120	29.53	ug/l	-0.01	
Spiked Amount 30.000			Recovery	=	98.43%		
66) Toluene-d8	5.865	98	260716	29.65	ug/l	-0.01	
Spiked Amount 30.000			Recovery	=	98.83%		
76) Bromofluorobenzene	7.451	174	89209	28.84	ug/l	-0.02	
Spiked Amount 30.000			Recovery	=	96.13%		
Target Compounds							Qvalue
5) Chlorodifluoromethane	1.543	51	78016	32.9772	ug/l		48
6) Dichlorodifluoromethane	1.526	85	16222	10.4817	ug/l		82
7) Chloromethane	1.676	50	34928	21.0985	ug/l		76
8) Bromomethane	2.044	94	14457	16.9192	ug/l		95
9) Vinyl Chloride	1.759	62	27485	16.6902	ug/l		94
10) Chloroethane	2.122	64	16763	22.1417	ug/l		98
11) Trichlorofluoromethane	2.339	101	40022m	16.0673	ug/l		
12) Ethyl ether	2.561	59	39607m	18.3823	ug/l		
13) Furan	2.597	39	99672m	18.7264	ug/l		
14) 1,1,2-Trichloro-1,2,2-...	2.747	101	16128	15.9932	ug/l		96
15) Methylene Chloride	3.144	84	39805	20.0195	ug/l		94
16) Acrolein	2.675	56	21538	53.1772	ug/l		86
17) Acrylonitrile	3.342	53	19314m	21.2259	ug/l		
18) Iodomethane	2.891	142	36479	15.1272	ug/l		88
19) Acetone	2.795	43	85138	102.3806	ug/l		89
20) Carbon Disulfide	2.951	76	103078	15.0122	ug/l		100
21) t-Butyl Alcohol	3.216	59	17563	99.9958	ug/l		95
22) n-Hexane	3.594	57	13734m	14.2135	ug/l		
23) Di-isopropyl-ether	3.756	45	162480	22.3911	ug/l		86
24) 1,1-Dichloroethene	2.759	61	51614m	16.6989	ug/l		
25) Methyl Acetate	3.054	43	53196m	18.6063	ug/l		
26) Methyl-t-butyl ether	3.366	73	87259	17.6453	ug/l		72
27) 1,1-Dichloroethane	3.726	63	72277m	18.6961	ug/l		
28) trans-1,2-Dichloroethene	3.378	96	32267	15.9195	ug/l		82
29) Ethyl-t-butyl ether	4.033	59	109469	18.8642	ug/l		96
30) cis-1,2-Dichloroethene	4.153	61	70869	18.1665	ug/l		91
31) Bromochloromethane	4.315	49	44508	18.7902	ug/l		63
32) 2,2-Dichloropropane	4.153	77	41257	17.0159	ug/l		97
33) Ethyl acetate	4.183	43	58578	21.4071	ug/l		99
34) 1,4-Dioxane	5.342	88	25491m	1065.0082	ug/l		
35) 1,1-Dichloropropene	4.597	75	45907	17.1592	ug/l		95
36) Chloroform	4.357	83	67205	16.2701	ug/l		86
38) Cyclohexane	4.537	56	35425	20.0482	ug/l		82
40) 1,2-Dichloroethane	4.736	62	60345	19.3902	ug/l		99
41) 2-Butanone	4.153	43	26054	23.0087	ug/l		85
42) 1,1,1-Trichloroethane	4.495	97	48018m	15.4774	ug/l		
43) Carbon Tetrachloride	4.603	117	39664	17.0866	ug/l		86
44) Vinyl Acetate	3.756	43	94023	17.5423	ug/l		100
45) Bromodichloromethane	5.420	83	58559	18.0426	ug/l		91
46) Methylcyclohexane	5.258	83	22879	18.5626	ug/l		94
47) Dibromomethane	5.342	174	30066	19.9230	ug/l		82
48) 1,2-Dichloropropane	5.270	63	49638	21.2336	ug/l		91
49) Trichloroethene	5.126	130	37173	16.7257	ug/l		81
50) Benzene	4.730	78	153091	20.9578	ug/l		100
51) tert-Amyl methyl ether	4.778	73	102518	19.6206	ug/l		83
53) Iso-propylacetate	4.736	43	102815	22.2461	ug/l		95
54) Methyl methacrylate	5.300	41	58660	21.3689	ug/l		97
55) Dibromochloromethane	6.387	129	41229	16.6027	ug/l		92
56) 2-Chloroethylvinylether	5.582	63	25195	23.2362	ug/l		81
57) cis-1,3-Dichloropropene	5.691	75	64601	17.9153	ug/l		98
58) trans-1,3-Dichloropropene	6.015	75	59821	17.6109	ug/l		98
59) Ethyl methacrylate	6.039	41	59775	21.2739	ug/l		85
60) 1,1,2-Trichloroethane	6.135	97	40541	22.3840	ug/l		84
61) 1,2-Dibromoethane	6.472	107	37371	16.7265	ug/l		94
62) 1,3-Dichloropropane	6.237	76	74345	22.6589	ug/l		97
63) 4-Methyl-2-Pentanone	5.769	43	58379	23.1895	ug/l		97
64) 2-Hexanone	6.261	43	35583	21.7131	ug/l		85
65) Tetrachloroethene	6.237	164	25905	21.5218	ug/l		75
67) Toluene	5.907	92	90569	18.0405	ug/l		98

Quantitation Report (QT Reviewed)

SampleID : CAL @ 20 PPB Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139745.D Sam Mult : 1 Vial# : 43 Qt On : 11/05/18 08:42
 Acq On : 11/ 4/18 23:18 Misc : A,5ML Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.802	133	33255	19.9174	ug/l	100
69)	Chlorobenzene	6.760	112	90936	16.3307	ug/l	89
71)	n-Butyl acrylate	7.036	55	83164	23.0153	ug/l	97
72)	n-Amyl acetate	7.162	43	83672m	23.1084	ug/l	
73)	Bromoform	7.264	173	30960	17.8042	ug/l	94
74)	Ethylbenzene	6.808	106	32093	21.3338	ug/l	84
75)	1,1,2,2-Tetrachloroethane	7.511	83	51939	19.3783	ug/l	98
77)	Styrene	7.126	104	93735	20.1968	ug/l	91
78)	m&p-Xylenes	6.874	106	96208	39.3921	ug/l	80
79)	o-Xylene	7.120	106	50743	20.3306	ug/l	65
80)	trans-1,4-Dichloro-2-b...	7.541	53	18544	19.4295	ug/l	70
81)	1,3-Dichlorobenzene	8.153	146	52633	16.6844	ug/l	88
82)	1,4-Dichlorobenzene	8.208	146	56637	16.7182	ug/l	93
83)	1,2-Dichlorobenzene	8.460	146	57074	17.2921	ug/l	88
84)	Isopropylbenzene	7.337	105	90463	18.5349	ug/l	94
85)	Cyclohexanone	7.427	55	16967	164.9578	ug/l	89
86)	Camphene	7.535	93	24728	18.3622	ug/l	100
87)	1,2,3-Trichloropropane	7.553	75	64259	20.9514	ug/l	90
88)	2-Chlorotoluene	7.673	91	59009	19.9389	ug/l	93
89)	p-Ethyltoluene	7.661	105	96315	17.6712	ug/l	82
90)	4-Chlorotoluene	7.739	91	60837	18.6998	ug/l	89
91)	n-Propylbenzene	7.595	91	106525	18.5935	ug/l	98
92)	Bromobenzene	7.565	77	95020	18.1733	ug/l	89
93)	1,3,5-Trimethylbenzene	7.691	105	63520	18.1237	ug/l	79
94)	Butyl methacrylate	7.691	41	70110	23.4085	ug/l	79
95)	t-Butylbenzene	7.913	119	60287	17.4331	ug/l	80
96)	1,2,4-Trimethylbenzene	7.937	105	79560	18.0508	ug/l	91
97)	sec-Butylbenzene	8.045	105	72238	17.9176	ug/l	98
98)	4-Isopropyltoluene	8.123	119	59448	17.3553	ug/l	86
99)	n-Butylbenzene	8.394	91	67324	17.4392	ug/l	97
100)	p-Diethylbenzene	8.376	119	35253m	17.6451	ug/l	
101)	1,2,4,5-Tetramethylben...	8.886	119	52048	17.1418	ug/l	86
102)	1,2-Dibromo-3-Chloropr...	8.958	157	9395	18.5901	ug/l	73
103)	Camphor	9.451	95	18401	112.1178	ug/l	94
104)	Hexachlorobutadiene	9.595	225	15481	15.9371	ug/l	96
105)	1,2,4-Trichlorobenzene	9.511	180	27413	15.9431	ug/l	94
106)	1,2,3-Trichlorobenzene	9.847	180	25981	15.1832	ug/l	93
107)	Naphthalene	9.691	128	66434	15.9867	ug/l	100

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

TIC: 3M139745.D\data.ms

Quant QT Reviewed

SampleID : CAL @ 20 PPB

Operator : WP

Data File : 3M139745.D

Scan Mult : 1 Vial# : 43

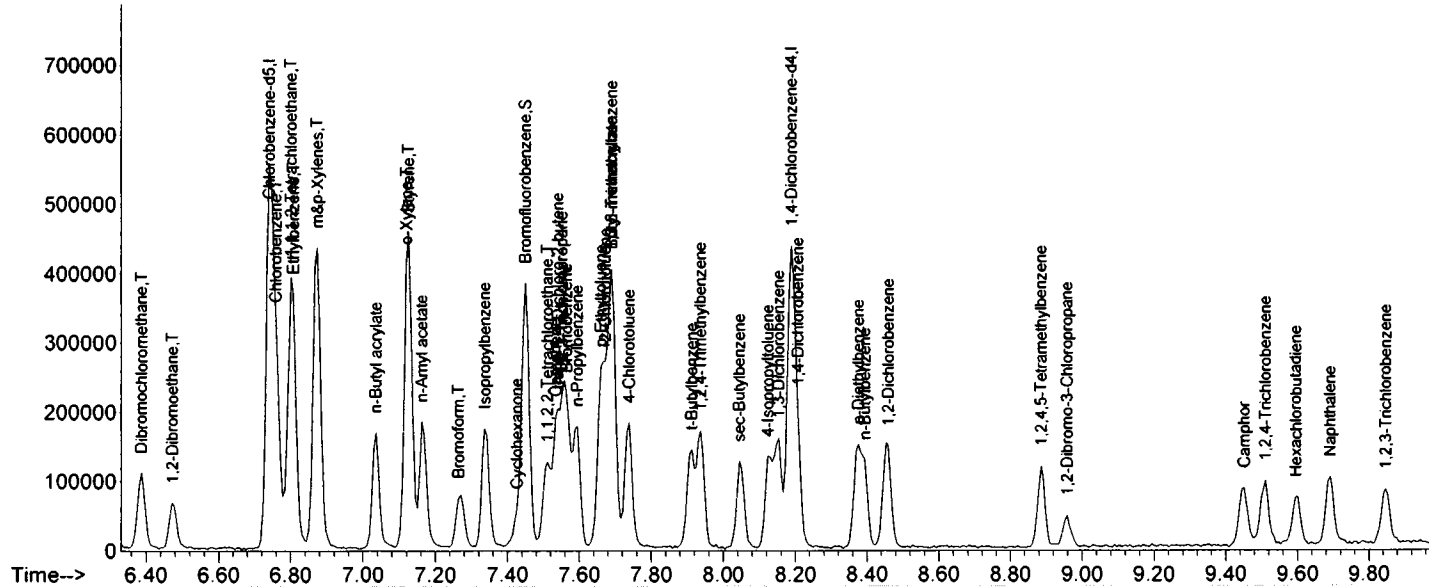
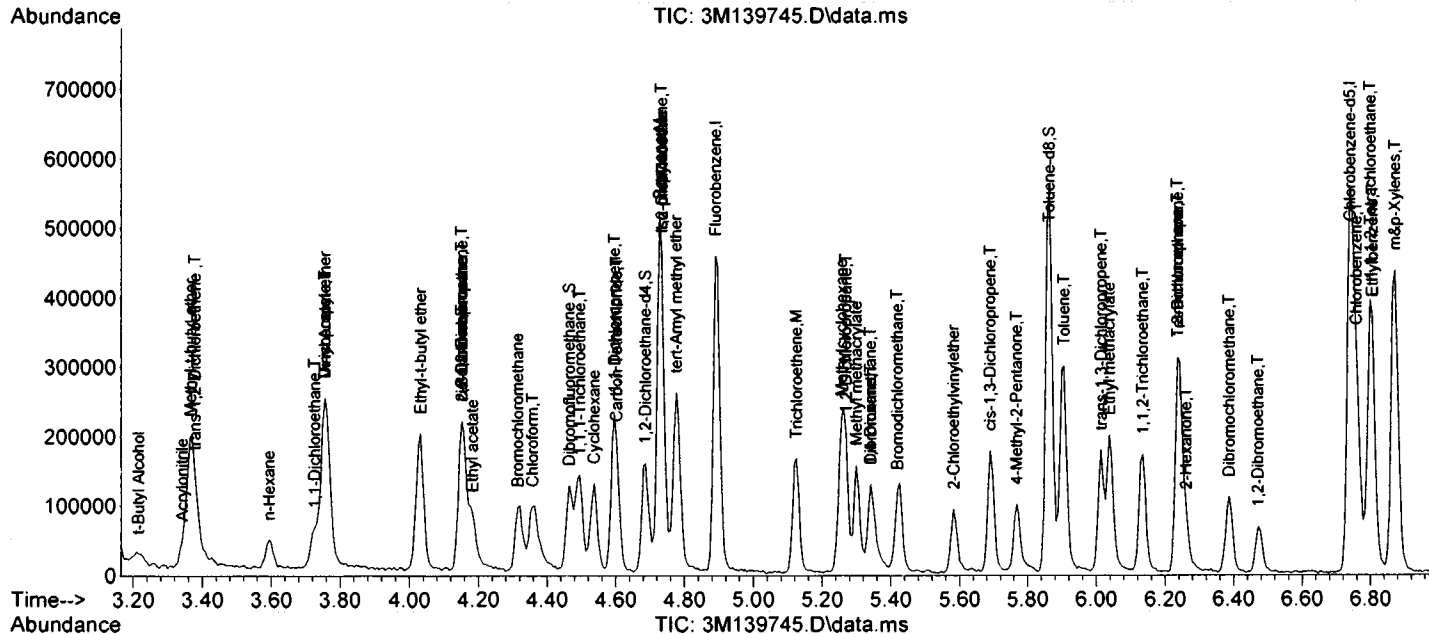
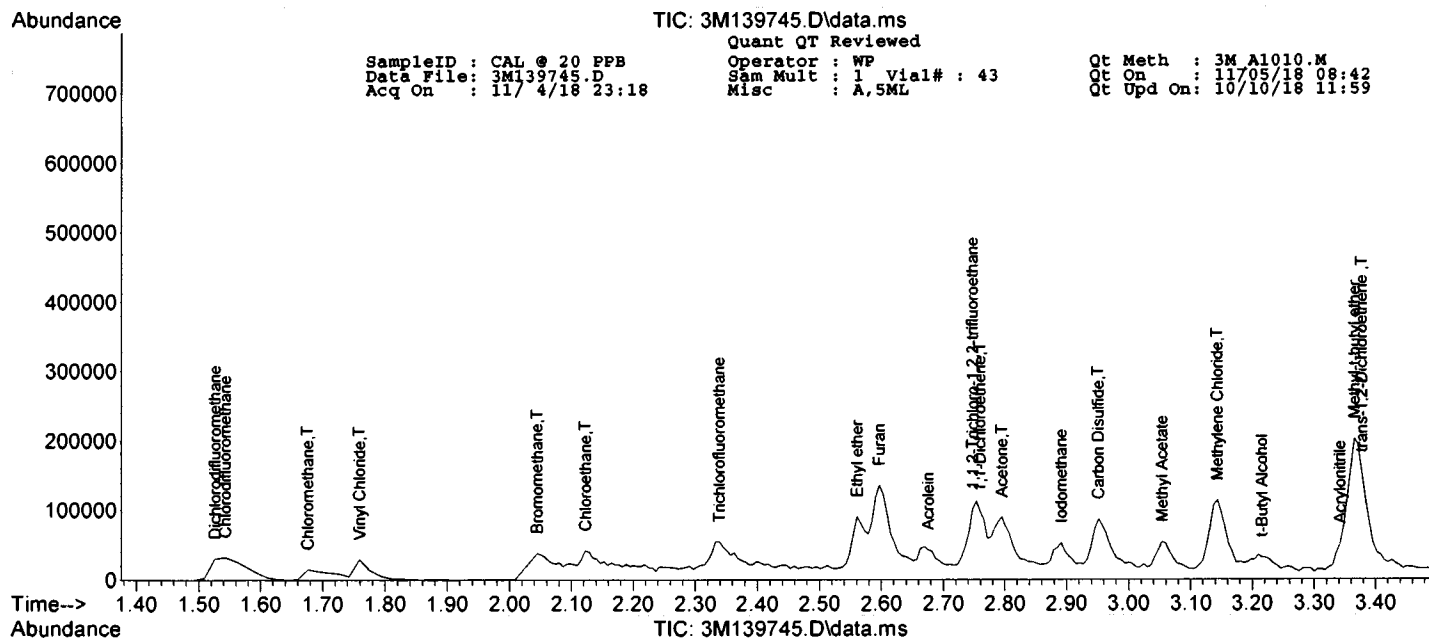
Acq On : 11/4/18 23:18

Misc : A,5ML

QT Meth : 3M A1010.M

QT On : 11/05/18 08:42

QT Upd On : 10/10/18 11:59



GC/MS Volatile Data
Raw QC Data

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M137821.D
Analysis Date: 10/10/18 07:11
Method: EPA 8260C

Tune Scan/Time Range: Average of 4.872 to 4.951 min

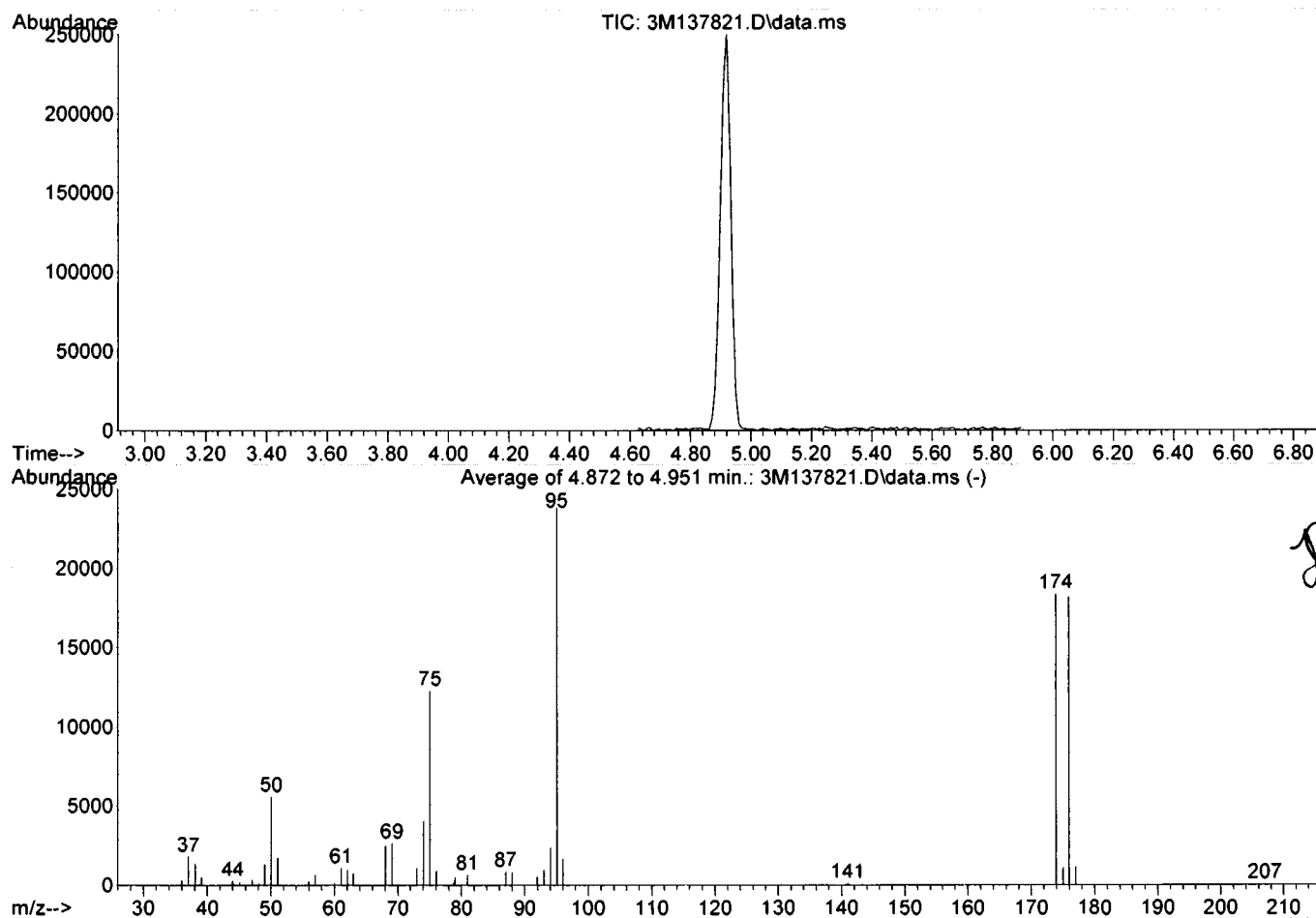
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	23.6	5618	PASS
75	95	30	60	51.6	12301	PASS
95	95	100	100	100.0	23826	PASS
96	95	5	9	7.1	1688	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.1	18380	PASS
175	174	5	9	6.1	1127	PASS
176	174	95	101	99.1	18221	PASS
177	176	5	9	6.5	1186	PASS

Data File	Sample Number	Analysis Date:
3M137824.D	CAL @ 0.5 PPB	10/10/18 07:52
3M137825.D	CAL @ 1 PPB	10/10/18 08:10
3M137826.D	CAL @ 5 PPB	10/10/18 08:27
3M137827.D	CAL @ 10 PPB	10/10/18 08:44
3M137828.D	CAL @ 20 PPB	10/10/18 09:01
3M137829.D	CAL @ 50 PPB	10/10/18 09:18
3M137830.D	CAL @ 500 PPB	10/10/18 09:35
3M137832.D	CAL @ 250 PPB	10/10/18 10:10
3M137834.D	CAL @ 100 PPB	10/10/18 10:45
3M137837.D	ICV	10/10/18 11:38

Data Path : G:\GcMsData\2018\GCMS_3\Data\10-10-18\
Data File : 3M137821.D
Acq On : 10 Oct 2018 7:11
Operator : WP
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A0828.M
Title : @GCMS_3,ug,624,8260
Last Update : Wed Aug 29 07:55:10 2018



Spectrum Information: Average of 4.872 to 4.951 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.6	5618	PASS
75	95	30	60	51.6	12301	PASS
95	95	100	100	100.0	23826	PASS
96	95	5	9	7.1	1688	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.1	18380	PASS
175	174	5	9	6.1	1127	PASS
176	174	95	101	99.1	18221	PASS
177	176	5	9	6.5	1186	PASS

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M139626.D
Analysis Date: 11/03/18 14:51
Method: EPA 8260C

Tune Scan/Time Range: Scan 43

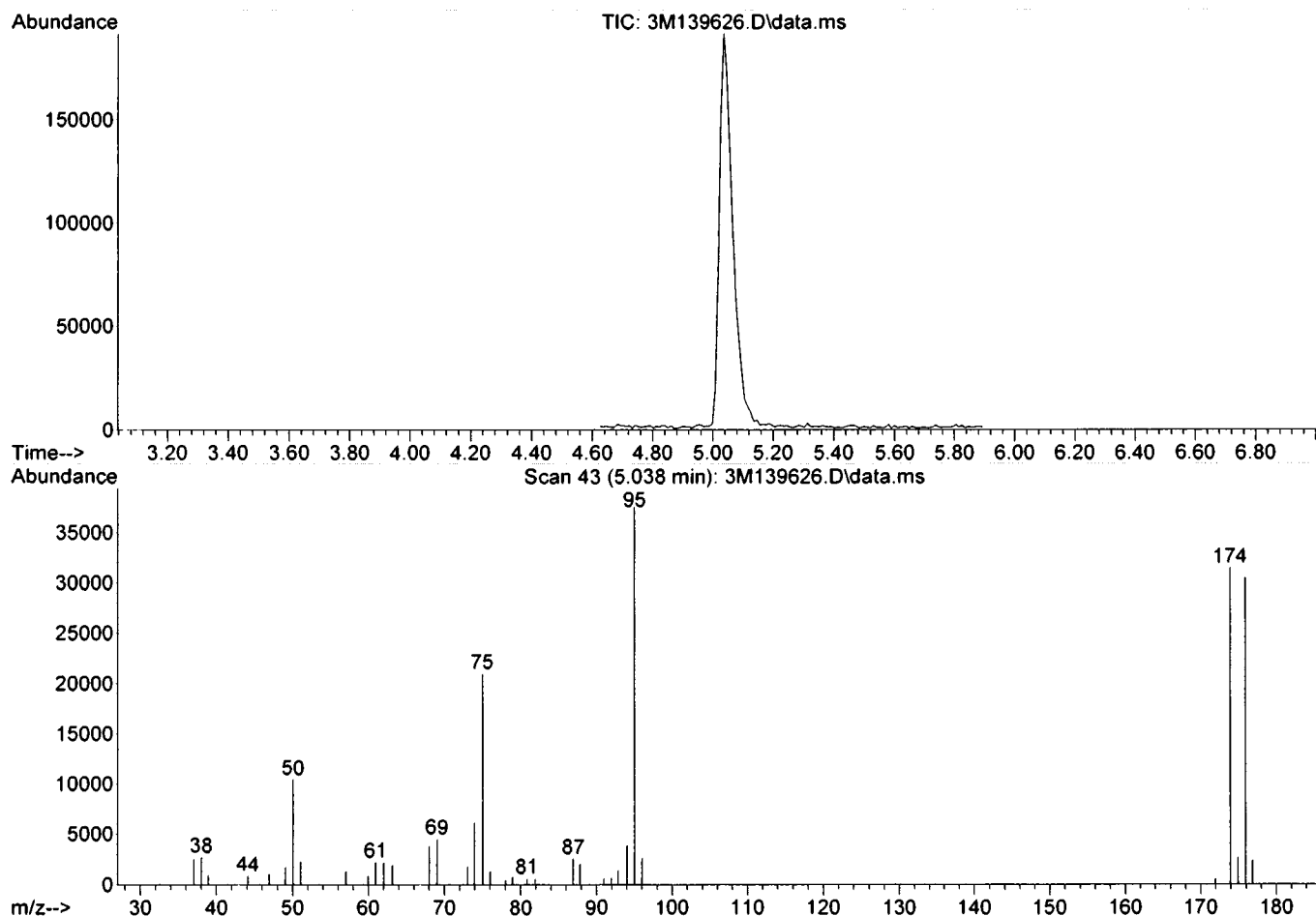
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	27.9	10463	PASS
75	95	30	60	55.9	20968	PASS
95	95	100	100	100.0	37520	PASS
96	95	5	9	7.1	2655	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.9	31480	PASS
175	174	5	9	8.6	2699	PASS
176	174	95	101	96.8	30488	PASS
177	176	5	9	7.8	2385	PASS

Data File	Sample Number	Analysis Date:
3M139628.D	CAL @ 20 PPB	11/03/18 15:18
3M139630.D	BLK	11/03/18 15:53
3M139631.D	BLK	11/03/18 16:10
3M139632.D	DAILY BLANK	11/03/18 16:27
3M139633.D	DAILY BLANK	11/03/18 16:44
3M139634.D	MBS73573	11/03/18 17:05
3M139635.D	AD07257-001	11/03/18 17:22
3M139636.D	AD07257-011	11/03/18 17:39
3M139637.D	AD07279-003	11/03/18 17:56
3M139638.D	AD07336-009	11/03/18 18:14
3M139639.D	AD07310-001	11/03/18 18:31
3M139640.D	AD07350-005(MS)	11/03/18 18:47
3M139641.D	AD07350-005(MSD)	11/03/18 19:05
3M139642.D	MBS73574	11/03/18 19:22
3M139643.D	AD07298-015(MS)	11/03/18 19:39
3M139644.D	AD07298-015(MSD)	11/03/18 19:56
3M139645.D	MBS73575	11/03/18 20:14
3M139646.D	BLK	11/03/18 20:30
3M139647.D	AD07298-015	11/03/18 20:48
3M139648.D	AD07298-017	11/03/18 21:06
3M139649.D	AD07298-019	11/03/18 21:23
3M139650.D	AD07298-023	11/03/18 21:40
3M139651.D	AD07350-011	11/03/18 21:57
3M139652.D	AD07350-009	11/03/18 22:14
3M139653.D	AD07350-006	11/03/18 22:30
3M139654.D	AD07350-005	11/03/18 22:48
3M139655.D	AD07391-025	11/03/18 23:06
3M139656.D	AD07391-026	11/03/18 23:20
3M139657.D	AD07391-027	11/03/18 23:38
3M139658.D	AD07391-028	11/03/18 23:55
3M139659.D	AD07391-029	11/04/18 00:15
3M139660.D	AD07391-030	11/04/18 00:32
3M139661.D	AD07391-031	11/04/18 00:49
3M139662.D	AD07391-032	11/04/18 01:06
3M139663.D	AD07391-035	11/04/18 01:23
3M139664.D	AD07391-036	11/04/18 01:40
3M139665.D	AD07391-037	11/04/18 01:57

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Data File : 3M139626.D
Acq On : 3 Nov 2018 14:51
Operator : SG
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A1010.M
Title : @GCMS_3,ug,624,8260
Last Update : Wed Oct 10 11:30:34 2018



Spectrum Information: Scan 43

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.9	10463	PASS
75	95	30	60	55.9	20968	PASS
95	95	100	100	100.0	37520	PASS
96	95	5	9	7.1	2655	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.9	31480	PASS
175	174	5	9	8.6	2699	PASS
176	174	95	101	96.8	30488	PASS
177	176	5	9	7.8	2385	PASS

Form 5

Tune Name: BFB TUNE
Instrument: GCMS 3

Data File: 3M139667.D
Analysis Date: 11/04/18 02:31
Method: EPA 8260C

Tune Scan/Time Range: Average of 4.946 to 5.045 min

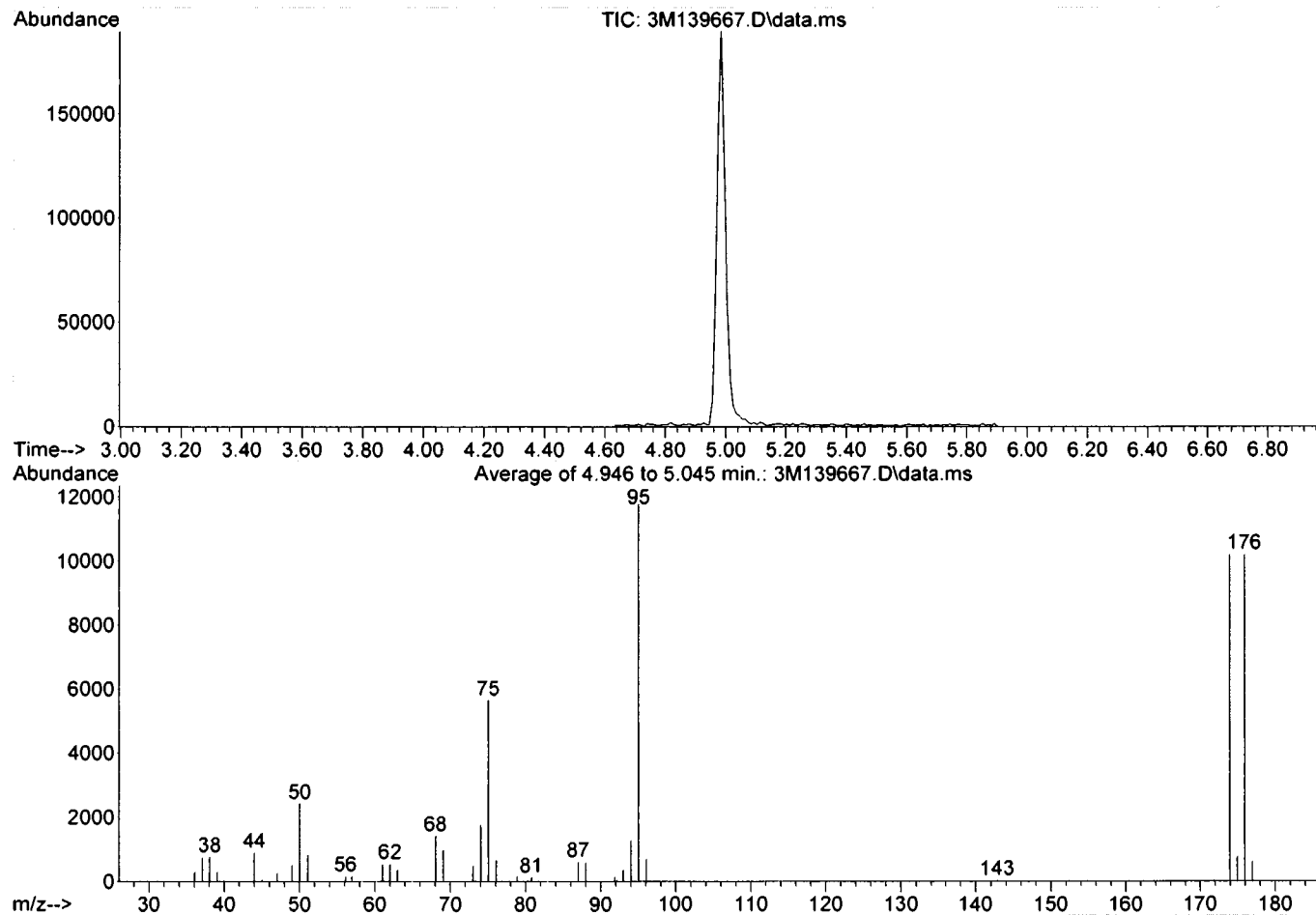
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	20.7	2434	PASS
75	95	30	60	48.2	5674	PASS
95	95	100	100	100.0	11775	PASS
96	95	5	9	6.0	710	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.6	10194	PASS
175	174	5	9	7.7	789	PASS
176	174	95	101	100.1	10206	PASS
177	176	5	9	6.1	626	PASS

Data File	Sample Number	Analysis Date:
3M139668.D	20 PPB	11/04/18 02:48
3M139669.D	CAL @ 20 PPB	11/04/18 03:05
3M139670.D	BLK	11/04/18 03:22
3M139671.D	BLK	11/04/18 03:39
3M139672.D	DAILY BLANK	11/04/18 03:56
3M139673.D	MBS73571	11/04/18 04:13
3M139674.D	AD07391-040(MS)	11/04/18 04:30
3M139675.D	AD07391-040(MSD)	11/04/18 04:45
3M139676.D	BLK	11/04/18 05:04
3M139677.D	AD07391-038	11/04/18 05:21
3M139678.D	AD07391-039	11/04/18 05:38
3M139679.D	AD07391-040	11/04/18 05:55
3M139680.D	AD07391-041	11/04/18 06:12
3M139681.D	AD07391-042	11/04/18 06:29
3M139682.D	AD07391-021	11/04/18 06:47
3M139683.D	AD07391-020	11/04/18 07:04
3M139684.D	AD07391-019	11/04/18 07:22
3M139685.D	AD07391-018	11/04/18 07:39
3M139686.D	AD07391-017	11/04/18 07:56
3M139687.D	AD07391-016	11/04/18 08:13
3M139688.D	MBS73572	11/04/18 08:31
3M139689.D	BLK	11/04/18 08:47

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Data File : 3M139667.D
Acq On : 4 Nov 2018 2:31
Operator : SG
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 41 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A1010.M
Title : @GCMS_3,ug,624,8260
Last Update : Wed Oct 10 11:30:34 2018



Spectrum Information: Average of 4.946 to 5.045 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.7	2434	PASS
75	95	30	60	48.2	5674	PASS
95	95	100	100	100.0	11775	PASS
96	95	5	9	6.0	710	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	86.6	10194	PASS
175	174	5	9	7.7	789	PASS
176	174	95	101	100.1	10206	PASS
177	176	5	9	6.1	626	PASS

Form 5

Tune Name: BFB TUNE

Data File: 3M139703.D

Instrument: GCMS 3

Analysis Date: 11/04/18 12:17

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.930 to 5.028 min

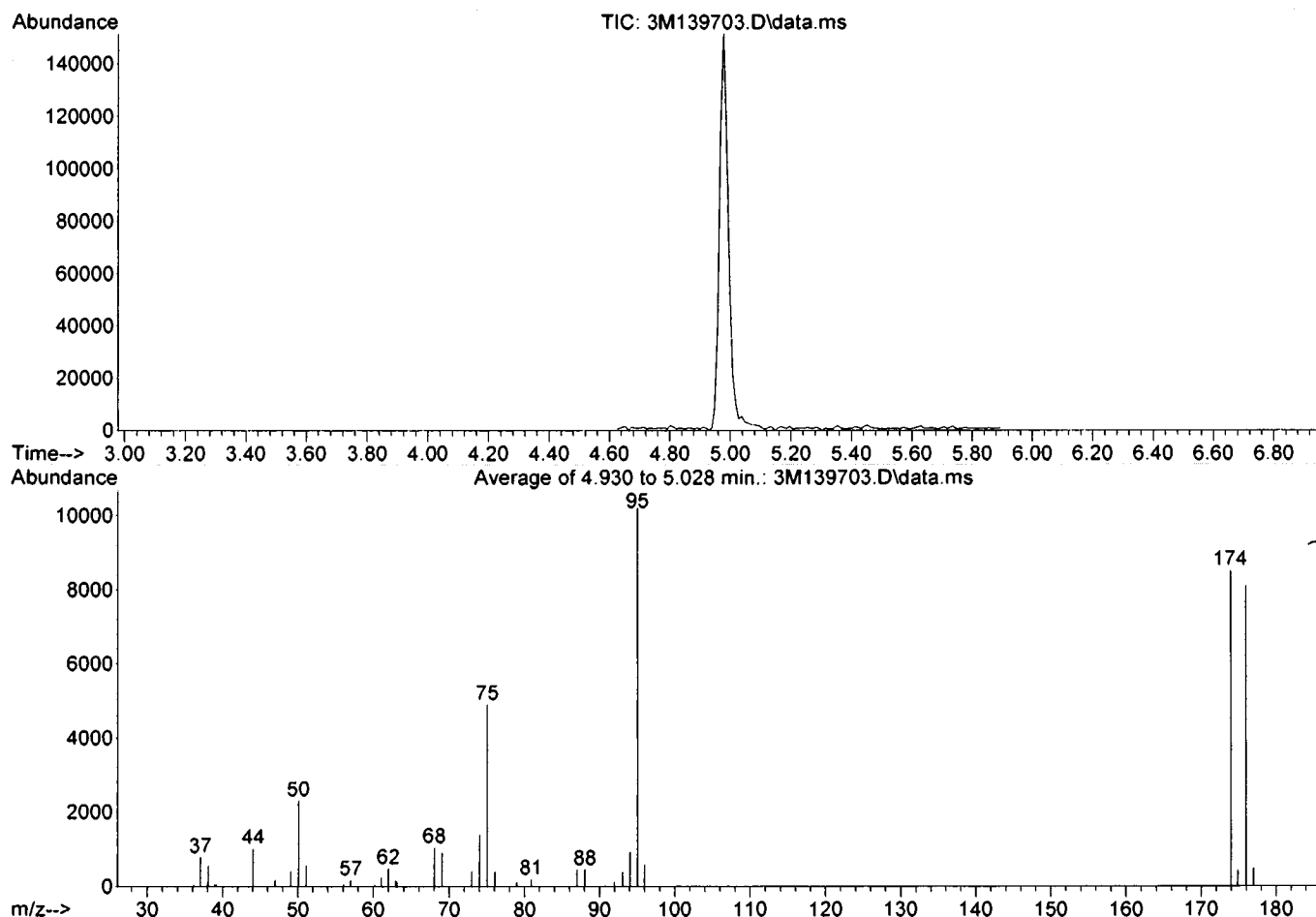
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	22.6	2310	PASS
75	95	30	60	48.1	4910	PASS
95	95	100	100	100.0	10203	PASS
96	95	5	9	5.8	593	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.5	8522	PASS
175	174	5	9	5.0	430	PASS
176	174	95	101	95.3	8118	PASS
177	176	5	9	6.1	494	PASS

Data File	Sample Number	Analysis Date:
3M139705.D	CAL @ 20 PPB	11/04/18 12:51
3M139707.D	DAILY BLANK	11/04/18 13:26
3M139708.D	DAILY BLANK	11/04/18 13:44
3M139709.D	AD07270-001	11/04/18 14:00
3M139710.D	AD07349-009(T)	11/04/18 14:17
3M139711.D	MBS73581	11/04/18 14:35
3M139712.D	AD07349-010(T)	11/04/18 14:52
3M139713.D	AD07349-011(T)	11/04/18 15:10
3M139714.D	AD07387-002(T)	11/04/18 15:27
3M139715.D	AD07389-002(T)	11/04/18 15:44
3M139716.D	AD07154-005(T)	11/04/18 16:02
3M139717.D	MBS73582	11/04/18 15:19
3M139718.D	AD07349-009(T:M	11/04/18 15:36
3M139719.D	AD07349-009(T:M	11/04/18 15:53
3M139720.D	AD07322-003(MS)	11/04/18 16:10
3M139721.D	AD07322-003(MSD	11/04/18 16:27
3M139722.D	AD07391-034	11/04/18 16:44
3M139723.D	AD07322-003	11/04/18 17:02
3M139724.D	AD07322-007	11/04/18 17:18
3M139725.D	AD07391-033	11/04/18 17:36
3M139726.D	AD07391-001	11/04/18 17:53
3M139727.D	AD07391-002	11/04/18 18:07
3M139728.D	AD07391-003	11/04/18 18:27
3M139729.D	AD07391-004	11/04/18 18:45
3M139730.D	AD07391-005	11/04/18 19:02
3M139731.D	AD07391-006	11/04/18 19:19
3M139732.D	AD07391-007	11/04/18 19:37
3M139733.D	AD07391-008	11/04/18 19:54
3M139734.D	AD07391-009	11/04/18 20:11
3M139735.D	AD07391-010	11/04/18 20:28
3M139736.D	AD07391-011	11/04/18 20:45
3M139737.D	AD07391-012	11/04/18 21:02
3M139738.D	BLK	11/04/18 21:19
3M139739.D	AD07391-013	11/04/18 21:36
3M139740.D	AD07391-014(MS:	11/04/18 21:53
3M139741.D	AD07391-015(MSD	11/04/18 22:10
3M139742.D	MBS73583	11/04/18 22:24

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Data File : 3M139703.D
 Acq On : 4 Nov 2018 12:17
 Operator : WP
 Sample : BFB TUNE
 Misc : A,5ML
 ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A1010.M
 Title : @GCMS_3,ug,624,8260
 Last Update : Wed Oct 10 11:30:34 2018



Spectrum Information: Average of 4.930 to 5.028 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.6	2310	PASS
75	95	30	60	48.1	4910	PASS
95	95	100	100	100.0	10203	PASS
96	95	5	9	5.8	593	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	83.5	8522	PASS
175	174	5	9	5.0	430	PASS
176	174	95	101	95.3	8118	PASS
177	176	5	9	6.1	494	PASS

Form 5

Tune Name: BFB TUNE

Data File: 3M139744.D

Instrument: GCMS 3

Analysis Date: 11/04/18 23:01

Method: EPA 8260C

Tune Scan/Time Range: Average of 4.966 to 4.995 min

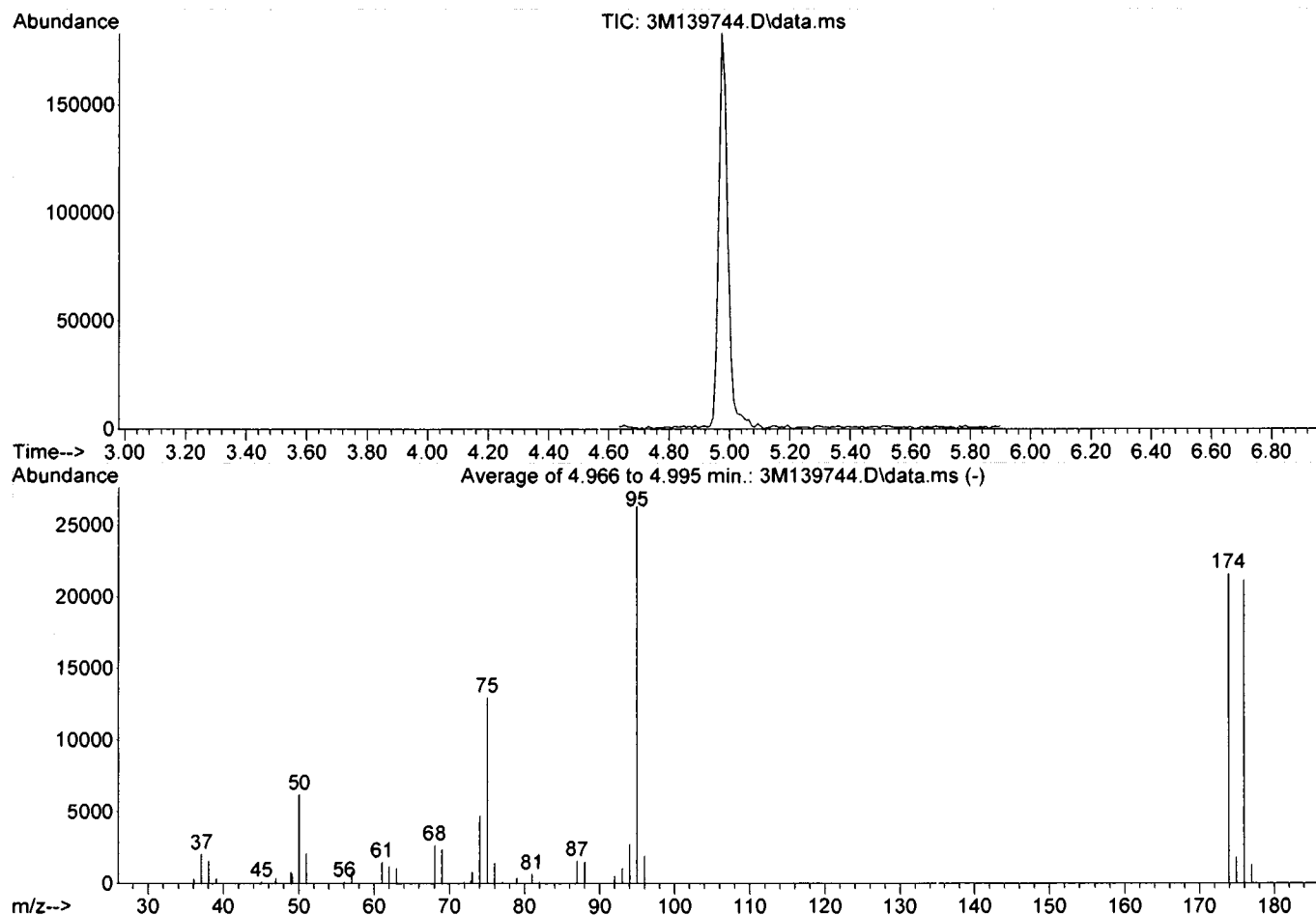
Tgt	Rel	Lo	Hi	Rel	Raw	Pass/
Mass	Mass	Lim	Lim	Abund	Abund	Fail
50	95	15	40	23.6	6216	PASS
75	95	30	60	49.4	12999	PASS
95	95	100	100	100.0	26320	PASS
96	95	5	9	7.4	1960	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.2	21643	PASS
175	174	5	9	8.7	1875	PASS
176	174	95	101	97.9	21180	PASS
177	176	5	9	6.3	1335	PASS

Data File	Sample Number	Analysis Date:
3M139745.D	CAL @ 20 PPB	11/04/18 23:18
3M139746.D	20 PPB	11/04/18 23:35
3M139747.D	BLK	11/04/18 23:52
3M139748.D	BLK	11/05/18 00:09
3M139749.D	DAILY BLANK	11/05/18 00:26
3M139750.D	DAILY BLANK	11/05/18 00:44
3M139751.D	AD07391-022	11/05/18 01:01
3M139752.D	MBS73584	11/05/18 01:18
3M139753.D	AD07391-023(MS)	11/05/18 01:36
3M139754.D	AD07391-024(MSD)	11/05/18 01:52
3M139755.D	MBS73585	11/05/18 02:10
3M139756.D	AD07268-009(MS)	11/05/18 02:27
3M139757.D	AD07268-009(MSD)	11/05/18 02:44
3M139758.D	BLK	11/05/18 03:01
3M139759.D	AD07271-004	11/05/18 03:18
3M139760.D	AD07271-006	11/05/18 03:35
3M139761.D	AD07268-010	11/05/18 03:52
3M139762.D	AD07268-009	11/05/18 04:09
3M139763.D	AD07271-005	11/05/18 04:26
3M139764.D	AD07271-001	11/05/18 04:43
3M139765.D	AD07298-011	11/05/18 05:00
3M139766.D	AD07298-012	11/05/18 05:16
3M139767.D	AD07298-010	11/05/18 05:33
3M139768.D	AD07298-013	11/05/18 05:50
3M139769.D	AD07268-012	11/05/18 06:07
3M139770.D	BLK	11/05/18 06:24
3M139771.D	AD07390-002(T)	11/05/18 06:41
3M139772.D	AD07390-004(T)	11/05/18 06:57
3M139773.D	AD07432-002(T)	11/05/18 07:14
3M139774.D	MBS73586	11/05/18 07:31
3M139775.D	AD07349-010(T:M)	11/05/18 07:48
3M139776.D	AD07349-010(T:M)	11/05/18 08:26
3M139777.D	EF-1-V-291003(110)	11/05/18 08:43
3M139778.D	AD07322-001	11/05/18 09:00
3M139779.D	AD07322-006	11/05/18 09:17
3M139780.D	AD07322-004	11/05/18 09:35
3M139781.D	AD07300-012	11/05/18 09:52
3M139782.D	AD07300-006	11/05/18 10:09

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
Data File : 3M139744.D
Acq On : 4 Nov 2018 23:01
Operator : WP
Sample : BFB TUNE
Misc : A,5ML
ALS Vial : 42 Sample Multiplier: 1

Integration File: RTEINT.P

Method : G:\GcMsData\2018\GCMS_3\MethodQt\3M_A1010.M
Title : @GCMS_3,ug,624,8260
Last Update : Wed Oct 10 11:30:34 2018



Spectrum Information: Average of 4.966 to 4.995 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.6	6216	PASS
75	95	30	60	49.4	12999	PASS
95	95	100	100	100.0	26320	PASS
96	95	5	9	7.4	1960	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	82.2	21643	PASS
175	174	5	9	8.7	1875	PASS
176	174	95	101	97.9	21180	PASS
177	176	5	9	6.3	1335	PASS

Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M139633.D

Analysis Date: 11/03/18 16:44

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U				

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : DAILY BLANK
Data File: 3M139633.D
Acq On : 11/ 3/18 16:44

Operator : SG
Sam Mult : 1 Vial# : 8
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:02
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.917	96	252905	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.767	117	210321	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.215	152	83307	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.490	111	64708	28.75	ug/l	0.01
Spiked Amount 30.000			Recovery	=	95.83%	
39) 1,2-Dichloroethane-d4	4.707	67	46902	29.67	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.90%	
66) Toluene-d8	5.890	98	261793	29.78	ug/l	0.01
Spiked Amount 30.000			Recovery	=	99.27%	
76) Bromofluorobenzene	7.482	174	86678	30.03	ug/l	0.01
Spiked Amount 30.000			Recovery	=	100.10%	
Target Compounds						Qvalue

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

2

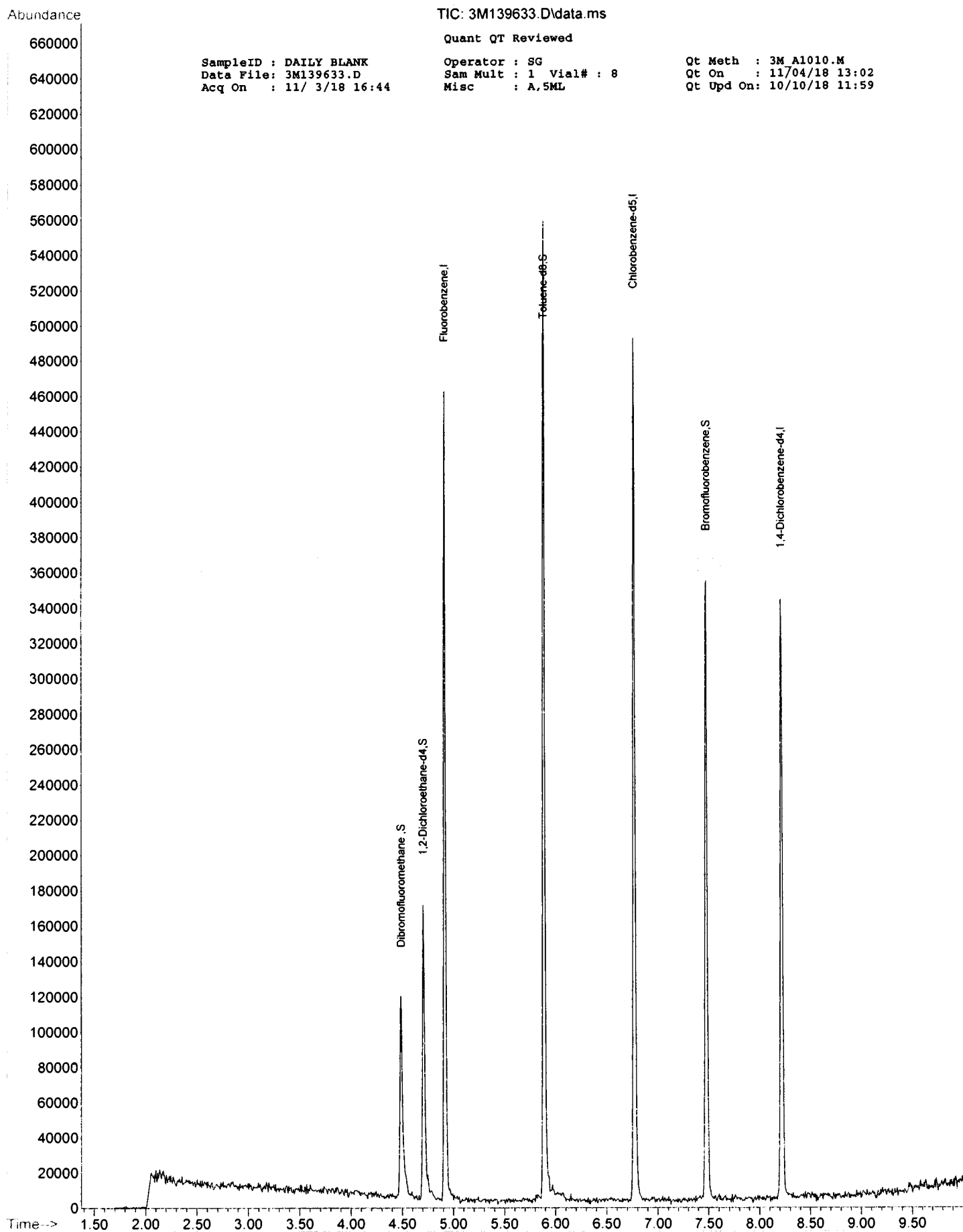
TIC: 3M139633.D\data.ms

Quant QT Reviewed

SampleID : DAILY BLANK
Data File: 3M139633.D
Acq On : 11/ 3/18 16:44

Operator : SG
Sam Mult : 1 Vial# : 8
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:02
Qt Upd On: 10/10/18 11:59



Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M139672.D

Analysis Date: 11/04/18 03:56

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U				

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : DAILY BLANK
Data File: 3M139672.D
Acq On : 11/ 4/18 03:56

Operator : SG
Sam Mult : 1 Vial# : 46
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:06
Qt Upd On: 10/10/18 11:59

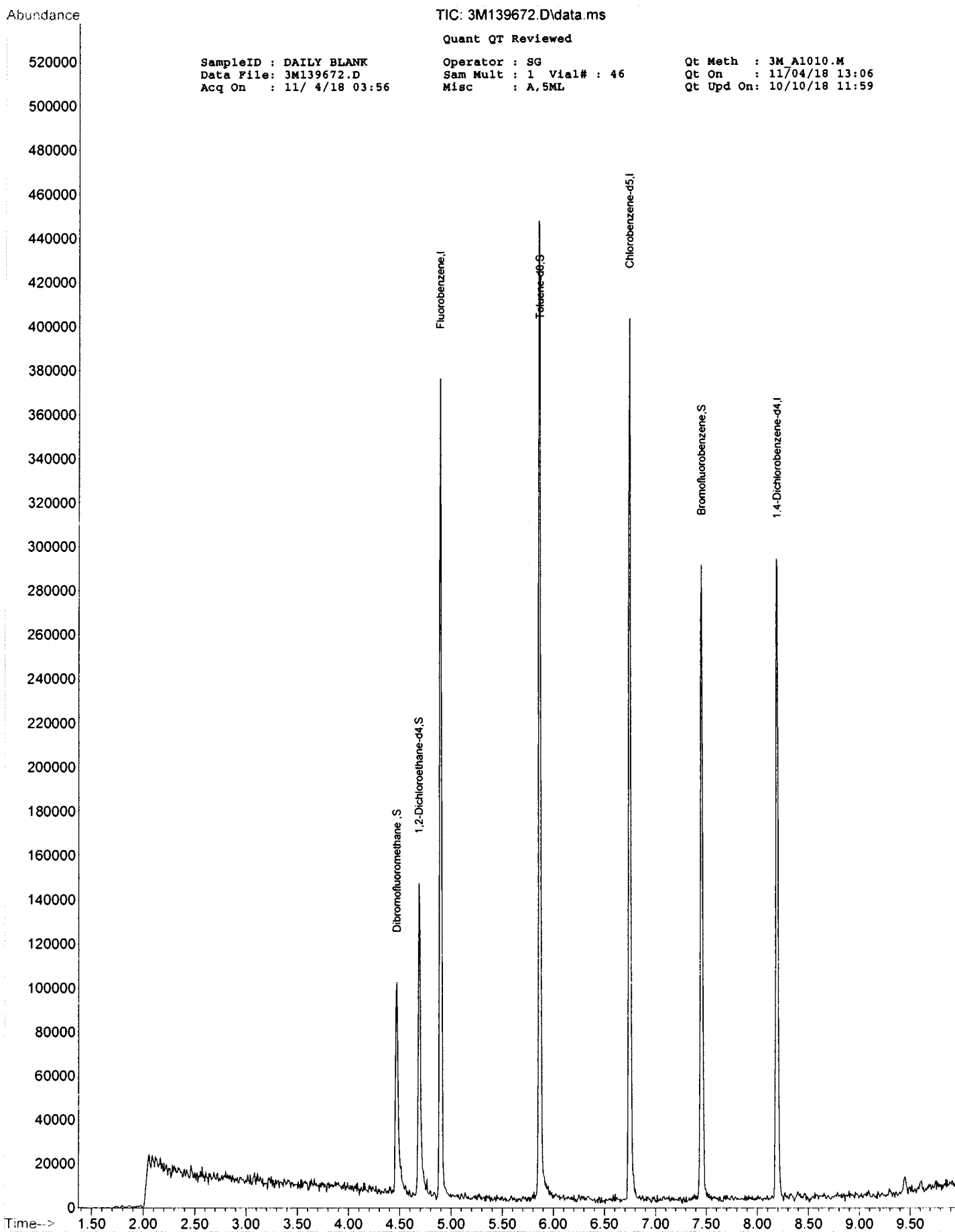
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	200099	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	172737	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	71097	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	57321	32.18	ug/l	0.00
Spiked Amount 30.000			Recovery	=	107.27%	
39) 1,2-Dichloroethane-d4	4.688	67	40153	32.10	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	107.00%	
66) Toluene-d8	5.871	98	205216	28.42	ug/l	0.00
Spiked Amount 30.000			Recovery	=	94.73%	
76) Bromofluorobenzene	7.457	174	75440	30.63	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	102.10%	
Target Compounds						Qvalue

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

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Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M139708.D

Analysis Date: 11/04/18 13:44

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U				

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of α -Chlordane and γ -Chlordane.

SampleID : DAILY BLANK
Data File: 3M139708.D
Acq On : 11/ 4/18 13:44

Operator : WP
Sam Mult : 1 Vial# : 7
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:42
Qt Upd On: 10/10/18 11:59

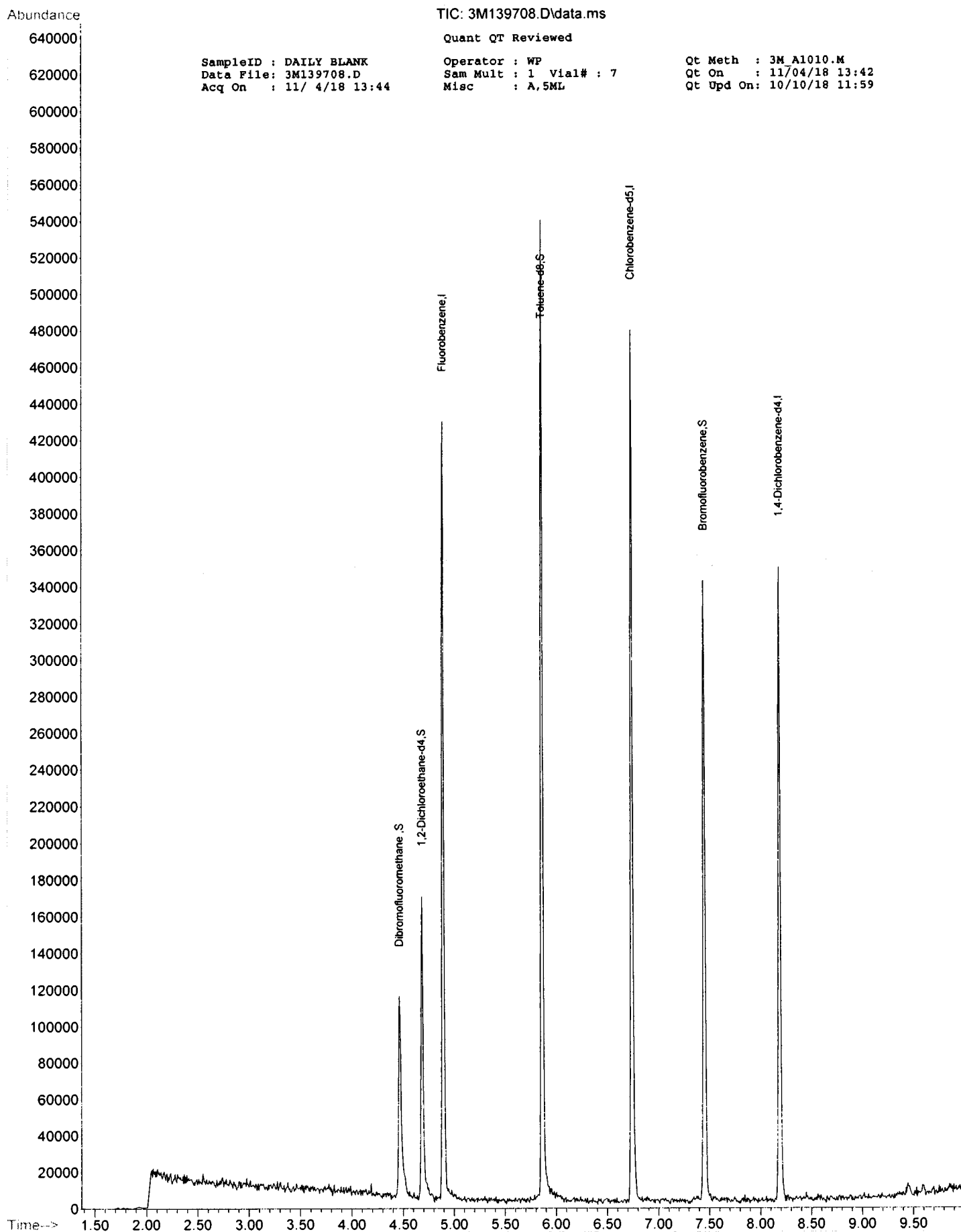
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.897	96	238583	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.741	117	196695	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.189	152	78827	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	61571	28.99	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.63%	
39) 1,2-Dichloroethane-d4	4.687	67	44131	29.59	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.63%	
66) Toluene-d8	5.864	98	248259	30.20	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.67%	
76) Bromofluorobenzene	7.450	174	85086	31.16	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	103.87%	
Target Compounds						Qvalue

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





Form1

ORGANICS VOLATILE REPORT

Sample Number: DAILY BLANK

Client Id:

Data File: 3M139750.D

Analysis Date: 11/05/18 00:44

Date Rec/Extracted:

Column: DB-624 25M 0.200mm ID 1.12um film

Method: EPA 8260C

Matrix: Aqueous

Initial Vol: 5ml

Final Vol: NA

Dilution: 1.00

Solids: 0

Units: ug/L

Cas #	Compound	RL	Conc	Cas #	Compound	RL	Conc
71-55-6	1,1,1-Trichloroethane	1.0	U	75-00-3	Chloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	67-66-3	Chloroform	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	1.0	U	74-87-3	Chloromethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U	156-59-2	cis-1,2-Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U	10061-01-5	cis-1,3-Dichloropropene	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U	110-82-7	Cyclohexane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U	124-48-1	Dibromochloromethane	1.0	U
96-12-8	1,2-Dibromo-3-Chloropropa	1.0	U	75-71-8	Dichlorodifluoromethane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U	100-41-4	Ethylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U	98-82-8	Isopropylbenzene	1.0	U
107-06-2	1,2-Dichloroethane	0.50	U	79601-23-1	m&p-Xylenes	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U	79-20-9	Methyl Acetate	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U	108-87-2	Methylcyclohexane	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U	75-09-2	Methylene Chloride	1.0	U
78-93-3	2-Butanone	1.0	U	1634-04-4	Methyl-t-butyl ether	0.50	U
591-78-6	2-Hexanone	1.0	U	95-47-6	o-Xylene	1.0	U
108-10-1	4-Methyl-2-Pentanone	1.0	U	100-42-5	Styrene	1.0	U
67-64-1	Acetone	5.0	U	127-18-4	Tetrachloroethene	1.0	U
71-43-2	Benzene	0.50	U	108-88-3	Toluene	1.0	U
75-27-4	Bromodichloromethane	1.0	U	156-60-5	trans-1,2-Dichloroethene	1.0	U
75-25-2	Bromoform	1.0	U	10061-02-6	trans-1,3-Dichloropropene	1.0	U
74-83-9	Bromomethane	1.0	U	79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U	75-69-4	Trichlorofluoromethane	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U	75-01-4	Vinyl Chloride	1.0	U
108-90-7	Chlorobenzene	1.0	U				

Worksheet #: 487384

Total Target Concentration 0

ColumnID: (^) Indicates results from 2nd column

U - Indicates the compound was analyzed but not detected.

B - Indicates the analyte was found in the blank as well as in the sample.

E - Indicates the analyte concentration exceeds the calibration range of the instrument.

R - Retention Time Out

J - Indicates an estimated value when a compound is detected at less than the specified detection limit.

d - Pesticide %Diff>40% between columns due to coelution. Lower concentration use a

Chlordane (Total) is sum of a-Chlordane and y-Chlordane.

SampleID : DAILY BLANK
Data File: 3M139750.D
Acq On : 11/ 5/18 00:44

Operator : WP
Sam Mult : 1 Vial# : 48
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:46
Qt Upd On: 10/10/18 11:59

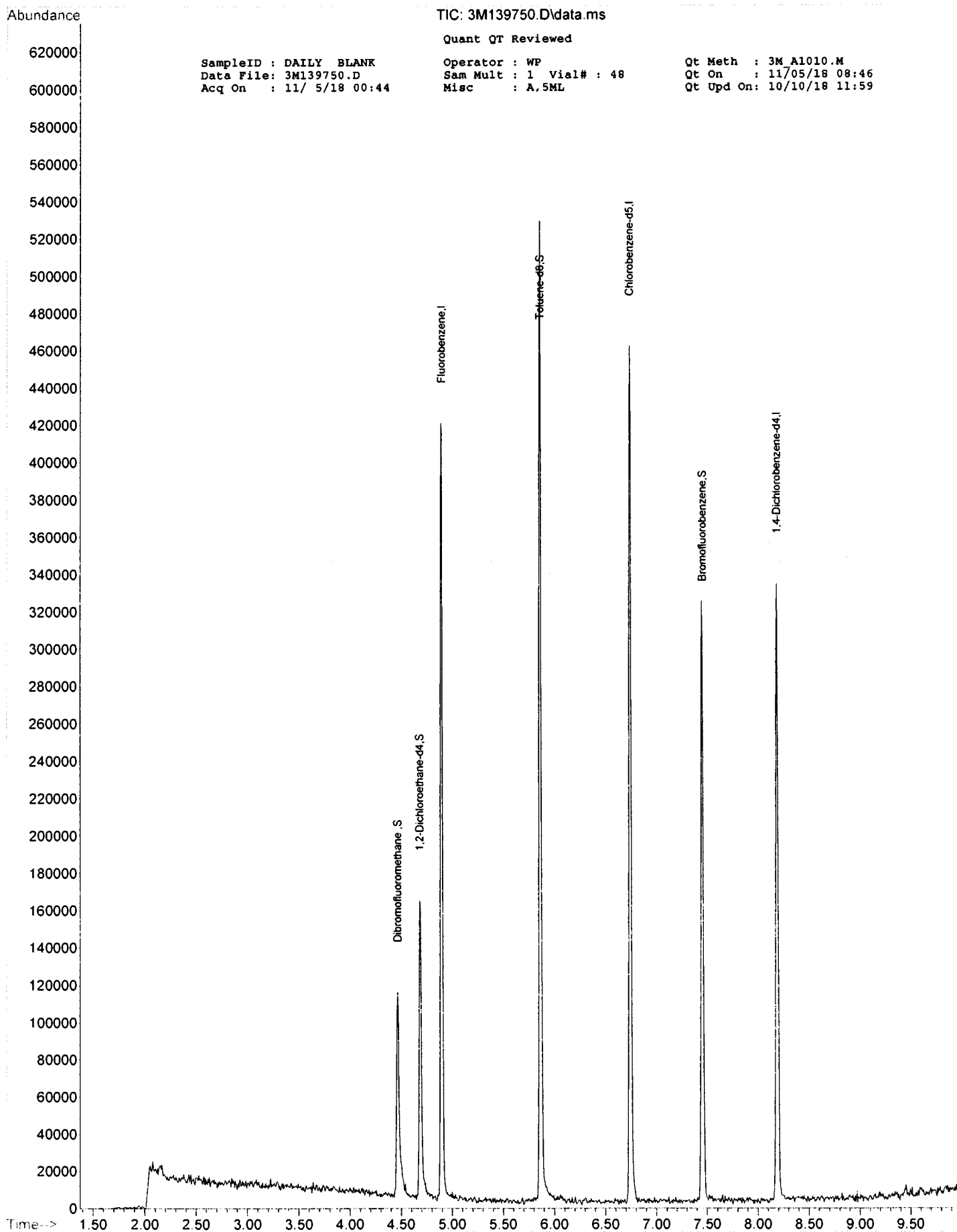
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	236178	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.743	117	192694	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	77540	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	59824	28.46	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	94.87%	
39) 1,2-Dichloroethane-d4	4.682	67	45497	30.82	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	102.73%	
66) Toluene-d8	5.866	98	239529	29.74	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.13%	
76) Bromofluorobenzene	7.457	174	79124	29.45	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.17%	
Target Compounds						Qvalue

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

u



Form3
Recovery Data Laboratory Limits
QC Batch: MBS73571

8102901 0408

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139673.D		MBS73571		11/4/2018 4:13:00 AM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	39.7611	0	20	199 *	50	150
Dichlorodifluoromethane	1	26.5927	0	20	133	50	150
Chloromethane	1	31.9461	0	20	160 *	50	150
Bromomethane	1	24.7886	0	20	124	50	150
Vinyl Chloride	1	21.8583	0	20	109	50	150
Chloroethane	1	23.999	0	20	120	50	150
Trichlorofluoromethane	1	18.1668	0	20	91	50	150
Ethyl ether	1	14.1472	0	20	71	50	150
Furan	1	16.3972	0	20	82	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	21.3029	0	20	107	50	150
Methylene Chloride	1	21.1915	0	20	106	70	130
Acrolein	1	75.7498	0	100	76	50	150
Acrylonitrile	1	18.4825	0	20	92	50	150
Iodomethane	1	18.3555	0	20	92	50	150
Acetone	1	94.0495	0	100	94	50	150
Carbon Disulfide	1	18.5297	0	20	93	50	150
t-Butyl Alcohol	1	83.2546	0	100	83	50	150
n-Hexane	1	19.8714	0	20	99	70	130
Di-isopropyl-ether	1	21.5375	0	20	108	70	130
1,1-Dichloroethene	1	19.204	0	20	96	70	130
Methyl Acetate	1	17.795	0	20	89	50	150
Methyl-t-butyl ether	1	17.7759	0	20	89	70	130
1,1-Dichloroethane	1	19.8674	0	20	99	70	130
trans-1,2-Dichloroethene	1	18.7968	0	20	94	70	130
Ethyl-t-butyl ether	1	19.0617	0	20	95	70	130
cis-1,2-Dichloroethene	1	19.9953	0	20	100	70	130
Bromochloromethane	1	19.3377	0	20	97	70	130
2,2-Dichloropropane	1	18.322	0	20	92	70	130
Ethyl acetate	1	19.2898	0	20	96	50	150
1,4-Dioxane	1	814.2095	0	1000	81	50	150
1,1-Dichloropropene	1	20.8777	0	20	104	70	130
Chloroform	1	17.0536	0	20	85	70	130
Cyclohexane	1	21.1006	0	20	106	70	130
1,2-Dichloroethane	1	20.4739	0	20	102	70	130
2-Butanone	1	19.727	0	20	99	50	150
1,1,1-Trichloroethane	1	17.2256	0	20	86	70	130
Carbon Tetrachloride	1	18.8557	0	20	94	50	150
Vinyl Acetate	1	17.9558	0	20	90	50	150
Bromodichloromethane	1	18.7844	0	20	94	70	130
Methylcyclohexane	1	20.8104	0	20	104	70	130
Dibromomethane	1	22.7197	0	20	114	70	130
1,2-Dichloropropane	1	22.6251	0	20	113	70	130
Trichloroethene	1	19.8829	0	20	99	70	130
Benzene	1	23.0459	0	20	115	70	130
tert-Amyl methyl ether	1	18.9379	0	20	95	70	130
Iso-propylacetate	1	19.9939	0	20	100	70	130
Methyl methacrylate	1	20.2187	0	20	101	70	130
Dibromochloromethane	1	17.2826	0	20	86	70	130
2-Chloroethylvinylether	1	20.8602	0	20	104	70	130
cis-1,3-Dichloropropene	1	18.6089	0	20	93	70	130
trans-1,3-Dichloropropene	1	17.9763	0	20	90	70	130
Ethyl methacrylate	1	17.7648	0	20	89	70	130
1,1,2-Trichloroethane	1	22.1065	0	20	111	70	130
1,2-Dibromoethane	1	17.4679	0	20	87	70	130
1,3-Dichloropropane	1	22.6095	0	20	113	70	130
4-Methyl-2-Pentanone	1	18.8685	0	20	94	50	150
2-Hexanone	1	20.1388	0	20	101	50	150
Tetrachloroethene	1	24.8613	0	20	124	50	150
Toluene	1	19.324	0	20	97	70	130
1,1,1,2-Tetrachloroethane	1	22.2021	0	20	111	70	130
Chlorobenzene	1	18.4497	0	20	92	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73571

n-Butyl acrylate	1	19.8351	0	20	99	70	130
n-Amyl acetate	1	20.7853	0	20	104	70	130
Bromoform	1	17.7049	0	20	89	70	130
Ethylbenzene	1	19.8838	0	20	99	70	130
1,1,2,2-Tetrachloroethane	1	19.6761	0	20	98	70	130
Styrene	1	21.3224	0	20	107	70	130
m&p-Xylenes	1	41.8973	0	40	105	70	130
o-Xylene	1	21.3889	0	20	107	70	130
trans-1,4-Dichloro-2-butene	1	17.3401	0	20	87	50	150
1,3-Dichlorobenzene	1	19.075	0	20	95	70	130
1,4-Dichlorobenzene	1	17.1165	0	20	86	70	130
1,2-Dichlorobenzene	1	18.5341	0	20	93	70	130
Isopropylbenzene	1	21.0434	0	20	105	70	130
Cyclohexanone	1	106.8244	0	100	107	50	150
Camphene	1	19.4387	0	20	97	70	130
1,2,3-Trichloropropane	1	20.2019	0	20	101	70	130
2-Chlorotoluene	1	20.9441	0	20	105	70	130
p-Ethyltoluene	1	18.3576	0	20	92	70	130
4-Chlorotoluene	1	20.8174	0	20	104	70	130
n-Propylbenzene	1	20.3184	0	20	102	70	130
Bromobenzene	1	17.9538	0	20	90	70	130
1,3,5-Trimethylbenzene	1	21.1493	0	20	106	70	130
Butyl methacrylate	1	20.4641	0	20	102	70	130
t-Butylbenzene	1	19.2129	0	20	96	70	130
1,2,4-Trimethylbenzene	1	18.9074	0	20	95	70	130
sec-Butylbenzene	1	20.5049	0	20	103	70	130
4-Isopropyltoluene	1	19.9861	0	20	100	70	130
n-Butylbenzene	1	18.9421	0	20	95	70	130
p-Diethylbenzene	1	17.4424	0	20	87	70	130
1,2,4,5-Tetramethylbenzene	1	16.9099	0	20	85	70	130
1,2-Dibromo-3-Chloropropane	1	18.2998	0	20	91	50	150
Camphor	1	77.289	0	200	39	20	150
Hexachlorobutadiene	1	17.7145	0	20	89	50	150
1,2,4-Trichlorobenzene	1	17.3007	0	20	87	70	130
1,2,3-Trichlorobenzene	1	14.7547	0	20	74	70	130
Naphthalene	1	15.3542	0	20	77	50	150

SampleID : MBS
Data File: 3M139673.D
Acq On : 11/ 4/18 04:13

Operator : SG
Sam Mult : 1 Vial# : 47
Misc : A,5ML

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:06
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.899	96	244222	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.749	117	204611	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.190	152	90757	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.472	111	63599	29.26	ug/l	0.00
Spiked Amount 30.000			Recovery =	97.53%		
39) 1,2-Dichloroethane-d4	4.694	67	43693	28.62	ug/l	0.00
Spiked Amount 30.000			Recovery =	95.40%		
66) Toluene-d8	5.872	98	256405	29.98	ug/l	0.00
Spiked Amount 30.000			Recovery =	99.93%		
76) Bromofluorobenzene	7.458	174	91797	29.20	ug/l	-0.01
Spiked Amount 30.000			Recovery =	97.33%		
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.559	51	90052	39.7611	ug/l	78
6) Dichlorodifluoromethane	1.526	85	39373	26.5927	ug/l	92
7) Chloromethane	1.692	50	50767	31.9461	ug/l	76
8) Bromomethane	2.063	94	20059	24.7886	ug/l	86
9) Vinyl Chloride	1.776	62	34436	21.8583	ug/l	97
10) Chloroethane	2.135	64	17367	23.9990	ug/l	55
11) Trichlorofluoromethane	2.352	101	43291	18.1668	ug/l	86
12) Ethyl ether	2.568	59	29161	14.1472	ug/l	93
13) Furan	2.610	39	83493	16.3972	ug/l	90
14) 1,1,2-Trichloro-1,2,2-...	2.760	101	20549	21.3029	ug/l	97
15) Methylene Chloride	3.157	84	40310	21.1915	ug/l	90
16) Acrolein	2.688	56	29351	75.7498	ug/l	91
17) Acrylonitrile	3.361	53	16089	18.4825	ug/l	90
18) Iodomethane	2.898	142	42346	18.3555	ug/l	93
19) Acetone	2.808	43	74821	94.0495	ug/l	91
20) Carbon Disulfide	2.964	76	121717	18.5297	ug/l	100
21) t-Butyl Alcohol	3.223	59	13989	83.2546	ug/l	90
22) n-Hexane	3.607	57	18369m	19.8714	ug/l	
23) Di-isopropyl-ether	3.769	45	149514	21.5375	ug/l	89
24) 1,1-Dichloroethene	2.766	61	56785	19.2040	ug/l	98
25) Methyl Acetate	3.067	43	48672	17.7950	ug/l	100
26) Methyl-t-butyl ether	3.379	73	84096	17.7759	ug/l	73
27) 1,1-Dichloroethane	3.733	63	73477	19.8674	ug/l	87
28) trans-1,2-Dichloroethene	3.385	96	36448	18.7968	ug/l	85
29) Ethyl-t-butyl ether	4.040	59	105822	19.0617	ug/l	95
30) cis-1,2-Dichloroethene	4.160	61	74623	19.9953	ug/l	87
31) Bromochloromethane	4.328	49	43820	19.3377	ug/l	63
32) 2,2-Dichloropropane	4.166	77	42484	18.3220	ug/l	93
33) Ethyl acetate	4.190	43	50497m	19.2898	ug/l	
34) 1,4-Dioxane	5.349	88	18655	814.2095	ug/l	79
35) 1,1-Dichloropropene	4.604	75	53435	20.8777	ug/l	97
36) Chloroform	4.370	83	67389	17.0536	ug/l	83
38) Cyclohexane	4.544	56	35669	21.1006	ug/l	87
40) 1,2-Dichloroethane	4.742	62	60928	20.4739	ug/l	88
41) 2-Butanone	4.160	43	21370m	19.7270	ug/l	
42) 1,1,1-Trichloroethane	4.502	97	51126	17.2256	ug/l	96
43) Carbon Tetrachloride	4.610	117	41874	18.8557	ug/l	76
44) Vinyl Acetate	3.763	43	92069	17.9558	ug/l	100
45) Bromodichloromethane	5.427	83	58325	18.7844	ug/l	92
46) Methylcyclohexane	5.259	83	24538	20.8104	ug/l	96
47) Dibromomethane	5.349	174	32775	22.7197	ug/l	93
48) 1,2-Dichloropropane	5.271	63	50599	22.6251	ug/l	98
49) Trichloroethene	5.133	130	42275	19.8829	ug/l	80
50) Benzene	4.736	78	160850	23.0459	ug/l	100
51) tert-Amyl methyl ether	4.785	73	94663	18.9379	ug/l	84
53) Iso-propylacetate	4.736	43	89869	19.9939	ug/l	98
54) Methyl methacrylate	5.307	41	53979	20.2187	ug/l	97
55) Dibromochloromethane	6.388	129	41739	17.2826	ug/l	89
56) 2-Chloroethylvinylether	5.589	63	21969	20.8602	ug/l	89
57) cis-1,3-Dichloropropene	5.698	75	65260	18.6089	ug/l	93
58) trans-1,3-Dichloropropene	6.022	75	59386	17.9763	ug/l	99
59) Ethyl methacrylate	6.046	41	48545	17.7648	ug/l	85
60) 1,1,2-Trichloroethane	6.142	97	38938	22.1065	ug/l	87
61) 1,2-Dibromoethane	6.472	107	37956	17.4679	ug/l	98
62) 1,3-Dichloropropane	6.244	76	72147	22.6095	ug/l	98
63) 4-Methyl-2-Pentanone	5.776	43	46197	18.8685	ug/l	100
64) 2-Hexanone	6.268	43	32097	20.1388	ug/l	94
65) Tetrachloroethene	6.244	164	29076	24.8613	ug/l	91
67) Toluene	5.908	92	94349	19.3240	ug/l	95

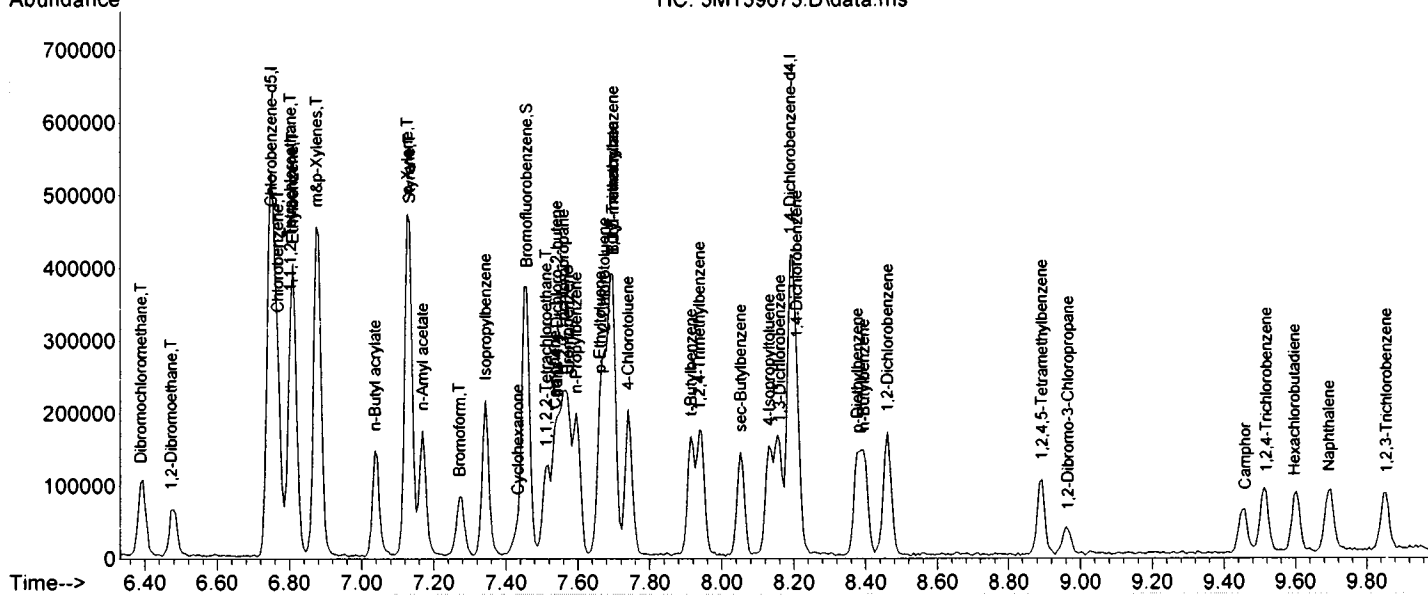
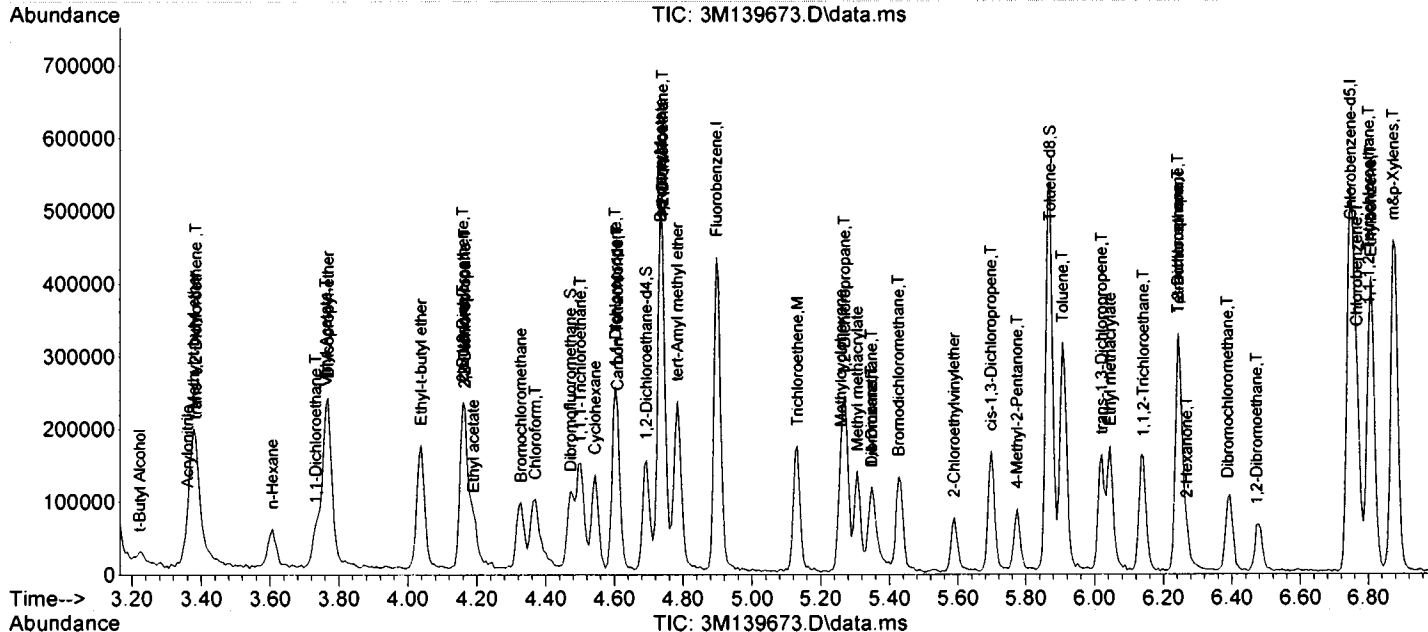
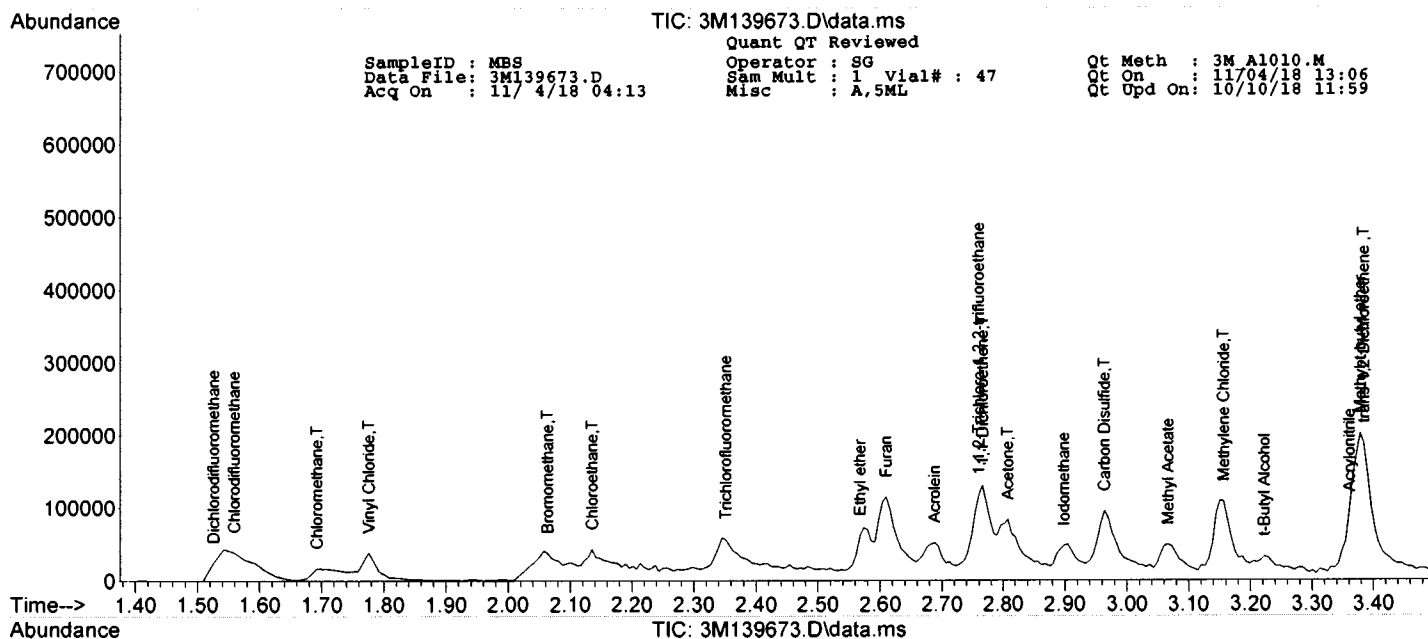
Quantitation Report (QT Reviewed)

SampleID : MBS Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139673.D Sam Mult : 1 Vial# : 47 Qt On : 11/04/18 13:06
 Acq On : 11/ 4/18 04:13 Misc : A,5ML Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.803	133	36030	22.2021	ug/l	91
69) Chlorobenzene	6.767	112	99915	18.4497	ug/l	95
71) n-Butyl acrylate	7.037	55	72843	19.8351	ug/l	100
72) n-Amyl acetate	7.169	43	76489	20.7853	ug/l	88
73) Bromoform	7.271	173	31290	17.7049	ug/l	92
74) Ethylbenzene	6.809	106	30400	19.8838	ug/l	96
75) 1,1,2,2-Tetrachloroethane	7.512	83	53598	19.6761	ug/l	87
77) Styrene	7.133	104	100575	21.3224	ug/l	87
78) m&p-Xylenes	6.875	106	103997	41.8973	ug/l	91
79) o-Xylene	7.127	106	54256	21.3889	ug/l	64
80) trans-1,4-Dichloro-2-b...	7.542	53	16820	17.3401	ug/l	68
81) 1,3-Dichlorobenzene	8.160	146	61157	19.0750	ug/l	88
82) 1,4-Dichlorobenzene	8.208	146	58933	17.1165	ug/l	93
83) 1,2-Dichlorobenzene	8.461	146	62172	18.5341	ug/l	88
84) Isopropylbenzene	7.343	105	104383	21.0434	ug/l	96
85) Cyclohexanone	7.434	55	11167	106.8244	ug/l	90
86) Camphene	7.536	93	26605	19.4387	ug/l	97
87) 1,2,3-Trichloropropane	7.560	75	62972	20.2019	ug/l	92
88) 2-Chlorotoluene	7.674	91	62968	20.9441	ug/l	98
89) p-Ethyltoluene	7.662	105	101673	18.3576	ug/l	78
90) 4-Chlorotoluene	7.740	91	68832	20.8174	ug/l	86
91) n-Propylbenzene	7.596	91	118308	20.3184	ug/l	95
92) Bromobenzene	7.572	77	95405	17.9538	ug/l	93
93) 1,3,5-Trimethylbenzene	7.698	105	75199	21.1493	ug/l	71
94) Butyl methacrylate	7.698	41	62292	20.4641	ug/l	80
95) t-Butylbenzene	7.914	119	67527	19.2129	ug/l	84
96) 1,2,4-Trimethylbenzene	7.938	105	84696	18.9074	ug/l	86
97) sec-Butylbenzene	8.052	105	84019	20.5049	ug/l	99
98) 4-Isopropyltoluene	8.130	119	69577	19.9861	ug/l	88
99) n-Butylbenzene	8.395	91	74320	18.9421	ug/l	94
100) p-Diethylbenzene	8.377	119	35417m	17.4424	ug/l	
101) 1,2,4,5-Tetramethylben...	8.893	119	52182	16.9099	ug/l	93
102) 1,2-Dibromo-3-Chloropr...	8.965	157	9398	18.2998	ug/l	71
103) Camphor	9.458	95	12913	77.2890	ug/l	95
104) Hexachlorobutadiene	9.596	225	17483	17.7145	ug/l	94
105) 1,2,4-Trichlorobenzene	9.518	180	30233	17.3007	ug/l	92
106) 1,2,3-Trichlorobenzene	9.854	180	25660	14.7547	ug/l	92
107) Naphthalene	9.692	128	64847	15.3542	ug/l	100

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



Form3
Recovery Data Laboratory Limits
QC Batch: MBS73573

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139634.D		MBS73573		11/3/2018 5:05:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.2668	0	20	181 *	50	150
Dichlorodifluoromethane	1	14.9234	0	20	75	50	150
Chloromethane	1	28.9144	0	20	145	50	150
Bromomethane	1	26.1707	0	20	131	50	150
Vinyl Chloride	1	18.9163	0	20	95	50	150
Chloroethane	1	21.6666	0	20	108	50	150
Trichlorofluoromethane	1	18.9133	0	20	95	50	150
Ethyl ether	1	19.5638	0	20	98	50	150
Furan	1	18.3143	0	20	92	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	19.3895	0	20	97	50	150
Methylene Chloride	1	22.8444	0	20	114	70	130
Acrolein	1	59.3096	0	100	59	50	150
Acrylonitrile	1	16.745	0	20	84	50	150
Iodomethane	1	19.0768	0	20	95	50	150
Acetone	1	94.2426	0	100	94	50	150
Carbon Disulfide	1	17.0265	0	20	85	50	150
t-Butyl Alcohol	1	66.8768	0	100	67	50	150
n-Hexane	1	18.8451	0	20	94	70	130
Di-isopropyl-ether	1	23.9814	0	20	120	70	130
1,1-Dichloroethene	1	18.1187	0	20	91	70	130
Methyl Acetate	1	18.8504	0	20	94	50	150
Methyl-t-butyl ether	1	17.6778	0	20	88	70	130
1,1-Dichloroethane	1	20.4123	0	20	102	70	130
trans-1,2-Dichloroethene	1	18.1323	0	20	91	70	130
Ethyl-t-butyl ether	1	21.6773	0	20	108	70	130
cis-1,2-Dichloroethene	1	21.9421	0	20	110	70	130
Bromochloromethane	1	20.4514	0	20	102	70	130
2,2-Dichloropropane	1	23.9831	0	20	120	70	130
Ethyl acetate	1	17.6021	0	20	88	50	150
1,4-Dioxane	1	799.8502	0	1000	80	50	150
1,1-Dichloropropene	1	21.6586	0	20	108	70	130
Chloroform	1	19.4264	0	20	97	70	130
Cyclohexane	1	25.2668	0	20	126	70	130
1,2-Dichloroethane	1	21.5475	0	20	108	70	130
2-Butanone	1	21.2976	0	20	106	50	150
1,1,1-Trichloroethane	1	19.0296	0	20	95	70	130
Carbon Tetrachloride	1	19.4805	0	20	97	50	150
Vinyl Acetate	1	24.997	0	20	125	50	150
Bromodichloromethane	1	19.8784	0	20	99	70	130
Methylcyclohexane	1	24.9014	0	20	125	70	130
Dibromomethane	1	22.7714	0	20	114	70	130
1,2-Dichloropropane	1	23.5296	0	20	118	70	130
Trichloroethene	1	19.633	0	20	98	70	130
Benzene	1	22.9556	0	20	115	70	130
tert-Amyl methyl ether	1	22.259	0	20	111	70	130
Iso-propylacetate	1	22.0855	0	20	110	70	130
Methyl methacrylate	1	19.9267	0	20	100	70	130
Dibromochloromethane	1	19.5376	0	20	98	70	130
2-Chloroethylvinylether	1	23.6086	0	20	118	70	130
cis-1,3-Dichloropropene	1	22.5456	0	20	113	70	130
trans-1,3-Dichloropropene	1	21.332	0	20	107	70	130
Ethyl methacrylate	1	21.6304	0	20	108	70	130
1,1,2-Trichloroethane	1	23.1277	0	20	116	70	130
1,2-Dibromoethane	1	17.2601	0	20	86	70	130
1,3-Dichloropropane	1	25.9672	0	20	130	70	130
4-Methyl-2-Pentanone	1	20.6226	0	20	103	50	150
2-Hexanone	1	19.4722	0	20	97	50	150
Tetrachloroethene	1	25.3687	0	20	127	50	150
Toluene	1	20.1289	0	20	101	70	130
1,1,1,2-Tetrachloroethane	1	24.4247	0	20	122	70	130
Chlorobenzene	1	20.1708	0	20	101	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

QC Batch: MBS73573

n-Butyl acrylate	1	23.6871	0	20	118	70	130
n-Amyl acetate	1	24.8961	0	20	124	70	130
Bromoform	1	19.1875	0	20	96	70	130
Ethylbenzene	1	22.6577	0	20	113	70	130
1,1,2,2-Tetrachloroethane	1	22.0198	0	20	110	70	130
Styrene	1	24.538	0	20	123	70	130
m&p-Xylenes	1	44.442	0	40	111	70	130
o-Xylene	1	23.2331	0	20	116	70	130
trans-1,4-Dichloro-2-butene	1	24.0746	0	20	120	50	150
1,3-Dichlorobenzene	1	21.3941	0	20	107	70	130
1,4-Dichlorobenzene	1	20.6498	0	20	103	70	130
1,2-Dichlorobenzene	1	20.4826	0	20	102	70	130
Isopropylbenzene	1	23.5022	0	20	118	70	130
Cyclohexanone	1	168.132	0	100	168 *	50	150
Camphene	1	24.2027	0	20	121	70	130
1,2,3-Trichloropropane	1	21.5244	0	20	108	70	130
2-Chlorotoluene	1	23.3341	0	20	117	70	130
p-Ethyltoluene	1	25.009	0	20	125	70	130
4-Chlorotoluene	1	23.6542	0	20	118	70	130
n-Propylbenzene	1	24.1695	0	20	121	70	130
Bromobenzene	1	20.4219	0	20	102	70	130
1,3,5-Trimethylbenzene	1	24.5949	0	20	123	70	130
Butyl methacrylate	1	25.4066	0	20	127	70	130
t-Butylbenzene	1	21.3679	0	20	107	70	130
1,2,4-Trimethylbenzene	1	22.1981	0	20	111	70	130
sec-Butylbenzene	1	23.5391	0	20	118	70	130
4-Isopropyltoluene	1	23.468	0	20	117	70	130
n-Butylbenzene	1	23.8058	0	20	119	70	130
p-Diethylbenzene	1	24.3946	0	20	122	70	130
1,2,4,5-Tetramethylbenzene	1	22.8668	0	20	114	70	130
1,2-Dibromo-3-Chloropropane	1	17.4179	0	20	87	50	150
Camphor	1	88.9895	0	200	44	20	150
Hexachlorobutadiene	1	22.0051	0	20	110	50	150
1,2,4-Trichlorobenzene	1	21.1201	0	20	106	70	130
1,2,3-Trichlorobenzene	1	18.6843	0	20	93	70	130
Naphthalene	1	18.1406	0	20	91	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

SampleID : MBS

Operator : SG

Qt Meth : 3M Al010.M

Data File: 3M139634.D

Sam Mult : 1 Vial# : 9

Qt On : 11/04/18 13:02

Acq On : 11/ 3/18 17:05

Misc : A,5ML

Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\

Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\

Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.909	96	221226	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.759	117	178710	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.207	152	77487	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	59492	30.21	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.70%	
39) 1,2-Dichloroethane-d4	4.699	67	38977	28.18	ug/l	0.00
Spiked Amount 30.000			Recovery	=	93.93%	
66) Toluene-d8	5.882	98	221382	29.64	ug/l	0.00
Spiked Amount 30.000			Recovery	=	98.80%	
76) Bromofluorobenzene	7.468	174	80868	30.12	ug/l	0.00
Spiked Amount 30.000			Recovery	=	100.40%	
Target Compounds						
5) Chlorodifluoromethane	1.542	51	74377	36.2668	ug/l	56
6) Dichlorodifluoromethane	1.526	85	20015	14.9234	ug/l	84
7) Chloromethane	1.692	50	41583	28.9144	ug/l	75
8) Bromomethane	2.056	94	19149	26.1707	ug/l	74
9) Vinyl Chloride	1.775	62	26995	18.9163	ug/l	96
10) Chloroethane	2.134	64	14218	21.6666	ug/l	99
11) Trichlorofluoromethane	2.344	101	40826	18.9133	ug/l	81
12) Ethyl ether	2.573	59	36529	19.5638	ug/l	93
13) Furan	2.615	39	84474	18.3143	ug/l	96
14) 1,1,2-Trichloro-1,2,2-...	2.759	101	16943	19.3895	ug/l	95
15) Methylene Chloride	3.155	84	39363	22.8444	ug/l	82
16) Acrolein	2.687	56	20817	59.3096	ug/l	98
17) Acrylonitrile	3.359	53	13204	16.7450	ug/l	91
18) Iodomethane	2.903	142	39866	19.0768	ug/l	87
19) Acetone	2.807	43	67915	94.2426	ug/l	97
20) Carbon Disulfide	2.969	76	101312	17.0265	ug/l	100
21) t-Butyl Alcohol	3.233	59	10179	66.8768	ug/l	96
22) n-Hexane	3.618	57	15780m	18.8451	ug/l	
23) Di-isopropyl-ether	3.774	45	150804	23.9814	ug/l	89
24) 1,1-Dichloroethene	2.771	61	48531	18.1187	ug/l	95
25) Methyl Acetate	3.071	43	46704	18.8504	ug/l	100
26) Methyl-t-butyl ether	3.384	73	75757	17.6778	ug/l	71
27) 1,1-Dichloroethane	3.744	63	68384	20.4123	ug/l	94
28) trans-1,2-Dichloroethene	3.390	96	31849	18.1323	ug/l	90
29) Ethyl-t-butyl ether	4.044	59	109011	21.6773	ug/l	95
30) cis-1,2-Dichloroethene	4.164	61	74178	21.9421	ug/l	88
31) Bromochloromethane	4.333	49	41980	20.4514	ug/l	70
32) 2,2-Dichloropropane	4.170	77	50298	23.9831	ug/l	92
33) Ethyl acetate	4.200	43	41740	17.6021	ug/l	94
34) 1,4-Dioxane	5.360	88	16601	799.8502	ug/l	91
35) 1,1-Dichloropropene	4.615	75	50214	21.6586	ug/l	96
36) Chloroform	4.375	83	69537	19.4264	ug/l	88
38) Cyclohexane	4.555	56	38690	25.2668	ug/l	85
40) 1,2-Dichloroethane	4.747	62	58058	21.5475	ug/l	98
41) 2-Butanone	4.170	43	20899	21.2976	ug/l	80
42) 1,1,1-Trichloroethane	4.507	97	51162	19.0296	ug/l	91
43) Carbon Tetrachloride	4.621	117	39188	19.4805	ug/l	96
44) Vinyl Acetate	3.774	43	116104	24.9970	ug/l	100
45) Bromodichloromethane	5.444	83	55910	19.8784	ug/l	96
46) Methylcyclohexane	5.270	83	26597	24.9014	ug/l	84
47) Dibromomethane	5.360	174	29756	22.7714	ug/l	85
48) 1,2-Dichloropropane	5.282	63	47667	23.5296	ug/l	96
49) Trichloroethene	5.144	130	37813	19.6330	ug/l	83
50) Benzene	4.747	78	145141	22.9556	ug/l	100
51) tert-Amyl methyl ether	4.795	73	100787	22.2590	ug/l	80
53) Iso-propylacetate	4.747	43	86704	22.0855	ug/l	97
54) Methyl methacrylate	5.318	41	46465	19.9267	ug/l	98
55) Dibromochloromethane	6.405	129	41212	19.5376	ug/l	97
56) 2-Chloroethylvinylether	5.600	63	21749	23.6086	ug/l	72
57) cis-1,3-Dichloropropene	5.708	75	69057	22.5456	ug/l	92
58) trans-1,3-Dichloropropene	6.033	75	61551	21.3320	ug/l	96
59) Ethyl methacrylate	6.057	41	51626	21.6304	ug/l	86
60) 1,1,2-Trichloroethane	6.153	97	35584	23.1277	ug/l	87
61) 1,2-Dibromoethane	6.495	107	32757	17.2601	ug/l	92
62) 1,3-Dichloropropane	6.261	76	72311	25.9672	ug/l	92
63) 4-Methyl-2-Pentanone	5.786	43	44100	20.6226	ug/l	92
64) 2-Hexanone	6.279	43	27106	19.4722	ug/l	96
65) Tetrachloroethene	6.261	164	25910	25.3687	ug/l	92
67) Toluene	5.924	92	85838	20.1289	ug/l	95

Quantitation Report (QT Reviewed)

SampleID : MBS Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139634.D Sam Mult : 1 Vial# : 9 Qt On : 11/04/18 13:02
 Acq On : 11/ 3/18 17:05 Misc : A,5ML Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QI on	Response	Conc	Units	Dev(Min)
68) 1,1,1,2-Tetrachloroethane	6.819	133	34599	24.4247	ug/l	92
69) Chlorobenzene	6.777	112	95408	20.1708	ug/l	98
71) n-Butyl acrylate	7.054	55	74270	23.6871	ug/l	98
72) n-Amyl acetate	7.186	43	78221	24.8961	ug/l	88
73) Bromoform	7.288	173	28952	19.1875	ug/l	89
74) Ethylbenzene	6.825	106	29576	22.6577	ug/l	82
75) 1,1,2,2-Tetrachloroethane	7.528	83	51212	22.0198	ug/l	89
77) Styrene	7.144	104	98819	24.5380	ug/l	87
78) m&p-Xylenes	6.892	106	94184	44.4420	ug/l	95
79) o-Xylene	7.144	106	50317	23.2331	ug/l	79
80) trans-1,4-Dichloro-2-b...	7.558	53	19938	24.0746	ug/l	73
81) 1,3-Dichlorobenzene	8.171	146	58563	21.3941	ug/l	88
82) 1,4-Dichlorobenzene	8.225	146	60703	20.6498	ug/l	93
83) 1,2-Dichlorobenzene	8.477	146	58662	20.4826	ug/l	92
84) Isopropylbenzene	7.360	105	99534	23.5022	ug/l	95
85) Cyclohexanone	7.444	55	15006	168.1320	ug/l	91
86) Camphene	7.552	93	28282	24.2027	ug/l	96
87) 1,2,3-Trichloropropane	7.576	75	57284	21.5244	ug/l	90
88) 2-Chlorotoluene	7.697	91	59833	23.3341	ug/l	94
89) p-Ethyltoluene	7.678	105	118067	25.0090	ug/l	83
90) 4-Chlorotoluene	7.757	91	66776	23.6542	ug/l	93
91) n-Propylbenzene	7.612	91	120155	24.1695	ug/l	98
92) Bromobenzene	7.588	77	92653	20.4219	ug/l	93
93) 1,3,5-Trimethylbenzene	7.709	105	74511	24.5949	ug/l	93
94) Butyl methacrylate	7.715	41	66029	25.4066	ug/l	79
95) t-Butylbenzene	7.931	119	64120	21.3679	ug/l	83
96) 1,2,4-Trimethylbenzene	7.955	105	84898	22.1981	ug/l	87
97) sec-Butylbenzene	8.069	105	82349	23.5391	ug/l	98
98) 4-Isopropyltoluene	8.147	119	69753	23.4680	ug/l	92
99) n-Butylbenzene	8.411	91	79746	23.8058	ug/l	94
100) p-Diethylbenzene	8.387	119	42291m	24.3946	ug/l	
101) 1,2,4,5-Tetramethylben...	8.904	119	60247	22.8668	ug/l	92
102) 1,2-Dibromo-3-Chloropr...	8.982	157	7634	17.4179	ug/l	75
103) Camphor	9.469	95	12687	88.9895	ug/l	89
104) Hexachlorobutadiene	9.619	225	18528	22.0051	ug/l	86
105) 1,2,4-Trichlorobenzene	9.529	180	31511	21.1201	ug/l	92
106) 1,2,3-Trichlorobenzene	9.871	180	27743	18.6843	ug/l	95
107) Naphthalene	9.709	128	65413	18.1406	ug/l	100

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

TIC: 3M139634.D\data.ms

Quant QT Reviewed

SampleID : MBS

Data File : 3M139634.D

Acq On : 11/ 3/18 17:05

Operator : SG

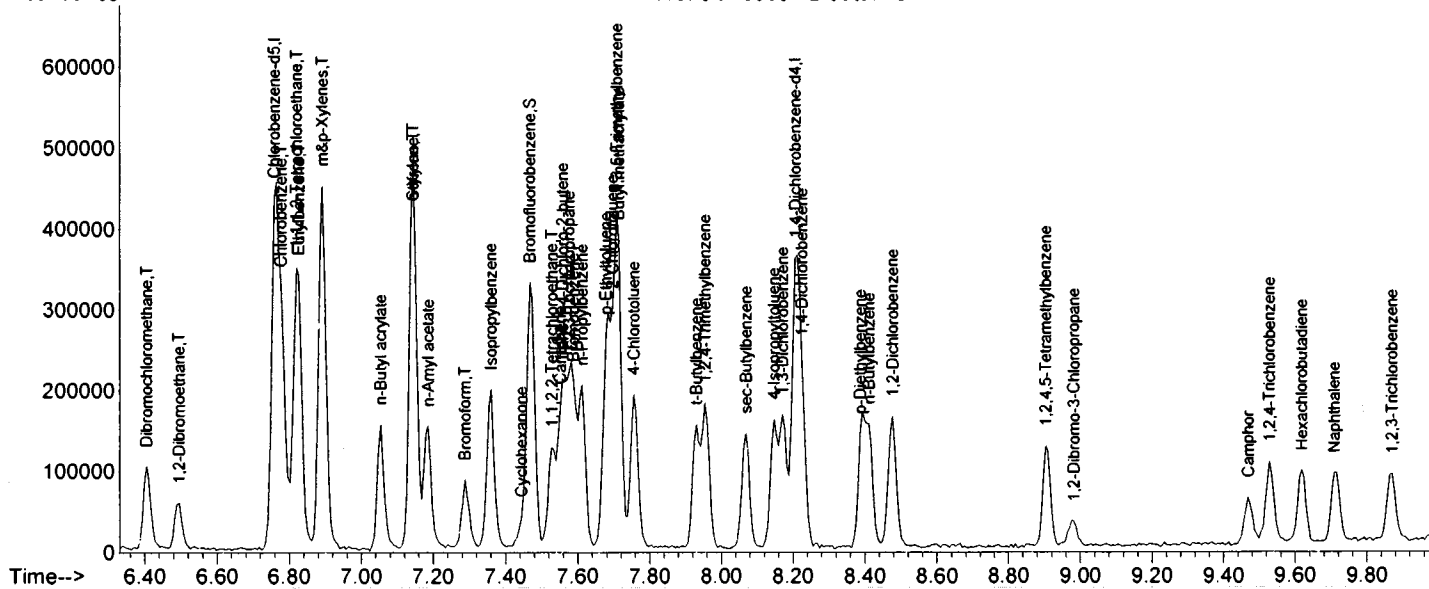
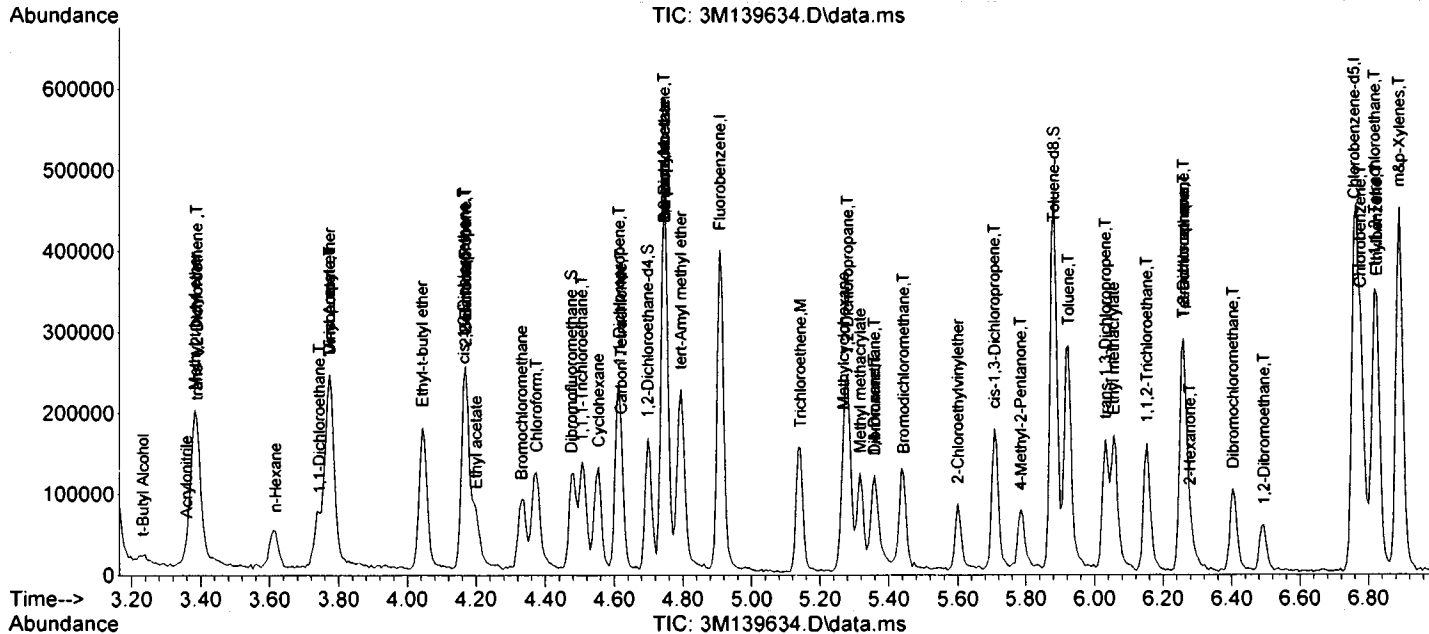
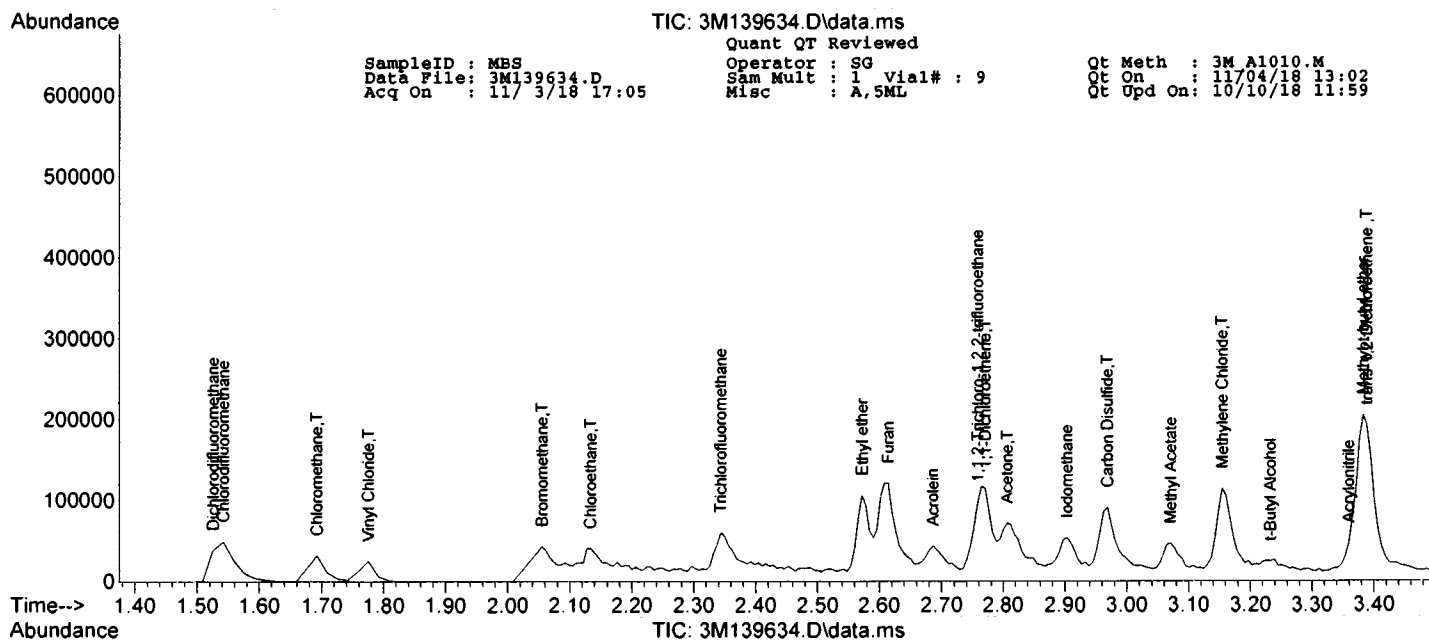
Scan Mult : 1 Vial# : 9

Misc : A, 5ML

QT Meth : 3M_A1010.M

QT On : 11/04/18 13:02

QT Upd On : 10/10/18 11:59



Form3
Recovery Data Laboratory Limits
QC Batch: MBS73583

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139742.D		MBS73583		11/4/2018 10:24:00 PM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	34.0421	0	20	170 *	50	150
Dichlorodifluoromethane	1	21.2563	0	20	106	50	150
Chloromethane	1	29.7539	0	20	149	50	150
Bromomethane	1	18.8887	0	20	94	50	150
Vinyl Chloride	1	21.4837	0	20	107	50	150
Chloroethane	1	22.0565	0	20	110	50	150
Trichlorofluoromethane	1	16.1135	0	20	81	50	150
Ethyl ether	1	13.4804	0	20	67	50	150
Furan	1	14.6389	0	20	73	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	17.4146	0	20	87	50	150
Methylene Chloride	1	17.6734	0	20	88	70	130
Acrolein	1	77.7866	0	100	78	50	150
Acrylonitrile	1	16.4075	0	20	82	50	150
Iodomethane	1	14.1904	0	20	71	50	150
Acetone	1	79.4028	0	100	79	50	150
Carbon Disulfide	1	16.4598	0	20	82	50	150
t-Butyl Alcohol	1	68.5747	0	100	69	50	150
n-Hexane	1	18.1837	0	20	91	70	130
Di-isopropyl-ether	1	19.1596	0	20	96	70	130
1,1-Dichloroethene	1	17.9037	0	20	90	70	130
Methyl Acetate	1	16.3923	0	20	82	50	150
Methyl-t-butyl ether	1	15.3836	0	20	77	70	130
1,1-Dichloroethane	1	17.6991	0	20	88	70	130
trans-1,2-Dichloroethene	1	16.4303	0	20	82	70	130
Ethyl-t-butyl ether	1	16.2655	0	20	81	70	130
cis-1,2-Dichloroethene	1	18.1467	0	20	91	70	130
Bromochloromethane	1	21.2493	0	20	106	70	130
2,2-Dichloropropane	1	16.967	0	20	85	70	130
Ethyl acetate	1	17.9584	0	20	90	50	150
1,4-Dioxane	1	766.4837	0	1000	77	50	150
1,1-Dichloropropene	1	18.5442	0	20	93	70	130
Chloroform	1	15.2424	0	20	76	70	130
Cyclohexane	1	19.1955	0	20	96	70	130
1,2-Dichloroethane	1	18.8965	0	20	94	70	130
2-Butanone	1	19.3526	0	20	97	50	150
1,1,1-Trichloroethane	1	15.8516	0	20	79	70	130
Carbon Tetrachloride	1	15.6927	0	20	78	50	150
Vinyl Acetate	1	17.0187	0	20	85	50	150
Bromodichloromethane	1	16.3898	0	20	82	70	130
Methylcyclohexane	1	15.9239	0	20	80	70	130
Dibromomethane	1	19.1705	0	20	96	70	130
1,2-Dichloropropane	1	20.2754	0	20	101	70	130
Trichloroethene	1	16.6155	0	20	83	70	130
Benzene	1	19.9266	0	20	100	70	130
tert-Amyl methyl ether	1	16.7835	0	20	84	70	130
Iso-propylacetate	1	18.4877	0	20	92	70	130
Methyl methacrylate	1	17.9484	0	20	90	70	130
Dibromochloromethane	1	15.1394	0	20	76	70	130
2-Chloroethylvinylether	1	18.7418	0	20	94	70	130
cis-1,3-Dichloropropene	1	17.217	0	20	86	70	130
trans-1,3-Dichloropropene	1	16.6865	0	20	83	70	130
Ethyl methacrylate	1	17.3752	0	20	87	70	130
1,1,2-Trichloroethane	1	19.415	0	20	97	70	130
1,2-Dibromoethane	1	14.7869	0	20	74	70	130
1,3-Dichloropropane	1	20.352	0	20	102	70	130
4-Methyl-2-Pentanone	1	18.4892	0	20	92	50	150
2-Hexanone	1	18.4663	0	20	92	50	150
Tetrachloroethene	1	20.7144	0	20	104	50	150
Toluene	1	16.817	0	20	84	70	130
1,1,1,2-Tetrachloroethane	1	18.4662	0	20	92	70	130
Chlorobenzene	1	16.066	0	20	80	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73583

n-Butyl acrylate	1	18.9906	0	20	95	70	130
n-Amyl acetate	1	21.113	0	20	106	70	130
Bromoform	1	16.3102	0	20	82	70	130
Ethylbenzene	1	19.7586	0	20	99	70	130
1,1,2,2-Tetrachloroethane	1	18.893	0	20	94	70	130
Styrene	1	19.1687	0	20	96	70	130
m&p-Xylenes	1	38.7645	0	40	97	70	130
o-Xylene	1	19.5451	0	20	98	70	130
trans-1,4-Dichloro-2-butene	1	16.7278	0	20	84	50	150
1,3-Dichlorobenzene	1	16.8653	0	20	84	70	130
1,4-Dichlorobenzene	1	16.1985	0	20	81	70	130
1,2-Dichlorobenzene	1	16.3398	0	20	82	70	130
Isopropylbenzene	1	18.4164	0	20	92	70	130
Cyclohexanone	1	63.4881	0	100	63	50	150
Camphene	1	15.9268	0	20	80	70	130
1,2,3-Trichloropropane	1	17.6545	0	20	88	70	130
2-Chlorotoluene	1	21.1798	0	20	106	70	130
p-Ethyltoluene	1	15.2089	0	20	76	70	130
4-Chlorotoluene	1	18.2598	0	20	91	70	130
n-Propylbenzene	1	18.7263	0	20	94	70	130
Bromobenzene	1	17.256	0	20	86	70	130
1,3,5-Trimethylbenzene	1	21.3932	0	20	107	70	130
Butyl methacrylate	1	21.1849	0	20	106	70	130
t-Butylbenzene	1	15.8914	0	20	79	70	130
1,2,4-Trimethylbenzene	1	17.9943	0	20	90	70	130
sec-Butylbenzene	1	17.498	0	20	87	70	130
4-Isopropyltoluene	1	17.5253	0	20	88	70	130
n-Butylbenzene	1	18.2112	0	20	91	70	130
p-Diethylbenzene	1	17.0866	0	20	85	70	130
1,2,4,5-Tetramethylbenzene	1	16.5126	0	20	83	70	130
1,2-Dibromo-3-Chloropropane	1	18.6247	0	20	93	50	150
Camphor	1	132.3414	0	200	66	20	150
Hexachlorobutadiene	1	15.7509	0	20	79	50	150
1,2,4-Trichlorobenzene	1	19.1755	0	20	96	70	130
1,2,3-Trichlorobenzene	1	16.5818	0	20	83	70	130
Naphthalene	1	16.8742	0	20	84	50	150

SampleID : MBS

Operator : WP

Qt Meth : 3M_A1010.M

Data File: 3M139742.D

Sam Mult : 1 Vial# : 40

Qt On : 11/05/18 08:38

Acq On : 11/ 4/18 22:24

Misc : A,5ML

Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\

Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\

Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.891	96	242073	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.741	117	205825	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.189	152	87054	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	61630	28.60	ug/l	-0.01
Spiked Amount 30.000			Recovery =	95.33%		
39) 1,2-Dichloroethane-d4	4.687	67	42082	27.81	ug/l	-0.01
Spiked Amount 30.000			Recovery =	92.70%		
66) Toluene-d8	5.864	98	251620	29.25	ug/l	-0.01
Spiked Amount 30.000			Recovery =	97.50%		
76) Bromofluorobenzene	7.450	174	89199	29.58	ug/l	-0.02
Spiked Amount 30.000			Recovery =	98.60%		
Target Compounds						
5) Chlorodifluoromethane	1.543	51	76376	34.0421	ug/l	75
6) Dichlorodifluoromethane	1.526	85	31195	21.2563	ug/l	97
7) Chloromethane	1.676	50	46835	29.7539	ug/l	72
8) Bromomethane	2.044	94	15266	18.8887	ug/l	91
9) Vinyl Chloride	1.759	62	33548	21.4837	ug/l	89
10) Chloroethane	2.128	64	15835	22.0565	ug/l	88
11) Trichlorofluoromethane	2.332	101	38060	16.1135	ug/l	89
12) Ethyl ether	2.567	59	27542	13.4804	ug/l	95
13) Furan	2.597	39	73884	14.6389	ug/l	92
14) 1,1,2-Trichloro-1,2,2-...	2.747	101	16652	17.4146	ug/l	92
15) Methylene Chloride	3.143	84	33321	17.6734	ug/l	91
16) Acrolein	2.669	56	29875	77.7866	ug/l	99
17) Acrylonitrile	3.336	53	14157	16.4075	ug/l	77
18) Iodomethane	2.885	142	32449	14.1904	ug/l	87
19) Acetone	2.795	43	62613	79.4028	ug/l	99
20) Carbon Disulfide	2.951	76	107169	16.4598	ug/l	100
21) t-Butyl Alcohol	3.215	59	11421	68.5747	ug/l	79
22) n-Hexane	3.594	57	16661m	18.1837	ug/l	
23) Di-isopropyl-ether	3.756	45	131836	19.1596	ug/l	83
24) 1,1-Dichloroethene	2.753	61	52474	17.9037	ug/l	97
25) Methyl Acetate	3.053	43	44441	16.3923	ug/l	100
26) Methyl-t-butyl ether	3.366	73	72138	15.3836	ug/l	71
27) 1,1-Dichloroethane	3.726	63	64882	17.6991	ug/l	94
28) trans-1,2-Dichloroethene	3.378	96	31579	16.4303	ug/l	94
29) Ethyl-t-butyl ether	4.032	59	89504	16.2655	ug/l	95
30) cis-1,2-Dichloroethene	4.152	61	67128	18.1467	ug/l	91
31) Bromochloromethane	4.315	49	47728	21.2493	ug/l	63
32) 2,2-Dichloropropane	4.152	77	39010	16.9670	ug/l	96
33) Ethyl acetate	4.182	43	46598m	17.9584	ug/l	
34) 1,4-Dioxane	5.348	88	17409	766.4837	ug/l	91
35) 1,1-Dichloropropene	4.597	75	47045	18.5442	ug/l	97
36) Chloroform	4.357	83	59702	15.2424	ug/l	85
38) Cyclohexane	4.537	56	32163	19.1955	ug/l	87
40) 1,2-Dichloroethane	4.735	62	55777	18.8965	ug/l	88
41) 2-Butanone	4.152	43	20780m	19.3526	ug/l	
42) 1,1,1-Trichloroethane	4.495	97	46634	15.8516	ug/l	100
43) Carbon Tetrachloride	4.603	117	34543	15.6927	ug/l	97
44) Vinyl Acetate	3.750	43	86496	17.0187	ug/l	100
45) Bromodichloromethane	5.420	83	50442	16.3898	ug/l	86
46) Methylcyclohexane	5.252	83	18611	15.9239	ug/l	85
47) Dibromomethane	5.342	174	27439	19.1705	ug/l	96
48) 1,2-Dichloropropane	5.270	63	44945	20.2754	ug/l	99
49) Trichloroethene	5.126	130	35017	16.6155	ug/l	90
50) Benzene	4.729	78	138110	19.9266	ug/l	100
51) tert-Amyl methyl ether	4.777	73	83156	16.7835	ug/l	83
53) Iso-propylacetate	4.735	43	83592	18.4877	ug/l	96
54) Methyl methacrylate	5.300	41	48202	17.9484	ug/l	100
55) Dibromochloromethane	6.387	129	36780	15.1394	ug/l	85
56) 2-Chloroethylvinylether	5.582	63	19832	18.7418	ug/l	69
57) cis-1,3-Dichloropropene	5.690	75	60737	17.2170	ug/l	84
58) trans-1,3-Dichloropropene	6.015	75	55452	16.6865	ug/l	94
59) Ethyl methacrylate	6.039	41	47762	17.3752	ug/l	89
60) 1,1,2-Trichloroethane	6.135	97	34390	19.4150	ug/l	88
61) 1,2-Dibromoethane	6.471	107	32321	14.7869	ug/l	85
62) 1,3-Dichloropropane	6.237	76	65366	20.3520	ug/l	97
63) 4-Methyl-2-Pentanone	5.768	43	45537	18.4892	ug/l	81
64) 2-Hexanone	6.261	43	29606	18.4663	ug/l	86
65) Tetrachloroethene	6.237	164	24398	20.7144	ug/l	89
67) Toluene	5.900	92	82596	16.8170	ug/l	94

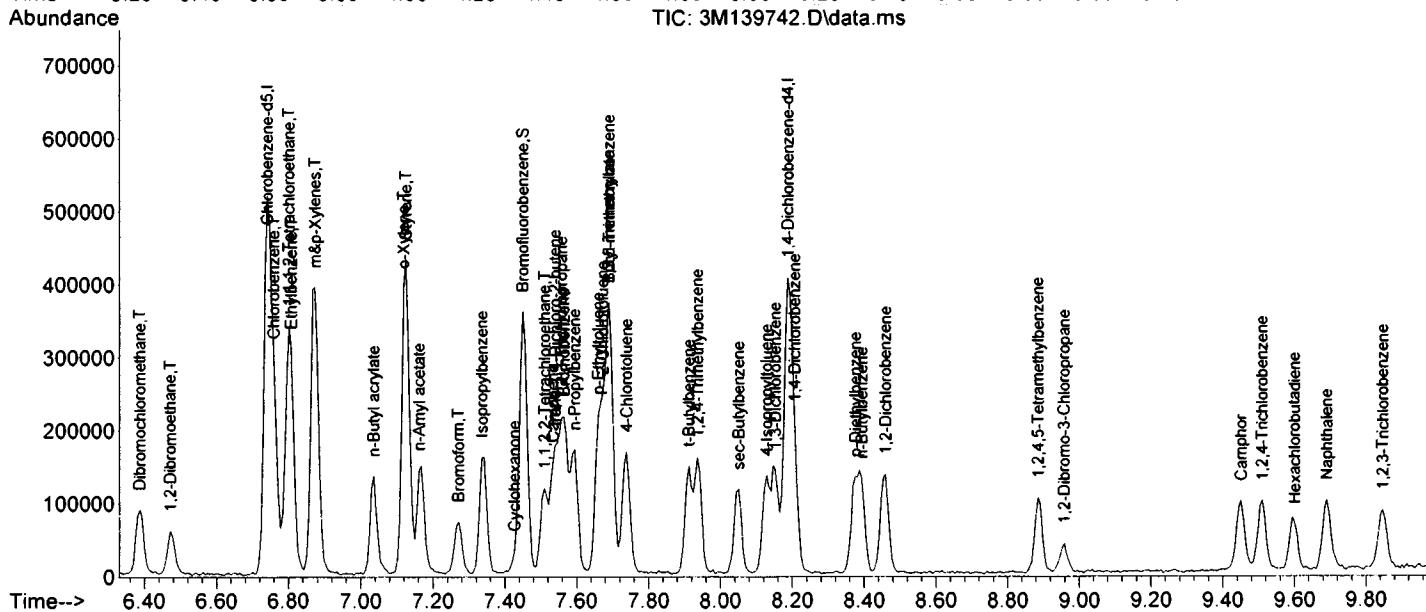
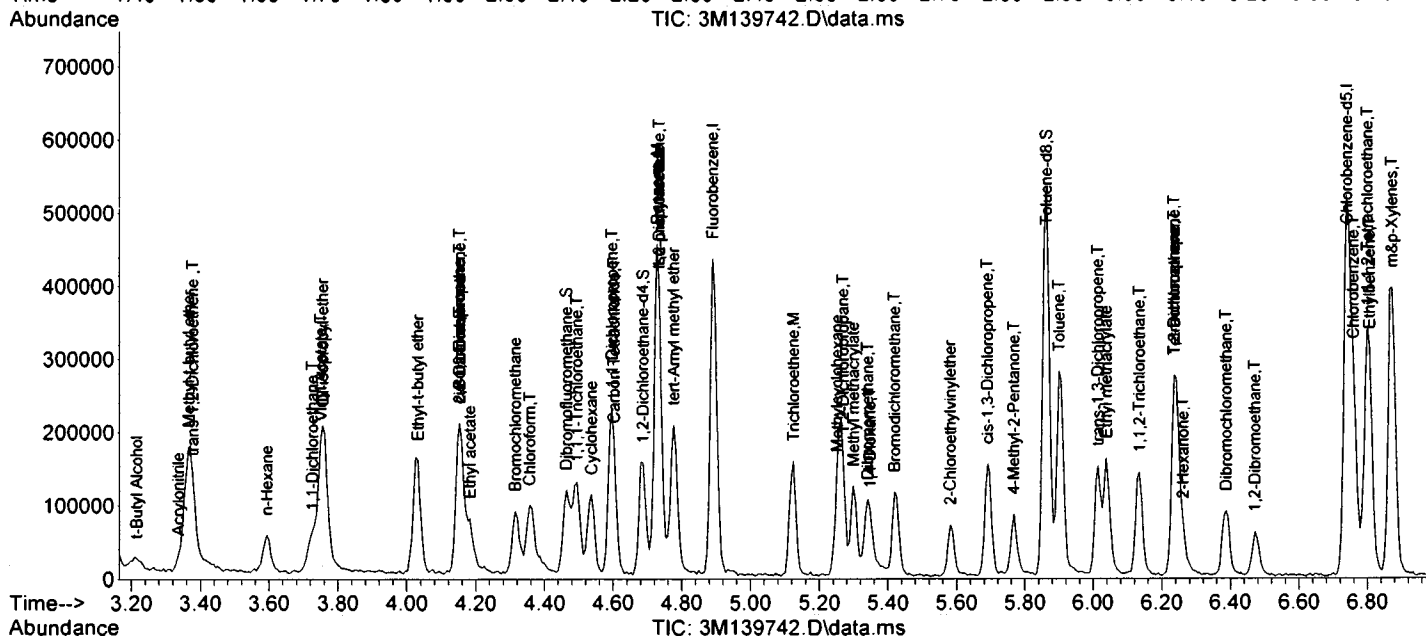
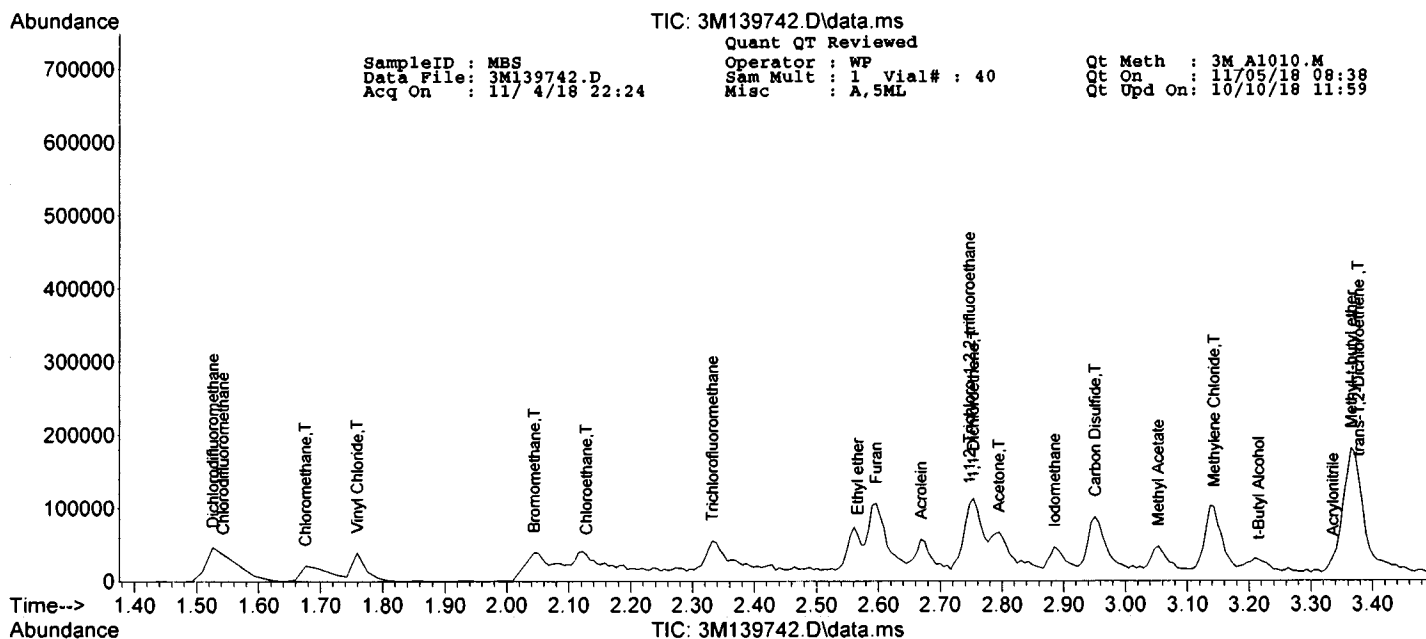
Quantitation Report (QT Reviewed)

SampleID : MBS Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139742.D Sam Mult : 1 Vial# : 40 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 22:24 Misc : A,5ML Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.802	133	30175	18.4662	ug/l	69
69)	Chlorobenzene	6.759	112	87522	16.0660	ug/l	99
71)	n-Butyl acrylate	7.036	55	66896	18.9906	ug/l	97
72)	n-Amyl acetate	7.162	43	74525	21.1130	ug/l	90
73)	Bromoform	7.270	173	27649	16.3102	ug/l	90
74)	Ethylbenzene	6.808	106	28976	19.7586	ug/l	71
75)	1,1,2,2-Tetrachloroethane	7.510	83	49365	18.8930	ug/l	93
77)	Styrene	7.126	104	86727	19.1687	ug/l	86
78)	m&p-Xylenes	6.874	106	92295	38.7645	ug/l	85
79)	o-Xylene	7.120	106	47556	19.5451	ug/l	69
80)	trans-1,4-Dichloro-2-b...	7.540	53	15564	16.7278	ug/l	60
81)	1,3-Dichlorobenzene	8.153	146	51866	16.8653	ug/l	87
82)	1,4-Dichlorobenzene	8.207	146	53497	16.1985	ug/l	93
83)	1,2-Dichlorobenzene	8.459	146	52575	16.3398	ug/l	88
84)	Isopropylbenzene	7.336	105	87625	18.4164	ug/l	94
85)	Cyclohexanone	7.426	55	6366	63.4881	ug/l	85
86)	Camphene	7.534	93	20909	15.9268	ug/l	92
87)	1,2,3-Trichloropropane	7.558	75	52786	17.6545	ug/l	91
88)	2-Chlorotoluene	7.673	91	61072	21.1798	ug/l	94
89)	p-Ethyltoluene	7.661	105	80859	15.2089	ug/l	84
90)	4-Chlorotoluene	7.739	91	57912	18.2598	ug/l	94
91)	n-Propylbenzene	7.594	91	104589	18.7263	ug/l	97
92)	Bromobenzene	7.564	77	87956	17.2560	ug/l	92
93)	1,3,5-Trimethylbenzene	7.691	105	72952	21.3932	ug/l	91
94)	Butyl methacrylate	7.691	41	61855	21.1849	ug/l	74
95)	t-Butylbenzene	7.913	119	53574	15.8914	ug/l	88
96)	1,2,4-Trimethylbenzene	7.937	105	77317	17.9943	ug/l	92
97)	sec-Butylbenzene	8.051	105	68773	17.4980	ug/l	97
98)	4-Isopropyltoluene	8.129	119	58521	17.5253	ug/l	91
99)	n-Butylbenzene	8.393	91	68537	18.2112	ug/l	96
100)	p-Diethylbenzene	8.375	119	33279m	17.0866	ug/l	
101)	1,2,4,5-Tetramethylben...	8.886	119	48877	16.5126	ug/l	92
102)	1,2-Dibromo-3-Chloropr...	8.958	157	9176	18.6247	ug/l	67
103)	Camphor	9.451	95	21154	132.3414	ug/l	93
104)	Hexachlorobutadiene	9.601	225	14916	15.7509	ug/l	98
105)	1,2,4-Trichlorobenzene	9.511	180	32142	19.1755	ug/l	88
106)	1,2,3-Trichlorobenzene	9.847	180	27661	16.5818	ug/l	93
107)	Naphthalene	9.691	128	68359	16.8742	ug/l	100

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



Form3
Recovery Data Laboratory Limits
QC Batch: MBS73584

8102901 0423

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139752.D		MBS73584		11/5/2018 1:18:00 AM			
Non Spike(If applicable):							
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MBS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	43.9436	0	20	220 *	50	150
Dichlorodifluoromethane	1	24.7197	0	20	124	50	150
Chloromethane	1	37.6666	0	20	188 *	50	150
Bromomethane	1	24.9183	0	20	125	50	150
Vinyl Chloride	1	26.0962	0	20	130	50	150
Chloroethane	1	27.4353	0	20	137	50	150
Trichlorofluoromethane	1	19.0729	0	20	95	50	150
Ethyl ether	1	17.7984	0	20	89	50	150
Furan	1	19.3497	0	20	97	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.082	0	20	100	50	150
Methylene Chloride	1	23.118	0	20	116	70	130
Acrolein	1	94.3868	0	100	94	50	150
Acrylonitrile	1	23.782	0	20	119	50	150
Iodomethane	1	18.3228	0	20	92	50	150
Acetone	1	93.9456	0	100	94	50	150
Carbon Disulfide	1	19.8687	0	20	99	50	150
t-Butyl Alcohol	1	78.2962	0	100	78	50	150
n-Hexane	1	17.8567	0	20	89	70	130
Di-isopropyl-ether	1	24.115	0	20	121	70	130
1,1-Dichloroethene	1	21.6267	0	20	108	70	130
Methyl Acetate	1	20.0445	0	20	100	50	150
Methyl-t-butyl ether	1	19.411	0	20	97	70	130
1,1-Dichloroethane	1	22.7868	0	20	114	70	130
trans-1,2-Dichloroethene	1	18.3879	0	20	92	70	130
Ethyl-t-butyl ether	1	20.2221	0	20	101	70	130
cis-1,2-Dichloroethene	1	21.9526	0	20	110	70	130
Bromochloromethane	1	21.5386	0	20	108	70	130
2,2-Dichloropropane	1	18.2197	0	20	91	70	130
Ethyl acetate	1	20.7009	0	20	104	50	150
1,4-Dioxane	1	1003.424	0	1000	100	50	150
1,1-Dichloropropene	1	21.9702	0	20	110	70	130
Chloroform	1	18.91	0	20	95	70	130
Cyclohexane	1	21.2061	0	20	106	70	130
1,2-Dichloroethane	1	23.5004	0	20	118	70	130
2-Butanone	1	29.0546	0	20	145	50	150
1,1,1-Trichloroethane	1	18.4521	0	20	92	70	130
Carbon Tetrachloride	1	19.105	0	20	96	50	150
Vinyl Acetate	1	21.6174	0	20	108	50	150
Bromodichloromethane	1	19.8074	0	20	99	70	130
Methylcyclohexane	1	17.7055	0	20	89	70	130
Dibromomethane	1	22.092	0	20	110	70	130
1,2-Dichloropropane	1	23.7825	0	20	119	70	130
Trichloroethene	1	19.5767	0	20	98	70	130
Benzene	1	24.7146	0	20	124	70	130
tert-Amyl methyl ether	1	20.1156	0	20	101	70	130
Iso-propylacetate	1	21.8312	0	20	109	70	130
Methyl methacrylate	1	22.779	0	20	114	70	130
Dibromochloromethane	1	18.3543	0	20	92	70	130
2-Chloroethylvinylether	1	23.3492	0	20	117	70	130
cis-1,3-Dichloropropene	1	20.7098	0	20	104	70	130
trans-1,3-Dichloropropene	1	19.104	0	20	96	70	130
Ethyl methacrylate	1	20.2013	0	20	101	70	130
1,1,2-Trichloroethane	1	23.5583	0	20	118	70	130
1,2-Dibromoethane	1	19.2244	0	20	96	70	130
1,3-Dichloropropane	1	24.0965	0	20	120	70	130
4-Methyl-2-Pentanone	1	21.5304	0	20	108	50	150
2-Hexanone	1	21.5016	0	20	108	50	150
Tetrachloroethene	1	23.6007	0	20	118	50	150
Toluene	1	19.9765	0	20	100	70	130
1,1,1,2-Tetrachloroethane	1	23.0062	0	20	115	70	130
Chlorobenzene	1	19.3876	0	20	97	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73584

n-Butyl acrylate	1	20.3763	0	20	102	70	130
n-Amyl acetate	1	22.8095	0	20	114	70	130
Bromoform	1	18.722	0	20	94	70	130
Ethylbenzene	1	20.4949	0	20	102	70	130
1,1,2,2-Tetrachloroethane	1	22.2064	0	20	111	70	130
Styrene	1	21.9902	0	20	110	70	130
m&p-Xylenes	1	43.8605	0	40	110	70	130
o-Xylene	1	21.5449	0	20	108	70	130
trans-1,4-Dichloro-2-butene	1	20.4657	0	20	102	50	150
1,3-Dichlorobenzene	1	18.4137	0	20	92	70	130
1,4-Dichlorobenzene	1	18.1541	0	20	91	70	130
1,2-Dichlorobenzene	1	18.4497	0	20	92	70	130
Isopropylbenzene	1	19.8662	0	20	99	70	130
Cyclohexanone	1	98.3226	0	100	98	50	150
Camphene	1	14.858	0	20	74	70	130
1,2,3-Trichloropropane	1	20.2579	0	20	101	70	130
2-Chlorotoluene	1	24.3398	0	20	122	70	130
p-Ethyltoluene	1	17.598	0	20	88	70	130
4-Chlorotoluene	1	20.0073	0	20	100	70	130
n-Propylbenzene	1	20.3284	0	20	102	70	130
Bromobenzene	1	18.4027	0	20	92	70	130
1,3,5-Trimethylbenzene	1	23.4463	0	20	117	70	130
Butyl methacrylate	1	24.5602	0	20	123	70	130
t-Butylbenzene	1	19.1208	0	20	96	70	130
1,2,4-Trimethylbenzene	1	19.9105	0	20	100	70	130
sec-Butylbenzene	1	18.2327	0	20	91	70	130
4-Isopropyltoluene	1	17.7109	0	20	89	70	130
n-Butylbenzene	1	18.0767	0	20	90	70	130
p-Diethylbenzene	1	16.1193	0	20	81	70	130
1,2,4,5-Tetramethylbenzene	1	15.6647	0	20	78	70	130
1,2-Dibromo-3-Chloropropane	1	19.8232	0	20	99	50	150
Camphor	1	86.5165	0	200	43	20	150
Hexachlorobutadiene	1	15.6365	0	20	78	50	150
1,2,4-Trichlorobenzene	1	17.0243	0	20	85	70	130
1,2,3-Trichlorobenzene	1	15.811	0	20	79	70	130
Naphthalene	1	17.0817	0	20	85	50	150

SampleID : MBS Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139752.D Sam Mult : 1 Vial# : 42 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:18 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.898	96	195699	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.742	117	165407	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	75214	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	51927	29.81	ug/l	-0.01
Spiked Amount 30.000			Recovery =	99.37%		
39) 1,2-Dichloroethane-d4	4.688	67	36444	29.79	ug/l	-0.01
Spiked Amount 30.000			Recovery =	99.30%		
66) Toluene-d8	5.865	98	208034	30.09	ug/l	-0.01
Spiked Amount 30.000			Recovery =	100.30%		
76) Bromofluorobenzene	7.457	174	74294	28.51	ug/l	-0.01
Spiked Amount 30.000			Recovery =	95.03%		
Target Compounds						
5) Chlorodifluoromethane	1.541	51	79785	43.9436	ug/l	69
6) Dichlorodifluoromethane	1.525	85	29328	24.7197	ug/l	84
7) Chloromethane	1.691	50	48051	37.6666	ug/l	84
8) Bromomethane	2.045	94	16155	24.9183	ug/l	88
9) Vinyl Chloride	1.758	62	32944	26.0962	ug/l	98
10) Chloroethane	2.123	64	15884	27.4353	ug/l	87
11) Trichlorofluoromethane	2.339	101	36420	19.0729	ug/l	97
12) Ethyl ether	2.561	59	29398	17.7984	ug/l	86
13) Furan	2.597	39	78951	19.3497	ug/l	87
14) 1,1,2-Trichloro-1,2,2-...	2.748	101	15523	20.0820	ug/l	91
15) Methylene Chloride	3.138	84	35238	23.1180	ug/l	83
16) Acrolein	2.676	56	29306	94.3868	ug/l	94
17) Acrylonitrile	3.348	53	16589	23.7820	ug/l	80
18) Iodomethane	2.892	142	33872	18.3228	ug/l	90
19) Acetone	2.796	43	59889	93.9456	ug/l	93
20) Carbon Disulfide	2.952	76	104582	19.8687	ug/l	100
21) t-Butyl Alcohol	3.210	59	10542	78.2962	ug/l	88
22) n-Hexane	3.595	57	13227m	17.8567	ug/l	
23) Di-isopropyl-ether	3.763	45	134146	24.1150	ug/l	86
24) 1,1-Dichloroethene	2.760	61	51243	21.6267	ug/l	94
25) Methyl Acetate	3.060	43	43932	20.0445	ug/l	100
26) Methyl-t-butyl ether	3.366	73	73586	19.4110	ug/l	74
27) 1,1-Dichloroethane	3.727	63	67530	22.7868	ug/l	94
28) trans-1,2-Dichloroethene	3.384	96	28571	18.3879	ug/l	79
29) Ethyl-t-butyl ether	4.033	59	89959	20.2221	ug/l	96
30) cis-1,2-Dichloroethene	4.153	61	65650	21.9526	ug/l	93
31) Bromochloromethane	4.315	49	39110	21.5386	ug/l	57
32) 2,2-Dichloropropane	4.153	77	33854	18.2197	ug/l	82
33) Ethyl acetate	4.183	43	43424m	20.7009	ug/l	
34) 1,4-Dioxane	5.343	88	18414	1003.4237	ug/l	96
35) 1,1-Dichloropropene	4.598	75	45059	21.9702	ug/l	93
36) Chloroform	4.358	83	59878	18.9100	ug/l	83
38) Cyclohexane	4.538	56	28725	21.2061	ug/l	88
40) 1,2-Dichloroethane	4.736	62	55966	23.5004	ug/l	96
41) 2-Butanone	4.171	43	25221m	29.0546	ug/l	
42) 1,1,1-Trichloroethane	4.496	97	43885	18.4521	ug/l	94
43) Carbon Tetrachloride	4.604	117	33998	19.1050	ug/l	91
44) Vinyl Acetate	3.757	43	88821	21.6174	ug/l	100
45) Bromodichloromethane	5.427	83	49282	19.8074	ug/l	98
46) Methylcyclohexane	5.259	83	16729	17.7055	ug/l	89
47) Dibromomethane	5.343	174	25542	22.0920	ug/l	88
48) 1,2-Dichloropropane	5.271	63	42620	23.7825	ug/l	97
49) Trichloroethene	5.126	130	33354	19.5767	ug/l	94
50) Benzene	4.730	78	138087	24.7146	ug/l	100
51) tert-Amyl methyl ether	4.784	73	80572	20.1156	ug/l	84
53) Iso-propylacetate	4.736	43	79326	21.8312	ug/l	99
54) Methyl methacrylate	5.301	41	49162	22.7790	ug/l	98
55) Dibromochloromethane	6.388	129	35834	18.3543	ug/l	99
56) 2-Chloroethylvinylether	5.583	63	19906	23.3492	ug/l	85
57) cis-1,3-Dichloropropene	5.691	75	58712	20.7098	ug/l	93
58) trans-1,3-Dichloropropene	6.015	75	51019	19.1040	ug/l	94
59) Ethyl methacrylate	6.039	41	44626	20.2013	ug/l	90
60) 1,1,2-Trichloroethane	6.136	97	33550	23.5583	ug/l	83
61) 1,2-Dibromoethane	6.472	107	33769	19.2244	ug/l	91
62) 1,3-Dichloropropane	6.238	76	62136	24.0965	ug/l	98
63) 4-Methyl-2-Pentanone	5.769	43	42614	21.5304	ug/l	94
64) 2-Hexanone	6.262	43	27703	21.5016	ug/l	89
65) Tetrachloroethene	6.244	164	22321	23.6007	ug/l	92
67) Toluene	5.907	92	78847	19.9765	ug/l	97

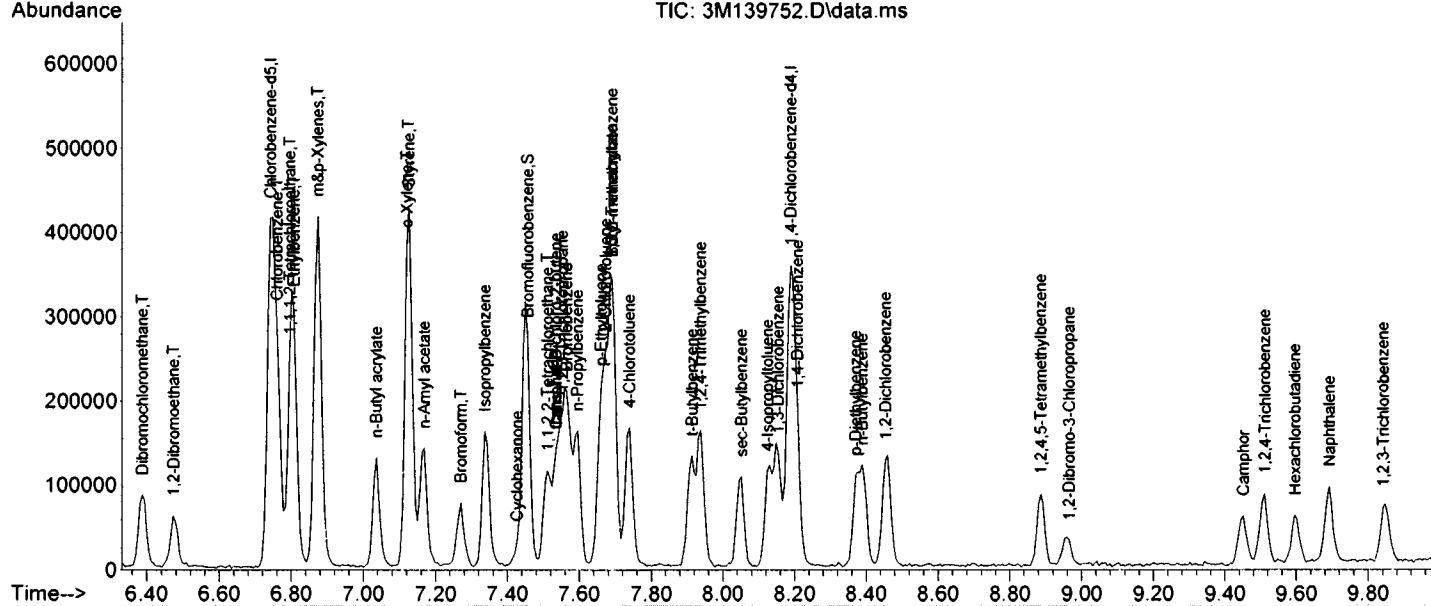
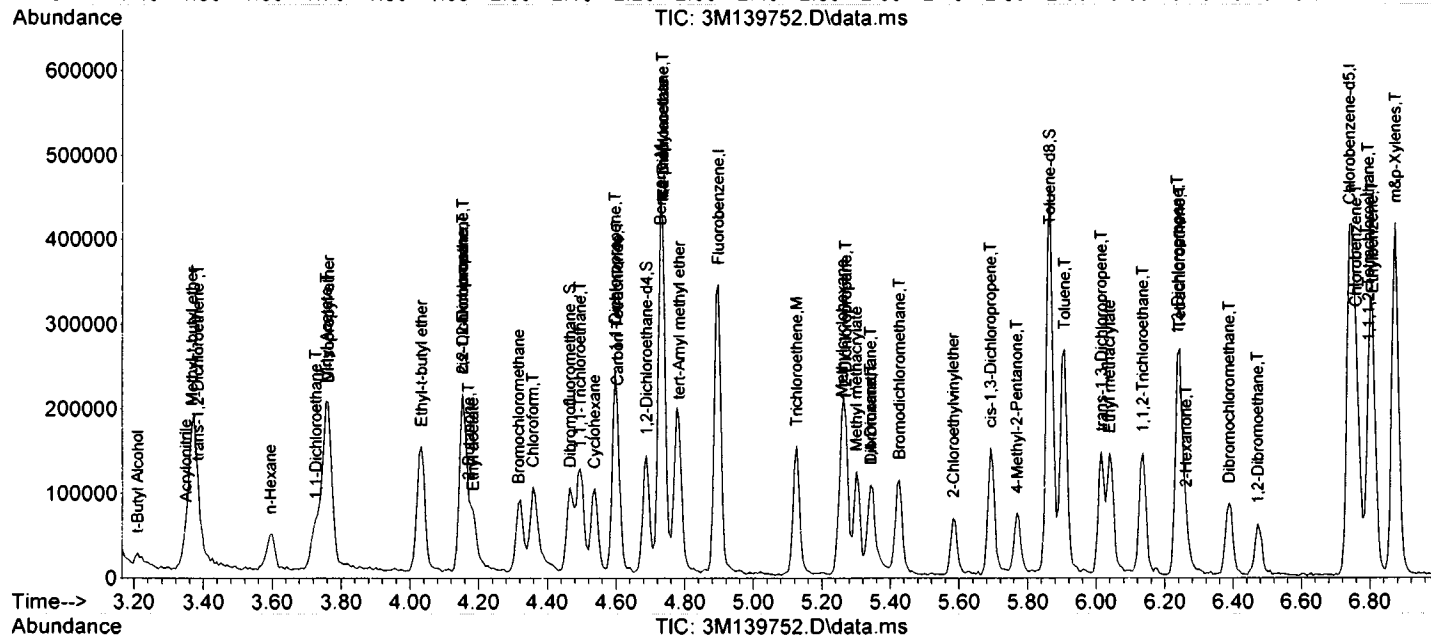
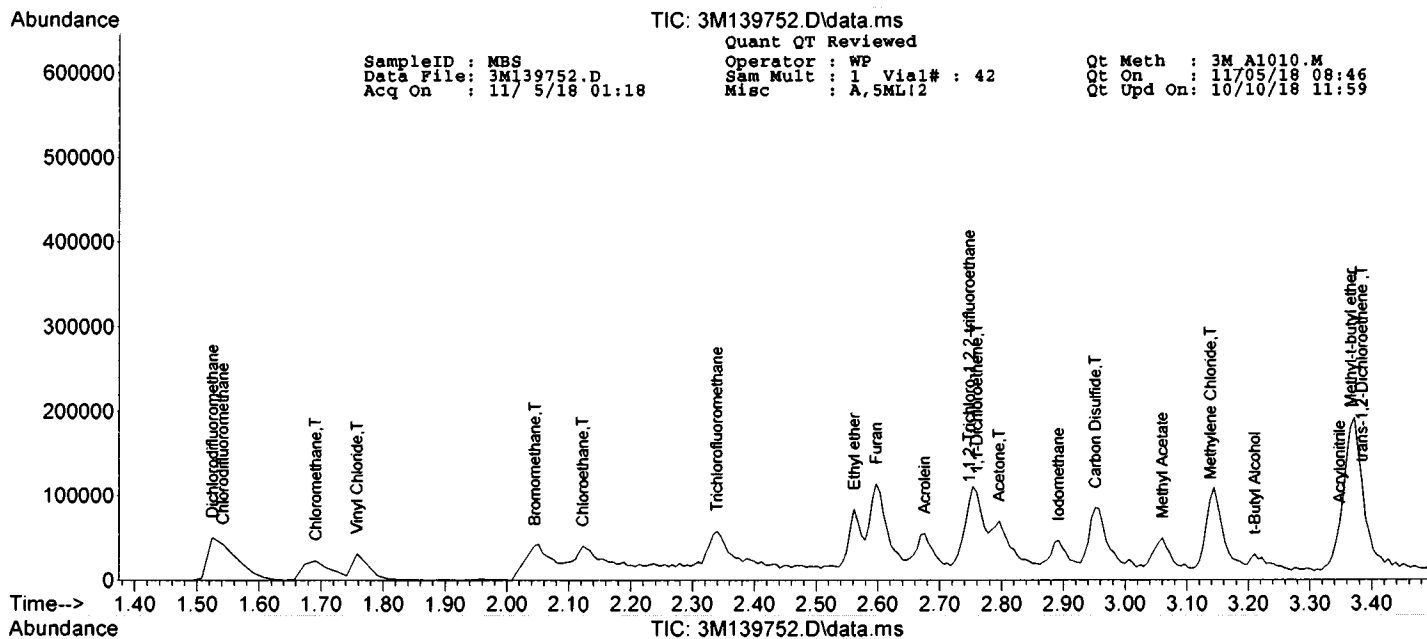
Quantitation Report (QT Reviewed)

SampleID : MBS Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139752.D Sam Mult : 1 Vial# : 42 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:18 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	1,1,1,2-Tetrachloroethane	6.796	133	30175	23.0062	ug/l	87
69)	Chlorobenzene	6.760	112	84877	19.3876	ug/l	98
71)	n-Butyl acrylate	7.037	55	62015	20.3763	ug/l	97
72)	n-Amyl acetate	7.169	43	69563	22.8095	ug/l	88
73)	Bromoform	7.271	173	27421	18.7220	ug/l	85
74)	Ethylbenzene	6.808	106	25968	20.4949	ug/l	90
75)	1,1,2,2-Tetrachloroethane	7.511	83	50131	22.2064	ug/l	87
77)	Styrene	7.127	104	85961	21.9902	ug/l	84
78)	m&p-Xylenes	6.874	106	90225	43.8605	ug/l	81
79)	o-Xylene	7.121	106	45292	21.5449	ug/l	73
80)	trans-1,4-Dichloro-2-b...	7.535	53	16452	20.4657	ug/l	66
81)	1,3-Dichlorobenzene	8.154	146	48926	18.4137	ug/l	91
82)	1,4-Dichlorobenzene	8.208	146	51801	18.1541	ug/l	92
83)	1,2-Dichlorobenzene	8.454	146	51290	18.4497	ug/l	88
84)	Isopropylbenzene	7.337	105	81667	19.8662	ug/l	92
85)	Cyclohexanone	7.427	55	8518	98.3226	ug/l	74
86)	Camphene	7.535	93	16853	14.8580	ug/l	95
87)	1,2,3-Trichloropropane	7.553	75	52332	20.2579	ug/l	93
88)	2-Chlorotoluene	7.673	91	60554	24.3398	ug/l	97
89)	p-Ethyltoluene	7.661	105	80789	17.5980	ug/l	85
90)	4-Chlorotoluene	7.739	91	54824	20.0073	ug/l	95
91)	n-Propylbenzene	7.595	91	98095	20.3284	ug/l	98
92)	Bromobenzene	7.565	77	81043	18.4027	ug/l	93
93)	1,3,5-Trimethylbenzene	7.691	105	68995	23.4463	ug/l	86
94)	Butyl methacrylate	7.691	41	61957	24.5602	ug/l	70
95)	t-Butylbenzene	7.914	119	55694	19.1208	ug/l	82
96)	1,2,4-Trimethylbenzene	7.938	105	73915	19.9105	ug/l	90
97)	sec-Butylbenzene	8.052	105	61914	18.2327	ug/l	99
98)	4-Isopropyltoluene	8.124	119	51097	17.7109	ug/l	92
99)	n-Butylbenzene	8.388	91	58778	18.0767	ug/l	96
100)	p-Diethylbenzene	8.370	119	27125m	16.1193	ug/l	
101)	1,2,4,5-Tetramethylben...	8.887	119	40061	15.6647	ug/l	93
102)	1,2-Dibromo-3-Chloropr...	8.965	157	8443	19.8232	ug/l	73
103)	Camphor	9.451	95	11974	86.5165	ug/l	89
104)	Hexachlorobutadiene	9.596	225	12794	15.6365	ug/l	95
105)	1,2,4-Trichlorobenzene	9.512	180	24655	17.0243	ug/l	95
106)	1,2,3-Trichlorobenzene	9.842	180	22788	15.8110	ug/l	92
107)	Naphthalene	9.692	128	59788	17.0817	ug/l	100

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



Form3
Recovery Data Laboratory Limits
QC Batch: MBS73571

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139674.D		AD07391-040(MS)		11/4/2018 4:30:00 AM			
Non Spike(If applicable): 3M139679.D		AD07391-040		11/4/2018 5:55:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	38.7478	0	20	194 *	50	150
Dichlorodifluoromethane	1	28.913	0	20	145	50	150
Chloromethane	1	33.0332	0	20	165 *	50	150
Bromomethane	1	21.7006	0	20	109	50	150
Vinyl Chloride	1	24.205	0	20	121	50	150
Chloroethane	1	24.3963	0	20	122	50	150
Trichlorofluoromethane	1	19.019	0	20	95	50	150
Ethyl ether	1	14.4697	0	20	72	50	150
Furan	1	17.94	0	20	90	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	24.5217	0	20	123	50	150
Methylene Chloride	1	22.0418	0	20	110	70	130
Acrolein	1	87.6778	0	100	88	50	150
Acrylonitrile	1	21.4319	0	20	107	50	150
Iodomethane	1	17.9308	0	20	90	50	150
Acetone	1	88.2563	0	100	88	50	150
Carbon Disulfide	1	19.8013	0	20	99	50	150
t-Butyl Alcohol	1	86.8499	0	100	87	50	150
n-Hexane	1	21.291	0	20	106	70	130
Di-isopropyl-ether	1	22.0832	0	20	110	70	130
1,1-Dichloroethene	1	19.0272	0	20	95	70	130
Methyl Acetate	1	17.5183	0	20	88	50	150
Methyl-t-butyl ether	1	17.2517	0	20	86	70	130
1,1-Dichloroethane	1	19.941	0	20	100	70	130
trans-1,2-Dichloroethene	1	18.3775	0	20	92	70	130
Ethyl-t-butyl ether	1	19.5293	0	20	98	70	130
cis-1,2-Dichloroethene	1	20.0149	1.5634	20	92	70	130
Bromochloromethane	1	20.7422	0	20	104	70	130
2,2-Dichloropropane	1	18.58	0	20	93	70	130
Ethyl acetate	1	21.4504	0	20	107	50	150
1,4-Dioxane	1	1008.572	0	1000	101	50	150
1,1-Dichloropropene	1	21.9061	0	20	110	70	130
Chloroform	1	17.5352	1.0654	20	82	70	130
Cyclohexane	1	24.6701	0	20	123	70	130
1,2-Dichloroethane	1	21.7891	0	20	109	70	130
2-Butanone	1	18.1742	0	20	91	50	150
1,1,1-Trichloroethane	1	17.8133	0	20	89	70	130
Carbon Tetrachloride	1	19.6333	0	20	98	50	150
Vinyl Acetate	1	20.4722	0	20	102	50	150
Bromodichloromethane	1	18.415	0	20	92	70	130
Methylcyclohexane	1	20.5885	0	20	103	70	130
Dibromomethane	1	23.6685	0	20	118	70	130
1,2-Dichloropropane	1	22.1876	0	20	111	70	130
Trichloroethene	1	18.8197	0	20	94	70	130
Benzene	1	23.3031	0	20	117	70	130
tert-Amyl methyl ether	1	19.4846	0	20	97	70	130
Iso-propylacetate	1	21.3869	0	20	107	70	130
Methyl methacrylate	1	20.7404	0	20	104	70	130
Dibromochloromethane	1	17.7745	0	20	89	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	18.5015	0	20	93	70	130
trans-1,3-Dichloropropene	1	19.5992	0	20	98	70	130
Ethyl methacrylate	1	19.5711	0	20	98	70	130
1,1,2-Trichloroethane	1	23.5884	0	20	118	70	130
1,2-Dibromoethane	1	17.3263	0	20	87	70	130
1,3-Dichloropropane	1	24.1851	0	20	121	70	130
4-Methyl-2-Pentanone	1	20.6641	0	20	103	50	150
2-Hexanone	1	22.1217	0	20	111	50	150
Tetrachloroethene	1	25.5707	0	20	128	50	150
Toluene	1	19.904	0	20	100	70	130
1,1,1,2-Tetrachloroethane	1	22.9051	0	20	115	70	130
Chlorobenzene	1	18.9026	0	20	95	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

QC Batch: MBS73571

n-Butyl acrylate	1	21.3931	0	20	107	70	130
n-Amyl acetate	1	22.5453	0	20	113	70	130
Bromoform	1	19.0555	0	20	95	70	130
Ethylbenzene	1	21.3607	0	20	107	70	130
1,1,2,2-Tetrachloroethane	1	20.1356	0	20	101	70	130
Styrene	1	22.0605	0	20	110	70	130
m&p-Xylenes	1	43.5522	0	40	109	70	130
o-Xylene	1	21.1053	0	20	106	70	130
trans-1,4-Dichloro-2-butene	1	14.636	0	20	73	50	150
1,3-Dichlorobenzene	1	19.1421	0	20	96	70	130
1,4-Dichlorobenzene	1	19.1984	0	20	96	70	130
1,2-Dichlorobenzene	1	19.0466	0	20	95	70	130
Isopropylbenzene	1	20.9474	0	20	105	70	130
Cyclohexanone	1	72.5974	0	100	73	50	150
Camphene	1	5.0556	0	20	25 *	70	130
1,2,3-Trichloropropane	1	19.7144	0	20	99	70	130
2-Chlorotoluene	1	21.1049	0	20	106	70	130
p-Ethyltoluene	1	18.5395	0	20	93	70	130
4-Chlorotoluene	1	19.9738	0	20	100	70	130
n-Propylbenzene	1	21.894	0	20	109	70	130
Bromobenzene	1	17.3889	0	20	87	70	130
1,3,5-Trimethylbenzene	1	22.7659	0	20	114	70	130
Butyl methacrylate	1	23.2485	0	20	116	70	130
t-Butylbenzene	1	20.2365	0	20	101	70	130
1,2,4-Trimethylbenzene	1	19.6485	0	20	98	70	130
sec-Butylbenzene	1	20.7468	0	20	104	70	130
4-Isopropyltoluene	1	20.5071	0	20	103	70	130
n-Butylbenzene	1	20.5264	0	20	103	70	130
p-Diethylbenzene	1	19.0551	0	20	95	70	130
1,2,4,5-Tetramethylbenzene	1	18.6299	0	20	93	70	130
1,2-Dibromo-3-Chloropropane	1	20.781	0	20	104	50	150
Camphor	1	133.7226	0	200	67	20	150
Hexachlorobutadiene	1	19.811	0	20	99	50	150
1,2,4-Trichlorobenzene	1	20.346	0	20	102	70	130
1,2,3-Trichlorobenzene	1	20.0088	0	20	100	70	130
Naphthalene	1	18.7914	0	20	94	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73571

8102901 0430

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139675.D		AD07391-040(MSD)		11/4/2018 4:45:00 AM			
Non Spike(If applicable): 3M139679.D		AD07391-040		11/4/2018 5:55:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	34.4368	0	20	172 *	50	150
Dichlorodifluoromethane	1	26.8352	0	20	134	50	150
Chloromethane	1	30.7996	0	20	154 *	50	150
Bromomethane	1	21.5845	0	20	108	50	150
Vinyl Chloride	1	21.6157	0	20	108	50	150
Chloroethane	1	20.9236	0	20	105	50	150
Trichlorofluoromethane	1	15.28	0	20	76	50	150
Ethyl ether	1	13.5683	0	20	68	50	150
Furan	1	16.1878	0	20	81	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.7968	0	20	104	50	150
Methylene Chloride	1	21.2665	0	20	106	70	130
Acrolein	1	91.06	0	100	91	50	150
Acrylonitrile	1	18.8037	0	20	94	50	150
Iodomethane	1	17.6211	0	20	88	50	150
Acetone	1	93.0395	0	100	93	50	150
Carbon Disulfide	1	17.4519	0	20	87	50	150
t-Butyl Alcohol	1	89.1625	0	100	89	50	150
n-Hexane	1	18.5705	0	20	93	70	130
Di-isopropyl-ether	1	22.7309	0	20	114	70	130
1,1-Dichloroethene	1	20.2444	0	20	101	70	130
Methyl Acetate	1	17.3213	0	20	87	50	150
Methyl-t-butyl ether	1	18.5139	0	20	93	70	130
1,1-Dichloroethane	1	19.2989	0	20	96	70	130
trans-1,2-Dichloroethene	1	18.5545	0	20	93	70	130
Ethyl-t-butyl ether	1	19.4692	0	20	97	70	130
cis-1,2-Dichloroethene	1	19.2296	1.5634	20	88	70	130
Bromochloromethane	1	18.9338	0	20	95	70	130
2,2-Dichloropropane	1	17.8386	0	20	89	70	130
Ethyl acetate	1	20.8965	0	20	104	50	150
1,4-Dioxane	1	991.7535	0	1000	99	50	150
1,1-Dichloropropene	1	20.5821	0	20	103	70	130
Chloroform	1	17.4965	1.0654	20	82	70	130
Cyclohexane	1	21.4574	0	20	107	70	130
1,2-Dichloroethane	1	20.4509	0	20	102	70	130
2-Butanone	1	18.2253	0	20	91	50	150
1,1,1-Trichloroethane	1	17.4662	0	20	87	70	130
Carbon Tetrachloride	1	18.2875	0	20	91	50	150
Vinyl Acetate	1	19.6211	0	20	98	50	150
Bromodichloromethane	1	19.9517	0	20	100	70	130
Methylcyclohexane	1	19.7782	0	20	99	70	130
Dibromomethane	1	22.5621	0	20	113	70	130
1,2-Dichloropropane	1	23.0096	0	20	115	70	130
Trichloroethene	1	19.159	0	20	96	70	130
Benzene	1	24.053	0	20	120	70	130
tert-Amyl methyl ether	1	20.3512	0	20	102	70	130
Iso-propylacetate	1	20.751	0	20	104	70	130
Methyl methacrylate	1	19.9718	0	20	100	70	130
Dibromochloromethane	1	17.2559	0	20	86	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	18.835	0	20	94	70	130
trans-1,3-Dichloropropene	1	18.4972	0	20	92	70	130
Ethyl methacrylate	1	19.8607	0	20	99	70	130
1,1,2-Trichloroethane	1	23.4182	0	20	117	70	130
1,2-Dibromoethane	1	17.58	0	20	88	70	130
1,3-Dichloropropane	1	22.466	0	20	112	70	130
4-Methyl-2-Pentanone	1	21.1645	0	20	106	50	150
2-Hexanone	1	20.1755	0	20	101	50	150
Tetrachloroethene	1	24.7712	0	20	124	50	150
Toluene	1	19.6186	0	20	98	70	130
1,1,1,2-Tetrachloroethane	1	22.5039	0	20	113	70	130
Chlorobenzene	1	19.1114	0	20	96	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

QC Batch: MBS73571

n-Butyl acrylate	1	21.0939	0	20	105	70	130
n-Amyl acetate	1	21.9178	0	20	110	70	130
Bromoform	1	18.2248	0	20	91	70	130
Ethylbenzene	1	22.0735	0	20	110	70	130
1,1,2,2-Tetrachloroethane	1	20.2797	0	20	101	70	130
Styrene	1	20.9824	0	20	105	70	130
m&p-Xylenes	1	40.9778	0	40	102	70	130
o-Xylene	1	20.1524	0	20	101	70	130
trans-1,4-Dichloro-2-butene	1	15.6384	0	20	78	50	150
1,3-Dichlorobenzene	1	18.4436	0	20	92	70	130
1,4-Dichlorobenzene	1	19.1052	0	20	96	70	130
1,2-Dichlorobenzene	1	18.1791	0	20	91	70	130
Isopropylbenzene	1	20.6602	0	20	103	70	130
Cyclohexanone	1	71.1766	0	100	71	50	150
Camphene	1	3.2964	0	20	16 *	70	130
1,2,3-Trichloropropane	1	19.3036	0	20	97	70	130
2-Chlorotoluene	1	21.7554	0	20	109	70	130
p-Ethyltoluene	1	18.1853	0	20	91	70	130
4-Chlorotoluene	1	20.3001	0	20	102	70	130
n-Propylbenzene	1	20.2588	0	20	101	70	130
Bromobenzene	1	17.8277	0	20	89	70	130
1,3,5-Trimethylbenzene	1	21.5475	0	20	108	70	130
Butyl methacrylate	1	24.4275	0	20	122	70	130
t-Butylbenzene	1	19.5828	0	20	98	70	130
1,2,4-Trimethylbenzene	1	18.6477	0	20	93	70	130
sec-Butylbenzene	1	20.8878	0	20	104	70	130
4-Isopropyltoluene	1	20.3462	0	20	102	70	130
n-Butylbenzene	1	21.1035	0	20	106	70	130
p-Diethylbenzene	1	19.3373	0	20	97	70	130
1,2,4,5-Tetramethylbenzene	1	19.4826	0	20	97	70	130
1,2-Dibromo-3-Chloropropane	1	17.1584	0	20	86	50	150
Camphor	1	148.156	0	200	74	20	150
Hexachlorobutadiene	1	21.0079	0	20	105	50	150
1,2,4-Trichlorobenzene	1	19.5935	0	20	98	70	130
1,2,3-Trichlorobenzene	1	18.4744	0	20	92	70	130
Naphthalene	1	19.4528	0	20	97	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3 RPD Data Laboratory Limits

8102901 0432

QC Batch: MBS73571

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139675.D	AD07391-040(MSD)	11/4/2018 4:45:00 AM
Duplicate(If applicable): 3M139674.D	AD07391-040(MS)	11/4/2018 4:30:00 AM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MB Conc	RPD	Limit
Chlorodifluoromethane	1	34.4368	38.7478	12	30
Dichlorodifluoromethane	1	26.8352	28.913	7.5	30
Chloromethane	1	30.7996	33.0332	7	30
Bromomethane	1	21.5845	21.7006	0.54	30
Vinyl Chloride	1	21.6157	24.205	11	40
Chloroethane	1	20.9236	24.3963	15	30
Trichlorofluoromethane	1	15.28	19.019	22	30
Ethyl ether	1	13.5683	14.4697	6.4	30
Furan	1	16.1878	17.94	10	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.7968	24.5217	16	30
Methylene Chloride	1	21.2665	22.0418	3.6	30
Acrolein	1	91.06	87.6778	3.8	30
Acrylonitrile	1	18.8037	21.4319	13	30
Iodomethane	1	17.6211	17.9308	1.7	30
Acetone	1	93.0395	88.2563	5.3	30
Carbon Disulfide	1	17.4519	19.8013	13	30
t-Butyl Alcohol	1	89.1625	86.8499	2.6	30
n-Hexane	1	18.5705	21.291	14	30
Di-isopropyl-ether	1	22.7309	22.0832	2.9	30
1,1-Dichloroethene	1	20.2444	19.0272	6.2	40
Methyl Acetate	1	17.3213	17.5183	1.1	30
Methyl-t-butyl ether	1	18.5139	17.2517	7.1	30
1,1-Dichloroethane	1	19.2989	19.941	3.3	40
trans-1,2-Dichloroethene	1	18.5545	18.3775	0.96	30
Ethyl-t-butyl ether	1	19.4692	19.5293	0.31	30
cis-1,2-Dichloroethene	1	19.2296	20.0149	4	30
Bromochloromethane	1	18.9338	20.7422	9.1	30
2,2-Dichloropropane	1	17.8386	18.58	4.1	30
Ethyl acetate	1	20.8965	21.4504	2.6	30
1,4-Dioxane	1	991.7535	1008.572	1.7	30
1,1-Dichloropropene	1	20.5821	21.9061	6.2	30
Chloroform	1	17.4965	17.5352	0.22	40
Cyclohexane	1	21.4574	24.6701	14	30
1,2-Dichloroethane	1	20.4509	21.7891	6.3	40
2-Butanone	1	18.2253	18.1742	0.28	40
1,1,1-Trichloroethane	1	17.4662	17.8133	2	30
Carbon Tetrachloride	1	18.2875	19.6333	7.1	40
Vinyl Acetate	1	19.6211	20.4722	4.2	30
Bromodichloromethane	1	19.9517	18.415	8	30
Methylcyclohexane	1	19.7782	20.5885	4	30
Dibromomethane	1	22.5621	23.6685	4.8	30
1,2-Dichloropropane	1	23.0096	22.1876	3.6	30
Trichloroethene	1	19.159	18.8197	1.8	40
Benzene	1	24.053	23.3031	3.2	40
tert-Amyl methyl ether	1	20.3512	19.4846	4.4	30
Iso-propylacetate	1	20.751	21.3869	3	30
Methyl methacrylate	1	19.9718	20.7404	3.8	30
Dibromochloromethane	1	17.2559	17.7745	3	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	18.835	18.5015	1.8	30
trans-1,3-Dichloropropene	1	18.4972	19.5992	5.8	30
Ethyl methacrylate	1	19.8607	19.5711	1.5	30
1,1,2-Trichloroethane	1	23.4182	23.5884	0.72	30
1,2-Dibromoethane	1	17.58	17.3263	1.5	30
1,3-Dichloropropane	1	22.466	24.1851	7.4	30
4-Methyl-2-Pentanone	1	21.1645	20.6641	2.4	30
2-Hexanone	1	20.1755	22.1217	9.2	30
Tetrachloroethene	1	24.7712	25.5707	3.2	40
Toluene	1	19.6186	19.904	1.4	40
1,1,1,2-Tetrachloroethane	1	22.5039	22.9051	1.8	30
Chlorobenzene	1	19.1114	18.9026	1.1	40
n-Butyl acrylate	1	21.0939	21.3931	1.4	30
n-Amyl acetate	1	21.9178	22.5453	2.8	30

Form3

RPD Data Laboratory Limits

QC Batch: MBS73571

Bromoform	1	18.2248	19.0555	4.5	30
Ethylbenzene	1	22.0735	21.3607	3.3	30
1,1,2,2-Tetrachloroethane	1	20.2797	20.1356	0.71	30
Styrene	1	20.9824	22.0605	5	30
m&p-Xylenes	1	40.9778	43.5522	6.1	30
o-Xylene	1	20.1524	21.1053	4.6	30
trans-1,4-Dichloro-2-butene	1	15.6384	14.636	6.6	30
1,3-Dichlorobenzene	1	18.4436	19.1421	3.7	30
1,4-Dichlorobenzene	1	19.1052	19.1984	0.49	40
1,2-Dichlorobenzene	1	18.1791	19.0466	4.7	40
Isopropylbenzene	1	20.6602	20.9474	1.4	30
Cyclohexanone	1	71.1766	72.5974	2	30
Camphene	1	3.2964	5.0556	42 *	30
1,2,3-Trichloropropane	1	19.3036	19.7144	2.1	30
2-Chlorotoluene	1	21.7554	21.1049	3	30
p-Ethyltoluene	1	18.1853	18.5395	1.9	30
4-Chlorotoluene	1	20.3001	19.9738	1.6	30
n-Propylbenzene	1	20.2588	21.894	7.8	40
Bromobenzene	1	17.8277	17.3889	2.5	30
1,3,5-Trimethylbenzene	1	21.5475	22.7659	5.5	30
Butyl methacrylate	1	24.4275	23.2485	4.9	30
t-Butylbenzene	1	19.5828	20.2365	3.3	30
1,2,4-Trimethylbenzene	1	18.6477	19.6485	5.2	30
sec-Butylbenzene	1	20.8878	20.7468	0.68	40
4-Isopropyltoluene	1	20.3462	20.5071	0.79	30
n-Butylbenzene	1	21.1035	20.5264	2.8	30
p-Diethylbenzene	1	19.3373	19.0551	1.5	30
1,2,4,5-Tetramethylbenzene	1	19.4826	18.6299	4.5	30
1,2-Dibromo-3-Chloropropane	1	17.1584	20.781	19	30
Camphor	1	148.156	133.7226	10	30
Hexachlorobutadiene	1	21.0079	19.811	5.9	30
1,2,4-Trichlorobenzene	1	19.5935	20.346	3.8	30
1,2,3-Trichlorobenzene	1	18.4744	20.0088	8	30
Naphthalene	1	19.4528	18.7914	3.5	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD07391-040(MS)
 Data File: 3M139674.D
 Acq On : 11/ 4/18 04:30

Operator : SG
 Sam Mult : 1 Vial# : 48
 Misc : A,5ML!1

Qt Meth : 3M Al010.M
 Qt On : 11/04/18 13:06
 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	221845	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.749	117	183734	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	83904	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	56490	28.61	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	95.37%	
39) 1,2-Dichloroethane-d4	4.688	67	40248	29.02	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.73%	
66) Toluene-d8	5.865	98	229263	29.85	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.50%	
76) Bromofluorobenzene	7.457	174	85262	29.33	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.77%	
Target Compounds						
					Qvalue	
5) Chlorodifluoromethane	1.545	51	79708	38.7478	ug/l	85
6) Dichlorodifluoromethane	1.529	85	38886	28.9130	ug/l	92
7) Chloromethane	1.679	50	47701	33.0332	ug/l	85
8) Bromomethane	2.051	94	16015	21.7006	ug/l	88
9) Vinyl Chloride	1.762	62	34639	24.2050	ug/l	98
10) Chloroethane	2.123	64	16034	24.3963	ug/l	92
11) Trichlorofluoromethane	2.339	101	41169	19.0190	ug/l	86
12) Ethyl ether	2.562	59	27093	14.4697	ug/l	80
13) Furan	2.598	39	82979	17.9400	ug/l	86
14) 1,1,2-Trichloro-1,2,2-...	2.754	101	21485	24.5217	ug/l	92
15) Methylene Chloride	3.144	84	38086	22.0418	ug/l	98
16) Acrolein	2.676	56	30860	87.6778	ug/l	87
17) Acrylonitrile	3.343	53	16947	21.4319	ug/l	76
18) Iodomethane	2.886	142	37576	17.9308	ug/l	91
19) Acetone	2.796	43	63779	88.2563	ug/l	78
20) Carbon Disulfide	2.952	76	118152	19.8013	ug/l	100
21) t-Butyl Alcohol	3.216	59	13256	86.8499	ug/l	76
22) n-Hexane	3.595	57	17878m	21.2910	ug/l	
23) Di-isopropyl-ether	3.757	45	139256	22.0832	ug/l	86
24) 1,1-Dichloroethene	2.760	61	51107	19.0272	ug/l	96
25) Methyl Acetate	3.054	43	43525	17.5183	ug/l	100
26) Methyl-t-butyl ether	3.367	73	74138	17.2517	ug/l	72
27) 1,1-Dichloroethane	3.733	63	66992	19.9410	ug/l	98
28) trans-1,2-Dichloroethene	3.379	96	32370	18.3775	ug/l	88
29) Ethyl-t-butyl ether	4.033	59	98484	19.5293	ug/l	98
30) cis-1,2-Dichloroethene	4.160	61	67852	20.0149	ug/l	90
31) Bromochloromethane	4.316	49	42696	20.7422	ug/l	65
32) 2,2-Dichloropropane	4.160	77	39132	18.5800	ug/l	88
33) Ethyl acetate	4.184	43	51008m	21.4504	ug/l	
34) 1,4-Dioxane	5.349	88	20981	1008.5718	ug/l	70
35) 1,1-Dichloropropene	4.598	75	50930	21.9061	ug/l	94
36) Chloroform	4.364	83	62943	17.5352	ug/l	91
38) Cyclohexane	4.538	56	37882	24.6701	ug/l	83
40) 1,2-Dichloroethane	4.736	62	58867	21.7891	ug/l	93
41) 2-Butanone	4.160	43	17884m	18.1742	ug/l	
42) 1,1,1-Trichloroethane	4.496	97	48026	17.8133	ug/l	89
43) Carbon Tetrachloride	4.610	117	39606	19.6333	ug/l	94
44) Vinyl Acetate	3.757	43	95354	20.4722	ug/l	100
45) Bromodichloromethane	5.427	83	51939	18.4150	ug/l	98
46) Methylcyclohexane	5.259	83	22052	20.5885	ug/l	91
47) Dibromomethane	5.349	174	31007	23.6685	ug/l	88
48) 1,2-Dichloropropane	5.271	63	45074	22.1876	ug/l	93
49) Trichloroethene	5.133	130	36348	18.8197	ug/l	85
50) Benzene	4.736	78	147720	23.3031	ug/l	100
51) tert-Amyl methyl ether	4.784	73	88472	19.4846	ug/l	84
53) Iso-propylacetate	4.736	43	86322	21.3869	ug/l	99
54) Methyl methacrylate	5.307	41	49722	20.7404	ug/l	96
55) Dibromochloromethane	6.394	129	38547	17.7745	ug/l	92
57) cis-1,3-Dichloropropene	5.697	75	58263	18.5015	ug/l	87
58) trans-1,3-Dichloropropene	6.022	75	58141	19.5992	ug/l	96
59) Ethyl methacrylate	6.046	41	48024	19.5711	ug/l	88
60) 1,1,2-Trichloroethane	6.142	97	37315	23.5884	ug/l	87
61) 1,2-Dibromoethane	6.478	107	33807	17.3263	ug/l	82
62) 1,3-Dichloropropane	6.244	76	69273	24.1851	ug/l	99
63) 4-Methyl-2-Pentanone	5.775	43	45431	20.6641	ug/l	91
64) 2-Hexanone	6.268	43	31660	22.1217	ug/l	93
65) Tetrachloroethene	6.244	164	26849	25.5707	ug/l	74
67) Toluene	5.908	92	87265	19.9040	ug/l	94
68) 1,1,1,2-Tetrachloroethane	6.803	133	33372	22.9051	ug/l	93

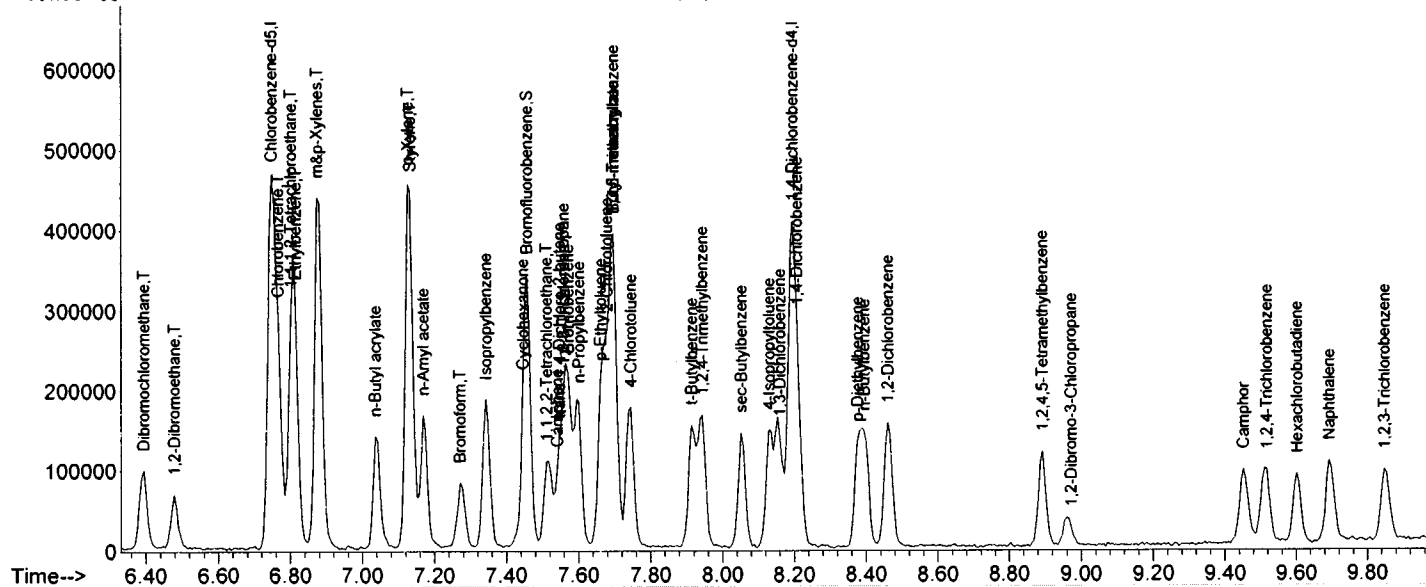
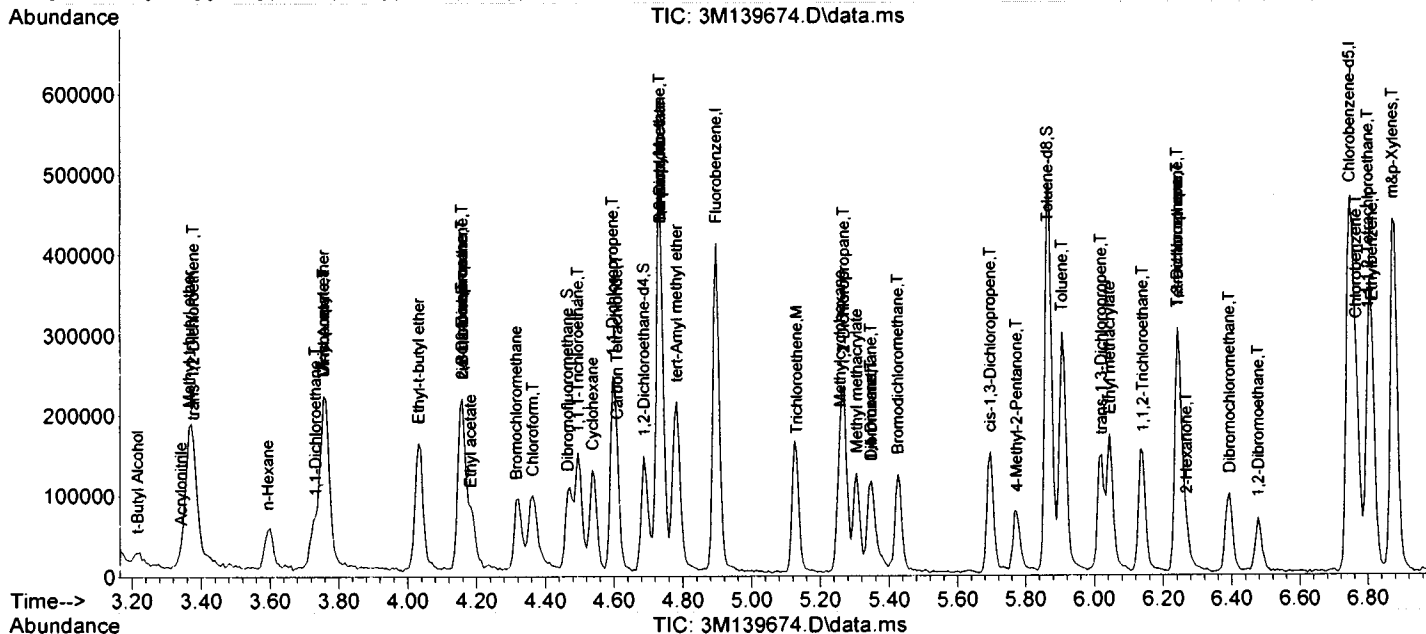
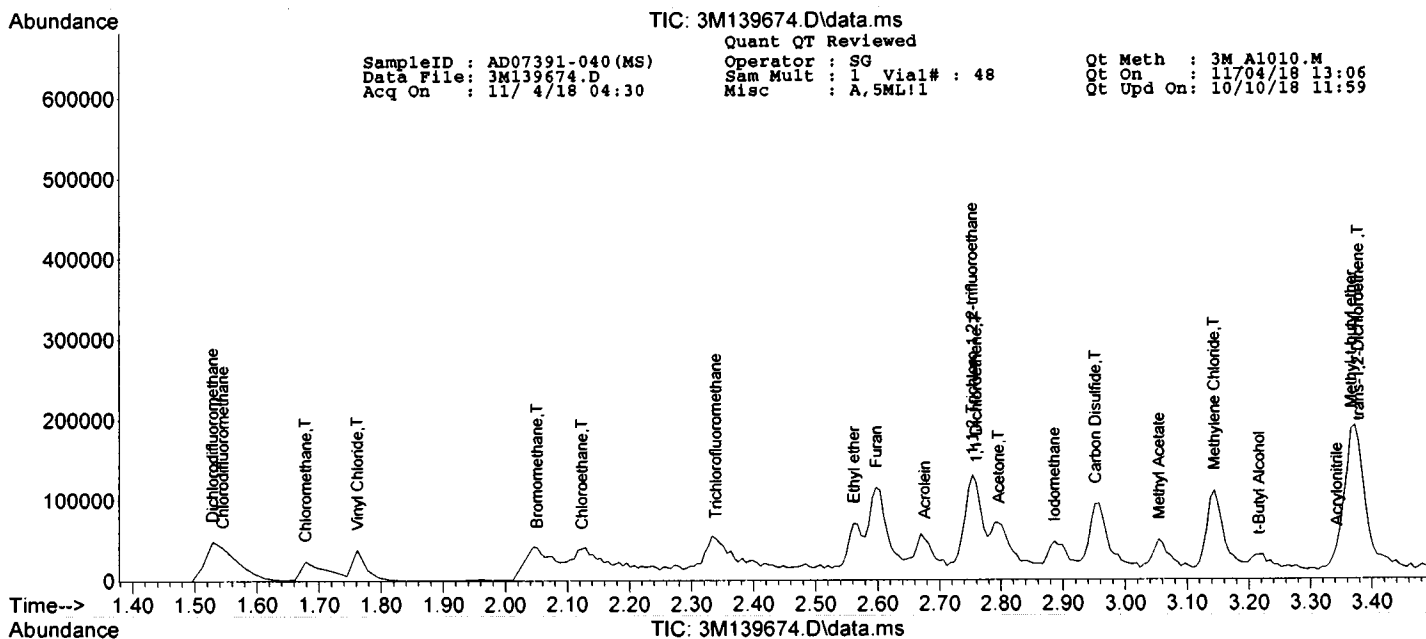
Quantitation Report (QT Reviewed)

SampleID : AD07391-040(MS) Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139674.D Sam Mult : 1 Vial# : 48 Qt On : 11/04/18 13:06
 Acq On : 11/ 4/18 04:30 Misc : A,5ML:1 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.767	112	91923	18.9026	ug/l	91
71) n-Butyl acrylate	7.037	55	72632	21.3931	ug/l	99
72) n-Amyl acetate	7.169	43	76701	22.5453	ug/l	88
73) Bromoform	7.271	173	31134	19.0555	ug/l	100
74) Ethylbenzene	6.815	106	30192	21.3607	ug/l	78
75) 1,1,2,2-Tetrachloroethane	7.511	83	50708	20.1356	ug/l	92
77) Styrene	7.133	104	96199	22.0605	ug/l	82
78) m&p-Xylenes	6.875	106	99942	43.5522	ug/l	81
79) o-Xylene	7.127	106	49494	21.1053	ug/l	69
80) trans-1,4-Dichloro-2-b...	7.547	53	13125	14.6360	ug/l	53
81) 1,3-Dichlorobenzene	8.160	146	56738	19.1421	ug/l	88
82) 1,4-Dichlorobenzene	8.208	146	61110	19.1984	ug/l	91
83) 1,2-Dichlorobenzene	8.461	146	59067	19.0466	ug/l	87
84) Isopropylbenzene	7.343	105	96061	20.9474	ug/l	93
85) Cyclohexanone	7.445	55	7016	72.5974	ug/l	89
86) Camphene	7.541	93	6397	5.0556	ug/l	97
87) 1,2,3-Trichloropropane	7.559	75	56812	19.7144	ug/l	92
88) 2-Chlorotoluene	7.680	91	58656	21.1049	ug/l	91
89) p-Ethyltoluene	7.662	105	94923	18.5395	ug/l	87
90) 4-Chlorotoluene	7.746	91	61056	19.9738	ug/l	90
91) n-Propylbenzene	7.602	91	117856	21.8940	ug/l	100
92) Bromobenzene	7.571	77	85426	17.3889	ug/l	95
93) 1,3,5-Trimethylbenzene	7.698	105	74763	22.7659	ug/l	84
94) Butyl methacrylate	7.698	41	65424	23.2485	ug/l	80
95) t-Butylbenzene	7.914	119	65754	20.2365	ug/l	82
96) 1,2,4-Trimethylbenzene	7.944	105	81370	19.6485	ug/l	88
97) sec-Butylbenzene	8.052	105	78591	20.7468	ug/l	100
98) 4-Isopropyltoluene	8.130	119	66000	20.5071	ug/l	91
99) n-Butylbenzene	8.394	91	74455	20.5264	ug/l	99
100) p-Diethylbenzene	8.376	119	35770m	19.0551	ug/l	
101) 1,2,4,5-Tetramethylben...	8.893	119	53149	18.6299	ug/l	95
102) 1,2-Dibromo-3-Chloropr...	8.971	157	9878	20.7810	ug/l	64
103) Camphor	9.452	95	20600	133.7226	ug/l	90
104) Hexachlorobutadiene	9.602	225	18069	19.8110	ug/l	94
105) 1,2,4-Trichlorobenzene	9.518	180	32870	20.3460	ug/l	93
106) 1,2,3-Trichlorobenzene	9.848	180	32170	20.0088	ug/l	91
107) Naphthalene	9.692	128	73371	18.7914	ug/l	100

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



SampleID : AD07391-040(MSD)

Operator : SG

Qt Meth : 3M_A1010.M

Data File: 3M139675.D

Sam Mult : 1 Vial# : 49

Qt On : 11/04/18 13:06

Acq On : 11/ 4/18 04:45

Misc : A,SML!1

Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\

Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\

Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.898	96	246705	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	204029	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.190	152	93178	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	65314	29.74	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.13%	
39) 1,2-Dichloroethane-d4	4.688	67	44527	28.87	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.23%	
66) Toluene-d8	5.865	98	261633	30.68	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	102.27%	
76) Bromofluorobenzene	7.457	174	95774	29.67	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	98.90%	
Target Compounds						
5) Chlorodifluoromethane	1.542	51	78743	34.4368	ug/l	88
6) Dichlorodifluoromethane	1.525	85	40136	26.8352	ug/l	96
7) Chloromethane	1.692	50	49425	30.7996	ug/l	79
8) Bromomethane	2.051	94	17717	21.5845	ug/l	93
9) Vinyl Chloride	1.758	62	34400	21.6157	ug/l	100
10) Chloroethane	2.123	64	15317	20.9236	ug/l	95
11) Trichlorofluoromethane	2.339	101	36782	15.2800	ug/l	83
12) Ethyl ether	2.567	59	28252	13.5683	ug/l	82
13) Furan	2.597	39	83265	16.1878	ug/l	94
14) 1,1,2-Trichloro-1,2,2-...	2.747	101	20265	20.7968	ug/l	92
15) Methylene Chloride	3.144	84	40864	21.2665	ug/l	78
16) Acrolein	2.675	56	35642	91.0600	ug/l	79
17) Acrylonitrile	3.348	53	16535	18.8037	ug/l	80
18) Iodomethane	2.892	142	41065	17.6211	ug/l	75
19) Acetone	2.795	43	74770	93.0395	ug/l	83
20) Carbon Disulfide	2.958	76	115803	17.4519	ug/l	100
21) t-Butyl Alcohol	3.222	59	15134	89.1625	ug/l	55
22) n-Hexane	3.600	57	17341m	18.5705	ug/l	
23) Di-isopropyl-ether	3.763	45	159403	22.7309	ug/l	93
24) 1,1-Dichloroethene	2.765	61	60470	20.2444	ug/l	95
25) Methyl Acetate	3.054	43	47858	17.3213	ug/l	100
26) Methyl-t-butyl ether	3.366	73	88478	18.5139	ug/l	72
27) 1,1-Dichloroethane	3.732	63	72100	19.2989	ug/l	90
28) trans-1,2-Dichloroethene	3.378	96	36344	18.5545	ug/l	88
29) Ethyl-t-butyl ether	4.033	59	109183	19.4692	ug/l	98
30) cis-1,2-Dichloroethene	4.159	61	72495	19.2296	ug/l	82
31) Bromochloromethane	4.315	49	43341	18.9338	ug/l	64
32) 2,2-Dichloropropane	4.159	77	41789	17.8386	ug/l	95
33) Ethyl acetate	4.183	43	55259m	20.8965	ug/l	
34) 1,4-Dioxane	5.348	88	22944	991.7535	ug/l	90
35) 1,1-Dichloropropene	4.598	75	53214	20.5821	ug/l	98
36) Chloroform	4.363	83	69842	17.4965	ug/l	90
38) Cyclohexane	4.537	56	36641	21.4574	ug/l	88
40) 1,2-Dichloroethane	4.736	62	61479	20.4509	ug/l	99
41) 2-Butanone	4.153	43	19944m	18.2253	ug/l	
42) 1,1,1-Trichloroethane	4.495	97	52367	17.4662	ug/l	95
43) Carbon Tetrachloride	4.604	117	41025	18.2875	ug/l	98
44) Vinyl Acetate	3.757	43	101631	19.6211	ug/l	100
45) Bromodichloromethane	5.426	83	62579	19.9517	ug/l	88
46) Methylcyclohexane	5.258	83	23558	19.7782	ug/l	99
47) Dibromomethane	5.348	174	32880	22.5621	ug/l	98
48) 1,2-Dichloropropane	5.270	63	51982	23.0096	ug/l	87
49) Trichloroethene	5.126	130	41150	19.1590	ug/l	84
50) Benzene	4.730	78	169484	24.0530	ug/l	100
51) tert-Amyl methyl ether	4.784	73	102762	20.3512	ug/l	78
53) Iso-propylacetate	4.736	43	93007	20.7510	ug/l	94
54) Methyl methacrylate	5.306	41	53168	19.9718	ug/l	96
55) Dibromochloromethane	6.388	129	41556	17.2559	ug/l	96
57) cis-1,3-Dichloropropene	5.697	75	65865	18.8350	ug/l	96
58) trans-1,3-Dichloropropene	6.021	75	60933	18.4972	ug/l	96
59) Ethyl methacrylate	6.045	41	54118	19.8607	ug/l	82
60) 1,1,2-Trichloroethane	6.135	97	41137	23.4182	ug/l	90
61) 1,2-Dibromoethane	6.478	107	38091	17.5800	ug/l	92
62) 1,3-Dichloropropane	6.243	76	71488	22.4660	ug/l	97
63) 4-Methyl-2-Pentanone	5.769	43	51671	21.1645	ug/l	86
64) 2-Hexanone	6.267	43	32064	20.1755	ug/l	91
65) Tetrachloroethene	6.243	164	28889	24.7712	ug/l	100
67) Toluene	5.907	92	95515	19.6186	ug/l	99
68) 1,1,1,2-Tetrachloroethane	6.802	133	36413	22.5039	ug/l	96

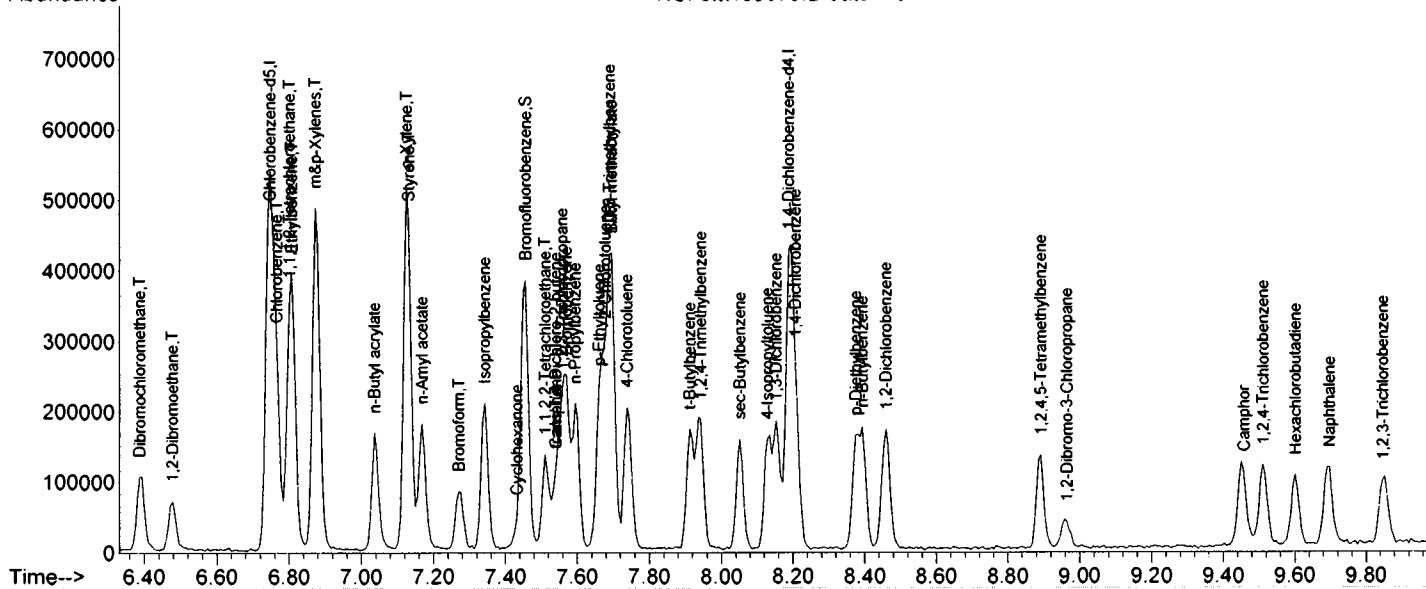
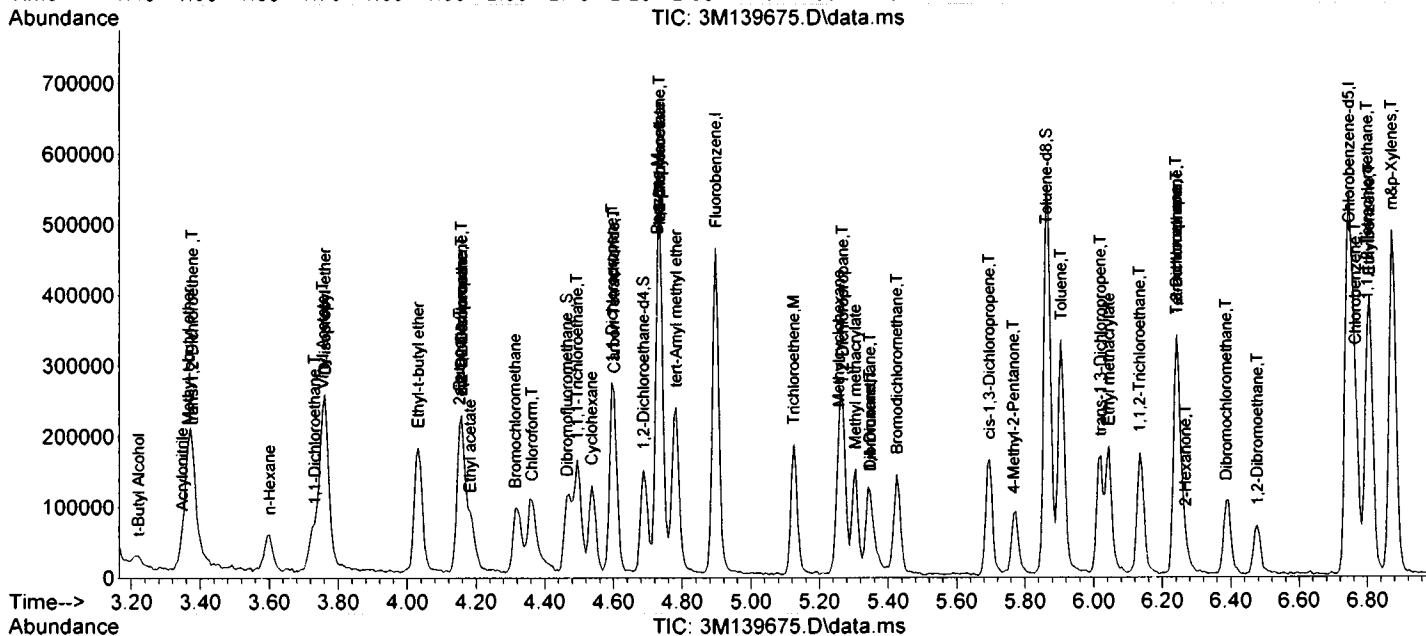
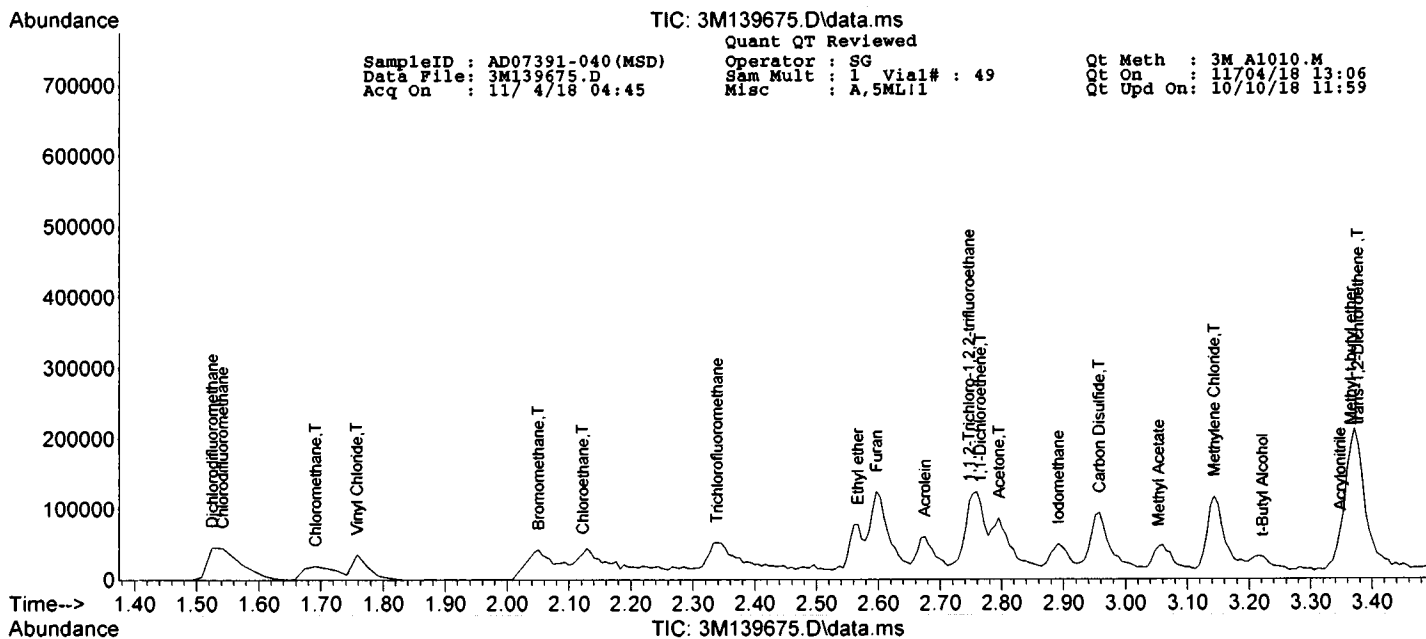
Quantitation Report (QT Reviewed)

SampleID : AD07391-040(MSD) Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139675.D Sam Mult : 1 Vial# : 49 Qt On : 11/04/18 13:06
 Acq On : 11/ 4/18 04:45 Misc : A,5ML:1 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.766	112	103204	19.1114	ug/l	90
71) n-Butyl acrylate	7.036	55	79532	21.0939	ug/l	96
72) n-Amyl acetate	7.168	43	82808	21.9178	ug/l	86
73) Bromoform	7.271	173	33068	18.2248	ug/l	96
74) Ethylbenzene	6.808	106	34648	22.0735	ug/l	64
75) 1,1,2,2-Tetrachloroethane	7.511	83	56716	20.2797	ug/l	91
77) Styrene	7.132	104	101611	20.9824	ug/l	84
78) m&p-Xylenes	6.874	106	104428	40.9778	ug/l	80
79) o-Xylene	7.126	106	52483	20.1524	ug/l	88
80) trans-1,4-Dichloro-2-b...	7.541	53	15574	15.6384	ug/l	60
81) 1,3-Dichlorobenzene	8.154	146	60710	18.4436	ug/l	87
82) 1,4-Dichlorobenzene	8.208	146	67535	19.1052	ug/l	91
83) 1,2-Dichlorobenzene	8.460	146	62608	18.1791	ug/l	90
84) Isopropylbenzene	7.343	105	105216	20.6602	ug/l	93
85) Cyclohexanone	7.433	55	7639	71.1766	ug/l	86
86) Camphene	7.541	93	4632	3.2964	ug/l	80
87) 1,2,3-Trichloropropane	7.559	75	61777	19.3036	ug/l	92
88) 2-Chlorotoluene	7.679	91	67128	21.7554	ug/l	92
89) p-Ethyltoluene	7.661	105	103410	18.1853	ug/l	87
90) 4-Chlorotoluene	7.739	91	68912	20.3001	ug/l	93
91) n-Propylbenzene	7.595	91	121108	20.2588	ug/l	99
92) Bromobenzene	7.571	77	97262	17.8277	ug/l	93
93) 1,3,5-Trimethylbenzene	7.691	105	78640	21.5475	ug/l	89
94) Butyl methacrylate	7.697	41	76340	24.4275	ug/l	73
95) t-Butylbenzene	7.913	119	70663	19.5828	ug/l	83
96) 1,2,4-Trimethylbenzene	7.943	105	85761	18.6477	ug/l	85
97) sec-Butylbenzene	8.052	105	87871	20.8878	ug/l	98
98) 4-Isopropyltoluene	8.130	119	72720	20.3462	ug/l	90
99) n-Butylbenzene	8.394	91	85009	21.1035	ug/l	93
100) p-Diethylbenzene	8.376	119	40312m	19.3373	ug/l	
101) 1,2,4,5-Tetramethylben...	8.892	119	61725	19.4826	ug/l	93
102) 1,2-Dibromo-3-Chloropr...	8.965	157	9042	17.1584	ug/l	79
103) Camphor	9.457	95	25329	148.1560	ug/l	99
104) Hexachlorobutadiene	9.601	225	21274	21.0079	ug/l	96
105) 1,2,4-Trichlorobenzene	9.511	180	35153	19.5935	ug/l	93
106) 1,2,3-Trichlorobenzene	9.848	180	32986	18.4744	ug/l	91
107) Naphthalene	9.697	128	84349	19.4528	ug/l	100

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



SampleID : AD07391-040
Data File: 3M139679.D
Acq On : 11/ 4/18 05:55

Operator : SG
Sam Mult : 1 Vial# : 53
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:07
Qt Upd On: 10/10/18 11:59

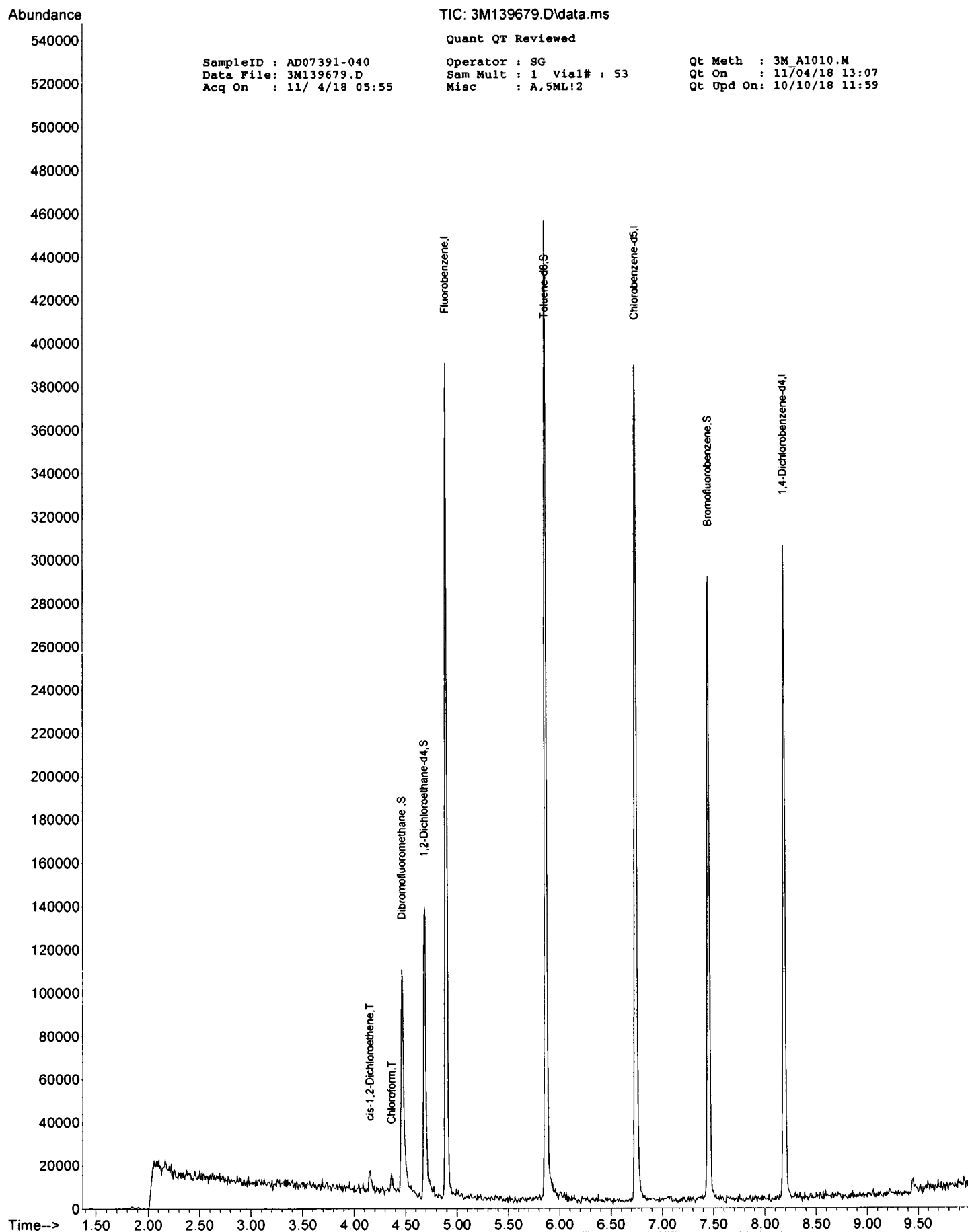
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0318\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	205931	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	179316	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.190	152	70514	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	54767	29.88	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	99.60%	
39) 1,2-Dichloroethane-d4	4.688	67	39235	30.48	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	101.60%	
66) Toluene-d8	5.865	98	213033	28.42	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	94.73%	
76) Bromofluorobenzene	7.457	174	73408	30.05	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.17%	
Target Compounds						
30) cis-1,2-Dichloroethene	4.153	61	4920	1.5634	ug/l	93
36) Chloroform	4.363	83	3550	1.0654	ug/l	80

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





Form3
Recovery Data Laboratory Limits
QC Batch: MBS73573

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139640.D		AD07350-005(MS)		11/3/2018 6:47:00 PM			
Non Spike(If applicable): 3M139654.D		AD07350-005		11/3/2018 10:48:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	25.823	0	20	129	50	150
Dichlorodifluoromethane	1	25.4135	0	20	127	50	150
Chloromethane	1	24.7235	0	20	124	50	150
Bromomethane	1	20.8624	0	20	104	50	150
Vinyl Chloride	1	37.5264	0	20	188 *	50	150
Chloroethane	1	17.425	0	20	87	50	150
Trichlorofluoromethane	1	14.6675	0	20	73	50	150
Ethyl ether	1	12.3517	0	20	62	50	150
Furan	1	13.9025	0	20	70	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.2444	0	20	91	50	150
Methylene Chloride	1	17.1546	0	20	86	70	130
Acrolein	1	64.337	0	100	64	50	150
Acrylonitrile	1	14.7582	0	20	74	50	150
Iodomethane	1	14.8027	0	20	74	50	150
Acetone	1	59.5977	0	100	60	50	150
Carbon Disulfide	1	15.4812	0	20	77	50	150
t-Butyl Alcohol	1	63.5886	0	100	64	50	150
n-Hexane	1	18.3829	0	20	92	70	130
Di-isopropyl-ether	1	18.0636	0	20	90	70	130
1,1-Dichloroethene	1	15.4908	0	20	77	70	130
Methyl Acetate	1	14.5047	0	20	73	50	150
Methyl-t-butyl ether	1	14.5247	0	20	73	70	130
1,1-Dichloroethane	1	16.5283	0	20	83	70	130
trans-1,2-Dichloroethene	1	15.3354	0	20	77	70	130
Ethyl-t-butyl ether	1	16.3576	0	20	82	70	130
cis-1,2-Dichloroethene	1	110.8508	0	20	554 *	70	130
Bromochloromethane	1	20.7569	0	20	104	70	130
2,2-Dichloropropane	1	18.3228	0	20	92	70	130
Ethyl acetate	1	13.6443	0	20	68	50	150
1,4-Dioxane	1	603.3075	0	1000	60	50	150
1,1-Dichloropropene	1	17.5882	0	20	88	70	130
Chloroform	1	14.138	0	20	71	70	130
Cyclohexane	1	19.316	0	20	97	70	130
1,2-Dichloroethane	1	17.0707	0	20	85	70	130
2-Butanone	1	18.3405	0	20	92	50	150
1,1,1-Trichloroethane	1	13.8686	0	20	69 *	70	130
Carbon Tetrachloride	1	15.5363	0	20	78	50	150
Vinyl Acetate	1	16.5286	0	20	83	50	150
Bromodichloromethane	1	16.0044	0	20	80	70	130
Methylcyclohexane	1	17.7042	0	20	89	70	130
Dibromomethane	1	17.6536	0	20	88	70	130
1,2-Dichloropropane	1	18.0647	0	20	90	70	130
Trichloroethene	1	26.5526	0	20	133 *	70	130
Benzene	1	19.2166	0	20	96	70	130
tert-Amyl methyl ether	1	15.7698	0	20	79	70	130
Iso-propylacetate	1	17.2696	0	20	86	70	130
Methyl methacrylate	1	15.2766	0	20	76	70	130
Dibromochloromethane	1	14.6048	0	20	73	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	16.6243	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.103	0	20	81	70	130
Ethyl methacrylate	1	16.1815	0	20	81	70	130
1,1,2-Trichloroethane	1	19.5659	0	20	98	70	130
1,2-Dibromoethane	1	14.894	0	20	74	70	130
1,3-Dichloropropane	1	19.7361	0	20	99	70	130
4-Methyl-2-Pentanone	1	15.957	0	20	80	50	150
2-Hexanone	1	15.2254	0	20	76	50	150
Tetrachloroethene	1	21.1131	0	20	106	50	150
Toluene	1	16.9949	0	20	85	70	130
1,1,1,2-Tetrachloroethane	1	18.0112	0	20	90	70	130
Chlorobenzene	1	16.0903	0	20	80	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73573

n-Butyl acrylate	1	16.0409	0	20	80	70	130
n-Amyl acetate	1	17.1129	0	20	86	70	130
Bromoform	1	14.5587	0	20	73	70	130
Ethylbenzene	1	17.895	0	20	89	70	130
1,1,2,2-Tetrachloroethane	1	15.5943	0	20	78	70	130
Styrene	1	17.1245	0	20	86	70	130
m&p-Xylenes	1	36.1931	0	40	90	70	130
o-Xylene	1	17.9635	0	20	90	70	130
trans-1,4-Dichloro-2-butene	1	13.5066	0	20	68	50	150
1,3-Dichlorobenzene	1	15.6113	0	20	78	70	130
1,4-Dichlorobenzene	1	15.7312	0	20	79	70	130
1,2-Dichlorobenzene	1	14.4538	0	20	72	70	130
Isopropylbenzene	1	17.5848	0	20	88	70	130
Cyclohexanone	1	44.445	0	100	44*	50	150
Camphene	1	11.7581	0	20	59*	70	130
1,2,3-Trichloropropane	1	15.3358	0	20	77	70	130
2-Chlorotoluene	1	19.2499	0	20	96	70	130
p-Ethyltoluene	1	16.7685	0	20	84	70	130
4-Chlorotoluene	1	17.1008	0	20	86	70	130
n-Propylbenzene	1	17.5939	0	20	88	70	130
Bromobenzene	1	15.1884	0	20	76	70	130
1,3,5-Trimethylbenzene	1	18.0641	0	20	90	70	130
Butyl methacrylate	1	18.2542	0	20	91	70	130
t-Butylbenzene	1	17.4567	0	20	87	70	130
1,2,4-Trimethylbenzene	1	17.2206	0	20	86	70	130
sec-Butylbenzene	1	18.1107	0	20	91	70	130
4-Isopropyltoluene	1	16.9055	0	20	85	70	130
n-Butylbenzene	1	16.8553	0	20	84	70	130
p-Diethylbenzene	1	15.4418	0	20	77	70	130
1,2,4,5-Tetramethylbenzene	1	16.2644	0	20	81	70	130
1,2-Dibromo-3-Chloropropane	1	13.9087	0	20	70	50	150
Camphor	1	53.8619	0	200	27	20	150
Hexachlorobutadiene	1	17.6546	0	20	88	50	150
1,2,4-Trichlorobenzene	1	15.8938	0	20	79	70	130
1,2,3-Trichlorobenzene	1	15.0274	0	20	75	70	130
Naphthalene	1	13.9086	0	20	70	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73573

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139641.D		AD07350-005(MSD)		11/3/2018 7:05:00 PM			
Non Spike(If applicable): 3M139654.D		AD07350-005		11/3/2018 10:48:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	35.4145	0	20	177 *	50	150
Dichlorodifluoromethane	1	29.4938	0	20	147	50	150
Chloromethane	1	29.9478	0	20	150	50	150
Bromomethane	1	23.5146	0	20	118	50	150
Vinyl Chloride	1	26.858	0	20	134	50	150
Chloroethane	1	23.0073	0	20	115	50	150
Trichlorofluoromethane	1	17.3393	0	20	87	50	150
Ethyl ether	1	13.7883	0	20	69	50	150
Furan	1	16.7434	0	20	84	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	22.2347	0	20	111	50	150
Methylene Chloride	1	21.4315	0	20	107	70	130
Acrolein	1	76.6221	0	100	77	50	150
Acrylonitrile	1	19.1805	0	20	96	50	150
Iodomethane	1	17.2959	0	20	86	50	150
Acetone	1	81.0756	0	100	81	50	150
Carbon Disulfide	1	18.0848	0	20	90	50	150
t-Butyl Alcohol	1	65.0944	0	100	65	50	150
n-Hexane	1	23.6539	0	20	118	70	130
Di-isopropyl-ether	1	21.3561	0	20	107	70	130
1,1-Dichloroethene	1	20.0522	0	20	100	70	130
Methyl Acetate	1	17.1592	0	20	86	50	150
Methyl-t-butyl ether	1	18.2813	0	20	91	70	130
1,1-Dichloroethane	1	19.1544	0	20	96	70	130
trans-1,2-Dichloroethene	1	18.9792	0	20	95	70	130
Ethyl-t-butyl ether	1	19.641	0	20	98	70	130
cis-1,2-Dichloroethene	1	41.504	0	20	208 *	70	130
Bromochloromethane	1	23.2469	0	20	116	70	130
2,2-Dichloropropane	1	22.1797	0	20	111	70	130
Ethyl acetate	1	20.2537	0	20	101	50	150
1,4-Dioxane	1	813.7377	0	1000	81	50	150
1,1-Dichloropropene	1	20.5297	0	20	103	70	130
Chloroform	1	16.9736	0	20	85	70	130
Cyclohexane	1	23.437	0	20	117	70	130
1,2-Dichloroethane	1	20.3953	0	20	102	70	130
2-Butanone	1	19.6897	0	20	98	50	150
1,1,1-Trichloroethane	1	18.2191	0	20	91	70	130
Carbon Tetrachloride	1	18.4283	0	20	92	50	150
Vinyl Acetate	1	19.1413	0	20	96	50	150
Bromodichloromethane	1	18.0945	0	20	90	70	130
Methylcyclohexane	1	21.0564	0	20	105	70	130
Dibromomethane	1	21.7809	0	20	109	70	130
1,2-Dichloropropane	1	23.1741	0	20	116	70	130
Trichloroethene	1	22.4438	0	20	112	70	130
Benzene	1	23.5166	0	20	118	70	130
tert-Amyl methyl ether	1	20.4149	0	20	102	70	130
Iso-propylacetate	1	19.7224	0	20	99	70	130
Methyl methacrylate	1	19.4875	0	20	97	70	130
Dibromochloromethane	1	16.5596	0	20	83	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	20.3123	0	20	102	70	130
trans-1,3-Dichloropropene	1	18.758	0	20	94	70	130
Ethyl methacrylate	1	19.9112	0	20	100	70	130
1,1,2-Trichloroethane	1	22.0672	0	20	110	70	130
1,2-Dibromoethane	1	17.796	0	20	89	70	130
1,3-Dichloropropane	1	24.2064	0	20	121	70	130
4-Methyl-2-Pentanone	1	18.6142	0	20	93	50	150
2-Hexanone	1	19.7763	0	20	99	50	150
Tetrachloroethene	1	23.9441	0	20	120	50	150
Toluene	1	19.9715	0	20	100	70	130
1,1,1,2-Tetrachloroethane	1	22.6332	0	20	113	70	130
Chlorobenzene	1	19.3935	0	20	97	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3 Recovery Data Laboratory Limits

QC Batch: MBS73573

n-Butyl acrylate	1	21.2889	0	20	106	70	130
n-Amyl acetate	1	22.3344	0	20	112	70	130
Bromoform	1	17.4471	0	20	87	70	130
Ethylbenzene	1	21.706	0	20	109	70	130
1,1,2,2-Tetrachloroethane	1	20.3585	0	20	102	70	130
Styrene	1	22.0433	0	20	110	70	130
m&p-Xylenes	1	43.5094	0	40	109	70	130
o-Xylene	1	22.1656	0	20	111	70	130
trans-1,4-Dichloro-2-butene	1	16.7554	0	20	84	50	150
1,3-Dichlorobenzene	1	18.9589	0	20	95	70	130
1,4-Dichlorobenzene	1	18.5093	0	20	93	70	130
1,2-Dichlorobenzene	1	18.5769	0	20	93	70	130
Isopropylbenzene	1	21.5257	0	20	108	70	130
Cyclohexanone	1	73.4148	0	100	73	50	150
Camphene	1	12.4587	0	20	62*	70	130
1,2,3-Trichloropropane	1	19.8781	0	20	99	70	130
2-Chlorotoluene	1	22.7921	0	20	114	70	130
p-Ethyltoluene	1	20.1002	0	20	101	70	130
4-Chlorotoluene	1	21.2648	0	20	106	70	130
n-Propylbenzene	1	21.9026	0	20	110	70	130
Bromobenzene	1	18.9085	0	20	95	70	130
1,3,5-Trimethylbenzene	1	22.6214	0	20	113	70	130
Butyl methacrylate	1	22.9761	0	20	115	70	130
t-Butylbenzene	1	20.6475	0	20	103	70	130
1,2,4-Trimethylbenzene	1	21.0502	0	20	105	70	130
sec-Butylbenzene	1	21.8368	0	20	109	70	130
4-Isopropyltoluene	1	20.4613	0	20	102	70	130
n-Butylbenzene	1	21.9685	0	20	110	70	130
p-Diethylbenzene	1	20.0955	0	20	100	70	130
1,2,4,5-Tetramethylbenzene	1	20.7349	0	20	104	70	130
1,2-Dibromo-3-Chloropropane	1	19.3474	0	20	97	50	150
Camphor	1	117.2727	0	200	59	20	150
Hexachlorobutadiene	1	20.1911	0	20	101	50	150
1,2,4-Trichlorobenzene	1	19.5258	0	20	98	70	130
1,2,3-Trichlorobenzene	1	17.8653	0	20	89	70	130
Naphthalene	1	19.6679	0	20	98	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3

RPD Data Laboratory Limits

QC Batch: MBS73573

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139641.D	AD07350-005(MSD)	11/3/2018 7:05:00 PM
Duplicate(If applicable): 3M139640.D	AD07350-005(MS)	11/3/2018 6:47:00 PM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBS Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	35.4145	25.823	31 *	30
Dichlorodifluoromethane	1	29.4938	25.4135	15	30
Chloromethane	1	29.9478	24.7235	19	30
Bromomethane	1	23.5146	20.8624	12	30
Vinyl Chloride	1	26.858	37.5264	33	40
Chloroethane	1	23.0073	17.425	28	30
Trichlorofluoromethane	1	17.3393	14.6675	17	30
Ethyl ether	1	13.7883	12.3517	11	30
Furan	1	16.7434	13.9025	19	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	22.2347	18.2444	20	30
Methylene Chloride	1	21.4315	17.1546	22	30
Acrolein	1	76.6221	64.337	17	30
Acrylonitrile	1	19.1805	14.7582	26	30
Iodomethane	1	17.2959	14.8027	16	30
Acetone	1	81.0756	59.5977	31 *	30
Carbon Disulfide	1	18.0848	15.4812	16	30
t-Butyl Alcohol	1	65.0944	63.5886	2.3	30
n-Hexane	1	23.6539	18.3829	25	30
Di-isopropyl-ether	1	21.3561	18.0636	17	30
1,1-Dichloroethene	1	20.0522	15.4908	26	40
Methyl Acetate	1	17.1592	14.5047	17	30
Methyl-t-butyl ether	1	18.2813	14.5247	23	30
1,1-Dichloroethane	1	19.1544	16.5283	15	40
trans-1,2-Dichloroethene	1	18.9792	15.3354	21	30
Ethyl-t-butyl ether	1	19.641	16.3576	18	30
cis-1,2-Dichloroethene	1	41.504	110.8508	91 *	30
Bromochloromethane	1	23.2469	20.7569	11	30
2,2-Dichloropropane	1	22.1797	18.3228	19	30
Ethyl acetate	1	20.2537	13.6443	39 *	30
1,4-Dioxane	1	813.7377	603.3075	30	30
1,1-Dichloropropene	1	20.5297	17.5882	15	30
Chloroform	1	16.9736	14.138	18	40
Cyclohexane	1	23.437	19.316	19	30
1,2-Dichloroethane	1	20.3953	17.0707	18	40
2-Butanone	1	19.6897	18.3405	7.1	40
1,1,1-Trichloroethane	1	18.2191	13.8686	27	30
Carbon Tetrachloride	1	18.4283	15.5363	17	40
Vinyl Acetate	1	19.1413	16.5286	15	30
Bromodichloromethane	1	18.0945	16.0044	12	30
Methylcyclohexane	1	21.0564	17.7042	17	30
Dibromomethane	1	21.7809	17.6536	21	30
1,2-Dichloropropane	1	23.1741	18.0647	25	30
Trichloroethene	1	22.4438	26.5526	17	40
Benzene	1	23.5166	19.2166	20	40
tert-Amyl methyl ether	1	20.4149	15.7698	26	30
Iso-propylacetate	1	19.7224	17.2696	13	30
Methyl methacrylate	1	19.4875	15.2766	24	30
Dibromochloromethane	1	16.5596	14.6048	13	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	20.3123	16.6243	20	30
trans-1,3-Dichloropropene	1	18.758	16.103	15	30
Ethyl methacrylate	1	19.9112	16.1815	21	30
1,1,2-Trichloroethane	1	22.0672	19.5659	12	30
1,2-Dibromoethane	1	17.796	14.894	18	30
1,3-Dichloropropane	1	24.2064	19.7361	20	30
4-Methyl-2-Pentanone	1	18.6142	15.957	15	30
2-Hexanone	1	19.7763	15.2254	26	30
Tetrachloroethene	1	23.9441	21.1131	13	40
Toluene	1	19.9715	16.9949	16	40
1,1,1,2-Tetrachloroethane	1	22.6332	18.0112	23	30
Chlorobenzene	1	19.3935	16.0903	19	40
n-Butyl acrylate	1	21.2889	16.0409	28	30
n-Amyl acetate	1	22.3344	17.1129	26	30

Form3
RPD Data Laboratory Limits

8102901 0447

QC Batch: MBS73573

Bromoform	1	17.4471	14.5587	18	30
Ethylbenzene	1	21.706	17.895	19	30
1,1,2,2-Tetrachloroethane	1	20.3585	15.5943	27	30
Styrene	1	22.0433	17.1245	25	30
m&p-Xylenes	1	43.5094	36.1931	18	30
o-Xylene	1	22.1656	17.9635	21	30
trans-1,4-Dichloro-2-butene	1	16.7554	13.5066	21	30
1,3-Dichlorobenzene	1	18.9589	15.6113	19	30
1,4-Dichlorobenzene	1	18.5093	15.7312	16	40
1,2-Dichlorobenzene	1	18.5769	14.4538	25	40
Isopropylbenzene	1	21.5257	17.5848	20	30
Cyclohexanone	1	73.4148	44.445	49*	30
Camphene	1	12.4587	11.7581	5.8	30
1,2,3-Trichloropropane	1	19.8781	15.3358	26	30
2-Chlorotoluene	1	22.7921	19.2499	17	30
p-Ethyltoluene	1	20.1002	16.7685	18	30
4-Chlorotoluene	1	21.2648	17.1008	22	30
n-Propylbenzene	1	21.9026	17.5939	22	40
Bromobenzene	1	18.9085	15.1884	22	30
1,3,5-Trimethylbenzene	1	22.6214	18.0641	22	30
Butyl methacrylate	1	22.9761	18.2542	23	30
t-Butylbenzene	1	20.6475	17.4567	17	30
1,2,4-Trimethylbenzene	1	21.0502	17.2206	20	30
sec-Butylbenzene	1	21.8368	18.1107	19	40
4-Isopropyltoluene	1	20.4613	16.9055	19	30
n-Butylbenzene	1	21.9685	16.8553	26	30
p-Diethylbenzene	1	20.0955	15.4418	26	30
1,2,4,5-Tetramethylbenzene	1	20.7349	16.2644	24	30
1,2-Dibromo-3-Chloropropane	1	19.3474	13.9087	33*	30
Camphor	1	117.2727	53.8619	74*	30
Hexachlorobutadiene	1	20.1911	17.6546	13	30
1,2,4-Trichlorobenzene	1	19.5258	15.8938	21	30
1,2,3-Trichlorobenzene	1	17.8653	15.0274	17	30
Naphthalene	1	19.6679	13.9086	34*	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD07350-005 (MS)

Operator : SG

Qt Meth : 3M_A1010.M

Data File: 3M139640.D

Sam Mult : 1 Vial# : 14

Qt On : 11/04/18 13:02

Acq On : 11/ 3/18 18:47

Misc : A,5ML!2

Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\

Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\

Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.909	96	261123	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.759	117	213202	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.201	152	95111	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromodifluoromethane	4.477	111	63201	27.19	ug/l	0.00
Spiked Amount 30.000			Recovery	=	90.63%	
39) 1,2-Dichloroethane-d4	4.699	67	46568	28.53	ug/l	0.00
Spiked Amount 30.000			Recovery	=	95.10%	
66) Toluene-d8	5.876	98	271937	30.51	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.70%	
76) Bromodifluorobenzene	7.468	174	96114	29.17	ug/l	0.00
Spiked Amount 30.000			Recovery	=	97.23%	
Target Compounds						
5) Chlorodifluoromethane	1.559	51	62442	25.8230	ug/l	94
6) Dichlorodifluoromethane	1.525	85	40231	25.4135	ug/l	85
7) Chloromethane	1.692	50	41913	24.7235	ug/l	81
8) Bromomethane	2.056	94	18142	20.8624	ug/l	61
9) Vinyl Chloride	1.775	62	63211	37.5264	ug/l	100
10) Chloroethane	2.134	64	13523	17.4250	ug/l	83
11) Trichlorofluoromethane	2.350	101	37371	14.6675	ug/l	83
12) Ethyl ether	2.579	59	27222	12.3517	ug/l	87
13) Furan	2.609	39	75689	13.9025	ug/l	91
14) 1,1,2-Trichloro-1,2,2-...	2.759	101	18818	18.2444	ug/l	88
15) Methylene Chloride	3.161	84	34888	17.1546	ug/l	91
16) Acrolein	2.687	56	26654	64.3370	ug/l	94
17) Acrylonitrile	3.353	53	13736	14.7582	ug/l	79
18) Iodomethane	2.903	142	36513	14.8027	ug/l	95
19) Acetone	2.801	43	50694	59.5977	ug/l	98
20) Carbon Disulfide	2.969	76	108730	15.4812	ug/l	100
21) t-Butyl Alcohol	3.227	59	11424	63.5886	ug/l	72
22) n-Hexane	3.606	57	18169m	18.3829	ug/l	
23) Di-isopropyl-ether	3.774	45	134076	18.0636	ug/l	87
24) 1,1-Dichloroethene	2.765	61	48975	15.4908	ug/l	88
25) Methyl Acetate	3.065	43	42418	14.5047	ug/l	100
26) Methyl-t-butyl ether	3.384	73	73470	14.5247	ug/l	71
27) 1,1-Dichloroethane	3.744	63	65358	16.5283	ug/l	88
28) trans-1,2-Dichloroethene	3.390	96	31794	15.3354	ug/l	85
29) Ethyl-t-butyl ether	4.044	59	97094	16.3576	ug/l	98
30) cis-1,2-Dichloroethene	4.164	61	442328	110.8508	ug/l	82
31) Bromochloromethane	4.327	49	50291	20.7569	ug/l	61
32) 2,2-Dichloropropane	4.170	77	45426	18.3228	ug/l	80
33) Ethyl acetate	4.194	43	38190m	13.6443	ug/l	
34) 1,4-Dioxane	5.354	88	14787	603.3075	ug/l	82
35) 1,1-Dichloropropene	4.609	75	48131	17.5882	ug/l	95
36) Chloroform	4.375	83	59734	14.1380	ug/l	90
38) Cyclohexane	4.549	56	34912	19.3160	ug/l	89
40) 1,2-Dichloroethane	4.747	62	54396	17.0707	ug/l	96
41) 2-Butanone	4.182	43	21243m	18.3405	ug/l	
42) 1,1,1-Trichloroethane	4.507	97	44011	13.8686	ug/l	95
43) Carbon Tetrachloride	4.615	117	36890	15.5363	ug/l	83
44) Vinyl Acetate	3.768	43	90616	16.5286	ug/l	100
45) Bromodichloromethane	5.438	83	53132	16.0044	ug/l	97
46) Methylcyclohexane	5.270	83	22320	17.7042	ug/l	95
47) Dibromomethane	5.354	174	27268	17.6536	ug/l	92
48) 1,2-Dichloropropane	5.282	63	43196	18.0647	ug/l	98
49) Trichloroethene	5.138	130	60363	26.5526	ug/l	86
50) Benzene	4.741	78	143731	19.2166	ug/l	100
51) tert-Amyl methyl ether	4.795	73	84282	15.7698	ug/l	81
53) Iso-propylacetate	4.747	43	80883	17.2696	ug/l	94
54) Methyl methacrylate	5.318	41	42497	15.2766	ug/l	97
55) Dibromochloromethane	6.399	129	36753	14.6048	ug/l	89
57) cis-1,3-Dichloropropene	5.702	75	60748	16.6243	ug/l	85
58) trans-1,3-Dichloropropene	6.027	75	55431	16.1030	ug/l	96
59) Ethyl methacrylate	6.057	41	46075	16.1815	ug/l	89
60) 1,1,2-Trichloroethane	6.147	97	35900	19.5659	ug/l	83
61) 1,2-Dibromoethane	6.483	107	33722	14.8940	ug/l	96
62) 1,3-Dichloropropane	6.255	76	65670	19.7361	ug/l	97
63) 4-Methyl-2-Pentanone	5.780	43	40709	15.9570	ug/l	97
64) 2-Hexanone	6.273	43	25285	15.2254	ug/l	98
65) Tetrachloroethene	6.255	164	25756	21.1131	ug/l	91
67) Toluene	5.918	92	86461	16.9949	ug/l	100
68) 1,1,1,2-Tetrachloroethane	6.814	133	30490	18.0112	ug/l	84

Quantitation Report (QT Reviewed)

SampleID : AD07350-005(MS) Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139640.D Sam Mult : 1 Vial# : 14 Qt On : 11/04/18 13:02
 Acq On : 11/ 3/18 18:47 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.771	112	90796	16.0903	ug/l	98
71) n-Butyl acrylate	7.048	55	61735	16.0409	ug/l	97
72) n-Amyl acetate	7.180	43	65996	17.1129	ug/l	84
73) Bromoform	7.288	173	26964	14.5587	ug/l	95
74) Ethylbenzene	6.826	106	28672	17.8950	ug/l	78
75) 1,1,2,2-Tetrachloroethane	7.522	83	44517	15.5943	ug/l	98
77) Styrene	7.144	104	84649	17.1245	ug/l	86
78) m&p-Xylenes	6.886	106	94148	36.1931	ug/l	93
79) o-Xylene	7.138	106	47753	17.9635	ug/l	73
80) trans-1,4-Dichloro-2-b...	7.552	53	13730	13.5066	ug/l	70
81) 1,3-Dichlorobenzene	8.165	146	52453	15.6113	ug/l	90
82) 1,4-Dichlorobenzene	8.219	146	56762	15.7312	ug/l	94
83) 1,2-Dichlorobenzene	8.471	146	50811	14.4538	ug/l	90
84) Isopropylbenzene	7.354	105	91412	17.5848	ug/l	95
85) Cyclohexanone	7.444	55	4869	44.4450	ug/l	95
86) Camphene	7.552	93	16865	11.7581	ug/l	82
87) 1,2,3-Trichloropropane	7.564	75	50097	15.3358	ug/l	91
88) 2-Chlorotoluene	7.684	91	60696	19.2499	ug/l	94
89) p-Ethyltoluene	7.672	105	97365	16.7685	ug/l	77
90) 4-Chlorotoluene	7.751	91	59256	17.1008	ug/l	89
91) n-Propylbenzene	7.606	91	107359	17.5939	ug/l	94
92) Bromobenzene	7.582	77	84582	15.1884	ug/l	92
93) 1,3,5-Trimethylbenzene	7.703	105	67434	18.0641	ug/l	78
94) Butyl methacrylate	7.709	41	58231	18.2542	ug/l	77
95) t-Butylbenzene	7.925	119	64298	17.4567	ug/l	80
96) 1,2,4-Trimethylbenzene	7.955	105	80841	17.2206	ug/l	88
97) sec-Butylbenzene	8.063	105	77769	18.1107	ug/l	97
98) 4-Isopropyltoluene	8.141	119	61676	16.9055	ug/l	88
99) n-Butylbenzene	8.405	91	69305	16.8553	ug/l	92
100) p-Diethylbenzene	8.387	119	32859m	15.4418	ug/l	
101) 1,2,4,5-Tetramethylben...	8.904	119	52598	16.2644	ug/l	89
102) 1,2-Dibromo-3-Chloropr...	8.976	157	7470	13.9087	ug/l	68
103) Camphor	9.469	95	9441	53.8619	ug/l	95
104) Hexachlorobutadiene	9.613	225	18260	17.6546	ug/l	98
105) 1,2,4-Trichlorobenzene	9.529	180	29107	15.8938	ug/l	95
106) 1,2,3-Trichlorobenzene	9.859	180	27388	15.0274	ug/l	95
107) Naphthalene	9.703	128	61560	13.9086	ug/l	100

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

TIC: 3M139640.D\data.ms

Quant QT Reviewed

SampleID : AD07350-005 (MS)

Operator : SG

Data File: 3M139640.D

Sam Mult : 1 Vial# : 14

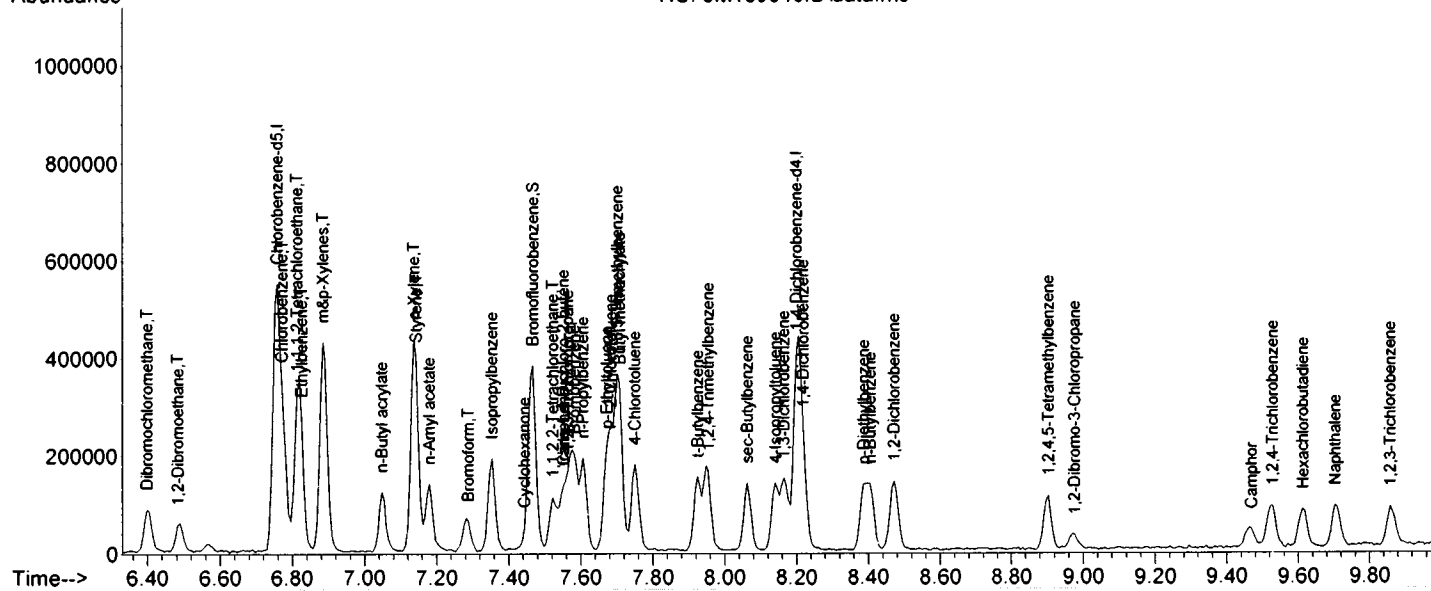
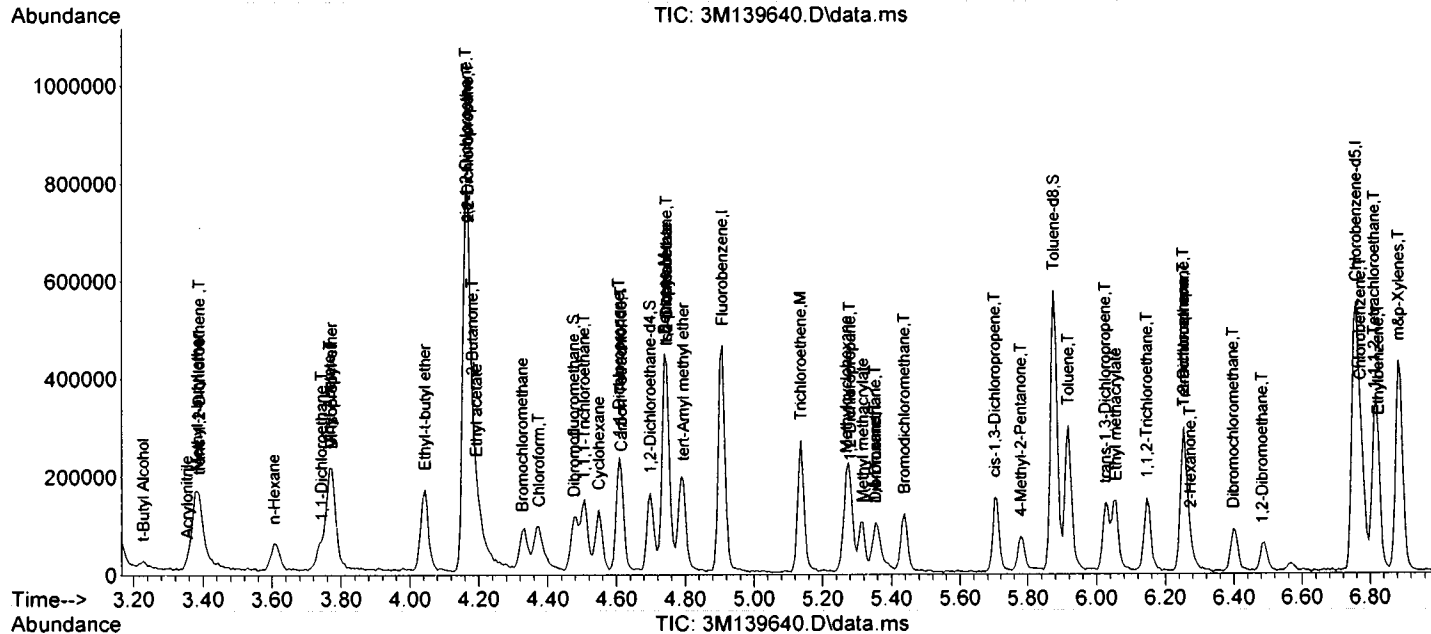
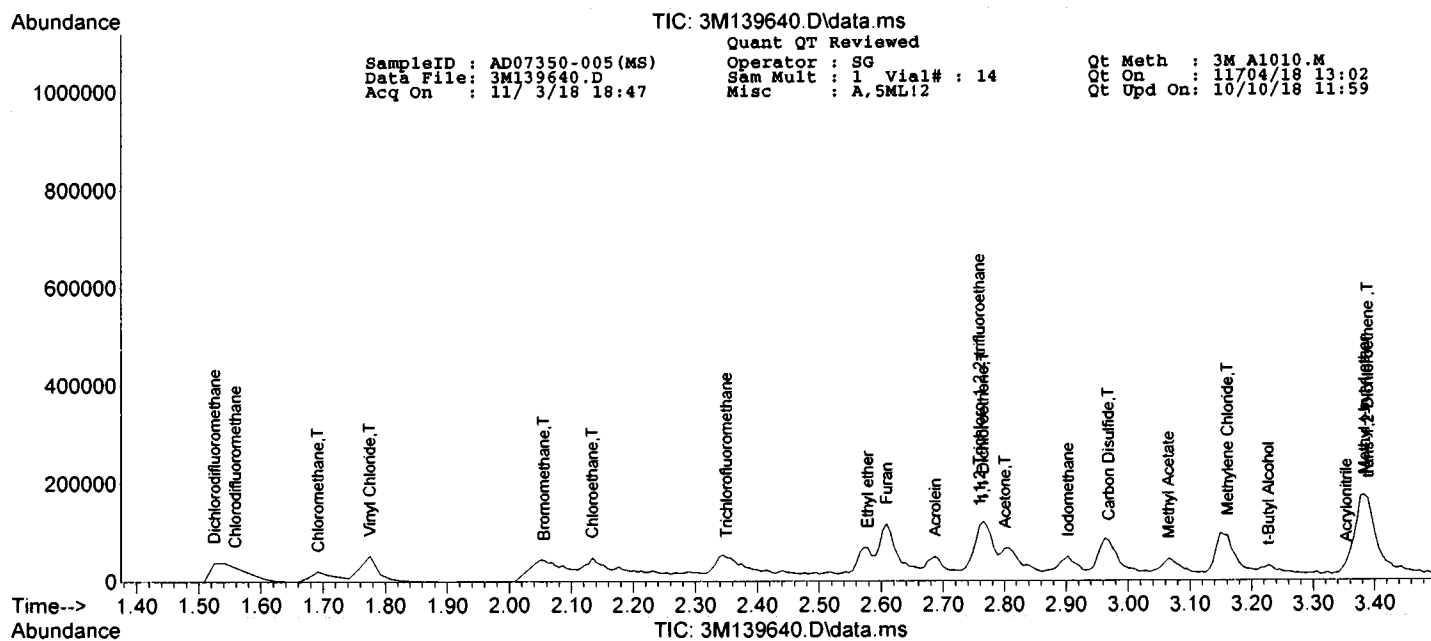
Acq On : 11/ 3/18 18:47

Misc : A,5ML12

Qt Meth : 3M A1010.M

Qt On : 11/04/18 13:02

Qt Upd On: 10/10/18 11:59



SampleID : AD07350-005(MSD) Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139641.D Sam Mult : 1 Vial# : 15 Qt On : 11/04/18 13:02
 Acq On : 11/ 3/18 19:05 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\11-03-18\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.910	96	252917	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.760	117	207829	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.202	152	91780	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.477	111	64634	28.71	ug/l	0.00
Spiked Amount 30.000			Recovery =	95.70%		
39) 1,2-Dichloroethane-d4	4.700	67	43401	27.45	ug/l	0.00
Spiked Amount 30.000			Recovery =	91.50%		
66) Toluene-d8	5.877	98	262222	30.18	ug/l	0.00
Spiked Amount 30.000			Recovery =	100.60%		
76) Bromofluorobenzene	7.469	174	93868	29.52	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.40%		
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.542	51	83026	35.4145	ug/l	93
6) Dichlorodifluoromethane	1.525	85	45223	29.4938	ug/l	93
7) Chloromethane	1.692	50	49255	29.9478	ug/l	72
8) Bromomethane	2.057	94	19738	23.5146	ug/l	98
9) Vinyl Chloride	1.775	62	43819	26.8580	ug/l	92
10) Chloroethane	2.135	64	17250	23.0073	ug/l	92
11) Trichlorofluoromethane	2.351	101	42790	17.3393	ug/l	85
12) Ethyl ether	2.573	59	29433	13.7883	ug/l	82
13) Furan	2.609	39	88291	16.7434	ug/l	87
14) 1,1,2-Trichloro-1,2,2-...	2.759	101	22211	22.2347	ug/l	89
15) Methylene Chloride	3.162	84	42218	21.4315	ug/l	93
16) Acrolein	2.681	56	30746	76.6221	ug/l	88
17) Acrylonitrile	3.360	53	17291	19.1805	ug/l	90
18) Iodomethane	2.898	142	41322	17.2959	ug/l	91
19) Acetone	2.801	43	66796	81.0756	ug/l	84
20) Carbon Disulfide	2.970	76	123024	18.0848	ug/l	100
21) t-Butyl Alcohol	3.228	59	11327	65.0944	ug/l	65
22) n-Hexane	3.612	57	22644m	23.6539	ug/l	
23) Di-isopropyl-ether	3.775	45	153533	21.3561	ug/l	95
24) 1,1-Dichloroethene	2.771	61	61404	20.0522	ug/l	89
25) Methyl Acetate	3.066	43	48604	17.1592	ug/l	100
26) Methyl-t-butyl ether	3.378	73	89566	18.2813	ug/l	72
27) 1,1-Dichloroethane	3.739	63	73362	19.1544	ug/l	100
28) trans-1,2-Dichloroethene	3.390	96	38112	18.9792	ug/l	95
29) Ethyl-t-butyl ether	4.045	59	112920	19.6410	ug/l	94
30) cis-1,2-Dichloroethene	4.165	61	160409	41.5040	ug/l	88
31) Bromochloromethane	4.327	49	54554	23.2469	ug/l	74
32) 2,2-Dichloropropane	4.165	77	53205	22.1797	ug/l	94
33) Ethyl acetate	4.195	43	54908	20.2537	ug/l	97
34) 1,4-Dioxane	5.354	88	19308	813.7377	ug/l	59
35) 1,1-Dichloropropene	4.610	75	54415	20.5297	ug/l	94
36) Chloroform	4.369	83	69461	16.9736	ug/l	80
38) Cyclohexane	4.550	56	41029	23.4370	ug/l	89
40) 1,2-Dichloroethane	4.748	62	62857	20.3953	ug/l	100
41) 2-Butanone	4.165	43	22089	19.6897	ug/l	96
42) 1,1,1-Trichloroethane	4.507	97	56000	18.2191	ug/l	97
43) Carbon Tetrachloride	4.616	117	42382	18.4283	ug/l	98
44) Vinyl Acetate	3.769	43	101642	19.1413	ug/l	100
45) Bromodichloromethane	5.439	83	58183	18.0945	ug/l	95
46) Methylcyclohexane	5.264	83	25712	21.0564	ug/l	90
47) Dibromomethane	5.360	174	32548	21.7809	ug/l	91
48) 1,2-Dichloropropane	5.282	63	53672	23.1741	ug/l	92
49) Trichloroethene	5.138	130	49419	22.4438	ug/l	81
50) Benzene	4.742	78	169931	23.5166	ug/l	100
51) tert-Amyl methyl ether	4.790	73	105679	20.4149	ug/l	79
53) Iso-propylacetate	4.748	43	90043	19.7224	ug/l	100
54) Methyl methacrylate	5.312	41	52845	19.4875	ug/l	95
55) Dibromochloromethane	6.400	129	40622	16.5596	ug/l	89
57) cis-1,3-Dichloropropene	5.703	75	72354	20.3123	ug/l	85
58) trans-1,3-Dichloropropene	6.027	75	62943	18.7580	ug/l	99
59) Ethyl methacrylate	6.051	41	55266	19.9112	ug/l	91
60) 1,1,2-Trichloroethane	6.147	97	39480	22.0672	ug/l	86
61) 1,2-Dibromoethane	6.484	107	39277	17.7960	ug/l	96
62) 1,3-Dichloropropane	6.255	76	78426	24.2064	ug/l	94
63) 4-Methyl-2-Pentanone	5.781	43	46291	18.6142	ug/l	95
64) 2-Hexanone	6.274	43	32015	19.7763	ug/l	90
65) Tetrachloroethene	6.255	164	28451	23.9441	ug/l	87
67) Toluene	5.919	92	99044	19.9715	ug/l	93
68) 1,1,1,2-Tetrachloroethane	6.814	133	37303	22.6332	ug/l	92

Quantitation Report (QT Reviewed)

SampleID : AD07350-005(MSD) Operator : SG Qt Meth : 3M_A1010.M
 Data File: 3M139641.D Sam Mult : 1 Vial# : 15 Qt On : 11/04/18 13:02
 Acq On : 11/ 3/18 19:05 Misc : A,5ML12 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.772	112	106678	19.3935	ug/l	95
71) n-Butyl acrylate	7.048	55	79063	21.2889	ug/l	97
72) n-Amyl acetate	7.181	43	83116	22.3344	ug/l	85
73) Bromoform	7.289	173	31182	17.4471	ug/l	94
74) Ethylbenzene	6.820	106	33560	21.7060	ug/l	89
75) 1,1,2,2-Tetrachloroethane	7.523	83	56082	20.3585	ug/l	89
77) Styrene	7.145	104	105147	22.0433	ug/l	93
78) m&p-Xylenes	6.886	106	109216	43.5094	ug/l	99
79) o-Xylene	7.139	106	56860	22.1656	ug/l	63
80) trans-1,4-Dichloro-2-b...	7.553	53	16436	16.7554	ug/l	59
81) 1,3-Dichlorobenzene	8.166	146	61470	18.9589	ug/l	91
82) 1,4-Dichlorobenzene	8.220	146	64447	18.5093	ug/l	94
83) 1,2-Dichlorobenzene	8.472	146	63018	18.5769	ug/l	89
84) Isopropylbenzene	7.355	105	107979	21.5257	ug/l	94
85) Cyclohexanone	7.451	55	7761	73.4148	ug/l	88
86) Camphene	7.547	93	17244	12.4587	ug/l	96
87) 1,2,3-Trichloropropane	7.565	75	62661	19.8781	ug/l	89
88) 2-Chlorotoluene	7.691	91	69240	22.7921	ug/l	95
89) p-Ethyltoluene	7.673	105	112531	20.1002	ug/l	82
90) 4-Chlorotoluene	7.751	91	71104	21.2648	ug/l	90
91) n-Propylbenzene	7.607	91	128970	21.9026	ug/l	100
92) Bromobenzene	7.583	77	101611	18.9085	ug/l	93
93) 1,3,5-Trimethylbenzene	7.703	105	81269	22.6214	ug/l	87
94) Butyl methacrylate	7.709	41	70727	22.9761	ug/l	79
95) t-Butylbenzene	7.925	119	73387	20.6475	ug/l	84
96) 1,2,4-Trimethylbenzene	7.955	105	95358	21.0502	ug/l	88
97) sec-Butylbenzene	8.064	105	90485	21.8368	ug/l	98
98) 4-Isopropyltoluene	8.142	119	72034	20.4613	ug/l	87
99) n-Butylbenzene	8.406	91	87166	21.9685	ug/l	93
100) p-Diethylbenzene	8.388	119	41264m	20.0955	ug/l	
101) 1,2,4,5-Tetramethylben...	8.905	119	64707	20.7349	ug/l	90
102) 1,2-Dibromo-3-Chloropr...	8.977	157	10053	19.3474	ug/l	66
103) Camphor	9.469	95	19777	117.2727	ug/l	94
104) Hexachlorobutadiene	9.613	225	20143	20.1911	ug/l	93
105) 1,2,4-Trichlorobenzene	9.529	180	34506	19.5258	ug/l	96
106) 1,2,3-Trichlorobenzene	9.866	180	31420	17.8653	ug/l	92
107) Naphthalene	9.704	128	84002	19.6679	ug/l	100

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

Abundance

TIC: 3M139641.D\data.ms

SampleID : AD07350-005 (MSD)
 Data File : 3M139641.D
 Acq On : 11/ 3/18 19:05

Quant QT Reviewed
 Operator : SG
 Sam Mult : 1 Vial# : 15
 Misc : A,5ML/2

Qt Meth : 3M_A1010.M
 Qt On : 11/04/18 13:02
 Qt Upd On : 10/10/18 11:59

700000

600000

500000

400000

300000

200000

100000

0

Time-->

Abundance

TIC: 3M139641.D\data.ms

700000

600000

500000

400000

300000

200000

100000

0

Time-->

Abundance

TIC: 3M139641.D\data.ms

700000

600000

500000

400000

300000

200000

100000

0

Time-->

SampleID : AD07350-005
Data File: 3M139654.D
Acq On : 11/ 3/18 22:48

Operator : SG
Sam Mult : 1 Vial# : 28
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/04/18 13:03
Qt Upd On: 10/10/18 11:59

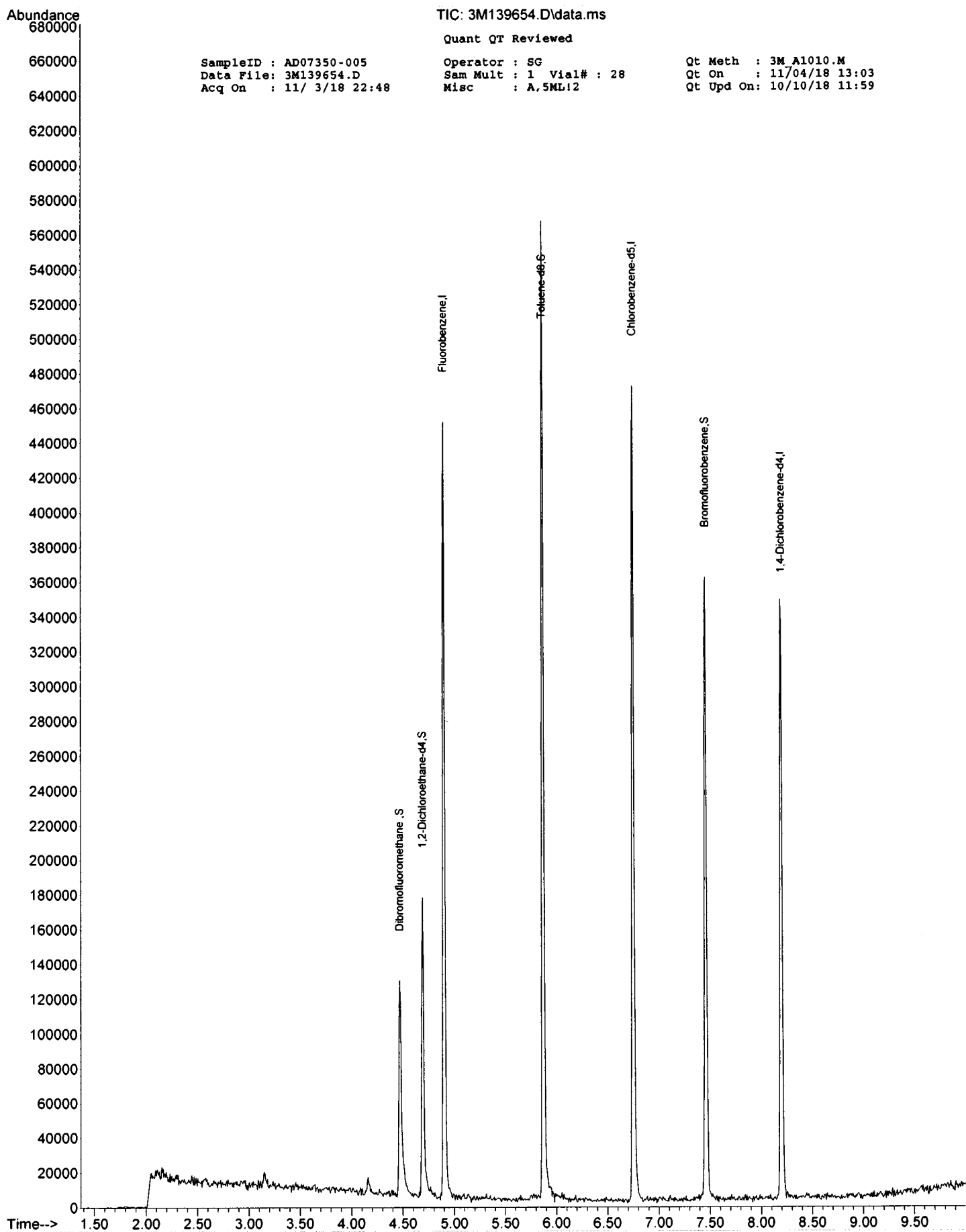
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-03-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.904	96	255484	30.00	ug/l	0.00
52) Chlorobenzene-d5	6.754	117	208987	30.00	ug/l	0.00
70) 1,4-Dichlorobenzene-d4	8.202	152	85766	30.00	ug/l	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	64225	28.24	ug/l	0.00
Spiked Amount 30.000			Recovery =	94.13%		
39) 1,2-Dichloroethane-d4	4.694	67	44133	27.63	ug/l	0.00
Spiked Amount 30.000			Recovery =	92.10%		
66) Toluene-d8	5.871	98	259510	29.71	ug/l	0.00
Spiked Amount 30.000			Recovery =	99.03%		
76) Bromofluorobenzene	7.463	174	88096	29.65	ug/l	0.00
Spiked Amount 30.000			Recovery =	98.83%		
Target Compounds						Qvalue

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





Form3
Recovery Data Laboratory Limits
 QC Batch: MBS73583

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139740.D		AD07391-014(MS:AD07391-013		11/4/2018 9:53:00 PM			
Non Spike(If applicable): 3M139739.D		AD07391-013		11/4/2018 9:36:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	35.7439	0	20	179*	50	150
Dichlorodifluoromethane	1	21.627	0	20	108	50	150
Chloromethane	1	25.7074	0	20	129	50	150
Bromomethane	1	18.1382	0	20	91	50	150
Vinyl Chloride	1	19.6368	0	20	98	50	150
Chloroethane	1	20.3062	0	20	102	50	150
Trichlorofluoromethane	1	12.5624	0	20	63	50	150
Ethyl ether	1	12.7026	0	20	64	50	150
Furan	1	14.3364	0	20	72	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	17.648	0	20	88	50	150
Methylene Chloride	1	17.8647	0	20	89	70	130
Acrolein	1	72.6776	0	100	73	50	150
Acrylonitrile	1	16.7636	0	20	84	50	150
Iodomethane	1	14.0696	0	20	70	50	150
Acetone	1	77.8599	0	100	78	50	150
Carbon Disulfide	1	16.4822	0	20	82	50	150
t-Butyl Alcohol	1	60.2714	0	100	60	50	150
n-Hexane	1	15.6961	0	20	78	70	130
Di-isopropyl-ether	1	18.43	0	20	92	70	130
1,1-Dichloroethene	1	16.9868	0	20	85	70	130
Methyl Acetate	1	14.5821	0	20	73	50	150
Methyl-t-butyl ether	1	15.527	0	20	78	70	130
1,1-Dichloroethane	1	16.1974	0	20	81	70	130
trans-1,2-Dichloroethene	1	16.4025	0	20	82	70	130
Ethyl-t-butyl ether	1	15.45	0	20	77	70	130
cis-1,2-Dichloroethene	1	17.4971	0	20	87	70	130
Bromochloromethane	1	17.7264	0	20	89	70	130
2,2-Dichloropropane	1	17.7064	0	20	89	70	130
Ethyl acetate	1	16.0543	0	20	80	50	150
1,4-Dioxane	1	742.2696	0	1000	74	50	150
1,1-Dichloropropene	1	17.4767	0	20	87	70	130
Chloroform	1	15.1356	0	20	76	70	130
Cyclohexane	1	17.8142	0	20	89	70	130
1,2-Dichloroethane	1	18.9072	0	20	95	70	130
2-Butanone	1	14.561	0	20	73	50	150
1,1,1-Trichloroethane	1	14.4854	0	20	72	70	130
Carbon Tetrachloride	1	15.9348	0	20	80	50	150
Vinyl Acetate	1	16.3054	0	20	82	50	150
Bromodichloromethane	1	16.7268	0	20	84	70	130
Methylcyclohexane	1	17.1397	0	20	86	70	130
Dibromomethane	1	18.0576	0	20	90	70	130
1,2-Dichloropropane	1	19.7327	0	20	99	70	130
Trichloroethene	1	15.0424	0	20	75	70	130
Benzene	1	20.0385	0	20	100	70	130
tert-Amyl methyl ether	1	15.6278	0	20	78	70	130
Iso-propylacetate	1	18.5446	0	20	93	70	130
Methyl methacrylate	1	15.1128	0	20	76	70	130
Dibromochloromethane	1	15.1966	0	20	76	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	16.5896	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.3903	0	20	82	70	130
Ethyl methacrylate	1	17.5973	0	20	88	70	130
1,1,2-Trichloroethane	1	20.5271	0	20	103	70	130
1,2-Dibromoethane	1	16.1102	0	20	81	70	130
1,3-Dichloropropane	1	20.2707	0	20	101	70	130
4-Methyl-2-Pentanone	1	18.3557	0	20	92	50	150
2-Hexanone	1	18.1308	0	20	91	50	150
Tetrachloroethene	1	45.6214	24.414	20	106	50	150
Toluene	1	17.1684	0	20	86	70	130
1,1,1,2-Tetrachloroethane	1	19.4078	0	20	97	70	130
Chlorobenzene	1	16.0927	0	20	80	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73583

n-Butyl acrylate	1	17.5379	0	20	88	70	130
n-Amyl acetate	1	17.5659	0	20	88	70	130
Bromoform	1	14.8179	0	20	74	70	130
Ethylbenzene	1	18.3145	0	20	92	70	130
1,1,2,2-Tetrachloroethane	1	17.9008	0	20	90	70	130
Styrene	1	18.9009	0	20	95	70	130
m&p-Xylenes	1	36.4706	0	40	91	70	130
o-Xylene	1	18.2472	0	20	91	70	130
trans-1,4-Dichloro-2-butene	1	13.6519	0	20	68	50	150
1,3-Dichlorobenzene	1	16.5198	0	20	83	70	130
1,4-Dichlorobenzene	1	16.5566	0	20	83	70	130
1,2-Dichlorobenzene	1	15.3686	0	20	77	70	130
Isopropylbenzene	1	18.2376	0	20	91	70	130
Cyclohexanone	1	55.4657	0	100	55	50	150
Camphene	1	2.7307	0	20	14*	70	130
1,2,3-Trichloropropane	1	17.2353	0	20	86	70	130
2-Chlorotoluene	1	20.365	0	20	102	70	130
p-Ethyltoluene	1	16.964	0	20	85	70	130
4-Chlorotoluene	1	18.7404	0	20	94	70	130
n-Propylbenzene	1	17.7054	0	20	89	70	130
Bromobenzene	1	14.9277	0	20	75	70	130
1,3,5-Trimethylbenzene	1	17.7194	0	20	89	70	130
Butyl methacrylate	1	19.5843	0	20	98	70	130
t-Butylbenzene	1	16.3859	0	20	82	70	130
1,2,4-Trimethylbenzene	1	16.4192	0	20	82	70	130
sec-Butylbenzene	1	17.4094	0	20	87	70	130
4-Isopropyltoluene	1	16.6273	0	20	83	70	130
n-Butylbenzene	1	16.8537	0	20	84	70	130
p-Diethylbenzene	1	15.4921	0	20	77	70	130
1,2,4,5-Tetramethylbenzene	1	13.921	0	20	70	70	130
1,2-Dibromo-3-Chloropropane	1	15.8834	0	20	79	50	150
Camphor	1	66.5534	0	200	33	20	150
Hexachlorobutadiene	1	15.2578	0	20	76	50	150
1,2,4-Trichlorobenzene	1	14.6025	0	20	73	70	130
1,2,3-Trichlorobenzene	1	14.4955	0	20	72	70	130
Naphthalene	1	14.3326	0	20	72	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
QC Batch: MBS73583

8102901 0458

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139741.D		AD07391-015(MSD:AD07391-0		11/4/2018 10:10:00 PM			
Non Spike(If applicable): 3M139739.D		AD07391-013		11/4/2018 9:36:00 PM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.077	0	20	180*	50	150
Dichlorodifluoromethane	1	24.818	0	20	124	50	150
Chloromethane	1	28.3143	0	20	142	50	150
Bromomethane	1	20.5977	0	20	103	50	150
Vinyl Chloride	1	23.224	0	20	116	50	150
Chloroethane	1	20.1011	0	20	101	50	150
Trichlorofluoromethane	1	15.0249	0	20	75	50	150
Ethyl ether	1	13.0855	0	20	65	50	150
Furan	1	14.5528	0	20	73	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.1754	0	20	101	50	150
Methylene Chloride	1	18.4801	0	20	92	70	130
Acrolein	1	68.7423	0	100	69	50	150
Acrylonitrile	1	18.7391	0	20	94	50	150
Iodomethane	1	14.0361	0	20	70	50	150
Acetone	1	84.0866	0	100	84	50	150
Carbon Disulfide	1	16.2858	0	20	81	50	150
t-Butyl Alcohol	1	76.4275	0	100	76	50	150
n-Hexane	1	16.6979	0	20	83	70	130
Di-isopropyl-ether	1	19.4542	0	20	97	70	130
1,1-Dichloroethene	1	17.5599	0	20	88	70	130
Methyl Acetate	1	16.1212	0	20	81	50	150
Methyl-t-butyl ether	1	15.6222	0	20	78	70	130
1,1-Dichloroethane	1	18.3242	0	20	92	70	130
trans-1,2-Dichloroethene	1	15.8239	0	20	79	70	130
Ethyl-t-butyl ether	1	16.962	0	20	85	70	130
cis-1,2-Dichloroethene	1	18.0108	0	20	90	70	130
Bromochloromethane	1	21.7327	0	20	109	70	130
2,2-Dichloropropane	1	17.6627	0	20	88	70	130
Ethyl acetate	1	17.9289	0	20	90	50	150
1,4-Dioxane	1	806.7953	0	1000	81	50	150
1,1-Dichloropropene	1	18.4156	0	20	92	70	130
Chloroform	1	15.769	0	20	79	70	130
Cyclohexane	1	20.1197	0	20	101	70	130
1,2-Dichloroethane	1	18.5411	0	20	93	70	130
2-Butanone	1	17.6029	0	20	88	50	150
1,1,1-Trichloroethane	1	15.0144	0	20	75	70	130
Carbon Tetrachloride	1	16.036	0	20	80	50	150
Vinyl Acetate	1	17.7392	0	20	89	50	150
Bromodichloromethane	1	16.9202	0	20	85	70	130
Methylcyclohexane	1	16.6743	0	20	83	70	130
Dibromomethane	1	18.8185	0	20	94	70	130
1,2-Dichloropropane	1	19.1136	0	20	96	70	130
Trichloroethene	1	15.7257	0	20	79	70	130
Benzene	1	20.1552	0	20	101	70	130
tert-Amyl methyl ether	1	17.1849	0	20	86	70	130
Iso-propylacetate	1	17.9013	0	20	90	70	130
Methyl methacrylate	1	18.4719	0	20	92	70	130
Dibromochloromethane	1	14.6605	0	20	73	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	16.4023	0	20	82	70	130
trans-1,3-Dichloropropene	1	15.2449	0	20	76	70	130
Ethyl methacrylate	1	17.4693	0	20	87	70	130
1,1,2-Trichloroethane	1	19.3129	0	20	97	70	130
1,2-Dibromoethane	1	14.1397	0	20	71	70	130
1,3-Dichloropropane	1	19.4106	0	20	97	70	130
4-Methyl-2-Pentanone	1	17.4792	0	20	87	50	150
2-Hexanone	1	19.3299	0	20	97	50	150
Tetrachloroethene	1	42.8543	24.414	20	92	50	150
Toluene	1	16.5098	0	20	83	70	130
1,1,1,2-Tetrachloroethane	1	19.0462	0	20	95	70	130
Chlorobenzene	1	15.4066	0	20	77	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits

QC Batch: MBS73583

n-Butyl acrylate	1	18.6345	0	20	93	70	130
n-Amyl acetate	1	19.3621	0	20	97	70	130
Bromoform	1	15.7075	0	20	79	70	130
Ethylbenzene	1	19.3894	0	20	97	70	130
1,1,2,2-Tetrachloroethane	1	18.5831	0	20	93	70	130
Styrene	1	17.5003	0	20	88	70	130
m&p-Xylenes	1	35.9688	0	40	90	70	130
o-Xylene	1	18.4273	0	20	92	70	130
trans-1,4-Dichloro-2-butene	1	13.1327	0	20	66	50	150
1,3-Dichlorobenzene	1	15.7191	0	20	79	70	130
1,4-Dichlorobenzene	1	15.5658	0	20	78	70	130
1,2-Dichlorobenzene	1	16.233	0	20	81	70	130
Isopropylbenzene	1	17.5707	0	20	88	70	130
Cyclohexanone	1	68.9398	0	100	69	50	150
Camphene	1	3.5144	0	20	18*	70	130
1,2,3-Trichloropropane	1	17.078	0	20	85	70	130
2-Chlorotoluene	1	20.3169	0	20	102	70	130
p-Ethyltoluene	1	17.0402	0	20	85	70	130
4-Chlorotoluene	1	18.1516	0	20	91	70	130
n-Propylbenzene	1	17.9692	0	20	90	70	130
Bromobenzene	1	15.331	0	20	77	70	130
1,3,5-Trimethylbenzene	1	17.2396	0	20	86	70	130
Butyl methacrylate	1	20.57	0	20	103	70	130
t-Butylbenzene	1	16.512	0	20	83	70	130
1,2,4-Trimethylbenzene	1	16.2301	0	20	81	70	130
sec-Butylbenzene	1	17.6294	0	20	88	70	130
4-Isopropyltoluene	1	16.6324	0	20	83	70	130
n-Butylbenzene	1	17.4669	0	20	87	70	130
p-Diethylbenzene	1	15.8329	0	20	79	70	130
1,2,4,5-Tetramethylbenzene	1	14.5426	0	20	73	70	130
1,2-Dibromo-3-Chloropropane	1	17.3363	0	20	87	50	150
Camphor	1	109.3148	0	200	55	20	150
Hexachlorobutadiene	1	16.5152	0	20	83	50	150
1,2,4-Trichlorobenzene	1	15.8819	0	20	79	70	130
1,2,3-Trichlorobenzene	1	14.6805	0	20	73	70	130
Naphthalene	1	15.6419	0	20	78	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
RPD Data Laboratory Limits
QC Batch: MBS73583

8102901 0460

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139741.D	AD07391-015(MSD:AD07391-0	11/4/2018 10:10:00 PM
Duplicate(If applicable): 3M139740.D	AD07391-014(MS:AD07391-013	11/4/2018 9:53:00 PM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBS Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	36.077	35.7439	0.93	30
Dichlorodifluoromethane	1	24.818	21.627	14	30
Chloromethane	1	28.3143	25.7074	9.7	30
Bromomethane	1	20.5977	18.1382	13	30
Vinyl Chloride	1	23.224	19.6368	17	40
Chloroethane	1	20.1011	20.3062	1	30
Trichlorofluoromethane	1	15.0249	12.5624	18	30
Ethyl ether	1	13.0855	12.7026	3	30
Furan	1	14.5528	14.3364	1.5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	20.1754	17.648	13	30
Methylene Chloride	1	18.4801	17.8647	3.4	30
Acrolein	1	68.7423	72.6776	5.6	30
Acrylonitrile	1	18.7391	16.7636	11	30
Iodomethane	1	14.0361	14.0696	0.24	30
Acetone	1	84.0866	77.8599	7.7	30
Carbon Disulfide	1	16.2858	16.4822	1.2	30
t-Butyl Alcohol	1	76.4275	60.2714	24	30
n-Hexane	1	16.6979	15.6961	6.2	30
Di-isopropyl-ether	1	19.4542	18.43	5.4	30
1,1-Dichloroethene	1	17.5599	16.9868	3.3	40
Methyl Acetate	1	16.1212	14.5821	10	30
Methyl-t-butyl ether	1	15.6222	15.527	0.61	30
1,1-Dichloroethane	1	18.3242	16.1974	12	40
trans-1,2-Dichloroethene	1	15.8239	16.4025	3.6	30
Ethyl-t-butyl ether	1	16.962	15.45	9.3	30
cis-1,2-Dichloroethene	1	18.0108	17.4971	2.9	30
Bromochloromethane	1	21.7327	17.7264	20	30
2,2-Dichloropropane	1	17.6627	17.7064	0.25	30
Ethyl acetate	1	17.9289	16.0543	11	30
1,4-Dioxane	1	806.7953	742.2696	8.3	30
1,1-Dichloropropene	1	18.4156	17.4767	5.2	30
Chloroform	1	15.769	15.1356	4.1	40
Cyclohexane	1	20.1197	17.8142	12	30
1,2-Dichloroethane	1	18.5411	18.9072	2	40
2-Butanone	1	17.6029	14.561	19	40
1,1,1-Trichloroethane	1	15.0144	14.4854	3.6	30
Carbon Tetrachloride	1	16.036	15.9348	0.63	40
Vinyl Acetate	1	17.7392	16.3054	8.4	30
Bromodichloromethane	1	16.9202	16.7268	1.1	30
Methylcyclohexane	1	16.6743	17.1397	2.8	30
Dibromomethane	1	18.8185	18.0576	4.1	30
1,2-Dichloropropane	1	19.1136	19.7327	3.2	30
Trichloroethene	1	15.7257	15.0424	4.4	40
Benzene	1	20.1552	20.0385	0.58	40
tert-Amyl methyl ether	1	17.1849	15.6278	9.5	30
Iso-propylacetate	1	17.9013	18.5446	3.5	30
Methyl methacrylate	1	18.4719	15.1128	20	30
Dibromochloromethane	1	14.6605	15.1966	3.6	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	16.4023	16.5896	1.1	30
trans-1,3-Dichloropropene	1	15.2449	16.3903	7.2	30
Ethyl methacrylate	1	17.4693	17.5973	0.73	30
1,1,2-Trichloroethane	1	19.3129	20.5271	6.1	30
1,2-Dibromoethane	1	14.1397	16.1102	13	30
1,3-Dichloropropane	1	19.4106	20.2707	4.3	30
4-Methyl-2-Pentanone	1	17.4792	18.3557	4.9	30
2-Hexanone	1	19.3299	18.1308	6.4	30
Tetrachloroethene	1	42.8543	45.6214	6.3	40
Toluene	1	16.5098	17.1684	3.9	40
1,1,1,2-Tetrachloroethane	1	19.0462	19.4078	1.9	30
Chlorobenzene	1	15.4066	16.0927	4.4	40
n-Butyl acrylate	1	18.6345	17.5379	6.1	30
n-Amyl acetate	1	19.3621	17.5659	9.7	30

Form3

RPD Data Laboratory Limits

QC Batch: MBS73583

Bromoform	1	15.7075	14.8179	5.8	30
Ethylbenzene	1	19.3894	18.3145	5.7	30
1,1,2,2-Tetrachloroethane	1	18.5831	17.9008	3.7	30
Styrene	1	17.5003	18.9009	7.7	30
m&p-Xylenes	1	35.9688	36.4706	1.4	30
o-Xylene	1	18.4273	18.2472	0.98	30
trans-1,4-Dichloro-2-butene	1	13.1327	13.6519	3.9	30
1,3-Dichlorobenzene	1	15.7191	16.5198	5	30
1,4-Dichlorobenzene	1	15.5658	16.5566	6.2	40
1,2-Dichlorobenzene	1	16.233	15.3686	5.5	40
Isopropylbenzene	1	17.5707	18.2376	3.7	30
Cyclohexanone	1	68.9398	55.4657	22	30
Camphene	1	3.5144	2.7307	25	30
1,2,3-Trichloropropane	1	17.078	17.2353	0.92	30
2-Chlorotoluene	1	20.3169	20.365	0.24	30
p-Ethyltoluene	1	17.0402	16.964	0.45	30
4-Chlorotoluene	1	18.1516	18.7404	3.2	30
n-Propylbenzene	1	17.9692	17.7054	1.5	40
Bromobenzene	1	15.331	14.9277	2.7	30
1,3,5-Trimethylbenzene	1	17.2396	17.7194	2.7	30
Butyl methacrylate	1	20.57	19.5843	4.9	30
t-Butylbenzene	1	16.512	16.3859	0.77	30
1,2,4-Trimethylbenzene	1	16.2301	16.4192	1.2	30
sec-Butylbenzene	1	17.6294	17.4094	1.3	40
4-Isopropyltoluene	1	16.6324	16.6273	0.03	30
n-Butylbenzene	1	17.4669	16.8537	3.6	30
p-Diethylbenzene	1	15.8329	15.4921	2.2	30
1,2,4,5-Tetramethylbenzene	1	14.5426	13.921	4.4	30
1,2-Dibromo-3-Chloropropane	1	17.3363	15.8834	8.7	30
Camphor	1	109.3148	66.5534	49*	30
Hexachlorobutadiene	1	16.5152	15.2578	7.9	30
1,2,4-Trichlorobenzene	1	15.8819	14.6025	8.4	30
1,2,3-Trichlorobenzene	1	14.6805	14.4955	1.3	30
Naphthalene	1	15.6419	14.3326	8.7	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD07391-013
Data File: 3M139739.D
Acq On : 11/ 4/18 21:36

Operator : WP
Sam Mult : 1 Vial# : 37
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	232662	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.742	117	192943	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	78398	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	63338	30.58	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	101.93%	
39) 1,2-Dichloroethane-d4	4.688	67	40185	27.63	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	92.10%	
66) Toluene-d8	5.865	98	234614	29.09	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	96.97%	
76) Bromofluorobenzene	7.451	174	79814	29.39	ug/l	-0.02
Spiked Amount	30.000		Recovery	=	97.97%	
Target Compounds						
65) Tetrachloroethene	6.244	164	26928	24.4140	ug/l	95

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



Abundance

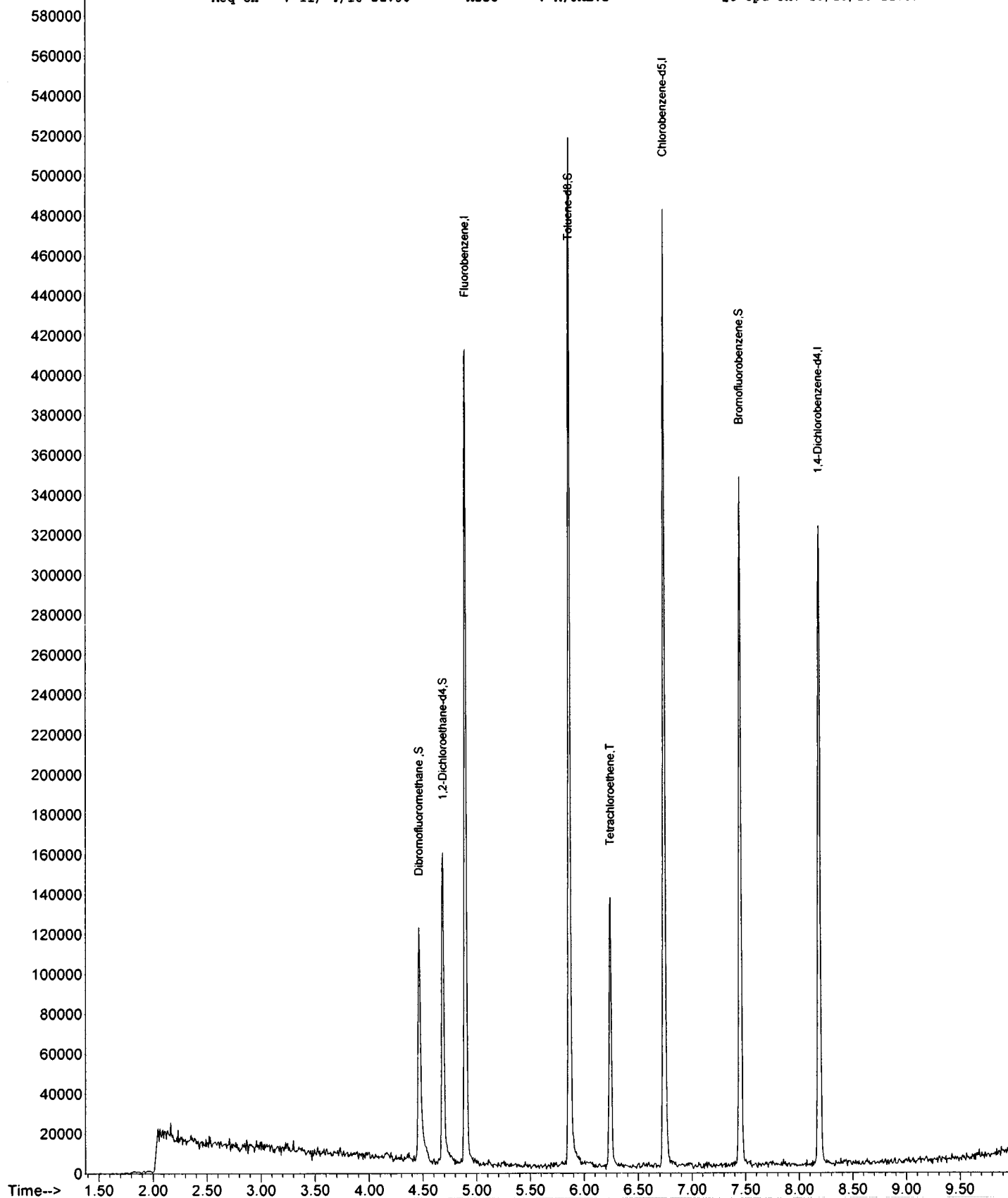
TIC: 3M139739.D\data.ms

Quant QT Reviewed

SampleID : AD07391-013
Data File: 3M139739.D
Acq On : 11/ 4/18 21:36

Operator : WP
Sam Mult : 1 Vial# : 37
Misc : A,5ML12

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:38
Qt Upd On: 10/10/18 11:59



SampleID : AD07391-014(MS:AD07 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139740.D Sam Mult : 1 Vial# : 38 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 21:53 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.897	96	240479	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.747	117	192986	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.195	152	86450	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.471	111	65170	30.45	ug/l	0.00
Spiked Amount 30.000			Recovery	=	101.50%	
39) 1,2-Dichloroethane-d4	4.687	67	43875	29.19	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.30%	
66) Toluene-d8	5.870	98	249526	30.93	ug/l	0.00
Spiked Amount 30.000			Recovery	=	103.10%	
76) Bromofluorobenzene	7.456	174	86607	28.92	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.40%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.548	51	79680	35.7439	ug/l	73
6) Dichlorodifluoromethane	1.531	85	31530	21.6270	ug/l	86
7) Chloromethane	1.681	50	40148	25.7074	ug/l	83
8) Bromomethane	2.050	94	14577	18.1382	ug/l	82
9) Vinyl Chloride	1.764	62	30462	19.6368	ug/l	94
10) Chloroethane	2.128	64	14494	20.3062	ug/l	96
11) Trichlorofluoromethane	2.338	101	29477	12.5624	ug/l	90
12) Ethyl ether	2.560	59	25782	12.7026	ug/l	87
13) Furan	2.596	39	71881	14.3364	ug/l	97
14) 1,1,2-Trichloro-1,2,2-...	2.747	101	16764	17.6480	ug/l	92
15) Methylene Chloride	3.143	84	33460	17.8647	ug/l	85
16) Acrolein	2.674	56	27729	72.6776	ug/l	88
17) Acrylonitrile	3.347	53	14369	16.7636	ug/l	87
18) Iodomethane	2.891	142	31961	14.0696	ug/l	99
19) Acetone	2.795	43	60992	77.8599	ug/l	98
20) Carbon Disulfide	2.957	76	106608	16.4822	ug/l	100
21) t-Butyl Alcohol	3.215	59	9972	60.2714	ug/l	92
22) n-Hexane	3.599	57	14287m	15.6961	ug/l	
23) Di-isopropyl-ether	3.756	45	125981	18.4300	ug/l	80
24) 1,1-Dichloroethene	2.759	61	49459	16.9868	ug/l	88
25) Methyl Acetate	3.059	43	39273	14.5821	ug/l	100
26) Methyl-t-butyl ether	3.365	73	72331	15.5270	ug/l	74
27) 1,1-Dichloroethane	3.726	63	58986	16.1974	ug/l	92
28) trans-1,2-Dichloroethene	3.377	96	31318	16.4025	ug/l	84
29) Ethyl-t-butyl ether	4.032	59	84457	15.4500	ug/l	98
30) cis-1,2-Dichloroethene	4.158	61	64299	17.4971	ug/l	84
31) Bromochloromethane	4.320	49	39553	17.7264	ug/l	71
32) 2,2-Dichloropropane	4.158	77	40434	17.7064	ug/l	86
33) Ethyl acetate	4.188	43	41383	16.0543	ug/l	98
34) 1,4-Dioxane	5.342	88	16749	742.2696	ug/l	91
35) 1,1-Dichloropropene	4.597	75	44045	17.4767	ug/l	93
36) Chloroform	4.362	83	58893	15.1356	ug/l	82
38) Cyclohexane	4.543	56	29652	17.8142	ug/l	85
40) 1,2-Dichloroethane	4.735	62	55441	18.9072	ug/l	97
41) 2-Butanone	4.158	43	15532	14.5610	ug/l	85
42) 1,1,1-Trichloroethane	4.501	97	42334	14.4854	ug/l	92
43) Carbon Tetrachloride	4.609	117	34845	15.9348	ug/l	95
44) Vinyl Acetate	3.756	43	82325	16.3054	ug/l	100
45) Bromodichloromethane	5.426	83	51140	16.7268	ug/l	85
46) Methylcyclohexane	5.257	83	19900	17.1397	ug/l	94
47) Dibromomethane	5.348	174	25684	18.0576	ug/l	88
48) 1,2-Dichloropropane	5.269	63	43454	19.7327	ug/l	96
49) Trichloroethene	5.125	130	31493	15.0424	ug/l	88
50) Benzene	4.735	78	137962	20.0385	ug/l	100
51) tert-Amyl methyl ether	4.783	73	76920	15.6278	ug/l	84
53) Iso-propylacetate	4.735	43	78619	18.5446	ug/l	91
54) Methyl methacrylate	5.305	41	38055	15.1128	ug/l	91
55) Dibromochloromethane	6.393	129	34616	15.1966	ug/l	89
57) cis-1,3-Dichloropropene	5.696	75	54873	16.5896	ug/l	95
58) trans-1,3-Dichloropropene	6.020	75	51070	16.3903	ug/l	84
59) Ethyl methacrylate	6.044	41	45355	17.5973	ug/l	94
60) 1,1,2-Trichloroethane	6.140	97	34096	20.5271	ug/l	86
61) 1,2-Dibromoethane	6.477	107	33017	16.1102	ug/l	91
62) 1,3-Dichloropropane	6.249	76	61045	20.2707	ug/l	98
63) 4-Methyl-2-Pentanone	5.774	43	42388	18.3557	ug/l	100
64) 2-Hexanone	6.267	43	27255	18.1308	ug/l	92
65) Tetrachloroethene	6.243	164	50033	45.6214	ug/l	94
67) Toluene	5.906	92	79062	17.1684	ug/l	91
68) 1,1,1,2-Tetrachloroethane	6.807	133	29728	19.4078	ug/l	94

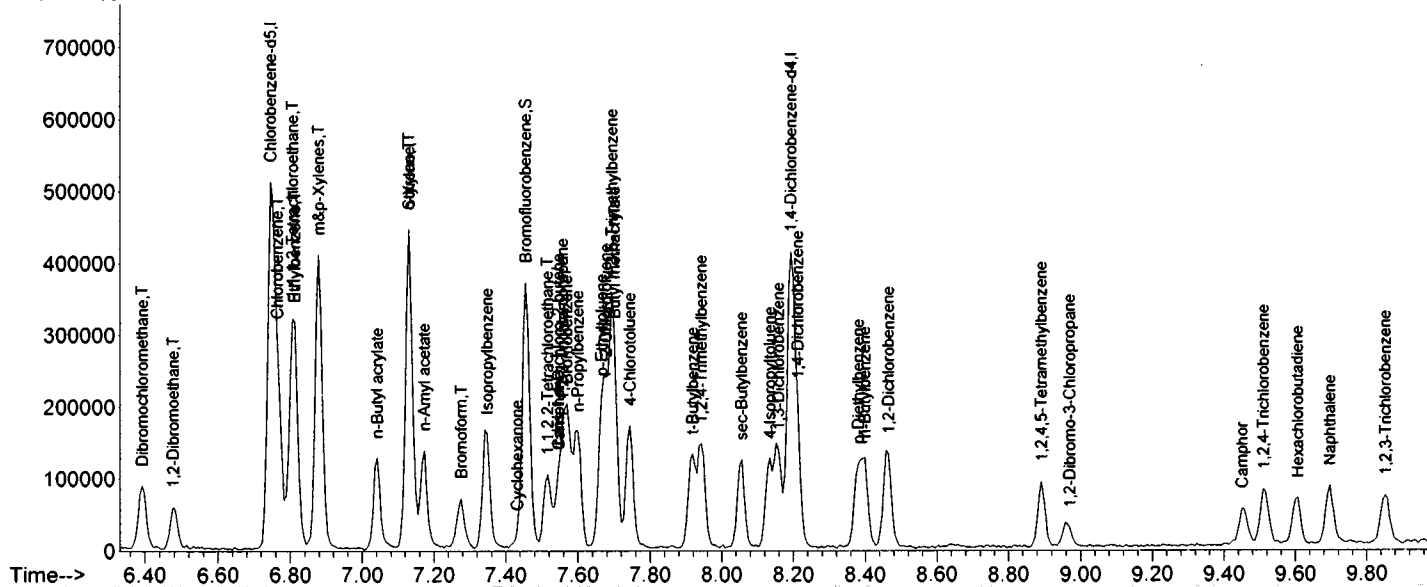
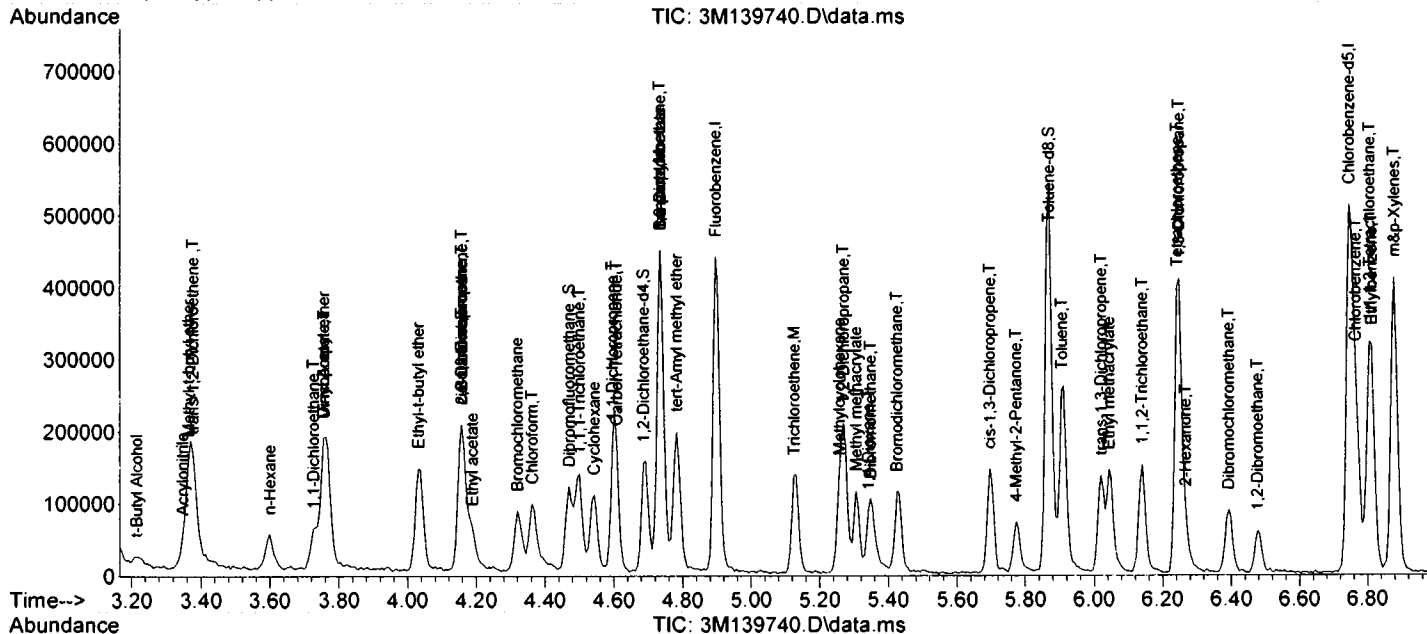
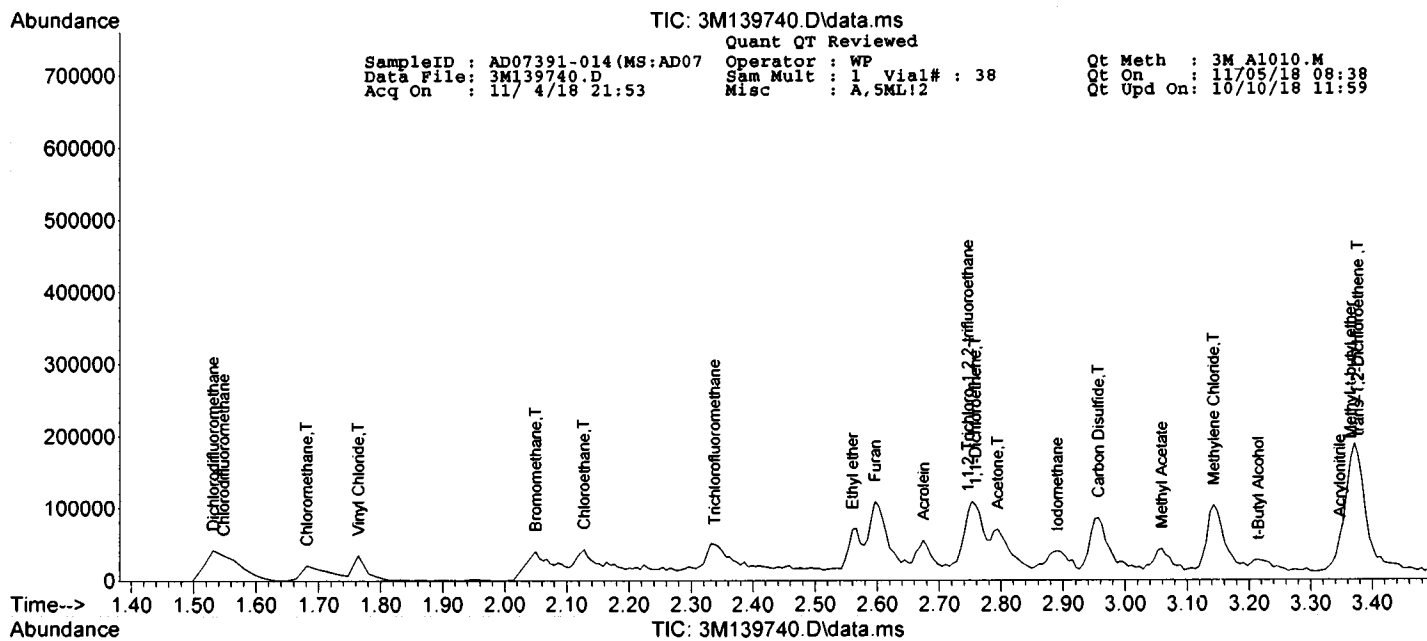
Quantitation Report (QT Reviewed)

SampleID : AD07391-014 (MS:AD07 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139740.D Sam Mult : 1 Vial# : 38 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 21:53 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.765	112	82199	16.0927	ug/l	95
71) n-Butyl acrylate	7.042	55	61350	17.5379	ug/l	98
72) n-Amyl acetate	7.174	43	61574	17.5659	ug/l	85
73) Bromoform	7.276	173	24945	14.8179	ug/l	82
74) Ethylbenzene	6.813	106	26672	18.3145	ug/l	94
75) 1,1,2,2-Tetrachloroethane	7.516	83	46448	17.9008	ug/l	84
77) Styrene	7.132	104	84922	18.9009	ug/l	100
78) m&p-Xylenes	6.879	106	86231	36.4706	ug/l	81
79) o-Xylene	7.132	106	44090	18.2472	ug/l	53
80) trans-1,4-Dichloro-2-b...	7.546	53	12614	13.6519	ug/l	58
81) 1,3-Dichlorobenzene	8.159	146	50451	16.5198	ug/l	91
82) 1,4-Dichlorobenzene	8.213	146	54300	16.5566	ug/l	93
83) 1,2-Dichlorobenzene	8.465	146	49107	15.3686	ug/l	89
84) Isopropylbenzene	7.348	105	86172	18.2376	ug/l	93
85) Cyclohexanone	7.432	55	5523	55.4657	ug/l	86
86) Camphene	7.546	93	3560	2.7307	ug/l	100
87) 1,2,3-Trichloropropane	7.558	75	51175	17.2353	ug/l	92
88) 2-Chlorotoluene	7.678	91	58336	20.3650	ug/l	95
89) p-Ethyltoluene	7.666	105	89526	16.9640	ug/l	79
90) 4-Chlorotoluene	7.744	91	59024	18.7404	ug/l	91
91) n-Propylbenzene	7.600	91	98201	17.7054	ug/l	95
92) Bromobenzene	7.570	77	75560	14.9277	ug/l	95
93) 1,3,5-Trimethylbenzene	7.696	105	60136	17.7194	ug/l	78
94) Butyl methacrylate	7.702	41	56785	19.5843	ug/l	73
95) t-Butylbenzene	7.919	119	54858	16.3859	ug/l	82
96) 1,2,4-Trimethylbenzene	7.943	105	70060	16.4192	ug/l	86
97) sec-Butylbenzene	8.057	105	67950	17.4094	ug/l	97
98) 4-Isopropyltoluene	8.135	119	55137	16.6273	ug/l	89
99) n-Butylbenzene	8.399	91	62988	16.8537	ug/l	94
100) p-Diethylbenzene	8.381	119	29964m	15.4921	ug/l	
101) 1,2,4,5-Tetramethylben...	8.892	119	40920	13.9210	ug/l	90
102) 1,2-Dibromo-3-Chloropr...	8.970	157	7761	15.8834	ug/l	72
103) Camphor	9.450	95	10597	66.5534	ug/l	95
104) Hexachlorobutadiene	9.606	225	14350	15.2578	ug/l	95
105) 1,2,4-Trichlorobenzene	9.510	180	24307	14.6025	ug/l	97
106) 1,2,3-Trichlorobenzene	9.853	180	24013	14.4955	ug/l	90
107) Naphthalene	9.697	128	57660	14.3326	ug/l	100

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



SampleID : AD07391-015(MSD:AD0 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139741.D Sam Mult : 1 Vial# : 39 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 22:10 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.892	96	230608	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.742	117	200315	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.190	152	86605	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	59751	29.11	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.03%	
39) 1,2-Dichloroethane-d4	4.688	67	39985	27.74	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	92.47%	
66) Toluene-d8	5.865	98	241423	28.83	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.10%	
76) Bromofluorobenzene	7.451	174	86751	28.91	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	96.37%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.543	51	77124	36.0770	ug/l	80
6) Dichlorodifluoromethane	1.526	85	34697	24.8180	ug/l	79
7) Chloromethane	1.676	50	42439	28.3143	ug/l	85
8) Bromomethane	2.045	94	15824	20.5977	ug/l	95
9) Vinyl Chloride	1.759	62	34548	23.2240	ug/l	100
10) Chloroethane	2.123	64	13760	20.1011	ug/l	89
11) Trichlorofluoromethane	2.333	101	33808	15.0249	ug/l	88
12) Ethyl ether	2.561	59	25469	13.0855	ug/l	78
13) Furan	2.591	39	69971	14.5528	ug/l	85
14) 1,1,2-Trichloro-1,2,2-...	2.742	101	18377	20.1754	ug/l	95
15) Methylene Chloride	3.138	84	33192	18.4801	ug/l	81
16) Acrolein	2.675	56	25151	68.7423	ug/l	97
17) Acrylonitrile	3.342	53	15403	18.7391	ug/l	91
18) Iodomethane	2.886	142	30576	14.0361	ug/l	95
19) Acetone	2.796	43	63166	84.0866	ug/l	95
20) Carbon Disulfide	2.952	76	101014	16.2858	ug/l	100
21) t-Butyl Alcohol	3.210	59	12126	76.4275	ug/l	99
22) n-Hexane	3.595	57	14575m	16.6979	ug/l	
23) Di-isopropyl-ether	3.757	45	127523	19.4542	ug/l	87
24) 1,1-Dichloroethene	2.754	61	49029	17.5599	ug/l	90
25) Methyl Acetate	3.054	43	41636	16.1212	ug/l	100
26) Methyl-t-butyl ether	3.366	73	69787	15.6222	ug/l	77
27) 1,1-Dichloroethane	3.733	63	63992	18.3242	ug/l	96
28) trans-1,2-Dichloroethene	3.372	96	28973	15.8239	ug/l	87
29) Ethyl-t-butyl ether	4.033	59	88916	16.9620	ug/l	94
30) cis-1,2-Dichloroethene	4.153	61	63470	18.0108	ug/l	93
31) Bromochloromethane	4.315	49	46502	21.7327	ug/l	69
32) 2,2-Dichloropropane	4.153	77	38679	17.6627	ug/l	100
33) Ethyl acetate	4.183	43	44318m	17.9289	ug/l	
34) 1,4-Dioxane	5.349	88	17455	806.7953	ug/l	88
35) 1,1-Dichloropropene	4.598	75	44506	18.4156	ug/l	94
36) Chloroform	4.363	83	58839	15.7690	ug/l	77
38) Cyclohexane	4.538	56	32115	20.1197	ug/l	86
40) 1,2-Dichloroethane	4.736	62	52144	18.5411	ug/l	97
41) 2-Butanone	4.153	43	18006m	17.6029	ug/l	
42) 1,1,1-Trichloroethane	4.496	97	42079	15.0144	ug/l	98
43) Carbon Tetrachloride	4.604	117	33627	16.0360	ug/l	98
44) Vinyl Acetate	3.757	43	85888	17.7392	ug/l	100
45) Bromodichloromethane	5.427	83	49608	16.9202	ug/l	91
46) Methylcyclohexane	5.252	83	18565	16.6743	ug/l	95
47) Dibromomethane	5.343	174	25662	18.8185	ug/l	86
48) 1,2-Dichloropropane	5.265	63	40363	19.1136	ug/l	93
49) Trichloroethene	5.126	130	31572	15.7257	ug/l	90
50) Benzene	4.730	78	133060	20.1552	ug/l	100
51) tert-Amyl methyl ether	4.784	73	81112	17.1849	ug/l	79
53) Iso-propylacetate	4.736	43	78774	17.9013	ug/l	94
54) Methyl methacrylate	5.301	41	48280	18.4719	ug/l	98
55) Dibromochloromethane	6.388	129	34663	14.6605	ug/l	96
57) cis-1,3-Dichloropropene	5.691	75	56314	16.4023	ug/l	86
58) trans-1,3-Dichloropropene	6.015	75	49305	15.2449	ug/l	95
59) Ethyl methacrylate	6.045	41	46735	17.4693	ug/l	85
60) 1,1,2-Trichloroethane	6.136	97	33293	19.3129	ug/l	89
61) 1,2-Dibromoethane	6.472	107	30079	14.1397	ug/l	76
62) 1,3-Dichloropropane	6.238	76	60688	19.4106	ug/l	98
63) 4-Methyl-2-Pentanone	5.769	43	41897	17.4792	ug/l	98
64) 2-Hexanone	6.262	43	30161	19.3299	ug/l	93
65) Tetrachloroethene	6.244	164	48821	42.8543	ug/l	96
67) Toluene	5.907	92	78916	16.5098	ug/l	96
68) 1,1,1,2-Tetrachloroethane	6.802	133	30285	19.0462	ug/l	94

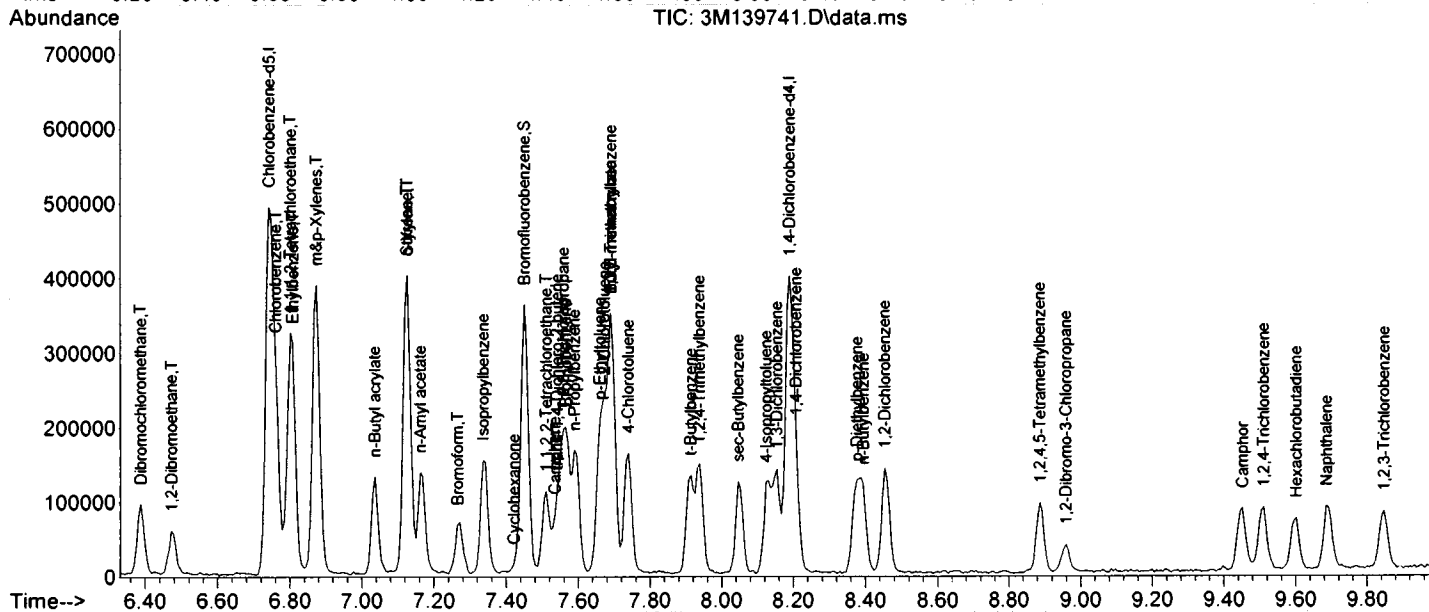
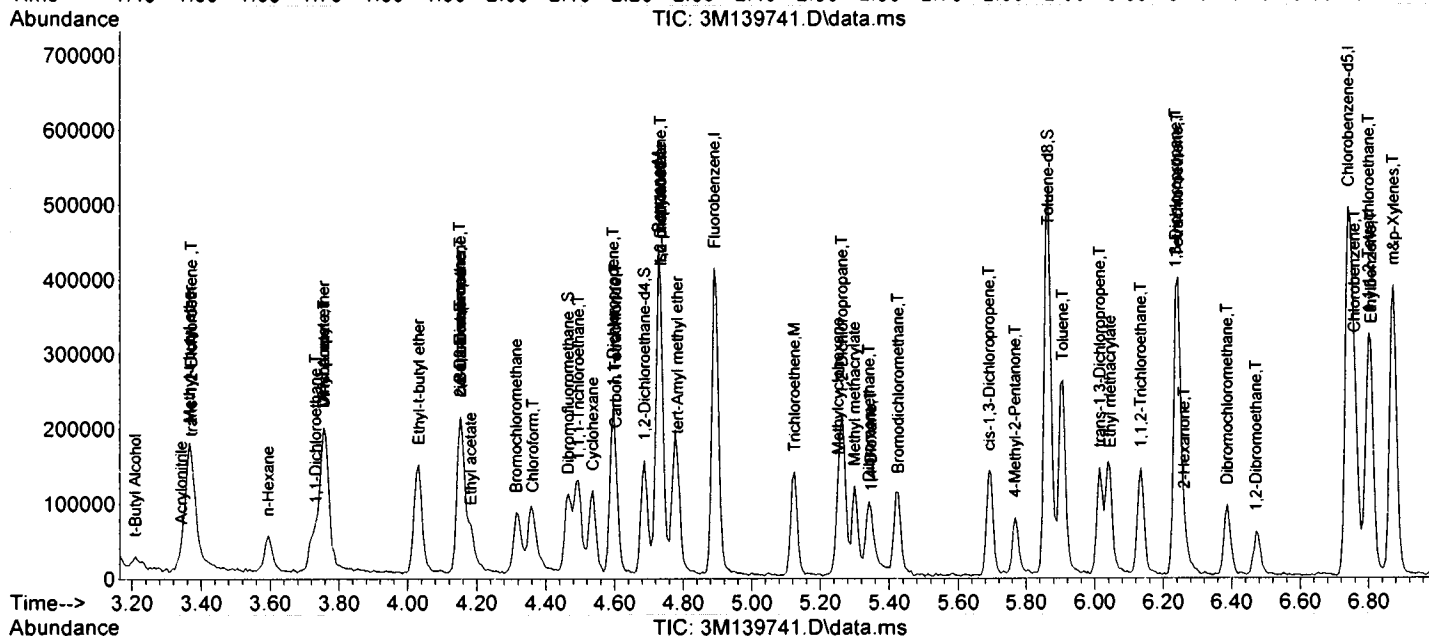
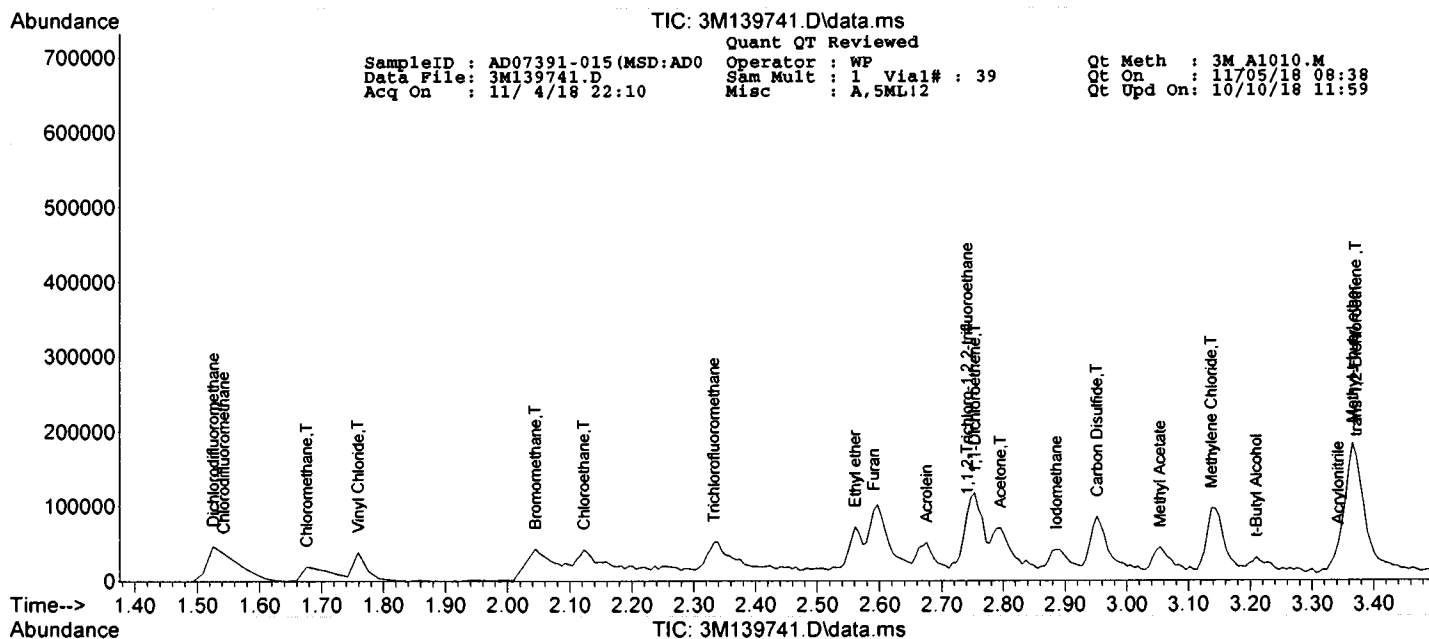
Quantitation Report (QT Reviewed)

SampleID : AD07391-015(MSD:AD0 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139741.D Sam Mult : 1 Vial# : 39 Qt On : 11/05/18 08:38
 Acq On : 11/ 4/18 22:10 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-04-18\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.760	112	81683	15.4066	ug/l	94
71) n-Butyl acrylate	7.037	55	65303	18.6345	ug/l	99
72) n-Amyl acetate	7.163	43	67992	19.3621	ug/l	95
73) Bromoform	7.265	173	26490	15.7075	ug/l	82
74) Ethylbenzene	6.808	106	28288	19.3894	ug/l	74
75) 1,1,2,2-Tetrachloroethane	7.511	83	48305	18.5831	ug/l	88
77) Styrene	7.127	104	78770	17.5003	ug/l	91
78) m&p-Xylenes	6.874	106	85197	35.9688	ug/l	92
79) o-Xylene	7.127	106	44605	18.4273	ug/l	63
80) trans-1,4-Dichloro-2-b...	7.541	53	12156	13.1327	ug/l	64
81) 1,3-Dichlorobenzene	8.154	146	48092	15.7191	ug/l	87
82) 1,4-Dichlorobenzene	8.208	146	51142	15.5658	ug/l	91
83) 1,2-Dichlorobenzene	8.454	146	51962	16.2330	ug/l	87
84) Isopropylbenzene	7.337	105	83170	17.5707	ug/l	94
85) Cyclohexanone	7.421	55	6877	68.9398	ug/l	69
86) Camphene	7.535	93	4590	3.5144	ug/l	99
87) 1,2,3-Trichloropropane	7.559	75	50799	17.0780	ug/l	88
88) 2-Chlorotoluene	7.673	91	58304	20.3169	ug/l	93
89) p-Ethyltoluene	7.661	105	90088	17.0402	ug/l	78
90) 4-Chlorotoluene	7.739	91	57272	18.1516	ug/l	94
91) n-Propylbenzene	7.589	91	99843	17.9692	ug/l	96
92) Bromobenzene	7.565	77	77741	15.3310	ug/l	93
93) 1,3,5-Trimethylbenzene	7.691	105	58629	17.2396	ug/l	81
94) Butyl methacrylate	7.691	41	59750	20.5700	ug/l	77
95) t-Butylbenzene	7.914	119	55379	16.5120	ug/l	85
96) 1,2,4-Trimethylbenzene	7.938	105	69377	16.2301	ug/l	86
97) sec-Butylbenzene	8.046	105	68932	17.6294	ug/l	98
98) 4-Isopropyltoluene	8.124	119	55253	16.6324	ug/l	93
99) n-Butylbenzene	8.394	91	65397	17.4669	ug/l	92
100) p-Diethylbenzene	8.376	119	30678m	15.8329	ug/l	
101) 1,2,4,5-Tetramethylben...	8.887	119	42824	14.5426	ug/l	86
102) 1,2-Dibromo-3-Chloropr...	8.959	157	8492	17.3363	ug/l	64
103) Camphor	9.451	95	17402	109.3148	ug/l	97
104) Hexachlorobutadiene	9.602	225	15557	16.5152	ug/l	96
105) 1,2,4-Trichlorobenzene	9.511	180	26484	15.8819	ug/l	94
106) 1,2,3-Trichlorobenzene	9.848	180	24363	14.6805	ug/l	97
107) Naphthalene	9.686	128	63040	15.6419	ug/l	100

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



Form3
Recovery Data Laboratory Limits
 QC Batch: MBS73584

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139753.D		AD07391-023(MS:AD07391-022		11/5/2018 1:36:00 AM			
Non Spike(If applicable): 3M139751.D		AD07391-022		11/5/2018 1:01:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MS			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.5744	0	20	183 *	50	150
Dichlorodifluoromethane	1	22.5247	0	20	113	50	150
Chloromethane	1	29.7368	0	20	149	50	150
Bromomethane	1	16.6102	0	20	83	50	150
Vinyl Chloride	1	19.2878	0	20	96	50	150
Chloroethane	1	18.8779	0	20	94	50	150
Trichlorofluoromethane	1	13.269	0	20	66	50	150
Ethyl ether	1	13.3049	0	20	67	50	150
Furan	1	13.6576	0	20	68	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.3018	0	20	92	50	150
Methylene Chloride	1	19.6109	0	20	98	70	130
Acrolein	1	68.7604	0	100	69	50	150
Acrylonitrile	1	19.276	0	20	96	50	150
Iodomethane	1	14.4311	0	20	72	50	150
Acetone	1	76.7036	0	100	77	50	150
Carbon Disulfide	1	16.2922	0	20	81	50	150
t-Butyl Alcohol	1	74.7716	0	100	75	50	150
n-Hexane	1	16.9378	0	20	85	70	130
Di-isopropyl-ether	1	19.4656	0	20	97	70	130
1,1-Dichloroethene	1	17.4218	0	20	87	70	130
Methyl Acetate	1	14.5487	0	20	73	50	150
Methyl-t-butyl ether	1	15.44	0	20	77	70	130
1,1-Dichloroethane	1	17.3213	0	20	87	70	130
trans-1,2-Dichloroethene	1	13.4984	0	20	67 *	70	130
Ethyl-t-butyl ether	1	16.6553	0	20	83	70	130
cis-1,2-Dichloroethene	1	17.9943	0	20	90	70	130
Bromochloromethane	1	19.6061	0	20	98	70	130
2,2-Dichloropropane	1	15.4974	0	20	77	70	130
Ethyl acetate	1	16.6786	0	20	83	50	150
1,4-Dioxane	1	852.4635	0	1000	85	50	150
1,1-Dichloropropene	1	17.6874	0	20	88	70	130
Chloroform	1	15.3912	0	20	77	70	130
Cyclohexane	1	19.3096	0	20	97	70	130
1,2-Dichloroethane	1	18.0964	0	20	90	70	130
2-Butanone	1	17.0189	0	20	85	50	150
1,1,1-Trichloroethane	1	15.2637	0	20	76	70	130
Carbon Tetrachloride	1	15.7011	0	20	79	50	150
Vinyl Acetate	1	17.288	0	20	86	50	150
Bromodichloromethane	1	17.719	0	20	89	70	130
Methylcyclohexane	1	18.1448	0	20	91	70	130
Dibromomethane	1	19.5074	0	20	98	70	130
1,2-Dichloropropane	1	19.3279	0	20	97	70	130
Trichloroethene	1	16.1013	0	20	81	70	130
Benzene	1	19.9882	0	20	100	70	130
tert-Amyl methyl ether	1	16.2782	0	20	81	70	130
Iso-propylacetate	1	18.2577	0	20	91	70	130
Methyl methacrylate	1	17.904	0	20	90	70	130
Dibromochloromethane	1	16.0412	0	20	80	70	130
2-Chloroethylvinylether	1	0	0	20	0 *	70	130
cis-1,3-Dichloropropene	1	16.6503	0	20	83	70	130
trans-1,3-Dichloropropene	1	16.5635	0	20	83	70	130
Ethyl methacrylate	1	16.9199	0	20	85	70	130
1,1,2-Trichloroethane	1	19.1748	0	20	96	70	130
1,2-Dibromoethane	1	15.5259	0	20	78	70	130
1,3-Dichloropropane	1	20.8606	0	20	104	70	130
4-Methyl-2-Pentanone	1	17.9325	0	20	90	50	150
2-Hexanone	1	18.7333	0	20	94	50	150
Tetrachloroethene	1	22.1314	1.4378	20	103	50	150
Toluene	1	17.1829	0	20	86	70	130
1,1,1,2-Tetrachloroethane	1	20.0138	0	20	100	70	130
Chlorobenzene	1	17.6133	0	20	88	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73584

n-Butyl acrylate	1	17.9951	0	20	90	70	130
n-Amyl acetate	1	17.7052	0	20	89	70	130
Bromoform	1	15.2607	0	20	76	70	130
Ethylbenzene	1	17.6205	0	20	88	70	130
1,1,2,2-Tetrachloroethane	1	18.6164	0	20	93	70	130
Styrene	1	18.1916	0	20	91	70	130
m&p-Xylenes	1	36.4187	0	40	91	70	130
o-Xylene	1	18.4127	0	20	92	70	130
trans-1,4-Dichloro-2-butene	1	13.5562	0	20	68	50	150
1,3-Dichlorobenzene	1	16.5229	0	20	83	70	130
1,4-Dichlorobenzene	1	16.0359	0	20	80	70	130
1,2-Dichlorobenzene	1	15.6128	0	20	78	70	130
Isopropylbenzene	1	17.8914	0	20	89	70	130
Cyclohexanone	1	57.0058	0	100	57	50	150
Camphene	1	3.88	0	20	19*	70	130
1,2,3-Trichloropropane	1	17.5192	0	20	88	70	130
2-Chlorotoluene	1	18.6191	0	20	93	70	130
p-Ethyltoluene	1	14.8066	0	20	74	70	130
4-Chlorotoluene	1	16.658	0	20	83	70	130
n-Propylbenzene	1	17.4288	0	20	87	70	130
Bromobenzene	1	15.2807	0	20	76	70	130
1,3,5-Trimethylbenzene	1	17.1117	0	20	86	70	130
Butyl methacrylate	1	19.3411	0	20	97	70	130
t-Butylbenzene	1	16.2776	0	20	81	70	130
1,2,4-Trimethylbenzene	1	17.0044	0	20	85	70	130
sec-Butylbenzene	1	17.9364	0	20	90	70	130
4-Isopropyltoluene	1	17.9455	0	20	90	70	130
n-Butylbenzene	1	16.8804	0	20	84	70	130
p-Diethylbenzene	1	16.3821	0	20	82	70	130
1,2,4,5-Tetramethylbenzene	1	15.349	0	20	77	70	130
1,2-Dibromo-3-Chloropropane	1	15.6169	0	20	78	50	150
Camphor	1	115.2166	0	200	58	20	150
Hexachlorobutadiene	1	15.4377	0	20	77	50	150
1,2,4-Trichlorobenzene	1	16.3715	0	20	82	70	130
1,2,3-Trichlorobenzene	1	14.9936	0	20	75	70	130
Naphthalene	1	15.704	0	20	79	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3
Recovery Data Laboratory Limits
 QC Batch: MBS73584

Data File		Sample ID:		Analysis Date			
Spike or Dup: 3M139754.D		AD07391-024(MSD:AD07391-0		11/5/2018 1:52:00 AM			
Non Spike(If applicable): 3M139751.D		AD07391-022		11/5/2018 1:01:00 AM			
Inst Blank(If applicable):							
Method: 8260C		Matrix: Aqueous		QC Type: MSD			
Analyte:	Col	Spike Conc	Sample Conc	Expected Conc	Recovery	Lower Limit	Upper Limit
Chlorodifluoromethane	1	36.5767	0	20	183 *	50	150
Dichlorodifluoromethane	1	21.9916	0	20	110	50	150
Chloromethane	1	27.6595	0	20	138	50	150
Bromomethane	1	18.1649	0	20	91	50	150
Vinyl Chloride	1	20.3569	0	20	102	50	150
Chloroethane	1	20.4333	0	20	102	50	150
Trichlorofluoromethane	1	14.9296	0	20	75	50	150
Ethyl ether	1	13.0384	0	20	65	50	150
Furan	1	14.4675	0	20	72	50	150
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.6457	0	20	93	50	150
Methylene Chloride	1	19.504	0	20	98	70	130
Acrolein	1	71.0226	0	100	71	50	150
Acrylonitrile	1	17.6462	0	20	88	50	150
Iodomethane	1	13.8181	0	20	69	50	150
Acetone	1	74.8069	0	100	75	50	150
Carbon Disulfide	1	15.9382	0	20	80	50	150
t-Butyl Alcohol	1	69.8015	0	100	70	50	150
n-Hexane	1	17.1915	0	20	86	70	130
Di-isopropyl-ether	1	19.2248	0	20	96	70	130
1,1-Dichloroethene	1	15.7228	0	20	79	70	130
Methyl Acetate	1	14.5129	0	20	73	50	150
Methyl-t-butyl ether	1	14.8014	0	20	74	70	130
1,1-Dichloroethane	1	18.2377	0	20	91	70	130
trans-1,2-Dichloroethene	1	16.9102	0	20	85	70	130
Ethyl-t-butyl ether	1	16.3038	0	20	82	70	130
cis-1,2-Dichloroethene	1	17.7749	0	20	89	70	130
Bromochloromethane	1	21.0717	0	20	105	70	130
2,2-Dichloropropane	1	15.6191	0	20	78	70	130
Ethyl acetate	1	15.2405	0	20	76	50	150
1,4-Dioxane	1	798.4946	0	1000	80	50	150
1,1-Dichloropropene	1	18.1599	0	20	91	70	130
Chloroform	1	15.4767	0	20	77	70	130
Cyclohexane	1	18.5121	0	20	93	70	130
1,2-Dichloroethane	1	18.7086	0	20	94	70	130
2-Butanone	1	16.8664	0	20	84	50	150
1,1,1-Trichloroethane	1	15.6789	0	20	78	70	130
Carbon Tetrachloride	1	16.8296	0	20	84	50	150
Vinyl Acetate	1	16.2904	0	20	81	50	150
Bromodichloromethane	1	16.1654	0	20	81	70	130
Methylcyclohexane	1	18.5866	0	20	93	70	130
Dibromomethane	1	17.9211	0	20	90	70	130
1,2-Dichloropropane	1	19.9275	0	20	100	70	130
Trichloroethene	1	16.0738	0	20	80	70	130
Benzene	1	20.245	0	20	101	70	130
tert-Amyl methyl ether	1	17.0699	0	20	85	70	130
Iso-propylacetate	1	16.4879	0	20	82	70	130
Methyl methacrylate	1	16.4099	0	20	82	70	130
Dibromochloromethane	1	16.0244	0	20	80	70	130
2-Chloroethylvinylether	1	0	0	20	0*	70	130
cis-1,3-Dichloropropene	1	17.3254	0	20	87	70	130
trans-1,3-Dichloropropene	1	16.6405	0	20	83	70	130
Ethyl methacrylate	1	18.1541	0	20	91	70	130
1,1,2-Trichloroethane	1	20.3171	0	20	102	70	130
1,2-Dibromoethane	1	15.1935	0	20	76	70	130
1,3-Dichloropropane	1	20.6589	0	20	103	70	130
4-Methyl-2-Pentanone	1	17.6359	0	20	88	50	150
2-Hexanone	1	19.1654	0	20	96	50	150
Tetrachloroethene	1	21.8186	1.4378	20	102	50	150
Toluene	1	16.7221	0	20	84	70	130
1,1,1,2-Tetrachloroethane	1	20.2361	0	20	101	70	130
Chlorobenzene	1	17.1827	0	20	86	70	130

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Recovery Data Laboratory Limits

QC Batch: MBS73584

n-Butyl acrylate	1	19.2474	0	20	96	70	130
n-Amyl acetate	1	17.3872	0	20	87	70	130
Bromoform	1	15.882	0	20	79	70	130
Ethylbenzene	1	16.6407	0	20	83	70	130
1,1,2,2-Tetrachloroethane	1	18.2623	0	20	91	70	130
Styrene	1	19.0843	0	20	95	70	130
m&p-Xylenes	1	38.4664	0	40	96	70	130
o-Xylene	1	19.4785	0	20	97	70	130
trans-1,4-Dichloro-2-butene	1	12.7898	0	20	64	50	150
1,3-Dichlorobenzene	1	17.0136	0	20	85	70	130
1,4-Dichlorobenzene	1	16.5895	0	20	83	70	130
1,2-Dichlorobenzene	1	16.0974	0	20	80	70	130
Isopropylbenzene	1	19.0549	0	20	95	70	130
Cyclohexanone	1	53.0626	0	100	53	50	150
Camphene	1	3.55	0	20	18*	70	130
1,2,3-Trichloropropane	1	18.2492	0	20	91	70	130
2-Chlorotoluene	1	20.2987	0	20	101	70	130
p-Ethyltoluene	1	15.6433	0	20	78	70	130
4-Chlorotoluene	1	17.5533	0	20	88	70	130
n-Propylbenzene	1	19.0089	0	20	95	70	130
Bromobenzene	1	15.9534	0	20	80	70	130
1,3,5-Trimethylbenzene	1	20.84	0	20	104	70	130
Butyl methacrylate	1	21.515	0	20	108	70	130
t-Butylbenzene	1	17.2375	0	20	86	70	130
1,2,4-Trimethylbenzene	1	17.6137	0	20	88	70	130
sec-Butylbenzene	1	18.6824	0	20	93	70	130
4-Isopropyltoluene	1	17.6474	0	20	88	70	130
n-Butylbenzene	1	18.1775	0	20	91	70	130
p-Diethylbenzene	1	16.2416	0	20	81	70	130
1,2,4,5-Tetramethylbenzene	1	16.3635	0	20	82	70	130
1,2-Dibromo-3-Chloropropane	1	16.2186	0	20	81	50	150
Camphor	1	116.1392	0	200	58	20	150
Hexachlorobutadiene	1	18.0715	0	20	90	50	150
1,2,4-Trichlorobenzene	1	16.4299	0	20	82	70	130
1,2,3-Trichlorobenzene	1	15.0243	0	20	75	70	130
Naphthalene	1	16.2773	0	20	81	50	150

* - Indicates outside of limits

- Indicates outside of standard limits but within method exceedance limits

Form3

RPD Data Laboratory Limits

QC Batch: MBS73584

Data File	Sample ID:	Analysis Date
Spike or Dup: 3M139754.D	AD07391-024(MSD:AD07391-0	11/5/2018 1:52:00 AM
Duplicate(If applicable): 3M139753.D	AD07391-023(MS:AD07391-022	11/5/2018 1:36:00 AM
Inst Blank(If applicable):		
Method: 8260C	Matrix: Aqueous	QC Type: MSD

Analyte:	Column	Dup/MSD/MBSD Conc	Sample/MS/MBS Conc	RPD	Limit
Chlorodifluoromethane	1	36.5767	36.5744	0.01	30
Dichlorodifluoromethane	1	21.9916	22.5247	2.4	30
Chloromethane	1	27.6595	29.7368	7.2	30
Bromomethane	1	18.1649	16.6102	8.9	30
Vinyl Chloride	1	20.3569	19.2878	5.4	40
Chloroethane	1	20.4333	18.8779	7.9	30
Trichlorofluoromethane	1	14.9296	13.269	12	30
Ethyl ether	1	13.0384	13.3049	2	30
Furan	1	14.4675	13.6576	5.8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	1	18.6457	18.3018	1.9	30
Methylene Chloride	1	19.504	19.6109	0.55	30
Acrolein	1	71.0226	68.7604	3.2	30
Acrylonitrile	1	17.6462	19.276	8.8	30
Iodomethane	1	13.8181	14.4311	4.3	30
Acetone	1	74.8069	76.7036	2.5	30
Carbon Disulfide	1	15.9382	16.2922	2.2	30
t-Butyl Alcohol	1	69.8015	74.7716	6.9	30
n-Hexane	1	17.1915	16.9378	1.5	30
Di-isopropyl-ether	1	19.2248	19.4656	1.2	30
1,1-Dichloroethene	1	15.7228	17.4218	10	40
Methyl Acetate	1	14.5129	14.5487	0.25	30
Methyl-t-butyl ether	1	14.8014	15.44	4.2	30
1,1-Dichloroethane	1	18.2377	17.3213	5.2	40
trans-1,2-Dichloroethene	1	16.9102	13.4984	22	30
Ethyl-t-butyl ether	1	16.3038	16.6553	2.1	30
cis-1,2-Dichloroethene	1	17.7749	17.9943	1.2	30
Bromochloromethane	1	21.0717	19.6061	7.2	30
2,2-Dichloropropane	1	15.6191	15.4974	0.78	30
Ethyl acetate	1	15.2405	16.6786	9	30
1,4-Dioxane	1	798.4946	852.4635	6.5	30
1,1-Dichloropropene	1	18.1599	17.6874	2.6	30
Chloroform	1	15.4767	15.3912	0.55	40
Cyclohexane	1	18.5121	19.3096	4.2	30
1,2-Dichloroethane	1	18.7086	18.0964	3.3	40
2-Butanone	1	16.8664	17.0189	0.9	40
1,1,1-Trichloroethane	1	15.6789	15.2637	2.7	30
Carbon Tetrachloride	1	16.8296	15.7011	6.9	40
Vinyl Acetate	1	16.2904	17.288	5.9	30
Bromodichloromethane	1	16.1654	17.719	9.2	30
Methylcyclohexane	1	18.5866	18.1448	2.4	30
Dibromomethane	1	17.9211	19.5074	8.5	30
1,2-Dichloropropane	1	19.9275	19.3279	3.1	30
Trichloroethene	1	16.0738	16.1013	0.17	40
Benzene	1	20.245	19.9882	1.3	40
tert-Amyl methyl ether	1	17.0699	16.2782	4.7	30
Iso-propylacetate	1	16.4879	18.2577	10	30
Methyl methacrylate	1	16.4099	17.904	8.7	30
Dibromochloromethane	1	16.0244	16.0412	0.1	30
2-Chloroethylvinylether	1	0	0	NA	30
cis-1,3-Dichloropropene	1	17.3254	16.6503	4	30
trans-1,3-Dichloropropene	1	16.6405	16.5635	0.46	30
Ethyl methacrylate	1	18.1541	16.9199	7	30
1,1,2-Trichloroethane	1	20.3171	19.1748	5.8	30
1,2-Dibromoethane	1	15.1935	15.5259	2.2	30
1,3-Dichloropropane	1	20.6589	20.8606	0.97	30
4-Methyl-2-Pentanone	1	17.6359	17.9325	1.7	30
2-Hexanone	1	19.1654	18.7333	2.3	30
Tetrachloroethene	1	21.8186	22.1314	1.4	40
Toluene	1	16.7221	17.1829	2.7	40
1,1,1,2-Tetrachloroethane	1	20.2361	20.0138	1.1	30
Chlorobenzene	1	17.1827	17.6133	2.5	40
n-Butyl acrylate	1	19.2474	17.9951	6.7	30
n-Amyl acetate	1	17.3872	17.7052	1.8	30

Form3

RPD Data Laboratory Limits

QC Batch: MBS73584

Bromoform	1	15.882	15.2607	4	30
Ethylbenzene	1	16.6407	17.6205	5.7	30
1,1,2,2-Tetrachloroethane	1	18.2623	18.6164	1.9	30
Styrene	1	19.0843	18.1916	4.8	30
m&p-Xylenes	1	38.4664	36.4187	5.5	30
o-Xylene	1	19.4785	18.4127	5.6	30
trans-1,4-Dichloro-2-butene	1	12.7898	13.5562	5.8	30
1,3-Dichlorobenzene	1	17.0136	16.5229	2.9	30
1,4-Dichlorobenzene	1	16.5895	16.0359	3.4	40
1,2-Dichlorobenzene	1	16.0974	15.6128	3.1	40
Isopropylbenzene	1	19.0549	17.8914	6.3	30
Cyclohexanone	1	53.0626	57.0058	7.2	30
Camphene	1	3.55	3.88	8.9	30
1,2,3-Trichloropropane	1	18.2492	17.5192	4.1	30
2-Chlorotoluene	1	20.2987	18.6191	8.6	30
p-Ethyltoluene	1	15.6433	14.8066	5.5	30
4-Chlorotoluene	1	17.5533	16.658	5.2	30
n-Propylbenzene	1	19.0089	17.4288	8.7	40
Bromobenzene	1	15.9534	15.2807	4.3	30
1,3,5-Trimethylbenzene	1	20.84	17.1117	20	30
Butyl methacrylate	1	21.515	19.3411	11	30
t-Butylbenzene	1	17.2375	16.2776	5.7	30
1,2,4-Trimethylbenzene	1	17.6137	17.0044	3.5	30
sec-Butylbenzene	1	18.6824	17.9364	4.1	40
4-Isopropyltoluene	1	17.6474	17.9455	1.7	30
n-Butylbenzene	1	18.1775	16.8804	7.4	30
p-Diethylbenzene	1	16.2416	16.3821	0.86	30
1,2,4,5-Tetramethylbenzene	1	16.3635	15.349	6.4	30
1,2-Dibromo-3-Chloropropane	1	16.2186	15.6169	3.8	30
Camphor	1	116.1392	115.2166	0.8	30
Hexachlorobutadiene	1	18.0715	15.4377	16	30
1,2,4-Trichlorobenzene	1	16.4299	16.3715	0.36	30
1,2,3-Trichlorobenzene	1	15.0243	14.9936	0.2	30
Naphthalene	1	16.2773	15.704	3.6	30

* - Indicates outside of limits

NA - Both concentrations=0... no result can be calculated

SampleID : AD07391-022
Data File: 3M139751.D
Acq On : 11/ 5/18 01:01

Operator : WP
Sam Mult : 1 Vial# : 41
Misc : A,5ML!2

Qt Meth : 3M_A1010.M
Qt On : 11/05/18 08:46
Qt Upd On: 10/10/18 11:59

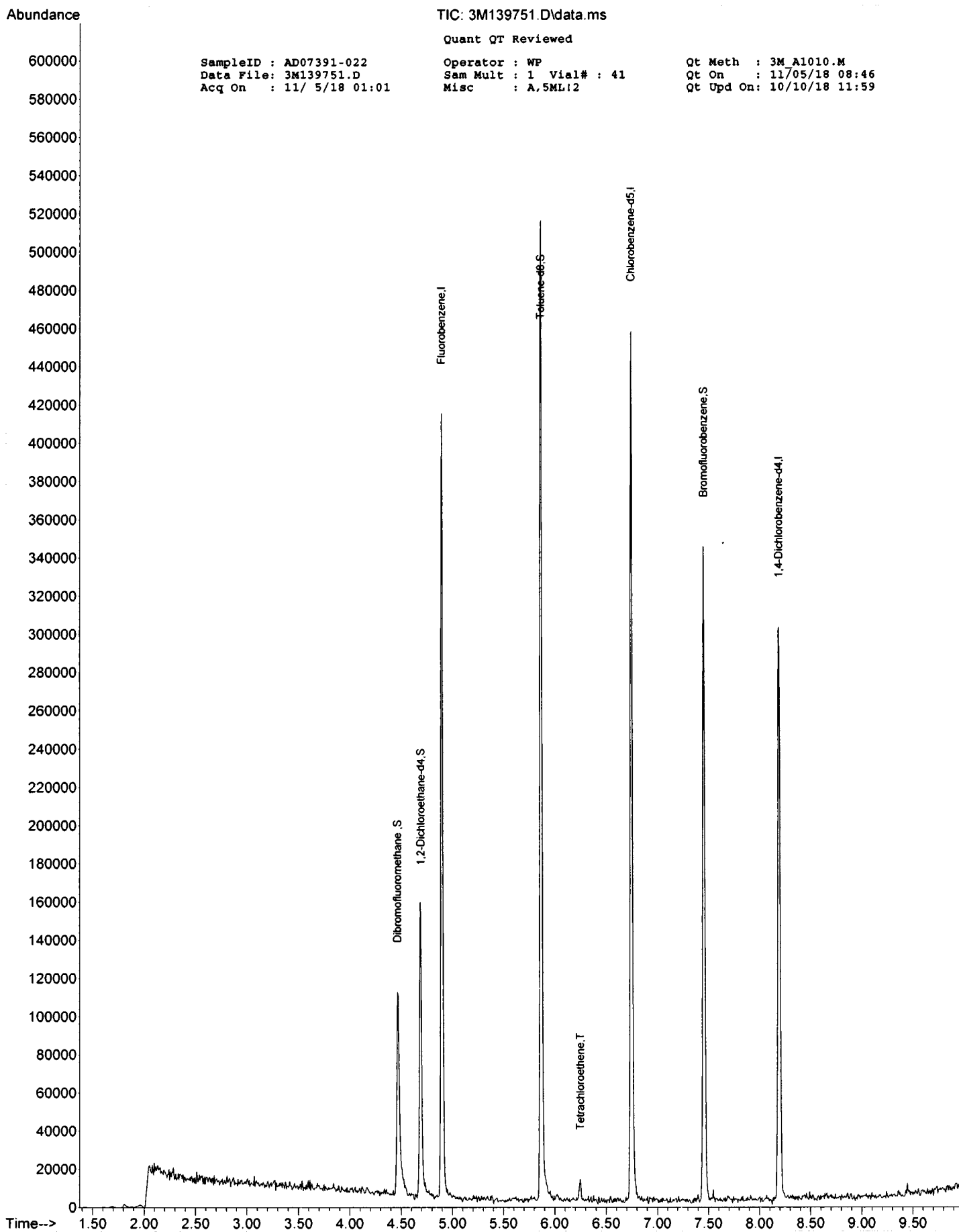
Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.898	96	223700	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.748	117	187497	30.00	ug/l	-0.01
70) 1,4-Dichlorobenzene-d4	8.196	152	77496	30.00	ug/l	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	4.465	111	57950	29.10	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	97.00%	
39) 1,2-Dichloroethane-d4	4.694	67	43276	30.95	ug/l	0.00
Spiked Amount	30.000		Recovery	=	103.17%	
66) Toluene-d8	5.871	98	236100	30.13	ug/l	0.00
Spiked Amount	30.000		Recovery	=	100.43%	
76) Bromofluorobenzene	7.457	174	77855	29.00	ug/l	-0.01
Spiked Amount	30.000		Recovery	=	96.67%	
Target Compounds						
65) Tetrachloroethene	6.249	164	1551	1.4378	ug/l	60

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





SampleID : AD07391-023(MS:AD07 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139753.D Sam Mult : 1 Vial# : 43 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:36 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
4) Fluorobenzene	4.897	96	242363	30.00	ug/l	-0.01
52) Chlorobenzene-d5	6.741	117	197265	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.189	152	89262	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.464	111	61795	28.65	ug/l	-0.01
Spiked Amount 30.000			Recovery =	95.50%		
39) 1,2-Dichloroethane-d4	4.687	67	44021	29.06	ug/l	-0.01
Spiked Amount 30.000			Recovery =	96.87%		
66) Toluene-d8	5.864	98	254043	30.81	ug/l	-0.01
Spiked Amount 30.000			Recovery =	102.70%		
76) Bromofluorobenzene	7.456	174	88783	28.71	ug/l	-0.01
Spiked Amount 30.000			Recovery =	95.70%		
Target Compounds						
5) Chlorodifluoromethane	1.530	51	82177	36.5744	ug/l	74
6) Dichlorodifluoromethane	1.513	85	33096	22.5247	ug/l	86
7) Chloromethane	1.680	50	46864	29.7368	ug/l	89
8) Bromomethane	2.050	94	13480	16.6102	ug/l	75
9) Vinyl Chloride	1.763	62	30155	19.2878	ug/l	95
10) Chloroethane	2.122	64	13589	18.8779	ug/l	94
11) Trichlorofluoromethane	2.338	101	31379	13.2690	ug/l	89
12) Ethyl ether	2.560	59	27216	13.3049	ug/l	93
13) Furan	2.596	39	69014	13.6576	ug/l	95
14) 1,1,2-Trichloro-1,2,2-...	2.746	101	17521	18.3018	ug/l	94
15) Methylene Chloride	3.143	84	37019	19.6109	ug/l	98
16) Acrolein	2.674	56	26440	68.7604	ug/l	89
17) Acrylonitrile	3.341	53	16652	19.2760	ug/l	79
18) Iodomethane	2.885	142	33039	14.4311	ug/l	96
19) Acetone	2.794	43	60557	76.7036	ug/l	98
20) Carbon Disulfide	2.951	76	106205	16.2922	ug/l	100
21) t-Butyl Alcohol	3.209	59	12468	74.7716	ug/l	70
22) n-Hexane	3.593	57	15538m	16.9378	ug/l	
23) Di-isopropyl-ether	3.756	45	134102	19.4656	ug/l	85
24) 1,1-Dichloroethene	2.758	61	51123	17.4218	ug/l	93
25) Methyl Acetate	3.053	43	39490	14.5487	ug/l	100
26) Methyl-t-butyl ether	3.365	73	72489	15.4400	ug/l	74
27) 1,1-Dichloroethane	3.732	63	63573	17.3213	ug/l	91
28) trans-1,2-Dichloroethene	3.377	96	25975	13.4984	ug/l	96
29) Ethyl-t-butyl ether	4.026	59	91759	16.6553	ug/l	95
30) cis-1,2-Dichloroethene	4.152	61	66644	17.9943	ug/l	86
31) Bromochloromethane	4.314	49	44090	19.6061	ug/l	53
32) 2,2-Dichloropropane	4.152	77	35688	15.4974	ug/l	96
33) Ethyl acetate	4.182	43	43329	16.6786	ug/l	99
34) 1,4-Dioxane	5.341	88	19381	852.4635	ug/l	79
35) 1,1-Dichloropropene	4.597	75	44925	17.6874	ug/l	92
36) Chloroform	4.356	83	60357	15.3912	ug/l	83
38) Cyclohexane	4.536	56	32393	19.3096	ug/l	84
40) 1,2-Dichloroethane	4.735	62	53498	18.0964	ug/l	90
41) 2-Butanone	4.152	43	18296	17.0189	ug/l	97
42) 1,1,1-Trichloroethane	4.494	97	44958	15.2637	ug/l	95
43) Carbon Tetrachloride	4.603	117	34603	15.7011	ug/l	91
44) Vinyl Acetate	3.756	43	87970	17.2880	ug/l	100
45) Bromodichloromethane	5.425	83	54598	17.7190	ug/l	97
46) Methylcyclohexane	5.251	83	21232	18.1448	ug/l	98
47) Dibromomethane	5.347	174	27952	19.5074	ug/l	81
48) 1,2-Dichloropropane	5.263	63	42896	19.3279	ug/l	96
49) Trichloroethene	5.125	130	33974	16.1013	ug/l	86
50) Benzene	4.729	78	138698	19.9882	ug/l	100
51) tert-Amyl methyl ether	4.783	73	80749	16.2782	ug/l	84
53) Iso-propylacetate	4.735	43	79119	18.2577	ug/l	92
54) Methyl methacrylate	5.299	41	46083	17.9040	ug/l	94
55) Dibromochloromethane	6.387	129	37350	16.0412	ug/l	95
57) cis-1,3-Dichloropropene	5.690	75	56295	16.6503	ug/l	88
58) trans-1,3-Dichloropropene	6.014	75	52754	16.5635	ug/l	97
59) Ethyl methacrylate	6.038	41	44576	16.9199	ug/l	82
60) 1,1,2-Trichloroethane	6.134	97	32551	19.1748	ug/l	83
61) 1,2-Dibromoethane	6.471	107	32525	15.5259	ug/l	92
62) 1,3-Dichloropropane	6.242	76	64205	20.8606	ug/l	100
63) 4-Methyl-2-Pentanone	5.768	43	42329	17.9325	ug/l	99
64) 2-Hexanone	6.260	43	28785	18.7333	ug/l	94
65) Tetrachloroethene	6.242	164	24973	22.1314	ug/l	80
67) Toluene	5.906	92	80883	17.1829	ug/l	75
68) 1,1,1,2-Tetrachloroethane	6.795	133	31331	20.0138	ug/l	89

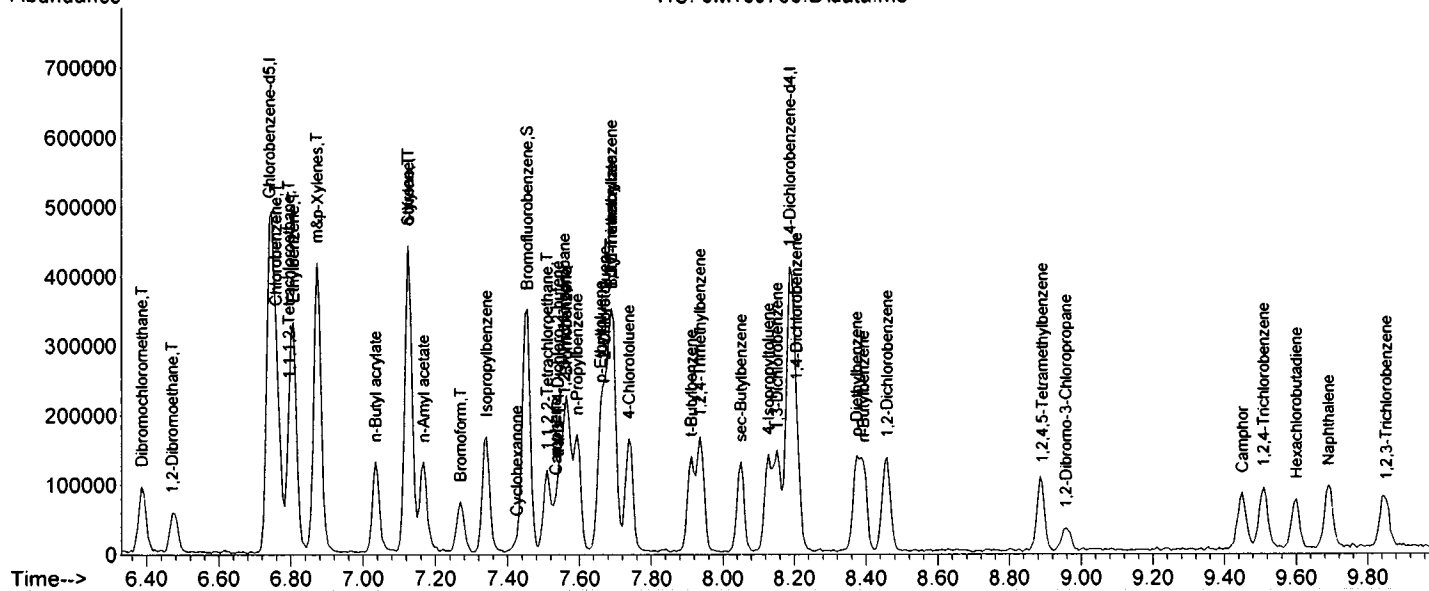
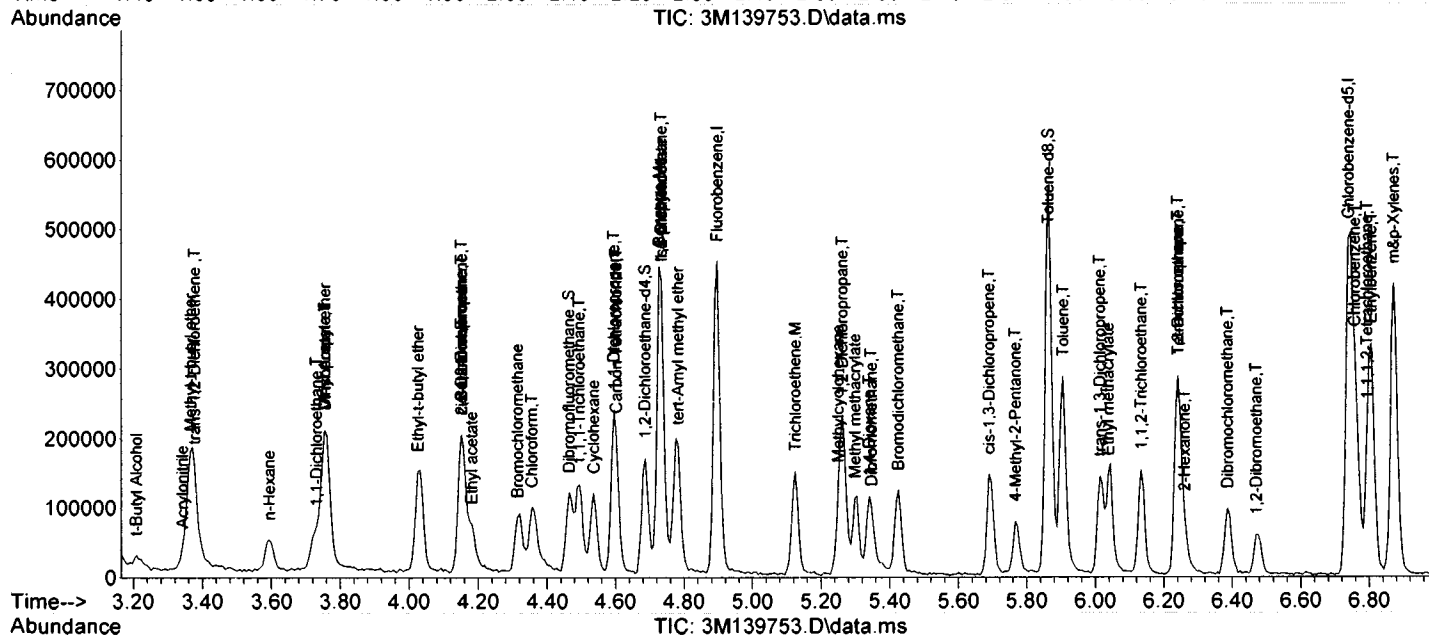
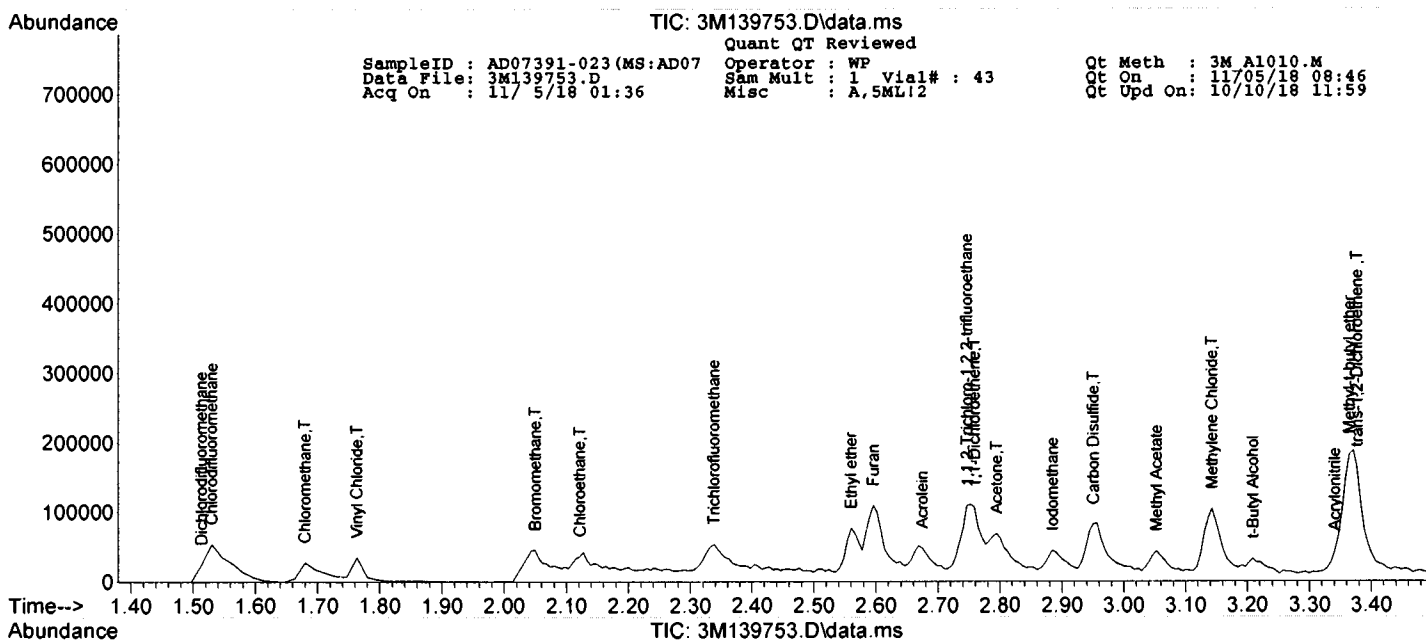
Quantitation Report (QT Reviewed)

SampleID : AD07391-023 (MS:AD07 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139753.D Sam Mult : 1 Vial# : 43 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:36 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QI on	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.759	112	91961	17.6133	ug/l	99
71) n-Butyl acrylate	7.035	55	64997	17.9951	ug/l	93
72) n-Amyl acetate	7.168	43	64081	17.7052	ug/l	88
73) Bromoform	7.270	173	26526	15.2607	ug/l	94
74) Ethylbenzene	6.807	106	26496	17.6205	ug/l	93
75) 1,1,2,2-Tetrachloroethane	7.510	83	49876	18.6164	ug/l	89
77) Styrene	7.125	104	84394	18.1916	ug/l	89
78) m&p-Xylenes	6.873	106	88909	36.4187	ug/l	87
79) o-Xylene	7.125	106	45937	18.4127	ug/l	84
80) trans-1,4-Dichloro-2-b...	7.540	53	12933	13.5562	ug/l	55
81) 1,3-Dichlorobenzene	8.153	146	52102	16.5229	ug/l	89
82) 1,4-Dichlorobenzene	8.207	146	54303	16.0359	ug/l	93
83) 1,2-Dichlorobenzene	8.459	146	51510	15.6128	ug/l	89
84) Isopropylbenzene	7.342	105	87286	17.8914	ug/l	95
85) Cyclohexanone	7.426	55	5861m	57.0058	ug/l	
86) Camphene	7.534	93	5223	3.8800	ug/l	96
87) 1,2,3-Trichloropropane	7.558	75	53710	17.5192	ug/l	93
88) 2-Chlorotoluene	7.672	91	55112	18.6191	ug/l	96
89) p-Ethyltoluene	7.660	105	80725	14.8066	ug/l	81
90) 4-Chlorotoluene	7.738	91	54172	16.6580	ug/l	88
91) n-Propylbenzene	7.594	91	99811	17.4288	ug/l	98
92) Bromobenzene	7.564	77	79863	15.2807	ug/l	94
93) 1,3,5-Trimethylbenzene	7.690	105	59984	17.1117	ug/l	68
94) Butyl methacrylate	7.690	41	57904	19.3411	ug/l	83
95) t-Butylbenzene	7.912	119	56268	16.2776	ug/l	85
96) 1,2,4-Trimethylbenzene	7.936	105	74917	17.0044	ug/l	91
97) sec-Butylbenzene	8.051	105	72284	17.9364	ug/l	96
98) 4-Isopropyltoluene	8.129	119	61444	17.9455	ug/l	90
99) n-Butylbenzene	8.393	91	65140	16.8804	ug/l	96
100) p-Diethylbenzene	8.375	119	32716m	16.3821	ug/l	
101) 1,2,4,5-Tetramethylben...	8.892	119	46585	15.3490	ug/l	91
102) 1,2-Dibromo-3-Chloropr...	8.958	157	7878	15.6169	ug/l	78
103) Camphor	9.450	95	18899	115.2166	ug/l	92
104) Hexachlorobutadiene	9.600	225	14991	15.4377	ug/l	93
105) 1,2,4-Trichlorobenzene	9.510	180	28138	16.3715	ug/l	92
106) 1,2,3-Trichlorobenzene	9.853	180	25646	14.9936	ug/l	94
107) Naphthalene	9.690	128	65232	15.7040	ug/l	100

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



SampleID : AD07391-024(MSD:AD0 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139754.D Sam Mult : 1 Vial# : 44 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:52 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GCMSData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GCMSData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

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

Internal Standards						
4) Fluorobenzene	4.893	96	239755	30.00	ug/l	-0.02
52) Chlorobenzene-d5	6.743	117	193802	30.00	ug/l	-0.02
70) 1,4-Dichlorobenzene-d4	8.191	152	86242	30.00	ug/l	-0.02
System Monitoring Compounds						
37) Dibromofluoromethane	4.466	111	62174	29.13	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	97.10%	
39) 1,2-Dichloroethane-d4	4.689	67	43318	28.90	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	96.33%	
66) Toluene-d8	5.866	98	243363	30.04	ug/l	-0.01
Spiked Amount 30.000			Recovery	=	100.13%	
76) Bromofluorobenzene	7.452	174	88013	29.46	ug/l	-0.02
Spiked Amount 30.000			Recovery	=	98.20%	
Target Compounds						
						Qvalue
5) Chlorodifluoromethane	1.542	51	81298	36.5767	ug/l	73
6) Dichlorodifluoromethane	1.525	85	31965	21.9916	ug/l	93
7) Chloromethane	1.675	50	43093	27.6595	ug/l	91
8) Bromomethane	2.051	94	14554	18.1649	ug/l	94
9) Vinyl Chloride	1.759	62	31484	20.3569	ug/l	94
10) Chloroethane	2.124	64	14540	20.4333	ug/l	89
11) Trichlorofluoromethane	2.340	101	34926	14.9296	ug/l	79
12) Ethyl ether	2.568	59	26384	13.0384	ug/l	99
13) Furan	2.598	39	72320	14.4675	ug/l	93
14) 1,1,2-Trichloro-1,2,2-...	2.742	101	17658	18.6457	ug/l	99
15) Methylene Chloride	3.145	84	36421	19.5040	ug/l	80
16) Acrolein	2.670	56	27016	71.0226	ug/l	97
17) Acrylonitrile	3.349	53	15080	17.6462	ug/l	82
18) Iodomethane	2.886	142	31295	13.8181	ug/l	96
19) Acetone	2.796	43	58424	74.8069	ug/l	96
20) Carbon Disulfide	2.952	76	102779	15.9382	ug/l	100
21) t-Butyl Alcohol	3.211	59	11514	69.8015	ug/l	65
22) n-Hexane	3.595	57	15601m	17.1915	ug/l	
23) Di-isopropyl-ether	3.757	45	131018	19.2248	ug/l	87
24) 1,1-Dichloroethene	2.754	61	45641	15.7228	ug/l	93
25) Methyl Acetate	3.055	43	38969	14.5129	ug/l	100
26) Methyl-t-butyl ether	3.367	73	68743	14.8014	ug/l	74
27) 1,1-Dichloroethane	3.727	63	66216	18.2377	ug/l	97
28) trans-1,2-Dichloroethene	3.373	96	32190	16.9102	ug/l	91
29) Ethyl-t-butyl ether	4.034	59	88856	16.3038	ug/l	98
30) cis-1,2-Dichloroethene	4.154	61	65123	17.7749	ug/l	85
31) Bromochloromethane	4.316	49	46876	21.0717	ug/l	63
32) 2,2-Dichloropropane	4.160	77	35580	15.6191	ug/l	97
33) Ethyl acetate	4.178	43	39167	15.2405	ug/l	100
34) 1,4-Dioxane	5.343	88	17961	798.4946	ug/l	79
35) 1,1-Dichloropropene	4.598	75	45629	18.1599	ug/l	93
36) Chloroform	4.358	83	60039	15.4767	ug/l	89
38) Cyclohexane	4.538	56	30721	18.5121	ug/l	90
40) 1,2-Dichloroethane	4.737	62	54698	18.7086	ug/l	94
41) 2-Butanone	4.148	43	17937	16.8664	ug/l	88
42) 1,1,1-Trichloroethane	4.496	97	45684	15.6789	ug/l	90
43) Carbon Tetrachloride	4.604	117	36691	16.8296	ug/l	78
44) Vinyl Acetate	3.757	43	82002	16.2904	ug/l	100
45) Bromodichloromethane	5.427	83	49275	16.1654	ug/l	97
46) Methylcyclohexane	5.253	83	21515	18.5866	ug/l	92
47) Dibromomethane	5.343	174	25414	17.9211	ug/l	93
48) 1,2-Dichloropropane	5.265	63	43751	19.9275	ug/l	84
49) Trichloroethene	5.121	130	33551	16.0738	ug/l	88
50) Benzene	4.731	78	138947	20.2450	ug/l	100
51) tert-Amyl methyl ether	4.779	73	83765	17.0699	ug/l	81
53) Iso-propylacetate	4.737	43	70195	16.4879	ug/l	98
54) Methyl methacrylate	5.301	41	41496	16.4099	ug/l	98
55) Dibromochloromethane	6.388	129	36656	16.0244	ug/l	96
57) cis-1,3-Dichloropropene	5.692	75	57549	17.3254	ug/l	95
58) trans-1,3-Dichloropropene	6.016	75	52069	16.6405	ug/l	96
59) Ethyl methacrylate	6.040	41	46988	18.1541	ug/l	95
60) 1,1,2-Trichloroethane	6.136	97	33889	20.3171	ug/l	87
61) 1,2-Dibromoethane	6.473	107	31270	15.1935	ug/l	82
62) 1,3-Dichloropropane	6.238	76	62471	20.6589	ug/l	96
63) 4-Methyl-2-Pentanone	5.770	43	40898	17.6359	ug/l	93
64) 2-Hexanone	6.262	43	28932	19.1654	ug/l	95
65) Tetrachloroethene	6.244	164	24190	21.8186	ug/l	91
67) Toluene	5.902	92	77332	16.7221	ug/l	92
68) 1,1,1,2-Tetrachloroethane	6.797	133	31121	20.2361	ug/l	86

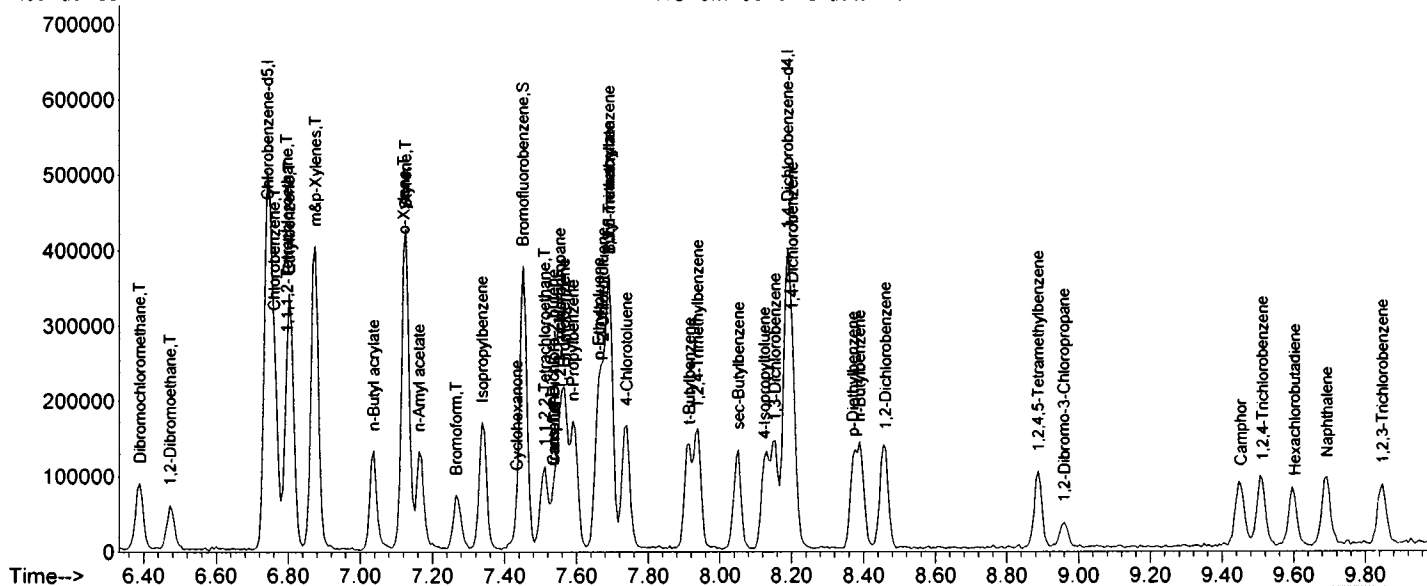
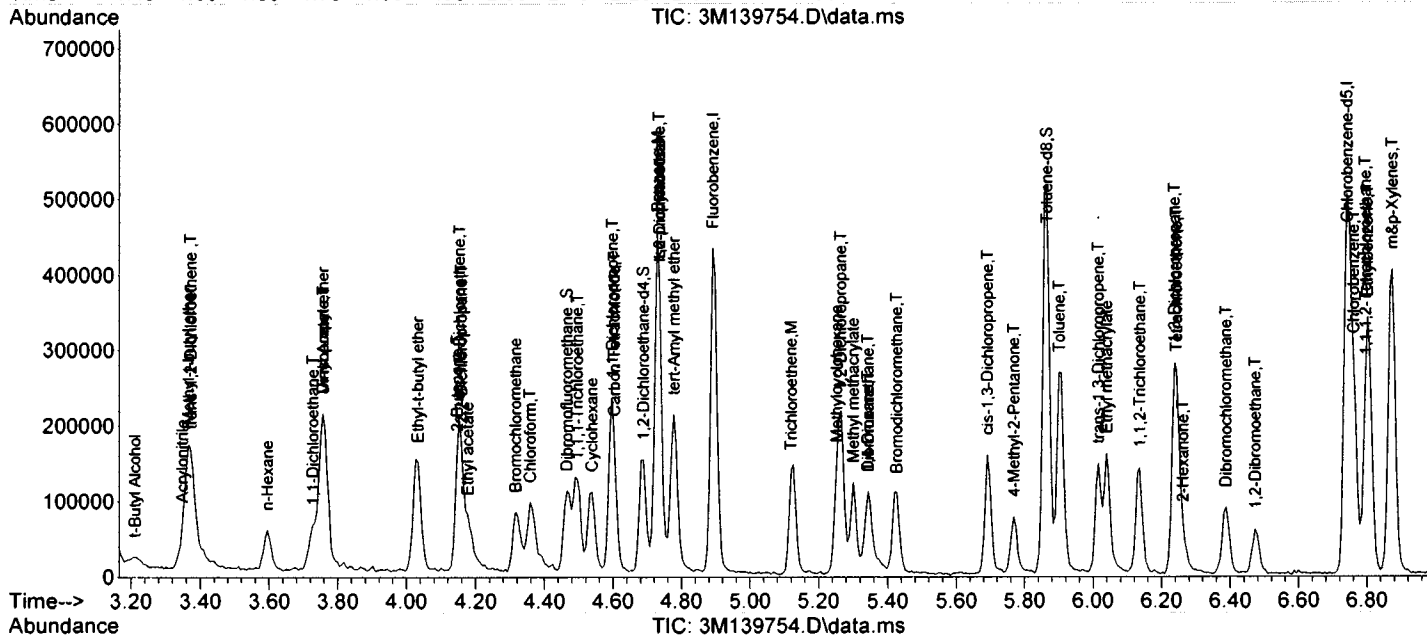
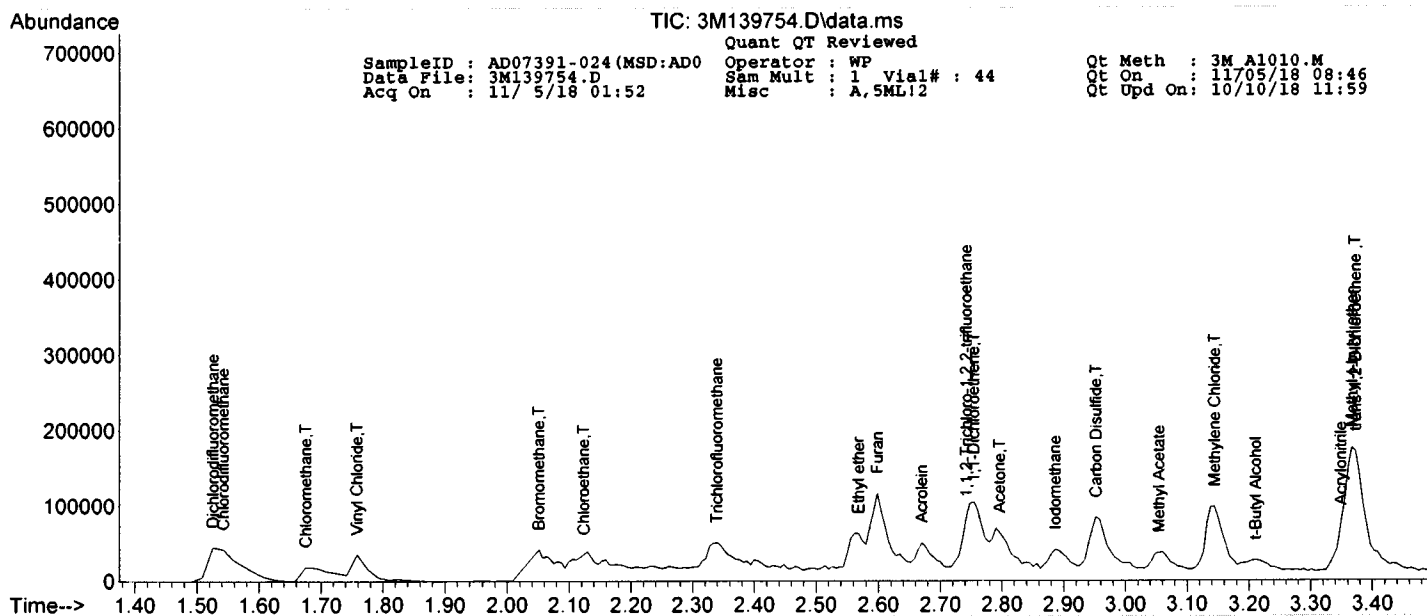
Quantitation Report (QT Reviewed)

SampleID : AD07391-024(MSD:AD0 Operator : WP Qt Meth : 3M_A1010.M
 Data File: 3M139754.D Sam Mult : 1 Vial# : 44 Qt On : 11/05/18 08:46
 Acq On : 11/ 5/18 01:52 Misc : A,5ML!2 Qt Upd On: 10/10/18 11:59

Data Path : G:\GcMsData\2018\GCMS_3\Data\11-0418\
 Qt Path : G:\GcMsData\2018\GCMS_3\MethodQt\
 Qt Resp Via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) Chlorobenzene	6.761	112	88138	17.1827	ug/l	92
71) n-Butyl acrylate	7.037	55	67168	19.2474	ug/l	99
72) n-Amyl acetate	7.163	43	60801	17.3872	ug/l	85
73) Bromoform	7.265	173	26672	15.8820	ug/l	96
74) Ethylbenzene	6.803	106	24176	16.6407	ug/l	84
75) 1,1,2,2-Tetrachloroethane	7.512	83	47272	18.2623	ug/l	77
77) Styrene	7.127	104	85540	19.0843	ug/l	100
78) m&p-Xylenes	6.875	106	90731	38.4664	ug/l	89
79) o-Xylene	7.121	106	46952	19.4785	ug/l	68
80) trans-1,4-Dichloro-2-b...	7.536	53	11789	12.7898	ug/l	56
81) 1,3-Dichlorobenzene	8.155	146	51834	17.0136	ug/l	86
82) 1,4-Dichlorobenzene	8.203	146	54277	16.5895	ug/l	91
83) 1,2-Dichlorobenzene	8.461	146	51312	16.0974	ug/l	92
84) Isopropylbenzene	7.338	105	89817	19.0549	ug/l	93
85) Cyclohexanone	7.434	55	5271	53.0626	ug/l	92
86) Camphene	7.536	93	4617	3.5500	ug/l	77
87) 1,2,3-Trichloropropane	7.554	75	54055	18.2492	ug/l	88
88) 2-Chlorotoluene	7.674	91	58008	20.2987	ug/l	93
89) p-Ethyltoluene	7.662	105	82384	15.6433	ug/l	84
90) 4-Chlorotoluene	7.740	91	55152	17.5533	ug/l	89
91) n-Propylbenzene	7.590	91	105177	19.0089	ug/l	99
92) Bromobenzene	7.566	77	80558	15.9534	ug/l	95
93) 1,3,5-Trimethylbenzene	7.692	105	70426	20.8400	ug/l	88
94) Butyl methacrylate	7.692	41	62233	21.5150	ug/l	75
95) t-Butylbenzene	7.914	119	57570	17.2375	ug/l	84
96) 1,2,4-Trimethylbenzene	7.938	105	74976	17.6137	ug/l	84
97) sec-Butylbenzene	8.052	105	72743	18.6824	ug/l	98
98) 4-Isopropyltoluene	8.124	119	58379	17.6474	ug/l	89
99) n-Butylbenzene	8.389	91	67772	18.1775	ug/l	84
100) p-Diethylbenzene	8.371	119	31338m	16.2416	ug/l	
101) 1,2,4,5-Tetramethylben...	8.887	119	47984	16.3635	ug/l	89
102) 1,2-Dibromo-3-Chloropr...	8.959	157	7907	16.2186	ug/l	71
103) Camphor	9.452	95	18405	116.1392	ug/l	96
104) Hexachlorobutadiene	9.602	225	16947	18.0715	ug/l	98
105) 1,2,4-Trichlorobenzene	9.512	180	27283	16.4299	ug/l	95
106) 1,2,3-Trichlorobenzene	9.848	180	24829	15.0243	ug/l	95
107) Naphthalene	9.692	128	65326	16.2773	ug/l	100

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



**GC/MS Volatile Data
Logbook Data**

Hampton-Clarke, Inc.

Volatile Sample Batching - GC/MS 3

Batch #: 11/4118 73585	Batch #: 11/4118 73586	Batch #: 11/4118 73587	Batch #: 11/4118 73588
MATRIX: MeOH	MATRIX: Ag C618	MATRIX: MeOH	MATRIX: Ag C618
MBS: 3m129755	MBS: 3m129774	MBS: 3m129717	MBS: 3m129740
MS: 1007268-009	MS: 1007349-001	MS: 1007322-001	MS: 1007291-003
MSD: -009	MSD: -010	MSD: -003	MSD: -003
1. 1007271-001	1. 1007398-002	1. 1007322-001	1. 1007291-004
2. -004	2. -004	2. -007	2. -002
3. -005	3. 1007344-004	3. -	3. -003
4. -006	4. -006	4. -	4. -004
5. 1007300-006	5. -001	5. -	5. -006
6. 1007298-001	6. -	6. -	6. -006
7. -011	7. -	7. -	7. -003
8. 1007322-001	8. -	8. -	8. -008
9. -004	9. -	9. -	9. -009
10. -006	10. -	10. -	10. -010
11. 1007293-009	11. -	11. -	11. -011
12. -010	12. -	12. -	12. -012
13. -012	13. -	13. -	13. -013
14. -	14. -	14. -	14. -014
15. -	15. -	15. -	15. -015
16. -	16. -	16. -	16. -017
17. -	17. -	17. -	17. -014
18. -	18. -	18. -	18. -
19. -	19. -	19. -	19. -
20. -	20. -	20. -	20. -

Batch #: 11/4118 73589	Batch #: 11/5118 73597	Batch #: 11/5118 73591	Batch #: 11/5118 73596
MATRIX: Ag C618	MATRIX: MeOH	MATRIX: Ag C618	MATRIX: MeOH
MBS: 3m129711	MBS: 3m129827	MBS: 3m129806	MBS: 3m129800
MS: 1007349-009	MS: 1007374-004	MS: 1007401-001	MS: 1007291-002
MSD: -009	MSD: -004	MSD: -001	MS/MSD: -003
1. 1007349-009	1. 1007422-001	1. 1007402-001	1. -
2. -006	2. 1007374-003	2. -003	2. -
3. -011	3. -004	3. -005	3. -
4. 1007320-001	4. 1007322-001	4. 1007398-001	4. -
5. 1007321-003	5. -002	5. -002	5. -
6. -006	6. -006	6. -003	6. -
7. -	7. -007	7. 1007401-001	7. -
8. -	8. -003	8. 1007365-001	8. -
9. -	9. -011	9. -003	9. -
10. -	10. -	10. 1007369-001	10. -
11. -	11. -	11. -010	11. -
12. -	12. -	12. 1007396-002	12. -
13. -	13. -	13. -003	13. -
14. -	14. -	14. 1007360-003	14. -
15. -	15. -	15. -003	15. -
16. -	16. -	16. 1007404-002	16. -
17. -	17. -	17. 1007404-001	17. -
18. -	18. -	18. -003	18. -
19. -	19. -	19. -	19. -
20. -	20. -	20. -	20. -

Hampton-Clarke, Inc.

Volatile Sample Batching – GC/MS 3

11/2/18	11/2/18	11/2/18	11/2/18
Batch #: 73569	Batch #: 73562	Batch #: 73563	Batch #: 73568
MATRIX: meq	MATRIX: AQ G18	MATRIX: meq	MATRIX: AQ G18
MBS: 3m129591	MBS: 3m129534	MBS: 3m129539	MBS: 3m129562
MS: 10072600	MS: 1007352001	MS: 1007269000	MS: 1007214001
MSD: -05	MSD: -001	MSD: -000	MSD: -001
1. 1007300001	1. 1007347-001	1.	1.
2. -03	2. -003	2.	2.
3. 1007208-014	3. -004	3.	3.
4. 1007201-008	4. -006	4.	4.
5. 1007186-007	5. -006	5.	5.
6. -011	6. -007	6.	6.
7.	7. 1007347-003	7.	7.
8.	8. -009	8.	8.
9.	9. 1007360-012	9.	9.
10.	10. 1007352-002	10.	10.
11.	11. -003	11.	11.
12.	12. -004	12.	12.
13.	13. -006	13.	13.
14.	14. -006	14.	14.
15.	15. -008	15.	15.
16.	16. -009	16.	16.
17.	17. -010	17.	17.
18.	18. -011	18.	18.
19.	19. 1007347-009	19.	19.
20.	20. -007	20.	20.
	008		

11/3/18	11/3/18	11/3/18	11/4/18
Batch #: 73571	Batch #: 73573	Batch #: 73575	Batch #: 73594
MATRIX: AQ G18	MATRIX: AQ G18	MATRIX: meq	MATRIX: AQ G18
MBS: 3m129673	MBS: 3m129624	MBS: 3m129645	MBS: 3m129752
MS: 1007201-000	MS: 1007260-005	MS: 1007208-005	MS: 1007201-002
MSD: -000	MSD: -006	MSD: -005	MS/MSD: -002
1. 1007201-016	1. 1007310-001	1. 1007208-015	1. 1007201-001
2. -017	2. 1007360-006	2. -017	2. -021-000
3. -018	3. -006	3. -019	3. -021-000
4. -019	4. -009	4. -023	4. -024-000
5. -020	5. -011	5.	5. -025
6. -021	6. -012	6.	6. -026
7. -028	7. 1007201-026	7.	7. -027
8. -028	8. -026	8.	8. -028
9. -040	9. -027	9.	9. -029
10. -041	10. -028	10.	10. -030
11. -041	11. -029	11.	11. -031
12.	12. -030	12.	12. -032
13.	13. -031	13.	13. -033
14.	14. -032	14.	14. -034
15.	15. -035	15.	15. -035
16.	16. -036	16.	
17.	17. -037	17.	
18.	18.	18.	
19.	19.	19.	
20.	20.	20.	



RUN LOG

Instrument: GC163 Year: 2018
Analyst: WP

1-1-3M137821

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M137821.	BFB TUNE		V-282201,V-281784,V-288655	WP 10/11/18						10/10 07:11
3M137824.	CAL @ 0.5 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 07:52
3M137825.	CAL @ 1 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 08:10
3M137826.	CAL @ 5 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 08:27
3M137827.	CAL @ 10 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 08:44
3M137828.	CAL @ 20 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 09:01
3M137829.	CAL @ 50 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 09:18
3M137830.	CAL @ 500 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 09:35
3M137832.	CAL @ 250 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 10:10
3M137834.	CAL @ 100 PPB		B-25875	WP 10/11/18		Aqueous	1	1	624/826	10/10 10:45
3M137837.	ICV	IslvoBnf	V-289655	WP 10/11/18		Aqueous	1	1	624/826	10/10 11:38

Anc	Area Not Checked	En	Extraction Performed Past Hold	Cn	Warning Possible Carry Over
An	Area Out	Exm	Solvent Extraction Date Missing/Not checked	CRN	Warning c30/c20 not checked
R6m	Blank 600 series missing	Elm	Tolu/Solvent Extraction Date Missing/Not checked	Om	C30/C20 failed for enh
R8m	Blank 8000 series missing	Elv	Tolu Extraction Performed Outside of Hold	EvF	Eval Mix Failed
Rnf	Blank Not Found/Assigned	Fv	Eval Time Exceeded	Evnc	Eval Mix Not Checked
C16	Calibration Column 1 Out (600 Series)	Hh	Analysis Before Collection Date	Evrr	Eval Mix missing left or endrin
C18	Calibration Column 1 Out (8000 Series)	Hn	Sample Analyzed outside of hold time	R16 R26	Rnd Out on McMsd (col1 and or col2) 600 series
C26	Calibration Column 2 Out (600 Series)	I16 I26	Initial cal 600 series failed Column 1 and or 2	R18 R28	Rnd Out on McMsd (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Rn	Retention Time Out Or %Diff Out
C6f	600 series sample/blank did not have missing cal	Is	Initial Cal Not Checked	Rtn	Can't Calculate Drift
C8f	8000 series sample/blank did not have missing cal	Iv	Prb with calmt csv for initial calibration check rts	S6	600 series surrogate out
Cma	Ending Cal missing for sample (8000 series)	Iw	Initial cal warning. In cal file <> method	S8	8000 series surrogate out
Cn	Calibration Not Checked for sample/blank/eval	Ix	Initial Cal Files Not Updated Properly for a sampl	Sa6.Sb6	Acid and or BN Surrogate Out (600 series)



RUN LOG

Instrument: GCMS-3 Year 2010
Analyst: SG

1-1-3M139626

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M139626	BFB TUNE		V-290037,V-290036,V-288655,V-291361	SG 11/05/18						11/03 14:51
3M139628	CAL @ 20 PPB		OK	SG 11/05/18		Aqueous	1	1	624 826	11/03 15:18
3M139630	BLK					Aqueous	1	1	624 826	11/03 15:53
3M139631	BLK					Aqueous	1	1	624 826	11/03 16:10
3M139632	DAILY BLANK		OK,V-12007	SG 11/05/18		Methano	1	1	8260C	11/03 16:27
3M139633	DAILY BLANK		OK	SG 11/05/18		Aqueous	1	1	624 826	11/03 16:44
3M139634	MBS73573	M16M18	OK MBS73573	SG 11/05/18		Aqueous	1	1	624 826	11/03 17:05
3M139635	AD07257-001	Ocf	OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 17:22
3M139636	AD07257-011	Ocf	OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 17:39
3M139637	AD07279-003	Ocf	OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 17:56
3M139638	AD07336-009	Ocf	OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 18:14
3M139639	AD07310-001	Ocf	OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 18:31
3M139640	AD07350-005(MS)	M16M18	OK MBS73573	SG 11/05/18	VO-8260	Aqueous	1	1	624 826	11/03 18:47
3M139641	AD07350-005(MSD)	R16R18M16M18	OK MBS73573	SG 11/05/18	VO-8260	Aqueous	1	1	624 826	11/03 19:05
3M139642	MBS73574		OK MBS73574	SG 11/05/18		Aqueous	1	1	624 826	11/03 19:22
3M139643	AD07298-015(MS)		OK MBS73575	SG 11/05/18	VO10-8260	Methano	1	1	8260C	11/03 19:39
3M139644	AD07298-015(MSD)		OK MBS73575	SG 11/05/18	VO10-8260	Methano	1	1	8260C	11/03 19:56
3M139645	MBS73575		OK MBS73575	SG 11/05/18		Methano	1	1	8260C	11/03 20:14
3M139646	BLK		-	SG 11/05/18		Methano	1	1	8260C	11/03 20:30
3M139647	AD07298-015		OK MBS73575	SG 11/05/18	VO10-8260	Methano	1	1	8260C	11/03 20:48
3M139648	AD07298-017		OK	SG 11/05/18	VO10-8260	Methano	1	1	8260C	11/03 21:06
3M139649	AD07298-019		OK	SG 11/05/18	VO10-8260	Methano	1	1	8260C	11/03 21:23
3M139650	AD07298-023		OK	SG 11/05/18	VO10-8260	Methano	1	1	8260C	11/03 21:40
3M139651	AD07350-011		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 21:57
3M139652	AD07350-009		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 22:14
3M139653	AD07350-006		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 22:30
3M139654	AD07350-005		OK MBS73573	SG 11/05/18	VO-8260	Aqueous	1	1	624 826	11/03 22:48
3M139655	AD07391-025		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 23:06
3M139656	AD07391-026		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 23:20
3M139657	AD07391-027		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 23:38
3M139658	AD07391-028		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/03 23:55
3M139659	AD07391-029		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 00:15
3M139660	AD07391-030		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 00:32
3M139661	AD07391-031		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 00:49
3M139662	AD07391-032		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 01:06
3M139663	AD07391-035		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 01:23
3M139664	AD07391-036		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 01:40
3M139665	AD07391-037		OK	SG 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 01:57

Anc	Area Not Checked	En	Extraction Performed Past Hold	Cn	Warnin Possible Carry Over
An	Area Out	Exm	Solvent Extraction Date Missed/Not check'd	CRN	Warnin c30/c20 not checked
R6m	Blank 800 series missing	Ein	Tcin/Solvent Extraction Date Missed/Not check'd	Cm	C30/C20 failed for enh
R8m	Blank 8000 series missing	Ev	Tcin Extraction Performed Outside of Hold	FvF	Eval Mix Failed
Rnf	Blank Not Found/Assigned	Ev	Eval Time Exceeded	Evnc	Eval Mix Not Checked
C16	Calibration Column 1 Out (600 Series)	Hh	Analysis Before Collection Date	Fvm	Eval Mix missing det or endrin
C18	Calibration Column 1 Out (8000 Series)	Hn	Sample Analyzed outside of hold time	R16 R26	Rnd Out on MsMsd (col1 and or col2) 600 series
C26	Calibration Column 2 Out (600 Series)	I16 I26	Initial cal 600 series failed Column 1 and or 2	R18 R28	Rnd Out on MsMsd (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Rn	Retention Time Out Or %Diff Out
C6f	600 series sample/blank did not have missing cal	Is	Initial Cal Not Checked	Rtn	Can't Calculate Diff
C8f	8000 series sample/blank did not have missing cal	Iv	Prth with calcol csv for init calibration check rts	S6	600 series surrogate out
Cma	Fading Cal missing for sample (8000 series)	Iw	Initial cal warnin. Ini cal file <> method	S8	8000 series surrogate out
Cn	Calibration Not Checked for sample/blank/eval	Ix	InitialCal Files Not Uploaded Properly for a samol	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)



RUN LOG

Instrument: GC163-3 Year: 2018
Analyst: SG

1-1-3M139667

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M139667	BFB TUNE		V-282201,V-290037,V-288655,V-291361	WP 11/05/18						11/04 02:31
3M139668	20 PPB	CnB6mAnc				Aqueous	1	1	624 826	11/04 02:48
3M139669	CAL @ 20 PPB	C16	OK,8260 ONLY	WP 11/05/18		Aqueous	1	1	624 826	11/04 03:05
3M139670	BLK	C6fB6m				Aqueous	1	1	624 826	11/04 03:22
3M139671	BLK	C6fB6m				Aqueous	1	1	624 826	11/04 03:39
3M139672	DAILY BLANK	C6f	OK	WP 11/05/18		Aqueous	1	1	624 826	11/04 03:56
3M139673	MBS73571	C6fM16M18	OK MBS73571	WP 11/05/18		Aqueous	1	1	624 826	11/04 04:13
3M139674	AD07391-040(MS)	C6fM16M18	OK MBS73571	WP 11/05/18	VO-8260	Aqueous	1	1	624 826	11/04 04:30
3M139675	AD07391-040(MSD)	C6fR16R18M16M18	OK MBS73571	WP 11/05/18	VO-8260	Aqueous	1	1	624 826	11/04 04:45
3M139676	BLK	C6f				Aqueous	1	1	624 826	11/04 05:04
3M139677	AD07391-038		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 05:21
3M139678	AD07391-039		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 05:38
3M139679	AD07391-040	C6f	OK MBS73571	WP 11/05/18	VO-8260	Aqueous	1	1	624 826	11/04 05:55
3M139680	AD07391-041		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 06:12
3M139681	AD07391-042		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 06:29
3M139682	AD07391-021		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 06:47
3M139683	AD07391-020		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 07:04
3M139684	AD07391-019		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 07:22
3M139685	AD07391-018		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 07:39
3M139686	AD07391-017		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 07:56
3M139687	AD07391-016		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 08:13
3M139688	MBS73572	C6f	MBS73572			Aqueous	1	1	624 826	11/04 08:31
3M139689	BLK	C6f				Aqueous	1	1	624 826	11/04 08:47

Anc	Area Not Checked	Fo	Extraction Performed Past Hold	Cn	Warning Possible Carry Over
An	Area Out	Exm	Solvent Extraction Date Missing/Not checked	CRN	Warning c30/c20 not checked
R6m	Blank 600 series missing	Flm	Tolu/Solvent Extraction Date Missing/Not checked	Cm	C30/C20 failed for enh
R8m	Blank 8000 series missing	Fln	Tolu Extraction Performed Outside of Hold	FvF	Eval Mix Failed
Rnf	Blank Not Found/Assigned	Fv	Eval Time Exceeded	Fvnc	Eval Mix Not Checked
C16	Calibration Column 1 Out (600 Series)	Hh	Analysis Before Collection Date	Fvm	Eval Mix missing dil or endrin
C18	Calibration Column 1 Out (8000 Series)	Hn	Sample Analyzed outside of hold time	R16 R26	Ret Out on MsMed (col1 and or col2) 600 series
C26	Calibration Column 2 Out (600 Series)	I16 I26	Initial cal 600 series failed Column 1 and or 2	R18 R28	Ret Out on MsMed (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Rn	Retention Time Out Or %Diff Out
C6f	600 series sample/blank did not have passing cal	Is	Initial Cal Not Checked	Rtn	Can't Calculate Diff
C8f	8000 series sample/blank did not have passing cal	Iv	Probe with cal not csv for int calibration check rts	S6	600 series surrogate out
Cme	Final Cal missing for sample (8000 series)	Iw	Initial cal warning. ini cal file <> method	S8	8000 series surrogate out
Cn	Calibration Not Checked for sample/blank/eval	Iix	Initial Cal Files Not Updated Properly for a sample	IS6 SB6	Acid and or BN Surrogate Out (600 series)



RUN LOG

Instrument: GCMS-3 Year: 2016
Analyst: WP

1-1-3M139703

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M139703	BFB TUNE		V-282201,V-290037,V-288655,V-291361	WP 11/05/18						11/04 12:17
3M139705	CAL @ 20 PPB		OK	WP 11/05/18		Aqueous	1	1	624\826	11/04 12:51
3M139707	DAILY BLANK		OK	WP 11/05/18		Methano	1	1	8260C	11/04 13:26
3M139708	DAILY BLANK		OK	WP 11/05/18		Aqueous	1	1	624\826	11/04 13:44
3M139709	AD07270-001		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/04 14:00
3M139710	AD07349-009(T)		OK MBS73581	WP 11/05/18	VOTCLP-826	Aqueous	1	1	624\826	11/04 14:17
3M139711	MBS73581		OK MBS73581	WP 11/05/18		Aqueous	1	1	624\826	11/04 14:35
3M139712	AD07349-010(T)		OK MBS73586	WP 11/05/18	VOTCLP-826	Aqueous	1	1	624\826	11/04 14:52
3M139713	AD07349-011(T)		OK	WP 11/05/18	VOTCLP-826	Aqueous	1	1	8260C	11/04 15:10
3M139714	AD07387-002(T)		OK	WP 11/05/18	VOTCLP-826	Aqueous	1	1	8260C	11/04 15:27
3M139715	AD07389-002(T)		OK	WP 11/05/18	VOTCLP-826	Aqueous	1	1	8260C	11/04 15:44
3M139716	AD07154-005(T)	Eto	OK	WP 11/05/18	VOTCLP-826	Aqueous	1	1	8260C	11/04 16:02
3M139717	MBS73582		OK MBS73582	WP 11/05/18		Methano	1	1	8260C	11/04 15:19
3M139718	AD07349-009(T:MS)		OK MBS73581	WP 11/05/18	VOTCLP-826	Aqueous	1	1	624\826	11/04 15:36
3M139719	AD07349-009(T:MS)		OK MBS73581	WP 11/05/18	VOTCLP-826	Aqueous	1	1	624\826	11/04 15:53
3M139720	AD07322-003(MS)		OK MBS73582	WP 11/05/18	VO-8260	Methano	1	1	8260C	11/04 16:10
3M139721	AD07322-003(MSD)		OK MBS73582	WP 11/05/18	VO-8260	Methano	1	1	8260C	11/04 16:27
3M139722	AD07391-034		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 16:44
3M139723	AD07322-003		OK MBS73582	WP 11/05/18	VO-8260	Methano	1	1	8260C	11/04 17:02
3M139724	AD07322-007		OK	WP 11/05/18	VO-8260	Methano	1	1	8260C	11/04 17:18
3M139725	AD07391-033		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 17:36
3M139726	AD07391-001				VO-8260	Aqueous	1	1	8260C	11/04 17:53
3M139727	AD07391-002		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 18:07
3M139728	AD07391-003		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 18:27
3M139729	AD07391-004		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 18:45
3M139730	AD07391-005		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 19:02
3M139731	AD07391-006		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 19:19
3M139732	AD07391-007		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 19:37
3M139733	AD07391-008				VO-8260	Aqueous	1	1	8260C	11/04 19:54
3M139734	AD07391-009		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 20:11
3M139735	AD07391-010		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 20:28
3M139736	AD07391-011				VO-8260	Aqueous	1	1	8260C	11/04 20:45
3M139737	AD07391-012		OK	WP 11/05/18	VO-8260	Aqueous	1	1	8260C	11/04 21:02
3M139738	BLK					Aqueous	1	1	624\826	11/04 21:19
3M139739	AD07391-013		OK MBS73583	WP 11/05/18	VO-8260	Aqueous	1	1	624\826	11/04 21:36
3M139740	AD07391-014(MS:AM16M18)		OK MBS73583	WP 11/05/18	VO-8260	Aqueous	1	1	624\826	11/04 21:53
3M139741	AD07391-015(MSD:R16R18M16M18)		OK MBS73583	WP 11/05/18	VO-8260	Aqueous	1	1	624\826	11/04 22:10
3M139742	MBS73583	M18	OK MBS73583	WP 11/05/18		Aqueous	1	1	624\826	11/04 22:24

Anc	Area Not Checked	Fn	Extraction Performed Past Hold	Cn	Warning Possible Carry Over
An	Area Out	Em	Solvent Extraction Date Missing/Not check'd	CRN	Warning c30/c20 not checked
R6m	Blank 600 series missing	En	Tcin/Solvent Extraction Date Missing/Not check'd	Cm	C30/C20 failed for anh
B8m	Blank 8000 series missing	Fin	Tcin Extraction Performed Outside of Hold	FvF	Eval Mix Failed
Bnf	Blank Not Found/Assigned	Fv	Analysis Before Collection Date	Fvnc	Eval Mix Not Checked
C16	Calibration Column 1 Out (600 Series)	Hn	Sample Analyzed outside of hold time	Fvnc	Eval Mix missing dft nr endon
C18	Calibration Column 1 Out (8000 Series)	Hn	Initial cal 600 series failed Column 1 and or 2	R16 R26	Rnd Out on MSMSd (col1 and or col2) 600 series
C26	Calibration Column 2 Out (600 Series)	I16 I26	Initial cal 8000 series failed Column 1 and or 2	R18 R28	Rnd Out on MSMSd (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	Is	Initial Cal Not Checked	Rn	Retention Time Out Or %Diff Out
C8f	600 series sample/blank did not have passing cal	Iv	Pmb with calmt csv for init calibration check rfs	Rtn	Can't Calculate Drift
C8f	8000 series sample/blank did not have passing cal	Iv	Initial cal warning. Ini cal file <> method	S6	600 series surrogate out
Cme	Ending Cal missing for sample (8000 series)	Iw	Initial Cal Files Not Updated. Proceed for a sampl	S8	8000 series surrogate out
Cn	Calibration Not Checked for sample/blank/eval	Ix		Is6, Sb6	Acid and nr BN Surrogate Out (600 series)



RUN LOG

Instrument: GCMS-3 Year: 2016
Analyst: WP

1-1-3M139744

Data File	Sample Number	Flags	Comments	Reviewed By	Test Group	Matrix	Surr Dil	Sam Dil	Method(s)	Analysis Date
3M139744.	BFB TUNE		V-282201,V-290037,V-288655,V-291361	WP 11/05/18						11/04 23:01
3M139745.	CAL @ 20 PPB	C16	OK,8260 ONLY	WP 11/05/18		Aqueous	1	1	624 826	11/04 23:18
3M139746.	20 PPB	C6fB6m	-	WP 11/05/18		Aqueous	1	1	624 826	11/04 23:35
3M139747.	BLK	C6fB6m				Aqueous	1	1	624 826	11/04 23:52
3M139748.	BLK	C6fB6m				Aqueous	1	1	624 826	11/05 00:09
3M139749.	DAILY BLANK		OK	WP 11/05/18		Methano	1	1	8260C	11/05 00:26
3M139750.	DAILY BLANK	C6f	OK	WP 11/05/18		Aqueous	1	1	624 826	11/05 00:44
3M139751.	AD07391-022	C6f	OK MBS73584	WP 11/05/18	VO-8260	Aqueous	1	1	624 826	11/05 01:01
3M139752.	MBS73584	C6fM16M18	OK MBS73584	WP 11/05/18		Aqueous	1	1	624 826	11/05 01:18
3M139753.	AD07391-023(MS:AC6fM16M18		OK MBS73584	WP 11/05/18	VO-8260	Aqueous	1	1	624 826	11/05 01:36
3M139754.	AD07391-024(MSD:C6fM16M18		OK MBS73584	WP 11/05/18	VO-8260	Aqueous	1	1	624 826	11/05 01:52
3M139755.	MBS73585		OK MBS73585	WP 11/05/18		Methano	1	1	8260C	11/05 02:10
3M139756.	AD07268-009(MS)		OK MBS73585	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 02:27
3M139757.	AD07268-009(MSD)		OK MBS73585	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 02:44
3M139758.	BLK		-	WP 11/05/18		Methano	1	1	8260C	11/05 03:01
3M139759.	AD07271-004		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 03:18
3M139760.	AD07271-006		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 03:35
3M139761.	AD07268-010		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 03:52
3M139762.	AD07268-009				VO15-8260	Methano	1	1	8260C	11/05 04:09
3M139763.	AD07271-005		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 04:26
3M139764.	AD07271-001		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 04:43
3M139765.	AD07298-011		OK	SG 11/06/18	VO10-8260	Methano	1	1	8260C	11/05 05:00
3M139766.	AD07298-012				VO10-8260	Methano	1	1	8260C	11/05 05:16
3M139767.	AD07298-010		OK	SG 11/06/18	VO10-8260	Methano	1	1	8260C	11/05 05:33
3M139768.	AD07298-013				VO10-8260	Methano	1	1	8260C	11/05 05:50
3M139769.	AD07268-012		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 06:07
3M139770.	BLK	C6f				Aqueous	1	1	624 826	11/05 06:24
3M139771.	AD07390-002(T)		OK	WP 11/05/18	VOTCLP-826	Aqueous	1	1	8260C	11/05 06:41
3M139772.	AD07390-004(T)		OK	WP 11/05/18	VOTCLP-826	Aqueous	1	1	8260C	11/05 06:57
3M139773.	AD07432-002(T)		OK	WP 11/05/18	VOTCLP-826	Aqueous	1	1	8260C	11/05 07:14
3M139774.	MBS73586	C6f	OK MBS73586	WP 11/05/18		Aqueous	1	1	624 826	11/05 07:31
3M139775.	AD07349-010(T:MSC6f		OK MBS73586	WP 11/05/18	VOTCLP-826	Aqueous	1	1	624 826	11/05 07:48
3M139776.	AD07349-010(T:MSC6f		OK MBS73586	WP 11/05/18	VOTCLP-826	Aqueous	1	1	624 826	11/05 08:26
3M139777.	EF-1-V-291003(110		OK	WP 11/05/18		Aqueous	1	1101	8260C	11/05 08:43
3M139778.	AD07322-001		OK	WP 11/05/18	VO-8260	Methano	1	1	8260C	11/05 09:00
3M139779.	AD07322-006		OK	WP 11/05/18	VO-8260	Methano	1	1	8260C	11/05 09:17
3M139780.	AD07322-004		OK	WP 11/05/18	VO-8260	Methano	1	1	8260C	11/05 09:35
3M139781.	AD07300-012		OK	WP 11/05/18	ERROR	Methano	1	1	8260C	11/05 09:52
3M139782.	AD07300-006		OK	WP 11/05/18	VO15-8260	Methano	1	1	8260C	11/05 10:09

Ans	Area Not Checked	En	Extraction Performed Past Hold	Cn	Warning Possible Carry Over
An	Area Out	Fcm	Solvent Extraction Date Missing/Not checked	CRN	Warning c30/c20 not checked
R6m	Blank 800 series missing	Fin	Trip/Solvent Extraction Date Missing/Not checked	Cm	C30/C20 failed for eoh
R8m	Blank 8000 series missing	Ev	Trip Extraction Performed Outside of Hold	EvF	Eval Mix Failed
Rnf	Blank Not Found/Assigned	Ev	Eval Time Exceeded	Evnc	Eval Mix Not Checked
C16	Calibration Column 1 Out (600 Series)	Hh	Analysis Before Collection Date	Evrc	Eval Mix missing dilt or endion
C18	Calibration Column 1 Out (8000 Series)	Hn	Sample Analyzed outside of hold time	R16 R26	Rod Out on MSMSd (col1 and or col2) 600 series
C26	Calibration Column 2 Out (600 Series)	I16 I26	Initial cal 600 series failed Column 1 and or 2	R18 R28	Rod Out on MSMSd (col1 and or col2) 8000 series
C28	Calibration Column 2 Out (8000 Series)	I18 I28	Initial cal 8000 series failed Column 1 and or 2	Rn	Retention Time Out Or %Diff Out
C6f	600 series sample/blank did not have passing cal	Is	Initial Cal Not Checked	Rtn	Can't Calculate Drift
C8f	8000 series sample/blank did not have passing cal	Iv	Prob with calrot csv for init calibration check rts	S6	600 series surrogate out
Cma	Endion Cal missing for sample (8000 series)	Iw	Initial cal warning: Init cal file <> method	S8	8000 series surrogate out
Cn	Calibration Not Checked for sample/blank/aval	Ix	Initial Cal Files Not Unlabeled Properly for a sample	Sa6 Sb6	Acid and or BN Surrogate Out (600 series)

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-276980

Prepared By: Revolus, Jean		Department: Organics	ApprovedBy: jean	
Description: Ethyl ether/Furan Mix		BatchNumber:	ApproveDate: 04/05/18	
Prep Date: 4/4/2018		Concentration: 5000 ppm	Checked: Yes	
Expiration Date: 4/4/2019		Final Volume: 10 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11587	Furan	50 mg	NEAT neat	5000 ppm
11576	Ethyl Ether	50 mg	NEAT neat	5000 ppm
11535	Methyl Alcohol	10 ml	neat neat	

Veritech Lot Number: V-276981

Prepared By: Revolus, Jean		Department: Organics	ApprovedBy: jean	
Description: Ethyl ether/Furan Mix(2nd Source)		BatchNumber:	ApproveDate: 04/05/18	
Prep Date: 4/4/2018		Concentration: 5000 ppm	Checked: Yes	
Expiration Date: 4/4/2019		Final Volume: 10 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11587	Furan	50 mg	NEAT neat	5000 ppm
11576	Ethyl Ether	50 mg	NEAT neat	5000 ppm
11535	Methyl Alcohol	10 ml	neat neat	

Veritech Lot Number: V-281784

Prepared By: Previlon, Wilner		Department: Organics	ApprovedBy: akmal	
Description: VOA WORKING INT/SURR MIX		BatchNumber:	ApproveDate: 07/10/18	
Prep Date: 6/15/2018		Concentration: 150 ppm	Checked: Yes	
Expiration Date: 12/15/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11535	Methyl Alcohol	88 ml	neat neat	
11279	8260A Surrogate Mix	6 ml	2500 ppm	150 ppm
11280	8260A Internal Standard Mix	6 ml	2500 ppm	150 ppm

Veritech Lot Number: V-282201

Prepared By: Goring, Shawn		Department: Organics	ApprovedBy: akmal	
Description: BFB Tune Mix		BatchNumber:	ApproveDate: 07/10/18	
Prep Date: 6/18/2018		Concentration: 50 ppm	Checked: Yes	
Expiration Date: 12/15/2018		Final Volume: 1.5 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-281784	VOA WORKING INT/SURR MIX	500 ul	150 ppm	50 ppm
11535	Methyl Alcohol	1000 ul	neat neat	

Veritech Lot Number: V-286162

Prepared By: Revolus, Jean		Department: Organics	ApprovedBy: jean	
Description: VOA ADD MIX		BatchNumber:	ApproveDate: 08/27/18	
Prep Date: 8/22/2018		Concentration: 5000 ppm	Checked: Yes	
Expiration Date: 8/22/2019		Final Volume: 10 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
2889	1,2,4,5-TETRAMETHYLBENZENE	50 mg	NEAT	5000 ppm
9626	p-Ethyltoluene	50 mg	Neat	5000 ppm
11535	Methyl Alcohol		neat neat	
9642	p-Diethylbenzene	50 mg	Neat	5000 ppm
10966	Cyclohexanone	250 mg	NEAT neat	25000 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-286163



Prepared By: Revolus, Jean
 Description: Voa Extra Add Mix
 Prep Date: 8/22/2018
 Expiration Date: 8/23/2019

Department: Organics
 BatchNumber:
 Concentration: 2000-20000 p
 Final Volume: 10 ml

ApprovedBy: jean
 ApproveDate: 08/27/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11935	Ethyl acetate	20 mg	Neat	2000 ppm
11578	n-Amyl Acetate	20 mg	NEAT neat	2000 ppm
11535	Methyl Alcohol	10 ml	neat neat	
10964	Isopropyl Acetate	20 mg	NEAT neat	2000 ppm
11931	Methyl methacrylate	20 mg	Neat	2000 ppm
9641	d-Camphor	200 mg	Neat	20000 ppm
11933	n-Butyl acrylate	20 mg	Neat	2000 ppm
11930	Ethyl methacrylate	20 mg	Neat	2000 ppm
11932	Butyl methacrylate	20 mg	Neat	2000 ppm
8781	Camphene	20 mg	neat neat	2000 ppm

Veritech Lot Number: V-286164



Prepared By: Revolus, Jean
 Description: Voa Extra Add Mix(2nd Source)
 Prep Date: 8/22/2018
 Expiration Date: 8/22/2019

Department: Organics
 BatchNumber:
 Concentration: 2000-20000 p
 Final Volume: 10 ml

ApprovedBy: jean
 ApproveDate: 08/27/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11935	Ethyl acetate	20 mg	Neat	2000 ppm
11578	n-Amyl Acetate	20 mg	NEAT neat	2000 ppm
10964	Isopropyl Acetate	20 mg	NEAT neat	2000 ppm
11535	Methyl Alcohol	10 ml	neat neat	
11931	Methyl methacrylate	20 mg	Neat	2000 ppm
9641	d-Camphor	200 mg	Neat	20000 ppm
11933	n-Butyl acrylate	20 mg	Neat	2000 ppm
11930	Ethyl methacrylate	20 mg	Neat	2000 ppm
11932	Butyl methacrylate	20 mg	Neat	2000 ppm
8781	Camphene	20 mg	neat neat	2000 ppm

Veritech Lot Number: V-286197



Prepared By: Previlon, Wilner
 Description: 200ppm VOA Working Std
 Prep Date: 8/22/2018
 Expiration Date: 11/14/2018

Department: Organics
 BatchNumber:
 Concentration: VARIOUS pp
 Final Volume: 1 ml

ApprovedBy: jean
 ApproveDate: 08/27/18
 Checked: Yes

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	220 ul	neat neat	neat
11278	502.2 Cal Mix #1(Gases)	100 ul	2000 ppm	200 ppm
11843	502.2 Cal2000 Mega-Mix	100 ul	2000 ppm	200 ppm
11790	8260 CAL MIX #2	100 ul	2000 ppm	200 ppm
11693	Custom VOC Standard	100 ul	VARIOUS	various ppm
11634	tert-Amyl Methyl Ether (TAME)	100 ul	2000 ppm	200 ppm
V-286162	VOA ADD MIX	40 ul	5000 ppm	various ppm
V-286163	Voa Extra Add Mix	100 ul	2000-20000 p	200 ppm
V-276980	Ethyl ether/Furan Mix	40 ul	5000 ppm	200 ppm
11633	Ethyl-tert-Butyl Ether (ETBE)	100 ul	2000 ppm	200 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-286519



Prepared By: Goring, Shawn Department: Organics ApprovedBy: jean
 Description: 20ppm Freon VOA Working Std BatchNumber: ApproveDate: 09/06/18
 Prep Date: 8/28/2018 Concentration: VARIOUS pp Checked: Yes
 Expiration Date: 1/4/2019 Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	900 ul	neat neat	neat
11637	Chlorodifluoromethane	100 ul	200 ppm	200 ppm

Veritech Lot Number: V-287558



Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 20ppm VOA Working Std BatchNumber: ApproveDate: 09/26/18
 Prep Date: 9/13/2018 Concentration: VARIOUS pp Checked: Yes
 Expiration Date: 11/14/2018 Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	900 ul	neat neat	neat
V-286197	200ppm VOA Working Std	100 ul	VARIOUS pp	200 ppm

Veritech Lot Number: V-288654



Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: 200ppm VOA Working Std BatchNumber: ApproveDate: 10/02/18
 Prep Date: 9/27/2018 Concentration: VARIOUS pp Checked: Yes
 Expiration Date: 11/14/2018 Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	220 ul	neat neat	neat
11278	502.2 Cal Mix #1(Gases)	100 ul	2000 ppm	200 ppm
11843	502.2 Cal2000 Mega-Mix	100 ul	2000 ppm	200 ppm
11790	8260 CAL MIX #2	100 ul	2000 ppm	200 ppm
11693	Custom VOC Standard	100 ul	VARIOUS	various ppm
11634	tert-Amyl Methyl Ether (TAME)	100 ul	2000 ppm	200 ppm
V-286162	VOA ADD MIX	40 ul	5000 ppm	various ppm
V-276980	Ethyl ether/Furan Mix	40 ul	5000 ppm	200 ppm
V-286163	Voa Extra Add Mix	100 ul	2000-20000 p	200 ppm
11633	Ethyl-tert-Butyl Ether (ETBE)	100 ul	2000 ppm	200 ppm

Veritech Lot Number: V-288655



Prepared By: Previlon, Wilner Department: Organics ApprovedBy: akmal
 Description: MBS BatchNumber: ApproveDate: 10/02/18
 Prep Date: 9/27/2018 Concentration: 100 ppm Checked: Yes
 Expiration Date: 10/31/2018 Final Volume: 1 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11808	Methyl Alcohol	610 ul	neat neat	neat neat
11844	502.2 Cal Mix#1(Gases)	50 ul	2000 ppm	100 ppm
11843	502.2 Cal2000 Mega-Mix	50 ul	2000 ppm	100 ppm
11594	SS 8260 Cal Mix 2(ICV 2ND LOT)	50 ul	2000 ppm	100 ppm
11694	Custom VOC Standard(2nd Source)	50 ul	VARIOUS	various ppm
11308	tert-Amyl methyl ether	50 ul	2000 ppm	100 ppm
V-286162	VOA ADD MIX	20 ul	5000 ppm	various ppm
V-286164	Voa Extra Add Mix(2nd Source)	50 ul	2000-20000 p	100-1000 pp
V-276981	Ethyl ether/Furan Mix(2nd Source)	20 ul	5000 ppm	100 ppm
11674	Ethyl-tert-Butyl Ether(ETBE)	50 ul	2000 ppm	100 ppm

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-289646

Prepared By: Previlon, Wilner		Department: Organics	ApprovedBy: akmal	
Description: 624/8260 CAL @ 250 PPB		BatchNumber: B-25875	ApproveDate: 10/11/18	
Prep Date: 10/10/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 10/17/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-288654	200ppm VOA Working Std	125 ul	VARIOUS pp	250 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	125 ul	200 ppm	250 ppb

Veritech Lot Number: V-289647

Prepared By: Previlon, Wilner		Department: Organics	ApprovedBy: akmal	
Description: 624/8260 CAL @ 100 PPB		BatchNumber: B-25875	ApproveDate: 10/11/18	
Prep Date: 10/10/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 10/17/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-288654	200ppm VOA Working Std	50 ul	VARIOUS pp	100 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	50 ul	200 ppm	100 ppb

Veritech Lot Number: V-289648

Prepared By: Previlon, Wilner		Department: Organics	ApprovedBy: akmal	
Description: 624/8260 CAL @ 50 PPB		BatchNumber: B-25875	ApproveDate: 10/11/18	
Prep Date: 10/10/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 10/17/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-288654	200ppm VOA Working Std	25 ul	VARIOUS pp	50 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	25 ul	200 ppm	50 ppb

Veritech Lot Number: V-289649

Prepared By: Previlon, Wilner		Department: Organics	ApprovedBy: akmal	
Description: 624/8260 CAL @ 20 PPB		BatchNumber: B-25875	ApproveDate: 10/11/18	
Prep Date: 10/10/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 10/17/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-288654	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Lot Number: V-289650

Prepared By: Previlon, Wilner		Department: Organics	ApprovedBy: akmal	
Description: 624/8260 CAL @ 10 PPB		BatchNumber: B-25875	ApproveDate: 10/11/18	
Prep Date: 10/10/2018		Concentration: VARIOUS ppb	Checked: Yes	
Expiration Date: 10/17/2018		Final Volume: 100 ml		
Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-287558	20ppm VOA Working Std	50 ul	VARIOUS pp	10 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	50 ul	VARIOUS pp	10 ppb

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-289651

Prepared By: Previlon, Wilner	Department: Organics	ApprovedBy: akmal
Description: 624/8260 CAL @ 5 PPB	BatchNumber: B-25875	ApproveDate: 10/11/18
Prep Date: 10/10/2018	Concentration: VARIOUS ppb	Checked: Yes
Expiration Date: 10/17/2018	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-287558	20ppm VOA Working Std	25 ul	VARIOUS pp	5 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	25 ul	VARIOUS pp	5 ppb

Veritech Lot Number: V-289652

Prepared By: Previlon, Wilner	Department: Organics	ApprovedBy: akmal
Description: 624/8260 CAL @ 1 PPB	BatchNumber: B-25875	ApproveDate: 10/11/18
Prep Date: 10/10/2018	Concentration: VARIOUS ppb	Checked: Yes
Expiration Date: 10/17/2018	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-287558	20ppm VOA Working Std	5 ul	VARIOUS pp	1 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	5 ul	VARIOUS pp	1 ppb

Veritech Lot Number: V-289653

Prepared By: Previlon, Wilner	Department: Organics	ApprovedBy: akmal
Description: 624/8260 CAL @ 0.5 PPB	BatchNumber: B-25875	ApproveDate: 10/11/18
Prep Date: 10/10/2018	Concentration: VARIOUS ppb	Checked: Yes
Expiration Date: 10/17/2018	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-287558	20ppm VOA Working Std	2.5 ul	VARIOUS pp	0.5 ppb
9712	P&T Water	100 ml	Neat neat	
V-286519	20ppm Freon VOA Working Std	2.5 ul	VARIOUS pp	0.5 ppb

Veritech Lot Number: V-289654

Prepared By: Previlon, Wilner	Department: Organics	ApprovedBy: akmal
Description: 624/8260 CAL @ 500 PPB	BatchNumber: B-25875	ApproveDate: 10/11/18
Prep Date: 10/10/2018	Concentration: VARIOUS ppb	Checked: Yes
Expiration Date: 10/17/2018	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-288654	200ppm VOA Working Std	250 ul	VARIOUS pp	500 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	250 ul	200 ppm	500 ppb

Veritech Lot Number: V-289655

Prepared By: Previlon, Wilner	Department: Organics	ApprovedBy: akmal
Description: ICV CAL @ 20 PPB	BatchNumber:	ApproveDate: 10/11/18
Prep Date: 10/10/2018	Concentration: VARIOUS ppb	Checked: Yes
Expiration Date: 10/17/2018	Final Volume: 100 ml	

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-288655	MBS	20 ul	100 ppm	20 ppb
9712	P&T Water	100 ml	Neat neat	neat
11076	Chlorodifluoromethane(Freon #22)	10 ul	0.2 mg/ml	20 ppb

Veritech Internally Prepared Standard Log

Veritech Lot Number: V-290036



Prepared By: Goring, Shawn

Department: Organics

ApprovedBy: akmal

Description: VOA WORKING INT/SURR MIX

BatchNumber:

ApproveDate: 10/23/18

Prep Date: 10/17/2018

Concentration: 150 ppm

Checked: Yes

Expiration Date: 3/17/2019

Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
11535	Methyl Alcohol	88 ml	neat neat	
11279	8260A Surrogate Mix	6 ml	2500 ppm	150 ppm
11280	8260A Internal Standard Mix	6 ml	2500 ppm	150 ppm

Veritech Lot Number: V-290037



Prepared By: Goring, Shawn

Department: Organics

ApprovedBy: akmal

Description: BFB Tune Mix

BatchNumber:

ApproveDate: 10/23/18

Prep Date: 10/17/2018

Concentration: 50 ppm

Checked: Yes

Expiration Date: 3/17/2019

Final Volume: 1.5 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-290036	VOA WORKING INT/SURR MIX	500 ul	150 ppm	50 ppm
11535	Methyl Alcohol	1000 ul	neat neat	

Veritech Lot Number: V-291361



Prepared By: Goring, Shawn

Department: Organics

ApprovedBy: akmal

Description: CAL @ 20 PPB

BatchNumber:

ApproveDate: 11/09/18

Prep Date: 11/3/2018

Concentration: VARIOUS ppb

Checked: Yes

Expiration Date: 11/9/2018

Final Volume: 100 ml

Veritech Lot# /Rec#	Lot Description	Amount Used	Conc of Std	Final Conc
V-288654	200ppm VOA Working Std	10 ul	VARIOUS pp	20 ppb
9712	P&T Water	100 ml	Neat neat	
11637	Chlorodifluoromethane	10 ul	200 ppm	20 ppb

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 2889



ApprovedBy: jean
 ApproveDate: 07/30/09
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
ACROS ORGANI	409390050	A0214190	11/20/07	11/30/20	Revolus, Jean	1	1ML	NEAT	

Veritech Control/Receipt Number: 8781



ApprovedBy: akmal
 ApproveDate: 06/19/14
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Chem Service	N-11395-1G	2868400	06/19/14	12/31/19	Hamid, Akmal	2	1g	neat	neat

Veritech Control/Receipt Number: 9626



ApprovedBy: jean
 ApproveDate: 08/04/15
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-12776-1G	3381600	08/04/15	11/30/21	Revolus, Jean	1	1g	Neat	

Veritech Control/Receipt Number: 9641



ApprovedBy: jean
 ApproveDate: 08/11/15
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-11556-1G	3256300	08/11/15	10/31/20	Revolus, Jean	2	1g	Neat	

Veritech Control/Receipt Number: 9642



ApprovedBy: jean
 ApproveDate: 08/11/15
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
CHEM SERVICE	N-12771-100MG	4233000	08/11/15	08/31/20	Revolus, Jean	4	100m	Neat	

Veritech Control/Receipt Number: 9712



ApprovedBy:
 ApproveDate:
 Checked: No

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Veritech	N/A	N/A	09/28/15	09/28/20	Goring, Shawn	1	N/A	Neat	Neat

Veritech Control/Receipt Number: 10964



ApprovedBy: akmal
 ApproveDate: 05/30/17
 Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:	Num of Cont	Volume /Cont	Conc:	Units:
Chem Service Inc	N-12223-1G	6037900	05/26/17	02/28/20	Hamid, Akmal	1	1G	NEAT	NEAT

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 10966



Description
Cyclohexanone

ApprovedBy: akmal
ApproveDate: 05/30/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
Chem Service Inc	N-11531-1G	6255400	05/26/17	10/31/19	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
1	1G	NEAT	NEAT

Veritech Control/Receipt Number: 11076



Description
Chlorodifluoromethane(Freon #22)

ApprovedBy: akmal
ApproveDate: 07/17/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
AccuStandard	M-REF-03	215011021	07/14/17	01/05/25	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
15	1ML	0.2	MG/ML

Veritech Control/Receipt Number: 11278



Description
502.2 Cal Mix #1(Gases)

ApprovedBy: jean
ApproveDate: 11/20/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
RESTEK	30042	A0130478	11/16/17	05/31/24	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
7	1ml	2000	PPM

Veritech Control/Receipt Number: 11279



Description
8260A Surrogate Mix

ApprovedBy: jean
ApproveDate: 11/20/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
RESTEK	30240	A0127037	11/16/17	04/30/22	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
12	1ml	2500	PPM

Veritech Control/Receipt Number: 11280



Description
8260A Internal Standard Mix

ApprovedBy: jean
ApproveDate: 11/20/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
RESTEK	30241	A0131578	11/16/17	10/31/22	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
12	1ml	2500	PPM

Veritech Control/Receipt Number: 11308



Description
tert-Amyl methyl ether

ApprovedBy: akmal
ApproveDate: 12/01/17
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
Supelco	506737	XA16639V	12/01/17	10/31/18	Hamid, Akmal

Num of Cont	Volume /Cont	Conc:	Units:
3	1ML	2000	PPM

Veritech Control/Receipt Number: 11535



Description
Methyl Alcohol

ApprovedBy: akmal
ApproveDate: 06/19/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
Tedia	MP1924	18010456	03/08/18	01/17/20	Lopez, Jose

Num of Cont	Volume /Cont	Conc:	Units:
42	1L	neat	neat

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11576

Description
Ethyl Ether

ApprovedBy: akmal
ApproveDate: 04/03/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Chem Service N-11897-1G 6802700 04/03/18 04/30/20 Hamid, Akmal

Num of Volume
Cont /Cont Conc: Units:
1 1G NEAT NEAT

Veritech Control/Receipt Number: 11578

Description
n-Amyl Acetate

ApprovedBy: akmal
ApproveDate: 04/03/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Chem Service N-12508-1G 6972800 04/03/18 02/27/21 Hamid, Akmal

Num of Volume
Cont /Cont Conc: Units:
1 1G NEAT NEAT

Veritech Control/Receipt Number: 11587

Description
Furan

ApprovedBy: akmal
ApproveDate: 04/05/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Aldrich 185922 SHBG4510V 04/05/18 08/31/25 Hamid, Akmal

Num of Volume
Cont /Cont Conc: Units:
1 5ML NEAT NEAT

Veritech Control/Receipt Number: 11594

Description
SS 8260 Cal Mix 2(ICV 2ND LOT)

ApprovedBy: akmal
ApproveDate: 04/09/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Supelco 46831-U LC24460V 04/09/18 11/30/19 Hamid, Akmal

Num of Volume
Cont /Cont Conc: Units:
2 1ML 2000 PPM

Veritech Control/Receipt Number: 11633

Description
Ethyl-tert-Butyl Ether (ETBE)

ApprovedBy: jean
ApproveDate: 05/01/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
RESTEK 30628 A0131084 05/01/18 09/30/22 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml 2000 PPM

Veritech Control/Receipt Number: 11634

Description
tert-Amyl Methyl Ether (TAME)

ApprovedBy: jean
ApproveDate: 05/01/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
RESTEK 30629 A0104857 05/01/18 07/31/19 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml 2000 PPM

Veritech Control/Receipt Number: 11637

Description
Chlorodifluoromethane

ApprovedBy: jean
ApproveDate: 05/07/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
ACCUSTANDAR M-REF-03 217071159 05/02/18 07/12/27 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
20 1ml 200 PPM

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11674



Description
Ethyl-tert-Butyl Ether(ETBE)

ApprovedBy: jean
ApproveDate: 05/14/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
RESTEK 30628 A0137814 05/10/18 05/31/23 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml 2000 PPM

Veritech Control/Receipt Number: 11693



Description
Custom VOC Standard

ApprovedBy: jean
ApproveDate: 05/16/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
ACCUSTANDAR S-16418 218051016 05/16/18 11/14/18 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml VARIOU

Veritech Control/Receipt Number: 11694



Description
Custom VOC Standard(2nd Source)

ApprovedBy: jean
ApproveDate: 05/16/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
ACCUSTANDAR S-16418 218051222 05/16/18 11/14/18 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml VARIOU

Veritech Control/Receipt Number: 11790



Description
8260 CAL MIX #2

ApprovedBy: akmal
ApproveDate: 07/17/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
SUPELCO 46831-U LC24460V 06/20/18 11/30/19 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml 2000 PPM

Veritech Control/Receipt Number: 11808



Description
Methyl Alcohol

ApprovedBy: akmal
ApproveDate: 07/05/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
Tedia MP1924 18030409 06/25/18 03/16/20 Lopez, Jose

Num of Volume
Cont /Cont Conc: Units:
42 1L neat neat

Veritech Control/Receipt Number: 11843



Description
502.2 Cal2000 Mega-Mix

ApprovedBy: akmal
ApproveDate: 07/17/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
RESTEK 30431 A0139221 07/12/18 06/30/20 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml 2000 PPM

Veritech Control/Receipt Number: 11844



Description
502.2 Cal Mix#1(Gases)

ApprovedBy: akmal
ApproveDate: 07/17/18
Checked: Yes

Manufacturer Catalog Num: Lot Num: Date Rec: Exp Date: Rec By:
RESTEK 30042 A0136734 07/12/18 12/31/24 Revolus, Jean

Num of Volume
Cont /Cont Conc: Units:
5 1ml 2000 PPM

Veritech Standard Receipt Log

Veritech Control/Receipt Number: 11930



Description
Ethyl methacrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
CHEM SERVICE	N-11903-1G	6051800	08/22/18	12/31/19	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	Neat	

Veritech Control/Receipt Number: 11931



Description
Methyl methacrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
CHEM SERVICE	N-12443-1G	7530100	08/22/18	03/31/21	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	Neat	

Veritech Control/Receipt Number: 11932



Description
Butyl methacrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
CHEM SERVICE	N-11371-1G	4695500	08/22/18	01/31/23	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	Neat	

Veritech Control/Receipt Number: 11933



Description
n-Butyl acrylate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
CHEM SERVICE	N-12513-1G	7528400	08/22/18	12/31/20	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	Neat	

Veritech Control/Receipt Number: 11935



Description
Ethyl acetate

ApprovedBy: jean
ApproveDate: 08/27/18
Checked: Yes

Manufacturer	Catalog Num:	Lot Num:	Date Rec:	Exp Date:	Rec By:
CHEM SERVICE	N-11881-1G	7518400	08/22/18	05/31/22	Revolus, Jean

Num of Cont	Volume /Cont	Conc:	Units:
1	1g	Neat	



Hampton-Clarke

Analytical & Field Services

Last Page of Report

Hampton-Clarke Report Of Analysis

Client: EA Engineering, Science & Technology

HC Project #: 8102901

Project: NYSDEC National Heatset

Sample ID: 152140-MW-1D(ONSITE)

Collection Date: 10/23/2018

Lab#: AD07391-001

Receipt Date: 10/26/2018

Matrix: Aqueous

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	6.6		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	1.2		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.21	30	79	111	97	
Dibromofluoromethane	29.25	30	73	131	98	
Bromofluorobenzene	29.71	30	82	112	99	
1,2-Dichloroethane-d4	30.23	30	78	128	101	

Sample ID: 152140-MW-1S(ONSITE)

Lab#: AD07391-002

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.20	30	79	111	97	
Dibromofluoromethane	29.89	30	73	131	100	
Bromofluorobenzene	31.29	30	82	112	104	
1,2-Dichloroethane-d4	30.19	30	78	128	101	

Sample ID: 152140-MW-2A

Lab#: AD07391-003

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.3		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.89	30	79	111	100	
Dibromofluoromethane	30.84	30	73	131	103	
Bromofluorobenzene	30.89	30	82	112	103	
1,2-Dichloroethane-d4	27.52	30	78	128	92	

Sample ID: 152140-MW-2AD

Lab#: AD07391-004

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.2		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	1.2		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.90	30	79	111	103	
Dibromofluoromethane	29.60	30	73	131	99	
Bromofluorobenzene	32.14	30	82	112	107	
1,2-Dichloroethane-d4	30.94	30	78	128	103	

Sample ID: 152140-MW-3D(ONSITE)

Lab#: AD07391-005

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	6.4		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.13	30	79	111	94	
Dibromofluoromethane	29.94	30	73	131	100	
Bromofluorobenzene	29.82	30	82	112	99	
1,2-Dichloroethane-d4	29.22	30	78	128	97	

Sample ID: 152140-MW-3S(ONSITE)

Lab#: AD07391-006

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	2.7		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	3.3		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.86	30	79	111	96	
Dibromofluoromethane	30.49	30	73	131	102	
Bromofluorobenzene	30.38	30	82	112	101	
1,2-Dichloroethane-d4	31.02	30	78	128	103	

Sample ID: 152140-MW-5D

Lab#: AD07391-007

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	2.5		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	160		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	3.6		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.76	30	79	111	99	
Dibromofluoromethane	30.26	30	73	131	101	
Bromofluorobenzene	30.96	30	82	112	103	
1,2-Dichloroethane-d4	31.41	30	78	128	105	

Sample ID: 152140-MW-5S

Lab#: AD07391-008

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	1.3		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.6		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.21	30	79	111	101	
Dibromofluoromethane	31.20	30	73	131	104	
Bromofluorobenzene	30.38	30	82	112	101	
1,2-Dichloroethane-d4	28.99	30	78	128	97	

Sample ID: 152140-MW-6S

Lab#: AD07391-009

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.2		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.47	30	79	111	98	
Dibromofluoromethane	29.98	30	73	131	100	
Bromofluorobenzene	31.48	30	82	112	105	
1,2-Dichloroethane-d4	29.82	30	78	128	99	

Sample ID: 152140-MW-14S

Lab#: AD07391-010

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	37		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.73	30	79	111	99	
Dibromofluoromethane	31.26	30	73	131	104	
Bromofluorobenzene	29.98	30	82	112	100	
1,2-Dichloroethane-d4	33.91	30	78	128	113	

Sample ID: 152140-MW-14D

Lab#: AD07391-011

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.9		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.52	30	79	111	98	
Dibromofluoromethane	30.55	30	73	131	102	
Bromofluorobenzene	31.02	30	82	112	103	
1,2-Dichloroethane-d4	29.24	30	78	128	97	

Sample ID: 152140-MW-15S

Lab#: AD07391-012

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	33		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.46	30	79	111	98	
Dibromofluoromethane	29.53	30	73	131	98	
Bromofluorobenzene	30.59	30	82	112	102	
1,2-Dichloroethane-d4	29.14	30	78	128	97	

Sample ID: 152140-MW-15D

Lab#: AD07391-013

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	24		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.09	30	79	111	97	
Dibromofluoromethane	30.58	30	73	131	102	
Bromofluorobenzene	29.39	30	82	112	98	
1,2-Dichloroethane-d4	27.63	30	78	128	92	

Sample ID: 152140-MW-15D MS

Lab#: AD07391-014

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	14		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	18		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	18		
1,1,2-Trichloroethane	1	ug/l	1.0	21		
1,1-Dichloroethane	1	ug/l	1.0	16		
1,1-Dichloroethene	1	ug/l	1.0	17		
1,2,4-Trichlorobenzene	1	ug/l	1.0	15		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	16		
1,2-Dibromoethane	1	ug/l	1.0	16		
1,2-Dichlorobenzene	1	ug/l	1.0	15		
1,2-Dichloroethane	1	ug/l	0.50	19		
1,2-Dichloropropane	1	ug/l	1.0	20		
1,3-Dichlorobenzene	1	ug/l	1.0	17		
1,4-Dichlorobenzene	1	ug/l	1.0	17		
2-Butanone	1	ug/l	1.0	15		
2-Hexanone	1	ug/l	1.0	18		
4-Methyl-2-pentanone	1	ug/l	1.0	18		
Acetone	1	ug/l	5.0	78		
Benzene	1	ug/l	0.50	20		
Bromodichloromethane	1	ug/l	1.0	17		
Bromoform	1	ug/l	1.0	15		
Bromomethane	1	ug/l	1.0	18		
Carbon disulfide	1	ug/l	1.0	16		
Carbon tetrachloride	1	ug/l	1.0	16		
Chlorobenzene	1	ug/l	1.0	16		
Chloroethane	1	ug/l	1.0	20		
Chloroform	1	ug/l	1.0	15		
Chloromethane	1	ug/l	1.0	26		
cis-1,2-Dichloroethene	1	ug/l	1.0	17		
cis-1,3-Dichloropropene	1	ug/l	1.0	17		
Cyclohexane	1	ug/l	1.0	18		
Dibromochloromethane	1	ug/l	1.0	15		
Dichlorodifluoromethane	1	ug/l	1.0	22		
Ethylbenzene	1	ug/l	1.0	18		
Isopropylbenzene	1	ug/l	1.0	18		
m&p-Xylenes	1	ug/l	1.0	36		
Methyl Acetate	1	ug/l	1.0	15		
Methylcyclohexane	1	ug/l	1.0	17		
Methylene chloride	1	ug/l	1.0	18		
Methyl-t-butyl ether	1	ug/l	0.50	16		
o-Xylene	1	ug/l	1.0	18		
Styrene	1	ug/l	1.0	19		
Tetrachloroethene	1	ug/l	1.0	46		
Toluene	1	ug/l	1.0	17		
trans-1,2-Dichloroethene	1	ug/l	1.0	16		
trans-1,3-Dichloropropene	1	ug/l	1.0	16		
Trichloroethene	1	ug/l	1.0	15		
Trichlorofluoromethane	1	ug/l	1.0	13		
Vinyl chloride	1	ug/l	1.0	20		
Xylenes (Total)	1	ug/l	1.0	54		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.93	30	79	111	103	
Dibromofluoromethane	30.45	30	73	131	101	
Bromofluorobenzene	28.92	30	82	112	96	
1,2-Dichloroethane-d4	29.19	30	78	128	97	

Sample ID: 152140-MW-15D MSD

Lab#: AD07391-015

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	15		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	19		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	20		
1,1,2-Trichloroethane	1	ug/l	1.0	19		
1,1-Dichloroethane	1	ug/l	1.0	18		
1,1-Dichloroethene	1	ug/l	1.0	18		
1,2,4-Trichlorobenzene	1	ug/l	1.0	16		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	17		
1,2-Dibromoethane	1	ug/l	1.0	14		
1,2-Dichlorobenzene	1	ug/l	1.0	16		
1,2-Dichloroethane	1	ug/l	0.50	19		
1,2-Dichloropropane	1	ug/l	1.0	19		
1,3-Dichlorobenzene	1	ug/l	1.0	16		
1,4-Dichlorobenzene	1	ug/l	1.0	16		
2-Butanone	1	ug/l	1.0	18		
2-Hexanone	1	ug/l	1.0	19		
4-Methyl-2-pentanone	1	ug/l	1.0	17		
Acetone	1	ug/l	5.0	84		
Benzene	1	ug/l	0.50	20		
Bromodichloromethane	1	ug/l	1.0	17		
Bromoform	1	ug/l	1.0	16		
Bromomethane	1	ug/l	1.0	21		
Carbon disulfide	1	ug/l	1.0	16		
Carbon tetrachloride	1	ug/l	1.0	16		
Chlorobenzene	1	ug/l	1.0	15		
Chloroethane	1	ug/l	1.0	20		
Chloroform	1	ug/l	1.0	16		
Chloromethane	1	ug/l	1.0	28		
cis-1,2-Dichloroethene	1	ug/l	1.0	18		
cis-1,3-Dichloropropene	1	ug/l	1.0	16		
Cyclohexane	1	ug/l	1.0	20		
Dibromochloromethane	1	ug/l	1.0	15		
Dichlorodifluoromethane	1	ug/l	1.0	25		
Ethylbenzene	1	ug/l	1.0	19		
Isopropylbenzene	1	ug/l	1.0	18		
m&p-Xylenes	1	ug/l	1.0	36		
Methyl Acetate	1	ug/l	1.0	16		
Methylcyclohexane	1	ug/l	1.0	17		
Methylene chloride	1	ug/l	1.0	18		
Methyl-t-butyl ether	1	ug/l	0.50	16		
o-Xylene	1	ug/l	1.0	18		
Styrene	1	ug/l	1.0	18		
Tetrachloroethene	1	ug/l	1.0	43		
Toluene	1	ug/l	1.0	17		
trans-1,2-Dichloroethene	1	ug/l	1.0	16		
trans-1,3-Dichloropropene	1	ug/l	1.0	15		
Trichloroethene	1	ug/l	1.0	16		
Trichlorofluoromethane	1	ug/l	1.0	15		
Vinyl chloride	1	ug/l	1.0	23		
Xylenes (Total)	1	ug/l	1.0	54		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.83	30	79	111	96	
Dibromofluoromethane	29.11	30	73	131	97	
Bromofluorobenzene	28.91	30	82	112	96	
1,2-Dichloroethane-d4	27.74	30	78	128	92	

Sample ID: 152140-DDC-2-PS

Lab#: AD07391-016

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	3.2		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	1.1		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.16	30	79	111	94	
Dibromofluoromethane	29.13	30	73	131	97	
Bromofluorobenzene	30.94	30	82	112	103	
1,2-Dichloroethane-d4	28.36	30	78	128	95	

Sample ID: 152140-DDC-2-PD

Lab#: AD07391-017

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	3.4		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.18	30	79	111	97	
Dibromofluoromethane	32.06	30	73	131	107	
Bromofluorobenzene	30.17	30	82	112	101	
1,2-Dichloroethane-d4	32.15	30	78	128	107	

Sample ID: 152140-DDC-4-PS

Lab#: AD07391-018

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	2.3		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.09	30	79	111	97	
Dibromofluoromethane	29.17	30	73	131	97	
Bromofluorobenzene	30.86	30	82	112	103	
1,2-Dichloroethane-d4	28.93	30	78	128	96	

Sample ID: 152140-DDC-4-PD

Lab#: AD07391-019

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.90	30	79	111	100	
Dibromofluoromethane	29.09	30	73	131	97	
Bromofluorobenzene	29.79	30	82	112	99	
1,2-Dichloroethane-d4	28.86	30	78	128	96	

Sample ID: 152140-FD-01

Lab#: AD07391-020

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	35		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.15	30	79	111	97	
Dibromofluoromethane	30.16	30	73	131	101	
Bromofluorobenzene	28.90	30	82	112	96	
1,2-Dichloroethane-d4	28.69	30	78	128	96	

Sample ID: 152140-MW-1D(OFFSITE)

Lab#: AD07391-021

Matrix: Aqueous

Collection Date: 10/24/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	20		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	76		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	8.0		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.36	30	79	111	95	
Dibromofluoromethane	29.96	30	73	131	100	
Bromofluorobenzene	31.56	30	82	112	105	
1,2-Dichloroethane-d4	28.67	30	78	128	96	

Sample ID: 152140-MW-1S(OFFSITE)

Lab#: AD07391-022

Matrix: Aqueous

Collection Date: 10/24/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.4		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.13	30	79	111	100	
Dibromofluoromethane	29.10	30	73	131	97	
Bromofluorobenzene	29.00	30	82	112	97	
1,2-Dichloroethane-d4	30.95	30	78	128	103	

Sample ID: 152140-MW-1S(OFFSITE) MS

Lab#: AD07391-023

Matrix: Aqueous

Collection Date: 10/24/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	15		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	19		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	18		
1,1,2-Trichloroethane	1	ug/l	1.0	19		
1,1-Dichloroethane	1	ug/l	1.0	17		
1,1-Dichloroethene	1	ug/l	1.0	17		
1,2,4-Trichlorobenzene	1	ug/l	1.0	16		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	16		
1,2-Dibromoethane	1	ug/l	1.0	16		
1,2-Dichlorobenzene	1	ug/l	1.0	16		
1,2-Dichloroethane	1	ug/l	0.50	18		
1,2-Dichloropropane	1	ug/l	1.0	19		
1,3-Dichlorobenzene	1	ug/l	1.0	17		
1,4-Dichlorobenzene	1	ug/l	1.0	16		
2-Butanone	1	ug/l	1.0	17		
2-Hexanone	1	ug/l	1.0	19		
4-Methyl-2-pentanone	1	ug/l	1.0	18		
Acetone	1	ug/l	5.0	77		
Benzene	1	ug/l	0.50	20		
Bromodichloromethane	1	ug/l	1.0	18		
Bromoform	1	ug/l	1.0	15		
Bromomethane	1	ug/l	1.0	17		
Carbon disulfide	1	ug/l	1.0	16		
Carbon tetrachloride	1	ug/l	1.0	16		
Chlorobenzene	1	ug/l	1.0	18		
Chloroethane	1	ug/l	1.0	19		
Chloroform	1	ug/l	1.0	15		
Chloromethane	1	ug/l	1.0	30		
cis-1,2-Dichloroethene	1	ug/l	1.0	18		
cis-1,3-Dichloropropene	1	ug/l	1.0	17		
Cyclohexane	1	ug/l	1.0	19		
Dibromochloromethane	1	ug/l	1.0	16		
Dichlorodifluoromethane	1	ug/l	1.0	23		
Ethylbenzene	1	ug/l	1.0	18		
Isopropylbenzene	1	ug/l	1.0	18		
m&p-Xylenes	1	ug/l	1.0	36		
Methyl Acetate	1	ug/l	1.0	15		
Methylcyclohexane	1	ug/l	1.0	18		
Methylene chloride	1	ug/l	1.0	20		
Methyl-t-butyl ether	1	ug/l	0.50	15		
o-Xylene	1	ug/l	1.0	18		
Styrene	1	ug/l	1.0	18		
Tetrachloroethene	1	ug/l	1.0	22		
Toluene	1	ug/l	1.0	17		
trans-1,2-Dichloroethene	1	ug/l	1.0	13		
trans-1,3-Dichloropropene	1	ug/l	1.0	17		
Trichloroethene	1	ug/l	1.0	16		
Trichlorofluoromethane	1	ug/l	1.0	13		
Vinyl chloride	1	ug/l	1.0	19		
Xylenes (Total)	1	ug/l	1.0	54		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.81	30	79	111	103	
Dibromofluoromethane	28.65	30	73	131	95	
Bromofluorobenzene	28.71	30	82	112	96	
1,2-Dichloroethane-d4	29.06	30	78	128	97	

Sample ID: 152140-MW-1S(OFFSITE) MSD

Lab#: AD07391-024

Matrix: Aqueous

Collection Date: 10/24/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	16		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	18		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	19		
1,1,2-Trichloroethane	1	ug/l	1.0	20		
1,1-Dichloroethane	1	ug/l	1.0	18		
1,1-Dichloroethene	1	ug/l	1.0	16		
1,2,4-Trichlorobenzene	1	ug/l	1.0	16		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	16		
1,2-Dibromoethane	1	ug/l	1.0	15		
1,2-Dichlorobenzene	1	ug/l	1.0	16		
1,2-Dichloroethane	1	ug/l	0.50	19		
1,2-Dichloropropane	1	ug/l	1.0	20		
1,3-Dichlorobenzene	1	ug/l	1.0	17		
1,4-Dichlorobenzene	1	ug/l	1.0	17		
2-Butanone	1	ug/l	1.0	17		
2-Hexanone	1	ug/l	1.0	19		
4-Methyl-2-pentanone	1	ug/l	1.0	18		
Acetone	1	ug/l	5.0	75		
Benzene	1	ug/l	0.50	20		
Bromodichloromethane	1	ug/l	1.0	16		
Bromoform	1	ug/l	1.0	16		
Bromomethane	1	ug/l	1.0	18		
Carbon disulfide	1	ug/l	1.0	16		
Carbon tetrachloride	1	ug/l	1.0	17		
Chlorobenzene	1	ug/l	1.0	17		
Chloroethane	1	ug/l	1.0	20		
Chloroform	1	ug/l	1.0	15		
Chloromethane	1	ug/l	1.0	28		
cis-1,2-Dichloroethene	1	ug/l	1.0	18		
cis-1,3-Dichloropropene	1	ug/l	1.0	17		
Cyclohexane	1	ug/l	1.0	19		
Dibromochloromethane	1	ug/l	1.0	16		
Dichlorodifluoromethane	1	ug/l	1.0	22		
Ethylbenzene	1	ug/l	1.0	17		
Isopropylbenzene	1	ug/l	1.0	19		
m&p-Xylenes	1	ug/l	1.0	38		
Methyl Acetate	1	ug/l	1.0	15		
Methylcyclohexane	1	ug/l	1.0	19		
Methylene chloride	1	ug/l	1.0	20		
Methyl-t-butyl ether	1	ug/l	0.50	15		
o-Xylene	1	ug/l	1.0	19		
Styrene	1	ug/l	1.0	19		
Tetrachloroethene	1	ug/l	1.0	22		
Toluene	1	ug/l	1.0	17		
trans-1,2-Dichloroethene	1	ug/l	1.0	17		
trans-1,3-Dichloropropene	1	ug/l	1.0	17		
Trichloroethene	1	ug/l	1.0	16		
Trichlorofluoromethane	1	ug/l	1.0	15		
Vinyl chloride	1	ug/l	1.0	20		
Xylenes (Total)	1	ug/l	1.0	57		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.04	30	79	111	100	
Dibromofluoromethane	29.13	30	73	131	97	
Bromofluorobenzene	29.46	30	82	112	98	
1,2-Dichloroethane-d4	28.90	30	78	128	96	

Sample ID: 152140-DDC-07-PS

Lab#: AD07391-025

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	12		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	2.4		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	3.2		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.77	30	79	111	99	
Dibromofluoromethane	30.20	30	73	131	101	
Bromofluorobenzene	29.90	30	82	112	100	
1,2-Dichloroethane-d4	31.09	30	78	128	104	

Sample ID: 152140-DDC-07-PD

Lab#: AD07391-026

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	23		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	9.5		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	5.7		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.70	30	79	111	96	
Dibromofluoromethane	30.72	30	73	131	102	
Bromofluorobenzene	31.98	30	82	112	107	
1,2-Dichloroethane-d4	27.66	30	78	128	92	

Sample ID: 152140-DDC-08-PS

Lab#: AD07391-027

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	7.0		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.0		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.87	30	79	111	100	
Dibromofluoromethane	30.09	30	73	131	100	
Bromofluorobenzene	30.42	30	82	112	101	
1,2-Dichloroethane-d4	28.80	30	78	128	96	

Sample ID: 152140-DDC-08-PD

Lab#: AD07391-028

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	5.7		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.0		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.27	30	79	111	98	
Dibromofluoromethane	30.41	30	73	131	101	
Bromofluorobenzene	29.20	30	82	112	97	
1,2-Dichloroethane-d4	30.97	30	78	128	103	

Sample ID: 152140-DDC-09-PS

Lab#: AD07391-029

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	4.0		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.37	30	79	111	95	
Dibromofluoromethane	30.39	30	73	131	101	
Bromofluorobenzene	30.41	30	82	112	101	
1,2-Dichloroethane-d4	28.53	30	78	128	95	

Sample ID: 152140-DDC-09-PD

Lab#: AD07391-030

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	2.6		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	3.6		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	1.6		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.0		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	1.7		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.46	30	79	111	98	
Dibromofluoromethane	30.58	30	73	131	102	
Bromofluorobenzene	31.29	30	82	112	104	
1,2-Dichloroethane-d4	31.38	30	78	128	105	

Sample ID: 152140-DDC-10-PS

Lab#: AD07391-031

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	3.4		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.36	30	79	111	98	
Dibromofluoromethane	30.09	30	73	131	100	
Bromofluorobenzene	30.08	30	82	112	100	
1,2-Dichloroethane-d4	29.61	30	78	128	99	

Sample ID: 152140-DDC-10-PD

Lab#: AD07391-032

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	1.7		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.55	30	79	111	98	
Dibromofluoromethane	31.66	30	73	131	106	
Bromofluorobenzene	29.91	30	82	112	100	
1,2-Dichloroethane-d4	27.95	30	78	128	93	

Sample ID: 152140-FD-02

Lab#: AD07391-033

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	20		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	78		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	8.7		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.38	30	79	111	98	
Dibromofluoromethane	28.18	30	73	131	94	
Bromofluorobenzene	29.33	30	82	112	98	
1,2-Dichloroethane-d4	30.55	30	78	128	102	

Sample ID: 152140-TRIP BLANK

Lab#: AD07391-034

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.73	30	79	111	106	
Dibromofluoromethane	29.35	30	73	131	98	
Bromofluorobenzene	29.81	30	82	112	99	
1,2-Dichloroethane-d4	30.58	30	78	128	102	

Sample ID: 152140-DDC-06-PS

Lab#: AD07391-035

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	6.9		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.52	30	79	111	98	
Dibromofluoromethane	29.51	30	73	131	98	
Bromofluorobenzene	31.42	30	82	112	105	
1,2-Dichloroethane-d4	30.09	30	78	128	100	

Sample ID: 152140-DDC-06-PD

Lab#: AD07391-036

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	28		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	12		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	9.3		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.35	30	79	111	98	
Dibromofluoromethane	29.65	30	73	131	99	
Bromofluorobenzene	30.75	30	82	112	103	
1,2-Dichloroethane-d4	30.68	30	78	128	102	

Sample ID: 152140-DDC-05-PS

Lab#: AD07391-037

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	7.8		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	1.4		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.04	30	79	111	103	
Dibromofluoromethane	30.73	30	73	131	102	
Bromofluorobenzene	29.56	30	82	112	99	
1,2-Dichloroethane-d4	29.58	30	78	128	99	

Sample ID: 152140-DDC-05-PD

Lab#: AD07391-038

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	14		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	7.9		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	2.5		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.97	30	79	111	100	
Dibromofluoromethane	31.15	30	73	131	104	
Bromofluorobenzene	30.17	30	82	112	101	
1,2-Dichloroethane-d4	31.19	30	78	128	104	

Sample ID: 152140-MW-2D

Lab#: AD07391-039

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	1.6		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	3.0		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	4.1		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.67	30	79	111	99	
Dibromofluoromethane	30.58	30	73	131	102	
Bromofluorobenzene	30.83	30	82	112	103	
1,2-Dichloroethane-d4	28.87	30	78	128	96	

Sample ID: 152140-MW-2S

Lab#: AD07391-040

Matrix: Aqueous

Collection Date: 10/23/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	1.1		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	1.6		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.42	30	79	111	95	
Dibromofluoromethane	29.88	30	73	131	100	
Bromofluorobenzene	30.05	30	82	112	100	
1,2-Dichloroethane-d4	30.48	30	78	128	102	

Sample ID: 152140-MW-3D(OFFSITE)

Lab#: AD07391-041

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	31		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	12		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	2.4		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.88	30	79	111	100	
Dibromofluoromethane	31.34	30	73	131	104	
Bromofluorobenzene	29.89	30	82	112	100	
1,2-Dichloroethane-d4	28.72	30	78	128	96	

Sample ID: 152140-MW-3S(OFFSITE)

Lab#: AD07391-042

Matrix: Aqueous

Collection Date: 10/22/2018

Receipt Date: 10/26/2018

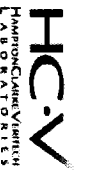
Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dibromoethane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.76	30	79	111	103	
Dibromofluoromethane	29.28	30	73	131	98	
Bromofluorobenzene	30.38	30	82	112	101	
1,2-Dichloroethane-d4	30.26	30	78	128	101	

HamptonClarke-Veritech Laboratories

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458

Service Center: 137-D Gailher Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056



CHAIN OF CUSTODY RECORD

A Women-Owned, Disadvantaged, Small Business Enterprise
NELAC/INJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124

Project (Lab Use Only)
8102901

Page 1 of 4

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	Hazmat/CSV
48 Hours (75%)	Waste	EQUS 4-File / EZ / NYS
72 Hours (50%)	Red - NJ / NY / PA	EQUS EPA Region 2 or 5
4 Days (35%, TPH)	CLP	Excel - NJ Regulatory
1 Week (25%, EPH)	Full / Category B	Excel - NY Regulatory
10 Days (10%)	Category A	Excel - PA Regulatory
2 Weeks	Other: _____	PDF
Other: _____		

Expedited TAT Not Always Available. Please Check with Lab.

1a) Customer: EA Engineering
Address: 6712 Brooklawn Parkway, Suite 104
Syracuse, NY 13211
1b) Email/Call/Fax/Ph: ecummings@eaest.com
1c) Send Invoice to: northeastlap@eaest.com
1d) Send Report to: jhayward@eaest.com; ecummings@eaest.com

2a) Project: National Heasel Printing Site
2b) Project Mgr: Jim Hayward
2c) Project Location (City/State): Babylon, NY
2d) Quote/PO # (If Applicable): 1490716

FOR LAB USE ONLY
Batch #
A007391
Matrix Codes
DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (Please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample	7) Analysis Request	8) # of Bottles	9) Comments
001	152140-MW-1D(onsite)	GW	10/23/18	1147	3	
002	152140-MW-1S(onsite)	GW	10/23/18	1117	3	
003	152140-MW-2A	GW	10/23/18	0909	3	
004	152140-MW-2AD	GW	10/23/18	0908	3	
005	152140-MW-3D(onsite)	GW	10/23/18	0938	3	
006	152140-MW-3S(onsite)	GW	10/23/18	0941	3	
007	152140-MW-5D	GW	10/23/18	1043	3	
008	152140-MW-5S	GW	10/23/18	1050	3	
009	152140-MW-6S	GW	10/23/18	1223	3	
010	152140-MW-14S	GW	10/23/18	1155	3	

10) Relinquished by: Stephen Souther CA
Accepted by: UPS
Date: 10/24/18
Time: 9:36

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:
BN or BNA (8270C SIM)
VOC (8260B SIM or 8011)
Metals (ICP-MS 200.8 or 6020)
Metals-Soil (ICP-MS 6020 for Be & Ag)

Note: Check if applicable:
Project-Specific Reporting Limits
High Contaminant Concentrations
NJ LSRP Project

11) Sampler (print name): Stephen Souther
Date: 10/24/18
Cooler Temperature: 2-6
Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of \$50/sample will be assessed for storage should sample not be activated for any analysis.

Sampler: ssouther@eaest.com

HamptonClarke-Veritech Laboratories

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1456

Service Center: 137-D Gailher Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124



CHAIN OF CUSTODY RECORD

HamptonClarke-Veritech
LABORATORIES

A Woman-Owned Disadvantaged, Small Business Enterprise

Project# (Lab Use Only)

8102901

Page 2 of 4

3) Reporting Requirements (Please Circle)

Turnaround Report Type Electronic Deliv

24 Hours (100%) Data Summary

48 Hours (75%) Waste

72 Hours (50%) Red - NJ / NY / PA

4 Days (35%, TPH) CLP

1 Week (25%, EPH) Full / Category B

10 Days (10%) Category A

2 Weeks Other:

Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: EA Engineering

Address: 6712 Brooklawn Parkway, Suite 104

Syracuse, NY 13211

1b) Email/Cell/Fax/Ph: ecummings@eaest.com

1c) Send Invoice to: northeastap@eaest.com

1d) Send Report to: jhayward@eaest.com; ecummings@eaest.com

2a) Project: National Heatset Printing Site

2b) Project Mgr: Jim Hayward

2c) Project Location (City/State): Babylon, NY

2d) Quote/PO # (if Applicable): 1490716

FOR LAB USE ONLY

Matrix Codes

DW - Drinking Water S - Soil A - Air

GW - Ground Water SL - Sludge

WW - Waste Water OL - Oil

OT - Other (please specify under item 9, Comments)

Batch #

Ado1391

Lab Sample #

611

612

613/614/615

616

617

618

619

620

621

622/623/624

10) Relinquished by:

Accepted by:

Date

Time

10/24/18

10/25/18 9:30

Additional Notes

Review Sample - 14/18/18

UPS

WAPCEN

10/25/18 9:30

Additional Notes

11) Sampler (print name): J. R. New S. L. G. S.

Date: 10/24/18

2-6

Cooler Temperature

Please note NUMBERED items. If not completed your analytical work may be delayed.

A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

Check if Contingent

None

MeOH

En

Core

NaOH

HCl

H2SO4

HNO3

Other:

9) Comments

Split w/ MS/MSD

3

3

9

3

3

3

3

9

Split w/ MS/MSD

3

3

3

3

3

3

3

3

3

3

3

3

3

3

3

3

3

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:

BN or BNA (8270C SIM)

VOC (8260B SIM or 8011)

Metals (ICP-MS 200.8 or 6020)

Metals-Soil (ICP-MS 6020 for Be & Ag)

Note: Check if applicable:

Project-Specific Reporting Limits

High Contaminant Concentrations

NJ LSRP Project

11) Sampler (print name): J. R. New S. L. G. S.

Date: 10/24/18

2-6

Cooler Temperature

Please note NUMBERED items. If not completed your analytical work may be delayed.

A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

HamptonClarke-Veritech Laboratories

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Service Center: 137-D Gailher Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056

NEAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124



CHAIN OF CUSTODY RECORD

Project# (Lab Use Only)

Page 3 of 4

8102961

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	HazMat/CSV
48 Hours (75%)	Waste	EQUS 4-File / EZ / NYS
72 Hours (50%)	Red - NJ / NY / PA	EQUS EPA Region 2 or 5
4 Days (35%, TPH)	CLP	Excel - NJ Regulatory
1 Week (25%, EPH)	Full / Category B	Excel - NY Regulatory
10 Days (10%)	Category A	Excel - PA Regulatory
2 Weeks	Other: _____	PDF
Other: _____		Other: _____

Expedited TAT Not Always Available. Please Check with Lab.

1a) Customer: EA Engineering
 Address: 6712 Brooklawn Parkway, Suite 104
 Syracuse, NY 13211

1b) Email/Cell/Fax/Ph: ecummings@eaest.com
 northeastap@eaest.com

1c) Send Invoice to: jhayward@eaest.com; ecummings@eaest.com

1d) Send Report to: jhayward@eaest.com

2a) Project: National Heatset Printing Site

2b) Project Mgr: Jim Hayward

2c) Project Location (City/State): Babylon, NY

2d) Quote/PO # (if Applicable): 1490716

FOR LAB USE ONLY

Batch # 102391

DW - Drinking Water
GW - Ground Water
WW - Waste Water
OT - Other (please specify under item 9, Comments)

FOR LAB USE ONLY

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample	Composite (C)	Grab (G)	VOC 8260C	7) Analysis Request	8) # of Bottles	9) Comments
023	152140-DDC-07-PS	GW	10/23/18	1530	X			3	
024	152140-DDC-07-PD	GW	10/23/18	1538	X			3	
027	152140-DDC-08-PS	GW	10/23/18	1445	X			3	
028	152140-DDC-08-PD	GW	10/23/18	1454	X			3	
029	152140-DDC-09-PS	GW	10/23/18	1408	X			3	
030	152140-DDC-09-PD	GW	10/23/18	1412	X			3	
031	152140-DDC-10-PS	GW	10/23/18	1534	X			3	
032	152140-DDC-10-PD	GW	10/23/18	1530	X			3	
033	152140-FD-02	GW	10/23/18	---	X			3	
034	Trip Blank	DI	---	---	X			3	

10) Relinquished by:

Accepted by:

Date

Time

10/24/18
 10/24/18 9:30

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:
 BN or BNA (8270C SIM)
 VOC (8260B SIM or 8011)
 Metals (ICP-MS 200.8 or 6020)
 Metals-Soil (ICP-MS 6020 for Be & Ag)

Note: Check if applicable:
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project

11) Sampler (print name): STEVEN SCORNER **Date:** 10/24/18

Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

Cooler Temperature
 2-6

HamptonClarke-Vertech Laboratories

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458

Service Center: 137-D Gailher Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056



CHAIN OF CUSTODY RECORD

Project# Lab Use Only

Page 4 of 4

8102901

3) Reporting Requirements (Please Circle)

T turnaround	Report Type	Electronic Deliv.
24 Hours (100%)	Data Summary	ECUIS 4-File / EZ / NYS
48 Hours (75%)	Waste	ECUIS EPA Region 2 or 5
72 Hours (50%)	Red - NJ / NY / PA	Excel - NJ Regulatory
4 Days (35%) (TPH)	CLP	Excel - NY Regulatory
1 Week (25%) (EPH)	Full / Category B	Excel - PA Regulatory
10 Days (10%)	Category A	PDF
2 Weeks	Other: _____	Other: _____

Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY

Matrix Codes
DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

Batch #

6712391

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite	Grab (G)	VOC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards in NJ or PA:
BN or BNA (8270C SIM)
VOC (8260B SIM or 8011)
Metals (ICP-MS 200.8 or 6020)
Metals-Soil (ICP-MS 6020 for Be & Ag)

Note: Check if applicable:
Project-Specific Reporting Limits
High Contaminant Concentrations
NJ LSRP Project

Cooler Temperature

Date: 10/24/18

11) Sampler (print name): Stephen S. Gwera
Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

10) Relinquished by:	Accepted by:	Date	Time
Stephen S. Gwera	UPS	10/24/18	
CEFS	W. Gwera	10/26/18	9:30

Additional Notes

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