



Additional Sampling Results
101 Green Acres Road Site
Valley Stream, New York
NYSDEC Site No. 1-30-084

Prepared for:
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Woodside, New York

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Date:
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Project Number:
02-1961B

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1 Site Overview

ENVIRON International Corporation (ENVIRON), on behalf of Bulova Corporation (Bulova), has prepared this report to document the findings of additional sampling activities conducted at the 101 Green Acres Road Site in Valley Stream, New York (the “Site”). The Site location is depicted on Figure 1. The scope of the sampling activities was based on the New York State Department of Environmental Conservation’s (NYSDEC) review of the *Annual Sampling Results* report (ENVIRON, June 2014) and detailed in the correspondence from NYSDEC dated June 19, 2014 and August 13, 2014. In the August 2014 correspondence, NYSDEC and the New York State Department of Health (NYSDOH) agreed to allow Bulova to discontinue indoor air sampling at the Site. Accordingly, this report provides results of two rounds of groundwater sampling (conducted in September 2014 and March 2015).

The following sections provide relevant background information, summarize the additional sampling completed at the Site, and present conclusions based on the results of the additional sampling activities. Detailed information regarding the Site history and the results of the prior investigation activities were previously provided to NYSDEC in reports prepared by ENVIRON and Weston Solutions, Inc. (Weston).

1.1 Site Description

1.1.1 Location and Physical Setting

The Site is located in the Town of Hempstead, Nassau County, New York, in a mixed-use urban area with residential, commercial, and light industrial properties. The Site is included in the Lynbrook, New York USGS topographic quadrangle and the Site location is depicted on Figure 1. The Site covers approximately 7.2 acres and is bordered to the northwest and northeast by retail stores and paved parking areas. The Green Acres shopping mall is immediately northeast of the Site. The northern limits of the retail stores and parking areas are bordered by Sunrise Highway and the Far Rockaway branch of the Long Island Rail Road. A residential area is adjacent to the eastern property boundary. Light industrial facilities, including distribution and shipping companies, are located to the south of the Site at the Airport Industrial Office Park (AIOP). John F. Kennedy International Airport is approximately 2 miles southwest of the Site.

Hook Creek, an intermittent stream, is located beyond the western edge of the Site. The creek receives storm water drainage from the Site as well as from upgradient areas including paved parking areas, Sunrise Highway, and the Long Island Rail Road adjacent to Sunrise Highway. Hook Creek flows south, merges with Valley Stream approximately 0.5 miles south of the Site, and then flows to the west, discharging to Jamaica Bay. Clear Stream, located approximately 0.3 miles southeast of the Site, flows to the south and joins Valley Stream approximately 0.2 miles upstream of Hook Creek. In the vicinity of the Site, the Nassau/Queens County line roughly follows Hook Creek.

1.1.2 Geology

The Site is located within Long Island’s glacial outwash plain, which extends 10 miles southward from the Ronkonkoma and Harbor Hill terminal moraines to the south shore. Surface topography at the Site is flat, with surface elevations ranging from approximately 8 to 10 feet

above mean sea level (amsl). Topography in the vicinity of the Site is also generally flat and gently slopes toward the south and southeast in the direction of Hook Creek and Valley Stream. The Site is underlain by upper Pleistocene deposits, which form the upper glacial aquifer. The upper Pleistocene deposits consist mainly of stratified beds of fine to coarse sand and of sand and gravel. Thin beds of silt and clay are often interbedded with the coarse-grained material. The upper glacial aquifer is underlain by the “20-foot” clay and the Gardiners Clay. The “20-foot” clay is lithologically similar to the underlying Gardiners Clay and the two units are distinguished primarily by stratigraphic position. In some portions of southern Nassau County, the “20-foot” clay is separated from the Gardiners Clay by a layer of upper Pleistocene deposits. The “20-foot” clay and the Gardiners Clay represent the major confining layers within the upper portion of the ground water reservoir beneath Nassau County. Additional information related to the regional geology is detailed in the Geologic Review and Well Record Search Results letter report (ENVIRON, April 16, 1998).

Based on observations during the prior site investigations, geologic conditions at and in the vicinity of the Site are consistent with the findings of regional geologic investigations. The Site is underlain by fine to medium sands. Ground water is located approximately 5 feet below ground surface (bgs). Regional geologic investigation reports indicate that the northern boundary of the “20-foot” clay is present in the vicinity of the Site, and the site investigation results indicate that the “20-foot” clay is discontinuous beneath the Site. Where the “20-foot” clay is present, a thin layer of upper Pleistocene deposits appear to be positioned between the “20-foot” clay and the Gardiners Clay. The top of the “20-foot” clay has been encountered at depths of 38 – 45 feet bgs and the top of the Gardiners Clay has been encountered at depths of 45 – 52 feet bgs.

1.1.3 Site History

Industrial operations at the Site are believed to have started in the late 1920s with the construction of the Curtiss-Wright Airport in 1929.¹ Airport related structures at the Site included airplane hangars and a portion of the runway. Although Curtiss Flying Service abandoned the airfield in approximately 1938, several other air service companies continued to operate the airfield. Occupants included the Columbia Aircraft Corporation, which built airplanes for military and private concerns between 1940 and 1948. The Bulova Watch Company leased the property from 1948 until 1960, when Bulova took title of the property.

When Bulova took occupancy of the Site in 1948, two airplane hangars existed on the eastern portion of the Site. Based on discussions with Bulova personnel, it is believed that Bulova connected the airplane hangars in 1952, creating Building No. 1. Building No. 2 was erected west of Building No. 1 in 1967. During Bulova’s occupancy, the eastern and northern portions of the Site were paved; a portion of the paved area incorporated the original concrete airfield runway, which traversed the eastern portion of the property from north to south. Bulova ceased operations at the Site during 1990 and title of the property was transferred to Home Depot in April 1993.

¹ Information related to prior site operations was obtained from a Phase I environmental assessment performed by Certified Engineering and Testing Company during 1990.

The Site was redeveloped during 1993. Redevelopment included demolition of all existing Site structures and construction of a Home Depot retail store. The entire Site is currently covered by the Home Depot building and the associated paved parking areas. Potable water and sanitary service at the Site are provided by the local municipal authority. Storm water drainage from the building roof and paved parking areas is collected in a series of catch basins and directed via reinforced concrete piping beyond the eastern property boundary.

1.2 Prior Investigation/Interim Action Activities

Numerous phases of investigation and remediation have been completed at the Site, under the oversight of the NYSDEC. Based on the results of prior investigations and remedial actions at the Site, the NYSDEC determined that no further remedial actions are warranted at the Site. As detailed in the Record of Decision (NYSDEC; March 2000), NYSDEC determined that actual or threatened releases of hazardous waste constituents at the Site had been addressed through the implementation of interim response actions and that the response actions had significantly reduced the threat to public health and the environment. Based on the results of the investigations and response actions at the Site, NYSDEC determined in the Record of Decision that no further remedial action was required and that natural attenuation represented an appropriate alternative to address impacted ground water at the Site. Details of investigation and interim action results completed at the Site have been provided to NYSDEC in prior report submittals.

2 Additional Sampling Results

2.1 Overview

Pursuant to NYSDEC's June 19, 2014 and August 13, 2014 correspondence, the additional monitoring for the Site consisted of groundwater sampling in September 2014 and March 2015.

The primary objective of the monitoring program is to evaluate changes of conditions in ground water on-site. The groundwater sampling activities in September 2014 and March 2015 were completed in accordance with the revised *Operations and Maintenance Plan* (OM&M Plan) which was provided to NYSDEC on April 19, 2012. Results of the additional monitoring activities are summarized below.

2.2 Institutional Control and Environmental Covenant

Pursuant to the Record of Decision (March 2000), a Declaration of Covenants and Restrictions was placed on the property prohibiting the installation of potable water wells on-site and providing that non-potable wells may be installed only with approval of the Nassau County Department of Health and the NYSDEC. As described in prior reports, water is provided to the Site by the municipal water supply and therefore, groundwater is not used at the Site. Other than monitoring wells, no other non-potable or potable groundwater use wells have been installed at the property.

The site Declaration of Covenants and Restrictions was amended to include reference to the revised OM&M Plan. It was recorded on April 24, 2013, and was provided to NYSDEC on April 29, 2013. Pursuant to the Declaration of Covenants and Restrictions, an Institutional and Engineering Controls (IC/EC) Certification Form was provided to NYSDEC as part of the Periodic Review Report (PRR) and was included in the 2013 Annual Sampling Results Report. NYSDEC approved the PRR and the IC/EC Certification Form in correspondence dated August 29, 2013. A copy of the August 29, 2013 approval letter is provided as Appendix A. The next PRR and IC/EC Certification submittal is due to NYSDEC by May 30, 2016.

2.3 Groundwater Monitoring

2.3.1 Water Level Measurements and Sampling Procedures

Synoptic groundwater level measurements were collected in conjunction with the groundwater sampling events completed in September 2014 and March 2015. Monitoring well locations are depicted on Figure 2. The depth-to-water measurements were collected at each monitoring well using an electronic interface probe. The depth-to-water measurements and corresponding groundwater elevation data derived from the measurements are presented in Table 1. Potentiometric surface maps associated with the September 2014 and March 2015 gauging/monitoring events are provided as Figures 3 and 4, respectively. Consistent with the results of prior groundwater monitoring events at the Site, water level data collected during the gauging/monitoring events indicate that groundwater flow is directed toward the southeast and generally coincides with local topography.

Groundwater samples were collected from monitoring wells MW-HD4, MW-HD6, and MW-HD7 during the September 2014 and March 2015 sampling events. In addition, one duplicate groundwater sample was also collected from monitoring well MW-HD6 during each sampling

event. The groundwater sampling activities were conducted using a stainless steel submersible pump equipped with dedicated discharge tubing. Initial water quality indicator measurements were collected prior to purging each well. The indicator parameters include pH, water temperature, specific conductance, dissolved oxygen, turbidity and oxidation/reduction potential. Water quality indicators were measured during purging and purging continued until indicator values had stabilized or until three well volumes had been purged from the well. Groundwater field parameters are provided in Appendix B.

Each groundwater sample was analyzed for the six primary constituents of concern identified in NYSDEC's March 2000 Record of Decision associated with the Site (i.e., tetrachloroethene [PCE]; trichloroethene [TCE]; 1,1,1-trichloroethane [TCA]; 1,1-Dichloroethane [1,1-DCA]; 1,1-Dichloroethene [1,1-DCE]; and Freon 113). Laboratory services were provided by Accutest Laboratories of Dayton, New Jersey, an Environmental Laboratory Approval Program (ELAP)-certified laboratory. Laboratory deliverables are provided in Attachment A.

2.3.2 Groundwater Sampling Results

Analytical results from the September 2014 and March 2015 groundwater sampling events are summarized in Table 2. Consistent with prior sampling events at the Site, elevated VOC concentrations were detected in the groundwater sample collected from the monitoring well at the southeast portion of the Site (i.e., MW-HD4) during September 2014. Lower VOC concentrations were encountered in the sample collected from MW-HD4 during March 2015. Reported VOC concentrations at monitoring well MW-HD6, which is at the Site boundary, were below the laboratory method detection limits and/or the corresponding Ambient Water Quality Standard during both sampling events. With the exception of a low Freon 113 detection in the September 2014 sample, reported VOC concentrations at off-site monitoring well MW-HD7 were also below the laboratory method detection limits and/or the corresponding Ambient Water Quality Standard during both sampling events.

While the reported concentrations of certain VOCs in groundwater samples collected from MW-HD4 are above the NYSDEC Ambient Water Quality criteria, concentrations show an overall decrease since the interim response actions were completed at the Site. In addition, the reported VOC concentrations at MW-HD4 during the recent monitoring events were significantly lower than peak concentrations encountered during 2012/2013 and represent the lowest constituent concentrations ever detected in samples collected from MW-HD4. With the exception of 1,1-DCE, all reported concentrations from the March 2015 sampling event were below the NYSDEC Ambient Water Quality criteria. The 1,1-DCE marginally exceeded the criteria (5 ug/L) at a concentration of 6.8 ug/L. Charts depicting constituent concentrations in groundwater at the southeast portion of the Site (i.e., MW-HD4) are provided in Appendix C.

2.3.3 Quality Assurance/Quality Control Analytical Results

During the groundwater sampling activities, field and trip blanks were collected to evaluate equipment decontamination procedures and potential cross contamination during sample container storage and shipment. QA/QC samples were analyzed for the same constituents as described above and are reported in Table 3. VOCs were not detected above laboratory method detection limits in field and trip blank analytical results from the September 2014 and March 2015 groundwater sampling events.

2.4 Data Usability

In accordance with Section 2.1 and Appendix 2B of the draft *Technical Guidance for Site Investigation and Remediation* (DER-10), ENVIRON has included a Data Usability Summary Report associated with each sampling event described above. The Data Usability Summary Reports are included as Appendix D. As presented in Appendix D, the data usability review determined that the data deliverables associated with each sampling event were complete and that the data quality was generally acceptable.

3 Conclusions

As detailed above, ENVIRON completed additional sampling activities at the 101 Green Acres Road Site in Valley Stream, New York during 2014/2015. The sampling activities included the collection and analysis of groundwater samples from two on-site monitoring wells and one off-site monitoring well.

Consistent with the results of prior groundwater sampling events at the Site, analysis of groundwater samples collected from the monitoring well located at the southeast portion of the Site (*i.e.*, MW-HD4) identified certain VOCs at concentrations above the corresponding Ambient Water Quality Standards. However, reported VOC concentrations in ground water at the southeastern portion of the Site have decreased since 1995, which is after the interim response actions were completed at the Site. Reported VOC concentrations in groundwater samples collected from MW-HD6 (at the Site boundary) and from the off-site monitoring well were below the laboratory method detection limits and/or the corresponding Ambient Water Quality Standard.

In the Record of Decision associated with the Site (NYSDEC; March 2000), NYSDEC determined that natural attenuation represented an appropriate alternative to address impacted ground water at the Site. Similar to prior sampling results, the recent groundwater monitoring activities have confirmed that VOC concentrations in groundwater are lower than pre-response action concentrations and that off-site ground water has not been impacted. In addition, the reported VOC concentrations at the southeast portion of the Site during the recent additional monitoring events were significantly lower than peak concentrations encountered during 2012/2013 and represent the lowest constituent concentrations ever detected in samples collected from MW-HD4. In addition, with the exception of 1,1-DCE, all reported concentrations from the March 2015 sampling event at MW-HD4 were below the NYSDEC Ambient Water Quality criteria. The 1,1-DCE marginally exceeded the criteria (5 ug/L) at a concentration of 6.8 ug/L.

4 Schedule

As requested by NYSDEC, Bulova will complete additional groundwater monitoring activities consistent with the scope of work described in this report. An annual report summarizing the sampling results will be provided to NYSDEC by July 2016.

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Tables

TABLE 1
Groundwater Elevation Data
101 Green Acres Road Site
Valley Stream, New York

Monitoring Well	Top of Casing Elevation (Feet AMSL)	September 22, 2014		March 11, 2015	
		Depth-to-Water (Feet)	Groundwater Elevation (Feet AMSL)	Depth-to-Water (Feet)	Groundwater Elevation (Feet AMSL)
MW-HD1	9.93	5.61	4.32	4.59	5.34
MW-HD2	9.45	N/A	--	N/A	--
MW-HD3	9.93	N/A	--	N/A	--
MW-HD4	10.09	6.12	3.97	5.08	5.01
MW-HD5	9.45	5.38	4.07	4.33	5.12
MW-HD6	9.97	6.08	3.89	5.00	4.97
MW-HD7	9.33	5.35	3.98	6.03	3.30
Abbreviation: AMSL: Above mean sea level N/A: Not Accessible Notes: MW-HD2 and MW-HD3 were destroyed during resurfacing of the parking lot in 2012.					

TABLE 2
Summary of Groundwater Analytical Results
101 Green Acres Road Site
Valley Stream, New York

Location		HD04	HD04	HD06	HD06
ENVIRON Sample ID	Ambient Water	MWHD4-140922	MWHD4-150311	MWHD6-140922	MWHD6-140922D
Sample Method	Quality Criteria	Submersible Pump	Submersible Pump	Submersible Pump	Submersible Pump
Sample Date		9/22/2014	3/11/2015	9/22/2014	9/22/2014
Comments					Field Duplicate
Volatile Organic Compounds					
1,1-Dichloroethane	5	2.2 (1)	1.8 (1)	ND (1)	ND (1)
1,1-Dichloroethene	5	20.4 (1)	6.8 (1)	ND (1)	ND (1)
Tetrachloroethene	5	1.2 (1)	0.73 J (1)	ND (1)	ND (1)
1,1,1-Trichloroethane	5	14.2 (1)	3.6 (1)	0.37 J (1)	ND (1)
Trichloroethene	5	9.2 (1)	4.8 (1)	0.42 J (1)	0.25 J (1)
Freon 113	5	1.9 J (5)	3 J (5)	ND (5)	ND (5)

Notes:

- 1 All concentrations are presented in ug/L (ppb). Detection limits are in parentheses.
- 2 Bold concentrations exceed the Ambient Water Quality Criteria.

Abbreviations:

ND -- Not Detected.
J -- Estimated Concentration.

TABLE 2
Summary of Groundwater Analytical Results
101 Green Acres Road Site
Valley Stream, New York

Location		HD06	HD06	HD07	HD07
ENVIRON Sample ID		MWHD6-150311	MWHD6-150311D	MWHD7-140922	MWHD7-150311
Sample Method	Ambient Water	Submersible Pump	Submersible Pump	Submersible Pump	Submersible Pump
Sample Date	Quality Criteria	3/11/2015	3/11/2015	9/22/2014	3/11/2015
Comments			Field Duplicate		
Volatile Organic Compounds					
1,1-Dichloroethane	5	ND (1)	ND (1)	ND (1)	ND (1)
1,1-Dichloroethene	5	ND (1)	ND (1)	ND (1)	ND (1)
Tetrachloroethene	5	ND (1)	ND (1)	ND (1)	ND (1)
1,1,1-Trichloroethane	5	ND (1)	ND (1)	ND (1)	ND (1)
Trichloroethene	5	0.53 J (1)	0.62 J (1)	0.34 J (1)	0.38 J (1)
Freon 113	5	ND (5)	ND (5)	5.2 (5)	ND (5)

Notes:

- 1 All concentrations are presented in ug/L (ppb). Detection limits are in parentheses.
- 2 Bold concentrations exceed the Ambient Water Quality Criteria.

Abbreviations:

ND -- Not Detected.
J -- Estimated Concentration.

TABLE 3
Summary of Quality Assurance/Quality Control Analytical Results
101 Green Acres Road Site
Valley Stream, New York

Location	QAQC	QAQC	QAQC	QAQC
ENVIRON Sample ID	FB-140922	FB-150311	TB-140922	TB-150311
Matrix	Blank Water	Blank Water	Blank Water	Blank Water
Sample Method	Submersible Pump	Submersible Pump	Submersible Pump	Submersible Pump
Sample Date	9/22/2014	3/11/2015	9/22/2014	3/11/2015
Comments				
Volatile Organic Compounds	ND	ND	ND	ND

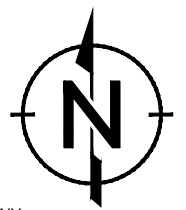
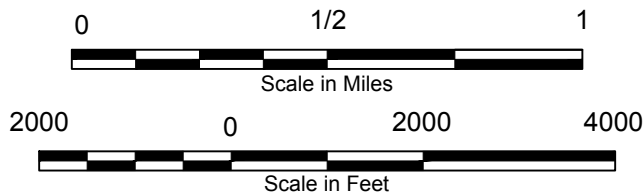
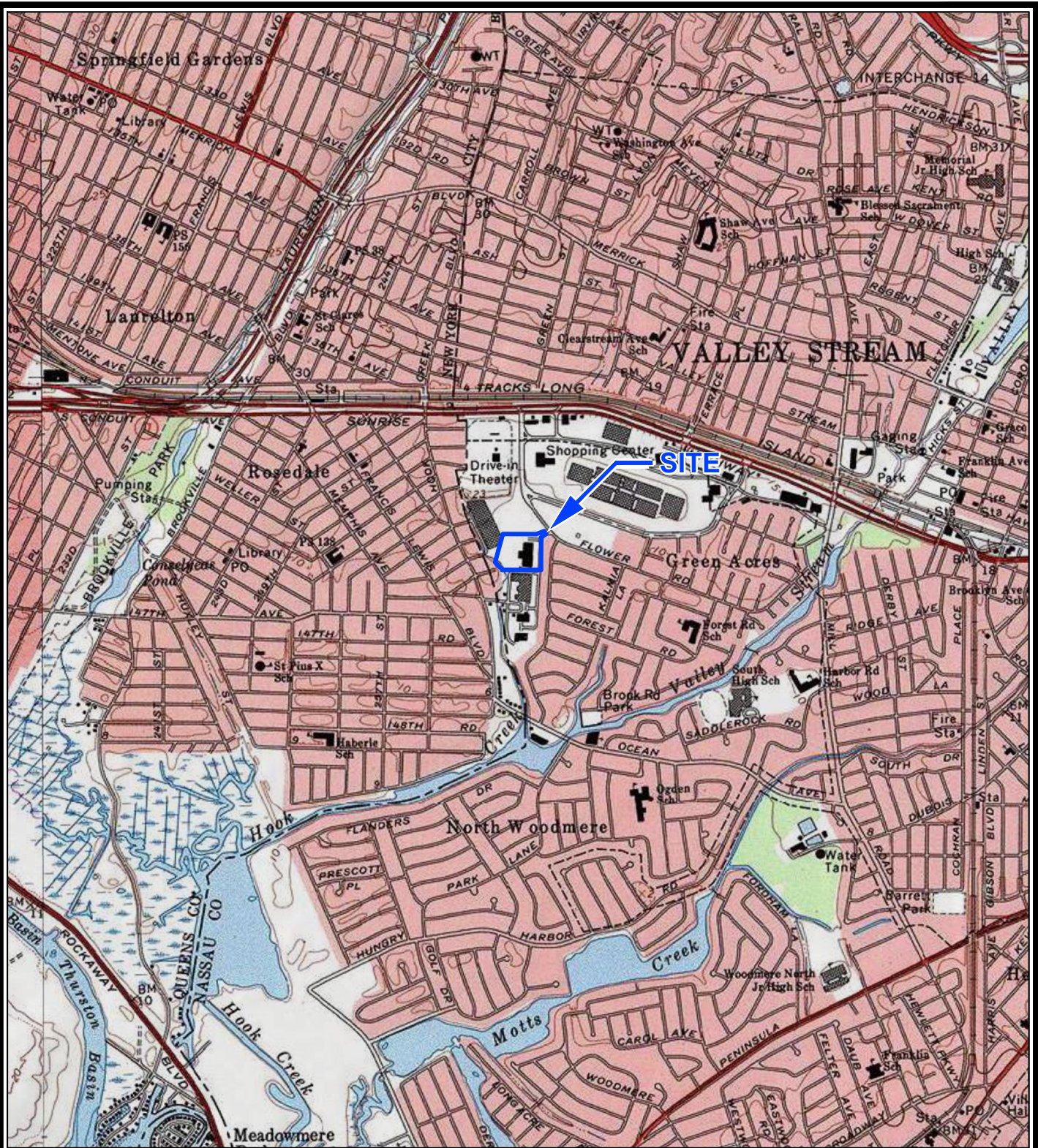
Notes:

- 1 All concentrations are presented in ug/L (ppb).
- 2 None of the analyzed compounds were detected at concentrations greater than the laboratory method detection limits.

Abbreviations:

ND -- Not Detected.

Figures



SOURCE:
USGS QUAD MAP: BY NATIONAL GEOGRAPHIC TOPOI. USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE; 40°39'35" N, 73°43'28" W WGS84; LYNBROOK, NY.
MAP CURRENT AS OF 1969.



SITE LOCATION MAP

101 GREEN ACRES ROAD SITE
VALLEY STREAM, NEW YORK

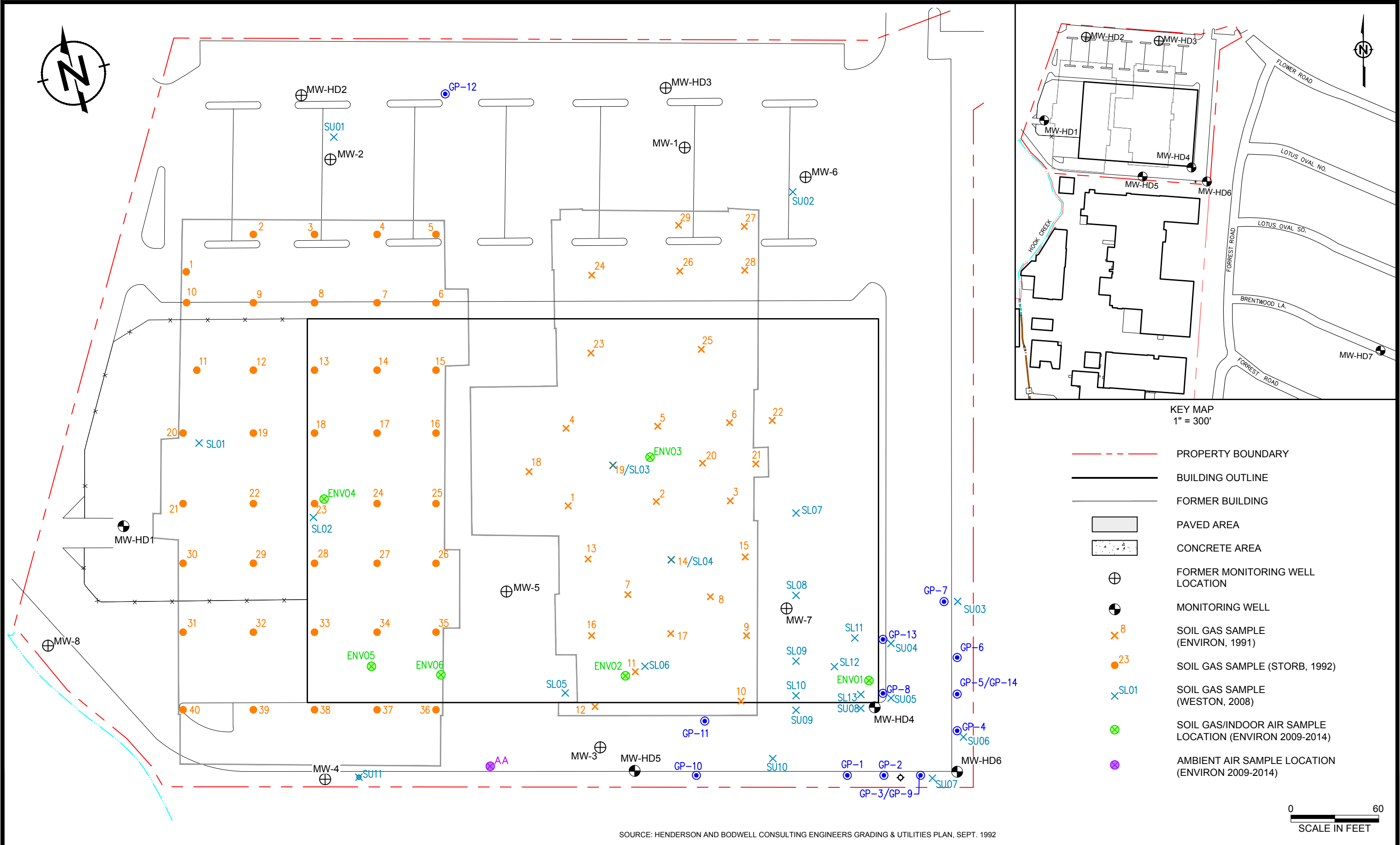
FIGURE
1

DRAFTED BY: TSP

DATE: 06/11/2013

021961B

KMAUGHAN 6/5/14 [021961_SL AND SMP] F:\021961



DRAFTED BY: TSP/KM

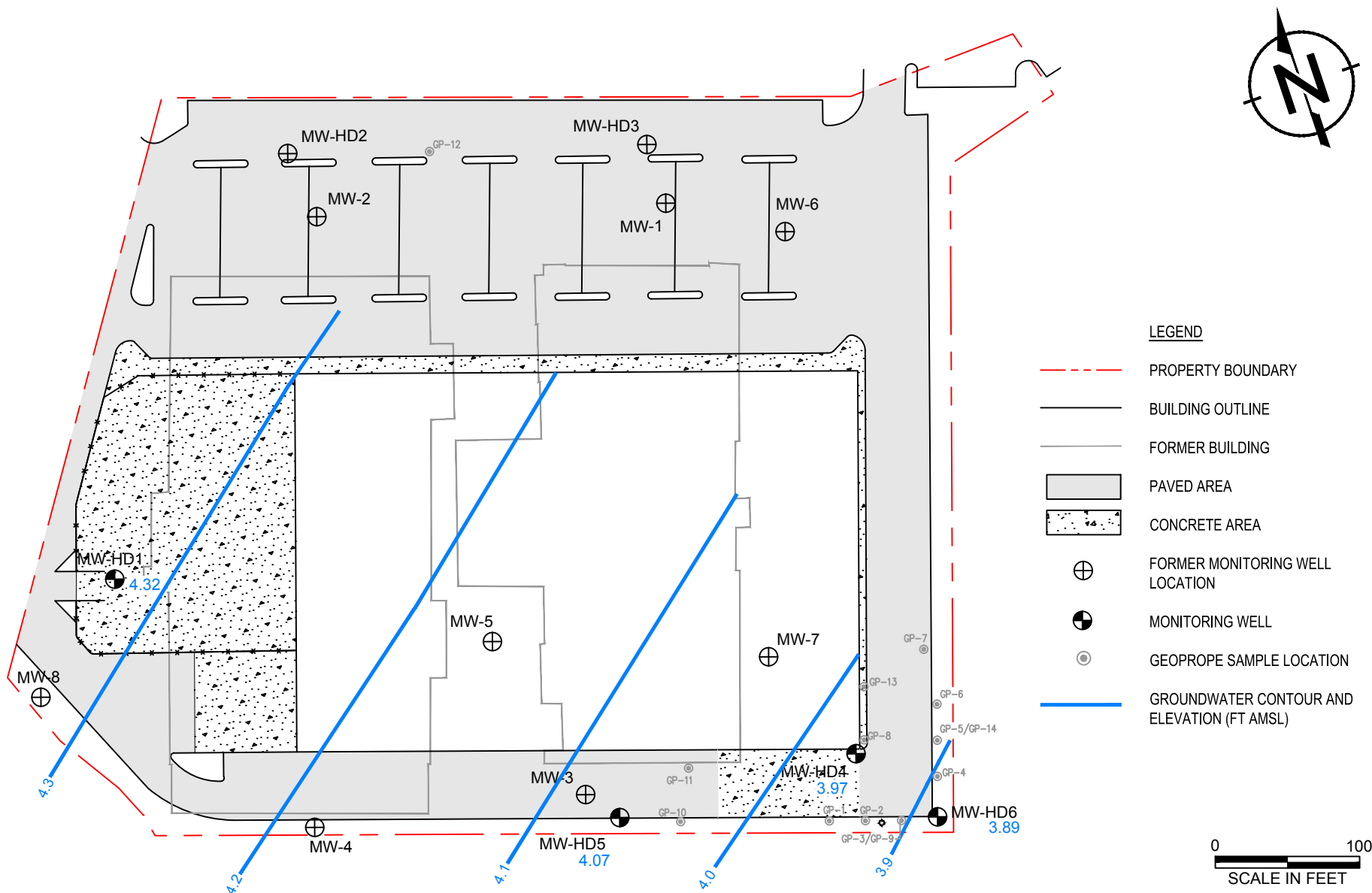
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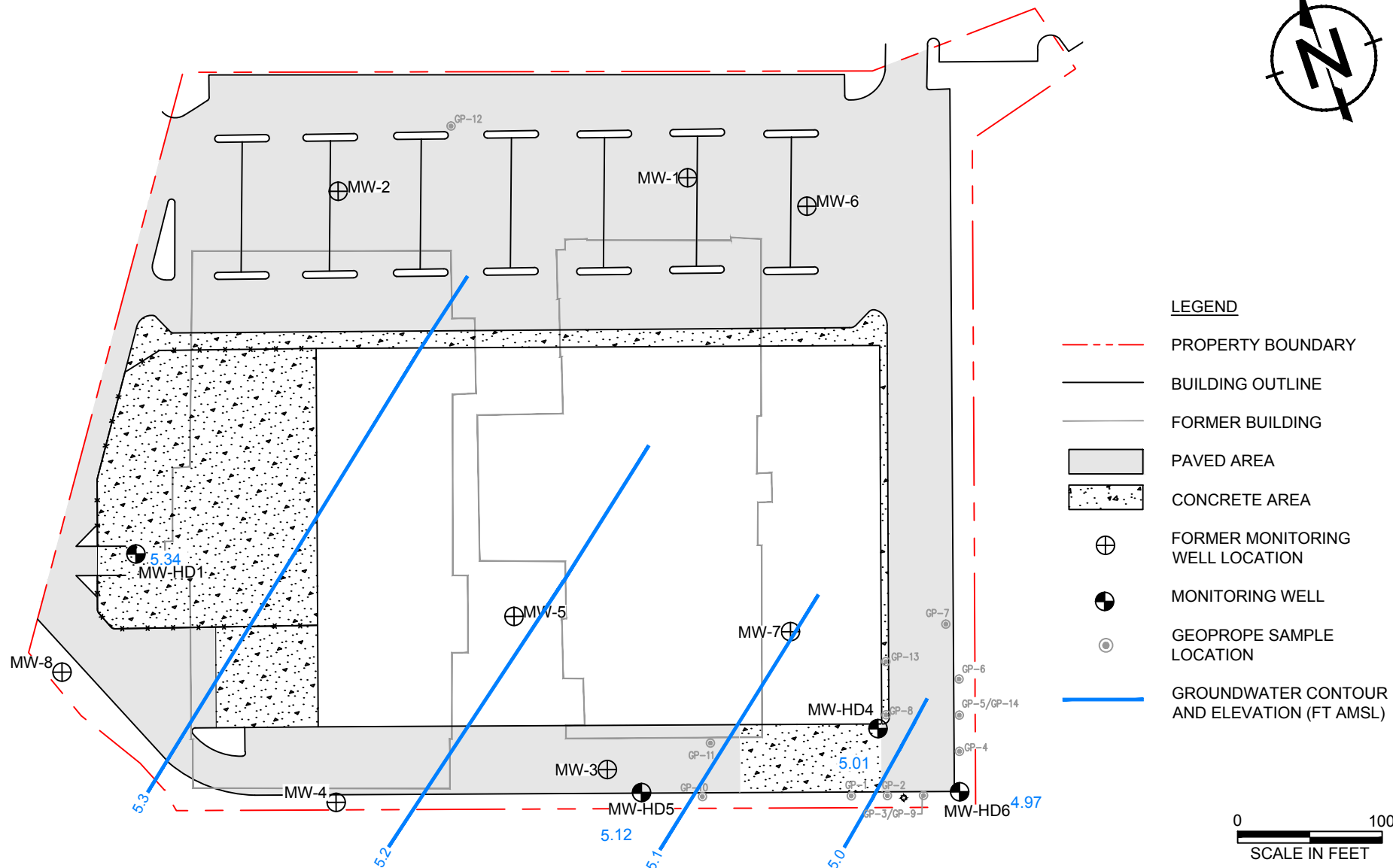
SITE LAYOUT AND SAMPLE LOCATION MAP

101 GREEN ACRES ROAD SITE
VALLEY STREAM, NEW YORK

FIGURE
2

021961B





GROUNDWATER POTENTIOMETRIC SURFACE - MARCH 11, 2015

101 GREEN ACRES ROAD SITE
VALLEY STREAM, NEW YORK

FIGURE

4

Appendix A

Institutional and Engineering Controls Certification Approval

New York State Department of Environmental Conservation

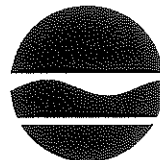
Division of Environmental Remediation, 12th Floor

625 Broadway, Albany, New York 12233

Phone: (518) 402-9625

Fax: 518-402-9627

Website: www.dec.ny.gov



Joe Martens
Commissioner

AUG 29 2013

Bulova Technologies, Inc.

Bob Weber

1 Bulova Way

Woodside, NY 11377

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter

101 Green Acres Road Site, Valley Stream

Nassau County, Site No.: 130084

Dear Bob Weber:

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: May 30, 2012 to May 31, 2013.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 3 year(s), your next PRR is due on May 30, 2016. You will receive a reminder letter and updated certification form 75-days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9626 or e-mail: bfjankau@gw.dec.state.ny.us

Sincerely,

Brian Jankauskas
Project Manager

ec:

Brian Jankauskas, Project Manager

Steve Karpinski, DOH Project Manager

Walter Parish, RHWRE

cc:

Thomas Fusillo, Environ, 214 Carnegie Center, Princeton, NJ 08540-6284

Michael Potts, Environ, 214 Carnegie Center, Princeton, NJ 08540-6284

Mitchell Bernstein, Van Ness Feldman, P.C.

Mike Maddocks, 2455 Paces Ferry Road, Atlanta, GA 30339

Brett Soloway, 2455 Paces Ferry Road, Atlanta, GA 30339

Christine Leas; Sive, Paget & Riesel, P.C.

Appendix B

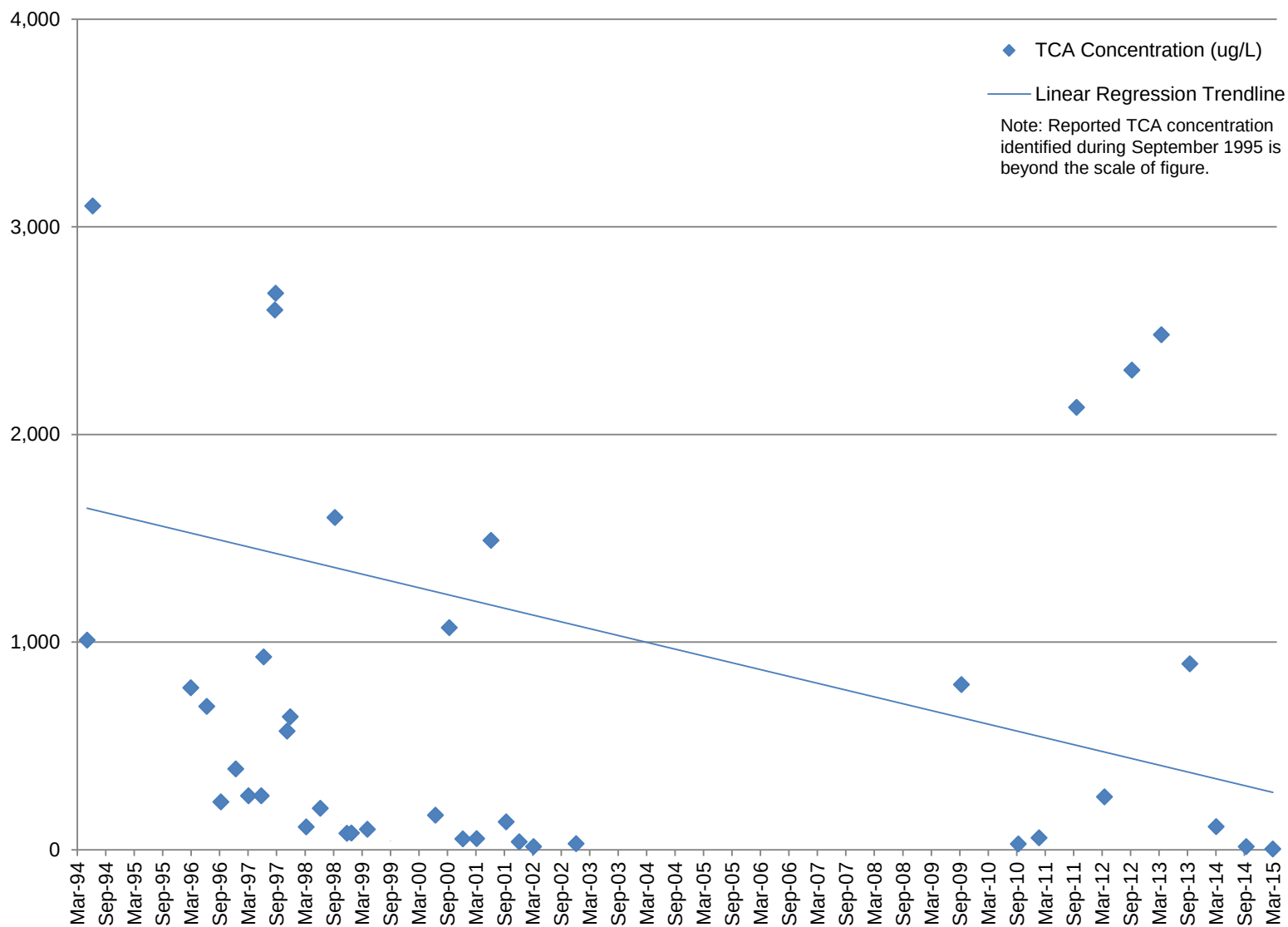
Groundwater Field Parameters

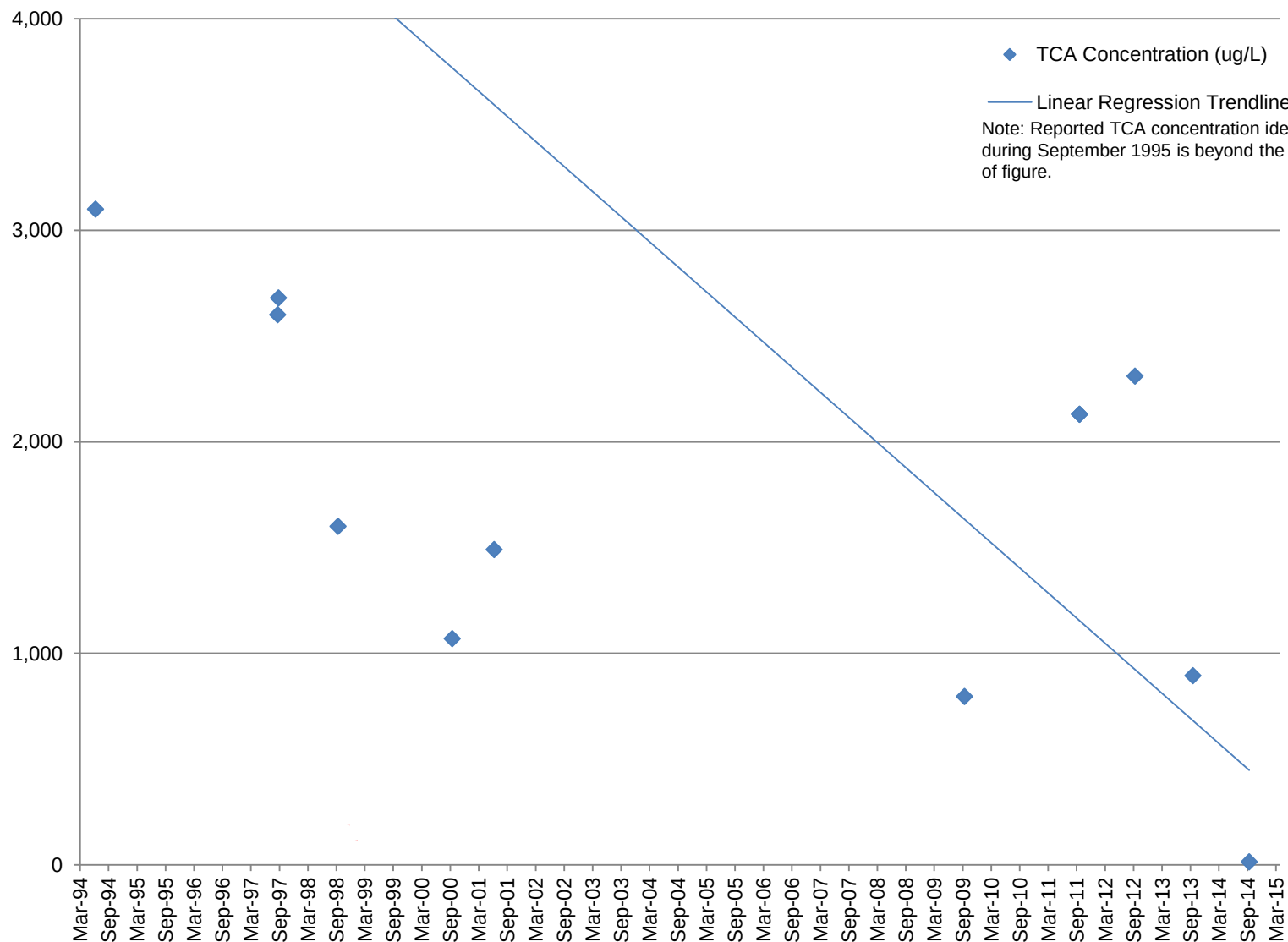
Appendix B
Groundwater Field Parameters
March 2015
101 Green Acres Road Site
Valley Stream, New York

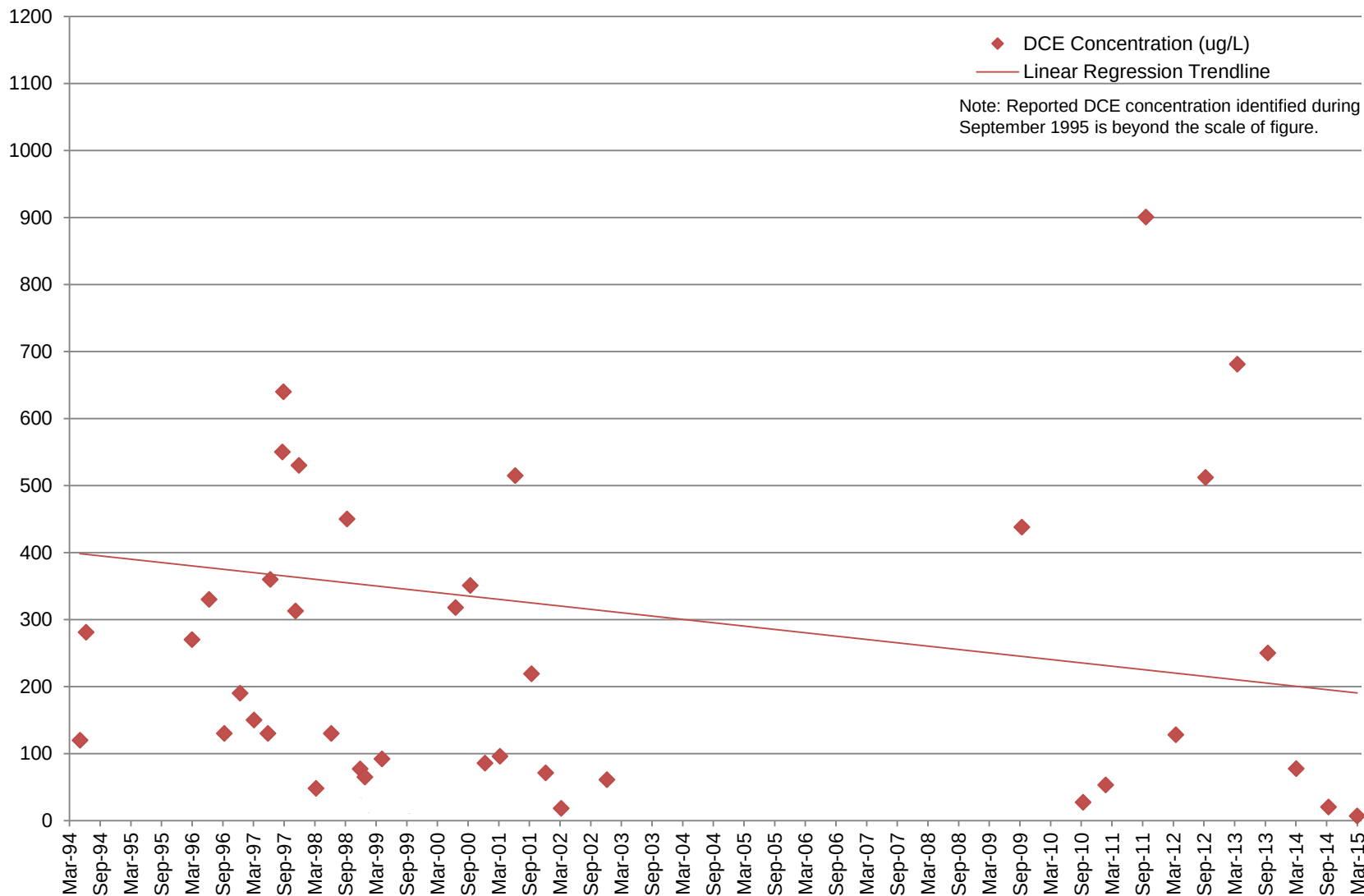
Sample Point ID	MWHD4	MWHD6	MWHD7
Date	3/11/2015	3/11/2015	3/11/2015
Weather Conditions	50°F, Partly Cloudy	50°F, Partly Cloudy	50°F, Partly Cloudy
PID Reading (ppm)	0.8	ND	0.2
Free Product Thickness	ND	ND	ND
Total Depth (ft)	14.60	14.15	40.00
Depth to Water (ft)	5.08	5.00	4.36
Height Water Column (ft)	9.52	9.15	35.64
One Casing Volume (gal.)	6.22	1.49	5.81
Three Volumes (gal.)	18.65	4.47	17.43
Actual Purge Volume (gal.)	19.0	5.0	18.0
Purge Start Time	13:25	12:56	10:46
Purge End Time	13:52	13:06	11:16
Flow Rate (gpm)	0.70	0.42	0.60
Date Sampled	3/11/2015	3/11/2015	3/11/2015
Time Sampled	13:52	13:06	11:16
Purge Method	SP	SP	SP
Sampling Method	SP	SP	SP
Depth to Water After Purge (ft)	5.04	5.22	4.46
Depth to Water Before Sampling (ft)	5.04	5.22	4.46
SAMPLING/PURGE METHOD			
ND = not detected			
SP = submersible pump			
FIELD PARAMETERS	MWHD4	MWHD6	MWHD7
Initial			
pH	5.97	5.30	5.01
Specific Conductivity (µs/cm)	0.689	0.505	0.442
Turbidity (NTU)	33.9	977	>1000
Dissolved Oxygen (ppm)	2.28	8.21	3.41
Temperature (°C)	14.28	10.78	13.98
Oxygen Reduction Potential (mV)	103	112	181
During Purging			
pH	5.83	6.12	5.73
Specific Conductivity (µs/cm)	0.645	0.573	0.397
Turbidity (NTU)	17.8	566	>1000
Dissolved Oxygen (ppm)	0.53	2.45	0.59
Temperature (°C)	14.92	11.01	15.09
Oxygen Reduction Potential (mV)	172	49	76
After Purging / At Sampling			
pH	5.81	5.96	5.84
Specific Conductivity (µs/cm)	0.692	0.591	0.403
Turbidity (NTU)	0.8	70	345
Dissolved Oxygen (ppm)	0.35	0.99	0.35
Temperature (°C)	15.03	11.31	15.18
Oxygen Reduction Potential (mV)	130	85	58
SAMPLING/PURGE METHOD			
ND = not detected			
SP = submersible pump			

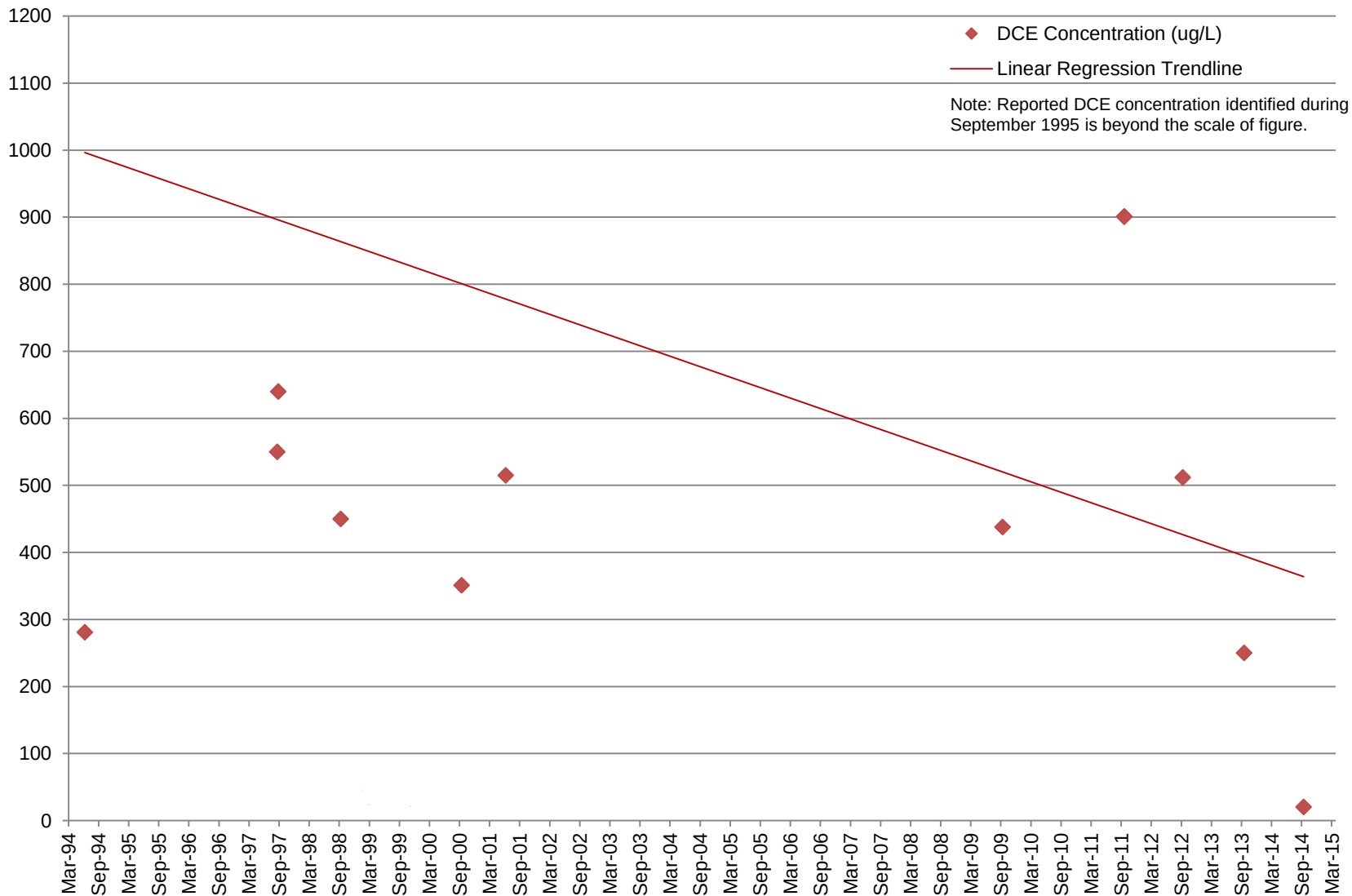
Appendix C

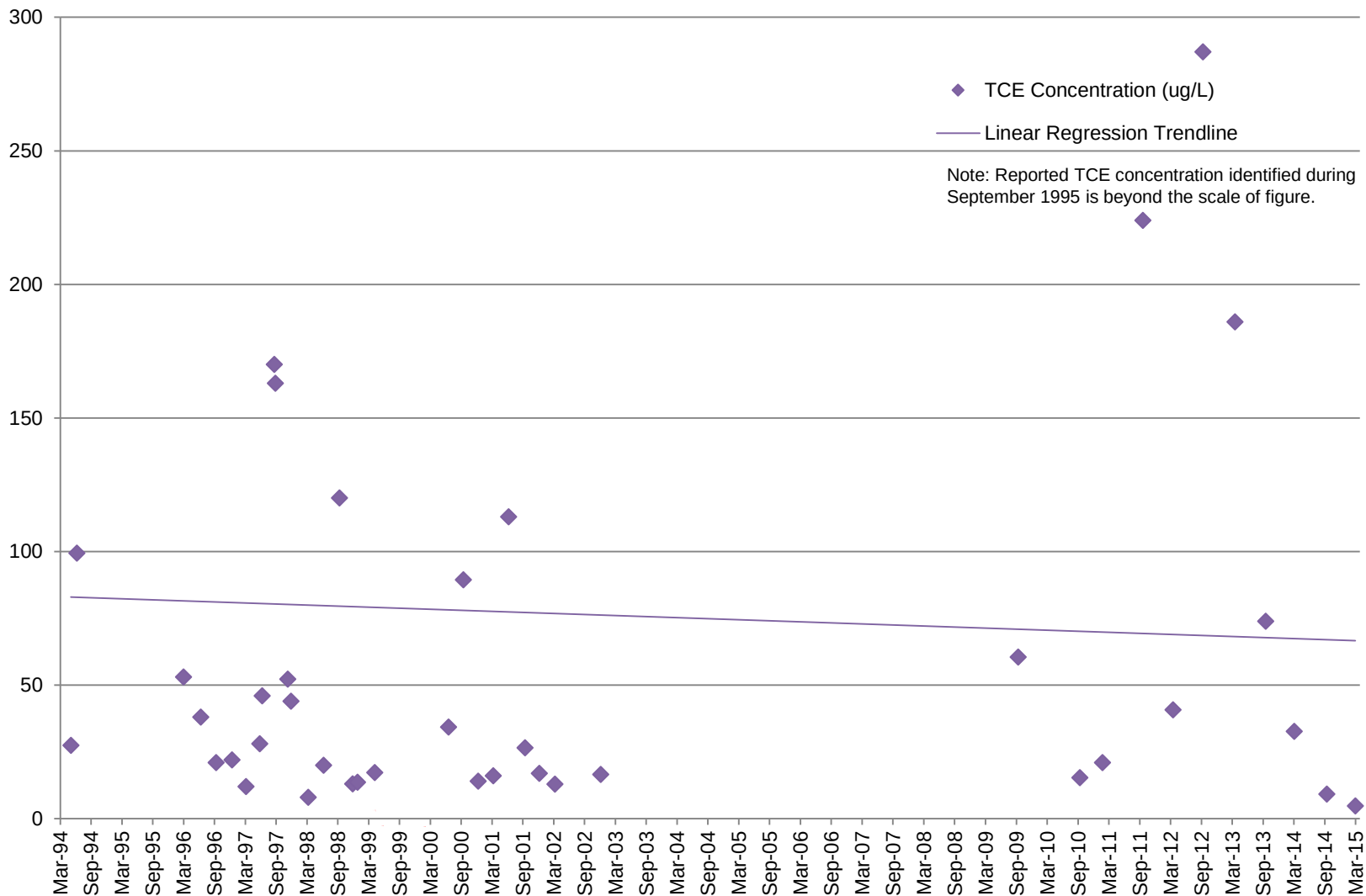
MW-HD4 Groundwater Contaminant Concentration Trends

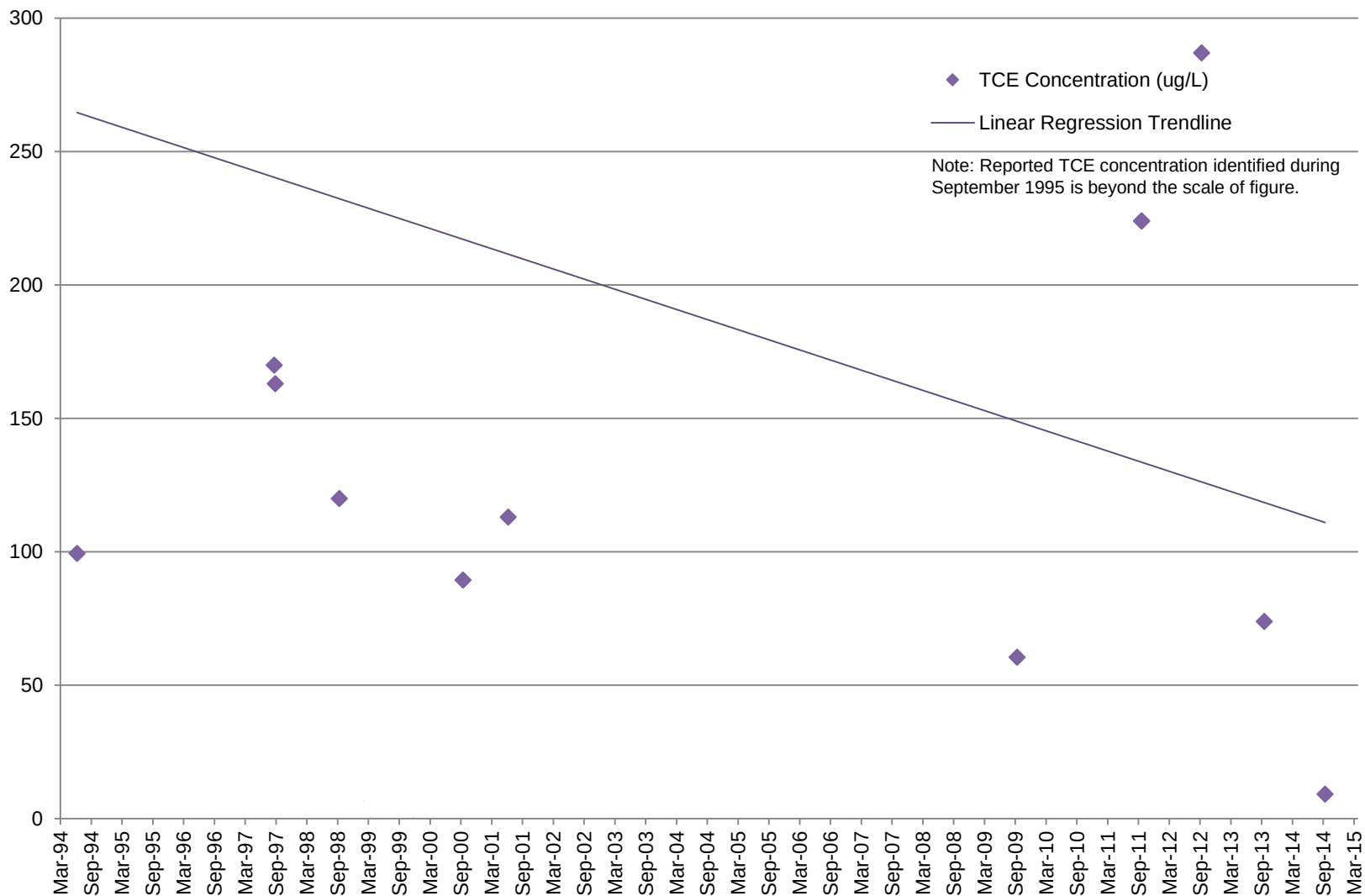












Appendix D

Data Usability Summary Reports

November 13, 2014

ENVIRON International Corporation
Att: Ms. Lily Diehl, Associate
214 Carnegie Center
Princeton, New Jersey 08540

Re: Bulova Corporation /Valley Stream, NY Site Data Deliverables; Laboratory Job No. JB77235
ENVIRON Project No. : 02-1961B

Dear Ms. Diehl,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review ¹ ('DUSR') process; data flags (qualifiers) were assigned to samples based on guidance contained in EPA Region II's data validation guidelines ².

Site Name: Bulova Corporation, Valley Stream, NY

Fractions
Volatile Organics

Laboratory: Accutest Laboratories
Matrix: Aqueous

Reviewer: Chris Taylor
Prepared By: Environmental Quality Associates, Inc.

SECTION A Sample Information

The above-referenced analytical job number / samples were analyzed by Accutest Laboratories, Dayton, NJ ('Accutest'). Samples were analyzed for volatile organics by EPA SW-846, Method 8260B. Eight aqueous samples, including matrix QC samples (MS/MSD), one trip blank (TB) and one field blank (FB) were collected on 09/22/2014, and received at the laboratory under intact custody seal on 09/22/2014 at a recorded temperature of 2.4 degrees C, on ice, in good condition. The chain-of-custody indicated that all samples were (pH) unpreserved.

SECTION B General Comments

Summary of data completeness and overall quality of data deliverables package
Data deliverables were complete as received.

Overall data quality

Data quality was acceptable, incorporating any applied data qualifiers as detailed in the accompanying QC and calibration summary forms, and discussed in the applicable narrative sections below.

Six target compounds were specified for analysis for these samples, as follow: 1,1-dichloroethane (1,1-dca); 1,1-dichloroethene (1,1-dce); Freon-113; tetrachloroethene (pce); 1,1,1-trichloroethane (1,1,1-tca); trichloroethene (tce).

SECTION C
Volatile Organic Fraction

NYSDEC-ASP holding times from lab receipt to analysis were met in all samples; as were EPA technical holding times from sample collection to analysis. As noted above, all samples were pH unpreserved; all samples were analyzed within seven days of collection, which negates the need for acid preservation.

Surrogate recoveries, blank spike recoveries, matrix spike (MS) and matrix spike duplicate (MSD) recoveries, instrument tune parameters and internal standard recoveries and retention times were within acceptable limits. All batch method blanks and the trip and field blanks were reported free of contamination.

Initial calibration (ICAL) %RSD values and relative response factors for target compounds and method CCC and SPCC compounds were within acceptable limits. For the continuing calibrations (CCAL) of 09/25/14 (U188011.D; U188032.D), calibration performance criteria for target compounds were within limits, with the following exception: the percent difference (%D) value for tetrachloroethene in CCAL U188011.D exceeded 20%, at +30%. Since no positives for tetrachloroethene were present in the associated field samples, and the %D excursion signified increased sensitivity, no QA action was necessary. Although there may be a slight positive bias for tetrachloroethene in the matrix spike and MSD samples, the recoveries of tetrachloroethene in both MS and MSD samples were well within acceptable range with this potential bias taken into consideration.

Target compounds which were reported as positives were qualitatively verified from chromatograms and associated mass spectra against standard materials. A reported positive value was verified from the raw data and is shown in the QC/Cal summary attached.

SECTION D
Overall Recommendations

The results of the review and qualification process for the above analytical fractions and associated samples are summarized on the attached QC and Calibration summary tables, in order to facilitate the end-user's' review of these data. Any required data qualifiers have been applied directly to the laboratory Form 1s associated with affected samples.

Very truly yours,
Environmental Quality Associates, Inc.



Chris W. Taylor
Vice President

/cwt
Attachments

¹ NYSDEC Draft DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B, "Guidance for the Development of Data Usability Summary Reports", December 2002

² EPA Region II, SOP HW-24, Rev. #2, "Validating Organic Compounds by SW-846 Method 8260B", October, 2006

SUMMARY OF CALIBRATION AND QC PROCEDURES
 EPA SW-846 METHOD 8260B, GC-MS VOLATILES

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action ¹
<u>Sample Preservation</u>	All samples	Water: 4°C, Na ₂ S ₂ O ₃ , HCl to pH<2 Soil & Other: 4°C	None found <i>Note: all samples were noted as pH unpreserved</i>	<i>n/a all samples analyzed w/in 7 days of collection</i>
<u>Holding Times</u>	All samples	Water: 14 days (7 days max. if not pH preserved) Soil: 14 days (if samples maintained at 4°)	None found	
<u>MS Tuning</u>	Every 12 hours, prior to calibrations	Method 8260B, Table 4 criteria	None found	
<u>Initial Calibration</u>	Prior to sample analysis, and whenever continuing calibrations fail to meet acceptance criteria (minimum 5 levels)	SPCC average RRF >0.300 (chlorobenzene & 1122-tca) & >0.100 for other 3 SPCC CCC RRF %RSD<30, <u>and</u> (a) linear : mean RSD all analytes ≤15% w/ no single analyte >30%, <u>or</u> (b) regression : r ≥ 0.99 for each affected analyte	None found <i>Note: samples were analyzed only for project-specific COPCs : 1,1-diClethane, 1,1-diClethane, Freon113, tetraClethane, 1,1,1-triClethane and triClethane</i>	
<u>Retention Time Windows</u>	Each sample analyzed	Relative retention time (RRT) of each positive analyte within ± 0.06 of associated IS RRT	None found	
<u>Method Blank / Trip Blank</u>	After ICV or CCV, before sample analysis, minimum one per analytical batch/ Trip Blank per cooler	No analytes detected ≥ PQL for method blank.	VU8672-MB none found VU8672-MB2 none found Trip & Field Blanks none found JB77235-5(FB);-6(TB)	
<u>Continuing Calibration Verification</u> (CCV)	Daily, before sample analysis, and after each successive 12 hours of sample analysis	SPCC average RRF >0.300 (chlorobenzene & 1122-tca) & >0.100 for other 3 SPCC CCC RRF %D<20, <u>and</u> all analytes within ± 20% of expected value	Refer to Cal Summary on Sheet 3 for details	Refer to Cal Summary on Sheet 3 for details

Notes:

¹ See DV report for details.

SUMMARY OF CALIBRATION AND QC PROCEDURES
 EPA SW-846 METHOD 8260B, GC-MS VOLATILES

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action ¹
<u>Surrogate Compound Spike</u>	Every sample, spiked sample, blank and standard	All analytes recovered within lab-established recovery ranges (see SW-846, Method 8000B, Sect. 8.7)	None found	
<u>Internal Standards (IS)</u>	Every sample, spiked sample, blank and standard	Retention time (RT): ± 30 seconds from RT of IS in ICAL midpoint standard	None found	
		IS area: between -50% and +100% of IS area in ICAL midpoint standard	None found	
<u>Laboratory Control Sample (LCS)</u>	Once per each analytical batch (should include all reported analytes), <u>and</u> should be prepared independently from calibration standards	All analytes recovered within 70 - 130% of expected (true) value, <u>or</u> recovery within laboratory-derived statistical limits	VU8672-BS none found	
<u>Matrix Spike / Matrix Spike Duplicate (MS/MSD)</u>	Once per each 20 samples (should include all reported analytes), <u>and</u> should be prepared independently from calibration standards	All analytes recovered within laboratory-derived statistical limits for each matrix type, <u>and</u>	JB77235-2 none found	
		%RPD between MS/MSD below laboratory-derived statistical limits	JB77235-2 none found RPD values OK	

Notes:

¹ See DV report for details.

Initial Calibration

Calibration Date: Lab File IDs :	08/27/14 U187026-035.D	
CCC RSDs $\leq$ 30%? SPCC RRFs > specd. values ? All Target Mean RSD <15%? If No, was regression used ? If regression used, $r \geq 0.99$? Qualification Action:	yes yes yes n/a n/a n/a	
Affected Samples:	All SDG samples	

Continuing Calibrations

Calibration Date: Lab File ID :	09/25/14 U188011.D	09/25/14 U188032.D	
CCC %Ds $\leq$ 20%? SPCC RRFs > specd. values ? All Target %D <20%? If No, list target analytes >20%:	yes yes no tetrachloroethene +30%	yes yes yes n/a	
Analytical Bias: Qualification Action:	high <i>n/a; no positives for tetrachloroethene in associated samples</i>	n/a n/a	
Affected Samples:	JB77235-(1,4-6) JB77235-2MS,MSD	JB77235-(2,3)	

Sample Result Confirmation

Sample ID: JB77235-3 (MWHD4-140922)
Compound: 1,1-dce IS: pentafluorobenzene
Reported concentration: **20.45** µg/L File ID: U188036.D

	Ax	IS	Df
Concentration, µg/L =	50055	50	1
	329494	0.371	
	Ais	RRF	

Concentration, µg/L = **20.47**

Result Confirmed? **Yes**

Reviewer comments : calcs are based on 5.0 mL initial sample purge volume

where:

Ax = area response of target quant ion
IS = mass of internal standard injected, ng
Df = dilution factor

Ais = area response of internal standard quant ion
RRF = ICAL average relative response factor

April 14, 2015

ENVIRON International Corporation
Att: Ms. Lily Diehl, Associate
214 Carnegie Center
Princeton, New Jersey 08540

Re: Bulova Corporation /Valley Stream, NY Site Data Deliverables; Laboratory Job No. JB89689
ENVIRON Project No. : 02-1961A

Dear Ms. Diehl,

Enclosed with this cover letter are the results of our data review of the laboratory deliverables pertaining to the referenced site. The review was conducted according to the guidelines established by NYSDEC's Data Usability Summary Review ¹ ('DUSR') process; data flags (qualifiers) were assigned to samples based on guidance contained in EPA Region II's data validation guidelines ².

Site Name: Bulova Corporation, Valley Stream, NY

Fractions
Volatile Organics

Laboratory: Accutest Laboratories
Matrix: Aqueous

Reviewer: Chris Taylor
Prepared By: Environmental Quality Associates, Inc.

SECTION A Sample Information

The above-referenced analytical job number / samples were analyzed by Accutest Laboratories, Dayton, NJ ('Accutest'). Samples were analyzed for volatile organics by EPA SW-846, Method 8260B. Six aqueous samples, including one trip blank (TB) and one field blank (FB), plus matrix QC samples (MS/MSD), were collected on 03/11/2015, and received at the laboratory under intact custody seal on 03/11/2015 at a recorded temperature of 3.2 degrees C, on ice, in good condition. The chain-of-custody indicated that all samples were (pH) unpreserved.

SECTION B General Comments

Summary of data completeness and overall quality of data deliverables package
Data deliverables were complete as received.

Overall data quality

Data quality was acceptable, incorporating any applied data qualifiers as detailed in the accompanying QC and calibration summary forms, and discussed in the applicable narrative sections below.

Six target compounds were specified for analysis for these samples, as follow: 1,1-dichloroethane (1,1-dca); 1,1-dichloroethene (1,1-dce); Freon-113; tetrachloroethene (pce); 1,1,1-trichloroethane (1,1,1-tca); trichloroethene (tce).

SECTION C
Volatile Organic Fraction

NYSDEC-ASP holding times from lab receipt to analysis were met in all samples; as were EPA technical holding times from sample collection to analysis. As noted above, all samples were pH unpreserved; all samples were analyzed within seven days of collection, which negates the need for acid preservation.

Surrogate recoveries, blank spike recoveries, matrix spike (MS) and matrix spike duplicate (MSD) recoveries, instrument tune parameters and internal standard recoveries and retention times were within acceptable limits.

All batch method blanks and the trip and field blanks were reported free of contamination.

Initial calibration (ICAL) %RSD values and relative response factors for target compounds and method CCC and SPCC compounds were within acceptable limits.

For the continuing calibrations (CCAL), performance criteria for target compounds were within limits, with the following exception: the %D for target compound 1,1,1-trichloroethane exceeded the limit of 20%, at +20.9%. Since the response signifies increased sensitivity, and the compound was not positive in the associated samples (field blank and trip blank, JB89689-5 and -6, respectively), no data qualifiers were necessary.

Target compounds which were reported as positives were qualitatively verified from chromatograms and associated mass spectra against standard materials. A reported positive value was verified from the raw data and is shown in the QC/Cal summary attached.

SECTION D
Overall Recommendations

The results of the review and qualification process for the above analytical fractions and associated samples are summarized on the attached QC and Calibration summary tables, in order to facilitate the end-user's' review of these data. Any required data qualifiers have been applied directly to the laboratory Form 1s associated with affected samples.

Very truly yours,
Environmental Quality Associates, Inc.



Chris W. Taylor
Vice President

/cwt
Attachments

¹ NYSDEC Final DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B, "Guidance for the Development of Data Usability Summary Reports", May, 2010

² EPA Region II, SOP HW-24, Rev. #2, "Validating Organic Compounds by SW-846 Method 8260B", October, 2006

SUMMARY OF CALIBRATION AND QC PROCEDURES
 EPA SW-846 METHOD 8260B, GC-MS VOLATILES

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action ¹
<u>Sample Preservation</u>	All samples	Water: 4°C, Na ₂ S ₂ O ₃ , HCl to pH<2 Soil & Other: 4°C	None found <i>Note: all samples were noted as pH unpreserved</i>	n/a all samples analyzed w/in 7 days of collection
<u>Holding Times</u>	All samples	Water: 14 days (7 days max. if not pH preserved) Soil: 14 days (if samples maintained at 4°)	None found	
<u>MS Tuning</u>	Every 12 hours, prior to calibrations	Method 8260B, Table 4 criteria	None found	
<u>Initial Calibration</u>	Prior to sample analysis, and whenever continuing calibrations fail to meet acceptance criteria (minimum 5 levels)	SPCC average RRF >0.300 (chlorobenzene & 1122-tca) & >0.100 for other 3 SPCC CCC RRF %RSD<30, <u>and</u> (a) linear : mean RSD all analytes ≤15% w/ no single analyte >30%, <u>or</u> (b) regression : r ≥ 0.99 for each affected analyte	None found <i>Note: samples were analyzed only for project-specific COPCs : 1,1-diClethane, 1,1-diClethane, Freon113, tetraClethane, 1,1,1-triClethane and triClethane</i>	
<u>Retention Time Windows</u>	Each sample analyzed	Relative retention time (RRT) of each positive analyte within ± 0.06 of associated IS RRT	None found	
<u>Method Blank / Trip Blank</u>	After ICV or CCV, before sample analysis, minimum one per analytical batch/ Trip Blank per cooler	No analytes detected ≥ PQL for method blank.	V2D5984-MB none found V2D5984-MB2 none found V2D5985-MB none found Trip & Field Blanks none found	
<u>Continuing Calibration Verification</u> (CCV)	Daily, before sample analysis, and after each successive 12 hours of sample analysis	SPCC average RRF >0.300 (chlorobenzene & 1122-tca) & >0.100 for other 3 SPCC CCC RRF %D<20, <u>and</u> all analytes within ± 20% of expected value	Refer to Cal Summary on Sheet 3 for details	Refer to Cal Summary on Sheet 3 for details

Notes:

¹ See DV report for details.

SUMMARY OF CALIBRATION AND QC PROCEDURES
 EPA SW-846 METHOD 8260B, GC-MS VOLATILES

Calibration or QC Check	Minimum Frequency	Acceptance Criteria	QC Non-Compliance Description	Data Qualification Action ¹
<u>Surrogate Compound Spike</u>	Every sample, spiked sample, blank and standard	All analytes recovered within lab-established recovery ranges (see SW-846, Method 8000B, Sect. 8.7)	None found	
<u>Internal Standards (IS)</u>	Every sample, spiked sample, blank and standard	Retention time (RT): ± 30 seconds from RT of IS in ICAL midpoint standard	None found	
		IS area: between -50% and +100% of IS area in ICAL midpoint standard	None found	
<u>Laboratory Control Sample (LCS)</u>	Once per each analytical batch (should include all reported analytes), <u>and</u> should be prepared independently from calibration standards	All analytes recovered within 70 - 130% of expected (true) value, <u>or</u> recovery within laboratory-derived statistical limits	V2D5984-BS none found V2D5985-BS none found	
<u>Matrix Spike / Matrix Spike Duplicate (MS/MSD)</u>	Once per each 20 samples (should include all reported analytes), <u>and</u> should be prepared independently from calibration standards	All analytes recovered within laboratory-derived statistical limits for each matrix type, <u>and</u>	JB89689-2 none found JB89689-4 none found	
		%RPD between MS/MSD below laboratory-derived statistical limits	JB89689-2 none found JB89689-4 none found	

Notes:

¹ See DV report for details.

Initial Calibration

Calibration Date: Lab File IDs :	03/03/15 2D142312-318;322-23.D	
CCC RSDs $\leq$ 30%? SPCC RRFs > specd. values ? All Target Mean RSD <15%? If No, was regression used ? If regression used, $r \geq 0.99$? Qualification Action:	yes yes yes n/a n/a n/a	
Affected Samples:	All SDG samples	

Continuing Calibrations

Calibration Date: Lab File ID :	03/13/15 2D142642.D	03/13/15 2D142665.D	03/14/15 2D142677.D	
CCC %Ds $\leq$ 20%? SPCC RRFs > specd. values ? All Target %D <20%? If No, list target analytes >20%:	yes yes yes	yes yes no	yes yes yes	
Analytical Bias: Qualification Action:	n/a n/a	1,1,1-trichloroethane +20.9% high n/a; no positives for this target found in affected samples	n/a n/a	
Affected Samples:	JB89689-(1, -2) JB89689-2MS,MSD	JB89689-(5, -6) (TB, FB)	JB89689-4 JB89689-4MS,MSD	

Sample Result Confirmation

Sample ID: JB89689-4 (MWHD4-150311)
Compound: trichloroethene IS: 1,4-difluorobenzene
Reported concentration: **4.8** µg/L File ID: 2D142682.D

	Ax	IS	Df
Concentration, µg/L =	11510	50	1
	406544	0.298	
	Ais	RRF	

Concentration, µg/L = **4.75**

Result Confirmed? **Yes**

Reviewer comments : calcs are based on 5.0 mL initial sample purge volume

where:

Ax = area response of target quant ion
IS = mass of internal standard injected, ng
Df = dilution factor

Ais = area response of internal standard quant ion
RRF = ICAL average relative response factor

Attachment A
Laboratory Deliverables



10/01/14

Technical Report for

Environ Corporation

Bulova, Valley Stream, NY

02-1961B

Accutest Job Number: JB77235

Sampling Date: 09/22/14

Report to:

Environ
214 Carnegie Center
Princeton, NJ 08540

ATTN: Michael Potts

Total number of pages in report: **150**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy Cole'.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

Environ Corporation
Bulova, Valley Stream, NY
Project No: 02-1961B

Job No: JB77235

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB77235-1	09/22/14	11:06 LD	09/22/14	AQ	Ground Water	MWHD6-140922
JB77235-2	09/22/14	11:06 LD	09/22/14	AQ	Ground Water	MWHD6-140922D
JB77235-2D	09/22/14	11:06 LD	09/22/14	AQ	Water Dup/MSD	MWHD6-140922MSD
JB77235-2S	09/22/14	11:06 LD	09/22/14	AQ	Water Matrix Spike	MWHD6-140922MS
JB77235-3	09/22/14	11:43 LD	09/22/14	AQ	Ground Water	MWHD4-140922
JB77235-4	09/22/14	12:22 LD	09/22/14	AQ	Ground Water	MWHD7-140922
JB77235-5	09/22/14	11:27 LD	09/22/14	AQ	Field Blank Water	FB-140922
JB77235-6	09/22/14	11:30 LD	09/22/14	AQ	Trip Blank Water	TB-140922

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Environ Corporation**Job No** JB77235**Site:** Bulova, Valley Stream, NY**Report Date** 9/30/2014 3:00:43 PM

On 09/22/2014, 4 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a temperature of 2.4 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB77235 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ**Batch ID:** VU8672

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB77235-2MS, JB77235-2MSD were used as the QC samples indicated.
- JB77235-6: (pH=6)Sample pH did not satisfy field preservation criteria.
- JB77235-5: (pH=6)Sample pH did not satisfy field preservation criteria.
- JB77235-4: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB77235-3: (pH=7)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB77235-2MSD: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB77235-2MS: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB77235-2: (pH=6)Sample pH did not satisfy field preservation criteria. Sample analyzed within 7 days holding time.
- JB77235-1: (pH=7)Sample pH did not satisfy field preservation criteria.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB77235
Account: Environ Corporation
Project: Bulova, Valley Stream, NY
Collected: 09/22/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

JB77235-1 MWHD6-140922

1,1,1-Trichloroethane ^a	0.37 J	1.0	0.32	ug/l	SW846 8260C
Trichloroethene ^a	0.42 J	1.0	0.25	ug/l	SW846 8260C

JB77235-2 MWHD6-140922D

Trichloroethene ^b	0.25 J	1.0	0.25	ug/l	SW846 8260C

JB77235-3 MWHD4-140922

1,1-Dichloroethane ^c	2.2	1.0	0.35	ug/l	SW846 8260C
1,1-Dichloroethene ^c	20.4	1.0	0.50	ug/l	SW846 8260C
Freon 113 ^c	1.9 J	5.0	0.50	ug/l	SW846 8260C
Tetrachloroethene ^c	1.2	1.0	0.35	ug/l	SW846 8260C
1,1,1-Trichloroethane ^c	14.2	1.0	0.32	ug/l	SW846 8260C
Trichloroethene ^c	9.2	1.0	0.25	ug/l	SW846 8260C

JB77235-4 MWHD7-140922

Freon 113 ^d	5.2	5.0	0.50	ug/l	SW846 8260C
Trichloroethene ^d	0.34 J	1.0	0.25	ug/l	SW846 8260C

JB77235-5 FB-140922

No hits reported in this sample.

JB77235-6 TB-140922

No hits reported in this sample.

(a) (pH= 7)Sample pH did not satisfy field preservation criteria.

(b) (pH= 6)Sample pH did not satisfy field preservation criteria. Sample analyzed within 7 days holding time.

(c) (pH= 7)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

(d) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MWHD6-140922	
Lab Sample ID:	JB77235-1	Date Sampled: 09/22/14
Matrix:	AQ - Ground Water	Date Received: 09/22/14
Method:	SW846 8260C	Percent Solids: n/a
Project:	Bulova, Valley Stream, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U188019.D	1	09/25/14	ST	n/a	n/a	VU8672
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	0.37	1.0	0.32	ug/l	J
79-01-6	Trichloroethene	0.42	1.0	0.25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-120%
17060-07-0	1,2-Dichloroethane-D4	105%		72-123%
2037-26-5	Toluene-D8	106%		78-119%
460-00-4	4-Bromofluorobenzene	104%		74-119%

(a) (pH= 7)Sample pH did not satisfy field preservation criteria.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

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Client Sample ID:	MWHD6-140922D	Date Sampled:	09/22/14
Lab Sample ID:	JB77235-2	Date Received:	09/22/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U188035.D	1	09/25/14	ST	n/a	n/a	VU8672
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	0.25	1.0	0.25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-120%
17060-07-0	1,2-Dichloroethane-D4	102%		72-123%
2037-26-5	Toluene-D8	107%		78-119%
460-00-4	4-Bromofluorobenzene	104%		74-119%

(a) (pH= 6)Sample pH did not satisfy field preservation criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

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Client Sample ID:	MWHD4-140922	Date Sampled:	09/22/14
Lab Sample ID:	JB77235-3	Date Received:	09/22/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U188036.D	1	09/25/14	ST	n/a	n/a	VU8672
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	2.2	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	20.4	1.0	0.50	ug/l	
76-13-1	Freon 113	1.9	5.0	0.50	ug/l	J
127-18-4	Tetrachloroethene	1.2	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	14.2	1.0	0.32	ug/l	
79-01-6	Trichloroethene	9.2	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-120%
17060-07-0	1,2-Dichloroethane-D4	103%		72-123%
2037-26-5	Toluene-D8	107%		78-119%
460-00-4	4-Bromofluorobenzene	105%		74-119%

(a) (pH= 7)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

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Client Sample ID:	MWHD7-140922	Date Sampled:	09/22/14
Lab Sample ID:	JB77235-4	Date Received:	09/22/14
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U188021.D	1	09/25/14	ST	n/a	n/a	VU8672
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	5.2	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	0.34	1.0	0.25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-120%
17060-07-0	1,2-Dichloroethane-D4	105%		72-123%
2037-26-5	Toluene-D8	108%		78-119%
460-00-4	4-Bromofluorobenzene	105%		74-119%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	FB-140922	Date Sampled:	09/22/14
Lab Sample ID:	JB77235-5	Date Received:	09/22/14
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U188022.D	1	09/25/14	ST	n/a	n/a	VU8672
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		79-120%
17060-07-0	1,2-Dichloroethane-D4	105%		72-123%
2037-26-5	Toluene-D8	107%		78-119%
460-00-4	4-Bromofluorobenzene	105%		74-119%

(a) (pH= 6)Sample pH did not satisfy field preservation criteria.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	TB-140922	Date Sampled:	09/22/14
Lab Sample ID:	JB77235-6	Date Received:	09/22/14
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U188023.D	1	09/25/14	ST	n/a	n/a	VU8672
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		79-120%
17060-07-0	1,2-Dichloroethane-D4	106%		72-123%
2037-26-5	Toluene-D8	107%		78-119%
460-00-4	4-Bromofluorobenzene	104%		74-119%

(a) (pH= 6)Sample pH did not satisfy field preservation criteria.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

GW
FB
WIB

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)												Matrix Codes											
Company Name ENVIRON		Project Name Burlora																									
Street Address 214 Carnegie Ctr		City Valley Stream NY																									
City Princeton NJ 08540		State NY																									
Project Contact ldiehl@environment.com		Project # 0219618																									
Phone # 609 452 9000		Client Purchase Order #																									
Sampler(s) Name(s) L. Diehl / J. Schwankert		Project Manager																									
Field ID / Point of Collection		MECH/ID Vial #		Collection		Sampled by		Matrix		# of bottles		HCl		HNO3		H2SO4		NONE		DI Water		MEOH		ENCORE			
1 MWHD6-140922				9/22/14 1106		env		GW		3																	
2 MWHD6-140922D				1106																							
3 MWHD6-140922MS				1106																							
4 MWHD6-140922MSD				1106																							
5 MWHD6-140922				1143																							
6 MWHD7-140922				1222																							
7 FB-140922				1122																							
8 FB-140922				1130																							
9 9/22/14																											
Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information												Comments / Special Instructions											
☒ Std. 10 Business Days ☐ 5 Day RUSH ☐ 3 Day RUSH ☐ 2 Day RUSH ☐ 1 Day RUSH ☐ other: _____		☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULLT1 (Level 3+4) ☐ NJ Reduced ☐ Commercial "C" ☐ NJ Data of Known Quality Protocol Reporting		☐ NYASP Category A ☒ NYASP Category B ☐ State Forms ☐ EDD Format ☐ Other: _____												site specific MS/MSD											
Emergency & Rush TIA data available VIA Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.																									
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:		Date Time:		Received By:											
1 ldiehl		9/22/14 16:00		1 JFA				2				2															
3				3				4				4															
5				5				Custody Seal				Intact		Preserved where applicable		On Ice											
												Not intact				Cooler Temp. 24°F											

JB77235: Chain of Custody

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB77235 **Client:** _____ **Project:** _____
Date / Time Received: 9/22/2014 **Delivery Method:** _____ **Airbill #s:** _____
Cooler Temps (Initial/Adjusted): #1: (2.4/2.4); 0#2: (2.4/2.4); 0

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	☒		☐	3. COC Present:	☒		☐
2. Custody Seals Intact:	☒		☐	4. Smpl Dates/Time OK	☒		☐

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	☒		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	☒		☐	☐
2. Trip Blank listed on COC:	☒		☐	☐
3. Samples preserved properly:	☒		☐	
4. VOCs headspace free:	☒		☐	☐

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	☒		☐
2. Container labeling complete:	☒		☐
3. Sample container label / COC agree:	☒		☐

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	☒		☐
2. All containers accounted for:	☒		☐
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	☒		☐	
2. Bottles received for unspecified tests	☐		☒	
3. Sufficient volume recvd for analysis:	☒		☐	
4. Compositing instructions clear:	☐		☐	☒
5. Filtering instructions clear:	☐		☐	☒

Comments

Internal Sample Tracking Chronicle

Environ Corporation

Job No: JB77235

Bulova, Valley Stream, NY

Project No: 02-1961B

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB77235-1	Collected: 22-SEP-14 11:06	By: LD		Received: 22-SEP-14	By: AS	
MWHD6-140922						
JB77235-1	SW846 8260C	25-SEP-14 04:15	ST			VC8260SL
JB77235-2	Collected: 22-SEP-14 11:06	By: LD		Received: 22-SEP-14	By: AS	
MWHD6-140922D						
JB77235-2	SW846 8260C	25-SEP-14 12:30	ST			VC8260SL
JB77235-3	Collected: 22-SEP-14 11:43	By: LD		Received: 22-SEP-14	By: AS	
MWHD4-140922						
JB77235-3	SW846 8260C	25-SEP-14 12:59	ST			VC8260SL
JB77235-4	Collected: 22-SEP-14 12:22	By: LD		Received: 22-SEP-14	By: AS	
MWHD7-140922						
JB77235-4	SW846 8260C	25-SEP-14 05:12	ST			VC8260SL
JB77235-5	Collected: 22-SEP-14 11:27	By: LD		Received: 22-SEP-14	By: AS	
FB-140922						
JB77235-5	SW846 8260C	25-SEP-14 05:41	ST			VC8260SL
JB77235-6	Collected: 22-SEP-14 11:30	By: LD		Received: 22-SEP-14	By: AS	
TB-140922						
JB77235-6	SW846 8260C	25-SEP-14 06:10	ST			VC8260SL

Accutest Internal Chain of Custody

Page 1 of 2

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY
Received: 09/22/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB77235-1.1	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-1.1	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-1.1	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-1.1	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage
JB77235-2.1	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-2.1	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-2.1	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-2.1	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage
JB77235-2.2	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-2.2	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-2.2	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-2.2	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage
JB77235-2.3	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-2.3	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-2.3	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-2.3	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage
JB77235-2.4	Secured Storage	Shannon Tilly	09/25/14 12:12	Retrieve from Storage
JB77235-2.4	Shannon Tilly	GCMSU	09/25/14 12:12	Load on Instrument
JB77235-2.4	GCMSU	Shannon Tilly	09/29/14 13:43	Unload from Instrument
JB77235-2.4	Shannon Tilly	Secured Storage	09/29/14 13:43	Return to Storage
JB77235-3.1	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-3.1	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-3.1	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-3.1	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage
JB77235-3.2	Secured Storage	Shannon Tilly	09/25/14 12:12	Retrieve from Storage
JB77235-3.2	Shannon Tilly	GCMSU	09/25/14 12:12	Load on Instrument
JB77235-3.2	GCMSU	Shannon Tilly	09/29/14 13:43	Unload from Instrument
JB77235-3.2	Shannon Tilly	Secured Storage	09/29/14 13:43	Return to Storage
JB77235-4.1	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-4.1	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-4.1	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-4.1	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage
JB77235-5.1	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-5.1	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-5.1	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-5.1	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage

Accutest Internal Chain of Custody

Page 2 of 2

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY
Received: 09/22/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB77235-6.1	Secured Storage	Shannon Tilly	09/24/14 16:21	Retrieve from Storage
JB77235-6.1	Shannon Tilly	GCMSU	09/24/14 16:21	Load on Instrument
JB77235-6.1	GCMSU	Shannon Tilly	09/25/14 10:28	Unload from Instrument
JB77235-6.1	Shannon Tilly	Secured Storage	09/25/14 10:28	Return to Storage

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: JB77235**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU8672-MB	U188013.D	1	09/25/14	ST	n/a	n/a	VU8672

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB77235-1, JB77235-4, JB77235-5, JB77235-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 79-120%
17060-07-0	1,2-Dichloroethane-D4	104% 72-123%
2037-26-5	Toluene-D8	106% 78-119%
460-00-4	4-Bromofluorobenzene	104% 74-119%

Method Blank Summary

Page 1 of 1

Job Number: JB77235**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU8672-MB2	U188034.D	1	09/25/14	ST	n/a	n/a	VU8672

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB77235-2, JB77235-3

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 79-120%
17060-07-0	1,2-Dichloroethane-D4	102% 72-123%
2037-26-5	Toluene-D8	108% 78-119%
460-00-4	4-Bromofluorobenzene	106% 74-119%

Blank Spike Summary

Page 1 of 1

Job Number: JB77235**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU8672-BS	U188014.D	1	09/25/14	ST	n/a	n/a	VU8672

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB77235-1, JB77235-2, JB77235-3, JB77235-4, JB77235-5, JB77235-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	49.0	98	78-129
75-35-4	1,1-Dichloroethene	50	44.3	89	74-128
76-13-1	Freon 113	50	42.7	85	65-150
127-18-4	Tetrachloroethene	50	65.4	131	69-141
71-55-6	1,1,1-Trichloroethane	50	47.1	94	80-132
79-01-6	Trichloroethene	50	48.6	97	82-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	79-120%
17060-07-0	1,2-Dichloroethane-D4	104%	72-123%
2037-26-5	Toluene-D8	106%	78-119%
460-00-4	4-Bromofluorobenzene	101%	74-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JB77235

Account: ENVIRON Environ Corporation

Project: Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB77235-2MS ^a	U188015.D	1	09/25/14	ST	n/a	n/a	VU8672
JB77235-2MSD ^a	U188016.D	1	09/25/14	ST	n/a	n/a	VU8672
JB77235-2 ^b	U188035.D	1	09/25/14	ST	n/a	n/a	VU8672

The QC reported here applies to the following samples:

Method: SW846 8260C

JB77235-1, JB77235-2, JB77235-3, JB77235-4, JB77235-5, JB77235-6

CAS No.	Compound	JB77235-2 ug/l	Spike Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	ND		50	59.7	119	50	59.5	119	0	61-134/12
75-35-4	1,1-Dichloroethene	ND		50	57.1	114	50	58.3	117	2	40-143/17
76-13-1	Freon 113	ND		50	53.2	106	50	58.8	118	10	32-161/23
127-18-4	Tetrachloroethene	ND		50	58.4	117	50	59.9	120	3	48-143/15
71-55-6	1,1,1-Trichloroethane	ND		50	59.6	119	50	60.1	120	1	52-145/16
79-01-6	Trichloroethene	0.25	J	50	59.0	118	50	60.3	120	2	54-141/13

CAS No.	Surrogate Recoveries	MS	MSD	JB77235-2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	105%	79-120%
17060-07-0	1,2-Dichloroethane-D4	105%	104%	102%	72-123%
2037-26-5	Toluene-D8	107%	108%	107%	78-119%
460-00-4	4-Bromofluorobenzene	102%	102%	104%	74-119%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

(b) (pH= 6)Sample pH did not satisfy field preservation criteria. Sample analyzed within 7 days holding time.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8630-BFB	Injection Date: 08/27/14
Lab File ID: U187025.D	Injection Time: 17:24
Instrument ID: GCMSU	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	17488	20.3	Pass
75	30.0 - 60.0% of mass 95	41056	47.7	Pass
95	Base peak, 100% relative abundance	86042	100.0	Pass
96	5.0 - 9.0% of mass 95	5820	6.76	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	72536	84.3	Pass
175	5.0 - 9.0% of mass 174	5550	6.45 (7.65) ^a	Pass
176	95.0 - 101.0% of mass 174	70058	81.4 (96.6) ^a	Pass
177	5.0 - 9.0% of mass 176	4736	5.50 (6.76) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VU8630-IC8630	U187026.D	08/27/14	17:53	00:29	Initial cal 0.2
VU8630-IC8630	U187027.D	08/27/14	18:22	00:58	Initial cal 0.5
VU8630-IC8630	U187028.D	08/27/14	18:52	01:28	Initial cal 1
VU8630-IC8630	U187029.D	08/27/14	19:21	01:57	Initial cal 2
VU8630-IC8630	U187030.D	08/27/14	19:50	02:26	Initial cal 5
VU8630-IC8630	U187031.D	08/27/14	20:19	02:55	Initial cal 10
VU8630-IC8630	U187032.D	08/27/14	20:48	03:24	Initial cal 20
VU8630-ICC8630	U187033.D	08/27/14	21:18	03:54	Initial cal 50
VU8630-IC8630	U187034.D	08/27/14	21:47	04:23	Initial cal 100
VU8630-IC8630	U187035.D	08/27/14	22:16	04:52	Initial cal 200
VU8630-ICV8630	U187038.D	08/27/14	23:44	06:20	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8672-BFB	Injection Date: 09/24/14
Lab File ID: U188010.D	Injection Time: 23:54
Instrument ID: GCMSU	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	19357	20.8	Pass
75	30.0 - 60.0% of mass 95	46459	50.0	Pass
95	Base peak, 100% relative abundance	93005	100.0	Pass
96	5.0 - 9.0% of mass 95	6012	6.46	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	84461	90.8	Pass
175	5.0 - 9.0% of mass 174	6546	7.04 (7.75) ^a	Pass
176	95.0 - 101.0% of mass 174	82221	88.4 (97.3) ^a	Pass
177	5.0 - 9.0% of mass 176	5583	6.00 (6.79) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VU8672-CC8630	U188011.D	09/25/14	00:23	00:29	Continuing cal 50
VU8672-MB	U188013.D	09/25/14	01:21	01:27	Method Blank
VU8672-BS	U188014.D	09/25/14	01:50	01:56	Blank Spike
JB77235-2MS	U188015.D	09/25/14	02:19	02:25	Matrix Spike
JB77235-2MSD	U188016.D	09/25/14	02:48	02:54	Matrix Spike Duplicate
JB77235-1	U188019.D	09/25/14	04:15	04:21	MWHD6-140922
JB77235-4	U188021.D	09/25/14	05:12	05:18	MWHD7-140922
JB77235-5	U188022.D	09/25/14	05:41	05:47	FB-140922
JB77235-6	U188023.D	09/25/14	06:10	06:16	TB-140922
ZZZZZZ	U188024.D	09/25/14	06:39	06:45	(unrelated sample)
ZZZZZZ	U188025.D	09/25/14	07:08	07:14	(unrelated sample)
ZZZZZZ	U188026.D	09/25/14	07:37	07:43	(unrelated sample)
ZZZZZZ	U188027.D	09/25/14	08:06	08:12	(unrelated sample)
ZZZZZZ	U188028.D	09/25/14	08:35	08:41	(unrelated sample)
ZZZZZZ	U188029.D	09/25/14	09:04	09:10	(unrelated sample)
ZZZZZZ	U188030.D	09/25/14	09:33	09:39	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8672-BFB	Injection Date: 09/25/14
Lab File ID: U188031.D	Injection Time: 10:12
Instrument ID: GCMSU	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	42960	20.2	Pass
75	30.0 - 60.0% of mass 95	103560	48.6	Pass
95	Base peak, 100% relative abundance	213163	100.0	Pass
96	5.0 - 9.0% of mass 95	14721	6.91	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	184171	86.4	Pass
175	5.0 - 9.0% of mass 174	14283	6.70 (7.76) ^a	Pass
176	95.0 - 101.0% of mass 174	179029	84.0 (97.2) ^a	Pass
177	5.0 - 9.0% of mass 176	11765	5.52 (6.57) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VU8672-CC8630	U188032.D	09/25/14	10:49	00:37	Continuing cal 20
VU8672-MB2	U188034.D	09/25/14	11:54	01:42	Method Blank
JB77235-2	U188035.D	09/25/14	12:30	02:18	MWHD6-140922D
JB77235-3	U188036.D	09/25/14	12:59	02:47	MWHD4-140922
ZZZZZZ	U188037.D	09/25/14	13:28	03:16	(unrelated sample)
ZZZZZZ	U188038.D	09/25/14	13:57	03:45	(unrelated sample)
ZZZZZZ	U188039.D	09/25/14	14:27	04:15	(unrelated sample)
ZZZZZZ	U188040.D	09/25/14	14:56	04:44	(unrelated sample)
ZZZZZZ	U188041.D	09/25/14	15:25	05:13	(unrelated sample)
ZZZZZZ	U188042.D	09/25/14	15:57	05:45	(unrelated sample)
ZZZZZZ	U188044.D	09/25/14	16:55	06:43	(unrelated sample)
ZZZZZZ	U188045.D	09/25/14	17:24	07:12	(unrelated sample)
VU8673-MB	U188047.D	09/25/14	17:53	07:41	Method Blank
VU8673-BS	U188048.D	09/25/14	18:22	08:10	Blank Spike
JB77273-6MS	U188049.D	09/25/14	18:51	08:39	Matrix Spike
JB77273-6MSD	U188050.D	09/25/14	19:20	09:08	Matrix Spike Duplicate
JB77273-6	U188052.D	09/25/14	20:19	10:07	(used for QC only; not part of job JB77235)
ZZZZZZ	U188053.D	09/25/14	20:47	10:35	(unrelated sample)
ZZZZZZ	U188054.D	09/25/14	21:16	11:04	(unrelated sample)

Volatile Internal Standard Area Summary

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Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Check Std: VU8672-CC8630
Lab File ID: U188011.D
Instrument ID: GCMSU
Injection Date: 09/25/14
Injection Time: 00:23
Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	106074	7.99	318627	10.22	370448	11.13	359182	14.46	215356	17.04
Upper Limit ^a	212148	8.49	637254	10.72	740896	11.63	718364	14.96	430712	17.54
Lower Limit ^b	53037	7.49	159314	9.72	185224	10.63	179591	13.96	107678	16.54

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VU8672-MB	127934	8.00	326900	10.22	379107	11.13	358580	14.46	208451	17.04
VU8672-BS	126703	8.00	322198	10.21	374184	11.13	355149	14.46	215210	17.04
JB77235-2MS ^c	131924	8.00	330563	10.21	389406	11.13	368413	14.46	220727	17.04
JB77235-2MSD ^c	132665	7.99	340595	10.21	395435	11.13	377091	14.46	225066	17.04
JB77235-1 ^d	150996	8.04	330561	10.22	382438	11.13	359959	14.46	209595	17.04
JB77235-4 ^c	145772	8.01	323275	10.22	375699	11.13	360307	14.46	205965	17.04
JB77235-5 ^e	148571	8.01	316982	10.21	366870	11.13	353882	14.46	203885	17.04
JB77235-6 ^e	129092	8.02	315378	10.22	361994	11.13	348177	14.46	201783	17.04
ZZZZZZ	129820	8.01	320019	10.22	375055	11.13	352635	14.46	203409	17.04
ZZZZZZ	131922	8.00	315389	10.21	369547	11.13	347442	14.46	206686	17.04
ZZZZZZ	145076	7.99	330484	10.22	377713	11.13	363615	14.46	215979	17.04
ZZZZZZ	161669	8.00	335468	10.21	387842	11.13	371838	14.46	216769	17.04
ZZZZZZ	167094	7.99	339455	10.22	391208	11.13	369692	14.46	217088	17.04
ZZZZZZ	173824	7.99	348074	10.21	401681	11.13	378916	14.46	222803	17.04
ZZZZZZ	162243	8.00	352436	10.22	405626	11.13	385591	14.46	225422	17.04

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

(d) (pH= 7)Sample pH did not satisfy field preservation criteria.

(e) (pH= 6)Sample pH did not satisfy field preservation criteria.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Check Std: VU8672-CC8630	Injection Date: 09/25/14
Lab File ID: U188032.D	Injection Time: 10:49
Instrument ID: GCMSU	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	156063	8.00	346600	10.22	395719	11.13	368072	14.46	219267	17.04
Upper Limit ^a	312126	8.50	693200	10.72	791438	11.63	736144	14.96	438534	17.54
Lower Limit ^b	78032	7.50	173300	9.72	197860	10.63	184036	13.96	109634	16.54

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VU8672-MB2	150076	8.00	340907	10.21	390640	11.13	376650	14.46	216082	17.04
JB77235-2 ^c	150886	8.02	323286	10.22	369471	11.13	352705	14.46	204236	17.04
JB77235-3 ^d	144031	8.00	329494	10.22	381193	11.13	363127	14.46	209231	17.04
ZZZZZZ	131594	8.01	324101	10.22	377000	11.13	352620	14.46	208046	17.04
ZZZZZZ	138859	8.00	324593	10.21	371058	11.13	349224	14.46	207315	17.04
ZZZZZZ	141194	8.00	324839	10.21	377636	11.13	355527	14.46	207401	17.04
ZZZZZZ	144475	8.01	320409	10.22	372555	11.13	352202	14.46	207485	17.04
ZZZZZZ	153842	8.00	323202	10.21	371901	11.13	352669	14.46	206962	17.04
ZZZZZZ	137944	7.99	323650	10.22	369248	11.13	351160	14.46	208098	17.04
ZZZZZZ	140554	8.00	322820	10.22	374491	11.13	351132	14.46	205648	17.04
ZZZZZZ	146832	7.98	325132	10.22	374440	11.13	356056	14.46	203290	17.04
VU8673-MB	131560	7.98	321427	10.21	371621	11.13	350364	14.46	202188	17.04
VU8673-BS	132157	8.00	313011	10.22	363477	11.13	349526	14.46	210416	17.04
JB77273-6MS	130701	8.00	324432	10.22	374966	11.13	359844	14.46	218853	17.04
JB77273-6MSD	140954	7.99	332814	10.22	385209	11.13	368708	14.46	222147	17.04
JB77273-6	144189	8.00	337182	10.21	388123	11.13	368078	14.46	219298	17.04
ZZZZZZ	148139	7.99	337810	10.22	387870	11.13	372198	14.46	218306	17.04
ZZZZZZ	146527	8.00	333179	10.21	379519	11.13	361764	14.46	221184	17.04

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) (pH= 6)Sample pH did not satisfy field preservation criteria. Sample analyzed within 7 days holding time.

(d) (pH= 7)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: JB77235

Account: ENVIRON Environ Corporation

Project: Bulova, Valley Stream, NY

Method: SW846 8260C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB77235-1	U188019.D	104	105	106	104
JB77235-2	U188035.D	105	102	107	104
JB77235-3	U188036.D	104	103	107	105
JB77235-4	U188021.D	105	105	108	105
JB77235-5	U188022.D	106	105	107	105
JB77235-6	U188023.D	106	106	107	104
JB77235-2MS	U188015.D	105	105	107	102
JB77235-2MSD	U188016.D	105	104	108	102
VU8672-BS	U188014.D	106	104	106	101
VU8672-MB	U188013.D	104	104	106	104
VU8672-MB2	U188034.D	104	102	108	106

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane

79-120%

S2 = 1,2-Dichloroethane-D4

72-123%

S3 = Toluene-D8

78-119%

S4 = 4-Bromofluorobenzene

74-119%

6.6.1

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Initial Calibration Summary

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Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8630-ICC8630
Lab FileID: U187033.D

Response Factor Report MSU

Method : C:\MSDCHEM\1\METHODS\MU8630.M (RTE Integrator)
Title : SW-846 8260B, DB624 60m x 250um x 1.40um
Last Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration

Calibration Files

5 =U187030.D	2 =U187029.D	20 =U187032.D	50 =U187033.D
100 =U187034.D	1 =U187028.D	200 =U187035.D	10 =U187031.D
0.5 =U187027.D	0.2 =U187026.D	=	=

Compound	5	2	20	50	100	1	200	10	0.5	0.2	Avg	%RSD

1) I Tert Butyl Alcohol-d9	-----ISTD-----											
2) tertiary butyl alcohol	1.124	1.305	1.116	1.112	1.022	1.204	1.024	0.886		1.099		11.48
3) Ethanol										0.000		-1.00
4) 1,4-dioxane	0.092	0.089	0.097	0.098	0.092		0.092	0.072		0.090		9.74
5) I pentafluorobenzene	-----ISTD-----											
6) freon 115										0.000		-1.00
7) freon 23										0.000		-1.00
8) freon 143A										0.000		-1.00
9) freon 152A										0.000		-1.00
10) chlorotrifluoroethene										0.000		-1.00
11) chlorodifluoromethane	0.582	0.605	0.555	0.530	0.507	0.534	0.503	0.433	0.520	0.530		9.37
12) dichlorodifluoromethane	0.514	0.427	0.460	0.475	0.452	0.382	0.458	0.464		0.454		8.38
13) freon 142B										0.000		-1.00
14) freon 114										0.000		-1.00
15) chloromethane	0.734	0.706	0.716	0.684	0.673	0.755	0.657	0.675	0.788	0.797	0.718	6.83
16) vinyl chloride	0.628	0.598	0.608	0.589	0.577	0.569	0.566	0.581	0.609		0.592	3.52
17) acetaldehyde										0.000		-1.00
18) bromomethane	0.370	0.343	0.336	0.311	0.281	0.388	0.322			0.336		10.70
19) chloroethane	0.312	0.262	0.287	0.272	0.256	0.283	0.211	0.279	0.273		0.271	10.14
20) trichlorofluoromethane	0.580	0.481	0.566	0.546	0.536	0.457	0.517	0.537		0.528		7.82
21) pentane										0.000		-1.00
22) freon 123A										0.000		-1.00
23) ethyl ether												

Initial Calibration Summary

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8630-ICC8630
Lab FileID: U187033.D

	0.235	0.191	0.227	0.222	0.220	0.188	0.224	0.220		0.216	7.83
24)	2-CHLOROPROPANE										
	0.807	0.673	0.842	0.788	0.774	0.854	0.793	0.811	0.694	0.782	7.85
25)	freon 141B										
										0.000	-1.00
26)	freon 123										
										0.000	-1.00
27)	acrolein										
	0.124	0.109	0.104	0.105	0.106	0.105		0.095		0.107	8.25
28)	1,1-dichloroethene										
	0.389	0.326	0.387	0.360	0.356	0.394	0.355	0.373	0.403	0.371	6.55
29)	acetone										
	0.059		0.050	0.046	0.043		0.045	0.052		0.049	11.86
30)	allyl chloride										
	0.073		0.078	0.071	0.071		0.073	0.076		0.074	3.76
31)	acetonitrile										
	0.047		0.047	0.047	0.044		0.043	0.037		0.044	8.82
32)	iodomethane										
	0.649	0.543	0.684	0.645	0.636	0.600	0.642	0.636	0.508	0.511	0.605
33)	carbon disulfide										10.29
	1.292	1.104	1.311	1.278	1.207	1.316	1.210	1.272	1.263	1.250	5.38
34)	1-CHLOROPROPANE										
	0.038	0.033	0.038	0.034	0.034		0.034	0.039		0.036	6.50
35)	methylene chloride										
	0.431	0.387	0.442	0.417	0.413	0.430	0.417	0.420	0.425	0.420	3.66
36)	methyl acetate										
	0.441	0.475	0.422	0.428	0.399		0.411	0.351		0.418	9.13
37)	methyl tert butyl ether										
	1.331	1.194	1.346	1.289	1.250	1.326	1.258	1.275	1.357	1.292	4.11
38)	trans-1,2-dichloroethene										
	0.393	0.337	0.396	0.364	0.366	0.416	0.366	0.380	0.378	0.377	6.02
39)	di-isopropyl ether										
	1.739	1.803	1.615	1.566	1.488	1.749	1.513	1.323		1.600	10.05
40)	ethyl tert-butyl ether										
	1.632	1.765	1.498	1.458	1.379		1.413	1.241		1.484	11.57
41)	2-butanone										
	0.050	0.040	0.055	0.053	0.052		0.052	0.051		0.050	9.83
42)	1,1-dichloroethane										
	0.766	0.644	0.768	0.735	0.727	0.719	0.728	0.740	0.644	0.685	0.715
43)	chloroprene										6.22
	0.643	0.656	0.604	0.584	0.565	0.631	0.574	0.487	0.614	0.528	0.588
44)	acrylonitrile										8.93
	0.203	0.198	0.201	0.194	0.187	0.202	0.190	0.196	0.205	0.238	0.201
45)	vinyl acetate										6.91
	0.070	0.067	0.073	0.075	0.071		0.072	0.060		0.070	7.26
46)	ethyl acetate										
	0.075		0.079	0.076	0.068		0.069	0.073		0.073	5.81
47)	2,2-dichloropropane										
	0.564	0.487	0.552	0.515	0.489	0.585	0.480	0.529	0.570	0.530	7.49
48)	cis-1,2-dichloroethene										
	0.429	0.363	0.428	0.400	0.396	0.440	0.402	0.403	0.440	0.411	6.17
49)	methyl acrylate										
	0.593	0.639	0.551	0.554	0.520		0.537	0.546		0.563	7.14
50)	propionitrile										
	0.083	0.079	0.079	0.078	0.074	0.078	0.076	0.079	0.080	0.078	3.19
51)	bromochloromethane										
	0.200	0.177	0.203	0.196	0.196	0.180	0.198	0.193		0.193	4.82
52)	tetrahydrofuran										
	0.223		0.170	0.169	0.158		0.163	0.169		0.175	13.52
53)	chloroform										

Initial Calibration Summary

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Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8630-ICC8630
Lab FileID: U187033.D

	0.673	0.595	0.671	0.638	0.634	0.671	0.645	0.639	0.708		0.652	4.95
54)	tert-butyl Formate											
	0.490	0.528	0.481	0.473	0.450	0.455	0.463	0.388	0.448		0.464	8.16
55)	iso-butyl alcohol											
	0.006		0.006	0.006	0.005		0.005	0.005			0.005	3.41
56)	dibromofluoromethane (s)											
	0.349	0.337	0.330	0.328	0.319	0.354	0.331	0.319	0.303		0.330	4.77
57)	1,2-dichloroethane-d4 (s)											
	0.429	0.434	0.424	0.421	0.406	0.447	0.421	0.404	0.393	0.473	0.425	5.42
58)	freon 113											
	0.298	0.294	0.281	0.270	0.257		0.258	0.214			0.267	10.68
59)	methacrylonitrile											
	0.336	0.422	0.329	0.325	0.315	0.348	0.324	0.312	0.340		0.339	9.80
60)	1,1,1-trichloroethane											
	0.559	0.440	0.578	0.550	0.542	0.534	0.547	0.535	0.431	0.597	0.531	10.22
61)	tert amyl alcohol											
											0.000	-1.00
62)	tert-amyl methyl ether											
	0.311	0.316	0.303	0.300	0.285	0.283	0.291	0.250	0.252		0.288	8.19
63)	iso-octane											
	1.783	1.835	1.652	1.617	1.487	1.386	1.498	1.311	1.428	1.690	1.569	11.08
64)	I 1,4-difluorobenzene -----ISTD-----											
65)	Di-isobutylene											
											0.000	-1.00
66)	epichlorohydrin											
	0.053		0.047	0.045	0.042		0.044	0.040			0.045	9.94
67)	n-butyl alcohol											
	0.017		0.014	0.013	0.012		0.012	0.013			0.013	13.89
68)	Cyclohexane											
	0.516	0.403	0.535	0.494	0.475	0.443	0.465	0.507			0.480	8.92
69)	carbon tetrachloride											
	0.435	0.350	0.445	0.422	0.415	0.403	0.413	0.424			0.413	6.97
70)	1,1-dichloropropene											
	0.448	0.376	0.458	0.439	0.434	0.449	0.430	0.438	0.380	0.461	0.431	6.93
71)	hexane											
	0.060	0.051	0.059	0.057	0.054		0.055	0.046			0.054	9.01
72)	benzene											
	1.367	1.178	1.385	1.311	1.295	1.379	1.277	1.316	1.293	1.669	1.347	9.52
73)	heptane											
	0.296	0.316	0.275	0.262	0.244	0.255	0.250	0.219			0.265	11.60
74)	isopropyl acetate											
	0.838	0.871	0.788	0.787	0.732	0.825	0.761	0.649	0.780	0.941	0.797	9.95
75)	1,2-dichloroethane											
	0.448	0.416	0.461	0.448	0.439	0.441	0.434	0.440	0.391	0.394	0.431	5.45
76)	ethyl acrylate											
											0.000	-1.00
77)	tert amyl ethyl ether											
											0.000	-1.00
78)	trichloroethene											
	0.322	0.270	0.327	0.315	0.312	0.313	0.317	0.313	0.285	0.265	0.304	7.27
79)	methylcyclohexane											
	0.624	0.640	0.586	0.564	0.530	0.476	0.529	0.463	0.496	0.481	0.539	11.63
80)	2-nitropropane											
		0.174	0.175	0.165			0.168	0.178			0.172	3.02
81)	2-chloroethyl vinyl ether											
	0.270	0.286	0.264	0.262	0.245	0.254	0.246	0.211	0.243	0.256	0.254	7.86
82)	methyl methacrylate											
	0.091	0.077	0.097	0.096	0.093	0.083	0.094	0.090			0.090	7.61
83)	1,2-dichloropropane											

Initial Calibration Summary

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	0.372	0.322	0.380	0.369	0.362	0.348	0.364	0.359	0.286	0.344	0.351	8.03
84)	propyl acetate											
	0.085		0.074	0.073	0.067		0.069	0.066			0.072	9.84
85)	dibromomethane											
	0.202	0.185	0.211	0.205	0.202	0.186	0.206	0.199	0.182		0.197	5.32
86)	bromodichloromethane											
	0.446	0.398	0.459	0.446	0.443	0.455	0.450	0.438	0.432	0.505	0.447	5.94
87)	cis-1,3-dichloropropene											
	0.581	0.505	0.598	0.582	0.577	0.564	0.585	0.561	0.517	0.584	0.565	5.40
88)	toluene-d8 (s)											
	1.145	1.178	1.168	1.148	1.111	1.196	1.139	1.083	1.064	1.341	1.157	6.61
89)	4-methyl-2-pentanone											
	0.165	0.161	0.166	0.163	0.153	0.155	0.156	0.159	0.182		0.162	5.38
90)	toluene											
	0.820	0.699	0.845	0.820	0.812	0.804	0.816	0.784	0.712	0.895	0.801	7.28
91)	3-methyl-1-butanol											
	0.025	0.028	0.022	0.020	0.017		0.017	0.020			0.021	20.04
	----- Linear regression ----- Coefficient = 0.9983											
	Response Ratio = 0.02729 + 0.01648 *A											
92)	trans-1,3-dichloropropene											
	0.546	0.492	0.557	0.547	0.539	0.527	0.549	0.531	0.505	0.610	0.540	5.89
93)	ethyl methacrylate											
	0.489	0.454	0.493	0.487	0.471	0.515	0.488	0.462	0.527		0.487	4.79
94)	1,1,2-trichloroethane											
	0.262	0.248	0.268	0.264	0.262	0.269	0.270	0.254	0.276	0.296	0.267	4.87
95)	2-hexanone											
	0.153	0.157	0.157	0.152	0.146	0.174	0.150	0.151	0.182		0.158	7.61
96)	I chlorobenzene-d5											
97)	cyclohexanone											
	0.046	0.042	0.040	0.033	0.025		0.046				0.039	20.98
	----- Quadratic regression ----- Coefficient = 0.9994											
	Response Ratio = 0.00661 + 0.04060 *A + -0.00079 *A^2											
98)	tetrachloroethene											
	0.302	0.240	0.305	0.287	0.286	0.283	0.290	0.296			0.286	6.98
99)	1,3-dichloropropane											
	0.565	0.510	0.573	0.558	0.547	0.563	0.555	0.547	0.536	0.586	0.554	3.78
100)	butyl acetate											
	0.313	0.329	0.284	0.279	0.258	0.321	0.269	0.240	0.340		0.293	11.86
101)	dibromochloromethane											
	0.373	0.340	0.385	0.380	0.375	0.357	0.387	0.366	0.339	0.333	0.363	5.49
102)	1,2-dibromoethane											
	0.333	0.307	0.335	0.328	0.322	0.319	0.333	0.318	0.315	0.345	0.325	3.48
103)	3,3-dimethyl-1-Butanol											
	0.054	0.056	0.045	0.041	0.035		0.034	0.041			0.044	19.99
	----- Linear regression ----- Coefficient = 0.9975											
	Response Ratio = 0.03270 + 0.03308 *A											
104)	n-butyl ether											
											0.000	-1.00
105)	chlorobenzene											
	0.967	0.830	0.988	0.955	0.948	0.963	0.965	0.927	0.905	1.043	0.949	5.85
106)	1,1,1,2-tetrachloroethane											
	0.379	0.319	0.376	0.363	0.357	0.350	0.362	0.359	0.317	0.308	0.349	7.23
107)	ethylbenzene											
	1.704	1.437	1.735	1.672	1.656	1.676	1.687	1.647	1.523	1.945	1.668	7.95
108)	m,p-xylene											
	0.642	0.545	0.660	0.632	0.624	0.627	0.631	0.623	0.582	0.647	0.621	5.41

Initial Calibration Summary

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8630-ICC8630
Lab FileID: U187033.D

109)	o-xylene	0.666	0.554	0.684	0.653	0.642	0.635	0.643	0.643	0.580	0.621	0.632	6.15
110)	styrene	1.117	0.972	1.159	1.123	1.111	1.097	1.128	1.087	1.019	1.195	1.101	5.86
111)	bromoform	0.283	0.263	0.298	0.297	0.296	0.287	0.307	0.280	0.231		0.283	8.26
112)	I 1,4-dichlorobenzene-d	-----ISTD-----											
113)	isopropylbenzene	2.880	2.395	2.934	2.853	2.858	2.819	2.981	2.735	2.568	3.023	2.805	6.88
114)	4-bromofluorobenzene (s)	0.829	0.867	0.815	0.821	0.807	0.896	0.880	0.768	0.907		0.843	5.51
115)	bromobenzene	0.744	0.664	0.762	0.742	0.749	0.728	0.797	0.714	0.604	0.779	0.728	7.79
116)	1,1,2,2-tetrachloroethane	0.863	0.824	0.866	0.860	0.844	0.874	0.881	0.839	0.955	1.063	0.887	8.02
117)	trans-1,4-dichloro-2-butene	0.257	0.251	0.257	0.257	0.251	0.264	0.269	0.251	0.240	0.269	0.256	3.49
118)	1,2,3-trichloropropane	0.222	0.194	0.214	0.216	0.212	0.207	0.224	0.212	0.176		0.208	7.23
119)	n-propylbenzene	3.294	2.793	3.394	3.283	3.288	3.249	3.443	3.204	3.086	3.802	3.284	7.82
120)	2-chlorotoluene	0.704	0.590	0.714	0.694	0.688	0.667	0.712	0.679	0.609	0.707	0.677	6.42
121)	4-chlorotoluene	2.142	1.891	2.198	2.163	2.162	2.203	2.263	2.103	2.064	2.594	2.178	8.15
122)	p-Ethyltoluene											0.000	-1.00
123)	1,3,5-trimethylbenzene	2.523	2.160	2.602	2.537	2.506	2.493	2.548	2.481	2.333	2.933	2.512	7.79
124)	tert-butylbenzene	2.198	1.906	2.286	2.211	2.189	2.197	2.217	2.147	2.196	2.387	2.193	5.52
125)	pentachloroethane	0.467	0.417	0.507	0.505	0.504	0.453	0.523	0.464	0.403		0.471	8.95
126)	1,2,4-trimethylbenzene	2.570	2.191	2.621	2.532	2.508	2.552	2.562	2.501	2.484	2.981	2.550	7.50
127)	1,2,3-trimethylbenzene											0.000	-1.00
128)	sec-butylbenzene	3.357	2.826	3.446	3.326	3.284	3.201	3.312	3.268	3.099	3.642	3.276	6.54
129)	1,3-dichlorobenzene	1.536	1.342	1.567	1.517	1.505	1.558	1.556	1.482	1.354	1.581	1.500	5.71
130)	p-isopropyltoluene	2.852	2.442	2.940	2.850	2.777	2.811	2.813	2.771	2.726	3.269	2.825	7.21
131)	1,4-dichlorobenzene	1.552	1.374	1.589	1.538	1.519	1.574	1.562	1.498	1.495		1.523	4.24
132)	benzyl chloride	1.776	1.897	1.632	1.612	1.491	1.868	1.539	1.365	1.893		1.675	11.54
133)	1,2-dichlorobenzene	1.492	1.323	1.531	1.475	1.448	1.471	1.476	1.445	1.346	1.762	1.477	8.05
134)	p-Diethylbenzene											0.000	-1.00
135)	n-butylbenzene	1.476	1.243	1.525	1.462	1.425	1.440	1.440	1.431	1.388	1.450	1.428	5.20
136)	1,2,4,5-Tetramethylbenzene											0.000	-1.00
137)	1,2-dibromo-3-chloropropane	0.181	0.161	0.183	0.178	0.171	0.159	0.179	0.172			0.173	5.23
138)	1,3,5-trichlorobenzene	1.276	1.067	1.294	1.258	1.231	1.220	1.273	1.240	1.145	1.341	1.234	6.32

Initial Calibration Summary

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139)	1,2,4-trichlorobenzene	1.038	0.894	1.071	1.041	1.039	1.015	1.071	1.013	1.018	1.267	1.047	8.79
140)	hexachlorobutadiene	0.601	0.528	0.629	0.610	0.584	0.589	0.605	0.598	0.568	0.583	0.590	4.65
141)	naphthalene	2.206	1.994	2.203	2.145	2.105	2.147	2.159	2.157	2.380		2.166	4.71
142)	INDANE											0.000	-1.00
143)	1,2,3-trichlorobenzene	0.883	0.759	0.894	0.860	0.853	0.820	0.879	0.860	0.884		0.855	4.94
144)	hexachloroethane	0.464	0.372	0.510	0.513	0.509	0.442	0.524	0.479			0.477	10.62
145)	MMT											0.000	-1.00
146)	Bis(chloromethyl)ether											0.000	-1.00
147)	Ethylenimine											0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

MU8630.M

Thu Aug 28 10:42:49 2014

U_CORE

Initial Calibration Verification

Job Number: JB77235
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: VU8630-ICV8630
 Lab FileID: U187038.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\U187038.D Vial: 24
 Acq On : 27 Aug 2014 11:44 pm Operator: giannap
 Sample : icv8630-50 Inst : MSU
 Misc : ms72718,vu8630,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MU8630.M (RTE Integrator)
 Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 Last Update : Thu Aug 28 10:39:31 2014
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	99	0.02	8.03
2 M	tertiary butyl alcohol	1.099	1.077	2.0	96	0.01	8.13
3	Ethanol			-----NA-----			
4 m	1,4-dioxane	0.090	0.092	-2.2	93	0.00	11.87
5 I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	10.22
6 M	freon 115			-----NA-----			
7 M	freon 23			-----NA-----			
8 M	freon 143A			-----NA-----			
9 M	freon 152A			-----NA-----			
10 M	chlorotrifluoroethene			-----NA-----			
11 M	chlorodifluoromethane	0.530	0.445	16.0	86	0.00	4.49
12 M	dichlorodifluoromethane	0.454	0.463	-2.0	100	0.00	4.46
13 M	freon 142B			-----NA-----			
14 M	freon 114			-----NA-----			
15 M	chloromethane	0.718	0.686	4.5	103	0.00	4.87
16 M	vinyl chloride	0.592	0.591	0.2	103	0.00	5.15
17 M	acetaldehyde			-----NA-----			
18 M	bromomethane	0.336	0.292	13.1	96	0.00	5.82
19 M	chloroethane	0.271	0.264	2.6	99	0.00	6.00
20 M	trichlorofluoromethane	0.528	0.548	-3.8	103	0.00	6.51
21 M	pentane			-----NA-----			
22 M	freon 123A			-----NA-----			
23 M	ethyl ether	0.216	0.229	-6.0	106	0.00	6.90
24	2-CHLOROPROPANE	0.782	0.809	-3.5	105	0.00	7.12
25 M	freon 141B			-----NA-----			
26 M	freon 123			-----NA-----			
27 M	acrolein	0.107	0.098	8.4	96	0.00	7.17
28 M	1,1-dichloroethene	0.371	0.369	0.5	105	0.00	7.35
29 M	acetone	0.049	0.048	2.0	107	0.00	7.39
30 M	allyl chloride	0.074	0.084	-13.5	122	0.00	7.86
31 M	acetonitrile	0.044	0.044	0.0	95	0.00	7.86
32 M	iodomethane	0.605	0.652	-7.8	103	0.00	7.63
33 M	carbon disulfide	1.250	1.316	-5.3	105	0.00	7.75
34	1-CHLOROPROPANE	0.036	0.034	5.6	101	0.00	8.09
35 M	methylene chloride	0.420	0.423	-0.7	104	0.00	8.06
36 M	methyl acetate	0.418	0.359	14.1	86	0.00	7.84
37 M	methyl tert butyl ether	1.292	1.238	4.2	99	0.00	8.39
38 M	trans-1,2-dichloroethene	0.377	0.367	2.7	103	0.00	8.42
39 M	di-isopropyl ether	1.600	1.499	6.3	98	0.00	8.97
40 M	ethyl tert-butyl ether	1.484	1.370	7.7	96	0.00	9.43
41 M	2-butanone	0.050	0.054	-8.0	105	0.00	9.69

Initial Calibration Verification

Page 2 of 4

Job Number: JB77235
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: VU8630-ICV8630
 Lab FileID: U187038.D

42 M	1,1-dichloroethane	0.715	0.753	-5.3	105	0.00	8.99
43 M	chloroprene	0.588	0.575	2.2	101	0.00	9.09
44 M	acrylonitrile	0.201	0.196	2.5	103	0.00	8.38
45 M	vinyl acetate	0.070	0.072	-2.9	99	0.00	8.97
46 M	ethyl acetate	0.073	0.071	2.7	95	0.00	9.70
47 M	2,2-dichloropropane	0.530	0.494	6.8	98	0.00	9.73
48 M	cis-1,2-dichloroethene	0.411	0.401	2.4	103	0.00	9.71
49 M	methyl acrylate	0.563	0.540	4.1	100	0.00	9.78
50 M	propionitrile	0.078	0.079	-1.3	104	0.00	9.80
51 M	bromochloromethane	0.193	0.195	-1.0	102	0.00	10.02
52 M	tetrahydrofuran	0.175	0.170	2.9	103	0.00	10.06
53 M	chloroform	0.652	0.648	0.6	104	0.00	10.07
54	tert-butyl Formate	0.464	0.429	7.5	93	0.00	10.13
55 M	iso-butyl alcohol	0.005	0.006	-20.0	100	0.00	10.50
56 S	dibromofluoromethane (s)	0.330	0.328	0.6	102	0.00	10.27
57 S	1,2-dichloroethane-d4 (s)	0.425	0.419	1.4	102	0.00	10.70
58 M	freon 113	0.267	0.246	7.9	93	0.00	7.31
59 M	methacrylonitrile	0.339	0.322	5.0	102	0.00	9.98
60 M	1,1,1-trichloroethane	0.531	0.558	-5.1	104	0.00	10.34
61 M	tert amyl alcohol			-----NA-----			
62 M	tert-amyl methyl ether	0.288	0.278	3.5	95	0.00	10.81
63	iso-octane	1.569	1.390	11.4	88	0.00	10.79
64 I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	11.14
65 M	Di-isobutylene			-----NA-----			
66 M	epichlorohydrin	0.045	0.044	2.2	100	0.00	12.42
67 M	n-butyl alcohol	0.013	0.013	0.0	100	0.00	11.25
68 M	Cyclohexane	0.480	0.492	-2.5	102	0.00	10.41
69 M	carbon tetrachloride	0.413	0.431	-4.4	104	0.00	10.53
70 M	1,1-dichloropropene	0.431	0.427	0.9	99	0.00	10.51
71 M	hexane	0.054	0.047	13.0	85	0.00	8.72
72 M	benzene	1.347	1.338	0.7	104	0.00	10.78
73 M	heptane	0.265	0.215	18.9	84	0.00	10.94
74 M	isopropyl acetate	0.797	0.766	3.9	99	0.00	10.69
75 M	1,2-dichloroethane	0.431	0.455	-5.6	104	0.00	10.79
76 M	ethyl acrylate			-----NA-----			
77	tert amyl ethyl ether			-----NA-----			
78 M	trichloroethene	0.304	0.317	-4.3	103	0.00	11.48
79 M	methylcyclohexane	0.539	0.507	5.9	92	0.00	11.72
80 M	2-nitropropane	0.172	0.170	1.2	99	0.00	12.28
81 M	2-chloroethyl vinyl ether	0.254	0.247	2.8	96	0.00	12.29
82 M	methyl methacrylate	0.090	0.096	-6.7	102	0.00	11.75
83 M	1,2-dichloropropane	0.351	0.377	-7.4	104	0.00	11.76
84 M	propyl acetate	0.072	0.070	2.8	98	0.00	11.79
85 M	dibromomethane	0.197	0.205	-4.1	102	0.00	11.91
86 M	bromodichloromethane	0.447	0.454	-1.6	104	0.00	12.03
87 M	cis-1,3-dichloropropene	0.565	0.571	-1.1	100	0.00	12.52
88 S	toluene-d8 (s)	1.157	1.147	0.9	102	0.00	12.83
89 M	4-methyl-2-pentanone	0.162	0.165	-1.9	103	0.00	12.63
90 M	toluene	0.801	0.818	-2.1	102	0.00	12.91
----- True		Calc.	% Drift	-----			
91 M	3-methyl-1-butanol	1000.000	1083.950	-8.4	99	0.00	12.62
----- AvgRF		CCRF	% Dev	-----			
92 M	trans-1,3-dichloropropene	0.540	0.522	3.3	97	0.00	13.11
93 M	ethyl methacrylate	0.487	0.479	1.6	100	0.00	13.10
94 M	1,1,2-trichloroethane	0.267	0.265	0.7	102	0.00	13.34
95 M	2-hexanone	0.158	0.154	2.5	103	0.00	13.54

Initial Calibration Verification

Job Number: JB77235
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: VU8630-ICV8630
 Lab FileID: U187038.D

96 I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.47
----- True Calc. % Drift -----							
97 M	cyclohexanone	500.000	213.175	57.4#	51	0.00	15.73
----- AvgRF CCRF % Dev -----							
98 M	tetrachloroethene	0.286	0.294	-2.8	104	0.00	13.52
99 M	1,3-dichloropropane	0.554	0.556	-0.4	102	0.00	13.54
100 M	butyl acetate	0.293	0.266	9.2	97	0.00	13.60
101 M	dibromochloromethane	0.363	0.374	-3.0	100	0.00	13.82
102 M	1,2-dibromoethane	0.325	0.327	-0.6	102	0.00	14.00
----- True Calc. % Drift -----							
103	3,3-dimethyl-1-Butanol	500.000	533.499	-6.7	96	0.00	13.70
----- AvgRF CCRF % Dev -----							
104	n-butyl ether	-----NA-----					
105 M	chlorobenzene	0.949	0.959	-1.1	102	0.00	14.50
106 M	1,1,1,2-tetrachloroethane	0.349	0.361	-3.4	101	0.00	14.56
107 M	ethylbenzene	1.668	1.670	-0.1	102	0.00	14.56
108 M	m,p-xylene	0.621	0.634	-2.1	102	0.00	14.68
109 M	o-xylene	0.632	0.649	-2.7	101	0.00	15.14
110 M	styrene	1.101	1.118	-1.5	102	0.00	15.15
111 M	bromoform	0.283	0.295	-4.2	101	0.00	15.44
112 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	17.04
113 M	isopropylbenzene	2.805	2.865	-2.1	102	0.00	15.52
114 S	4-bromofluorobenzene (s)	0.843	0.816	3.2	101	0.00	15.75
115 M	bromobenzene	0.728	0.746	-2.5	102	0.00	15.97
116 M	1,1,2,2-tetrachloroethane	0.887	0.828	6.7	98	0.00	15.85
117 M	trans-1,4-dichloro-2-bute	0.256	0.249	2.7	99	0.00	15.90
118 M	1,2,3-trichloropropane	0.208	0.212	-1.9	100	0.00	15.94
119 M	n-propylbenzene	3.284	3.466	-5.5	108	0.00	15.98
120 M	2-chlorotoluene	0.677	0.696	-2.8	102	0.00	16.14
121 M	4-chlorotoluene	2.178	2.153	1.1	102	0.00	16.25
122	p-Ethyltoluene	-----NA-----					
123 M	1,3,5-trimethylbenzene	2.512	2.513	-0.0	101	0.00	16.14
124 M	tert-butylbenzene	2.193	2.206	-0.6	102	0.00	16.54
125 M	pentachloroethane	0.471	0.498	-5.7	101	0.00	16.63
126 M	1,2,4-trimethylbenzene	2.550	2.654	-4.1	107	0.00	16.58
127	1,2,3-trimethylbenzene	-----NA-----					
128 M	sec-butylbenzene	3.276	3.309	-1.0	101	0.00	16.78
129 M	1,3-dichlorobenzene	1.500	1.505	-0.3	101	0.00	16.98
130 M	p-isopropyltoluene	2.825	2.839	-0.5	102	0.00	16.91
131 M	1,4-dichlorobenzene	1.523	1.531	-0.5	102	0.00	17.07
132 M	benzyl chloride	1.675	1.598	4.6	101	0.00	17.20
133 M	1,2-dichlorobenzene	1.477	1.477	0.0	102	0.00	17.51
134	p-Diethylbenzene	-----NA-----					
135 M	n-butylbenzene	1.428	1.493	-4.6	104	0.00	17.37
136	1,2,4,5-Tetramethylbenzen	-----NA-----					
137 M	1,2-dibromo-3-chloropropa	0.173	0.176	-1.7	101	0.00	18.37
138	1,3,5-trichlorobenzene	1.234	1.234	0.0	100	0.00	18.57
139 M	1,2,4-trichlorobenzene	1.047	1.055	-0.8	103	0.00	19.31
140 M	hexachlorobutadiene	0.590	0.610	-3.4	102	0.00	19.44
141 M	naphthalene	2.166	2.142	1.1	102	0.00	19.64
142	INDANE	-----NA-----					
143 M	1,2,3-trichlorobenzene	0.855	0.878	-2.7	104	0.00	19.91
144 M	hexachloroethane	0.477	0.514	-7.8	102	0.00	17.80
145 M	MMT	-----NA-----					
146 M	Bis(chloromethyl)ether	-----NA-----					

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8630-ICV8630
Lab FileID: U187038.D

-----NA-----

```
SPCC's out = 0 CCC's out = 0
Thu Aug 28 10:59:43 2014    U_CORE
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Continuing Calibration Summary

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Job Number: JB77235
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: VU8672-CC8630
 Lab FileID: U188011.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\U-...vu8671-8672\u188011.d Vial: 27
 Acq On : 25 Sep 2014 12:23 am Operator: shannont
 Sample : cc8630-50 Inst : MSU
 Misc : ms74331,vu8672,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MU8630.M (RTE Integrator)
 Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 Last Update : Thu Aug 28 10:39:31 2014
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	62	0.00	7.99
2 M	tertiary butyl alcohol	1.099	1.074	2.3	60	0.00	8.11
3	Ethanol			-----NA-----			
4 m	1,4-dioxane	0.090	0.057	36.7#	36#	0.00	11.87
5 I	pentafluorobenzene	1.000	1.000	0.0	97	0.00	10.22
6 M	freon 115			-----NA-----			
7 M	freon 23			-----NA-----			
8 M	freon 143A			-----NA-----			
9 M	freon 152A			-----NA-----			
10 M	chlorotrifluoroethene			-----NA-----			
11 M	chlorodifluoromethane	0.530	0.534	-0.8	97	0.00	4.48
12 M	dichlorodifluoromethane	0.454	0.489	-7.7	100	-0.01	4.45
13 M	freon 142B			-----NA-----			
14 M	freon 114			-----NA-----			
15 M	chloromethane	0.718	0.812	-13.1	115	0.00	4.87
16 M	vinyl chloride	0.592	0.656	-10.8	108	0.00	5.15
17 M	acetaldehyde			-----NA-----			
18 M	bromomethane	0.336	0.352	-4.8	109	0.00	5.82
19 M	chloroethane	0.271	0.283	-4.4	100	0.00	5.99
20 M	trichlorofluoromethane	0.528	0.577	-9.3	102	0.00	6.50
21 M	pentane			-----NA-----			
22 M	freon 123A			-----NA-----			
23 M	ethyl ether	0.216	0.214	0.9	93	0.00	6.89
24	2-CHLOROPROPANE	0.782	0.764	2.3	94	0.00	7.11
25 M	freon 141B			-----NA-----			
26 M	freon 123			-----NA-----			
27 M	acrolein	0.107	0.075	29.9#	69	0.00	7.16
28 M	1,1-dichloroethene	0.371	0.332	10.5	89	0.00	7.33
29 M	acetone	0.049	0.054	-10.2	112	0.00	7.39
30 M	allyl chloride	0.074	0.066	10.8	91	0.00	7.85
31 M	acetonitrile	0.044	0.034	22.7#	70	0.00	7.85
32 M	iodomethane	0.605	0.592	2.1	89	0.00	7.62
33 M	carbon disulfide	1.250	1.137	9.0	86	0.00	7.74
34	1-CHLOROPROPANE	0.036	0.032	11.1	91	0.00	8.09
35 M	methylene chloride	0.420	0.395	6.0	92	0.00	8.05
36 M	methyl acetate	0.418	0.424	-1.4	96	0.00	7.84
37 M	methyl tert butyl ether	1.292	1.175	9.1	88	-0.01	8.37
38 M	trans-1,2-dichloroethene	0.377	0.345	8.5	92	0.00	8.41
39 M	di-isopropyl ether	1.600	1.604	-0.3	99	0.00	8.96
40 M	ethyl tert-butyl ether	1.484	1.342	9.6	89	0.00	9.42
41 M	2-butanone	0.050	0.052	-4.0	95	0.00	9.68

Continuing Calibration Summary

Page 2 of 4

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8672-CC8630
Lab FileID: U188011.D

42 M	1,1-dichloroethane	0.715	0.697	2.5	92	0.00	8.98
43 M	chloroprene	0.588	0.539	8.3	89	0.00	9.09
44 M	acrylonitrile	0.201	0.188	6.5	94	0.00	8.38
45 M	vinyl acetate	0.070	0.059	15.7	76	0.00	8.96
46 M	ethyl acetate	0.073	0.071	2.7	90	0.00	9.69
47 M	2,2-dichloropropane	0.530	0.469	11.5	88	0.00	9.72
48 M	cis-1,2-dichloroethene	0.411	0.377	8.3	91	0.00	9.70
49 M	methyl acrylate	0.563	0.495	12.1	86	0.00	9.77
50 M	propionitrile	0.078	0.070	10.3	88	0.00	9.79
51 M	bromochloromethane	0.193	0.183	5.2	90	0.00	10.01
52 M	tetrahydrofuran	0.175	0.162	7.4	93	0.00	10.06
53 M	chloroform	0.652	0.614	5.8	93	0.00	10.06
54	tert-butyl Formate	0.464	0.365	21.3#	75	0.00	10.12
55 M	iso-butyl alcohol	0.005	0.005	0.0	78	0.00	10.50
56 S	dibromofluoromethane (s)	0.330	0.347	-5.2	102	0.00	10.26
57 S	1,2-dichloroethane-d4 (s)	0.425	0.444	-4.5	102	0.00	10.69
58 M	freon 113	0.267	0.243	9.0	87	0.01	7.32
59 M	methacrylonitrile	0.339	0.317	6.5	94	0.00	9.97
60 M	1,1,1-trichloroethane	0.531	0.497	6.4	87	0.00	10.33
61 M	tert amyl alcohol			-----NA-----			
62 M	tert-amyl methyl ether	0.288	0.277	3.8	89	0.00	10.80
63	iso-octane	1.569	1.449	7.6	87	0.00	10.78
64 I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	11.13
65 M	Di-isobutylene			-----NA-----			
66 M	epichlorohydrin	0.045	0.040	11.1	84	0.00	12.42
67 M	n-butyl alcohol	0.013	0.008	38.5#	57	0.00	11.24
68 M	Cyclohexane	0.480	0.426	11.2	82	0.00	10.41
69 M	carbon tetrachloride	0.413	0.395	4.4	89	0.00	10.53
70 M	1,1-dichloropropene	0.431	0.407	5.6	88	0.00	10.50
71 M	hexane	0.054	0.050	7.4	84	0.00	8.72
72 M	benzene	1.347	1.253	7.0	91	0.00	10.77
73 M	heptane	0.265	0.225	15.1	82	0.00	10.93
74 M	isopropyl acetate	0.797	0.787	1.3	96	0.00	10.69
75 M	1,2-dichloroethane	0.431	0.432	-0.2	92	0.00	10.78
76 M	ethyl acrylate			-----NA-----			
77	tert amyl ethyl ether			-----NA-----			
78 M	trichloroethene	0.304	0.293	3.6	89	0.00	11.47
79 M	methylcyclohexane	0.539	0.515	4.5	87	0.00	11.71
80 M	2-nitropropane	0.172	0.157	8.7	86	0.00	12.28
81 M	2-chloroethyl vinyl ether	0.254	0.239	5.9	87	0.00	12.28
82 M	methyl methacrylate	0.090	0.085	5.6	84	0.00	11.74
83 M	1,2-dichloropropane	0.351	0.356	-1.4	92	0.00	11.75
84 M	propyl acetate	0.072	0.068	5.6	89	0.00	11.78
85 M	dibromomethane	0.197	0.194	1.5	91	0.00	11.90
86 M	bromodichloromethane	0.447	0.416	6.9	89	0.00	12.03
87 M	cis-1,3-dichloropropene	0.565	0.544	3.7	89	0.00	12.51
88 S	toluene-d8 (s)	1.157	1.260	-8.9	105	0.00	12.82
89 M	4-methyl-2-pentanone	0.162	0.152	6.2	89	0.00	12.63
90 M	toluene	0.801	0.766	4.4	89	0.00	12.90
		----- True	Calc.	% Drift	-----		
91 M	3-methyl-1-butanol	1000.000	639.573	36.0#	57	0.00	12.62
		----- AvgRF	CCRF	% Dev	-----		
92 M	trans-1,3-dichloropropene	0.540	0.516	4.4	90	0.00	13.10
93 M	ethyl methacrylate	0.487	0.450	7.6	88	0.00	13.10
94 M	1,1,2-trichloroethane	0.267	0.251	6.0	91	0.00	13.34
95 M	2-hexanone	0.158	0.148	6.3	93	0.00	13.53

Continuing Calibration Summary

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8672-CC8630
Lab FileID: U188011.D

96 I	chlorobenzene-d5	1.000	1.000	0.0	96	0.00	14.46
----- True Calc. % Drift -----							
97 M	cyclohexanone	500.000	586.153	-17.2	109	0.00	15.72
----- AvgRF CCRF % Dev -----							
98 M	tetrachloroethene	0.286	0.372	-30.1#	125	0.00	13.52
99 M	1,3-dichloropropane	0.554	0.538	2.9	93	0.00	13.54
100 M	butyl acetate	0.293	0.271	7.5	94	0.00	13.60
101 M	dibromochloromethane	0.363	0.343	5.5	87	0.00	13.81
102 M	1,2-dibromoethane	0.325	0.304	6.5	89	0.00	13.99
----- True Calc. % Drift -----							
103	3,3-dimethyl-1-Butanol	500.000	271.393	45.7#	50	0.00	13.70
----- AvgRF CCRF % Dev -----							
104	n-butyl ether	-----NA-----					
105 M	chlorobenzene	0.949	0.884	6.8	89	0.00	14.49
106 M	1,1,1,2-tetrachloroethane	0.349	0.336	3.7	89	0.00	14.55
107 M	ethylbenzene	1.668	1.562	6.4	90	0.00	14.55
108 M	m,p-xylene	0.621	0.590	5.0	90	0.00	14.68
109 M	o-xylene	0.632	0.603	4.6	89	0.00	15.14
110 M	styrene	1.101	1.021	7.3	88	0.00	15.15
111 M	bromoform	0.283	0.258	8.8	83	0.00	15.43
112 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	95	0.00	17.04
113 M	isopropylbenzene	2.805	2.652	5.5	88	0.00	15.52
114 S	4-bromofluorobenzene (s)	0.843	0.860	-2.0	100	0.00	15.74
115 M	bromobenzene	0.728	0.698	4.1	89	0.00	15.96
116 M	1,1,2,2-tetrachloroethane	0.887	0.773	12.9	86	0.00	15.85
117 M	trans-1,4-dichloro-2-bute	0.256	0.208	18.8	77	0.00	15.90
118 M	1,2,3-trichloropropane	0.208	0.198	4.8	87	0.00	15.94
119 M	n-propylbenzene	3.284	3.069	6.5	89	0.00	15.98
120 M	2-chlorotoluene	0.677	0.641	5.3	88	0.00	16.14
121 M	4-chlorotoluene	2.178	1.981	9.0	87	0.00	16.25
122	p-Ethyltoluene	-----NA-----					
123 M	1,3,5-trimethylbenzene	2.512	2.312	8.0	87	0.00	16.14
124 M	tert-butylbenzene	2.193	1.995	9.0	86	0.00	16.54
125 M	pentachloroethane	0.471	0.241	48.8#	45#	0.00	16.62
126 M	1,2,4-trimethylbenzene	2.550	2.322	8.9	87	0.00	16.58
127	1,2,3-trimethylbenzene	-----NA-----					
128 M	sec-butylbenzene	3.276	3.032	7.4	87	0.00	16.77
129 M	1,3-dichlorobenzene	1.500	1.393	7.1	87	0.00	16.98
130 M	p-isopropyltoluene	2.825	2.590	8.3	86	0.00	16.90
131 M	1,4-dichlorobenzene	1.523	1.403	7.9	87	0.00	17.06
132 M	benzyl chloride	1.675	1.427	14.8	84	0.00	17.20
133 M	1,2-dichlorobenzene	1.477	1.388	6.0	89	0.00	17.50
134	p-Diethylbenzene	-----NA-----					
135 M	n-butylbenzene	1.428	1.311	8.2	85	0.00	17.36
136	1,2,4,5-Tetramethylbenzen	-----NA-----					
137 M	1,2-dibromo-3-chloropropa	0.173	0.155	10.4	83	0.00	18.36
138	1,3,5-trichlorobenzene	1.234	1.201	2.7	91	0.00	18.56
139 M	1,2,4-trichlorobenzene	1.047	0.935	10.7	85	0.00	19.30
140 M	hexachlorobutadiene	0.590	0.541	8.3	84	0.00	19.43
141 M	naphthalene	2.166	1.769	18.3	78	0.00	19.63
142	INDANE	-----NA-----					
143 M	1,2,3-trichlorobenzene	0.855	0.730	14.6	81	0.00	19.90
144 M	hexachloroethane	0.477	0.460	3.6	85	0.00	17.79
145 M	MMT	-----NA-----					
146 M	Bis(chloromethyl)ether	-----NA-----					

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8672-CC8630
Lab FileID: U188011.D

-----NA-----

```

SPCC's out = 0   CCC's out = 0
Thu Sep 25 13:05:57 2014    RPT1

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Continuing Calibration Summary

Page 1 of 4

Job Number: JB77235
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: VU8672-CC8630
 Lab FileID: U188032.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\U-...vu8671-8672\u188032.d Vial: 2
 Acq On : 25 Sep 2014 10:49 am Operator: shannont
 Sample : cc8630-20 Inst : MSU
 Misc : ms74105,vu8672,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MU8630.M (RTE Integrator)
 Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 Last Update : Thu Aug 28 10:39:31 2014
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	91	0.00	8.00
2 M	tertiary butyl alcohol	1.099	1.061	3.5	87	0.00	8.11
3	Ethanol			-----NA-----			
4 m	1,4-dioxane	0.090	0.080	11.1	75	0.00	11.86
5 I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	10.22
6 M	freon 115			-----NA-----			
7 M	freon 23			-----NA-----			
8 M	freon 143A			-----NA-----			
9 M	freon 152A			-----NA-----			
10 M	chlorotrifluoroethene			-----NA-----			
11 M	chlorodifluoromethane	0.530	0.483	8.9	93	0.00	4.49
12 M	dichlorodifluoromethane	0.454	0.441	2.9	102	0.00	4.46
13 M	freon 142B			-----NA-----			
14 M	freon 114			-----NA-----			
15 M	chloromethane	0.718	0.744	-3.6	111	0.00	4.87
16 M	vinyl chloride	0.592	0.622	-5.1	109	0.00	5.15
17 M	acetaldehyde			-----NA-----			
18 M	bromomethane	0.336	0.340	-1.2	108	0.00	5.82
19 M	chloroethane	0.271	0.264	2.6	98	0.00	5.99
20 M	trichlorofluoromethane	0.528	0.532	-0.8	100	0.00	6.50
21 M	pentane			-----NA-----			
22 M	freon 123A			-----NA-----			
23 M	ethyl ether	0.216	0.209	3.2	98	0.00	6.90
24	2-CHLOROPROPANE	0.782	0.679	13.2	86	0.00	7.11
25 M	freon 141B			-----NA-----			
26 M	freon 123			-----NA-----			
27 M	acrolein	0.107	0.085	20.6#	87	0.00	7.17
28 M	1,1-dichloroethene	0.371	0.306	17.5	84	0.00	7.34
29 M	acetone	0.049	0.044	10.2	94	0.00	7.39
30 M	allyl chloride	0.074	0.062	16.2	85	0.00	7.85
31 M	acetonitrile	0.044	0.042	4.5	94	0.00	7.85
32 M	iodomethane	0.605	0.557	7.9	87	0.00	7.62
33 M	carbon disulfide	1.250	1.070	14.4	87	0.00	7.74
34	1-CHLOROPROPANE	0.036	0.030	16.7	84	0.00	8.08
35 M	methylene chloride	0.420	0.377	10.2	91	0.00	8.05
36 M	methyl acetate	0.418	0.415	0.7	105	0.00	7.84
37 M	methyl tert butyl ether	1.292	1.152	10.8	91	-0.01	8.37
38 M	trans-1,2-dichloroethene	0.377	0.322	14.6	87	0.00	8.41
39 M	di-isopropyl ether	1.600	1.506	5.9	100	0.00	8.96
40 M	ethyl tert-butyl ether	1.484	1.285	13.4	92	0.00	9.42
41 M	2-butanone	0.050	0.048	4.0	92	0.00	9.68

Continuing Calibration Summary

Page 2 of 4

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8672-CC8630
Lab FileID: U188032.D

42 M	1,1-dichloroethane	0.715	0.653	8.7	91	0.00	8.98
43 M	chloroprene	0.588	0.496	15.6	88	0.00	9.09
44 M	acrylonitrile	0.201	0.187	7.0	99	0.00	8.38
45 M	vinyl acetate	0.070	0.068	2.9	99	0.00	8.97
46 M	ethyl acetate	0.073	0.066	9.6	88	0.00	9.69
47 M	2,2-dichloropropane	0.530	0.486	8.3	94	0.00	9.72
48 M	cis-1,2-dichloroethene	0.411	0.357	13.1	89	0.00	9.70
49 M	methyl acrylate	0.563	0.496	11.9	96	0.00	9.77
50 M	propionitrile	0.078	0.075	3.8	101	0.00	9.79
51 M	bromochloromethane	0.193	0.179	7.3	94	0.00	10.01
52 M	tetrahydrofuran	0.175	0.164	6.3	103	0.00	10.05
53 M	chloroform	0.652	0.576	11.7	92	0.00	10.06
54	tert-butyl Formate	0.464	0.378	18.5	84	0.00	10.12
55 M	iso-butyl alcohol	0.005	0.005	0.0	84	0.00	10.50
56 S	dibromofluoromethane (s)	0.330	0.339	-2.7	110	0.00	10.26
57 S	1,2-dichloroethane-d4 (s)	0.425	0.429	-0.9	108	0.00	10.69
58 M	freon 113	0.267	0.230	13.9	88	0.02	7.33
59 M	methacrylonitrile	0.339	0.303	10.6	98	0.00	9.96
60 M	1,1,1-trichloroethane	0.531	0.447	15.8	82	0.00	10.33
61 M	tert amyl alcohol			-----NA-----			
62 M	tert-amyl methyl ether	0.288	0.264	8.3	93	0.00	10.80
63	iso-octane	1.569	1.435	8.5	93	0.00	10.78
64 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.13
65 M	Di-isobutylene			-----NA-----			
66 M	epichlorohydrin	0.045	0.041	8.9	91	0.00	12.42
67 M	n-butyl alcohol	0.013	0.011	15.4	83	0.00	11.24
68 M	Cyclohexane	0.480	0.387	19.4	75	0.00	10.41
69 M	carbon tetrachloride	0.413	0.364	11.9	85	0.00	10.53
70 M	1,1-dichloropropene	0.431	0.379	12.1	86	0.00	10.50
71 M	hexane	0.054	0.054	0.0	95	0.00	8.71
72 M	benzene	1.347	1.197	11.1	90	0.00	10.77
73 M	heptane	0.265	0.243	8.3	92	0.00	10.93
74 M	isopropyl acetate	0.797	0.751	5.8	99	0.00	10.69
75 M	1,2-dichloroethane	0.431	0.431	0.0	97	0.00	10.78
76 M	ethyl acrylate			-----NA-----			
77	tert amyl ethyl ether			-----NA-----			
78 M	trichloroethene	0.304	0.277	8.9	88	0.00	11.47
79 M	methylcyclohexane	0.539	0.489	9.3	87	0.00	11.71
80 M	2-nitropropane	0.172	0.150	12.8	89	0.00	12.28
81 M	2-chloroethyl vinyl ether	0.254	0.222	12.6	87	0.00	12.28
82 M	methyl methacrylate	0.090	0.086	4.4	92	0.00	11.74
83 M	1,2-dichloropropane	0.351	0.343	2.3	94	0.00	11.75
84 M	propyl acetate	0.072	0.067	6.9	95	0.00	11.78
85 M	dibromomethane	0.197	0.189	4.1	93	0.00	11.90
86 M	bromodichloromethane	0.447	0.402	10.1	91	0.00	12.03
87 M	cis-1,3-dichloropropene	0.565	0.535	5.3	93	0.00	12.51
88 S	toluene-d8 (s)	1.157	1.209	-4.5	108	0.00	12.82
89 M	4-methyl-2-pentanone	0.162	0.147	9.3	92	0.00	12.63
90 M	toluene	0.801	0.715	10.7	88	0.00	12.90
----- True Calc. % Drift -----							
91 M	3-methyl-1-butanol	400.000	267.603	33.1#	69	0.00	12.62
----- AvgRF CCRF % Dev -----							
92 M	trans-1,3-dichloropropene	0.540	0.499	7.6	93	0.00	13.10
93 M	ethyl methacrylate	0.487	0.427	12.3	90	0.00	13.10
94 M	1,1,2-trichloroethane	0.267	0.244	8.6	95	0.00	13.33
95 M	2-hexanone	0.158	0.134	15.2	89	0.00	13.53

Continuing Calibration Summary

Page 3 of 4

Job Number: JB77235
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: VU8672-CC8630
Lab FileID: U188032.D

96 I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	14.46
----- True Calc. % Drift -----							
97 M	cyclohexanone	200.000	64.189	67.9#	37	0.00	15.72
----- AvgRF CCRF % Dev -----							
98 M	tetrachloroethene	0.286	0.258	9.8	86	0.00	13.52
99 M	1,3-dichloropropane	0.554	0.533	3.8	94	0.00	13.54
100 M	butyl acetate	0.293	0.271	7.5	97	0.00	13.60
101 M	dibromochloromethane	0.363	0.338	6.9	89	0.00	13.81
102 M	1,2-dibromoethane	0.325	0.307	5.5	93	0.00	13.99
----- True Calc. % Drift -----							
103	3,3-dimethyl-1-Butanol	200.000	103.296	48.4#	57	0.00	13.70
----- AvgRF CCRF % Dev -----							
104	n-butyl ether	-----NA-----					
105 M	chlorobenzene	0.949	0.879	7.4	90	0.00	14.49
106 M	1,1,1,2-tetrachloroethane	0.349	0.334	4.3	90	0.00	14.55
107 M	ethylbenzene	1.668	1.527	8.5	89	0.00	14.55
108 M	m,p-xylene	0.621	0.576	7.2	89	0.00	14.67
109 M	o-xylene	0.632	0.593	6.2	88	0.00	15.14
110 M	styrene	1.101	0.990	10.1	87	0.00	15.15
111 M	bromoform	0.283	0.252	11.0	86	0.00	15.43
112 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	17.04
113 M	isopropylbenzene	2.805	2.591	7.6	86	0.00	15.52
114 S	4-bromofluorobenzene (s)	0.843	0.863	-2.4	104	0.00	15.74
115 M	bromobenzene	0.728	0.706	3.0	91	0.00	15.96
116 M	1,1,2,2-tetrachloroethane	0.887	0.804	9.4	91	0.00	15.85
117 M	trans-1,4-dichloro-2-bute	0.256	0.208	18.8	79	0.00	15.90
118 M	1,2,3-trichloropropane	0.208	0.201	3.4	92	0.00	15.93
119 M	n-propylbenzene	3.284	3.007	8.4	87	0.00	15.98
120 M	2-chlorotoluene	0.677	0.639	5.6	88	0.00	16.13
121 M	4-chlorotoluene	2.178	1.969	9.6	88	0.00	16.25
122	p-Ethyltoluene	-----NA-----					
123 M	1,3,5-trimethylbenzene	2.512	2.300	8.4	86	0.00	16.14
124 M	tert-butylbenzene	2.193	1.953	10.9	84	0.00	16.54
125 M	pentachloroethane	0.471	0.472	-0.2	91	0.00	16.62
126 M	1,2,4-trimethylbenzene	2.550	2.315	9.2	86	0.00	16.58
127	1,2,3-trimethylbenzene	-----NA-----					
128 M	sec-butylbenzene	3.276	2.951	9.9	84	0.00	16.77
129 M	1,3-dichlorobenzene	1.500	1.398	6.8	87	0.00	16.98
130 M	p-isopropyltoluene	2.825	2.572	9.0	86	0.00	16.90
131 M	1,4-dichlorobenzene	1.523	1.414	7.2	87	0.00	17.06
132 M	benzyl chloride	1.675	1.712	-2.2	103	0.00	17.20
133 M	1,2-dichlorobenzene	1.477	1.401	5.1	90	0.00	17.50
134	p-Diethylbenzene	-----NA-----					
135 M	n-butylbenzene	1.428	1.294	9.4	83	0.00	17.36
136	1,2,4,5-Tetramethylbenzen	-----NA-----					
137 M	1,2-dibromo-3-chloropropa	0.173	0.155	10.4	83	0.00	18.36
138	1,3,5-trichlorobenzene	1.234	1.240	-0.5	94	0.00	18.56
139 M	1,2,4-trichlorobenzene	1.047	0.958	8.5	88	0.00	19.30
140 M	hexachlorobutadiene	0.590	0.557	5.6	87	0.00	19.43
141 M	naphthalene	2.166	1.891	12.7	84	0.00	19.63
142	INDANE	-----NA-----					
143 M	1,2,3-trichlorobenzene	0.855	0.749	12.4	82	0.00	19.90
144 M	hexachloroethane	0.477	0.441	7.5	85	0.00	17.80
145 M	MMT	-----NA-----					
146 M	Bis(chloromethyl)ether	-----NA-----					

6.7.4
6

GC/MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188019.d
Acq On : 25 Sep 2014 4:15 am
Operator : shannont
Sample : jB77235-1
Misc : ms74308,vu8672,5.0,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 25 13:09:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.041	65	150996	500.00	ug/L	0.04
5) pentafluorobenzene	10.216	168	330561	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.130	114	382438	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	359959	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.038	152	209595	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.263	113	113374	51.97	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	103.94%	
57) 1,2-dichloroethane-d4 (s)	10.691	65	147298	52.37	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	104.74%	
88) toluene-d8 (s)	12.824	98	467355	52.80	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	105.60%	
114) 4-bromofluorobenzene (s)	15.742	95	183901	52.02	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	104.04%	
Target Compounds						
28) 1,1-dichloroethene	7.324	96	1158	0.47	ug/L #	76
37) methyl tert butyl ether	8.370	73	6606	0.77	ug/L	99
42) 1,1-dichloroethane	8.976	63	983	0.21	ug/L	84
48) cis-1,2-dichloroethene	9.708	96	702	0.26	ug/L #	77
60) 1,1,1-trichloroethane	10.331	97	1315	0.37	ug/L #	65
78) trichloroethene	11.470	95	967	0.42	ug/L	90

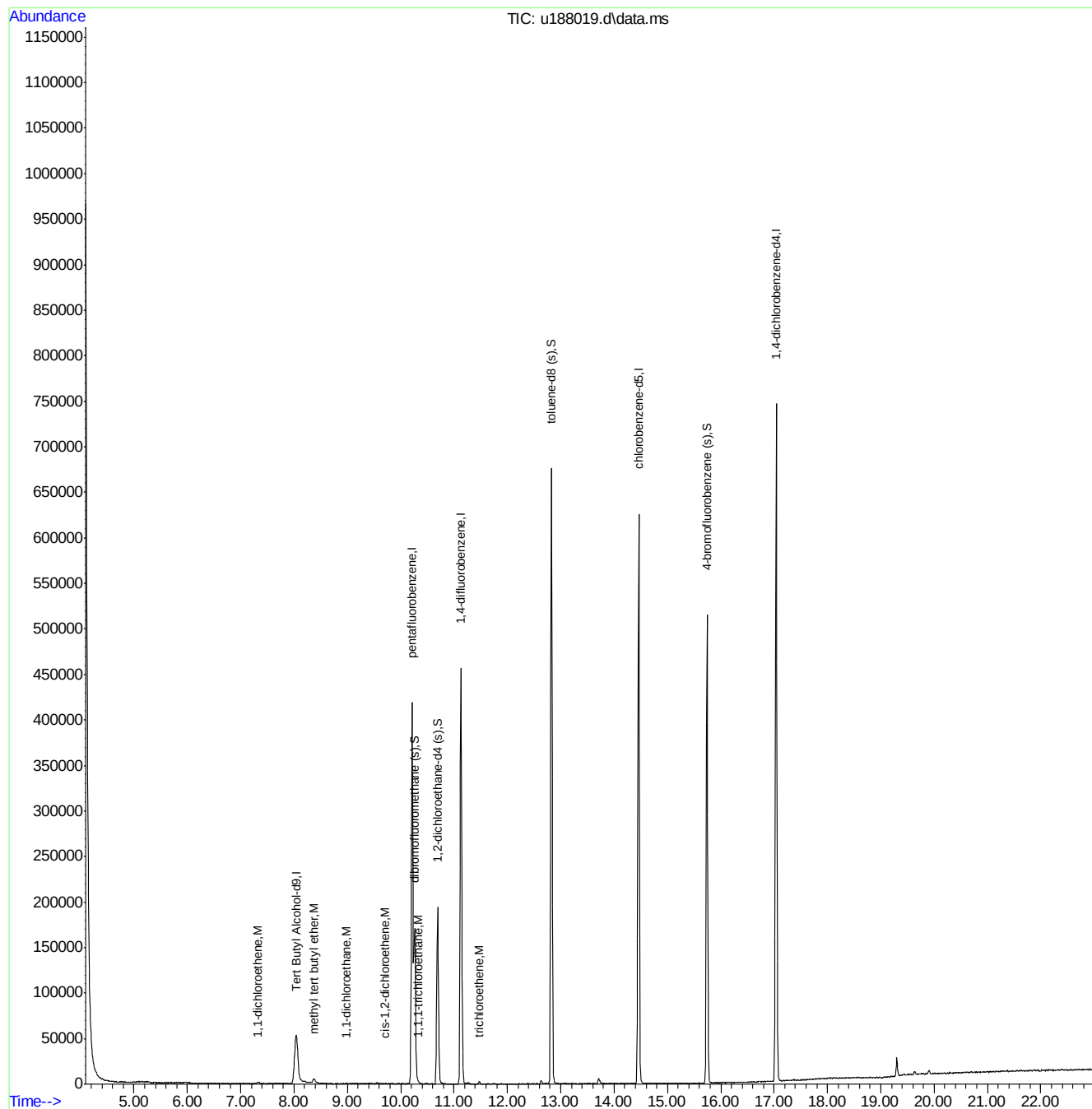
(#) = qualifier out of range (m) = manual integration (+) = signals summed

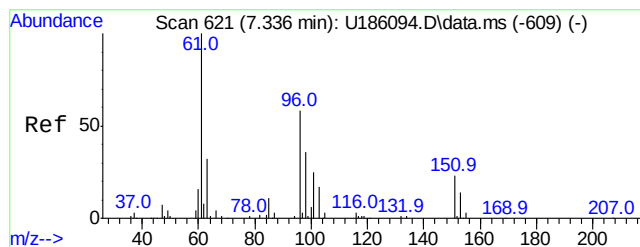
7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188019.d
Acq On : 25 Sep 2014 4:15 am
Operator : shannont
Sample : jb77235-1
Misc : ms74308,vu8672,5.0,,,,1
ALS Vial : 35 Sample Multiplier: 1

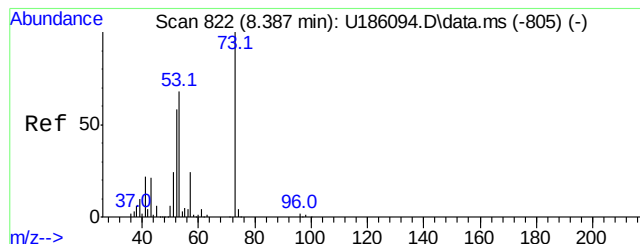
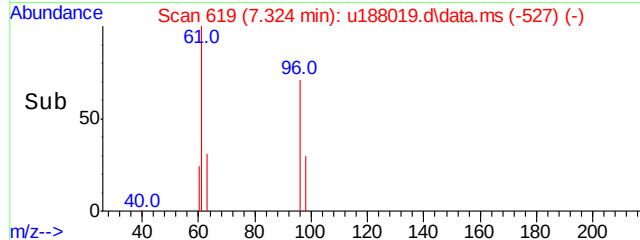
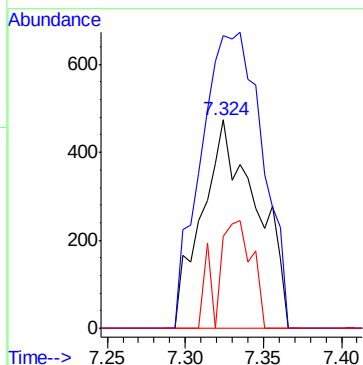
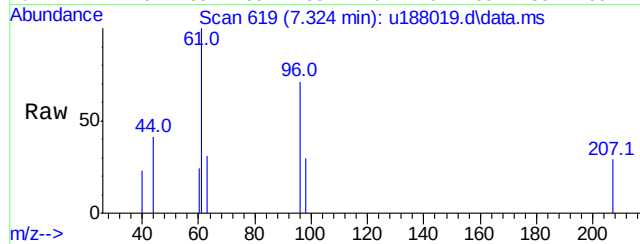
Quant Time: Sep 25 13:09:50 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration





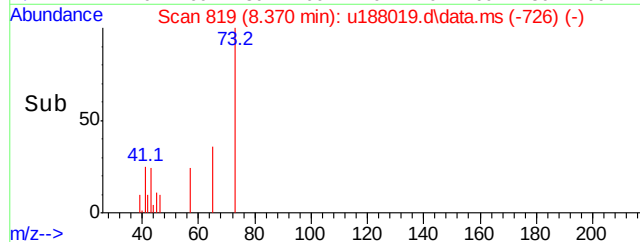
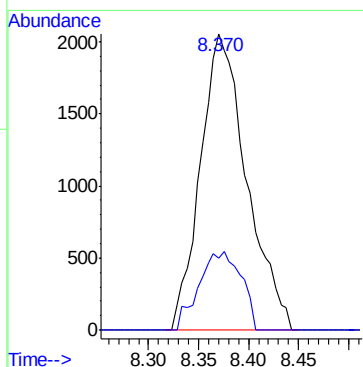
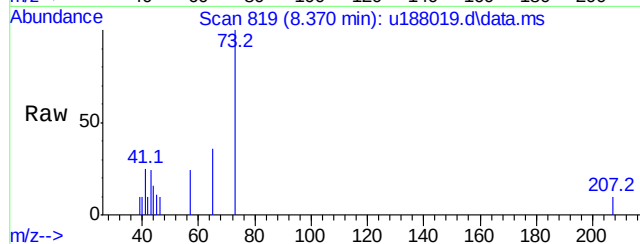
#28
1,1-dichloroethene
Concen: 0.47 ug/L
RT: 7.324 min Scan# 619
Delta R.T. -0.020 min
Lab File: u188019.d
Acq: 25 Sep 2014 4:15 am

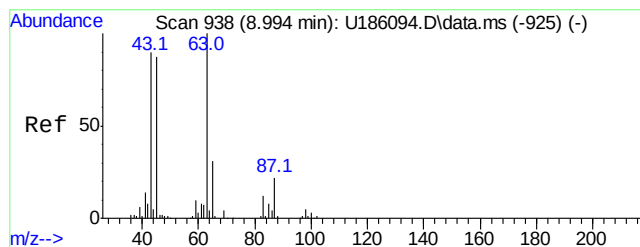
Tgt Ion	Ratio	Lower	Upper
96	100		
61	140.3	147.8	207.8#
63	44.1	25.9	85.9



#37
methyl tert butyl ether
Concen: 0.77 ug/L
RT: 8.370 min Scan# 819
Delta R.T. -0.015 min
Lab File: u188019.d
Acq: 25 Sep 2014 4:15 am

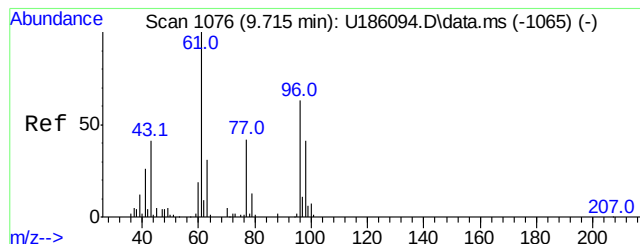
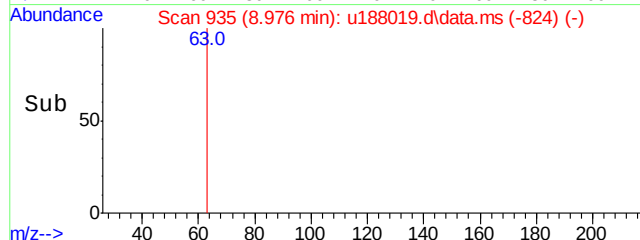
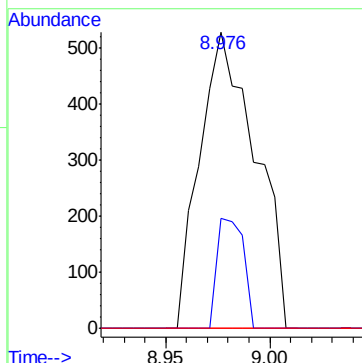
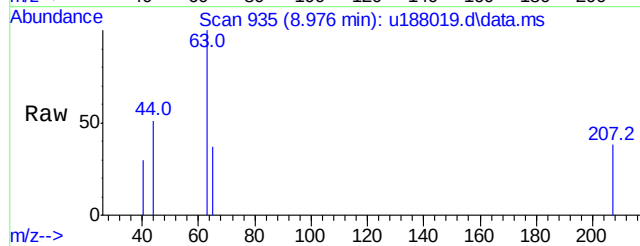
Tgt Ion	Ratio	Lower	Upper
73	100		
57	24.1	0.0	54.4





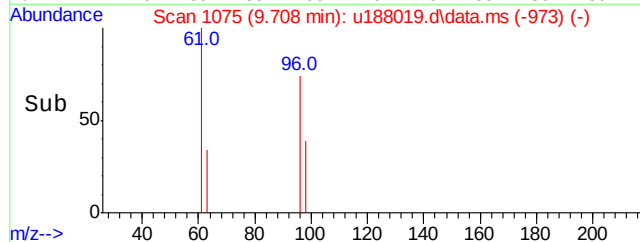
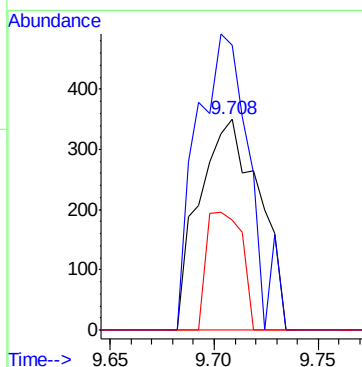
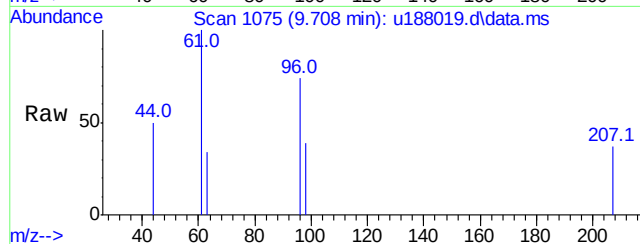
#42
1,1-dichloroethane
Concen: 0.21 ug/L
RT: 8.976 min Scan# 935
Delta R.T. -0.009 min
Lab File: u188019.d
Acq: 25 Sep 2014 4:15 am

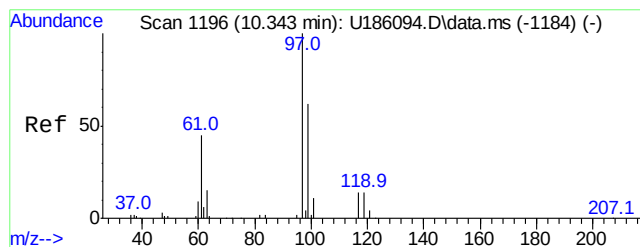
Tgt Ion:	63	Resp:	983
Ion Ratio	Lower	Upper	
63	100		
65	37.2	1.3	61.3
83	0.0	0.0	41.8



#48
cis-1,2-dichloroethene
Concen: 0.26 ug/L
RT: 9.708 min Scan# 1075
Delta R.T. 0.001 min
Lab File: u188019.d
Acq: 25 Sep 2014 4:15 am

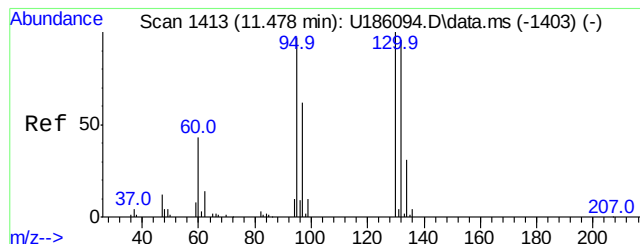
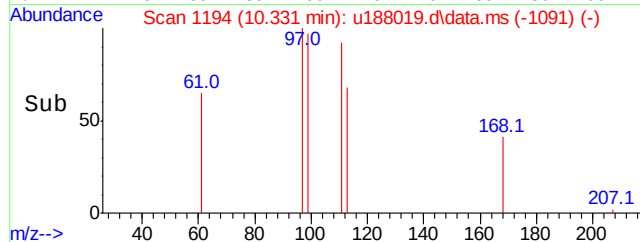
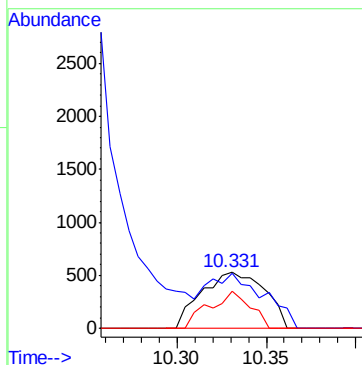
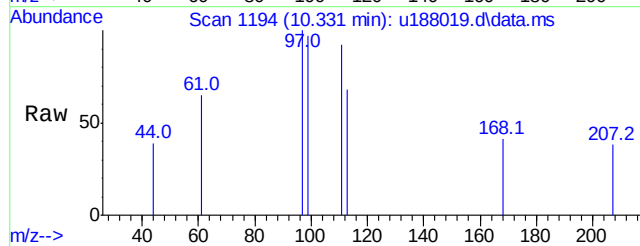
Tgt Ion:	96	Resp:	702
Ion Ratio	Lower	Upper	
96	100		
61	135.0	140.2	200.2#
98	52.1	34.3	94.3





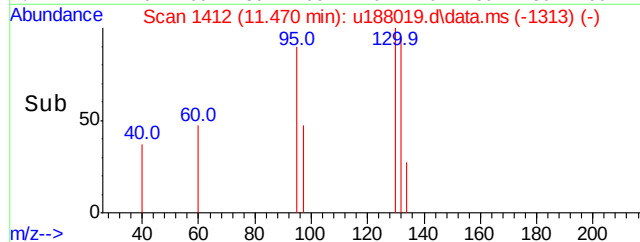
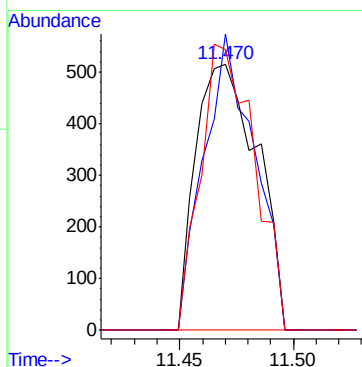
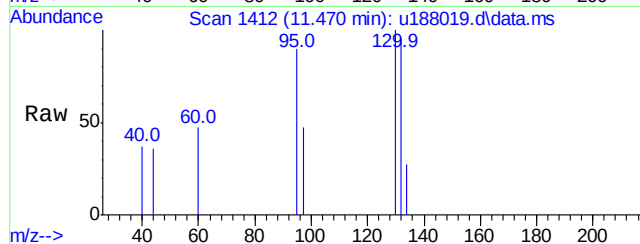
#60
1,1,1-trichloroethane
Concen: 0.37 ug/L
RT: 10.331 min Scan# 1194
Delta R.T. -0.009 min
Lab File: u188019.d
Acq: 25 Sep 2014 4:15 am

Tgt Ion	Ratio	Lower	Upper
97	100		
99	97.0	33.8	93.8#
61	65.1	17.8	77.8



#78
trichloroethene
Concen: 0.42 ug/L
RT: 11.470 min Scan# 1412
Delta R.T. -0.004 min
Lab File: u188019.d
Acq: 25 Sep 2014 4:15 am

Tgt Ion	Ratio	Lower	Upper
95	100		
130	111.2	71.1	131.1
132	105.2	65.6	125.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188035.d
 Acq On : 25 Sep 2014 12:30 pm
 Operator : shannont
 Sample : jB77235-2
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 25 16:38:22 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration

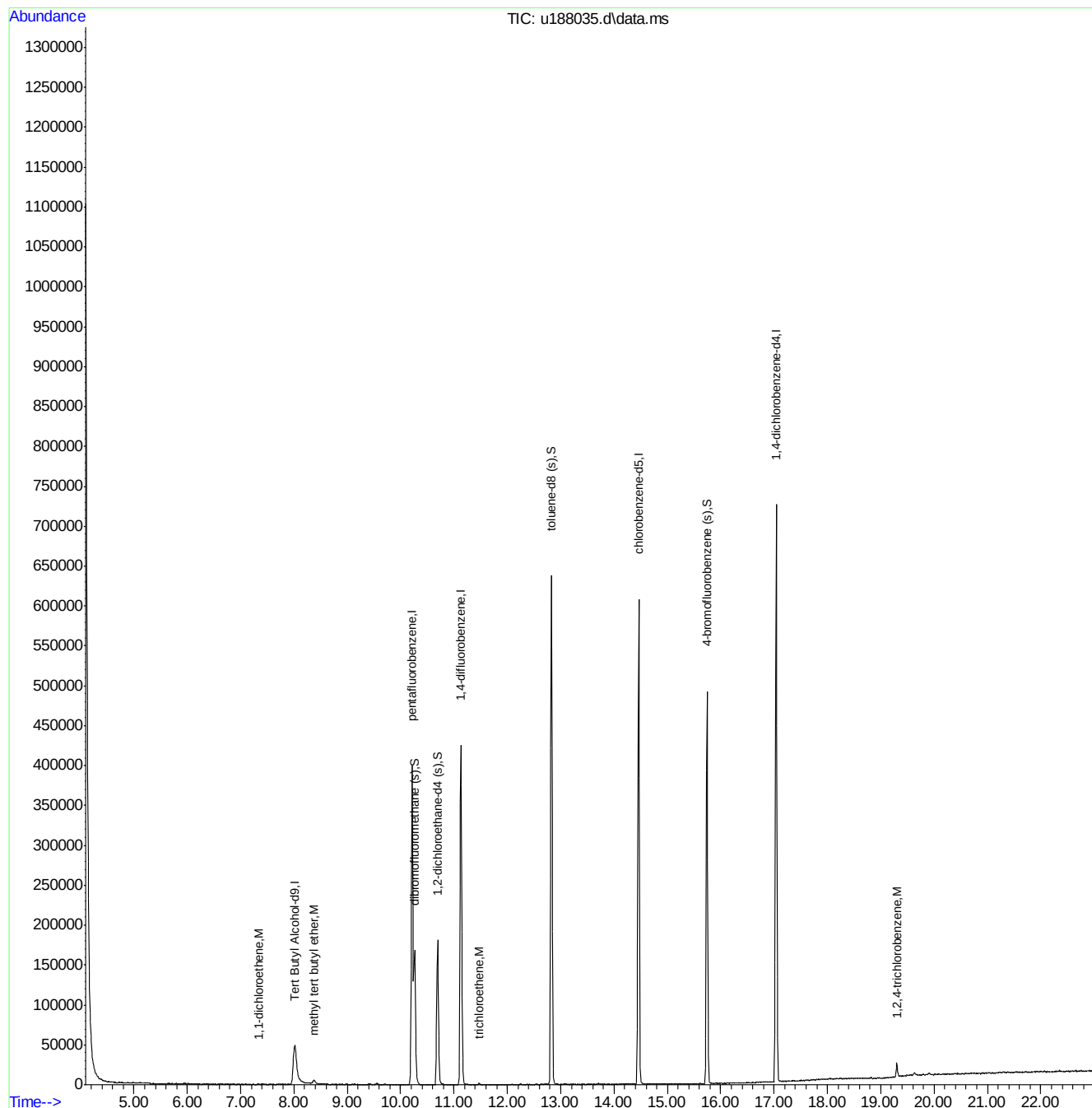
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.015	65	150886	500.00	ug/L	0.01
5) pentafluorobenzene	10.216	168	323286	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.131	114	369471	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	352705	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.039	152	204236	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.263	113	111753	52.38	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	104.76%
57) 1,2-dichloroethane-d4 (s)	10.692	65	140846	51.21	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	102.42%
88) toluene-d8 (s)	12.825	98	457255	53.47	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	106.94%
114) 4-bromofluorobenzene (s)	15.742	95	179218	52.02	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	104.04%
Target Compounds						
28) 1,1-dichloroethene	7.335	96	482	0.20	ug/L	# 27
37) methyl tert butyl ether	8.371	73	6294	0.75	ug/L	96
78) trichloroethene	11.476	95	569	0.25	ug/L	93
139) 1,2,4-trichlorobenzene	19.302	180	7154	1.67	ug/L	93

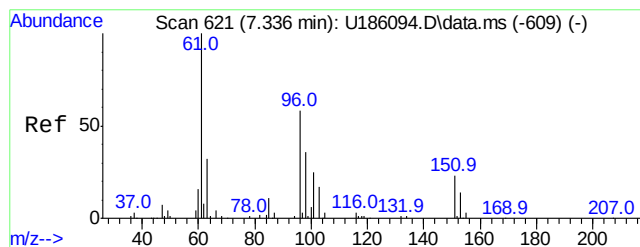
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188035.d
 Acq On : 25 Sep 2014 12:30 pm
 Operator : shannont
 Sample : jb77235-2
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 5 Sample Multiplier: 1

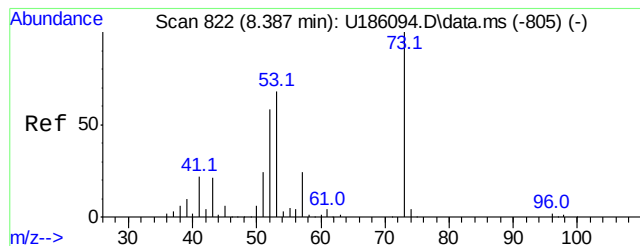
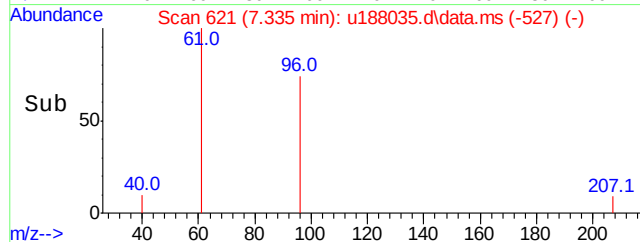
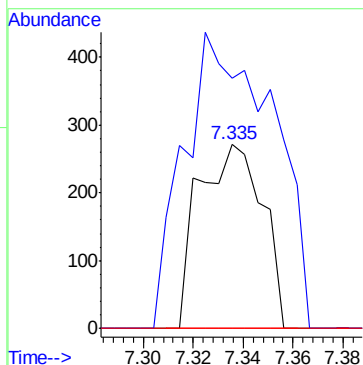
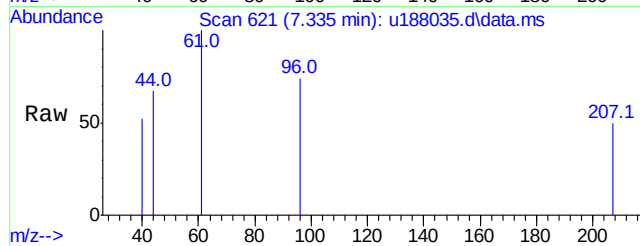
Quant Time: Sep 25 16:38:22 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration





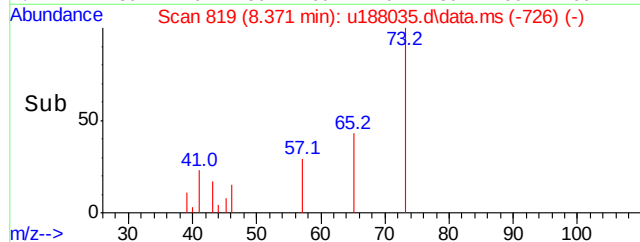
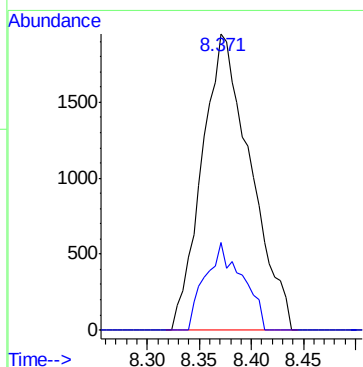
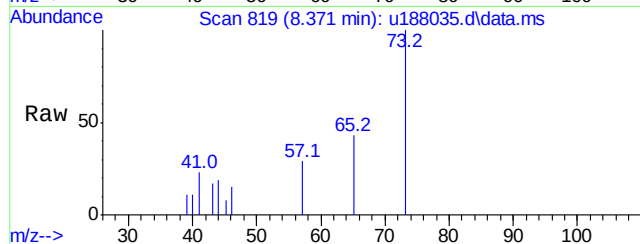
#28
1,1-dichloroethene
Concen: 0.20 ug/L
RT: 7.335 min Scan# 621
Delta R.T. -0.009 min
Lab File: u188035.d
Acq: 25 Sep 2014 12:30 pm

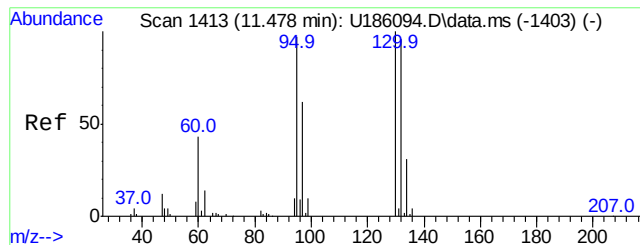
Tgt Ion: 96 Resp: 482
Ion Ratio Lower Upper
96 100
61 75.7 147.8 207.8#
63 0.0 25.9 85.9#



#37
methyl tert butyl ether
Concen: 0.75 ug/L
RT: 8.371 min Scan# 819
Delta R.T. -0.014 min
Lab File: u188035.d
Acq: 25 Sep 2014 12:30 pm

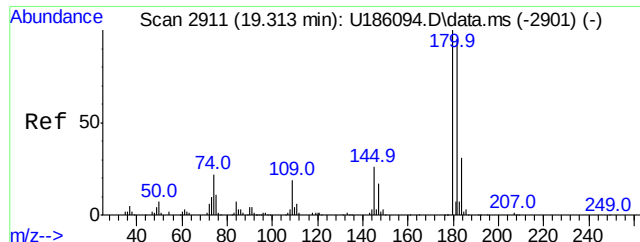
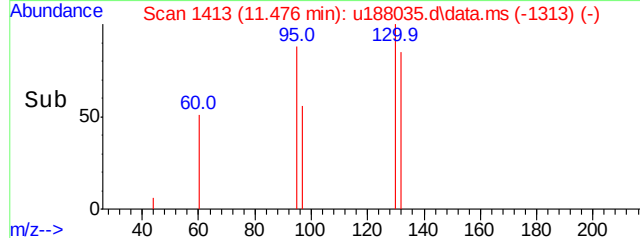
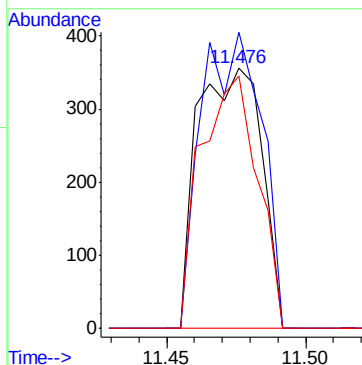
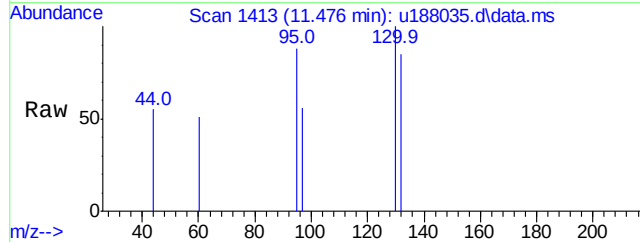
Tgt Ion: 73 Resp: 6294
Ion Ratio Lower Upper
73 100
57 22.6 0.0 54.4





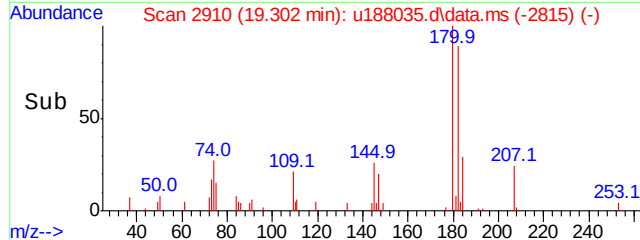
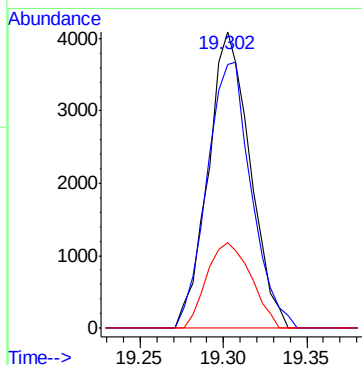
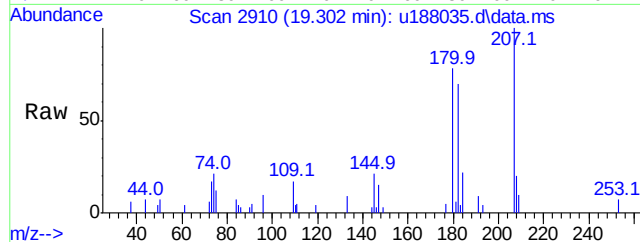
#78
trichloroethene
Concen: 0.25 ug/L
RT: 11.476 min Scan# 1413
Delta R.T. 0.002 min
Lab File: u188035.d
Acq: 25 Sep 2014 12:30 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	113.8	71.1	131.1
132	97.2	65.6	125.6



#139
1,2,4-trichlorobenzene
Concen: 1.67 ug/L
RT: 19.302 min Scan# 2910
Delta R.T. -0.004 min
Lab File: u188035.d
Acq: 25 Sep 2014 12:30 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
182	89.1	66.6	126.6
184	28.7	0.8	60.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188036.d
 Acq On : 25 Sep 2014 12:59 pm
 Operator : shannont
 Sample : jB77235-3
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 25 16:39:53 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration

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

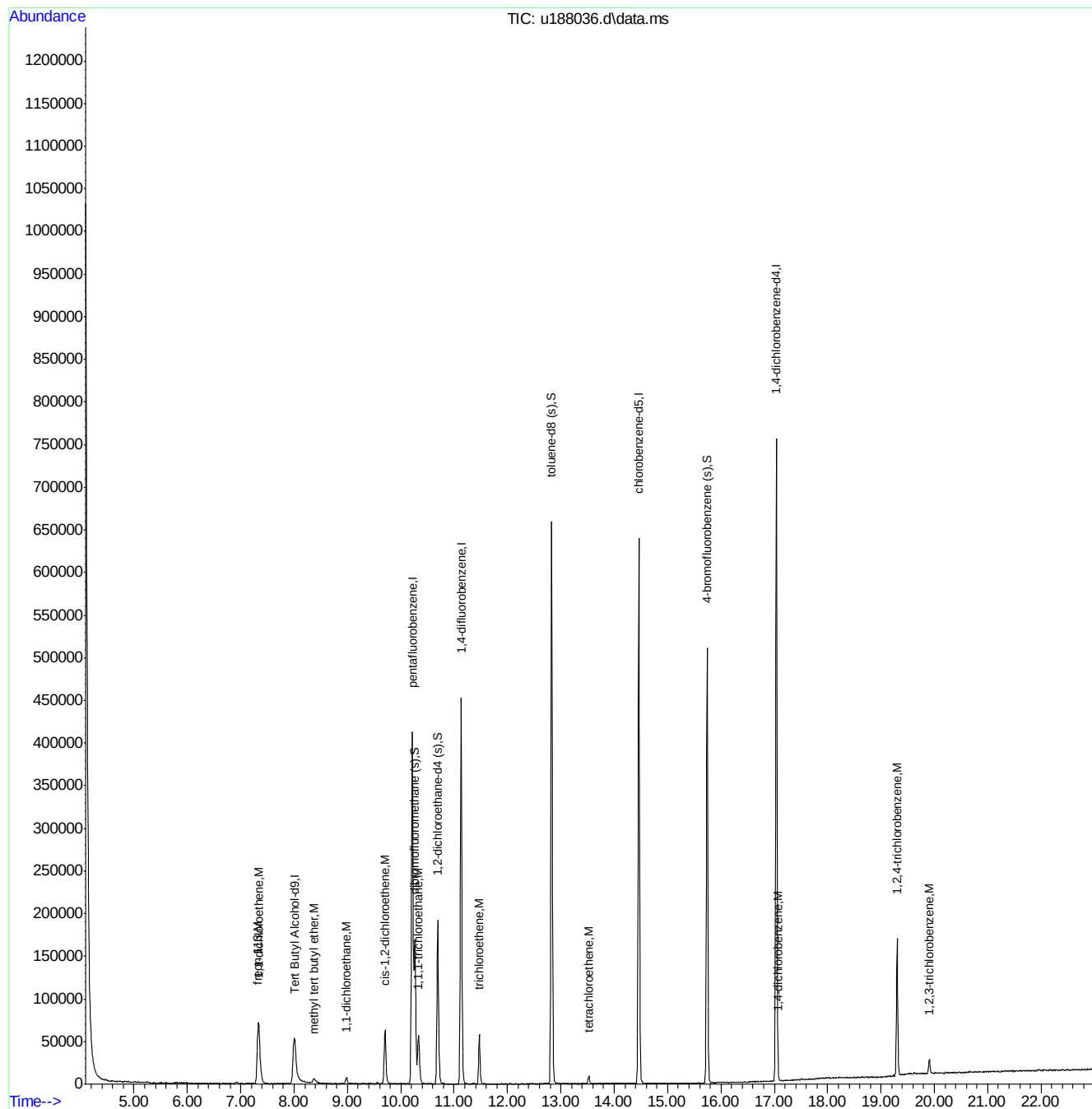
Internal Standards						
1) Tert Butyl Alcohol-d9	8.004	65	144031	500.00	ug/L	0.00
5) pentafluorobenzene	10.216	168	329494	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.131	114	381193	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	363127	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.038	152	209231	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.263	113	113442	52.17	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	104.34%	
57) 1,2-dichloroethane-d4 (s)	10.691	65	144737	51.63	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	103.26%	
88) toluene-d8 (s)	12.824	98	472124	53.51	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	107.02%	
114) 4-bromofluorobenzene (s)	15.742	95	185265	52.49	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	104.98%	
Target Compounds					Qvalue	
28) 1,1-dichloroethene	7.335	96	50055	20.45	ug/L	93
37) methyl tert butyl ether	8.365	73	7148	0.84	ug/L	98
42) 1,1-dichloroethane	8.982	63	10352	2.20	ug/L	96
48) cis-1,2-dichloroethene	9.703	96	32516	12.00	ug/L	89
58) freon 113	7.325	151	3346	1.90	ug/L	90
60) 1,1,1-trichloroethane	10.331	97	49595	14.17	ug/L	99
78) trichloroethene	11.470	95	21364	9.22	ug/L	95
98) tetrachloroethene	13.530	164	2419	1.16	ug/L	90
131) 1,4-dichlorobenzene	17.070	146	3279	0.51	ug/L	97
139) 1,2,4-trichlorobenzene	19.302	180	60594	13.83	ug/L	98
143) 1,2,3-trichlorobenzene	19.908	180	6752	1.89	ug/L	97

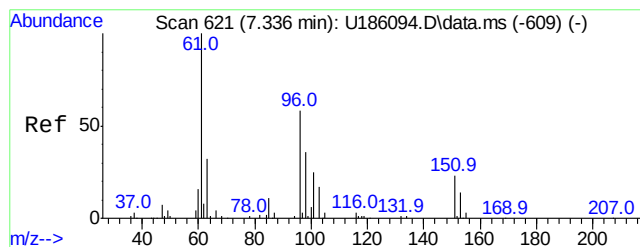
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188036.d
Acq On : 25 Sep 2014 12:59 pm
Operator : shannont
Sample : jb77235-3
Misc : ms74308,vu8672,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

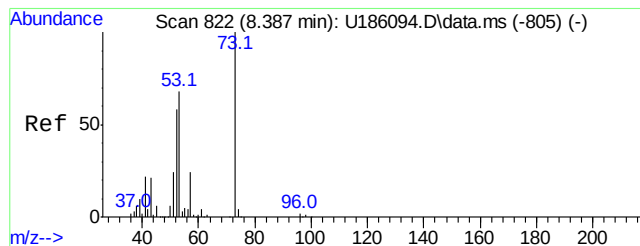
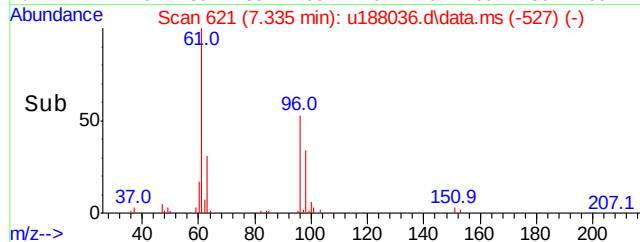
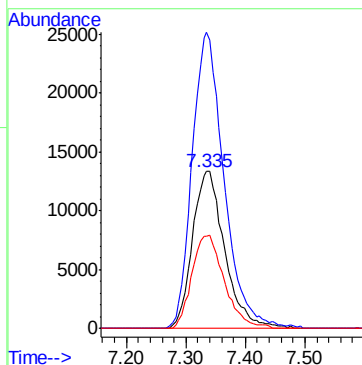
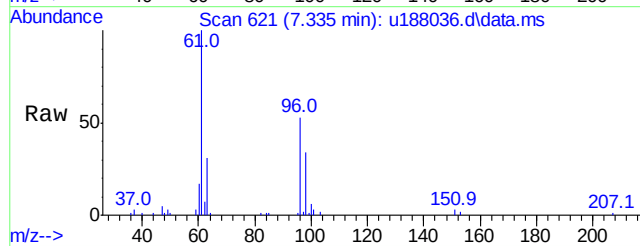
Quant Time: Sep 25 16:39:53 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration





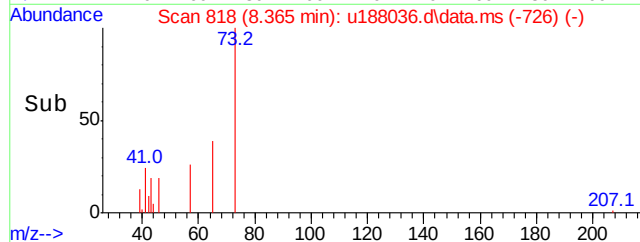
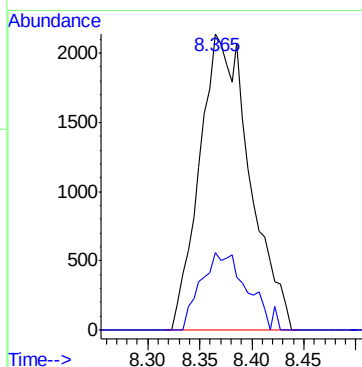
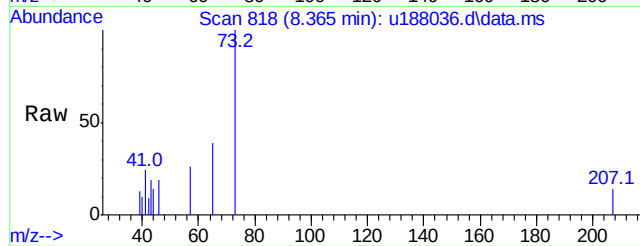
#28
1,1-dichloroethene
Concen: 20.45 ug/L
RT: 7.335 min Scan# 621
Delta R.T. -0.009 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

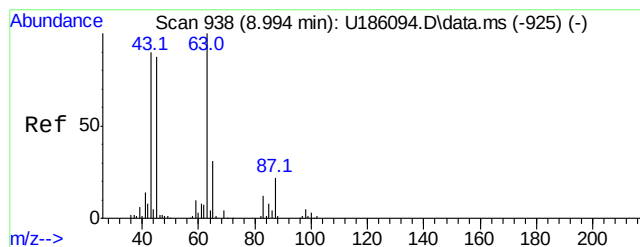
Tgt Ion:	96	Resp:	50055
Ion Ratio	Lower	Upper	
96	100		
61	188.7	147.8	207.8
63	58.9	25.9	85.9



#37
methyl tert butyl ether
Concen: 0.84 ug/L
RT: 8.365 min Scan# 818
Delta R.T. -0.020 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

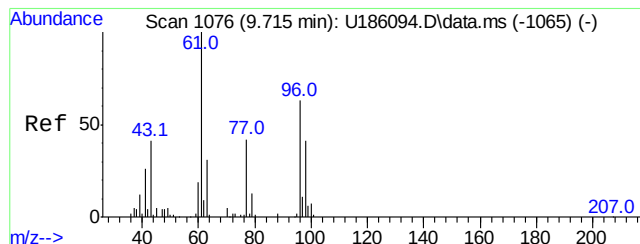
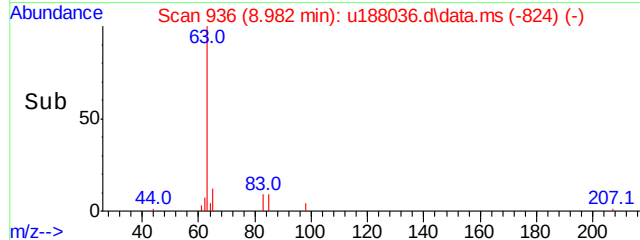
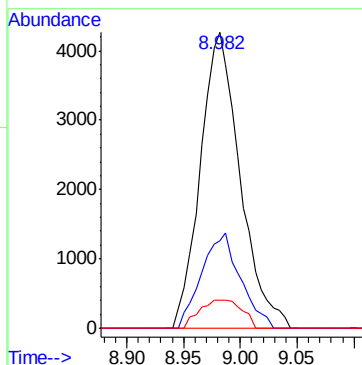
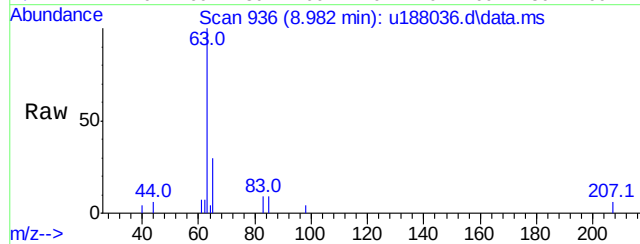
Tgt Ion:	73	Resp:	7148
Ion Ratio	Lower	Upper	
73	100		
57	23.3	0.0	54.4





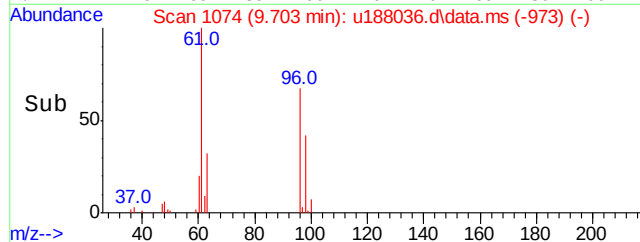
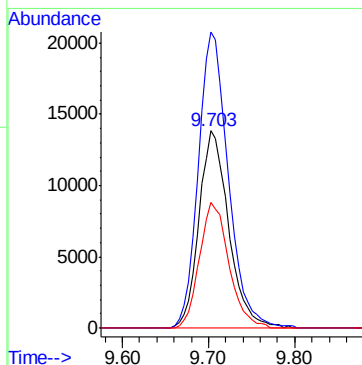
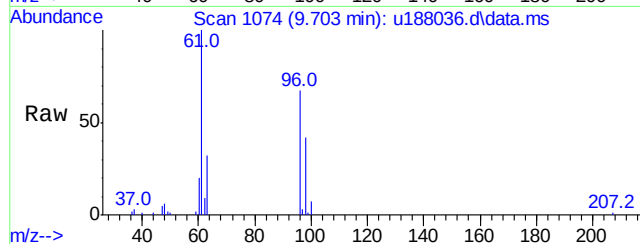
#42
1,1-dichloroethane
Concen: 2.20 ug/L
RT: 8.982 min Scan# 936
Delta R.T. -0.004 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

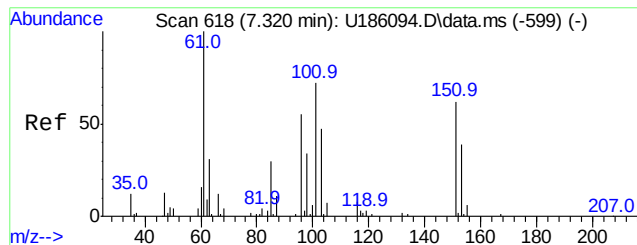
Tgt Ion	Ratio	Lower	Upper
63	100		
65	29.7	1.3	61.3
83	9.5	0.0	41.8



#48
cis-1,2-dichloroethene
Concen: 12.00 ug/L
RT: 9.703 min Scan# 1074
Delta R.T. -0.004 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

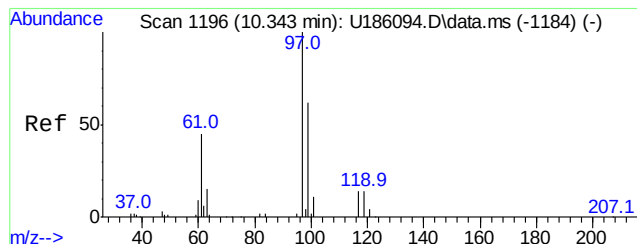
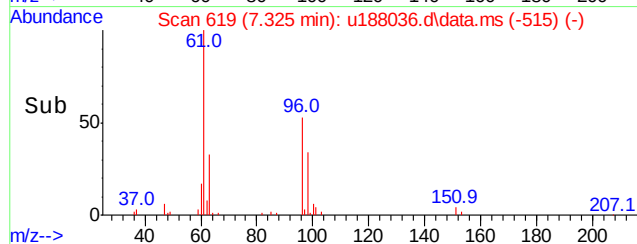
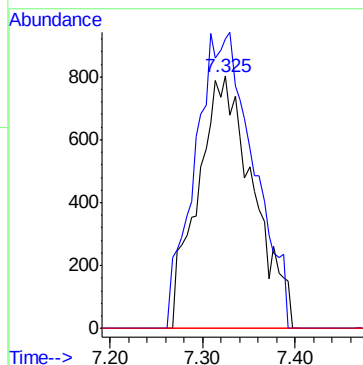
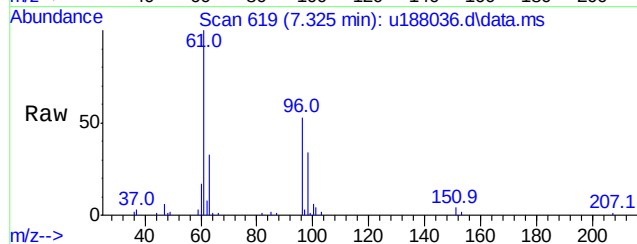
Tgt Ion	Ratio	Lower	Upper
96	100		
61	150.0	140.2	200.2
98	63.5	34.3	94.3





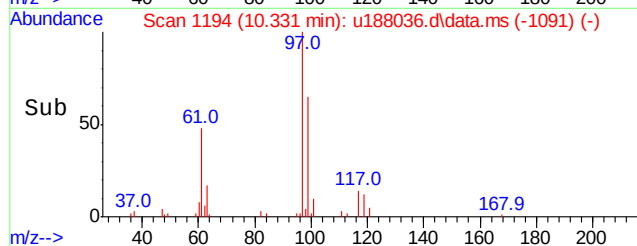
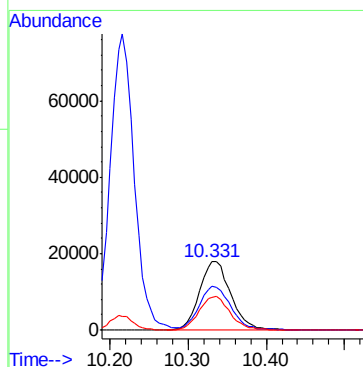
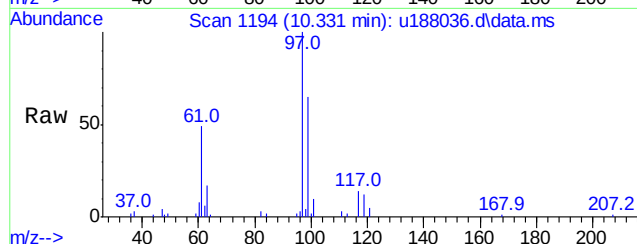
#58
 freon 113
 Concen: 1.90 ug/L
 RT: 7.325 min Scan# 619
 Delta R.T. 0.012 min
 Lab File: u188036.d
 Acq: 25 Sep 2014 12:59 pm

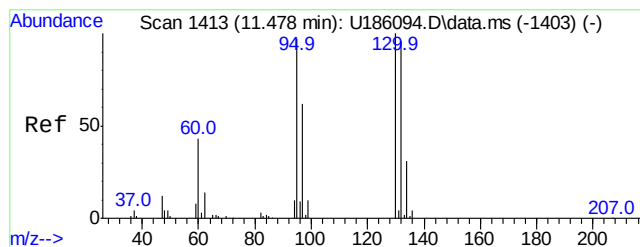
Tgt Ion	Ratio	Lower	Upper
151	100		
101	114.6	93.4	153.4
116	0.0	0.0	42.0



#60
 1,1,1-trichloroethane
 Concen: 14.17 ug/L
 RT: 10.331 min Scan# 1194
 Delta R.T. -0.009 min
 Lab File: u188036.d
 Acq: 25 Sep 2014 12:59 pm

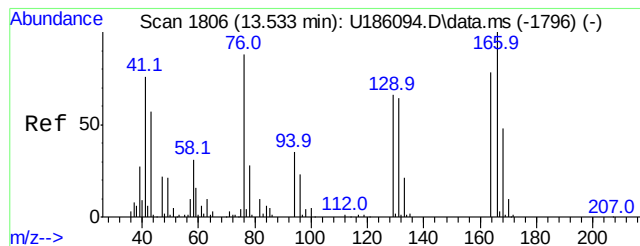
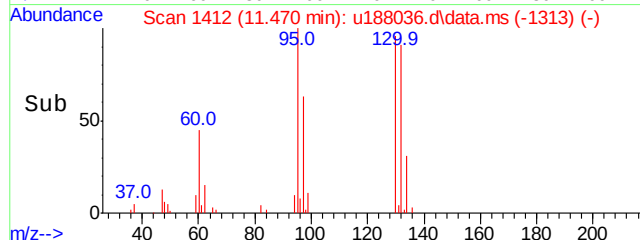
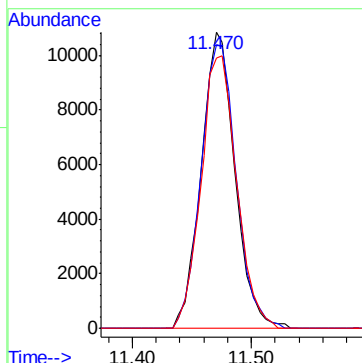
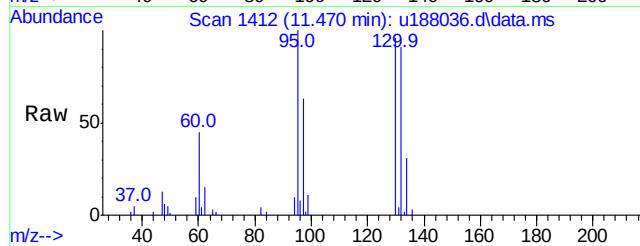
Tgt Ion	Ratio	Lower	Upper
97	100		
99	65.0	33.8	93.8
61	48.5	17.8	77.8





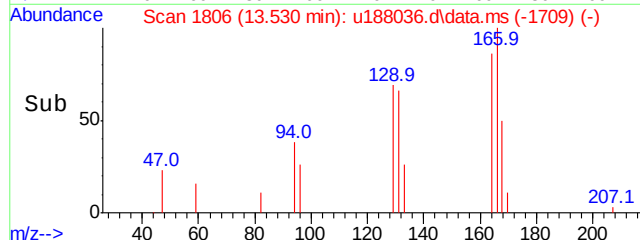
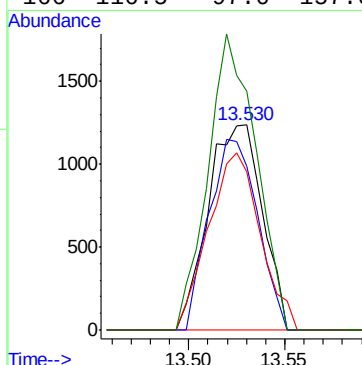
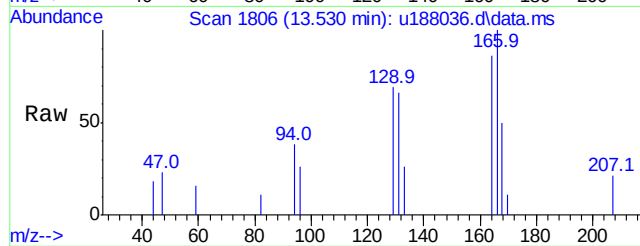
#78
trichloroethene
Concen: 9.22 ug/L
RT: 11.470 min Scan# 1412
Delta R.T. -0.004 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

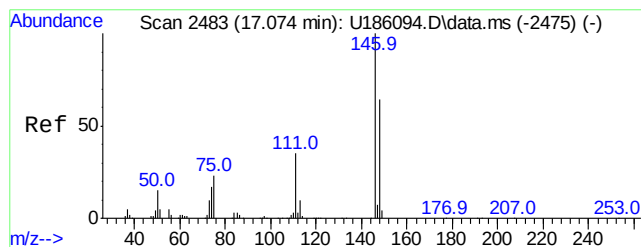
Tgt Ion:	95	Resp:	21364
Ion Ratio	Lower	Upper	
95	100		
130	95.8	71.1	131.1
132	91.1	65.6	125.6



#98
tetrachloroethene
Concen: 1.16 ug/L
RT: 13.530 min Scan# 1806
Delta R.T. 0.006 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

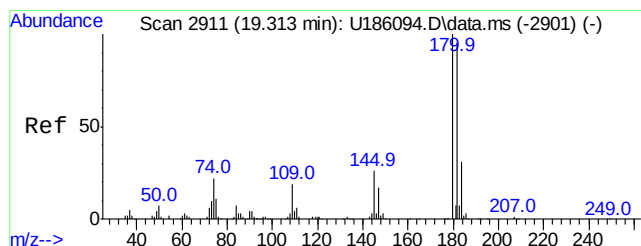
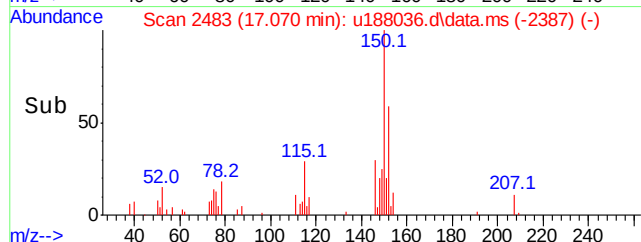
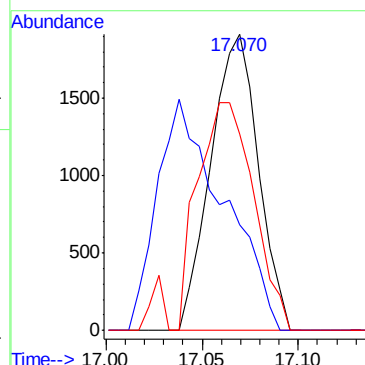
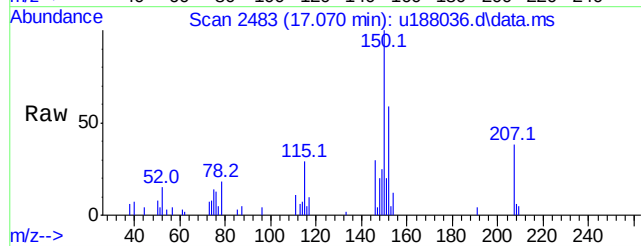
Tgt Ion:	164	Resp:	2419
Ion Ratio	Lower	Upper	
164	100		
129	79.9	60.7	120.7
131	77.0	56.6	116.6
166	116.5	97.0	157.0





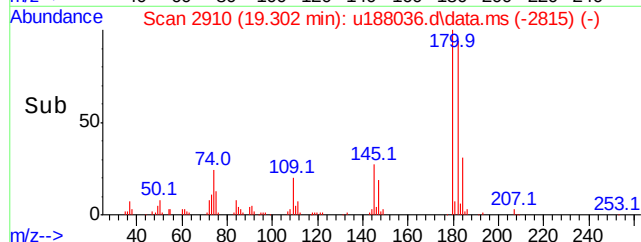
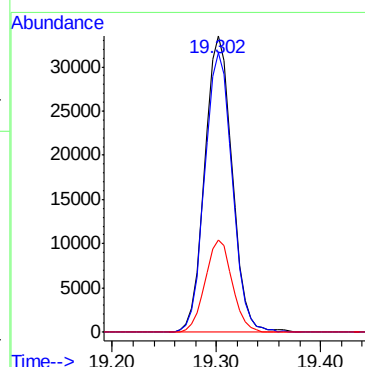
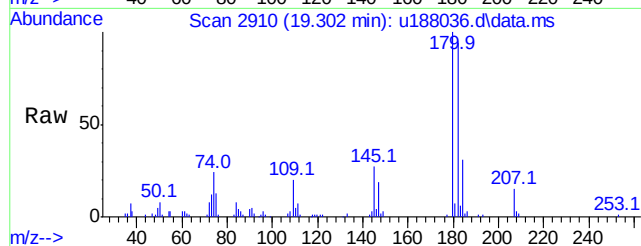
#131
1,4-dichlorobenzene
Concen: 0.51 ug/L
RT: 17.070 min Scan# 2483
Delta R.T. 0.001 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

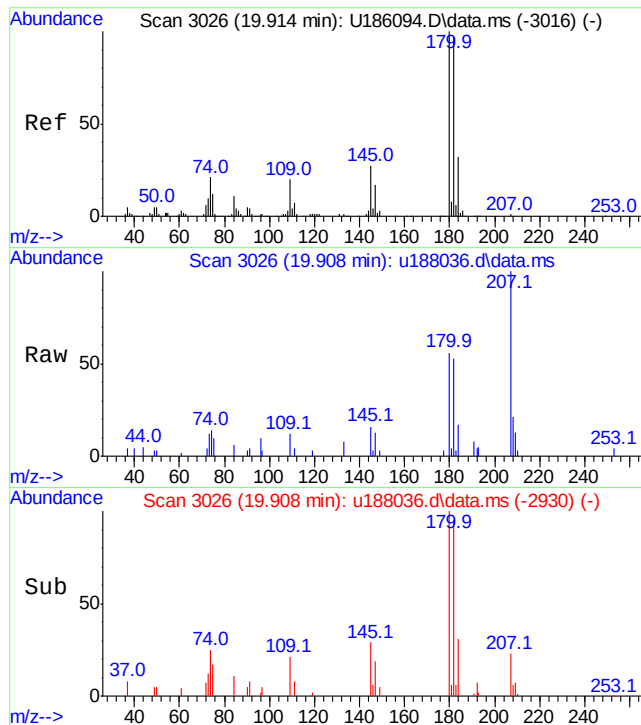
Tgt Ion:	146	Resp:	3279
Ion Ratio	Lower	Upper	
146	100		
111	35.6	7.0	67.0
148	66.3	33.2	93.2



#139
1,2,4-trichlorobenzene
Concen: 13.83 ug/L
RT: 19.302 min Scan# 2910
Delta R.T. -0.004 min
Lab File: u188036.d
Acq: 25 Sep 2014 12:59 pm

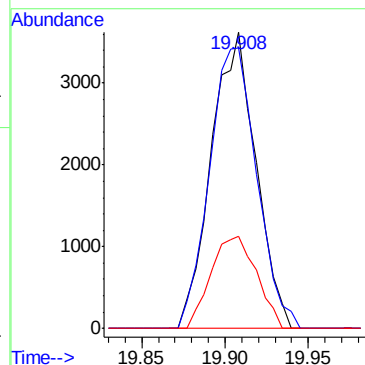
Tgt Ion:	180	Resp:	60594
Ion Ratio	Lower	Upper	
180	100		
182	94.5	66.6	126.6
184	31.2	0.8	60.8





#143
 1,2,3-trichlorobenzene
 Concen: 1.89 ug/L
 RT: 19.908 min Scan# 3026
 Delta R.T. 0.001 min
 Lab File: u188036.d
 Acq: 25 Sep 2014 12:59 pm

Tgt Ion	Ratio	Resp	Lower	Upper
180	100	6752		
182	94.9		67.9	127.9
184	31.1		1.6	61.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188021.d
 Acq On : 25 Sep 2014 5:12 am
 Operator : shannont
 Sample : jB77235-4
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 25 13:37:29 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.010	65	145772	500.00	ug/L	0.00
5) pentafluorobenzene	10.216	168	323275	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.131	114	375699	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	360307	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.038	152	205965	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.263	113	111827	52.41	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery =	104.82%		
57) 1,2-dichloroethane-d4 (s)	10.692	65	143908	52.32	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery =	104.64%		
88) toluene-d8 (s)	12.825	98	469717	54.02	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	108.04%		
114) 4-bromofluorobenzene (s)	15.742	95	181968	52.38	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery =	104.76%		
Target Compounds						
53) chloroform	10.064	83	3537	0.84	ug/L	97
58) freon 113	7.325	151	9033m	5.22	ug/L	
78) trichloroethene	11.471	95	778	0.34	ug/L	88
105) chlorobenzene	14.492	112	7711	1.13	ug/L	99

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

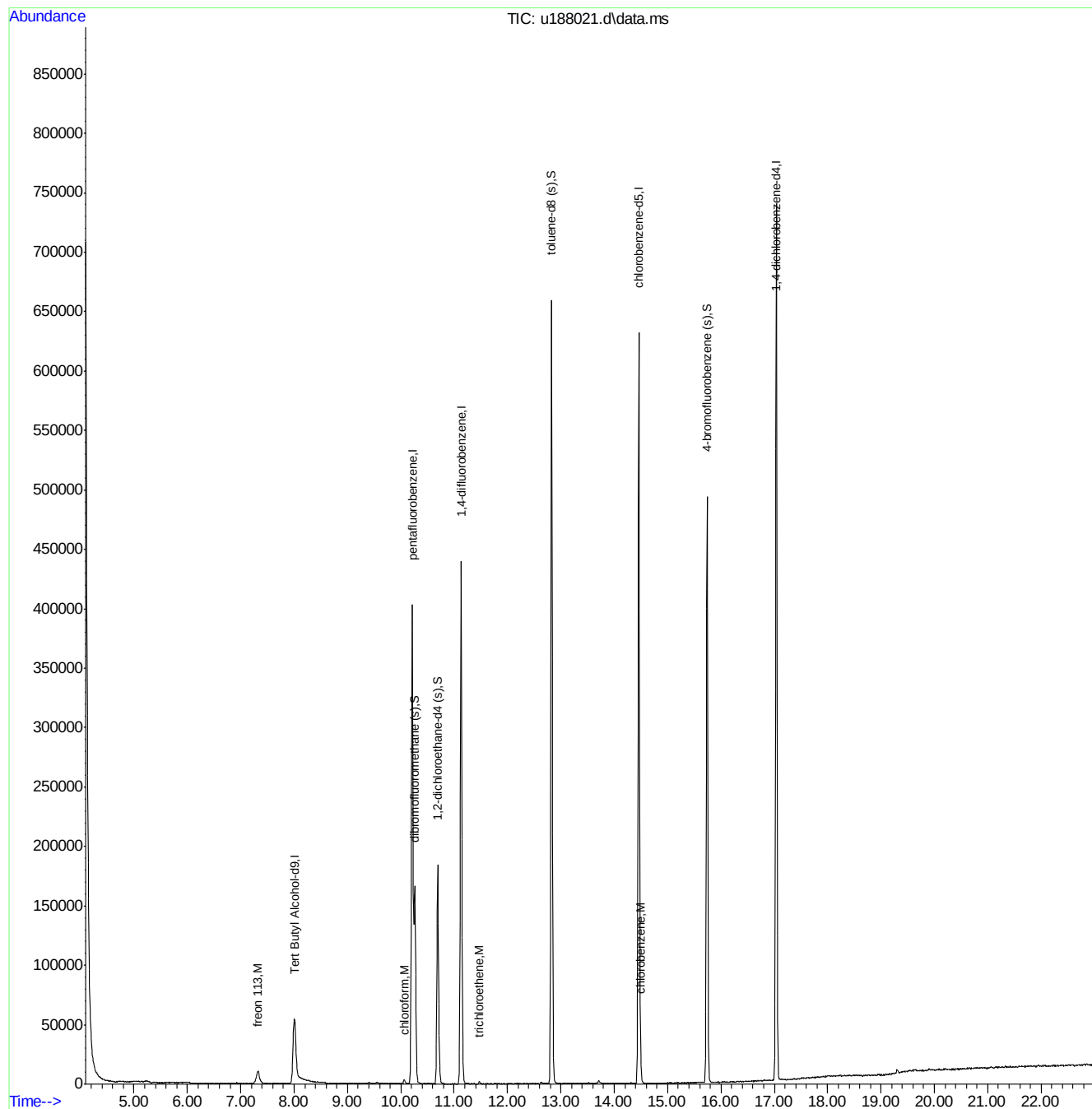
7.1.4

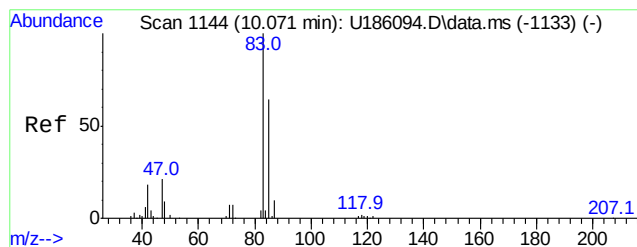
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188021.d
Acq On : 25 Sep 2014 5:12 am
Operator : shannont
Sample : jb77235-4
Misc : ms74308,vu8672,5.0,,,,,1
ALS Vial : 37 Sample Multiplier: 1

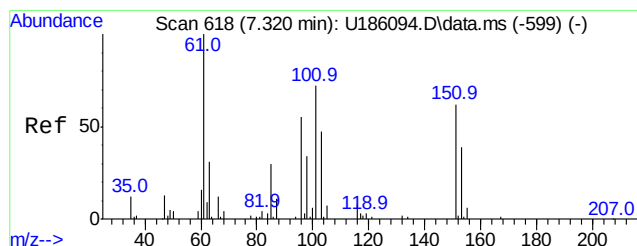
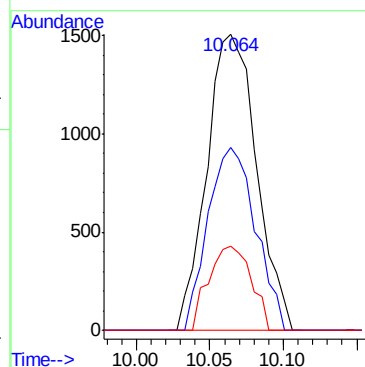
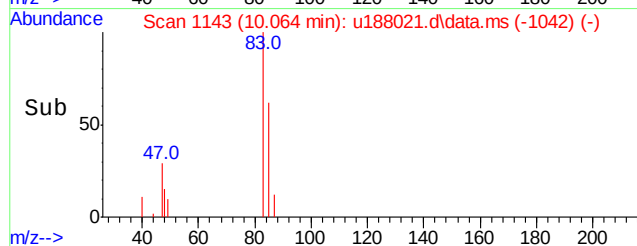
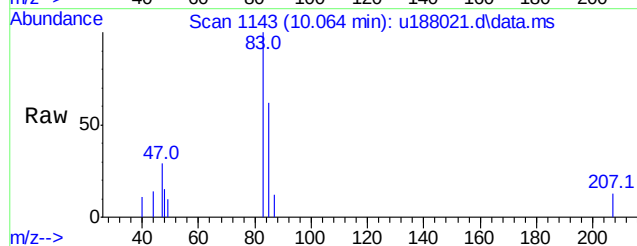
Quant Time: Sep 25 13:37:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration





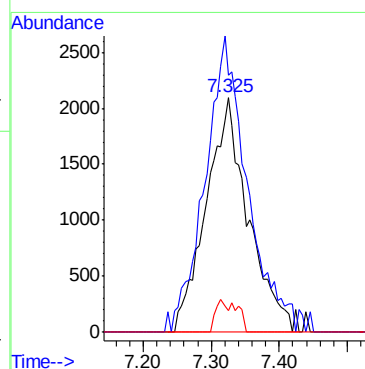
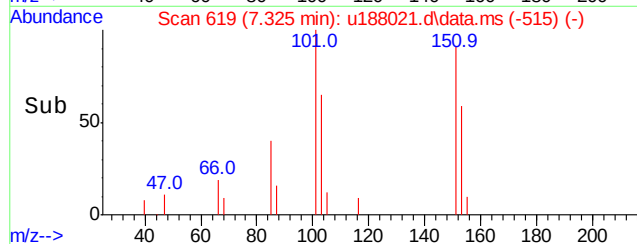
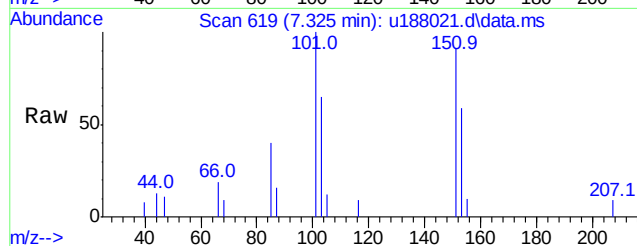
#53
chloroform
Concen: 0.84 ug/L
RT: 10.064 min Scan# 1143
Delta R.T. -0.004 min
Lab File: u188021.d
Acq: 25 Sep 2014 5:12 am

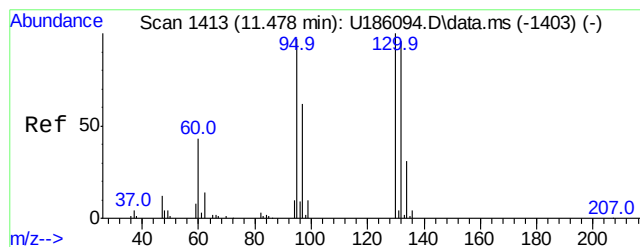
Tgt Ion:	83	Resp:	3537
Ion Ratio	Lower	Upper	
83	100		
85	61.7	34.3	94.3
47	28.5	0.0	57.2



#58
freon 113
Concen: 5.22 ug/L m
RT: 7.325 min Scan# 619
Delta R.T. 0.012 min
Lab File: u188021.d
Acq: 25 Sep 2014 5:12 am

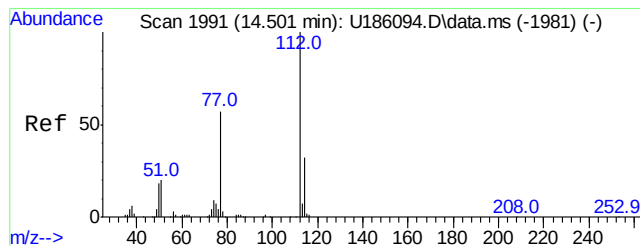
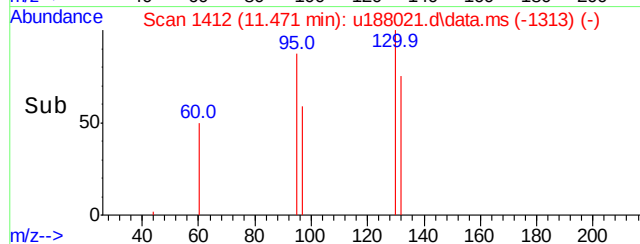
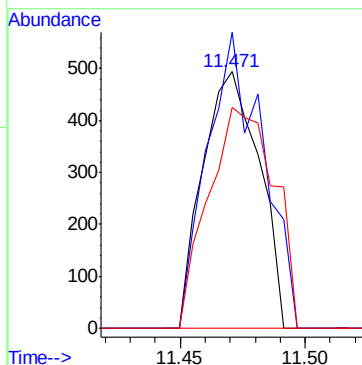
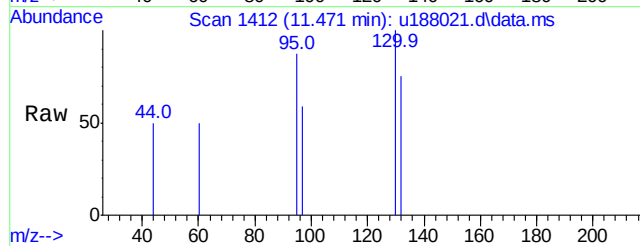
Tgt Ion:	151	Resp:	9033
Ion Ratio	Lower	Upper	
151	100		
101	109.8	93.4	153.4
116	9.4	0.0	42.0





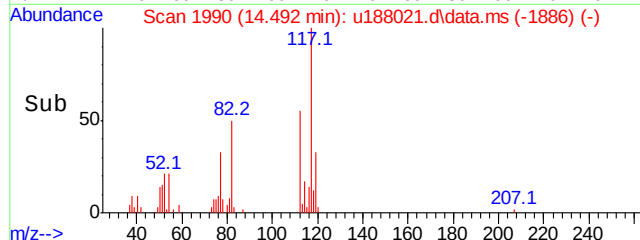
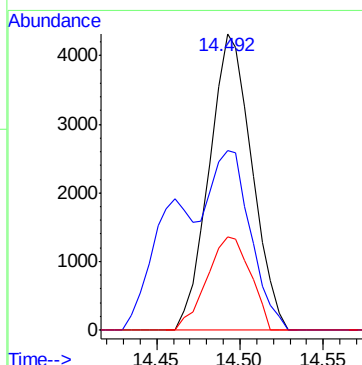
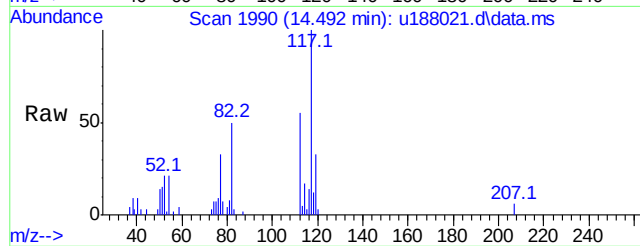
#78
trichloroethene
Concen: 0.34 ug/L
RT: 11.471 min Scan# 1412
Delta R.T. -0.004 min
Lab File: u188021.d
Acq: 25 Sep 2014 5:12 am

Tgt Ion	Ratio	Lower	Upper
95	100		
130	115.4	71.1	131.1
132	86.0	65.6	125.6



#105
chlorobenzene
Concen: 1.13 ug/L
RT: 14.492 min Scan# 1990
Delta R.T. -0.004 min
Lab File: u188021.d
Acq: 25 Sep 2014 5:12 am

Tgt Ion	Ratio	Lower	Upper
112	100		
77	60.7	30.1	90.1
114	31.4	1.7	61.7



Manual Integration Approval Summary

Sample Number: JB77235-4

Method: SW846 8260C

Lab FileID: U188021.D

Analyst approved: 09/25/14 13:38 Yunxia Chen

Injection Time: 09/25/14 05:12

Supervisor approved: 09/26/14 18:05 Jessica Reitan-Chu

Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 113	76-13-1		7.32	Missed peak

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188022.d
Acq On : 25 Sep 2014 5:41 am
Operator : shannont
Sample : jB77235-5
Misc : ms74308,vu8672,5.0,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 25 13:10:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration

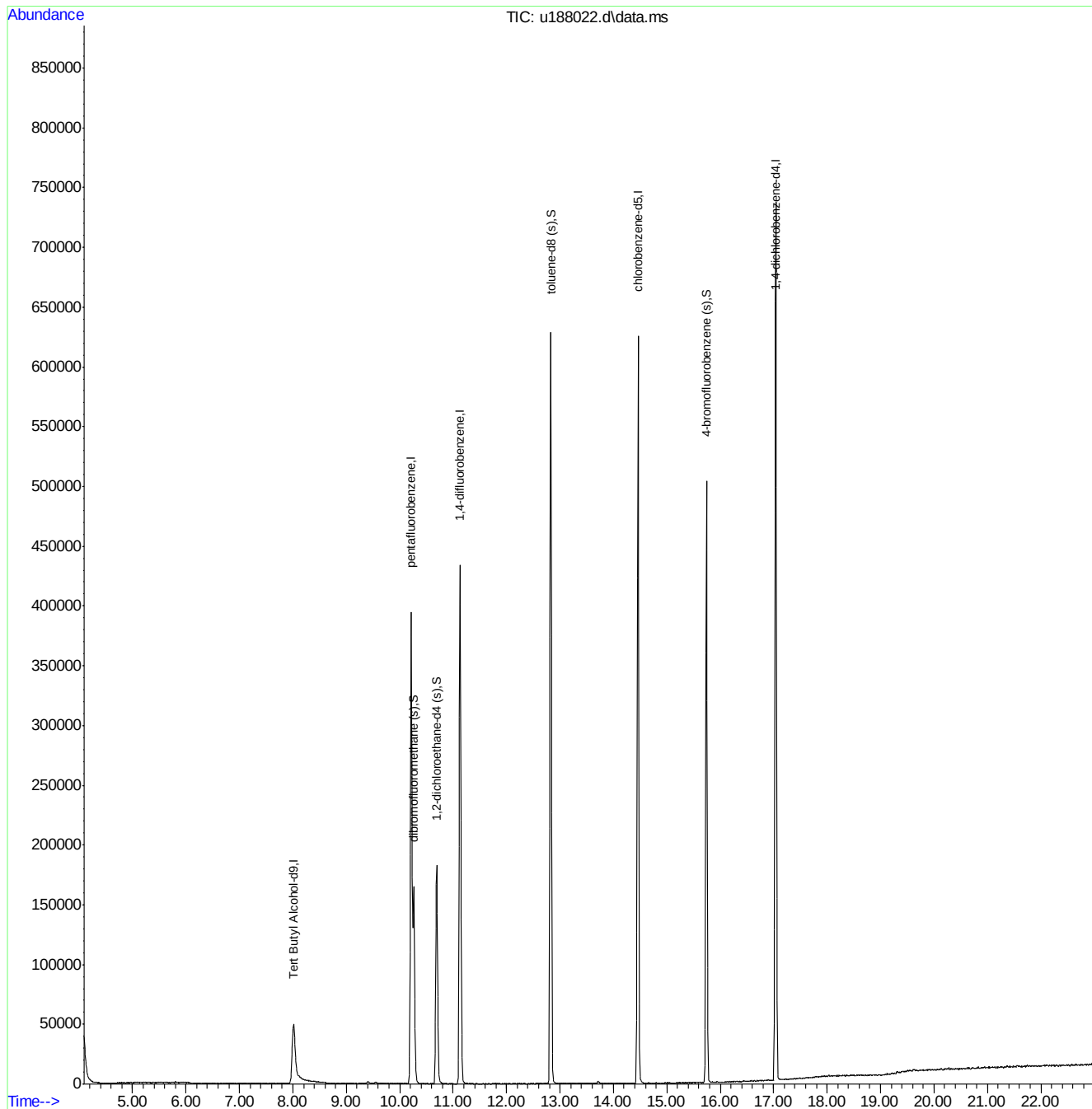
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.014	65	148571	500.00	ug/L	0.01
5) pentafluorobenzene	10.215	168	316982	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.130	114	366870	50.00	ug/L	0.00
96) chlorobenzene-d5	14.460	117	353882	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.037	152	203885	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.262	113	110509	52.82	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	105.64%
57) 1,2-dichloroethane-d4 (s)	10.690	65	142123	52.70	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	105.40%
88) toluene-d8 (s)	12.829	98	454946	53.58	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.16%
114) 4-bromofluorobenzene (s)	15.741	95	180150	52.38	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	104.76%
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188022.d
Acq On : 25 Sep 2014 5:41 am
Operator : shannont
Sample : jb77235-5
Misc : ms74308,vu8672,5.0,,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 25 13:10:58 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188023.d
Acq On : 25 Sep 2014 6:10 am
Operator : shannont
Sample : jB77235-6
Misc : ms74308,vu8672,5.0,,,,1
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Sep 25 13:11:22 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration

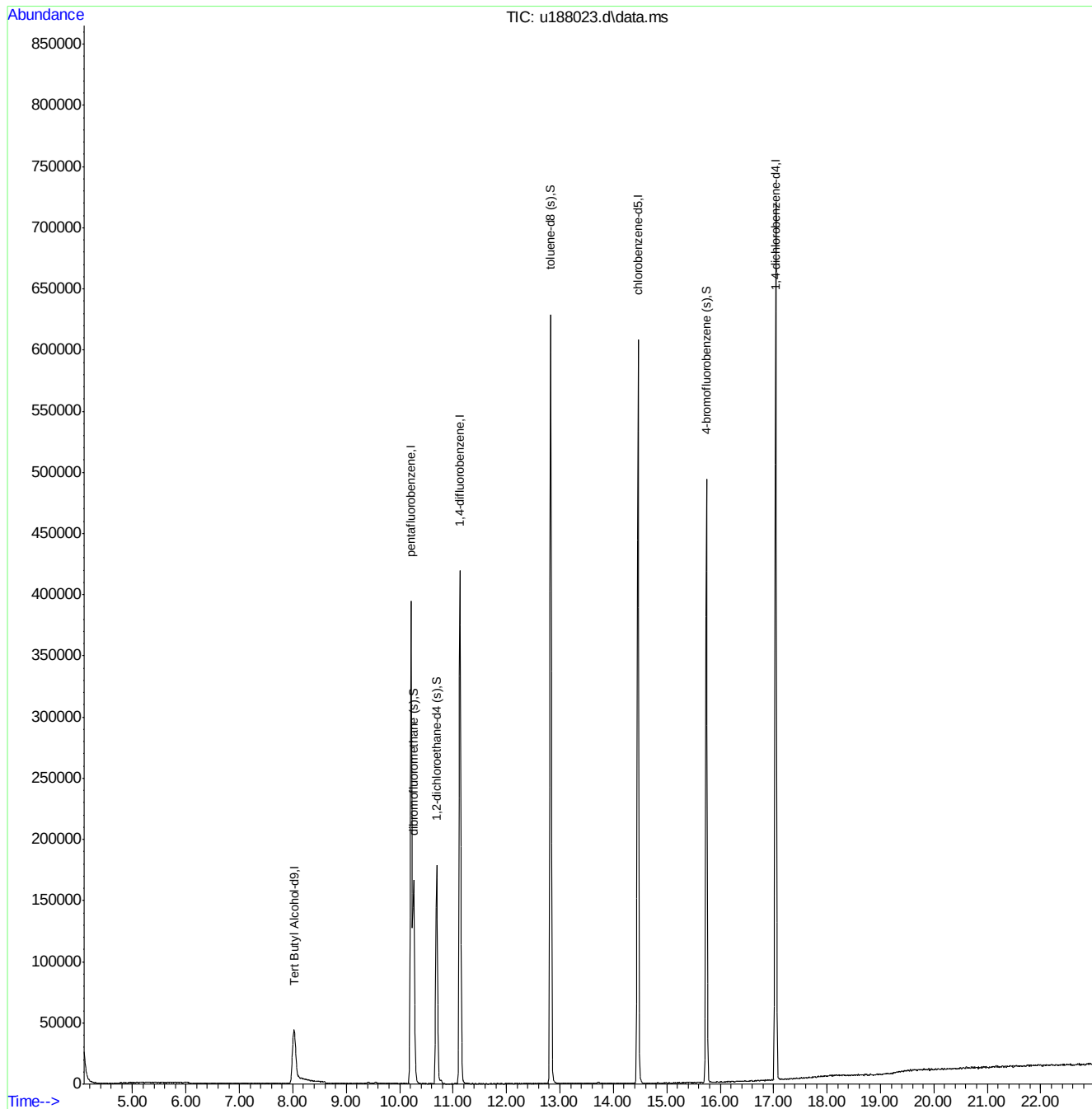
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.025	65	129092	500.00	ug/L	0.02
5) pentafluorobenzene	10.215	168	315378	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.130	114	361994	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	348177	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.038	152	201783	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.262	113	110534	53.10	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	106.20%
57) 1,2-dichloroethane-d4 (s)	10.691	65	141802	52.85	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	105.70%
88) toluene-d8 (s)	12.824	98	447133	53.37	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	106.74%
114) 4-bromofluorobenzene (s)	15.741	95	177575	52.17	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	104.34%
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188023.d
 Acq On : 25 Sep 2014 6:10 am
 Operator : shannont
 Sample : jb77235-6
 Misc : ms74308,vu8672,5.0,,,,,1
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Sep 25 13:11:22 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188013.d
Acq On : 25 Sep 2014 1:21 am
Operator : shannont
Sample : mb
Misc : ms74308,vu8672,5.0,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 25 13:07:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.999	65	127934	500.00	ug/L	0.00
5) pentafluorobenzene	10.216	168	326900	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.131	114	379107	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	358580	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.039	152	208451	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.263	113	112562	52.17	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	104.34%
57) 1,2-dichloroethane-d4 (s)	10.692	65	145211	52.21	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	104.42%
88) toluene-d8 (s)	12.825	98	465397	53.04	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	106.08%
114) 4-bromofluorobenzene (s)	15.737	95	182826	52.00	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	104.00%

Target Compounds	Qvalue

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

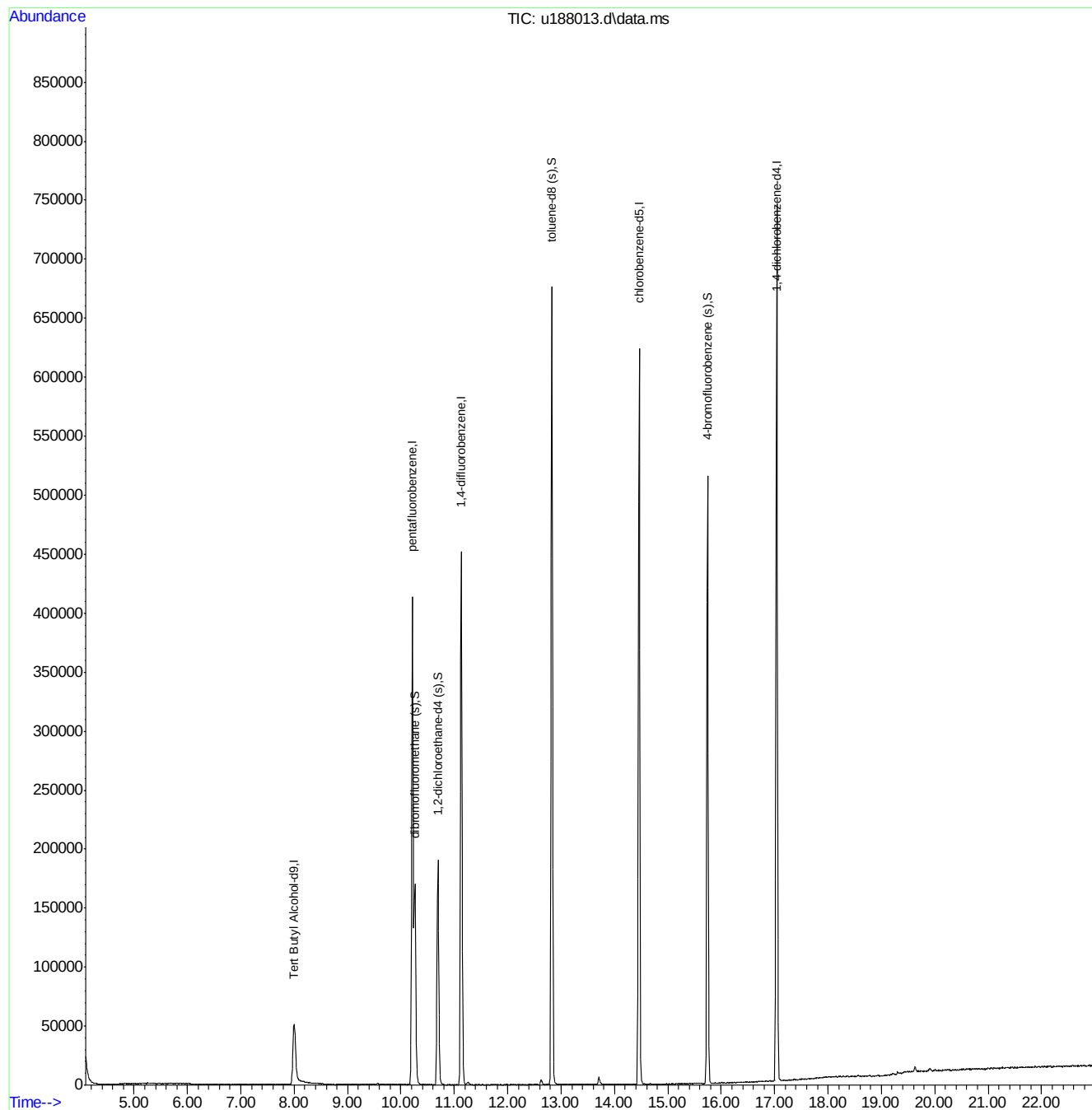
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188013.d
Acq On : 25 Sep 2014 1:21 am
Operator : shannont
Sample : mb
Misc : ms74308,vu8672,5.0,,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 25 13:07:48 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188034.d
Acq On : 25 Sep 2014 11:54 am
Operator : shannont
Sample : mb2
Misc : ms74105,vu8672,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 25 16:37:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.003	65	150076	500.00	ug/L	0.00
5) pentafluorobenzene	10.215	168	340907	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.130	114	390640	50.00	ug/L	0.00
96) chlorobenzene-d5	14.460	117	376650	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.037	152	216082	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.262	113	116703	51.87	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	103.74%
57) 1,2-dichloroethane-d4 (s)	10.691	65	148588	51.23	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	102.46%
88) toluene-d8 (s)	12.829	98	486064	53.76	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.52%
114) 4-bromofluorobenzene (s)	15.741	95	193234	53.02	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	106.04%

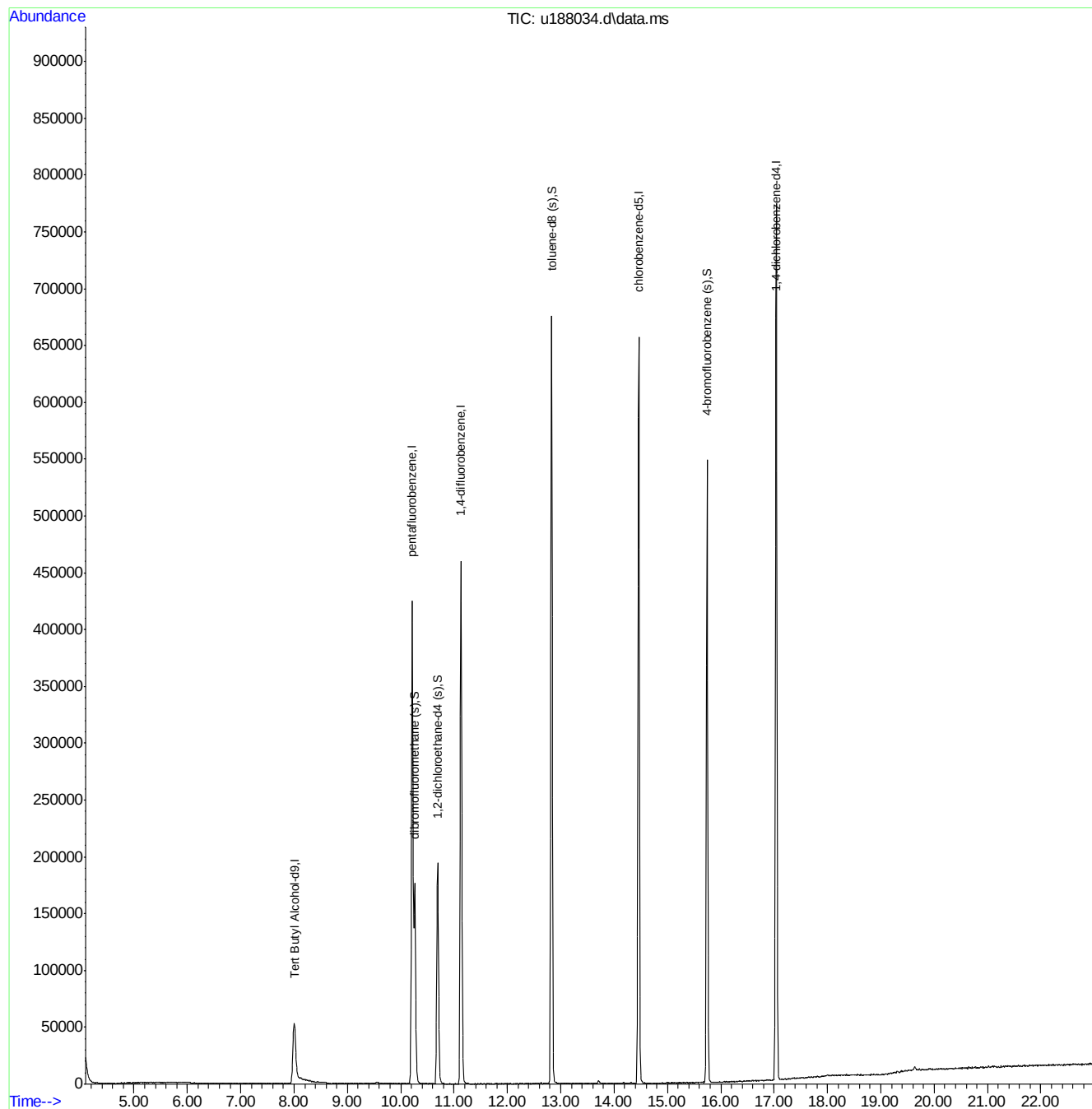
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188034.d
Acq On : 25 Sep 2014 11:54 am
Operator : shannont
Sample : mb2
Misc : ms74105,vu8672,5.0,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 25 16:37:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:39:31 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188014.d
 Acq On : 25 Sep 2014 1:50 am
 Operator : shannont
 Sample : bs
 Misc : ms74331,vu8672,5.0,,,,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 25 02:13:29 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.003	65	126703	500.00	ug/L	0.00
5) pentafluorobenzene	10.215	168	322198	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.130	114	374184	50.00	ug/L	0.00
96) chlorobenzene-d5	14.460	117	355149	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.037	152	215210	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.262	113	112172	52.75	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	105.50%
57) 1,2-dichloroethane-d4 (s)	10.690	65	142247	51.89	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	103.78%
88) toluene-d8 (s)	12.823	98	460077	53.13	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	106.26%
114) 4-bromofluorobenzene (s)	15.741	95	183696	50.60	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	101.20%
Target Compounds						
2) tertiary butyl alcohol	8.113	59	69498	249.54	ug/L	80
4) 1,4-dioxane	11.861	88	22792	999.23	ug/L #	88
11) chlorodifluoromethane	4.490	51	129980	38.06	ug/L	99
12) dichlorodifluoromethane	4.453	85	117853	40.29	ug/L	98
15) chloromethane	4.877	50	209952	45.35	ug/L	99
16) vinyl chloride	5.149	62	173154	45.41	ug/L	98
18) bromomethane	5.818	94	97437	45.01	ug/L	99
19) chloroethane	5.996	64	93024	53.34	ug/L	99
20) trichlorofluoromethane	6.498	101	159075	46.79	ug/L	97
23) ethyl ether	6.895	74	70698	50.87	ug/L	94
24) 2-CHLOROPROPANE	7.109	43	244766	48.59	ug/L	99
27) acrolein	7.167	56	289616	420.59	ug/L	99
28) 1,1-dichloroethene	7.339	96	106105	44.33	ug/L	95
29) acetone	7.386	58	14296	45.10	ug/L	98
30) allyl chloride	7.862	78	23772	50.12	ug/L	91
31) acetonitrile	7.852	40	117740	411.36	ug/L #	60
32) iodomethane	7.616	142	185939	47.66	ug/L	100
33) carbon disulfide	7.737	76	361836	44.92	ug/L	99
34) 1-CHLOROPROPANE	8.082	63	10392	45.02	ug/L	95
35) methylene chloride	8.045	84	127381	47.04	ug/L	96
36) methyl acetate	7.841	43	121820	45.20	ug/L	99
37) methyl tert butyl ether	8.369	73	755129	90.72	ug/L	90
38) trans-1,2-dichloroethene	8.411	96	106298	43.70	ug/L	99
39) di-isopropyl ether	8.960	45	493171	47.84	ug/L	96
40) ethyl tert-butyl ether	9.425	59	419333	43.86	ug/L	99
41) 2-butanone	9.681	72	16163	49.70	ug/L #	93
42) 1,1-dichloroethane	8.981	63	225925	49.00	ug/L	99
43) chloroprene	9.085	53	172131	45.39	ug/L	97
44) acrylonitrile	8.380	53	310747	239.46	ug/L	99
45) vinyl acetate	8.965	86	19203	42.80	ug/L #	75
46) ethyl acetate	9.692	45	22414	47.46	ug/L	98
47) 2,2-dichloropropane	9.728	77	139823	40.95	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188014.d
 Acq On : 25 Sep 2014 1:50 am
 Operator : shannont
 Sample : bs
 Misc : ms74331,vu8672,5.0,,,,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 25 02:13:29 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.708	96	118193	44.62	ug/L	98
49) methyl acrylate	9.770	55	167299	46.14	ug/L	100
50) propionitrile	9.791	54	245626	486.01	ug/L	98
51) bromochloromethane	10.016	128	59115	47.56	ug/L	98
52) tetrahydrofuran	10.053	42	53112	46.99	ug/L	96
53) chloroform	10.063	83	199163	47.37	ug/L	98
54) tert-butyl Formate	10.121	59	118799	39.73	ug/L	98
55) iso-butyl alcohol	10.502	74	15054	425.79	ug/L #	80
58) freon 113	7.324	151	73517	42.66	ug/L	97
59) methacrylonitrile	9.969	41	104825	48.02	ug/L	95
60) 1,1,1-trichloroethane	10.335	97	161140	47.07	ug/L	99
62) tert-amyl methyl ether	10.805	87	86185	46.46	ug/L	93
63) iso-octane	10.779	57	396732	39.25	ug/L	97
66) epichlorohydrin	12.416	57	77169	228.20	ug/L	99
67) n-butyl alcohol	11.239	56	197991	1980.81	ug/L	97
68) Cyclohexane	10.413	84	167177	46.57	ug/L #	78
69) carbon tetrachloride	10.528	117	149990	48.50	ug/L	100
70) 1,1-dichloropropene	10.502	75	146737	45.45	ug/L	98
71) hexane	8.719	86	14834	36.38	ug/L #	92
72) benzene	10.769	78	468650	46.49	ug/L	99
73) heptane	10.936	57	70161	35.42	ug/L	97
74) isopropyl acetate	10.685	43	302128	50.64	ug/L	97
75) 1,2-dichloroethane	10.779	62	164952	51.14	ug/L	100
78) trichloroethene	11.469	95	110623	48.63	ug/L	99
79) methylcyclohexane	11.710	83	177589	44.04	ug/L	96
80) 2-nitropropane	12.280	41	61166	47.57	ug/L	99
81) 2-chloroethyl vinyl ether	12.280	63	429218	226.05	ug/L	99
82) methyl methacrylate	11.746	100	33036	48.93	ug/L #	84
83) 1,2-dichloropropane	11.752	63	136127	51.85	ug/L	99
84) propyl acetate	11.783	73	26323	48.69	ug/L	98
85) dibromomethane	11.903	93	72442	49.01	ug/L	99
86) bromodichloromethane	12.029	83	158927	47.50	ug/L	99
87) cis-1,3-dichloropropene	12.510	75	197563	46.70	ug/L	99
89) 4-methyl-2-pentanone	12.625	58	59691	49.19	ug/L	93
90) toluene	12.902	92	283397	47.29	ug/L	98
91) 3-methyl-1-butanol	12.620	55	111847	823.97	ug/L	96
92) trans-1,3-dichloropropene	13.101	75	184791	45.70	ug/L	96
93) ethyl methacrylate	13.095	69	172163	47.20	ug/L	97
94) 1,1,2-trichloroethane	13.336	83	95539	47.84	ug/L	99
95) 2-hexanone	13.529	58	54689	46.26	ug/L	97
97) cyclohexanone	15.720	55	42538	147.93	ug/L	98
98) tetrachloroethene	13.524	164	132888	65.37	ug/L	99
99) 1,3-dichloropropane	13.534	76	196546	49.95	ug/L	100
100) butyl acetate	13.602	56	99640	47.95	ug/L	95
101) dibromochloromethane	13.812	129	124460	48.21	ug/L	99
102) 1,2-dibromoethane	13.989	107	111141	48.07	ug/L	100
103) 3,3-dimethyl-1-Butanol	13.702	57	95334	356.36	ug/L	98
105) chlorobenzene	14.491	112	319303	47.37	ug/L	98
106) 1,1,1,2-tetrachloroethane	14.559	131	121190	48.89	ug/L	100
107) ethylbenzene	14.554	91	558085	47.10	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188014.d
 Acq On : 25 Sep 2014 1:50 am
 Operator : shannont
 Sample : bs
 Misc : ms74331,vu8672,5.0,,,,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 25 02:13:29 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:39:31 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) m,p-xylene	14.674	106	423969	96.07	ug/L	99
109) o-xylene	15.139	106	215157	47.91	ug/L	97
110) styrene	15.145	104	368900	47.18	ug/L	100
111) bromoform	15.432	173	92270	45.95	ug/L	98
113) isopropylbenzene	15.521	105	569950	47.21	ug/L	99
115) bromobenzene	15.960	156	152712	48.71	ug/L	99
116) 1,1,2,2-tetrachloroethane	15.845	83	166930	43.73	ug/L	100
117) trans-1,4-dichloro-2-b...	15.898	53	44094	39.94	ug/L	98
118) 1,2,3-trichloropropane	15.939	110	43597	48.61	ug/L	99
119) n-propylbenzene	15.976	91	690811	48.88	ug/L	99
120) 2-chlorotoluene	16.138	126	137870	47.35	ug/L	97
121) 4-chlorotoluene	16.248	91	426195	45.45	ug/L	99
123) 1,3,5-trimethylbenzene	16.138	105	499008	46.16	ug/L	100
124) tert-butylbenzene	16.535	119	435576	46.14	ug/L	100
125) pentachloroethane	16.614	167	55647	27.42	ug/L	97
126) 1,2,4-trimethylbenzene	16.582	105	525603	47.88	ug/L	100
128) sec-butylbenzene	16.771	105	650771	46.15	ug/L	99
129) 1,3-dichlorobenzene	16.974	146	299310	46.37	ug/L	99
130) p-isopropyltoluene	16.901	119	560873	46.12	ug/L	99
131) 1,4-dichlorobenzene	17.063	146	305812	46.67	ug/L	99
132) benzyl chloride	17.199	91	293696	40.74	ug/L	99
133) 1,2-dichlorobenzene	17.503	146	306241	48.18	ug/L	99
135) n-butylbenzene	17.361	92	292478	47.58	ug/L	98
137) 1,2-dibromo-3-chloropr...	18.360	157	35683	47.93	ug/L	97
138) 1,3,5-trichlorobenzene	18.564	180	261287	49.18	ug/L	100
139) 1,2,4-trichlorobenzene	19.301	180	205638	45.64	ug/L	99
140) hexachlorobutadiene	19.432	225	119271	47.00	ug/L	99
141) naphthalene	19.630	128	393478	42.21	ug/L	100
143) 1,2,3-trichlorobenzene	19.902	180	161360	43.87	ug/L	98
144) hexachloroethane	17.795	201	101329	49.40	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188015.d
 Acq On : 25 Sep 2014 2:19 am
 Operator : shannont
 Sample : jb77235-2ms
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 25 12:41:33 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.003	65	131924	500.00	ug/L	0.00
5) pentafluorobenzene	10.215	168	330563	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.130	114	389406	50.00	ug/L	0.00
96) chlorobenzene-d5	14.460	117	368413	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.037	152	220727	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.262	113	114530	52.50	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	105.00%	
57) 1,2-dichloroethane-d4 (s)	10.690	65	147393	52.41	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	104.82%	
88) toluene-d8 (s)	12.829	98	482513	53.54	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	107.08%	
114) 4-bromofluorobenzene (s)	15.741	95	190300	51.11	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	102.22%	
Target Compounds						
2) tertiary butyl alcohol	8.113	59	78859	271.94	ug/L	84
4) 1,4-dioxane	11.867	88	28043	1180.78	ug/L	95
11) chlorodifluoromethane	4.490	51	172240	49.16	ug/L	99
12) dichlorodifluoromethane	4.459	85	198486	66.14	ug/L	100
15) chloromethane	4.882	50	298986	62.95	ug/L	98
16) vinyl chloride	5.149	62	261031	66.72	ug/L	100
18) bromomethane	5.828	94	130692	58.84	ug/L	96
19) chloroethane	5.996	64	106386	59.46	ug/L	100
20) trichlorofluoromethane	6.503	101	242898	69.64	ug/L	98
23) ethyl ether	6.895	74	80438	56.42	ug/L	94
24) 2-CHLOROPROPANE	7.109	43	318452	61.62	ug/L	97
27) acrolein	7.162	56	304525	431.05	ug/L	100
28) 1,1-dichloroethene	7.334	96	140339	57.14	ug/L	95
29) acetone	7.381	58	16070	49.41	ug/L	87
30) allyl chloride	7.857	78	27341	56.19	ug/L	88
31) acetonitrile	7.846	40	134433	457.79	ug/L #	82
32) iodomethane	7.616	142	236524	59.09	ug/L	98
33) carbon disulfide	7.731	76	467141	56.52	ug/L	99
34) 1-CHLOROPROPANE	8.087	63	13759	58.10	ug/L	96
35) methylene chloride	8.045	84	153690	55.32	ug/L	97
36) methyl acetate	7.836	43	152594	55.18	ug/L	98
37) methyl tert butyl ether	8.374	73	451444	52.86	ug/L	99
38) trans-1,2-dichloroethene	8.411	96	139434	55.87	ug/L	98
39) di-isopropyl ether	8.960	45	587854	55.59	ug/L	98
40) ethyl tert-butyl ether	9.420	59	499113	50.88	ug/L	99
41) 2-butanone	9.681	72	18149	54.40	ug/L #	87
42) 1,1-dichloroethane	8.981	63	282249	59.67	ug/L	99
43) chloroprene	9.085	53	217242	55.84	ug/L	98
44) acrylonitrile	8.380	53	349904	262.81	ug/L	100
45) vinyl acetate	8.965	86	24214	52.60	ug/L #	89
46) ethyl acetate	9.692	45	25677	52.99	ug/L	98
47) 2,2-dichloropropane	9.723	77	185576	52.97	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188015.d
 Acq On : 25 Sep 2014 2:19 am
 Operator : shannont
 Sample : jb77235-2ms
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 25 12:41:33 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.702	96	149273	54.93	ug/L	99
49) methyl acrylate	9.770	55	187737	50.47	ug/L	100
50) propionitrile	9.791	54	271459	523.54	ug/L	94
51) bromochloromethane	10.011	128	70674	55.42	ug/L	96
52) tetrahydrofuran	10.058	42	61019	52.62	ug/L	95
53) chloroform	10.063	83	241226	55.92	ug/L	99
54) tert-butyl Formate	10.126	59	139616	45.51	ug/L	98
55) iso-butyl alcohol	10.502	74	19141	527.69	ug/L #	60
58) freon 113	7.324	151	94047	53.19	ug/L	99
59) methacrylonitrile	9.969	41	118307	52.82	ug/L	95
60) 1,1,1-trichloroethane	10.335	97	209373	59.61	ug/L	99
62) tert-amyl methyl ether	10.800	87	104083	54.68	ug/L	98
63) iso-octane	10.779	57	571254	55.08	ug/L	99
66) epichlorohydrin	12.416	57	88038	250.17	ug/L	99
67) n-butyl alcohol	11.239	56	228586	2197.51	ug/L	96
68) Cyclohexane	10.408	84	223950	59.94	ug/L	88
69) carbon tetrachloride	10.528	117	195962	60.88	ug/L	98
70) 1,1-dichloropropene	10.502	75	200078	59.55	ug/L	99
71) hexane	8.714	86	21656	51.04	ug/L	95
72) benzene	10.769	78	584596	55.73	ug/L	99
73) heptane	10.931	57	106281	51.56	ug/L	99
74) isopropyl acetate	10.685	43	337406	54.34	ug/L	98
75) 1,2-dichloroethane	10.779	62	194546	57.96	ug/L	99
78) trichloroethene	11.469	95	139550	58.95	ug/L	99
79) methylcyclohexane	11.710	83	244226	58.19	ug/L	98
80) 2-nitropropane	12.280	41	68348	51.07	ug/L	99
81) 2-chloroethyl vinyl ether	12.280	63	496245	251.14	ug/L	98
82) methyl methacrylate	11.741	100	37916	53.96	ug/L #	89
83) 1,2-dichloropropane	11.752	63	163071	59.69	ug/L	99
84) propyl acetate	11.783	73	29207	51.91	ug/L	88
85) dibromomethane	11.903	93	86694	56.37	ug/L	98
86) bromodichloromethane	12.029	83	189542	54.43	ug/L	98
87) cis-1,3-dichloropropene	12.510	75	244534	55.54	ug/L	98
89) 4-methyl-2-pentanone	12.625	58	66964	53.03	ug/L	95
90) toluene	12.902	92	357712	57.36	ug/L	97
91) 3-methyl-1-butanol	12.620	55	134396	964.19	ug/L	95
92) trans-1,3-dichloropropene	13.101	75	226927	53.93	ug/L	97
93) ethyl methacrylate	13.095	69	196887	51.87	ug/L	97
94) 1,1,2-trichloroethane	13.336	83	111037	53.43	ug/L	98
95) 2-hexanone	13.529	58	61359	49.87	ug/L	95
97) cyclohexanone	15.720	55	46266	156.04	ug/L	97
98) tetrachloroethene	13.519	164	123102	58.38	ug/L	99
99) 1,3-dichloropropane	13.534	76	229512	56.22	ug/L	100
100) butyl acetate	13.602	56	111817	51.87	ug/L	97
101) dibromochloromethane	13.817	129	148449	55.44	ug/L	100
102) 1,2-dibromoethane	13.989	107	130665	54.48	ug/L	97
103) 3,3-dimethyl-1-Butanol	13.702	57	120145	443.55	ug/L	99
105) chlorobenzene	14.496	112	391337	55.96	ug/L	99
106) 1,1,1,2-tetrachloroethane	14.559	131	148409	57.71	ug/L	100
107) ethylbenzene	14.559	91	702272	57.13	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188015.d
 Acq On : 25 Sep 2014 2:19 am
 Operator : shannont
 Sample : jb77235-2ms
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 25 12:41:33 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) m,p-xylene	14.674	106	528823	115.52	ug/L	99
109) o-xylene	15.139	106	267185	57.36	ug/L	98
110) styrene	15.145	104	450175	55.50	ug/L	99
111) bromoform	15.432	173	108102	51.89	ug/L	99
113) isopropylbenzene	15.521	105	721325	58.26	ug/L	99
115) bromobenzene	15.960	156	182933	56.89	ug/L	98
116) 1,1,2,2-tetrachloroethane	15.845	83	199716	51.01	ug/L	99
117) trans-1,4-dichloro-2-b...	15.897	53	50611	44.70	ug/L	96
118) 1,2,3-trichloropropane	15.934	110	49716	54.04	ug/L	99
119) n-propylbenzene	15.976	91	830104	57.26	ug/L	99
120) 2-chlorotoluene	16.138	126	171688	57.49	ug/L	98
121) 4-chlorotoluene	16.248	91	520747	54.15	ug/L	98
123) 1,3,5-trimethylbenzene	16.138	105	622625	56.16	ug/L	100
124) tert-butylbenzene	16.535	119	549847	56.79	ug/L	99
125) pentachloroethane	16.619	167	124648	59.89	ug/L	99
126) 1,2,4-trimethylbenzene	16.577	105	617804	54.88	ug/L	99
128) sec-butylbenzene	16.771	105	837821	57.93	ug/L	99
129) 1,3-dichlorobenzene	16.974	146	366610	55.38	ug/L	99
130) p-isopropyltoluene	16.901	119	700872	56.20	ug/L	99
131) 1,4-dichlorobenzene	17.063	146	368011	54.75	ug/L	99
132) benzyl chloride	17.199	91	323084	43.70	ug/L	100
133) 1,2-dichlorobenzene	17.502	146	363142	55.70	ug/L	99
135) n-butylbenzene	17.361	92	358822	56.92	ug/L	98
137) 1,2-dibromo-3-chloropr...	18.360	157	39573	51.83	ug/L	98
138) 1,3,5-trichlorobenzene	18.564	180	313262	57.49	ug/L	100
139) 1,2,4-trichlorobenzene	19.301	180	251297	54.38	ug/L	99
140) hexachlorobutadiene	19.432	225	150901	57.97	ug/L	99
141) naphthalene	19.625	128	465236	48.65	ug/L	100
143) 1,2,3-trichlorobenzene	19.902	180	193993	51.42	ug/L	99
144) hexachloroethane	17.790	201	127237	60.49	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188016.d
 Acq On : 25 Sep 2014 2:48 am
 Operator : shannont
 Sample : jB77235-2msd
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 25 12:41:49 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.992	65	132665	500.00	ug/L	-0.01
5) pentafluorobenzene	10.214	168	340595	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.129	114	395435	50.00	ug/L	0.00
96) chlorobenzene-d5	14.459	117	377091	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.037	152	225066	50.00	ug/L	0.00

System Monitoring Compounds						
56) dibromofluoromethane (s)	10.261	113	118285	52.62	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	105.24%
57) 1,2-dichloroethane-d4 (s)	10.690	65	150071	51.79	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	103.58%
88) toluene-d8 (s)	12.828	98	494229	54.00	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	108.00%
114) 4-bromofluorobenzene (s)	15.740	95	193659	51.01	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	102.02%

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.113	59	87984	301.71	ug/L	82
4) 1,4-dioxane	11.861	88	30875	1292.76	ug/L #	89
11) chlorodifluoromethane	4.484	51	196191	54.34	ug/L	100
12) dichlorodifluoromethane	4.448	85	192090	62.12	ug/L	98
15) chloromethane	4.876	50	278880	56.99	ug/L	98
16) vinyl chloride	5.143	62	244769	60.72	ug/L	98
18) bromomethane	5.823	94	121564	53.12	ug/L	100
19) chloroethane	5.995	64	100163	54.33	ug/L	99
20) trichlorofluoromethane	6.497	101	230769	64.21	ug/L	97
23) ethyl ether	6.894	74	84079	57.23	ug/L	96
24) 2-CHLOROPROPANE	7.104	43	329073	61.79	ug/L	97
27) acrolein	7.161	56	318835	438.01	ug/L	98
28) 1,1-dichloroethene	7.334	96	147404	58.25	ug/L	95
29) acetone	7.386	58	16334	48.74	ug/L	99
30) allyl chloride	7.856	78	28333	56.51	ug/L	92
31) acetonitrile	7.851	40	138888	459.03	ug/L #	67
32) iodomethane	7.616	142	243893	59.14	ug/L	99
33) carbon disulfide	7.731	76	496720	58.33	ug/L	98
34) 1-CHLOROPROPANE	8.086	63	14140	57.95	ug/L	97
35) methylene chloride	8.045	84	158685	55.44	ug/L	94
36) methyl acetate	7.835	43	170027	59.67	ug/L	98
37) methyl tert butyl ether	8.369	73	465458	52.90	ug/L	99
38) trans-1,2-dichloroethene	8.411	96	145349	56.53	ug/L	98
39) di-isopropyl ether	8.959	45	649223	59.58	ug/L	98
40) ethyl tert-butyl ether	9.420	59	554743	54.89	ug/L	99
41) 2-butanone	9.681	72	18961	55.16	ug/L #	77
42) 1,1-dichloroethane	8.980	63	289952	59.50	ug/L	99
43) chloroprene	9.085	53	245876	61.33	ug/L	98
44) acrylonitrile	8.379	53	362880	264.53	ug/L	98
45) vinyl acetate	8.965	86	27328	57.61	ug/L #	75
46) ethyl acetate	9.691	45	28698	57.48	ug/L	98
47) 2,2-dichloropropane	9.723	77	188469	52.21	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188016.d
 Acq On : 25 Sep 2014 2:48 am
 Operator : shannont
 Sample : jb77235-2msd
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 25 12:41:49 2014

Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M

Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um

QLast Update : Thu Sep 25 12:40:54 2014

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.702	96	155822	55.65	ug/L	99
49) methyl acrylate	9.770	55	196567	51.28	ug/L	100
50) propionitrile	9.791	54	283970	531.53	ug/L	96
51) bromochloromethane	10.016	128	73420	55.87	ug/L	99
52) tetrahydrofuran	10.057	42	63270	52.96	ug/L	95
53) chloroform	10.063	83	250325	56.32	ug/L	99
54) tert-butyl Formate	10.120	59	155718	49.26	ug/L	99
55) iso-butyl alcohol	10.496	74	20704	553.97	ug/L	96
58) freon 113	7.323	151	107175	58.83	ug/L	98
59) methacrylonitrile	9.968	41	122469	53.07	ug/L	99
60) 1,1,1-trichloroethane	10.334	97	217433	60.08	ug/L	99
62) tert-amyl methyl ether	10.800	87	113770	58.01	ug/L	97
63) iso-octane	10.779	57	676594	63.32	ug/L	100
66) epichlorohydrin	12.415	57	98038	274.33	ug/L	99
67) n-butyl alcohol	11.239	56	261139	2472.18	ug/L	98
68) Cyclohexane	10.408	84	235209	61.99	ug/L	# 84
69) carbon tetrachloride	10.533	117	203298	62.20	ug/L	98
70) 1,1-dichloropropene	10.502	75	210093	61.58	ug/L	99
71) hexane	8.719	86	26712	62.00	ug/L	94
72) benzene	10.768	78	605327	56.83	ug/L	99
73) heptane	10.930	57	128687	61.48	ug/L	99
74) isopropyl acetate	10.685	43	375305	59.53	ug/L	98
75) 1,2-dichloroethane	10.779	62	200405	58.79	ug/L	99
78) trichloroethene	11.469	95	145059	60.34	ug/L	99
79) methylcyclohexane	11.709	83	277103	65.02	ug/L	96
80) 2-nitropropane	12.279	41	72738	53.52	ug/L	97
81) 2-chloroethyl vinyl ether	12.284	63	548789	273.49	ug/L	99
82) methyl methacrylate	11.746	100	39045	54.72	ug/L	# 83
83) 1,2-dichloropropane	11.751	63	168098	60.59	ug/L	99
84) propyl acetate	11.783	73	31935	55.89	ug/L	86
85) dibromomethane	11.903	93	88974	56.97	ug/L	99
86) bromodichloromethane	12.028	83	195390	55.25	ug/L	98
87) cis-1,3-dichloropropene	12.509	75	252524	56.48	ug/L	98
89) 4-methyl-2-pentanone	12.624	58	68712	53.58	ug/L	99
90) toluene	12.901	92	372302	58.79	ug/L	99
91) 3-methyl-1-butanol	12.619	55	150955	1075.26	ug/L	97
92) trans-1,3-dichloropropene	13.100	75	234091	54.78	ug/L	97
93) ethyl methacrylate	13.095	69	204843	53.14	ug/L	97
94) 1,1,2-trichloroethane	13.335	83	114385	54.20	ug/L	99
95) 2-hexanone	13.529	58	63980	51.21	ug/L	96
97) cyclohexanone	15.719	55	46769	153.86	ug/L	99
98) tetrachloroethene	13.524	164	129369	59.94	ug/L	99
99) 1,3-dichloropropane	13.534	76	235659	56.40	ug/L	99
100) butyl acetate	13.602	56	124495	56.42	ug/L	96
101) dibromochloromethane	13.816	129	152702	55.71	ug/L	98
102) 1,2-dibromoethane	13.989	107	134340	54.73	ug/L	99
103) 3,3-dimethyl-1-Butanol	13.701	57	135498	493.76	ug/L	99
105) chlorobenzene	14.496	112	404839	56.56	ug/L	99
106) 1,1,1,2-tetrachloroethane	14.559	131	151772	57.66	ug/L	99
107) ethylbenzene	14.559	91	728278	57.88	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188016.d
 Acq On : 25 Sep 2014 2:48 am
 Operator : shannont
 Sample : jb77235-2msd
 Misc : ms74308,vu8672,5.0,,,,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 25 12:41:49 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

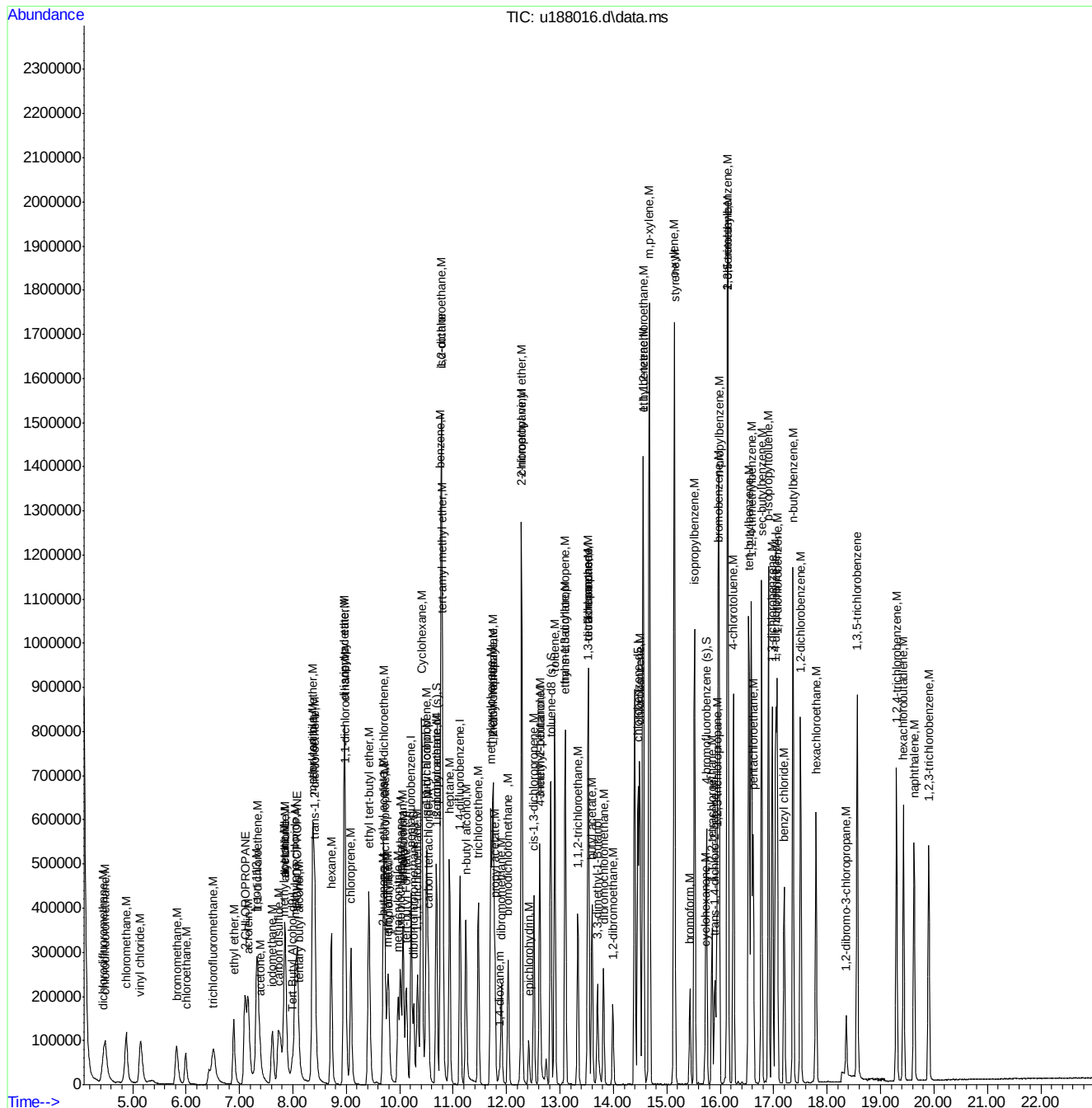
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) m,p-xylene	14.674	106	549017	117.17	ug/L	97
109) o-xylene	15.139	106	276569	58.01	ug/L	99
110) styrene	15.144	104	465459	56.06	ug/L	99
111) bromoform	15.432	173	112683	52.85	ug/L	98
113) isopropylbenzene	15.521	105	746576	59.14	ug/L	100
115) bromobenzene	15.960	156	188062	57.36	ug/L	97
116) 1,1,2,2-tetrachloroethane	15.845	83	205396	51.45	ug/L	100
117) trans-1,4-dichloro-2-b...	15.897	53	53256	46.13	ug/L	97
118) 1,2,3-trichloropropane	15.939	110	51134	54.51	ug/L	98
119) n-propylbenzene	15.975	91	864568	58.49	ug/L	100
120) 2-chlorotoluene	16.138	126	177533	58.30	ug/L	99
121) 4-chlorotoluene	16.247	91	546656	55.75	ug/L	98
123) 1,3,5-trimethylbenzene	16.138	105	648677	57.38	ug/L	100
124) tert-butylbenzene	16.535	119	565775	57.31	ug/L	100
125) pentachloroethane	16.619	167	129026	60.80	ug/L	99
126) 1,2,4-trimethylbenzene	16.582	105	641072	55.85	ug/L	99
128) sec-butylbenzene	16.775	105	872441	59.16	ug/L	99
129) 1,3-dichlorobenzene	16.974	146	382044	56.59	ug/L	99
130) p-isopropyltoluene	16.901	119	733236	57.66	ug/L	100
131) 1,4-dichlorobenzene	17.063	146	383468	55.95	ug/L	99
132) benzyl chloride	17.199	91	349156	46.31	ug/L	98
133) 1,2-dichlorobenzene	17.502	146	375253	56.45	ug/L	99
135) n-butylbenzene	17.361	92	376147	58.52	ug/L	98
137) 1,2-dibromo-3-chloropr...	18.359	157	41612	53.45	ug/L	98
138) 1,3,5-trichlorobenzene	18.563	180	320978	57.77	ug/L	100
139) 1,2,4-trichlorobenzene	19.300	180	264204	56.07	ug/L	99
140) hexachlorobutadiene	19.431	225	159675	60.16	ug/L	99
141) naphthalene	19.625	128	485320	49.78	ug/L	99
143) 1,2,3-trichlorobenzene	19.902	180	203931	53.01	ug/L	98
144) hexachloroethane	17.795	201	131808	61.45	ug/L	99

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188016.d
Acq On    : 25 Sep 2014    2:48 am
Operator  : shannont
Sample    : jb77235-2msd
Misc      : ms74308,vu8672,5.0,,,,,1
ALS Vial  : 32    Sample Multiplier: 1
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Quant Time: Sep 25 12:41:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Sep 25 12:40:54 2014
Response via : Initial Calibration



MU8630.M Thu Sep 25 13:16:01 2014 RPT1

Page: 4

7.4.2

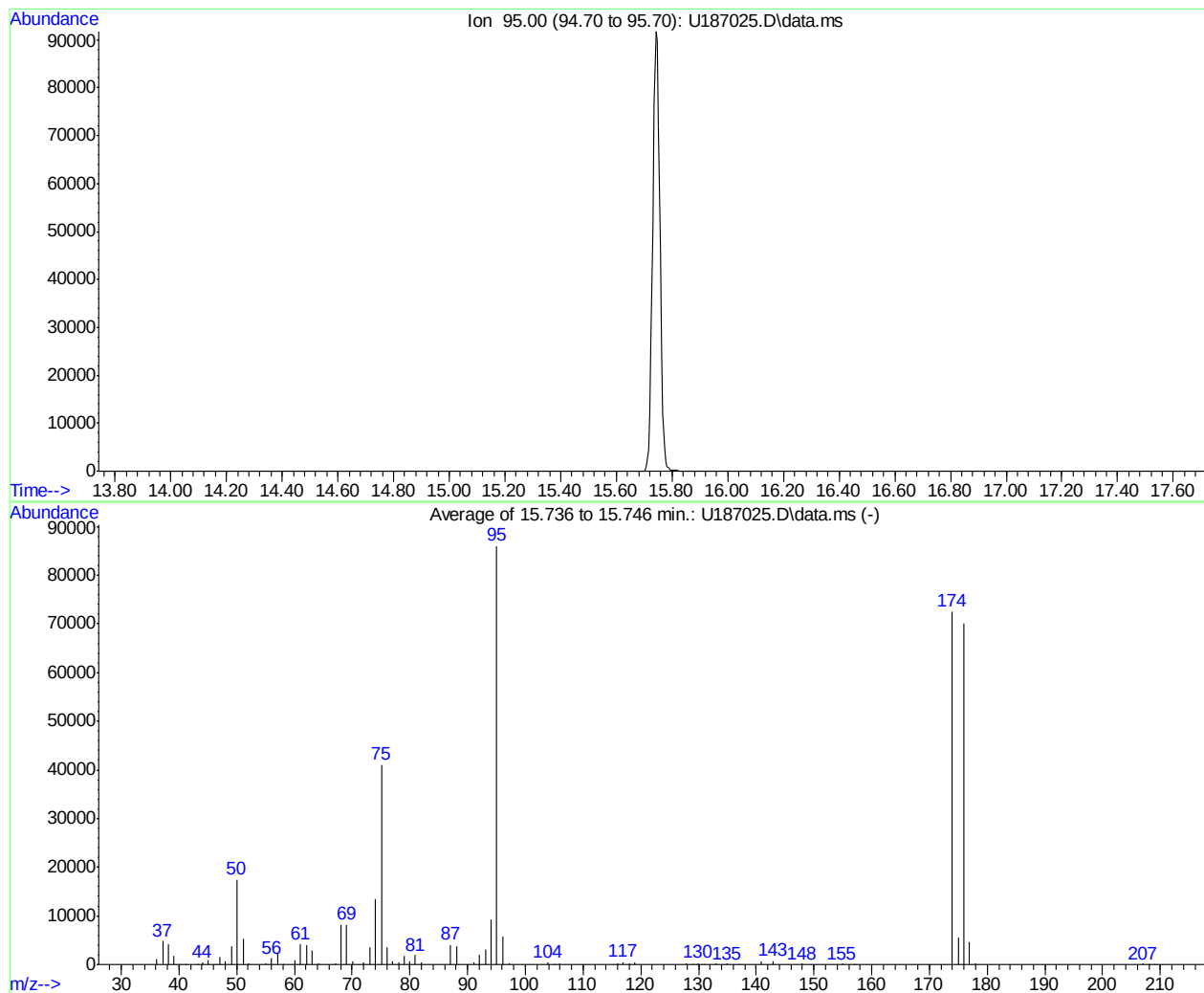


BFB

Data File : C:\msdchem\1\DATA\U187025.D
 Acq On : 27 Aug 2014 5:24 pm
 Sample : bfb
 Misc : ms72718,vu8630,5.0,,,1
 MS Integration Params: RTEINT.P

Vial: 11
 Operator: giannap
 Inst : MSU
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\MU8630.M (RTE Integrator)
 Title : SW-846 8260B, DB624 60m x 250um x 1.40um



AutoFind: Scans 2228, 2229, 2230; Background Corrected with Scan 2219

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.3	17488	PASS
75	95	30	60	47.7	41056	PASS
95	95	100	100	100.0	86042	PASS
96	95	5	9	6.8	5820	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	84.3	72536	PASS
175	174	5	9	7.7	5550	PASS
176	174	95	101	96.6	70058	PASS
177	176	5	9	6.8	4736	PASS

U187025.D MU8630.M Thu Aug 28 10:35:58 2014 U_CORE

Average of 15.736 to 15.746 min.: U187025.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1038	48.05	606	62.05	3895	76.05	3592
37.15	4831	49.05	3796	63.05	2800	77.05	574
38.10	4203	50.05	17488	64.10	227	78.05	433
39.10	1757	51.10	5287	67.15	120	78.95	1807
40.05	58	52.05	272	68.05	8122	80.00	579
41.15	41	55.10	238	69.05	8193	80.95	1921
43.10	46	56.05	1278	70.05	669	81.95	442
44.05	371	57.05	2246	72.05	528	87.05	3988
45.10	947	58.05	106	73.05	3505	88.05	3696
46.25	51	60.05	906	74.05	13549	91.00	367
47.05	1466	61.05	4085	75.05	41056	92.05	2052

Average of 15.736 to 15.746 min.: U187025.D\data.ms

bfb

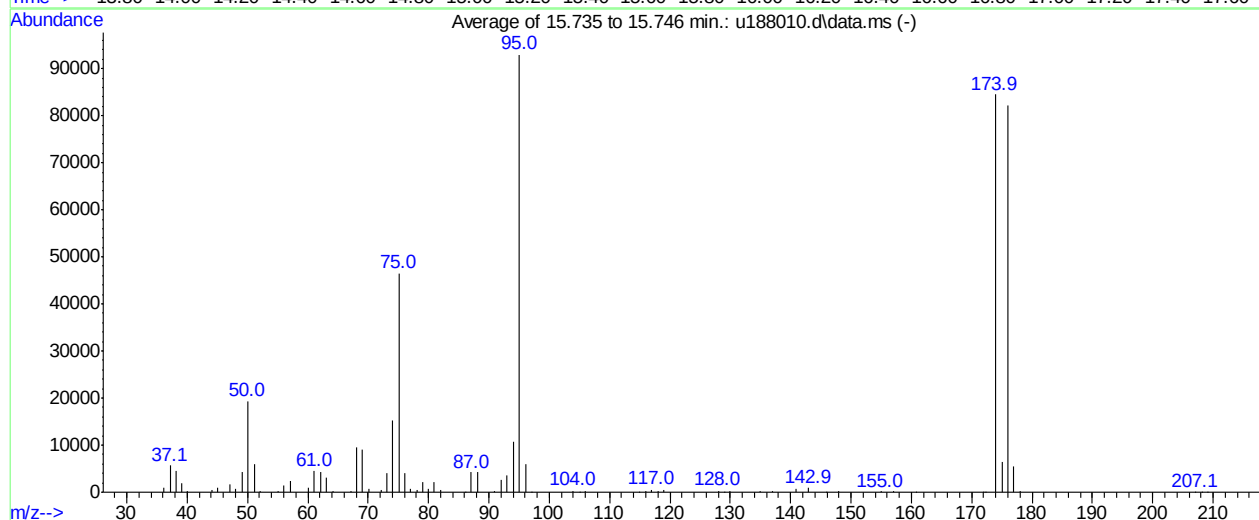
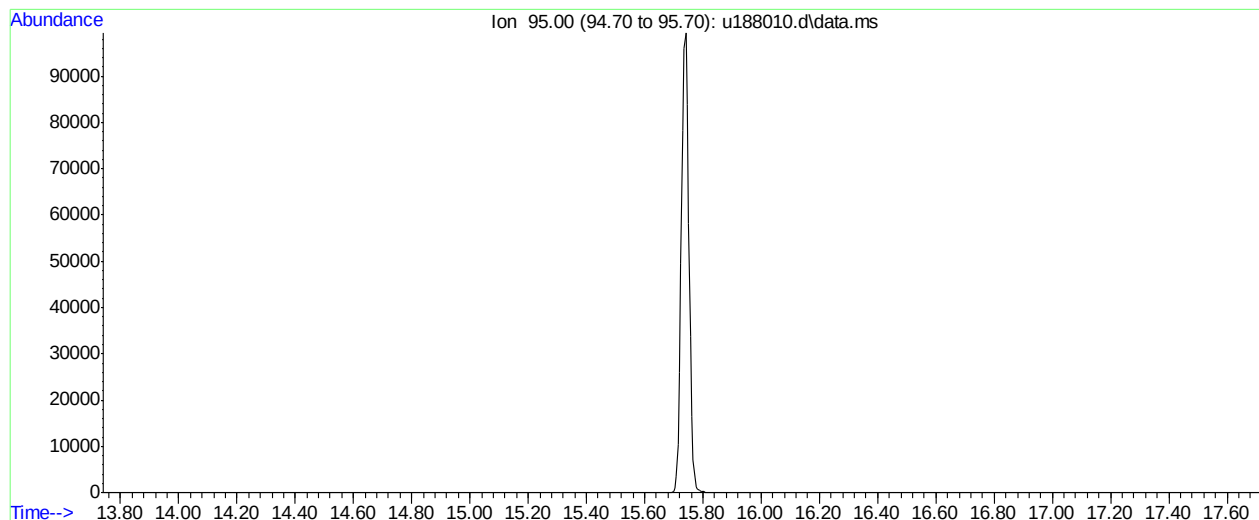
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	3169	118.95	445	154.95	151		
94.05	9156	127.90	251	156.95	55		
95.05	86042	129.00	110	173.95	72536		
96.05	5820	129.95	258	175.05	5550		
97.15	229	131.05	51	175.95	70058		
103.95	346	133.00	167	176.95	4736		
105.05	52	135.00	174	178.00	162		
105.90	311	136.95	111	207.05	201		
115.95	267	140.95	659	208.10	80		
116.95	460	142.95	668	209.05	13		
117.95	233	147.95	191				

BFB

Data File : C:\msdchem\1\DATA\U-...vu8671-8672\u188010.d Vial: 26
 Acq On : 24 Sep 2014 11:54 pm Operator: shannont
 Sample : bfb Inst : MSU
 Misc : ms74331,vu8672,5.0,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MU8630.M (RTE Integrator)
 Title : SW-846 8260B, DB624 60m x 250um x 1.40um



AutoFind: Scans 2228, 2229, 2230; Background Corrected with Scan 2218

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	19357	PASS
75	95	30	60	50.0	46459	PASS
95	95	100	100	100.0	93005	PASS
96	95	5	9	6.5	6012	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.8	84461	PASS
175	174	5	9	7.8	6546	PASS
176	174	95	101	97.3	82221	PASS
177	176	5	9	6.8	5583	PASS

u188010.d MU8630.M Thu Sep 25 13:05:09 2014 RPT1

Average of 15.735 to 15.746 min.: u188010.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1071	51.15	5863	68.05	9424	80.00	664
37.15	5691	52.05	263	69.05	9166	80.95	2186
38.10	4647	55.10	247	70.05	694	81.95	574
39.10	1878	56.05	1416	72.10	488	86.05	126
40.10	220	57.05	2470	73.05	4047	87.05	4224
44.05	543	60.05	900	74.05	15333	88.05	4213
45.05	996	61.05	4514	75.05	46459	91.00	292
47.10	1564	62.05	4393	76.05	3989	92.05	2532
48.05	720	63.10	3122	77.05	620	93.05	3654
49.05	4404	64.10	353	78.05	477	94.05	10615
50.05	19357	67.15	237	78.95	2177	95.05	93005

Average of 15.735 to 15.746 min.: u188010.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.05	6012	129.00	109	171.95	59		
97.00	125	129.95	318	172.25	64		
103.95	358	134.95	166	173.95	84461		
105.00	110	136.90	184	175.05	6546		
105.95	355	140.95	827	175.95	82221		
114.95	51	142.95	913	176.95	5583		
116.00	299	145.95	52	177.95	161		
117.00	509	147.95	235	207.05	116		
118.00	285	155.00	212	208.05	25		
118.95	449	157.05	203	209.10	116		
128.00	338	160.85	64				

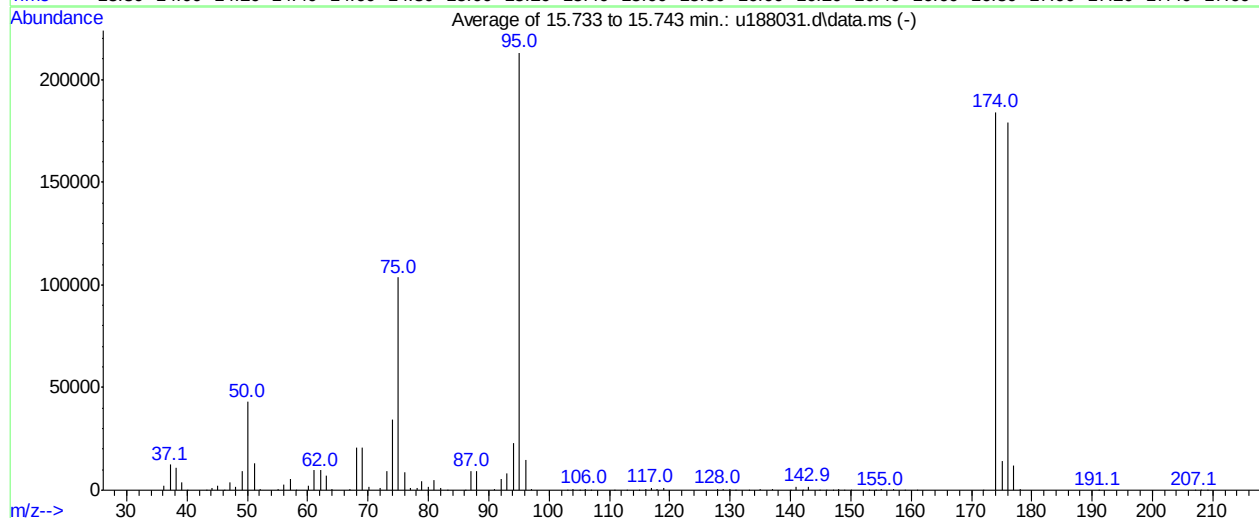
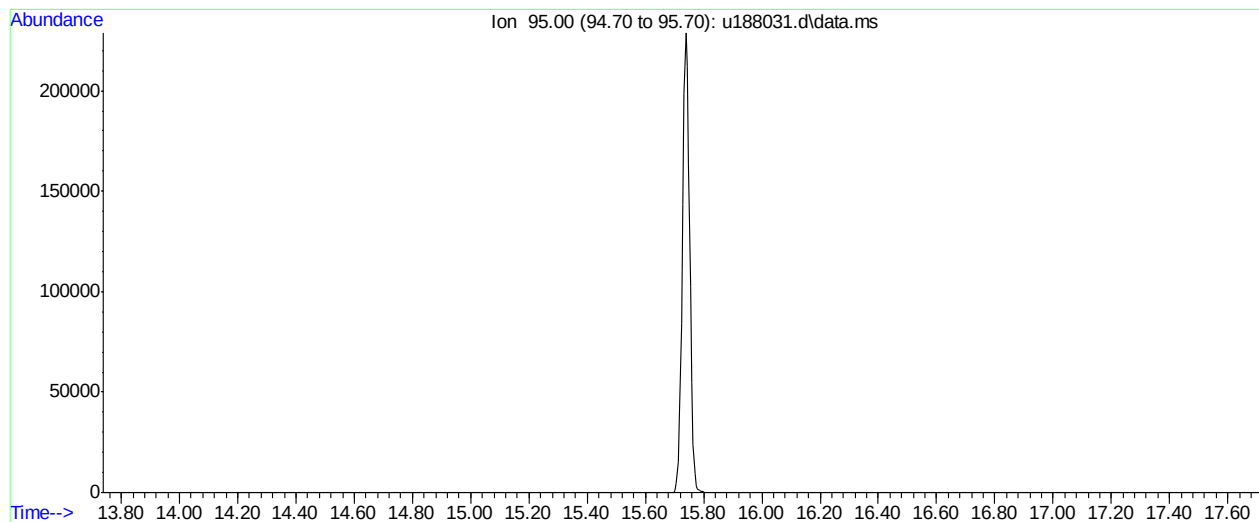
7.5.2

7

BFB

Data File : C:\msdchem\1\DATA\U-...vu8671-8672\u188031.d Vial: 1
 Acq On : 25 Sep 2014 10:12 am Operator: shannont
 Sample : bfb Inst : MSU
 Misc : ms74105,vu8672,5.0,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MU8630.M (RTE Integrator)
 Title : SW-846 8260B, DB624 60m x 250um x 1.40um



AutoFind: Scans 2227, 2228, 2229; Background Corrected with Scan 2217

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	42960	PASS
75	95	30	60	48.6	103560	PASS
95	95	100	100	100.0	213163	PASS
96	95	5	9	6.9	14721	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.4	184171	PASS
175	174	5	9	7.8	14283	PASS
176	174	95	101	97.2	179029	PASS
177	176	5	9	6.6	11765	PASS

u188031.d MU8630.M Thu Sep 25 16:34:57 2014 RPT1

Average of 15.733 to 15.743 min.: u188031.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	2417	49.05	9575	63.05	7004	77.05	1267
37.15	12443	50.05	42960	64.05	680	78.05	932
38.15	10706	51.15	13324	67.05	434	78.95	4566
39.15	4065	52.10	568	68.05	20888	80.00	1536
40.05	254	55.10	602	69.05	21003	80.95	4783
43.15	53	56.05	2999	70.05	1583	82.00	1067
44.05	1101	57.05	5441	72.05	1199	83.05	58
45.10	1953	58.10	214	73.05	9182	86.05	174
46.25	65	60.05	2106	74.05	34512	87.05	9541
47.05	3618	61.05	9670	75.05	103560	88.05	9246
48.05	1438	62.05	9810	76.05	8953	91.00	611

Average of 15.733 to 15.743 min.: u188031.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.05	5347	110.85	59	133.05	51	148.95	118
93.05	8212	112.95	54	134.90	346	149.95	215
94.05	22995	115.00	191	136.95	303	152.95	112
95.05	213163	115.95	645	139.90	106	154.05	53
96.05	14721	116.95	1156	140.95	1653	155.00	523
97.05	449	117.95	683	142.00	260	157.00	375
103.05	62	118.95	966	142.95	1846	158.95	228
103.95	759	127.95	700	144.90	134	160.90	231
105.00	268	128.90	329	145.95	268	171.95	75
105.95	779	129.95	631	147.00	122	174.00	184171
107.00	195	130.90	274	147.95	456	175.05	14283

Average of 15.733 to 15.743 min.: u188031.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.95	179029						
176.95	11765						
178.05	346						
191.05	51						
207.05	77						
208.05	34						
209.15	51						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187026.D
 Acq On : 27 Aug 2014 5:53 pm
 Operator : giannap
 Sample : ic8630-0.2
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 28 10:35:10 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:22:31 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.020	65	162148	500.00	ug/L	0.02
5) pentafluorobenzene	10.221	168	315322	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.131	114	367750	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	343394	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.044	152	210300	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L	
Spiked Amount	50.000	Range 79 - 120	Recovery	=	0.00%#	
57) 1,2-dichloroethane-d4 (s)	10.692	65	597	0.22	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	0.44%#	
88) toluene-d8 (s)	12.830	98	1972	0.23	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	0.46%#	
114) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount	50.000	Range 74 - 119	Recovery	=	0.00%#	

Target Compounds

						Qvalue
15) chloromethane	4.842	50	1005	0.23	ug/L	77
32) iodomethane	7.633	142	645	0.16	ug/L #	44
42) 1,1-dichloroethane	8.982	63	864	0.19	ug/L #	50
43) chloroprene	9.097	53	666	0.18	ug/L	77
44) acrylonitrile	8.386	53	1498	1.22	ug/L	90
60) 1,1,1-trichloroethane	10.331	97	753	0.22	ug/L #	35
63) iso-octane	10.791	57	2132	0.21	ug/L	98
70) 1,1-dichloropropene	10.504	75	678	0.21	ug/L #	42
72) benzene	10.781	78	2455	0.25	ug/L	94
74) isopropyl acetate	10.697	43	1384	0.24	ug/L #	62
75) 1,2-dichloroethane	10.781	62	579	0.18	ug/L #	49
78) trichloroethene	11.471	95	390	0.17	ug/L #	73
79) methylcyclohexane	11.717	83	707	0.17	ug/L #	68
81) 2-chloroethyl vinyl ether	12.286	63	1882	0.98	ug/L	95
83) 1,2-dichloropropane	11.753	63	506	0.19	ug/L #	43
86) bromodichloromethane	12.030	83	743	0.23	ug/L	85
87) cis-1,3-dichloropropene	12.511	75	859	0.20	ug/L	87
90) toluene	12.909	92	1317	0.22	ug/L	94
92) trans-1,3-dichloropropene	13.107	75	897	0.22	ug/L	78
94) 1,1,2-trichloroethane	13.342	83	435	0.22	ug/L	82
99) 1,3-dichloropropane	13.541	76	805	0.21	ug/L	91
101) dibromochloromethane	13.818	129	458	0.18	ug/L	82
102) 1,2-dibromoethane	13.996	107	474	0.21	ug/L	84
105) chlorobenzene	14.493	112	1433	0.22	ug/L	83
106) 1,1,1,2-tetrachloroethane	14.561	131	423	0.17	ug/L	86
107) ethylbenzene	14.566	91	2672	0.23	ug/L	92
108) m,p-xylene	14.676	106	1777	0.41	ug/L	81
109) o-xylene	15.141	106	853	0.19	ug/L	92
110) styrene	15.151	104	1642	0.21	ug/L	96
113) isopropylbenzene	15.528	105	2543	0.21	ug/L	96
115) bromobenzene	15.967	156	655	0.21	ug/L	86
116) 1,1,2,2-tetrachloroethane	15.852	83	894	0.25	ug/L	83
117) trans-1,4-dichloro-2-b...	15.904	53	226	0.21	ug/L #	62

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187026.D
Acq On : 27 Aug 2014 5:53 pm
Operator : giannap
Sample : ic8630-0.2
Misc : ms72741,vu8630,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 28 10:35:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:22:31 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) n-propylbenzene	15.977	91	3198	0.23	ug/L	98
120) 2-chlorotoluene	16.145	126	595	0.20	ug/L #	59
121) 4-chlorotoluene	16.249	91	2182	0.24	ug/L	83
123) 1,3,5-trimethylbenzene	16.145	105	2467	0.23	ug/L	98
124) tert-butylbenzene	16.542	119	2008	0.22	ug/L	88
126) 1,2,4-trimethylbenzene	16.584	105	2508	0.24	ug/L	90
128) sec-butylbenzene	16.772	105	3064	0.22	ug/L	91
129) 1,3-dichlorobenzene	16.981	146	1330	0.21	ug/L	92
130) p-isopropyltoluene	16.908	119	2750	0.23	ug/L	95
133) 1,2-dichlorobenzene	17.509	146	1482	0.24	ug/L	98
135) n-butylbenzene	17.368	92	1220	0.20	ug/L	96
138) 1,3,5-trichlorobenzene	18.570	180	1128	0.21	ug/L #	93
139) 1,2,4-trichlorobenzene	19.308	180	1066	0.24	ug/L	93
140) hexachlorobutadiene	19.433	225	490	0.19	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187027.D
 Acq On : 27 Aug 2014 6:22 pm
 Operator : giannap
 Sample : ic8630-0.5
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 10:22:08 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:22:31 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.030	65	159778	500.00	ug/L	0.03
5) pentafluorobenzene	10.220	168	311901	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.135	114	363899	50.00	ug/L	0.00
96) chlorobenzene-d5	14.465	117	341863	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.043	152	211789	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.267	113	946	0.46	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	0.92%#
57) 1,2-dichloroethane-d4 (s)	10.696	65	1226	0.47	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	0.94%#
88) toluene-d8 (s)	12.829	98	3872	0.46	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	0.92%#
114) 4-bromofluorobenzene (s)	15.746	95	1921	0.55	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	1.10%#

Target Compounds

						Qvalue
11) chlorodifluoromethane	4.485	51	1622	0.49	ug/L	68
15) chloromethane	4.835	50	2458	0.58	ug/L	89
16) vinyl chloride	5.138	62	1901	0.52	ug/L	89
19) chloroethane	6.011	64	853	0.50	ug/L	# 44
24) 2-CHLOROPROPANE	7.109	43	2165	0.44	ug/L	# 67
28) 1,1-dichloroethene	7.345	96	1258	0.56	ug/L	# 59
32) iodomethane	7.627	142	1586	0.39	ug/L	90
33) carbon disulfide	7.758	76	3938	0.49	ug/L	78
35) methylene chloride	8.061	84	1326	0.51	ug/L	# 78
37) methyl tert butyl ether	8.390	73	4233	0.53	ug/L	83
38) trans-1,2-dichloroethene	8.416	96	1180	0.52	ug/L	86
42) 1,1-dichloroethane	8.986	63	2008	0.44	ug/L	89
43) chloroprene	9.091	53	1915	0.53	ug/L	86
44) acrylonitrile	8.390	53	3196	2.64	ug/L	95
47) 2,2-dichloropropane	9.718	77	1779	0.55	ug/L	88
48) cis-1,2-dichloroethene	9.708	96	1373	0.55	ug/L	85
50) propionitrile	9.812	54	2498	5.17	ug/L	64
53) chloroform	10.074	83	2207	0.55	ug/L	95
54) tert-butyl Formate	10.136	59	1397	0.47	ug/L	# 67
59) methacrylonitrile	9.969	41	1059	0.52	ug/L	83
60) 1,1,1-trichloroethane	10.340	97	1343	0.39	ug/L	97
62) tert-amyl methyl ether	10.800	87	787	0.42	ug/L	# 73
63) iso-octane	10.785	57	4455	0.44	ug/L	97
70) 1,1-dichloropropene	10.508	75	1383	0.43	ug/L	91
72) benzene	10.774	78	4706	0.49	ug/L	100
74) isopropyl acetate	10.691	43	2840	0.50	ug/L	# 89
75) 1,2-dichloroethane	10.790	62	1422	0.44	ug/L	94
78) trichloroethene	11.480	95	1036	0.45	ug/L	88
79) methylcyclohexane	11.710	83	1806	0.44	ug/L	# 68
81) 2-chloroethyl vinyl ether	12.285	63	4416	2.32	ug/L	96
83) 1,2-dichloropropane	11.762	63	1041	0.39	ug/L	90
85) dibromomethane	11.909	93	663	0.44	ug/L	90
86) bromodichloromethane	12.039	83	1572	0.48	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187027.D
 Acq On : 27 Aug 2014 6:22 pm
 Operator : giannap
 Sample : ic8630-0.5
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 10:22:08 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:22:31 2014
 Response via : Initial Calibration

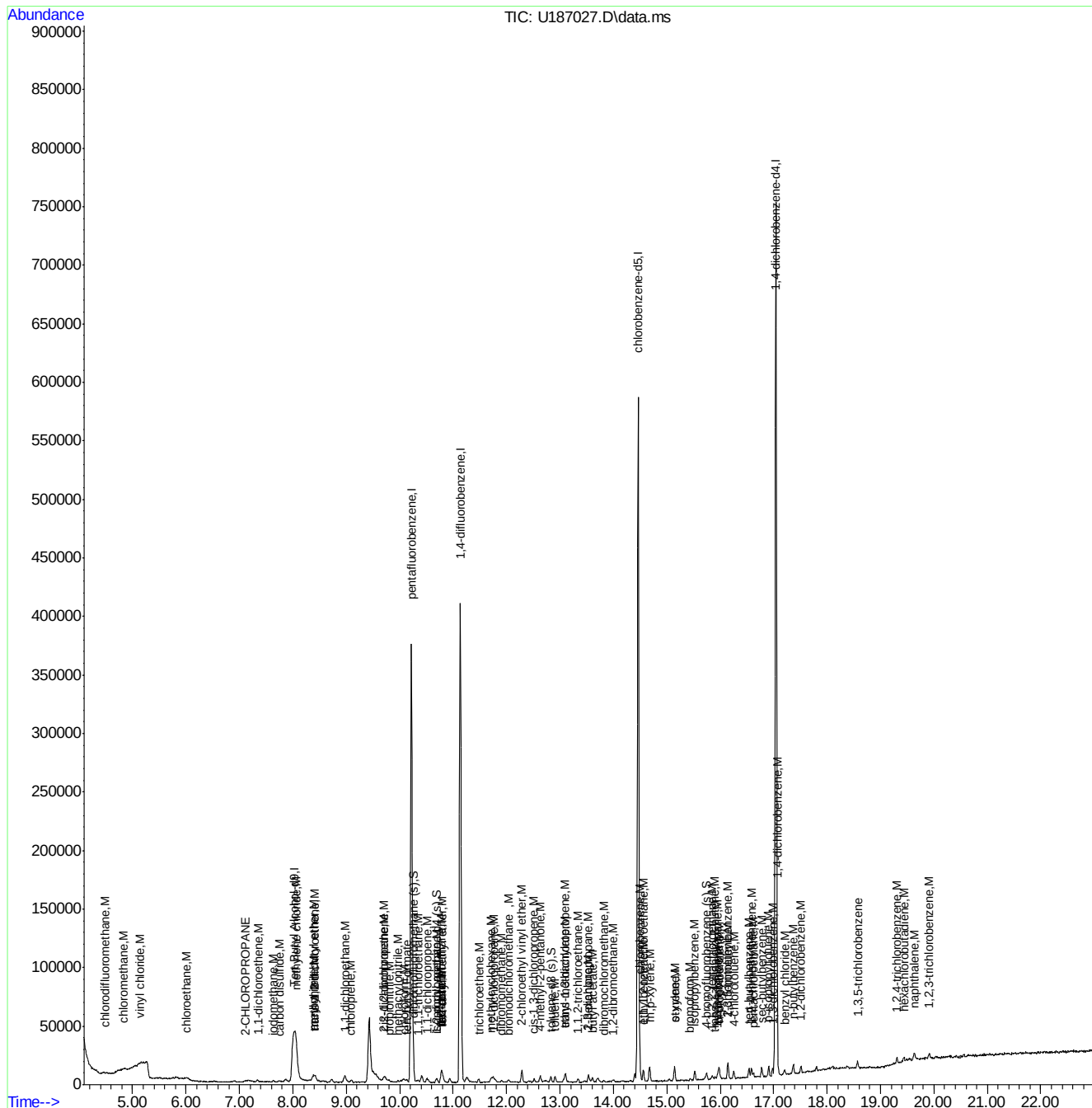
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) cis-1,3-dichloropropene	12.515	75	1882	0.44	ug/L	86
89) 4-methyl-2-pentanone	12.630	58	663	0.56	ug/L #	84
90) toluene	12.907	92	2590	0.43	ug/L	97
92) trans-1,3-dichloropropene	13.106	75	1839	0.46	ug/L	91
93) ethyl methacrylate	13.101	69	1918	0.54	ug/L	94
94) 1,1,2-trichloroethane	13.341	83	1005	0.52	ug/L	97
95) 2-hexanone	13.540	58	663	0.60	ug/L #	68
99) 1,3-dichloropropane	13.540	76	1831	0.48	ug/L	89
100) butyl acetate	13.613	56	1163	0.61	ug/L #	70
101) dibromochloromethane	13.822	129	1160	0.45	ug/L	87
102) 1,2-dibromoethane	13.995	107	1077	0.48	ug/L	94
105) chlorobenzene	14.497	112	3094	0.47	ug/L	87
106) 1,1,1,2-tetrachloroethane	14.559	131	1085	0.44	ug/L	86
107) ethylbenzene	14.565	91	5207	0.46	ug/L	97
108) m,p-xylene	14.674	106	3982	0.92	ug/L	81
109) o-xylene	15.140	106	1982	0.44	ug/L	100
110) styrene	15.150	104	3483	0.45	ug/L	95
111) bromoform	15.438	173	789	0.39	ug/L	92
113) isopropylbenzene	15.521	105	5439	0.45	ug/L	95
115) bromobenzene	15.966	156	1280	0.41	ug/L	97
116) 1,1,2,2-tetrachloroethane	15.851	83	2022	0.56	ug/L	84
117) trans-1,4-dichloro-2-b...	15.903	53	508	0.47	ug/L #	75
118) 1,2,3-trichloropropane	15.945	110	372	0.41	ug/L #	51
119) n-propylbenzene	15.981	91	6536	0.47	ug/L	95
120) 2-chlorotoluene	16.143	126	1290	0.44	ug/L #	83
121) 4-chlorotoluene	16.253	91	4372	0.48	ug/L	97
123) 1,3,5-trimethylbenzene	16.143	105	4942	0.46	ug/L	95
124) tert-butylbenzene	16.541	119	4651	0.50	ug/L	96
125) pentachloroethane	16.619	167	853	0.40	ug/L	85
126) 1,2,4-trimethylbenzene	16.583	105	5260	0.49	ug/L	93
128) sec-butylbenzene	16.776	105	6563	0.47	ug/L	96
129) 1,3-dichlorobenzene	16.980	146	2867	0.45	ug/L	96
130) p-isopropyltoluene	16.907	119	5773	0.48	ug/L	99
131) 1,4-dichlorobenzene	17.069	146	3167	0.49	ug/L	88
132) benzyl chloride	17.199	91	4010	0.59	ug/L	96
133) 1,2-dichlorobenzene	17.513	146	2850	0.46	ug/L	92
135) n-butylbenzene	17.367	92	2940	0.47	ug/L	99
138) 1,3,5-trichlorobenzene	18.574	180	2425	0.46	ug/L	98
139) 1,2,4-trichlorobenzene	19.306	180	2156	0.49	ug/L	95
140) hexachlorobutadiene	19.437	225	1204	0.47	ug/L	89
141) naphthalene	19.636	128	5041	0.55	ug/L	94
143) 1,2,3-trichlorobenzene	19.908	180	1873	0.51	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187027.D
Acq On : 27 Aug 2014 6:22 pm
Operator : giannap
Sample : ic8630-0.5
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 10:22:08 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:22:31 2014
Response via : Initial Calibration



MU8630.M Tue Sep 02 12:57:38 2014 U_CORE

Page: 3

7.6.2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187028.D
 Acq On : 27 Aug 2014 6:52 pm
 Operator : giannap
 Sample : ic8630-1
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 28 10:14:02 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:22:31 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.998	65	167075	500.00	ug/L	0.00
5) pentafluorobenzene	10.220	168	322903	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.135	114	379930	50.00	ug/L	0.00
96) chlorobenzene-d5	14.465	117	352509	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.042	152	217976	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.267	113	2289	1.08	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	2.16%#	
57) 1,2-dichloroethane-d4 (s)	10.695	65	2888	1.06	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	2.12%#	
88) toluene-d8 (s)	12.828	98	9086	1.04	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	2.08%#	
114) 4-bromofluorobenzene (s)	15.746	95	3907	1.09	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	2.18%#	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.144	59	2011	5.41	ug/L	# 48
11) chlorodifluoromethane	4.485	51	3447	1.01	ug/L	78
12) dichlorodifluoromethane	4.458	85	2468	0.81	ug/L	84
15) chloromethane	4.851	50	4874	1.10	ug/L	92
16) vinyl chloride	5.138	62	3674	0.97	ug/L	85
18) bromomethane	5.818	94	2505	1.25	ug/L	87
19) chloroethane	5.995	64	1830	1.04	ug/L	90
20) trichlorofluoromethane	6.503	101	2953	0.84	ug/L	83
23) ethyl ether	6.900	74	1211	0.85	ug/L	# 77
24) 2-CHLOROPROPANE	7.120	43	5518	1.08	ug/L	# 45
27) acrolein	7.167	56	674956	993.51	ug/L	99
28) 1,1-dichloroethene	7.344	96	2542	1.09	ug/L	# 68
32) iodomethane	7.632	142	3875	0.93	ug/L	94
33) carbon disulfide	7.752	76	8497	1.03	ug/L	96
35) methylene chloride	8.055	84	2775	1.03	ug/L	97
37) methyl tert butyl ether	8.390	73	8561	1.03	ug/L	87
38) trans-1,2-dichloroethene	8.416	96	2688	1.14	ug/L	# 78
39) di-isopropyl ether	8.965	45	11296	1.12	ug/L	92
42) 1,1-dichloroethane	8.991	63	4641	0.98	ug/L	89
43) chloroprene	9.096	53	4073	1.08	ug/L	97
44) acrylonitrile	8.385	53	6521	5.20	ug/L	92
47) 2,2-dichloropropane	9.723	77	3776	1.14	ug/L	92
48) cis-1,2-dichloroethene	9.718	96	2842	1.10	ug/L	84
50) propionitrile	9.801	54	5068	10.13	ug/L	99
51) bromochloromethane	10.021	128	1165	0.92	ug/L	# 85
53) chloroform	10.073	83	4333	1.05	ug/L	95
54) tert-butyl Formate	10.131	59	2938	0.96	ug/L	# 79
59) methacrylonitrile	9.979	41	2246	1.07	ug/L	99
60) 1,1,1-trichloroethane	10.340	97	3446	0.97	ug/L	90
62) tert-amyl methyl ether	10.805	87	1826	0.94	ug/L	# 77
63) iso-octane	10.784	57	8954	0.86	ug/L	95
68) Cyclohexane	10.408	84	3367	0.90	ug/L	# 89
69) carbon tetrachloride	10.539	117	3060	0.95	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187028.D
 Acq On : 27 Aug 2014 6:52 pm
 Operator : giannap
 Sample : ic8630-1
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 28 10:14:02 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:22:31 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 1,1-dichloropropene	10.507	75	3410	1.02	ug/L	94
72) benzene	10.779	78	10476	1.05	ug/L	99
73) heptane	10.936	57	1941	0.97	ug/L	92
74) isopropyl acetate	10.685	43	6268	1.05	ug/L	97
75) 1,2-dichloroethane	10.784	62	3349	0.98	ug/L	96
78) trichloroethene	11.474	95	2375	0.99	ug/L	99
79) methylcyclohexane	11.710	83	3619	0.84	ug/L	87
81) 2-chloroethyl vinyl ether	12.285	63	9655	4.85	ug/L	96
82) methyl methacrylate	11.746	100	630	0.86	ug/L #	36
83) 1,2-dichloropropane	11.757	63	2646	0.94	ug/L	99
85) dibromomethane	11.914	93	1410	0.91	ug/L	91
86) bromodichloromethane	12.034	83	3456	1.02	ug/L	96
87) cis-1,3-dichloropropene	12.520	75	4285	0.97	ug/L	96
89) 4-methyl-2-pentanone	12.630	58	1176	0.95	ug/L #	81
90) toluene	12.907	92	6111	0.98	ug/L	97
92) trans-1,3-dichloropropene	13.106	75	4007	0.96	ug/L	95
93) ethyl methacrylate	13.095	69	3910	1.06	ug/L	91
94) 1,1,2-trichloroethane	13.336	83	2044	1.02	ug/L	92
95) 2-hexanone	13.534	58	1320	1.14	ug/L	93
98) tetrachloroethene	13.529	164	1997	0.99	ug/L	91
99) 1,3-dichloropropane	13.539	76	3969	1.01	ug/L	96
100) butyl acetate	13.602	56	2263	1.15	ug/L #	82
101) dibromochloromethane	13.817	129	2514	0.94	ug/L	93
102) 1,2-dibromoethane	13.994	107	2250	0.97	ug/L	99
105) chlorobenzene	14.496	112	6787	1.01	ug/L	96
106) 1,1,1,2-tetrachloroethane	14.559	131	2469	0.96	ug/L	91
107) ethylbenzene	14.559	91	11819	1.00	ug/L	96
108) m,p-xylene	14.674	106	8836	1.98	ug/L	98
109) o-xylene	15.144	106	4476	0.97	ug/L	98
110) styrene	15.150	104	7737	0.98	ug/L	95
111) bromoform	15.437	173	2026	0.97	ug/L	96
113) isopropylbenzene	15.521	105	12288	0.99	ug/L	97
115) bromobenzene	15.965	156	3173	0.98	ug/L	96
116) 1,1,2,2-tetrachloroethane	15.855	83	3809	1.02	ug/L	96
117) trans-1,4-dichloro-2-b...	15.908	53	1151	1.03	ug/L	85
118) 1,2,3-trichloropropane	15.950	110	902	0.96	ug/L	92
119) n-propylbenzene	15.981	91	14166	0.99	ug/L	98
120) 2-chlorotoluene	16.143	126	2909	0.96	ug/L	97
121) 4-chlorotoluene	16.253	91	9604	1.02	ug/L	97
123) 1,3,5-trimethylbenzene	16.143	105	10868	0.98	ug/L	96
124) tert-butylbenzene	16.540	119	9577	0.99	ug/L	95
125) pentachloroethane	16.624	167	1973	0.90	ug/L	93
126) 1,2,4-trimethylbenzene	16.582	105	11125	1.01	ug/L	92
128) sec-butylbenzene	16.776	105	13953	0.96	ug/L	98
129) 1,3-dichlorobenzene	16.980	146	6790	1.03	ug/L	100
130) p-isopropyltoluene	16.906	119	12255	0.99	ug/L	96
131) 1,4-dichlorobenzene	17.068	146	6864	1.02	ug/L	93
132) benzyl chloride	17.204	91	8143	1.16	ug/L	98
133) 1,2-dichlorobenzene	17.513	146	6412	1.00	ug/L	96
135) n-butylbenzene	17.366	92	6277	0.98	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187028.D
Acq On : 27 Aug 2014 6:52 pm
Operator : giannap
Sample : ic8630-1
Misc : ms72741,vu8630,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 28 10:14:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:22:31 2014
Response via : Initial Calibration

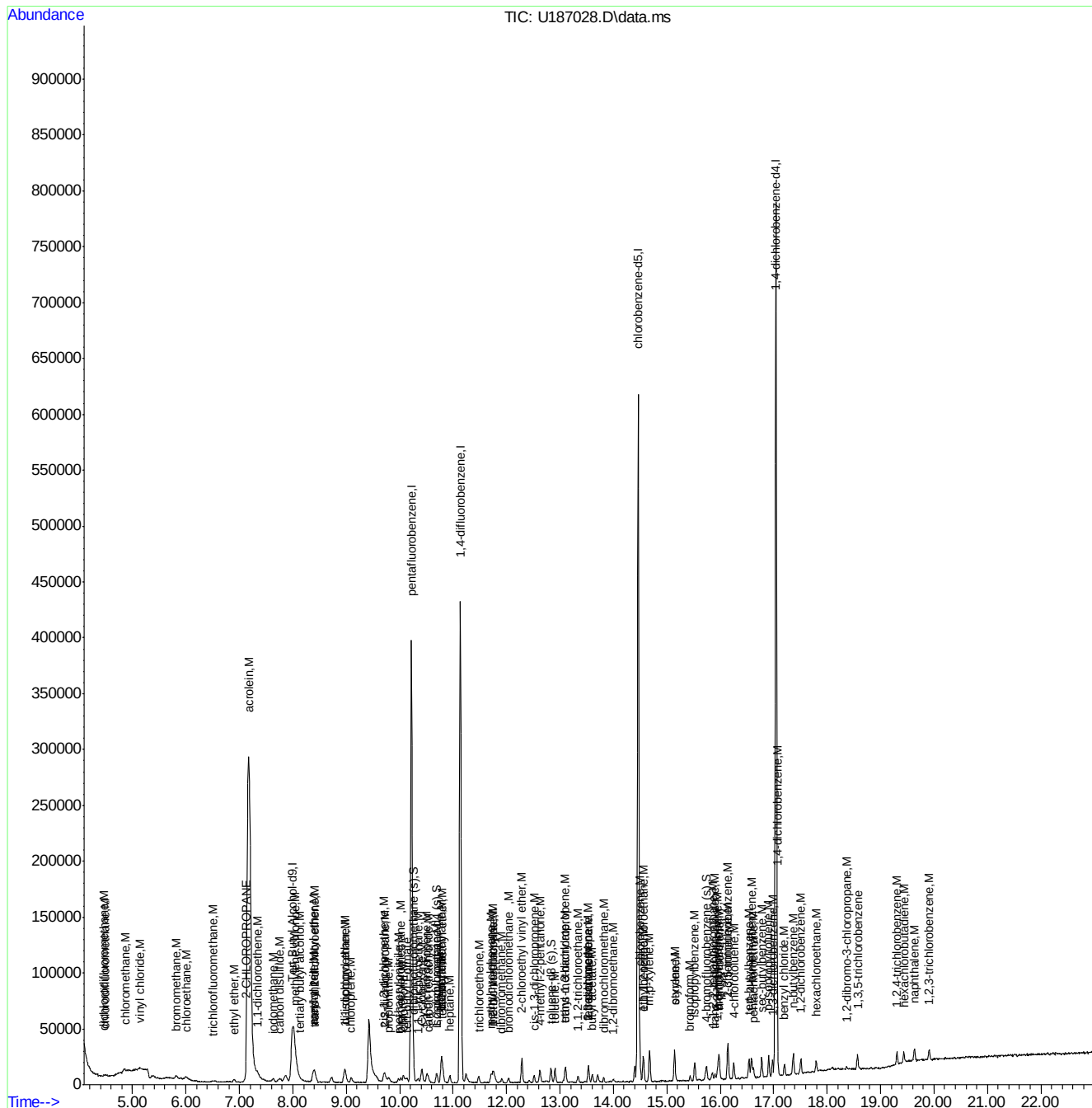
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
137) 1,2-dibromo-3-chloropr...	18.365	157	692	0.89	ug/L	81
138) 1,3,5-trichlorobenzene	18.569	180	5318	0.97	ug/L	98
139) 1,2,4-trichlorobenzene	19.306	180	4425	0.97	ug/L	95
140) hexachlorobutadiene	19.431	225	2567	0.97	ug/L	94
141) naphthalene	19.635	128	9358	1.00	ug/L	97
143) 1,2,3-trichlorobenzene	19.912	180	3575	0.95	ug/L	95
144) hexachloroethane	17.795	201	1925	0.86	ug/L	89

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187028.D
Acq On : 27 Aug 2014 6:52 pm
Operator : giannap
Sample : ic8630-1
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 28 10:14:02 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:22:31 2014
Response via : Initial Calibration



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Page: 4

7.6.3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187029.D
 Acq On : 27 Aug 2014 7:21 pm
 Operator : giannap
 Sample : ic8630-2
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 28 10:03:51 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:22:31 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.004	65	175106	500.00	ug/L	0.00
5) pentafluorobenzene	10.221	168	323969	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.136	114	381175	50.00	ug/L	0.00
96) chlorobenzene-d5	14.466	117	356255	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.044	152	220546	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.268	113	4365	2.05	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	4.10%#
57) 1,2-dichloroethane-d4 (s)	10.697	65	5630	2.06	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	4.12%#
88) toluene-d8 (s)	12.830	98	17961	2.05	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	4.10%#
114) 4-bromofluorobenzene (s)	15.747	95	7652	2.11	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	4.22%#

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.135	59	4570	11.73	ug/L	70
4) 1,4-dioxane	11.873	88	1550	45.38	ug/L	98
11) chlorodifluoromethane	4.496	51	7841	2.28	ug/L	95
12) dichlorodifluoromethane	4.475	85	5529	1.80	ug/L	92
15) chloromethane	4.847	50	9148	2.06	ug/L	98
16) vinyl chloride	5.134	62	7754	2.03	ug/L	93
18) bromomethane	5.809	94	4448	2.21	ug/L	94
19) chloroethane	5.992	64	3399	1.93	ug/L	89
20) trichlorofluoromethane	6.525	101	6239	1.76	ug/L	91
23) ethyl ether	6.896	74	2481	1.73	ug/L	78
24) 2-CHLOROPROPANE	7.116	43	8721	1.71	ug/L	# 45
27) acrolein	7.168	56	1411420	2070.71	ug/L	99
28) 1,1-dichloroethene	7.346	96	4229	1.81	ug/L	85
32) iodomethane	7.623	142	7038	1.68	ug/L	92
33) carbon disulfide	7.743	76	14302	1.73	ug/L	98
34) 1-CHLOROPROPANE	8.078	63	428	1.92	ug/L	# 82
35) methylene chloride	8.051	84	5012	1.85	ug/L	93
36) methyl acetate	7.853	43	6154	2.22	ug/L	# 90
37) methyl tert butyl ether	8.381	73	15468	1.85	ug/L	94
38) trans-1,2-dichloroethene	8.417	96	4373	1.85	ug/L	97
39) di-isopropyl ether	8.972	45	23367	2.30	ug/L	97
40) ethyl tert-butyl ether	9.432	59	22869	2.42	ug/L	95
41) 2-butanone	9.688	72	516	1.50	ug/L	# 1
42) 1,1-dichloroethane	8.987	63	8341	1.75	ug/L	97
43) chloroprene	9.092	53	8495	2.24	ug/L	97
44) acrylonitrile	8.391	53	12805	10.18	ug/L	97
45) vinyl acetate	8.972	86	871	1.80	ug/L	# 36
47) 2,2-dichloropropane	9.730	77	6309	1.89	ug/L	97
48) cis-1,2-dichloroethene	9.709	96	4703	1.82	ug/L	96
49) methyl acrylate	9.777	55	8278	2.31	ug/L	98
50) propionitrile	9.803	54	10212	20.34	ug/L	87
51) bromochloromethane	10.017	128	2294	1.81	ug/L	91
53) chloroform	10.069	83	7704	1.86	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187029.D
 Acq On : 27 Aug 2014 7:21 pm
 Operator : giannap
 Sample : ic8630-2
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 28 10:03:51 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:22:31 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
54) tert-butyl Formate	10.127	59	6845	2.23	ug/L	95
58) freon 113	7.320	151	3814	2.18	ug/L	95
59) methacrylonitrile	9.975	41	5466	2.60	ug/L	89
60) 1,1,1-trichloroethane	10.341	97	5699	1.60	ug/L	97
62) tert-amyl methyl ether	10.807	87	4098	2.11	ug/L #	88
63) iso-octane	10.780	57	23783	2.27	ug/L	97
68) Cyclohexane	10.420	84	6143	1.63	ug/L	99
69) carbon tetrachloride	10.535	117	5330	1.65	ug/L	97
70) 1,1-dichloropropene	10.509	75	5726	1.71	ug/L	97
71) hexane	8.726	86	770	1.77	ug/L #	30
72) benzene	10.775	78	17955	1.80	ug/L	98
73) heptane	10.937	57	4817	2.41	ug/L	90
74) isopropyl acetate	10.686	43	13284	2.22	ug/L	99
75) 1,2-dichloroethane	10.786	62	6336	1.86	ug/L	100
78) trichloroethene	11.476	95	4122	1.71	ug/L	94
79) methylcyclohexane	11.711	83	9755	2.27	ug/L	99
81) 2-chloroethyl vinyl ether	12.286	63	21772	10.90	ug/L	100
82) methyl methacrylate	11.753	100	1177	1.61	ug/L #	61
83) 1,2-dichloropropane	11.758	63	4908	1.74	ug/L	99
85) dibromomethane	11.904	93	2820	1.80	ug/L	95
86) bromodichloromethane	12.035	83	6063	1.78	ug/L	98
87) cis-1,3-dichloropropene	12.516	75	7703	1.74	ug/L	97
89) 4-methyl-2-pentanone	12.631	58	2453	1.98	ug/L #	81
90) toluene	12.908	92	10657	1.71	ug/L	99
91) 3-methyl-1-butanol	12.626	55	8648	57.36	ug/L	90
92) trans-1,3-dichloropropene	13.107	75	7495	1.80	ug/L	93
93) ethyl methacrylate	13.102	69	6924	1.87	ug/L	96
94) 1,1,2-trichloroethane	13.342	83	3778	1.88	ug/L	93
95) 2-hexanone	13.530	58	2392	2.06	ug/L #	71
97) cyclohexanone	15.726	55	6007	25.58	ug/L	95
98) tetrachloroethene	13.525	164	3426	1.67	ug/L	95
99) 1,3-dichloropropane	13.541	76	7270	1.83	ug/L	96
100) butyl acetate	13.604	56	4692	2.36	ug/L	93
101) dibromochloromethane	13.818	129	4841	1.79	ug/L	94
102) 1,2-dibromoethane	13.996	107	4370	1.87	ug/L	97
103) 3,3-dimethyl-1-Butanol	13.708	57	8025	27.59	ug/L #	97
105) chlorobenzene	14.498	112	11826	1.74	ug/L	95
106) 1,1,1,2-tetrachloroethane	14.560	131	4543	1.76	ug/L	98
107) ethylbenzene	14.560	91	20476	1.72	ug/L	98
108) m,p-xylene	14.675	106	15527	3.45	ug/L	99
109) o-xylene	15.141	106	7900	1.70	ug/L	99
110) styrene	15.151	104	13849	1.73	ug/L	95
111) bromoform	15.439	173	3748	1.77	ug/L	96
113) isopropylbenzene	15.522	105	21131	1.68	ug/L	99
115) bromobenzene	15.967	156	5859	1.79	ug/L	98
116) 1,1,2,2-tetrachloroethane	15.852	83	7267	1.92	ug/L	97
117) trans-1,4-dichloro-2-b...	15.904	53	2214	1.96	ug/L	85
118) 1,2,3-trichloropropane	15.946	110	1709	1.79	ug/L	93
119) n-propylbenzene	15.977	91	24638	1.70	ug/L	98
120) 2-chlorotoluene	16.139	126	5204	1.70	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187029.D
Acq On : 27 Aug 2014 7:21 pm
Operator : giannap
Sample : ic8630-2
Misc : ms72741,vu8630,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 28 10:03:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:22:31 2014
Response via : Initial Calibration

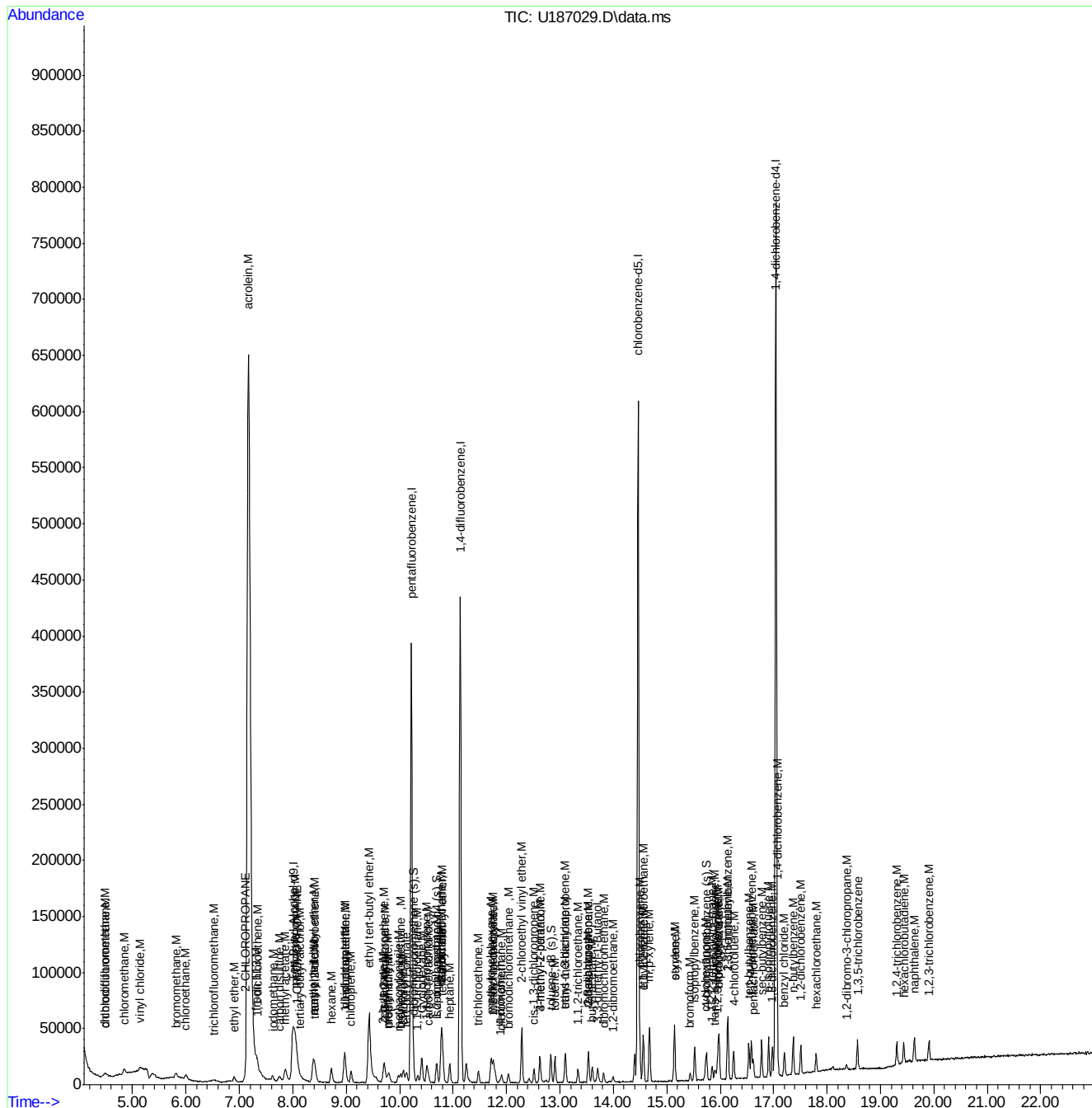
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
121) 4-chlorotoluene	16.254	91	16685	1.75	ug/L	98
123) 1,3,5-trimethylbenzene	16.144	105	19051	1.70	ug/L	98
124) tert-butylbenzene	16.542	119	16813	1.72	ug/L	99
125) pentachloroethane	16.625	167	3680	1.65	ug/L	95
126) 1,2,4-trimethylbenzene	16.584	105	19332	1.73	ug/L	91
128) sec-butylbenzene	16.777	105	24932	1.70	ug/L	97
129) 1,3-dichlorobenzene	16.981	146	11837	1.77	ug/L	94
130) p-isopropyltoluene	16.908	119	21542	1.71	ug/L	97
131) 1,4-dichlorobenzene	17.070	146	12122	1.79	ug/L	97
132) benzyl chloride	17.200	91	16739	2.35	ug/L	98
133) 1,2-dichlorobenzene	17.509	146	11669	1.79	ug/L	98
135) n-butylbenzene	17.363	92	10962	1.70	ug/L	92
137) 1,2-dibromo-3-chloropr...	18.372	157	1423	1.81	ug/L	79
138) 1,3,5-trichlorobenzene	18.570	180	9414	1.70	ug/L	96
139) 1,2,4-trichlorobenzene	19.307	180	7888	1.72	ug/L	98
140) hexachlorobutadiene	19.438	225	4660	1.73	ug/L	97
141) naphthalene	19.637	128	17588	1.86	ug/L	100
143) 1,2,3-trichlorobenzene	19.914	180	6692	1.76	ug/L	92
144) hexachloroethane	17.796	201	3284	1.45	ug/L	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187029.D
Acq On : 27 Aug 2014 7:21 pm
Operator : giannap
Sample : ic8630-2
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 28 10:03:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:22:31 2014
Response via : Initial Calibration



MU8630.M Tue Sep 02 12:57:44 2014 U_CORE

Page: 4

7.6.4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187030.D
 Acq On : 27 Aug 2014 7:50 pm
 Operator : giannap
 Sample : ic8630-5
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 28 09:58:20 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 09:55:35 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.020	65	184857	500.00	ug/L	0.02
5) pentafluorobenzene	10.221	168	324958	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.136	114	382339	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	355121	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.044	152	219602	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.273	113	11343	5.26	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	10.52%#
57) 1,2-dichloroethane-d4 (s)	10.697	65	13952	5.05	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	10.10%#
88) toluene-d8 (s)	12.830	98	43784	4.95	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	9.90%#
114) 4-bromofluorobenzene (s)	15.742	95	18208	4.92	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	9.84%#

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.135	59	10389	25.57	ug/L	66
4) 1,4-dioxane	11.878	88	4235	127.26	ug/L #	94
11) chlorodifluoromethane	4.491	51	18924	5.49	ug/L	95
12) dichlorodifluoromethane	4.470	85	16714	5.67	ug/L	95
15) chloromethane	4.847	50	23843	5.11	ug/L	99
16) vinyl chloride	5.145	62	20416	5.31	ug/L	97
18) bromomethane	5.824	94	12032	5.51	ug/L	100
19) chloroethane	6.007	64	10127	5.76	ug/L	92
20) trichlorofluoromethane	6.525	101	18859	5.50	ug/L	97
23) ethyl ether	6.896	74	7621	5.44	ug/L	86
24) 2-CHLOROPROPANE	7.121	43	26223	5.16	ug/L #	93
27) acrolein	7.178	56	40364	58.12	ug/L	95
28) 1,1-dichloroethene	7.351	96	12639	5.24	ug/L	98
29) acetone	7.403	58	1927	6.03	ug/L	97
30) allyl chloride	7.868	78	2376	4.97	ug/L #	64
31) acetonitrile	7.868	40	15368	53.24	ug/L	96
32) iodomethane	7.628	142	21095	5.36	ug/L	99
33) carbon disulfide	7.748	76	41979	5.02	ug/L	98
34) 1-CHLOROPROPANE	8.093	63	1246	5.35	ug/L	90
35) methylene chloride	8.057	84	13990	5.12	ug/L	96
36) methyl acetate	7.842	43	14343	5.19	ug/L	99
37) methyl tert butyl ether	8.391	73	43245	5.01	ug/L	98
38) trans-1,2-dichloroethene	8.417	96	12773	5.12	ug/L	98
39) di-isopropyl ether	8.972	45	56514	5.44	ug/L	96
40) ethyl tert-butyl ether	9.432	59	53034	5.50	ug/L	99
41) 2-butanone	9.688	72	1625	4.95	ug/L #	71
42) 1,1-dichloroethane	8.982	63	24891	5.35	ug/L	99
43) chloroprene	9.087	53	20896	5.46	ug/L	95
44) acrylonitrile	8.386	53	33009	25.22	ug/L	98
45) vinyl acetate	8.972	86	2272	5.02	ug/L #	62
46) ethyl acetate	9.693	45	2430	4.59	ug/L	95
47) 2,2-dichloropropane	9.730	77	18327	5.32	ug/L	95
48) cis-1,2-dichloroethene	9.709	96	13938	5.10	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187030.D
 Acq On : 27 Aug 2014 7:50 pm
 Operator : giannap
 Sample : ic8630-5
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 28 09:58:20 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 09:55:35 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.777	55	19264	5.27	ug/L	99
50) propionitrile	9.803	54	26917	53.03	ug/L	88
51) bromochloromethane	10.022	128	6510	5.19	ug/L	97
52) tetrahydrofuran	10.059	42	7239	6.71	ug/L	91
53) chloroform	10.069	83	21876	5.16	ug/L	100
54) tert-butyl Formate	10.127	59	15927	5.28	ug/L	94
55) iso-butyl alcohol	10.498	74	1808	50.70	ug/L #	83
58) freon 113	7.320	151	9672	5.56	ug/L	92
59) methacrylonitrile	9.975	41	10926	4.96	ug/L	99
60) 1,1,1-trichloroethane	10.341	97	18168	5.26	ug/L	96
62) tert-amyl methyl ether	10.807	87	10097	5.40	ug/L	95
63) iso-octane	10.786	57	57925	5.68	ug/L	99
66) epichlorohydrin	12.422	57	10123	29.30	ug/L	99
67) n-butyl alcohol	11.246	56	31824	311.59	ug/L	98
68) Cyclohexane	10.415	84	19740	5.38	ug/L	97
69) carbon tetrachloride	10.535	117	16627	5.26	ug/L	98
70) 1,1-dichloropropene	10.509	75	17146	5.20	ug/L	96
71) hexane	8.721	86	2280	5.47	ug/L #	91
72) benzene	10.775	78	52269	5.07	ug/L	98
73) heptane	10.937	57	11320	5.59	ug/L	98
74) isopropyl acetate	10.686	43	32054	5.26	ug/L	99
75) 1,2-dichloroethane	10.786	62	17115	5.19	ug/L	99
78) trichloroethene	11.476	95	12322	5.30	ug/L	99
79) methylcyclohexane	11.716	83	23855	5.79	ug/L	100
81) 2-chloroethyl vinyl ether	12.286	63	51666	26.63	ug/L	98
82) methyl methacrylate	11.748	100	3467	5.03	ug/L #	88
83) 1,2-dichloropropane	11.758	63	14215	5.30	ug/L	92
84) propyl acetate	11.795	73	3257	5.90	ug/L	82
85) dibromomethane	11.910	93	7712	5.11	ug/L	97
86) bromodichloromethane	12.035	83	17045	4.99	ug/L	97
87) cis-1,3-dichloropropene	12.516	75	22195	5.13	ug/L	98
89) 4-methyl-2-pentanone	12.626	58	6303	5.08	ug/L #	86
90) toluene	12.908	92	31359	5.12	ug/L	99
91) 3-methyl-1-butanol	12.626	55	19308	70.41	ug/L	97
92) trans-1,3-dichloropropene	13.102	75	20864	5.05	ug/L	97
93) ethyl methacrylate	13.102	69	18710	5.02	ug/L	97
94) 1,1,2-trichloroethane	13.337	83	10016	4.91	ug/L	98
95) 2-hexanone	13.536	58	5834	4.83	ug/L	98
97) cyclohexanone	15.721	55	16239	49.12	ug/L	99
98) tetrachloroethene	13.525	164	10708	5.27	ug/L	96
99) 1,3-dichloropropane	13.541	76	20067	5.10	ug/L	98
100) butyl acetate	13.604	56	11116	5.35	ug/L	99
101) dibromochloromethane	13.818	129	13238	5.13	ug/L	94
102) 1,2-dibromoethane	13.996	107	11819	5.11	ug/L	98
103) 3,3-dimethyl-1-Butanol	13.708	57	19085	31.81	ug/L	100
105) chlorobenzene	14.498	112	34329	5.09	ug/L	96
106) 1,1,1,2-tetrachloroethane	14.560	131	13447	5.42	ug/L	97
107) ethylbenzene	14.560	91	60502	5.11	ug/L	100
108) m,p-xylene	14.681	106	45582	10.33	ug/L	99
109) o-xylene	15.141	106	23661	5.27	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187030.D
 Acq On : 27 Aug 2014 7:50 pm
 Operator : giannap
 Sample : ic8630-5
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 28 09:58:20 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 09:55:35 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) styrene	15.151	104	39679	5.07	ug/L	100
111) bromoform	15.439	173	10067	5.01	ug/L	96
113) isopropylbenzene	15.522	105	63238	5.13	ug/L	99
115) bromobenzene	15.967	156	16337	5.11	ug/L	99
116) 1,1,2,2-tetrachloroethane	15.846	83	18956	4.87	ug/L	99
117) trans-1,4-dichloro-2-b...	15.899	53	5653	5.02	ug/L	88
118) 1,2,3-trichloropropane	15.941	110	4871	5.32	ug/L	96
119) n-propylbenzene	15.977	91	72345	5.02	ug/L	98
120) 2-chlorotoluene	16.139	126	15467	5.21	ug/L	96
121) 4-chlorotoluene	16.254	91	47048	4.92	ug/L	98
123) 1,3,5-trimethylbenzene	16.144	105	55395	5.02	ug/L	99
124) tert-butylbenzene	16.537	119	48279	5.01	ug/L	98
125) pentachloroethane	16.620	167	10261	4.96	ug/L	95
126) 1,2,4-trimethylbenzene	16.584	105	56431	5.04	ug/L	96
128) sec-butylbenzene	16.777	105	73711	5.12	ug/L	100
129) 1,3-dichlorobenzene	16.981	146	33727	5.12	ug/L	98
130) p-isopropyltoluene	16.908	119	62636	5.05	ug/L	99
131) 1,4-dichlorobenzene	17.070	146	34092	5.10	ug/L	98
132) benzyl chloride	17.200	91	39010	5.30	ug/L	97
133) 1,2-dichlorobenzene	17.509	146	32773	5.05	ug/L	98
135) n-butylbenzene	17.363	92	32415	5.17	ug/L	98
137) 1,2-dibromo-3-chloropr...	18.366	157	3976	5.28	ug/L	95
138) 1,3,5-trichlorobenzene	18.570	180	28015	5.17	ug/L	100
139) 1,2,4-trichlorobenzene	19.307	180	22803	4.96	ug/L	99
140) hexachlorobutadiene	19.438	225	13204	5.10	ug/L	97
141) naphthalene	19.631	128	48437	5.09	ug/L	99
143) 1,2,3-trichlorobenzene	19.909	180	19389	5.17	ug/L	98
144) hexachloroethane	17.796	201	10200	4.87	ug/L	93

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

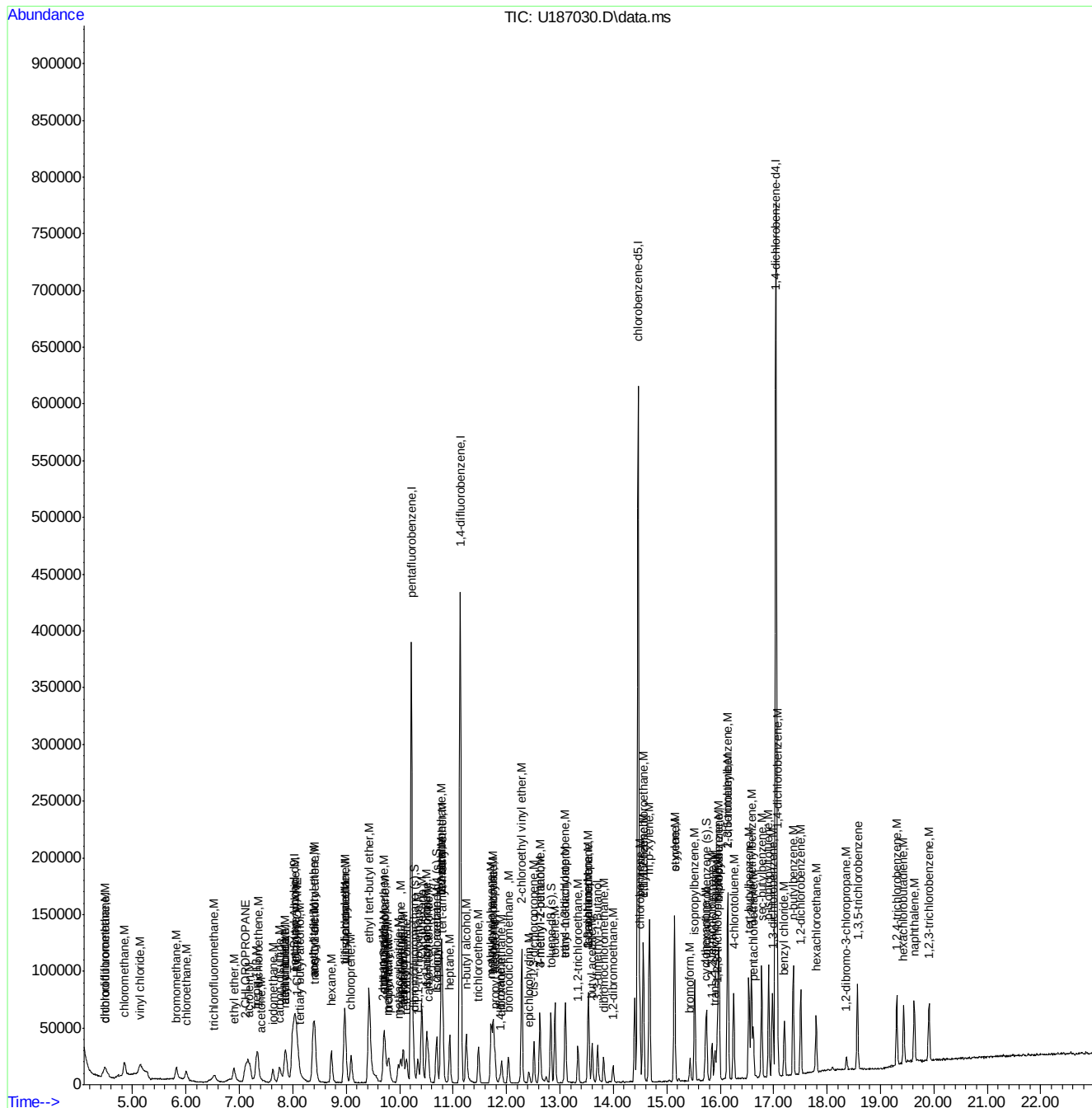
7.6.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187030.D
Acq On : 27 Aug 2014 7:50 pm
Operator : giannap
Sample : ic8630-5
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 28 09:58:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 09:55:35 2014
Response via : Initial Calibration



MU8630.M Tue Sep 02 12:57:47 2014 U_CORE

Page: 4

7.6.5

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187031.D
 Acq On : 27 Aug 2014 8:19 pm
 Operator : giannap
 Sample : ic8630-10
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 28 09:45:00 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:39:10 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.024	65	183963	500.00	ug/L	0.02
5) pentafluorobenzene	10.220	168	325892	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.135	114	380037	50.00	ug/L	0.00
96) chlorobenzene-d5	14.465	117	356716	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.043	152	219635	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.267	113	20763	9.74	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	19.48%#	
57) 1,2-dichloroethane-d4 (s)	10.696	65	26345	9.67	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	19.34%#	
88) toluene-d8 (s)	12.829	98	82283	9.48	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	18.96%#	
114) 4-bromofluorobenzene (s)	15.741	95	33722	9.24	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	18.48%#	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.129	59	16294	41.45	ug/L	92
4) 1,4-dioxane	11.877	88	6584	189.19	ug/L	95
11) chlorodifluoromethane	4.485	51	28240	8.27	ug/L	97
12) dichlorodifluoromethane	4.469	85	30254	10.07	ug/L	99
15) chloromethane	4.846	50	43973	9.89	ug/L	97
16) vinyl chloride	5.144	62	37898	9.94	ug/L	98
18) bromomethane	5.823	94	21015	11.41	ug/L	98
19) chloroethane	6.006	64	18169	10.87	ug/L	96
20) trichlorofluoromethane	6.513	101	34975	9.91	ug/L	99
23) ethyl ether	6.900	74	14334	9.86	ug/L	94
24) 2-CHLOROPROPANE	7.125	43	52841	10.14	ug/L	94
27) acrolein	7.188	56	61789	85.68	ug/L	95
28) 1,1-dichloroethene	7.345	96	24318	10.24	ug/L	99
29) acetone	7.397	58	3360	11.19	ug/L	96
30) allyl chloride	7.868	78	4956	10.40	ug/L #	81
31) acetonitrile	7.868	40	24373	82.27	ug/L #	65
32) iodomethane	7.627	142	41464	9.76	ug/L	99
33) carbon disulfide	7.753	76	82879	10.16	ug/L	97
34) 1-CHLOROPROPANE	8.092	63	2514	10.96	ug/L	78
35) methylene chloride	8.056	84	27381	9.95	ug/L	97
36) methyl acetate	7.847	43	22901	8.47	ug/L	99
37) methyl tert butyl ether	8.390	73	83114	9.92	ug/L	99
38) trans-1,2-dichloroethene	8.416	96	24765	10.18	ug/L	95
39) di-isopropyl ether	8.971	45	86263	8.56	ug/L	100
40) ethyl tert-butyl ether	9.431	59	80877	8.63	ug/L	100
41) 2-butanone	9.687	72	3356	9.72	ug/L #	80
42) 1,1-dichloroethane	8.986	63	48214	10.00	ug/L	97
43) chloroprene	9.091	53	31744	8.37	ug/L	97
44) acrylonitrile	8.385	53	63728	50.59	ug/L	98
45) vinyl acetate	8.971	86	3880	8.19	ug/L #	88
46) ethyl acetate	9.692	45	4746	9.97	ug/L	91
47) 2,2-dichloropropane	9.734	77	34453	10.39	ug/L	97
48) cis-1,2-dichloroethene	9.713	96	26244	9.91	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187031.D
 Acq On : 27 Aug 2014 8:19 pm
 Operator : giannap
 Sample : ic8630-10
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 28 09:45:00 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:39:10 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.776	55	35557	10.09	ug/L	99
50) propionitrile	9.797	54	51601	103.32	ug/L	96
51) bromochloromethane	10.021	128	12589	9.75	ug/L	89
52) tetrahydrofuran	10.063	42	11039	10.26	ug/L	99
53) chloroform	10.069	83	41630	9.87	ug/L	100
54) tert-butyl Formate	10.126	59	25301	8.32	ug/L	97
55) iso-butyl alcohol	10.502	74	3444	95.76	ug/L	93
58) freon 113	7.319	151	13929	8.02	ug/L	92
59) methacrylonitrile	9.974	41	20311	9.65	ug/L	97
60) 1,1,1-trichloroethane	10.340	97	34879	9.65	ug/L	96
62) tert-amyl methyl ether	10.811	87	16296	8.48	ug/L	96
63) iso-octane	10.785	57	85426	8.38	ug/L	100
66) epichlorohydrin	12.421	57	15212	44.94	ug/L	98
67) n-butyl alcohol	11.245	56	48814	507.23	ug/L	99
68) Cyclohexane	10.414	84	38554	10.31	ug/L	99
69) carbon tetrachloride	10.534	117	32200	9.99	ug/L	97
70) 1,1-dichloropropene	10.508	75	33305	9.95	ug/L	99
71) hexane	8.720	86	3498	8.17	ug/L	92
72) benzene	10.774	78	100018	9.99	ug/L	99
73) heptane	10.936	57	16609	8.48	ug/L	98
74) isopropyl acetate	10.691	43	49312	8.46	ug/L	99
75) 1,2-dichloroethane	10.785	62	33443	9.88	ug/L	99
78) trichloroethene	11.475	95	23821	9.86	ug/L	99
79) methylcyclohexane	11.715	83	35184	8.38	ug/L	99
80) 2-nitropropane	12.285	41	13493	10.42	ug/L #	74
81) 2-chloroethyl vinyl ether	12.285	63	80029	41.37	ug/L	99
82) methyl methacrylate	11.747	100	6860	9.48	ug/L #	90
83) 1,2-dichloropropane	11.757	63	27309	9.73	ug/L	99
84) propyl acetate	11.789	73	4999	9.31	ug/L	85
85) dibromomethane	11.909	93	15135	9.67	ug/L	95
86) bromodichloromethane	12.034	83	33279	9.74	ug/L	99
87) cis-1,3-dichloropropene	12.515	75	42611	9.58	ug/L	99
89) 4-methyl-2-pentanone	12.630	58	12051	9.94	ug/L	98
90) toluene	12.907	92	59626	9.53	ug/L	98
91) 3-methyl-1-butanol	12.620	55	30074	210.40	ug/L	98
92) trans-1,3-dichloropropene	13.106	75	40355	9.69	ug/L	97
93) ethyl methacrylate	13.101	69	35126	9.53	ug/L	99
94) 1,1,2-trichloroethane	13.341	83	19318	9.56	ug/L	96
95) 2-hexanone	13.535	58	11482	9.98	ug/L	99
97) cyclohexanone	15.725	55	32482	153.82	ug/L	97
98) tetrachloroethene	13.524	164	21131	10.14	ug/L	98
99) 1,3-dichloropropane	13.540	76	39023	9.80	ug/L	99
100) butyl acetate	13.603	56	17122	8.81	ug/L	94
101) dibromochloromethane	13.817	129	26132	9.60	ug/L	97
102) 1,2-dibromoethane	13.995	107	22676	9.64	ug/L	99
103) 3,3-dimethyl-1-Butanol	13.707	57	29166	105.80	ug/L #	100
105) chlorobenzene	14.497	112	66166	9.62	ug/L	98
106) 1,1,1,2-tetrachloroethane	14.559	131	25632	9.86	ug/L	97
107) ethylbenzene	14.559	91	117494	9.76	ug/L	99
108) m,p-xylene	14.674	106	88908	19.57	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187031.D
Acq On : 27 Aug 2014 8:19 pm
Operator : giannap
Sample : ic8630-10
Misc : ms72741,vu8630,5.0,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 28 09:45:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:39:10 2014
Response via : Initial Calibration

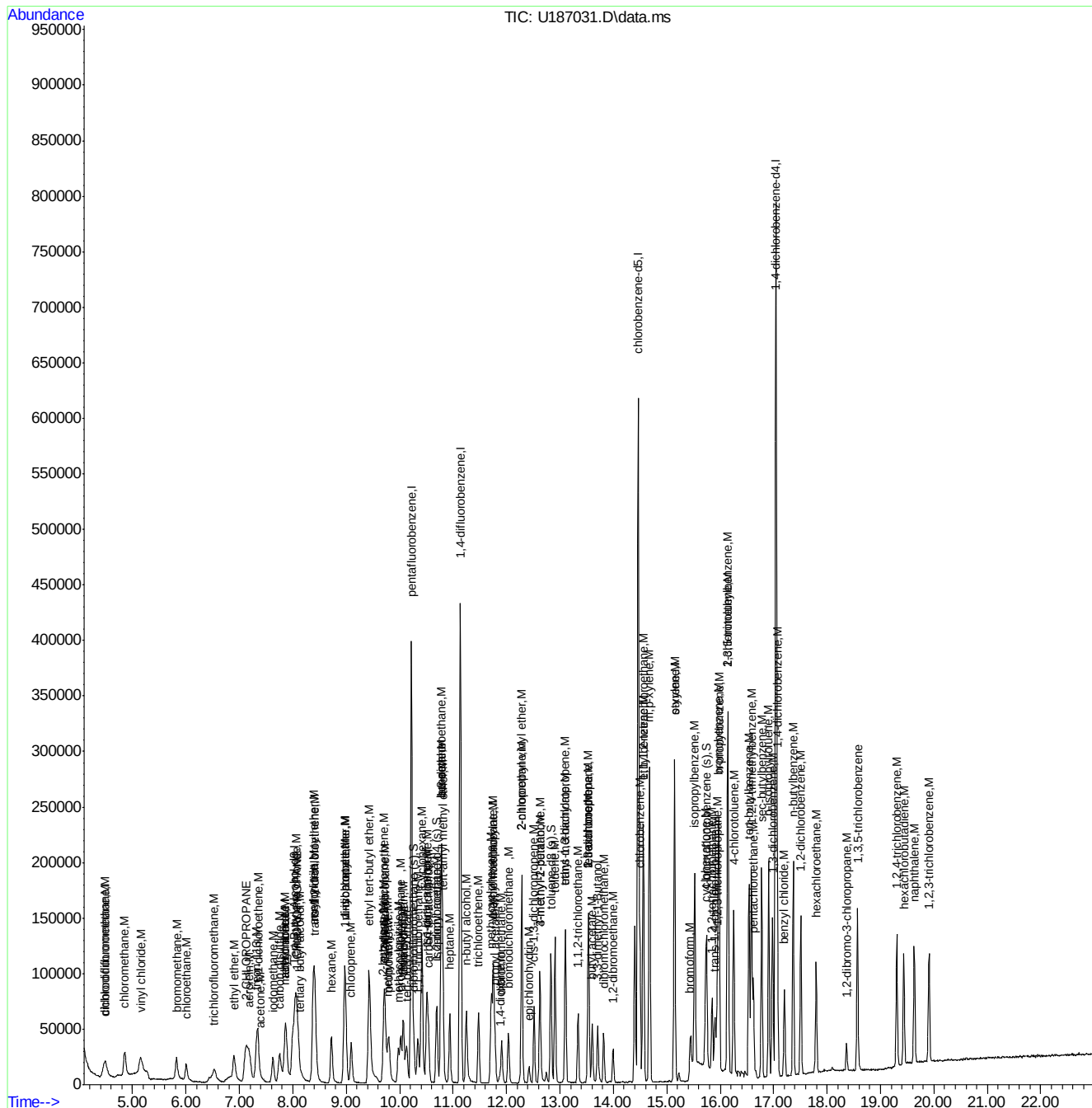
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) o-xylene	15.140	106	45863	9.80	ug/L	98
110) styrene	15.150	104	77573	9.62	ug/L	99
111) bromoform	15.438	173	20005	9.35	ug/L	98
113) isopropylbenzene	15.521	105	120139	9.41	ug/L	99
115) bromobenzene	15.966	156	31362	9.36	ug/L	99
116) 1,1,2,2-tetrachloroethane	15.851	83	36872	9.73	ug/L	100
117) trans-1,4-dichloro-2-b...	15.903	53	11023	9.72	ug/L	96
118) 1,2,3-trichloropropane	15.940	110	9291	9.77	ug/L	97
119) n-propylbenzene	15.976	91	140760	9.56	ug/L	98
120) 2-chlorotoluene	16.138	126	29832	9.67	ug/L	96
121) 4-chlorotoluene	16.253	91	92358	9.57	ug/L	97
123) 1,3,5-trimethylbenzene	16.143	105	109001	9.74	ug/L	99
124) tert-butylbenzene	16.536	119	94318	9.65	ug/L	98
125) pentachloroethane	16.619	167	20373	9.10	ug/L	97
126) 1,2,4-trimethylbenzene	16.583	105	109875	9.79	ug/L	98
128) sec-butylbenzene	16.776	105	143558	9.78	ug/L	100
129) 1,3-dichlorobenzene	16.980	146	65094	9.65	ug/L	98
130) p-isopropyltoluene	16.907	119	121740	9.74	ug/L	99
131) 1,4-dichlorobenzene	17.069	146	65792	9.65	ug/L	99
132) benzyl chloride	17.200	91	59968	8.70	ug/L	100
133) 1,2-dichlorobenzene	17.508	146	63486	9.75	ug/L	99
135) n-butylbenzene	17.367	92	62860	9.78	ug/L	98
137) 1,2-dibromo-3-chloropr...	18.365	157	7544	9.66	ug/L	98
138) 1,3,5-trichlorobenzene	18.569	180	54458	9.81	ug/L	100
139) 1,2,4-trichlorobenzene	19.306	180	44520	9.60	ug/L	98
140) hexachlorobutadiene	19.437	225	26281	9.85	ug/L	97
141) naphthalene	19.631	128	94734	10.02	ug/L	99
143) 1,2,3-trichlorobenzene	19.908	180	37784	9.87	ug/L	99
144) hexachloroethane	17.796	201	21027	9.32	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187031.D
Acq On : 27 Aug 2014 8:19 pm
Operator : giannap
Sample : ic8630-10
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 28 09:45:00 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:39:10 2014
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187032.D
 Acq On : 27 Aug 2014 8:48 pm
 Operator : giannap
 Sample : ic8630-20
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 28 09:42:52 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:35:04 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.999	65	171171	500.00	ug/L	0.00
5) pentafluorobenzene	10.221	168	324752	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.136	114	380689	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	363100	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.044	152	224142	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.268	113	107012	50.53	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	101.06%	
57) 1,2-dichloroethane-d4 (s)	10.697	65	137814	51.00	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	102.00%	
88) toluene-d8 (s)	12.830	98	444789	51.58	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	103.16%	
114) 4-bromofluorobenzene (s)	15.742	95	182581	48.71	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	97.42%	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.120	59	38207	106.02	ug/L	# 45
4) 1,4-dioxane	11.868	88	16662	519.60	ug/L	97
11) chlorodifluoromethane	4.491	51	72133	21.63	ug/L	98
12) dichlorodifluoromethane	4.465	85	59754	19.94	ug/L	98
15) chloromethane	4.857	50	92979	21.32	ug/L	99
16) vinyl chloride	5.150	62	78919	21.04	ug/L	99
18) bromomethane	5.819	94	43642	25.38	ug/L	98
19) chloroethane	6.002	64	37276	23.29	ug/L	96
20) trichlorofluoromethane	6.520	101	73492	21.23	ug/L	99
23) ethyl ether	6.902	74	29480	20.48	ug/L	95
24) 2-CHLOROPROPANE	7.116	43	109399	21.46	ug/L	99
27) acrolein	7.168	56	135368	579.18	ug/L	100
28) 1,1-dichloroethene	7.346	96	50270	21.68	ug/L	95
29) acetone	7.383	58	6463	22.18	ug/L	# 58
30) allyl chloride	7.864	78	10084	21.68	ug/L	95
31) acetonitrile	7.853	40	61651	211.94	ug/L	96
32) iodomethane	7.628	142	88796	21.33	ug/L	98
33) carbon disulfide	7.748	76	170303	21.29	ug/L	99
34) 1-CHLOROPROPANE	8.094	63	4915	22.05	ug/L	90
35) methylene chloride	8.057	84	57455	21.28	ug/L	99
36) methyl acetate	7.843	43	54821	20.45	ug/L	100
37) methyl tert butyl ether	8.386	73	174810	21.26	ug/L	99
38) trans-1,2-dichloroethene	8.418	96	51448	21.68	ug/L	97
39) di-isopropyl ether	8.967	45	209729	21.21	ug/L	99
40) ethyl tert-butyl ether	9.432	59	194542	21.14	ug/L	99
41) 2-butanone	9.688	72	7169	21.12	ug/L	# 90
42) 1,1-dichloroethane	8.988	63	99817	21.06	ug/L	99
43) chloroprene	9.092	53	78429	21.03	ug/L	98
44) acrylonitrile	8.381	53	130780	105.66	ug/L	99
45) vinyl acetate	8.967	86	9488	20.13	ug/L	98
46) ethyl acetate	9.699	45	10278	22.29	ug/L	92
47) 2,2-dichloropropane	9.730	77	71648	22.32	ug/L	99
48) cis-1,2-dichloroethene	9.709	96	55589	21.45	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187032.D
 Acq On : 27 Aug 2014 8:48 pm
 Operator : giannap
 Sample : ic8630-20
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 28 09:42:52 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:35:04 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.777	55	71580	20.53	ug/L	100
50) propionitrile	9.793	54	102659	208.47	ug/L	84
51) bromochloromethane	10.017	128	26373	20.67	ug/L	99
52) tetrahydrofuran	10.059	42	22122	20.86	ug/L	99
53) chloroform	10.070	83	87169	21.01	ug/L	98
54) tert-butyl Formate	10.127	59	62490	20.82	ug/L	100
55) iso-butyl alcohol	10.509	74	7459	210.98	ug/L #	43
58) freon 113	7.315	151	36467	21.44	ug/L	96
59) methacrylonitrile	9.970	41	42706	20.48	ug/L	99
60) 1,1,1-trichloroethane	10.342	97	75126	21.17	ug/L	100
62) tert-amyl methyl ether	10.807	87	39352	20.75	ug/L	97
63) iso-octane	10.781	57	214554	21.53	ug/L	100
66) epichlorohydrin	12.417	57	35811	107.63	ug/L	99
67) n-butyl alcohol	11.236	56	106644	1146.85	ug/L	96
68) Cyclohexane	10.415	84	81450	22.39	ug/L	99
69) carbon tetrachloride	10.535	117	67697	21.32	ug/L	100
70) 1,1-dichloropropene	10.509	75	69770	21.09	ug/L	99
71) hexane	8.726	86	9044	21.49	ug/L	96
72) benzene	10.775	78	210865	21.40	ug/L	98
73) heptane	10.938	57	41874	21.82	ug/L	99
74) isopropyl acetate	10.687	43	119961	20.73	ug/L	98
75) 1,2-dichloroethane	10.786	62	70187	20.94	ug/L	99
78) trichloroethene	11.476	95	49795	20.78	ug/L	97
79) methylcyclohexane	11.711	83	89228	21.66	ug/L	100
80) 2-nitropropane	12.286	41	26498	20.57	ug/L	97
81) 2-chloroethyl vinyl ether	12.286	63	201243	105.20	ug/L	99
82) methyl methacrylate	11.748	100	14764	20.50	ug/L	99
83) 1,2-dichloropropane	11.758	63	57935	20.82	ug/L	99
84) propyl acetate	11.790	73	11230	21.20	ug/L	98
85) dibromomethane	11.910	93	32130	20.66	ug/L	98
86) bromodichloromethane	12.035	83	69902	20.57	ug/L	100
87) cis-1,3-dichloropropene	12.516	75	91024	20.56	ug/L	99
89) 4-methyl-2-pentanone	12.631	58	25275	21.10	ug/L #	94
90) toluene	12.909	92	128662	20.71	ug/L	99
91) 3-methyl-1-butanol	12.621	55	65824	483.79	ug/L	98
92) trans-1,3-dichloropropene	13.107	75	84875	20.45	ug/L	97
93) ethyl methacrylate	13.102	69	75095	20.46	ug/L	97
94) 1,1,2-trichloroethane	13.337	83	40853	20.24	ug/L	98
95) 2-hexanone	13.536	58	23928	21.03	ug/L	94
97) cyclohexanone	15.721	55	57864	304.29	ug/L	99
98) tetrachloroethene	13.525	164	44252	21.17	ug/L	99
99) 1,3-dichloropropane	13.541	76	83184	20.69	ug/L	99
100) butyl acetate	13.604	56	41201	21.12	ug/L	98
101) dibromochloromethane	13.818	129	55859	20.21	ug/L	98
102) 1,2-dibromoethane	13.996	107	48637	20.43	ug/L	99
103) 3,3-dimethyl-1-Butanol	13.703	57	65576	247.61	ug/L	100
105) chlorobenzene	14.498	112	143429	20.66	ug/L	100
106) 1,1,1,2-tetrachloroethane	14.561	131	54597	20.85	ug/L	98
107) ethylbenzene	14.561	91	252042	20.76	ug/L	99
108) m,p-xylene	14.676	106	191595	41.93	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187032.D
 Acq On : 27 Aug 2014 8:48 pm
 Operator : giannap
 Sample : ic8630-20
 Misc : ms72741,vu8630,5.0,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 28 09:42:52 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:35:04 2014
 Response via : Initial Calibration

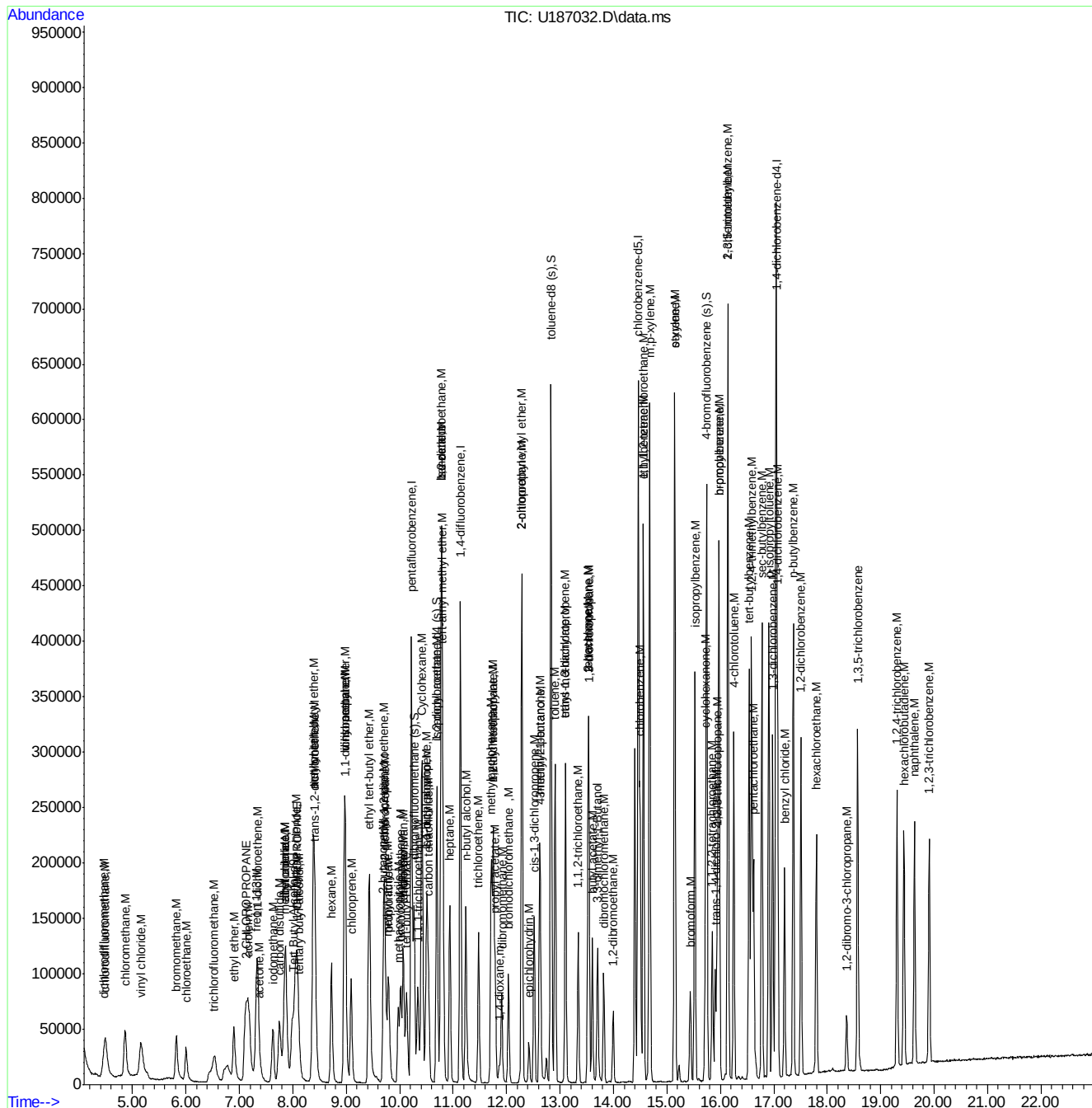
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) o-xylene	15.141	106	99403	21.18	ug/L	97
110) styrene	15.151	104	168350	20.69	ug/L	99
111) bromoform	15.439	173	43317	19.86	ug/L	98
113) isopropylbenzene	15.523	105	263094	20.25	ug/L	99
115) bromobenzene	15.967	156	68319	19.98	ug/L	97
116) 1,1,2,2-tetrachloroethane	15.847	83	77636	20.10	ug/L	99
117) trans-1,4-dichloro-2-b...	15.904	53	23017	19.84	ug/L	95
118) 1,2,3-trichloropropane	15.941	110	19193	19.71	ug/L	96
119) n-propylbenzene	15.977	91	304299	20.33	ug/L	99
120) 2-chlorotoluene	16.139	126	63992	20.45	ug/L	98
121) 4-chlorotoluene	16.249	91	197092	20.02	ug/L	98
123) 1,3,5-trimethylbenzene	16.145	105	233320	20.57	ug/L	98
124) tert-butylbenzene	16.537	119	204950	20.73	ug/L	100
125) pentachloroethane	16.620	167	45434	19.84	ug/L	98
126) 1,2,4-trimethylbenzene	16.584	105	234974	20.69	ug/L	99
128) sec-butylbenzene	16.777	105	308920	20.84	ug/L	100
129) 1,3-dichlorobenzene	16.981	146	140499	20.54	ug/L	99
130) p-isopropyltoluene	16.908	119	263563	20.90	ug/L	100
131) 1,4-dichlorobenzene	17.070	146	142505	20.65	ug/L	99
132) benzyl chloride	17.201	91	146293	21.09	ug/L	99
133) 1,2-dichlorobenzene	17.509	146	137286	20.89	ug/L	98
135) n-butylbenzene	17.368	92	136706	21.14	ug/L	99
137) 1,2-dibromo-3-chloropr...	18.367	157	16436	20.85	ug/L	97
138) 1,3,5-trichlorobenzene	18.570	180	115999	20.64	ug/L	99
139) 1,2,4-trichlorobenzene	19.308	180	95990	20.39	ug/L	98
140) hexachlorobutadiene	19.438	225	56433	20.99	ug/L	99
141) naphthalene	19.632	128	197485	20.62	ug/L	99
143) 1,2,3-trichlorobenzene	19.909	180	80114	20.69	ug/L	96
144) hexachloroethane	17.797	201	45699	19.79	ug/L	97

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

Quantitation Report (QT Reviewed)

```
Data Path   : C:\msdchem\1\DATA\  
Data File  : U187032.D  
Acq On     : 27 Aug 2014      8:48 pm  
Operator   : giannap  
Sample     : ic8630-20  
Misc       : ms72741,vu8630,5.0,,,,,1  
ALS Vial   : 18      Sample Multiplier: 1
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Quant Time: Aug 28 09:42:52 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:35:04 2014
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187033.D
 Acq On : 27 Aug 2014 9:18 pm
 Operator : giannap
 Sample : icc8630-50
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 28 09:37:05 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:20:13 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.003	65	170782	500.00	ug/L	0.00
5) pentafluorobenzene	10.220	168	329720	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.135	114	387884	50.00	ug/L	0.00
96) chlorobenzene-d5	14.465	117	373063	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.042	152	226501	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.267	113	108196	50.00	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	100.00%
57) 1,2-dichloroethane-d4 (s)	10.695	65	138755	50.00	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	100.00%
88) toluene-d8 (s)	12.828	98	445332	50.00	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	100.00%
114) 4-bromofluorobenzene (s)	15.746	95	186010	50.00	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	100.00%

Target Compounds

Qvalue

2) tertiary butyl alcohol	8.118	59	94959	250.00	ug/L	100
4) 1,4-dioxane	11.867	88	41641	1250.00	ug/L	100
11) chlorodifluoromethane	4.485	51	174769	50.00	ug/L	100
12) dichlorodifluoromethane	4.464	85	156511	50.00	ug/L	100
15) chloromethane	4.871	50	225520	50.00	ug/L	100
16) vinyl chloride	5.159	62	194287	50.00	ug/L	100
18) bromomethane	5.812	94	102488	50.00	ug/L	100
19) chloroethane	5.995	64	89742	50.00	ug/L	100
20) trichlorofluoromethane	6.513	101	180083	50.01	ug/L	100
23) ethyl ether	6.895	74	73078	50.00	ug/L	100
24) 2-CHLOROPROPANE	7.114	43	259828	50.00	ug/L	100
27) acrolein	7.167	56	346855	500.00	ug/L	100
28) 1,1-dichloroethene	7.344	96	118606	50.00	ug/L	100
29) acetone	7.391	58	15312	50.00	ug/L	100
30) allyl chloride	7.862	78	23259	50.00	ug/L	100
31) acetonitrile	7.857	40	155926	500.00	ug/L	100
32) iodomethane	7.621	142	212709	50.00	ug/L	100
33) carbon disulfide	7.747	76	421434	50.00	ug/L	100
34) 1-CHLOROPROPANE	8.087	63	11333	50.00	ug/L	100
35) methylene chloride	8.050	84	137561	50.00	ug/L	100
36) methyl acetate	7.841	43	141168	50.00	ug/L	100
37) methyl tert butyl ether	8.385	73	424908	50.00	ug/L	100
38) trans-1,2-dichloroethene	8.416	96	120103	50.00	ug/L	100
39) di-isopropyl ether	8.970	45	516504	50.00	ug/L	100
40) ethyl tert-butyl ether	9.430	59	480815	50.00	ug/L	100
41) 2-butanone	9.681	72	17468	50.00	ug/L	100
42) 1,1-dichloroethane	8.986	63	242344	50.00	ug/L	100
43) chloroprene	9.090	53	192609	50.00	ug/L	100
44) acrylonitrile	8.385	53	319929	250.00	ug/L	100
45) vinyl acetate	8.970	86	24630	50.00	ug/L	100
46) ethyl acetate	9.697	45	25047	50.00	ug/L	100
47) 2,2-dichloropropane	9.728	77	169762	50.00	ug/L	100
48) cis-1,2-dichloroethene	9.707	96	131766	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187033.D
 Acq On : 27 Aug 2014 9:18 pm
 Operator : giannap
 Sample : icc8630-50
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 28 09:37:05 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:20:13 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.775	55	182538	50.00	ug/L	100
50) propionitrile	9.796	54	255538	500.00	ug/L	100
51) bromochloromethane	10.016	128	64593	50.00	ug/L	100
52) tetrahydrofuran	10.063	42	55837	50.00	ug/L	100
53) chloroform	10.068	83	210236	50.00	ug/L	100
54) tert-butyl Formate	10.126	59	156013	50.00	ug/L	100
55) iso-butyl alcohol	10.502	74	18573	500.00	ug/L	100
58) freon 113	7.313	151	89072	50.00	ug/L	100
59) methacrylonitrile	9.974	41	107038	50.00	ug/L	100
60) 1,1,1-trichloroethane	10.340	97	181382	50.00	ug/L	100
62) tert-amyl methyl ether	10.805	87	98932	50.00	ug/L	100
63) iso-octane	10.784	57	533162	50.00	ug/L	100
66) epichlorohydrin	12.421	57	87483	250.00	ug/L	100
67) n-butyl alcohol	11.239	56	257903	2500.00	ug/L	100
68) Cyclohexane	10.413	84	191545	50.00	ug/L	100
69) carbon tetrachloride	10.533	117	163870	50.00	ug/L	100
70) 1,1-dichloropropene	10.507	75	170440	50.00	ug/L	100
71) hexane	8.719	86	22104	50.00	ug/L	100
72) benzene	10.774	78	508409	50.00	ug/L	100
73) heptane	10.936	57	101776	50.00	ug/L	100
74) isopropyl acetate	10.690	43	305119	50.00	ug/L	100
75) 1,2-dichloroethane	10.784	62	173779	50.00	ug/L	100
78) trichloroethene	11.474	95	122291	50.00	ug/L	100
79) methylcyclohexane	11.715	83	218848	50.00	ug/L	100
80) 2-nitropropane	12.285	41	67771	50.00	ug/L	100
81) 2-chloroethyl vinyl ether	12.285	63	508159	250.00	ug/L	100
82) methyl methacrylate	11.746	100	37294	50.00	ug/L	100
83) 1,2-dichloropropane	11.757	63	143300	50.00	ug/L	100
84) propyl acetate	11.788	73	28357	50.00	ug/L	100
85) dibromomethane	11.908	93	79529	50.00	ug/L	100
86) bromodichloromethane	12.034	83	172863	50.00	ug/L	100
87) cis-1,3-dichloropropene	12.515	75	225578	50.00	ug/L	100
89) 4-methyl-2-pentanone	12.630	58	63113	50.00	ug/L	100
90) toluene	12.907	92	317972	50.00	ug/L	100
91) 3-methyl-1-butanol	12.619	55	153420	1000.00	ug/L	100
92) trans-1,3-dichloropropene	13.106	75	211994	50.00	ug/L	100
93) ethyl methacrylate	13.100	69	188799	50.00	ug/L	100
94) 1,1,2-trichloroethane	13.341	83	102366	50.00	ug/L	100
95) 2-hexanone	13.534	58	59114	50.00	ug/L	100
97) cyclohexanone	15.720	55	122951	500.00	ug/L	100
98) tetrachloroethene	13.524	164	107198	50.00	ug/L	100
99) 1,3-dichloropropane	13.539	76	208125	50.00	ug/L	100
100) butyl acetate	13.602	56	104155	50.00	ug/L	100
101) dibromochloromethane	13.817	129	141928	50.00	ug/L	100
102) 1,2-dibromoethane	13.994	107	122464	50.00	ug/L	100
103) 3,3-dimethyl-1-Butanol	13.702	57	152293	500.00	ug/L	100
105) chlorobenzene	14.496	112	356342	50.00	ug/L	100
106) 1,1,1,2-tetrachloroethane	14.559	131	135528	50.00	ug/L	100
107) ethylbenzene	14.559	91	623870	50.00	ug/L	100
108) m,p-xylene	14.679	106	471815	100.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187033.D
 Acq On : 27 Aug 2014 9:18 pm
 Operator : giannap
 Sample : icc8630-50
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 28 09:37:05 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:20:13 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) o-xylene	15.139	106	243601	50.00	ug/L	100
110) styrene	15.150	104	418835	50.00	ug/L	100
111) bromoform	15.437	173	110934	50.00	ug/L	100
113) isopropylbenzene	15.521	105	646293	50.00	ug/L	100
115) bromobenzene	15.965	156	168127	50.00	ug/L	100
116) 1,1,2,2-tetrachloroethane	15.850	83	194698	50.00	ug/L	100
117) trans-1,4-dichloro-2-b...	15.903	53	58151	50.00	ug/L	100
118) 1,2,3-trichloropropane	15.944	110	48926	50.00	ug/L	100
119) n-propylbenzene	15.981	91	743711	50.00	ug/L	100
120) 2-chlorotoluene	16.143	126	157130	50.00	ug/L	100
121) 4-chlorotoluene	16.253	91	489929	50.00	ug/L	100
123) 1,3,5-trimethylbenzene	16.143	105	574594	50.00	ug/L	100
124) tert-butylbenzene	16.540	119	500699	50.00	ug/L	100
125) pentachloroethane	16.624	167	114385	50.00	ug/L	100
126) 1,2,4-trimethylbenzene	16.582	105	573518	50.00	ug/L	100
128) sec-butylbenzene	16.776	105	753260	50.00	ug/L	100
129) 1,3-dichlorobenzene	16.979	146	343568	50.00	ug/L	100
130) p-isopropyltoluene	16.906	119	645432	50.00	ug/L	100
131) 1,4-dichlorobenzene	17.068	146	348277	50.00	ug/L	100
132) benzyl chloride	17.199	91	365031	50.00	ug/L	100
133) 1,2-dichlorobenzene	17.508	146	334095	50.00	ug/L	100
135) n-butylbenzene	17.366	92	331124	50.00	ug/L	100
137) 1,2-dibromo-3-chloropr...	18.365	157	40314	50.00	ug/L	100
138) 1,3,5-trichlorobenzene	18.569	180	284970	50.00	ug/L	100
139) 1,2,4-trichlorobenzene	19.306	180	235881	50.00	ug/L	100
140) hexachlorobutadiene	19.437	225	138145	50.00	ug/L	100
141) naphthalene	19.635	128	485856	50.00	ug/L	100
143) 1,2,3-trichlorobenzene	19.907	180	194725	50.00	ug/L	100
144) hexachloroethane	17.795	201	116169	50.00	ug/L	100

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

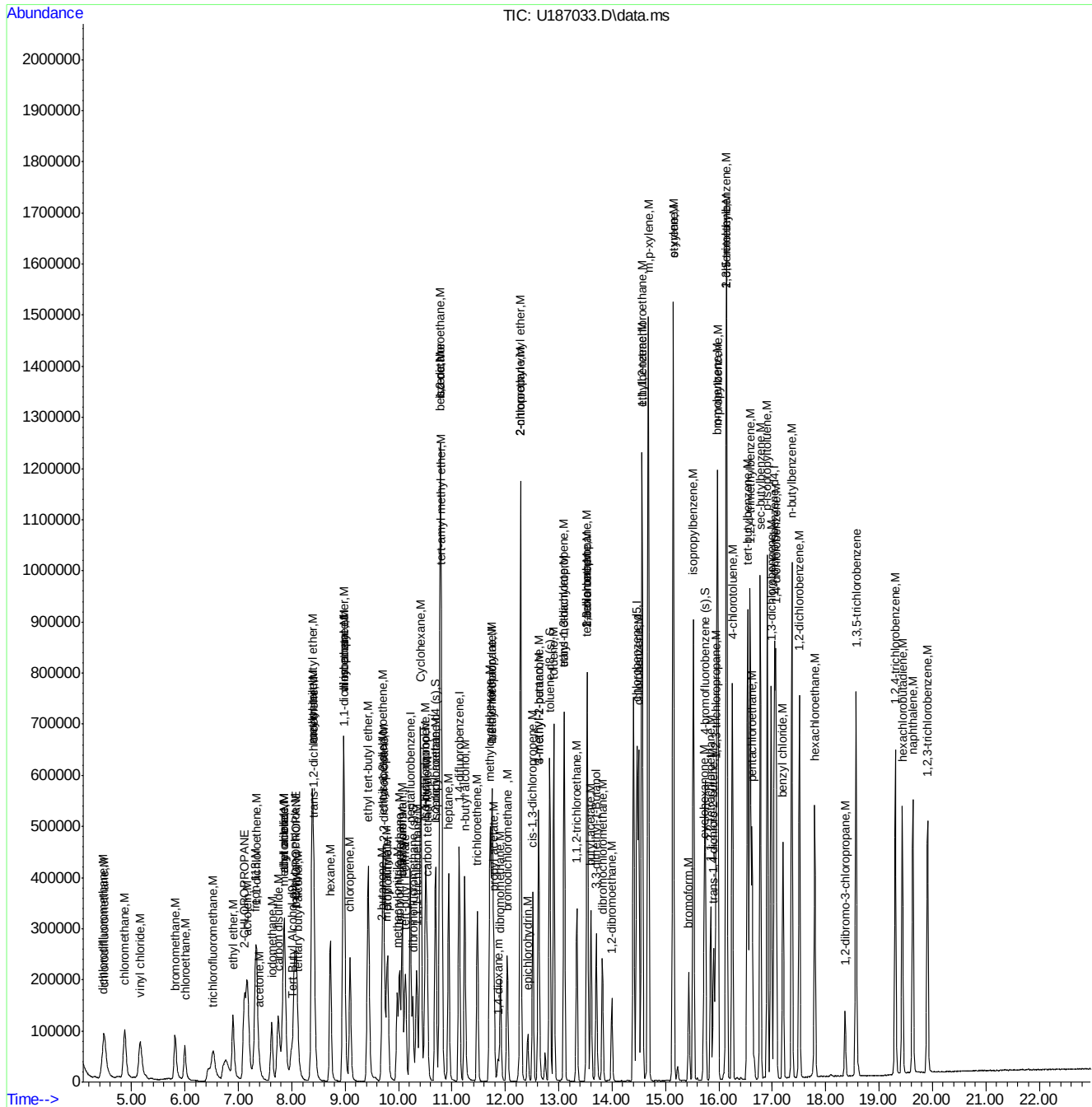
(QT Reviewed)

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Data Path   : C:\msdchem\1\DATA\
Data File   : U187033.D
Acq On      : 27 Aug 2014    9:18 pm
Operator    : giannap
Sample      : icc8630-50
Misc        : ms72741,vu8630,5.0,,,,,1
ALS Vial    : 19    Sample Multiplier: 1

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Quant Time: Aug 28 09:37:05 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:20:13 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187034.D
 Acq On : 27 Aug 2014 9:47 pm
 Operator : giannap
 Sample : ic8630-100
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 28 09:37:12 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:31:20 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.010	65	164822	500.00	ug/L	0.00
5) pentafluorobenzene	10.221	168	332332	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.136	114	392617	50.00	ug/L	0.00
96) chlorobenzene-d5	14.466	117	381371	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.044	152	229180	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.268	113	211964	97.18	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	194.36%#	
57) 1,2-dichloroethane-d4 (s)	10.697	65	269723	96.43	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	192.86%#	
88) toluene-d8 (s)	12.830	98	872068	96.73	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	193.46%#	
114) 4-bromofluorobenzene (s)	15.742	95	370104	98.32	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	196.64%#	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.120	59	168521	459.71	ug/L	93
4) 1,4-dioxane	11.863	88	75476	2347.60	ug/L	97
11) chlorodifluoromethane	4.491	51	337085	95.68	ug/L	99
12) dichlorodifluoromethane	4.460	85	300327	95.19	ug/L	99
15) chloromethane	4.883	50	447216	98.37	ug/L	99
16) vinyl chloride	5.155	62	383617	97.95	ug/L	99
18) bromomethane	5.814	94	186792	90.41	ug/L	97
19) chloroethane	5.992	64	170229	94.10	ug/L	99
20) trichlorofluoromethane	6.509	101	356203	98.12	ug/L	98
23) ethyl ether	6.896	74	146030	99.13	ug/L	98
24) 2-CHLOROPROPANE	7.111	43	514306	98.19	ug/L	# 91
27) acrolein	7.173	56	14113	20.18	ug/L	96
28) 1,1-dichloroethene	7.341	96	236866	99.07	ug/L	97
29) acetone	7.393	58	28643	92.80	ug/L	90
30) allyl chloride	7.863	78	47253	100.78	ug/L	95
31) acetonitrile	7.848	40	290092	922.91	ug/L	# 85
32) iodomethane	7.623	142	422427	98.52	ug/L	99
33) carbon disulfide	7.743	76	802016	94.41	ug/L	99
34) 1-CHLOROPROPANE	8.083	63	22839	99.97	ug/L	98
35) methylene chloride	8.052	84	274774	99.09	ug/L	98
36) methyl acetate	7.842	43	265453	93.28	ug/L	99
37) methyl tert butyl ether	8.381	73	831145	97.03	ug/L	100
38) trans-1,2-dichloroethene	8.418	96	243052	100.39	ug/L	99
39) di-isopropyl ether	8.966	45	988952	94.98	ug/L	98
40) ethyl tert-butyl ether	9.432	59	916869	94.60	ug/L	100
41) 2-butanone	9.688	72	34235	97.22	ug/L	# 91
42) 1,1-dichloroethane	8.987	63	482897	98.85	ug/L	99
43) chloroprene	9.092	53	375532	96.72	ug/L	99
44) acrylonitrile	8.386	53	622074	482.28	ug/L	100
45) vinyl acetate	8.966	86	47029	94.72	ug/L	98
46) ethyl acetate	9.698	45	44923	88.97	ug/L	97
47) 2,2-dichloropropane	9.730	77	324750	94.90	ug/L	99
48) cis-1,2-dichloroethene	9.709	96	262965	99.00	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187034.D
 Acq On : 27 Aug 2014 9:47 pm
 Operator : giannap
 Sample : ic8630-100
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 28 09:37:12 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:31:20 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.777	55	345672	93.94	ug/L	100
50) propionitrile	9.798	54	491422	953.99	ug/L	97
51) bromochloromethane	10.017	128	130042	99.87	ug/L	97
52) tetrahydrofuran	10.059	42	105017	93.30	ug/L	99
53) chloroform	10.070	83	421124	99.37	ug/L	100
54) tert-butyl Formate	10.127	59	299321	95.17	ug/L	100
55) iso-butyl alcohol	10.503	74	35297	942.76	ug/L #	85
58) freon 113	7.314	151	171023	95.25	ug/L	98
59) methacrylonitrile	9.975	41	209178	96.94	ug/L	99
60) 1,1,1-trichloroethane	10.336	97	360157	98.50	ug/L	98
62) tert-amyl methyl ether	10.807	87	189369	94.95	ug/L	98
63) iso-octane	10.786	57	988100	91.94	ug/L	99
66) epichlorohydrin	12.417	57	166158	469.11	ug/L	100
67) n-butyl alcohol	11.241	56	460275	4407.92	ug/L	100
68) Cyclohexane	10.409	84	372803	96.14	ug/L	94
69) carbon tetrachloride	10.535	117	326045	98.28	ug/L	99
70) 1,1-dichloropropene	10.509	75	340730	98.75	ug/L	100
71) hexane	8.721	86	42539	95.06	ug/L	99
72) benzene	10.775	78	1017113	98.82	ug/L	99
73) heptane	10.937	57	191221	92.81	ug/L	99
74) isopropyl acetate	10.686	43	575082	93.10	ug/L	100
75) 1,2-dichloroethane	10.786	62	344698	97.98	ug/L	100
78) trichloroethene	11.476	95	245077	98.99	ug/L	98
79) methylcyclohexane	11.711	83	415879	93.87	ug/L	98
80) 2-nitropropane	12.286	41	129498	94.39	ug/L	99
81) 2-chloroethyl vinyl ether	12.286	63	963604	468.35	ug/L	100
82) methyl methacrylate	11.748	100	73206	96.96	ug/L	98
83) 1,2-dichloropropane	11.758	63	284554	98.09	ug/L	98
84) propyl acetate	11.790	73	52660	91.73	ug/L	98
85) dibromomethane	11.910	93	158753	98.61	ug/L	98
86) bromodichloromethane	12.035	83	347785	99.38	ug/L	100
87) cis-1,3-dichloropropene	12.516	75	453093	99.22	ug/L	99
89) 4-methyl-2-pentanone	12.631	58	120449	94.27	ug/L	96
90) toluene	12.908	92	637963	99.11	ug/L	98
91) 3-methyl-1-butanol	12.621	55	268913	1731.66	ug/L	99
92) trans-1,3-dichloropropene	13.107	75	423556	98.69	ug/L	98
93) ethyl methacrylate	13.102	69	369757	96.74	ug/L	99
94) 1,1,2-trichloroethane	13.337	83	205429	99.13	ug/L	98
95) 2-hexanone	13.536	58	114318	95.53	ug/L	98
97) cyclohexanone	15.721	55	191427	761.51	ug/L	97
98) tetrachloroethene	13.525	164	218337	99.62	ug/L	99
99) 1,3-dichloropropane	13.541	76	417435	98.10	ug/L	99
100) butyl acetate	13.604	56	196550	92.30	ug/L	100
101) dibromochloromethane	13.818	129	285670	98.45	ug/L	100
102) 1,2-dibromoethane	13.996	107	245901	98.21	ug/L	99
103) 3,3-dimethyl-1-Butanol	13.703	57	267440	858.92	ug/L	100
105) chlorobenzene	14.498	112	723404	99.29	ug/L	99
106) 1,1,1,2-tetrachloroethane	14.560	131	272204	98.24	ug/L	100
107) ethylbenzene	14.560	91	1262808	99.00	ug/L	100
108) m,p-xylene	14.681	106	952329	197.45	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187034.D
 Acq On : 27 Aug 2014 9:47 pm
 Operator : giannap
 Sample : ic8630-100
 Misc : ms72741,vu8630,5.0,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 28 09:37:12 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:31:20 2014
 Response via : Initial Calibration

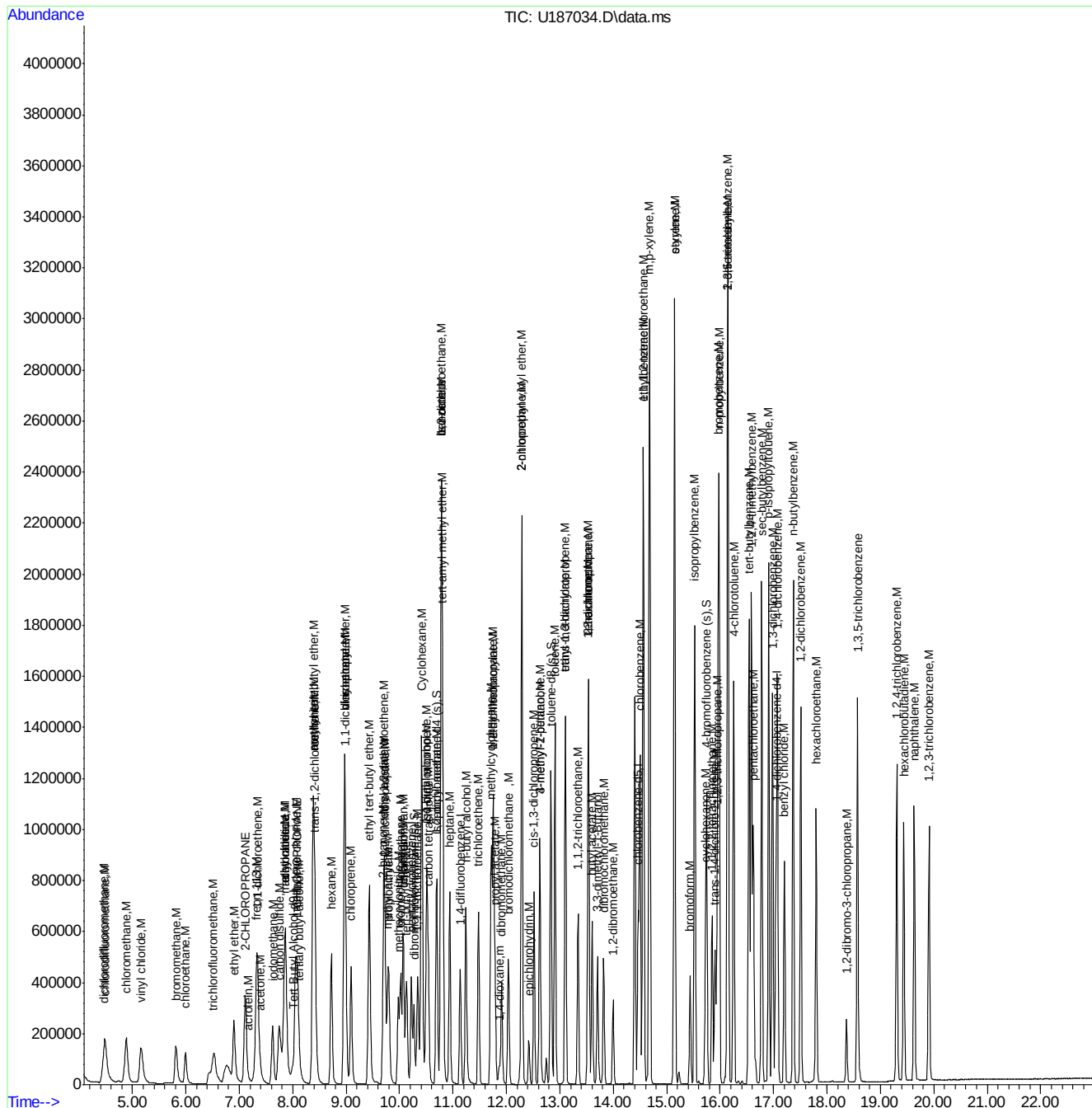
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) o-xylene	15.141	106	489876	98.36	ug/L	99
110) styrene	15.151	104	847373	98.95	ug/L	99
111) bromoform	15.439	173	226049	99.66	ug/L	100
113) isopropylbenzene	15.522	105	1310196	100.18	ug/L	100
115) bromobenzene	15.967	156	343458	100.95	ug/L	98
116) 1,1,2,2-tetrachloroethane	15.852	83	386858	98.19	ug/L	100
117) trans-1,4-dichloro-2-b...	15.904	53	115022	97.74	ug/L	98
118) 1,2,3-trichloropropane	15.941	110	97233	98.21	ug/L	99
119) n-propylbenzene	15.977	91	1507078	100.14	ug/L	98
120) 2-chlorotoluene	16.144	126	315527	99.23	ug/L	99
121) 4-chlorotoluene	16.254	91	991173	99.97	ug/L	99
123) 1,3,5-trimethylbenzene	16.144	105	1148555	98.78	ug/L	100
124) tert-butylbenzene	16.542	119	1003267	99.02	ug/L	100
125) pentachloroethane	16.620	167	231230	99.89	ug/L	99
126) 1,2,4-trimethylbenzene	16.584	105	1149554	99.05	ug/L	100
128) sec-butylbenzene	16.777	105	1505170	98.74	ug/L	99
129) 1,3-dichlorobenzene	16.981	146	689751	99.21	ug/L	99
130) p-isopropyltoluene	16.908	119	1272809	97.45	ug/L	99
131) 1,4-dichlorobenzene	17.070	146	696317	98.80	ug/L	99
132) benzyl chloride	17.201	91	683423	92.52	ug/L	100
133) 1,2-dichlorobenzene	17.509	146	663908	98.20	ug/L	99
135) n-butylbenzene	17.368	92	653385	97.51	ug/L	99
137) 1,2-dibromo-3-chloropr...	18.366	157	78421	96.13	ug/L	99
138) 1,3,5-trichlorobenzene	18.570	180	564029	97.81	ug/L	99
139) 1,2,4-trichlorobenzene	19.307	180	476045	99.73	ug/L	100
140) hexachlorobutadiene	19.438	225	267676	95.75	ug/L	100
141) naphthalene	19.632	128	964729	98.12	ug/L	99
143) 1,2,3-trichlorobenzene	19.909	180	391177	99.27	ug/L	98
144) hexachloroethane	17.797	201	233192	99.19	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187034.D
Acq On : 27 Aug 2014 9:47 pm
Operator : giannap
Sample : ic8630-100
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 28 09:37:12 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:31:20 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187035.D
 Acq On : 27 Aug 2014 10:16 pm
 Operator : giannap
 Sample : ic8630-200
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 28 09:42:21 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:33:56 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.009	65	169698	500.00	ug/L	0.00
5) pentafluorobenzene	10.221	168	338545	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.135	114	403507	50.00	ug/L	0.00
96) chlorobenzene-d5	14.466	117	392888	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.043	152	227708	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.268	113	448461	204.73	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	409.46%#	
57) 1,2-dichloroethane-d4 (s)	10.696	65	570638	203.91	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	407.82%#	
88) toluene-d8 (s)	12.829	98	1838167	201.69	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	403.38%#	
114) 4-bromofluorobenzene (s)	15.747	95	801351	216.08	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	432.16%#	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.135	59	347414	959.13	ug/L	# 51
4) 1,4-dioxane	11.867	88	155941	4859.12	ug/L	97
11) chlorodifluoromethane	4.485	51	681036	193.95	ug/L	99
12) dichlorodifluoromethane	4.465	85	619629	197.54	ug/L	98
15) chloromethane	4.893	50	889858	193.72	ug/L	99
16) vinyl chloride	5.155	62	766109	194.01	ug/L	99
19) chloroethane	5.981	64	285710	159.75	ug/L	99
20) trichlorofluoromethane	6.503	101	700213	191.14	ug/L	99
23) ethyl ether	6.901	74	302728	202.61	ug/L	97
24) 2-CHLOROPROPANE	7.110	43	1073327	203.00	ug/L	# 90
28) 1,1-dichloroethene	7.340	96	480527	198.21	ug/L	97
29) acetone	7.387	58	60975	201.16	ug/L	97
30) allyl chloride	7.863	78	99081	206.64	ug/L	96
31) acetonitrile	7.852	40	587998	1909.97	ug/L	90
32) iodomethane	7.617	142	869274	200.49	ug/L	99
33) carbon disulfide	7.742	76	1638165	194.74	ug/L	99
34) 1-CHLOROPROPANE	8.088	63	46355	199.21	ug/L	99
35) methylene chloride	8.051	84	564179	200.63	ug/L	100
36) methyl acetate	7.842	43	556212	198.54	ug/L	99
37) methyl tert butyl ether	8.386	73	1703934	198.22	ug/L	99
38) trans-1,2-dichloroethene	8.417	96	496105	200.76	ug/L	98
39) di-isopropyl ether	8.971	45	2048749	198.13	ug/L	99
40) ethyl tert-butyl ether	9.431	59	1913190	199.15	ug/L	100
41) 2-butanone	9.687	72	70778	200.09	ug/L	96
42) 1,1-dichloroethane	8.987	63	985363	199.15	ug/L	99
43) chloroprene	9.091	53	776960	199.71	ug/L	100
44) acrylonitrile	8.386	53	1289720	999.25	ug/L	100
45) vinyl acetate	8.966	86	97870	198.75	ug/L	97
46) ethyl acetate	9.698	45	94068	193.56	ug/L	96
47) 2,2-dichloropropane	9.729	77	649378	191.15	ug/L	99
48) cis-1,2-dichloroethene	9.708	96	543895	202.02	ug/L	99
49) methyl acrylate	9.776	55	727094	200.03	ug/L	99
50) propionitrile	9.797	54	1029443	2007.96	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187035.D
 Acq On : 27 Aug 2014 10:16 pm
 Operator : giannap
 Sample : ic8630-200
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 28 09:42:21 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:33:56 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) bromochloromethane	10.017	128	267774	202.00	ug/L	98
52) tetrahydrofuran	10.064	42	220177	198.68	ug/L	99
53) chloroform	10.069	83	873581	202.99	ug/L	99
54) tert-butyl Formate	10.132	59	626373	200.35	ug/L	100
55) iso-butyl alcohol	10.503	74	72936	1968.66	ug/L	98
58) freon 113	7.314	151	349644	195.81	ug/L	99
59) methacrylonitrile	9.975	41	438780	202.72	ug/L	99
60) 1,1,1-trichloroethane	10.341	97	740828	200.40	ug/L	99
62) tert-amyl methyl ether	10.811	87	394318	199.12	ug/L	96
63) iso-octane	10.785	57	2029035	193.11	ug/L	99
66) epichlorohydrin	12.422	57	352476	999.14	ug/L	98
67) n-butyl alcohol	11.245	56	937621	9286.84	ug/L	99
68) Cyclohexane	10.414	84	750180	191.94	ug/L	94
69) carbon tetrachloride	10.534	117	666945	197.31	ug/L	99
70) 1,1-dichloropropene	10.508	75	694752	197.15	ug/L	100
71) hexane	8.720	86	88209	196.66	ug/L	97
72) benzene	10.775	78	2060807	195.98	ug/L	99
73) heptane	10.937	57	404082	197.95	ug/L	99
74) isopropyl acetate	10.691	43	1227996	200.35	ug/L	100
75) 1,2-dichloroethane	10.785	62	700025	195.59	ug/L	99
78) trichloroethene	11.475	95	511151	201.91	ug/L	99
79) methylcyclohexane	11.716	83	854310	193.56	ug/L	99
80) 2-nitropropane	12.286	41	271147	197.85	ug/L	97
81) 2-chloroethyl vinyl ether	12.291	63	1987569	970.69	ug/L	99
82) methyl methacrylate	11.747	100	152331	199.35	ug/L	96
83) 1,2-dichloropropane	11.758	63	588136	199.17	ug/L	99
84) propyl acetate	11.789	73	110702	195.73	ug/L	95
85) dibromomethane	11.909	93	331960	202.03	ug/L	98
86) bromodichloromethane	12.035	83	727055	202.78	ug/L	100
87) cis-1,3-dichloropropene	12.516	75	944913	202.12	ug/L	99
89) 4-methyl-2-pentanone	12.631	58	251740	197.37	ug/L	94
90) toluene	12.908	92	1316793	199.94	ug/L	98
91) 3-methyl-1-butanol	12.625	55	539412	3622.83	ug/L	99
92) trans-1,3-dichloropropene	13.106	75	886112	202.22	ug/L	99
93) ethyl methacrylate	13.101	69	788370	204.02	ug/L	99
94) 1,1,2-trichloroethane	13.342	83	435406	205.33	ug/L	99
95) 2-hexanone	13.535	58	242633	201.79	ug/L	98
98) tetrachloroethene	13.525	164	455398	202.08	ug/L	99
99) 1,3-dichloropropane	13.540	76	872799	201.01	ug/L	100
100) butyl acetate	13.608	56	423058	200.57	ug/L	100
101) dibromochloromethane	13.823	129	607539	204.82	ug/L	99
102) 1,2-dibromoethane	13.995	107	522842	204.53	ug/L	100
103) 3,3-dimethyl-1-Butanol	13.708	57	526796	1766.92	ug/L	99
105) chlorobenzene	14.497	112	1515847	202.68	ug/L	98
106) 1,1,1,2-tetrachloroethane	14.565	131	568655	200.98	ug/L	100
107) ethylbenzene	14.560	91	2651524	202.79	ug/L	100
108) m,p-xylene	14.680	106	1983193	401.69	ug/L	98
109) o-xylene	15.145	106	1010754	198.62	ug/L	100
110) styrene	15.151	104	1772048	201.93	ug/L	99
111) bromoform	15.438	173	483140	207.12	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187035.D
 Acq On : 27 Aug 2014 10:16 pm
 Operator : giannap
 Sample : ic8630-200
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 28 09:42:21 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 08:33:56 2014
 Response via : Initial Calibration

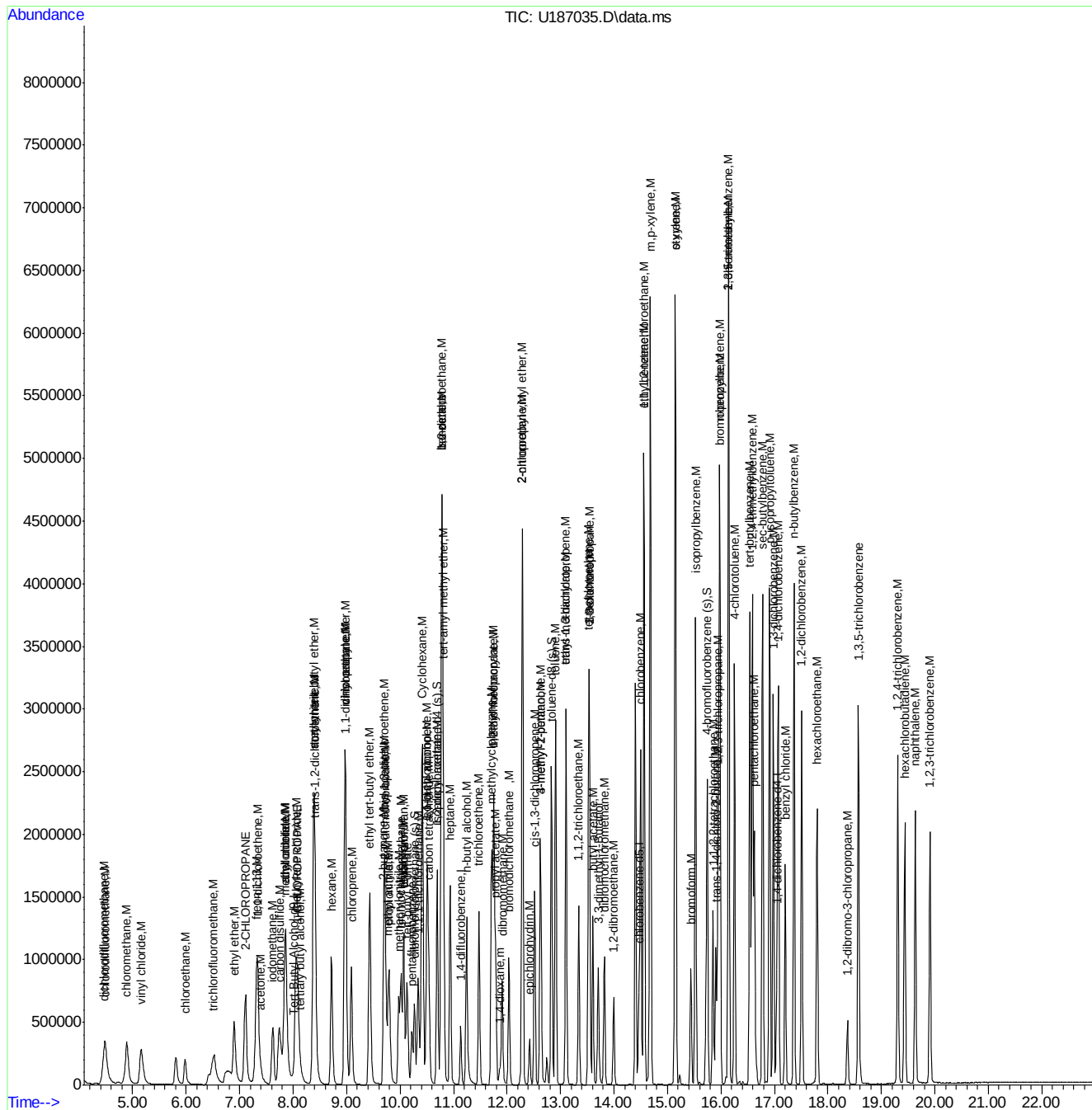
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
113) isopropylbenzene	15.522	105	2715282	208.77	ug/L	99
115) bromobenzene	15.966	156	725992	213.75	ug/L	98
116) 1,1,2,2-tetrachloroethane	15.851	83	802862	206.96	ug/L	100
117) trans-1,4-dichloro-2-b...	15.903	53	244649	211.63	ug/L	99
118) 1,2,3-trichloropropane	15.945	110	203676	208.92	ug/L	99
119) n-propylbenzene	15.982	91	3135953	209.57	ug/L	100
120) 2-chlorotoluene	16.144	126	648766	206.14	ug/L	97
121) 4-chlorotoluene	16.254	91	2061456	209.30	ug/L	98
123) 1,3,5-trimethylbenzene	16.144	105	2320988	202.13	ug/L	100
124) tert-butylbenzene	16.541	119	2019091	201.55	ug/L	98
125) pentachloroethane	16.625	167	476672	207.37	ug/L	99
126) 1,2,4-trimethylbenzene	16.588	105	2333495	203.33	ug/L	100
128) sec-butylbenzene	16.782	105	3016942	200.46	ug/L	99
129) 1,3-dichlorobenzene	16.980	146	1417555	206.02	ug/L	99
130) p-isopropyltoluene	16.912	119	2562568	200.01	ug/L	99
131) 1,4-dichlorobenzene	17.074	146	1423114	204.45	ug/L	99
132) benzyl chloride	17.205	91	1401880	198.43	ug/L	99
133) 1,2-dichlorobenzene	17.508	146	1343978	201.89	ug/L	99
135) n-butylbenzene	17.367	92	1311780	199.52	ug/L	100
137) 1,2-dibromo-3-chloropr...	18.366	157	162595	204.55	ug/L	99
138) 1,3,5-trichlorobenzene	18.570	180	1159076	204.53	ug/L	99
139) 1,2,4-trichlorobenzene	19.307	180	975355	205.93	ug/L	99
140) hexachlorobutadiene	19.438	225	551473	202.85	ug/L	100
141) naphthalene	19.636	128	1966458	203.21	ug/L	99
143) 1,2,3-trichlorobenzene	19.908	180	800174	205.12	ug/L	98
144) hexachloroethane	17.801	201	477058	205.07	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187035.D
Acq On : 27 Aug 2014 10:16 pm
Operator : giannap
Sample : ic8630-200
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 28 09:42:21 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 08:33:56 2014
Response via : Initial Calibration



MU8630.M Tue Sep 02 12:58:00 2014 U_CORE

Page: 4

7.6.10



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187038.D
 Acq On : 27 Aug 2014 11:44 pm
 Operator : giannap
 Sample : icv8630-50
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 28 10:59:06 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:38:21 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.025	65	168629	500.00	ug/L	0.02
5) pentafluorobenzene	10.221	168	337652	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.136	114	396032	50.00	ug/L	0.00
96) chlorobenzene-d5	14.466	117	380512	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.043	152	231005	50.00	ug/L	0.00

System Monitoring Compounds

56) dibromofluoromethane (s)	10.268	113	110858	49.75	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	99.50%	
57) 1,2-dichloroethane-d4 (s)	10.697	65	141585	49.29	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	98.58%	
88) toluene-d8 (s)	12.830	98	454425	49.58	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	99.16%	
114) 4-bromofluorobenzene (s)	15.747	95	188428	48.36	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	96.72%	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	8.130	59	90846	245.09	ug/L	79
4) 1,4-dioxane	11.873	88	38934	1282.52	ug/L	98
11) chlorodifluoromethane	4.491	51	150208	41.97	ug/L	96
12) dichlorodifluoromethane	4.460	85	156221	50.96	ug/L	98
15) chloromethane	4.873	50	231528	47.73	ug/L	98
16) vinyl chloride	5.155	62	199676	49.96	ug/L	98
18) bromomethane	5.819	94	98700	43.51	ug/L	99
19) chloroethane	5.997	64	89097	48.75	ug/L	99
20) trichlorofluoromethane	6.509	101	185202	51.98	ug/L	97
23) ethyl ether	6.896	74	77353	53.11	ug/L	92
24) 2-CHLOROPROPANE	7.115	43	273328	51.77	ug/L	99
27) acrolein	7.168	56	331817	459.82	ug/L	98
28) 1,1-dichloroethene	7.345	96	124644	49.69	ug/L	98
29) acetone	7.393	58	16313	49.10	ug/L	# 84
30) allyl chloride	7.863	78	28411	57.16	ug/L	91
31) acetonitrile	7.858	40	148022	493.49	ug/L	# 73
32) iodomethane	7.628	142	219998	53.81	ug/L	99
33) carbon disulfide	7.748	76	444305	52.63	ug/L	99
34) 1-CHLOROPROPANE	8.093	63	11445	47.31	ug/L	83
35) methylene chloride	8.056	84	142748	50.31	ug/L	98
36) methyl acetate	7.842	43	121210	42.91	ug/L	99
37) methyl tert butyl ether	8.386	73	835868	95.82	ug/L	90
38) trans-1,2-dichloroethene	8.417	96	123849	48.58	ug/L	97
39) di-isopropyl ether	8.971	45	506065	46.85	ug/L	98
40) ethyl tert-butyl ether	9.431	59	462462	46.16	ug/L	100
41) 2-butanone	9.688	72	18291	53.67	ug/L	# 83
42) 1,1-dichloroethane	8.987	63	254298	52.63	ug/L	99
43) chloroprene	9.092	53	194006	48.82	ug/L	99
44) acrylonitrile	8.381	53	330094	242.72	ug/L	99
45) vinyl acetate	8.966	86	24353	51.79	ug/L	97
46) ethyl acetate	9.698	45	23812	48.11	ug/L	92
47) 2,2-dichloropropane	9.735	77	166922	46.65	ug/L	98
48) cis-1,2-dichloroethene	9.709	96	135295	48.74	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187038.D
 Acq On : 27 Aug 2014 11:44 pm
 Operator : giannap
 Sample : icv8630-50
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 28 10:59:06 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:38:21 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) methyl acrylate	9.776	55	182215	47.95	ug/L	99
50) propionitrile	9.797	54	266748	503.65	ug/L	100
51) bromochloromethane	10.017	128	65876	50.57	ug/L	98
52) tetrahydrofuran	10.059	42	57288	48.37	ug/L	99
53) chloroform	10.069	83	218867	49.67	ug/L	99
54) tert-butyl Formate	10.132	59	144980	46.26	ug/L	100
55) iso-butyl alcohol	10.503	74	18624	502.66	ug/L	90
58) freon 113	7.314	151	83096	46.01	ug/L	98
59) methacrylonitrile	9.975	41	108738	47.53	ug/L	99
60) 1,1,1-trichloroethane	10.341	97	188308	52.49	ug/L	99
62) tert-amyl methyl ether	10.806	87	93728	48.21	ug/L	96
63) iso-octane	10.785	57	469333	44.30	ug/L	99
66) epichlorohydrin	12.422	57	87424	244.26	ug/L	99
67) n-butyl alcohol	11.246	56	257833	2437.20	ug/L	99
68) Cyclohexane	10.414	84	194662	51.23	ug/L	97
69) carbon tetrachloride	10.535	117	170645	52.13	ug/L	99
70) 1,1-dichloropropene	10.508	75	169073	49.48	ug/L	100
71) hexane	8.720	86	18805	43.58	ug/L	97
72) benzene	10.775	78	529759	49.66	ug/L	99
73) heptane	10.937	57	85289	40.69	ug/L	99
74) isopropyl acetate	10.686	43	303502	48.06	ug/L	99
75) 1,2-dichloroethane	10.785	62	180198	52.79	ug/L	100
78) trichloroethene	11.476	95	125512	52.13	ug/L	99
79) methylcyclohexane	11.716	83	200870	47.06	ug/L	99
80) 2-nitropropane	12.281	41	67244	49.41	ug/L #	84
81) 2-chloroethyl vinyl ether	12.286	63	488199	242.93	ug/L	99
82) methyl methacrylate	11.747	100	37883	53.01	ug/L	99
83) 1,2-dichloropropane	11.758	63	149355	53.75	ug/L	98
84) propyl acetate	11.789	73	27869	48.70	ug/L	98
85) dibromomethane	11.910	93	81038	51.81	ug/L	98
86) bromodichloromethane	12.035	83	179614	50.72	ug/L	100
87) cis-1,3-dichloropropene	12.516	75	226213	50.52	ug/L	99
89) 4-methyl-2-pentanone	12.631	58	65291	50.84	ug/L	98
90) toluene	12.908	92	323804	51.05	ug/L	99
91) 3-methyl-1-butanol	12.621	55	152318	1083.95	ug/L	100
92) trans-1,3-dichloropropene	13.107	75	206656	48.29	ug/L	98
93) ethyl methacrylate	13.101	69	189670	49.13	ug/L	100
94) 1,1,2-trichloroethane	13.337	83	104816	49.59	ug/L	99
95) 2-hexanone	13.535	58	60961	48.72	ug/L	97
97) cyclohexanone	15.726	55	62890	213.18	ug/L	99
98) tetrachloroethene	13.525	164	111756	51.31	ug/L	99
99) 1,3-dichloropropane	13.541	76	211431	50.15	ug/L	99
100) butyl acetate	13.603	56	101250	45.47	ug/L	99
101) dibromochloromethane	13.818	129	142147	51.40	ug/L	99
102) 1,2-dibromoethane	13.995	107	124330	50.19	ug/L	98
103) 3,3-dimethyl-1-Butanol	13.703	57	146731	533.50	ug/L	100
105) chlorobenzene	14.497	112	364996	50.54	ug/L	99
106) 1,1,1,2-tetrachloroethane	14.560	131	137222	51.66	ug/L	100
107) ethylbenzene	14.560	91	635488	50.05	ug/L	99
108) m,p-xylene	14.675	106	482243	102.00	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : U187038.D
 Acq On : 27 Aug 2014 11:44 pm
 Operator : giannap
 Sample : icv8630-50
 Misc : ms72741,vu8630,5.0,,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 28 10:59:06 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Aug 28 10:38:21 2014
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) o-xylene	15.140	106	246947	51.33	ug/L	99
110) styrene	15.151	104	425321	50.77	ug/L	100
111) bromoform	15.438	173	112307	52.20	ug/L	99
113) isopropylbenzene	15.522	105	661897	51.08	ug/L	100
115) bromobenzene	15.966	156	172307	51.20	ug/L	96
116) 1,1,2,2-tetrachloroethane	15.851	83	191273	46.68	ug/L	100
117) trans-1,4-dichloro-2-b...	15.904	53	57622	48.63	ug/L	98
118) 1,2,3-trichloropropane	15.940	110	48997	50.89	ug/L	98
119) n-propylbenzene	15.977	91	800568	52.77	ug/L	98
120) 2-chlorotoluene	16.139	126	160735	51.43	ug/L	100
121) 4-chlorotoluene	16.254	91	497417	49.42	ug/L	100
123) 1,3,5-trimethylbenzene	16.144	105	580562	50.03	ug/L	99
124) tert-butylbenzene	16.541	119	509508	50.28	ug/L	100
125) pentachloroethane	16.625	167	115117	52.85	ug/L	98
126) 1,2,4-trimethylbenzene	16.583	105	613123	52.04	ug/L	100
128) sec-butylbenzene	16.777	105	764433	50.51	ug/L	100
129) 1,3-dichlorobenzene	16.981	146	347631	50.17	ug/L	100
130) p-isopropyltoluene	16.907	119	655842	50.25	ug/L	99
131) 1,4-dichlorobenzene	17.070	146	353771	50.29	ug/L	99
132) benzyl chloride	17.200	91	369231	47.72	ug/L	100
133) 1,2-dichlorobenzene	17.509	146	341244	50.01	ug/L	98
135) n-butylbenzene	17.368	92	344892	52.27	ug/L	100
137) 1,2-dibromo-3-chloropr...	18.366	157	40643	50.86	ug/L	99
138) 1,3,5-trichlorobenzene	18.570	180	285173	50.01	ug/L	99
139) 1,2,4-trichlorobenzene	19.307	180	243711	50.39	ug/L	100
140) hexachlorobutadiene	19.438	225	140902	51.72	ug/L	100
141) naphthalene	19.636	128	494848	49.45	ug/L	99
143) 1,2,3-trichlorobenzene	19.908	180	202819	51.37	ug/L	98
144) hexachloroethane	17.801	201	118737	53.93	ug/L	99

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

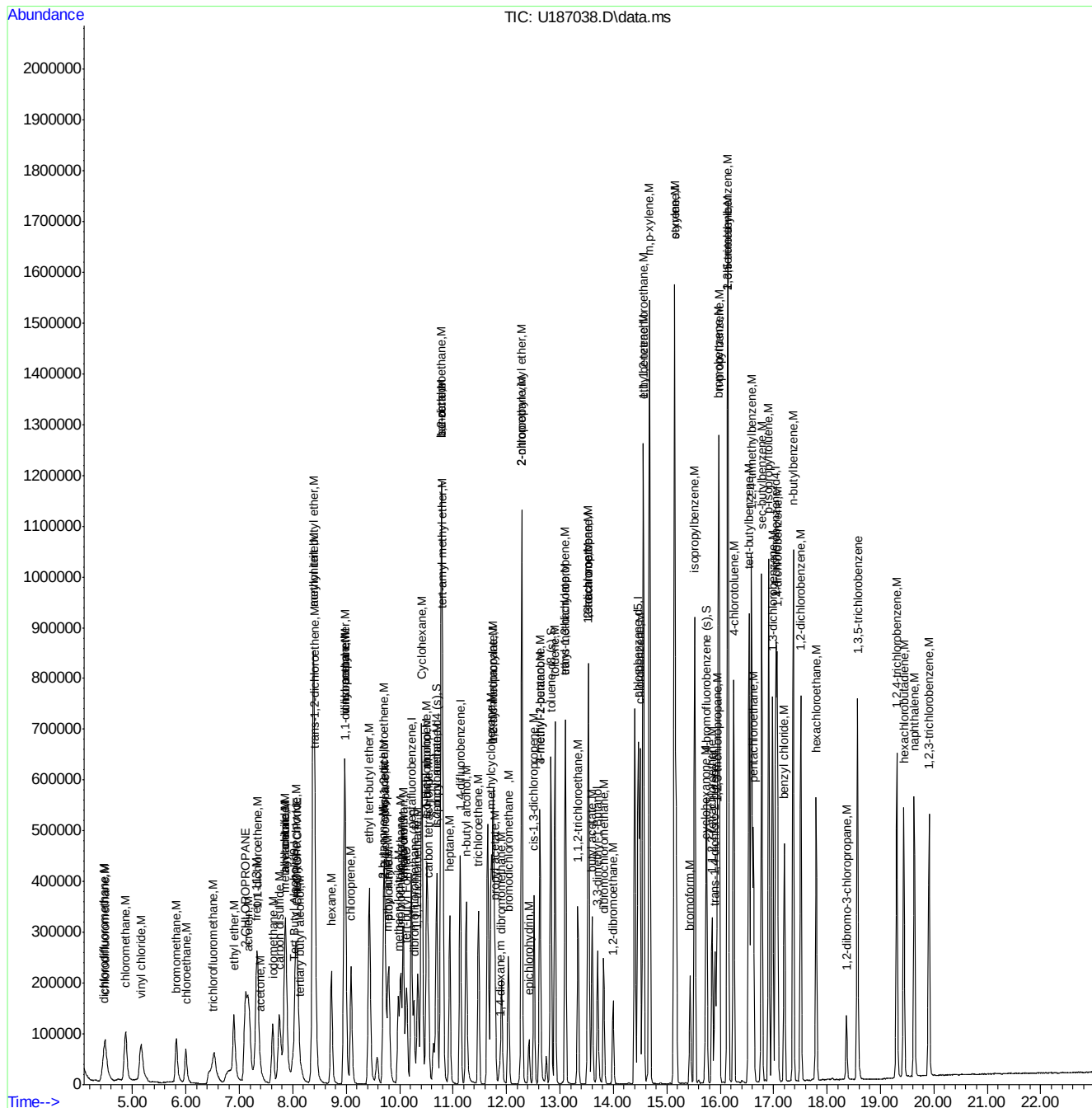
7.6.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : U187038.D
Acq On : 27 Aug 2014 11:44 pm
Operator : giannap
Sample : icv8630-50
Misc : ms72741,vu8630,5.0,,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 28 10:59:06 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Aug 28 10:38:21 2014
Response via : Initial Calibration



7.6.11



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188011.d
 Acq On : 25 Sep 2014 12:23 am
 Operator : shannont
 Sample : cc8630-50
 Misc : ms74331,vu8672,5.0,,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 25 13:05:40 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.994	65	106074	500.00	ug/L	0.00
5) pentafluorobenzene	10.216	168	318627	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.131	114	370448	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	359182	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.038	152	215356	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.263	113	110671	52.63	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	105.26%	
57) 1,2-dichloroethane-d4 (s)	10.691	65	141593	52.23	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	104.46%	
88) toluene-d8 (s)	12.824	98	466799	54.45	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	108.90%	
114) 4-bromofluorobenzene (s)	15.742	95	185108	50.96	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	101.92%	
Target Compounds						
2) tertiary butyl alcohol	8.109	59	56963	244.31	ug/L	# 10
4) 1,4-dioxane	11.868	88	15054	788.34	ug/L	# 79
11) chlorodifluoromethane	4.481	51	170063	50.35	ug/L	99
12) dichlorodifluoromethane	4.449	85	155847	53.88	ug/L	98
15) chloromethane	4.873	50	258603	56.49	ug/L	98
16) vinyl chloride	5.150	62	209166	55.46	ug/L	99
18) bromomethane	5.819	94	112050	52.34	ug/L	99
19) chloroethane	5.991	64	90101	52.24	ug/L	98
20) trichlorofluoromethane	6.504	101	183926	54.71	ug/L	98
23) ethyl ether	6.891	74	68159	49.60	ug/L	95
24) 2-CHLOROPROPANE	7.110	43	243365	48.85	ug/L	97
27) acrolein	7.162	56	238540	350.30	ug/L	99
28) 1,1-dichloroethene	7.335	96	105816	44.70	ug/L	92
29) acetone	7.392	58	17128	54.64	ug/L	94
30) allyl chloride	7.853	78	21113	45.02	ug/L	# 88
31) acetonitrile	7.853	40	108613	383.72	ug/L	# 67
32) iodomethane	7.617	142	188719	48.91	ug/L	99
33) carbon disulfide	7.738	76	362353	45.49	ug/L	99
34) 1-CHLOROPROPANE	8.088	63	10280	45.03	ug/L	97
35) methylene chloride	8.046	84	125912	47.02	ug/L	96
36) methyl acetate	7.837	43	134963	50.63	ug/L	99
37) methyl tert butyl ether	8.370	73	374452	45.49	ug/L	99
38) trans-1,2-dichloroethene	8.412	96	110033	45.74	ug/L	96
39) di-isopropyl ether	8.961	45	511102	50.14	ug/L	91
40) ethyl tert-butyl ether	9.421	59	427640	45.23	ug/L	99
41) 2-butanone	9.682	72	16574	51.54	ug/L	95
42) 1,1-dichloroethane	8.982	63	222161	48.73	ug/L	99
43) chloroprene	9.086	53	171832	45.82	ug/L	98
44) acrylonitrile	8.375	53	299965	233.74	ug/L	99
45) vinyl acetate	8.961	86	18821	42.41	ug/L	# 60
46) ethyl acetate	9.688	45	22587	48.36	ug/L	89
47) 2,2-dichloropropane	9.724	77	149407	44.25	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188011.d
 Acq On : 25 Sep 2014 12:23 am
 Operator : shannont
 Sample : cc8630-50
 Misc : ms74331,vu8672,5.0,,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 25 13:05:40 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.703	96	120166	45.87	ug/L	99
49) methyl acrylate	9.771	55	157703	43.98	ug/L	99
50) propionitrile	9.792	54	224078	448.35	ug/L	98
51) bromochloromethane	10.012	128	58356	47.47	ug/L	99
52) tetrahydrofuran	10.059	42	51750	46.30	ug/L	94
53) chloroform	10.064	83	195583	47.04	ug/L	100
54) tert-butyl Formate	10.121	59	116426	39.37	ug/L	98
55) iso-butyl alcohol	10.503	74	14539	415.84	ug/L #	55
58) freon 113	7.325	151	77383	45.41	ug/L	99
59) methacrylonitrile	9.970	41	101038	46.80	ug/L	97
60) 1,1,1-trichloroethane	10.331	97	158264	46.75	ug/L	99
62) tert-amyl methyl ether	10.801	87	88371	48.17	ug/L	98
63) iso-octane	10.780	57	461799	46.19	ug/L	98
66) epichlorohydrin	12.417	57	73588	219.81	ug/L	98
67) n-butyl alcohol	11.240	56	147571	1491.27	ug/L	95
68) Cyclohexane	10.409	84	157812	44.40	ug/L #	79
69) carbon tetrachloride	10.529	117	146504	47.85	ug/L	99
70) 1,1-dichloropropene	10.503	75	150610	47.12	ug/L	100
71) hexane	8.715	86	18509	45.86	ug/L #	91
72) benzene	10.770	78	464258	46.52	ug/L	99
73) heptane	10.932	57	83228	42.45	ug/L	99
74) isopropyl acetate	10.686	43	291678	49.38	ug/L	98
75) 1,2-dichloroethane	10.780	62	160176	50.16	ug/L	100
78) trichloroethene	11.470	95	108713	48.28	ug/L	99
79) methylcyclohexane	11.711	83	190619	47.74	ug/L	97
80) 2-nitropropane	12.281	41	58181	45.70	ug/L	97
81) 2-chloroethyl vinyl ether	12.281	63	442447	235.37	ug/L	98
82) methyl methacrylate	11.742	100	31367	46.93	ug/L #	87
83) 1,2-dichloropropane	11.753	63	131784	50.71	ug/L	100
84) propyl acetate	11.784	73	25135	46.96	ug/L	85
85) dibromomethane	11.904	93	72031	49.23	ug/L	99
86) bromodichloromethane	12.030	83	154280	46.57	ug/L	98
87) cis-1,3-dichloropropene	12.511	75	201642	48.14	ug/L	99
89) 4-methyl-2-pentanone	12.626	58	56265	46.84	ug/L #	86
90) toluene	12.903	92	283862	47.84	ug/L	98
91) 3-methyl-1-butanol	12.621	55	88212	639.57	ug/L	95
92) trans-1,3-dichloropropene	13.101	75	191196	47.76	ug/L	97
93) ethyl methacrylate	13.096	69	166645	46.15	ug/L	96
94) 1,1,2-trichloroethane	13.337	83	92837	46.96	ug/L	100
95) 2-hexanone	13.530	58	54692	46.72	ug/L	100
97) cyclohexanone	15.721	55	134157	586.15	ug/L	99
98) tetrachloroethene	13.520	164	133654	65.01	ug/L	99
99) 1,3-dichloropropane	13.535	76	193180	48.54	ug/L	100
100) butyl acetate	13.603	56	97453	46.37	ug/L	100
101) dibromochloromethane	13.812	129	123292	47.23	ug/L	99
102) 1,2-dibromoethane	13.990	107	109281	46.74	ug/L	100
103) 3,3-dimethyl-1-Butanol	13.703	57	76229	271.39	ug/L	98
105) chlorobenzene	14.492	112	317690	46.60	ug/L	99
106) 1,1,1,2-tetrachloroethane	14.555	131	120657	48.12	ug/L	99
107) ethylbenzene	14.555	91	561047	46.82	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188011.d
 Acq On : 25 Sep 2014 12:23 am
 Operator : shannont
 Sample : cc8630-50
 Misc : ms74331,vu8672,5.0,,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 25 13:05:40 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 12:40:54 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) m,p-xylene	14.675	106	423608	94.92	ug/L	100
109) o-xylene	15.135	106	216698	47.72	ug/L	99
110) styrene	15.146	104	366901	46.40	ug/L	99
111) bromoform	15.433	173	92529	45.56	ug/L	100
113) isopropylbenzene	15.517	105	571041	47.27	ug/L	100
115) bromobenzene	15.961	156	150268	47.90	ug/L	99
116) 1,1,2,2-tetrachloroethane	15.846	83	166478	43.58	ug/L	100
117) trans-1,4-dichloro-2-b...	15.898	53	44716	40.48	ug/L	97
118) 1,2,3-trichloropropane	15.935	110	42660	47.53	ug/L	98
119) n-propylbenzene	15.977	91	660988	46.73	ug/L	100
120) 2-chlorotoluene	16.139	126	138124	47.40	ug/L	99
121) 4-chlorotoluene	16.249	91	426703	45.48	ug/L	98
123) 1,3,5-trimethylbenzene	16.139	105	497893	46.03	ug/L	99
124) tert-butylbenzene	16.536	119	429553	45.47	ug/L	99
125) pentachloroethane	16.620	167	51931	25.57	ug/L	99
126) 1,2,4-trimethylbenzene	16.578	105	500021	45.52	ug/L	100
128) sec-butylbenzene	16.772	105	652949	46.28	ug/L	99
129) 1,3-dichlorobenzene	16.975	146	299972	46.44	ug/L	99
130) p-isopropyltoluene	16.902	119	557739	45.84	ug/L	99
131) 1,4-dichlorobenzene	17.064	146	302151	46.08	ug/L	99
132) benzyl chloride	17.195	91	307262	42.59	ug/L	99
133) 1,2-dichlorobenzene	17.503	146	298837	46.98	ug/L	100
135) n-butylbenzene	17.362	92	282307	45.90	ug/L	98
137) 1,2-dibromo-3-chloropr...	18.361	157	33368	44.79	ug/L	96
138) 1,3,5-trichlorobenzene	18.565	180	258588	48.64	ug/L	100
139) 1,2,4-trichlorobenzene	19.302	180	201365	44.66	ug/L	99
140) hexachlorobutadiene	19.427	225	116494	45.87	ug/L	98
141) naphthalene	19.626	128	380998	40.84	ug/L	99
143) 1,2,3-trichlorobenzene	19.903	180	157211	42.71	ug/L	98
144) hexachloroethane	17.791	201	99113	48.29	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188032.d
 Acq On : 25 Sep 2014 10:49 am
 Operator : shannont
 Sample : cc8630-20
 Misc : ms74105,vu8672,5.0,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 16:35:34 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 16:32:28 2014
 Response via : Initial Calibration

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

Internal Standards						
1) Tert Butyl Alcohol-d9	7.999	65	156063	500.00	ug/L	0.00
5) pentafluorobenzene	10.215	168	346600	50.00	ug/L	0.00
64) 1,4-difluorobenzene	11.130	114	395719	50.00	ug/L	0.00
96) chlorobenzene-d5	14.461	117	368072	50.00	ug/L	0.00
112) 1,4-dichlorobenzene-d4	17.038	152	219267	50.00	ug/L	0.00
System Monitoring Compounds						
56) dibromofluoromethane (s)	10.257	113	117624	51.42	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery =	102.84%		
57) 1,2-dichloroethane-d4 (s)	10.691	65	148815	50.47	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery =	100.94%		
88) toluene-d8 (s)	12.824	98	478402	52.24	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery =	104.48%		
114) 4-bromofluorobenzene (s)	15.741	95	189240	51.17	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery =	102.34%		
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.109	59	33101	96.49	ug/L	# 42
4) 1,4-dioxane	11.862	88	12554	446.84	ug/L	# 82
11) chlorodifluoromethane	4.491	51	66950	18.22	ug/L	100
12) dichlorodifluoromethane	4.459	85	61077	19.41	ug/L	97
15) chloromethane	4.867	50	103166	20.72	ug/L	98
16) vinyl chloride	5.149	62	86257	21.03	ug/L	100
18) bromomethane	5.819	94	47108	20.23	ug/L	97
19) chloroethane	5.991	64	36646	19.53	ug/L	100
20) trichlorofluoromethane	6.504	101	73808	20.18	ug/L	99
23) ethyl ether	6.896	74	28977	19.38	ug/L	94
24) 2-CHLOROPROPANE	7.110	43	94158	17.38	ug/L	99
27) acrolein	7.167	56	117960	159.24	ug/L	98
28) 1,1-dichloroethene	7.340	96	42372	16.45	ug/L	98
29) acetone	7.392	58	6044	17.72	ug/L	97
30) allyl chloride	7.852	78	8590	16.84	ug/L	98
31) acetonitrile	7.852	40	57886	188.00	ug/L	96
32) iodomethane	7.617	142	77275	18.41	ug/L	97
33) carbon disulfide	7.737	76	148335	17.12	ug/L	98
34) 1-CHLOROPROPANE	8.082	63	4129	16.63	ug/L	91
35) methylene chloride	8.046	84	52334	17.97	ug/L	98
36) methyl acetate	7.837	43	57502	19.83	ug/L	99
37) methyl tert butyl ether	8.370	73	159722	17.84	ug/L	100
38) trans-1,2-dichloroethene	8.412	96	44692	17.08	ug/L	98
39) di-isopropyl ether	8.961	45	208734	18.82	ug/L	100
40) ethyl tert-butyl ether	9.421	59	178098	17.32	ug/L	100
41) 2-butanone	9.682	72	6595	18.85	ug/L	# 87
42) 1,1-dichloroethane	8.982	63	90536	18.26	ug/L	98
43) chloroprene	9.086	53	68750	16.85	ug/L	98
44) acrylonitrile	8.380	53	129582	92.82	ug/L	98
45) vinyl acetate	8.966	86	9378	19.43	ug/L	# 87
46) ethyl acetate	9.693	45	9092	17.90	ug/L	100
47) 2,2-dichloropropane	9.724	77	67350	18.34	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188032.d
 Acq On : 25 Sep 2014 10:49 am
 Operator : shannont
 Sample : cc8630-20
 Misc : ms74105,vu8672,5.0,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 16:35:34 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 16:32:28 2014
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.703	96	49538	17.38	ug/L	99
49) methyl acrylate	9.771	55	68834	17.65	ug/L	98
50) propionitrile	9.792	54	103859	191.03	ug/L	90
51) bromochloromethane	10.012	128	24785	18.54	ug/L	95
52) tetrahydrofuran	10.053	42	22697	18.67	ug/L	94
53) chloroform	10.064	83	79912	17.67	ug/L	99
54) tert-butyl Formate	10.121	59	52440	16.30	ug/L	98
55) iso-butyl alcohol	10.503	74	6271	164.88	ug/L #	69
58) freon 113	7.330	151	31941	17.23	ug/L	93
59) methacrylonitrile	9.964	41	42014	17.89	ug/L	94
60) 1,1,1-trichloroethane	10.330	97	61952	16.82	ug/L	100
62) tert-amyl methyl ether	10.801	87	36552	18.31	ug/L	96
63) iso-octane	10.780	57	199011	18.30	ug/L	99
66) epichlorohydrin	12.416	57	32741	91.55	ug/L	99
67) n-butyl alcohol	11.240	56	88102	833.46	ug/L	99
68) Cyclohexane	10.409	84	61205	16.12	ug/L #	75
69) carbon tetrachloride	10.529	117	57654	17.63	ug/L	98
70) 1,1-dichloropropene	10.503	75	60001	17.57	ug/L	98
71) hexane	8.715	86	8570	19.88	ug/L	98
72) benzene	10.770	78	189541	17.78	ug/L	98
73) heptane	10.932	57	38450	18.36	ug/L	98
74) isopropyl acetate	10.686	43	118923	18.85	ug/L	99
75) 1,2-dichloroethane	10.780	62	68197	19.99	ug/L	100
78) trichloroethene	11.470	95	43871	18.24	ug/L	97
79) methylcyclohexane	11.705	83	77464	18.16	ug/L	98
80) 2-nitropropane	12.275	41	23674	17.41	ug/L #	90
81) 2-chloroethyl vinyl ether	12.280	63	175416	87.36	ug/L	99
82) methyl methacrylate	11.742	100	13545	18.97	ug/L	93
83) 1,2-dichloropropane	11.752	63	54263	19.55	ug/L	99
84) propyl acetate	11.784	73	10622	18.58	ug/L	94
85) dibromomethane	11.904	93	29951	19.16	ug/L	98
86) bromodichloromethane	12.030	83	63562	17.96	ug/L	99
87) cis-1,3-dichloropropene	12.511	75	84693	18.93	ug/L	100
89) 4-methyl-2-pentanone	12.626	58	23306	18.16	ug/L #	92
90) toluene	12.903	92	113222	17.86	ug/L	99
91) 3-methyl-1-butanol	12.620	55	45707	267.60	ug/L	96
92) trans-1,3-dichloropropene	13.101	75	78934	18.46	ug/L	98
93) ethyl methacrylate	13.096	69	67524	17.51	ug/L	98
94) 1,1,2-trichloroethane	13.331	83	38670	18.31	ug/L	97
95) 2-hexanone	13.530	58	21253	17.00	ug/L	96
97) cyclohexanone	15.715	55	21134	64.19	ug/L	94
98) tetrachloroethene	13.520	164	38014	18.04	ug/L	99
99) 1,3-dichloropropane	13.535	76	78488	19.25	ug/L	99
100) butyl acetate	13.603	56	39852	18.50	ug/L	100
101) dibromochloromethane	13.812	129	49826	18.62	ug/L	100
102) 1,2-dibromoethane	13.990	107	45164	18.85	ug/L	99
103) 3,3-dimethyl-1-Butanol	13.702	57	37187	103.30	ug/L #	99
105) chlorobenzene	14.492	112	129386	18.52	ug/L	98
106) 1,1,1,2-tetrachloroethane	14.555	131	49135	19.12	ug/L	98
107) ethylbenzene	14.555	91	224868	18.31	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
 Data File : u188032.d
 Acq On : 25 Sep 2014 10:49 am
 Operator : shannont
 Sample : cc8630-20
 Misc : ms74105,vu8672,5.0,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 25 16:35:34 2014
 Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
 Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
 QLast Update : Thu Sep 25 16:32:28 2014
 Response via : Initial Calibration

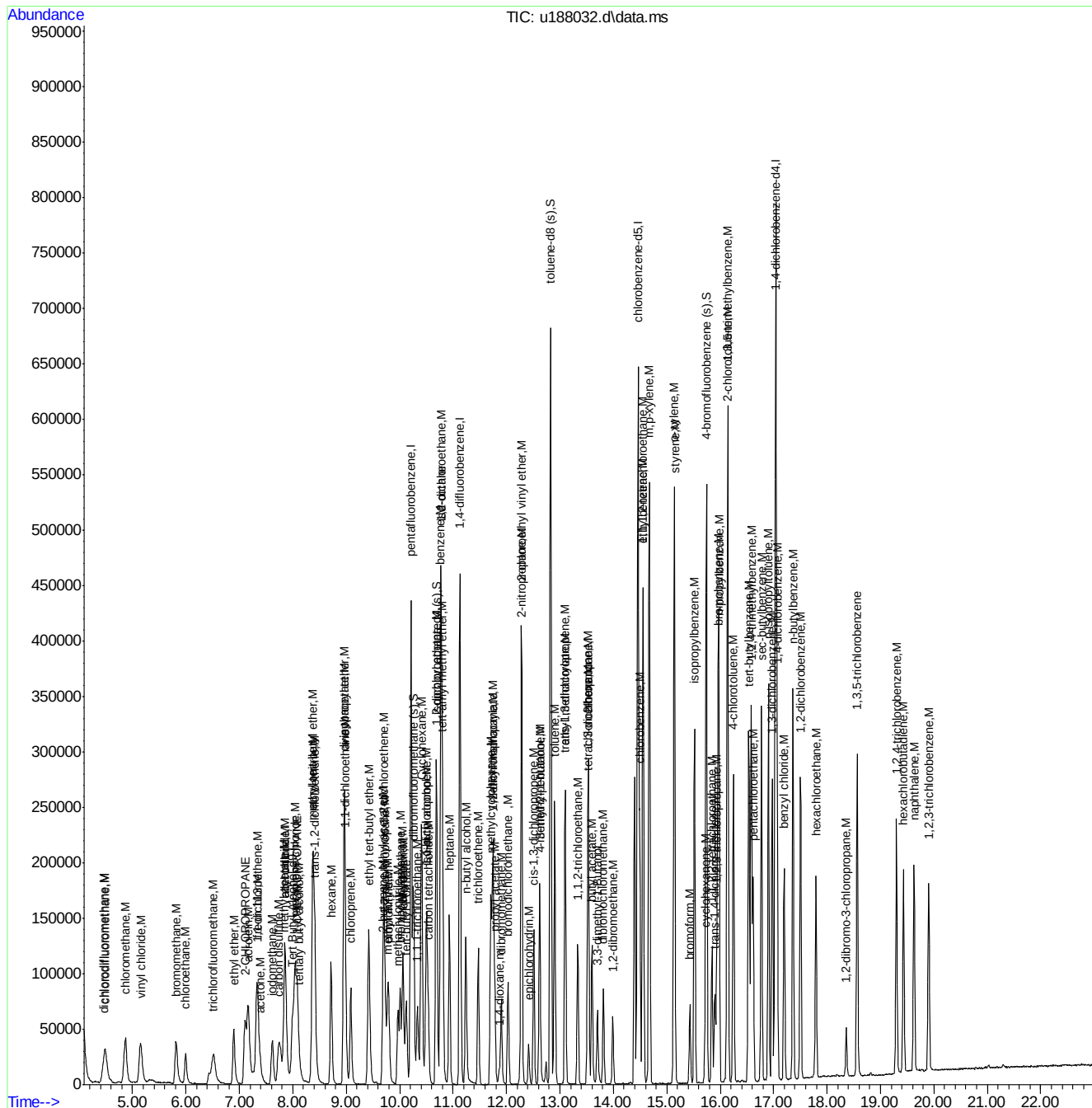
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) m,p-xylene	14.675	106	169680	37.10	ug/L	100
109) o-xylene	15.140	106	87355	18.77	ug/L	96
110) styrene	15.145	104	145740	17.98	ug/L	100
111) bromoform	15.433	173	37097	17.82	ug/L	97
113) isopropylbenzene	15.517	105	227224	18.47	ug/L	100
115) bromobenzene	15.961	156	61943	19.39	ug/L	98
116) 1,1,2,2-tetrachloroethane	15.846	83	70517	18.13	ug/L	98
117) trans-1,4-dichloro-2-b...	15.898	53	18247	16.22	ug/L	96
118) 1,2,3-trichloropropane	15.935	110	17653	19.32	ug/L	99
119) n-propylbenzene	15.977	91	263719	18.31	ug/L	99
120) 2-chlorotoluene	16.134	126	56063	18.90	ug/L	96
121) 4-chlorotoluene	16.249	91	172733	18.08	ug/L	98
123) 1,3,5-trimethylbenzene	16.139	105	201769	18.32	ug/L	98
124) tert-butylbenzene	16.536	119	171322	17.81	ug/L	99
125) pentachloroethane	16.620	167	41413	20.03	ug/L	98
126) 1,2,4-trimethylbenzene	16.583	105	203038	18.16	ug/L	98
128) sec-butylbenzene	16.771	105	258821	18.02	ug/L	100
129) 1,3-dichlorobenzene	16.975	146	122640	18.65	ug/L	98
130) p-isopropyltoluene	16.902	119	225554	18.21	ug/L	99
131) 1,4-dichlorobenzene	17.064	146	124012	18.57	ug/L	97
132) benzyl chloride	17.200	91	150144	20.44	ug/L	100
133) 1,2-dichlorobenzene	17.503	146	122918	18.98	ug/L	99
135) n-butylbenzene	17.362	92	113520	18.13	ug/L	100
137) 1,2-dibromo-3-chloropr...	18.361	157	13614	17.95	ug/L	94
138) 1,3,5-trichlorobenzene	18.565	180	108714	20.08	ug/L	100
139) 1,2,4-trichlorobenzene	19.302	180	84052	18.31	ug/L	98
140) hexachlorobutadiene	19.432	225	48839	18.89	ug/L	99
141) naphthalene	19.626	128	165810	17.46	ug/L	100
143) 1,2,3-trichlorobenzene	19.903	180	65688	17.53	ug/L	96
144) hexachloroethane	17.796	201	38718	18.53	ug/L	95

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\U-CORE\vu8671-8672\
Data File : u188032.d
Acq On    : 25 Sep 2014  10:49 am
Operator  : shannont
Sample    : cc8630-20
Misc      : ms74105,vu8672,5.0,,,,,1
ALS Vial  : 2      Sample Multiplier: 1
```

Quant Time: Sep 25 16:35:34 2014
Quant Method : C:\MSDCHEM\1\METHODS\MU8630.M
Quant Title : SW-846 8260B, DB624 60m x 250um x 1.40um
QLast Update : Thu Sep 25 16:32:28 2014
Response via : Initial Calibration



7.6.13





ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: VU8630

Date: 8/27/14

Print Analyst Name: YUNXIA CHEN

Standard Data

Lot #	Description	Conc.
VU198-41	Ext A	100 ppm
-35	B	
-47	C	
-37	100% L	1000 ppm
-32	Hexane	100 ppm

Standard Data

Lot #	Description	Conc.
VU198-31	A	100
-39	B	
-35	C	
-34	100% L	1000 ppm
-48	Ethanol	10000 ppm

Analyst Signature: Yunxia Chen

Columns: DB624 (60mm x 0.25mm x 1.4um)

Method V8260 B&C

Initial Cal. Method ANU8630

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Devin

Date: 8/28/14

R	Data File	Sample ID	Test	M T X	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L +	I S	S U	Status (Data)	Comments	pH < 2
	U187025	BFB											OK		
	187026	1C8630-0.2	V8260		A		5						OK	100 A B C 100% L. E. Sur → 500ml DI	
	187027	1C8630-0.15											OK	250ml 100% L. 100% L. E. Sur → 500ml DI	
	187028	1C8630-1											OK	250ml A B C E. Sur, 200ml Ethanol → 200ml DI	
	187029	1C8630-2											OK	250ml A B C E. Sur, 200ml Ethanol → 200ml DI	
	187030	1C8630-5											OK	500ml A B C 100% L. E. Sur → 100ml DI	
	187031	1C8630-10											OK	100ml A B C 100% L. E. Sur → 100ml DI	
	187032	1C8630-20											OK	100ml A B C 100% L. E. Sur, 250ml Sur → 500ml DI	
	187033	1C8630-50											OK	250ml 100% L. C 100% L. E. Sur → 500ml DI	
	187034	1C8630-100											OK	500ml A B C E. Sur, 100ml Ethanol → 500ml DI	
	187035	1C8630-200											OK	1000ml A B C E. Sur, 250ml Ethanol → 500ml DI	
	187036	1B													
	187037	1B													
	187038	1C8630-50											OK	250ml Ext A B C 100% L. Sur, E. Sur (100% L. E. Sur) → 500ml DI	
	187039	1B													

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
 Sample Amt = Volume (ML) or Weight (g); MOH amt = volume (ul) extract injected * IF pH > 2, comment on sample result.
 All strikeouts must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
 Rev. Date: 2/14/2007

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VOLATILE ANALYSIS LOG

Batch ID: VU8672Date: 9/24/14Print Analyst Name: Shannon Tilly

Standard Data

Lot #	Description	Conc.
W14-1948-85	Ext. A	100 ppm
↓ -91	B	↓
↓ -104	C	↓
↓ -101	Per	↓
↓ -94	Per	100 ppm

Standard Data

Lot #	Description	Conc.
W14-1948-85	SLA A	100 ppm
↓ -91	B	↓
↓ -104	C	↓
↓ -101	Per	100 ppm
↓ -94	Per	250 ppm

Analyst Signature: [Signature]Columns: DB1024 (60m x 0.05mm x 1/16")Method V8660 CInitial Cal. Method VU8630

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature]Date: 9/25/14

R	Data File	Sample ID	Test	M T X	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L + S U	I S	Status (Data)	Comments	pH < 2
	U188010	BFB										OK	11:54 pm	
	188011	cc8630-50										OK		
	188012	IB										OK		
	188013	MB										OK		
	188014	BS										OK		
	188015	JB77235-2	MSD MS74308 SL UNP2	G W	3		5		1x			OK		7.6
	188016	JB77235-2	MSD	G W	2		↓		↓			OK		6
	188017	JB77235-1B	MSD	G W								OK		
	188018	JB77235-2	MS74308 SL UNP2	G W	1		5		1x			RR	% possible	6
	188019	JB77235-1		G W	1							OK		7
	188020	JB77235-3		G W	1							RR	Ⓟ hits	7
	188021	JB77235-4		G W	1							OK		6
	188022	JB77235-5		G W	1							OK		6
	188023	JB77235-6		G W	1							OK		6
	188024	JB76908-4	MS74105 BTKM	G W	1							OK		✓
	188025	JB76908-1		G W	1		↓		↓			OK		✓
	188026	JB76908-2		G W	1		5/50		10x			OK		✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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VOLATILE ANALYSIS LOG

Batch ID: W8672

Date:

9/24/14

Print Analyst Name: Shannon TLW

Analyst Signature: [Signature]

Columns: DB624/60 mm x 0.25 mm x 0.4 μ m

Method V8260C

Initial Cal. Method *ml 8630*

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EOA044.

Supervisor Signature: [Signature] Date: 9/24/14

Date: 9/25/14

[illegible]

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt= volume (ul) extract injected * IF pH > 2, comment on sample result .
All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

Form: OR001-9
Rev. Date: 2/14/2007

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: VU8073

Date: 9/25/14

pH Paper 212713 05/01/2016
Standard Data

Print Analyst Name: Shannon Tilly

Analyst Signature: [Signature]

Columns: DB 624 (60 m x 0.25 mm x 1.4 µm)

Method V8260C

Initial Cal. Method MU8030

Lot #	Description	Conc.
1014-1488-85	Ext A	100 ppm
-66	B	
-105	C	
-101	Hex	
-94	Per	1000 ppm

Lot #	Description	Conc.
1014-1488-79	Std. A	100 ppm
-91	B	
-104	C	
-101	Per	1000 ppm
-103	2/s	200/2500 ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 9/26/14

R	Data File	Sample ID	Test	M T X	Vial #	ALS #	Samp. Amt (m) or (g)	MOH amt. (ul)	Secondary dilution	L + S U	I S U	Status (Data)	Comments	pH* < 2
	U188031	BFB										OK	10:12 Am	
	188032	CC8030-20					I					OK		
	188033	IB										OK		
	188034	MB2										OK		
R	188035	JB77235-2	MS74308 SL, UMP	G	4		5		1X			OK		6X
R	188036	JB77235-3		G	4							OK		7
	188037	JB77235-1	MS74301 TEL42, UMP	G	8		25/50		20			OK		8
12L	188038	JB76908-8	MS74105 RTX	G	2		5/50		10X			OK		✓
12L	188039	JB76908-1			2		5/50		10X			OK		✓
12L	188040	JB76908-2			2		10.5/50		100X			OK	2-56	✓
12L	188041	JB76908-5			2		3/50		25X			OK		✓
	188042	JB77235-5	4MPR TEL42	G	8		5		1X			OK		8
	188043	JB76715-7	74388 TEL20	TB	1							OK	40	✓
	188044	JB76715-10		TB	14							OK		✓
	188045	JB76715-11		TB	1							OK		✓
	188046	JB76715-6		TB	14		5		1X			Not Load		

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.

All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-9

Rev. Date: 2/14/2007



03/19/15

Technical Report for

Environ Corporation

Bulova, Valley Stream, NY

02-1961A

Accutest Job Number: JB89689

Sampling Date: 03/11/15

Report to:

Environ
214 Carnegie Center
Princeton, NJ 08540

ATTN: Michael Potts

Total number of pages in report: **172**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy Cole'.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

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Test results relate only to samples analyzed.

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Sample Summary

Environ Corporation
Bulova, Valley Stream, NY
Project No: 02-1961A

Job No: JB89689

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB89689-1	03/11/15	11:16 LR	03/11/15	AQ	Ground Water	MWHD7-150311
JB89689-2	03/11/15	13:06 LR	03/11/15	AQ	Ground Water	MWHD6-150311
JB89689-2D	03/11/15	13:06 LR	03/11/15	AQ	Water Dup/MSD	MWHD6-150311 MSD
JB89689-2S	03/11/15	13:06 LR	03/11/15	AQ	Water Matrix Spike	MWHD6-150311 MS
JB89689-3	03/11/15	13:06 LR	03/11/15	AQ	Ground Water	MWHD6-150311D
JB89689-4	03/11/15	13:52 LR	03/11/15	AQ	Ground Water	MWHD4-150311
JB89689-5	03/11/15	13:40 LR	03/11/15	AQ	Field Blank Water	FB-150311
JB89689-6	03/11/15	13:40 LR	03/11/15	AQ	Trip Blank Water	TB-150311

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Environ Corporation

Job No JB89689

Site: Bulova, Valley Stream, NY

Report Date 3/19/2015 1:10:25 PM

On 03/11/2015, 4 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a temperature of 3.2 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB89689 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ

Batch ID: V2D5984

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB89689-2MS, JB89689-2MSD were used as the QC samples indicated.
- JB89689-2MS: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-2: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-6: (pH=4)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-2MSD: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-3: (pH=4)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-5: (pH=5)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-1: (pH=8)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

Matrix: AQ

Batch ID: V2D5985

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB89689-4MS, JB89689-4MSD were used as the QC samples indicated.
- JB89689-4: (pH=6)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-4MS: (pH=6)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JB89689-4MSD: (pH=6)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB89689
Account: Environ Corporation
Project: Bulova, Valley Stream, NY
Collected: 03/11/15



Lab Sample ID	Client Sample ID	Result/ Analyte Qual	RL	MDL	Units	Method
JB89689-1	MWHD7-150311					
Trichloroethene ^a		0.38 J	1.0	0.25	ug/l	SW846 8260C
JB89689-2	MWHD6-150311					
Trichloroethene ^b		0.53 J	1.0	0.25	ug/l	SW846 8260C
JB89689-3	MWHD6-150311D					
Trichloroethene ^c		0.62 J	1.0	0.25	ug/l	SW846 8260C
JB89689-4	MWHD4-150311					
1,1-Dichloroethane ^d		1.8	1.0	0.35	ug/l	SW846 8260C
1,1-Dichloroethene ^d		6.8	1.0	0.50	ug/l	SW846 8260C
Freon 113 ^d		3.0 J	5.0	0.50	ug/l	SW846 8260C
Tetrachloroethene ^d		0.73 J	1.0	0.35	ug/l	SW846 8260C
1,1,1-Trichloroethane ^d		3.6	1.0	0.32	ug/l	SW846 8260C
Trichloroethene ^d		4.8	1.0	0.25	ug/l	SW846 8260C

JB89689-5 **FB-150311**

No hits reported in this sample.

JB89689-6 **TB-150311**

No hits reported in this sample.

- (a) (pH= 8)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
(b) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
(c) (pH= 4)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
(d) (pH= 6)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MWHD7-150311	
Lab Sample ID:	JB89689-1	Date Sampled: 03/11/15
Matrix:	AQ - Ground Water	Date Received: 03/11/15
Method:	SW846 8260C	Percent Solids: n/a
Project:	Bulova, Valley Stream, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2D142654.D	1	03/13/15	BK	n/a	n/a	V2D5984
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	0.38	1.0	0.25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	107%		84-119%
460-00-4	4-Bromofluorobenzene	108%		78-117%

(a) (pH= 8)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MWHD6-150311	Date Sampled:	03/11/15
Lab Sample ID:	JB89689-2	Date Received:	03/11/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2D142653.D	1	03/13/15	BK	n/a	n/a	V2D5984
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	0.53	1.0	0.25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	106%		84-119%
460-00-4	4-Bromofluorobenzene	107%		78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MWHD6-150311D	Date Sampled:	03/11/15
Lab Sample ID:	JB89689-3	Date Received:	03/11/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2D142663.D	1	03/13/15	BK	n/a	n/a	V2D5984
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	0.62	1.0	0.25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	108%		84-119%
460-00-4	4-Bromofluorobenzene	108%		78-117%

(a) (pH= 4)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MWHD4-150311	Date Sampled:	03/11/15
Lab Sample ID:	JB89689-4	Date Received:	03/11/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2D142682.D	1	03/14/15	BK	n/a	n/a	V2D5985
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	1.8	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	6.8	1.0	0.50	ug/l	
76-13-1	Freon 113	3.0	5.0	0.50	ug/l	J
127-18-4	Tetrachloroethene	0.73	1.0	0.35	ug/l	J
71-55-6	1,1,1-Trichloroethane	3.6	1.0	0.32	ug/l	
79-01-6	Trichloroethene	4.8	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	108%		84-119%
460-00-4	4-Bromofluorobenzene	109%		78-117%

(a) (pH= 6)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	FB-150311	Date Sampled:	03/11/15
Lab Sample ID:	JB89689-5	Date Received:	03/11/15
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2D142669.D	1	03/14/15	BK	n/a	n/a	V2D5984
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	109%		84-119%
460-00-4	4-Bromofluorobenzene	111%		78-117%

(a) (pH= 5)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	TB-150311	Date Sampled:	03/11/15
Lab Sample ID:	JB89689-6	Date Received:	03/11/15
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	Bulova, Valley Stream, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2D142670.D	1	03/14/15	BK	n/a	n/a	V2D5984
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	107%		84-119%
460-00-4	4-Bromofluorobenzene	109%		78-117%

(a) (pH= 4)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

GW
FB
WIB

CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

UP

PAGE 1 OF 1

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name ENVIRON		Project Name Bailara		FED-EX Tracking #		Bottle Order Control #	
Street Address 24 Carnegie Ctr		Street		Accutest Quote #		Accutest Job # JB89689	
City State Zip Princeton NJ 08540		City State Valley Stream NY		Billing Information (if different from Report to)		Company Name	
Project Contact 1. dich@environcorp.com		Project #		Street Address		City State Zip	
Phone # 609 452 9000		Client Purchase Order #		City State Zip		City State Zip	
Sampler(s) Name(s) L. Rich / A. Br.ood		Project Manager		Attention:		City State Zip	
Field ID / Point of Collection		MECH/DI Vial #		Collection		Number of preserved Bottles	
Date		Time		Sampled by		Matrix	
3/11/15		1116		env		3/11/15	
1 MW-HD7-150311		1306		↓		3	
2 MW-HD6-150311		1306		↓		3	
3 MW-HD6-150311D		1352		↓		3	
4 MW-HD4-150311		1340		↓		2	
5 FB-150311		1341		↓		2	
6 TB-150311							
Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions	
☒ Std. 10 Business Days ☐ 5 Day RUSH ☐ 3 Day RUSH ☐ 2 Day RUSH ☐ 1 Day RUSH ☐ other		☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULLT1 (Level 3+4) ☐ NJ Reduced ☐ Commercial "C" ☐ NJ Data of Known Quality Protocol Reporting		☐ NYASP Category A ☒ NYASP Category B ☐ State Forms ☐ EDD Format ☐ Other		Site specific ms & MSD vials included	
Emergency & Rush T/A data available VIA Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.		Relinquished By:		Received By:	
1 Relinquished by: Wyzeh		Date Time: 3/11/15 16:19		Received By: Wyzeh		Date Time: 3/11/15 16:19	
3 Relinquished by: Wyzeh		Date Time:		Received By:		Date Time:	
5 Relinquished by:		Date Time:		Received By:		Date Time:	
Custody Seal #		Intact		Preserved where applicable		On So	
		Not Intact				3,28C IP	

JB89689: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB89689 **Client:** _____ **Project:** _____
Date / Time Received: 3/11/2015 4:19:00 PM **Delivery Method:** _____ **Airbill #s:** _____
Cooler Temps (Initial/Adjusted): #1: (3.2/1.4); 0

Cooler Security

<u>Y or N</u>	<u>Y or N</u>
1. Custody Seals Present: ☒ ☐	3. COC Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐	4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature

<u>Y or N</u>
1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: _____ IR Gun
3. Cooler media: _____ Ice (Bag)
4. No. Coolers: _____ 1

Quality Control Preservation

<u>Y or N</u>	<u>N/A</u>
1. Trip Blank present / cooler: ☒ ☐ ☐	
2. Trip Blank listed on COC: ☒ ☐ ☐	
3. Samples preserved properly: ☒ ☐ ☐	
4. VOCs headspace free: ☒ ☐ ☐	

Sample Integrity - Documentation

<u>Y or N</u>
1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition

<u>Y or N</u>
1. Sample recvd within HT: ☒ ☐
2. All containers accounted for: ☒ ☐
3. Condition of sample: _____ Intact

Sample Integrity - Instructions

<u>Y or N</u>	<u>N/A</u>
1. Analysis requested is clear: ☒ ☐	
2. Bottles received for unspecified tests: ☐ ☒	
3. Sufficient volume recvd for analysis: ☒ ☐	
4. Compositing instructions clear: ☐ ☐ ☒	
5. Filtering instructions clear: ☐ ☐ ☒	

Comments

Internal Sample Tracking Chronicle

Environ Corporation

Job No: JB89689

Bulova, Valley Stream, NY

Project No: 02-1961A

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB89689-1	Collected: 11-MAR-15 11:16	By: LR	Received: 11-MAR-15	By: AS		
MWHD7-150311						
JB89689-1	SW846 8260C	13-MAR-15 16:44	BK			VC8260SL
JB89689-2	Collected: 11-MAR-15 13:06	By: LR	Received: 11-MAR-15	By: AS		
MWHD6-150311						
JB89689-2	SW846 8260C	13-MAR-15 16:13	BK			VC8260SL
JB89689-3	Collected: 11-MAR-15 13:06	By: LR	Received: 11-MAR-15	By: AS		
MWHD6-150311D						
JB89689-3	SW846 8260C	13-MAR-15 21:31	BK			VC8260SL
JB89689-4	Collected: 11-MAR-15 13:52	By: LR	Received: 11-MAR-15	By: AS		
MWHD4-150311						
JB89689-4	SW846 8260C	14-MAR-15 13:11	BK			VC8260SL
JB89689-5	Collected: 11-MAR-15 13:40	By: LR	Received: 11-MAR-15	By: AS		
FB-150311						
JB89689-5	SW846 8260C	14-MAR-15 00:33	BK			VC8260SL
JB89689-6	Collected: 11-MAR-15 13:40	By: LR	Received: 11-MAR-15	By: AS		
TB-150311						
JB89689-6	SW846 8260C	14-MAR-15 01:03	BK			VC8260SL

Accutest Internal Chain of Custody

Page 1 of 2

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY
Received: 03/11/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB89689-1.1	Secured Storage	Robert Szot	03/13/15 15:56	Retrieve from Storage
JB89689-1.1	Robert Szot	GCMS2D	03/13/15 15:56	Load on Instrument
JB89689-1.1	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-1.1	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-2.3	Secured Storage	Robert Szot	03/13/15 18:12	Retrieve from Storage
JB89689-2.3	Robert Szot	GCMS2D	03/13/15 18:12	Load on Instrument
JB89689-2.3	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-2.3	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-2.4	Secured Storage	Robert Szot	03/13/15 18:12	Retrieve from Storage
JB89689-2.4	Robert Szot	GCMS2D	03/13/15 18:12	Load on Instrument
JB89689-2.4	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-2.4	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-2.6	Secured Storage	Robert Szot	03/13/15 15:56	Retrieve from Storage
JB89689-2.6	Robert Szot	GCMS2D	03/13/15 15:56	Load on Instrument
JB89689-2.6	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-2.6	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-3.1	Secured Storage	Robert Szot	03/13/15 19:47	Retrieve from Storage
JB89689-3.1	Robert Szot	GCMS2D	03/13/15 19:47	Load on Instrument
JB89689-3.1	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-3.1	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-4.1	Secured Storage	Robert Szot	03/13/15 19:47	Retrieve from Storage
JB89689-4.1	Robert Szot	GCMS2D	03/13/15 19:47	Load on Instrument
JB89689-4.1	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-4.1	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-4.2	Secured Storage	Juntae Park	03/14/15 11:19	Retrieve from Storage
JB89689-4.2	Juntae Park	GCMS2D	03/14/15 11:19	Load on Instrument
JB89689-4.2	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-4.2	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-5.1	Secured Storage	Robert Szot	03/13/15 19:47	Retrieve from Storage
JB89689-5.1	Robert Szot	GCMS2D	03/13/15 19:47	Load on Instrument
JB89689-5.1	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-5.1	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-5.2	Secured Storage	Juntae Park	03/14/15 11:19	Retrieve from Storage
JB89689-5.2	Juntae Park	GCMS2D	03/14/15 11:19	Load on Instrument
JB89689-5.2	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-5.2	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage

Accutest Internal Chain of Custody

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Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY
Received: 03/11/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB89689-6.1	Secured Storage	Robert Szot	03/13/15 19:47	Retrieve from Storage
JB89689-6.1	Robert Szot	GCMS2D	03/13/15 19:47	Load on Instrument
JB89689-6.1	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-6.1	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage
JB89689-6.2	Secured Storage	Juntae Park	03/14/15 11:19	Retrieve from Storage
JB89689-6.2	Juntae Park	GCMS2D	03/14/15 11:19	Load on Instrument
JB89689-6.2	GCMS2D	Bridget Kelly	03/16/15 11:16	Unload from Instrument
JB89689-6.2	Bridget Kelly	Secured Storage	03/16/15 11:16	Return to Storage

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Page 1 of 1

Job Number: JB89689**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D5984-MB	2D142644.D	1	03/13/15	BK	n/a	n/a	V2D5984

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB89689-1, JB89689-2, JB89689-3

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	107%
17060-07-0	1,2-Dichloroethane-D4	76-120%
2037-26-5	Toluene-D8	103%
460-00-4	4-Bromofluorobenzene	73-122%
		108%
		84-119%
		109%
		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Page 1 of 1

Job Number: JB89689**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D5984-MB2	2D142667.D	1	03/13/15	BK	n/a	n/a	V2D5984

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB89689-5, JB89689-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	110%
17060-07-0	1,2-Dichloroethane-D4	76-120%
2037-26-5	Toluene-D8	106%
460-00-4	4-Bromofluorobenzene	73-122%
		108%
		84-119%
		109%
		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Page 1 of 1

Job Number: JB89689**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D5985-MB	2D142679.D	1	03/14/15	BK	n/a	n/a	V2D5985

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB89689-4

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
76-13-1	Freon 113	ND	5.0	0.50	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	112%
17060-07-0	1,2-Dichloroethane-D4	76-120%
2037-26-5	Toluene-D8	107%
460-00-4	4-Bromofluorobenzene	108%
		84-119%
		109%
		78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Page 1 of 1

Job Number: JB89689**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D5984-BS	2D142645.D	1	03/13/15	BK	n/a	n/a	V2D5984

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB89689-1, JB89689-2, JB89689-3, JB89689-5, JB89689-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	50.9	102	80-125
75-35-4	1,1-Dichloroethene	50	49.7	99	73-127
76-13-1	Freon 113	50	58.0	116	76-140
127-18-4	Tetrachloroethene	50	52.5	105	69-138
71-55-6	1,1,1-Trichloroethane	50	52.3	105	80-131
79-01-6	Trichloroethene	50	52.6	105	83-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	73-122%
2037-26-5	Toluene-D8	106%	84-119%
460-00-4	4-Bromofluorobenzene	108%	78-117%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: JB89689**Account:** ENVIRON Environ Corporation**Project:** Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D5985-BS	2D142680.D	1	03/14/15	BK	n/a	n/a	V2D5985

The QC reported here applies to the following samples:**Method:** SW846 8260C

JB89689-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	55.7	111	80-125
75-35-4	1,1-Dichloroethene	50	56.8	114	73-127
76-13-1	Freon 113	50	50.2	100	76-140
127-18-4	Tetrachloroethene	50	54.6	109	69-138
71-55-6	1,1,1-Trichloroethane	50	58.0	116	80-131
79-01-6	Trichloroethene	50	55.3	111	83-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	114%	76-120%
17060-07-0	1,2-Dichloroethane-D4	108%	73-122%
2037-26-5	Toluene-D8	107%	84-119%
460-00-4	4-Bromofluorobenzene	107%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JB89689

Account: ENVIRON Environ Corporation

Project: Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89689-2MS ^a	2D142660.D	1	03/13/15	BK	n/a	n/a	V2D5984
JB89689-2MSD ^a	2D142661.D	1	03/13/15	BK	n/a	n/a	V2D5984
JB89689-2 ^a	2D142653.D	1	03/13/15	BK	n/a	n/a	V2D5984

The QC reported here applies to the following samples:

Method: SW846 8260C

JB89689-1, JB89689-2, JB89689-3, JB89689-5, JB89689-6

CAS No.	Compound	JB89689-2 ug/l	Spike Q	ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	ND		50	55.1	110	50	53.3	107	3	60-129/13
75-35-4	1,1-Dichloroethene	ND		50	53.9	108	50	52.3	105	3	40-137/17
76-13-1	Freon 113	ND		50	60.1	120	50	58.6	117	3	34-154/18
127-18-4	Tetrachloroethene	ND		50	56.5	113	50	54.9	110	3	43-145/15
71-55-6	1,1,1-Trichloroethane	ND		50	58.9	118	50	56.5	113	4	51-141/16
79-01-6	Trichloroethene	0.53	J	50	57.7	114	50	56.2	111	3	55-136/14

CAS No.	Surrogate Recoveries	MS	MSD	JB89689-2	Limits
1868-53-7	Dibromofluoromethane	112%	110%	111%	76-120%
17060-07-0	1,2-Dichloroethane-D4	107%	105%	105%	73-122%
2037-26-5	Toluene-D8	108%	107%	106%	84-119%
460-00-4	4-Bromofluorobenzene	107%	108%	107%	78-117%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: JB89689

Account: ENVIRON Environ Corporation

Project: Bulova, Valley Stream, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB89689-4MS ^a	2D142685.D	1	03/14/15	BK	n/a	n/a	V2D5985
JB89689-4MSD ^a	2D142686.D	1	03/14/15	BK	n/a	n/a	V2D5985
JB89689-4 ^a	2D142682.D	1	03/14/15	BK	n/a	n/a	V2D5985

The QC reported here applies to the following samples:

Method: SW846 8260C

JB89689-4

CAS No.	Compound	JB89689-4 ug/l	Spike Q	ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-34-3	1,1-Dichloroethane	1.8		50	50.1	97	50	48.1	93	4	60-129/13
75-35-4	1,1-Dichloroethene	6.8		50	53.4	93	50	50.5	87	6	40-137/17
76-13-1	Freon 113	3.0	J	50	44.2	82	50	43.2	80	2	34-154/18
127-18-4	Tetrachloroethene	0.73	J	50	47.9	94	50	45.4	89	5	43-145/15
71-55-6	1,1,1-Trichloroethane	3.6		50	52.6	98	50	50.6	94	4	51-141/16
79-01-6	Trichloroethene	4.8		50	50.9	92	50	48.9	88	4	55-136/14

CAS No.	Surrogate Recoveries	MS	MSD	JB89689-4	Limits
1868-53-7	Dibromofluoromethane	112%	112%	111%	76-120%
17060-07-0	1,2-Dichloroethane-D4	108%	107%	107%	73-122%
2037-26-5	Toluene-D8	108%	108%	108%	84-119%
460-00-4	4-Bromofluorobenzene	108%	107%	109%	78-117%

(a) (pH= 6)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

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Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-BFB	Injection Date: 03/03/15
Lab File ID: 2D142308.D	Injection Time: 09:39
Instrument ID: GCMS2D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14764	17.3	Pass
75	30.0 - 60.0% of mass 95	38565	45.2	Pass
95	Base peak, 100% relative abundance	85344	100.0	Pass
96	5.0 - 9.0% of mass 95	5588	6.55	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	83589	97.9	Pass
175	5.0 - 9.0% of mass 174	6528	7.65 (7.81) ^a	Pass
176	95.0 - 101.0% of mass 174	82402	96.6 (98.6) ^a	Pass
177	5.0 - 9.0% of mass 176	5573	6.53 (6.76) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D5970-IC5970	2D142309.D	03/03/15	10:15	00:36	Initial cal 0.2
V2D5970-IC5970	2D142312.D	03/03/15	11:47	02:08	Initial cal 2
V2D5970-IC5970	2D142313.D	03/03/15	12:18	02:39	Initial cal 5
V2D5970-IC5970	2D142314.D	03/03/15	12:48	03:09	Initial cal 10
V2D5970-IC5970	2D142315.D	03/03/15	13:19	03:40	Initial cal 20
V2D5970-ICC5970	2D142316.D	03/03/15	13:50	04:11	Initial cal 50
V2D5970-IC5970	2D142317.D	03/03/15	14:20	04:41	Initial cal 100
V2D5970-IC5970	2D142318.D	03/03/15	14:51	05:12	Initial cal 200
V2D5970-IC5970	2D142322.D	03/03/15	16:54	07:15	Initial cal 1
V2D5970-IC5970	2D142323.D	03/03/15	17:25	07:46	Initial cal 0.5
V2D5970-ICV5970	2D142324.D	03/03/15	17:56	08:17	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5984-BFB
Lab File ID: 2D142641.D
Instrument ID: GCMS2D
Injection Date: 03/13/15
Injection Time: 09:55

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	19216	17.0	Pass
75	30.0 - 60.0% of mass 95	50749	45.0	Pass
95	Base peak, 100% relative abundance	112706	100.0	Pass
96	5.0 - 9.0% of mass 95	7408	6.57	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	113482	100.7	Pass
175	5.0 - 9.0% of mass 174	8265	7.33 (7.28) ^a	Pass
176	95.0 - 101.0% of mass 174	111224	98.7 (98.0) ^a	Pass
177	5.0 - 9.0% of mass 176	7364	6.53 (6.62) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D5984-CC5970	2D142642.D	03/13/15	10:25	00:30	Continuing cal 20
V2D5984-MB	2D142644.D	03/13/15	11:30	01:35	Method Blank
V2D5984-BS	2D142645.D	03/13/15	12:09	02:14	Blank Spike
ZZZZZZ	2D142647.D	03/13/15	13:11	03:16	(unrelated sample)
ZZZZZZ	2D142648.D	03/13/15	13:42	03:47	(unrelated sample)
ZZZZZZ	2D142649.D	03/13/15	14:12	04:17	(unrelated sample)
ZZZZZZ	2D142650.D	03/13/15	14:42	04:47	(unrelated sample)
ZZZZZZ	2D142651.D	03/13/15	15:13	05:18	(unrelated sample)
ZZZZZZ	2D142652.D	03/13/15	15:43	05:48	(unrelated sample)
JB89689-2	2D142653.D	03/13/15	16:13	06:18	MWHD6-150311
JB89689-1	2D142654.D	03/13/15	16:44	06:49	MWHD7-150311
ZZZZZZ	2D142656.D	03/13/15	17:59	08:04	(unrelated sample)
JB89934-1	2D142657.D	03/13/15	18:29	08:34	(used for QC only; not part of job JB89689)
JB89934-1MS	2D142658.D	03/13/15	18:59	09:04	Matrix Spike
JB89934-1MSD	2D142659.D	03/13/15	19:30	09:35	Matrix Spike Duplicate
JB89689-2MS	2D142660.D	03/13/15	20:00	10:05	Matrix Spike
JB89689-2MSD	2D142661.D	03/13/15	20:30	10:35	Matrix Spike Duplicate
JB89689-3	2D142663.D	03/13/15	21:31	11:36	MWHD6-150311D

Instrument Performance Check (BFB)

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Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5984-BFB2	Injection Date: 03/13/15
Lab File ID: 2D142664.D	Injection Time: 22:01
Instrument ID: GCMS2D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	19488	17.4	Pass
75	30.0 - 60.0% of mass 95	51402	45.9	Pass
95	Base peak, 100% relative abundance	111989	100.0	Pass
96	5.0 - 9.0% of mass 95	7150	6.38	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	107597	96.1	Pass
175	5.0 - 9.0% of mass 174	8164	7.29 (7.59) ^a	Pass
176	95.0 - 101.0% of mass 174	104186	93.0 (96.8) ^a	Pass
177	5.0 - 9.0% of mass 176	6938	6.20 (6.66) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D5984-CC5970	2D142665.D	03/13/15	22:31	00:30	Continuing cal 50
V2D5984-MB2	2D142667.D	03/13/15	23:32	01:31	Method Blank
JB89689-5	2D142669.D	03/14/15	00:33	02:32	FB-150311
JB89689-6	2D142670.D	03/14/15	01:03	03:02	TB-150311
ZZZZZZ	2D142671.D	03/14/15	01:33	03:32	(unrelated sample)
ZZZZZZ	2D142672.D	03/14/15	02:03	04:02	(unrelated sample)
ZZZZZZ	2D142673.D	03/14/15	02:34	04:33	(unrelated sample)
ZZZZZZ	2D142674.D	03/14/15	03:04	05:03	(unrelated sample)

Instrument Performance Check (BFB)

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Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5985-BFB	Injection Date: 03/14/15
Lab File ID: 2D142675.D	Injection Time: 09:25
Instrument ID: GCMS2D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	20104	17.9	Pass
75	30.0 - 60.0% of mass 95	52600	46.8	Pass
95	Base peak, 100% relative abundance	112432	100.0	Pass
96	5.0 - 9.0% of mass 95	7323	6.51	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	104106	92.6	Pass
175	5.0 - 9.0% of mass 174	8183	7.28 (7.86) ^a	Pass
176	95.0 - 101.0% of mass 174	102901	91.5 (98.8) ^a	Pass
177	5.0 - 9.0% of mass 176	7184	6.39 (6.98) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D5985-CC5970	2D142677.D	03/14/15	10:37	01:12	Continuing cal 20
V2D5985-MB	2D142679.D	03/14/15	11:38	02:13	Method Blank
V2D5985-BS	2D142680.D	03/14/15	12:09	02:44	Blank Spike
JB89689-4	2D142682.D	03/14/15	13:11	03:46	MWHD4-150311
JB89689-4MS	2D142685.D	03/14/15	14:44	05:19	Matrix Spike
JB89689-4MSD	2D142686.D	03/14/15	15:15	05:50	Matrix Spike Duplicate

Volatile Internal Standard Area Summary

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Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Check Std:	V2D5984-CC5970	Injection Date:	03/13/15
Lab File ID:	2D142642.D	Injection Time:	10:25
Instrument ID:	GCMS2D	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	113672	7.54	444316	10.28	431926	11.44	388555	15.65	255228	18.41
Upper Limit ^a	227344	8.04	888632	10.78	863852	11.94	777110	16.15	510456	18.91
Lower Limit ^b	56836	7.04	222158	9.78	215963	10.94	194278	15.15	127614	17.91

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D5984-MB	110213	7.54	444038	10.29	433133	11.44	401583	15.65	268057	18.41
V2D5984-BS	107431	7.54	418602	10.28	408235	11.44	363499	15.65	234994	18.41
ZZZZZZ	110330	7.54	436195	10.29	418834	11.44	386348	15.65	263314	18.41
ZZZZZZ	110895	7.54	439765	10.29	422215	11.44	382376	15.65	257138	18.41
ZZZZZZ	107608	7.55	434342	10.29	417736	11.44	369222	15.65	249683	18.41
ZZZZZZ	111344	7.55	433461	10.29	415254	11.44	371634	15.65	254987	18.41
ZZZZZZ	107626	7.55	427634	10.29	411437	11.44	368786	15.65	249406	18.41
ZZZZZZ	106534	7.55	426423	10.29	410580	11.45	365537	15.65	246444	18.41
JB89689-2 ^c	108334	7.55	425649	10.29	409716	11.44	367940	15.65	250519	18.41
JB89689-1 ^d	106173	7.55	422280	10.29	402931	11.45	362165	15.65	247053	18.41
ZZZZZZ	111936	7.55	421114	10.30	404094	11.45	362563	15.66	245531	18.42
JB89934-1	111825	7.55	419973	10.29	404596	11.45	362241	15.66	244079	18.42
JB89934-1MS	107723	7.56	410703	10.30	404735	11.45	367437	15.66	240376	18.42
JB89934-1MSD	109964	7.56	422757	10.29	409993	11.45	376989	15.66	243598	18.42
JB89689-2MS ^c	111078	7.55	418290	10.30	412825	11.45	375946	15.66	244355	18.42
JB89689-2MSD ^c	108338	7.55	422681	10.30	414779	11.45	379295	15.66	244258	18.42
JB89689-3 ^e	108608	7.55	418905	10.30	401985	11.45	363911	15.66	247699	18.42

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

(d) (pH= 8)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

(e) (pH= 4)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Check Std:	V2D5984-CC5970	Injection Date:	03/13/15
Lab File ID:	2D142665.D	Injection Time:	22:31
Instrument ID:	GCMS2D	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	108532	7.55	410167	10.30	404416	11.45	366385	15.66	235674	18.42
Upper Limit ^a	217064	8.05	820334	10.80	808832	11.95	732770	16.16	471348	18.92
Lower Limit ^b	54266	7.05	205084	9.80	202208	10.95	183193	15.16	117837	17.92

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D5984-MB2	108166	7.55	414116	10.30	398828	11.45	364352	15.66	245185	18.42
JB89689-5 ^c	108650	7.55	421565	10.30	408892	11.45	389230	15.66	258066	18.42
JB89689-6 ^d	110531	7.56	414983	10.30	407225	11.45	367248	15.66	247336	18.42
ZZZZZZ	109425	7.56	417965	10.30	404711	11.46	369060	15.66	251976	18.42
ZZZZZZ	108913	7.55	414073	10.30	399363	11.45	362097	15.66	247362	18.42
ZZZZZZ	108029	7.56	418909	10.30	406607	11.46	366999	15.66	249047	18.42
ZZZZZZ	106146	7.56	415387	10.30	403036	11.46	383179	15.66	253937	18.42

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) (pH= 5)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

(d) (pH= 4)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Check Std:	V2D5985-CC5970	Injection Date:	03/14/15
Lab File ID:	2D142677.D	Injection Time:	10:37
Instrument ID:	GCMS2D	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	116204	7.57	418493	10.31	406674	11.47	369674	15.68	241998	18.43
Upper Limit ^a	232408	8.07	836986	10.81	813348	11.97	739348	16.18	483996	18.93
Lower Limit ^b	58102	7.07	209247	9.81	203337	10.97	184837	15.18	120999	17.93

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D5985-MB	112816	7.58	431015	10.32	417513	11.48	377826	15.68	253618	18.43
V2D5985-BS	105687	7.59	395845	10.32	391601	11.48	350527	15.68	228263	18.43
JB89689-4 ^c	110090	7.59	421589	10.32	406544	11.48	367867	15.69	248242	18.44
JB89689-4MS ^c	111915	7.59	418365	10.33	411465	11.49	372238	15.69	240977	18.44
JB89689-4MSD ^c	113055	7.59	415228	10.33	410460	11.49	374953	15.69	243968	18.44

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) (pH= 6)Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: JB89689

Account: ENVIRON Environ Corporation

Project: Bulova, Valley Stream, NY

Method: SW846 8260C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB89689-1	2D142654.D	111	105	107	108
JB89689-2	2D142653.D	111	105	106	107
JB89689-3	2D142663.D	110	105	108	108
JB89689-4	2D142682.D	111	107	108	109
JB89689-5	2D142669.D	109	105	109	111
JB89689-6	2D142670.D	110	107	107	109
JB89689-2MS	2D142660.D	112	107	108	107
JB89689-2MSD	2D142661.D	110	105	107	108
JB89689-4MS	2D142685.D	112	108	108	108
JB89689-4MSD	2D142686.D	112	107	108	107
V2D5984-BS	2D142645.D	109	102	106	108
V2D5984-MB	2D142644.D	107	103	108	109
V2D5984-MB2	2D142667.D	110	106	108	109
V2D5985-BS	2D142680.D	114	108	107	107
V2D5985-MB	2D142679.D	112	107	108	109

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane
S2 = 1,2-Dichloroethane-D4
S3 = Toluene-D8
S4 = 4-Bromofluorobenzene

76-120%
73-122%
84-119%
78-117%

Initial Calibration Summary

Page 1 of 6

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICC5970
Lab FileID: 2D142316.D

Response Factor Report MS2D

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
Last Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration

Calibration Files

1 =2D142322.D 2 =2D142312.D 100 =2D142317.D 50 =2D142316.D
20 =2D142315.D 200 =2D142318.D 5 =2D142313.D 0.5 =2D142323.D
10 =2D142314.D 0.2 =2D142309.D = =

Compound	1	2	100	50	20	200	5	0.5	10	0.2	Avg	%RSD
1) I tert butyl alcohol-d9 -----ISTD-----												
2) tertiary butyl alcohol												
	1.097	0.831	1.069	1.013	0.999	1.050	0.881	1.278	0.993		1.023	12.56
3) ethyl alcohol												
	0.133	0.099	0.111	0.101	0.104	0.104	0.107		0.108		0.108	9.71
4) 1,4-dioxane												
	0.071	0.105	0.095	0.093	0.100	0.080		0.089		0.090		12.89
5) I pentafluorobenzene -----ISTD-----												
6) freon 23											0.000	-1.00
7) freon 115											0.000	-1.00
8) freon 143a											0.000	-1.00
9) freon 152a											0.000	-1.00
10) chlorotrifluoroethene											0.000	-1.00
11) chlorodifluoromethane											0.000	-1.00
	0.342	0.252	0.346	0.310	0.281	0.371	0.253	0.327	0.267		0.305	14.41
12) dichlorodifluoromethane												
	0.314	0.412	0.379	0.305		0.398		0.313			0.354	13.60
13) freon 114											0.000	-1.00
14) freon 142b											0.000	-1.00
15) chloromethane											0.000	-1.00
	0.479	0.431	0.493	0.462	0.388	0.512	0.474	0.524	0.403		0.463	10.16
16) vinyl chloride												
	0.420	0.372	0.449	0.420	0.351	0.476	0.440	0.420	0.363	0.399	0.411	9.73
17) acetaldehyde											0.000	-1.00
18) bromomethane											0.000	-1.00
	0.312	0.282	0.299	0.285	0.239	0.288	0.304	0.347	0.261	0.358	0.297	12.08
19) chloroethane												
	0.200	0.183	0.204	0.200	0.173	0.210	0.208	0.218	0.181		0.197	7.63
20) trichlorofluoromethane												
	0.384	0.384	0.479	0.446	0.366	0.512	0.479	0.389	0.380		0.424	12.92
21) pentane											0.000	-1.00
22) ethyl ether											0.000	-1.00
	0.150	0.147	0.151	0.136	0.132	0.158	0.126	0.149	0.130		0.142	7.95
23) acrolein												

Initial Calibration Summary

Page 2 of 6

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICC5970
Lab FileID: 2D142316.D

24)	0.061 0.061 0.059 0.053 0.062 0.074 0.053 0.060 12.10	
	freon 141b	0.000 -1.00
25)	freon 123a	0.000 -1.00
26)	freon 123	0.000 -1.00
27)	1,1-dichloroethene	0.258 12.36
28)	0.290 0.265 0.271 0.237 0.212 0.280 0.228 0.305 0.232 2-chloropropane	
29)	0.539 0.511 0.451 0.400 0.531 0.418 0.436 acetone	0.470 12.09
30)	0.023 0.021 0.022 0.024 0.018 0.022 allyl chloride	0.022 9.38
31)	0.159 0.147 0.146 0.133 0.120 0.156 0.119 0.155 0.131 acetonitrile	0.141 10.94
32)	0.024 0.024 0.023 0.021 0.026 0.020 0.021 iodomethane	0.023 9.22
33)	0.557 0.538 0.565 0.511 0.456 0.596 0.471 0.575 0.493 carbon disulfide	0.529 9.26
34)	1.119 0.965 0.976 0.875 0.758 1.014 0.793 0.825 methylene chloride	0.915 13.51
35)	0.366 0.331 0.320 0.292 0.268 0.335 0.284 0.395 0.290 0.259 methyl acetate	0.314 13.89
36)	0.039 0.037 0.050 0.045 0.043 0.053 0.038 0.042 1-chloropropane	0.043 13.36
37)	0.025 0.025 0.022 0.019 0.025 0.021 0.021 methyl tert butyl ether	0.023 10.08
38)	0.893 0.830 0.862 0.795 0.753 0.897 0.733 0.928 0.753 trans-1,2-dichloroethene	0.827 8.72
39)	0.355 0.314 0.294 0.266 0.241 0.311 0.247 0.263 di-isopropyl ether	0.286 13.67
40)	1.054 0.815 1.071 1.000 0.944 1.104 0.843 0.967 0.914 0.791 2-butanone	0.950 11.57
41)	0.025 0.031 0.028 0.026 0.032 0.022 0.027 1,1-dichloroethane	0.027 12.02
42)	0.553 0.558 0.541 0.497 0.450 0.570 0.460 0.613 0.475 chloroprene	0.524 10.69
43)	0.451 0.322 0.438 0.398 0.362 0.461 0.337 0.390 0.368 0.318 acrylonitrile	0.385 13.62
44)	0.096 0.094 0.101 0.093 0.090 0.107 0.084 0.106 0.089 vinyl acetate	0.095 8.07
45)	0.042 0.038 0.036 0.044 0.036 ethyl tert-butyl ether	0.039 9.19
46)	0.982 0.781 1.032 0.952 0.900 1.070 0.812 0.884 0.872 0.666 ethyl acetate	0.895 13.62
47)	0.036 0.038 0.035 0.035 0.040 0.035 0.034 2,2-dichloropropane	0.036 5.93
48)	0.518 0.462 0.440 0.403 0.373 0.447 0.383 0.528 0.393 cis-1,2-dichloroethene	0.438 12.90
49)	0.365 0.345 0.334 0.308 0.278 0.354 0.286 0.377 0.293 propionitrile	0.327 11.14
50)	0.037 0.041 0.040 0.037 0.036 0.043 0.035 0.040 0.035 tert-Butyl Formate	0.038 7.51
51)	0.269 0.215 0.289 0.267 0.257 0.301 0.232 0.240 0.245 bromochloromethane	0.257 10.66
52)	0.169 0.163 0.168 0.154 0.149 0.178 0.142 0.188 0.149 tetrahydrofuran	0.162 9.27
53)	0.108 0.079 0.076 0.074 0.083 0.079 0.078 chloroform	0.083 13.83

6.7.1
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Initial Calibration Summary

Page 3 of 6

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICC5970
Lab FileID: 2D142316.D

54)	dibromofluoromethane (s)	0.573	0.547	0.528	0.490	0.450	0.557	0.454	0.602	0.469	0.519	10.63
55)	1,2-dichloroethane-d4 (s)	0.314	0.295	0.271	0.275	0.308	0.284		0.281		0.290	5.77
56)	freon 113	0.395	0.313	0.314	0.290	0.287	0.326	0.292		0.298	0.315	11.20
57)	methacrylonitrile	0.240	0.213	0.183	0.243	0.176			0.191		0.208	13.94
58)	1,1,1-trichloroethane	0.116	0.104	0.114	0.105	0.099	0.124	0.092		0.099	0.107	9.93
59)	cyclohexane	0.468	0.458	0.459	0.412	0.369	0.477	0.373	0.478	0.384	0.431	10.68
60)	isobutyl alcohol	0.441	0.432	0.421	0.372	0.317	0.422	0.335	0.411	0.354	0.389	11.76
61)	tert amyl alcohol	0.004	0.003	0.003	0.003	0.004	0.003		0.003		0.003	11.61
62)	iso-octane										0.000	-1.00
		1.095	0.800	1.139	1.025	0.861	1.138	0.790	0.944	0.881	0.964	14.55
63) I	1,4-difluorobenzene	-----ISTD-----										
64)	di-isobutylene										0.000	-1.00
65)	epichlorohydrin	0.025	0.025	0.027	0.025	0.024	0.028	0.020		0.024	0.025	10.30
66)	n-butyl alcohol	0.006	0.005	0.007	0.006	0.006	0.007	0.005	0.008	0.006	0.006	14.49
67)	carbon tetrachloride	0.430	0.398	0.391	0.353	0.319	0.400	0.318	0.411	0.336	0.373	11.25
68)	1,1-dichloropropene	0.402	0.382	0.378	0.344	0.308	0.395	0.304	0.448	0.332	0.366	13.02
69)	hexane	0.042	0.035	0.049	0.045	0.039	0.049	0.034		0.039	0.041	14.07
70)	benzene	1.273	1.204	1.165	1.072	0.980	1.212	0.986	1.323	1.025	1.138	11.13
71)	tert-amyl methyl ether	0.193	0.161	0.201	0.186	0.180	0.210	0.159	0.185	0.176	0.184	9.07
72)	heptane	0.186	0.152	0.199	0.181	0.156	0.201	0.153	0.210	0.164	0.178	12.60
73)	isopropyl acetate	0.515	0.433	0.525	0.482	0.453	0.555	0.418	0.521	0.451	0.484	9.87
74)	1,2-dichloroethane	0.395	0.378	0.370	0.347	0.326	0.383	0.322	0.401	0.331	0.362	8.43
75)	trichloroethene	0.330	0.309	0.313	0.284	0.256	0.330	0.254	0.337	0.269	0.298	11.07
76)	ethyl acrylate										0.000	-1.00
77)	tert amyl ethyl ether										0.000	-1.00
78)	2-nitropropane	0.005	0.005	0.005	0.006				0.004		0.005	10.62
79)	2-chloroethyl vinyl ether	0.167	0.135	0.183	0.156	0.191	0.136	0.161	0.155		0.162	11.62
80)	methyl methacrylate	0.175	0.171	0.187	0.170	0.161	0.199	0.156	0.183	0.167	0.174	7.73
81)	1,2-dichloropropane	0.304	0.317	0.317	0.291	0.274	0.330	0.261	0.326	0.279	0.300	8.28
82)	dibromomethane	0.202	0.197	0.190	0.176	0.166	0.201	0.167	0.212	0.173	0.187	9.03
83)	methylcyclohexane											

6.7.1
6

Initial Calibration Summary

Page 4 of 6

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICC5970
Lab FileID: 2D142316.D

84)	bromodichloromethane	0.448	0.353	0.479	0.431	0.377	0.491	0.352	0.413	0.392	0.415	12.35
85)	cis-1,3-dichloropropene	0.433	0.409	0.425	0.390	0.361	0.446	0.354	0.440	0.370	0.403	8.81
86)	toluene-d8 (s)	0.537	0.502	0.521	0.477	0.440	0.546	0.429	0.534	0.449	0.493	9.17
87)	4-methyl-2-pentanone	1.253	0.972	1.063	0.965	0.973	1.067	0.943	1.340	0.998	1.064	13.19
88)	toluene	0.098	0.104	0.109	0.100	0.096	0.119	0.091	0.106	0.096	0.102	8.22
89)	3-methyl-1-butanol	0.773	0.738	0.747	0.685	0.617	0.781	0.607	0.796	0.666	0.712	9.97
90)	trans-1,3-dichloropropene	0.012	0.010	0.012	0.010	0.010	0.012	0.009		0.010	0.011	10.44
91)	ethyl methacrylate	0.486	0.449	0.477	0.432	0.400	0.503	0.399		0.420	0.446	8.88
92)	1,1,2-trichloroethane	0.348	0.347	0.382	0.349	0.323	0.410	0.312	0.357	0.337	0.352	8.46
93)	2-hexanone	0.240	0.229	0.240	0.217	0.204	0.252	0.202	0.251	0.212	0.227	8.51
		0.107	0.094	0.098	0.089	0.083	0.108	0.080		0.093	0.094	10.53
94)	I chlorobenzene-d5	-----ISTD-----										
95)	3,3-Dimethyl-1-butanol	0.029	0.025	0.028	0.025	0.024	0.032	0.021		0.023	0.026	13.42
96)	tetrachloroethene	0.331	0.325	0.305	0.273	0.251	0.320	0.249	0.321	0.264	0.293	11.48
97)	1,3-dichloropropane	0.487	0.479	0.478	0.439	0.421	0.495	0.409	0.494	0.432	0.459	7.36
98)	butyl acetate	0.214	0.154	0.194	0.178	0.171	0.209	0.155	0.203	0.171	0.183	12.39
99)	dibromochloromethane	0.387	0.356	0.378	0.347	0.332	0.397	0.319	0.376	0.331	0.358	7.72
100)	1,2-dibromoethane	0.329	0.302	0.312	0.283	0.273	0.327	0.268	0.295	0.280	0.297	7.64
101)	n-butyl ether	1.600	1.553	1.501	1.411	1.327	1.547	1.270		1.365	1.447	8.32
102)	chlorobenzene	0.985	0.924	0.901	0.835	0.778	0.952	0.763	1.010	0.811	0.884	10.28
103)	1,1,1,2-tetrachloroethane	0.396	0.383	0.368	0.340	0.323	0.386	0.316	0.379	0.332	0.358	8.47
104)	ethylbenzene	1.619	1.619	1.543	1.430	1.323	1.600	1.288	1.629	1.380	1.492	9.23
105)	m,p-xylene	0.623	0.598	0.595	0.553	0.505	0.625	0.494	0.615	0.523	0.570	9.15
106)	o-xylene	0.644	0.626	0.622	0.572	0.527	0.654	0.522	0.601	0.540	0.590	8.71
107)	styrene	1.080	1.015	1.043	0.967	0.888	1.094	0.856	1.047	0.927	0.991	8.64
108)	bromoform	0.288	0.258	0.292	0.266	0.247	0.308	0.235	0.311	0.254	0.273	10.04
109)	I 1,4-dichlorobenzene-d	-----ISTD-----										
110)	isopropylbenzene	2.561	2.513	2.541	2.351	2.170	2.628	2.049	2.454	2.145	2.379	8.83
111)	4-bromofluorobenzene (s)	0.723	0.718	0.659	0.665	0.736	0.660		0.686		0.692	4.74
112)	cyclohexanone	0.065	0.054	0.062	0.052	0.060		0.064			0.060	9.37
113)	bromobenzene											

Initial Calibration Summary

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICC5970
Lab FileID: 2D142316.D

	0.735	0.721	0.717	0.662	0.614	0.760	0.600	0.800	0.635		0.694	9.97
114)	1,1,2,2-tetrachloroethane	0.709	0.665	0.662	0.620	0.594	0.689	0.570	0.816	0.597	0.658	11.45
115)	trans-1,4-dichloro-2-butene	0.199	0.170	0.169	0.153	0.150	0.175	0.146		0.154	0.165	10.65
116)	1,2,3-trichloropropane	0.169	0.174	0.159	0.149	0.144	0.168	0.137	0.153	0.144	0.155	8.28
117)	n-propylbenzene	3.047	2.853	2.829	2.616	2.420	2.918	2.325	3.085	2.500	2.733	10.13
118)	4-ethyltoluene										0.000	-1.00
119)	2-chlorotoluene	0.670	0.647	0.630	0.579	0.541	0.669	0.521	0.704	0.543	0.612	10.91
120)	4-chlorotoluene	1.973	1.868	1.809	1.683	1.551	1.907	1.506	2.160	1.592	1.783	12.19
121)	1,3,5-trimethylbenzene	2.265	2.185	2.188	2.023	1.889	2.271	1.778	2.252	1.883	2.082	9.18
122)	tert-butylbenzene	1.898	1.859	1.911	1.728	1.600	2.004	1.496	1.971	1.590	1.784	10.41
123)	pentachloroethane	0.506	0.487	0.499	0.458	0.432	0.529	0.409	0.522	0.427	0.474	9.31
124)	1,2,4-trimethylbenzene	2.207	2.155	2.196	2.017	1.883	2.274	1.808	2.301	1.891	2.081	8.89
125)	1,2,3-trimethylbenzene										0.000	-1.00
126)	sec-butylbenzene	2.915	2.859	2.934	2.672	2.453	3.026	2.335	3.055	2.477	2.747	9.83
127)	1,3-dichlorobenzene	1.497	1.354	1.384	1.267	1.191	1.453	1.161	1.541	1.211	1.340	10.44
128)	p-isopropyltoluene	2.657	2.401	2.467	2.264	2.102	2.601	1.975	2.548	2.122	2.349	10.37
129)	1,4-dichlorobenzene	1.605	1.367	1.398	1.271	1.188	1.476	1.152		1.212	1.334	11.76
130)	1,2-dichlorobenzene	1.483	1.388	1.391	1.280	1.216	1.451	1.143	1.758	1.206	1.368	13.70
131)	benzyl chloride	1.508	1.089	1.307	1.212	1.193	1.337	1.028	1.490	1.127	1.255	13.51
132)	1,4-diethylbenzene										0.000	-1.00
133)	n-butylbenzene	1.339	1.255	1.280	1.151	1.053	1.331	0.989	1.428	1.069	1.211	12.48
134)	1,2,4,5-tetramethylbenzene										0.000	-1.00
135)	1,2-dibromo-3-chloropropane	0.185	0.167	0.160	0.145	0.140	0.168	0.138		0.138	0.155	11.22
136)	1,3,5-trichlorobenzene	1.420	1.216	1.291	1.173	1.099	1.333	1.021	1.456	1.073	1.231	12.52
137)	hexachlorobutadiene	0.754	0.657	0.646	0.596	0.541	0.657	0.511		0.535	0.612	13.34
138)	naphthalene	2.437	2.108	2.296	2.122	2.010	2.355	1.725		1.922	2.122	11.18
139)	1,2,4-trichlorobenzene	1.298	1.073	1.182	1.084	1.011	1.214	0.899		0.963	1.090	12.32
140)	1,2,3-trichlorobenzene	1.159	0.951	1.057	0.965	0.892	1.082	0.778		0.872	0.970	12.87
141)	hexachloroethane	0.484	0.468	0.517	0.463	0.421	0.555	0.385	0.491	0.420	0.467	11.25

(#) = Out of Range ### Number of calibration levels exceeded format ###

Initial Calibration Summary

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICC5970
Lab FileID: 2D142316.D

M2D5970.M Wed Mar 04 11:56:54 2015 MS2D

Initial Calibration Verification

Page 1 of 3

Job Number: JB89689
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICV5970
 Lab FileID: 2D142324.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2D142324.D
 Acq On : 3 Mar 2015 5:56 pm
 Sample : icv5970-50
 Misc : ms79298,v2d5970,w,,,,,1
 MS Integration Params: rteint.p

Vial: 17
 Operator: BridgetK
 Inst : MS2D
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
 Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 Last Update : Wed Mar 04 11:40:56 2015
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	104	0.01	7.58
2	tertiary butyl alcohol	1.023	1.083	-5.9	111	0.00	7.71
3	ethyl alcohol	0.108	0.106	1.9	109	0.02	6.19
4	1,4-dioxane	0.090	0.091	-1.1	99	0.01	12.41
5 I	pentafluorobenzene	1.000	1.000	0.0	103	0.01	10.32
6 m	freon 23			-----NA-----			
7 m	freon 115			-----NA-----			
8 m	freon 143a			-----NA-----			
9 m	freon 152a			-----NA-----			
10 m	chlorotrifluoroethene			-----NA-----			
11	chlorodifluoromethane	0.305	0.288	5.6	95	0.00	3.97
12	dichlorodifluoromethane	0.354	0.352	0.6	95	0.00	3.95
13 m	freon 114			-----NA-----			
14 m	freon 142b			-----NA-----			
15	chloromethane	0.463	0.459	0.9	102	0.00	4.30
16	vinyl chloride	0.411	0.420	-2.2	103	0.01	4.57
17 m	acetaldehyde			-----NA-----			
18	bromomethane	0.297	0.293	1.3	105	0.01	5.23
19	chloroethane	0.197	0.230	-16.8	118	0.00	5.41
20	trichlorofluoromethane	0.424	0.459	-8.3	106	0.01	5.93
21 m	pentane			-----NA-----			
22	ethyl ether	0.142	0.159	-12.0	120	0.01	6.36
23	acrolein	0.060	0.062	-3.3	107	0.00	6.63
24 m	freon 141b			-----NA-----			
25 m	freon 123a			-----NA-----			
26 m	freon 123			-----NA-----			
27	1,1-dichloroethene	0.258	0.281	-8.9	122	0.01	6.81
28 m	2-chloropropane	0.470	0.593	-26.2	135	0.01	6.57
29	acetone	0.022	0.023	-4.5	112	0.00	6.88
30	allyl chloride	0.141	0.165	-17.0	127	0.01	7.40
31	acetonitrile	0.023	0.024	-4.3	107	0.03	7.39
32	iodomethane	0.529	0.585	-10.6	118	0.01	7.10
33	carbon disulfide	0.915	1.023	-11.8	120	0.01	7.23
34	methylene chloride	0.314	0.328	-4.5	115	0.00	7.61
35	methyl acetate	0.043	0.039	9.3	87	0.01	7.40
36 m	1-chloropropane	0.023	0.023	0.0	106	0.00	7.65
37	methyl tert butyl ether	0.827	0.843	-1.9	109	0.00	8.01
38	trans-1,2-dichloroethene	0.286	0.291	-1.7	112	0.01	8.04
39	di-isopropyl ether	0.950	1.024	-7.8	105	0.00	8.73
40	2-butanone	0.027	0.030	-11.1	111	0.00	9.60
41	1,1-dichloroethane	0.524	0.552	-5.3	114	0.00	8.72

Initial Calibration Verification

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICV5970
Lab FileID: 2D142324.D

42	chloroprene	0.385	0.393	-2.1	101	0.01	8.85
43	acrylonitrile	0.095	0.106	-11.6	117	0.01	8.00
44	vinyl acetate	0.039	0.047	-20.5	125	0.00	8.73
45	ethyl tert-butyl ether	0.895	0.961	-7.4	104	0.01	9.31
46	ethyl acetate	0.036	0.038	-5.6	110	0.00	9.64
47	2,2-dichloropropane	0.438	0.449	-2.5	114	0.01	9.64
48	cis-1,2-dichloroethene	0.327	0.332	-1.5	111	0.01	9.62
49	propionitrile	0.038	0.041	-7.9	114	0.00	9.73
50	tert-Butyl Formate	0.257	0.287	-11.7	110	0.01	10.16
51	bromochloromethane	0.162	0.166	-2.5	111	0.01	10.00
52	tetrahydrofuran	0.083	0.079	4.8	107	0.01	10.06
53	chloroform	0.519	0.536	-3.3	112	0.00	10.08
54 S	dibromofluoromethane (s)	0.290	0.293	-1.0	111	0.01	10.33
55 S	1,2-dichloroethane-d4 (s)	0.315	0.309	1.9	109	0.01	10.87
56	freon 113	0.208	0.227	-9.1	110	0.01	6.79
57	methacrylonitrile	0.107	0.115	-7.5	112	0.00	9.96
58	1,1,1-trichloroethane	0.431	0.467	-8.4	116	0.01	10.41
59	cyclohexane	0.389	0.447	-14.9	123	0.01	10.50
60	isobutyl alcohol	0.003	0.004	-33.3#	112	0.00	10.64
61 m	tert amyl alcohol			-----NA-----			
62 m	iso-octane	0.964	0.903	6.3	90	0.02	11.02
63 I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.01	11.48
64	di-isobutylene			-----NA-----			
65	epichlorohydrin	0.025	0.026	-4.0	109	0.01	13.15
66	n-butyl alcohol	0.006	0.007	-16.7	112	0.01	11.65
67	carbon tetrachloride	0.373	0.402	-7.8	117	0.01	10.66
68	1,1-dichloropropene	0.366	0.393	-7.4	117	0.01	10.64
69	hexane	0.041	0.043	-4.9	96	0.01	8.42
70	benzene	1.138	1.183	-4.0	113	0.01	10.97
71	tert-amyl methyl ether	0.184	0.191	-3.8	105	0.00	11.05
72	heptane	0.178	0.156	12.4	89	0.00	11.24
73	isopropyl acetate	0.484	0.491	-1.4	105	0.01	10.93
74	1,2-dichloroethane	0.362	0.372	-2.8	110	0.01	10.99
75	trichloroethene	0.298	0.310	-4.0	112	0.00	11.90
76 m	ethyl acrylate			-----NA-----			
77 m	tert amyl ethyl ether			-----NA-----			
78	2-nitropropane	0.005	0.006	-20.0	118	0.04	13.01
79	2-chloroethyl vinyl ether	0.162	0.182	-12.3	110	0.01	13.01
80	methyl methacrylate	0.174	0.188	-8.0	114	0.01	12.31
81	1,2-dichloropropane	0.300	0.313	-4.3	111	0.00	12.26
82	dibromomethane	0.187	0.187	0.0	109	0.01	12.45
83	methylcyclohexane	0.415	0.405	2.4	96	0.01	12.20
84	bromodichloromethane	0.403	0.412	-2.2	109	0.00	12.63
85	cis-1,3-dichloropropene	0.493	0.517	-4.9	111	0.00	13.27
86 S	toluene-d8 (s)	1.064	1.055	0.8	112	0.01	13.67
87	4-methyl-2-pentanone	0.102	0.108	-5.9	111	0.01	13.45
88	toluene	0.712	0.738	-3.7	111	0.00	13.76
89	3-methyl-1-butanol	0.011	0.011	0.0	106	0.01	13.46
90	trans-1,3-dichloropropene	0.446	0.458	-2.7	109	0.01	14.03
91	ethyl methacrylate	0.352	0.364	-3.4	107	0.00	14.08
92	1,1,2-trichloroethane	0.227	0.231	-1.8	109	0.00	14.31
93	2-hexanone	0.094	0.097	-3.2	112	0.01	14.60
94 I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	15.68
95	3,3-Dimethyl-1-butanol	0.026	0.027	-3.8	110	0.01	14.83
96	tetrachloroethene	0.293	0.302	-3.1	113	0.01	14.53
97	1,3-dichloropropane	0.459	0.476	-3.7	111	0.00	14.56
98	butyl acetate	0.183	0.190	-3.8	109	0.00	14.72
99	dibromochloromethane	0.358	0.366	-2.2	108	0.00	14.89

Initial Calibration Verification

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Job Number: JB89689
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: V2D5970-ICV5970
 Lab FileID: 2D142324.D

100		1,2-dibromoethane	0.297	0.307	-3.4	111	0.01	15.09
101	m	n-butyl ether	1.447	1.429	1.2	104	0.01	15.70
102		chlorobenzene	0.884	0.893	-1.0	109	0.00	15.72
103		1,1,1,2-tetrachloroethane	0.358	0.356	0.6	107	0.01	15.81
104		ethylbenzene	1.492	1.525	-2.2	109	0.00	15.82
105		m,p-xylene	0.570	0.593	-4.0	110	0.00	15.96
106		o-xylene	0.590	0.601	-1.9	108	0.00	16.50
107		styrene	0.991	1.027	-3.6	109	0.00	16.51
108		bromoform	0.273	0.278	-1.8	107	0.01	16.81
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	18.43
110		isopropylbenzene	2.379	2.482	-4.3	109	0.00	16.94
111	S	4-bromofluorobenzene (s)	0.692	0.714	-3.2	112	0.01	17.16
112	m	cyclohexanone	0.060	0.053	11.7	101	0.00	17.12
113		bromobenzene	0.694	0.710	-2.3	111	0.00	17.37
114		1,1,2,2-tetrachloroethane	0.658	0.629	4.4	105	0.00	17.29
115		trans-1,4-dichloro-2-bute	0.165	0.165	0.0	111	0.01	17.35
116		1,2,3-trichloropropane	0.155	0.155	0.0	107	0.01	17.37
117		n-propylbenzene	2.733	2.934	-7.4	116	0.00	17.42
118	m	4-ethyltoluene			-----NA-----			
119		2-chlorotoluene	0.612	0.611	0.2	109	0.00	17.56
120		4-chlorotoluene	1.783	1.778	0.3	109	0.00	17.68
121		1,3,5-trimethylbenzene	2.082	2.131	-2.4	109	0.00	17.60
122		tert-butylbenzene	1.784	1.850	-3.7	111	0.00	17.98
123		pentachloroethane	0.474	0.484	-2.1	109	0.01	18.04
124		1,2,4-trimethylbenzene	2.081	2.235	-7.4	114	0.01	18.02
125	m	1,2,3-trimethylbenzene			-----NA-----			
126		sec-butylbenzene	2.747	2.857	-4.0	110	0.00	18.20
127		1,3-dichlorobenzene	1.340	1.325	1.1	108	0.00	18.37
128		p-isopropyltoluene	2.349	2.447	-4.2	112	0.00	18.33
129		1,4-dichlorobenzene	1.334	1.343	-0.7	109	0.00	18.45
130		1,2-dichlorobenzene	1.368	1.340	2.0	108	0.00	18.84
131		benzyl chloride	1.255	1.467	-16.9	125	0.00	18.58
132	m	1,4-diethylbenzene			-----NA-----			
133		n-butylbenzene	1.211	1.278	-5.5	115	0.01	18.75
134	m	1,2,4,5-tetramethylbenzen			-----NA-----			
135		1,2-dibromo-3-chloropropa	0.155	0.154	0.6	110	0.00	19.58
136		1,3,5-trichlorobenzene	1.231	1.228	0.2	108	0.00	19.75
137		hexachlorobutadiene	0.612	0.628	-2.6	109	0.00	20.45
138		naphthalene	2.122	2.208	-4.1	107	0.00	20.60
139		1,2,4-trichlorobenzene	1.090	1.131	-3.8	108	0.00	20.34
140	m	1,2,3-trichlorobenzene	0.970	1.009	-4.0	108	0.00	20.82
141		hexachloroethane	0.467	0.493	-5.6	110	0.00	19.09

(#) = Out of Range
 2D142316.D M2D5970.M

SPCC's out = 0 CCC's out = 0
 Wed Mar 04 12:02:44 2015 MS2D

6.7.2
6

Continuing Calibration Summary

Page 1 of 3

Job Number: JB89689
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: V2D5984-CC5970
 Lab FileID: 2D142642.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2D142642.D
 Acq On : 13 Mar 2015 10:25 am
 Sample : cc5970-20
 Misc : ms81906,v2d5984,w,,,,,1
 MS Integration Params: RTEINT.P

Vial: 2
 Operator: BridgetK
 Inst : MS2D
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
 Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 Last Update : Wed Mar 04 11:40:56 2015
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	131	-0.03	7.54
2	tertiary butyl alcohol	1.023	1.120	-9.5	146	-0.03	7.67
3	ethyl alcohol	0.108	0.126	-16.7	158	-0.02	6.15
4	1,4-dioxane	0.090	0.107	-18.9	151	-0.02	12.38
5 I	pentafluorobenzene	1.000	1.000	0.0	123	-0.03	10.28
6 m	freon 23			-----NA-----			
7 m	freon 115			-----NA-----			
8 m	freon 143a			-----NA-----			
9 m	freon 152a			-----NA-----			
10 m	chlorotrifluoroethene			-----NA-----			
11	chlorodifluoromethane	0.305	0.304	0.3	134	-0.02	3.95
12	dichlorodifluoromethane	0.354	0.399	-12.7	161	-0.02	3.93
13 m	freon 114			-----NA-----			
14 m	freon 142b			-----NA-----			
15	chloromethane	0.463	0.476	-2.8	151	-0.03	4.27
16	vinyl chloride	0.411	0.444	-8.0	156	-0.03	4.53
17 m	acetaldehyde			-----NA-----			
18	bromomethane	0.297	0.308	-3.7	159	-0.02	5.21
19	chloroethane	0.197	0.216	-9.6	154	-0.02	5.39
20	trichlorofluoromethane	0.424	0.496	-17.0	167	-0.03	5.89
21 m	pentane			-----NA-----			
22	ethyl ether	0.142	0.156	-9.9	146	-0.02	6.33
23	acrolein	0.060	0.055	8.3	129	-0.03	6.59
24 m	freon 141b			-----NA-----			
25 m	freon 123a			-----NA-----			
26 m	freon 123			-----NA-----			
27	1,1-dichloroethene	0.258	0.269	-4.3	157	-0.03	6.77
28 m	2-chloropropane	0.470	0.500	-6.4	154	-0.03	6.53
29	acetone	0.022	0.023	-4.5	129	-0.03	6.85
30	allyl chloride	0.141	0.152	-7.8	156	-0.02	7.37
31	acetonitrile	0.023	0.025	-8.7	142	-0.02	7.34
32	iodomethane	0.529	0.569	-7.6	154	-0.03	7.07
33	carbon disulfide	0.915	0.970	-6.0	158	-0.03	7.19
34	methylene chloride	0.314	0.329	-4.8	151	-0.03	7.58
35	methyl acetate	0.043	0.049	-14.0	139	-0.02	7.37
36 m	1-chloropropane	0.023	0.025	-8.7	162	-0.03	7.63
37	methyl tert butyl ether	0.827	0.895	-8.2	147	-0.03	7.98
38	trans-1,2-dichloroethene	0.286	0.312	-9.1	160	-0.02	8.01
39	di-isopropyl ether	0.950	1.063	-11.9	139	-0.03	8.70
40	2-butanone	0.027	0.028	-3.7	131	-0.03	9.57
41	1,1-dichloroethane	0.524	0.563	-7.4	155	-0.03	8.68

6.7.3

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Continuing Calibration Summary

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5984-CC5970
Lab FileID: 2D142642.D

42	chloroprene	0.385	0.433	-12.5	147	-0.03	8.82
43	acrylonitrile	0.095	0.099	-4.2	136	-0.03	7.97
44	vinyl acetate	0.039	0.039	0.0	135	-0.03	8.70
45	ethyl tert-butyl ether	0.895	1.021	-14.1	140	-0.03	9.27
46	ethyl acetate	0.036	0.033	8.3	118	-0.03	9.61
47	2,2-dichloropropane	0.438	0.495	-13.0	164	-0.03	9.60
48	cis-1,2-dichloroethene	0.327	0.350	-7.0	155	-0.03	9.58
49	propionitrile	0.038	0.039	-2.6	137	-0.03	9.70
50	tert-Butyl Formate	0.257	0.284	-10.5	136	-0.03	10.12
51	bromochloromethane	0.162	0.178	-9.9	147	-0.03	9.97
52	tetrahydrofuran	0.083	0.077	7.2	127	-0.03	10.02
53	chloroform	0.519	0.557	-7.3	153	-0.03	10.05
54 S	dibromofluoromethane (s)	0.290	0.318	-9.7	143	-0.02	10.30
55 S	1,2-dichloroethane-d4 (s)	0.315	0.324	-2.9	139	-0.03	10.84
56	freon 113	0.208	0.239	-14.9	161	-0.02	6.76
57	methacrylonitrile	0.107	0.109	-1.9	136	-0.03	9.92
58	1,1,1-trichloroethane	0.431	0.485	-12.5	162	-0.02	10.37
59	cyclohexane	0.389	0.437	-12.3	170	-0.02	10.46
60	isobutyl alcohol	0.003	0.004	-33.3#	152	-0.03	10.61
61 m	tert amyl alcohol			-----NA-----			
62 m	iso-octane	0.964	1.064	-10.4	153	-0.03	10.98
63 I	1,4-difluorobenzene	1.000	1.000	0.0	118	-0.03	11.44
64	di-isobutylene			-----NA-----			
65	epichlorohydrin	0.025	0.025	0.0	125	-0.03	13.11
66	n-butyl alcohol	0.006	0.007	-16.7	138	-0.03	11.61
67	carbon tetrachloride	0.373	0.447	-19.8	165	-0.03	10.62
68	1,1-dichloropropene	0.366	0.412	-12.6	157	-0.03	10.60
69	hexane	0.041	0.047	-14.6	142	-0.02	8.39
70	benzene	1.138	1.257	-10.5	151	-0.03	10.94
71	tert-amyl methyl ether	0.184	0.214	-16.3	140	-0.03	11.01
72	heptane	0.178	0.201	-12.9	151	-0.03	11.21
73	isopropyl acetate	0.484	0.501	-3.5	130	-0.03	10.89
74	1,2-dichloroethane	0.362	0.394	-8.8	142	-0.03	10.95
75	trichloroethene	0.298	0.335	-12.4	154	-0.03	11.87
76 m	ethyl acrylate			-----NA-----			
77 m	tert amyl ethyl ether			-----NA-----			
78	2-nitropropane	0.005	0.005	0.0	121	0.00	12.97
79	2-chloroethyl vinyl ether	0.162	0.172	-6.2	129	-0.03	12.97
80	methyl methacrylate	0.174	0.168	3.4	122	-0.02	12.28
81	1,2-dichloropropane	0.300	0.315	-5.0	135	-0.03	12.23
82	dibromomethane	0.187	0.196	-4.8	139	-0.03	12.41
83	methylcyclohexane	0.415	0.498	-20.0#	155	-0.03	12.17
84	bromodichloromethane	0.403	0.428	-6.2	139	-0.03	12.60
85	cis-1,3-dichloropropene	0.493	0.501	-1.6	134	-0.03	13.24
86 S	toluene-d8 (s)	1.064	1.134	-6.6	137	-0.03	13.63
87	4-methyl-2-pentanone	0.102	0.107	-4.9	131	-0.02	13.42
88	toluene	0.712	0.755	-6.0	144	-0.03	13.73
89	3-methyl-1-butanol	0.011	0.012	-9.1	133	-0.02	13.43
90	trans-1,3-dichloropropene	0.446	0.441	1.1	130	-0.02	14.00
91	ethyl methacrylate	0.352	0.348	1.1	127	-0.03	14.04
92	1,1,2-trichloroethane	0.227	0.224	1.3	129	-0.03	14.28
93	2-hexanone	0.094	0.091	3.2	128	-0.02	14.57
94 I	chlorobenzene-d5	1.000	1.000	0.0	115	-0.02	15.65
95	3,3-Dimethyl-1-butanol	0.026	0.029	-11.5	139	-0.02	14.79
96	tetrachloroethene	0.293	0.327	-11.6	150	-0.02	14.50
97	1,3-dichloropropane	0.459	0.474	-3.3	130	-0.02	14.53
98	butyl acetate	0.183	0.194	-6.0	130	-0.02	14.69
99	dibromochloromethane	0.358	0.381	-6.4	132	-0.03	14.86

Continuing Calibration Summary

Page 3 of 3

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5984-CC5970
Lab FileID: 2D142642.D

100		1,2-dibromoethane	0.297	0.307	-3.4	129	-0.02	15.06
101	m	n-butyl ether	1.447	1.592	-10.0	138	-0.02	15.67
102		chlorobenzene	0.884	0.942	-6.6	139	-0.02	15.69
103		1,1,1,2-tetrachloroethane	0.358	0.407	-13.7	145	-0.02	15.78
104		ethylbenzene	1.492	1.672	-12.1	145	-0.02	15.79
105		m,p-xylene	0.570	0.640	-12.3	146	-0.02	15.94
106		o-xylene	0.590	0.667	-13.1	146	-0.02	16.48
107		styrene	0.991	1.063	-7.3	138	-0.02	16.49
108		bromoform	0.273	0.289	-5.9	135	-0.02	16.78
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	119	-0.02	18.41
110		isopropylbenzene	2.379	2.714	-14.1	148	-0.02	16.91
111	S	4-bromofluorobenzene (s)	0.692	0.747	-7.9	133	-0.01	17.13
112	m	cyclohexanone	0.060	0.046	23.3#	88	-0.02	17.09
113		bromobenzene	0.694	0.733	-5.6	142	-0.02	17.34
114		1,1,2,2-tetrachloroethane	0.658	0.670	-1.8	134	-0.02	17.26
115		trans-1,4-dichloro-2-bute	0.165	0.146	11.5	115	-0.01	17.33
116		1,2,3-trichloropropane	0.155	0.166	-7.1	137	-0.02	17.35
117		n-propylbenzene	2.733	3.010	-10.1	148	-0.02	17.40
118	m	4-ethyltoluene			-----NA-----			
119		2-chlorotoluene	0.612	0.657	-7.4	144	-0.02	17.54
120		4-chlorotoluene	1.783	1.887	-5.8	144	-0.02	17.65
121		1,3,5-trimethylbenzene	2.082	2.330	-11.9	146	-0.02	17.57
122		tert-butylbenzene	1.784	1.997	-11.9	148	-0.01	17.96
123		pentachloroethane	0.474	0.528	-11.4	145	-0.02	18.01
124		1,2,4-trimethylbenzene	2.081	2.341	-12.5	147	-0.01	18.00
125	m	1,2,3-trimethylbenzene			-----NA-----			
126		sec-butylbenzene	2.747	3.100	-12.9	150	-0.02	18.18
127		1,3-dichlorobenzene	1.340	1.444	-7.8	144	-0.02	18.34
128		p-isopropyltoluene	2.349	2.652	-12.9	150	-0.02	18.31
129		1,4-dichlorobenzene	1.334	1.441	-8.0	144	-0.02	18.43
130		1,2-dichlorobenzene	1.368	1.457	-6.5	142	-0.02	18.82
131		benzyl chloride	1.255	1.438	-14.6	143	-0.02	18.56
132	m	1,4-diethylbenzene			-----NA-----			
133		n-butylbenzene	1.211	1.345	-11.1	152	-0.01	18.73
134	m	1,2,4,5-tetramethylbenzen			-----NA-----			
135		1,2-dibromo-3-chloropropa	0.155	0.165	-6.5	139	-0.02	19.56
136		1,3,5-trichlorobenzene	1.231	1.382	-12.3	149	-0.02	19.73
137		hexachlorobutadiene	0.612	0.700	-14.4	154	-0.02	20.43
138		naphthalene	2.122	2.414	-13.8	143	-0.02	20.58
139		1,2,4-trichlorobenzene	1.090	1.259	-15.5	148	-0.02	20.32
140	m	1,2,3-trichlorobenzene	0.970	1.123	-15.8	149	-0.02	20.80
141		hexachloroethane	0.467	0.534	-14.3	151	-0.02	19.07

(#) = Out of Range
 2D142315.D M2D5970.M

SPCC's out = 0 CCC's out = 0
 Fri Mar 13 15:00:56 2015 MS2D

6.7.3

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JB89689
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: V2D5984-CC5970
 Lab FileID: 2D142665.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2D142665.D
 Acq On : 13 Mar 2015 10:31 pm
 Sample : cc5970-50
 Misc : ms81917,v2d5984,w,,,,,1
 MS Integration Params: RTEINT.P

Vial: 25
 Operator: BridgetK
 Inst : MS2D
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
 Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 Last Update : Wed Mar 04 11:40:56 2015
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	123	-0.02	7.55
2	tertiary butyl alcohol	1.023	1.116	-9.1	135	-0.02	7.69
3	ethyl alcohol			-----NA-----			
4	1,4-dioxane	0.090	0.107	-18.9	138	0.00	12.40
5 I	pentafluorobenzene	1.000	1.000	0.0	114	-0.01	10.30
6 m	freon 23			-----NA-----			
7 m	freon 115			-----NA-----			
8 m	freon 143a			-----NA-----			
9 m	freon 152a			-----NA-----			
10 m	chlorotrifluoroethene			-----NA-----			
11	chlorodifluoromethane	0.305	0.344	-12.8	126	-0.02	3.95
12	dichlorodifluoromethane	0.354	0.408	-15.3	123	-0.01	3.93
13 m	freon 114			-----NA-----			
14 m	freon 142b			-----NA-----			
15	chloromethane	0.463	0.483	-4.3	119	-0.02	4.28
16	vinyl chloride	0.411	0.457	-11.2	124	-0.02	4.54
17 m	acetaldehyde			-----NA-----			
18	bromomethane	0.297	0.301	-1.3	121	-0.02	5.21
19	chloroethane	0.197	0.216	-9.6	124	-0.02	5.39
20	trichlorofluoromethane	0.424	0.513	-21.0#	131	-0.02	5.90
21 m	pentane			-----NA-----			
22	ethyl ether	0.142	0.165	-16.2	138	-0.02	6.34
23	acrolein	0.060	0.061	-1.7	118	-0.02	6.60
24 m	freon 141b			-----NA-----			
25 m	freon 123a			-----NA-----			
26 m	freon 123			-----NA-----			
27	1,1-dichloroethene	0.258	0.296	-14.7	143	-0.02	6.78
28 m	2-chloropropane	0.470	0.568	-20.9#	144	-0.01	6.54
29	acetone	0.022	0.025	-13.6	132	-0.02	6.86
30	allyl chloride	0.141	0.164	-16.3	141	-0.02	7.38
31	acetonitrile	0.023	0.026	-13.0	131	-0.01	7.35
32	iodomethane	0.529	0.622	-17.6	139	-0.02	7.08
33	carbon disulfide	0.915	1.105	-20.8#	144	-0.02	7.20
34	methylene chloride	0.314	0.347	-10.5	136	-0.02	7.58
35	methyl acetate	0.043	0.051	-18.6	127	-0.01	7.38
36 m	1-chloropropane	0.023	0.027	-17.4	139	-0.02	7.64
37	methyl tert butyl ether	0.827	0.941	-13.8	135	-0.02	7.98
38	trans-1,2-dichloroethene	0.286	0.331	-15.7	142	-0.01	8.02
39	di-isopropyl ether	0.950	1.095	-15.3	125	-0.02	8.71
40	2-butanone	0.027	0.030	-11.1	123	-0.02	9.58
41	1,1-dichloroethane	0.524	0.597	-13.9	137	-0.02	8.70

Continuing Calibration Summary

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5984-CC5970
Lab FileID: 2D142665.D

42	chloroprene	0.385	0.459	-19.2	132	-0.01	8.83
43	acrylonitrile	0.095	0.108	-13.7	133	-0.02	7.98
44	vinyl acetate	0.039	0.040	-2.6	119	-0.02	8.71
45	ethyl tert-butyl ether	0.895	1.053	-17.7	126	-0.02	9.28
46	ethyl acetate	0.036	0.035	2.8	115	-0.02	9.62
47	2,2-dichloropropane	0.438	0.507	-15.8	144	-0.01	9.61
48	cis-1,2-dichloroethene	0.327	0.368	-12.5	137	-0.01	9.60
49	propionitrile	0.038	0.042	-10.5	129	-0.02	9.71
50	tert-Butyl Formate	0.257	0.294	-14.4	126	-0.01	10.14
51	bromochloromethane	0.162	0.183	-13.0	136	-0.01	9.98
52	tetrahydrofuran	0.083	0.080	3.6	120	-0.02	10.03
53	chloroform	0.519	0.586	-12.9	136	-0.01	10.06
54 S	dibromofluoromethane (s)	0.290	0.323	-11.4	136	-0.01	10.31
55 S	1,2-dichloroethane-d4 (s)	0.315	0.332	-5.4	131	-0.01	10.85
56	freon 113	0.208	0.249	-19.7	133	-0.01	6.77
57	methacrylonitrile	0.107	0.115	-7.5	125	-0.02	9.93
58	1,1,1-trichloroethane	0.431	0.521	-20.9#	144	-0.01	10.39
59	cyclohexane	0.389	0.478	-22.9#	147	-0.01	10.47
60	isobutyl alcohol	0.003	0.004	-33.3#	135	-0.01	10.62
61 m	tert amyl alcohol			-----NA-----			
62 m	iso-octane	0.964	1.149	-19.2	128	0.00	10.99
63 I	1,4-difluorobenzene	1.000	1.000	0.0	109	-0.01	11.45
64	di-isobutylene			-----NA-----			
65	epichlorohydrin	0.025	0.026	-4.0	116	-0.01	13.13
66	n-butyl alcohol	0.006	0.007	-16.7	128	-0.01	11.63
67	carbon tetrachloride	0.373	0.469	-25.7#	145	-0.01	10.64
68	1,1-dichloropropene	0.366	0.439	-19.9	139	-0.01	10.62
69	hexane	0.041	0.050	-22.0#	122	-0.01	8.40
70	benzene	1.138	1.309	-15.0	134	-0.01	10.95
71	tert-amyl methyl ether	0.184	0.214	-16.3	126	-0.01	11.03
72	heptane	0.178	0.208	-16.9	126	-0.01	11.22
73	isopropyl acetate	0.484	0.533	-10.1	121	-0.01	10.91
74	1,2-dichloroethane	0.362	0.408	-12.7	129	-0.01	10.97
75	trichloroethene	0.298	0.344	-15.4	132	-0.01	11.88
76 m	ethyl acrylate			-----NA-----			
77 m	tert amyl ethyl ether			-----NA-----			
78	2-nitropropane	0.005	0.006	-20.0	122	-0.01	12.95
79	2-chloroethyl vinyl ether	0.162	0.183	-13.0	118	-0.01	12.99
80	methyl methacrylate	0.174	0.182	-4.6	117	-0.01	12.29
81	1,2-dichloropropane	0.300	0.339	-13.0	127	-0.02	12.24
82	dibromomethane	0.187	0.202	-8.0	126	-0.01	12.43
83	methylcyclohexane	0.415	0.520	-25.3#	132	-0.01	12.18
84	bromodichloromethane	0.403	0.455	-12.9	128	-0.01	12.62
85	cis-1,3-dichloropropene	0.493	0.529	-7.3	122	-0.02	13.25
86 S	toluene-d8 (s)	1.064	1.141	-7.2	129	-0.01	13.65
87	4-methyl-2-pentanone	0.102	0.112	-9.8	122	-0.01	13.43
88	toluene	0.712	0.789	-10.8	126	-0.01	13.75
89	3-methyl-1-butanol	0.011	0.012	-9.1	126	-0.01	13.44
90	trans-1,3-dichloropropene	0.446	0.473	-6.1	120	0.00	14.01
91	ethyl methacrylate	0.352	0.376	-6.8	118	-0.01	14.06
92	1,1,2-trichloroethane	0.227	0.236	-4.0	119	-0.01	14.30
93	2-hexanone	0.094	0.093	1.1	114	-0.01	14.58
94 I	chlorobenzene-d5	1.000	1.000	0.0	105	-0.01	15.66
95	3,3-Dimethyl-1-butanol	0.026	0.030	-15.4	129	0.00	14.81
96	tetrachloroethene	0.293	0.341	-16.4	131	0.00	14.52
97	1,3-dichloropropane	0.459	0.497	-8.3	119	-0.01	14.54
98	butyl acetate	0.183	0.196	-7.1	116	-0.01	14.70
99	dibromochloromethane	0.358	0.405	-13.1	122	-0.01	14.87

Continuing Calibration Summary

Page 3 of 3

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5984-CC5970
Lab FileID: 2D142665.D

100		1,2-dibromoethane	0.297	0.322	-8.4	119	-0.01	15.07
101	m	n-butyl ether	1.447	1.655	-14.4	123	0.00	15.68
102		chlorobenzene	0.884	0.975	-10.3	122	-0.01	15.70
103		1,1,1,2-tetrachloroethane	0.358	0.420	-17.3	130	0.00	15.79
104		ethylbenzene	1.492	1.712	-14.7	126	0.00	15.80
105		m,p-xylene	0.570	0.654	-14.7	124	-0.01	15.95
106		o-xylene	0.590	0.690	-16.9	127	-0.01	16.49
107		styrene	0.991	1.096	-10.6	119	-0.01	16.50
108		bromoform	0.273	0.299	-9.5	118	0.00	16.79
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	18.42
110		isopropylbenzene	2.379	2.869	-20.6#	130	0.00	16.93
111	S	4-bromofluorobenzene (s)	0.692	0.750	-8.4	121	0.00	17.14
112	m	cyclohexanone	0.060	0.021	65.0#	41#	0.00	17.11
113		bromobenzene	0.694	0.755	-8.8	122	0.00	17.35
114		1,1,2,2-tetrachloroethane	0.658	0.702	-6.7	121	0.00	17.28
115		trans-1,4-dichloro-2-bute	0.165	0.164	0.6	114	0.00	17.34
116		1,2,3-trichloropropane	0.155	0.168	-8.4	120	0.00	17.36
117		n-propylbenzene	2.733	3.126	-14.4	127	-0.01	17.41
118	m	4-ethyltoluene			-----NA-----			
119		2-chlorotoluene	0.612	0.688	-12.4	127	0.00	17.55
120		4-chlorotoluene	1.783	1.938	-8.7	123	-0.01	17.66
121		1,3,5-trimethylbenzene	2.082	2.432	-16.8	128	-0.01	17.58
122		tert-butylbenzene	1.784	2.132	-19.5	132	0.00	17.96
123		pentachloroethane	0.474	0.550	-16.0	128	0.00	18.02
124		1,2,4-trimethylbenzene	2.081	2.396	-15.1	127	0.00	18.01
125	m	1,2,3-trimethylbenzene			-----NA-----			
126		sec-butylbenzene	2.747	3.271	-19.1	131	0.00	18.19
127		1,3-dichlorobenzene	1.340	1.471	-9.8	124	-0.01	18.35
128		p-isopropyltoluene	2.349	2.756	-17.3	130	0.00	18.32
129		1,4-dichlorobenzene	1.334	1.468	-10.0	123	0.00	18.44
130		1,2-dichlorobenzene	1.368	1.479	-8.1	123	0.00	18.83
131		benzyl chloride	1.255	1.391	-10.8	122	0.00	18.57
132	m	1,4-diethylbenzene			-----NA-----			
133		n-butylbenzene	1.211	1.395	-15.2	129	0.00	18.73
134	m	1,2,4,5-tetramethylbenzen			-----NA-----			
135		1,2-dibromo-3-chloropropa	0.155	0.168	-8.4	124	-0.01	19.57
136		1,3,5-trichlorobenzene	1.231	1.432	-16.3	130	0.00	19.74
137		hexachlorobutadiene	0.612	0.720	-17.6	129	0.00	20.44
138		naphthalene	2.122	2.492	-17.4	125	0.00	20.59
139		1,2,4-trichlorobenzene	1.090	1.297	-19.0	128	0.00	20.33
140	m	1,2,3-trichlorobenzene	0.970	1.151	-18.7	127	0.00	20.81
141		hexachloroethane	0.467	0.584	-25.1#	135	0.00	19.08

(#) = Out of Range
 2D142316.D M2D5970.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 16 12:47:16 2015 MS2D

6.7.4

6

Continuing Calibration Summary

Page 1 of 3

Job Number: JB89689
 Account: ENVIRON Environ Corporation
 Project: Bulova, Valley Stream, NY

Sample: V2D5985-CC5970
 Lab FileID: 2D142677.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\2D142677.D
 Acq On : 14 Mar 2015 10:37 am
 Sample : cc5970-20
 Misc : ms82037,v2d5985,w,,,,,1
 MS Integration Params: RTEINT.P

Vial: 3
 Operator: BridgetK
 Inst : MS2D
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
 Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 Last Update : Wed Mar 04 11:40:56 2015
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	134	0.00	7.57
2	tertiary butyl alcohol	1.023	1.052	-2.8	141	0.00	7.71
3	ethyl alcohol			-----NA-----			
4	1,4-dioxane	0.090	0.109	-21.1#	157	0.01	12.41
5 I	pentafluorobenzene	1.000	1.000	0.0	116	0.00	10.31
6 m	freon 23			-----NA-----			
7 m	freon 115			-----NA-----			
8 m	freon 143a			-----NA-----			
9 m	freon 152a			-----NA-----			
10 m	chlorotrifluoroethene			-----NA-----			
11	chlorodifluoromethane	0.305	0.290	4.9	120	0.00	3.96
12	dichlorodifluoromethane	0.354	0.415	-17.2	158	0.00	3.95
13 m	freon 114			-----NA-----			
14 m	freon 142b			-----NA-----			
15	chloromethane	0.463	0.441	4.8	132	-0.01	4.29
16	vinyl chloride	0.411	0.410	0.2	136	-0.01	4.55
17 m	acetaldehyde			-----NA-----			
18	bromomethane	0.297	0.279	6.1	136	0.00	5.22
19	chloroethane	0.197	0.197	0.0	133	0.00	5.41
20	trichlorofluoromethane	0.424	0.475	-12.0	151	0.00	5.92
21 m	pentane			-----NA-----			
22	ethyl ether	0.142	0.156	-9.9	138	0.00	6.36
23	acrolein	0.060	0.061	-1.7	135	0.00	6.63
24 m	freon 141b			-----NA-----			
25 m	freon 123a			-----NA-----			
26 m	freon 123			-----NA-----			
27	1,1-dichloroethene	0.258	0.270	-4.7	148	0.00	6.80
28 m	2-chloropropane	0.470	0.519	-10.4	151	0.00	6.56
29	acetone	0.022	0.029	-31.8#	152	0.00	6.87
30	allyl chloride	0.141	0.149	-5.7	144	0.00	7.40
31	acetonitrile	0.023	0.025	-8.7	137	0.01	7.37
32	iodomethane	0.529	0.555	-4.9	142	0.00	7.09
33	carbon disulfide	0.915	1.002	-9.5	154	0.00	7.22
34	methylene chloride	0.314	0.320	-1.9	139	0.00	7.60
35	methyl acetate	0.043	0.048	-11.6	131	0.00	7.39
36 m	1-chloropropane	0.023	0.025	-8.7	152	0.00	7.65
37	methyl tert butyl ether	0.827	0.886	-7.1	137	0.00	8.00
38	trans-1,2-dichloroethene	0.286	0.293	-2.4	142	0.00	8.04
39	di-isopropyl ether	0.950	0.990	-4.2	122	0.00	8.73
40	2-butanone	0.027	0.031	-14.8	139	0.00	9.60
41	1,1-dichloroethane	0.524	0.533	-1.7	138	0.00	8.71

Continuing Calibration Summary

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5985-CC5970
Lab FileID: 2D142677.D

42	chloroprene	0.385	0.397	-3.1	127	0.00	8.85
43	acrylonitrile	0.095	0.104	-9.5	135	0.00	7.99
44	vinyl acetate	0.039	0.039	0.0	124	0.00	8.72
45	ethyl tert-butyl ether	0.895	0.970	-8.4	125	0.00	9.30
46	ethyl acetate	0.036	0.035	2.8	119	0.00	9.64
47	2,2-dichloropropane	0.438	0.458	-4.6	143	0.00	9.63
48	cis-1,2-dichloroethene	0.327	0.327	0.0	137	0.00	9.61
49	propionitrile	0.038	0.041	-7.9	134	0.00	9.73
50	tert-Butyl Formate	0.257	0.274	-6.6	124	0.00	10.15
51	bromochloromethane	0.162	0.167	-3.1	130	0.00	10.00
52	tetrahydrofuran	0.083	0.082	1.2	129	0.00	10.05
53	chloroform	0.519	0.520	-0.2	134	0.00	10.08
54 S	dibromofluoromethane (s)	0.290	0.323	-11.4	137	0.00	10.33
55 S	1,2-dichloroethane-d4 (s)	0.315	0.341	-8.3	138	0.00	10.87
56	freon 113	0.208	0.225	-8.2	143	0.01	6.79
57	methacrylonitrile	0.107	0.110	-2.8	129	0.00	9.96
58	1,1,1-trichloroethane	0.431	0.455	-5.6	143	0.00	10.40
59	cyclohexane	0.389	0.437	-12.3	160	0.00	10.49
60	isobutyl alcohol	0.003	0.003	0.0	136	0.00	10.63
61 m	tert amyl alcohol			-----NA-----			
62 m	iso-octane	0.964	1.078	-11.8	146	0.01	11.01
63 I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00	11.47
64	di-isobutylene			-----NA-----			
65	epichlorohydrin	0.025	0.026	-4.0	122	0.00	13.14
66	n-butyl alcohol	0.006	0.007	-16.7	139	0.00	11.64
67	carbon tetrachloride	0.373	0.425	-13.9	148	0.00	10.65
68	1,1-dichloropropene	0.366	0.391	-6.8	140	0.00	10.63
69	hexane	0.041	0.049	-19.5	140	0.00	8.42
70	benzene	1.138	1.165	-2.4	131	0.00	10.97
71	tert-amyl methyl ether	0.184	0.204	-10.9	125	0.01	11.05
72	heptane	0.178	0.195	-9.6	138	0.00	11.24
73	isopropyl acetate	0.484	0.506	-4.5	124	0.00	10.93
74	1,2-dichloroethane	0.362	0.385	-6.4	131	0.00	10.98
75	trichloroethene	0.298	0.300	-0.7	130	0.00	11.90
76 m	ethyl acrylate			-----NA-----			
77 m	tert amyl ethyl ether			-----NA-----			
78	2-nitropropane	0.005	0.003	40.0#	60	0.00	12.96
79	2-chloroethyl vinyl ether	0.162	0.175	-8.0	124	0.00	13.00
80	methyl methacrylate	0.174	0.177	-1.7	121	0.00	12.31
81	1,2-dichloropropane	0.300	0.304	-1.3	123	0.00	12.26
82	dibromomethane	0.187	0.189	-1.1	126	0.00	12.45
83	methylcyclohexane	0.415	0.471	-13.5	138	0.00	12.20
84	bromodichloromethane	0.403	0.411	-2.0	126	0.00	12.63
85	cis-1,3-dichloropropene	0.493	0.485	1.6	122	0.00	13.27
86 S	toluene-d8 (s)	1.064	1.145	-7.6	130	0.00	13.66
87	4-methyl-2-pentanone	0.102	0.108	-5.9	123	0.00	13.44
88	toluene	0.712	0.693	2.7	124	0.00	13.76
89	3-methyl-1-butanol	0.011	0.012	-9.1	129	0.00	13.46
90	trans-1,3-dichloropropene	0.446	0.442	0.9	122	0.00	14.03
91	ethyl methacrylate	0.352	0.348	1.1	119	0.00	14.08
92	1,1,2-trichloroethane	0.227	0.224	1.3	121	0.00	14.31
93	2-hexanone	0.094	0.099	-5.3	131	0.00	14.60
94 I	chlorobenzene-d5	1.000	1.000	0.0	110	0.00	15.68
95	3,3-Dimethyl-1-butanol	0.026	0.029	-11.5	132	0.01	14.83
96	tetrachloroethene	0.293	0.294	-0.3	128	0.01	14.53
97	1,3-dichloropropane	0.459	0.466	-1.5	121	0.00	14.56
98	butyl acetate	0.183	0.192	-4.9	123	0.00	14.72
99	dibromochloromethane	0.358	0.365	-2.0	120	0.00	14.89

Continuing Calibration Summary

Page 3 of 3

Job Number: JB89689
Account: ENVIRON Environ Corporation
Project: Bulova, Valley Stream, NY

Sample: V2D5985-CC5970
Lab FileID: 2D142677.D

100		1,2-dibromoethane	0.297	0.302	-1.7	121	0.00	15.08
101	m	n-butyl ether	1.447	1.464	-1.2	121	0.01	15.70
102		chlorobenzene	0.884	0.865	2.1	122	0.00	15.72
103		1,1,1,2-tetrachloroethane	0.358	0.367	-2.5	124	0.01	15.81
104		ethylbenzene	1.492	1.514	-1.5	125	0.00	15.82
105		m,p-xylene	0.570	0.575	-0.9	125	0.00	15.96
106		o-xylene	0.590	0.590	0.0	123	0.00	16.50
107		styrene	0.991	0.963	2.8	119	0.01	16.52
108		bromoform	0.273	0.270	1.1	120	0.01	16.81
109	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	113	0.01	18.43
110		isopropylbenzene	2.379	2.422	-1.8	126	0.00	16.94
111	S	4-bromofluorobenzene (s)	0.692	0.748	-8.1	127	0.01	17.16
112	m	cyclohexanone	0.060	0.081	-35.0#	146	0.00	17.12
113		bromobenzene	0.694	0.660	4.9	121	0.00	17.37
114		1,1,2,2-tetrachloroethane	0.658	0.647	1.7	122	0.00	17.29
115		trans-1,4-dichloro-2-bute	0.165	0.168	-1.8	126	0.01	17.35
116		1,2,3-trichloropropane	0.155	0.162	-4.5	126	0.01	17.37
117		n-propylbenzene	2.733	2.696	1.4	125	0.00	17.42
118	m	4-ethyltoluene			-----NA-----			
119		2-chlorotoluene	0.612	0.582	4.9	121	0.00	17.56
120		4-chlorotoluene	1.783	1.728	3.1	125	0.00	17.68
121		1,3,5-trimethylbenzene	2.082	2.085	-0.1	124	0.00	17.60
122		tert-butylbenzene	1.784	1.816	-1.8	128	0.00	17.98
123		pentachloroethane	0.474	0.472	0.4	123	0.01	18.04
124		1,2,4-trimethylbenzene	2.081	2.078	0.1	124	0.01	18.02
125	m	1,2,3-trimethylbenzene			-----NA-----			
126		sec-butylbenzene	2.747	2.805	-2.1	129	0.01	18.21
127		1,3-dichlorobenzene	1.340	1.319	1.6	125	0.00	18.37
128		p-isopropyltoluene	2.349	2.340	0.4	125	0.00	18.33
129		1,4-dichlorobenzene	1.334	1.324	0.7	125	0.00	18.45
130		1,2-dichlorobenzene	1.368	1.330	2.8	123	0.00	18.84
131		benzyl chloride	1.255	1.346	-7.3	127	0.01	18.59
132	m	1,4-diethylbenzene			-----NA-----			
133		n-butylbenzene	1.211	1.233	-1.8	132	0.01	18.75
134	m	1,2,4,5-tetramethylbenzen			-----NA-----			
135		1,2-dibromo-3-chloropropa	0.155	0.160	-3.2	129	0.00	19.58
136		1,3,5-trichlorobenzene	1.231	1.237	-0.5	127	0.01	19.75
137		hexachlorobutadiene	0.612	0.641	-4.7	133	0.00	20.45
138		naphthalene	2.122	2.315	-9.1	130	0.01	20.60
139		1,2,4-trichlorobenzene	1.090	1.140	-4.6	127	0.01	20.34
140	m	1,2,3-trichlorobenzene	0.970	1.025	-5.7	129	0.01	20.82
141		hexachloroethane	0.467	0.481	-3.0	129	0.01	19.09

(#) = Out of Range
 2D142315.D M2D5970.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 16 14:38:28 2015 MS2D

6.7.5

6

GC/MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142654.D
 Acq On : 13 Mar 2015 4:44 pm
 Operator : BridgetK
 Sample : jB89689-1
 Misc : ms81917,v2d5984,w,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 12:31:37 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	106173	500.00	ug/L	-0.02
5) pentafluorobenzene	10.29	168	422280	50.00	ug/L	-0.02
63) 1,4-difluorobenzene	11.45	114	402931	50.00	ug/L	-0.02
94) chlorobenzene-d5	15.65	117	362165	50.00	ug/L	-0.02
109) 1,4-dichlorobenzene-d4	18.41	152	247053	50.00	ug/L	-0.01

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	135998	55.59	ug/L	-0.02
Spiked Amount	50.000	Range 79 - 120	Recovery	=	111.18%	
55) 1,2-dichloroethane-d4 (s)	10.85	65	139591	52.54	ug/L	-0.02
Spiked Amount	50.000	Range 72 - 123	Recovery	=	105.08%	
86) toluene-d8 (s)	13.64	98	459119	53.57	ug/L	-0.02
Spiked Amount	50.000	Range 78 - 119	Recovery	=	107.14%	
111) 4-bromofluorobenzene (s)	17.14	95	183911	53.76	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	107.52%	

Target Compounds

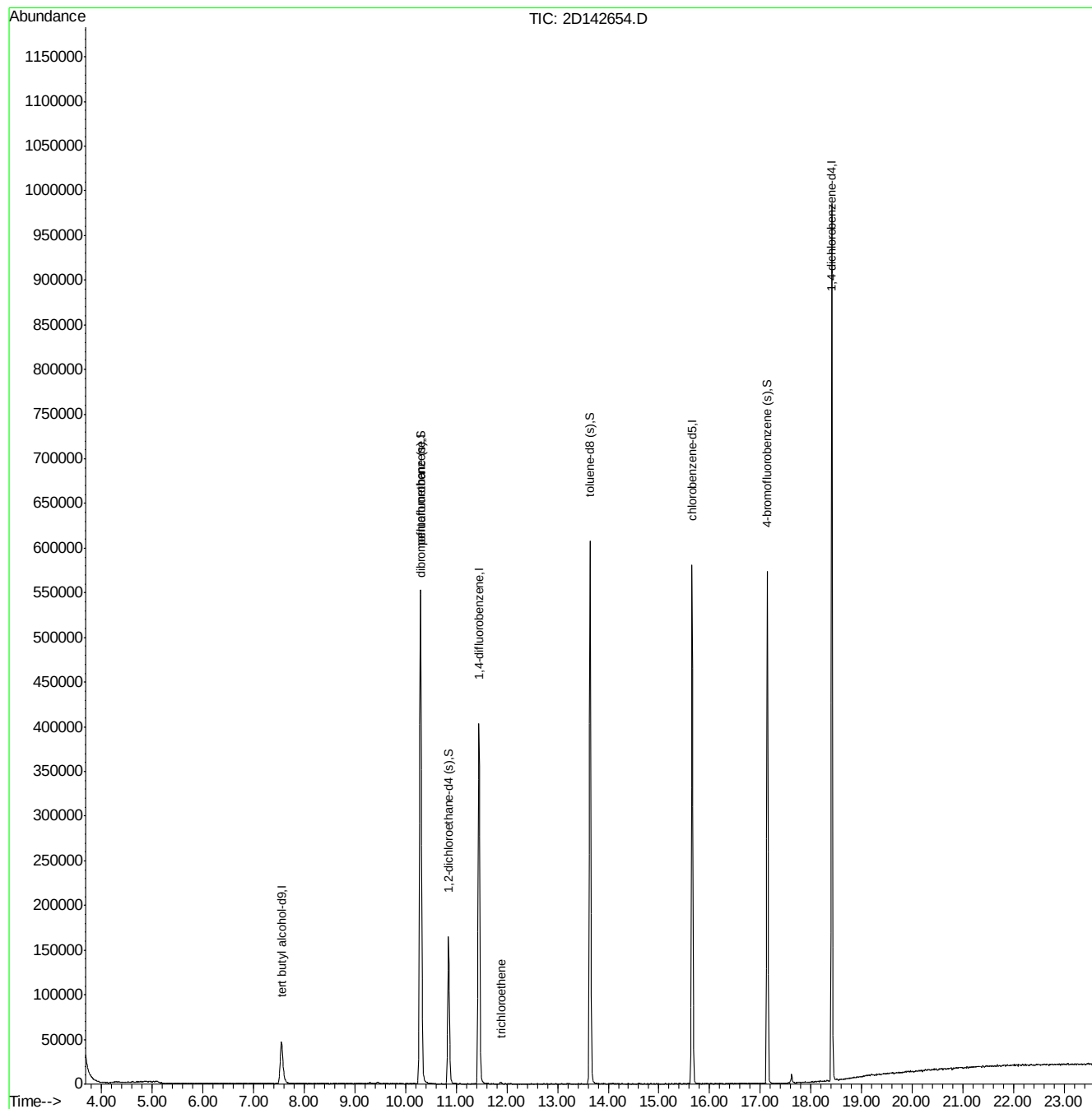
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
75) trichloroethene	11.88	130	919	0.38	ug/L	84

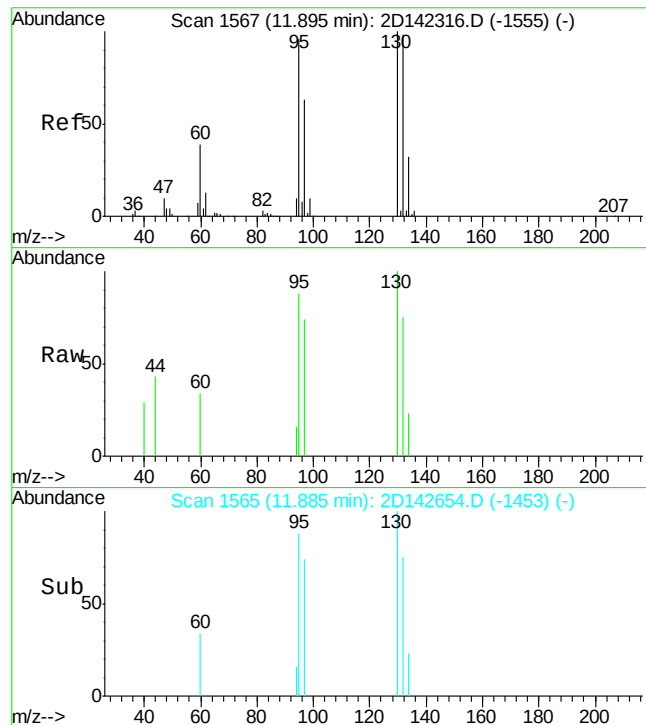
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142654.D
Acq On : 13 Mar 2015 4:44 pm
Operator : BridgetK
Sample : jB89689-1
Misc : ms81917,v2d5984,w,,,,,1
ALS Vial : 14 Sample Multiplier: 1

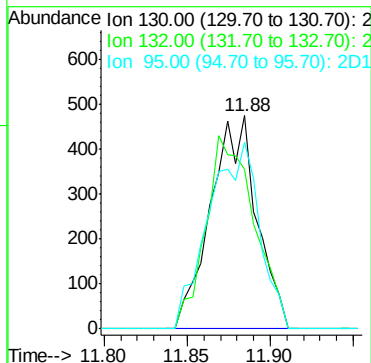
Quant Time: Mar 16 12:31:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration





#75
trichloroethene
Concen: 0.38 ug/L
RT: 11.88 min Scan# 1565
Delta R.T. -0.01 min
Lab File: 2D142654.D
Acq: 13 Mar 2015 4:44 pm

Tgt Ion:	130	Resp:	919
Ion Ratio	Lower	Upper	
130	100		
132	75.0	68.3	128.3
95	87.6	66.0	126.0



7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2D\
 Data File : 2D142653.D
 Acq On : 13 Mar 2015 4:13 pm
 Operator : BridgetK
 Sample : jB89689-2
 Misc : ms81917,v2d5984,w,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 13 16:45:14 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.549	65	108334	500.00	ug/L	-0.02
5) pentafluorobenzene	10.291	168	425649	50.00	ug/L	-0.02
63) 1,4-difluorobenzene	11.444	114	409716	50.00	ug/L	-0.02
94) chlorobenzene-d5	15.655	117	367940	50.00	ug/L	-0.02
109) 1,4-dichlorobenzene-d4	18.412	152	250519	50.00	ug/L	-0.01

System Monitoring Compounds

54) dibromofluoromethane (s)	10.307	113	136846	55.49	ug/L	-0.02
Spiked Amount	50.000	Range 79 - 120	Recovery	=	110.98%	
55) 1,2-dichloroethane-d4 (s)	10.847	65	140825	52.59	ug/L	-0.02
Spiked Amount	50.000	Range 72 - 123	Recovery	=	105.18%	
86) toluene-d8 (s)	13.641	98	463783	53.21	ug/L	-0.02
Spiked Amount	50.000	Range 78 - 119	Recovery	=	106.42%	
111) 4-bromofluorobenzene (s)	17.138	95	186257	53.70	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	107.40%	

Target Compounds

75) trichloroethene	11.874	130	1294	0.53	ug/L	Qvalue 92

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

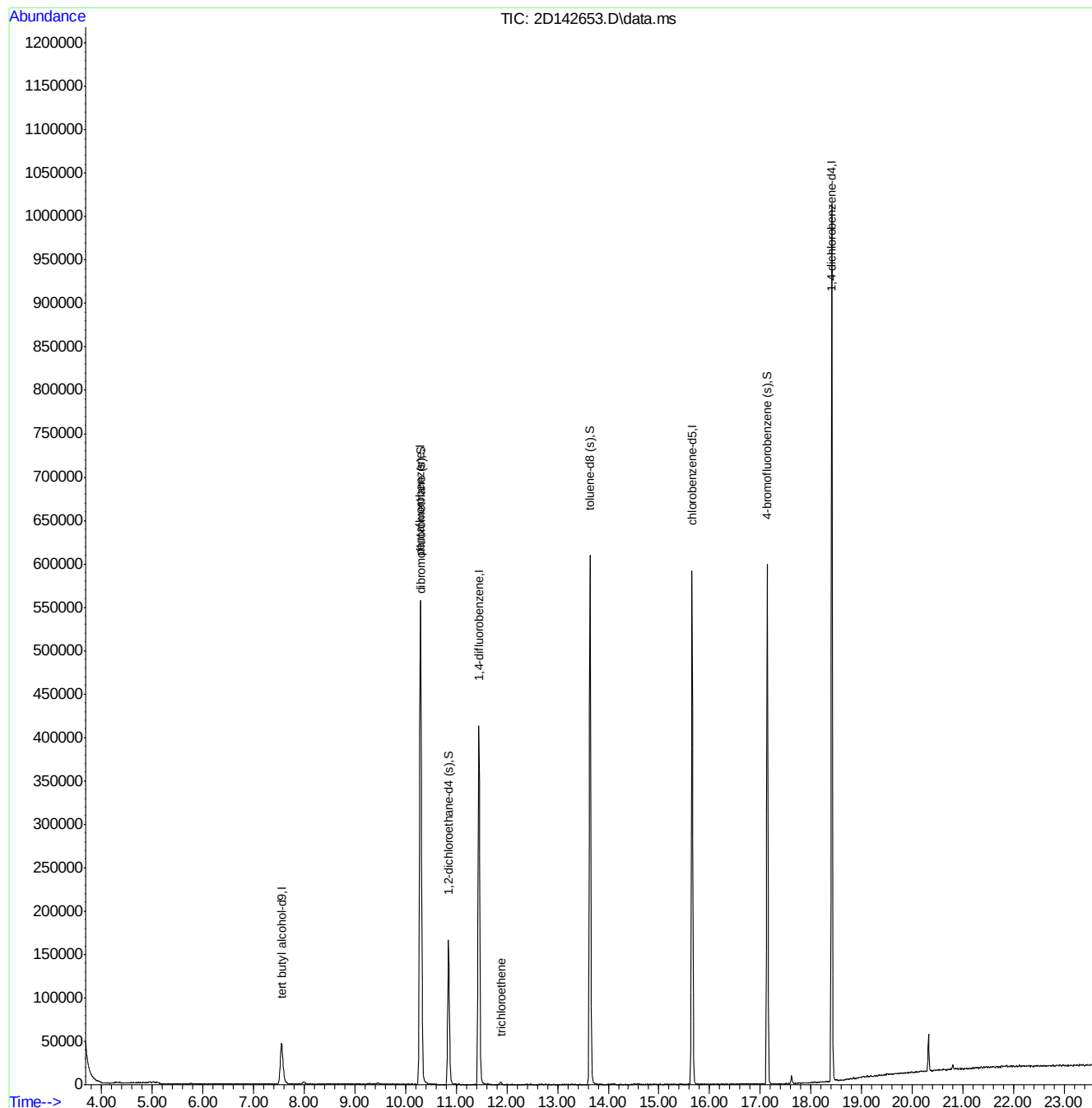
7.1.2

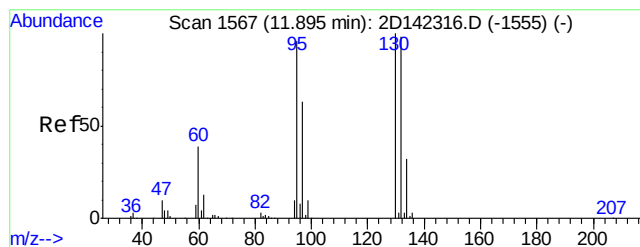
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2D\
Data File : 2D142653.D
Acq On : 13 Mar 2015 4:13 pm
Operator : BridgetK
Sample : jB89689-2
Misc : ms81917,v2d5984,w,,,,,1
ALS Vial : 13 Sample Multiplier: 1

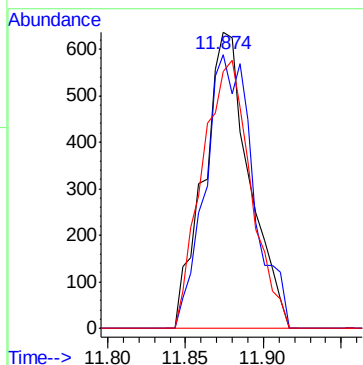
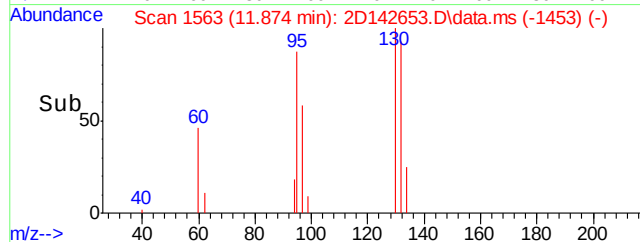
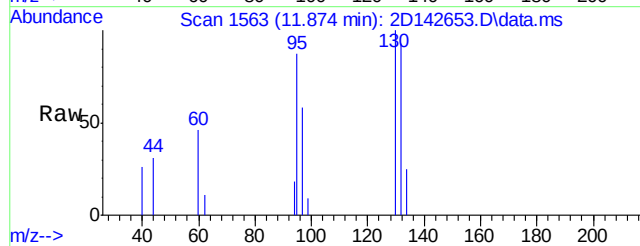
Quant Time: Mar 13 16:45:14 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration





#75
trichloroethene
Concen: 0.53 ug/L
RT: 11.874 min Scan# 1563
Delta R.T. -0.021 min
Lab File: 2D142653.D
Acq: 13 Mar 2015 4:13 pm

Tgt Ion	Ratio	Lower	Upper
130	100		
132	92.6	68.3	128.3
95	86.6	66.0	126.0



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142663.D
 Acq On : 13 Mar 2015 9:31 pm
 Operator : BridgetK
 Sample : jB89689-3
 Misc : ms81917,v2d5984,w,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 16 12:44:14 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	108608	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	418905	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.45	114	401985	50.00	ug/L	-0.02
94) chlorobenzene-d5	15.66	117	363911	50.00	ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.42	152	247699	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	132983	54.79	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 120	Recovery	=	109.58%	
55) 1,2-dichloroethane-d4 (s)	10.85	65	138097	52.40	ug/L	-0.01
Spiked Amount	50.000	Range 72 - 123	Recovery	=	104.80%	
86) toluene-d8 (s)	13.65	98	461021	53.91	ug/L	-0.01
Spiked Amount	50.000	Range 78 - 119	Recovery	=	107.82%	
111) 4-bromofluorobenzene (s)	17.14	95	185837	54.19	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	108.38%	

Target Compounds

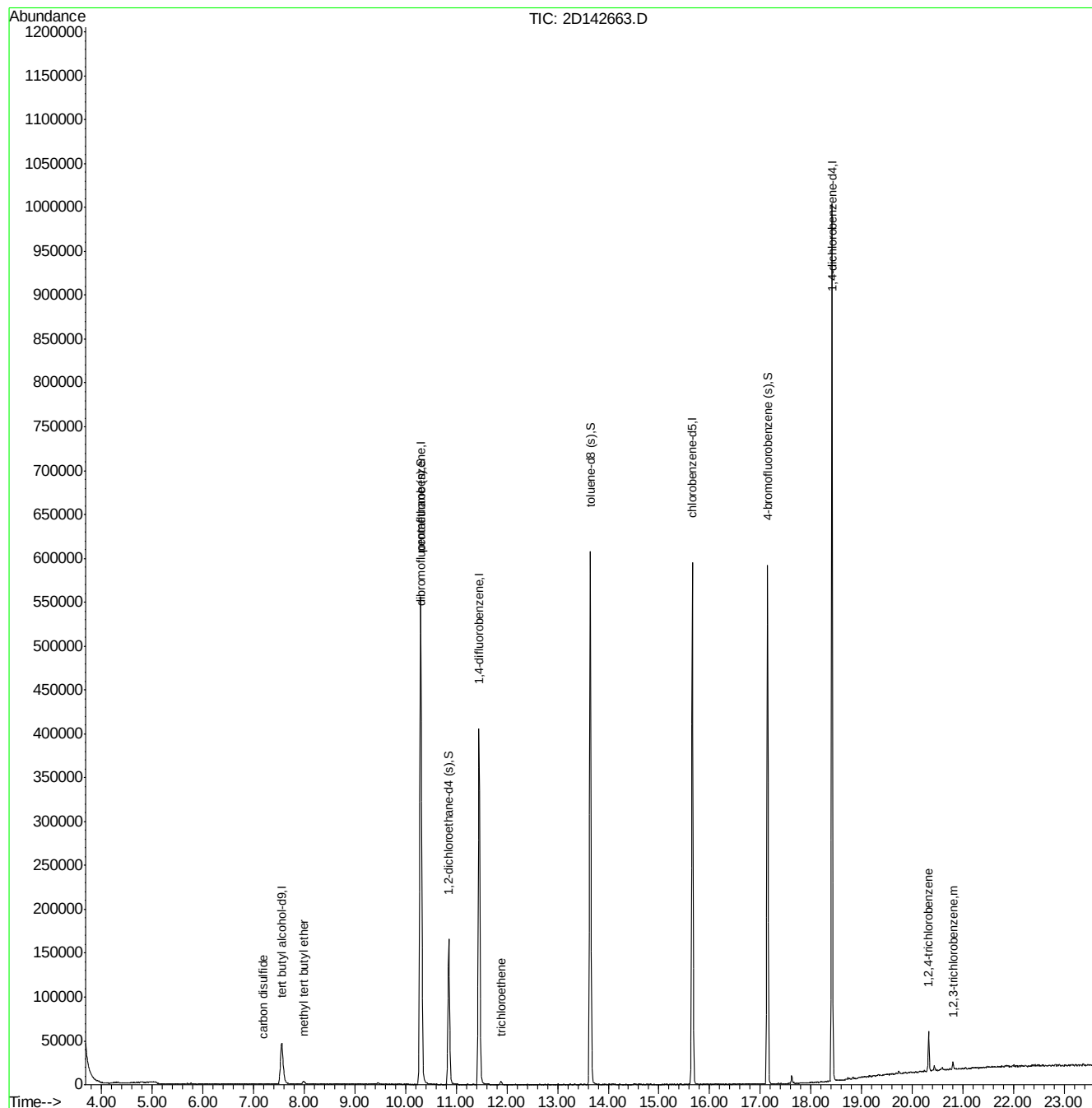
						Qvalue
33) carbon disulfide	7.20	76	1617	0.21	ug/L	91
37) methyl tert butyl ether	7.98	73	4852	0.70	ug/L	97
75) trichloroethene	11.88	130	1476	0.62	ug/L	97
139) 1,2,4-trichlorobenzene	20.33	180	14706	2.72	ug/L	99
140) 1,2,3-trichlorobenzene	20.80	180	2850	0.59	ug/L	98

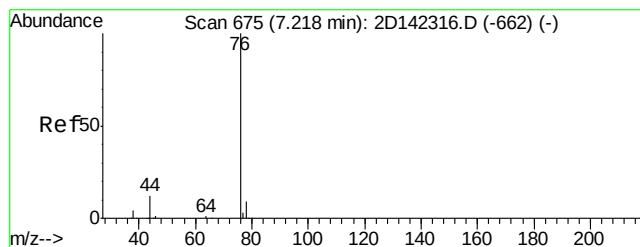
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142663.D
Acq On : 13 Mar 2015 9:31 pm
Operator : BridgetK
Sample : jB89689-3
Misc : ms81917,v2d5984,w,,,,,1
ALS Vial : 23 Sample Multiplier: 1

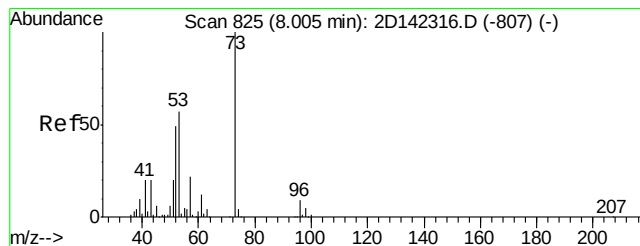
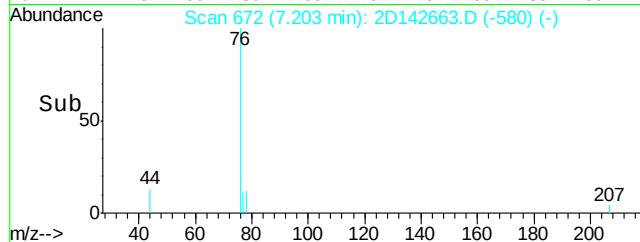
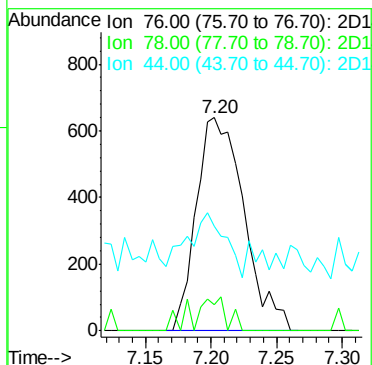
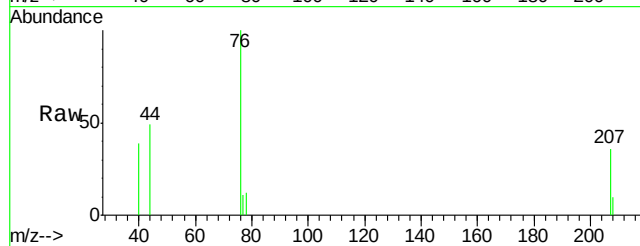
Quant Time: Mar 16 12:44:14 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration





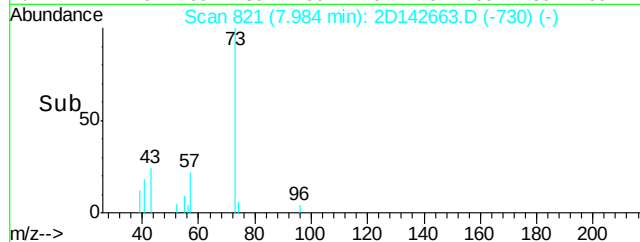
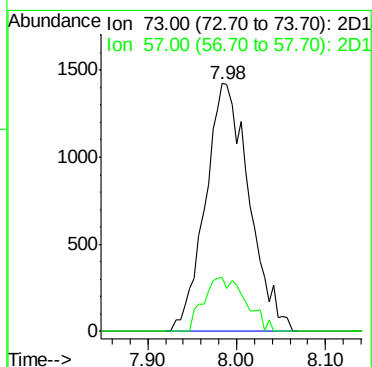
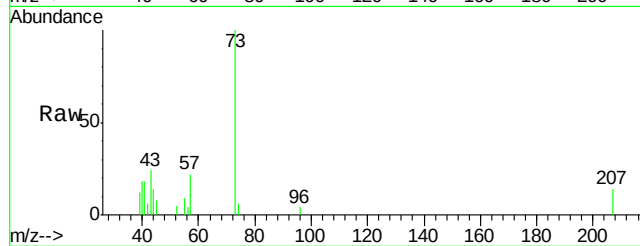
#33
carbon disulfide
Concen: 0.21 ug/L
RT: 7.20 min Scan# 672
Delta R.T. -0.02 min
Lab File: 2D142663.D
Acq: 13 Mar 2015 9:31 pm

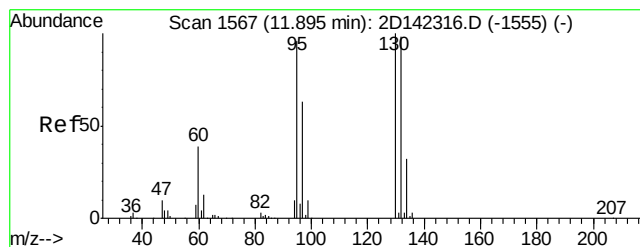
Tgt Ion	Ratio	Lower	Upper
76	100		
78	12.3	0.0	38.9
44	14.9	0.0	41.7



#37
methyl tert butyl ether
Concen: 0.70 ug/L
RT: 7.98 min Scan# 821
Delta R.T. -0.02 min
Lab File: 2D142663.D
Acq: 13 Mar 2015 9:31 pm

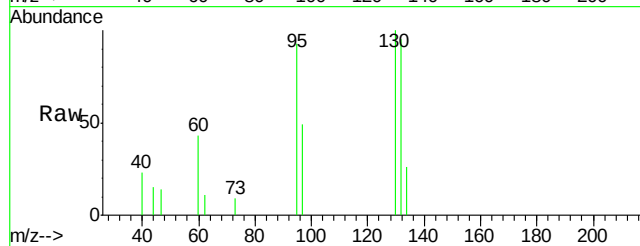
Tgt Ion	Ratio	Lower	Upper
73	100		
57	20.8	0.0	52.1





#75
trichloroethene
Concen: 0.62 ug/L
RT: 11.88 min Scan# 1565
Delta R.T. -0.01 min
Lab File: 2D142663.D
Acq: 13 Mar 2015 9:31 pm

Tgt Ion	Ratio	Lower	Upper
130	100		
132	95.4	68.3	128.3
95	93.5	66.0	126.0

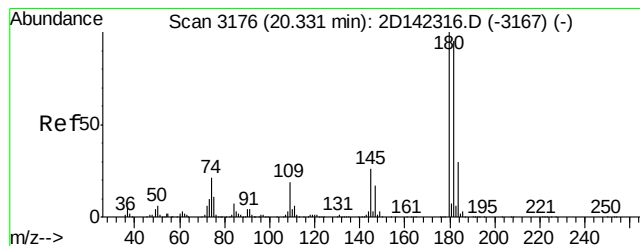
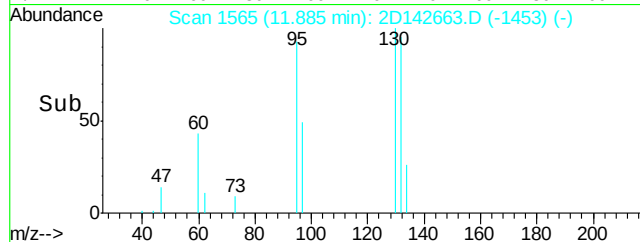
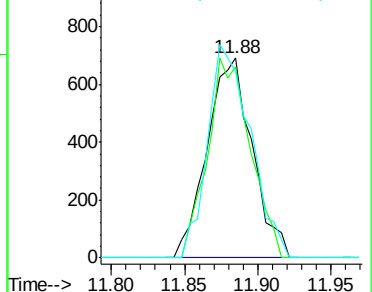


Abundance

Ion 130.00 (129.70 to 130.70): 2

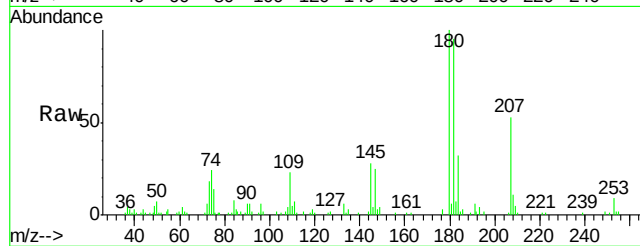
Ion 132.00 (131.70 to 132.70): 2

Ion 95.00 (94.70 to 95.70): 2D1



#139
1,2,4-trichlorobenzene
Concen: 2.72 ug/L
RT: 20.33 min Scan# 3175
Delta R.T. -0.01 min
Lab File: 2D142663.D
Acq: 13 Mar 2015 9:31 pm

Tgt Ion	Ratio	Lower	Upper
180	100		
182	95.5	65.4	125.4
74	23.6	0.0	50.6

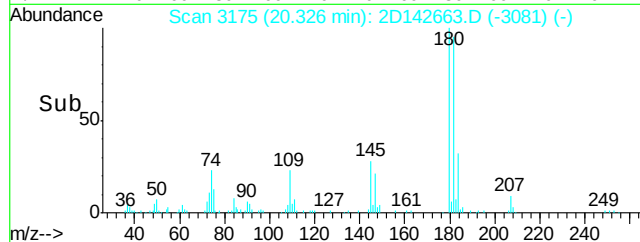
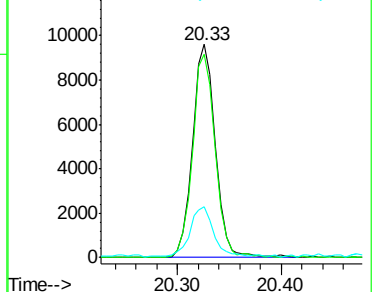


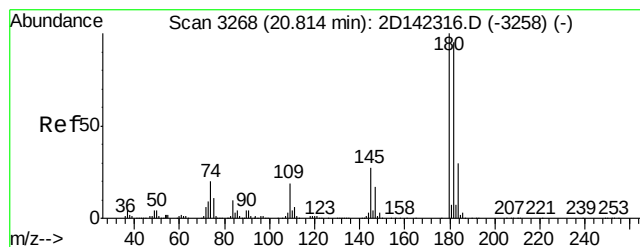
Abundance

Ion 180.00 (179.70 to 180.70): 2

Ion 182.00 (181.70 to 182.70): 2

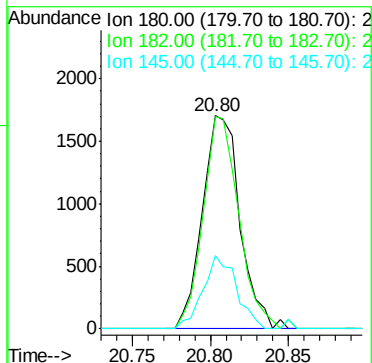
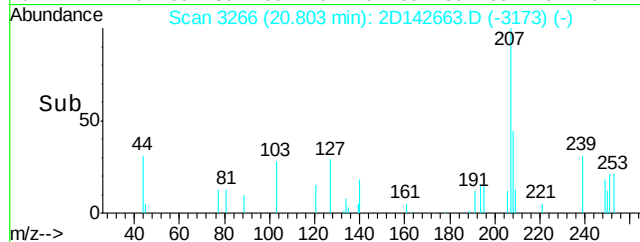
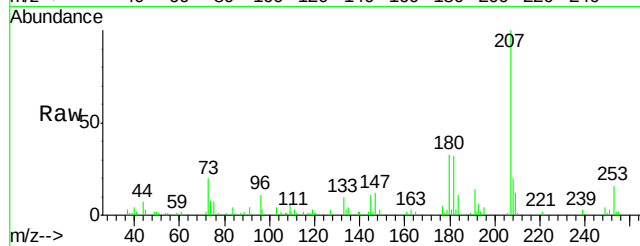
Ion 74.00 (73.70 to 74.70): 2D1





#140
 1,2,3-trichlorobenzene
 Concen: 0.59 ug/L
 RT: 20.80 min Scan# 3266
 Delta R.T. -0.01 min
 Lab File: 2D142663.D
 Acq: 13 Mar 2015 9:31 pm

Tgt Ion	Ratio	Resp	Lower	Upper
180	100	2850		
182	95.4	67.3	125.1	
145	30.8	19.5	36.3	



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142682.D
 Acq On : 14 Mar 2015 1:11 pm
 Operator : BridgetK
 Sample : jB89689-4
 Misc : ms81917,v2d5985,w,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 16 14:44:17 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.59	65	110090	500.00	ug/L	0.02
5) pentafluorobenzene	10.32	168	421589	50.00	ug/L	0.02
63) 1,4-difluorobenzene	11.48	114	406544	50.00	ug/L	0.02
94) chlorobenzene-d5	15.69	117	367867	50.00	ug/L	0.02
109) 1,4-dichlorobenzene-d4	18.44	152	248242	50.00	ug/L	0.02

System Monitoring Compounds

54) dibromofluoromethane (s)	10.34	113	136134	55.74	ug/L	0.02
Spiked Amount	50.000	Range 79 - 120	Recovery	=	111.48%	
55) 1,2-dichloroethane-d4 (s)	10.88	65	142325	53.66	ug/L	0.02
Spiked Amount	50.000	Range 72 - 123	Recovery	=	107.32%	
86) toluene-d8 (s)	13.67	98	468754	54.20	ug/L	0.02
Spiked Amount	50.000	Range 78 - 119	Recovery	=	108.40%	
111) 4-bromofluorobenzene (s)	17.16	95	187690	54.61	ug/L	0.02
Spiked Amount	50.000	Range 74 - 119	Recovery	=	109.22%	

Target Compounds

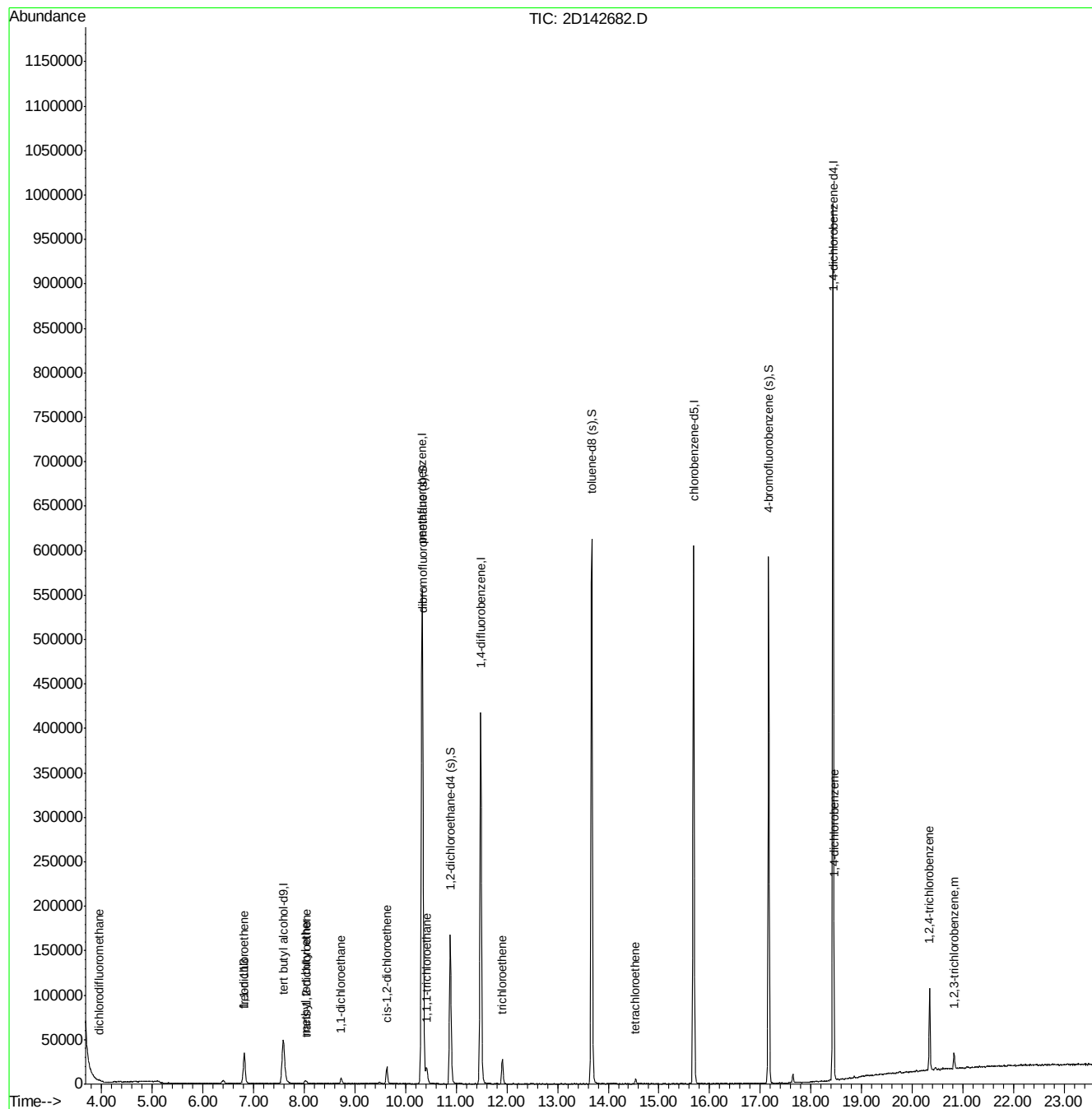
						Qvalue
12) dichlorodifluoromethane	3.95	85	1466	0.49	ug/L	90
27) 1,1-dichloroethene	6.81	96	14839	6.83	ug/L	98
37) methyl tert butyl ether	8.02	73	4667	0.67	ug/L	98
38) trans-1,2-dichloroethene	8.06	96	516	0.21	ug/L	80
41) 1,1-dichloroethane	8.73	63	8054	1.82	ug/L	94
48) cis-1,2-dichloroethene	9.63	96	10153	3.69	ug/L	97
56) freon 113	6.81	151	5214	2.98	ug/L	99
58) 1,1,1-trichloroethane	10.41	97	13263	3.65	ug/L	97
75) trichloroethene	11.91	130	11510	4.75	ug/L	96
96) tetrachloroethene	14.54	164	1574	0.73	ug/L	97
129) 1,4-dichlorobenzene	18.46	146	2144	0.32	ug/L	78
139) 1,2,4-trichlorobenzene	20.35	180	29711	5.49	ug/L	98
140) 1,2,3-trichlorobenzene	20.83	180	5618	1.17	ug/L	99

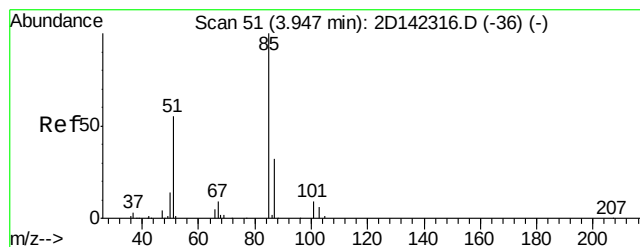
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\  
Data File  : 2D142682.D  
Acq On     : 14 Mar 2015    1:11 pm  
Operator   : BridgetK  
Sample     : jb89689-4  
Misc       : ms81917,v2d5985,w,,,,,1  
ALS Vial   : 8    Sample Multiplier: 1
```

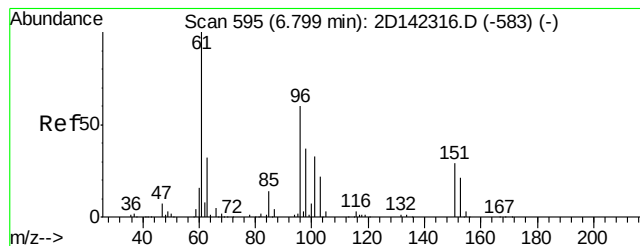
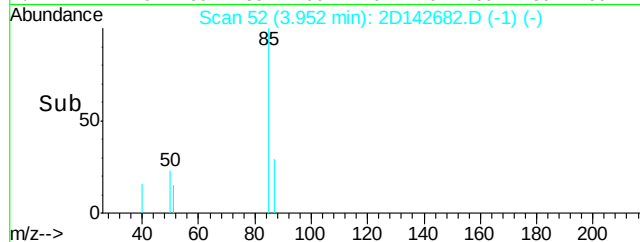
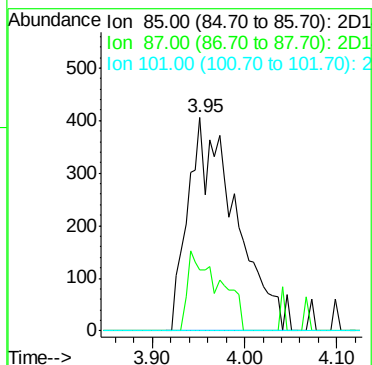
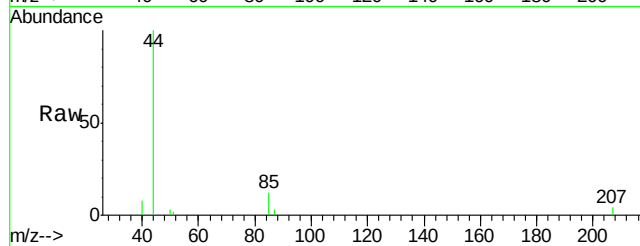
Quant Time: Mar 16 14:44:17 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration





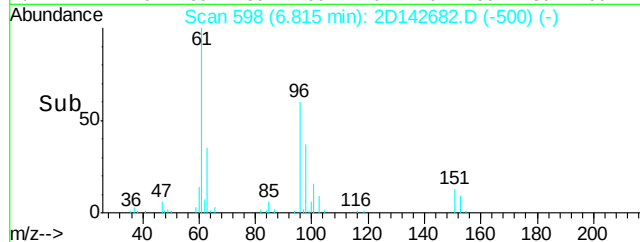
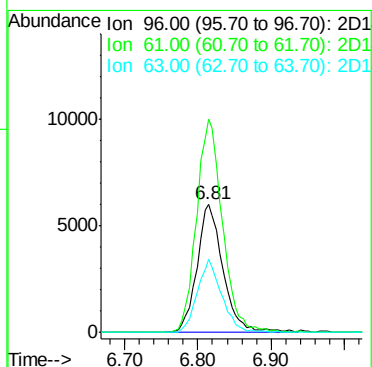
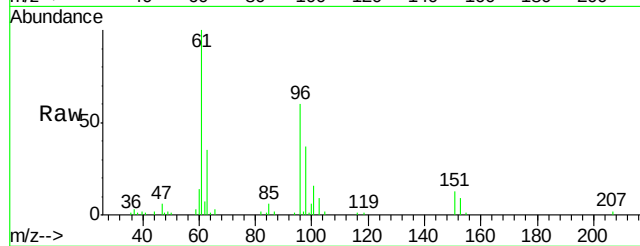
#12
dichlorodifluoromethane
Concen: 0.49 ug/L
RT: 3.95 min Scan# 52
Delta R.T. 0.01 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

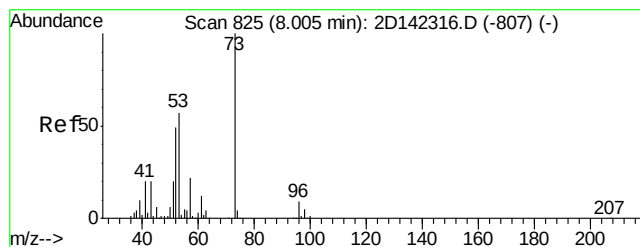
Tgt Ion	Ratio	Lower	Upper
85	100		
87	28.8	2.3	62.3
101	0.0	0.0	39.0



#27
1,1-dichloroethene
Concen: 6.83 ug/L
RT: 6.81 min Scan# 598
Delta R.T. 0.02 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

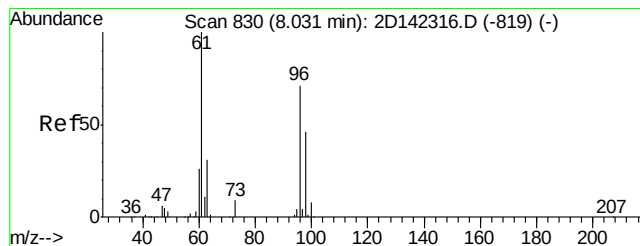
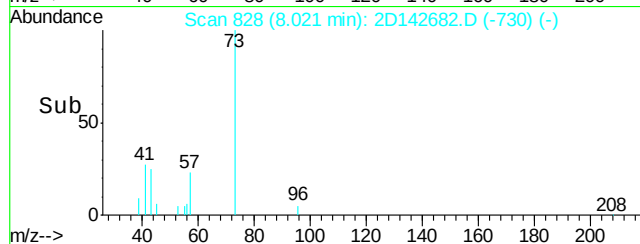
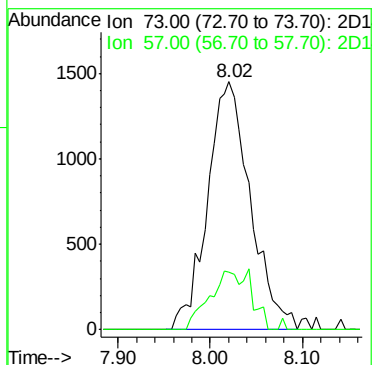
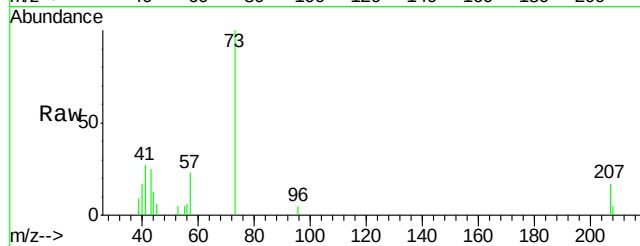
Tgt Ion	Ratio	Lower	Upper
96	100		
61	166.2	136.7	196.7
63	57.4	23.1	83.1





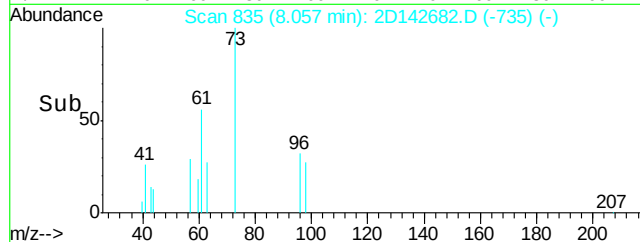
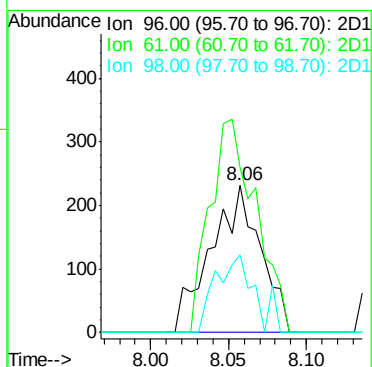
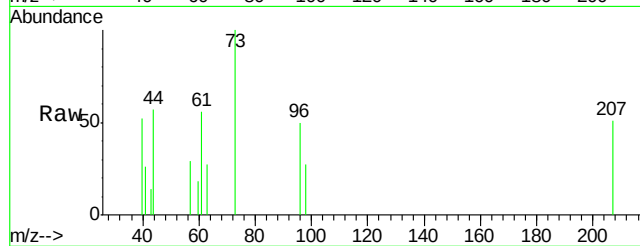
#37
methyl tert butyl ether
Concen: 0.67 ug/L
RT: 8.02 min Scan# 828
Delta R.T. 0.02 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

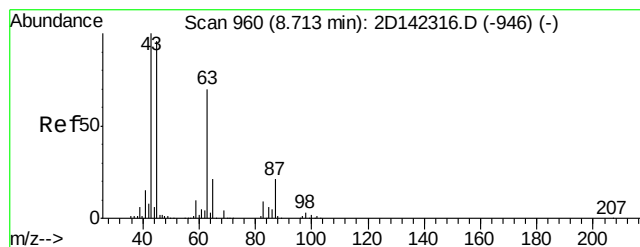
Tgt Ion: 73 Resp: 4667
Ion Ratio Lower Upper
73 100
57 22.9 0.0 52.1



#38
trans-1,2-dichloroethene
Concen: 0.21 ug/L
RT: 8.06 min Scan# 835
Delta R.T. 0.03 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

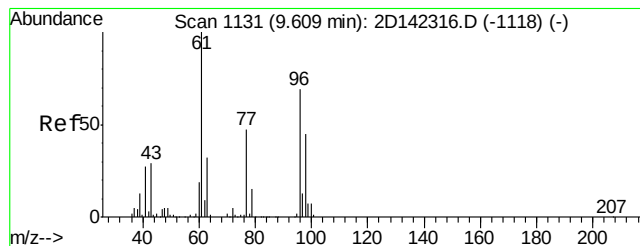
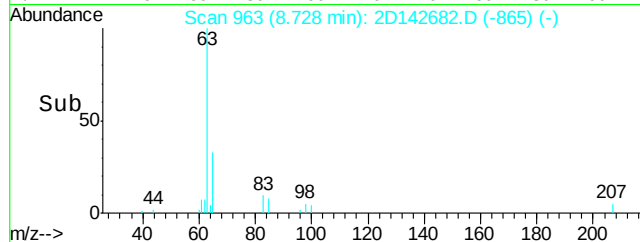
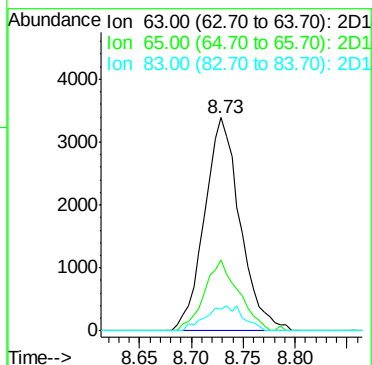
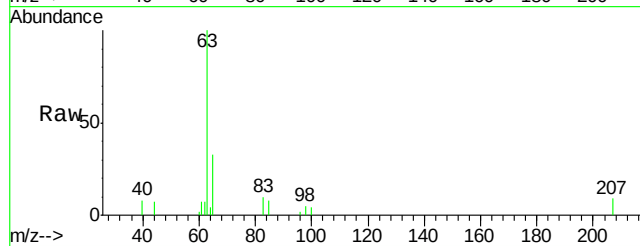
Tgt Ion: 96 Resp: 516
Ion Ratio Lower Upper
96 100
61 112.1 110.1 170.1
98 53.0 34.3 94.3





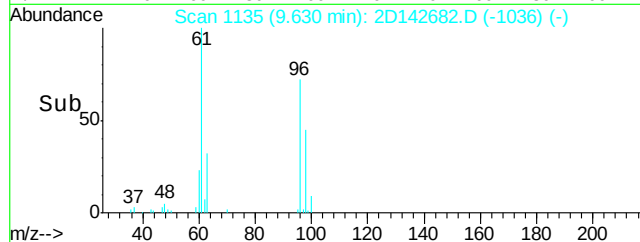
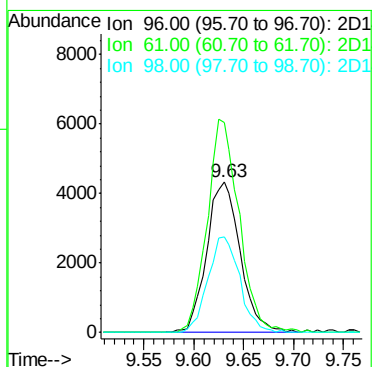
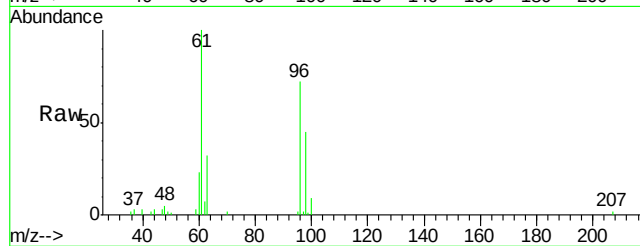
#41
1,1-dichloroethane
Concen: 1.82 ug/L
RT: 8.73 min Scan# 963
Delta R.T. 0.02 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

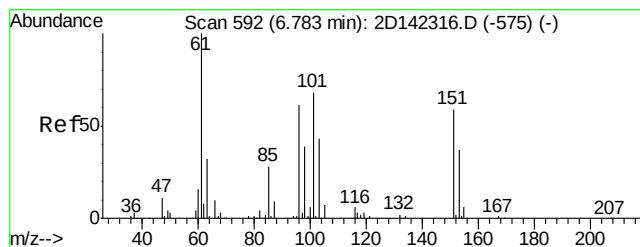
Tgt Ion:	63	Resp:	8054
Ion Ratio	Lower	Upper	
63	100		
65	33.3	0.4	60.4
83	10.1	0.0	43.0



#48
cis-1,2-dichloroethene
Concen: 3.69 ug/L
RT: 9.63 min Scan# 1135
Delta R.T. 0.02 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

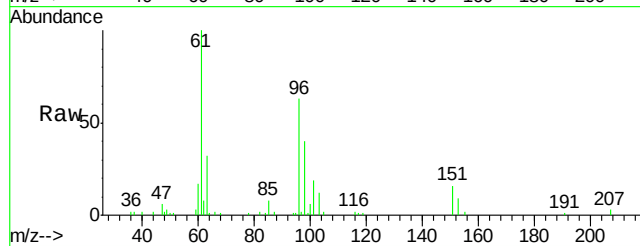
Tgt Ion:	96	Resp:	10153
Ion Ratio	Lower	Upper	
96	100		
61	139.5	115.0	175.0
98	63.4	34.5	94.5





#56
 freon 113
 Concen: 2.98 ug/L
 RT: 6.81 min Scan# 597
 Delta R.T. 0.03 min
 Lab File: 2D142682.D
 Acq: 14 Mar 2015 1:11 pm

Tgt Ion	Ratio	Lower	Upper
151	100		
101	116.9	86.6	146.6
103	74.8	42.8	102.8

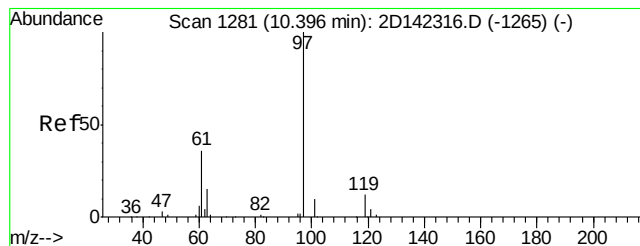
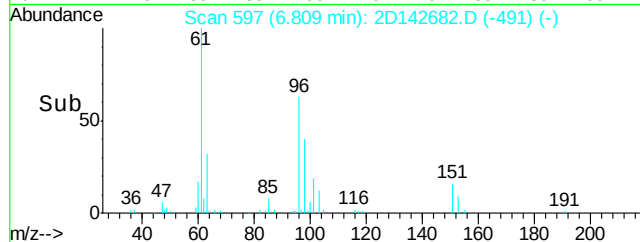
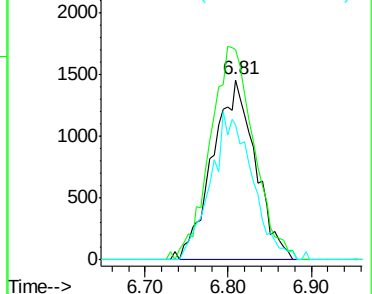


Abundance

Ion 151.00 (150.70 to 151.70): 2

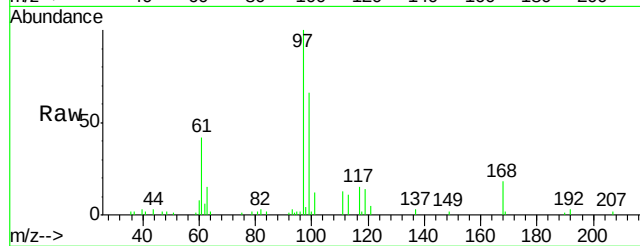
Ion 101.00 (100.70 to 101.70): 2

Ion 103.00 (102.70 to 103.70): 2



#58
 1,1,1-trichloroethane
 Concen: 3.65 ug/L
 RT: 10.41 min Scan# 1284
 Delta R.T. 0.02 min
 Lab File: 2D142682.D
 Acq: 14 Mar 2015 1:11 pm

Tgt Ion	Ratio	Lower	Upper
97	100		
99	62.7	34.8	94.8
61	41.9	10.6	70.6

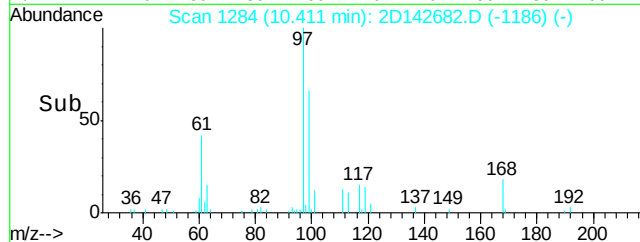
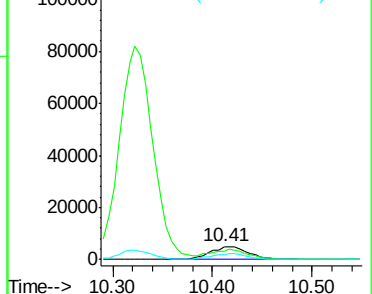


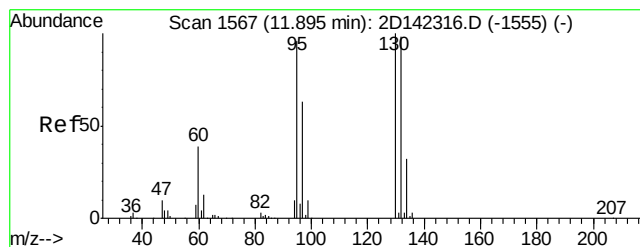
Abundance

Ion 97.00 (96.70 to 97.70): 2D1

Ion 99.00 (98.70 to 99.70): 2D1

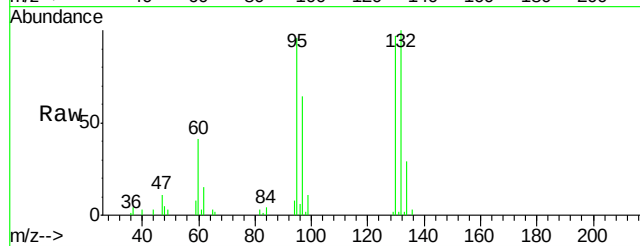
Ion 61.00 (60.70 to 61.70): 2D1





#75
trichloroethene
Concen: 4.75 ug/L
RT: 11.91 min Scan# 1570
Delta R.T. 0.02 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

Tgt Ion	Ratio	Lower	Upper
130	100		
132	103.3	68.3	128.3
95	99.3	66.0	126.0

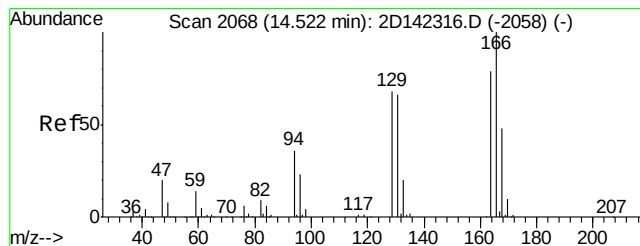
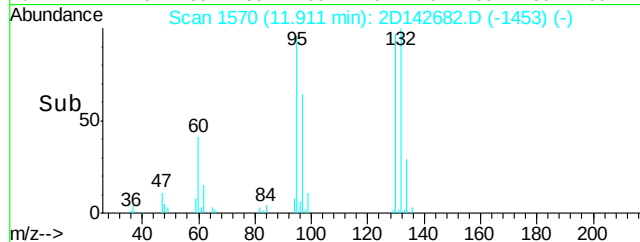
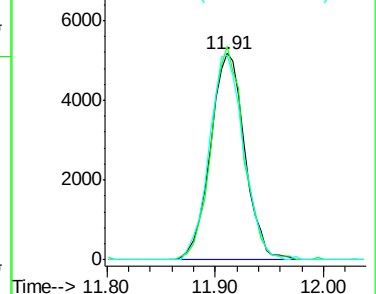


Abundance

Ion 130.00 (129.70 to 130.70): 2

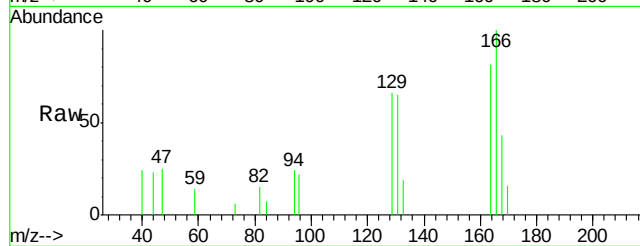
Ion 132.00 (131.70 to 132.70): 2

Ion 95.00 (94.70 to 95.70): 2D1



#96
tetrachloroethene
Concen: 0.73 ug/L
RT: 14.54 min Scan# 2071
Delta R.T. 0.02 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

Tgt Ion	Ratio	Lower	Upper
164	100		
129	81.9	55.7	115.7
131	80.5	52.9	112.9

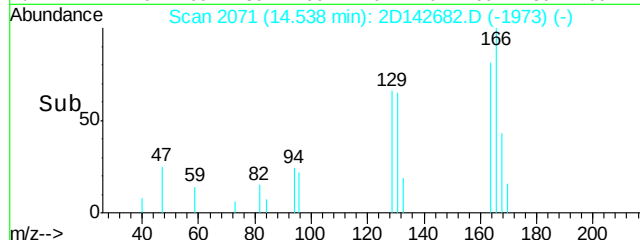
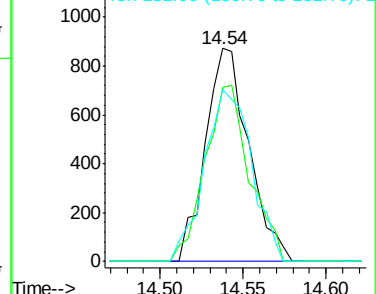


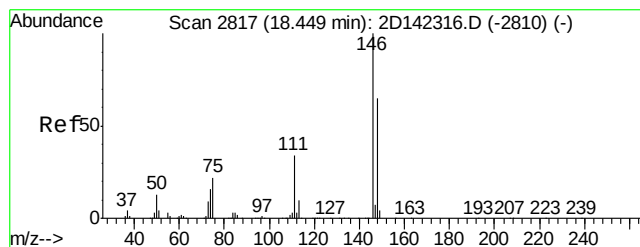
Abundance

Ion 164.00 (163.70 to 164.70): 2

Ion 129.00 (128.70 to 129.70): 2

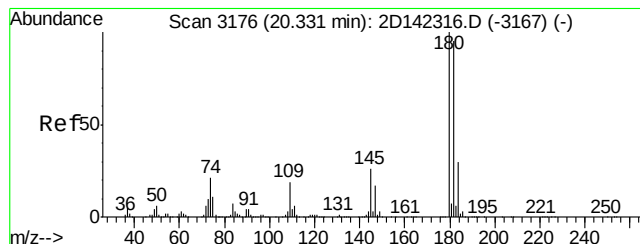
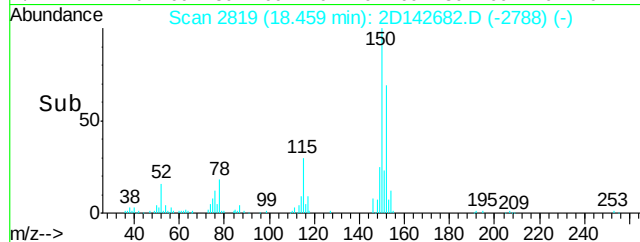
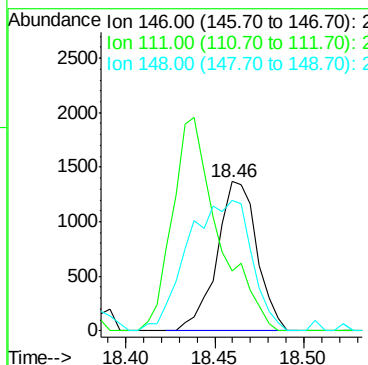
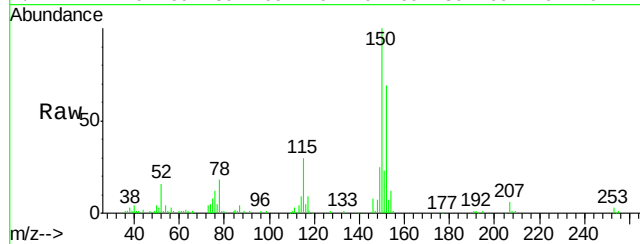
Ion 131.00 (130.70 to 131.70): 2





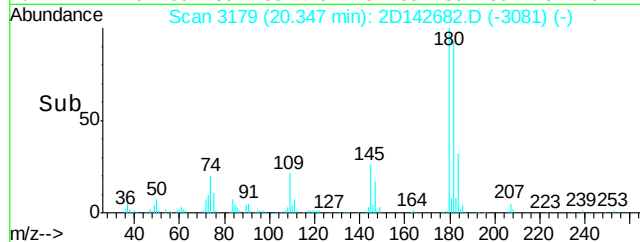
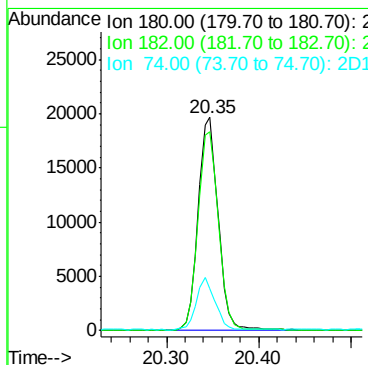
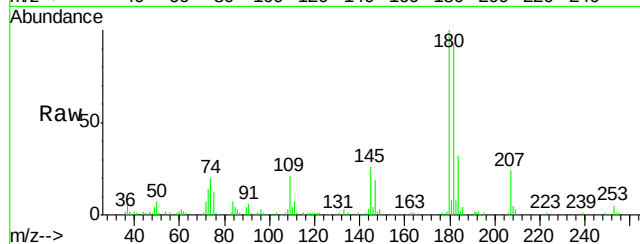
#129
1,4-dichlorobenzene
Concen: 0.32 ug/L
RT: 18.46 min Scan# 2819
Delta R.T. 0.01 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

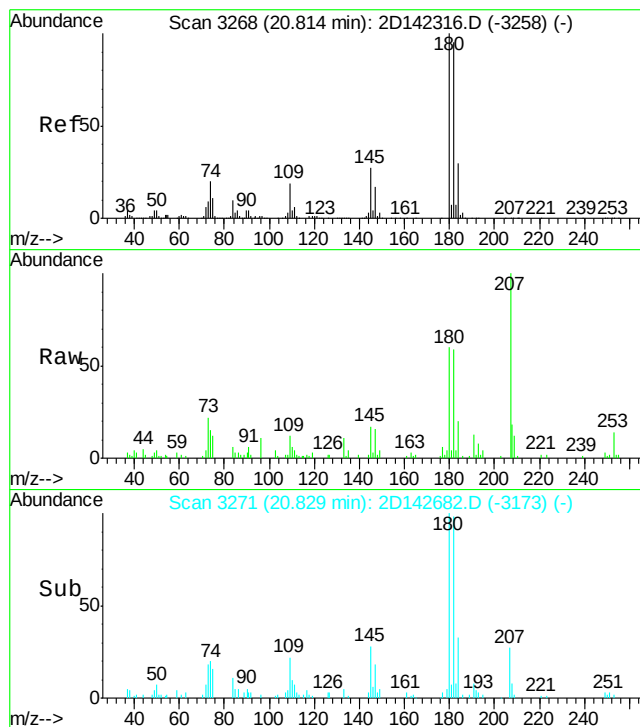
Tgt Ion:	146	Resp:	2144
Ion Ratio	Lower	Upper	
146	100		
111	40.3	4.5	64.5
148	87.7	35.0	95.0



#139
1,2,4-trichlorobenzene
Concen: 5.49 ug/L
RT: 20.35 min Scan# 3179
Delta R.T. 0.02 min
Lab File: 2D142682.D
Acq: 14 Mar 2015 1:11 pm

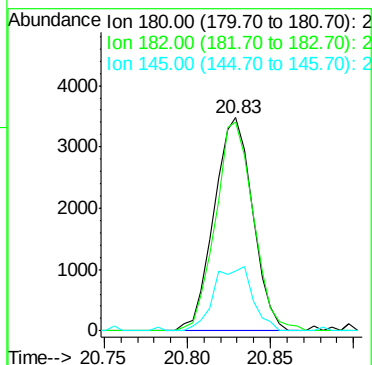
Tgt Ion:	180	Resp:	29711
Ion Ratio	Lower	Upper	
180	100		
182	93.2	65.4	125.4
74	19.4	0.0	50.6





#140
 1,2,3-trichlorobenzene
 Concen: 1.17 ug/L
 RT: 20.83 min Scan# 3271
 Delta R.T. 0.02 min
 Lab File: 2D142682.D
 Acq: 14 Mar 2015 1:11 pm

Tgt Ion:	180	Resp:	5618
Ion Ratio	Lower	Upper	
180	100		
182	96.7	67.3	125.1
145	30.0	19.5	36.3



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142669.D
 Acq On : 14 Mar 2015 12:33 am
 Operator : BridgetK
 Sample : jB89689-5
 Misc : ms81917,v2d5984,w,,,,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 16 12:52:59 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	108650	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	421565	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.45	114	408892	50.00	ug/L	-0.01
94) chlorobenzene-d5	15.66	117	389230	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.42	152	258066	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	133276	54.57	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 120	Recovery	=	109.14%	
55) 1,2-dichloroethane-d4 (s)	10.85	65	138898	52.37	ug/L	-0.01
Spiked Amount	50.000	Range 72 - 123	Recovery	=	104.74%	
86) toluene-d8 (s)	13.65	98	474912	54.60	ug/L	-0.01
Spiked Amount	50.000	Range 78 - 119	Recovery	=	109.20%	
111) 4-bromofluorobenzene (s)	17.14	95	198018	55.42	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	110.84%	

Target Compounds Qvalue

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

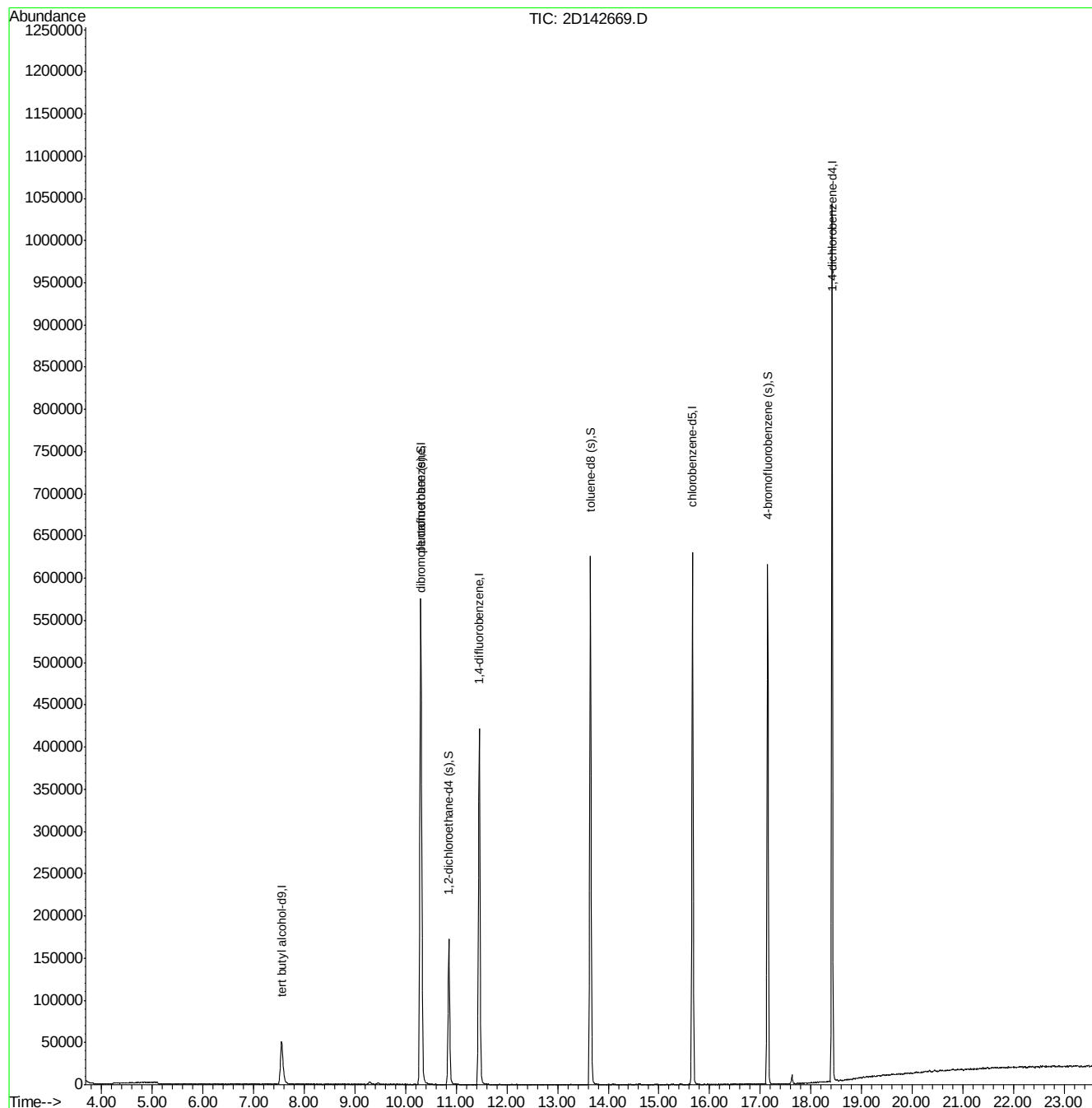
7.1.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142669.D
Acq On : 14 Mar 2015 12:33 am
Operator : BridgetK
Sample : jB89689-5
Misc : ms81917,v2d5984,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 16 12:52:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142670.D
 Acq On : 14 Mar 2015 1:03 am
 Operator : BridgetK
 Sample : jB89689-6
 Misc : ms81917,v2d5984,w,,,,,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 12:53:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	110531	500.00	ug/L	-0.01
5) pentafluorobenzene	10.30	168	414983	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.45	114	407225	50.00	ug/L	-0.01
94) chlorobenzene-d5	15.66	117	367248	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.42	152	247336	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.32	113	132107	54.95	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	109.90%	
55) 1,2-dichloroethane-d4 (s)	10.86	65	140114	53.67	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	107.34%	
86) toluene-d8 (s)	13.65	98	462943	53.44	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	106.88%	
111) 4-bromofluorobenzene (s)	17.15	95	186672	54.51	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	109.02%	

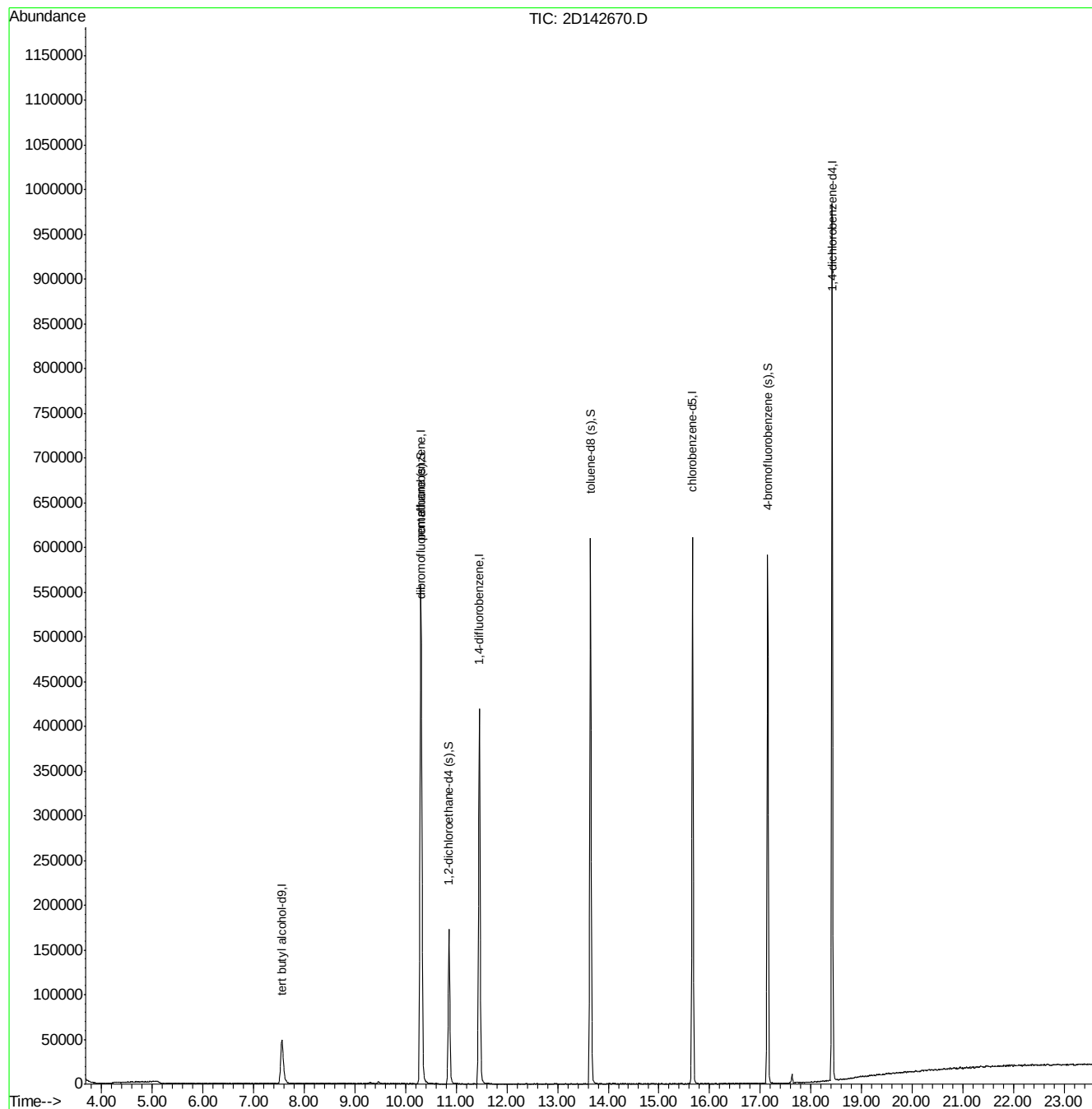
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142670.D
Acq On : 14 Mar 2015 1:03 am
Operator : BridgetK
Sample : jB89689-6
Misc : ms81917,v2d5984,w,,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 12:53:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142644.D
Acq On : 13 Mar 2015 11:30 am
Operator : BridgetK
Sample : mb
Misc : ms82001,v2d5984,w,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 13 15:01:22 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.54	65	110213	500.00	ug/L	-0.03
5) pentafluorobenzene	10.29	168	444038	50.00	ug/L	-0.02
63) 1,4-difluorobenzene	11.44	114	433133	50.00	ug/L	-0.02
94) chlorobenzene-d5	15.65	117	401583	50.00	ug/L	-0.02
109) 1,4-dichlorobenzene-d4	18.41	152	268057	50.00	ug/L	-0.02

System Monitoring Compounds

54) dibromofluoromethane (s)	10.30	113	138008	53.65	ug/L	-0.03
Spiked Amount	50.000	Range 79 - 120	Recovery	=	107.30%	
55) 1,2-dichloroethane-d4 (s)	10.84	65	143285	51.29	ug/L	-0.02
Spiked Amount	50.000	Range 72 - 123	Recovery	=	102.58%	
86) toluene-d8 (s)	13.64	98	496307	53.87	ug/L	-0.02
Spiked Amount	50.000	Range 78 - 119	Recovery	=	107.74%	
111) 4-bromofluorobenzene (s)	17.13	95	202691	54.61	ug/L	-0.02
Spiked Amount	50.000	Range 74 - 119	Recovery	=	109.22%	

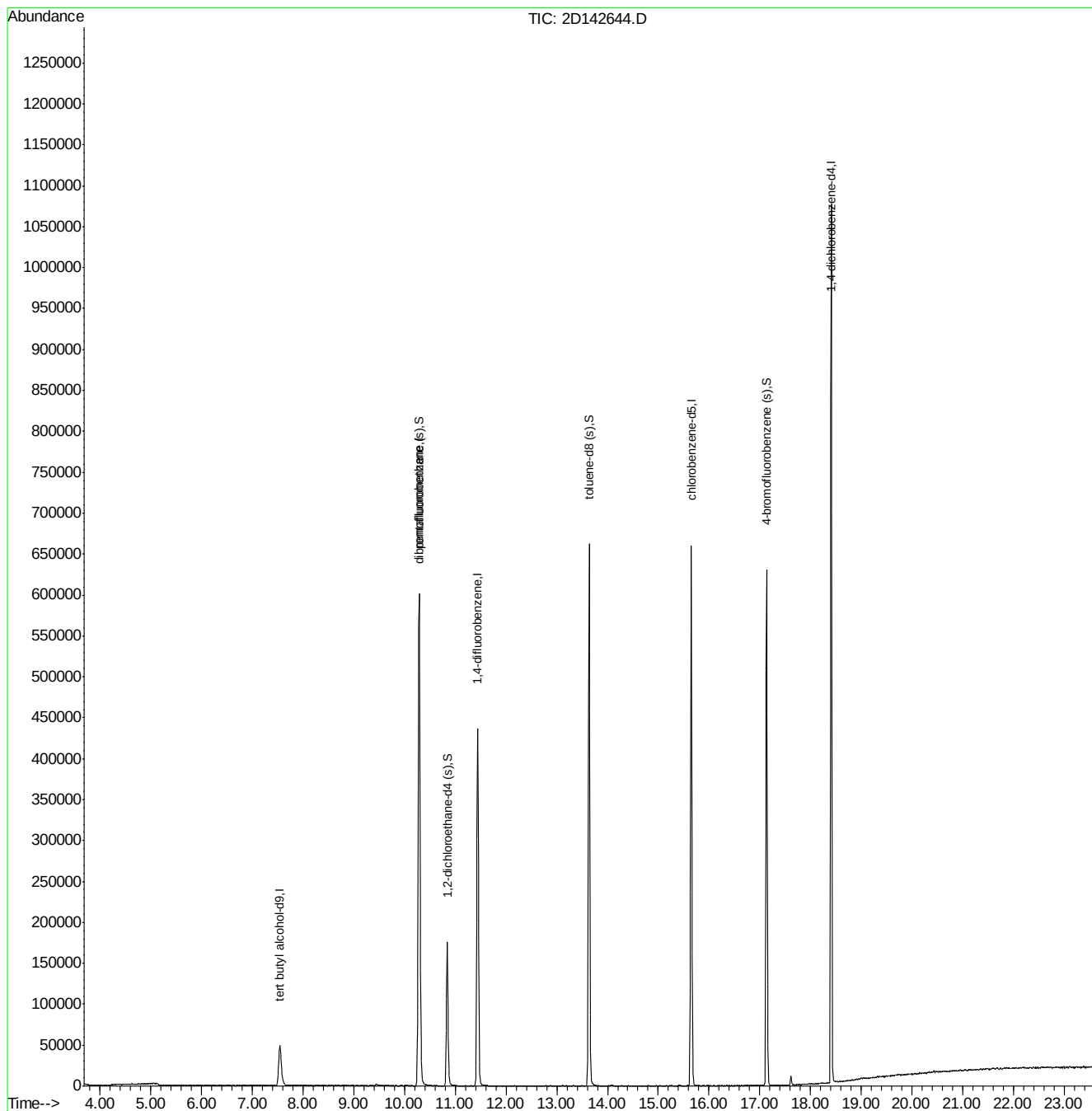
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142644.D
Acq On : 13 Mar 2015 11:30 am
Operator : BridgetK
Sample : mb
Misc : ms82001,v2d5984,w,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 13 15:01:22 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142667.D
 Acq On : 13 Mar 2015 11:32 pm
 Operator : BridgetK
 Sample : mb2
 Misc : ms82037,v2d5984,w,,,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 16 12:51:32 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	108166	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	414116	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.45	114	398828	50.00	ug/L	-0.01
94) chlorobenzene-d5	15.66	117	364352	50.00	ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.42	152	245185	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	131502	54.81	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 120	Recovery	=	109.62%	
55) 1,2-dichloroethane-d4 (s)	10.85	65	137914	52.93	ug/L	-0.01
Spiked Amount	50.000	Range 72 - 123	Recovery	=	105.86%	
86) toluene-d8 (s)	13.65	98	458462	54.04	ug/L	-0.01
Spiked Amount	50.000	Range 78 - 119	Recovery	=	108.08%	
111) 4-bromofluorobenzene (s)	17.14	95	184592	54.37	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	108.74%	

Target Compounds	Qvalue

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

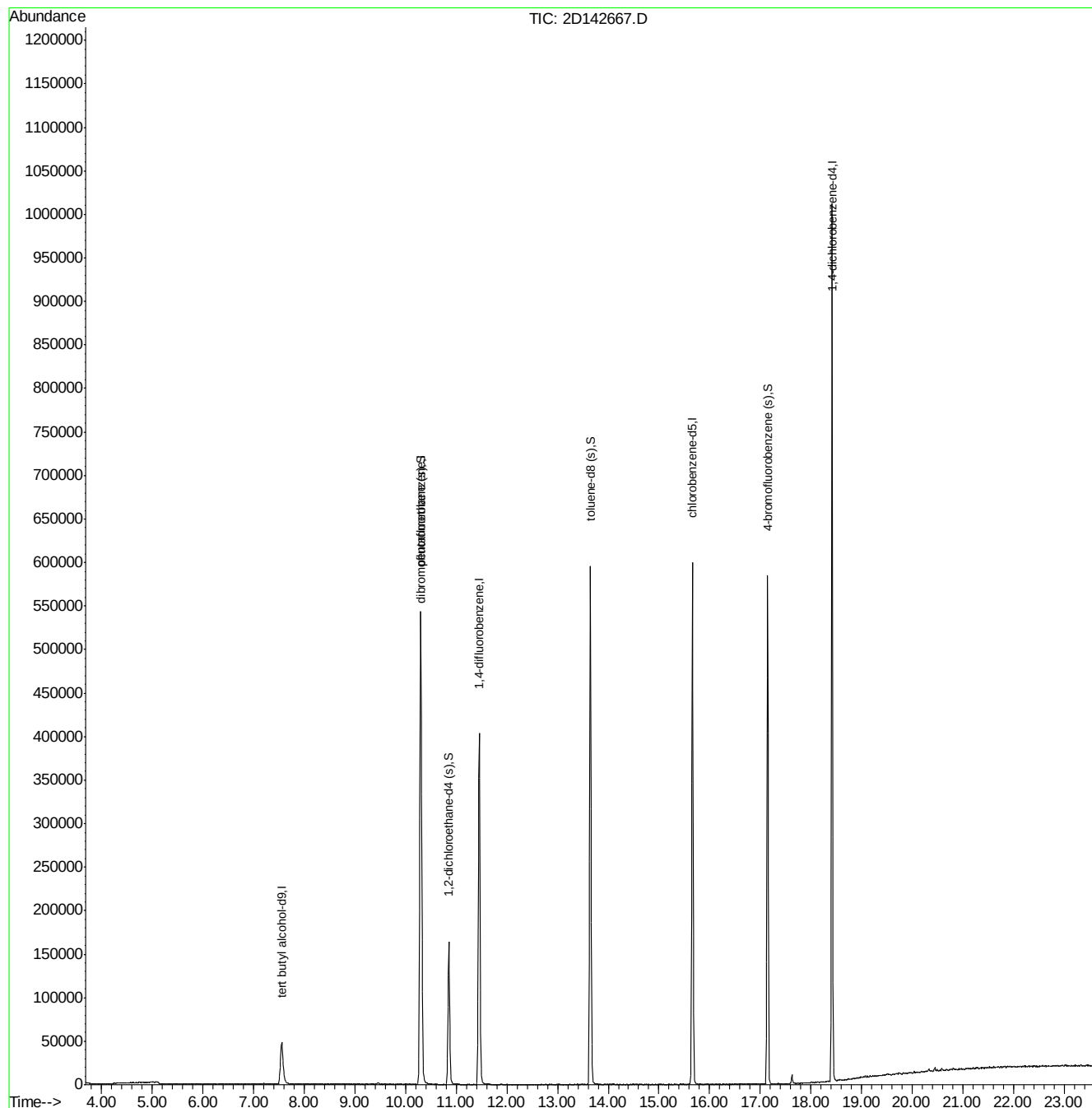
7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142667.D
Acq On : 13 Mar 2015 11:32 pm
Operator : BridgetK
Sample : mb2
Misc : ms82037,v2d5984,w,,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 16 12:51:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142679.D
 Acq On : 14 Mar 2015 11:38 am
 Operator : BridgetK
 Sample : mb
 Misc : ms82037,v2d5985,w,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 14:40:14 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.58	65	112816	500.00	ug/L	0.01
5) pentafluorobenzene	10.32	168	431015	50.00	ug/L	0.02
63) 1,4-difluorobenzene	11.48	114	417513	50.00	ug/L	0.01
94) chlorobenzene-d5	15.68	117	377826	50.00	ug/L	0.01
109) 1,4-dichlorobenzene-d4	18.43	152	253618	50.00	ug/L	0.01

System Monitoring Compounds

54) dibromofluoromethane (s)	10.34	113	140141	56.12	ug/L	0.02
Spiked Amount	50.000	Range	79 - 120	Recovery	=	112.24%
55) 1,2-dichloroethane-d4 (s)	10.88	65	145704	53.73	ug/L	0.02
Spiked Amount	50.000	Range	72 - 123	Recovery	=	107.46%
86) toluene-d8 (s)	13.67	98	478131	53.84	ug/L	0.01
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.68%
111) 4-bromofluorobenzene (s)	17.16	95	190635	54.29	ug/L	0.01
Spiked Amount	50.000	Range	74 - 119	Recovery	=	108.58%

Target Compounds	Qvalue

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

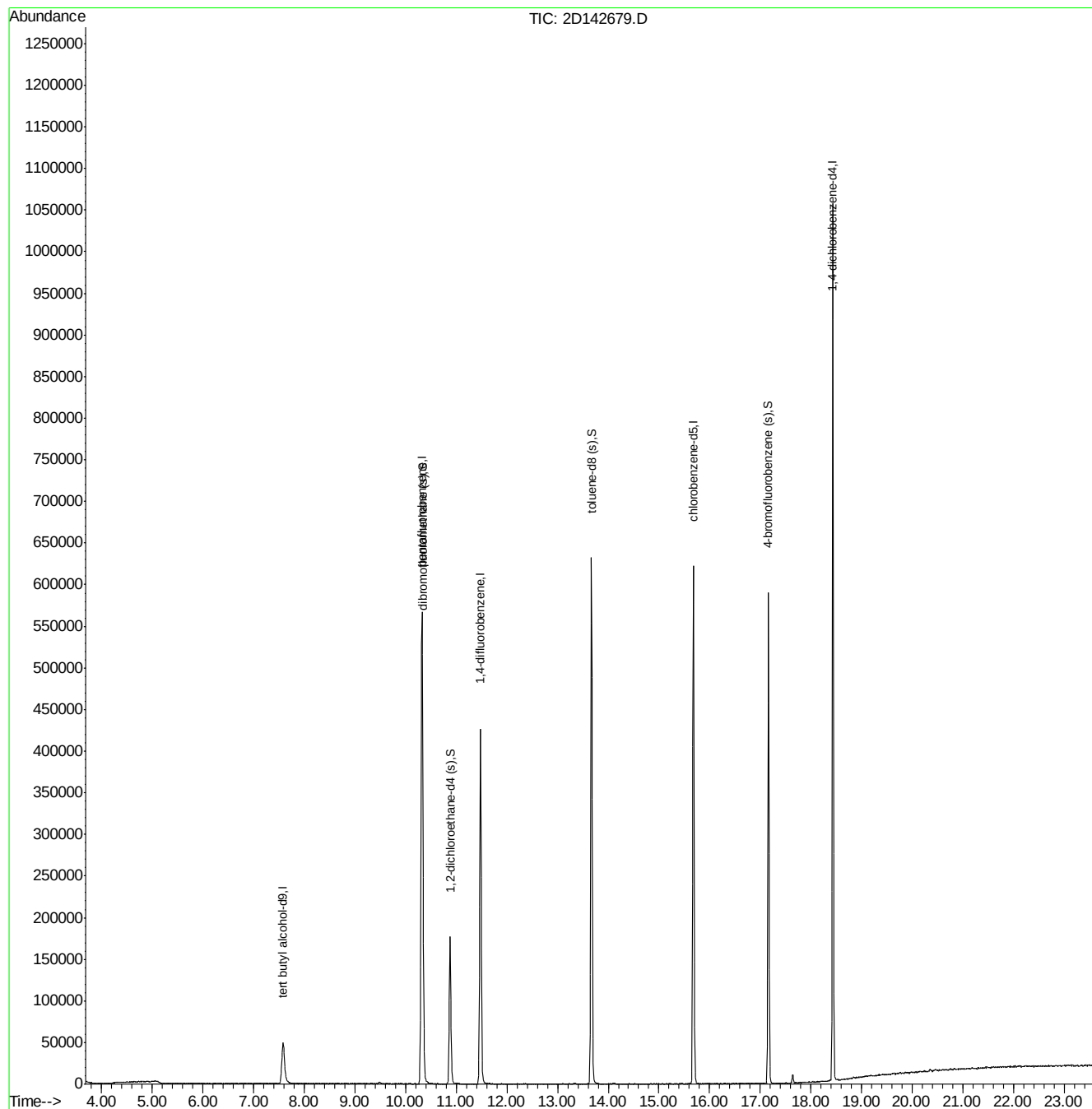
7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142679.D
Acq On : 14 Mar 2015 11:38 am
Operator : BridgetK
Sample : mb
Misc : ms82037,v2d5985,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 14:40:14 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142645.D
 Acq On : 13 Mar 2015 12:09 pm
 Operator : BridgetK
 Sample : bs
 Misc : ms82001,v2d5984,w,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 13 15:02:07 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.54	65	107431	500.00	ug/L	-0.03
5) pentafluorobenzene	10.28	168	418602	50.00	ug/L	-0.03
63) 1,4-difluorobenzene	11.44	114	408235	50.00	ug/L	-0.03
94) chlorobenzene-d5	15.65	117	363499	50.00	ug/L	-0.02
109) 1,4-dichlorobenzene-d4	18.41	152	234994	50.00	ug/L	-0.02

System Monitoring Compounds

54) dibromofluoromethane (s)	10.30	113	132733	54.73	ug/L	-0.03
Spiked Amount	50.000	Range	79 - 120	Recovery	=	109.46%
55) 1,2-dichloroethane-d4 (s)	10.84	65	134183	50.95	ug/L	-0.03
Spiked Amount	50.000	Range	72 - 123	Recovery	=	101.90%
86) toluene-d8 (s)	13.64	98	462089	53.21	ug/L	-0.02
Spiked Amount	50.000	Range	78 - 119	Recovery	=	106.42%
111) 4-bromofluorobenzene (s)	17.13	95	175643	53.98	ug/L	-0.01
Spiked Amount	50.000	Range	74 - 119	Recovery	=	107.96%

Target Compounds

Qvalue

2) tertiary butyl alcohol	7.67	59	59978	272.74	ug/L	96
3) ethyl alcohol	6.33	45	76941	3306.48	ug/L #	42
4) 1,4-dioxane	12.38	88	30985	1594.85	ug/L #	95
11) chlorodifluoromethane	3.94	51	96756	37.83	ug/L	98
12) dichlorodifluoromethane	3.92	85	125514	42.39	ug/L	99
15) chloromethane	4.27	50	164550	42.47	ug/L	99
16) vinyl chloride	4.53	62	155458	45.19	ug/L	99
18) bromomethane	5.19	94	112239	45.07	ug/L	98
19) chloroethane	5.38	64	85299	51.63	ug/L	98
20) trichlorofluoromethane	5.89	101	174685	49.16	ug/L	98
22) ethyl ether	6.32	74	65648	55.21	ug/L	95
23) acrolein	6.59	56	233838	462.42	ug/L	100
27) 1,1-dichloroethene	6.77	96	107148	49.69	ug/L	96
28) 2-chloropropane	6.53	43	224308	57.06	ug/L	100
29) acetone	6.84	58	9210	50.51	ug/L	90
30) allyl chloride	7.37	76	66564	56.50	ug/L	96
31) acetonitrile	7.33	40	106222	560.18	ug/L	92
32) iodomethane	7.06	142	226309	51.08	ug/L	97
33) carbon disulfide	7.19	76	387516	50.56	ug/L	100
34) methylene chloride	7.57	84	130943	49.81	ug/L	95
35) methyl acetate	7.35	74	16766	46.31	ug/L	94
36) 1-chloropropane	7.62	63	8803	46.00	ug/L	92
37) methyl tert butyl ether	7.97	73	710211	102.55	ug/L	91
38) trans-1,2-dichloroethene	8.00	96	117276	48.94	ug/L	96
39) di-isopropyl ether	8.70	45	429544	54.00	ug/L	91
40) 2-butanone	9.57	72	11710	51.44	ug/L	99
41) 1,1-dichloroethane	8.68	63	223415	50.92	ug/L	99
42) chloroprene	8.82	53	178057	55.31	ug/L	98
43) acrylonitrile	7.96	53	213871	267.52	ug/L	99
44) vinyl acetate	8.69	86	20531	62.56	ug/L	63
45) ethyl tert-butyl ether	9.27	59	406927	54.30	ug/L	99
46) ethyl acetate	9.60	45	13767	45.80	ug/L #	1
47) 2,2-dichloropropane	9.60	77	194893	53.10	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142645.D
 Acq On : 13 Mar 2015 12:09 pm
 Operator : BridgetK
 Sample : bs
 Misc : ms82001,v2d5984,w,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 13 15:02:07 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.58	96	137188	50.16	ug/L	97
49) propionitrile	9.69	54	168084	524.13	ug/L	93
50) tert-Butyl Formate	10.12	59	126816	58.89	ug/L	98
51) bromochloromethane	9.97	128	69169	50.92	ug/L	92
52) tetrahydrofuran	10.02	42	31250	45.19	ug/L	97
53) chloroform	10.04	83	221945	51.08	ug/L	99
56) freon 113	6.76	151	100860	58.04	ug/L	98
57) methacrylonitrile	9.92	67	44995	50.38	ug/L	100
58) 1,1,1-trichloroethane	10.37	97	188556	52.25	ug/L	100
59) cyclohexane	10.46	84	174688	53.59	ug/L	99
60) isobutyl alcohol	10.60	74	14594	537.76	ug/L #	59
62) iso-octane	10.98	57	432388	53.60	ug/L	100
65) epichlorohydrin	13.11	57	59571	297.06	ug/L	96
66) n-butyl alcohol	11.61	56	153801	2977.48	ug/L	99
67) carbon tetrachloride	10.62	117	170599	56.05	ug/L	99
68) 1,1-dichloropropene	10.60	75	162184	54.26	ug/L	99
69) hexane	8.39	86	16088	47.64	ug/L #	94
70) benzene	10.94	78	483517	52.04	ug/L	100
71) tert-amyl methyl ether	11.01	87	84379	56.31	ug/L	97
72) heptane	11.21	57	82559	56.81	ug/L	99
73) isopropyl acetate	10.90	43	198377	50.23	ug/L	99
74) 1,2-dichloroethane	10.95	62	154402	52.31	ug/L	99
75) trichloroethene	11.87	130	127894	52.57	ug/L	99
78) 2-nitropropane	12.97	46	2202	51.77	ug/L #	1
79) 2-chloroethyl vinyl ether	12.98	63	374789	284.11	ug/L	98
80) methyl methacrylate	12.28	69	70476	49.54	ug/L	98
81) 1,2-dichloropropane	12.23	63	126716	51.75	ug/L	99
82) dibromomethane	12.41	93	76618	50.18	ug/L	99
83) methylcyclohexane	12.17	83	211209	62.32	ug/L	97
84) bromodichloromethane	12.60	83	170054	51.65	ug/L	98
85) cis-1,3-dichloropropene	13.24	75	201809	50.15	ug/L	100
87) 4-methyl-2-pentanone	13.42	58	42570	50.98	ug/L	96
88) toluene	13.73	92	291299	50.09	ug/L	100
89) 3-methyl-1-butanol	13.43	55	99084	1143.70	ug/L	98
90) trans-1,3-dichloropropene	14.00	75	174671	48.00	ug/L	99
91) ethyl methacrylate	14.05	69	137738	47.98	ug/L	99
92) 1,1,2-trichloroethane	14.29	83	89588	48.24	ug/L	99
93) 2-hexanone	14.57	58	36147	47.11	ug/L	92
95) 3,3-Dimethyl-1-butanol	14.79	57	115057	614.65	ug/L	99
96) tetrachloroethene	14.50	164	111888	52.48	ug/L	98
97) 1,3-dichloropropane	14.53	76	170524	51.06	ug/L	96
98) butyl acetate	14.69	56	68759	51.63	ug/L	99
99) dibromochloromethane	14.86	129	137484	52.80	ug/L	100
100) 1,2-dibromoethane	15.06	107	110387	51.17	ug/L	96
101) n-butyl ether	15.67	57	521209	49.55	ug/L	99
102) chlorobenzene	15.69	112	327573	50.95	ug/L	98
103) 1,1,1,2-tetrachloroethane	15.78	131	141357	54.26	ug/L	98
104) ethylbenzene	15.79	91	562858	51.88	ug/L	99
105) m,p-xylene	15.94	106	434408	104.82	ug/L	95
106) o-xylene	16.48	106	231291	53.94	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142645.D
 Acq On : 13 Mar 2015 12:09 pm
 Operator : BridgetK
 Sample : bs
 Misc : ms82001,v2d5984,w,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 13 15:02:07 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

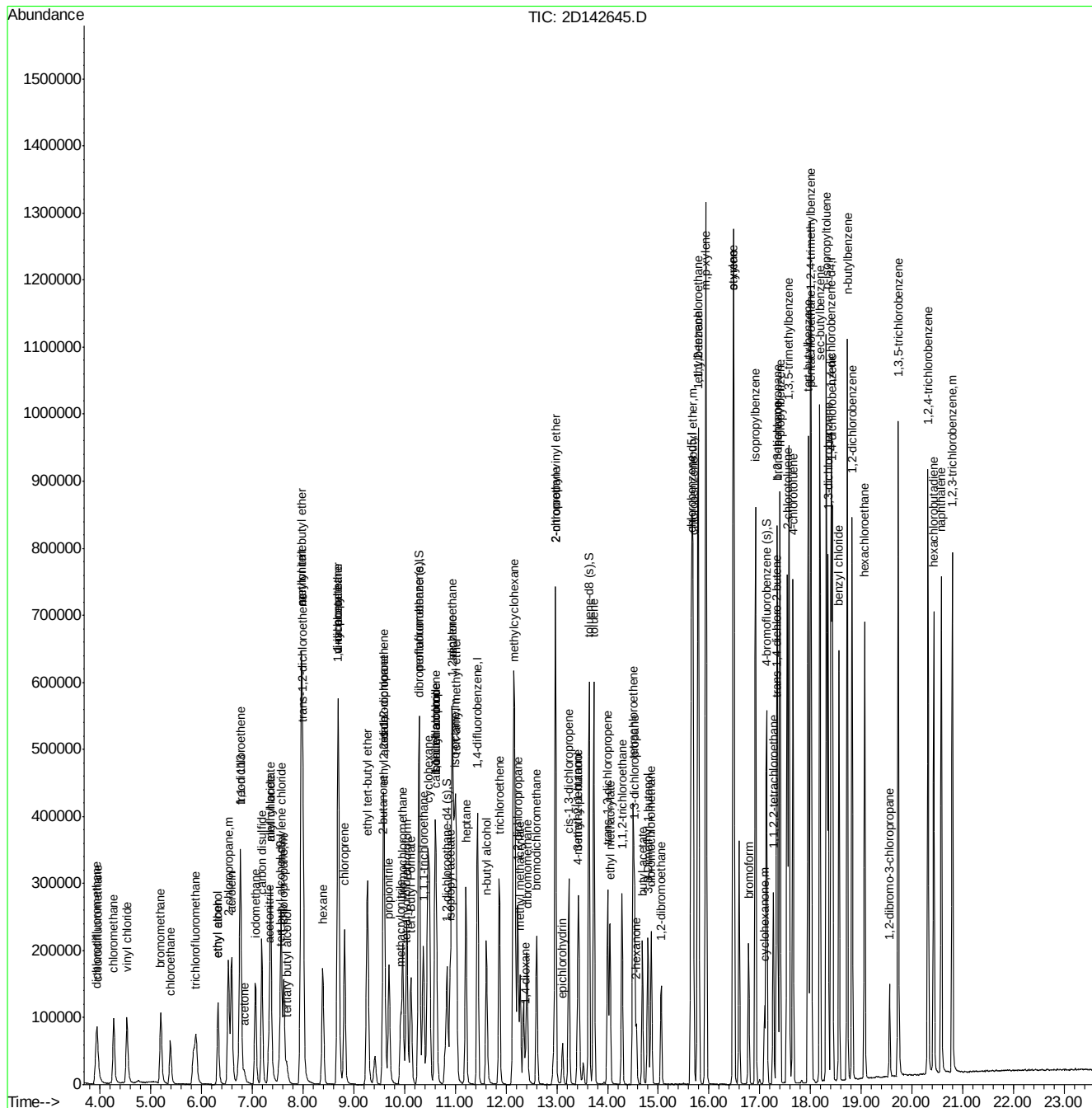
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) styrene	16.49	104	372776	51.76	ug/L	97
108) bromoform	16.78	173	102915	51.81	ug/L	99
110) isopropylbenzene	16.92	105	605802	54.18	ug/L	100
112) cyclohexanone	17.10	55	50579	180.46	ug/L	98
113) bromobenzene	17.35	156	169219	51.88	ug/L	99
114) 1,1,2,2-tetrachloroethane	17.27	83	150302	48.60	ug/L	98
115) trans-1,4-dichloro-2-buten	17.33	53	36048	46.60	ug/L	92
116) 1,2,3-trichloropropane	17.35	110	37582	51.54	ug/L	97
117) n-propylbenzene	17.40	91	698867	54.42	ug/L	100
119) 2-chlorotoluene	17.54	126	149377	51.96	ug/L	97
120) 4-chlorotoluene	17.66	91	418575	49.94	ug/L	98
121) 1,3,5-trimethylbenzene	17.58	105	519928	53.14	ug/L	99
122) tert-butylbenzene	17.96	119	458584	54.69	ug/L	99
123) pentachloroethane	18.02	167	122689	55.04	ug/L	98
124) 1,2,4-trimethylbenzene	18.00	105	539566	55.16	ug/L	98
126) sec-butylbenzene	18.19	105	691835	53.58	ug/L	99
127) 1,3-dichlorobenzene	18.35	146	317284	50.38	ug/L	99
128) p-isopropyltoluene	18.31	119	602716	54.60	ug/L	100
129) 1,4-dichlorobenzene	18.43	146	322161	51.40	ug/L	99
130) 1,2-dichlorobenzene	18.82	146	330299	51.36	ug/L	99
131) benzyl chloride	18.56	91	429437	72.82	ug/L	100
133) n-butylbenzene	18.73	92	309091	54.32	ug/L	98
135) 1,2-dibromo-3-chloropropan	19.56	157	38726	53.13	ug/L	98
136) 1,3,5-trichlorobenzene	19.73	180	310972	53.73	ug/L	100
137) hexachlorobutadiene	20.43	225	157937	54.91	ug/L	100
138) naphthalene	20.58	128	574542	57.61	ug/L	100
139) 1,2,4-trichlorobenzene	20.32	180	296375	57.83	ug/L	99
140) 1,2,3-trichlorobenzene	20.80	180	263172	57.75	ug/L	99
141) hexachloroethane	19.07	201	127212	57.94	ug/L	99

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

Quantitation Report (QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\  
Data File  : 2D142645.D  
Acq On     : 13 Mar 2015  12:09 pm  
Operator   : BridgetK  
Sample     : bs  
Misc       : ms82001,v2d5984,w,,,,,1  
ALS Vial   : 5      Sample Multiplier: 1
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Quant Time: Mar 13 15:02:07 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142680.D
 Acq On : 14 Mar 2015 12:09 pm
 Operator : BridgetK
 Sample : bs
 Misc : ms82037,v2d5985,w,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 14:40:56 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.59	65	105687	500.00	ug/L	0.02
5) pentafluorobenzene	10.32	168	395845	50.00	ug/L	0.02
63) 1,4-difluorobenzene	11.48	114	391601	50.00	ug/L	0.02
94) chlorobenzene-d5	15.68	117	350527	50.00	ug/L	0.01
109) 1,4-dichlorobenzene-d4	18.43	152	228263	50.00	ug/L	0.01

System Monitoring Compounds

54) dibromofluoromethane (s)	10.34	113	130506	56.91	ug/L	0.02
Spiked Amount	50.000	Range	79 - 120	Recovery	=	113.82%
55) 1,2-dichloroethane-d4 (s)	10.88	65	134821	54.13	ug/L	0.02
Spiked Amount	50.000	Range	72 - 123	Recovery	=	108.26%
86) toluene-d8 (s)	13.67	98	446333	53.58	ug/L	0.02
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.16%
111) 4-bromofluorobenzene (s)	17.16	95	169614	53.67	ug/L	0.01
Spiked Amount	50.000	Range	74 - 119	Recovery	=	107.34%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.72	59	57164	264.24	ug/L	98
4) 1,4-dioxane	12.42	88	26331	1377.67	ug/L #	98
11) chlorodifluoromethane	3.98	51	85236	35.24	ug/L	93
12) dichlorodifluoromethane	3.96	85	175432	62.66	ug/L	100
15) chloromethane	4.30	50	188512	51.45	ug/L	99
16) vinyl chloride	4.57	62	181142	55.68	ug/L	97
18) bromomethane	5.24	94	117169	49.76	ug/L	99
19) chloroethane	5.43	64	84665	54.19	ug/L	99
20) trichlorofluoromethane	5.93	101	205370	61.12	ug/L	97
22) ethyl ether	6.37	74	63159	56.17	ug/L	98
23) acrolein	6.64	56	250086	522.98	ug/L	100
27) 1,1-dichloroethene	6.81	96	115777	56.77	ug/L	99
28) 2-chloropropane	6.57	43	222200	59.78	ug/L	99
29) acetone	6.88	58	9019	52.31	ug/L	90
30) allyl chloride	7.41	76	62381	55.99	ug/L	96
31) acetonitrile	7.40	40	96388	537.54	ug/L #	1
32) iodomethane	7.10	142	239375	57.14	ug/L	97
33) carbon disulfide	7.23	76	430258	59.36	ug/L	100
34) methylene chloride	7.61	84	133255	53.61	ug/L	98
35) methyl acetate	7.41	74	15857	46.32	ug/L	97
36) 1-chloropropane	7.67	63	10305	56.94	ug/L	93
37) methyl tert butyl ether	8.02	73	677823	103.50	ug/L	93
38) trans-1,2-dichloroethene	8.05	96	124735	55.04	ug/L	97
39) di-isopropyl ether	8.74	45	398505	52.97	ug/L	90
40) 2-butanone	9.61	72	11596	53.87	ug/L	99
41) 1,1-dichloroethane	8.73	63	231022	55.68	ug/L	99
42) chloroprene	8.86	53	154587	50.78	ug/L	98
43) acrylonitrile	8.01	53	208643	275.99	ug/L	98
44) vinyl acetate	8.74	86	17984	57.95	ug/L	73
45) ethyl tert-butyl ether	9.31	59	373154	52.66	ug/L	99
46) ethyl acetate	9.65	45	13093	46.06	ug/L #	1
47) 2,2-dichloropropane	9.64	77	192262	55.39	ug/L	98
48) cis-1,2-dichloroethene	9.63	96	139772	54.04	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142680.D
 Acq On : 14 Mar 2015 12:09 pm
 Operator : BridgetK
 Sample : bs
 Misc : ms82037,v2d5985,w,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 14:40:56 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.74	54	159020	524.37	ug/L	97
50) tert-Butyl Formate	10.17	59	113163	55.57	ug/L	99
51) bromochloromethane	10.01	128	70090	54.57	ug/L	99
52) tetrahydrofuran	10.07	42	31666	48.43	ug/L	98
53) chloroform	10.09	83	223304	54.35	ug/L	100
56) freon 113	6.80	151	82550	50.24	ug/L	99
57) methacrylonitrile	9.97	67	43756	51.81	ug/L	98
58) 1,1,1-trichloroethane	10.41	97	197884	57.99	ug/L	99
59) cyclohexane	10.50	84	187672	60.88	ug/L	99
60) isobutyl alcohol	10.65	74	14323	558.11	ug/L #	81
62) iso-octane	11.02	57	335843	44.02	ug/L	98
65) epichlorohydrin	13.15	57	48542	252.34	ug/L	97
66) n-butyl alcohol	11.65	56	143382	2893.68	ug/L	99
67) carbon tetrachloride	10.66	117	177367	60.75	ug/L	98
68) 1,1-dichloropropene	10.64	75	165805	57.83	ug/L	98
69) hexane	8.43	86	8652	26.71	ug/L #	92
70) benzene	10.98	78	488726	54.84	ug/L	99
71) tert-amyl methyl ether	11.06	87	77817	54.14	ug/L	96
72) heptane	11.25	57	61447	44.08	ug/L	98
73) isopropyl acetate	10.94	43	190429	50.27	ug/L	99
74) 1,2-dichloroethane	10.99	62	153722	54.29	ug/L	99
75) trichloroethene	11.91	130	129172	55.35	ug/L	98
78) 2-nitropropane	13.00	46	2032	49.80	ug/L #	1
79) 2-chloroethyl vinyl ether	13.01	63	337974	267.09	ug/L	98
80) methyl methacrylate	12.32	69	66861	48.99	ug/L	98
81) 1,2-dichloropropane	12.27	63	125564	53.45	ug/L	100
82) dibromomethane	12.45	93	75511	51.56	ug/L	92
83) methylcyclohexane	12.21	83	164190	50.51	ug/L	93
84) bromodichloromethane	12.64	83	169932	53.80	ug/L	97
85) cis-1,3-dichloropropene	13.27	75	195861	50.74	ug/L	98
87) 4-methyl-2-pentanone	13.45	58	41701	52.06	ug/L	98
88) toluene	13.77	92	292502	52.44	ug/L	99
89) 3-methyl-1-butanol	13.47	55	92730	1115.83	ug/L	99
90) trans-1,3-dichloropropene	14.04	75	173507	49.70	ug/L	100
91) ethyl methacrylate	14.08	69	137446	49.91	ug/L	99
92) 1,1,2-trichloroethane	14.32	83	87671	49.22	ug/L	100
93) 2-hexanone	14.60	58	34692	47.13	ug/L	100
95) 3,3-Dimethyl-1-butanol	14.83	57	102918	570.15	ug/L	99
96) tetrachloroethene	14.54	164	112243	54.59	ug/L	100
97) 1,3-dichloropropane	14.56	76	166535	51.71	ug/L	98
98) butyl acetate	14.72	56	65641	51.11	ug/L	98
99) dibromochloromethane	14.89	129	135110	53.81	ug/L	98
100) 1,2-dibromoethane	15.09	107	107018	51.45	ug/L	100
101) n-butyl ether	15.70	57	557300	54.94	ug/L	100
102) chlorobenzene	15.72	112	321695	51.89	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.81	131	140409	55.89	ug/L	98
104) ethylbenzene	15.82	91	569054	54.40	ug/L	100
105) m,p-xylene	15.97	106	437797	109.55	ug/L	98
106) o-xylene	16.51	106	230452	55.74	ug/L	97
107) styrene	16.52	104	366876	52.82	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142680.D
 Acq On : 14 Mar 2015 12:09 pm
 Operator : BridgetK
 Sample : bs
 Misc : ms82037,v2d5985,w,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 14:40:56 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

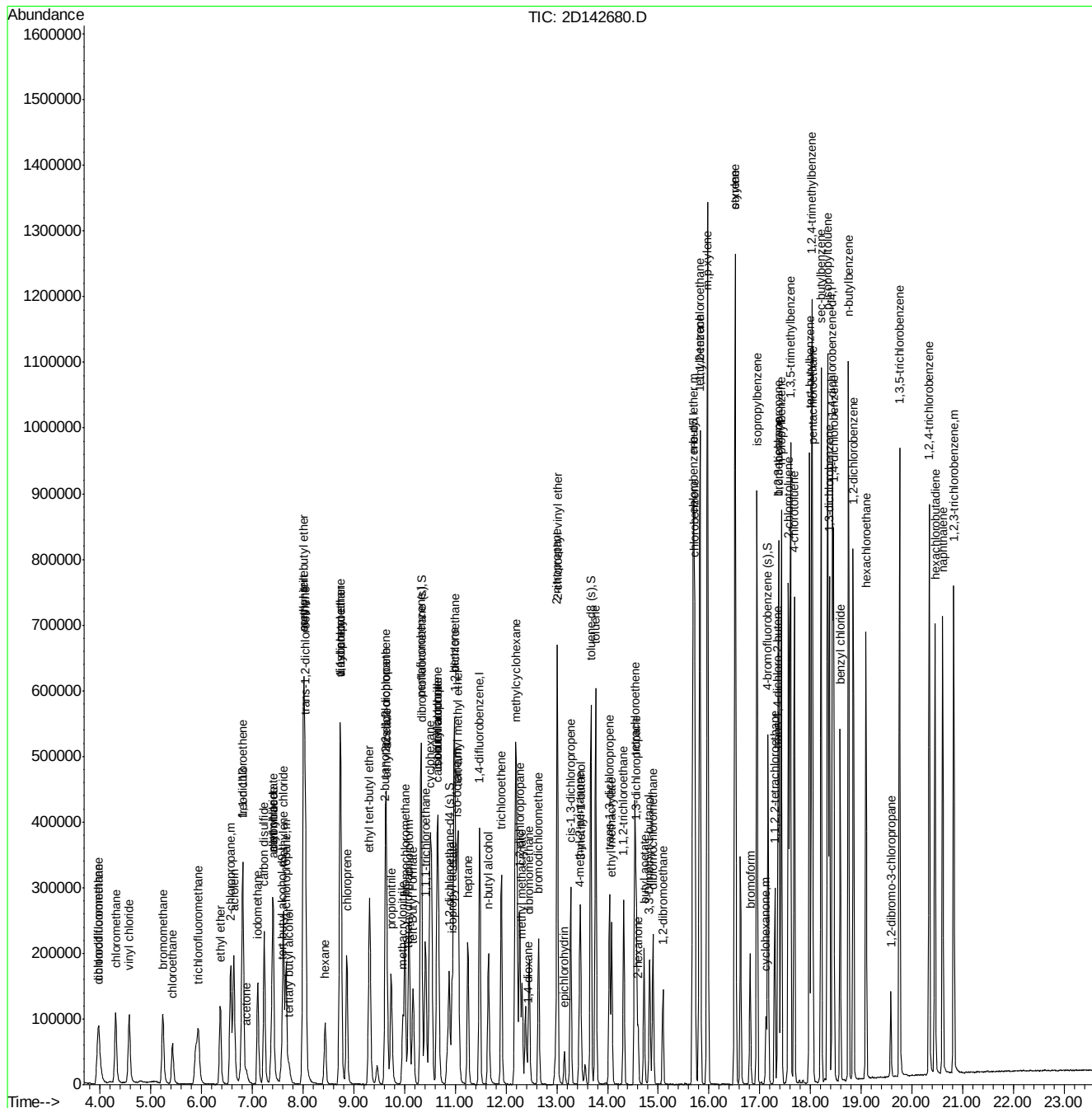
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.81	173	100043	52.23	ug/L	100
110) isopropylbenzene	16.94	105	614736	56.60	ug/L	100
112) cyclohexanone	17.12	55	45891	168.56	ug/L	99
113) bromobenzene	17.37	156	161768	51.06	ug/L	98
114) 1,1,2,2-tetrachloroethane	17.30	83	150718	50.18	ug/L	100
115) trans-1,4-dichloro-2-buten	17.35	53	36782	48.95	ug/L	96
116) 1,2,3-trichloropropane	17.37	110	36994	52.23	ug/L	97
117) n-propylbenzene	17.43	91	669777	53.69	ug/L	99
119) 2-chlorotoluene	17.57	126	146849	52.59	ug/L	97
120) 4-chlorotoluene	17.68	91	417939	51.34	ug/L	99
121) 1,3,5-trimethylbenzene	17.60	105	525485	55.29	ug/L	99
122) tert-butylbenzene	17.98	119	460643	56.55	ug/L	100
123) pentachloroethane	18.05	167	118369	54.67	ug/L	99
124) 1,2,4-trimethylbenzene	18.02	105	519020	54.62	ug/L	100
126) sec-butylbenzene	18.21	105	704418	56.16	ug/L	100
127) 1,3-dichlorobenzene	18.38	146	317240	51.86	ug/L	99
128) p-isopropyltoluene	18.34	119	593832	55.39	ug/L	99
129) 1,4-dichlorobenzene	18.46	146	316655	52.01	ug/L	100
130) 1,2-dichlorobenzene	18.85	146	320174	51.25	ug/L	98
131) benzyl chloride	18.59	91	346587	60.51	ug/L	100
133) n-butylbenzene	18.75	92	302291	54.69	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.59	157	35943	50.76	ug/L	97
136) 1,3,5-trichlorobenzene	19.75	180	304310	54.13	ug/L	98
137) hexachlorobutadiene	20.46	225	154926	55.46	ug/L	98
138) naphthalene	20.60	128	539729	55.72	ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	279095	56.07	ug/L	99
140) 1,2,3-trichlorobenzene	20.82	180	248195	56.07	ug/L	99
141) hexachloroethane	19.09	201	125067	58.65	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142680.D
Acq On : 14 Mar 2015 12:09 pm
Operator : BridgetK
Sample : bs
Misc : ms82037,v2d5985,w,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 16 14:40:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



7.3.2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142660.D
 Acq On : 13 Mar 2015 8:00 pm
 Operator : BridgetK
 Sample : jB89689-2ms
 Misc : ms81917,v2d5984,w,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 16 12:38:33 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	111078	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	418290	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.45	114	412825	50.00	ug/L	-0.01
94) chlorobenzene-d5	15.66	117	375946	50.00	ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.42	152	244355	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	135175	55.78	ug/L	-0.01
Spiked Amount	50.000	Range	79 - 120	Recovery	=	111.56%
55) 1,2-dichloroethane-d4 (s)	10.85	65	140955	53.56	ug/L	-0.01
Spiked Amount	50.000	Range	72 - 123	Recovery	=	107.12%
86) toluene-d8 (s)	13.65	98	472336	53.79	ug/L	-0.01
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.58%
111) 4-bromofluorobenzene (s)	17.14	95	181511	53.65	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	107.30%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.69	59	61814	271.86	ug/L	99
4) 1,4-dioxane	12.40	88	29723	1479.66	ug/L #	97
11) chlorodifluoromethane	3.96	51	131352	51.40	ug/L	98
12) dichlorodifluoromethane	3.94	85	162072	54.78	ug/L	99
15) chloromethane	4.29	50	208536	53.86	ug/L	99
16) vinyl chloride	4.56	62	197090	57.33	ug/L	100
18) bromomethane	5.22	94	132930	53.42	ug/L	97
19) chloroethane	5.40	64	93726	56.77	ug/L	99
20) trichlorofluoromethane	5.91	101	217907	61.37	ug/L	98
22) ethyl ether	6.34	74	65063	54.76	ug/L	94
23) acrolein	6.61	56	250767	496.27	ug/L	100
27) 1,1-dichloroethene	6.78	96	116098	53.88	ug/L	97
28) 2-chloropropane	6.55	43	223704	56.95	ug/L	98
29) acetone	6.86	58	11620	63.78	ug/L	93
30) allyl chloride	7.38	76	65211	55.39	ug/L	96
31) acetonitrile	7.35	40	108172	570.89	ug/L	93
32) iodomethane	7.08	142	248495	56.13	ug/L	98
33) carbon disulfide	7.21	76	427271	55.79	ug/L	100
34) methylene chloride	7.59	84	138483	52.72	ug/L	96
35) methyl acetate	7.38	74	21443	59.28	ug/L	96
36) 1-chloropropane	7.63	63	10603	55.45	ug/L	97
37) methyl tert butyl ether	7.99	73	389074	56.22	ug/L	99
38) trans-1,2-dichloroethene	8.02	96	131976	55.12	ug/L	98
39) di-isopropyl ether	8.71	45	458928	57.73	ug/L	100
40) 2-butanone	9.59	72	13094	57.57	ug/L	93
41) 1,1-dichloroethane	8.70	63	241595	55.10	ug/L	99
42) chloroprene	8.83	53	191508	59.53	ug/L	99
43) acrylonitrile	7.98	53	217742	272.57	ug/L	98
44) vinyl acetate	8.71	86	17018	51.89	ug/L	96
45) ethyl tert-butyl ether	9.28	59	446002	59.56	ug/L	99
46) ethyl acetate	9.62	45	14571	48.51	ug/L #	1
47) 2,2-dichloropropane	9.61	77	209609	57.15	ug/L	98
48) cis-1,2-dichloroethene	9.60	96	149372	54.66	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142660.D
 Acq On : 13 Mar 2015 8:00 pm
 Operator : BridgetK
 Sample : jB89689-2ms
 Misc : ms81917,v2d5984,w,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 16 12:38:33 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.71	54	169714	529.60	ug/L	97
50) tert-Butyl Formate	10.14	59	124831	58.01	ug/L	99
51) bromochloromethane	9.98	128	74375	54.80	ug/L	95
52) tetrahydrofuran	10.04	42	33188	48.03	ug/L	98
53) chloroform	10.06	83	237029	54.59	ug/L	100
56) freon 113	6.78	151	104321	60.08	ug/L	96
57) methacrylonitrile	9.94	67	46665	52.29	ug/L	98
58) 1,1,1-trichloroethane	10.39	97	212410	58.91	ug/L	99
59) cyclohexane	10.47	84	193494	59.40	ug/L	97
60) isobutyl alcohol	10.62	74	15127	557.81	ug/L #	81
62) iso-octane	11.00	57	504796	62.62	ug/L	100
65) epichlorohydrin	13.12	57	54694	269.70	ug/L	97
66) n-butyl alcohol	11.63	56	151555	2901.37	ug/L	98
67) carbon tetrachloride	10.64	117	189017	61.41	ug/L	99
68) 1,1-dichloropropene	10.62	75	173785	57.50	ug/L	99
69) hexane	8.41	86	20201	59.15	ug/L #	82
70) benzene	10.95	78	522084	55.57	ug/L	100
71) tert-amyl methyl ether	11.03	87	91269	60.23	ug/L	98
72) heptane	11.22	57	89066	60.61	ug/L	100
73) isopropyl acetate	10.91	43	219379	54.93	ug/L	99
74) 1,2-dichloroethane	10.97	62	164289	55.04	ug/L	99
75) trichloroethene	11.88	130	141860	57.66	ug/L	98
78) 2-nitropropane	12.99	46	2317	53.86	ug/L #	1
79) 2-chloroethyl vinyl ether	12.99	63	381779	286.19	ug/L	97
80) methyl methacrylate	12.29	69	73577	51.14	ug/L	99
81) 1,2-dichloropropane	12.24	63	135471	54.71	ug/L	99
82) dibromomethane	12.42	93	81477	52.77	ug/L	96
83) methylcyclohexane	12.18	83	220952	64.47	ug/L	98
84) bromodichloromethane	12.62	83	182009	54.66	ug/L	99
85) cis-1,3-dichloropropene	13.25	75	216185	53.13	ug/L	99
87) 4-methyl-2-pentanone	13.43	58	45604	54.00	ug/L	98
88) toluene	13.74	92	317920	54.06	ug/L	100
89) 3-methyl-1-butanol	13.44	55	100366	1145.62	ug/L	99
90) trans-1,3-dichloropropene	14.01	75	193309	52.53	ug/L	98
91) ethyl methacrylate	14.06	69	151973	52.35	ug/L	100
92) 1,1,2-trichloroethane	14.30	83	94800	50.48	ug/L	99
93) 2-hexanone	14.58	58	39519	50.93	ug/L	94
95) 3,3-Dimethyl-1-butanol	14.81	57	118026	609.64	ug/L	99
96) tetrachloroethene	14.52	164	124672	56.54	ug/L	98
97) 1,3-dichloropropane	14.54	76	183309	53.07	ug/L	97
98) butyl acetate	14.70	56	75372	54.72	ug/L	99
99) dibromochloromethane	14.87	129	146687	54.47	ug/L	99
100) 1,2-dibromoethane	15.07	107	118843	53.27	ug/L	100
101) n-butyl ether	15.68	57	600323	55.18	ug/L	100
102) chlorobenzene	15.70	112	355749	53.50	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.79	131	154653	57.40	ug/L	98
104) ethylbenzene	15.80	91	626860	55.87	ug/L	100
105) m,p-xylene	15.95	106	481032	112.23	ug/L	98
106) o-xylene	16.49	106	253212	57.10	ug/L	99
107) styrene	16.50	104	401805	53.94	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142660.D
 Acq On : 13 Mar 2015 8:00 pm
 Operator : BridgetK
 Sample : jB89689-2ms
 Misc : ms81917,v2d5984,w,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 16 12:38:33 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

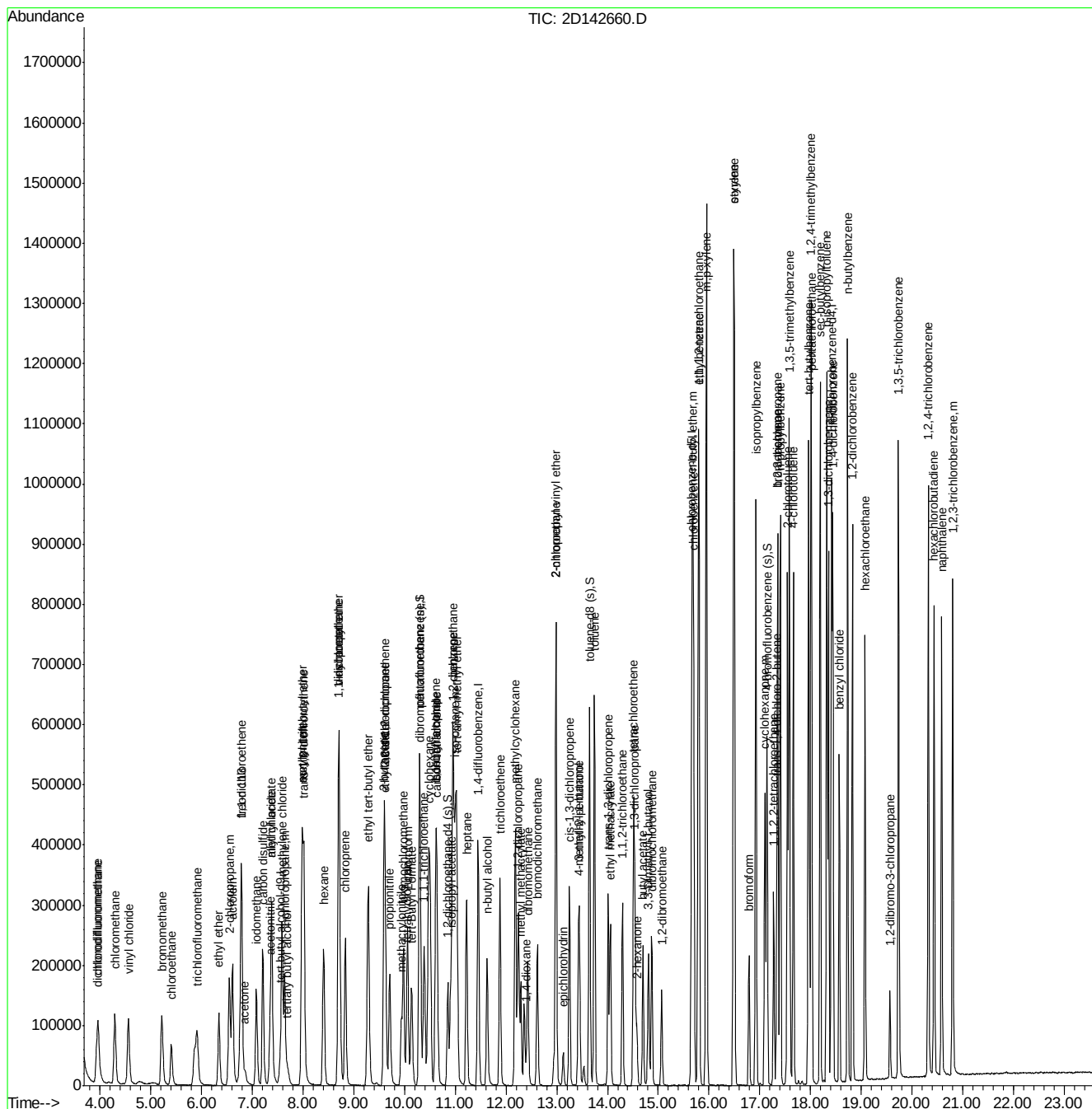
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.79	173	110605	53.84	ug/L	98
110) isopropylbenzene	16.92	105	681304	58.59	ug/L	99
112) cyclohexanone	17.10	55	210537	722.39	ug/L	96
113) bromobenzene	17.35	156	179969	53.06	ug/L	97
114) 1,1,2,2-tetrachloroethane	17.27	83	165058	51.33	ug/L	99
115) trans-1,4-dichloro-2-buten	17.33	53	38308	47.63	ug/L	92
116) 1,2,3-trichloropropane	17.36	110	40344	53.21	ug/L #	84
117) n-propylbenzene	17.41	91	740612	55.46	ug/L	99
119) 2-chlorotoluene	17.55	126	163874	54.82	ug/L	99
120) 4-chlorotoluene	17.66	91	463647	53.20	ug/L	99
121) 1,3,5-trimethylbenzene	17.58	105	578637	56.88	ug/L	98
122) tert-butylbenzene	17.96	119	509377	58.42	ug/L	99
123) pentachloroethane	18.02	167	131775	56.85	ug/L	99
124) 1,2,4-trimethylbenzene	18.01	105	570439	56.08	ug/L	99
126) sec-butylbenzene	18.19	105	779440	58.05	ug/L	99
127) 1,3-dichlorobenzene	18.35	146	350726	53.56	ug/L	99
128) p-isopropyltoluene	18.32	119	658596	57.38	ug/L	99
129) 1,4-dichlorobenzene	18.44	146	351499	53.93	ug/L	99
130) 1,2-dichlorobenzene	18.83	146	357713	53.49	ug/L	98
131) benzyl chloride	18.57	91	358811	58.52	ug/L	100
133) n-butylbenzene	18.73	92	336332	56.85	ug/L	100
135) 1,2-dibromo-3-chloropropan	19.57	157	40573	53.53	ug/L	97
136) 1,3,5-trichlorobenzene	19.74	180	346045	57.50	ug/L	99
137) hexachlorobutadiene	20.44	225	179944	60.17	ug/L	98
138) naphthalene	20.58	128	605075	58.35	ug/L	100
139) 1,2,4-trichlorobenzene	20.32	180	328227	61.59	ug/L	98
140) 1,2,3-trichlorobenzene	20.80	180	283011	59.73	ug/L	99
141) hexachloroethane	19.08	201	138992	60.88	ug/L	98

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

Quantitation Report (QT Reviewed)

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Data Path   : C:\MSDCHEM\1\DATA\  
Data File  : 2D142660.D  
Acq On     : 13 Mar 2015      8:00 pm  
Operator   : BridgetK  
Sample     : jb89689-2ms  
Misc       : ms81917,v2d5984,w,,,,,1  
ALS Vial   : 20      Sample Multiplier: 1
```

Quant Time: Mar 16 12:38:33 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



7.4.1



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142661.D
 Acq On : 13 Mar 2015 8:30 pm
 Operator : BridgetK
 Sample : jB89689-2msd
 Misc : ms81917,v2d5984,w,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 12:39:00 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	108338	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	422681	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.45	114	414779	50.00	ug/L	-0.02
94) chlorobenzene-d5	15.66	117	379295	50.00	ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.42	152	244258	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	134947	55.11	ug/L	-0.01
Spiked Amount	50.000	Range	79 - 120	Recovery	=	110.22%
55) 1,2-dichloroethane-d4 (s)	10.85	65	139839	52.58	ug/L	-0.01
Spiked Amount	50.000	Range	72 - 123	Recovery	=	105.16%
86) toluene-d8 (s)	13.65	98	473279	53.64	ug/L	-0.01
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.28%
111) 4-bromofluorobenzene (s)	17.14	95	183143	54.15	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	108.30%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.68	59	60499	272.81	ug/L	99
4) 1,4-dioxane	12.40	88	30106	1536.64	ug/L #	98
11) chlorodifluoromethane	3.96	51	130094	50.38	ug/L	99
12) dichlorodifluoromethane	3.94	85	160209	53.59	ug/L	99
15) chloromethane	4.29	50	201962	51.62	ug/L	100
16) vinyl chloride	4.55	62	191823	55.22	ug/L	99
18) bromomethane	5.22	94	128202	50.99	ug/L	97
19) chloroethane	5.40	64	89716	53.78	ug/L	98
20) trichlorofluoromethane	5.91	101	213494	59.51	ug/L	98
22) ethyl ether	6.34	74	64865	54.02	ug/L	93
23) acrolein	6.60	56	247183	484.09	ug/L	99
27) 1,1-dichloroethene	6.78	96	113795	52.26	ug/L	94
28) 2-chloropropane	6.54	43	214236	53.97	ug/L	99
29) acetone	6.85	58	10378	56.37	ug/L	89
30) allyl chloride	7.38	76	64340	54.09	ug/L	94
31) acetonitrile	7.35	40	105085	548.84	ug/L	88
32) iodomethane	7.08	142	242329	54.17	ug/L	98
33) carbon disulfide	7.20	76	409546	52.92	ug/L	100
34) methylene chloride	7.59	84	137557	51.82	ug/L	97
35) methyl acetate	7.38	74	21317	58.32	ug/L	95
36) 1-chloropropane	7.64	63	10325	53.43	ug/L	90
37) methyl tert butyl ether	7.99	73	383597	54.85	ug/L	99
38) trans-1,2-dichloroethene	8.02	96	130948	54.12	ug/L	98
39) di-isopropyl ether	8.71	45	446460	55.58	ug/L	99
40) 2-butanone	9.58	72	12071	52.52	ug/L	99
41) 1,1-dichloroethane	8.70	63	236137	53.30	ug/L	99
42) chloroprene	8.83	53	185388	57.03	ug/L	99
43) acrylonitrile	7.98	53	214042	265.15	ug/L	99
44) vinyl acetate	8.71	86	16826	50.77	ug/L	85
45) ethyl tert-butyl ether	9.28	59	437721	57.85	ug/L	99
46) ethyl acetate	9.61	45	14373	47.35	ug/L #	1
47) 2,2-dichloropropane	9.61	77	204008	55.05	ug/L	99
48) cis-1,2-dichloroethene	9.60	96	147264	53.32	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142661.D
 Acq On : 13 Mar 2015 8:30 pm
 Operator : BridgetK
 Sample : jB89689-2msd
 Misc : ms81917,v2d5984,w,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 12:39:00 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.71	54	166003	512.64	ug/L	94
50) tert-Butyl Formate	10.14	59	121873	56.05	ug/L	99
51) bromochloromethane	9.98	128	73103	53.30	ug/L	94
52) tetrahydrofuran	10.03	42	31870	45.64	ug/L	97
53) chloroform	10.06	83	233273	53.17	ug/L	97
56) freon 113	6.77	151	102878	58.63	ug/L	97
57) methacrylonitrile	9.93	67	46187	51.22	ug/L	98
58) 1,1,1-trichloroethane	10.39	97	205881	56.50	ug/L	98
59) cyclohexane	10.47	84	187674	57.01	ug/L	96
60) isobutyl alcohol	10.61	74	14706	536.65	ug/L #	49
62) iso-octane	10.99	57	484412	59.47	ug/L	100
65) epichlorohydrin	13.13	57	54400	266.99	ug/L	99
66) n-butyl alcohol	11.63	56	149177	2842.40	ug/L	99
67) carbon tetrachloride	10.64	117	184279	59.59	ug/L	97
68) 1,1-dichloropropene	10.62	75	169277	55.74	ug/L	98
69) hexane	8.40	86	20068	58.48	ug/L	97
70) benzene	10.95	78	510241	54.05	ug/L	99
71) tert-amyl methyl ether	11.03	87	89365	58.70	ug/L	98
72) heptane	11.22	57	85804	58.11	ug/L	99
73) isopropyl acetate	10.91	43	213714	53.26	ug/L	99
74) 1,2-dichloroethane	10.97	62	160999	53.68	ug/L	99
75) trichloroethene	11.88	130	139015	56.23	ug/L	98
78) 2-nitropropane	12.94	46	2149	49.72	ug/L #	63
79) 2-chloroethyl vinyl ether	12.99	63	382933	285.71	ug/L	98
80) methyl methacrylate	12.29	69	72552	50.19	ug/L	98
81) 1,2-dichloropropane	12.24	63	132678	53.33	ug/L	99
82) dibromomethane	12.43	93	80650	51.99	ug/L	98
83) methylcyclohexane	12.18	83	211638	61.46	ug/L	99
84) bromodichloromethane	12.61	83	179532	53.67	ug/L	100
85) cis-1,3-dichloropropene	13.25	75	214280	52.41	ug/L	99
87) 4-methyl-2-pentanone	13.43	58	44346	52.27	ug/L	98
88) toluene	13.74	92	311800	52.77	ug/L	99
89) 3-methyl-1-butanol	13.45	55	98337	1117.17	ug/L	99
90) trans-1,3-dichloropropene	14.01	75	190659	51.56	ug/L	98
91) ethyl methacrylate	14.06	69	152408	52.25	ug/L	100
92) 1,1,2-trichloroethane	14.30	83	95924	50.84	ug/L	98
93) 2-hexanone	14.58	58	38679	49.61	ug/L	97
95) 3,3-Dimethyl-1-butanol	14.80	57	115013	588.83	ug/L	100
96) tetrachloroethene	14.51	164	122149	54.90	ug/L	99
97) 1,3-dichloropropane	14.54	76	183572	52.68	ug/L	98
98) butyl acetate	14.70	56	74536	53.64	ug/L	98
99) dibromochloromethane	14.87	129	148265	54.57	ug/L	100
100) 1,2-dibromoethane	15.07	107	118354	52.58	ug/L	99
101) n-butyl ether	15.68	57	591532	53.90	ug/L	100
102) chlorobenzene	15.70	112	354788	52.88	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.79	131	151173	55.61	ug/L	99
104) ethylbenzene	15.80	91	614712	54.30	ug/L	99
105) m,p-xylene	15.95	106	470447	108.79	ug/L	97
106) o-xylene	16.49	106	248365	55.51	ug/L	97
107) styrene	16.50	104	399040	53.09	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142661.D
 Acq On : 13 Mar 2015 8:30 pm
 Operator : BridgetK
 Sample : jB89689-2msd
 Misc : ms81917,v2d5984,w,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 12:39:00 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

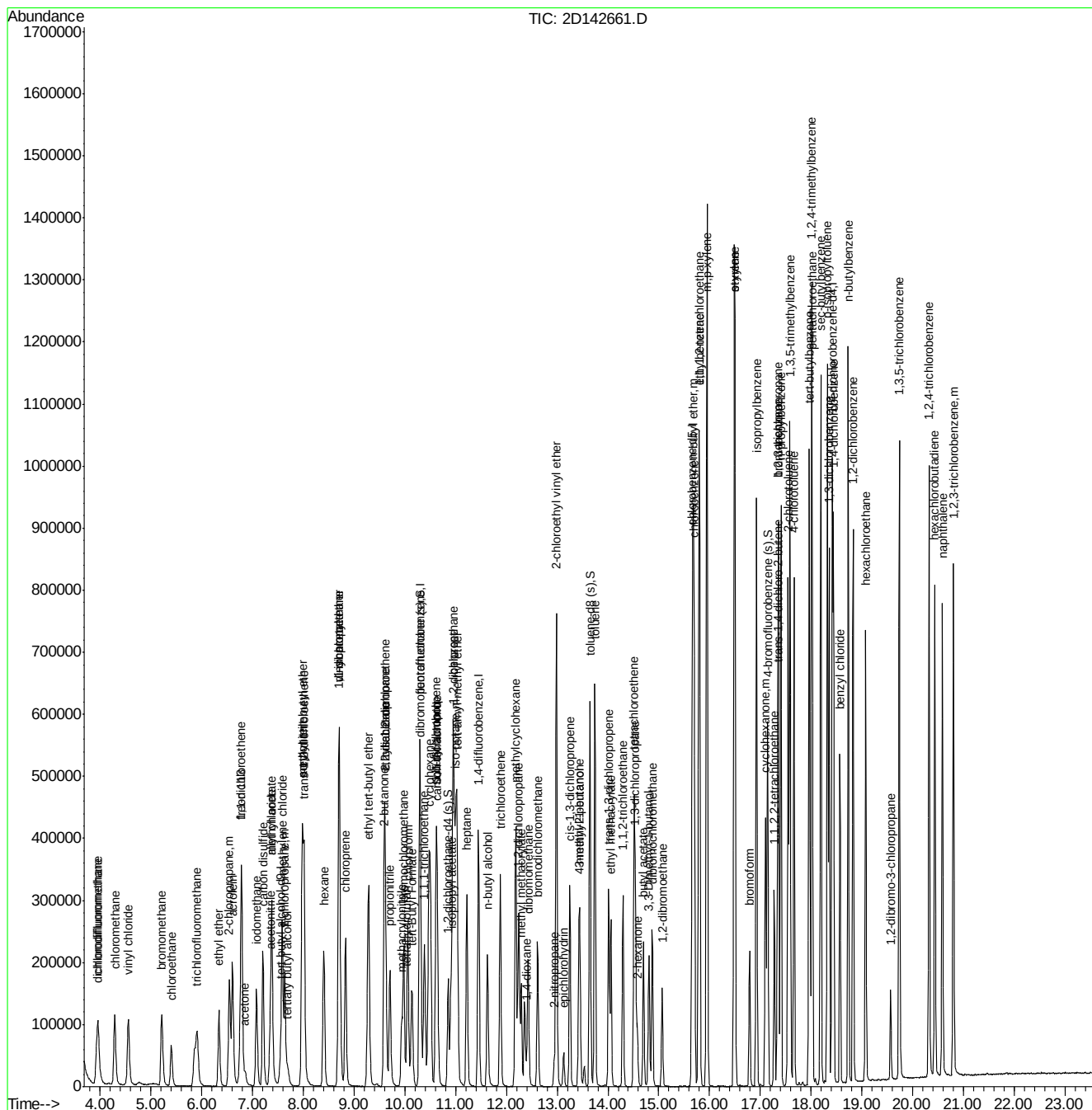
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.79	173	110198	53.16	ug/L	99
110) isopropylbenzene	16.92	105	657770	56.59	ug/L	99
112) cyclohexanone	17.10	55	186261	639.34	ug/L	98
113) bromobenzene	17.35	156	178815	52.74	ug/L	97
114) 1,1,2,2-tetrachloroethane	17.27	83	162648	50.60	ug/L	99
115) trans-1,4-dichloro-2-buten	17.34	53	38399	47.76	ug/L #	76
116) 1,2,3-trichloropropane	17.36	110	39580	52.23	ug/L #	91
117) n-propylbenzene	17.41	91	724618	54.28	ug/L	100
119) 2-chlorotoluene	17.55	126	159157	53.27	ug/L	100
120) 4-chlorotoluene	17.66	91	455378	52.27	ug/L	98
121) 1,3,5-trimethylbenzene	17.58	105	563564	55.42	ug/L	100
122) tert-butylbenzene	17.96	119	495752	56.88	ug/L	97
123) pentachloroethane	18.02	167	128934	55.65	ug/L	99
124) 1,2,4-trimethylbenzene	18.01	105	555022	54.59	ug/L	100
126) sec-butylbenzene	18.19	105	761211	56.71	ug/L	99
127) 1,3-dichlorobenzene	18.35	146	345829	52.83	ug/L	98
128) p-isopropyltoluene	18.32	119	644319	56.16	ug/L	99
129) 1,4-dichlorobenzene	18.44	146	349062	53.58	ug/L	99
130) 1,2-dichlorobenzene	18.83	146	350370	52.41	ug/L	98
131) benzyl chloride	18.57	91	350492	57.18	ug/L	99
133) n-butylbenzene	18.73	92	324604	54.88	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	157	40106	52.93	ug/L	98
136) 1,3,5-trichlorobenzene	19.74	180	340258	56.56	ug/L	98
137) hexachlorobutadiene	20.44	225	175474	58.70	ug/L	99
138) naphthalene	20.59	128	607108	58.57	ug/L	99
139) 1,2,4-trichlorobenzene	20.33	180	329663	61.89	ug/L	99
140) 1,2,3-trichlorobenzene	20.80	180	283132	59.78	ug/L	99
141) hexachloroethane	19.08	201	136565	59.84	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142661.D
Acq On : 13 Mar 2015 8:30 pm
Operator : BridgetK
Sample : jb89689-2msd
Misc : ms81917,v2d5984,w,,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 16 12:39:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



M2D5970.M Mon Mar 16 13:02:32 2015 MS2D

Page: 4

7.4.2



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142685.D
 Acq On : 14 Mar 2015 2:44 pm
 Operator : BridgetK
 Sample : jB89689-4ms
 Misc : ms81917,v2d5985,w,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 15:07:51 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.59	65	111915	500.00	ug/L	0.02
5) pentafluorobenzene	10.33	168	418365	50.00	ug/L	0.02
63) 1,4-difluorobenzene	11.49	114	411465	50.00	ug/L	0.02
94) chlorobenzene-d5	15.69	117	372238	50.00	ug/L	0.02
109) 1,4-dichlorobenzene-d4	18.44	152	240977	50.00	ug/L	0.02

System Monitoring Compounds

54) dibromofluoromethane (s)	10.34	113	135659	55.97	ug/L	0.02
Spiked Amount	50.000	Range	79 - 120	Recovery	=	111.94%
55) 1,2-dichloroethane-d4 (s)	10.88	65	142161	54.01	ug/L	0.02
Spiked Amount	50.000	Range	72 - 123	Recovery	=	108.02%
86) toluene-d8 (s)	13.68	98	472197	53.95	ug/L	0.02
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.90%
111) 4-bromofluorobenzene (s)	17.17	95	180691	54.15	ug/L	0.02
Spiked Amount	50.000	Range	74 - 119	Recovery	=	108.30%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.72	59	55122	240.62	ug/L	98
4) 1,4-dioxane	12.43	88	26588	1313.70	ug/L #	96
11) chlorodifluoromethane	3.98	51	71724	28.06	ug/L	95
12) dichlorodifluoromethane	3.96	85	152585	51.56	ug/L	99
15) chloromethane	4.31	50	163958	42.34	ug/L	99
16) vinyl chloride	4.58	62	153499	44.64	ug/L	98
18) bromomethane	5.24	94	103293	41.50	ug/L	98
19) chloroethane	5.43	64	72776	44.08	ug/L	96
20) trichlorofluoromethane	5.94	101	180235	50.75	ug/L	99
22) ethyl ether	6.37	74	63143	53.13	ug/L	96
23) acrolein	6.64	56	243132	481.07	ug/L	100
27) 1,1-dichloroethene	6.81	96	115127	53.42	ug/L	98
28) 2-chloropropane	6.57	43	203910	51.90	ug/L	99
29) acetone	6.89	58	15701	86.16	ug/L	94
30) allyl chloride	7.41	76	58719	49.87	ug/L	98
31) acetonitrile	7.38	40	93385	492.76	ug/L	87
32) iodomethane	7.11	142	220156	49.72	ug/L	97
33) carbon disulfide	7.23	76	381453	49.80	ug/L	99
34) methylene chloride	7.62	84	127145	48.40	ug/L	96
35) methyl acetate	7.41	74	17665	48.83	ug/L	97
36) 1-chloropropane	7.66	63	9466	49.49	ug/L	88
37) methyl tert butyl ether	8.02	73	360479	52.08	ug/L	100
38) trans-1,2-dichloroethene	8.05	96	115875	48.38	ug/L	95
39) di-isopropyl ether	8.74	45	374227	47.07	ug/L	97
40) 2-butanone	9.62	72	14729	64.74	ug/L	96
41) 1,1-dichloroethane	8.73	63	219541	50.06	ug/L	98
42) chloroprene	8.86	53	144171	44.81	ug/L	98
43) acrylonitrile	8.01	53	208370	260.79	ug/L	98
44) vinyl acetate	8.74	86	14318	43.65	ug/L	92
45) ethyl tert-butyl ether	9.32	59	367306	49.04	ug/L	99
46) ethyl acetate	9.66	45	13086	43.56	ug/L #	23
47) 2,2-dichloropropane	9.65	77	183756	50.09	ug/L	98
48) cis-1,2-dichloroethene	9.63	96	139953	51.20	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142685.D
 Acq On : 14 Mar 2015 2:44 pm
 Operator : BridgetK
 Sample : jB89689-4ms
 Misc : ms81917,v2d5985,w,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 15:07:51 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.74	54	162691	507.60	ug/L	96
50) tert-Butyl Formate	10.17	59	103044	47.88	ug/L	99
51) bromochloromethane	10.01	128	67847	49.98	ug/L	99
52) tetrahydrofuran	10.07	42	31908	46.17	ug/L	98
53) chloroform	10.10	83	210797	48.54	ug/L	99
56) freon 113	6.80	151	76800	44.22	ug/L	97
57) methacrylonitrile	9.97	67	43702	48.96	ug/L	99
58) 1,1,1-trichloroethane	10.42	97	189689	52.60	ug/L	99
59) cyclohexane	10.51	84	170770	52.41	ug/L	97
60) isobutyl alcohol	10.65	74	13430	495.14	ug/L #	68
62) iso-octane	11.02	57	371632	46.09	ug/L	99
65) epichlorohydrin	13.16	57	48221	238.57	ug/L	96
66) n-butyl alcohol	11.66	56	136171	2615.48	ug/L	99
67) carbon tetrachloride	10.67	117	162462	52.95	ug/L	99
68) 1,1-dichloropropene	10.65	75	151206	50.19	ug/L	98
69) hexane	8.44	86	15004	44.08	ug/L #	88
70) benzene	10.98	78	452284	48.30	ug/L	100
71) tert-amyl methyl ether	11.06	87	74949	49.63	ug/L	98
72) heptane	11.26	57	67085	45.80	ug/L	99
73) isopropyl acetate	10.94	43	187873	47.20	ug/L	99
74) 1,2-dichloroethane	11.00	62	151256	50.84	ug/L	100
75) trichloroethene	11.91	130	124823	50.90	ug/L	99
78) 2-nitropropane	12.98	46	2148	50.10	ug/L #	66
79) 2-chloroethyl vinyl ether	13.02	63	325583	244.87	ug/L	98
80) methyl methacrylate	12.33	69	68492	47.77	ug/L	97
81) 1,2-dichloropropane	12.27	63	119482	48.41	ug/L	99
82) dibromomethane	12.46	93	74483	48.40	ug/L	98
83) methylcyclohexane	12.22	83	164319	48.11	ug/L	97
84) bromodichloromethane	12.65	83	162461	48.95	ug/L	97
85) cis-1,3-dichloropropene	13.28	75	191511	47.22	ug/L	99
87) 4-methyl-2-pentanone	13.46	58	42464	50.45	ug/L	99
88) toluene	13.77	92	271894	46.39	ug/L	98
89) 3-methyl-1-butanol	13.47	55	89130	1020.73	ug/L	99
90) trans-1,3-dichloropropene	14.04	75	175449	47.83	ug/L	99
91) ethyl methacrylate	14.09	69	141782	49.00	ug/L	98
92) 1,1,2-trichloroethane	14.32	83	87159	46.57	ug/L	98
93) 2-hexanone	14.61	58	43361	56.07	ug/L	98
95) 3,3-Dimethyl-1-butanol	14.84	57	101037	527.08	ug/L	100
96) tetrachloroethene	14.54	164	104486	47.85	ug/L	99
97) 1,3-dichloropropane	14.57	76	166998	48.83	ug/L	99
98) butyl acetate	14.73	56	64991	47.66	ug/L	97
99) dibromochloromethane	14.90	129	133396	50.03	ug/L	99
100) 1,2-dibromoethane	15.10	107	108654	49.19	ug/L	97
101) n-butyl ether	15.71	57	520712	48.34	ug/L	100
102) chlorobenzene	15.73	112	307508	46.71	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.82	131	132584	49.70	ug/L	98
104) ethylbenzene	15.83	91	529385	47.65	ug/L	100
105) m,p-xylene	15.97	106	405086	95.45	ug/L	95
106) o-xylene	16.51	106	215064	48.98	ug/L	97
107) styrene	16.52	104	350501	47.52	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142685.D
 Acq On : 14 Mar 2015 2:44 pm
 Operator : BridgetK
 Sample : jB89689-4ms
 Misc : ms81917,v2d5985,w,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 14 15:07:51 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.82	173	101692	49.99	ug/L	100
110) isopropylbenzene	16.95	105	560170	48.85	ug/L	100
112) cyclohexanone	17.13	55	236371	822.40	ug/L	96
113) bromobenzene	17.38	156	156855	46.90	ug/L	97
114) 1,1,2,2-tetrachloroethane	17.30	83	152112	47.97	ug/L	100
115) trans-1,4-dichloro-2-buten	17.36	53	38134	48.07	ug/L	96
116) 1,2,3-trichloropropane	17.38	110	37443	50.08	ug/L	98
117) n-propylbenzene	17.43	91	618178	46.94	ug/L	99
119) 2-chlorotoluene	17.57	126	135137	45.84	ug/L	98
120) 4-chlorotoluene	17.69	91	399438	46.48	ug/L	99
121) 1,3,5-trimethylbenzene	17.61	105	480303	47.87	ug/L	98
122) tert-butylbenzene	17.99	119	413761	48.12	ug/L	100
123) pentachloroethane	18.05	167	113533	49.67	ug/L	99
124) 1,2,4-trimethylbenzene	18.03	105	479292	47.78	ug/L	99
126) sec-butylbenzene	18.21	105	631122	47.66	ug/L	99
127) 1,3-dichlorobenzene	18.38	146	301718	46.72	ug/L	99
128) p-isopropyltoluene	18.34	119	535656	47.32	ug/L	100
129) 1,4-dichlorobenzene	18.46	146	307428	47.83	ug/L	98
130) 1,2-dichlorobenzene	18.85	146	309861	46.99	ug/L	98
131) benzyl chloride	18.59	91	315601	52.19	ug/L	99
133) n-butylbenzene	18.75	92	270439	46.35	ug/L	100
135) 1,2-dibromo-3-chloropropan	19.59	157	36750	49.16	ug/L	94
136) 1,3,5-trichlorobenzene	19.76	180	285082	48.03	ug/L	99
137) hexachlorobutadiene	20.46	225	138134	46.84	ug/L	99
138) naphthalene	20.61	128	542982	53.10	ug/L	99
139) 1,2,4-trichlorobenzene	20.35	180	289877	55.16	ug/L	97
140) 1,2,3-trichlorobenzene	20.83	180	243988	52.21	ug/L	100
141) hexachloroethane	19.10	201	112131	49.81	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142686.D
 Acq On : 14 Mar 2015 3:15 pm
 Operator : BridgetK
 Sample : jB89689-4msd
 Misc : ms81917,v2d5985,w,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 15:38:42 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.59	65	113055	500.00	ug/L	0.02
5) pentafluorobenzene	10.33	168	415228	50.00	ug/L	0.02
63) 1,4-difluorobenzene	11.49	114	410460	50.00	ug/L	0.02
94) chlorobenzene-d5	15.69	117	374953	50.00	ug/L	0.02
109) 1,4-dichlorobenzene-d4	18.44	152	243968	50.00	ug/L	0.02

System Monitoring Compounds

54) dibromofluoromethane (s)	10.35	113	134140	55.76	ug/L	0.03
Spiked Amount	50.000	Range	79 - 120	Recovery	=	111.52%
55) 1,2-dichloroethane-d4 (s)	10.89	65	140031	53.60	ug/L	0.03
Spiked Amount	50.000	Range	72 - 123	Recovery	=	107.20%
86) toluene-d8 (s)	13.68	98	469822	53.81	ug/L	0.02
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.62%
111) 4-bromofluorobenzene (s)	17.17	95	181279	53.66	ug/L	0.02
Spiked Amount	50.000	Range	74 - 119	Recovery	=	107.32%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.73	59	55459	239.65	ug/L	97
4) 1,4-dioxane	12.43	88	26490	1295.66	ug/L #	99
11) chlorodifluoromethane	3.98	51	66672	26.28	ug/L	93
12) dichlorodifluoromethane	3.96	85	142082	48.38	ug/L	99
15) chloromethane	4.31	50	160083	41.65	ug/L	98
16) vinyl chloride	4.58	62	145194	42.55	ug/L	98
18) bromomethane	5.24	94	102689	41.57	ug/L	97
19) chloroethane	5.43	64	71335	43.53	ug/L	99
20) trichlorofluoromethane	5.94	101	169748	48.16	ug/L	99
22) ethyl ether	6.37	74	62306	52.82	ug/L	96
23) acrolein	6.64	56	241039	480.53	ug/L	99
27) 1,1-dichloroethene	6.82	96	108117	50.54	ug/L	99
28) 2-chloropropane	6.58	43	191879	49.21	ug/L	99
29) acetone	6.89	58	12589	69.61	ug/L	98
30) allyl chloride	7.42	76	56001	47.92	ug/L	95
31) acetonitrile	7.39	40	92649	492.57	ug/L	91
32) iodomethane	7.11	142	215461	49.03	ug/L	97
33) carbon disulfide	7.24	76	367767	48.37	ug/L	100
34) methylene chloride	7.62	84	124434	47.72	ug/L	97
35) methyl acetate	7.41	74	17885	49.81	ug/L	96
36) 1-chloropropane	7.67	63	8854	46.64	ug/L	93
37) methyl tert butyl ether	8.03	73	362807	52.81	ug/L	100
38) trans-1,2-dichloroethene	8.06	96	109896	46.23	ug/L	98
39) di-isopropyl ether	8.75	45	366186	46.41	ug/L	100
40) 2-butanone	9.62	72	13090	57.97	ug/L	94
41) 1,1-dichloroethane	8.73	63	209477	48.13	ug/L	99
42) chloroprene	8.87	53	133637	41.85	ug/L	99
43) acrylonitrile	8.02	53	208373	262.76	ug/L	98
44) vinyl acetate	8.74	86	14172	43.53	ug/L	80
45) ethyl tert-butyl ether	9.32	59	362673	48.79	ug/L	99
46) ethyl acetate	9.66	45	12817	42.98	ug/L #	45
47) 2,2-dichloropropane	9.65	77	173877	47.76	ug/L	99
48) cis-1,2-dichloroethene	9.64	96	134044	49.41	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142686.D
 Acq On : 14 Mar 2015 3:15 pm
 Operator : BridgetK
 Sample : jB89689-4msd
 Misc : ms81917,v2d5985,w,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 15:38:42 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.75	54	162204	509.90	ug/L	96
50) tert-Butyl Formate	10.18	59	104662	49.00	ug/L	99
51) bromochloromethane	10.01	128	66084	49.05	ug/L	97
52) tetrahydrofuran	10.07	42	31372	45.74	ug/L	97
53) chloroform	10.10	83	201498	46.75	ug/L	100
56) freon 113	6.81	151	74503	43.22	ug/L	99
57) methacrylonitrile	9.98	67	44327	50.04	ug/L	96
58) 1,1,1-trichloroethane	10.42	97	180959	50.56	ug/L	99
59) cyclohexane	10.51	84	164748	50.95	ug/L	98
60) isobutyl alcohol	10.65	74	13068	485.44	ug/L #	55
62) iso-octane	11.03	57	353770	44.21	ug/L	99
65) epichlorohydrin	13.16	57	47580	235.98	ug/L	98
66) n-butyl alcohol	11.66	56	136656	2631.22	ug/L	99
67) carbon tetrachloride	10.67	117	154618	50.52	ug/L	98
68) 1,1-dichloropropene	10.65	75	141227	46.99	ug/L	100
69) hexane	8.45	86	14358	42.28	ug/L	97
70) benzene	10.99	78	433126	46.37	ug/L	99
71) tert-amyl methyl ether	11.06	87	75090	49.84	ug/L	97
72) heptane	11.26	57	62324	42.65	ug/L	99
73) isopropyl acetate	10.94	43	185041	46.60	ug/L	99
74) 1,2-dichloroethane	11.00	62	146909	49.50	ug/L	98
75) trichloroethene	11.92	130	119733	48.94	ug/L	97
78) 2-nitropropane	13.01	46	2032	47.51	ug/L #	1
79) 2-chloroethyl vinyl ether	13.02	63	323972	244.26	ug/L	98
80) methyl methacrylate	12.33	69	68950	48.20	ug/L	99
81) 1,2-dichloropropane	12.28	63	116413	47.28	ug/L	99
82) dibromomethane	12.46	93	73632	47.97	ug/L	96
83) methylcyclohexane	12.22	83	157252	46.15	ug/L	99
84) bromodichloromethane	12.65	83	159952	48.32	ug/L	100
85) cis-1,3-dichloropropene	13.28	75	189574	46.85	ug/L	99
87) 4-methyl-2-pentanone	13.46	58	42824	51.00	ug/L	99
88) toluene	13.78	92	261561	44.74	ug/L	99
89) 3-methyl-1-butanol	13.47	55	89641	1029.10	ug/L	99
90) trans-1,3-dichloropropene	14.04	75	174116	47.58	ug/L	99
91) ethyl methacrylate	14.09	69	141429	49.00	ug/L	99
92) 1,1,2-trichloroethane	14.33	83	86999	46.59	ug/L	100
93) 2-hexanone	14.61	58	39173	50.78	ug/L	98
95) 3,3-Dimethyl-1-butanol	14.84	57	104042	538.83	ug/L	98
96) tetrachloroethene	14.55	164	99898	45.42	ug/L	99
97) 1,3-dichloropropane	14.57	76	165446	48.02	ug/L	99
98) butyl acetate	14.73	56	64667	47.07	ug/L	100
99) dibromochloromethane	14.90	129	133658	49.76	ug/L	99
100) 1,2-dibromoethane	15.10	107	108586	48.80	ug/L	99
101) n-butyl ether	15.71	57	508326	46.85	ug/L	100
102) chlorobenzene	15.73	112	302667	45.64	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.82	131	131641	48.99	ug/L	95
104) ethylbenzene	15.83	91	512477	45.80	ug/L	100
105) m,p-xylene	15.98	106	391430	91.57	ug/L	96
106) o-xylene	16.52	106	209569	47.39	ug/L	99
107) styrene	16.53	104	344166	46.32	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142686.D
 Acq On : 14 Mar 2015 3:15 pm
 Operator : BridgetK
 Sample : jB89689-4msd
 Misc : ms81917,v2d5985,w,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 14 15:38:42 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

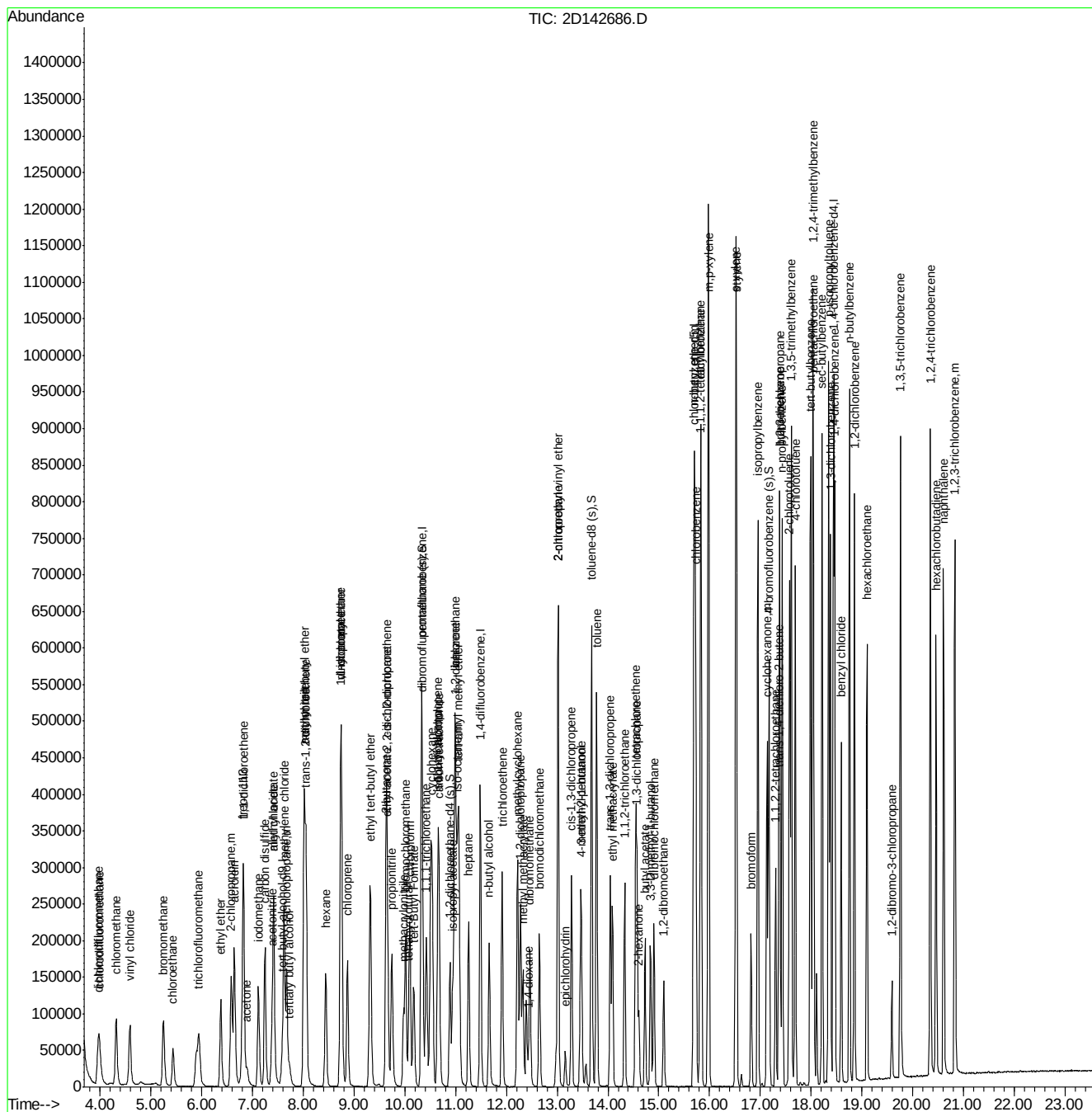
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.82	173	100632	49.11	ug/L	99
110) isopropylbenzene	16.95	105	542997	46.77	ug/L	99
112) cyclohexanone	17.13	55	204750	703.64	ug/L	99
113) bromobenzene	17.38	156	155213	45.84	ug/L	99
114) 1,1,2,2-tetrachloroethane	17.30	83	152784	47.59	ug/L	99
115) trans-1,4-dichloro-2-buten	17.36	53	38192	47.56	ug/L	87
116) 1,2,3-trichloropropane	17.38	110	37531	49.58	ug/L #	82
117) n-propylbenzene	17.43	91	597213	44.79	ug/L	100
119) 2-chlorotoluene	17.57	126	133009	44.57	ug/L	97
120) 4-chlorotoluene	17.69	91	389784	44.80	ug/L	99
121) 1,3,5-trimethylbenzene	17.61	105	471590	46.43	ug/L	99
122) tert-butylbenzene	17.99	119	405258	46.55	ug/L	100
123) pentachloroethane	18.05	167	114008	49.26	ug/L	99
124) 1,2,4-trimethylbenzene	18.03	105	472474	46.52	ug/L	100
126) sec-butylbenzene	18.22	105	613525	45.77	ug/L	99
127) 1,3-dichlorobenzene	18.38	146	296919	45.41	ug/L	99
128) p-isopropyltoluene	18.34	119	526902	45.98	ug/L	99
129) 1,4-dichlorobenzene	18.46	146	302209	46.44	ug/L	99
130) 1,2-dichlorobenzene	18.85	146	309552	46.36	ug/L	99
131) benzyl chloride	18.59	91	308437	50.38	ug/L	100
133) n-butylbenzene	18.76	92	265425	44.93	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.59	157	37543	49.61	ug/L	97
136) 1,3,5-trichlorobenzene	19.76	180	280785	46.73	ug/L	98
137) hexachlorobutadiene	20.46	225	135300	45.31	ug/L	99
138) naphthalene	20.61	128	550846	53.20	ug/L	99
139) 1,2,4-trichlorobenzene	20.35	180	291894	54.86	ug/L	99
140) 1,2,3-trichlorobenzene	20.83	180	247566	52.33	ug/L	100
141) hexachloroethane	19.10	201	109289	47.95	ug/L	98

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

Quantitation Report (QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\  
Data File  : 2D142686.D  
Acq On     : 14 Mar 2015    3:15 pm  
Operator   : BridgetK  
Sample     : jb89689-4msd  
Misc       : ms81917,v2d5985,w,,,,,1  
ALS Vial   : 12    Sample Multiplier: 1
```

Quant Time: Mar 14 15:38:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



M2D5970.M Mon Mar 16 15:01:06 2015 MS2D

Page: 4

7.4.4

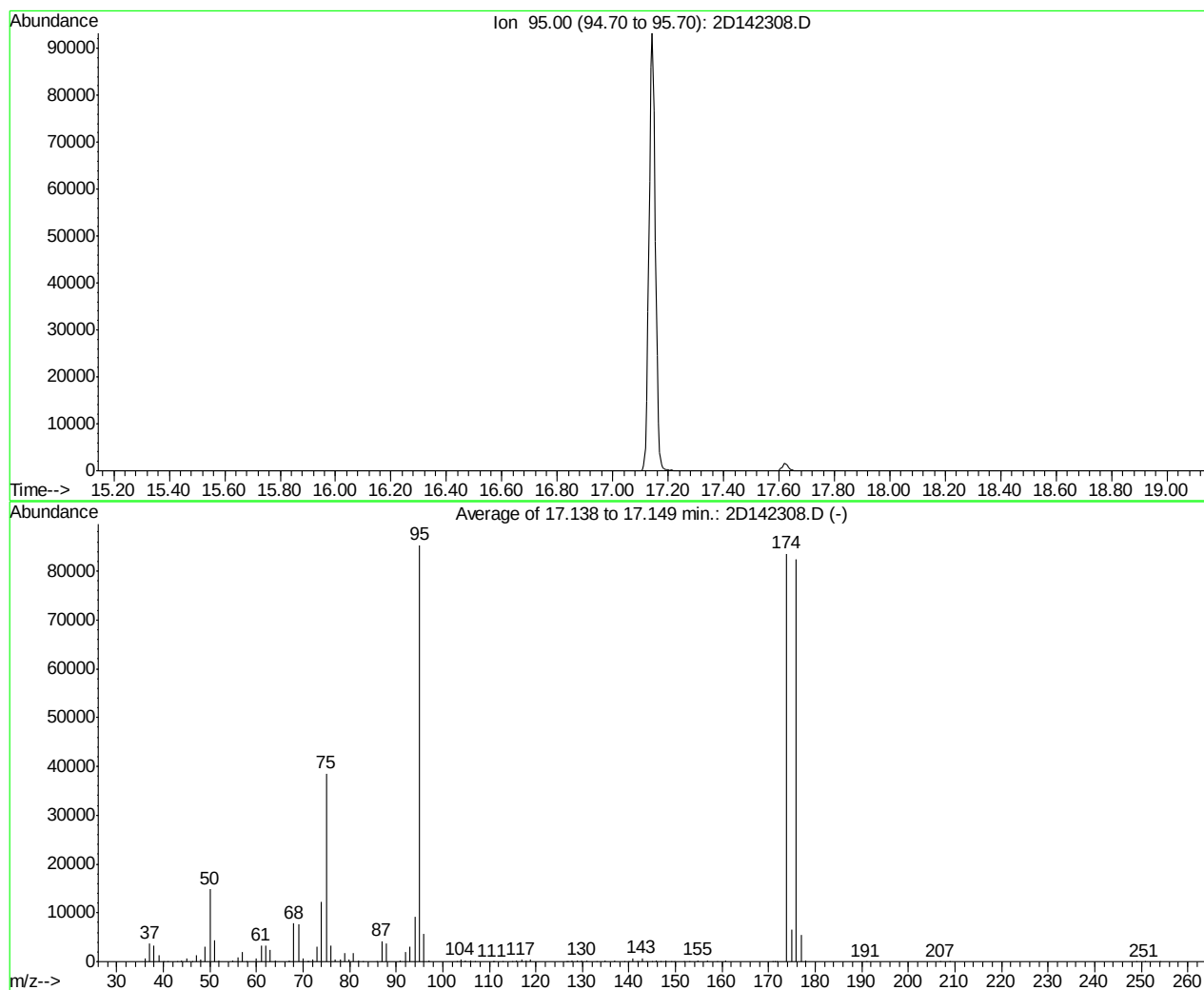


BFB

Data File : C:\MSDCHEM\1\DATA\2D142308.D
Acq On : 3 Mar 2015 9:39 am
Sample : bfb
Misc : ms81131,v2d5970,w,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: BridgetK
Inst : MS2D
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2567, 2568, 2569; Background Corrected with Scan 2558

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	14764	PASS
75	95	30	60	45.2	38565	PASS
95	95	100	100	100.0	85344	PASS
96	95	5	9	6.5	5588	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.9	83589	PASS
175	174	5	9	7.8	6528	PASS
176	174	95	101	98.6	82402	PASS
177	176	5	9	6.8	5573	PASS

Average of 17.138 to 17.149 min.: 2D142308.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	697	47.90	488	62.00	3361	74.00	12343
37.00	3757	49.00	3152	63.00	2402	75.00	38565
38.00	3267	50.00	14764	63.95	251	76.00	3285
39.00	1327	51.00	4439	66.95	254	76.95	544
39.90	5	51.95	206	68.00	7789	77.90	350
40.95	70	54.95	162	69.00	7690	78.90	1699
42.95	41	55.95	968	69.95	595	79.90	482
43.95	289	57.00	2036	70.90	23	80.85	1796
45.00	762	57.95	74	71.10	24	81.90	326
46.20	21	60.00	687	71.95	390	82.90	51
47.00	1224	60.95	3348	72.90	3172	85.85	115

Average of 17.138 to 17.149 min.: 2D142308.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.90	4206	104.85	121	126.60	37	140.85	636
87.90	3742	105.90	320	126.80	31	141.75	79
90.85	288	106.80	38	127.85	288	142.00	26
92.00	2050	110.70	24	128.85	153	142.85	736
92.95	3166	110.90	24	129.90	318	143.80	27
94.00	9086	112.90	31	130.85	128	144.85	68
95.00	85344	114.85	102	132.95	63	145.90	126
96.00	5588	115.85	227	134.80	150	146.85	99
96.95	188	116.90	421	136.80	128	147.85	236
102.90	24	117.85	241	138.90	20	148.95	46
103.85	336	118.85	381	139.90	85	149.80	107

Average of 17.138 to 17.149 min.: 2D142308.D

bfb

Modified:subtracted

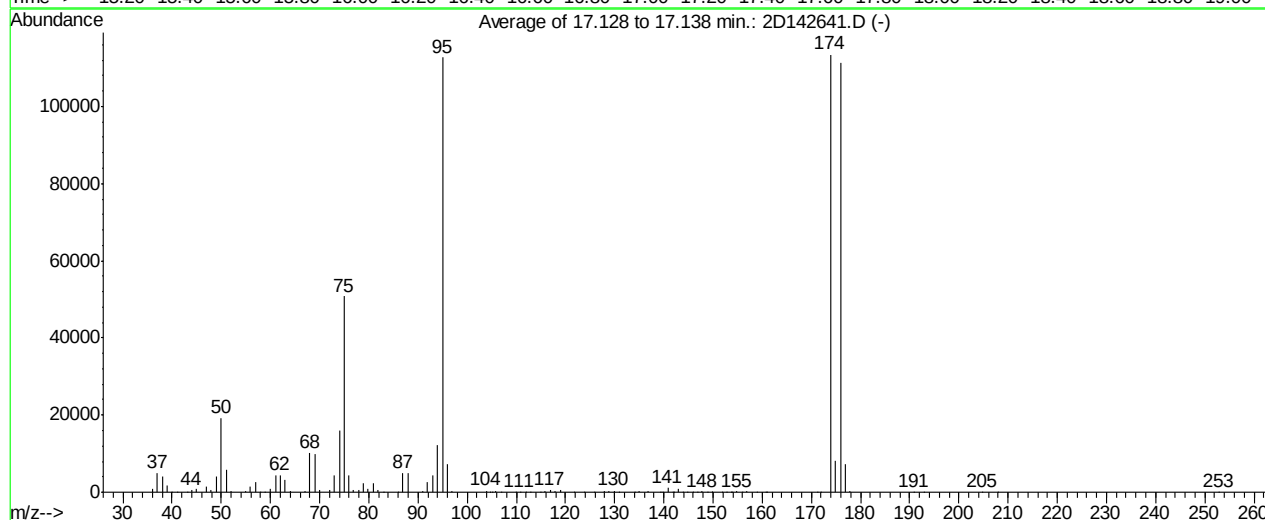
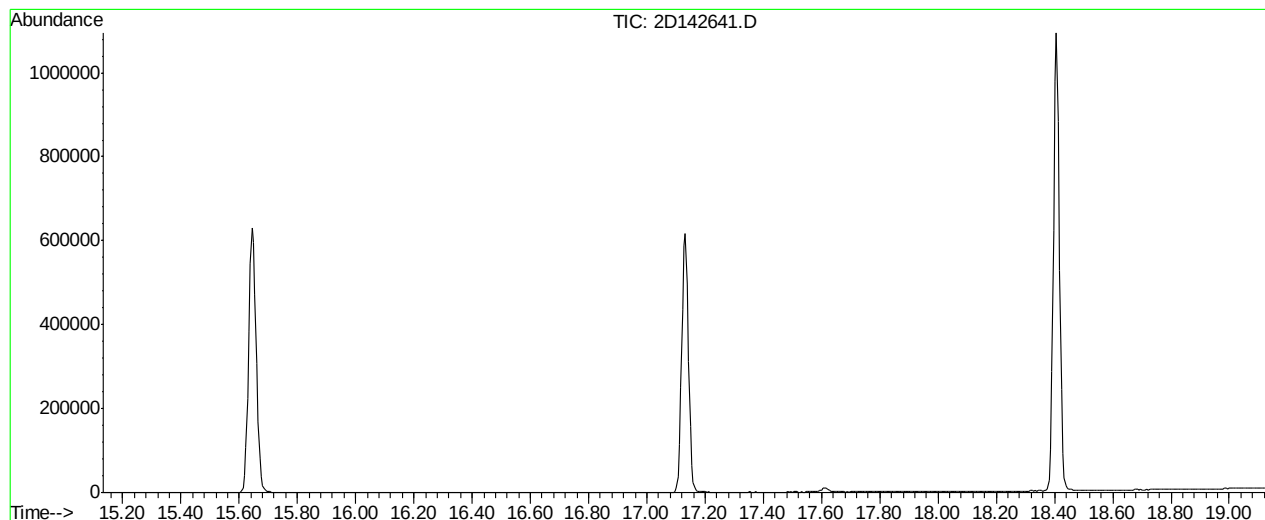
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
151.80	23	175.90	82402				
152.90	34	176.90	5573				
154.85	227	177.90	193				
156.95	129	190.90	20				
158.85	97	206.90	57				
160.85	127	208.80	20				
170.90	22	248.90	24				
171.20	27	250.80	28				
171.75	75	254.10	21				
173.90	83589						
174.90	6528						

BFB

Data File : C:\MSDCHEM\1\DATA\2D142641.D
Acq On : 13 Mar 2015 9:55 am
Sample : bfb
Misc : ms81906,v2d5984,w,,,1
MS Integration Params: RTEINT.P

Vial: 1
Operator: BridgetK
Inst : MS2D
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2565, 2566, 2567; Background Corrected with Scan 2556

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.0	19216	PASS
75	95	30	60	45.0	50749	PASS
95	95	100	100	100.0	112706	PASS
96	95	5	9	6.6	7408	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	100.7	113482	PASS
175	174	5	9	7.3	8265	PASS
176	174	95	101	98.0	111224	PASS
177	176	5	9	6.6	7364	PASS

Average of 17.128 to 17.138 min.: 2D142641.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1024	48.95	4112	62.00	4417	76.00	4429
37.00	4958	50.00	19216	63.00	3075	76.90	627
38.00	4003	51.00	5903	63.95	308	77.90	533
39.00	1695	52.00	255	67.00	286	78.90	2324
39.90	45	54.95	272	68.00	10037	79.90	773
41.00	22	55.95	1370	69.00	9966	80.85	2413
43.00	42	57.00	2656	69.95	698	81.85	490
43.95	525	57.95	103	71.95	596	82.90	32
45.00	816	58.80	21	72.95	4271	85.90	130
46.95	1542	59.95	932	74.00	15996	86.90	5082
47.95	605	61.00	4411	75.00	50749	87.90	4831

Average of 17.128 to 17.138 min.: 2D142641.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.95	367	106.85	74	123.80	21	140.85	1035
91.95	2655	109.80	20	125.90	45	141.85	74
92.95	4343	110.80	20	127.85	364	142.10	44
94.00	12103	111.90	20	128.80	168	142.90	947
95.00	112706	112.75	76	129.85	405	143.85	68
96.00	7408	114.80	106	130.80	155	144.85	94
96.95	235	115.90	385	134.10	20	145.85	153
103.85	380	116.85	530	134.85	222	146.85	74
104.75	85	117.85	340	136.80	183	147.80	271
105.00	48	118.90	507	139.40	23	148.85	102
105.85	372	121.70	22	139.80	99	149.70	33

Average of 17.128 to 17.138 min.: 2D142641.D

bfb

Modified:subtracted

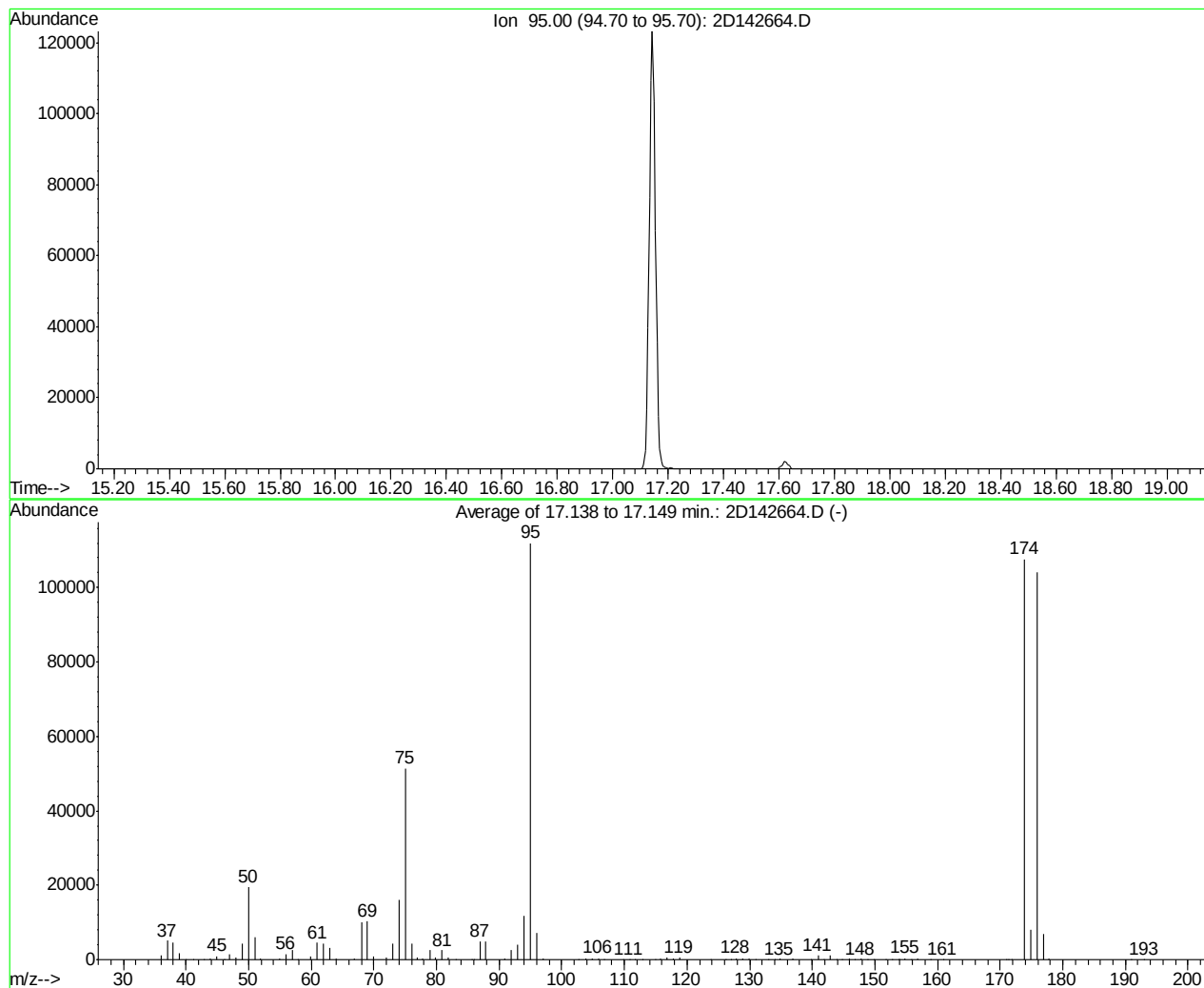
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
149.85	60	171.15	44	252.90	39		
151.85	53	172.00	63				
152.75	57	173.90	113482				
153.70	26	174.90	8265				
153.90	56	175.90	111224				
154.85	286	176.90	7364				
156.00	25	177.85	176				
156.85	251	190.90	55				
158.85	155	192.80	27				
160.70	55	204.80	20				
160.90	72	207.90	20				

BFB

Data File : C:\MSDCHEM\1\DATA\2D142664.D
 Acq On : 13 Mar 2015 10:01 pm
 Sample : bfb2
 Misc : ms81917,v2d5984,w,,,1
 MS Integration Params: RTEINT.P

Vial: 24
 Operator: BridgetK
 Inst : MS2D
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
 Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2567, 2568, 2569; Background Corrected with Scan 2558

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	19488	PASS
75	95	30	60	45.9	51402	PASS
95	95	100	100	100.0	111989	PASS
96	95	5	9	6.4	7150	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	96.1	107597	PASS
175	174	5	9	7.6	8164	PASS
176	174	95	101	96.8	104186	PASS
177	176	5	9	6.7	6938	PASS

2D142664.D M2D5970.M Mon Mar 16 12:45:55 2015 MS2D

Average of 17.138 to 17.149 min.: 2D142664.D

bfb2

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1040	47.95	692	62.00	4343	76.00	4207
37.00	5128	49.00	4195	63.00	3252	76.95	648
38.00	4500	50.00	19488	63.95	292	77.85	425
39.00	1683	51.00	6056	66.95	247	78.90	2460
39.90	34	51.95	300	68.00	10042	79.90	718
41.10	20	54.95	242	69.00	10214	80.90	2477
42.90	27	55.95	1450	69.95	748	81.80	547
43.95	434	57.00	2514	71.95	535	83.00	22
44.95	871	57.90	103	73.00	4405	85.70	46
46.10	27	59.95	988	74.00	16055	86.00	91
46.95	1503	61.00	4477	75.00	51402	86.90	4959

Average of 17.138 to 17.149 min.: 2D142664.D

bfb2

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.90	4939	105.85	398	123.80	24	139.75	79
90.85	339	106.80	102	126.20	20	140.90	1031
91.95	2613	109.80	42	126.95	91	141.90	111
93.00	4150	110.75	51	127.80	423	142.85	1029
94.00	11900	111.70	41	128.85	178	143.80	41
95.00	111989	112.80	32	129.85	391	144.80	92
96.00	7150	114.85	117	130.85	142	145.85	191
96.95	178	115.85	381	132.90	55	146.85	123
102.70	26	116.80	554	134.00	20	147.75	254
103.85	355	117.90	327	134.85	181	148.75	77
104.85	173	118.80	575	136.85	175	149.85	132

Average of 17.138 to 17.149 min.: 2D142664.D

bfb2

Modified:subtracted

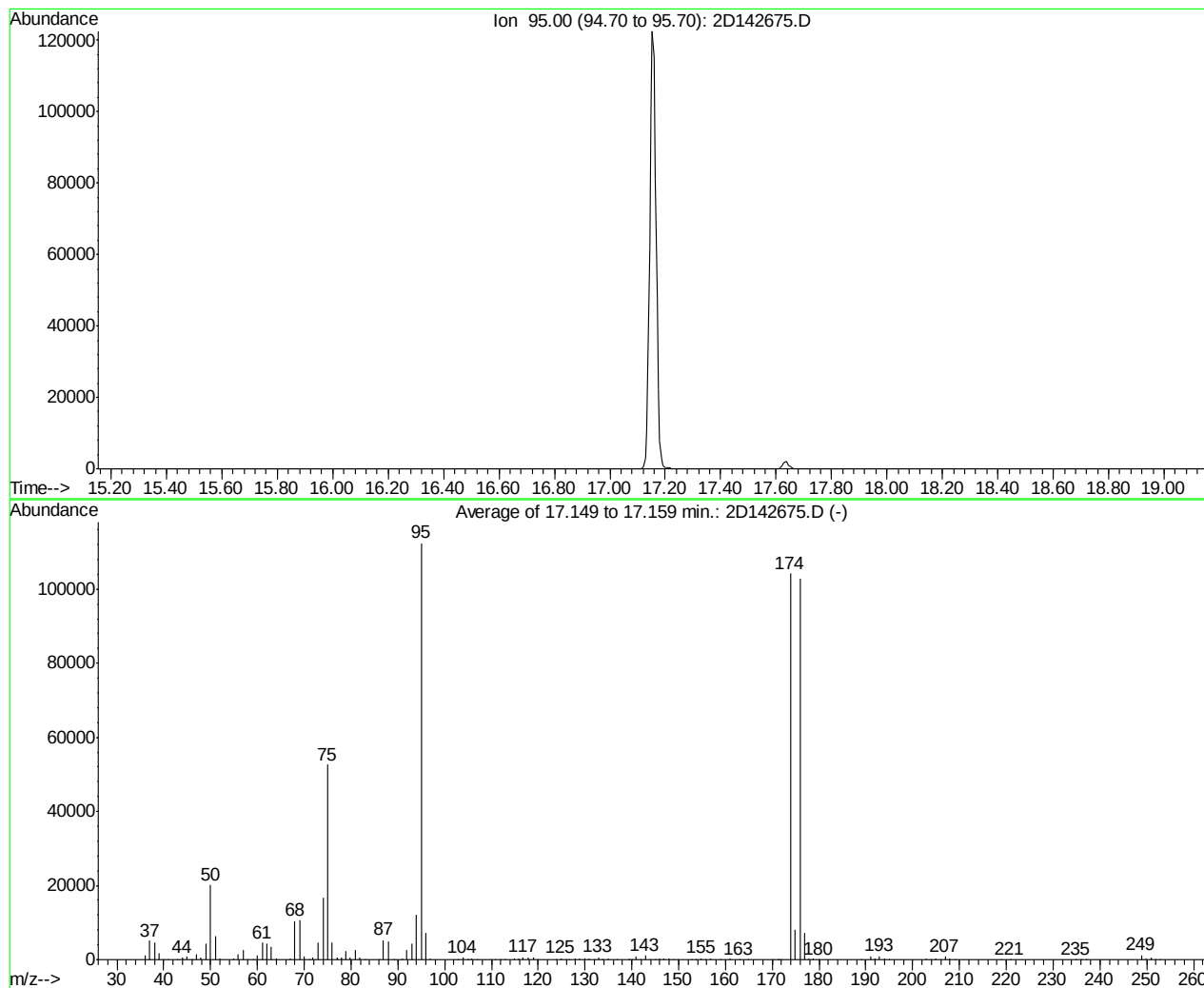
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
151.80	28	171.85	118				
152.80	64	173.90	107597				
153.70	30	174.90	8164				
153.90	32	175.90	104186				
154.80	297	176.90	6938				
155.80	21	177.85	200				
156.85	167	190.90	22				
158.85	87	193.00	28				
160.85	127						
171.05	54						
171.30	60						

BFB

Data File : C:\MSDCHEM\1\DATA\2D142675.D
 Acq On : 14 Mar 2015 9:25 am
 Sample : bfb
 Misc : ms82037,v2d5985,w,,,1
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: BridgetK
 Inst : MS2D
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D5970.M (RTE Integrator)
 Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2569, 2570, 2571; Background Corrected with Scan 2560

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	20104	PASS
75	95	30	60	46.8	52600	PASS
95	95	100	100	100.0	112432	PASS
96	95	5	9	6.5	7323	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	92.6	104106	PASS
175	174	5	9	7.9	8183	PASS
176	174	95	101	98.8	102901	PASS
177	176	5	9	7.0	7184	PASS

Average of 17.149 to 17.159 min.: 2D142675.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1049	47.95	540	61.00	4546	74.00	16741
37.00	5127	49.00	4454	62.00	4350	75.00	52600
38.00	4513	50.00	20104	63.00	3471	76.00	4650
39.00	1751	51.00	6235	63.95	319	76.95	669
39.85	93	51.95	261	66.95	306	77.95	530
40.90	23	54.90	238	68.00	10424	78.90	2397
42.95	79	55.95	1413	69.00	10528	79.90	716
43.90	566	57.00	2716	69.95	810	80.90	2615
45.00	858	57.95	103	71.05	51	81.90	599
45.95	64	58.95	137	71.90	565	82.90	23
47.00	1566	59.95	1030	72.95	4655	85.95	139

Average of 17.149 to 17.159 min.: 2D142675.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.90	5202	103.85	466	116.80	689	130.85	168
87.90	4953	104.80	99	117.85	466	132.00	20
89.10	23	105.00	61	118.90	597	132.90	623
90.90	350	105.85	420	119.80	20	133.70	118
91.95	2653	106.85	85	123.85	43	133.90	98
92.90	4307	109.85	101	124.90	299	134.85	249
94.00	12032	110.85	125	125.85	8	136.80	145
95.00	112432	111.90	66	126.50	33	139.40	22
95.95	7323	112.85	74	127.85	396	139.60	28
96.95	260	114.95	194	128.85	233	139.90	92
102.85	144	115.80	367	129.90	365	140.85	954

Average of 17.149 to 17.159 min.: 2D142675.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.85	155	154.85	298	173.90	104106	193.90	173
142.85	1027	155.80	22	174.90	8183	194.95	109
143.85	57	156.80	218	175.90	102901	202.95	177
144.90	115	158.80	142	176.90	7184	203.90	29
145.85	189	160.85	192	177.85	300	204.95	278
146.90	180	162.90	133	178.80	175	205.85	57
147.85	306	164.90	110	179.90	33	206.95	744
148.85	124	170.10	22	188.90	99	207.90	208
149.80	119	171.10	50	190.95	788	209.00	144
152.85	84	171.50	46	191.90	170	218.90	28
153.75	51	171.80	34	192.90	984	220.90	41

Average of 17.149 to 17.159 min.: 2D142675.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
234.85	145						
235.90	26						
237.00	50						
248.85	1176						
249.85	256						
250.90	516						
251.80	99						
252.90	46						

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142309.D
 Acq On : 3 Mar 2015 10:15 am
 Operator : BridgetK
 Sample : ic5970-0.2
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:34:56 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 14:50:16 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	84692	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	351895	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.45	114	357859	50.00	ug/L	-0.01
94) chlorobenzene-d5	15.66	117	319507	50.00	ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.42	152	210996	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount	50.000	Range 79 - 120	Recovery	=	0.00%#	
55) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount	50.000	Range 72 - 123	Recovery	=	0.00%#	
86) toluene-d8 (s)	0.00	98	0d	0.00	ug/L	
Spiked Amount	50.000	Range 78 - 119	Recovery	=	0.00%#	
111) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount	50.000	Range 74 - 119	Recovery	=	0.00%#	

Target Compounds

					Qvalue
16) vinyl chloride	4.52	62	561	0.19 ug/L	91
18) bromomethane	5.21	94	504	0.25 ug/L	91
34) methylene chloride	7.59	84	364	0.18 ug/L	86
39) di-isopropyl ether	8.71	45	1113	0.16 ug/L	69
42) chloroprene	8.83	53	447	0.16 ug/L	66
45) ethyl tert-butyl ether	9.27	59	937	0.14 ug/L	82

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

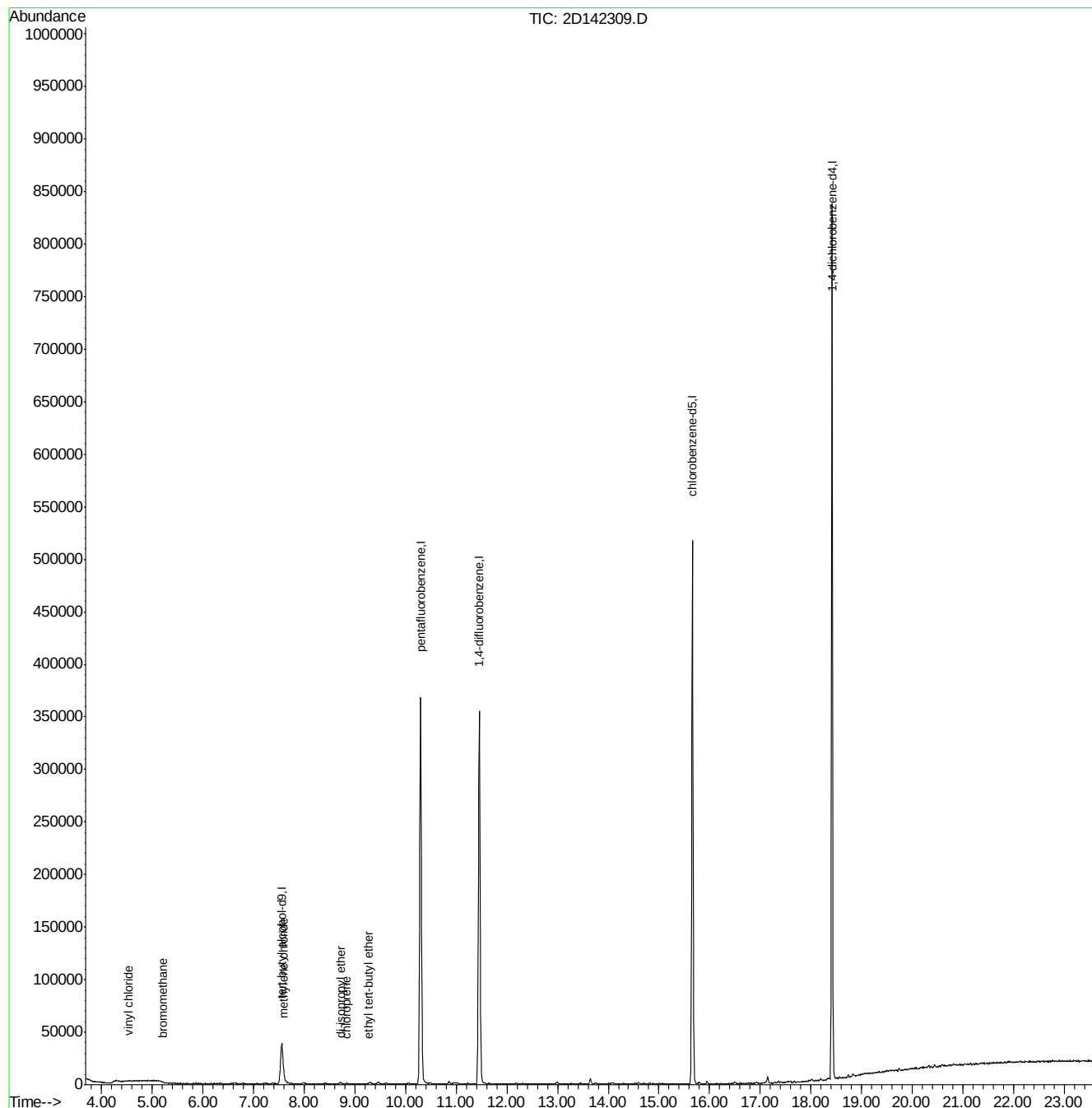
7.6.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142309.D
Acq On : 3 Mar 2015 10:15 am
Operator : BridgetK
Sample : ic5970-0.2
Misc : ms79298,v2d5970,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:34:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 14:50:16 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142312.D
 Acq On : 3 Mar 2015 11:47 am
 Operator : BridgetK
 Sample : ic5970-2
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 04 11:45:40 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:13:24 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	85950	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	357759	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.46	114	364653	50.00	ug/L	0.00
94) chlorobenzene-d5	15.67	117	332004	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.42	152	213808	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.32	113	4499	1.64	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	3.28%#
55) 1,2-dichloroethane-d4 (s)	10.86	65	4486	1.59	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	3.18%#
86) toluene-d8 (s)	13.65	98	14175	1.66	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	3.32%#
111) 4-bromofluorobenzene (s)	17.15	95	6186	1.60	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	3.20%#

Target Compounds

Qvalue

2) tertiary butyl alcohol	7.69	59	1428	9.64	ug/L	91
3) ethyl alcohol	6.20	45	3398	170.61	ug/L	# 38
4) 1,4-dioxane	12.41	88	610	37.26	ug/L	# 91
11) chlorodifluoromethane	3.95	51	3611	2.05	ug/L	87
12) dichlorodifluoromethane	3.94	85	4500	1.99	ug/L	99
15) chloromethane	4.27	50	6161	1.76	ug/L	99
16) vinyl chloride	4.53	62	5323	1.77	ug/L	91
18) bromomethane	5.20	94	4029	1.83	ug/L	90
19) chloroethane	5.39	64	2614	1.88	ug/L	91
20) trichlorofluoromethane	5.90	101	5492	1.77	ug/L	89
22) ethyl ether	6.35	74	2106	2.54	ug/L	81
23) acrolein	6.61	56	875602	2070.79	ug/L	99
27) 1,1-dichloroethene	6.79	96	3796	2.47	ug/L	97
28) 2-chloropropane	6.55	43	7715	2.17	ug/L	# 85
30) allyl chloride	7.39	76	2098	2.71	ug/L	92
31) acetonitrile	7.37	40	3417	24.12	ug/L	# 7
32) iodomethane	7.08	142	7706	2.63	ug/L	96
33) carbon disulfide	7.21	76	13811	2.60	ug/L	96
34) methylene chloride	7.59	84	4739	2.45	ug/L	94
35) methyl acetate	7.38	74	526	1.62	ug/L	# 70
36) 1-chloropropane	7.63	63	364	2.27	ug/L	# 52
37) methyl tert butyl ether	7.99	73	11880	2.39	ug/L	95
38) trans-1,2-dichloroethene	8.02	96	4492	2.48	ug/L	93
39) di-isopropyl ether	8.72	45	11659	1.98	ug/L	97
40) 2-butanone	9.59	72	364	1.84	ug/L	# 49
41) 1,1-dichloroethane	8.70	63	7991	2.71	ug/L	96
42) chloroprene	8.84	53	4608	2.09	ug/L	97
43) acrylonitrile	7.99	53	6736	11.67	ug/L	93
45) ethyl tert-butyl ether	9.28	59	11174	2.02	ug/L	98
46) ethyl acetate	9.63	45	513	2.05	ug/L	# 56
47) 2,2-dichloropropane	9.63	77	6614	2.62	ug/L	92
48) cis-1,2-dichloroethene	9.61	96	4938	2.52	ug/L	99
49) propionitrile	9.72	54	5854	25.27	ug/L	83

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142312.D
 Acq On : 3 Mar 2015 11:47 am
 Operator : BridgetK
 Sample : ic5970-2
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 04 11:45:40 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:13:24 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) tert-Butyl Formate	10.14	59	3075	2.02	ug/L #	93
51) bromochloromethane	9.99	128	2332	2.59	ug/L	95
52) tetrahydrofuran	10.04	42	1542	2.83	ug/L	81
53) chloroform	10.07	83	7824	2.59	ug/L	97
57) methacrylonitrile	9.94	67	1488	2.28	ug/L	93
58) 1,1,1-trichloroethane	10.39	97	6551	2.60	ug/L	97
59) cyclohexane	10.48	84	6178	2.94	ug/L	94
60) isobutyl alcohol	10.62	74	515	22.34	ug/L #	24
62) iso-octane	10.99	57	11448	2.01	ug/L	93
65) epichlorohydrin	13.14	57	1807	11.36	ug/L	85
66) n-butyl alcohol	11.64	56	3994	106.53	ug/L	92
67) carbon tetrachloride	10.64	117	5803	2.76	ug/L	96
68) 1,1-dichloropropene	10.62	75	5571	2.71	ug/L	92
69) hexane	8.41	86	506	1.53	ug/L #	75
70) benzene	10.96	78	17560	2.67	ug/L	99
71) tert-amyl methyl ether	11.03	87	2351	2.14	ug/L	96
72) heptane	11.23	57	2221	2.12	ug/L	88
73) isopropyl acetate	10.92	43	6309	1.89	ug/L	97
74) 1,2-dichloroethane	10.97	62	5517	2.58	ug/L	96
75) trichloroethene	11.88	130	4501	2.65	ug/L	95
79) 2-chloroethyl vinyl ether	12.99	63	9846	9.72	ug/L	94
80) methyl methacrylate	12.30	69	2488	2.29	ug/L	98
81) 1,2-dichloropropane	12.25	63	4619	2.62	ug/L	97
82) dibromomethane	12.43	93	2868	2.65	ug/L	87
83) methylcyclohexane	12.18	83	5153	2.25	ug/L	88
84) bromodichloromethane	12.62	83	5972	2.56	ug/L	91
85) cis-1,3-dichloropropene	13.25	75	7327	2.42	ug/L	92
87) 4-methyl-2-pentanone	13.43	58	1524	2.37	ug/L	96
88) toluene	13.75	92	10767	2.59	ug/L	94
89) 3-methyl-1-butanol	13.45	55	2832	39.59	ug/L	95
90) trans-1,3-dichloropropene	14.02	75	6545	2.52	ug/L	98
91) ethyl methacrylate	14.07	69	5061	2.36	ug/L	89
92) 1,1,2-trichloroethane	14.30	83	3335	2.39	ug/L	99
93) 2-hexanone	14.58	58	1374	2.12	ug/L	93
95) 3,3-Dimethyl-1-butanol	14.81	57	3299	22.70	ug/L #	96
96) tetrachloroethene	14.52	164	4314	2.76	ug/L	96
97) 1,3-dichloropropane	14.55	76	6356	2.49	ug/L	96
98) butyl acetate	14.71	56	2044	1.84	ug/L	98
99) dibromochloromethane	14.87	129	4734	2.37	ug/L	96
100) 1,2-dibromoethane	15.07	107	4011	2.53	ug/L	98
101) n-butyl ether	15.69	57	20626	2.54	ug/L	74
102) chlorobenzene	15.70	112	12273	2.58	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.80	131	5091	2.72	ug/L	92
104) ethylbenzene	15.81	91	21496	2.69	ug/L	98
105) m,p-xylene	15.95	106	15888	5.23	ug/L	97
106) o-xylene	16.49	106	8316	2.66	ug/L	99
107) styrene	16.50	104	13473	2.56	ug/L	92
108) bromoform	16.80	173	3428	2.38	ug/L	97
110) isopropylbenzene	16.93	105	21493	2.56	ug/L	98
113) bromobenzene	17.36	156	6162	2.56	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142312.D
 Acq On : 3 Mar 2015 11:47 am
 Operator : BridgetK
 Sample : ic5970-2
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 04 11:45:40 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:13:24 2015
 Response via : Initial Calibration

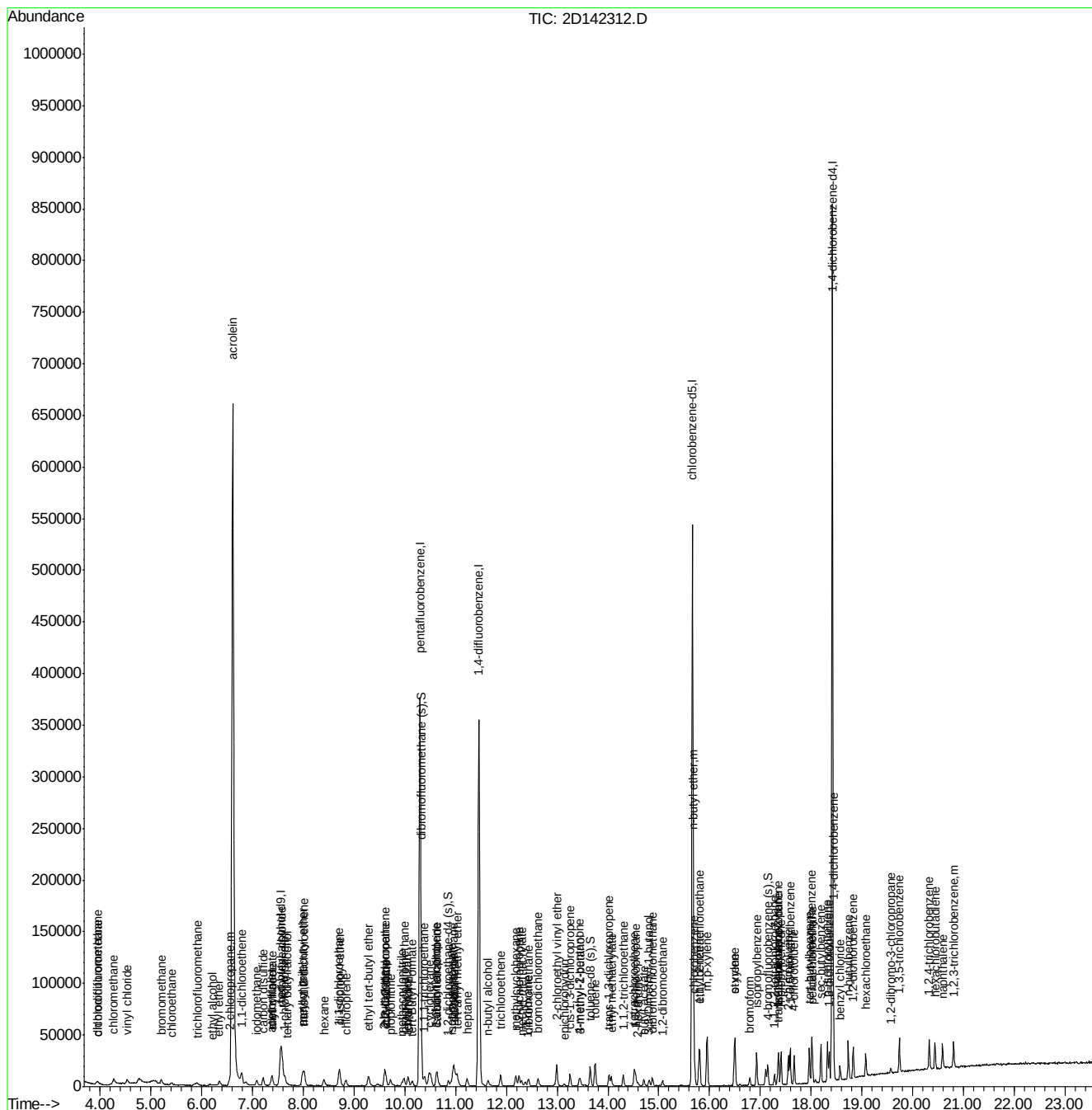
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,1,2,2-tetrachloroethane	17.28	83	5685	2.45	ug/L	98
115) trans-1,4-dichloro-2-buten	17.34	53	1451	2.46	ug/L	90
116) 1,2,3-trichloropropane	17.36	110	1486	2.71	ug/L #	86
117) n-propylbenzene	17.41	91	24402	2.56	ug/L	98
119) 2-chlorotoluene	17.55	126	5535	2.57	ug/L	99
120) 4-chlorotoluene	17.67	91	15972	2.49	ug/L	96
121) 1,3,5-trimethylbenzene	17.59	105	18689	2.60	ug/L	98
122) tert-butylbenzene	17.97	119	15903	2.54	ug/L	98
123) pentachloroethane	18.03	167	4166	2.57	ug/L	94
124) 1,2,4-trimethylbenzene	18.01	105	18431	2.59	ug/L	96
126) sec-butylbenzene	18.19	105	24453	2.61	ug/L	98
127) 1,3-dichlorobenzene	18.36	146	11583	2.43	ug/L	97
128) p-isopropyltoluene	18.32	119	20535	2.44	ug/L	97
129) 1,4-dichlorobenzene	18.44	146	11693	2.45	ug/L	94
130) 1,2-dichlorobenzene	18.83	146	11867	2.50	ug/L	97
131) benzyl chloride	18.57	91	9315	1.95	ug/L	100
133) n-butylbenzene	18.73	92	10735	2.66	ug/L	98
135) 1,2-dibromo-3-chloropropan	19.57	157	1425	2.56	ug/L	95
136) 1,3,5-trichlorobenzene	19.74	180	10401	2.56	ug/L	98
137) hexachlorobutadiene	20.44	225	5615	2.59	ug/L	98
138) naphthalene	20.59	128	18027	2.54	ug/L	98
139) 1,2,4-trichlorobenzene	20.33	180	9176	2.44	ug/L	95
140) 1,2,3-trichlorobenzene	20.81	180	8137	2.48	ug/L	100
141) hexachloroethane	19.08	201	4003	2.54	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142312.D
Acq On : 3 Mar 2015 11:47 am
Operator : BridgetK
Sample : ic5970-2
Misc : ms79298, v2d5970, w, , , , 1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 04 11:45:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 15:13:24 2015
Response via : Initial Calibration



M2D5970.M Fri Mar 06 10:41:52 2015 MS2D

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7.6.2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142313.D
 Acq On : 3 Mar 2015 12:18 pm
 Operator : BridgetK
 Sample : ic5970-5
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 11:46:37 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:16:15 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	86832	500.00	ug/L	0.00
5) pentafluorobenzene	10.30	168	358371	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.46	114	367537	50.00	ug/L	0.00
94) chlorobenzene-d5	15.66	117	340297	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.42	152	220490	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.32	113	10170	3.88	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	7.76%#	
55) 1,2-dichloroethane-d4 (s)	10.86	65	10457	3.91	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	7.82%#	
86) toluene-d8 (s)	13.65	98	34647	4.20	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	8.40%#	
111) 4-bromofluorobenzene (s)	17.14	95	14551	3.85	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	7.70%#	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) tertiary butyl alcohol	7.70	59	3826	25.80	ug/L	99
3) ethyl alcohol	6.19	45	9255	483.65	ug/L	92
4) 1,4-dioxane	12.40	88	1735	120.21	ug/L #	91
11) chlorodifluoromethane	3.96	51	9062	5.10	ug/L	96
12) dichlorodifluoromethane	3.94	85	14266	6.31	ug/L	98
15) chloromethane	4.28	50	16972	5.00	ug/L	97
16) vinyl chloride	4.54	62	15785	5.40	ug/L	97
18) bromomethane	5.22	94	10907	5.05	ug/L	100
19) chloroethane	5.40	64	7439	5.42	ug/L	97
20) trichlorofluoromethane	5.92	101	17173	5.74	ug/L	94
22) ethyl ether	6.35	74	4506	5.08	ug/L	83
23) acrolein	6.62	56	22309	52.21	ug/L	100
27) 1,1-dichloroethene	6.79	96	8160	5.01	ug/L	98
28) 2-chloropropane	6.55	43	14971	4.12	ug/L	96
29) acetone	6.88	58	643	4.20	ug/L	98
30) allyl chloride	7.39	76	4272	5.06	ug/L #	85
31) acetonitrile	7.38	40	7044	46.45	ug/L #	1
32) iodomethane	7.09	142	16884	5.33	ug/L	99
33) carbon disulfide	7.21	76	28410	4.97	ug/L	97
34) methylene chloride	7.60	84	10195	4.98	ug/L	95
35) methyl acetate	7.39	74	1355	4.60	ug/L	99
36) 1-chloropropane	7.65	63	765	4.46	ug/L	69
37) methyl tert butyl ether	7.99	73	26273	5.03	ug/L	97
38) trans-1,2-dichloroethene	8.03	96	8844	4.60	ug/L	97
39) di-isopropyl ether	8.72	45	30193	5.13	ug/L	98
40) 2-butanone	9.59	72	789	4.15	ug/L	83
41) 1,1-dichloroethane	8.71	63	16498	5.13	ug/L	97
42) chloroprene	8.83	53	12078	5.40	ug/L	96
43) acrylonitrile	7.99	53	15123	25.11	ug/L	99
45) ethyl tert-butyl ether	9.28	59	29082	5.24	ug/L	99
46) ethyl acetate	9.62	45	1244	4.90	ug/L #	37
47) 2,2-dichloropropane	9.62	77	13709	5.03	ug/L	95
48) cis-1,2-dichloroethene	9.61	96	10249	4.90	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142313.D
 Acq On : 3 Mar 2015 12:18 pm
 Operator : BridgetK
 Sample : ic5970-5
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 11:46:37 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:16:15 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.72	54	12515	50.60	ug/L	98
50) tert-Butyl Formate	10.14	59	8314	5.45	ug/L #	98
51) bromochloromethane	9.99	128	5082	5.25	ug/L	95
52) tetrahydrofuran	10.05	42	2848	4.32	ug/L	93
53) chloroform	10.07	83	16263	5.01	ug/L	98
56) freon 113	6.78	151	6296	6.19	ug/L	95
57) methacrylonitrile	9.95	67	3310	4.83	ug/L	87
58) 1,1,1-trichloroethane	10.39	97	13376	4.92	ug/L	98
59) cyclohexane	10.48	84	12001	5.11	ug/L	89
60) isobutyl alcohol	10.63	74	970	39.69	ug/L #	67
62) iso-octane	11.00	57	28301	4.95	ug/L	95
65) epichlorohydrin	13.14	57	3586	21.63	ug/L	97
66) n-butyl alcohol	11.64	56	9461	246.35	ug/L	97
67) carbon tetrachloride	10.64	117	11694	5.04	ug/L	94
68) 1,1-dichloropropene	10.62	75	11160	4.94	ug/L	99
69) hexane	8.41	86	1236	4.20	ug/L #	91
70) benzene	10.96	78	36253	5.05	ug/L	98
71) tert-amyl methyl ether	11.04	87	5858	5.20	ug/L	97
72) heptane	11.23	57	5629	5.24	ug/L	94
73) isopropyl acetate	10.91	43	15349	4.62	ug/L	97
74) 1,2-dichloroethane	10.98	62	11842	5.13	ug/L	99
75) trichloroethene	11.88	130	9349	5.05	ug/L	96
79) 2-chloroethyl vinyl ether	12.99	63	24989	24.66	ug/L	95
80) methyl methacrylate	12.30	69	5719	5.05	ug/L	81
81) 1,2-dichloropropane	12.25	63	9581	5.01	ug/L	99
82) dibromomethane	12.44	93	6132	5.20	ug/L	93
83) methylcyclohexane	12.19	83	12925	5.42	ug/L	99
84) bromodichloromethane	12.62	83	12998	5.17	ug/L	94
85) cis-1,3-dichloropropene	13.25	75	15764	4.91	ug/L	98
87) 4-methyl-2-pentanone	13.43	58	3342	4.86	ug/L	99
88) toluene	13.75	92	22315	4.96	ug/L	100
89) 3-methyl-1-butanol	13.45	55	6708	93.27	ug/L	97
90) trans-1,3-dichloropropene	14.02	75	14652	5.25	ug/L	93
91) ethyl methacrylate	14.07	69	11469	5.07	ug/L	95
92) 1,1,2-trichloroethane	14.30	83	7418	5.02	ug/L	97
93) 2-hexanone	14.58	58	2953	4.39	ug/L	89
95) 3,3-Dimethyl-1-butanol	14.81	57	7175	46.59	ug/L #	98
96) tetrachloroethene	14.52	164	8484	4.84	ug/L	96
97) 1,3-dichloropropane	14.55	76	13919	5.01	ug/L	98
98) butyl acetate	14.71	56	5266	4.71	ug/L	93
99) dibromochloromethane	14.88	129	10856	5.07	ug/L	98
100) 1,2-dibromoethane	15.07	107	9106	5.25	ug/L	98
101) n-butyl ether	15.69	57	43233	4.87	ug/L	86
102) chlorobenzene	15.71	112	25952	4.96	ug/L	96
103) 1,1,1,2-tetrachloroethane	15.79	131	10763	5.14	ug/L	97
104) ethylbenzene	15.81	91	43827	4.93	ug/L	99
105) m,p-xylene	15.95	106	33651	10.04	ug/L	96
106) o-xylene	16.49	106	17758	5.12	ug/L	99
107) styrene	16.50	104	29121	5.05	ug/L	97
108) bromoform	16.80	173	8001	5.18	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142313.D
 Acq On : 3 Mar 2015 12:18 pm
 Operator : BridgetK
 Sample : ic5970-5
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 04 11:46:37 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:16:15 2015
 Response via : Initial Calibration

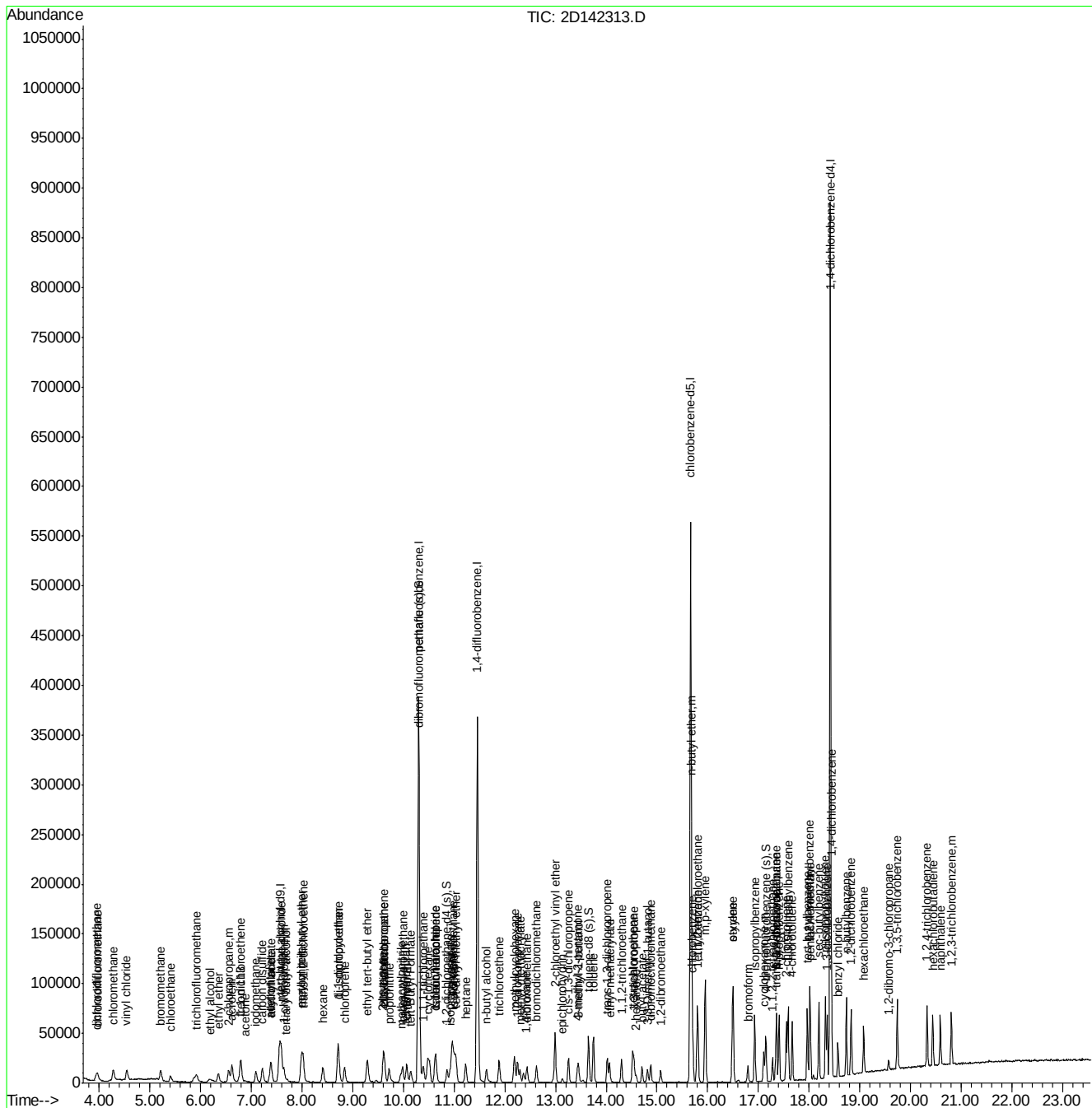
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) isopropylbenzene	16.93	105	45184	4.88	ug/L	98
112) cyclohexanone	17.11	55	13277	41.29	ug/L	99
113) bromobenzene	17.36	156	13239	4.99	ug/L	94
114) 1,1,2,2-tetrachloroethane	17.28	83	12568	4.98	ug/L	100
115) trans-1,4-dichloro-2-buten	17.34	53	3229	5.02	ug/L	88
116) 1,2,3-trichloropropane	17.36	110	3020	4.91	ug/L	95
117) n-propylbenzene	17.41	91	51269	4.88	ug/L	98
119) 2-chlorotoluene	17.55	126	11488	4.83	ug/L	99
120) 4-chlorotoluene	17.67	91	33212	4.73	ug/L	98
121) 1,3,5-trimethylbenzene	17.59	105	39212	4.92	ug/L	96
122) tert-butylbenzene	17.97	119	32991	4.79	ug/L	99
123) pentachloroethane	18.03	167	9027	5.04	ug/L	96
124) 1,2,4-trimethylbenzene	18.01	105	39871	5.06	ug/L	98
126) sec-butylbenzene	18.19	105	51490	4.95	ug/L	99
127) 1,3-dichlorobenzene	18.36	146	25592	4.95	ug/L	98
128) p-isopropyltoluene	18.32	119	43536	4.75	ug/L	99
129) 1,4-dichlorobenzene	18.44	146	25401	4.89	ug/L	96
130) 1,2-dichlorobenzene	18.83	146	25200	4.84	ug/L	99
131) benzyl chloride	18.57	91	22663	4.63	ug/L	98
133) n-butylbenzene	18.74	92	21817	4.85	ug/L	98
135) 1,2-dibromo-3-chloropropan	19.57	157	3047	4.96	ug/L	97
136) 1,3,5-trichlorobenzene	19.74	180	22519	5.02	ug/L	100
137) hexachlorobutadiene	20.44	225	11271	4.70	ug/L	92
138) naphthalene	20.59	128	38039	4.86	ug/L	98
139) 1,2,4-trichlorobenzene	20.33	180	19824	4.84	ug/L	99
140) 1,2,3-trichlorobenzene	20.81	180	17157	4.79	ug/L	98
141) hexachloroethane	19.08	201	8494	4.90	ug/L	97

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

(QT Reviewed)

```
Data Path : C:\MSDCHEM\1\DATA\  
Data File : 2D142313.D  
Acq On    : 3 Mar 2015 12:18 pm  
Operator  : BridgetK  
Sample    : ic5970-5  
Misc      : ms79298,v2d5970,w,,,,,1  
ALS Vial  : 6 Sample Multiplier: 1
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Quant Time: Mar 04 11:46:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 15:16:15 2015
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142314.D
 Acq On : 3 Mar 2015 12:48 pm
 Operator : BridgetK
 Sample : ic5970-10
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 13:36:11 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 13:33:59 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	86531	500.00	ug/L	-0.03
5) pentafluorobenzene	10.30	168	359539	50.00	ug/L	-0.03
63) 1,4-difluorobenzene	11.46	114	367507	50.00	ug/L	-0.03
94) chlorobenzene-d5	15.66	117	344445	50.00	ug/L	-0.03
109) 1,4-dichlorobenzene-d4	18.42	152	224617	50.00	ug/L	-0.02

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	20177	8.08	ug/L	-0.04
Spiked Amount	50.000	Range	79 - 120	Recovery	=	16.16%#
55) 1,2-dichloroethane-d4 (s)	10.86	65	21460	7.43	ug/L	-0.03
Spiked Amount	50.000	Range	72 - 123	Recovery	=	14.86%#
86) toluene-d8 (s)	13.65	98	73334	9.90	ug/L	-0.03
Spiked Amount	50.000	Range	78 - 119	Recovery	=	19.80%#
111) 4-bromofluorobenzene (s)	17.15	95	30801	8.62	ug/L	-0.02
Spiked Amount	50.000	Range	74 - 119	Recovery	=	17.24%#

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.70	59	8596	43.64	ug/L	86
3) ethyl alcohol	6.17	45	18700	1042.56	ug/L #	64
4) 1,4-dioxane	12.40	88	3858	210.59	ug/L #	89
11) chlorodifluoromethane	3.96	51	19170	7.94	ug/L	98
12) dichlorodifluoromethane	3.93	85	22506	6.48	ug/L	94
15) chloromethane	4.28	50	28985	7.65	ug/L	96
16) vinyl chloride	4.54	62	26101	8.24	ug/L	99
18) bromomethane	5.21	94	18761	8.78	ug/L	97
19) chloroethane	5.40	64	13021	8.96	ug/L	98
20) trichlorofluoromethane	5.91	101	27337	7.82	ug/L	97
22) ethyl ether	6.35	74	9336	7.90	ug/L	94
23) acrolein	6.62	56	37830	76.02	ug/L	100
27) 1,1-dichloroethene	6.79	96	16664	7.95	ug/L	93
28) 2-chloropropane	6.55	43	31354	8.20	ug/L	94
29) acetone	6.86	58	1590	7.39	ug/L	94
30) allyl chloride	7.39	76	9387	8.76	ug/L #	67
31) acetonitrile	7.36	40	15126	70.27	ug/L	91
32) iodomethane	7.09	142	35443	8.63	ug/L	96
33) carbon disulfide	7.21	76	59295	8.72	ug/L	97
34) methylene chloride	7.59	84	20842	8.72	ug/L	97
35) methyl acetate	7.39	74	2987	7.87	ug/L	96
36) 1-chloropropane	7.64	63	1541	7.98	ug/L	75
37) methyl tert butyl ether	7.99	73	54176	8.23	ug/L	96
38) trans-1,2-dichloroethene	8.02	96	18917	8.01	ug/L	95
39) di-isopropyl ether	8.72	45	65695	8.64	ug/L	84
40) 2-butanone	9.60	72	1933	7.32	ug/L	83
41) 1,1-dichloroethane	8.70	63	34123	8.09	ug/L	97
42) chloroprene	8.84	53	26497	8.32	ug/L	93
43) acrylonitrile	7.98	53	31971	38.33	ug/L	97
44) vinyl acetate	8.72	86	2567	7.06	ug/L	100
45) ethyl tert-butyl ether	9.29	59	62691	8.09	ug/L	98
46) ethyl acetate	9.62	45	2426	7.28	ug/L	48
47) 2,2-dichloropropane	9.62	77	28293	8.20	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142314.D
 Acq On : 3 Mar 2015 12:48 pm
 Operator : BridgetK
 Sample : ic5970-10
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 13:36:11 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 13:33:59 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.60	96	21097	7.97	ug/L	97
49) propionitrile	9.71	54	25320	79.51	ug/L	100
50) tert-Butyl Formate	10.14	59	17646	7.72	ug/L	93
51) bromochloromethane	9.99	128	10745	8.52	ug/L	94
52) tetrahydrofuran	10.04	42	5632	7.79	ug/L	92
53) chloroform	10.07	83	33760	8.14	ug/L	97
56) freon 113	6.78	151	13763	7.63	ug/L	95
57) methacrylonitrile	9.94	67	7120	7.73	ug/L	95
58) 1,1,1-trichloroethane	10.39	97	27631	7.79	ug/L	93
59) cyclohexane	10.47	84	25443	8.68	ug/L	93
60) isobutyl alcohol	10.62	74	2240	71.40	ug/L #	100
62) iso-octane	11.00	57	63358	8.17	ug/L	96
65) epichlorohydrin	13.13	57	8691	39.81	ug/L	95
66) n-butyl alcohol	11.63	56	21370	338.56	ug/L	90
67) carbon tetrachloride	10.64	117	24711	8.15	ug/L	99
68) 1,1-dichloropropene	10.62	75	24411	8.49	ug/L	98
69) hexane	8.41	86	2833	8.18	ug/L #	79
70) benzene	10.96	78	75327	9.37	ug/L	100
71) tert-amyl methyl ether	11.04	87	12959	8.24	ug/L	97
72) heptane	11.22	57	12018	9.05	ug/L	98
73) isopropyl acetate	10.91	43	33163	7.98	ug/L	98
74) 1,2-dichloroethane	10.97	62	24360	8.22	ug/L	97
75) trichloroethene	11.88	130	19750	8.83	ug/L	97
78) 2-nitropropane	12.99	46	330	6.69	ug/L #	1
79) 2-chloroethyl vinyl ether	12.99	63	57120	45.12	ug/L	99
80) methyl methacrylate	12.30	69	12245	9.41	ug/L	87
81) 1,2-dichloropropane	12.25	63	20481	9.60	ug/L	94
82) dibromomethane	12.44	93	12740	8.95	ug/L	97
83) methylcyclohexane	12.18	83	28783	8.57	ug/L	95
84) bromodichloromethane	12.62	83	27194	8.90	ug/L	98
85) cis-1,3-dichloropropene	13.25	75	33034	9.85	ug/L	95
87) 4-methyl-2-pentanone	13.43	58	7075	8.67	ug/L	91
88) toluene	13.75	92	48916	10.02	ug/L	97
89) 3-methyl-1-butanol	13.45	55	14510	141.32	ug/L	99
90) trans-1,3-dichloropropene	14.02	75	30893	9.75	ug/L	98
91) ethyl methacrylate	14.07	69	24740	9.76	ug/L	97
92) 1,1,2-trichloroethane	14.30	83	15613	10.09	ug/L	97
93) 2-hexanone	14.59	58	6819	9.90	ug/L	89
95) 3,3-Dimethyl-1-butanol	14.81	57	15864	66.86	ug/L	97
96) tetrachloroethene	14.52	164	18161	8.70	ug/L	98
97) 1,3-dichloropropane	14.55	76	29792	9.72	ug/L	96
98) butyl acetate	14.71	56	11791	8.56	ug/L	91
99) dibromochloromethane	14.88	129	22782	9.21	ug/L	97
100) 1,2-dibromoethane	15.08	107	19273	9.30	ug/L	98
101) n-butyl ether	15.69	57	94028	10.79	ug/L	96
102) chlorobenzene	15.71	112	55886	9.64	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.80	131	22894	9.50	ug/L	96
104) ethylbenzene	15.81	91	95071	9.57	ug/L	99
105) m,p-xylene	15.95	106	71998	19.32	ug/L	97
106) o-xylene	16.49	106	37170	9.67	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142314.D
 Acq On : 3 Mar 2015 12:48 pm
 Operator : BridgetK
 Sample : ic5970-10
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 13:36:11 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 13:33:59 2015
 Response via : Initial Calibration

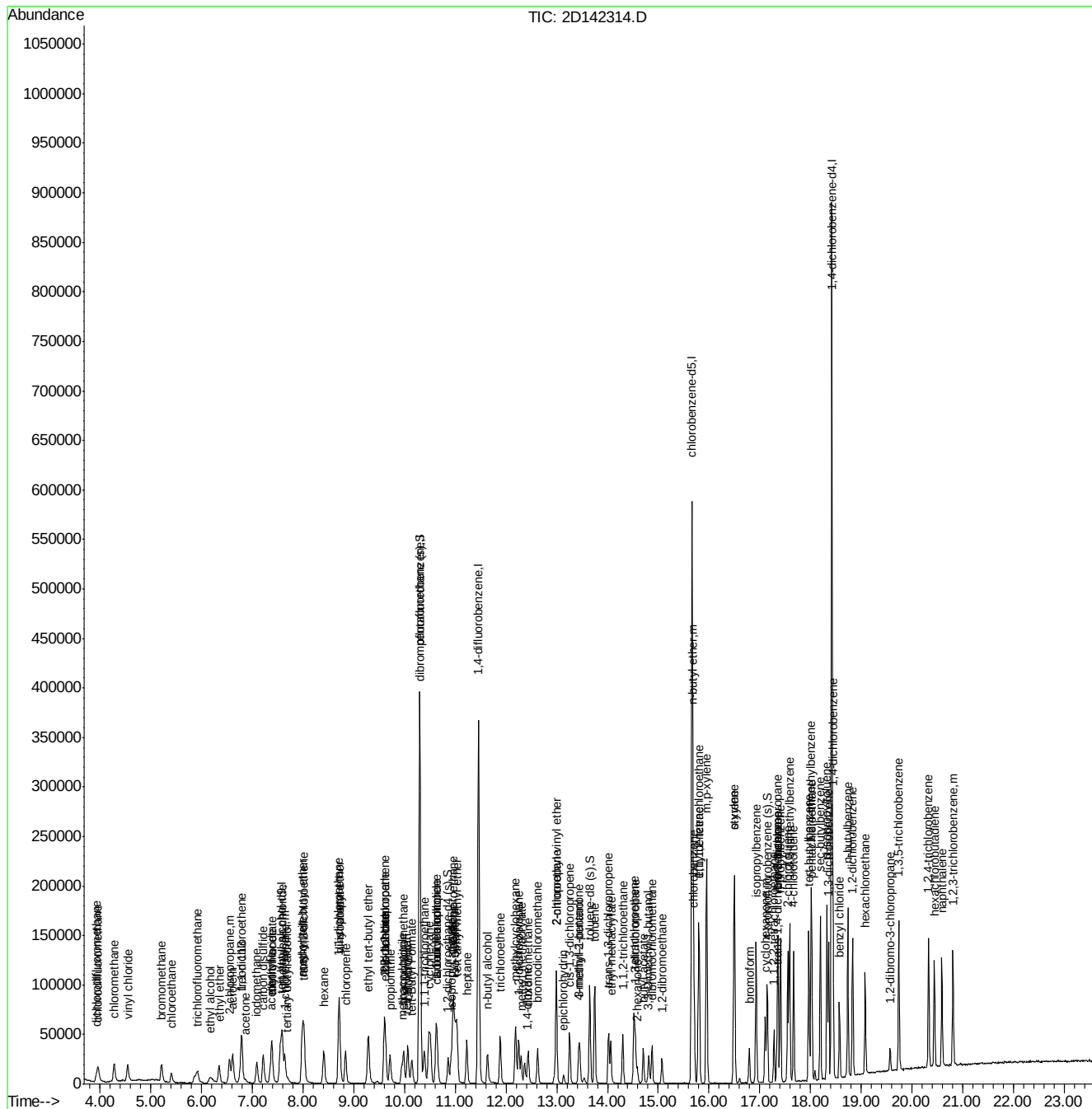
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) styrene	16.50	104	63882	9.96	ug/L	99
108) bromoform	16.80	173	17467	9.20	ug/L	98
110) isopropylbenzene	16.93	105	96354	8.24	ug/L	99
112) cyclohexanone	17.11	55	28944	167.46	ug/L	96
113) bromobenzene	17.36	156	28547	8.94	ug/L	95
114) 1,1,2,2-tetrachloroethane	17.28	83	26818	8.62	ug/L	100
115) trans-1,4-dichloro-2-buten	17.34	53	6910	7.89	ug/L	88
116) 1,2,3-trichloropropane	17.36	110	6488	7.68	ug/L #	77
117) n-propylbenzene	17.41	91	112296	8.99	ug/L	97
119) 2-chlorotoluene	17.55	126	24410	8.70	ug/L	98
120) 4-chlorotoluene	17.67	91	71535	8.42	ug/L	97
121) 1,3,5-trimethylbenzene	17.59	105	84597	8.56	ug/L	98
122) tert-butylbenzene	17.97	119	71415	8.02	ug/L	97
123) pentachloroethane	18.03	167	19176	8.70	ug/L	98
124) 1,2,4-trimethylbenzene	18.01	105	84955	8.72	ug/L	99
126) sec-butylbenzene	18.20	105	111255	8.36	ug/L	97
127) 1,3-dichlorobenzene	18.36	146	54388	8.31	ug/L	99
128) p-isopropyltoluene	18.32	119	95328	8.30	ug/L	98
129) 1,4-dichlorobenzene	18.44	146	54466	8.20	ug/L	98
130) 1,2-dichlorobenzene	18.83	146	54157	8.37	ug/L	98
131) benzyl chloride	18.57	91	50641	7.81	ug/L	99
133) n-butylbenzene	18.74	92	48024	8.51	ug/L	98
135) 1,2-dibromo-3-chloropropan	19.57	157	6209	7.30	ug/L	96
136) 1,3,5-trichlorobenzene	19.74	180	48221	8.05	ug/L	100
137) hexachlorobutadiene	20.44	225	24032	7.62	ug/L	98
138) naphthalene	20.59	128	86331	7.64	ug/L	99
139) 1,2,4-trichlorobenzene	20.33	180	43251	8.06	ug/L	97
140) 1,2,3-trichlorobenzene	20.81	180	39163	7.96	ug/L	99
141) hexachloroethane	19.08	201	18869	8.23	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142314.D
Acq On : 3 Mar 2015 12:48 pm
Operator : BridgetK
Sample : ic5970-10
Misc : ms79298,v2d5970,w,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 13:36:11 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 13:33:59 2015
Response via : Initial Calibration



M2D5970.M Fri Mar 06 10:41:53 2015 MS2D

Page: 4

7.6.4



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142315.D
 Acq On : 3 Mar 2015 1:19 pm
 Operator : BridgetK
 Sample : ic5970-20
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 15:19:32 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:18:06 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.56	65	87033	500.00	ug/L	0.00
5) pentafluorobenzene	10.31	168	359899	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.47	114	367503	50.00	ug/L	0.00
94) chlorobenzene-d5	15.67	117	337540	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.42	152	215103	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.32	113	98969	40.68	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	81.36%
55) 1,2-dichloroethane-d4 (s)	10.86	65	103441	41.39	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	82.78%
86) toluene-d8 (s)	13.66	98	357734	45.41	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	90.82%
111) 4-bromofluorobenzene (s)	17.15	95	142976	41.77	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	83.54%

Target Compounds

Qvalue

2) tertiary butyl alcohol	7.70	59	17382	113.26	ug/L	98
3) ethyl alcohol	6.17	45	36283	1911.61	ug/L	99
4) 1,4-dioxane	12.41	88	8081	553.80	ug/L #	95
11) chlorodifluoromethane	3.97	51	40407	22.28	ug/L	98
12) dichlorodifluoromethane	3.94	85	43954	18.57	ug/L	98
15) chloromethane	4.28	50	55840	16.79	ug/L	100
16) vinyl chloride	4.55	62	50478	17.29	ug/L	96
18) bromomethane	5.22	94	34398	16.20	ug/L	97
19) chloroethane	5.41	64	24911	17.98	ug/L	98
20) trichlorofluoromethane	5.91	101	52714	17.34	ug/L	97
22) ethyl ether	6.35	74	18956	21.06	ug/L	97
23) acrolein	6.62	56	75702	178.59	ug/L	100
27) 1,1-dichloroethene	6.80	96	30485	18.57	ug/L	90
28) 2-chloropropane	6.56	43	57598	16.67	ug/L	99
29) acetone	6.87	58	3229	21.92	ug/L	98
30) allyl chloride	7.40	76	17313	20.03	ug/L	95
31) acetonitrile	7.37	40	30855	205.77	ug/L #	50
32) iodomethane	7.09	142	65574	20.02	ug/L	99
33) carbon disulfide	7.22	76	109086	18.92	ug/L	99
34) methylene chloride	7.60	84	38606	18.74	ug/L	97
35) methyl acetate	7.39	74	6197	21.31	ug/L	89
36) 1-chloropropane	7.65	63	2795	17.13	ug/L	90
37) methyl tert butyl ether	8.00	73	108374	20.53	ug/L	98
38) trans-1,2-dichloroethene	8.03	96	34655	18.24	ug/L	97
39) di-isopropyl ether	8.72	45	135888	22.47	ug/L	97
40) 2-butanone	9.60	72	3744	20.41	ug/L	94
41) 1,1-dichloroethane	8.71	63	64715	19.76	ug/L	95
42) chloroprene	8.84	53	52144	22.25	ug/L	99
43) acrylonitrile	7.99	53	64427	105.43	ug/L	98
44) vinyl acetate	8.72	86	5209	21.88	ug/L	74
45) ethyl tert-butyl ether	9.29	59	129589	22.58	ug/L	100
46) ethyl acetate	9.64	45	4976	19.86	ug/L #	44
47) 2,2-dichloropropane	9.63	77	53625	19.46	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142315.D
 Acq On : 3 Mar 2015 1:19 pm
 Operator : BridgetK
 Sample : ic5970-20
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 15:19:32 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:18:06 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.61	96	40059	19.11	ug/L	98
49) propionitrile	9.72	54	51248	205.23	ug/L	95
50) tert-Butyl Formate	10.14	59	37035	23.23	ug/L	99
51) bromochloromethane	9.99	128	21470	21.53	ug/L	97
52) tetrahydrofuran	10.05	42	10697	17.40	ug/L	97
53) chloroform	10.07	83	64773	19.74	ug/L	99
56) freon 113	6.79	151	26337	23.49	ug/L	98
57) methacrylonitrile	9.95	67	14184	20.60	ug/L	97
58) 1,1,1-trichloroethane	10.40	97	53122	19.48	ug/L	97
59) cyclohexane	10.48	84	45614	19.01	ug/L	95
60) isobutyl alcohol	10.62	74	4124	181.28	ug/L #	32
62) iso-octane	11.00	57	123910	21.26	ug/L	98
65) epichlorohydrin	13.14	57	17571	107.54	ug/L	95
66) n-butyl alcohol	11.64	56	43672	1118.92	ug/L	99
67) carbon tetrachloride	10.65	117	46832	19.94	ug/L	98
68) 1,1-dichloropropene	10.63	75	45336	19.85	ug/L	98
69) hexane	8.42	86	5758	20.58	ug/L #	76
70) benzene	10.96	78	144120	19.88	ug/L	99
71) tert-amyl methyl ether	11.04	87	26452	22.75	ug/L	98
72) heptane	11.23	57	22957	20.80	ug/L	100
73) isopropyl acetate	10.92	43	66652	20.33	ug/L	99
74) 1,2-dichloroethane	10.98	62	47895	20.47	ug/L	97
75) trichloroethene	11.89	130	37583	20.05	ug/L	96
78) 2-nitropropane	12.98	46	745	21.28	ug/L #	1
79) 2-chloroethyl vinyl ether	13.00	63	115019	111.39	ug/L	99
80) methyl methacrylate	12.30	69	23737	20.64	ug/L	88
81) 1,2-dichloropropane	12.25	63	40331	20.83	ug/L	98
82) dibromomethane	12.44	93	24424	20.29	ug/L	99
83) methylcyclohexane	12.19	83	55458	22.19	ug/L	99
84) bromodichloromethane	12.63	83	53139	20.74	ug/L	98
85) cis-1,3-dichloropropene	13.26	75	64729	20.13	ug/L	97
87) 4-methyl-2-pentanone	13.44	58	14176	20.61	ug/L	98
88) toluene	13.75	92	90728	19.90	ug/L	98
89) 3-methyl-1-butanol	13.45	55	30081	422.42	ug/L	100
90) trans-1,3-dichloropropene	14.02	75	58854	20.56	ug/L	97
91) ethyl methacrylate	14.07	69	47416	20.61	ug/L	97
92) 1,1,2-trichloroethane	14.30	83	30009	20.12	ug/L	96
93) 2-hexanone	14.59	58	12266	18.74	ug/L	87
95) 3,3-Dimethyl-1-butanol	14.82	57	32239	212.85	ug/L	99
96) tetrachloroethene	14.52	164	33911	19.53	ug/L	98
97) 1,3-dichloropropane	14.55	76	56798	20.40	ug/L	99
98) butyl acetate	14.71	56	23120	20.91	ug/L	98
99) dibromochloromethane	14.88	129	44844	20.90	ug/L	99
100) 1,2-dibromoethane	15.08	107	36925	20.96	ug/L	96
101) n-butyl ether	15.69	57	179135	20.26	ug/L	98
102) chlorobenzene	15.71	112	105092	20.10	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.80	131	43670	20.66	ug/L	96
104) ethylbenzene	15.81	91	178653	20.12	ug/L	100
105) m,p-xylene	15.95	106	136305	40.56	ug/L	96
106) o-xylene	16.49	106	71113	20.39	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142315.D
 Acq On : 3 Mar 2015 1:19 pm
 Operator : BridgetK
 Sample : ic5970-20
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 15:19:32 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:18:06 2015
 Response via : Initial Calibration

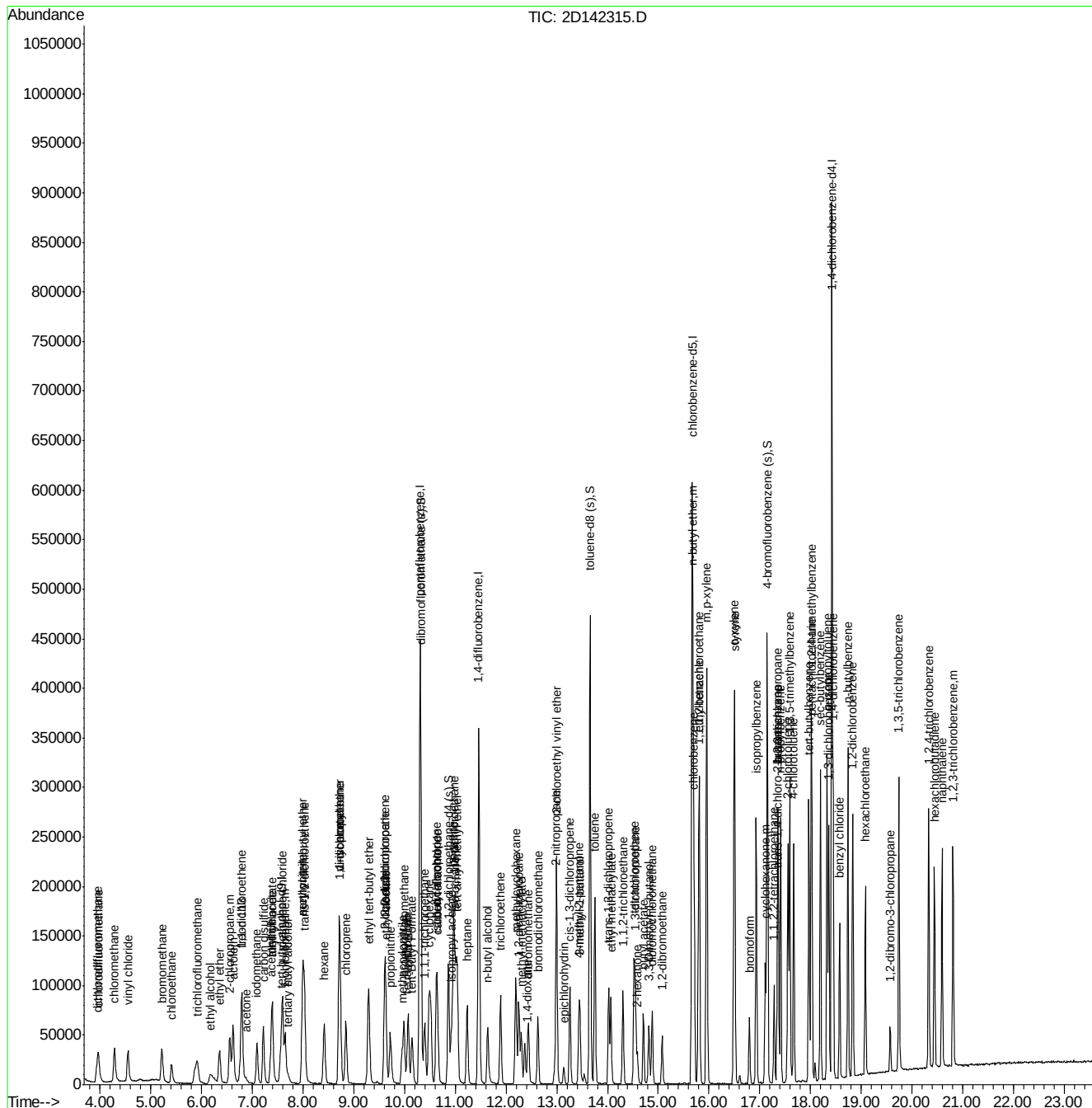
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) styrene	16.51	104	119831	20.58	ug/L	97
108) bromoform	16.80	173	33383	21.24	ug/L	98
110) isopropylbenzene	16.93	105	186713	20.68	ug/L	99
112) cyclohexanone	17.11	55	53704	179.90	ug/L	98
113) bromobenzene	17.36	156	52798	20.21	ug/L	100
114) 1,1,2,2-tetrachloroethane	17.28	83	51110	20.62	ug/L	98
115) trans-1,4-dichloro-2-buten	17.34	53	12896	20.35	ug/L	91
116) 1,2,3-trichloropropane	17.36	110	12375	20.56	ug/L #	88
117) n-propylbenzene	17.41	91	208213	20.22	ug/L	99
119) 2-chlorotoluene	17.56	126	46589	20.15	ug/L	99
120) 4-chlorotoluene	17.67	91	133440	19.67	ug/L	99
121) 1,3,5-trimethylbenzene	17.59	105	162546	20.81	ug/L	99
122) tert-butylbenzene	17.97	119	137665	20.57	ug/L	97
123) pentachloroethane	18.03	167	37152	21.05	ug/L	98
124) 1,2,4-trimethylbenzene	18.01	105	162050	20.84	ug/L	99
126) sec-butylbenzene	18.20	105	211048	20.65	ug/L	99
127) 1,3-dichlorobenzene	18.36	146	102482	20.23	ug/L	100
128) p-isopropyltoluene	18.33	119	180892	20.33	ug/L	98
129) 1,4-dichlorobenzene	18.45	146	102196	20.14	ug/L	99
130) 1,2-dichlorobenzene	18.83	146	104639	20.65	ug/L	99
131) benzyl chloride	18.57	91	102659	21.72	ug/L	99
133) n-butylbenzene	18.74	92	90564	20.56	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	157	12046	20.15	ug/L	98
136) 1,3,5-trichlorobenzene	19.74	180	94594	21.41	ug/L	99
137) hexachlorobutadiene	20.44	225	46519	20.13	ug/L	98
138) naphthalene	20.59	128	172960	22.46	ug/L	99
139) 1,2,4-trichlorobenzene	20.33	180	86988	21.77	ug/L	96
140) 1,2,3-trichlorobenzene	20.81	180	76708	21.83	ug/L	99
141) hexachloroethane	19.08	201	36232	21.25	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142315.D
Acq On : 3 Mar 2015 1:19 pm
Operator : BridgetK
Sample : ic5970-20
Misc : ms79298,v2d5970,w,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 15:19:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 15:18:06 2015
Response via : Initial Calibration



M2D5970.M Fri Mar 06 10:41:54 2015 MS2D

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7.6.5

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142316.D
 Acq On : 3 Mar 2015 1:50 pm
 Operator : BridgetK
 Sample : icc5970-50
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 14:49:50 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 14:47:04 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.57	65	88449	500.00	ug/L	0.00
5) pentafluorobenzene	10.31	168	359175	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.47	114	369410	50.00	ug/L	0.00
94) chlorobenzene-d5	15.67	117	349266	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.42	152	221005	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.32	113	97186	50.00	ug/L	0.00
Spiked Amount	50.000	Range 79 - 120	Recovery	=	100.00%	
55) 1,2-dichloroethane-d4 (s)	10.86	65	104296	50.00	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	100.00%	
86) toluene-d8 (s)	13.66	98	356344	50.00	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	100.00%	
111) 4-bromofluorobenzene (s)	17.15	95	145647	50.00	ug/L	0.00
Spiked Amount	50.000	Range 74 - 119	Recovery	=	100.00%	

Target Compounds

Qvalue

2) tertiary butyl alcohol	7.71	59	44812	250.00	ug/L	100
3) ethyl alcohol	6.18	45	89628	5000.00	ug/L	100
4) 1,4-dioxane	12.40	88	21062	1250.00	ug/L #	100
11) chlorodifluoromethane	3.97	51	111492	50.00	ug/L	100
12) dichlorodifluoromethane	3.95	85	136094	50.00	ug/L	100
15) chloromethane	4.30	50	165916	50.00	ug/L	100
16) vinyl chloride	4.56	62	150722	50.00	ug/L	100
18) bromomethane	5.22	94	102316	50.00	ug/L	100
19) chloroethane	5.41	64	71696	50.00	ug/L	100
20) trichlorofluoromethane	5.92	101	160149	50.00	ug/L	100
22) ethyl ether	6.35	74	49019	50.00	ug/L	100
23) acrolein	6.62	56	211712	500.00	ug/L	100
27) 1,1-dichloroethene	6.80	96	84966	50.00	ug/L	100
28) 2-chloropropane	6.56	43	162117	49.97	ug/L	100
29) acetone	6.87	58	7667	50.00	ug/L	100
30) allyl chloride	7.39	76	47889	50.00	ug/L	100
31) acetonitrile	7.36	40	81055	497.79	ug/L	100
32) iodomethane	7.09	142	183404	50.00	ug/L	100
33) carbon disulfide	7.22	76	314248	49.91	ug/L	100
34) methylene chloride	7.60	84	104774	50.00	ug/L	100
35) methyl acetate	7.39	74	16334	50.00	ug/L	100
36) 1-chloropropane	7.65	63	8066	50.00	ug/L	100
37) methyl tert butyl ether	8.00	73	285404	50.00	ug/L	100
38) trans-1,2-dichloroethene	8.03	96	95566	50.00	ug/L	100
39) di-isopropyl ether	8.73	45	359146	50.00	ug/L	100
40) 2-butanone	9.60	72	9922	50.00	ug/L	100
41) 1,1-dichloroethane	8.71	63	178445	50.00	ug/L	100
42) chloroprene	8.84	53	143026	50.00	ug/L	100
43) acrylonitrile	7.99	53	166388	250.00	ug/L	100
44) vinyl acetate	8.73	86	13771	50.00	ug/L	100
45) ethyl tert-butyl ether	9.29	59	342099	50.00	ug/L	100
46) ethyl acetate	9.64	45	12551	50.00	ug/L	100
47) 2,2-dichloropropane	9.63	77	144887	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142316.D
 Acq On : 3 Mar 2015 1:50 pm
 Operator : BridgetK
 Sample : icc5970-50
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 14:49:50 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 14:47:04 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.61	96	110509	50.00	ug/L	100
49) propionitrile	9.72	54	132927	500.00	ug/L	100
50) tert-Butyl Formate	10.15	59	95875	50.00	ug/L	100
51) bromochloromethane	9.99	128	55254	50.00	ug/L	100
52) tetrahydrofuran	10.05	42	27311	50.00	ug/L	100
53) chloroform	10.08	83	176150	50.00	ug/L	100
56) freon 113	6.78	151	76443	50.00	ug/L	100
57) methacrylonitrile	9.96	67	37739	50.00	ug/L	100
58) 1,1,1-trichloroethane	10.40	97	148109	50.00	ug/L	100
59) cyclohexane	10.48	84	133703	50.00	ug/L	100
60) isobutyl alcohol	10.63	74	11571	500.00	ug/L	100
62) iso-octane	11.00	57	368044	50.00	ug/L	100
65) epichlorohydrin	13.14	57	45517	250.00	ug/L	100
66) n-butyl alcohol	11.64	56	116477	2500.00	ug/L	100
67) carbon tetrachloride	10.65	117	130285	50.00	ug/L	100
68) 1,1-dichloropropene	10.63	75	127247	50.00	ug/L	100
69) hexane	8.41	86	16768	50.00	ug/L	100
70) benzene	10.96	78	396013	50.00	ug/L	100
71) tert-amyl methyl ether	11.04	87	68787	50.00	ug/L	100
72) heptane	11.23	57	66827	50.00	ug/L	100
73) isopropyl acetate	10.92	43	177973	50.00	ug/L	100
74) 1,2-dichloroethane	10.98	62	128175	50.00	ug/L	100
75) trichloroethene	11.90	130	104950	50.00	ug/L	100
78) 2-nitropropane	12.96	46	1860	50.00	ug/L	100
79) 2-chloroethyl vinyl ether	13.00	63	312751	250.00	ug/L	100
80) methyl methacrylate	12.30	69	62870	50.00	ug/L	100
81) 1,2-dichloropropane	12.26	63	107537	50.00	ug/L	100
82) dibromomethane	12.44	93	64855	50.00	ug/L	100
83) methylcyclohexane	12.19	83	159317	50.00	ug/L	100
84) bromodichloromethane	12.63	83	144141	50.00	ug/L	100
85) cis-1,3-dichloropropene	13.26	75	176120	50.00	ug/L	100
87) 4-methyl-2-pentanone	13.44	58	37096	50.00	ug/L	100
88) toluene	13.76	92	252967	50.00	ug/L	100
89) 3-methyl-1-butanol	13.45	55	77363	1000.00	ug/L	100
90) trans-1,3-dichloropropene	14.02	75	159665	50.00	ug/L	100
91) ethyl methacrylate	14.07	69	128979	50.00	ug/L	100
92) 1,1,2-trichloroethane	14.31	83	80234	50.00	ug/L	100
93) 2-hexanone	14.59	58	32862	50.00	ug/L	100
95) 3,3-Dimethyl-1-butanol	14.82	57	86032	500.00	ug/L	100
96) tetrachloroethene	14.52	164	95374	50.00	ug/L	100
97) 1,3-dichloropropane	14.55	76	153375	50.00	ug/L	100
98) butyl acetate	14.71	56	62037	50.00	ug/L	100
99) dibromochloromethane	14.88	129	121273	50.00	ug/L	100
100) 1,2-dibromoethane	15.08	107	99008	50.00	ug/L	100
101) n-butyl ether	15.69	57	492850	50.00	ug/L	100
102) chlorobenzene	15.71	112	291763	50.00	ug/L	100
103) 1,1,1,2-tetrachloroethane	15.80	131	118651	50.00	ug/L	100
104) ethylbenzene	15.81	91	499441	50.00	ug/L	100
105) m,p-xylene	15.96	106	386231	100.00	ug/L	100
106) o-xylene	16.50	106	199710	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142316.D
 Acq On : 3 Mar 2015 1:50 pm
 Operator : BridgetK
 Sample : icc5970-50
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 14:49:50 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 14:47:04 2015
 Response via : Initial Calibration

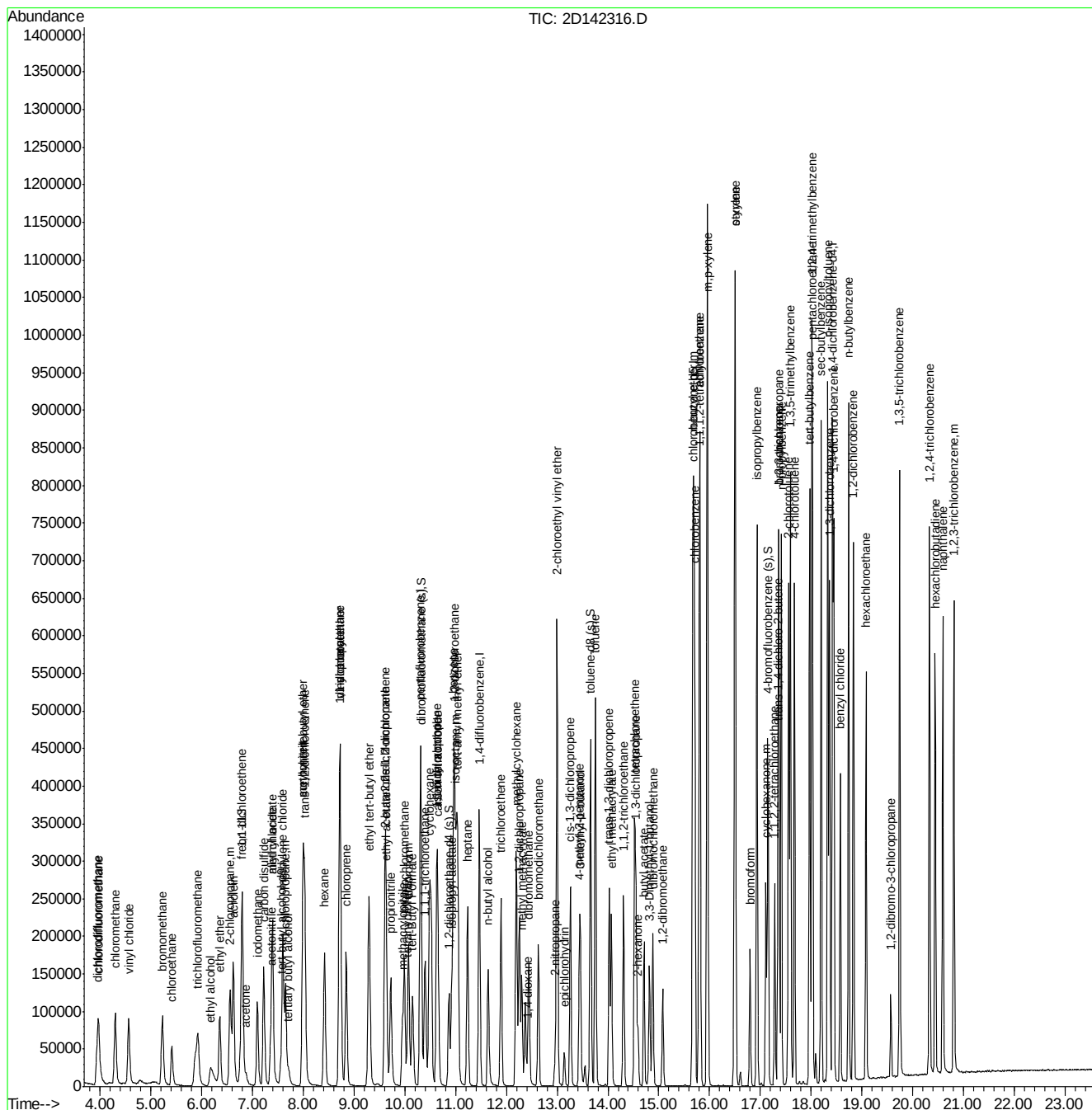
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) styrene	16.51	104	337829	50.00	ug/L	100
108) bromoform	16.80	173	92775	50.00	ug/L	100
110) isopropylbenzene	16.93	105	519654	50.00	ug/L	100
112) cyclohexanone	17.11	55	119138	500.00	ug/L	100
113) bromobenzene	17.36	156	146399	50.00	ug/L	100
114) 1,1,2,2-tetrachloroethane	17.29	83	137130	50.00	ug/L	100
115) trans-1,4-dichloro-2-buten	17.34	53	33898	50.00	ug/L	100
116) 1,2,3-trichloropropane	17.36	110	32975	50.00	ug/L	100
117) n-propylbenzene	17.42	91	578090	50.00	ug/L	100
119) 2-chlorotoluene	17.56	126	128049	50.00	ug/L	100
120) 4-chlorotoluene	17.67	91	372024	50.00	ug/L	100
121) 1,3,5-trimethylbenzene	17.59	105	447173	50.00	ug/L	100
122) tert-butylbenzene	17.97	119	381971	50.00	ug/L	100
123) pentachloroethane	18.03	167	101146	50.00	ug/L	100
124) 1,2,4-trimethylbenzene	18.01	105	445689	50.00	ug/L	100
126) sec-butylbenzene	18.20	105	590622	50.00	ug/L	100
127) 1,3-dichlorobenzene	18.37	146	280009	50.00	ug/L	100
128) p-isopropyltoluene	18.33	119	500454	50.00	ug/L	100
129) 1,4-dichlorobenzene	18.45	146	280880	50.00	ug/L	100
130) 1,2-dichlorobenzene	18.84	146	282890	50.00	ug/L	100
131) benzyl chloride	18.57	91	267860	50.00	ug/L	100
133) n-butylbenzene	18.74	92	254468	50.00	ug/L	100
135) 1,2-dibromo-3-chloropropan	19.58	157	31999	50.00	ug/L	100
136) 1,3,5-trichlorobenzene	19.74	180	259176	50.00	ug/L	100
137) hexachlorobutadiene	20.45	225	131636	50.00	ug/L	100
138) naphthalene	20.59	128	468913	50.22	ug/L	100
139) 1,2,4-trichlorobenzene	20.33	180	239496	50.00	ug/L	100
140) 1,2,3-trichlorobenzene	20.81	180	213264	50.00	ug/L	100
141) hexachloroethane	19.08	201	102305	50.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142316.D
Acq On : 3 Mar 2015 1:50 pm
Operator : BridgetK
Sample : icc5970-50
Misc : ms79298,v2d5970,w,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 14:49:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 14:47:04 2015
Response via : Initial Calibration



M2D5970.M Fri Mar 06 10:41:54 2015 MS2D

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7.6.6

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142317.D
 Acq On : 3 Mar 2015 2:20 pm
 Operator : BridgetK
 Sample : ic5970-100
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 03 15:20:45 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:19:46 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.57	65	91516	500.00	ug/L	0.00
5) pentafluorobenzene	10.31	168	353441	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.47	114	364899	50.00	ug/L	0.00
94) chlorobenzene-d5	15.67	117	345845	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.43	152	219850	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.32	113	208870	89.82	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	179.64%#
55) 1,2-dichloroethane-d4 (s)	10.86	65	222000	92.73	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	185.46%#
86) toluene-d8 (s)	13.66	98	775465	100.46	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	200.92%#
111) 4-bromofluorobenzene (s)	17.15	95	315493	92.35	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	184.70%#

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.71	59	97793	594.74	ug/L	99
3) ethyl alcohol	6.19	45	202418	10217.45	ug/L	100
4) 1,4-dioxane	12.41	88	47818	3050.86	ug/L #	99
11) chlorodifluoromethane	3.97	51	244627	135.16	ug/L	97
12) dichlorodifluoromethane	3.94	85	291376	126.64	ug/L	100
15) chloromethane	4.30	50	348409	109.19	ug/L	99
16) vinyl chloride	4.57	62	317401	112.89	ug/L	99
18) bromomethane	5.22	94	211376	104.21	ug/L	97
19) chloroethane	5.40	64	144088	107.43	ug/L	99
20) trichlorofluoromethane	5.92	101	338476	115.95	ug/L	99
22) ethyl ether	6.35	74	106755	119.84	ug/L	98
23) acrolein	6.62	56	300	0.73	ug/L #	68
27) 1,1-dichloroethene	6.80	96	191424	119.96	ug/L	93
28) 2-chloropropane	6.56	43	361363	109.07	ug/L	97
29) acetone	6.87	58	16474	111.20	ug/L	95
30) allyl chloride	7.39	76	103109	121.43	ug/L	98
31) acetonitrile	7.37	40	172609	1166.54	ug/L #	75
32) iodomethane	7.09	142	399645	124.22	ug/L	99
33) carbon disulfide	7.22	76	689760	122.75	ug/L	99
34) methylene chloride	7.60	84	226138	112.78	ug/L	99
35) methyl acetate	7.39	74	35015	121.03	ug/L	99
36) 1-chloropropane	7.65	63	17559	112.82	ug/L	97
37) methyl tert butyl ether	8.00	73	609370	117.08	ug/L	100
38) trans-1,2-dichloroethene	8.03	96	207620	112.69	ug/L	98
39) di-isopropyl ether	8.73	45	756874	125.21	ug/L	99
40) 2-butanone	9.60	72	21608	119.44	ug/L	99
41) 1,1-dichloroethane	8.71	63	382698	119.21	ug/L	98
42) chloroprene	8.84	53	309543	132.38	ug/L	98
43) acrylonitrile	7.99	53	355981	588.60	ug/L	99
44) vinyl acetate	8.72	86	29530	123.96	ug/L	86
45) ethyl tert-butyl ether	9.29	59	729759	127.15	ug/L	99
46) ethyl acetate	9.64	45	26693	108.63	ug/L #	54
47) 2,2-dichloropropane	9.62	77	310801	115.30	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142317.D
 Acq On : 3 Mar 2015 2:20 pm
 Operator : BridgetK
 Sample : ic5970-100
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 03 15:20:45 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:19:46 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.61	96	236040	115.40	ug/L	98
49) propionitrile	9.72	54	286010	1161.94	ug/L	98
50) tert-Butyl Formate	10.15	59	204150	127.44	ug/L	99
51) bromochloromethane	9.99	128	118955	120.13	ug/L	99
52) tetrahydrofuran	10.05	42	56189	95.56	ug/L	98
53) chloroform	10.08	83	373371	116.11	ug/L	99
56) freon 113	6.79	151	169519	150.20	ug/L	98
57) methacrylonitrile	9.96	67	80907	119.08	ug/L	99
58) 1,1,1-trichloroethane	10.40	97	324359	121.54	ug/L	98
59) cyclohexane	10.49	84	297672	127.21	ug/L	93
60) isobutyl alcohol	10.63	74	24508	1117.91	ug/L #	95
62) iso-octane	11.01	57	805215	139.41	ug/L	100
65) epichlorohydrin	13.14	57	96837	590.52	ug/L	97
66) n-butyl alcohol	11.64	56	259414	6582.07	ug/L	99
67) carbon tetrachloride	10.65	117	285453	122.48	ug/L	98
68) 1,1-dichloropropene	10.63	75	276043	121.84	ug/L	100
69) hexane	8.41	86	35429	126.80	ug/L #	87
70) benzene	10.96	78	850350	118.26	ug/L	99
71) tert-amyl methyl ether	11.05	87	146369	124.34	ug/L	98
72) heptane	11.23	57	145251	131.81	ug/L	98
73) isopropyl acetate	10.93	43	382994	117.37	ug/L	99
74) 1,2-dichloroethane	10.98	62	270084	115.86	ug/L	100
75) trichloroethene	11.89	130	228277	122.63	ug/L	98
78) 2-nitropropane	13.00	46	4003	112.76	ug/L #	1
79) 2-chloroethyl vinyl ether	13.00	63	667750	640.88	ug/L	97
80) methyl methacrylate	12.30	69	136449	118.96	ug/L	97
81) 1,2-dichloropropane	12.26	63	231163	119.56	ug/L	98
82) dibromomethane	12.44	93	138725	115.85	ug/L	99
83) methylcyclohexane	12.19	83	349886	138.80	ug/L	100
84) bromodichloromethane	12.63	83	310236	121.33	ug/L	98
85) cis-1,3-dichloropropene	13.26	75	380009	118.89	ug/L	98
87) 4-methyl-2-pentanone	13.44	58	79248	115.46	ug/L	98
88) toluene	13.76	92	545489	120.60	ug/L	99
89) 3-methyl-1-butanol	13.46	55	168125	2358.92	ug/L	99
90) trans-1,3-dichloropropene	14.02	75	347801	121.87	ug/L	99
91) ethyl methacrylate	14.07	69	278877	121.53	ug/L	98
92) 1,1,2-trichloroethane	14.31	83	174873	117.96	ug/L	97
93) 2-hexanone	14.59	58	71377	111.21	ug/L	98
95) 3,3-Dimethyl-1-butanol	14.82	57	195308	1247.04	ug/L	98
96) tetrachloroethene	14.53	164	211114	119.04	ug/L	98
97) 1,3-dichloropropane	14.55	76	330687	115.59	ug/L	98
98) butyl acetate	14.71	56	134164	117.67	ug/L	98
99) dibromochloromethane	14.88	129	261630	118.24	ug/L	98
100) 1,2-dibromoethane	15.08	107	215874	118.76	ug/L	99
101) n-butyl ether	15.69	57	1038025	114.37	ug/L	100
102) chlorobenzene	15.71	112	623015	116.20	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.80	131	254758	117.07	ug/L	99
104) ethylbenzene	15.81	91	1067128	117.17	ug/L	99
105) m,p-xylene	15.96	106	822832	238.48	ug/L	99
106) o-xylene	16.50	106	430360	120.11	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142317.D
 Acq On : 3 Mar 2015 2:20 pm
 Operator : BridgetK
 Sample : ic5970-100
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 03 15:20:45 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:19:46 2015
 Response via : Initial Calibration

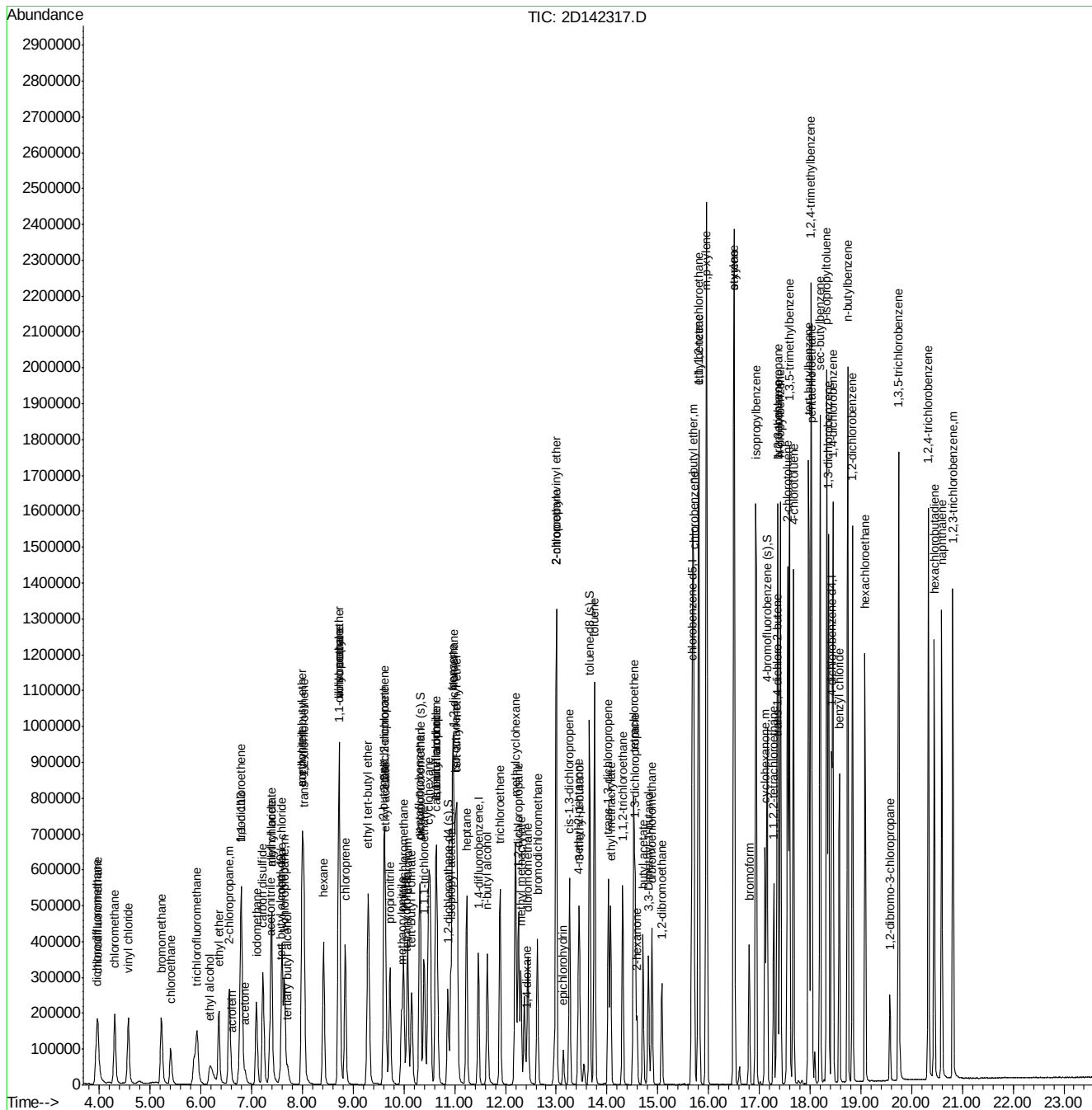
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) styrene	16.51	104	721152	120.38	ug/L	99
108) bromoform	16.80	173	202158	124.41	ug/L	99
110) isopropylbenzene	16.93	105	1117445	120.49	ug/L	100
112) cyclohexanone	17.11	55	286253	951.85	ug/L	99
113) bromobenzene	17.36	156	315369	117.95	ug/L	98
114) 1,1,2,2-tetrachloroethane	17.28	83	291001	114.34	ug/L	100
115) trans-1,4-dichloro-2-buten	17.34	53	74207	114.27	ug/L	93
116) 1,2,3-trichloropropane	17.36	110	69703	112.85	ug/L #	91
117) n-propylbenzene	17.42	91	1243977	118.02	ug/L	100
119) 2-chlorotoluene	17.56	126	276885	117.06	ug/L	100
120) 4-chlorotoluene	17.67	91	795244	114.94	ug/L	99
121) 1,3,5-trimethylbenzene	17.59	105	961866	119.77	ug/L	99
122) tert-butylbenzene	17.97	119	840309	122.35	ug/L	99
123) pentachloroethane	18.03	167	219240	120.62	ug/L	99
124) 1,2,4-trimethylbenzene	18.02	105	965725	120.80	ug/L	98
126) sec-butylbenzene	18.20	105	1290161	122.96	ug/L	100
127) 1,3-dichlorobenzene	18.36	146	608719	117.39	ug/L	99
128) p-isopropyltoluene	18.33	119	1084900	119.03	ug/L	99
129) 1,4-dichlorobenzene	18.45	146	614621	118.39	ug/L	99
130) 1,2-dichlorobenzene	18.84	146	611526	117.51	ug/L	98
131) benzyl chloride	18.57	91	574862	117.55	ug/L	100
133) n-butylbenzene	18.74	92	562918	124.56	ug/L	98
135) 1,2-dibromo-3-chloropropan	19.58	157	70347	115.00	ug/L	98
136) 1,3,5-trichlorobenzene	19.74	180	567674	124.44	ug/L	99
137) hexachlorobutadiene	20.45	225	284009	120.12	ug/L	99
138) naphthalene	20.59	128	1009754	126.08	ug/L	100
139) 1,2,4-trichlorobenzene	20.33	180	519833	125.68	ug/L	99
140) 1,2,3-trichlorobenzene	20.81	180	464760	127.74	ug/L	99
141) hexachloroethane	19.08	201	227144	129.20	ug/L	100

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

(QT Reviewed)

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Data Path   : C:\MSDCHEM\1\DATA\  
Data File  : 2D142317.D  
Acq On     : 3 Mar 2015    2:20 pm  
Operator   : BridgetK  
Sample     : ic5970-100  
Misc       : ms79298,v2d5970,w,,,,,1  
ALS Vial   : 10    Sample Multiplier: 1
```

Quant Time: Mar 03 15:20:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 15:19:46 2015
Response via : Initial Calibration



Page: 4

7.6.7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142318.D
 Acq On : 3 Mar 2015 2:51 pm
 Operator : BridgetK
 Sample : ic5970-200
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 11:46:09 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:20:58 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.58	65	97317	500.00	ug/L	0.01
5) pentafluorobenzene	10.31	168	351232	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.47	114	365926	50.00	ug/L	0.00
94) chlorobenzene-d5	15.67	117	351064	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.43	152	224192	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.32	113	432637	189.63	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	379.26%#
55) 1,2-dichloroethane-d4 (s)	10.87	65	458227	194.37	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	388.74%#
86) toluene-d8 (s)	13.66	98	1561992	201.67	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	403.34%#
111) 4-bromofluorobenzene (s)	17.15	95	660037	191.29	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	382.58%#

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.72	59	204291	1141.33	ug/L	96
3) ethyl alcohol	6.20	45	405324	19180.37	ug/L	87
4) 1,4-dioxane	12.41	88	97591	5647.88	ug/L #	94
11) chlorodifluoromethane	3.96	51	521185	277.57	ug/L	97
15) chloromethane	4.30	50	719159	224.22	ug/L	100
16) vinyl chloride	4.57	62	668520	235.47	ug/L	99
18) bromomethane	5.21	94	404479	199.61	ug/L	99
19) chloroethane	5.39	64	295043	219.33	ug/L	99
20) trichlorofluoromethane	5.91	101	719933	242.64	ug/L	98
22) ethyl ether	6.35	74	222212	244.95	ug/L	98
23) acrolein	6.62	56	288	0.71	ug/L #	15
27) 1,1-dichloroethene	6.79	96	392911	241.75	ug/L	94
28) 2-chloropropane	6.55	43	746227	224.11	ug/L	97
29) acetone	6.87	58	33067	219.69	ug/L	97
30) allyl chloride	7.39	76	219176	252.97	ug/L	91
31) acetonitrile	7.37	40	359063	2385.16	ug/L #	54
32) iodomethane	7.09	142	837159	254.16	ug/L	99
33) carbon disulfide	7.22	76	1424655	248.08	ug/L	100
34) methylene chloride	7.60	84	470971	232.64	ug/L	98
35) methyl acetate	7.39	74	74417	250.08	ug/L	98
36) 1-chloropropane	7.64	63	35240	223.08	ug/L	72
37) methyl tert butyl ether	8.00	73	1260671	238.65	ug/L	100
38) trans-1,2-dichloroethene	8.03	96	436312	234.58	ug/L	99
39) di-isopropyl ether	8.73	45	1551642	250.41	ug/L	99
40) 2-butanone	9.60	72	44656	240.59	ug/L	90
41) 1,1-dichloroethane	8.71	63	800470	245.02	ug/L	99
42) chloroprene	8.84	53	647657	267.89	ug/L	98
43) acrylonitrile	7.99	53	748541	1218.47	ug/L	98
44) vinyl acetate	8.72	86	61831	251.15	ug/L	88
45) ethyl tert-butyl ether	9.29	59	1503680	254.99	ug/L	99
46) ethyl acetate	9.64	45	55870	225.56	ug/L #	52
47) 2,2-dichloropropane	9.62	77	627465	229.84	ug/L	96
48) cis-1,2-dichloroethene	9.61	96	497366	240.08	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142318.D
 Acq On : 3 Mar 2015 2:51 pm
 Operator : BridgetK
 Sample : ic5970-200
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 11:46:09 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:20:58 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.72	54	600236	2405.16	ug/L	99
50) tert-Butyl Formate	10.15	59	422683	256.72	ug/L	99
51) bromochloromethane	9.99	128	249931	247.76	ug/L	99
52) tetrahydrofuran	10.05	42	116321	200.56	ug/L	98
53) chloroform	10.08	83	783239	240.26	ug/L	99
56) freon 113	6.78	151	340981	286.08	ug/L	98
57) methacrylonitrile	9.96	67	174203	251.16	ug/L	97
58) 1,1,1-trichloroethane	10.40	97	670765	246.30	ug/L	98
59) cyclohexane	10.49	84	592786	246.54	ug/L	93
60) isobutyl alcohol	10.63	74	52225	2350.98	ug/L #	48
62) iso-octane	11.01	57	1598921	265.49	ug/L	100
65) epichlorohydrin	13.14	57	206871	1230.14	ug/L	97
66) n-butyl alcohol	11.64	56	548207	13342.80	ug/L	99
67) carbon tetrachloride	10.65	117	585742	243.76	ug/L	99
68) 1,1-dichloropropene	10.63	75	578838	248.01	ug/L	99
69) hexane	8.41	86	70990	242.53	ug/L #	85
70) benzene	10.96	78	1774034	240.53	ug/L	100
71) tert-amyl methyl ether	11.04	87	306762	252.20	ug/L	96
72) heptane	11.23	57	293990	255.86	ug/L	98
73) isopropyl acetate	10.93	43	813000	243.16	ug/L	99
74) 1,2-dichloroethane	10.98	62	560217	234.99	ug/L	98
75) trichloroethene	11.90	130	483635	251.95	ug/L	100
78) 2-nitropropane	12.96	46	8741	237.95	ug/L #	68
79) 2-chloroethyl vinyl ether	13.00	63	1395303	1289.96	ug/L	97
80) methyl methacrylate	12.30	69	291084	247.20	ug/L	96
81) 1,2-dichloropropane	12.26	63	483586	243.45	ug/L	99
82) dibromomethane	12.44	93	294356	240.36	ug/L	99
83) methylcyclohexane	12.19	83	718465	271.07	ug/L	99
84) bromodichloromethane	12.63	83	653398	248.19	ug/L	98
85) cis-1,3-dichloropropene	13.26	75	799290	243.61	ug/L	98
87) 4-methyl-2-pentanone	13.44	58	174453	247.98	ug/L	98
88) toluene	13.76	92	1142730	245.60	ug/L	99
89) 3-methyl-1-butanol	13.46	55	361530	4947.32	ug/L	99
90) trans-1,3-dichloropropene	14.03	75	736153	250.39	ug/L	98
91) ethyl methacrylate	14.07	69	600661	254.19	ug/L	99
92) 1,1,2-trichloroethane	14.31	83	368845	242.65	ug/L	98
93) 2-hexanone	14.59	58	157396	240.06	ug/L	97
95) 3,3-Dimethyl-1-butanol	14.82	57	443187	2704.17	ug/L	99
96) tetrachloroethene	14.53	164	448958	243.60	ug/L	98
97) 1,3-dichloropropane	14.55	76	695515	234.92	ug/L	99
98) butyl acetate	14.71	56	293441	248.06	ug/L	97
99) dibromochloromethane	14.88	129	556901	242.42	ug/L	99
100) 1,2-dibromoethane	15.08	107	459213	243.18	ug/L	99
101) n-butyl ether	15.69	57	2172937	231.70	ug/L	100
102) chlorobenzene	15.71	112	1336308	240.65	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.80	131	542722	240.56	ug/L	98
104) ethylbenzene	15.81	91	2247289	237.98	ug/L	99
105) m,p-xylene	15.96	106	1754178	489.09	ug/L	97
106) o-xylene	16.50	106	919049	246.49	ug/L	100
107) styrene	16.51	104	1536231	246.35	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142318.D
 Acq On : 3 Mar 2015 2:51 pm
 Operator : BridgetK
 Sample : ic5970-200
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 04 11:46:09 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue Mar 03 15:20:58 2015
 Response via : Initial Calibration

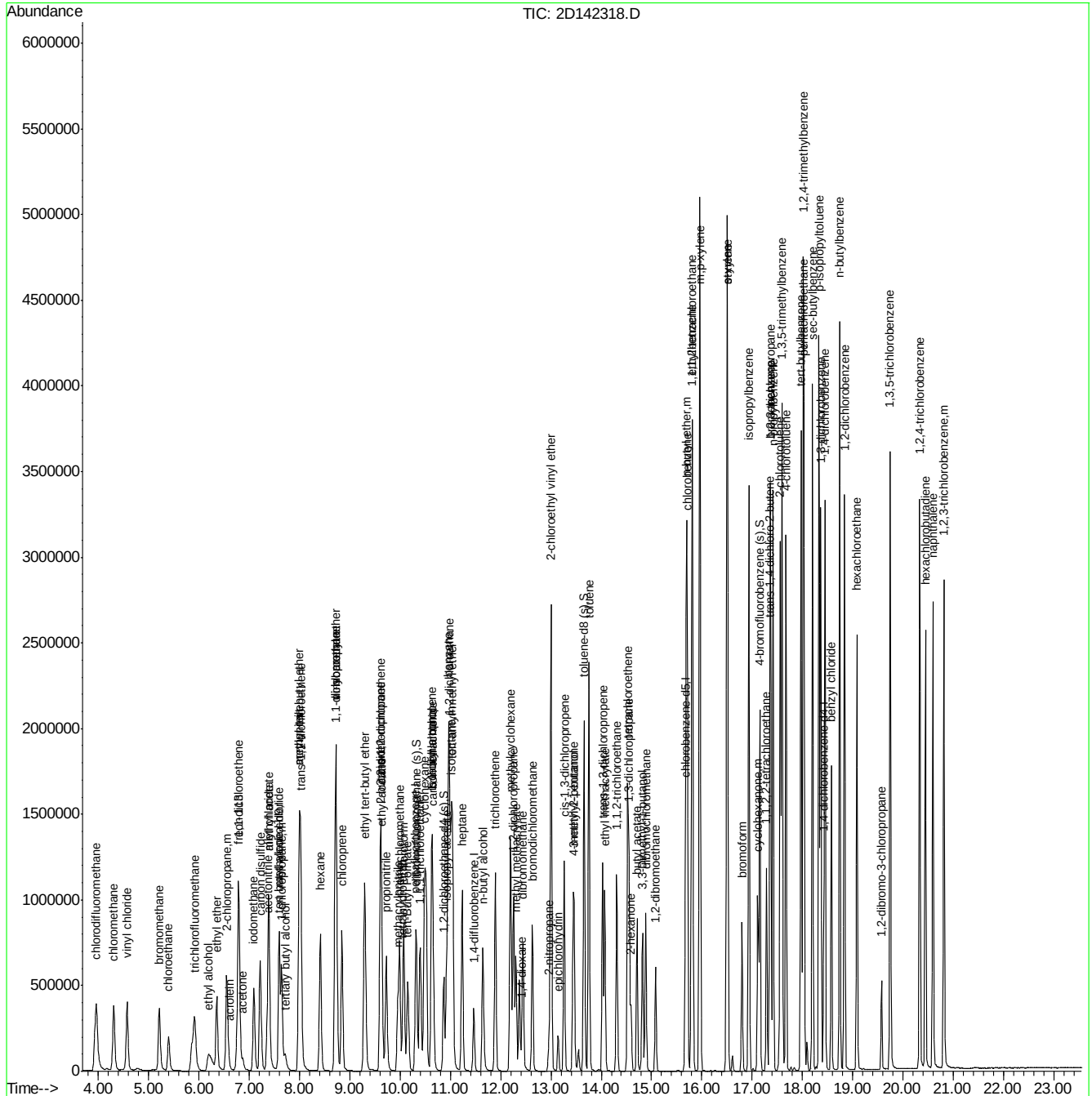
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.80	173	432359	254.36	ug/L	99
110) isopropylbenzene	16.93	105	2356995	243.00	ug/L	99
112) cyclohexanone	17.11	55	464025	1522.26	ug/L	99
113) bromobenzene	17.36	156	681965	244.62	ug/L	98
114) 1,1,2,2-tetrachloroethane	17.29	83	617976	233.92	ug/L	100
115) trans-1,4-dichloro-2-buten	17.35	53	157321	233.39	ug/L #	81
116) 1,2,3-trichloropropane	17.37	110	150209	234.72	ug/L #	87
117) n-propylbenzene	17.42	91	2616965	238.11	ug/L	98
119) 2-chlorotoluene	17.56	126	600073	243.59	ug/L	97
120) 4-chlorotoluene	17.67	91	1710395	237.98	ug/L	99
121) 1,3,5-trimethylbenzene	17.59	105	2036228	242.64	ug/L	97
122) tert-butylbenzene	17.97	119	1797182	249.63	ug/L	99
123) pentachloroethane	18.03	167	474547	249.60	ug/L	99
124) 1,2,4-trimethylbenzene	18.02	105	2038806	243.75	ug/L	97
126) sec-butylbenzene	18.20	105	2713542	246.54	ug/L	98
127) 1,3-dichlorobenzene	18.37	146	1303441	241.26	ug/L	99
128) p-isopropyltoluene	18.33	119	2332616	245.13	ug/L	98
129) 1,4-dichlorobenzene	18.45	146	1323718	244.42	ug/L	99
130) 1,2-dichlorobenzene	18.84	146	1300791	239.87	ug/L	97
131) benzyl chloride	18.57	91	1199353	235.33	ug/L	99
133) n-butylbenzene	18.74	92	1193411	251.25	ug/L	97
135) 1,2-dibromo-3-chloropropan	19.58	157	150610	236.99	ug/L	99
136) 1,3,5-trichlorobenzene	19.75	180	1195376	249.35	ug/L	99
137) hexachlorobutadiene	20.45	225	589179	238.37	ug/L	99
138) naphthalene	20.59	128	2112164	250.46	ug/L	99
139) 1,2,4-trichlorobenzene	20.33	180	1088347	250.01	ug/L	99
140) 1,2,3-trichlorobenzene	20.81	180	970652	252.86	ug/L	100
141) hexachloroethane	19.09	201	497616	267.79	ug/L	99

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\MSDCHEM\1\DATA\  
Data File : 2D142318.D  
Acq On    : 3 Mar 2015    2:51 pm  
Operator  : BridgetK  
Sample    : ic5970-200  
Misc      : ms79298,v2d5970,w,,,,,1  
ALS Vial  : 11    Sample Multiplier: 1
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Quant Time: Mar 04 11:46:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 15:20:58 2015
Response via : Initial Calibration



M2D5970.M Fri Mar 06 10:41:56 2015 MS2D

Page: 4

7.6.8



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142322.D
 Acq On : 3 Mar 2015 4:54 pm
 Operator : BridgetK
 Sample : ic5970-1
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 04 11:44:10 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 08:18:12 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.57	65	85934	500.00	ug/L	0.00
5) pentafluorobenzene	10.31	168	367443	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.47	114	379364	50.00	ug/L	0.00
94) chlorobenzene-d5	15.68	117	341153	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.43	152	224047	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount	50.000	Range 79 - 120	Recovery	=	0.00%#	
55) 1,2-dichloroethane-d4 (s)	10.87	65	2902	1.27	ug/L	0.00
Spiked Amount	50.000	Range 72 - 123	Recovery	=	2.54%#	
86) toluene-d8 (s)	13.67	98	9504	1.24	ug/L	0.01
Spiked Amount	50.000	Range 78 - 119	Recovery	=	2.48%#	
111) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount	50.000	Range 74 - 119	Recovery	=	0.00%#	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.71	59	943	5.87	ug/L	76
3) ethyl alcohol	6.20	45	2280	122.81	ug/L #	56
11) chlorodifluoromethane	3.98	51	2514	1.15	ug/L	87
15) chloromethane	4.28	50	3521	1.04	ug/L	97
16) vinyl chloride	4.54	62	3086	1.02	ug/L	100
18) bromomethane	5.22	94	2293	1.08	ug/L	92
19) chloroethane	5.41	64	1472	1.03	ug/L	92
20) trichlorofluoromethane	5.92	101	2824	0.89	ug/L	89
22) ethyl ether	6.36	74	1100	1.13	ug/L	81
23) acrolein	6.63	56	448070	1051.45	ug/L	100
27) 1,1-dichloroethene	6.80	96	2129	1.22	ug/L	84
30) allyl chloride	7.39	76	1172	1.17	ug/L #	38
32) iodomethane	7.10	142	4095	1.11	ug/L	87
33) carbon disulfide	7.22	76	8222	1.30	ug/L	94
34) methylene chloride	7.60	84	2691	1.25	ug/L	92
35) methyl acetate	7.40	74	285	0.88	ug/L #	1
37) methyl tert butyl ether	8.00	73	6564	1.16	ug/L	99
38) trans-1,2-dichloroethene	8.04	96	2609	1.32	ug/L	91
39) di-isopropyl ether	8.72	45	7749	1.10	ug/L	92
41) 1,1-dichloroethane	8.72	63	4064	1.12	ug/L	96
42) chloroprene	8.85	53	3311	1.17	ug/L	95
43) acrylonitrile	8.00	53	3542	5.38	ug/L	89
45) ethyl tert-butyl ether	9.30	59	7217	1.07	ug/L	99
47) 2,2-dichloropropane	9.63	77	3804	1.31	ug/L	98
48) cis-1,2-dichloroethene	9.62	96	2683	1.21	ug/L	92
49) propionitrile	9.73	54	2754	10.32	ug/L	88
50) tert-Butyl Formate	10.15	59	1978	1.04	ug/L #	98
51) bromochloromethane	10.00	128	1242	1.12	ug/L	86
53) chloroform	10.08	83	4212	1.21	ug/L	97
57) methacrylonitrile	9.96	67	852	1.14	ug/L	86
58) 1,1,1-trichloroethane	10.41	97	3439	1.18	ug/L	85
59) cyclohexane	10.50	84	3240	1.16	ug/L	86
62) iso-octane	11.01	57	8050	1.16	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142322.D
 Acq On : 3 Mar 2015 4:54 pm
 Operator : BridgetK
 Sample : ic5970-1
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 04 11:44:10 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 08:18:12 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
65) epichlorohydrin	13.15	57	956	5.35	ug/L	88
66) n-butyl alcohol	11.66	56	2236	47.66	ug/L	91
67) carbon tetrachloride	10.65	117	3262	1.24	ug/L	92
68) 1,1-dichloropropene	10.64	75	3052	1.19	ug/L	91
69) hexane	8.42	86	322	1.00	ug/L #	58
70) benzene	10.97	78	9661	1.24	ug/L	98
71) tert-amyl methyl ether	11.05	87	1465	1.06	ug/L	94
72) heptane	11.24	57	1412	1.08	ug/L	89
73) isopropyl acetate	10.94	43	3910	1.10	ug/L	95
74) 1,2-dichloroethane	10.99	62	2997	1.19	ug/L	94
75) trichloroethene	11.90	130	2503	1.18	ug/L	95
79) 2-chloroethyl vinyl ether	13.00	63	6345	5.20	ug/L	94
80) methyl methacrylate	12.31	69	1324	1.06	ug/L	87
81) 1,2-dichloropropane	12.26	63	2310	1.10	ug/L	95
82) dibromomethane	12.45	93	1531	1.18	ug/L	91
83) methylcyclohexane	12.20	83	3397	1.09	ug/L	97
84) bromodichloromethane	12.63	83	3289	1.14	ug/L	91
85) cis-1,3-dichloropropene	13.26	75	4077	1.17	ug/L	92
87) 4-methyl-2-pentanone	13.44	58	744	0.99	ug/L #	81
88) toluene	13.76	92	5862	1.15	ug/L	92
89) 3-methyl-1-butanol	13.46	55	1762	22.66	ug/L	90
90) trans-1,3-dichloropropene	14.03	75	3688	1.15	ug/L	94
91) ethyl methacrylate	14.08	69	2640	1.02	ug/L	95
92) 1,1,2-trichloroethane	14.31	83	1824	1.13	ug/L	96
93) 2-hexanone	14.60	58	810	1.16	ug/L #	68
95) 3,3-Dimethyl-1-butanol	14.82	57	1960	11.34	ug/L #	98
96) tetrachloroethene	14.53	164	2261	1.20	ug/L	92
97) 1,3-dichloropropane	14.56	76	3326	1.13	ug/L	98
98) butyl acetate	14.72	56	1463	1.24	ug/L	89
99) dibromochloromethane	14.88	129	2639	1.15	ug/L	85
100) 1,2-dibromoethane	15.09	107	2248	1.20	ug/L	85
101) n-butyl ether	15.70	57	10918	1.18	ug/L	43
102) chlorobenzene	15.72	112	6723	1.22	ug/L	91
103) 1,1,1,2-tetrachloroethane	15.81	131	2701	1.16	ug/L	90
104) ethylbenzene	15.82	91	11044	1.18	ug/L	99
105) m,p-xylene	15.96	106	8503	2.38	ug/L	99
106) o-xylene	16.50	106	4396	1.18	ug/L	100
107) styrene	16.51	104	7372	1.19	ug/L	97
108) bromoform	16.81	173	1967	1.16	ug/L	90
110) isopropylbenzene	16.94	105	11476	1.16	ug/L	98
113) bromobenzene	17.37	156	3295	1.15	ug/L	92
114) 1,1,2,2-tetrachloroethane	17.28	83	3177	1.18	ug/L	99
115) trans-1,4-dichloro-2-buten	17.35	53	893	1.30	ug/L	80
116) 1,2,3-trichloropropane	17.37	110	758	1.16	ug/L #	79
117) n-propylbenzene	17.42	91	13652	1.22	ug/L	97
119) 2-chlorotoluene	17.56	126	3000	1.19	ug/L	92
120) 4-chlorotoluene	17.67	91	8841	1.21	ug/L	97
121) 1,3,5-trimethylbenzene	17.59	105	10150	1.18	ug/L	97
122) tert-butylbenzene	17.97	119	8505	1.15	ug/L	100
123) pentachloroethane	18.03	167	2268	1.16	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142322.D
Acq On : 3 Mar 2015 4:54 pm
Operator : BridgetK
Sample : ic5970-1
Misc : ms79298,v2d5970,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 04 11:44:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 08:18:12 2015
Response via : Initial Calibration

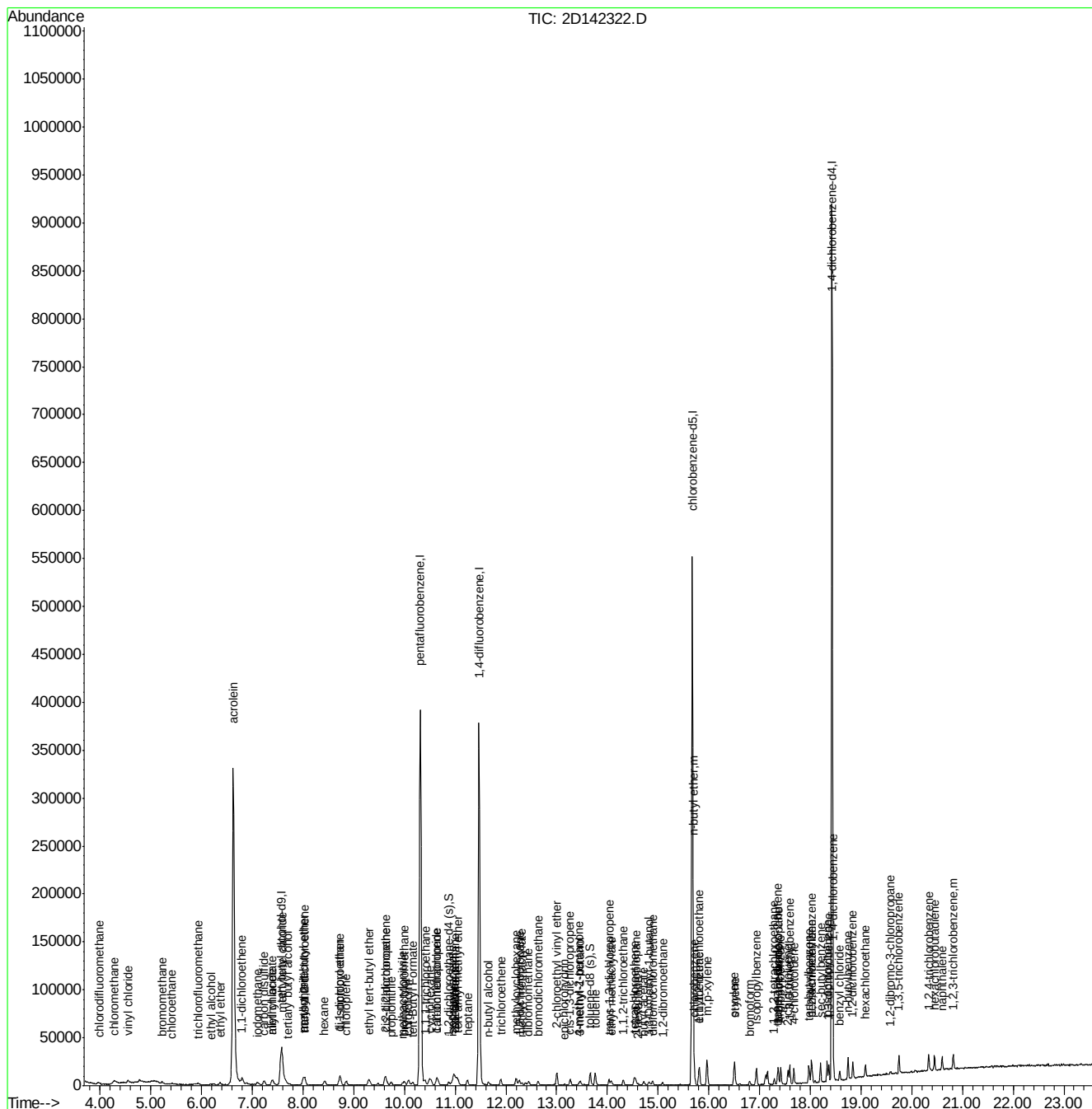
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
124) 1,2,4-trimethylbenzene	18.02	105	9888	1.15	ug/L	99
126) sec-butylbenzene	18.20	105	13064	1.16	ug/L	99
127) 1,3-dichlorobenzene	18.36	146	6706	1.21	ug/L	98
128) p-isopropyltoluene	18.33	119	11904	1.22	ug/L	97
129) 1,4-dichlorobenzene	18.45	146	7192	1.30	ug/L	99
130) 1,2-dichlorobenzene	18.84	146	6646	1.20	ug/L	97
131) benzyl chloride	18.58	91	6758	1.30	ug/L	98
133) n-butylbenzene	18.74	92	6000	1.23	ug/L	97
135) 1,2-dibromo-3-chloropropan	19.58	157	829	1.28	ug/L	90
136) 1,3,5-trichlorobenzene	19.75	180	6362	1.29	ug/L	98
137) hexachlorobutadiene	20.45	225	3377	1.34	ug/L	97
138) naphthalene	20.60	128	10918	1.26	ug/L	96
139) 1,2,4-trichlorobenzene	20.34	180	5816	1.30	ug/L	99
140) 1,2,3-trichlorobenzene	20.82	180	5195	1.32	ug/L	98
141) hexachloroethane	19.09	201	2171	1.13	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142322.D
Acq On : 3 Mar 2015 4:54 pm
Operator : BridgetK
Sample : ic5970-1
Misc : ms79298,v2d5970,w,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 04 11:44:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 08:18:12 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142323.D
 Acq On : 3 Mar 2015 5:25 pm
 Operator : BridgetK
 Sample : ic5970-0.5
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 04 11:42:15 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 08:25:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.57	65	90578	500.00	ug/L	0.00
5) pentafluorobenzene	10.31	168	376360	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.47	114	384377	50.00	ug/L	0.00
94) chlorobenzene-d5	15.68	117	352362	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.43	152	232249	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	0.00	113	0d	0.00	ug/L	
Spiked Amount	50.000	Range 79 - 120	Recovery	=	0.00%#	
55) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount	50.000	Range 72 - 123	Recovery	=	0.00%#	
86) toluene-d8 (s)	13.66	98	5150	0.65	ug/L	0.00
Spiked Amount	50.000	Range 78 - 119	Recovery	=	1.30%#	
111) 4-bromofluorobenzene (s)	0.00	95	0d	0.00	ug/L	
Spiked Amount	50.000	Range 74 - 119	Recovery	=	0.00%#	

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.70	59	579	3.27	ug/L	# 24
11) chlorodifluoromethane	3.96	51	1232	0.54	ug/L	83
15) chloromethane	4.28	50	1973	0.57	ug/L	88
16) vinyl chloride	4.54	62	1582	0.51	ug/L	94
18) bromomethane	5.21	94	1305	0.60	ug/L	78
19) chloroethane	5.41	64	820	0.57	ug/L	# 64
20) trichlorofluoromethane	5.93	101	1464	0.45	ug/L	86
22) ethyl ether	6.36	74	559	0.54	ug/L	# 70
23) acrolein	6.64	56	2795	6.38	ug/L	85
27) 1,1-dichloroethene	6.80	96	1148	0.62	ug/L	93
30) allyl chloride	7.39	76	584	0.56	ug/L	# 68
32) iodomethane	7.10	142	2165	0.55	ug/L	98
34) methylene chloride	7.60	84	1485	0.64	ug/L	93
37) methyl tert butyl ether	8.01	73	3494	0.58	ug/L	81
39) di-isopropyl ether	8.73	45	3639	0.50	ug/L	93
41) 1,1-dichloroethane	8.72	63	2307	0.60	ug/L	98
42) chloroprene	8.85	53	1469	0.50	ug/L	94
43) acrylonitrile	8.00	53	1997	2.87	ug/L	74
45) ethyl tert-butyl ether	9.30	59	3326	0.48	ug/L	94
47) 2,2-dichloropropane	9.63	77	1986	0.64	ug/L	91
48) cis-1,2-dichloroethene	9.61	96	1418	0.60	ug/L	94
49) propionitrile	9.73	54	1522	5.45	ug/L	91
50) tert-Butyl Formate	10.16	59	902	0.46	ug/L	# 84
51) bromochloromethane	10.00	128	707	0.59	ug/L	# 71
53) chloroform	10.08	83	2264	0.61	ug/L	95
58) 1,1,1-trichloroethane	10.40	97	1800	0.58	ug/L	79
59) cyclohexane	10.49	84	1547	0.53	ug/L	77
62) iso-octane	11.01	57	3551	0.49	ug/L	87
66) n-butyl alcohol	11.65	56	1491	31.55	ug/L	94
67) carbon tetrachloride	10.66	117	1578	0.56	ug/L	85
68) 1,1-dichloropropene	10.63	75	1723	0.63	ug/L	91
70) benzene	10.97	78	5087	0.61	ug/L	97
71) tert-amyl methyl ether	11.04	87	713	0.51	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142323.D
 Acq On : 3 Mar 2015 5:25 pm
 Operator : BridgetK
 Sample : ic5970-0.5
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 04 11:42:15 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 08:25:55 2015
 Response via : Initial Calibration

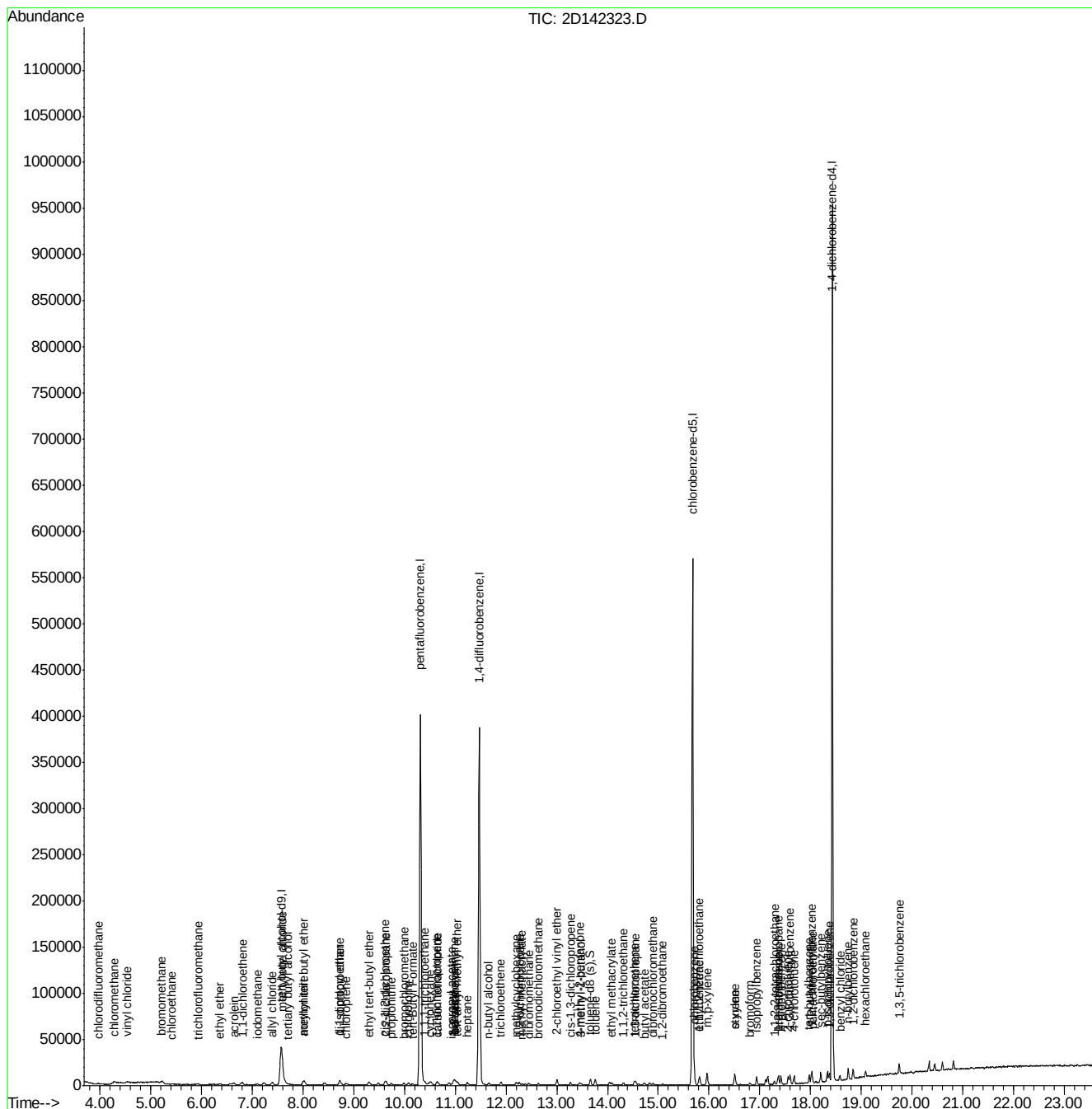
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) heptane	11.24	57	807	0.60	ug/L	95
73) isopropyl acetate	10.93	43	2004	0.54	ug/L	79
74) 1,2-dichloroethane	10.99	62	1542	0.58	ug/L	86
75) trichloroethene	11.90	130	1297	0.58	ug/L	93
79) 2-chloroethyl vinyl ether	13.00	63	3094	2.49	ug/L	93
80) methyl methacrylate	12.31	69	705	0.54	ug/L	80
81) 1,2-dichloropropane	12.26	63	1254	0.57	ug/L	85
82) dibromomethane	12.45	93	813	0.59	ug/L	92
83) methylcyclohexane	12.20	83	1586	0.50	ug/L	82
84) bromodichloromethane	12.63	83	1690	0.55	ug/L	80
85) cis-1,3-dichloropropene	13.26	75	2052	0.56	ug/L	94
87) 4-methyl-2-pentanone	13.45	58	408	0.52	ug/L #	32
88) toluene	13.76	92	3061	0.57	ug/L #	79
89) 3-methyl-1-butanol	13.46	55	1228	15.04	ug/L	91
91) ethyl methacrylate	14.08	69	1371	0.51	ug/L	95
92) 1,1,2-trichloroethane	14.32	83	964	0.57	ug/L	85
96) tetrachloroethene	14.53	164	1132	0.55	ug/L	94
97) 1,3-dichloropropane	14.56	76	1740	0.55	ug/L	87
98) butyl acetate	14.73	56	714	0.57	ug/L	86
99) dibromochloromethane	14.89	129	1326	0.54	ug/L	86
100) 1,2-dibromoethane	15.08	107	1041	0.51	ug/L	84
102) chlorobenzene	15.72	112	3559	0.60	ug/L	96
103) 1,1,1,2-tetrachloroethane	15.81	131	1336	0.53	ug/L	94
104) ethylbenzene	15.81	91	5739	0.57	ug/L	98
105) m,p-xylene	15.96	106	4334	1.13	ug/L	98
106) o-xylene	16.50	106	2117	0.53	ug/L	97
107) styrene	16.51	104	3690	0.55	ug/L	97
108) bromoform	16.81	173	1096	0.60	ug/L	91
110) isopropylbenzene	16.94	105	5699	0.53	ug/L	95
113) bromobenzene	17.37	156	1859	0.61	ug/L	98
114) 1,1,2,2-tetrachloroethane	17.29	83	1894	0.66	ug/L	96
116) 1,2,3-trichloropropane	17.37	110	355	0.51	ug/L #	67
117) n-propylbenzene	17.42	91	7166	0.59	ug/L	96
119) 2-chlorotoluene	17.56	126	1635	0.60	ug/L #	83
120) 4-chlorotoluene	17.68	91	5016	0.63	ug/L	91
121) 1,3,5-trimethylbenzene	17.59	105	5231	0.56	ug/L	89
122) tert-butylbenzene	17.97	119	4578	0.58	ug/L	93
123) pentachloroethane	18.04	167	1212	0.58	ug/L	96
124) 1,2,4-trimethylbenzene	18.02	105	5344	0.58	ug/L	96
126) sec-butylbenzene	18.20	105	7096	0.58	ug/L	95
127) 1,3-dichlorobenzene	18.37	146	3580	0.60	ug/L	95
128) p-isopropyltoluene	18.33	119	5917	0.56	ug/L	96
130) 1,2-dichlorobenzene	18.84	146	4084	0.68	ug/L	95
131) benzyl chloride	18.58	91	3460	0.61	ug/L	98
133) n-butylbenzene	18.74	92	3317	0.62	ug/L	93
136) 1,3,5-trichlorobenzene	19.75	180	3382	0.63	ug/L	95
141) hexachloroethane	19.09	201	1140	0.55	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142323.D
Acq On : 3 Mar 2015 5:25 pm
Operator : BridgetK
Sample : ic5970-0.5
Misc : ms79298,v2d5970,w,,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 04 11:42:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 08:25:55 2015
Response via : Initial Calibration



M2D5970.M Fri Mar 06 10:41:58 2015 MS2D

Page: 3

7.6.10



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142324.D
 Acq On : 3 Mar 2015 5:56 pm
 Operator : BridgetK
 Sample : icv5970-50
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 04 11:55:25 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.58	65	92022	500.00	ug/L	0.01
5) pentafluorobenzene	10.32	168	368718	50.00	ug/L	0.01
63) 1,4-difluorobenzene	11.48	114	379667	50.00	ug/L	0.01
94) chlorobenzene-d5	15.68	117	357196	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.43	152	228251	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.33	113	108151	50.63	ug/L	0.01
Spiked Amount	50.000	Range	79 - 120	Recovery	=	101.26%
55) 1,2-dichloroethane-d4 (s)	10.87	65	114000	49.14	ug/L	0.01
Spiked Amount	50.000	Range	72 - 123	Recovery	=	98.28%
86) toluene-d8 (s)	13.67	98	400531	49.59	ug/L	0.01
Spiked Amount	50.000	Range	78 - 119	Recovery	=	99.18%
111) 4-bromofluorobenzene (s)	17.16	95	162889	51.54	ug/L	0.01
Spiked Amount	50.000	Range	74 - 119	Recovery	=	103.08%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.71	59	49828	264.53	ug/L	99
3) ethyl alcohol	6.19	45	97743	4903.79	ug/L	99
4) 1,4-dioxane	12.41	88	20865	1253.79	ug/L #	97
11) chlorodifluoromethane	3.97	51	106031	47.07	ug/L	99
12) dichlorodifluoromethane	3.95	85	129659	49.72	ug/L	98
15) chloromethane	4.30	50	169416	49.64	ug/L	100
16) vinyl chloride	4.57	62	154857	51.10	ug/L	99
18) bromomethane	5.23	94	107888	49.19	ug/L	99
19) chloroethane	5.41	64	84799	58.27	ug/L	99
20) trichlorofluoromethane	5.93	101	169180	54.05	ug/L	99
22) ethyl ether	6.36	74	58596	55.94	ug/L	99
23) acrolein	6.63	56	227093	509.84	ug/L	99
27) 1,1-dichloroethene	6.81	96	103522	54.50	ug/L	95
28) 2-chloropropane	6.57	43	218556	63.12	ug/L #	94
29) acetone	6.88	58	8623	53.69	ug/L	86
30) allyl chloride	7.40	76	61016	58.80	ug/L	93
31) acetonitrile	7.39	40	87005	520.91	ug/L #	1
32) iodomethane	7.10	142	215872	55.32	ug/L	99
33) carbon disulfide	7.23	76	377099	55.86	ug/L	99
34) methylene chloride	7.61	84	121001	52.26	ug/L	98
35) methyl acetate	7.40	74	14227	44.62	ug/L	96
36) 1-chloropropane	7.65	63	8554	50.75	ug/L	90
37) methyl tert butyl ether	8.01	73	621704	101.91	ug/L	88
38) trans-1,2-dichloroethene	8.04	96	107250	50.81	ug/L	98
39) di-isopropyl ether	8.73	45	377740	53.91	ug/L	87
40) 2-butanone	9.60	72	10985	54.79	ug/L	99
41) 1,1-dichloroethane	8.72	63	203641	52.69	ug/L	98
42) chloroprene	8.85	53	144933	51.11	ug/L	97
43) acrylonitrile	8.00	53	195217	277.23	ug/L	97
44) vinyl acetate	8.73	86	17205	59.52	ug/L	68
45) ethyl tert-butyl ether	9.31	59	354214	53.66	ug/L	100
46) ethyl acetate	9.64	45	13827	52.22	ug/L #	10
47) 2,2-dichloropropane	9.64	77	165655	51.24	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142324.D
 Acq On : 3 Mar 2015 5:56 pm
 Operator : BridgetK
 Sample : icv5970-50
 Misc : ms79298,v2d5970,w,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 04 11:55:25 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.62	96	122312	50.77	ug/L	96
49) propionitrile	9.73	54	151851	537.57	ug/L	95
50) tert-Butyl Formate	10.16	59	105935	55.85	ug/L	100
51) bromochloromethane	10.00	128	61293	51.23	ug/L	97
52) tetrahydrofuran	10.06	42	29246	48.02	ug/L	97
53) chloroform	10.08	83	197709	51.66	ug/L	99
56) freon 113	6.79	151	83865	54.79	ug/L	97
57) methacrylonitrile	9.96	67	42293	53.77	ug/L	98
58) 1,1,1-trichloroethane	10.41	97	172067	54.13	ug/L	99
59) cyclohexane	10.50	84	164874	57.42	ug/L	98
60) isobutyl alcohol	10.64	74	12980	542.99	ug/L #	73
62) iso-octane	11.02	57	332890	46.85	ug/L	98
65) epichlorohydrin	13.15	57	49399	264.87	ug/L	98
66) n-butyl alcohol	11.65	56	130570	2717.94	ug/L	98
67) carbon tetrachloride	10.66	117	152812	53.98	ug/L	99
68) 1,1-dichloropropene	10.64	75	149041	53.62	ug/L	99
69) hexane	8.42	86	16168	51.48	ug/L #	91
70) benzene	10.97	78	449224	51.99	ug/L	100
71) tert-amyl methyl ether	11.05	87	72368	51.93	ug/L	98
72) heptane	11.24	57	59163	43.77	ug/L	99
73) isopropyl acetate	10.93	43	186602	50.80	ug/L	99
74) 1,2-dichloroethane	10.99	62	141361	51.50	ug/L	100
75) trichloroethene	11.90	130	117598	51.97	ug/L	99
78) 2-nitropropane	13.01	46	2197	55.53	ug/L #	1
79) 2-chloroethyl vinyl ether	13.01	63	345147	281.33	ug/L	99
80) methyl methacrylate	12.31	69	71565	54.09	ug/L	97
81) 1,2-dichloropropane	12.26	63	118993	52.25	ug/L	99
82) dibromomethane	12.45	93	70876	49.91	ug/L	98
83) methylcyclohexane	12.20	83	153602	48.73	ug/L	93
84) bromodichloromethane	12.63	83	156403	51.08	ug/L	97
85) cis-1,3-dichloropropene	13.27	75	196331	52.46	ug/L	99
87) 4-methyl-2-pentanone	13.45	58	41094	52.91	ug/L	97
88) toluene	13.76	92	280206	51.81	ug/L	100
89) 3-methyl-1-butanol	13.46	55	82174	1019.89	ug/L	97
90) trans-1,3-dichloropropene	14.03	75	173703	51.32	ug/L	99
91) ethyl methacrylate	14.08	69	138388	51.83	ug/L	98
92) 1,1,2-trichloroethane	14.31	83	87521	50.68	ug/L	98
93) 2-hexanone	14.60	58	36742	51.49	ug/L	91
95) 3,3-Dimethyl-1-butanol	14.83	57	94728	514.98	ug/L	100
96) tetrachloroethene	14.53	164	107824	51.46	ug/L	100
97) 1,3-dichloropropane	14.56	76	169924	51.78	ug/L	99
98) butyl acetate	14.72	56	67878	51.87	ug/L	98
99) dibromochloromethane	14.89	129	130907	51.16	ug/L	99
100) 1,2-dibromoethane	15.09	107	109574	51.69	ug/L	99
101) n-butyl ether	15.70	57	510358	49.38	ug/L	100
102) chlorobenzene	15.72	112	319063	50.50	ug/L	100
103) 1,1,1,2-tetrachloroethane	15.81	131	127095	49.65	ug/L	99
104) ethylbenzene	15.82	91	544688	51.09	ug/L	100
105) m,p-xylene	15.96	106	423953	104.11	ug/L	98
106) o-xylene	16.50	106	214736	50.97	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142324.D
 Acq On : 3 Mar 2015 5:56 pm
 Operator : BridgetK
 Sample : icv5970-50
 Misc : ms79298,v2d5970,w,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 04 11:55:25 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) styrene	16.51	104	366879	51.84	ug/L	97
108) bromoform	16.81	173	99431	50.94	ug/L	98
110) isopropylbenzene	16.94	105	566473	52.16	ug/L	99
112) cyclohexanone	17.12	55	120577	442.91	ug/L	98
113) bromobenzene	17.37	156	162056	51.15	ug/L	96
114) 1,1,2,2-tetrachloroethane	17.29	83	143499	47.78	ug/L	99
115) trans-1,4-dichloro-2-buten	17.35	53	37651	50.11	ug/L	84
116) 1,2,3-trichloropropane	17.37	110	35371	49.95	ug/L #	90
117) n-propylbenzene	17.42	91	669799	53.69	ug/L	100
119) 2-chlorotoluene	17.56	126	139429	49.94	ug/L	98
120) 4-chlorotoluene	17.68	91	405795	49.85	ug/L	99
121) 1,3,5-trimethylbenzene	17.60	105	486315	51.18	ug/L	99
122) tert-butylbenzene	17.98	119	422340	51.85	ug/L	100
123) pentachloroethane	18.04	167	110566	51.07	ug/L	99
124) 1,2,4-trimethylbenzene	18.02	105	510214	53.70	ug/L	99
126) sec-butylbenzene	18.20	105	652126	51.99	ug/L	99
127) 1,3-dichlorobenzene	18.37	146	302393	49.44	ug/L	100
128) p-isopropyltoluene	18.33	119	558608	52.10	ug/L	100
129) 1,4-dichlorobenzene	18.45	146	306435	50.33	ug/L	99
130) 1,2-dichlorobenzene	18.84	146	305824	48.96	ug/L	98
131) benzyl chloride	18.58	91	334898	58.47	ug/L	100
133) n-butylbenzene	18.75	92	291657	52.77	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.58	157	35171	49.68	ug/L	98
136) 1,3,5-trichlorobenzene	19.75	180	280375	49.87	ug/L	100
137) hexachlorobutadiene	20.45	225	143337	51.31	ug/L	100
138) naphthalene	20.60	128	503969	52.03	ug/L	100
139) 1,2,4-trichlorobenzene	20.34	180	258125	51.86	ug/L	99
140) 1,2,3-trichlorobenzene	20.82	180	230368	52.05	ug/L	100
141) hexachloroethane	19.09	201	112468	52.74	ug/L	99

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

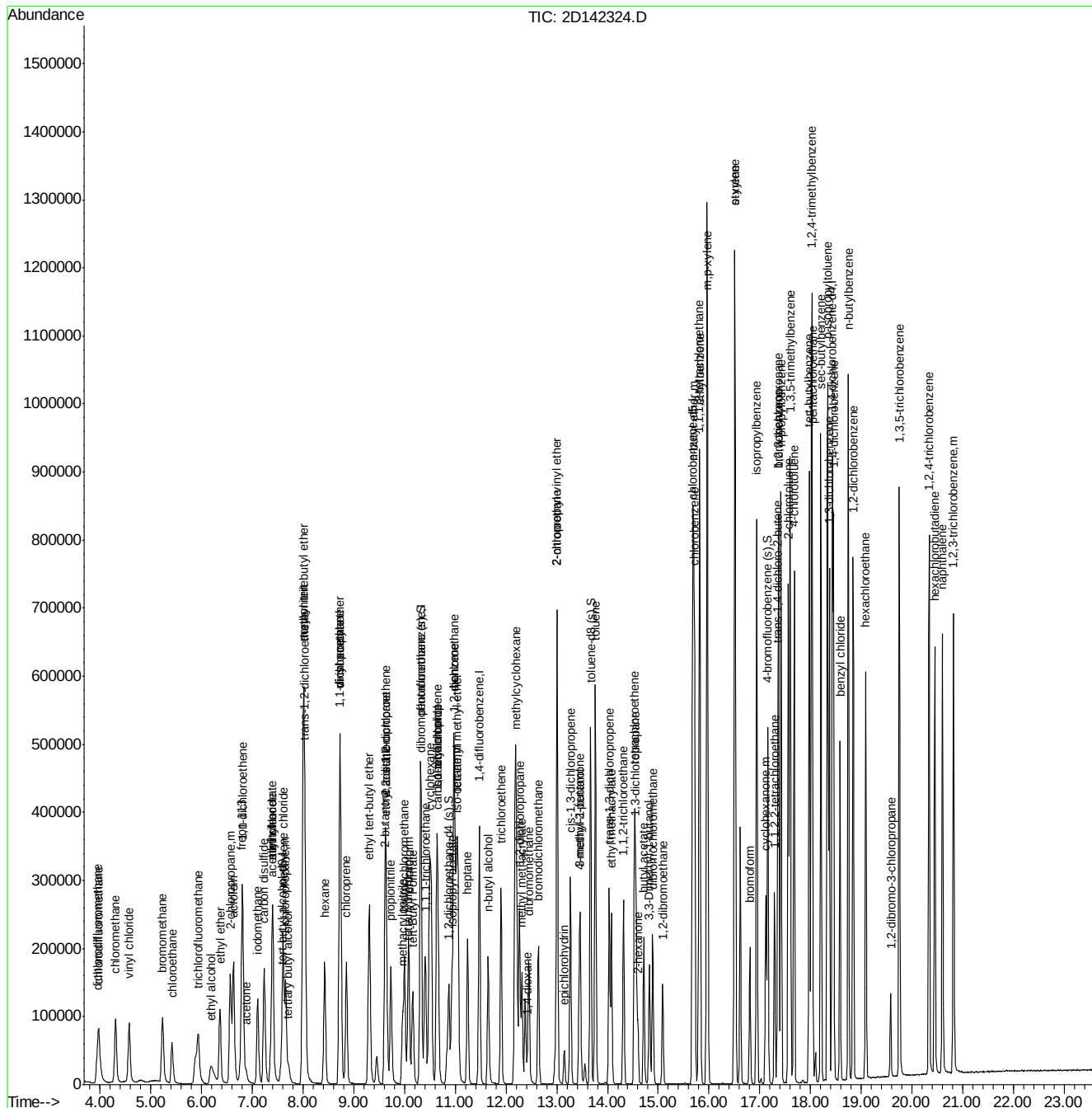
7.6.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142324.D
Acq On : 3 Mar 2015 5:56 pm
Operator : BridgetK
Sample : icv5970-50
Misc : ms79298,v2d5970,w,,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 04 11:55:25 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142642.D
 Acq On : 13 Mar 2015 10:25 am
 Operator : BridgetK
 Sample : cc5970-20
 Misc : ms81906,v2d5984,w,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 14:59:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.54	65	113672	500.00	ug/L	-0.03
5) pentafluorobenzene	10.28	168	444316	50.00	ug/L	-0.03
63) 1,4-difluorobenzene	11.44	114	431926	50.00	ug/L	-0.03
94) chlorobenzene-d5	15.65	117	388555	50.00	ug/L	-0.02
109) 1,4-dichlorobenzene-d4	18.41	152	255228	50.00	ug/L	-0.02

System Monitoring Compounds

54) dibromofluoromethane (s)	10.30	113	141313	54.90	ug/L	-0.02
Spiked Amount	50.000	Range	79 - 120	Recovery	=	109.80%
55) 1,2-dichloroethane-d4 (s)	10.84	65	143855	51.46	ug/L	-0.03
Spiked Amount	50.000	Range	72 - 123	Recovery	=	102.92%
86) toluene-d8 (s)	13.63	98	489790	53.31	ug/L	-0.03
Spiked Amount	50.000	Range	78 - 119	Recovery	=	106.62%
111) 4-bromofluorobenzene (s)	17.13	95	190647	53.95	ug/L	-0.01
Spiked Amount	50.000	Range	74 - 119	Recovery	=	107.90%

Target Compounds

Qvalue

2) tertiary butyl alcohol	7.67	59	25460	109.42	ug/L	99
3) ethyl alcohol	6.15	45	57442	2333.00	ug/L	99
4) 1,4-dioxane	12.38	88	12198	593.38	ug/L #	95
11) chlorodifluoromethane	3.95	51	54070	19.92	ug/L	98
12) dichlorodifluoromethane	3.93	85	70960	22.58	ug/L	97
15) chloromethane	4.27	50	84548	20.56	ug/L	99
16) vinyl chloride	4.53	62	78993	21.63	ug/L	97
18) bromomethane	5.21	94	54781	20.73	ug/L	100
19) chloroethane	5.39	64	38434	21.92	ug/L	99
20) trichlorofluoromethane	5.89	101	88197	23.39	ug/L	98
22) ethyl ether	6.33	74	27697	21.94	ug/L	90
23) acrolein	6.59	56	98020	182.62	ug/L	99
27) 1,1-dichloroethene	6.77	96	47890	20.92	ug/L	96
28) 2-chloropropane	6.53	43	88920	21.31	ug/L	99
29) acetone	6.85	58	4157	21.48	ug/L	97
30) allyl chloride	7.37	76	26980	21.58	ug/L	95
31) acetonitrile	7.34	40	43777	217.51	ug/L	88
32) iodomethane	7.07	142	101129	21.51	ug/L	97
33) carbon disulfide	7.19	76	172446	21.20	ug/L	99
34) methylene chloride	7.58	84	58448	20.95	ug/L	96
35) methyl acetate	7.37	74	8635	22.47	ug/L	96
36) 1-chloropropane	7.63	63	4520	22.25	ug/L	99
37) methyl tert butyl ether	7.98	73	159015	21.63	ug/L	100
38) trans-1,2-dichloroethene	8.01	96	55451	21.80	ug/L	98
39) di-isopropyl ether	8.70	45	188983	22.38	ug/L	96
40) 2-butanone	9.57	72	4911	20.33	ug/L	87
41) 1,1-dichloroethane	8.68	63	100105	21.49	ug/L	97
42) chloroprene	8.82	53	76882	22.50	ug/L	99
43) acrylonitrile	7.97	53	87822	103.50	ug/L	98
44) vinyl acetate	8.70	86	7009	20.12	ug/L	88
45) ethyl tert-butyl ether	9.27	59	181465	22.81	ug/L	99
46) ethyl acetate	9.61	45	5854	18.35	ug/L #	1
47) 2,2-dichloropropane	9.60	77	87977	22.58	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142642.D
 Acq On : 13 Mar 2015 10:25 am
 Operator : BridgetK
 Sample : cc5970-20
 Misc : ms81906,v2d5984,w,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 14:59:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) cis-1,2-dichloroethene	9.58	96	62154	21.41	ug/L	98
49) propionitrile	9.70	54	70116	205.98	ug/L	89
50) tert-Butyl Formate	10.12	59	50511	22.10	ug/L	99
51) bromochloromethane	9.97	128	31588	21.91	ug/L	94
52) tetrahydrofuran	10.02	42	13617	18.55	ug/L	97
53) chloroform	10.05	83	98939	21.45	ug/L	98
56) freon 113	6.76	151	42482	23.03	ug/L	98
57) methacrylonitrile	9.92	67	19347	20.41	ug/L	96
58) 1,1,1-trichloroethane	10.37	97	86217	22.51	ug/L	99
59) cyclohexane	10.46	84	77634	22.44	ug/L	91
60) isobutyl alcohol	10.61	74	6275	217.84	ug/L	89
62) iso-octane	10.98	57	189180	22.09	ug/L	100
65) epichlorohydrin	13.11	57	22017	103.77	ug/L	97
66) n-butyl alcohol	11.61	56	60260	1102.60	ug/L	98
67) carbon tetrachloride	10.62	117	77253	23.99	ug/L	99
68) 1,1-dichloropropene	10.60	75	71214	22.52	ug/L	98
69) hexane	8.39	86	8187	22.91	ug/L	94
70) benzene	10.94	78	217186	22.09	ug/L	99
71) tert-amyl methyl ether	11.01	87	36955	23.31	ug/L	97
72) heptane	11.21	57	34753	22.60	ug/L	98
73) isopropyl acetate	10.89	43	86542	20.71	ug/L	99
74) 1,2-dichloroethane	10.95	62	68002	21.77	ug/L	99
75) trichloroethene	11.87	130	57807	22.46	ug/L	95
78) 2-nitropropane	12.97	46	903	20.06	ug/L	# 1
79) 2-chloroethyl vinyl ether	12.97	63	148910	106.69	ug/L	99
80) methyl methacrylate	12.28	69	28970	19.25	ug/L	90
81) 1,2-dichloropropane	12.23	63	54348	20.98	ug/L	99
82) dibromomethane	12.41	93	33886	20.98	ug/L	99
83) methylcyclohexane	12.17	83	86100	24.01	ug/L	99
84) bromodichloromethane	12.60	83	73941	21.23	ug/L	96
85) cis-1,3-dichloropropene	13.24	75	86501	20.32	ug/L	99
87) 4-methyl-2-pentanone	13.42	58	18520	20.96	ug/L	98
88) toluene	13.73	92	130441	21.20	ug/L	98
89) 3-methyl-1-butanol	13.43	55	40019	436.59	ug/L	99
90) trans-1,3-dichloropropene	14.00	75	76243	19.80	ug/L	99
91) ethyl methacrylate	14.04	69	60092	19.78	ug/L	99
92) 1,1,2-trichloroethane	14.28	83	38759	19.73	ug/L	99
93) 2-hexanone	14.57	58	15705	19.35	ug/L	88
95) 3,3-Dimethyl-1-butanol	14.79	57	44811	223.95	ug/L	98
96) tetrachloroethene	14.50	164	50816	22.30	ug/L	98
97) 1,3-dichloropropane	14.53	76	73746	20.66	ug/L	97
98) butyl acetate	14.69	56	30111	21.15	ug/L	95
99) dibromochloromethane	14.86	129	59280	21.30	ug/L	99
100) 1,2-dibromoethane	15.06	107	47726	20.70	ug/L	98
101) n-butyl ether	15.67	57	247420	22.01	ug/L	98
102) chlorobenzene	15.69	112	146462	21.31	ug/L	97
103) 1,1,1,2-tetrachloroethane	15.78	131	63233	22.71	ug/L	98
104) ethylbenzene	15.79	91	259793	22.40	ug/L	100
105) m,p-xylene	15.94	106	199068	44.94	ug/L	98
106) o-xylene	16.48	106	103605	22.61	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142642.D
 Acq On : 13 Mar 2015 10:25 am
 Operator : BridgetK
 Sample : cc5970-20
 Misc : ms81906,v2d5984,w,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 14:59:54 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) styrene	16.49	104	165259	21.46	ug/L	99
108) bromoform	16.78	173	44971	21.18	ug/L	97
110) isopropylbenzene	16.91	105	277097	22.82	ug/L	99
112) cyclohexanone	17.09	55	47311	155.42	ug/L	98
113) bromobenzene	17.34	156	74859	21.13	ug/L	94
114) 1,1,2,2-tetrachloroethane	17.26	83	68365	20.36	ug/L	97
115) trans-1,4-dichloro-2-buten	17.33	53	14893	17.73	ug/L #	80
116) 1,2,3-trichloropropane	17.35	110	16920	21.37	ug/L #	84
117) n-propylbenzene	17.40	91	307339	22.03	ug/L	100
119) 2-chlorotoluene	17.54	126	67048	21.47	ug/L	97
120) 4-chlorotoluene	17.65	91	192652	21.16	ug/L	98
121) 1,3,5-trimethylbenzene	17.57	105	237905	22.39	ug/L	99
122) tert-butylbenzene	17.96	119	203827	22.38	ug/L	99
123) pentachloroethane	18.01	167	53882	22.26	ug/L	97
124) 1,2,4-trimethylbenzene	18.00	105	239007	22.50	ug/L	99
126) sec-butylbenzene	18.18	105	316479	22.57	ug/L	99
127) 1,3-dichlorobenzene	18.34	146	147402	21.55	ug/L	98
128) p-isopropyltoluene	18.31	119	270796	22.59	ug/L	99
129) 1,4-dichlorobenzene	18.43	146	147149	21.61	ug/L	99
130) 1,2-dichlorobenzene	18.82	146	148789	21.30	ug/L	99
131) benzyl chloride	18.56	91	146782	22.92	ug/L	100
133) n-butylbenzene	18.73	92	137340	22.22	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.56	157	16795	21.21	ug/L	96
136) 1,3,5-trichlorobenzene	19.73	180	141061	22.44	ug/L	99
137) hexachlorobutadiene	20.43	225	71437	22.87	ug/L	98
138) naphthalene	20.58	128	246491	22.76	ug/L	99
139) 1,2,4-trichlorobenzene	20.32	180	128563	23.10	ug/L	99
140) 1,2,3-trichlorobenzene	20.80	180	114626	23.16	ug/L	99
141) hexachloroethane	19.07	201	54534	22.87	ug/L	97

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

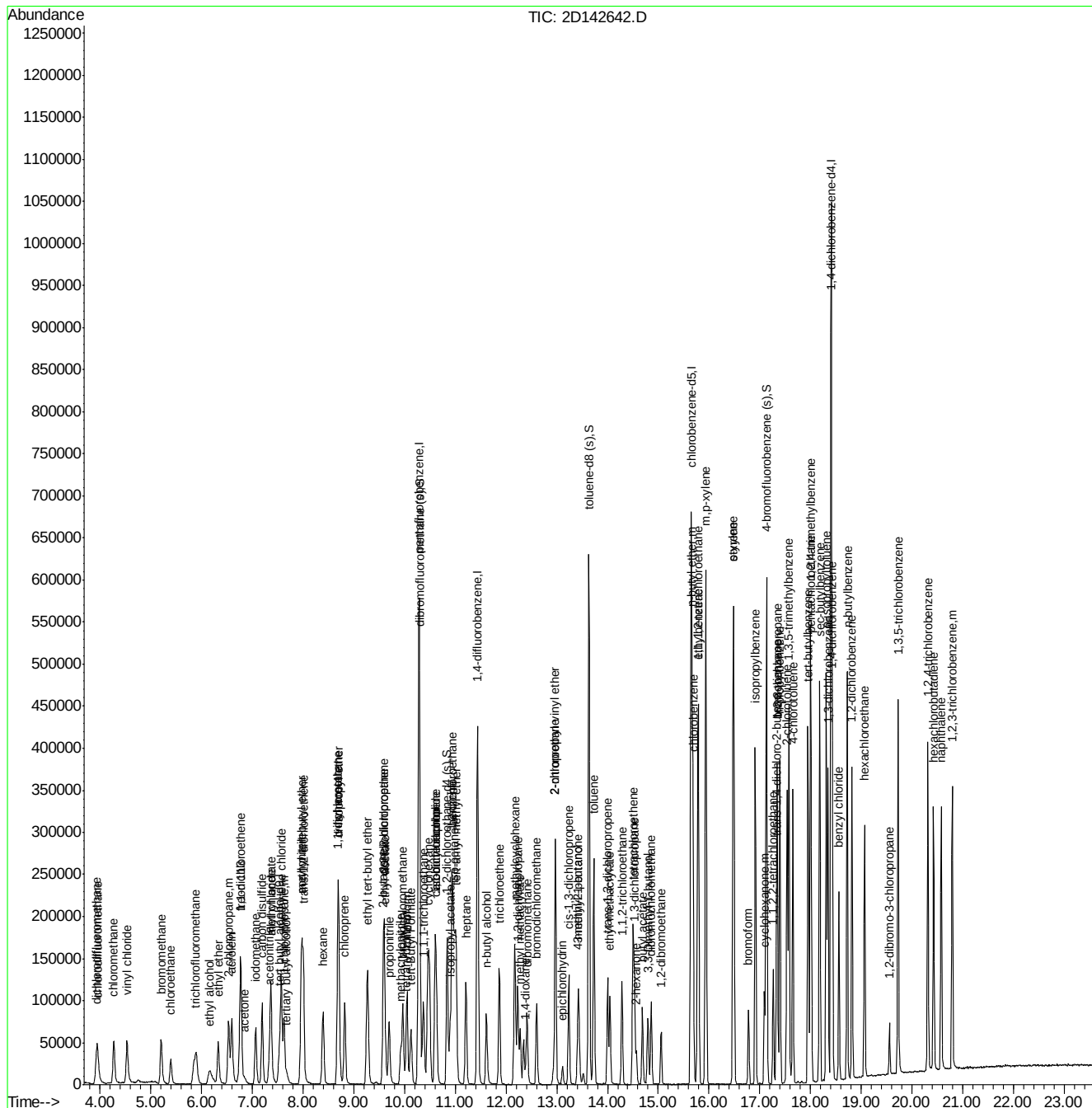
7.6.12

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142642.D
Acq On : 13 Mar 2015 10:25 am
Operator : BridgetK
Sample : cc5970-20
Misc : ms81906,v2d5984,w,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 13 14:59:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



7.6.12



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142665.D
 Acq On : 13 Mar 2015 10:31 pm
 Operator : BridgetK
 Sample : cc5970-50
 Misc : ms81917,v2d5984,w,,,,,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 16 12:46:41 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.55	65	108532	500.00	ug/L	-0.02
5) pentafluorobenzene	10.30	168	410167	50.00	ug/L	-0.01
63) 1,4-difluorobenzene	11.45	114	404416	50.00	ug/L	-0.01
94) chlorobenzene-d5	15.66	117	366385	50.00	ug/L	-0.01
109) 1,4-dichlorobenzene-d4	18.42	152	235674	50.00	ug/L	0.00

System Monitoring Compounds

54) dibromofluoromethane (s)	10.31	113	132389	55.71	ug/L	-0.01
Spiked Amount	50.000	Range	79 - 120	Recovery	=	111.42%
55) 1,2-dichloroethane-d4 (s)	10.85	65	136188	52.77	ug/L	-0.01
Spiked Amount	50.000	Range	72 - 123	Recovery	=	105.54%
86) toluene-d8 (s)	13.65	98	461404	53.63	ug/L	-0.01
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.26%
111) 4-bromofluorobenzene (s)	17.14	95	176731	54.16	ug/L	0.00
Spiked Amount	50.000	Range	74 - 119	Recovery	=	108.32%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.69	59	60542	272.52	ug/L	99
4) 1,4-dioxane	12.40	88	29153	1485.33	ug/L #	97
11) chlorodifluoromethane	3.95	51	140897	56.22	ug/L	99
12) dichlorodifluoromethane	3.93	85	167411	57.70	ug/L	99
15) chloromethane	4.28	50	197968	52.15	ug/L	99
16) vinyl chloride	4.54	62	187620	55.66	ug/L	98
18) bromomethane	5.21	94	123613	50.66	ug/L	99
19) chloroethane	5.39	64	88717	54.80	ug/L	97
20) trichlorofluoromethane	5.90	101	210421	60.44	ug/L	99
22) ethyl ether	6.34	74	67604	58.02	ug/L	97
23) acrolein	6.60	56	249263	503.06	ug/L	100
27) 1,1-dichloroethene	6.78	96	121218	57.37	ug/L	95
28) 2-chloropropane	6.54	43	232807	60.44	ug/L	99
29) acetone	6.86	58	10093	56.49	ug/L	91
30) allyl chloride	7.38	76	67462	58.44	ug/L	95
31) acetonitrile	7.35	40	105886	569.89	ug/L	82
32) iodomethane	7.08	142	255135	58.78	ug/L	97
33) carbon disulfide	7.20	76	453078	60.33	ug/L	99
34) methylene chloride	7.58	84	142320	55.25	ug/L	98
35) methyl acetate	7.38	74	20753	58.51	ug/L	97
36) 1-chloropropane	7.64	63	11237	59.93	ug/L	96
37) methyl tert butyl ether	7.98	73	385953	56.87	ug/L	100
38) trans-1,2-dichloroethene	8.02	96	135839	57.85	ug/L	97
39) di-isopropyl ether	8.71	45	448949	57.60	ug/L	98
40) 2-butanone	9.58	72	12204	54.72	ug/L	99
41) 1,1-dichloroethane	8.70	63	245025	56.99	ug/L	99
42) chloroprene	8.83	53	188107	59.63	ug/L	99
43) acrylonitrile	7.98	53	221395	282.63	ug/L	99
44) vinyl acetate	8.71	86	16324	50.76	ug/L	94
45) ethyl tert-butyl ether	9.28	59	431795	58.81	ug/L	99
46) ethyl acetate	9.62	45	14491	49.20	ug/L #	1
47) 2,2-dichloropropane	9.61	77	208035	57.85	ug/L	99
48) cis-1,2-dichloroethene	9.60	96	151068	56.37	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142665.D
 Acq On : 13 Mar 2015 10:31 pm
 Operator : BridgetK
 Sample : cc5970-50
 Misc : ms81917,v2d5984,w,,,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 16 12:46:41 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.71	54	171161	544.70	ug/L	100
50) tert-Butyl Formate	10.14	59	120741	57.22	ug/L	98
51) bromochloromethane	9.98	128	74967	56.33	ug/L	96
52) tetrahydrofuran	10.03	42	32854	48.49	ug/L	97
53) chloroform	10.06	83	240316	56.45	ug/L	100
56) freon 113	6.77	151	102029	59.92	ug/L	95
57) methacrylonitrile	9.93	67	47023	53.74	ug/L	99
58) 1,1,1-trichloroethane	10.39	97	213497	60.38	ug/L	99
59) cyclohexane	10.47	84	196133	61.40	ug/L	99
60) isobutyl alcohol	10.62	74	15667	589.16	ug/L #	91
62) iso-octane	10.99	57	471267	59.62	ug/L	100
65) epichlorohydrin	13.13	57	52763	265.59	ug/L	98
66) n-butyl alcohol	11.63	56	148533	2902.65	ug/L	99
67) carbon tetrachloride	10.64	117	189558	62.86	ug/L	98
68) 1,1-dichloropropene	10.62	75	177342	59.89	ug/L	100
69) hexane	8.40	86	20396	60.96	ug/L #	87
70) benzene	10.95	78	529268	57.50	ug/L	100
71) tert-amyl methyl ether	11.03	87	86519	58.28	ug/L	100
72) heptane	11.22	57	83942	58.31	ug/L	99
73) isopropyl acetate	10.91	43	215678	55.13	ug/L	100
74) 1,2-dichloroethane	10.97	62	165024	56.44	ug/L	98
75) trichloroethene	11.88	130	139018	57.68	ug/L	99
78) 2-nitropropane	12.95	46	2268	53.82	ug/L #	89
79) 2-chloroethyl vinyl ether	12.99	63	369585	282.81	ug/L	99
80) methyl methacrylate	12.29	69	73454	52.12	ug/L	98
81) 1,2-dichloropropane	12.24	63	136937	56.45	ug/L	98
82) dibromomethane	12.43	93	81498	53.88	ug/L	98
83) methylcyclohexane	12.18	83	210098	62.58	ug/L	99
84) bromodichloromethane	12.62	83	183971	56.40	ug/L	97
85) cis-1,3-dichloropropene	13.25	75	214122	53.71	ug/L	99
87) 4-methyl-2-pentanone	13.43	58	45238	54.68	ug/L	99
88) toluene	13.75	92	318908	55.36	ug/L	99
89) 3-methyl-1-butanol	13.44	55	97393	1134.80	ug/L	99
90) trans-1,3-dichloropropene	14.01	75	191326	53.07	ug/L	99
91) ethyl methacrylate	14.06	69	151901	53.41	ug/L	99
92) 1,1,2-trichloroethane	14.30	83	95629	51.98	ug/L	98
93) 2-hexanone	14.58	58	37596	49.46	ug/L	100
95) 3,3-Dimethyl-1-butanol	14.81	57	110677	586.60	ug/L	99
96) tetrachloroethene	14.52	164	124933	58.13	ug/L	98
97) 1,3-dichloropropane	14.54	76	182034	54.08	ug/L	97
98) butyl acetate	14.70	56	71904	53.57	ug/L	99
99) dibromochloromethane	14.87	129	148265	56.49	ug/L	98
100) 1,2-dibromoethane	15.07	107	117793	54.18	ug/L	100
101) n-butyl ether	15.68	57	606550	57.21	ug/L	100
102) chlorobenzene	15.70	112	357379	55.15	ug/L	100
103) 1,1,1,2-tetrachloroethane	15.79	131	153715	58.54	ug/L	98
104) ethylbenzene	15.80	91	627316	57.37	ug/L	100
105) m,p-xylene	15.95	106	479484	114.79	ug/L	95
106) o-xylene	16.49	106	252817	58.50	ug/L	98
107) styrene	16.50	104	401605	55.32	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142665.D
 Acq On : 13 Mar 2015 10:31 pm
 Operator : BridgetK
 Sample : cc5970-50
 Misc : ms81917,v2d5984,w,,,,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 16 12:46:41 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.79	173	109557	54.72	ug/L	98
110) isopropylbenzene	16.93	105	676108	60.29	ug/L	100
112) cyclohexanone	17.11	55	49358	175.59	ug/L	98
113) bromobenzene	17.35	156	177985	54.41	ug/L	96
114) 1,1,2,2-tetrachloroethane	17.28	83	165346	53.32	ug/L	99
115) trans-1,4-dichloro-2-buten	17.34	53	38631	49.80	ug/L	90
116) 1,2,3-trichloropropane	17.36	110	39558	54.10	ug/L	98
117) n-propylbenzene	17.41	91	736719	57.20	ug/L	99
119) 2-chlorotoluene	17.55	126	162254	56.28	ug/L	96
120) 4-chlorotoluene	17.66	91	456640	54.33	ug/L	99
121) 1,3,5-trimethylbenzene	17.58	105	573264	58.43	ug/L	99
122) tert-butylbenzene	17.96	119	502453	59.74	ug/L	98
123) pentachloroethane	18.02	167	129723	58.03	ug/L	99
124) 1,2,4-trimethylbenzene	18.01	105	564733	57.57	ug/L	100
126) sec-butylbenzene	18.19	105	770873	59.53	ug/L	100
127) 1,3-dichlorobenzene	18.35	146	346782	54.91	ug/L	98
128) p-isopropyltoluene	18.32	119	649502	58.67	ug/L	100
129) 1,4-dichlorobenzene	18.44	146	346028	55.05	ug/L	99
130) 1,2-dichlorobenzene	18.83	146	348676	54.06	ug/L	98
131) benzyl chloride	18.57	91	327825	55.43	ug/L	100
133) n-butylbenzene	18.73	92	328867	57.63	ug/L	99
135) 1,2-dibromo-3-chloropropan	19.57	157	39675	54.27	ug/L	95
136) 1,3,5-trichlorobenzene	19.74	180	337522	58.15	ug/L	99
137) hexachlorobutadiene	20.44	225	169794	58.87	ug/L	99
138) naphthalene	20.59	128	587379	58.73	ug/L	99
139) 1,2,4-trichlorobenzene	20.33	180	305766	59.49	ug/L	99
140) 1,2,3-trichlorobenzene	20.81	180	271190	59.34	ug/L	99
141) hexachloroethane	19.08	201	137602	62.50	ug/L	99

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

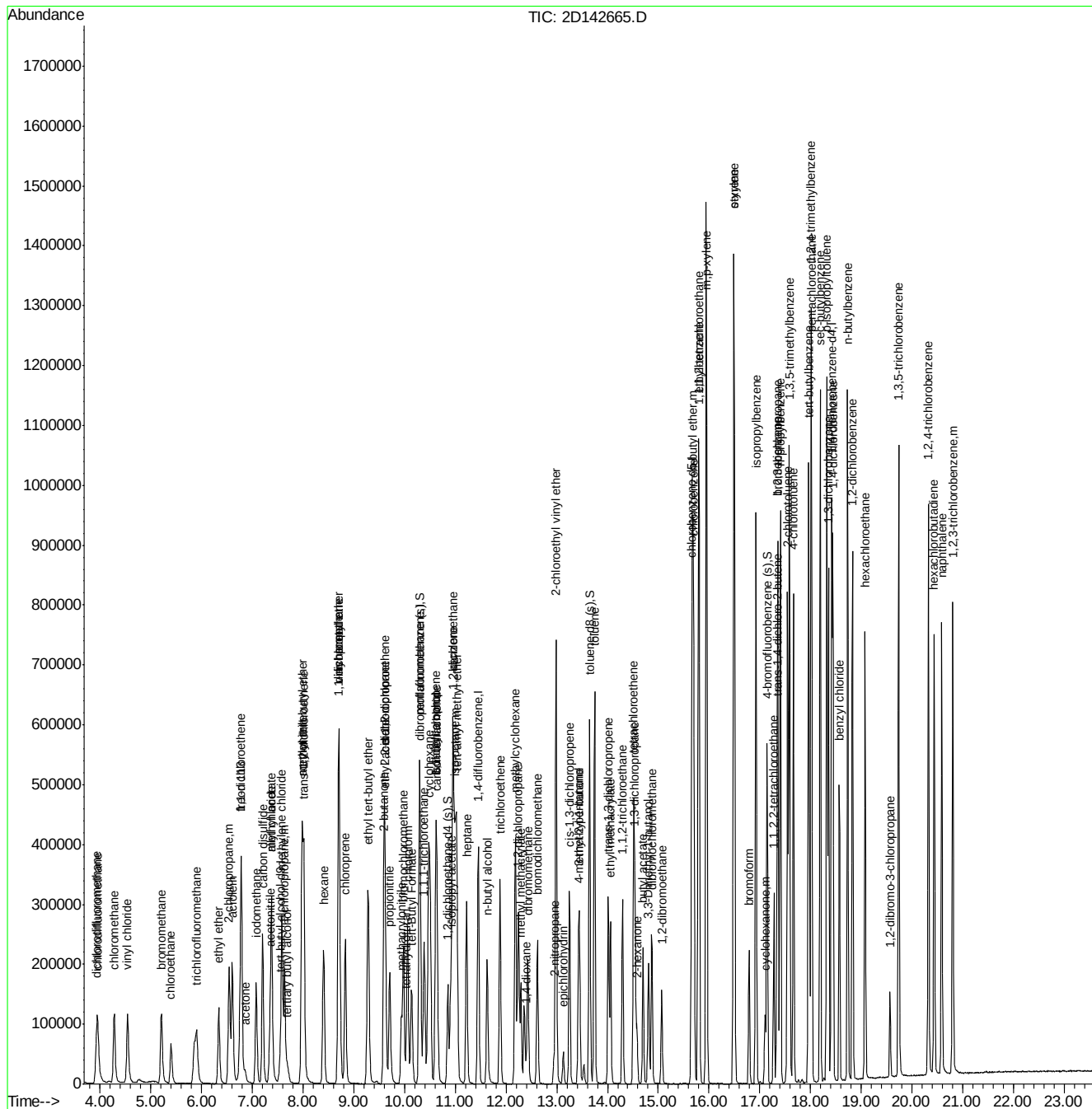
7.6.13

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142665.D
Acq On : 13 Mar 2015 10:31 pm
Operator : BridgetK
Sample : cc5970-50
Misc : ms81917,v2d5984,w,,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 16 12:46:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



7.6.13

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142677.D
 Acq On : 14 Mar 2015 10:37 am
 Operator : BridgetK
 Sample : cc5970-20
 Misc : ms82037,v2d5985,w,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 14:37:59 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	7.57	65	116204	500.00	ug/L	0.00
5) pentafluorobenzene	10.31	168	418493	50.00	ug/L	0.00
63) 1,4-difluorobenzene	11.47	114	406674	50.00	ug/L	0.00
94) chlorobenzene-d5	15.68	117	369674	50.00	ug/L	0.00
109) 1,4-dichlorobenzene-d4	18.43	152	241998	50.00	ug/L	0.01

System Monitoring Compounds

54) dibromofluoromethane (s)	10.33	113	135110	55.73	ug/L	0.00
Spiked Amount	50.000	Range	79 - 120	Recovery	=	111.46%
55) 1,2-dichloroethane-d4 (s)	10.87	65	142547	54.14	ug/L	0.00
Spiked Amount	50.000	Range	72 - 123	Recovery	=	108.28%
86) toluene-d8 (s)	13.66	98	465735	53.84	ug/L	0.00
Spiked Amount	50.000	Range	78 - 119	Recovery	=	107.68%
111) 4-bromofluorobenzene (s)	17.16	95	180914	53.99	ug/L	0.01
Spiked Amount	50.000	Range	74 - 119	Recovery	=	107.98%

Target Compounds

						Qvalue
2) tertiary butyl alcohol	7.71	59	24445	102.77	ug/L	99
4) 1,4-dioxane	12.41	88	12714	605.01	ug/L #	97
11) chlorodifluoromethane	3.96	51	48549	18.99	ug/L	99
12) dichlorodifluoromethane	3.95	85	69504	23.48	ug/L	98
15) chloromethane	4.29	50	73833	19.06	ug/L	100
16) vinyl chloride	4.55	62	68616	19.95	ug/L	98
18) bromomethane	5.22	94	46681	18.75	ug/L	97
19) chloroethane	5.41	64	33021	19.99	ug/L	95
20) trichlorofluoromethane	5.92	101	79465	22.37	ug/L	99
22) ethyl ether	6.36	74	26107	21.96	ug/L	91
23) acrolein	6.63	56	102531	202.81	ug/L	99
27) 1,1-dichloroethene	6.80	96	45237	20.98	ug/L	96
28) 2-chloropropane	6.56	43	86943	22.12	ug/L	99
29) acetone	6.87	58	4918	26.98	ug/L	95
30) allyl chloride	7.40	76	24916	21.15	ug/L	94
31) acetonitrile	7.37	40	42257	222.91	ug/L #	74
32) iodomethane	7.09	142	92884	20.97	ug/L	96
33) carbon disulfide	7.22	76	167681	21.88	ug/L	100
34) methylene chloride	7.60	84	53555	20.38	ug/L	95
35) methyl acetate	7.39	74	8098	22.38	ug/L	100
36) 1-chloropropane	7.65	63	4241	22.17	ug/L	96
37) methyl tert butyl ether	8.00	73	148308	21.42	ug/L	100
38) trans-1,2-dichloroethene	8.04	96	49065	20.48	ug/L	92
39) di-isopropyl ether	8.73	45	165788	20.85	ug/L	96
40) 2-butanone	9.60	72	5219	22.93	ug/L	93
41) 1,1-dichloroethane	8.71	63	89277	20.35	ug/L	98
42) chloroprene	8.85	53	66393	20.63	ug/L	99
43) acrylonitrile	7.99	53	87217	109.12	ug/L	97
44) vinyl acetate	8.72	86	6468	19.71	ug/L	70
45) ethyl tert-butyl ether	9.30	59	162302	21.66	ug/L	99
46) ethyl acetate	9.64	45	5941	19.77	ug/L #	13
47) 2,2-dichloropropane	9.63	77	76624	20.88	ug/L	98
48) cis-1,2-dichloroethene	9.61	96	54801	20.04	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142677.D
 Acq On : 14 Mar 2015 10:37 am
 Operator : BridgetK
 Sample : cc5970-20
 Misc : ms82037,v2d5985,w,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 14:37:59 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) propionitrile	9.73	54	68861	214.78	ug/L	93
50) tert-Butyl Formate	10.15	59	45799	21.27	ug/L	98
51) bromochloromethane	10.00	128	27909	20.55	ug/L	96
52) tetrahydrofuran	10.05	42	13810	19.98	ug/L	98
53) chloroform	10.08	83	87090	20.05	ug/L	98
56) freon 113	6.79	151	37609	21.65	ug/L	97
57) methacrylonitrile	9.96	67	18359	20.56	ug/L	98
58) 1,1,1-trichloroethane	10.40	97	76195	21.12	ug/L	99
59) cyclohexane	10.49	84	73074	22.42	ug/L	96
60) isobutyl alcohol	10.63	74	5615	206.95	ug/L #	69
62) iso-octane	11.01	57	180391	22.37	ug/L	99
65) epichlorohydrin	13.14	57	21403	107.14	ug/L	98
66) n-butyl alcohol	11.64	56	60919	1183.88	ug/L	98
67) carbon tetrachloride	10.65	117	69112	22.79	ug/L	98
68) 1,1-dichloropropene	10.63	75	63624	21.37	ug/L	99
69) hexane	8.42	86	8045	23.91	ug/L	94
70) benzene	10.97	78	189469	20.47	ug/L	99
71) tert-amyl methyl ether	11.05	87	33108	22.18	ug/L	98
72) heptane	11.24	57	31697	21.89	ug/L	95
73) isopropyl acetate	10.93	43	82342	20.93	ug/L	99
74) 1,2-dichloroethane	10.98	62	62613	21.29	ug/L	99
75) trichloroethene	11.90	130	48856	20.16	ug/L	98
78) 2-nitropropane	12.96	46	444	10.48	ug/L #	47
79) 2-chloroethyl vinyl ether	13.00	63	142154	108.17	ug/L	98
80) methyl methacrylate	12.31	69	28748	20.29	ug/L	97
81) 1,2-dichloropropane	12.26	63	49474	20.28	ug/L	98
82) dibromomethane	12.45	93	30696	20.18	ug/L	100
83) methylcyclohexane	12.20	83	76657	22.71	ug/L	99
84) bromodichloromethane	12.63	83	66870	20.39	ug/L	98
85) cis-1,3-dichloropropene	13.27	75	78852	19.67	ug/L	100
87) 4-methyl-2-pentanone	13.44	58	17491	21.03	ug/L	98
88) toluene	13.76	92	112721	19.46	ug/L	98
89) 3-methyl-1-butanol	13.46	55	38664	448.00	ug/L	98
90) trans-1,3-dichloropropene	14.03	75	71885	19.83	ug/L	98
91) ethyl methacrylate	14.08	69	56538	19.77	ug/L	98
92) 1,1,2-trichloroethane	14.31	83	36451	19.70	ug/L	95
93) 2-hexanone	14.60	58	16108	21.07	ug/L	92
95) 3,3-Dimethyl-1-butanol	14.83	57	42440	222.93	ug/L	99
96) tetrachloroethene	14.53	164	43492	20.06	ug/L	97
97) 1,3-dichloropropane	14.56	76	68966	20.30	ug/L	97
98) butyl acetate	14.72	56	28373	20.95	ug/L	98
99) dibromochloromethane	14.89	129	53999	20.39	ug/L	98
100) 1,2-dibromoethane	15.08	107	44669	20.36	ug/L	97
101) n-butyl ether	15.70	57	216509	20.24	ug/L	98
102) chlorobenzene	15.72	112	127922	19.56	ug/L	99
103) 1,1,1,2-tetrachloroethane	15.81	131	54215	20.46	ug/L	97
104) ethylbenzene	15.82	91	223905	20.29	ug/L	97
105) m,p-xylene	15.96	106	170157	40.37	ug/L	96
106) o-xylene	16.50	106	87272	20.01	ug/L	95
107) styrene	16.52	104	142429	19.44	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
 Data File : 2D142677.D
 Acq On : 14 Mar 2015 10:37 am
 Operator : BridgetK
 Sample : cc5970-20
 Misc : ms82037,v2d5985,w,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 14:37:59 2015
 Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
 Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Wed Mar 04 11:40:56 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) bromoform	16.81	173	39928	19.76	ug/L	94
110) isopropylbenzene	16.94	105	234411	20.36	ug/L	99
112) cyclohexanone	17.12	55	78152	270.76	ug/L	99
113) bromobenzene	17.37	156	63916	19.03	ug/L	94
114) 1,1,2,2-tetrachloroethane	17.29	83	62590	19.65	ug/L	100
115) trans-1,4-dichloro-2-buten	17.35	53	16246	20.39	ug/L	85
116) 1,2,3-trichloropropane	17.37	110	15650	20.84	ug/L #	81
117) n-propylbenzene	17.42	91	260985	19.73	ug/L	100
119) 2-chlorotoluene	17.56	126	56328	19.03	ug/L	96
120) 4-chlorotoluene	17.68	91	167229	19.38	ug/L	98
121) 1,3,5-trimethylbenzene	17.60	105	201810	20.03	ug/L	100
122) tert-butylbenzene	17.98	119	175784	20.36	ug/L	98
123) pentachloroethane	18.04	167	45668	19.89	ug/L	96
124) 1,2,4-trimethylbenzene	18.02	105	201109	19.96	ug/L	100
126) sec-butylbenzene	18.21	105	271533	20.42	ug/L	100
127) 1,3-dichlorobenzene	18.37	146	127672	19.69	ug/L	98
128) p-isopropyltoluene	18.33	119	226499	19.93	ug/L	99
129) 1,4-dichlorobenzene	18.45	146	128124	19.85	ug/L	98
130) 1,2-dichlorobenzene	18.84	146	128698	19.43	ug/L	98
131) benzyl chloride	18.59	91	130294	21.46	ug/L	99
133) n-butylbenzene	18.75	92	119395	20.38	ug/L	100
135) 1,2-dibromo-3-chloropropan	19.58	157	15516	20.67	ug/L	96
136) 1,3,5-trichlorobenzene	19.75	180	119742	20.09	ug/L	99
137) hexachlorobutadiene	20.45	225	62078	20.96	ug/L	98
138) naphthalene	20.60	128	224093	21.82	ug/L	99
139) 1,2,4-trichlorobenzene	20.34	180	110355	20.91	ug/L	99
140) 1,2,3-trichlorobenzene	20.82	180	99253	21.15	ug/L	99
141) hexachloroethane	19.09	201	46595	20.61	ug/L	98

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

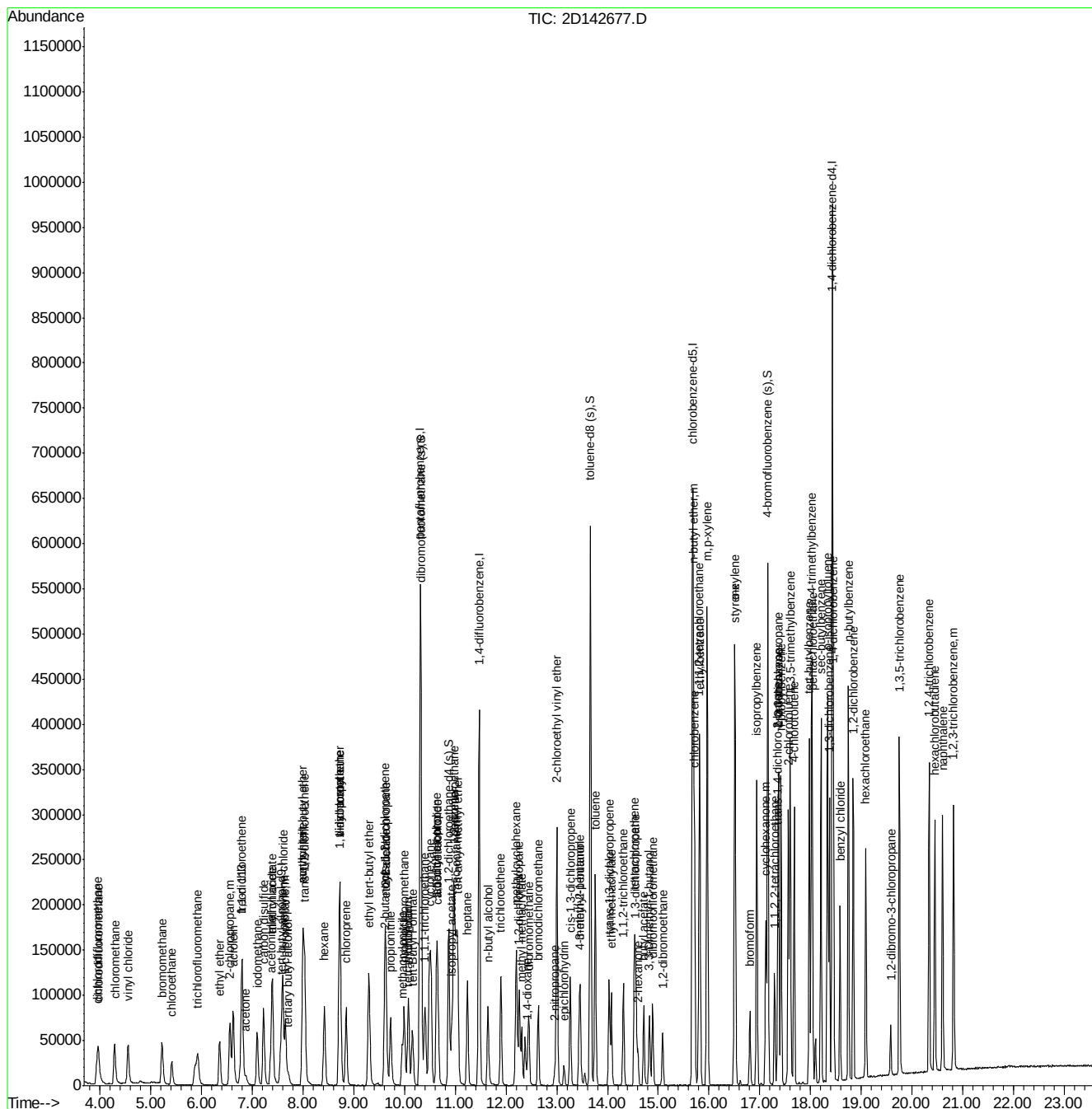
7.6.14

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2D142677.D
Acq On : 14 Mar 2015 10:37 am
Operator : BridgetK
Sample : cc5970-20
Misc : ms82037,v2d5985,w,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 14:37:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M2D5970.M
Quant Title : SW-846 Method 8260B, ZB624 60m x 0.25mm x 1.4um
QLast Update : Wed Mar 04 11:40:56 2015
Response via : Initial Calibration



7.6.14



ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2D5970

Print Analyst Name: Bridget Kelly

Analyst Signature: Bridget Kelly

Columns: 7B624/60MX0.25mmx1.4um

Method V8200 B 1 C

Initial Cal. Method MAD 5970
V2D5970

Date: 3/3/15

Int Sum VOIS-2014-96
SUM $\downarrow \downarrow$ -82(10)

Standard Data

Lot #	Description	Conc.
1052014-96(1)	Ext 8200 A	100 ppm
-83(20)	$\downarrow$ B	$\downarrow$
-103(1)	$\downarrow$ C	$\downarrow$
70(40)	ANNO	1000
-78(10)	etOH	10000

Standard Data

Lot #	Description	Conc.
1052014-96(3)	Ext 8200 A	100 ppm
-75(10)	$\downarrow$ B	$\downarrow$
-98(40)	$\downarrow$ C	$\downarrow$
-85(8)	ANNO	1000
-80(3)	etOH	10000

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Rub. W. M. Date: 3/4/15

R	Data File	Sample ID	Test	M T X	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L + S U	I S U	Status (Data)	Comments	pH* <2
	2D142308	BFB					S		1X			OK	9:39am	
	142309	IC5970-0.2	8200 initial replicate				S		1X			OK	2ul ABC acetone sum 7/1000MC DE	
	142310	IC5970-0.5					S		1X			OK	SUL $\downarrow$ SCALE	
	142311	IC5970-1					S		1X			OK	1ul ABC acetone sum / 1000MC DE 1000ul water	
	142312	IC5970-2					S		1X			OK	2ul ABC acetone sum / 1000MC DE 2000ul water	
	142313	IC5970-5					S		1X			OK	SUL ABC acetone sum / 1000MC DE	
	142314	IC5970-10					S		1X			OK	10ul $\downarrow$	
	142315	IC5970-20					S		1X			OK	20ul ABC acetone sum / 1000MC DE 500ul water	
	142316	IC5970-50					S		1X			OK	25ul ABC acetone sum / 500MC DE	
	142317	IC5970-100					S		1X			OK	100ul ABC acetone sum / 500MC DE	
	142318	IC5970-200					S		1X			OK	200ul $\downarrow$	
	142319	IB					S		1X					
	142320	IB					S		1X					
	142321	IB					S		1X					
	142322	IC5970-1					S		1X			OK	1ul ABC acetone sum / 1000MC DE 1000ul water	
	142323	IC5970-0.5					S		1X			OK	SUL ABC acetone sum / 1000MC DE	
	142324	IC5970-50					S		1X			OK	SUL EXT ABC acetone sum / 500MC DE sum / 1000MC DE	

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate.

Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.

All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Rev. Date: 2/14/2007

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2D5984

Date: 3/13/15

Print Analyst Name: Robert Sot

Standard Data

Lot #	Description	Conc.
V015-2016-1112a	A	100 ppm
-8250	B	100 ppm
-1267	C	100
-101.10	Acrolein	1000
↓ -97	82005M/SUR	250/2500

Standard Data

Lot #	Description	Conc.
V015-2016-994A	EXTA	100 ppm
-110.10	EXTB	100
-1144	EXTC	100
-864	EXTAcrolein	1000
↓ -101.5	Hexane	100

Analyst Signature: chf

Columns: ZB-624 (60m x 0.25mm ID, 5um)

Method V8260C

Initial Cal. Method M2D5970

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: hcl-2rcary Date: 3/16/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (m) or (g)	MOH amt. (ul)	Secondary dilution	L	I	S	Status (Data)	Comments	pH* <2
	20142641	BFB				1	5						OK	9:55am	
	142642	CC5970-20				2	5						OK	10ml A.B.C. Acrolein 50ml #83 ↑	
	142643	IB				3							-		
	142644	MB				4	5						OK		
	142645	BS				5	5						OK	25ml EXTA, EXTB, EXTC, EXTA, Acrolein, Hexane 50ml	
	142646	IB				6							-		
	142647	J889859-1	82001 3N63802+20	W	1	7	5		1x				OK		✓
	142648	J889859-2			1	8	5		1x				OK		✓
	142649	J889859-4			1	9	5		1x				OK		✓
	142650	J889859-5			1	10	5		1x				OK		✓
	142651	J889859-6			1	11	5		1x				OK		✓
	142652	J889859-7			1	12	5		1x				OK		✓
	142653	J88989-2	81917 SL, UNPR	W	6	13	5		1x				OK		6
	142654	J88989-1			1	14	5		1x				OK		⑤
R	142655	J889358-1	81667 XYL, ETHNOZ	W	7	15	0.2/50		250x				OK		✓
	142656	J889934-3	82057 3N63802+20	W	1	16	5		1x				OK		✓
	142657	J889934-1			3	17	5		1x				OK		✓

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Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.

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Rev. Date: 2/14/2007

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VOLATILE ANALYSIS LOG

Batch ID: V2D 5984Date: 3/13/15Print Analyst Name: Robert J. Scott

Standard Data

Lot #	Description	Conc.
	see page	

Standard Data

Lot #	Description	Conc.
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Analyst Signature: [Signature]Columns: 28-624 (60m x 0.25mm x 1/4mm)Method V8260CInitial Cal. Method M205970

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 3/16/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L	I	S	Status (Data)	Comments	pH < 2
	2D124658	J889934-1ms	82037 3N6389220	W	4	18	5		1x	W	I	S	OK	Some 4.8% C. Acrolein in 100% sample	✓
	124659	J889934-1ms		W	5	19	5		1x	W	I	S	OK		✓
	124660	J889689-2ms	81917 SL, UNPR	W	3	20	5		1x	W	I	S	OK		⑥
	124661	J889689-2ms		W	4	21	5		1x	W	I	S	OK		⑥
	124662	JB		W		22				W	I	S	-		
	124663	J889689-3	81917 SL, UNPR	W	1	23	5		1x	W	I	S	OK	9:31pm	④
	124664	BFO		W		24	5			W	I	S	OK	10:01pm	
	124665	CC5970-50		W		25	5			W	I	S	OK	10:03pm	
	124666	JB		W		26				W	I	S	-		
	124667	MB2		W		27	5			W	I	S	OK		
	124668	J889689-4	81917 SL, UNPR	W	1	28	5		1x	W	I	S	OK	RAW #5614	⑥
	124669	J889689-5		W	1	29	5		1x	W	I	S	OK		5
	124670	J889689-6		W	1	30	5		1x	W	I	S	OK		4
	124671	J889839-3	82001 3N6389220	W	1	31	5		1x	W	I	S	OK		✓
	124672	J889839-8		W	1	32	5		1x	W	I	S	OK		✓
	124673	J889934-2	82037 3N6389220	W	1	33	5		1x	W	I	S	OK		✓
	124674	J889934-4		W	2	34	5		1x	W	I	S	OK	3:04am	✓

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Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result.

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2D3985

Print Analyst Name: AUSTIN PARK

Analyst Signature: [Signature]

Columns: 78624

Method V6260 C

Initial Cal. Method M2D5970

Date: 3/14/2015

Standard Data

Lot #	Description	Conc.
08-2015-1124	STD. A	100ppm
-83.57	B	↓
-125.10	C	↓
-108.26	✓ ACROLEIN	100ppm
-97	INT/SUR	70/100ppm

Standard Data

Lot #	Description	Conc.
08-2015-1124	EXT. A	100ppm
-110.6	B	↓
-	C	↓
-107.3	HEXANE	↓
✓ -85.4	✓ ACROLEIN	100ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [Signature] Date: 3/16/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L	I	S	Status (Data)	Comments	pH* < 2
	20142675	3FB				1							pk	9.25am	
	142676	C05970-20				2							NG		
	142677	C05970-20				3							pk		
	142678	1B				4							pk		
	142679	MB				5							pk		
	142680	BS				6							pk		
	142681	1B				7							pk		
	142682	7889689-4	81917 SL UNPR	W	2	8	5		1X				pk		⑥
	142683	7889689-5		W	2	9	5		1X				pk		⑧
	142684	7889689-6		W	2	10	5		1X				pk		6
	142685	7889689-4MS		W	1/2	11	5		1X				pk		⑥
	142686	7889689-4MSD		W	1/2	12	5		1X				pk		⑥
	142687	1B				13							pk		
	142688	7889689-3	82001 3NG38P2+20	W	2	14	5		1X				pk		✓
	142689	7889689-8		W	2	15	5		1X				pk		✓
	142690	7889689-2	82037 3NG38P2+20	W	3	16	5		1X				pk		✓
	142691	7889689-4		W	1	17	5		1X				pk		✓

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