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Prepared for:
UTC Aerospace Systems
Rockford, IL

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June 2015

US EPA RECORDS CENTER REGION 5
516201

First Quarter 2015 GMZ Monitoring and System Performance Report

UTC Aerospace Systems Plants 1/2 Facility
Area 9/10 Remedial Action
Southeast Rockford Groundwater Contamination
Superfund Site
2421 11th Street
Rockford, IL 61104
ILD 981000417

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June 12, 2015

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Subject: First Quarter 2015 GMZ Monitoring and System Performance Report
UTC Aerospace Systems Plants 1/2 Facility
Area 9/10 Remedial Action
Southeast Rockford Groundwater Contamination Superfund Site
2421 11th Street
Rockford, Illinois 61104
ILD981000417
AECOM Project No. 60339110

Dear Messrs. Drexler and Conrath:

This Quarterly Groundwater Management Zone (GMZ) Monitoring and System Performance Report has been prepared by AECOM Technical Services Inc. (AECOM) on behalf of UTC Aerospace Systems (UTAS, fka Hamilton Sundstrand or HS). In accordance with the approved March 2007 Operation, Maintenance, and Monitoring Plan (OM&M Plan) and the Environmental Protection Agency (EPA) letter dated April 15, 2011 providing approval for combining project reporting documents, this report contains a summary of the following: 1) GMZ groundwater monitoring data; 2) the Phase 1 and Phase 2 air sparge/soil vapor extraction (AS/SVE) system performance data; 3) the Phase 1 and Phase 2 AS/SVE system process air analytical data; 4) GMZ wells that contain contaminants of concern (COCs) above Preliminary Remediation Goals (PRGs); and 5) Quarterly Progress Report for Second Quarter 2015.

As approved in the April 15, 2011 letter from Timothy Drexler, interpretation of all sampling and system performance data will be included in the Annual GMZ Monitoring and System Performance Report submitted in March of the subsequent year.

The following GMZ wells contained COCs at concentrations above PRGs:

GMZ Monitoring Well ID	COCs > PRG Increase or Decrease from Previous Quarter (+ or -)
SMW04	PCE (-); VC (-)
SMW08	cis-1,2-DCE (+), PCE (-)
SMW19	TCE (-)
PMW01	PCE (+)
PMW02	PCE (+)

Trichloroethene (TCE), cis-1,2-Dichloroethene (cis-1,2-DCE), Tetrachloroethene (PCE), Vinyl Chloride (VC)

The above referenced COC decreases and/or increases represent only concentration changes from the previous quarter's sampling and should not be viewed as indication of a trend without the use of proper statistical methods.

Included in this report are data tables and figures summarizing the results of first quarter 2015 GMZ monitoring and AS/SVE system performance, laboratory analytical reports, supporting field documentation sheets and the Quarterly Progress Report covering the period from March 1 to May 31, 2015.

Please contact either of the undersigned with any questions you may have on the information provided.

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Project File

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Table 1
Second Quarter 2014 to First Quarter 2015 Cumulative Groundwater Elevations
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well ID	Top of Casing Elevation (ft)	Depth to Groundwater (ft BTOC)	Groundwater Elevaion (ft AMSL)	Depth to Groundwater (ft BTOC)	Groundwater Elevaion (ft AMSL)	Depth to Groundwater (ft BTOC)	Groundwater Elevaion (ft AMSL)	Depth to Groundwater (ft BTOC)	Groundwater Elevaion (ft AMSL)
		5/5/2014		8/4/2014		12/8/2014		2/16/2015	
MW07FGA	727.49	28.96	698.53	28.30	699.19	28.78	698.71	29.17	698.32
MW203	728.58	29.75	698.83	29.05	699.53	29.62	698.96	29.96	698.62
SMW01	729.71	31.69	698.02	31.06	698.65	31.64	698.07	32.00	697.71
SMW02	726.77	28.26	698.51	27.58	699.19	28.11	698.66	28.54	698.23
SMW04	728.51	30.90	697.61	30.23	698.28	30.75	697.76	31.15	697.36
SMW08	728.81	31.06	697.75	30.45	698.36	30.97	697.84	31.34	697.47
SMW19	728.49	29.97	698.52	29.28	699.21	29.79	698.70	30.12	698.37
SMW20	727.69	29.96	697.73	29.30	698.39	29.94	697.75	30.26	697.43
SMW21	727.25	29.49	697.76	28.77	698.48	29.30	697.95	29.71	697.54
GMZ01	731.41	33.64	697.77	32.94	698.47	33.56	697.85	33.95	697.46
GMZ02	728.76	31.18	697.58	30.50	698.26	31.06	697.70	31.47	697.29
GMZ03	728.22	30.20	698.02	29.95	698.27	30.47	697.75	29.91	698.31
GMZ04	726.84	28.91	697.93	28.27	698.57	28.73	698.11	29.18	697.66
BGW01	728.19	29.74	698.45	29.17	699.02	29.65	698.54	30.01	698.18
BGW02	728.81	30.16	698.65	29.54	699.27	30.01	698.80	30.46	698.35
BGW03	728.96	30.29	698.67	29.62	699.34	30.12	698.84	30.48	698.48
RAMW01	728.91	31.24	697.67	30.58	698.33	31.13	697.78	31.54	697.37
RAMW02	728.90	31.09	697.81	30.48	698.42	31.00	697.90	31.40	697.50
RAMW03	728.71	30.92	697.79	30.27	698.44	30.80	697.91	31.18	697.53
RAMW04	728.80	30.77	698.03	30.13	698.67	30.63	698.17	31.04	697.76
RAMW05	727.65	29.66	697.99	29.02	698.63	29.50	698.15	29.94	697.71
RAMW06	727.64	29.68	697.96	29.05	698.59	29.53	698.11	30.01	697.63
RAMW07	732.20	34.18	698.02	33.51	698.69	34.00	698.20	34.41	697.79
RAMW08	728.45	30.31	698.14	29.65	698.80	30.14	698.31	30.54	697.91
PMW01	728.88	31.32	697.56	30.67	698.21	31.26	697.62	31.64	697.24
PMW02	728.88	31.29	697.59	30.59	698.29	31.20	697.68	31.58	697.30
Ave. GW Elev. (ft AMSL)			698.03		698.68		698.15		697.79

Notes:
NM = Not monitored
ft = feet
ft BTOC = feet below top of casing
ft AMSL = feet above mean sea level
All site well top of casing elevations re-surveyed on May 24, 2011.
RAMW04 riser was lowered due to ice damage that occurred during the 2013 winter. Well was resurveyed on July 1, 2013.

Table 2
Second Quarter 2014 to First Quarter 2015 VOC Analytical Results - GMZ Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005[c,A]	0.005[c,A]	0.007[b,c,A]	0.7[A]	0.005[c,A]	0.07[c,A]	0.1[c,A]	0.2[b,c,A]	0.005[c,A]	0.7[c,A]	0.005[c,A]	1.0[c,A]	0.002[c,A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GMZ01	HS SER-GMZ01-050614	6-May-14		**0.0022**	0.002 U	0.0010 U	**0.0034**	0.0010 U	**0.00078**	0.0010 U	**0.0062**	0.0010 U	0.0005 U	[redacted]	0.0010 U	0.0010 U
	HS SER-GMZ01-080414	4-Aug-14		**0.0021**	0.0020 U	0.0010 U	**0.0032**	0.0010 U	**0.0016**	0.0010 U	**0.0083**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-GMZ01-120814	8-Dec-14		**0.0014**	0.0020 U	0.0010 U	**0.0075**	0.0010 U	**0.0044**	0.0010 U	**0.0034**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-GMZ01-021715	17-Feb-15		**0.0012**	0.0020 U	0.0010 U	**0.0065**	0.0010 U	**0.0020**	0.0010 U	**0.0042**	0.0010 U	0.0010 U	**0.0044**	0.0010 U	0.0010 U
GMZ02	HS SER-GMZ02-050714	7-May-14		0.0010 J	0.0020 U	0.0010 U	**0.0020**	0.0010 U	0.00034 J	0.0010 U	**0.0027**	0.0010 U	0.0005 U	0.00061 J	0.0010 U	0.0010 U
	HS SER-GMZ02-080614	6-Aug-14		0.00038 J	0.0020 U	0.0010 U	**0.0021**	0.0010 U	**0.0011**	0.0010 U	**0.0067**	0.0010 U	0.0010 U	0.00062 J	0.0010 U	0.0010 U
	HS SER-GMZ02-120914	9-Dec-14		0.00037 J	0.0020 U	0.0010 U	**0.0016**	0.0010 U	0.00073 J	0.0010 U	**0.0065**	0.0010 U	0.0010 U	0.00064 J	0.0010 U	0.0010 U
	HS SER-GMZ02-021915	19-Feb-15		0.0010 U	0.0020 U	0.0010 U	**0.0028**	0.0010 U	0.00074 J	0.0010 U	**0.0039**	0.0010 U	0.0010 U	0.00038 J	0.0010 U	0.0010 U
GMZ03	HS SER-GMZ03-050714	7-May-14		0.0010 U	0.0020 U	0.0010 U	**0.0013**	0.0010 U	0.00057 J	0.0010 U	**0.0010**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-050714	7-May-14	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	**0.0012**	0.0010 U	0.00062 J	0.0010 U	**0.0010**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-080614	6-Aug-14		0.0010 U	0.0020 U	0.0010 U	0.00038 J	0.0010 U	0.0010 U	0.0010 U	0.00098 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-080614	6-Aug-14	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.00037 J	0.0010 U	0.00042 J	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-120914	9-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00098 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-120914	9-Dec-14	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00093 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-021815	18-Feb-15		0.0010 U	0.0020 U	0.0010 U	0.00037 J	0.0010 U	0.0010 U	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-021815	18-Feb-15	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00090 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
GMZ04	HS SER-GMZ04-050714	7-May-14		0.0010 U	0.0020 U	0.00048 J	**0.0016**	0.0010 U	**0.0098**	0.0010 U	**0.0176**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-080514	5-Aug-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00084 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-121014	10-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00065 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-021815	18-Feb-15		0.0010 U	0.0020 U	0.0010 U	0.00038 J	0.0010 U	**0.0023**	0.0010 U	**0.0036**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
MW07FGA	HS SER-MW07FGA-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00043 J	0.0010 U	0.0005 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-MW07FGA-080514	5-Aug-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00049 J	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U
	HS SER-MW07FGA-120914	9-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00043 J	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U
	HS SER-MW07FGA-021715	17-Feb-15		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00044 J	0.0010 U	0.0010 U	0.00076 J	0.0010 U	0.0010 U
MW203	HS SER-MW203-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0005 U	**0.0047**	0.0010 U	0.0010 U
	HS SER-MW203-080514	5-Aug-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0030**	0.0010 U	0.0010 U
	HS SER-MW203-120914	9-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0044**	0.0010 U	0.0010 U
	HS SER-MW203-021815	18-Feb-15		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0036**	0.0010 U	0.0010 U
SMW01	HS SER-SMW01-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0015**	0.0010 U	0.0005 U	**0.0020**	0.0010 U	0.0010 U
	HS SER-SMW01-080414	4-Aug-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0024**	0.0010 U	0.0010 U	**0.0029**	0.0010 U	0.0010 U
	HS SER-SMW01-120914	9-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U
	HS SER-SMW01-021715	17-Feb-15		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00078 J	0.0010 U	0.0010 U	0.00097 J	0.0010 U	0.0010 U
SMW02	HS SER-SMW02-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.00066 J	0.0010 U	0.00042 J	0.0010 U	0.0010 U	0.0010 U	0.0005 U	0.0004 J	0.0010 U	0.0010 U
	HS SER-SMW02-080414	4-Aug-14		0.0010 U	0.0020 U	0.0010 U	**0.0032**	0.0010 U	**0.0115**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00037 J	0.0010 U	0.0010 U
	HS SER-SMW02-120914	9-Dec-14		0.0010 U	0.0020 U	0.0010 U	**0.0030**	0.0010 U	**0.0026**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00042 J	0.0010 U	0.0010 U
	HS SER-SMW02-021715	17-Feb-15		0.0010 U	0.0020 U	0.0010 U	**0.0032**	0.0010 U	**0.0031**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00040 J	0.0010 U	0.0010 U
SMW04	HS SER-SMW04-050614	6-May-14		[redacted]	0.0020 U	**0.0013**	**0.0103**	0.0010 U	[redacted]	0.00066 J	**0.0016**	0.0010 U	0.0005 U	[redacted]	0.0010 U	[redacted]
	HS SER-SMW04-080614	6-Aug-14		[redacted]	0.0020 U	**0.0012**	**0.0084**	0.0010 U	**0.0304**	0.0010 U	**0.0039**	0.0010 U	0.0010 U	[redacted]	0.0010 U	[redacted]
	HS SER-SMW04-120914	9-Dec-14		[redacted]	0.0020 U	**0.0012**	**0.0118**	0.0010 U	[redacted]	0.00073 J	**0.0057**	0.0010 U	0.0010 U	[redacted]	0.0010 U	[redacted]
	HS SER-SMW04-021915	19-Feb-15		**0.0032**	0.0020 U	0.00084 J	**0.0113**	0.0010 U	**0.0579**	0.0010 U	0.00090 J	0.0010 U	0.0010 U	[redacted]	0.0010 U	[redacted]

See next page for notes.

Table 2
Second Quarter 2014 to First Quarter 2015 VOC Analytical Results - GMZ Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005[c,A]	0.005[c,A]	0.007[b,c,A]	0.7[A]	0.005[c,A]	0.07[c,A]	0.1[c,A]	0.2[b,c,A]	0.005[c,A]	0.7[c,A]	0.005[c,A]	1.0[c,A]	0.002[c,A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SMW08	HS SER-SMW08-050614	6-May-14		**0.0025**	0.0020 U	0.0010 U	**0.0120**	0.0010 U	**0.0528**	0.0007 J	**0.0106**	0.0010 U	0.0005 U	[redacted]	0.0010 U	0.0010 U
	HS SER-SMW08-080414	4-Aug-14		**0.0015**	0.0020 U	0.0010 U	**0.0151**	0.0010 U	[redacted]	**0.0012**	**0.0043**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-SMW08-120814	8-Dec-14		**0.0039**	0.0020 U	0.0010 U	**0.0165**	0.0010 U	[redacted]	0.00088 J	**0.0067**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-SMW08-021715	17-Feb-15		**0.0042**	0.0020 U	0.0010 U	**0.0103**	0.0010 U	[redacted]	0.00085 J	**0.0016**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
SMW19	HS SER-SMW19-050714	7-May-14		[redacted]	0.0020 U	0.00038 J	**0.0017**	0.0010 U	**0.0011**	0.0010 U	**0.00036**	0.0010 U	0.0005 U	**0.0010**	0.0010 U	0.0010 U
	HS SER-SMW19-080614	6-Aug-14		[redacted]	0.0020 U	0.0010 U	0.00047 J	0.0010 U	**0.0020**	0.0010 U	0.00067 J	0.0010 U	0.0010 U	**0.0013**	0.0010 U	0.0010 U
	HS SER-SMW19-121014	10-Dec-14		[redacted]	0.0020 U	0.0010 U	0.0010 U	0.0010 U	**0.0010**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-SMW19-021915	19-Feb-15		[redacted]	0.0020 U	0.0010 U	0.0010 U	0.0010 U	**0.0019**	0.0010 U	0.00041 J	0.0010 U	0.0010 U	0.00091 J	0.0010 U	0.0010 U
SMW20	HS SER-SMW20-050714	7-May-14		0.0010 U	0.0020 U	0.0010 U	0.00035 J	0.0010 U	0.00059 J	0.0010 U	**0.0005**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-080614	6-Aug-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-121014	10-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-021815	18-Feb-15		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
SMW21	HS SER-SMW21-050714	7-May-14		0.0010 U	0.0020 U	0.0010 U	**0.0017**	0.0010 U	0.00080 J	0.0010 U	**0.0061**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-080514	5-Aug-14		0.00087 J	0.0020 U	0.0010 U	0.0010 U	0.0010 U	**0.0013**	0.0010 U	**0.0093**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-121014	10-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.00036 J	0.0010 U	**0.0031**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-021815	18-Feb-15		0.00037 J	0.0020 U	0.0010 U	0.00047 J	0.0010 U	**0.0028**	0.0010 U	**0.0156**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
PMW01	HS SER-PMW01-050714	7-May-14		**0.0016**	0.0020 U	**0.0026**	**0.0118**	0.0010 U	**0.0027**	0.0010 U	**0.0503**	0.0010 U	0.0005 U	[redacted]	0.0010 U	0.0010 U
	HS SER-PMW01-080614	6-Aug-14		**0.0016**	0.0020 U	**0.0021**	**0.0081**	0.0010 U	**0.0021**	0.0010 U	**0.0431**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-PMW01-120914	9-Dec-14		**0.0012**	0.0020 U	0.00054 J	**0.0057**	0.0010 U	0.00063 J	0.0010 U	**0.0259**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-PMW01-021815	18-Feb-15		**0.0011**	0.0020 U	0.0010 U	**0.0052**	0.0010 U	0.00070 J	0.0010 U	**0.0202**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
PMW02	HS SER-PMW02-050714	7-May-14		**0.0023**	0.0020 U	0.0010 U	**0.0086**	0.0010 U	**0.0035**	0.0010 U	**0.0059**	0.0010 U	0.0005 U	[redacted]	0.0010 U	0.00091 J
	HS SER-PMW02-080614	6-Aug-14		**0.0025**	0.0020 U	0.00052 J	**0.0069**	0.0010 U	**0.0067**	0.0010 U	**0.0078**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.00033 J
	HS SER-PMW02-120914	9-Dec-14		**0.0028**	0.0020 U	0.00060 J	**0.0074**	0.0010 U	**0.0096**	0.0010 U	**0.0056**	0.0010 U	0.0010 U	[redacted]	0.0010 U	**0.0012**
	HS SER-PMW02-021815	18-Feb-15		**0.0020**	0.0020 U	0.0010 U	**0.0036**	0.0010 U	**0.0011**	0.0010 U	**0.0162**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U

Notes:

PRG	Preliminary Remediation Goals (PRGs) from the Record of Decision (ROD)
A	Class 1 - Groundwater Remediation Objectives
[redacted]	Concentration exceeds the indicated standard.
15.2	Concentration was detected but did not exceed applicable standards.
0.03 U	The analyte was not detected above the laboratory estimated quantitation limit.
0.50 U	Laboratory estimated quantitation limit exceeded standard.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
mg/L	milligrams per liter
b,c	Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change. Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
c	Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
*	LCS or LCSD exceeds the control limits
B	The analyte was detected in the method, field and/or trip blank.
H	Sample was prepped or analyzed beyond the specified holding time
J	Indicates estimated value.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 3
Second Quarter 2014 to First Quarter 2015 VOC Analytical Results - Performance Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Well	Sample ID	Sample Date	Sample Type	Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005[c,A]	0.005[c,A]	0.007[b,c,A]	0.7[A]	0.005[c,A]	0.07[c,A]	0.1[c,A]	0.2[b,c,A]	0.005[c,A]	0.7[c,A]	0.005[c,A]	1.0[c,A]	0.002[c,A]
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RAMW01	HS SER-RAMW01-050714	7-May-14		**0.0014**	0.0020 U	0.0010 U	**0.0037**	0.0010 U	**0.0012**	0.0010 U	**0.0046**	0.00031 J	0.0005 U	[redacted]	0.0010 U	0.0010 U
	HS SER-RAMW01-080514	5-Aug-14		**0.0019**	0.0010 U	0.0010 U	**0.0063**	0.0010 U	**0.0017**	0.0010 U	**0.0044**	0.00046 J	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-RAMW01-121014	10-Dec-14		**0.0011**	0.0020 U	0.0010 U	**0.0043**	0.0010 U	0.00057 J	0.0010 U	**0.0042**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-RAMW01-021715	17-Feb-15		0.00095 J	0.0020 U	0.0010 U	**0.0040**	0.0010 U	0.00055 J	0.0010 U	**0.0029**	0.0010 U	0.0010 U	**0.0049**	0.0010 U	0.0010 U
RAMW02	HS SER-RAMW02-050614	6-May-14		0.00097 J	0.0020 U	0.0010 U	**0.0047**	0.0010 U	0.00073 J	0.0010 U	**0.0046**	0.0010 U	0.0005 U	**0.0045**	0.0010 U	0.0010 U
	HS SER-RAMW02-080514	5-Aug-14		**0.0012**	0.0020 U	0.0010 U	**0.0042**	0.0010 U	0.00069 J	0.0010 U	**0.0040**	0.0010 U	0.0010 U	[redacted]	0.0010 U	0.0010 U
	HS SER-RAMW02-121014	10-Dec-14		0.00063 J	0.0020 U	0.0010 U	**0.0033**	0.0010 U	0.00033 J	0.0010 U	**0.0044**	0.0010 U	0.0010 U	**0.0035**	0.0010 U	0.0010 U
	HS SER-RAMW02-021715	17-Feb-15		0.00055 J	0.0020 U	0.0010 U	**0.0037**	0.0010 U	0.0010 U	0.0010 U	**0.0031**	0.0010 U	0.0010 U	**0.0027**	0.0010 U	0.0010 U
RAMW03	HS SER-RAMW03-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	0.00082 J	0.0010 U	0.00082 J	0.0010 U	0.00091 J	0.0010 U	0.0005 U	0.0006 J	0.0010 U	0.0010 U
	HS SER-DUP02-050614	6-May-14	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.00082 J	0.0010 U	0.00075 J	0.0010 U	0.00078 J	0.0010 U	0.0005 U	0.00055 J	0.0010 U	0.0010 U
	HS SER-RAMW03-080514	5-Aug-14		0.00037 J	0.0010 U	0.0010 U	0.00053 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	**0.0010**	0.0010 U	0.0010 U
	HS SER-DUP02-080514	5-Aug-14	Field Duplicate	0.00040 J	0.0010 U	0.0010 U	0.00056 J	0.0010 U	0.0010 U	0.0010 U	0.00072 J	0.0010 U	0.0010 U	0.00082 J	0.0010 U	0.0010 U
	HS SER-RAMW03-121014	10-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00042 J	0.0010 U	0.0010 U	0.00054 J	0.0010 U	0.0010 U
	HS SER-DUP02-121014	10-Dec-14	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00040 J	0.0010 U	0.0010 U	0.00053 J	0.0010 U	0.0010 U
	HS SER-RAMW03-021715	17-Feb-15		0.00051 J	0.0020 U	0.0010 U	0.00062 J	0.0010 U	0.0010 U	0.0010 U	0.00098 J	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-DUP02-021715	17-Feb-15	Field Duplicate	0.00040 J	0.0020 U	0.0010 U	0.00064 J	0.0010 U	0.0010 U	0.0010 U	0.00091 J	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
RAMW04	HS SER-RAMW04-050614	6-May-14		0.0010 U	0.002 U	0.0010 U	0.00051 J	0.0010 U	0.0010 U	0.0010 U	0.00067 J	0.0010 U	0.0005 U	0.00054 J	0.0010 U	0.0010 U
	HS SER-RAMW04-080414	4-Aug-14		0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0007 J	0.0010 U	0.0010 U
	HS SER-RAMW04-121014	10-Dec-14		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00034 J	0.0010 U	0.0010 U	0.00040 J	0.0010 U	0.0010 U
	HS SER-RAMW04-021715	17-Feb-15		0.0010 U	0.0020 U	0.0010 U	0.00046 J	0.0010 U	0.0010 U	0.0010 U	0.00045 J	0.0010 U	0.0010 U	0.00042 J	0.0010 U	0.0010 U
RAMW05	HS SER-RAMW05-050614	6-May-14		[redacted]	0.0020 U	0.00081 J	0.00094 J	0.0010 U	**0.0032**	0.0010 U	**0.0800**	0.0010 U	0.0005 U	0.00029 J	0.0010 U	0.0010 U
	HS SER-RAMW05-080414	4-Aug-14		**0.0016**	0.0020 U	0.0010 U	0.00064 J	0.0010 U	**0.0026**	0.0010 U	**0.0198**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-121014	10-Dec-14		**0.0035**	0.0020 U	**0.0022**	0.00097 J	0.0010 U	**0.0036**	0.0010 U	**0.0547**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-021715	17-Feb-15		**0.0043**	0.0020 U	**0.0025**	**0.0034**	0.0010 U	**0.0097**	0.0010 U	**0.161**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
RAMW06	HS SER-RAMW06-050614	6-May-14		**0.0024**	0.0020 U	**0.0049**	**0.0026**	0.0010 U	**0.0037**	0.0010 U	[redacted]	0.0010 U	0.0005 U	0.00026 J	0.0010 U	0.0010 U
	HS SER-RAMW06-080414	4-Aug-14		0.0010 U	0.0020 U	0.00054 J	0.00088 J	0.0010 U	**0.0048**	0.0010 U	**0.0261**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW06-120914	9-Dec-14		**0.0010**	0.0020 U	[redacted]	**0.0047**	0.0010 U	**0.0067**	0.0010 U	**0.1790**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW06-021815	18-Feb-15		**0.0033**	0.0020 U	[redacted]	**0.0039**	0.0010 U	**0.0217**	0.0010 U	[redacted]	0.0010 U	0.0010 U	0.00043 J	0.0010 U	0.0010 U
RAMW07	HS SER-RAMW07-050614	6-May-14		**0.0027**	0.0020 U	**0.0074**	**0.0329**	0.0010 U	**0.0109**	0.0010 U	[redacted]	0.0010 U	0.0005 U	[redacted]	0.0010 U	0.0010 U
	HS SER-RAMW07-080414	4-Aug-14		**0.0023**	0.0020 U	**0.0010**	0.00082 J	0.0010 U	**0.0014**	0.0010 U	**0.0469**	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U
	HS SER-RAMW07-120914	9-Dec-14		**0.0043**	0.0020 U	**0.0056**	**0.0027**	0.0010 U	**0.0025**	0.0010 U	**0.1300**	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	HS SER-RAMW07-021815	18-Feb-15		**0.0029**	0.0020 U	**0.0040**	**0.0091**	0.0010 U	**0.0053**	0.0010 U	**0.149**	0.0010 U	0.0010 U	**0.0012**	0.0010 U	0.0010 U

See next page for notes.

Table 3
Second Quarter 2014 to First Quarter 2015 VOC Analytical Results - Performance Wells
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

				Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005_c^A	0.005_c^A	$0.007_{b,c}^A$	0.7^A	0.005_c^A	0.07_c^A	0.1_c^A	$0.2_{b,c}^A$	0.005_c^A	0.7_c^A	0.005_c^A	1.0_c^A	0.002_c^A
Well	**Sample ID**	**Sample Date**	**Sample Type**	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RAMW08	HS SER-RAMW08-050614	6-May-14		0.0010 U	0.0020 U	0.0010 U	**0.0021**	0.0010 U	**0.0015**	0.0010 U	**0.0013**	0.0010 U	0.0005 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW08-080414	4-Aug-14		0.0010 U	0.0020 U	0.0010 U	0.00088 J	0.0010 U	0.0010 U	0.0010 U	0.00048 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW08-120914	9-Dec-14		0.0010 U	0.0020 U	0.0010 U	**0.0014**	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW08-021815	18-Feb-15		0.0010 U	0.0020 U	0.0010 U	**0.0018**	0.0010 U	0.0010 U	0.0010 U	0.00039 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U

Notes:

PRG	Preliminary Remediation Goals (PRGs) from the Record of Decision (ROD)
A	Class 1 - Groundwater Remediation Objectives
	Concentration exceeds the indicated standard at specified well; however, compliance with the standard is only applicable to GMZ wells.
15.2	Concentration was detected but did not exceed applicable standards.
0.50 U	Laboratory estimated quantitation limit exceeded standard.
0.03 U	The analyte was not detected above the laboratory estimated quantitation limit.
mg/L	milligrams per liter
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
b,c	Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change.
	Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
c	Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
B	The analyte was detected in the method, field and/or trip blank.
J	Indicates estimated value.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Groundwater monitoring wells located within the influence of active treatment systems yield groundwater sample data that is potentially biased by the treatment activities. This potential bias should be considered during evaluation of this data.

Table 4.1
Cell 1 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/10/2009		159	53	140	13000	3.76E-02	140 U	0.00E+00	45000	9.67E-02	140 U	0.00E+00	910	1.91E-03	18000	3.79E-02	140 U	0.00E+00	940	3.38E-03
12/22/2009		372	124	140	980	2.84E-03	26 U	0.00E+00	11000	2.36E-02	26 U	0.00E+00	130	2.74E-04	7300	1.54E-02	26 U	0.00E+00	390	1.40E-03
2/24/2010		1893	631	150	640	1.99E-03	6.0 U	0.00E+00	1900	4.37E-03	6.0 U	0.00E+00	28	6.31E-05	630	1.42E-03	6.0 U	0.00E+00	150	5.78E-04
3/15/2010		2345	782	140	1100	3.19E-03	8.4 U	0.00E+00	2800	6.01E-03	8.4 U	0.00E+00	37	7.79E-05	1300	2.74E-03	8.4 U	0.00E+00	180	6.48E-04
4/14/2010		2804	935	150	1400	4.34E-03	12 U	0.00E+00	4100	9.44E-03	12 U	0.00E+00	31	6.99E-05	1400	3.16E-03	12 U	0.00E+00	790	3.05E-03
5/13/2010		3495	1165	140	590	1.71E-03	7.0 U	0.00E+00	2600	5.58E-03	7.0 U	0.00E+00	13	2.74E-05	1100	2.31E-03	7.0 U	0.00E+00	300	1.08E-03
6/21/2010		4430	1477	108	710	1.59E-03	8.6 U	0.00E+00	2600	4.31E-03	8.6 U	0.00E+00	16 J	2.60E-05	570	9.25E-04	8.6 U	0.00E+00	290	8.05E-04
7/21/2010		5058	1686	140	480	1.39E-03	7.0 U	0.00E+00	2600	5.58E-03	7.0 U	0.00E+00	10	2.10E-05	630	1.33E-03	7.0 U	0.00E+00	710	2.56E-03
8/23/2010		5784	1928	0	370	0.00E+00	8.2 U	0.00E+00	2400	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	540	0.00E+00	8.2 U	0.00E+00	500	0.00E+00
9/23/2010		6523	2174	145	480	1.44E-03	7.2 U	0.00E+00	2000	4.45E-03	7.2 U	0.00E+00	7.2 U	0.00E+00	250	5.45E-04	7.2 U	0.00E+00	380	1.42E-03
10/22/2010		7219	2406	140	390	1.13E-03	5.0 U	0.00E+00	1600	3.44E-03	5.0 U	0.00E+00	5.0 U	0.00E+00	160	3.37E-04	5.0 U	0.00E+00	240	8.64E-04
10/22/2010	Dup	7219	2406	140	2600	7.53E-03	10 U	0.00E+00	960	2.06E-03	10 U	0.00E+00	120	2.53E-04	490	1.03E-03	10 U	0.00E+00	140	5.04E-04
11/15/2010		7794	2598	140	420	1.22E-03	4.3 U	0.00E+00	1700	3.65E-03	4.3 U	0.00E+00	4.3 U	0.00E+00	140	2.95E-04	4.3 U	0.00E+00	140	5.04E-04
12/22/2010		8508	2777	150	600	1.86E-03	4.2 U	0.00E+00	1600	3.68E-03	4.2 U	0.00E+00	8.5	1.92E-05	510	1.15E-03	4.2 U	0.00E+00	75	2.89E-04
1/24/2011		9302	2975	170	360	1.27E-03	5.2 U	0.00E+00	1700	4.43E-03	5.2 U	0.00E+00	5.2 U	0.00E+00	140	3.58E-04	5.2 U	0.00E+00	45	1.97E-04
2/25/2011		10071	3167	165	280	9.56E-04	4.0 U	0.00E+00	1600	4.05E-03	4.0 U	0.00E+00	4.5	1.12E-05	120	2.98E-04	4.0 U	0.00E+00	34	1.44E-04
3/18/2011		10573	3293	165	200	6.83E-04	6.3 U	0.00E+00	1900	4.81E-03	6.3 U	0.00E+00	6.3 U	0.00E+00	130	3.22E-04	6.3 U	0.00E+00	32	1.36E-04
4/15/2011		11241	3460	160	180 J,B	5.96E-04	4.5 U	0.00E+00	1700	4.17E-03	4.5 U	0.00E+00	4.5 U	0.00E+00	110	2.65E-04	4.5 U	0.00E+00	43	1.77E-04
5/19/2011		12061	3665	160	110	3.64E-04	4.3 U	0.00E+00	1100	2.70E-03	4.3 U	0.00E+00	4.3 U	0.00E+00	85	2.04E-04	4.3 U	0.00E+00	55	2.26E-04
6/16/2011		12722	3830	170	150	5.27E-04	2.3 U	0.00E+00	730	1.90E-03	2.3 U	0.00E+00	2.8	7.15E-06	63	1.61E-04	2.3 U	0.00E+00	110	4.81E-04
7/15/2011		13417	4472	170	140	4.92E-04	1.2 U	0.00E+00	390	1.02E-03	1.2 U	0.00E+00	2.2	5.62E-06	47	1.20E-04	1.2	3.07E-06	170	7.43E-04
8/22/2011		14324	4775	170	150	5.27E-04	1.1 U	0.00E+00	210	5.48E-04	1.1 U	0.00E+00	2.1	5.37E-06	36	9.20E-05	1.1 U	0.00E+00	180	7.87E-04
9/15/2011		14905	4968	170	130	4.57E-04	1.1 U	0.00E+00	130	3.39E-04	1.1 U	0.00E+00	1.5	3.83E-06	40	1.02E-04	1.1 U	0.00E+00	180	7.87E-04
10/14/2011		15598	5199	160	65	2.15E-04	0.74 U	0.00E+00	100	2.45E-04	0.74 U	0.00E+00	1.4	3.37E-06	43	1.03E-04	0.86	2.07E-06	130	5.35E-04
11/21/2011		16510	5503	170	49 J,B	1.72E-04	0.74 U	0.00E+00	68		0.74 U	0.00E+00	2.9	7.41E-06	28	7.15E-05	1.1	2.81E-06	61	2.67E-04
12/14/2011		17010	5670	170	53	1.86E-04	0.78 U	0.00E+00	45	1.17E-04	0.78 U	0.00E+00	2.7	6.90E-06	18	4.60E-05	0.78 U	0.00E+00	57	2.49E-04
1/19/2012		17923	5974	170	51	1.79E-04	0.79 U	0.00E+00	41	1.07E-04	0.79 U	0.00E+00	1	2.56E-06	12	3.07E-05	0.79 U	0.00E+00	39	1.70E-04
2/15/2012		18566	6189	170	46	1.62E-04	0.78 U	0.00E+00	30	7.82E-05	0.78 U	0.00E+00	9.4	2.40E-05	10	2.56E-05	0.78 U	0.00E+00	37	1.62E-04
3/15/2012		19262	6421	170	38 J,B	1.34E-04	0.71 U	0.00E+00	34	8.87E-05	0.71 U	0.00E+00	0.8	2.04E-06	7.8	1.99E-05	0.71 U	0.00E+00	32	1.40E-04
4/19/2012		20102	6701	160	55	1.82E-04	0.76 U	0.00E+00	38	9.33E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	7.4	1.78E-05	0.76 U	0.00E+00	58	2.39E-04
5/16/2012		20748	6916	160	51	1.69E-04	0.76 U	0.00E+00	36	8.84E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	7.1	1.71E-05	0.76 U	0.00E+00	77	3.17E-04
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	120	3.97E-04	1.3 U	0.00E+00	51	1.25E-04	1.3 U	0.00E+00	1.3 U	0.00E+00	8.3	2.00E-05	1.3 U	0.00E+00	350	1.44E-03
9/17/2012		21952	7317	160	190	6.29E-04	1.1 U	0.00E+00	77	1.89E-04	1.1 U	0.00E+00	2	4.81E-06	9.8	2.36E-05	1.1 U	0.00E+00	270	1.11E-03
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	160	5.29E-04	1.0 U	0.00E+00	56	1.37E-04	1.0 U	0.00E+00	7.2	1.73E-05	9.1	2.19E-05	1.0 U	0.00E+00	220	9.05E-04
12/14/2012		22554	7518	170	140	4.92E-04	1.2 U	0.00E+00	99	2.58E-04	1.2 U	0.00E+00	3.5	8.94E-06	7.4	1.89E-05	1.2 U	0.00E+00	87	3.80E-04
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		22556	7518	160	110	3.64E-04	0.99 U	0.00E+00	83	2.04E-04	0.99 U	0.00E+00	0.99 U	1.73E-05	5.6	1.35E-05	0.99 U	0.00E+00	62	2.55E-04
4/11/2013		23581	7723	160	85	2.81E-04	1.2 U	0.00E+00	54	1.33E-04	1.2 U	0.00E+00	3.8	1.26E-05	7.4	1.78E-05	1.2 U	0.00E+00	38	1.56E-04
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		23583	7724	160	71	2.35E-04	1.1 U	0.00E+00	55	1.35E-04	1.1 U	0.00E+00	1.7	5.63E-06	6	1.44E-05	1.1 U	0.00E+00	37	1.52E-04
7/15/2013		25160	8039	160	190	6.29E-04	1.2 U	0.00E+00	79	1.94E-04	1.2 U	0.00E+00	4.7	1.56E-05	11	2.65E-05	1.2 U	0.00E+00	190	7.82E-04
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	8040	160	180	5.96E-04	1.3 U	0.00E+00	67	1.64E-04	1.3 U	0.00E+00	1.6	3.85E-06	9.3	2.24E-05	1.3 U	0.00E+00	270	1.11E-03
11/18/2013		26825	8372	160	120	3.97E-04	1.1 U	0.00E+00	35	8.59E-05	1.1 U	0.00E+00	3.2	7.70E-06	7.3	1.76E-05	1.1 U	0.00E+00	81	3.33E-04
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	8651	160	100	3.31E-04	1.1 U	0.00E+00	30	7.36E-05	1.1 U	0.00E+00	1.3	3.13E-06	4.7	1.13E-05	1.1 U	0.00E+00	69	2.84E-04
3/14/2014		29432	8894	160	78	2.58E-04	1.1 U	0.00E+00	34	8.35E-05	1.1 U	0.00E+00	3.8	9.14E-06	6.1	1.47E-05	1.1 U	0.00E+00	30	1.23E-04
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	95	3.14E-04	1.2 U	0.00E+00	32	7.86E-05	1.2 U	0.00E+00	1.9	4.57E-06	6	1.44E-05	1.2 U	0.00E+00	55	2.26E-04
7/23/2014		31567	9321	160	160	5.29E-04	1.2 U	0.00E+00	41	1.01E-04	1.2 U	0.00E+00	3.6	8.66E-06	9.3	2.24E-05	1.2 U	0.00E+00	170	6.99E-04
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	9494	160	480	1.59E-03	2.2 U	0.00E+00	11	2.70E-05	2.2 U	0.00E+00	4	9.62E-06	8.7	2.09E-05	2.2 U	0.00E+00	14	5.76E-05
11/14/2014		33847	9777	160	60	1.99E-04	1.1 U	0.00E+00	14	3.44E-05	1.1 U	0.00E+00	1.6	3.85E-06	3.6	8.66E-06	1.1 U	0.00E+00	50	2.06E-04
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	9778	160	86	2.85E-04	1.1 U	0.00E+00	20	4.91E-05	1.1 U	0.00E+00	1.1	2.65E-06	4.0	9.62E-06	1.1 U	0.00E+00	55	2.26E-04
1/9/2015	Dup	-	-	160	84	2.78E-04	1.2 U	0.00E+00	20	4.91E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6	1.11E-05	1.2 U	0.00E+00	80	3.29E-04
3/13/2015		35189	10045	160	58	1.92E-04	1.3 U	0.00E+00	17	4.17E-05	1.3 U	0.00E+00	2.4	5.77E-06	3.6	8.66E-06	1.3 U	0.00E+00	32	1.32E-04

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)
SCFM standard cubic feet per minute
J Indicates estimated value.
B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.1
Cell 1 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/10/2009		159	53	140	260	7.41E-04	8100	1.10E-02	140 U	0.00E+00	140 U	0.00E+00	140 U	0.00E+00	17000	2.38E-02	140 U	0.00E+00	560	1.12E-03
12/22/2009		372	124	140	41	1.17E-04	470	6.38E-04	26 U	0.00E+00	26 U	0.00E+00	26 U	0.00E+00	1700	2.38E-03	26 U	0.00E+00	32	6.40E-05
2/24/2010		1893	631	150	24	7.33E-05	33	4.80E-05	6.0 U	0.00E+00	6.0 U	0.00E+00	6.0 U	0.00E+00	130	1.95E-04	19	3.45E-05	6.0 U	0.00E+00
3/15/2010		2345	782	140	30	8.56E-05	32	4.34E-05	8.4 U	0.00E+00	8.4 U	0.00E+00	8.4 U	0.00E+00	170	2.38E-04	8.4 U	0.00E+00	8.4 U	0.00E+00
4/14/2010		2804	935	150	86	2.63E-04	91	1.32E-04	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	320	4.80E-04	14	2.54E-05	12 U	0.00E+00
5/13/2010		3495	1165	140	32	9.13E-05	10	1.36E-05	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	100	1.40E-04	12	2.03E-05	7.0 U	0.00E+00
6/21/2010		4430	1477	108	30	6.60E-05	8.6 U	0.00E+00	8.6 UJ	0.00E+00	8.6 U	0.00E+00	8.6 U	0.00E+00	87 J	9.40E-05	10	1.31E-05	8.6 U	0.00E+00
7/21/2010		5058	1686	140	42	1.20E-04	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	60	8.40E-05	7.0 U	0.00E+00	7.0 U	0.00E+00
8/23/2010		5784	1928	0	48	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	38	0.00E+00	24	0.00E+00	8.2 U	0.00E+00
9/23/2010		6523	2174	145	31	9.16E-05	7.2 U	0.00E+00	7.2 U	0.00E+00	7.2 U	0.00E+00	7.2 U	0.00E+00	15	2.18E-05	17	2.99E-05	7.2 U	0.00E+00
10/22/2010		7219	2406	140	21	5.99E-05	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	11	1.54E-05	7.1	1.20E-05	5.0 U	0.00E+00
10/22/2010	Dup	7219	2406	140	49	1.40E-04	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00
11/15/2010		7794	2598	140	16	4.56E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	12	1.68E-05	4.3 U	0.00E+00	4.3 U	0.00E+00
12/22/2010		8508	2777	150	11	3.36E-05	4.2 U	0.00E+00	4.2 U	0.00E+00	4.2 U	0.00E+00	4.2 U	0.00E+00	10	1.50E-05	5.3	9.63E-06	4.2 U	0.00E+00
1/24/2011		9302	2975	170	8.6	2.98E-05	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00
2/25/2011		10071	3167	165	7.4	2.49E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3293	165	6.4	2.15E-05	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	25 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00
4/15/2011		11241	3460	160	8.6	2.80E-05	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00
5/19/2011		12061	3665	160	8	2.61E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00
6/16/2011		12722	3830	170	12	4.16E-05	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.2 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00
7/15/2011		13417	4472	170	14	4.85E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.5	3.09E-06	1.2 U	0.00E+00
8/22/2011		14324	4775	170	16	5.54E-05	1.1 U	0.00E+00	2.3 UJ,B	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	6.7	1.38E-05	1.1 U	0.00E+00
9/15/2011		14905	4968	170	14	4.85E-05	1.5	2.47E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
10/14/2011		15598	5199	160	9.8	3.19E-05	3.5	5.43E-06	1.3	2.74E-06	0.74 U	0.00E+00	0.74 U	0.00E+00	3.0 U	0.00E+00	0.74 U	0.00E+00	1.8	4.11E-06
11/21/2011		16510	5503	170	7.3	2.53E-05	1	1.65E-06	7.4 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00	3.0 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00
12/14/2011		17010	5670	170	5.8	2.01E-05	0.78 U	0.00E+00	7.8 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00
1/19/2012		17923	5974	170	5	1.73E-05	0.79 U	0.00E+00	1.9	4.25E-06	0.79 U	0.00E+00	0.79 U	0.00E+00	3.2 U	0.00E+00	0.79 U	0.00E+00	0.79 U	0.00E+00
2/15/2012		18566	6189	170	4.3	1.49E-05	0.89	1.47E-06	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	1.2	2.47E-06	0.78 U	0.00E+00
3/15/2012		19262	6421	170	3.9	1.35E-05	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	2.8 U	0.00E+00	0.71 U	0.00E+00	1.8	4.37E-06
4/19/2012		20102	6701	160	5.7	1.86E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00
5/16/2012		20748	6916	160	6.1	1.99E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	15	4.89E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
9/17/2012		21952	7317	160	25	8.15E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	18	5.87E-05	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
12/14/2012		22554	7518	170	13	4.50E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	2.1	4.32E-06	7	1.70E-05
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		22556	7518	160	6.7	2.18E-05	0.99 U	0.00E+00	9.9 U	0.00E+00	0.99 U	0.00E+00	0.99 U	0.00E+00	4.0 U	0.00E+00	0.99 U	0.00E+00	0.99 U	0.00E+00
4/11/2013		23581	7723	160	8.2	2.67E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.4	3.20E-06
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		23583	7724	160	6.1	1.99E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.7	3.89E-06
7/15/2013		25160	8039	160	23	7.50E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	8040	160	21	6.84E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.1 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
11/18/2013		26825	8372	160	12	3.91E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	8651	160	9.1	2.97E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/14/2014		29432	8894	160	7	2.28E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.4 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	6.8	2.22E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
7/23/2014		31567	9321	160	18	5.87E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	9494	160	13	4.24E-05	2.2 U	0.00E+00	22 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	9.0 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00
11/14/2014		33847	9777	160	6.9	2.25E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	9778	160	8.2	2.67E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
1/9/2015	Dup	-	-	160	8.6	2.80E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/13/2015		35189	10045	160	5.8	1.89E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)
SCFM standard cubic feet per minute
J Indicates estimated value.
B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.1
Cell 1 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/10/2009		159	53	140	250	5.76E-04	1800	4.15E-03	470	1.08E-03	3800	4.79E-03	140 U	0.00E+00	2.25E-01	11.91
12/22/2009		372	124	140	26 U	0.00E+00	26 U	0.00E+00	26 U	0.00E+00	100 U	0.00E+00	26 U	0.00E+00	4.67E-02	15.23
2/24/2010		1893	631	150	6.0 U	0.00E+00	6.0 U	0.00E+00	6.0 U	0.00E+00	98	1.32E-04	370	6.20E-04	9.52E-03	20.06
3/15/2010		2345	782	140	8.4 U	0.00E+00	8.4 U	0.00E+00	8.4 U	0.00E+00	34 U	0.00E+00	8.4 U	0.00E+00	1.30E-02	22.02
4/14/2010		2804	935	150	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	50 U	0.00E+00	12 U	0.00E+00	2.10E-02	25.22
5/13/2010		3495	1165	140	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	28 U	0.00E+00	7.0 U	0.00E+00	1.10E-02	27.75
6/21/2010		4430	1477	108	8.6 U	0.00E+00	8.6 U	0.00E+00	8.6 U	0.00E+00	34 J	3.31E-05	8.6 U	0.00E+00	7.86E-03	30.20
7/21/2010		5058	1686	140	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	28 U	0.00E+00	7.0 U	0.00E+00	1.11E-02	32.52
8/23/2010		5784	1928	0	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	53	0.00E+00	8.2 U	0.00E+00	0.00E+00	32.52
9/23/2010		6523	2174	145	7.2 U	0.00E+00	7.2 U	0.00E+00	7.2 U	0.00E+00	29 U	0.00E+00	7.2 U	0.00E+00	7.99E-03	34.49
10/22/2010		7219	2406	140	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	45	5.67E-05	5.0 U	0.00E+00	5.91E-03	35.86
10/22/2010	Dup	7219	2406	140	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	41 U	0.00E+00	10 U	0.00E+00	1.15E-02	37.16
11/15/2010		7794	2598	140	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	5.73E-03	36.96
12/22/2010		8508	2777	150	4.2 U	0.00E+00	4.2 U	0.00E+00	4.2 U	0.00E+00	16 NJ	2.16E-05	4.2 U	0.00E+00	7.08E-03	38.22
1/24/2011		9302	2975	170	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	21 U	0.00E+00	5.2 U	0.00E+00	6.28E-03	39.47
2/25/2011		10071	3167	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	5.48E-03	40.53
3/18/2011		10573	3293	165	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	25 U	0.00E+00	25 U	0.00E+00	5.97E-03	41.27
4/15/2011		11241	3460	160	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	18 U	0.00E+00	5.24E-03	42.15
5/19/2011		12061	3665	160	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	17 U	0.00E+00	3.52E-03	42.87
6/16/2011		12722	3830	170	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.2 U	0.00E+00	9.2 U	0.00E+00	3.12E-03	43.39
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.4	1.13E-05	4.6 U	0.00E+00	2.44E-03	44.96
8/22/2011		14324	4775	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	44 J,B	6.74E-05	4.5 U	0.00E+00	2.10E-03	45.59
9/15/2011		14905	4968	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	5.6	8.57E-06	4.5 U	0.00E+00	1.75E-03	45.93
10/14/2011		15598	5199	160	0.74 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00	18	2.59E-05	3.0 U	0.00E+00	1.17E-03	46.20
11/21/2011		16510	5503	170	0.74 U	0.00E+00	0.74 U	0.00E+00	0.74 U	0.00E+00	14	2.14E-05	3.0 U	0.00E+00	5.69E-04	46.37
12/14/2011		17010	5670	170	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	7.8 UJ	0.00E+00	3.1 U	0.00E+00	6.26E-04	46.48
1/19/2012		17923	5974	170	0.79 U	0.00E+00	0.79 U	0.00E+00	0.79 U	0.00E+00	3.2	4.90E-06	3.2 U	0.00E+00	5.16E-04	46.63
2/15/2012		18566	6189	170	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	20	3.06E-05	3.1 U	0.00E+00	5.01E-04	46.74
3/15/2012		19262	6421	170	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	4.02E-04	46.84
4/19/2012		20102	6701	160	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	5.50E-04	46.99
5/16/2012		20748	6916	160	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	6.11E-04	47.12
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	2.03E-03	47.48
9/17/2012		21952	7317	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	2.04E-03	47.94
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		21959	7320	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.1 U	0.00E+00	1.67E-03	47.94
12/14/2012		22554	7518	170	1.2 U	0.00E+00	1.5	4.20E-06	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.23E-03	48.19
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/2013		22556	7518	160	0.99 U	0.00E+00	0.99 U	0.00E+00	0.99 U	0.00E+00	9.9 U	0.00E+00	4.0 U	0.00E+00	8.75E-04	48.19
4/11/2013		23581	7723	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	6.30E-04	48.32
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/2013		23583	7724	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	5.66E-04	48.32
7/15/2013		25160	8039	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.72E-03	48.86
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013		25162	8040	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	1.97E-03	48.86
11/18/2013		26825	8372	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	8.81E-04	49.15
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		28218	8651	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	7.32E-04	49.36
3/14/2014		29432	8894	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	5.12E-04	49.48
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		29914	8990	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	6.60E-04	49.54
7/23/2014		31567	9321	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.42E-03	50.01
Pulse -off period July 23, 2014 to September 16, 2014																
9/16/2014		32432	9494	160	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	9.0 U	0.00E+00	1.75E-03	50.32
11/14/2014		33847	9777	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	4.74E-04	50.45
Pulse -off period November 14, 2014 to January 9, 2015																
1/9/2015		33855	9778	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	5.99E-04	50.45
1/9/2015	Dup	-	-	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	6.95E-04	-
3/13/2015		35189	10045	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	3.99E-04	50.56

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)
SCFM standard cubic feet per minute
J Indicates estimated value.
B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/11/2009		178	59	150	40000	1.24E-01	86 U	0.00E+00	21000	4.83E-02	86 U	0.00E+00	4500	1.01E-02	25000	5.64E-02	86 U	0.00E+00	1500	5.78E-03
12/15/2009		205	68	140	27000	7.82E-02	110 U	0.00E+00	14000	3.01E-02	110 U	0.00E+00	3100	6.52E-03	16000	3.37E-02	110 U	0.00E+00	950	3.42E-03
12/29/2009		539	180	140	24000	6.95E-02	100 U	0.00E+00	9100	1.95E-02	100 U	0.00E+00	2100	4.42E-03	9200	1.94E-02	100 U	0.00E+00	1000	3.60E-03
1/13/2010		903	301	150	9100	2.82E-02	35 U	0.00E+00	3700	8.52E-03	35 U	0.00E+00	880	1.98E-03	3200	7.21E-03	35 U	0.00E+00	610	2.35E-03
1/27/2010		1224	408	150	13000	4.03E-02	40 U	0.00E+00	4300	9.90E-03	40 U	0.00E+00	1100	2.48E-03	3900	8.79E-03	40 U	0.00E+00	600	2.31E-03
1/27/2010	Dup	1224	408	150	14000	4.34E-02	40 U	0.00E+00	4800	1.10E-02	40 U	0.00E+00	1200	2.71E-03	4400	9.92E-03	40 U	0.00E+00	630	2.43E-03
2/24/2010		1893	631	150	8000	2.48E-02	22 U	0.00E+00	3000	6.90E-03	22 U	0.00E+00	520	1.17E-03	2300	5.19E-03	22 U	0.00E+00	200	7.71E-04
3/15/2010		2345	782	140	17000	4.92E-02	48 U	0.00E+00	8000	1.72E-02	48 U	0.00E+00	1100	2.31E-03	6300	1.33E-02	48 U	0.00E+00	860	3.10E-03
4/14/2010		2804	935	150	8400	2.61E-02	23 U	0.00E+00	2200	5.06E-03	23 U	0.00E+00	480	1.08E-03	2000	4.51E-03	23 U	0.00E+00	1300	5.01E-03
5/13/2010		3495	1165	140	8000	2.32E-02	11 U	0.00E+00	3100	6.66E-03	11 U	0.00E+00	480	1.01E-03	2800	5.89E-03	11 U	0.00E+00	380	1.37E-03
6/21/2010		4430	1477	108	5800	1.30E-02	23 U	0.00E+00	3000 J	4.97E-03	23 U	0.00E+00	360 J	5.84E-04	2100	3.41E-03	23 U	0.00E+00	300	8.33E-04
7/21/2010		5058	1686	140	4500	1.30E-02	14 U	0.00E+00	1600	3.44E-03	14 U	0.00E+00	280	5.89E-04	1200	2.53E-03	14 U	0.00E+00	260	9.36E-04
8/23/2010		5784	1928	0	7100	0.00E+00	20 U	0.00E+00	2700	0.00E+00	20 U	0.00E+00	290	0.00E+00	1400	0.00E+00	20 U	0.00E+00	620	0.00E+00
9/23/2010		6523	2174	145	4300	1.29E-02	12 U	0.00E+00	1600	3.56E-03	12 U	0.00E+00	270	5.88E-04	940	2.05E-03	12 U	0.00E+00	290	1.08E-03
10/22/2010		7219	2406	140	2500	7.24E-03	10 U	0.00E+00	890	1.91E-03	10 U	0.00E+00	110	2.31E-04	470	9.89E-04	10 U	0.00E+00	180	6.48E-04
11/15/2010		7794	2598	140	3200	9.27E-03	11 U	0.00E+00	1100	2.36E-03	11 U	0.00E+00	130	2.74E-04	440	9.26E-04	11 U	0.00E+00	120	4.32E-04
12/22/2010		8508	2955	150	4000	1.24E-02	14 U	0.00E+00	1500	3.45E-03	14 U	0.00E+00	240	5.41E-04	730	1.65E-03	14 U	0.00E+00	72	2.78E-04
1/24/2011		9302	3352	170	780	2.74E-03	2.7 U	0.00E+00	800	2.09E-03	2.7 U	0.00E+00	22	5.62E-05	390	9.96E-04	2.7 U	0.00E+00	26	1.14E-04
2/25/2011		10071	3737	165	1500	5.12E-03	4.0 U	0.00E+00	1100	2.78E-03	4.0 U	0.00E+00	44	1.09E-04	560	1.39E-03	4.0 U	0.00E+00	32	1.36E-04
3/18/2011		10573	3988	165	370	1.26E-03	1.0 U	0.00E+00	160	4.05E-04	1.0 U	0.00E+00	11	2.73E-05	62	1.54E-04	1.0 U	0.00E+00	19	8.06E-05
4/15/2011		11241	4322	160	300 J,B	9.93E-04	1.0 U	0.00E+00	95	2.33E-04	1.0 U	0.00E+00	12	2.89E-05	41	9.86E-05	1.0 U	0.00E+00	20	8.23E-05
5/19/2011		12061	4732	160	93	3.08E-04	1.1 U	0.00E+00	39	9.57E-05	1.1 U	0.00E+00	3.5	8.42E-06	21	5.05E-05	1.1 U	0.00E+00	14	5.76E-05
6/16/2011		12722	5062	170	99	3.48E-04	1.2 U	0.00E+00	48	1.25E-04	1.2 U	0.00E+00	2.4	6.13E-06	21	5.37E-05	1.2 U	0.00E+00	30	1.31E-04
7/15/2011		13417	4472	170	77	2.71E-04	1.2 U	0.00E+00	25	6.52E-05	1.2 U	0.00E+00	1.7	4.34E-06	18	4.60E-05	1.2 U	0.00E+00	30	1.31E-04
8/22/2011		14324	4775	170	78	2.74E-04	1.2 U	0.00E+00	31	8.09E-05	1.2 U	0.00E+00	1.2	3.07E-06	17	4.34E-05	1.2 U	0.00E+00	54	2.36E-04
9/15/2011		14905	4968	170	69	2.43E-04	1.1 U	0.00E+00	20	5.22E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	12	3.07E-05	1.1 U	0.00E+00	32	1.40E-04
10/14/2011		15598	5199	160	43	1.42E-04	0.82 U	0.00E+00	12	2.95E-05	0.82 U	0.00E+00	0.82 U	0.00E+00	6.3	1.52E-05	0.82 U	0.00E+00	8.4	3.46E-05
11/21/2011		16510	5503	170	28 J,B	9.85E-05	1.6 U	0.00E+00	7.7	2.01E-05	1.6 U	0.00E+00	1.6 U	0.00E+00	4.1	1.05E-05	1.6 U	0.00E+00	7	3.06E-05
12/14/2011		17010	5670	170	26	9.14E-05	0.76 U	0.00E+00	5.2	1.36E-05	0.76 U	0.00E+00	2.4	6.13E-06	4.2	1.07E-05	0.76 U	0.00E+00	6.9	3.02E-05
1/19/2012		17923	5974	170	25	8.79E-05	0.74 U	0.00E+00	6.9	1.80E-05	0.74 U	0.00E+00	0.74 U	0.00E+00	3	7.67E-06	0.74 U	0.00E+00	4.4	1.92E-05
2/15/2012		18566	6189	170	31	1.09E-04	0.73 U	0.00E+00	7.6	1.98E-05	0.73 U	0.00E+00	1.9	4.85E-06	3.5	8.94E-06	0.73 U	0.00E+00	4.8	2.10E-05
3/15/2012		19262	6421	170	29 J,B	1.02E-04	0.71 U	0.00E+00	8.1	2.11E-05	0.71 U	0.00E+00	0.71 U	0.00E+00	3.7	9.45E-06	0.71 U	0.00E+00	3.9	1.70E-05
4/19/2012		20102	6701	160	31	1.03E-04	0.76 U	0.00E+00	11	2.70E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	4.6	1.11E-05	0.76 U	0.00E+00	8.2	3.37E-05
5/16/2012		20748	6916	160	28	9.27E-05	0.78 U	0.00E+00	11	2.70E-05	0.78 U	0.00E+00	0.78 U	0.00E+00	5	1.20E-05	0.78 U	0.00E+00	11	4.53E-05

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/11/2009		178	59	150	330	1.01E-03	4400	6.40E-03	86 U	0.00E+00	86 U	0.00E+00	86 U	0.00E+00	210	3.15E-04	86 U	0.00E+00	200	4.29E-04
12/15/2009		205	68	140	240	6.84E-04	3500	4.75E-03	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	370	5.18E-04	110 U	0.00E+00	140	2.80E-04
12/29/2009		539	180	140	240	6.84E-04	1500	2.03E-03	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	120	1.68E-04	100 U	0.00E+00	100 U	0.00E+00
1/13/2010		903	301	150	130	3.97E-04	250	3.63E-04	35 U	0.00E+00	35 U	0.00E+00	35 U	0.00E+00	170	2.55E-04	35 U	0.00E+00	35 U	0.00E+00
1/27/2010		1224	408	150	150	4.58E-04	200	2.91E-04	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	120	1.80E-04	40 U	0.00E+00	40 U	0.00E+00
1/27/2010	Dup	1224	408	150	180	5.50E-04	240	3.49E-04	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	130	1.95E-04	40 U	0.00E+00	40 U	0.00E+00
2/24/2010		1893	631	150	98	2.99E-04	73	1.06E-04	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	38	5.70E-05	22 U	0.00E+00	22 U	0.00E+00
3/15/2010		2345	782	140	210	5.99E-04	62	8.41E-05	48 U	0.00E+00	48 U	0.00E+00	48 U	0.00E+00	180	2.52E-04	48 U	0.00E+00	48 U	0.00E+00
4/14/2010		2804	935	150	190	5.81E-04	69	1.00E-04	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00
5/13/2010		3495	1165	140	78	2.22E-04	42	5.70E-05	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	20	2.80E-05	11 U	0.00E+00	11 U	0.00E+00
6/21/2010		4430	1477	108	88	1.94E-04	23 U	0.00E+00	23 UJ	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	33 J	3.56E-05	23 U	0.00E+00	23 U	0.00E+00
7/21/2010		5058	1686	140	80	2.28E-04	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
8/23/2010		5784	1928	0	150	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	21	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
9/23/2010		6523	2174	145	74	2.19E-04	12	1.69E-05	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00
10/22/2010		7219	2406	140	42	1.20E-04	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00
11/15/2010		7794	2598	140	35	9.98E-05	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00
12/22/2010		8508	2955	150	27	8.25E-05	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
1/24/2011		9302	3352	170	9	3.12E-05	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	3.1	7.53E-06
2/25/2011		10071	3737	165	15	5.04E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3988	165	7.3	2.45E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
4/15/2011		11241	4322	160	8.5	2.77E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
5/19/2011		12061	4732	160	11	3.59E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	8.1	1.57E-05	1.1 U	0.00E+00
6/16/2011		12722	5062	170	15	5.19E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.9	3.91E-06	1.2 U	0.00E+00
7/15/2011		13417	4472	170	21	7.27E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	5.3	1.09E-05	1.2 U	0.00E+00
8/22/2011		14324	4775	170	22	7.62E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.6	3.29E-06	1.2 U	0.00E+00
9/15/2011		14905	4968	170	18	6.23E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	4.6	9.47E-06	1.1 U	0.00E+00
10/14/2011		15598	5199	160	9.1	2.97E-05	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	3.3 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00
11/21/2011		16510	5503	170	5.1	1.77E-05	1.6 U	0.00E+00	1.6 UJ	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	6.4 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00
12/14/2011		17010	5670	170	3.4	1.18E-05	0.76 U	0.00E+00	7.6 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.78	1.61E-06	0.76 U	0.00E+00
1/19/2012		17923	5974	170	2.9	1.00E-05	0.74 U	0.00E+00	1.9	4.25E-06	0.74 U	0.00E+00	0.74 U	0.00E+00	3.0 U	0.00E+00	0.74 U	0.00E+00	1	2.43E-06
2/15/2012		18566	6189	170	2.2	7.62E-06	0.73 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00	2.9 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00
3/15/2012		19262	6421	170	2.4	8.31E-06	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	2.8 U	0.00E+00	0.71 U	0.00E+00	1.6	3.89E-06
4/19/2012		20102	6701	160	4.3	1.40E-05	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00
5/16/2012		20748	6916	160	5.3	1.73E-05	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/11/2009		178	59	150	86 U	0.00E+00	240	5.93E-04	110	2.72E-04	340 U	0.00E+00	86 U	0.00E+00	2.54E-01	15.05
12/15/2009		205	68	140	110 U	0.00E+00	230	5.30E-04	110 U	0.00E+00	430 U	0.00E+00	110 U	0.00E+00	1.59E-01	16.48
12/29/2009		539	180	140	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	1.19E-01	29.76
1/13/2010		903	301	150	35 U	0.00E+00	35 U	0.00E+00	35 U	0.00E+00	140 U	0.00E+00	35 U	0.00E+00	4.93E-02	35.75
1/27/2010		1224	408	150	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	160 U	0.00E+00	40 U	0.00E+00	6.47E-02	42.68
1/27/2010	Dup	1224	408	150	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	160 U	0.00E+00	40 U	0.00E+00	7.06E-02	43.31
2/24/2010		1893	631	150	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	87 U	0.00E+00	22 U	0.00E+00	3.93E-02	51.44
3/15/2010		2345	782	140	48 U	0.00E+00	48 U	0.00E+00	48 U	0.00E+00	190 U	0.00E+00	48 U	0.00E+00	8.60E-02	64.40
4/14/2010		2804	935	150	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	92 U	0.00E+00	23 U	0.00E+00	4.24E-02	70.89
5/13/2010		3495	1165	140	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	43 U	0.00E+00	11 U	0.00E+00	3.84E-02	79.74
6/21/2010		4430	1477	108	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	92 U	0.00E+00	23 U	0.00E+00	2.30E-02	86.90
7/21/2010		5058	1686	140	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	58 U	0.00E+00	14 U	0.00E+00	2.07E-02	91.24
8/23/2010		5784	1928	0	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	0.00E+00	91.24
9/23/2010		6523	2174	145	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	47 U	0.00E+00	12 U	0.00E+00	2.04E-02	96.27
10/22/2010		7219	2406	140	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	42 U	0.00E+00	10 U	0.00E+00	1.11E-02	98.85
11/15/2010		7794	2598	140	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	44 U	0.00E+00	11 U	0.00E+00	1.34E-02	101.41
12/22/2010		8508	2955	150	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	56 U	0.00E+00	14 U	0.00E+00	1.84E-02	107.99
1/24/2011		9302	3352	170	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	11 U	0.00E+00	11	2.09E-05	6.06E-03	110.39
2/25/2011		10071	3737	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	9.59E-03	114.08
3/18/2011		10573	3988	165	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	15	2.23E-05	4.0 U	0.00E+00	1.98E-03	114.57
4/15/2011		11241	4322	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	8.2 J,B	1.18E-05	4.1 U	0.00E+00	1.48E-03	115.07
5/19/2011		12061	4732	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11	1.58E-05	4.5 U	0.00E+00	5.87E-04	115.31
6/16/2011		12722	5062	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	19	2.91E-05	4.7 U	0.00E+00	7.49E-04	115.55
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	19	2.91E-05	4.6 U	0.00E+00	6.30E-04	115.18
8/22/2011		14324	4775	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	6.8 J,B	1.04E-05	4.7 U	0.00E+00	7.28E-04	115.40
9/15/2011		14905	4968	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11	1.68E-05	4.5 U	0.00E+00	5.54E-04	115.51
10/14/2011		15598	5199	160	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	5	7.20E-06	3.3 U	0.00E+00	2.58E-04	115.57
11/21/2011		16510	5503	170	1.6 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	6.4 UJ	0.00E+00	6.4 U	0.00E+00	1.77E-04	115.62
12/14/2011		17010	5670	170	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	7.6 UJ	0.00E+00	3.0 U	0.00E+00	1.65E-04	115.65
1/19/2012		17923	5974	170	0.79	2.21E-06	1.5	4.20E-06	1.1	3.08E-06	14	2.14E-05	3.0 U	0.00E+00	1.80E-04	115.71
2/15/2012		18566	6189	170	0.73 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00	7.9	1.21E-05	2.9 U	0.00E+00	1.83E-04	115.74
3/15/2012		19262	6421	170	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	8.9	1.36E-05	2.8 U	0.00E+00	1.75E-04	115.79
4/19/2012		20102	6701	160	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	1.88E-04	115.84
5/16/2012		20748	6916	160	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00	1.94E-04	115.88

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	370	1.22E-03	1.3 U	0.00E+00	160	3.93E-04	1.3 U	0.00E+00	4.5	1.08E-05	11	2.65E-05	1.3 U	0.00E+00	16	6.58E-05
9/17/2012		21952	7317	160	180	5.96E-04	1.1 U	0.00E+00	36	8.84E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	10	2.40E-05	1.1 U	0.00E+00	20	8.23E-05
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	430	1.42E-03	1.1 U	0.00E+00	140	3.44E-04	1.1 U	0.00E+00	12	2.89E-05	13	3.13E-05	1.1 U	0.00E+00	41	1.69E-04
12/14/2012		22554	7518	170	610	2.14E-03	1.9 U	0.00E+00	11	2.87E-05	1.9 U	0.00E+00	12	3.07E-05	4	1.02E-05	1.9 U	0.00E+00	5.3	2.32E-05
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		22556	7518	160	1.9	6.29E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
4/11/2013		23581	7723	160	140	4.63E-04	1.2 U	0.00E+00	10	2.45E-05	1.2 U	0.00E+00	4	9.62E-06	3.3	7.94E-06	1.2 U	0.00E+00	5.4	2.22E-05
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		23583	7724	160	210	6.95E-04	1.1 U	0.00E+00	62	1.52E-04	1.2 U	0.00E+00	3.9	9.38E-06	5.4	1.30E-05	1.1 U	0.00E+00	6.4	2.63E-05
7/15/2013		25160	8039	160	160	5.29E-04	1.1 U	0.00E+00	20	4.91E-05	1.1 U	0.00E+00	3.7	8.90E-06	3.7	8.90E-06	1.1 U	0.00E+00	21	8.64E-05
7/15/2013	Dup	25160	8039	160	160	5.29E-04	1.2 U	0.00E+00	20	4.91E-05	1.2 U	0.00E+00	3.2	7.70E-06	3.5	8.42E-06	1.2 U	0.00E+00	17	6.99E-05
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	8040	160	380	1.26E-03	2.0 U	0.00E+00	110	2.70E-04	2.0 U	0.00E+00	3.4	8.18E-06	7	1.68E-05	2.0 U	0.00E+00	49	2.02E-04
11/18/2013		26825	8372	160	44	1.46E-04	1.1 U	0.00E+00	11	2.70E-05	1.1 U	0.00E+00	1.3	3.13E-06	2.3	5.53E-06	1.1 U	0.00E+00	14	5.76E-05
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	8651	160	160	5.29E-04	1.2 U	0.00E+00	55	1.35E-04	1.2 U	0.00E+00	3.3	7.94E-06	2.9	6.97E-06	1.2 U	0.00E+00	7.2	2.96E-05
3/14/2014		29432	8894	160	16	5.29E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.9	4.57E-06	1.2 U	0.00E+00	1.2 U	0.00E+00
3/14/2014	Dup	29432	8894	160	19	6.29E-05	1.2 U	0.00E+00	1.6	3.93E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.8	4.33E-06	1.2 U	0.00E+00	1.7	6.99E-06
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	240	7.94E-04	1.1 U	0.00E+00	99	2.43E-04	1.1 U	0.00E+00	4.8	1.15E-05	7.8	1.88E-05	1.1 U	0.00E+00	14	5.76E-05
7/23/2014		31567	9321	160	89	2.95E-04	1.2 U	0.00E+00	20	4.91E-05	1.2 U	0.00E+00	1.8	4.33E-06	3.7	8.90E-06	1.2 U	0.00E+00	11	4.52E-05
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	9494	160	310	1.03E-03	2.1 U	0.00E+00	120	2.95E-04	2.1 U	0.00E+00	3.9	9.38E-06	6	1.44E-05	2.1 U	0.00E+00	19	7.82E-05
11/14/2014		33847	9777	160	42	1.39E-04	1.1 U	0.00E+00	7.8	1.91E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.6	3.85E-06	1.1 U	0.00E+00	11	4.52E-05
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	9778	160	210	6.95E-04	1.2 U	0.00E+00	69	1.69E-04	1.2 U	0.00E+00	3.7	8.90E-06	3.4	8.18E-06	1.2 U	0.00E+00	8.2	3.37E-05
3/13/2015		35189	10045	160	18	5.96E-05	1.3 U	0.00E+00	5.4	1.33E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	3.5	1.44E-05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	12	3.91E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
9/17/2012		21952	7317	160	29	9.45E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	26	8.47E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
12/14/2012		22554	7518	170	17	5.89E-05	1.9 U	0.00E+00	19 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	7.4 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		22556	7518	160	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
4/11/2013		23581	7723	160	8	2.61E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		23583	7724	160	9.5	3.10E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	18	2.88E-05	1.1 U	0.00E+00	1.1 U	0.00E+00
7/15/2013		25160	8039	160	24	7.82E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
7/15/2013	Dup	25160	8039	160	24	7.82E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	8040	160	31	1.01E-04	2.0 U	0.00E+00	20 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	8.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00
11/18/2013		26825	8372	160	8.4	2.74E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	8651	160	7.2	2.35E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	4.9	1.12E-05
3/14/2014		29432	8894	160	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/14/2014	Dup	29432	8894	160	1.5	4.89E-06	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5.0 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	6.6	2.15E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	16	2.56E-05	1.1 U	0.00E+00	1.1 U	0.00E+00
7/23/2014		31567	9321	160	19	6.19E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	9494	160	26	8.47E-05	2.1 U	0.00E+00	21 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	8.3 U	0.00E+00	3.5	6.78E-06	2.1 U	0.00E+00
11/14/2014		33847	9777	160	7.3	2.38E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	9778	160	9.3	3.03E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/13/2015		35189	10045	160	3.0	9.78E-06	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.0 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	21	3.03E-05	5.3 U	0.00E+00	1.79E-03	116.20
9/17/2012		21952	7317	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	8.85E-04	116.40
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		21959	7320	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	2.08E-03	116.40
12/14/2012		22554	7518	170	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	19 U	0.00E+00	7.4 U	0.00E+00	2.30E-03	116.86
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/2013		22556	7518	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	5 U	0.00E+00	6.29E-06	116.86
4/11/2013		23581	7723	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	5.54E-04	116.97
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/2013		23583	7724	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	9.56E-04	116.97
7/15/2013		25160	8039	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	7.61E-04	117.21
7/15/2013	Dup	25160	8039	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	7.43E-04	-
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013		25162	8040	160	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	20 U	0.00E+00	8.0 U	0.00E+00	1.86E-03	117.21
11/18/2013		26825	8372	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	2.66E-04	117.30
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		28218	8651	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	7.44E-04	117.51
3/14/2014		29432	8894	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	5.75E-05	117.52
3/14/2014	Dup	29432	8894	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	5.0 U	0.00E+00	8.30E-05	-
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		29914	8990	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	25	3.60E-05	11 U	0.00E+00	1.21E-03	117.64
7/23/2014		31567	9321	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	4.64E-04	117.79
Pulse -off period July 23, 2014 to September 16, 2014																
9/16/2014		32432	9494	160	2.1 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	1.51E-03	118.05
11/14/2014		33847	9777	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	2.31E-04	118.12
Pulse -off period November 14, 2014 to January 9, 2015																
1/9/2015		33855	9778	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	9.45E-04	118.12
3/13/2015		35189	10045	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.0 U	0.00E+00	9.70E-05	118.15

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/14/2009		181	60	140	94000	2.72E-01	270 U	0.00E+00	1100	2.36E-03	270 U	0.00E+00	2300	4.84E-03	8100	1.70E-02	270 U	0.00E+00	750	2.70E-03
12/16/2009		229	76	150	46000	1.43E-01	110 U	0.00E+00	710	1.63E-03	110 U	0.00E+00	1100	2.48E-03	5500	1.24E-02	110 U	0.00E+00	400	1.54E-03
1/5/2010		707	236	140	42000	1.22E-01	150 U	0.00E+00	290	6.23E-04	150 U	0.00E+00	980	2.06E-03	1500	3.16E-03	150 U	0.00E+00	240	8.64E-04
1/21/2010		1084	361	150	15000	4.65E-02	42 U	0.00E+00	260	5.98E-04	42 U	0.00E+00	280	6.31E-04	1600	3.61E-03	42 U	0.00E+00	170	6.56E-04
1/21/2010	Dup	1084	361	150	16000	4.96E-02	43 U	0.00E+00	280	6.44E-04	43 U	0.00E+00	290	6.54E-04	1700	3.83E-03	43 U	0.00E+00	170	6.56E-04
2/24/2010		1893	631	150	11000	3.41E-02	28 U	0.00E+00	240	5.52E-04	28 U	0.00E+00	280	6.31E-04	1100	2.48E-03	28 U	0.00E+00	140	5.40E-04
3/15/2010		2345	782	140	20000	5.79E-02	21 U	0.00E+00	400	8.59E-04	21 U	0.00E+00	510	1.07E-03	1900	4.00E-03	21 U	0.00E+00	280	1.01E-03
4/14/2010		2804	935	150	31000	9.62E-02	100 U	0.00E+00	380	8.75E-04	100 U	0.00E+00	1100	2.48E-03	1200	2.71E-03	100 U	0.00E+00	820	3.16E-03
5/13/2010		3495	1165	140	8300	2.40E-02	12 U	0.00E+00	220	4.73E-04	12 U	0.00E+00	190	4.00E-04	960	2.02E-03	12 U	0.00E+00	200	7.20E-04
6/21/2010		4430	1477	108	7200	1.61E-02	21 U	0.00E+00	220	3.65E-04	21 U	0.00E+00	150	2.43E-04	660	1.07E-03	21 U	0.00E+00	160	4.44E-04
7/21/2010		5058	1686	140	6100	1.77E-02	20 U	0.00E+00	120	2.58E-04	20 U	0.00E+00	130	2.74E-04	460	9.68E-04	20 U	0.00E+00	120	4.32E-04
8/23/2010		5784	1928	0	8000	0.00E+00	20 U	0.00E+00	200	0.00E+00	20 U	0.00E+00	120	0.00E+00	490	0.00E+00	20 U	0.00E+00	220	0.00E+00
9/23/2010		6523	2174	145	6600	1.98E-02	11 U	0.00E+00	140	3.11E-04	11 U	0.00E+00	140	3.05E-04	440	9.59E-04	11 U	0.00E+00	160	5.96E-04
10/22/2010		7219	2406	140	3700	1.07E-02	14 U	0.00E+00	91	1.95E-04	14 U	0.00E+00	66	1.39E-04	210	4.42E-04	14 U	0.00E+00	110	3.96E-04
11/15/2010		7794	2598	140	4600	1.33E-02	15 U	0.00E+00	120	2.58E-04	15 U	0.00E+00	64	1.35E-04	170	3.58E-04	15 U	0.00E+00	88	3.17E-04
12/22/2010		8508	2777	150	5600	1.74E-02	20 U	0.00E+00	150	3.45E-04	20 U	0.00E+00	120	2.71E-04	330	7.44E-04	20 U	0.00E+00	56	2.16E-04
1/24/2011		9302	2975	170	2200	7.74E-03	8.3 U	0.00E+00	130	3.39E-04	8.3 U	0.00E+00	27	6.90E-05	200	5.11E-04	8.3 U	0.00E+00	35	1.53E-04
2/25/2011		10071	3167	165	1300	4.44E-03	4.0 U	0.00E+00	45	1.14E-04	4.0 U	0.00E+00	25	6.20E-05	72	1.79E-04	4.0 U	0.00E+00	28	1.19E-04
3/18/2011		10573	3293	165	360	1.23E-03	1.3 U	0.00E+00	24	6.08E-05	1.3 U	0.00E+00	5.4	1.34E-05	35	8.68E-05	1.3 U	0.00E+00	13	5.51E-05
4/15/2011		11241	3460	160	160 J,B	5.29E-04	1.0 U	0.00E+00	17	4.17E-05	1.0 U	0.00E+00	2.8	6.73E-06	28	6.73E-05	1.0 U	0.00E+00	15	6.17E-05
5/19/2011		12061	3665	160	64	2.12E-04	1.2 U	0.00E+00	10	2.45E-05	1.2 U	0.00E+00	1.4	3.37E-06	12	2.89E-05	1.2 U	0.00E+00	9.6	3.95E-05
6/16/2011		12722	3830	170	160	5.63E-04	1.2 U	0.00E+00	280	7.30E-04	1.2 U	0.00E+00	2.5	6.39E-06	34	8.69E-05	1.2 U	0.00E+00	61	2.67E-04
7/15/2011		13417	4472	170	190	6.68E-04	1.2 U	0.00E+00	8.3	2.16E-05	1.2 U	0.00E+00	2.8	7.15E-06	23	5.88E-05	1.2 U	0.00E+00	22	9.62E-05
8/22/2011		14324	4775	170	1600	5.63E-03	4.3 U	0.00E+00	19	4.96E-05	4.3 U	0.00E+00	21	5.37E-05	130	3.32E-04	4.3 U	0.00E+00	39	1.70E-04
9/15/2011		14905	4968	170	800	2.81E-03	3.7 U	0.00E+00	9.5	2.48E-05	3.7 U	0.00E+00	12	3.07E-05	62	1.58E-04	3.7 U	0.00E+00	24	1.05E-04
10/14/2011		15598	5199	160	750	2.48E-03	3.0 U	0.00E+00	10	2.45E-05	3.0 U	0.00E+00	13	3.13E-05	37	8.90E-05	3.0 U	0.00E+00	15	6.17E-05
11/21/2011		16510	5503	170	380	1.34E-03	1.4 U	0.00E+00	6.6	1.72E-05	1.4 U	0.00E+00	5.6	1.43E-05	24	6.13E-05	1.4 U	0.00E+00	7.9	3.45E-05
12/14/2011		17010	5670	170	830	2.92E-03	3.5 U	0.00E+00	8.7	2.27E-05	3.5 U	0.00E+00	70	1.79E-04	33	8.43E-05	3.5 U	0.00E+00	6.9	3.02E-05
1/19/2012		17923	5974	170	800	2.81E-03	3.0 U	0.00E+00	12	3.13E-05	3.0 U	0.00E+00	13	3.32E-05	33	8.43E-05	3.0 U	0.00E+00	6.4	2.80E-05
2/15/2012		18566	6189	170	1600	5.63E-03	4.5 U	0.00E+00	22	5.74E-05	4.5 U	0.00E+00	260	6.64E-04	95	2.43E-04	4.5 U	0.00E+00	6.7	2.93E-05
3/15/2012		19262	6421	170	1600	5.63E-03	5.1 U	0.00E+00	28	7.30E-05	5.1 U	0.00E+00	22	5.62E-05	59	1.51E-04	5.1 U	0.00E+00	7.3	3.19E-05
4/19/2012		20102	6701	160	580	1.92E-03	1.8 U	0.00E+00	14	3.44E-05	1.8 U	0.00E+00	5.8	1.39E-05	23	5.53E-05	1.8 U	0.00E+00	11	4.53E-05
5/16/2012		20748	6916	160	300	9.93E-04	0.80 U	0.00E+00	9.3	2.28E-05	0.80 U	0.00E+00	3.7	8.90E-06	21	5.05E-05	0.80 U	0.00E+00	7.5	3.09E-05

See notes on last page.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/14/2009		181	60	140	1000	2.85E-03	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00
12/16/2009		229	76	150	550	1.68E-03	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00
1/5/2010		707	236	140	250	7.13E-04	150 U	0.00E+00	220	4.06E-04	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00
1/21/2010		1084	361	150	140	4.28E-04	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00
1/21/2010	Dup	1084	361	150	140	4.28E-04	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00
2/24/2010		1893	631	150	66	2.02E-04	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00
3/15/2010		2345	782	140	120	3.42E-04	51	6.92E-05	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00
4/14/2010		2804	935	150	190	5.81E-04	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00
5/13/2010		3495	1165	140	43	1.23E-04	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00
6/21/2010		4430	1477	108	55	1.21E-04	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00
7/21/2010		5058	1686	140	44	1.25E-04	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
8/23/2010		5784	1928	0	66	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
9/23/2010		6523	2174	145	50	1.48E-04	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00
10/22/2010		7219	2406	140	31	8.84E-05	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
11/15/2010		7794	2598	140	29	8.27E-05	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00
12/22/2010		8508	2777	150	21	6.42E-05	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
1/24/2011		9302	2975	170	17	5.89E-05	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00
2/25/2011		10071	3167	165	16	5.38E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3293	165	5.9	1.98E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.9	3.80E-06	1.3 U	0.00E+00
4/15/2011		11241	3460	160	7.7	2.51E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	2.6	5.04E-06	1.0 U	0.00E+00
5/19/2011		12061	3665	160	6.9	2.25E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.9	3.68E-06	1.2 U	0.00E+00
6/16/2011		12722	3830	170	9.8	3.39E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.6	3.29E-06	1.2 U	0.00E+00
7/15/2011		13417	4472	170	9.3	3.22E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
8/22/2011		14324	4775	170	21	7.27E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00
9/15/2011		14905	4968	170	14	4.85E-05	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	15 U	0.00E+00	4.1	8.44E-06	3.7 U	0.00E+00
10/14/2011		15598	5199	160	13	4.24E-05	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00
11/21/2011		16510	5503	170	9.2	3.19E-05	1.4 U	0.00E+00	1.4 UJ	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
12/14/2011		17010	5670	170	22	7.62E-05	3.5 U	0.00E+00	35 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	14 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00
1/19/2012		17923	5974	170	12	4.16E-05	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00
2/15/2012		18566	6189	170	24	8.31E-05	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00
3/15/2012		19262	6421	170	30	1.04E-04	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00
4/19/2012		20102	6701	160	19	6.19E-05	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	7.3 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00
5/16/2012		20748	6916	160	18	5.87E-05	0.80 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00	3.2 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00

See notes on last page.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/14/2009		181	60	140	270 U	0.00E+00	1600	3.69E-03	510	1.18E-03	1100 U	0.00E+00	270 U	0.00E+00	3.07E-01	18.51
12/16/2009		229	76	150	110 U	0.00E+00	540	1.33E-03	240	5.93E-04	590	7.97E-04	110 U	0.00E+00	1.65E-01	21.16
1/5/2010		707	236	140	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	590 U	0.00E+00	150 U	0.00E+00	1.29E-01	41.78
1/21/2010		1084	361	150	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	170 U	0.00E+00	42 U	0.00E+00	5.25E-02	48.37
1/21/2010	Dup	1084	361	150	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	170 U	0.00E+00	43 U	0.00E+00	5.59E-02	48.80
2/24/2010		1893	631	150	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	110 U	0.00E+00	28 U	0.00E+00	3.85E-02	58.76
3/15/2010		2345	782	140	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	83 U	0.00E+00	21 U	0.00E+00	6.53E-02	68.60
4/14/2010		2804	935	150	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	1.06E-01	84.81
5/13/2010		3495	1165	140	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	48 U	0.00E+00	12 U	0.00E+00	2.78E-02	91.21
6/21/2010		4430	1477	108	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	83 U	0.00E+00	21 U	0.00E+00	1.83E-02	96.92
7/21/2010		5058	1686	140	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	79 U	0.00E+00	20 U	0.00E+00	1.97E-02	101.05
8/23/2010		5784	1928	0	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	0.00E+00	101.05
9/23/2010		6523	2174	145	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	43 U	0.00E+00	11 U	0.00E+00	2.21E-02	106.49
10/22/2010		7219	2406	140	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	55 U	0.00E+00	14 U	0.00E+00	1.20E-02	109.27
11/15/2010		7794	2598	140	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	59 U	0.00E+00	15 U	0.00E+00	1.45E-02	112.05
12/22/2010		8508	2777	150	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	82 U	0.00E+00	20 U	0.00E+00	1.90E-02	115.44
1/24/2011		9302	2975	170	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	33 U	0.00E+00	8.3 U	0.00E+00	8.87E-03	117.20
2/25/2011		10071	3167	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	4.96E-03	118.15
3/18/2011		10573	3293	165	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	10	1.49E-05	5.4 U	0.00E+00	1.48E-03	118.34
4/15/2011		11241	3460	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	7.3 J,B	1.05E-05	4.1 U	0.00E+00	7.48E-04	118.47
5/19/2011		12061	3665	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	3.34E-04	118.53
6/16/2011		12722	3830	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	6.8	1.04E-05	4.7 U	0.00E+00	1.70E-03	118.81
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.7	1.18E-05	4.8 U	0.00E+00	8.96E-04	119.39
8/22/2011		14324	4775	170	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	17 U	0.00E+00	6.30E-03	121.30
9/15/2011		14905	4968	170	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	3.19E-03	121.91
10/14/2011		15598	5199	160	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	2.73E-03	122.54
11/21/2011		16510	5503	170	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 UJ	0.00E+00	5.5 U	0.00E+00	1.50E-03	123.00
12/14/2011		17010	5670	170	3.5 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	380 J	5.82E-04	58	1.10E-04	4.00E-03	123.67
1/19/2012		17923	5974	170	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	3.03E-03	124.59
2/15/2012		18566	6189	170	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	18 U	0.00E+00	6.70E-03	126.03
3/15/2012		19262	6421	170	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	6.04E-03	127.43
4/19/2012		20102	6701	160	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	7.3 U	0.00E+00	7.3 U	0.00E+00	2.13E-03	128.02
5/16/2012		20748	6916	160	0.80 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	1.16E-03	128.27

See notes on last page.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	1200	3.97E-03	4.7 U	0.00E+00	20	4.91E-05	4.7 U	0.00E+00	17	4.09E-05	8.4	2.02E-05	4.7 U	0.00E+00	26	1.07E-04
9/17/2012		21952	7317	160	5000	1.65E-02	16 U	0.00E+00	38	9.33E-05	16 U	0.00E+00	16 U	0.00E+00	130	3.13E-04	16 U	0.00E+00	100	4.11E-04
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	640	2.12E-03	2.1 U	0.00E+00	130	3.19E-04	2.1 U	0.00E+00	22	5.29E-05	18	4.33E-05	2.1 U	0.00E+00	18	7.40E-05
12/14/2012		22554	7518	170	1100	3.87E-03	4.6 U	0.00E+00	17 J	4.43E-05	4.6 U	0.00E+00	15	3.83E-05	70 J	1.79E-04	4.6 U	0.00E+00	7.1 J	3.10E-05
12/14/2012	Dup	22554	7518	170	1100 J	3.87E-03	4.5 U	0.00E+00	25 J	6.52E-05	4.5 U	0.00E+00	17 J	4.34E-05	36 J	9.20E-05	4.5 U	0.00E+00	49 J	2.14E-04
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		22556	7519	160	640	2.12E-03	2.4 U	0.00E+00	12	2.95E-05	2.4 U	0.00E+00	8	1.92E-05	23	5.53E-05	2.4 U	0.00E+00	15	6.17E-05
4/11/2013		23581	8134	160	180	5.96E-04	1.2 U	0.00E+00	7	1.72E-05	1.2 U	0.00E+00	2.8	6.73E-06	28	6.73E-05	1.2 U	0.00E+00	4.6	1.89E-05
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		23583	8135	160	200	6.62E-04	1.1 U	0.00E+00	5.5	1.35E-05	1.1 U	0.00E+00	3.3	7.94E-06	22	5.29E-05	1.1 U	0.00E+00	4.4	1.81E-05
7/15/2013		25160	9082	160	64	2.12E-04	1.2 U	0.00E+00	3.6	8.84E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.9	4.57E-06	1.2 U	0.00E+00	14	5.76E-05
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	9083	160	390	1.29E-03	1.7 U	0.00E+00	5.6	1.37E-05	1.7 U	0.00E+00	3	9.93E-06	2	4.81E-06	1.7 U	0.00E+00	21	8.64E-05
11/18/2013		26825	10081	160	350	1.16E-03	1.2 U	0.00E+00	8.2	2.01E-05	1.2 U	0.00E+00	6.6	2.18E-05	45	1.08E-04	1.2 U	0.00E+00	5.7	2.34E-05
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	10916	160	240	7.94E-04	1.2 U	0.00E+00	5	1.23E-05	1.2 U	0.00E+00	4.1	1.36E-05	16	3.85E-05	1.2 U	0.00E+00	18	7.40E-05
3/14/2014		29432	11645	160	72	2.38E-04	1.2 U	0.00E+00	8.7	2.14E-05	1.2 U	0.00E+00	2.4	7.94E-06	6.4	1.54E-05	1.2 U	0.00E+00	9.5	3.91E-05
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	11934	160	770	2.55E-03	2.3 U	0.00E+00	15	3.68E-05	2.3 U	0.00E+00	12	3.97E-05	86	2.07E-04	2.3 U	0.00E+00	6.9	2.84E-05
7/23/2014		31567	12926	160	130	4.30E-04	1.4 U	0.00E+00	5	1.23E-05	1.4 U	0.00E+00	1.4	4.63E-06	10	2.40E-05	1.4 U	0.00E+00	10	4.11E-05
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	13099	160	390	1.29E-03	2.4 U	0.00E+00	15	3.68E-05	2.4 U	0.00E+00	3	7.21E-06	8.4	2.02E-05	2.4 U	0.00E+00	17	6.99E-05
11/14/2014		33847	13948	160	180	5.96E-04	1.2 U	0.00E+00	5.2	1.28E-05	1.2 U	0.00E+00	3	9.93E-06	25	6.01E-05	1.2 U	0.00E+00	18	7.40E-05
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	13949	160	220	7.28E-04	1.1 U	0.00E+00	4.7	1.15E-05	1.1 U	0.00E+00	2.2	5.29E-06	18	4.33E-05	1.1 U	0.00E+00	11	4.52E-05
3/13/2015		35189	14750	160	200	6.62E-04	1.2 U	0.00E+00	4.4	1.08E-05	1.2 U	0.00E+00	3.1	1.03E-05	14	3.37E-05	1.2 U	0.00E+00	4.2	1.73E-05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

See notes on last page.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		21282	7094	160	25	8.15E-05	4.7 U	0.00E+00	47 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	19 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00
9/17/2012		21952	7317	160	180	5.87E-04	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	65 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		21959	7320	160	39	1.27E-04	2.1 U	0.00E+00	21 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	8.5 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00
12/14/2012		22554	7518	170	90 J	3.12E-04	4.6 U	0.00E+00	46 U	0.00E+00	4.6 U	0.00E+00	4.6 U	0.00E+00	18 U	0.00E+00	4.6 U	0.00E+00	4.6 U	0.00E+00
12/14/2012	Dup	22554	7518	170	52 J	1.80E-04	4.5 U	0.00E+00	45 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		22556	7519	160	36	1.17E-04	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.5 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
4/11/2013		23581	8134	160	15	4.89E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		23583	8135	160	13	4.24E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
7/15/2013		25160	9082	160	10	3.26E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		25162	9083	160	12	3.91E-05	1.7 U	0.00E+00	17 U	0.00E+00	1.7 U	0.00E+00	1.7 U	0.00E+00	6.8 U	0.00E+00	1.7 U	0.00E+00	1.7 U	0.00E+00
11/18/2013		26825	10081	160	14	4.56E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	10916	160	7.6	2.48E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/14/2014		29432	11645	160	8.1	2.64E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	11934	160	20	6.52E-05	2.3 U	0.00E+00	23 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00
7/23/2014		31567	12926	160	9	2.93E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.6 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	13099	160	14	4.56E-05	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.5 U	0.00E+00	3	5.81E-06	2.4 U	0.00E+00
11/14/2014		33847	13948	160	6.2	2.02E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	13949	160	6.0	1.96E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/13/2015		35189	14750	160	14	4.56E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

See notes on last page.

Table 4.3
Cell 3 - Phase 1 SVE System Data
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	4.7 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	47 U	0.00E+00	19 U	0.00E+00	4.27E-03	129.03
9/17/2012		21952	7317	160	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	160 U	0.00E+00	65 U	0.00E+00	1.80E-02	133.04
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		21959	7320	160	2.1 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	21 U	0.00E+00	8.5 U	0.00E+00	2.73E-03	133.05
12/14/2012		22554	7518	170	4.6 U	0.00E+00	4.6 U	0.00E+00	4.6 U	0.00E+00	46 U	0.00E+00	18 U	0.00E+00	4.47E-03	133.94
12/14/2012	Dup	22554	7518	170	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	45 U	0.00E+00	18 U	0.00E+00	4.46E-03	-
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/2013		22556	7519	160	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	24 U	0.00E+00	9.5 U	0.00E+00	2.40E-03	133.94
4/11/2013		23581	8134	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	7.55E-04	134.40
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/2013		23583	8135	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	7.97E-04	134.40
7/15/2013		25160	9082	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	3.15E-04	134.70
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013		25162	9083	160	1.7 U	0.00E+00	1.7 U	0.00E+00	1.7 U	0.00E+00	17 U	0.00E+00	6.8 U	0.00E+00	1.44E-03	134.70
11/18/2013		26825	10081	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.38E-03	136.08
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		28218	10916	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	9.57E-04	136.88
3/14/2014		29432	11645	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	3.48E-04	137.13
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		29914	11934	160	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	23 U	0.00E+00	9.3 U	0.00E+00	2.92E-03	137.98
7/23/2014		31567	12926	160	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.6 U	0.00E+00	5.42E-04	138.52
Pulse -off period July 23, 2014 to September 16, 2014																
9/16/2014		32432	13099	160	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	24 U	0.00E+00	9.5 U	0.00E+00	1.48E-03	138.77
11/14/2014		33847	13948	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12	1.73E-05	4.6 U	0.00E+00	7.90E-04	139.44
Pulse -off period November 14, 2014 to January 9, 2015																
1/9/2015		33855	13949	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	8.53E-04	139.44
3/13/2015		35189	14750	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	7.79E-04	140.07

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

See notes on last page.

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		222	222	500	150000	1.55E+00	600 U	0.00E+00	1800	1.38E-02	600 U	0.00E+00	860	6.46E-03	1400	1.05E-02	600 U	0.00E+00
3/18/2011		366	366	500	41000	4.24E-01	150 U	0.00E+00	1000	7.67E-03	150 U	0.00E+00	250	1.88E-03	460	3.46E-03	150 U	0.00E+00
3/18/2011	Dup	366	366	500	40000	4.14E-01	130 U	0.00E+00	1000	7.67E-03	130 U	0.00E+00	300	2.25E-03	480	3.61E-03	130 U	0.00E+00
3/25/2011		463	463	500	22000	2.28E-01	62 U	0.00E+00	980	7.52E-03	62 U	0.00E+00	87	6.54E-04	290	2.18E-03	62 U	0.00E+00
3/30/2011		558	558	500	25000	2.59E-01	68 U	0.00E+00	820	6.29E-03	68 U	0.00E+00	190	1.43E-03	290	2.18E-03	68 U	0.00E+00
4/8/2011		764	764	500	22000	2.28E-01	80 U	0.00E+00	1000	7.67E-03	80 U	0.00E+00	170	1.28E-03	340	2.56E-03	80 U	0.00E+00
4/15/2011		924	924	500	18000	1.86E-01	84 U	0.00E+00	930	7.13E-03	84 U	0.00E+00	110	8.27E-04	280	2.10E-03	84 U	0.00E+00
4/15/2011	Dup	924	924	500	16000 J	1.65E-01	60 U	0.00E+00	820 J	6.29E-03	60 U	0.00E+00	60 UJ	0.00E+00	260 J	1.95E-03	60 U	0.00E+00
5/19/2011		1685	1685	500	11000	1.14E-01	11 U	0.00E+00	640	4.91E-03	11 U	0.00E+00	100	7.52E-04	190	1.43E-03	11 U	0.00E+00
6/16/2011		2191	2191	420	10000	8.69E-02	11 U	0.00E+00	530	3.42E-03	11 U	0.00E+00	110 J	6.94E-04	160	1.01E-03	11 U	0.00E+00
6/16/2011	Dup	2191	2191	420	9600	8.34E-02	11 U	0.00E+00	510	3.29E-03	11 U	0.00E+00	110 J	6.94E-04	160	1.01E-03	11 U	0.00E+00
7/15/2011		2750	2750	420	7600	6.60E-02	24 U	0.00E+00	290	1.87E-03	24 U	0.00E+00	58	3.66E-04	79	4.99E-04	24 U	0.00E+00
8/22/2011		3133	3133	420	9000	7.82E-02	27 U	0.00E+00	410	2.64E-03	27 U	0.00E+00	92	5.81E-04	160	1.01E-03	27 U	0.00E+00
8/22/2011	Dup	3133	3133	420	9000	7.82E-02	22 U	0.00E+00	400	2.58E-03	22 U	0.00E+00	80	5.05E-04	150	9.47E-04	22 U	0.00E+00
9/15/2011		3630	3630	420	7000	6.08E-02	22 U	0.00E+00	250	1.61E-03	22 U	0.00E+00	55	3.47E-04	97	6.12E-04	22 U	0.00E+00
10/14/2011		4226	4226	420	4400	3.82E-02	19 U	0.00E+00	180	1.16E-03	19 U	0.00E+00	59	3.72E-04	60	3.79E-04	19 U	0.00E+00
11/21/2011		5019	5019	380	3700	2.91E-02	16 U	0.00E+00	170	9.91E-04	16 U	0.00E+00	320	1.83E-03	63	3.60E-04	16 U	0.00E+00
12/14/2011		5343	5343	260	4000	2.15E-02	19 U	0.00E+00	140	5.58E-04	19 U	0.00E+00	300	1.17E-03	55	2.15E-04	19 U	0.00E+00
1/19/2012		5993	5993	0	5200	0.00E+00	24 U	0.00E+00	160	0.00E+00	24 U	0.00E+00	58	0.00E+00	38	0.00E+00	24 U	0.00E+00
2/15/2012		6368	6368	260	4200	2.26E-02	19 U	0.00E+00	100	3.99E-04	19 U	0.00E+00	700	2.74E-03	53	2.07E-04	19 U	0.00E+00
3/15/2012		6946	6946	350	4000	2.90E-02	15 U	0.00E+00	120	6.44E-04	15 U	0.00E+00	38	2.00E-04	38	2.00E-04	15 U	0.00E+00
4/19/2012		7629	7629	380	5200	4.09E-02	16 U	0.00E+00	160	9.33E-04	16 U	0.00E+00	42	2.40E-04	43	2.46E-04	16 U	0.00E+00
5/16/2012		8143	8143	420	4100	3.56E-02	15 U	0.00E+00	110	7.09E-04	15 U	0.00E+00	43	2.71E-04	40	2.53E-04	15 U	0.00E+00

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		222	222	500	7200	9.26E-02	3900	3.97E-02	600 U	0.00E+00	600 U	0.00E+00	600 U	0.00E+00	600 U	0.00E+00	2400 U	0.00E+00	600 U	0.00E+00
3/18/2011		366	366	500	2900	3.73E-02	1600	1.63E-02	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	750 J	3.75E-03	150 U	0.00E+00
3/18/2011	Dup	366	366	500	3000	3.86E-02	1600	1.63E-02	130 UJ	0.00E+00	130 U	0.00E+00	130 U	0.00E+00	130 U	0.00E+00	1100 J	5.50E-03	130 U	0.00E+00
3/25/2011		463	463	500	3200	4.11E-02	970	9.88E-03	62 U	0.00E+00	61 NJ	4.02E-04	62 U	0.00E+00	62 U	0.00E+00	610	3.05E-03	62 U	0.00E+00
3/30/2011		558	558	500	2500	3.21E-02	1000	1.02E-02	68 U	0.00E+00	68 U	0.00E+00	68 U	0.00E+00	68 U	0.00E+00	470	2.35E-03	68 U	0.00E+00
4/8/2011		764	764	500	2400	3.09E-02	1000	1.02E-02	80 U	0.00E+00	80 U	0.00E+00	80 U	0.00E+00	80 U	0.00E+00	430	2.15E-03	80 U	0.00E+00
4/15/2011		924	924	500	1700	2.19E-02	920	9.37E-03	84 U	0.00E+00	84 U	0.00E+00	84 U	0.00E+00	84 U	0.00E+00	340 U	0.00E+00	84 U	0.00E+00
4/15/2011	Dup	924	924	500	1500 J	1.93E-02	830 J	8.45E-03	60 U	0.00E+00	60 U	0.00E+00	60 U	0.00E+00	60 U	0.00E+00	260 J	1.30E-03	60 U	0.00E+00
5/19/2011		1685	1685	500	1400	1.80E-02	530	5.40E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	67	3.35E-04	26	1.57E-04
6/16/2011		2191	2191	420	1000	1.08E-02	410	3.51E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	46 U	0.00E+00	14	7.12E-05
6/16/2011	Dup	2191	2191	420	960	1.04E-02	400	3.42E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	45 U	0.00E+00	12	6.10E-05
7/15/2011		2750	2750	420	570	6.16E-03	250	2.14E-03	24 U	0.00E+00	28	1.55E-04	24 U	0.00E+00	24 U	0.00E+00	95 U	0.00E+00	24 U	0.00E+00
8/22/2011		3133	3133	420	920	9.93E-03	380	3.25E-03	27 U	0.00E+00	27 U	0.00E+00	27 U	0.00E+00	27 U	0.00E+00	110 U	0.00E+00	27 U	0.00E+00
8/22/2011	Dup	3133	3133	420	940	1.02E-02	360	3.08E-03	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	90 U	0.00E+00	22 U	0.00E+00
9/15/2011		3630	3630	420	660	7.13E-03	270	2.31E-03	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	90 U	0.00E+00	22 U	0.00E+00
10/14/2011		4226	4226	420	390	4.21E-03	180	1.54E-03	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	77 U	0.00E+00	19 U	0.00E+00
11/21/2011		5019	5019	380	360	3.52E-03	180	1.39E-03	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	63 U	0.00E+00	16 U	0.00E+00
12/14/2011		5343	5343	260	360	2.41E-03	160	8.47E-04	19 U	0.00E+00	190 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	74 U	0.00E+00	19 U	0.00E+00
1/19/2012		5993	5993	0	320	0.00E+00	180	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	97 U	0.00E+00	24 U	0.00E+00
2/15/2012		6368	6368	260	280	1.87E-03	150	7.94E-04	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	78 U	0.00E+00	19 U	0.00E+00
3/15/2012		6946	6946	350	240	2.16E-03	140	9.98E-04	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	58 U	0.00E+00	15 U	0.00E+00
4/19/2012		7629	7629	380	400	3.91E-03	180	1.39E-03	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	62 U	0.00E+00	16 U	0.00E+00
5/16/2012		8143	8143	420	320	3.46E-03	150	1.28E-03	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	61 U	0.00E+00	15 U	0.00E+00

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
3/11/2011		222	222	500	600 U	0.00E+00	600 U	0.00E+00	710	5.84E-03	600 U	0.00E+00	2400 U	0.00E+00	2400 U	0.00E+00	1.72E+00	381.87
3/18/2011		366	366	500	620 J	4.43E-03	150 U	0.00E+00	240	1.98E-03	200	1.65E-03	1500 J	6.75E-03	590 U	0.00E+00	5.09E-01	453.50
3/18/2011	Dup	366	366	500	380 J	2.71E-03	130 U	0.00E+00	250	2.06E-03	240	1.98E-03	690 J	3.11E-03	540 U	0.00E+00	4.97E-01	453.50
3/25/2011		463	463	500	140	1.00E-03	62 U	0.00E+00	78	6.42E-04	67	5.51E-04	250 U	0.00E+00	250 U	0.00E+00	2.95E-01	482.07
3/30/2011		558	558	500	190	1.36E-03	68 U	0.00E+00	250	2.06E-03	140	1.15E-03	270 U	0.00E+00	270 U	0.00E+00	3.18E-01	512.25
4/8/2011		764	764	500	200	1.43E-03	120	9.88E-04	560	4.61E-03	260	2.14E-03	320 U	0.00E+00	320 U	0.00E+00	2.91E-01	572.27
4/15/2011		924	924	500	170	1.21E-03	110	9.05E-04	540	4.44E-03	260	2.14E-03	340 U	0.00E+00	340 U	0.00E+00	2.36E-01	610.05
4/15/2011	Dup	924	924	500	140 J	1.00E-03	99 J	8.15E-04	540 J	4.44E-03	230 J	1.89E-03	240 J,B	1.08E-03	240 U	0.00E+00	2.12E-01	610.05
5/19/2011		1685	1685	500	100	7.14E-04	140	1.15E-03	920	7.57E-03	420	3.46E-03	81	3.65E-04	43 U	0.00E+00	1.58E-01	730.28
6/16/2011		2191	2191	420	51	3.06E-04	83	5.74E-04	600	4.15E-03	280	1.94E-03	46 J,B	1.74E-04	46 U	0.00E+00	1.14E-01	753.86
6/16/2011	Dup	2191	2191	420	53	3.18E-04	78	5.39E-04	580	4.01E-03	270	1.87E-03	69 J,B	2.61E-04	45 U	0.00E+00	1.09E-01	785.55
7/15/2011		2750	2750	420	28	1.68E-04	41	2.83E-04	270	1.87E-03	120	8.30E-04	180	6.81E-04	95 U	0.00E+00	8.10E-02	830.85
8/22/2011		3133	3133	420	35 J	2.10E-04	59 J	4.08E-04	340	2.35E-03	140	9.68E-04	110 U	0.00E+00	110 U	0.00E+00	9.95E-02	868.97
8/22/2011	Dup	3133	3133	420	22 UJ	0.00E+00	30 J	2.07E-04	310	2.14E-03	130	8.99E-04	90 U	0.00E+00	90 U	0.00E+00	9.87E-02	868.65
9/15/2011		3630	3630	420	22 U	0.00E+00	31	2.14E-04	340	2.35E-03	130	8.99E-04	90 U	0.00E+00	90 U	0.00E+00	7.63E-02	906.88
10/14/2011		4226	4226	420	38	2.28E-04	19 U	0.00E+00	170	1.18E-03	70	4.84E-04	77 U	0.00E+00	77 U	0.00E+00	4.78E-02	935.35
11/21/2011		5019	5019	380	16 U	0.00E+00	17	1.06E-04	220	1.38E-03	100	6.25E-04	160 U	0.00E+00	63 U	0.00E+00	3.93E-02	966.50
12/14/2011		5343	5343	260	19 U	0.00E+00	19 U	0.00E+00	76	3.25E-04	55	2.35E-04	190 UJ	0.00E+00	74 U	0.00E+00	2.73E-02	975.34
1/19/2012		5993	5993	0	36	0.00E+00	24 U	0.00E+00	78	0.00E+00	50	0.00E+00	97 U	0.00E+00	97 U	0.00E+00	0.00E+00	975.34
2/15/2012		6368	6368	260	19 U	0.00E+00	19 U	0.00E+00	58	2.48E-04	40	1.71E-04	300	7.02E-04	78 U	0.00E+00	2.97E-02	986.48
3/15/2012		6946	6946	350	15 U	0.00E+00	15 U	0.00E+00	44	2.53E-04	31	1.79E-04	58 U	0.00E+00	58 U	0.00E+00	3.36E-02	1005.89
4/19/2012		7629	7629	380	16 U	0.00E+00	16 U	0.00E+00	48	3.00E-04	33	2.06E-04	62 U	0.00E+00	62 U	0.00E+00	4.81E-02	1038.74
5/16/2012		8143	8143	420	15 U	0.00E+00	15 U	0.00E+00	28	1.94E-04	23	1.59E-04	61 U	0.00E+00	61 U	0.00E+00	4.19E-02	1060.30

See notes on last page

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																		
8/14/2012		8546	8546	420	5000	4.34E-02	16 U	0.00E+00	98	6.32E-04	16 U	0.00E+00	66	4.17E-04	27	1.70E-04	16 U	0.00E+00
9/17/2012		9033	9033	470	3700	3.60E-02	15 U	0.00E+00	140	1.01E-03	15 U	0.00E+00	15 U	0.00E+00	26	1.84E-04	15 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																		
11/15/2012		9037	9037	420	4900 J	4.26E-02	28 U	0.00E+00	74 J	4.77E-04	28 U	0.00E+00	110 J	6.94E-04	29 J	1.83E-04	28 U	0.00E+00
11/15/2012	Dup	9037	9037	420	8700	7.56E-02	24 U	0.00E+00	200 J	1.29E-03	24 U	0.00E+00	220	1.39E-03	360 J	2.27E-03	24 U	0.00E+00
12/14/2012		9439	9439	150	500	1.55E-03	1.9 U	0.00E+00	14	3.22E-05	1.9 U	0.00E+00	6.8	1.53E-05	18	4.06E-05	1.9 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																		
2/26/2013		9439	9439	0	520	0.00E+00	2.2 U	0.00E+00	23	0.00E+00	2.2 U	0.00E+00	5.7	0.00E+00	28	0.00E+00	2.2 U	0.00E+00
4/11/2013		9876	9876	340	430	3.02E-03	1.8 U	0.00E+00	26	1.36E-04	1.8 U	0.00E+00	7.1	3.63E-05	28	1.43E-04	1.8 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																		
5/10/2013		9882	9882	340	270	1.90E-03	1.1 U	0.00E+00	23	1.20E-04	1.1 U	0.00E+00	3.4	1.74E-05	30	1.53E-04	1.1 U	0.00E+00
7/15/2013		10907	10907	340	100	7.03E-04	1.1 U	0.00E+00	13	6.78E-05	1.1 U	0.00E+00	1.7	8.69E-06	14	7.15E-05	1.1 U	0.00E+00
Pulse -off period July 15, 2013 to September 9, 2013																		
9/9/2013		10914	10914	340	170	1.20E-03	1.2 U	0.00E+00	17	8.87E-05	1.2 U	0.00E+00	2.2	1.12E-05	27	1.38E-04	1.2	6.13E-06
11/18/2013		11992	11992	260	330	1.77E-03	1.1 U	0.00E+00	7.9	3.15E-05	1.1 U	0.00E+00	5.2	2.03E-05	14	5.47E-05	1.1 U	0.00E+00
Pulse -off period November 18, 2013 to March 14, 2014																		
1/15/2014		11997	11997	320	200	1.32E-03	1.2 U	0.00E+00	5.5	2.70E-05	1.2 U	0.00E+00	3.3	1.59E-05	9.6	4.62E-05	1.2 U	0.00E+00
3/14/2014		12980	12980	180	430	1.60E-03	2.6 U	0.00E+00	6.2	1.71E-05	2.6 U	0.00E+00	8.2	2.22E-05	18	4.87E-05	2.6 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																		
5/15/2014		12986	12986	180	470	1.75E-03	1.1 U	0.00E+00	10	2.76E-05	1.1 U	0.00E+00	6.9	1.87E-05	22	5.95E-05	1.1 U	0.00E+00
7/23/2014		14627	14627	300	14	8.69E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.6	0.00E+00	1.3 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																		
9/16/2014		14634	14628	320	150	9.93E-04	1.2 U	0.00E+00	9	4.42E-05	1.2 U	0.00E+00	1.7	8.18E-06	15	7.21E-05	1.2 U	0.00E+00
11/14/2014		16008	16008	320	220	1.46E-03	0.96 U	0.00E+00	5	2.45E-05	0.96 U	0.00E+00	3.6	1.73E-05	8.9	4.28E-05	0.96 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																		
1/9/2015		16015	16015	260	150	8.07E-04	1.1 U	0.00E+00	4.1	1.64E-05	1.1 U	0.00E+00	2.2	8.60E-06	7.4	2.89E-05	1.1 U	0.00E+00
3/13/2015		17178	17178	220	190	8.65E-04	1.2 U	0.00E+00	4.9	1.65E-05	1.2 U	0.00E+00	3.1	1.03E-05	5.5	1.82E-05	1.2 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8546	8546	420	490	5.29E-03	180	1.54E-03	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	63 U	0.00E+00	16 U	0.00E+00
9/17/2012		9033	9033	470	410	4.95E-03	220	2.11E-03	15 U	0.00E+00	150 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	61 U	0.00E+00	15 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9037	9037	420	260 J	2.81E-03	150 J	1.28E-03	28 U	0.00E+00	280 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	110 U	0.00E+00	28 U	0.00E+00
11/15/2012	Dup	9037	9037	420	1200 J	1.30E-02	390 J	3.34E-03	24 U	0.00E+00	240 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	94 U	0.00E+00	24 U	0.00E+00
12/14/2012		9439	9439	150	62	2.39E-04	28	8.56E-05	1.9 U	0.00E+00	19 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	7.5 U	0.00E+00	1.9 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		9439	9439	0	130	0.00E+00	27	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	8.7 U	0.00E+00	2.2 U	0.00E+00
4/11/2013		9876	9876	340	98	8.57E-04	25	1.73E-04	1.8 U	0.00E+00	18 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	7.1 U	0.00E+00	1.8 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		9882	9882	340	120	1.05E-03	23	1.59E-04	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00
7/15/2013		10907	10907	340	180	1.57E-03	30	2.08E-04	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		10914	10914	340	350	3.06E-03	50	3.46E-04	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00
11/18/2013		11992	11992	260	50	3.34E-04	13	6.89E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.4 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 18, 2013 to March 14, 2014																				
1/15/2014		11997	11997	320	51	4.20E-04	11	7.17E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00
3/14/2014		12980	12980	180	7.8	3.61E-05	14	5.13E-05	2.6 U	0.00E+00	26 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	10 U	0.00E+00	2.6 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		12986	12986	180	38	1.76E-04	17	6.23E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00
7/23/2014		14627	14627	300	15	1.16E-04	2.4	1.47E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		14634	14628	320	200	1.65E-03	39	2.54E-04	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	2	7.75E-06
11/14/2014		16008	16008	320	69	5.68E-04	12	7.82E-05	0.96 U	0.00E+00	9.6 U	0.00E+00	0.96 U	0.00E+00	0.96 U	0.00E+00	3.8 U	0.00E+00	0.96 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		16015	16015	260	50	3.34E-04	11	5.83E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.4 U	0.00E+00	1.1 U	0.00E+00
3/13/2015		17178	17178	220	27	1.53E-04	6.9	3.09E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.4
Cell 4 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period June 1, 2012 to August 14, 2012																		
8/14/2012		8546	8546	420	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	160 U	0.00E+00	63 U	0.00E+00	5.15E-02	1081.05
9/17/2012		9033	9033	470	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	150 U	0.00E+00	61 U	0.00E+00	4.42E-02	1102.58
Pulse -off period September 17, 2012 to November 15, 2012																		
11/15/2012		9037	9037	420	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	280 U	0.00E+00	110 U	0.00E+00	4.80E-02	1102.78
11/15/2012	Dup	9037	9037	420	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	240 U	0.00E+00	94 U	0.00E+00	9.68E-02	1102.97
12/14/2012		9439	9439	150	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	19 U	0.00E+00	7.5 U	0.00E+00	1.96E-03	1103.57
Pulse -off period December 14, 2012 to February 26, 2013																		
2/26/2013		9439	9439	0	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	8.7 U	0.00E+00	0.00E+00	1103.57
4/11/2013		9876	9876	340	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	18 U	0.00E+00	7.1 U	0.00E+00	4.37E-03	1105.48
Pulse -off period April 11, 2013 to May 10, 2013																		
5/10/2013		9882	9882	340	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	3.40E-03	1105.50
7/15/2013		10907	10907	340	19	9.23E-05	1.2	6.72E-06	2.2	1.23E-05	1.1 U	0.00E+00	24	7.35E-05	4.9	1.86E-05	2.84E-03	1108.40
Pulse -off period July 15, 2013 to September 9, 2013																		
9/9/2013		10914	10914	340	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	14	4.29E-05	4.6 U	0.00E+00	4.89E-03	1108.44
11/18/2013		11992	11992	260	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	2.28E-03	1110.90
Pulse -off period November 18, 2013 to March 14, 2014																		
1/15/2014		11997	11997	320	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.90E-03	1110.91
3/14/2014		12980	12980	180	2.6 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	26 U	0.00E+00	10 U	0.00E+00	1.78E-03	1112.65
Pulse -off period March 14, 2014 to May 15, 2014																		
5/15/2014		12986	12986	180	3.9	1.00E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	2.10E-03	1112.67
7/23/2014		14627	14627	300	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	2.17E-04	1113.02
Pulse -off period July 23, 2014 to September 16, 2014																		
9/16/2014		14634	14628	320	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	21	6.05E-05	4.9 U	0.00E+00	3.09E-03	1113.03
11/14/2014		16008	16008	320	0.96 U	0.00E+00	0.96 U	0.00E+00	0.96 U	0.00E+00	0.96 U	0.00E+00	9.6 U	0.00E+00	3.8 U	0.00E+00	2.19E-03	1116.04
Pulse -off period November 14, 2014 to January 9, 2015																		
1/9/2015		16015	16015	260	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	1.25E-03	1116.05
3/13/2015		17178	17178	220	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.09E-03	1117.32

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		218	218	360	28000	2.08E-01	100 U	0.00E+00	2400	1.33E-02	100 U	0.00E+00	740	4.00E-03	10000	5.41E-02	100 U	0.00E+00	5900	5.46E-02
3/18/2011		362	362	360	13000	9.68E-02	52 U	0.00E+00	1100	6.08E-03	52 U	0.00E+00	280	1.52E-03	4800	2.60E-02	52 U	0.00E+00	6800	6.29E-02
3/25/2011		459	459	360	8900	6.63E-02	30 U	0.00E+00	650	3.59E-03	30 U	0.00E+00	200	1.08E-03	2600	1.41E-02	30 U	0.00E+00	5400	5.00E-02
3/30/2011		553	553	360	4600	3.43E-02	13 U	0.00E+00	310	1.71E-03	13 U	0.00E+00	100	5.41E-04	1300	7.03E-03	13 U	0.00E+00	4000	3.70E-02
4/8/2011		759	759	360	4600	3.43E-02	20 U	0.00E+00	330	1.82E-03	20 U	0.00E+00	95	5.14E-04	1100	5.95E-03	20 U	0.00E+00	5700	5.28E-02
4/15/2011		920	920	360	4600	3.43E-02	20 U	0.00E+00	370	2.04E-03	20 U	0.00E+00	69	3.73E-04	980	5.30E-03	20 U	0.00E+00	4600	4.26E-02
5/19/2011		1681	1681	330	2800	1.91E-02	12 U	0.00E+00	250	1.27E-03	12 U	0.00E+00	34	1.69E-04	730	3.62E-03	12 U	0.00E+00	7800	6.62E-02
6/16/2011		2187	2187	300	1800	1.12E-02	7.8 U	0.00E+00	170	7.82E-04	7.8 U	0.00E+00	23 J	1.04E-04	520	2.34E-03	7.8 U	0.00E+00	2400	1.85E-02
7/15/2011		2745	2745	220	2400	1.09E-02	7.6 U	0.00E+00	180	6.08E-04	7.6 U	0.00E+00	27	8.93E-05	840	2.78E-03	7.6 U	0.00E+00	2700	1.53E-02
8/22/2011		3129	3129	260	1700	9.14E-03	5.0 U	0.00E+00	150	5.98E-04	5.0 U	0.00E+00	21	8.21E-05	690	2.70E-03	5.0 U	0.00E+00	2000	1.34E-02
9/15/2011		3626	3626	220	1400	6.37E-03	4.5 U	0.00E+00	69	2.33E-04	4.5 U	0.00E+00	22	7.27E-05	380	1.26E-03	4.5 U	0.00E+00	1100	6.22E-03
10/14/2011		4222	4222	220	980	4.46E-03	3.9 U	0.00E+00	57	1.92E-04	3.9 U	0.00E+00	19	6.28E-05	310	1.03E-03	3.9 U	0.00E+00	760	4.30E-03
11/21/2011		5015	5015	200	690	2.85E-03	3.2 U	0.00E+00	55	1.69E-04	3.2 U	0.00E+00	45	1.35E-04	290	8.72E-04	3.2 U	0.00E+00	380	1.95E-03
11/21/2011	Dup	5015	5015	200	700	2.90E-03	3.1 U	0.00E+00	57	1.75E-04	3.1 U	0.00E+00	59	1.77E-04	300	9.02E-04	3.1 U	0.00E+00	390	2.01E-03
12/14/2011		5339	5339	200	890	3.68E-03	3.2 U	0.00E+00	62	1.90E-04	3.2 U	0.00E+00	64	1.92E-04	270	8.12E-04	3.2 U	0.00E+00	350	1.80E-03
1/19/2012		5958	5958	0	540	0.00E+00	2.8 U	0.00E+00	17	0.00E+00	2.8 U	0.00E+00	9.9	0.00E+00	69	0.00E+00	2.8 U	0.00E+00	78	0.00E+00
2/15/2012		6364	6364	0	990	0.00E+00	4.1 U	0.00E+00	24	0.00E+00	4.1 U	0.00E+00	100	0.00E+00	230	0.00E+00	4.1 U	0.00E+00	150	0.00E+00
3/15/2012		6942	6942	0	1100	0.00E+00	3.8 U	0.00E+00	43	0.00E+00	3.8 U	0.00E+00	20	0.00E+00	220	0.00E+00	3.8 U	0.00E+00	140	0.00E+00
4/19/2012		7625	7625	80	650	1.08E-03	2.4 U	0.00E+00	28	3.44E-05	2.4 U	0.00E+00	8.1	9.74E-06	130	1.56E-04	2.4 U	0.00E+00	100	2.06E-04
5/16/2012		8138	8138	200	650	2.69E-03	2.0 U	0.00E+00	28	8.59E-05	2.0 U	0.00E+00	8.9	2.68E-05	110	3.31E-04	2.0 U	0.00E+00	130	6.68E-04

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		218	218	360	1400	1.03E-02	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	350	1.80E-03
3/18/2011		362	362	360	1100	8.07E-03	52 U	0.00E+00	52 U	0.00E+00	52 U	0.00E+00	52 U	0.00E+00	210 U	0.00E+00	52 U	0.00E+00	120 JB	6.17E-04
3/25/2011		459	459	360	760	5.57E-03	30 U	0.00E+00	33	1.56E-04	30 U	0.00E+00	30 U	0.00E+00	120 U	0.00E+00	30 U	0.00E+00	73	3.75E-04
3/30/2011		553	553	360	420	3.08E-03	13 U	0.00E+00	13 U	0.00E+00	13 U	0.00E+00	13 U	0.00E+00	51 U	0.00E+00	13 U	0.00E+00	37	1.90E-04
4/8/2011		759	759	360	560	4.11E-03	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	57	2.93E-04
4/15/2011		920	920	360	560	4.11E-03	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	85	4.37E-04
5/19/2011		1681	1681	330	360	2.42E-03	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	47 U	0.00E+00	12 U	0.00E+00	120	5.66E-04
6/16/2011		2187	2187	300	180	1.10E-03	7.8 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	31 U	0.00E+00	12	4.36E-05	7.8 U	0.00E+00
7/15/2011		2745	2745	220	280	1.25E-03	7.6 U	0.00E+00	20	5.79E-05	7.6 U	0.00E+00	7.6 U	0.00E+00	30 U	0.00E+00	7.6 U	0.00E+00	49	1.54E-04
8/22/2011		3129	3129	260	160	8.47E-04	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	20 U	0.00E+00	7.6	2.39E-05	5.0 U	0.00E+00
9/15/2011		3626	3626	220	83	3.72E-04	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	5	1.33E-05	4.5 U	0.00E+00
10/14/2011		4222	4222	220	50	2.24E-04	3.9 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00	16 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00
11/21/2011		5015	5015	200	27	1.10E-04	3.2 U	0.00E+00	32 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	13 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00
11/21/2011	Dup	5015	5015	200	28	1.14E-04	3.1 U	0.00E+00	31 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00	12 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00
12/14/2011		5339	5339	200	24	9.78E-05	3.2 U	0.00E+00	32 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	13 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00
1/19/2012		5958	5958	0	10	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	11 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00
2/15/2012		6364	6364	0	19	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	16 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00
3/15/2012		6942	6942	0	25	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	15 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00
4/19/2012		7625	7625	80	19	3.10E-05	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
5/16/2012		8138	8138	200	24	9.78E-05	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	7.9 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00

See notes on last page.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
3/11/2011		218	218	360	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	420 U	0.00E+00	3.47E-01	75.54
3/18/2011		362	362	360	52 U	0.00E+00	59	3.50E-04	110	6.52E-04	210 U	0.00E+00	210 U	0.00E+00	2.03E-01	104.77
3/25/2011		459	459	360	30 U	0.00E+00	30 U	0.00E+00	47	2.79E-04	130	4.21E-04	120 U	0.00E+00	1.42E-01	118.53
3/30/2011		553	553	360	16	9.48E-05	23	1.36E-04	46	2.73E-04	99	3.21E-04	51 U	0.00E+00	8.47E-02	126.48
4/8/2011		759	759	360	38	2.25E-04	84	4.98E-04	120	7.11E-04	81 U	0.00E+00	81 U	0.00E+00	1.01E-01	147.32
4/15/2011		920	920	360	45	2.67E-04	160	9.48E-04	140	8.30E-04	180 J,B	5.83E-04	81 U	0.00E+00	9.17E-02	162.08
5/19/2011		1681	1681	330	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	360	1.07E-03	47 U	0.00E+00	9.44E-02	233.92
6/16/2011		2187	2187	300	15	7.41E-05	54	2.67E-04	64	3.16E-04	69 J,B	1.86E-04	31 U	0.00E+00	3.49E-02	251.58
7/15/2011		2745	2745	220	13	4.71E-05	120	4.35E-04	140	5.07E-04	94	1.86E-04	30 U	0.00E+00	3.23E-02	269.61
8/22/2011		3129	3129	260	5.9	2.52E-05	19	8.13E-05	29	1.24E-04	62 J,B	1.45E-04	20 U	0.00E+00	2.71E-02	280.03
9/15/2011		3626	3626	220	4.5 U	0.00E+00	14	5.07E-05	17	6.16E-05	49	9.71E-05	18 U	0.00E+00	1.47E-02	287.36
10/14/2011		4222	4222	220	3.9 U	0.00E+00	7.1	2.57E-05	10	3.62E-05	16 U	0.00E+00	16 U	0.00E+00	1.03E-02	293.51
11/21/2011		5015	5015	200	3.2 U	0.00E+00	4.5	1.48E-05	6.1	2.01E-05	36	6.48E-05	13 U	0.00E+00	6.19E-03	298.43
11/21/2011	Dup	5015	5015	200	3.1 U	0.00E+00	4.2	1.38E-05	6.2	2.04E-05	31 U	0.00E+00	12 U	0.00E+00	6.30E-03	298.51
12/14/2011		5339	5339	200	3.2 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	32 UJ	0.00E+00	13 U	0.00E+00	6.77E-03	300.62
1/19/2012		5958	5958	0	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	0.00E+00	300.62
2/15/2012		6364	6364	0	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	0.00E+00	300.62
3/15/2012		6942	6942	0	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	0.00E+00	300.62
4/19/2012		7625	7625	80	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.4 U	0.00E+00	9.4 U	0.00E+00	1.51E-03	301.65
5/16/2012		8138	8138	200	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	7.9 U	0.00E+00	7.9 U	0.00E+00	3.90E-03	303.65

See notes on last page.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8541	8541	360	710	3.23E-03	2.5 U	0.00E+00	44	1.49E-04	2.5 U	0.00E+00	11	3.64E-05	110	3.64E-04	2.5 U	0.00E+00	540	3.05E-03
9/17/2012		9029	9029	360	2000	8.27E-03	8.0 U	0.00E+00	29	8.90E-05	8.0 U	0.00E+00	19	5.71E-05	42	1.26E-04	8.0 U	0.00E+00	190	9.77E-04
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9033	9033	220	1200	5.46E-03	4.4 U	0.00E+00	19	6.41E-05	4.4 U	0.00E+00	33	1.09E-04	8	2.65E-05	4.4 U	0.00E+00	55	3.11E-04
12/14/2012		9436	9436	200	1200	4.96E-03	4.8 U	0.00E+00	35	1.07E-04	4.8 U	0.00E+00	16	4.81E-05	37	1.11E-04	4.8 U	0.00E+00	61	3.14E-04
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		9511	9511	440	70	6.37E-04	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00
4/11/2013		9952	9952	420	1600	1.39E-02	8	6.95E-05	160	1.03E-03	5.1 U	0.00E+00	20	1.26E-04	88	5.56E-04	5.1 U	0.00E+00	320	3.46E-03
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		9958	9958	420	1200	1.04E-02	5.4 U	0.00E+00	86	5.54E-04	5.4 U	0.00E+00	12	7.57E-05	45	2.84E-04	5.4 U	0.00E+00	220	2.38E-03
7/15/2013		10984	10984	360	1600	1.19E-02	12	8.93E-05	100	5.52E-04	4.7 U	0.00E+00	25	1.35E-04	38	2.06E-04	4.7 U	0.00E+00	310	2.87E-03
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		10991	10991	380	810	6.37E-03	4 U	0.00E+00	30	1.75E-04	4 U	0.00E+00	6.3	3.60E-05	16	9.14E-05	4 U	0.00E+00	170	1.66E-03
11/18/2013		12069	12069	380	1600	1.26E-02	7.6 U	0.00E+00	87	5.07E-04	7.6 U	0.00E+00	23	1.31E-04	50	2.86E-04	7.6 U	0.00E+00	180	1.76E-03
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		12074	12074	380	950	7.47E-03	3.5 U	0.00E+00	24	1.40E-04	3.5 U	0.00E+00	10	5.71E-05	23	1.31E-04	3.5 U	0.00E+00	82	8.01E-04
3/14/2014		13057	13057	380	1400	1.10E-02	7.8 U	0.00E+00	32	1.87E-04	7.8 U	0.00E+00	24	1.37E-04	88	5.03E-04	7.8 U	0.00E+00	30	2.93E-04
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		13063	13063	300	1000	6.20E-03	3.0 U	0.00E+00	20	9.21E-05	3.0 U	0.00E+00	14	6.31E-05	65	2.93E-04	3.0 U	0.00E+00	71	5.48E-04
7/23/2014		14714	14714	100	670	1.39E-03	2.2 U	0.00E+00	19	2.92E-05	2.2 U	0.00E+00	9.6	1.44E-05	12	1.80E-05	2.2 U	0.00E+00	47	1.21E-04
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		14721	14715	120	470	1.17E-03	2.3 U	0.00E+00	10	1.84E-05	2.3 U	0.00E+00	4.8	8.66E-06	6.9	1.24E-05	2.3 U	0.00E+00	79	2.44E-04
11/14/2014		16095	16095	290	660	3.96E-03	2.4 U	0.00E+00	15	6.67E-05	2.4 U	0.00E+00	8.5	3.70E-05	19	8.28E-05	2.4 U	0.00E+00	32	2.39E-04
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		16102	16102	180	360	1.34E-03	1.1 U	0.00E+00	4.6	1.27E-05	1.1 U	0.00E+00	4.0	1.08E-05	7.2	1.95E-05	1.1 U	0.00E+00	12	5.55E-05
3/13/2015		17322	17322	260	660	3.55E-03	2.4 U	0.00E+00	22	8.78E-05	2.4 U	0.00E+00	8.0	3.13E-05	16	6.25E-05	2.4 U	0.00E+00	29	1.94E-04

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library of Medicine)
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8541	8541	360	64	2.87E-04	2.5 U	0.00E+00	25 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00	9.9 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00
9/17/2012		9029	9029	360	71	2.89E-04	8.0 U	0.00E+00	80 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00	32 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9033	9033	220	39	1.75E-04	4.4 U	0.00E+00	44 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00	18 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00
12/14/2012		9436	9436	200	60	2.44E-04	4.8 U	0.00E+00	48 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	19 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		9511	9511	440	6.8 U	0.00E+00	6.8 U	0.00E+00	68 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	27 U	0.00E+00	12	6.39E-05	6.8 U	0.00E+00
4/11/2013		9952	9952	420	110	9.41E-04	5.1 U	0.00E+00	51 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		9958	9958	420	79	6.76E-04	5.4 U	0.00E+00	54 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00	22 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00
7/15/2013		10984	10984	360	100	7.33E-04	4.7 U	0.00E+00	47 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	19 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00
Pulse -off period July 15, 2013 to September 9, 2013																				
9/9/2013		10991	10991	380	62	4.80E-04	4 U	0.00E+00	40 U	0.00E+00	4 U	0.00E+00	4 U	0.00E+00	16 U	0.00E+00	4 U	0.00E+00	4 U	0.00E+00
11/18/2013		12069	12069	380	71	5.50E-04	7.6 U	0.00E+00	76 U	0.00E+00	7.6 U	0.00E+00	7.6 U	0.00E+00	31 U	0.00E+00	7.6 U	0.00E+00	7.6 U	0.00E+00
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		12074	12074	380	37	2.86E-04	3.5 U	0.00E+00	35 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	14 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00
3/14/2014		13057	13057	380	41	3.17E-04	7.8 U	0.00E+00	78 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	31 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		13063	13063	300	33	2.02E-04	3.0 U	0.00E+00	30 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00
7/23/2014		14714	14714	100	14	2.85E-05	2.2 U	0.00E+00	22 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	9.0 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		14721	14715	120	22	5.38E-05	2.3 U	0.00E+00	23 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.4 U	0.00E+00	6.4	9.30E-06	2.3 U	0.00E+00
11/14/2014		16095	16095	290	11	6.50E-05	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.7 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		16102	16102	180	4.9	1.80E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/13/2015		17322	17322	260	12	6.36E-05	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.5 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library of Medicine)
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Data
March 2011 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		8541	8541	360	2.5 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00	25 U	0.00E+00	9.9 U	0.00E+00	7.12E-03	306.52
9/17/2012		9029	9029	360	8.0 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00	80 U	0.00E+00	32 U	0.00E+00	9.81E-03	311.31
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		9033	9033	220	4.4 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00	44 U	0.00E+00	18 U	0.00E+00	6.15E-03	311.34
12/14/2012		9436	9436	200	4.8 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	48 U	0.00E+00	19 U	0.00E+00	5.79E-03	313.67
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/2013		9511	9511	440	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	68 U	0.00E+00	27 U	0.00E+00	7.01E-04	313.72
4/11/2013		9952	9952	420	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	51 U	0.00E+00	20 U	0.00E+00	2.01E-02	322.58
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/2013		9958	9958	420	5.4 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00	54 U	0.00E+00	22 U	0.00E+00	1.44E-02	322.66
7/15/2013		10984	10984	360	4.7 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	47 U	0.00E+00	19 U	0.00E+00	1.65E-02	339.59
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013		10991	10991	380	4 U	0.00E+00	4 U	0.00E+00	4 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	8.81E-03	339.65
11/18/2013		12069	12069	380	7.6 U	0.00E+00	7.6 U	0.00E+00	7.6 U	0.00E+00	76 U	0.00E+00	31 U	0.00E+00	1.58E-02	356.69
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		12074	12074	380	3.5 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	35 U	0.00E+00	14 U	0.00E+00	8.88E-03	356.73
3/14/2014		13057	13057	380	7.8 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	78 U	0.00E+00	31 U	0.00E+00	1.24E-02	368.96
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		13063	13063	300	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	30 U	0.00E+00	12 U	0.00E+00	7.40E-03	369.01
7/23/2014		14714	14714	100	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	9.0 U	0.00E+00	1.60E-03	371.61
Pulse -off period July 23, 2014 to September 16, 2014																
9/16/2014		14721	14715	120	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	32	3.46E-05	9.4 U	0.00E+00	1.55E-03	371.61
11/14/2014		16095	16095	290	2.4 U	0.00E+00	2.4 U	0.00E+00	2.8	1.34E-05	24 U	0.00E+00	9.7 U	0.00E+00	4.46E-03	377.77
Pulse -off period November 14, 2014 to January 9, 2015																
1/9/2015		16102	16102	180	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	1.46E-03	377.78
3/13/2015		17322	17322	260	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	24 U	0.00E+00	9.5 U	0.00E+00	3.99E-03	382.64

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW	molecular weight (values from the U.S. National Library of Medicine)
SCFM	standard cubic feet per minute
J	Indicates estimated value.
B	The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

See notes on last page.

Table 4.6
VOC Mass Removal - Phase 1 and Phase 2 AS/SVE Systems
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Date	Cell 1			Cell 2			Cell 3			Cell 4			Cell 5			Total Cumulative Mass Removal (lb)
	Total Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012	7094	0.00	47.54	7094	0.00	116.20	7094	0.00	129.03	8546	0.05	1081.05	8541	0.01	306.52	1680.34
9/17/2012	7317	0.00	47.99	7317	0.00	116.40	7317	0.02	133.04	9033	0.04	1102.58	9029	0.01	311.31	1711.33
Pulse -off period September 17, 2012 to November 14, 2012																
11/15/2012	7320	0.00	48.00	7320	0.00	116.40	7320	0.00	133.05	9037	0.05	1102.78	9033	0.01	311.34	1711.56
12/14/2012	7518	0.00	48.24	7518	0.00	116.86	7518	0.00	133.94	9439	0.00	1103.57	9436	0.01	313.67	1716.27
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/2013	7518	0.00	48.19	7518	0.00	116.86	7519	0.00	133.94	9439	0.00	1103.57	9511	0.00	313.72	1716.32
4/11/2013	7723	0.00	48.32	7723	0.00	116.97	8134	0.00	134.40	9876	0.00	1105.48	9952	0.02	322.58	1727.74
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/2013	7724	0.00	48.32	7724	0.00	116.97	8135	0.00	134.40	9882	0.00	1105.50	9958	0.01	322.66	1727.85
7/15/2013	8039	0.00	48.86	8039	0.00	117.21	9082	0.00	134.70	10907	0.00	1108.40	10984	0.02	339.59	1748.76
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013	8040	0.00	48.86	8040	0.00	117.21	9083	0.00	134.70	10914	0.00	1108.44	10991	0.01	339.65	1748.86
11/18/2013	8372	0.00	49.15	8372	0.00	117.30	10081	0.00	136.08	11992	0.00	1110.90	12069	0.02	356.69	1770.12
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014	8651	0.00	49.36	8651	0.00	117.51	10916	0.00	136.88	11997	0.00	1110.91	12074	0.01	356.73	1771.39
3/14/2014	8894	0.00	49.48	8894	0.00	117.52	11645	0.00	137.13	12980	0.00	1112.65	13057	0.01	368.96	1785.75
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014	8990	0.00	49.54	8990	0.00	117.64	11934	0.00	137.98	12986	0.00	1112.67	13063	0.01	369.01	1786.83
7/23/2014	9321	0.00	50.01	9321	0.00	117.79	12926	0.00	138.52	14627	0.00	1113.02	14714	0.00	371.61	1790.95
Pulse -off period July 23, 2014 to September 16, 2014																
9/16/2014	9494	0.00	50.32	9494	0.00	118.05	13099	0.00	138.77	14628	0.00	1113.03	14715	0.00	371.61	1791.78
11/14/2014	9777	0.00	50.45	9777	0.00	118.12	13948	0.00	139.44	16008	0.00	1116.04	16095	0.00	377.77	1801.82
Pulse -off period November 14, 2014 to January 9, 2015																
1/9/2015	9778	0.00	50.45	9778	0.00	118.12	13949	0.00	139.44	16015	0.00	1116.05	16102	0.00	377.78	1801.84
3/13/2015	10045	0.00	50.56	10045	0.00	118.15	14750	0.00	140.07	17178	0.00	1117.32	17322	0.00	382.64	1808.74

Table 4.6
VOC Mass Removal - Phase 1 and Phase 2 AS/SVE Systems
December 2009 - March 2015
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

Date	Cell 1			Cell 2			Cell 3			Cell 4			Cell 5			Total Cumulative Mass Removal (lb)
	Total Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	
12/3/2009	0						SYSTEM STARTUP									0.00
12/10/2009	53	0.22	11.91													11.91
12/11/2009				59	0.25	15.05										26.97
12/14/2009							60	0.31	18.51							45.48
12/15/2009				68	0.16	16.48										46.91
12/16/2009							76	0.17	21.16							49.55
12/22/2009	124	0.05	15.23													52.86
12/29/2009				180	0.12	29.76										66.15
1/5/2010							236	0.13	41.78							86.77
1/13/2010				301	0.05	35.75										92.75
1/21/2010							361	0.05	48.37							99.35
1/27/2010				408	0.06	42.68										106.27
2/24/2010	631	0.01	20.06	631	0.04	51.44	631	0.04	58.76							130.26
3/15/2010	782	0.01	22.02	782	0.09	64.40	782	0.07	68.60							155.02
4/14/2010	935	0.02	25.22	935	0.04	70.89	935	0.11	84.81							180.92
5/13/2010	1165	0.01	27.75	1165	0.04	79.74	1165	0.03	91.21							198.69
6/21/2010	1477	0.01	30.20	1477	0.02	86.90	1477	0.02	96.92							214.02
7/21/2010	1686	0.01	32.52	1686	0.02	91.24	1686	0.02	101.05							224.81
8/23/2010	1928	0.00	32.52	1928	0.00	91.24	1928	0.00	101.05							224.81
9/23/2010	2174	0.01	34.49	2174	0.02	96.27	2174	0.02	106.49							237.25
10/22/2010	2406	0.01	35.86	2406	0.01	98.85	2406	0.01	109.27							243.98
11/15/2010	2598	0.01	36.96	2598	0.01	101.41	2598	0.01	112.05							250.42
12/22/2010	2777	0.01	38.22	2955	0.02	107.99	2777	0.02	115.44							261.65
1/24/2011	2975	0.01	39.47	3352	0.01	110.39	2975	0.01	117.20							267.06
2/25/2011	3167	0.01	40.53	3737	0.01	114.08	3167	0.00	118.15							272.76
3/11/2011										222	1.72	381.87	218	0.35	75.54	730.17
3/18/2011	3293	0.01	41.27	3988	0.00	114.57	3293	0.00	118.34	366	0.51	453.50	362	0.20	104.77	832.46
3/25/2011										463	0.29	482.07	459	0.14	118.53	874.78
3/30/2011										558	0.32	512.25	553	0.08	126.48	912.92
4/8/2011										764	0.29	572.27	759	0.10	147.32	993.77
4/15/2011	3460	0.01	42.15	4322	0.00	115.07	3460	0.00	118.47	924	0.24	610.05	920	0.09	162.08	1047.81
5/19/2011	3665	0.00	42.87	4732	0.00	115.31	3665	0.00	118.53	1685	0.16	730.28	1681	0.09	233.92	1240.92
6/16/2011	3830	0.00	43.39	5062	0.00	115.55	3830	0.00	118.81	2191	0.11	753.86	2187	0.03	251.58	1283.20
7/15/2011	4472	0.00	44.96	4472	0.00	115.18	4472	0.00	119.39	2750	0.08	830.85	2745	0.03	269.61	1380.36
8/22/2011	4775	0.00	45.59	4775	0.00	115.40	4775	0.01	121.30	3133	0.10	868.97	3129	0.03	280.03	1431.44
9/15/2011	4968	0.00	45.93	4968	0.00	115.51	4968	0.00	121.91	3630	0.08	906.88	3626	0.01	287.36	1477.64
10/14/2011	5199	0.00	46.20	5199	0.00	115.57	5199	0.00	122.54	4226	0.05	935.35	4222	0.01	293.51	1513.18
11/21/2011	5503	0.00	46.43	5503	0.00	115.62	5503	0.00	123.00	5019	0.04	966.50	5015	0.01	298.43	1549.98
12/14/2011	5670	0.00	46.53	5670	0.00	115.65	5670	0.00	123.67	5343	0.03	975.34	5339	0.01	300.62	1561.80
1/19/2012	5974	0.00	46.69	5974	0.00	115.71	5974	0.00	124.59	5993	0.00	975.34	5958	0.00	300.62	1562.94
2/15/2012	6189	0.00	46.80	6189	0.00	115.74	6189	0.01	126.03	6368	0.03	986.48	6364	0.00	300.62	1575.67
3/15/2012	6421	0.00	46.89	6421	0.00	115.79	6421	0.01	127.43	6946	0.03	1005.89	6942	0.00	300.62	1596.62
4/19/2012	6701	0.00	47.04	6701	0.00	115.84	6701	0.00	128.02	7629	0.05	1038.74	7625	0.00	301.65	1631.30
5/16/2012	6916	0.00	47.18	6916	0.00	115.88	6916	0.00	128.27	8143	0.04	1060.30	8138	0.00	303.65	1655.28

Table 5

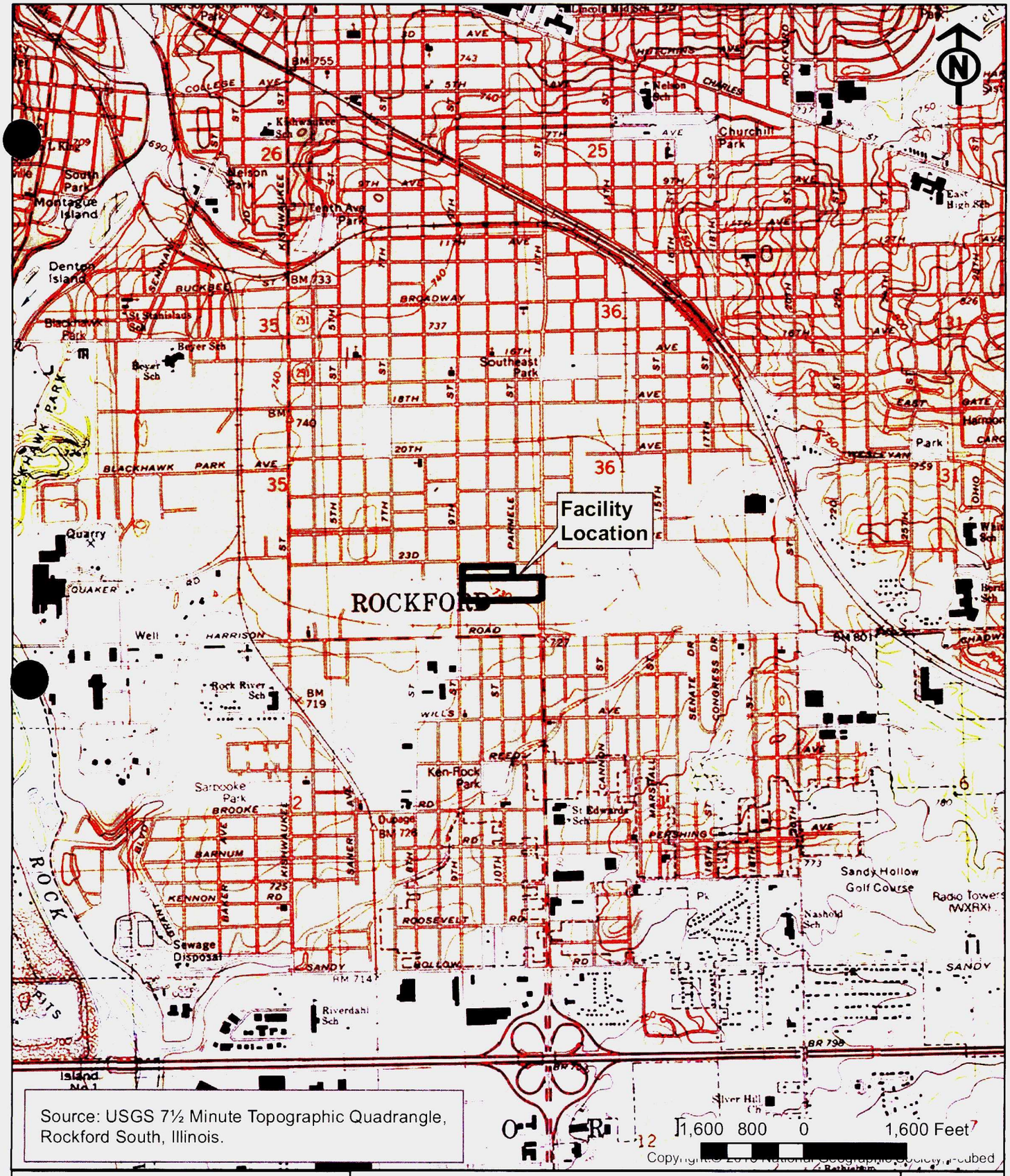
Systems Moisture Separator Tank Effluent VOC Results
UTC Aerospace Systems
Plants 1/2 Facility
Rockford, Illinois

				Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
			Preliminary Remediation Goals (PRG)[A]	0.005[A]	0.005[A]	0.007[b,c]	0.7[A]	0.005[A]	0.07[c,A]	0.1[c,A]	0.2[c,A]	0.005[A]	0.7[A]	0.005[A]	1.0[A]	0.002[A]
Cell	Sample ID	Sample Date	Sample Type	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Cell 5	HS SER-MSCELL5-031315	13-Mar-15		0.00063 J	0.0020 U	**0.0015**	**0.0016**	0.0010 U	**0.0015**	0.0010 U	**0.0198**	0.0010 U	0.0010 U	**0.0011**	0.0010 U	0.0010 U
	Trip Blank - 01	13-Mar-15	Trip Blank	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U

Notes:

PRG	Preliminary Remediation Goals (PRGs) from the Record of Decision (ROD)
A	Class 1 - Groundwater Remediation Objectives
0.03 U	The analyte was not detected above the laboratory estimated quantitation limit.
mg/L	milligrams per liter
15.2	Concentration was detected but did not exceed applicable standards.
J	Indicates estimated value.
b,c	Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change. Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.
c	Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.

Figures



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Facility Location Map
Area 9/10 Remedial Action
Southeast Rockford Groundwater
Contamination Superfund Site
Rockford, IL

FIGURE NUMBER	
1	

DRAWN BY:	DATE:	PROJECT NUMBER:	SHEET NUMBER:
JG	04/22/15	60339110.4212	1 of 1

Path: U:\Cad_Drive_New\UTC\60288803 UTC Rockford SER 9-10\Q1 2015\GIS\Site Location Map.mxd

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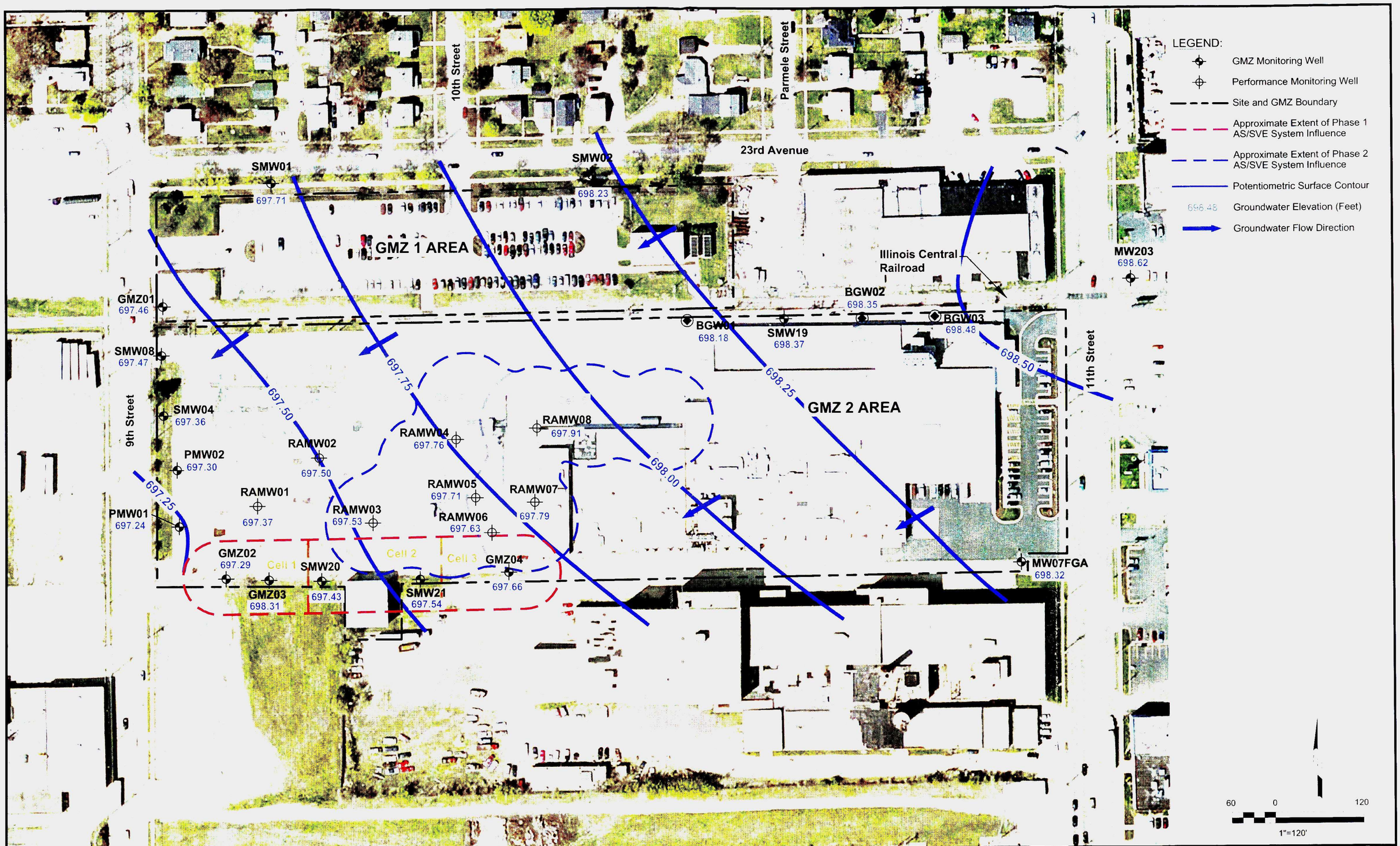
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60339110.4212

GMZ / PERFORMANCE WELL NETWORK



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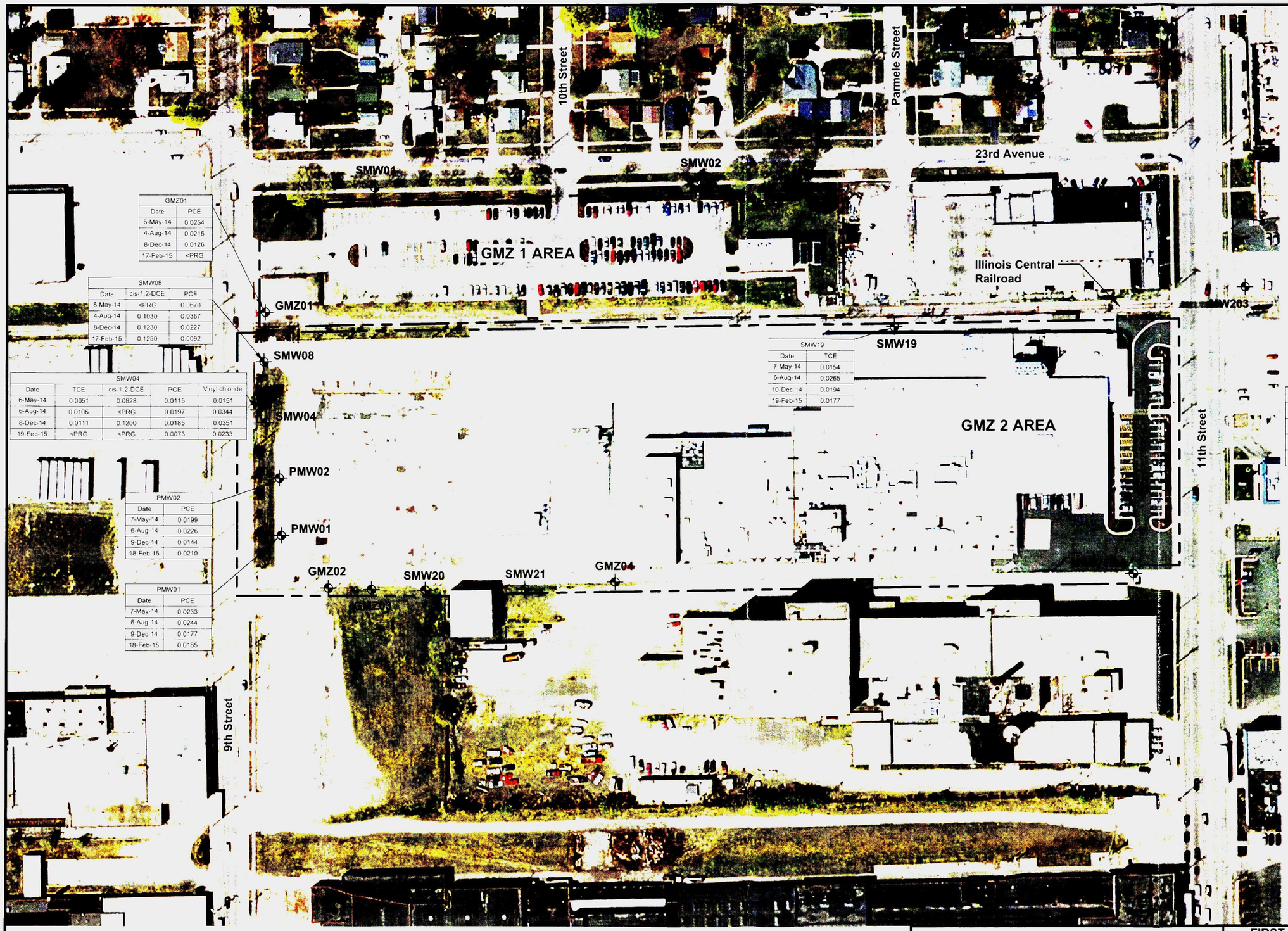
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60339110.4212

FIRST QUARTER 2015
POTENTIOMETRIC SURFACE MAP



GMZ01	
Date	PCE
6-May-14	0.0254
4-Aug-14	0.0215
8-Dec-14	0.0126
17-Feb-15	<PRG

SMW08		
Date	cis-1,2-DCE	PCE
6-May-14	<PRG	0.0670
4-Aug-14	0.1030	0.0367
8-Dec-14	0.1230	0.0227
17-Feb-15	0.1250	0.0092

SMW04				
Date	TCE	cis-1,2-DCE	PCE	Vinyl chloride
6-May-14	0.0051	0.0828	0.0115	0.0151
6-Aug-14	0.0106	<PRG	0.0197	0.0344
8-Dec-14	0.0111	0.1200	0.0185	0.0351
19-Feb-15	<PRG	<PRG	0.0073	0.0233

PMW02	
Date	PCE
7-May-14	0.0199
6-Aug-14	0.0226
9-Dec-14	0.0144
18-Feb-15	0.0210

PMW01	
Date	PCE
7-May-14	0.0233
6-Aug-14	0.0244
9-Dec-14	0.0177
18-Feb-15	0.0185

SMW19	
Date	TCE
7-May-14	0.0154
6-Aug-14	0.0265
10-Dec-14	0.0194
19-Feb-15	0.0177

LEGEND:

GMZ Monitoring Well

Site and GMZ Boundary

NOTES:

1. Values are listed only for those wells in which a Volatile Organic Compound (VOC) was identified above the Preliminary Remediation Goal (PRG) for the previous four events.

Preliminary Remediation Goals (PRG)	
Trichloroethene (TCE)	0.005 mg/L
cis-1,2-Dichloroethene (cis-1,2 DCE)	0.07 mg/L
Tetrachloroethene (PCE)	0.005 mg/L
Vinyl chloride	0.002 mg/L

65 0 130

1"=130'

AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60339110.4212

FIRST QUARTER 2015 ROLLING 12 MONTH GMZ WELL VOC ANALYTICAL RESULTS EXCEEDING THE PRG

LEGEND:

- GMZ Monitoring Wells
- Site and GMZ Boundary
- PCE
- TCE
- PRG

NOTES:

1. Analytes not detected above the Laboratory estimated quantitation limit are expressed graphically as one half the reporting limit.

Preliminary Remediation Goal (PRG)

Trichloroethene (TCE)	0.005 (mg/L)
Tetrachloroethene (PCE)	0.005 (mg/L)

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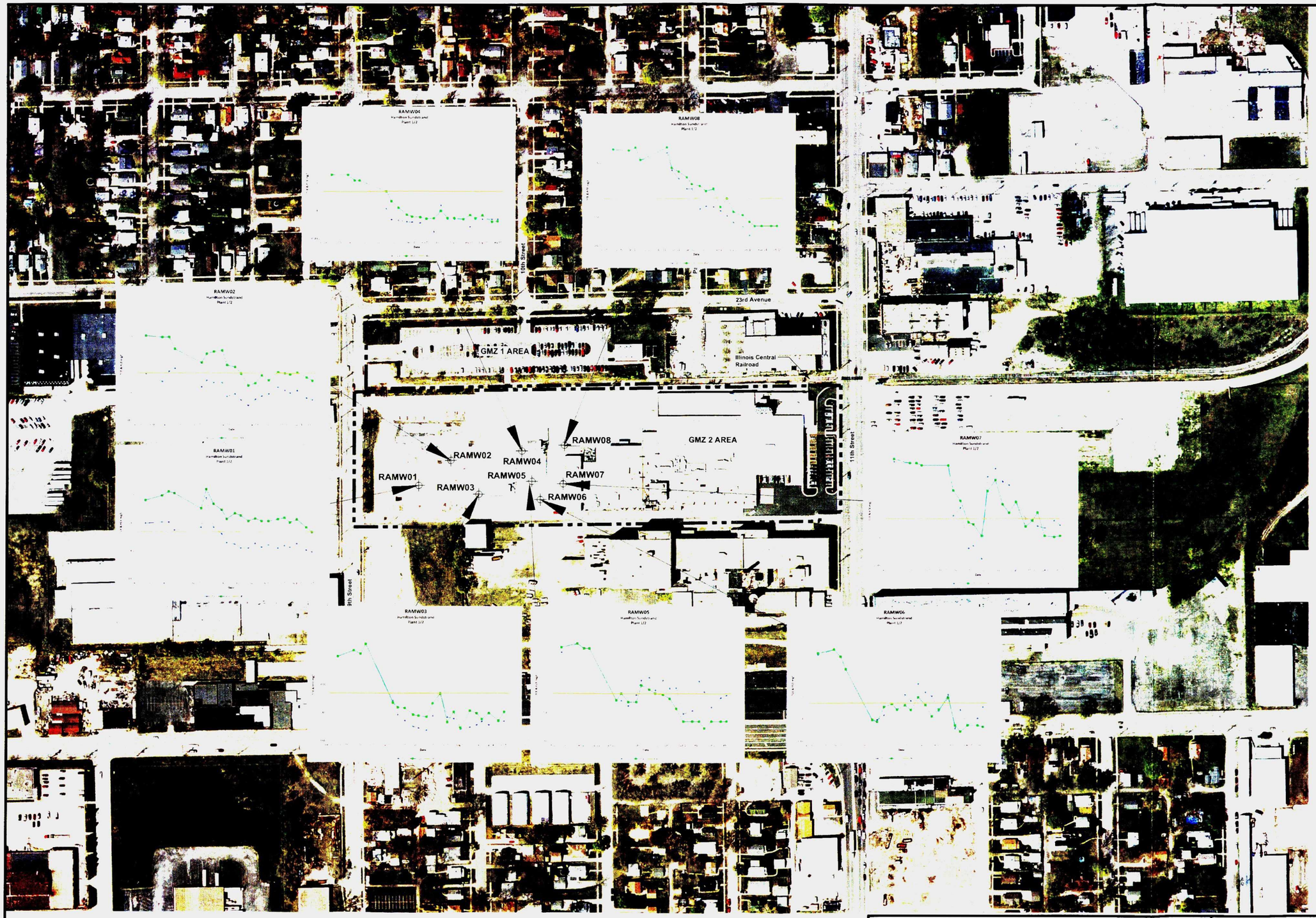
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60339110.4212

QUATERLY GMZ VOC ANALYTICAL RESULTS TRENDS



LEGEND:

- Performance Monitoring Wells
- Site and GMZ Boundary
- PCE
- TCE
- PRG

NOTES:

1. Analytes not detected above the Laboratory estimated quantitation limit are expressed graphically as one half the reporting limit.

2. Groundwater monitoring wells located within the influence of active treatment systems yield groundwater sample data that is potentially biased by the treatment activities. This potential bias should be considered during evaluation of this data.

Preliminary Remediation Goal (PRG)	
Trichloroethene (TCE)	0.005 (mg/L)
Tetrachloroethene (PCE)	0.005 (mg/L)

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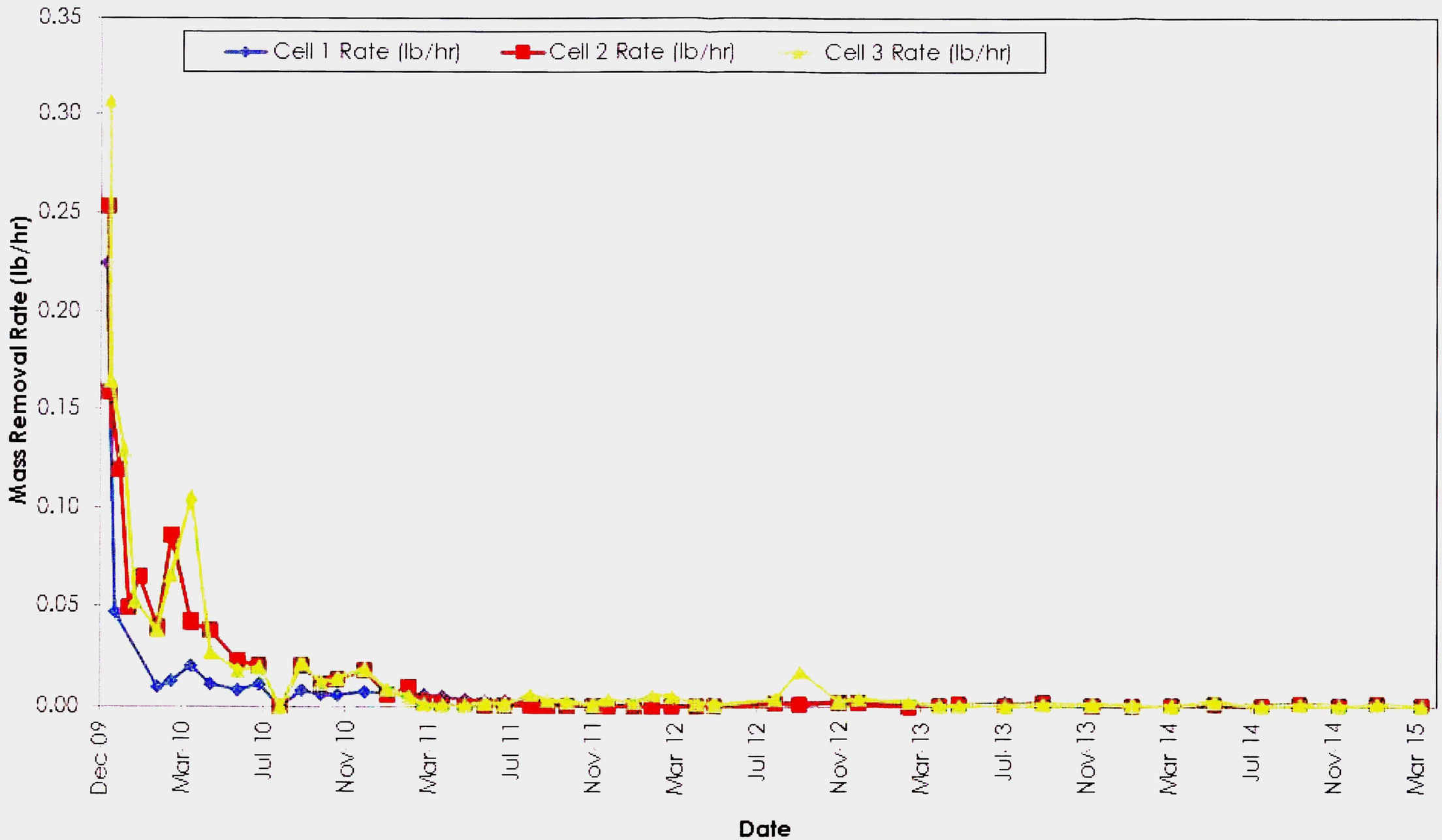
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS

PROJECT NO. 60339110.4212

QUATERLY PERFORMANCE MONITORING WELL VOC ANALYTICAL RESULTS TRENDS



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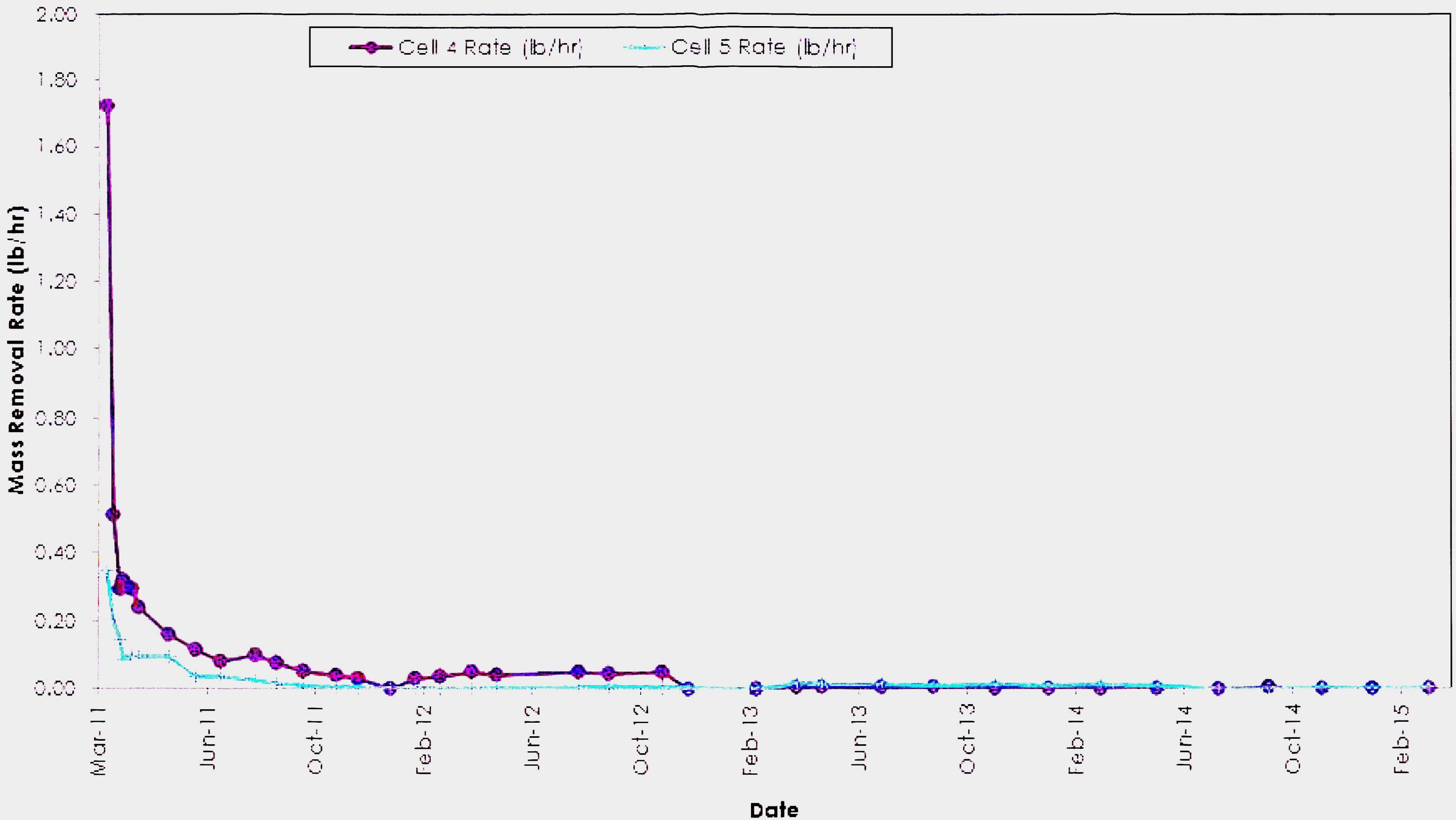
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60339110.4212

AVERAGE VOC MASS REMOVAL RATE VS TIME PHASE 1 AS/SVE SYSTEM



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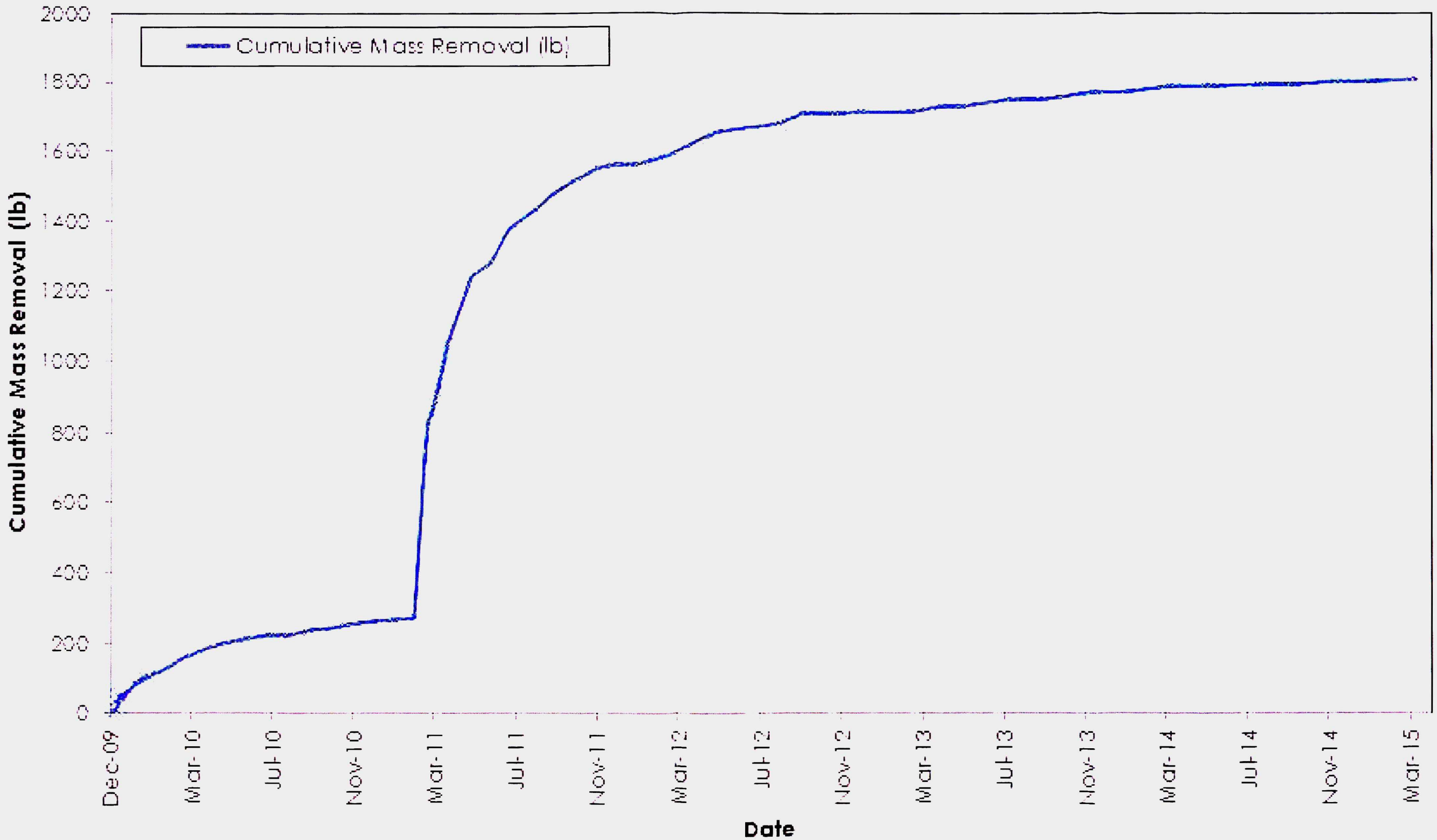
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60339110.4212

AVERAGE VOC MASS REMOVAL RATE VS TIME PHASE 2 AS/SVE SYSTEM

FIGURE 8



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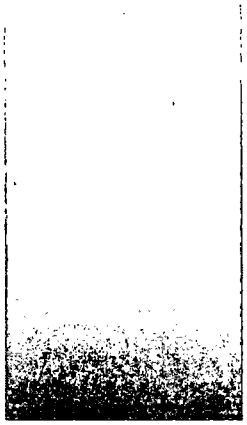
AREA 9/10 REMEDIAL ACTION ROCKFORD, ILLINOIS PROJECT NO. 60339110.4212	CUMULATIVE MASS REMOVAL PHASE 1/ PHASE 2 AS/SVE SYSTEM
	FIGURE 9

Appendix A

First Quarter 2015 GMZ and Performance Monitoring Well Analytical Data

New Jersey
ACCUTEST
LABORATORIES

03/04/15



Technical Report for

United Technologies Corporation

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

60339110.4222, PO 59046ACM

Accutest Job Number: JB88562

Sampling Dates: 02/17/15 - 02/18/15

Report to:

AECOM, INC.
27755 Diehl Road Suite 100
Warrenville, IL 60555
peter.hollatz@aecom.com

ATTN: Peter Hollatz

Total number of pages in report: **346**

NELAP ACCREDITED LABORATORY CNJ

Nancy L. Cole
Nancy Cole
Laboratory Director

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.

Client Service contact: Marie Meidhof 732-329-0200

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Sample Summary

United Technologies Corporation

Job No: JB88562

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB88562-1	02/17/15	09:40 NP	02/20/15	AQ	Ground Water	HSSER-RAMW01-021715
JB88562-2	02/17/15	11:10 NP	02/20/15	AQ	Ground Water	HSSER-RAMW02-021715
JB88562-2D	02/17/15	11:10 NP	02/20/15	AQ	Water Dup/MSD	HSSER-MSD02-021715
JB88562-2S	02/17/15	11:10 NP	02/20/15	AQ	Water Matrix Spike	HSSER-MS02-021715
JB88562-3	02/17/15	12:45 NP	02/20/15	AQ	Ground Water	HSSER-RAMW03-021715
JB88562-4	02/17/15	14:25 NP	02/20/15	AQ	Ground Water	HSSER-RAMW04-021715
JB88562-5	02/17/15	15:55 NP	02/20/15	AQ	Ground Water	HSSER-RAMW05-021715
JB88562-6	02/18/15	09:15 NP	02/20/15	AQ	Ground Water	HSSER-RAMW06-021815
JB88562-7	02/18/15	10:40 NP	02/20/15	AQ	Ground Water	HSSER-RAMW07-021815
JB88562-8	02/18/15	12:15 NP	02/20/15	AQ	Ground Water	HSSER-RAMW08-021815
JB88562-9	02/17/15	00:00 NP	02/20/15	AQ	Ground Water	HSSER-DUP02-021715
JB88562-10	02/17/15	08:35 NP	02/20/15	AQ	Field Blank Water	HSSER-FBLK02-021715
JB88562-11	02/17/15	13:15 NP	02/20/15	AQ	Equipment Blank	HSSER-EBLK02-021715

Sample Summary
(continued)

United Technologies Corporation

Job No: JB88562

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB88562-12	02/18/15	12:15	NP	02/20/15	AQ	Trip Blank Water	HSSER-TRIP01-021915

ACCUTEST LABORATORIES

2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	United Technologies Corporation	**Job No**	JB88562
Site:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	**Report Date**	3/4/2015 9:18:58 AM

On 02/20/2015, 9 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) and 1 Equipment Blank(s) were received at Accutest Laboratories at a temperature of 1.2 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB88562 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 8260B

Matrix: AQ **Batch ID:** V3A6024

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88562-2MS, JB88562-2MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** V3A6025

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88615-10MS, JB88615-10MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** V4D2537

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88565-7MS, JB88565-7MSD were used as the QC samples indicated.

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: JB88562
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 02/17/15 thru 02/18/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB88562-1	**HSSER-RAMW01-021715**					
1,1-Dichloroethane		0.0040	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00055 J	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.0049	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0029	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.00095 J	0.0010	0.00025	mg/l	SW846 8260B
JB88562-2	**HSSER-RAMW02-021715**					
1,1-Dichloroethane		0.0037	0.0010	0.00035	mg/l	SW846 8260B
Tetrachloroethene		0.0027	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0031	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.00055 J	0.0010	0.00025	mg/l	SW846 8260B
JB88562-3	**HSSER-RAMW03-021715**					
1,1-Dichloroethane		0.00062 J	0.0010	0.00035	mg/l	SW846 8260B
Tetrachloroethene		0.0011	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00098 J	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.00051 J	0.0010	0.00025	mg/l	SW846 8260B
JB88562-4	**HSSER-RAMW04-021715**					
1,1-Dichloroethane		0.00046 J	0.0010	0.00035	mg/l	SW846 8260B
Tetrachloroethene		0.00042 J	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00045 J	0.0010	0.00032	mg/l	SW846 8260B
JB88562-5	**HSSER-RAMW05-021715**					
1,1-Dichloroethane		0.0034	0.0010	0.00035	mg/l	SW846 8260B
1,1-Dichloroethene		0.0025	0.0010	0.00050	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0097	0.0010	0.00033	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.161	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0043	0.0010	0.00025	mg/l	SW846 8260B
JB88562-6	**HSSER-RAMW06-021815**					
1,1-Dichloroethane		0.0039	0.0010	0.00035	mg/l	SW846 8260B
1,1-Dichloroethene		0.0074	0.0010	0.00050	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0217	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.00043 J	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.387	0.0050	0.0016	mg/l	SW846 8260B
Trichloroethene		0.0033	0.0010	0.00025	mg/l	SW846 8260B

Summary of Hits

Job Number: JB88562
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 02/17/15 thru 02/18/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB88562-7	**HSSER-RAMW07-021815**					
1,1-Dichloroethane		0.0091	0.0010	0.00035	mg/l	SW846 8260B
1,1-Dichloroethene		0.0040	0.0010	0.00050	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0053	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.0012	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.149	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0029	0.0010	0.00025	mg/l	SW846 8260B
JB88562-8	**HSSER-RAMW08-021815**					
1,1-Dichloroethane		0.0018	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00039 J	0.0010	0.00032	mg/l	SW846 8260B
JB88562-9	**HSSER-DUP02-021715**					
1,1-Dichloroethane		0.00064 J	0.0010	0.00035	mg/l	SW846 8260B
Tetrachloroethene		0.0011	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00091 J	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.00040 J	0.0010	0.00025	mg/l	SW846 8260B

JB88562-10 **HSSER-FBLK02-021715**

No hits reported in this sample.

JB88562-11 **HSSER-EBLK02-021715**

No hits reported in this sample.

JB88562-12 **HSSER-TRIP01-021915**

No hits reported in this sample.

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Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-RAMW01-021715		
Lab Sample ID:	JB88562-1	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139208.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0040	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00055	0.0010	0.00033	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0049	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0029	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.00095	0.0010	0.00025	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-122%
17060-07-0	1,2-Dichloroethane-D4	113%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	104%		77-120%

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

Client Sample ID:	HSSER-RAMW02-021715		
Lab Sample ID:	JB88562-2	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139207.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0037	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0027	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0031	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.00055	0.0010	0.00025	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-122%
17060-07-0	1,2-Dichloroethane-D4	115%		71-124%
2037-26-5	Toluene-D8	102%		78-121%
460-00-4	4-Bromofluorobenzene	103%		77-120%

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

4.3 4

Client Sample ID:	HSSER-RAMW03-021715		
Lab Sample ID:	JB88562-3	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139206.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.00062	0.0010	0.00035	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0011	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00098	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.00051	0.0010	0.00025	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		76-122%
17060-07-0	1,2-Dichloroethane-D4	114%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	106%		77-120%

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

Client Sample ID:	HSSER-RAMW04-021715		
Lab Sample ID:	JB88562-4	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139205.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.00046	0.0010	0.00035	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.00042	0.0010	0.00035	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00045	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-122%
17060-07-0	1,2-Dichloroethane-D4	114%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-RAMW05-021715		
Lab Sample ID:	JB88562-5	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139209.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0034	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	0.0025	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0097	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.161	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0043	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-122%
17060-07-0	1,2-Dichloroethane-D4	110%		71-124%
2037-26-5	Toluene-D8	102%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-RAMW06-021815		
Lab Sample ID:	JB88562-6	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139210.D	1	02/24/15	ZH	n/a	n/a	V3A6024
Run #2	3A139226.D	5	02/24/15	ZH	n/a	n/a	V3A6025

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0039	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	0.0074	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0217	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.00043	0.0010	0.00035	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.387 [a]	0.0050	0.0016	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0033	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	107%	76-122%
17060-07-0	1,2-Dichloroethane-D4	113%	119%	71-124%
2037-26-5	Toluene-D8	101%	100%	78-121%
460-00-4	4-Bromofluorobenzene	106%	108%	77-120%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-RAMW07-021815		
Lab Sample ID:	JB88562-7	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139232.D	1	02/24/15	ZH	n/a	n/a	V3A6025
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	0.0091	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	0.0040	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0053	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0012	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.149	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0029	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		76-122%
17060-07-0	1,2-Dichloroethane-D4	124%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	107%		77-120%

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

Client Sample ID:	HSSER-RAMW08-021815		
Lab Sample ID:	JB88562-8	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139233.D	1	02/24/15	ZH	n/a	n/a	V3A6025
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	0.0018	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00039	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		76-122%
17060-07-0	1,2-Dichloroethane-D4	121%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	108%		77-120%

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

Client Sample ID:	HSSER-DUP02-021715		
Lab Sample ID:	JB88562-9	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139234.D	1	02/24/15	ZH	n/a	n/a	V3A6025
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	0.00064	0.0010	0.00035	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0011	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00091	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.00040	0.0010	0.00025	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		76-122%
17060-07-0	1,2-Dichloroethane-D4	123%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	109%		77-120%

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

Client Sample ID:	HSSER-FBLK02-021715		
Lab Sample ID:	JB88562-10	**Date Sampled:**	02/17/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139235.D	1	02/24/15	ZH	n/a	n/a	V3A6025
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		76-122%
17060-07-0	1,2-Dichloroethane-D4	121%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	107%		77-120%

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

Client Sample ID:	HSSER-EBLK02-021715		
Lab Sample ID:	JB88562-11	**Date Sampled:**	02/17/15
Matrix:	AQ - Equipment Blank	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D57208.D	1	02/26/15	PR	n/a	n/a	V4D2537
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		76-122%
17060-07-0	1,2-Dichloroethane-D4	91%		71-124%
2037-26-5	Toluene-D8	87%		78-121%
460-00-4	4-Bromofluorobenzene	87%		77-120%

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

Client Sample ID:	HSSER-TRIP01-021915		
Lab Sample ID:	JB88562-12	**Date Sampled:**	02/18/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D57209.D	1	02/26/15	PR	n/a	n/a	V4D2537
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		76-122%
17060-07-0	1,2-Dichloroethane-D4	90%		71-124%
2037-26-5	Toluene-D8	87%		78-121%
460-00-4	4-Bromofluorobenzene	87%		77-120%

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

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LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 6250 6351 0710
Bottle Order Control #
Accutest Quote #
Accutest Job # JB88562

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 DIEHL RD #100
City / State / Zip: WARRENVILLE IL 60555
Project Contact / E-mail: PETER HOLLATZ / peter.hollatz@aecom.com
Phone # / Fax #: 630.839.5386 / 630.836.1711
Sampler(s) Name(s) / Phone #: N. PINS / A. HOLLATZ

Project Information

Project Name: UTC - ROCKFORD - PLANT 1
Street:
City / State: ROCKFORD IL
Project #: 60339110
Client Purchase Order #:
Project Manager: PETER HOLLATZ
Billing Information (If different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOCs	LAB USE ONLY
1	HSSER-RAMW01-021715		2/17/15	0940	AH	GW	3	3								X	
2	HSSER-RAMW02-021715		2/17/15	1110	AH	GW	3	3								X	V77
3	HSSER-RAMW03-021715		2/17/15	1245	AH	GW	3	3								X	
4	HSSER-RAMW04-021715		2/17/15	1425	AH	GW	3	3								X	
5	HSSER-RAMW05-021715		2/17/15	1555	AH	GW	3	3								X	
6	HSSER-RAMW06-021815		2/18/15	0915	AH	GW	3	3								X	
7	HSSER-RAMW07-021815		2/18/15	1040	AH	GW	3	3								X	
8	HSSER-RAMW08-021815		2/18/15	1215	AH	GW	3	3								X	
9	HSSER-MS02-021715		2/17/15	1110	AH	GW	3	3								X	
10	HSSER-MSD02-021715		2/17/15	1110	AH	GW	3	3								X	
11	HSSER-DUP02-021715		2/17/15	0000	AH	GW	3	3								X	
12	HSSER-FBLK02-021715		2/17/15	0835	AH	GW	3	3								X	

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULL T1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Date of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

LIST OF 13 VOCs
LEVEL IV DATA INITIAL ASESSMENT D.G. 3A
LABEL VERIFICATION AR

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 N. Pins (AECOM)	2/19/15 1700	1 FX	2 FX	2/20/15 17:10	2 [signature]
3		3	4		4
5		5			

Custody Seal # 512 [x] Intact [ ] Not Intact
Preserved where applicable [ ]
On Ice [x]
Cooler Temp. 1.2°C

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 6250 6351 0710
Bottle Order Control #
Accutest Quote #
Accutest Job # J88562

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 DIEHL RD #100
City / State / Zip: WARRENVILLE IL 60555
Project Contact: PETER HOLLATZ / peter.hollatz@aecom.com
E-mail:
Phone #: 630.839.5986
Fax #: 630.836.1700
Sampler(s) Name(s): N. PINS / A. HOLLATZ
Phone #:

Project Information

Project Name: UTC - ROCKFORD - PLANT 1
Street:
City / State: ROCKFORD IL
Project #: 60339110
Client Purchase Order #:
Project Manager: PETER HOLLATZ

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	H2SO4	HNO3	NONE	DI Water	MEOH	ENCORE	* VOCs										LAB USE ONLY
	HSSER-EBLLK02-021715		2/17/15	1315	AH	GW	3	3							X						11				
	HSSER-TRIP01-021915		2/19/15	—	—	GW	2	2							X						12				

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data.

Comments / Special Instructions

* LIST OF 13 VOCs
LEVEL IV DATA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date/Time:	Received By:	Relinquished By:	Date Time:	Received By:
N. Pins (AECOM)	2/19/15 1700	1 FX	2 FX	2-20-15	2 [signature]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 512	Intact / Not Intact	Preserved where applicable

On Ice: X
Cooler Temp. 1.2°C

5.1 5

JB88562: Chain of Custody
Page 2 of 4

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB88562 **Client:** AECOM **Project:** UTC - ROCKFORD - PLANT 1

Date / Time Received: 2/20/2015 1:10:00 PM **Delivery Method:** FedEx **Airbill #'s:** 625063510710

Cooler Temps (Initial/Adjusted): #1: (1.2/0.9); 0

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No, Coolers	1	

Quality Control Preservatio	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

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

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
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 -5 Sapling time on bottle is 13:55 not 15:55. Id and date okay.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
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5.1

5

JB88562: Chain of Custody
Page 3 of 4

ACCUTEST LABORATORIES

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB88562 **Initiator:** andrewm

CSR: Marie **Response Date:** 2/21/2015

Response: The sample time is 15:55; this was confirmed by A. Hollatz.

5.1 5

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

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JB88562: Chain of Custody
Page 4 of 4

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB88562

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB88562-1	Collected: 17-FEB-15 09:40 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW01-021715						
JB88562-1	SW846 8260B	24-FEB-15 07:02	ZH			V8260SL
JB88562-2	Collected: 17-FEB-15 11:10 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW02-021715						
JB88562-2	SW846 8260B	24-FEB-15 06:32	ZH			V8260SL
JB88562-3	Collected: 17-FEB-15 12:45 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW03-021715						
JB88562-3	SW846 8260B	24-FEB-15 06:02	ZH			V8260SL
JB88562-4	Collected: 17-FEB-15 14:25 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW04-021715						
JB88562-4	SW846 8260B	24-FEB-15 05:32	ZH			V8260SL
JB88562-5	Collected: 17-FEB-15 15:55 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW05-021715						
JB88562-5	SW846 8260B	24-FEB-15 07:32	ZH			V8260SL
JB88562-6	Collected: 18-FEB-15 09:15 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW06-021815						
JB88562-6	SW846 8260B	24-FEB-15 08:02	ZH			V8260SL
JB88562-6	SW846 8260B	24-FEB-15 17:17	ZH			V8260SL
JB88562-7	Collected: 18-FEB-15 10:40 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW07-021815						
JB88562-7	SW846 8260B	24-FEB-15 20:17	ZH			V8260SL
JB88562-8	Collected: 18-FEB-15 12:15 By: NP		Received: 20-FEB-15 By: AM			
HSSER-RAMW08-021815						
JB88562-8	SW846 8260B	24-FEB-15 20:47	ZH			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB88562

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

5.2 5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB88562-9 Collected: 17-FEB-15 00:00 By: NP HSSER-DUP02-021715			Received: 20-FEB-15 By: AM			
JB88562-9	SW846 8260B	24-FEB-15 21:17	ZH			V8260SL
JB88562-10 Collected: 17-FEB-15 08:35 By: NP HSSER-FBLK02-021715			Received: 20-FEB-15 By: AM			
JB88562-10	SW846 8260B	24-FEB-15 21:47	ZH			V8260SL
JB88562-11 Collected: 17-FEB-15 13:15 By: NP HSSER-EBLK02-021715			Received: 20-FEB-15 By: AM			
JB88562-11	SW846 8260B	26-FEB-15 13:38	PR			V8260SL
JB88562-12 Collected: 18-FEB-15 12:15 By: NP HSSER-TRIP01-021915			Received: 20-FEB-15 By: AM			
JB88562-12	SW846 8260B	26-FEB-15 14:06	PR			V8260SL

Accutest Internal Chain of Custody

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 02/20/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB88562-1.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88562-1.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88562-1.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88562-1.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88562-2.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88562-2.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88562-2.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88562-2.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88562-2.3	Secured Storage	Zobia Hamid	02/24/15 08:21	Retrieve from Storage
JB88562-2.3	Zobia Hamid	GCMS3A	02/24/15 08:21	Load on Instrument
JB88562-2.3	GCMS3A	Zobia Hamid	02/24/15 09:31	Unload from Instrument
JB88562-2.3	Zobia Hamid	Secured Storage	02/24/15 09:31	Return to Storage
JB88562-2.5	Secured Storage	Zobia Hamid	02/24/15 12:22	Retrieve from Storage
JB88562-2.5	Zobia Hamid	GCMS3A	02/24/15 12:22	Load on Instrument
JB88562-2.5	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-2.5	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-2.6	Secured Storage	Zobia Hamid	02/24/15 12:22	Retrieve from Storage
JB88562-2.6	Zobia Hamid	GCMS3A	02/24/15 12:22	Load on Instrument
JB88562-2.6	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-2.6	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-3.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88562-3.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88562-3.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88562-3.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88562-4.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88562-4.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88562-4.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88562-4.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88562-5.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88562-5.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88562-5.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88562-5.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88562-6.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88562-6.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88562-6.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88562-6.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 02/20/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB88562-6.2	Secured Storage	Zobia Hamid	02/24/15 10:11	Retrieve from Storage
JB88562-6.2	Zobia Hamid	Secured Storage	02/24/15 11:45	Return to Storage
JB88562-7.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88562-7.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88562-7.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-7.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-8.1	Secured Storage	Zobia Hamid	02/24/15 12:52	Retrieve from Storage
JB88562-8.1	Zobia Hamid	GCMS3A	02/24/15 12:52	Load on Instrument
JB88562-8.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-8.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-9.1	Secured Storage	Zobia Hamid	02/24/15 12:52	Retrieve from Storage
JB88562-9.1	Zobia Hamid	GCMS3A	02/24/15 12:52	Load on Instrument
JB88562-9.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-9.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-10.1	Secured Storage	Zobia Hamid	02/24/15 12:52	Retrieve from Storage
JB88562-10.1	Zobia Hamid	GCMS3A	02/24/15 12:52	Load on Instrument
JB88562-10.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-10.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-11.1	Secured Storage	Zobia Hamid	02/24/15 12:52	Retrieve from Storage
JB88562-11.1	Zobia Hamid	GCMS3A	02/24/15 12:52	Load on Instrument
JB88562-11.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-11.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-11.2	Secured Storage	Payal Rana	02/26/15 11:21	Retrieve from Storage
JB88562-11.2	Payal Rana	GCMS4D	02/26/15 11:21	Load on Instrument
JB88562-11.2	GCMS4D	Payal Rana	02/27/15 09:32	Unload from Instrument
JB88562-11.2	Payal Rana	Secured Storage	02/27/15 09:32	Return to Storage
JB88562-12.1	Secured Storage	Zobia Hamid	02/24/15 12:52	Retrieve from Storage
JB88562-12.1	Zobia Hamid	GCMS3A	02/24/15 12:52	Load on Instrument
JB88562-12.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88562-12.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88562-12.2	Secured Storage	Payal Rana	02/26/15 11:21	Retrieve from Storage
JB88562-12.2	Payal Rana	GCMS4D	02/26/15 11:21	Load on Instrument
JB88562-12.2	GCMS4D	Payal Rana	02/27/15 09:32	Unload from Instrument
JB88562-12.2	Payal Rana	Secured Storage	02/27/15 09:32	Return to Storage

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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

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6024-MB1	3A139192.D	1	02/23/15	ZH	n/a	n/a	V3A6024

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

JB88562-1, JB88562-2, JB88562-3, JB88562-4, JB88562-5, JB88562-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	76-122%
17060-07-0	1,2-Dichloroethane-D4	112%	71-124%
2037-26-5	Toluene-D8	102%	78-121%
460-00-4	4-Bromofluorobenzene	106%	77-120%

Method Blank Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6025-MB1	3A139223.D	1	02/24/15	ZH	n/a	n/a	V3A6025

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

JB88562-6, JB88562-7, JB88562-8, JB88562-9, JB88562-10

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	76-122%
17060-07-0	1,2-Dichloroethane-D4	119%	71-124%
2037-26-5	Toluene-D8	99%	78-121%
460-00-4	4-Bromofluorobenzene	108%	77-120%

Method Blank Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D2537-MB	4D57201.D	1	02/26/15	PR	n/a	n/a	V4D2537

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

JB88562-11, JB88562-12

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	82%	76-122%
17060-07-0	1,2-Dichloroethane-D4	89%	71-124%
2037-26-5	Toluene-D8	87%	78-121%
460-00-4	4-Bromofluorobenzene	87%	77-120%

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

Method Blank Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6024-MB2	3A139219.D	1	02/24/15	ZH	n/a	n/a	V3A6024

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

JB88562-2MS, JB88562-2MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	109%	76-122%
17060-07-0	1,2-Dichloroethane-D4	119%	71-124%
2037-26-5	Toluene-D8	97%	78-121%
460-00-4	4-Bromofluorobenzene	108%	77-120%

Blank Spike Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6024-BS	3A139193.D	1	02/23/15	ZH	n/a	n/a	V3A6024

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

JB88562-1, JB88562-2, JB88562-3, JB88562-4, JB88562-5, JB88562-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	54.4	109	78-128
107-06-2	1,2-Dichloroethane	50	51.2	102	77-133
75-35-4	1,1-Dichloroethene	50	44.6	89	74-129
156-59-2	cis-1,2-Dichloroethene	50	49.9	100	75-123
156-60-5	trans-1,2-Dichloroethene	50	50.8	102	73-122
100-41-4	Ethylbenzene	50	48.3	97	83-118
75-09-2	Methylene chloride	50	48.7	97	75-121
127-18-4	Tetrachloroethene	50	43.1	86	60-153
108-88-3	Toluene	50	49.4	99	83-121
71-55-6	1,1,1-Trichloroethane	50	51.5	103	80-132
79-00-5	1,1,2-Trichloroethane	50	49.5	99	83-120
79-01-6	Trichloroethene	50	46.9	94	84-123
75-01-4	Vinyl chloride	50	44.3	89	57-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	76-122%
17060-07-0	1,2-Dichloroethane-D4	107%	71-124%
2037-26-5	Toluene-D8	101%	78-121%
460-00-4	4-Bromofluorobenzene	105%	77-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6025-BS	3A139224.D	1	02/24/15	ZH	n/a	n/a	V3A6025

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

JB88562-6, JB88562-7, JB88562-8, JB88562-9, JB88562-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	60.3	121	78-128
107-06-2	1,2-Dichloroethane	50	54.9	110	77-133
75-35-4	1,1-Dichloroethene	50	52.9	106	74-129
156-59-2	cis-1,2-Dichloroethene	50	54.3	109	75-123
156-60-5	trans-1,2-Dichloroethene	50	57.1	114	73-122
100-41-4	Ethylbenzene	50	50.2	100	83-118
75-09-2	Methylene chloride	50	55.0	110	75-121
127-18-4	Tetrachloroethene	50	45.1	90	60-153
108-88-3	Toluene	50	51.3	103	83-121
71-55-6	1,1,1-Trichloroethane	50	56.5	113	80-132
79-00-5	1,1,2-Trichloroethane	50	51.3	103	83-120
79-01-6	Trichloroethene	50	50.6	101	84-123
75-01-4	Vinyl chloride	50	48.7	97	57-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	76-122%
17060-07-0	1,2-Dichloroethane-D4	116%	71-124%
2037-26-5	Toluene-D8	100%	78-121%
460-00-4	4-Bromofluorobenzene	110%	77-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D2537-BS	4D57202.D	1	02/26/15	PR	n/a	n/a	V4D2537

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

JB88562-11, JB88562-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	47.3	95	78-128
107-06-2	1,2-Dichloroethane	50	54.4	109	77-133
75-35-4	1,1-Dichloroethene	50	45.8	92	74-129
156-59-2	cis-1,2-Dichloroethene	50	44.7	89	75-123
156-60-5	trans-1,2-Dichloroethene	50	44.3	89	73-122
100-41-4	Ethylbenzene	50	48.0	96	83-118
75-09-2	Methylene chloride	50	44.3	89	75-121
127-18-4	Tetrachloroethene	50	50.7	101	60-153
108-88-3	Toluene	50	48.9	98	83-121
71-55-6	1,1,1-Trichloroethane	50	51.8	104	80-132
79-00-5	1,1,2-Trichloroethane	50	47.9	96	83-120
79-01-6	Trichloroethene	50	48.5	97	84-123
75-01-4	Vinyl chloride	50	43.4	87	57-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	82%	76-122%
17060-07-0	1,2-Dichloroethane-D4	87%	71-124%
2037-26-5	Toluene-D8	87%	78-121%
460-00-4	4-Bromofluorobenzene	85%	77-120%

* = Outside of Control Limits.

Raw Data: 3A139220.D 3A139221.D

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88562-2MS	3A139220.D	1	02/24/15	ZH	n/a	n/a	V3A6024
JB88562-2MSD	3A139221.D	1	02/24/15	ZH	n/a	n/a	V3A6024
JB88562-2	3A139207.D	1	02/24/15	ZH	n/a	n/a	V3A6024

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

JB88562-1, JB88562-2, JB88562-3, JB88562-4, JB88562-5, JB88562-6

CAS No.	Compound	JB88562-2 ug/l	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	3.7		50	63.5	120	50	63.5	120	0	67-130/11
107-06-2	1,2-Dichloroethane	ND		50	53.8	108	50	56.1	112	4	72-137/10
75-35-4	1,1-Dichloroethene	ND		50	54.1	108	50	54.2	108	0	51-137/14
156-59-2	cis-1,2-Dichloroethene	ND		50	54.3	109	50	56.2	112	3	59-133/11
156-60-5	trans-1,2-Dichloroethene	ND		50	56.8	114	50	57.1	114	1	60-130/12
100-41-4	Ethylbenzene	ND		50	50.6	101	50	51.4	103	2	57-134/10
75-09-2	Methylene chloride	ND		50	56.9	114	50	59.1	118	4	68-125/11
127-18-4	Tetrachloroethene	2.7		50	49.0	93	50	49.4	93	1	47-141/12
108-88-3	Toluene	ND		50	51.6	103	50	52.3	105	1	61-135/11
71-55-6	1,1,1-Trichloroethane	3.1		50	55.0	104	50	55.0	104	0	60-140/13
79-00-5	1,1,2-Trichloroethane	ND		50	50.6	101	50	53.4	107	5	79-126/11
79-01-6	Trichloroethene	0.55	J	50	51.0	101	50	51.7	102	1	57-138/11
75-01-4	Vinyl chloride	ND		50	57.0	114	50	57.9	116	2	47-143/15

CAS No.	Surrogate Recoveries	MS	MSD	JB88562-2	Limits
1868-53-7	Dibromofluoromethane	108%	108%	105%	76-122%
17060-07-0	1,2-Dichloroethane-D4	117%	115%	115%	71-124%
2037-26-5	Toluene-D8	99%	99%	102%	78-121%
460-00-4	4-Bromofluorobenzene	109%	109%	103%	77-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88615-10MS	3A139229.D	20	02/24/15	ZH	n/a	n/a	V3A6025
JB88615-10MSD	3A139230.D	20	02/24/15	ZH	n/a	n/a	V3A6025
JB88615-10	3A139227.D	20	02/24/15	ZH	n/a	n/a	V3A6025

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

JB88562-6, JB88562-7, JB88562-8, JB88562-9, JB88562-10

CAS No.	Compound	JB88615-10 ug/l	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		1000	1210	121	1000	1240	124	2	67-130/11
107-06-2	1,2-Dichloroethane	ND		1000	1120	112	1000	1130	113	1	72-137/10
75-35-4	1,1-Dichloroethene	ND		1000	1030	103	1000	1070	107	4	51-137/14
156-59-2	cis-1,2-Dichloroethene	ND		1000	1100	110	1000	1120	112	2	59-133/11
156-60-5	trans-1,2-Dichloroethene	ND		1000	1170	117	1000	1190	119	2	60-130/12
100-41-4	Ethylbenzene	771		1000	1770	100	1000	1760	99	1	57-134/10
75-09-2	Methylene chloride	ND		1000	1140	114	1000	1170	117	3	68-125/11
127-18-4	Tetrachloroethene	ND		1000	919	92	1000	907	91	1	47-141/12
108-88-3	Toluene	3590		1000	4480	89	1000	4490	90	0	61-135/11
-55-6	1,1,1-Trichloroethane	ND		1000	1110	111	1000	1160	116	4	60-140/13
-00-5	1,1,2-Trichloroethane	ND		1000	1060	106	1000	1050	105	1	79-126/11
/9-01-6	Trichloroethene	ND		1000	1030	103	1000	1020	102	1	57-138/11
75-01-4	Vinyl chloride	ND		1000	1140	114	1000	1210	121	6	47-143/15

CAS No.	Surrogate Recoveries	MS	MSD	JB88615-10	Limits
1868-53-7	Dibromofluoromethane	107%	109%	108%	76-122%
17060-07-0	1,2-Dichloroethane-D4	119%	117%	120%	71-124%
2037-26-5	Toluene-D8	101%	102%	100%	78-121%
460-00-4	4-Bromofluorobenzene	108%	109%	108%	77-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88565-7MS	4D57212.D	1	02/26/15	PR	n/a	n/a	V4D2537
JB88565-7MSD	4D57213.D	1	02/26/15	PR	n/a	n/a	V4D2537
JB88565-7	4D57205.D	1	02/26/15	PR	n/a	n/a	V4D2537

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

JB88562-11, JB88562-12

6.3.3

6

CAS No.	Compound	JB88565-7 ug/l	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	5.2		50	46.4	82	50	45.2	80	3	67-130/11
107-06-2	1,2-Dichloroethane	ND		50	54.3	109	50	52.6	105	3	72-137/10
75-35-4	1,1-Dichloroethene	ND		50	37.8	76	50	36.2	72	4	51-137/14
156-59-2	cis-1,2-Dichloroethene	0.70	J	50	43.0	85	50	42.0	83	2	59-133/11
156-60-5	trans-1,2-Dichloroethene	ND		50	40.1	80	50	38.4	77	4	60-130/12
100-41-4	Ethylbenzene	ND		50	45.1	90	50	43.3	87	4	57-134/10
75-09-2	Methylene chloride	ND		50	42.6	85	50	41.9	84	2	68-125/11
127-18-4	Tetrachloroethene	18.5		50	55.2	73	50	52.4	68	5	47-141/12
108-88-3	Toluene	ND		50	45.6	91	50	43.8	88	4	61-135/11
71-55-6	1,1,1-Trichloroethane	20.2		50	56.4	72	50	53.9	67	5	60-140/13
79-00-5	1,1,2-Trichloroethane	ND		50	49.1	98	50	47.7	95	3	79-126/11
79-01-6	Trichloroethene	1.1		50	43.9	86	50	41.7	81	5	57-138/11
75-01-4	Vinyl chloride	ND		50	39.2	78	50	37.6	75	4	47-143/15

CAS No.	Surrogate Recoveries	MS	MSD	JB88565-7	Limits
1868-53-7	Dibromofluoromethane	83%	83%	82%	76-122%
17060-07-0	1,2-Dichloroethane-D4	88%	85%	89%	71-124%
2037-26-5	Toluene-D8	88%	87%	87%	78-121%
460-00-4	4-Bromofluorobenzene	85%	86%	87%	77-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-BFB
Lab File ID: 3A138955.D
Instrument ID: GCMS3A
Injection Date: 02/13/15
Injection Time: 15:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10412	15.3		Pass
75	30.0 - 60.0% of mass 95	29280	43.1		Pass
95	Base peak, 100% relative abundance	67885	100.0		Pass
96	5.0 - 9.0% of mass 95	4165	6.14		Pass
173	Less than 2.0% of mass 174	639	0.94	(1.04) [a]	Pass
174	50.0 - 120.0% of mass 95	61242	90.2		Pass
175	5.0 - 9.0% of mass 174	4654	6.86	(7.60) [a]	Pass
176	95.0 - 101.0% of mass 174	59237	87.3	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3886	5.72	(6.56) [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
V3A6014-IC6014	3A138956.D	02/13/15	17:10	01:32	Initial cal 1
V3A6014-IC6014	3A138957.D	02/13/15	17:40	02:02	Initial cal 2
V3A6014-IC6014	3A138958.D	02/13/15	18:11	02:33	Initial cal 5
V3A6014-IC6014	3A138959.D	02/13/15	18:41	03:03	Initial cal 0.2
V3A6014-IC6014	3A138960.D	02/13/15	19:11	03:33	Initial cal 0.5
V3A6014-ICC6014	3A138961.D	02/13/15	19:41	04:03	Initial cal 10
V3A6014-IC6014	3A138962.D	02/13/15	20:11	04:33	Initial cal 20
V3A6014-IC6014	3A138963.D	02/13/15	20:41	05:03	Initial cal 50
V3A6014-IC6104	3A138964.D	02/13/15	21:11	05:33	Initial cal 100
V3A6014-IC6014	3A138965.D	02/13/15	21:41	06:03	Initial cal 200

Instrument Performance Check (BFB)

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V3A6014-BFB	**Injection Date:**	02/16/15
Lab File ID:	3A138970.D	**Injection Time:**	10:21
Instrument ID:	GCMS3A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11455	15.5		Pass
75	30.0 - 60.0% of mass 95	32578	44.2		Pass
95	Base peak, 100% relative abundance	73666	100.0		Pass
96	5.0 - 9.0% of mass 95	4779	6.49		Pass
173	Less than 2.0% of mass 174	585	0.79	(0.90) [a]	Pass
174	50.0 - 120.0% of mass 95	64645	87.8		Pass
175	5.0 - 9.0% of mass 174	4755	6.45	(7.36) [a]	Pass
176	95.0 - 101.0% of mass 174	62776	85.2	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	4227	5.74	(6.73) [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
V3A6014-ICV6014	3A138971.D	02/16/15	10:53	00:32	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V3A6024-BFB	**Injection Date:**	02/23/15
Lab File ID:	3A139189.D	**Injection Time:**	21:32
Instrument ID:	GCMS3A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11051	17.3		Pass
75	30.0 - 60.0% of mass 95	29517	46.2		Pass
95	Base peak, 100% relative abundance	63882	100.0		Pass
96	5.0 - 9.0% of mass 95	4346	6.80		Pass
173	Less than 2.0% of mass 174	436	0.68	(0.81) [a]	Pass
174	50.0 - 120.0% of mass 95	53613	83.9		Pass
175	5.0 - 9.0% of mass 174	4067	6.37	(7.59) [a]	Pass
176	95.0 - 101.0% of mass 174	52560	82.3	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3685	5.77	(7.01) [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
V3A6024-CC6014	3A139190.D	02/23/15	22:02	00:30	Continuing cal 50
V3A6024-MB1	3A139192.D	02/23/15	23:02	01:30	Method Blank
V3A6024-BS	3A139193.D	02/23/15	23:32	02:00	Blank Spike
ZZZZZZ	3A139195.D	02/24/15	00:32	03:00	(unrelated sample)
ZZZZZZ	3A139196.D	02/24/15	01:02	03:30	(unrelated sample)
ZZZZZZ	3A139197.D	02/24/15	01:32	04:00	(unrelated sample)
ZZZZZZ	3A139198.D	02/24/15	02:02	04:30	(unrelated sample)
ZZZZZZ	3A139199.D	02/24/15	02:31	04:59	(unrelated sample)
ZZZZZZ	3A139200.D	02/24/15	03:01	05:29	(unrelated sample)
ZZZZZZ	3A139201.D	02/24/15	03:32	06:00	(unrelated sample)
ZZZZZZ	3A139202.D	02/24/15	04:02	06:30	(unrelated sample)
ZZZZZZ	3A139203.D	02/24/15	04:32	07:00	(unrelated sample)
ZZZZZZ	3A139204.D	02/24/15	05:02	07:30	(unrelated sample)
JB88562-4	3A139205.D	02/24/15	05:32	08:00	HSSER-RAMW04-021715
JB88562-3	3A139206.D	02/24/15	06:02	08:30	HSSER-RAMW03-021715
JB88562-2	3A139207.D	02/24/15	06:32	09:00	HSSER-RAMW02-021715
JB88562-1	3A139208.D	02/24/15	07:02	09:30	HSSER-RAMW01-021715
JB88562-5	3A139209.D	02/24/15	07:32	10:00	HSSER-RAMW05-021715
JB88562-6	3A139210.D	02/24/15	08:02	10:30	HSSER-RAMW06-021815

Instrument Performance Check (BFB)

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V3A6025-BFB	**Injection Date:**	02/24/15
Lab File ID:	3A139215.D	**Injection Time:**	10:42
Instrument ID:	GCMS3A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10999	16.9		Pass
75	30.0 - 60.0% of mass 95	29045	44.5		Pass
95	Base peak, 100% relative abundance	65197	100.0		Pass
96	5.0 - 9.0% of mass 95	4288	6.58		Pass
173	Less than 2.0% of mass 174	461	0.71	(0.83) [a]	Pass
174	50.0 - 120.0% of mass 95	55434	85.0		Pass
175	5.0 - 9.0% of mass 174	4012	6.15	(7.24) [a]	Pass
176	95.0 - 101.0% of mass 174	52954	81.2	(95.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3503	5.37	(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
V3A6025-CC6014	3A139217.D	02/24/15	11:55	01:13	Continuing cal 20
V3A6024-MB2	3A139219.D	02/24/15	13:02	02:20	Method Blank
JB88562-2MS	3A139220.D	02/24/15	13:39	02:57	Matrix Spike
JB88562-2MSD	3A139221.D	02/24/15	14:10	03:28	Matrix Spike Duplicate
V3A6025-MB1	3A139223.D	02/24/15	15:20	04:38	Method Blank
V3A6025-BS	3A139224.D	02/24/15	16:02	05:20	Blank Spike
ZZZZZZ	3A139225.D	02/24/15	16:46	06:04	(unrelated sample)
JB88562-6	3A139226.D	02/24/15	17:17	06:35	HSSER-RAMW06-021815
JB88615-10	3A139227.D	02/24/15	17:47	07:05	(used for QC only; not part of job JB88562)
ZZZZZZ	3A139228.D	02/24/15	18:17	07:35	(unrelated sample)
JB88615-10MS	3A139229.D	02/24/15	18:47	08:05	Matrix Spike
JB88615-10MSD	3A139230.D	02/24/15	19:17	08:35	Matrix Spike Duplicate
JB88562-7	3A139232.D	02/24/15	20:17	09:35	HSSER-RAMW07-021815
JB88562-8	3A139233.D	02/24/15	20:47	10:05	HSSER-RAMW08-021815
JB88562-9	3A139234.D	02/24/15	21:17	10:35	HSSER-DUP02-021715
JB88562-10	3A139235.D	02/24/15	21:47	11:05	HSSER-FBLK02-021715

Instrument Performance Check (BFB)

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2528-BFB
Lab File ID: 4D56967.D
Instrument ID: GCMS4D
Injection Date: 02/18/15
Injection Time: 16:13

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19491	15.4		Pass
75	30.0 - 60.0% of mass 95	52832	41.8		Pass
95	Base peak, 100% relative abundance	126467	100.0		Pass
96	5.0 - 9.0% of mass 95	8304	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	104765	82.8		Pass
175	5.0 - 9.0% of mass 174	8046	6.36	(7.68) [a]	Pass
176	95.0 - 101.0% of mass 174	101808	80.5	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	6876	5.44	(6.75) [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
V4D2528-IC2528	4D56968.D	02/18/15	16:45	00:32	Initial cal 0.2
V4D2528-IC2528	4D56969.D	02/18/15	17:12	00:59	Initial cal 0.5
V4D2528-IC2528	4D56970.D	02/18/15	17:40	01:27	Initial cal 1
V4D2528-IC2528	4D56971.D	02/18/15	18:07	01:54	Initial cal 2
V4D2528-IC2528	4D56972.D	02/18/15	18:35	02:22	Initial cal 5
V4D2528-IC2528	4D56973.D	02/18/15	19:02	02:49	Initial cal 10
V4D2528-IC2528	4D56974.D	02/18/15	19:30	03:17	Initial cal 20
V4D2528-ICC2528	4D56975.D	02/18/15	19:57	03:44	Initial cal 50
V4D2528-IC2528	4D56976.D	02/18/15	20:25	04:12	Initial cal 100
V4D2528-IC2528	4D56977.D	02/18/15	20:52	04:39	Initial cal 200
V4D2528-ICV2528	4D56980.D	02/18/15	22:15	06:02	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2537-BFB
Lab File ID: 4D57198.D
Instrument ID: GCMS4D
Injection Date: 02/26/15
Injection Time: 08:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16224	16.6		Pass
75	30.0 - 60.0% of mass 95	43648	44.7		Pass
95	Base peak, 100% relative abundance	97608	100.0		Pass
96	5.0 - 9.0% of mass 95	6409	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	84365	86.4		Pass
175	5.0 - 9.0% of mass 174	6541	6.70	(7.75) [a]	Pass
176	95.0 - 101.0% of mass 174	82067	84.1	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	5391	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
V4D2537-CC2528	4D57199.D	02/26/15	09:29	00:32	Continuing cal 20
V4D2537-MB	4D57201.D	02/26/15	10:27	01:30	Method Blank
V4D2537-BS	4D57202.D	02/26/15	10:54	01:57	Blank Spike
ZZZZZZ	4D57204.D	02/26/15	11:49	02:52	(unrelated sample)
JB88565-7	4D57205.D	02/26/15	12:16	03:19	(used for QC only; not part of job JB88562)
ZZZZZZ	4D57206.D	02/26/15	12:44	03:47	(unrelated sample)
ZZZZZZ	4D57207.D	02/26/15	13:11	04:14	(unrelated sample)
JB88562-11	4D57208.D	02/26/15	13:38	04:41	HSSER-EBLK02-021715
JB88562-12	4D57209.D	02/26/15	14:06	05:09	HSSER-TRIP01-021915
ZZZZZZ	4D57210.D	02/26/15	14:33	05:36	(unrelated sample)
ZZZZZZ	4D57211.D	02/26/15	15:01	06:04	(unrelated sample)
JB88565-7MS	4D57212.D	02/26/15	15:28	06:31	Matrix Spike
JB88565-7MSD	4D57213.D	02/26/15	15:56	06:59	Matrix Spike Duplicate
ZZZZZZ	4D57215.D	02/26/15	16:50	07:53	(unrelated sample)
ZZZZZZ	4D57216.D	02/26/15	17:18	08:21	(unrelated sample)
ZZZZZZ	4D57217.D	02/26/15	17:45	08:48	(unrelated sample)
ZZZZZZ	4D57218.D	02/26/15	18:13	09:16	(unrelated sample)
ZZZZZZ	4D57219.D	02/26/15	18:40	09:43	(unrelated sample)
ZZZZZZ	4D57220.D	02/26/15	19:08	10:11	(unrelated sample)
ZZZZZZ	4D57221.D	02/26/15	19:35	10:38	(unrelated sample)
ZZZZZZ	4D57222.D	02/26/15	20:02	11:05	(unrelated sample)
ZZZZZZ	4D57223.D	02/26/15	20:30	11:33	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V3A6024-CC6014	**Injection Date:**	02/23/15
Lab File ID:	3A139190.D	**Injection Time:**	22:02
Instrument ID:	GCMS3A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	175332	8.14	277539	10.57	318774	11.53	281914	14.88	163589	17.37
Upper Limit [a]	350664	8.64	555078	11.07	637548	12.03	563828	15.38	327178	17.87
Lower Limit [b]	87666	7.64	138770	10.07	159387	11.03	140957	14.38	81795	16.87

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3A6024-MB1	173691	8.14	264924	10.56	305195	11.53	278066	14.88	165529	17.37
V3A6024-BS	154390	8.15	269390	10.56	316517	11.53	283024	14.88	165260	17.37
ZZZZZZ	168561	8.13	269859	10.57	315679	11.53	288389	14.88	170211	17.37
ZZZZZZ	161746	8.14	271128	10.56	319449	11.53	287772	14.88	169557	17.37
ZZZZZZ	165411	8.13	269157	10.57	316704	11.53	282013	14.89	170210	17.37
ZZZZZZ	163063	8.13	259903	10.56	304771	11.53	269580	14.88	166615	17.37
ZZZZZZ	164831	8.14	258015	10.57	304113	11.53	268269	14.88	164950	17.37
ZZZZZZ	163109	8.13	268707	10.56	314532	11.53	281043	14.89	169580	17.37
ZZZZZZ	139764	8.13	260825	10.56	309582	11.53	272630	14.88	166514	17.37
ZZZZZZ	157892	8.14	256371	10.57	303076	11.53	271361	14.88	164269	17.37
ZZZZZZ	161758	8.13	256287	10.57	303667	11.53	273473	14.88	166722	17.37
ZZZZZZ	164287	8.16	255373	10.56	299283	11.53	271663	14.88	160390	17.37
JB88562-4	159907	8.14	250780	10.57	297889	11.53	270593	14.88	163405	17.37
JB88562-3	160619	8.14	250910	10.56	294826	11.53	269360	14.88	158984	17.37
JB88562-2	158441	8.14	250846	10.56	295484	11.53	268208	14.89	158147	17.37
JB88562-1	171140	8.13	254401	10.56	292790	11.53	264775	14.89	158037	17.37
JB88562-5	147810	8.15	248537	10.57	285951	11.53	259378	14.88	155311	17.37
JB88562-6	161142	8.14	253905	10.57	294562	11.53	264628	14.88	155288	17.37

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.

Volatile Internal Standard Area Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V3A6025-CC6014	**Injection Date:**	02/24/15
Lab File ID:	3A139217.D	**Injection Time:**	11:55
Instrument ID:	GCMS3A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	149974	8.14	275056	10.57	330021	11.53	295455	14.89	166054	17.37
Upper Limit [a]	299948	8.64	550112	11.07	660042	12.03	590910	15.39	332108	17.87
Lower Limit [b]	74987	7.64	137528	10.07	165011	11.03	147728	14.39	83027	16.87

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3A6024-MB2	172396	8.14	284318	10.57	343899	11.53	295114	14.88	170793	17.37
JB88562-2MS	189853	8.15	283522	10.57	349718	11.54	300232	14.88	166670	17.37
JB88562-2MSD	206993	8.15	294151	10.57	361732	11.53	310978	14.89	176539	17.37
V3A6025-MB1	178052	8.13	284459	10.56	341396	11.53	303135	14.88	177106	17.37
V3A6025-BS	199686	8.16	292459	10.57	346092	11.54	302248	14.88	171931	17.38
ZZZZZZ	162972	8.14	272269	10.57	329470	11.54	288963	14.88	167877	17.38
JB88562-6	177395	8.13	272889	10.57	326641	11.53	293809	14.89	169132	17.38
JB88615-10	179001	8.14	275838	10.57	334850	11.53	294005	14.88	169536	17.37
ZZZZZZ	177581	8.14	272081	10.56	327998	11.53	289642	14.89	168221	17.37
JB88615-10MS	182748	8.14	282264	10.57	343035	11.53	300988	14.89	171418	17.37
JB88615-10MSD	199413	8.16	291678	10.57	346324	11.53	308104	14.89	178052	17.37
JB88562-7	188896	8.13	279743	10.57	338928	11.53	300686	14.89	174853	17.37
JB88562-8	164814	8.13	271550	10.57	326974	11.53	290753	14.88	170198	17.37
JB88562-9	185330	8.13	270390	10.57	324445	11.53	289163	14.88	167839	17.37
JB88562-10	187767	8.14	267144	10.57	315596	11.53	282402	14.88	165430	17.37

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.

Volatile Internal Standard Area Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V4D2537-CC2528	**Injection Date:**	02/26/15
Lab File ID:	4D57199.D	**Injection Time:**	09:29
Instrument ID:	GCMS4D	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	96405	7.00	264836	9.57	314214	10.53	283643	13.89	148120	16.32
Upper Limit [a]	192810	7.50	529672	10.07	628428	11.03	567286	14.39	296240	16.82
Lower Limit [b]	48203	6.50	132418	9.07	157107	10.03	141822	13.39	74060	15.82

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4D2537-MB	89422	6.99	272714	9.57	320470	10.52	286627	13.89	148714	16.32
V4D2537-BS	86485	6.99	253602	9.57	297151	10.52	274702	13.89	145415	16.32
ZZZZZZ	74189	6.99	229430	9.57	271767	10.52	245166	13.89	122599	16.32
JB88565-7	96743	6.99	273858	9.57	324346	10.52	294826	13.89	150905	16.32
ZZZZZZ	90100	6.99	267692	9.57	317540	10.52	284615	13.89	146577	16.32
ZZZZZZ	85443	6.99	255884	9.57	301079	10.52	273391	13.89	140205	16.32
JB88562-11	88783	7.00	266453	9.57	318072	10.52	288363	13.89	146977	16.32
JB88562-12	85910	6.99	258225	9.57	306174	10.52	275582	13.89	143016	16.32
ZZZZZZ	86320	6.99	260792	9.57	310110	10.52	280281	13.89	143538	16.32
ZZZZZZ	86183	6.99	255854	9.57	299423	10.52	274094	13.89	145898	16.32
JB88565-7MS	93891	7.00	265615	9.57	315881	10.52	292775	13.89	154195	16.32
JB88565-7MSD	96644	6.99	274578	9.57	326137	10.52	300309	13.89	158462	16.32
ZZZZZZ	94969	6.99	282293	9.57	333917	10.52	300447	13.89	156031	16.32
ZZZZZZ	92315	6.99	275817	9.57	327040	10.52	296960	13.89	153456	16.32
ZZZZZZ	89366	6.99	269374	9.57	317432	10.52	290549	13.89	149943	16.32
ZZZZZZ	92143	6.99	270855	9.57	321955	10.52	294665	13.89	152242	16.32
ZZZZZZ	92579	7.00	264132	9.57	311248	10.52	286103	13.89	147747	16.32
ZZZZZZ	86855	6.99	263341	9.57	313078	10.52	282077	13.89	146045	16.32
ZZZZZZ	87052	6.99	267617	9.57	316558	10.52	286740	13.89	148588	16.32
ZZZZZZ	83461	7.00	254159	9.57	297694	10.52	272867	13.89	141519	16.32
ZZZZZZ	86384	6.99	257444	9.57	305467	10.52	279625	13.89	144159	16.32

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.

Volatile Surrogate Recovery Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB88562-1	3A139208.D	107	113	101	104
JB88562-2	3A139207.D	105	115	102	103
JB88562-3	3A139206.D	108	114	101	106
JB88562-4	3A139205.D	107	114	101	105
JB88562-5	3A139209.D	106	110	102	105
JB88562-6	3A139226.D	107	119	100	108
JB88562-6	3A139210.D	108	113	101	106
JB88562-7	3A139232.D	110	124	101	107
JB88562-8	3A139233.D	108	121	100	108
JB88562-9	3A139234.D	108	123	100	109
JB88562-10	3A139235.D	108	121	101	107
JB88562-11	4D57208.D	83	91	87	87
JB88562-12	4D57209.D	82	90	87	87
JB88562-2MS	3A139220.D	108	117	99	109
JB88562-2MSD	3A139221.D	108	115	99	109
JB88565-7MS	4D57212.D	83	88	88	85
JB88565-7MSD	4D57213.D	83	85	87	86
JB88615-10MS	3A139229.D	107	119	101	108
JB88615-10MSD	3A139230.D	109	117	102	109
V3A6024-BS	3A139193.D	104	107	101	105
V3A6024-MB1	3A139192.D	105	112	102	106
V3A6025-BS	3A139224.D	108	116	100	110
V3A6025-MB1	3A139223.D	108	119	99	108
V4D2537-BS	4D57202.D	82	87	87	85
V4D2537-MB	4D57201.D	82	89	87	87
V3A6024-MB2	3A139219.D	109	119	97	108

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-122%
S2 = 1,2-Dichloroethane-D4	71-124%
S3 = Toluene-D8	78-121%
S4 = 4-Bromofluorobenzene	77-120%

Initial Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V3A6014-ICC6014
Lab FileID: 3A138961.D

Response Factor Report MS3A

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Wed Feb 18 14:11:17 2015
Response via : Initial Calibration

Calibration Files
1 =3a138956.D 2 =3a138957.D 100 =3a138964.D 50 =3a138963.D
20 =3a138962.D 200 =3a138965.D 5 =3a138958.D 0.5 =3a138960.D
10 =3a138961.D 0.2 =3a138959.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	0.697	0.960	1.055	1.072	1.029	1.035	1.090		1.052		0.999	12.82
3) ethanol											0.000#	-1.00
4) 1,4-dioxane		0.082	0.116	0.113	0.106	0.114	0.107		0.107		0.106	10.85
5) I pentafluorobenzene ----------ISTD----------												
6) FREON 115											0.000#	-1.00
7) FREON 152A											0.000#	-1.00
8) chlorodifluoromethane	0.466	0.449	0.534	0.535	0.504	0.525	0.461		0.477		0.494	7.06
9) dichlorodifluoromethane	0.755	0.778	0.835	0.884	0.836	0.774	0.784		0.834		0.810	5.40
10) chloromethane	0.572	0.544	0.650	0.644	0.588	0.610	0.538		0.583		0.591	7.04
11) vinyl chloride	0.680	0.671	0.770	0.770	0.707	0.772	0.647		0.699		0.715	7.02
12) bromomethane	0.498	0.475	0.305	0.414	0.416		0.435		0.448		0.427	14.52
13) FREON 123A											0.000#	-1.00
14) FREON 123											0.000#	-1.00
15) 2-CHLOROPROPANE	0.630	0.577	0.550	0.552	0.563	0.554	0.579		0.574		0.572	4.54
16) chloroethane	0.307	0.295	0.224	0.273	0.284		0.295		0.313		0.284	10.55
17) trichlorofluoromethane		0.581	0.780	0.802	0.759	0.754	0.708		0.749		0.733	9.98
18) Pentane											0.000#	-1.00
19) 1-CHLOROPROPANE			0.526	0.563	0.605	0.522	0.901		0.731		0.641	23.17
----- Linear regression ----- Coefficient = 0.9999												
Response Ratio = 0.04117 + 0.51082 *A												
20) ethyl ether	0.192	0.168	0.204	0.204	0.198	0.204	0.184		0.189		0.193	6.53
21) acrolein	0.085	0.075	0.084	0.086	0.085	0.086	0.082		0.083		0.083	4.39

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Initial Calibration Summary

Job Number: JB88562 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
22)  1,1-dichloroethene
      0.402 0.417 0.398 0.411 0.409 0.387 0.427 0.406 0.423        0.409    3.03
23)  acetone
                  0.107 0.115 0.108 0.111 0.116       0.108        0.111    3.32
24)  allyl chloride
      0.173 0.194 0.207 0.210 0.202 0.204 0.205       0.209        0.200    6.09
25)  acetonitrile
                  0.027 0.031 0.031 0.032 0.028       0.024        0.029   10.59
26)  iodomethane
      0.852 0.837 0.871 0.894 0.882 0.852 0.849       0.877        0.864    2.27
27)  iso-butyl alcohol
            0.011 0.013 0.013 0.012 0.013 0.013       0.012        0.012    6.31
28)  carbon disulfide
      1.764 1.582 1.534 1.584 1.573 1.509 1.601       1.611        1.595    4.78
29)  methylene chloride
      0.512 0.463 0.455 0.471 0.478 0.457 0.480       0.476        0.474    3.81
30)  methyl acetate
                  0.251 0.254 0.255 0.260 0.258       0.264        0.257    1.79
31)  methyl tert butyl ether
      1.346 1.397 1.365 1.420 1.403 1.397 1.351 1.329 1.415 1.178  1.360    5.23
32)  trans-1,2-dichloroethene
      0.597 0.547 0.527 0.541 0.545 0.522 0.550       0.553        0.548    4.14
33)  di-isopropyl ether
      1.137 1.047 1.088 1.083 1.063 1.157 1.095       1.084        1.094    3.31
34)  2-butanone
                  0.046 0.047 0.042 0.046 0.038       0.037        0.043   10.62
35)  1,1-dichloroethane
      0.676 0.662 0.652 0.682 0.671 0.661 0.687       0.682        0.672    1.83
36)  chloroprene
      0.431 0.440 0.447 0.444 0.435 0.447 0.449       0.421        0.439    2.20
37)  acrylonitrile
      0.121 0.116 0.132 0.136 0.135 0.137 0.130       0.135        0.130    5.89
38)  vinyl acetate
                  0.059 0.060 0.050 0.062             0.038        0.054   18.77
            ----- Linear regression -----  Coefficient =  0.9998
              Response Ratio = -0.00457 + 0.06256 *A

39)  ethyl tert-butyl ether
      1.222 1.322 1.351 1.368 1.314 1.406 1.307       1.314        1.326    4.06
40)  ethyl acetate
                  0.039 0.037 0.034 0.041 0.025       0.033        0.035   15.95
            ----- Linear regression -----  Coefficient =  0.9992
              Response Ratio = -0.00174 + 0.04036 *A

41)  2,2-dichloropropane
      0.706 0.709 0.677 0.709 0.695 0.663 0.716       0.714        0.699    2.73
42)  cis-1,2-dichloroethene
      0.444 0.440 0.440 0.454 0.456 0.443 0.456       0.459        0.449    1.75
43)  methylacrylate
                  0.055 0.051 0.050 0.058 0.035       0.042        0.048   17.59
            ----- Linear regression -----  Coefficient =  0.9995
              Response Ratio = -0.00407 + 0.05818 *A

44)  propionitrile
      0.043 0.042 0.055 0.055 0.054 0.059 0.051       0.053        0.052   11.59
45)  bromochloromethane
      0.217 0.227 0.230 0.237 0.232 0.230 0.240       0.243        0.232    3.49
46)  tetrahydrofuran
            0.104 0.112 0.109 0.106 0.120 0.110       0.108        0.110    4.63
47)  chloroform
```

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Initial Calibration Summary

Job Number: JB88562 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
     0.412 0.433 0.423 0.436 0.437 0.424 0.459       0.432        0.432    3.15
48)  t-butyl formate
     0.284 0.339 0.383 0.383 0.355 0.409 0.352       0.363        0.358   10.38
49)  dibromofluoromethane (s)
     0.459 0.349 0.358 0.363 0.350 0.352 0.359 0.355 0.344 0.404  0.369    9.66
50)  1,2-dichloroethane-d4 (s)
           0.351 0.348 0.350 0.340 0.348 0.368       0.348        0.350    2.39
51)  freon 113
     0.282 0.310 0.349 0.355 0.343 0.326 0.349 0.248 0.337        0.322   11.21
52)  methacrylonitrile
                 0.218 0.216 0.185 0.232             0.151        0.200   16.14
           ----- Linear regression -----  Coefficient =  0.9995
             Response Ratio = -0.02203 + 0.23616 *A

53)  1,1,1-trichloroethane
     0.622 0.634 0.674 0.680 0.662 0.665 0.672 0.554 0.665        0.648    6.19
54)  Cyclohexane
     0.717 0.624 0.700 0.719 0.687 0.684 0.699 0.571 0.710        0.679    7.26

55) I   1,4-difluorobenzene   ----------------ISTD--------------------
56)  epichlorohydrin
           0.023 0.030 0.030 0.028 0.031 0.027       0.027        0.028    8.97
57)  n-butyl alcohol
                 0.010 0.010 0.009 0.012 0.008       0.009        0.010#  13.45
58)  carbon tetrachloride
     0.508 0.514 0.523 0.543 0.525 0.508 0.518 0.540 0.540        0.524    2.64
59)  1,1-dichloropropene
     0.413 0.421 0.421 0.423 0.418 0.410 0.423 0.408 0.423        0.418    1.41
60)  Tert Amyl Alcohol
                                                                  0.000#  -1.00
61)  hexane
     0.329 0.286 0.299 0.299 0.298 0.283 0.297       0.295        0.298    4.66
62)  2,2,4-TRIMETHYLPENTANE
     1.167 1.112 1.253 1.234 1.126 1.216 1.098       1.089        1.162    5.59
63)  benzene
     1.383 1.264 1.273 1.302 1.273 1.251 1.300 1.313 1.293 1.253  1.290    3.00
64)  tert-amyl methyl ether
     0.266 0.273 0.285 0.287 0.284 0.290 0.274       0.287        0.281    3.06
65)  heptane
     0.154 0.176 0.178 0.175 0.163 0.171 0.173       0.162        0.169    4.88
66)  isopropyl acetate
     0.692 0.619 0.654 0.658 0.612 0.672 0.616       0.611        0.642    4.89
67)  1,2-dichloroethane
     0.377 0.396 0.393 0.389 0.385 0.388 0.394       0.396        0.390    1.68
68)  Ethyl acrylate
                                                                  0.000#  -1.00
69)  trichloroethene
     0.342 0.321 0.324 0.327 0.322 0.317 0.325 0.267 0.323        0.319    6.49
70)  tert-Amyl Ethyl Ether
                                                                  0.000#  -1.00
71)  methyl methacrylate
     0.143 0.149 0.195 0.199 0.191 0.203 0.175       0.188        0.180   12.58
72)  2-nitropropane
           0.069 0.094 0.096 0.090 0.097 0.095       0.091        0.090   10.75
73)  2-chloroethyl vinyl ether
     0.167 0.182 0.195 0.197 0.189 0.192 0.189       0.186        0.187    4.96
74)  1,2-dichloropropane
     0.353 0.303 0.309 0.313 0.316 0.312 0.312       0.315        0.317    4.83
75)  dibromomethane
     0.212 0.203 0.212 0.214 0.213 0.209 0.221 0.171 0.211        0.207    6.88
```

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Initial Calibration Summary

Job Number: JB88562 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
 76)  methylcyclohexane
       0.579 0.543 0.607 0.607 0.555 0.598 0.575 0.558 0.560        0.576    4.14
 77)  bromodichloromethane
       0.458 0.416 0.429 0.433 0.414 0.430 0.426 0.373 0.416        0.422    5.34
 78)  cis-1,3-dichloropropene
       0.496 0.499 0.523 0.513 0.502 0.524 0.494 0.467 0.509        0.503    3.45
 79)  toluene-d8 (s)
       1.375 1.040 1.058 1.053 1.028 1.032 1.065 1.095 0.984 1.386  1.112   13.00
 80)  4-methyl-2-pentanone
                   0.125 0.123 0.117 0.132 0.116       0.122        0.122    4.91
 81)  toluene
       0.753 0.753 0.764 0.756 0.737 0.761 0.758 0.662 0.737 0.570  0.725    8.56
 82)  3-methyl-1-butanol
             0.012 0.016 0.016 0.014 0.018 0.014       0.014        0.015   13.24
 83)  trans-1,3-dichloropropene
       0.430 0.436 0.467 0.465 0.454 0.460 0.454 0.371 0.448        0.443    6.72
 84)  ethyl methacrylate
       0.276 0.335 0.392 0.387 0.380 0.395 0.356       0.373        0.362   11.06
 85)  1,1,2-trichloroethane
       0.253 0.237 0.240 0.244 0.246 0.241 0.244 0.215 0.251        0.241    4.60
 86)  2-hexanone
                   0.119 0.120 0.110 0.123 0.102       0.106        0.113    7.49

 87) I   chlorobenzene-d5       ----------------ISTD--------------------
 88)  tetrachloroethene
       0.308 0.277 0.315 0.315 0.296 0.308 0.305 0.269 0.303        0.300    5.46
 89)  BUTYL ACRYLATE
                                                                    0.000#  -1.00
 90)  1,3-dichloropropane
       0.490 0.481 0.529 0.519 0.524 0.526 0.526 0.476 0.512        0.509    4.15
 91)  butyl acetate
             0.159 0.218 0.209 0.202 0.224 0.188       0.197        0.200   10.76
 92)  3,3-dimethyl-1-butanol
             0.034 0.054 0.048 0.041 0.062 0.037       0.041        0.045   22.12
             ----- Linear regression -----  Coefficient =  0.9954
               Response Ratio = -0.06535 + 0.06201 *A

 93)  dibromochloromethane
       0.334 0.359 0.406 0.403 0.385 0.403 0.378 0.321 0.385        0.375    8.22
 94)  1,2-dibromoethane
       0.322 0.329 0.344 0.342 0.333 0.342 0.341 0.308 0.347        0.334    3.81
 95)  chlorobenzene
       1.001 0.981 1.010 1.001 0.980 0.991 0.959 1.016 0.973        0.990    1.87
 96)  1,1,1,2-tetrachloroethane
       0.420 0.407 0.454 0.450 0.425 0.459 0.407 0.405 0.412        0.426    5.14
 97)  ethylbenzene
       1.626 1.550 1.688 1.693 1.626 1.664 1.663 1.611 1.617 1.500  1.624    3.73
 98)  m,p-xylene
       0.635 0.604 0.666 0.669 0.645 0.654 0.622 0.599 0.635 0.514  0.624    7.27
 99)  o-xylene
       0.627 0.659 0.712 0.706 0.676 0.713 0.653 0.556 0.658 0.487  0.644   11.27
100)  styrene
       0.983 1.017 1.115 1.114 1.076 1.094 1.042 0.921 1.063        1.047    6.16
101)  bromoform
       0.279 0.263 0.304 0.301 0.291 0.299 0.293 0.264 0.284        0.286    5.31

102) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
103)  isopropylbenzene
       2.842 2.719 3.151 3.111 2.882 3.210 2.816 2.590 2.791        2.901    7.26
104)  4-bromofluorobenzene (s)
```

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Initial Calibration Summary

Job Number: JB88562 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
          0.868 0.755 0.755 0.727 0.741 0.794       0.726        0.767    6.56
105)  cyclohexanone  **Compound failed for this initial calibration
                0.051 0.057 0.049 0.048 0.058       0.051        0.052    8.11
106)  bromobenzene
      0.780 0.706 0.791 0.786 0.751 0.774 0.738       0.761        0.761    3.75
107)  1,1,2,2-tetrachloroethane
      0.809 0.838 0.854 0.859 0.828 0.859 0.875       0.844        0.846    2.45
108)  trans-1,4-dichloro-2-butene
      0.162 0.197 0.203 0.207 0.197 0.204 0.203       0.202        0.197    7.33
109)  1,2,3-trichloropropane
      0.190 0.178 0.210 0.217 0.213 0.209 0.199 0.198 0.207        0.202    6.08
110)  n-propylbenzene
      0.709 0.664 0.785 0.784 0.732 0.785 0.735       0.739        0.742    5.79
111)  2-chlorotoluene
      0.771 0.682 0.758 0.746 0.716 0.762 0.732 0.713 0.711        0.732    3.98
112)  4-chlorotoluene
      0.720 0.727 0.748 0.748 0.717 0.743 0.738 0.561 0.708        0.712    8.19
113)  1,3,5-trimethylbenzene
      2.410 2.333 2.769 2.691 2.490 2.906 2.449 2.301 2.432        2.531    8.24
114)  tert-butylbenzene
      2.059 2.018 2.596 2.495 2.229 2.745 2.068       2.118        2.291   12.26
115)  pentachloroethane
      0.487 0.446 0.627 0.603 0.536 0.662 0.501       0.510        0.547   13.84
116)  1,2,4-trimethylbenzene
      2.424 2.297 2.677 2.668 2.509 2.783 2.475 2.286 2.455        2.508    6.83
117)  sec-butylbenzene
      3.323 3.160 3.863 3.797 3.457 4.027 3.293       3.386        3.538    8.88
118)  1,3-dichlorobenzene
      1.620 1.570 1.609 1.621 1.578 1.619 1.576 1.489 1.552        1.582    2.72
119)  p-isopropyltoluene
      2.851 2.645 3.204 3.156 2.966 3.335 2.807       2.836        2.975    7.90
120)  1,4-dichlorobenzene
      1.686 1.600 1.631 1.648 1.613 1.642 1.637 1.830 1.596        1.654    4.33
121)  1,2-dichlorobenzene
      1.725 1.680 1.708 1.711 1.649 1.736 1.655 1.726 1.669        1.695    1.93
122)  benzyl chloride
      1.772 1.717 1.749 1.759 1.667 1.750 1.690       1.684        1.724    2.29
123)  n-butylbenzene
      1.438 1.478 1.581 1.576 1.489 1.615 1.492       1.474        1.518    4.18
124)  1,2-dibromo-3-chloropropane
      0.187 0.204 0.201 0.209 0.202 0.218 0.190       0.200        0.201    4.86
125)  1,3,5-TRICHLOROBENZENE
      1.671 1.671 1.802 1.790 1.706 1.997 1.674       1.693        1.751    6.44
126)  1,2,4-trichlorobenzene
      1.878 1.794 1.974 1.981 1.879 2.186 1.783 1.715 1.801        1.888    7.54
127)  hexachlorobutadiene
      0.793 0.789 0.909 0.860 0.792 1.008 0.791 0.754 0.761        0.829   10.03
128)  naphthalene
      4.852 4.431 5.146 5.256 5.010 5.678 4.540       4.752        4.958    8.18
129)  1,2,3-trichlorobenzene
      2.131 1.973 2.190 2.234 2.105 2.374 1.982 2.023 2.049        2.118    6.20
130)  hexachloroethane
          0.412 0.638 0.591 0.505 0.695 0.460       0.460        0.537   19.63
          ----- Linear regression -----  Coefficient =  0.9980
            Response Ratio = -0.05734 + 0.69814 *A

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

        M3A6014.M        Wed Feb 18 14:14:21 2015   ACCUNJ
```

6.7.1

6

Initial Calibration Verification

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V3A6014-ICV6014
Lab FileID: 3A138971.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\3a138971.D Vial: 4
Acq On : 16 Feb 2015 10:53 am Operator: zobiah
Sample : icv6014-50 Inst : MS3A
Misc : MS80901,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Wed Feb 18 14:11:17 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
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	8.15
2	M	tertiary butyl alcohol	0.999	1.047	-4.8	120	0.02	8.29
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.106	0.116	-9.4	127	0.00	12.31
5	I	pentafluorobenzene	1.000	1.000	0.0	112	0.00	10.57
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.494	0.561	-13.6	118	0.00	4.09
9	M	dichlorodifluoromethane	0.810	0.652	19.5	83	0.01	4.08
10	M	chloromethane	0.591	0.572	3.2	100	0.00	4.46
11	M	vinyl chloride	0.715	0.659	7.8	96	0.00	4.75
12	M	bromomethane	0.427	0.370	13.3	100	0.00	5.54
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.572	0.582	-1.7	119	0.00	7.00
16	M	chloroethane	0.284	0.269	5.3	111	0.00	5.75
17	M	trichlorofluoromethane	0.733	0.751	-2.5	105	0.00	6.26
18	M	Pentane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
19		1-CHLOROPROPANE	50.000	52.376	-4.8	115	0.00	8.15
		----------	AvgRF	CCRF	% Dev	----------		
20	M	ethyl ether	0.193	0.216	-11.9	119	0.00	6.77
21	M	acrolein	0.083	0.093	-12.0	121	0.00	7.13
22	M	1,1-dichloroethene	0.409	0.384	6.1	105	0.00	7.26
23	M	acetone	0.111	0.117	-5.4	114	0.00	7.40
24	M	allyl chloride	0.200	0.218	-9.0	116	0.00	7.90
25	M	acetonitrile	0.029	0.027	6.9	99	0.01	7.97
26	M	iodomethane	0.864	0.829	4.1	104	0.00	7.60
27	M	iso-butyl alcohol	0.012	0.012	0.0	109	0.00	11.14
28	M	carbon disulfide	1.595	1.509	5.4	107	0.00	7.71
29	M	methylene chloride	0.474	0.440	7.2	105	0.00	8.15
30	M	methyl acetate	0.257	0.259	-0.8	115	0.00	7.91
31	M	methyl tert butyl ether	1.360	1.384	-1.7	110	0.01	8.48
32	M	trans-1,2-dichloroethene	0.548	0.525	4.2	109	0.00	8.54
33	M	di-isopropyl ether	1.094	1.147	-4.8	119	0.00	9.13
34	M	2-butanone	0.043	0.045	-4.7	107	0.00	10.01
35	M	1,1-dichloroethane	0.672	0.685	-1.9	113	0.00	9.21
36	M	chloroprene	0.439	0.474	-8.0	120	0.00	9.30
37	M	acrylonitrile	0.130	0.154	-18.5	127	0.00	8.59

Initial Calibration Verification

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-ICV6014
Lab FileID: 3A138971.D

			True	Calc.	% Drift			
38	M	vinyl acetate	50.000	58.499	-17.0	128	0.00	9.20
			AvgRF	CCRF	% Dev			
39	M	ethyl tert-butyl ether	1.326	1.316	0.8	108	0.00	9.65
			True	Calc.	% Drift			
40	M	ethyl acetate	50.000	55.836	-11.7	132	0.00	10.00
			AvgRF	CCRF	% Dev			
41	M	2,2-dichloropropane	0.699	0.734	-5.0	116	0.00	10.00
42	M	cis-1,2-dichloroethene	0.449	0.438	2.4	108	0.00	10.02
			True	Calc.	% Drift			
43		methylacrylate	50.000	49.966	0.1	119	0.01	10.10
			AvgRF	CCRF	% Dev			
44	M	propionitrile	0.052	0.060	-15.4	123	0.00	10.17
45	M	bromochloromethane	0.232	0.226	2.6	107	0.00	10.37
46	M	tetrahydrofuran	0.110	0.119	-8.2	123	0.00	10.39
47	M	chloroform	0.432	0.423	2.1	109	0.00	10.43
48		t-butyl formate	0.358	0.418	-16.8	123	0.01	10.44
49	S	dibromofluoromethane (s)	0.369	0.340	7.9	105	0.00	10.65
50	S	1,2-dichloroethane-d4 (s)	0.350	0.336	4.0	108	0.00	11.09
51	M	freon 113	0.322	0.382	-18.6	121	0.00	7.20
			True	Calc.	% Drift			
52	M	methacrylonitrile	50.000	51.201	-2.4	115	0.00	10.34
			AvgRF	CCRF	% Dev			
53	M	1,1,1-trichloroethane	0.648	0.682	-5.2	113	0.00	10.66
54	M	Cyclohexane	0.679	0.707	-4.1	111	0.00	10.70
55	I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00	11.53
56	M	epichlorohydrin	0.028	0.031	-10.7	117	0.00	12.90
57	M	n-butyl alcohol	0.010	0.012	-20.0	131	0.00	11.72
58	M	carbon tetrachloride	0.524	0.538	-2.7	110	0.00	10.85
59	M	1,1-dichloropropene	0.418	0.431	-3.1	113	0.00	10.84
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.298	0.321	-7.7	119	0.00	8.82
62		2,2,4-TRIMETHYLPENTANE	1.162	1.214	-4.5	109	0.00	11.07
63	M	benzene	1.290	1.303	-1.0	111	0.00	11.13
64	M	tert-amyl methyl ether	0.281	0.276	1.8	107	0.00	11.14
65	M	heptane	0.169	0.207	-22.5#	131	0.00	11.26
66	M	isopropyl acetate	0.642	0.769	-19.8	129	0.00	11.06
67	M	1,2-dichloroethane	0.390	0.388	0.5	110	0.00	11.19
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.319	0.304	4.7	103	0.00	11.88
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.180	0.206	-14.4	115	0.00	12.17
72	M	2-nitropropane	0.090	0.101	-12.2	116	0.00	12.76
73	M	2-chloroethyl vinyl ether	0.187	0.199	-6.4	112	0.00	12.74
74	M	1,2-dichloropropane	0.317	0.320	-0.9	113	0.00	12.18
75	M	dibromomethane	0.207	0.202	2.4	105	0.00	12.36
76	M	methylcyclohexane	0.576	0.654	-13.5	119	0.00	12.06
77	M	bromodichloromethane	0.422	0.411	2.6	105	0.00	12.50
78	M	cis-1,3-dichloropropene	0.503	0.494	1.8	107	0.00	12.97
79	S	toluene-d8 (s)	1.112	0.984	11.5	103	0.00	13.25
80	M	4-methyl-2-pentanone	0.122	0.136	-11.5	122	0.00	13.08

6.7.2 6

Initial Calibration Verification

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-ICV6014
Lab FileID: 3A138971.D

81	M	toluene	0.725	0.727	-0.3	106	0.00	13.33
82	M	3-methyl-1-butanol	0.015	0.018	-20.0	127	0.00	13.11
83	M	trans-1,3-dichloropropene	0.443	0.439	0.9	104	0.00	13.58
84	M	ethyl methacrylate	0.362	0.390	-7.7	112	0.00	13.54
85	M	1,1,2-trichloroethane	0.241	0.232	3.7	105	0.00	13.81
86	M	2-hexanone	0.113	0.122	-8.0	113	0.00	13.98
87	I	chlorobenzene-d5	1.000	1.000	0.0	111	0.00	14.88
88	M	tetrachloroethene	0.300	0.284	5.3	100	0.00	13.94
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.509	0.503	1.2	107	0.00	14.00
91	M	butyl acetate	0.200	0.219	-9.5	116	0.00	14.03
		----------	True	Calc.	% Drift	----------		
92		3,3-dimethyl-1-butanol	500.000	495.251	0.9	126	0.00	14.17
		----------	AvgRF	CCRF	% Dev	----------		
93	M	dibromochloromethane	0.375	0.370	1.3	102	0.00	14.29
94	M	1,2-dibromoethane	0.334	0.321	3.9	104	0.00	14.44
95	M	chlorobenzene	0.990	0.929	6.2	103	0.00	14.92
96	M	1,1,1,2-tetrachloroethane	0.426	0.444	-4.2	109	0.00	14.98
97	M	ethylbenzene	1.624	1.568	3.4	103	0.00	14.96
98	M	m,p-xylene	0.624	0.617	1.1	102	0.00	15.07
99	M	o-xylene	0.644	0.671	-4.2	105	0.00	15.52
100	M	styrene	1.047	1.029	1.7	102	0.00	15.54
101	M	bromoform	0.286	0.276	3.5	102	0.00	15.87
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	17.37
103	M	isopropylbenzene	2.901	3.102	-6.9	106	0.00	15.88
104	S	4-bromofluorobenzene (s)	0.767	0.712	7.2	100	0.00	16.12
105		cyclohexanone	0.052	0.041	21.2#	76	0.00	16.13
106	M	bromobenzene	0.761	0.750	1.4	101	0.00	16.34
107	M	1,1,2,2-tetrachloroethane	0.846	0.841	0.6	104	0.00	16.26
108	M	trans-1,4-dichloro-2-bute	0.197	0.212	-7.6	108	0.00	16.30
109	M	1,2,3-trichloropropane	0.202	0.212	-5.0	103	0.00	16.34
110	M	n-propylbenzene	0.742	0.801	-8.0	108	0.00	16.32
111	M	2-chlorotoluene	0.732	0.729	0.4	104	0.00	16.49
112	M	4-chlorotoluene	0.712	0.700	1.7	99	0.00	16.60
113	M	1,3,5-trimethylbenzene	2.531	2.660	-5.1	105	0.00	16.47
114	M	tert-butylbenzene	2.291	2.464	-7.6	105	0.00	16.85
115	M	pentachloroethane	0.547	0.613	-12.1	108	0.00	16.97
116	M	1,2,4-trimethylbenzene	2.508	2.719	-8.4	108	0.00	16.90
117	M	sec-butylbenzene	3.538	3.711	-4.9	104	0.00	17.07
118	M	1,3-dichlorobenzene	1.582	1.467	7.3	96	0.00	17.31
119	M	p-isopropyltoluene	2.975	3.134	-5.3	105	0.00	17.20
120	M	1,4-dichlorobenzene	1.654	1.505	9.0	97	0.00	17.40
121	M	1,2-dichlorobenzene	1.695	1.593	6.0	99	0.00	17.84
122	M	benzyl chloride	1.724	1.997	-15.8	120	0.00	17.54
123	M	n-butylbenzene	1.518	1.543	-1.6	104	0.00	17.65
124	M	1,2-dibromo-3-chloropropa	0.201	0.206	-2.5	105	0.00	18.70
125		1,3,5-TRICHLOROBENZENE	1.751	1.620	7.5	96	0.00	18.86
126	M	1,2,4-trichlorobenzene	1.888	1.812	4.0	97	0.00	19.57
127	M	hexachlorobutadiene	0.829	0.781	5.8	96	0.00	19.66
128	M	naphthalene	4.958	4.896	1.3	99	0.00	19.89
129	M	1,2,3-trichlorobenzene	2.118	2.031	4.1	96	0.00	20.16
		----------	True	Calc.	% Drift	----------		
130	M	hexachloroethane	50.000	45.610	8.8	104	0.00	18.09

6.7.2

6

Initial Calibration Verification

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-ICV6014
Lab FileID: 3A138971.D

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3a138963.D M3A6014.M        Wed Feb 18 14:21:26 2015   ACCUNJ
```

6.7.2

6

Continuing Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6024-CC6014
Lab FileID: 3A139190.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\3a139190.D Vial: 23
Acq On : 23 Feb 2015 10:02 pm Operator: zobiah
Sample : cc6014-50 Inst : MS3A
Misc : MS81194,V3A6024,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Feb 19 10:03:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
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	124	0.00	8.14
2	M	tertiary butyl alcohol	0.999	1.069	-7.0	124	0.00	8.28
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.106	0.109	-2.8	121	0.00	12.31
5	I	pentafluorobenzene	1.000	1.000	0.0	103	0.00	10.57
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.494	0.610	-23.5#	118	0.00	4.10
9	M	dichlorodifluoromethane	0.810	0.809	0.1	94	-0.01	4.06
10	M	chloromethane	0.591	0.672	-13.7	108	0.00	4.46
11	M	vinyl chloride	0.715	0.731	-2.2	98	-0.01	4.74
12	M	bromomethane	0.427	0.433	-1.4	108	0.00	5.53
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.572	0.610	-6.6	114	0.00	7.00
16	M	chloroethane	0.284	0.322	-13.4	122	0.00	5.74
17	M	trichlorofluoromethane	0.733	0.717	2.2	92	0.01	6.27
18	M	Pentane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
19		1-CHLOROPROPANE	50.000	58.975	-18.0	118	0.00	8.15
		----------	AvgRF	CCRF	% Dev	----------		
20	M	ethyl ether	0.193	0.217	-12.4	110	0.00	6.76
21	M	acrolein	0.083	0.079	4.8	95	0.00	7.13
22	M	1,1-dichloroethene	0.409	0.376	8.1	94	0.00	7.25
23	M	acetone	0.111	0.129	-16.2	116	0.01	7.41
24	M	allyl chloride	0.200	0.208	-4.0	102	0.00	7.90
25	M	acetonitrile	0.029	0.040	-37.9#	134	0.01	7.97
26	M	iodomethane	0.864	0.827	4.3	95	0.00	7.60
27	M	iso-butyl alcohol	0.012	0.014	-16.7	110	0.00	11.14
28	M	carbon disulfide	1.595	1.557	2.4	101	0.00	7.71
29	M	methylene chloride	0.474	0.476	-0.4	104	0.00	8.15
30	M	methyl acetate	0.257	0.337	-31.1#	137	0.00	7.91
31	M	methyl tert butyl ether	1.360	1.524	-12.1	111	0.00	8.47
32	M	trans-1,2-dichloroethene	0.548	0.586	-6.9	112	0.00	8.54
33	M	di-isopropyl ether	1.094	1.364	-24.7#	130	0.00	9.13
34	M	2-butanone	0.043	0.047	-9.3	102	0.00	10.01
35	M	1,1-dichloroethane	0.672	0.753	-12.1	114	0.00	9.20
36	M	chloroprene	0.439	0.489	-11.4	114	0.00	9.30
37	M	acrylonitrile	0.130	0.164	-26.2#	125	0.00	8.58

Continuing Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6024-CC6014
Lab FileID: 3A139190.D

			True	Calc.	% Drift			
38	M	vinyl acetate	50.000	47.486	5.0	94	0.00	9.20
			AvgRF	CCRF	% Dev			
39	M	ethyl tert-butyl ether	1.326	1.496	-12.8	113	0.00	9.65
			True	Calc.	% Drift			
40	M	ethyl acetate	50.000	58.838	-17.7	128	0.00	10.00
			AvgRF	CCRF	% Dev			
41	M	2,2-dichloropropane	0.699	0.687	1.7	100	0.00	10.00
42	M	cis-1,2-dichloroethene	0.449	0.475	-5.8	108	0.00	10.02
			True	Calc.	% Drift			
43		methylacrylate	50.000	50.428	-0.9	110	0.00	10.09
			AvgRF	CCRF	% Dev			
44	M	propionitrile	0.052	0.067	-28.8#	126	0.00	10.17
45	M	bromochloromethane	0.232	0.238	-2.6	104	0.00	10.37
46	M	tetrahydrofuran	0.110	0.136	-23.6#	129	0.00	10.39
47	M	chloroform	0.432	0.449	-3.9	106	0.00	10.43
48		t-butyl formate	0.358	0.423	-18.2	114	0.00	10.44
49	S	dibromofluoromethane (s)	0.369	0.380	-3.0	108	0.00	10.65
50	S	1,2-dichloroethane-d4 (s)	0.350	0.380	-8.6	112	0.00	11.09
51	M	freon 113	0.322	0.313	2.8	91	0.00	7.19
			True	Calc.	% Drift			
52	M	methacrylonitrile	50.000	58.567	-17.1	122	0.00	10.33
			AvgRF	CCRF	% Dev			
53	M	1,1,1-trichloroethane	0.648	0.694	-7.1	105	0.00	10.66
54	M	Cyclohexane	0.679	0.683	-0.6	98	0.00	10.70
55	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.53
56	M	epichlorohydrin	0.028	0.033	-17.9	115	0.00	12.90
57	M	n-butyl alcohol	0.010	0.012	-20.0	129	0.00	11.71
58	M	carbon tetrachloride	0.524	0.522	0.4	101	0.00	10.85
59	M	1,1-dichloropropene	0.418	0.422	-1.0	105	0.00	10.84
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.298	0.299	-0.3	105	0.00	8.83
62		2,2,4-TRIMETHYLPENTANE	1.162	0.943	18.8	80	0.00	11.07
63	M	benzene	1.290	1.338	-3.7	108	0.00	11.13
64	M	tert-amyl methyl ether	0.281	0.286	-1.8	105	0.00	11.14
65	M	heptane	0.169	0.152	10.1	91	0.00	11.25
66	M	isopropyl acetate	0.642	0.736	-14.6	117	0.00	11.06
67	M	1,2-dichloroethane	0.390	0.410	-5.1	110	0.00	11.19
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.319	0.305	4.4	98	0.00	11.88
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.180	0.206	-14.4	109	0.00	12.17
72	M	2-nitropropane	0.090	0.108	-20.0#	118	0.00	12.76
73	M	2-chloroethyl vinyl ether	0.187	0.212	-13.4	113	0.00	12.74
74	M	1,2-dichloropropane	0.317	0.342	-7.9	114	0.00	12.18
75	M	dibromomethane	0.207	0.211	-1.9	103	0.00	12.36
76	M	methylcyclohexane	0.576	0.532	7.6	92	0.00	12.06
77	M	bromodichloromethane	0.422	0.432	-2.4	104	0.00	12.50
78	M	cis-1,3-dichloropropene	0.503	0.510	-1.4	104	0.00	12.97
79	S	toluene-d8 (s)	1.112	1.126	-1.3	112	0.00	13.25
80	M	4-methyl-2-pentanone	0.122	0.146	-19.7	124	0.00	13.08

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Continuing Calibration Summary

Job Number: JB88562 **Sample:** V3A6024-CC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A139190.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	toluene	0.725	0.740	-2.1	103	0.00	13.33
82	M	3-methyl-1-butanol	0.015	0.020	-33.3#	135	0.00	13.11
83	M	trans-1,3-dichloropropene	0.443	0.457	-3.2	103	0.00	13.58
84	M	ethyl methacrylate	0.362	0.416	-14.9	113	0.00	13.53
85	M	1,1,2-trichloroethane	0.241	0.246	-2.1	106	0.00	13.81
86	M	2-hexanone	0.113	0.128	-13.3	112	0.00	13.98
87	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	14.88
88	M	tetrachloroethene	0.300	0.269	10.3	88	0.00	13.94
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.509	0.539	-5.9	107	0.00	14.00
91	M	butyl acetate	0.200	0.243	-21.5#	120	0.00	14.03
		----------	True	Calc.	% Drift	----------		
92		3,3-dimethyl-1-butanol	500.000	557.350	-11.5	134	0.00	14.17
		----------	AvgRF	CCRF	% Dev	----------		
93	M	dibromochloromethane	0.375	0.380	-1.3	97	0.00	14.29
94	M	1,2-dibromoethane	0.334	0.338	-1.2	102	0.00	14.44
95	M	chlorobenzene	0.990	0.955	3.5	98	0.00	14.92
96	M	1,1,1,2-tetrachloroethane	0.426	0.445	-4.5	102	0.00	14.98
97	M	ethylbenzene	1.624	1.633	-0.6	100	0.00	14.95
98	M	m,p-xylene	0.624	0.636	-1.9	98	0.00	15.07
99	M	o-xylene	0.644	0.682	-5.9	100	0.00	15.52
100	M	styrene	1.047	1.060	-1.2	98	0.00	15.54
101	M	bromoform	0.286	0.274	4.2	94	0.00	15.87
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	17.37
103	M	isopropylbenzene	2.901	3.089	-6.5	97	0.00	15.88
104	S	4-bromofluorobenzene (s)	0.767	0.824	-7.4	107	0.00	16.12
105		cyclohexanone	0.052	0.017	67.3#	29#	0.00	16.12
106	M	bromobenzene	0.761	0.758	0.4	94	0.00	16.34
107	M	1,1,2,2-tetrachloroethane	0.846	0.928	-9.7	106	0.00	16.26
108	M	trans-1,4-dichloro-2-bute	0.197	0.214	-8.6	101	0.00	16.30
109	M	1,2,3-trichloropropane	0.202	0.224	-10.9	101	0.00	16.34
110	M	n-propylbenzene	0.742	0.757	-2.0	95	0.00	16.32
111	M	2-chlorotoluene	0.732	0.738	-0.8	97	0.00	16.49
112	M	4-chlorotoluene	0.712	0.726	-2.0	95	0.00	16.60
113	M	1,3,5-trimethylbenzene	2.531	2.651	-4.7	97	0.00	16.47
114	M	tert-butylbenzene	2.291	2.282	0.4	90	0.00	16.85
115	M	pentachloroethane	0.547	0.598	-9.3	97	0.00	16.97
116	M	1,2,4-trimethylbenzene	2.508	2.607	-3.9	96	0.00	16.90
117	M	sec-butylbenzene	3.538	3.432	3.0	89	0.00	17.07
118	M	1,3-dichlorobenzene	1.582	1.506	4.8	91	0.00	17.31
119	M	p-isopropyltoluene	2.975	2.836	4.7	88	0.00	17.20
120	M	1,4-dichlorobenzene	1.654	1.544	6.7	92	0.00	17.40
121	M	1,2-dichlorobenzene	1.695	1.619	4.5	93	0.00	17.84
122	M	benzyl chloride	1.724	1.602	7.1	89	0.00	17.54
123	M	n-butylbenzene	1.518	1.383	8.9	86	0.00	17.65
124	M	1,2-dibromo-3-chloropropa	0.201	0.217	-8.0	102	0.00	18.71
125		1,3,5-TRICHLOROBENZENE	1.751	1.485	15.2	81	0.00	18.86
126	M	1,2,4-trichlorobenzene	1.888	1.645	12.9	81	0.00	19.57
127	M	hexachlorobutadiene	0.829	0.559	32.6#	64	0.00	19.66
128	M	naphthalene	4.958	4.727	4.7	88	0.00	19.89
129	M	1,2,3-trichlorobenzene	2.118	1.844	12.9	81	0.00	20.15
		----------	True	Calc.	% Drift	----------		
130	M	hexachloroethane	50.000	39.587	20.8#	82	0.00	18.09

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Continuing Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6024-CC6014
Lab FileID: 3A139190.D

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3a139067.D M3A6014.M        Tue Feb 24 10:22:46 2015   ACCUNJ
```

6.7.3

6

Continuing Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V3A6025-CC6014
Lab FileID: 3A139217.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\3a139217.D Vial: 3
Acq On : 24 Feb 2015 11:55 am Operator: zobiah
Sample : cc6014-20 Inst : MS3A
Misc : MS81224,V3A6025,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Feb 19 10:03:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
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	107	0.00	8.14
2	M	tertiary butyl alcohol	0.999	1.031	-3.2	107	0.00	8.27
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.106	0.100	5.7	100	0.00	12.31
5	I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	10.57
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.494	0.605	-22.5#	121	-0.01	4.09
9	M	dichlorodifluoromethane	0.810	0.724	10.6	88	0.00	4.07
10	M	chloromethane	0.591	0.567	4.1	98	0.00	4.45
11	M	vinyl chloride	0.715	0.652	8.8	93	-0.01	4.75
12	M	bromomethane	0.427	0.413	3.3	100	0.00	5.53
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.572	0.735	-28.5#	132	0.00	7.00
16	M	chloroethane	0.284	0.292	-2.8	104	0.00	5.74
17	M	trichlorofluoromethane	0.733	0.722	1.5	96	0.00	6.25
18	M	Pentane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
19		1-CHLOROPROPANE	20.000	25.974	-29.9#	128	0.00	8.15
		----------	AvgRF	CCRF	% Dev	----------		
20	M	ethyl ether	0.193	0.233	-20.7#	119	0.00	6.76
21	M	acrolein	0.083	0.079	4.8	94	0.00	7.13
22	M	1,1-dichloroethene	0.409	0.425	-3.9	105	-0.01	7.25
23	M	acetone	0.111	0.128	-15.3	120	0.00	7.40
24	M	allyl chloride	0.200	0.232	-16.0	116	0.00	7.90
25	M	acetonitrile	0.029	0.027	6.9	88	0.02	7.97
26	M	iodomethane	0.864	0.872	-0.9	100	0.00	7.60
27	M	iso-butyl alcohol	0.012	0.014	-16.7	115	0.00	11.14
28	M	carbon disulfide	1.595	1.743	-9.3	112	0.00	7.71
29	M	methylene chloride	0.474	0.511	-7.8	108	0.00	8.14
30	M	methyl acetate	0.257	0.338	-31.5#	134	0.00	7.91
31	M	methyl tert butyl ether	1.360	1.498	-10.1	108	0.00	8.47
32	M	trans-1,2-dichloroethene	0.548	0.635	-15.9	118	0.00	8.54
33	M	di-isopropyl ether	1.094	1.353	-23.7#	129	0.00	9.13
34	M	2-butanone	0.043	0.042	2.3	102	0.00	10.02
35	M	1,1-dichloroethane	0.672	0.804	-19.6	121	0.00	9.21
36	M	chloroprene	0.439	0.529	-20.5#	123	0.00	9.30
37	M	acrylonitrile	0.130	0.155	-19.2	116	0.00	8.58

Continuing Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6025-CC6014
Lab FileID: 3A139217.D

			True	Calc.	% Drift			
38	M	vinyl acetate	20.000	20.078	-0.4	104	0.00	9.20
			AvgRF	CCRF	% Dev			
39	M	ethyl tert-butyl ether	1.326	1.475	-11.2	113	0.00	9.65
			True	Calc.	% Drift			
40	M	ethyl acetate	20.000	23.509	-17.5	127	0.02	10.01
			AvgRF	CCRF	% Dev			
41	M	2,2-dichloropropane	0.699	0.805	-15.2	117	0.00	10.00
42	M	cis-1,2-dichloroethene	0.449	0.483	-7.6	107	0.00	10.02
			True	Calc.	% Drift			
43		methylacrylate	20.000	20.808	-4.0	101	0.01	10.10
			AvgRF	CCRF	% Dev			
44	M	propionitrile	0.052	0.060	-15.4	111	0.00	10.17
45	M	bromochloromethane	0.232	0.238	-2.6	104	0.00	10.37
46	M	tetrahydrofuran	0.110	0.131	-19.1	125	0.01	10.40
47	M	chloroform	0.432	0.475	-10.0	110	0.00	10.43
48		t-butyl formate	0.358	0.391	-9.2	112	0.00	10.43
49	S	dibromofluoromethane (s)	0.369	0.397	-7.6	115	0.00	10.65
50	S	1,2-dichloroethane-d4 (s)	0.350	0.397	-13.4	118	0.00	11.09
51	M	freon 113	0.322	0.352	-9.3	104	0.00	7.19
			True	Calc.	% Drift			
52	M	methacrylonitrile	20.000	24.410	-22.1#	127	0.00	10.34
			AvgRF	CCRF	% Dev			
53	M	1,1,1-trichloroethane	0.648	0.704	-8.6	107	0.00	10.66
54	M	Cyclohexane	0.679	0.724	-6.6	107	0.00	10.70
55	I	1,4-difluorobenzene	1.000	1.000	0.0	110	0.00	11.53
56	M	epichlorohydrin	0.028	0.029	-3.6	116	0.00	12.90
57	M	n-butyl alcohol	0.010	0.009#	10.0	115	0.00	11.72
58	M	carbon tetrachloride	0.524	0.498	5.0	104	0.00	10.85
59	M	1,1-dichloropropene	0.418	0.442	-5.7	116	0.00	10.84
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.298	0.344	-15.4	127	0.00	8.83
62		2,2,4-TRIMETHYLPENTANE	1.162	1.085	6.6	106	0.00	11.07
63	M	benzene	1.290	1.354	-5.0	117	0.00	11.13
64	M	tert-amyl methyl ether	0.281	0.263	6.4	102	0.00	11.14
65	M	heptane	0.169	0.178	-5.3	120	0.00	11.26
66	M	isopropyl acetate	0.642	0.687	-7.0	124	0.00	11.06
67	M	1,2-dichloroethane	0.390	0.425	-9.0	121	0.00	11.19
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.319	0.321	-0.6	110	0.00	11.88
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.180	0.194	-7.8	112	0.00	12.18
72	M	2-nitropropane	0.090	0.104	-15.6	126	0.00	12.76
73	M	2-chloroethyl vinyl ether	0.187	0.198	-5.9	116	0.00	12.74
74	M	1,2-dichloropropane	0.317	0.342	-7.9	119	0.00	12.18
75	M	dibromomethane	0.207	0.217	-4.8	112	0.00	12.36
76	M	methylcyclohexane	0.576	0.539	6.4	107	0.00	12.06
77	M	bromodichloromethane	0.422	0.442	-4.7	117	0.00	12.50
78	M	cis-1,3-dichloropropene	0.503	0.538	-7.0	118	0.00	12.97
79	S	toluene-d8 (s)	1.112	1.114	-0.2	119	0.00	13.25
80	M	4-methyl-2-pentanone	0.122	0.127	-4.1	119	0.00	13.08

6.7.4

6

Continuing Calibration Summary

Job Number: JB88562 **Sample:** V3A6025-CC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A139217.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	toluene	0.725	0.747	-3.0	111	0.00	13.33
82	M	3-methyl-1-butanol	0.015	0.014	6.7	111	0.00	13.11
83	M	trans-1,3-dichloropropene	0.443	0.474	-7.0	115	0.00	13.58
84	M	ethyl methacrylate	0.362	0.374	-3.3	108	0.00	13.54
85	M	1,1,2-trichloroethane	0.241	0.244	-1.2	109	0.00	13.82
86	M	2-hexanone	0.113	0.110	2.7	110	0.00	13.98
87	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	14.89
88	M	tetrachloroethene	0.300	0.275	8.3	101	0.00	13.94
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.509	0.528	-3.7	110	0.00	14.00
91	M	butyl acetate	0.200	0.218	-9.0	118	0.00	14.04
		----------	True	Calc.	% Drift	----------		
92		3,3-dimethyl-1-butanol	200.000	190.003	5.0	113	0.00	14.17
		----------	AvgRF	CCRF	% Dev	----------		
93	M	dibromochloromethane	0.375	0.363	3.2	103	0.00	14.29
94	M	1,2-dibromoethane	0.334	0.327	2.1	107	0.00	14.45
95	M	chlorobenzene	0.990	0.956	3.4	107	0.00	14.92
96	M	1,1,1,2-tetrachloroethane	0.426	0.404	5.2	104	0.00	14.98
97	M	ethylbenzene	1.624	1.617	0.4	109	0.00	14.96
98	M	m,p-xylene	0.624	0.619	0.8	105	0.00	15.07
99	M	o-xylene	0.644	0.649	-0.8	105	0.00	15.52
100	M	styrene	1.047	1.019	2.7	103	0.00	15.54
101	M	bromoform	0.286	0.251	12.2	94	0.00	15.87
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	17.37
103	M	isopropylbenzene	2.901	3.006	-3.6	102	0.00	15.88
104	S	4-bromofluorobenzene (s)	0.767	0.826	-7.7	112	0.00	16.12
105		cyclohexanone	0.052	0.021	59.6#	41#	0.00	16.13
106	M	bromobenzene	0.761	0.763	-0.3	100	0.00	16.34
107	M	1,1,2,2-tetrachloroethane	0.846	0.869	-2.7	103	0.00	16.26
108	M	trans-1,4-dichloro-2-bute	0.197	0.211	-7.1	105	0.00	16.30
109	M	1,2,3-trichloropropane	0.202	0.205	-1.5	94	0.00	16.34
110	M	n-propylbenzene	0.742	0.728	1.9	98	0.00	16.32
111	M	2-chlorotoluene	0.732	0.735	-0.4	101	0.00	16.49
112	M	4-chlorotoluene	0.712	0.735	-3.2	101	0.00	16.60
113	M	1,3,5-trimethylbenzene	2.531	2.554	-0.9	101	0.00	16.47
114	M	tert-butylbenzene	2.291	2.175	5.1	96	0.00	16.85
115	M	pentachloroethane	0.547	0.549	-0.4	101	0.00	16.97
116	M	1,2,4-trimethylbenzene	2.508	2.545	-1.5	100	0.00	16.90
117	M	sec-butylbenzene	3.538	3.356	5.1	95	0.00	17.07
118	M	1,3-dichlorobenzene	1.582	1.527	3.5	95	0.00	17.31
119	M	p-isopropyltoluene	2.975	2.785	6.4	92	0.00	17.20
120	M	1,4-dichlorobenzene	1.654	1.558	5.8	95	0.00	17.40
121	M	1,2-dichlorobenzene	1.695	1.599	5.7	95	0.00	17.84
122	M	benzyl chloride	1.724	1.759	-2.0	104	0.00	17.54
123	M	n-butylbenzene	1.518	1.406	7.4	93	0.00	17.65
124	M	1,2-dibromo-3-chloropropa	0.201	0.188	6.5	91	0.00	18.71
125		1,3,5-TRICHLOROBENZENE	1.751	1.444	17.5	83	0.00	18.86
126	M	1,2,4-trichlorobenzene	1.888	1.582	16.2	83	0.00	19.57
127	M	hexachlorobutadiene	0.829	0.598	27.9#	74	0.00	19.66
128	M	naphthalene	4.958	4.275	13.8	84	0.00	19.89
129	M	1,2,3-trichlorobenzene	2.118	1.742	17.8	81	0.00	20.15
		----------	True	Calc.	% Drift	----------		
130	M	hexachloroethane	20.000	17.342	13.3	90	0.00	18.09

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Continuing Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6025-CC6014
Lab FileID: 3A139217.D

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3a138962.D M3A6014.M        Tue Feb 24 14:40:19 2015   ACCUNJ
```

6.7.4

6

Initial Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2528-ICC2528
Lab FileID: 4D56975.D

Response Factor Report MS4D

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C
Last Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Calibration Files
10 =4d56973.D 0.5 =4d56969.D 5 =4d56972.D 50 =4d56975.D
100 =4d56976.D 1 =4d56970.D 200 =4d56977.D 20 =4d56974.D
2 =4d56971.D 0.2 =4d56968.D = =

Compound	10	0.5	5	50	100	1	200	20	2	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) 1,4-dioxane	0.122	0.130	0.140	0.134	0.109	0.129	0.141	0.138			0.130	8.25
3) tertiary butyl alcohol	1.258	1.385	1.444	1.341		1.272	1.415	1.440			1.365	5.63
4) I pentafluorobenzene ----------ISTD----------												
5) chlorodifluoromethane	0.355	0.409	0.418	0.412	0.345	0.400	0.406	0.438			0.398	7.94
6) dichlorodifluoromethane	0.448	0.504	0.524	0.513	0.473	0.494	0.514	0.550			0.502	6.25
7) chloromethane	0.554	0.651	0.615	0.626	0.611	0.675	0.574	0.621	0.712	0.743	0.638	9.17
8) vinyl chloride	0.542	0.600	0.627	0.630	0.610	0.678	0.576	0.632	0.707		0.622	7.99
9) acetaldehyde											0.000	-1.00
10) bromomethane	0.414	0.555	0.466	0.441	0.409	0.545		0.457	0.549		0.480	12.77
11) chloroethane	0.272	0.281	0.326	0.330	0.314	0.307	0.286	0.310	0.351		0.309	8.30
12) trichlorofluoromethane	0.591	0.619	0.684	0.705	0.679	0.703	0.656	0.690	0.752		0.675	7.10
13) vinyl bromide											0.000	-1.00
14) ethyl ether	0.245	0.260	0.289	0.276	0.191	0.270	0.274	0.269			0.259	11.65
15) pentane											0.000	-1.00
16) 2-chloropropane	0.708	0.819	0.796	0.788	0.757	0.809	0.720	0.786	0.912	0.847	0.794	7.50
17) acrolein	0.102	0.121	0.123	0.154	0.116	0.120	0.116	0.127			0.122	11.94
18) 1,1-dichloroethene	0.434	0.480	0.488	0.494	0.489	0.421	0.465	0.482	0.540	0.487	0.478	6.86
19) acetone	0.124	0.127	0.153	0.131		0.126	0.136				0.133	8.07
20) allyl chloride	0.222	0.212	0.260	0.258	0.249	0.208	0.241	0.256	0.273		0.242	9.47
21) acetonitrile	0.023	0.025	0.031	0.029		0.028	0.029	0.028			0.027	9.27
22) iodomethane	0.847	0.941	0.956	0.972	0.956	0.823	0.912	0.946	1.071	0.880	0.930	7.56
23) iso-butyl alcohol												

Initial Calibration Summary

Job Number: JB88562 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	0.016		0.017	0.019	0.017	0.014	0.016	0.018	0.019		0.017	10.25
24)	carbon disulfide											
	1.625	2.085	1.834	1.840	1.791	1.668	1.694	1.817	2.063		1.824	8.84
25)	methylene chloride											
	0.528	0.679	0.589	0.598	0.579	0.549	0.556	0.587	0.669		0.593	8.66
26)	1-chloropropane											
	0.740	0.777	0.831	0.805	0.763	0.823	0.737	0.813	0.966		0.806	8.60
27)	methyl acetate											
	0.081		0.081	0.108	0.102		0.099	0.098			0.095	12.08
28)	methyl tert butyl ether											
	1.305	1.396	1.457	1.486	1.433	1.214	1.359	1.435	1.585		1.408	7.61
29)	trans-1,2-dichloroethene											
	0.488	0.581	0.540	0.545	0.533	0.464	0.513	0.537	0.602	0.552	0.535	7.55
30)	di-isopropyl ether											
	1.493	1.548	1.669	1.686	1.591	1.509	1.520	1.671	1.756		1.605	5.85
31)	ethyl tert-butyl ether											
	1.437	1.483	1.603	1.656	1.584	1.458	1.514	1.633	1.715	1.393	1.548	6.84
32)	2-butanone											
	0.050		0.051	0.066	0.062		0.060	0.059			0.058	11.01
33)	1,1-dichloroethane											
	0.901	0.978	1.004	1.008	0.963	0.830	0.927	0.987	1.101	1.049	0.975	7.81
34)	chloroprene											
	0.602	0.627	0.677	0.706	0.678	0.596	0.642	0.694	0.711		0.659	6.63
35)	acrylonitrile											
	0.178	0.154	0.197	0.209	0.196	0.154	0.187	0.198	0.211		0.187	11.31
36)	vinyl acetate											
	0.053			0.074	0.071		0.070	0.065			0.067	12.09
37)	ethyl acetate											
	0.064		0.065	0.077	0.071		0.066	0.072	0.065		0.069	7.00
38)	2,2-dichloropropane											
	0.604	0.715	0.689	0.666	0.637	0.602	0.588	0.668	0.769		0.660	8.97
39)	cis-1,2-dichloroethene											
	0.536	0.610	0.596	0.607	0.590	0.538	0.567	0.594	0.663	0.675	0.598	7.62
40)	propionitrile											
	0.071		0.079	0.086	0.080	0.058	0.075	0.081	0.087		0.077	12.02
41)	methyl acrylate											
	0.447		0.486	0.515	0.482	0.333	0.461	0.481	0.532		0.467	12.99
42)	bromochloromethane											
	0.271	0.241	0.303	0.311	0.301	0.243	0.294	0.299	0.325		0.287	10.31
43)	tetrahydrofuran											
	0.141		0.159	0.165	0.149	0.137	0.141	0.155	0.198		0.156	12.49
44)	chloroform											
	0.852	1.017	0.957	0.958	0.925	0.834	0.878	0.935	1.048	1.119	0.952	9.38
45)	dibromofluoromethane (s)											
	0.506		0.574	0.552	0.534	0.700	0.520	0.535	0.549		0.559	10.89
46)	1,2-dichloroethane-d4 (s)											
	0.495		0.561	0.535	0.512	0.650	0.491	0.525	0.533		0.538	9.42
47)	freon 113											
	0.291	0.231	0.336	0.337	0.332	0.286	0.320	0.336	0.356		0.314	12.20
48)	methacrylonitrile											
	0.272		0.299	0.328	0.307	0.217	0.293	0.311	0.324		0.294	12.13
49)	1,1,1-trichloroethane											
	0.654	0.737	0.738	0.738	0.716	0.627	0.681	0.722	0.831	0.698	0.714	7.81
50)	tert-amyl methyl ether											
	1.368	1.403	1.536	1.562	1.461	1.434	1.394	1.538	1.638	1.369	1.470	6.33
51)	I 1,4-difluorobenzene					----------ISTD----------						
52)	epichlorohydrin											
	0.038		0.043	0.046	0.042	0.038	0.041	0.043	0.047		0.042	8.05
53)	n-butyl alcohol											

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Initial Calibration Summary

Job Number: JB88562 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	0.011		0.012	0.014	0.013	0.010	0.012	0.013	0.013		0.012	11.04
54)	cyclohexane											
	0.506	0.600	0.573	0.573	0.558	0.493	0.536	0.579	0.655	0.559	0.563	8.18
55)	tert amyl alcohol											
											0.000	-1.00
56)	carbon tetrachloride											
	0.468	0.527	0.534	0.535	0.526	0.446	0.501	0.535	0.597	0.518	0.519	7.93
57)	1,1-dichloropropene											
	0.515	0.573	0.579	0.586	0.570	0.496	0.544	0.582	0.661	0.653	0.576	9.06
58)	hexane											
	0.443	0.473	0.514	0.511	0.499	0.465	0.479	0.511	0.570		0.496	7.42
59)	benzene											
	1.523	1.797	1.724	1.718	1.651	1.530	1.589	1.698	1.937	1.916	1.708	8.44
60)	ISO-OCTANE											
	1.260	1.370	1.468	1.432	1.388	1.398	1.311	1.457	1.640		1.414	7.65
61)	heptane											
	0.245	0.251	0.282	0.281	0.275	0.254	0.264	0.282	0.326		0.273	8.95
62)	isopropyl acetate											
	0.669	0.643	0.742	0.786	0.724	0.682	0.686	0.751	0.818		0.722	7.97
63)	1,2-dichloroethane											
	0.480	0.480	0.534	0.538	0.510	0.446	0.489	0.530	0.585		0.510	8.13
64)	trichloroethene											
	0.391	0.470	0.439	0.443	0.432	0.389	0.423	0.439	0.491	0.485	0.440	7.93
65)	ethyl acrylate											
											0.000	-1.00
66)	2-nitropropane											
	0.089		0.097	0.112	0.103		0.102	0.102	0.117		0.103	8.83
67)	2-chloroethyl vinyl ether											
	0.279	0.280	0.317	0.327	0.304	0.284	0.283	0.318	0.340		0.304	7.59
68)	methyl methacrylate											
	0.308		0.336	0.366	0.345	0.289	0.330	0.343	0.449		0.346	13.88
69)	1,2-dichloropropane											
	0.426	0.465	0.476	0.482	0.466	0.404	0.447	0.478	0.531		0.464	7.82
70)	methylcyclohexane											
	0.561	0.607	0.649	0.656	0.647	0.596	0.624	0.658	0.707	0.545	0.625	7.81
71)	tert-amyl ethyl ether											
											0.000	-1.00
72)	dibromomethane											
	0.277	0.303	0.308	0.319	0.304	0.251	0.297	0.309	0.336	0.300	0.300	7.59
73)	bromodichloromethane											
	0.526	0.561	0.576	0.602	0.589	0.491	0.574	0.590	0.649	0.556	0.572	7.52
74)	cis-1,3-dichloropropene											
	0.667	0.741	0.742	0.756	0.735	0.628	0.713	0.740	0.822	0.769	0.732	7.30
75)	toluene-d8 (s)											
	1.343	1.830	1.514	1.490	1.439	1.730	1.390	1.462	1.481		1.520	10.43
76)	4-methyl-2-pentanone											
	0.159		0.174	0.192	0.180	0.131	0.174	0.182	0.198		0.174	12.11
77)	toluene											
	0.920	1.000	1.034	1.036	1.004	0.870	0.960	1.006	1.145	1.121	1.010	8.23
78)	3-methyl-1-butanol											
	0.010		0.011	0.013	0.012	0.008	0.011	0.011	0.012		0.011	11.85
79)	trans-1,3-dichloropropene											
	0.597	0.653	0.662	0.696	0.661	0.566	0.646	0.677	0.744	0.736	0.664	8.28
80)	ethyl methacrylate											
	0.494	0.491	0.542	0.605	0.572	0.437	0.548	0.567	0.595		0.539	10.21
81)	1,1,2-trichloroethane											
	0.331	0.344	0.375	0.380	0.367	0.310	0.356	0.372	0.414	0.318	0.357	8.86
82)	2-hexanone											
	0.149		0.162	0.186	0.173		0.166	0.170	0.176		0.169	7.00

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Initial Calibration Summary

Job Number: JB88562 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
 83) I   chlorobenzene-d5        ----------------ISTD--------------------
 84)  tetrachloroethene
       0.427 0.475 0.479 0.488 0.481 0.406 0.471 0.475 0.534 0.531  0.477    8.24
 85)  1,3-dichloropropane
       0.664 0.721 0.737 0.754 0.719 0.619 0.687 0.732 0.817 0.728  0.718    7.41
 86)  butyl acetate
       0.287 0.229 0.325 0.346 0.319 0.283 0.310 0.333 0.350        0.309   12.33
 87)  dibromochloromethane
       0.475 0.472 0.529 0.564 0.548 0.436 0.537 0.539 0.569 0.483  0.515    8.78
 88)  1,2-dibromoethane
       0.437 0.455 0.499 0.509 0.483 0.401 0.468 0.486 0.536 0.453  0.473    8.18
 89)  n-Butyl Ether
       1.864 2.008 2.062 2.134 2.021 1.789 1.848 2.100 2.296        2.014    7.93
 90)  chlorobenzene
       1.154 1.332 1.281 1.301 1.257 1.147 1.206 1.270 1.397 1.387  1.273    6.81
 91)  1,1,1,2-tetrachloroethane
       0.413 0.460 0.456 0.474 0.466 0.381 0.454 0.461 0.508 0.442  0.452    7.65
 92)  ethylbenzene
       1.921 2.198 2.156 2.162 2.083 1.838 1.985 2.120 2.389 2.392  2.124    8.51
 93)  m,p-xylene
       0.727 0.819 0.808 0.825 0.796 0.697 0.743 0.808 0.902 0.863  0.799    7.76
 94)  o-xylene
       0.718 0.800 0.809 0.830 0.804 0.680 0.767 0.797 0.870 0.845  0.792    7.25
 95)  styrene
       1.208 1.282 1.321 1.415 1.375 1.118 1.313 1.353 1.416 1.371  1.317    7.14
 96)  butyl acrylate
                                                                    0.000   -1.00
 97)  bromoform
       0.333 0.334 0.357 0.405 0.396 0.300 0.390 0.375 0.385        0.364    9.72

 98) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
 99)  isopropylbenzene
       3.616 4.008 3.908 4.033 3.914 3.417 3.771 3.987 4.551 4.234  3.944    7.94
100)  4-bromofluorobenzene (s)
       1.147       1.291 1.242 1.211       1.172 1.218 1.306        1.226    4.76
101)  bromobenzene
       0.978 1.099 1.077 1.096 1.078 0.957 1.050 1.079 1.242 1.042  1.070    7.22
102)  cyclohexanone
       0.053 0.051 0.062 0.052 0.051 0.054 0.042 0.055 0.057        0.053   10.11
103)  1,1,2,2-tetrachloroethane
       1.263 1.314 1.397 1.432 1.362 1.182 1.296 1.393 1.623 1.563  1.382    9.65
104)  trans-1,4-dichloro-2-butene
       0.263 0.252 0.291 0.312 0.291 0.233 0.278 0.294 0.327        0.282   10.39
105)  1,2,3-trichloropropane
       0.266 0.256 0.291 0.303 0.288 0.247 0.273 0.294 0.330        0.283    8.99
106)  n-propylbenzene
       4.275 4.696 4.756 4.751 4.644 4.110 4.338 4.793 5.404 5.274  4.704    8.69
107)  2-chlorotoluene
       0.902 1.014 1.009 1.018 1.006 0.895 0.961 1.009 1.137 1.057  1.001    7.05
108)  4-chlorotoluene
       2.727 3.152 3.048 3.018 2.955 2.624 2.838 2.989 3.435 3.473  3.026    9.06
109)  1,3,5-trimethylbenzene
       2.974 3.266 3.320 3.386 3.322 2.817 3.165 3.339 3.692 3.593  3.287    7.89
110)  tert-butylbenzene
       2.456 2.757 2.749 2.823 2.778 2.375 2.682 2.716 3.104 2.918  2.736    7.61
111)  pentachloroethane
       0.597 0.628 0.635 0.692 0.695 0.546 0.685 0.667 0.726        0.652    8.62
112)  1,2,4-trimethylbenzene
       3.008 3.247 3.280 3.374 3.329 2.853 3.192 3.348 3.665 3.470  3.276    6.94
113)  sec-butylbenzene
```

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Initial Calibration Summary

Job Number: JB88562 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	4.001	4.424	4.425	4.499	4.402	3.783	4.229	4.460	4.973	4.809	4.400		7.87
114)	1,3-dichlorobenzene												
	1.820	2.134	2.029	2.052	2.028	1.809	1.964	2.016	2.266	2.488	2.061		9.78
115)	p-isopropyltoluene												
	3.172	3.406	3.464	3.601	3.540	2.986	3.419	3.573	3.856	3.771	3.479		7.43
116)	1,4-dichlorobenzene												
	1.836	2.206	2.037	2.065	2.026	1.832	1.977	2.040	2.273	2.671	2.096		11.66
117)	1,2-dichlorobenzene												
	1.775	2.045	1.966	2.025	1.989	1.726	1.944	1.970	2.167	2.220	1.983		7.65
118)	n-butylbenzene												
	1.718	1.888	1.920	2.006	1.983	1.696	1.903	1.967	2.156	2.057	1.929		7.32
119)	1,2-dibromo-3-chloropropane												
	0.198		0.216	0.236	0.224	0.167	0.216	0.220	0.256		0.217		12.02
120)	1,3,5-trichlorobenzene												
	1.376	1.575	1.509	1.617	1.621	1.336	1.578	1.562	1.720	1.720	1.561		8.13
121)	1,2,4-trichlorobenzene												
	1.259	1.349	1.380	1.524	1.516	1.204	1.493	1.437	1.527	1.757	1.445		10.92
122)	hexachlorobutadiene												
	0.610	0.670	0.701	0.721	0.723	0.601	0.708	0.697	0.772	0.793	0.700		8.74
123)	naphthalene												
	3.026	3.190	3.303	3.780	3.617	2.831	3.417	3.437	3.636	3.869	3.411		9.70
124)	1,2,3-trichlorobenzene												
	1.190	1.254	1.299	1.438	1.417	1.088	1.372	1.359	1.426	1.401	1.324		8.75
125)	hexachloroethane												
	0.660	0.690	0.728	0.795	0.798	0.599	0.797	0.771	0.806	0.718	0.736		9.51
126)	Benzyl chloride												
	1.870	1.940	2.090	2.200	2.067	1.976	1.960	2.112	2.292	2.274	2.078		6.93

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

M4D2528.M Thu Feb 19 08:40:44 2015 RPT1

6.7.5 6

Initial Calibration Verification

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V4D2528-ICV2528
Lab FileID: 4D56980.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\4d56980.D Vial: 14
Acq On : 18 Feb 2015 10:15 pm Operator: PayalR
Sample : icv2528-50 Inst : MS4D
Misc : MS80920,V4D2528,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C
Last Update : Thu Feb 19 08:39:58 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	99	0.00	7.00
2		1,4-dioxane	0.130	0.134	-3.1	94	0.00	11.27
3	M	tertiary butyl alcohol	1.365	1.407	-3.1	96	-0.01	7.12
4	I	pentafluorobenzene	1.000	1.000	0.0	110	0.00	9.57
5		chlorodifluoromethane	0.398	0.368	7.5	97	-0.01	3.35
6		dichlorodifluoromethane	0.502	0.477	5.0	100	-0.01	3.34
7		chloromethane	0.638	0.570	10.7	100	-0.01	3.65
8		vinyl chloride	0.622	0.578	7.1	101	0.00	3.90
9		acetaldehyde		----------NA----------				
10		bromomethane	0.480	0.408	15.0	102	0.00	4.58
11		chloroethane	0.309	0.278	10.0	93	0.00	4.78
12		trichlorofluoromethane	0.675	0.650	3.7	102	-0.01	5.31
13		vinyl bromide		----------NA----------				
14		ethyl ether	0.259	0.266	-2.7	102	0.00	5.78
15		pentane		----------NA----------				
16		2-chloropropane	0.794	0.720	9.3	101	0.00	5.97
17		acrolein	0.122	0.108	11.5	96	0.00	6.00
18		1,1-dichloroethene	0.478	0.458	4.2	102	0.00	6.22
19		acetone	0.133	0.139	-4.5	100	0.00	6.26
20		allyl chloride	0.242	0.240	0.8	102	0.00	6.81
21		acetonitrile	0.027	0.028	-3.7	99	0.00	6.71
22		iodomethane	0.930	0.915	1.6	104	0.00	6.49
23		iso-butyl alcohol	0.017	0.016	5.9	94	0.00	9.85
24		carbon disulfide	1.824	1.704	6.6	102	0.00	6.63
25		methylene chloride	0.593	0.552	6.9	102	0.00	7.00
26		1-chloropropane	0.806	0.732	9.2	100	0.00	7.07
27		methyl acetate	0.095	0.086	9.5	88	0.00	6.81
28		methyl tert butyl ether	1.408	1.362	3.3	101	0.00	7.45
29		trans-1,2-dichloroethene	0.535	0.513	4.1	104	0.00	7.45
30		di-isopropyl ether	1.605	1.556	3.1	102	0.00	8.18
31		ethyl tert-butyl ether	1.548	1.493	3.6	100	0.00	8.70
32		2-butanone	0.058	0.059	-1.7	97	0.00	8.91
33	M	1,1-dichloroethane	0.975	0.930	4.6	102	0.00	8.10
34		chloroprene	0.659	0.651	1.2	102	0.00	8.24
35		acrylonitrile	0.187	0.191	-2.1	101	0.00	7.36
36		vinyl acetate	0.067	0.087	-29.9	130	0.00	8.13
37		ethyl acetate	0.069	0.069	0.0	99	0.00	8.97
38		2,2-dichloropropane	0.660	0.579	12.3	96	0.00	8.95
39		cis-1,2-dichloroethene	0.598	0.569	4.8	103	0.00	8.93
40		propionitrile	0.077	0.077	0.0	98	0.00	8.98
41		methyl acrylate	0.467	0.465	0.4	100	0.00	9.04

Initial Calibration Verification

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2528-ICV2528
Lab FileID: 4D56980.D

42		bromochloromethane	0.287	0.291	-1.4	103	0.00	9.25
43		tetrahydrofuran	0.156	0.142	9.0	95	0.00	9.33
44		chloroform	0.952	0.887	6.8	102	0.00	9.34
45	S	dibromofluoromethane (s)	0.559	0.516	7.7	103	0.00	9.55
46	S	1,2-dichloroethane-d4 (s)	0.538	0.492	8.6	101	0.00	10.00
47		freon 113	0.314	0.331	-5.4	108	0.00	6.23
48		methacrylonitrile	0.294	0.293	0.3	98	0.00	9.20
49		1,1,1-trichloroethane	0.714	0.688	3.6	103	0.00	9.63
50		tert-amyl methyl ether	1.470	1.425	3.1	101	0.00	10.20
51	I	1,4-difluorobenzene	1.000	1.000	0.0	109	0.00	10.52
52		epichlorohydrin	0.042	0.041	2.4	99	0.00	11.83
53		n-butyl alcohol	0.012	0.013	-8.3	99	0.00	10.66
54	M	cyclohexane	0.563	0.546	3.0	104	0.00	9.73
55		tert amyl alcohol		----------NA----------				
56		carbon tetrachloride	0.519	0.505	2.7	103	0.00	9.86
57		1,1-dichloropropene	0.576	0.556	3.5	103	0.00	9.83
58		hexane	0.496	0.423	14.7	90	0.00	7.88
59	M	benzene	1.708	1.626	4.8	103	0.00	10.10
60		ISO-OCTANE	1.414	1.177	16.8	89	0.00	10.19
61		heptane	0.273	0.247	9.5	96	0.00	10.39
62		isopropyl acetate	0.722	0.697	3.5	96	0.00	10.09
63		1,2-dichloroethane	0.510	0.498	2.4	101	0.00	10.10
64		trichloroethene	0.440	0.427	3.0	105	0.00	10.87
65		ethyl acrylate		----------NA----------				
66		2-nitropropane	0.103	0.100	2.9	97	0.00	11.67
67		2-chloroethyl vinyl ether	0.304	0.314	-3.3	104	0.00	11.74
68		methyl methacrylate	0.346	0.333	3.8	99	0.00	11.20
69		1,2-dichloropropane	0.464	0.460	0.9	104	0.00	11.14
70		methylcyclohexane	0.625	0.603	3.5	100	0.00	11.14
71	M	tert-amyl ethyl ether		----------NA----------				
72		dibromomethane	0.300	0.300	0.0	102	0.00	11.28
73		bromodichloromethane	0.572	0.575	-0.5	104	0.00	11.44
74		cis-1,3-dichloropropene	0.732	0.715	2.3	103	0.00	11.95
75	S	toluene-d8 (s)	1.520	1.426	6.2	104	0.00	12.28
76		4-methyl-2-pentanone	0.174	0.175	-0.6	99	0.00	12.08
77		toluene	1.010	0.996	1.4	105	0.00	12.36
78		3-methyl-1-butanol	0.011	0.011	0.0	97	0.00	12.10
79		trans-1,3-dichloropropene	0.664	0.654	1.5	102	0.00	12.55
80		ethyl methacrylate	0.539	0.561	-4.1	101	0.00	12.60
81		1,1,2-trichloroethane	0.357	0.361	-1.1	103	0.00	12.77
82		2-hexanone	0.169	0.167	1.2	98	0.00	13.00
83	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	13.89
84		tetrachloroethene	0.477	0.481	-0.8	107	0.00	12.99
85		1,3-dichloropropane	0.718	0.714	0.6	103	0.00	12.97
86		butyl acetate	0.309	0.324	-4.9	102	0.00	13.11
87		dibromochloromethane	0.515	0.539	-4.7	104	0.00	13.24
88		1,2-dibromoethane	0.473	0.482	-1.9	103	0.00	13.40
89		n-Butyl Ether	2.014	2.031	-0.8	104	0.00	13.92
90		chlorobenzene	1.273	1.254	1.5	105	0.00	13.92
91		1,1,1,2-tetrachloroethane	0.452	0.455	-0.7	104	0.00	13.99
92		ethylbenzene	2.124	2.090	1.6	105	0.00	14.01
93		m,p-xylene	0.799	0.794	0.6	105	0.00	14.13
94		o-xylene	0.792	0.792	0.0	104	0.00	14.57
95		styrene	1.317	1.354	-2.8	104	0.00	14.58
96		butyl acrylate		----------NA----------				
97		bromoform	0.364	0.386	-6.0	104	0.00	14.82
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	16.32

6.7.6

6

Initial Calibration Verification

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2528-ICV2528
Lab FileID: 4D56980.D

99		isopropylbenzene	3.944	3.880	1.6	104	0.00	14.95
100	S	4-bromofluorobenzene (s)	1.226	1.184	3.4	103	0.00	15.13
101		bromobenzene	1.070	1.064	0.6	105	0.00	15.33
102		cyclohexanone	0.053	0.043	18.9	88	0.00	15.07
103		1,1,2,2-tetrachloroethane	1.382	1.343	2.8	102	0.00	15.22
104		trans-1,4-dichloro-2-bute	0.282	0.277	1.8	96	0.00	15.28
105		1,2,3-trichloropropane	0.283	0.284	-0.4	102	0.00	15.30
106		n-propylbenzene	4.704	4.604	2.1	105	0.00	15.38
107		2-chlorotoluene	1.001	0.980	2.1	104	0.00	15.50
108		4-chlorotoluene	3.026	2.912	3.8	105	0.00	15.61
109		1,3,5-trimethylbenzene	3.287	3.262	0.8	104	0.00	15.54
110		tert-butylbenzene	2.736	2.712	0.9	104	0.00	15.89
111		pentachloroethane	0.652	0.668	-2.5	105	0.00	15.94
112		1,2,4-trimethylbenzene	3.276	3.254	0.7	104	0.00	15.93
113		sec-butylbenzene	4.400	4.350	1.1	105	0.00	16.11
114		1,3-dichlorobenzene	2.061	1.980	3.9	105	0.00	16.26
115		p-isopropyltoluene	3.479	3.479	0.0	105	0.00	16.23
116		1,4-dichlorobenzene	2.096	1.999	4.6	105	0.00	16.35
117		1,2-dichlorobenzene	1.983	1.929	2.7	103	0.00	16.72
118		n-butylbenzene	1.929	1.919	0.5	104	0.00	16.64
119		1,2-dibromo-3-chloropropa	0.217	0.216	0.5	99	0.00	17.45
120	m	1,3,5-trichlorobenzene	1.561	1.563	-0.1	105	0.00	17.65
121		1,2,4-trichlorobenzene	1.445	1.456	-0.8	103	0.00	18.22
122		hexachlorobutadiene	0.700	0.697	0.4	105	0.00	18.35
123		naphthalene	3.411	3.461	-1.5	99	0.00	18.48
124		1,2,3-trichlorobenzene	1.324	1.364	-3.0	103	0.00	18.71
125		hexachloroethane	0.736	0.764	-3.8	104	0.00	17.00
126		Benzyl chloride	2.078	2.110	-1.5	104	0.00	16.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4d56975.D M4D2528.M Thu Feb 19 08:41:40 2015 RPT1

6.7.6

6

Continuing Calibration Summary

Job Number: JB88562
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V4D2537-CC2528
Lab FileID: 4D57199.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\4d57199.D
Acq On : 26 Feb 2015 9:29 am
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
MS Integration Params: rteint.p

Vial: 2
Operator: PayalR
Inst : MS4D
Multiplr: 1.00

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C
Last Update : Thu Feb 19 08:39:58 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	84	0.00	7.00
2		1,4-dioxane	0.130	0.141	-8.5	84	0.00	11.27
3	M	tertiary butyl alcohol	1.365	1.564	-14.6	93	0.00	7.13
4	I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	9.57
5		chlorodifluoromethane	0.398	0.412	-3.5	95	-0.01	3.35
6		dichlorodifluoromethane	0.502	0.621	-23.7#	113	0.00	3.35
7		chloromethane	0.638	0.658	-3.1	99	0.00	3.65
8		vinyl chloride	0.622	0.624	-0.3	93	0.00	3.91
9		acetaldehyde		----------NA----------				
10		bromomethane	0.480	0.456	5.0	94	0.00	4.58
11		chloroethane	0.309	0.286	7.4	86	0.00	4.79
12		trichlorofluoromethane	0.675	0.772	-14.4	105	-0.01	5.31
13		vinyl bromide		----------NA----------				
14		ethyl ether	0.259	0.248	4.2	85	0.00	5.79
15		pentane		----------NA----------				
16		2-chloropropane	0.794	0.777	2.1	93	0.00	5.97
17		acrolein	0.122	0.079	35.2#	64	0.00	6.01
18		1,1-dichloroethene	0.478	0.442	7.5	86	0.00	6.22
19		acetone	0.133	0.168	-26.3#	116	0.00	6.27
20		allyl chloride	0.242	0.229	5.4	84	0.00	6.81
21		acetonitrile	0.027	0.028	-3.7	93	0.00	6.73
22		iodomethane	0.930	0.913	1.8	90	0.00	6.49
23		iso-butyl alcohol	0.017	0.018	-5.9	95	0.00	9.86
24		carbon disulfide	1.824	1.613	11.6	83	0.00	6.63
25		methylene chloride	0.593	0.532	10.3	85	0.00	7.01
26		1-chloropropane	0.806	0.806	0.0	93	0.00	7.07
27		methyl acetate	0.095	0.081	14.7	78	0.00	6.82
28		methyl tert butyl ether	1.408	1.462	-3.8	95	0.00	7.45
29		trans-1,2-dichloroethene	0.535	0.498	6.9	87	0.00	7.46
30		di-isopropyl ether	1.605	1.615	-0.6	91	0.00	8.18
31		ethyl tert-butyl ether	1.548	1.594	-3.0	91	0.00	8.70
32		2-butanone	0.058	0.063	-8.6	100	0.00	8.92
33	M	1,1-dichloroethane	0.975	0.940	3.6	89	0.00	8.10
34		chloroprene	0.659	0.656	0.5	89	0.00	8.25
35		acrylonitrile	0.187	0.177	5.3	84	0.00	7.37
36		vinyl acetate	0.067	0.061	9.0	88	0.00	8.14
37		ethyl acetate	0.069	0.066	4.3	86	0.00	8.98
38		2,2-dichloropropane	0.660	0.775	-17.4	109	0.00	8.95
39		cis-1,2-dichloroethene	0.598	0.560	6.4	88	0.00	8.93
40		propionitrile	0.077	0.075	2.6	87	0.00	8.98
41		methyl acrylate	0.467	0.452	3.2	88	0.00	9.05

Continuing Calibration Summary

Job Number: JB88562 **Sample:** V4D2537-CC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D57199.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42		bromochloromethane	0.287	0.294	-2.4	92	0.00	9.26
43		tetrahydrofuran	0.156	0.147	5.8	89	0.00	9.33
44		chloroform	0.952	0.949	0.3	95	0.00	9.34
45	S	dibromofluoromethane (s)	0.559	0.461	17.5	81	0.00	9.55
46	S	1,2-dichloroethane-d4 (s)	0.538	0.477	11.3	85	0.00	10.00
47		freon 113	0.314	0.330	-5.1	92	0.00	6.24
48		methacrylonitrile	0.294	0.307	-4.4	93	0.00	9.21
49		1,1,1-trichloroethane	0.714	0.775	-8.5	101	0.00	9.64
50		tert-amyl methyl ether	1.470	1.506	-2.4	92	0.00	10.20
51	I	1,4-difluorobenzene	1.000	1.000	0.0	90	0.00	10.53
52		epichlorohydrin	0.042	0.041	2.4	85	0.00	11.83
53		n-butyl alcohol	0.012	0.012	0.0	86	0.00	10.66
54	M	cyclohexane	0.563	0.539	4.3	84	0.00	9.73
55		tert amyl alcohol		----------NA----------				
56		carbon tetrachloride	0.519	0.587	-13.1	99	0.00	9.86
57		1,1-dichloropropene	0.576	0.567	1.6	88	0.00	9.83
58		hexane	0.496	0.457	7.9	80	0.00	7.88
59	M	benzene	1.708	1.683	1.5	89	0.00	10.11
60		ISO-OCTANE	1.414	1.419	-0.4	88	0.00	10.20
61		heptane	0.273	0.264	3.3	84	0.00	10.39
62		isopropyl acetate	0.722	0.787	-9.0	94	0.00	10.09
63		1,2-dichloroethane	0.510	0.593	-16.3	101	0.00	10.10
64		trichloroethene	0.440	0.446	-1.4	91	0.00	10.88
65		ethyl acrylate		----------NA----------				
66		2-nitropropane	0.103	0.105	-1.9	93	0.00	11.67
67		2-chloroethyl vinyl ether	0.304	0.301	1.0	85	0.00	11.74
68		methyl methacrylate	0.346	0.371	-7.2	97	0.00	11.20
69		1,2-dichloropropane	0.464	0.474	-2.2	89	0.00	11.14
70		methylcyclohexane	0.625	0.620	0.8	85	0.00	11.14
71	M	tert-amyl ethyl ether		----------NA----------				
72		dibromomethane	0.300	0.315	-5.0	92	0.00	11.29
73		bromodichloromethane	0.572	0.637	-11.4	97	0.00	11.44
74		cis-1,3-dichloropropene	0.732	0.781	-6.7	95	0.00	11.95
75	S	toluene-d8 (s)	1.520	1.317	13.4	81	0.00	12.28
76		4-methyl-2-pentanone	0.174	0.180	-3.4	89	0.00	12.08
77		toluene	1.010	1.056	-4.6	94	0.00	12.36
78		3-methyl-1-butanol	0.011	0.011	0.0	89	0.00	12.10
79		trans-1,3-dichloropropene	0.664	0.712	-7.2	94	0.00	12.55
80		ethyl methacrylate	0.539	0.571	-5.9	90	0.00	12.60
81		1,1,2-trichloroethane	0.357	0.375	-5.0	91	0.00	12.77
82		2-hexanone	0.169	0.178	-5.3	94	0.00	13.00
83	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	13.89
84		tetrachloroethene	0.477	0.518	-8.6	97	0.00	12.99
85		1,3-dichloropropane	0.718	0.750	-4.5	91	0.00	12.97
86		butyl acetate	0.309	0.325	-5.2	87	0.00	13.11
87		dibromochloromethane	0.515	0.591	-14.8	97	0.00	13.24
88		1,2-dibromoethane	0.473	0.494	-4.4	90	0.00	13.40
89		n-Butyl Ether	2.014	2.120	-5.3	89	0.00	13.92
90		chlorobenzene	1.273	1.335	-4.9	93	0.00	13.92
91		1,1,1,2-tetrachloroethane	0.452	0.524	-15.9	101	0.00	13.99
92		ethylbenzene	2.124	2.265	-6.6	95	0.00	14.01
93		m,p-xylene	0.799	0.854	-6.9	94	0.00	14.13
94		o-xylene	0.792	0.868	-9.6	96	0.00	14.57
95		styrene	1.317	1.433	-8.8	94	0.00	14.58
96		butyl acrylate		----------NA----------				
97		bromoform	0.364	0.396	-8.8	93	0.00	14.82
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	91	0.00	16.32

6.7.7

6

Continuing Calibration Summary

Job Number: JB88562 **Sample:** V4D2537-CC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D57199.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99		isopropylbenzene	3.944	4.226	-7.2	97	0.00	14.95
100	S	4-bromofluorobenzene (s)	1.226	1.061	13.5	80	0.00	15.13
101		bromobenzene	1.070	1.137	-6.3	96	0.00	15.33
102		cyclohexanone	0.053	0.140	-164.2#	234#	0.00	15.07
103		1,1,2,2-tetrachloroethane	1.382	1.364	1.3	89	0.00	15.22
104		trans-1,4-dichloro-2-bute	0.282	0.283	-0.4	88	0.00	15.28
105		1,2,3-trichloropropane	0.283	0.304	-7.4	95	0.00	15.30
106		n-propylbenzene	4.704	4.864	-3.4	93	0.00	15.38
107		2-chlorotoluene	1.001	1.049	-4.8	95	0.00	15.51
108		4-chlorotoluene	3.026	3.094	-2.2	95	0.00	15.61
109		1,3,5-trimethylbenzene	3.287	3.574	-8.7	98	0.00	15.54
110		tert-butylbenzene	2.736	3.022	-10.5	102	0.00	15.89
111		pentachloroethane	0.652	0.763	-17.0	104	0.00	15.94
112		1,2,4-trimethylbenzene	3.276	3.600	-9.9	98	0.00	15.93
113		sec-butylbenzene	4.400	4.727	-7.4	97	0.00	16.11
114		1,3-dichlorobenzene	2.061	2.102	-2.0	95	0.00	16.26
115		p-isopropyltoluene	3.479	3.860	-11.0	99	0.00	16.23
116		1,4-dichlorobenzene	2.096	2.092	0.2	94	0.00	16.35
117		1,2-dichlorobenzene	1.983	2.087	-5.2	97	0.00	16.72
118		n-butylbenzene	1.929	1.960	-1.6	91	0.00	16.64
119		1,2-dibromo-3-chloropropa	0.217	0.222	-2.3	92	0.00	17.45
120	m	1,3,5-trichlorobenzene	1.561	1.701	-9.0	99	0.00	17.65
121		1,2,4-trichlorobenzene	1.445	1.464	-1.3	93	0.00	18.23
122		hexachlorobutadiene	0.700	0.822	-17.4	108	0.00	18.35
123		naphthalene	3.411	3.403	0.2	90	0.00	18.48
124		1,2,3-trichlorobenzene	1.324	1.389	-4.9	93	0.00	18.71
125		hexachloroethane	0.736	0.781	-6.1	93	0.00	17.00
126		Benzyl chloride	2.078	2.444	-17.6	106	0.00	16.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4d56974.D M4D2528.M Thu Feb 26 11:52:10 2015 RPT1

6.7.7 6

New Jersey
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LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139208.D
Acq On : 24 Feb 2015 7:02 am
Operator : zobiah
Sample : jb88562-1
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Feb 24 11:21:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	171140	500.00	ug/L	0.00
5) pentafluorobenzene	10.56	168	254401	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	292790	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	264775	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	158037	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	100527	53.50	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.00%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	100693	56.48	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.96%			
79) toluene-d8 (s)	13.25	98	330300	50.74	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.48%			
104) 4-bromofluorobenzene (s)	16.13	95	126553	52.22	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 104.44%			
Target Compounds						Qvalue
35) 1,1-dichloroethane	9.21	63	13642	3.99	ug/L	98
42) cis-1,2-dichloroethene	10.04	96	1245	0.55	ug/L #	56
53) 1,1,1-trichloroethane	10.66	97	9561	2.90	ug/L	97
69) trichloroethene	11.88	95	1771	0.95	ug/L	91
88) tetrachloroethene	13.95	164	7778	4.90	ug/L	92

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

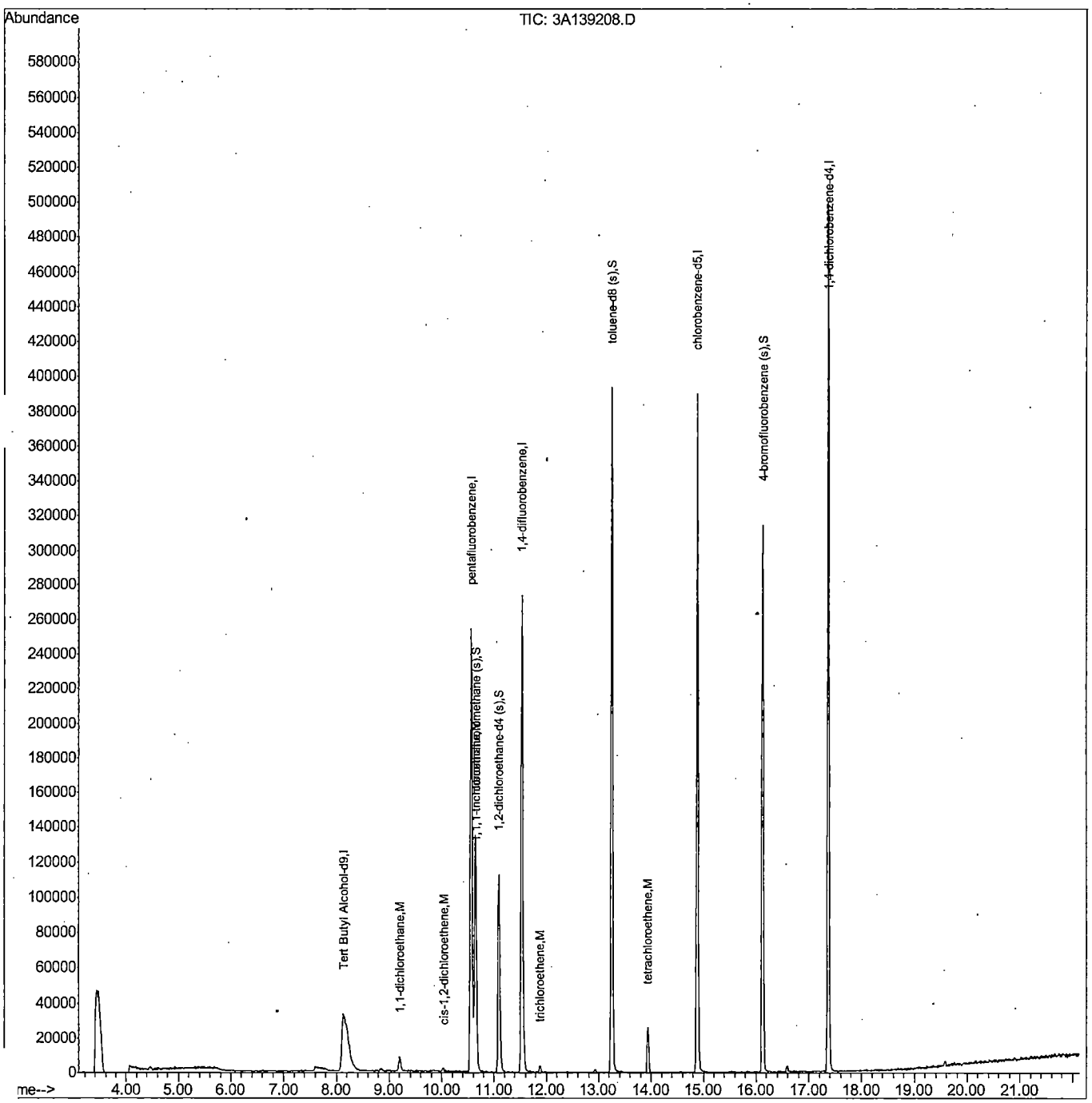
7.1.1

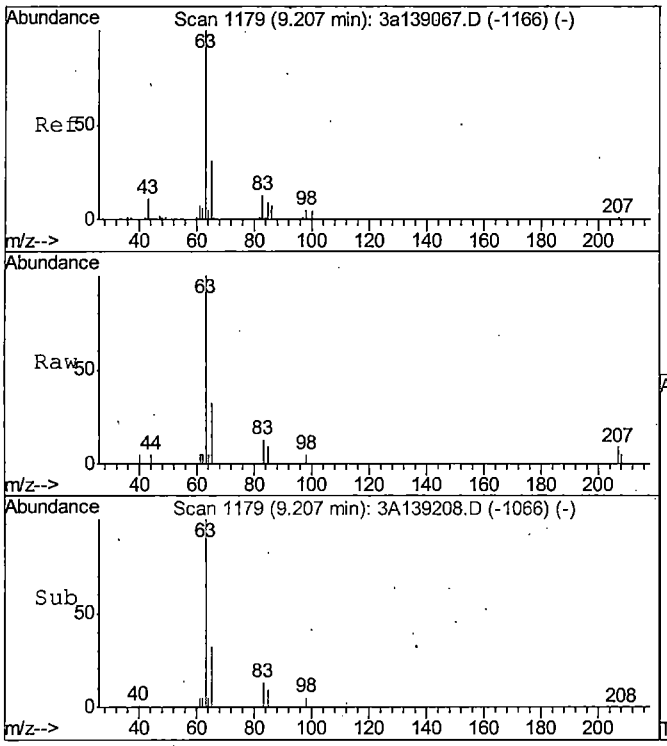
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139208.D
Acq On : 24 Feb 2015 7:02 am
Operator : zobiah
Sample : jb88562-1
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Feb 24 11:21:52 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

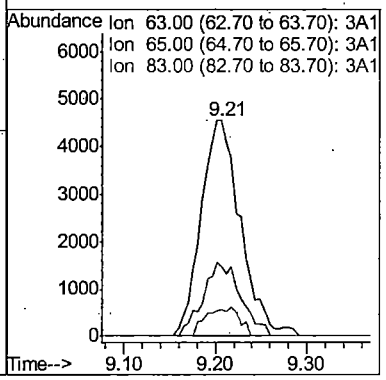


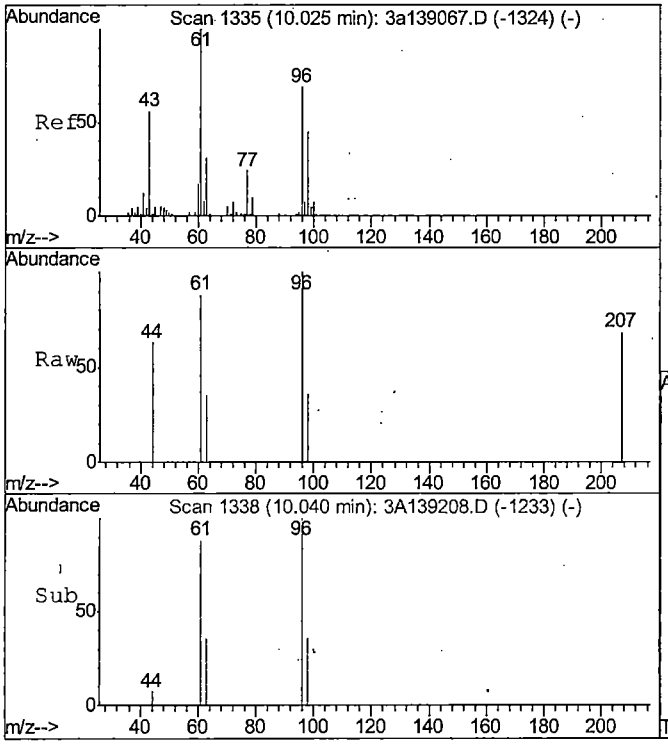


#35
1,1-dichloroethane
Concen: 3.99 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139208.D
Acq: 24 Feb 2015 7:02 am

Tgt Ion: 63 Resp: 13642

Ion	Ratio	Lower	Upper
63	100		
65	32.2	0.8	60.8
83	12.5	0.0	42.7

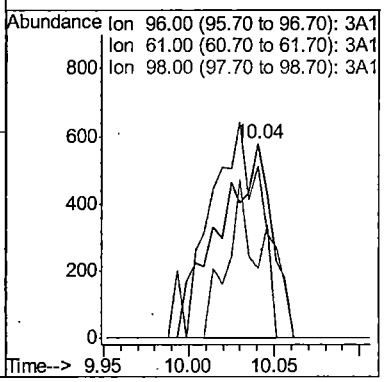




#42
cis-1,2-dichloroethene
Concen: 0.55 ug/L
RT: 10.04 min Scan# 1338
Delta R.T. 0.02 min
Lab File: 3A139208.D
Acq: 24 Feb 2015 7:02 am

Tgt Ion: 96 Resp: 1245

Ion	Ratio	Lower	Upper
96	100		
61	88.1	118.2	178.2#
98	35.8	34.5	94.5



7.1.1

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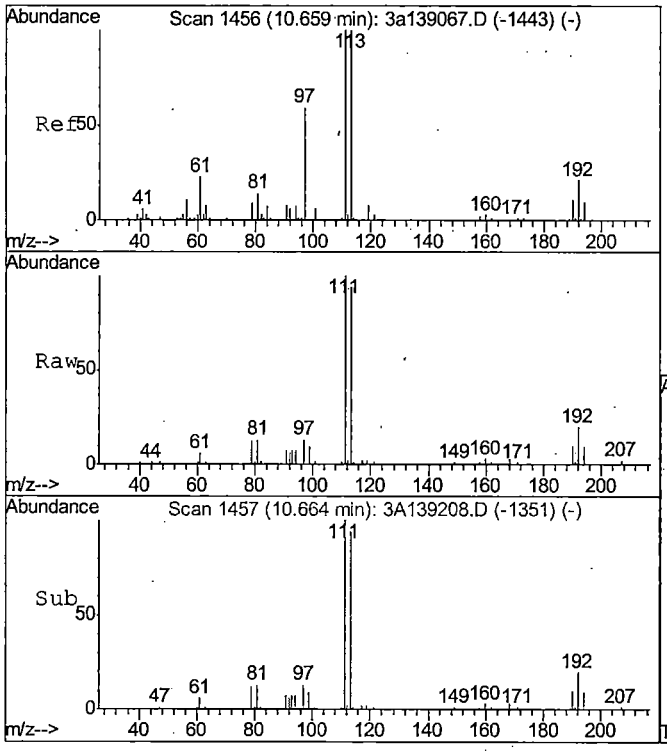
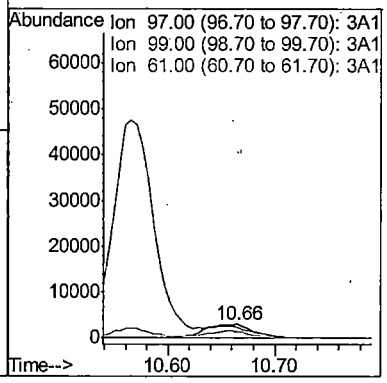
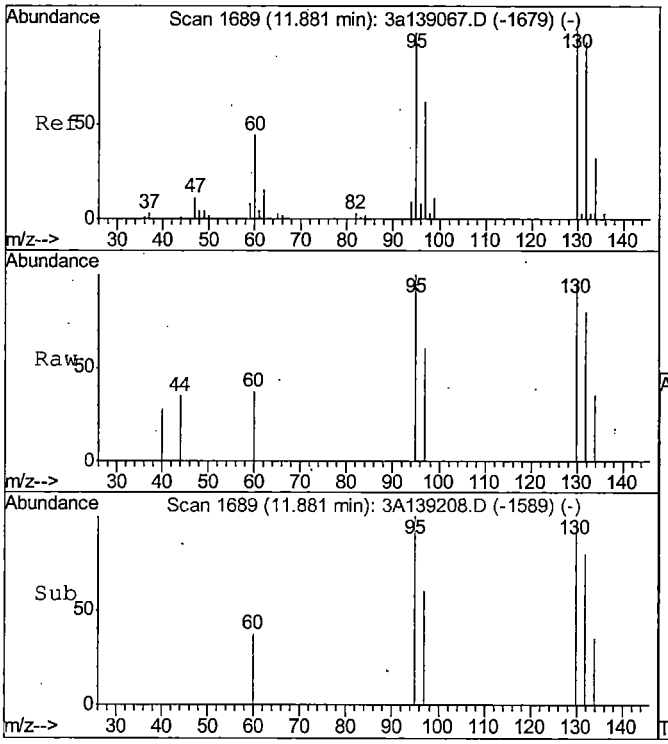


#53
1,1,1-trichloroethane
Concen: 2.90 ug/L
RT: 10.66 min Scan# 1457
Delta R.T. 0.01 min
Lab File: 3A139208.D
Acq: 24 Feb 2015 7:02 am

Tgt Ion: 97 Resp: 9561

Ion	Ratio	Lower	Upper
97	100		
99	66.0	35.5	95.5
61	46.0	11.9	71.9

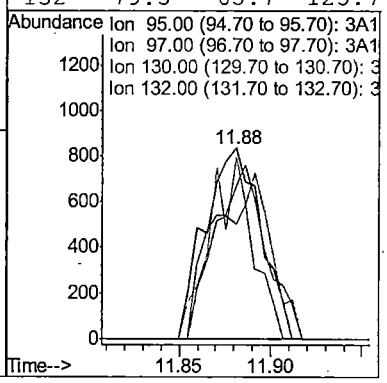




#69
trichloroethene
Concen: 0.95 ug/L
RT: 11.88 min Scan# 1689
Delta R.T. 0.01 min
Lab File: 3A139208.D
Acq: 24 Feb 2015 7:02 am

Tgt Ion: 95 Resp: 1771

Ion	Ratio	Lower	Upper
95	100		
97	60.2	33.0	93.0
130	95.4	71.3	131.3
132	79.5	65.7	125.7



7.1.1

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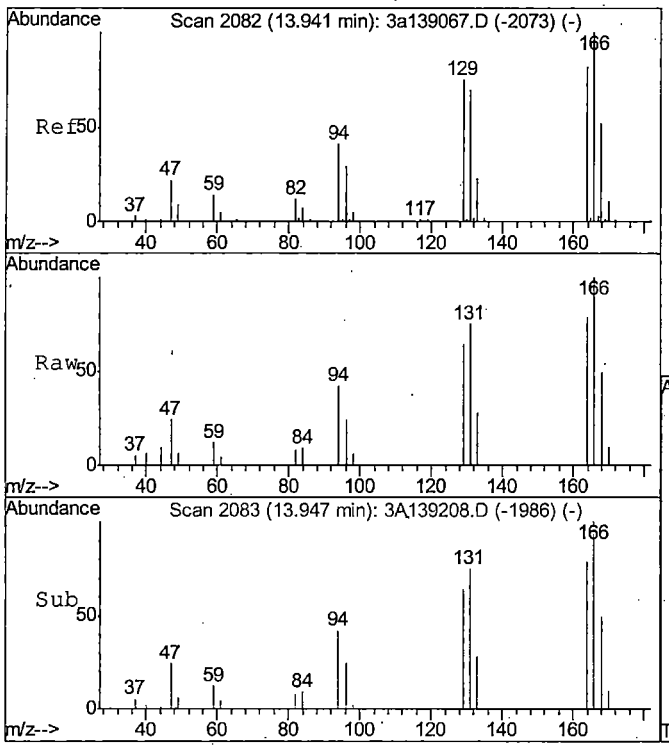
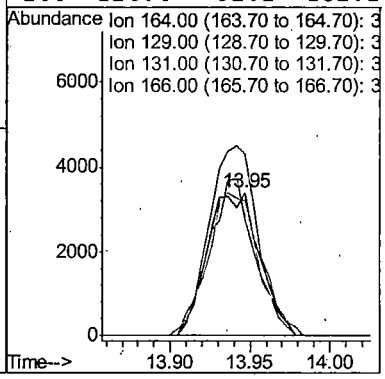


#88
tetrachloroethene
Concen: 4.90 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3A139208.D
Acq: 24 Feb 2015 7:02 am

Tgt Ion:164 Resp: 7778

Ion	Ratio	Lower	Upper
164	100		
129	80.6	61.7	121.7
131	94.6	55.4	115.4
166	126.4	92.1	152.1



7.1.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139207.D
Acq On : 24 Feb 2015 6:32 am
Operator : zobiah
Sample : jb88562-2
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Feb 24 11:19:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	158441	500.00	ug/L	0.00
5) pentafluorobenzene	10.56	168	250846	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	295484	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	268208	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	158147	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	97344	52.54	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.08%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	100872	57.38	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 114.76%			
79) toluene-d8 (s)	13.25	98	334616	50.93	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.86%			
104) 4-bromofluorobenzene (s)	16.12	95	125284	51.66	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 103.32%			
Target Compounds						Qvalue
35) 1,1-dichloroethane	9.21	63	12390	3.68	ug/L	96
53) 1,1,1-trichloroethane	10.65	97	10064	3.10	ug/L	82
69) trichloroethene	11.89	95	1041	0.55	ug/L	80
88) tetrachloroethene	13.94	164	4397	2.74	ug/L	91

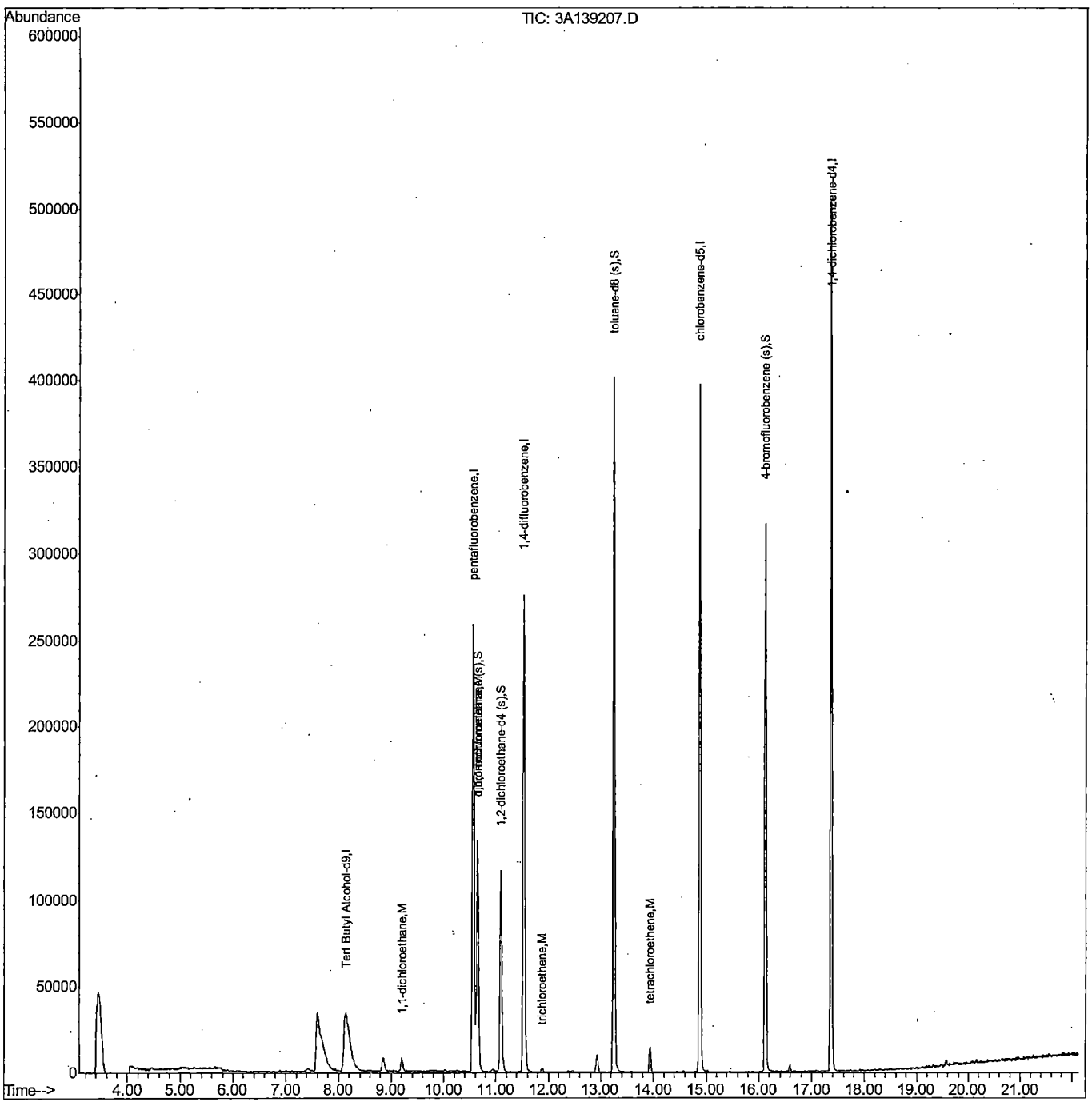
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.2 7

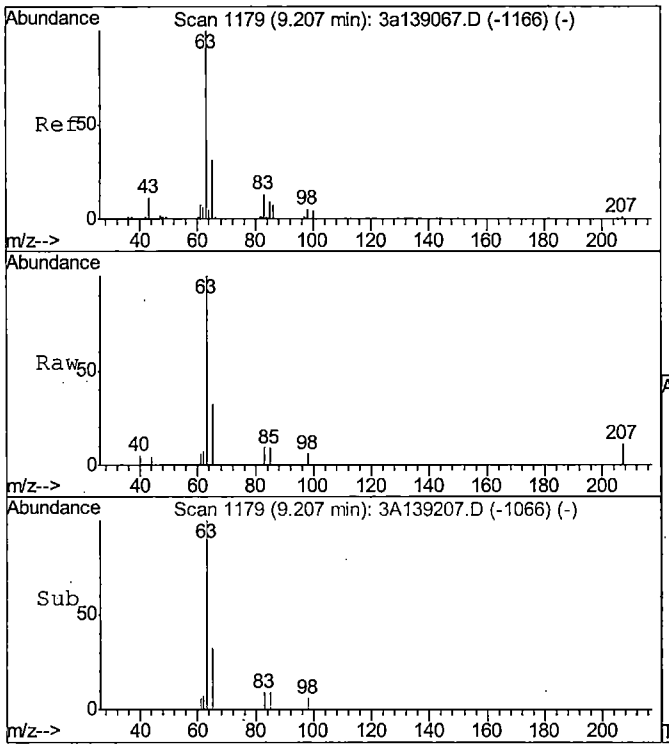
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139207.D
Acq On : 24 Feb 2015 6:32 am
Operator : zobiah
Sample : jb88562-2
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Feb 24 11:19:50 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



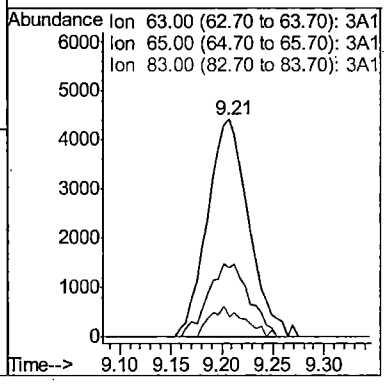
ACCUTEST LABORATORIES

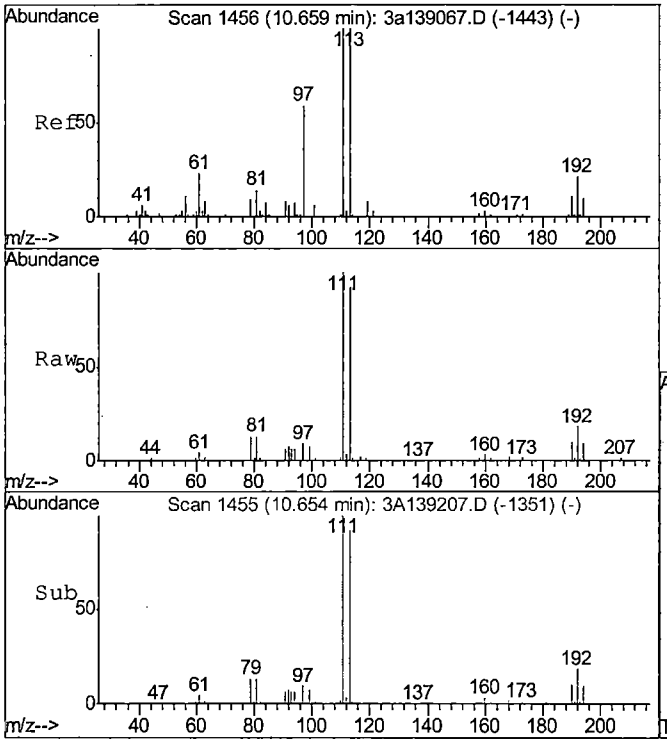


#35
1,1-dichloroethane
Concen: 3.68 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139207.D
Acq: 24 Feb 2015 6:32 am

Tgt Ion: 63 Resp: 12390

Ion	Ratio	Lower	Upper
63	100		
65	31.6	0.8	60.8
83	9.1	0.0	42.7

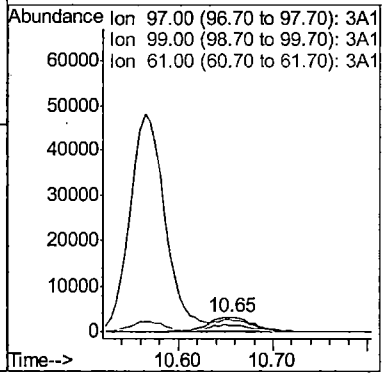




#53
1,1,1-trichloroethane
Concen: 3.10 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139207.D
Acq: 24 Feb 2015 6:32 am

Tgt Ion: 97 Resp: 10064

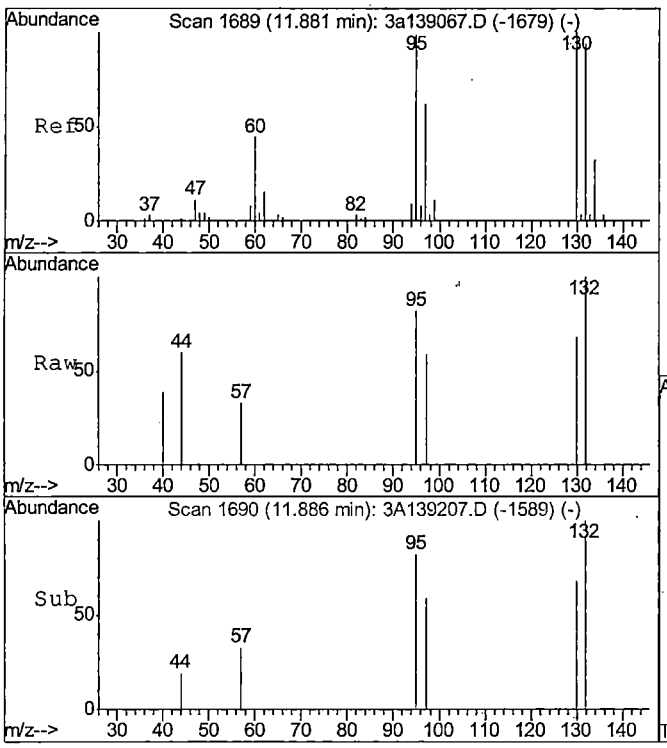
Ion	Ratio	Lower	Upper
97	100		
99	85.4	35.5	95.5
61	45.7	11.9	71.9



7.1.2

7

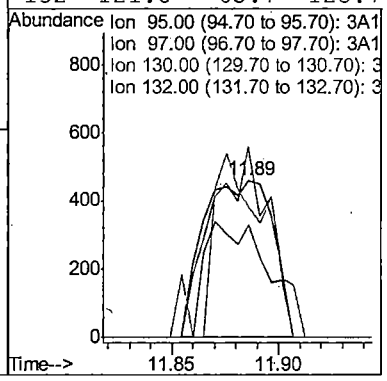
ACCUTEST LABORATORIES JB88562

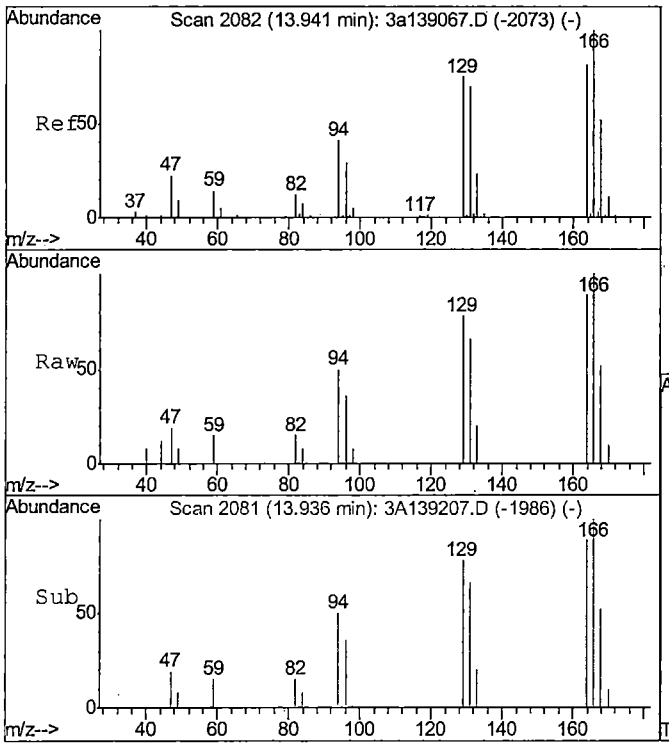


#69
trichloroethene
Concen: 0.55 ug/L
RT: 11.89 min Scan# 1690
Delta R.T. 0.01 min
Lab File: 3A139207.D
Acq: 24 Feb 2015 6:32 am

Tgt Ion: 95 Resp: 1041

Ion	Ratio	Lower	Upper
95	100		
97	71.7	33.0	93.0
130	83.2	71.3	131.3
132	121.8	65.7	125.7

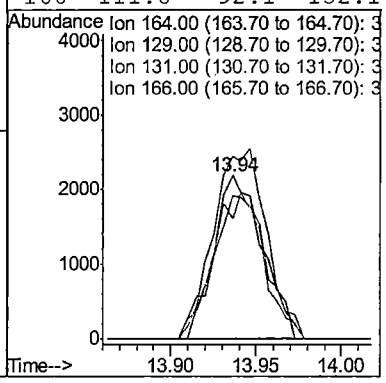




#88
tetrachloroethene
Concen: 2.74 ug/L
RT: 13.94 min Scan# 2081
Delta R.T. 0.00 min
Lab File: 3A139207.D
Acq: 24 Feb 2015 6:32 am

Tgt Ion:164 Resp: 4397

Ion	Ratio	Lower	Upper
164	100		
129	87.8	61.7	121.7
131	73.8	55.4	115.4
166	111.8	92.1	152.1



7.1.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139206.D
Acq On : 24 Feb 2015 6:02 am
Operator : zobiah
Sample : jb88562-3
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Feb 24 11:18:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	160619	500.00 ug/L	0.00
5) pentafluorobenzene	10.56	168	250910	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	294826	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	269360	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	158984	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	99748	53.82 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.64%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	100308	57.04 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 114.08%		
79) toluene-d8 (s)	13.25	98	332272	50.69 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.38%		
104) 4-bromofluorobenzene (s)	16.12	95	128680	52.79 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.58%		
Target Compounds					Qvalue
35) 1,1-dichloroethane	9.20	63	2077	0.62 ug/L	85
53) 1,1,1-trichloroethane	10.66	97	3187	0.98 ug/L	89
69) trichloroethene	11.89	95	950	0.51 ug/L	82
88) tetrachloroethene	13.94	164	1793	1.11 ug/L	88

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

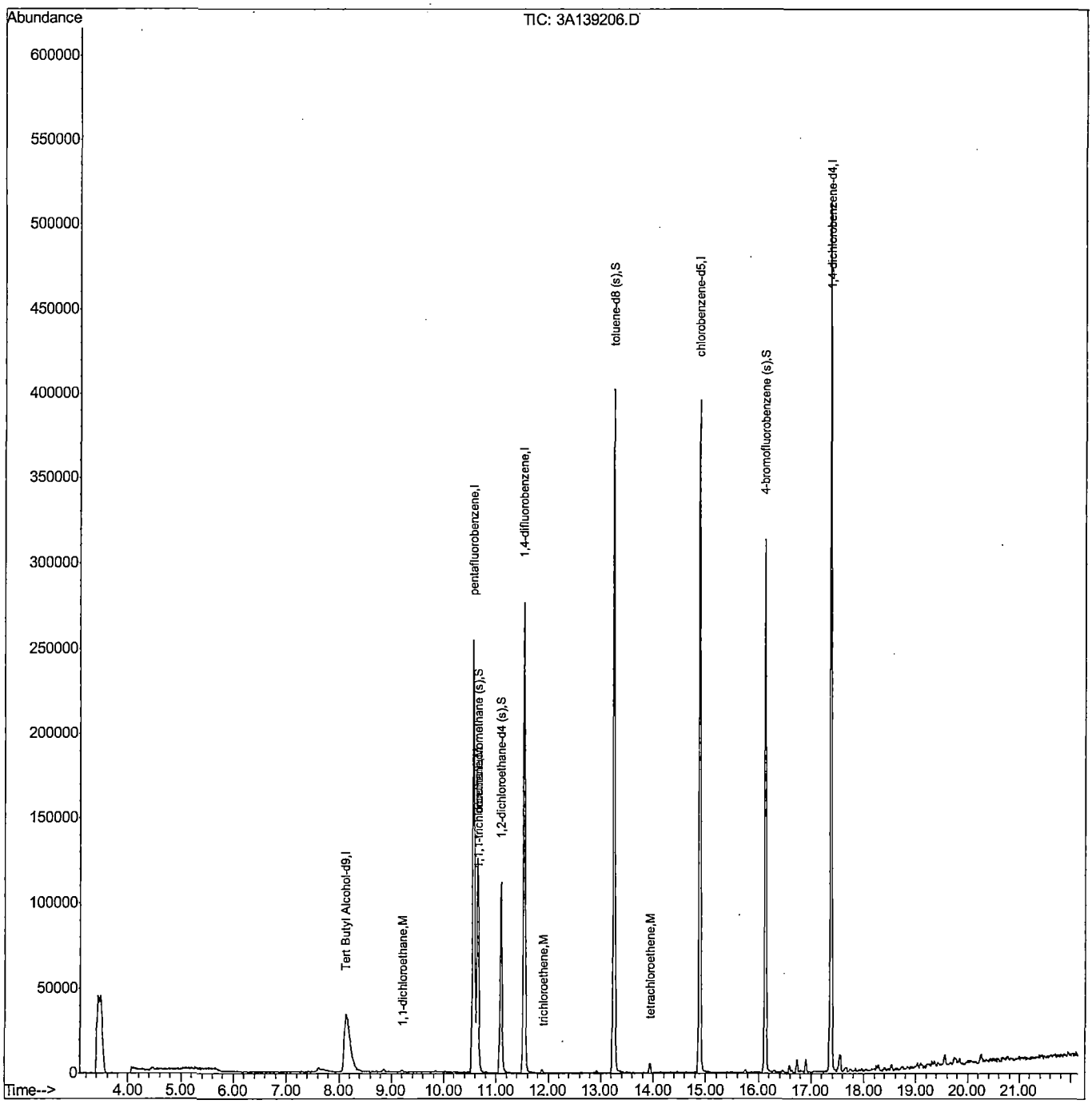
7.1.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139206.D
Acq On : 24 Feb 2015 6:02 am
Operator : zobiah
Sample : jb88562-3
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Feb 24 11:18:46 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.1.3

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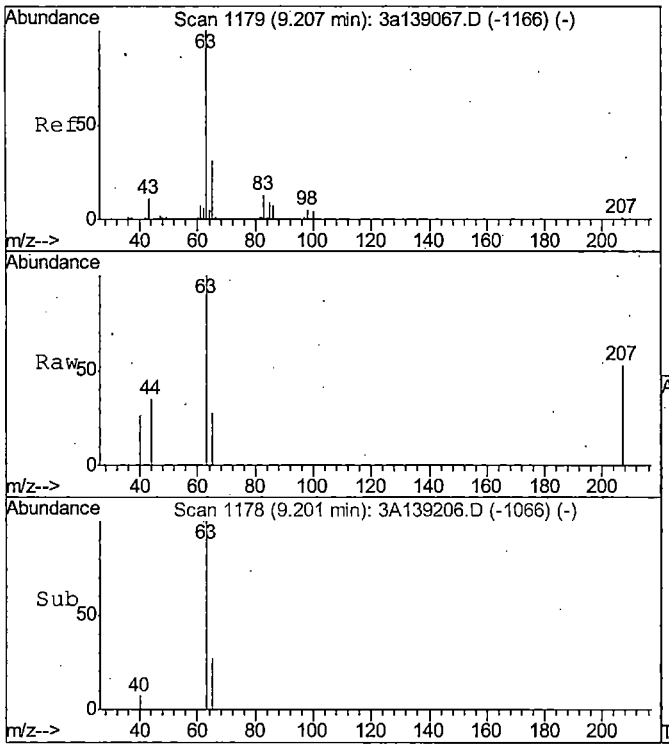
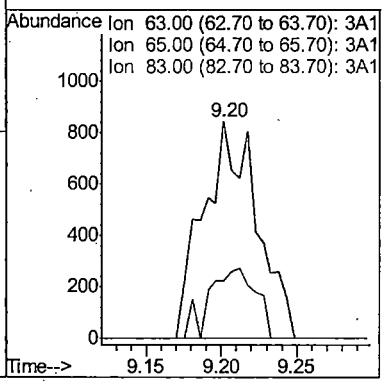
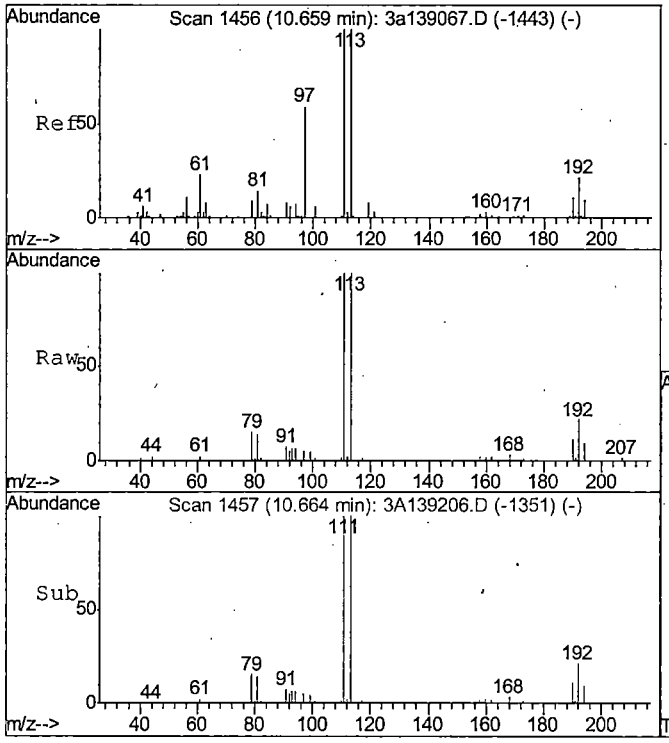


#35
1,1-dichloroethane
Concen: 0.62 ug/L
RT: 9.20 min Scan# 1178
Delta R.T. -0.01 min
Lab File: 3A139206.D
Acq: 24 Feb 2015 6:02 am

Tgt Ion: 63 Resp: 2077

Ion	Ratio	Lower	Upper
63	100		
65	26.7	0.8	60.8
83	0.0	0.0	42.7

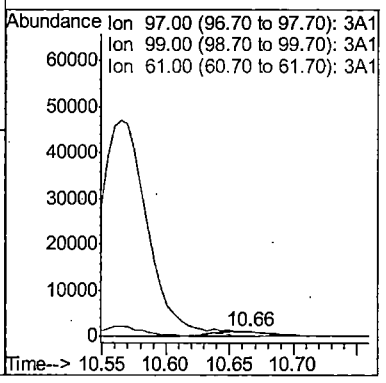




#53
1,1,1-trichloroethane
Concen: 0.98 ug/L
RT: 10.66 min Scan# 1457
Delta R.T. 0.01 min
Lab File: 3A139206.D
Acq: 24 Feb 2015 6:02 am

Tgt Ion: 97 Resp: 3187

Ion	Ratio	Lower	Upper
97	100		
99	53.2	35.5	95.5
61	38.9	11.9	71.9



7.1.3

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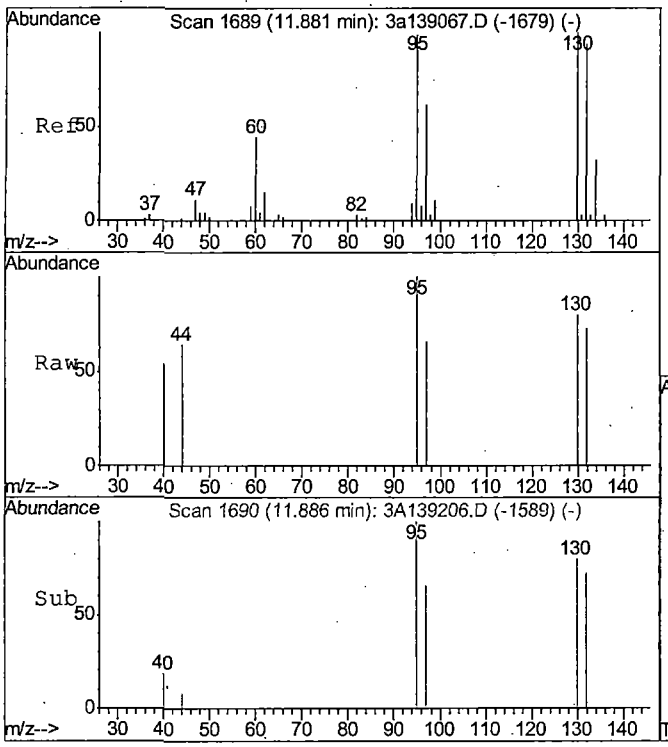
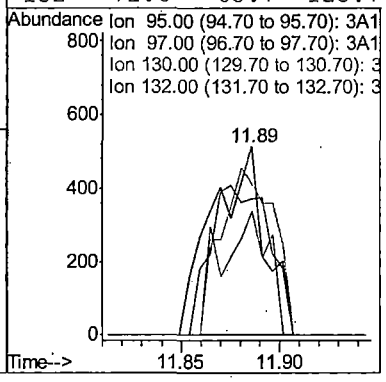
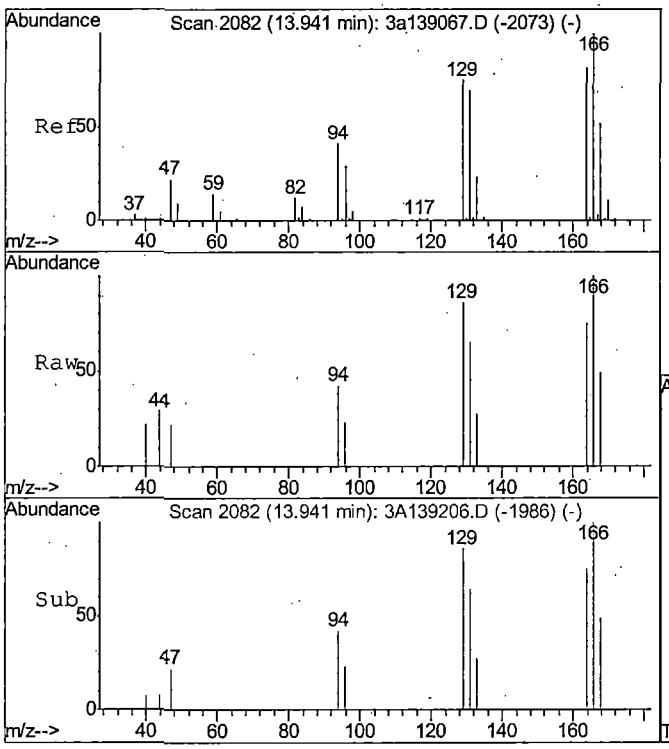


#69
trichloroethene
Concen: 0.51 ug/L
RT: 11.89 min Scan# 1690
Delta R.T. 0.01 min
Lab File: 3A139206.D
Acq: 24 Feb 2015 6:02 am

Tgt Ion: 95 Resp: 950

Ion	Ratio	Lower	Upper
95	100		
97	65.8	33.0	93.0
130	80.2	71.3	131.3
132	72.6	65.7	125.7

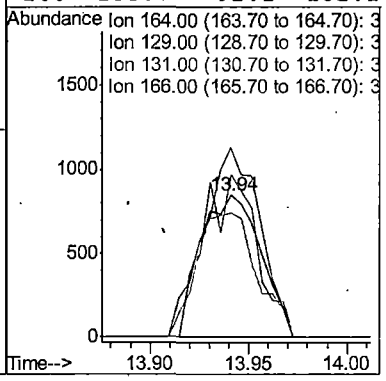




#88
tetrachloroethene
Concen: 1.11 ug/L
RT: 13.94 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 3A139206.D
Acq: 24 Feb 2015 6:02 am

Tgt Ion:164 Resp: 1793

Ion	Ratio	Lower	Upper
164	100		
129	114.4	61.7	121.7
131	87.1	55.4	115.4
166	133.7	92.1	152.1



7.1.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139205.D
Acq On : 24 Feb 2015 5:32 am
Operator : zobiah
Sample : jb88562-4
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Feb 24 11:17:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	159907	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	250780	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	297889	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	270593	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	163405	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	98672	53.27	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.54%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	99956	56.87	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 113.74%			
79) toluene-d8 (s)	13.25	98	334964	50.57	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.14%			
104) 4-bromofluorobenzene (s)	16.12	95	131149	52.34	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 104.68%			
Target Compounds						Qvalue
35) 1,1-dichloroethane	9.21	63	1557	0.46	ug/L	85
53) 1,1,1-trichloroethane	10.66	97	1459	0.45	ug/L	78
88) tetrachloroethene	13.95	164	689	0.42	ug/L #	67

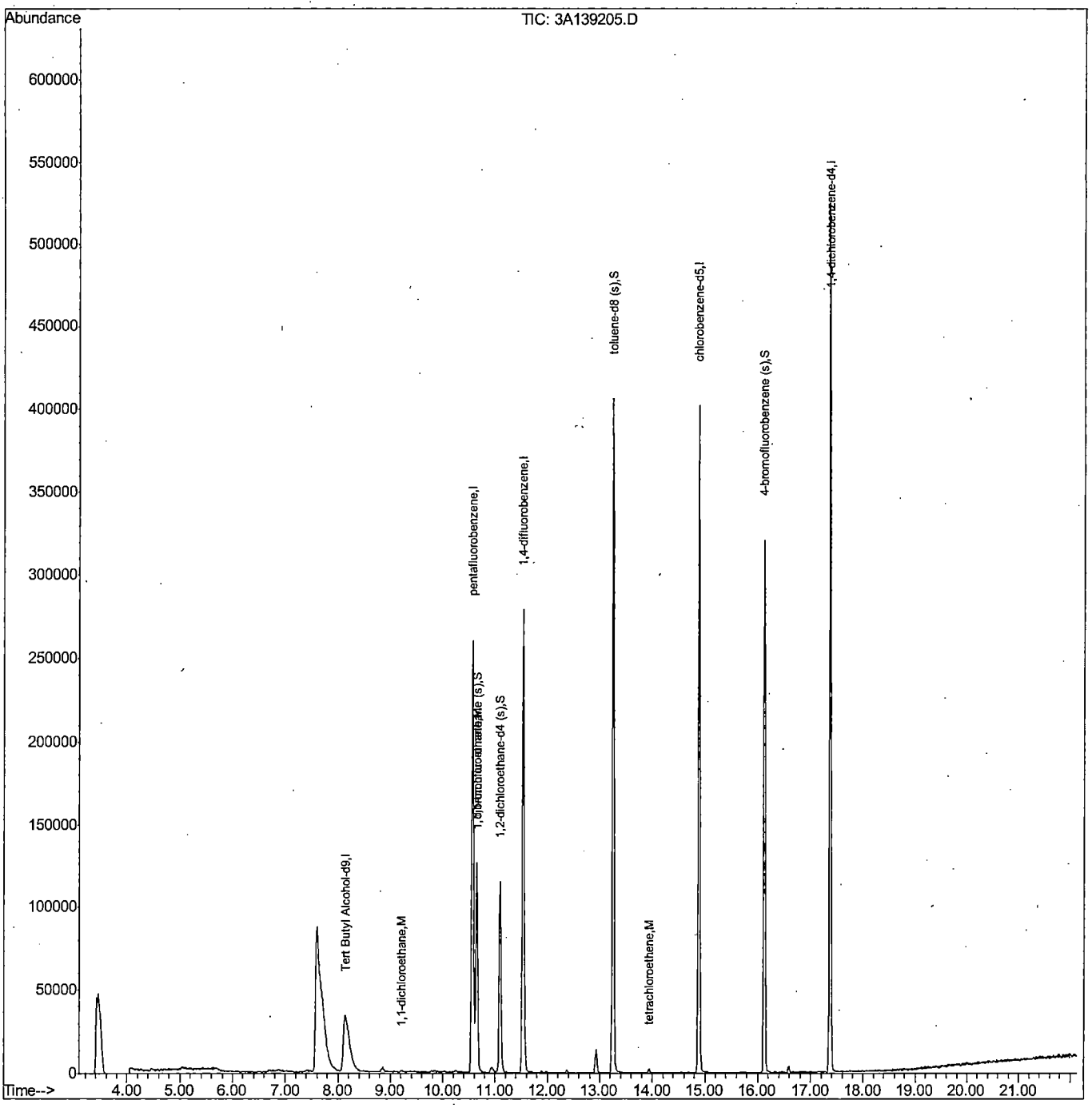
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.4 7

Quantitation Report (QT Reviewed)

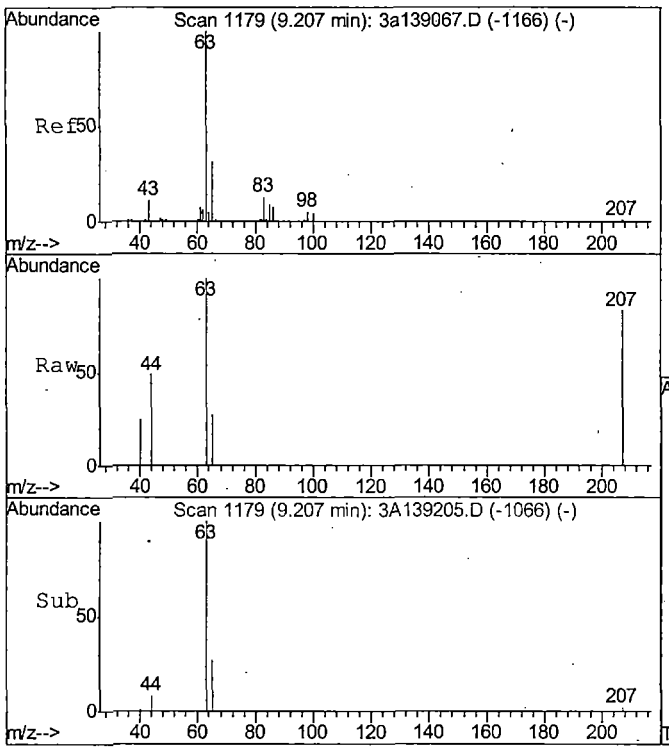
Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139205.D
Acq On : 24 Feb 2015 5:32 am
Operator : zobiah
Sample : jb88562-4
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Feb 24 11:17:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



M3A6014.M Tue Feb 24 11:28:52 2015 ACCUNJ

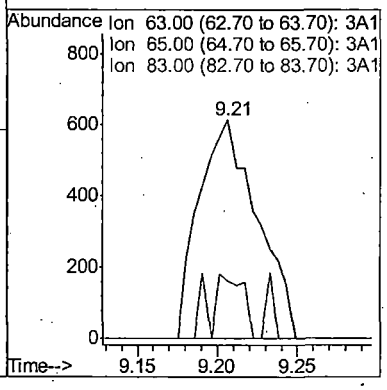
ACCUTEST LABORATORIES

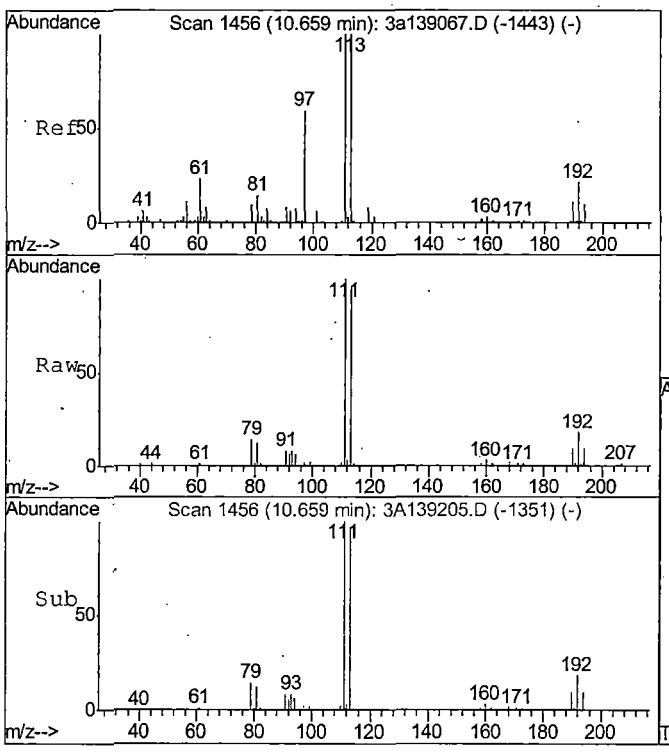


#35
1,1-dichloroethane
Concen: 0.46 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139205.D
Acq: 24 Feb 2015 5:32 am

Tgt Ion: 63 Resp: 1557

Ion	Ratio	Lower	Upper
63	100		
65	26.8	0.8	60.8
83	0.0	0.0	42.7

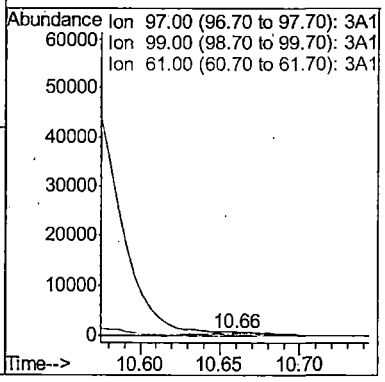




#53
1,1,1-trichloroethane
Concen: 0.45 ug/L
RT: 10.66 min Scan# 1456
Delta R.T. 0.00 min
Lab File: 3A139205.D
Acq: 24 Feb 2015 5:32 am

Tgt Ion: 97 Resp: 1459

Ion	Ratio	Lower	Upper
97	100		
99	90.2	35.5	95.5
61	46.7	11.9	71.9



7.1.4

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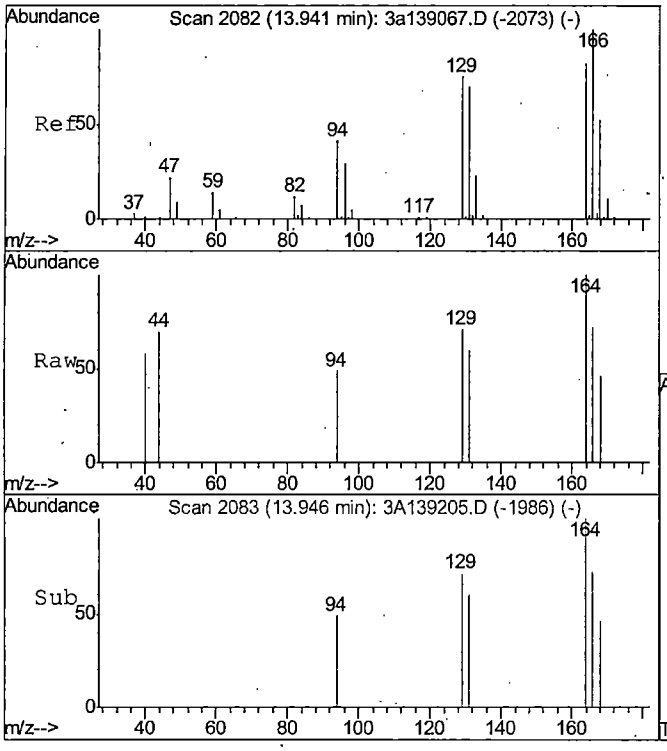
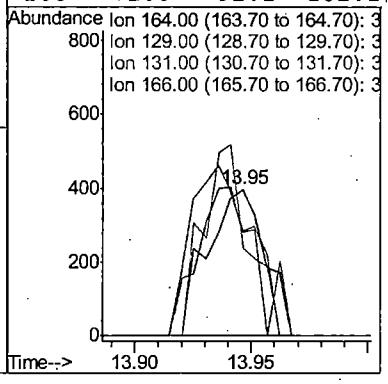


#88
tetrachloroethene
Concen: 0.42 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3A139205.D
Acq: 24 Feb 2015 5:32 am

Tgt Ion:164 Resp: 689

Ion	Ratio	Lower	Upper
164	100		
129	71.0	61.7	121.7
131	59.9	55.4	115.4
166	72.0	92.1	152.1#



7.1.4

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ACCUTEST LABORATORIES
JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139209.D
Acq On : 24 Feb 2015 7:32 am
Operator : zobiah
Sample : jb88562-5
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Feb 24 11:22:58 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	147810	500.00 ug/L	0.02
5) pentafluorobenzene	10.57	168	248537	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	285951	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	259378	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	155311	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	97435	53.08 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.16%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	96008	55.12 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 110.24%		
79) toluene-d8 (s)	13.25	98	323147	50.83 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.66%		
104) 4-bromofluorobenzene (s)	16.12	95	125414	52.66 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.32%		

Target Compounds					Qvalue
22) 1,1-dichloroethene	7.26	96	5136	2.53 ug/L #	72
35) 1,1-dichloroethane	9.20	63	11341	3.40 ug/L	96
42) cis-1,2-dichloroethene	10.02	96	21748	9.75 ug/L #	83
53) 1,1,1-trichloroethane	10.65	97	518069	160.96 ug/L	99
69) trichloroethene	11.88	95	7841	4.30 ug/L	98

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

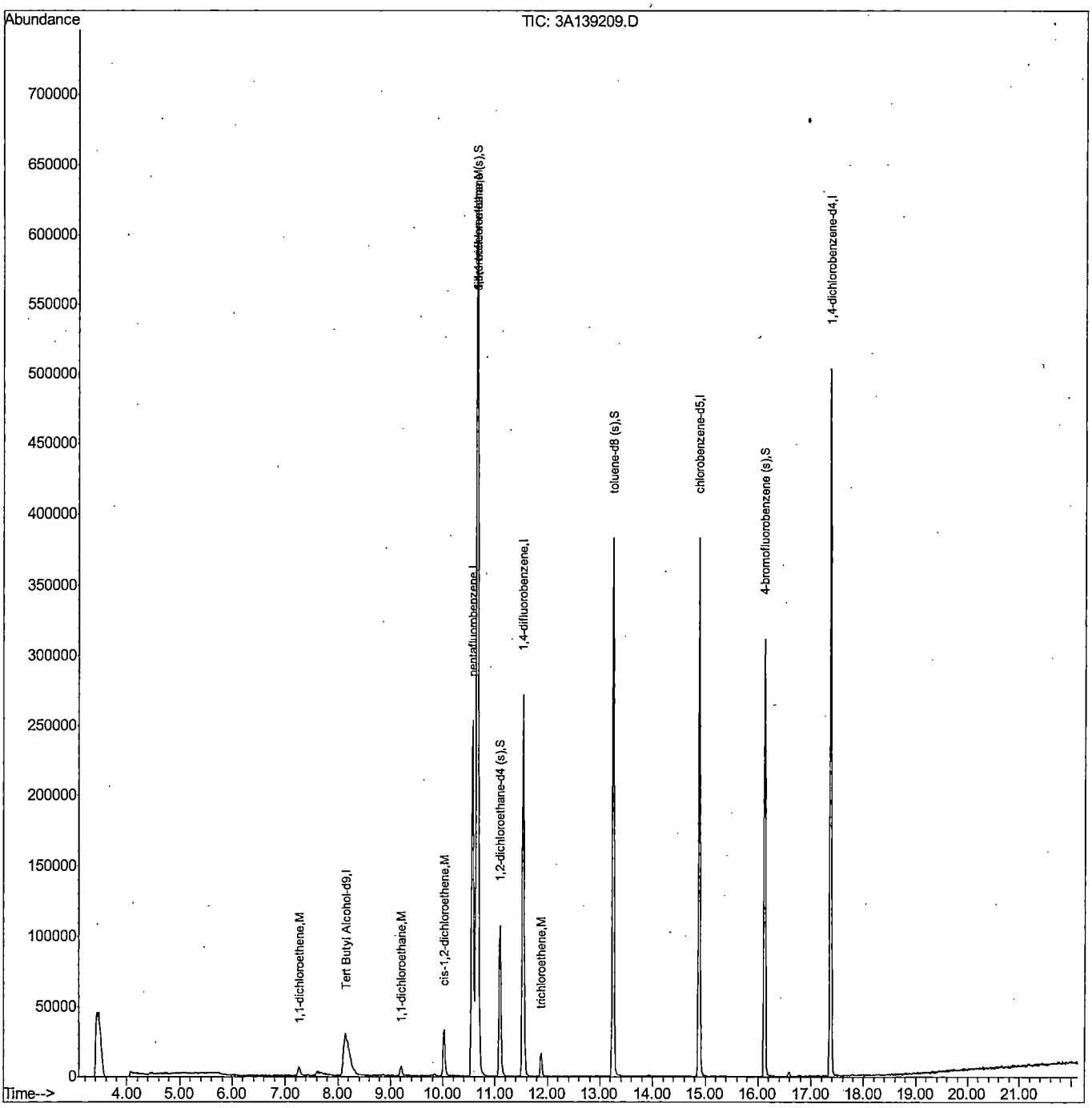
7.1.5

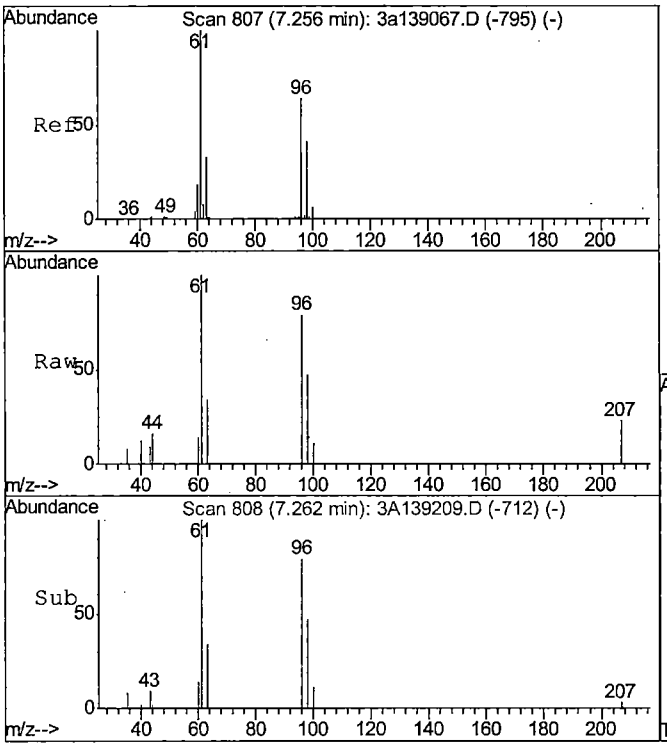
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139209.D
Acq On : 24 Feb 2015 7:32 am
Operator : zobiah
Sample : jb88562-5
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Feb 24 11:22:58 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

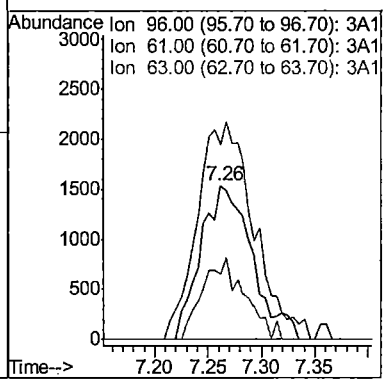


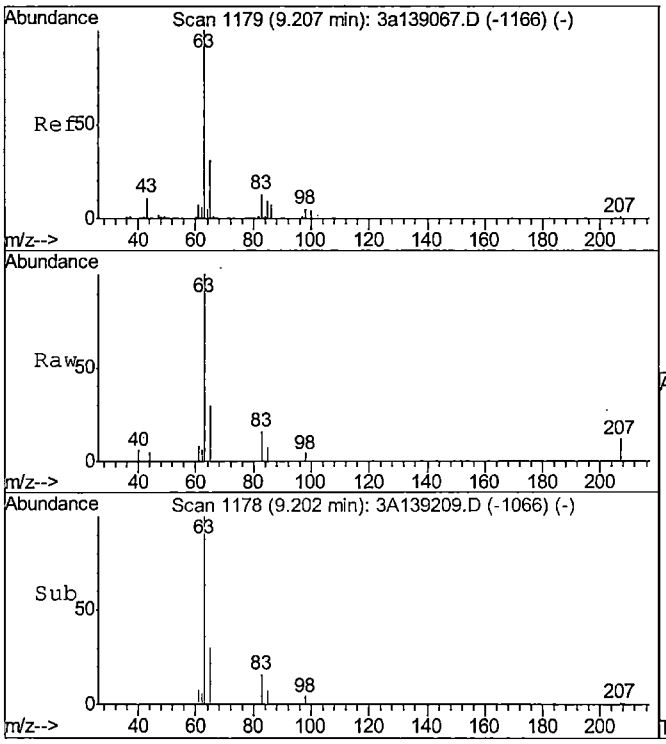


#22
1,1-dichloroethene
Concen: 2.53 ug/L
RT: 7.26 min Scan# 808
Delta R.T. 0.01 min
Lab File: 3A139209.D
Acq: 24 Feb 2015 7:32 am

Tgt Ion: 96 Resp: 5136

Ion	Ratio	Lower	Upper
96	100		
61	115.1	127.4	187.4#
63	42.8	22.7	82.7

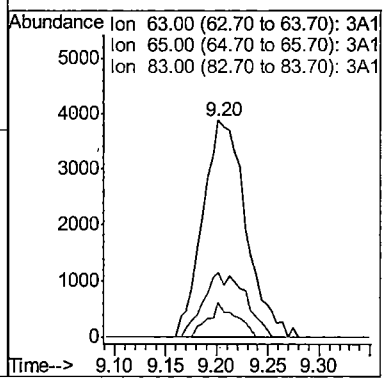




#35
1,1-dichloroethane
Concen: 3.40 ug/L
RT: 9.20 min Scan# 1178
Delta R.T. -0.01 min
Lab File: 3A139209.D
Acq: 24 Feb 2015 7:32 am

Tgt Ion: 63 Resp: 11341

Ion	Ratio	Lower	Upper
63	100		
65	29.6	0.8	60.8
83	15.8	0.0	42.7



7.1.5

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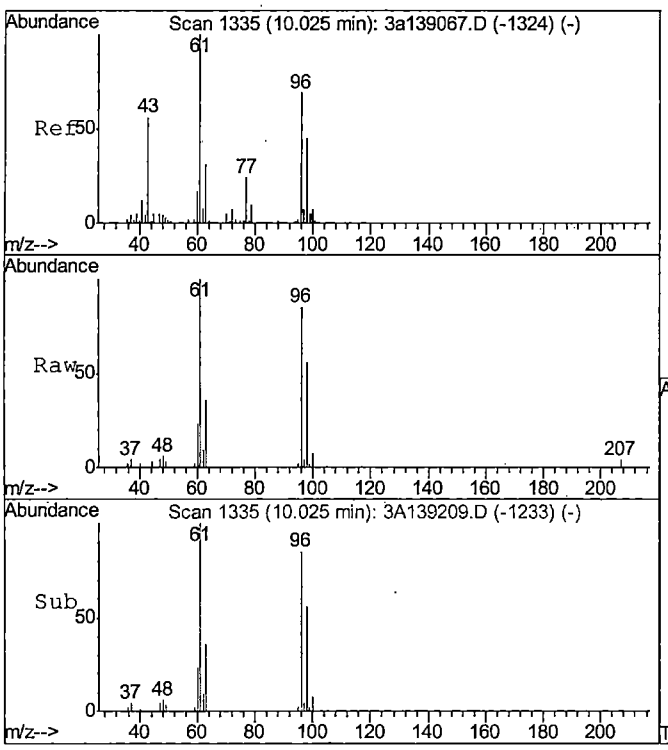
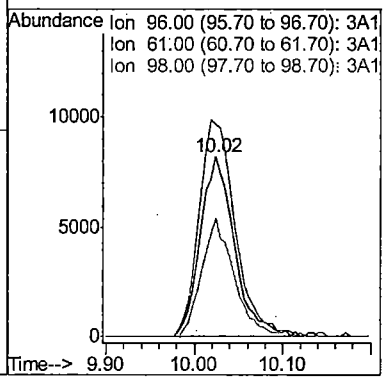
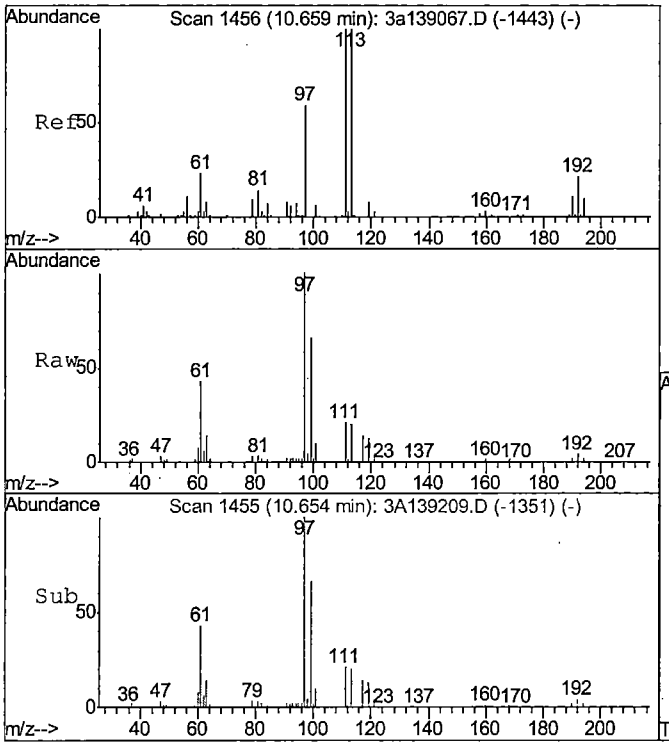


#42
cis-1,2-dichloroethene
Concen: 9.75 ug/L
RT: 10.02 min Scan# 1335
Delta R.T. 0.01 min
Lab File: 3A139209.D
Acq: 24 Feb 2015 7:32 am

Tgt Ion: 96 Resp: 21748

Ion	Ratio	Lower	Upper
96	100		
61	118.0	118.2	178.2#
98	66.2	34.5	94.5

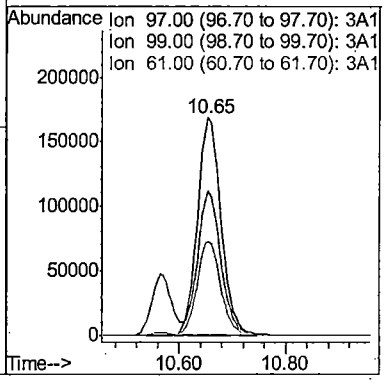




#53
1,1,1-trichloroethane
Concen: 160.96 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139209.D
Acq: 24 Feb 2015 7:32 am

Tgt Ion: 97 Resp: 518069

Ion	Ratio	Lower	Upper
97	100		
99	65.7	35.5	95.5
61	42.7	11.9	71.9



7.1.5

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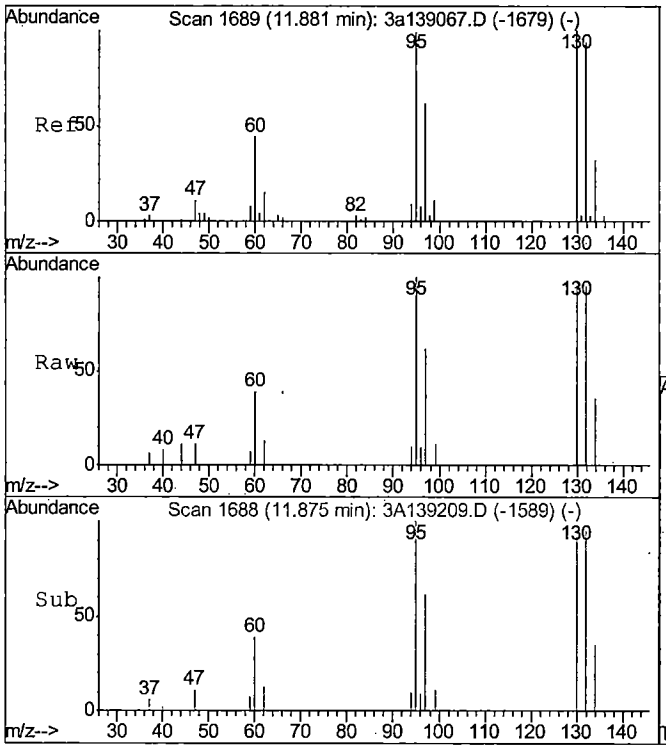
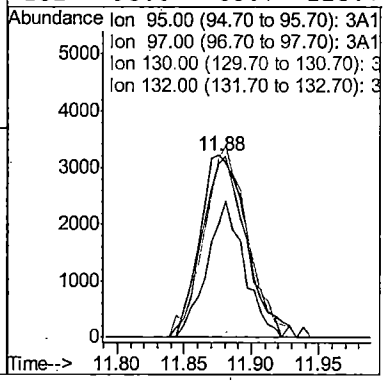


#69
trichloroethene
Concen: 4.30 ug/L
RT: 11.88 min Scan# 1688
Delta R.T. 0.00 min
Lab File: 3A139209.D
Acq: 24 Feb 2015 7:32 am

Tgt Ion: 95 Resp: 7841

Ion	Ratio	Lower	Upper
95	100		
97	62.2	33.0	93.0
130	98.3	71.3	131.3
132	95.0	65.7	125.7



7.1.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139210.D
Acq On : 24 Feb 2015 8:02 am
Operator : zobiah
Sample : jb88562-6
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Feb 24 11:26:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	161142	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	253905	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	294562	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	264628	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	155288	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	101166	53.94	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.88%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	100882	56.69	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 113.38%			
79) toluene-d8 (s)	13.25	98	331350	50.59	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.18%			
104) 4-bromofluorobenzene (s)	16.12	95	126715	53.22	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.44%			
Target Compounds						Qvalue
22) 1,1-dichloroethene	7.26	96	15256	7.35	ug/L	91
35) 1,1-dichloroethane	9.21	63	13137	3.85	ug/L	95
42) cis-1,2-dichloroethene	10.02	96	49397	21.67	ug/L	90
53) 1,1,1-trichloroethane	10.65	97	1315760	400.15	ug/L	98
69) trichloroethene	11.88	95	6210	3.31	ug/L	88
88) tetrachloroethene	13.95	164	675	0.43	ug/L #	76

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

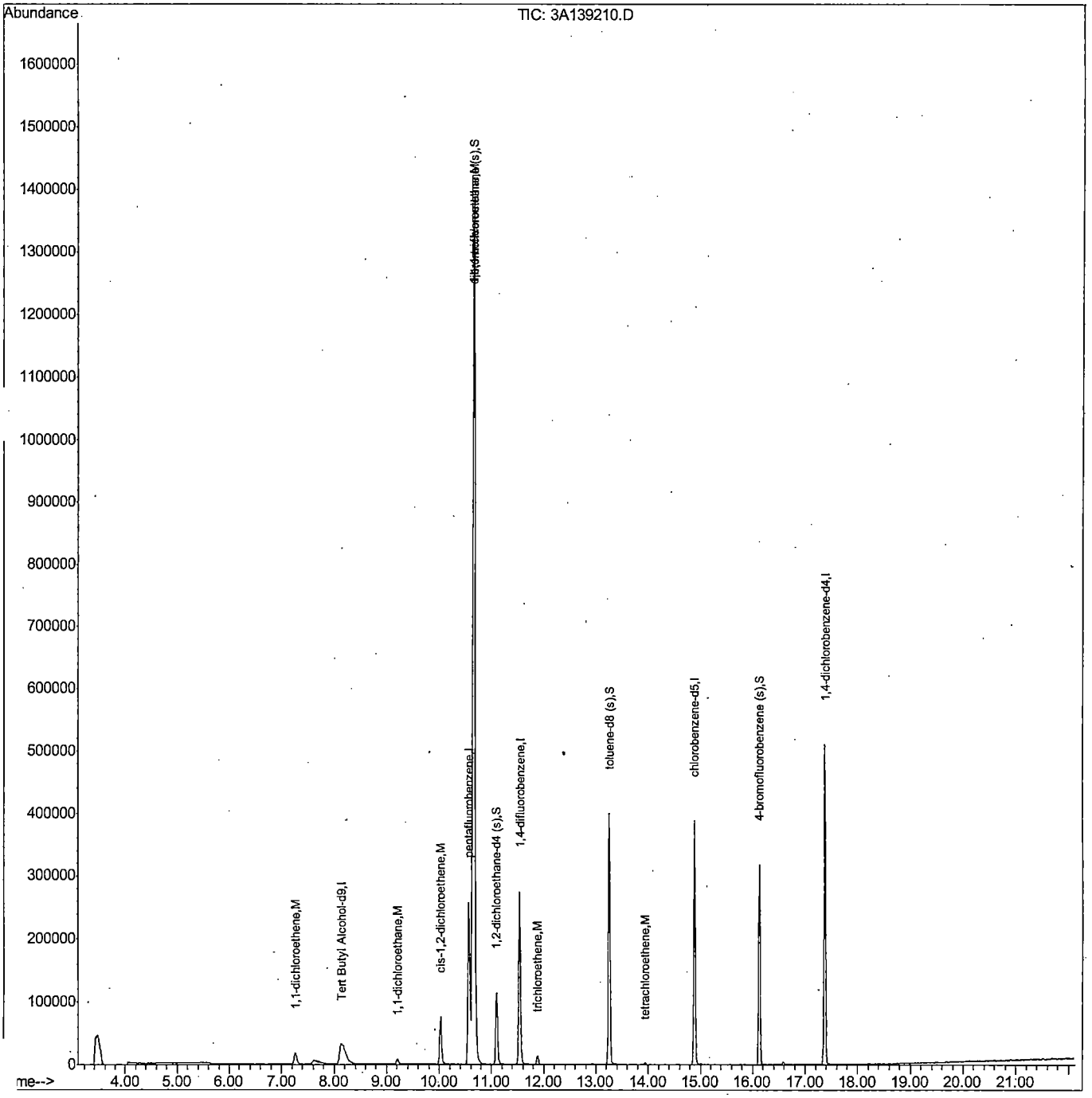
7.1.6

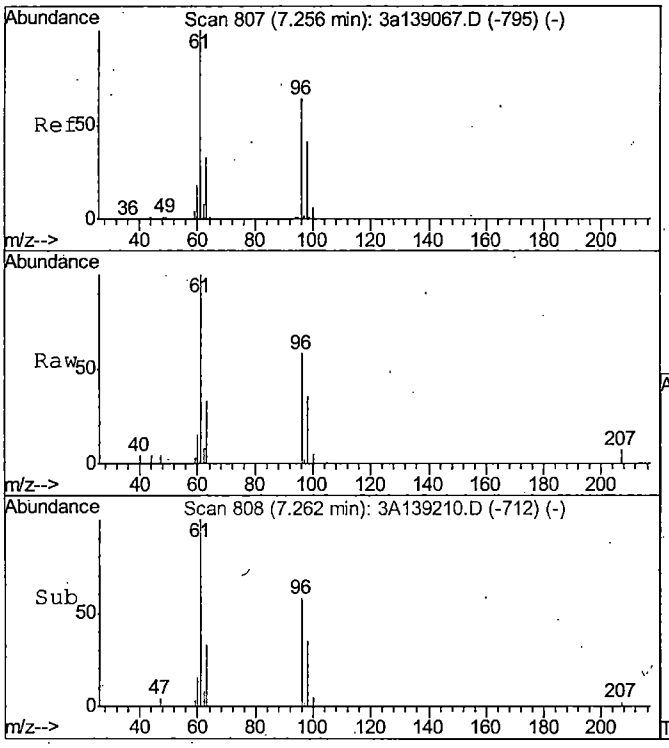
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139210.D
Acq On : 24 Feb 2015 8:02 am
Operator : zobiah
Sample : jb88562-6
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Feb 24 11:26:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

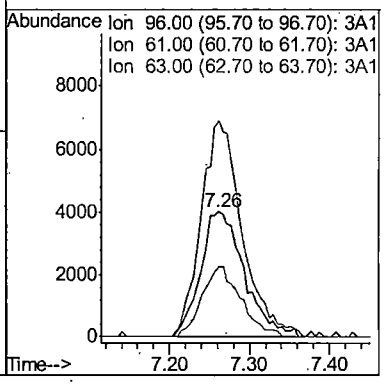


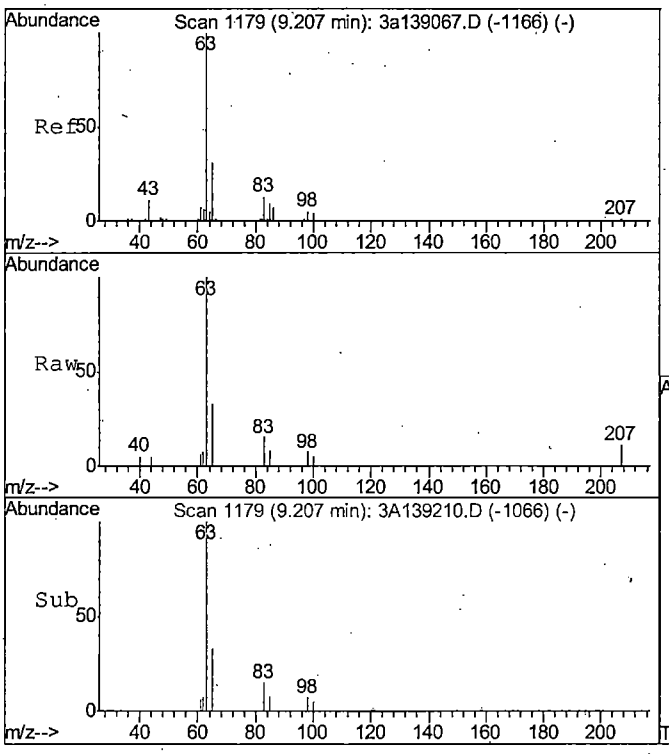


#22
1,1-dichloroethene
Concen: 7.35 ug/L
RT: 7.26 min Scan# 808
Delta R.T. 0.01 min
Lab File: 3A139210.D
Acq: 24 Feb 2015 8:02 am

Tgt Ion: 96 Resp: 15256

Ion	Ratio	Lower	Upper
96	100		
61	171.5	127.4	187.4
63	56.1	22.7	82.7

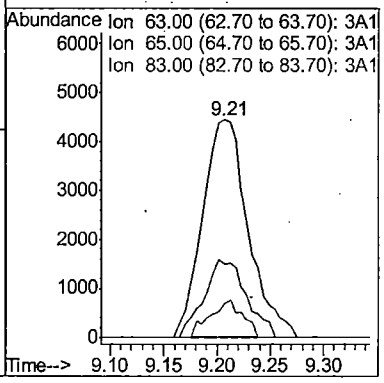




#35
1,1-dichloroethane
Concen: 3.85 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139210.D
Acq: 24 Feb 2015 8:02 am

Tgt Ion: 63 Resp: 13137

Ion	Ratio	Lower	Upper
63	100		
65	33.4	0.8	60.8
83	15.2	0.0	42.7



7.1.6

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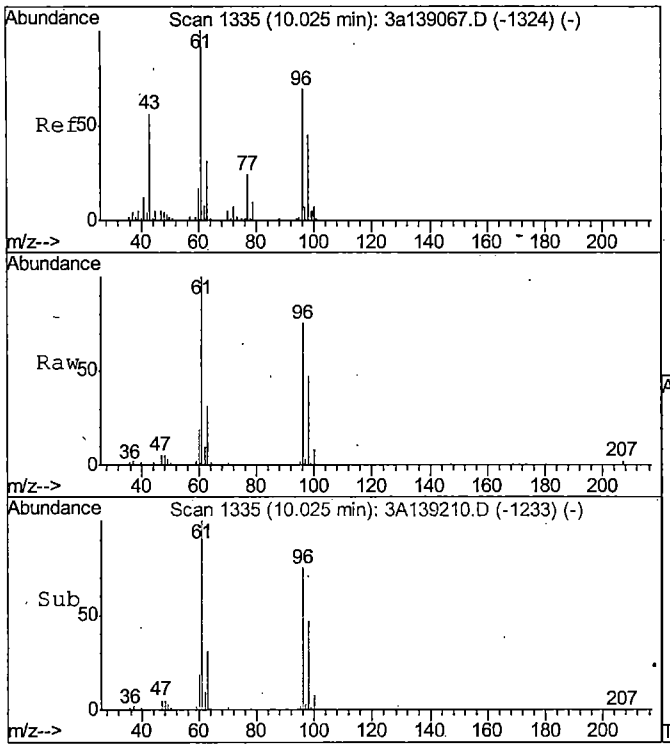
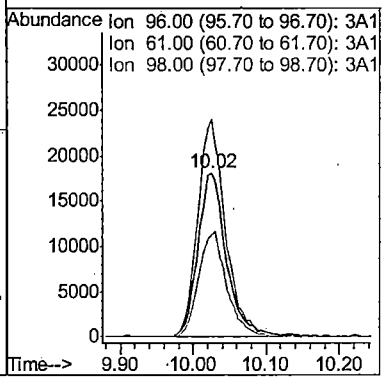
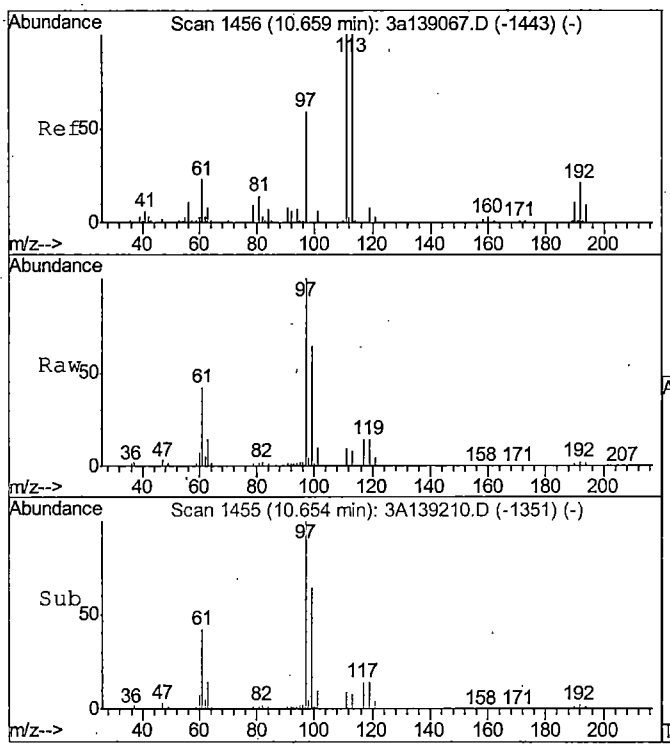


#42
cis-1,2-dichloroethene
Concen: 21.67 ug/L
RT: 10.02 min Scan# 1335
Delta R.T. 0.01 min
Lab File: 3A139210.D
Acq: 24 Feb 2015 8:02 am

Tgt Ion: 96 Resp: 49397

Ion	Ratio	Lower	Upper
96	100		
61	132.5	118.2	178.2
98	61.9	34.5	94.5

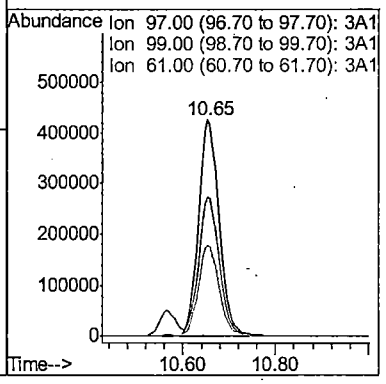




#53
1,1,1-trichloroethane
Concen: 400.15 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139210.D
Acq: 24 Feb 2015 8:02 am

Tgt Ion: 97 Resp: 1315760

Ion	Ratio	Lower	Upper
97	100		
99	63.7	35.5	95.5
61	41.6	11.9	71.9



7.1.6

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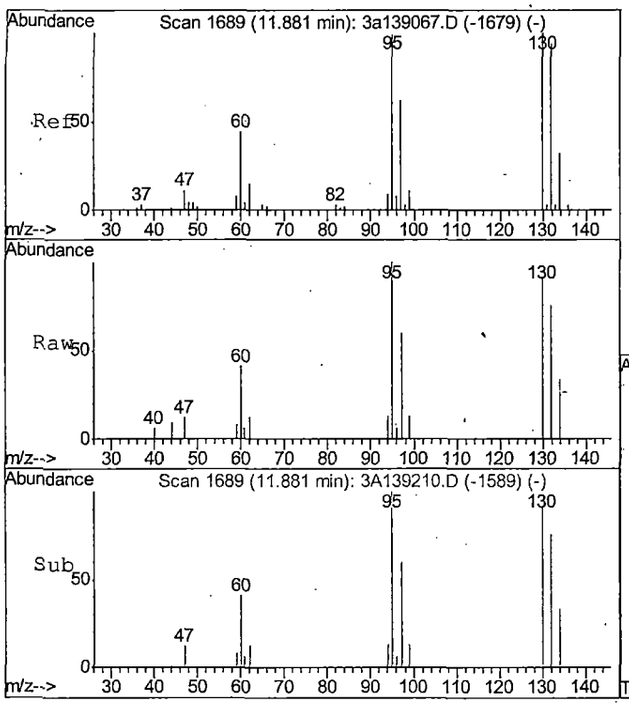
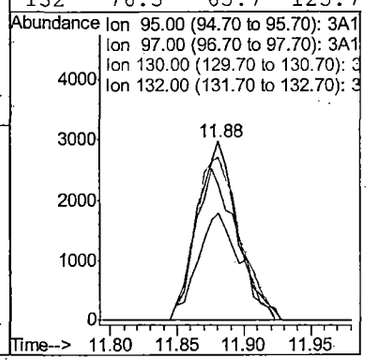
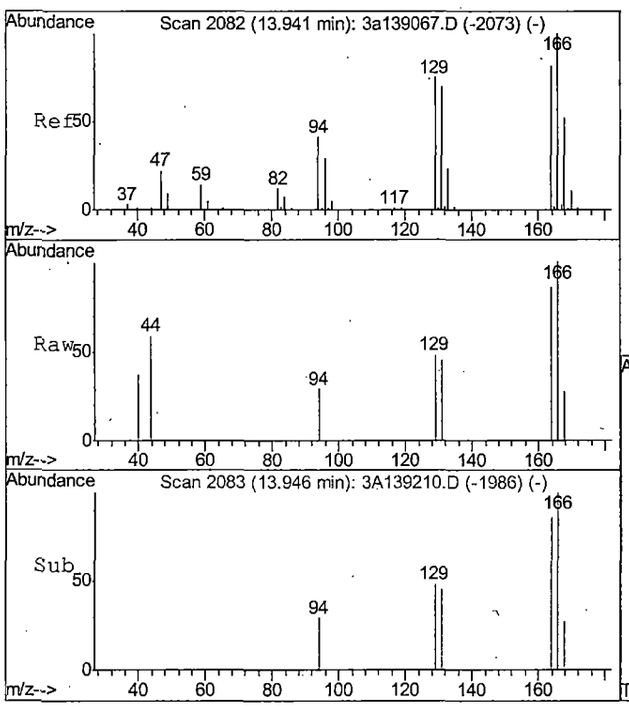


#69
trichloroethene
Concen: 3.31 ug/L
RT: 11.88 min Scan# 1689
Delta R.T. 0.01 min
Lab File: 3A139210.D
Acq: 24 Feb 2015 8:02 am

Tgt Ion: 95 Resp: 6210

Ion	Ratio	Lower	Upper
95	100		
97	59.7	33.0	93.0
130	91.1	71.3	131.3
132	76.3	65.7	125.7

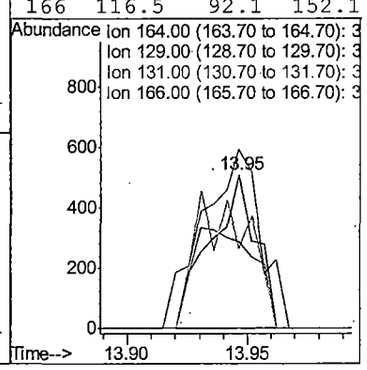




#88
tetrachloroethene
Concen: 0.43 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3A139210.D
Acq: 24 Feb 2015 8:02 am

Tgt Ion:164 Resp: 675

Ion	Ratio	Lower	Upper
164	100		
129	55.9	61.7	121.7#
131	52.0	55.4	115.4#
166	116.5	92.1	152.1



7.1.6

7

ACCUTEST LABORATORIES
JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139226.D
Acq On : 24 Feb 2015 5:17 pm
Operator : zobiah
Sample : jb88562-6
Misc : MS81224,V3A6025,5.0,,,,5
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 09:51:17 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	177395	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	272889	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	326641	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	293809	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	169132	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	108256	53.71	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.42%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	113956	59.59	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 119.18%			
79) toluene-d8 (s)	13.25	98	363104	50.00	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.00%			
104) 4-bromofluorobenzene (s)	16.12	95	140103	54.02	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.04%			

Target Compounds						Qvalue
22) 1,1-dichloroethene	7.27	96	5697	2.55	ug/L	85
35) 1,1-dichloroethane	9.21	63	2797	0.76	ug/L	83
42) cis-1,2-dichloroethene	10.02	96	10504	4.29	ug/L	84
53) 1,1,1-trichloroethane	10.65	97	273688	77.44	ug/L	97
69) trichloroethene	11.88	95	1302	0.63	ug/L #	77

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

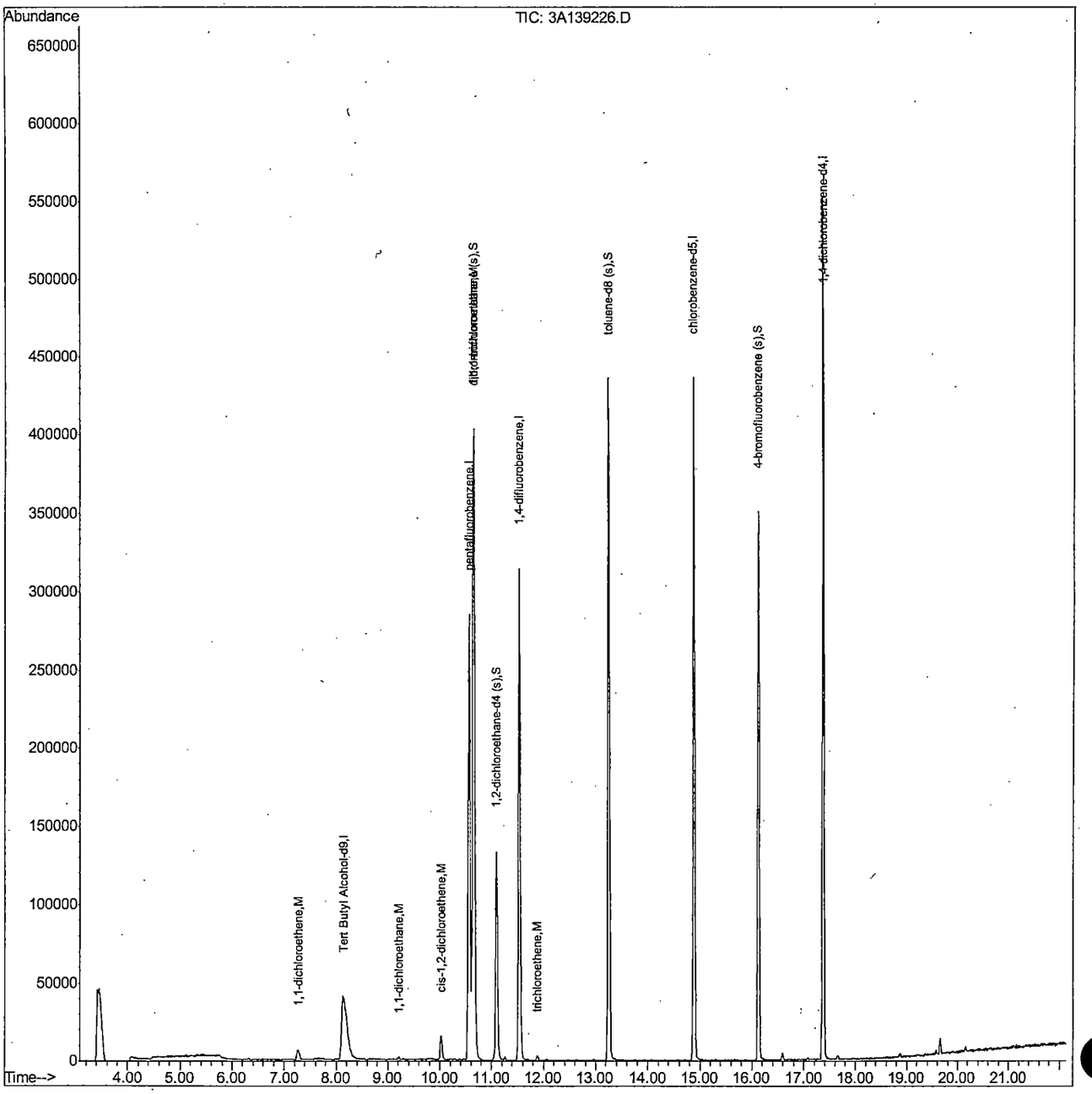
7.1.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139226.D
Acq On : 24 Feb 2015 5:17 pm
Operator : zobiah
Sample : jb88562-6
Misc : MS81224,V3A6025,5.0,,,,5
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 25 09:51:17 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.1.7

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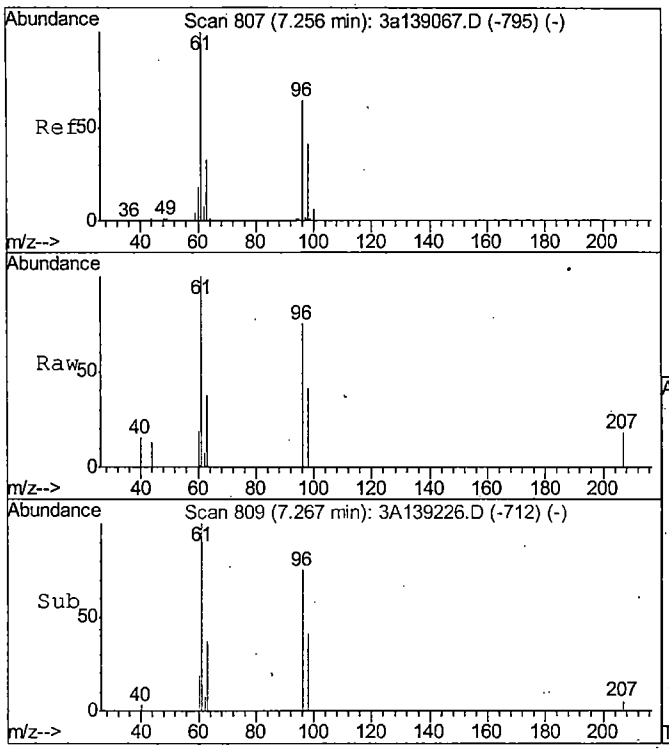
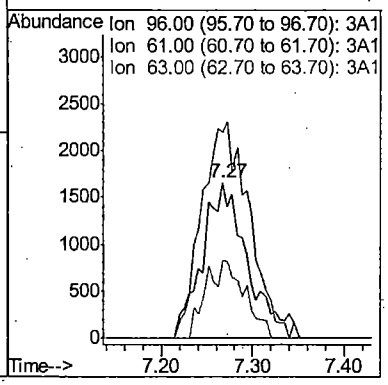
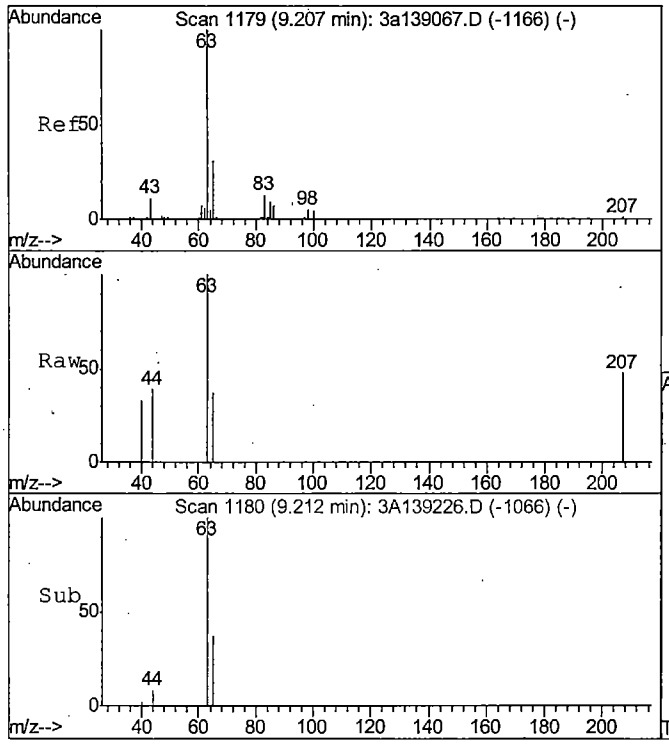


#22
1,1-dichloroethene
Concen: 2.55 ug/L
RT: 7.27 min Scan# 809
Delta R.T. 0.01 min
Lab File: 3A139226.D
Acq: 24 Feb 2015 5:17 pm

Tgt Ion: 96 Resp: 5697

Ion	Ratio	Lower	Upper
96	100		
61	132.9	127.4	187.4
63	49.7	22.7	82.7

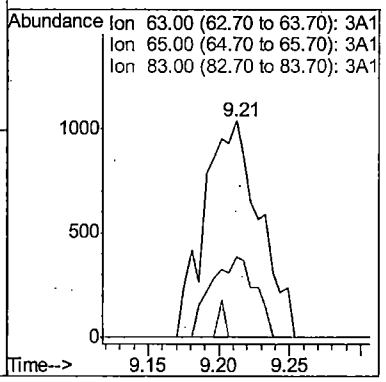


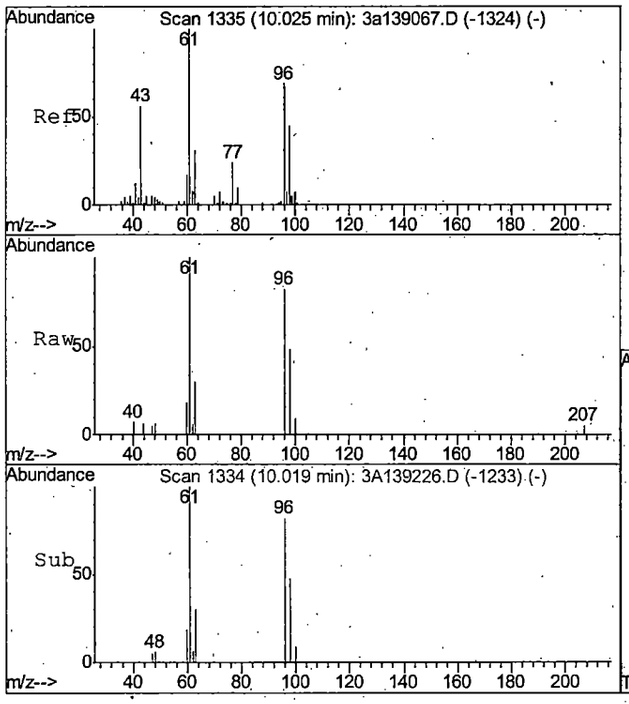


#35
1,1-dichloroethane
Concen: 0.76 ug/L
RT: 9.21 min Scan# 1180
Delta R.T. 0.01 min
Lab File: 3A139226.D
Acq: 24 Feb 2015 5:17 pm

Tgt Ion: 63 Resp: 2797

Ion	Ratio	Lower	Upper
63	100		
65	37.1	0.8	60.8
83	0.0	0.0	42.7

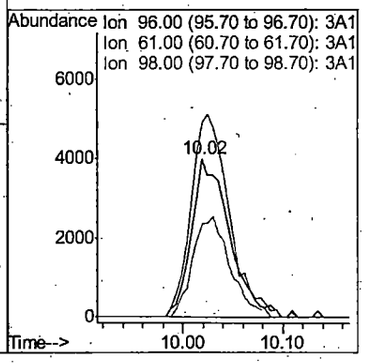


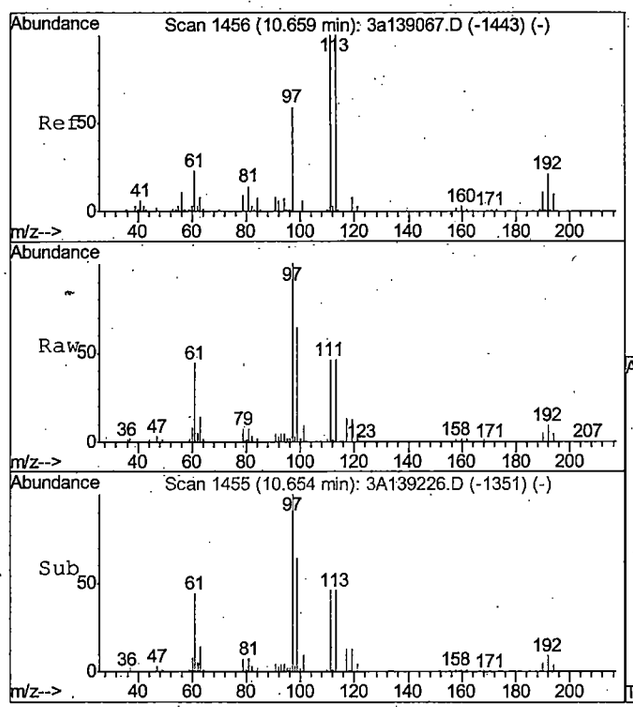


#42
cis-1,2-dichloroethene
Concen: 4.29 ug/L
RT: 10.02 min Scan# 1334
Delta R.T. 0.00 min
Lab File: 3A139226.D
Acq: 24 Feb 2015 5:17 pm

Tgt Ion: 96 Resp: 10504

Ion	Ratio	Lower	Upper
96	100		
61	122.6	118.2	178.2
98	59.0	34.5	94.5

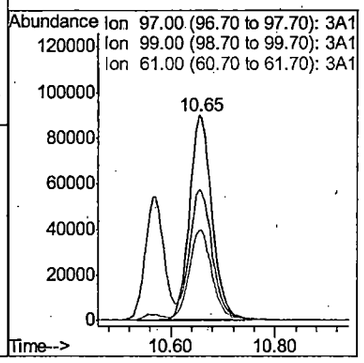




#53
1,1,1-trichloroethane
Concen: 77.44 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139226.D
Acq: 24 Feb 2015 5:17 pm

Tgt Ion: 97 Resp: 273688

Ion	Ratio	Lower	Upper
97	100		
99	63.5	35.5	95.5
61	43.9	11.9	71.9



7.1.7

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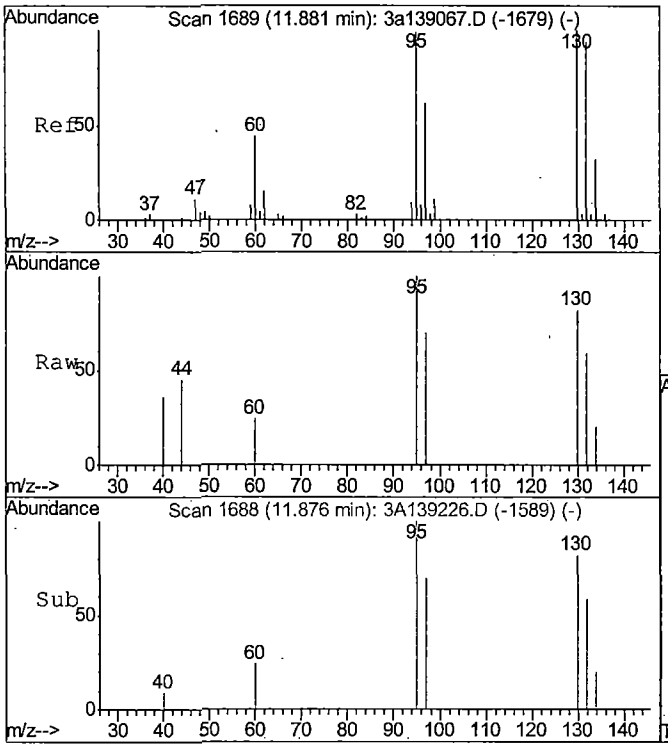
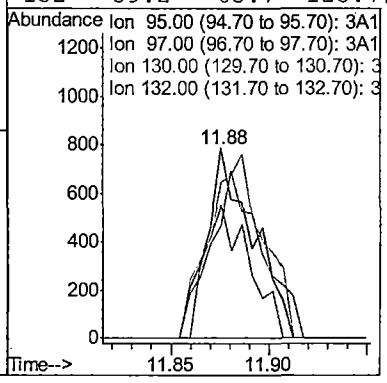
ACCUTEST LABORATORIES JB88562



#69
trichloroethene
Concen: 0.63 ug/L
RT: 11.88 min Scan# 1688
Delta R.T. 0.00 min
Lab File: 3A139226.D
Acq: 24 Feb 2015 5:17 pm

Tgt Ion: 95 Resp: 1302

Ion	Ratio	Lower	Upper
95	100		
97	70.0	33.0	93.0
130	82.3	71.3	131.3
132	59.2	65.7	125.7#



7.1.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139232.D
Acq On : 24 Feb 2015 8:17 pm
Operator : zobiah
Sample : jb88562-7
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 25 10:06:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	188896	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	279743	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	338928	50.00 ug/L	0.00
87) chlorobenzene-d5	14.89	117	300686	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	174853	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	113801	55.08 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 110.16%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	121218	61.83 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 123.66%		
79) toluene-d8 (s)	13.25	98	379136	50.31 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.62%		
104) 4-bromofluorobenzene (s)	16.12	95	143897	53.67 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.34%		
Target Compounds					Qvalue
22) 1,1-dichloroethene	7.26	96	9177	4.01 ug/L	95
35) 1,1-dichloroethane	9.21	63	34204	9.10 ug/L	96
42) cis-1,2-dichloroethene	10.02	96	13371	5.32 ug/L	92
53) 1,1,1-trichloroethane	10.65	97	539789	149.00 ug/L	97
69) trichloroethene	11.88	95	6165	2.85 ug/L	87
76) methylcyclohexane	12.06	83	17050	4.37 ug/L	91
88) tetrachloroethene	13.94	164	2172	1.21 ug/L	94
103) isopropylbenzene	15.88	105	31665	3.12 ug/L	98

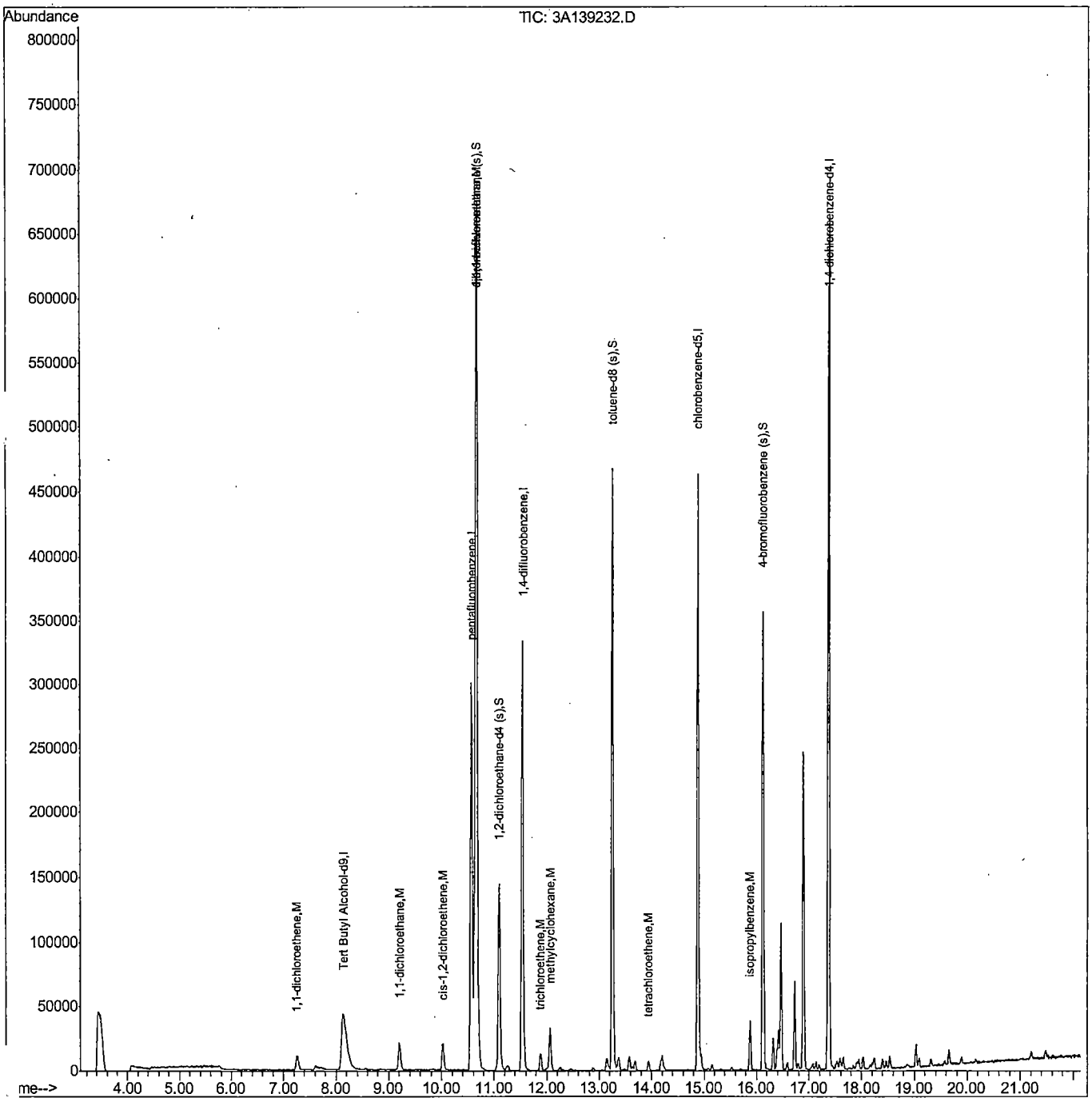
(#) = qualifier out of range (m) = manual integration (+) = signals summed

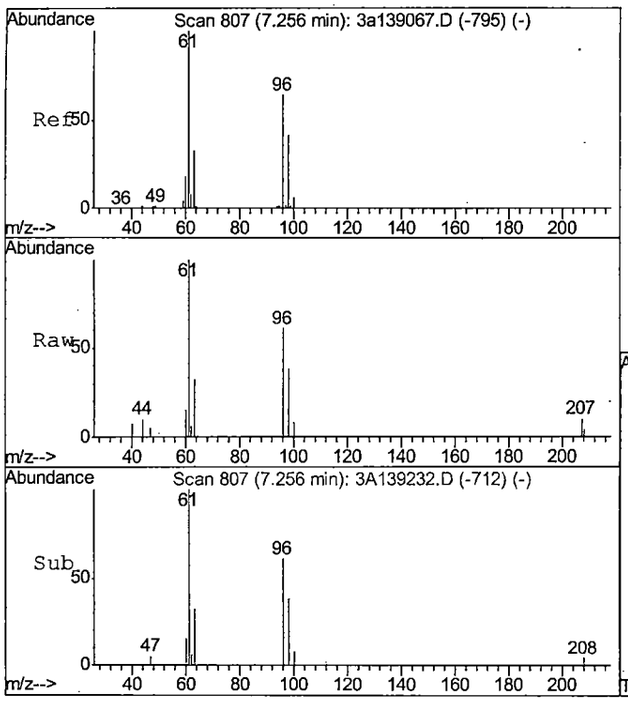
7.1.8 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139232.D
Acq On : 24 Feb 2015 8:17 pm
Operator : zobiah
Sample : jb88562-7
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 25 10:06:47 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

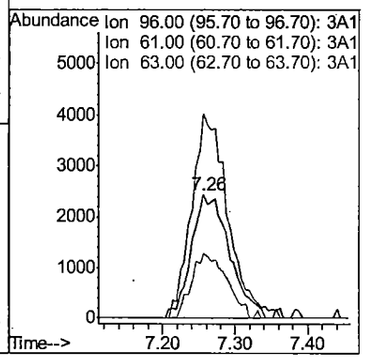


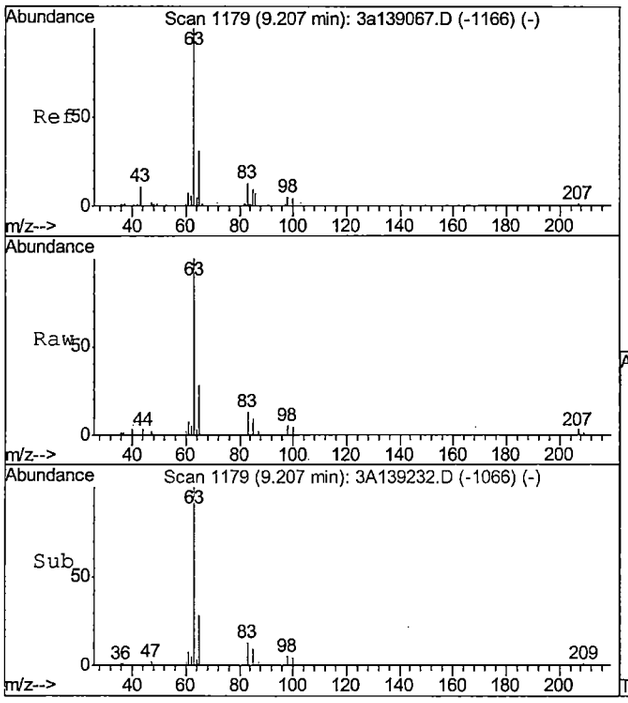


#22
1,1-dichloroethene
Concen: 4.01 ug/L
RT: 7.26 min Scan# 807
Delta R.T. 0.00 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

Tgt Ion: 96 Resp: 9177

Ion	Ratio	Lower	Upper
96	100		
61	165.2	127.4	187.4
63	52.0	22.7	82.7

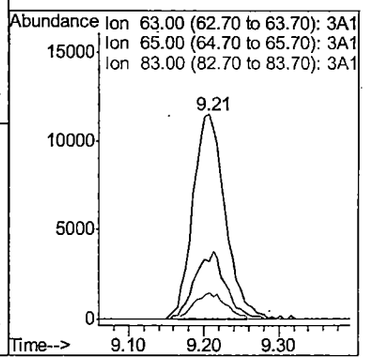




#35
1,1-dichloroethane
Concen: 9.10 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

Tgt Ion: 63 Resp: 34204

Ion	Ratio	Lower	Upper
63	100		
65	28.0	0.8	60.8
83	13.0	0.0	42.7



7.1.8

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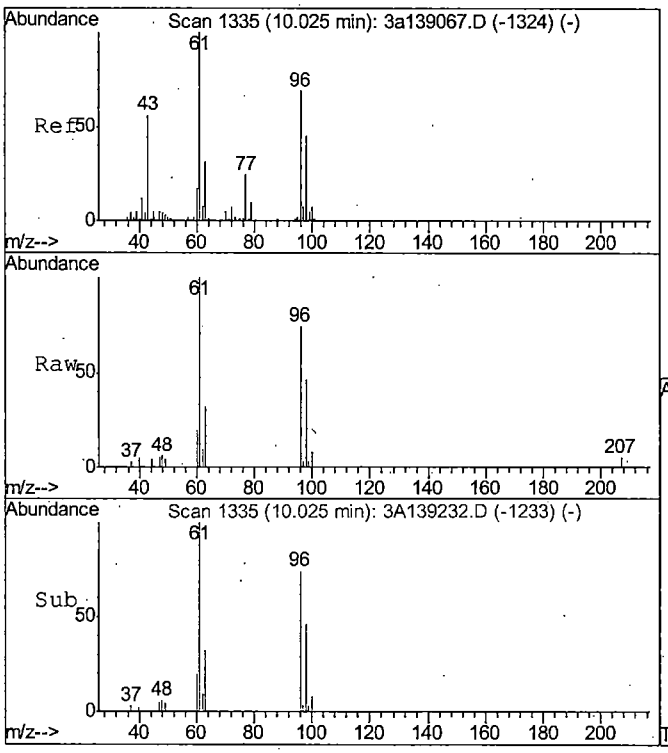
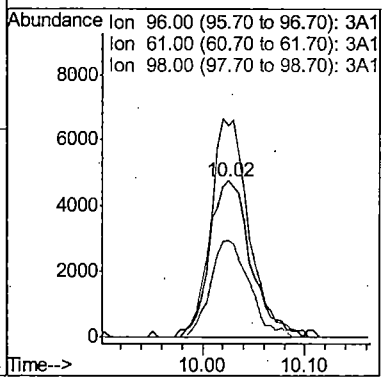
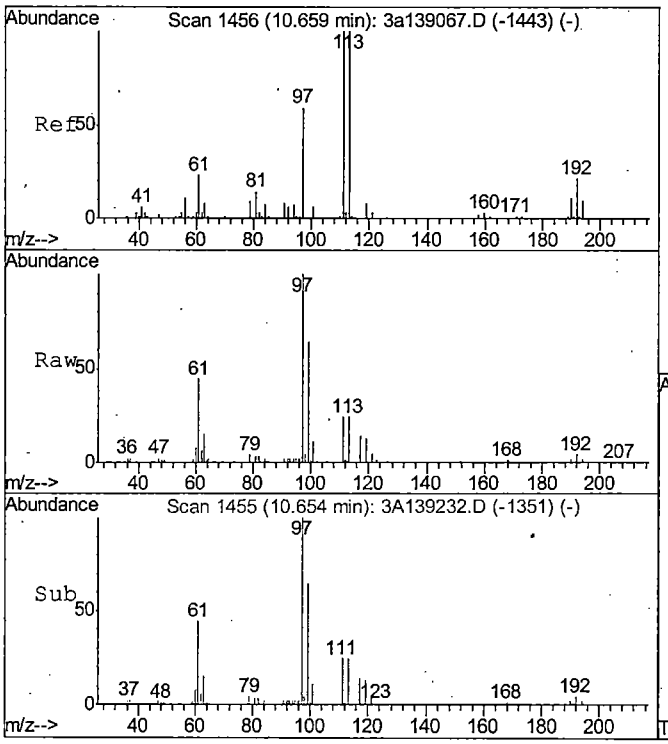


#42
cis-1,2-dichloroethene
Concen: 5.32 ug/L
RT: 10.02 min Scan# 1335
Delta R.T. 0.01 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

Tgt Ion: 96 Resp: 13371

Ion	Ratio	Lower	Upper
96	100		
61	135.9	118.2	178.2
98	61.9	34.5	94.5

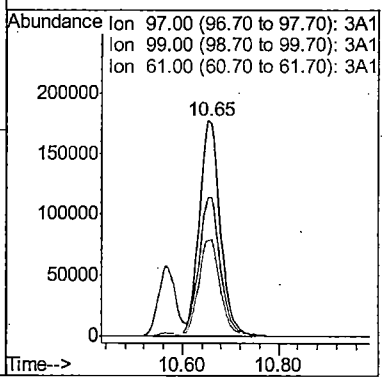




#53
1,1,1-trichloroethane
Concen: 149.00 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

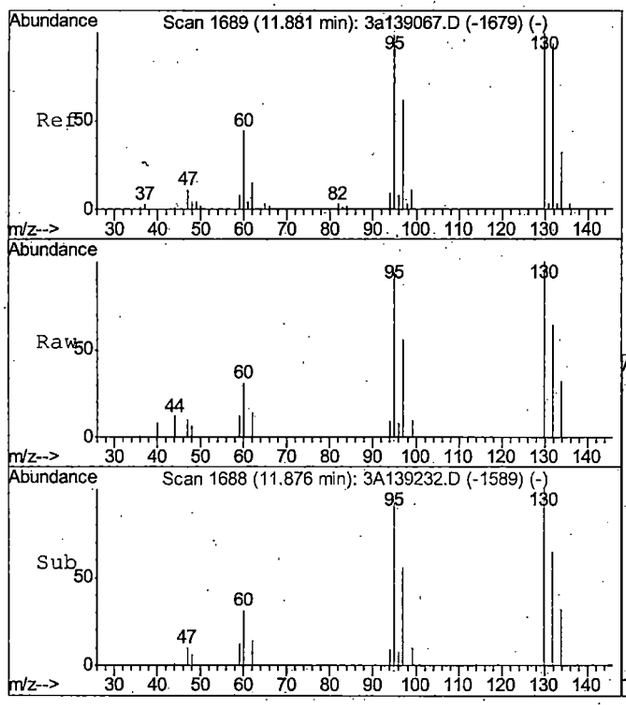
Tgt Ion: 97 Resp: 539789

Ion	Ratio	Lower	Upper
97	100		
99	63.7	35.5	95.5
61	43.9	11.9	71.9



7.1.8

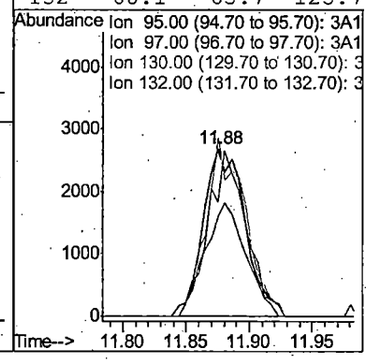
7

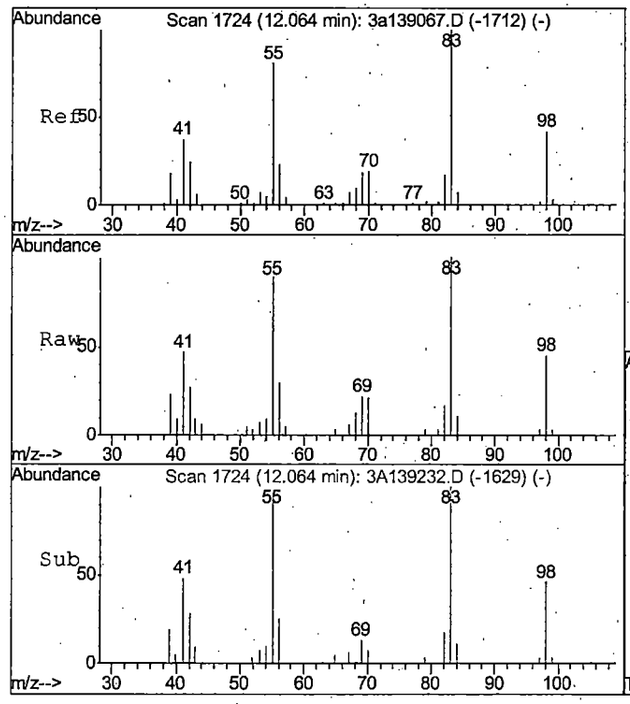


#69
trichloroethene
Concen: 2.85 ug/L
RT: 11.88 min Scan# 1688
Delta R.T. 0.00 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

Tgt Ion: 95 Resp: 6165

Ion	Ratio	Lower	Upper
95	100		
97	59.7	33.0	93.0
130	106.1	71.3	131.3
132	68.1	65.7	125.7

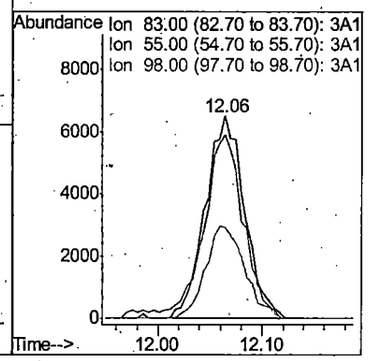




#76
methylcyclohexane
Concen: 4.37 ug/L
RT: 12.06 min Scan# 1724
Delta R.T. 0.00 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

Tgt Ion: 83 Resp: 17050

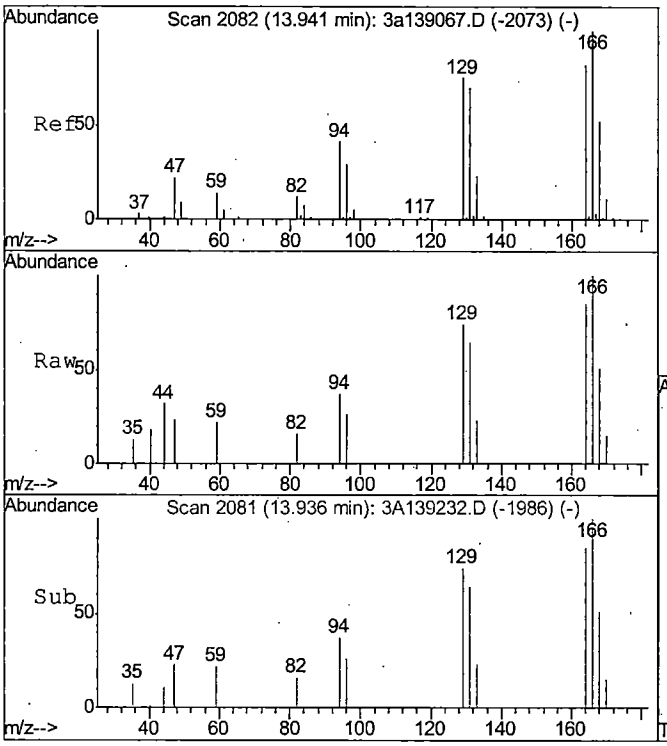
Ion	Ratio	Lower	Upper
83	100		
55	90.4	50.7	110.7
98	44.6	12.2	72.2



7.1.8

7

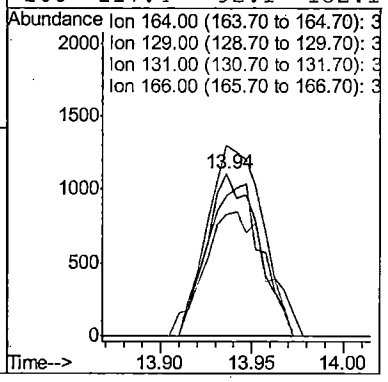
ACCUTEST LABORATORIES JB88562

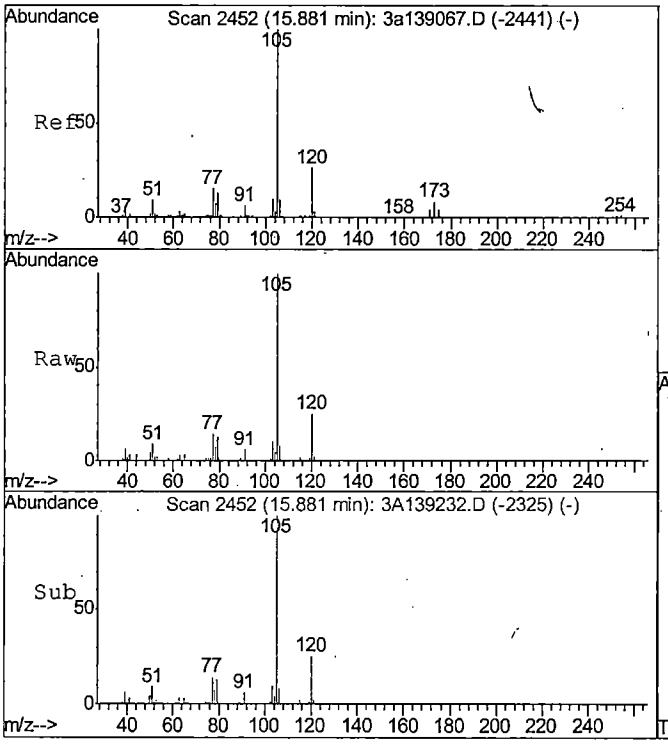


#88
tetrachloroethene
Concen: 1.21 ug/L
RT: 13.94 min Scan# 2081
Delta R.T. 0.00 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

Tgt Ion:164 Resp: 2172

Ion	Ratio	Lower	Upper
164	100		
129	86.4	61.7	121.7
131	75.6	55.4	115.4
166	117.4	92.1	152.1

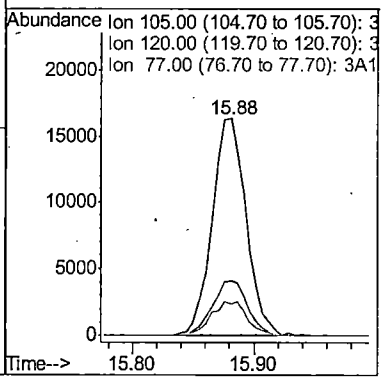




#103
isopropylbenzene
Concen: 3.12 ug/L
RT: 15.88 min Scan# 2452
Delta R.T. 0.01 min
Lab File: 3A139232.D
Acq: 24 Feb 2015 8:17 pm

Tgt Ion:105 Resp: 31665

Ion	Ratio	Lower	Upper
105	100		
120	25.0	0.0	56.1
77	14.2	0.0	44.6



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139233.D
Acq On : 24 Feb 2015 8:47 pm
Operator : zobiah
Sample : jb88562-8
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 25 10:07:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	164814	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	271550	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	326974	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	290753	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	170198	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	108423	54.06	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.12%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	115255	60.56	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 121.12%			
79) toluene-d8 (s)	13.25	98	363960	50.06	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.12%			
104) 4-bromofluorobenzene (s)	16.13	95	140415	53.80	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.60%			
Target Compounds						Qvalue
35) 1,1-dichloroethane	9.20	63	6529	1.79	ug/L	87
53) 1,1,1-trichloroethane	10.65	97	1367	0.39	ug/L #	14

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

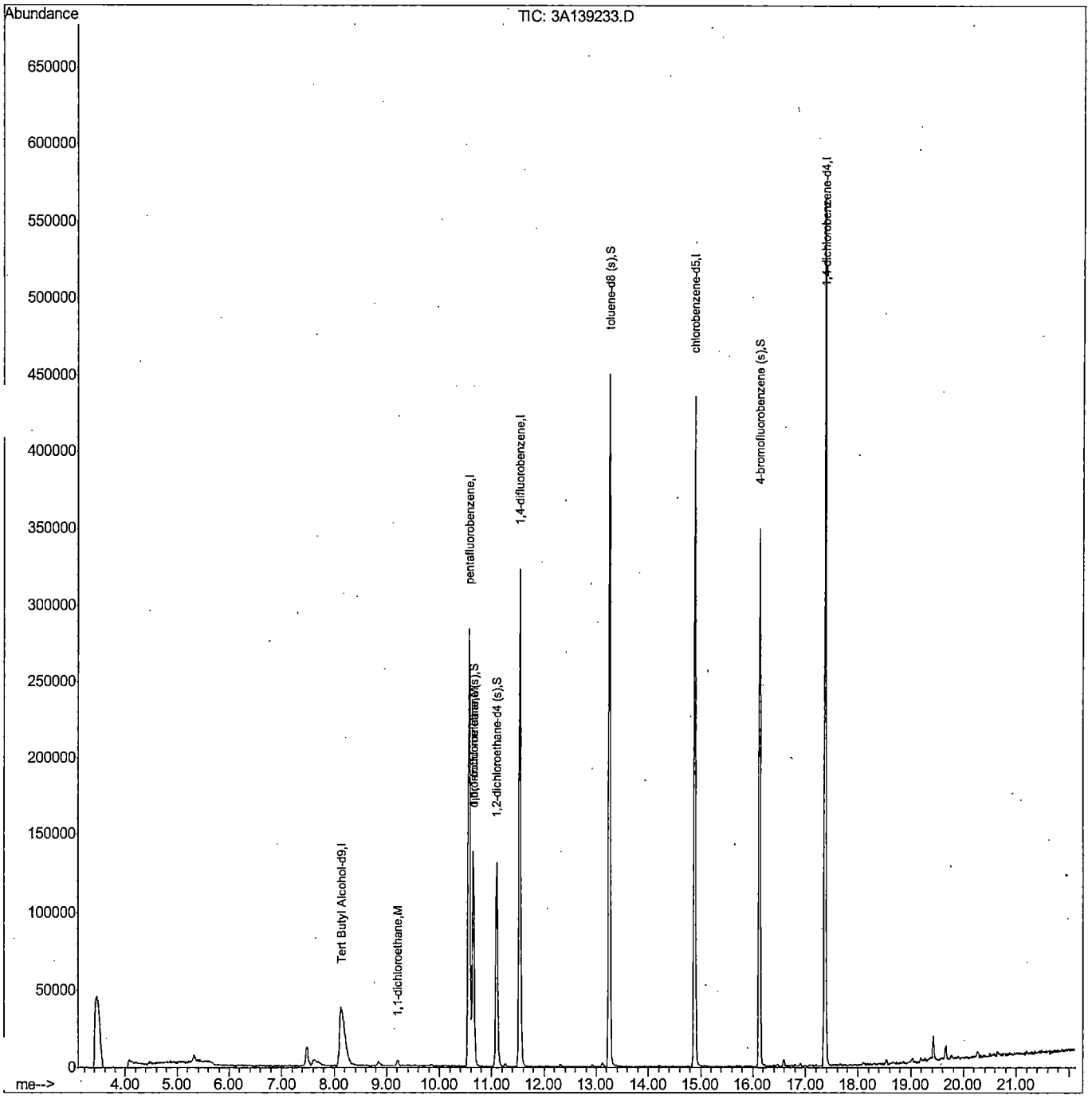
7.1.9

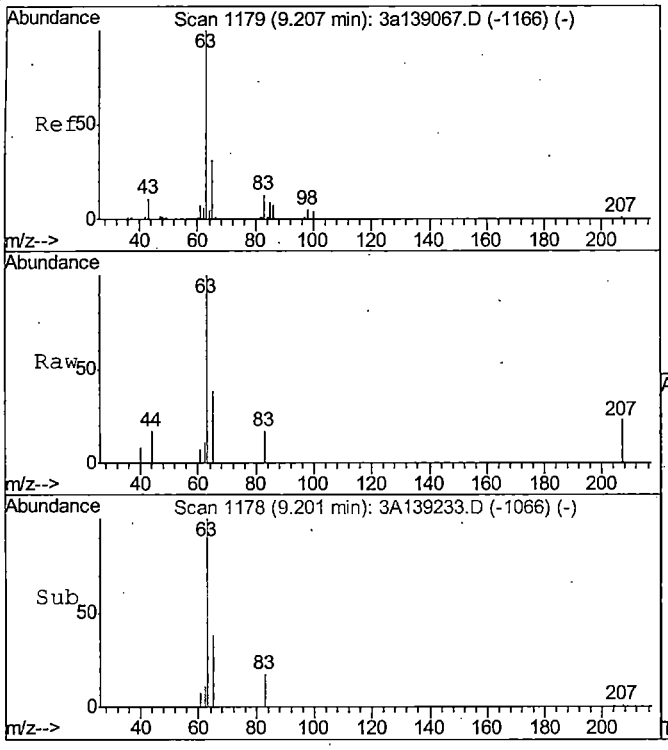
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139233.D
Acq On : 24 Feb 2015 8:47 pm
Operator : zobiah
Sample : jb88562-8
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 25 10:07:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

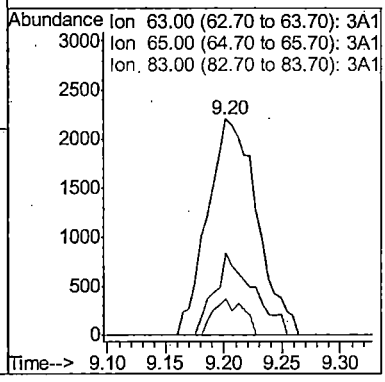


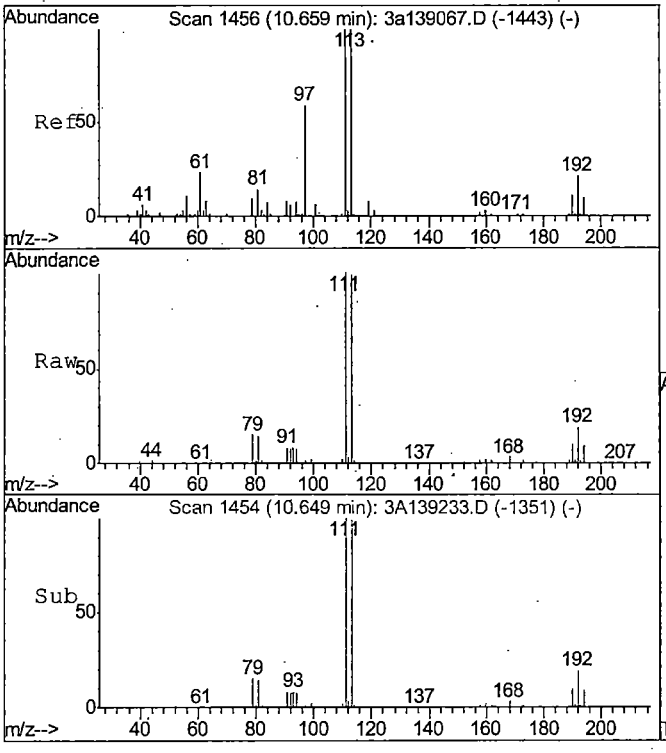


#35
1,1-dichloroethane
Concen: 1.79 ug/L
RT: 9.20 min Scan# 1178
Delta R.T. -0.01 min
Lab File: 3A139233.D
Acq: 24 Feb 2015 8:47 pm

Tgt Ion: 63 Resp: 6529

Ion	Ratio	Lower	Upper
63	100		
65	38.0	0.8	60.8
83	17.2	0.0	42.7

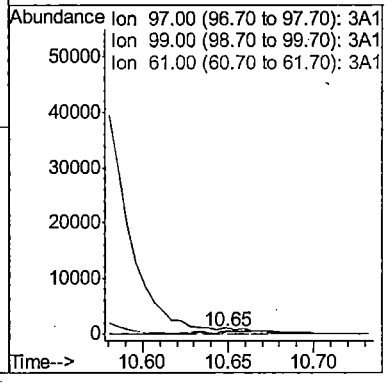




#53
1,1,1-trichloroethane
Concen: 0.39 ug/L
RT: 10.65 min Scan# 1454
Delta R.T. -0.01 min
Lab File: 3A139233.D
Acq: 24 Feb 2015 8:47 pm

Tgt Ion: 97 Resp: 1367

Ion	Ratio	Lower	Upper
97	100		
99	168.4	35.5	95.5#
61	30.4	11.9	71.9



7.1.9

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139234.D
Acq On : 24 Feb 2015 9:17 pm
Operator : zobiah
Sample : jb88562-9
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 25 10:08:03 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	185330	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	270390	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	324445	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	289163	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	167839	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	108324	54.24 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.48%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	116393	61.42 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 122.84%		
79) toluene-d8 (s)	13.25	98	361696	50.14 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.28%		
104) 4-bromofluorobenzene (s)	16.12	95	139726	54.29 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.58%		
Target Compounds					Qvalue
35) 1,1-dichloroethane	9.21	63	2333	0.64 ug/L	88
53) 1,1,1-trichloroethane	10.66	97	3183	0.91 ug/L	90
69) trichloroethene	11.88	95	826	0.40 ug/L	92
88) tetrachloroethene	13.95	164	1860	1.07 ug/L	96

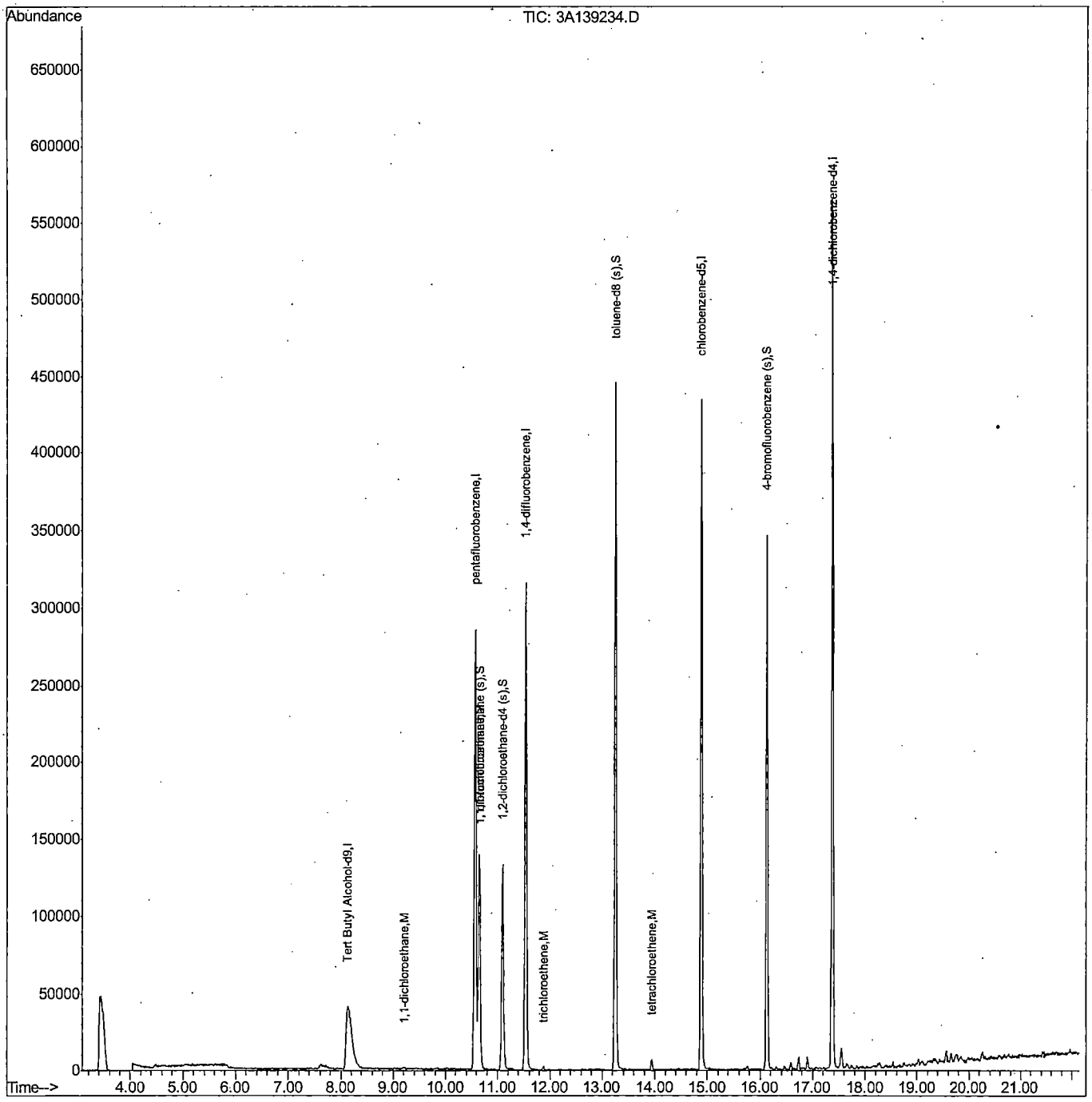
(#) = qualifier out of range (m) = manual integration (+) = signals summed

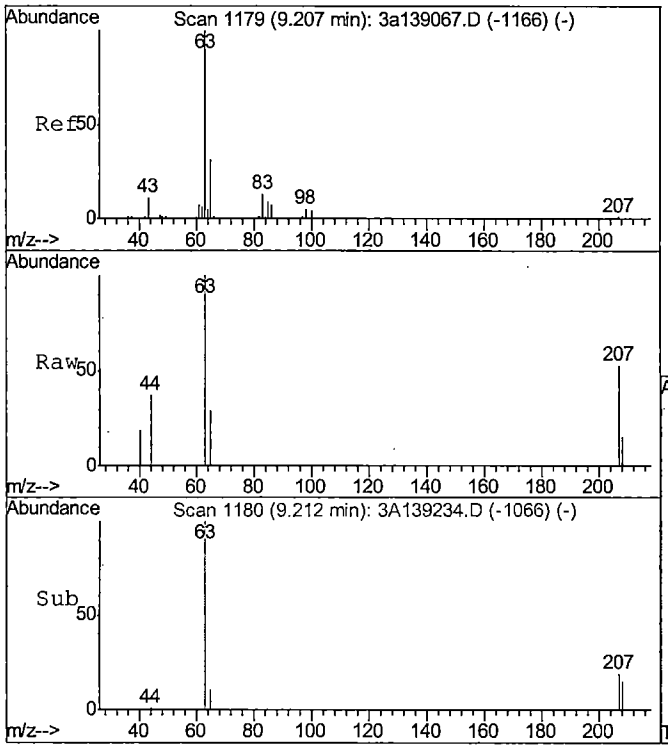
7.1.10 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139234.D
Acq On : 24 Feb 2015 9:17 pm
Operator : zobiah
Sample : jb88562-9
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 25 10:08:03 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

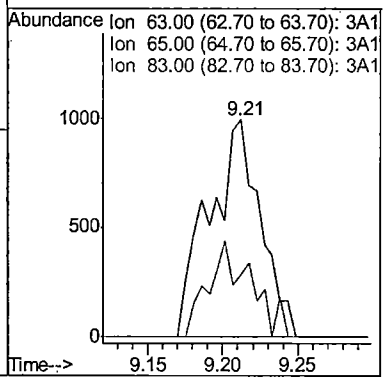


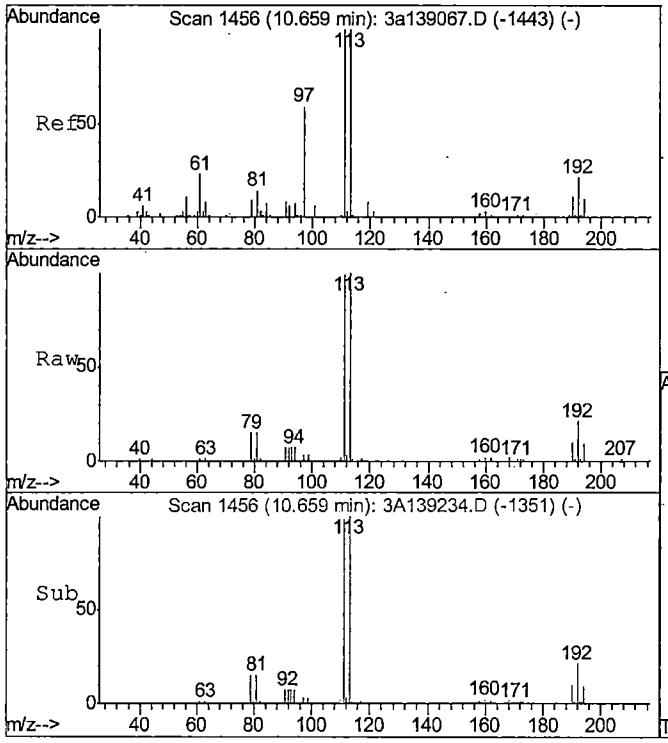


#35
1,1-dichloroethane
Concen: 0.64 ug/L
RT: 9.21 min Scan# 1180
Delta R.T. 0.01 min
Lab File: 3A139234.D
Acq: 24 Feb 2015 9:17 pm

Tgt Ion: 63 Resp: 2333

Ion	Ratio	Lower	Upper
63	100		
65	28.8	0.8	60.8
83	0.0	0.0	42.7

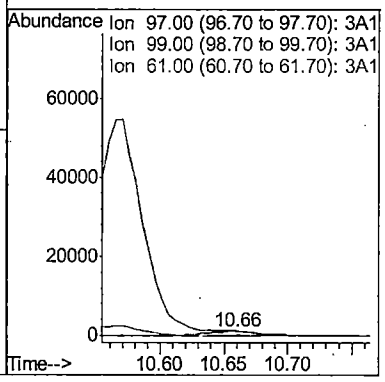




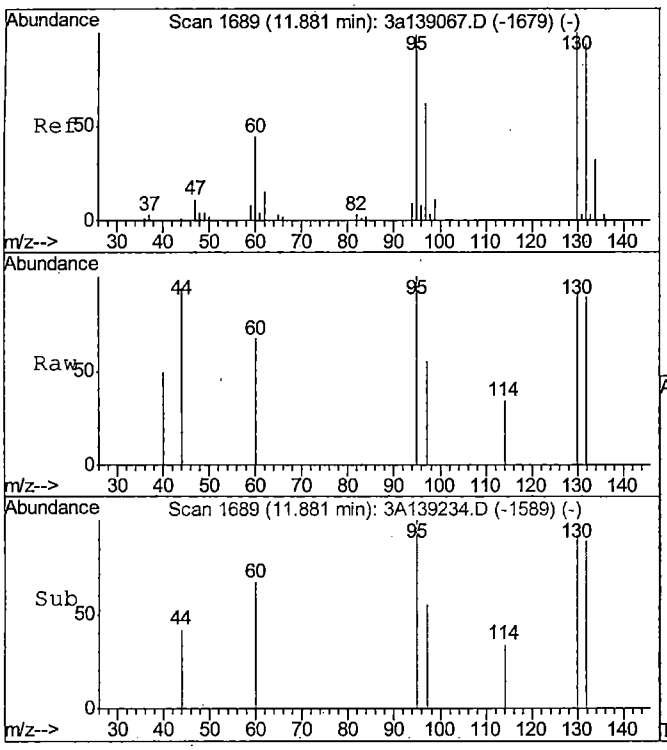
#53
1,1,1-trichloroethane
Concen: 0.91 ug/L
RT: 10.66 min Scan# 1456
Delta R.T. -0.00 min
Lab File: 3A139234.D
Acq: 24 Feb 2015 9:17 pm

Tgt Ion: 97 Resp: 3183

Ion	Ratio	Lower	Upper
97	100		
99	76.4	35.5	95.5
61	43.9	11.9	71.9



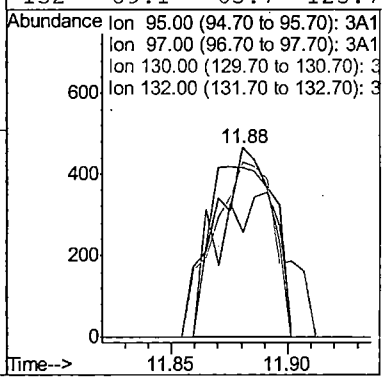
7.1.10 7

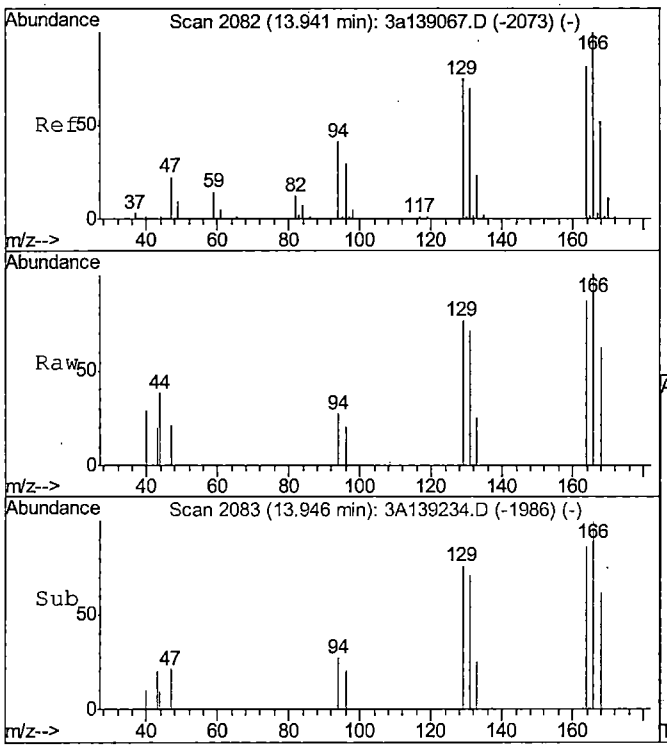


#69
trichloroethene
Concen: 0.40 ug/L
RT: 11.88 min Scan# 1689
Delta R.T. 0.01 min
Lab File: 3A139234.D
Acq: 24 Feb 2015 9:17 pm

Tgt Ion: 95 Resp: 826

Ion	Ratio	Lower	Upper
95	100		
97	55.4	33.0	93.0
130	92.1	71.3	131.3
132	89.1	65.7	125.7

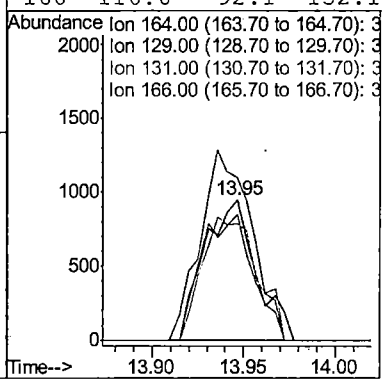




#88
tetrachloroethene
Concen: 1.07 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3A139234.D
Acq: 24 Feb 2015 9:17 pm

Tgt Ion:164 Resp: 1860

Ion	Ratio	Lower	Upper
164	100		
129	89.1	61.7	121.7
131	83.0	55.4	115.4
166	116.6	92.1	152.1



7.1.10 7

ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139235.D
Acq On : 24 Feb 2015 9:47 pm
Operator : zobiah
Sample : jb88562-10
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 25 10:08:29 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	187767	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	267144	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	315596	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	282402	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	165430	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.65	113	106488	53.97	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.94%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	113244	60.49	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 120.98%			
79) toluene-d8 (s)	13.25	98	355326	50.64	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.28%			
104) 4-bromofluorobenzene (s)	16.13	95	136329	53.74	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.48%			

Target Compounds Qvalue

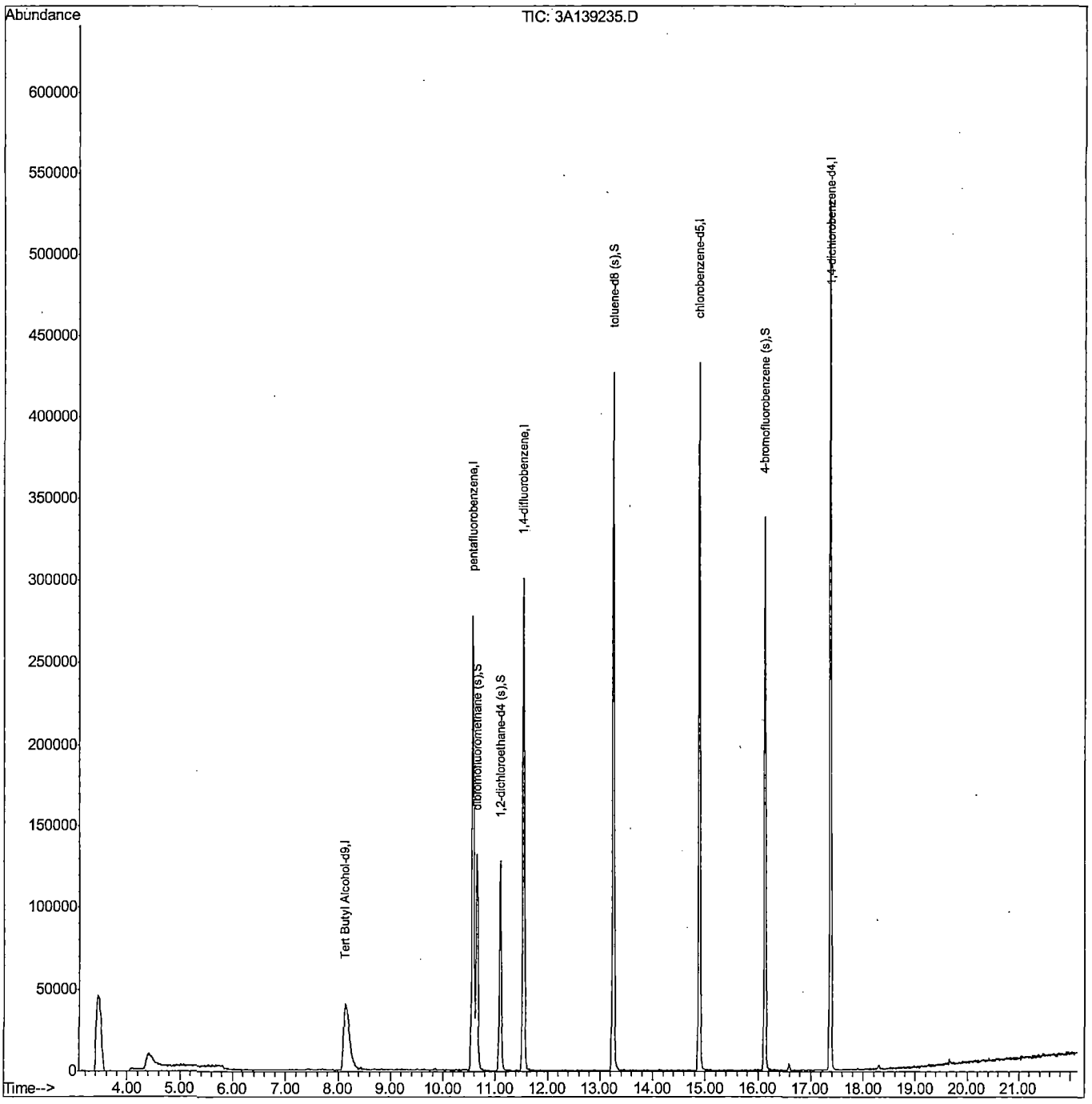
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.11 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139235.D
Acq On : 24 Feb 2015 9:47 pm
Operator : zobiah
Sample : jb88562-10
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 25 10:08:29 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB88562

7.1.11
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57208.D
Acq On : 26 Feb 2015 1:38 pm
Operator : PayalR
Sample : jb88562-11
Misc : MS81224,V4D2537,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 26 15:42:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	6.998	65	88783	500.00 ug/L	0.00
4) pentafluorobenzene	9.567	168	266453	50.00 ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	318072	50.00 ug/L	0.00
83) chlorobenzene-d5	13.893	117	288363	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	146977	50.00 ug/L	0.00
System Monitoring Compounds					
45) dibromofluoromethane (s)	9.552	113	123016	41.30 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.60%		
46) 1,2-dichloroethane-d4 (s)	9.997	65	129862	45.32 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 90.64%		
75) toluene-d8 (s)	12.278	98	419256	43.36 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.72%		
100) 4-bromofluorobenzene (s)	15.130	95	156144	43.31 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 86.62%		
Target Compounds					Qvalue
3) tertiary butyl alcohol	7.140	59	3034	12.52 ug/L	86
77) toluene	12.362	92	987	0.15 ug/L	94

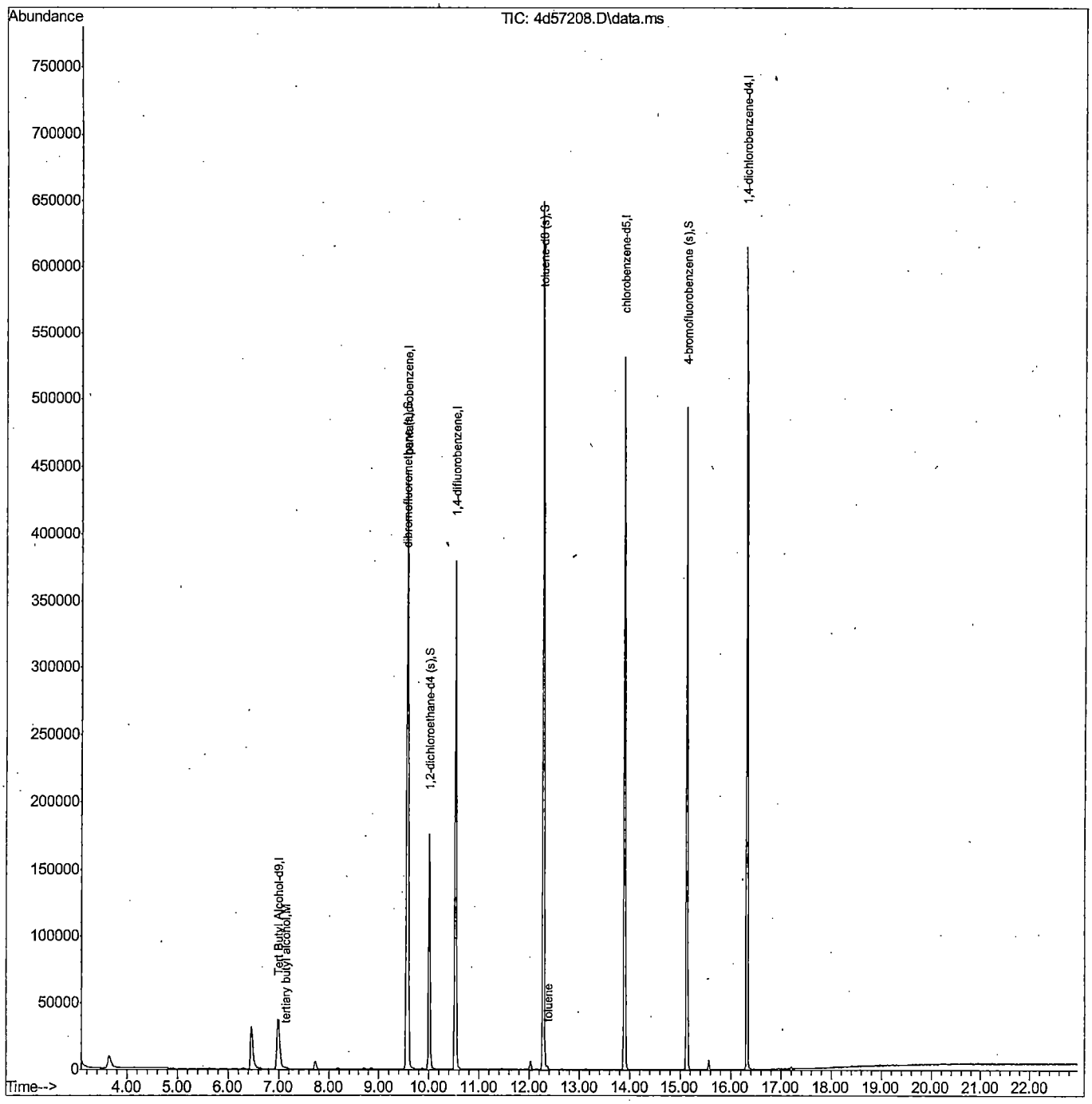
(#) = qualifier out of range (m) = manual integration (+) = signals summed

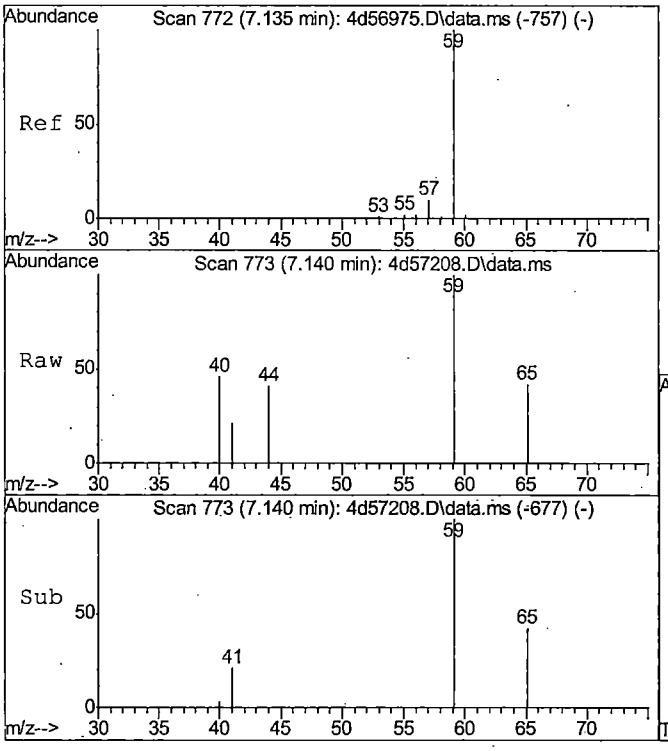
7.1.12 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57208.D
Acq On : 26 Feb 2015 1:38 pm
Operator : PayalR
Sample : jb88562-11
Misc : MS81224,V4D2537,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 26 15:42:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

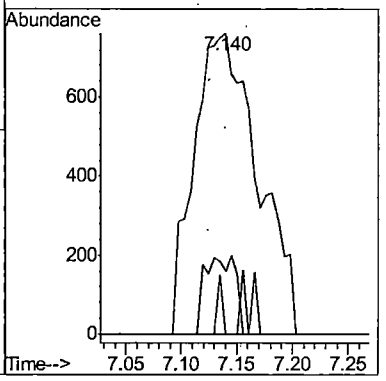


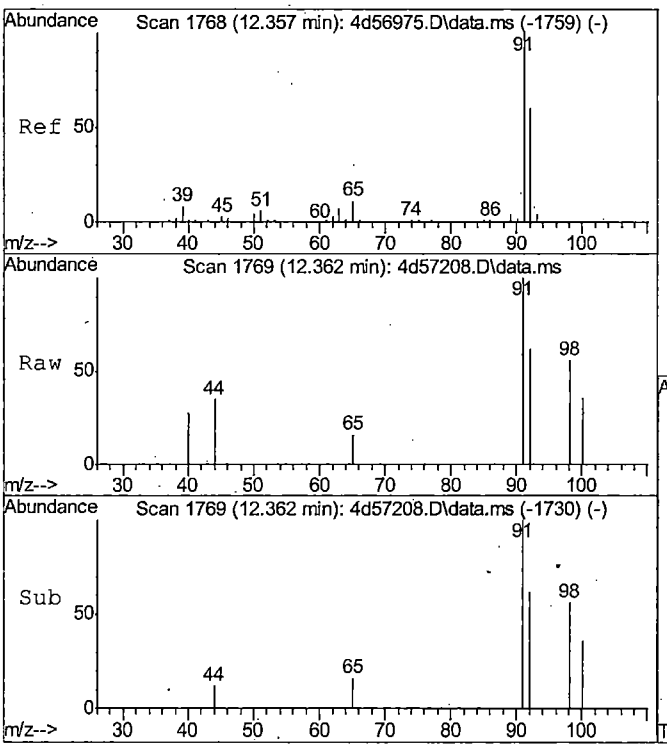


#3
tertiary butyl alcohol
Concen: 12.52 ug/L
RT: 7.140 min Scan# 773
Delta R.T. 0.005 min
Lab File: 4d57208.D
Acq: 26 Feb 2015 1:38 pm

Tgt Ion: 59 Resp: 3034

Ion	Ratio	Lower	Upper
59	100		
41	20.7	0.0	51.4
43	0.0	0.0	43.4

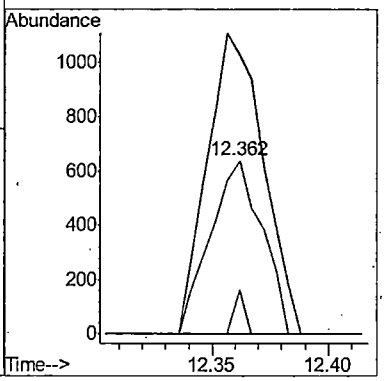




#77
toluene
Concen: 0.15 ug/L
RT: 12.362 min Scan# 1769
Delta R.T. 0.005 min
Lab File: 4d57208.D
Acq: 26 Feb 2015 1:38 pm

Tgt Ion: 92 Resp: 987

Ion	Ratio	Lower	Upper
92	100		
91	161.3	137.9	197.9
65	25.3	0.0	48.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57209.D
Acq On : 26 Feb 2015 2:06 pm
Operator : PayalR
Sample : jb88562-12
Misc : MS81224,V4D2537,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 15:44:18 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	85910	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	258225	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	306174	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	275582	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	143016	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	119020	41.23	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.46%			
46) 1,2-dichloroethane-d4 (s)	10.002	65	124981	45.00	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 90.00%			
75) toluene-d8 (s)	12.278	98	405199	43.53	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.06%			
100) 4-bromofluorobenzene (s)	15.130	95	152272	43.41	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 86.82%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	7.129	59	6149	26.22	ug/L	98

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

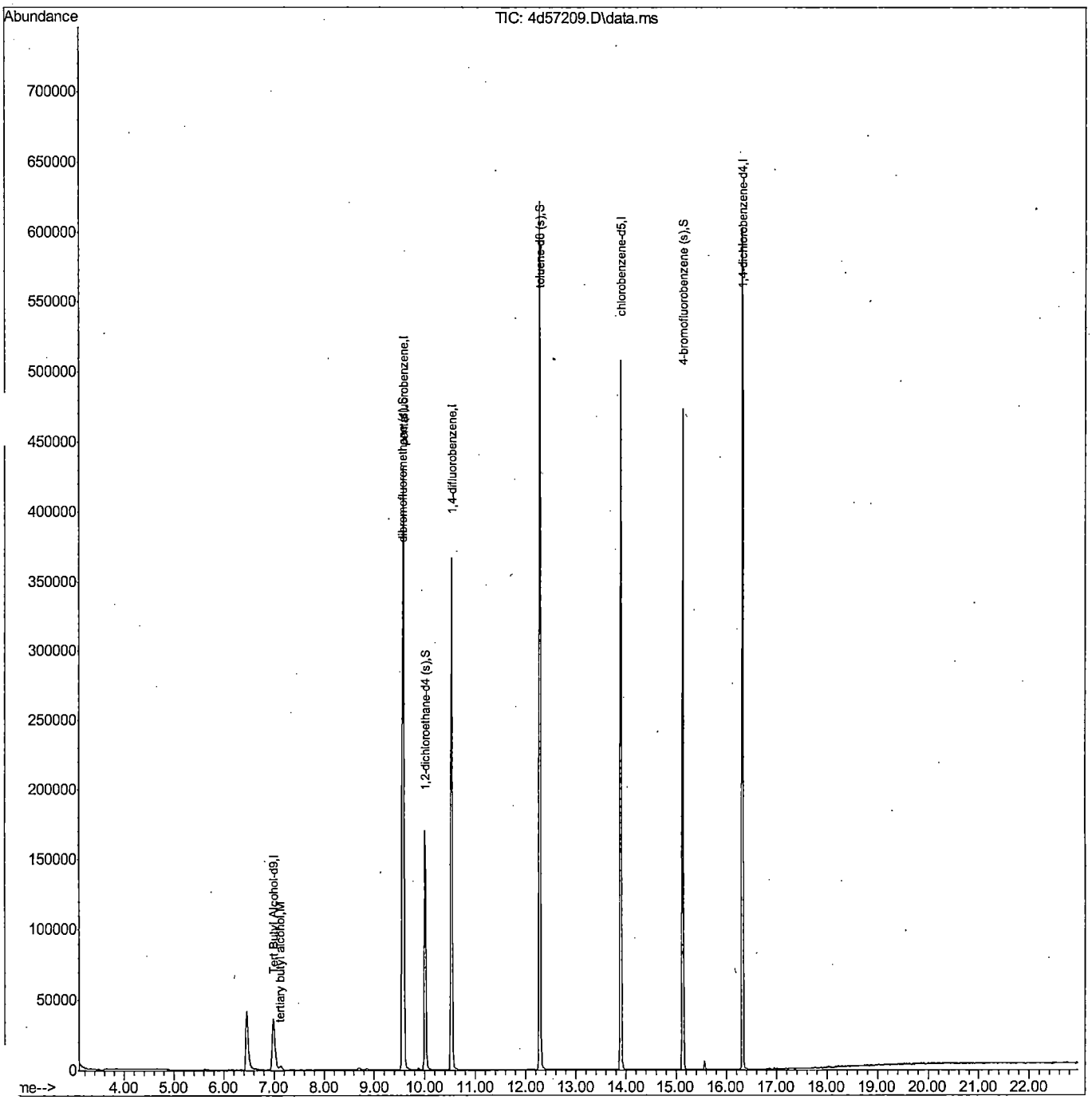
7.1.13

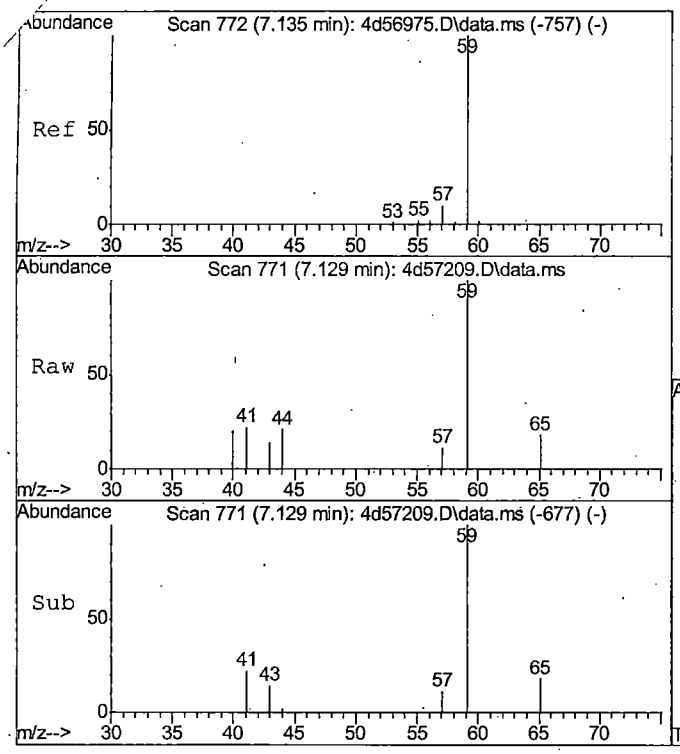
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57209.D
Acq On : 26 Feb 2015 2:06 pm
Operator : PayalR
Sample : jb88562-12
Misc : MS81224,V4D2537,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 26 15:44:18 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

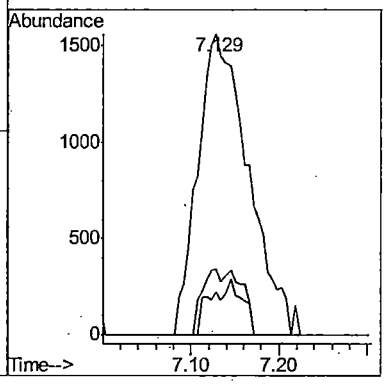




#3
tertiary butyl alcohol
Concen: 26.22 ug/L
RT: 7.129 min Scan# 771
Delta R.T. -0.005 min
Lab File: 4d57209.D
Acq: 26 Feb 2015 2:06 pm

Tgt Ion: 59 Resp: 6149

Ion	Ratio	Lower	Upper
59	100		
41	22.1	0.0	51.4
43	14.4	0.0	43.4



7.1.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139192.D
Acq On : 23 Feb 2015 11:02 pm
Operator : zobiah
Sample : mb1
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 24 10:23:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	173691	500.00	ug/L	0.00
5) pentafluorobenzene	10.56	168	264924	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	305195	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	278066	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	165529	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	10.65	113	102658	52.46	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.92%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	104004	56.02	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.04%			
79) toluene-d8 (s)	13.25	98	345146	50.86	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.72%			
104) 4-bromofluorobenzene (s)	16.12	95	134918	53.16	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.32%			

Target Compounds Qvalue

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

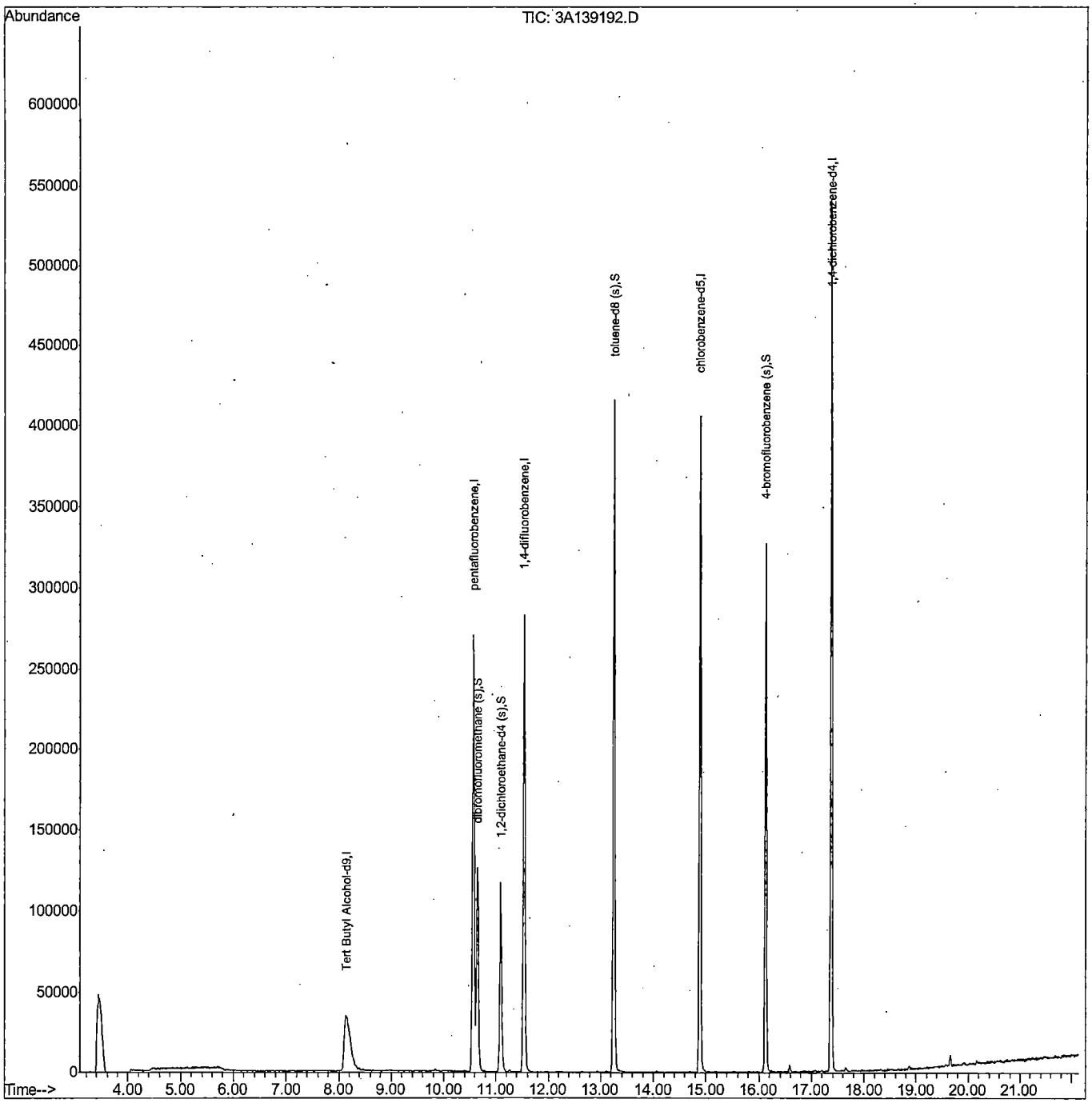
7.2.1

7

Quantitation Report (QT Reviewed)

ata Path : C:\MSDCHEM\1\DATA\
Data File : 3A139192.D
Acq On : 23 Feb 2015 11:02 pm
Operator : zobiah
Sample : mb1
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 24 10:23:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB88562

7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139223.D
Acq On : 24 Feb 2015 3:20 pm
Operator : zobiah
Sample : mb1
Misc : MS81214,V3A6025,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 09:43:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	178052	500.00 ug/L	-0.01
5) pentafluorobenzene	10.56	168	284459	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	341396	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	303135	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	177106	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	113109	53.83 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.66%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	118337	59.36 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 118.72%		
79) toluene-d8 (s)	13.25	98	375847	49.51 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.02%		
104) 4-bromofluorobenzene (s)	16.13	95	146888	54.09 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.18%		

Target Compounds Qvalue

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

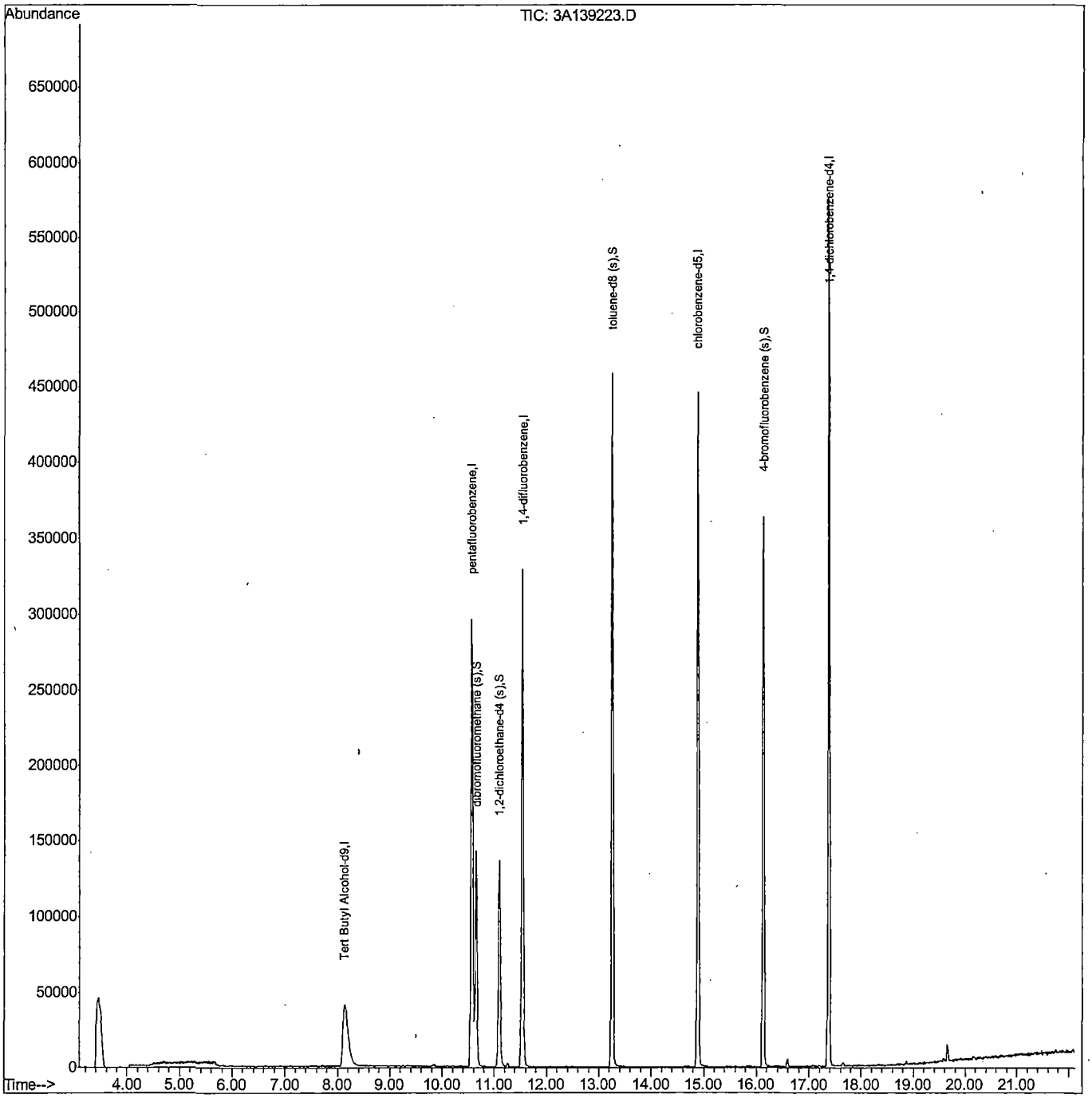
7.2.2 7

ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

ata Path : C:\MSDCHEM\1\DATA\
Data File : 3A139223.D
Acq On : 24 Feb 2015 3:20 pm
Operator : zobiah
Sample : mb1
Misc : MS81214,V3A6025,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 25 09:43:28 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57201.D
Acq On : 26 Feb 2015 10:27 am
Operator : PayalR
Sample : mb
Misc : MS81348,V4D2537,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 26 11:53:27 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	89422	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	272714	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	320470	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	286627	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	148714	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.546	113	124628	40.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 81.76%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	130072	44.35	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 88.70%			
75) toluene-d8 (s)	12.278	98	423211	43.44	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.88%			
100) 4-bromofluorobenzene (s)	15.130	95	158634	43.49	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 86.98%			

Target Compounds Qvalue

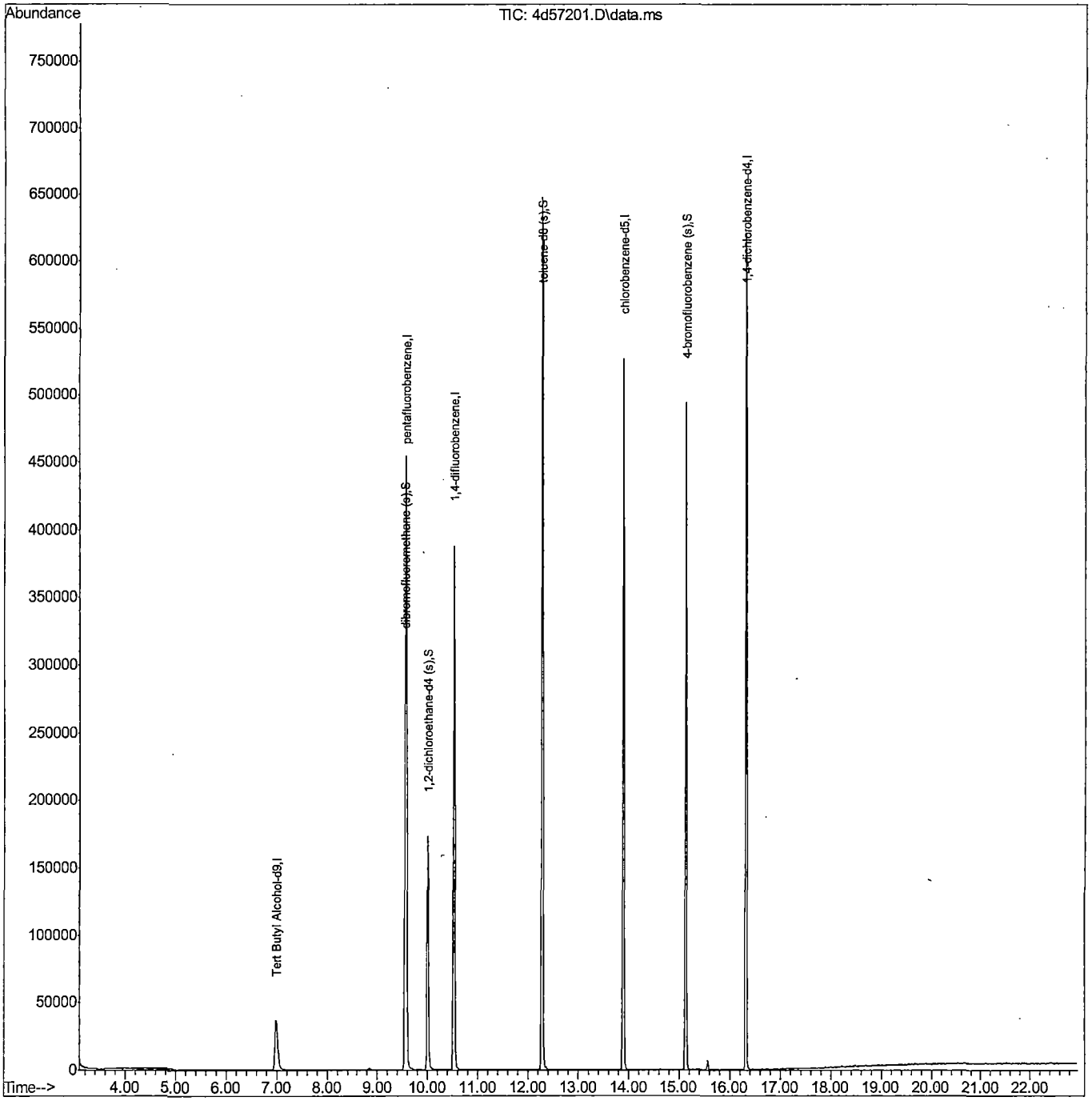
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.3 7

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\data\
Data File : 4d57201.D
Acq On : 26 Feb 2015 10:27 am
Operator : PayalR
Sample : mb
Misc : MS81348,V4D2537,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 26 11:53:27 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration



7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139219.D
Acq On : 24 Feb 2015 1:02 pm
Operator : zobiah
Sample : mb2
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 14:40:36 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	172396	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	284318	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	343899	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	295114	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	170793	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	114143	54.35 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.70%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	118373	59.41 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 118.82%		
79) toluene-d8 (s)	13.25	98	372536	48.72 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 97.44%		
104) 4-bromofluorobenzene (s)	16.13	95	141226	53.93 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.86%		

Target Compounds	Qvalue

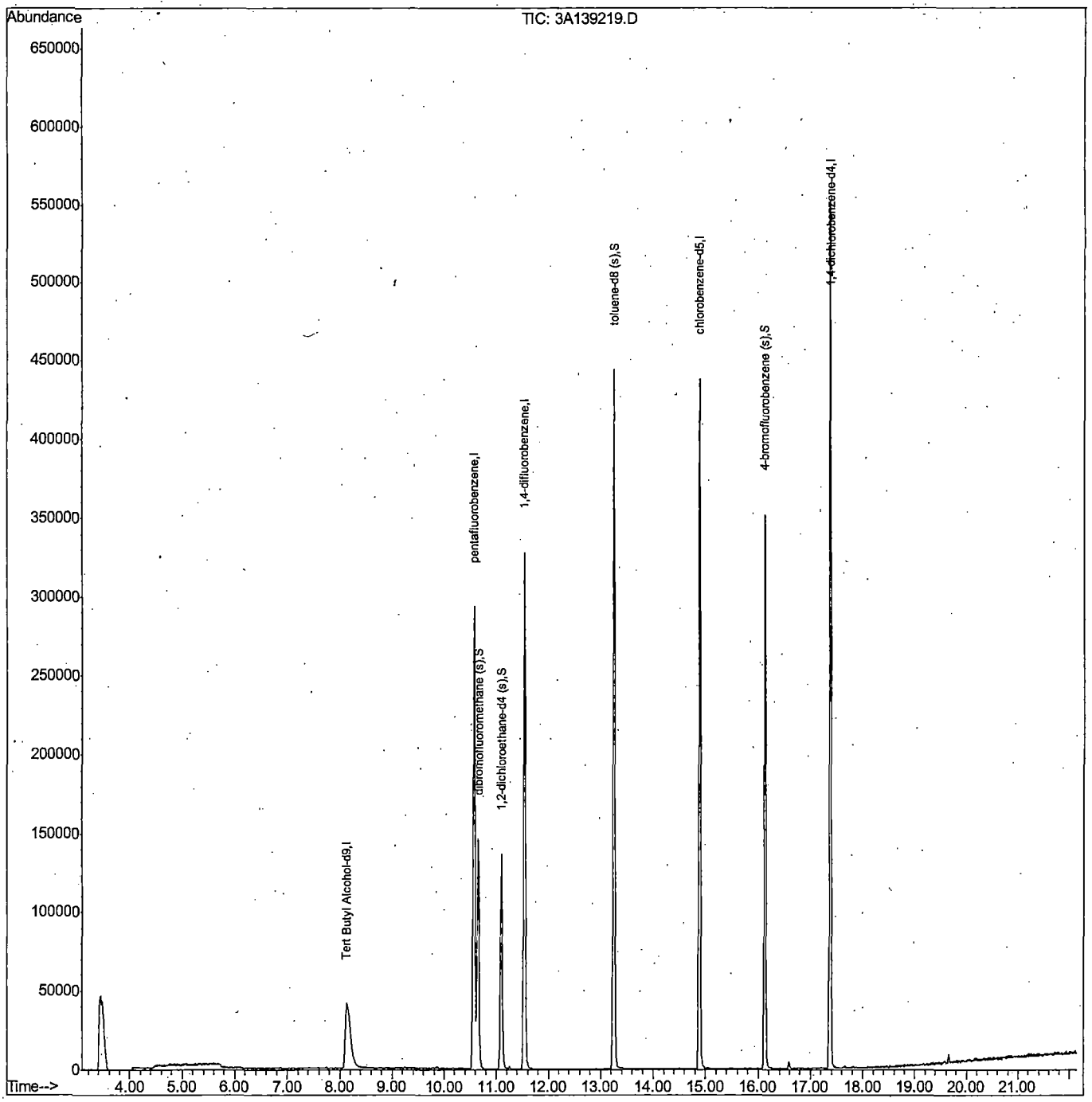
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.4 7

Quantitation Report (QT Reviewed)

a Path : C:\MSDCHEM\1\DATA\
ata File : 3A139219.D
Acq On : 24 Feb 2015 1:02 pm
Operator : zobiah
Sample : mb2
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 14:40:36 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.2.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139193.D
Acq On : 23 Feb 2015 11:32 pm
Operator : zobiah
Sample : bs
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	154390	500.00	ug/L	0.01
5) pentafluorobenzene	10.56	168	269390	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	316517	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	283024	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	165260	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	103428	51.98	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.96%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	100855	53.42	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 106.84%			
79) toluene-d8 (s)	13.25	98	356347	50.64	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.28%			
104) 4-bromofluorobenzene (s)	16.12	95	133546	52.70	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.40%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	81785	265.18	ug/L	94
4) 1,4-dioxane	12.31	88	40857	1244.56	ug/L	96
8) chlorodifluoromethane	4.09	51	134094	50.39	ug/L	97
9) dichlorodifluoromethane	4.06	85	160341	36.74	ug/L	97
10) chloromethane	4.45	50	156699	49.22	ug/L	98
11) vinyl chloride	4.75	62	170500	44.29	ug/L	98
12) bromomethane	5.53	94	109760	47.68	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	154775	50.21	ug/L	96
16) chloroethane	5.74	64	89030	58.12	ug/L	95
17) trichlorofluoromethane	6.25	101	170719	43.21	ug/L	93
19) 1-CHLOROPROPANE	8.15	42	167740	56.92	ug/L	93
20) ethyl ether	6.75	74	58492	56.29	ug/L	88
21) acrolein	7.13	56	244050	543.41	ug/L	99
22) 1,1-dichloroethene	7.26	96	98206	44.59	ug/L	95
23) acetone	7.40	43	31339	52.53	ug/L	93
24) allyl chloride	7.90	76	59648	55.26	ug/L	93
25) acetonitrile	7.97	40	67189	429.99	ug/L	96
26) iodomethane	7.60	142	213583	45.87	ug/L	98
27) iso-butyl alcohol	11.14	74	35040	526.08	ug/L #	84
28) carbon disulfide	7.71	76	388623	45.23	ug/L	99
29) methylene chloride	8.15	84	124394	48.70	ug/L	92
30) methyl acetate	7.91	43	66065	47.75	ug/L	93
31) methyl tert butyl ether	8.47	73	768177	104.83	ug/L	96
32) trans-1,2-dichloroethene	8.54	61	149868	50.80	ug/L	97
33) di-isopropyl ether	9.13	45	338816	57.46	ug/L	97
34) 2-butanone	10.02	72	11183	48.73	ug/L #	91
35) 1,1-dichloroethane	9.21	63	196988	54.42	ug/L	99
36) chloroprene	9.30	53	125333	52.95	ug/L	95
37) acrylonitrile	8.58	53	202248	288.01	ug/L	98
38) vinyl acetate	9.19	86	15495	49.63	ug/L	95
39) ethyl tert-butyl ether	9.64	59	373201	52.25	ug/L	98
40) ethyl acetate	10.01	45	11046	52.95	ug/L #	1
41) 2,2-dichloropropane	10.00	77	175418	46.60	ug/L	93

Quantitation Report (QT Reviewed)

Path : C:\MSDCHEM\1\DATA\
ata File : 3A139193.D
Acq On : 23 Feb 2015 11:32 pm
Operator : zobiah
Sample : bs
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	120737	49.92 ug/L	98
43) methylacrylate	10.09	85	14036	48.28 ug/L	89
44) propionitrile	10.17	54	158402	570.72 ug/L	97
45) bromochloromethane	10.37	128	60083	48.10 ug/L	96
46) tetrahydrofuran	10.39	42	34411	58.17 ug/L	96
47) chloroform	10.43	85	118815	51.05 ug/L	94
48) t-butyl formate	10.43	59	106389	55.10 ug/L	99
51) freon 113	7.19	151	85892	49.49 ug/L	92
52) methacrylonitrile	10.33	41	64870	55.65 ug/L	91
53) 1,1,1-trichloroethane	10.65	97	179791	51.54 ug/L	98
54) Cyclohexane	10.70	84	173604	47.45 ug/L	98
56) epichlorohydrin	12.90	57	45637	257.90 ug/L	98
57) n-butyl alcohol	11.71	56	176507	2903.72 ug/L	96
58) carbon tetrachloride	10.85	117	153900	46.37 ug/L	97
59) 1,1-dichloropropene	10.84	75	129592	48.99 ug/L	97
61) hexane	8.82	57	86970	46.05 ug/L	99
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	266902	36.29 ug/L	99
63) benzene	11.13	78	406112	49.71 ug/L	99
64) tert-amyl methyl ether	11.14	87	81124	45.67 ug/L	94
65) heptane	11.25	57	43284	40.47 ug/L	90
66) isopropyl acetate	11.06	43	219996	54.15 ug/L	94
67) 1,2-dichloroethane	11.19	62	126413	51.24 ug/L	96
69) trichloroethene	11.88	95	94673	46.93 ug/L	94
71) methyl methacrylate	12.17	69	64506	56.49 ug/L	90
72) 2-nitropropane	12.76	41	31451	54.96 ug/L	96
73) 2-chloroethyl vinyl ether	12.74	63	306890	259.10 ug/L	100
74) 1,2-dichloropropane	12.18	63	105476	52.58 ug/L	100
75) dibromomethane	12.36	93	64961	49.51 ug/L	93
76) methylcyclohexane	12.06	83	158900	43.60 ug/L	95
77) bromodichloromethane	12.49	83	134428	50.37 ug/L	97
78) cis-1,3-dichloropropene	12.97	75	160837	50.51 ug/L	96
80) 4-methyl-2-pentanone	13.07	58	41332	53.30 ug/L	98
81) toluene	13.33	92	226977	49.45 ug/L	96
82) 3-methyl-1-butanol	13.11	55	106677	1128.19 ug/L	95
83) trans-1,3-dichloropropene	13.58	75	141446	50.47 ug/L	95
84) ethyl methacrylate	13.53	69	119720	52.29 ug/L	98
85) 1,1,2-trichloroethane	13.81	83	75562	49.46 ug/L	95
86) 2-hexanone	13.98	58	36835	51.38 ug/L	93
88) tetrachloroethene	13.94	164	73127	43.11 ug/L	91
90) 1,3-dichloropropane	14.00	76	147204	51.07 ug/L	96
91) butyl acetate	14.03	56	60892	53.91 ug/L	92
92) 3,3-dimethyl-1-butanol	14.17	57	140212	452.18 ug/L	96
93) dibromochloromethane	14.29	129	103053	48.56 ug/L	98
94) 1,2-dibromoethane	14.44	107	91221	48.24 ug/L	96
95) chlorobenzene	14.92	112	263227	46.96 ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	116506	48.27 ug/L	96
97) ethylbenzene	14.95	91	443604	48.26 ug/L	98
98) m,p-xylene	15.07	106	348667	98.67 ug/L	97
99) o-xylene	15.52	106	184343	50.53 ug/L	99
100) styrene	15.54	104	290354	48.98 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139193.D
Acq On : 23 Feb 2015 11:32 pm
Operator : zobiah
Sample : bs
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	73422	45.30 ug/L	93
103) isopropylbenzene	15.88	105	475297	49.57 ug/L	100
105) cyclohexanone	16.13	98	21297	123.01 ug/L	93
106) bromobenzene	16.34	156	124457	49.49 ug/L	98
107) 1,1,2,2-tetrachloroethane	16.26	83	138419	49.52 ug/L	96
108) trans-1,4-dichloro-2-buten	16.30	53	32652	50.21 ug/L	93
109) 1,2,3-trichloropropane	16.34	110	33268	49.73 ug/L	87
110) n-propylbenzene	16.31	120	126180	51.48 ug/L	97
111) 2-chlorotoluene	16.49	126	118506	48.96 ug/L	91
112) 4-chlorotoluene	16.60	126	115597	49.11 ug/L	93
113) 1,3,5-trimethylbenzene	16.47	105	414588	49.56 ug/L	97
114) tert-butylbenzene	16.85	119	360392	47.60 ug/L	97
115) pentachloroethane	16.97	167	93769	51.90 ug/L	98
116) 1,2,4-trimethylbenzene	16.89	105	431421	52.04 ug/L	100
117) sec-butylbenzene	17.07	105	535371	45.78 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	244177	46.71 ug/L	97
119) p-isopropyltoluene	17.20	119	456722	46.45 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	252841	46.26 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	262546	46.85 ug/L	97
122) benzyl chloride	17.54	91	258071	45.30 ug/L	98
123) n-butylbenzene	17.65	92	229977	45.84 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	32565	48.92 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	18.86	180	238412	41.20 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	269411	43.17 ug/L	99
127) hexachlorobutadiene	19.66	225	93841	34.26 ug/L	99
128) naphthalene	19.89	128	725268	44.26 ug/L	98
129) 1,2,3-trichlorobenzene	20.15	180	294652	42.09 ug/L	98
130) hexachloroethane	18.09	201	79574	38.59 ug/L	96

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

7.3.1 7

Quantitation Report (QT Reviewed)

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Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139193.D
Acq On    : 23 Feb 2015  11:32 pm
Operator  : zobiah
Sample    : bs
Misc      : MS81194,V3A6024,5.0,,,,1
ALS Vial  : 26   Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title  : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration
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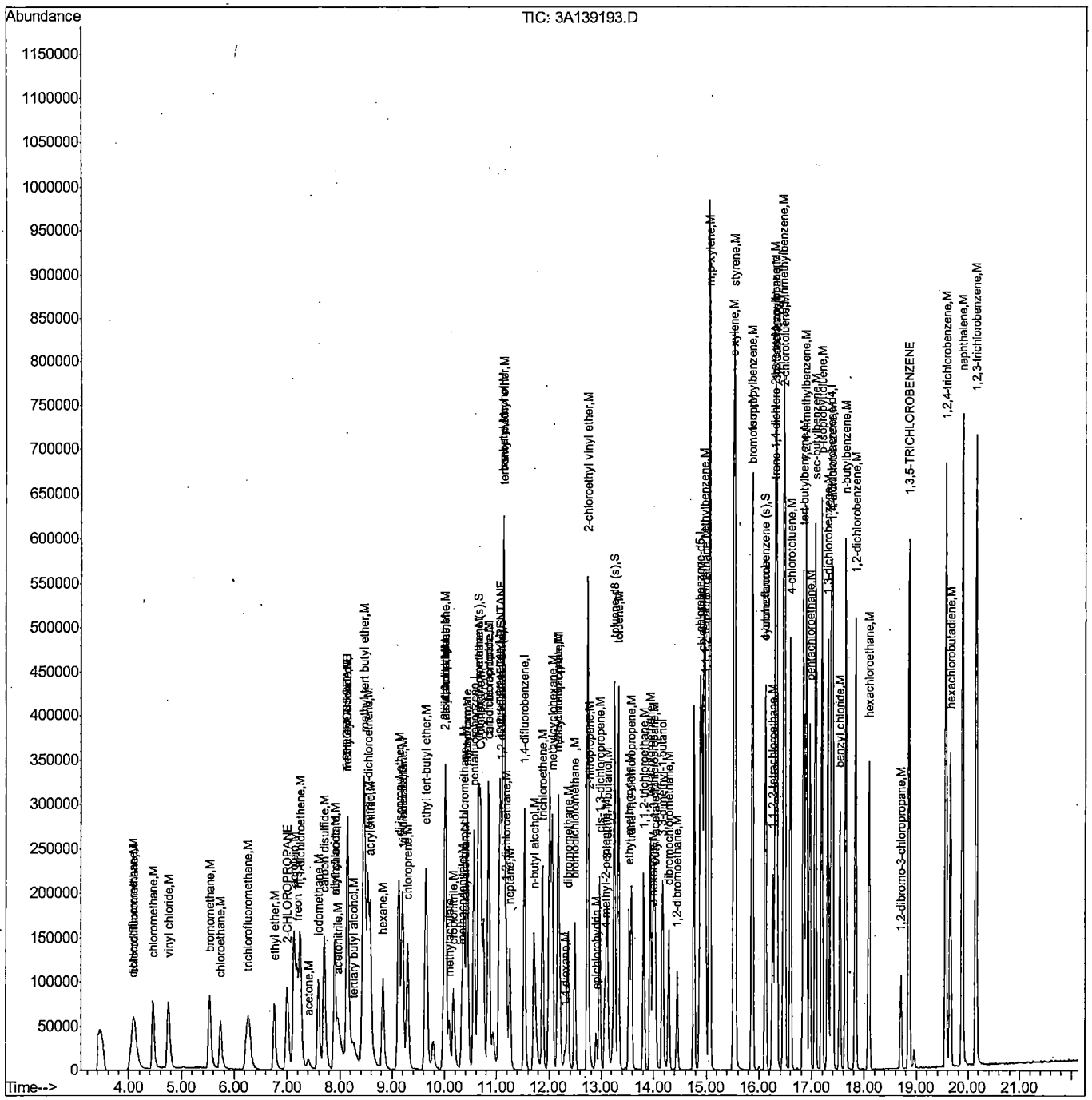


ACCUTEST LABORATORIES
JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139224.D
Acq On : 24 Feb 2015 4:02 pm
Operator : zobiah
Sample : bs
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 09:49:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.16	65	199686	500.00	ug/L	0.02
5) pentafluorobenzene	10.57	168	292459	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.54	114	346092	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	302248	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	171931	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	116797	54.07	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.14%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	118698	57.91	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 115.82%			
79) toluene-d8 (s)	13.25	98	384442	49.96	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.92%			
104) 4-bromofluorobenzene (s)	16.13	95	144777	54.92	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 109.84%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	107165	268.65	ug/L	98
4) 1,4-dioxane	12.32	88	52746	1242.26	ug/L	96
8) chlorodifluoromethane	4.09	51	171560	59.38	ug/L	96
9) dichlorodifluoromethane	4.07	85	180932	38.18	ug/L	97
10) chloromethane	4.46	50	171769	49.70	ug/L	97
11) vinyl chloride	4.76	62	203727	48.74	ug/L	98
12) bromomethane	5.53	94	107656	43.08	ug/L	98
15) 2-CHLOROPROPANE	7.00	43	221522	66.20	ug/L	96
16) chloroethane	5.74	64	85756	51.57	ug/L	98
17) trichlorofluoromethane	6.27	101	210360	49.04	ug/L	99
19) 1-CHLOROPROPANE	8.15	42	215898	68.23	ug/L	96
20) ethyl ether	6.76	74	72143	63.95	ug/L	96
21) acrolein	7.14	56	327460	671.62	ug/L	98
22) 1,1-dichloroethene	7.26	96	126524	52.92	ug/L	98
23) acetone	7.41	43	43689	67.45	ug/L	97
24) allyl chloride	7.91	76	74051	63.20	ug/L	98
25) acetonitrile	7.97	40	96794	570.59	ug/L	78
26) iodomethane	7.60	142	263272	52.08	ug/L	99
27) iso-butyl alcohol	11.14	74	41373	572.16	ug/L	91
28) carbon disulfide	7.71	76	520821	55.84	ug/L	100
29) methylene chloride	8.15	84	152477	54.98	ug/L	96
30) methyl acetate	7.91	43	93250	62.08	ug/L	99
31) methyl tert butyl ether	8.47	73	887438	111.55	ug/L	95
32) trans-1,2-dichloroethene	8.54	61	182923	57.12	ug/L	97
33) di-isopropyl ether	9.14	45	408515	63.82	ug/L	98
34) 2-butanone	10.01	72	15519	62.29	ug/L #	65
35) 1,1-dichloroethane	9.21	63	237032	60.32	ug/L	99
36) chloroprene	9.30	53	151023	58.77	ug/L	98
37) acrylonitrile	8.59	53	275474	361.34	ug/L	99
38) vinyl acetate	9.20	86	20125	58.65	ug/L	92
39) ethyl tert-butyl ether	9.65	59	432579	55.79	ug/L	99
40) ethyl acetate	10.00	45	15923	69.60	ug/L	47
41) 2,2-dichloropropane	10.00	77	224602	54.96	ug/L	94

Quantitation Report (QT Reviewed)

Path : C:\MSDCHEM\1\DATA\
a File : 3A139224.D
cq On : 24 Feb 2015 4:02 pm
Operator : zobiah
Sample : bs
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 09:49:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	142654	54.33 ug/L	99
43) methylacrylate	10.10	85	17778	55.74 ug/L	79
44) propionitrile	10.17	54	212938	706.69 ug/L	98
45) bromochloromethane	10.37	128	71724	52.89 ug/L	97
46) tetrahydrofuran	10.39	42	46213	71.96 ug/L	99
47) chloroform	10.43	85	141664	56.07 ug/L	97
48) t-butyl formate	10.44	59	133028	63.46 ug/L	98
51) freon 113	7.19	151	103124	54.74 ug/L	95
52) methacrylonitrile	10.33	41	85229	66.37 ug/L	94
53) 1,1,1-trichloroethane	10.66	97	214132	56.54 ug/L	98
54) Cyclohexane	10.70	84	218699	55.06 ug/L	95
56) epichlorohydrin	12.90	57	58562	302.65 ug/L	99
57) n-butyl alcohol	11.72	56	232006	3490.58 ug/L	97
58) carbon tetrachloride	10.86	117	184272	50.78 ug/L	98
59) 1,1-dichloropropene	10.84	75	161768	55.93 ug/L	98
61) hexane	8.83	57	92708	44.89 ug/L	94
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	349878	43.51 ug/L	96
63) benzene	11.14	78	484460	54.24 ug/L	99
64) tert-amyl methyl ether	11.14	87	96707	49.78 ug/L	95
65) heptane	11.26	57	53627	45.85 ug/L	91
66) isopropyl acetate	11.06	43	289808	65.23 ug/L	94
67) 1,2-dichloroethane	11.19	62	148070	54.89 ug/L	99
69) trichloroethene	11.88	95	111634	50.61 ug/L	97
71) methyl methacrylate	12.17	69	78172	62.61 ug/L	96
72) 2-nitropropane	12.76	41	41076	65.65 ug/L	99
73) 2-chloroethyl vinyl ether	12.74	63	366630	283.09 ug/L	99
74) 1,2-dichloropropane	12.18	63	123280	56.21 ug/L	99
75) dibromomethane	12.36	93	75400	52.56 ug/L	96
76) methylcyclohexane	12.06	83	185238	46.48 ug/L	94
77) bromodichloromethane	12.50	83	153332	52.55 ug/L	100
78) cis-1,3-dichloropropene	12.97	75	182811	52.50 ug/L	99
80) 4-methyl-2-pentanone	13.07	58	53555	63.16 ug/L	88
81) toluene	13.33	92	257247	51.25 ug/L	97
82) 3-methyl-1-butanol	13.11	55	142405	1377.35 ug/L	96
83) trans-1,3-dichloropropene	13.58	75	160241	52.29 ug/L	98
84) ethyl methacrylate	13.54	69	146275	58.43 ug/L	97
85) 1,1,2-trichloroethane	13.81	83	85688	51.30 ug/L	98
86) 2-hexanone	13.98	58	47754	60.92 ug/L	94
88) tetrachloroethene	13.94	164	81670	45.08 ug/L	96
90) 1,3-dichloropropane	14.00	76	166129	53.97 ug/L	99
91) butyl acetate	14.04	56	79123	65.59 ug/L	98
92) 3,3-dimethyl-1-butanol	14.17	57	203674	596.09 ug/L	97
93) dibromochloromethane	14.29	129	114135	50.36 ug/L	96
94) 1,2-dibromoethane	14.45	107	102845	50.93 ug/L	98
95) chlorobenzene	14.92	112	287513	48.03 ug/L	100
96) 1,1,1,2-tetrachloroethane	14.98	131	132333	51.34 ug/L	99
97) ethylbenzene	14.96	91	492354	50.16 ug/L	97
98) m,p-xylene	15.07	106	384309	101.84 ug/L	95
99) o-xylene	15.52	106	204231	52.42 ug/L	99
100) styrene	15.55	104	325152	51.36 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139224.D
Acq On : 24 Feb 2015 4:02 pm
Operator : zobiah
Sample : bs
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 09:49:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) bromoform	15.87	173	82073	47.41	ug/L	93
103) isopropylbenzene	15.88	105	538307	53.96	ug/L	99
105) cyclohexanone	16.13	98	27448	152.38	ug/L	98
106) bromobenzene	16.34	156	134673	51.47	ug/L	97
107) 1,1,2,2-tetrachloroethane	16.26	83	158151	54.38	ug/L	98
108) trans-1,4-dichloro-2-buten	16.30	53	39663	58.62	ug/L	96
109) 1,2,3-trichloropropane	16.34	110	37517	53.91	ug/L	88
110) n-propylbenzene	16.32	120	138368	54.27	ug/L	92
111) 2-chlorotoluene	16.49	126	130354	51.76	ug/L	96
112) 4-chlorotoluene	16.60	126	126676	51.73	ug/L	98
113) 1,3,5-trimethylbenzene	16.47	105	454681	52.24	ug/L	99
114) tert-butylbenzene	16.85	119	400890	50.89	ug/L	99
115) pentachloroethane	16.97	167	102605	54.58	ug/L	96
116) 1,2,4-trimethylbenzene	16.90	105	472931	54.83	ug/L	99
117) sec-butylbenzene	17.08	105	596126	49.00	ug/L	99
118) 1,3-dichlorobenzene	17.31	146	256103	47.09	ug/L	99
119) p-isopropyltoluene	17.20	119	501036	48.98	ug/L	99
120) 1,4-dichlorobenzene	17.40	146	264335	46.48	ug/L	100
121) 1,2-dichlorobenzene	17.84	146	275409	47.24	ug/L	96
122) benzyl chloride	17.54	91	318126	53.68	ug/L	99
123) n-butylbenzene	17.65	92	246832	47.29	ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	37350	53.93	ug/L	99
125) 1,3,5-TRICHLOROBENZENE	18.86	180	238689	39.65	ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	263923	40.65	ug/L	99
127) hexachlorobutadiene	19.66	225	98879	34.70	ug/L	97
128) naphthalene	19.89	128	773453	45.37	ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	296291	40.69	ug/L	100
130) hexachloroethane	18.09	201	87744	40.66	ug/L	97

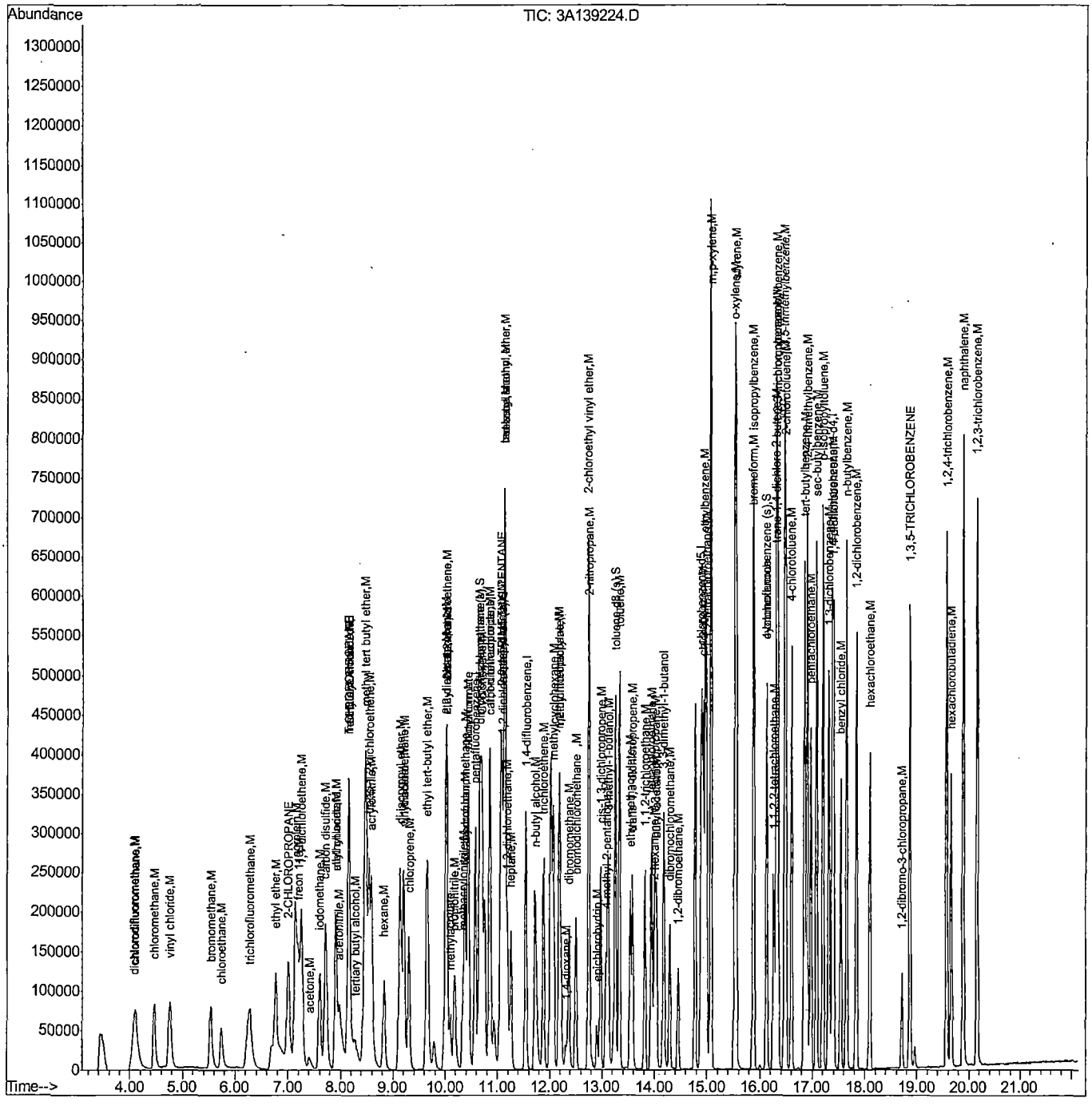
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.3.2 7

Quantitation Report (QT Reviewed)

Path : C:\MSDCHEM\1\DATA\
Data File : 3A139224.D
Acq On : 24 Feb 2015 4:02 pm
Operator : zobiah
Sample : bs
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 25 09:49:08 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57202.D
Acq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	86485	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	253602	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	297151	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	274702	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	145415	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.546	113	116774	41.19	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.38%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	118417	43.42	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 86.84%			
75) toluene-d8 (s)	12.278	98	394847	43.71	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.42%			
100) 4-bromofluorobenzene (s)	15.130	95	151454	42.46	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 84.92%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	28455	1261.86	ug/L #	75
3) tertiary butyl alcohol	7.129	59	63303	268.13	ug/L	95
5) chlorodifluoromethane	3.349	51	96911	48.02	ug/L	98
6) dichlorodifluoromethane	3.349	85	113241	44.44	ug/L	99
7) chloromethane	3.653	50	143866	44.44	ug/L	99
8) vinyl chloride	3.905	62	137118	43.43	ug/L	99
10) bromomethane	4.581	94	104694	43.05	ug/L	99
11) chloroethane	4.780	64	73449	46.90	ug/L	97
12) trichlorofluoromethane	5.310	101	170712	49.84	ug/L	98
14) ethyl ether	5.782	74	62804	47.77	ug/L	93
16) 2-chloropropane	5.965	43	195769	48.59	ug/L	95
17) acrolein	6.002	56	236324	380.69	ug/L	100
18) 1,1-dichloroethene	6.217	96	110983	45.78	ug/L	96
19) acetone	6.269	43	31992	47.53	ug/L	94
20) allyl chloride	6.809	76	63694	51.84	ug/L	84
21) acetonitrile	6.720	40	64772	466.12	ug/L	98
22) iodomethane	6.490	142	229182	48.56	ug/L	94
23) iso-butyl alcohol	9.850	41	38302	447.77	ug/L	97
24) carbon disulfide	6.626	76	407820	44.08	ug/L	98
25) methylene chloride	7.003	84	133193	44.31	ug/L	98
26) 1-chloropropane	7.066	42	202957	49.65	ug/L	99
27) methyl acetate	6.815	74	16940	35.28	ug/L	89
28) methyl tert butyl ether	7.449	73	678299	94.99	ug/L	95
29) trans-1,2-dichloroethene	7.460	96	120182	44.25	ug/L	98
30) di-isopropyl ether	8.178	45	396322	48.69	ug/L	99
31) ethyl tert-butyl ether	8.702	59	373797	47.62	ug/L	99
32) 2-butanone	8.912	72	12786	43.43	ug/L	90
33) 1,1-dichloroethane	8.099	63	233904	47.31	ug/L	99
34) chloroprene	8.241	53	164478	49.19	ug/L	95
35) acrylonitrile	7.360	53	212001	223.46	ug/L	97
36) vinyl acetate	8.131	86	18783	55.62	ug/L	97
37) ethyl acetate	8.975	45	15211	43.70	ug/L	96

Quantitation Report (QT Reviewed)

Path : C:\msdchem\1\data\
a File : 4d57202.D
cq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.949	77	185867	55.54	ug/L	99
39) cis-1,2-dichloroethene	8.928	96	135334	44.65	ug/L	98
40) propionitrile	8.975	54	159878	407.70	ug/L	99
41) methyl acrylate	9.043	55	99972	42.20	ug/L	99
42) bromochloromethane	9.253	128	69868	47.92	ug/L	99
43) tetrahydrofuran	9.321	42	32043	40.59	ug/L	97
44) chloroform	9.337	83	228006	47.20	ug/L	99
47) freon 113	6.238	151	83647	52.54	ug/L	93
48) methacrylonitrile	9.200	41	68958	46.23	ug/L	94
49) 1,1,1-trichloroethane	9.630	97	187620	51.78	ug/L	99
50) tert-amyl methyl ether	10.202	73	347235	46.56	ug/L	100
52) epichlorohydrin	11.827	57	56463	225.66	ug/L	99
53) n-butyl alcohol	10.658	56	166117	2313.71	ug/L	95
54) cyclohexane	9.730	84	153261	45.78	ug/L	91
56) carbon tetrachloride	9.861	117	169890	55.10	ug/L	99
57) 1,1-dichloropropene	9.829	75	170214	49.73	ug/L	99
58) hexane	7.884	57	111881	37.94	ug/L	98
59) benzene	10.102	78	478044	47.08	ug/L	99
60) ISO-OCTANE	10.191	57	361638	43.04	ug/L	94
61) heptane	10.380	57	72563	44.70	ug/L	98
62) isopropyl acetate	10.086	43	206846	48.19	ug/L	97
63) 1,2-dichloroethane	10.092	62	165040	54.43	ug/L	98
64) trichloroethene	10.873	95	126916	48.53	ug/L	97
66) 2-nitropropane	11.670	43	29405	47.96	ug/L	97
67) 2-chloroethyl vinyl ether	11.733	63	424815	235.40	ug/L	99
68) methyl methacrylate	11.198	41	102879	50.06	ug/L	92
69) 1,2-dichloropropane	11.140	63	133969	48.60	ug/L	93
70) methylcyclohexane	11.140	83	173944	46.84	ug/L	90
72) dibromomethane	11.282	93	85343	47.80	ug/L	97
73) bromodichloromethane	11.439	83	175967	51.81	ug/L	99
74) cis-1,3-dichloropropene	11.948	75	216710	49.85	ug/L	94
76) 4-methyl-2-pentanone	12.079	58	47306	45.87	ug/L	90
77) toluene	12.357	92	293112	48.86	ug/L	99
78) 3-methyl-1-butanol	12.100	70	59550	912.37	ug/L	95
79) trans-1,3-dichloropropene	12.551	75	192580	48.82	ug/L	96
80) ethyl methacrylate	12.598	69	153363	47.88	ug/L	93
81) 1,1,2-trichloroethane	12.771	83	101645	47.94	ug/L	98
82) 2-hexanone	13.001	58	44945	44.78	ug/L	92
84) tetrachloroethene	12.986	166	132665	50.67	ug/L	99
85) 1,3-dichloropropane	12.970	76	185966	47.16	ug/L	100
86) butyl acetate	13.106	56	79478	46.80	ug/L	94
87) dibromochloromethane	13.237	129	146686	51.82	ug/L	99
88) 1,2-dibromoethane	13.400	107	121908	46.95	ug/L	100
89) n-Butyl Ether	13.919	57	512074	46.29	ug/L	100
90) chlorobenzene	13.924	112	339450	48.53	ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	130418	52.55	ug/L	96
92) ethylbenzene	14.013	91	560323	48.01	ug/L	99
93) m,p-xylene	14.129	106	430628	98.13	ug/L	95
94) o-xylene	14.574	106	214589	49.31	ug/L	97
95) styrene	14.580	104	368056	50.86	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57202.D
Acq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.816	173	100909	50.45	ug/L	99
99)	isopropylbenzene	14.947	105	553426	48.25	ug/L	99
101)	bromobenzene	15.324	156	154515	49.67	ug/L	94
102)	cyclohexanone	15.072	55	132857	860.84	ug/L	95
103)	1,1,2,2-tetrachloroethane	15.225	83	165872	41.26	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	36615	44.59	ug/L	94
105)	1,2,3-trichloropropane	15.298	110	37844	45.96	ug/L	97
106)	n-propylbenzene	15.377	91	679081	49.64	ug/L	99
107)	2-chlorotoluene	15.502	126	139757	48.01	ug/L	99
108)	4-chlorotoluene	15.607	91	407825	46.34	ug/L	98
109)	1,3,5-trimethylbenzene	15.534	105	472381	49.41	ug/L	100
110)	tert-butylbenzene	15.890	119	403560	50.72	ug/L	99
111)	pentachloroethane	15.938	167	102218	53.87	ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	495163	51.96	ug/L	100
113)	sec-butylbenzene	16.111	105	614575	48.02	ug/L	99
114)	1,3-dichlorobenzene	16.263	146	279078	46.57	ug/L	99
115)	p-isopropyltoluene	16.231	119	522425	51.63	ug/L	100
116)	1,4-dichlorobenzene	16.347	146	281017	46.09	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	280894	48.72	ug/L	99
118)	n-butylbenzene	16.635	92	276716	49.31	ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	28629	45.44	ug/L	98
120)	1,3,5-trichlorobenzene	17.652	180	229283	50.49	ug/L	100
121)	1,2,4-trichlorobenzene	18.224	180	210056	50.00	ug/L	100
122)	hexachlorobutadiene	18.355	225	111203	54.65	ug/L	98
123)	naphthalene	18.480	128	455269	45.90	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	193539	50.26	ug/L	100
125)	hexachloroethane	16.997	119	107903	50.39	ug/L	97
126)	Benzyl chloride	16.457	91	361804	59.87	ug/L	100

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

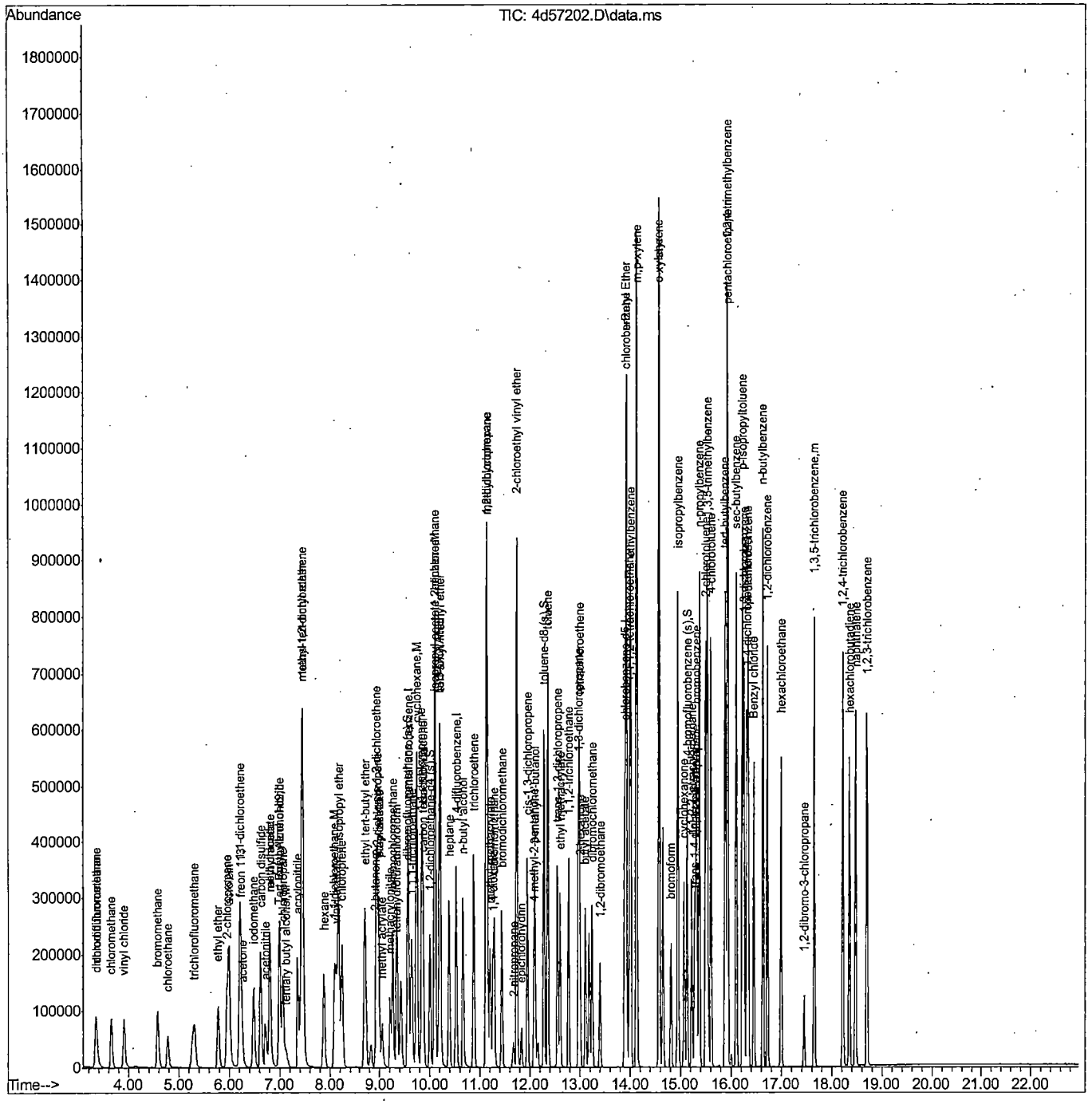
7.3.3

7

Quantitation Report (QT Reviewed)

Path : C:\msdchem\1\data\
Data File : 4d57202.D
Acq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139220.D
Acq On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	189853	500.00	ug/L	0.02
5) pentafluorobenzene	10.57	168	283522	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.54	114	349718	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	300232	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166670	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	113576	54.23	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.46%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	116590	58.68	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 117.36%			
79) toluene-d8 (s)	13.25	98	384929	49.50	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.00%			
104) 4-bromofluorobenzene (s)	16.12	95	138799	54.31	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.62%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.29	59	112022	295.37	ug/L	91
4) 1,4-dioxane	12.31	88	48907	1211.50	ug/L	95
8) chlorodifluoromethane	4.10	51	171830	61.35	ug/L	96
9) dichlorodifluoromethane	4.06	85	218573	47.58	ug/L	97
10) chloromethane	4.46	50	199167	59.44	ug/L	98
11) vinyl chloride	4.77	62	231088	57.03	ug/L	99
12) bromomethane	5.53	94	113515	46.85	ug/L	95
15) 2-CHLOROPROPANE	7.00	43	187707	57.86	ug/L	98
16) chloroethane	5.74	64	82386	51.10	ug/L	93
17) trichlorofluoromethane	6.27	101	223021	53.63	ug/L	95
19) 1-CHLOROPROPANE	8.16	42	198222	64.40	ug/L	94
20) ethyl ether	6.76	74	65925	60.28	ug/L	93
21) acrolein	7.14	56	272874	577.31	ug/L	97
22) 1,1-dichloroethene	7.26	96	125277	54.05	ug/L	98
23) acetone	7.40	43	40805	64.98	ug/L	92
24) allyl chloride	7.90	76	67738	59.63	ug/L	88
25) acetonitrile	7.97	40	91226	554.71	ug/L	93
26) iodomethane	7.60	142	260780	53.21	ug/L	99
27) iso-butyl alcohol	11.14	74	40995	584.81	ug/L #	27
28) carbon disulfide	7.72	76	532594	58.90	ug/L	99
29) methylene chloride	8.15	84	153043	56.93	ug/L	96
30) methyl acetate	7.91	43	106007	72.80	ug/L	99
31) methyl tert butyl ether	8.47	73	423277	54.88	ug/L	98
32) trans-1,2-dichloroethene	8.54	61	176287	56.78	ug/L	98
33) di-isopropyl ether	9.13	45	403582	65.04	ug/L	96
34) 2-butanone	10.02	72	14728	60.97	ug/L #	70
35) 1,1-dichloroethane	9.21	63	241957	63.51	ug/L	97
36) chloroprene	9.30	53	159814	64.15	ug/L	98
37) acrylonitrile	8.59	53	242589	328.24	ug/L	99
38) vinyl acetate	9.20	86	17250	52.28	ug/L	98
39) ethyl tert-butyl ether	9.65	59	451997	60.13	ug/L	98
40) ethyl acetate	10.01	45	15098	68.13	ug/L #	1
41) 2,2-dichloropropane	10.00	77	211713	53.44	ug/L	97

Quantitation Report (QT Reviewed)

ath : C:\MSDCHEM\1\DATA\
File : 3A139220.D
q On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	138165	54.28 ug/L	98
43) methylacrylate	10.10	85	17898	57.75 ug/L	99
44) propionitrile	10.17	54	203954	698.21 ug/L	98
45) bromochloromethane	10.37	128	68009	51.73 ug/L	95
46) tetrahydrofuran	10.40	42	38538	61.90 ug/L	100
47) chloroform	10.43	85	135387	55.27 ug/L	99
48) t-butyl formate	10.44	59	52090	25.63 ug/L #	91
51) freon 113	7.19	151	101142	55.38 ug/L	95
52) methacrylonitrile	10.34	41	117203	92.19 ug/L	94
53) 1,1,1-trichloroethane	10.65	97	201799	54.96 ug/L	97
54) Cyclohexane	10.70	84	195042	50.65 ug/L	96
56) epichlorohydrin	12.90	57	54931	280.95 ug/L	99
57) n-butyl alcohol	11.72	56	228878	3407.82 ug/L	95
58) carbon tetrachloride	10.85	117	165384	45.10 ug/L	98
59) 1,1-dichloropropene	10.84	75	148304	50.75 ug/L	96
61) hexane	8.82	57	119836	57.43 ug/L	96
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	429773	52.89 ug/L	98
63) benzene	11.13	78	469945	52.06 ug/L	100
64) tert-amyl methyl ether	11.15	87	100800	51.35 ug/L	92
65) heptane	11.26	57	63711	53.91 ug/L	92
66) isopropyl acetate	11.07	43	271386	60.45 ug/L	96
67) 1,2-dichloroethane	11.19	62	146763	53.85 ug/L	99
69) trichloroethene	11.88	95	113728	51.03 ug/L	99
71) methyl methacrylate	12.17	69	73271	58.08 ug/L	94
72) 2-nitropropane	12.76	41	26223	41.48 ug/L	98
74) 1,2-dichloropropane	12.18	63	118456	53.45 ug/L	99
75) dibromomethane	12.36	93	76673	52.89 ug/L	99
76) methylcyclohexane	12.06	83	194723	48.36 ug/L	99
77) bromodichloromethane	12.50	83	157216	53.32 ug/L	97
78) cis-1,3-dichloropropene	12.97	75	188517	53.58 ug/L	99
80) 4-methyl-2-pentanone	13.08	58	48547	56.66 ug/L	93
81) toluene	13.33	92	261798	51.62 ug/L	98
82) 3-methyl-1-butanol	13.11	55	139542	1335.66 ug/L	95
83) trans-1,3-dichloropropene	13.58	75	167059	53.95 ug/L	96
84) ethyl methacrylate	13.54	69	139930	55.31 ug/L	97
85) 1,1,2-trichloroethane	13.82	83	85449	50.62 ug/L	97
86) 2-hexanone	13.98	58	44157	55.75 ug/L	90
88) tetrachloroethene	13.94	164	88205	49.01 ug/L	95
90) 1,3-dichloropropane	14.01	76	166449	54.44 ug/L	99
91) butyl acetate	14.04	56	77945	65.05 ug/L	97
92) 3,3-dimethyl-1-butanol	14.17	57	210030	616.81 ug/L	98
93) dibromochloromethane	14.29	129	117845	52.35 ug/L	99
94) 1,2-dibromoethane	14.45	107	102557	51.13 ug/L	100
95) chlorobenzene	14.92	112	293183	49.31 ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	125291	48.93 ug/L	98
97) ethylbenzene	14.96	91	493705	50.64 ug/L	98
98) m,p-xylene	15.07	106	379706	101.30 ug/L	95
99) o-xylene	15.52	106	200945	51.93 ug/L	96
100) styrene	15.54	104	316634	50.35 ug/L	98
101) bromoform	15.87	173	82120	47.76 ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139220.D
Acq On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) isopropylbenzene	15.88	105	519762	53.74 ug/L	99
105) cyclohexanone	16.13	98	25456	145.78 ug/L	95
106) bromobenzene	16.34	156	131266	51.75 ug/L	99
107) 1,1,2,2-tetrachloroethane	16.26	83	163190	57.89 ug/L	95
108) trans-1,4-dichloro-2-buten	16.30	53	38883	59.28 ug/L	92
109) 1,2,3-trichloropropane	16.34	110	37850	56.10 ug/L	88
110) n-propylbenzene	16.32	120	125382	50.72 ug/L	91
111) 2-chlorotoluene	16.49	126	126926	51.99 ug/L	94
112) 4-chlorotoluene	16.60	126	124350	52.38 ug/L	96
113) 1,3,5-trimethylbenzene	16.47	105	437905	51.90 ug/L	99
114) tert-butylbenzene	16.85	119	388346	50.85 ug/L	99
115) pentachloroethane	16.97	167	100335	55.06 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	432673	51.75 ug/L	99
117) sec-butylbenzene	17.08	105	566294	48.02 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	260690	49.45 ug/L	96
119) p-isopropyltoluene	17.20	119	460279	46.41 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	262944	47.70 ug/L	98
121) 1,2-dichlorobenzene	17.84	146	268004	47.42 ug/L	97
122) benzyl chloride	17.54	91	342644	59.64 ug/L	99
123) n-butylbenzene	17.65	92	226752	44.82 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.71	75	36702	54.66 ug/L	94
125) 1,3,5-TRICHLOROBENZENE	18.86	180	235234	40.31 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	255043	40.53 ug/L	98
127) hexachlorobutadiene	19.66	225	97936	35.46 ug/L	98
128) naphthalene	19.89	128	793100	47.99 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	288854	40.92 ug/L	98
130) hexachloroethane	18.09	201	86614	41.32 ug/L	98

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

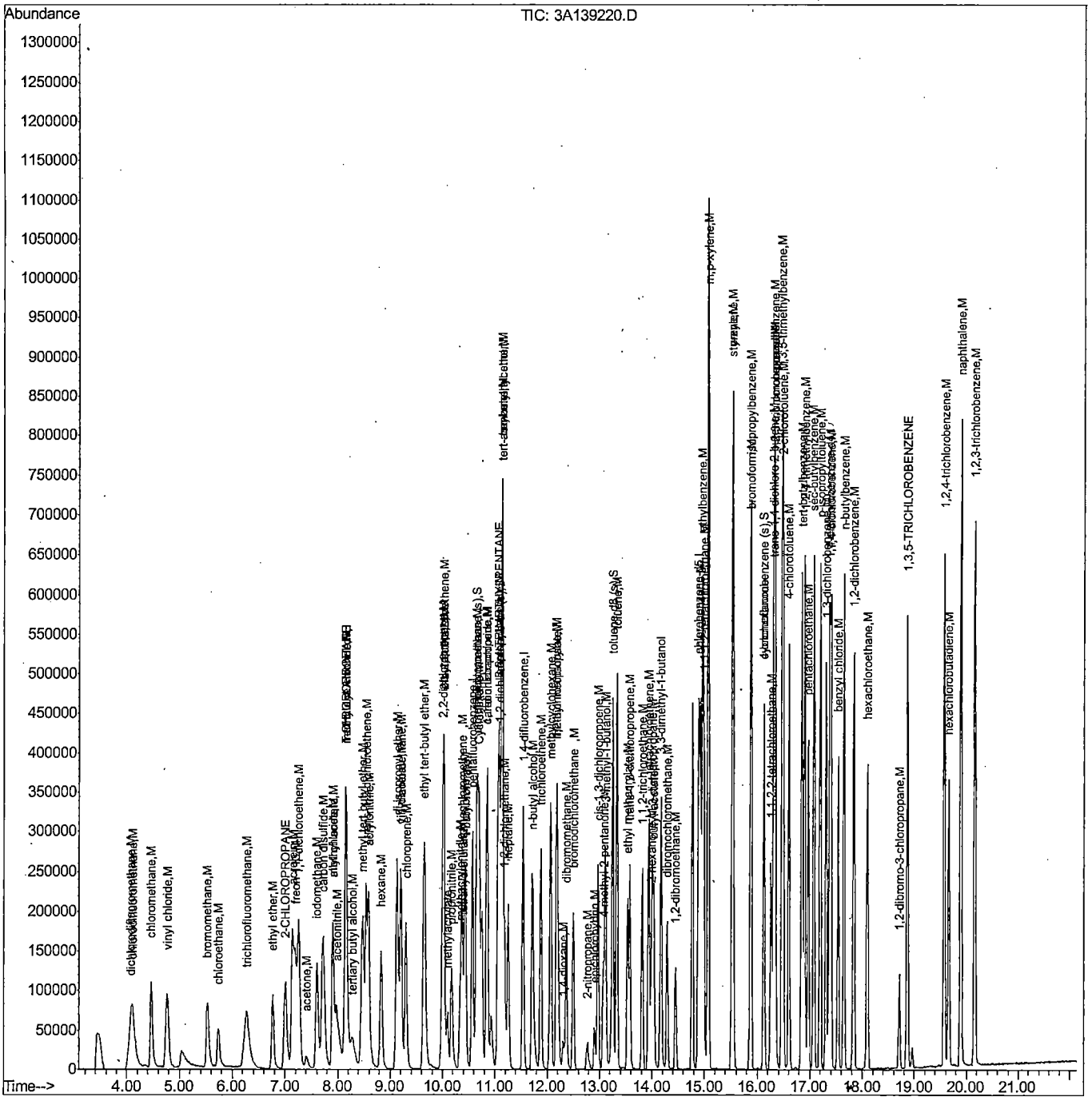
7.4.1

7

Quantitation Report (QT Reviewed)

ath : C:\MSDCHEM\1\DATA\
File : 3A139220.D
q On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On : 24 Feb 2015 2:10 pm
Operator : zobiah
Sample : jb88562-2msd
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	206993	500.00 ug/L	0.02
5) pentafluorobenzene	10.57	168	294151	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	361732	50.00 ug/L	0.00
87) chlorobenzene-d5	14.89	117	310978	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	176539	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	117282	53.98 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.96%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	118590	57.53 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 115.06%		
79) toluene-d8 (s)	13.25	98	398903	49.60 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.20%		
104) 4-bromofluorobenzene (s)	16.13	95	147105	54.34 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.68%		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.28	59	120916	292.42 ug/L	94
4) 1,4-dioxane	12.31	88	53726	1220.67 ug/L	93
8) chlorodifluoromethane	4.11	51	173367	59.66 ug/L	96
9) dichlorodifluoromethane	4.06	85	219059	45.96 ug/L	98
10) chloromethane	4.46	50	216053	62.15 ug/L	98
11) vinyl chloride	4.76	62	243330	57.89 ug/L	98
12) bromomethane	5.53	94	116882	46.50 ug/L	99
15) 2-CHLOROPROPANE	7.01	43	186547	55.42 ug/L	96
16) chloroethane	5.73	64	90334	54.01 ug/L	95
17) trichlorofluoromethane	6.27	101	210276	48.74 ug/L	97
19) 1-CHLOROPROPANE	8.16	42	201866	63.14 ug/L	92
20) ethyl ether	6.77	74	68032	59.96 ug/L	89
21) acrolein	7.13	56	272815	556.32 ug/L	100
22) 1,1-dichloroethene	7.26	96	130438	54.24 ug/L	91
23) acetone	7.40	43	42389	65.07 ug/L	91
24) allyl chloride	7.91	76	74557	63.26 ug/L	87
25) acetonitrile	7.98	40	86186	505.13 ug/L	95
26) iodomethane	7.60	142	281536	55.37 ug/L	98
27) iso-butyl alcohol	11.14	74	42755	587.87 ug/L #	85
28) carbon disulfide	7.72	76	550009	58.63 ug/L	99
29) methylene chloride	8.15	84	164963	59.14 ug/L	95
30) methyl acetate	7.91	43	102691	67.98 ug/L	99
31) methyl tert butyl ether	8.47	73	470047	58.75 ug/L	100
32) trans-1,2-dichloroethene	8.54	61	183939	57.10 ug/L	96
33) di-isopropyl ether	9.13	45	402356	62.50 ug/L	99
34) 2-butanone	10.01	72	15533	61.98 ug/L #	63
35) 1,1-dichloroethane	9.20	63	250886	63.48 ug/L	99
36) chloroprene	9.30	53	151357	58.56 ug/L	98
37) acrylonitrile	8.58	53	261417	340.93 ug/L	99
38) vinyl acetate	9.20	86	17380	50.88 ug/L	79
39) ethyl tert-butyl ether	9.65	59	469075	60.15 ug/L	97
40) ethyl acetate	10.01	45	15228	66.29 ug/L #	7
41) 2,2-dichloropropane	10.00	77	218195	53.08 ug/L	94

Quantitation Report (QT Reviewed)

Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On : 24 Feb 2015 2:10 pm
Operator : zobiah
Sample : jb88562-2msd
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	148324	56.16 ug/L	95
43) methylacrylate	10.10	85	18969	58.92 ug/L	99
44) propionitrile	10.17	54	220433	727.36 ug/L	99
45) bromochloromethane	10.37	128	73659	54.00 ug/L	95
46) tetrahydrofuran	10.39	42	40222	62.27 ug/L	97
47) chloroform	10.43	85	145353	57.20 ug/L	97
48) t-butyl formate	10.44	59	30398	14.42 ug/L #	72
51) freon 113	7.20	151	94820	50.04 ug/L	95
52) methacrylonitrile	10.33	41	109317	83.35 ug/L	94
53) 1,1,1-trichloroethane	10.65	97	209607	55.02 ug/L	99
54) Cyclohexane	10.69	84	194188	48.61 ug/L	96
56) epichlorohydrin	12.90	57	51299	253.66 ug/L	97
57) n-butyl alcohol	11.71	56	246777	3552.29 ug/L	94
58) carbon tetrachloride	10.85	117	171241	45.15 ug/L	95
59) 1,1-dichloropropene	10.84	75	153549	50.80 ug/L	96
61) hexane	8.83	57	110560	51.22 ug/L	93
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	404548	48.13 ug/L	96
63) benzene	11.13	78	500699	53.63 ug/L	99
64) tert-amyl methyl ether	11.14	87	104916	51.68 ug/L	96
65) heptane	11.26	57	60642	49.61 ug/L	91
66) isopropyl acetate	11.06	43	268761	57.88 ug/L	97
67) 1,2-dichloroethane	11.19	62	158134	56.09 ug/L	98
69) trichloroethene	11.88	95	119238	51.72 ug/L	98
71) methyl methacrylate	12.17	69	80215	61.47 ug/L	97
72) 2-nitropropane	12.76	41	28352	43.35 ug/L	93
74) 1,2-dichloropropane	12.18	63	128479	56.05 ug/L	98
75) dibromomethane	12.36	93	81514	54.36 ug/L	94
76) methylcyclohexane	12.06	83	181831	43.66 ug/L	97
77) bromodichloromethane	12.50	83	167851	55.04 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	202749	55.71 ug/L	98
80) 4-methyl-2-pentanone	13.08	58	53508	60.38 ug/L	93
81) toluene	13.33	92	274444	52.31 ug/L	100
82) 3-methyl-1-butanol	13.11	55	151258	1399.72 ug/L	97
83) trans-1,3-dichloropropene	13.58	75	177106	55.30 ug/L	97
84) ethyl methacrylate	13.54	69	151707	57.98 ug/L	99
85) 1,1,2-trichloroethane	13.81	83	93194	53.38 ug/L	98
86) 2-hexanone	13.98	58	49014	59.82 ug/L	95
88) tetrachloroethene	13.94	164	92046	49.38 ug/L	94
90) 1,3-dichloropropane	14.00	76	180416	56.97 ug/L	98
91) butyl acetate	14.04	56	78896	63.57 ug/L	92
92) 3,3-dimethyl-1-butanol	14.17	57	226208	639.26 ug/L	97
93) dibromochloromethane	14.29	129	125250	53.71 ug/L	94
94) 1,2-dibromoethane	14.45	107	110946	53.40 ug/L	100
95) chlorobenzene	14.92	112	312044	50.67 ug/L	97
96) 1,1,1,2-tetrachloroethane	14.98	131	137385	51.80 ug/L	97
97) ethylbenzene	14.96	91	519440	51.43 ug/L	98
98) m,p-xylene	15.07	106	403493	103.92 ug/L	95
99) o-xylene	15.52	106	214697	53.56 ug/L	93
100) styrene	15.54	104	341637	52.45 ug/L	99
101) bromoform	15.86	173	90580	50.86 ug/L	92

7.4.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On : 24 Feb 2015 2:10 pm
Operator : zobiah
Sample : jb88562-2msd
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) isopropylbenzene	15.88	105	550190	53.71 ug/L	100
105) cyclohexanone	16.12	98	28981	156.69 ug/L	93
106) bromobenzene	16.34	156	142910	53.19 ug/L	96
107) 1,1,2,2-tetrachloroethane	16.26	83	176586	59.14 ug/L	96
108) trans-1,4-dichloro-2-buten	16.30	53	42573	61.28 ug/L	97
109) 1,2,3-trichloropropane	16.34	110	42355	59.27 ug/L	85
110) n-propylbenzene	16.32	120	134877	51.52 ug/L	96
111) 2-chlorotoluene	16.49	126	134385	51.97 ug/L	87
112) 4-chlorotoluene	16.60	126	134634	53.54 ug/L	96
113) 1,3,5-trimethylbenzene	16.47	105	466394	52.19 ug/L	98
114) tert-butylbenzene	16.85	119	423037	52.30 ug/L	99
115) pentachloroethane	16.97	167	108547	56.24 ug/L	96
116) 1,2,4-trimethylbenzene	16.90	105	466929	52.73 ug/L	99
117) sec-butylbenzene	17.07	105	608981	48.75 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	280970	50.32 ug/L	98
119) p-isopropyltoluene	17.20	119	501987	47.79 ug/L	100
120) 1,4-dichlorobenzene	17.40	146	285961	48.97 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	294486	49.19 ug/L	96
122) benzyl chloride	17.54	91	350754	57.64 ug/L	98
123) n-butylbenzene	17.65	92	248088	46.29 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.70	75	41102	57.80 ug/L	99
125) 1,3,5-TRICHLOROBENZENE	18.86	180	264081	42.72 ug/L	97
126) 1,2,4-trichlorobenzene	19.57	180	290622	43.60 ug/L	98
127) hexachlorobutadiene	19.66	225	105901	36.20 ug/L	96
128) naphthalene	19.89	128	890633	50.88 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	324311	43.37 ug/L	97
130) hexachloroethane	18.09	201	92519	41.64 ug/L	96

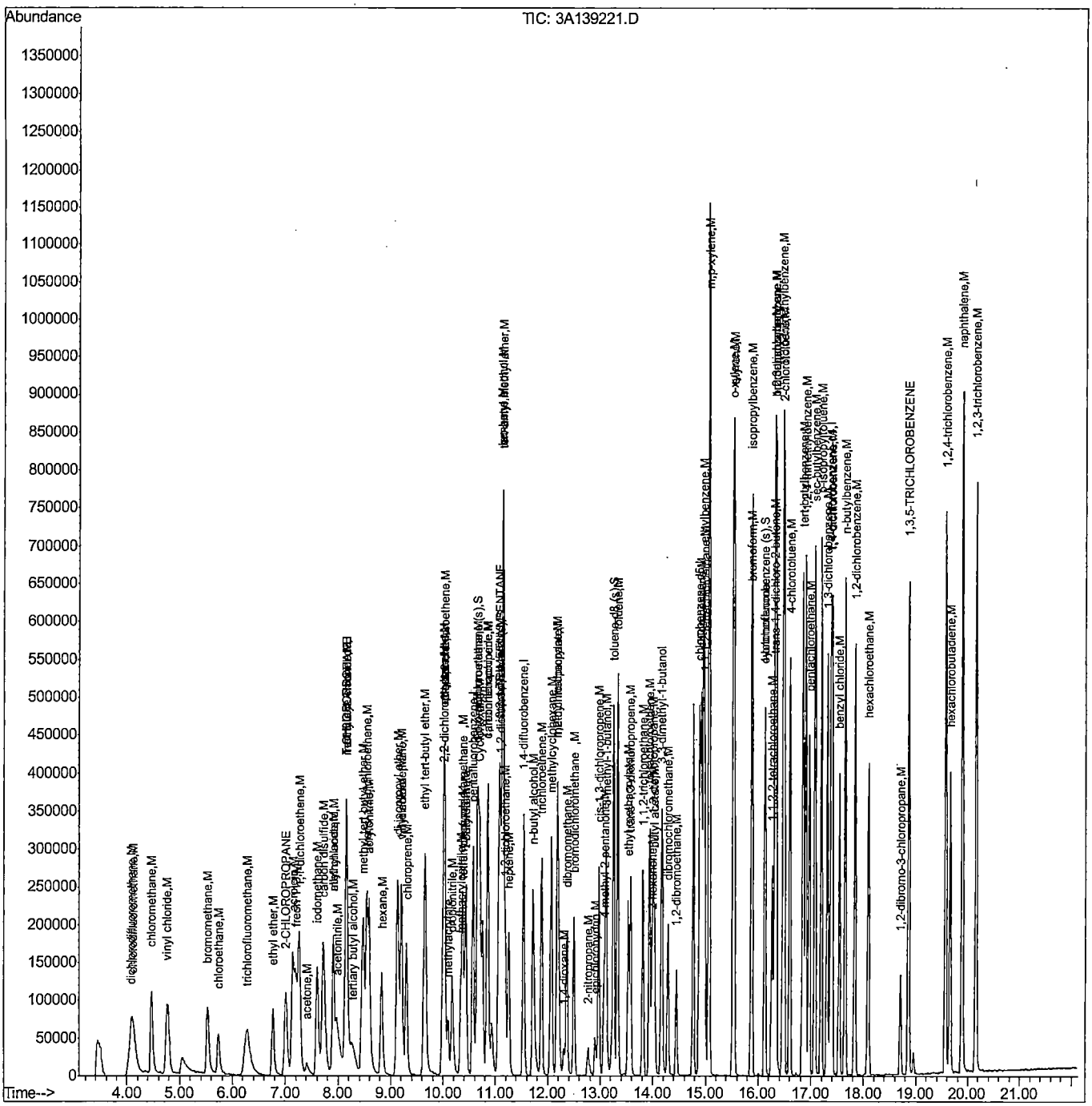
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.2 7

Quantitation Report (QT Reviewed)

Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On : 24 Feb 2015 2:10 pm
Operator : zobiah
Sample : jb88562-2msd
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139229.D
Acq On : 24 Feb 2015 6:47 pm
Operator : zobiah
Sample : jb88615-10ms
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 10:00:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	182748	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	282264	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	343035	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	300988	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	171418	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	111233	53.35	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.70%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	117963	59.63	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 119.26%			
79) toluene-d8 (s)	13.25	98	384434	50.40	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.80%			
104) 4-bromofluorobenzene (s)	16.13	95	142229	54.11	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.22%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	101404	277.77	ug/L	94
4) 1,4-dioxane	12.31	88	48578	1250.13	ug/L	92
8) chlorodifluoromethane	4.09	51	182848	65.58	ug/L	99
9) dichlorodifluoromethane	4.05	85	227240	49.69	ug/L	99
10) chloromethane	4.46	50	202727	60.77	ug/L	98
11) vinyl chloride	4.76	62	229205	56.82	ug/L	96
12) bromomethane	5.53	94	121989	50.58	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	218551	67.67	ug/L	99
16) chloroethane	5.74	64	87763	54.68	ug/L	99
17) trichlorofluoromethane	6.27	101	216060	52.19	ug/L	95
19) 1-CHLOROPROPANE	8.16	42	279875	93.02	ug/L	95
20) ethyl ether	6.76	74	68096	62.54	ug/L	94
21) acrolein	7.13	56	254498	540.83	ug/L	98
22) 1,1-dichloroethene	7.25	96	119187	51.65	ug/L	97
23) acetone	7.40	43	40298	64.46	ug/L	91
24) allyl chloride	7.90	76	64236	56.80	ug/L	89
25) acetonitrile	7.97	40	104707	639.52	ug/L	84
26) iodomethane	7.60	142	251370	51.52	ug/L	99
27) iso-butyl alcohol	11.13	74	74601	1068.95	ug/L #	1
28) carbon disulfide	7.71	76	494567	54.94	ug/L	98
29) methylene chloride	8.15	84	152546	56.99	ug/L	96
30) methyl acetate	7.91	43	179727	123.98	ug/L	97
31) methyl tert butyl ether	8.47	73	450002	58.61	ug/L	92
32) trans-1,2-dichloroethene	8.54	61	180085	58.26	ug/L	99
33) di-isopropyl ether	9.13	45	422261	68.35	ug/L	98
34) 2-butanone	10.01	72	14224	59.15	ug/L #	62
35) 1,1-dichloroethane	9.20	63	229314	60.46	ug/L	99
36) chloroprene	9.30	53	159857	64.46	ug/L	97
37) acrylonitrile	8.58	53	244524	332.33	ug/L	98
38) vinyl acetate	9.20	86	16831	51.31	ug/L	99
39) ethyl tert-butyl ether	9.65	59	457113	61.08	ug/L	98
40) ethyl acetate	10.00	45	16446	74.34	ug/L #	26
41) 2,2-dichloropropane	10.00	77	203736	51.65	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139229.D
Acq On : 24 Feb 2015 6:47 pm
Operator : zobiah
Sample : jb88615-10ms
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 10:00:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	139055	54.87	ug/L	99
43) methylacrylate	10.09	85	17559	56.96	ug/L	90
44) propionitrile	10.17	54	202920	697.77	ug/L	98
45) bromochloromethane	10.37	128	68450	52.30	ug/L	91
46) tetrahydrofuran	10.39	42	46200	74.54	ug/L	96
47) chloroform	10.43	85	140724	57.71	ug/L	98
48) t-butyl formate	10.44	59	93493	46.21	ug/L	97
51) freon 113	7.19	151	96138	52.87	ug/L	93
52) methacrylonitrile	10.33	41	83894	67.59	ug/L	97
53) 1,1,1-trichloroethane	10.65	97	203506	55.67	ug/L	95
54) Cyclohexane	10.70	84	240890	62.84	ug/L	99
56) epichlorohydrin	12.90	57	56638	295.32	ug/L	99
57) n-butyl alcohol	11.71	56	213626	3242.69	ug/L	96
58) carbon tetrachloride	10.85	117	172175	47.87	ug/L	96
59) 1,1-dichloropropene	10.84	75	151943	53.00	ug/L	99
61) hexane	8.82	57	125215	61.17	ug/L	95
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	400415	50.24	ug/L	98
63) benzene	11.13	78	1187895	134.17	ug/L	99
64) tert-amyl methyl ether	11.14	87	97774	50.78	ug/L	90
65) heptane	11.26	57	57701	49.78	ug/L	92
66) isopropyl acetate	11.06	43	279206	63.41	ug/L	94
67) 1,2-dichloroethane	11.19	62	149980	56.10	ug/L	99
69) trichloroethene	11.88	95	112630	51.52	ug/L	98
71) methyl methacrylate	12.17	69	78123	63.13	ug/L	96
72) 2-nitropropane	12.76	41	27982	45.12	ug/L	93
74) 1,2-dichloropropane	12.18	63	122509	56.35	ug/L	95
75) dibromomethane	12.36	93	76777	54.00	ug/L	98
76) methylcyclohexane	12.06	83	198554	50.27	ug/L	97
77) bromodichloromethane	12.50	83	157225	54.36	ug/L	97
78) cis-1,3-dichloropropene	12.97	75	187891	54.44	ug/L	98
80) 4-methyl-2-pentanone	13.07	58	50177	59.71	ug/L	87
81) toluene	13.33	92	1114388	223.99	ug/L	98
82) 3-methyl-1-butanol	13.11	55	132132	1289.37	ug/L	92
83) trans-1,3-dichloropropene	13.57	75	167586	55.18	ug/L	99
84) ethyl methacrylate	13.53	69	144991	58.43	ug/L	96
85) 1,1,2-trichloroethane	13.81	83	87583	52.90	ug/L	99
86) 2-hexanone	13.98	58	44647	57.46	ug/L	88
88) tetrachloroethene	13.94	164	82922	45.96	ug/L	97
90) 1,3-dichloropropane	14.00	76	170048	55.48	ug/L	97
91) butyl acetate	14.04	56	75985	63.26	ug/L	97
92) 3,3-dimethyl-1-butanol	14.17	57	174301	519.67	ug/L	99
93) dibromochloromethane	14.29	129	118769	52.62	ug/L	98
94) 1,2-dibromoethane	14.44	107	104771	52.10	ug/L	98
95) chlorobenzene	14.92	112	296811	49.79	ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	127182	49.55	ug/L	96
97) ethylbenzene	14.96	91	863861	88.38	ug/L	97
98) m,p-xylene	15.07	106	730063	194.27	ug/L	95
99) o-xylene	15.52	106	338311	87.20	ug/L	96
100) styrene	15.54	104	334558	53.07	ug/L	95
101) bromoform	15.87	173	83489	48.43	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139229.D
Acq On : 24 Feb 2015 6:47 pm
Operator : zobiah
Sample : jb88615-10ms
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 10:00:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) isopropylbenzene	15.88	105	581172	58.43 ug/L	99
105) cyclohexanone	16.12	98	25174	140.17 ug/L	98
106) bromobenzene	16.34	156	135112	51.79 ug/L	96
107) 1,1,2,2-tetrachloroethane	16.26	83	164972	56.90 ug/L	98
108) trans-1,4-dichloro-2-buten	16.30	53	38201	56.63 ug/L	93
109) 1,2,3-trichloropropane	16.34	110	37569	54.15 ug/L	85
110) n-propylbenzene	16.32	120	136931	53.86 ug/L	92
111) 2-chlorotoluene	16.49	126	129423	51.55 ug/L	91
112) 4-chlorotoluene	16.60	126	126976	52.00 ug/L	95
113) 1,3,5-trimethylbenzene	16.47	105	512932	59.11 ug/L	98
114) tert-butylbenzene	16.85	119	398540	50.74 ug/L	98
115) pentachloroethane	16.97	167	102780	54.84 ug/L	99
116) 1,2,4-trimethylbenzene	16.90	105	659964	76.75 ug/L	100
117) sec-butylbenzene	17.07	105	600652	49.52 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	265226	48.91 ug/L	97
119) p-isopropyltoluene	17.20	119	491772	48.22 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	272868	48.13 ug/L	99
121) 1,2-dichlorobenzene	17.83	146	282869	48.66 ug/L	96
122) benzyl chloride	17.54	91	277438	46.95 ug/L	98
123) n-butylbenzene	17.65	92	244153	46.92 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.70	75	37755	54.67 ug/L	97
125) 1,3,5-TRICHLOROBENZENE	18.86	180	250786	41.78 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	278504	43.03 ug/L	99
127) hexachlorobutadiene	19.66	225	100261	35.29 ug/L	99
128) naphthalene	19.89	128	877985	51.65 ug/L	98
129) 1,2,3-trichlorobenzene	20.16	180	310453	42.76 ug/L	100
130) hexachloroethane	18.09	201	86665	40.32 ug/L	97

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

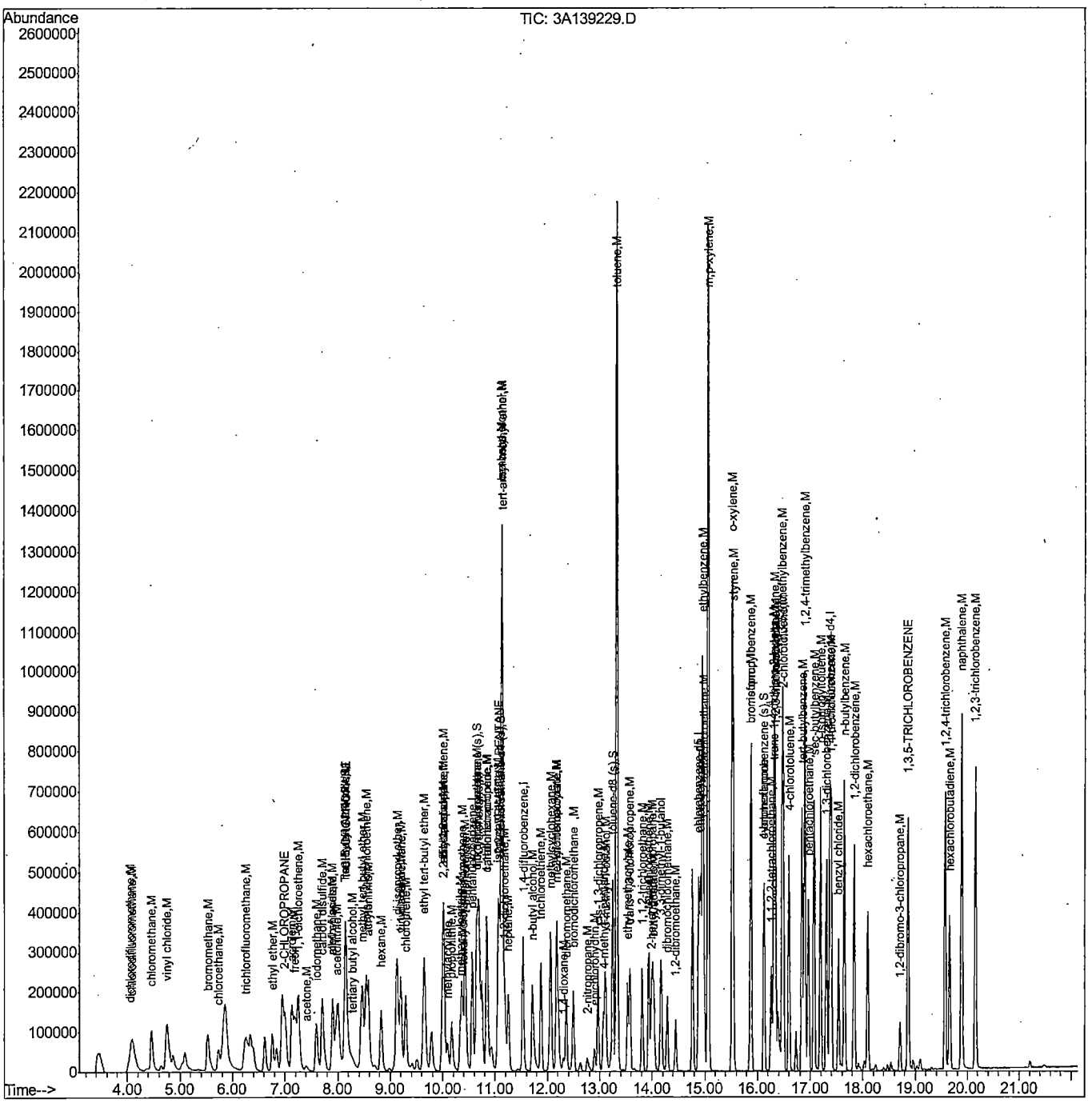
7.4.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139229.D
Acq On : 24 Feb 2015 6:47 pm
Operator : zobiah
Sample : jb88615-10ms
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 25 10:00:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



Manual Integrations
APPROVED
(compounds with "m" flag)
Kanya Veerawat
02/25/15 14:16

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139230.D
Acq On : 24 Feb 2015 7:17 pm
Operator : zobiah
Sample : jb88615-10msd
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 25 10:01:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.16	65	199413	500.00 ug/L	0.02
5) pentafluorobenzene	10.57	168	291678	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	346324	50.00 ug/L	0.00
87) chlorobenzene-d5	14.89	117	308104	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	178052	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	117548	54.56 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 109.12%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	119900	58.66 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 117.32%		
79) toluene-d8 (s)	13.25	98	391369	50.83 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.66%		
104) 4-bromofluorobenzene (s)	16.13	95	149031	54.59 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 109.18%		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.27	59	110618	277.69 ug/L	94
4) 1,4-dioxane	12.31	88	52366	1235.00 ug/L	93
8) chlorodifluoromethane	4.10	51	200793	69.69 ug/L	97
9) dichlorodifluoromethane	4.06	85	243937	51.62 ug/L	99
10) chloromethane	4.46	50	221373	64.22 ug/L	100
11) vinyl chloride	4.76	62	251908	60.43 ug/L	98
12) bromomethane	5.54	94	132829	53.29 ug/L	94
15) 2-CHLOROPROPANE	7.00	43	235632	70.60 ug/L	98
16) chloroethane	5.74	64	95343	57.49 ug/L	96
17) trichlorofluoromethane	6.27	101	231671	54.15 ug/L	94
19) 1-CHLOROPROPANE	8.15	42	298127	96.02 ug/L	93
20) ethyl ether	6.76	74	69576	61.84 ug/L	96
21) acrolein	7.13	56	269980	555.21 ug/L	100
22) 1,1-dichloroethene	7.25	96	127986	53.68 ug/L	97
23) acetone	7.41	43	44991	69.65 ug/L	99
24) allyl chloride	7.91	76	68341	58.48 ug/L	94
25) acetonitrile	7.97	40	109776	648.84 ug/L	92
26) iodomethane	7.60	142	268070	53.17 ug/L	97
27) iso-butyl alcohol	11.13	74	76985	1067.51 ug/L #	11
28) carbon disulfide	7.71	76	525027	56.44 ug/L	98
29) methylene chloride	8.15	84	161206	58.29 ug/L	98
30) methyl acetate	7.91	43	191806	128.04 ug/L	98
31) methyl tert butyl ether	8.47	73	489017	61.63 ug/L	90
32) trans-1,2-dichloroethene	8.54	61	190463	59.63 ug/L	98
33) di-isopropyl ether	9.13	45	455975	71.43 ug/L	97
34) 2-butanone	10.01	72	14544	58.53 ug/L #	52
35) 1,1-dichloroethane	9.21	63	242626	61.91 ug/L	99
36) chloroprene	9.30	53	167959	65.54 ug/L	97
37) acrylonitrile	8.58	53	262819	345.67 ug/L	99
38) vinyl acetate	9.20	86	17336	51.16 ug/L	98
39) ethyl tert-butyl ether	9.65	59	487599	63.05 ug/L	99
40) ethyl acetate	10.00	45	16672	72.97 ug/L #	40
41) 2,2-dichloropropane	10.00	77	216470	53.11 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139230.D
Acq On : 24 Feb 2015 7:17 pm
Operator : zobiah
Sample : jb88615-10msd
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 25 10:01:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	146508	55.94 ug/L	99
43) methylacrylate	10.09	85	17050	53.74 ug/L	99
44) propionitrile	10.17	54	214757	714.64 ug/L	99
45) bromochloromethane	10.37	128	72139	53.34 ug/L	94
46) tetrahydrofuran	10.39	42	49078	76.63 ug/L	96
47) chloroform	10.43	85	145859	57.88 ug/L	98
48) t-butyl formate	10.43	59	99035	47.37 ug/L #	92
51) freon 113	7.19	151	103323	54.99 ug/L	93
52) methacrylonitrile	10.33	41	74015m	58.39 ug/L	
53) 1,1,1-trichloroethane	10.65	97	219745	58.17 ug/L	99
54) Cyclohexane	10.70	84	263377	66.49 ug/L	96
56) epichlorohydrin	12.90	57	59147	305.47 ug/L	98
57) n-butyl alcohol	11.71	56	231185	3475.90 ug/L	98
58) carbon tetrachloride	10.85	117	188095	51.80 ug/L	97
59) 1,1-dichloropropene	10.84	75	155602	53.76 ug/L	96
61) hexane	8.83	57	136512	66.06 ug/L	97
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	443082	55.06 ug/L	97
63) benzene	11.13	78	1204931	134.80 ug/L	99
64) tert-amyl methyl ether	11.14	87	104315	53.67 ug/L #	86
65) heptane	11.25	57	60846	51.99 ug/L	91
66) isopropyl acetate	11.06	43	301241	67.76 ug/L	94
67) 1,2-dichloroethane	11.19	62	151840	56.25 ug/L	97
69) trichloroethene	11.88	95	112444	50.95 ug/L	97
71) methyl methacrylate	12.17	69	78976	63.21 ug/L	93
72) 2-nitropropane	12.76	41	28501	45.52 ug/L	97
74) 1,2-dichloropropane	12.18	63	124579	56.76 ug/L	98
75) dibromomethane	12.36	93	76932	53.59 ug/L	95
76) methylcyclohexane	12.06	83	218446	54.78 ug/L	97
77) bromodichloromethane	12.49	83	156449	53.58 ug/L	96
78) cis-1,3-dichloropropene	12.97	75	186019	53.39 ug/L	96
80) 4-methyl-2-pentanone	13.08	58	50674	59.73 ug/L	87
81) toluene	13.33	92	1128410	224.66 ug/L	98
82) 3-methyl-1-butanol	13.11	55	150561	1455.26 ug/L	97
83) trans-1,3-dichloropropene	13.57	75	166673	54.35 ug/L	99
84) ethyl methacrylate	13.53	69	147738	58.97 ug/L	93
85) 1,1,2-trichloroethane	13.81	83	87814	52.53 ug/L	99
86) 2-hexanone	13.98	58	47049	59.98 ug/L	90
88) tetrachloroethene	13.94	164	83782	45.37 ug/L	94
90) 1,3-dichloropropane	14.00	76	172603	55.01 ug/L	97
91) butyl acetate	14.04	56	78363	63.73 ug/L	96
92) 3,3-dimethyl-1-butanol	14.17	57	188376	545.72 ug/L	98
93) dibromochloromethane	14.29	129	119561	51.75 ug/L	97
94) 1,2-dibromoethane	14.45	107	106643	51.81 ug/L	100
95) chlorobenzene	14.92	112	299640	49.11 ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	134012	51.00 ug/L	98
97) ethylbenzene	14.95	91	882305	88.18 ug/L	98
98) m,p-xylene	15.07	106	744067	193.43 ug/L	95
99) o-xylene	15.52	106	346325	87.21 ug/L	97
100) styrene	15.54	104	340669	52.79 ug/L	92
101) bromoform	15.87	173	85241	48.31 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139230.D
Acq On : 24 Feb 2015 7:17 pm
Operator : zobiah
Sample : jb88615-10msd
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 25 10:01:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) isopropylbenzene	15.88	105	606624	58.72 ug/L	99
105) cyclohexanone	16.13	98	28743	154.08 ug/L	98
106) bromobenzene	16.34	156	137622	50.79 ug/L	100
107) 1,1,2,2-tetrachloroethane	16.26	83	170185	56.51 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	39857	56.88 ug/L	96
109) 1,2,3-trichloropropane	16.34	110	40054	55.58 ug/L	80
110) n-propylbenzene	16.32	120	144316	54.65 ug/L	94
111) 2-chlorotoluene	16.49	126	133341	51.13 ug/L	85
112) 4-chlorotoluene	16.60	126	130424	51.43 ug/L	96
113) 1,3,5-trimethylbenzene	16.47	105	537178	59.60 ug/L	99
114) tert-butylbenzene	16.85	119	408047	50.02 ug/L	98
115) pentachloroethane	16.97	167	105198	54.04 ug/L	98
116) 1,2,4-trimethylbenzene	16.90	105	684776	76.67 ug/L	98
117) sec-butylbenzene	17.07	105	625391	49.64 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	274743	48.78 ug/L	97
119) p-isopropyltoluene	17.20	119	519685	49.05 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	280528	47.64 ug/L	100
121) 1,2-dichlorobenzene	17.84	146	290807	48.17 ug/L	97
122) benzyl chloride	17.54	91	280134	45.64 ug/L	98
123) n-butylbenzene	17.65	92	263101	48.68 ug/L	93
124) 1,2-dibromo-3-chloropropan	18.71	75	39557	55.15 ug/L	90
125) 1,3,5-TRICHLOROBENZENE	18.86	180	268006	42.99 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	290729	43.24 ug/L	98
127) hexachlorobutadiene	19.66	225	105568	35.77 ug/L	97
128) naphthalene	19.89	128	921117	52.17 ug/L	98
129) 1,2,3-trichlorobenzene	20.16	180	324846	43.07 ug/L	100
130) hexachloroethane	18.09	201	89244	40.00 ug/L	94

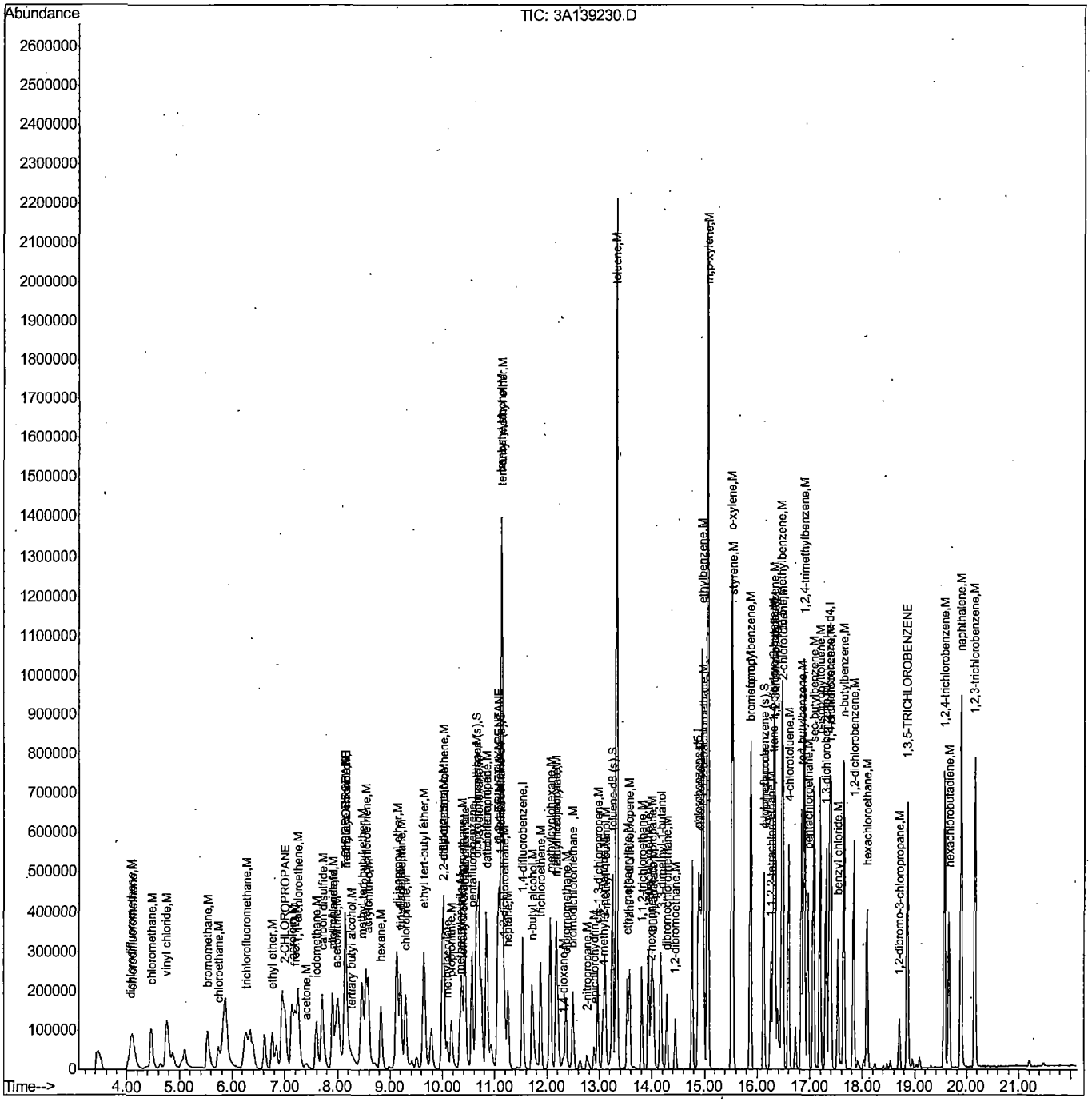
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139230.D
Acq On : 24 Feb 2015 7:17 pm
Operator : zobiah
Sample : jb88615-10msd
Misc : MS81214,V3A6025,5.0,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 25 10:01:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number:	JB88615-10MSD	**Method:**	SW846 8260B
Lab FileID:	3A139230.D	**Analyst approved:**	02/25/15 10:18 Dipa Patel
Injection Time:	02/24/15 19:17	**Supervisor approved:**	02/25/15 14:16 Kanya Veerawat

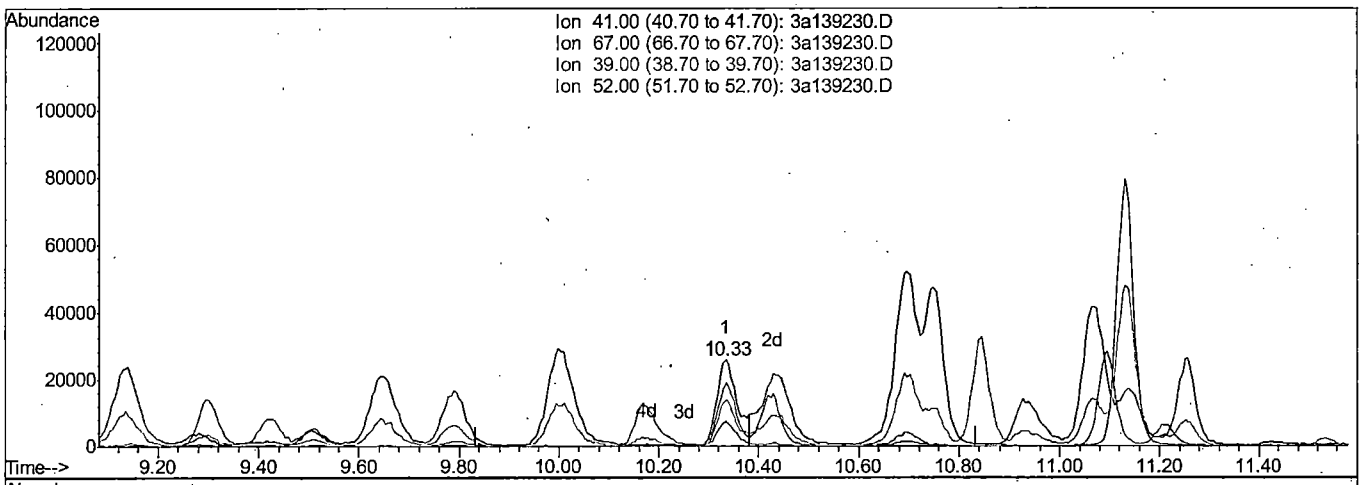
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methacrylonitrile	126-98-7		10.33	Poor instrument integration

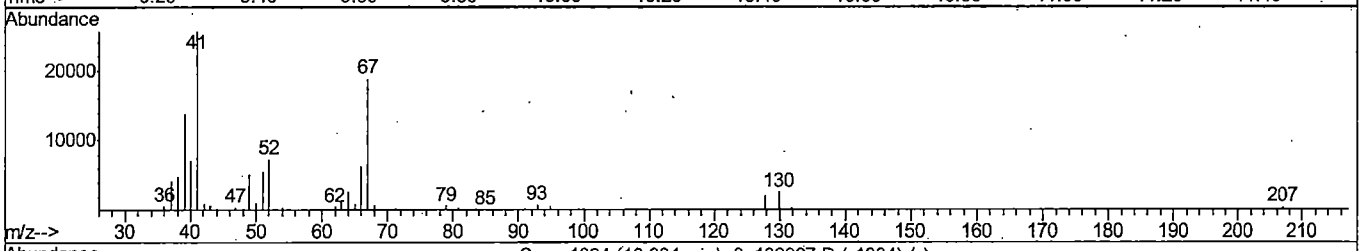
Quantitation Report (Qedit)

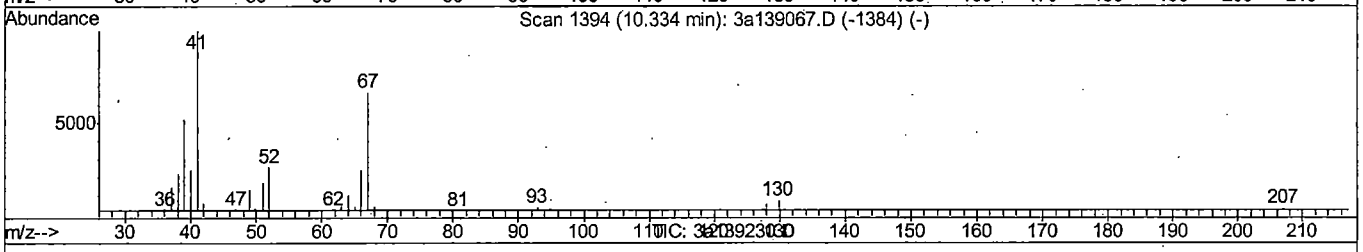
Data File : C:\MSDCHEM\1\DATA\3a139230.D Vial: 16
Acq On : 24 Feb 2015 7:17 pm Operator: zobiah
Sample : jb88615-10msd Inst : MS3A
Misc : MS81214,V3A6025,5.0,,,,20 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 25 10:01:23 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Feb 19 10:03:43 2015
Response via : Multiple Level Calibration







(52) methacrylonitrile (M)

10.33min 58.39ug/L m

response 74015

Ion	Exp%	Act%
41.00	100	100
67.00	66.20	73.59
39.00	51.70	53.90
52.00	27.60	28.50

3a139230.D M3A6014.M Wed Feb 25 10:18:42 2015 ACCUNJ

7.4.4.2 7

ACCUTEST LABORATORIES JB88562

3A139230.D edits: methacrylonitrile

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	93891	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	265615	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	315881	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	292775	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	154195	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	123942	41.75	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 83.50%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	125820	44.04	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 88.08%			
75) toluene-d8 (s)	12.278	98	421118	43.85	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.70%			
100) 4-bromofluorobenzene (s)	15.130	95	161439	42.68	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 85.36%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	32717	1336.42	ug/L	93
3) tertiary butyl alcohol	7.129	59	74288	289.84	ug/L	97
5) chlorodifluoromethane	3.359	51	76988	36.42	ug/L	93
6) dichlorodifluoromethane	3.349	85	124223	46.54	ug/L	98
7) chloromethane	3.658	50	146159	43.11	ug/L	99
8) vinyl chloride	3.910	62	129455	39.15	ug/L	99
10) bromomethane	4.586	94	103220	40.52	ug/L	98
11) chloroethane	4.785	64	63494	38.71	ug/L	97
12) trichlorofluoromethane	5.315	101	156487	43.62	ug/L	99
14) ethyl ether	5.787	74	63687	46.25	ug/L	96
16) 2-chloropropane	5.965	43	171154	40.56	ug/L	95
17) acrolein	6.007	56	204152	313.99	ug/L	99
18) 1,1-dichloroethene	6.217	96	95996	37.81	ug/L	95
19) acetone	6.269	43	32212	45.69	ug/L	91
20) allyl chloride	6.809	76	54074	42.02	ug/L	86
21) acetonitrile	6.720	40	72433	497.68	ug/L	100
22) iodomethane	6.489	142	218589	44.23	ug/L	96
23) iso-butyl alcohol	9.850	41	43564	486.25	ug/L	96
24) carbon disulfide	6.631	76	350641	36.18	ug/L	98
25) methylene chloride	7.003	84	133991	42.56	ug/L	97
26) 1-chloropropane	7.071	42	180112	42.07	ug/L	97
27) methyl acetate	6.814	74	21023	41.80	ug/L #	88
28) methyl tert butyl ether	7.454	73	364555	48.74	ug/L	97
29) trans-1,2-dichloroethene	7.459	96	114194	40.15	ug/L	97
30) di-isopropyl ether	8.178	45	399545	46.86	ug/L	98
31) ethyl tert-butyl ether	8.702	59	393848	47.91	ug/L	99
32) 2-butanone	8.917	72	14049	45.57	ug/L	92
33) 1,1-dichloroethane	8.099	63	240421	46.43	ug/L	99
34) chloroprene	8.246	53	146152	41.73	ug/L	95
35) acrylonitrile	7.365	53	219048	220.45	ug/L	97
36) vinyl acetate	8.136	86	15466	43.73	ug/L	87
37) ethyl acetate	8.975	45	16388	44.95	ug/L	92

7.4.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	2,2-dichloropropane	8.948	77	166835	47.60	ug/L		99
39)	cis-1,2-dichloroethene	8.927	96	136377	42.96	ug/L		100
40)	propionitrile	8.980	54	183969	447.92	ug/L		99
41)	methyl acrylate	9.043	55	110761	44.64	ug/L		100
42)	bromochloromethane	9.258	128	72735	47.63	ug/L		98
43)	tetrahydrofuran	9.326	42	36108	43.67	ug/L		95
44)	chloroform	9.342	83	226536	44.77	ug/L		99
47)	freon 113	6.243	151	66605	39.94	ug/L		95
48)	methacrylonitrile	9.200	41	75342	48.23	ug/L		95
49)	1,1,1-trichloroethane	9.630	97	213889	56.36	ug/L		99
50)	tert-amyl methyl ether	10.201	73	366397	46.91	ug/L		99
52)	epichlorohydrin	11.832	57	50168	188.62	ug/L		100
53)	n-butyl alcohol	10.658	56	175821	2303.67	ug/L		93
54)	cyclohexane	9.735	84	132090	37.12	ug/L		88
56)	carbon tetrachloride	9.861	117	151652	46.27	ug/L		99
57)	1,1-dichloropropene	9.834	75	147604	40.57	ug/L		99
58)	hexane	7.884	57	112089	35.76	ug/L		97
59)	benzene	10.102	78	464898	43.07	ug/L		99
60)	ISO-OCTANE	10.191	57	323353	36.20	ug/L	#	89
61)	heptane	10.385	57	62931	36.47	ug/L		99
62)	isopropyl acetate	10.086	43	224112	49.11	ug/L		97
63)	1,2-dichloroethane	10.097	62	175047	54.30	ug/L		99
64)	trichloroethene	10.873	95	121972	43.88	ug/L		98
66)	2-nitropropane	11.675	43	32840	50.38	ug/L		98
68)	methyl methacrylate	11.198	41	110846	50.74	ug/L		91
69)	1,2-dichloropropane	11.140	63	135318	46.18	ug/L		94
70)	methylcyclohexane	11.140	83	146980	37.23	ug/L		99
72)	dibromomethane	11.282	93	92492	48.74	ug/L		98
73)	bromodichloromethane	11.439	83	187016	51.79	ug/L		99
74)	cis-1,3-dichloropropene	11.947	75	228633	49.47	ug/L		94
76)	4-methyl-2-pentanone	12.084	58	52948	48.30	ug/L		91
77)	toluene	12.356	92	290955	45.62	ug/L		99
78)	3-methyl-1-butanol	12.099	70	66749	962.03	ug/L		97
79)	trans-1,3-dichloropropene	12.550	75	213396	50.89	ug/L		95
80)	ethyl methacrylate	12.603	69	173070	50.83	ug/L		95
81)	1,1,2-trichloroethane	12.771	83	110671	49.11	ug/L		98
82)	2-hexanone	13.001	58	50851	47.66	ug/L		92
84)	tetrachloroethene	12.986	166	154152	55.24	ug/L		99
85)	1,3-dichloropropane	12.970	76	202629	48.21	ug/L		99
86)	butyl acetate	13.106	56	84217	46.52	ug/L		92
87)	dibromochloromethane	13.242	129	160957	53.35	ug/L		99
88)	1,2-dibromoethane	13.400	107	134432	48.58	ug/L		97
89)	n-Butyl Ether	13.919	57	541365	45.91	ug/L		100
90)	chlorobenzene	13.924	112	344560	46.22	ug/L		100
91)	1,1,1,2-tetrachloroethane	13.992	131	137174	51.86	ug/L		98
92)	ethylbenzene	14.013	91	560524	45.06	ug/L		99
93)	m,p-xylene	14.129	106	425482	90.97	ug/L		95
94)	o-xylene	14.574	106	221753	47.82	ug/L		98
95)	styrene	14.579	104	383003	49.66	ug/L		98
97)	bromoform	14.815	173	110012	51.61	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	14.946	105	536275	44.09	ug/L	98
101)	bromobenzene	15.324	156	161420	48.93	ug/L	95
102)	cyclohexanone	15.072	55	47144	288.07	ug/L	94
103)	1,1,2,2-tetrachloroethane	15.224	83	186179	43.67	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	40557	46.57	ug/L	90
105)	1,2,3-trichloropropane	15.298	110	41412	47.43	ug/L	95
106)	n-propylbenzene	15.376	91	617285	42.55	ug/L	99
107)	2-chlorotoluene	15.502	126	140381	45.48	ug/L	100
108)	4-chlorotoluene	15.607	91	417151	44.70	ug/L	99
109)	1,3,5-trimethylbenzene	15.534	105	462720	45.64	ug/L	99
110)	tert-butylbenzene	15.890	119	375775	44.54	ug/L	100
111)	pentachloroethane	15.937	167	103964	51.67	ug/L	98
112)	1,2,4-trimethylbenzene	15.932	105	464803	46.00	ug/L	99
113)	sec-butylbenzene	16.110	105	570797	42.06	ug/L	99
114)	1,3-dichlorobenzene	16.262	146	292513	46.03	ug/L	99
115)	p-isopropyltoluene	16.231	119	481261	44.86	ug/L	100
116)	1,4-dichlorobenzene	16.346	146	296873	45.92	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	295077	48.26	ug/L	99
118)	n-butylbenzene	16.635	92	250208	42.05	ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	31114	46.57	ug/L	97
120)	1,3,5-trichlorobenzene	17.652	180	228384	47.43	ug/L	100
121)	1,2,4-trichlorobenzene	18.223	180	215432	48.36	ug/L	98
122)	hexachlorobutadiene	18.354	225	95117	44.08	ug/L	99
123)	naphthalene	18.480	128	502241	47.75	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	200858	49.19	ug/L	99
125)	hexachloroethane	16.996	119	102366	45.09	ug/L	98
126)	Benzyl chloride	16.456	91	327780	51.15	ug/L	100

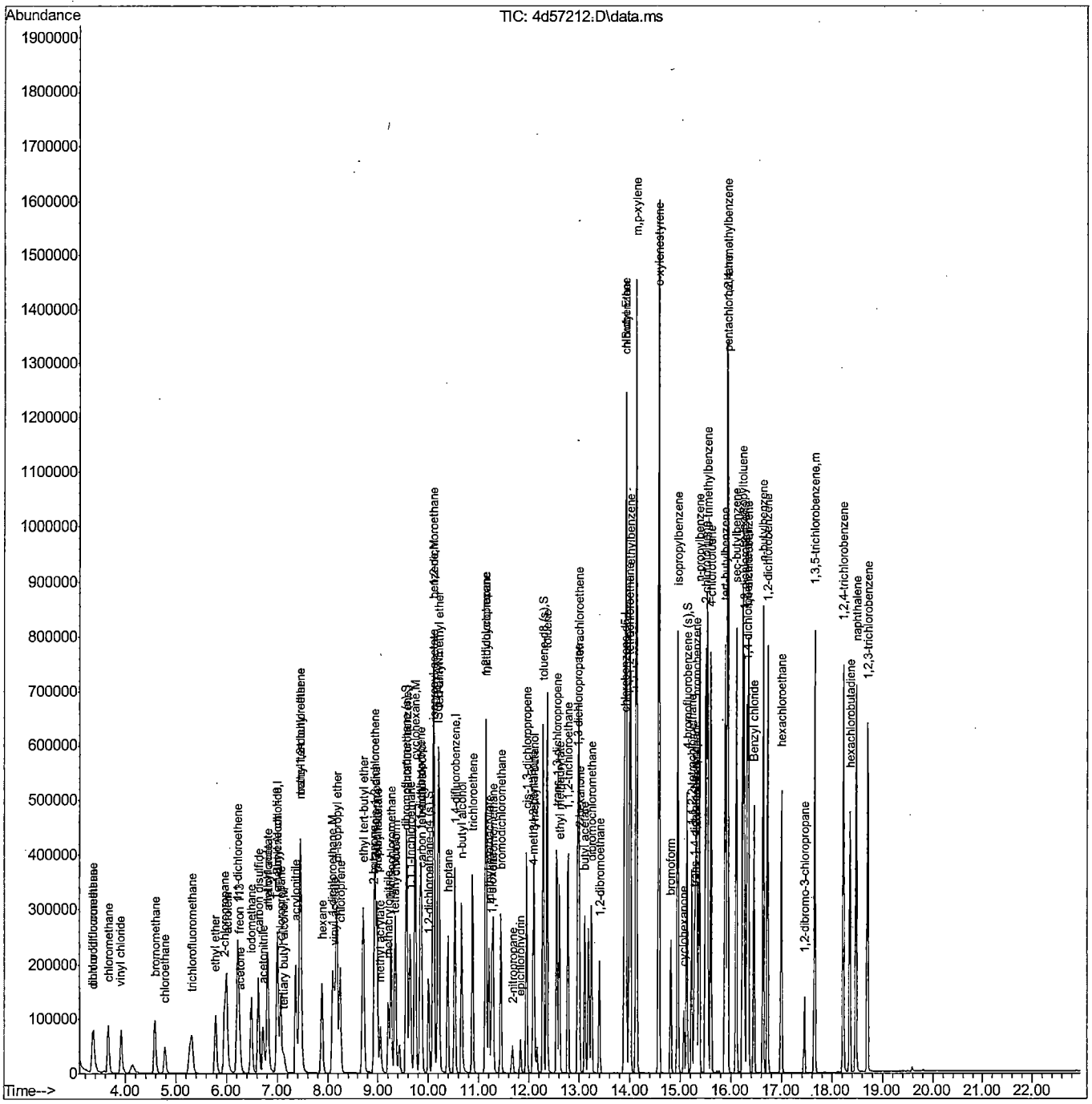
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration



7.4.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	96644	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	274578	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	326137	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	300309	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	158462	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	126759	41.30	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.60%			
46) 1,2-dichloroethane-d4 (s)	10.002	65	126148	42.72	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 85.44%			
75) toluene-d8 (s)	12.278	98	432302	43.60	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.20%			
100) 4-bromofluorobenzene (s)	15.130	95	166395	42.81	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 85.62%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	33862	1343.79	ug/L	98
3) tertiary butyl alcohol	7.129	59	76362	289.45	ug/L	96
5) chlorodifluoromethane	3.365	51	75763	34.68	ug/L	95
6) dichlorodifluoromethane	3.359	85	120032	43.50	ug/L	99
7) chloromethane	3.658	50	146136	41.69	ug/L	99
8) vinyl chloride	3.915	62	128379	37.56	ug/L	99
10) bromomethane	4.586	94	105183	39.94	ug/L	100
11) chloroethane	4.785	64	63266	37.31	ug/L	95
12) trichlorofluoromethane	5.315	101	153410	41.37	ug/L	100
14) ethyl ether	5.787	74	65315	45.88	ug/L	98
16) 2-chloropropane	5.970	43	168080	38.53	ug/L	95
17) acrolein	6.002	56	205013	305.03	ug/L	99
18) 1,1-dichloroethene	6.222	96	94988	36.19	ug/L	99
19) acetone	6.274	43	34462	47.29	ug/L	93
20) allyl chloride	6.815	76	53218	40.01	ug/L #	83
21) acetonitrile	6.725	40	75019	498.62	ug/L	99
22) iodomethane	6.495	142	223118	43.67	ug/L	97
23) iso-butyl alcohol	9.850	41	43458	469.23	ug/L	98
24) carbon disulfide	6.631	76	350218	34.96	ug/L	97
25) methylene chloride	7.009	84	136497	41.94	ug/L	96
26) 1-chloropropane	7.071	42	175571	39.67	ug/L	97
27) methyl acetate	6.815	74	20804	40.01	ug/L	89
28) methyl tert butyl ether	7.459	73	371191	48.01	ug/L	97
29) trans-1,2-dichloroethene	7.459	96	112871	38.39	ug/L	96
30) di-isopropyl ether	8.178	45	405413	46.00	ug/L	99
31) ethyl tert-butyl ether	8.702	59	403210	47.44	ug/L	99
32) 2-butanone	8.912	72	13946	43.76	ug/L	91
33) 1,1-dichloroethane	8.104	63	242205	45.25	ug/L	99
34) chloroprene	8.246	53	141160	38.99	ug/L	96
35) acrylonitrile	7.365	53	221915	216.04	ug/L	96
36) vinyl acetate	8.136	86	16017	43.81	ug/L	88
37) ethyl acetate	8.975	45	15874	42.12	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38)	2,2-dichloropropane	8.954	77	164231	45.33	ug/L		100
39)	cis-1,2-dichloroethene	8.927	96	137826	42.00	ug/L		99
40)	propionitrile	8.980	54	183955	433.27	ug/L		99
41)	methyl acrylate	9.048	55	110828	43.21	ug/L		98
42)	bromochloromethane	9.258	128	74156	46.98	ug/L		97
43)	tetrahydrofuran	9.326	42	35800	41.89	ug/L		97
44)	chloroform	9.342	83	226617	43.33	ug/L		98
47)	freon 113	6.248	151	65379	37.93	ug/L		89
48)	methacrylonitrile	9.205	41	75640	46.84	ug/L		98
49)	1,1,1-trichloroethane	9.635	97	211361	53.88	ug/L		98
50)	tert-amyl methyl ether	10.202	73	376482	46.62	ug/L		99
52)	epichlorohydrin	11.832	57	47951	174.61	ug/L		100
53)	n-butyl alcohol	10.658	56	180635	2292.32	ug/L		94
54)	cyclohexane	9.735	84	128793	35.05	ug/L		89
56)	carbon tetrachloride	9.861	117	147352	43.55	ug/L		99
57)	1,1-dichloropropene	9.835	75	144165	38.38	ug/L		98
58)	hexane	7.884	57	107922	33.34	ug/L		94
59)	benzene	10.102	78	463377	41.58	ug/L		100
60)	ISO-OCTANE	10.196	57	318443	34.53	ug/L	#	88
61)	heptane	10.385	57	60115	33.74	ug/L		99
62)	isopropyl acetate	10.086	43	224457	47.64	ug/L		97
63)	1,2-dichloroethane	10.097	62	175035	52.59	ug/L		99
64)	trichloroethene	10.873	95	119825	41.75	ug/L		98
66)	2-nitropropane	11.675	43	33399	49.63	ug/L		97
68)	methyl methacrylate	11.198	41	111831	49.58	ug/L		91
69)	1,2-dichloropropane	11.140	63	137105	45.32	ug/L		94
70)	methylcyclohexane	11.140	83	144504	35.45	ug/L		98
72)	dibromomethane	11.282	93	93358	47.65	ug/L		98
73)	bromodichloromethane	11.439	83	187641	50.33	ug/L		99
74)	cis-1,3-dichloropropene	11.947	75	229268	48.05	ug/L		94
76)	4-methyl-2-pentanone	12.084	58	53845	47.57	ug/L		92
77)	toluene	12.356	92	288666	43.84	ug/L		97
78)	3-methyl-1-butanol	12.100	70	67373	940.49	ug/L		96
79)	trans-1,3-dichloropropene	12.550	75	214909	49.64	ug/L		96
80)	ethyl methacrylate	12.603	69	174568	49.66	ug/L		94
81)	1,1,2-trichloroethane	12.771	83	111053	47.73	ug/L		98
82)	2-hexanone	13.001	58	50779	46.10	ug/L		90
84)	tetrachloroethene	12.991	166	149941	52.39	ug/L		97
85)	1,3-dichloropropane	12.970	76	203436	47.19	ug/L		99
86)	butyl acetate	13.106	56	84186	45.34	ug/L		92
87)	dibromochloromethane	13.242	129	162430	52.49	ug/L		99
88)	1,2-dibromoethane	13.400	107	136064	47.94	ug/L		99
89)	n-Butyl Ether	13.919	57	547006	45.23	ug/L		100
90)	chlorobenzene	13.924	112	351538	45.97	ug/L		100
91)	1,1,1,2-tetrachloroethane	13.992	131	137822	50.80	ug/L		98
92)	ethylbenzene	14.013	91	552454	43.30	ug/L		98
93)	m,p-xylene	14.134	106	425573	88.71	ug/L		98
94)	o-xylene	14.574	106	221430	46.55	ug/L		96
95)	styrene	14.579	104	385215	48.69	ug/L		98
97)	bromoform	14.815	173	111838	51.15	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	14.952	105	530651	42.45	ug/L	99
101)	bromobenzene	15.324	156	163344	48.18	ug/L	95
102)	cyclohexanone	15.072	55	48320	287.31	ug/L	95
103)	1,1,2,2-tetrachloroethane	15.224	83	187886	42.88	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	41336	46.19	ug/L	90
105)	1,2,3-trichloropropane	15.298	110	42475	47.33	ug/L	95
106)	n-propylbenzene	15.376	91	611273	41.00	ug/L	99
107)	2-chlorotoluene	15.507	126	139848	44.09	ug/L	97
108)	4-chlorotoluene	15.607	91	420372	43.83	ug/L	99
109)	1,3,5-trimethylbenzene	15.534	105	465357	44.67	ug/L	99
110)	tert-butylbenzene	15.890	119	371257	42.82	ug/L	100
111)	pentachloroethane	15.943	167	107892	52.18	ug/L	97
112)	1,2,4-trimethylbenzene	15.932	105	475908	45.83	ug/L	99
113)	sec-butylbenzene	16.110	105	567976	40.73	ug/L	99
114)	1,3-dichlorobenzene	16.262	146	296112	45.34	ug/L	100
115)	p-isopropyltoluene	16.231	119	477134	43.28	ug/L	99
116)	1,4-dichlorobenzene	16.346	146	300282	45.20	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	302726	48.18	ug/L	99
118)	n-butylbenzene	16.635	92	246509	40.31	ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	31727	46.21	ug/L	99
120)	1,3,5-trichlorobenzene	17.652	180	235309	47.55	ug/L	100
121)	1,2,4-trichlorobenzene	18.223	180	222663	48.64	ug/L	100
122)	hexachlorobutadiene	18.354	225	94761	42.74	ug/L	99
123)	naphthalene	18.480	128	519453	48.06	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	209160	49.84	ug/L	99
125)	hexachloroethane	16.997	119	101181	43.36	ug/L	97
126)	Benzyl chloride	16.456	91	327921	49.79	ug/L	100

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

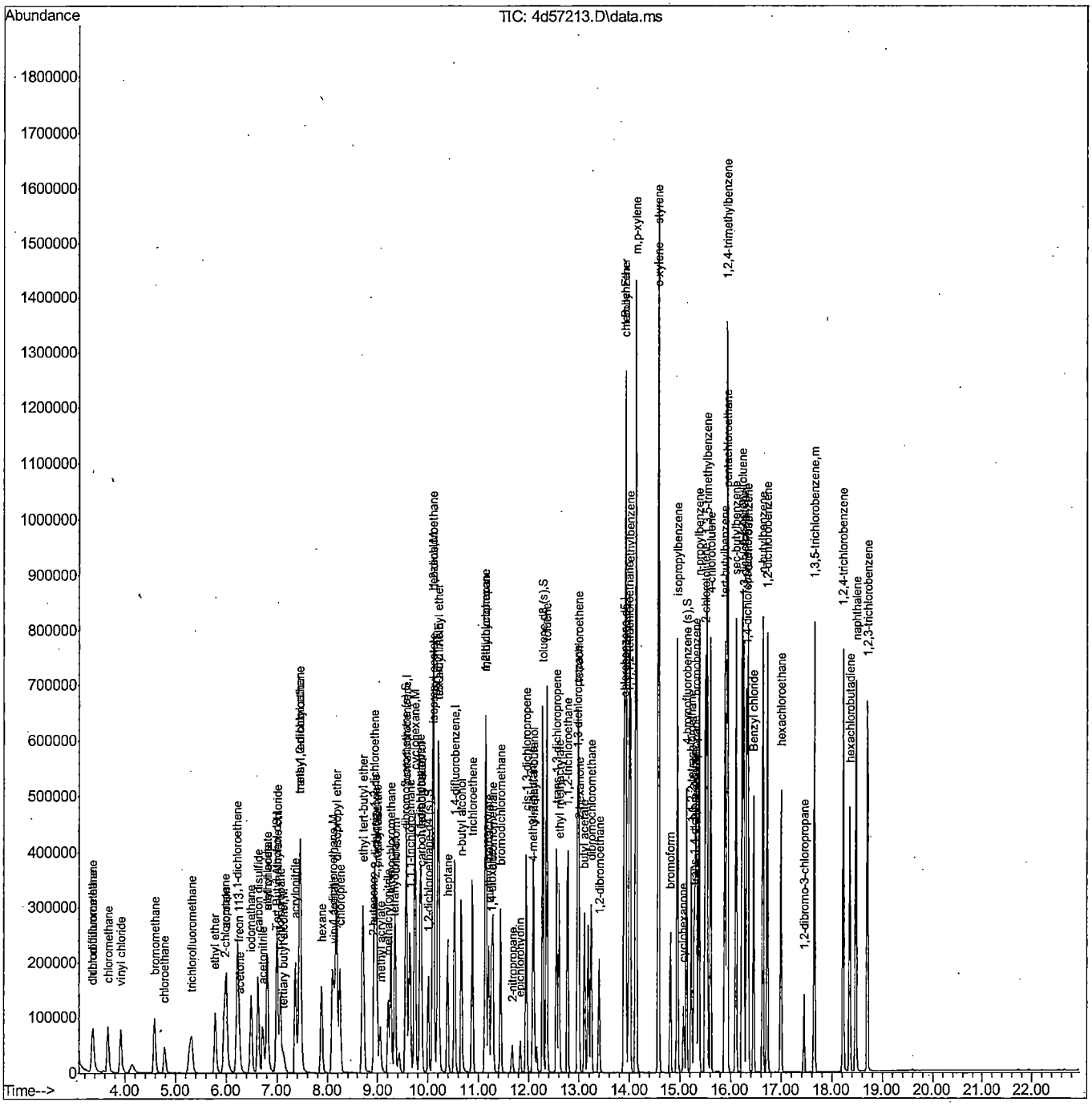
7.4.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

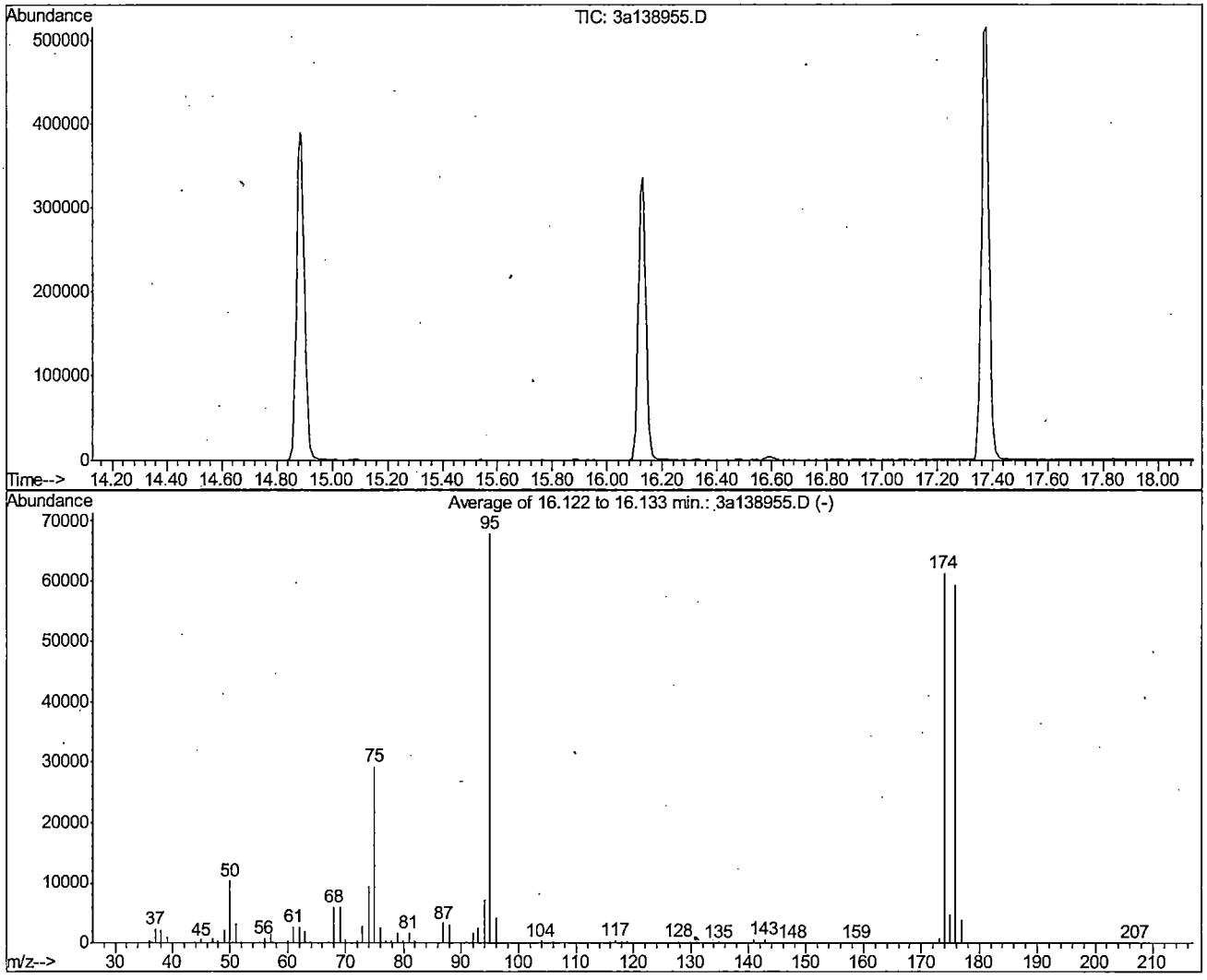


SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\3a138955.D
Acq On : 13 Feb 2015 3:38 pm
Sample : bfb
Misc : MS80458,V3A6014,5.0,,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: zobiah
Inst : MS3A
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um



AutoFind: Scans 2498, 2499, 2500; Background Corrected with Scan 2489

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	10412	PASS
75	95	30	60	43.1	29280	PASS
95	95	100	100	100.0	67885	PASS
96	95	5	9	6.1	4165	PASS
173	174	0.00	2	1.0	639	PASS
174	95	50	120	90.2	61242	PASS
175	174	5	9	7.6	4654	PASS
176	174	95	101	96.7	59237	PASS
177	176	5	9	6.6	3886	PASS

3a138955.D M3A6014.M Mon Feb 16 12:38:40 2015 ACCUNJ

Average of 16.122 to 16.133 min.: 3a138955.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	330	52.00	137	69.00	5878	80.95	1633
37.00	2265	54.90	72	70.00	482	81.85	303
38.05	2034	56.00	775	72.00	286	86.95	3233
39.05	851	57.05	1363	73.00	2726	87.90	2996
43.95	186	60.00	431	74.00	9392	90.90	247
45.00	484	61.00	2665	75.00	29280	92.00	1589
47.05	765	62.00	2600	76.00	2510	93.00	2467
48.00	332	63.00	1931	76.90	432	94.00	7120
49.00	2047	63.95	127	77.95	361	95.00	67885
50.00	10412	66.95	178	78.90	1588	96.00	4165
51.05	3143	68.00	5978	79.90	427	96.90	53

Average of 16.122 to 16.133 min.: 3a138955.D
bfb
Modified:subtracted

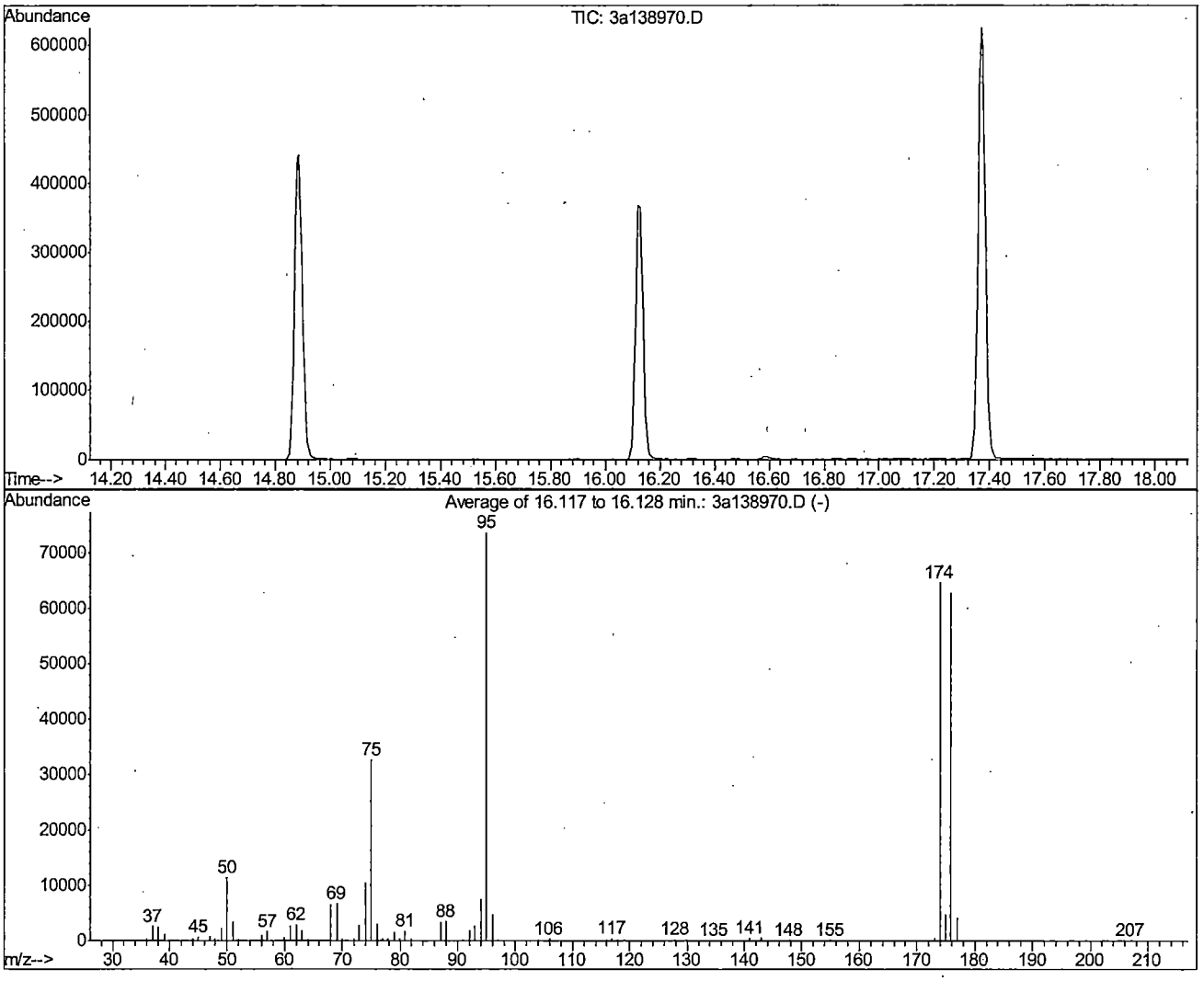
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.95	277	140.95	513				
105.00	56	142.90	577				
105.90	236	147.80	68				
115.90	128	154.70	51				
116.85	394	158.90	55				
117.80	71	173.00	639				
117.95	121	173.90	61242				
118.85	336	174.95	4654				
127.95	267	175.90	59237				
129.95	253	176.90	3886				
134.85	171	207.00	135				

SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\3a138970.D
Acq On : 16 Feb 2015 10:21 am
Sample : bfb
Misc : MS80458,V3A6014,5.0,,,,1
MS Integration Params: rteint.p

Vial: 3
Operator: zobiah
Inst : MS3A
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um



AutoFind: Scans 2497, 2498, 2499; Background Corrected with Scan 2488

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	11455	PASS
75	95	30	60	44.2	32578	PASS
95	95	100	100	100.0	73666	PASS
96	95	5	9	6.5	4779	PASS
173	174	0.00	2	0.9	585	PASS
174	95	50	120	87.8	64645	PASS
175	174	5	9	7.4	4755	PASS
176	174	95	101	97.1	62776	PASS
177	176	5	9	6.7	4227	PASS

3a138970.D M3A6014.M Mon Feb 16 12:40:51 2015 ACCUNJ

Average of 16.117 to 16.128 min.: 3a138970.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	469	51.00	3376	68.00	6535	79.95	474
37.00	2612	52.00	126	69.00	6786	80.90	1736
38.00	2428	55.05	135	70.00	467	81.90	345
39.05	1049	56.00	927	72.00	377	87.00	3461
39.90	186	57.00	1695	73.00	2793	87.95	3550
44.00	325	59.95	609	74.00	10581	91.00	274
45.05	569	61.00	2726	75.00	32578	91.95	1880
46.95	715	62.00	2910	76.00	2934	93.00	2674
47.95	385	63.00	1890	76.90	462	94.00	7568
49.00	2252	64.05	204	77.95	318	95.00	73666
50.00	11455	66.95	212	78.90	1514	96.00	4779

Average of 16.117 to 16.128 min.: 3a138970.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	205	130.00	68	175.90	62776		
103.80	91	134.80	59	176.95	4227		
103.95	183	136.80	50	177.80	56		
105.90	302	140.95	544	207.00	79		
115.95	146	142.90	528				
116.85	431	147.85	141				
117.85	241	154.95	171				
118.80	94	172.90	155				
118.95	221	173.05	585				
127.95	235	173.90	64645				
129.80	127	174.95	4755				

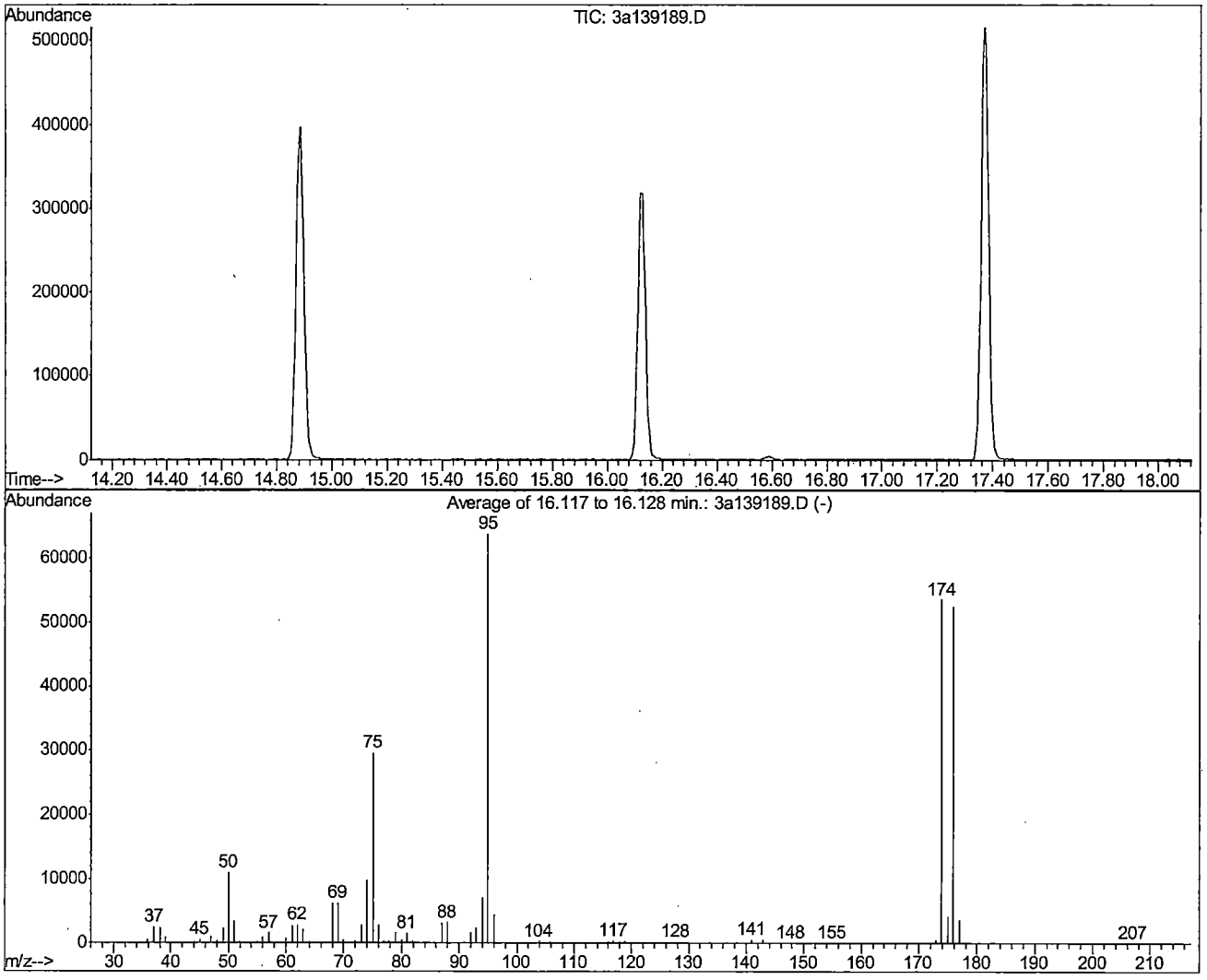
7.5.2

7

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\3a139189.D Vial: 22
Acq On : 23 Feb 2015 9:32 pm Operator: zobiah
Sample : bfb Inst : MS3A
Misc : MS81194,V3A6024,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um



AutoFind: Scans 2497, 2498, 2499; Background Corrected with Scan 2487

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	11051	PASS
75	95	30	60	46.2	29517	PASS
95	95	100	100	100.0	63882	PASS
96	95	5	9	6.8	4346	PASS
173	174	0.00	2	0.8	436	PASS
174	95	50	120	83.9	53613	PASS
175	174	5	9	7.6	4067	PASS
176	174	95	101	98.0	52560	PASS
177	176	5	9	7.0	3685	PASS

3a139189.D M3A6014.M Tue Feb 24 10:22:06 2015 ACCUNJ

Average of 16.117 to 16.128 min.: 3a139189.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	455	51.00	3495	68.00	6195	78.90	1581
37.00	2475	51.95	115	69.00	6253	79.95	478
38.05	2350	55.00	113	69.95	437	80.95	1492
39.05	871	56.00	789	71.95	323	81.95	344
39.95	72	57.00	1562	73.00	2709	86.95	3106
44.00	219	60.00	594	74.00	9845	87.90	3228
45.00	536	61.00	2575	75.00	29517	90.90	221
47.00	917	62.00	2867	76.00	2869	92.00	1594
47.95	375	63.00	2052	76.95	392	93.00	2235
49.05	2354	63.95	127	77.85	288	94.00	7060
50.00	11051	67.00	131	78.10	87	95.00	63882

Average of 16.117 to 16.128 min.: 3a139189.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	4346	142.90	479	207.10	82		
96.90	62	145.80	58				
103.95	265	147.90	50				
105.85	227	155.00	84				
115.95	196	157.00	76				
116.85	415	172.30	53				
117.85	244	172.95	436				
118.90	253	173.90	53613				
127.85	230	174.95	4067				
129.80	137	175.90	52560				
140.95	545	176.90	3685				

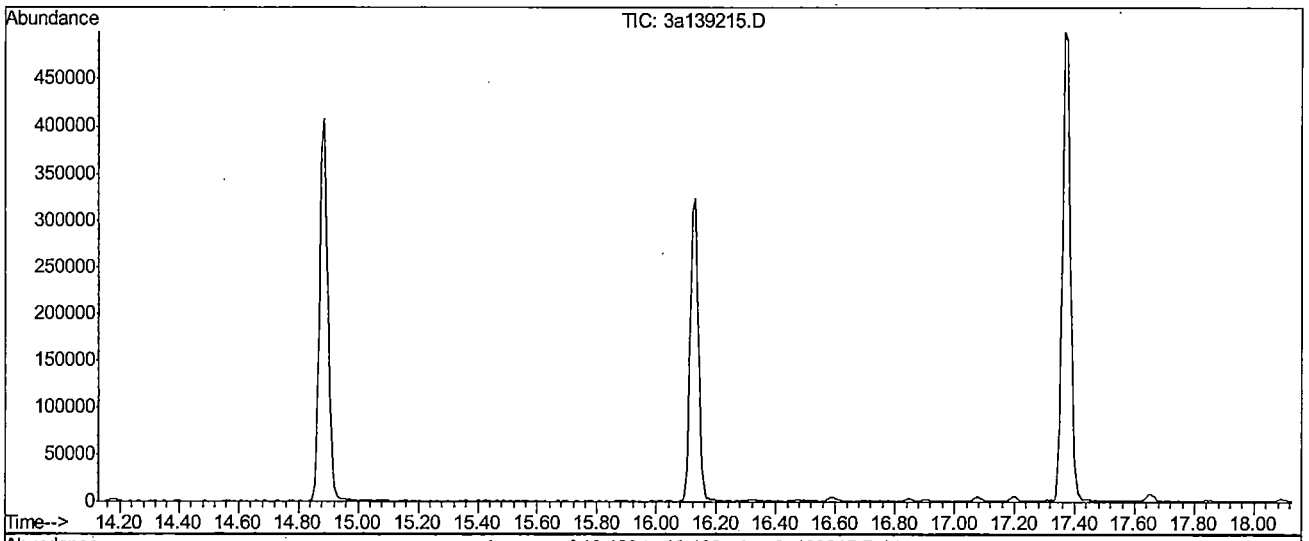
7.5.3

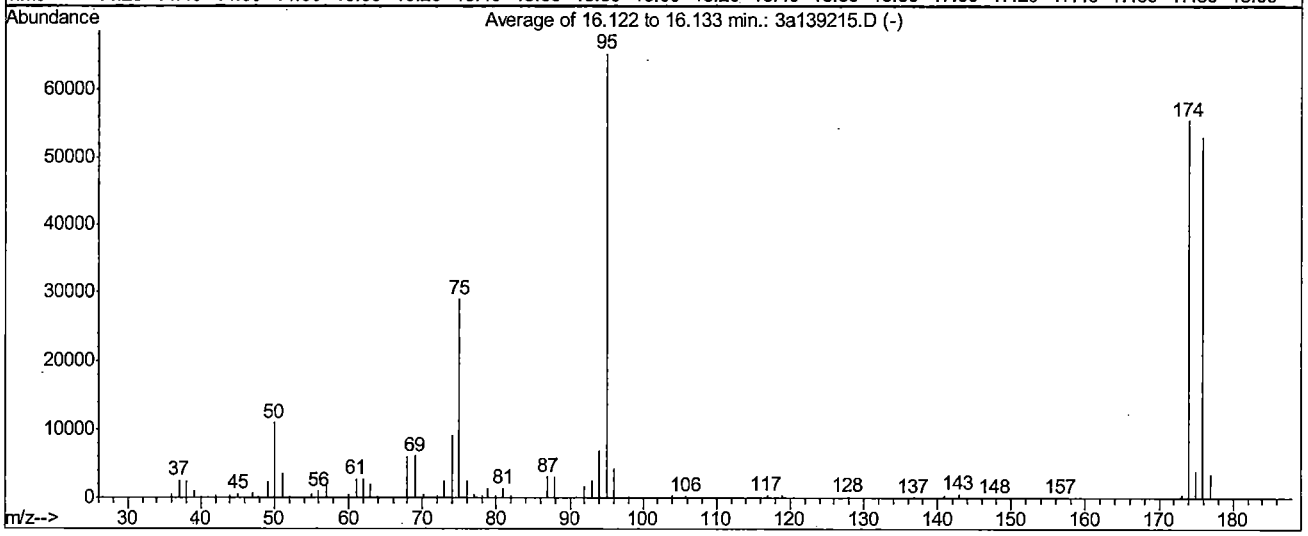
7

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\3a139215.D Vial: 1
Acq On : 24 Feb 2015 10:42 am Operator: zobiah
Sample : bfb Inst : MS3A
Misc : MS81224,V3A6025,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2498, 2499, 2500; Background Corrected with Scan 2488

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	10999	PASS
75	95	30	60	44.5	29045	PASS
95	95	100	100	100.0	65197	PASS
96	95	5	9	6.6	4288	PASS
173	174	0.00	2	0.8	461	PASS
174	95	50	120	85.0	55434	PASS
175	174	5	9	7.2	4012	PASS
176	174	95	101	95.5	52954	PASS
177	176	5	9	6.6	3503	PASS

3a139215.D M3A6014.M Tue Feb 24 14:45:07 2015 ACCUNJ

Average of 16.122 to 16.133 min.: 3a139215.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	436	48.10	59	63.00	1952	77.00	434
37.00	2565	49.00	2297	63.95	144	78.05	311
38.05	2274	50.00	10999	66.90	51	78.90	1425
39.05	1049	51.05	3560	68.00	6075	79.95	411
39.95	143	52.10	245	69.00	6171	80.90	1420
41.00	175	55.00	513	70.05	556	81.90	383
42.05	287	56.00	967	72.05	261	87.00	3169
44.00	349	57.00	1620	73.00	2510	87.95	2935
45.05	506	60.05	572	74.00	9263	90.85	212
47.00	757	61.00	2685	75.00	29045	92.00	1600
47.90	174	62.00	2600	76.00	2562	93.00	2472

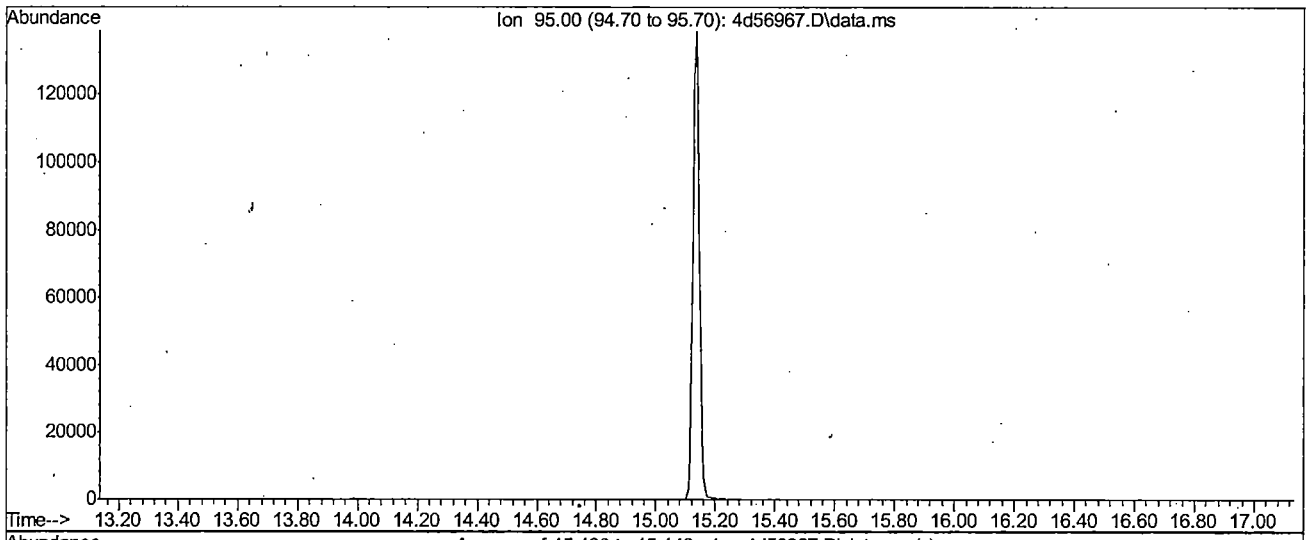
Average of 16.122 to 16.133 min.: 3a139215.D
bfb
Modified:subtracted

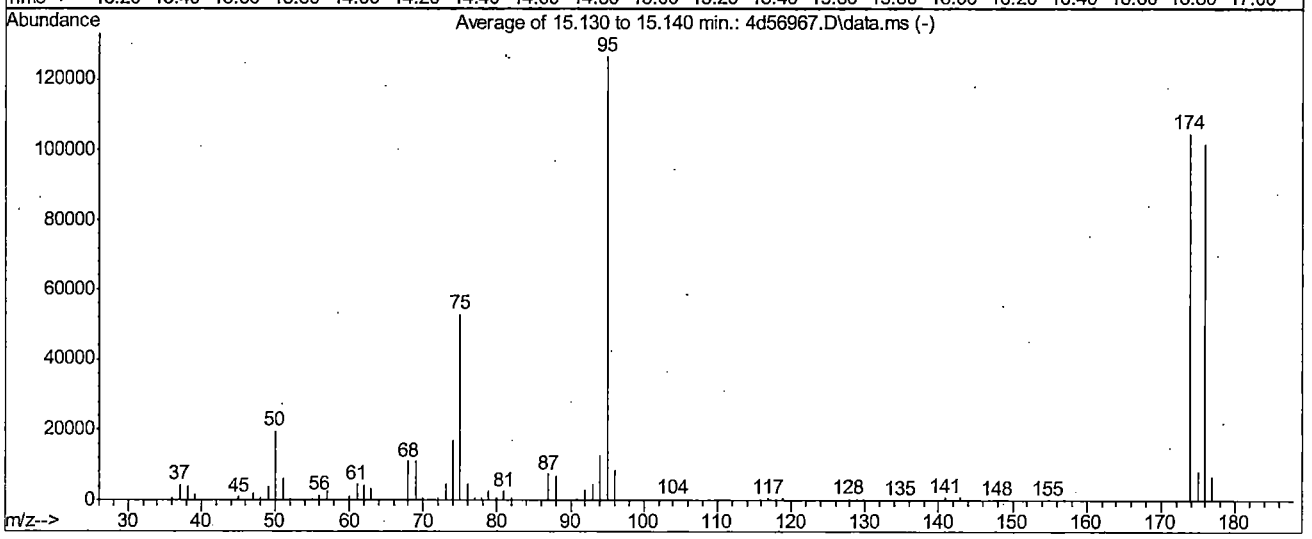
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	6870	129.90	54	172.80	211		
95.00	65197	134.90	52	173.05	461		
96.00	4288	136.85	115	173.90	55434		
98.10	114	140.80	150	174.95	4012		
103.95	261	140.95	361	175.90	52954		
105.85	269	142.90	571	176.90	3503		
115.95	207	147.80	73	178.00	57		
116.85	337	154.90	73				
117.95	119	156.80	117				
118.85	288	171.80	57				
127.95	198	172.10	67				

SW-846 Method 8260

Data File : C:\msdchem\1\data\4d56967.D Vial: 1
Acq On : 18 Feb 2015 4:13 pm Operator: PayalR
Sample : bfb Inst : MS4D
Misc : MS80920,V4D2528,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C





AutoFind: Scans 2297, 2298, 2299; Background Corrected with Scan 2289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	19491	PASS
75	95	30	60	41.8	52832	PASS
95	95	100	100	100.0	126467	PASS
96	95	5	9	6.6	8304	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	82.8	104765	PASS
175	174	5	9	7.7	8046	PASS
176	174	95	101	97.2	101808	PASS
177	176	5	9	6.8	6876	PASS

4d56967.D M4D2528.M Thu Feb 19 08:59:57 2015 RPT1

Average of 15.130 to 15.140 min.: 4d56967.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	799	51.05	6142	67.00	271	78.90	2485
37.05	4270	52.05	274	68.00	10954	79.95	666
38.10	3914	55.00	250	69.00	10871	80.90	2493
39.05	1517	56.00	1361	70.00	804	81.90	504
39.95	43	57.00	2602	72.00	534	85.95	163
44.00	453	58.00	53	73.00	4431	87.00	7325
45.05	928	60.00	927	74.00	16708	88.00	6955
47.00	1831	61.00	4438	75.00	52832	90.90	349
48.00	613	62.00	4344	76.00	4509	92.00	2793
49.00	3930	63.00	3334	77.00	804	93.00	4412
50.00	19491	64.00	289	77.95	630	94.00	12718

Average of 15.130 to 15.140 min.: 4d56967.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	126467	128.85	192	173.90	104765		
96.00	8304	129.85	386	174.95	8046		
96.95	259	130.90	114	175.90	101808		
103.95	417	134.85	121	176.95	6876		
104.90	190	136.90	108	177.95	195		
105.85	404	140.90	838				
115.85	332	142.90	834				
116.90	611	145.90	123				
117.90	334	147.90	246				
118.90	515	154.90	279				
127.90	403	156.90	182				

7.5.5

7

M4D2528.M Thu Feb 19 08:40:11 2015 RPT1

Page: 0

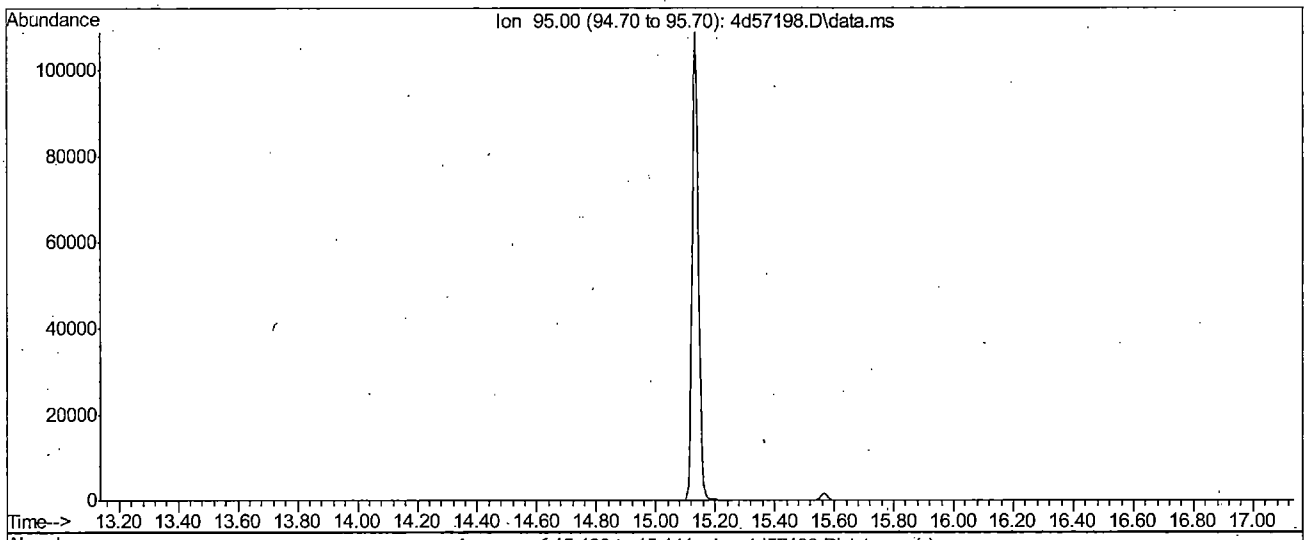
ACCUTEST LABORATORIES
JB88562

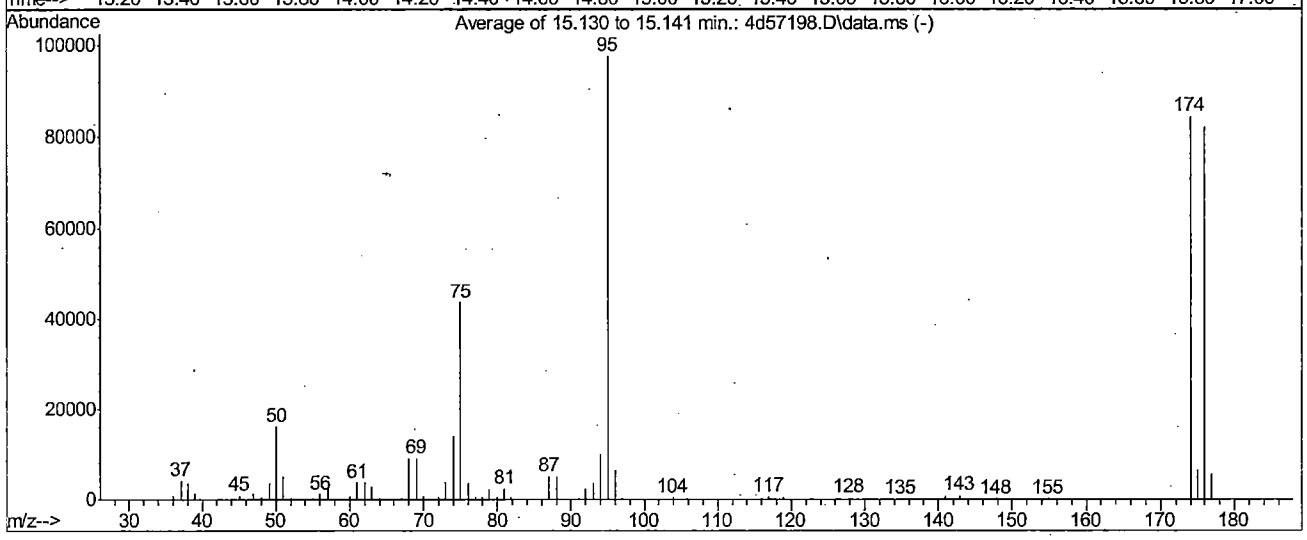
SW-846 Method 8260

Data File : C:\msdchem\1\data\4d57198.D
Acq On : 26 Feb 2015 8:57 am
Sample : bfb
Misc : MS81323,V4D2537,5,,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: PayalR
Inst : MS4D
Multiplr: 1.00

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C





AutoFind: Scans 2297, 2298, 2299; Background Corrected with Scan 2289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	16224	PASS
75	95	30	60	44.7	43648	PASS
95	95	100	100	100.0	97608	PASS
96	95	5	9	6.6	6409	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.4	84365	PASS
175	174	5	9	7.8	6541	PASS
176	174	95	101	97.3	82067	PASS
177	176	5	9	6.6	5391	PASS

4d57198.D M4D2528.M Thu Feb 26 11:51:25 2015 RPT1

Average of 15.130 to 15.141 min.: 4d57198.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	680	52.05	236	68.00	8990	79.95	592
37.10	4024	55.00	217	69.00	9041	80.90	2283
38.05	3443	56.00	1206	70.00	646	81.90	437
39.05	1379	57.00	2219	72.05	391	86.00	57
44.00	256	58.00	55	73.00	3670	87.00	5017
45.05	764	60.00	826	74.00	14101	88.00	4973
47.00	1300	61.00	3650	75.00	43648	90.95	296
48.00	502	62.00	3639	76.05	3620	92.00	2267
49.05	3408	63.00	2669	76.95	590	93.00	3428
50.05	16224	64.00	265	77.95	491	94.00	10051
51.05	4959	67.05	258	78.90	2308	95.00	97608

Average of 15.130 to 15.141 min.: 4d57198.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	6409	129.90	315	175.00	6541		
97.00	198	134.85	119	175.95	82067		
103.90	392	136.90	62	176.95	5391		
104.90	112	140.95	760	177.95	158		
105.90	376	142.90	785				
115.95	301	147.90	213				
116.90	533	154.90	202				
117.90	314	156.80	54				
118.90	443	157.00	114				
127.95	335	171.90	65				
128.95	109	174.00	84365				

7.5.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	146227	500.00 ug/L	-0.01
5) pentafluorobenzene	10.57	168	281537	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.54	114	312822	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	276214	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	171567	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	2584	1.11 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 2.22%#		
50) 1,2-dichloroethane-d4 (s)	11.09	65	2935	1.14 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 2.28%#		
79) toluene-d8 (s)	13.25	98	8602	1.09 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 2.18%#		
104) 4-bromofluorobenzene (s)	16.13	95	4593	1.38 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 2.76%#		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.27	59	1019	2.90 ug/L	100
8) chlorodifluoromethane	4.10	51	2624	0.58 ug/L	65
9) dichlorodifluoromethane	4.05	85	4252	0.77 ug/L	71
10) chloromethane	4.46	50	3220	0.72 ug/L	85
11) vinyl chloride	4.76	62	3830	0.76 ug/L	92
12) bromomethane	5.53	94	2803	1.06 ug/L #	70
15) 2-CHLOROPROPANE	6.99	43	3546	0.66 ug/L #	91
16) chloroethane	5.74	64	1727	0.87 ug/L	75
20) ethyl ether	6.77	74	1082	0.76 ug/L	78
22) 1,1-dichloroethene	7.26	96	2261	0.83 ug/L	91
24) allyl chloride	7.90	76	972	0.67 ug/L #	68
26) iodomethane	7.60	142	4797	0.89 ug/L	95
27) iso-butyl alcohol	11.13	74	449	5.17 ug/L #	27
28) carbon disulfide	7.71	76	9933	0.84 ug/L	98
29) methylene chloride	8.15	84	2885	0.89 ug/L	98
30) methyl acetate	7.92	43	1471	0.66 ug/L	53
31) methyl tert butyl ether	8.48	73	7578	0.81 ug/L	98
32) trans-1,2-dichloroethene	8.55	61	3360	0.84 ug/L	93
33) di-isopropyl ether	9.13	45	6404	0.65 ug/L	94
35) 1,1-dichloroethane	9.21	63	3809	0.78 ug/L	94
36) chloroprene	9.30	53	2425	0.64 ug/L	68
37) acrylonitrile	8.60	53	3413	3.08 ug/L	84
39) ethyl tert-butyl ether	9.66	59	6879	0.68 ug/L	94
41) 2,2-dichloropropane	10.01	77	3973	0.83 ug/L	84
42) cis-1,2-dichloroethene	10.02	96	2499	0.82 ug/L #	66
44) propionitrile	10.19	54	2405	5.79 ug/L	74
45) bromochloromethane	10.38	128	1221	0.88 ug/L #	53
47) chloroform	10.43	85	2320	0.81 ug/L	95
48) t-butyl formate	10.44	59	1600	0.55 ug/L #	83
51) freon 113	7.18	151	1586	0.72 ug/L	88
53) 1,1,1-trichloroethane	10.65	97	3505	0.80 ug/L #	71
54) Cyclohexane	10.70	84	4037	0.82 ug/L	77
58) carbon tetrachloride	10.85	117	3177	0.96 ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
59) 1,1-dichloropropene	10.84	75	2586	0.86 ug/L	92
61) hexane	8.83	57	2061	0.77 ug/L	76
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	7301	0.73 ug/L	94
63) benzene	11.14	78	8650	0.95 ug/L	98
64) tert-amyl methyl ether	11.14	87	1663	0.82 ug/L #	66
65) heptane	11.26	57	963	0.60 ug/L	99
66) isopropyl acetate	11.08	43	4332	0.74 ug/L	91
67) 1,2-dichloroethane	11.20	62	2360	0.88 ug/L	75
69) trichloroethene	11.89	95	2142	1.02 ug/L #	75
71) methyl methacrylate	12.20	69	897	0.63 ug/L	81
72) 2-nitropropane	12.78	41	424	0.54 ug/L #	41
73) 2-chloroethyl vinyl ether	12.75	63	5234	3.49 ug/L	89
74) 1,2-dichloropropane	12.19	63	2211	0.97 ug/L	97
75) dibromomethane	12.36	93	1329	0.97 ug/L	91
76) methylcyclohexane	12.06	83	3625	0.79 ug/L	95
77) bromodichloromethane	12.49	83	2867	1.02 ug/L	72
78) cis-1,3-dichloropropene	12.97	75	3105	0.86 ug/L	89
81) toluene	13.33	92	4714	0.94 ug/L	87
83) trans-1,3-dichloropropene	13.59	75	2689	0.83 ug/L	97
84) ethyl methacrylate	13.55	69	1727	0.61 ug/L	87
85) 1,1,2-trichloroethane	13.82	83	1584	0.98 ug/L #	68
88) tetrachloroethene	13.95	164	1703	1.06 ug/L #	76
90) 1,3-dichloropropane	14.00	76	2707	0.86 ug/L	88
92) 3,3-dimethyl-1-butanol	14.17	57	1843	5.15 ug/L	92
93) dibromochloromethane	14.29	129	1843	0.90 ug/L #	67
94) 1,2-dibromoethane	14.46	107	1778	0.94 ug/L	96
95) chlorobenzene	14.92	112	5532	0.96 ug/L	84
96) 1,1,1,2-tetrachloroethane	14.99	131	2318	1.01 ug/L #	79
97) ethylbenzene	14.96	91	8983	0.91 ug/L	95
98) m,p-xylene	15.07	106	7021	1.86 ug/L #	77
99) o-xylene	15.52	106	3462	0.90 ug/L	98
100) styrene	15.55	104	5433	0.87 ug/L	94
101) bromoform	15.87	173	1540	1.08 ug/L	84
103) isopropylbenzene	15.89	105	9753	0.86 ug/L	97
106) bromobenzene	16.34	156	2675	0.98 ug/L	89
107) 1,1,2,2-tetrachloroethane	16.26	83	2776	0.83 ug/L	91
108) trans-1,4-dichloro-2-buten	16.30	53	556	0.65 ug/L #	37
109) 1,2,3-trichloropropane	16.35	110	653	0.82 ug/L	88
110) n-propylbenzene	16.31	120	2432	0.87 ug/L #	71
111) 2-chlorotoluene	16.50	126	2647	1.00 ug/L	75
112) 4-chlorotoluene	16.60	126	2471	0.92 ug/L #	83
113) 1,3,5-trimethylbenzene	16.47	105	8271	0.81 ug/L	99
114) tert-butylbenzene	16.85	119	7066	0.78 ug/L	95
115) pentachloroethane	16.97	167	1672	0.80 ug/L	90
116) 1,2,4-trimethylbenzene	16.90	105	8316	0.86 ug/L	95
117) sec-butylbenzene	17.08	105	11401	0.80 ug/L	97
118) 1,3-dichlorobenzene	17.31	146	5559	0.96 ug/L	94
119) p-isopropyltoluene	17.20	119	9783	0.87 ug/L	93
120) 1,4-dichlorobenzene	17.40	146	5784	0.96 ug/L	95
121) 1,2-dichlorobenzene	17.84	146	5918	0.97 ug/L	84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
122) benzyl chloride	17.54	91	6081	0.84 ug/L	96
123) n-butylbenzene	17.65	92	4935	0.82 ug/L	94
124) 1,2-dibromo-3-chloropropan	18.70	75	643	0.79 ug/L	92
125) 1,3,5-TRICHLOROBENZENE	18.86	180	5735	0.89 ug/L	97
126) 1,2,4-trichlorobenzene	19.58	180	6445	0.92 ug/L	80
127) hexachlorobutadiene	19.66	225	2720	0.92 ug/L	85
128) naphthalene	19.89	128	16650	0.86 ug/L	97
129) 1,2,3-trichlorobenzene	20.16	180	7312	0.94 ug/L	96

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

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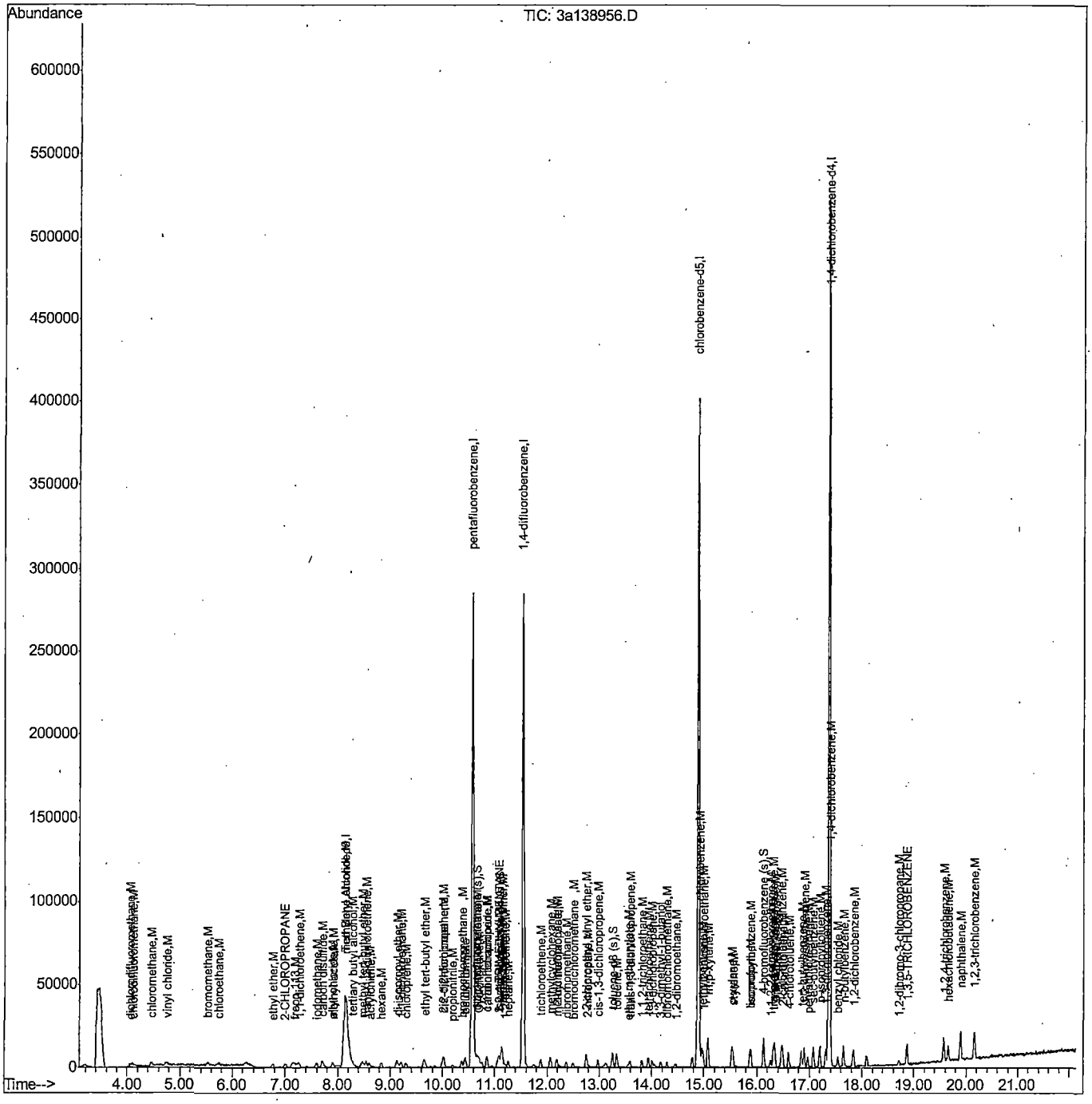
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



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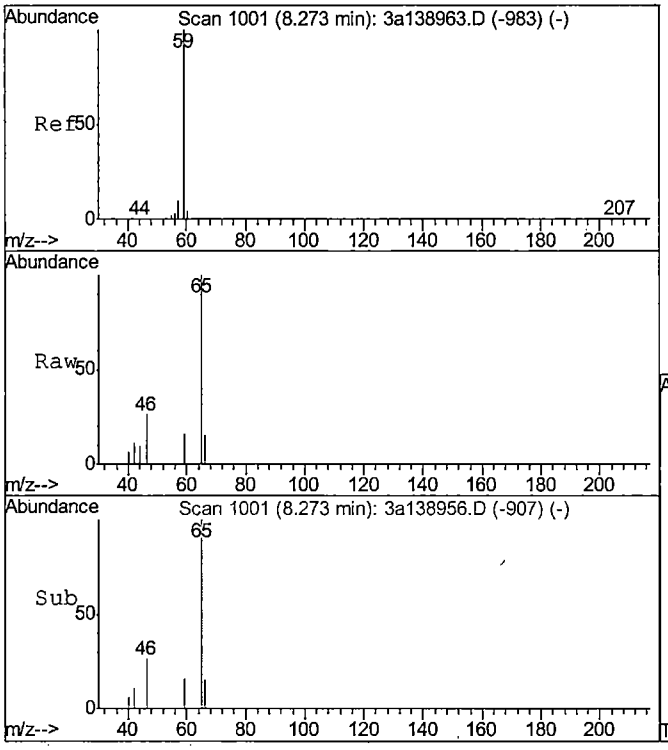
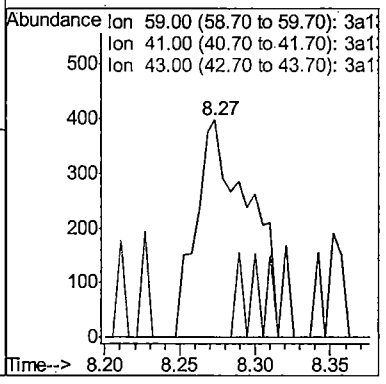
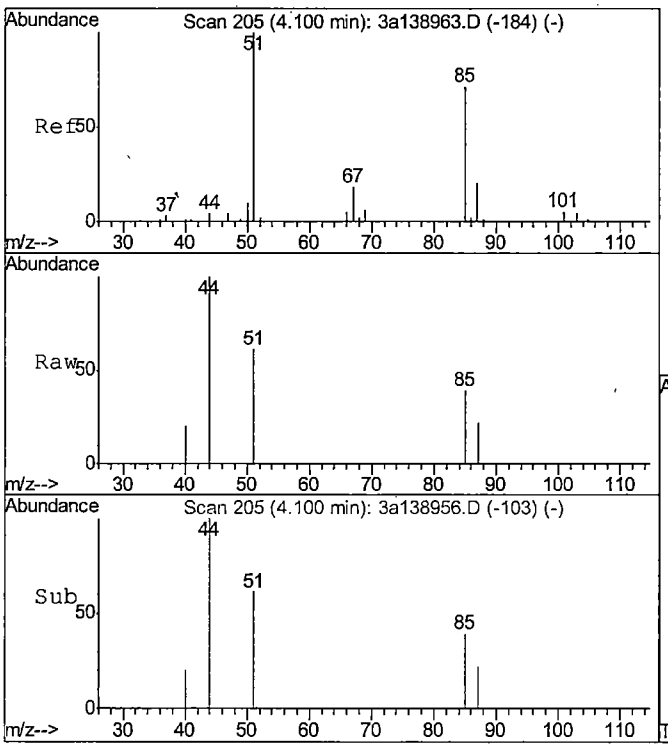


#2
tertiary butyl alcohol
Concen: 2.90 ug/L
RT: 8.27 min Scan# 1001
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 59 Resp: 1019

Ion	Ratio	Lower	Upper
59	100		
41	0.0	0.0	30.0
43	0.0	0.0	30.0

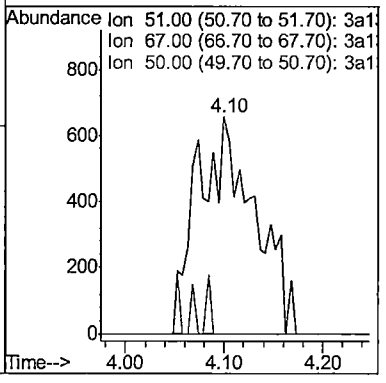


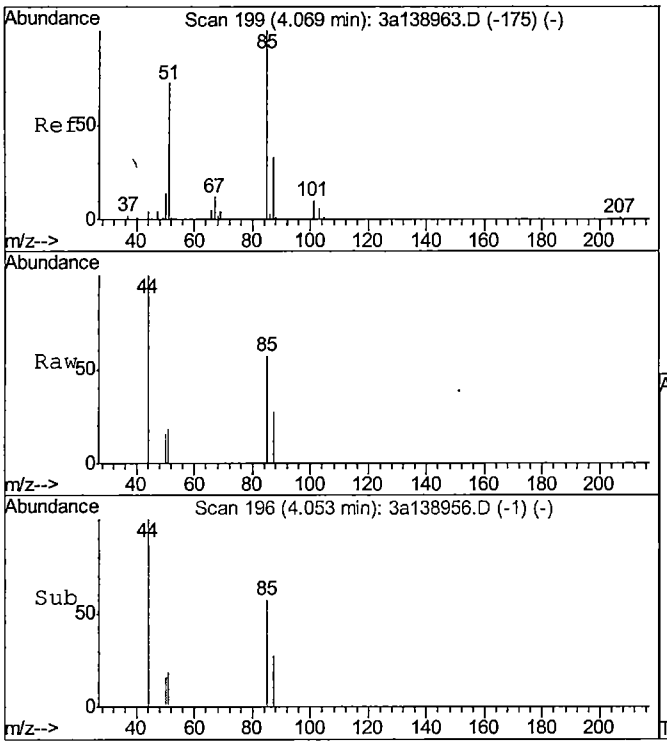


#8
chlorodifluoromethane
Concen: 0.58 ug/L
RT: 4.10 min Scan# 205
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 51 Resp: 2624

Ion	Ratio	Lower	Upper
51	100		
67	0.0	0.0	47.1
50	0.0	0.0	40.4

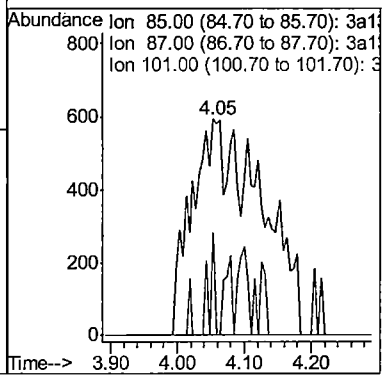


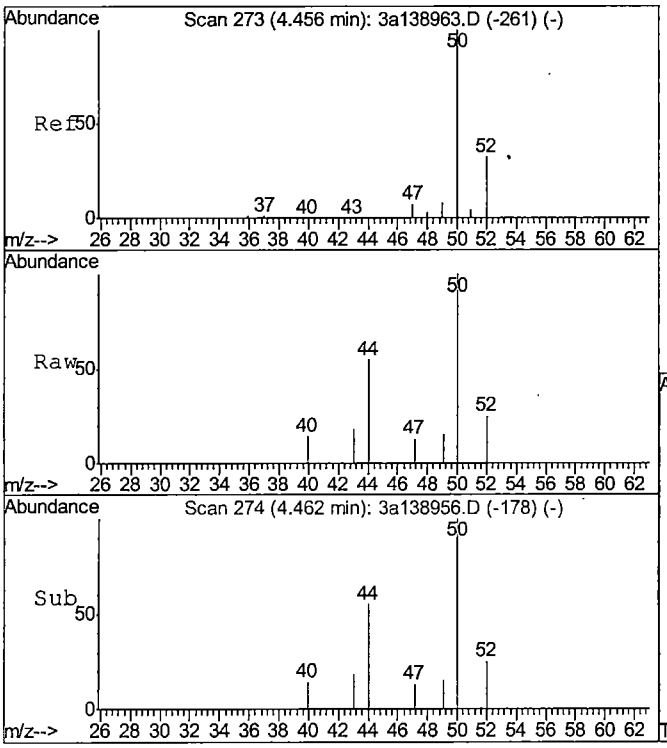


#9
dichlorodifluoromethane
Concen: 0.77 ug/L
RT: 4.05 min Scan# 196
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 85 Resp: 4252

Ion	Ratio	Lower	Upper
85	100		
87	47.6	1.0	61.0
101	0.0	0.0	38.6

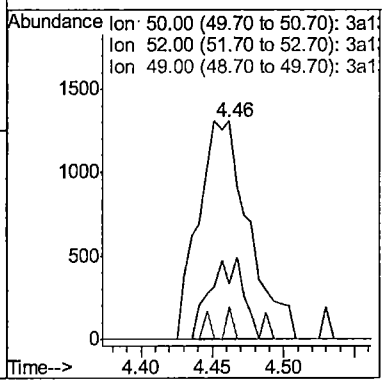




#10
chloromethane
Concen: 0.72 ug/L
RT: 4.46 min Scan# 274
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 50 Resp: 3220

Ion	Ratio	Lower	Upper
50	100		
52	25.3	3.9	63.9
49	15.1	0.0	39.9



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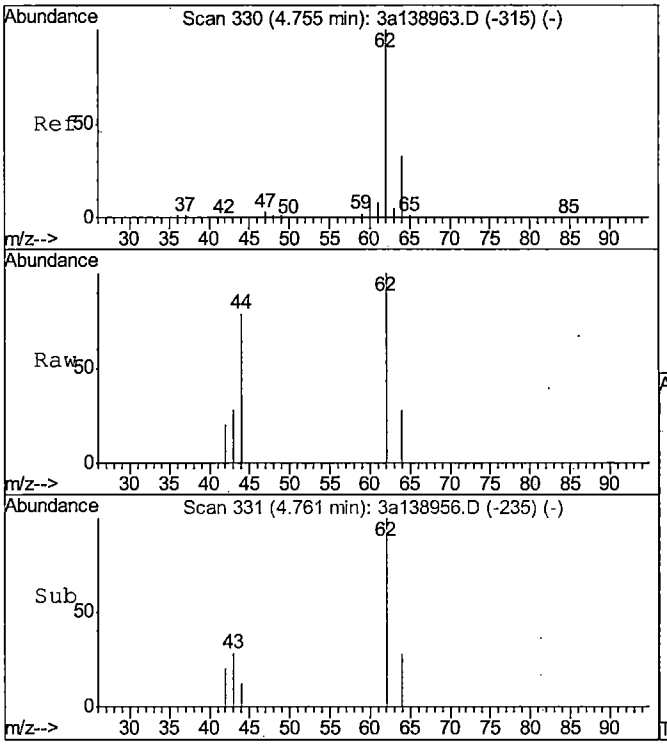
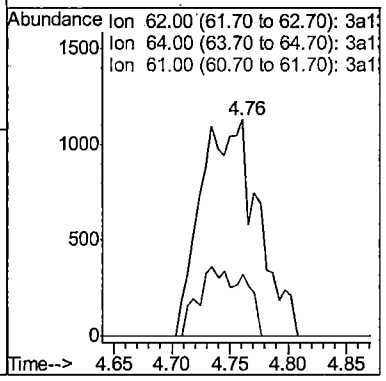
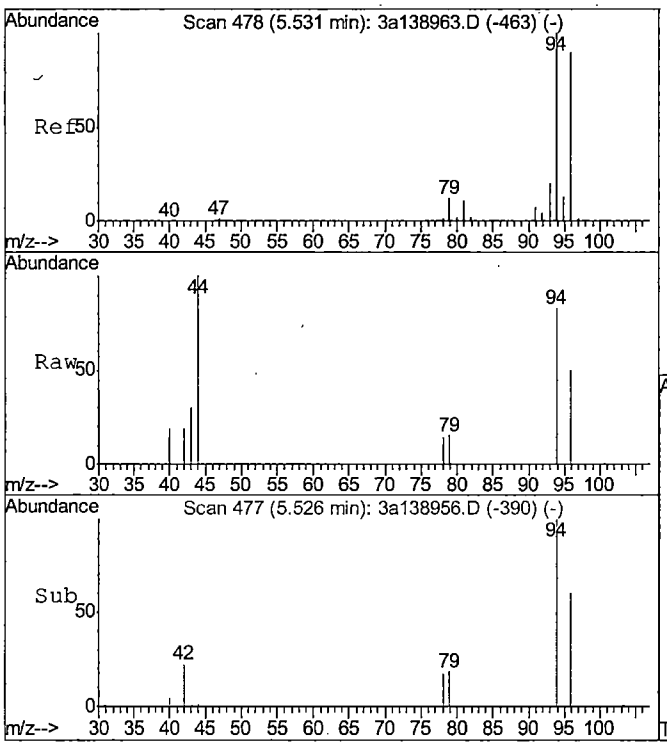


#11
vinyl chloride
Concen: 0.76 ug/L
RT: 4.76 min Scan# 331
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 62 Resp: 3830

Ion	Ratio	Lower	Upper
62	100		
64	27.9	0.0	59.8
61	0.0	0.0	38.4

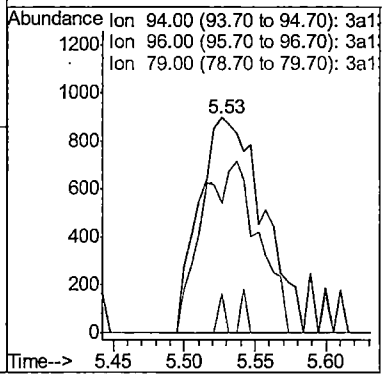




#12
bromomethane
Concen: 1.06 ug/L
RT: 5.53 min Scan# 477
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 94 Resp: 2803

Ion	Ratio	Lower	Upper
94	100		
96	59.9	61.7	121.7#
79	18.3	0.0	44.2



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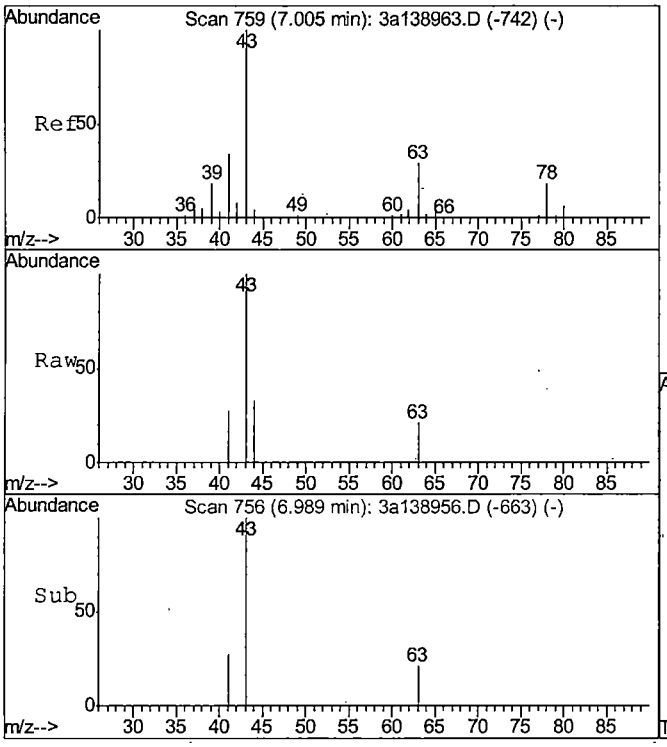
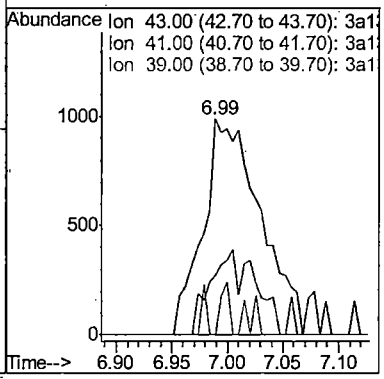
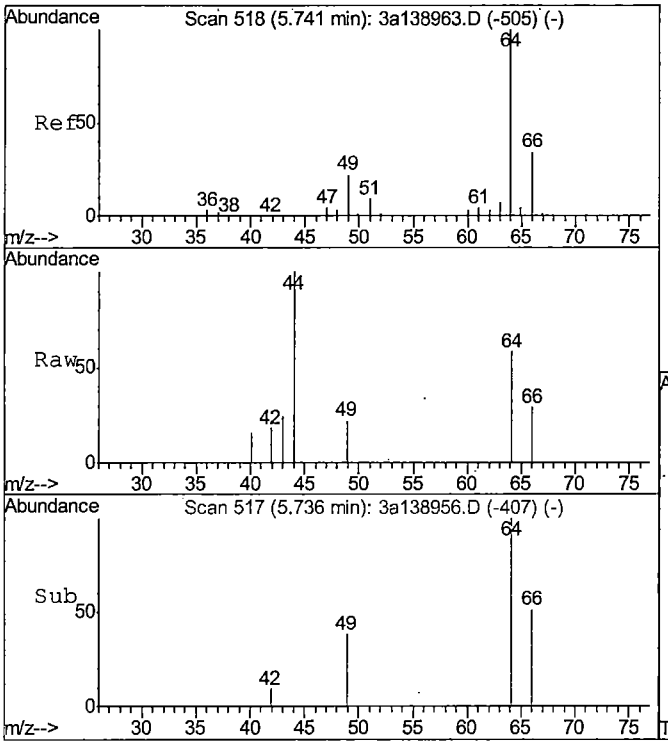


#15
2-CHLOROPROPANE
Concen: 0.66 ug/L
RT: 6.99 min Scan# 756
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 43 Resp: 3546

Ion	Ratio	Lower	Upper
43	100		
41	30.9	20.1	42.3
39	3.7	12.3	18.3#

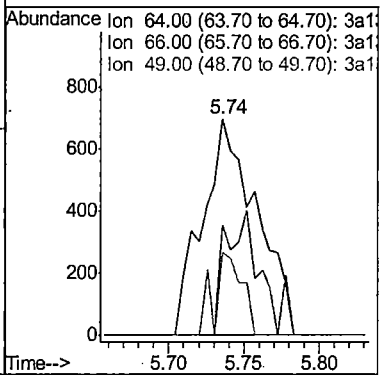




#16
chloroethane
Concen: 0.87 ug/L
RT: 5.74 min Scan# 517
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 64 Resp: 1727

Ion	Ratio	Lower	Upper
64	100		
66	50.6	3.6	63.6
49	37.8	0.0	58.1



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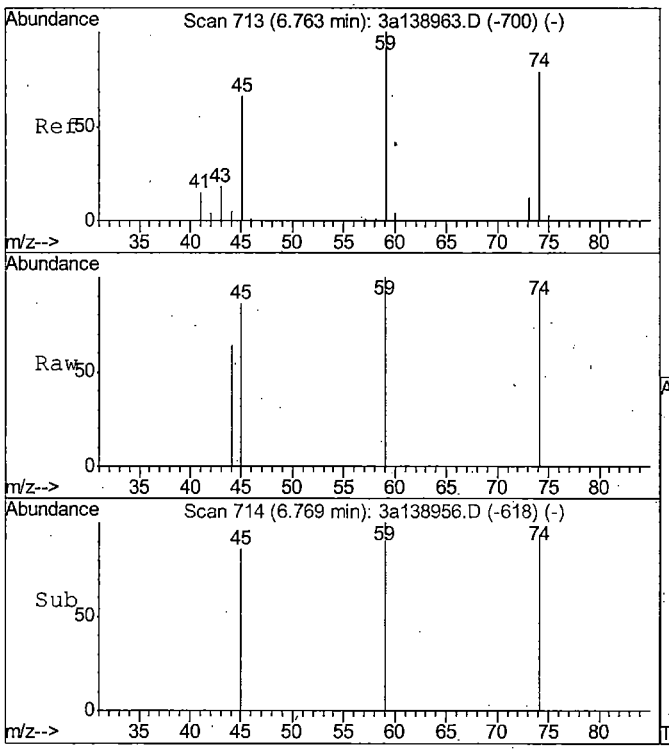
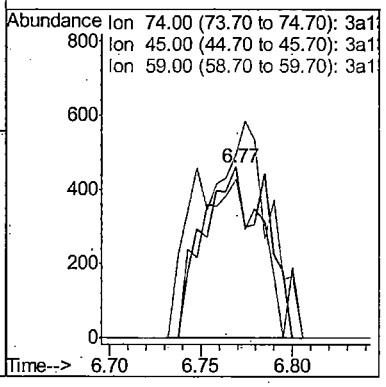
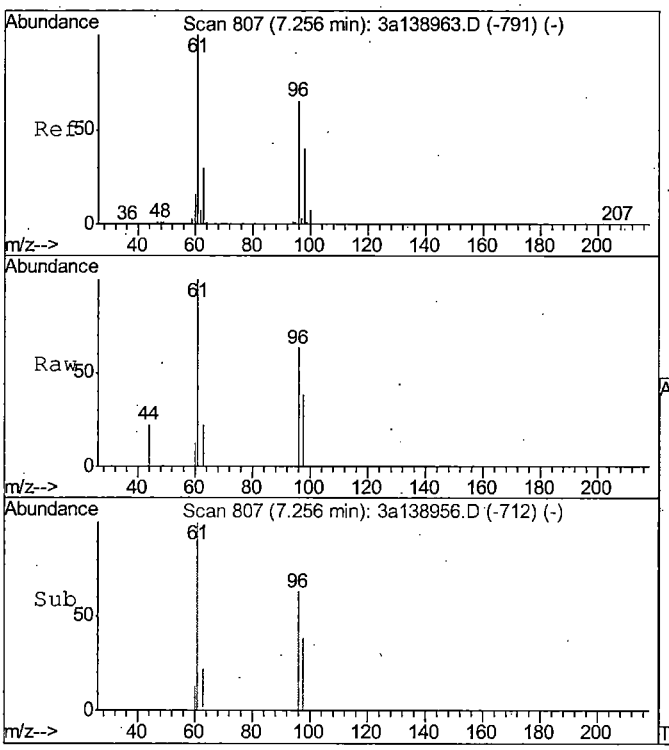


#20
ethyl ether
Concen: 0.76 ug/L
RT: 6.77 min Scan# 714
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 74 Resp: 1082

Ion	Ratio	Lower	Upper
74	100		
45	92.6	83.6	143.6
59	107.4	106.6	166.6

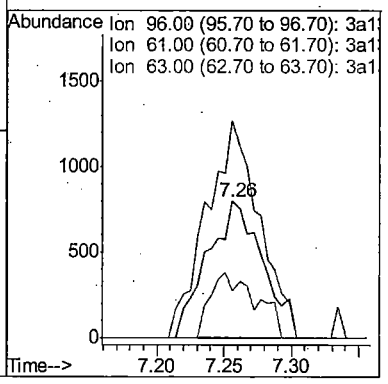




#22
1,1-dichloroethene
Concen: 0.83 ug/L
RT: 7.26 min Scan# 807
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 96 Resp: 2261

Ion	Ratio	Lower	Upper
96	100		
61	158.7	133.2	193.2
63	34.3	23.0	83.0



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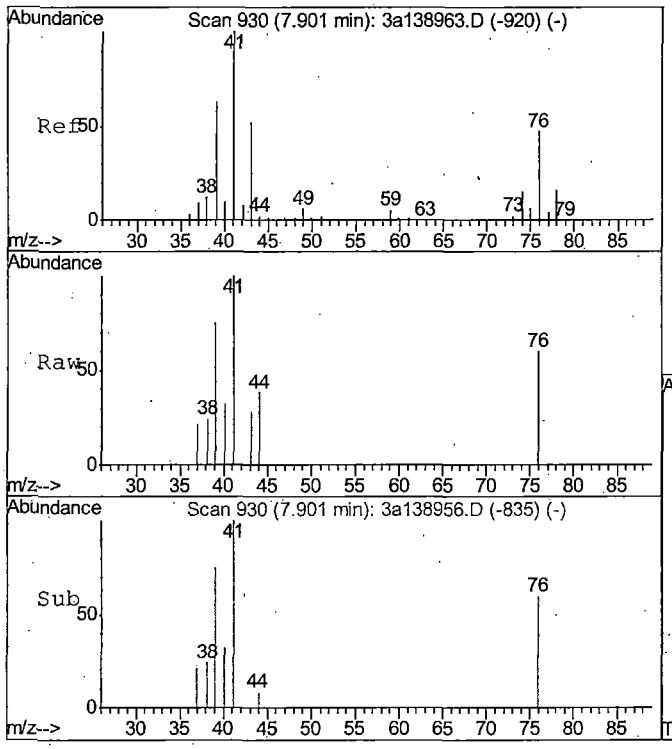
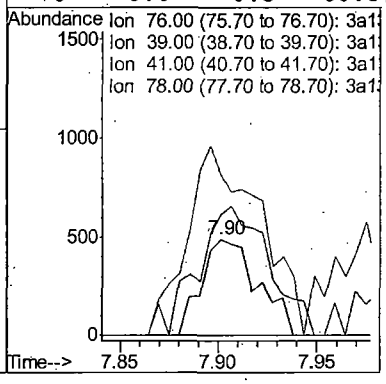
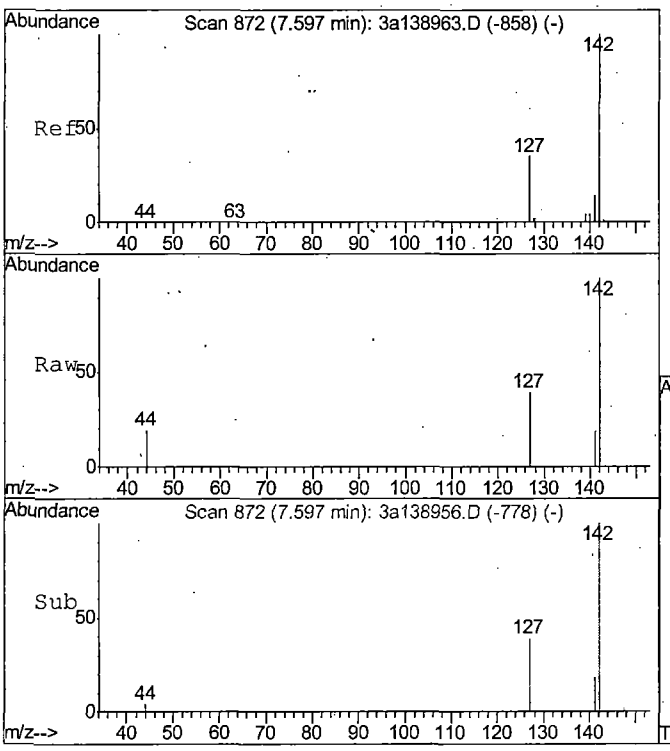


#24
allyl chloride
Concen: 0.67 ug/L
RT: 7.90 min Scan# 930
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 76 Resp: 972

Ion	Ratio	Lower	Upper
76	100		
39	126.0	108.7	168.7
41	167.3	205.9	265.9#
78	0.0	0.3	60.3#

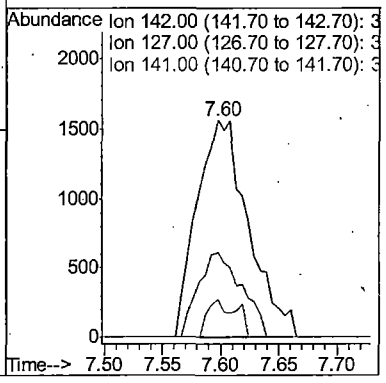




#26
iodomethane
Concen: 0.89 ug/L
RT: 7.60 min Scan# 872
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:142 Resp: 4797

Ion	Ratio	Lower	Upper
142	100		
127	39.2	7.1	67.1
141	17.5	0.0	43.9



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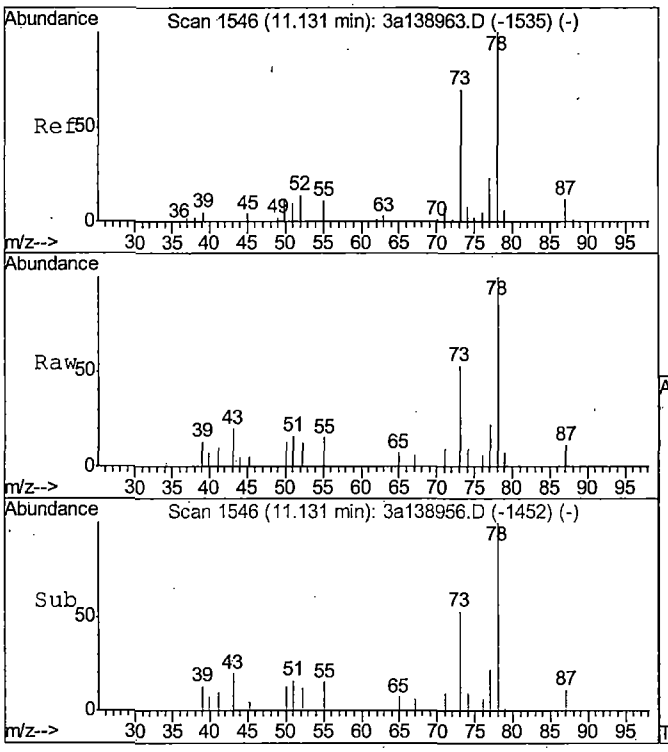
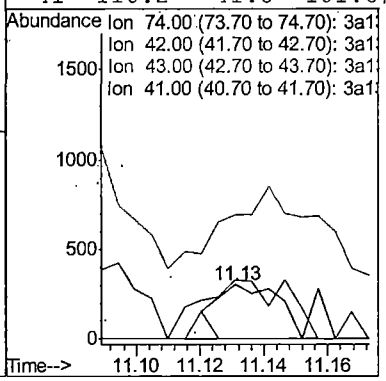
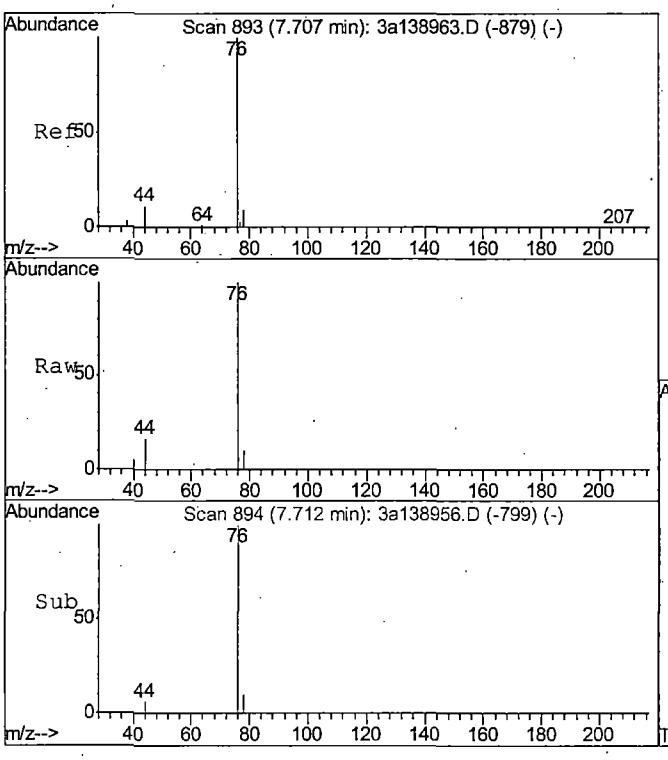


#27
iso-butyl alcohol
Concen: 5.17 ug/L
RT: 11.13 min Scan# 1546
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 74 Resp: 449

Ion	Ratio	Lower	Upper
74	100		
42	0.0	0.0	51.9
43	97.0	208.7	268.7#
41	110.2	41.8	101.8#

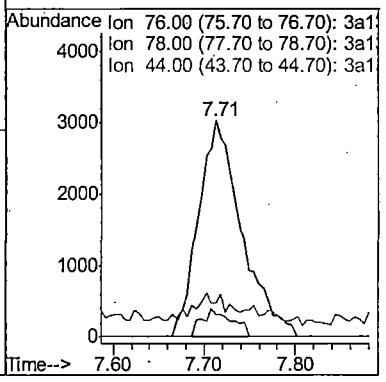




#28
carbon disulfide
Concen: 0.84 ug/L
RT: 7.71 min Scan# 894
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 76 Resp: 9933

Ion	Ratio	Lower	Upper
76	100		
78	10.1	0.0	38.7
44	10.5	0.0	41.0



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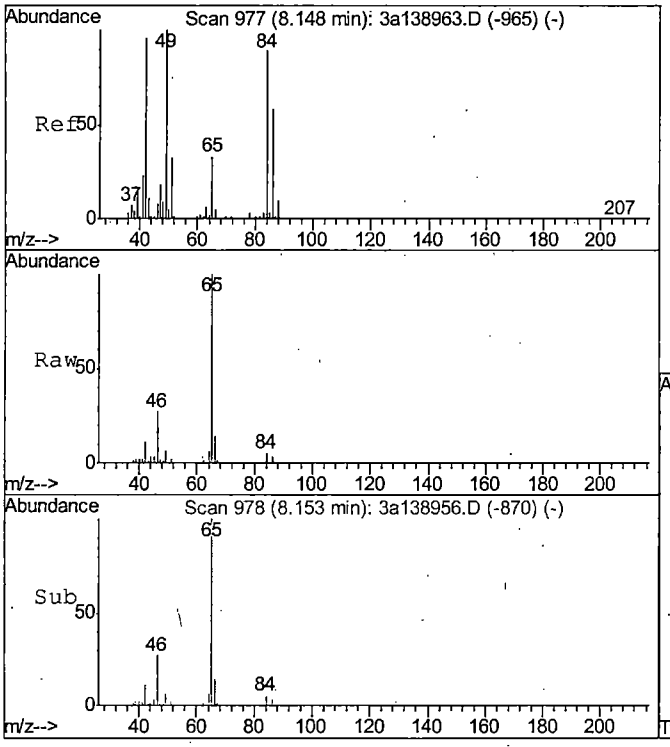
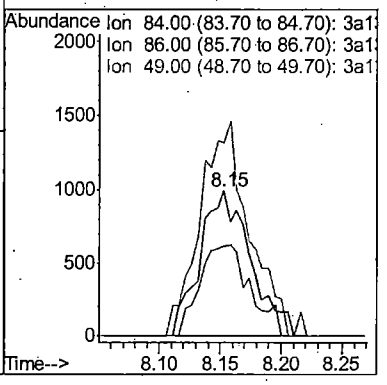
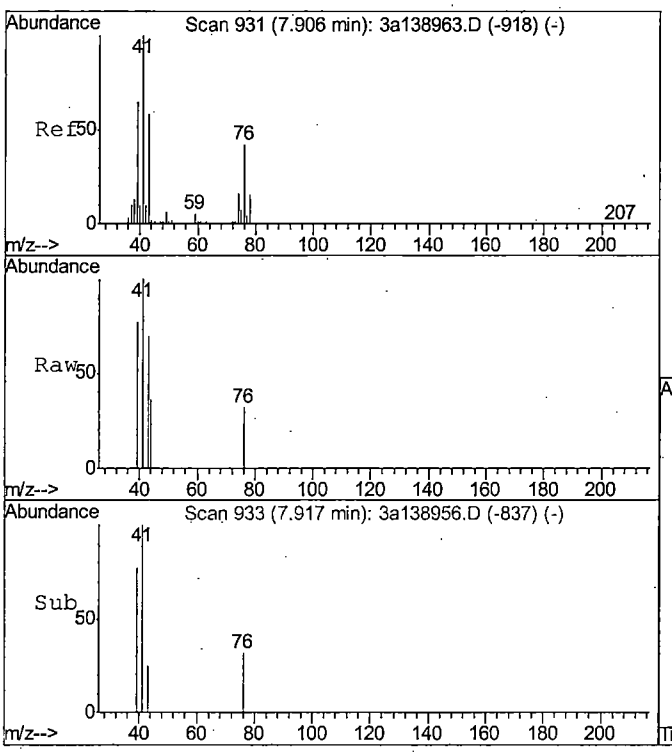


#29
methylene chloride
Concen: 0.89 ug/L
RT: 8.15 min Scan# 978
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 84 Resp: 2885

Ion	Ratio	Lower	Upper
84	100		
86	62.3	33.8	93.8
49	132.8	104.4	164.4

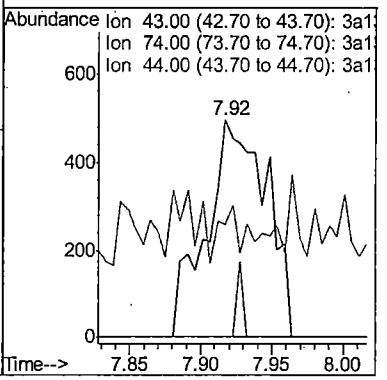




#30
methyl acetate
Concen: 0.66 ug/L
RT: 7.92 min Scan# 933
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 43 Resp: 1471

Ion	Ratio	Lower	Upper
43	100		
74	0.0	0.0	53.3
44	15.1	0.0	32.8



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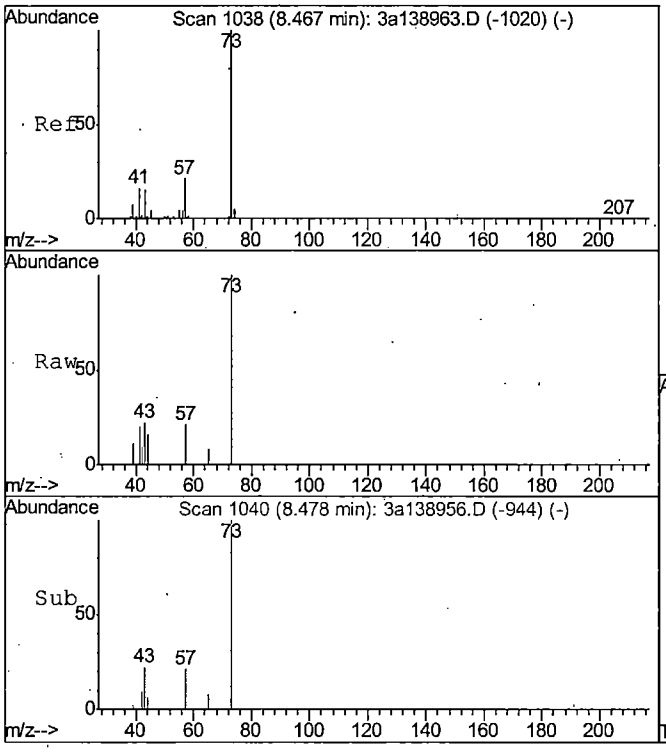
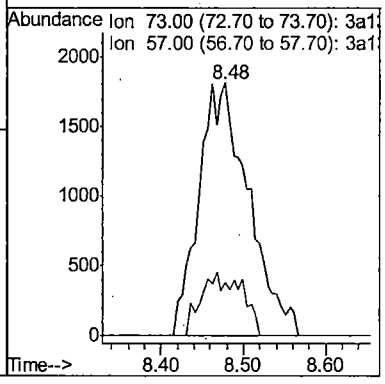
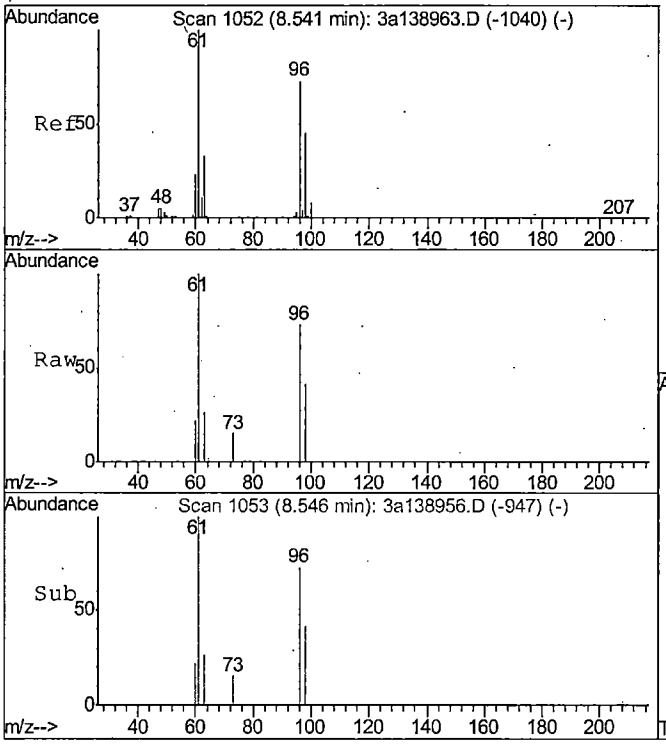


#31
methyl tert butyl ether
Concen: 0.81 ug/L
RT: 8.48 min Scan# 1040
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 73 Resp: 7578

Ion	Ratio	Lower	Upper
73	100		
57	20.9	0.0	51.7

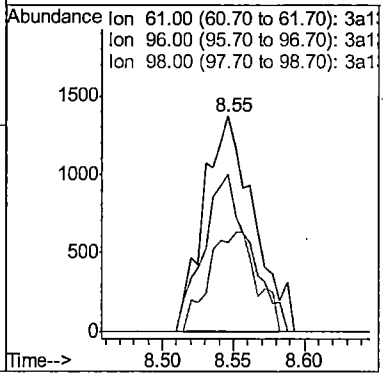




#32
trans-1,2-dichloroethene
Concen: 0.84 ug/L
RT: 8.55 min Scan# 1053
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 61 Resp: 3360

Ion	Ratio	Lower	Upper
61	100		
96	73.0	35.5	95.5
98	40.7	12.5	72.5



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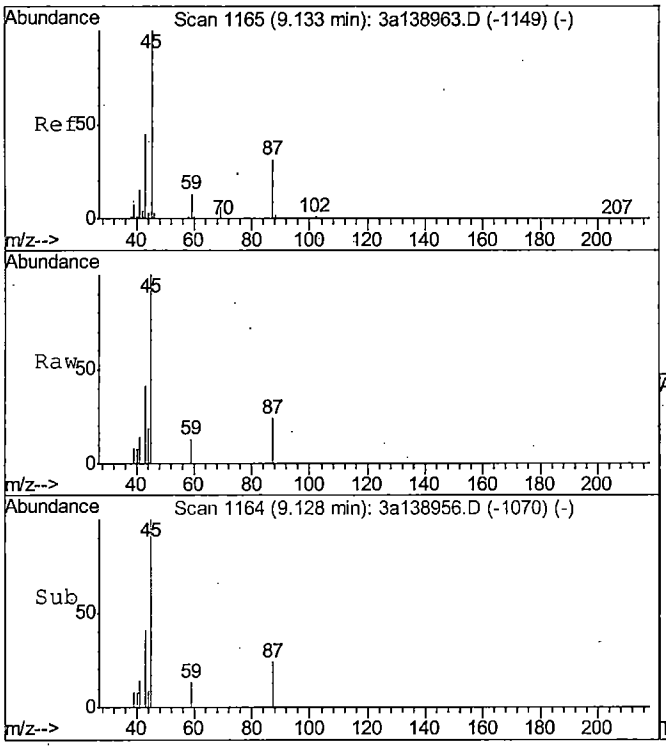
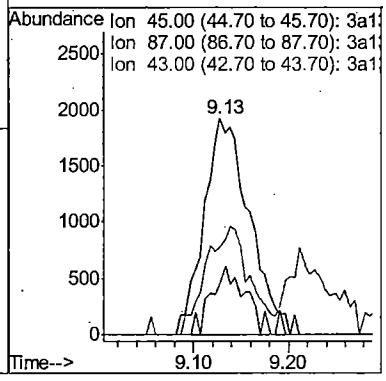
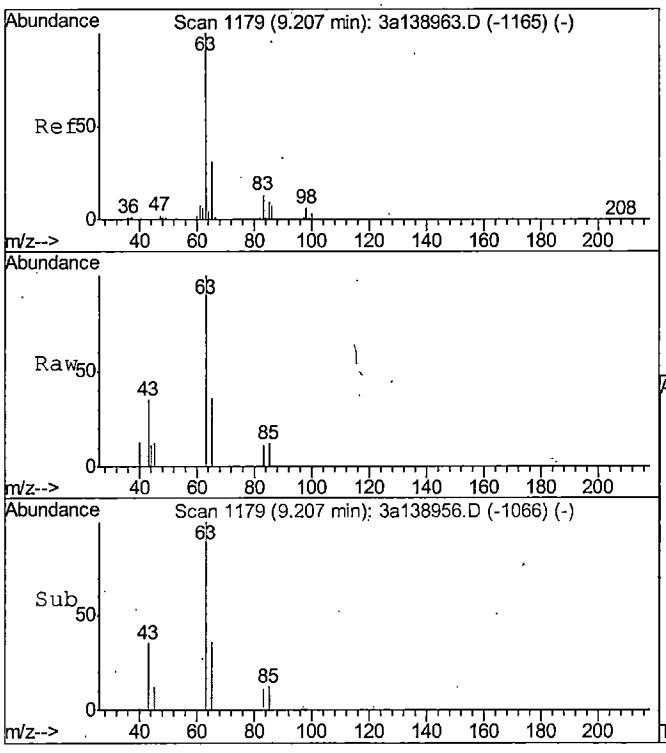


#33
di-isopropyl ether
Concen: 0.65 ug/L
RT: 9.13 min Scan# 1164
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 45 Resp: 6404

Ion	Ratio	Lower	Upper
45	100		
87	23.9	0.0	55.7
43	40.7	15.4	75.4

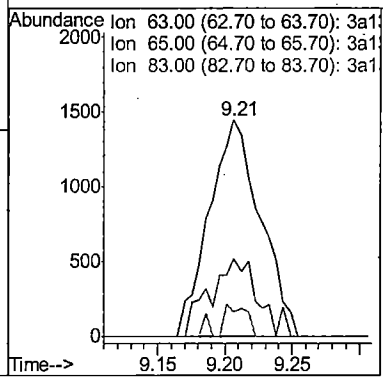




#35
1,1-dichloroethane
Concen: 0.78 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 63 Resp: 3809

Ion	Ratio	Lower	Upper
63	100		
65	35.6	1.9	61.9
83	11.1	0.0	42.5



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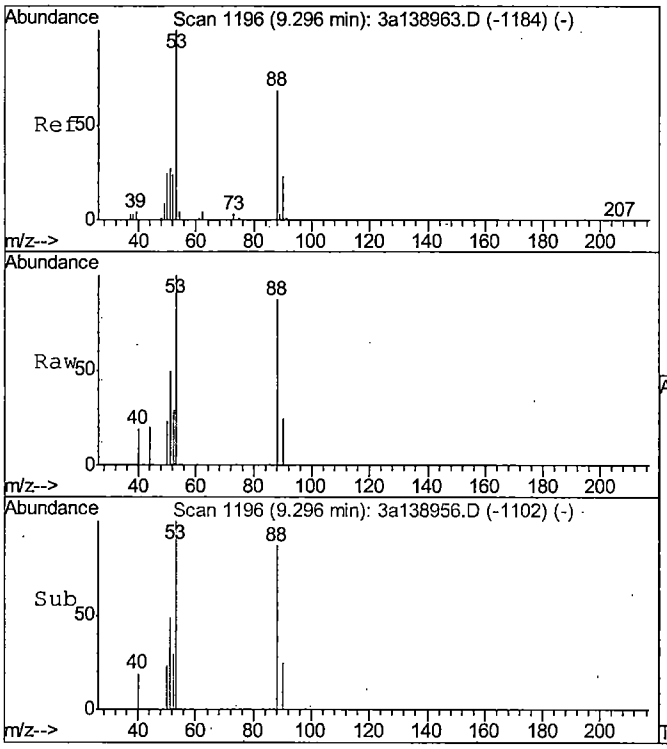
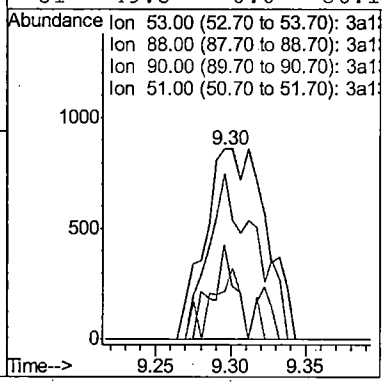
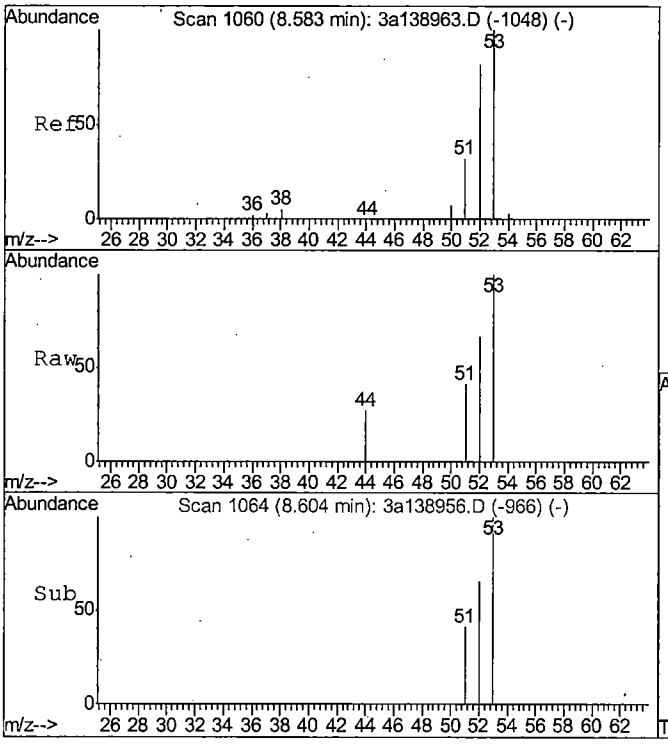


#36
chloroprene
Concen: 0.64 ug/L
RT: 9.30 min Scan# 1196
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 53 Resp: 2425

Ion	Ratio	Lower	Upper
53	100		
88	86.6	31.6	91.6
90	24.9	0.0	49.7
51	49.5	0.0	56.1

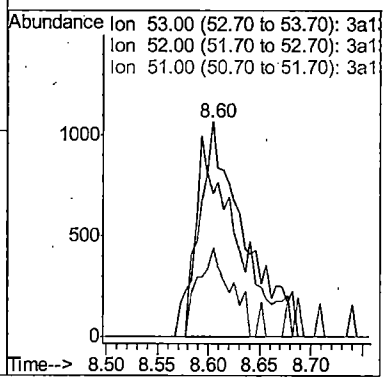




#37
acrylonitrile
Concen: 3.08 ug/L
RT: 8.60 min Scan# 1064
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 53 Resp: 3413

Ion	Ratio	Lower	Upper
53	100		
52	66.3	50.7	110.7
51	41.2	3.2	63.2



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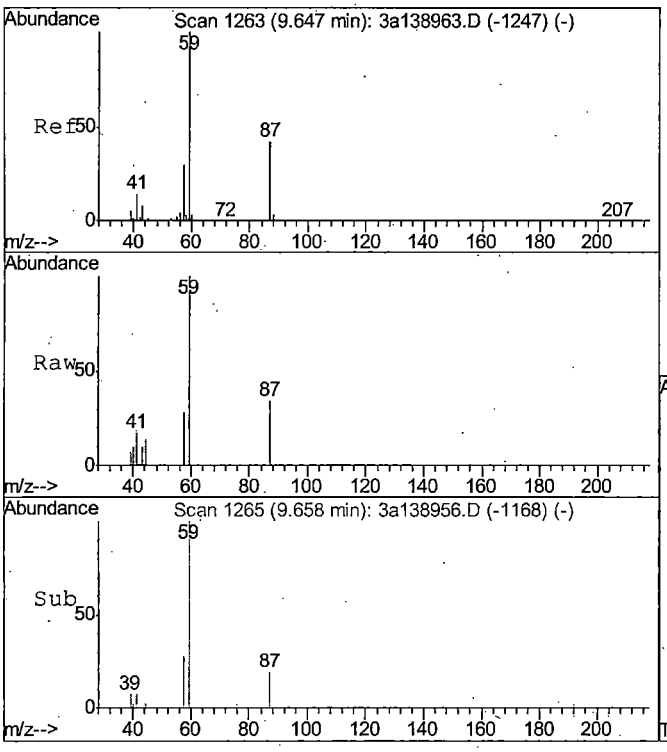
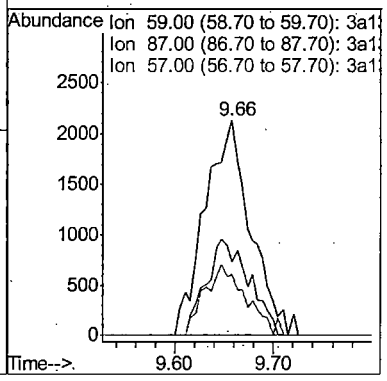
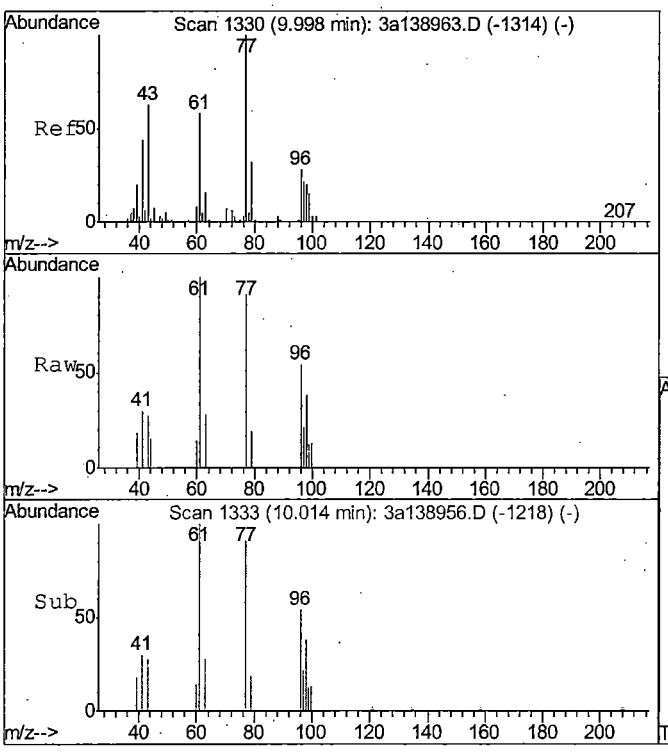


#39
ethyl tert-butyl ether
Concen: 0.68 ug/L
RT: 9.66 min Scan# 1265
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 59 Resp: 6879

Ion	Ratio	Lower	Upper
59	100		
87	34.3	8.6	68.6
57	28.5	0.8	60.8

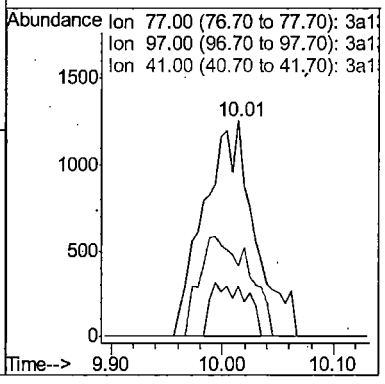




#41
2,2-dichloropropane
Concen: 0.83 ug/L
RT: 10.01 min Scan# 1333
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 77 Resp: 3973

Ion	Ratio	Lower	Upper
77	100		
97	23.1	0.0	51.9
41	32.8	17.9	77.9



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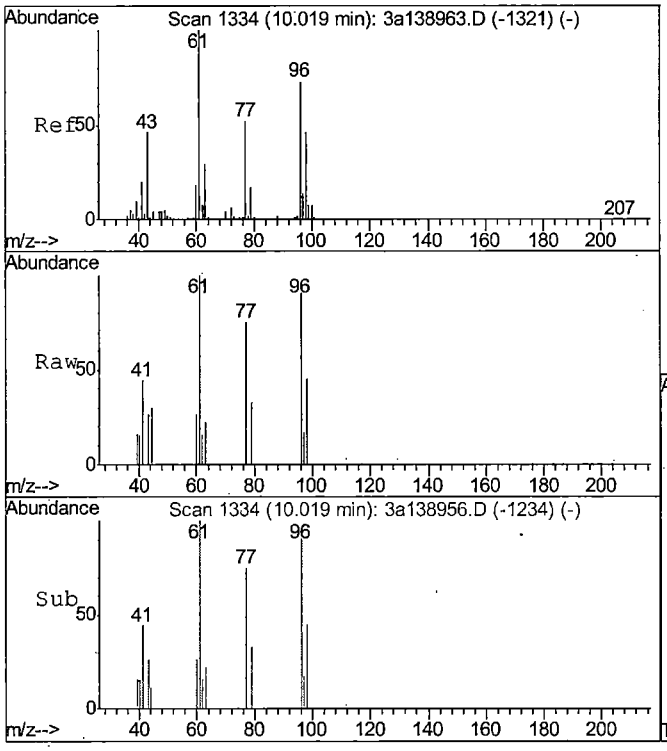
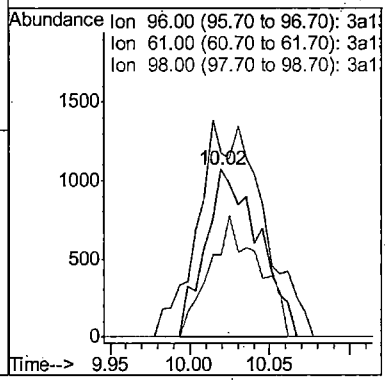
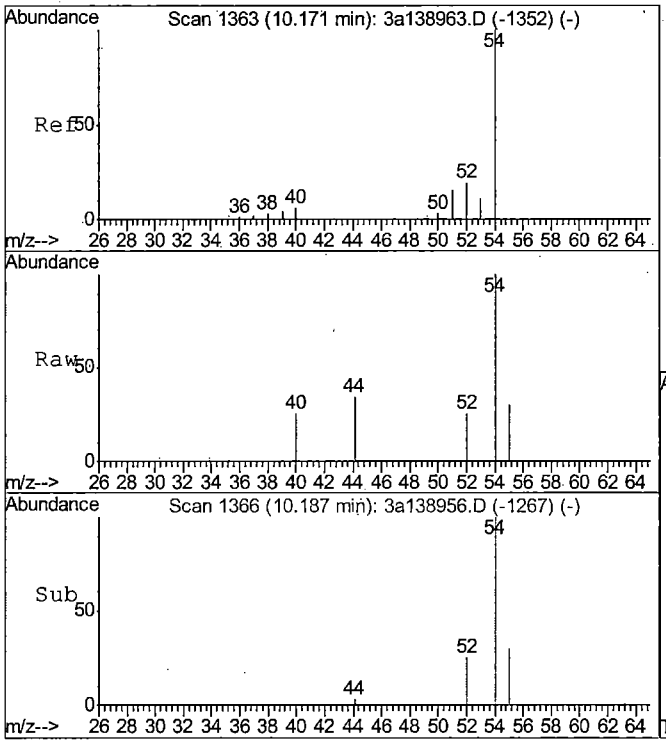


#42
cis-1,2-dichloroethene
Concen: 0.82 ug/L
RT: 10.02 min Scan# 1334
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 96 Resp: 2499

Ion	Ratio	Lower	Upper
96	100		
61	95.1	116.6	176.6#
98	49.3	34.4	94.4

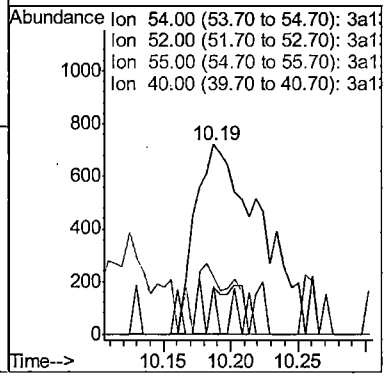




#44
propionitrile
Concen: 5.79 ug/L
RT: 10.19 min Scan# 1366
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 54 Resp: 2405

Ion	Ratio	Lower	Upper
54	100		
52	24.9	0.0	49.2
55	29.8	0.0	46.8
40	24.7	0.0	35.7



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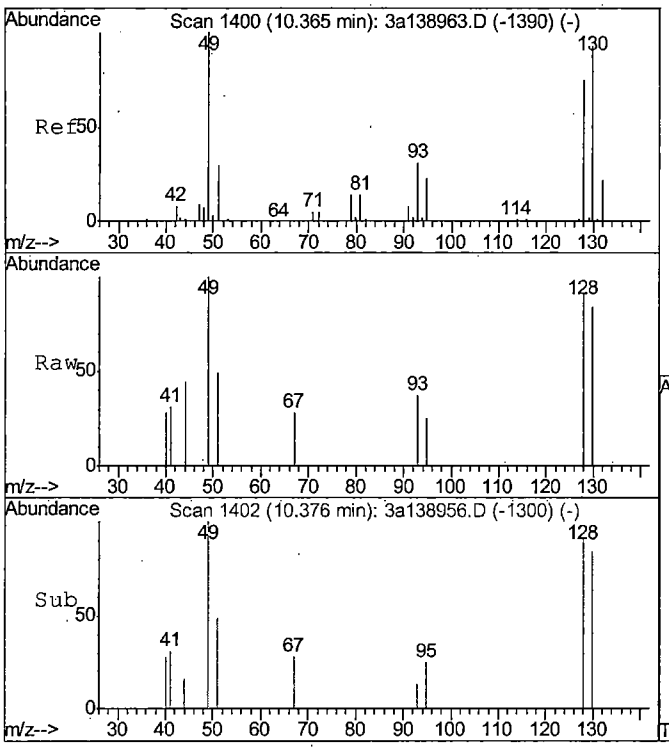
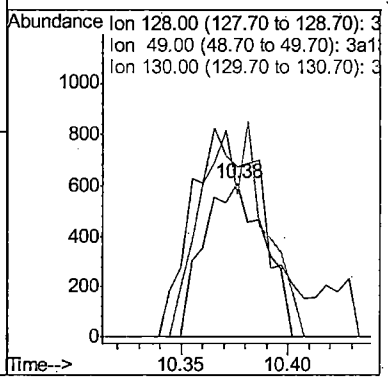
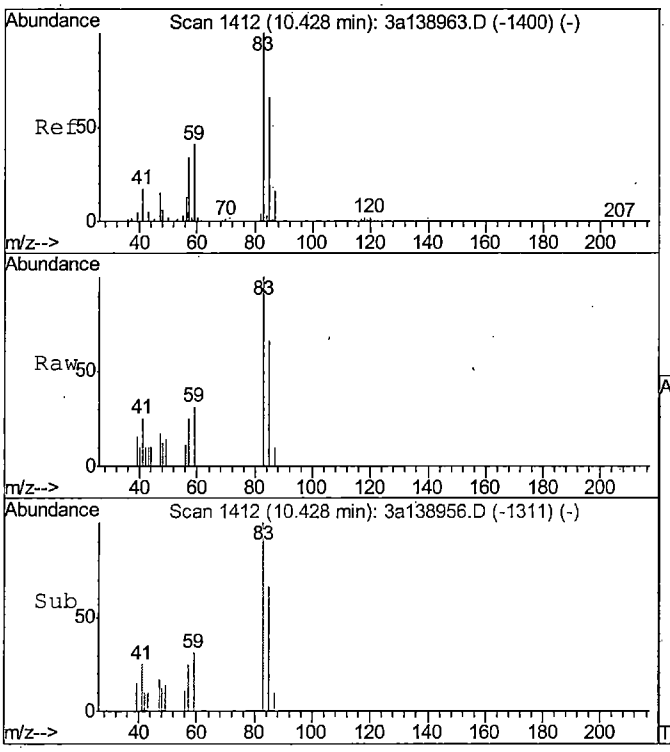


#45
bromochloromethane
Concen: 0.88 ug/L
RT: 10.38 min Scan# 1402
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:128 Resp: 1221

Ion	Ratio	Lower	Upper
128	100		
49	85.1	117.0	217.4#
130	92.5	89.0	165.4

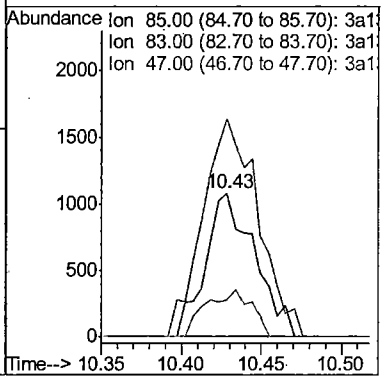




#47
chloroform
Concen: 0.81 ug/L
RT: 10.43 min Scan# 1412
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 85 Resp: 2320

Ion	Ratio	Lower	Upper
85	100		
83	151.2	124.7	184.7
47	25.9	3.8	63.8



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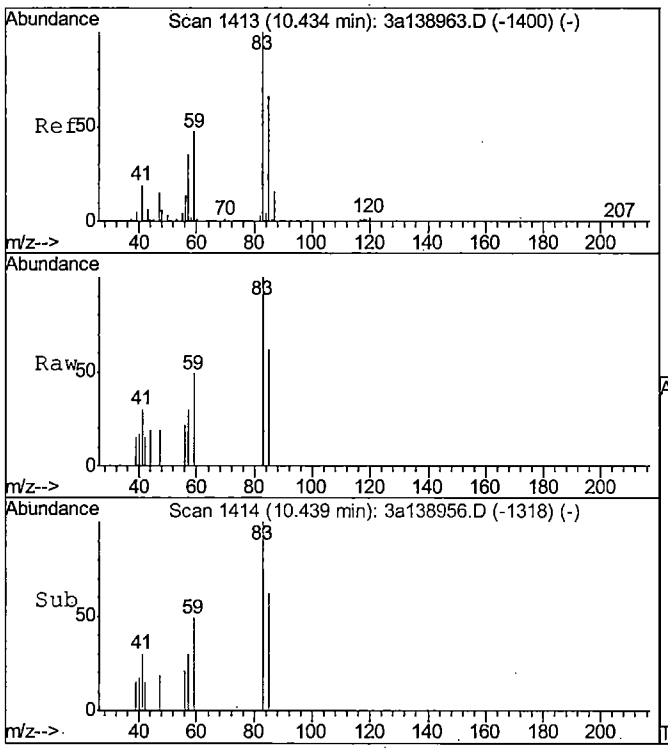
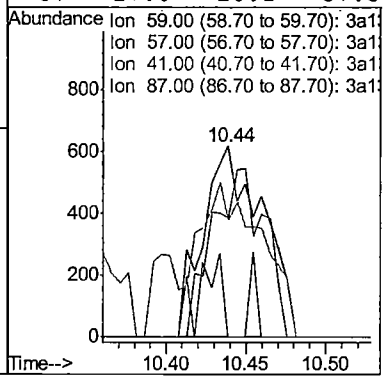
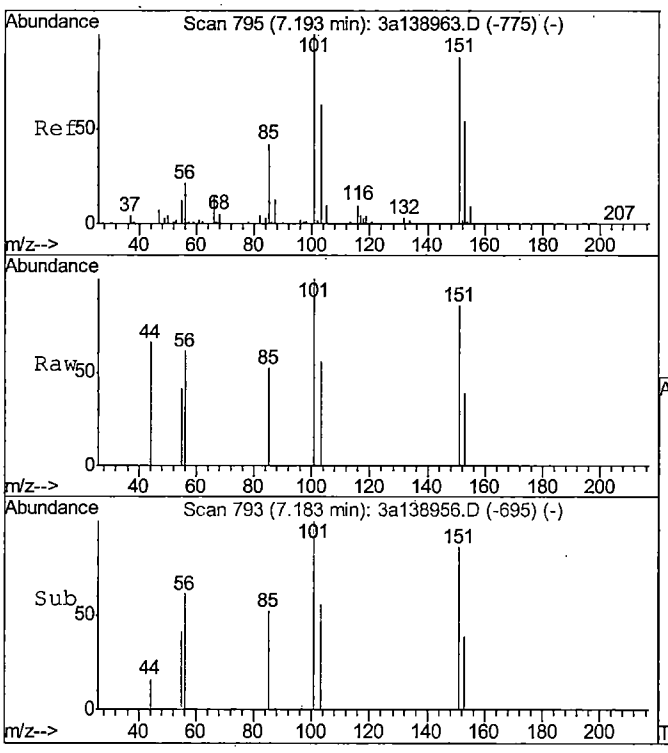


#48
t-butyl formate
Concen: 0.55 ug/L
RT: 10.44 min Scan# 1414
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 59 Resp: 1600

Ion	Ratio	Lower	Upper
59	100		
57	77.5	58.0	107.6
41	85.0	43.0	79.8#
87	17.0	20.1	37.3#

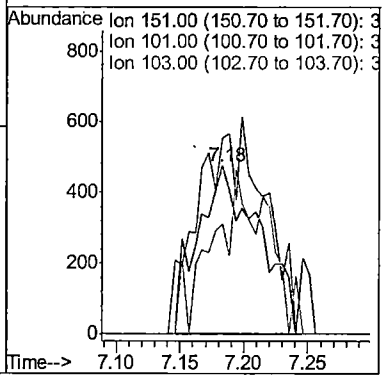




#51
freon 113
Concen: 0.72 ug/L
RT: 7.18 min Scan# 793
Delta R.T. -0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:151 Resp: 1586

Ion	Ratio	Lower	Upper
151	100		
101	116.5	95.5	155.5
103	65.8	51.4	111.4



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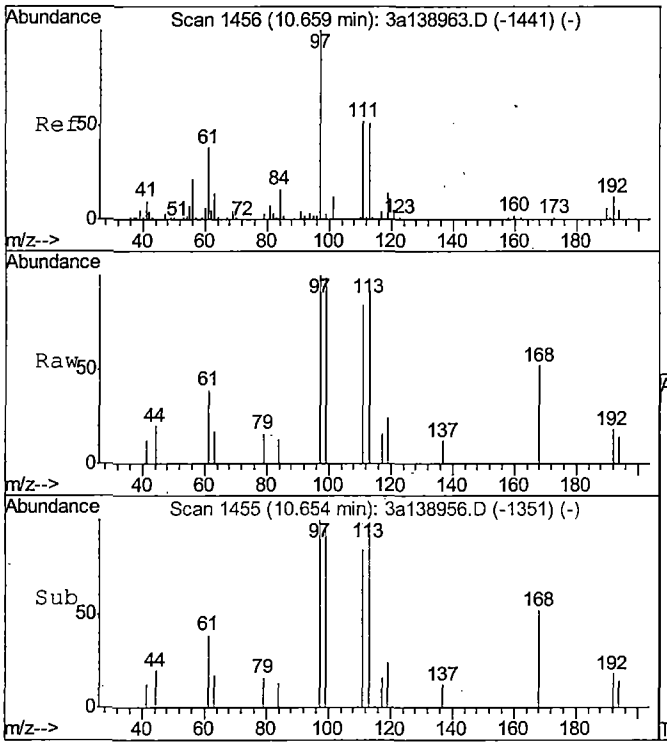
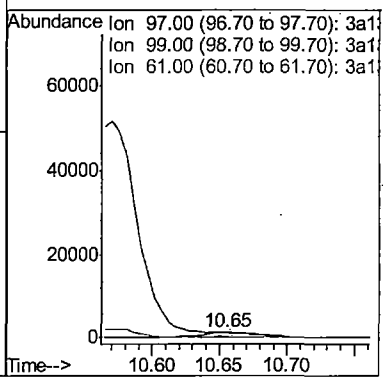
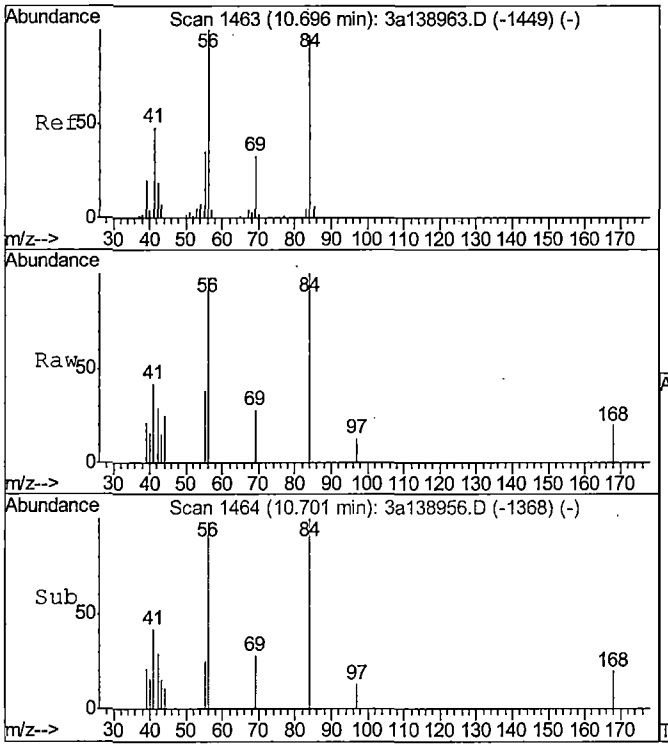


#53
1,1,1-trichloroethane
Concen: 0.80 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 97 Resp: 3505

Ion	Ratio	Lower	Upper
97	100		
99	99.2	34.0	94.0#
61	39.1	13.2	73.2

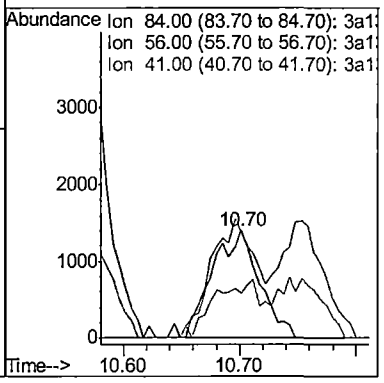




#54
Cyclohexane
Concen: 0.82 ug/L
RT: 10.70 min Scan# 1464
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 84 Resp: 4037

Ion	Ratio	Lower	Upper
84	100		
56	98.4	92.8	152.8
41	41.6	32.2	92.2



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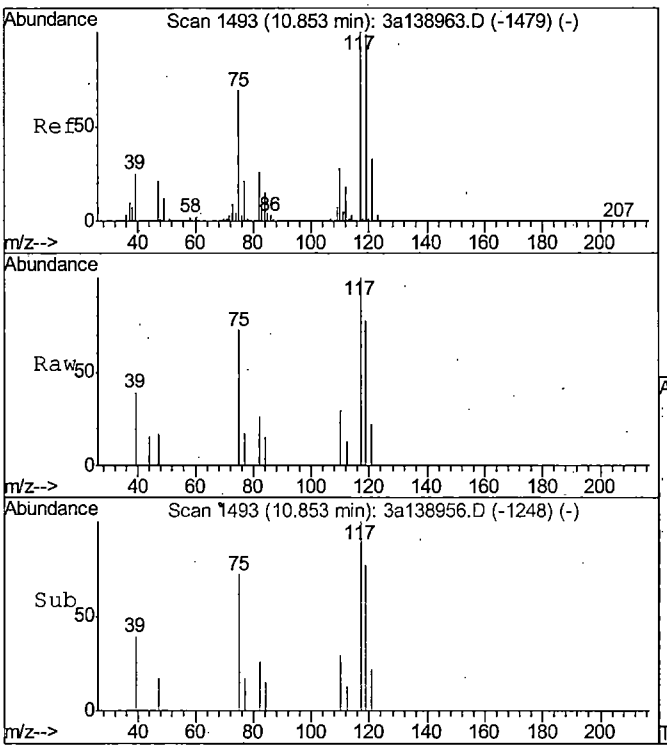
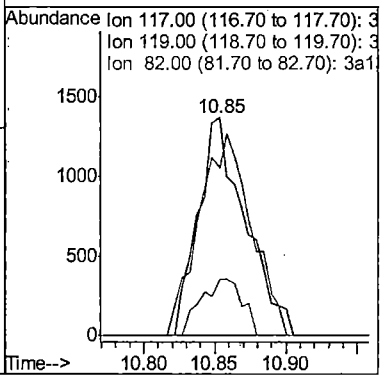
ACCUTEST LABORATORIES
JB88562

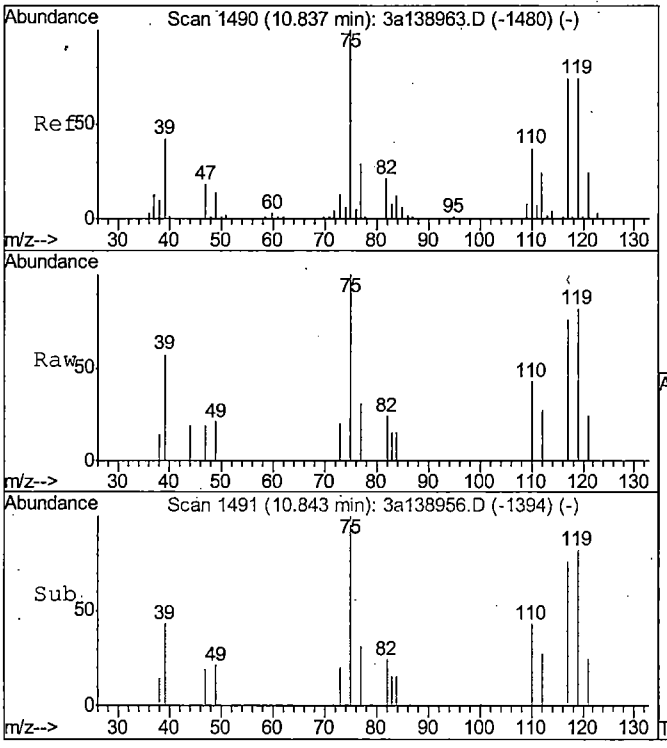


#58
carbon tetrachloride
Concen: 0.96 ug/L
RT: 10.85 min Scan# 1493
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:117 Resp: 3177

Ion	Ratio	Lower	Upper
117	100		
119	76.8	63.3	123.3
82	25.7	0.0	55.3

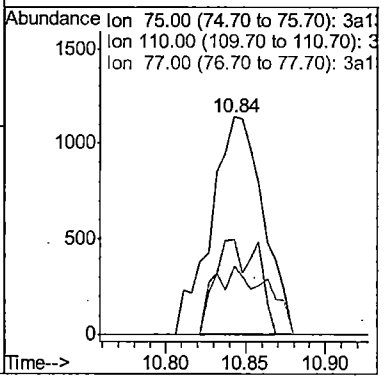




#59
1,1-dichloropropene
Concen: 0.86 ug/L
RT: 10.84 min Scan# 1491
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 2586

Ion	Ratio	Lower	Upper
75	100		
110	43.3	5.3	65.3
77	31.1	0.7	60.7



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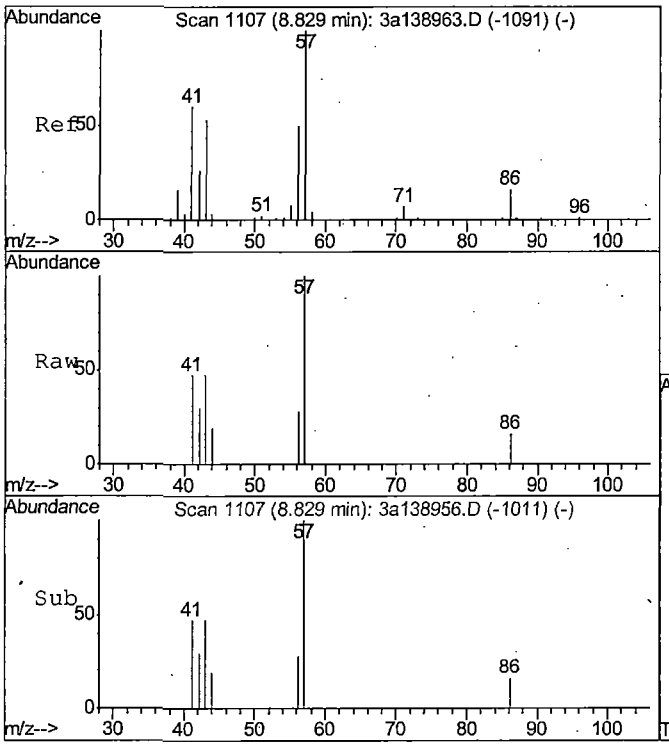
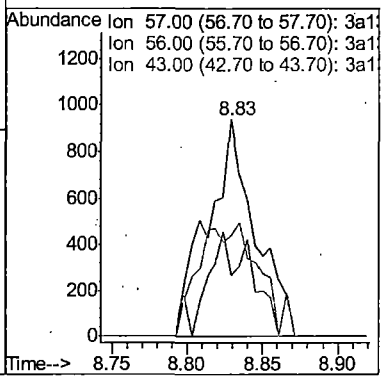
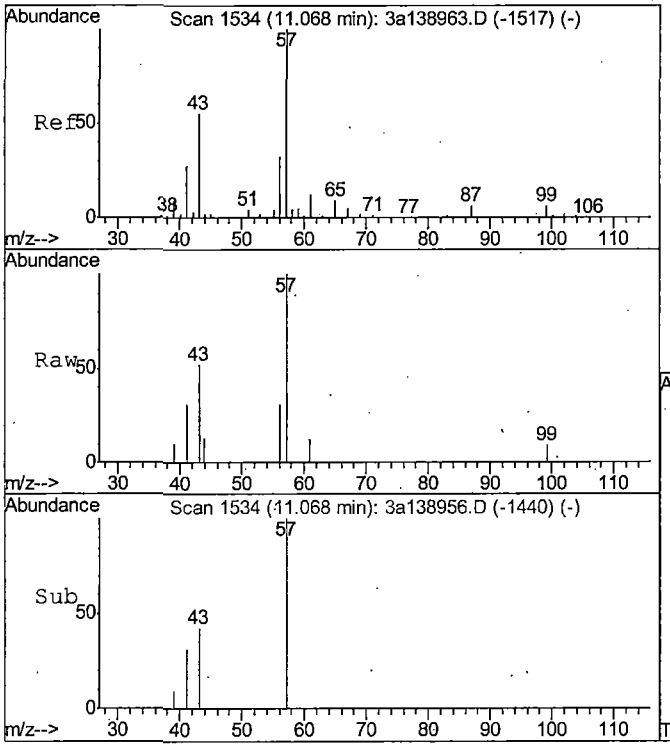


#61
hexane
Concen: 0.77 ug/L
RT: 8.83 min Scan# 1107
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 2061

Ion	Ratio	Lower	Upper
57	100		
56	28.5	20.2	80.2
43	47.2	31.1	91.1

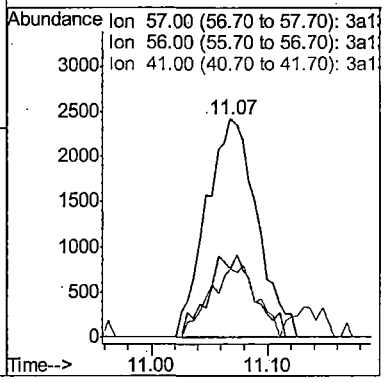




#62
2,2,4-TRIMETHYLPENTANE
Concen: 0.73 ug/L
RT: 11.07 min Scan# 1534
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 7301

Ion	Ratio	Lower	Upper
57	100		
56	34.3	27.2	40.8
41	30.3	29.8	44.6



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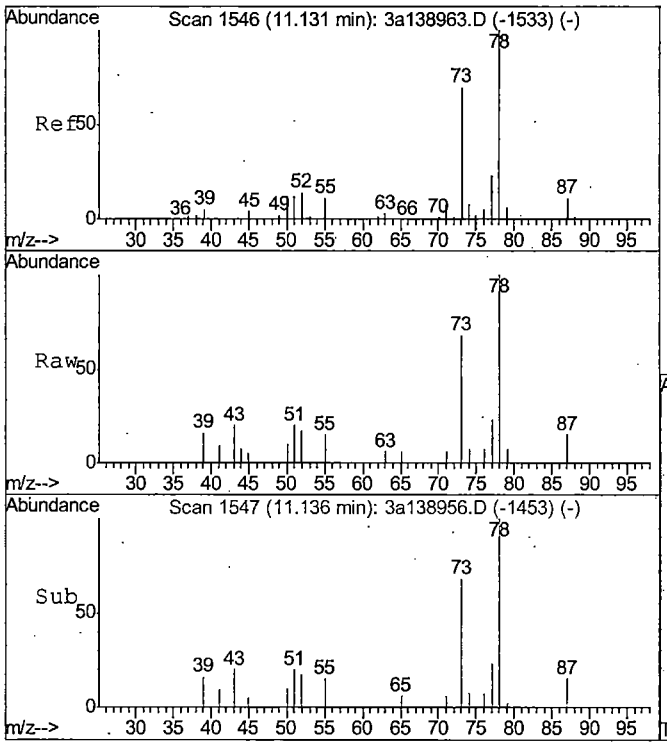
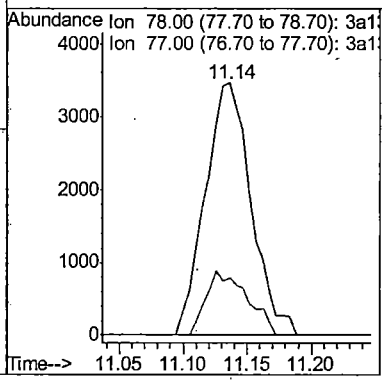
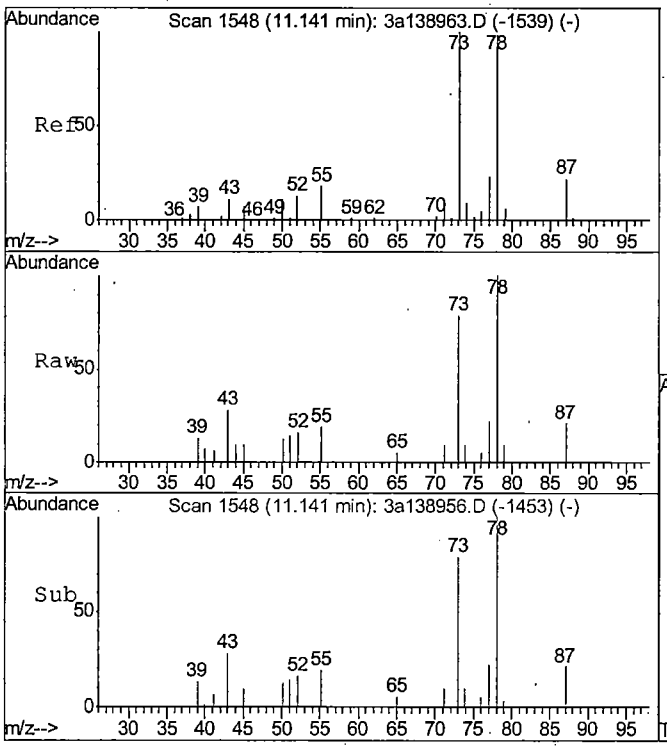


#63
benzene
Concen: 0.95 ug/L
RT: 11.14 min Scan# 1547
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 78 Resp: 8650

Ion	Ratio	Lower	Upper
78	100		
77	22.6	0.0	53.4

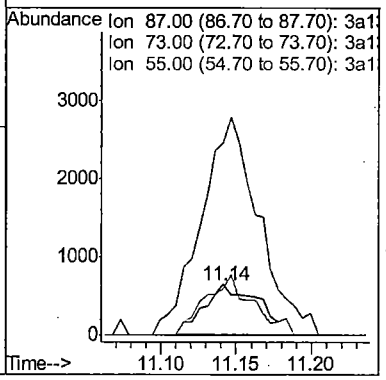




#64
tert-amyl methyl ether
Concen: 0.82 ug/L
RT: 11.14 min Scan# 1548
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 87 Resp: 1663

Ion	Ratio	Lower	Upper
87	100		
73	344.7	411.6	471.6#
55	90.7	50.7	110.7



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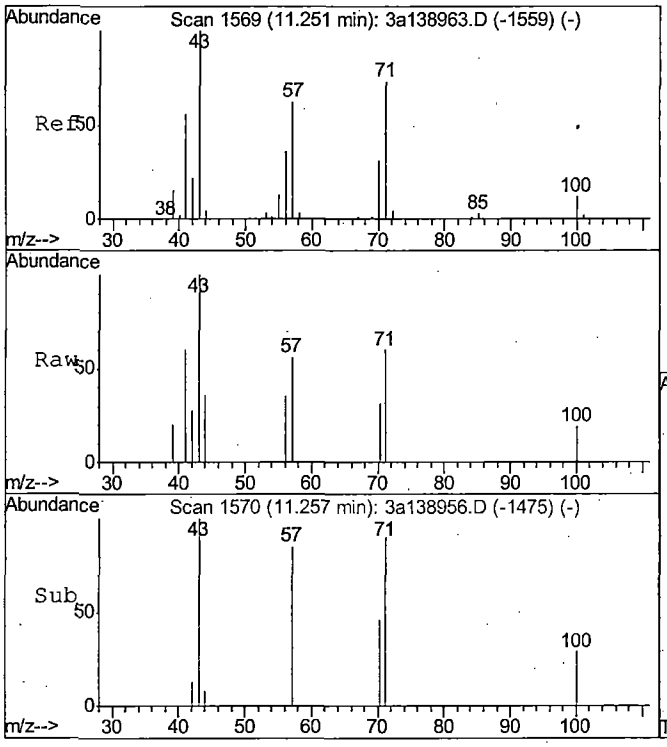
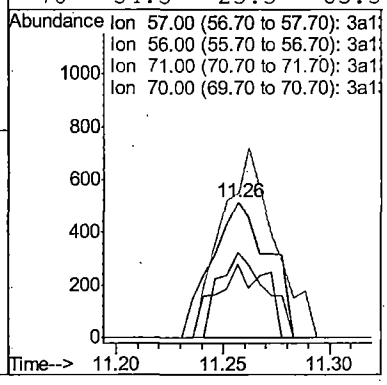
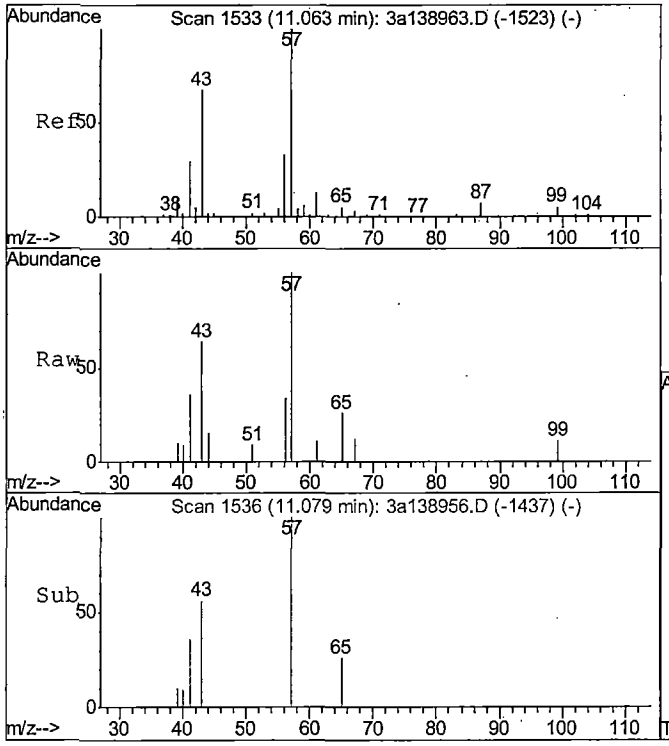


#65
heptane
Concen: 0.60 ug/L
RT: 11.26 min Scan# 1570
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 963

Ion	Ratio	Lower	Upper
57	100		
56	62.6	34.1	94.1
71	106.8	78.0	138.0
70	54.5	23.3	83.3

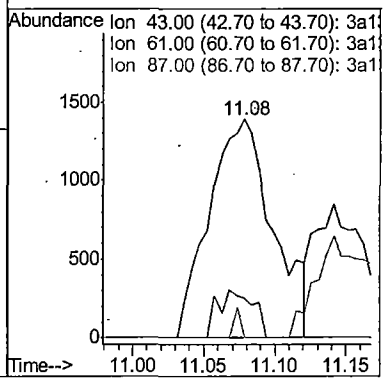




#66
isopropyl acetate
Concen: 0.74 ug/L
RT: 11.08 min Scan# 1536
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 43 Resp: 4332

Ion	Ratio	Lower	Upper
43	100		
61	18.1	0.0	48.0
87	0.0	0.0	39.6



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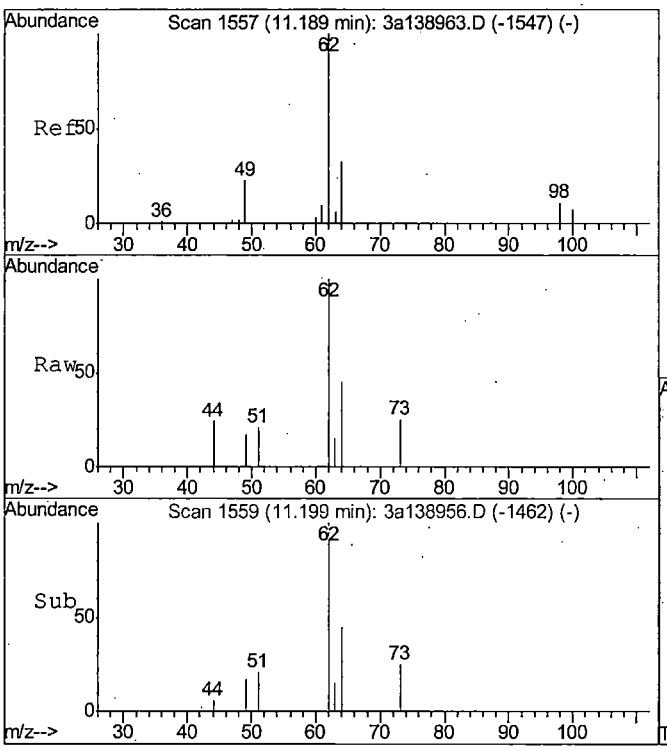
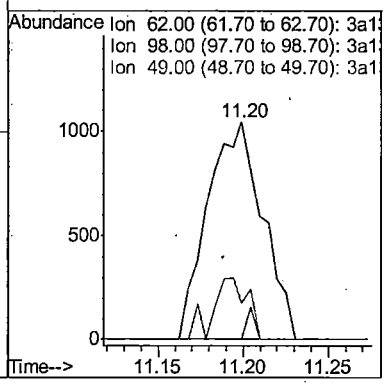
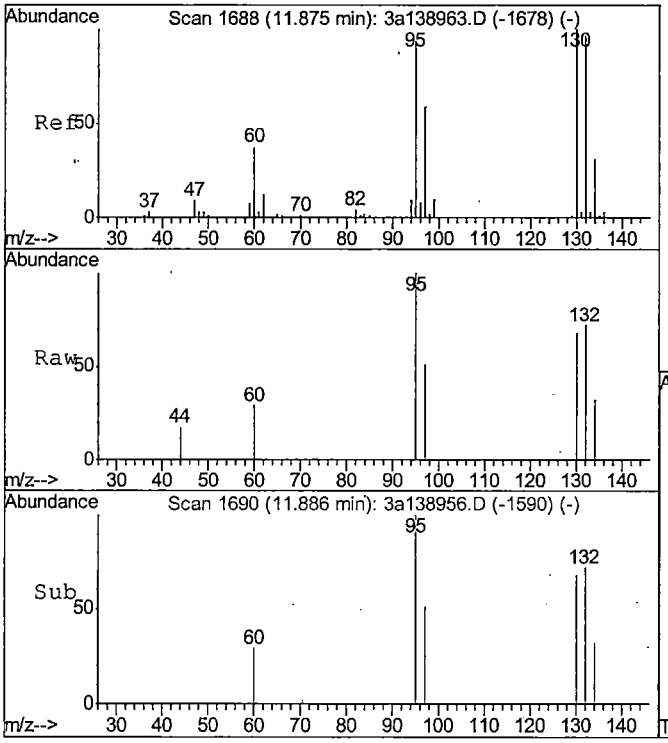


#67
1,2-dichloroethane
Concen: 0.88 ug/L
RT: 11.20 min Scan# 1559
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 62 Resp: 2360

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	39.4
49	16.8	0.6	60.6

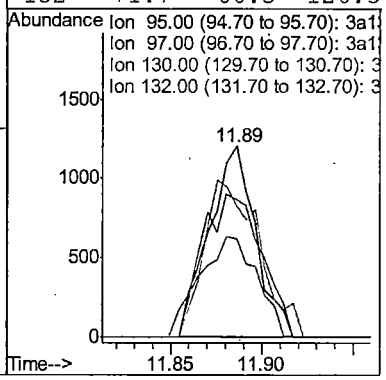




#69
trichloroethene
Concen: 1.02 ug/L
RT: 11.89 min Scan# 1690
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 95 Resp: 2142

Ion	Ratio	Lower	Upper
95	100		
97	51.2	31.7	91.7
130	68.1	70.3	130.3#
132	71.7	66.3	126.3



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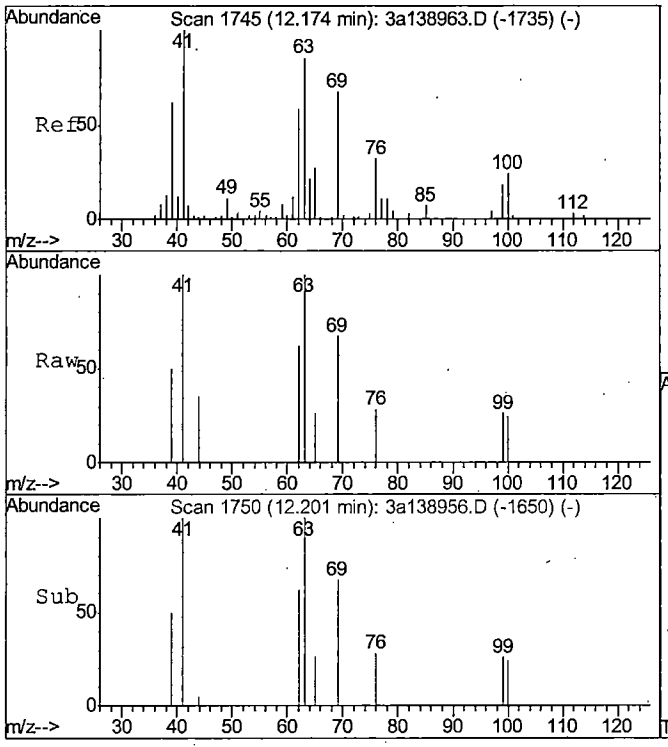
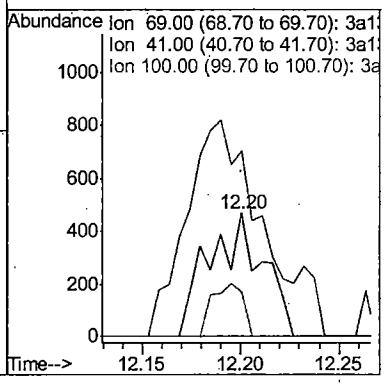
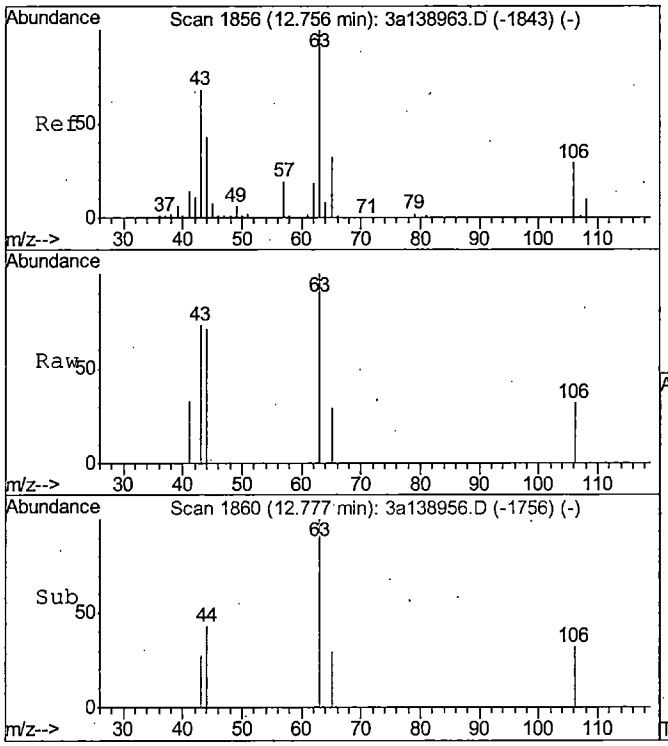


#71
methyl methacrylate
Concen: 0.63 ug/L
RT: 12.20 min Scan# 1750
Delta R.T. 0.03 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 69 Resp: 897

Ion	Ratio	Lower	Upper
69	100		
41	245.0	186.1	246.1
100	24.4	7.0	67.0

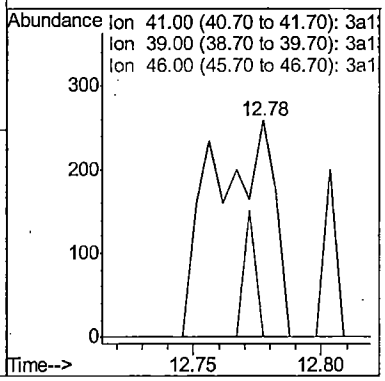




#72
2-nitropropane
Concen: 0.54 ug/L
RT: 12.78 min Scan# 1860
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 41 Resp: 424

Ion	Ratio	Lower	Upper
41	100		
39	0.0	8.7	68.7#
46	0.0	0.0	34.3



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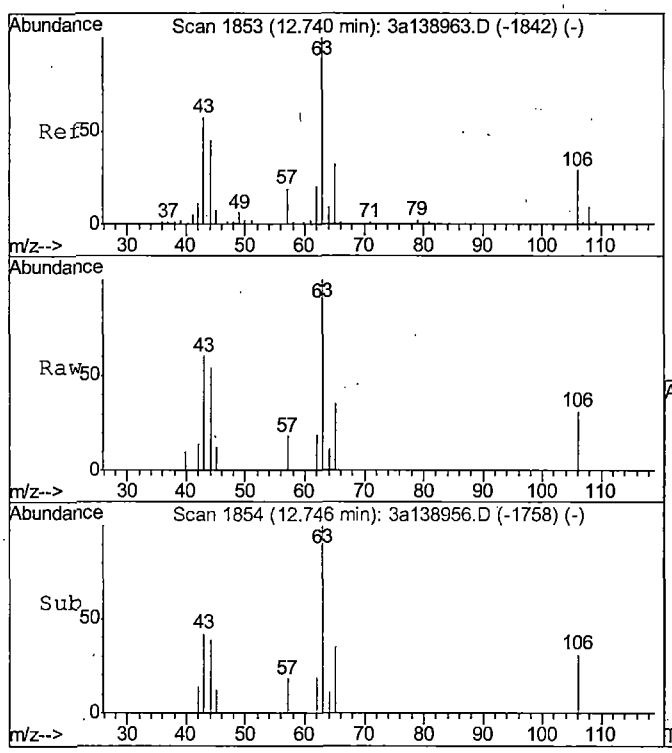
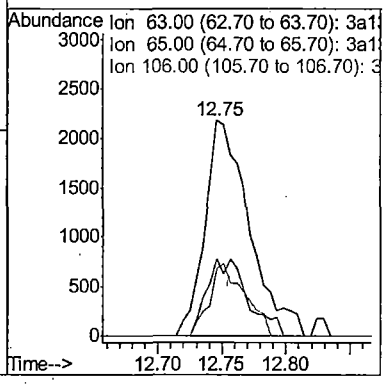
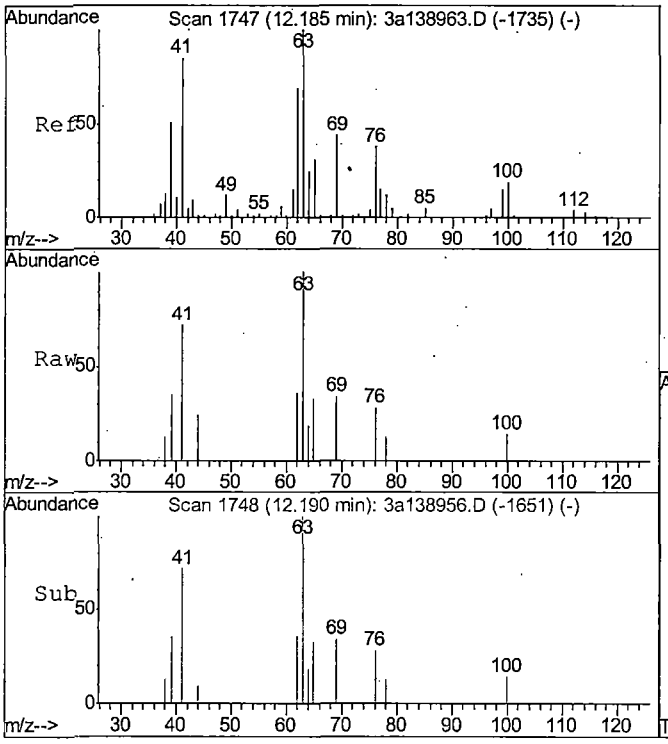


#73
2-chloroethyl vinyl ether
Concen: 3.49 ug/L
RT: 12.75 min Scan# 1854
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 63 Resp: 5234

Ion	Ratio	Lower	Upper
63	100		
65	35.4	1.2	61.2
106	31.3	0.0	54.1

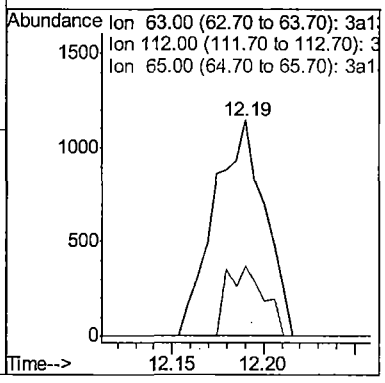




#74
1,2-dichloropropane
Concen: 0.97 ug/L
RT: 12.19 min Scan# 1748
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 63 Resp: 2211

Ion	Ratio	Lower	Upper
63	100		
112	0.0	0.0	33.4
65	32.5	1.3	61.3



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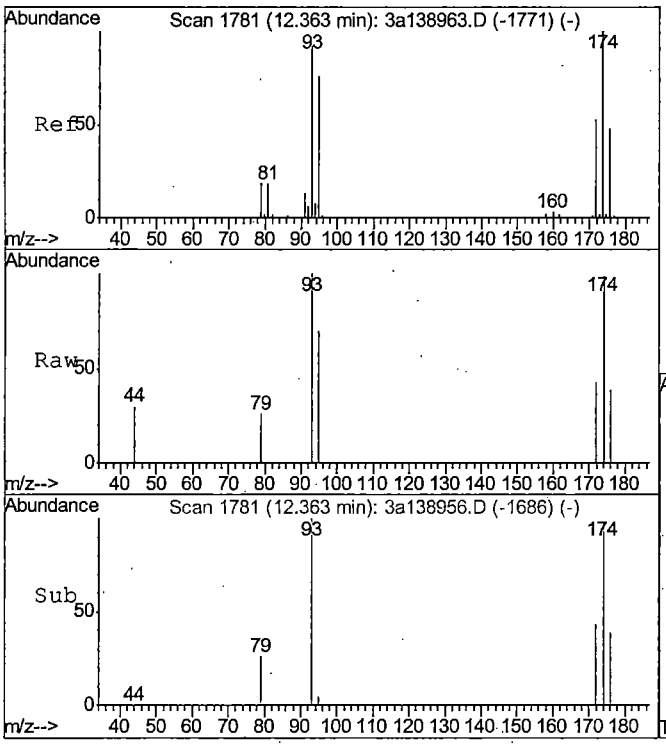
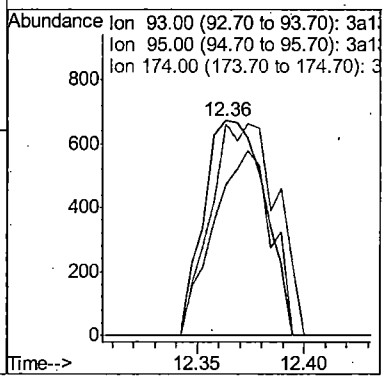
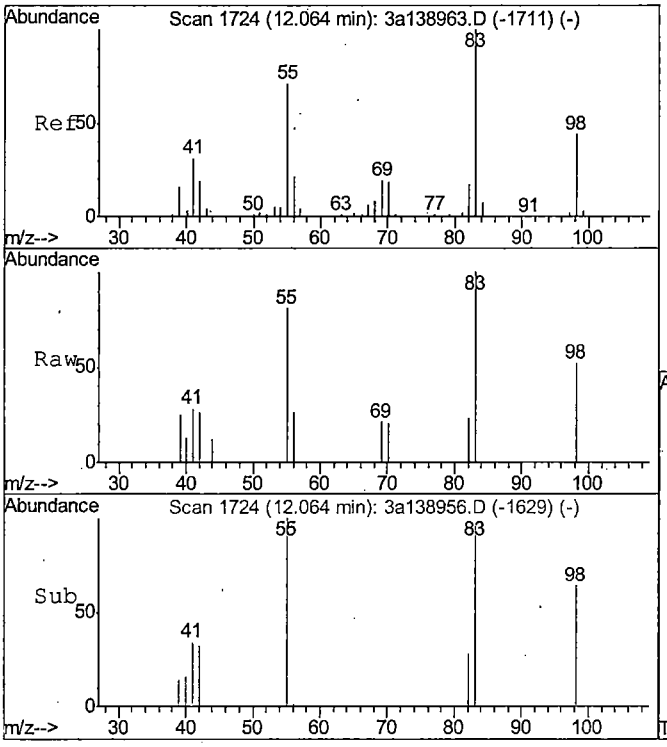


#75
dibromomethane
Concen: 0.97 ug/L
RT: 12.36 min Scan# 1781
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 93 Resp: 1329

Ion	Ratio	Lower	Upper
93	100		
95	70.1	53.5	113.5
174	98.7	72.4	132.4

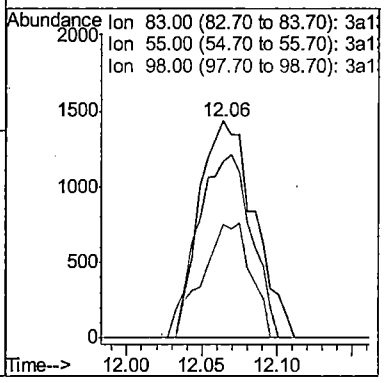




#76
methylcyclohexane
Concen: 0.79 ug/L
RT: 12.06 min Scan# 1724
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 3625

Ion	Ratio	Lower	Upper
83	100		
55	81.3	51.1	111.1
98	52.1	12.7	72.7



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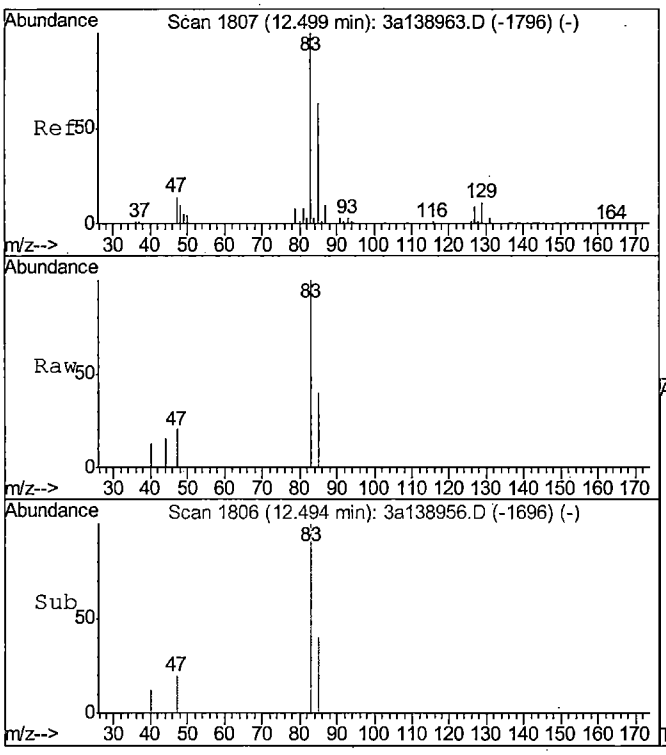
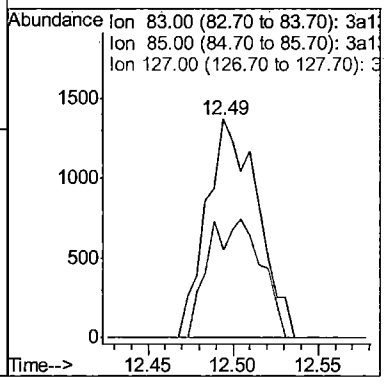
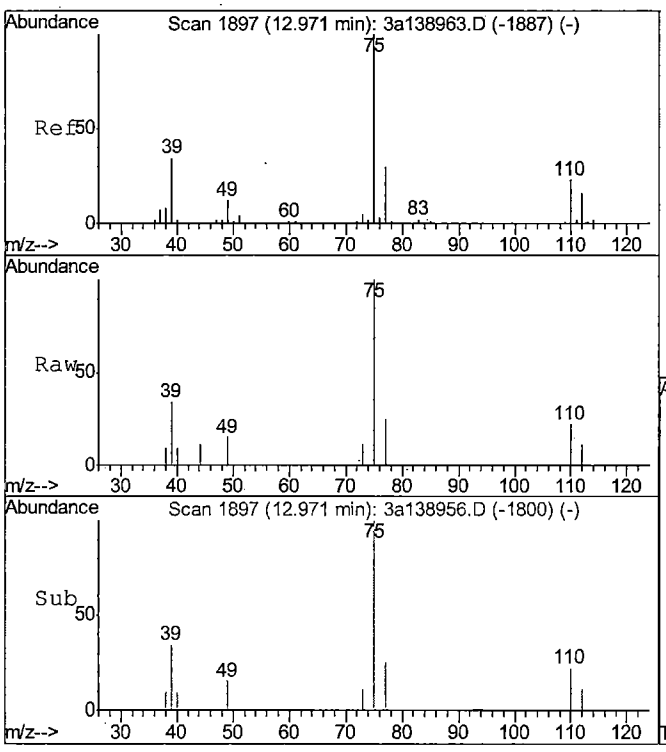


#77
bromodichloromethane
Concen: 1.02 ug/L
RT: 12.49 min Scan# 1806
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 2867

Ion	Ratio	Lower	Upper
83	100		
85	40.0	32.4	92.4
127	0.0	0.0	38.5

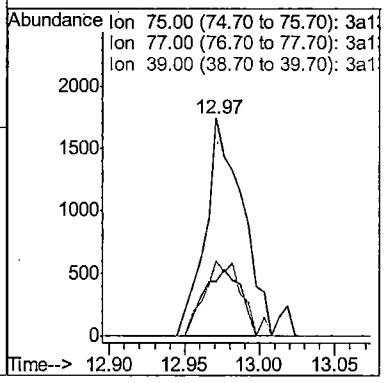




#78
cis-1,3-dichloropropene
Concen: 0.86 ug/L
RT: 12.97 min Scan# 1897
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 3105

Ion	Ratio	Lower	Upper
75	100		
77	24.9	1.2	61.2
39	34.1	10.2	70.2



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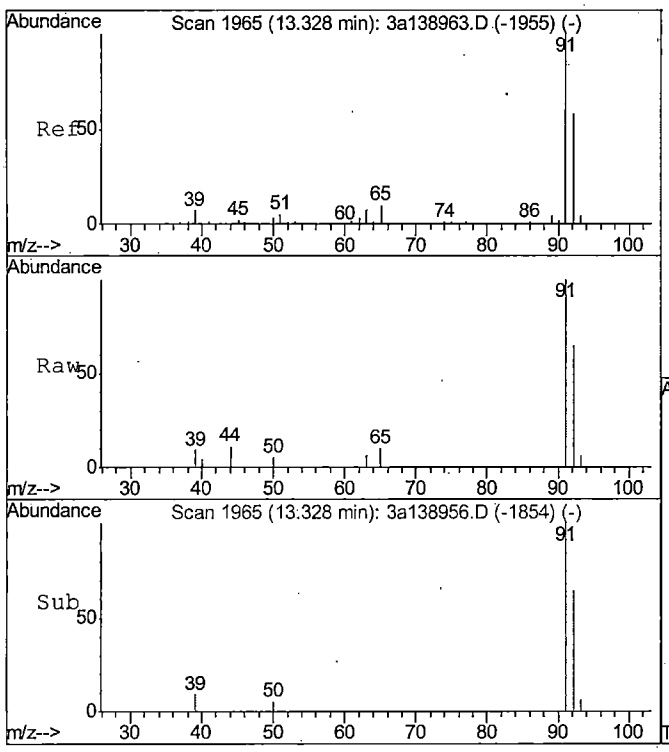
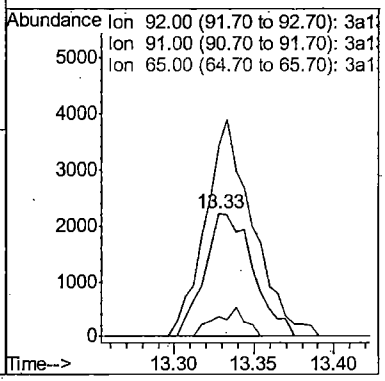
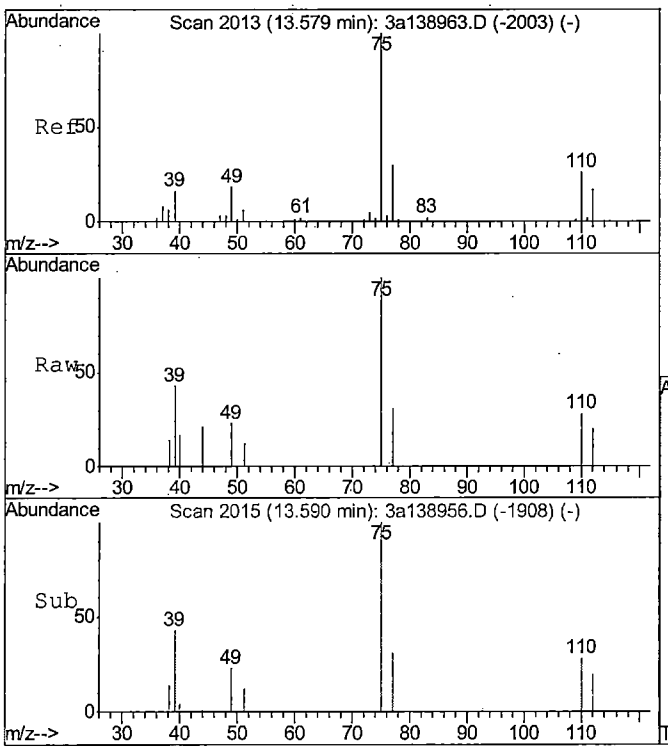


#81
toluene
Concen: 0.94 ug/L
RT: 13.33 min Scan# 1965
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 92 Resp: 4714

Ion	Ratio	Lower	Upper
92	100		
91	153.7	142.1	202.1
65	15.7	0.0	49.2

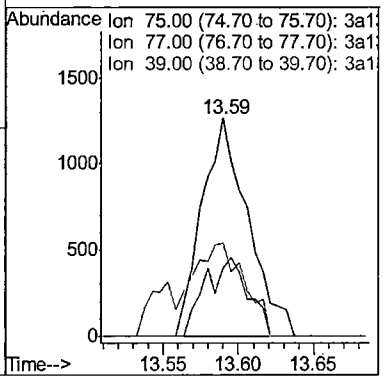




#83
trans-1,3-dichloropropene
Concen: 0.83 ug/L
RT: 13.59 min Scan# 2015
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 2689

Ion	Ratio	Lower	Upper
75	100		
77	31.3	0.8	60.8
39	42.6	9.9	69.9



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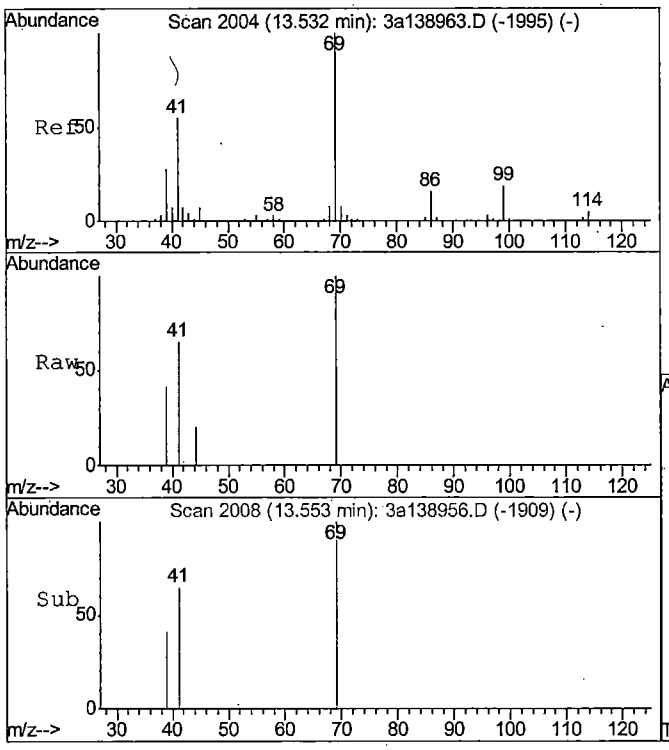
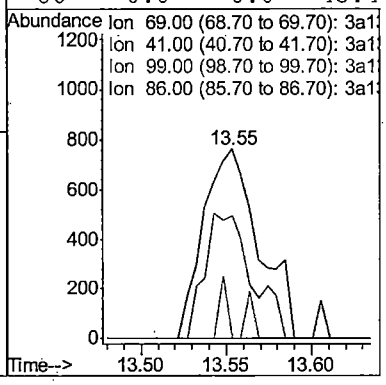
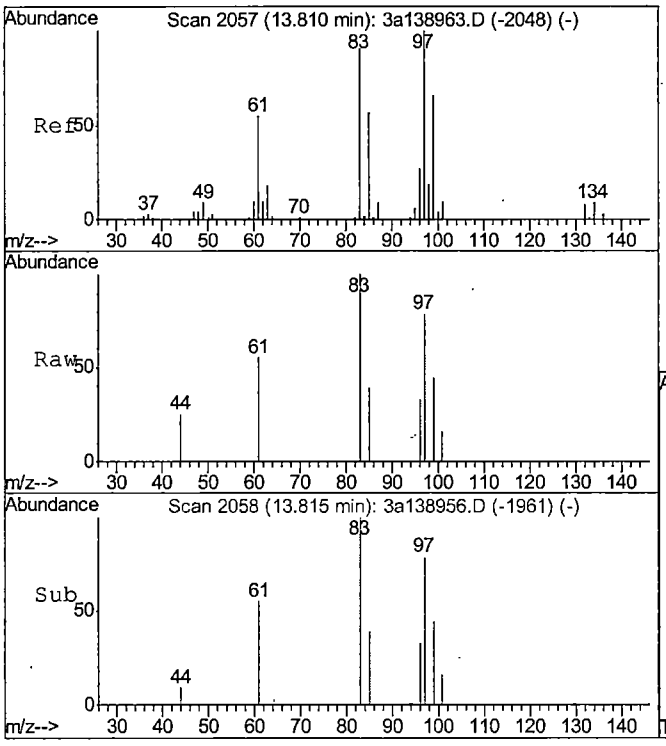


#84
ethyl methacrylate
Concen: 0.61 ug/L
RT: 13.55 min Scan# 2008
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 69 Resp: 1727

Ion	Ratio	Lower	Upper
69	100		
41	64.8	35.3	95.3
99	0.0	0.0	47.3
86	0.0	0.0	45.4

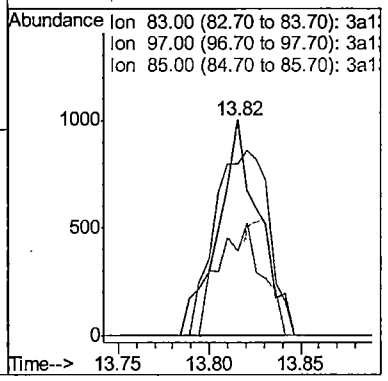




#85
1,1,2-trichloroethane
Concen: 0.98 ug/L
RT: 13.82 min Scan# 2058
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 1584

Ion	Ratio	Lower	Upper
83	100		
97	79.3	84.3	144.3#
85	39.0	34.5	94.5



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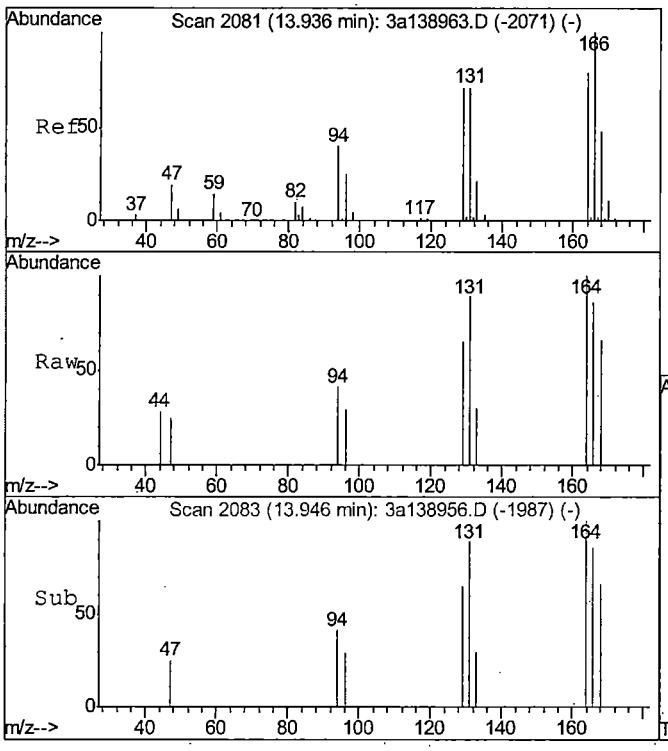
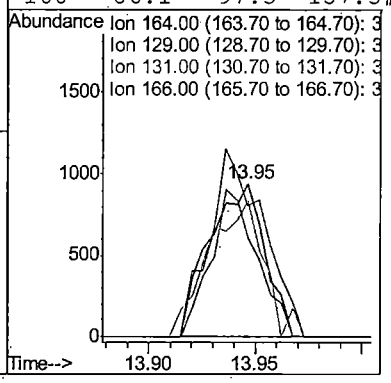
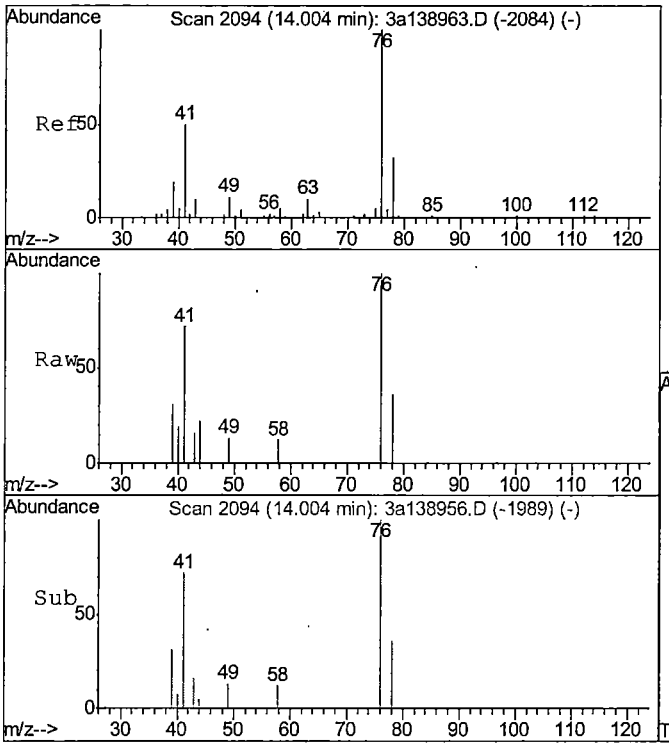


#88
tetrachloroethene
Concen: 1.06 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:164 Resp: 1703

Ion	Ratio	Lower	Upper
164	100		
129	64.5	59.9	119.9
131	89.1	56.9	116.9
166	86.1	97.3	157.3#

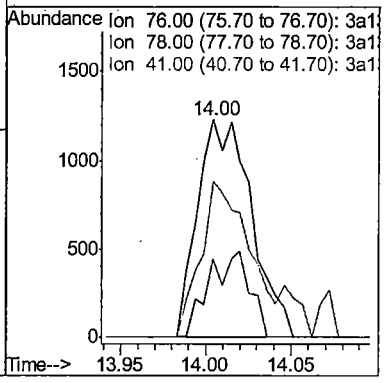




#90
1,3-dichloropropane
Concen: 0.86 ug/L
RT: 14.00 min Scan# 2094
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 76 Resp: 2707

Ion	Ratio	Lower	Upper
76	100		
78	36.0	1.6	61.6
41	71.5	30.6	90.6



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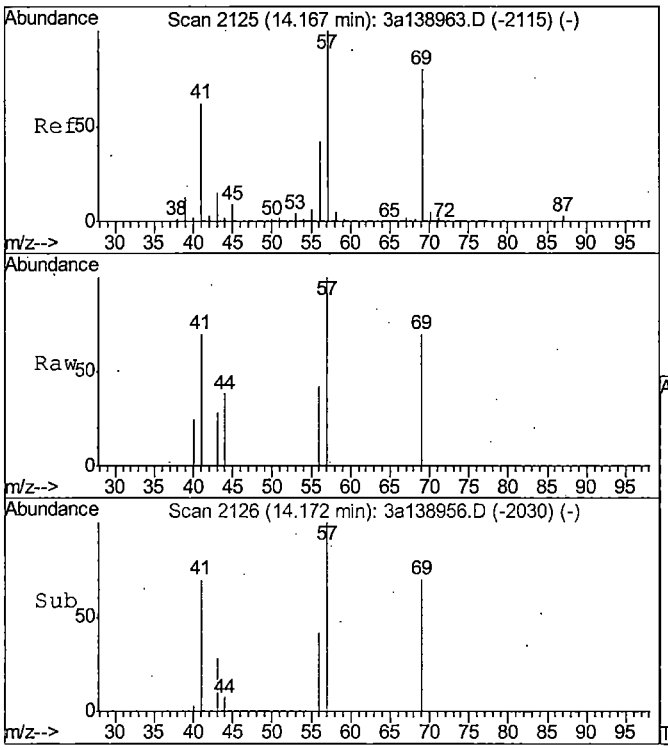
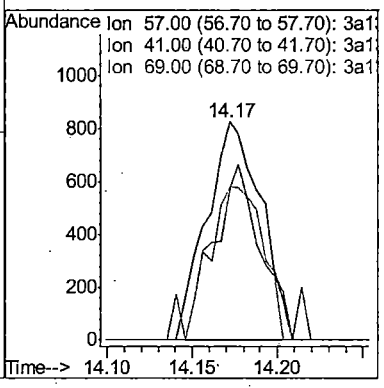
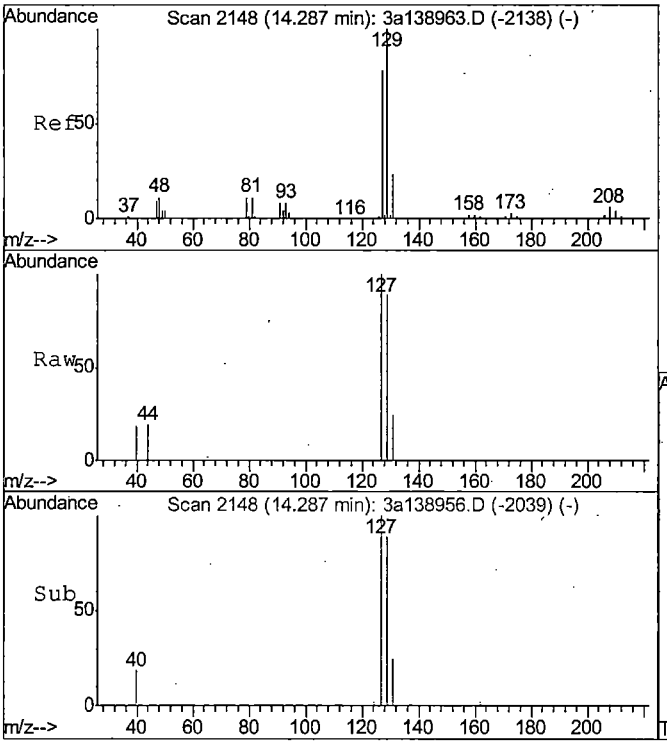


#92
3,3-dimethyl-1-butanol
Concen: 5.15 ug/L
RT: 14.17 min Scan# 2126
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 1843

Ion	Ratio	Lower	Upper
57	100		
41	76.2	47.4	88.0
69	69.2	51.8	96.2

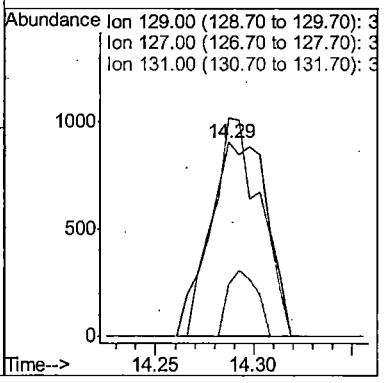




#93
dibromochloromethane
Concen: 0.90 ug/L
RT: 14.29 min Scan# 2148
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:129 Resp: 1843

Ion	Ratio	Lower	Upper
129	100		
127	112.5	46.6	106.6#
131	26.8	0.0	53.7



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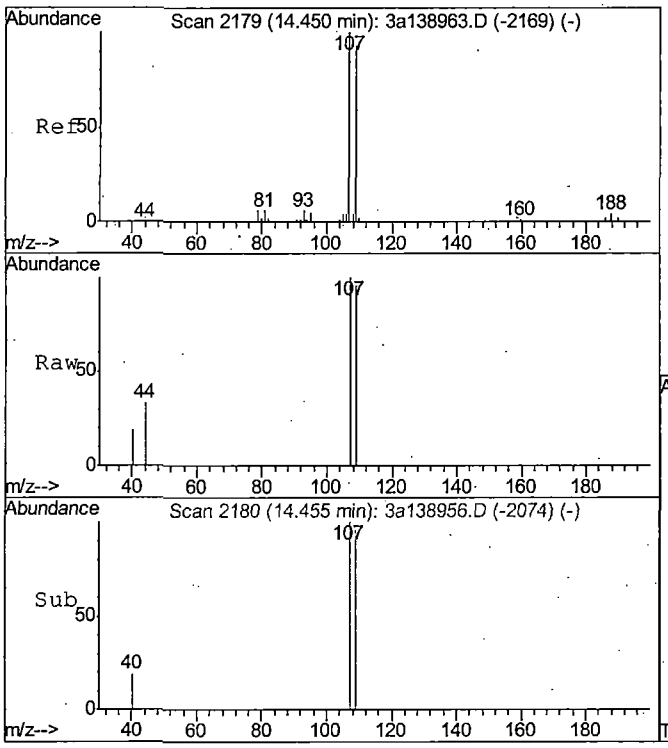
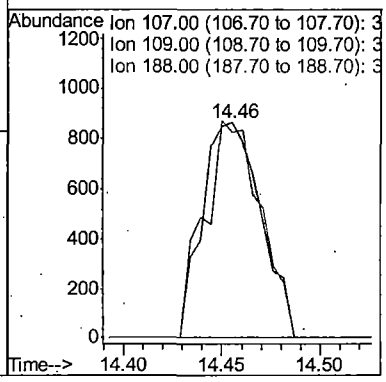
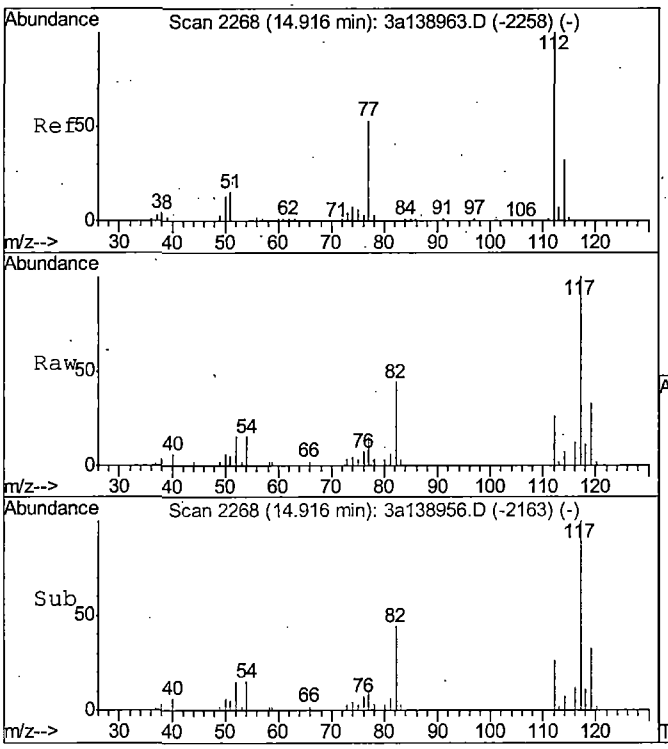


#94
1,2-dibromoethane
Concen: 0.94 ug/L
RT: 14.46 min Scan# 2180
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:107 Resp: 1778

Ion	Ratio	Lower	Upper
107	100		
109	95.6	61.8	121.8
188	0.0	0.0	33.3

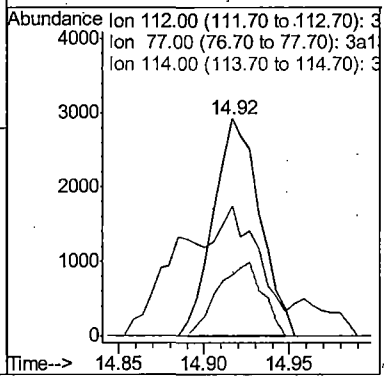




#95
chlorobenzene
Concen: 0.96 ug/L
RT: 14.92 min Scan# 2268
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:112 Resp: 5532

Ion	Ratio	Lower	Upper
112	100		
77	42.8	28.6	88.6
114	27.8	1.6	61.6



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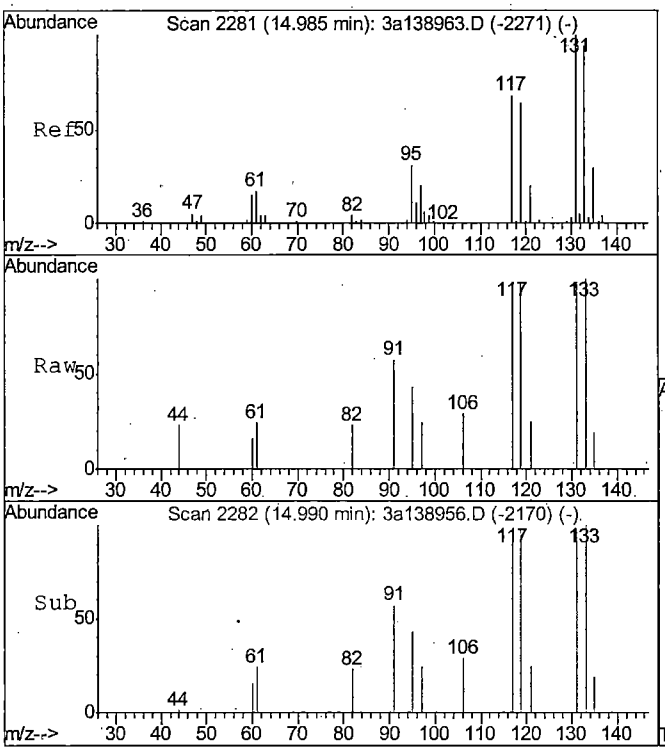
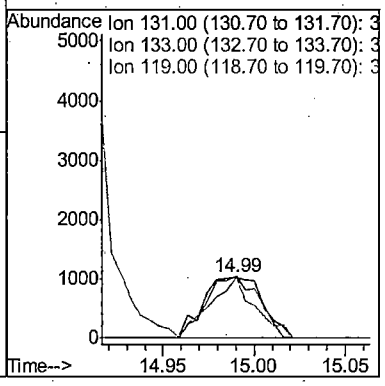
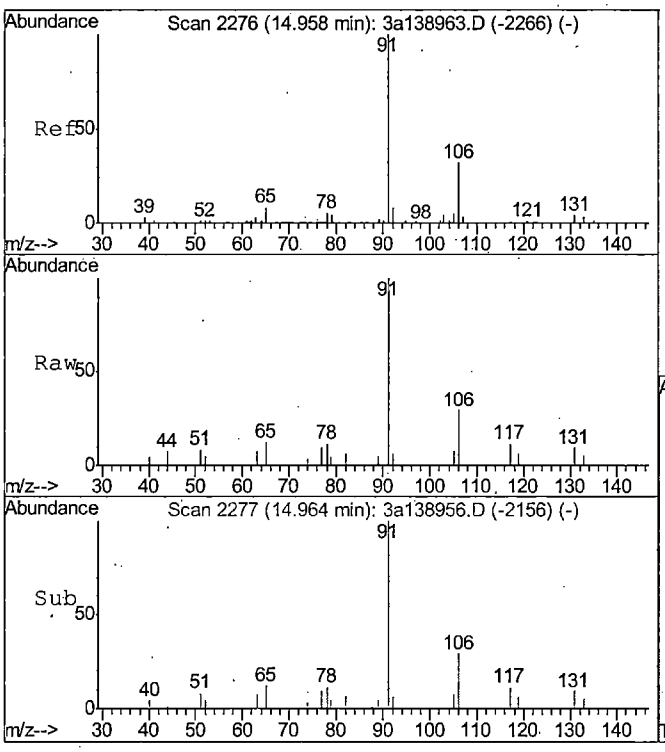


#96
1,1,1,2-tetrachloroethane
Concen: 1.01 ug/L
RT: 14.99 min Scan# 2282
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:131 Resp: 2318

Ion	Ratio	Lower	Upper
131	100		
133	101.9	64.6	124.6
119	99.9	37.3	97.3#

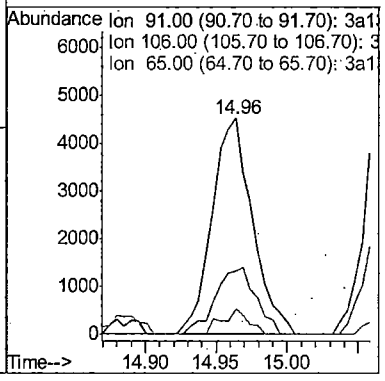




#97
ethylbenzene
Concen: 0.91 ug/L
RT: 14.96 min Scan# 2277
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 91 Resp: 8983

Ion	Ratio	Lower	Upper
91	100		
106	29.1	1.4	61.4
65	11.6	0.0	38.0



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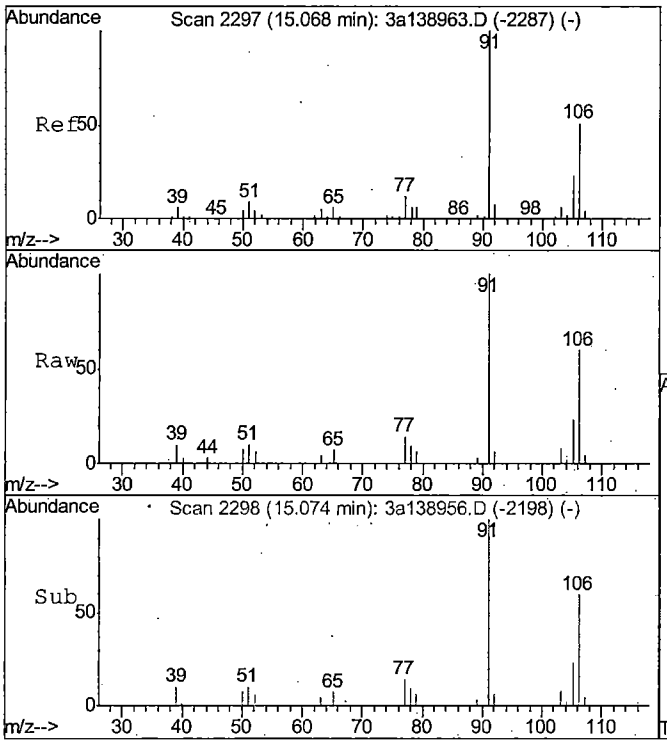
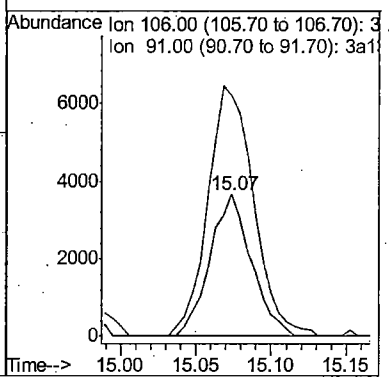
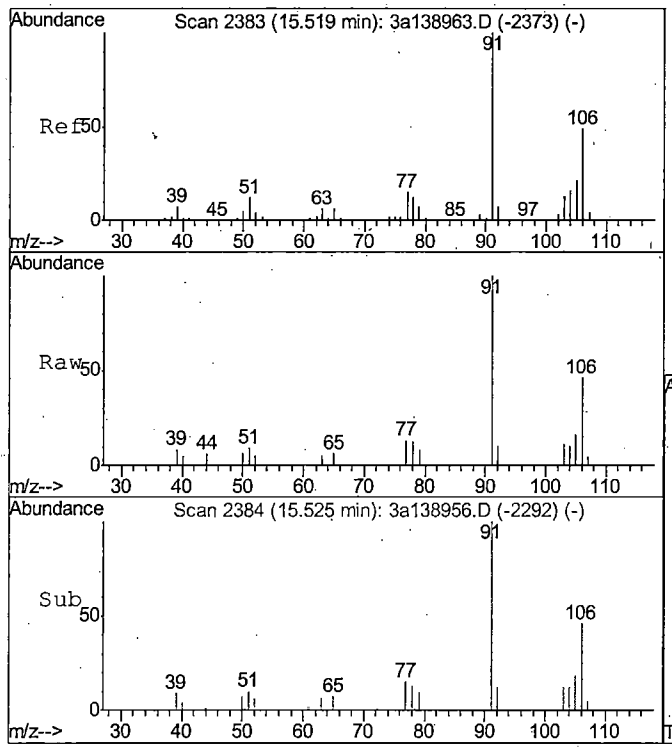


#98
m,p-xylene
Concen: 1.86 ug/L
RT: 15.07 min Scan# 2298
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:106 Resp: 7021

Ion	Ratio	Lower	Upper
106	100		
91	167.8	172.7	232.7#

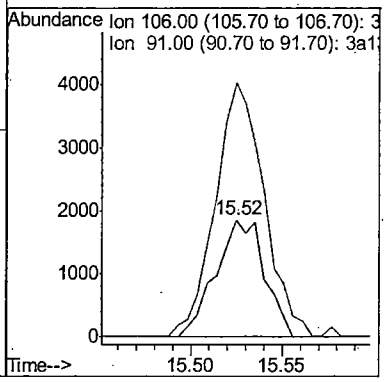




#99
o-xylene
Concen: 0.90 ug/L
RT: 15.52 min Scan# 2384
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:106 Resp: 3462

Ion	Ratio	Lower	Upper
106	100		
91	216.0	183.1	243.1



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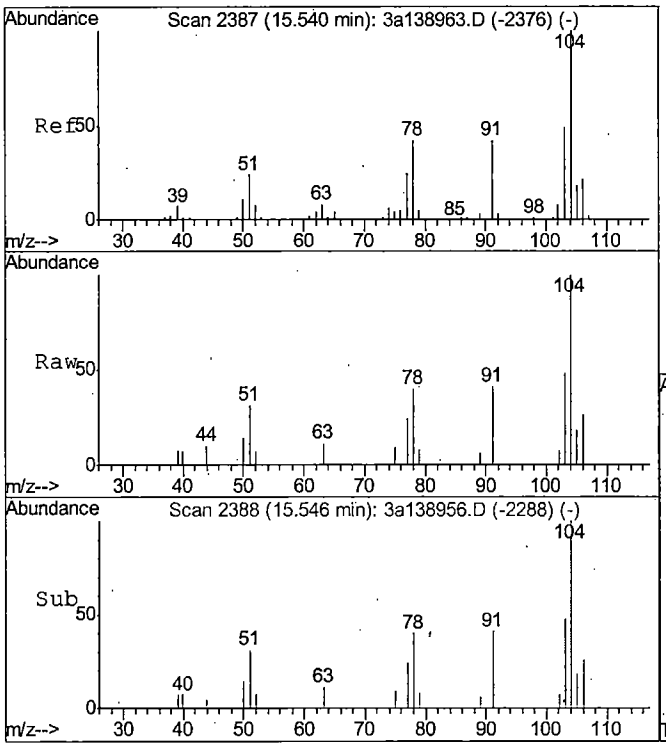
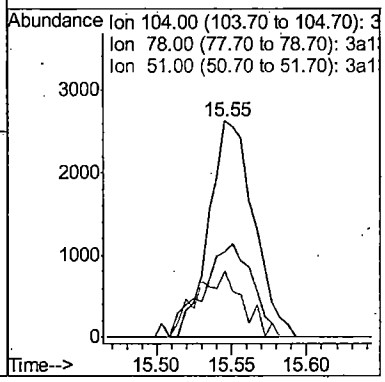
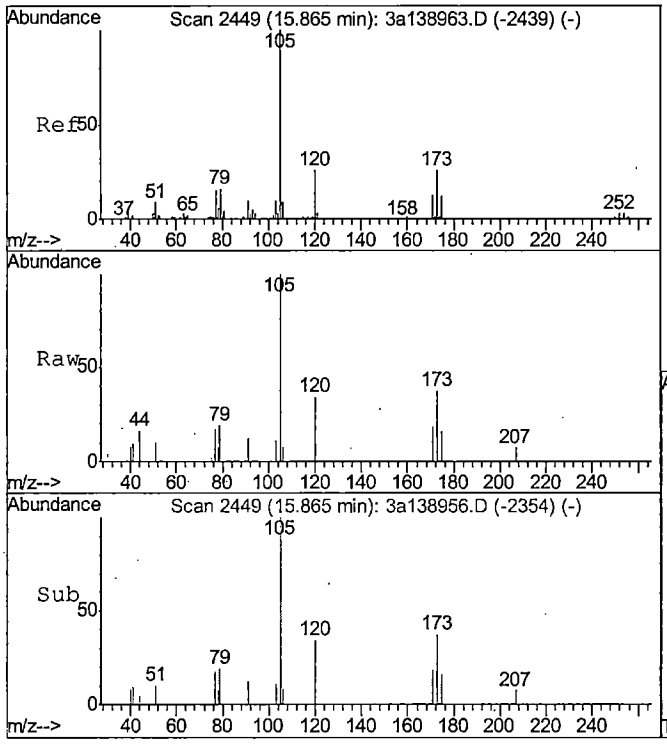


#100
styrene
Concen: 0.87 ug/L
RT: 15.55 min Scan# 2388
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:104 Resp: 5433

Ion	Ratio	Lower	Upper
104	100		
78	39.6	16.3	76.3
51	30.5	0.4	60.4

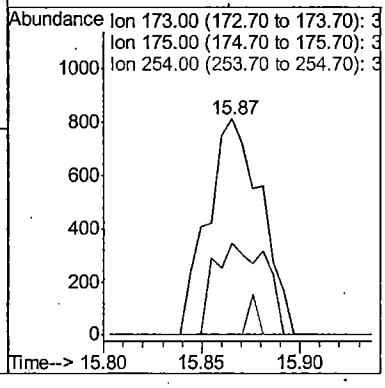




#101
bromoform
Concen: 1.08 ug/L
RT: 15.87 min Scan# 2449
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:173 Resp: 1540

Ion	Ratio	Lower	Upper
173	100		
175	42.2	21.2	81.2
254	0.0	0.0	41.0



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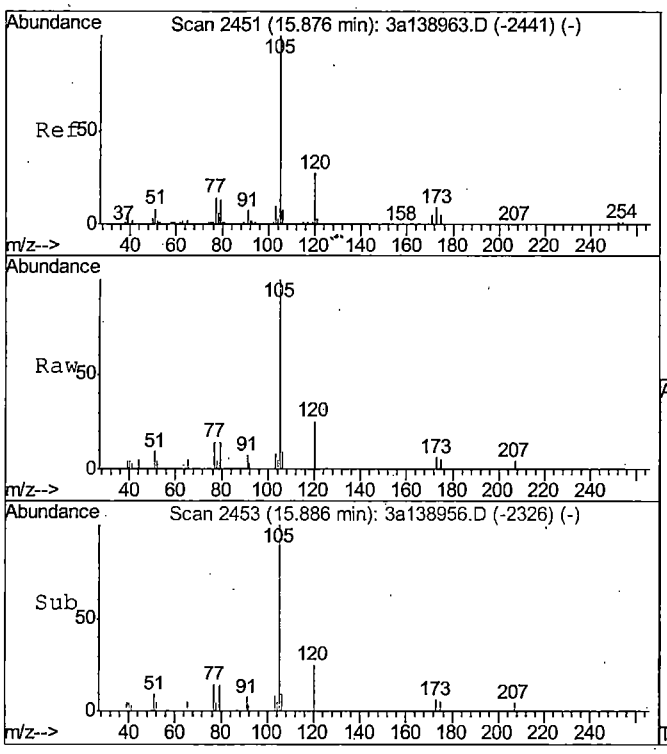
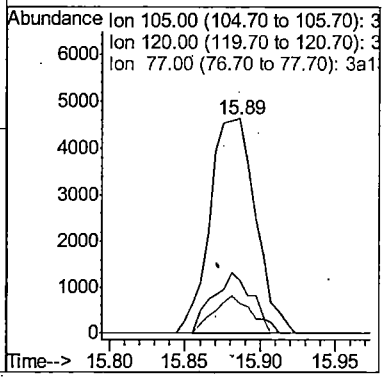
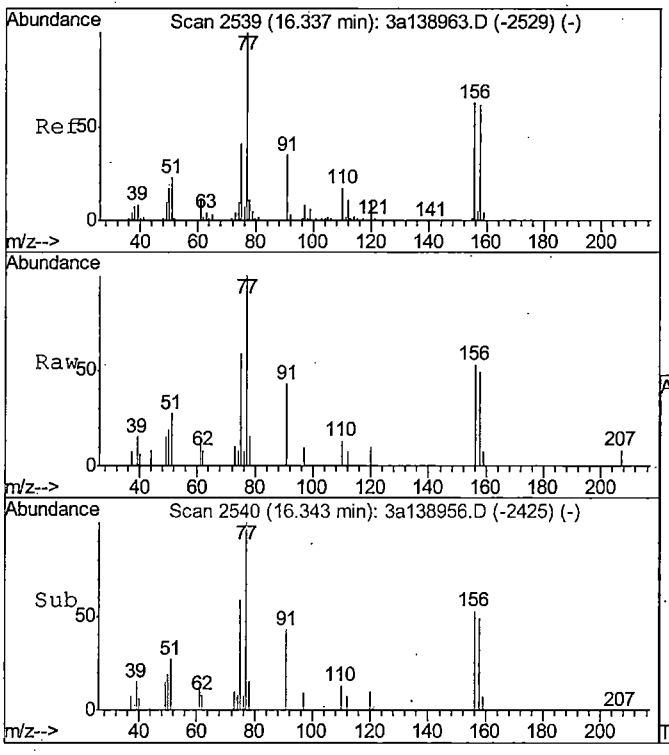


#103
isopropylbenzene
Concen: 0.86 ug/L
RT: 15.89 min Scan# 2453
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 9753

Ion	Ratio	Lower	Upper
105	100		
120	24.7	0.0	56.3
77	13.6	0.0	44.5

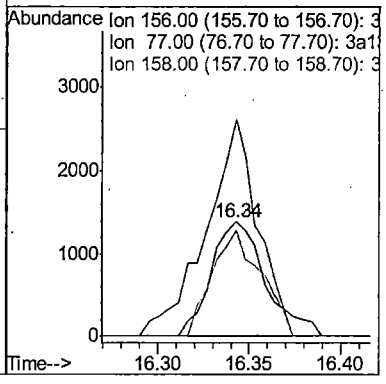




#106
bromobenzene
Concen: 0.98 ug/L
RT: 16.34 min Scan# 2540
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:156 Resp: 2675

Ion	Ratio	Lower	Upper
156	100		
77	174.8	165.2	225.2
158	92.9	67.7	127.7



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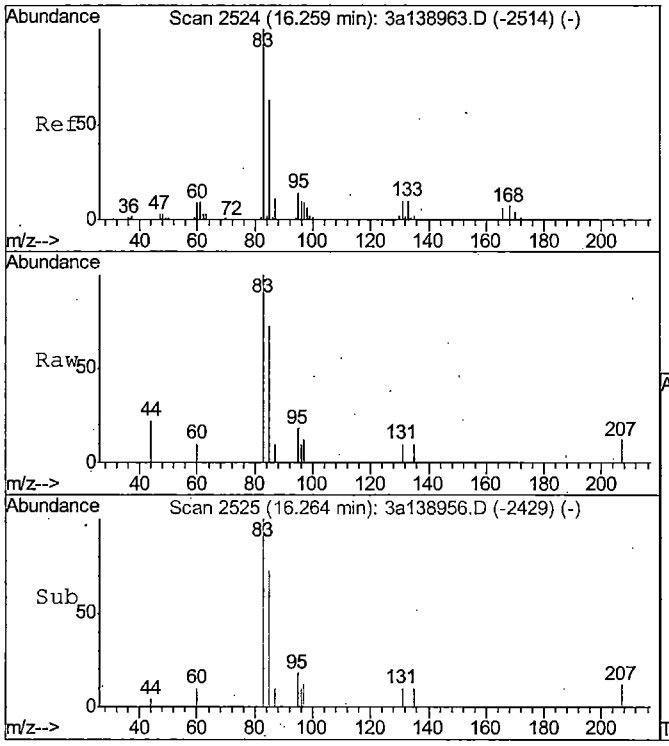
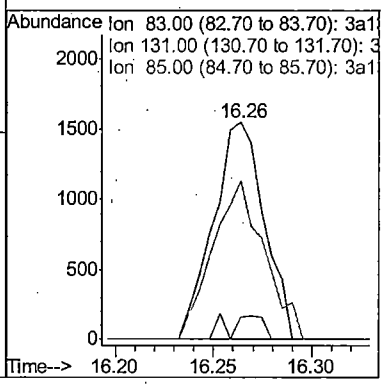
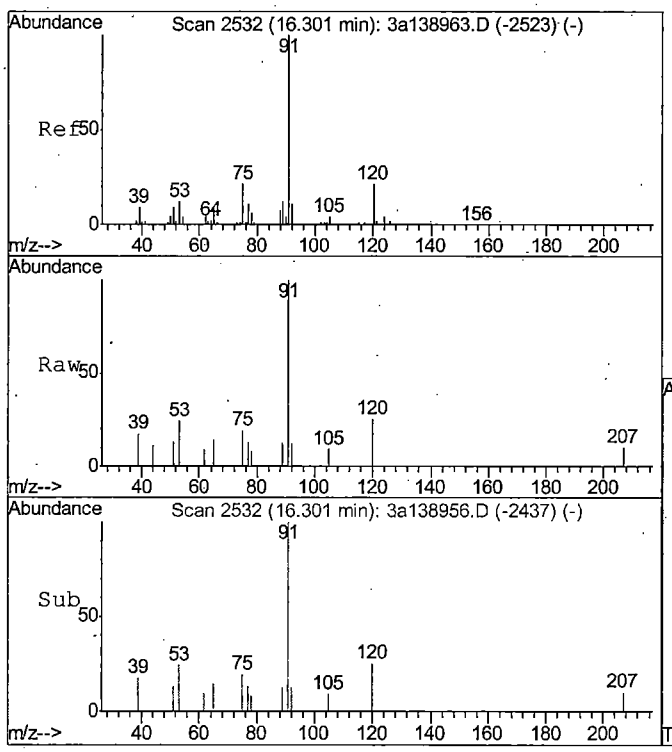


#107
1,1,2,2-tetrachloroethane
Concen: 0.83 ug/L
RT: 16.26 min Scan# 2525
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 2776

Ion	Ratio	Lower	Upper
83	100		
131	10.3	0.0	39.5
85	73.1	35.6	95.6

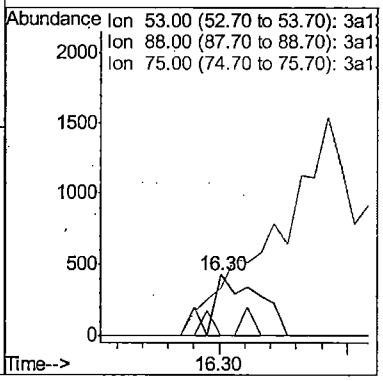




#108
trans-1,4-dichloro-2-butene
Concen: 0.65 ug/L
RT: 16.30 min Scan# 2532
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 53 Resp: 556

Ion	Ratio	Lower	Upper
53	100		
88	0.0	20.6	80.6#
75	77.6	125.6	185.6#



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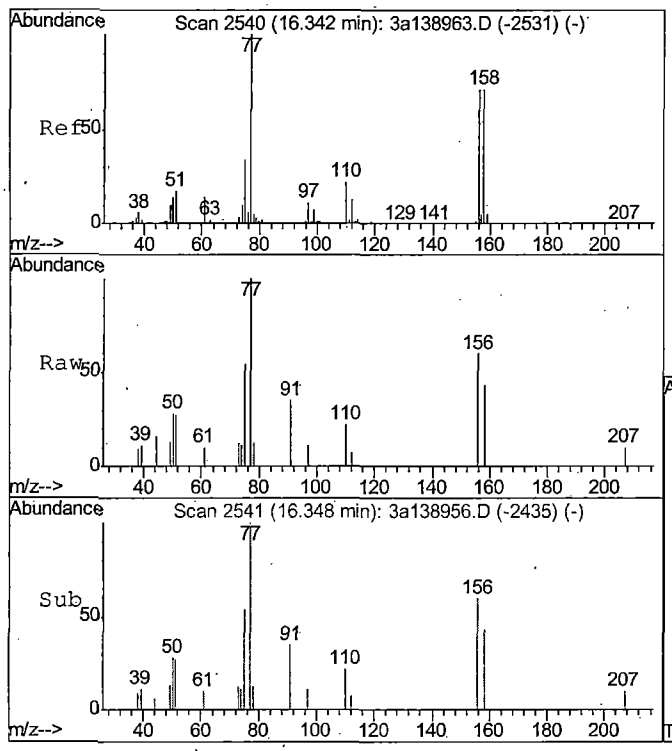
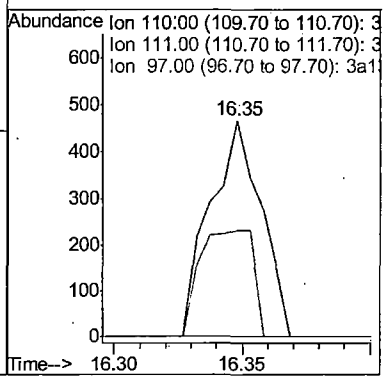
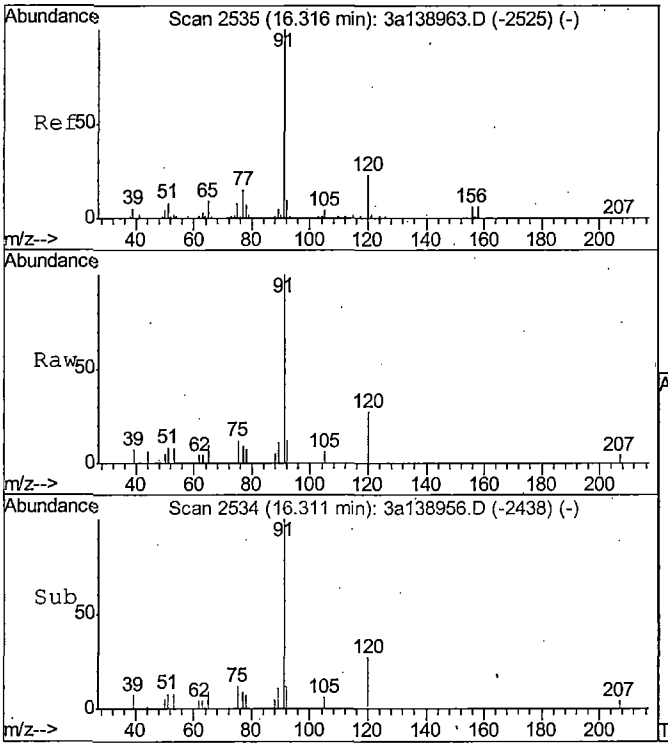


#109
1,2,3-trichloropropane
Concen: 0.82 ug/L
RT: 16.35 min Scan# 2541
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:110 Resp: 653

Ion	Ratio	Lower	Upper
110	100		
111	0.0	0.0	40.3
97	49.8	26.7	86.7

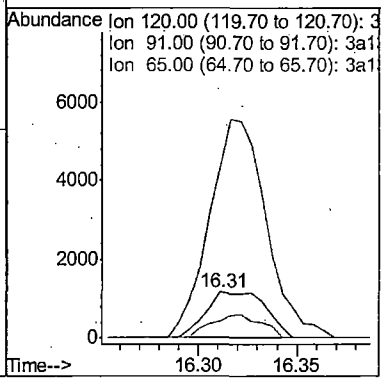




#110
n-propylbenzene
Concen: 0.87 ug/L
RT: 16.31 min Scan# 2534
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:120 Resp: 2432

Ion	Ratio	Lower	Upper
120	100		
91	374.3	423.5	483.5#
65	36.5	15.2	75.2



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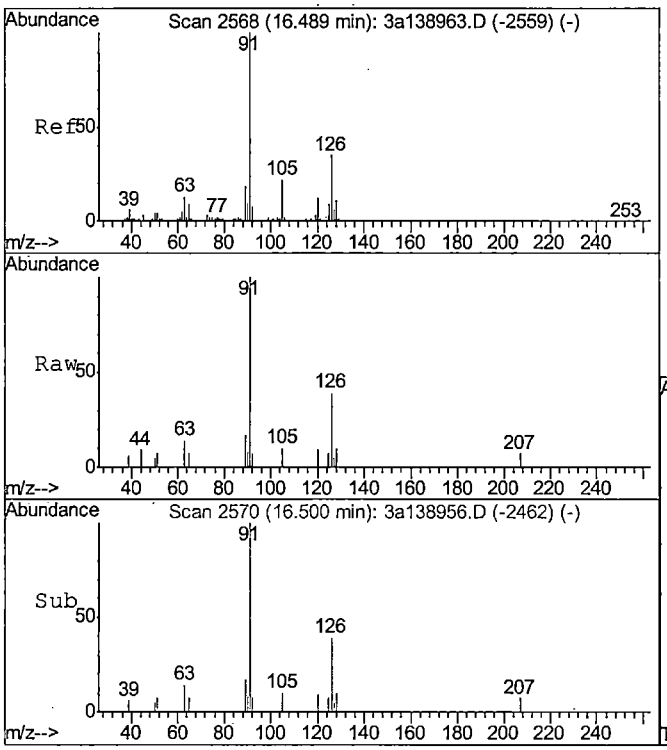
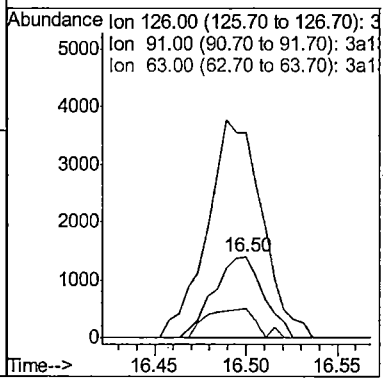
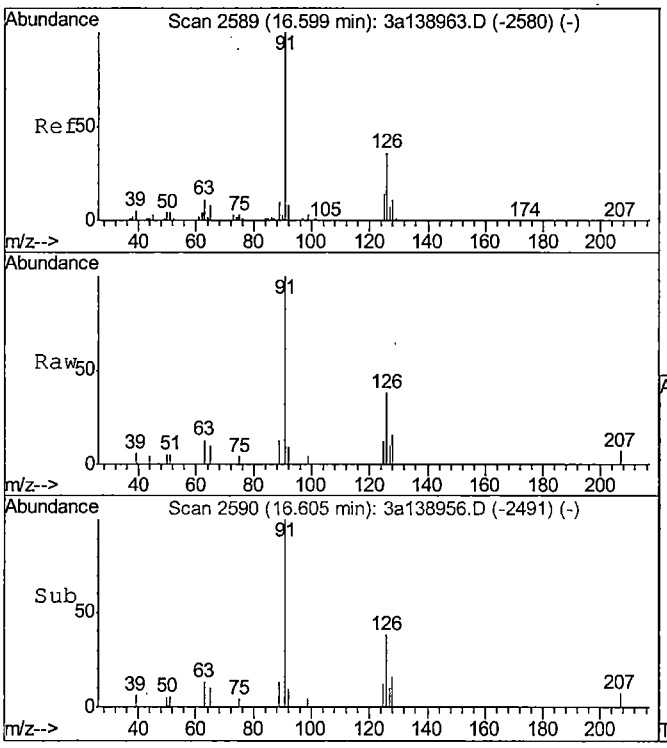


#111
2-chlorotoluene
Concen: 1.00 ug/L
RT: 16.50 min Scan# 2570
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:126 Resp: 2647

Ion	Ratio	Lower	Upper
126	100		
91	235.9	202.9	376.7
63	35.7	27.5	51.1

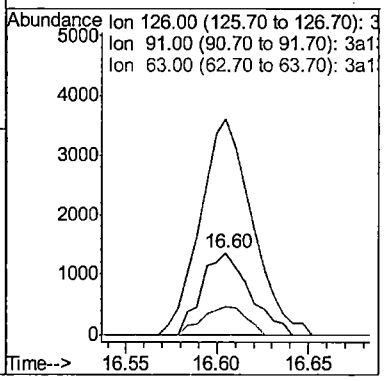




#112
4-chlorotoluene
Concen: 0.92 ug/L
RT: 16.60 min Scan# 2590
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:126 Resp: 2471

Ion	Ratio	Lower	Upper
126	100		
91	253.8	261.2	321.2#
63	34.1	3.8	63.8



7.6.1

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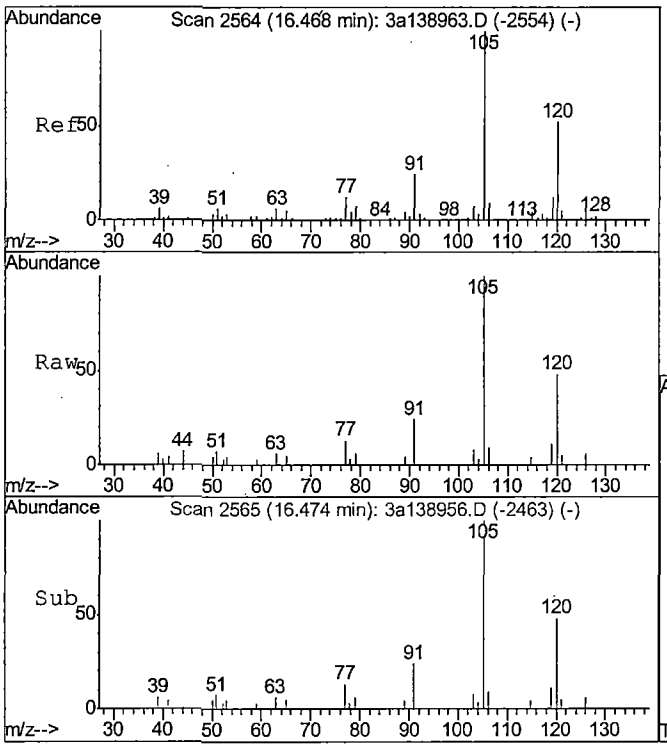
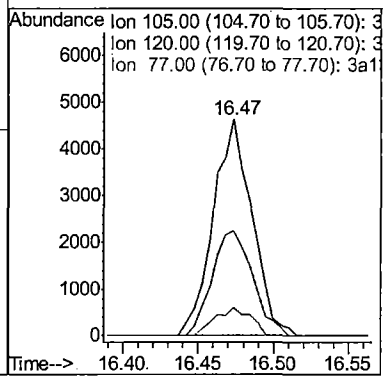
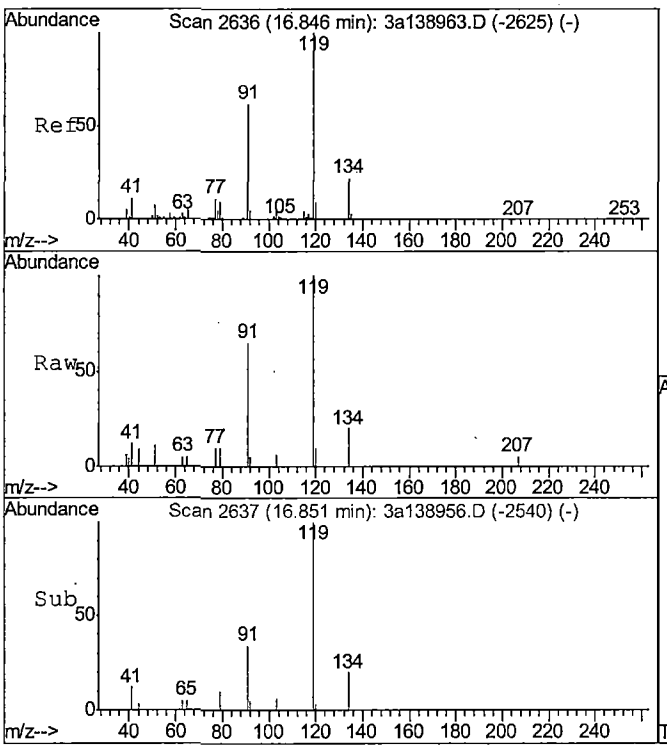


#113
1,3,5-trimethylbenzene
Concen: 0.81 ug/L
RT: 16.47 min Scan# 2565
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 8271

Ion	Ratio	Lower	Upper
105	100		
120	48.3	19.0	79.0
77	12.9	0.0	42.6

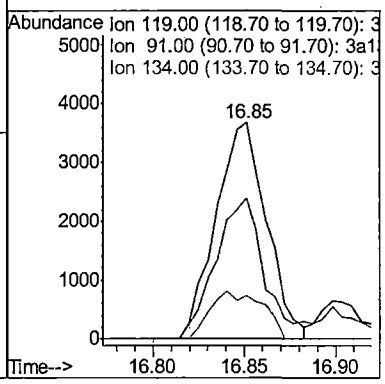




#114
tert-butylbenzene
Concen: 0.78 ug/L
RT: 16.85 min Scan# 2637
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:119 Resp: 7066

Ion	Ratio	Lower	Upper
119	100		
91	64.7	37.9	97.9
134	19.5	0.0	54.3



7.6.1

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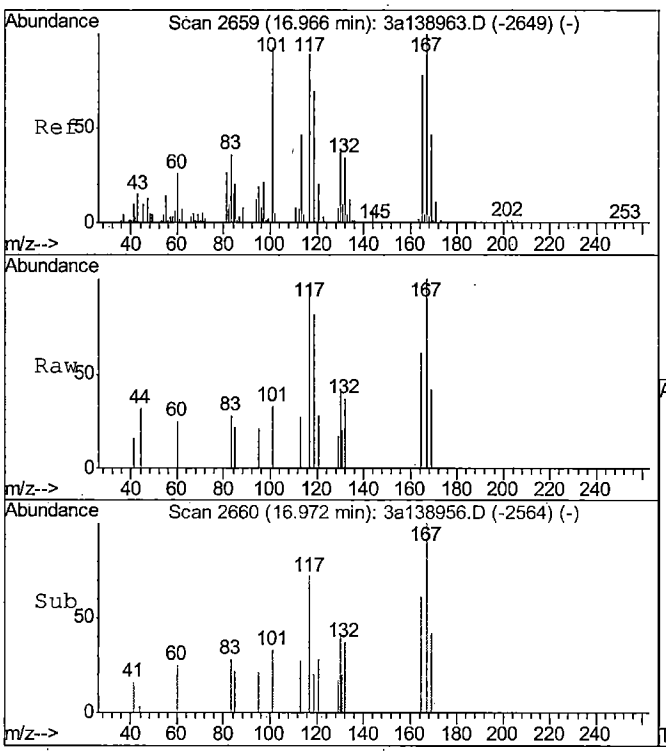
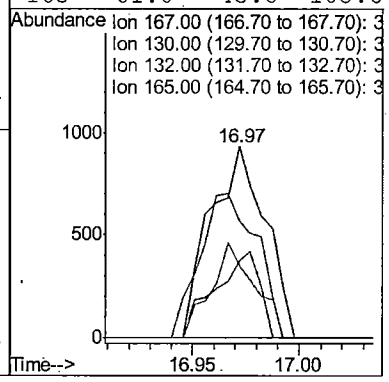
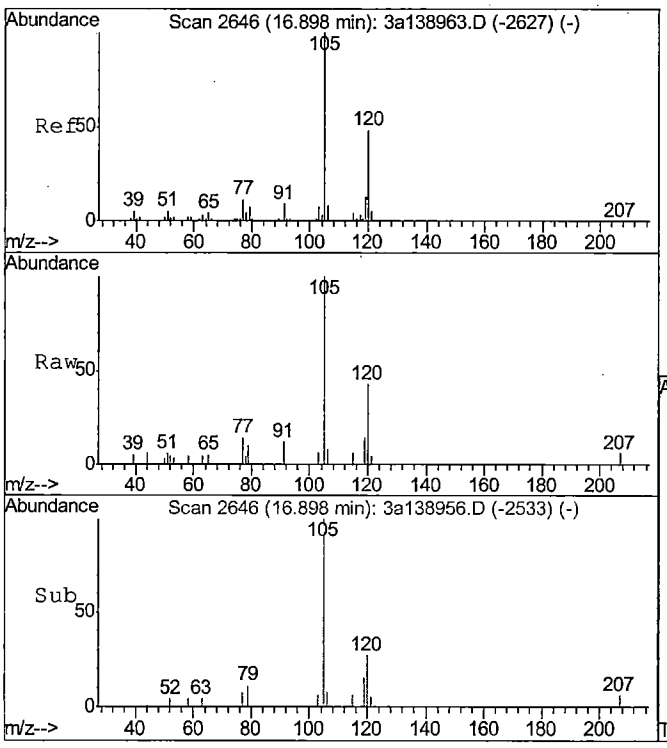


#115
pentachloroethane
Concen: 0.80 ug/L
RT: 16.97 min Scan# 2660
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:167 Resp: 1672

Ion	Ratio	Lower	Upper
167	100		
130	40.4	7.2	67.2
132	36.9	6.3	66.3
165	61.0	45.8	105.8

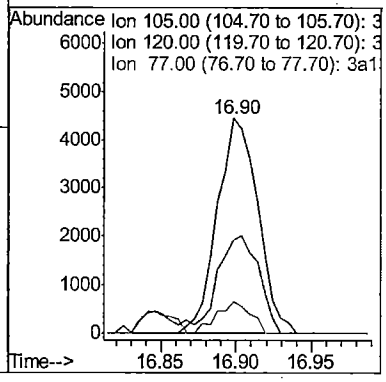




#116
1,2,4-trimethylbenzene
Concen: 0.86 ug/L
RT: 16.90 min Scan# 2646
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 8316

Ion	Ratio	Lower	Upper
105	100		
120	43.0	16.5	76.5
77	14.3	0.0	42.3



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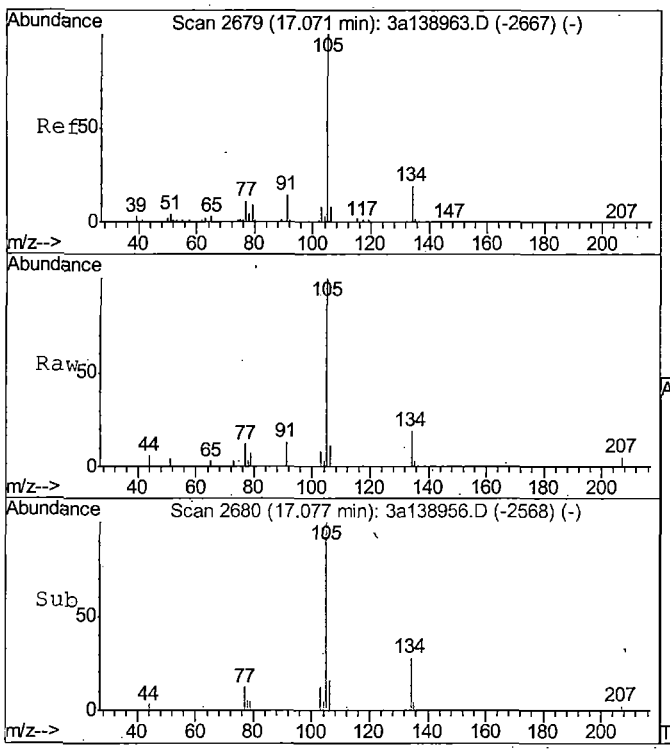
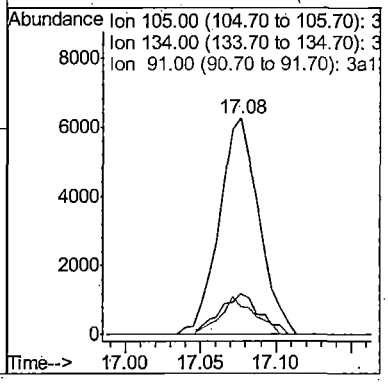
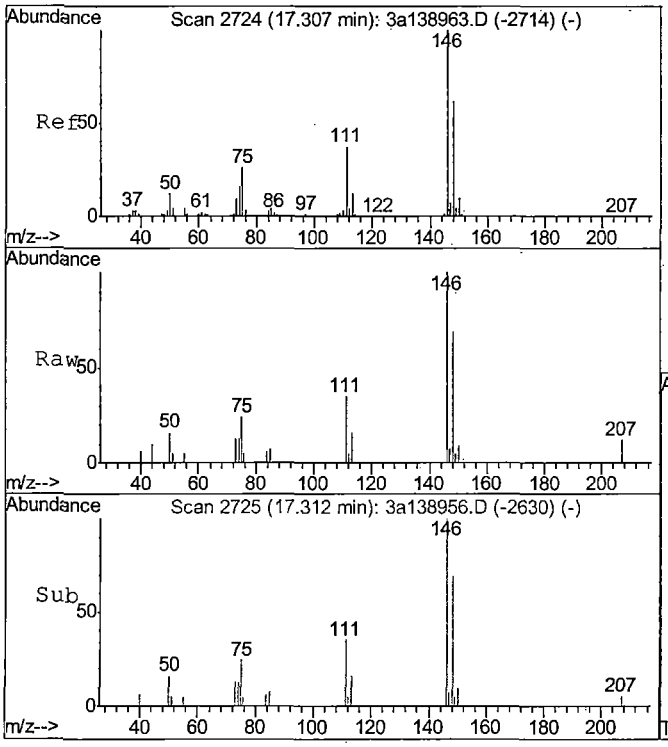


#117
sec-butylbenzene
Concen: 0.80 ug/L
RT: 17.08 min Scan# 2680
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 11401

Ion	Ratio	Lower	Upper
105	100		
134	19.3	0.0	48.4
91	12.8	0.0	44.9

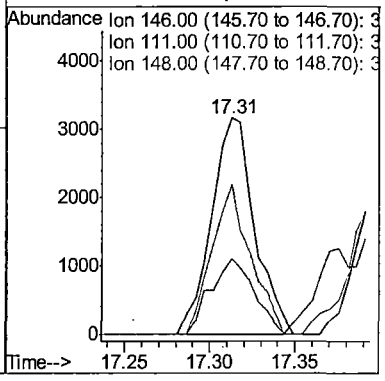




#118
1,3-dichlorobenzene
Concen: 0.96 ug/L
RT: 17.31 min Scan# 2725
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:146 Resp: 5559

Ion	Ratio	Lower	Upper
146	100		
111	35.1	6.1	66.1
148	69.2	32.6	92.6



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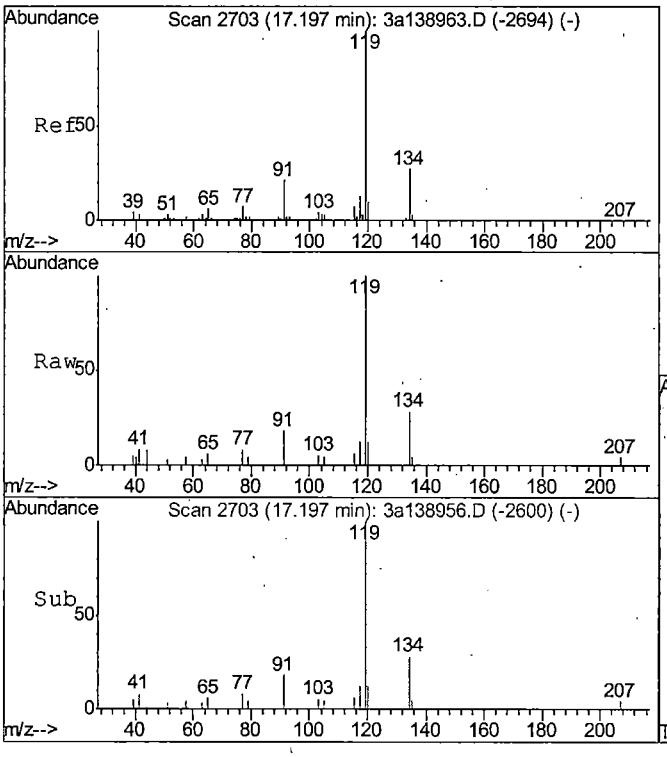
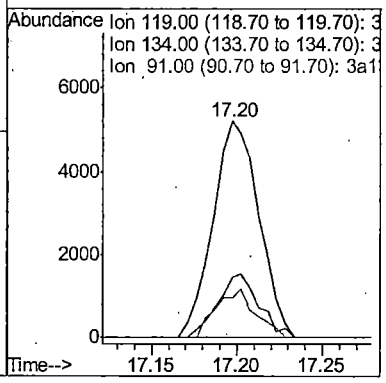
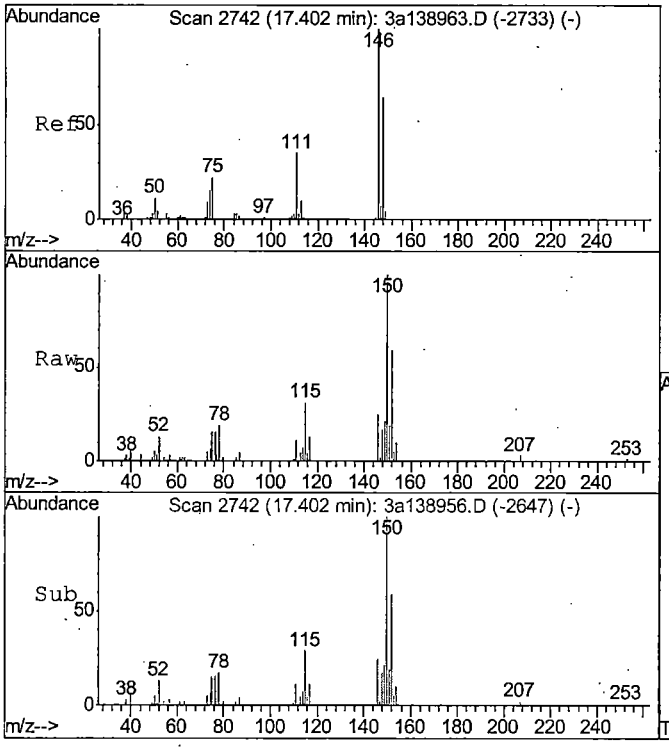


#119
p-isopropyltoluene
Concen: 0.87 ug/L
RT: 17.20 min Scan# 2703
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:119 Resp: 9783

Ion	Ratio	Lower	Upper
119	100		
134	28.0	0.0	55.0
91	18.4	0.0	52.1

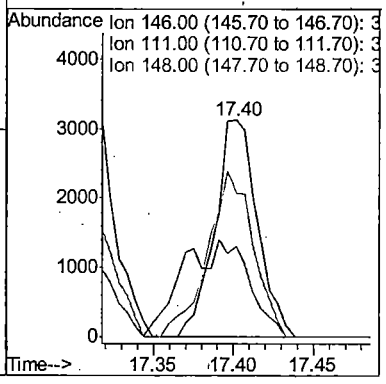




#120
1,4-dichlorobenzene
Concen: 0.96 ug/L
RT: 17.40 min Scan# 2742
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:146 Resp: 5784

Ion	Ratio	Lower	Upper
146	100		
111	41.4	6.9	66.9
148	66.4	33.7	93.7



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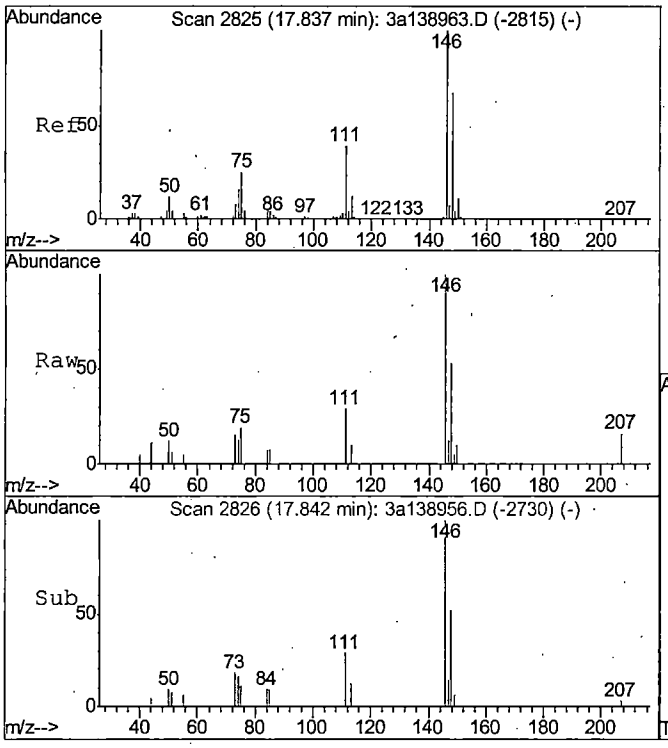
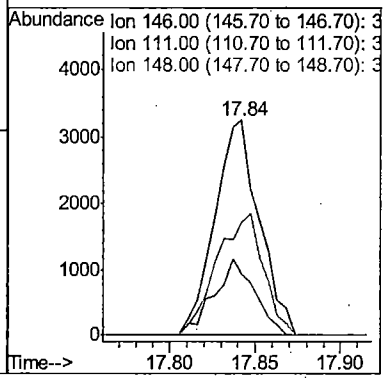
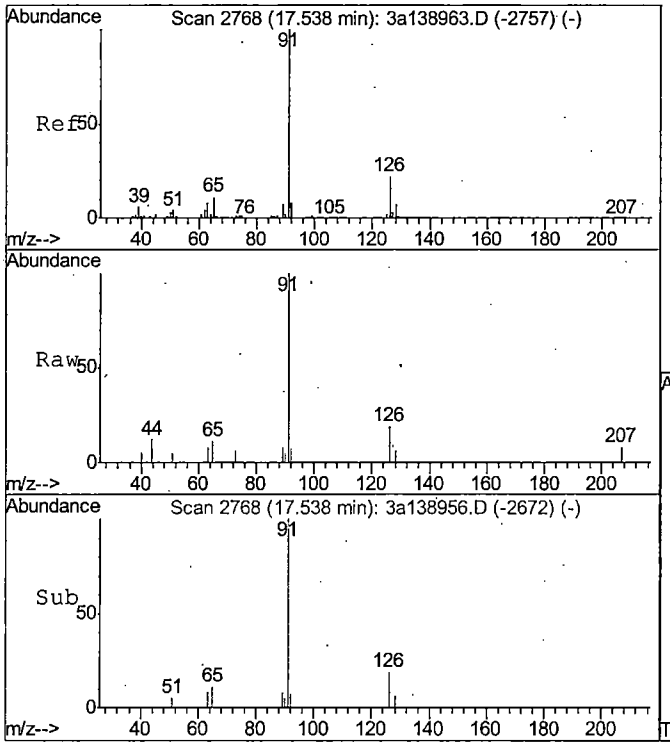


#121
1,2-dichlorobenzene
Concen: 0.97 ug/L
RT: 17.84 min Scan# 2826
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:146 Resp: 5918

Ion	Ratio	Lower	Upper
146	100		
111	29.2	10.3	70.3
148	52.7	33.6	93.6

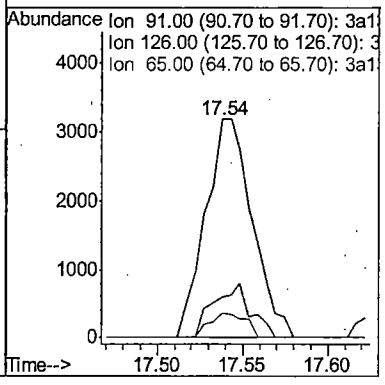




#122
benzyl chloride
Concen: 0.84 ug/L
RT: 17.54 min Scan# 2768
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 91 Resp: 6081

Ion	Ratio	Lower	Upper
91	100		
126	19.6	14.4	26.7
65	8.5	8.2	15.2



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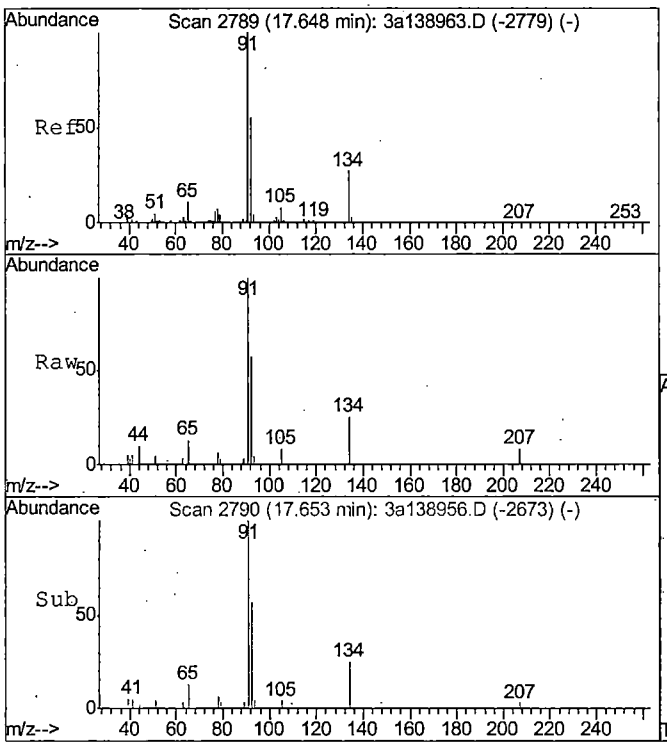
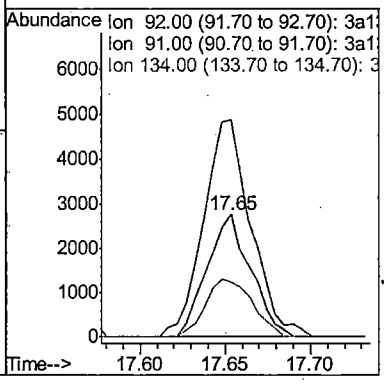
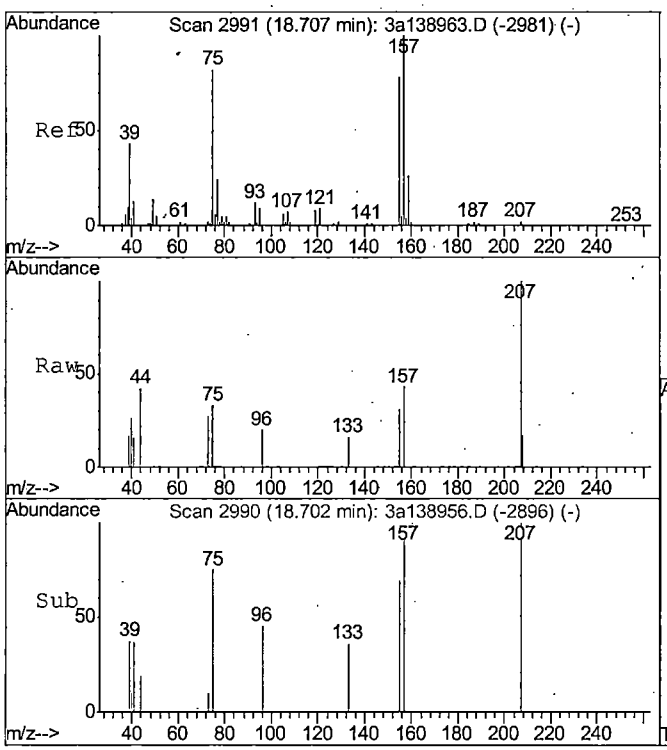


#123
n-butylbenzene
Concen: 0.82 ug/L
RT: 17.65 min Scan# 2790
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 92 Resp: 4935

Ion	Ratio	Lower	Upper
92	100		
91	170.5	150.4	210.4
134	44.8	15.7	75.7

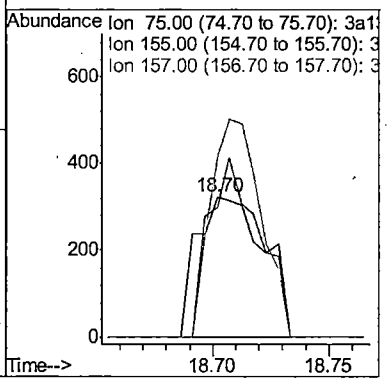




#124
1,2-dibromo-3-chloropropane
Concen: 0.79 ug/L
RT: 18.70 min Scan# 2990
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 643

Ion	Ratio	Lower	Upper
75	100		
155	92.6	60.4	120.4
157	128.8	85.5	145.5



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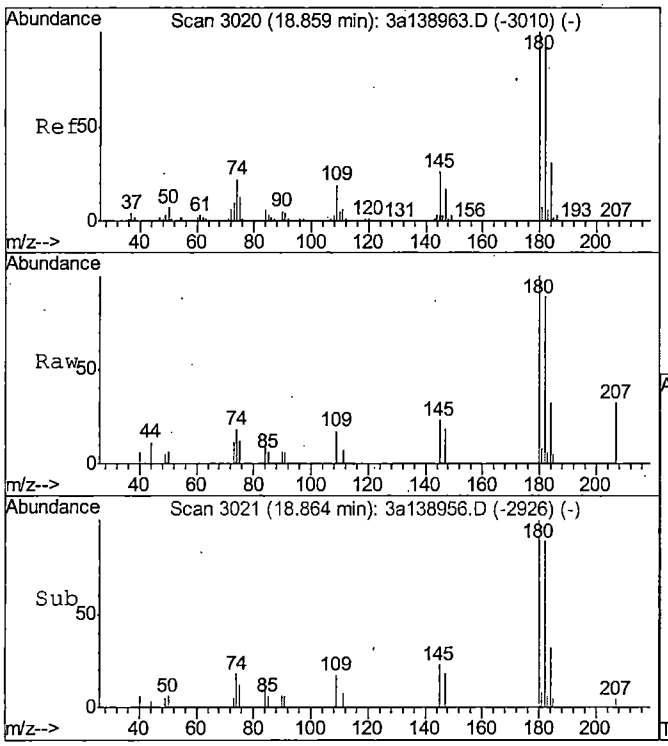
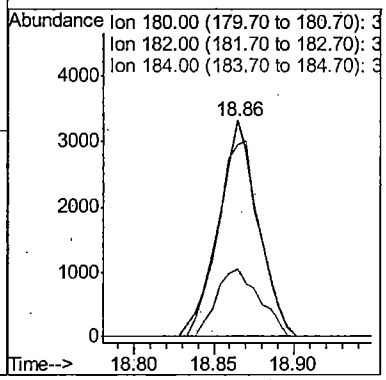
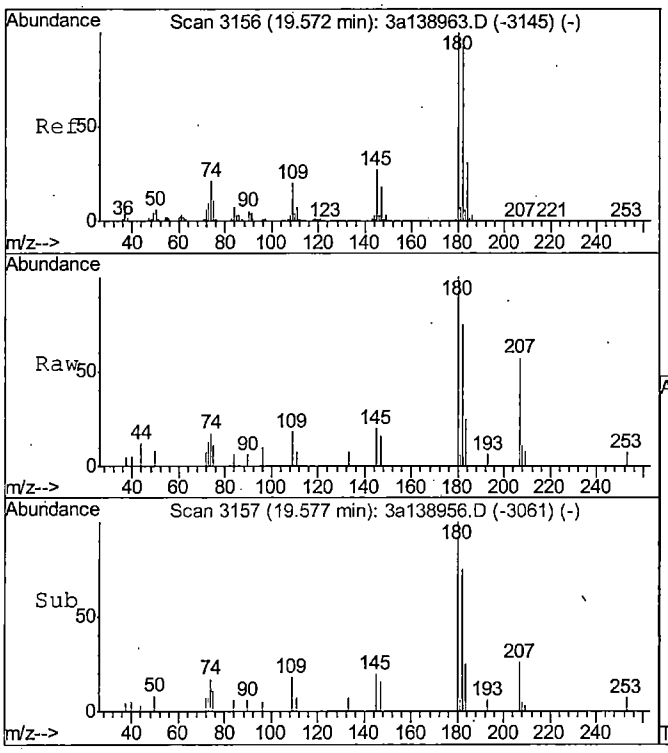


#125
1,3,5-TRICHLOROBENZENE
Concen: 0.89 ug/L
RT: 18.86 min Scan# 3021
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:180 Resp: 5735

Ion	Ratio	Lower	Upper
180	100		
182	96.8	65.0	125.0
184	34.1	0.0	59.8

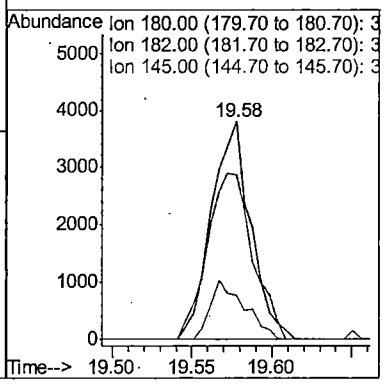




#126
1,2,4-trichlorobenzene
Concen: 0.92 ug/L
RT: 19.58 min Scan# 3157
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:180 Resp: 6445

Ion	Ratio	Lower	Upper
180	100		
182	75.5	66.5	126.5
145	20.2	0.0	58.2



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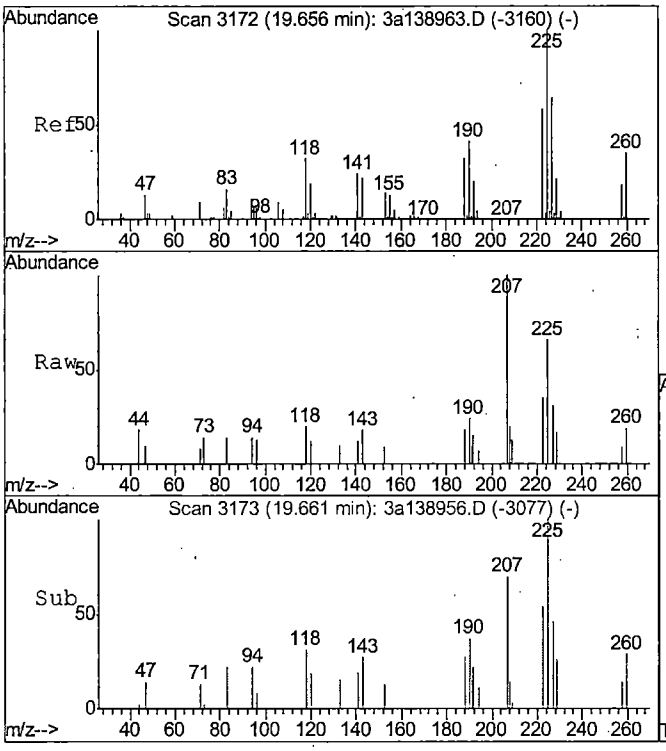
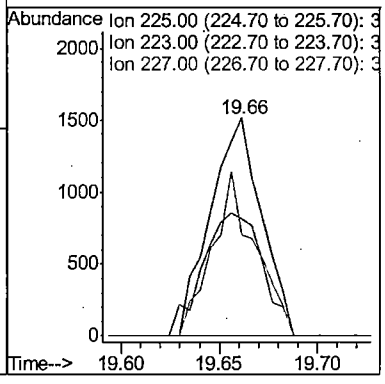
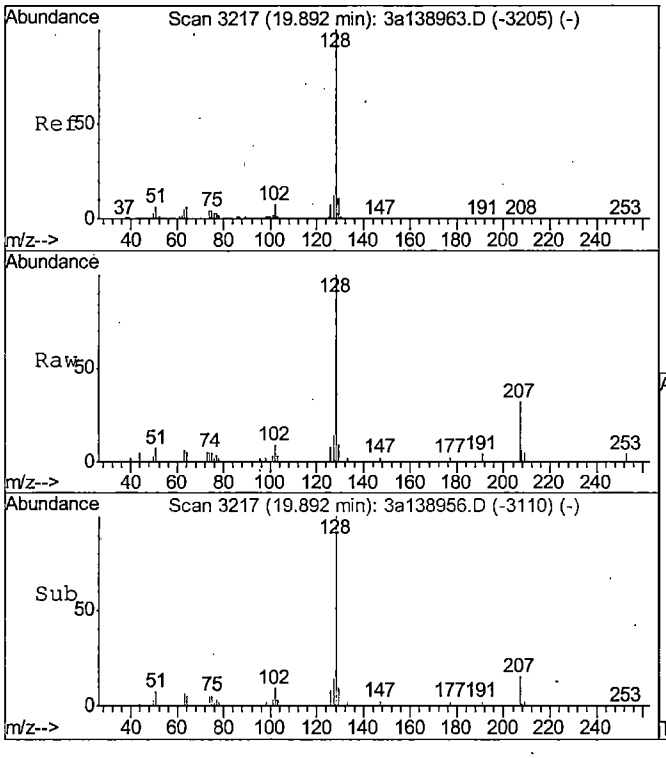


#127
hexachlorobutadiene
Concen: 0.92 ug/L
RT: 19.66 min Scan# 3173
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:225 Resp: 2720

Ion	Ratio	Lower	Upper
225	100		
223	53.6	31.1	91.1
227	46.2	32.0	92.0

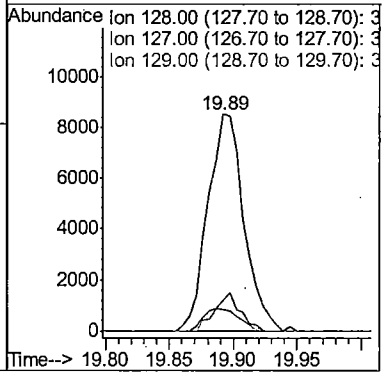




#128
naphthalene
Concen: 0.86 ug/L
RT: 19.89 min Scan# 3217
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:128 Resp: 16650

Ion	Ratio	Lower	Upper
128	100		
127	13.7	0.0	42.6
129	9.4	0.0	41.0



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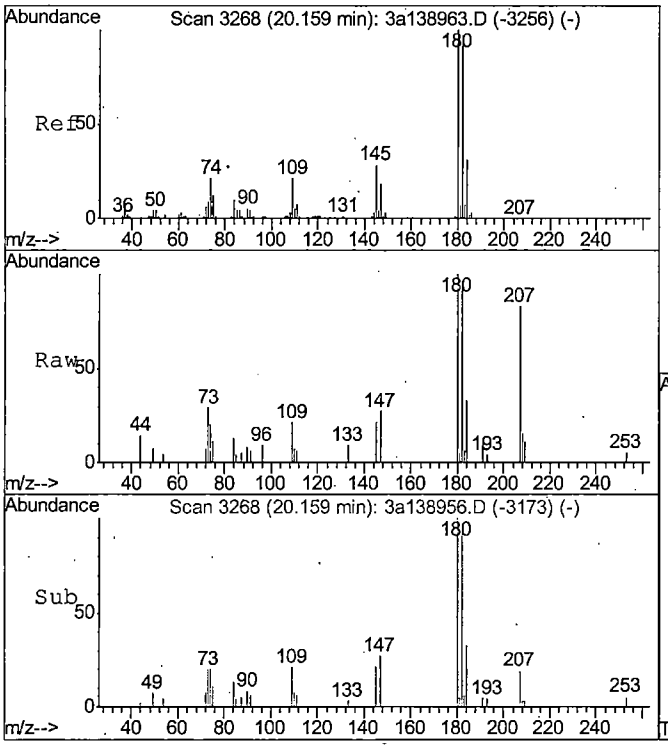
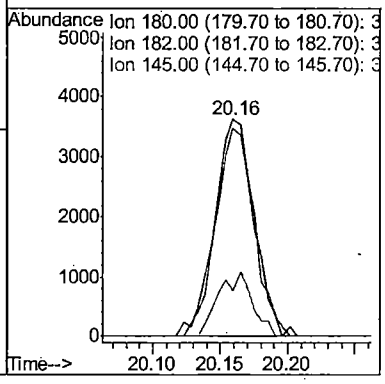


#129
1,2,3-trichlorobenzene
Concen: 0.94 ug/L
RT: 20.16 min Scan# 3268
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:180 Resp: 7312

Ion	Ratio	Lower	Upper
180	100		
182	95.8	64.9	124.9
145	21.0	0.0	59.4



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Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/18/15 15:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	141886	500.00	ug/L	-0.01
5) pentafluorobenzene	10.57	168	272370	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	296369	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	269228	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	167305	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	3801	1.68	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 3.36%#			
50) 1,2-dichloroethane-d4 (s)	11.10	65	3823	1.54	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 3.08%#			
79) toluene-d8 (s)	13.25	98	12334	1.65	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 3.30%#			
104) 4-bromofluorobenzene (s)	16.12	95	5811	1.79	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 3.58%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.29	59	2723m	7.99	ug/L	
4) 1,4-dioxane	12.33	88	1159	34.03	ug/L	72
8) chlorodifluoromethane	4.11	51	5097m	1.17	ug/L	
9) dichlorodifluoromethane	4.05	85	8480	1.60	ug/L	93
10) chloromethane	4.45	50	5924	1.37	ug/L	97
11) vinyl chloride	4.74	62	7306	1.49	ug/L	98
12) bromomethane	5.53	94	5174	2.02	ug/L	91
15) 2-CHLOROPROPANE	7.00	43	6281	1.21	ug/L #	93
16) chloroethane	5.73	64	3210	1.67	ug/L	79
20) ethyl ether	6.76	74	1830	1.33	ug/L #	72
21) acrolein	7.14	56	8157	12.24	ug/L	99
22) 1,1-dichloroethene	7.26	96	4539	1.73	ug/L #	76
24) allyl chloride	7.90	76	2117	1.52	ug/L #	57
26) iodomethane	7.60	142	9116	1.74	ug/L	93
27) iso-butyl alcohol	11.13	74	1173	13.96	ug/L #	72
28) carbon disulfide	7.71	76	17235	1.51	ug/L	95
29) methylene chloride	8.15	84	5047	1.62	ug/L	86
31) methyl tert butyl ether	8.47	73	15223	1.68	ug/L	97
32) trans-1,2-dichloroethene	8.55	61	5963	1.55	ug/L	86
33) di-isopropyl ether	9.13	45	11410	1.20	ug/L	97
35) 1,1-dichloroethane	9.21	63	7214	1.53	ug/L	89
36) chloroprene	9.30	53	4794	1.31	ug/L	94
37) acrylonitrile	8.60	53	6314	5.88	ug/L	98
39) ethyl tert-butyl ether	9.65	59	14403	1.48	ug/L	90
41) 2,2-dichloropropane	10.00	77	7722	1.66	ug/L	96
42) cis-1,2-dichloroethene	10.02	96	4794	1.63	ug/L	94
44) propionitrile	10.19	54	4622	11.50	ug/L	90
45) bromochloromethane	10.38	128	2470	1.84	ug/L	80
46) tetrahydrofuran	10.39	42	1131	1.19	ug/L #	34
47) chloroform	10.43	85	4716	1.70	ug/L	98
48) t-butyl formate	10.43	59	3690	1.31	ug/L #	86
51) freon 113	7.19	151	3376	1.58	ug/L	89
53) 1,1,1-trichloroethane	10.66	97	6902	1.62	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) Cyclohexane	10.70	84	6802	1.42 ug/L	78
56) epichlorohydrin	12.91	57	1392	5.99 ug/L	80
58) carbon tetrachloride	10.85	117	6097	1.95 ug/L	97
59) 1,1-dichloropropene	10.85	75	4990	1.76 ug/L	97
61) hexane	8.83	57	3394	1.34 ug/L	95
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	13182	1.39 ug/L	94
63) benzene	11.13	78	14989	1.73 ug/L	91
64) tert-amyl methyl ether	11.14	87	3240	1.68 ug/L #	77
65) heptane	11.26	57	2081	1.38 ug/L	99
66) isopropyl acetate	11.07	43	7341	1.32 ug/L	97
67) 1,2-dichloroethane	11.19	62	4698	1.86 ug/L	98
69) trichloroethene	11.88	95	3807	1.91 ug/L	92
71) methyl methacrylate	12.18	69	1767	1.31 ug/L	89
72) 2-nitropropane	12.77	41	819	1.11 ug/L #	41
73) 2-chloroethyl vinyl ether	12.75	63	10796	7.60 ug/L	95
74) 1,2-dichloropropane	12.19	63	3595	1.67 ug/L	98
75) dibromomethane	12.37	93	2403	1.85 ug/L	90
76) methylcyclohexane	12.06	83	6433	1.48 ug/L	94
77) bromodichloromethane	12.50	83	4926	1.86 ug/L	94
78) cis-1,3-dichloropropene	12.97	75	5912	1.73 ug/L	93
81) toluene	13.33	92	8926	1.87 ug/L	94
82) 3-methyl-1-butanol	13.12	55	2908	23.89 ug/L	90
83) trans-1,3-dichloropropene	13.58	75	5166	1.68 ug/L	96
84) ethyl methacrylate	13.54	69	3968	1.49 ug/L	85
85) 1,1,2-trichloroethane	13.81	83	2811	1.84 ug/L	95
88) tetrachloroethene	13.95	164	2984	1.91 ug/L	89
90) 1,3-dichloropropane	14.00	76	5175	1.68 ug/L	88
91) butyl acetate	14.05	56	1715	1.17 ug/L	91
92) 3,3-dimethyl-1-butanol	14.17	57	3653	10.48 ug/L	93
93) dibromochloromethane	14.29	129	3866	1.94 ug/L	88
94) 1,2-dibromoethane	14.45	107	3548	1.93 ug/L	94
95) chlorobenzene	14.92	112	10568	1.88 ug/L	91
96) 1,1,1,2-tetrachloroethane	14.99	131	4381	1.95 ug/L	81
97) ethylbenzene	14.96	91	16696	1.74 ug/L	95
98) m,p-xylene	15.07	106	13011	3.54 ug/L	83
99) o-xylene	15.52	106	7098	1.89 ug/L	98
100) styrene	15.55	104	10948	1.80 ug/L	84
101) bromoform	15.87	173	2832	2.03 ug/L	85
103) isopropylbenzene	15.88	105	18194	1.65 ug/L	97
106) bromobenzene	16.34	156	4722	1.78 ug/L	92
107) 1,1,2,2-tetrachloroethane	16.26	83	5605	1.71 ug/L	91
108) trans-1,4-dichloro-2-buten	16.31	53	1319	1.59 ug/L	78
109) 1,2,3-trichloropropane	16.34	110	1194	1.53 ug/L	90
110) n-propylbenzene	16.32	120	4442	1.63 ug/L	97
111) 2-chlorotoluene	16.49	126	4567	1.77 ug/L	94
112) 4-chlorotoluene	16.60	126	4866m	1.87 ug/L	
113) 1,3,5-trimethylbenzene	16.47	105	15613	1.56 ug/L	91
114) tert-butylbenzene	16.85	119	13502	1.53 ug/L	99
115) pentachloroethane	16.97	167	2987	1.47 ug/L	86
116) 1,2,4-trimethylbenzene	16.90	105	15372	1.63 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
117) sec-butylbenzene	17.08	105	21145	1.53 ug/L	95
118) 1,3-dichlorobenzene	17.31	146	10508	1.87 ug/L	93
119) p-isopropyltoluene	17.20	119	17698	1.62 ug/L	97
120) 1,4-dichlorobenzene	17.40	146	10709	1.83 ug/L	91
121) 1,2-dichlorobenzene	17.84	146	11245	1.90 ug/L	95
122) benzyl chloride	17.54	91	11491	1.64 ug/L	99
123) n-butylbenzene	17.65	92	9889	1.69 ug/L	99
124) 1,2-dibromo-3-chloropropan	18.71	75	1362	1.71 ug/L	90
125) 1,3,5-TRICHLOROBENZENE	18.86	180	11186	1.79 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	12007	1.75 ug/L	99
127) hexachlorobutadiene	19.66	225	5282	1.84 ug/L	97
128) naphthalene	19.89	128	29653	1.58 ug/L	98
129) 1,2,3-trichlorobenzene	20.16	180	13206	1.75 ug/L	92
130) hexachloroethane	18.09	201	2754	4.36 ug/L	97

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

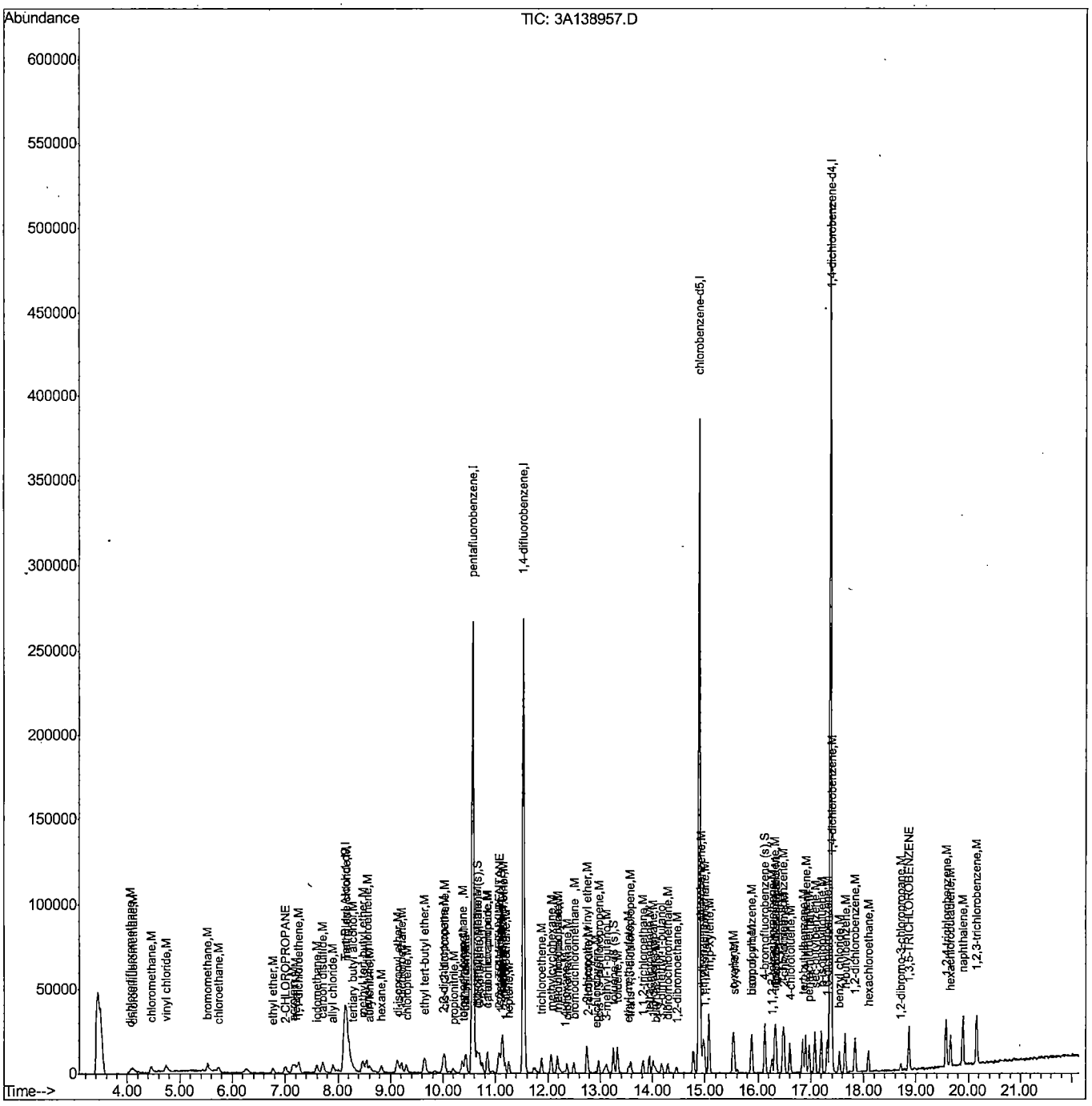
7.6.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



7.6.2

7

Manual Integration Approval Summary

Sample Number:	V3A6014-IC6014	**Method:**	SW846 8260B
Lab FileID:	3A138957.D	**Analyst approved:**	02/18/15 09:40 Dejana Salaj
Injection Time:	02/13/15 17:40	**Supervisor approved:**	02/18/15 15:01 Jessica Reitan-Chu

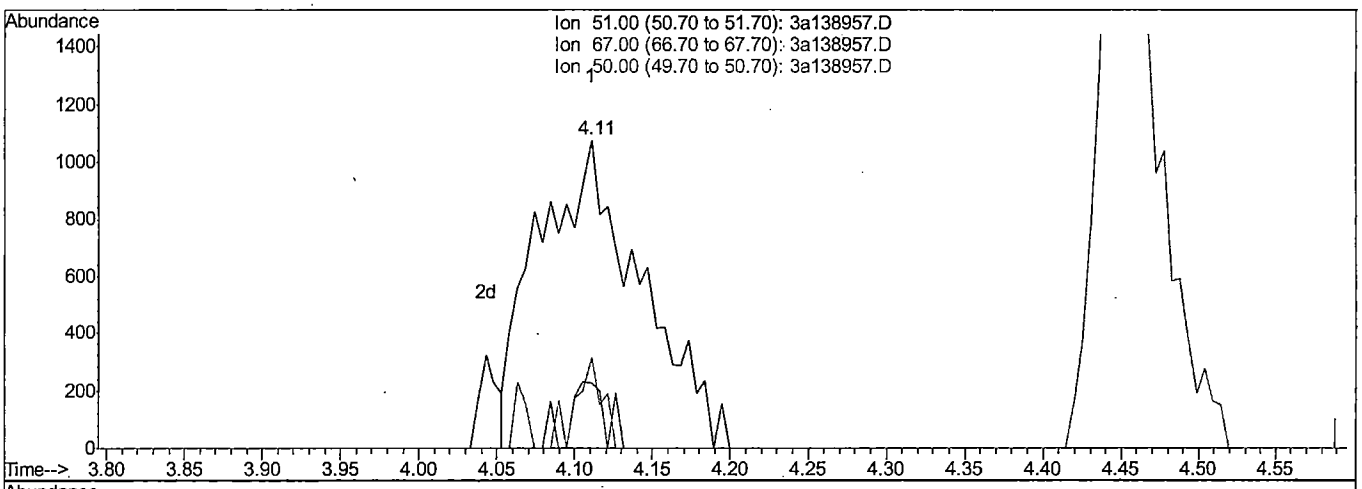
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlorodifluoromethane	75-45-6		4.11	Poor instrument integration
p-Chlorotoluene	106-43-4		16.60	Poor instrument integration

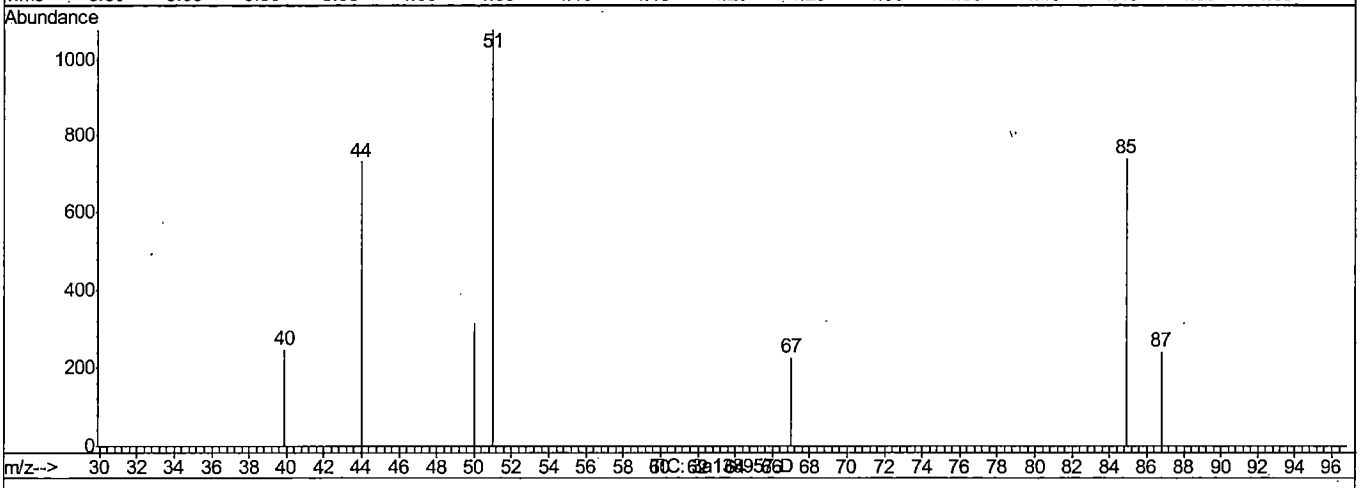
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 09:21:23 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:06:24 2015
Response via : Multiple Level Calibration





(8) chlorodifluoromethane (M)

4.11min 1.12ug/L

response 4893

Ion	Exp%	Act%
51.00	100	100
67.00	17.10	21.00
50.00	10.40	29.09
0.00	0.00	0.00

3a138957.D M3A6014.M' Mon Feb 16 10:21:13 2015 ACCUNJ

7.6.2.2

7

ACCUTEST LABORATORIES JB88562

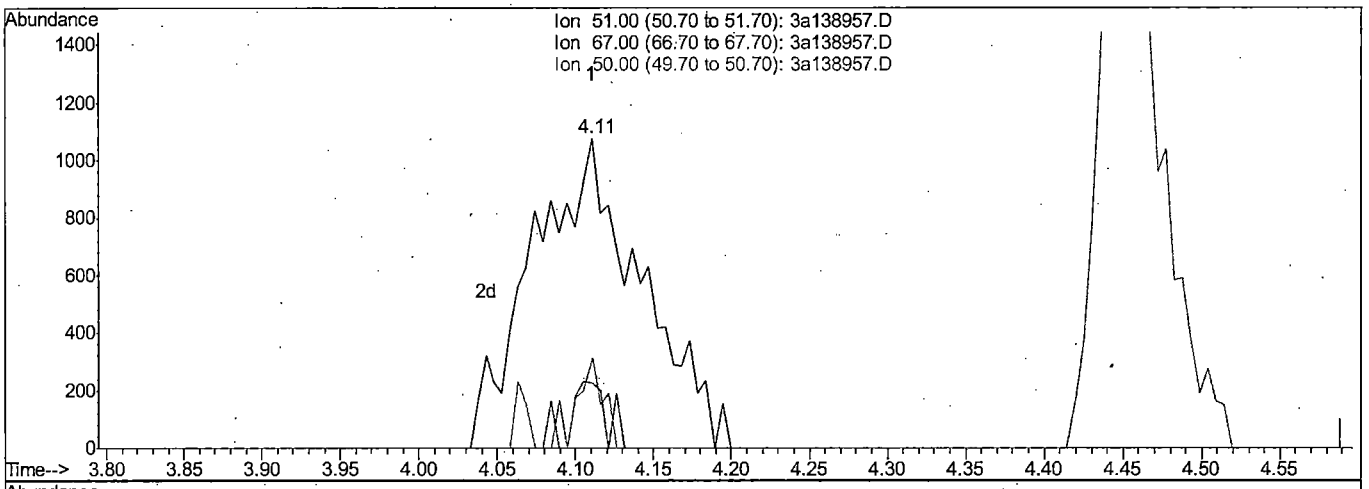
3A138957.D edits: chlorodifluoromethane

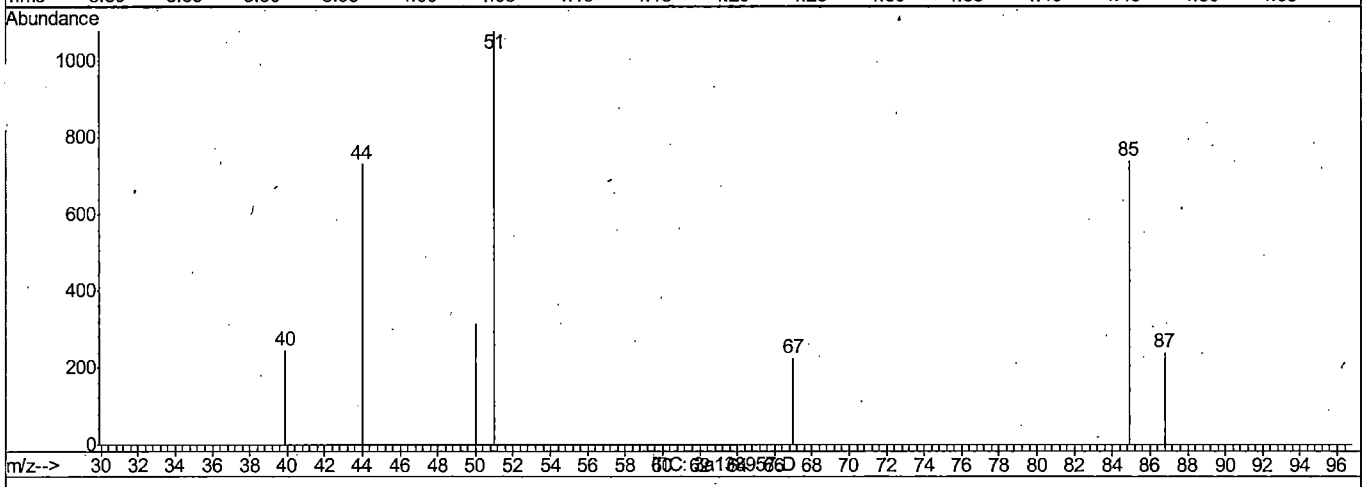
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 09:21:23 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:06:24 2015
Response via : Multiple Level Calibration





(8) chlorodifluoromethane (M)

4.11min 1.17ug/L m

response 5097

Ion	Exp%	Act%
51.00	100	100
67.00	17.10	21.00
50.00	10.40	29.09
0.00	0.00	0.00

3a138957.D M3A6014.M Mon Feb 16 10:21:23 2015 ACCUNJ

7.6.2.3

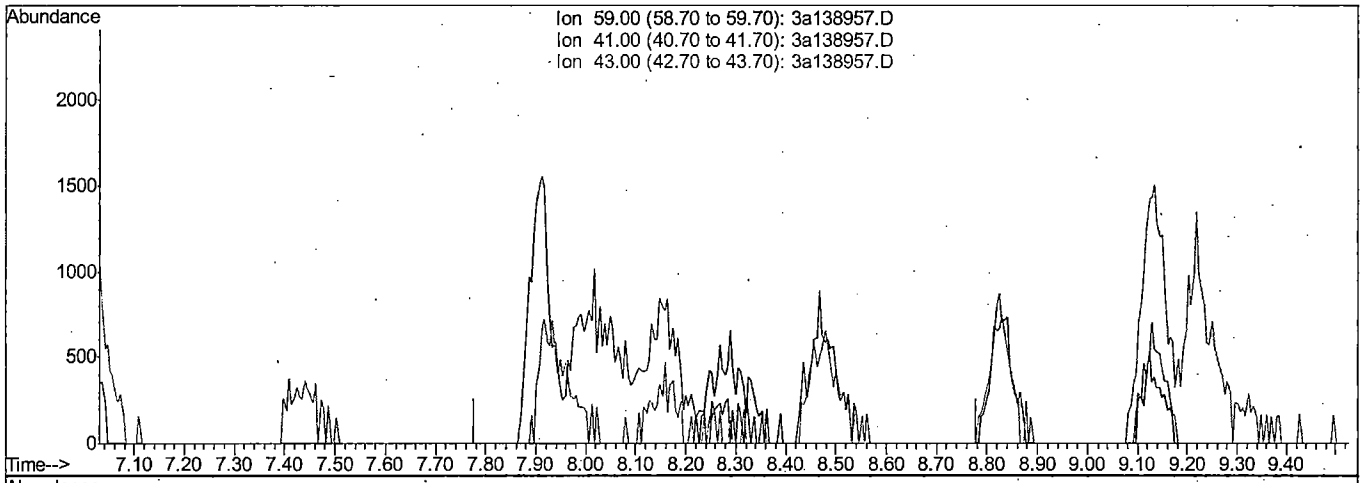
7

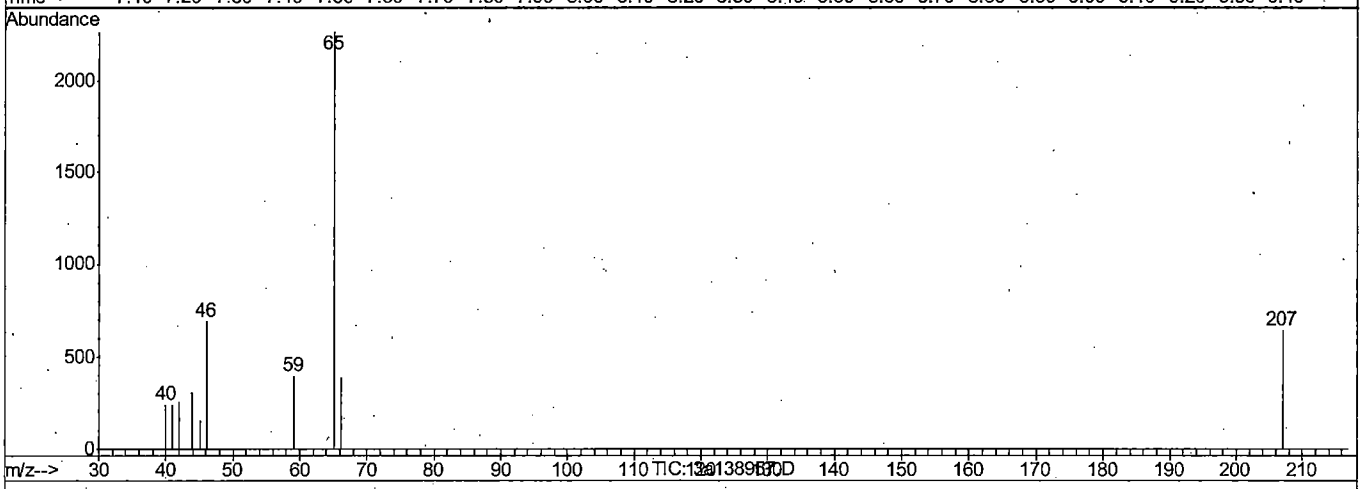
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\RAWDATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 09:07:38 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 12:28:42 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.28min 0.00ug/L

response 0

Ion	Exp%	Act%
59.00	100	0.00
41.00	0.00	0.00
43.00	0.00	0.00
0.00	0.00	0.00

3a138957.D M3A6014.M Wed Feb 18 13:00:54 2015 ACCUNJ

7.6.2.4

7

ACCUTEST LABORATORIES JB88562

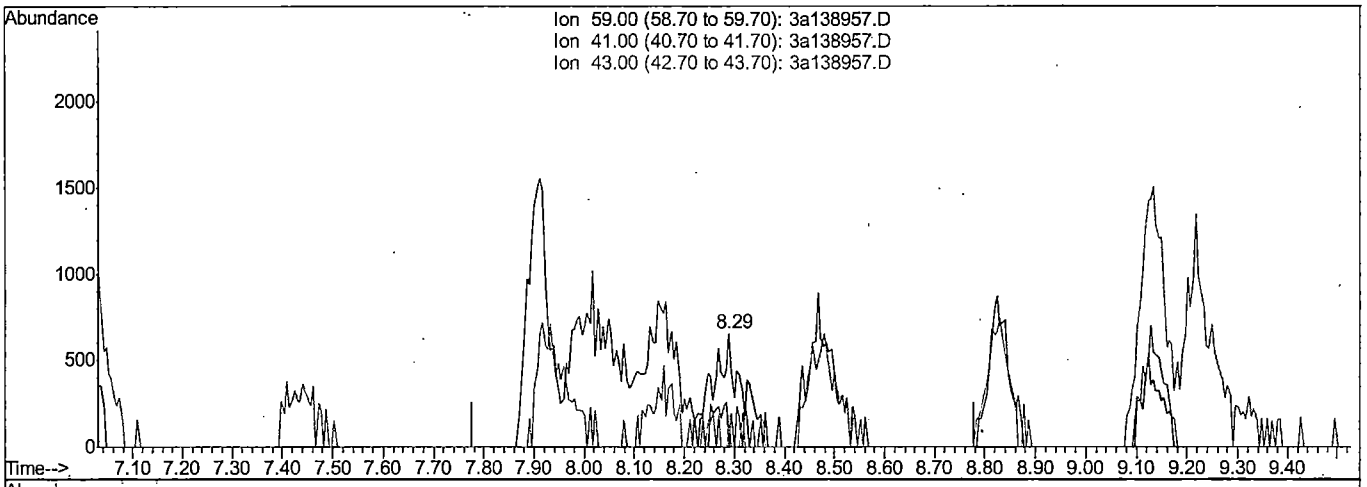
3A138957.D edits: tertiary butyl alcohol

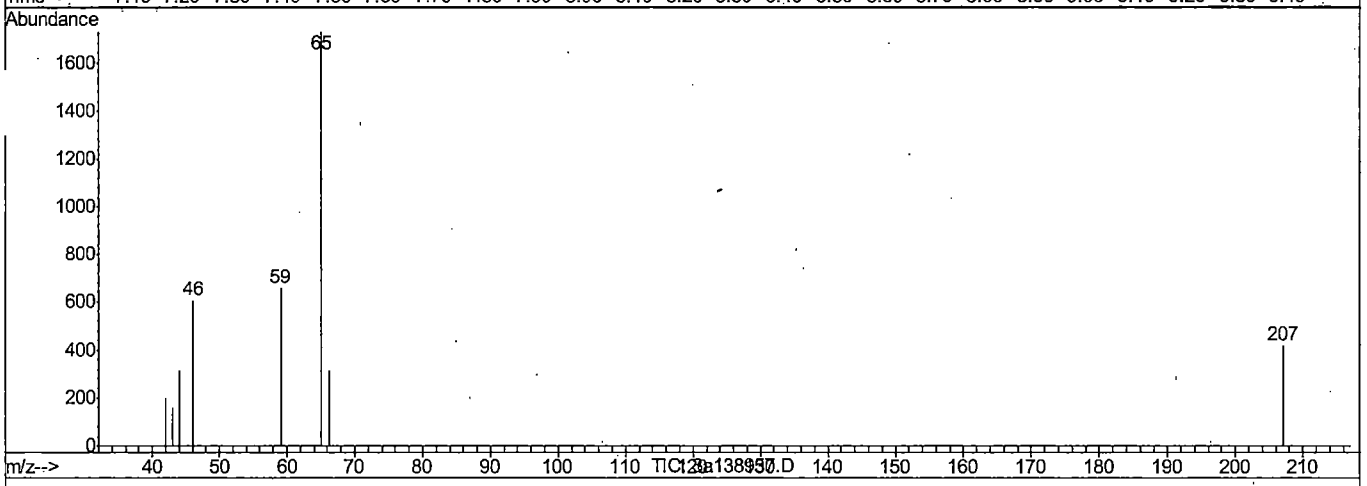
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80901,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 12:19:27 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 12:28:42 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.29min 7.99ug/L m

response 2723

Ion	Exp%	Act%
59.00	100	100
41.00	0.00	0.00
43.00	0.00	24.35
0.00	0.00	0.00

3a138957.D M3A6014.M Wed Feb 18 13:02:14 2015 ACCUNJ

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/18/15 15:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	141960	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	276157	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	312228	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	279709	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	173314	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	9913	4.86	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 9.72%#			
50) 1,2-dichloroethane-d4 (s)	11.10	65	10155	4.76	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 9.52%#			
79) toluene-d8 (s)	13.25	98	33249	4.79	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 9.58%#			
104) 4-bromofluorobenzene (s)	16.12	95	13755	3.85	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 7.70%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.29	59	7738m	27.13	ug/L	
4) 1,4-dioxane	12.31	88	3798	125.82	ug/L #	73
8) chlorodifluoromethane	4.09	51	12729	4.67	ug/L	93
9) dichlorodifluoromethane	4.07	85	21655	4.84	ug/L	85
10) chloromethane	4.45	50	14855	4.55	ug/L	99
11) vinyl chloride	4.74	62	17854	4.52	ug/L	96
12) bromomethane	5.53	94	12011	5.09	ug/L	91
15) 2-CHLOROPROPANE	7.00	43	15984	5.06	ug/L	96
16) chloroethane	5.74	64	8156	5.19	ug/L	94
17) trichlorofluoromethane	6.28	101	19545	4.83	ug/L	86
19) 1-CHLOROPROPANE	8.16	42	24872	4.73	ug/L #	88
20) ethyl ether	6.76	74	5085	4.77	ug/L	92
21) acrolein	7.14	56	22748	49.41	ug/L	94
22) 1,1-dichloroethene	7.26	96	11781	5.22	ug/L	98
23) acetone	7.42	43	3199	5.23	ug/L	96
24) allyl chloride	7.91	76	5648	5.10	ug/L	96
25) acetonitrile	7.99	40	7564	47.22	ug/L	82
26) iodomethane	7.60	142	23456	4.91	ug/L	96
27) iso-butyl alcohol	11.14	74	3500	53.64	ug/L	84
28) carbon disulfide	7.71	76	44209	5.02	ug/L	98
29) methylene chloride	8.15	84	13245	5.06	ug/L	93
30) methyl acetate	7.92	43	7113	5.00	ug/L	94
31) methyl tert butyl ether	8.47	73	37321	4.97	ug/L	94
32) trans-1,2-dichloroethene	8.54	61	15179	5.02	ug/L	92
33) di-isopropyl ether	9.12	45	30242	5.00	ug/L	92
34) 2-butanone	10.03	72	1054	4.48	ug/L #	15
35) 1,1-dichloroethane	9.21	63	18981	5.12	ug/L	94
36) chloroprene	9.30	53	12406	5.11	ug/L	93
37) acrylonitrile	8.59	53	18006	25.01	ug/L	92
39) ethyl tert-butyl ether	9.65	59	36103	4.93	ug/L	99
40) ethyl acetate	10.01	45	695	3.62	ug/L #	33
41) 2,2-dichloropropane	9.99	77	19780	5.13	ug/L	95
42) cis-1,2-dichloroethene	10.02	96	12583	5.07	ug/L	86

7.6.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
43) methylacrylate	10.12	85	967	3.61 ug/L #	64
44) propionitrile	10.18	54	14068	49.44 ug/L	93
45) bromochloromethane	10.38	128	6614	5.17 ug/L	89
46) tetrahydrofuran	10.40	42	3045	5.02 ug/L	82
47) chloroform	10.43	85	12663	5.31 ug/L	93
48) t-butyl formate	10.43	59	9732	4.92 ug/L #	90
51) freon 113	7.19	151	9637	5.42 ug/L	98
53) 1,1,1-trichloroethane	10.65	97	18561	5.19 ug/L	93
54) Cyclohexane	10.69	84	19293	5.14 ug/L	94
56) epichlorohydrin	12.90	57	4275	24.49 ug/L	97
57) n-butyl alcohol	11.72	56	12627	210.58 ug/L	94
58) carbon tetrachloride	10.85	117	16175	4.94 ug/L	94
59) 1,1-dichloropropene	10.84	75	13221	5.07 ug/L	93
61) hexane	8.83	57	9262	4.97 ug/L	87
62) 2,2,4-TRIMETHYLPENTANE	11.06	57	34296	4.73 ug/L	95
63) benzene	11.13	78	40598	5.04 ug/L	100
64) tert-amyl methyl ether	11.14	87	8541	4.87 ug/L #	83
65) heptane	11.26	57	5388	5.11 ug/L	84
66) isopropyl acetate	11.06	43	19248	4.80 ug/L	95
67) 1,2-dichloroethane	11.19	62	12313	5.06 ug/L	92
69) trichloroethene	11.88	95	10146	5.10 ug/L	96
71) methyl methacrylate	12.18	69	5464	4.85 ug/L	83
72) 2-nitropropane	12.77	41	2966	5.42 ug/L	75
73) 2-chloroethyl vinyl ether	12.74	63	29573	25.31 ug/L	97
74) 1,2-dichloropropane	12.18	63	9751	4.93 ug/L	100
75) dibromomethane	12.36	93	6895	5.33 ug/L	89
76) methylcyclohexane	12.06	83	17945	4.99 ug/L	99
77) bromodichloromethane	12.49	83	13293	5.05 ug/L	93
78) cis-1,3-dichloropropene	12.97	75	15429	4.91 ug/L	96
80) 4-methyl-2-pentanone	13.08	58	3617	4.73 ug/L #	81
81) toluene	13.33	92	23679	5.23 ug/L	100
82) 3-methyl-1-butanol	13.11	55	8526	91.41 ug/L	90
83) trans-1,3-dichloropropene	13.58	75	14183	5.13 ug/L	98
84) ethyl methacrylate	13.54	69	11111	4.92 ug/L	92
85) 1,1,2-trichloroethane	13.82	83	7613	5.05 ug/L	97
86) 2-hexanone	14.00	58	3197	4.52 ug/L	82
88) tetrachloroethene	13.94	164	8523	5.08 ug/L	92
90) 1,3-dichloropropane	14.00	76	14709	5.16 ug/L	91
91) butyl acetate	14.05	56	5267	4.72 ug/L	94
92) 3,3-dimethyl-1-butanol	14.17	57	10281	41.93 ug/L	97
93) dibromochloromethane	14.29	129	10570	5.04 ug/L	98
94) 1,2-dibromoethane	14.45	107	9534	5.10 ug/L	87
95) chlorobenzene	14.92	112	26820	4.84 ug/L	97
96) 1,1,1,2-tetrachloroethane	14.99	131	11387	4.77 ug/L	93
97) ethylbenzene	14.96	91	46508	5.12 ug/L	97
98) m,p-xylene	15.07	106	34791	9.96 ug/L	87
99) o-xylene	15.52	106	18259	5.06 ug/L	90
100) styrene	15.55	104	29159	4.98 ug/L	96
101) bromoform	15.87	173	8186	5.11 ug/L	98
103) isopropylbenzene	15.88	105	48808	4.85 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
105) cyclohexanone	16.13	98	10034	55.26 ug/L	93
106) bromobenzene	16.34	156	12797	4.85 ug/L	92
107) 1,1,2,2-tetrachloroethane	16.26	83	15161	5.17 ug/L	94
108) trans-1,4-dichloro-2-buten	16.30	53	3510	5.15 ug/L	86
109) 1,2,3-trichloropropane	16.34	110	3445	4.91 ug/L	95
110) n-propylbenzene	16.31	120	12738	4.96 ug/L	91
111) 2-chlorotoluene	16.49	126	12685	5.00 ug/L	97
112) 4-chlorotoluene	16.60	126	12796	5.18 ug/L	94
113) 1,3,5-trimethylbenzene	16.47	105	42445	4.84 ug/L	98
114) tert-butylbenzene	16.85	119	35838	4.51 ug/L	97
115) pentachloroethane	16.97	167	8689	4.59 ug/L	94
116) 1,2,4-trimethylbenzene	16.90	105	42902	4.93 ug/L	99
117) sec-butylbenzene	17.07	105	57067	4.65 ug/L	97
118) 1,3-dichlorobenzene	17.31	146	27312	4.98 ug/L	97
119) p-isopropyltoluene	17.20	119	48650	4.72 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	28364	4.95 ug/L	92
121) 1,2-dichlorobenzene	17.84	146	28675	4.88 ug/L	96
122) benzyl chloride	17.54	91	29292	4.90 ug/L	99
123) n-butylbenzene	17.65	92	25864	4.92 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.70	75	3291	4.71 ug/L	93
125) 1,3,5-TRICHLOROBENZENE	18.86	180	29011	4.78 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	30907	4.72 ug/L	97
127) hexachlorobutadiene	19.66	225	13715	4.77 ug/L	98
128) naphthalene	19.89	128	78677	4.58 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	34348	4.68 ug/L	93
130) hexachloroethane	18.09	201	7969	4.43 ug/L	92

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

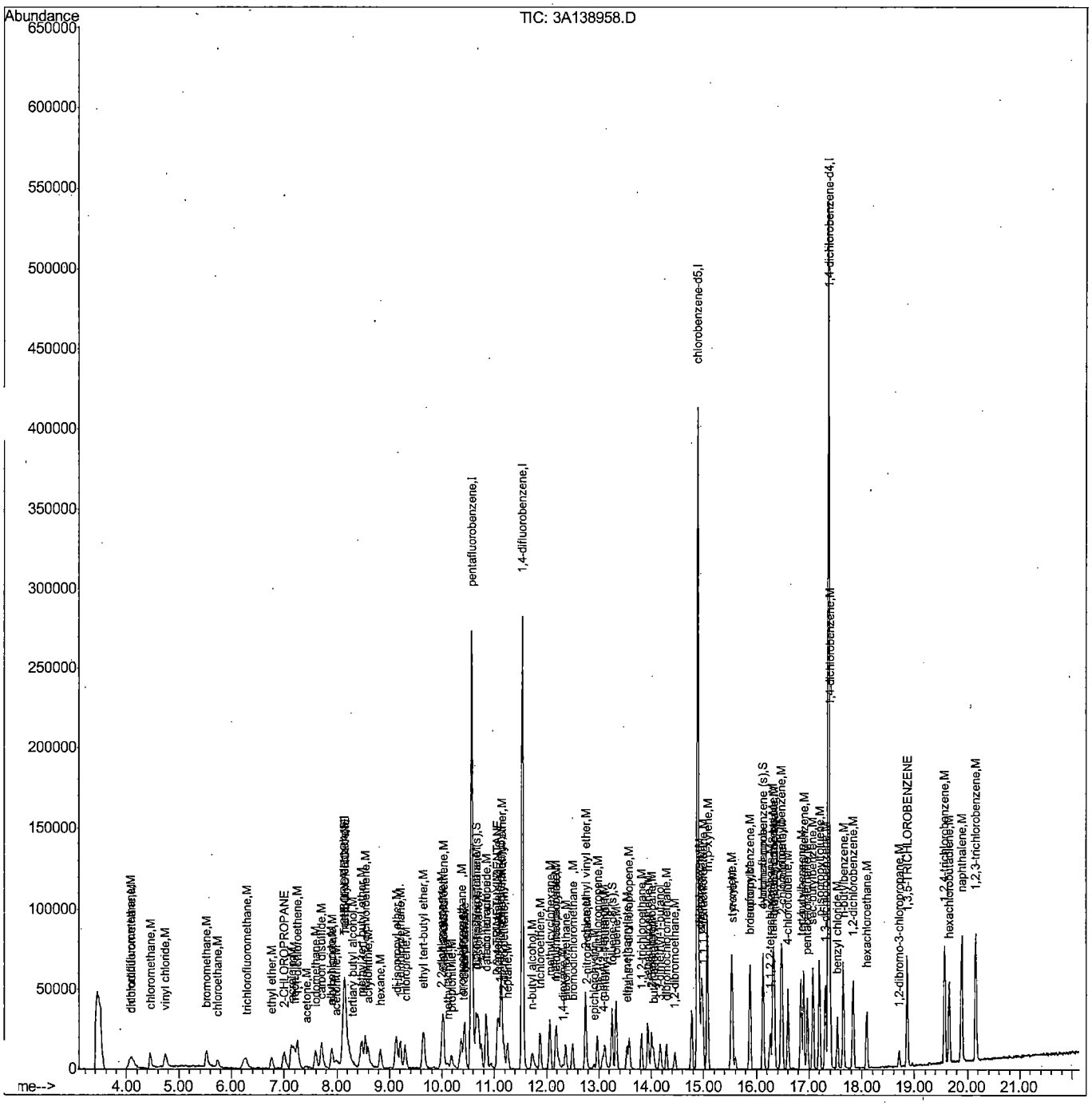
7.6.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Manual Integration Approval Summary

Sample Number:	V3A6014-IC6014	**Method:**	SW846 8260B
Lab FileID:	3A138958.D	**Analyst approved:**	02/18/15 09:40 Dejana Salaj
Injection Time:	02/13/15 18:11	**Supervisor approved:**	02/18/15 15:01 Jessica Reitan-Chu

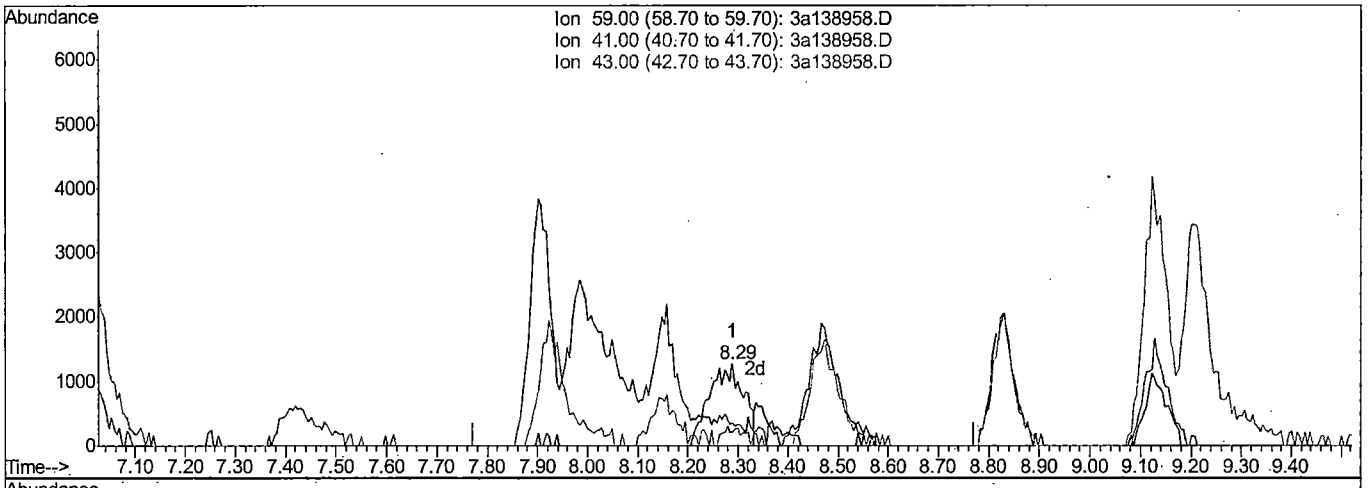
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tert Butyl Alcohol	75-65-0		8.29	Poor instrument integration

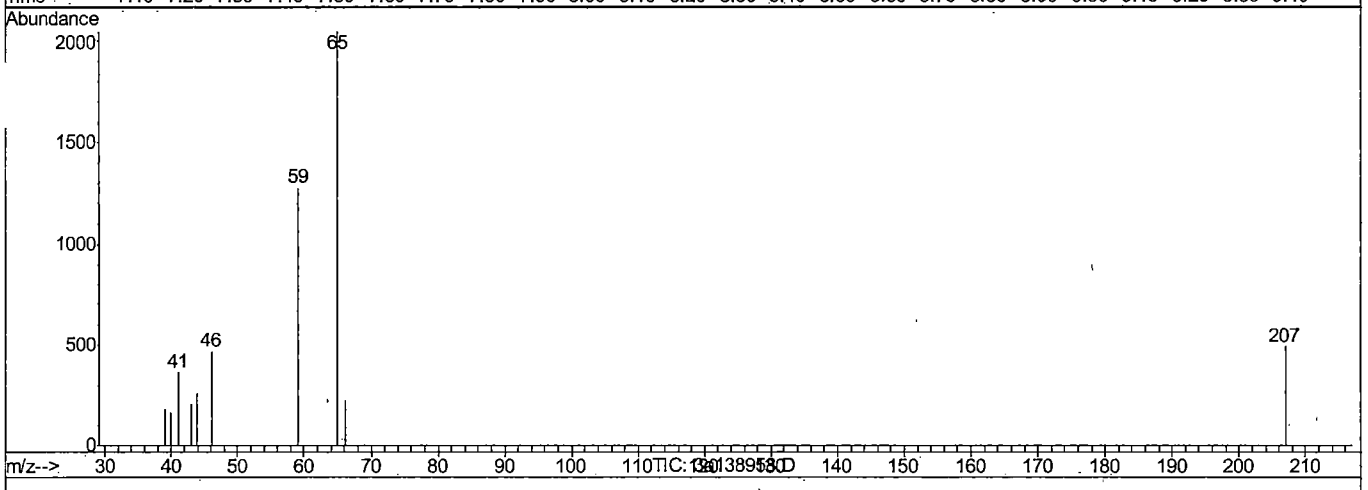
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138958.D Vial: 4
Acq On : 13 Feb 2015 6:11 pm Operator: zobiah
Sample : ic6014-5 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 10:30:10 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:24:22 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.29min 21.04ug/L

response 6000

Ion	Exp%	Act%
59.00	100	100
41.00	0.00	11.36
43.00	0.00	16.22
0.00	0.00	0.00

3a138958.D M3A6014.M Mon Feb 16 10:30:20 2015 ACCUNJ

7.6.3.2

7

3A138958.D edits: tertiary butyl alcohol

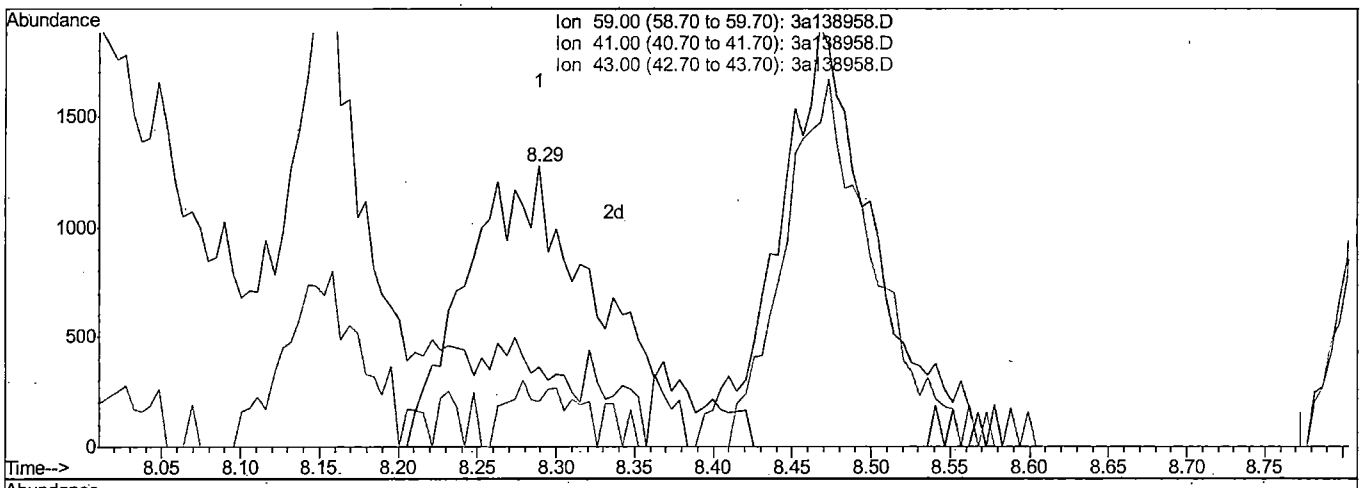
ACCUTEST LABORATORIES JB88562

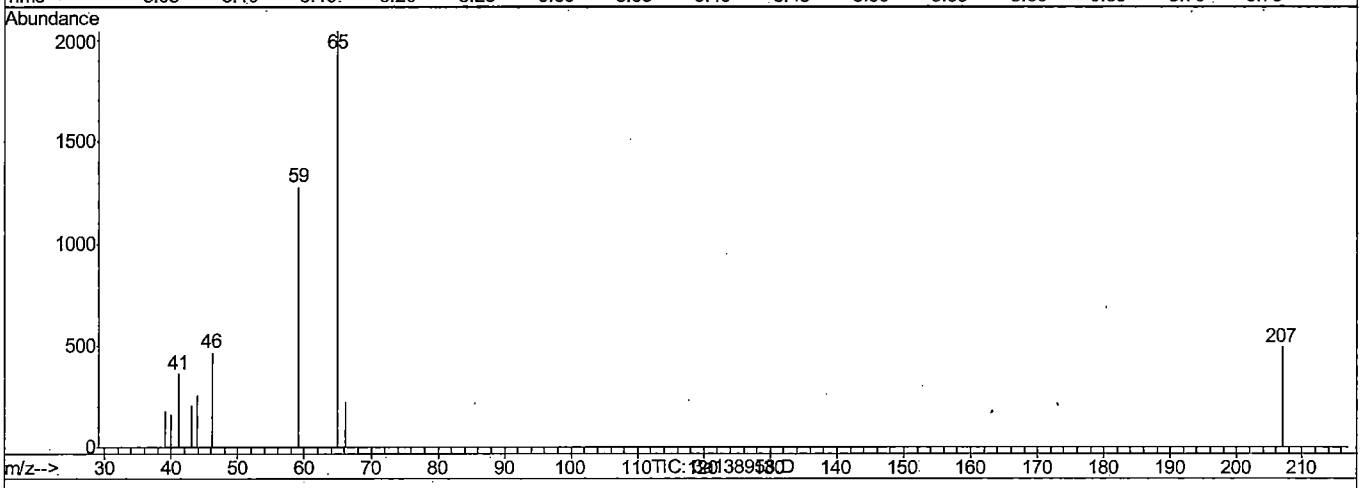
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138958.D Vial: 4
Acq On : 13 Feb 2015 6:11 pm Operator: zobiah
Sample : ic6014-5 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 10:30:10 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:24:22 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.29min 27.13ug/L m

response 7738

Ion	Exp%	Act%
59.00	100	100
41.00	0.00	28.53
43.00	0.00	16.22
0.00	0.00	0.00

3a138958.D M3A6014.M Mon Feb 16 10:30:33 2015 ACCUNJ

7.6.3.3

7

ACCUTEST LABORATORIES JB88562

3A138958.D edits: tertiary butyl alcohol

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138959.D
Acq On : 13 Feb 2015 6:41 pm
Operator : zobiah
Sample : ic6014-0.2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 11:07:25 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	122185	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	265268	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	299570	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	270687	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	173190	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	429	0.22	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 0.44%#			
50) 1,2-dichloroethane-d4 (s)	11.09	65	551	0.27	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 0.54%#			
79) toluene-d8 (s)	13.26	98	1661	0.25	ug/L	0.01
Spiked Amount 50.000	Range 78 - 121		Recovery = 0.50%#			
104) 4-bromofluorobenzene (s)	16.13	95	1706	0.48	ug/L	0.01
Spiked Amount 50.000	Range 77 - 120		Recovery = 0.96%#			
Target Compounds						Qvalue
31) methyl tert butyl ether	8.47	73	1250	0.17	ug/L	55
63) benzene	11.14	78	1501	0.19	ug/L	86
81) toluene	13.34	92	683	0.16	ug/L	82
97) ethylbenzene	14.97	91	1624	0.18	ug/L	73
98) m,p-xylene	15.07	106	1113	0.33	ug/L	92
99) o-xylene	15.53	106	527	0.15	ug/L #	78

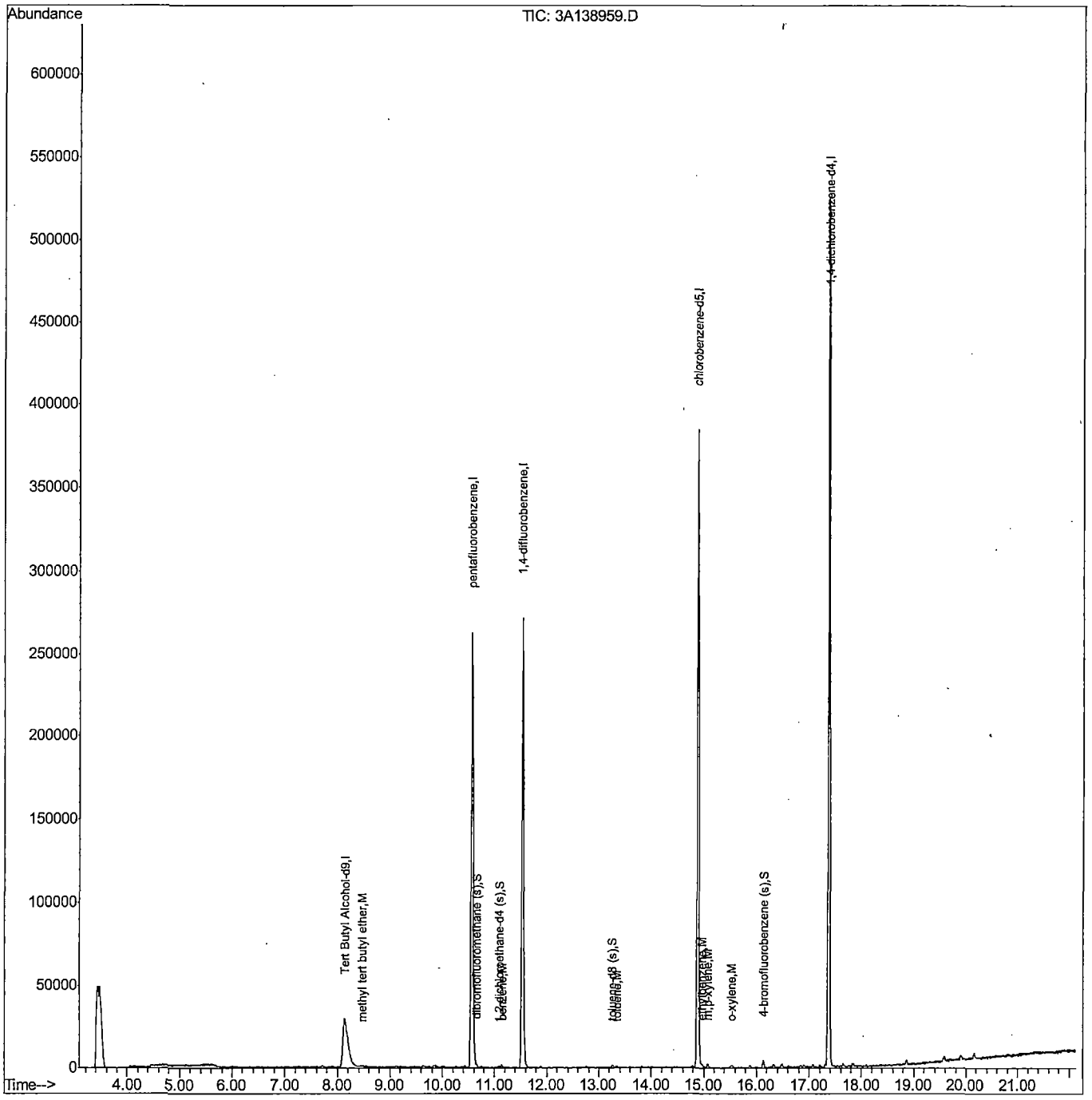
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138959.D
Acq On : 13 Feb 2015 6:41 pm
Operator : zobiah
Sample : ic6014-0.2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 11:07:25 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration



ACCUTEST. LABORATORIES
JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138960.D
Acq On : 13 Feb 2015 7:11 pm
Operator : zobiah
Sample : ic6014-0.5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:29:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	136346	500.00	ug/L	-0.01
5) pentafluorobenzene	10.57	168	267729	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	294577	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	266943	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	172422	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	950	0.43	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 0.86%#			
50) 1,2-dichloroethane-d4 (s)	11.10	65	990	0.41	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 0.82%#			
79) toluene-d8 (s)	13.26	98	3227	0.44	ug/L	0.01
Spiked Amount 50.000	Range 78 - 121		Recovery = 0.88%#			
104) 4-bromofluorobenzene (s)	16.13	95	1958	0.58	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 1.16%#			

Target Compounds						Qvalue
22) 1,1-dichloroethene	7.27	96	1087	0.42	ug/L #	35
31) methyl tert butyl ether	8.46	73	3557	0.40	ug/L	99
51) freon 113	7.19	151	665	0.32	ug/L #	21
53) 1,1,1-trichloroethane	10.65	97	1482	0.35	ug/L	87
54) Cyclohexane	10.71	84	1530	0.33	ug/L #	80
58) carbon tetrachloride	10.85	117	1590	0.51	ug/L	87
59) 1,1-dichloropropene	10.85	75	1202	0.43	ug/L #	72
63) benzene	11.14	78	3868	0.45	ug/L	93
69) trichloroethene	11.88	95	786	0.40	ug/L #	85
75) dibromomethane	12.36	93	505	0.39	ug/L #	73
76) methylcyclohexane	12.06	83	1645	0.38	ug/L	87
77) bromodichloromethane	12.50	83	1100	0.42	ug/L	84
78) cis-1,3-dichloropropene	12.99	75	1376	0.41	ug/L	79
81) toluene	13.34	92	1951	0.41	ug/L	92
83) trans-1,3-dichloropropene	13.58	75	1092	0.36	ug/L	80
85) 1,1,2-trichloroethane	13.82	83	633	0.42	ug/L	74
88) tetrachloroethene	13.94	164	718	0.46	ug/L #	77
90) 1,3-dichloropropane	14.01	76	1271	0.42	ug/L	92
93) dibromochloromethane	14.28	129	858	0.43	ug/L #	54
94) 1,2-dibromoethane	14.45	107	821	0.45	ug/L	71
95) chlorobenzene	14.92	112	2712	0.49	ug/L	73
96) 1,1,1,2-tetrachloroethane	14.99	131	1080	0.49	ug/L	90
97) ethylbenzene	14.96	91	4300	0.45	ug/L	92
98) m,p-xylene	15.07	106	3196	0.88	ug/L #	62
99) o-xylene	15.53	106	1483	0.40	ug/L #	72
100) styrene	15.56	104	2458	0.41	ug/L	73
101) bromoform	15.86	173	705	0.51	ug/L	83
103) isopropylbenzene	15.88	105	4465	0.39	ug/L	90
109) 1,2,3-trichloropropane	16.34	110	341	0.43	ug/L #	30
111) 2-chlorotoluene	16.49	126	1230	0.46	ug/L	79
112) 4-chlorotoluene	16.61	126	968	0.36	ug/L #	45
13) 1,3,5-trimethylbenzene	16.47	105	3967	0.39	ug/L	93
16) 1,2,4-trimethylbenzene	16.90	105	3941	0.41	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138960.D
Acq On : 13 Feb 2015 7:11 pm
Operator : zobiah
Sample : ic6014-0.5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:29:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
118) 1,3-dichlorobenzene	17.31	146	2568	0.44 ug/L	83
120) 1,4-dichlorobenzene	17.40	146	3156	0.52 ug/L	97
121) 1,2-dichlorobenzene	17.84	146	2976	0.49 ug/L	92
126) 1,2,4-trichlorobenzene	19.58	180	2957	0.42 ug/L	93
127) hexachlorobutadiene	19.67	225	1300	0.44 ug/L	89
129) 1,2,3-trichlorobenzene	20.16	180	3488	0.45 ug/L	93

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

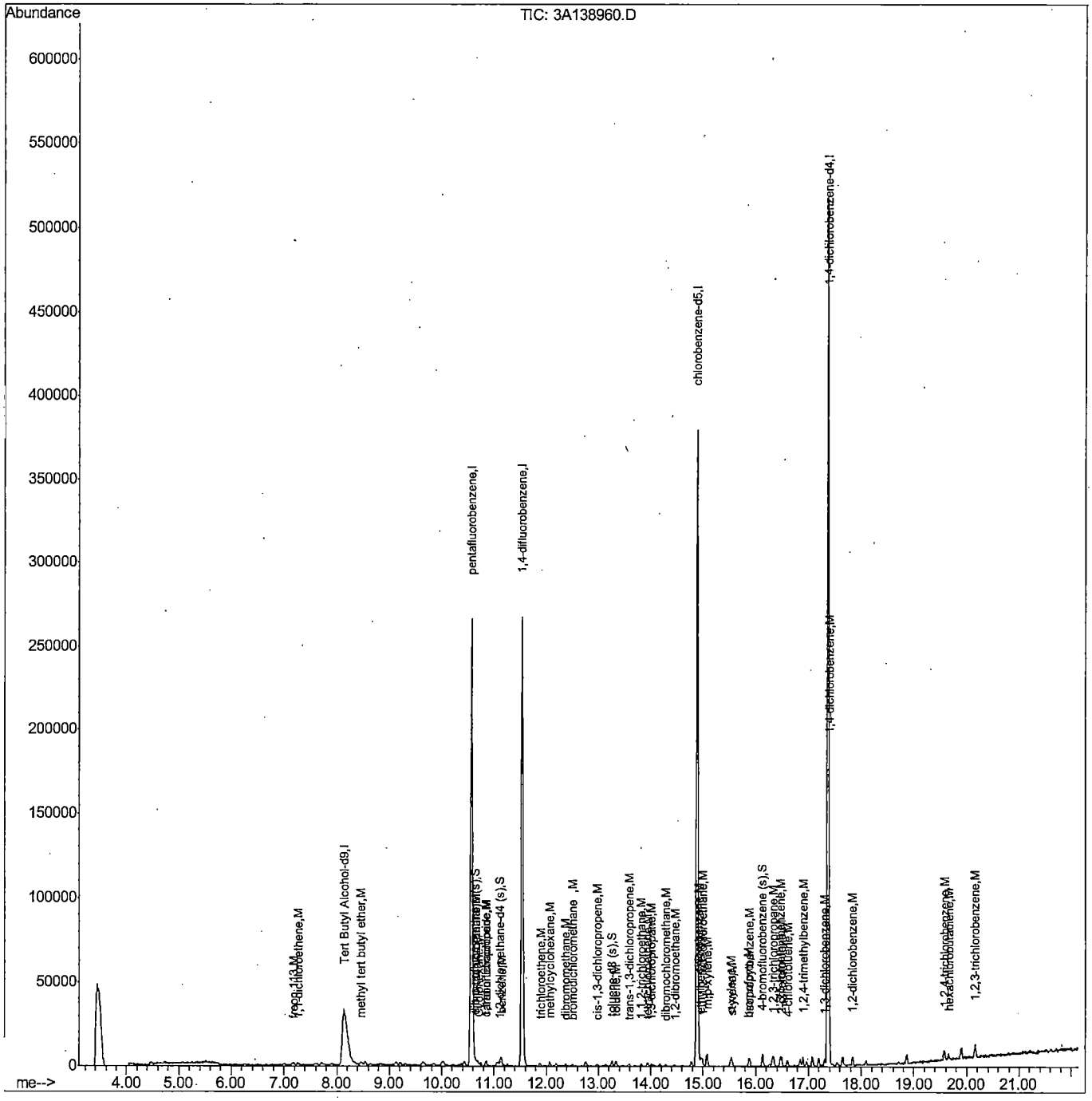
7.6.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138960.D
Acq On : 13 Feb 2015 7:11 pm
Operator : zobiah
Sample : ic6014-0.5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:29:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	141188	500.00	ug/L	-0.02
5) pentafluorobenzene	10.57	168	268651	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	295937	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	266978	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	168481	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	18490	8.29	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 16.58%#			
50) 1,2-dichloroethane-d4 (s)	11.09	65	18675	7.62	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 15.24%#			
79) toluene-d8 (s)	13.25	98	58246	7.82	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 15.64%#			
104) 4-bromofluorobenzene (s)	16.13	95	24469	7.48	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 14.96%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	14850	43.80	ug/L	100
4) 1,4-dioxane	12.31	88	7552	222.83	ug/L	95
8) chlorodifluoromethane	4.10	51	25652	5.96	ug/L	98
9) dichlorodifluoromethane	4.07	85	44818	8.56	ug/L	99
10) chloromethane	4.46	50	31303	7.33	ug/L	96
11) vinyl chloride	4.75	62	37553	7.78	ug/L	95
12) bromomethane	5.54	94	24079	9.52	ug/L	93
15) 2-CHLOROPROPANE	7.00	43	30839	6.02	ug/L #	93
16) chloroethane	5.75	64	16838	8.87	ug/L	94
17) trichlorofluoromethane	6.27	101	40244	8.08	ug/L	92
19) 1-CHLOROPROPANE	8.16	42	39266	7.62	ug/L #	95
20) ethyl ether	6.76	74	10147	7.46	ug/L	92
21) acrolein	7.14	56	44671	67.95	ug/L	97
22) 1,1-dichloroethene	7.26	96	22740	8.77	ug/L	86
23) acetone	7.42	43	5809	6.89	ug/L	92
24) allyl chloride	7.91	76	11216	8.15	ug/L #	79
25) acetonitrile	7.97	40	12947	63.98	ug/L	90
26) iodomethane	7.60	142	47132	9.13	ug/L	99
27) iso-butyl alcohol	11.14	74	6547	79.00	ug/L	92
28) carbon disulfide	7.72	76	86536	7.70	ug/L	100
29) methylene chloride	8.14	84	25575	8.30	ug/L	84
30) methyl acetate	7.92	43	14158	6.66	ug/L	94
31) methyl tert butyl ether	8.47	73	76005	8.48	ug/L	96
32) trans-1,2-dichloroethene	8.54	61	29704	7.82	ug/L	97
33) di-isopropyl ether	9.13	45	58261	6.22	ug/L	93
34) 2-butanone	10.02	72	1962	6.95	ug/L #	65
35) 1,1-dichloroethane	9.21	63	36628	7.90	ug/L	98
36) chloroprene	9.30	53	22644	6.29	ug/L	89
37) acrylonitrile	8.59	53	36192	34.19	ug/L	98
38) vinyl acetate	9.20	86	2028	5.28	ug/L #	1
39) ethyl tert-butyl ether	9.65	59	70626	7.35	ug/L	95
40) ethyl acetate	10.01	45	1759	5.98	ug/L	56
41) 2,2-dichloropropane	10.00	77	38388	8.38	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.03	96	24663	8.51 ug/L	90
43) methylacrylate	10.10	85	2242	8.58 ug/L #	91
44) propionitrile	10.18	54	28245	71.22 ug/L	97
45) bromochloromethane	10.38	128	13037	9.85 ug/L #	72
46) tetrahydrofuran	10.39	42	5779	6.15 ug/L	79
47) chloroform	10.43	85	23186	8.49 ug/L	94
48) t-butyl formate	10.43	59	19502	7.00 ug/L	91
51) freon 113	7.21	151	18090	8.58 ug/L	90
52) methacrylonitrile	10.33	41	8129	4.76 ug/L	96
53) 1,1,1-trichloroethane	10.65	97	35725	8.52 ug/L	96
54) Cyclohexane	10.69	84	38163	8.10 ug/L	82
56) epichlorohydrin	12.91	57	7878	33.94 ug/L	92
57) n-butyl alcohol	11.72	56	25957	304.03 ug/L	92
58) carbon tetrachloride	10.85	117	31971	10.24 ug/L	98
59) 1,1-dichloropropene	10.85	75	25062	8.85 ug/L	97
61) hexane	8.83	57	17487	6.91 ug/L	94
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	64452	6.83 ug/L	98
63) benzene	11.14	78	76511	8.86 ug/L	97
64) tert-amyl methyl ether	11.14	87	16970	8.79 ug/L	89
65) heptane	11.25	57	9614	6.38 ug/L	93
66) isopropyl acetate	11.07	43	36159	6.49 ug/L	96
67) 1,2-dichloroethane	11.19	62	23436	9.27 ug/L	99
69) trichloroethene	11.88	95	19129	9.60 ug/L	96
71) methyl methacrylate	12.18	69	11116	8.23 ug/L	86
72) 2-nitropropane	12.75	41	5385	7.28 ug/L	94
73) 2-chloroethyl vinyl ether	12.75	63	54938	38.74 ug/L	96
74) 1,2-dichloropropane	12.18	63	18640	8.65 ug/L	96
75) dibromomethane	12.37	93	12464	9.61 ug/L	94
76) methylcyclohexane	12.06	83	33128	7.61 ug/L	93
77) bromodichloromethane	12.49	83	24609	9.28 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	30130	8.84 ug/L	95
80) 4-methyl-2-pentanone	13.08	58	7222	8.19 ug/L #	80
81) toluene	13.33	92	43613	9.17 ug/L	98
82) 3-methyl-1-butanol	13.11	55	16592	136.52 ug/L	88
83) trans-1,3-dichloropropene	13.58	75	26516	8.61 ug/L	96
84) ethyl methacrylate	13.54	69	22094	8.29 ug/L	93
85) 1,1,2-trichloroethane	13.81	83	14835	9.74 ug/L	95
86) 2-hexanone	13.99	58	6247	7.50 ug/L	95
88) tetrachloroethene	13.94	164	16185	10.42 ug/L	92
90) 1,3-dichloropropane	14.01	76	27327	8.95 ug/L	93
91) butyl acetate	14.04	56	10527	7.25 ug/L #	82
92) 3,3-dimethyl-1-butanol	14.17	57	21870	63.27 ug/L	98
93) dibromochloromethane	14.29	129	20563	10.39 ug/L	97
94) 1,2-dibromoethane	14.45	107	18521	10.17 ug/L	99
95) chlorobenzene	14.92	112	51979	9.34 ug/L	93
96) 1,1,1,2-tetrachloroethane	14.98	131	22008	9.89 ug/L	96
97) ethylbenzene	14.96	91	86366	9.07 ug/L	99
98) m,p-xylene	15.07	106	67764	18.60 ug/L	96
99) o-xylene	15.52	106	35127	9.43 ug/L	100
00) styrene	15.55	104	56773	9.39 ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	15178	10.99 ug/L	96
103) isopropylbenzene	15.88	105	94055	8.49 ug/L	100
105) cyclohexanone	16.12	98	17093	203.96 ug/L	86
106) bromobenzene	16.34	156	25655	9.60 ug/L #	83
107) 1,1,2,2-tetrachloroethane	16.26	83	28452	8.63 ug/L	98
108) trans-1,4-dichloro-2-buten	16.31	53	6796	8.11 ug/L	90
109) 1,2,3-trichloropropane	16.34	110	6970	8.90 ug/L	87
110) n-propylbenzene	16.32	120	24895	9.10 ug/L #	76
111) 2-chlorotoluene	16.49	126	23957	9.21 ug/L	91
112) 4-chlorotoluene	16.60	126	23841	9.08 ug/L	89
113) 1,3,5-trimethylbenzene	16.47	105	81933	8.15 ug/L	99
114) tert-butylbenzene	16.85	119	71378	8.04 ug/L	95
115) pentachloroethane	16.97	167	17192	8.39 ug/L	96
116) 1,2,4-trimethylbenzene	16.90	105	82732	8.73 ug/L	99
117) sec-butylbenzene	17.08	105	114084	8.18 ug/L	98
118) 1,3-dichlorobenzene	17.31	146	52296	9.23 ug/L	99
119) p-isopropyltoluene	17.20	119	95567	8.70 ug/L	98
120) 1,4-dichlorobenzene	17.40	146	53789	9.13 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	56249	9.42 ug/L	95
122) benzyl chloride	17.54	91	56739	8.02 ug/L	98
123) n-butylbenzene	17.65	92	49661	8.42 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	6753	8.42 ug/L	95
125) 1,3,5-TRICHLOROBENZENE	18.86	180	57033	9.04 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	60690	8.81 ug/L	99
127) hexachlorobutadiene	19.66	225	25652	8.86 ug/L	93
128) naphthalene	19.89	128	160112	8.45 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	69033	9.08 ug/L	98
130) hexachloroethane	18.09	201	15499	10.04 ug/L	95

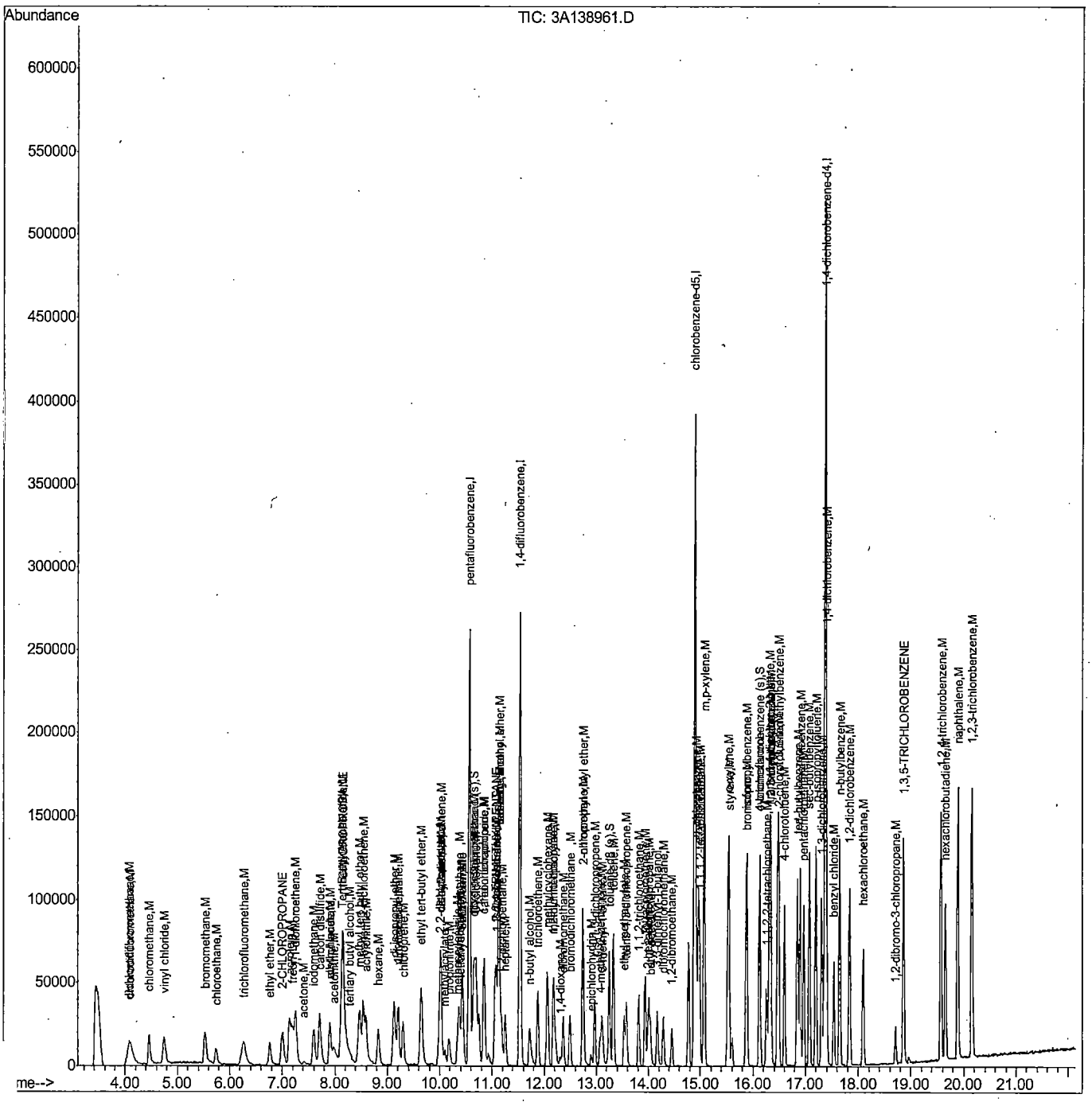
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.6 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	140726	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	272118	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	300007	50.00 ug/L	0.00
87) chlorobenzene-d5	14.89	117	270500	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	169098	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	95308	42.17 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 84.34%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	92640	37.32 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 74.64%		
79) toluene-d8 (s)	13.25	98	308524	40.84 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 81.68%		
104) 4-bromofluorobenzene (s)	16.12	95	122990	37.44 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 74.88%#		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.27	59	28975	85.73 ug/L	100
4) 1,4-dioxane	12.32	88	14935	442.12 ug/L	92
8) chlorodifluoromethane	4.10	51	54836	12.57 ug/L	97
9) dichlorodifluoromethane	4.08	85	90975	17.15 ug/L	95
10) chloromethane	4.46	50	63970	14.79 ug/L	99
11) vinyl chloride	4.75	62	76974	15.75 ug/L	96
12) bromomethane	5.54	94	45280	17.67 ug/L	93
15) 2-CHLOROPROPANE	7.00	43	61237	11.80 ug/L #	93
16) chloroethane	5.74	64	30906	16.08 ug/L	92
17) trichlorofluoromethane	6.28	101	82645	16.39 ug/L	98
19) 1-CHLOROPROPANE	8.15	42	65846	12.62 ug/L #	97
20) ethyl ether	6.77	74	21521	15.62 ug/L	83
21) acrolein	7.14	56	92635	139.11 ug/L	98
22) 1,1-dichloroethene	7.26	96	44480	16.94 ug/L	88
23) acetone	7.40	43	11801	13.82 ug/L	94
24) allyl chloride	7.91	76	21946	15.75 ug/L #	86
25) acetonitrile	7.99	40	34266	167.17 ug/L #	81
26) iodomethane	7.60	142	95964	18.35 ug/L	97
27) iso-butyl alcohol	11.13	74	13320	158.69 ug/L	93
28) carbon disulfide	7.71	76	171216	15.04 ug/L	97
29) methylene chloride	8.15	84	52041	16.67 ug/L	87
30) methyl acetate	7.92	43	27718	12.87 ug/L	95
31) methyl tert butyl ether	8.47	73	152687	16.82 ug/L	96
32) trans-1,2-dichloroethene	8.54	61	59286	15.42 ug/L	87
33) di-isopropyl ether	9.13	45	115698	12.19 ug/L	93
34) 2-butanone	10.01	72	4541	15.88 ug/L #	84
35) 1,1-dichloroethane	9.20	63	73067	15.56 ug/L	98
36) chloroprene	9.30	53	47351	12.98 ug/L	97
37) acrylonitrile	8.59	53	73596	68.64 ug/L	98
38) vinyl acetate	9.20	86	5416	13.93 ug/L #	41
39) ethyl tert-butyl ether	9.64	59	143056	14.70 ug/L	94
40) ethyl acetate	10.01	45	3725	12.50 ug/L	79
41) 2,2-dichloropropane	10.00	77	75643	16.31 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	49608	16.89 ug/L	93
43) methylacrylate	10.10	85	5461	16.98 ug/L #	86
44) propionitrile	10.18	54	59107	147.14 ug/L	98
45) bromochloromethane	10.37	128	25251	18.84 ug/L	89
46) tetrahydrofuran	10.39	42	11570	12.16 ug/L	88
47) chloroform	10.43	85	47609	17.21 ug/L	98
48) t-butyl formate	10.44	59	38601	13.68 ug/L	94
51) freon 113	7.19	151	37377	17.51 ug/L	89
52) methacrylonitrile	10.33	41	20177	11.66 ug/L	96
53) 1,1,1-trichloroethane	10.66	97	72099	16.98 ug/L	95
54) Cyclohexane	10.69	84	74761	15.66 ug/L	85
56) epichlorohydrin	12.90	57	16658	70.80 ug/L	95
57) n-butyl alcohol	11.72	56	52670	608.55 ug/L	94
58) carbon tetrachloride	10.85	117	63021	19.91 ug/L	99
59) 1,1-dichloropropene	10.84	75	50152	17.46 ug/L	99
61) hexane	8.82	57	35715	13.93 ug/L	93
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	135084	14.12 ug/L	99
63) benzene	11.13	78	152774	17.45 ug/L	99
64) tert-amyl methyl ether	11.14	87	34054	17.40 ug/L	97
65) heptane	11.26	57	19615	12.83 ug/L	94
66) isopropyl acetate	11.06	43	73401	13.00 ug/L	95
67) 1,2-dichloroethane	11.19	62	46150	18.01 ug/L	97
69) trichloroethene	11.88	95	38605	19.11 ug/L	99
71) methyl methacrylate	12.17	69	22920	16.74 ug/L	85
72) 2-nitropropane	12.76	41	10834	14.44 ug/L	99
73) 2-chloroethyl vinyl ether	12.74	63	113115	78.68 ug/L	90
74) 1,2-dichloropropane	12.18	63	37954	17.37 ug/L	96
75) dibromomethane	12.37	93	25545	19.44 ug/L	95
76) methylcyclohexane	12.06	83	66580	15.09 ug/L	95
77) bromodichloromethane	12.50	83	49663	18.48 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	60297	17.45 ug/L	98
80) 4-methyl-2-pentanone	13.08	58	14018	15.69 ug/L #	83
81) toluene	13.33	92	88485	18.35 ug/L	98
82) 3-methyl-1-butanol	13.11	55	34054	276.39 ug/L	88
83) trans-1,3-dichloropropene	13.58	75	54473	17.45 ug/L	97
84) ethyl methacrylate	13.54	69	45652	16.89 ug/L	90
85) 1,1,2-trichloroethane	13.81	83	29559	19.15 ug/L	97
86) 2-hexanone	13.98	58	13163	15.60 ug/L	95
88) tetrachloroethene	13.94	164	32070	20.38 ug/L	98
90) 1,3-dichloropropane	14.00	76	56674	18.31 ug/L	91
91) butyl acetate	14.04	56	21816	14.84 ug/L	89
92) 3,3-dimethyl-1-butanol	14.17	57	44599	127.35 ug/L	97
93) dibromochloromethane	14.29	129	41638	20.77 ug/L	99
94) 1,2-dibromoethane	14.45	107	35992	19.52 ug/L	93
95) chlorobenzene	14.92	112	105993	18.80 ug/L	96
96) 1,1,1,2-tetrachloroethane	14.98	131	45952	20.38 ug/L	98
97) ethylbenzene	14.96	91	175902	18.24 ug/L	100
98) m,p-xylene	15.07	106	139544	37.81 ug/L	94
99) o-xylene	15.52	106	73104	19.37 ug/L	96
100) styrene	15.54	104	116428	19.01 ug/L	89

7.6.7 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.86	173	31439	22.48 ug/L	97
103) isopropylbenzene	15.88	105	194916	17.53 ug/L	99
105) cyclohexanone	16.12	98	33459	397.78 ug/L	83
106) bromobenzene	16.34	156	50819	18.94 ug/L	88
107) 1,1,2,2-tetrachloroethane	16.26	83	56009	16.92 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	13333	15.85 ug/L	88
109) 1,2,3-trichloropropane	16.34	110	14421	18.34 ug/L	94
110) n-propylbenzene	16.32	120	49481	18.01 ug/L	93
111) 2-chlorotoluene	16.49	126	48397	18.53 ug/L	91
112) 4-chlorotoluene	16.60	126	48516	18.40 ug/L	98
113) 1,3,5-trimethylbenzene	16.47	105	168401	16.69 ug/L	96
114) tert-butylbenzene	16.85	119	150793	16.92 ug/L	95
115) pentachloroethane	16.97	167	36252	17.63 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	169687	17.85 ug/L	98
117) sec-butylbenzene	17.08	105	233846	16.70 ug/L	98
118) 1,3-dichlorobenzene	17.31	146	106705	18.76 ug/L	98
119) p-isopropyltoluene	17.20	119	200640	18.20 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	109097	18.45 ug/L	97
121) 1,2-dichlorobenzene	17.84	146	111541	18.61 ug/L	96
122) benzyl chloride	17.54	91	112742	15.88 ug/L	98
123) n-butylbenzene	17.65	92	100681	17.00 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	13675	16.99 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	18.86	180	115424	18.24 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	127099	18.38 ug/L	96
127) hexachlorobutadiene	19.66	225	53587	18.43 ug/L	97
128) naphthalene	19.89	128	338852	17.81 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	142377	18.66 ug/L	99
130) hexachloroethane	18.09	201	34137	18.31 ug/L	96

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

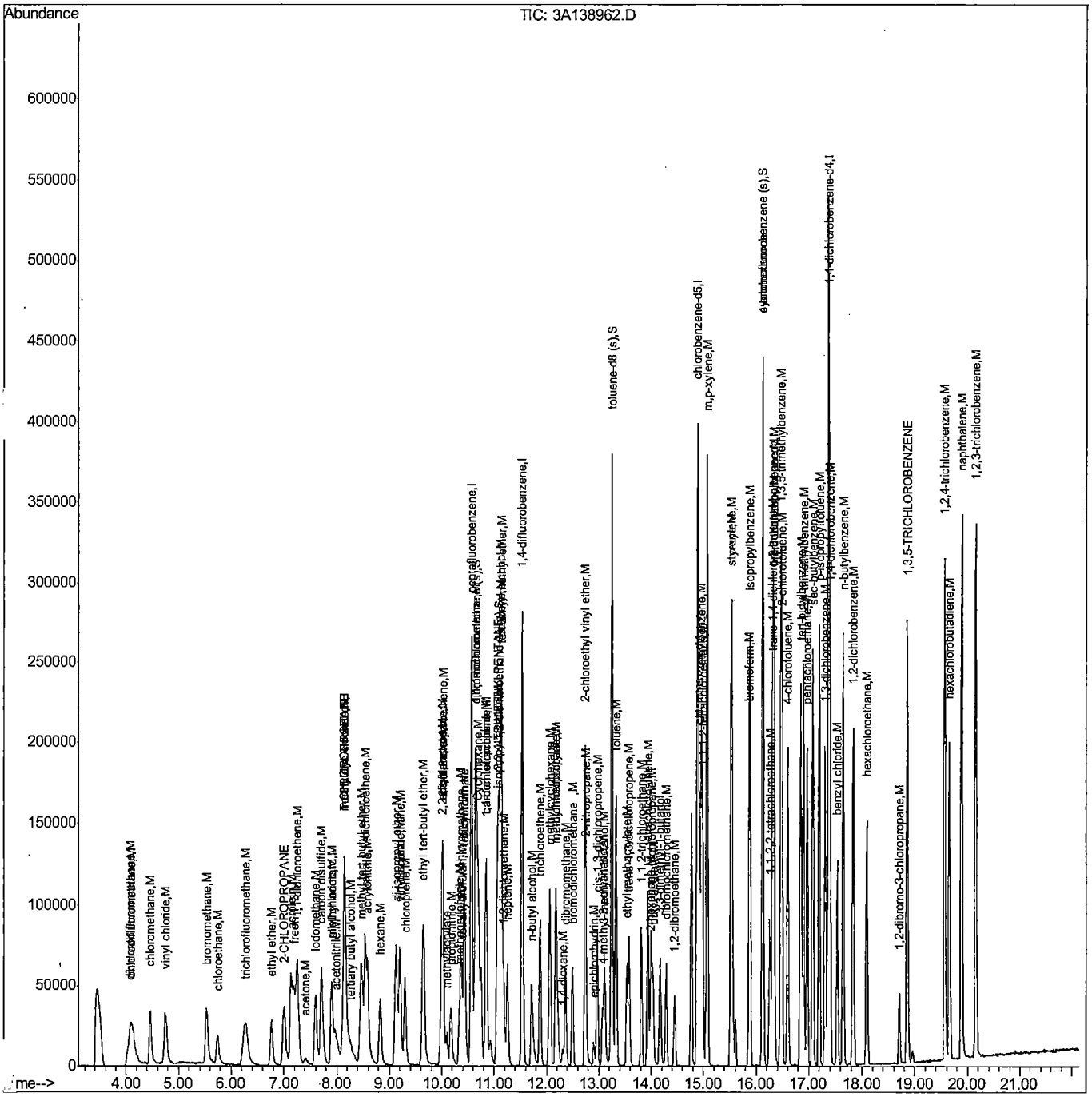
7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	140903	500.00	ug/L	-0.01
5) pentafluorobenzene	10.56	168	269287	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	303965	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	273080	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166969	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	97687	43.68	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 87.36%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	94352	38.41	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 76.82%			
79) toluene-d8 (s)	13.25	98	320157	41.83	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 83.66%			
104) 4-bromofluorobenzene (s)	16.12	95	126031	38.86	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 77.72%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	75546	223.25	ug/L	100
4) 1,4-dioxane	12.31	88	39651	1172.32	ug/L	93
8) chlorodifluoromethane	4.10	51	144081	33.39	ug/L	97
9) dichlorodifluoromethane	4.07	85	238146	45.36	ug/L	97
10) chloromethane	4.46	50	173437	40.52	ug/L	96
11) vinyl chloride	4.76	62	207441	42.90	ug/L	96
12) bromomethane	5.53	94	111603	44.01	ug/L	98
15) 2-CHLOROPROPANE	7.00	43	148555	28.93	ug/L #	93
16) chloroethane	5.74	64	73412	38.59	ug/L	95
17) trichlorofluoromethane	6.26	101	216068	43.29	ug/L	98
19) 1-CHLOROPROPANE	8.15	42	151479	29.33	ug/L #	96
20) ethyl ether	6.76	74	54963	40.32	ug/L	83
21) acrolein	7.13	56	231137	350.75	ug/L	95
22) 1,1-dichloroethene	7.26	96	110584	42.56	ug/L	92
23) acetone	7.40	43	30855	36.52	ug/L	95
24) allyl chloride	7.90	76	56580	41.02	ug/L #	82
25) acetonitrile	7.96	40	83323	410.78	ug/L	95
26) iodomethane	7.60	142	240845	46.53	ug/L	97
27) iso-butyl alcohol	11.13	74	34527	415.66	ug/L #	85
28) carbon disulfide	7.71	76	426527	37.87	ug/L	99
29) methylene chloride	8.15	84	126875	41.08	ug/L	87
30) methyl acetate	7.91	43	68345	32.06	ug/L	93
31) methyl tert butyl ether	8.47	73	382434	42.56	ug/L	99
32) trans-1,2-dichloroethene	8.54	61	145555	38.25	ug/L	92
33) di-isopropyl ether	9.13	45	291590	31.05	ug/L	96
34) 2-butanone	10.01	72	12777	45.16	ug/L #	79
35) 1,1-dichloroethane	9.21	63	183745	39.54	ug/L	99
36) chloroprene	9.30	53	119570	33.13	ug/L	93
37) acrylonitrile	8.58	53	182542	172.04	ug/L	99
38) vinyl acetate	9.20	86	16229	42.17	ug/L	64
39) ethyl tert-butyl ether	9.65	59	368365	38.26	ug/L	96
40) ethyl acetate	10.00	45	9959	33.77	ug/L #	41
41) 2,2-dichloropropane	10.00	77	190959	41.60	ug/L	96

7.6.8

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	122220	42.06 ug/L	94
43) methylacrylate	10.09	85	13804	39.33 ug/L	85
44) propionitrile	10.17	54	147871	371.98 ug/L	98
45) bromochloromethane	10.37	128	63785	48.10 ug/L	85
46) tetrahydrofuran	10.39	42	29335	31.15 ug/L	77
47) chloroform	10.43	85	117498	42.92 ug/L	97
48) t-butyl formate	10.43	59	103069	36.91 ug/L	96
51) freon 113	7.19	151	95590	45.24 ug/L	89
52) methacrylonitrile	10.33	41	58050	33.90 ug/L	95
53) 1,1,1-trichloroethane	10.66	97	183214	43.61 ug/L	98
54) Cyclohexane	10.70	84	193491	40.97 ug/L	83
56) epichlorohydrin	12.90	57	45179	189.52 ug/L	95
57) n-butyl alcohol	11.71	56	151089	1722.97 ug/L	93
58) carbon tetrachloride	10.85	117	165028	51.46 ug/L	95
59) 1,1-dichloropropene	10.84	75	128455	44.14 ug/L	97
61) hexane	8.83	57	90882	34.98 ug/L	94
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	375012	38.69 ug/L	98
63) benzene	11.13	78	395706	44.62 ug/L	99
64) tert-amyl methyl ether	11.14	87	87219	44.00 ug/L	92
65) heptane	11.25	57	53141	34.32 ug/L	92
66) isopropyl acetate	11.06	43	200140	34.99 ug/L	96
67) 1,2-dichloroethane	11.19	62	118268	45.55 ug/L	96
69) trichloroethene	11.88	95	99425	48.57 ug/L	95
71) methyl methacrylate	12.17	69	60426	43.57 ug/L #	83
72) 2-nitropropane	12.76	41	29283	38.52 ug/L	98
73) 2-chloroethyl vinyl ether	12.74	63	298849	205.17 ug/L	95
74) 1,2-dichloropropane	12.18	63	95264	43.04 ug/L	99
75) dibromomethane	12.36	93	65008	48.82 ug/L	96
76) methylcyclohexane	12.06	83	184427	41.25 ug/L	92
77) bromodichloromethane	12.50	83	131657	48.35 ug/L	99
78) cis-1,3-dichloropropene	12.97	75	155794	44.50 ug/L	93
80) 4-methyl-2-pentanone	13.07	58	37457	41.37 ug/L	91
81) toluene	13.33	92	229756	47.03 ug/L	99
82) 3-methyl-1-butanol	13.11	55	96455	772.65 ug/L	92
83) trans-1,3-dichloropropene	13.58	75	141399	44.70 ug/L	96
84) ethyl methacrylate	13.53	69	117485	42.91 ug/L	90
85) 1,1,2-trichloroethane	13.81	83	74272	47.49 ug/L	97
86) 2-hexanone	13.98	58	36387	42.56 ug/L	87
88) tetrachloroethene	13.94	164	86142	54.22 ug/L	99
90) 1,3-dichloropropane	14.00	76	141709	45.35 ug/L	91
91) butyl acetate	14.04	56	57075	38.45 ug/L	90
92) 3,3-dimethyl-1-butanol	14.17	57	131748	372.66 ug/L	95
93) dibromochloromethane	14.29	129	110063	54.38 ug/L	98
94) 1,2-dibromoethane	14.45	107	93276	50.10 ug/L	99
95) chlorobenzene	14.92	112	273382	48.04 ug/L	95
96) 1,1,1,2-tetrachloroethane	14.98	131	122800	53.96 ug/L	98
97) ethylbenzene	14.96	91	462201	47.47 ug/L	99
98) m,p-xylene	15.07	106	365168	98.00 ug/L	95
99) o-xylene	15.52	106	192810	50.62 ug/L	93
00) styrene	15.54	104	304212	49.19 ug/L	91

7.6.8

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	82118	58.15 ug/L	95
103) isopropylbenzene	15.88	105	519366	47.32 ug/L	99
105) cyclohexanone	16.12	98	95628	1151.38 ug/L	82
106) bromobenzene	16.34	156	131243	49.54 ug/L	87
107) 1,1,2,2-tetrachloroethane	16.26	83	143450	43.90 ug/L	97
108) trans-1,4-dichloro-2-buten	16.30	53	34579	41.64 ug/L	86
109) 1,2,3-trichloropropane	16.34	110	36257	46.71 ug/L	93
110) n-propylbenzene	16.32	120	130938	48.28 ug/L	91
111) 2-chlorotoluene	16.49	126	124567	48.30 ug/L	97
112) 4-chlorotoluene	16.60	126	124868	47.97 ug/L	93
113) 1,3,5-trimethylbenzene	16.47	105	449371	45.09 ug/L	97
114) tert-butylbenzene	16.85	119	416505	47.34 ug/L	94
115) pentachloroethane	16.97	167	100600	49.54 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	445475	47.45 ug/L	97
117) sec-butylbenzene	17.07	105	634011	45.86 ug/L	98
118) 1,3-dichlorobenzene	17.31	146	270696	48.19 ug/L	99
119) p-isopropyltoluene	17.20	119	526914	48.40 ug/L	97
120) 1,4-dichlorobenzene	17.40	146	275230	47.13 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	285691	48.28 ug/L	97
122) benzyl chloride	17.54	91	293701	41.91 ug/L	97
123) n-butylbenzene	17.65	92	263082	44.99 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	34882	43.89 ug/L	94
125) 1,3,5-TRICHLOROBENZENE	18.86	180	298947	47.84 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	330761	48.44 ug/L	99
127) hexachlorobutadiene	19.66	225	143635	50.04 ug/L	97
128) naphthalene	19.89	128	877524	46.71 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	373042	49.51 ug/L	97
130) hexachloroethane	18.09	201	98612	47.55 ug/L	97

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

7.6.8

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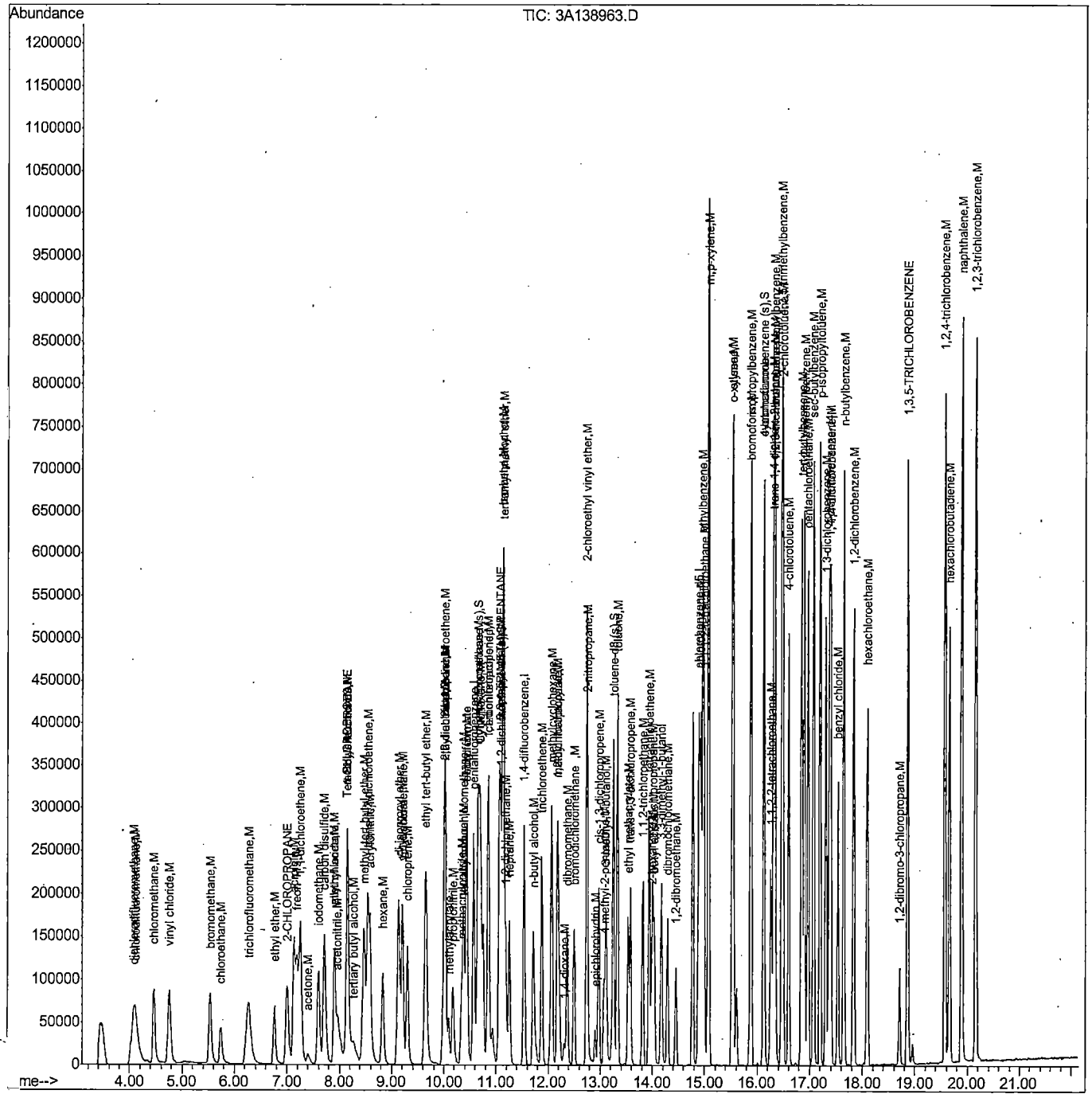
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



7.6.8

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	176405	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	312953	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	368102	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	326366	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	198290	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	441118	169.73	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 339.46%#			
50) 1,2-dichloroethane-d4 (s)	11.09	65	435642	152.61	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 305.22%#			
79) toluene-d8 (s)	13.25	98	1518987	163.88	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 327.76%#			
104) 4-bromofluorobenzene (s)	16.12	95	587777	152.59	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 305.18%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	365293	862.25	ug/L	100
4) 1,4-dioxane	12.31	88	200433	4733.37	ug/L	95
8) chlorodifluoromethane	4.09	51	656643	130.92	ug/L	97
9) dichlorodifluoromethane	4.05	85	968357	158.71	ug/L	97
10) chloromethane	4.46	50	763340	153.47	ug/L	98
11) vinyl chloride	4.77	62	966759	172.02	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	693391	116.21	ug/L	96
17) trichlorofluoromethane	6.25	101	943636	162.68	ug/L	99
19) 1-CHLOROPROPANE	8.15	42	653242	108.84	ug/L #	94
20) ethyl ether	6.76	74	254780	160.83	ug/L	86
21) acrolein	7.13	56	1078779	1408.63	ug/L	99
22) 1,1-dichloroethene	7.25	96	484981	160.62	ug/L	90
23) acetone	7.40	43	138344	140.88	ug/L	95
24) allyl chloride	7.90	76	255399	159.33	ug/L	90
25) acetonitrile	7.96	40	401864	1704.77	ug/L	99
26) iodomethane	7.59	142	1066905	177.36	ug/L	99
27) iso-butyl alcohol	11.13	74	164862	1707.81	ug/L	92
28) carbon disulfide	7.71	76	1888741	144.30	ug/L	99
29) methylene chloride	8.15	84	572012	159.36	ug/L	91
30) methyl acetate	7.91	43	325812	131.53	ug/L	94
31) methyl tert butyl ether	8.47	73	1749357	167.53	ug/L	98
32) trans-1,2-dichloroethene	8.54	61	653184	147.69	ug/L	90
33) di-isopropyl ether	9.13	45	1447887	132.68	ug/L	96
34) 2-butanone	10.01	72	57703	175.48	ug/L #	74
35) 1,1-dichloroethane	9.20	63	827498	153.23	ug/L	99
36) chloroprene	9.30	53	559824	133.48	ug/L	94
37) acrylonitrile	8.58	53	858426	696.15	ug/L	97
38) vinyl acetate	9.19	86	76995	172.16	ug/L	75
39) ethyl tert-butyl ether	9.65	59	1760022	157.29	ug/L	95
40) ethyl acetate	10.00	45	50911	148.55	ug/L #	57
41) 2,2-dichloropropane	10.00	77	830298	155.65	ug/L	94
42) cis-1,2-dichloroethene	10.02	96	554484	164.19	ug/L	92
43) methylacrylate	10.09	85	72066	167.61	ug/L	83

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
44) propionitrile	10.17	54	735810	1592.71 ug/L	100
45) bromochloromethane	10.37	128	287921	186.81 ug/L	89
46) tetrahydrofuran	10.39	42	149672	136.75 ug/L	89
47) chloroform	10.43	85	530738	166.80 ug/L	98
48) t-butyl formate	10.44	59	511773	157.70 ug/L	95
51) freon 113	7.19	151	408038	166.18 ug/L	95
52) methacrylonitrile	10.33	41	290811	146.12 ug/L	97
53) 1,1,1-trichloroethane	10.65	97	831881	170.37 ug/L	96
54) Cyclohexane	10.70	84	856415	156.02 ug/L	87
56) epichlorohydrin	12.90	57	228638	792.00 ug/L	94
57) n-butyl alcohol	11.71	56	849932	8003.57 ug/L	96
58) carbon tetrachloride	10.85	117	747379	192.45 ug/L	96
59) 1,1-dichloropropene	10.84	75	603893	171.35 ug/L	97
61) hexane	8.82	57	417020	132.53 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	1789890	152.49 ug/L	98
63) benzene	11.13	78	1842703	171.58 ug/L	100
64) tert-amyl methyl ether	11.14	87	426911	177.82 ug/L	92
65) heptane	11.25	57	251661	134.20 ug/L	95
66) isopropyl acetate	11.06	43	988965	142.77 ug/L	94
67) 1,2-dichloroethane	11.19	62	570565	181.44 ug/L	97
69) trichloroethene	11.88	95	466682	188.24 ug/L	95
71) methyl methacrylate	12.17	69	298413	177.68 ug/L	84
72) 2-nitropropane	12.76	41	142534	154.85 ug/L	94
73) 2-chloroethyl vinyl ether	12.74	63	1416471	803.02 ug/L	95
74) 1,2-dichloropropane	12.18	63	459716	171.51 ug/L	98
75) dibromomethane	12.36	93	307456	190.66 ug/L	94
76) methylcyclohexane	12.06	83	880212	162.59 ug/L	93
77) bromodichloromethane	12.50	83	632419	191.77 ug/L	97
78) cis-1,3-dichloropropene	12.97	75	771897	182.07 ug/L	95
80) 4-methyl-2-pentanone	13.07	58	195014	177.84 ug/L	91
81) toluene	13.33	92	1120070	189.34 ug/L	99
82) 3-methyl-1-butanol	13.11	55	533675	3530.15 ug/L	95
83) trans-1,3-dichloropropene	13.57	75	677168	176.79 ug/L	97
84) ethyl methacrylate	13.53	69	581526	175.40 ug/L	94
85) 1,1,2-trichloroethane	13.81	83	355126	187.51 ug/L	100
86) 2-hexanone	13.98	58	180772	174.59 ug/L	91
88) tetrachloroethene	13.94	164	401826	211.63 ug/L	98
90) 1,3-dichloropropane	14.00	76	686939	183.95 ug/L	92
91) butyl acetate	14.04	56	292165	164.70 ug/L	91
92) 3,3-dimethyl-1-butanol	14.17	57	808262	1912.96 ug/L	95
93) dibromochloromethane	14.29	129	526121	217.52 ug/L	99
94) 1,2-dibromoethane	14.45	107	446181	200.51 ug/L	96
95) chlorobenzene	14.92	112	1293275	190.16 ug/L	96
96) 1,1,1,2-tetrachloroethane	14.98	131	598741	220.14 ug/L	100
97) ethylbenzene	14.96	91	2171935	186.66 ug/L	99
98) m,p-xylene	15.07	106	1708310	383.62 ug/L	97
99) o-xylene	15.52	106	930185	204.33 ug/L	96
100) styrene	15.54	104	1427743	193.19 ug/L	92
101) bromoform	15.87	173	390169	231.18 ug/L	98
103) isopropylbenzene	15.88	105	2545835	195.31 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
105) cyclohexanone	16.12	98	376832	3820.46 ug/L	82
106) bromobenzene	16.34	156	614198	195.21 ug/L	88
107) 1,1,2,2-tetrachloroethane	16.26	83	681327	175.57 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	161463	163.73 ug/L	89
109) 1,2,3-trichloropropane	16.34	110	166156	180.23 ug/L	94
110) n-propylbenzene	16.32	120	622382	193.24 ug/L	90
111) 2-chlorotoluene	16.49	126	604057	197.22 ug/L	99
112) 4-chlorotoluene	16.60	126	589077	190.57 ug/L	93
113) 1,3,5-trimethylbenzene	16.47	105	2304920	194.76 ug/L	98
114) tert-butylbenzene	16.85	119	2177000	208.34 ug/L	96
115) pentachloroethane	16.97	167	525263	217.81 ug/L	96
116) 1,2,4-trimethylbenzene	16.90	105	2207135	197.94 ug/L	98
117) sec-butylbenzene	17.07	105	3193862	194.51 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	1283980	192.49 ug/L	97
119) p-isopropyltoluene	17.20	119	2645427	204.62 ug/L	98
120) 1,4-dichlorobenzene	17.40	146	1302400	187.80 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	1376966	195.94 ug/L	99
122) benzyl chloride	17.54	91	1387947	166.76 ug/L	97
123) n-butylbenzene	17.65	92	1280954	184.47 ug/L	99
124) 1,2-dibromo-3-chloropropan	18.71	75	172994	183.30 ug/L	85
125) 1,3,5-TRICHLOROBENZENE	18.86	180	1584187	213.45 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	1733865	213.81 ug/L	99
127) hexachlorobutadiene	19.66	225	799275	234.45 ug/L	98
128) naphthalene	19.89	128	4503318	201.86 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	1883037	210.45 ug/L	99
130) hexachloroethane	18.09	201	551171	212.22 ug/L	94

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

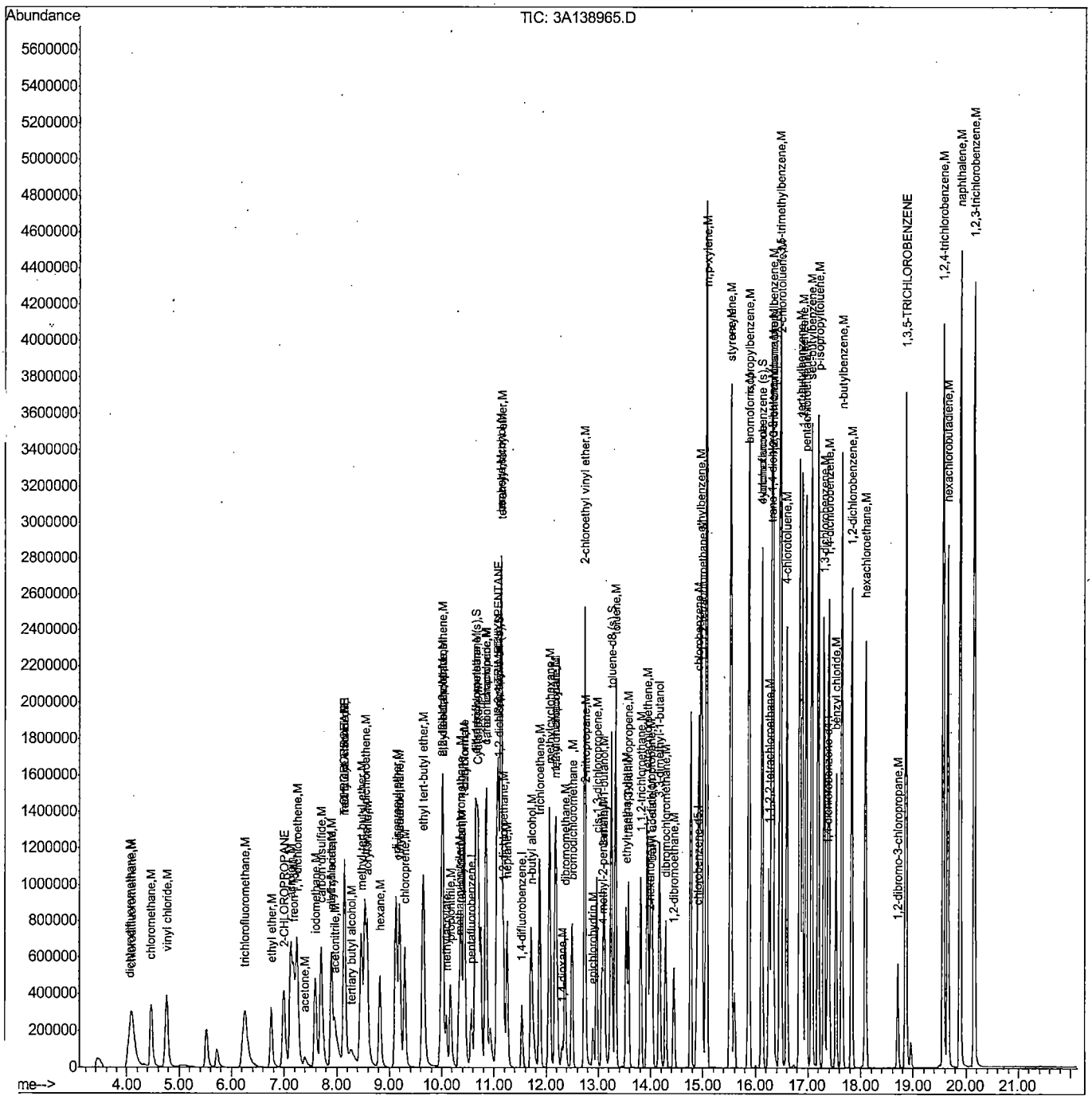
7.6.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



M3A6014.M Wed Feb 18 14:10:11 2015 ACCUNJ

ACCUTEST LABORATORIES
JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	173858	500.00	ug/L	0.02
5) pentafluorobenzene	10.57	168	302569	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	336476	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	302334	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	177185	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	102750	45.98	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 91.96%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	101693	47.96	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 95.92%			
79) toluene-d8 (s)	13.25	98	331053	44.25	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 88.50%			
104) 4-bromofluorobenzene (s)	16.12	95	126099	46.41	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 92.82%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.29	59	90997	260.54	ug/L	100
4) 1,4-dioxane	12.31	88	50253	1359.37	ug/L	92
8) chlorodifluoromethane	4.09	51	169700	56.78	ug/L	96
9) dichlorodifluoromethane	4.08	85	197372	40.26	ug/L	96
10) chloromethane	4.46	50	173186	48.43	ug/L	99
11) vinyl chloride	4.75	62	199381	46.11	ug/L	96
12) bromomethane	5.54	94	112016	43.33	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	176073	50.86	ug/L	98
16) chloroethane	5.75	64	81295	47.25	ug/L	97
17) trichlorofluoromethane	6.26	101	227106	51.18	ug/L	99
19) 1-CHLOROPROPANE	8.15	42	174360	52.38	ug/L	86
20) ethyl ether	6.77	74	65279	55.93	ug/L	94
21) acrolein	7.13	56	280072	555.23	ug/L	96
22) 1,1-dichloroethene	7.26	96	116168	46.97	ug/L	95
23) acetone	7.40	43	35325	52.71	ug/L	98
24) allyl chloride	7.90	76	65854	54.32	ug/L	87
25) acetonitrile	7.97	40	82372	469.34	ug/L #	70
26) iodomethane	7.60	142	250743	47.94	ug/L	98
27) iso-butyl alcohol	11.14	74	37568	525.50	ug/L #	71
28) carbon disulfide	7.71	76	456679	47.32	ug/L	98
29) methylene chloride	8.15	84	133132	46.40	ug/L	96
30) methyl acetate	7.91	43	78347	50.29	ug/L	98
31) methyl tert butyl ether	8.48	73	837247	101.73	ug/L	98
32) trans-1,2-dichloroethene	8.54	61	158884	47.95	ug/L	97
33) di-isopropyl ether	9.13	45	347017	52.40	ug/L	98
34) 2-butanone	10.01	72	13671	53.04	ug/L #	64
35) 1,1-dichloroethane	9.21	63	207349	51.00	ug/L	97
36) chloroprene	9.30	53	143333	53.92	ug/L	99
37) acrylonitrile	8.59	53	232324	294.56	ug/L	98
38) vinyl acetate	9.20	86	20763	58.50	ug/L	96
39) ethyl tert-butyl ether	9.65	59	398192	49.64	ug/L	99
40) ethyl acetate	10.00	45	13111	55.84	ug/L	77
41) 2,2-dichloropropane	10.00	77	222164	52.54	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	132387	48.73 ug/L	97
43) methylacrylate	10.10	85	16359	49.97 ug/L	96
44) propionitrile	10.17	54	182114	584.20 ug/L	97
45) bromochloromethane	10.37	128	68448	48.79 ug/L	96
46) tetrahydrofuran	10.39	42	36001	54.19 ug/L	92
47) chloroform	10.43	85	127920	48.94 ug/L	99
48) t-butyl formate	10.44	59	126465	58.32 ug/L	99
51) freon 113	7.20	151	115623	59.32 ug/L	97
52) methacrylonitrile	10.34	41	66504	51.20 ug/L	97
53) 1,1,1-trichloroethane	10.66	97	206257	52.64 ug/L	98
54) Cyclohexane	10.70	84	214019	52.08 ug/L	93
56) epichlorohydrin	12.90	57	52776	280.55 ug/L	96
57) n-butyl alcohol	11.72	56	198032	3064.58 ug/L	98
58) carbon tetrachloride	10.85	117	181002	51.30 ug/L	96
59) 1,1-dichloropropene	10.84	75	145009	51.57 ug/L	98
61) hexane	8.82	57	107932	53.76 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	408475	52.25 ug/L	96
63) benzene	11.13	78	438595	50.50 ug/L	100
64) tert-amyl methyl ether	11.14	87	92967	49.23 ug/L	95
65) heptane	11.26	57	69625	61.24 ug/L	94
66) isopropyl acetate	11.06	43	258838	59.93 ug/L	98
67) 1,2-dichloroethane	11.19	62	130593	49.80 ug/L	98
69) trichloroethene	11.88	95	102380	47.74 ug/L	98
71) methyl methacrylate	12.17	69	69220	57.03 ug/L	94
72) 2-nitropropane	12.76	41	33892	57.51 ug/L	95
73) 2-chloroethyl vinyl ether	12.74	63	334356	265.55 ug/L	98
74) 1,2-dichloropropane	12.18	63	107794	50.55 ug/L	99
75) dibromomethane	12.36	93	68091	48.82 ug/L	99
76) methylcyclohexane	12.06	83	219921	56.76 ug/L	97
77) bromodichloromethane	12.50	83	138188	48.71 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	166357	49.14 ug/L	98
80) 4-methyl-2-pentanone	13.08	58	45609	55.33 ug/L	97
81) toluene	13.33	92	244606	50.12 ug/L	98
82) 3-methyl-1-butanol	13.11	55	122513	1218.81 ug/L	97
83) trans-1,3-dichloropropene	13.58	75	147676	49.57 ug/L	99
84) ethyl methacrylate	13.54	69	131332	53.96 ug/L	98
85) 1,1,2-trichloroethane	13.81	83	77917	47.98 ug/L	98
86) 2-hexanone	13.98	58	41112	53.95 ug/L	97
88) tetrachloroethene	13.94	164	85962	47.44 ug/L	95
90) 1,3-dichloropropane	14.00	76	152190	49.43 ug/L	97
91) butyl acetate	14.03	56	66113	54.79 ug/L	99
92) 3,3-dimethyl-1-butanol	14.17	57	165926	495.25 ug/L	98
93) dibromochloromethane	14.29	129	111856	49.34 ug/L	99
94) 1,2-dibromoethane	14.44	107	96956	48.00 ug/L	99
95) chlorobenzene	14.92	112	280885	46.91 ug/L	100
96) 1,1,1,2-tetrachloroethane	14.98	131	134321	52.10 ug/L	99
97) ethylbenzene	14.96	91	474099	48.29 ug/L	99
98) m,p-xylene	15.07	106	373012	98.82 ug/L	97
99) o-xylene	15.52	106	202841	52.05 ug/L	98
00) styrene	15.54	104	311004	49.11 ug/L	96

7.6.10 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	83441	48.19 ug/L	96
103) isopropylbenzene	15.88	105	549647	53.46 ug/L	99
105) cyclohexanone	16.13	98	72832	392.35 ug/L	96
106) bromobenzene	16.34	156	132853	49.27 ug/L	95
107) 1,1,2,2-tetrachloroethane	16.26	83	149038	49.73 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	37476	53.74 ug/L	98
109) 1,2,3-trichloropropane	16.34	110	37498	52.28 ug/L	95
110) n-propylbenzene	16.32	120	141940	54.02 ug/L	95
111) 2-chlorotoluene	16.49	126	129182	49.78 ug/L	98
112) 4-chlorotoluene	16.60	126	123974	49.12 ug/L	99
113) 1,3,5-trimethylbenzene	16.47	105	471225	52.53 ug/L	98
114) tert-butylbenzene	16.85	119	436631	53.78 ug/L	99
115) pentachloroethane	16.97	167	108698	56.11 ug/L	98
116) 1,2,4-trimethylbenzene	16.90	105	481833	54.21 ug/L	98
117) sec-butylbenzene	17.07	105	657484	52.44 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	259842	46.36 ug/L	99
119) p-isopropyltoluene	17.20	119	555219	52.67 ug/L	98
120) 1,4-dichlorobenzene	17.40	146	266747	45.52 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	282171	46.96 ug/L	97
122) benzyl chloride	17.54	91	353901	57.94 ug/L	99
123) n-butylbenzene	17.65	92	273436	50.84 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.70	75	36527	51.17 ug/L	98
125) 1,3,5-TRICHLOROBENZENE	18.86	180	287104	46.28 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	321134	48.00 ug/L	98
127) hexachlorobutadiene	19.66	225	138411	47.13 ug/L	96
128) naphthalene	19.89	128	867551	49.38 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	359804	47.94 ug/L	99
130) hexachloroethane	18.09	201	102679	45.61 ug/L	97

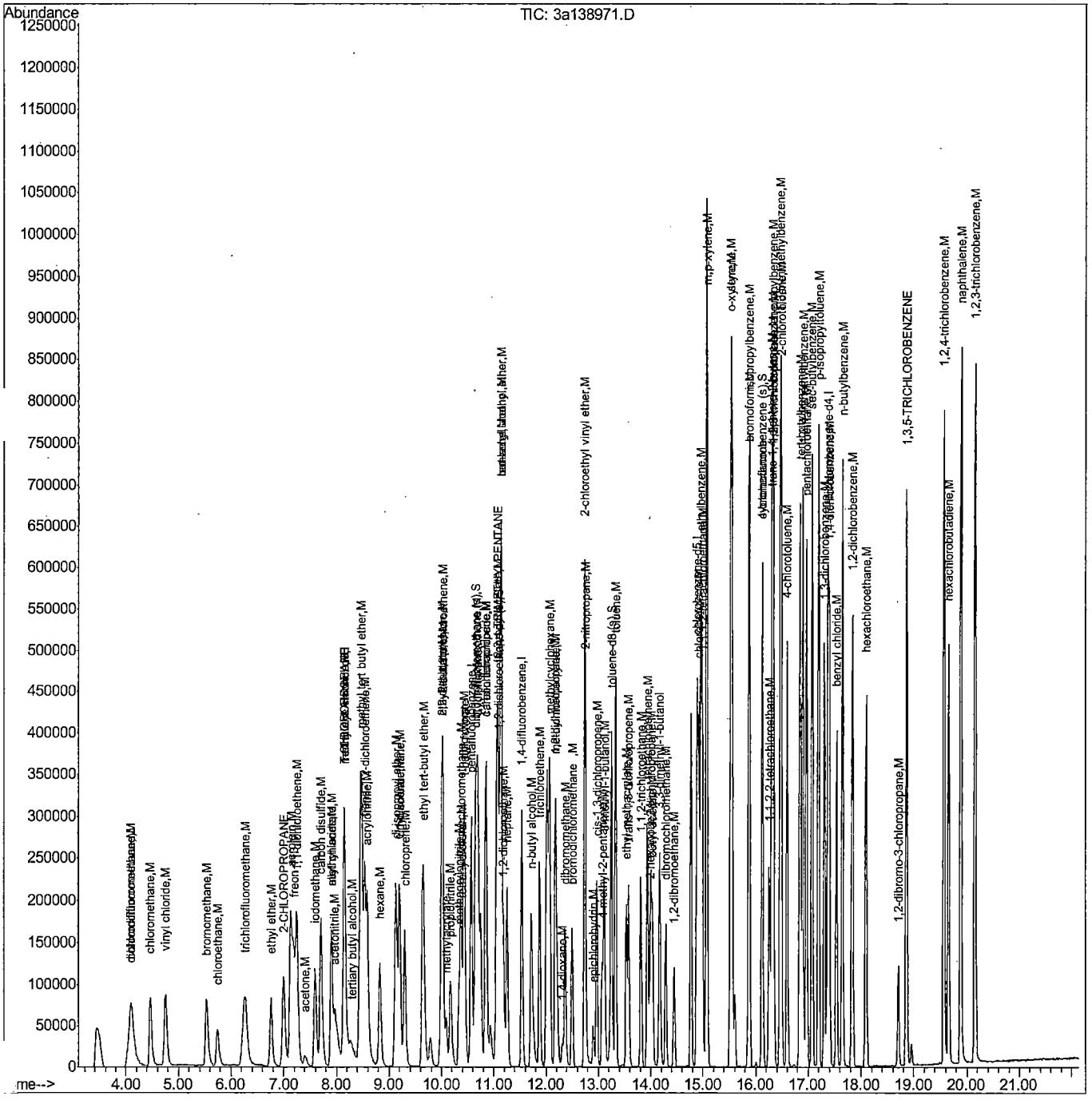
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.10 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	175332	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	277539	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	318774	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	281914	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	163589	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	105548	51.49	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 102.98%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	105431	54.20	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 108.40%			
79) toluene-d8 (s)	13.25	98	358977	50.65	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.30%			
104) 4-bromofluorobenzene (s)	16.12	95	134833	53.75	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	93730	267.61	ug/L	94
4) 1,4-dioxane	12.31	88	47995	1287.37	ug/L	95
8) chlorodifluoromethane	4.10	51	169397	61.79	ug/L	97
9) dichlorodifluoromethane	4.06	85	224481	49.92	ug/L	98
10) chloromethane	4.46	50	186540	56.87	ug/L	99
11) vinyl chloride	4.74	62	202874	51.15	ug/L	98
12) bromomethane	5.53	94	120041	50.62	ug/L	96
15) 2-CHLOROPROPANE	7.00	43	169245	53.29	ug/L	97
16) chloroethane	5.74	64	89472	56.69	ug/L	97
17) trichlorofluoromethane	6.27	101	199027	48.89	ug/L	95
19) 1-CHLOROPROPANE	8.15	42	178648	58.98	ug/L	96
20) ethyl ether	6.76	74	60199	56.23	ug/L	88
21) acrolein	7.13	56	219290	473.94	ug/L	97
22) 1,1-dichloroethene	7.25	96	104482	46.05	ug/L	98
23) acetone	7.41	43	35739	58.14	ug/L	98
24) allyl chloride	7.90	76	57735	51.92	ug/L	92
25) acetonitrile	7.97	40	111254	691.08	ug/L	79
26) iodomethane	7.60	142	229522	47.84	ug/L	98
27) iso-butyl alcohol	11.14	74	37904	552.37	ug/L	98
28) carbon disulfide	7.71	76	432197	48.83	ug/L	99
29) methylene chloride	8.15	84	132087	50.19	ug/L	95
30) methyl acetate	7.91	43	93534	65.62	ug/L	98
31) methyl tert butyl ether	8.47	73	422956	56.02	ug/L	100
32) trans-1,2-dichloroethene	8.54	61	162643	53.51	ug/L	99
33) di-isopropyl ether	9.13	45	378450	62.30	ug/L	98
34) 2-butanone	10.01	72	13073	55.29	ug/L #	69
35) 1,1-dichloroethane	9.20	63	208856	56.01	ug/L	98
36) chloroprene	9.30	53	135805	55.69	ug/L	93
37) acrylonitrile	8.58	53	228154	315.36	ug/L	97
38) vinyl acetate	9.20	86	15221	47.49	ug/L	81
39) ethyl tert-butyl ether	9.65	59	415319	56.44	ug/L	98
40) ethyl acetate	10.00	45	12699	58.84	ug/L #	31
41) 2,2-dichloropropane	10.00	77	190589	49.14	ug/L	97

7.6.11 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	131813	52.90 ug/L	92
43) methylacrylate	10.09	85	15155	50.43 ug/L	98
44) propionitrile	10.17	54	186748	653.09 ug/L	97
45) bromochloromethane	10.37	128	66076	51.34 ug/L	98
46) tetrahydrofuran	10.39	42	37847	62.10 ug/L	87
47) chloroform	10.43	85	124635	51.98 ug/L	97
48) t-butyl formate	10.44	59	117480	59.06 ug/L	96
51) freon 113	7.19	151	86884	48.59 ug/L	91
52) methacrylonitrile	10.33	41	70658	58.57 ug/L	92
53) 1,1,1-trichloroethane	10.66	97	192622	53.59 ug/L	98
54) Cyclohexane	10.70	84	189659	50.32 ug/L	96
56) epichlorohydrin	12.90	57	51871	291.05 ug/L	97
57) n-butyl alcohol	11.71	56	194818	3182.27 ug/L	96
58) carbon tetrachloride	10.85	117	166311	49.75 ug/L	94
59) 1,1-dichloropropene	10.84	75	134631	50.54 ug/L	96
61) hexane	8.83	57	95169	50.03 ug/L	93
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	300505	40.57 ug/L	97
63) benzene	11.13	78	426453	51.83 ug/L	100
64) tert-amyl methyl ether	11.14	87	91164	50.95 ug/L	95
65) heptane	11.25	57	48398	44.93 ug/L	91
66) isopropyl acetate	11.06	43	234618	57.34 ug/L	96
67) 1,2-dichloroethane	11.19	62	130608	52.57 ug/L	97
69) trichloroethene	11.88	95	97324	47.91 ug/L	97
71) methyl methacrylate	12.17	69	65566	57.02 ug/L	98
72) 2-nitropropane	12.76	41	34460	59.79 ug/L	96
73) 2-chloroethyl vinyl ether	12.74	63	338329	283.62 ug/L	100
74) 1,2-dichloropropane	12.18	63	108888	53.90 ug/L	98
75) dibromomethane	12.36	93	67154	50.82 ug/L	93
76) methylcyclohexane	12.06	83	169509	46.18 ug/L	95
77) bromodichloromethane	12.50	83	137559	51.18 ug/L	99
78) cis-1,3-dichloropropene	12.97	75	162607	50.70 ug/L	96
80) 4-methyl-2-pentanone	13.08	58	46594	59.66 ug/L	95
81) toluene	13.33	92	236035	51.05 ug/L	99
82) 3-methyl-1-butanol	13.11	55	130602	1371.44 ug/L	95
83) trans-1,3-dichloropropene	13.58	75	145749	51.64 ug/L	97
84) ethyl methacrylate	13.53	69	132535	57.48 ug/L	99
85) 1,1,2-trichloroethane	13.81	83	78495	51.02 ug/L	95
86) 2-hexanone	13.98	58	40781	56.48 ug/L	100
88) tetrachloroethene	13.94	164	75763	44.84 ug/L	95
90) 1,3-dichloropropane	14.00	76	151887	52.91 ug/L	98
91) butyl acetate	14.03	56	68586	60.96 ug/L	99
92) 3,3-dimethyl-1-butanol	14.17	57	176429	557.35 ug/L	98
93) dibromochloromethane	14.29	129	107108	50.67 ug/L	99
94) 1,2-dibromoethane	14.44	107	95318	50.61 ug/L	97
95) chlorobenzene	14.92	112	269104	48.20 ug/L	98
96) 1,1,1,2-tetrachloroethane	14.98	131	125487	52.20 ug/L	95
97) ethylbenzene	14.95	91	460327	50.28 ug/L	98
98) m,p-xylene	15.07	106	358652	101.90 ug/L	95
99) o-xylene	15.52	106	192262	52.91 ug/L	99
00) styrene	15.54	104	298868	50.61 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	77299	47.88 ug/L	93
103) isopropylbenzene	15.88	105	505282	53.23 ug/L	99
105) cyclohexanone	16.12	98	27950	163.08 ug/L	91
106) bromobenzene	16.34	156	123961	49.79 ug/L	99
107) 1,1,2,2-tetrachloroethane	16.26	83	151875	54.89 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	34966	54.31 ug/L	97
109) 1,2,3-trichloropropane	16.34	110	36666	55.37 ug/L	81
110) n-propylbenzene	16.32	120	123851	51.05 ug/L	93
111) 2-chlorotoluene	16.49	126	120778	50.41 ug/L	96
112) 4-chlorotoluene	16.60	126	118748	50.96 ug/L	96
113) 1,3,5-trimethylbenzene	16.47	105	433727	52.37 ug/L	98
114) tert-butylbenzene	16.85	119	373338	49.81 ug/L	98
115) pentachloroethane	16.97	167	97852	54.71 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	426531	51.98 ug/L	100
117) sec-butylbenzene	17.07	105	561447	48.50 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	246404	47.62 ug/L	98
119) p-isopropyltoluene	17.20	119	463885	47.66 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	252559	46.68 ug/L	98
121) 1,2-dichlorobenzene	17.84	146	264830	47.74 ug/L	98
122) benzyl chloride	17.54	91	262007	46.46 ug/L	97
123) n-butylbenzene	17.65	92	226310	45.57 ug/L	99
124) 1,2-dibromo-3-chloropropan	18.71	75	35442	53.78 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	18.86	180	242946	42.41 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	269160	43.57 ug/L	100
127) hexachlorobutadiene	19.66	225	91392	33.71 ug/L	98
128) naphthalene	19.89	128	773318	47.67 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	301612	43.53 ug/L	99
130) hexachloroethane	18.09	201	81044	39.59 ug/L	95

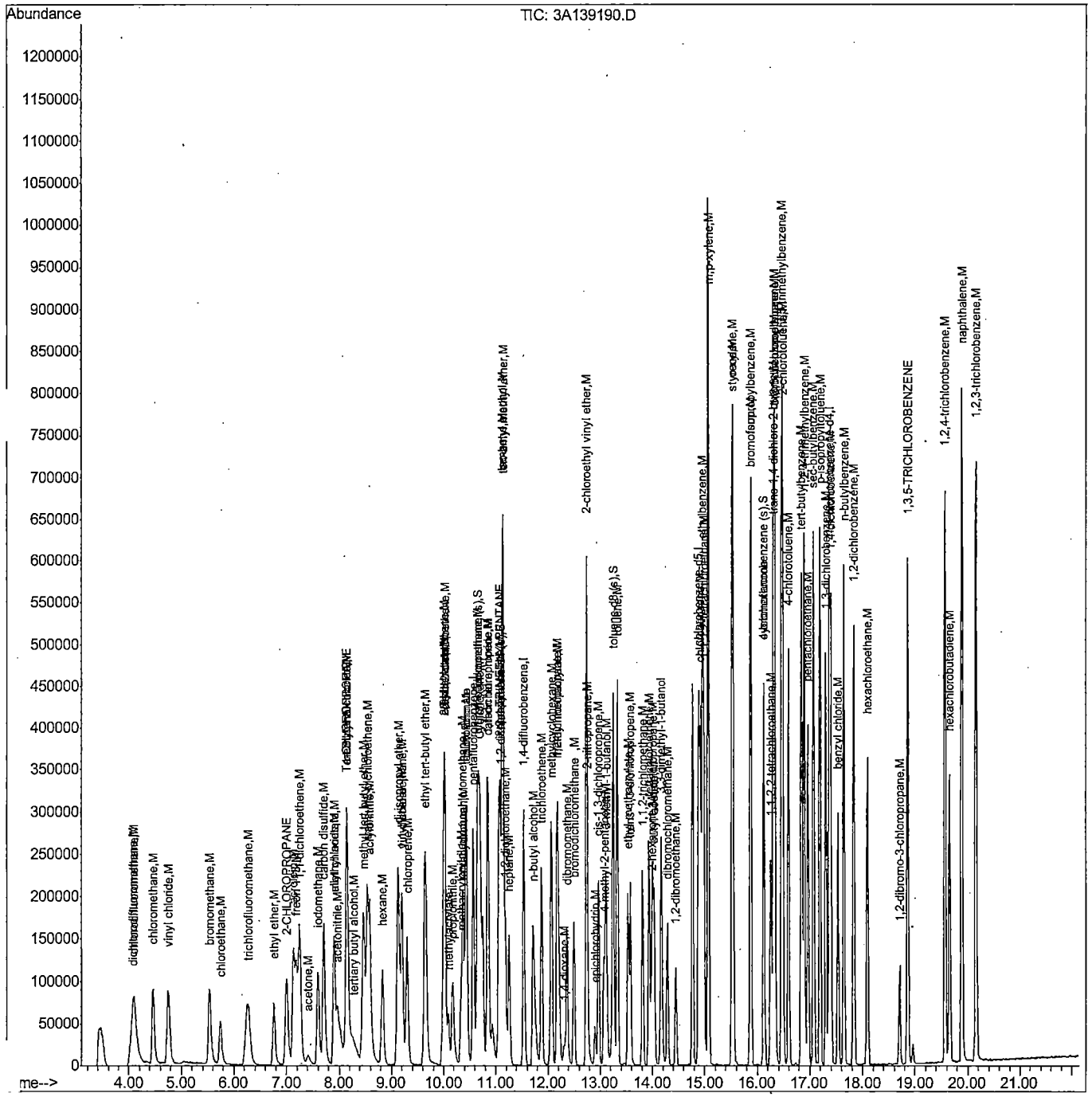
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.11 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	149974	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	275056	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	330021	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	295455	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166054	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	109199	53.75	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.50%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	109096	56.59	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 113.18%			
79) toluene-d8 (s)	13.25	98	367534	50.09	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.18%			
104) 4-bromofluorobenzene (s)	16.12	95	137201	53.88	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.76%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	30915	103.19	ug/L	98
4) 1,4-dioxane	12.31	88	15003	470.47	ug/L	94
8) chlorodifluoromethane	4.09	51	66559	24.50	ug/L	99
9) dichlorodifluoromethane	4.07	85	79691	17.88	ug/L	96
10) chloromethane	4.45	50	62392	19.19	ug/L	96
11) vinyl chloride	4.75	62	71714	18.24	ug/L	99
12) bromomethane	5.53	94	45417	19.32	ug/L	95
15) 2-CHLOROPROPANE	7.00	43	80900	25.70	ug/L	99
16) chloroethane	5.74	64	32093	20.52	ug/L	97
17) trichlorofluoromethane	6.25	101	79396	19.68	ug/L	93
19) 1-CHLOROPROPANE	8.15	42	84314	25.97	ug/L	97
20) ethyl ether	6.76	74	25626	24.15	ug/L	94
21) acrolein	7.13	56	87384	190.56	ug/L	98
22) 1,1-dichloroethene	7.25	96	46790	20.81	ug/L	99
23) acetone	7.40	43	14127	23.19	ug/L	96
24) allyl chloride	7.90	76	25544	23.18	ug/L	95
25) acetonitrile	7.97	40	29997	188.02	ug/L	83
26) iodomethane	7.60	142	95950	20.18	ug/L	99
27) iso-butyl alcohol	11.14	74	15369	225.99	ug/L #	82
28) carbon disulfide	7.71	76	191752	21.86	ug/L	98
29) methylene chloride	8.14	84	56252	21.57	ug/L	98
30) methyl acetate	7.91	43	37229	26.35	ug/L	97
31) methyl tert butyl ether	8.47	73	164765	22.02	ug/L	94
32) trans-1,2-dichloroethene	8.54	61	69817	23.18	ug/L	98
33) di-isopropyl ether	9.13	45	148833	24.72	ug/L	97
34) 2-butanone	10.02	72	4642	19.81	ug/L #	77
35) 1,1-dichloroethane	9.21	63	88424	23.93	ug/L	96
36) chloroprene	9.30	53	58216	24.09	ug/L	96
37) acrylonitrile	8.58	53	85233	118.87	ug/L	97
38) vinyl acetate	9.20	86	5652	20.08	ug/L #	43
39) ethyl tert-butyl ether	9.65	59	162334	22.26	ug/L	100
40) ethyl acetate	10.01	45	4742	23.51	ug/L #	1
41) 2,2-dichloropropane	10.00	77	88548	23.04	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	53166	21.53 ug/L	96
43) methylacrylate	10.10	85	5540	20.81 ug/L #	76
44) propionitrile	10.17	54	65635	231.61 ug/L	94
45) bromochloromethane	10.37	128	26145	20.50 ug/L	95
46) tetrahydrofuran	10.40	42	14455	23.93 ug/L	97
47) chloroform	10.43	85	52297	22.01 ug/L	99
48) t-butyl formate	10.43	59	43067	21.85 ug/L	94
51) freon 113	7.19	151	38710	21.85 ug/L	92
52) methacrylonitrile	10.34	41	25652	24.41 ug/L	92
53) 1,1,1-trichloroethane	10.66	97	77409	21.73 ug/L	97
54) Cyclohexane	10.70	84	79668	21.33 ug/L	96
56) epichlorohydrin	12.90	57	19278	104.48 ug/L	97
57) n-butyl alcohol	11.72	56	60361	952.37 ug/L	98
58) carbon tetrachloride	10.85	117	65685	18.98 ug/L	98
59) 1,1-dichloropropene	10.84	75	58368	21.16 ug/L	97
61) hexane	8.83	57	45456	23.08 ug/L	94
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	143187	18.67 ug/L	98
63) benzene	11.13	78	178746	20.98 ug/L	97
64) tert-amyl methyl ether	11.14	87	34659	18.71 ug/L	96
65) heptane	11.26	57	23525	21.09 ug/L	95
66) isopropyl acetate	11.06	43	90685	21.41 ug/L	97
67) 1,2-dichloroethane	11.19	62	56058	21.79 ug/L	99
69) trichloroethene	11.88	95	42435	20.18 ug/L	98
71) methyl methacrylate	12.18	69	25575	21.48 ug/L	93
72) 2-nitropropane	12.76	41	13686	22.94 ug/L	96
73) 2-chloroethyl vinyl ether	12.74	63	130759	105.88 ug/L	98
74) 1,2-dichloropropane	12.18	63	45195	21.61 ug/L	96
75) dibromomethane	12.36	93	28598	20.91 ug/L	89
76) methylcyclohexane	12.06	83	71133	18.72 ug/L	96
77) bromodichloromethane	12.50	83	58326	20.96 ug/L	95
78) cis-1,3-dichloropropene	12.97	75	71013	21.39 ug/L	99
80) 4-methyl-2-pentanone	13.08	58	16731	20.69 ug/L	93
81) toluene	13.33	92	98634	20.61 ug/L	97
82) 3-methyl-1-butanol	13.11	55	37837	383.78 ug/L	88
83) trans-1,3-dichloropropene	13.58	75	62589	21.42 ug/L	97
84) ethyl methacrylate	13.54	69	49352	20.67 ug/L	96
85) 1,1,2-trichloroethane	13.82	83	32236	20.24 ug/L	98
86) 2-hexanone	13.98	58	14481	19.37 ug/L	98
88) tetrachloroethene	13.94	164	32457	18.33 ug/L	96
90) 1,3-dichloropropane	14.00	76	62395	20.74 ug/L	96
91) butyl acetate	14.04	56	25798	21.88 ug/L	92
92) 3,3-dimethyl-1-butanol	14.17	57	50309	190.00 ug/L	96
93) dibromochloromethane	14.29	129	42957	19.39 ug/L	99
94) 1,2-dibromoethane	14.45	107	38639	19.57 ug/L	97
95) chlorobenzene	14.92	112	113023	19.32 ug/L	98
96) 1,1,1,2-tetrachloroethane	14.98	131	47733	18.94 ug/L	97
97) ethylbenzene	14.96	91	191152	19.92 ug/L	99
98) m,p-xylene	15.07	106	146335	39.67 ug/L	99
99) o-xylene	15.52	106	76648	20.13 ug/L	99
00) styrene	15.54	104	120421	19.46 ug/L	100

7.6.12

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	29614	17.50 ug/L	94
103) isopropylbenzene	15.88	105	199672	20.72 ug/L	98
105) cyclohexanone	16.13	98	13755	79.07 ug/L	94
106) bromobenzene	16.34	156	50687	20.06 ug/L	96
107) 1,1,2,2-tetrachloroethane	16.26	83	57693	20.54 ug/L	100
108) trans-1,4-dichloro-2-buten	16.30	53	13985	21.40 ug/L	89
109) 1,2,3-trichloropropane	16.34	110	13620	20.26 ug/L	85
110) n-propylbenzene	16.32	120	48362	19.64 ug/L	91
111) 2-chlorotoluene	16.49	126	48849	20.08 ug/L	95
112) 4-chlorotoluene	16.60	126	48826	20.64 ug/L	98
113) 1,3,5-trimethylbenzene	16.47	105	169673	20.18 ug/L	99
114) tert-butylbenzene	16.85	119	144442	18.98 ug/L	98
115) pentachloroethane	16.97	167	36439	20.07 ug/L	99
116) 1,2,4-trimethylbenzene	16.90	105	169066	20.30 ug/L	99
117) sec-butylbenzene	17.07	105	222890	18.97 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	101416	19.31 ug/L	98
119) p-isopropyltoluene	17.20	119	184956	18.72 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	103498	18.84 ug/L	97
121) 1,2-dichlorobenzene	17.84	146	106236	18.87 ug/L	95
122) benzyl chloride	17.54	91	116863	20.42 ug/L	98
123) n-butylbenzene	17.65	92	93412	18.53 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.71	75	12460	18.63 ug/L	95
125) 1,3,5-TRICHLOROBENZENE	18.86	180	95884	16.49 ug/L	97
126) 1,2,4-trichlorobenzene	19.57	180	105048	16.75 ug/L	99
127) hexachlorobutadiene	19.66	225	39689	14.42 ug/L	95
128) naphthalene	19.89	128	283978	17.25 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	115676	16.45 ug/L	96
130) hexachloroethane	18.09	201	30688	17.34 ug/L	94

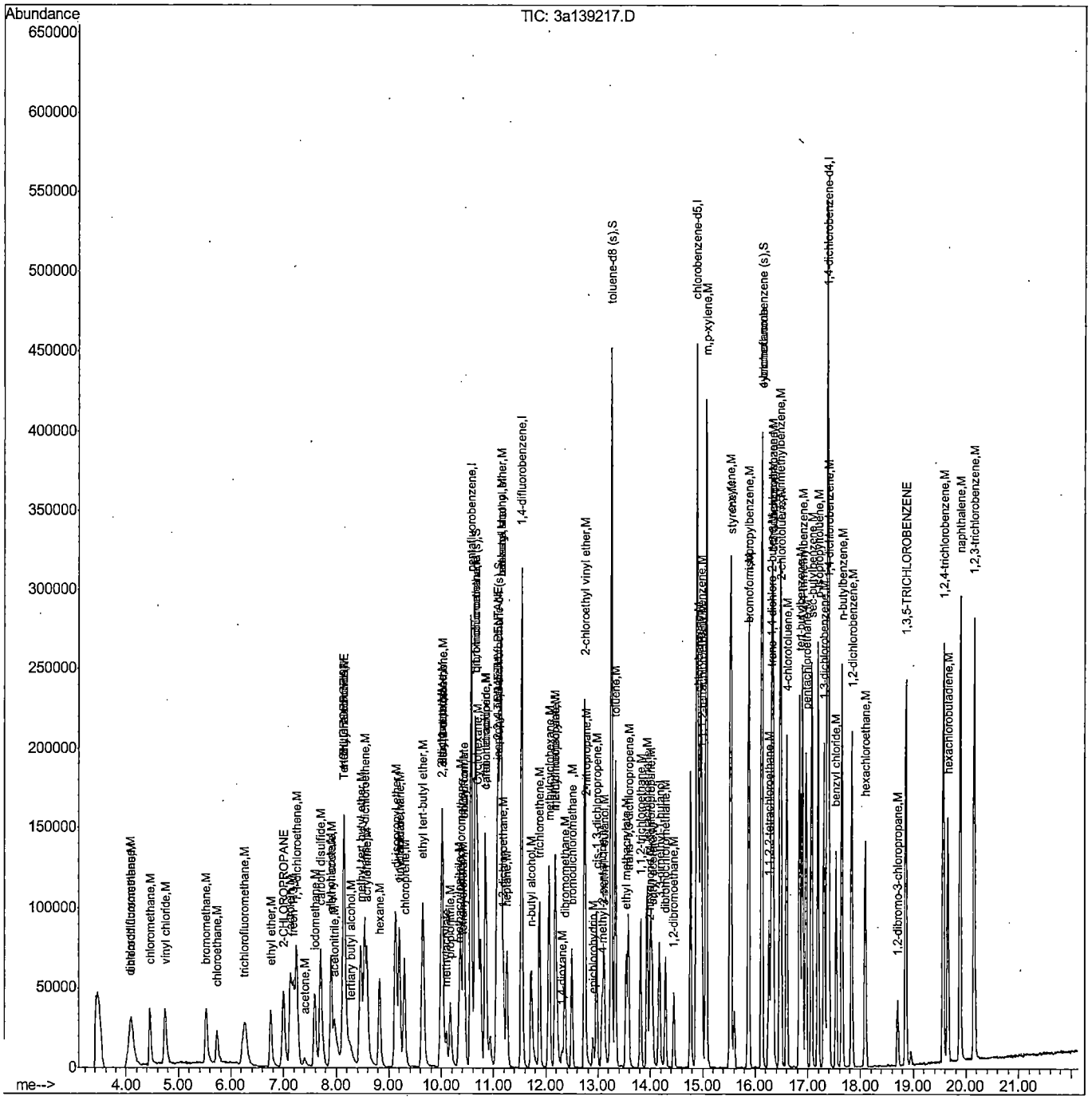
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.12 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56968.D
Acq On : 18 Feb 2015 4:45 pm
Operator : PayalR
Sample : ic2528-0.2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 08:48:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	117439	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	290121	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	359394	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	327398	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	162961	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery	=	0.00%#	
46) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery	=	0.00%#	
75) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery	=	0.00%#	
100) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery	=	0.00%#	
Target Compounds						Qvalue
7) chloromethane	3.637	50	862	0.23	ug/L	88
16) 2-chloropropane	5.960	43	983	0.22	ug/L #	48
18) 1,1-dichloroethene	6.222	96	565	0.21	ug/L #	65
22) iodomethane	6.495	142	1021	0.19	ug/L	88
29) trans-1,2-dichloroethene	7.470	96	641	0.20	ug/L	94
31) ethyl tert-butyl ether	8.707	59	1616	0.17	ug/L	99
33) 1,1-dichloroethane	8.099	63	1217	0.20	ug/L	90
39) cis-1,2-dichloroethene	8.938	96	783	0.22	ug/L	88
44) chloroform	9.342	83	1299	0.22	ug/L	87
49) 1,1,1-trichloroethane	9.630	97	810	0.19	ug/L #	66
50) tert-amyl methyl ether	10.207	73	1589	0.18	ug/L	52
54) cyclohexane	9.735	84	803	0.20	ug/L	87
56) carbon tetrachloride	9.861	117	745	0.19	ug/L #	61
57) 1,1-dichloropropene	9.840	75	939	0.22	ug/L #	73
59) benzene	10.107	78	2754	0.21	ug/L	89
64) trichloroethene	10.883	95	697	0.21	ug/L	83
70) methylcyclohexane	11.135	83	783	0.17	ug/L	99
72) dibromomethane	11.292	93	431	0.20	ug/L	90
73) bromodichloromethane	11.439	83	800	0.19	ug/L	86
74) cis-1,3-dichloropropene	11.958	75	1105	0.21	ug/L	95
77) toluene	12.362	92	1612	0.21	ug/L	96
79) trans-1,3-dichloropropene	12.561	75	1058	0.22	ug/L	95
81) 1,1,2-trichloroethane	12.776	83	457	0.17	ug/L	89
84) tetrachloroethene	12.991	166	695	0.21	ug/L	95
85) 1,3-dichloropropane	12.975	76	954	0.20	ug/L	90
87) dibromochloromethane	13.243	129	633	0.19	ug/L	74
88) 1,2-dibromoethane	13.405	107	593	0.19	ug/L	95
90) chlorobenzene	13.929	112	1816	0.21	ug/L	97
91) 1,1,1,2-tetrachloroethane	13.992	131	579	0.19	ug/L	97
92) ethylbenzene	14.019	91	3132	0.21	ug/L	97
93) m,p-xylene	14.134	106	2260	0.40	ug/L	97
94) o-xylene	14.574	106	1106	0.20	ug/L	93

7.6.13 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56968.D
Acq On : 18 Feb 2015 4:45 pm
Operator : PayalR
Sample : ic2528-0.2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 08:48:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) styrene	14.580	104	1796	0.20 ug/L	96
99) isopropylbenzene	14.952	105	2760	0.20 ug/L	97
101) bromobenzene	15.335	156	679	0.19 ug/L	94
103) 1,1,2,2-tetrachloroethane	15.225	83	1019	0.22 ug/L	94
106) n-propylbenzene	15.382	91	3438	0.21 ug/L	95
107) 2-chlorotoluene	15.508	126	689	0.20 ug/L #	79
108) 4-chlorotoluene	15.612	91	2264	0.22 ug/L	89
109) 1,3,5-trimethylbenzene	15.539	105	2342	0.21 ug/L	94
110) tert-butylbenzene	15.890	119	1902	0.20 ug/L	99
112) 1,2,4-trimethylbenzene	15.932	105	2262	0.20 ug/L	99
113) sec-butylbenzene	16.111	105	3135	0.20 ug/L	97
114) 1,3-dichlorobenzene	16.268	146	1622	0.24 ug/L	89
115) p-isopropyltoluene	16.231	119	2458	0.20 ug/L	97
116) 1,4-dichlorobenzene	16.347	146	1741	0.25 ug/L	88
117) 1,2-dichlorobenzene	16.729	146	1447	0.22 ug/L	97
118) n-butylbenzene	16.640	92	1341	0.20 ug/L	92
120) 1,3,5-trichlorobenzene	17.657	180	1121	0.22 ug/L #	80
121) 1,2,4-trichlorobenzene	18.229	180	1145	0.25 ug/L	95
122) hexachlorobutadiene	18.360	225	517	0.22 ug/L #	44
123) naphthalene	18.486	128	2522	0.23 ug/L	98
124) 1,2,3-trichlorobenzene	18.706	180	913	0.21 ug/L	92
125) hexachloroethane	16.997	119	468	0.18 ug/L	92
126) Benzyl chloride	16.462	91	1482	0.20 ug/L #	61

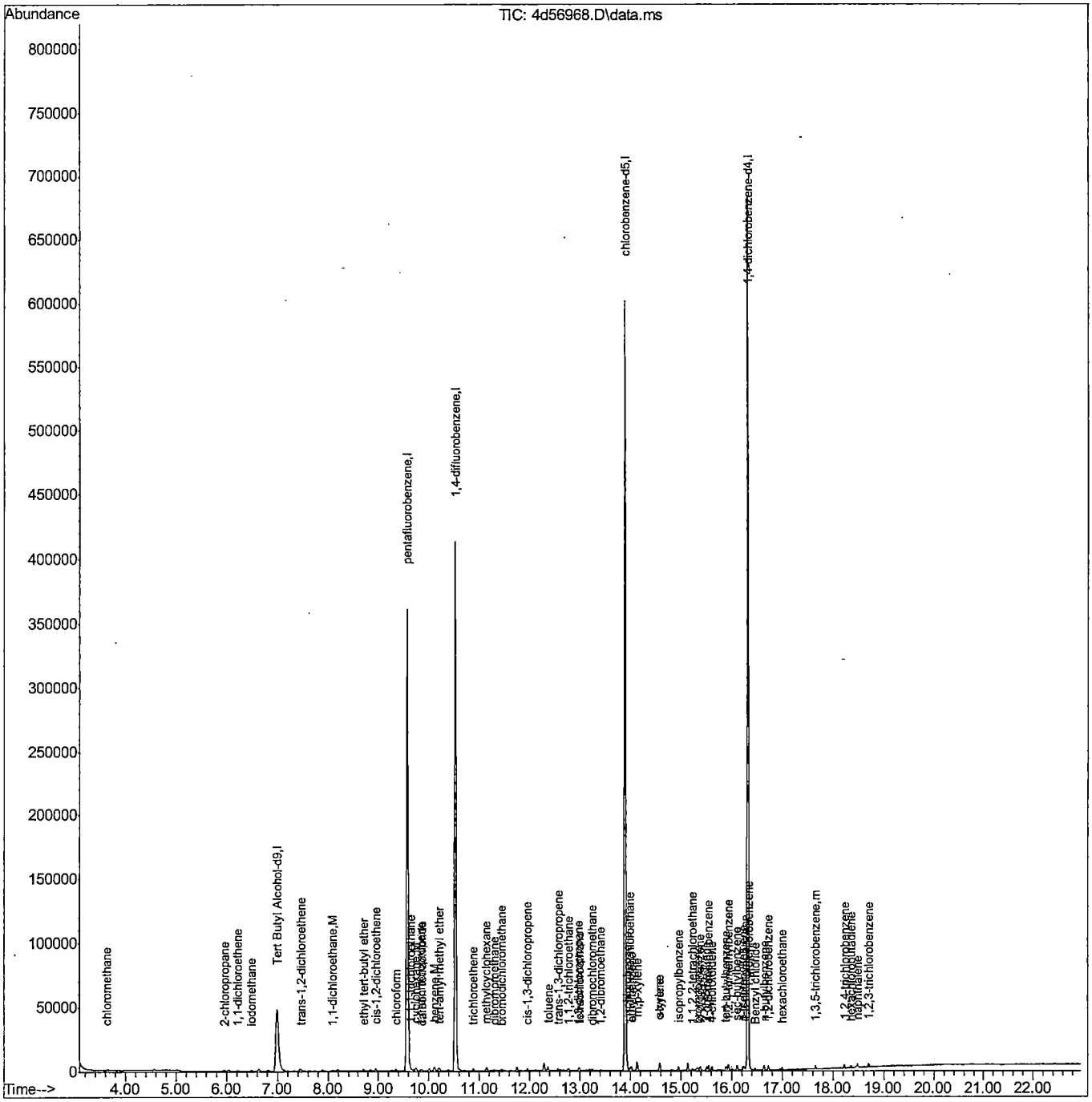
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.13 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56968.D
Acq On : 18 Feb 2015 4:45 pm
Operator : PayalR
Sample : ic2528-0.2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 08:48:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB88562

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
02/23/15 10:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	113817	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	283168	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	351732	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	323825	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	160993	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery	=	0.00%#	
46) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery	=	0.00%#	
75) toluene-d8 (s)	12.283	98	6438	0.63	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery	=	1.26%#	
100) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery	=	0.00%#	
Target Compounds						Qvalue
7) chloromethane	3.648	50	1844	0.50	ug/L	92
8) vinyl chloride	3.894	62	1700	0.46	ug/L	94
10) bromomethane	4.586	94	1571	0.59	ug/L	76
11) chloroethane	4.791	64	797	0.46	ug/L	64
12) trichlorofluoromethane	5.305	101	1754	0.44	ug/L	89
16) 2-chloropropane	5.976	43	2319	0.52	ug/L #	75
18) 1,1-dichloroethene	6.222	96	1358	0.52	ug/L	97
20) allyl chloride	6.825	76	601	0.43	ug/L #	54
22) iodomethane	6.495	142	2666	0.52	ug/L	98
24) carbon disulfide	6.636	76	5905	0.60	ug/L	96
25) methylene chloride	7.009	84	1924	0.58	ug/L	96
26) 1-chloropropane	7.072	42	2199	0.45	ug/L #	84
28) methyl tert butyl ether	7.460	73	3954	0.50	ug/L	95
29) trans-1,2-dichloroethene	7.470	96	1645	0.53	ug/L	86
30) di-isopropyl ether	8.183	45	4383	0.47	ug/L	72
31) ethyl tert-butyl ether	8.707	59	4200	0.46	ug/L	97
33) 1,1-dichloroethane	8.104	63	2770	0.48	ug/L	90
34) chloroprene	8.256	53	1775	0.45	ug/L	97
35) acrylonitrile	7.407	53	2181	2.08	ug/L	90
38) 2,2-dichloropropane	8.954	77	2026	0.50	ug/L	78
39) cis-1,2-dichloroethene	8.938	96	1728	0.50	ug/L	85
42) bromochloromethane	9.258	128	682	0.42	ug/L	97
44) chloroform	9.342	83	2879	0.51	ug/L	94
47) freon 113	6.238	151	655	0.38	ug/L	94
49) 1,1,1-trichloroethane	9.635	97	2087	0.49	ug/L	90
50) tert-amyl methyl ether	10.202	73	3974	0.45	ug/L	93
54) cyclohexane	9.735	84	2109	0.54	ug/L	97
56) carbon tetrachloride	9.856	117	1855	0.49	ug/L	90
57) 1,1-dichloropropene	9.840	75	2015	0.48	ug/L	92
58) hexane	7.895	57	1665	0.53	ug/L	96
59) benzene	10.112	78	6319	0.50	ug/L	94
60) ISO-OCTANE	10.186	57	4817	0.47	ug/L	96

7.6.14 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
61)	heptane	10.385	57	882	0.46 ug/L	86
62)	isopropyl acetate	10.102	43	2262	0.43 ug/L #	84
63)	1,2-dichloroethane	10.102	62	1688	0.47 ug/L	92
64)	trichloroethene	10.878	95	1653	0.51 ug/L	86
67)	2-chloroethyl vinyl ether	11.748	63	4927	2.26 ug/L	99
69)	1,2-dichloropropane	11.145	63	1635	0.48 ug/L	93
70)	methylcyclohexane	11.140	83	2134	0.47 ug/L	98
72)	dibromomethane	11.287	93	1065	0.51 ug/L	94
73)	bromodichloromethane	11.439	83	1974	0.48 ug/L	92
74)	cis-1,3-dichloropropene	11.953	75	2607	0.50 ug/L	95
77)	toluene	12.362	92	3516	0.47 ug/L	94
78)	3-methyl-1-butanol	12.115	70	458	5.91 ug/L #	70
79)	trans-1,3-dichloropropene	12.556	75	2296	0.50 ug/L	89
80)	ethyl methacrylate	12.608	69	1726	0.46 ug/L	92
81)	1,1,2-trichloroethane	12.776	83	1211	0.47 ug/L	92
84)	tetrachloroethene	12.991	166	1539	0.48 ug/L	91
85)	1,3-dichloropropane	12.975	76	2334	0.49 ug/L	91
86)	butyl acetate	13.117	56	740	0.35 ug/L	92
87)	dibromochloromethane	13.243	129	1528	0.45 ug/L	93
88)	1,2-dibromoethane	13.405	107	1473	0.47 ug/L	90
89)	n-Butyl Ether	13.924	57	6504	0.47 ug/L #	67
90)	chlorobenzene	13.924	112	4314	0.50 ug/L	93
91)	1,1,1,2-tetrachloroethane	13.998	131	1490	0.50 ug/L	95
92)	ethylbenzene	14.013	91	7119	0.48 ug/L	99
93)	m,p-xylene	14.139	106	5303	0.96 ug/L	88
94)	o-xylene	14.574	106	2592	0.48 ug/L	90
95)	styrene	14.585	104	4153	0.47 ug/L	99
97)	bromoform	14.821	173	1081	0.46 ug/L	93
99)	isopropylbenzene	14.952	105	6453	0.48 ug/L	97
101)	bromobenzene	15.329	156	1769	0.51 ug/L	93
102)	cyclohexanone	15.083	55	827	4.76 ug/L	81
103)	1,1,2,2-tetrachloroethane	15.224	83	2116	0.47 ug/L	93
104)	trans-1,4-dichloro-2-b...	15.282	53	405	0.45 ug/L	89
105)	1,2,3-trichloropropane	15.298	110	412	0.46 ug/L	95
106)	n-propylbenzene	15.376	91	7560	0.47 ug/L	99
107)	2-chlorotoluene	15.508	126	1633m	0.49 ug/L	
108)	4-chlorotoluene	15.607	91	5074	0.50 ug/L	95
109)	1,3,5-trimethylbenzene	15.539	105	5258	0.47 ug/L	99
110)	tert-butylbenzene	15.890	119	4439	0.47 ug/L	97
111)	pentachloroethane	15.943	167	1011	0.46 ug/L	94
112)	1,2,4-trimethylbenzene	15.932	105	5227	0.47 ug/L	98
113)	sec-butylbenzene	16.111	105	7123	0.47 ug/L	98
114)	1,3-dichlorobenzene	16.263	146	3436	0.51 ug/L	95
115)	p-isopropyltoluene	16.236	119	5484	0.45 ug/L	98
116)	1,4-dichlorobenzene	16.346	146	3552	0.52 ug/L	95
117)	1,2-dichlorobenzene	16.729	146	3293	0.51 ug/L	93
118)	n-butylbenzene	16.640	92	3040	0.46 ug/L	97
120)	1,3,5-trichlorobenzene	17.652	180	2535	0.49 ug/L	97
121)	1,2,4-trichlorobenzene	18.229	180	2171	0.47 ug/L	98
122)	hexachlorobutadiene	18.360	225	1078	0.46 ug/L	98

7.6.14 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
123) naphthalene	18.480	128	5135	0.47 ug/L	95
124) 1,2,3-trichlorobenzene	18.706	180	2019	0.48 ug/L	96
125) hexachloroethane	16.997	119	1111	0.44 ug/L	92
126) Benzyl chloride	16.457	91	3124	0.42 ug/L	93

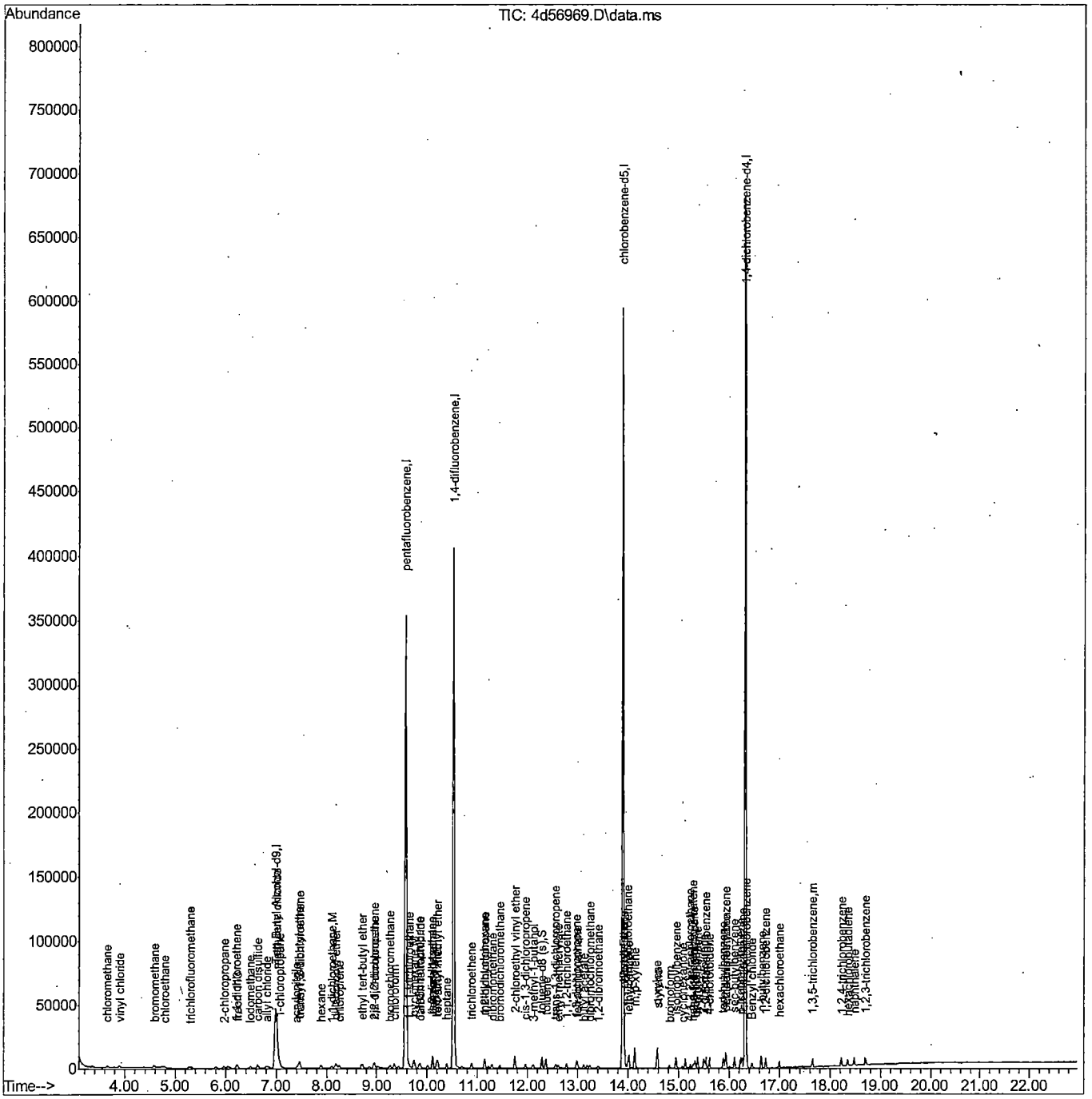
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.14 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



7.6.14

7

Manual Integration Approval Summary

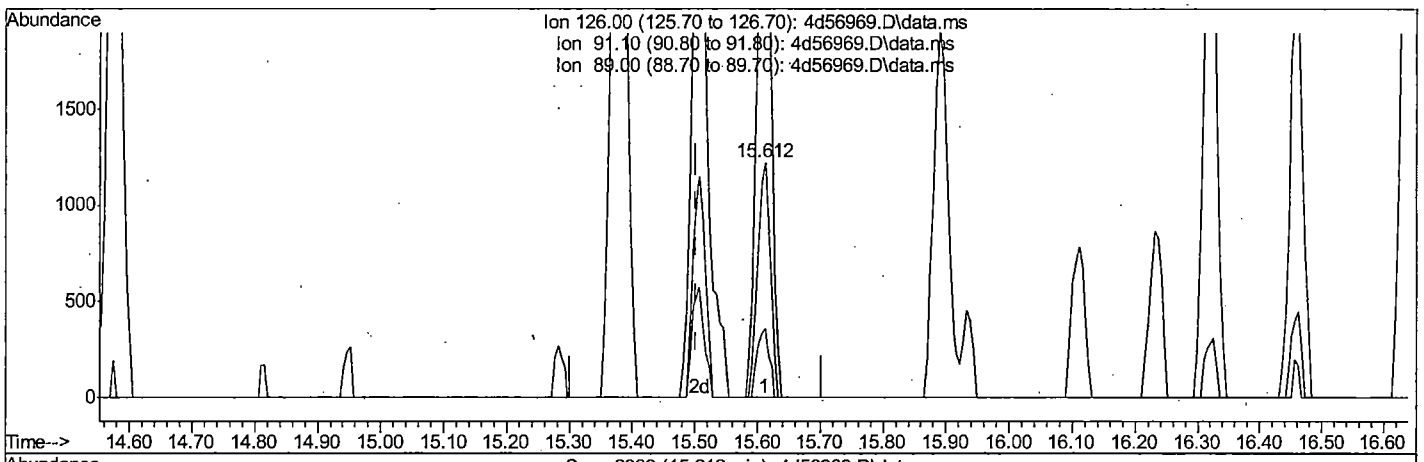
Sample Number:	V4D2528-IC2528	**Method:**	SW846 8260B
Lab FileID:	4D56969.D	**Analyst approved:**	02/19/15 09:01 Ying Li
Injection Time:	02/18/15 17:12	**Supervisor approved:**	02/23/15 10:10 Jessica Reitan-Chu

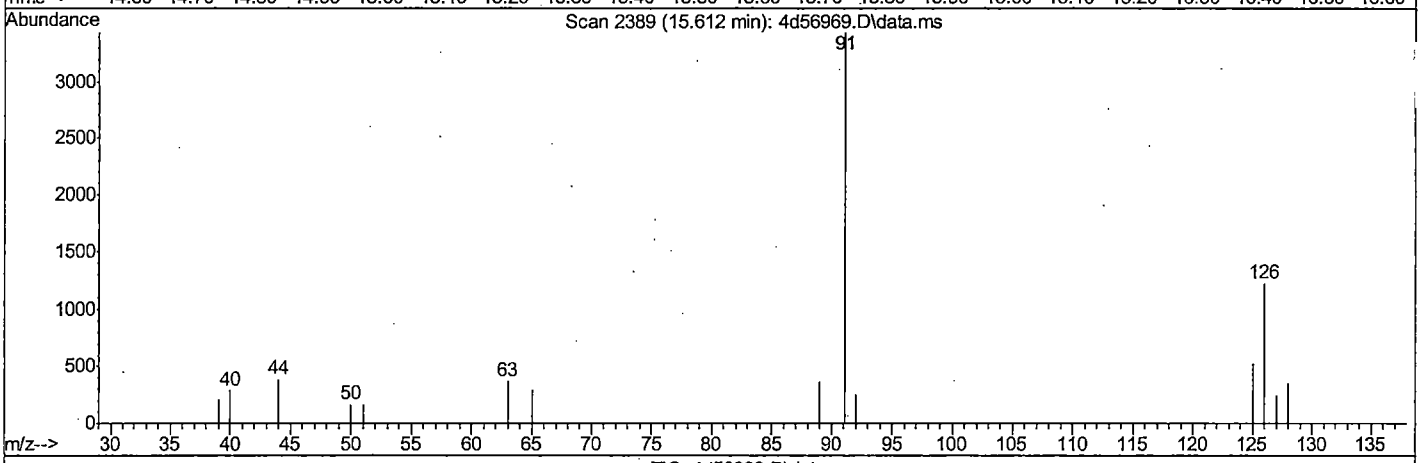
Parameter	CAS	Sig#	R.T. (min.)	Reason
o-Chlorotoluene	95-49-8		15.51	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 17:35:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration





TIC: 4d56969.D\data.ms

(107) 2-chlorotoluene

15.612min (+0.110) 0.50ug/L

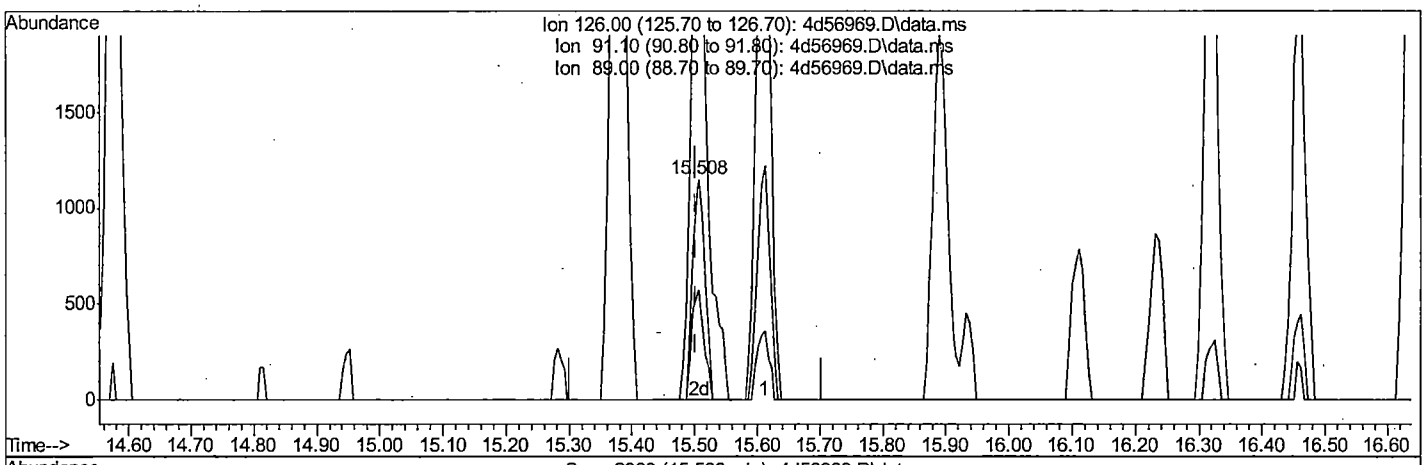
response 1683

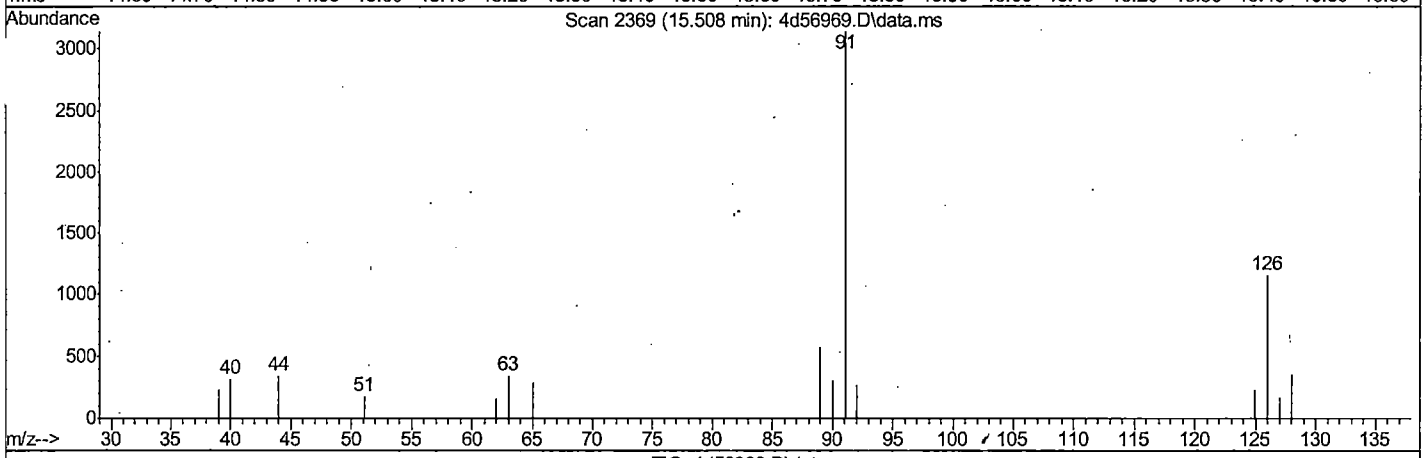
Ion	Exp%	Act%
126.00	100	100
91.10	297.20	281.05
89.00	50.90	29.41
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 17:35:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration





TIC: 4d56969.D\data.ms

(107) 2-chlorotoluene

15.508min (+0.005) 0.49ug/L m

response 1633

Ion	Exp%	Act%
126.00	100	100
91.10	297.20	272.42
89.00	50.90	49.26
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	113048	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	286544	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	356089	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	324710	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	162202	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	4014	1.29	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery	=	2.58%#	
46) 1,2-dichloroethane-d4 (s)	10.008	65	3723	1.24	ug/L	0.01
Spiked Amount 50.000	Range 71 - 124		Recovery	=	2.48%#	
75) toluene-d8 (s)	12.283	98	12323	1.19	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery	=	2.38%#	
100) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery	=	0.00%#	
Target Compounds						Qvalue
2) 1,4-dioxane	11.276	88	616	20.79	ug/L #	75
5) chlorodifluoromethane	3.344	51	1979	0.92	ug/L	65
6) dichlorodifluoromethane	3.349	85	2713	0.86	ug/L	94
7) chloromethane	3.643	50	3867	1.04	ug/L	99
8) vinyl chloride	3.894	62	3885	1.05	ug/L	96
10) bromomethane	4.576	94	3124	1.16	ug/L	93
11) chloroethane	4.780	64	1760	1.00	ug/L	85
12) trichlorofluoromethane	5.299	101	4029	1.00	ug/L	90
14) ethyl ether	5.797	74	1097	0.77	ug/L	91
16) 2-chloropropane	5.965	43	4639	1.04	ug/L #	48
17) acrolein	6.002	56	1330055	2114.71	ug/L	99
18) 1,1-dichloroethene	6.222	96	2413	0.91	ug/L	95
20) allyl chloride	6.820	76	1192	0.85	ug/L #	74
21) acetonitrile	6.773	40	949	5.91	ug/L	97
22) iodomethane	6.490	142	4717	0.91	ug/L	98
23) iso-butyl alcohol	9.866	41	775	7.73	ug/L	89
24) carbon disulfide	6.631	76	9560	0.96	ug/L	97
25) methylene chloride	7.009	84	3144	0.93	ug/L	97
26) 1-chloropropane	7.082	42	4716	0.95	ug/L #	93
28) methyl tert butyl ether	7.454	73	6957	0.88	ug/L	94
29) trans-1,2-dichloroethene	7.470	96	2659	0.85	ug/L	94
30) di-isopropyl ether	8.178	45	8648	0.92	ug/L	75
31) ethyl tert-butyl ether	8.707	59	8355	0.90	ug/L	97
33) 1,1-dichloroethane	8.104	63	4755	0.81	ug/L	91
34) chloroprene	8.246	53	3418	0.86	ug/L	98
35) acrylonitrile	7.397	53	4424	4.17	ug/L	90
38) 2,2-dichloropropane	8.949	77	3452	0.84	ug/L	95
39) cis-1,2-dichloroethene	8.933	96	3086	0.88	ug/L	98
40) propionitrile	9.001	54	3348	7.76	ug/L	93
41) methyl acrylate	9.085	55	1907	0.71	ug/L #	53
42) bromochloromethane	9.263	128	1390	0.84	ug/L	99
43) tetrahydrofuran	9.342	42	787	0.89	ug/L #	29

7.6.15 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) chloroform	9.342	83	4780	0.83 ug/L	98
47) freon 113	6.227	151	1641	0.94 ug/L	85
48) methacrylonitrile	9.216	41	1246	0.75 ug/L	81
49) 1,1,1-trichloroethane	9.635	97	3593	0.83 ug/L	85
50) tert-amyl methyl ether	10.202	73	8217	0.92 ug/L	96
52) epichlorohydrin	11.832	57	1343	4.47 ug/L	92
53) n-butyl alcohol	10.679	56	3421	38.98 ug/L	92
54) cyclohexane	9.730	84	3513	0.89 ug/L	99
56) carbon tetrachloride	9.856	117	3175	0.83 ug/L	97
57) 1,1-dichloropropene	9.835	75	3533	0.84 ug/L	98
58) hexane	7.884	57	3315	1.05 ug/L	91
59) benzene	10.102	78	10898	0.85 ug/L	98
60) ISO-OCTANE	10.186	57	9957	0.97 ug/L	93
61) heptane	10.385	57	1806	0.93 ug/L	96
62) isopropyl acetate	10.097	43	4855	0.91 ug/L	91
63) 1,2-dichloroethane	10.102	62	3177	0.87 ug/L	98
64) trichloroethene	10.878	95	2768	0.85 ug/L	87
67) 2-chloroethyl vinyl ether	11.743	63	10101	4.58 ug/L	98
68) methyl methacrylate	11.214	41	2056	0.89 ug/L	90
69) 1,2-dichloropropane	11.145	63	2876	0.84 ug/L	96
70) methylcyclohexane	11.140	83	4248	0.93 ug/L	96
72) dibromomethane	11.282	93	1791	0.85 ug/L	91
73) bromodichloromethane	11.444	83	3494	0.84 ug/L	97
74) cis-1,3-dichloropropene	11.953	75	4475	0.84 ug/L	99
76) 4-methyl-2-pentanone	12.089	58	931	0.76 ug/L #	71
77) toluene	12.357	92	6197	0.82 ug/L	99
78) 3-methyl-1-butanol	12.110	70	1205	15.37 ug/L	88
79) trans-1,3-dichloropropene	12.556	75	4033	0.86 ug/L	96
80) ethyl methacrylate	12.608	69	3111	0.82 ug/L	99
81) 1,1,2-trichloroethane	12.776	83	2210	0.85 ug/L	95
84) tetrachloroethene	12.991	166	2636	0.81 ug/L	94
85) 1,3-dichloropropane	12.970	76	4018	0.85 ug/L	99
86) butyl acetate	13.112	56	1839	0.86 ug/L	96
87) dibromochloromethane	13.243	129	2830	0.83 ug/L	99
88) 1,2-dibromoethane	13.400	107	2603	0.83 ug/L	97
89) n-Butyl Ether	13.919	57	11620	0.84 ug/L #	67
90) chlorobenzene	13.924	112	7449	0.86 ug/L	96
91) 1,1,1,2-tetrachloroethane	13.992	131	2473	0.83 ug/L	92
92) ethylbenzene	14.013	91	11938	0.81 ug/L	98
93) m,p-xylene	14.134	106	9053	1.63 ug/L	97
94) o-xylene	14.574	106	4413	0.81 ug/L	99
95) styrene	14.580	104	7260	0.82 ug/L	97
97) bromoform	14.816	173	1947	0.82 ug/L	91
99) isopropylbenzene	14.952	105	11086	0.81 ug/L	98
101) bromobenzene	15.329	156	3103	0.88 ug/L	93
102) cyclohexanone	15.078	55	1742	9.96 ug/L	97
103) 1,1,2,2-tetrachloroethane	15.224	83	3833	0.85 ug/L	99
104) trans-1,4-dichloro-2-b...	15.282	53	757	0.84 ug/L	95
105) 1,2,3-trichloropropane	15.298	110	802	0.88 ug/L	89
106) n-propylbenzene	15.377	91	13333	0.82 ug/L	97

7.6.15 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 2-chlorotoluene	15.508	126	2905	0.86	ug/L	92
108) 4-chlorotoluene	15.607	91	8513	0.83	ug/L	100
109) 1,3,5-trimethylbenzene	15.539	105	9140	0.81	ug/L	99
110) tert-butylbenzene	15.890	119	7704	0.81	ug/L	96
111) pentachloroethane	15.943	167	1772	0.80	ug/L	90
112) 1,2,4-trimethylbenzene	15.932	105	9254	0.83	ug/L	99
113) sec-butylbenzene	16.111	105	12271	0.80	ug/L	99
114) 1,3-dichlorobenzene	16.268	146	5868	0.86	ug/L	98
115) p-isopropyltoluene	16.231	119	9688	0.80	ug/L	100
116) 1,4-dichlorobenzene	16.346	146	5943	0.86	ug/L	99
117) 1,2-dichlorobenzene	16.729	146	5599	0.86	ug/L	98
118) n-butylbenzene	16.640	92	5502	0.83	ug/L	98
119) 1,2-dibromo-3-chloropr...	17.453	75	542	0.78	ug/L	92
120) 1,3,5-trichlorobenzene	17.657	180	4333	0.84	ug/L	97
121) 1,2,4-trichlorobenzene	18.229	180	3906	0.85	ug/L	95
122) hexachlorobutadiene	18.360	225	1950	0.82	ug/L	92
123) naphthalene	18.480	128	9185	0.84	ug/L	99
124) 1,2,3-trichlorobenzene	18.706	180	3529	0.83	ug/L	92
125) hexachloroethane	16.997	119	1944	0.76	ug/L	97
126) Benzyl chloride	16.457	91	6410	0.85	ug/L	97

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

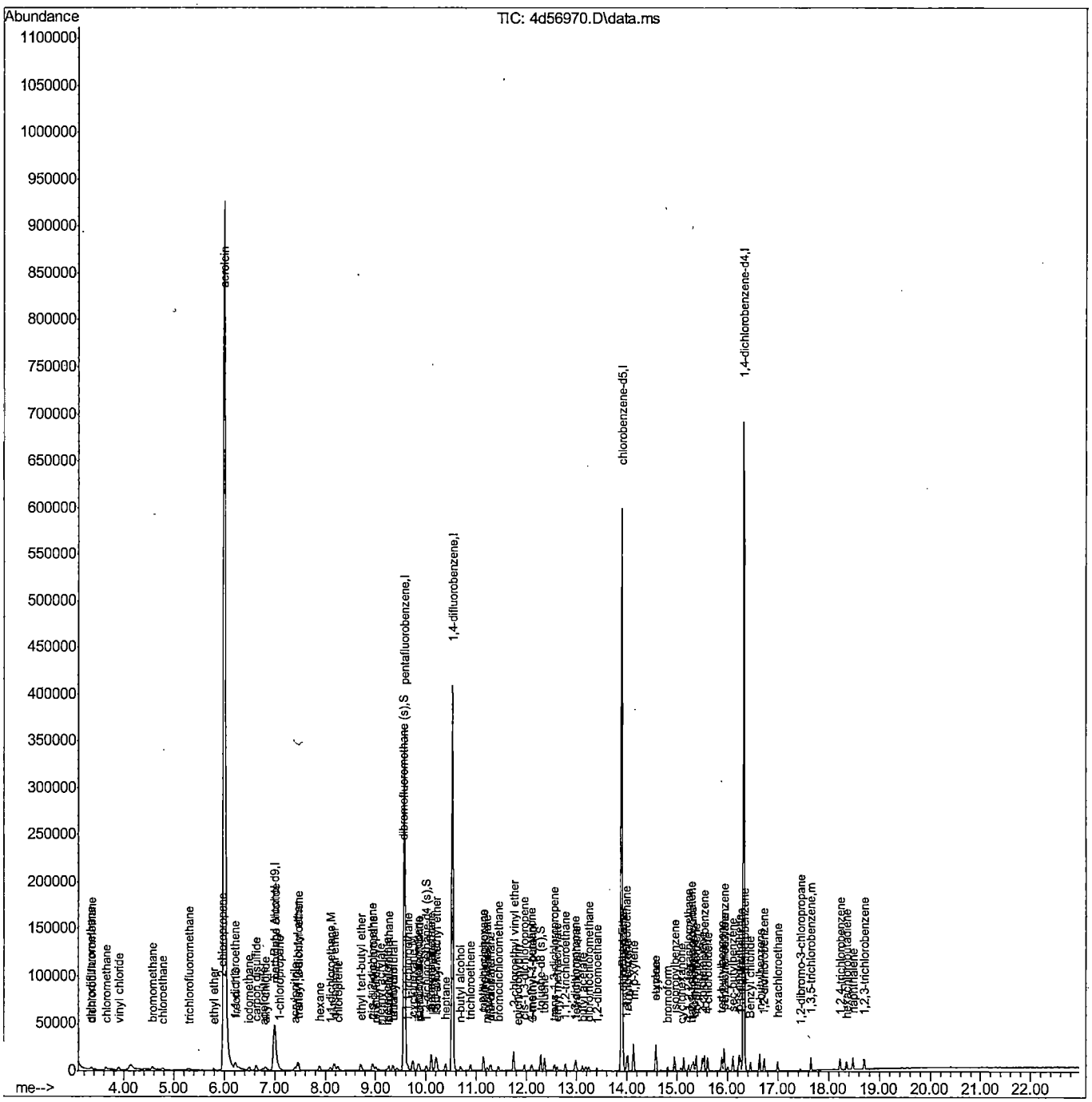
7.6.15

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	120732	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	282507	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	349070	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	318751	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	159389	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.557	113	6204	2.03	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery	=	4.06%#	
46) 1,2-dichloroethane-d4 (s)	10.002	65	6023	2.04	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery	=	4.08%#	
75) toluene-d8 (s)	12.283	98	20673	2.04	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery	=	4.08%#	
100) 4-bromofluorobenzene (s)	15.135	95	8325	2.13	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery	=	4.26%#	
Target Compounds						Qvalue
2) 1,4-dioxane	11.276	88	1667	52.67	ug/L #	92
3) tertiary butyl alcohol	7.145	59	3476	10.61	ug/L	90
5) chlorodifluoromethane	3.344	51	4952	2.34	ug/L	94
6) dichlorodifluoromethane	3.349	85	6213	2.01	ug/L	92
7) chloromethane	3.637	50	8050	2.19	ug/L	99
8) vinyl chloride	3.894	62	7994	2.19	ug/L	99
10) bromomethane	4.576	94	6209	2.34	ug/L	91
11) chloroethane	4.786	64	3969	2.29	ug/L	95
12) trichlorofluoromethane	5.310	101	8494	2.14	ug/L	98
14) ethyl ether	5.792	74	3037	2.16	ug/L	96
16) 2-chloropropane	5.965	43	10308	2.34	ug/L #	48
17) acrolein	6.002	56	716432	1155.36	ug/L	99
18) 1,1-dichloroethene	6.217	96	6098	2.33	ug/L	94
20) allyl chloride	6.815	76	3080	2.23	ug/L	96
21) acetonitrile	6.752	40	3118	19.68	ug/L	92
22) iodomethane	6.495	142	12098	2.37	ug/L	96
23) iso-butyl alcohol	9.861	41	2134	21.58	ug/L	93
24) carbon disulfide	6.631	76	23317	2.36	ug/L	99
25) methylene chloride	7.009	84	7555	2.27	ug/L	95
26) 1-chloropropane	7.071	42	10917	2.23	ug/L	97
28) methyl tert butyl ether	7.454	73	17908	2.29	ug/L	99
29) trans-1,2-dichloroethene	7.459	96	6798	2.20	ug/L	95
30) di-isopropyl ether	8.178	45	19848	2.13	ug/L	81
31) ethyl tert-butyl ether	8.702	59	19379	2.11	ug/L	98
33) 1,1-dichloroethane	8.104	63	12439	2.14	ug/L	98
34) chloroprene	8.251	53	8035	2.06	ug/L	99
35) acrylonitrile	7.386	53	11896	11.36	ug/L	99
37) ethyl acetate	8.990	45	735	1.94	ug/L #	53
38) 2,2-dichloropropane	8.948	77	8687	2.15	ug/L	100
39) cis-1,2-dichloroethene	8.933	96	7488	2.16	ug/L	99
40) propionitrile	8.996	54	9887	23.24	ug/L	98
41) methyl acrylate	9.069	55	6008	2.28	ug/L #	89

7.6.16 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) bromochloromethane	9.263	128	3678	2.26 ug/L	90
43) tetrahydrofuran	9.336	42	2232	2.55 ug/L	80
44) chloroform	9.336	83	11846	2.09 ug/L	99
47) freon 113	6.233	151	4026	2.34 ug/L	96
48) methacrylonitrile	9.216	41	3666	2.23 ug/L	94
49) 1,1,1-trichloroethane	9.635	97	9393	2.21 ug/L	96
50) tert-amyl methyl ether	10.202	73	18515	2.10 ug/L	98
52) epichlorohydrin	11.837	57	3288	11.17 ug/L	94
53) n-butyl alcohol	10.668	56	8961	104.16 ug/L	95
54) cyclohexane	9.730	84	9147	2.35 ug/L	98
56) carbon tetrachloride	9.856	117	8339	2.23 ug/L	99
57) 1,1-dichloropropene	9.835	75	9230	2.23 ug/L	98
58) hexane	7.884	57	7959	2.58 ug/L	99
59) benzene	10.102	78	27052	2.15 ug/L	99
60) ISO-OCTANE	10.191	57	22902	2.27 ug/L	98
61) heptane	10.380	57	4551	2.40 ug/L	98
62) isopropyl acetate	10.097	43	11420	2.19 ug/L	97
63) 1,2-dichloroethane	10.097	62	8172	2.30 ug/L	96
64) trichloroethene	10.878	95	6855	2.15 ug/L	93
66) 2-nitropropane	11.675	43	1633	2.30 ug/L	92
67) 2-chloroethyl vinyl ether	11.738	63	23765	10.98 ug/L	98
68) methyl methacrylate	11.208	41	6271	2.76 ug/L	96
69) 1,2-dichloropropane	11.140	63	7414	2.20 ug/L	99
70) methylcyclohexane	11.140	83	9865	2.21 ug/L	100
72) dibromomethane	11.282	93	4685	2.27 ug/L	96
73) bromodichloromethane	11.439	83	9062	2.22 ug/L	98
74) cis-1,3-dichloropropene	11.948	75	11480	2.20 ug/L	98
76) 4-methyl-2-pentanone	12.089	58	2767	2.31 ug/L	99
77) toluene	12.356	92	15991	2.15 ug/L	98
78) 3-methyl-1-butanol	12.110	70	3259	42.40 ug/L	95
79) trans-1,3-dichloropropene	12.550	75	10386	2.27 ug/L	96
80) ethyl methacrylate	12.603	69	8305	2.22 ug/L	98
81) 1,1,2-trichloroethane	12.771	83	5786	2.28 ug/L	99
82) 2-hexanone	13.007	58	2458	2.19 ug/L	99
84) tetrachloroethene	12.986	166	6807	2.14 ug/L	97
85) 1,3-dichloropropane	12.970	76	10414	2.24 ug/L	99
86) butyl acetate	13.111	56	4461	2.13 ug/L	89
87) dibromochloromethane	13.243	129	7254	2.18 ug/L	96
88) 1,2-dibromoethane	13.400	107	6828	2.22 ug/L	99
89) n-Butyl Ether	13.919	57	29270	2.15 ug/L	98
90) chlorobenzene	13.924	112	17808	2.10 ug/L	98
91) 1,1,1,2-tetrachloroethane	13.992	131	6480	2.22 ug/L	92
92) ethylbenzene	14.013	91	30465	2.10 ug/L	100
93) m,p-xylene	14.129	106	22995	4.23 ug/L	98
94) o-xylene	14.574	106	11097	2.08 ug/L	92
95) styrene	14.579	104	18051	2.07 ug/L	97
97) bromoform	14.815	173	4911	2.11 ug/L	99
99) isopropylbenzene	14.952	105	29015	2.16 ug/L	99
101) bromobenzene	15.324	156	7917	2.29 ug/L	91
102) cyclohexanone	15.078	55	3616	21.03 ug/L	96

7.6.16

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
103)	1,1,2,2-tetrachloroethane	15.224	83	10345	2.33	ug/L		99
104)	trans-1,4-dichloro-2-b...	15.277	53	2083	2.35	ug/L		85
105)	1,2,3-trichloropropane	15.303	110	2101	2.35	ug/L		97
106)	n-propylbenzene	15.376	91	34456	2.14	ug/L		98
107)	2-chlorotoluene	15.508	126	7250	2.18	ug/L		88
108)	4-chlorotoluene	15.607	91	21903	2.17	ug/L		99
109)	1,3,5-trimethylbenzene	15.539	105	23538	2.13	ug/L		97
110)	tert-butylbenzene	15.890	119	19788	2.12	ug/L		98
111)	pentachloroethane	15.943	167	4626	2.13	ug/L		93
112)	1,2,4-trimethylbenzene	15.932	105	23366	2.13	ug/L		97
113)	sec-butylbenzene	16.110	105	31707	2.11	ug/L		99
114)	1,3-dichlorobenzene	16.263	146	14448	2.16	ug/L		97
115)	p-isopropyltoluene	16.231	119	24585	2.06	ug/L		98
116)	1,4-dichlorobenzene	16.346	146	14491	2.14	ug/L		96
117)	1,2-dichlorobenzene	16.724	146	13814	2.15	ug/L		99
118)	n-butylbenzene	16.640	92	13746	2.11	ug/L		99
119)	1,2-dibromo-3-chloropr...	17.447	75	1630	2.37	ug/L	#	69
120)	1,3,5-trichlorobenzene	17.652	180	10965	2.15	ug/L		98
121)	1,2,4-trichlorobenzene	18.229	180	9737	2.15	ug/L		99
122)	hexachlorobutadiene	18.355	225	4922	2.12	ug/L		96
123)	naphthalene	18.480	128	23179	2.15	ug/L		99
124)	1,2,3-trichlorobenzene	18.706	180	9089	2.18	ug/L		96
125)	hexachloroethane	16.991	119	5141	2.05	ug/L		99
126)	Benzyl chloride	16.457	91	14610	1.97	ug/L		100

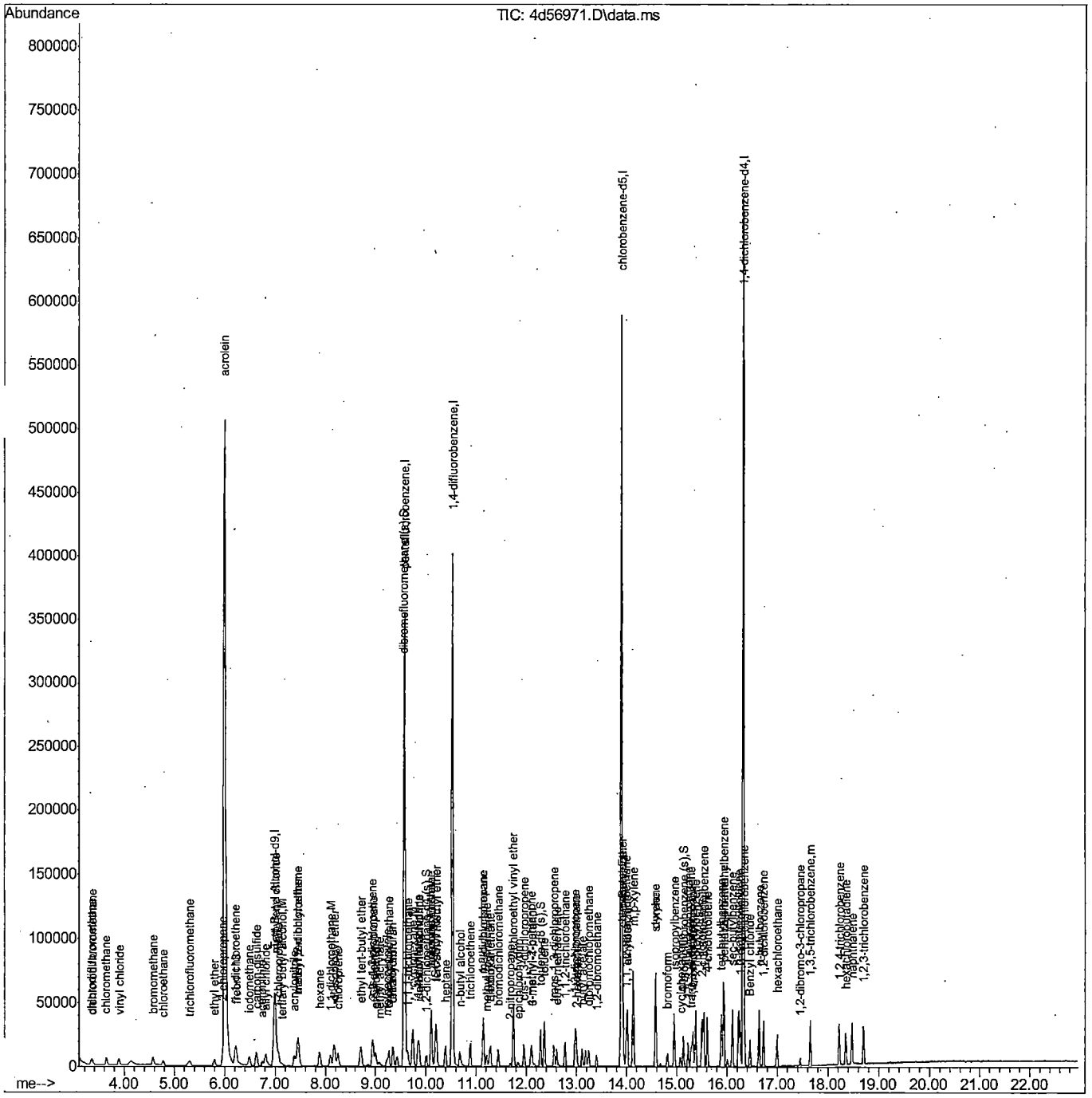
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.16 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	112674	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	279758	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	348421	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	318490	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	161627	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.557	113	16067	5.30	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 10.60%#			
46) 1,2-dichloroethane-d4 (s)	10.002	65	15704	5.37	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 10.74%#			
75) toluene-d8 (s)	12.278	98	52761	5.21	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 10.42%#			
100) 4-bromofluorobenzene (s)	15.135	95	20869	5.27	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 10.54%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.271	88	3665	124.09	ug/L #	89
3) tertiary butyl alcohol	7.129	59	7803	25.52	ug/L	89
5) chlorodifluoromethane	3.354	51	11430	5.46	ug/L	99
6) dichlorodifluoromethane	3.354	85	14107	4.60	ug/L	98
7) chloromethane	3.648	50	17211	4.74	ug/L	100
8) vinyl chloride	3.905	62	17540	4.85	ug/L	100
10) bromomethane	4.581	94	13023	4.97	ug/L	99
11) chloroethane	4.785	64	9128	5.32	ug/L	96
12) trichlorofluoromethane	5.315	101	19131	4.87	ug/L	98
14) ethyl ether	5.797	74	7267	5.21	ug/L	99
16) 2-chloropropane	5.976	43	22282	5.11	ug/L	99
17) acrolein	6.018	56	33914	55.23	ug/L	94
18) 1,1-dichloroethene	6.227	96	13654	5.26	ug/L	99
19) acetone	6.306	43	3548	5.03	ug/L	92
20) allyl chloride	6.820	76	7279	5.31	ug/L	97
21) acetonitrile	6.746	40	6906	44.03	ug/L	98
22) iodomethane	6.495	142	26757	5.29	ug/L	98
23) iso-butyl alcohol	9.861	41	4866	49.68	ug/L	92
24) carbon disulfide	6.636	76	51321	5.25	ug/L	99
25) methylene chloride	7.008	84	16476	4.99	ug/L	98
26) 1-chloropropane	7.077	42	23241	4.79	ug/L	95
27) methyl acetate	6.846	74	2258	4.94	ug/L #	56
28) methyl tert butyl ether	7.459	73	40768	5.27	ug/L	100
29) trans-1,2-dichloroethene	7.465	96	15103	4.94	ug/L	96
30) di-isopropyl ether	8.183	45	46703	5.07	ug/L	91
31) ethyl tert-butyl ether	8.702	59	44837	4.94	ug/L	98
32) 2-butanone	8.927	72	1435	4.52	ug/L #	90
33) 1,1-dichloroethane	8.104	63	28084	4.88	ug/L	98
34) chloroprene	8.251	53	18930	4.91	ug/L	97
35) acrylonitrile	7.381	53	27494	26.52	ug/L	96
37) ethyl acetate	8.980	45	1823	4.86	ug/L	84
38) 2,2-dichloropropane	8.954	77	19284	4.81	ug/L	97

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39) cis-1,2-dichloroethene	8.933	96	16664	4.85 ug/L	99
40) propionitrile	8.985	54	22144	52.57 ug/L	97
41) methyl acrylate	9.059	55	13592	5.20 ug/L #	90
42) bromochloromethane	9.263	128	8474	5.25 ug/L	92
43) tetrahydrofuran	9.331	42	4450	5.13 ug/L	92
44) chloroform	9.342	83	26774	4.77 ug/L	98
47) freon 113	6.243	151	9393	5.52 ug/L	97
48) methacrylonitrile	9.216	41	8369	5.15 ug/L	97
49) 1,1,1-trichloroethane	9.635	97	20655	4.91 ug/L	99
50) tert-amyl methyl ether	10.201	73	42964	4.93 ug/L	97
52) epichlorohydrin	11.832	57	7446	25.33 ug/L	99
53) n-butyl alcohol	10.668	56	20636	240.31 ug/L	96
54) cyclohexane	9.735	84	19970	5.15 ug/L	99
56) carbon tetrachloride	9.861	117	18603	4.99 ug/L	100
57) 1,1-dichloropropene	9.834	75	20174	4.88 ug/L	97
58) hexane	7.884	57	17900	5.80 ug/L	97
59) benzene	10.107	78	60069	4.79 ug/L	99
60) ISO-OCTANE	10.191	57	51159	5.08 ug/L	99
61) heptane	10.380	57	9820	5.18 ug/L	98
62) isopropyl acetate	10.091	43	25841	4.96 ug/L	99
63) 1,2-dichloroethane	10.097	62	18606	5.24 ug/L	97
64) trichloroethene	10.878	95	15282	4.80 ug/L	98
66) 2-nitropropane	11.675	43	3397	4.80 ug/L	93
67) 2-chloroethyl vinyl ether	11.738	63	55257	25.59 ug/L	99
68) methyl methacrylate	11.203	41	11718	5.16 ug/L	96
69) 1,2-dichloropropane	11.140	63	16579	4.93 ug/L	97
70) methylcyclohexane	11.140	83	22626	5.08 ug/L	99
72) dibromomethane	11.287	93	10718	5.19 ug/L	96
73) bromodichloromethane	11.439	83	20084	4.93 ug/L	98
74) cis-1,3-dichloropropene	11.947	75	25852	4.97 ug/L	100
76) 4-methyl-2-pentanone	12.084	58	6057	5.06 ug/L	99
77) toluene	12.356	92	36017	4.84 ug/L	99
78) 3-methyl-1-butanol	12.105	70	7511	97.89 ug/L	95
79) trans-1,3-dichloropropene	12.550	75	23049	5.04 ug/L	96
80) ethyl methacrylate	12.603	69	18870	5.05 ug/L	98
81) 1,1,2-trichloroethane	12.771	83	13057	5.14 ug/L	97
82) 2-hexanone	13.007	58	5642	5.04 ug/L	96
84) tetrachloroethene	12.991	166	15250	4.80 ug/L	98
85) 1,3-dichloropropane	12.970	76	23463	5.05 ug/L	99
86) butyl acetate	13.111	56	10364	4.95 ug/L	99
87) dibromochloromethane	13.242	129	16852	5.07 ug/L	100
88) 1,2-dibromoethane	13.400	107	15881	5.16 ug/L	100
89) n-Butyl Ether	13.919	57	65684	4.83 ug/L #	92
90) chlorobenzene	13.924	112	40802	4.82 ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	14536	4.99 ug/L	98
92) ethylbenzene	14.013	91	68677	4.73 ug/L	100
93) m,p-xylene	14.134	106	51486	9.47 ug/L	100
94) o-xylene	14.574	106	25763	4.84 ug/L	96
95) styrene	14.579	104	42063	4.83 ug/L	99
97) bromoform	14.815	173	11377	4.90 ug/L	99

7.6.17 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	isopropylbenzene	14.952	105	63162	4.63 ug/L	99
101)	bromobenzene	15.329	156	17408	4.97 ug/L	90
102)	cyclohexanone	15.072	55	10088	57.87 ug/L	95
103)	1,1,2,2-tetrachloroethane	15.224	83	22576	5.02 ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	4710	5.24 ug/L	90
105)	1,2,3-trichloropropane	15.298	110	4704	5.19 ug/L	98
106)	n-propylbenzene	15.376	91	76862	4.72 ug/L	99
107)	2-chlorotoluene	15.507	126	16304	4.83 ug/L	91
108)	4-chlorotoluene	15.607	91	49263	4.81 ug/L	98
109)	1,3,5-trimethylbenzene	15.539	105	53654	4.78 ug/L	99
110)	tert-butylbenzene	15.890	119	44430	4.69 ug/L	98
111)	pentachloroethane	15.937	167	10256	4.65 ug/L	94
112)	1,2,4-trimethylbenzene	15.932	105	53011	4.76 ug/L	98
113)	sec-butylbenzene	16.110	105	71516	4.69 ug/L	99
114)	1,3-dichlorobenzene	16.262	146	32800	4.83 ug/L	100
115)	p-isopropyltoluene	16.231	119	55994	4.62 ug/L	100
116)	1,4-dichlorobenzene	16.346	146	32928	4.80 ug/L	98
117)	1,2-dichlorobenzene	16.724	146	31773	4.89 ug/L	99
118)	n-butylbenzene	16.640	92	31037	4.69 ug/L	98
119)	1,2-dibromo-3-chloropr...	17.453	75	3487	5.01 ug/L	95
120)	1,3,5-trichlorobenzene	17.652	180	24396	4.72 ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	22308	4.85 ug/L	99
122)	hexachlorobutadiene	18.354	225	11336	4.81 ug/L	94
123)	naphthalene	18.480	128	53389	4.89 ug/L	98
124)	1,2,3-trichlorobenzene	18.706	180	20988	4.97 ug/L	98
125)	hexachloroethane	16.996	119	11760	4.62 ug/L	99
126)	Benzyl chloride	16.456	91	33777	4.49 ug/L	99

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

7.6.17

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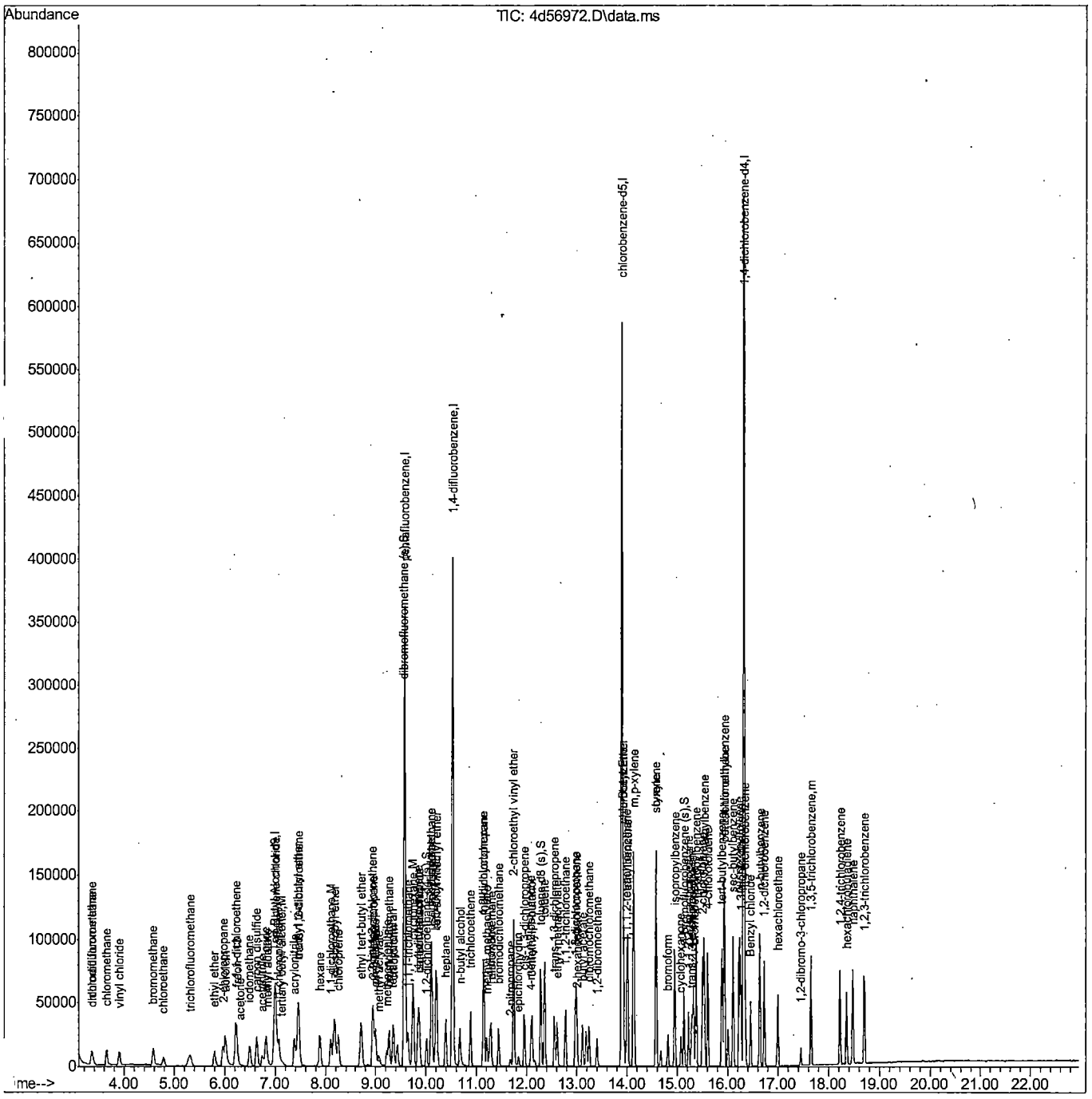
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



7.6.17 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	114889	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	283503	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	355158	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	323328	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	163205	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	28668	9.34	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 18.68%#			
46) 1,2-dichloroethane-d4 (s)	10.002	65	28094	9.48	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 18.96%#			
75) toluene-d8 (s)	12.278	98	95424	9.25	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 18.50%#			
100) 4-bromofluorobenzene (s)	15.130	95	37424	9.36	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 18.72%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.271	88	7020	233.10	ug/L	99
3) tertiary butyl alcohol	7.135	59	14452	46.36	ug/L	93
5) chlorodifluoromethane	3.354	51	20152	9.50	ug/L	98
6) dichlorodifluoromethane	3.349	85	25374	8.17	ug/L	98
7) chloromethane	3.648	50	31415	8.53	ug/L	99
8) vinyl chloride	3.905	62	30708	8.38	ug/L	98
10) bromomethane	4.586	94	23487	8.84	ug/L	97
11) chloroethane	4.786	64	15415	8.86	ug/L	97
12) trichlorofluoromethane	5.320	101	33497	8.42	ug/L	97
14) ethyl ether	5.792	74	13893	9.83	ug/L	97
16) 2-chloropropane	5.971	43	40141	9.08	ug/L	99
17) acrolein	6.013	56	57855	92.97	ug/L	100
18) 1,1-dichloroethene	6.222	96	24623	9.36	ug/L	98
19) acetone	6.290	43	7003	9.79	ug/L	85
20) allyl chloride	6.820	76	12597	9.07	ug/L	98
21) acetonitrile	6.741	40	13318	83.79	ug/L	94
22) iodomethane	6.495	142	47999	9.36	ug/L	98
23) iso-butyl alcohol	9.856	41	9087	91.55	ug/L	99
24) carbon disulfide	6.642	76	92112	9.30	ug/L	100
25) methylene chloride	7.014	84	29914	8.94	ug/L	98
26) 1-chloropropane	7.077	42	41933	8.53	ug/L	97
27) methyl acetate	6.830	74	4568	9.86	ug/L #	78
28) methyl tert butyl ether	7.460	73	74014	9.44	ug/L	99
29) trans-1,2-dichloroethene	7.465	96	27672	8.92	ug/L	99
30) di-isopropyl ether	8.183	45	84644	9.06	ug/L	96
31) ethyl tert-butyl ether	8.702	59	81492	8.86	ug/L	98
32) 2-butanone	8.922	72	2823	8.77	ug/L	89
33) 1,1-dichloroethane	8.104	63	51111	8.76	ug/L	98
34) chloroprene	8.246	53	34151	8.73	ug/L	98
35) acrylonitrile	7.376	53	50369	47.94	ug/L	98
36) vinyl acetate	8.141	86	3018	8.25	ug/L	93
37) ethyl acetate	8.980	45	3640	9.58	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	34270	8.44 ug/L	99
39) cis-1,2-dichloroethene	8.933	96	30404	8.73 ug/L	99
40) propionitrile	8.985	54	40455	94.77 ug/L	97
41) methyl acrylate	9.053	55	25327	9.57 ug/L #	96
42) bromochloromethane	9.258	128	15370	9.39 ug/L	97
43) tetrahydrofuran	9.331	42	8014	9.12 ug/L	94
44) chloroform	9.342	83	48332	8.50 ug/L	98
47) freon 113	6.233	151	16510	9.57 ug/L	99
48) methacrylonitrile	9.211	41	15435	9.37 ug/L	98
49) 1,1,1-trichloroethane	9.635	97	37098	8.70 ug/L	99
50) tert-amyl methyl ether	10.202	73	77580	8.79 ug/L	97
52) epichlorohydrin	11.832	57	13328	44.49 ug/L	98
53) n-butyl alcohol	10.663	56	38369	438.33 ug/L	99
54) cyclohexane	9.735	84	35977	9.10 ug/L	100
56) carbon tetrachloride	9.861	117	33278	8.76 ug/L	98
57) 1,1-dichloropropene	9.835	75	36589	8.68 ug/L	97
58) hexane	7.884	57	31457	10.00 ug/L	95
59) benzene	10.107	78	108179	8.47 ug/L	100
60) ISO-OCTANE	10.191	57	89470	8.72 ug/L	98
61) heptane	10.385	57	17371	9.00 ug/L	97
62) isopropyl acetate	10.092	43	47517	8.95 ug/L	100
63) 1,2-dichloroethane	10.097	62	34085	9.41 ug/L	100
64) trichloroethene	10.873	95	27745	8.55 ug/L	97
66) 2-nitropropane	11.675	43	6323	8.76 ug/L	98
67) 2-chloroethyl vinyl ether	11.738	63	99171	45.05 ug/L	99
68) methyl methacrylate	11.203	41	21890	9.46 ug/L	93
69) 1,2-dichloropropane	11.140	63	30252	8.83 ug/L	98
70) methylcyclohexane	11.140	83	39855	8.77 ug/L	98
72) dibromomethane	11.287	93	19698	9.36 ug/L	98
73) bromodichloromethane	11.439	83	37341	9.00 ug/L	97
74) cis-1,3-dichloropropene	11.948	75	47395	8.93 ug/L	99
76) 4-methyl-2-pentanone	12.084	58	11276	9.23 ug/L	99
77) toluene	12.357	92	65373	8.63 ug/L	98
78) 3-methyl-1-butanol	12.100	70	13975	178.68 ug/L	97
79) trans-1,3-dichloropropene	12.551	75	42437	9.10 ug/L	97
80) ethyl methacrylate	12.603	69	35108	9.22 ug/L	99
81) 1,1,2-trichloroethane	12.771	83	23512	9.09 ug/L	99
82) 2-hexanone	13.001	58	10550	9.24 ug/L	96
84) tetrachloroethene	12.986	166	27588	8.56 ug/L	100
85) 1,3-dichloropropane	12.970	76	42927	9.11 ug/L	99
86) butyl acetate	13.112	56	18536	8.72 ug/L	97
87) dibromochloromethane	13.243	129	30726	9.10 ug/L	99
88) 1,2-dibromoethane	13.400	107	28260	9.05 ug/L	99
89) n-Butyl Ether	13.919	57	120540	8.73 ug/L	96
90) chlorobenzene	13.924	112	74598	8.68 ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	26709	9.03 ug/L	97
92) ethylbenzene	14.013	91	124200	8.43 ug/L	100
93) m,p-xylene	14.134	106	94030	17.04 ug/L	95
94) o-xylene	14.574	106	46420	8.59 ug/L	98
95) styrene	14.580	104	78121	8.84 ug/L	99

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.816	173	21560	9.14	ug/L	98
99)	isopropylbenzene	14.947	105	118035	8.58	ug/L	99
101)	bromobenzene	15.324	156	31930	9.03	ug/L	94
102)	cyclohexanone	15.072	55	17376	98.72	ug/L	97
103)	1,1,2,2-tetrachloroethane	15.225	83	41229	9.09	ug/L	98
104)	trans-1,4-dichloro-2-b...	15.277	53	8582	9.45	ug/L	95
105)	1,2,3-trichloropropane	15.298	110	8688	9.49	ug/L	97
106)	n-propylbenzene	15.377	91	139534	8.48	ug/L	100
107)	2-chlorotoluene	15.502	126	29444	8.64	ug/L	96
108)	4-chlorotoluene	15.607	91	89011	8.60	ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	97076	8.56	ug/L	98
110)	tert-butylbenzene	15.890	119	80165	8.38	ug/L	99
111)	pentachloroethane	15.938	167	19498	8.75	ug/L	97
112)	1,2,4-trimethylbenzene	15.932	105	98174	8.73	ug/L	98
113)	sec-butylbenzene	16.111	105	130588	8.49	ug/L	99
114)	1,3-dichlorobenzene	16.263	146	59403	8.66	ug/L	98
115)	p-isopropyltoluene	16.231	119	103548	8.47	ug/L	99
116)	1,4-dichlorobenzene	16.347	146	59944	8.65	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	57928	8.82	ug/L	99
118)	n-butylbenzene	16.640	92	56074	8.40	ug/L	99
119)	1,2-dibromo-3-chloropr...	17.448	75	6476	9.21	ug/L	79
120)	1,3,5-trichlorobenzene	17.652	180	44929	8.61	ug/L	100
121)	1,2,4-trichlorobenzene	18.224	180	41081	8.84	ug/L	99
122)	hexachlorobutadiene	18.355	225	19918	8.37	ug/L	98
123)	naphthalene	18.480	128	98778	8.95	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	38828	9.10	ug/L	99
125)	hexachloroethane	16.997	119	21558	8.39	ug/L	99
126)	Benzyl chloride	16.457	91	61026	8.04	ug/L	99

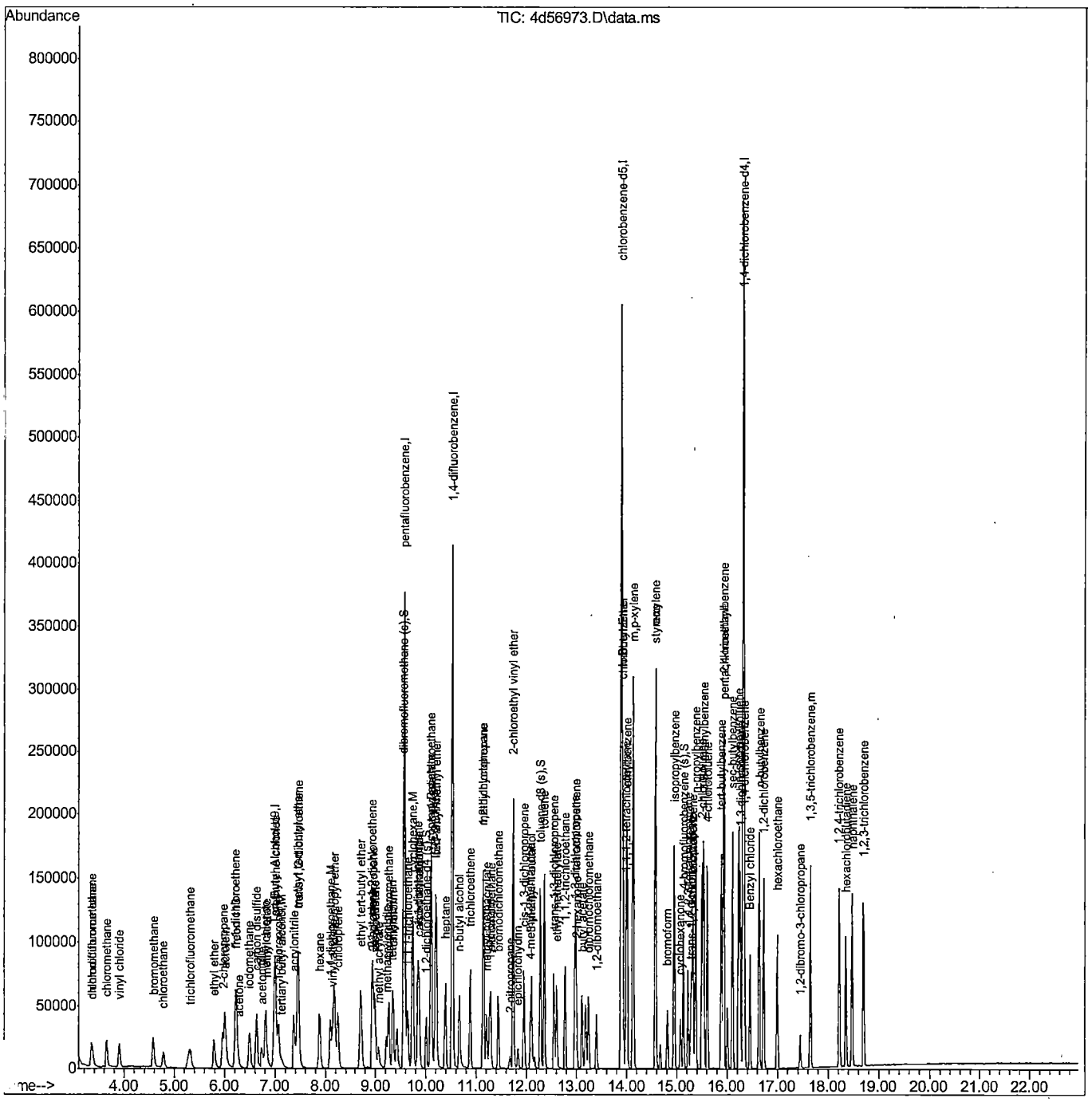
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.18 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	115028	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	282531	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	349600	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	320162	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	162118	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	151182	49.42	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.84%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	148266	50.23	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 100.46%			
75) toluene-d8 (s)	12.278	98	511256	50.35	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.70%			
100) 4-bromofluorobenzene (s)	15.130	95	197406	49.70	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 99.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	16255	539.10	ug/L	93
3) tertiary butyl alcohol	7.135	59	32552	104.30	ug/L	97
5) chlorodifluoromethane	3.360	51	45849	21.69	ug/L	99
6) dichlorodifluoromethane	3.354	85	58073	18.75	ug/L	97
7) chloromethane	3.653	50	70206	19.13	ug/L	100
8) vinyl chloride	3.910	62	71400	19.55	ug/L	99
10) bromomethane	4.581	94	51596	19.48	ug/L	100
11) chloroethane	4.786	64	35090	20.24	ug/L	99
12) trichlorofluoromethane	5.320	101	77939	19.65	ug/L	99
14) ethyl ether	5.787	74	30975	21.99	ug/L	96
16) 2-chloropropane	5.971	43	88805	20.15	ug/L	100
17) acrolein	6.007	56	130948	211.16	ug/L	98
18) 1,1-dichloroethene	6.222	96	54490	20.78	ug/L	98
19) acetone	6.275	43	15319	21.50	ug/L	95
20) allyl chloride	6.815	76	28902	20.89	ug/L	99
21) acetonitrile	6.731	40	32283	203.80	ug/L	98
22) iodomethane	6.495	142	106955	20.93	ug/L	100
23) iso-butyl alcohol	9.856	41	20190	204.11	ug/L	99
24) carbon disulfide	6.636	76	205303	20.81	ug/L	99
25) methylene chloride	7.009	84	66391	19.90	ug/L	99
26) 1-chloropropane	7.072	42	91914	18.77	ug/L	98
27) methyl acetate	6.825	74	11034	23.91	ug/L	94
28) methyl tert butyl ether	7.460	73	162219	20.76	ug/L	100
29) trans-1,2-dichloroethene	7.465	96	60688	19.64	ug/L	98
30) di-isopropyl ether	8.178	45	188881	20.29	ug/L	95
31) ethyl tert-butyl ether	8.702	59	184540	20.13	ug/L	99
32) 2-butanone	8.917	72	6629	20.67	ug/L	89
33) 1,1-dichloroethane	8.104	63	111543	19.19	ug/L	99
34) chloroprene	8.246	53	78386	20.12	ug/L	99
35) acrylonitrile	7.370	53	111807	106.77	ug/L	98
36) vinyl acetate	8.136	86	7372	20.22	ug/L	99
37) ethyl acetate	8.980	45	8113	21.43	ug/L	91

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	75455	18.65	ug/L	100
39) cis-1,2-dichloroethene	8.933	96	67130	19.33	ug/L	97
40) propionitrile	8.985	54	91209	214.39	ug/L	99
41) methyl acrylate	9.048	55	54321	20.59	ug/L	99
42) bromochloromethane	9.258	128	33746	20.69	ug/L	98
43) tetrahydrofuran	9.326	42	17470	19.94	ug/L	97
44) chloroform	9.342	83	105630	18.65	ug/L	99
47) freon 113	6.243	151	37923	22.06	ug/L	100
48) methacrylonitrile	9.206	41	35119	21.39	ug/L	98
49) 1,1,1-trichloroethane	9.635	97	81623	19.21	ug/L	99
50) tert-amyl methyl ether	10.202	73	173856	19.76	ug/L	99
52) epichlorohydrin	11.827	57	30210	102.44	ug/L	100
53) n-butyl alcohol	10.658	56	89119	1034.29	ug/L	100
54) cyclohexane	9.730	84	81028	20.82	ug/L	99
56) carbon tetrachloride	9.861	117	74795	19.99	ug/L	99
57) 1,1-dichloropropene	9.835	75	81341	19.61	ug/L	100
58) hexane	7.890	57	71474	23.09	ug/L	99
59) benzene	10.102	78	237498	18.89	ug/L	99
60) ISO-OCTANE	10.191	57	203768	20.18	ug/L	99
61) heptane	10.385	57	39390	20.72	ug/L	98
62) isopropyl acetate	10.092	43	105058	20.11	ug/L	100
63) 1,2-dichloroethane	10.097	62	74126	20.79	ug/L	99
64) trichloroethene	10.878	95	61337	19.20	ug/L	97
66) 2-nitropropane	11.675	43	14226	20.02	ug/L	98
67) 2-chloroethyl vinyl ether	11.738	63	222393	102.64	ug/L	99
68) methyl methacrylate	11.198	41	47987	21.08	ug/L	99
69) 1,2-dichloropropane	11.140	63	66885	19.84	ug/L	99
70) methylcyclohexane	11.140	83	91950	20.56	ug/L	99
72) dibromomethane	11.282	93	43228	20.87	ug/L	100
73) bromodichloromethane	11.439	83	82501	20.19	ug/L	99
74) cis-1,3-dichloropropene	11.948	75	103541	19.83	ug/L	99
76) 4-methyl-2-pentanone	12.084	58	25396	21.13	ug/L	99
77) toluene	12.357	92	140625	18.85	ug/L	98
78) 3-methyl-1-butanol	12.100	70	31859	413.82	ug/L	98
79) trans-1,3-dichloropropene	12.551	75	94647	20.63	ug/L	98
80) ethyl methacrylate	12.603	69	79328	21.18	ug/L	99
81) 1,1,2-trichloroethane	12.771	83	52002	20.42	ug/L	99
82) 2-hexanone	13.002	58	23838	21.22	ug/L	97
84) tetrachloroethene	12.986	166	60829	19.06	ug/L	99
85) 1,3-dichloropropane	12.970	76	93752	20.08	ug/L	99
86) butyl acetate	13.106	56	42613	20.25	ug/L	96
87) dibromochloromethane	13.243	129	68997	20.63	ug/L	99
88) 1,2-dibromoethane	13.400	107	62298	20.15	ug/L	99
89) n-Butyl Ether	13.919	57	268891	19.66	ug/L	99
90) chlorobenzene	13.924	112	162651	19.11	ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	59075	20.16	ug/L	98
92) ethylbenzene	14.013	91	271476	18.60	ug/L	100
93) m,p-xylene	14.134	106	206974	37.89	ug/L	96
94) o-xylene	14.574	106	102062	19.08	ug/L	99
95) styrene	14.580	104	173293	19.81	ug/L	99

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.816	173	48077	20.59	ug/L	99
99)	isopropylbenzene	14.947	105	258569	18.91	ug/L	99
101)	bromobenzene	15.324	156	69992	19.93	ug/L	98
102)	cyclohexanone	15.073	55	35490	202.98	ug/L	99
103)	1,1,2,2-tetrachloroethane	15.225	83	90354	20.04	ug/L	100
104)	trans-1,4-dichloro-2-b...	15.277	53	19062	21.14	ug/L	94
105)	1,2,3-trichloropropane	15.298	110	19073	20.98	ug/L	97
106)	n-propylbenzene	15.377	91	310821	19.02	ug/L	99
107)	2-chlorotoluene	15.502	126	65452	19.35	ug/L	95
108)	4-chlorotoluene	15.607	91	193841	18.85	ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	216502	19.23	ug/L	100
110)	tert-butylbenzene	15.890	119	176115	18.53	ug/L	99
111)	pentachloroethane	15.943	167	43279	19.56	ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	217077	19.43	ug/L	100
113)	sec-butylbenzene	16.111	105	289242	18.92	ug/L	100
114)	1,3-dichlorobenzene	16.263	146	130736	19.19	ug/L	100
115)	p-isopropyltoluene	16.231	119	231709	19.08	ug/L	100
116)	1,4-dichlorobenzene	16.347	146	132278	19.22	ug/L	98
117)	1,2-dichlorobenzene	16.724	146	127768	19.59	ug/L	99
118)	n-butylbenzene	16.635	92	127550	19.23	ug/L	99
119)	1,2-dibromo-3-chloropr...	17.453	75	14293	20.46	ug/L	96
120)	1,3,5-trichlorobenzene	17.652	180	101310	19.56	ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	93154	20.18	ug/L	99
122)	hexachlorobutadiene	18.355	225	45184	19.12	ug/L	98
123)	naphthalene	18.480	128	222883	20.34	ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	88098	20.79	ug/L	98
125)	hexachloroethane	16.997	119	49983	19.57	ug/L	100
126)	Benzyl chloride	16.457	91	136982	18.17	ug/L	99

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

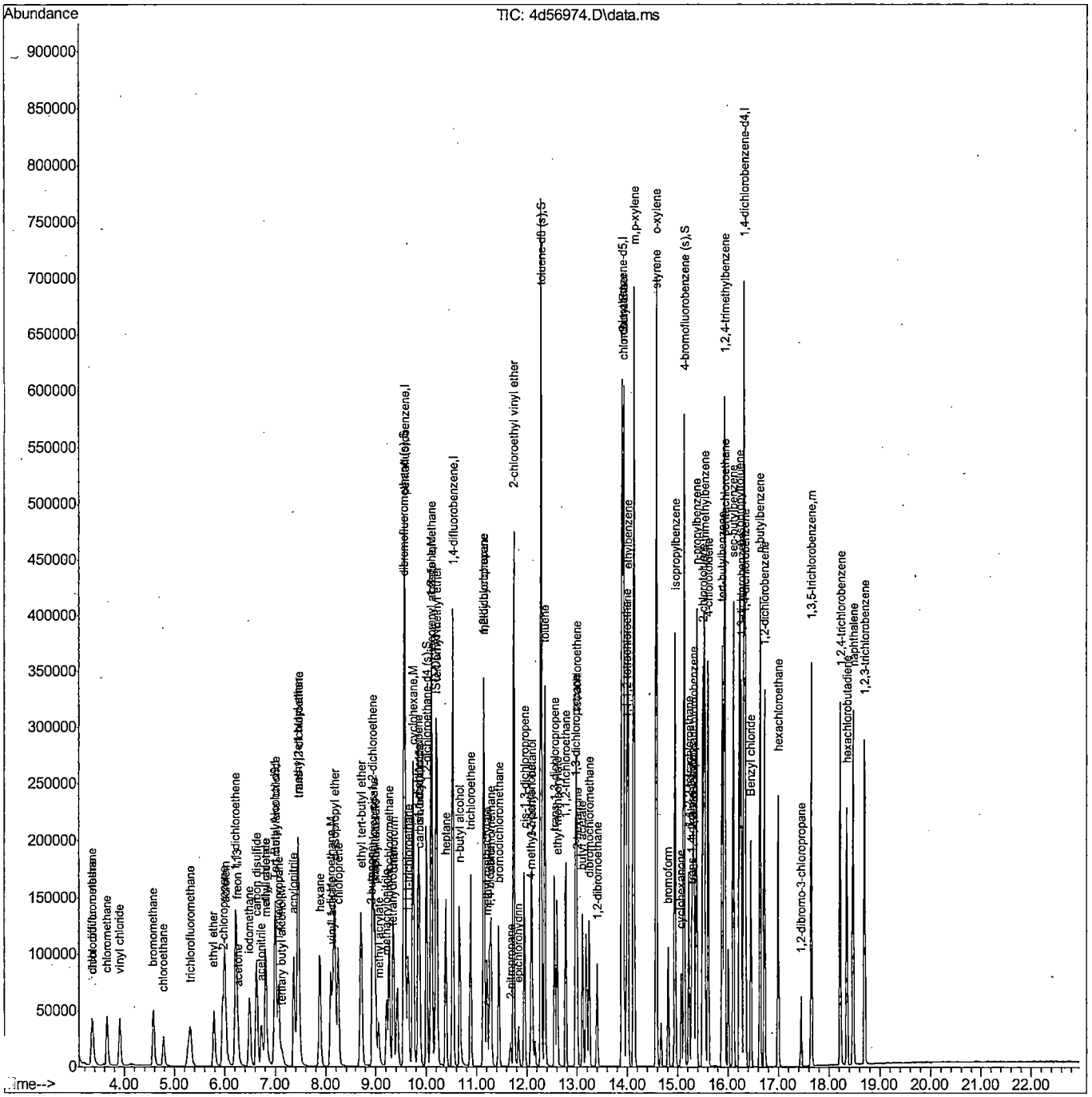
7.6.19

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

7.6.20

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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	120123	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	272880	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	339533	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	309274	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	158462	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	150658	51.00	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 102.00%			
46) 1,2-dichloroethane-d4 (s)	10.002	65	146118	51.25	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 102.50%			
75) toluene-d8 (s)	12.278	98	505857	51.30	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 102.60%			
100) 4-bromofluorobenzene (s)	15.130	95	196793	50.69	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 101.38%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	42053	1335.54	ug/L #	91
3) tertiary butyl alcohol	7.135	59	86745	266.15	ug/L	98
5) chlorodifluoromethane	3.360	51	114080	55.88	ug/L	98
6) dichlorodifluoromethane	3.349	85	143042	47.82	ug/L	97
7) chloromethane	3.658	50	170933	48.22	ug/L	99
8) vinyl chloride	3.910	62	171792	48.71	ug/L	98
10) bromomethane	4.581	94	120448	47.09	ug/L	99
11) chloroethane	4.780	64	90167	53.84	ug/L	99
12) trichlorofluoromethane	5.320	101	192318	50.20	ug/L	99
14) ethyl ether	5.787	74	78776	57.91	ug/L	99
16) 2-chloropropane	5.971	43	214911	50.49	ug/L	99
17) acrolein	6.007	56	336687	562.12	ug/L	100
18) 1,1-dichloroethene	6.222	96	134758	53.22	ug/L	98
19) acetone	6.269	43	41690	60.58	ug/L	99
20) allyl chloride	6.815	76	70519	52.77	ug/L	95
21) acetonitrile	6.720	40	84421	551.78	ug/L	97
22) iodomethane	6.495	142	265334	53.76	ug/L	98
23) iso-butyl alcohol	9.850	41	50622	529.86	ug/L	98
24) carbon disulfide	6.631	76	502174	52.69	ug/L	100
25) methylene chloride	7.009	84	163116	50.63	ug/L	99
26) 1-chloropropane	7.072	42	219547	46.42	ug/L	99
27) methyl acetate	6.820	74	29490	66.15	ug/L	99
28) methyl tert butyl ether	7.454	73	405376	53.72	ug/L	100
29) trans-1,2-dichloroethene	7.460	96	148596	49.78	ug/L	100
30) di-isopropyl ether	8.178	45	459981	51.15	ug/L	99
31) ethyl tert-butyl ether	8.702	59	451798	51.03	ug/L	100
32) 2-butanone	8.912	72	18116	58.49	ug/L	97
33) 1,1-dichloroethane	8.099	63	274947	48.98	ug/L	99
34) chloroprene	8.246	53	192773	51.22	ug/L	99
35) acrylonitrile	7.365	53	285628	282.42	ug/L	99
36) vinyl acetate	8.136	86	20100	57.09	ug/L	95
37) ethyl acetate	8.975	45	21086	57.67	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	181716	46.50	ug/L	98
39) cis-1,2-dichloroethene	8.928	96	165502	49.35	ug/L	98
40) propionitrile	8.980	54	236038	574.45	ug/L	99
41) methyl acrylate	9.043	55	140581	55.18	ug/L	98
42) bromochloromethane	9.258	128	84785	53.83	ug/L	97
43) tetrahydrofuran	9.326	42	45000	53.18	ug/L	98
44) chloroform	9.342	83	261546	47.81	ug/L	99
47) freon 113	6.238	151	91957	55.38	ug/L	97
48) methacrylonitrile	9.206	41	89576	56.49	ug/L	98
49) 1,1,1-trichloroethane	9.635	97	201507	49.11	ug/L	99
50) tert-amyl methyl ether	10.202	73	426275	50.15	ug/L	100
52) epichlorohydrin	11.827	57	77454	270.43	ug/L	98
53) n-butyl alcohol	10.658	56	235582	2815.15	ug/L	100
54) cyclohexane	9.730	84	194431	51.43	ug/L	99
56) carbon tetrachloride	9.856	117	181640	49.99	ug/L	100
57) 1,1-dichloropropene	9.835	75	199085	49.43	ug/L	99
58) hexane	7.884	57	173666	57.77	ug/L	98
59) benzene	10.102	78	583449	47.77	ug/L	100
60) ISO-OCTANE	10.191	57	486188	49.58	ug/L	100
61) heptane	10.385	57	95442	51.70	ug/L	99
62) isopropyl acetate	10.086	43	266892	52.59	ug/L	100
63) 1,2-dichloroethane	10.097	62	182602	52.73	ug/L	99
64) trichloroethene	10.873	95	150562	48.53	ug/L	100
66) 2-nitropropane	11.675	43	37909	54.94	ug/L	99
67) 2-chloroethyl vinyl ether	11.738	63	555224	263.85	ug/L	100
68) methyl methacrylate	11.198	41	124354	56.24	ug/L	99
69) 1,2-dichloropropane	11.140	63	163559	49.95	ug/L	99
70) methylcyclohexane	11.140	83	222754	51.29	ug/L	99
72) dibromomethane	11.282	93	108341	53.85	ug/L	99
73) bromodichloromethane	11.439	83	204530	51.54	ug/L	100
74) cis-1,3-dichloropropene	11.948	75	256839	50.64	ug/L	99
76) 4-methyl-2-pentanone	12.084	58	65119	55.79	ug/L	100
77) toluene	12.357	92	351668	48.54	ug/L	98
78) 3-methyl-1-butanol	12.100	70	86172	1152.48	ug/L	99
79) trans-1,3-dichloropropene	12.551	75	236149	53.00	ug/L	100
80) ethyl methacrylate	12.603	69	205390	56.45	ug/L	99
81) 1,1,2-trichloroethane	12.771	83	128954	52.13	ug/L	99
82) 2-hexanone	13.001	58	63139	57.87	ug/L	100
84) tetrachloroethene	12.986	166	150827	48.92	ug/L	99
85) 1,3-dichloropropane	12.970	76	233266	51.73	ug/L	99
86) butyl acetate	13.106	56	106999	52.63	ug/L	98
87) dibromochloromethane	13.237	129	174464	54.01	ug/L	99
88) 1,2-dibromoethane	13.400	107	157527	52.75	ug/L	99
89) n-Butyl Ether	13.919	57	660009	49.95	ug/L	100
90) chlorobenzene	13.924	112	402458	48.95	ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	146720	51.85	ug/L	99
92) ethylbenzene	14.013	91	668634	47.42	ug/L	98
93) m,p-xylene	14.134	106	510142	96.67	ug/L	96
94) o-xylene	14.574	106	256804	49.69	ug/L	99
95) styrene	14.580	104	437702	51.79	ug/L	99

7.6.20

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.816	173	125319	55.55	ug/L	100
99)	isopropylbenzene	14.947	105	639134	47.82	ug/L	99
101)	bromobenzene	15.324	156	173644	50.59	ug/L	100
102)	cyclohexanone	15.072	55	82914	485.15	ug/L	97
103)	1,1,2,2-tetrachloroethane	15.225	83	226848	51.49	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	49451	56.10	ug/L	99
105)	1,2,3-trichloropropane	15.298	110	48081	54.11	ug/L	100
106)	n-propylbenzene	15.377	91	752799	47.13	ug/L	100
107)	2-chlorotoluene	15.502	126	161267	48.77	ug/L	96
108)	4-chlorotoluene	15.607	91	478271	47.58	ug/L	100
109)	1,3,5-trimethylbenzene	15.534	105	536562	48.75	ug/L	98
110)	tert-butylbenzene	15.890	119	447400	48.17	ug/L	100
111)	pentachloroethane	15.938	167	109649	50.70	ug/L	98
112)	1,2,4-trimethylbenzene	15.932	105	534648	48.95	ug/L	99
113)	sec-butylbenzene	16.111	105	712902	47.71	ug/L	99
114)	1,3-dichlorobenzene	16.263	146	325190	48.84	ug/L	100
115)	p-isopropyltoluene	16.231	119	570672	48.06	ug/L	100
116)	1,4-dichlorobenzene	16.347	146	327286	48.65	ug/L	100
117)	1,2-dichlorobenzene	16.724	146	320864	50.33	ug/L	100
118)	n-butylbenzene	16.635	92	317802	49.01	ug/L	98
119)	1,2-dibromo-3-chloropr...	17.453	75	37391	54.76	ug/L	97
120)	1,3,5-trichlorobenzene	17.652	180	256174	50.59	ug/L	100
121)	1,2,4-trichlorobenzene	18.224	180	241566	53.53	ug/L	98
122)	hexachlorobutadiene	18.355	225	114214	49.44	ug/L	98
123)	naphthalene	18.480	128	599031	55.92	ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	227805	55.01	ug/L	99
125)	hexachloroethane	16.997	119	125945	50.46	ug/L	99
126)	Benzyl chloride	16.457	91	348617	47.31	ug/L	100

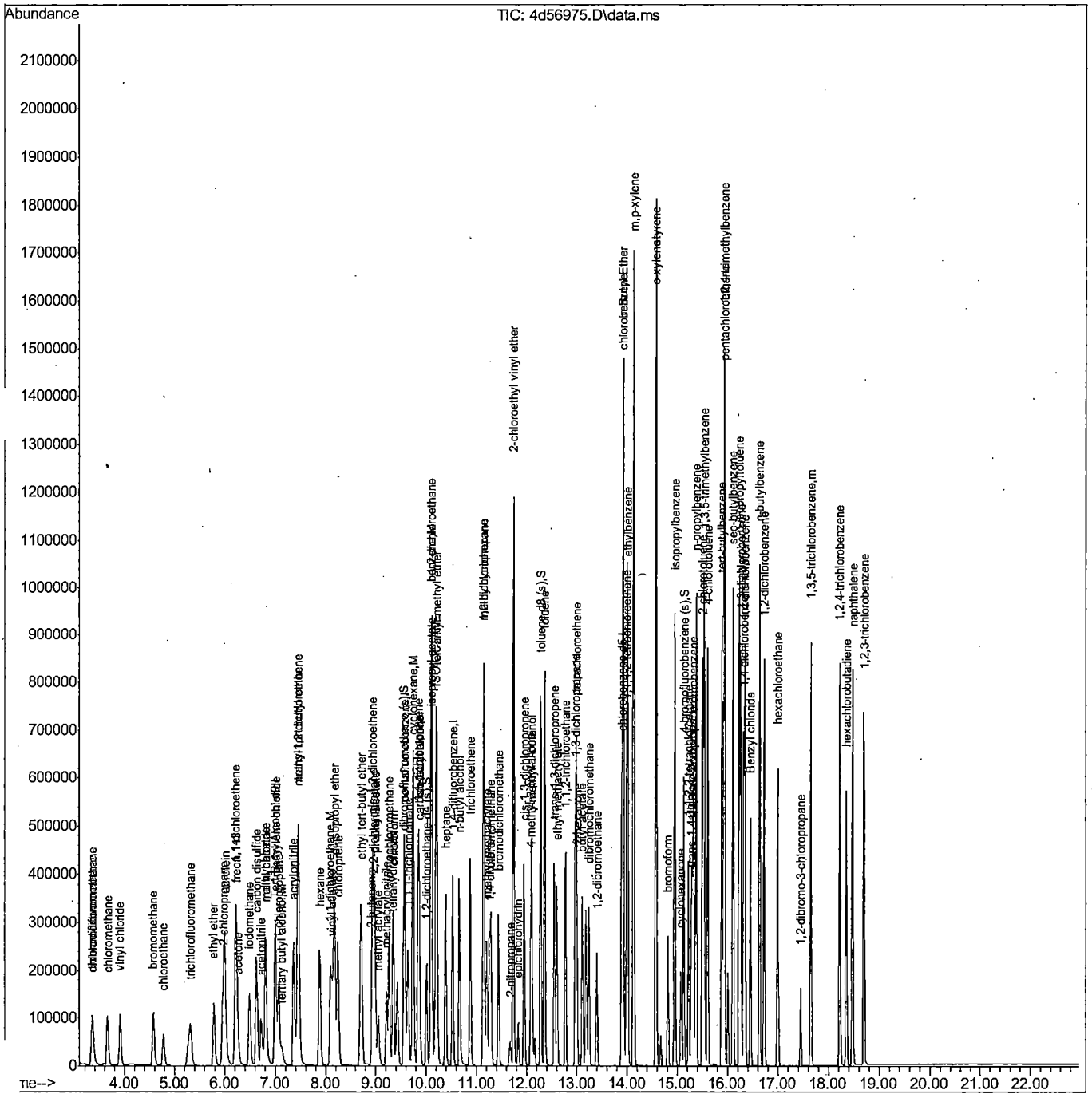
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.20 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



7.6.20

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.003	65	120361	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	283328	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	349178	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	320613	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	164007	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	302802	98.71	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 197.42%#			
46) 1,2-dichloroethane-d4 (s)	10.003	65	289964	97.95	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 195.90%#			
75) toluene-d8 (s)	12.278	98	1005113	99.11	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 198.22%#			
100) 4-bromofluorobenzene (s)	15.130	95	397097	98.83	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 197.66%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	80352	2546.82	ug/L #	89
3) tertiary butyl alcohol	7.135	59	161354	494.09	ug/L	99
5) chlorodifluoromethane	3.360	51	233489	110.16	ug/L	99
6) dichlorodifluoromethane	3.349	85	290611	93.57	ug/L	99
7) chloromethane	3.664	50	346165	94.06	ug/L	100
8) vinyl chloride	3.921	62	345810	94.43	ug/L	99
10) bromomethane	4.581	94	231818	87.29	ug/L	99
11) chloroethane	4.780	64	178124	102.44	ug/L	100
12) trichlorofluoromethane	5.320	101	384792	96.74	ug/L	100
14) ethyl ether	5.787	74	156641	110.91	ug/L	96
16) 2-chloropropane	5.965	43	429052	97.08	ug/L #	93
17) acrolein	6.028	56	8702	13.99	ug/L	92
18) 1,1-dichloroethene	6.222	96	276988	105.35	ug/L	98
19) acetone	6.269	43	74369	104.07	ug/L	99
20) allyl chloride	6.815	76	141326	101.86	ug/L	94
21) acetonitrile	6.720	40	163405	1028.64	ug/L	100
22) iodomethane	6.495	142	541443	105.66	ug/L	100
23) iso-butyl alcohol	9.850	41	94749	955.17	ug/L	98
24) carbon disulfide	6.636	76	1014682	102.55	ug/L	100
25) methylene chloride	7.009	84	327944	98.04	ug/L	97
26) 1-chloropropane	7.072	42	432209	88.02	ug/L	99
27) methyl acetate	6.815	74	57599	124.44	ug/L	96
28) methyl tert butyl ether	7.460	73	811976	103.63	ug/L	99
29) trans-1,2-dichloroethene	7.460	96	302115	97.48	ug/L	99
30) di-isopropyl ether	8.183	45	901791	96.58	ug/L	97
31) ethyl tert-butyl ether	8.707	59	897721	97.66	ug/L	100
32) 2-butanone	8.912	72	35210	109.48	ug/L	97
33) 1,1-dichloroethane	8.105	63	545862	93.66	ug/L	99
34) chloroprene	8.246	53	384063	98.29	ug/L	99
35) acrylonitrile	7.365	53	555163	528.68	ug/L	98
36) vinyl acetate	8.136	86	39950	109.29	ug/L	99
37) ethyl acetate	8.975	45	40022	105.42	ug/L	98

7.6.21

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	360736	88.90	ug/L	99
39) cis-1,2-dichloroethene	8.933	96	334224	95.98	ug/L	97
40) propionitrile	8.980	54	450784	1056.62	ug/L	99
41) methyl acrylate	9.043	55	273270	103.31	ug/L #	99
42) bromochloromethane	9.258	128	170383	104.19	ug/L	97
43) tetrahydrofuran	9.326	42	84642	96.34	ug/L	99
44) chloroform	9.342	83	524245	92.30	ug/L	99
47) freon 113	6.243	151	187988	109.04	ug/L	99
48) methacrylonitrile	9.206	41	173884	105.62	ug/L	97
49) 1,1,1-trichloroethane	9.635	97	405782	95.25	ug/L	99
50) tert-amyl methyl ether	10.202	73	827708	93.79	ug/L	99
52) epichlorohydrin	11.827	57	146345	496.85	ug/L	99
53) n-butyl alcohol	10.658	56	443541	5153.82	ug/L	99
54) cyclohexane	9.735	84	389879	100.28	ug/L	97
56) carbon tetrachloride	9.861	117	367461	98.33	ug/L	99
57) 1,1-dichloropropene	9.835	75	397952	96.07	ug/L	100
58) hexane	7.884	57	348702	112.79	ug/L	98
59) benzene	10.107	78	1153122	91.81	ug/L	100
60) ISO-OCTANE	10.196	57	969027	96.09	ug/L	99
61) heptane	10.385	57	191968	101.11	ug/L	98
62) isopropyl acetate	10.086	43	505823	96.92	ug/L	99
63) 1,2-dichloroethane	10.097	62	356269	100.03	ug/L	99
64) trichloroethene	10.873	95	301428	94.48	ug/L	99
66) 2-nitropropane	11.670	43	72238	101.80	ug/L	99
67) 2-chloroethyl vinyl ether	11.738	63	1061252	490.40	ug/L	99
68) methyl methacrylate	11.198	41	240995	105.98	ug/L	98
69) 1,2-dichloropropane	11.140	63	325293	96.59	ug/L	99
70) methylcyclohexane	11.140	83	451519	101.09	ug/L	99
72) dibromomethane	11.282	93	212588	102.75	ug/L	100
73) bromodichloromethane	11.439	83	411433	100.81	ug/L	99
74) cis-1,3-dichloropropene	11.948	75	513635	98.47	ug/L	99
76) 4-methyl-2-pentanone	12.084	58	125398	104.46	ug/L	99
77) toluene	12.357	92	700907	94.08	ug/L	100
78) 3-methyl-1-butanol	12.100	70	161948	2106.10	ug/L	99
79) trans-1,3-dichloropropene	12.551	75	461962	100.81	ug/L	100
80) ethyl methacrylate	12.603	69	399650	106.81	ug/L	98
81) 1,1,2-trichloroethane	12.771	83	256310	100.75	ug/L	100
82) 2-hexanone	13.002	58	121158	107.99	ug/L	99
84) tetrachloroethene	12.986	166	308131	96.41	ug/L	100
85) 1,3-dichloropropane	12.970	76	461005	98.61	ug/L	100
86) butyl acetate	13.106	56	204823	97.18	ug/L	100
87) dibromochloromethane	13.243	129	351477	104.96	ug/L	100
88) 1,2-dibromoethane	13.400	107	309596	100.00	ug/L	100
89) n-Butyl Ether	13.919	57	1296044	94.61	ug/L	100
90) chlorobenzene	13.924	112	805723	94.53	ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	299108	101.95	ug/L	99
92) ethylbenzene	14.013	91	1335468	91.36	ug/L	99
93) m,p-xylene	14.134	106	1020952	186.62	ug/L	97
94) o-xylene	14.574	106	515696	96.25	ug/L	99
95) styrene	14.580	104	881394	100.61	ug/L	99

7.6.21

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	bromoform	14.816	173	254050	108.63 ug/L	99
99)	isopropylbenzene	14.947	105	1283691	92.80 ug/L	100
101)	bromobenzene	15.324	156	353647	99.56 ug/L	100
102)	cyclohexanone	15.073	55	167067	944.49 ug/L	98
103)	1,1,2,2-tetrachloroethane	15.225	83	446770	97.97 ug/L	100
104)	trans-1,4-dichloro-2-b...	15.277	53	95455	104.63 ug/L	99
105)	1,2,3-trichloropropane	15.303	110	94379	102.62 ug/L	97
106)	n-propylbenzene	15.377	91	1523284	92.15 ug/L	99
107)	2-chlorotoluene	15.502	126	329829	96.37 ug/L	95
108)	4-chlorotoluene	15.607	91	969301	93.18 ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	1089720	95.67 ug/L	100
110)	tert-butylbenzene	15.890	119	911089	94.78 ug/L	100
111)	pentachloroethane	15.938	167	227976	101.84 ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	1091880	96.58 ug/L	100
113)	sec-butylbenzene	16.111	105	1443814	93.37 ug/L	100
114)	1,3-dichlorobenzene	16.263	146	665347	96.54 ug/L	99
115)	p-isopropyltoluene	16.231	119	1161077	94.48 ug/L	100
116)	1,4-dichlorobenzene	16.347	146	664487	95.44 ug/L	100
117)	1,2-dichlorobenzene	16.724	146	652356	98.87 ug/L	99
118)	n-butylbenzene	16.635	92	650450	96.92 ug/L	99
119)	1,2-dibromo-3-chloropr...	17.453	75	73362	103.80 ug/L	97
120)	1,3,5-trichlorobenzene	17.652	180	531733	101.46 ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	497253	106.47 ug/L	99
122)	hexachlorobutadiene	18.355	225	237221	99.21 ug/L	100
123)	naphthalene	18.480	128	1186396	107.00 ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	464944	108.48 ug/L	99
125)	hexachloroethane	16.997	119	261872	101.38 ug/L	98
126)	Benzyl chloride	16.457	91	677993	88.90 ug/L	100

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

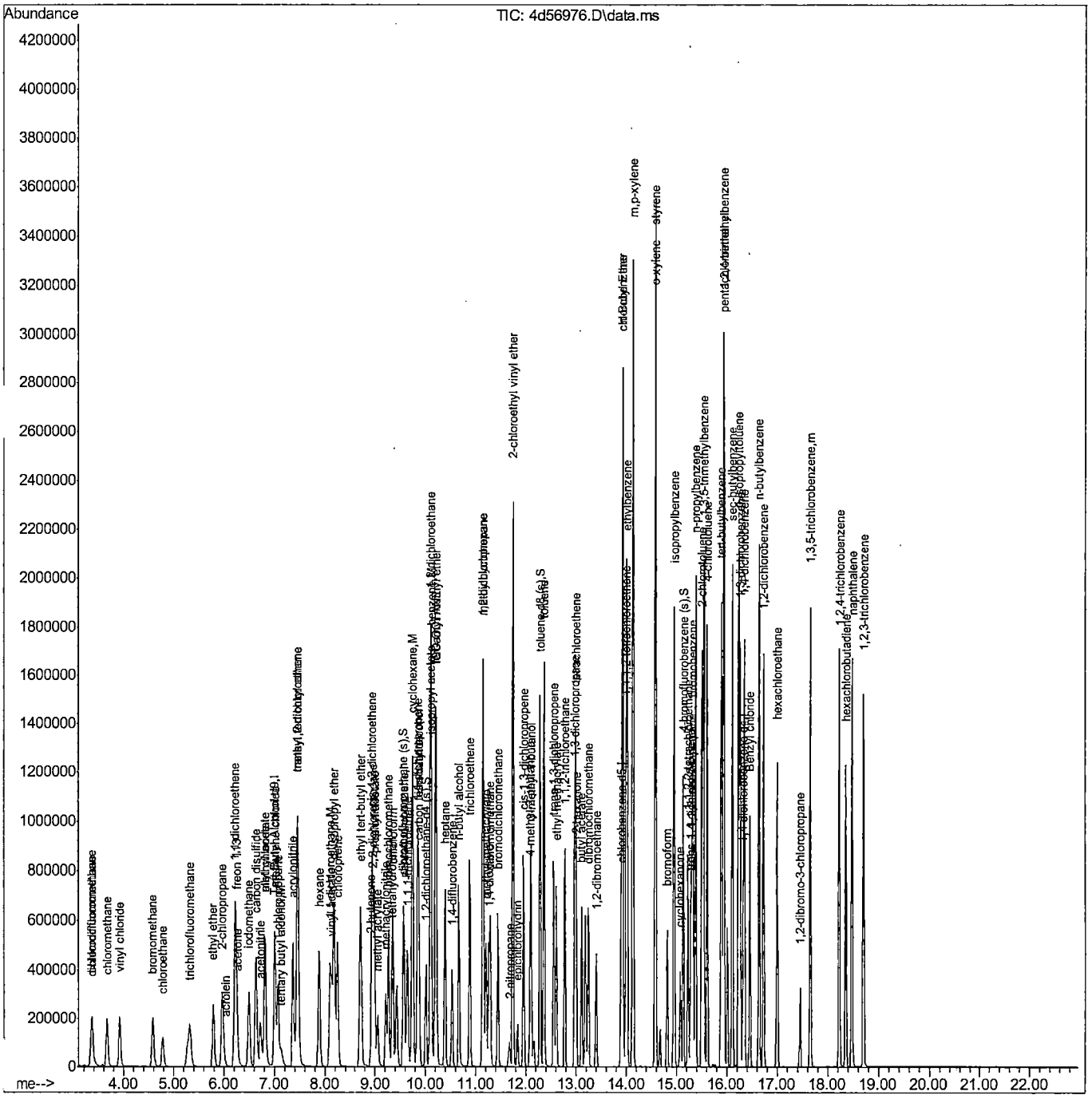
7.6.21

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



7.6.21

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

7.6.22

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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.009	65	127871	500.00	ug/L	0.01
4) pentafluorobenzene	9.573	168	293920	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	363006	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	335126	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	171721	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	611649	192.21	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 384.42%#			
46) 1,2-dichloroethane-d4 (s)	10.002	65	576797	187.83	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 375.66%#			
75) toluene-d8 (s)	12.278	98	2018772	191.48	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 382.96%#			
100) 4-bromofluorobenzene (s)	15.130	95	804844	191.32	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 382.64%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	164603	4910.81	ug/L #	82
3) tertiary butyl alcohol	7.140	59	325300	937.61	ug/L	97
5) chlorodifluoromethane	3.360	51	469848	213.69	ug/L	98
6) dichlorodifluoromethane	3.349	85	580199	180.09	ug/L	98
7) chloromethane	3.674	50	674773	176.74	ug/L	99
8) vinyl chloride	3.931	62	676979	178.19	ug/L	98
11) chloroethane	4.775	64	335981	186.26	ug/L	99
12) trichlorofluoromethane	5.320	101	770890	186.82	ug/L	98
14) ethyl ether	5.792	74	317078	216.41	ug/L	96
16) 2-chloropropane	5.971	43	847003	184.73	ug/L #	93
17) acrolein	6.023	56	14132	21.91	ug/L	98
18) 1,1-dichloroethene	6.222	96	546935	200.53	ug/L	96
19) acetone	6.269	43	148487	200.31	ug/L	100
20) allyl chloride	6.815	76	283751	197.14	ug/L	93
21) acetonitrile	6.720	40	325373	1974.42	ug/L	99
22) iodomethane	6.495	142	1072147	201.68	ug/L	99
23) iso-butyl alcohol	9.856	41	187580	1822.86	ug/L	96
24) carbon disulfide	6.631	76	1991564	194.02	ug/L	100
25) methylene chloride	7.009	84	653829	188.42	ug/L	96
26) 1-chloropropane	7.072	42	866787	170.16	ug/L	99
27) methyl acetate	6.815	74	116911	243.49	ug/L	92
28) methyl tert butyl ether	7.460	73	1597740	196.57	ug/L	100
29) trans-1,2-dichloroethene	7.460	96	602846	187.51	ug/L	100
30) di-isopropyl ether	8.183	45	1787083	184.50	ug/L	96
31) ethyl tert-butyl ether	8.707	59	1780560	186.72	ug/L	99
32) 2-butanone	8.912	72	70504	211.33	ug/L	96
33) 1,1-dichloroethane	8.104	63	1090302	180.34	ug/L	98
34) chloroprene	8.246	53	754950	186.24	ug/L	98
35) acrylonitrile	7.365	53	1099679	1009.49	ug/L	99
36) vinyl acetate	8.136	86	82601	217.83	ug/L	90
37) ethyl acetate	8.975	45	77982	198.00	ug/L	96
38) 2,2-dichloropropane	8.954	77	690943	164.14	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	cis-1,2-dichloroethene	8.933	96	667084	184.67	ug/L		95
40)	propionitrile	8.985	54	885777	2001.41	ug/L		99
41)	methyl acrylate	9.043	55	542126	197.56	ug/L	#	98
42)	bromochloromethane	9.258	128	345923	203.92	ug/L		95
43)	tetrahydrofuran	9.326	42	165779	181.89	ug/L		98
44)	chloroform	9.342	83	1032519	175.25	ug/L		98
47)	freon 113	6.238	151	376073	210.27	ug/L		100
48)	methacrylonitrile	9.206	41	344923	201.97	ug/L		95
49)	1,1,1-trichloroethane	9.635	97	800341	181.09	ug/L		100
50)	tert-amyl methyl ether	10.207	73	1638819	179.00	ug/L		99
52)	epichlorohydrin	11.832	57	297582	971.82	ug/L		99
53)	n-butyl alcohol	10.663	56	887928	9924.44	ug/L		99
54)	cyclohexane	9.735	84	778686	192.66	ug/L		95
56)	carbon tetrachloride	9.861	117	726987	187.13	ug/L		99
57)	1,1-dichloropropene	9.835	75	790192	183.49	ug/L		100
58)	hexane	7.884	57	694843	216.19	ug/L		99
59)	benzene	10.107	78	2307617	176.73	ug/L		100
60)	ISO-OCTANE	10.196	57	1903953	181.61	ug/L		98
61)	heptane	10.385	57	383459	194.28	ug/L		98
62)	isopropyl acetate	10.092	43	995774	183.53	ug/L		98
63)	1,2-dichloroethane	10.097	62	710040	191.77	ug/L		100
64)	trichloroethene	10.873	95	614042	185.13	ug/L		100
66)	2-nitropropane	11.675	43	147956	200.56	ug/L		99
67)	2-chloroethyl vinyl ether	11.738	63	2056265	913.99	ug/L		98
68)	methyl methacrylate	11.198	41	478498	202.41	ug/L		97
69)	1,2-dichloropropane	11.140	63	648893	185.35	ug/L		98
70)	methylcyclohexane	11.140	83	906160	195.16	ug/L		97
72)	dibromomethane	11.282	93	430888	200.32	ug/L		99
73)	bromodichloromethane	11.439	83	834116	196.59	ug/L		100
74)	cis-1,3-dichloropropene	11.948	75	1035401	190.93	ug/L		99
76)	4-methyl-2-pentanone	12.084	58	252335	202.19	ug/L		98
77)	toluene	12.357	92	1393659	179.93	ug/L		99
78)	3-methyl-1-butanol	12.100	70	332172	4155.28	ug/L		97
79)	trans-1,3-dichloropropene	12.551	75	937544	196.79	ug/L		99
80)	ethyl methacrylate	12.603	69	795676	204.55	ug/L		98
81)	1,1,2-trichloroethane	12.771	83	517012	195.49	ug/L		99
82)	2-hexanone	13.002	58	240636	206.30	ug/L		96
84)	tetrachloroethene	12.986	166	631602	189.06	ug/L		99
85)	1,3-dichloropropane	12.970	76	920988	188.47	ug/L		99
86)	butyl acetate	13.106	56	416179	188.90	ug/L		98
87)	dibromochloromethane	13.243	129	720105	205.73	ug/L		99
88)	1,2-dibromoethane	13.400	107	626730	193.67	ug/L		99
89)	n-Butyl Ether	13.919	57	2477588	173.03	ug/L		98
90)	chlorobenzene	13.924	112	1616105	181.40	ug/L		99
91)	1,1,1,2-tetrachloroethane	13.992	131	608970	198.59	ug/L		99
92)	ethylbenzene	14.013	91	2660994	174.15	ug/L		98
93)	m,p-xylene	14.134	106	1991712	348.30	ug/L		98
94)	o-xylene	14.574	106	1028287	183.60	ug/L		99
95)	styrene	14.580	104	1759481	192.14	ug/L		99
97)	bromoform	14.816	173	522935	213.91	ug/L		100

7.6.22

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	14.952	105	2590426	178.86	ug/L	99
101)	bromobenzene	15.324	156	720957	193.84	ug/L	99
102)	cyclohexanone	15.073	55	289764	1564.56	ug/L	98
103)	1,1,2,2-tetrachloroethane	15.225	83	889924	186.39	ug/L	100
104)	trans-1,4-dichloro-2-b...	15.277	53	191211	200.18	ug/L	98
105)	1,2,3-trichloropropane	15.303	110	187578	194.79	ug/L	99
106)	n-propylbenzene	15.377	91	2979887	172.17	ug/L	99
107)	2-chlorotoluene	15.508	126	660167	184.22	ug/L	90
108)	4-chlorotoluene	15.607	91	1949080	178.94	ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	2174138	182.30	ug/L	100
110)	tert-butylbenzene	15.890	119	1842180	183.02	ug/L	99
111)	pentachloroethane	15.943	167	470832	200.88	ug/L	98
112)	1,2,4-trimethylbenzene	15.932	105	2192553	185.23	ug/L	99
113)	sec-butylbenzene	16.111	105	2904528	179.39	ug/L	99
114)	1,3-dichlorobenzene	16.263	146	1349089	186.96	ug/L	99
115)	p-isopropyltoluene	16.231	119	2348321	182.51	ug/L	98
116)	1,4-dichlorobenzene	16.347	146	1357941	186.28	ug/L	100
117)	1,2-dichlorobenzene	16.724	146	1335125	193.25	ug/L	100
118)	n-butylbenzene	16.640	92	1306807	185.98	ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	148540	200.73	ug/L	99
120)	1,3,5-trichlorobenzene	17.652	180	1083847	197.51	ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	1025739	209.76	ug/L	100
122)	hexachlorobutadiene	18.355	225	486475	194.31	ug/L	100
123)	naphthalene	18.480	128	2347420	202.21	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	942331	209.99	ug/L	99
125)	hexachloroethane	16.997	119	547245	202.33	ug/L	99
126)	Benzyl chloride´	16.457	91	1346450	168.61	ug/L	99

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

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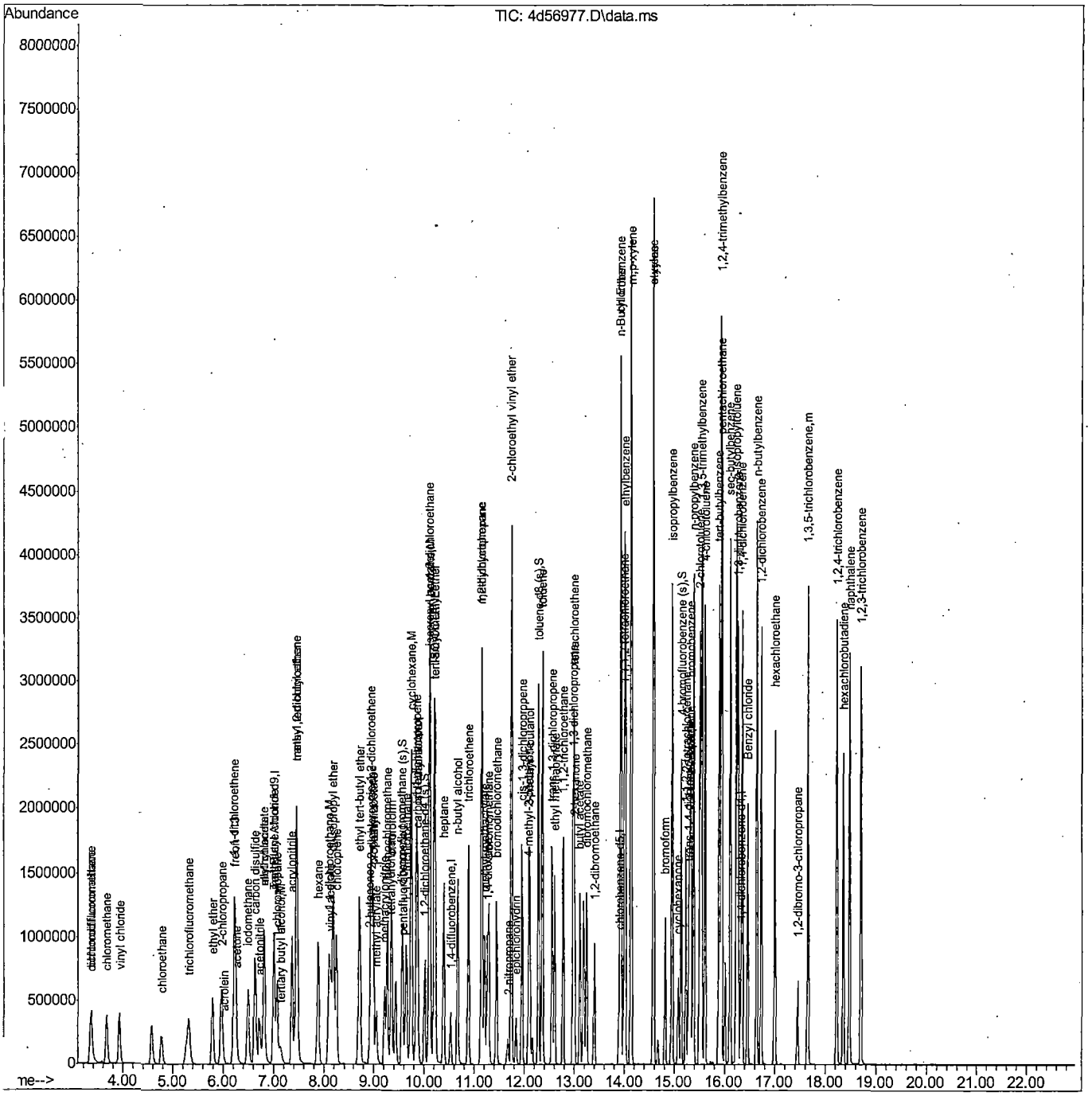
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	118549	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	301075	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	369273	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	336329	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	171659	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	155254	46.13	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 92.26%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	148085	45.73	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 91.46%			
75) toluene-d8 (s)	12.278	98	526764	46.92	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 93.84%			
100) 4-bromofluorobenzene (s)	15.130	95	203212	48.26	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 96.52%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	39653	1282.83	ug/L #	90
3) tertiary butyl alcohol	7.124	59	83391	257.69	ug/L	97
5) chlorodifluoromethane	3.349	51	110868	46.28	ug/L	99
6) dichlorodifluoromethane	3.338	85	143739	47.51	ug/L	98
7) chloromethane	3.648	50	171745	44.69	ug/L	99
8) vinyl chloride	3.905	62	173911	46.40	ug/L	99
10) bromomethane	4.576	94	122865	42.55	ug/L	98
11) chloroethane	4.775	64	83655	44.99	ug/L	100
12) trichlorofluoromethane	5.310	101	195812	48.15	ug/L	99
14) ethyl ether	5.782	74	80094	51.31	ug/L	98
16) 2-chloropropane	5.965	43	216797	45.33	ug/L	99
17) acrolein	6.002	56	323710	439.24	ug/L	98
18) 1,1-dichloroethene	6.217	96	137864	47.90	ug/L	100
19) acetone	6.264	43	41722	52.21	ug/L	99
20) allyl chloride	6.809	76	72234	49.52	ug/L	98
21) acetonitrile	6.715	40	83182	504.22	ug/L	94
22) iodomethane	6.490	142	275523	49.18	ug/L	100
23) iso-butyl alcohol	9.850	41	47639	469.11	ug/L	99
24) carbon disulfide	6.626	76	513053	46.71	ug/L	99
25) methylene chloride	7.003	84	166251	46.59	ug/L	97
26) 1-chloropropane	7.066	42	220266	45.39	ug/L	99
27) methyl acetate	6.815	74	25882	45.40	ug/L	96
28) methyl tert butyl ether	7.454	73	819862	96.71	ug/L	95
29) trans-1,2-dichloroethene	7.454	96	154353	47.88	ug/L	98
30) di-isopropyl ether	8.178	45	468515	48.48	ug/L	98
31) ethyl tert-butyl ether	8.702	59	449586	48.25	ug/L	98
32) 2-butanone	8.907	72	17641	50.48	ug/L	99
33) 1,1-dichloroethane	8.099	63	279988	47.70	ug/L	100
34) chloroprene	8.241	53	195953	49.36	ug/L	98
35) acrylonitrile	7.360	53	287820	255.54	ug/L	98
36) vinyl acetate	8.131	86	26187	65.32	ug/L	88
37) ethyl acetate	8.975	45	20774	50.27	ug/L	95

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.948	77	174371	43.89	ug/L	99
39) cis-1,2-dichloroethene	8.928	96	171219	47.58	ug/L	98
40) propionitrile	8.980	54	232288	498.96	ug/L	100
41) methyl acrylate	9.043	55	139958	49.77	ug/L	98
42) bromochloromethane	9.253	128	87580	50.60	ug/L	99
43) tetrahydrofuran	9.326	42	42903	45.78	ug/L	98
44) chloroform	9.336	83	267063	46.57	ug/L	100
47) freon 113	6.233	151	99628	52.71	ug/L	96
48) methacrylonitrile	9.200	41	88126	49.77	ug/L	98
49) 1,1,1-trichloroethane	9.630	97	207251	48.18	ug/L	98
50) tert-amyl methyl ether	10.202	73	429001	48.45	ug/L	99
52) epichlorohydrin	11.827	57	76378	245.64	ug/L	99
53) n-butyl alcohol	10.658	56	233260	2614.36	ug/L	98
54) cyclohexane	9.730	84	201581	48.46	ug/L	97
56) carbon tetrachloride	9.856	117	186531	48.68	ug/L	99
57) 1,1-dichloropropene	9.835	75	205283	48.26	ug/L	98
58) hexane	7.884	57	156132	42.60	ug/L	99
59) benzene	10.102	78	600475	47.59	ug/L	100
60) ISO-OCTANE	10.191	57	434654	41.63	ug/L	98
61) heptane	10.385	57	91367	45.29	ug/L	99
62) isopropyl acetate	10.086	43	257492	48.27	ug/L	99
63) 1,2-dichloroethane	10.097	62	184012	48.83	ug/L	100
64) trichloroethene	10.873	95	157863	48.58	ug/L	97
66) 2-nitropropane	11.670	43	36792	48.29	ug/L	98
67) 2-chloroethyl vinyl ether	11.738	63	579398	258.35	ug/L	99
68) methyl methacrylate	11.198	41	123033	48.18	ug/L	98
69) 1,2-dichloropropane	11.140	63	170033	49.64	ug/L	100
70) methylcyclohexane	11.140	83	222674	48.25	ug/L	91
72) dibromomethane	11.282	93	110809	49.95	ug/L	100
73) bromodichloromethane	11.439	83	212261	50.29	ug/L	99
74) cis-1,3-dichloropropene	11.948	75	264065	48.88	ug/L	100
76) 4-methyl-2-pentanone	12.084	58	64700	50.48	ug/L	97
77) toluene	12.356	92	367677	49.31	ug/L	98
78) 3-methyl-1-butanol	12.100	70	83826	1033.47	ug/L	98
79) trans-1,3-dichloropropene	12.550	75	241637	49.29	ug/L	99
80) ethyl methacrylate	12.603	69	207005	52.01	ug/L	99
81) 1,1,2-trichloroethane	12.771	83	133283	50.59	ug/L	100
82) 2-hexanone	13.001	58	61805	49.55	ug/L	98
84) tetrachloroethene	12.986	166	161671	50.43	ug/L	100
85) 1,3-dichloropropane	12.970	76	239987	49.71	ug/L	99
86) butyl acetate	13.106	56	108847	52.34	ug/L	97
87) dibromochloromethane	13.243	129	181272	52.30	ug/L	100
88) 1,2-dibromoethane	13.400	107	162142	51.01	ug/L	100
89) n-Butyl Ether	13.919	57	683197	50.44	ug/L	100
90) chlorobenzene	13.924	112	421784	49.25	ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	152937	50.33	ug/L	100
92) ethylbenzene	14.013	91	702774	49.18	ug/L	99
93) m,p-xylene	14.129	106	533798	99.35	ug/L	98
94) o-xylene	14.574	106	266534	50.03	ug/L	98
95) styrene	14.580	104	455252	51.38	ug/L	100

7.6.23

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.815	173	129727	52.98	ug/L	99
99)	isopropylbenzene	14.947	105	665999	49.19	ug/L	100
101)	bromobenzene	15.329	156	182724	49.76	ug/L	93
102)	cyclohexanone	15.072	55	73094	401.20	ug/L	99
103)	1,1,2,2-tetrachloroethane	15.224	83	230606	48.59	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	47553	49.05	ug/L	97
105)	1,2,3-trichloropropane	15.298	110	48811	50.21	ug/L	98
106)	n-propylbenzene	15.376	91	790322	48.94	ug/L	99
107)	2-chlorotoluene	15.502	126	168261	48.97	ug/L	100
108)	4-chlorotoluene	15.607	91	499796	48.11	ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	560021	49.62	ug/L	99
110)	tert-butylbenzene	15.890	119	465508	49.56	ug/L	100
111)	pentachloroethane	15.937	167	114634	51.18	ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	558649	49.66	ug/L	100
113)	sec-butylbenzene	16.110	105	746704	49.43	ug/L	100
114)	1,3-dichlorobenzene	16.263	146	339881	48.04	ug/L	98
115)	p-isopropyltoluene	16.231	119	597136	50.00	ug/L	100
116)	1,4-dichlorobenzene	16.346	146	343062	47.67	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	331076	48.64	ug/L	99
118)	n-butylbenzene	16.640	92	329407	49.73	ug/L	98
119)	1,2-dibromo-3-chloropr...	17.453	75	37012	49.76	ug/L	98
120)	1,3,5-trichlorobenzene	17.652	180	268365	50.06	ug/L	100
121)	1,2,4-trichlorobenzene	18.223	180	250013	50.41	ug/L	100
122)	hexachlorobutadiene	18.355	225	119667	49.82	ug/L	96
123)	naphthalene	18.480	128	594090	50.74	ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	234188	51.51	ug/L	99
125)	hexachloroethane	16.997	119	131224	51.92	ug/L	99
126)	Benzyl chloride	16.457	91	362159	50.76	ug/L	100

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

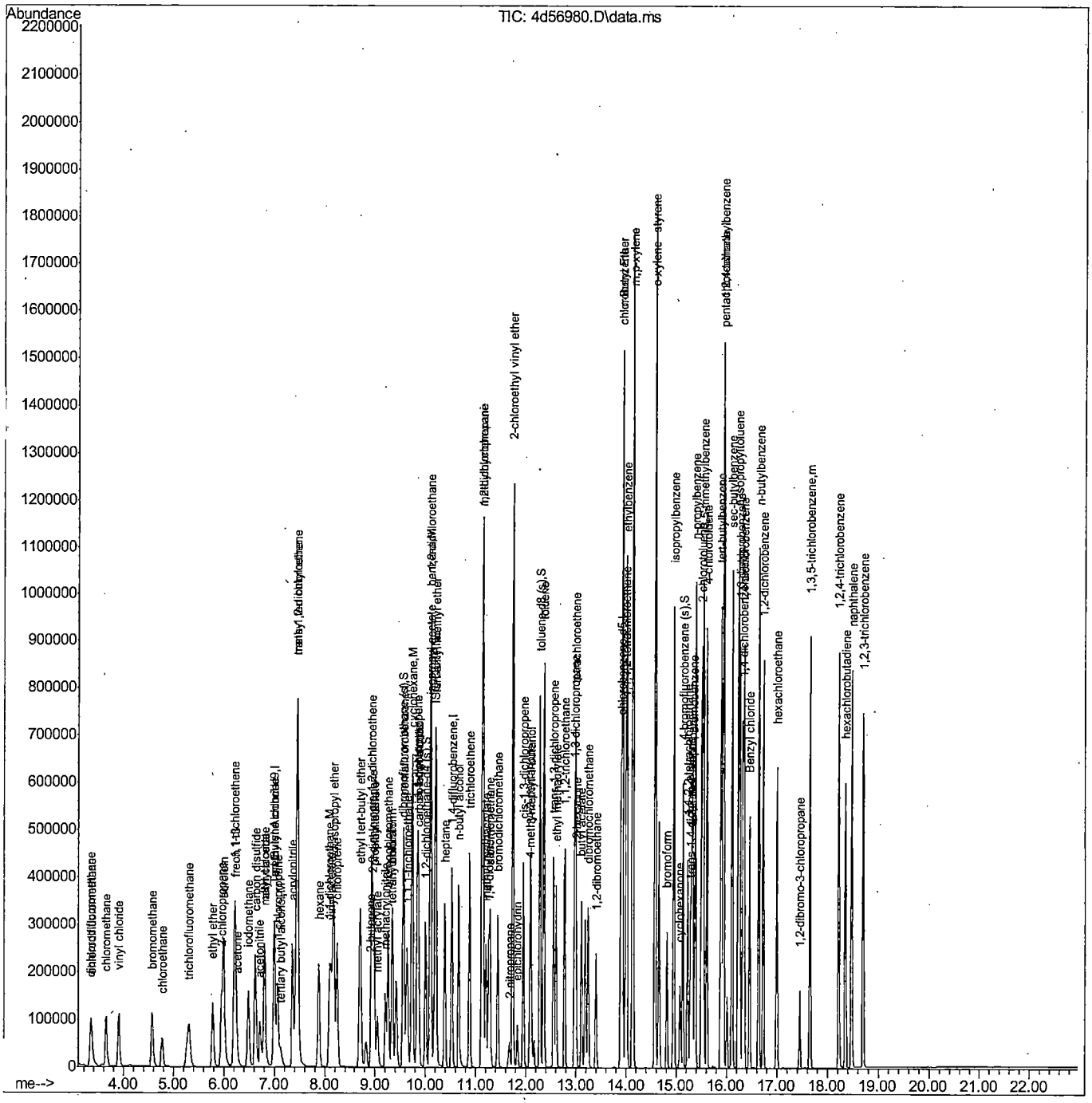
7.6.23

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration



7.6.23

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ACCUTEST LABORATORIES JB88562

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On : 26 Feb 2015 9:29 am
Operator : PayalR
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	96405	500.00	ug/L	0.00
4) pentafluorobenzene	9.572	168	264836	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.527	114	314214	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	283643	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	148120	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	121966	41.20	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.40%			
46) 1,2-dichloroethane-d4 (s)	10.002	65	126457	44.40	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 88.80%			
75) toluene-d8 (s)	12.278	98	413812	43.32	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.64%			
100) 4-bromofluorobenzene (s)	15.130	95	157169	43.26	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 86.52%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.271	88	13629	542.20	ug/L #	80
3) tertiary butyl alcohol	7.129	59	30152	114.57	ug/L	90
5) chlorodifluoromethane	3.349	51	43609	20.69	ug/L	97
6) dichlorodifluoromethane	3.354	85	65817	24.73	ug/L	97
7) chloromethane	3.653	50	69691	20.61	ug/L	98
8) vinyl chloride	3.910	62	66123	20.06	ug/L	99
10) bromomethane	4.581	94	48297	19.02	ug/L	100
11) chloroethane	4.786	64	30348	18.56	ug/L	98
12) trichlorofluoromethane	5.310	101	81754	22.86	ug/L	99
14) ethyl ether	5.787	74	26223	19.10	ug/L	98
16) 2-chloropropane	5.965	43	82279	19.56	ug/L	96
17) acrolein	6.007	56	83311	128.51	ug/L	99
18) 1,1-dichloroethene	6.217	96	46789	18.48	ug/L	97
19) acetone	6.275	43	17773	25.29	ug/L	87
20) allyl chloride	6.809	76	24211	18.87	ug/L	85
21) acetonitrile	6.726	40	30120	207.56	ug/L	99
22) iodomethane	6.490	142	96686	19.62	ug/L	96
23) iso-butyl alcohol	9.856	41	19253	215.53	ug/L	92
24) carbon disulfide	6.631	76	170830	17.68	ug/L	98
25) methylene chloride	7.009	84	56376	17.96	ug/L	96
26) 1-chloropropane	7.072	42	85375	20.00	ug/L	95
27) methyl acetate	6.820	74	8572	17.09	ug/L #	80
28) methyl tert butyl ether	7.454	73	154844	20.77	ug/L	97
29) trans-1,2-dichloroethene	7.460	96	52718	18.59	ug/L	96
30) di-isopropyl ether	8.178	45	171083	20.13	ug/L	95
31) ethyl tert-butyl ether	8.702	59	168830	20.60	ug/L	99
32) 2-butanone	8.917	72	6655	21.65	ug/L	93
33) 1,1-dichloroethane	8.099	63	99549	19.28	ug/L	99
34) chloroprene	8.246	53	69502	19.90	ug/L	95
35) acrylonitrile	7.370	53	93571	94.45	ug/L	98
36) vinyl acetate	8.136	86	6509	18.46	ug/L	96
37) ethyl acetate	8.980	45	7015	19.30	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On : 26 Feb 2015 9:29 am
Operator : PayalR
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	82052	23.48 ug/L	99
39) cis-1,2-dichloroethene	8.928	96	59296	18.73 ug/L	99
40) propionitrile	8.980	54	79112	193.19 ug/L	99
41) methyl acrylate	9.048	55	47882	19.36 ug/L #	99
42) bromochloromethane	9.258	128	31096	20.42 ug/L	97
43) tetrahydrofuran	9.331	42	15543	18.85 ug/L	94
44) chloroform	9.342	83	100558	19.93 ug/L	98
47) freon 113	6.238	151	34928	21.01 ug/L	90
48) methacrylonitrile	9.205	41	32574	20.91 ug/L	93
49) 1,1,1-trichloroethane	9.635	97	82136	21.71 ug/L	98
50) tert-amyl methyl ether	10.202	73	159531	20.48 ug/L	98
52) epichlorohydrin	11.832	57	25819	97.59 ug/L	99
53) n-butyl alcohol	10.663	56	76652	1009.65 ug/L	94
54) cyclohexane	9.735	84	67714	19.13 ug/L	94
56) carbon tetrachloride	9.861	117	73750	22.62 ug/L	99
57) 1,1-dichloropropene	9.835	75	71261	19.69 ug/L	99
58) hexane	7.884	57	57450	18.42 ug/L	96
59) benzene	10.107	78	211476	19.70 ug/L	99
60) ISO-OCTANE	10.196	57	178307	20.07 ug/L	95
61) heptane	10.385	57	33148	19.31 ug/L	98
62) isopropyl acetate	10.092	43	98943	21.80 ug/L	96
63) 1,2-dichloroethane	10.097	62	74502	23.23 ug/L	99
64) trichloroethene	10.878	95	55994	20.25 ug/L	98
66) 2-nitropropane	11.675	43	13248	20.43 ug/L	96
67) 2-chloroethyl vinyl ether	11.738	63	188868	98.97 ug/L	100
68) methyl methacrylate	11.203	41	46652	21.47 ug/L	94
69) 1,2-dichloropropane	11.140	63	59592	20.45 ug/L	94
70) methylcyclohexane	11.140	83	77980	19.86 ug/L	98
72) dibromomethane	11.287	93	39643	21.00 ug/L	96
73) bromodichloromethane	11.439	83	80089	22.30 ug/L	100
74) cis-1,3-dichloropropene	11.948	75	98197	21.36 ug/L	93
76) 4-methyl-2-pentanone	12.084	58	22620	20.74 ug/L	92
77) toluene	12.357	92	132708	20.92 ug/L	99
78) 3-methyl-1-butanol	12.100	70	28406	411.58 ug/L	94
79) trans-1,3-dichloropropene	12.551	75	89428	21.44 ug/L	95
80) ethyl methacrylate	12.603	69	71742	21.18 ug/L	94
81) 1,1,2-trichloroethane	12.771	83	47101	21.01 ug/L	98
82) 2-hexanone	13.001	58	22310	21.02 ug/L	88
84) tetrachloroethene	12.991	166	58772	21.74 ug/L	97
85) 1,3-dichloropropane	12.970	76	85054	20.89 ug/L	99
86) butyl acetate	13.112	56	36877	21.03 ug/L	97
87) dibromochloromethane	13.243	129	67096	22.96 ug/L	99
88) 1,2-dibromoethane	13.400	107	56070	20.91 ug/L	98
89) n-Butyl Ether	13.919	57	240481	21.05 ug/L	99
90) chlorobenzene	13.924	112	151472	20.97 ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	59430	23.19 ug/L	98
92) ethylbenzene	14.013	91	256945	21.32 ug/L	98
93) m,p-xylene	14.134	106	193789	42.77 ug/L	96
94) o-xylene	14.574	106	98480	21.92 ug/L	98
95) styrene	14.580	104	162606	21.76 ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On : 26 Feb 2015 9:29 am
Operator : PayalR
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	bromoform	14.816	173	44948	21.77	ug/L		99
99)	isopropylbenzene	14.952	105	250399	21.43	ug/L		98
101)	bromobenzene	15.329	156	67348	21.25	ug/L		86
102)	cyclohexanone	15.072	55	82909	527.39	ug/L		95
103)	1,1,2,2-tetrachloroethane	15.224	83	80787	19.73	ug/L		99
104)	trans-1,4-dichloro-2-b...	15.277	53	16744	20.02	ug/L	#	81
105)	1,2,3-trichloropropane	15.303	110	18024	21.49	ug/L		92
106)	n-propylbenzene	15.377	91	288156	20.68	ug/L		99
107)	2-chlorotoluene	15.508	126	62179	20.97	ug/L		98
108)	4-chlorotoluene	15.607	91	183286	20.45	ug/L		99
109)	1,3,5-trimethylbenzene	15.539	105	211736	21.74	ug/L		99
110)	tert-butylbenzene	15.890	119	179048	22.09	ug/L		99
111)	pentachloroethane	15.943	167	45200	23.39	ug/L		98
112)	1,2,4-trimethylbenzene	15.932	105	213289	21.97	ug/L		99
113)	sec-butylbenzene	16.111	105	280077	21.48	ug/L		99
114)	1,3-dichlorobenzene	16.263	146	124553	20.40	ug/L		98
115)	p-isopropyltoluene	16.231	119	228702	22.19	ug/L		99
116)	1,4-dichlorobenzene	16.346	146	123946	19.96	ug/L		99
117)	1,2-dichlorobenzene	16.724	146	123651	21.05	ug/L		99
118)	n-butylbenzene	16.640	92	116123	20.32	ug/L		95
119)	1,2-dibromo-3-chloropr...	17.453	75	13134	20.46	ug/L		95
120)	1,3,5-trichlorobenzene	17.652	180	100765	21.79	ug/L		99
121)	1,2,4-trichlorobenzene	18.229	180	86753	20.27	ug/L		99
122)	hexachlorobutadiene	18.355	225	48694	23.49	ug/L		98
123)	naphthalene	18.480	128	201648	19.96	ug/L		99
124)	1,2,3-trichlorobenzene	18.706	180	82272	20.97	ug/L		99
125)	hexachloroethane	16.997	119	46271	21.22	ug/L		98
126)	Benzyl chloride	16.457	91	144773	23.52	ug/L		100

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

7.6.24 7

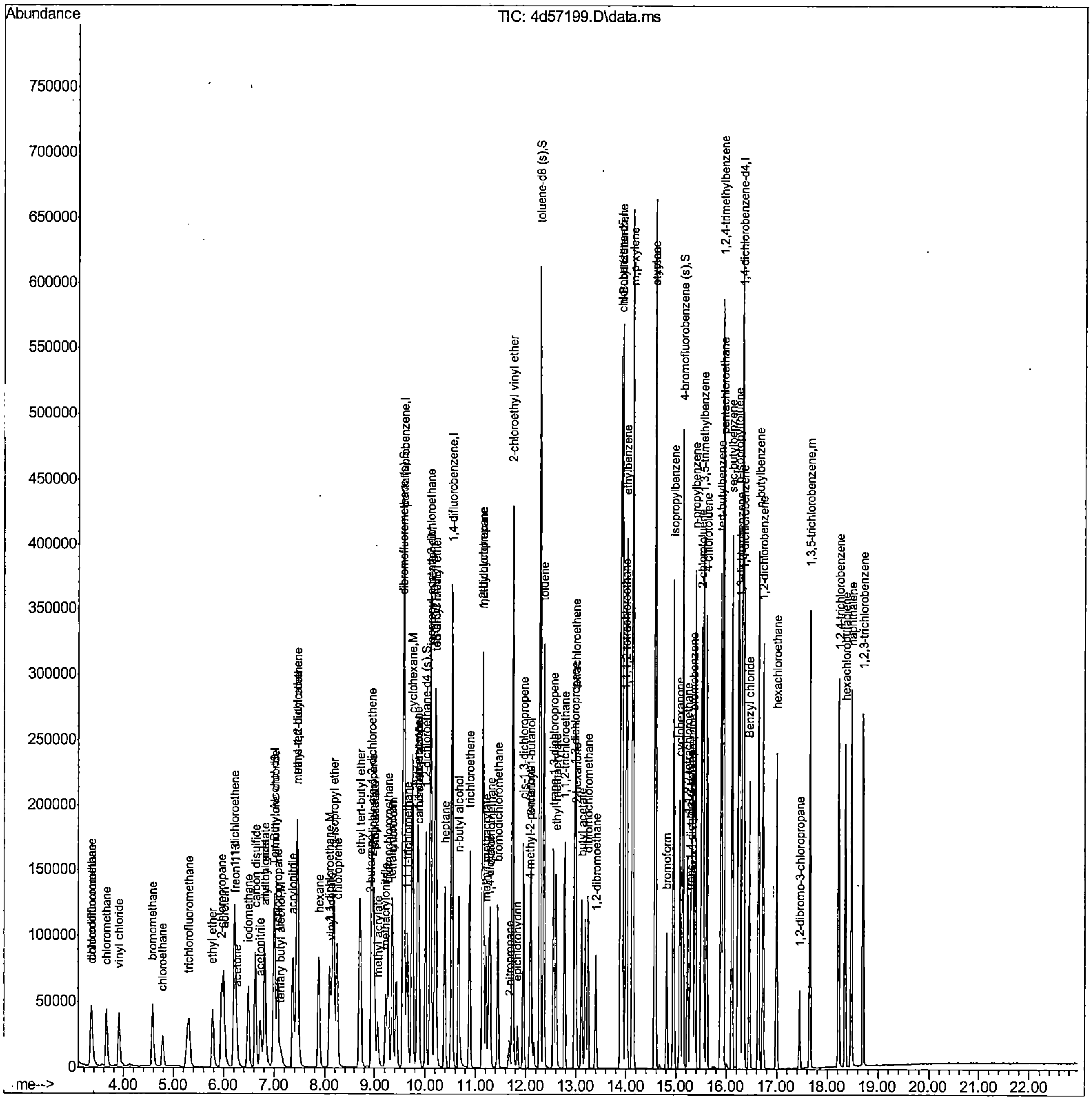
7.6.24

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On    : 26 Feb 2015   9:29 am
Operator  : PayalR
Sample    : cc2528-20
Misc      : MS81323,V4D2537,5,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title  : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration
```



ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6014

Print Analyst Name: Zabia Hamid

Date: 2/13/15 (Friday)

Analyst Signature: [signature]

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data

Lot #	Description	Conc.
VOS-240	53 Ext A (10)	100 ppm
	75 B (4)	
	69 C (6)	
	23 Acrolein (3)	1000
	48 Hexane (5)	100

Standard Data

Lot #	Description	Conc.
VOS-240	61 STD A	100 ppm
	29 B	
	76 C	
	60 Acrolein	1000
	59 Surrogate (6)	100

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:** 2/16/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A138955	BFB											ok	3:38pm	
	138956	IC6014-1	V8260B	A Q			5		1x				ok	(5ul) 50mLFV A,B,C, Acrolein surrogate	
	138957	IC6014-2											ok	(10ul) 50mLFV	
	138958	IC6014-5											ok	(5ul) 100mLFV	
	138959	IC6014-0.2											ok	~~5ul~~ 1ml/5000 mLFV ~~50mLFV~~	3H 2/13/15
	138960	IC6014-0.5											ok	2.5ul 50mLFV	
	138961	IC6014-10											ok	5ul 50mLFV	
	138962	IC6014-20											ok	(10ul) A,B,C, Acrolein 50mLFV + 25ul surrogate	
	138963	IC6014-50											ok	25ul 50mLFV A,B,C, Acrolein, surrogate	
	138964	IC6014-100											ok	50ul 50mLFV	
	138965	IC6014-200											ok	100ul 50mLFV	
	138966	IB													
	138967	IB													
	~~138968~~	ZH 2/16 ~~ICV6014-50~~											NOT USED FLAGGED	~~(25ul) 50mLFV~~ ~~STD A Hexane B C surrogate Acrolein~~	ZH 2/16
	138969	IB													
	138969	IB													
	138970	BFB											ok		
	138971	ICV6014-50		A Q									ok	25ul 50mLFV Ext A,B,C, Acrolein, surrogate, Hexane	

ZH 2/16/15

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

7

7.7.1

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6025 | V3A6024

Print Analyst Name: Zobia Hamid

Date: 2/24/2015 (Tuesday)

Analyst Signature: Z Hamid

Columns: 2B624 (60M x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data

Lot #	Description	Conc.
VOC 2016	53 Ex + A 14	100 ppm
	75 B 7	
	84 C 4	
	85 Acrolein 1	1000
	87 Hexane 1	400

Standard Data

Lot #	Description	Conc.
VOIF 2016	62 STD A (48)	100 ppm
	83 B (15)	
	88 C (11)	
	60 Acrolein (9)	1000
	74 I/S	250/2000ppm

2/2, 7/13 DHP 2/25/15

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:** 2/25/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139215	BFB				1							OK	10:42am	
	139216	CC6014-20				2							not used		
	139217	CC6014-20				3						✓	OK		
	139218	IB				4						✓	OK		
	139219	MB2				5						✓	OK		
	139220	JB88562-2 MS	81224 V8260SL	GW	5	6	5		1x			✓	OK		✓
	139221	JB88562-2 MSD	↓	GW	6	7	5		1x			✓	OK		✓
	139222	IB				8						✓	OK		
	139223	MB1				9						✓	OK		
	139224	BS				10						✓	OK		
R	139225	JB88615-14	81214 V8260PAVGTMB	GW	2	11	5/50		10x		✓	✓	OK	+ 1A148286	✓
R	139226	JB88562-6	81224 V8260SL	GW	2	12	10/50		5x		✓	✓	OK	+ 3A139210	✓
	139227	JB88615-10	81214 V8260 PAVGTMB	GW	1	13	2.5/50		20x		✓	✓	OK		✓
	139228	JB88615-11	↓	GW	1	14	1/50		50x		✓	✓	OK		✓
	139229	JB88615-10 MS	~~81224~~ 81214 V8260SL	GW	1	15	2.5/50		20x		✓	✓	OK	(21.5min) 143 mLEV Acrolein	✓
	139230	JB88615-10 MSD	↓	↓	1	16	↓		20x		✓	✓	OK	↓	✓
	139231	IB				17						✓	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
v. Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6025 | V3A6024

Print Analyst Name: Zobia Hamid

Date: 2/24/2015 (Tuesday)

Analyst Signature: Zhamid

Columns: ZB624 (60M x 0.25mm x 1.4 um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data

Lot #	Description	Conc.
Vor 2016	S3 Ex + A 14	100 ppm
	75 B 7	
	84 C 4	
	85 Acrolein 1	1000
	87 Hexane 1	100

Standard Data

Lot #	Description	Conc.
Vor 2016	62 STD A (48)	100 ppm
	83 B (15)	
	88 C (11)	
	60 Acrolein (9)	1000
	74 I/S	250/2000 ppm

212-713 PHP 2/24/15

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:** 2/25/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml) or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139215	BFB				1							OK	10:42am	
	139216	CC6014-20				2							NOT USED		
	139217	CC6014-20				3						✓	OK		
	139218	IB				4						✓	OK		
	139219	MB2				5						✓	OK		
	139220	JB88562-2 MS	81224 V8260DSL	GW	5	6	5		1x			✓	OK		✓
	139221	JB88562-2 MSD	↓	GW	6	7	5		1x			✓	OK		✓
	139222	IB				8						✓	OK		
	139223	MB1				9						✓	OK		
	139224	BS				10						✓	OK		
R	139225	JB88615-14	81214 V8260BMUGTMS	GW	2	11	5/50		10x	✓	✓		OK	+1A148286	✓
R	139226	JB88562-6	81224 V8260DSL	GW	2	12	10/50		5x	✓	✓		OK	+3A139210	✓
	139227	JB88615-10	81214 V8260BMUGTMS	GW	1	13	2.5/50		20x	✓	✓		OK		✓
	139228	JB88615-11	↓	GW	1	14	1/50		50x	✓	✓		OK		✓
	139229	JB88615-10 MS	~~81274~~ 81214 V8260DSL	GW	1	15	2.5/50		20x	✓	✓		OK	(21.5ml)/43 mL FV Avail Acrolein	✓
	139230	JB88615-10 MSD	↓	↓	1	16	↓		20x	✓	✓		OK	↓	✓
	139231	IB				17						✓	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

7.7.3

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6025

Print Analyst Name: Zobia Hamid

Date: 2/24/2015

Analyst Signature: Zhamid

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data			Standard Data		
Lot #	Description	Conc.	Lot #	Description	Conc.
				See pg. 51	

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: Patel Date: 2/25/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139232	JB88562-7	81224 V8260SL	GW	1	18	5		1x		✓		OK		✓
	139233	JB88562-8	↓	↓	1	19	↓		↓		✓		OK		✓
	139234	JB88562-9	↓	↓	1	20	↓		↓		✓		OK		✓
	139235	JB88562-10	↓	FB	1	21	↓		↓		✓		OK	9:47pm	✓
	139236	BFB2				22							OK	10:17pm	
	139237	CC0014-50				23					✓		OK ~~Fail~~	(25 ug)/50mL Fv #3S1 Fail for Bibi Acidic	
	139238	IB				24					✓		OK		
	139239	MB2				25					✓		OK		
	139240	JB88615-5	81214 V8260 PAUGTMB	GW	1	26	0.25 / 50		200x		✓		OK / DL	500x DF 2/25/15 RR1000x + comB	✓
	139241	JB88615-9	↓	↓	1	27	0.25 / 50		200x		✓		OK		✓
	139242	JB88615-4	↓	↓	1	28	5		1x		✓		OK		✓
	139243	JB88015-4	↓	↓	1	29	5 / 50		10x		✓		NOT NEEDED		✓
	139244	JB88565-3	81194 V8260SL	GW	1	30	5		1x		✓		RR	CCV fail for Ø UTCAC RR1x 2/25	✓
	139245	JB88565-7	↓	↓	1	31	↓		↓		✓		↓	↓	✓
	139246	JB88565-8			2	32					✓				✓
	139247	JB88565-9			1	33					✓				✓
	139248	JB88562-11 (2/24 mm)	↓ 81224 SL	↓ WEB	1	34	↓		↓		✓		↓	↓	✓

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
Date: 2/14/2007

ACCUTEST LABORATORIES JB88562

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4D2528

Print Analyst Name: Robert Scot

Date: 2/18/15

Analyst Signature:

Columns: DB624 (60mx0.25mmx1.4um)

Method V8260B/C

Initial Cal. Method M4D2518

Standard Data

Lot #	Description	Conc.
V015-2016-53	9 STA	100ppb
-78	2 B	
-84	1 C	
-86	1 Acrolein	1000ppb
-71	internal	100/200ppb

Standard Data

Lot #	Description	Conc.
V015-2016-67	13 STA	100ppb
-23	13 B	
-76	2 C	
-60	25 Acrolein	1000ppb
-59	6 Surrogate	100ppb
-43, 7	Hexane	-100ppb

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: **Date:** 2/19/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	4D56967	BFB				1	5		1X				ok	4:13 PM	
	56968	IC2528-0.1	8260 Initial	AQ		2	5		1X				ok	0.2 STD A,B,C,AC,SURR 2ml 200ml PR	
	56969	IC2528-0.5				3	5		1X				ok	0.5ml	
	56970	IC2528-1				4	5		1X				ok	1ml 100ml AC	
	56971	IC2528-2				5	5		1X				ok	2ml 200ml AC	
	56972	IC2528-5				6	5		1X				ok	5ml	
	56973	IC2528-10				7	5		1X				ok	10ml	
	56974	IC2528-20				8	5		1X				ok	10ml 20ml SURR	200ml 102
	56975	IC2528-50				9	5		1X				ok	50ml	200ml 102
	56976	IC2528-100				10	5		1X				ok	50ml no Acrolein	200ml 102
	56977	IC2528-200				11	5		1X				ok	100ml no Acrolein	200ml 101
	56978	IB				12	5		1X				clip		
	56979	IB				13	5		1X				↓		
	56980	ICV2528-50				14	5		1X				ok	50ml 20ml A,B,C,AC,Surr, Hexane	200ml 102
	56981	IB				15	5		1X				%		
														PR 2/19	

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4D2537

Print Analyst Name: Payal Lane

Analyst Signature: Payal Lane

Columns: DB624 (60m x 0.25mm x 1.4µm)

Method V8260B

Initial Cal. Method M4D2528

Date: 2/26/2015

Standard Data

Lot #	Description	Conc.
V015-2016-53	18 EXTA	100ppm
78	9 B	↓
98	1 C	↓
85	7 Acrolein	1000ppm
79	7 IS	25µg/mL 1000ppm

Standard Data

Lot #	Description	Conc.
V015-2016-62	48 STDA	100ppm
83	15 B	↓
92	10 C	↓
60	3 Acrolein	1000ppm
212213	pH Paper	Exp 5/1/16

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:** 2/27/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	4D57198	BFB				1	5		1X				ok	8:57 A.M.	
	57199	CC25238-30				2	5		1X		✓		ok	10ml STDA,B,C,AC → 50ml DI H2O (#6,19)	
	57200	IB				3	5		1X		✓		%		
	57201	MB				4	5		1X	✓	✓		ok		
	57202	BS				5	5		1X		✓		ok	25ml EXTA,B,C,AC → 50ml DI H2O	PP H2O
	57203	IB				6	5		1X		✓		%		
R	57204	JB88565-3	81194 SL	W	2	7	5		1X		✓		ok		✓
	57205	JB88565-7	↓	↓	2	8	5		1X		✓		ok		✓
	57206	JB88565-8			1	9	5		1X		✓		ok		✓
	57207	JB88565-9	↓	↓	2	10	5		1X		✓		ok		✓
	57208	JB88562-11	81224 SL	W	2	11	5		1X		✓		ok		✓
	57209	JB88562-12	↓	W	2	12	5		1X		✓		ok		✓
D L	57210	JB88786-2	81323 SL	IN	4	13	1/50		50X		✓		ok		✓
↓	57211	JB88547-2	81225 TCL20+TBA	W	2	14	5/50		10X		✓		ok		✓
	57212	JB88565-7MS	81194 SL	↓	1/2	15	5		1X		✓		ok	25ml STDA,B,C,AC → 50ml Sample	✓
	57213	JB88565-7MSD	↓	↓	1/2	16	5		1X		✓		ok	↓	✓
	57214	IB				17	5		1X		✓		%		

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4D 2537

Print Analyst Name: Payal Pane

Analyst Signature: Payal Pane

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

Method 8260B

Initial Cal. Method M4D2528

Date: 2/26/2015

Standard Data		
Lot #	Description	Conc.
	Reference	

Standard Data		
Lot #	Description	Conc.
	Range 175	

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: _____ **Date:** 2/27/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2057215	JB88836-1	81348 TCL20+	W	5	18	5		1X		✓	✓	ok		
	57216	JB88633-1	81327 TCL20+		7	19	5		1X		✓	✓	ok		
	57217	JB88633-2	↓		7	20	5		1X		✓	✓	ok		
	57218	JB88778-1	81333 BTXMT		1	21	5		1X			✓	ok		
	57219	JB88827-5	81370 TCL	W	4	22	5		1X			✓	ok		
	57220	JB88827-6	↓	W	2	23	5		1X			✓	ok		
	57221	JB88817-6	81363 TCE,VCL,BCM		1	24	5		1X		✓	✓	ok	Ethanol, MTBE, PCE, TBA, Toluene, XYL	
	57222	JB88817-5	81363 TCE	W	1	25	5		1X			✓	ok		
	57223	JB88817-2	↓		1	26	5		1X			✓	ok	8:30 PM	
	57224	IB				27	5		1X			✓	%		
	57225	IB				28	5		1X				Not Load		

PP 2/26

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

ACCUTEST LABORATORIES JB88562

New Jersey
ACCUTEST
LABORATORIES

Reissue #1
03/16/15

Technical Report for

United Technologies Corporation

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

60339110.4222, PO 59046ACM

Accutest Job Number: JB88565

Sampling Dates: 02/17/15 - 02/19/15

Report to:

AECOM, INC.
27755 Diehl Road Suite 100
Warrenville, IL 60555
peter.hollatz@aecom.com

ATTN: Peter Hollatz

Total number of pages in report: **394**

NELAP ACCREDITED LABORATORY

Nancy L. Cole
Nancy Cole
Laboratory Director

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.

Client Service contact: Marie Meidhof 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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ACCUTEST
LABORATORIES

March 16, 2015

Mr. Peter Hollatz
AECOM
27755 Diehl Road, Suite 100
Warrenville, IL 60555

RE: Accutest jobs JB88565 - Reissue

Dear Mr. Hollatz,

The final report for Accutest job number JB88565 has been edited to reflect changes to your data package. These edits have been incorporated into the revised report which is attached.

The field ID's for JB88565-1 to 4 have been revised from "GM2" to "GMZ". This report incorporates these revisions.

Our apologies for any inconvenience the above issue may have caused you. Please contact me at 732-355-4552 if I may be of further assistance in this matter, or if you have any further questions regarding this data report.

Sincerely,

Accutest Laboratories

Marie Meidhof
Project Manager

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Accutest Laboratories

Sample Summary

United Technologies Corporation

Job No: JB88565

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
JB88565-1	02/17/15	11:35 NP	02/20/15	AQ	Ground Water	HSSER-GMZ01-021715
JB88565-2	02/19/15	09:45 NP	02/20/15	AQ	Ground Water	HSSER-GMZ02-021915
JB88565-2D	02/19/15	09:45 NP	02/20/15	AQ	Water Dup/MSD	HSSER-GMZ02-MSD01-021915
JB88565-2S	02/19/15	09:45 NP	02/20/15	AQ	Water Matrix Spike	HSSER-GMZ02-MS01-021915
JB88565-3	02/18/15	15:45 NP	02/20/15	AQ	Ground Water	HSSER-GMZ03-021815
JB88565-4	02/18/15	14:50 NP	02/20/15	AQ	Ground Water	HSSER-GMZ04-021815
JB88565-5	02/17/15	15:15 NP	02/20/15	AQ	Ground Water	HSSER-07FGA-021715
JB88565-6	02/18/15	09:05 NP	02/20/15	AQ	Ground Water	HSSER-MW203-021815
JB88565-7	02/18/15	12:00 NP	02/20/15	AQ	Ground Water	HSSER-PMW01-021815
JB88565-8	02/18/15	10:45 NP	02/20/15	AQ	Ground Water	HSSER-PMW02-021815
JB88565-9	02/17/15	13:00 NP	02/20/15	AQ	Ground Water	HSSER-SMW01-021715
JB88565-10	02/17/15	14:20 NP	02/20/15	AQ	Ground Water	HSSER-SMW02-021715
JB88565-11	02/19/15	09:00 NP	02/20/15	AQ	Ground Water	HSSER-SMW04-021915

Sample Summary
(continued)

United Technologies Corporation

Job No: JB88565

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
JB88565-12	02/17/15	09:55 NP	02/20/15	AQ	Ground Water	HSSER-SMW08-021715
JB88565-13	02/19/15	10:50 NP	02/20/15	AQ	Ground Water	HSSER-SMW19-021915
JB88565-14	02/18/15	14:25 NP	02/20/15	AQ	Ground Water	HSSER-SMW20-021815
JB88565-15	02/18/15	16:00 NP	02/20/15	AQ	Ground Water	HSSER-SMW21-021815
JB88565-17	02/18/15	00:00 NP	02/20/15	AQ	Ground Water	HSSER-DUP-01-021815
JB88565-18	02/17/15	08:45 NP	02/20/15	AQ	Field Blank Water	HSSER-FBLK01-021715
JB88565-19	02/18/15	09:25 NP	02/20/15	AQ	Equipment Blank	HSSER-EBLK01-021815
JB88565-20	02/19/15	10:50 NP	02/20/15	AQ	Trip Blank Water	HSSER-TRIP02-021915

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	United Technologies Corporation	**Job No**	JB88565
Site:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	**Report Date**	3/4/2015 9:28:43 AM

On 02/20/2015, 16 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) and 1 Equipment Blank(s) were received at Accutest Laboratories at a temperature of 1.2 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB88565 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 8260B

Matrix: AQ **Batch ID:** V3A6023

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88565-2MS, JB88565-2MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** V3A6024

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88562-2MS, JB88562-2MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** V4D2537

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB88565-7MS, JB88565-7MSD were used as the QC samples indicated.

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: JB88565
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 02/17/15 thru 02/19/15

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB88565-1	**HSSER-GMZ01-021715**					
1,1-Dichloroethane		0.0065	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0020	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.0044	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0042	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0012	0.0010	0.00025	mg/l	SW846 8260B
JB88565-2	**HSSER-GMZ02-021915**					
1,1-Dichloroethane		0.0028	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00074 J	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.00038 J	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0039	0.0010	0.00032	mg/l	SW846 8260B
JB88565-3	**HSSER-GMZ03-021815**					
1,1-Dichloroethane		0.00037 J	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0010	0.0010	0.00032	mg/l	SW846 8260B
JB88565-4	**HSSER-GMZ04-021815**					
1,1-Dichloroethane		0.00038 J	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0023	0.0010	0.00033	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0036	0.0010	0.00032	mg/l	SW846 8260B
JB88565-5	**HSSER-07FGA-021715**					
Tetrachloroethene		0.00076 J	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00044 J	0.0010	0.00032	mg/l	SW846 8260B
JB88565-6	**HSSER-MW203-021815**					
Tetrachloroethene		0.0036	0.0010	0.00035	mg/l	SW846 8260B
JB88565-7	**HSSER-PMW01-021815**					
1,1-Dichloroethane		0.0052	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.00070 J	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.0185	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0202	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0011	0.0010	0.00025	mg/l	SW846 8260B

Summary of Hits

Job Number: JB88565
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 02/17/15 thru 02/19/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB88565-8	**HSSER-PMW02-021815**					
1,1-Dichloroethane		0.0036	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0011	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.0210	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0162	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0020	0.0010	0.00025	mg/l	SW846 8260B
JB88565-9	**HSSER-SMW01-021715**					
Tetrachloroethene		0.00097 J	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00078 J	0.0010	0.00032	mg/l	SW846 8260B
JB88565-10	**HSSER-SMW02-021715**					
1,1-Dichloroethane		0.0032	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0031	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.00040 J	0.0010	0.00035	mg/l	SW846 8260B
JB88565-11	**HSSER-SMW04-021915**					
1,1-Dichloroethane		0.0113	0.0010	0.00035	mg/l	SW846 8260B
1,1-Dichloroethene		0.00084 J	0.0010	0.00050	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0579	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.0073	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00090 J	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0032	0.0010	0.00025	mg/l	SW846 8260B
Vinyl chloride		0.0233	0.0010	0.00017	mg/l	SW846 8260B
JB88565-12	**HSSER-SMW08-021715**					
1,1-Dichloroethane		0.0103	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.125	0.0010	0.00033	mg/l	SW846 8260B
trans-1,2-Dichloroethene		0.00085 J	0.0010	0.00051	mg/l	SW846 8260B
Tetrachloroethene		0.0092	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0016	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0042	0.0010	0.00025	mg/l	SW846 8260B
JB88565-13	**HSSER-SMW19-021915**					
cis-1,2-Dichloroethene		0.0019	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.00091 J	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.00041 J	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.0177	0.0010	0.00025	mg/l	SW846 8260B

Summary of Hits

Job Number: JB88565
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 02/17/15 thru 02/19/15

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB88565-14	**HSSER-SMW20-021815**					
No hits reported in this sample.						
JB88565-15	**HSSER-SMW21-021815**					
1,1-Dichloroethane		0.00047 J	0.0010	0.00035	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0028	0.0010	0.00033	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0156	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.00037 J	0.0010	0.00025	mg/l	SW846 8260B
JB88565-17	**HSSER-DUP-01-021815**					
1,1,1-Trichloroethane		0.00090 J	0.0010	0.00032	mg/l	SW846 8260B
JB88565-18	**HSSER-FBLK01-021715**					
No hits reported in this sample.						
JB88565-19	**HSSER-EBLK01-021815**					
No hits reported in this sample.						
JB88565-20	**HSSER-TRIP02-021915**					
No hits reported in this sample.						

New Jersey
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LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-GMZ01-021715		
Lab Sample ID:	JB88565-1	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139178.D	1	02/23/15	ZH	n/a	n/a	V3A6023
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	0.0065	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0020	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0044	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0042	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0012	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		76-122%
17060-07-0	1,2-Dichloroethane-D4	115%		71-124%
2037-26-5	Toluene-D8	99%		78-121%
460-00-4	4-Bromofluorobenzene	112%		77-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-GMZ02-021915		
Lab Sample ID:	JB88565-2	**Date Sampled:**	02/19/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139179.D	1	02/23/15	ZH	n/a	n/a	V3A6023
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	0.0028	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00074	0.0010	0.00033	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.00038	0.0010	0.00035	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0039	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		76-122%
17060-07-0	1,2-Dichloroethane-D4	117%		71-124%
2037-26-5	Toluene-D8	99%		78-121%
460-00-4	4-Bromofluorobenzene	107%		77-120%

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

Client Sample ID:	HSSER-GMZ03-021815		
Lab Sample ID:	JB88565-3	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D57204.D	1	02/26/15	PR	n/a	n/a	V4D2537
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	0.00037	0.0010	0.00035	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0010	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		76-122%
17060-07-0	1,2-Dichloroethane-D4	88%		71-124%
2037-26-5	Toluene-D8	87%		78-121%
460-00-4	4-Bromofluorobenzene	89%		77-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Raw Data: 3A139186.D

Accutest Laboratories

Report of Analysis

4.4 - 4

Client Sample ID:	HSSER-GMZ04-021815		
Lab Sample ID:	JB88565-4	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139186.D	1	02/23/15	ZH	n/a	n/a	V3A6023
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	0.00038	0.0010	0.00035	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0023	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0036	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-122%
17060-07-0	1,2-Dichloroethane-D4	117%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-07FGA-021715		
Lab Sample ID:	JB88565-5	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139187.D	1	02/23/15	ZH	n/a	n/a	V3A6023
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.00076	0.0010	0.00035	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00044	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-122%
17060-07-0	1,2-Dichloroethane-D4	118%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	106%		77-120%

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

Client Sample ID:	HSSER-MW203-021815		
Lab Sample ID:	JB88565-6	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139188.D	1	02/23/15	ZH	n/a	n/a	V3A6023
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0036	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-122%
17060-07-0	1,2-Dichloroethane-D4	116%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-PMW01-021815		
Lab Sample ID:	JB88565-7	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D57205.D	1	02/26/15	PR	n/a	n/a	V4D2537
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	0.0052	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00070	0.0010	0.00033	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0185	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0202	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0011	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		76-122%
17060-07-0	1,2-Dichloroethane-D4	89%		71-124%
2037-26-5	Toluene-D8	87%		78-121%
460-00-4	4-Bromofluorobenzene	87%		77-120%

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

Client Sample ID:	HSSER-PMW02-021815		
Lab Sample ID:	JB88565-8	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D57206.D	1	02/26/15	PR	n/a	n/a	V4D2537
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	0.0036	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0011	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0210	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0162	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0020	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		76-122%
17060-07-0	1,2-Dichloroethane-D4	88%		71-124%
2037-26-5	Toluene-D8	87%		78-121%
460-00-4	4-Bromofluorobenzene	87%		77-120%

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

Client Sample ID:	HSSER-SMW01-021715		
Lab Sample ID:	JB88565-9	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D57207.D	1	02/26/15	PR	n/a	n/a	V4D2537
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.00097	0.0010	0.00035	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00078	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		76-122%
17060-07-0	1,2-Dichloroethane-D4	90%		71-124%
2037-26-5	Toluene-D8	88%		78-121%
460-00-4	4-Bromofluorobenzene	87%		77-120%

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

Client Sample ID:	HSSER-SMW02-021715		
Lab Sample ID:	JB88565-10	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139198.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0032	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0031	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.00040	0.0010	0.00035	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-122%
17060-07-0	1,2-Dichloroethane-D4	113%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-SMW04-021915		
Lab Sample ID:	JB88565-11	**Date Sampled:**	02/19/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139199.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0113	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	0.00084	0.0010	0.00050	mg/l	J
156-59-2	cis-1,2-Dichloroethene	0.0579	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0073	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00090	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0032	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	0.0233	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-122%
17060-07-0	1,2-Dichloroethane-D4	112%		71-124%
2037-26-5	Toluene-D8	99%		78-121%
460-00-4	4-Bromofluorobenzene	106%		77-120%

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

Client Sample ID:	HSSER-SMW08-021715		
Lab Sample ID:	JB88565-12	**Date Sampled:**	02/17/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139200.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0103	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.125	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	0.00085	0.0010	0.00051	mg/l	J
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0092	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0016	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0042	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-122%
17060-07-0	1,2-Dichloroethane-D4	111%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-SMW19-021915		
Lab Sample ID:	JB88565-13	**Date Sampled:**	02/19/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139201.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0019	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.00091	0.0010	0.00035	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00041	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.0177	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-122%
17060-07-0	1,2-Dichloroethane-D4	112%		71-124%
2037-26-5	Toluene-D8	99%		78-121%
460-00-4	4-Bromofluorobenzene	103%		77-120%

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 blanl
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-SMW20-021815		
Lab Sample ID:	JB88565-14	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139202.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-122%
17060-07-0	1,2-Dichloroethane-D4	113%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-SMW21-021815		
Lab Sample ID:	JB88565-15	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139203.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.00047	0.0010	0.00035	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0028	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0156	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.00037	0.0010	0.00025	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-122%
17060-07-0	1,2-Dichloroethane-D4	112%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-DUP-01-021815		
Lab Sample ID:	JB88565-17	**Date Sampled:**	02/18/15
Matrix:	AQ - Ground Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139204.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00090	0.0010	0.00032	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-122%
17060-07-0	1,2-Dichloroethane-D4	113%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	HSSER-FBLK01-021715		
Lab Sample ID:	JB88565-18	**Date Sampled:**	02/17/15
Matrix:	AQ - Field Blank Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139195.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-122%
17060-07-0	1,2-Dichloroethane-D4	114%		71-124%
2037-26-5	Toluene-D8	101%		78-121%
460-00-4	4-Bromofluorobenzene	106%		77-120%

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 blanl
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-EBLK01-021815		
Lab Sample ID:	JB88565-19	**Date Sampled:**	02/18/15
Matrix:	AQ - Equipment Blank	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139197.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-122%
17060-07-0	1,2-Dichloroethane-D4	114%		71-124%
2037-26-5	Toluene-D8	99%		78-121%
460-00-4	4-Bromofluorobenzene	106%		77-120%

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

Client Sample ID:	HSSER-TRIP02-021915		
Lab Sample ID:	JB88565-20	**Date Sampled:**	02/19/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A139196.D	1	02/24/15	ZH	n/a	n/a	V3A6024
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		76-122%
17060-07-0	1,2-Dichloroethane-D4	113%		71-124%
2037-26-5	Toluene-D8	100%		78-121%
460-00-4	4-Bromofluorobenzene	106%		77-120%

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

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LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

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GW
WFB
WEB
WTB

CHAIN OF CUSTODY

PAGE 1 OF 2

PN

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TEL. 732-329-0200 FAX: 732-329-3499/3480
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FED-EX Tracking # 6650 6351 0710
Bottle Order Control #
Accutest Quote #
Accutest Job # V88565

Client / Reporting Information

Company Name: AECOM
Street Address: 2755 DIEHL RD #100
City / State / Zip: WARRENVILLE IL 60555
Project Contact / E-mail: PETER HOLLATZ / peter.hollatz@aecom.com
Phone #: 630.839.5386 Fax #: 630.836.1711
Sampler(s) Name(s) / Phone #: N. Pins / A. HOLLATZ

Project Information

Project Name: UTC- ROCKFORD - PLANT 1
Street:
City / State: ROCKFORD IL
Project #: 60339110
Client Purchase Order #:
Project Manager: PETER HOLLATZ

Billing Information (If different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet): * VOCs

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	EnCORE	* VOCs	LAB USE ONLY
1	HSSER-GMW01-021715		2/17/15	1135	NP	GW	3	3								X	
2	HSSER-GMW02-021915		2/19/15	0945	AH	GW	3	3								X	V78
3	HSSER-GMW03-021815		2/18/15	1545	AH	GW	3	3								X	
4	HSSER-GMW04-021815		2/18/15	1450	NP	GW	3	3								X	
5	HSSER-OFFGA-021715		2/17/15	1515	NP	GW	3	3								X	
6	HSSER-MW203-021815		2/18/15	0905	NP	GW	3	3								X	
7	HSSER-PMW01-021815		2/18/15	1200	NP	GW	3	3								X	
8	HSSER-PMW02-021815		2/18/15	1045	NP	GW	3	3								X	
9	HSSER-SMW01-021715		2/17/15	1300	NP	GW	3	3								X	
10	HSSER-SMW02-021715		2/17/15	1420	NP	GW	3	3								X	
11	HSSER-SMW04-021915		2/19/15	0900	NP	GW	3	3								X	
12	HSSER-SMW08-021715		2/17/15	0955	NP	GW	3	3								X	

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

LIST OF 13 VOCs
LEVEL IV DATA

INITIAL ASESSMENT DG. 3A

LABEL VERIFICATION JM

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 N. PINS (AECOM)	2/19/15 1700	1 FED EX	2 FED EX	2/20/15 13:10	2 [signature]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 512	Intact / Not Intact	Preserved where applicable / On Ice / Cooler Temp.

5.1 5

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 6250 6351 0710
Bottle Order Control #
Accutest Quote #
Accutest Job # VB88565

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 DIEHL RD #100
City State Zip: WARRENVILLE IL 60555
Project Contact: PETER HOLLATZ | peter.hollatz@aecom.com
E-mail:
Phone # 630.839.5386 Fax # 630.836.1711
Sampler(s) Name(s): N. PINS | A. HOLLATZ
Phone #

Project Information

Project Name: UTC - ROCKFORD - PLANT 1
Street:
City State: ROCKFORD IL
Project #: 60339110
Client Purchase Order #:
Project Manager: PETER HOLLATZ

Billing Information (If different from Report to)
Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	* VOCs	LAB USE ONLY
13	HSSER-SMW19-021915		2/19/15	1050	NP	GW	3	3								X	
14	HSSER-SMW20-021815		2/18/15	1425	AH	GW	3	3								X	
15	HSSER-SMW21-021815		2/18/15	1600	NP	GW	3	3								X	
X	HSSER-MS01-021915 -2		2/19/15	0945	AH	GW	3	3								X	
	HSSER-MSD01-021915		2/19/15	0945	AH	GW	3	3								X	
17	HSSER-DUP01-021815		2/18/15	0000	AH	GW	3	3								X	
18	HSSER-FBLK01-021715		2/17/15	0845	NP	GW	3	3								X	
19	HSSER-EBLK01-021815		2/18/15	0925	NP	GW	3	3								X	
20	HSSER-TRIP02-021915		2/19/15	—	—	GW	2	2								X	

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

* LIST OF 13 VOCs
LEVEL IV DATA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1 N. Pins (AECOM)	2/19/15 1100	1 FED EX	2 FED EX	2/20/15 13:10	2 [signature]
3		3	4		4
5		5			

Custody Seal # 512 [ ] Intact [ ] Not Intact
Preserved where applicable [ ]
On Ice [X]
Cooler Temp. 1.2°C

JB88565: Chain of Custody
Page 2 of 4

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB88565 **Client:** AECOM **Project:** UTC - ROCHFOLD - PLANT 1

Date / Time Received: 2/20/2015 1:10:00 PM **Delivery Method:** FedEx **Airbill #'s:** 625063510710

Cooler Temps (Initial/Adjusted): #1: (1.2/0.9); 0

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

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	IR Gun
3. Cooler media:	Ice (Bag)
4. No, Coolers	1

Quality Control Preservatio	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

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

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y	N	N/A
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 -16 These six vials appear to be MS/MSD volume but no clear "parent" sample is defined. Please verify.

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

5.1

5

JB88565: Chain of Custody
Page 3 of 4

ACCUTEST LABORATORIES

Sample Receipt Summary - Problem Resolution

Accutest Job Number: JB88565 **Initiator:** andrewm

CSR: Marie **Response Date:** 2/21/2015

Response: Please relabel the vials for -16 (6 vials) to -2, and login -2 as MS/MSD. Confirmed by A. Hollatz.

5.1

5

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JB88565: Chain of Custody
Page 4 of 4

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB88565

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

5.2 5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB88565-1 Collected: 17-FEB-15 11:35 By: NP HSSER-GMZ01-021715			Received: 20-FEB-15 By: AM			
JB88565-1	SW846 8260B	23-FEB-15 15:56	ZH			V8260SL
JB88565-2 Collected: 19-FEB-15 09:45 By: NP HSSER-GMZ02-021915			Received: 20-FEB-15 By: AM			
JB88565-2	SW846 8260B	23-FEB-15 16:26	ZH			V8260SL
JB88565-3 Collected: 18-FEB-15 15:45 By: NP HSSER-GMZ03-021815			Received: 20-FEB-15 By: AM			
JB88565-3	SW846 8260B	26-FEB-15 11:49	PR			V8260SL
JB88565-4 Collected: 18-FEB-15 14:50 By: NP HSSER-GMZ04-021815			Received: 20-FEB-15 By: AM			
JB88565-4	SW846 8260B	23-FEB-15 20:03	ZH			V8260SL
JB88565-5 Collected: 17-FEB-15 15:15 By: NP HSSER-07FGA-021715			Received: 20-FEB-15 By: AM			
JB88565-5	SW846 8260B	23-FEB-15 20:32	ZH			V8260SL
JB88565-6 Collected: 18-FEB-15 09:05 By: NP HSSER-MW203-021815			Received: 20-FEB-15 By: AM			
JB88565-6	SW846 8260B	23-FEB-15 21:02	ZH			V8260SL
JB88565-7 Collected: 18-FEB-15 12:00 By: NP HSSER-PMW01-021815			Received: 20-FEB-15 By: AM			
JB88565-7	SW846 8260B	26-FEB-15 12:16	PR			V8260SL
JB88565-8 Collected: 18-FEB-15 10:45 By: NP HSSER-PMW02-021815			Received: 20-FEB-15 By: AM			
JB88565-8	SW846 8260B	26-FEB-15 12:44	PR			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB88565

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

5.2 5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB88565-9 Collected: 17-FEB-15 13:00 By: NP HSSER-SMW01-021715			Received: 20-FEB-15 By: AM			
JB88565-9	SW846 8260B	26-FEB-15 13:11	PR			V8260SL
JB88565-10 Collected: 17-FEB-15 14:20 By: NP HSSER-SMW02-021715			Received: 20-FEB-15 By: AM			
JB88565-10	SW846 8260B	24-FEB-15 02:02	ZH			V8260SL
JB88565-11 Collected: 19-FEB-15 09:00 By: NP HSSER-SMW04-021915			Received: 20-FEB-15 By: AM			
JB88565-11	SW846 8260B	24-FEB-15 02:31	ZH			V8260SL
JB88565-12 Collected: 17-FEB-15 09:55 By: NP HSSER-SMW08-021715			Received: 20-FEB-15 By: AM			
JB88565-12	SW846 8260B	24-FEB-15 03:01	ZH			V8260SL
JB88565-13 Collected: 19-FEB-15 10:50 By: NP HSSER-SMW19-021915			Received: 20-FEB-15 By: AM			
JB88565-13	SW846 8260B	24-FEB-15 03:32	ZH			V8260SL
JB88565-14 Collected: 18-FEB-15 14:25 By: NP HSSER-SMW20-021815			Received: 20-FEB-15 By: AM			
JB88565-14	SW846 8260B	24-FEB-15 04:02	ZH			V8260SL
JB88565-15 Collected: 18-FEB-15 16:00 By: NP HSSER-SMW21-021815			Received: 20-FEB-15 By: AM			
JB88565-15	SW846 8260B	24-FEB-15 04:32	ZH			V8260SL
JB88565-17 Collected: 18-FEB-15 00:00 By: NP HSSER-DUP-01-021815			Received: 20-FEB-15 By: AM			
JB88565-17	SW846 8260B	24-FEB-15 05:02	ZH			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB88565

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110.4222, PO 59046ACM

5.2 5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB88565-18 Collected: 17-FEB-15 08:45 By: NP Received: 20-FEB-15 By: AM HSSER-FBLK01-021715						
JB88565-18	SW846 8260B	24-FEB-15 00:32	ZH			V8260SL
JB88565-19 Collected: 18-FEB-15 09:25 By: NP Received: 20-FEB-15 By: AM HSSER-EBLK01-021815						
JB88565-19	SW846 8260B	24-FEB-15 01:32	ZH			V8260SL
JB88565-20 Collected: 19-FEB-15 10:50 By: NP Received: 20-FEB-15 By: AM HSSER-TRIP02-021915						
JB88565-20	SW846 8260B	24-FEB-15 01:02	ZH			V8260SL

Accutest Internal Chain of Custody

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 02/20/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB88565-2.1	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-2.1	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-2.1	GCMS3A	Zobia Hamid	02/24/15 09:04	Unload from Instrument
JB88565-2.1	Zobia Hamid	Secured Storage	02/24/15 09:04	Return to Storage
JB88565-2.2	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-2.2	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-2.2	GCMS3A	Zobia Hamid	02/24/15 09:04	Unload from Instrument
JB88565-2.2	Zobia Hamid	Secured Storage	02/24/15 09:04	Return to Storage
JB88565-2.4	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-2.4	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-2.4	GCMS3A	Zobia Hamid	02/24/15 09:04	Unload from Instrument
JB88565-2.4	Zobia Hamid	Secured Storage	02/24/15 09:04	Return to Storage
JB88565-3.1	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-3.1	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-3.1	GCMS3A	Kevin Samuel	02/23/15 16:55	Unload from Instrument
JB88565-3.1	Kevin Samuel	Secured Storage	02/23/15 16:55	Return to Storage
JB88565-3.1	Secured Storage	Zobia Hamid	02/24/15 12:52	Retrieve from Storage
JB88565-3.1	Zobia Hamid	GCMS3A	02/24/15 12:52	Load on Instrument
JB88565-3.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88565-3.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88565-3.2	Secured Storage	Payal Rana	02/26/15 11:21	Retrieve from Storage
JB88565-3.2	Payal Rana	GCMS4D	02/26/15 11:21	Load on Instrument
JB88565-3.2	GCMS4D	Payal Rana	02/27/15 09:32	Unload from Instrument
JB88565-3.2	Payal Rana	Secured Storage	02/27/15 09:32	Return to Storage
JB88565-4.1	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-4.1	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-4.1	GCMS3A	Zobia Hamid	02/24/15 09:04	Unload from Instrument
JB88565-4.1	Zobia Hamid	Secured Storage	02/24/15 09:04	Return to Storage
JB88565-5.1	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-5.1	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-5.1	GCMS3A	Zobia Hamid	02/24/15 09:04	Unload from Instrument
JB88565-5.1	Zobia Hamid	Secured Storage	02/24/15 09:04	Return to Storage
JB88565-6.1	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-6.1	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-6.1	GCMS3A	Zobia Hamid	02/24/15 09:04	Unload from Instrument
JB88565-6.1	Zobia Hamid	Secured Storage	02/24/15 09:04	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 02/20/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB88565-7.1	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-7.1	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-7.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88565-7.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88565-7.2	Secured Storage	Payal Rana	02/26/15 11:21	Retrieve from Storage
JB88565-7.2	Payal Rana	GCMS4D	02/26/15 11:21	Load on Instrument
JB88565-7.2	GCMS4D	Payal Rana	02/27/15 09:32	Unload from Instrument
JB88565-7.2	Payal Rana	Secured Storage	02/27/15 09:32	Return to Storage
JB88565-8.1	Secured Storage	Payal Rana	02/26/15 11:21	Retrieve from Storage
JB88565-8.1	Payal Rana	GCMS4D	02/26/15 11:21	Load on Instrument
JB88565-8.1	GCMS4D	Payal Rana	02/27/15 09:32	Unload from Instrument
JB88565-8.1	Payal Rana	Secured Storage	02/27/15 09:32	Return to Storage
JB88565-8.2	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-8.2	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-8.2	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88565-8.2	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88565-9.1	Secured Storage	Zobia Hamid	02/23/15 15:31	Retrieve from Storage
JB88565-9.1	Zobia Hamid	GCMS3A	02/23/15 15:31	Load on Instrument
JB88565-9.1	GCMS3A	Mihir Mehta	02/25/15 08:19	Unload from Instrument
JB88565-9.1	Mihir Mehta	Secured Storage	02/25/15 08:19	Return to Storage
JB88565-9.2	Secured Storage	Payal Rana	02/26/15 11:21	Retrieve from Storage
JB88565-9.2	Payal Rana	GCMS4D	02/26/15 11:21	Load on Instrument
JB88565-9.2	GCMS4D	Payal Rana	02/27/15 09:32	Unload from Instrument
JB88565-9.2	Payal Rana	Secured Storage	02/27/15 09:32	Return to Storage
JB88565-10.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-10.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-10.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-10.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-11.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-11.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-11.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-11.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-12.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-12.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-12.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-12.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage

Accutest Internal Chain of Custody

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 02/20/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB88565-13.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-13.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-13.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-13.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-14.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-14.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-14.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-14.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-15.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-15.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-15.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-15.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-17.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-17.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-17.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-17.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-18.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-18.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-18.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-18.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-19.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-19.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-19.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-19.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage
JB88565-20.1	Secured Storage	Zobia Hamid	02/23/15 16:40	Retrieve from Storage
JB88565-20.1	Zobia Hamid	GCMS3A	02/23/15 16:41	Load on Instrument
JB88565-20.1	GCMS3A	Zobia Hamid	02/24/15 09:03	Unload from Instrument
JB88565-20.1	Zobia Hamid	Secured Storage	02/24/15 09:03	Return to Storage

New Jersey
ACCUTEST
LABORATORIES

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

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6023-MB1	3A139171.D	1	02/23/15	ZH	n/a	n/a	V3A6023

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

JB88565-1, JB88565-2, JB88565-4, JB88565-5, JB88565-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	76-122%
17060-07-0	1,2-Dichloroethane-D4	108%	71-124%
2037-26-5	Toluene-D8	99%	78-121%
460-00-4	4-Bromofluorobenzene	104%	77-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.44	20	ug/l	J
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6024-MB1	3A139192.D	1	02/23/15	ZH	n/a	n/a	V3A6024

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

JB88565-10, JB88565-11, JB88565-12, JB88565-13, JB88565-14, JB88565-15, JB88565-17, JB88565-18, JB88565-19, JB88565-20

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	76-122%
17060-07-0	1,2-Dichloroethane-D4	112%	71-124%
2037-26-5	Toluene-D8	102%	78-121%
460-00-4	4-Bromofluorobenzene	106%	77-120%

Method Blank Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D2537-MB	4D57201.D	1	02/26/15	PR	n/a	n/a	V4D2537

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

JB88565-3, JB88565-7, JB88565-8, JB88565-9

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	82%	76-122%
17060-07-0	1,2-Dichloroethane-D4	89%	71-124%
2037-26-5	Toluene-D8	87%	78-121%
460-00-4	4-Bromofluorobenzene	87%	77-120%

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

Method Blank Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6024-MB2	3A139219.D	1	02/24/15	ZH	n/a	n/a	V3A6024

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

JB88562-2MS, JB88562-2MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	109%	76-122%
17060-07-0	1,2-Dichloroethane-D4	119%	71-124%
2037-26-5	Toluene-D8	97%	78-121%
460-00-4	4-Bromofluorobenzene	108%	77-120%

Blank Spike Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6023-BS	3A139172.D	1	02/23/15	ZH	n/a	n/a	V3A6023

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

JB88565-1, JB88565-2, JB88565-4, JB88565-5, JB88565-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	53.1	106	78-128
107-06-2	1,2-Dichloroethane	50	49.7	99	77-133
75-35-4	1,1-Dichloroethene	50	46.3	93	74-129
156-59-2	cis-1,2-Dichloroethene	50	48.7	97	75-123
156-60-5	trans-1,2-Dichloroethene	50	48.4	97	73-122
100-41-4	Ethylbenzene	50	46.6	93	83-118
75-09-2	Methylene chloride	50	50.3	101	75-121
127-18-4	Tetrachloroethene	50	42.4	85	60-153
108-88-3	Toluene	50	47.6	95	83-121
71-55-6	1,1,1-Trichloroethane	50	51.1	102	80-132
79-00-5	1,1,2-Trichloroethane	50	49.5	99	83-120
79-01-6	Trichloroethene	50	45.1	90	84-123
75-01-4	Vinyl chloride	50	49.8	100	57-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	76-122%
17060-07-0	1,2-Dichloroethane-D4	109%	71-124%
2037-26-5	Toluene-D8	100%	78-121%
460-00-4	4-Bromofluorobenzene	107%	77-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3A6024-BS	3A139193.D	1	02/23/15	ZH	n/a	n/a	V3A6024

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

JB88565-10, JB88565-11, JB88565-12, JB88565-13, JB88565-14, JB88565-15, JB88565-17, JB88565-18, JB88565-19, JB88565-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	54.4	109	78-128
107-06-2	1,2-Dichloroethane	50	51.2	102	77-133
75-35-4	1,1-Dichloroethene	50	44.6	89	74-129
156-59-2	cis-1,2-Dichloroethene	50	49.9	100	75-123
156-60-5	trans-1,2-Dichloroethene	50	50.8	102	73-122
100-41-4	Ethylbenzene	50	48.3	97	83-118
75-09-2	Methylene chloride	50	48.7	97	75-121
127-18-4	Tetrachloroethene	50	43.1	86	60-153
108-88-3	Toluene	50	49.4	99	83-121
71-55-6	1,1,1-Trichloroethane	50	51.5	103	80-132
79-00-5	1,1,2-Trichloroethane	50	49.5	99	83-120
79-01-6	Trichloroethene	50	46.9	94	84-123
75-01-4	Vinyl chloride	50	44.3	89	57-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	76-122%
17060-07-0	1,2-Dichloroethane-D4	107%	71-124%
2037-26-5	Toluene-D8	101%	78-121%
460-00-4	4-Bromofluorobenzene	105%	77-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D2537-BS	4D57202.D	1	02/26/15	PR	n/a	n/a	V4D2537

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

JB88565-3, JB88565-7, JB88565-8, JB88565-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	47.3	95	78-128
107-06-2	1,2-Dichloroethane	50	54.4	109	77-133
75-35-4	1,1-Dichloroethene	50	45.8	92	74-129
156-59-2	cis-1,2-Dichloroethene	50	44.7	89	75-123
156-60-5	trans-1,2-Dichloroethene	50	44.3	89	73-122
100-41-4	Ethylbenzene	50	48.0	96	83-118
75-09-2	Methylene chloride	50	44.3	89	75-121
127-18-4	Tetrachloroethene	50	50.7	101	60-153
108-88-3	Toluene	50	48.9	98	83-121
71-55-6	1,1,1-Trichloroethane	50	51.8	104	80-132
79-00-5	1,1,2-Trichloroethane	50	47.9	96	83-120
79-01-6	Trichloroethene	50	48.5	97	84-123
75-01-4	Vinyl chloride	50	43.4	87	57-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	82%	76-122%
17060-07-0	1,2-Dichloroethane-D4	87%	71-124%
2037-26-5	Toluene-D8	87%	78-121%
460-00-4	4-Bromofluorobenzene	85%	77-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88565-2MS	3A139183.D	1	02/23/15	ZH	n/a	n/a	V3A6023
JB88565-2MSD	3A139184.D	1	02/23/15	ZH	n/a	n/a	V3A6023
JB88565-2	3A139179.D	1	02/23/15	ZH	n/a	n/a	V3A6023

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

JB88565-1, JB88565-2, JB88565-4, JB88565-5, JB88565-6

CAS No.	Compound	JB88565-2 ug/l	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	2.8		50	55.1	105	50	57.7	110	5	67-130/11
107-06-2	1,2-Dichloroethane	ND		50	50.6	101	50	55.0	110	8	72-137/10
75-35-4	1,1-Dichloroethene	ND		50	46.1	92	50	46.2	92	0	51-137/14
156-59-2	cis-1,2-Dichloroethene	0.74	J	50	49.8	98	50	53.0	105	6	59-133/11
156-60-5	trans-1,2-Dichloroethene	ND		50	51.4	103	50	53.4	107	4	60-130/12
100-41-4	Ethylbenzene	ND		50	47.8	96	50	48.9	98	2	57-134/10
75-09-2	Methylene chloride	ND		50	47.9	96	50	51.2	102	7	68-125/11
127-18-4	Tetrachloroethene	0.38	J	50	44.4	88	50	44.4	88	0	47-141/12
108-88-3	Toluene	ND		50	47.3	95	50	48.9	98	3	61-135/11
71-55-6	1,1,1-Trichloroethane	3.9		50	54.7	102	50	56.1	104	3	60-140/13
79-00-5	1,1,2-Trichloroethane	ND		50	47.2	94	50	50.7	101	7	79-126/11
79-01-6	Trichloroethene	ND		50	46.7	93	50	47.6	95	2	57-138/11
75-01-4	Vinyl chloride	ND		50	54.5	109	50	55.9	112	3	47-143/15

CAS No.	Surrogate Recoveries	MS	MSD	JB88565-2	Limits
1868-53-7	Dibromofluoromethane	107%	106%	109%	76-122%
17060-07-0	1,2-Dichloroethane-D4	111%	111%	117%	71-124%
2037-26-5	Toluene-D8	99%	100%	99%	78-121%
460-00-4	4-Bromofluorobenzene	108%	107%	107%	77-120%

* = Outside of Control Limits.

Raw Data: 3A139220.D 3A139221.D

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88562-2MS	3A139220.D	1	02/24/15	ZH	n/a	n/a	V3A6024
JB88562-2MSD	3A139221.D	1	02/24/15	ZH	n/a	n/a	V3A6024
JB88562-2	3A139207.D	1	02/24/15	ZH	n/a	n/a	V3A6024

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

JB88565-10, JB88565-11, JB88565-12, JB88565-13, JB88565-14, JB88565-15, JB88565-17, JB88565-18, JB88565-19, JB88565-20

CAS No.	Compound	JB88562-2 ug/l	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	3.7		50	63.5	120	50	63.5	120	0	67-130/11
107-06-2	1,2-Dichloroethane	ND		50	53.8	108	50	56.1	112	4	72-137/10
75-35-4	1,1-Dichloroethene	ND		50	54.1	108	50	54.2	108	0	51-137/14
156-59-2	cis-1,2-Dichloroethene	ND		50	54.3	109	50	56.2	112	3	59-133/11
156-60-5	trans-1,2-Dichloroethene	ND		50	56.8	114	50	57.1	114	1	60-130/12
100-41-4	Ethylbenzene	ND		50	50.6	101	50	51.4	103	2	57-134/10
75-09-2	Methylene chloride	ND		50	56.9	114	50	59.1	118	4	68-125/11
127-18-4	Tetrachloroethene	2.7		50	49.0	93	50	49.4	93	1	47-141/12
108-88-3	Toluene	ND		50	51.6	103	50	52.3	105	1	61-135/11
-55-6	1,1,1-Trichloroethane	3.1		50	55.0	104	50	55.0	104	0	60-140/13
-00-5	1,1,2-Trichloroethane	ND		50	50.6	101	50	53.4	107	5	79-126/11
79-01-6	Trichloroethene	0.55	J	50	51.0	101	50	51.7	102	1	57-138/11
75-01-4	Vinyl chloride	ND		50	57.0	114	50	57.9	116	2	47-143/15

CAS No.	Surrogate Recoveries	MS	MSD	JB88562-2	Limits
1868-53-7	Dibromofluoromethane	108%	108%	105%	76-122%
17060-07-0	1,2-Dichloroethane-D4	117%	115%	115%	71-124%
2037-26-5	Toluene-D8	99%	99%	102%	78-121%
460-00-4	4-Bromofluorobenzene	109%	109%	103%	77-120%

* = Outside of Control Limits.

Raw Data: 4D57212.D 4D57213.D

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB88565-7MS	4D57212.D	1	02/26/15	PR	n/a	n/a	V4D2537
JB88565-7MSD	4D57213.D	1	02/26/15	PR	n/a	n/a	V4D2537
JB88565-7	4D57205.D	1	02/26/15	PR	n/a	n/a	V4D2537

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

JB88565-3, JB88565-7, JB88565-8, JB88565-9

CAS No.	Compound	JB88565-7 ug/l	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	5.2		50	46.4	82	50	45.2	80	3	67-130/11
107-06-2	1,2-Dichloroethane	ND		50	54.3	109	50	52.6	105	3	72-137/10
75-35-4	1,1-Dichloroethene	ND		50	37.8	76	50	36.2	72	4	51-137/14
156-59-2	cis-1,2-Dichloroethene	0.70	J	50	43.0	85	50	42.0	83	2	59-133/11
156-60-5	trans-1,2-Dichloroethene	ND		50	40.1	80	50	38.4	77	4	60-130/12
100-41-4	Ethylbenzene	ND		50	45.1	90	50	43.3	87	4	57-134/10
75-09-2	Methylene chloride	ND		50	42.6	85	50	41.9	84	2	68-125/11
127-18-4	Tetrachloroethene	18.5		50	55.2	73	50	52.4	68	5	47-141/12
108-88-3	Toluene	ND		50	45.6	91	50	43.8	88	4	61-135/11
71-55-6	1,1,1-Trichloroethane	20.2		50	56.4	72	50	53.9	67	5	60-140/13
79-00-5	1,1,2-Trichloroethane	ND		50	49.1	98	50	47.7	95	3	79-126/11
79-01-6	Trichloroethene	1.1		50	43.9	86	50	41.7	81	5	57-138/11
75-01-4	Vinyl chloride	ND		50	39.2	78	50	37.6	75	4	47-143/15

CAS No.	Surrogate Recoveries	MS	MSD	JB88565-7	Limits
1868-53-7	Dibromofluoromethane	83%	83%	82%	76-122%
17060-07-0	1,2-Dichloroethane-D4	88%	85%	89%	71-124%
2037-26-5	Toluene-D8	88%	87%	87%	78-121%
460-00-4	4-Bromofluorobenzene	85%	86%	87%	77-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-BFB
Lab File ID: 3A138955.D
Instrument ID: GCMS3A
Injection Date: 02/13/15
Injection Time: 15:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10412	15.3		Pass
75	30.0 - 60.0% of mass 95	29280	43.1		Pass
95	Base peak, 100% relative abundance	67885	100.0		Pass
96	5.0 - 9.0% of mass 95	4165	6.14		Pass
173	Less than 2.0% of mass 174	639	0.94	(1.04) [a]	Pass
174	50.0 - 120.0% of mass 95	61242	90.2		Pass
175	5.0 - 9.0% of mass 174	4654	6.86	(7.60) [a]	Pass
176	95.0 - 101.0% of mass 174	59237	87.3	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3886	5.72	(6.56) [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
V3A6014-IC6014	3A138956.D	02/13/15	17:10	01:32	Initial cal 1
V3A6014-IC6014	3A138957.D	02/13/15	17:40	02:02	Initial cal 2
V3A6014-IC6014	3A138958.D	02/13/15	18:11	02:33	Initial cal 5
V3A6014-IC6014	3A138959.D	02/13/15	18:41	03:03	Initial cal 0.2
V3A6014-IC6014	3A138960.D	02/13/15	19:11	03:33	Initial cal 0.5
V3A6014-ICC6014	3A138961.D	02/13/15	19:41	04:03	Initial cal 10
V3A6014-IC6014	3A138962.D	02/13/15	20:11	04:33	Initial cal 20
V3A6014-IC6014	3A138963.D	02/13/15	20:41	05:03	Initial cal 50
V3A6014-IC6104	3A138964.D	02/13/15	21:11	05:33	Initial cal 100
V3A6014-IC6014	3A138965.D	02/13/15	21:41	06:03	Initial cal 200

Instrument Performance Check (BFB)

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V3A6014-BFB	**Injection Date:**	02/16/15
Lab File ID:	3A138970.D	**Injection Time:**	10:21
Instrument ID:	GCMS3A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11455	15.5		Pass
75	30.0 - 60.0% of mass 95	32578	44.2		Pass
95	Base peak, 100% relative abundance	73666	100.0		Pass
96	5.0 - 9.0% of mass 95	4779	6.49		Pass
173	Less than 2.0% of mass 174	585	0.79	(0.90) [a]	Pass
174	50.0 - 120.0% of mass 95	64645	87.8		Pass
175	5.0 - 9.0% of mass 174	4755	6.45	(7.36) [a]	Pass
176	95.0 - 101.0% of mass 174	62776	85.2	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	4227	5.74	(6.73) [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
V3A6014-ICV6014	3A138971.D	02/16/15	10:53	00:32	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V3A6023-BFB	**Injection Date:**	02/23/15
Lab File ID:	3A139168.D	**Injection Time:**	09:52
Instrument ID:	GCMS3A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10699	16.6		Pass
75	30.0 - 60.0% of mass 95	30139	46.7		Pass
95	Base peak, 100% relative abundance	64493	100.0		Pass
96	5.0 - 9.0% of mass 95	4371	6.78		Pass
173	Less than 2.0% of mass 174	412	0.64	(0.72) [a]	Pass
174	50.0 - 120.0% of mass 95	57344	88.9		Pass
175	5.0 - 9.0% of mass 174	4052	6.28	(7.07) [a]	Pass
176	95.0 - 101.0% of mass 174	55339	85.8	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3591	5.57	(6.49) [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
V3A6023-CC6014	3A139169.D	02/23/15	10:28	00:36	Continuing cal 20
V3A6023-MB1	3A139171.D	02/23/15	11:50	01:58	Method Blank
V3A6023-BS	3A139172.D	02/23/15	12:29	02:37	Blank Spike
ZZZZZZ	3A139173.D	02/23/15	13:11	03:19	(unrelated sample)
ZZZZZZ	3A139174.D	02/23/15	13:41	03:49	(unrelated sample)
ZZZZZZ	3A139175.D	02/23/15	14:12	04:20	(unrelated sample)
ZZZZZZ	3A139176.D	02/23/15	14:42	04:50	(unrelated sample)
ZZZZZZ	3A139177.D	02/23/15	15:16	05:24	(unrelated sample)
JB88565-1	3A139178.D	02/23/15	15:56	06:04	HSSER-GMZ01-021715
JB88565-2	3A139179.D	02/23/15	16:26	06:34	HSSER-GMZ02-021915
ZZZZZZ	3A139180.D	02/23/15	17:02	07:10	(unrelated sample)
ZZZZZZ	3A139182.D	02/23/15	18:03	08:11	(unrelated sample)
JB88565-2MS	3A139183.D	02/23/15	18:32	08:40	Matrix Spike
JB88565-2MSD	3A139184.D	02/23/15	19:02	09:10	Matrix Spike Duplicate
JB88565-4	3A139186.D	02/23/15	20:03	10:11	HSSER-GMZ04-021815
JB88565-5	3A139187.D	02/23/15	20:32	10:40	HSSER-07FGA-021715
JB88565-6	3A139188.D	02/23/15	21:02	11:10	HSSER-MW203-021815

Instrument Performance Check (BFB)

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6024-BFB
Lab File ID: 3A139189.D
Instrument ID: GCMS3A
Injection Date: 02/23/15
Injection Time: 21:32

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11051	17.3		Pass
75	30.0 - 60.0% of mass 95	29517	46.2		Pass
95	Base peak, 100% relative abundance	63882	100.0		Pass
96	5.0 - 9.0% of mass 95	4346	6.80		Pass
173	Less than 2.0% of mass 174	436	0.68	(0.81) [a]	Pass
174	50.0 - 120.0% of mass 95	53613	83.9		Pass
175	5.0 - 9.0% of mass 174	4067	6.37	(7.59) [a]	Pass
176	95.0 - 101.0% of mass 174	52560	82.3	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3685	5.77	(7.01) [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
V3A6024-CC6014	3A139190.D	02/23/15	22:02	00:30	Continuing cal 50
V3A6024-MB1	3A139192.D	02/23/15	23:02	01:30	Method Blank
V3A6024-BS	3A139193.D	02/23/15	23:32	02:00	Blank Spike
JB88565-18	3A139195.D	02/24/15	00:32	03:00	HSSER-FBLK01-021715
JB88565-20	3A139196.D	02/24/15	01:02	03:30	HSSER-TRIP02-021915
JB88565-19	3A139197.D	02/24/15	01:32	04:00	HSSER-EBLK01-021815
JB88565-10	3A139198.D	02/24/15	02:02	04:30	HSSER-SMW02-021715
JB88565-11	3A139199.D	02/24/15	02:31	04:59	HSSER-SMW04-021915
JB88565-12	3A139200.D	02/24/15	03:01	05:29	HSSER-SMW08-021715
JB88565-13	3A139201.D	02/24/15	03:32	06:00	HSSER-SMW19-021915
JB88565-14	3A139202.D	02/24/15	04:02	06:30	HSSER-SMW20-021815
JB88565-15	3A139203.D	02/24/15	04:32	07:00	HSSER-SMW21-021815
JB88565-17	3A139204.D	02/24/15	05:02	07:30	HSSER-DUP-01-021815
ZZZZZZ	3A139205.D	02/24/15	05:32	08:00	(unrelated sample)
ZZZZZZ	3A139206.D	02/24/15	06:02	08:30	(unrelated sample)
JB88562-2	3A139207.D	02/24/15	06:32	09:00	(used for QC only; not part of job JB88565)
ZZZZZZ	3A139208.D	02/24/15	07:02	09:30	(unrelated sample)
ZZZZZZ	3A139209.D	02/24/15	07:32	10:00	(unrelated sample)
ZZZZZZ	3A139210.D	02/24/15	08:02	10:30	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6025-BFB
Lab File ID: 3A139215.D
Instrument ID: GCMS3A
Injection Date: 02/24/15
Injection Time: 10:42

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10999	16.9		Pass
75	30.0 - 60.0% of mass 95	29045	44.5		Pass
95	Base peak, 100% relative abundance	65197	100.0		Pass
96	5.0 - 9.0% of mass 95	4288	6.58		Pass
173	Less than 2.0% of mass 174	461	0.71	(0.83) [a]	Pass
174	50.0 - 120.0% of mass 95	55434	85.0		Pass
175	5.0 - 9.0% of mass 174	4012	6.15	(7.24) [a]	Pass
176	95.0 - 101.0% of mass 174	52954	81.2	(95.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3503	5.37	(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
V3A6025-CC6014	3A139217.D	02/24/15	11:55	01:13	Continuing cal 20
V3A6024-MB2	3A139219.D	02/24/15	13:02	02:20	Method Blank
JB88562-2MS	3A139220.D	02/24/15	13:39	02:57	Matrix Spike
JB88562-2MSD	3A139221.D	02/24/15	14:10	03:28	Matrix Spike Duplicate
V3A6025-MB1	3A139223.D	02/24/15	15:20	04:38	Method Blank
V3A6025-BS	3A139224.D	02/24/15	16:02	05:20	Blank Spike
ZZZZZZ	3A139225.D	02/24/15	16:46	06:04	(unrelated sample)
ZZZZZZ	3A139226.D	02/24/15	17:17	06:35	(unrelated sample)
JB88615-10	3A139227.D	02/24/15	17:47	07:05	(used for QC only; not part of job JB88565)
ZZZZZZ	3A139228.D	02/24/15	18:17	07:35	(unrelated sample)
JB88615-10MS	3A139229.D	02/24/15	18:47	08:05	Matrix Spike
JB88615-10MSD	3A139230.D	02/24/15	19:17	08:35	Matrix Spike Duplicate
ZZZZZZ	3A139232.D	02/24/15	20:17	09:35	(unrelated sample)
ZZZZZZ	3A139233.D	02/24/15	20:47	10:05	(unrelated sample)
ZZZZZZ	3A139234.D	02/24/15	21:17	10:35	(unrelated sample)
ZZZZZZ	3A139235.D	02/24/15	21:47	11:05	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2528-BFB
Lab File ID: 4D56967.D
Instrument ID: GCMS4D
Injection Date: 02/18/15
Injection Time: 16:13

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19491	15.4		Pass
75	30.0 - 60.0% of mass 95	52832	41.8		Pass
95	Base peak, 100% relative abundance	126467	100.0		Pass
96	5.0 - 9.0% of mass 95	8304	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	104765	82.8		Pass
175	5.0 - 9.0% of mass 174	8046	6.36	(7.68) [a]	Pass
176	95.0 - 101.0% of mass 174	101808	80.5	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	6876	5.44	(6.75) [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
V4D2528-IC2528	4D56968.D	02/18/15	16:45	00:32	Initial cal 0.2
V4D2528-IC2528	4D56969.D	02/18/15	17:12	00:59	Initial cal 0.5
V4D2528-IC2528	4D56970.D	02/18/15	17:40	01:27	Initial cal 1
V4D2528-IC2528	4D56971.D	02/18/15	18:07	01:54	Initial cal 2
V4D2528-IC2528	4D56972.D	02/18/15	18:35	02:22	Initial cal 5
V4D2528-IC2528	4D56973.D	02/18/15	19:02	02:49	Initial cal 10
V4D2528-IC2528	4D56974.D	02/18/15	19:30	03:17	Initial cal 20
V4D2528-ICC2528	4D56975.D	02/18/15	19:57	03:44	Initial cal 50
V4D2528-IC2528	4D56976.D	02/18/15	20:25	04:12	Initial cal 100
V4D2528-IC2528	4D56977.D	02/18/15	20:52	04:39	Initial cal 200
V4D2528-ICV2528	4D56980.D	02/18/15	22:15	06:02	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2537-BFB
Lab File ID: 4D57198.D
Instrument ID: GCMS4D
Injection Date: 02/26/15
Injection Time: 08:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16224	16.6		Pass
75	30.0 - 60.0% of mass 95	43648	44.7		Pass
95	Base peak, 100% relative abundance	97608	100.0		Pass
96	5.0 - 9.0% of mass 95	6409	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	84365	86.4		Pass
175	5.0 - 9.0% of mass 174	6541	6.70	(7.75) [a]	Pass
176	95.0 - 101.0% of mass 174	82067	84.1	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	5391	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
V4D2537-CC2528	4D57199.D	02/26/15	09:29	00:32	Continuing cal 20
V4D2537-MB	4D57201.D	02/26/15	10:27	01:30	Method Blank
V4D2537-BS	4D57202.D	02/26/15	10:54	01:57	Blank Spike
JB88565-3	4D57204.D	02/26/15	11:49	02:52	HSSER-GMZ03-021815
JB88565-7	4D57205.D	02/26/15	12:16	03:19	HSSER-PMW01-021815
JB88565-8	4D57206.D	02/26/15	12:44	03:47	HSSER-PMW02-021815
JB88565-9	4D57207.D	02/26/15	13:11	04:14	HSSER-SMW01-021715
ZZZZZZ	4D57208.D	02/26/15	13:38	04:41	(unrelated sample)
ZZZZZZ	4D57209.D	02/26/15	14:06	05:09	(unrelated sample)
ZZZZZZ	4D57210.D	02/26/15	14:33	05:36	(unrelated sample)
ZZZZZZ	4D57211.D	02/26/15	15:01	06:04	(unrelated sample)
JB88565-7MS	4D57212.D	02/26/15	15:28	06:31	Matrix Spike
JB88565-7MSD	4D57213.D	02/26/15	15:56	06:59	Matrix Spike Duplicate
ZZZZZZ	4D57215.D	02/26/15	16:50	07:53	(unrelated sample)
ZZZZZZ	4D57216.D	02/26/15	17:18	08:21	(unrelated sample)
ZZZZZZ	4D57217.D	02/26/15	17:45	08:48	(unrelated sample)
ZZZZZZ	4D57218.D	02/26/15	18:13	09:16	(unrelated sample)
ZZZZZZ	4D57219.D	02/26/15	18:40	09:43	(unrelated sample)
ZZZZZZ	4D57220.D	02/26/15	19:08	10:11	(unrelated sample)
ZZZZZZ	4D57221.D	02/26/15	19:35	10:38	(unrelated sample)
ZZZZZZ	4D57222.D	02/26/15	20:02	11:05	(unrelated sample)
ZZZZZZ	4D57223.D	02/26/15	20:30	11:33	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V3A6023-CC6014	**Injection Date:**	02/23/15
Lab File ID:	3A139169.D	**Injection Time:**	10:28
Instrument ID:	GCMS3A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	151803	8.14	258680	10.57	305857	11.53	272800	14.88	157322	17.37
Upper Limit [a]	303606	8.64	517360	11.07	611714	12.03	545600	15.38	314644	17.87
Lower Limit [b]	75902	7.64	129340	10.07	152929	11.03	136400	14.38	78661	16.87

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3A6023-MB1	170688	8.14	265670	10.57	306698	11.53	273344	14.89	168790	17.37
V3A6023-BS	168657	8.14	268940	10.57	321359	11.53	286060	14.89	164611	17.37
ZZZZZZ	171749	8.14	269325	10.57	309954	11.53	279347	14.89	165216	17.38
ZZZZZZ	206120	8.14	273742	10.57	315917	11.53	279511	14.89	167393	17.37
ZZZZZZ	152815	8.14	289859	10.57	346730	11.53	299183	14.88	176226	17.37
ZZZZZZ	178931	8.14	285357	10.57	336879	11.53	296555	14.88	169646	17.37
ZZZZZZ	182230	8.16	286059	10.57	329696	11.53	287088	14.88	164686	17.37
JB88565-1	202113	8.15	288939	10.57	333852	11.53	291779	14.89	164344	17.38
JB88565-2	198455	8.15	286134	10.57	336613	11.53	296451	14.88	171820	17.37
ZZZZZZ	183521	8.16	276707	10.57	325723	11.54	280410	14.88	160790	17.37
ZZZZZZ	180283	8.15	269777	10.57	312391	11.53	279741	14.88	166403	17.37
JB88565-2MS	186843	8.15	283171	10.57	328688	11.53	282148	14.89	163293	17.37
JB88565-2MSD	194989	8.14	285286	10.56	335174	11.53	291038	14.88	167833	17.37
JB88565-4	185803	8.14	271739	10.57	321057	11.53	288063	14.88	173143	17.37
JB88565-5	175361	8.14	266853	10.56	313872	11.53	280180	14.88	169997	17.37
JB88565-6	170706	8.14	273070	10.57	321848	11.53	286709	14.89	173702	17.37

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.

Volatile Internal Standard Area Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V3A6024-CC6014	**Injection Date:**	02/23/15
Lab File ID:	3A139190.D	**Injection Time:**	22:02
Instrument ID:	GCMS3A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	175332	8.14	277539	10.57	318774	11.53	281914	14.88	163589	17.37
Upper Limit [a]	350664	8.64	555078	11.07	637548	12.03	563828	15.38	327178	17.87
Lower Limit [b]	87666	7.64	138770	10.07	159387	11.03	140957	14.38	81795	16.87

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3A6024-MB1	173691	8.14	264924	10.56	305195	11.53	278066	14.88	165529	17.37
V3A6024-BS	154390	8.15	269390	10.56	316517	11.53	283024	14.88	165260	17.37
JB88565-18	168561	8.13	269859	10.57	315679	11.53	288389	14.88	170211	17.37
JB88565-20	161746	8.14	271128	10.56	319449	11.53	287772	14.88	169557	17.37
JB88565-19	165411	8.13	269157	10.57	316704	11.53	282013	14.89	170210	17.37
JB88565-10	163063	8.13	259903	10.56	304771	11.53	269580	14.88	166615	17.37
JB88565-11	164831	8.14	258015	10.57	304113	11.53	268269	14.88	164950	17.37
JB88565-12	163109	8.13	268707	10.56	314532	11.53	281043	14.89	169580	17.37
JB88565-13	139764	8.13	260825	10.56	309582	11.53	272630	14.88	166514	17.37
JB88565-14	157892	8.14	256371	10.57	303076	11.53	271361	14.88	164269	17.37
JB88565-15	161758	8.13	256287	10.57	303667	11.53	273473	14.88	166722	17.37
JB88565-17	164287	8.16	255373	10.56	299283	11.53	271663	14.88	160390	17.37
ZZZZZZ	159907	8.14	250780	10.57	297889	11.53	270593	14.88	163405	17.37
ZZZZZZ	160619	8.14	250910	10.56	294826	11.53	269360	14.88	158984	17.37
JB88562-2	158441	8.14	250846	10.56	295484	11.53	268208	14.89	158147	17.37
ZZZZZZ	171140	8.13	254401	10.56	292790	11.53	264775	14.89	158037	17.37
ZZZZZZ	147810	8.15	248537	10.57	285951	11.53	259378	14.88	155311	17.37
ZZZZZZ	161142	8.14	253905	10.57	294562	11.53	264628	14.88	155288	17.37

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.

Volatile Internal Standard Area Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V3A6025-CC6014	**Injection Date:**	02/24/15
Lab File ID:	3A139217.D	**Injection Time:**	11:55
Instrument ID:	GCMS3A	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	149974	8.14	275056	10.57	330021	11.53	295455	14.89	166054	17.37
Upper Limit [a]	299948	8.64	550112	11.07	660042	12.03	590910	15.39	332108	17.87
Lower Limit [b]	74987	7.64	137528	10.07	165011	11.03	147728	14.39	83027	16.87

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3A6024-MB2	172396	8.14	284318	10.57	343899	11.53	295114	14.88	170793	17.37
JB88562-2MS	189853	8.15	283522	10.57	349718	11.54	300232	14.88	166670	17.37
JB88562-2MSD	206993	8.15	294151	10.57	361732	11.53	310978	14.89	176539	17.37
V3A6025-MB1	178052	8.13	284459	10.56	341396	11.53	303135	14.88	177106	17.37
V3A6025-BS	199686	8.16	292459	10.57	346092	11.54	302248	14.88	171931	17.38
ZZZZZZ	162972	8.14	272269	10.57	329470	11.54	288963	14.88	167877	17.38
ZZZZZZ	177395	8.13	272889	10.57	326641	11.53	293809	14.89	169132	17.38
JB88615-10	179001	8.14	275838	10.57	334850	11.53	294005	14.88	169536	17.37
ZZZZZZ	177581	8.14	272081	10.56	327998	11.53	289642	14.89	168221	17.37
JB88615-10MS	182748	8.14	282264	10.57	343035	11.53	300988	14.89	171418	17.37
JB88615-10MSD	199413	8.16	291678	10.57	346324	11.53	308104	14.89	178052	17.37
ZZZZZZ	188896	8.13	279743	10.57	338928	11.53	300686	14.89	174853	17.37
ZZZZZZ	164814	8.13	271550	10.57	326974	11.53	290753	14.88	170198	17.37
ZZZZZZ	185330	8.13	270390	10.57	324445	11.53	289163	14.88	167839	17.37
ZZZZZZ	187767	8.14	267144	10.57	315596	11.53	282402	14.88	165430	17.37

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.

Volatile Internal Standard Area Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V4D2537-CC2528	**Injection Date:**	02/26/15
Lab File ID:	4D57199.D	**Injection Time:**	09:29
Instrument ID:	GCMS4D	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	96405	7.00	264836	9.57	314214	10.53	283643	13.89	148120	16.32
Upper Limit [a]	192810	7.50	529672	10.07	628428	11.03	567286	14.39	296240	16.82
Lower Limit [b]	48203	6.50	132418	9.07	157107	10.03	141822	13.39	74060	15.82

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4D2537-MB	89422	6.99	272714	9.57	320470	10.52	286627	13.89	148714	16.32
V4D2537-BS	86485	6.99	253602	9.57	297151	10.52	274702	13.89	145415	16.32
JB88565-3	74189	6.99	229430	9.57	271767	10.52	245166	13.89	122599	16.32
JB88565-7	96743	6.99	273858	9.57	324346	10.52	294826	13.89	150905	16.32
JB88565-8	90100	6.99	267692	9.57	317540	10.52	284615	13.89	146577	16.32
JB88565-9	85443	6.99	255884	9.57	301079	10.52	273391	13.89	140205	16.32
ZZZZZZ	88783	7.00	266453	9.57	318072	10.52	288363	13.89	146977	16.32
ZZZZZZ	85910	6.99	258225	9.57	306174	10.52	275582	13.89	143016	16.32
ZZZZZZ	86320	6.99	260792	9.57	310110	10.52	280281	13.89	143538	16.32
ZZZZZZ	86183	6.99	255854	9.57	299423	10.52	274094	13.89	145898	16.32
JB88565-7MS	93891	7.00	265615	9.57	315881	10.52	292775	13.89	154195	16.32
JB88565-7MSD	96644	6.99	274578	9.57	326137	10.52	300309	13.89	158462	16.32
ZZZZZZ	94969	6.99	282293	9.57	333917	10.52	300447	13.89	156031	16.32
ZZZZZZ	92315	6.99	275817	9.57	327040	10.52	296960	13.89	153456	16.32
ZZZZZZ	89366	6.99	269374	9.57	317432	10.52	290549	13.89	149943	16.32
ZZZZZZ	92143	6.99	270855	9.57	321955	10.52	294665	13.89	152242	16.32
ZZZZZZ	92579	7.00	264132	9.57	311248	10.52	286103	13.89	147747	16.32
ZZZZZZ	86855	6.99	263341	9.57	313078	10.52	282077	13.89	146045	16.32
ZZZZZZ	87052	6.99	267617	9.57	316558	10.52	286740	13.89	148588	16.32
ZZZZZZ	83461	7.00	254159	9.57	297694	10.52	272867	13.89	141519	16.32
ZZZZZZ	86384	6.99	257444	9.57	305467	10.52	279625	13.89	144159	16.32

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.

Volatile Surrogate Recovery Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB88565-1	3A139178.D	108	115	99	112
JB88565-2	3A139179.D	109	117	99	107
JB88565-3	4D57204.D	82	88	87	89
JB88565-4	3A139186.D	107	117	101	105
JB88565-5	3A139187.D	106	118	101	106
JB88565-6	3A139188.D	105	116	100	105
JB88565-7	4D57205.D	82	89	87	87
JB88565-8	4D57206.D	82	88	87	87
JB88565-9	4D57207.D	83	90	88	87
JB88565-10	3A139198.D	106	113	100	105
JB88565-11	3A139199.D	107	112	99	106
JB88565-12	3A139200.D	105	111	100	105
JB88565-13	3A139201.D	105	112	99	103
JB88565-14	3A139202.D	106	113	100	105
JB88565-15	3A139203.D	106	112	100	105
JB88565-17	3A139204.D	105	113	101	105
JB88565-18	3A139195.D	105	114	101	106
JB88565-19	3A139197.D	107	114	99	106
JB88565-20	3A139196.D	107	113	100	106
JB88562-2MS	3A139220.D	108	117	99	109
JB88562-2MSD	3A139221.D	108	115	99	109
JB88565-2MS	3A139183.D	107	111	99	108
JB88565-2MSD	3A139184.D	106	111	100	107
JB88565-7MS	4D57212.D	83	88	88	85
JB88565-7MSD	4D57213.D	83	85	87	86
V3A6023-BS	3A139172.D	104	109	100	107
V3A6023-MB1	3A139171.D	103	108	99	104
V3A6024-BS	3A139193.D	104	107	101	105
V3A6024-MB1	3A139192.D	105	112	102	106
V4D2537-BS	4D57202.D	82	87	87	85
V4D2537-MB	4D57201.D	82	89	87	87
V3A6024-MB2	3A139219.D	109	119	97	108

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-122%
S2 = 1,2-Dichloroethane-D4	71-124%
S3 = Toluene-D8	78-121%
S4 = 4-Bromofluorobenzene	77-120%

Raw Data: 3A138956.D 3A138957.D 3A138958.D 3A138959.D 3A138960.D 3A138961.D 3A138962.D 3A138963.D 3A138965.D

Initial Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-ICC6014
Lab FileID: 3A138961.D

Response Factor Report MS3A

```
Method       : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title        : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update  : Wed Feb 18 14:11:17 2015
Response via : Initial Calibration

Calibration Files
1   =3a138956.D  2   =3a138957.D  100 =3a138964.D  50  =3a138963.D
20  =3a138962.D  200 =3a138965.D  5   =3a138958.D  0.5 =3a138960.D
10  =3a138961.D  0.2 =3a138959.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
     0.697 0.960 1.055 1.072 1.029 1.035 1.090       1.052        0.999   12.82
3)  ethanol
                                                                 0.000#  -1.00
4)  1,4-dioxane
           0.082 0.116 0.113 0.106 0.114 0.107       0.107        0.106   10.85

5) I   pentafluorobenzene    ----------------ISTD---------------------
6)  FREON 115
                                                                 0.000#  -1.00
7)  FREON 152A
                                                                 0.000#  -1.00
8)  chlorodifluoromethane
     0.466 0.449 0.534 0.535 0.504 0.525 0.461       0.477        0.494    7.06
9)  dichlorodifluoromethane
     0.755 0.778 0.835 0.884 0.836 0.774 0.784       0.834        0.810    5.40
10)  chloromethane
     0.572 0.544 0.650 0.644 0.588 0.610 0.538       0.583        0.591    7.04
11)  vinyl chloride
     0.680 0.671 0.770 0.770 0.707 0.772 0.647       0.699        0.715    7.02
12)  bromomethane
     0.498 0.475 0.305 0.414 0.416       0.435       0.448        0.427   14.52
13)  FREON 123A
                                                                 0.000#  -1.00
14)  FREON 123
                                                                 0.000#  -1.00
15)  2-CHLOROPROPANE
     0.630 0.577 0.550 0.552 0.563 0.554 0.579       0.574        0.572    4.54
16)  chloroethane
     0.307 0.295 0.224 0.273 0.284       0.295       0.313        0.284   10.55
17)  trichlorofluoromethane
           0.581 0.780 0.802 0.759 0.754 0.708       0.749        0.733    9.98
18)  Pentane
                                                                 0.000#  -1.00
19)  1-CHLOROPROPANE
                 0.526 0.563 0.605 0.522 0.901       0.731        0.641   23.17
           ----- Linear regression -----  Coefficient =  0.9999
             Response Ratio = 0.04117 + 0.51082 *A

20)  ethyl ether
     0.192 0.168 0.204 0.204 0.198 0.204 0.184       0.189        0.193    6.53
21)  acrolein
     0.085 0.075 0.084 0.086 0.085 0.086 0.082       0.083        0.083    4.39
```

6.7.1

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Initial Calibration Summary

Job Number: JB88565 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
22)  1,1-dichloroethene
      0.402 0.417 0.398 0.411 0.409 0.387 0.427 0.406 0.423        0.409    3.03
23)  acetone
                  0.107 0.115 0.108 0.111 0.116       0.108        0.111    3.32
24)  allyl chloride
      0.173 0.194 0.207 0.210 0.202 0.204 0.205       0.209        0.200    6.09
25)  acetonitrile
                  0.027 0.031 0.031 0.032 0.028       0.024        0.029   10.59
26)  iodomethane
      0.852 0.837 0.871 0.894 0.882 0.852 0.849       0.877        0.864    2.27
27)  iso-butyl alcohol
            0.011 0.013 0.013 0.012 0.013 0.013       0.012        0.012    6.31
28)  carbon disulfide
      1.764 1.582 1.534 1.584 1.573 1.509 1.601       1.611        1.595    4.78
29)  methylene chloride
      0.512 0.463 0.455 0.471 0.478 0.457 0.480       0.476        0.474    3.81
30)  methyl acetate
                  0.251 0.254 0.255 0.260 0.258       0.264        0.257    1.79
31)  methyl tert butyl ether
      1.346 1.397 1.365 1.420 1.403 1.397 1.351 1.329 1.415 1.178  1.360    5.23
32)  trans-1,2-dichloroethene
      0.597 0.547 0.527 0.541 0.545 0.522 0.550       0.553        0.548    4.14
33)  di-isopropyl ether
      1.137 1.047 1.088 1.083 1.063 1.157 1.095       1.084        1.094    3.31
34)  2-butanone
                  0.046 0.047 0.042 0.046 0.038       0.037        0.043   10.62
35)  1,1-dichloroethane
      0.676 0.662 0.652 0.682 0.671 0.661 0.687       0.682        0.672    1.83
36)  chloroprene
      0.431 0.440 0.447 0.444 0.435 0.447 0.449       0.421        0.439    2.20
37)  acrylonitrile
      0.121 0.116 0.132 0.136 0.135 0.137 0.130       0.135        0.130    5.89
38)  vinyl acetate
                  0.059 0.060 0.050 0.062             0.038        0.054   18.77
            ----- Linear regression -----  Coefficient =  0.9998
              Response Ratio = -0.00457 + 0.06256 *A

39)  ethyl tert-butyl ether
      1.222 1.322 1.351 1.368 1.314 1.406 1.307       1.314        1.326    4.06
40)  ethyl acetate
                  0.039 0.037 0.034 0.041 0.025       0.033        0.035   15.95
            ----- Linear regression -----  Coefficient =  0.9992
              Response Ratio = -0.00174 + 0.04036 *A

41)  2,2-dichloropropane
      0.706 0.709 0.677 0.709 0.695 0.663 0.716       0.714        0.699    2.73
42)  cis-1,2-dichloroethene
      0.444 0.440 0.440 0.454 0.456 0.443 0.456       0.459        0.449    1.75
43)  methylacrylate
                  0.055 0.051 0.050 0.058 0.035       0.042        0.048   17.59
            ----- Linear regression -----  Coefficient =  0.9995
              Response Ratio = -0.00407 + 0.05818 *A

44)  propionitrile
      0.043 0.042 0.055 0.055 0.054 0.059 0.051       0.053        0.052   11.59
45)  bromochloromethane
      0.217 0.227 0.230 0.237 0.232 0.230 0.240       0.243        0.232    3.49
46)  tetrahydrofuran
            0.104 0.112 0.109 0.106 0.120 0.110       0.108        0.110    4.63
47)  chloroform
```

6.7.1

6

Initial Calibration Summary

Job Number: JB88565 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.412 0.433 0.423 0.436 0.437 0.424 0.459       0.432        0.432    3.15
48)  t-butyl formate
      0.284 0.339 0.383 0.383 0.355 0.409 0.352       0.363        0.358   10.38
49)  dibromofluoromethane (s)
      0.459 0.349 0.358 0.363 0.350 0.352 0.359 0.355 0.344 0.404  0.369    9.66
50)  1,2-dichloroethane-d4 (s)
            0.351 0.348 0.350 0.340 0.348 0.368       0.348        0.350    2.39
51)  freon 113
      0.282 0.310 0.349 0.355 0.343 0.326 0.349 0.248 0.337        0.322   11.21
52)  methacrylonitrile
                  0.218 0.216 0.185 0.232             0.151        0.200   16.14
            ----- Linear regression -----  Coefficient =  0.9995
              Response Ratio = -0.02203 + 0.23616 *A

53)  1,1,1-trichloroethane
      0.622 0.634 0.674 0.680 0.662 0.665 0.672 0.554 0.665        0.648    6.19
54)  Cyclohexane
      0.717 0.624 0.700 0.719 0.687 0.684 0.699 0.571 0.710        0.679    7.26

55) I   1,4-difluorobenzene   ----------------ISTD--------------------
56)  epichlorohydrin
            0.023 0.030 0.030 0.028 0.031 0.027       0.027        0.028    8.97
57)  n-butyl alcohol
                  0.010 0.010 0.009 0.012 0.008       0.009        0.010#  13.45
58)  carbon tetrachloride
      0.508 0.514 0.523 0.543 0.525 0.508 0.518 0.540 0.540        0.524    2.64
59)  1,1-dichloropropene
      0.413 0.421 0.421 0.423 0.418 0.410 0.423 0.408 0.423        0.418    1.41
60)  Tert Amyl Alcohol
                                                                   0.000#  -1.00
61)  hexane
      0.329 0.286 0.299 0.299 0.298 0.283 0.297       0.295        0.298    4.66
62)  2,2,4-TRIMETHYLPENTANE
      1.167 1.112 1.253 1.234 1.126 1.216 1.098       1.089        1.162    5.59
63)  benzene
      1.383 1.264 1.273 1.302 1.273 1.251 1.300 1.313 1.293 1.253  1.290    3.00
64)  tert-amyl methyl ether
      0.266 0.273 0.285 0.287 0.284 0.290 0.274       0.287        0.281    3.06
65)  heptane
      0.154 0.176 0.178 0.175 0.163 0.171 0.173       0.162        0.169    4.88
66)  isopropyl acetate
      0.692 0.619 0.654 0.658 0.612 0.672 0.616       0.611        0.642    4.89
67)  1,2-dichloroethane
      0.377 0.396 0.393 0.389 0.385 0.388 0.394       0.396        0.390    1.68
68)  Ethyl acrylate
                                                                   0.000#  -1.00
69)  trichloroethene
      0.342 0.321 0.324 0.327 0.322 0.317 0.325 0.267 0.323        0.319    6.49
70)  tert-Amyl Ethyl Ether
                                                                   0.000#  -1.00
71)  methyl methacrylate
      0.143 0.149 0.195 0.199 0.191 0.203 0.175       0.188        0.180   12.58
72)  2-nitropropane
            0.069 0.094 0.096 0.090 0.097 0.095       0.091        0.090   10.75
73)  2-chloroethyl vinyl ether
      0.167 0.182 0.195 0.197 0.189 0.192 0.189       0.186        0.187    4.96
74)  1,2-dichloropropane
      0.353 0.303 0.309 0.313 0.316 0.312 0.312       0.315        0.317    4.83
75)  dibromomethane
      0.212 0.203 0.212 0.214 0.213 0.209 0.221 0.171 0.211        0.207    6.88
```

6.7.1

6

Initial Calibration Summary

Job Number: JB88565 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
 76)  methylcyclohexane
       0.579 0.543 0.607 0.607 0.555 0.598 0.575 0.558 0.560        0.576    4.14
 77)  bromodichloromethane
       0.458 0.416 0.429 0.433 0.414 0.430 0.426 0.373 0.416        0.422    5.34
 78)  cis-1,3-dichloropropene
       0.496 0.499 0.523 0.513 0.502 0.524 0.494 0.467 0.509        0.503    3.45
 79)  toluene-d8 (s)
       1.375 1.040 1.058 1.053 1.028 1.032 1.065 1.095 0.984 1.386  1.112   13.00
 80)  4-methyl-2-pentanone
                   0.125 0.123 0.117 0.132 0.116       0.122        0.122    4.91
 81)  toluene
       0.753 0.753 0.764 0.756 0.737 0.761 0.758 0.662 0.737 0.570  0.725    8.56
 82)  3-methyl-1-butanol
             0.012 0.016 0.016 0.014 0.018 0.014       0.014        0.015   13.24
 83)  trans-1,3-dichloropropene
       0.430 0.436 0.467 0.465 0.454 0.460 0.454 0.371 0.448        0.443    6.72
 84)  ethyl methacrylate
       0.276 0.335 0.392 0.387 0.380 0.395 0.356       0.373        0.362   11.06
 85)  1,1,2-trichloroethane
       0.253 0.237 0.240 0.244 0.246 0.241 0.244 0.215 0.251        0.241    4.60
 86)  2-hexanone
                   0.119 0.120 0.110 0.123 0.102       0.106        0.113    7.49

 87) I   chlorobenzene-d5       ----------------ISTD--------------------
 88)  tetrachloroethene
       0.308 0.277 0.315 0.315 0.296 0.308 0.305 0.269 0.303        0.300    5.46
 89)  BUTYL ACRYLATE
                                                                    0.000#  -1.00
 90)  1,3-dichloropropane
       0.490 0.481 0.529 0.519 0.524 0.526 0.526 0.476 0.512        0.509    4.15
 91)  butyl acetate
             0.159 0.218 0.209 0.202 0.224 0.188       0.197        0.200   10.76
 92)  3,3-dimethyl-1-butanol
             0.034 0.054 0.048 0.041 0.062 0.037       0.041        0.045   22.12
             ----- Linear regression -----  Coefficient =  0.9954
               Response Ratio = -0.06535 + 0.06201 *A

 93)  dibromochloromethane
       0.334 0.359 0.406 0.403 0.385 0.403 0.378 0.321 0.385        0.375    8.22
 94)  1,2-dibromoethane
       0.322 0.329 0.344 0.342 0.333 0.342 0.341 0.308 0.347        0.334    3.81
 95)  chlorobenzene
       1.001 0.981 1.010 1.001 0.980 0.991 0.959 1.016 0.973        0.990    1.87
 96)  1,1,1,2-tetrachloroethane
       0.420 0.407 0.454 0.450 0.425 0.459 0.407 0.405 0.412        0.426    5.14
 97)  ethylbenzene
       1.626 1.550 1.688 1.693 1.626 1.664 1.663 1.611 1.617 1.500  1.624    3.73
 98)  m,p-xylene
       0.635 0.604 0.666 0.669 0.645 0.654 0.622 0.599 0.635 0.514  0.624    7.27
 99)  o-xylene
       0.627 0.659 0.712 0.706 0.676 0.713 0.653 0.556 0.658 0.487  0.644   11.27
100)  styrene
       0.983 1.017 1.115 1.114 1.076 1.094 1.042 0.921 1.063        1.047    6.16
101)  bromoform
       0.279 0.263 0.304 0.301 0.291 0.299 0.293 0.264 0.284        0.286    5.31

102) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
103)  isopropylbenzene
       2.842 2.719 3.151 3.111 2.882 3.210 2.816 2.590 2.791        2.901    7.26
104)  4-bromofluorobenzene (s)
```

6.7.1 6

Initial Calibration Summary

Job Number: JB88565 **Sample:** V3A6014-ICC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138961.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
          0.868 0.755 0.755 0.727 0.741 0.794       0.726        0.767    6.56
105)  cyclohexanone  **Compound failed for this initial calibration
                0.051 0.057 0.049 0.048 0.058       0.051        0.052    8.11
106)  bromobenzene
      0.780 0.706 0.791 0.786 0.751 0.774 0.738       0.761        0.761    3.75
107)  1,1,2,2-tetrachloroethane
      0.809 0.838 0.854 0.859 0.828 0.859 0.875       0.844        0.846    2.45
108)  trans-1,4-dichloro-2-butene
      0.162 0.197 0.203 0.207 0.197 0.204 0.203       0.202        0.197    7.33
109)  1,2,3-trichloropropane
      0.190 0.178 0.210 0.217 0.213 0.209 0.199 0.198 0.207        0.202    6.08
110)  n-propylbenzene
      0.709 0.664 0.785 0.784 0.732 0.785 0.735       0.739        0.742    5.79
111)  2-chlorotoluene
      0.771 0.682 0.758 0.746 0.716 0.762 0.732 0.713 0.711        0.732    3.98
112)  4-chlorotoluene
      0.720 0.727 0.748 0.748 0.717 0.743 0.738 0.561 0.708        0.712    8.19
113)  1,3,5-trimethylbenzene
      2.410 2.333 2.769 2.691 2.490 2.906 2.449 2.301 2.432        2.531    8.24
114)  tert-butylbenzene
      2.059 2.018 2.596 2.495 2.229 2.745 2.068       2.118        2.291   12.26
115)  pentachloroethane
      0.487 0.446 0.627 0.603 0.536 0.662 0.501       0.510        0.547   13.84
116)  1,2,4-trimethylbenzene
      2.424 2.297 2.677 2.668 2.509 2.783 2.475 2.286 2.455        2.508    6.83
117)  sec-butylbenzene
      3.323 3.160 3.863 3.797 3.457 4.027 3.293       3.386        3.538    8.88
118)  1,3-dichlorobenzene
      1.620 1.570 1.609 1.621 1.578 1.619 1.576 1.489 1.552        1.582    2.72
119)  p-isopropyltoluene
      2.851 2.645 3.204 3.156 2.966 3.335 2.807       2.836        2.975    7.90
120)  1,4-dichlorobenzene
      1.686 1.600 1.631 1.648 1.613 1.642 1.637 1.830 1.596        1.654    4.33
121)  1,2-dichlorobenzene
      1.725 1.680 1.708 1.711 1.649 1.736 1.655 1.726 1.669        1.695    1.93
122)  benzyl chloride
      1.772 1.717 1.749 1.759 1.667 1.750 1.690       1.684        1.724    2.29
123)  n-butylbenzene
      1.438 1.478 1.581 1.576 1.489 1.615 1.492       1.474        1.518    4.18
124)  1,2-dibromo-3-chloropropane
      0.187 0.204 0.201 0.209 0.202 0.218 0.190       0.200        0.201    4.86
125)  1,3,5-TRICHLOROBENZENE
      1.671 1.671 1.802 1.790 1.706 1.997 1.674       1.693        1.751    6.44
126)  1,2,4-trichlorobenzene
      1.878 1.794 1.974 1.981 1.879 2.186 1.783 1.715 1.801        1.888    7.54
127)  hexachlorobutadiene
      0.793 0.789 0.909 0.860 0.792 1.008 0.791 0.754 0.761        0.829   10.03
128)  naphthalene
      4.852 4.431 5.146 5.256 5.010 5.678 4.540       4.752        4.958    8.18
129)  1,2,3-trichlorobenzene
      2.131 1.973 2.190 2.234 2.105 2.374 1.982 2.023 2.049        2.118    6.20
130)  hexachloroethane
          0.412 0.638 0.591 0.505 0.695 0.460       0.460        0.537   19.63
          ----- Linear regression -----  Coefficient =  0.9980
            Response Ratio = -0.05734 + 0.69814 *A

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

        M3A6014.M        Wed Feb 18 14:14:21 2015   ACCUNJ
```

6.7.1

6

Initial Calibration Verification

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V3A6014-ICV6014
Lab FileID: 3A138971.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\3a138971.D Vial: 4
Acq On : 16 Feb 2015 10:53 am Operator: zobiah
Sample : icv6014-50 Inst : MS3A
Misc : MS80901,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Wed Feb 18 14:11:17 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
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	8.15
2	M	tertiary butyl alcohol	0.999	1.047	-4.8	120	0.02	8.29
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.106	0.116	-9.4	127	0.00	12.31
5	I	pentafluorobenzene	1.000	1.000	0.0	112	0.00	10.57
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.494	0.561	-13.6	118	0.00	4.09
9	M	dichlorodifluoromethane	0.810	0.652	19.5	83	0.01	4.08
10	M	chloromethane	0.591	0.572	3.2	100	0.00	4.46
11	M	vinyl chloride	0.715	0.659	7.8	96	0.00	4.75
12	M	bromomethane	0.427	0.370	13.3	100	0.00	5.54
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.572	0.582	-1.7	119	0.00	7.00
16	M	chloroethane	0.284	0.269	5.3	111	0.00	5.75
17	M	trichlorofluoromethane	0.733	0.751	-2.5	105	0.00	6.26
18	M	Pentane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
19		1-CHLOROPROPANE	50.000	52.376	-4.8	115	0.00	8.15
		----------	AvgRF	CCRF	% Dev	----------		
20	M	ethyl ether	0.193	0.216	-11.9	119	0.00	6.77
21	M	acrolein	0.083	0.093	-12.0	121	0.00	7.13
22	M	1,1-dichloroethene	0.409	0.384	6.1	105	0.00	7.26
23	M	acetone	0.111	0.117	-5.4	114	0.00	7.40
24	M	allyl chloride	0.200	0.218	-9.0	116	0.00	7.90
25	M	acetonitrile	0.029	0.027	6.9	99	0.01	7.97
26	M	iodomethane	0.864	0.829	4.1	104	0.00	7.60
27	M	iso-butyl alcohol	0.012	0.012	0.0	109	0.00	11.14
28	M	carbon disulfide	1.595	1.509	5.4	107	0.00	7.71
29	M	methylene chloride	0.474	0.440	7.2	105	0.00	8.15
30	M	methyl acetate	0.257	0.259	-0.8	115	0.00	7.91
31	M	methyl tert butyl ether	1.360	1.384	-1.7	110	0.01	8.48
32	M	trans-1,2-dichloroethene	0.548	0.525	4.2	109	0.00	8.54
33	M	di-isopropyl ether	1.094	1.147	-4.8	119	0.00	9.13
34	M	2-butanone	0.043	0.045	-4.7	107	0.00	10.01
35	M	1,1-dichloroethane	0.672	0.685	-1.9	113	0.00	9.21
36	M	chloroprene	0.439	0.474	-8.0	120	0.00	9.30
37	M	acrylonitrile	0.130	0.154	-18.5	127	0.00	8.59

Initial Calibration Verification

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-ICV6014
Lab FileID: 3A138971.D

			True	Calc.	% Drift			
38	M	vinyl acetate	50.000	58.499	-17.0	128	0.00	9.20
			AvgRF	CCRF	% Dev			
39	M	ethyl tert-butyl ether	1.326	1.316	0.8	108	0.00	9.65
			True	Calc.	% Drift			
40	M	ethyl acetate	50.000	55.836	-11.7	132	0.00	10.00
			AvgRF	CCRF	% Dev			
41	M	2,2-dichloropropane	0.699	0.734	-5.0	116	0.00	10.00
42	M	cis-1,2-dichloroethene	0.449	0.438	2.4	108	0.00	10.02
			True	Calc.	% Drift			
43		methylacrylate	50.000	49.966	0.1	119	0.01	10.10
			AvgRF	CCRF	% Dev			
44	M	propionitrile	0.052	0.060	-15.4	123	0.00	10.17
45	M	bromochloromethane	0.232	0.226	2.6	107	0.00	10.37
46	M	tetrahydrofuran	0.110	0.119	-8.2	123	0.00	10.39
47	M	chloroform	0.432	0.423	2.1	109	0.00	10.43
48		t-butyl formate	0.358	0.418	-16.8	123	0.01	10.44
49	S	dibromofluoromethane (s)	0.369	0.340	7.9	105	0.00	10.65
50	S	1,2-dichloroethane-d4 (s)	0.350	0.336	4.0	108	0.00	11.09
51	M	freon 113	0.322	0.382	-18.6	121	0.00	7.20
			True	Calc.	% Drift			
52	M	methacrylonitrile	50.000	51.201	-2.4	115	0.00	10.34
			AvgRF	CCRF	% Dev			
53	M	1,1,1-trichloroethane	0.648	0.682	-5.2	113	0.00	10.66
54	M	Cyclohexane	0.679	0.707	-4.1	111	0.00	10.70
55	I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00	11.53
56	M	epichlorohydrin	0.028	0.031	-10.7	117	0.00	12.90
57	M	n-butyl alcohol	0.010	0.012	-20.0	131	0.00	11.72
58	M	carbon tetrachloride	0.524	0.538	-2.7	110	0.00	10.85
59	M	1,1-dichloropropene	0.418	0.431	-3.1	113	0.00	10.84
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.298	0.321	-7.7	119	0.00	8.82
62		2,2,4-TRIMETHYLPENTANE	1.162	1.214	-4.5	109	0.00	11.07
63	M	benzene	1.290	1.303	-1.0	111	0.00	11.13
64	M	tert-amyl methyl ether	0.281	0.276	1.8	107	0.00	11.14
65	M	heptane	0.169	0.207	-22.5#	131	0.00	11.26
66	M	isopropyl acetate	0.642	0.769	-19.8	129	0.00	11.06
67	M	1,2-dichloroethane	0.390	0.388	0.5	110	0.00	11.19
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.319	0.304	4.7	103	0.00	11.88
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.180	0.206	-14.4	115	0.00	12.17
72	M	2-nitropropane	0.090	0.101	-12.2	116	0.00	12.76
73	M	2-chloroethyl vinyl ether	0.187	0.199	-6.4	112	0.00	12.74
74	M	1,2-dichloropropane	0.317	0.320	-0.9	113	0.00	12.18
75	M	dibromomethane	0.207	0.202	2.4	105	0.00	12.36
76	M	methylcyclohexane	0.576	0.654	-13.5	119	0.00	12.06
77	M	bromodichloromethane	0.422	0.411	2.6	105	0.00	12.50
78	M	cis-1,3-dichloropropene	0.503	0.494	1.8	107	0.00	12.97
79	S	toluene-d8 (s)	1.112	0.984	11.5	103	0.00	13.25
80	M	4-methyl-2-pentanone	0.122	0.136	-11.5	122	0.00	13.08

Initial Calibration Verification

Job Number: JB88565 **Sample:** V3A6014-ICV6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A138971.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	toluene	0.725	0.727	-0.3	106	0.00	13.33
82	M	3-methyl-1-butanol	0.015	0.018	-20.0	127	0.00	13.11
83	M	trans-1,3-dichloropropene	0.443	0.439	0.9	104	0.00	13.58
84	M	ethyl methacrylate	0.362	0.390	-7.7	112	0.00	13.54
85	M	1,1,2-trichloroethane	0.241	0.232	3.7	105	0.00	13.81
86	M	2-hexanone	0.113	0.122	-8.0	113	0.00	13.98
87	I	chlorobenzene-d5	1.000	1.000	0.0	111	0.00	14.88
88	M	tetrachloroethene	0.300	0.284	5.3	100	0.00	13.94
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.509	0.503	1.2	107	0.00	14.00
91	M	butyl acetate	0.200	0.219	-9.5	116	0.00	14.03
		----------	True	Calc.	% Drift	----------		
92		3,3-dimethyl-1-butanol	500.000	495.251	0.9	126	0.00	14.17
		----------	AvgRF	CCRF	% Dev	----------		
93	M	dibromochloromethane	0.375	0.370	1.3	102	0.00	14.29
94	M	1,2-dibromoethane	0.334	0.321	3.9	104	0.00	14.44
95	M	chlorobenzene	0.990	0.929	6.2	103	0.00	14.92
96	M	1,1,1,2-tetrachloroethane	0.426	0.444	-4.2	109	0.00	14.98
97	M	ethylbenzene	1.624	1.568	3.4	103	0.00	14.96
98	M	m,p-xylene	0.624	0.617	1.1	102	0.00	15.07
99	M	o-xylene	0.644	0.671	-4.2	105	0.00	15.52
100	M	styrene	1.047	1.029	1.7	102	0.00	15.54
101	M	bromoform	0.286	0.276	3.5	102	0.00	15.87
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	17.37
103	M	isopropylbenzene	2.901	3.102	-6.9	106	0.00	15.88
104	S	4-bromofluorobenzene (s)	0.767	0.712	7.2	100	0.00	16.12
105		cyclohexanone	0.052	0.041	21.2#	76	0.00	16.13
106	M	bromobenzene	0.761	0.750	1.4	101	0.00	16.34
107	M	1,1,2,2-tetrachloroethane	0.846	0.841	0.6	104	0.00	16.26
108	M	trans-1,4-dichloro-2-bute	0.197	0.212	-7.6	108	0.00	16.30
109	M	1,2,3-trichloropropane	0.202	0.212	-5.0	103	0.00	16.34
110	M	n-propylbenzene	0.742	0.801	-8.0	108	0.00	16.32
111	M	2-chlorotoluene	0.732	0.729	0.4	104	0.00	16.49
112	M	4-chlorotoluene	0.712	0.700	1.7	99	0.00	16.60
113	M	1,3,5-trimethylbenzene	2.531	2.660	-5.1	105	0.00	16.47
114	M	tert-butylbenzene	2.291	2.464	-7.6	105	0.00	16.85
115	M	pentachloroethane	0.547	0.613	-12.1	108	0.00	16.97
116	M	1,2,4-trimethylbenzene	2.508	2.719	-8.4	108	0.00	16.90
117	M	sec-butylbenzene	3.538	3.711	-4.9	104	0.00	17.07
118	M	1,3-dichlorobenzene	1.582	1.467	7.3	96	0.00	17.31
119	M	p-isopropyltoluene	2.975	3.134	-5.3	105	0.00	17.20
120	M	1,4-dichlorobenzene	1.654	1.505	9.0	97	0.00	17.40
121	M	1,2-dichlorobenzene	1.695	1.593	6.0	99	0.00	17.84
122	M	benzyl chloride	1.724	1.997	-15.8	120	0.00	17.54
123	M	n-butylbenzene	1.518	1.543	-1.6	104	0.00	17.65
124	M	1,2-dibromo-3-chloropropa	0.201	0.206	-2.5	105	0.00	18.70
125		1,3,5-TRICHLOROBENZENE	1.751	1.620	7.5	96	0.00	18.86
126	M	1,2,4-trichlorobenzene	1.888	1.812	4.0	97	0.00	19.57
127	M	hexachlorobutadiene	0.829	0.781	5.8	96	0.00	19.66
128	M	naphthalene	4.958	4.896	1.3	99	0.00	19.89
129	M	1,2,3-trichlorobenzene	2.118	2.031	4.1	96	0.00	20.16
		----------	True	Calc.	% Drift	----------		
130	M	hexachloroethane	50.000	45.610	8.8	104	0.00	18.09

6.7.2 6

Initial Calibration Verification

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6014-ICV6014
Lab FileID: 3A138971.D

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3a138963.D M3A6014.M        Wed Feb 18 14:21:26 2015   ACCUNJ
```

6.7.2

6

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V3A6023-CC6014
Lab FileID: 3A139169.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\3A\v3A6023\3a139169.D Vial: 2
Acq On : 23 Feb 2015 10:28 am Operator: zobiah
Sample : cc6014-20 Inst : MS3A
Misc : MS81093,V3A6023,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Feb 19 10:03:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
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	108	0.00	8.14
2	M	tertiary butyl alcohol	0.999	1.156	-15.7	121	0.00	8.27
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.106	0.113	-6.6	115	0.02	12.32
5	I	pentafluorobenzene	1.000	1.000	0.0	95	0.00	10.57
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.494	0.612	-23.9#	115	0.01	4.11
9	M	dichlorodifluoromethane	0.810	0.815	-0.6	93	0.02	4.09
10	M	chloromethane	0.591	0.720	-21.8#	116	0.00	4.46
11	M	vinyl chloride	0.715	0.800	-11.9	108	0.00	4.76
12	M	bromomethane	0.427	0.500	-17.1	114	0.00	5.54
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.572	0.683	-19.4	115	0.00	7.00
16	M	chloroethane	0.284	0.352	-23.9#	118	0.00	5.74
17	M	trichlorofluoromethane	0.733	0.796	-8.6	100	0.01	6.27
18	M	Pentane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
19		1-CHLOROPROPANE	20.000	24.721	-23.6#	115	0.01	8.16
		----------	AvgRF	CCRF	% Dev	----------		
20	M	ethyl ether	0.193	0.224	-16.1	108	0.00	6.76
21	M	acrolein	0.083	0.082	1.2	91	0.01	7.14
22	M	1,1-dichloroethene	0.409	0.429	-4.9	100	0.00	7.26
23	M	acetone	0.111	0.133	-19.8	116	0.00	7.40
24	M	allyl chloride	0.200	0.226	-13.0	106	0.00	7.91
25	M	acetonitrile	0.029	0.030	-3.4	89	0.01	7.97
26	M	iodomethane	0.864	0.924	-6.9	100	0.00	7.60
27	M	iso-butyl alcohol	0.012	0.014	-16.7	110	0.00	11.14
28	M	carbon disulfide	1.595	1.773	-11.2	107	0.00	7.71
29	M	methylene chloride	0.474	0.523	-10.3	104	0.00	8.15
30	M	methyl acetate	0.257	0.332	-29.2#	124	0.00	7.91
31	M	methyl tert butyl ether	1.360	1.566	-15.1	106	0.00	8.47
32	M	trans-1,2-dichloroethene	0.548	0.634	-15.7	111	0.00	8.54
33	M	di-isopropyl ether	1.094	1.372	-25.4#	123	0.00	9.14
34	M	2-butanone	0.043	0.040	7.0	92	0.00	10.02
35	M	1,1-dichloroethane	0.672	0.802	-19.3	114	0.00	9.21
36	M	chloroprene	0.439	0.494	-12.5	108	0.00	9.30
37	M	acrylonitrile	0.130	0.160	-23.1#	112	0.01	8.59

Continuing Calibration Summary

Job Number: JB88565 **Sample:** V3A6023-CC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A139169.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

			True	Calc.	% Drift			
38	M	vinyl acetate	20.000	20.055	-0.3	98	0.00	9.20
			AvgRF	CCRF	% Dev			
39	M	ethyl tert-butyl ether	1.326	1.519	-14.6	110	0.01	9.66
			True	Calc.	% Drift			
40	M	ethyl acetate	20.000	26.068	-30.3#	134	0.02	10.01
			AvgRF	CCRF	% Dev			
41	M	2,2-dichloropropane	0.699	0.826	-18.2	113	0.01	10.01
42	M	cis-1,2-dichloroethene	0.449	0.496	-10.5	103	0.00	10.02
			True	Calc.	% Drift			
43		methylacrylate	20.000	22.220	-11.1	103	0.01	10.10
			AvgRF	CCRF	% Dev			
44	M	propionitrile	0.052	0.065	-25.0#	114	0.01	10.18
45	M	bromochloromethane	0.232	0.250	-7.8	102	0.01	10.38
46	M	tetrahydrofuran	0.110	0.135	-22.7#	121	0.00	10.39
47	M	chloroform	0.432	0.485	-12.3	105	0.00	10.43
48		t-butyl formate	0.358	0.428	-19.6	115	0.00	10.44
49	S	dibromofluoromethane (s)	0.369	0.390	-5.7	106	0.00	10.65
50	S	1,2-dichloroethane-d4 (s)	0.350	0.388	-10.9	108	0.00	11.09
51	M	freon 113	0.322	0.309	4.0	86	0.00	7.19
			True	Calc.	% Drift			
52	M	methacrylonitrile	20.000	25.217	-26.1#	124	0.00	10.34
			AvgRF	CCRF	% Dev			
53	M	1,1,1-trichloroethane	0.648	0.727	-12.2	104	0.00	10.66
54	M	Cyclohexane	0.679	0.724	-6.6	100	0.00	10.70
55	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	11.53
56	M	epichlorohydrin	0.028	0.032	-14.3	118	0.00	12.90
57	M	n-butyl alcohol	0.010	0.011	-10.0	126	0.00	11.72
58	M	carbon tetrachloride	0.524	0.528	-0.8	102	0.00	10.86
59	M	1,1-dichloropropene	0.418	0.434	-3.8	106	0.00	10.84
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.298	0.272	8.7	93	0.00	8.83
62		2,2,4-TRIMETHYLPENTANE	1.162	0.832	28.4#	75	0.00	11.07
63	M	benzene	1.290	1.368	-6.0	110	0.00	11.13
64	M	tert-amyl methyl ether	0.281	0.283	-0.7	102	0.00	11.15
65	M	heptane	0.169	0.135	20.1#	84	0.00	11.25
66	M	isopropyl acetate	0.642	0.674	-5.0	112	0.00	11.06
67	M	1,2-dichloroethane	0.390	0.410	-5.1	109	0.00	11.19
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.319	0.326	-2.2	103	0.01	11.89
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.180	0.198	-10.0	106	0.00	12.18
72	M	2-nitropropane	0.090	0.106	-17.8	120	0.00	12.76
73	M	2-chloroethyl vinyl ether	0.187	0.209	-11.8	113	0.00	12.74
74	M	1,2-dichloropropane	0.317	0.344	-8.5	111	0.00	12.18
75	M	dibromomethane	0.207	0.218	-5.3	104	0.00	12.37
76	M	methylcyclohexane	0.576	0.479	16.8	88	0.00	12.06
77	M	bromodichloromethane	0.422	0.447	-5.9	110	0.00	12.50
78	M	cis-1,3-dichloropropene	0.503	0.532	-5.8	108	0.00	12.97
79	S	toluene-d8 (s)	1.112	1.107	0.4	110	0.00	13.25
80	M	4-methyl-2-pentanone	0.122	0.135	-10.7	118	0.00	13.07

Continuing Calibration Summary

Job Number: JB88565 **Sample:** V3A6023-CC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A139169.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	toluene	0.725	0.757	-4.4	105	0.00	13.33
82	M	3-methyl-1-butanol	0.015	0.017	-13.3	123	0.00	13.11
83	M	trans-1,3-dichloropropene	0.443	0.482	-8.8	108	0.00	13.58
84	M	ethyl methacrylate	0.362	0.402	-11.0	108	0.00	13.54
85	M	1,1,2-trichloroethane	0.241	0.252	-4.6	104	0.00	13.81
86	M	2-hexanone	0.113	0.124	-9.7	116	0.00	13.99
87	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	14.88
88	M	tetrachloroethene	0.300	0.270	10.0	92	0.00	13.94
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.509	0.544	-6.9	105	0.00	14.01
91	M	butyl acetate	0.200	0.233	-16.5	116	0.00	14.04
		----------	True	Calc.	% Drift	----------		
92		3,3-dimethyl-1-butanol	200.000	221.051	-10.5	128	0.00	14.17
		----------	AvgRF	CCRF	% Dev	----------		
93	M	dibromochloromethane	0.375	0.379	-1.1	99	0.00	14.29
94	M	1,2-dibromoethane	0.334	0.338	-1.2	102	0.00	14.45
95	M	chlorobenzene	0.990	0.967	2.3	100	0.00	14.92
96	M	1,1,1,2-tetrachloroethane	0.426	0.425	0.2	101	0.00	14.98
97	M	ethylbenzene	1.624	1.641	-1.0	102	0.00	14.96
98	M	m,p-xylene	0.624	0.639	-2.4	100	0.00	15.07
99	M	o-xylene	0.644	0.672	-4.3	100	0.00	15.52
100	M	styrene	1.047	1.060	-1.2	99	0.00	15.55
101	M	bromoform	0.286	0.268	6.3	93	0.00	15.87
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	17.37
103	M	isopropylbenzene	2.901	3.024	-4.2	98	0.00	15.88
104	S	4-bromofluorobenzene (s)	0.767	0.806	-5.1	103	0.00	16.13
105		cyclohexanone	0.052	0.017	67.3#	32#	0.00	16.13
106	M	bromobenzene	0.761	0.773	-1.6	96	0.00	16.34
107	M	1,1,2,2-tetrachloroethane	0.846	0.906	-7.1	102	0.00	16.26
108	M	trans-1,4-dichloro-2-bute	0.197	0.227	-15.2	107	0.00	16.30
109	M	1,2,3-trichloropropane	0.202	0.222	-9.9	97	0.00	16.34
110	M	n-propylbenzene	0.742	0.745	-0.4	95	0.00	16.32
111	M	2-chlorotoluene	0.732	0.746	-1.9	97	0.00	16.49
112	M	4-chlorotoluene	0.712	0.739	-3.8	96	0.00	16.60
113	M	1,3,5-trimethylbenzene	2.531	2.590	-2.3	97	0.00	16.47
114	M	tert-butylbenzene	2.291	2.188	4.5	91	0.00	16.85
115	M	pentachloroethane	0.547	0.581	-6.2	101	0.00	16.97
116	M	1,2,4-trimethylbenzene	2.508	2.620	-4.5	97	0.00	16.90
117	M	sec-butylbenzene	3.538	3.355	5.2	90	0.00	17.07
118	M	1,3-dichlorobenzene	1.582	1.550	2.0	91	0.00	17.31
119	M	p-isopropyltoluene	2.975	2.798	5.9	88	0.00	17.20
120	M	1,4-dichlorobenzene	1.654	1.596	3.5	92	0.00	17.40
121	M	1,2-dichlorobenzene	1.695	1.619	4.5	91	0.00	17.84
122	M	benzyl chloride	1.724	1.808	-4.9	101	0.00	17.54
123	M	n-butylbenzene	1.518	1.409	7.2	88	0.00	17.65
124	M	1,2-dibromo-3-chloropropa	0.201	0.208	-3.5	95	0.00	18.70
125		1,3,5-TRICHLOROBENZENE	1.751	1.486	15.1	81	0.00	18.86
126	M	1,2,4-trichlorobenzene	1.888	1.659	12.1	82	0.00	19.57
127	M	hexachlorobutadiene	0.829	0.563	32.1#	66	0.00	19.66
128	M	naphthalene	4.958	4.561	8.0	85	0.00	19.89
129	M	1,2,3-trichlorobenzene	2.118	1.821	14.0	80	0.00	20.16
		----------	True	Calc.	% Drift	----------		
130	M	hexachloroethane	20.000	17.411	12.9	86	0.00	18.09

6.7.3 6

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6023-CC6014
Lab FileID: 3A139169.D

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3a138962.D M3A6014.M        Mon Feb 23 17:17:39 2015   RPT1
```

6.7.3

6

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V3A6024-CC6014
Lab FileID: 3A139190.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\3a139190.D Vial: 23
Acq On : 23 Feb 2015 10:02 pm Operator: zobiah
Sample : cc6014-50 Inst : MS3A
Misc : MS81194,V3A6024,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Feb 19 10:03:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
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	124	0.00	8.14
2	M	tertiary butyl alcohol	0.999	1.069	-7.0	124	0.00	8.28
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.106	0.109	-2.8	121	0.00	12.31
5	I	pentafluorobenzene	1.000	1.000	0.0	103	0.00	10.57
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.494	0.610	-23.5#	118	0.00	4.10
9	M	dichlorodifluoromethane	0.810	0.809	0.1	94	-0.01	4.06
10	M	chloromethane	0.591	0.672	-13.7	108	0.00	4.46
11	M	vinyl chloride	0.715	0.731	-2.2	98	-0.01	4.74
12	M	bromomethane	0.427	0.433	-1.4	108	0.00	5.53
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.572	0.610	-6.6	114	0.00	7.00
16	M	chloroethane	0.284	0.322	-13.4	122	0.00	5.74
17	M	trichlorofluoromethane	0.733	0.717	2.2	92	0.01	6.27
18	M	Pentane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
19		1-CHLOROPROPANE	50.000	58.975	-18.0	118	0.00	8.15
		----------	AvgRF	CCRF	% Dev	----------		
20	M	ethyl ether	0.193	0.217	-12.4	110	0.00	6.76
21	M	acrolein	0.083	0.079	4.8	95	0.00	7.13
22	M	1,1-dichloroethene	0.409	0.376	8.1	94	0.00	7.25
23	M	acetone	0.111	0.129	-16.2	116	0.01	7.41
24	M	allyl chloride	0.200	0.208	-4.0	102	0.00	7.90
25	M	acetonitrile	0.029	0.040	-37.9#	134	0.01	7.97
26	M	iodomethane	0.864	0.827	4.3	95	0.00	7.60
27	M	iso-butyl alcohol	0.012	0.014	-16.7	110	0.00	11.14
28	M	carbon disulfide	1.595	1.557	2.4	101	0.00	7.71
29	M	methylene chloride	0.474	0.476	-0.4	104	0.00	8.15
30	M	methyl acetate	0.257	0.337	-31.1#	137	0.00	7.91
31	M	methyl tert butyl ether	1.360	1.524	-12.1	111	0.00	8.47
32	M	trans-1,2-dichloroethene	0.548	0.586	-6.9	112	0.00	8.54
33	M	di-isopropyl ether	1.094	1.364	-24.7#	130	0.00	9.13
34	M	2-butanone	0.043	0.047	-9.3	102	0.00	10.01
35	M	1,1-dichloroethane	0.672	0.753	-12.1	114	0.00	9.20
36	M	chloroprene	0.439	0.489	-11.4	114	0.00	9.30
37	M	acrylonitrile	0.130	0.164	-26.2#	125	0.00	8.58

Continuing Calibration Summary

Job Number: JB88565 **Sample:** V3A6024-CC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A139190.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

			True	Calc.	% Drift			
38	M	vinyl acetate	50.000	47.486	5.0	94	0.00	9.20
			AvgRF	CCRF	% Dev			
39	M	ethyl tert-butyl ether	1.326	1.496	-12.8	113	0.00	9.65
			True	Calc.	% Drift			
40	M	ethyl acetate	50.000	58.838	-17.7	128	0.00	10.00
			AvgRF	CCRF	% Dev			
41	M	2,2-dichloropropane	0.699	0.687	1.7	100	0.00	10.00
42	M	cis-1,2-dichloroethene	0.449	0.475	-5.8	108	0.00	10.02
			True	Calc.	% Drift			
43		methylacrylate	50.000	50.428	-0.9	110	0.00	10.09
			AvgRF	CCRF	% Dev			
44	M	propionitrile	0.052	0.067	-28.8#	126	0.00	10.17
45	M	bromochloromethane	0.232	0.238	-2.6	104	0.00	10.37
46	M	tetrahydrofuran	0.110	0.136	-23.6#	129	0.00	10.39
47	M	chloroform	0.432	0.449	-3.9	106	0.00	10.43
48		t-butyl formate	0.358	0.423	-18.2	114	0.00	10.44
49	S	dibromofluoromethane (s)	0.369	0.380	-3.0	108	0.00	10.65
50	S	1,2-dichloroethane-d4 (s)	0.350	0.380	-8.6	112	0.00	11.09
51	M	freon 113	0.322	0.313	2.8	91	0.00	7.19
			True	Calc.	% Drift			
52	M	methacrylonitrile	50.000	58.567	-17.1	122	0.00	10.33
			AvgRF	CCRF	% Dev			
53	M	1,1,1-trichloroethane	0.648	0.694	-7.1	105	0.00	10.66
54	M	Cyclohexane	0.679	0.683	-0.6	98	0.00	10.70
55	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.53
56	M	epichlorohydrin	0.028	0.033	-17.9	115	0.00	12.90
57	M	n-butyl alcohol	0.010	0.012	-20.0	129	0.00	11.71
58	M	carbon tetrachloride	0.524	0.522	0.4	101	0.00	10.85
59	M	1,1-dichloropropene	0.418	0.422	-1.0	105	0.00	10.84
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.298	0.299	-0.3	105	0.00	8.83
62		2,2,4-TRIMETHYLPENTANE	1.162	0.943	18.8	80	0.00	11.07
63	M	benzene	1.290	1.338	-3.7	108	0.00	11.13
64	M	tert-amyl methyl ether	0.281	0.286	-1.8	105	0.00	11.14
65	M	heptane	0.169	0.152	10.1	91	0.00	11.25
66	M	isopropyl acetate	0.642	0.736	-14.6	117	0.00	11.06
67	M	1,2-dichloroethane	0.390	0.410	-5.1	110	0.00	11.19
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.319	0.305	4.4	98	0.00	11.88
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.180	0.206	-14.4	109	0.00	12.17
72	M	2-nitropropane	0.090	0.108	-20.0#	118	0.00	12.76
73	M	2-chloroethyl vinyl ether	0.187	0.212	-13.4	113	0.00	12.74
74	M	1,2-dichloropropane	0.317	0.342	-7.9	114	0.00	12.18
75	M	dibromomethane	0.207	0.211	-1.9	103	0.00	12.36
76	M	methylcyclohexane	0.576	0.532	7.6	92	0.00	12.06
77	M	bromodichloromethane	0.422	0.432	-2.4	104	0.00	12.50
78	M	cis-1,3-dichloropropene	0.503	0.510	-1.4	104	0.00	12.97
79	S	toluene-d8 (s)	1.112	1.126	-1.3	112	0.00	13.25
80	M	4-methyl-2-pentanone	0.122	0.146	-19.7	124	0.00	13.08

Continuing Calibration Summary

Job Number: JB88565 **Sample:** V3A6024-CC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A139190.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	toluene	0.725	0.740	-2.1	103	0.00	13.33
82	M	3-methyl-1-butanol	0.015	0.020	-33.3#	135	0.00	13.11
83	M	trans-1,3-dichloropropene	0.443	0.457	-3.2	103	0.00	13.58
84	M	ethyl methacrylate	0.362	0.416	-14.9	113	0.00	13.53
85	M	1,1,2-trichloroethane	0.241	0.246	-2.1	106	0.00	13.81
86	M	2-hexanone	0.113	0.128	-13.3	112	0.00	13.98
87	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	14.88
88	M	tetrachloroethene	0.300	0.269	10.3	88	0.00	13.94
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.509	0.539	-5.9	107	0.00	14.00
91	M	butyl acetate	0.200	0.243	-21.5#	120	0.00	14.03
		----------	True	Calc.	% Drift	----------		
92		3,3-dimethyl-1-butanol	500.000	557.350	-11.5	134	0.00	14.17
		----------	AvgRF	CCRF	% Dev	----------		
93	M	dibromochloromethane	0.375	0.380	-1.3	97	0.00	14.29
94	M	1,2-dibromoethane	0.334	0.338	-1.2	102	0.00	14.44
95	M	chlorobenzene	0.990	0.955	3.5	98	0.00	14.92
96	M	1,1,1,2-tetrachloroethane	0.426	0.445	-4.5	102	0.00	14.98
97	M	ethylbenzene	1.624	1.633	-0.6	100	0.00	14.95
98	M	m,p-xylene	0.624	0.636	-1.9	98	0.00	15.07
99	M	o-xylene	0.644	0.682	-5.9	100	0.00	15.52
100	M	styrene	1.047	1.060	-1.2	98	0.00	15.54
101	M	bromoform	0.286	0.274	4.2	94	0.00	15.87
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	17.37
103	M	isopropylbenzene	2.901	3.089	-6.5	97	0.00	15.88
104	S	4-bromofluorobenzene (s)	0.767	0.824	-7.4	107	0.00	16.12
105		cyclohexanone	0.052	0.017	67.3#	29#	0.00	16.12
106	M	bromobenzene	0.761	0.758	0.4	94	0.00	16.34
107	M	1,1,2,2-tetrachloroethane	0.846	0.928	-9.7	106	0.00	16.26
108	M	trans-1,4-dichloro-2-bute	0.197	0.214	-8.6	101	0.00	16.30
109	M	1,2,3-trichloropropane	0.202	0.224	-10.9	101	0.00	16.34
110	M	n-propylbenzene	0.742	0.757	-2.0	95	0.00	16.32
111	M	2-chlorotoluene	0.732	0.738	-0.8	97	0.00	16.49
112	M	4-chlorotoluene	0.712	0.726	-2.0	95	0.00	16.60
113	M	1,3,5-trimethylbenzene	2.531	2.651	-4.7	97	0.00	16.47
114	M	tert-butylbenzene	2.291	2.282	0.4	90	0.00	16.85
115	M	pentachloroethane	0.547	0.598	-9.3	97	0.00	16.97
116	M	1,2,4-trimethylbenzene	2.508	2.607	-3.9	96	0.00	16.90
117	M	sec-butylbenzene	3.538	3.432	3.0	89	0.00	17.07
118	M	1,3-dichlorobenzene	1.582	1.506	4.8	91	0.00	17.31
119	M	p-isopropyltoluene	2.975	2.836	4.7	88	0.00	17.20
120	M	1,4-dichlorobenzene	1.654	1.544	6.7	92	0.00	17.40
121	M	1,2-dichlorobenzene	1.695	1.619	4.5	93	0.00	17.84
122	M	benzyl chloride	1.724	1.602	7.1	89	0.00	17.54
123	M	n-butylbenzene	1.518	1.383	8.9	86	0.00	17.65
124	M	1,2-dibromo-3-chloropropa	0.201	0.217	-8.0	102	0.00	18.71
125		1,3,5-TRICHLOROBENZENE	1.751	1.485	15.2	81	0.00	18.86
126	M	1,2,4-trichlorobenzene	1.888	1.645	12.9	81	0.00	19.57
127	M	hexachlorobutadiene	0.829	0.559	32.6#	64	0.00	19.66
128	M	naphthalene	4.958	4.727	4.7	88	0.00	19.89
129	M	1,2,3-trichlorobenzene	2.118	1.844	12.9	81	0.00	20.15
		----------	True	Calc.	% Drift	----------		
130	M	hexachloroethane	50.000	39.587	20.8#	82	0.00	18.09

6.7.4 6

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6024-CC6014
Lab FileID: 3A139190.D

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3a139067.D M3A6014.M        Tue Feb 24 10:22:46 2015   ACCUNJ
```

6.7.4

6

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6025-CC6014
Lab FileID: 3A139217.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\3a139217.D
Acq On : 24 Feb 2015 11:55 am
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
MS Integration Params: rteint.p

Vial: 3
Operator: zobiah
Inst : MS3A
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Thu Feb 19 10:03:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.30min
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	107	0.00	8.14
2	M	tertiary butyl alcohol	0.999	1.031	-3.2	107	0.00	8.27
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.106	0.100	5.7	100	0.00	12.31
5	I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	10.57
6		FREON 115		----------NA----------				
7		FREON 152A		----------NA----------				
8	M	chlorodifluoromethane	0.494	0.605	-22.5#	121	-0.01	4.09
9	M	dichlorodifluoromethane	0.810	0.724	10.6	88	0.00	4.07
10	M	chloromethane	0.591	0.567	4.1	98	0.00	4.45
11	M	vinyl chloride	0.715	0.652	8.8	93	-0.01	4.75
12	M	bromomethane	0.427	0.413	3.3	100	0.00	5.53
13		FREON 123A		----------NA----------				
14		FREON 123		----------NA----------				
15		2-CHLOROPROPANE	0.572	0.735	-28.5#	132	0.00	7.00
16	M	chloroethane	0.284	0.292	-2.8	104	0.00	5.74
17	M	trichlorofluoromethane	0.733	0.722	1.5	96	0.00	6.25
18	M	Pentane		----------NA----------				
		----------	True	Calc.	% Drift	----------		
19		1-CHLOROPROPANE	20.000	25.974	-29.9#	128	0.00	8.15
		----------	AvgRF	CCRF	% Dev	----------		
20	M	ethyl ether	0.193	0.233	-20.7#	119	0.00	6.76
21	M	acrolein	0.083	0.079	4.8	94	0.00	7.13
22	M	1,1-dichloroethene	0.409	0.425	-3.9	105	-0.01	7.25
23	M	acetone	0.111	0.128	-15.3	120	0.00	7.40
24	M	allyl chloride	0.200	0.232	-16.0	116	0.00	7.90
25	M	acetonitrile	0.029	0.027	6.9	88	0.02	7.97
26	M	iodomethane	0.864	0.872	-0.9	100	0.00	7.60
27	M	iso-butyl alcohol	0.012	0.014	-16.7	115	0.00	11.14
28	M	carbon disulfide	1.595	1.743	-9.3	112	0.00	7.71
29	M	methylene chloride	0.474	0.511	-7.8	108	0.00	8.14
30	M	methyl acetate	0.257	0.338	-31.5#	134	0.00	7.91
31	M	methyl tert butyl ether	1.360	1.498	-10.1	108	0.00	8.47
32	M	trans-1,2-dichloroethene	0.548	0.635	-15.9	118	0.00	8.54
33	M	di-isopropyl ether	1.094	1.353	-23.7#	129	0.00	9.13
34	M	2-butanone	0.043	0.042	2.3	102	0.00	10.02
35	M	1,1-dichloroethane	0.672	0.804	-19.6	121	0.00	9.21
36	M	chloroprene	0.439	0.529	-20.5#	123	0.00	9.30
37	M	acrylonitrile	0.130	0.155	-19.2	116	0.00	8.58

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6025-CC6014
Lab FileID: 3A139217.D

			True	Calc.	% Drift			
38	M	vinyl acetate	20.000	20.078	-0.4	104	0.00	9.20
			AvgRF	CCRF	% Dev			
39	M	ethyl tert-butyl ether	1.326	1.475	-11.2	113	0.00	9.65
			True	Calc.	% Drift			
40	M	ethyl acetate	20.000	23.509	-17.5	127	0.02	10.01
			AvgRF	CCRF	% Dev			
41	M	2,2-dichloropropane	0.699	0.805	-15.2	117	0.00	10.00
42	M	cis-1,2-dichloroethene	0.449	0.483	-7.6	107	0.00	10.02
			True	Calc.	% Drift			
43		methylacrylate	20.000	20.808	-4.0	101	0.01	10.10
			AvgRF	CCRF	% Dev			
44	M	propionitrile	0.052	0.060	-15.4	111	0.00	10.17
45	M	bromochloromethane	0.232	0.238	-2.6	104	0.00	10.37
46	M	tetrahydrofuran	0.110	0.131	-19.1	125	0.01	10.40
47	M	chloroform	0.432	0.475	-10.0	110	0.00	10.43
48		t-butyl formate	0.358	0.391	-9.2	112	0.00	10.43
49	S	dibromofluoromethane (s)	0.369	0.397	-7.6	115	0.00	10.65
50	S	1,2-dichloroethane-d4 (s)	0.350	0.397	-13.4	118	0.00	11.09
51	M	freon 113	0.322	0.352	-9.3	104	0.00	7.19
			True	Calc.	% Drift			
52	M	methacrylonitrile	20.000	24.410	-22.1#	127	0.00	10.34
			AvgRF	CCRF	% Dev			
53	M	1,1,1-trichloroethane	0.648	0.704	-8.6	107	0.00	10.66
54	M	Cyclohexane	0.679	0.724	-6.6	107	0.00	10.70
55	I	1,4-difluorobenzene	1.000	1.000	0.0	110	0.00	11.53
56	M	epichlorohydrin	0.028	0.029	-3.6	116	0.00	12.90
57	M	n-butyl alcohol	0.010	0.009#	10.0	115	0.00	11.72
58	M	carbon tetrachloride	0.524	0.498	5.0	104	0.00	10.85
59	M	1,1-dichloropropene	0.418	0.442	-5.7	116	0.00	10.84
60		Tert Amyl Alcohol		----------NA----------				
61	M	hexane	0.298	0.344	-15.4	127	0.00	8.83
62		2,2,4-TRIMETHYLPENTANE	1.162	1.085	6.6	106	0.00	11.07
63	M	benzene	1.290	1.354	-5.0	117	0.00	11.13
64	M	tert-amyl methyl ether	0.281	0.263	6.4	102	0.00	11.14
65	M	heptane	0.169	0.178	-5.3	120	0.00	11.26
66	M	isopropyl acetate	0.642	0.687	-7.0	124	0.00	11.06
67	M	1,2-dichloroethane	0.390	0.425	-9.0	121	0.00	11.19
68	m	Ethyl acrylate		----------NA----------				
69	M	trichloroethene	0.319	0.321	-0.6	110	0.00	11.88
70		tert-Amyl Ethyl Ether		----------NA----------				
71	M	methyl methacrylate	0.180	0.194	-7.8	112	0.00	12.18
72	M	2-nitropropane	0.090	0.104	-15.6	126	0.00	12.76
73	M	2-chloroethyl vinyl ether	0.187	0.198	-5.9	116	0.00	12.74
74	M	1,2-dichloropropane	0.317	0.342	-7.9	119	0.00	12.18
75	M	dibromomethane	0.207	0.217	-4.8	112	0.00	12.36
76	M	methylcyclohexane	0.576	0.539	6.4	107	0.00	12.06
77	M	bromodichloromethane	0.422	0.442	-4.7	117	0.00	12.50
78	M	cis-1,3-dichloropropene	0.503	0.538	-7.0	118	0.00	12.97
79	S	toluene-d8 (s)	1.112	1.114	-0.2	119	0.00	13.25
80	M	4-methyl-2-pentanone	0.122	0.127	-4.1	119	0.00	13.08

Continuing Calibration Summary

Job Number: JB88565 **Sample:** V3A6025-CC6014
Account: UTC United Technologies Corporation **Lab FileID:** 3A139217.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

81	M	toluene	0.725	0.747	-3.0	111	0.00	13.33
82	M	3-methyl-1-butanol	0.015	0.014	6.7	111	0.00	13.11
83	M	trans-1,3-dichloropropene	0.443	0.474	-7.0	115	0.00	13.58
84	M	ethyl methacrylate	0.362	0.374	-3.3	108	0.00	13.54
85	M	1,1,2-trichloroethane	0.241	0.244	-1.2	109	0.00	13.82
86	M	2-hexanone	0.113	0.110	2.7	110	0.00	13.98
87	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	14.89
88	M	tetrachloroethene	0.300	0.275	8.3	101	0.00	13.94
89		BUTYL ACRYLATE		----------NA----------				
90	M	1,3-dichloropropane	0.509	0.528	-3.7	110	0.00	14.00
91	M	butyl acetate	0.200	0.218	-9.0	118	0.00	14.04
		----------	True	Calc.	% Drift	----------		
92		3,3-dimethyl-1-butanol	200.000	190.003	5.0	113	0.00	14.17
		----------	AvgRF	CCRF	% Dev	----------		
93	M	dibromochloromethane	0.375	0.363	3.2	103	0.00	14.29
94	M	1,2-dibromoethane	0.334	0.327	2.1	107	0.00	14.45
95	M	chlorobenzene	0.990	0.956	3.4	107	0.00	14.92
96	M	1,1,1,2-tetrachloroethane	0.426	0.404	5.2	104	0.00	14.98
97	M	ethylbenzene	1.624	1.617	0.4	109	0.00	14.96
98	M	m,p-xylene	0.624	0.619	0.8	105	0.00	15.07
99	M	o-xylene	0.644	0.649	-0.8	105	0.00	15.52
100	M	styrene	1.047	1.019	2.7	103	0.00	15.54
101	M	bromoform	0.286	0.251	12.2	94	0.00	15.87
102	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	17.37
103	M	isopropylbenzene	2.901	3.006	-3.6	102	0.00	15.88
104	S	4-bromofluorobenzene (s)	0.767	0.826	-7.7	112	0.00	16.12
105		cyclohexanone	0.052	0.021	59.6#	41#	0.00	16.13
106	M	bromobenzene	0.761	0.763	-0.3	100	0.00	16.34
107	M	1,1,2,2-tetrachloroethane	0.846	0.869	-2.7	103	0.00	16.26
108	M	trans-1,4-dichloro-2-bute	0.197	0.211	-7.1	105	0.00	16.30
109	M	1,2,3-trichloropropane	0.202	0.205	-1.5	94	0.00	16.34
110	M	n-propylbenzene	0.742	0.728	1.9	98	0.00	16.32
111	M	2-chlorotoluene	0.732	0.735	-0.4	101	0.00	16.49
112	M	4-chlorotoluene	0.712	0.735	-3.2	101	0.00	16.60
113	M	1,3,5-trimethylbenzene	2.531	2.554	-0.9	101	0.00	16.47
114	M	tert-butylbenzene	2.291	2.175	5.1	96	0.00	16.85
115	M	pentachloroethane	0.547	0.549	-0.4	101	0.00	16.97
116	M	1,2,4-trimethylbenzene	2.508	2.545	-1.5	100	0.00	16.90
117	M	sec-butylbenzene	3.538	3.356	5.1	95	0.00	17.07
118	M	1,3-dichlorobenzene	1.582	1.527	3.5	95	0.00	17.31
119	M	p-isopropyltoluene	2.975	2.785	6.4	92	0.00	17.20
120	M	1,4-dichlorobenzene	1.654	1.558	5.8	95	0.00	17.40
121	M	1,2-dichlorobenzene	1.695	1.599	5.7	95	0.00	17.84
122	M	benzyl chloride	1.724	1.759	-2.0	104	0.00	17.54
123	M	n-butylbenzene	1.518	1.406	7.4	93	0.00	17.65
124	M	1,2-dibromo-3-chloropropa	0.201	0.188	6.5	91	0.00	18.71
125		1,3,5-TRICHLOROBENZENE	1.751	1.444	17.5	83	0.00	18.86
126	M	1,2,4-trichlorobenzene	1.888	1.582	16.2	83	0.00	19.57
127	M	hexachlorobutadiene	0.829	0.598	27.9#	74	0.00	19.66
128	M	naphthalene	4.958	4.275	13.8	84	0.00	19.89
129	M	1,2,3-trichlorobenzene	2.118	1.742	17.8	81	0.00	20.15
		----------	True	Calc.	% Drift	----------		
130	M	hexachloroethane	20.000	17.342	13.3	90	0.00	18.09

6.7.5 6

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V3A6025-CC6014
Lab FileID: 3A139217.D

```
(#) = Out of Range                SPCC's out = 0  CCC's out = 0
 3a138962.D M3A6014.M        Tue Feb 24 14:40:19 2015   ACCUNJ
```

6.7.5

6

Initial Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V4D2528-ICC2528
Lab FileID: 4D56975.D

Response Factor Report MS4D

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C
Last Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Calibration Files
10 =4d56973.D 0.5 =4d56969.D 5 =4d56972.D 50 =4d56975.D
100 =4d56976.D 1 =4d56970.D 200 =4d56977.D 20 =4d56974.D
2 =4d56971.D 0.2 =4d56968.D = =

Compound	10	0.5	5	50	100	1	200	20	2	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) 1,4-dioxane	0.122	0.130	0.140	0.134	0.109	0.129	0.141	0.138			0.130	8.25
3) tertiary butyl alcohol	1.258	1.385	1.444	1.341		1.272	1.415	1.440			1.365	5.63
4) I pentafluorobenzene ----------ISTD----------												
5) chlorodifluoromethane	0.355	0.409	0.418	0.412	0.345	0.400	0.406	0.438			0.398	7.94
6) dichlorodifluoromethane	0.448	0.504	0.524	0.513	0.473	0.494	0.514	0.550			0.502	6.25
7) chloromethane	0.554	0.651	0.615	0.626	0.611	0.675	0.574	0.621	0.712	0.743	0.638	9.17
8) vinyl chloride	0.542	0.600	0.627	0.630	0.610	0.678	0.576	0.632	0.707		0.622	7.99
9) acetaldehyde											0.000	-1.00
10) bromomethane	0.414	0.555	0.466	0.441	0.409	0.545		0.457	0.549		0.480	12.77
11) chloroethane	0.272	0.281	0.326	0.330	0.314	0.307	0.286	0.310	0.351		0.309	8.30
12) trichlorofluoromethane	0.591	0.619	0.684	0.705	0.679	0.703	0.656	0.690	0.752		0.675	7.10
13) vinyl bromide											0.000	-1.00
14) ethyl ether	0.245	0.260	0.289	0.276	0.191	0.270	0.274	0.269			0.259	11.65
15) pentane											0.000	-1.00
16) 2-chloropropane	0.708	0.819	0.796	0.788	0.757	0.809	0.720	0.786	0.912	0.847	0.794	7.50
17) acrolein	0.102	0.121	0.123	0.154	0.116	0.120	0.116	0.127			0.122	11.94
18) 1,1-dichloroethene	0.434	0.480	0.488	0.494	0.489	0.421	0.465	0.482	0.540	0.487	0.478	6.86
19) acetone	0.124	0.127	0.153	0.131		0.126	0.136				0.133	8.07
20) allyl chloride	0.222	0.212	0.260	0.258	0.249	0.208	0.241	0.256	0.273		0.242	9.47
21) acetonitrile	0.023	0.025	0.031	0.029		0.028	0.029	0.028			0.027	9.27
22) iodomethane	0.847	0.941	0.956	0.972	0.956	0.823	0.912	0.946	1.071	0.880	0.930	7.56
23) iso-butyl alcohol												

Initial Calibration Summary

Job Number: JB88565 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.016       0.017 0.019 0.017 0.014 0.016 0.018 0.019        0.017   10.25
24)  carbon disulfide
      1.625 2.085 1.834 1.840 1.791 1.668 1.694 1.817 2.063        1.824    8.84
25)  methylene chloride
      0.528 0.679 0.589 0.598 0.579 0.549 0.556 0.587 0.669        0.593    8.66
26)  1-chloropropane
      0.740 0.777 0.831 0.805 0.763 0.823 0.737 0.813 0.966        0.806    8.60
27)  methyl acetate
      0.081       0.081 0.108 0.102       0.099 0.098              0.095   12.08
28)  methyl tert butyl ether
      1.305 1.396 1.457 1.486 1.433 1.214 1.359 1.435 1.585        1.408    7.61
29)  trans-1,2-dichloroethene
      0.488 0.581 0.540 0.545 0.533 0.464 0.513 0.537 0.602 0.552  0.535    7.55
30)  di-isopropyl ether
      1.493 1.548 1.669 1.686 1.591 1.509 1.520 1.671 1.756        1.605    5.85
31)  ethyl tert-butyl ether
      1.437 1.483 1.603 1.656 1.584 1.458 1.514 1.633 1.715 1.393  1.548    6.84
32)  2-butanone
      0.050       0.051 0.066 0.062       0.060 0.059              0.058   11.01
33)  1,1-dichloroethane
      0.901 0.978 1.004 1.008 0.963 0.830 0.927 0.987 1.101 1.049  0.975    7.81
34)  chloroprene
      0.602 0.627 0.677 0.706 0.678 0.596 0.642 0.694 0.711        0.659    6.63
35)  acrylonitrile
      0.178 0.154 0.197 0.209 0.196 0.154 0.187 0.198 0.211        0.187   11.31
36)  vinyl acetate
      0.053             0.074 0.071       0.070 0.065              0.067   12.09
37)  ethyl acetate
      0.064       0.065 0.077 0.071       0.066 0.072 0.065        0.069    7.00
38)  2,2-dichloropropane
      0.604 0.715 0.689 0.666 0.637 0.602 0.588 0.668 0.769        0.660    8.97
39)  cis-1,2-dichloroethene
      0.536 0.610 0.596 0.607 0.590 0.538 0.567 0.594 0.663 0.675  0.598    7.62
40)  propionitrile
      0.071       0.079 0.086 0.080 0.058 0.075 0.081 0.087        0.077   12.02
41)  methyl acrylate
      0.447       0.486 0.515 0.482 0.333 0.461 0.481 0.532        0.467   12.99
42)  bromochloromethane
      0.271 0.241 0.303 0.311 0.301 0.243 0.294 0.299 0.325        0.287   10.31
43)  tetrahydrofuran
      0.141       0.159 0.165 0.149 0.137 0.141 0.155 0.198        0.156   12.49
44)  chloroform
      0.852 1.017 0.957 0.958 0.925 0.834 0.878 0.935 1.048 1.119  0.952    9.38
45)  dibromofluoromethane (s)
      0.506       0.574 0.552 0.534 0.700 0.520 0.535 0.549        0.559   10.89
46)  1,2-dichloroethane-d4 (s)
      0.495       0.561 0.535 0.512 0.650 0.491 0.525 0.533        0.538    9.42
47)  freon 113
      0.291 0.231 0.336 0.337 0.332 0.286 0.320 0.336 0.356        0.314   12.20
48)  methacrylonitrile
      0.272       0.299 0.328 0.307 0.217 0.293 0.311 0.324        0.294   12.13
49)  1,1,1-trichloroethane
      0.654 0.737 0.738 0.738 0.716 0.627 0.681 0.722 0.831 0.698  0.714    7.81
50)  tert-amyl methyl ether
      1.368 1.403 1.536 1.562 1.461 1.434 1.394 1.538 1.638 1.369  1.470    6.33

51) I  1,4-difluorobenzene  ----------------ISTD---------------------
52)  epichlorohydrin
      0.038       0.043 0.046 0.042 0.038 0.041 0.043 0.047        0.042    8.05
53)  n-butyl alcohol
```

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Initial Calibration Summary

Job Number: JB88565 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	0.011		0.012	0.014	0.013	0.010	0.012	0.013	0.013		0.012	11.04
54)	cyclohexane											
	0.506	0.600	0.573	0.573	0.558	0.493	0.536	0.579	0.655	0.559	0.563	8.18
55)	tert amyl alcohol											
											0.000	-1.00
56)	carbon tetrachloride											
	0.468	0.527	0.534	0.535	0.526	0.446	0.501	0.535	0.597	0.518	0.519	7.93
57)	1,1-dichloropropene											
	0.515	0.573	0.579	0.586	0.570	0.496	0.544	0.582	0.661	0.653	0.576	9.06
58)	hexane											
	0.443	0.473	0.514	0.511	0.499	0.465	0.479	0.511	0.570		0.496	7.42
59)	benzene											
	1.523	1.797	1.724	1.718	1.651	1.530	1.589	1.698	1.937	1.916	1.708	8.44
60)	ISO-OCTANE											
	1.260	1.370	1.468	1.432	1.388	1.398	1.311	1.457	1.640		1.414	7.65
61)	heptane											
	0.245	0.251	0.282	0.281	0.275	0.254	0.264	0.282	0.326		0.273	8.95
62)	isopropyl acetate											
	0.669	0.643	0.742	0.786	0.724	0.682	0.686	0.751	0.818		0.722	7.97
63)	1,2-dichloroethane											
	0.480	0.480	0.534	0.538	0.510	0.446	0.489	0.530	0.585		0.510	8.13
64)	trichloroethene											
	0.391	0.470	0.439	0.443	0.432	0.389	0.423	0.439	0.491	0.485	0.440	7.93
65)	ethyl acrylate											
											0.000	-1.00
66)	2-nitropropane											
	0.089		0.097	0.112	0.103		0.102	0.102	0.117		0.103	8.83
67)	2-chloroethyl vinyl ether											
	0.279	0.280	0.317	0.327	0.304	0.284	0.283	0.318	0.340		0.304	7.59
68)	methyl methacrylate											
	0.308		0.336	0.366	0.345	0.289	0.330	0.343	0.449		0.346	13.88
69)	1,2-dichloropropane											
	0.426	0.465	0.476	0.482	0.466	0.404	0.447	0.478	0.531		0.464	7.82
70)	methylcyclohexane											
	0.561	0.607	0.649	0.656	0.647	0.596	0.624	0.658	0.707	0.545	0.625	7.81
71)	tert-amyl ethyl ether											
											0.000	-1.00
72)	dibromomethane											
	0.277	0.303	0.308	0.319	0.304	0.251	0.297	0.309	0.336	0.300	0.300	7.59
73)	bromodichloromethane											
	0.526	0.561	0.576	0.602	0.589	0.491	0.574	0.590	0.649	0.556	0.572	7.52
74)	cis-1,3-dichloropropene											
	0.667	0.741	0.742	0.756	0.735	0.628	0.713	0.740	0.822	0.769	0.732	7.30
75)	toluene-d8 (s)											
	1.343	1.830	1.514	1.490	1.439	1.730	1.390	1.462	1.481		1.520	10.43
76)	4-methyl-2-pentanone											
	0.159		0.174	0.192	0.180	0.131	0.174	0.182	0.198		0.174	12.11
77)	toluene											
	0.920	1.000	1.034	1.036	1.004	0.870	0.960	1.006	1.145	1.121	1.010	8.23
78)	3-methyl-1-butanol											
	0.010		0.011	0.013	0.012	0.008	0.011	0.011	0.012		0.011	11.85
79)	trans-1,3-dichloropropene											
	0.597	0.653	0.662	0.696	0.661	0.566	0.646	0.677	0.744	0.736	0.664	8.28
80)	ethyl methacrylate											
	0.494	0.491	0.542	0.605	0.572	0.437	0.548	0.567	0.595		0.539	10.21
81)	1,1,2-trichloroethane											
	0.331	0.344	0.375	0.380	0.367	0.310	0.356	0.372	0.414	0.318	0.357	8.86
82)	2-hexanone											
	0.149		0.162	0.186	0.173		0.166	0.170	0.176		0.169	7.00

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Initial Calibration Summary

Job Number: JB88565 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
 83) I   chlorobenzene-d5       ----------------ISTD--------------------
 84)  tetrachloroethene
       0.427 0.475 0.479 0.488 0.481 0.406 0.471 0.475 0.534 0.531  0.477    8.24
 85)  1,3-dichloropropane
       0.664 0.721 0.737 0.754 0.719 0.619 0.687 0.732 0.817 0.728  0.718    7.41
 86)  butyl acetate
       0.287 0.229 0.325 0.346 0.319 0.283 0.310 0.333 0.350        0.309   12.33
 87)  dibromochloromethane
       0.475 0.472 0.529 0.564 0.548 0.436 0.537 0.539 0.569 0.483  0.515    8.78
 88)  1,2-dibromoethane
       0.437 0.455 0.499 0.509 0.483 0.401 0.468 0.486 0.536 0.453  0.473    8.18
 89)  n-Butyl Ether
       1.864 2.008 2.062 2.134 2.021 1.789 1.848 2.100 2.296        2.014    7.93
 90)  chlorobenzene
       1.154 1.332 1.281 1.301 1.257 1.147 1.206 1.270 1.397 1.387  1.273    6.81
 91)  1,1,1,2-tetrachloroethane
       0.413 0.460 0.456 0.474 0.466 0.381 0.454 0.461 0.508 0.442  0.452    7.65
 92)  ethylbenzene
       1.921 2.198 2.156 2.162 2.083 1.838 1.985 2.120 2.389 2.392  2.124    8.51
 93)  m,p-xylene
       0.727 0.819 0.808 0.825 0.796 0.697 0.743 0.808 0.902 0.863  0.799    7.76
 94)  o-xylene
       0.718 0.800 0.809 0.830 0.804 0.680 0.767 0.797 0.870 0.845  0.792    7.25
 95)  styrene
       1.208 1.282 1.321 1.415 1.375 1.118 1.313 1.353 1.416 1.371  1.317    7.14
 96)  butyl acrylate
                                                                    0.000   -1.00
 97)  bromoform
       0.333 0.334 0.357 0.405 0.396 0.300 0.390 0.375 0.385        0.364    9.72

 98) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
 99)  isopropylbenzene
       3.616 4.008 3.908 4.033 3.914 3.417 3.771 3.987 4.551 4.234  3.944    7.94
100)  4-bromofluorobenzene (s)
       1.147       1.291 1.242 1.211       1.172 1.218 1.306        1.226    4.76
101)  bromobenzene
       0.978 1.099 1.077 1.096 1.078 0.957 1.050 1.079 1.242 1.042  1.070    7.22
102)  cyclohexanone
       0.053 0.051 0.062 0.052 0.051 0.054 0.042 0.055 0.057        0.053   10.11
103)  1,1,2,2-tetrachloroethane
       1.263 1.314 1.397 1.432 1.362 1.182 1.296 1.393 1.623 1.563  1.382    9.65
104)  trans-1,4-dichloro-2-butene
       0.263 0.252 0.291 0.312 0.291 0.233 0.278 0.294 0.327        0.282   10.39
105)  1,2,3-trichloropropane
       0.266 0.256 0.291 0.303 0.288 0.247 0.273 0.294 0.330        0.283    8.99
106)  n-propylbenzene
       4.275 4.696 4.756 4.751 4.644 4.110 4.338 4.793 5.404 5.274  4.704    8.69
107)  2-chlorotoluene
       0.902 1.014 1.009 1.018 1.006 0.895 0.961 1.009 1.137 1.057  1.001    7.05
108)  4-chlorotoluene
       2.727 3.152 3.048 3.018 2.955 2.624 2.838 2.989 3.435 3.473  3.026    9.06
109)  1,3,5-trimethylbenzene
       2.974 3.266 3.320 3.386 3.322 2.817 3.165 3.339 3.692 3.593  3.287    7.89
110)  tert-butylbenzene
       2.456 2.757 2.749 2.823 2.778 2.375 2.682 2.716 3.104 2.918  2.736    7.61
111)  pentachloroethane
       0.597 0.628 0.635 0.692 0.695 0.546 0.685 0.667 0.726        0.652    8.62
112)  1,2,4-trimethylbenzene
       3.008 3.247 3.280 3.374 3.329 2.853 3.192 3.348 3.665 3.470  3.276    6.94
113)  sec-butylbenzene
```

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Initial Calibration Summary

Job Number: JB88565 **Sample:** V4D2528-ICC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56975.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      4.001 4.424 4.425 4.499 4.402 3.783 4.229 4.460 4.973 4.809  4.400    7.87
114)  1,3-dichlorobenzene
      1.820 2.134 2.029 2.052 2.028 1.809 1.964 2.016 2.266 2.488  2.061    9.78
115)  p-isopropyltoluene
      3.172 3.406 3.464 3.601 3.540 2.986 3.419 3.573 3.856 3.771  3.479    7.43
116)  1,4-dichlorobenzene
      1.836 2.206 2.037 2.065 2.026 1.832 1.977 2.040 2.273 2.671  2.096   11.66
117)  1,2-dichlorobenzene
      1.775 2.045 1.966 2.025 1.989 1.726 1.944 1.970 2.167 2.220  1.983    7.65
118)  n-butylbenzene
      1.718 1.888 1.920 2.006 1.983 1.696 1.903 1.967 2.156 2.057  1.929    7.32
119)  1,2-dibromo-3-chloropropane
      0.198       0.216 0.236 0.224 0.167 0.216 0.220 0.256        0.217   12.02
120)  1,3,5-trichlorobenzene
      1.376 1.575 1.509 1.617 1.621 1.336 1.578 1.562 1.720 1.720  1.561    8.13
121)  1,2,4-trichlorobenzene
      1.259 1.349 1.380 1.524 1.516 1.204 1.493 1.437 1.527 1.757  1.445   10.92
122)  hexachlorobutadiene
      0.610 0.670 0.701 0.721 0.723 0.601 0.708 0.697 0.772 0.793  0.700    8.74
123)  naphthalene
      3.026 3.190 3.303 3.780 3.617 2.831 3.417 3.437 3.636 3.869  3.411    9.70
124)  1,2,3-trichlorobenzene
      1.190 1.254 1.299 1.438 1.417 1.088 1.372 1.359 1.426 1.401  1.324    8.75
125)  hexachloroethane
      0.660 0.690 0.728 0.795 0.798 0.599 0.797 0.771 0.806 0.718  0.736    9.51
126)  Benzyl chloride
      1.870 1.940 2.090 2.200 2.067 1.976 1.960 2.112 2.292 2.274  2.078    6.93
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M4D2528.M         Thu Feb 19 08:40:44 2015   RPT1
```

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Initial Calibration Verification

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2528-ICV2528
Lab FileID: 4D56980.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
MS Integration Params: rteint.p

Vial: 14
Operator: PayalR
Inst : MS4D
Multiplr: 1.00

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C
Last Update : Thu Feb 19 08:39:58 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	99	0.00	7.00
2		1,4-dioxane	0.130	0.134	-3.1	94	0.00	11.27
3	M	tertiary butyl alcohol	1.365	1.407	-3.1	96	-0.01	7.12
4	I	pentafluorobenzene	1.000	1.000	0.0	110	0.00	9.57
5		chlorodifluoromethane	0.398	0.368	7.5	97	-0.01	3.35
6		dichlorodifluoromethane	0.502	0.477	5.0	100	-0.01	3.34
7		chloromethane	0.638	0.570	10.7	100	-0.01	3.65
8		vinyl chloride	0.622	0.578	7.1	101	0.00	3.90
9		acetaldehyde		----------NA----------				
10		bromomethane	0.480	0.408	15.0	102	0.00	4.58
11		chloroethane	0.309	0.278	10.0	93	0.00	4.78
12		trichlorofluoromethane	0.675	0.650	3.7	102	-0.01	5.31
13		vinyl bromide		----------NA----------				
14		ethyl ether	0.259	0.266	-2.7	102	0.00	5.78
15		pentane		----------NA----------				
16		2-chloropropane	0.794	0.720	9.3	101	0.00	5.97
17		acrolein	0.122	0.108	11.5	96	0.00	6.00
18		1,1-dichloroethene	0.478	0.458	4.2	102	0.00	6.22
19		acetone	0.133	0.139	-4.5	100	0.00	6.26
20		allyl chloride	0.242	0.240	0.8	102	0.00	6.81
21		acetonitrile	0.027	0.028	-3.7	99	0.00	6.71
22		iodomethane	0.930	0.915	1.6	104	0.00	6.49
23		iso-butyl alcohol	0.017	0.016	5.9	94	0.00	9.85
24		carbon disulfide	1.824	1.704	6.6	102	0.00	6.63
25		methylene chloride	0.593	0.552	6.9	102	0.00	7.00
26		1-chloropropane	0.806	0.732	9.2	100	0.00	7.07
27		methyl acetate	0.095	0.086	9.5	88	0.00	6.81
28		methyl tert butyl ether	1.408	1.362	3.3	101	0.00	7.45
29		trans-1,2-dichloroethene	0.535	0.513	4.1	104	0.00	7.45
30		di-isopropyl ether	1.605	1.556	3.1	102	0.00	8.18
31		ethyl tert-butyl ether	1.548	1.493	3.6	100	0.00	8.70
32		2-butanone	0.058	0.059	-1.7	97	0.00	8.91
33	M	1,1-dichloroethane	0.975	0.930	4.6	102	0.00	8.10
34		chloroprene	0.659	0.651	1.2	102	0.00	8.24
35		acrylonitrile	0.187	0.191	-2.1	101	0.00	7.36
36		vinyl acetate	0.067	0.087	-29.9	130	0.00	8.13
37		ethyl acetate	0.069	0.069	0.0	99	0.00	8.97
38		2,2-dichloropropane	0.660	0.579	12.3	96	0.00	8.95
39		cis-1,2-dichloroethene	0.598	0.569	4.8	103	0.00	8.93
40		propionitrile	0.077	0.077	0.0	98	0.00	8.98
41		methyl acrylate	0.467	0.465	0.4	100	0.00	9.04

Initial Calibration Verification

Job Number: JB88565 **Sample:** V4D2528-ICV2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D56980.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42		bromochloromethane	0.287	0.291	-1.4	103	0.00	9.25
43		tetrahydrofuran	0.156	0.142	9.0	95	0.00	9.33
44		chloroform	0.952	0.887	6.8	102	0.00	9.34
45	S	dibromofluoromethane (s)	0.559	0.516	7.7	103	0.00	9.55
46	S	1,2-dichloroethane-d4 (s)	0.538	0.492	8.6	101	0.00	10.00
47		freon 113	0.314	0.331	-5.4	108	0.00	6.23
48		methacrylonitrile	0.294	0.293	0.3	98	0.00	9.20
49		1,1,1-trichloroethane	0.714	0.688	3.6	103	0.00	9.63
50		tert-amyl methyl ether	1.470	1.425	3.1	101	0.00	10.20
51	I	1,4-difluorobenzene	1.000	1.000	0.0	109	0.00	10.52
52		epichlorohydrin	0.042	0.041	2.4	99	0.00	11.83
53		n-butyl alcohol	0.012	0.013	-8.3	99	0.00	10.66
54	M	cyclohexane	0.563	0.546	3.0	104	0.00	9.73
55		tert amyl alcohol		----------NA----------				
56		carbon tetrachloride	0.519	0.505	2.7	103	0.00	9.86
57		1,1-dichloropropene	0.576	0.556	3.5	103	0.00	9.83
58		hexane	0.496	0.423	14.7	90	0.00	7.88
59	M	benzene	1.708	1.626	4.8	103	0.00	10.10
60		ISO-OCTANE	1.414	1.177	16.8	89	0.00	10.19
61		heptane	0.273	0.247	9.5	96	0.00	10.39
62		isopropyl acetate	0.722	0.697	3.5	96	0.00	10.09
63		1,2-dichloroethane	0.510	0.498	2.4	101	0.00	10.10
64		trichloroethene	0.440	0.427	3.0	105	0.00	10.87
65		ethyl acrylate		----------NA----------				
66		2-nitropropane	0.103	0.100	2.9	97	0.00	11.67
67		2-chloroethyl vinyl ether	0.304	0.314	-3.3	104	0.00	11.74
68		methyl methacrylate	0.346	0.333	3.8	99	0.00	11.20
69		1,2-dichloropropane	0.464	0.460	0.9	104	0.00	11.14
70		methylcyclohexane	0.625	0.603	3.5	100	0.00	11.14
71	M	tert-amyl ethyl ether		----------NA----------				
72		dibromomethane	0.300	0.300	0.0	102	0.00	11.28
73		bromodichloromethane	0.572	0.575	-0.5	104	0.00	11.44
74		cis-1,3-dichloropropene	0.732	0.715	2.3	103	0.00	11.95
75	S	toluene-d8 (s)	1.520	1.426	6.2	104	0.00	12.28
76		4-methyl-2-pentanone	0.174	0.175	-0.6	99	0.00	12.08
77		toluene	1.010	0.996	1.4	105	0.00	12.36
78		3-methyl-1-butanol	0.011	0.011	0.0	97	0.00	12.10
79		trans-1,3-dichloropropene	0.664	0.654	1.5	102	0.00	12.55
80		ethyl methacrylate	0.539	0.561	-4.1	101	0.00	12.60
81		1,1,2-trichloroethane	0.357	0.361	-1.1	103	0.00	12.77
82		2-hexanone	0.169	0.167	1.2	98	0.00	13.00
83	I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	13.89
84		tetrachloroethene	0.477	0.481	-0.8	107	0.00	12.99
85		1,3-dichloropropane	0.718	0.714	0.6	103	0.00	12.97
86		butyl acetate	0.309	0.324	-4.9	102	0.00	13.11
87		dibromochloromethane	0.515	0.539	-4.7	104	0.00	13.24
88		1,2-dibromoethane	0.473	0.482	-1.9	103	0.00	13.40
89		n-Butyl Ether	2.014	2.031	-0.8	104	0.00	13.92
90		chlorobenzene	1.273	1.254	1.5	105	0.00	13.92
91		1,1,1,2-tetrachloroethane	0.452	0.455	-0.7	104	0.00	13.99
92		ethylbenzene	2.124	2.090	1.6	105	0.00	14.01
93		m,p-xylene	0.799	0.794	0.6	105	0.00	14.13
94		o-xylene	0.792	0.792	0.0	104	0.00	14.57
95		styrene	1.317	1.354	-2.8	104	0.00	14.58
96		butyl acrylate		----------NA----------				
97		bromoform	0.364	0.386	-6.0	104	0.00	14.82
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	16.32

6.7.7

6

Initial Calibration Verification

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D2528-ICV2528
Lab FileID: 4D56980.D

99		isopropylbenzene	3.944	3.880	1.6	104	0.00	14.95
100	S	4-bromofluorobenzene (s)	1.226	1.184	3.4	103	0.00	15.13
101		bromobenzene	1.070	1.064	0.6	105	0.00	15.33
102		cyclohexanone	0.053	0.043	18.9	88	0.00	15.07
103		1,1,2,2-tetrachloroethane	1.382	1.343	2.8	102	0.00	15.22
104		trans-1,4-dichloro-2-bute	0.282	0.277	1.8	96	0.00	15.28
105		1,2,3-trichloropropane	0.283	0.284	-0.4	102	0.00	15.30
106		n-propylbenzene	4.704	4.604	2.1	105	0.00	15.38
107		2-chlorotoluene	1.001	0.980	2.1	104	0.00	15.50
108		4-chlorotoluene	3.026	2.912	3.8	105	0.00	15.61
109		1,3,5-trimethylbenzene	3.287	3.262	0.8	104	0.00	15.54
110		tert-butylbenzene	2.736	2.712	0.9	104	0.00	15.89
111		pentachloroethane	0.652	0.668	-2.5	105	0.00	15.94
112		1,2,4-trimethylbenzene	3.276	3.254	0.7	104	0.00	15.93
113		sec-butylbenzene	4.400	4.350	1.1	105	0.00	16.11
114		1,3-dichlorobenzene	2.061	1.980	3.9	105	0.00	16.26
115		p-isopropyltoluene	3.479	3.479	0.0	105	0.00	16.23
116		1,4-dichlorobenzene	2.096	1.999	4.6	105	0.00	16.35
117		1,2-dichlorobenzene	1.983	1.929	2.7	103	0.00	16.72
118		n-butylbenzene	1.929	1.919	0.5	104	0.00	16.64
119		1,2-dibromo-3-chloropropa	0.217	0.216	0.5	99	0.00	17.45
120	m	1,3,5-trichlorobenzene	1.561	1.563	-0.1	105	0.00	17.65
121		1,2,4-trichlorobenzene	1.445	1.456	-0.8	103	0.00	18.22
122		hexachlorobutadiene	0.700	0.697	0.4	105	0.00	18.35
123		naphthalene	3.411	3.461	-1.5	99	0.00	18.48
124		1,2,3-trichlorobenzene	1.324	1.364	-3.0	103	0.00	18.71
125		hexachloroethane	0.736	0.764	-3.8	104	0.00	17.00
126		Benzyl chloride	2.078	2.110	-1.5	104	0.00	16.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4d56975.D M4D2528.M Thu Feb 19 08:41:40 2015 RPT1

6.7.7 6

Continuing Calibration Summary

Job Number: JB88565
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V4D2537-CC2528
Lab FileID: 4D57199.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\4d57199.D
Acq On : 26 Feb 2015 9:29 am
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
MS Integration Params: rteint.p

Vial: 2
Operator: PayalR
Inst : MS4D
Multiplr: 1.00

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C
Last Update : Thu Feb 19 08:39:58 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	84	0.00	7.00
2		1,4-dioxane	0.130	0.141	-8.5	84	0.00	11.27
3	M	tertiary butyl alcohol	1.365	1.564	-14.6	93	0.00	7.13
4	I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	9.57
5		chlorodifluoromethane	0.398	0.412	-3.5	95	-0.01	3.35
6		dichlorodifluoromethane	0.502	0.621	-23.7#	113	0.00	3.35
7		chloromethane	0.638	0.658	-3.1	99	0.00	3.65
8		vinyl chloride	0.622	0.624	-0.3	93	0.00	3.91
9		acetaldehyde		----------NA----------				
10		bromomethane	0.480	0.456	5.0	94	0.00	4.58
11		chloroethane	0.309	0.286	7.4	86	0.00	4.79
12		trichlorofluoromethane	0.675	0.772	-14.4	105	-0.01	5.31
13		vinyl bromide		----------NA----------				
14		ethyl ether	0.259	0.248	4.2	85	0.00	5.79
15		pentane		----------NA----------				
16		2-chloropropane	0.794	0.777	2.1	93	0.00	5.97
17		acrolein	0.122	0.079	35.2#	64	0.00	6.01
18		1,1-dichloroethene	0.478	0.442	7.5	86	0.00	6.22
19		acetone	0.133	0.168	-26.3#	116	0.00	6.27
20		allyl chloride	0.242	0.229	5.4	84	0.00	6.81
21		acetonitrile	0.027	0.028	-3.7	93	0.00	6.73
22		iodomethane	0.930	0.913	1.8	90	0.00	6.49
23		iso-butyl alcohol	0.017	0.018	-5.9	95	0.00	9.86
24		carbon disulfide	1.824	1.613	11.6	83	0.00	6.63
25		methylene chloride	0.593	0.532	10.3	85	0.00	7.01
26		1-chloropropane	0.806	0.806	0.0	93	0.00	7.07
27		methyl acetate	0.095	0.081	14.7	78	0.00	6.82
28		methyl tert butyl ether	1.408	1.462	-3.8	95	0.00	7.45
29		trans-1,2-dichloroethene	0.535	0.498	6.9	87	0.00	7.46
30		di-isopropyl ether	1.605	1.615	-0.6	91	0.00	8.18
31		ethyl tert-butyl ether	1.548	1.594	-3.0	91	0.00	8.70
32		2-butanone	0.058	0.063	-8.6	100	0.00	8.92
33	M	1,1-dichloroethane	0.975	0.940	3.6	89	0.00	8.10
34		chloroprene	0.659	0.656	0.5	89	0.00	8.25
35		acrylonitrile	0.187	0.177	5.3	84	0.00	7.37
36		vinyl acetate	0.067	0.061	9.0	88	0.00	8.14
37		ethyl acetate	0.069	0.066	4.3	86	0.00	8.98
38		2,2-dichloropropane	0.660	0.775	-17.4	109	0.00	8.95
39		cis-1,2-dichloroethene	0.598	0.560	6.4	88	0.00	8.93
40		propionitrile	0.077	0.075	2.6	87	0.00	8.98
41		methyl acrylate	0.467	0.452	3.2	88	0.00	9.05

Continuing Calibration Summary

Job Number: JB88565 **Sample:** V4D2537-CC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D57199.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42		bromochloromethane	0.287	0.294	-2.4	92	0.00	9.26
43		tetrahydrofuran	0.156	0.147	5.8	89	0.00	9.33
44		chloroform	0.952	0.949	0.3	95	0.00	9.34
45	S	dibromofluoromethane (s)	0.559	0.461	17.5	81	0.00	9.55
46	S	1,2-dichloroethane-d4 (s)	0.538	0.477	11.3	85	0.00	10.00
47		freon 113	0.314	0.330	-5.1	92	0.00	6.24
48		methacrylonitrile	0.294	0.307	-4.4	93	0.00	9.21
49		1,1,1-trichloroethane	0.714	0.775	-8.5	101	0.00	9.64
50		tert-amyl methyl ether	1.470	1.506	-2.4	92	0.00	10.20
51	I	1,4-difluorobenzene	1.000	1.000	0.0	90	0.00	10.53
52		epichlorohydrin	0.042	0.041	2.4	85	0.00	11.83
53		n-butyl alcohol	0.012	0.012	0.0	86	0.00	10.66
54	M	cyclohexane	0.563	0.539	4.3	84	0.00	9.73
55		tert amyl alcohol		----------NA----------				
56		carbon tetrachloride	0.519	0.587	-13.1	99	0.00	9.86
57		1,1-dichloropropene	0.576	0.567	1.6	88	0.00	9.83
58		hexane	0.496	0.457	7.9	80	0.00	7.88
59	M	benzene	1.708	1.683	1.5	89	0.00	10.11
60		ISO-OCTANE	1.414	1.419	-0.4	88	0.00	10.20
61		heptane	0.273	0.264	3.3	84	0.00	10.39
62		isopropyl acetate	0.722	0.787	-9.0	94	0.00	10.09
63		1,2-dichloroethane	0.510	0.593	-16.3	101	0.00	10.10
64		trichloroethene	0.440	0.446	-1.4	91	0.00	10.88
65		ethyl acrylate		----------NA----------				
66		2-nitropropane	0.103	0.105	-1.9	93	0.00	11.67
67		2-chloroethyl vinyl ether	0.304	0.301	1.0	85	0.00	11.74
68		methyl methacrylate	0.346	0.371	-7.2	97	0.00	11.20
69		1,2-dichloropropane	0.464	0.474	-2.2	89	0.00	11.14
70		methylcyclohexane	0.625	0.620	0.8	85	0.00	11.14
71	M	tert-amyl ethyl ether		----------NA----------				
72		dibromomethane	0.300	0.315	-5.0	92	0.00	11.29
73		bromodichloromethane	0.572	0.637	-11.4	97	0.00	11.44
74		cis-1,3-dichloropropene	0.732	0.781	-6.7	95	0.00	11.95
75	S	toluene-d8 (s)	1.520	1.317	13.4	81	0.00	12.28
76		4-methyl-2-pentanone	0.174	0.180	-3.4	89	0.00	12.08
77		toluene	1.010	1.056	-4.6	94	0.00	12.36
78		3-methyl-1-butanol	0.011	0.011	0.0	89	0.00	12.10
79		trans-1,3-dichloropropene	0.664	0.712	-7.2	94	0.00	12.55
80		ethyl methacrylate	0.539	0.571	-5.9	90	0.00	12.60
81		1,1,2-trichloroethane	0.357	0.375	-5.0	91	0.00	12.77
82		2-hexanone	0.169	0.178	-5.3	94	0.00	13.00
83	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	13.89
84		tetrachloroethene	0.477	0.518	-8.6	97	0.00	12.99
85		1,3-dichloropropane	0.718	0.750	-4.5	91	0.00	12.97
86		butyl acetate	0.309	0.325	-5.2	87	0.00	13.11
87		dibromochloromethane	0.515	0.591	-14.8	97	0.00	13.24
88		1,2-dibromoethane	0.473	0.494	-4.4	90	0.00	13.40
89		n-Butyl Ether	2.014	2.120	-5.3	89	0.00	13.92
90		chlorobenzene	1.273	1.335	-4.9	93	0.00	13.92
91		1,1,1,2-tetrachloroethane	0.452	0.524	-15.9	101	0.00	13.99
92		ethylbenzene	2.124	2.265	-6.6	95	0.00	14.01
93		m,p-xylene	0.799	0.854	-6.9	94	0.00	14.13
94		o-xylene	0.792	0.868	-9.6	96	0.00	14.57
95		styrene	1.317	1.433	-8.8	94	0.00	14.58
96		butyl acrylate		----------NA----------				
97		bromoform	0.364	0.396	-8.8	93	0.00	14.82
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	91	0.00	16.32

6.7.8

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Continuing Calibration Summary

Job Number: JB88565 **Sample:** V4D2537-CC2528
Account: UTC United Technologies Corporation **Lab FileID:** 4D57199.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99		isopropylbenzene	3.944	4.226	-7.2	97	0.00	14.95
100	S	4-bromofluorobenzene (s)	1.226	1.061	13.5	80	0.00	15.13
101		bromobenzene	1.070	1.137	-6.3	96	0.00	15.33
102		cyclohexanone	0.053	0.140	-164.2#	234#	0.00	15.07
103		1,1,2,2-tetrachloroethane	1.382	1.364	1.3	89	0.00	15.22
104		trans-1,4-dichloro-2-bute	0.282	0.283	-0.4	88	0.00	15.28
105		1,2,3-trichloropropane	0.283	0.304	-7.4	95	0.00	15.30
106		n-propylbenzene	4.704	4.864	-3.4	93	0.00	15.38
107		2-chlorotoluene	1.001	1.049	-4.8	95	0.00	15.51
108		4-chlorotoluene	3.026	3.094	-2.2	95	0.00	15.61
109		1,3,5-trimethylbenzene	3.287	3.574	-8.7	98	0.00	15.54
110		tert-butylbenzene	2.736	3.022	-10.5	102	0.00	15.89
111		pentachloroethane	0.652	0.763	-17.0	104	0.00	15.94
112		1,2,4-trimethylbenzene	3.276	3.600	-9.9	98	0.00	15.93
113		sec-butylbenzene	4.400	4.727	-7.4	97	0.00	16.11
114		1,3-dichlorobenzene	2.061	2.102	-2.0	95	0.00	16.26
115		p-isopropyltoluene	3.479	3.860	-11.0	99	0.00	16.23
116		1,4-dichlorobenzene	2.096	2.092	0.2	94	0.00	16.35
117		1,2-dichlorobenzene	1.983	2.087	-5.2	97	0.00	16.72
118		n-butylbenzene	1.929	1.960	-1.6	91	0.00	16.64
119		1,2-dibromo-3-chloropropa	0.217	0.222	-2.3	92	0.00	17.45
120	m	1,3,5-trichlorobenzene	1.561	1.701	-9.0	99	0.00	17.65
121		1,2,4-trichlorobenzene	1.445	1.464	-1.3	93	0.00	18.23
122		hexachlorobutadiene	0.700	0.822	-17.4	108	0.00	18.35
123		naphthalene	3.411	3.403	0.2	90	0.00	18.48
124		1,2,3-trichlorobenzene	1.324	1.389	-4.9	93	0.00	18.71
125		hexachloroethane	0.736	0.781	-6.1	93	0.00	17.00
126		Benzyl chloride	2.078	2.444	-17.6	106	0.00	16.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4d56974.D M4D2528.M Thu Feb 26 11:52:10 2015 RPT1

6.7.8 6

New Jersey
ACCUTEST
LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139178.D
Acq On : 23 Feb 2015 3:56 pm
Operator : zobiah
Sample : Jb88565-1
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 10:02:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	202113	500.00	ug/L	0.01
5) pentafluorobenzene	10.57	168	288939	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	333852	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	291779	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	164344	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	114999	53.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.76%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	116620	57.59	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 115.18%			
79) toluene-d8 (s)	13.25	98	366207	49.33	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 98.66%			
104) 4-bromofluorobenzene (s)	16.13	95	140720	55.84	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 111.68%			
Target Compounds						Qvalue
28) carbon disulfide	7.72	76	4314	0.47	ug/L	86
35) 1,1-dichloroethane	9.21	63	25230	6.50	ug/L	98
42) cis-1,2-dichloroethene	10.04	96	5104	1.97	ug/L #	73
47) chloroform	10.44	85	1135	0.45	ug/L	89
53) 1,1,1-trichloroethane	10.66	97	15696	4.19	ug/L	94
69) trichloroethene	11.89	95	2448	1.15	ug/L	87
76) methylcyclohexane	12.07	83	2989	0.78	ug/L	89
88) tetrachloroethene	13.94	164	7778	4.45	ug/L	99

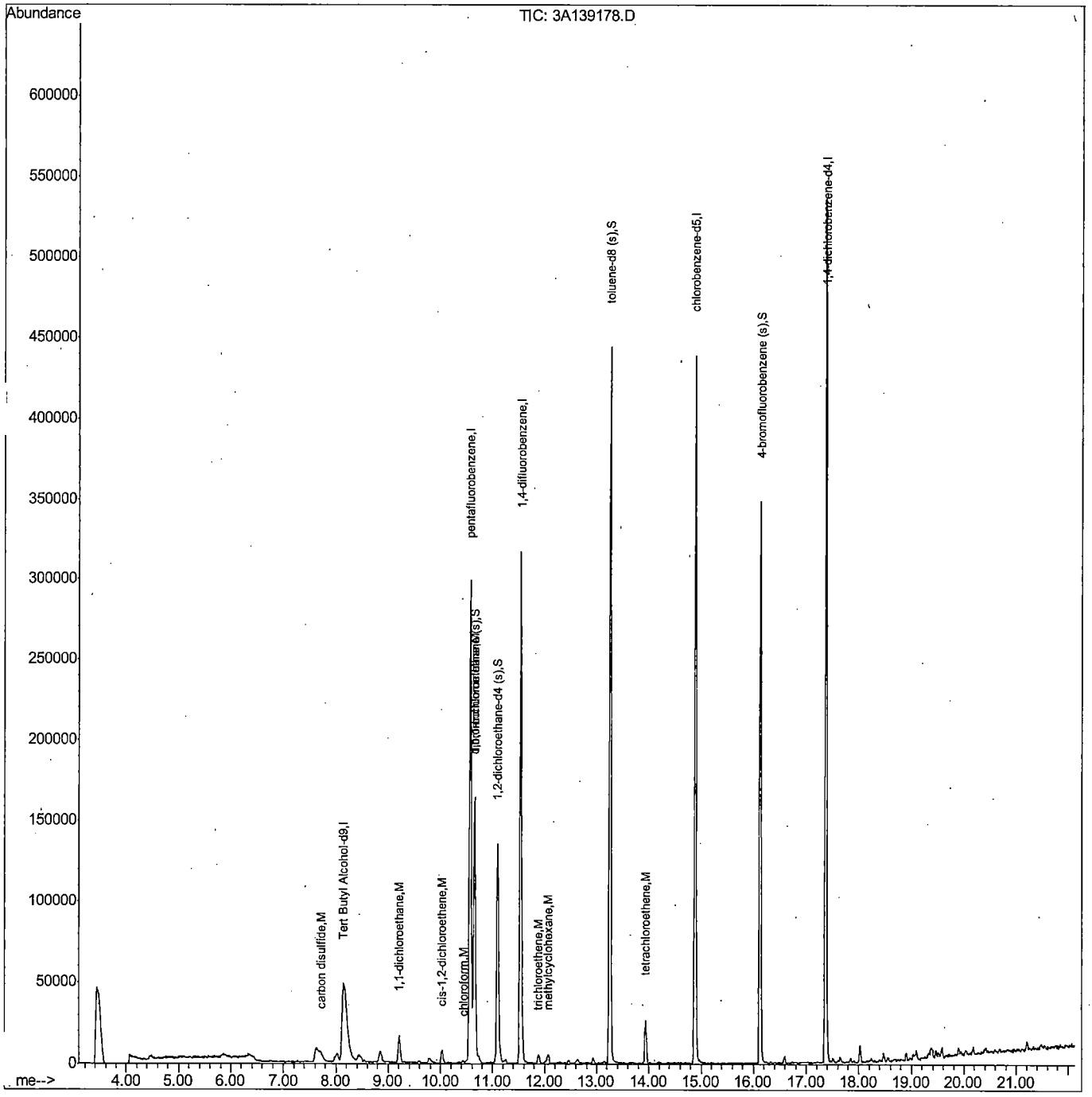
(#) = qualifier out of range (m) = manual integration (+) = signals summed

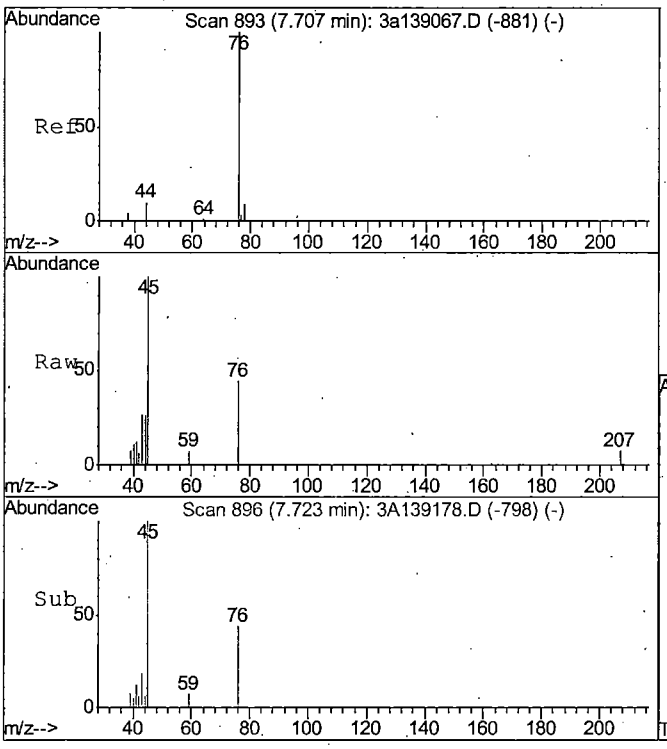
7.1.1 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139178.D
Acq On : 23 Feb 2015 3:56 pm
Operator : zobiah
Sample : Jb88565-1
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 24 10:02:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

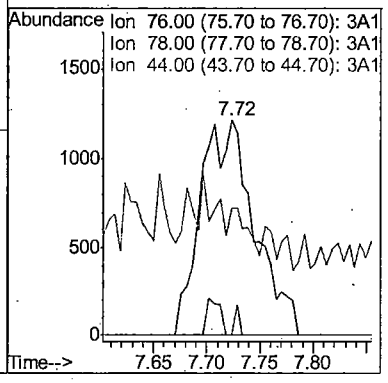


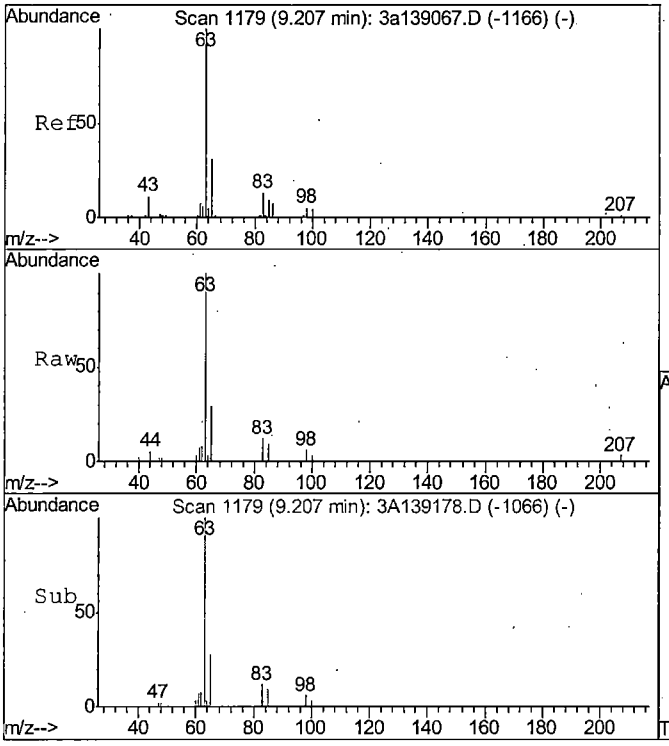


#28
carbon disulfide
Concen: 0.47 ug/L
RT: 7.72 min Scan# 896
Delta R.T. 0.02 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion: 76 Resp: 4314

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	38.8
44	12.0	0.0	40.4

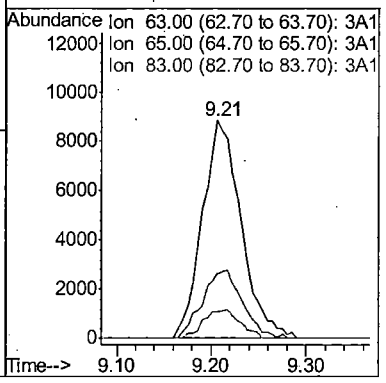


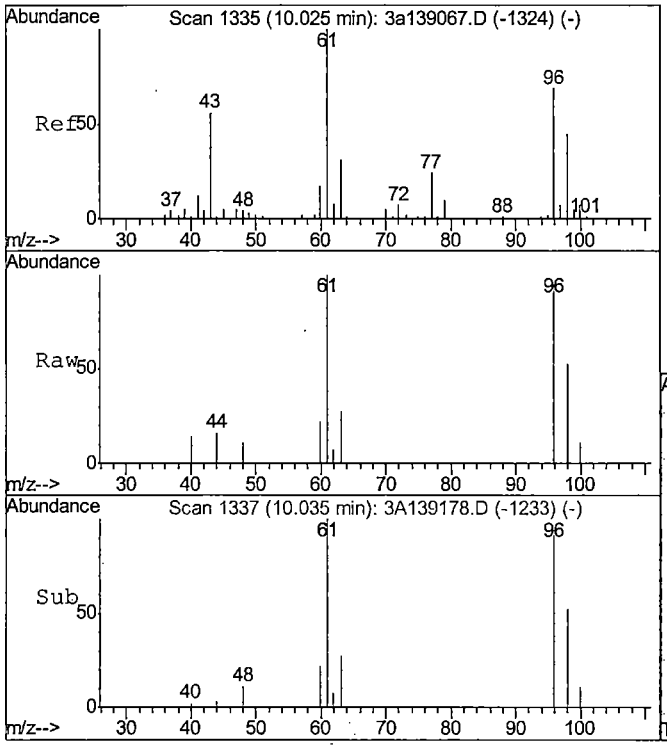


#35
1,1-dichloroethane
Concen: 6.50 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion: 63 Resp: 25230

Ion	Ratio	Lower	Upper
63	100		
65	29.4	0.8	60.8
83	12.3	0.0	42.7

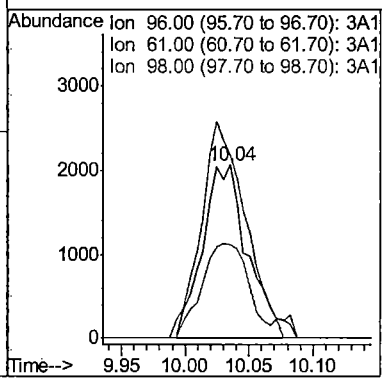


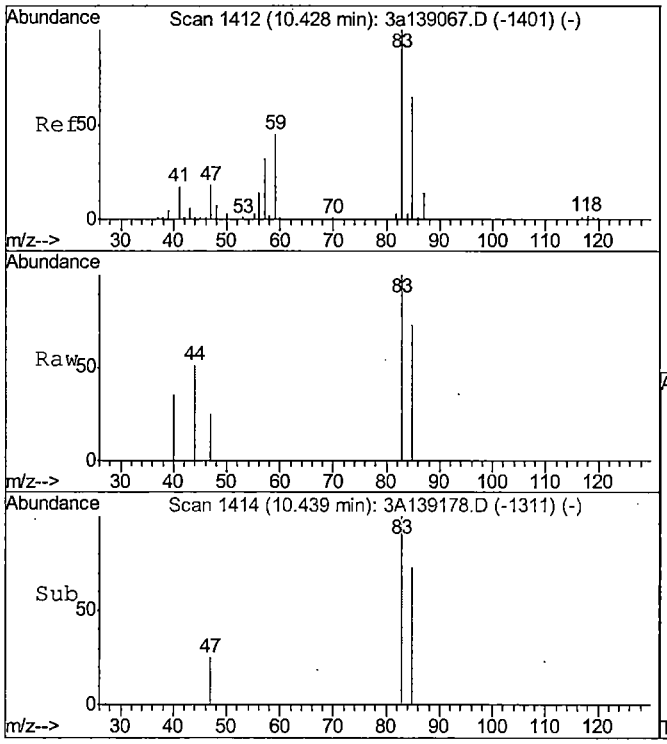


#42
cis-1,2-dichloroethene
Concen: 1.97 ug/L
RT: 10.04 min Scan# 1337
Delta R.T. 0.02 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion: 96 Resp: 5104

Ion	Ratio	Lower	Upper
96	100		
61	105.5	118.2	178.2#
98	54.4	34.5	94.5

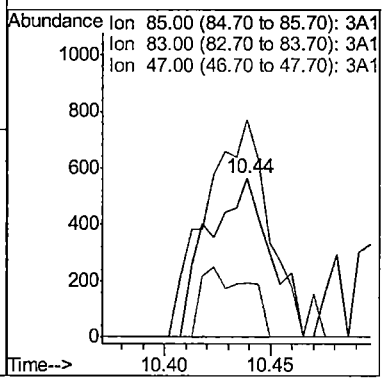




#47
chloroform
Concen: 0.45 ug/L
RT: 10.44 min Scan# 1414
Delta R.T. 0.01 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion: 85 Resp: 1135

Ion	Ratio	Lower	Upper
85	100		
83	136.3	123.1	183.1
47	33.7	5.0	65.0



7.1.1

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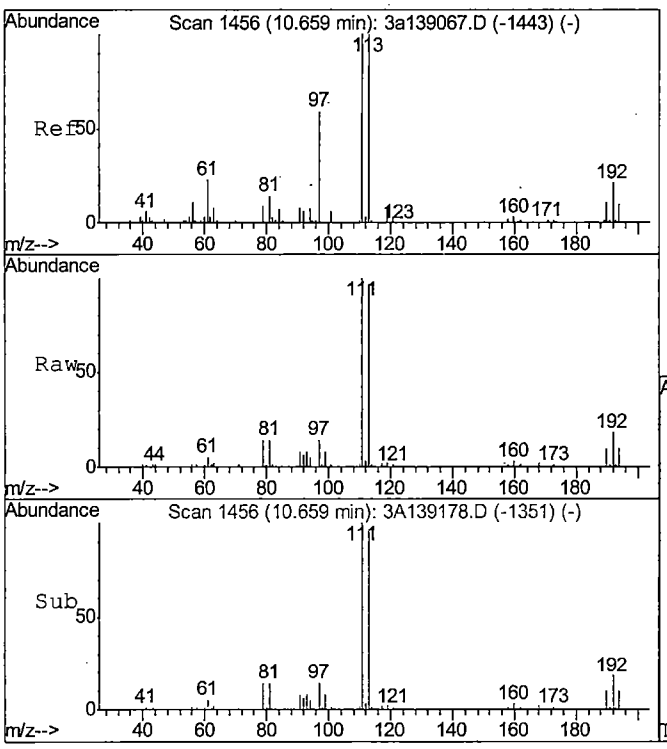
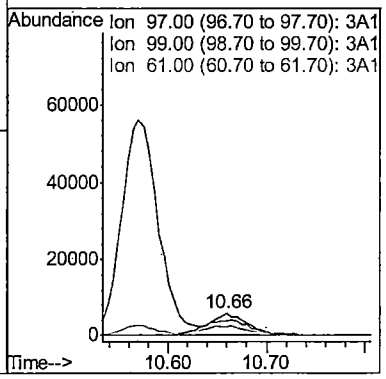
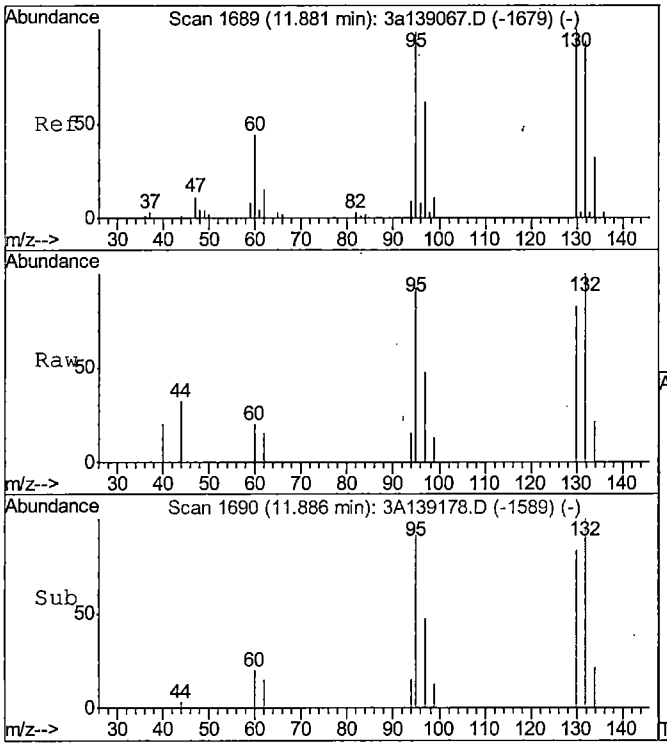


#53
1,1,1-trichloroethane
Concen: 4.19 ug/L
RT: 10.66 min Scan# 1456
Delta R.T. 0.00 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion: 97 Resp: 15696

Ion	Ratio	Lower	Upper
97	100		
99	60.8	35.5	95.5
61	38.1	11.9	71.9

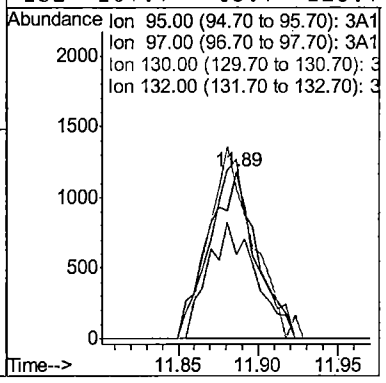




#69
trichloroethene
Concen: 1.15 ug/L
RT: 11.89 min Scan# 1690
Delta R.T. 0.01 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion: 95 Resp: 2448

Ion	Ratio	Lower	Upper
95	100		
97	50.5	33.0	93.0
130	89.7	71.3	131.3
132	107.7	65.7	125.7



7.1.1

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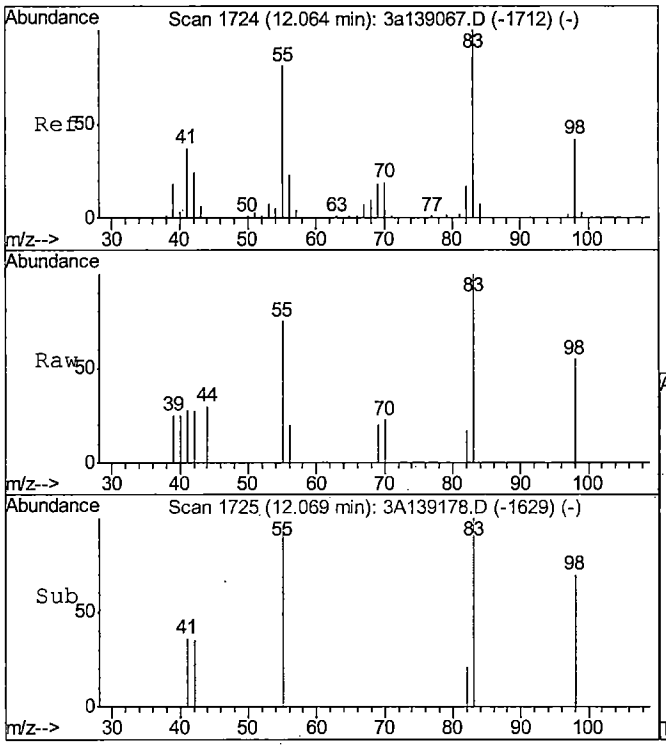
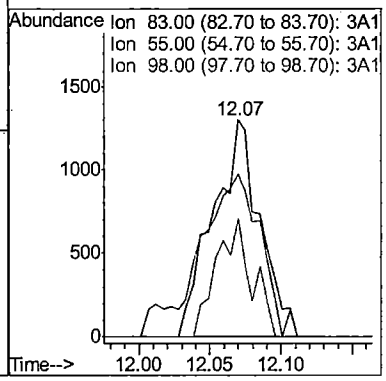
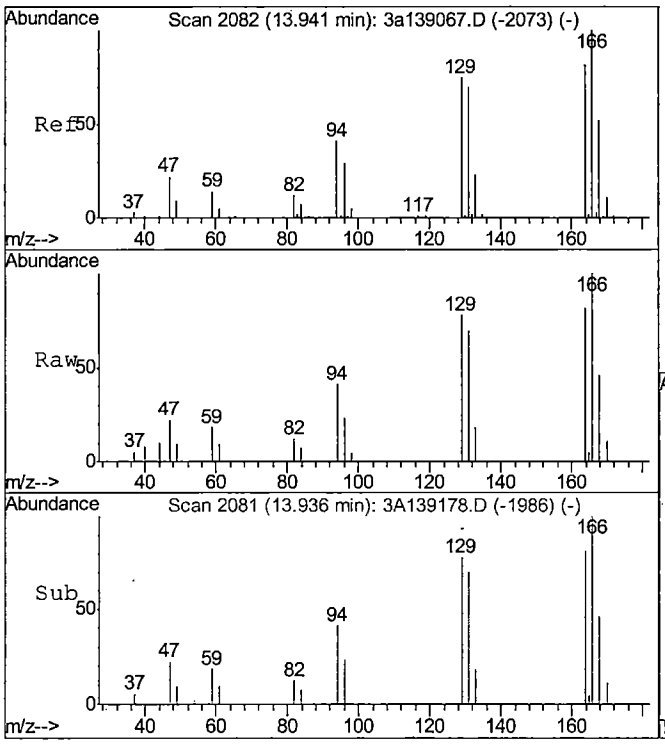


#76
methylcyclohexane
Concen: 0.78 ug/L
RT: 12.07 min Scan# 1725
Delta R.T. 0.01 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion: 83 Resp: 2989

Ion	Ratio	Lower	Upper
83	100		
55	75.0	50.7	110.7
98	54.5	12.2	72.2

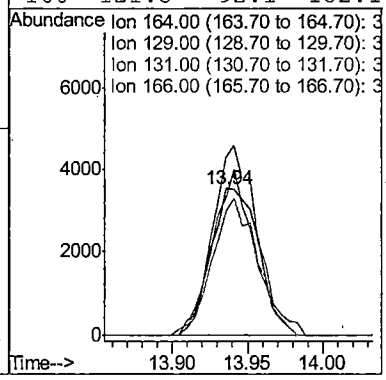




#88
tetrachloroethene
Concen: 4.45 ug/L
RT: 13.94 min Scan# 2081
Delta R.T. 0.00 min
Lab File: 3A139178.D
Acq: 23 Feb 2015 3:56 pm

Tgt Ion:164 Resp: 7778

Ion	Ratio	Lower	Upper
164	100		
129	94.3	61.7	121.7
131	85.0	55.4	115.4
166	121.5	92.1	152.1



7.1.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139179.D
Acq On : 23 Feb 2015 4:26 pm
Operator : zobiah
Sample : Jb88565-2
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 24 10:05:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	198455	500.00	ug/L	0.01
5) pentafluorobenzene	10.57	168	286134	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	336613	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	296451	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	171820	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	114764	54.30	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.60%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	117247	58.47	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 116.94%			
79) toluene-d8 (s)	13.25	98	369980	49.43	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 98.86%			
104) 4-bromofluorobenzene (s)	16.12	95	141259	53.62	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.24%			
Target Compounds						Qvalue
35) 1,1-dichloroethane	9.21	63	10911	2.84	ug/L	94
42) cis-1,2-dichloroethene	10.03	96	1900	0.74	ug/L	82
53) 1,1,1-trichloroethane	10.65	97	14416	3.89	ug/L	96
88) tetrachloroethene	13.95	164	677	0.38	ug/L	83

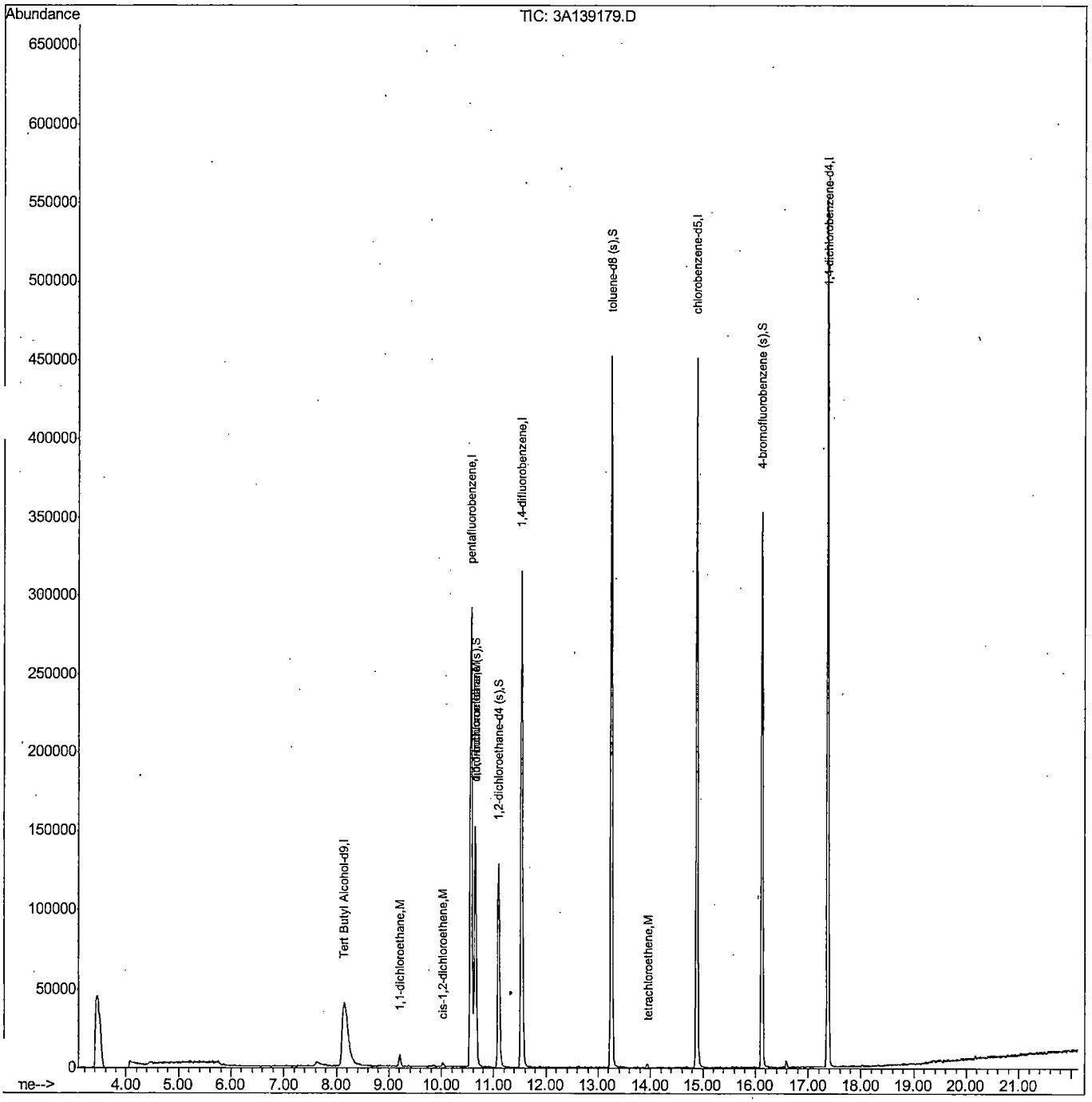
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.2 7

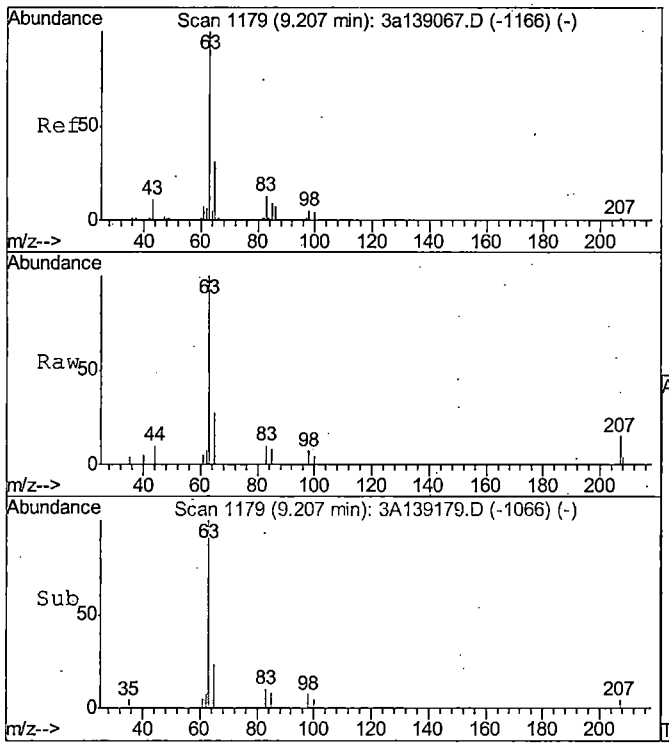
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139179.D
Acq On : 23 Feb 2015 4:26 pm
Operator : zobiah
Sample : Jb88565-2
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 24 10:05:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



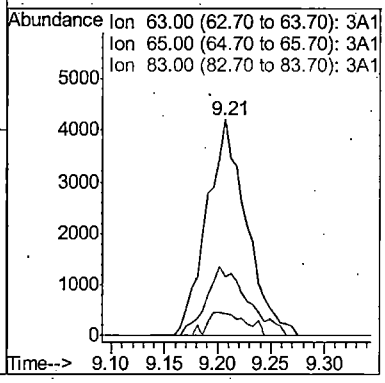
ACCUTEST LABORATORIES

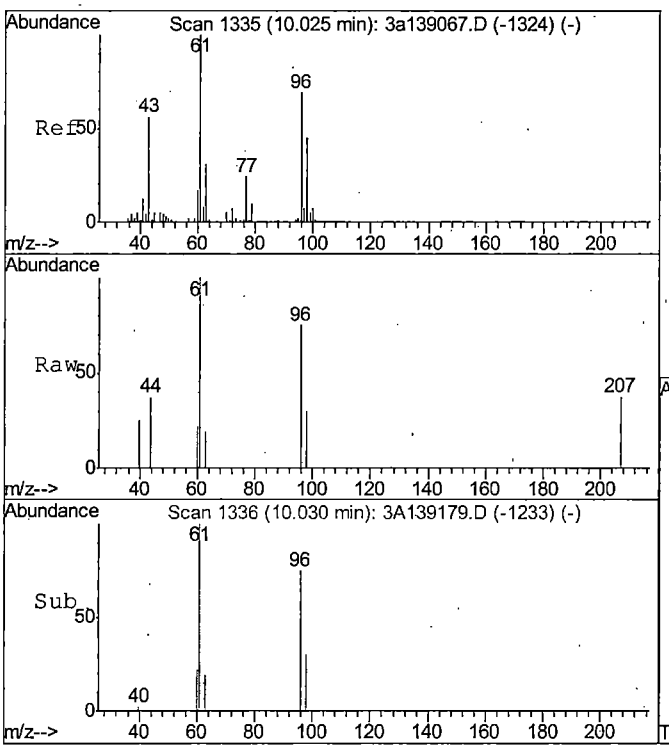


#35
1,1-dichloroethane
Concen: 2.84 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139179.D
Acq: 23 Feb 2015 4:26 pm

Tgt Ion: 63 Resp: 10911

Ion	Ratio	Lower	Upper
63	100		
65	27.3	0.8	60.8
83	10.3	0.0	42.7

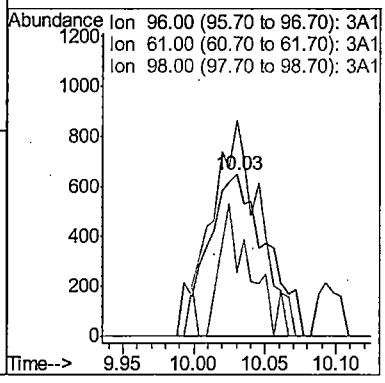




#42
cis-1,2-dichloroethene
Concen: 0.74 ug/L
RT: 10.03 min Scan# 1336
Delta R.T. 0.01 min
Lab File: 3A139179.D
Acq: 23 Feb 2015 4:26 pm

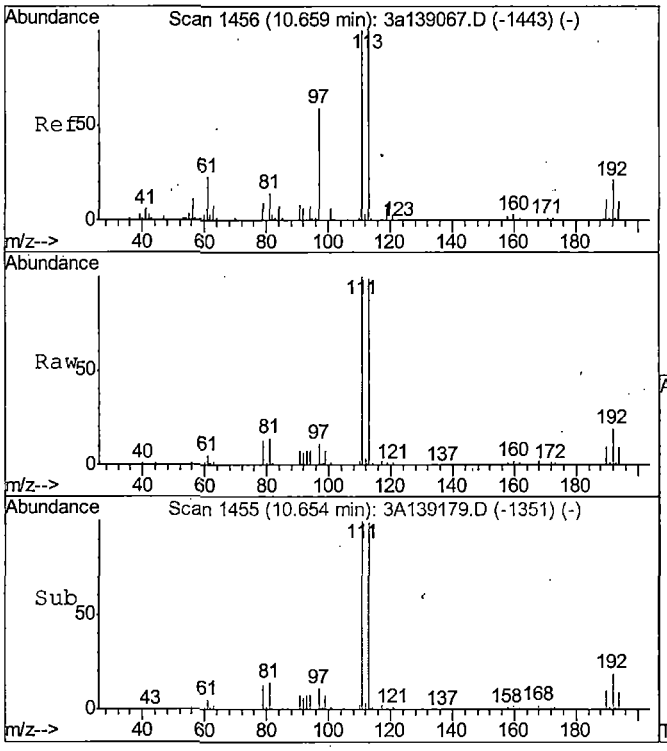
Tgt Ion: 96 Resp: 1900

Ion	Ratio	Lower	Upper
96	100		
61	132.7	118.2	178.2
98	39.3	34.5	94.5



7.1.2

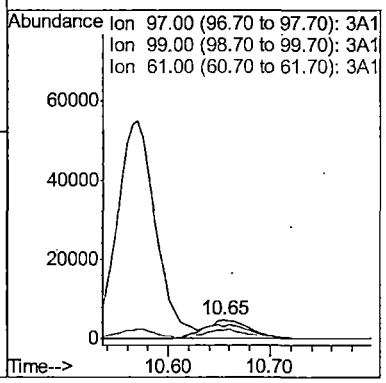
7

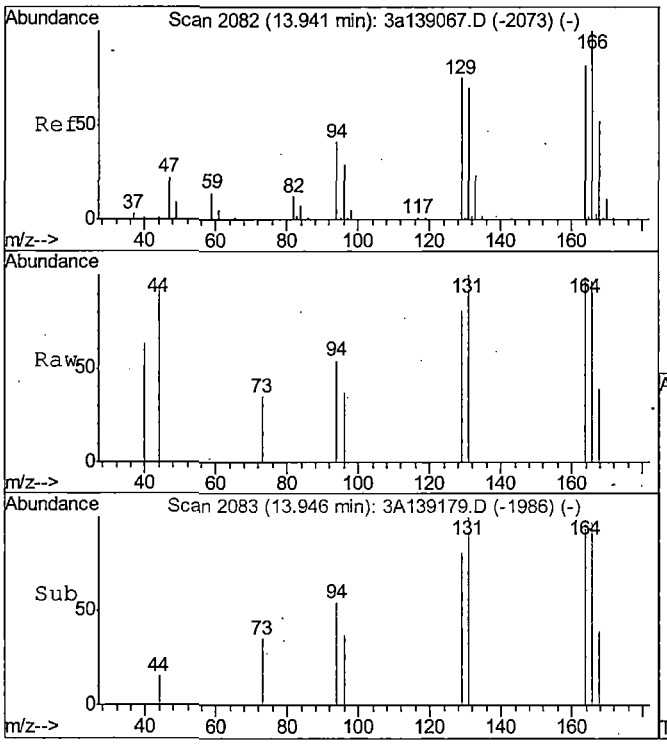


#53
1,1,1-trichloroethane
Concen: 3.89 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139179.D
Acq: 23 Feb 2015 4:26 pm

Tgt Ion: 97 Resp: 14416

Ion	Ratio	Lower	Upper
97	100		
99	63.5	35.5	95.5
61	45.4	11.9	71.9

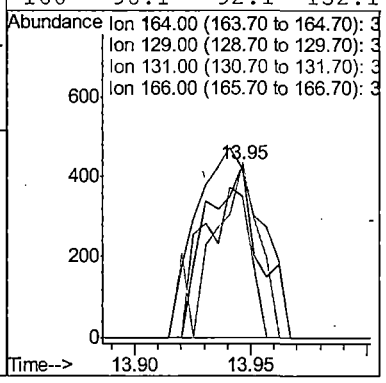




#88
tetrachloroethene
Concen: 0.38 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3A139179.D
Acq: 23 Feb 2015 4:26 pm

Tgt Ion:164 Resp: 677

Ion	Ratio	Lower	Upper
164	100		
129	81.4	61.7	121.7
131	100.9	55.4	115.4
166	98.1	92.1	152.1



7.1.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57204.D
Acq On : 26 Feb 2015 11:49 am
Operator : PayalR
Sample : jb88565-3
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 26 15:37:18 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	74189	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	229430	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	271767	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	245166	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	122599	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	104749	40.84	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 81.68%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	108059	43.79	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 87.58%			
75) toluene-d8 (s)	12.278	98	358071	43.34	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.68%			
100) 4-bromofluorobenzene (s)	15.130	95	133574	44.42	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 88.84%			
Target Compounds						Qvalue
33) 1,1-dichloroethane	8.104	63	1667	0.37	ug/L	90
39) cis-1,2-dichloroethene	8.938	96	670	0.24	ug/L	92
49) 1,1,1-trichloroethane	9.630	97	3387	1.03	ug/L	82
121) 1,2,4-trichlorobenzene	18.229	180	712	0.20	ug/L	96
123) naphthalene	18.480	128	1744	0.21	ug/L	92
124) 1,2,3-trichlorobenzene	18.700	180	648	0.20	ug/L #	74

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

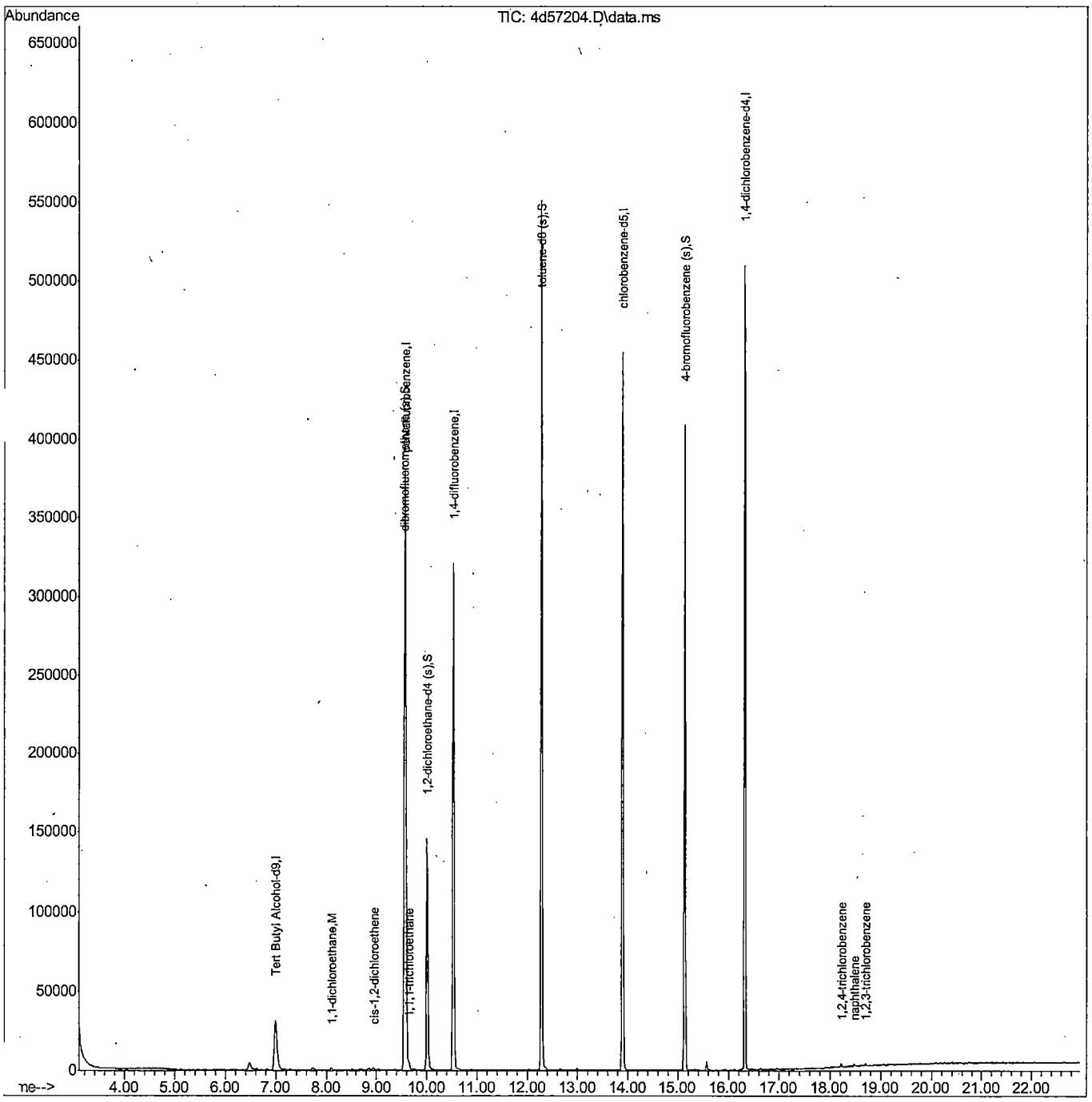
7.1.3

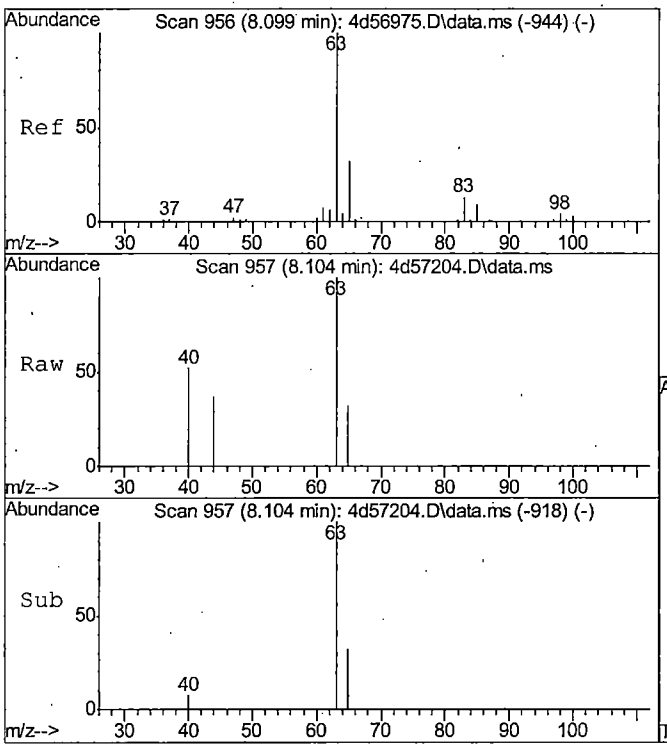
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57204.D
Acq On : 26 Feb 2015 11:49 am
Operator : PayalR
Sample : jb88565-3
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 26 15:37:18 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

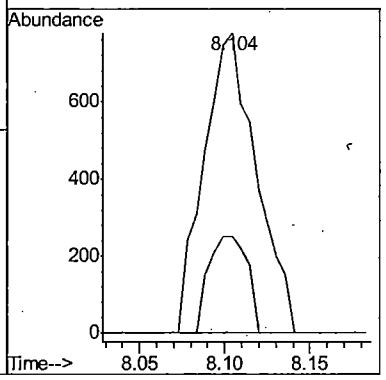


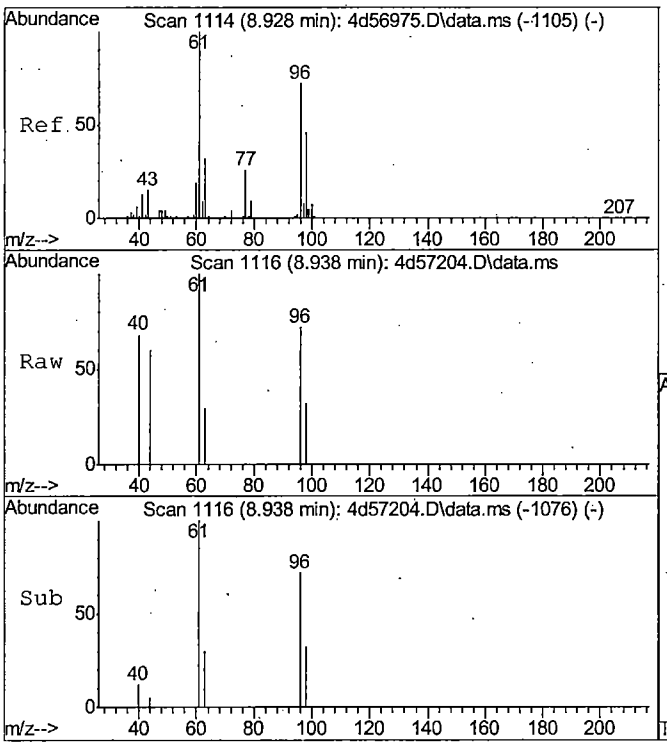


#33
1,1-dichloroethane
Concen: 0.37 ug/L
RT: 8.104 min Scan# 957
Delta R.T. 0.005 min
Lab File: 4d57204.D
Acq: 26 Feb 2015 11:49 am

Tgt Ion: 63 Resp: 1667

Ion	Ratio	Lower	Upper
63	100		
65	32.1	2.4	62.4
83	0.0	0.0	43.3

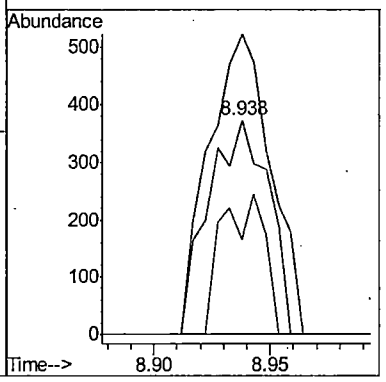




#39
cis-1,2-dichloroethene
Concen: 0.24 ug/L
RT: 8.938 min Scan# 1116
Delta R.T. 0.010 min
Lab File: 4d57204.D
Acq: 26 Feb 2015 11:49 am

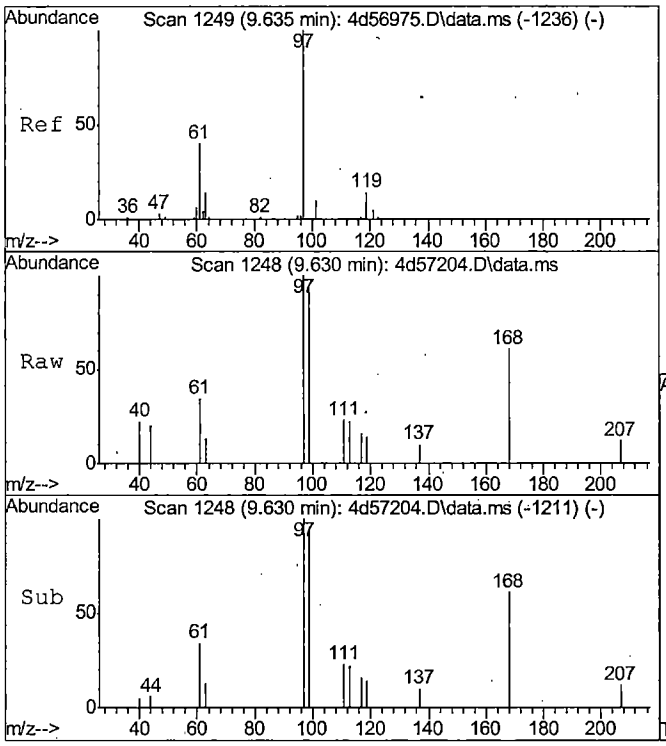
Tgt Ion: 96 Resp: 670

Ion	Ratio	Lower	Upper
96	100		
61	139.7	108.9	168.9
98	44.5	33.6	93.6



7.1.3

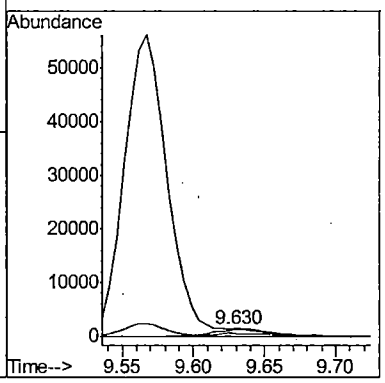
7

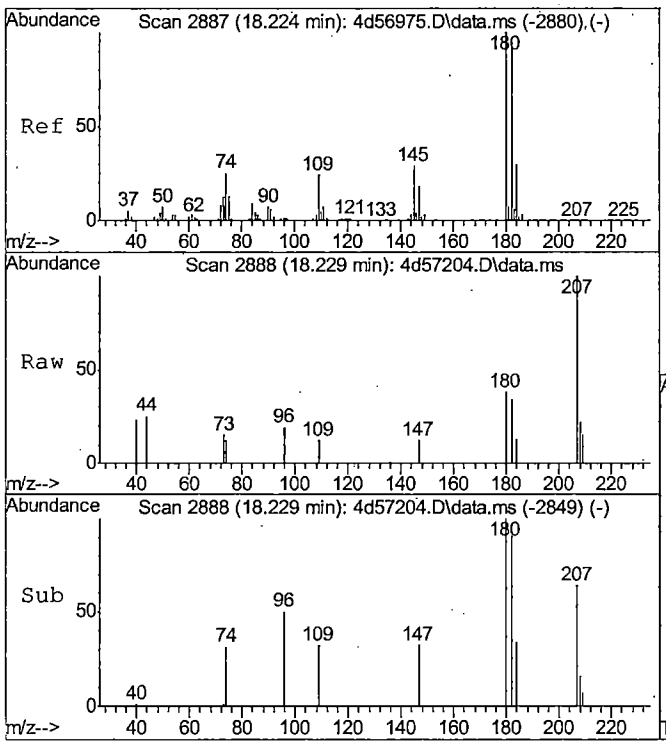


#49
1,1,1-trichloroethane
Concen: 1.03 ug/L
RT: 9.630 min Scan# 1248
Delta R.T. -0.005 min
Lab File: 4d57204.D
Acq: 26 Feb 2015 11:49 am

Tgt Ion: 97 Resp: 3387

Ion	Ratio	Lower	Upper
97	100		
99	81.8	34.9	94.9
61	34.5	13.0	73.0

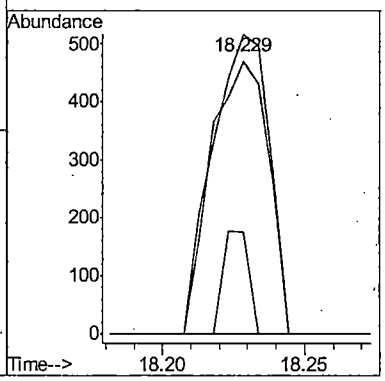




#121
1,2,4-trichlorobenzene
Concen: 0.20 ug/L
RT: 18.229 min Scan# 2888
Delta R.T. 0.005 min
Lab File: 4d57204.D
Acq: 26 Feb 2015 11:49 am

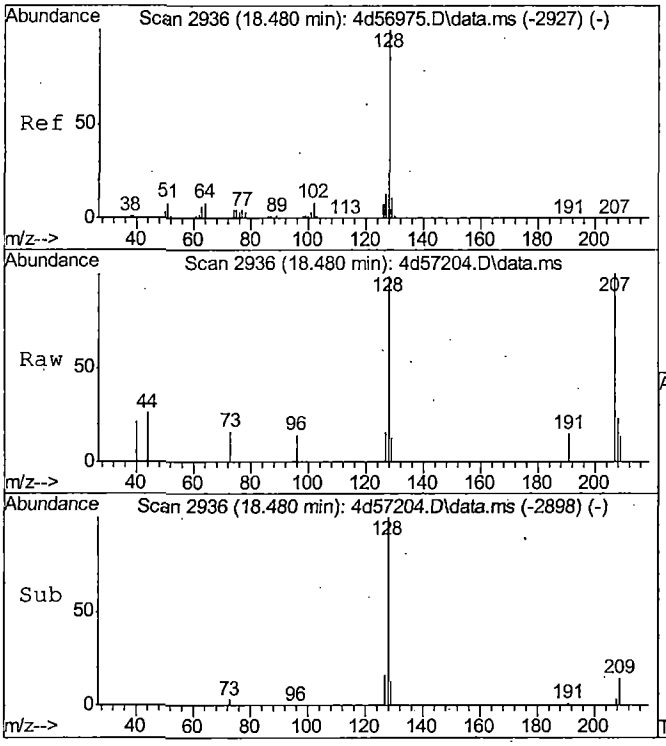
Tgt Ion:180 Resp: 712

Ion	Ratio	Lower	Upper
180	100		
182	91.1	64.9	124.9
184	33.9	0.5	60.5



7.1.3

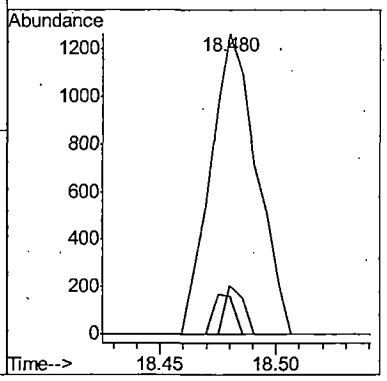
ACCUTEST LABORATORIES
JB88565

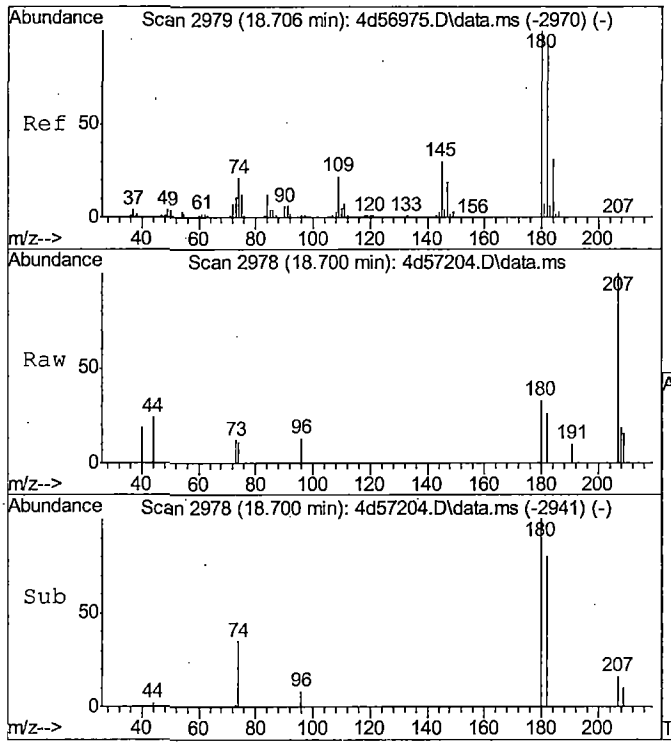


#123
naphthalene
Concen: 0.21 ug/L
RT: 18.480 min Scan# 2936
Delta R.T. -0.000 min
Lab File: 4d57204.D
Acq: 26 Feb 2015 11:49 am

Tgt Ion:128 Resp: 1744

Ion	Ratio	Lower	Upper
128	100		
129	12.7	0.0	40.9
127	16.5	0.0	42.5

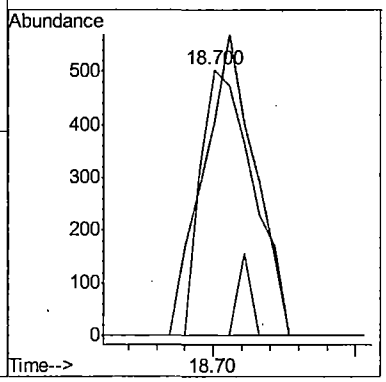




#124
1,2,3-trichlorobenzene
Concen: 0.20 ug/L
RT: 18.700 min Scan# 2978
Delta R.T. -0.005 min
Lab File: 4d57204.D
Acq: 26 Feb 2015 11:49 am

Tgt Ion:180 Resp: 648

Ion	Ratio	Lower	Upper
180	100		
182	80.4	66.2	126.2
184	0.0	0.6	60.6#



7.1.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139186.D
Acq On : 23 Feb 2015 8:03 pm
Operator : zobiah
Sample : Jb88565-4
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 24 10:14:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	185803	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	271739	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	321057	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	288063	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	173143	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	107568	53.59 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.18%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	111693	58.65 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 117.30%		
79) toluene-d8 (s)	13.25	98	359042	50.30 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.60%		
104) 4-bromofluorobenzene (s)	16.12	95	139944	52.71 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.42%		
Target Compounds					Qvalue
35) 1,1-dichloroethane	9.21	63	1390	0.38 ug/L	72
42) cis-1,2-dichloroethene	10.03	96	5577	2.29 ug/L #	79
53) 1,1,1-trichloroethane	10.66	97	12605	3.58 ug/L	91

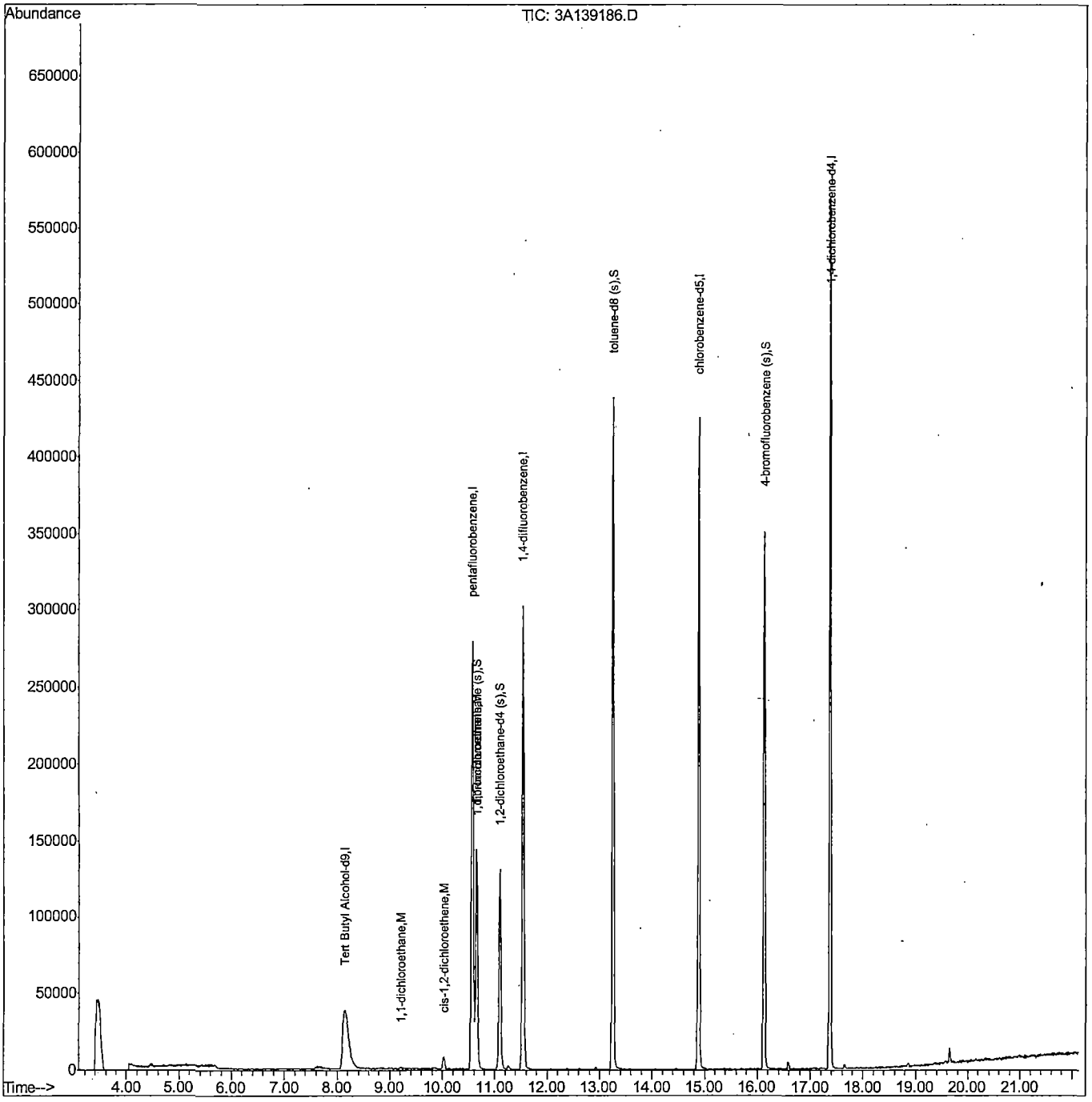
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.4

Quantitation Report (QT Reviewed)

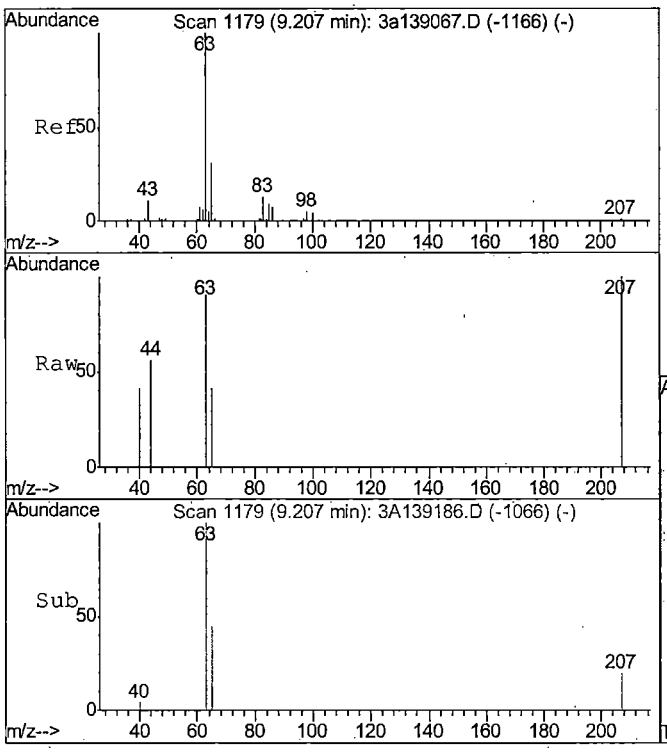
Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139186.D
Acq On : 23 Feb 2015 8:03 pm
Operator : zobiah
Sample : Jb88565-4
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 24 10:14:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.1.4

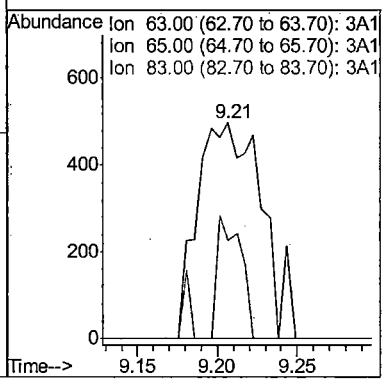
7

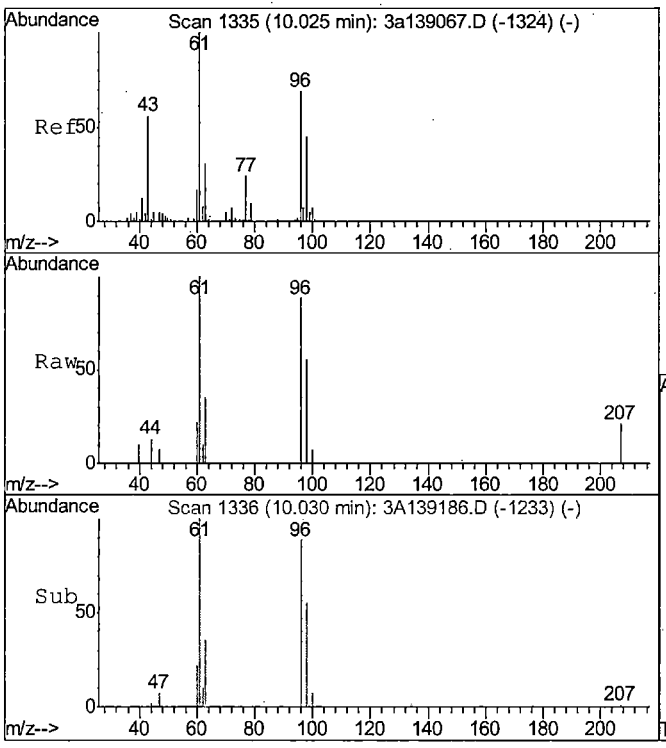


#35
1,1-dichloroethane
Concen: 0.38 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3A139186.D
Acq: 23 Feb 2015 8:03 pm

Tgt Ion: 63 Resp: 1390

Ion	Ratio	Lower	Upper
63	100		
65	45.2	0.8	60.8
83	0.0	0.0	42.7

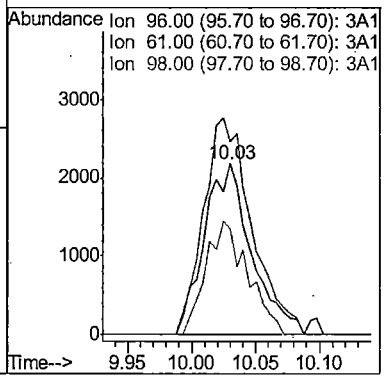




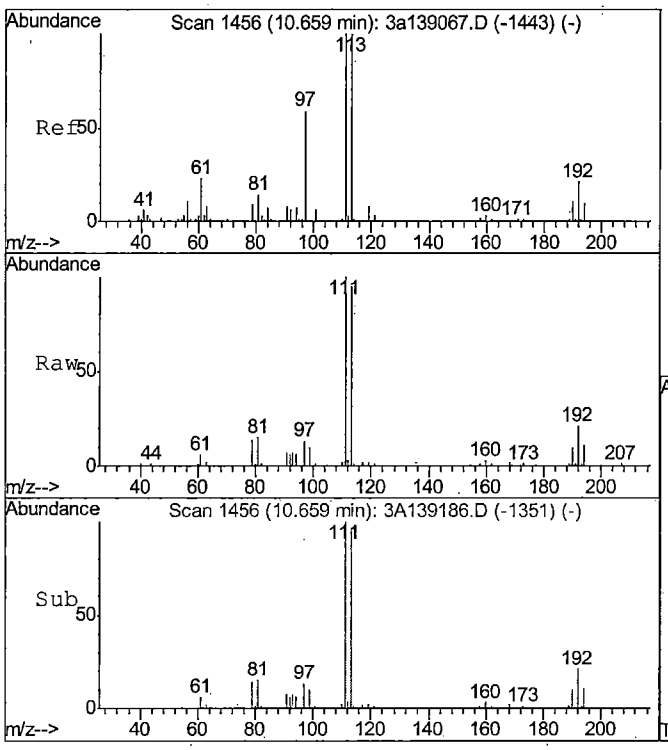
#42
cis-1,2-dichloroethene
Concen: 2.29 ug/L
RT: 10.03 min Scan# 1336
Delta R.T. 0.01 min
Lab File: 3A139186.D
Acq: 23 Feb 2015 8:03 pm

Tgt Ion: 96 Resp: 5577

Ion	Ratio	Lower	Upper
96	100		
61	112.8	118.2	178.2#
98	61.5	34.5	94.5



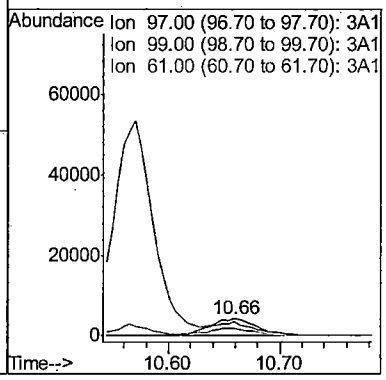
7.1.4 7



#53
1,1,1-trichloroethane
Concen: 3.58 ug/L
RT: 10.66 min Scan# 1456
Delta R.T. 0.00 min
Lab File: 3A139186.D
Acq: 23 Feb 2015 8:03 pm

Tgt Ion: 97 Resp: 12605

Ion	Ratio	Lower	Upper
97	100		
99	74.6	35.5	95.5
61	44.4	11.9	71.9



7.1.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139187.D
Acq On : 23 Feb 2015 8:32 pm
Operator : zobiah
Sample : Jb88565-5
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 24 10:19:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	175361	500.00 ug/L	0.00
5) pentafluorobenzene	10.56	168	266853	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	313872	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	280180	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	169997	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.64	113	104425	52.98 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.96%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	109944	58.79 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 117.58%		
79) toluene-d8 (s)	13.25	98	353606	50.67 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.34%		
104) 4-bromofluorobenzene (s)	16.12	95	138336	53.07 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.14%		
Target Compounds					Qvalue
53) 1,1,1-trichloroethane	10.65	97	1519	0.44 ug/L	82
88) tetrachloroethene	13.95	164	1275	0.76 ug/L	84

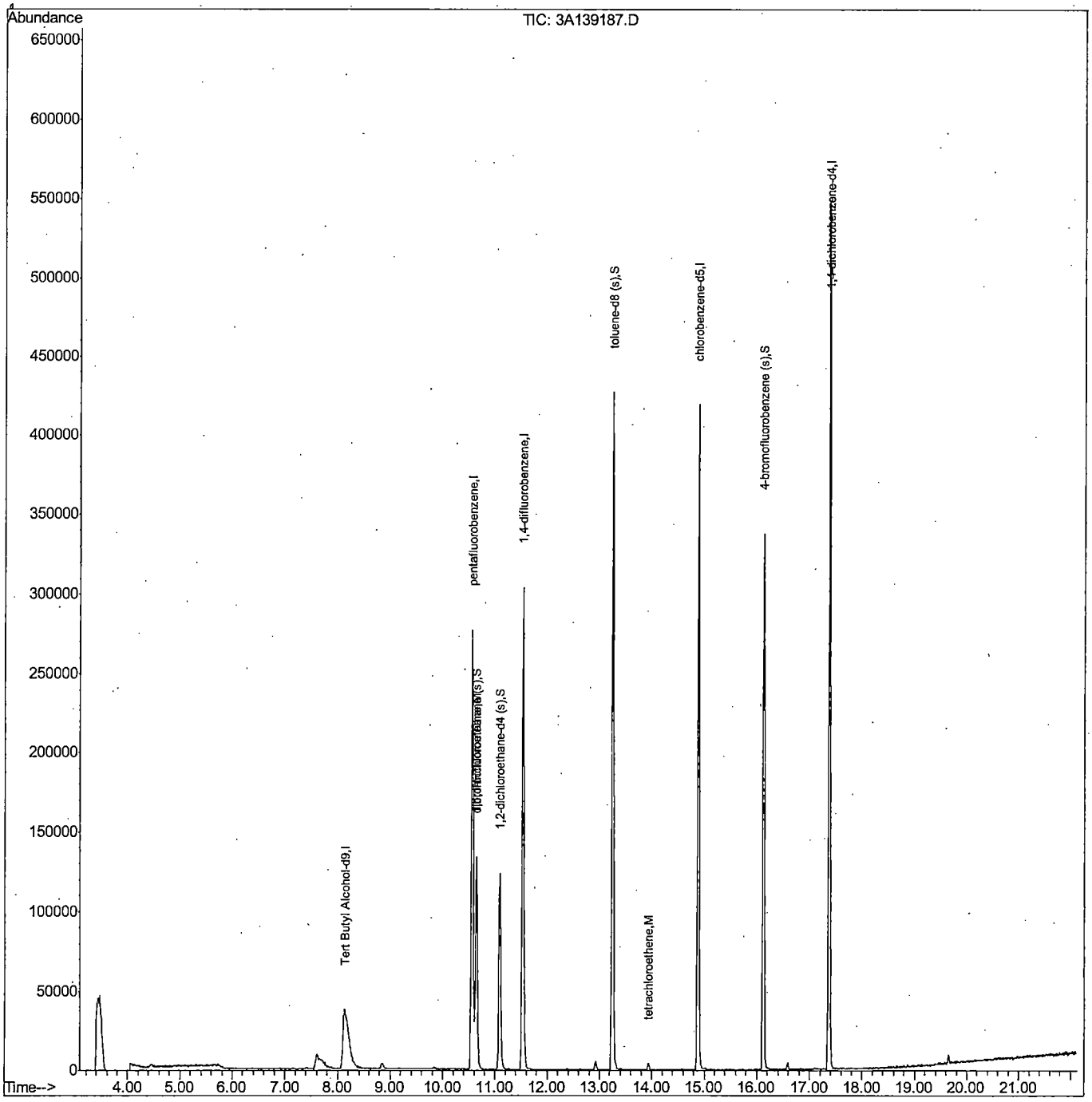
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.5 7

Quantitation Report (QT Reviewed)

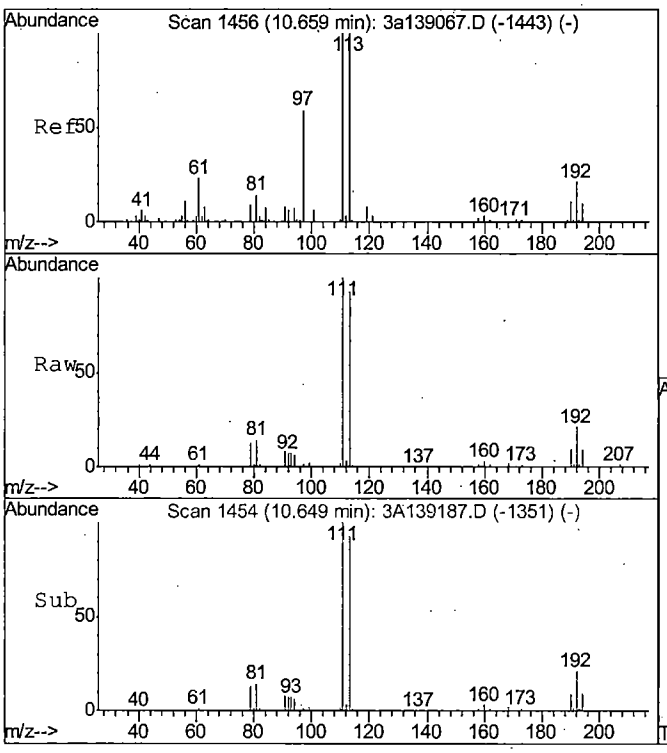
Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139187.D
Acq On : 23 Feb 2015 8:32 pm
Operator : zobiah
Sample : Jb88565-5
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 24 10:19:10 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



M3A6014.M Tue Feb 24 11:28:42 2015 ACCUNJ

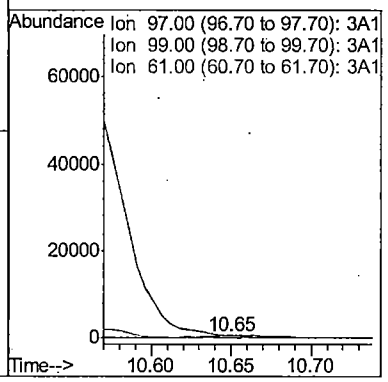
Page: 2

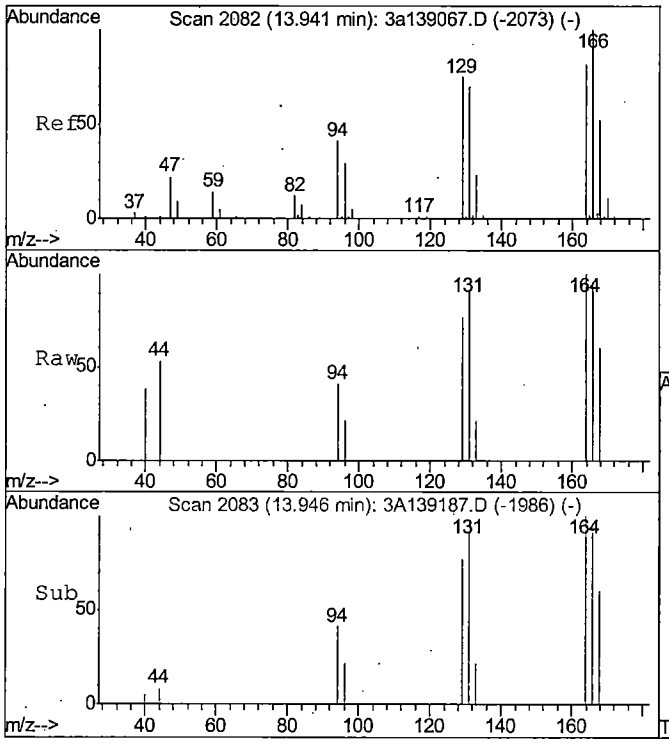


#53
1,1,1-trichloroethane
Concen: 0.44 ug/L
RT: 10.65 min Scan# 1454
Delta R.T. -0.01 min
Lab File: 3A139187.D
Acq: 23 Feb 2015 8:32 pm

Tgt Ion: 97 Resp: 1519

Ion	Ratio	Lower	Upper
97	100		
99	87.3	35.5	95.5
61	39.7	11.9	71.9

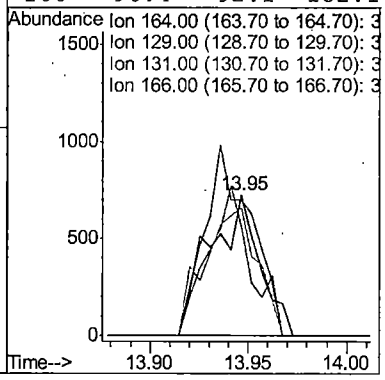




#88
tetrachloroethene
Concen: 0.76 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3A139187.D
Acq: 23 Feb 2015 8:32 pm

Tgt Ion:164 Resp: 1275

Ion	Ratio	Lower	Upper
164	100		
129	77.1	61.7	121.7
131	91.1	55.4	115.4
166	96.4	92.1	152.1



7.1.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139188.D
Acq On : 23 Feb 2015 9:02 pm
Operator : zobiah
Sample : Jb88565-6
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 24 10:21:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	170706	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	273070	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	321848	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	286709	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	173702	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	105945	52.53	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.06%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	111170	58.09	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 116.18%			
79) toluene-d8 (s)	13.25	98	358104	50.04	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.08%			
104) 4-bromofluorobenzene (s)	16.12	95	140356	52.70	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.40%			

Target Compounds						Qvalue
88) tetrachloroethene	13.94	164	6206	3.61	ug/L	98

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

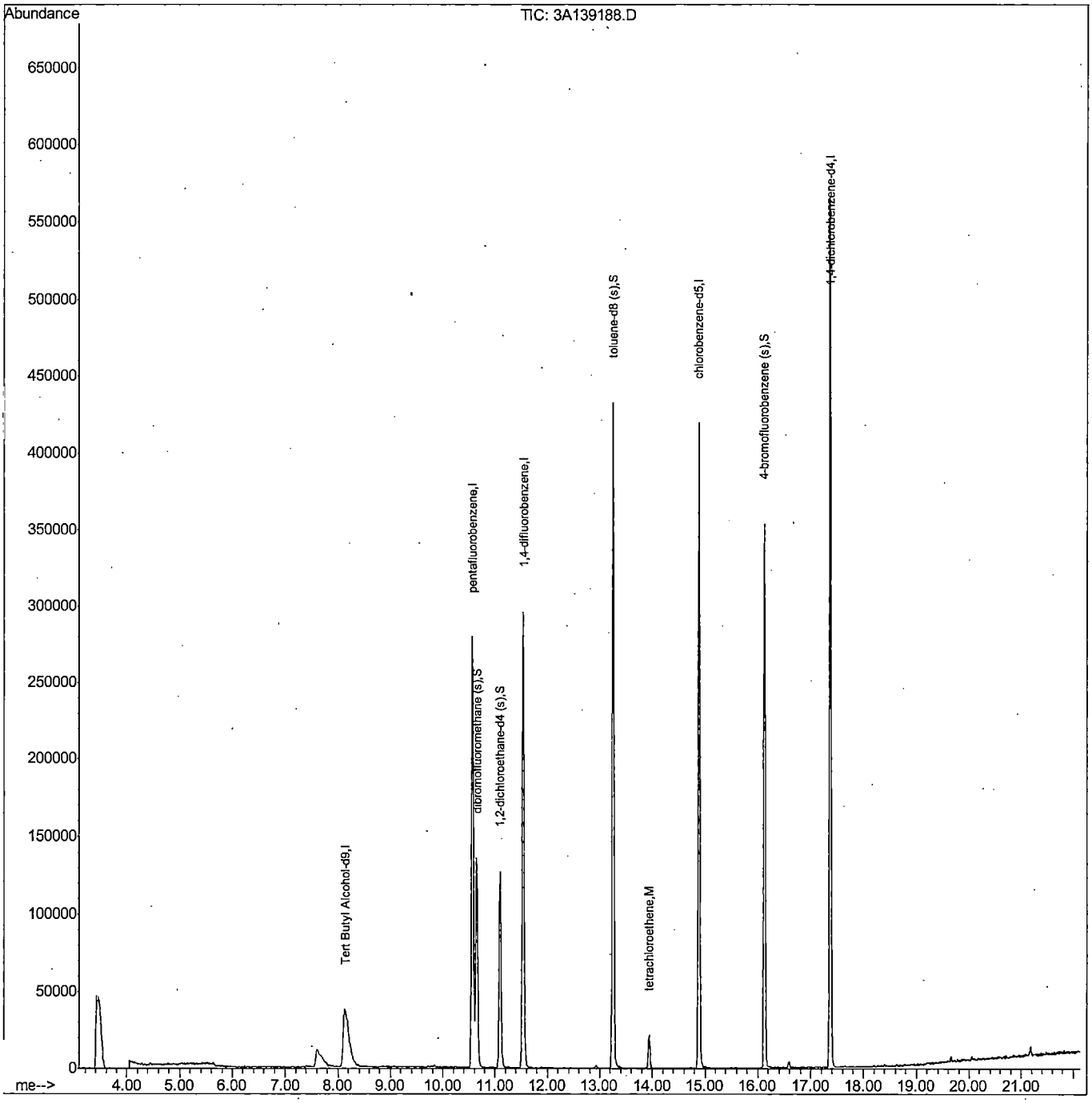
7.1.6

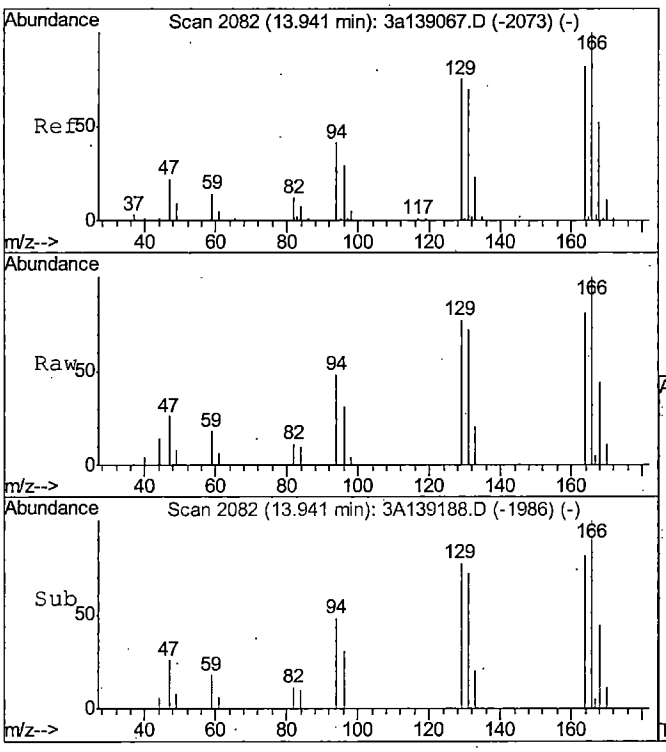
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139188.D
Acq On : 23 Feb 2015 9:02 pm
Operator : zobiah
Sample : Jb88565-6
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 24 10:21:43 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

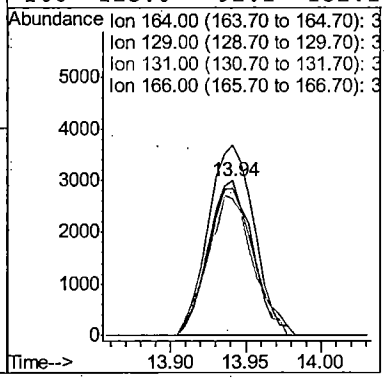




#88
tetrachloroethene
Concen: 3.61 ug/L
RT: 13.94 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 3A139188.D
Acq: 23 Feb 2015 9:02 pm

Tgt Ion:164 Resp: 6206

Ion	Ratio	Lower	Upper
164	100		
129	94.9	61.7	121.7
131	88.7	55.4	115.4
166	123.0	92.1	152.1



7.1.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57205.D
Acq On : 26 Feb 2015 12:16 pm
Operator : PayalR
Sample : jb88565-7
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 27 09:26:38 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.988	65	96743	500.00	ug/L	-0.01
4) pentafluorobenzene	9.567	168	273858	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	324346	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	294826	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	150905	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.546	113	125573	41.02	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.04%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	131506	44.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 89.30%			
75) toluene-d8 (s)	12.278	98	426654	43.27	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.54%			
100) 4-bromofluorobenzene (s)	15.130	95	160175	43.27	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 86.54%			
Target Compounds						Qvalue
18) 1,1-dichloroethene	6.227	96	1096	0.42	ug/L	79
33) 1,1-dichloroethane	8.099	63	27772	5.20	ug/L	99
39) cis-1,2-dichloroethene	8.938	96	2305	0.70	ug/L	93
49) 1,1,1-trichloroethane	9.630	97	79084	20.21	ug/L	99
64) trichloroethene	10.873	95	3268	1.14	ug/L	95
84) tetrachloroethene	12.986	166	51931	18.48	ug/L	99

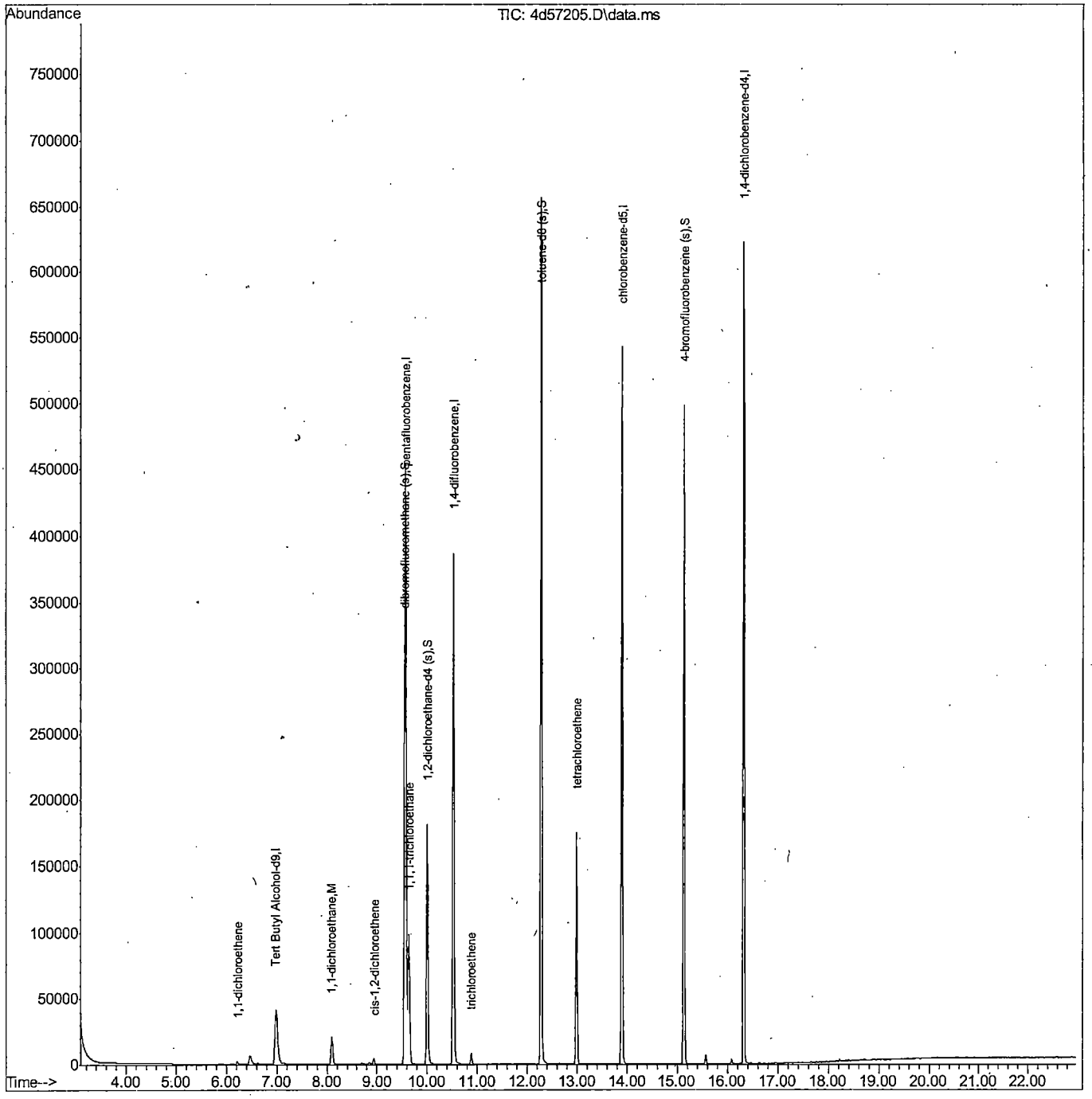
(#) = qualifier out of range (m) = manual integration (+) = signals summed

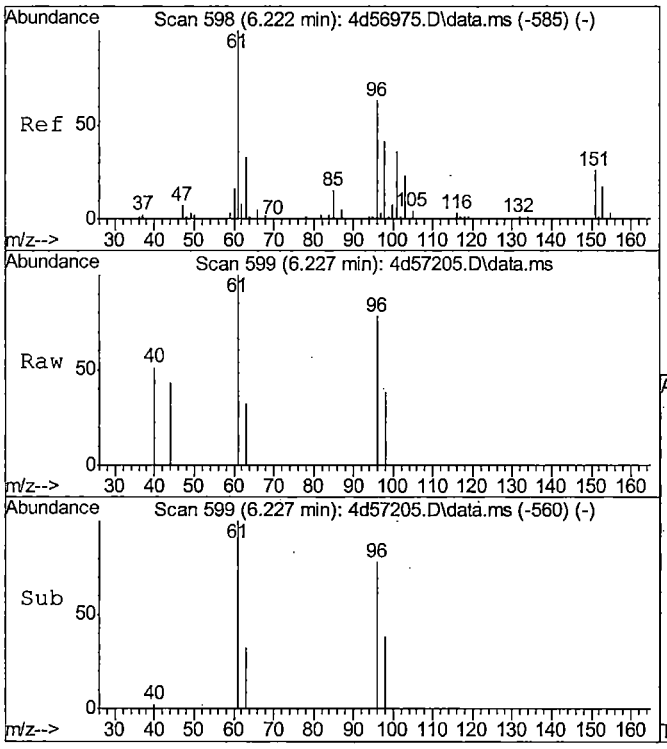
7.1.7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57205.D
Acq On : 26 Feb 2015 12:16 pm
Operator : PayalR
Sample : jb88565-7
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 27 09:26:38 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

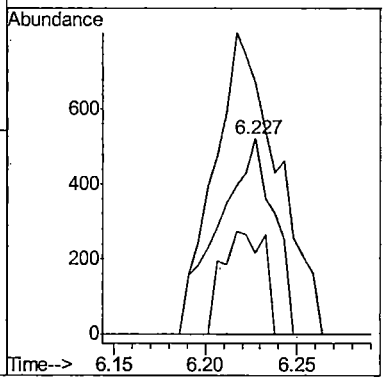


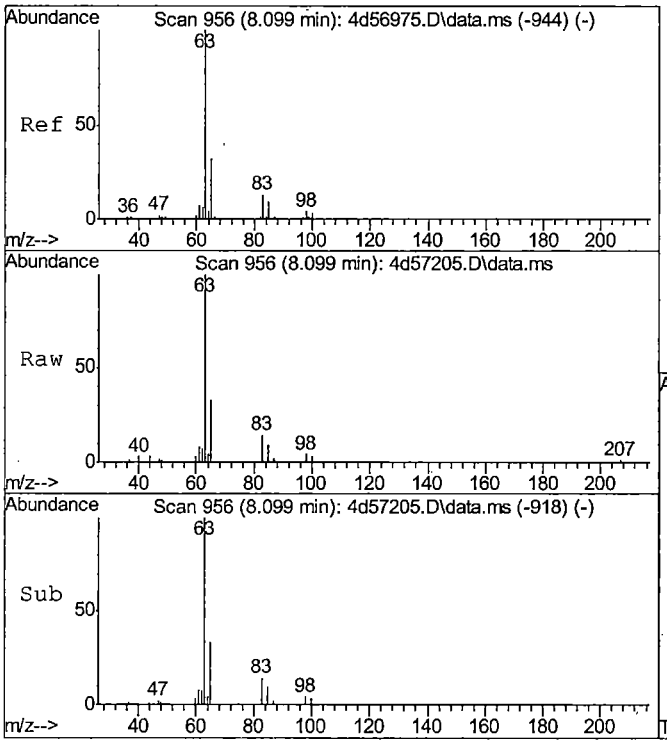


#18
1,1-dichloroethene
Concen: 0.42 ug/L
RT: 6.227 min Scan# 599
Delta R.T. 0.005 min
Lab File: 4d57205.D
Acq: 26 Feb 2015 12:16 pm

Tgt Ion: 96 Resp: 1096

Ion	Ratio	Lower	Upper
96	100		
61	128.7	128.6	188.6
63	41.2	22.1	82.1

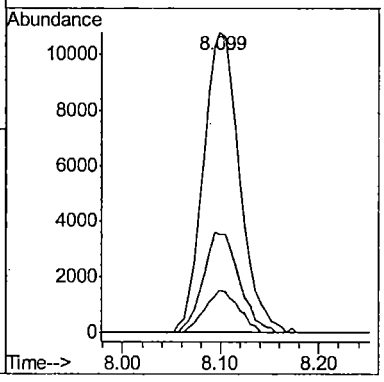




#33
1,1-dichloroethane
Concen: 5.20 ug/L
RT: 8.099 min Scan# 956
Delta R.T. -0.000 min
Lab File: 4d57205.D
Acq: 26 Feb 2015 12:16 pm

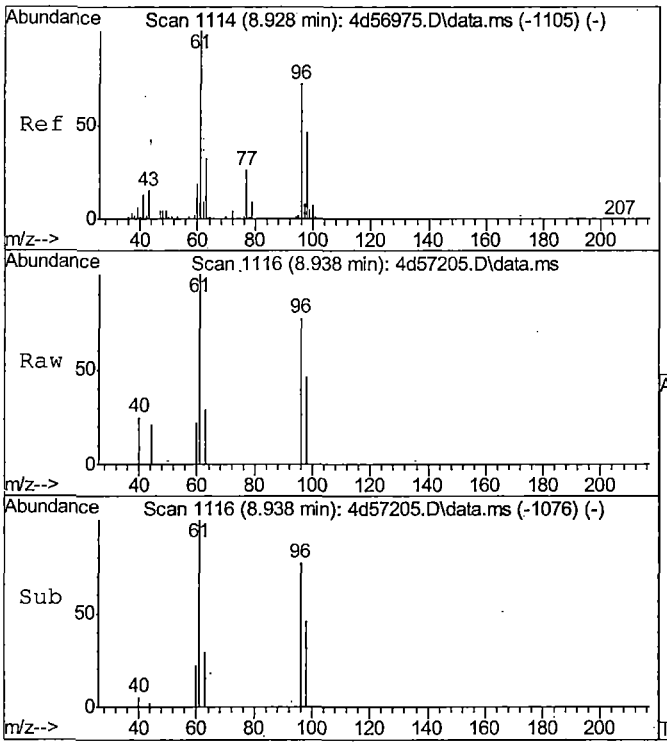
Tgt Ion: 63 Resp: 27772

Ion	Ratio	Lower	Upper
63	100		
65	32.8	2.4	62.4
83	14.1	0.0	43.3



7.1.7

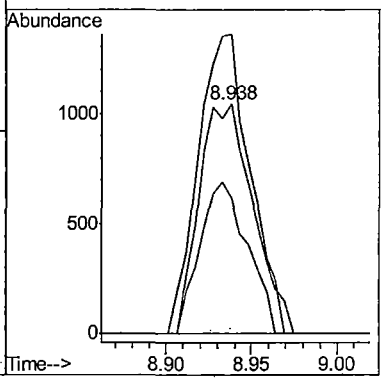
7

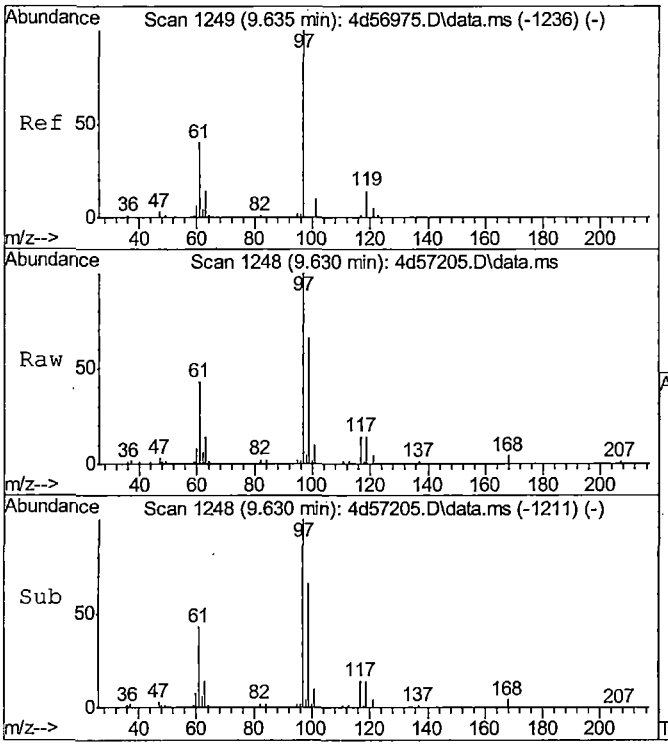


#39
cis-1,2-dichloroethene
Concen: 0.70 ug/L
RT: 8.938 min Scan# 1116
Delta R.T. 0.010 min
Lab File: 4d57205.D
Acq: 26 Feb 2015 12:16 pm

Tgt Ion: 96 Resp: 2305

Ion	Ratio	Lower	Upper
96	100		
61	130.2	108.9	168.9
98	59.4	33.6	93.6

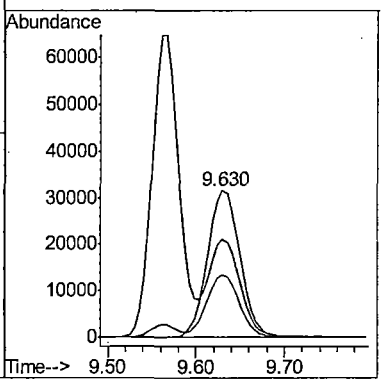




#49
1,1,1-trichloroethane
Concen: 20.21 ug/L
RT: 9.630 min Scan# 1248
Delta R.T. -0.005 min
Lab File: 4d57205.D
Acq: 26 Feb 2015 12:16 pm

Tgt Ion: 97 Resp: 79084

Ion	Ratio	Lower	Upper
97	100		
99	65.7	34.9	94.9
61	42.9	13.0	73.0



7.1.7

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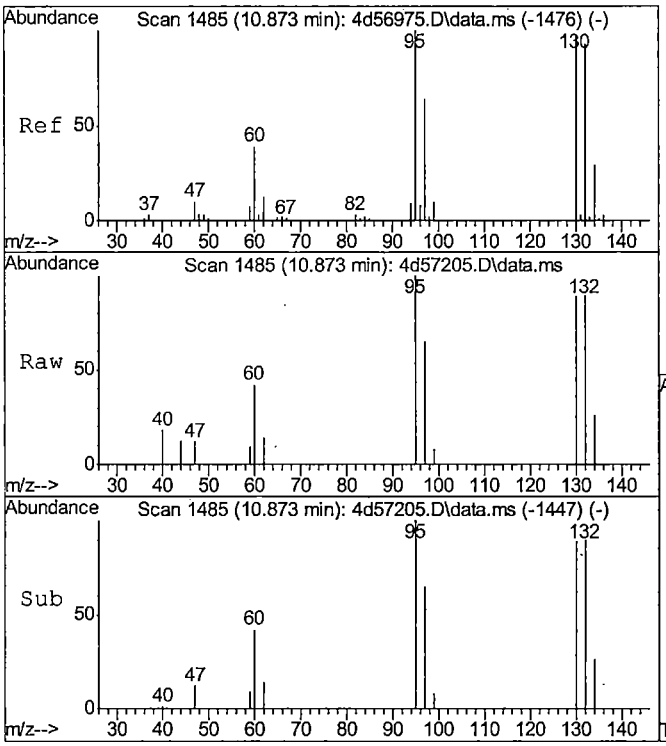
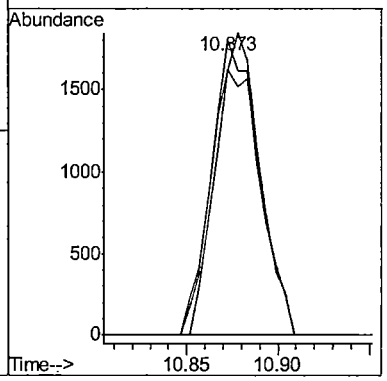
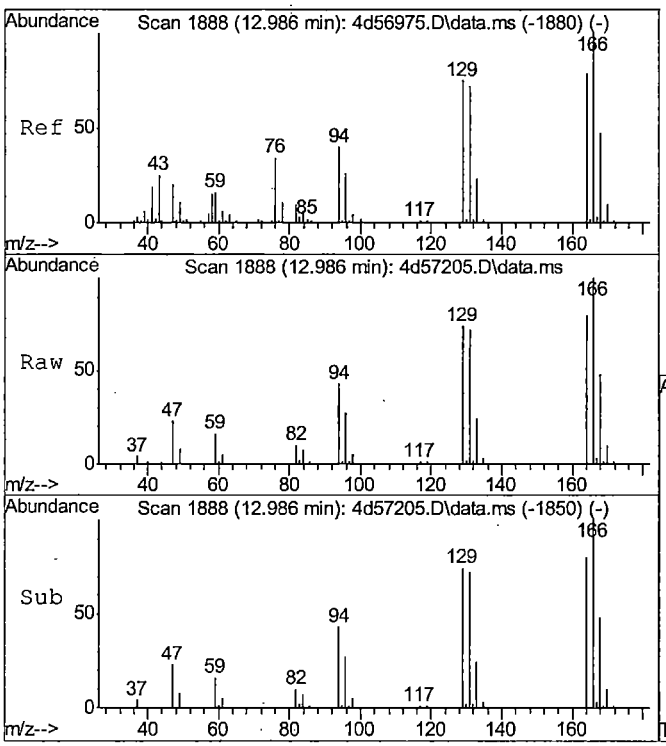


#64
trichloroethene
Concen: 1.14 ug/L
RT: 10.873 min Scan# 1485
Delta R.T. -0.000 min
Lab File: 4d57205.D
Acq: 26 Feb 2015 12:16 pm

Tgt Ion: 95 Resp: 3268

Ion	Ratio	Lower	Upper
95	100		
130	89.5	66.9	126.9
132	90.0	62.6	122.6

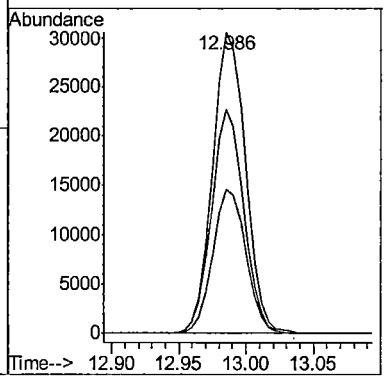




#84
tetrachloroethene
Concen: 18.48 ug/L
RT: 12.986 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 4d57205.D
Acq: 26 Feb 2015 12:16 pm

Tgt Ion:166 Resp: 51931

Ion	Ratio	Lower	Upper
166	100		
168	47.7	17.4	77.4
129	74.3	44.9	104.9



7.1.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57206.D
Acq On : 26 Feb 2015 12:44 pm
Operator : PayalR
Sample : jb88565-8
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 26 15:41:06 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	90100	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	267692	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	317540	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	284615	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	146577	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	122927	41.08	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.16%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	127121	44.15	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 88.30%			
75) toluene-d8 (s)	12.278	98	418989	43.40	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.80%			
100) 4-bromofluorobenzene (s)	15.130	95	157089	43.69	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 87.38%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	7.135	59	5028	20.44	ug/L	99
33) 1,1-dichloroethane	8.099	63	18943	3.63	ug/L	96
39) cis-1,2-dichloroethene	8.933	96	3584	1.12	ug/L	90
49) 1,1,1-trichloroethane	9.630	97	62093	16.24	ug/L	100
64) trichloroethene	10.878	95	5611	2.01	ug/L	97
84) tetrachloroethene	12.986	166	56887	20.97	ug/L	98

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

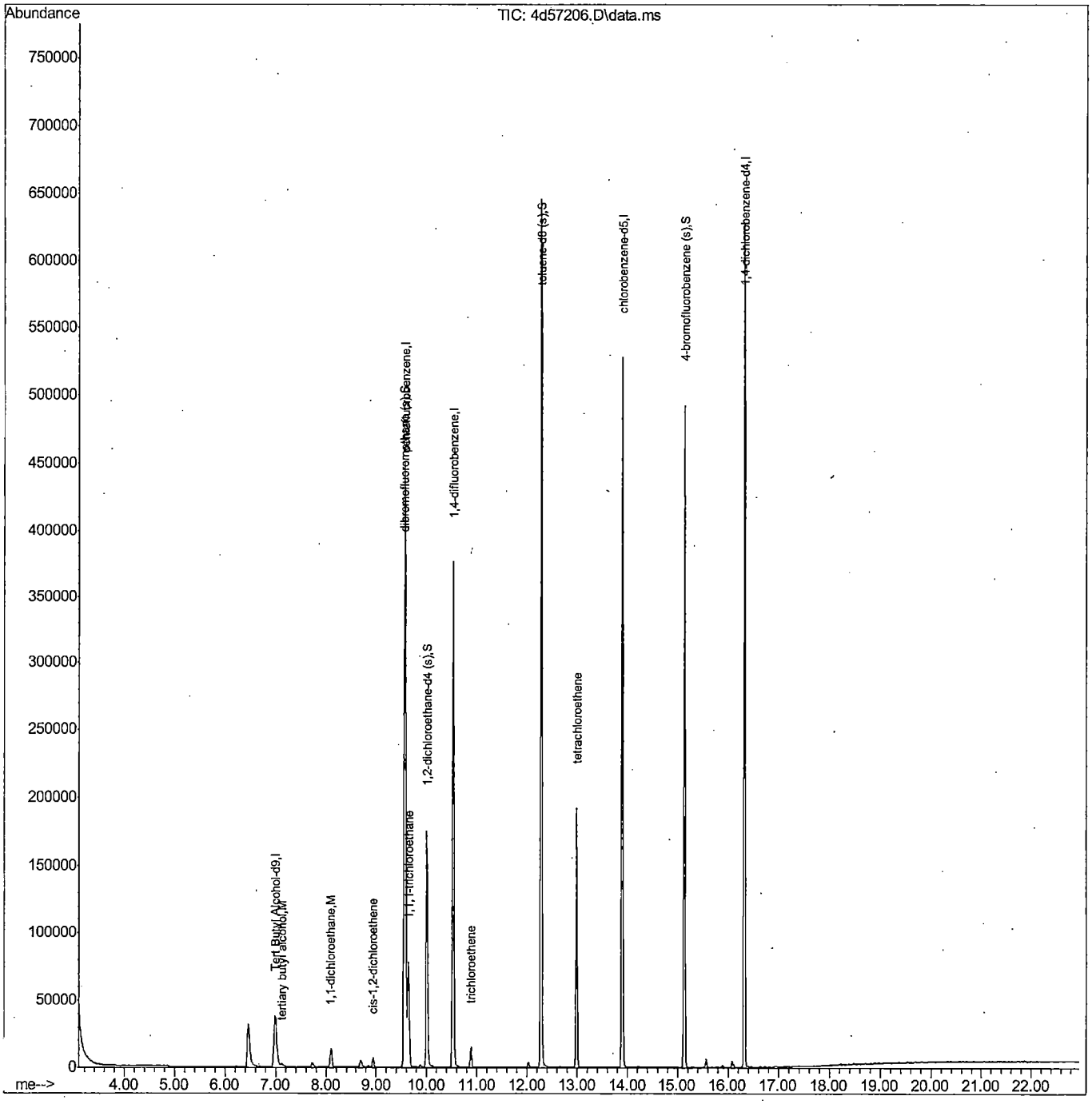
7.1.8

7

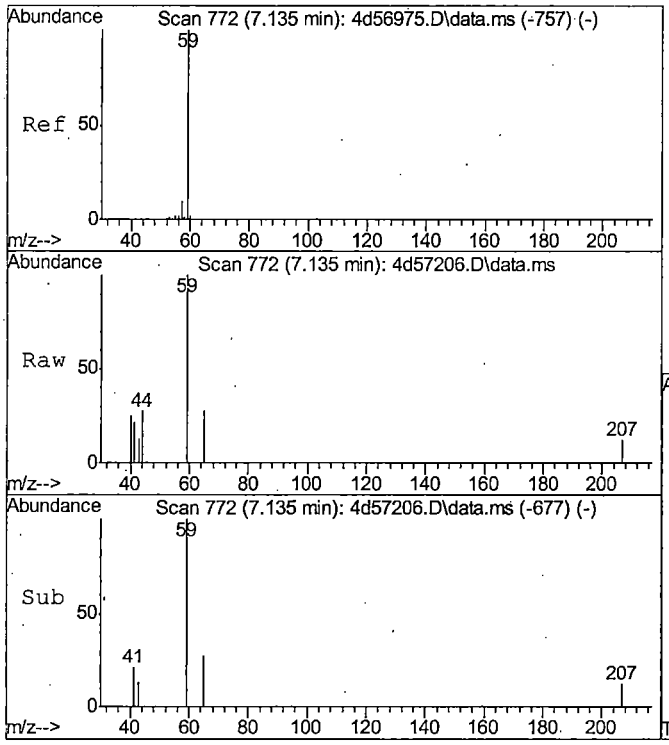
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57206.D
Acq On : 26 Feb 2015 12:44 pm
Operator : PayalR
Sample : jb88565-8
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 26 15:41:06 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration



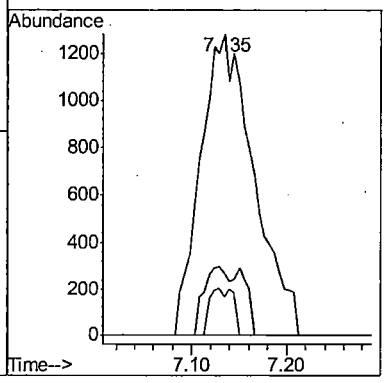
M4D2528.M Thu Feb 26 15:41:13 2015 RPT1 Page: 2

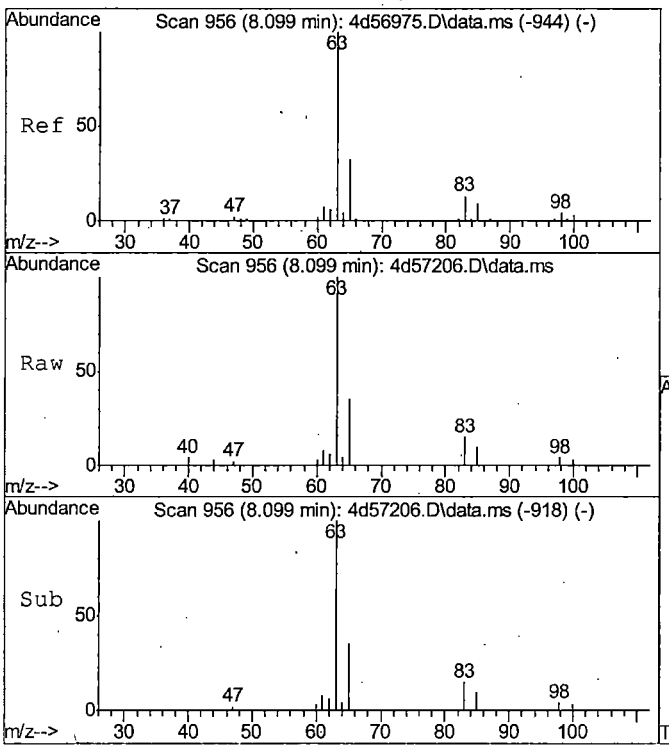


#3
tertiary butyl alcohol
Concen: 20.44 ug/L
RT: 7.135 min Scan# 772
Delta R.T. -0.000 min
Lab File: 4d57206.D
Acq: 26 Feb 2015 12:44 pm

Tgt Ion: 59 Resp: 5028

Ion	Ratio	Lower	Upper
59	100		
41	20.9	0.0	51.4
43	13.0	0.0	43.4

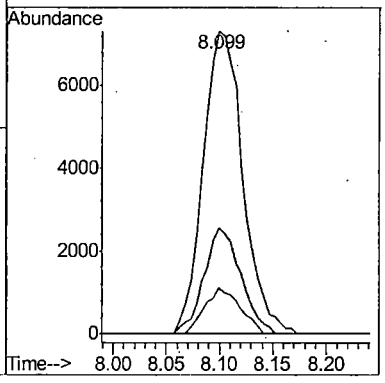




#33
1,1-dichloroethane
Concen: 3.63 ug/L
RT: 8.099 min Scan# 956
Delta R.T. -0.000 min
Lab File: 4d57206.D
Acq: 26 Feb 2015 12:44 pm

Tgt Ion: 63 Resp: 18943

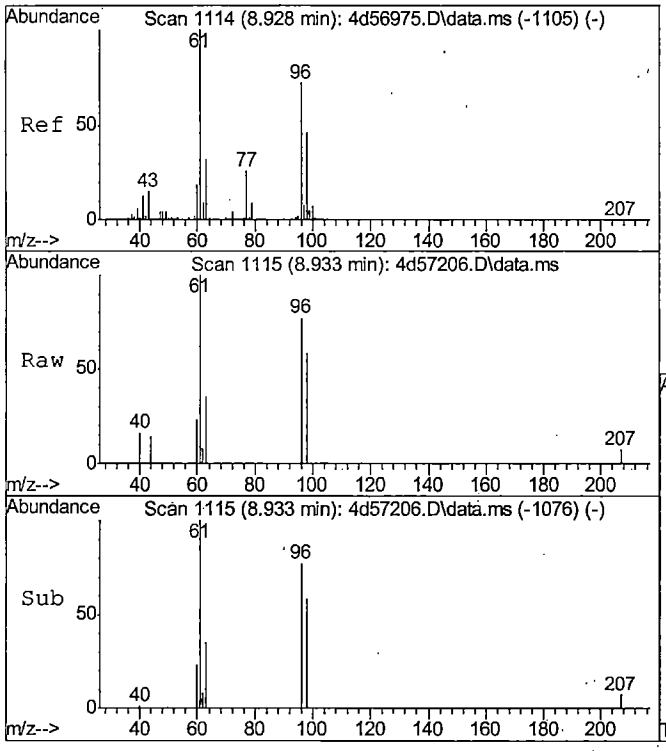
Ion	Ratio	Lower	Upper
63	100		
65	34.7	2.4	62.4
83	15.2	0.0	43.3



7.1.8

7

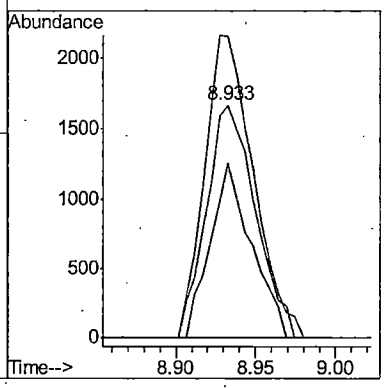
ACCUTEST LABORATORIES
JB88565

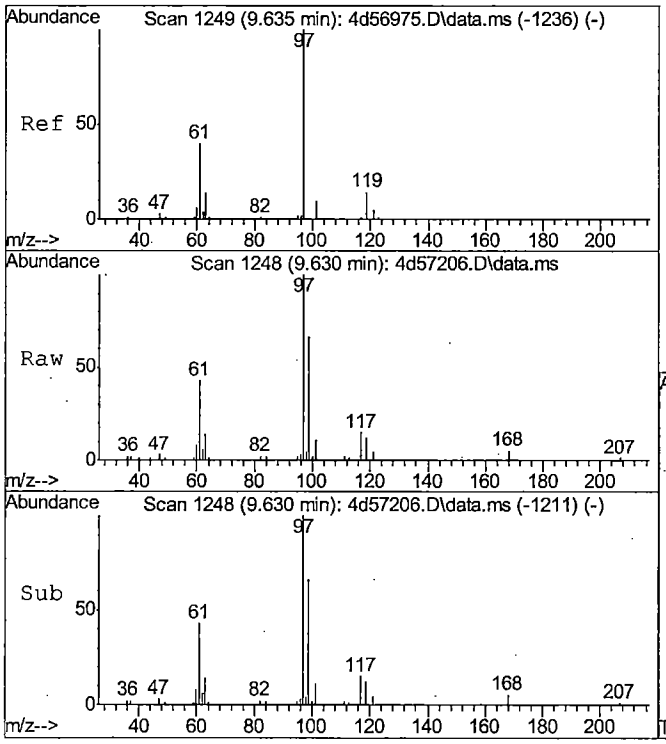


#39
cis-1,2-dichloroethene
Concen: 1.12 ug/L
RT: 8.933 min Scan# 1115
Delta R.T. 0.005 min
Lab File: 4d57206.D
Acq: 26 Feb 2015 12:44 pm

Tgt Ion: 96 Resp: 3584

Ion	Ratio	Lower	Upper
96	100		
61	129.6	108.9	168.9
98	75.2	33.6	93.6

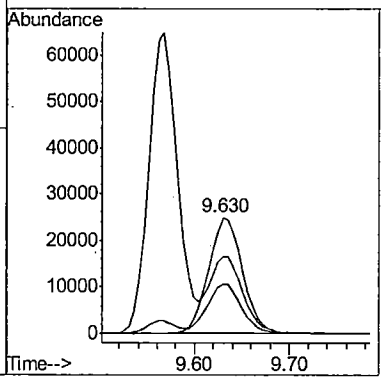




#49
1,1,1-trichloroethane
Concen: 16.24 ug/L
RT: 9.630 min Scan# 1248
Delta R.T. -0.005 min
Lab File: 4d57206.D
Acq: 26 Feb 2015 12:44 pm

Tgt Ion: 97 Resp: 62093

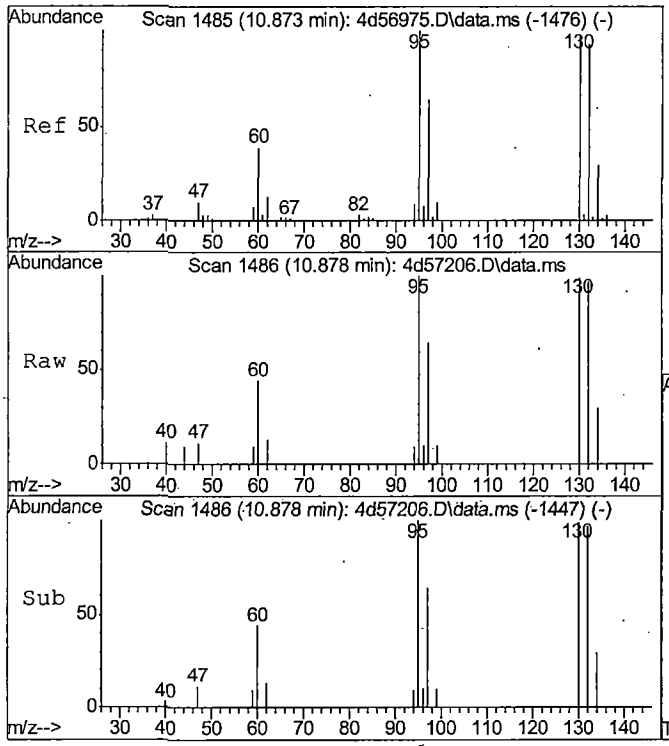
Ion	Ratio	Lower	Upper
97	100		
99	65.2	34.9	94.9
61	42.6	13.0	73.0



7.1.8

7

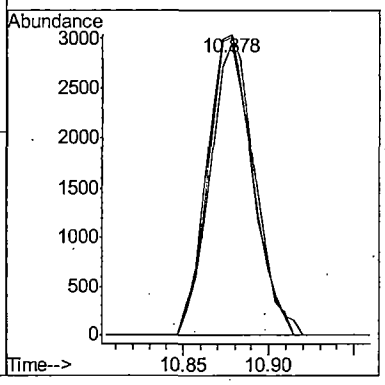
ACCUTEST LABORATORIES JB88565

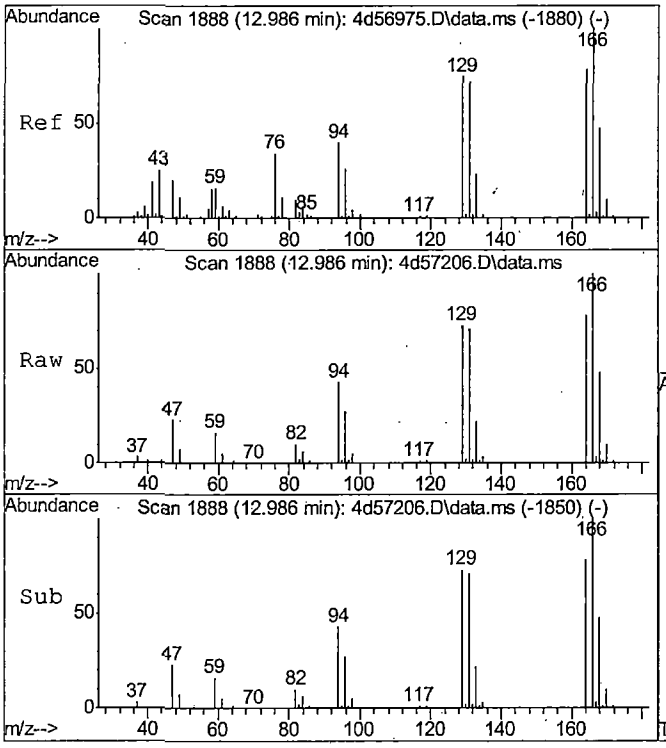


#64
trichloroethene
Concen: 2.01 ug/L
RT: 10.878 min Scan# 1486
Delta R.T. 0.005 min
Lab File: 4d57206.D
Acq: 26 Feb 2015 12:44 pm

Tgt Ion: 95 Resp: 5611

Ion	Ratio	Lower	Upper
95	100		
130	99.1	66.9	126.9
132	97.0	62.6	122.6

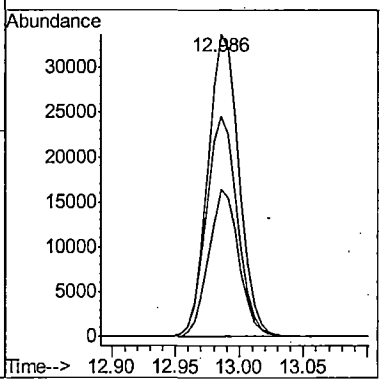




#84
tetrachloroethene
Concen: 20.97 ug/L
RT: 12.986 min Scan# 1888
Delta R.T. -0.000 min
Lab File: 4d57206.D
Acq: 26 Feb 2015 12:44 pm

Tgt Ion:166 Resp: 56887

Ion	Ratio	Lower	Upper
166	100		
168	48.4	17.4	77.4
129	72.9	44.9	104.9



7.1.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57207.D
Acq On : 26 Feb 2015 1:11 pm
Operator : PayalR
Sample : jb88565-9
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 26 15:41:57 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	6.993	65	85443	500.00 ug/L	0.00
4) pentafluorobenzene	9.567	168	255884	50.00 ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	301079	50.00 ug/L	0.00
83) chlorobenzene-d5	13.893	117	273391	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	140205	50.00 ug/L	0.00
System Monitoring Compounds					
45) dibromofluoromethane (s)	9.546	113	118368	41.38 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.76%		
46) 1,2-dichloroethane-d4 (s)	9.997	65	123708	44.95 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 89.90%		
75) toluene-d8 (s)	12.278	98	401223	43.83 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.66%		
100) 4-bromofluorobenzene (s)	15.130	95	149879	43.58 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 87.16%		
Target Compounds					Qvalue
49) 1,1,1-trichloroethane	9.635	97	2865	0.78 ug/L	90
84) tetrachloroethene	12.991	166	2523	0.97 ug/L	91

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

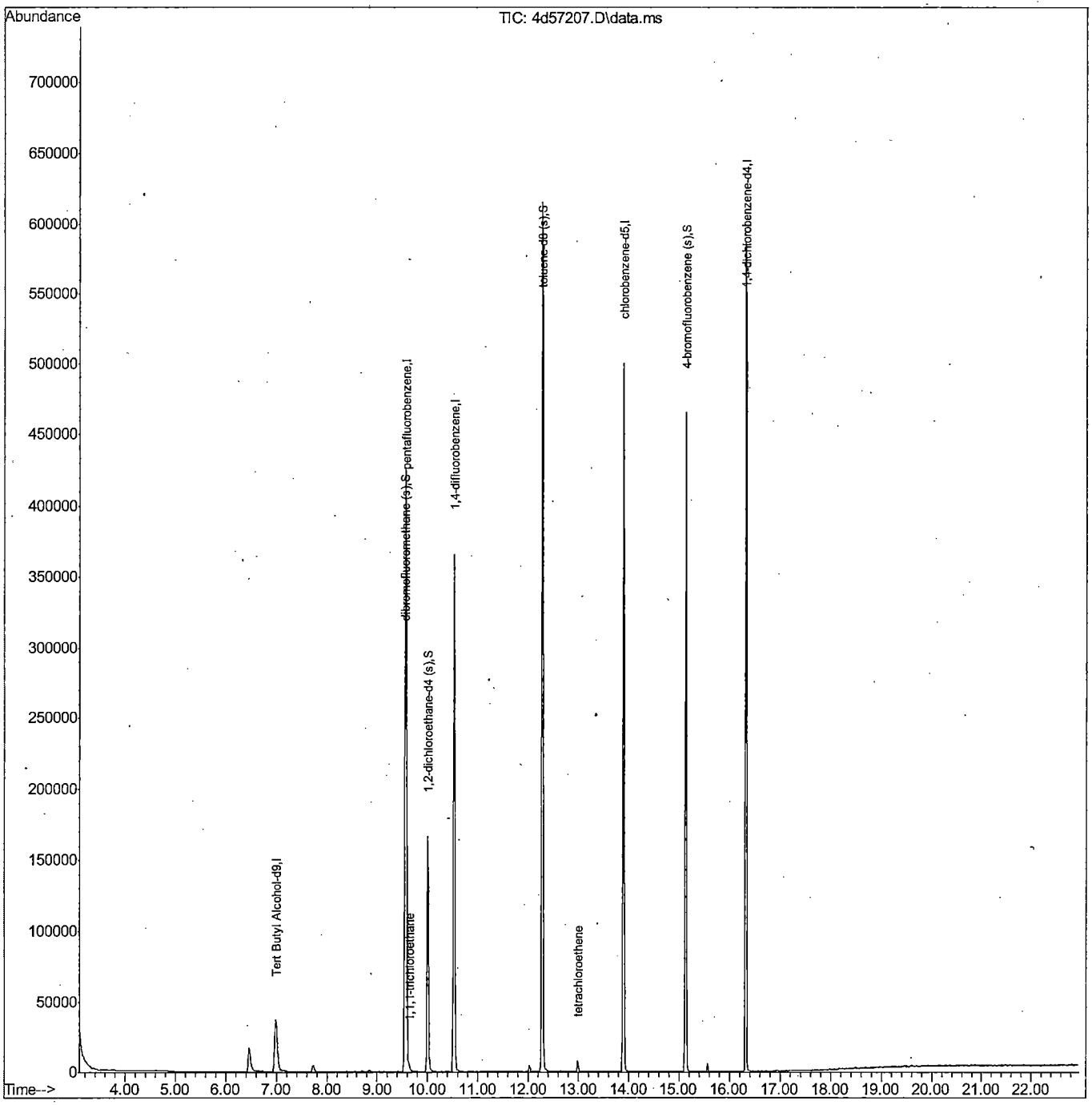
7.1.9

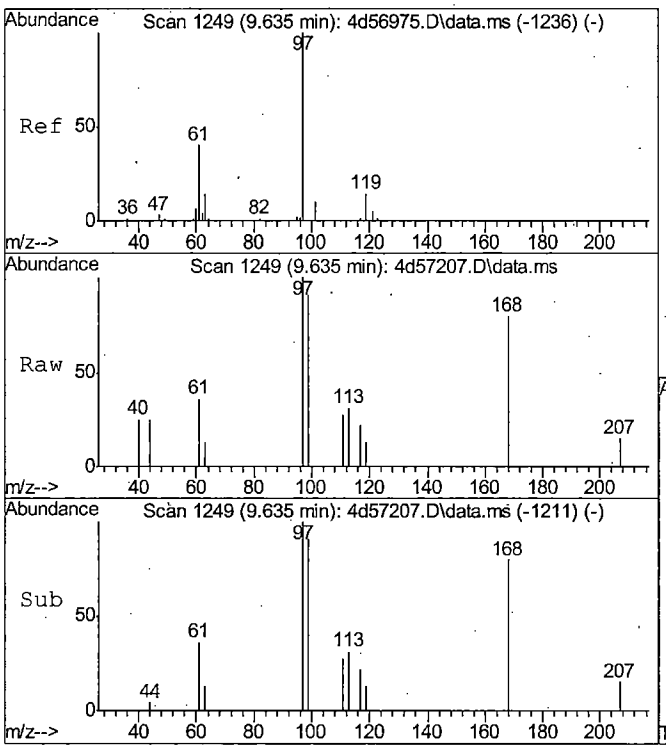
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57207.D
Acq On : 26 Feb 2015 1:11 pm
Operator : PayalR
Sample : jb88565-9
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 26 15:41:57 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

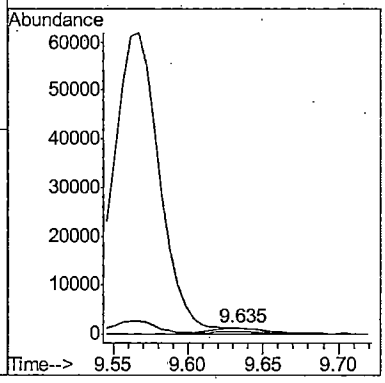


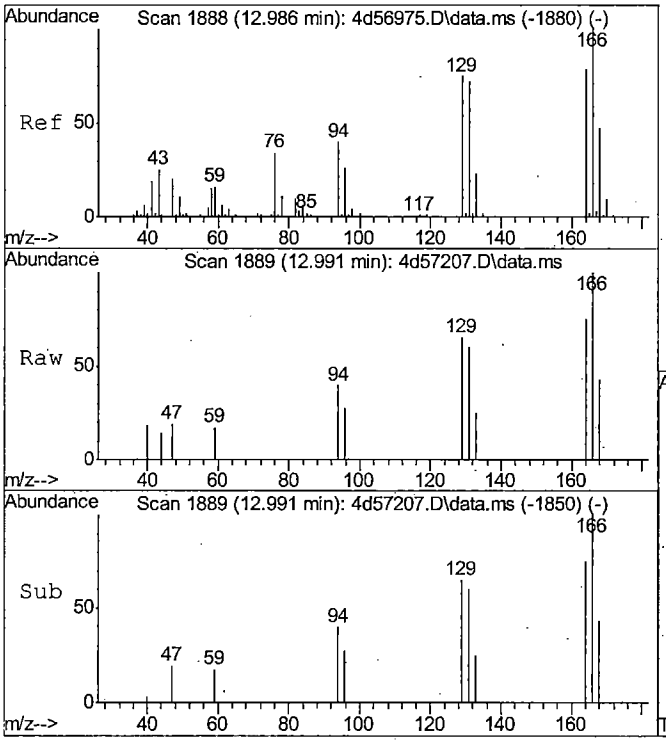


#49
1,1,1-trichloroethane
Concen: 0.78 ug/L
RT: 9.635 min Scan# 1249
Delta R.T. -0.000 min
Lab File: 4d57207.D
Acq: 26 Feb 2015 1:11 pm

Tgt Ion: 97 Resp: 2865

Ion	Ratio	Lower	Upper
97	100		
99	72.8	34.9	94.9
61	36.0	13.0	73.0

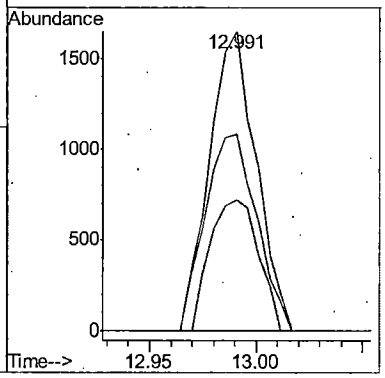




#84
tetrachloroethene
Concen: 0.97 ug/L
RT: 12.991 min Scan# 1889
Delta R.T. 0.005 min
Lab File: 4d57207.D
Acq: 26 Feb 2015 1:11 pm

Tgt Ion:166 Resp: 2523

Ion	Ratio	Lower	Upper
166	100		
168	43.4	17.4	77.4
129	65.4	44.9	104.9



7.1.9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139198.D
Acq On : 24 Feb 2015 2:02 am
Operator : zobiah
Sample : jb88565-10
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Feb 24 10:40:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	163063	500.00	ug/L	-0.01
5) pentafluorobenzene	10.56	168	259903	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	304771	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	269580	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166615	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	102141	53.21	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.42%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	102956	56.52	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 113.04%			
79) toluene-d8 (s)	13.25	98	338837	50.00	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.00%			
104) 4-bromofluorobenzene (s)	16.12	95	134390	52.60	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.20%			
Target Compounds						Qvalue
35) 1,1-dichloroethane	9.21	63	11304	3.24	ug/L	97
42) cis-1,2-dichloroethene	10.02	96	7171	3.07	ug/L	86
88) tetrachloroethene	13.94	164	649	0.40	ug/L	84

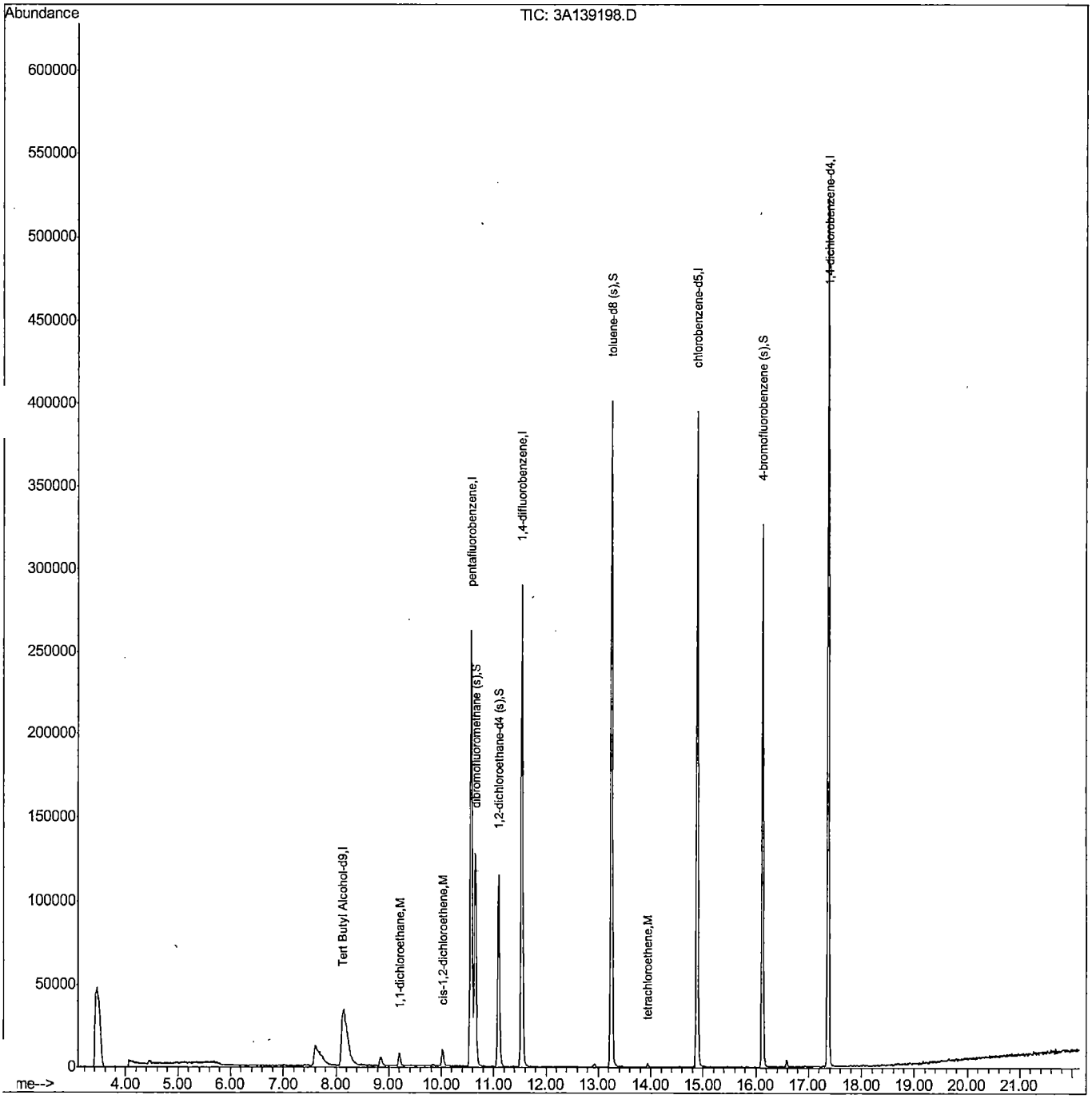
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.10 7

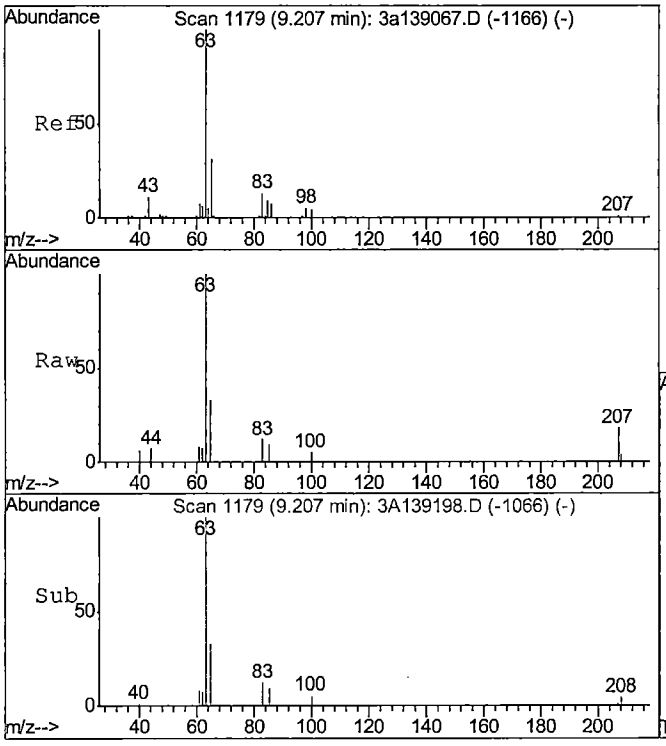
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139198.D
Acq On : 24 Feb 2015 2:02 am
Operator : zobiah
Sample : jb88565-10
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Feb 24 10:40:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



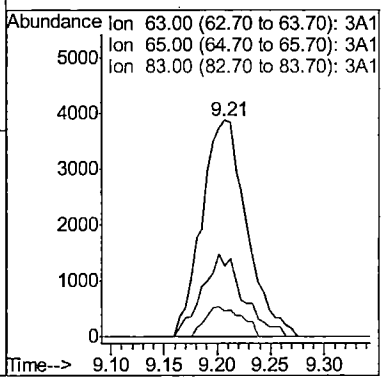
M3A6014.M Tue Feb 24 11:28:46 2015 ACCUNJ

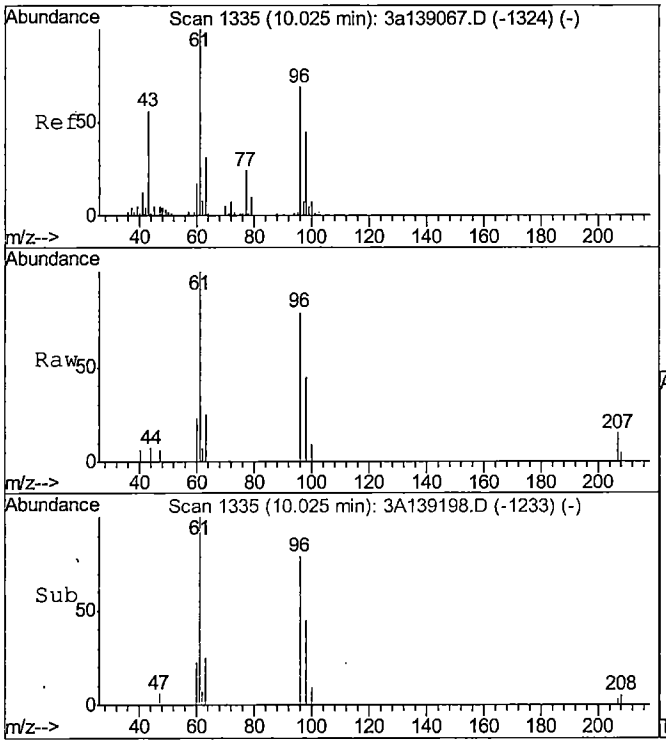


#35
1,1-dichloroethane
Concen: 3.24 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. -0.00 min
Lab File: 3A139198.D
Acq: 24 Feb 2015 2:02 am

Tgt Ion: 63 Resp: 11304

Ion	Ratio	Lower	Upper
63	100		
65	32.7	0.8	60.8
83	11.8	0.0	42.7

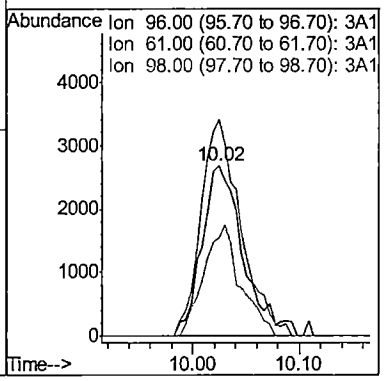




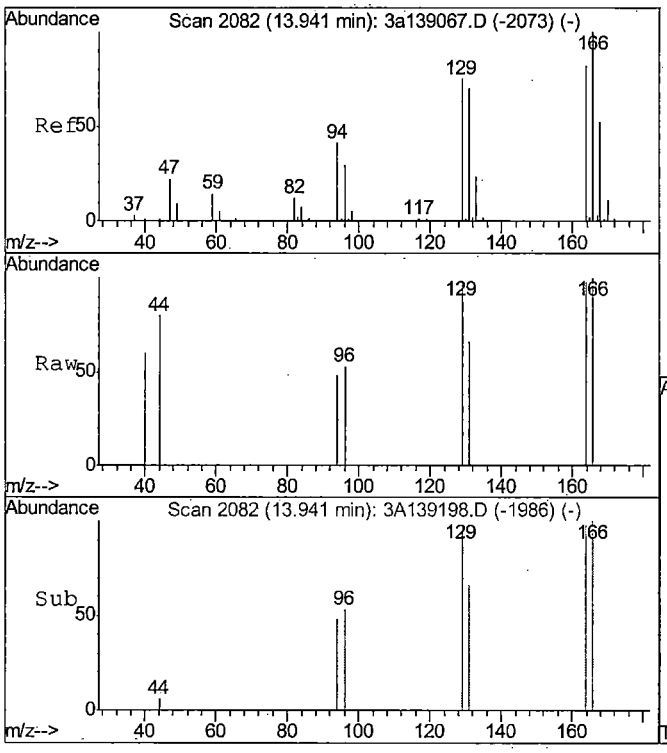
#42
cis-1,2-dichloroethene
Concen: 3.07 ug/L
RT: 10.02 min Scan# 1335
Delta R.T. 0.01 min
Lab File: 3A139198.D
Acq: 24 Feb 2015 2:02 am

Tgt Ion: 96 Resp: 7171

Ion	Ratio	Lower	Upper
96	100		
61	127.2	118.2	178.2
98	57.8	34.5	94.5



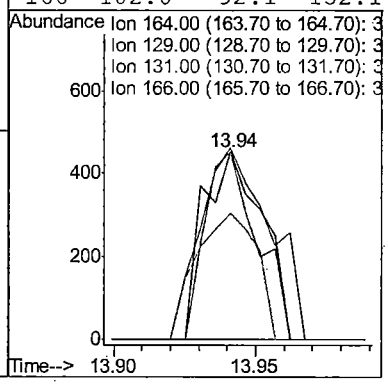
7.1.10 7



#88
tetrachloroethene
Concen: 0.40 ug/L
RT: 13.94 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 3A139198.D
Acq: 24 Feb 2015 2:02 am

Tgt Ion:164 Resp: 649

Ion	Ratio	Lower	Upper
164	100		
129	100.0	61.7	121.7
131	67.5	55.4	115.4
166	102.0	92.1	152.1



7.1.10 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a139199.D
Acq On : 24 Feb 2015 2:31 am
Operator : zobiah
Sample : jb88565-11
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Feb 25 08:49:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	164831	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	258015	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	304113	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	268269	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	164950	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	101774	53.40 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.80%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	101264	56.00 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.00%		
79) toluene-d8 (s)	13.25	98	333961	49.39 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 98.78%		
104) 4-bromofluorobenzene (s)	16.12	95	133831	52.91 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.82%		

Target Compounds					Qvalue
11) vinyl chloride	4.75	62	85752	23.26 ug/L	97
16) chloroethane	5.75	64	2954	2.01 ug/L	87
22) 1,1-dichloroethene	7.25	96	1764	0.84 ug/L #	80
32) trans-1,2-dichloroethene	8.55	61	1092	0.39 ug/L	90
35) 1,1-dichloroethane	9.21	63	39337	11.35 ug/L	98
42) cis-1,2-dichloroethene	10.02	96	134046	57.86 ug/L	89
53) 1,1,1-trichloroethane	10.65	97	3002	0.90 ug/L	91
63) benzene	11.13	78	2116	0.27 ug/L	78
69) trichloroethene	11.88	95	6250	3.22 ug/L	93
88) tetrachloroethene	13.94	164	11783	7.33 ug/L	98
103) isopropylbenzene	15.88	105	4502	0.47 ug/L	95
114) tert-butylbenzene	16.85	119	6469	0.86 ug/L	95
117) sec-butylbenzene	17.07	105	39552	3.39 ug/L	96
121) 1,2-dichlorobenzene	17.83	146	5935	1.06 ug/L	94

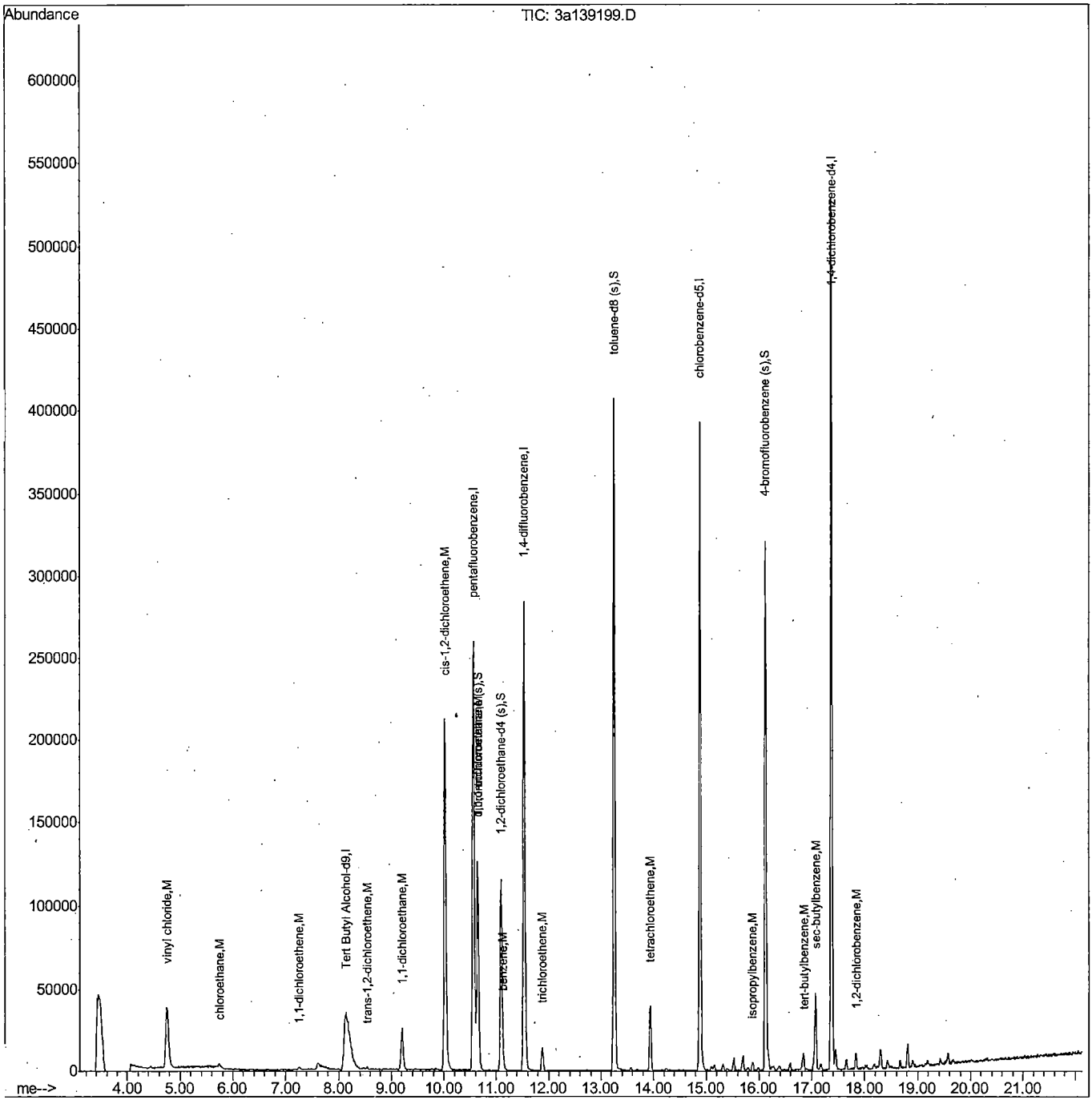
(#) = qualifier out of range (m) = manual integration (+) = signals summed

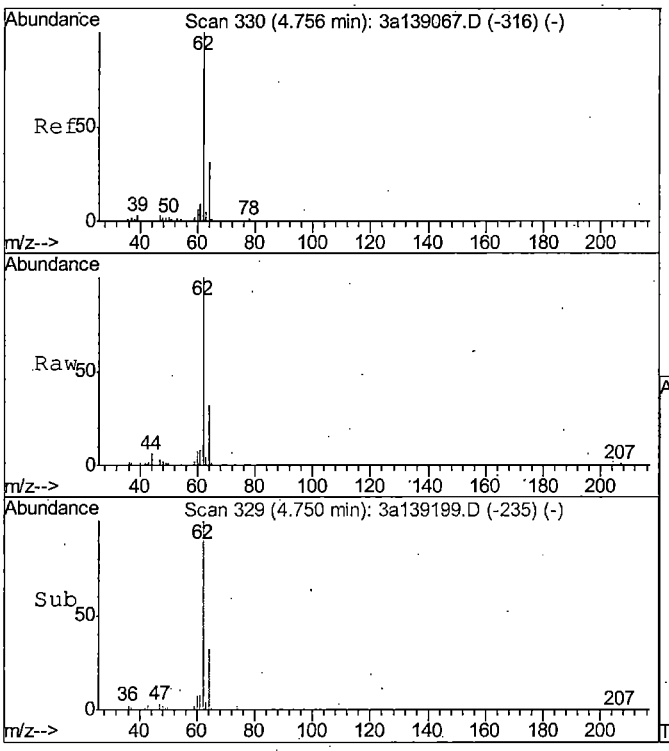
7.1.11 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a139199.D
Acq On : 24 Feb 2015 2:31 am
Operator : zobiah
Sample : jb88565-11
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Feb 25 08:49:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

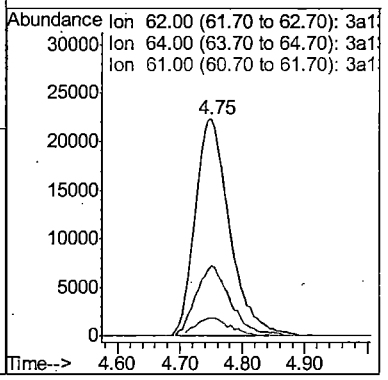


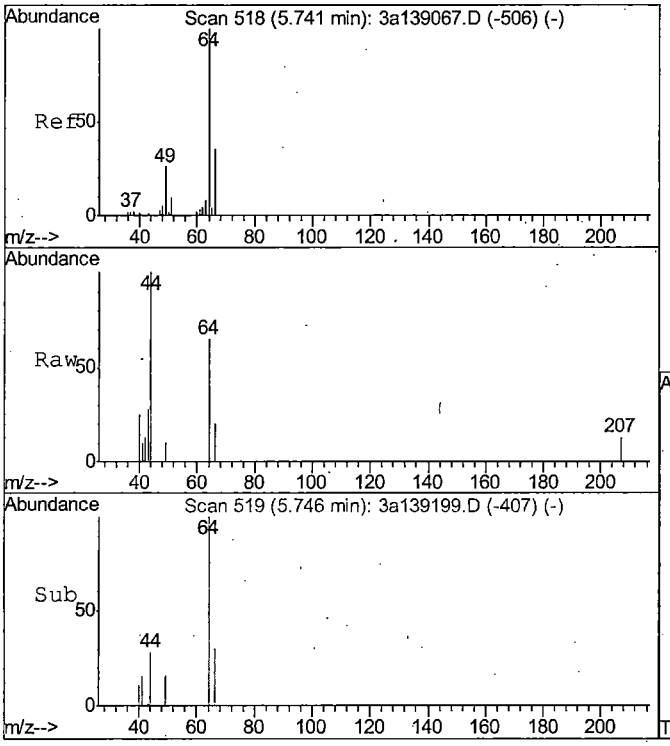


#11
vinyl chloride
Concen: 23.26 ug/L
RT: 4.75 min Scan# 329
Delta R.T. -0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 62 Resp: 85752

Ion	Ratio	Lower	Upper
62	100		
64	32.1	0.6	60.6
61	8.1	0.0	39.2

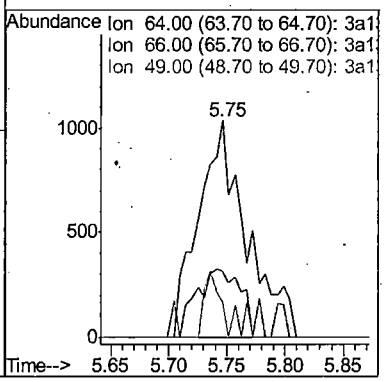




#16
chloroethane
Concen: 2.01 ug/L
RT: 5.75 min Scan# 519
Delta R.T. 0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

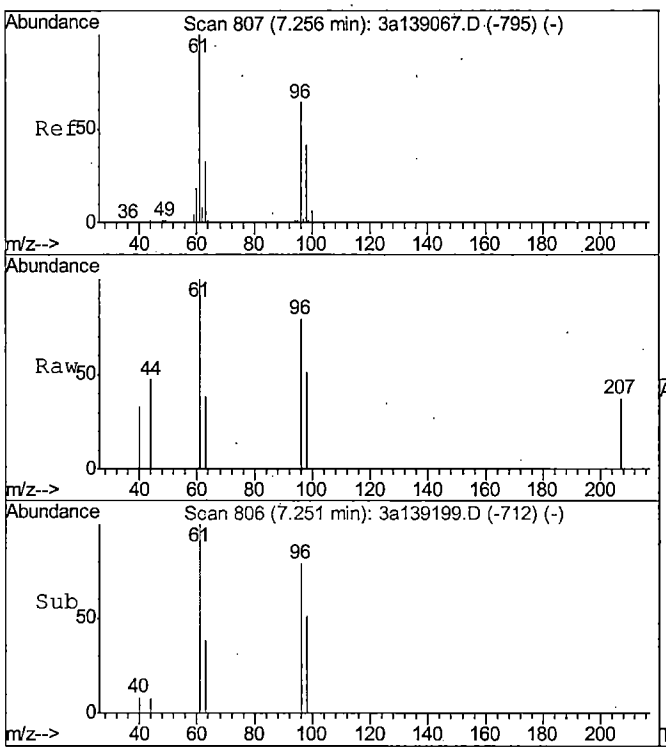
Tgt Ion: 64 Resp: 2954

Ion	Ratio	Lower	Upper
64	100		
66	30.1	4.9	64.9
49	15.9	0.0	56.3



7.1.11

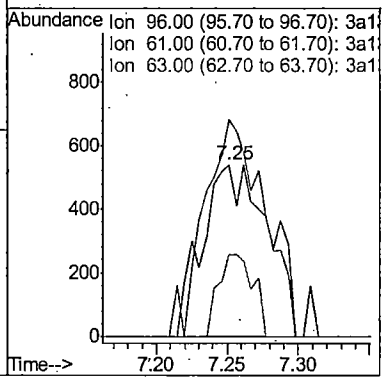
7

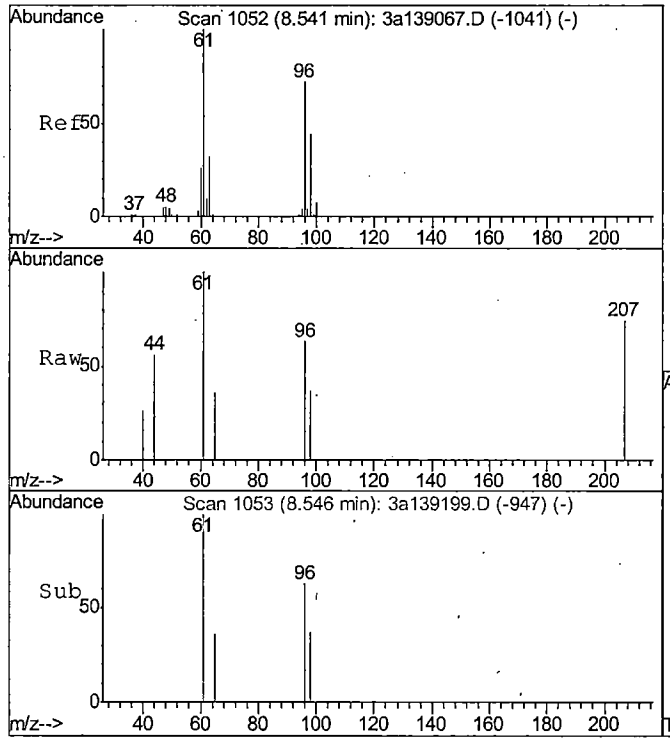


#22
1,1-dichloroethene
Concen: 0.84 ug/L
RT: 7.25 min Scan# 806
Delta R.T. -0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 96 Resp: 1764

Ion	Ratio	Lower	Upper
96	100		
61	126.1	127.4	187.4#
63	47.3	22.7	82.7

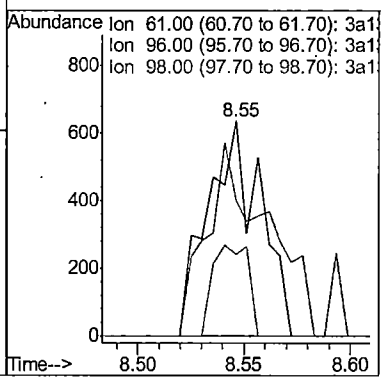




#32
trans-1,2-dichloroethene
Concen: 0.39 ug/L
RT: 8.55 min Scan# 1053
Delta R.T. 0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 61 Resp: 1092

Ion	Ratio	Lower	Upper
61	100		
96	62.6	41.6	101.6
98	37.4	13.6	73.6



7.1.11

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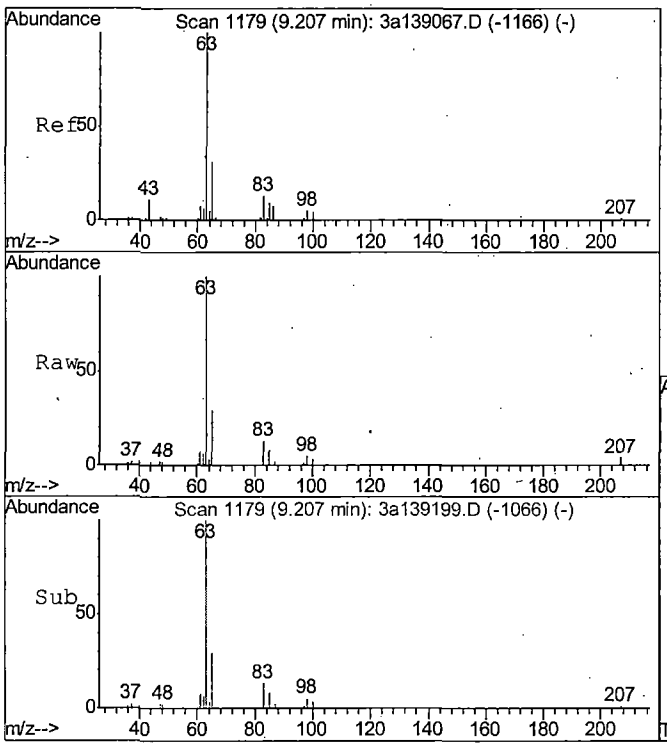
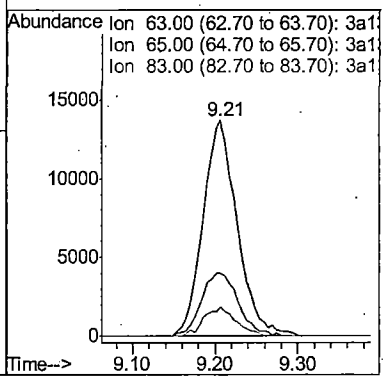
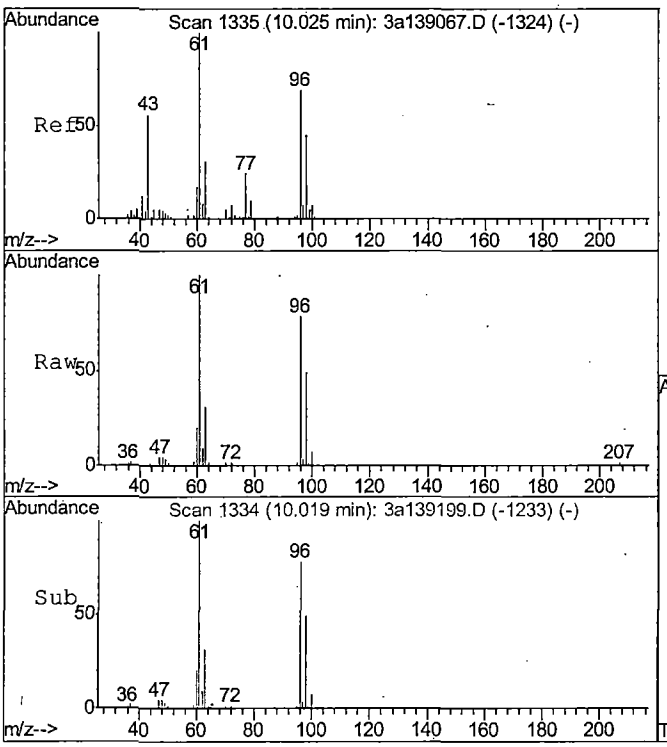


#35
1,1-dichloroethane
Concen: 11.35 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 63 Resp: 39337

Ion	Ratio	Lower	Upper
63	100		
65	29.3	0.8	60.8
83	13.1	0.0	42.7

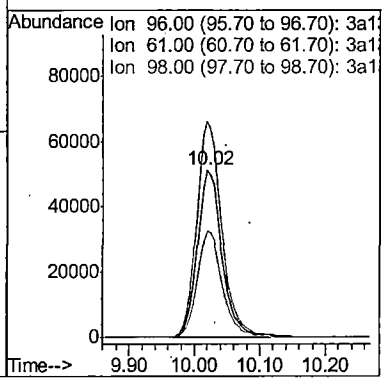




#42
cis-1,2-dichloroethene
Concen: 57.86 ug/L
RT: 10.02 min Scan# 1334
Delta R.T. 0.00 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 96 Resp: 134046

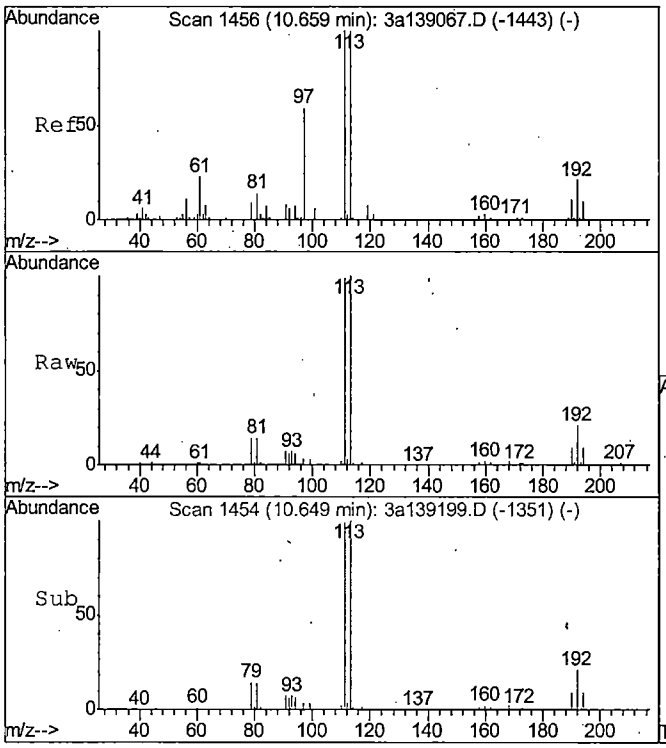
Ion	Ratio	Lower	Upper
96	100		
61	128.8	118.2	178.2
98	63.3	34.5	94.5



7.1.11

7

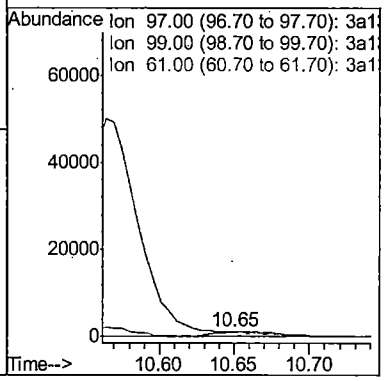
ACCUTEST LABORATORIES
JB88565

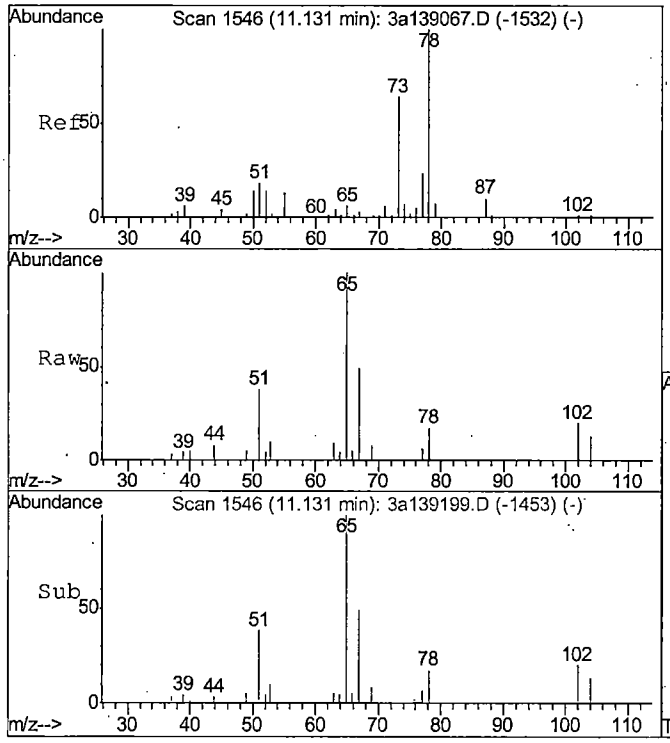


#53
1,1,1-trichloroethane
Concen: 0.90 ug/L
RT: 10.65 min Scan# 1454
Delta R.T. -0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 97 Resp: 3002

Ion	Ratio	Lower	Upper
97	100		
99	59.6	35.5	95.5
61	35.0	11.9	71.9

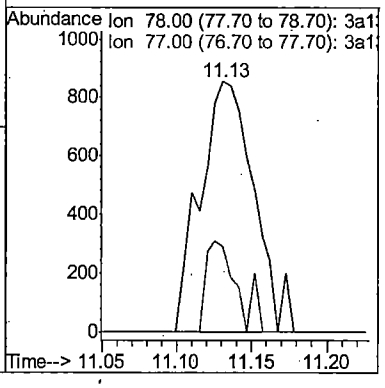




#63
benzene
Concen: 0.27 ug/L
RT: 11.13 min Scan# 1546
Delta R.T. 0.00 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 78 Resp: 2116

Ion	Ratio	Lower	Upper
78	100		
77	33.6	0.0	52.9



7.1.11

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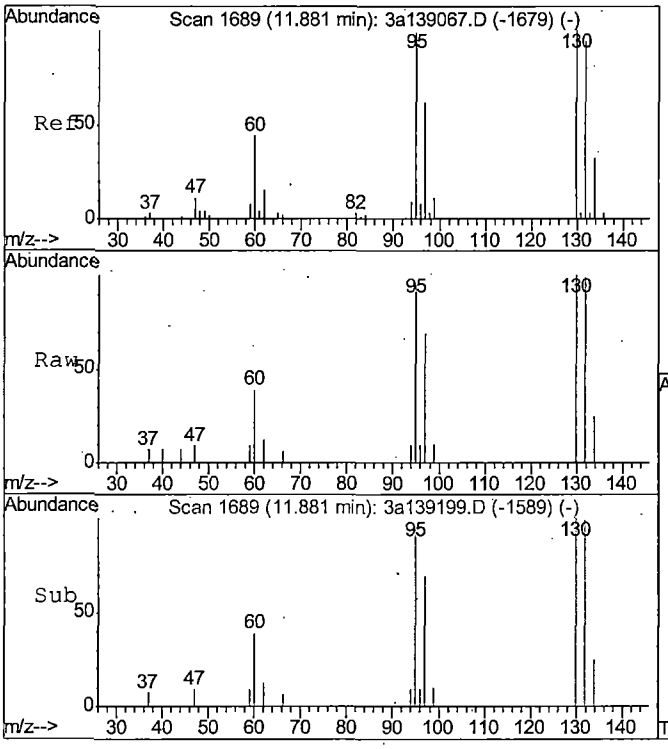
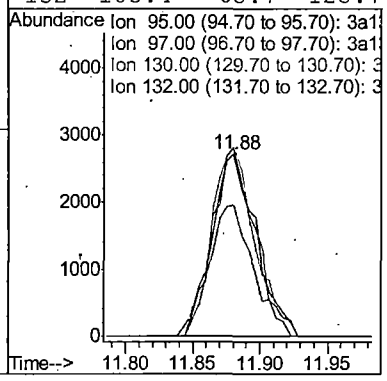
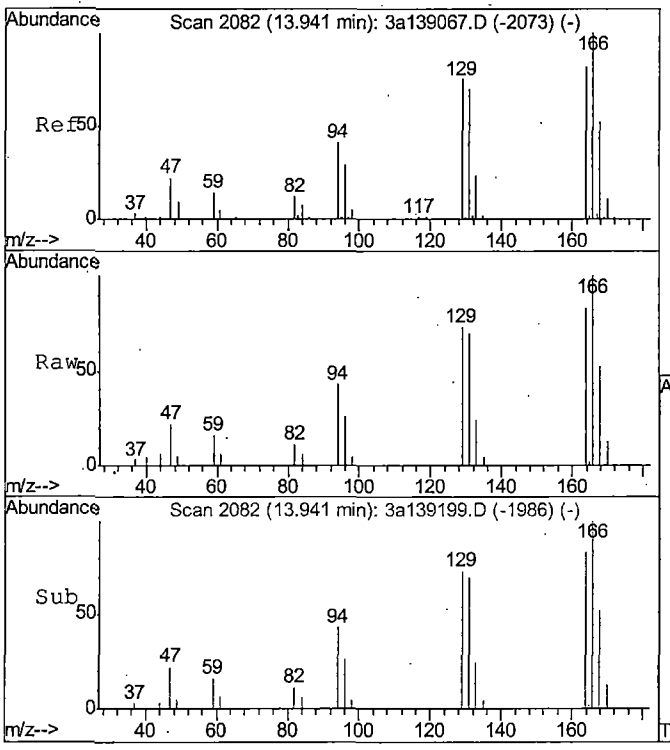


#69
trichloroethene
Concen: 3.22 ug/L
RT: 11.88 min Scan# 1689
Delta R.T. 0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion: 95 Resp: 6250

Ion	Ratio	Lower	Upper
95	100		
97	71.8	33.0	93.0
130	104.1	71.3	131.3
132	103.4	65.7	125.7

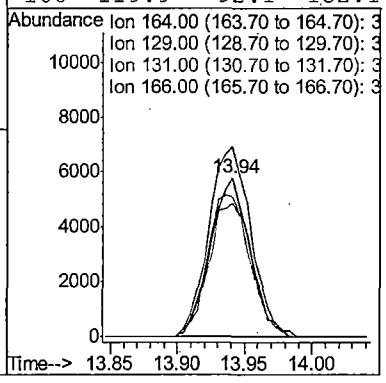




#88
tetrachloroethene
Concen: 7.33 ug/L
RT: 13.94 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

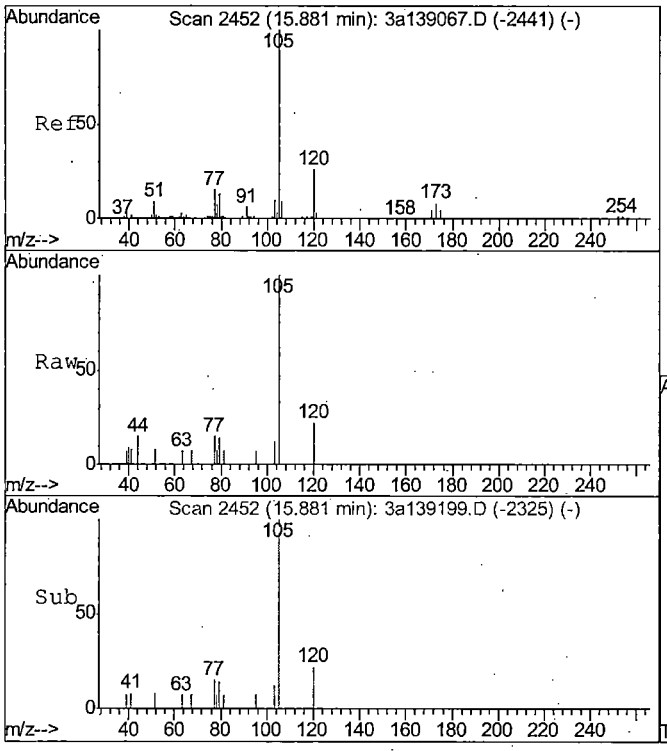
Tgt Ion:164 Resp: 11783

Ion	Ratio	Lower	Upper
164	100		
129	87.8	61.7	121.7
131	84.3	55.4	115.4
166	119.9	92.1	152.1



7.1.11

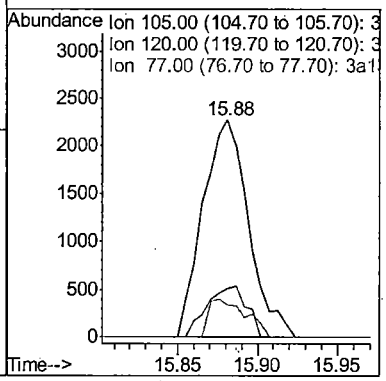
7

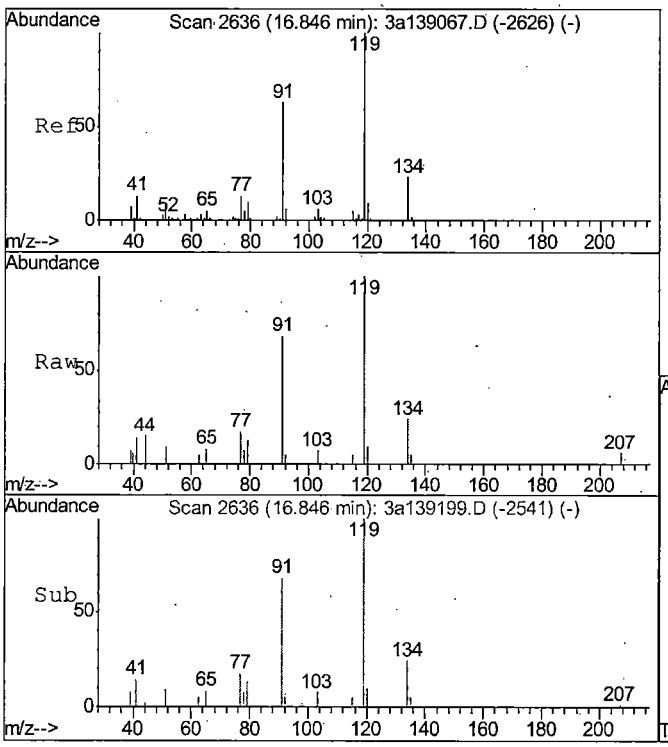


#103
isopropylbenzene
Concen: 0.47 ug/L
RT: 15.88 min Scan# 2452
Delta R.T. 0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion:105 Resp: 4502

Ion	Ratio	Lower	Upper
105	100		
120	22.5	0.0	56.1
77	15.0	0.0	44.6

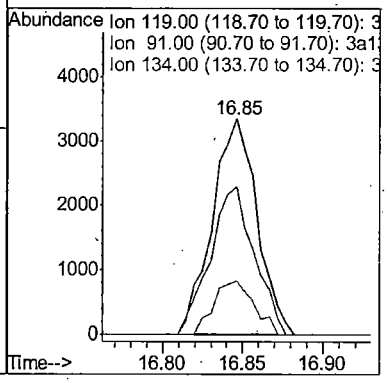




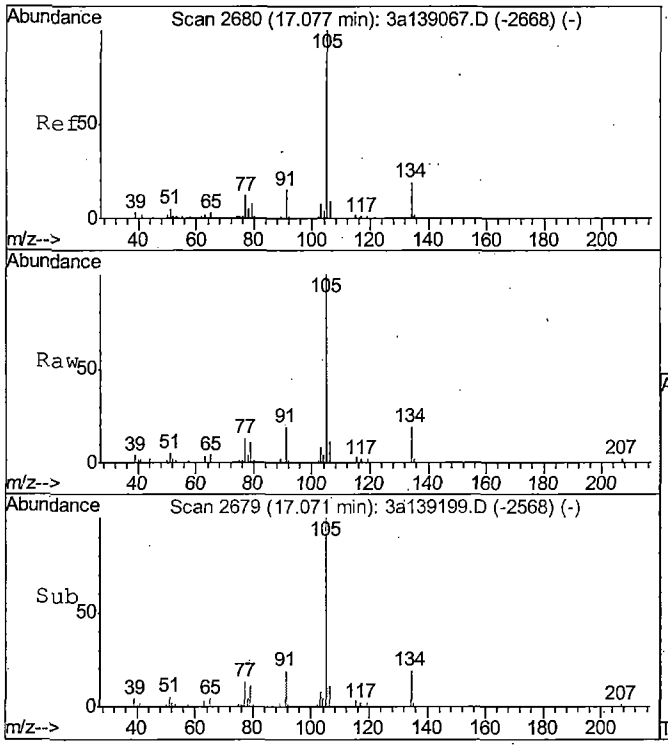
#114
tert-butylbenzene
Concen: 0.86 ug/L
RT: 16.85 min Scan# 2636
Delta R.T. 0.00 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion:119 Resp: 6469

Ion	Ratio	Lower	Upper
119	100		
91	68.0	33.1	93.1
134	24.1	0.0	53.1



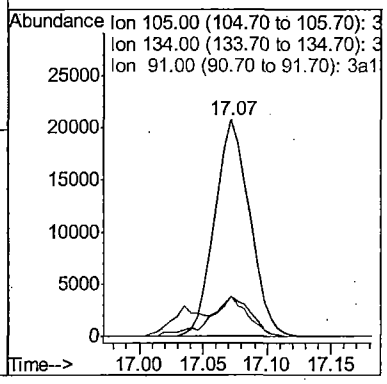
7.1.11 7

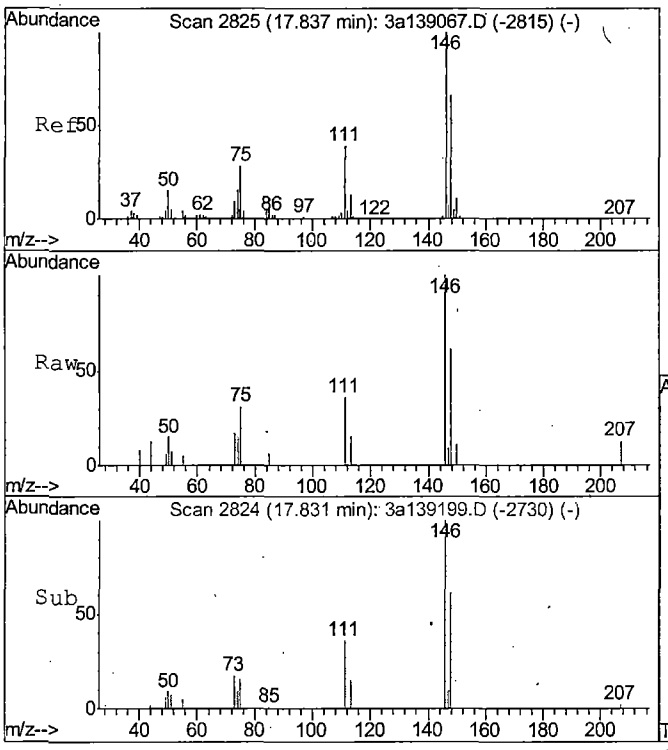


#117
sec-butylbenzene
Concen: 3.39 ug/L
RT: 17.07 min Scan# 2679
Delta R.T. 0.00 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion:105 Resp: 39552

Ion	Ratio	Lower	Upper
105	100		
134	18.8	0.0	49.1
91	18.6	0.0	44.9

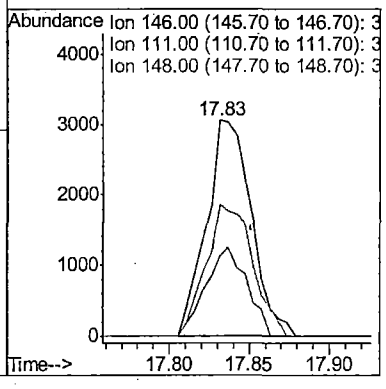




#121
1,2-dichlorobenzene
Concen: 1.06 ug/L
RT: 17.83 min Scan# 2824
Delta R.T. -0.01 min
Lab File: 3a139199.D
Acq: 24 Feb 2015 2:31 am

Tgt Ion:146 Resp: 5935

Ion	Ratio	Lower	Upper
146	100		
111	36.4	8.5	68.5
148	60.6	36.3	96.3



7.1.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139200.D
Acq On : 24 Feb 2015 3:01 am
Operator : zobiah
Sample : jb88565-12
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Feb 24 10:58:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	163109	500.00	ug/L	-0.01
5) pentafluorobenzene	10.56	168	268707	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	314532	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	281043	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	169580	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.64	113	104052	52.43	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.86%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	104864	55.68	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 111.36%			
79) toluene-d8 (s)	13.25	98	350202	50.08	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.16%			
104) 4-bromofluorobenzene (s)	16.12	95	135934	52.28	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 104.56%			
Target Compounds						Qvalue
32) trans-1,2-dichloroethene	8.54	61	2509	0.85	ug/L	90
35) 1,1-dichloroethane	9.20	63	37243	10.32	ug/L	98
42) cis-1,2-dichloroethene	10.02	96	302123	125.23	ug/L	89
53) 1,1,1-trichloroethane	10.65	97	5682	1.63	ug/L	94
63) benzene	11.13	78	2939	0.36	ug/L	97
69) trichloroethene	11.88	95	8410	4.20	ug/L	98
88) tetrachloroethene	13.94	164	15446	9.17	ug/L	95

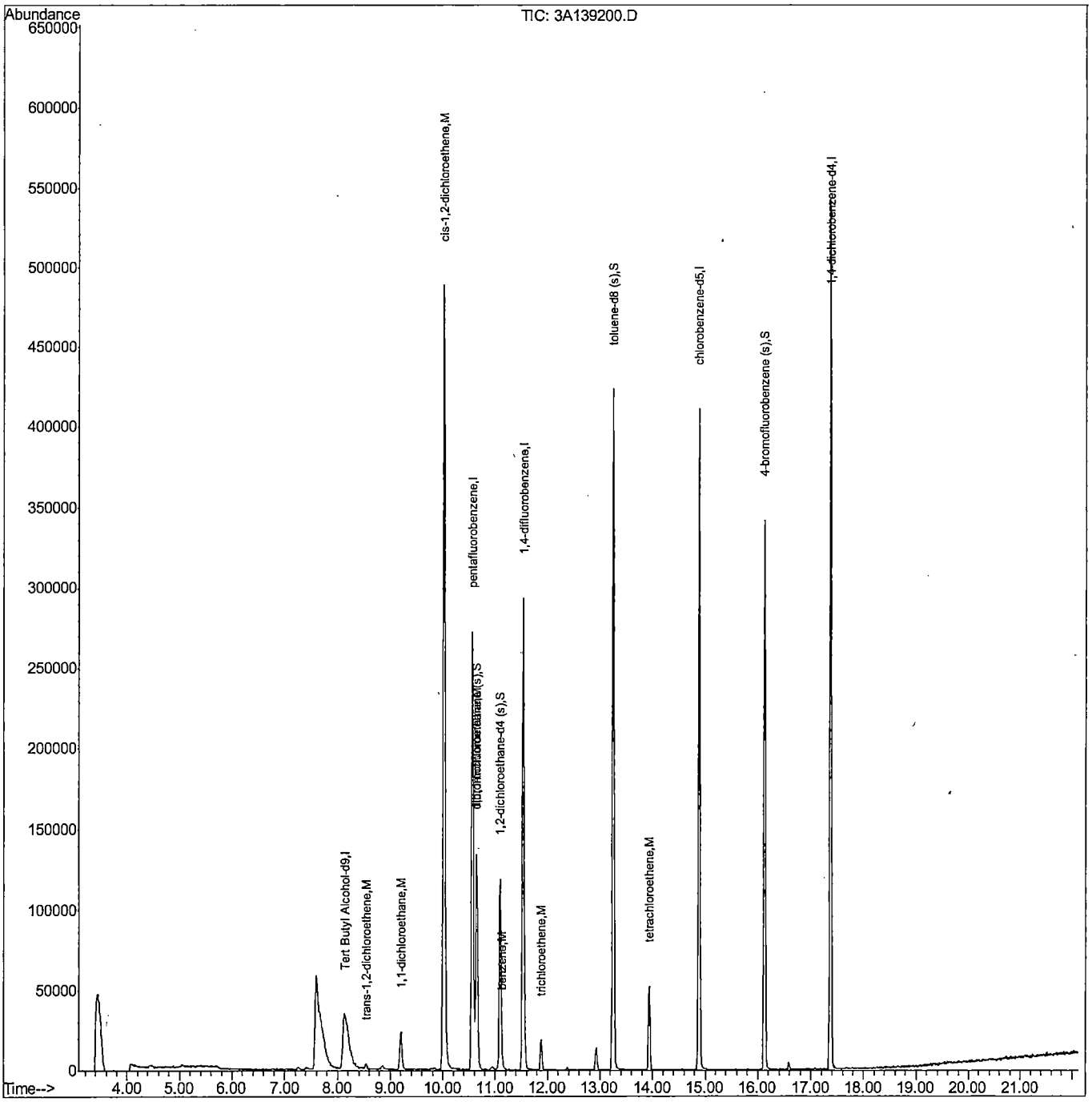
(#) = qualifier out of range (m) = manual integration (+) = signals summed

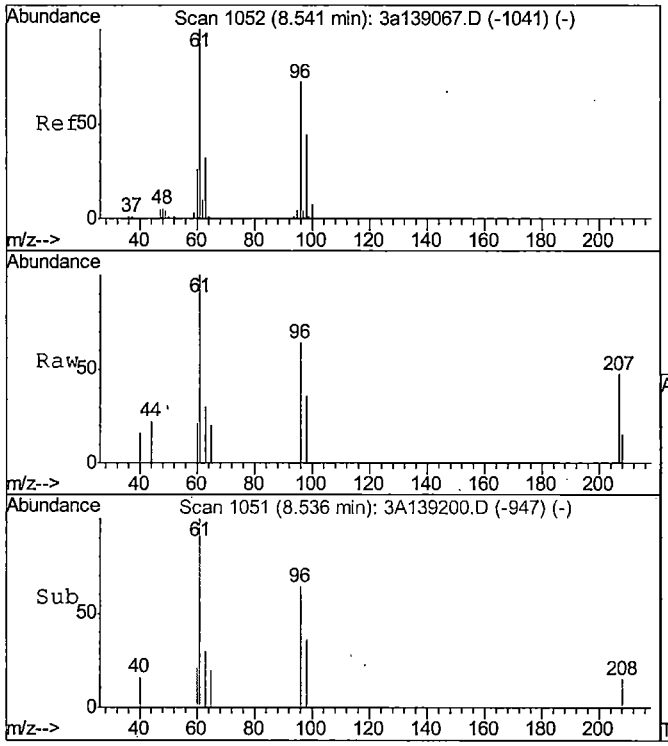
7.1.12 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139200.D
Acq On : 24 Feb 2015 3:01 am
Operator : zobiah
Sample : jb88565-12
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Feb 24 10:58:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

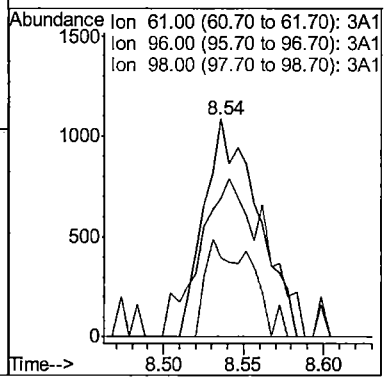


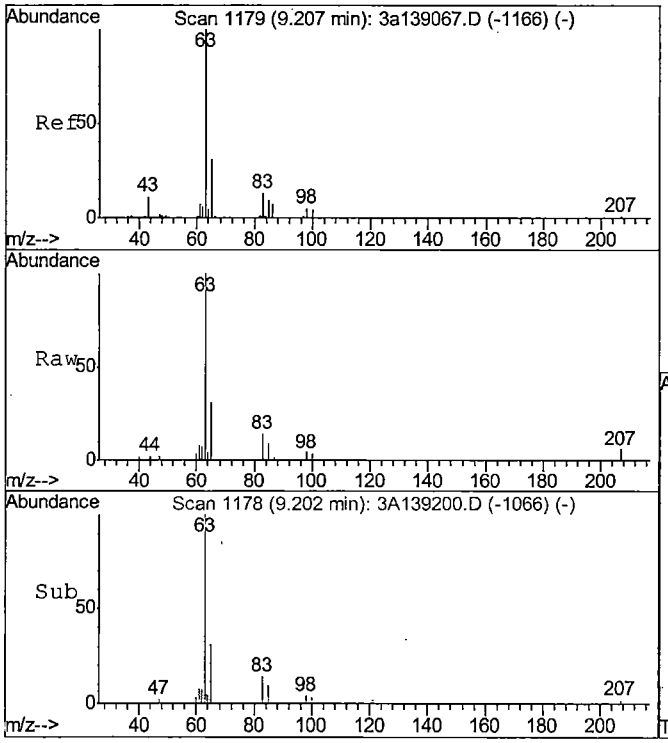


#32
trans-1,2-dichloroethene
Concen: 0.85 ug/L
RT: 8.54 min Scan# 1051
Delta R.T. -0.01 min
Lab File: 3A139200.D
Acq: 24 Feb 2015 3:01 am

Tgt Ion: 61 Resp: 2509

Ion	Ratio	Lower	Upper
61	100		
96	64.0	41.6	101.6
98	36.5	13.6	73.6

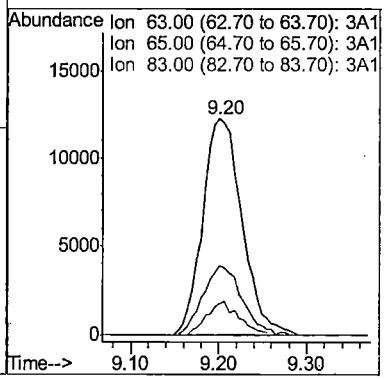




#35
1,1-dichloroethane
Concen: 10.32 ug/L
RT: 9.20 min Scan# 1178
Delta R.T. -0.01 min
Lab File: 3A139200.D
Acq: 24 Feb 2015 3:01 am

Tgt Ion: 63 Resp: 37243

Ion	Ratio	Lower	Upper
63	100		
65	31.5	0.8	60.8
83	14.3	0.0	42.7



7.1.12

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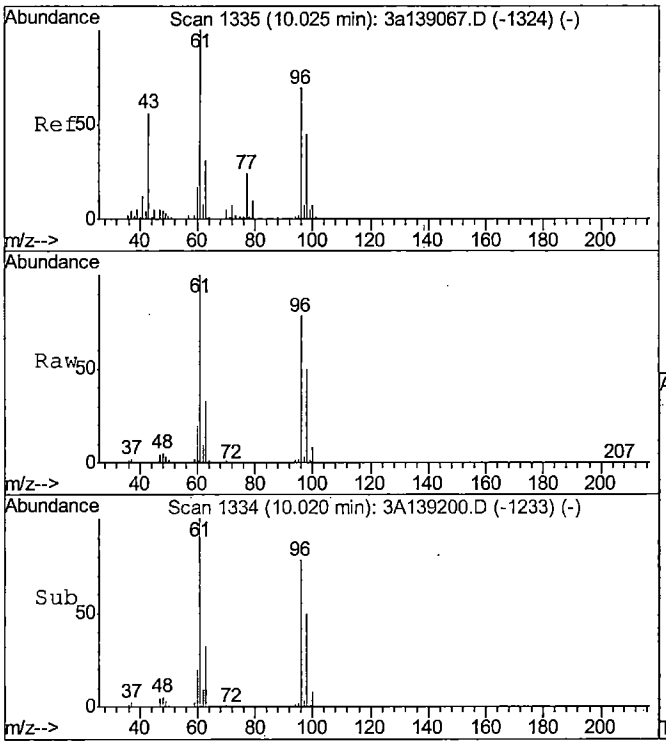
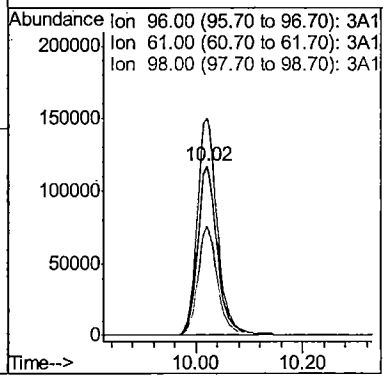
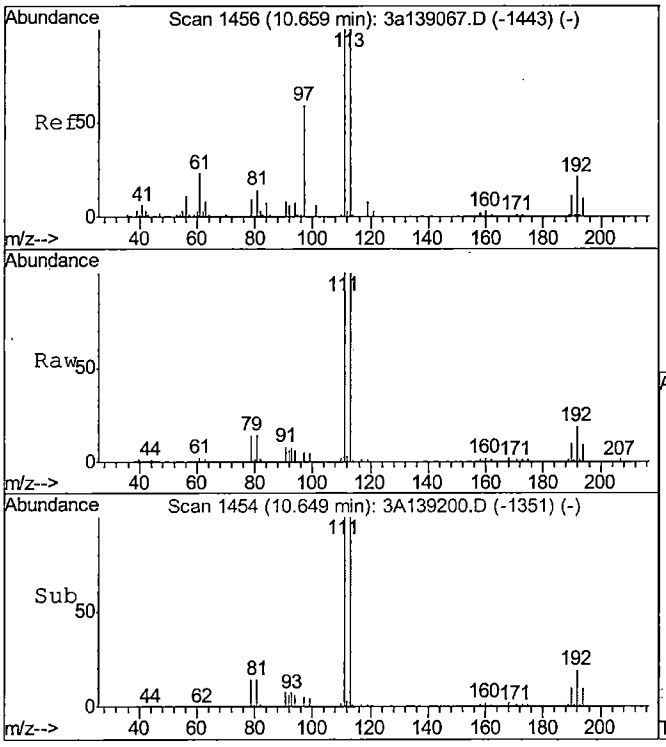


#42
cis-1,2-dichloroethene
Concen: 125.23 ug/L
RT: 10.02 min Scan# 1334
Delta R.T. 0.00 min
Lab File: 3A139200.D
Acq: 24 Feb 2015 3:01 am

Tgt Ion: 96 Resp: 302123

Ion	Ratio	Lower	Upper
96	100		
61	128.0	118.2	178.2
98	64.5	34.5	94.5

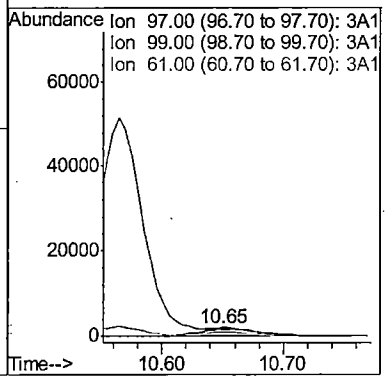




#53
1,1,1-trichloroethane
Concen: 1.63 ug/L
RT: 10.65 min Scan# 1454
Delta R.T. -0.01 min
Lab File: 3A139200.D
Acq: 24 Feb 2015 3:01 am

Tgt Ion: 97 Resp: 5682

Ion	Ratio	Lower	Upper
97	100		
99	73.1	35.5	95.5
61	41.7	11.9	71.9



7.1.12

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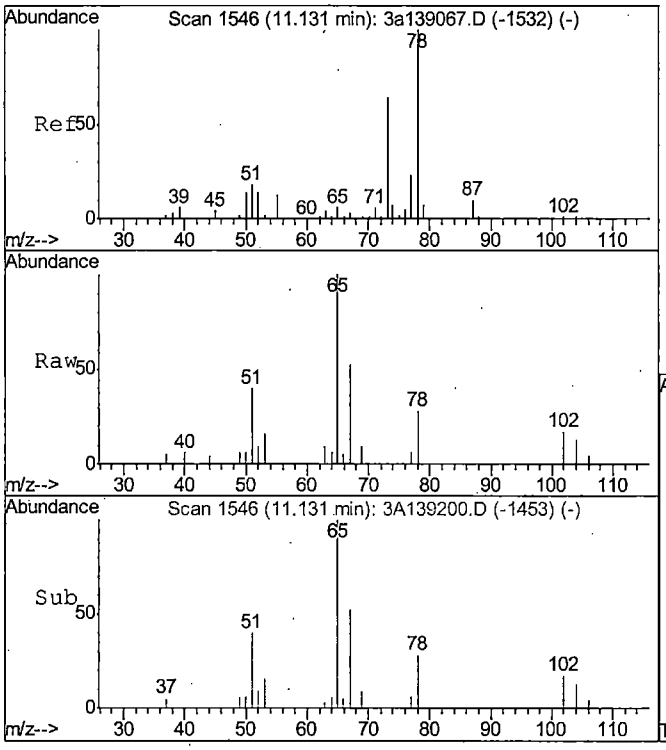
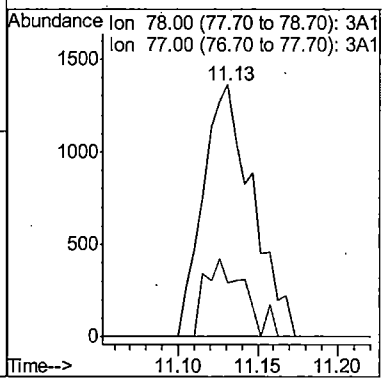
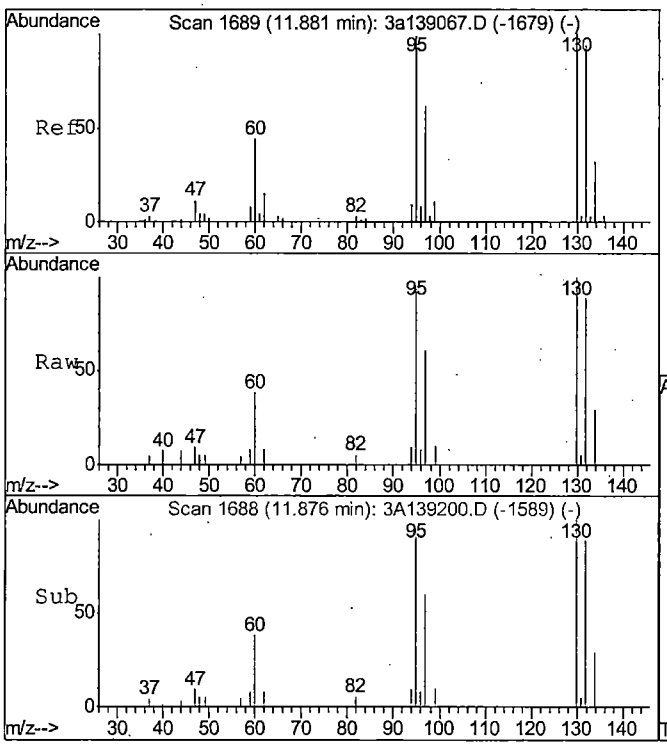


#63
benzene
Concen: 0.36 ug/L
RT: 11.13 min Scan# 1546
Delta R.T. 0.00 min
Lab File: 3A139200.D
Acq: 24 Feb 2015 3:01 am

Tgt Ion: 78 Resp: 2939

Ion	Ratio	Lower	Upper
78	100		
77	21.3	0.0	52.9

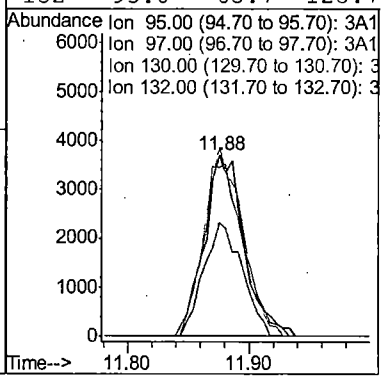




#69
trichloroethene
Concen: 4.20 ug/L
RT: 11.88 min Scan# 1688
Delta R.T. 0.00 min
Lab File: 3A139200.D
Acq: 24 Feb 2015 3:01 am

Tgt Ion: 95 Resp: 8410

Ion	Ratio	Lower	Upper
95	100		
97	62.3	33.0	93.0
130	104.1	71.3	131.3
132	93.0	65.7	125.7



7.1.12

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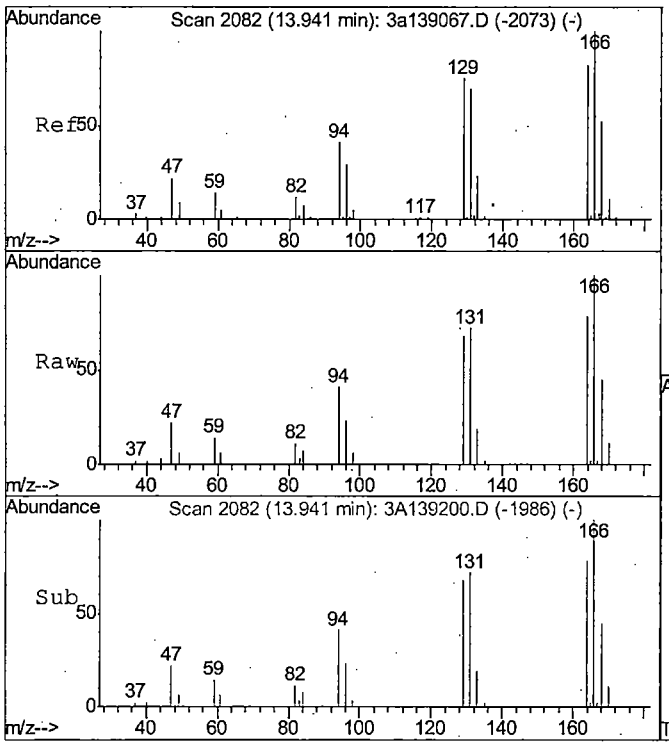
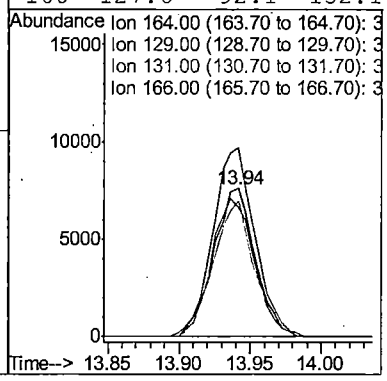
ACCUTEST LABORATORIES JB88565



#88
tetrachloroethene
Concen: 9.17 ug/L
RT: 13.94 min Scan# 2082
Delta R.T. 0.01 min
Lab File: 3A139200.D
Acq: 24 Feb 2015 3:01 am

Tgt Ion:164 Resp: 15446

Ion	Ratio	Lower	Upper
164	100		
129	87.0	61.7	121.7
131	91.6	55.4	115.4
166	127.6	92.1	152.1



7.1.12 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139201.D
Acq On : 24 Feb 2015 3:32 am
Operator : zobiah
Sample : jb88565-13
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Feb 24 11:10:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	139764	500.00	ug/L	0.00
5) pentafluorobenzene	10.56	168	260825	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	309582	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	272630	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166514	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	101332	52.60	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.20%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	102424	56.03	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.06%			
79) toluene-d8 (s)	13.25	98	341079	49.55	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.10%			
104) 4-bromofluorobenzene (s)	16.12	95	132022	51.71	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 103.42%			
Target Compounds						Qvalue
42) cis-1,2-dichloroethene	10.02	96	4481	1.91	ug/L #	75
53) 1,1,1-trichloroethane	10.66	97	1400	0.41	ug/L	89
69) trichloroethene	11.88	95	34991	17.74	ug/L	97
88) tetrachloroethene	13.94	164	1480	0.91	ug/L	84

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

7.1.13

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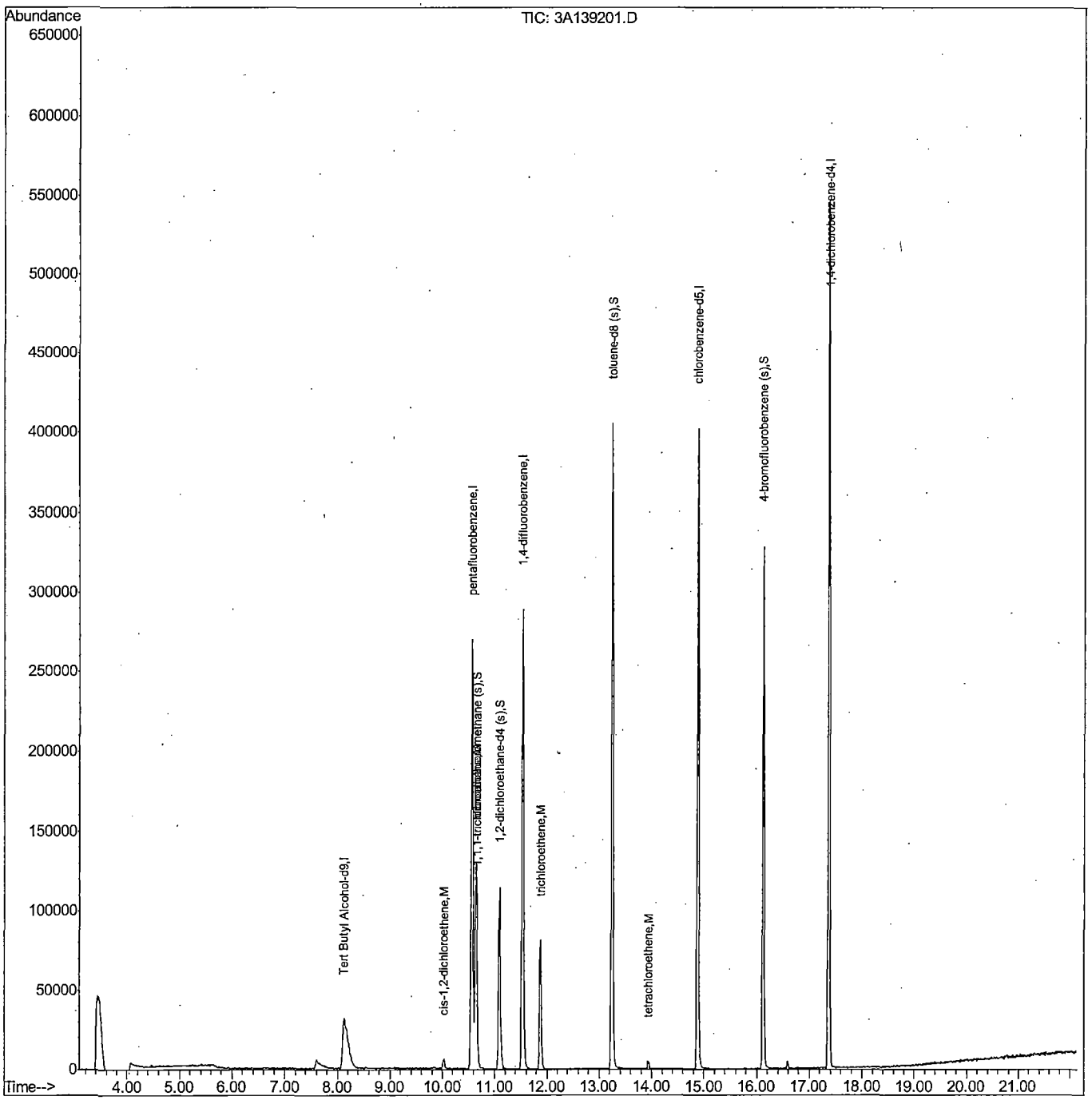
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139201.D
Acq On : 24 Feb 2015 3:32 am
Operator : zobiah
Sample : jb88565-13
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Feb 24 11:10:26 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST. LABORATORIES
JB88565

7.1.13

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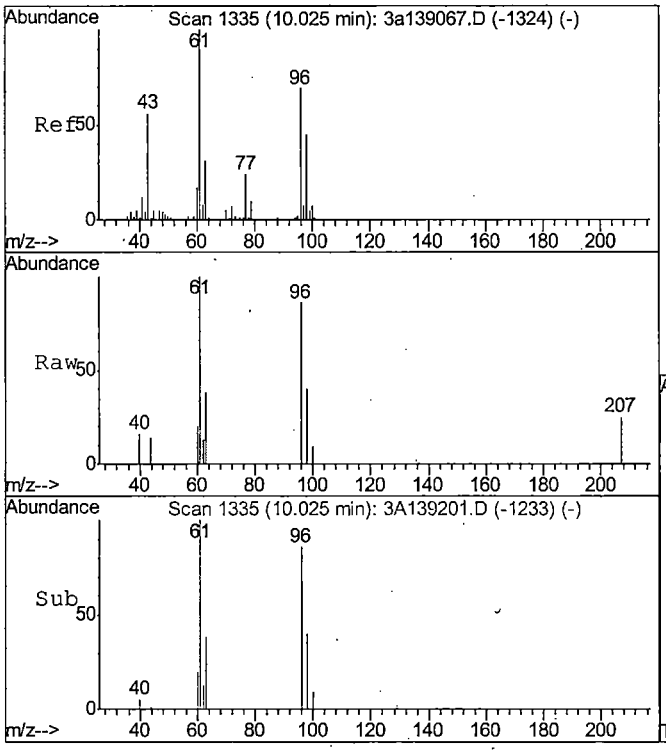
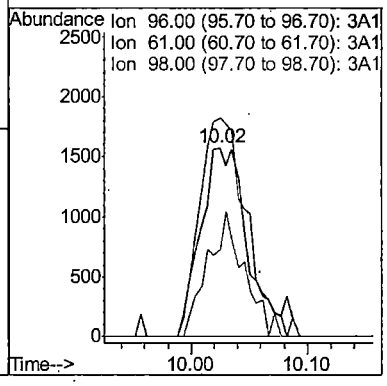
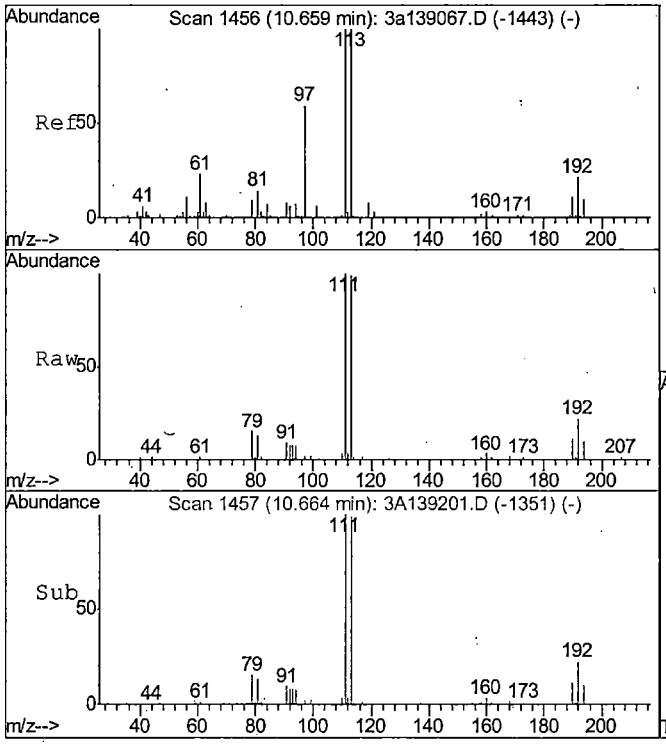


#42
cis-1,2-dichloroethene
Concen: 1.91 ug/L
RT: 10.02 min Scan# 1335
Delta R.T. 0.01 min
Lab File: 3A139201.D
Acq: 24 Feb 2015 3:32 am

Tgt Ion: 96 Resp: 4481

Ion	Ratio	Lower	Upper
96	100		
61	115.7	118.2	178.2#
98	46.5	34.5	94.5

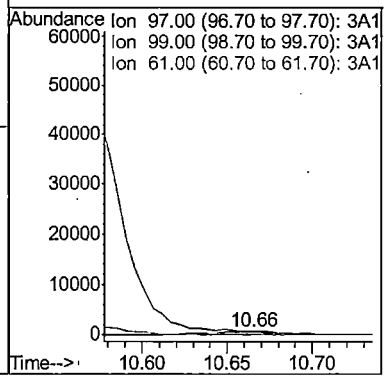




#53
1,1,1-trichloroethane
Concen: 0.41 ug/L
RT: 10.66 min Scan# 1457
Delta R.T. 0.01 min
Lab File: 3A139201.D
Acq: 24 Feb 2015 3:32 am

Tgt Ion: 97 Resp: 1400

Ion	Ratio	Lower	Upper
97	100		
99	62.5	35.5	95.5
61	28.6	11.9	71.9



7.1.13

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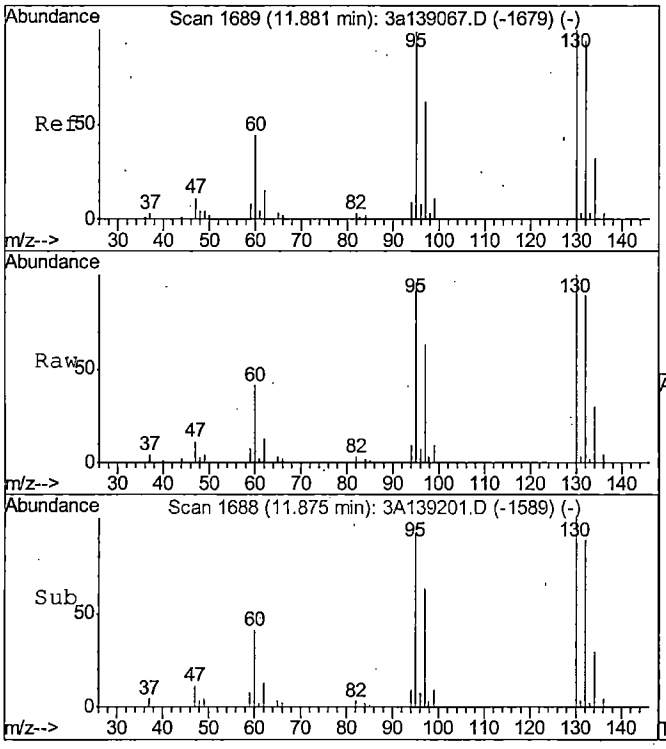
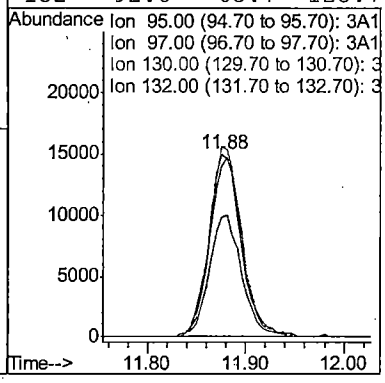
ACCUTEST LABORATORIES JB88565

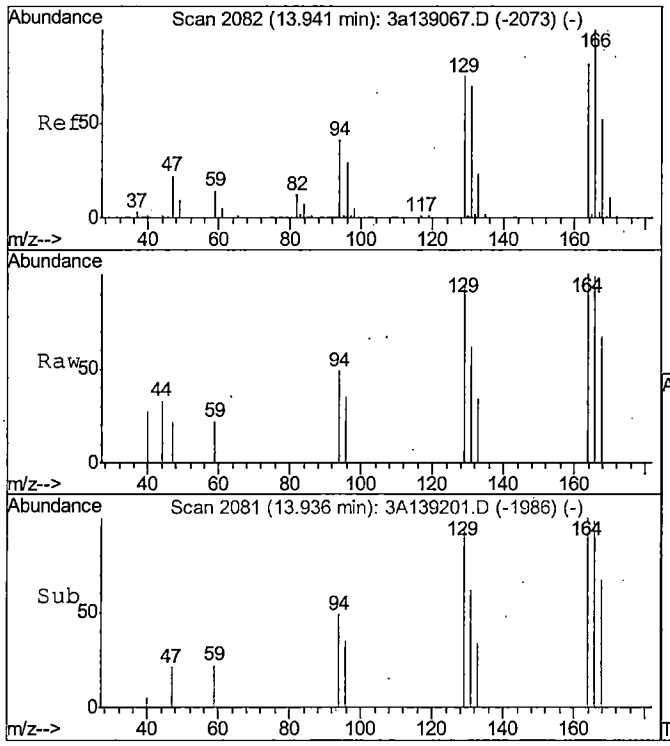


#69
trichloroethene
Concen: 17.74 ug/L
RT: 11.88 min Scan# 1688
Delta R.T. -0.00 min
Lab File: 3A139201.D
Acq: 24 Feb 2015 3:32 am

Tgt Ion: 95 Resp: 34991

Ion	Ratio	Lower	Upper
95	100		
97	65.4	33.0	93.0
130	104.2	71.3	131.3
132	92.8	65.7	125.7

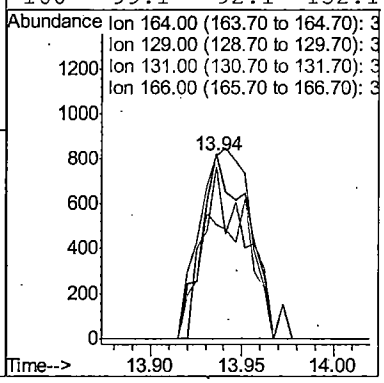




#88
tetrachloroethene
Concen: 0.91 ug/L
RT: 13.94 min Scan# 2081
Delta R.T. -0.00 min
Lab File: 3A139201.D
Acq: 24 Feb 2015 3:32 am

Tgt Ion:164 Resp: 1480

Ion	Ratio	Lower	Upper
164	100		
129	93.5	61.7	121.7
131	61.8	55.4	115.4
166	99.1	92.1	152.1



7.1.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139202.D
Acq On : 24 Feb 2015 4:02 am
Operator : zobiah
Sample : jb88565-14
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Feb 24 11:10:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	157892	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	256371	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	303076	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	271361	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	164269	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	100054	52.84 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.68%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	101350	56.41 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.82%		
79) toluene-d8 (s)	13.25	98	337664	50.11 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.22%		
104) 4-bromofluorobenzene (s)	16.12	95	131905	52.37 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 104.74%		

Target Compounds					Qvalue
53) 1,1,1-trichloroethane	10.66	97	938	0.28 ug/L #	10

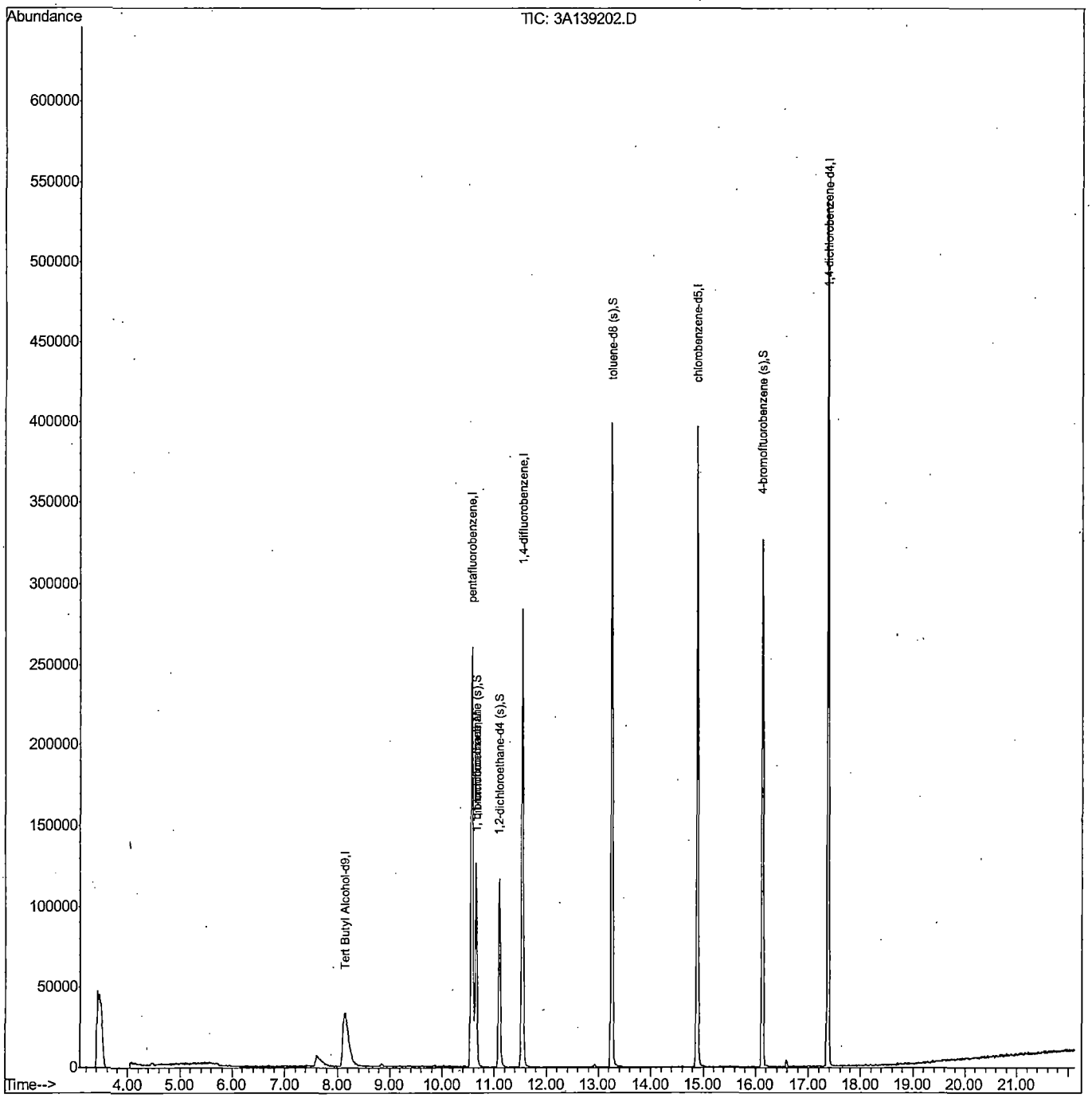
(#) = qualifier out of range (m) = manual integration (+) = signals summed

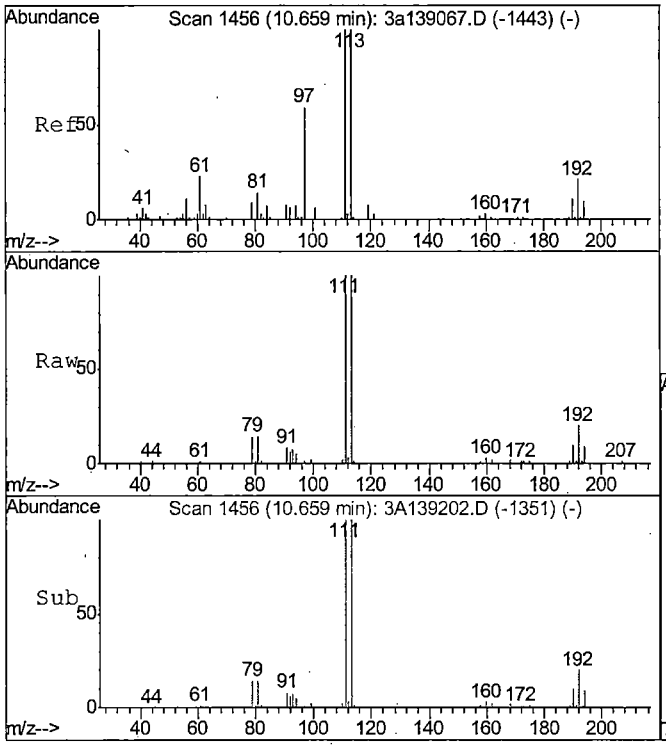
7.1.14 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139202.D
Acq On : 24 Feb 2015 4:02 am
Operator : zobiah
Sample : jb88565-14
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Feb 24 11:10:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

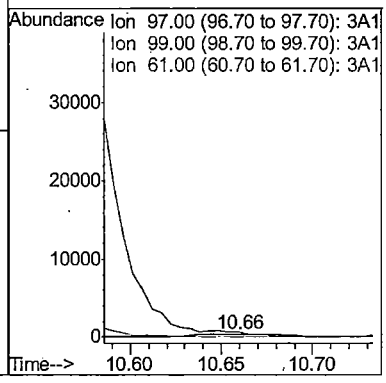




#53
1,1,1-trichloroethane
Concen: 0.28 ug/L
RT: 10.66 min Scan# 1456
Delta R.T. 0.00 min
Lab File: 3A139202.D
Acq: 24 Feb 2015 4:02 am

Tgt Ion: 97 Resp: 938

Ion	Ratio	Lower	Upper
97	100		
99	175.9	35.5	95.5#
61	49.6	11.9	71.9



7.1.14

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139203.D
Acq On : 24 Feb 2015 4:32 am
Operator : zobiah
Sample : jb88565-15
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Feb 24 11:12:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	161758	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	256287	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	303667	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	273473	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166722	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	100129	52.89	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.78%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	101021	56.24	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.48%			
79) toluene-d8 (s)	13.25	98	336174	49.79	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.58%			
104) 4-bromofluorobenzene (s)	16.13	95	133748	52.32	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 104.64%			

Target Compounds						Qvalue
35) 1,1-dichloroethane	9.20	63	1627	0.47	ug/L	84
42) cis-1,2-dichloroethene	10.02	96	6503	2.83	ug/L #	77
53) 1,1,1-trichloroethane	10.65	97	51763	15.60	ug/L	97
69) trichloroethene	11.88	95	708	0.37	ug/L	82

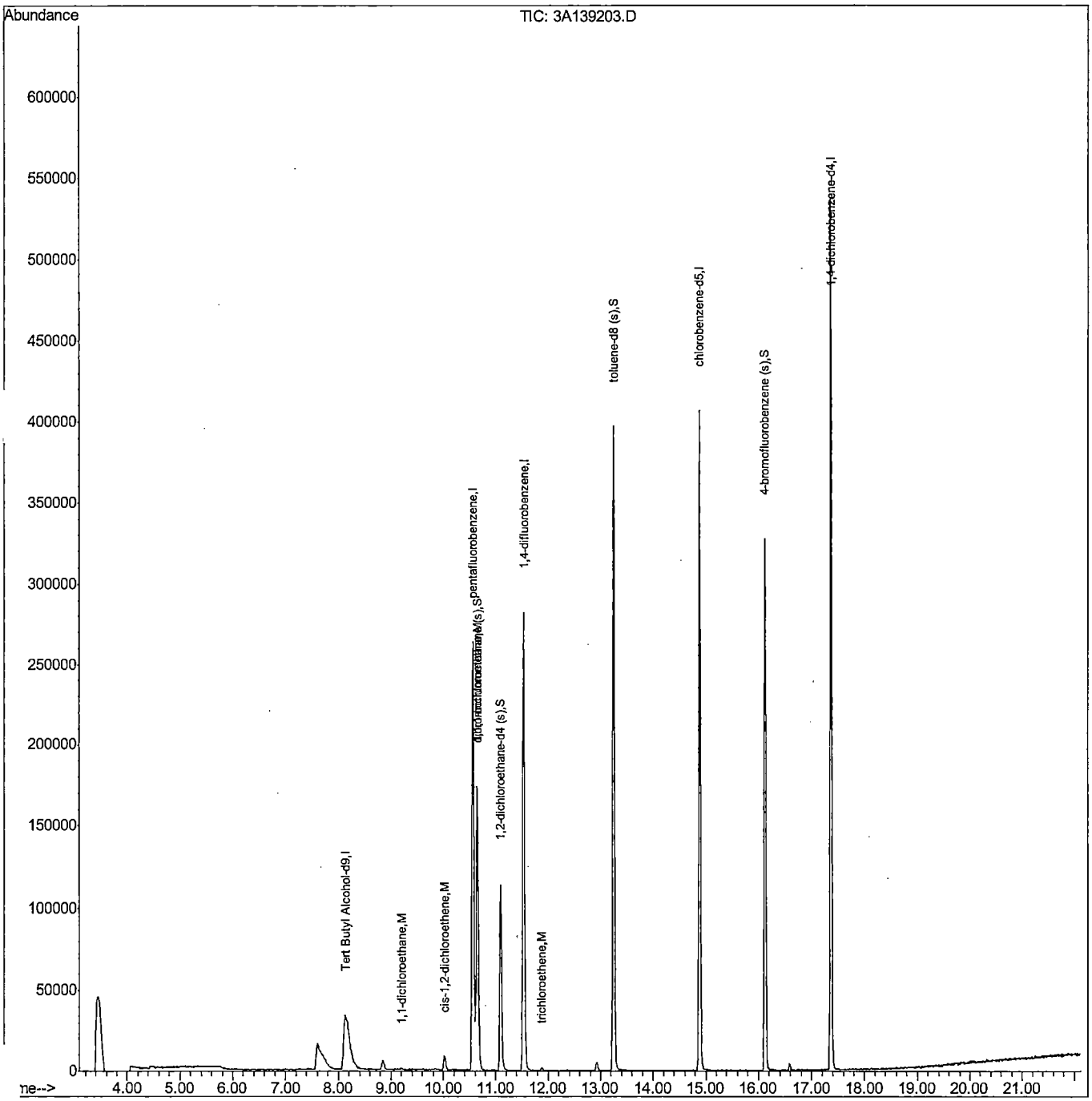
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.15 7

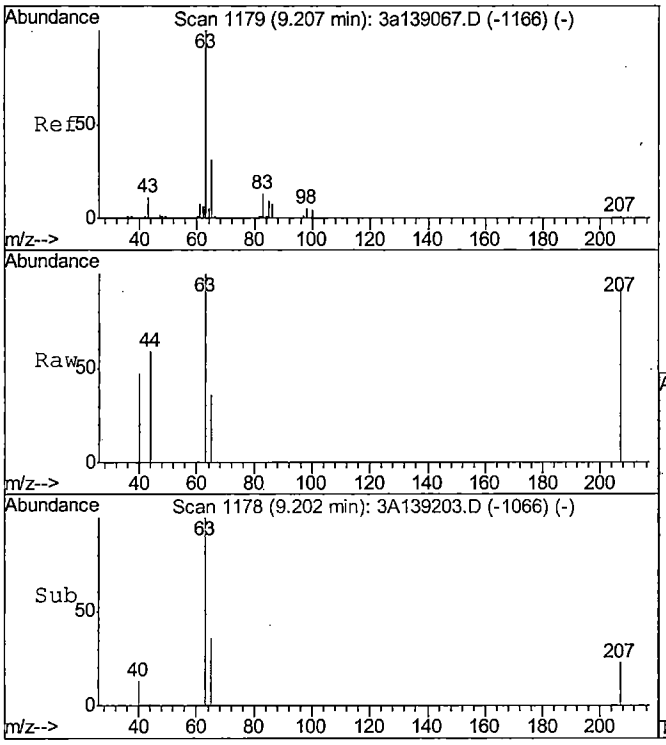
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139203.D
Acq On : 24 Feb 2015 4:32 am
Operator : zobiah
Sample : jb88565-15
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Feb 24 11:12:59 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



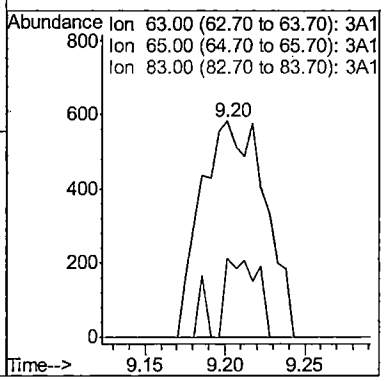
7.1.15 7

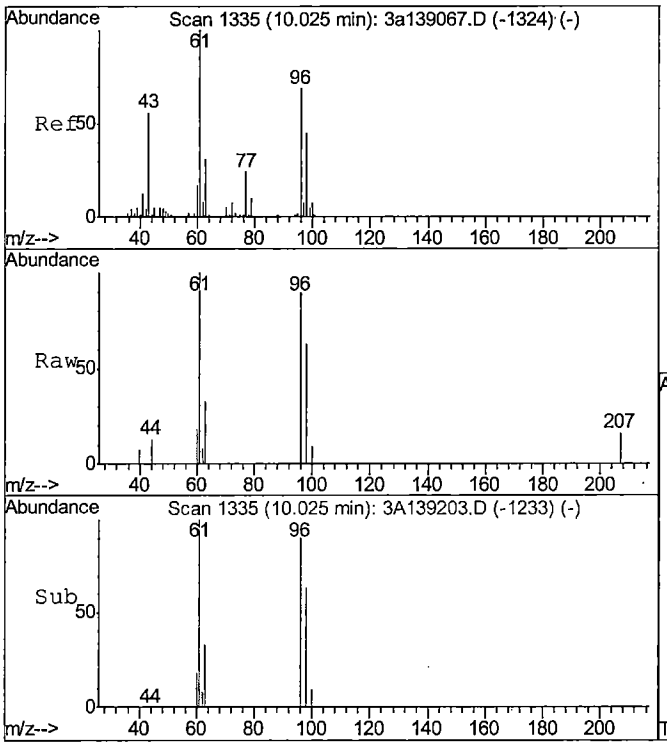


#35
1,1-dichloroethane
Concen: 0.47 ug/L
RT: 9.20 min Scan# 1178
Delta R.T. -0.01 min
Lab File: 3A139203.D
Acq: 24 Feb 2015 4:32 am

Tgt Ion: 63 Resp: 1627

Ion	Ratio	Lower	Upper
63	100		
65	36.3	0.8	60.8
83	0.0	0.0	42.7

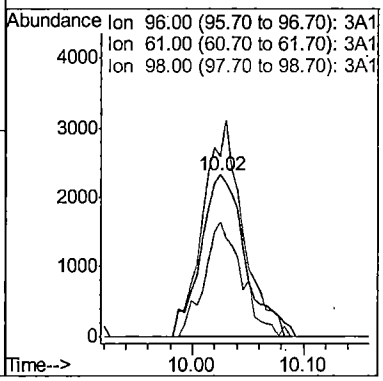




#42
cis-1,2-dichloroethene
Concen: 2.83 ug/L
RT: 10.02 min Scan# 1335
Delta R.T. 0.01 min
Lab File: 3A139203.D
Acq: 24 Feb 2015 4:32 am

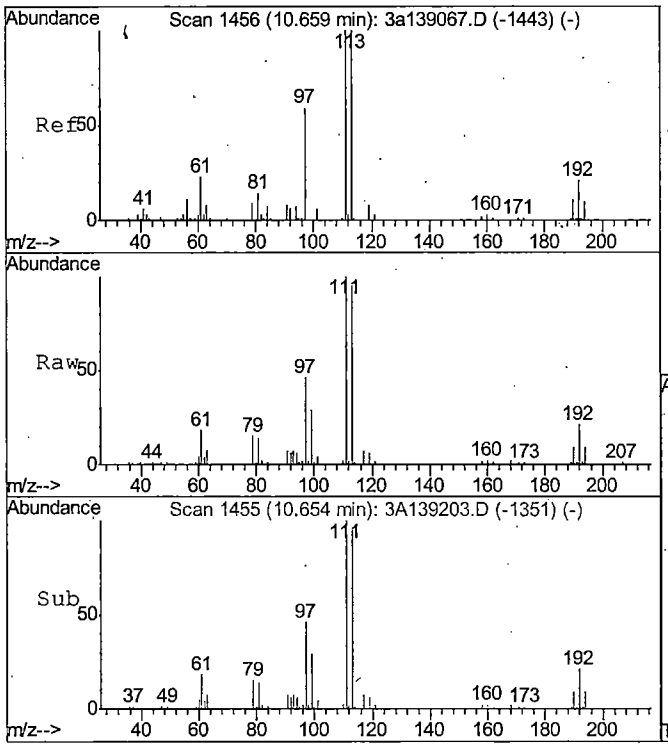
Tgt Ion: 96 Resp: 6503

Ion	Ratio	Lower	Upper
96	100		
61	111.7	118.2	178.2#
98	70.7	34.5	94.5



7.1.15

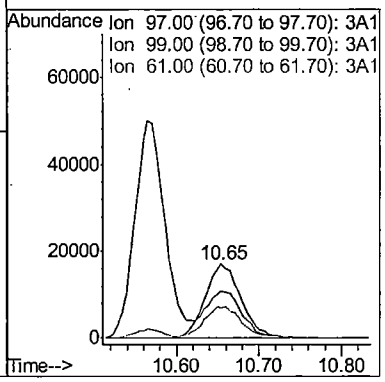
7

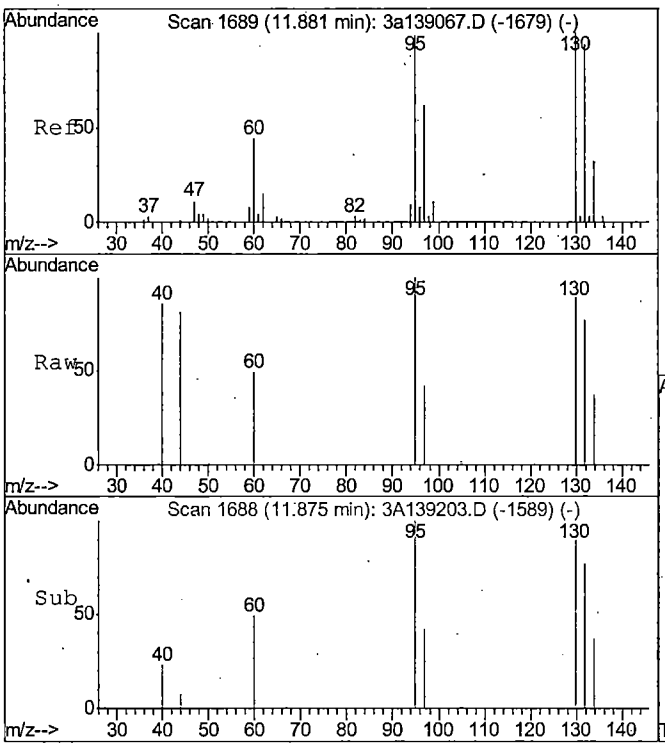


#53
1,1,1-trichloroethane
Concen: 15.60 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139203.D
Acq: 24 Feb 2015 4:32 am

Tgt Ion: 97 Resp: 51763

Ion	Ratio	Lower	Upper
97	100		
99	63.2	35.5	95.5
61	39.8	11.9	71.9

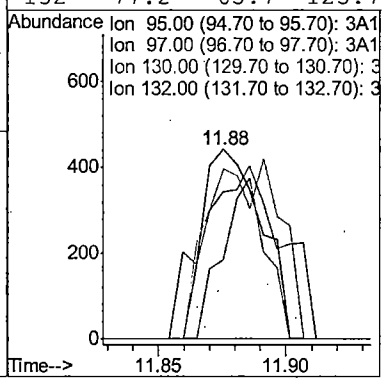




#69
trichloroethene
Concen: 0.37 ug/L
RT: 11.88 min Scan# 1688
Delta R.T. 0.00 min
Lab File: 3A139203.D
Acq: 24 Feb 2015 4:32 am

Tgt Ion: 95 Resp: 708

Ion	Ratio	Lower	Upper
95	100		
97	41.5	33.0	93.0
130	89.6	71.3	131.3
132	77.2	65.7	125.7



7.1.15

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139204.D
Acq On : 24 Feb 2015 5:02 am
Operator : zobiah
Sample : jb88565-17
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Feb 24 11:14:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.16	65	164287	500.00 ug/L	0.02
5) pentafluorobenzene	10.56	168	255373	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	299283	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	271663	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	160390	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	99232	52.61 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.22%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	101073	56.47 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.94%		
79) toluene-d8 (s)	13.25	98	335833	50.47 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.94%		
104) 4-bromofluorobenzene (s)	16.12	95	129665	52.72 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.44%		

Target Compounds					Qvalue
35) 1,1-dichloroethane	9.21	63	1119	0.33 ug/L	83
53) 1,1,1-trichloroethane	10.65	97	2971	0.90 ug/L #	53

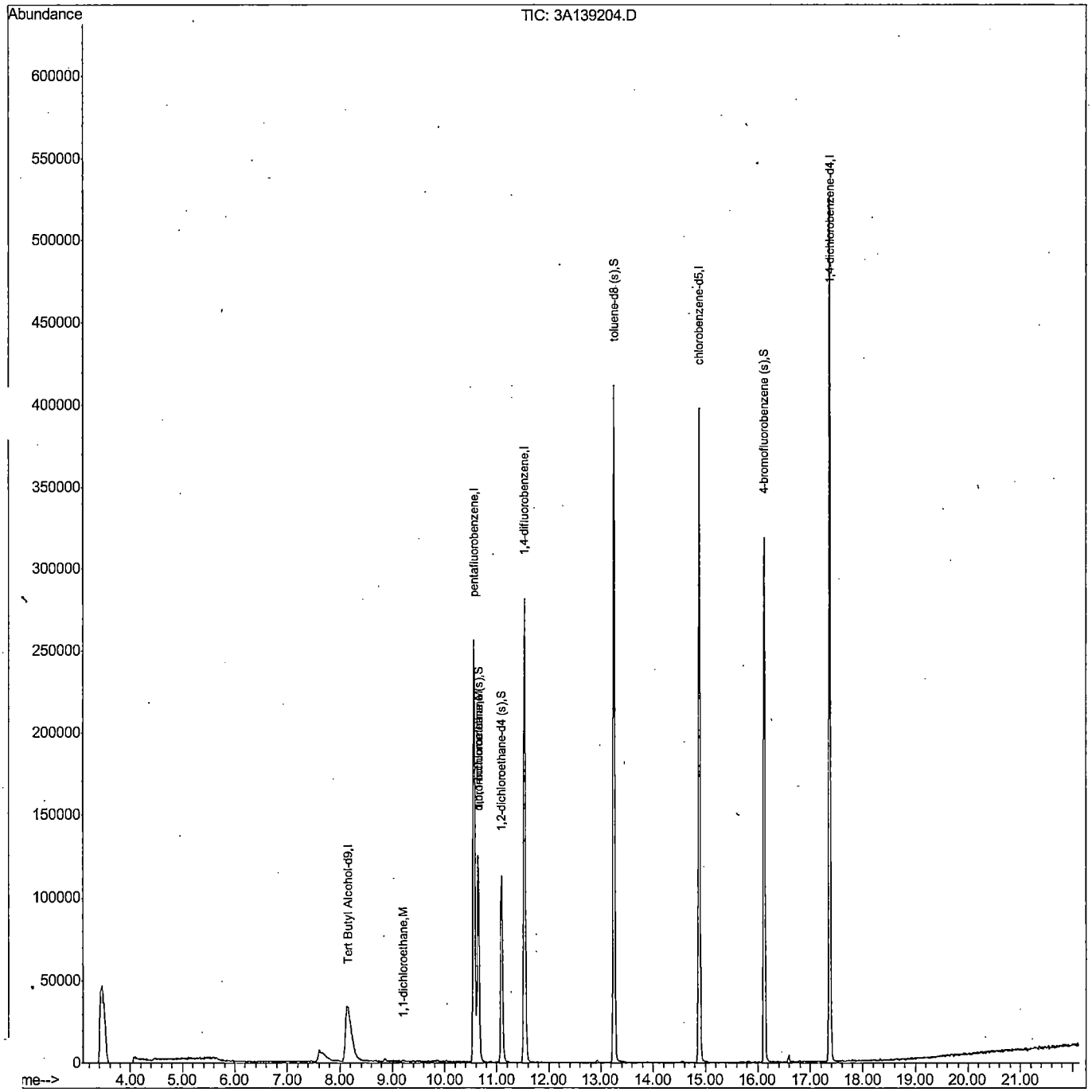
(#) = qualifier out of range (m) = manual integration (+) = signals summed

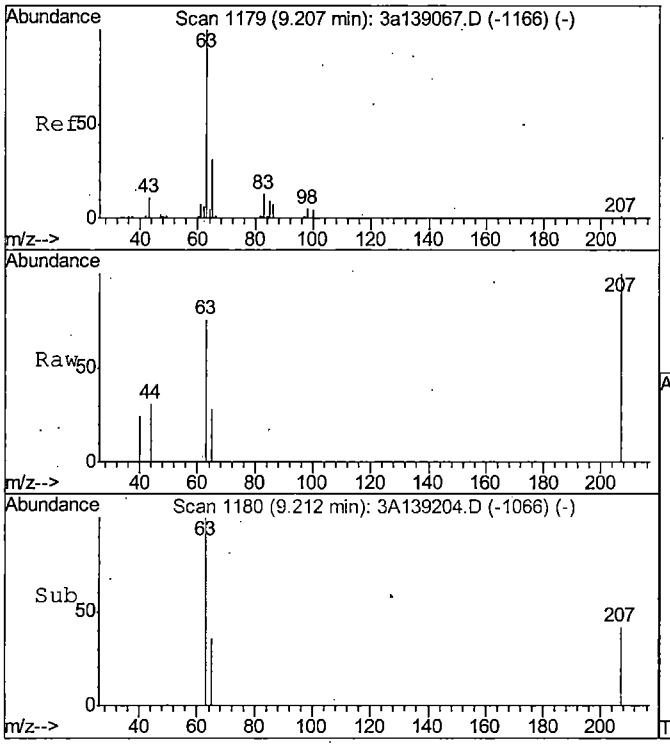
7.1.16 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139204.D
Acq On : 24 Feb 2015 5:02 am
Operator : zobiah
Sample : jb88565-17
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Feb 24 11:14:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

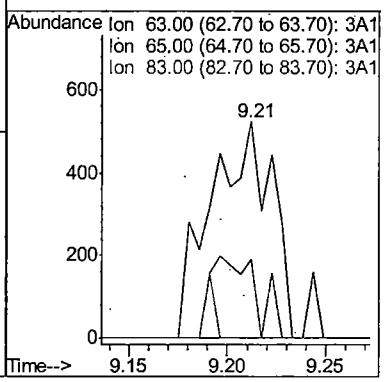


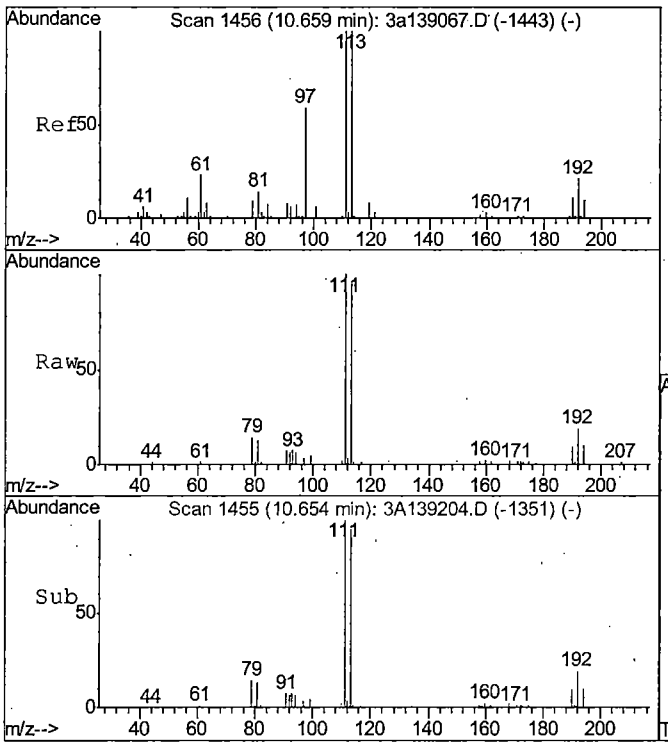


#35
1,1-dichloroethane
Concen: 0.33 ug/L
RT: 9.21 min Scan# 1180
Delta R.T. 0.01 min
Lab File: 3A139204.D
Acq: 24 Feb 2015 5:02 am

Tgt Ion: 63 Resp: 1119

Ion	Ratio	Lower	Upper
63	100		
65	36.4	0.8	60.8
83	0.0	0.0	42.7

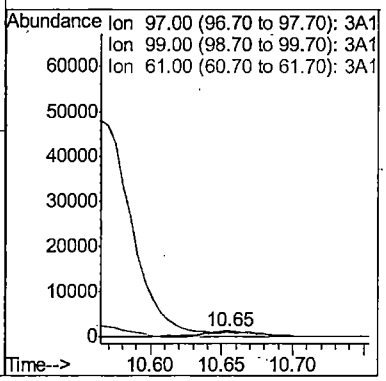




#53
1,1,1-trichloroethane
Concen: 0.90 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3A139204.D
Acq: 24 Feb 2015 5:02 am

Tgt Ion: 97 Resp: 2971

Ion	Ratio	Lower	Upper
97	100		
99	122.8	35.5	95.5#
61	36.4	11.9	71.9



7.1.16

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139195.D
Acq On : 24 Feb 2015 12:32 am
Operator : zobiah
Sample : jb88565-18
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 24 10:38:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	168561	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	269859	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	315679	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	288389	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	170211	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.64	113	104499	52.43 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.86%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	108043	57.13 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 114.26%		
79) toluene-d8 (s)	13.25	98	353881	50.42 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.84%		
104) 4-bromofluorobenzene (s)	16.12	95	138964	53.24 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.48%		

Target Compounds	Qvalue

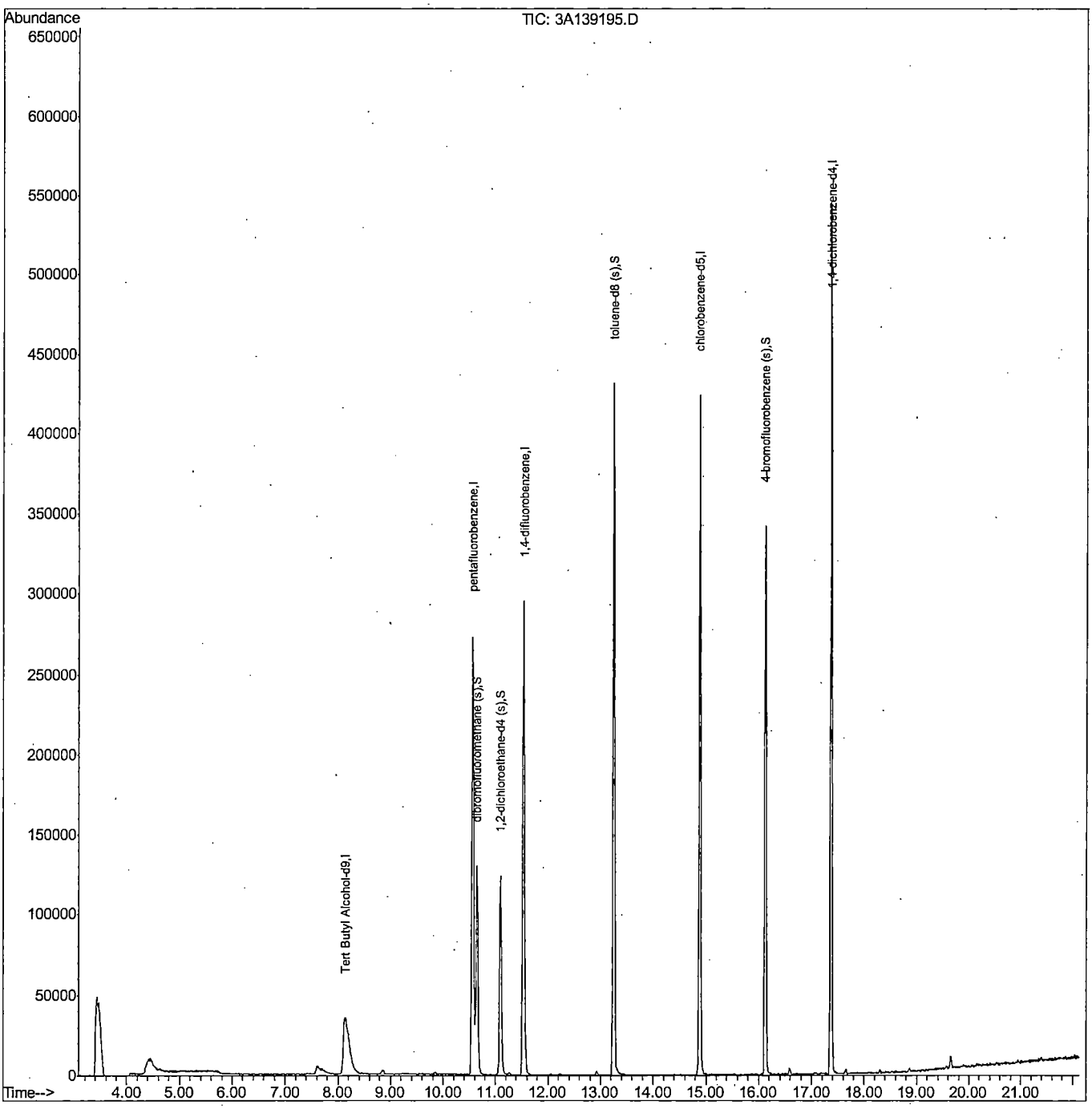
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.17 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139195.D
Acq On : 24 Feb 2015 12:32 am
Operator : zobiah
Sample : jb88565-18
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 24 10:38:54 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.1.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139197.D
Acq On : 24 Feb 2015 1:32 am
Operator : zobiah
Sample : jb88565-19
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 24 10:39:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	165411	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	269157	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	316704	50.00 ug/L	0.00
87) chlorobenzene-d5	14.89	117	282013	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	170210	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.64	113	105972	53.30 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.60%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	107958	57.23 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 114.46%		
79) toluene-d8 (s)	13.25	98	349929	49.69 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.38%		
104) 4-bromofluorobenzene (s)	16.12	95	137993	52.87 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.74%		

Target Compounds	Qvalue

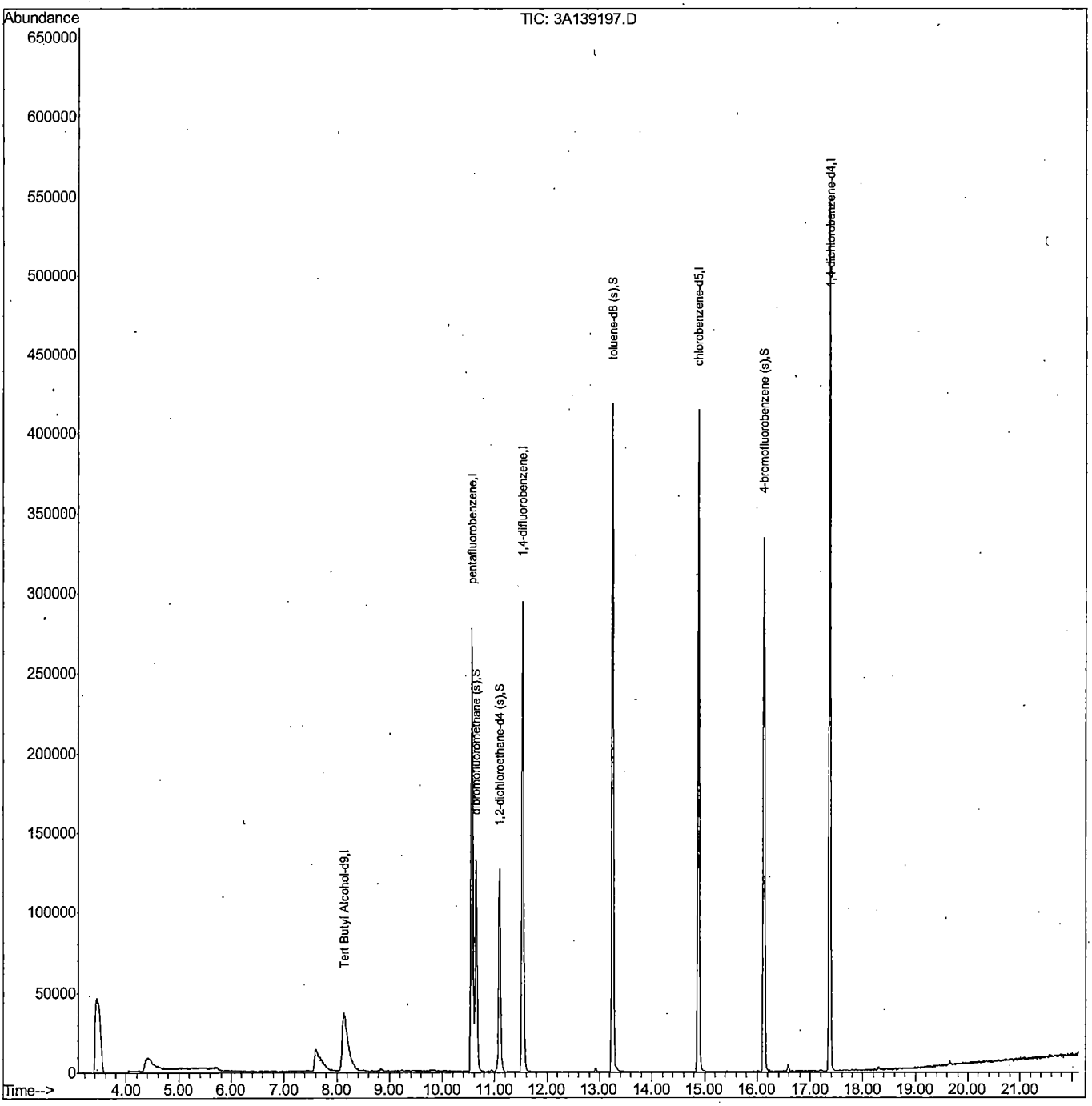
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.18 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139197.D
Acq On : 24 Feb 2015 1:32 am
Operator : zobiah
Sample : jb88565-19
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 24 10:39:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.1.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139196.D
Acq On : 24 Feb 2015 1:02 am
Operator : zobiah
Sample : jb88565-20
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 24 10:39:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	161746	500.00	ug/L	0.00
5) pentafluorobenzene	10.56	168	271128	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	319449	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	287772	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	169557	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.64	113	106921	53.39	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.78%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	107341	56.49	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.98%			
79) toluene-d8 (s)	13.25	98	355486	50.05	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.10%			
104) 4-bromofluorobenzene (s)	16.12	95	138043	53.10	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.20%			

Target Compounds Qvalue

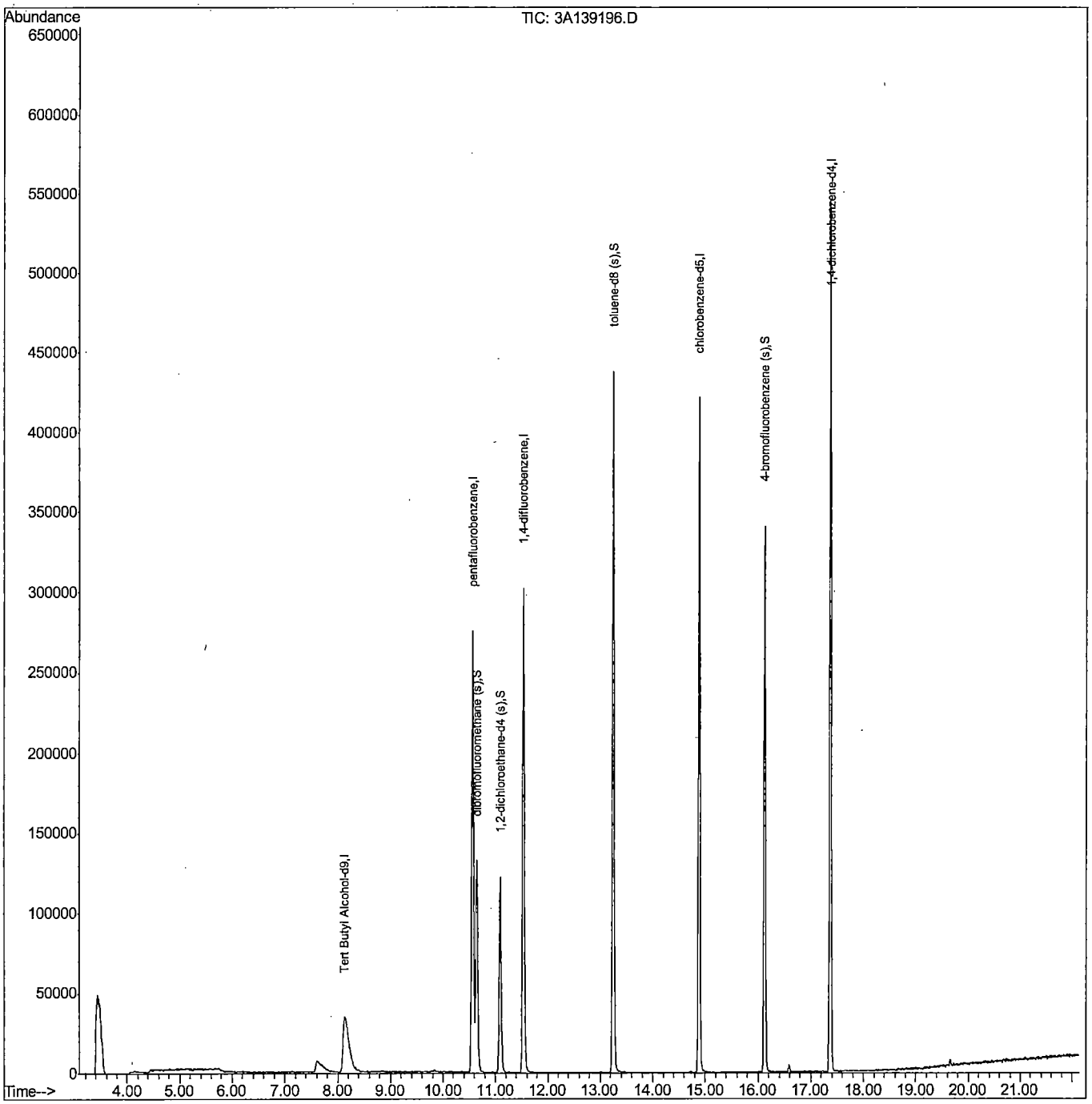
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.19 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139196.D
Acq On : 24 Feb 2015 1:02 am
Operator : zobiah
Sample : jb88565-20
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 24 10:39:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.1.19

7

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139171.D
Acq On : 23 Feb 2015 11:50 am
Operator : zobiah
Sample : mb1
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 17:18:21 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.137	65	170688	500.00	ug/L	0.00
5) pentafluorobenzene	10.570	168	265670	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.535	114	306698	50.00	ug/L	0.00
87) chlorobenzene-d5	14.885	117	273344	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.370	152	168790	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.649	113	101296	51.62	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.24%			
50) 1,2-dichloroethane-d4 (s)	11.094	65	100912	54.20	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 108.40%			
79) toluene-d8 (s)	13.249	98	338006	49.57	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.14%			
104) 4-bromofluorobenzene (s)	16.122	95	134873	52.11	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 104.22%			

Target Compounds Qvalue

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

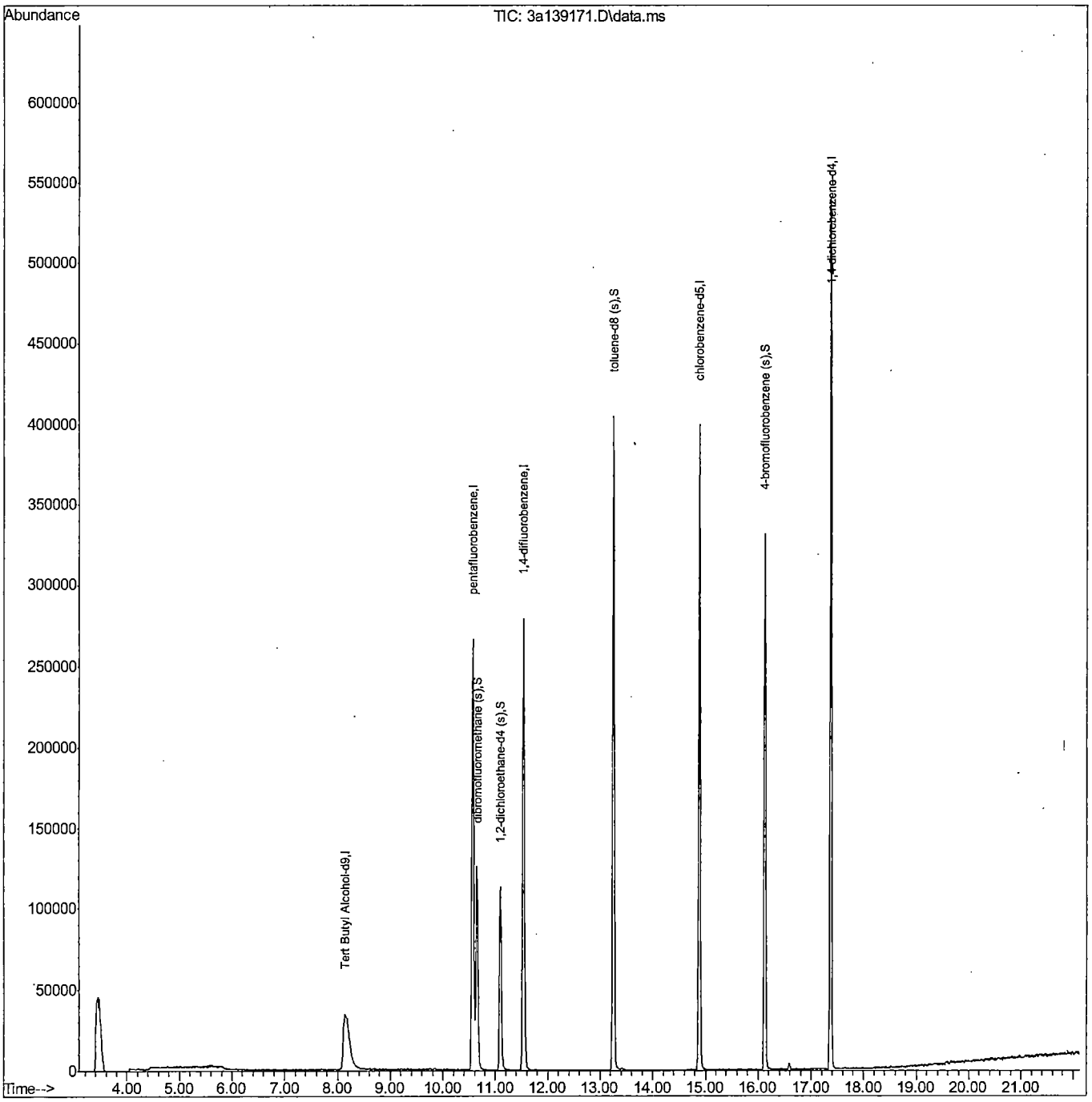
7.2.1

7

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139171.D
Acq On : 23 Feb 2015 11:50 am
Operator : zobiah
Sample : mb1
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 23 17:18:21 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139192.D
Acq On : 23 Feb 2015 11:02 pm
Operator : zobiah
Sample : mb1
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 24 10:23:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	173691	500.00 ug/L	0.00
5) pentafluorobenzene	10.56	168	264924	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	305195	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	278066	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	165529	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	102658	52.46 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.92%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	104004	56.02 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 112.04%		
79) toluene-d8 (s)	13.25	98	345146	50.86 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.72%		
104) 4-bromofluorobenzene (s)	16.12	95	134918	53.16 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.32%		

Target Compounds	Qvalue

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

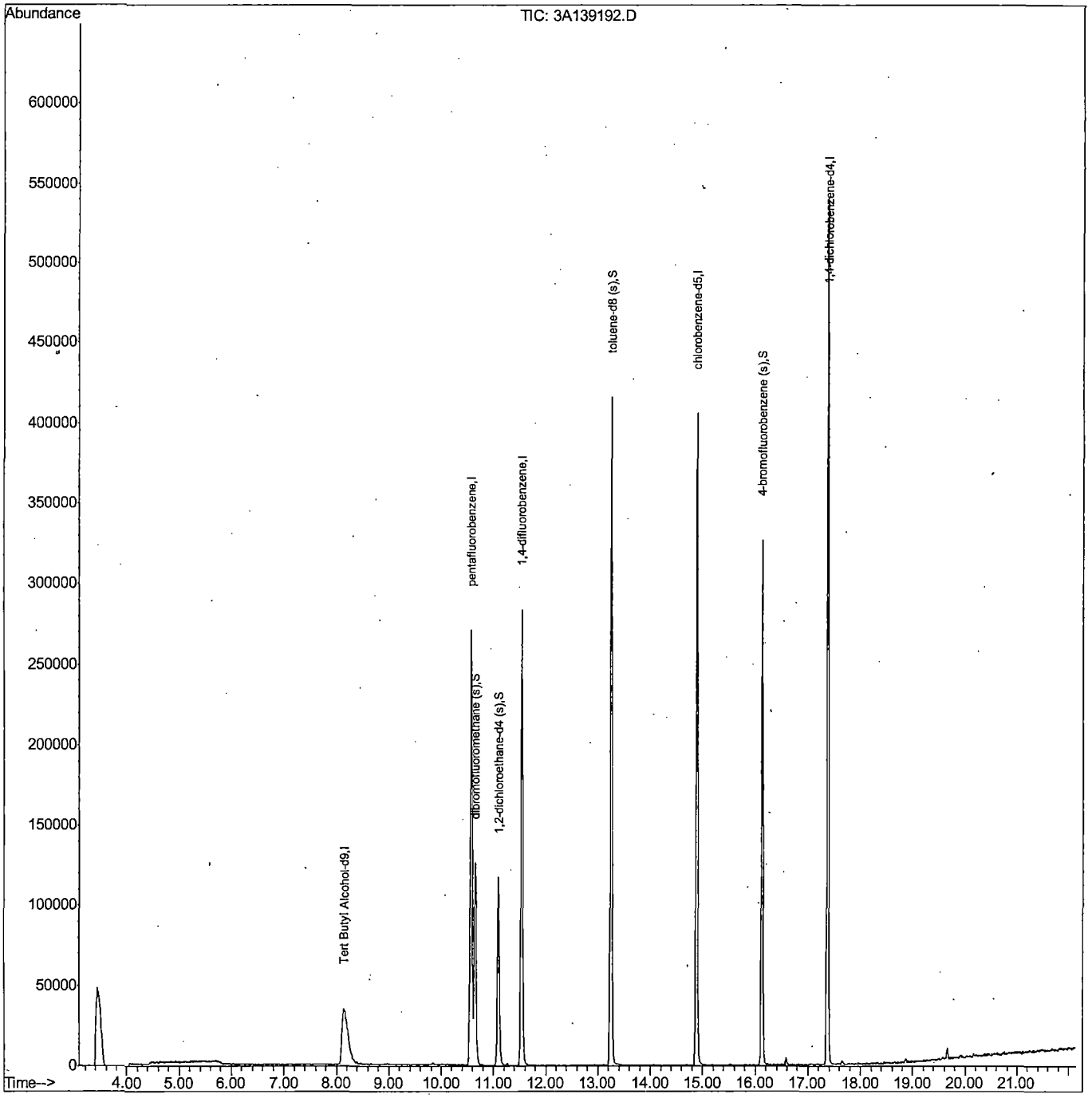
7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139192.D
Acq On : 23 Feb 2015 11:02 pm
Operator : zobiah
Sample : mb1
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 24 10:23:16 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.2.2

7

M3A6014.M Tue Feb 24 11:27:24 2015 ACCUNJ

ACCUTEST LABORATORIES
JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57201.D
Acq On : 26 Feb 2015 10:27 am
Operator : PayalR
Sample : mb
Misc : MS81348,V4D2537,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 26 11:53:27 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	89422	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	272714	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	320470	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	286627	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	148714	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.546	113	124628	40.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 81.76%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	130072	44.35	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 88.70%			
75) toluene-d8 (s)	12.278	98	423211	43.44	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.88%			
100) 4-bromofluorobenzene (s)	15.130	95	158634	43.49	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 86.98%			

Target Compounds Qvalue

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

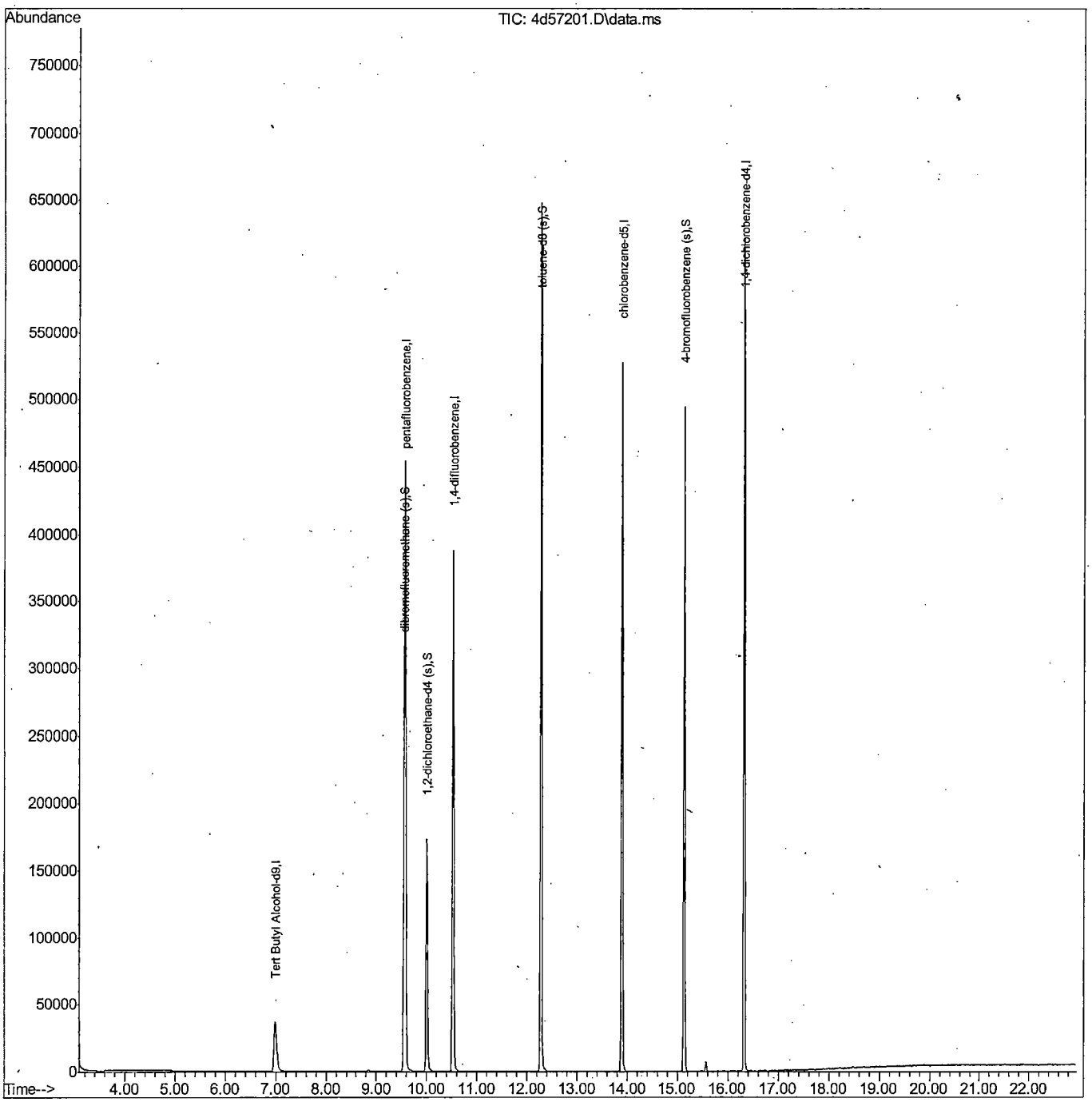
7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57201.D
Acq On : 26 Feb 2015 10:27 am
Operator : PayalR
Sample : mb
Misc : MS81348,V4D2537,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 26 11:53:27 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration



7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139219.D
Acq On : 24 Feb 2015 1:02 pm
Operator : zobiah
Sample : mb2
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 14:40:36 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	172396	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	284318	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	343899	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	295114	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	170793	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	114143	54.35 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.70%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	118373	59.41 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 118.82%		
79) toluene-d8 (s)	13.25	98	372536	48.72 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 97.44%		
104) 4-bromofluorobenzene (s)	16.13	95	141226	53.93 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.86%		

Target Compounds	Qvalue

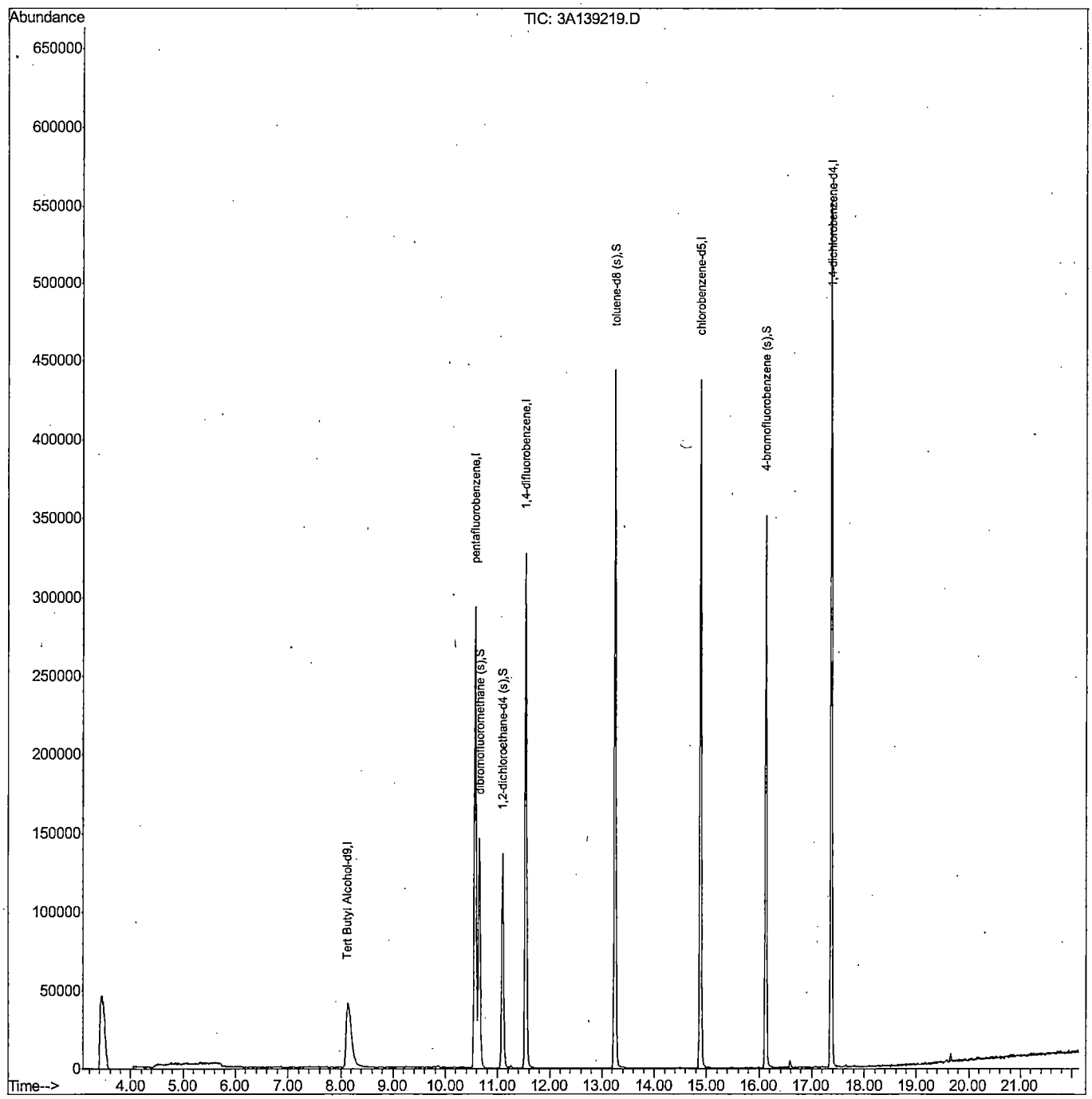
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139219.D
Acq On : 24 Feb 2015 1:02 pm
Operator : zobiah
Sample : mb2
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 24 14:40:36 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.2.4

7

ACCUTEST LABORATORIES
JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139172.D
Acq On : 23 Feb 2015 12:29 pm
Operator : zobiah
Sample : bs
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 12:52:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.142	65	168657	500.00	ug/L	0.00
5) pentafluorobenzene	10.570	168	268940	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.535	114	321359	50.00	ug/L	0.00
87) chlorobenzene-d5	14.885	117	286060	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.370	152	164611	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.649	113	103234	51.97	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.94%			
50) 1,2-dichloroethane-d4 (s)	11.094	65	102999	54.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 109.30%			
79) toluene-d8 (s)	13.249	98	356094	49.84	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.68%			
104) 4-bromofluorobenzene (s)	16.128	95	135321	53.61	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.22%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.284	59	89794	266.52	ug/L	98
4) 1,4-dioxane	12.305	88	43079	1201.24	ug/L	93
8) chlorodifluoromethane	4.100	51	158100	59.51	ug/L	98
9) dichlorodifluoromethane	4.069	85	157731	36.20	ug/L	97
10) chloromethane	4.462	50	166497	52.38	ug/L	96
11) vinyl chloride	4.761	62	191399	49.80	ug/L	98
12) bromomethane	5.537	94	107682	46.86	ug/L	94
15) 2-CHLOROPROPANE	7.010	43	156911	50.99	ug/L	96
16) chloroethane	5.746	64	82861	54.18	ug/L	96
17) trichlorofluoromethane	6.265	101	187893	47.63	ug/L	97
19) 1-CHLOROPROPANE	8.158	42	160338	54.33	ug/L	97
20) ethyl ether	6.764	74	58379	56.27	ug/L	85
21) acrolein	7.136	56	279954	624.40	ug/L	98
22) 1,1-dichloroethene	7.262	96	101685	46.25	ug/L	99
23) acetone	7.403	43	32102	53.90	ug/L	95
24) allyl chloride	7.901	76	61184	56.78	ug/L #	83
25) acetonitrile	7.975	40	80187	514.03	ug/L	97
26) iodomethane	7.602	142	224873	48.37	ug/L	98
27) iso-butyl alcohol	11.142	74	35945	540.57	ug/L #	77
28) carbon disulfide	7.713	76	418862	48.83	ug/L	100
29) methylene chloride	8.153	84	128374	50.34	ug/L	93
30) methyl acetate	7.912	43	75556	54.70	ug/L	97
31) methyl tert butyl ether	8.473	73	811465	110.92	ug/L	97
32) trans-1,2-dichloroethene	8.541	61	142438	48.36	ug/L	98
33) di-isopropyl ether	9.128	45	347998	59.12	ug/L	99
34) 2-butanone	10.020	72	12725	55.54	ug/L #	91
35) 1,1-dichloroethane	9.207	63	192010	53.13	ug/L	98
36) chloroprene	9.301	53	132240	55.96	ug/L	94
37) acrylonitrile	8.588	53	227705	324.80	ug/L	99
38) vinyl acetate	9.196	86	18150	57.59	ug/L	87
39) ethyl tert-butyl ether	9.647	59	393517	55.19	ug/L	96
40) ethyl acetate	10.009	45	12499	59.73	ug/L #	7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139172.D
Acq On : 23 Feb 2015 12:29 pm
Operator : zobiah
Sample : bs
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 12:52:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) 2,2-dichloropropane	10.004	77	204607	54.44	ug/L	93
42) cis-1,2-dichloroethene	10.025	96	117572	48.69	ug/L	97
43) methylacrylate	10.098	85	15649	53.51	ug/L	98
44) propionitrile	10.172	54	174285	628.99	ug/L	98
45) bromochloromethane	10.371	128	60122	48.21	ug/L	99
46) tetrahydrofuran	10.392	42	38552	65.28	ug/L	85
47) chloroform	10.428	85	116738	50.24	ug/L	98
48) t-butyl formate	10.444	59	117830	61.13	ug/L	95
51) freon 113	7.194	151	102502	59.16	ug/L	93
52) methacrylonitrile	10.334	41	67813	58.05	ug/L	92
53) 1,1,1-trichloroethane	10.659	97	178136	51.15	ug/L	99
54) Cyclohexane	10.696	84	174970	47.91	ug/L	96
56) epichlorohydrin	12.903	57	52446	291.91	ug/L	97
57) n-butyl alcohol	11.713	56	189615	3072.36	ug/L	95
58) carbon tetrachloride	10.853	117	154526	45.86	ug/L	97
59) 1,1-dichloropropene	10.843	75	125711	46.81	ug/L	94
61) hexane	8.829	57	66954	34.92	ug/L	90
62) 2,2,4-TRIMETHYLPENTANE	11.073	57	330150	44.21	ug/L	97
63) benzene	11.131	78	396154	47.76	ug/L	100
64) tert-amyl methyl ether	11.142	87	88556	49.10	ug/L	92
65) heptane	11.252	57	52108	47.98	ug/L	92
66) isopropyl acetate	11.063	43	236738	57.39	ug/L	95
67) 1,2-dichloroethane	11.189	62	124519	49.72	ug/L	97
69) trichloroethene	11.881	95	92407	45.12	ug/L	99
71) methyl methacrylate	12.174	69	67871	58.55	ug/L	91
72) 2-nitropropane	12.756	41	34368	59.15	ug/L	94
73) 2-chloroethyl vinyl ether	12.741	63	331339	275.53	ug/L	99
74) 1,2-dichloropropane	12.185	63	102457	50.31	ug/L	99
75) dibromomethane	12.363	93	66495	49.92	ug/L	99
76) methylcyclohexane	12.070	83	178516	48.24	ug/L	96
77) bromodichloromethane	12.499	83	131012	48.35	ug/L	98
78) cis-1,3-dichloropropene	12.971	75	161560	49.97	ug/L	96
80) 4-methyl-2-pentanone	13.076	58	44446	56.46	ug/L	94
81) toluene	13.328	92	222020	47.64	ug/L	97
82) 3-methyl-1-butanol	13.113	55	117570	1224.66	ug/L	95
83) trans-1,3-dichloropropene	13.580	75	146236	51.39	ug/L	94
84) ethyl methacrylate	13.538	69	126498	54.42	ug/L	98
85) 1,1,2-trichloroethane	13.815	83	76823	49.53	ug/L	96
86) 2-hexanone	13.978	58	41281	56.72	ug/L	97
88) tetrachloroethene	13.936	164	72663	42.38	ug/L	94
90) 1,3-dichloropropane	14.004	76	148606	51.01	ug/L	96
91) butyl acetate	14.036	56	66510	58.26	ug/L	95
92) 3,3-dimethyl-1-butanol	14.172	57	161489	507.92	ug/L	95
93) dibromochloromethane	14.287	129	104849	48.88	ug/L	97
94) 1,2-dibromoethane	14.450	107	93117	48.72	ug/L	98
95) chlorobenzene	14.916	112	257384	45.43	ug/L	99
96) 1,1,1,2-tetrachloroethane	14.985	131	115109	47.18	ug/L	95
97) ethylbenzene	14.958	91	432620	46.57	ug/L	96
98) m,p-xylene	15.069	106	341301	95.56	ug/L	94
99) o-xylene	15.525	106	180084	48.84	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139172.D
Acq On : 23 Feb 2015 12:29 pm
Operator : zobiah
Sample : bs
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 12:52:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) styrene	15.540	104	287900	48.05	ug/L	99
101) bromoform	15.865	173	77088	47.05	ug/L	94
103) isopropylbenzene	15.881	105	476315	49.87	ug/L	99
105) cyclohexanone	16.128	98	24783	143.70	ug/L	94
106) bromobenzene	16.337	156	120403	48.06	ug/L	98
107) 1,1,2,2-tetrachloroethane	16.259	83	143832	51.66	ug/L	97
108) trans-1,4-dichloro-2-b...	16.301	53	36990	57.10	ug/L	91
109) 1,2,3-trichloropropane	16.337	110	35882	53.85	ug/L	85
110) n-propylbenzene	16.316	120	122795	50.30	ug/L	96
111) 2-chlorotoluene	16.495	126	115476	47.89	ug/L	93
112) 4-chlorotoluene	16.599	126	113938	48.59	ug/L	97
113) 1,3,5-trimethylbenzene	16.468	105	415285	49.83	ug/L	98
114) tert-butylbenzene	16.846	119	360109	47.75	ug/L	98
115) pentachloroethane	16.967	167	93358	51.87	ug/L	98
116) 1,2,4-trimethylbenzene	16.898	105	431339	52.24	ug/L	99
117) sec-butylbenzene	17.071	105	539736	46.34	ug/L	100
118) 1,3-dichlorobenzene	17.307	146	234484	45.03	ug/L	97
119) p-isopropyltoluene	17.197	119	454996	46.46	ug/L	99
120) 1,4-dichlorobenzene	17.396	146	245546	45.10	ug/L	99
121) 1,2-dichlorobenzene	17.837	146	258115	46.24	ug/L	99
122) benzyl chloride	17.538	91	354322	62.44	ug/L	99
123) n-butylbenzene	17.648	92	227083	45.45	ug/L	98
124) 1,2-dibromo-3-chloropr...	18.707	75	34776	52.44	ug/L	86
125) 1,3,5-TRICHLOROBENZENE	18.859	180	232901	40.41	ug/L	97
126) 1,2,4-trichlorobenzene	19.572	180	262451	42.22	ug/L	100
127) hexachlorobutadiene	19.656	225	92623	33.95	ug/L	96
128) naphthalene	19.892	128	757670	46.42	ug/L	99
129) 1,2,3-trichlorobenzene	20.154	180	290499	41.66	ug/L	99
130) hexachloroethane	18.094	201	79110	38.53	ug/L	96

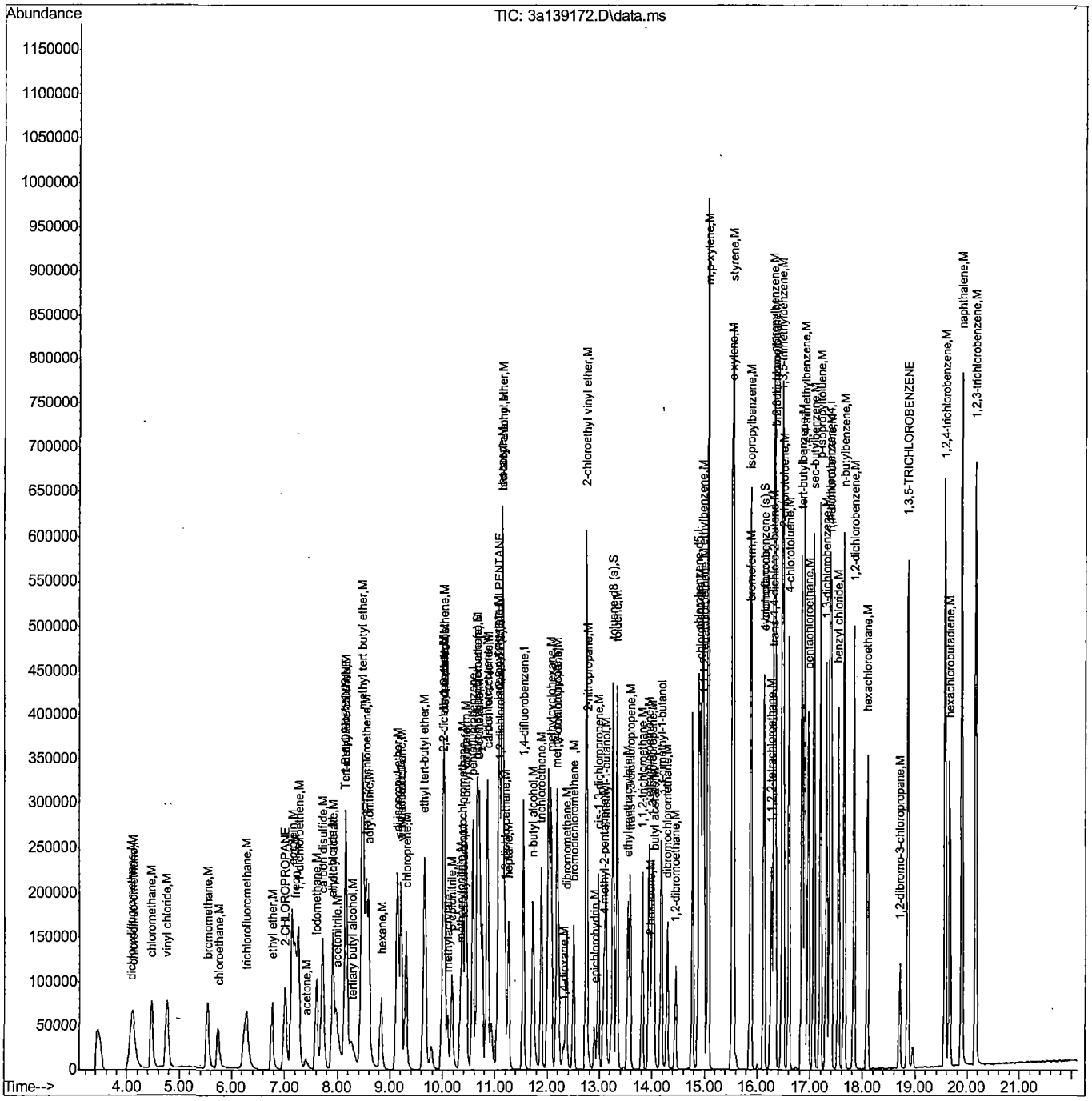
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.3.1 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139172.D
Acq On : 23 Feb 2015 12:29 pm
Operator : zobiah
Sample : bs
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 23 12:52:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139193.D
Acq On : 23 Feb 2015 11:32 pm
Operator : zobiah
Sample : bs
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	154390	500.00	ug/L	0.01
5) pentafluorobenzene	10.56	168	269390	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	316517	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	283024	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	165260	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	103428	51.98	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.96%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	100855	53.42	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 106.84%			
79) toluene-d8 (s)	13.25	98	356347	50.64	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.28%			
104) 4-bromofluorobenzene (s)	16.12	95	133546	52.70	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.40%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	81785	265.18	ug/L	94
4) 1,4-dioxane	12.31	88	40857	1244.56	ug/L	96
8) chlorodifluoromethane	4.09	51	134094	50.39	ug/L	97
9) dichlorodifluoromethane	4.06	85	160341	36.74	ug/L	97
10) chloromethane	4.45	50	156699	49.22	ug/L	98
11) vinyl chloride	4.75	62	170500	44.29	ug/L	98
12) bromomethane	5.53	94	109760	47.68	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	154775	50.21	ug/L	96
16) chloroethane	5.74	64	89030	58.12	ug/L	95
17) trichlorofluoromethane	6.25	101	170719	43.21	ug/L	93
19) 1-CHLOROPROPANE	8.15	42	167740	56.92	ug/L	93
20) ethyl ether	6.75	74	58492	56.29	ug/L	88
21) acrolein	7.13	56	244050	543.41	ug/L	99
22) 1,1-dichloroethene	7.26	96	98206	44.59	ug/L	95
23) acetone	7.40	43	31339	52.53	ug/L	93
24) allyl chloride	7.90	76	59648	55.26	ug/L	93
25) acetonitrile	7.97	40	67189	429.99	ug/L	96
26) iodomethane	7.60	142	213583	45.87	ug/L	98
27) iso-butyl alcohol	11.14	74	35040	526.08	ug/L #	84
28) carbon disulfide	7.71	76	388623	45.23	ug/L	99
29) methylene chloride	8.15	84	124394	48.70	ug/L	92
30) methyl acetate	7.91	43	66065	47.75	ug/L	93
31) methyl tert butyl ether	8.47	73	768177	104.83	ug/L	96
32) trans-1,2-dichloroethene	8.54	61	149868	50.80	ug/L	97
33) di-isopropyl ether	9.13	45	338816	57.46	ug/L	97
34) 2-butanone	10.02	72	11183	48.73	ug/L #	91
35) 1,1-dichloroethane	9.21	63	196988	54.42	ug/L	99
36) chloroprene	9.30	53	125333	52.95	ug/L	95
37) acrylonitrile	8.58	53	202248	288.01	ug/L	98
38) vinyl acetate	9.19	86	15495	49.63	ug/L	95
39) ethyl tert-butyl ether	9.64	59	373201	52.25	ug/L	98
40) ethyl acetate	10.01	45	11046	52.95	ug/L #	1
41) 2,2-dichloropropane	10.00	77	175418	46.60	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139193.D
Acq On : 23 Feb 2015 11:32 pm
Operator : zobiah
Sample : bs
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	120737	49.92	ug/L	98
43) methylacrylate	10.09	85	14036	48.28	ug/L	89
44) propionitrile	10.17	54	158402	570.72	ug/L	97
45) bromochloromethane	10.37	128	60083	48.10	ug/L	96
46) tetrahydrofuran	10.39	42	34411	58.17	ug/L	96
47) chloroform	10.43	85	118815	51.05	ug/L	94
48) t-butyl formate	10.43	59	106389	55.10	ug/L	99
51) freon 113	7.19	151	85892	49.49	ug/L	92
52) methacrylonitrile	10.33	41	64870	55.65	ug/L	91
53) 1,1,1-trichloroethane	10.65	97	179791	51.54	ug/L	98
54) Cyclohexane	10.70	84	173604	47.45	ug/L	98
56) epichlorohydrin	12.90	57	45637	257.90	ug/L	98
57) n-butyl alcohol	11.71	56	176507	2903.72	ug/L	96
58) carbon tetrachloride	10.85	117	153900	46.37	ug/L	97
59) 1,1-dichloropropene	10.84	75	129592	48.99	ug/L	97
61) hexane	8.82	57	86970	46.05	ug/L	99
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	266902	36.29	ug/L	99
63) benzene	11.13	78	406112	49.71	ug/L	99
64) tert-amyl methyl ether	11.14	87	81124	45.67	ug/L	94
65) heptane	11.25	57	43284	40.47	ug/L	90
66) isopropyl acetate	11.06	43	219996	54.15	ug/L	94
67) 1,2-dichloroethane	11.19	62	126413	51.24	ug/L	96
69) trichloroethene	11.88	95	94673	46.93	ug/L	94
71) methyl methacrylate	12.17	69	64506	56.49	ug/L	90
72) 2-nitropropane	12.76	41	31451	54.96	ug/L	96
73) 2-chloroethyl vinyl ether	12.74	63	306890	259.10	ug/L	100
74) 1,2-dichloropropane	12.18	63	105476	52.58	ug/L	100
75) dibromomethane	12.36	93	64961	49.51	ug/L	93
76) methylcyclohexane	12.06	83	158900	43.60	ug/L	95
77) bromodichloromethane	12.49	83	134428	50.37	ug/L	97
78) cis-1,3-dichloropropene	12.97	75	160837	50.51	ug/L	96
80) 4-methyl-2-pentanone	13.07	58	41332	53.30	ug/L	98
81) toluene	13.33	92	226977	49.45	ug/L	96
82) 3-methyl-1-butanol	13.11	55	106677	1128.19	ug/L	95
83) trans-1,3-dichloropropene	13.58	75	141446	50.47	ug/L	95
84) ethyl methacrylate	13.53	69	119720	52.29	ug/L	98
85) 1,1,2-trichloroethane	13.81	83	75562	49.46	ug/L	95
86) 2-hexanone	13.98	58	36835	51.38	ug/L	93
88) tetrachloroethene	13.94	164	73127	43.11	ug/L	91
90) 1,3-dichloropropane	14.00	76	147204	51.07	ug/L	96
91) butyl acetate	14.03	56	60892	53.91	ug/L	92
92) 3,3-dimethyl-1-butanol	14.17	57	140212	452.18	ug/L	96
93) dibromochloromethane	14.29	129	103053	48.56	ug/L	98
94) 1,2-dibromoethane	14.44	107	91221	48.24	ug/L	96
95) chlorobenzene	14.92	112	263227	46.96	ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	116506	48.27	ug/L	96
97) ethylbenzene	14.95	91	443604	48.26	ug/L	98
98) m,p-xylene	15.07	106	348667	98.67	ug/L	97
99) o-xylene	15.52	106	184343	50.53	ug/L	99
100) styrene	15.54	104	290354	48.98	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139193.D
Acq On : 23 Feb 2015 11:32 pm
Operator : zobiah
Sample : bs
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	73422	45.30 ug/L	93
103) isopropylbenzene	15.88	105	475297	49.57 ug/L	100
105) cyclohexanone	16.13	98	21297	123.01 ug/L	93
106) bromobenzene	16.34	156	124457	49.49 ug/L	98
107) 1,1,2,2-tetrachloroethane	16.26	83	138419	49.52 ug/L	96
108) trans-1,4-dichloro-2-buten	16.30	53	32652	50.21 ug/L	93
109) 1,2,3-trichloropropane	16.34	110	33268	49.73 ug/L	87
110) n-propylbenzene	16.31	120	126180	51.48 ug/L	97
111) 2-chlorotoluene	16.49	126	118506	48.96 ug/L	91
112) 4-chlorotoluene	16.60	126	115597	49.11 ug/L	93
113) 1,3,5-trimethylbenzene	16.47	105	414588	49.56 ug/L	97
114) tert-butylbenzene	16.85	119	360392	47.60 ug/L	97
115) pentachloroethane	16.97	167	93769	51.90 ug/L	98
116) 1,2,4-trimethylbenzene	16.89	105	431421	52.04 ug/L	100
117) sec-butylbenzene	17.07	105	535371	45.78 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	244177	46.71 ug/L	97
119) p-isopropyltoluene	17.20	119	456722	46.45 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	252841	46.26 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	262546	46.85 ug/L	97
122) benzyl chloride	17.54	91	258071	45.30 ug/L	98
123) n-butylbenzene	17.65	92	229977	45.84 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	32565	48.92 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	18.86	180	238412	41.20 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	269411	43.17 ug/L	99
127) hexachlorobutadiene	19.66	225	93841	34.26 ug/L	99
128) naphthalene	19.89	128	725268	44.26 ug/L	98
129) 1,2,3-trichlorobenzene	20.15	180	294652	42.09 ug/L	98
130) hexachloroethane	18.09	201	79574	38.59 ug/L	96

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

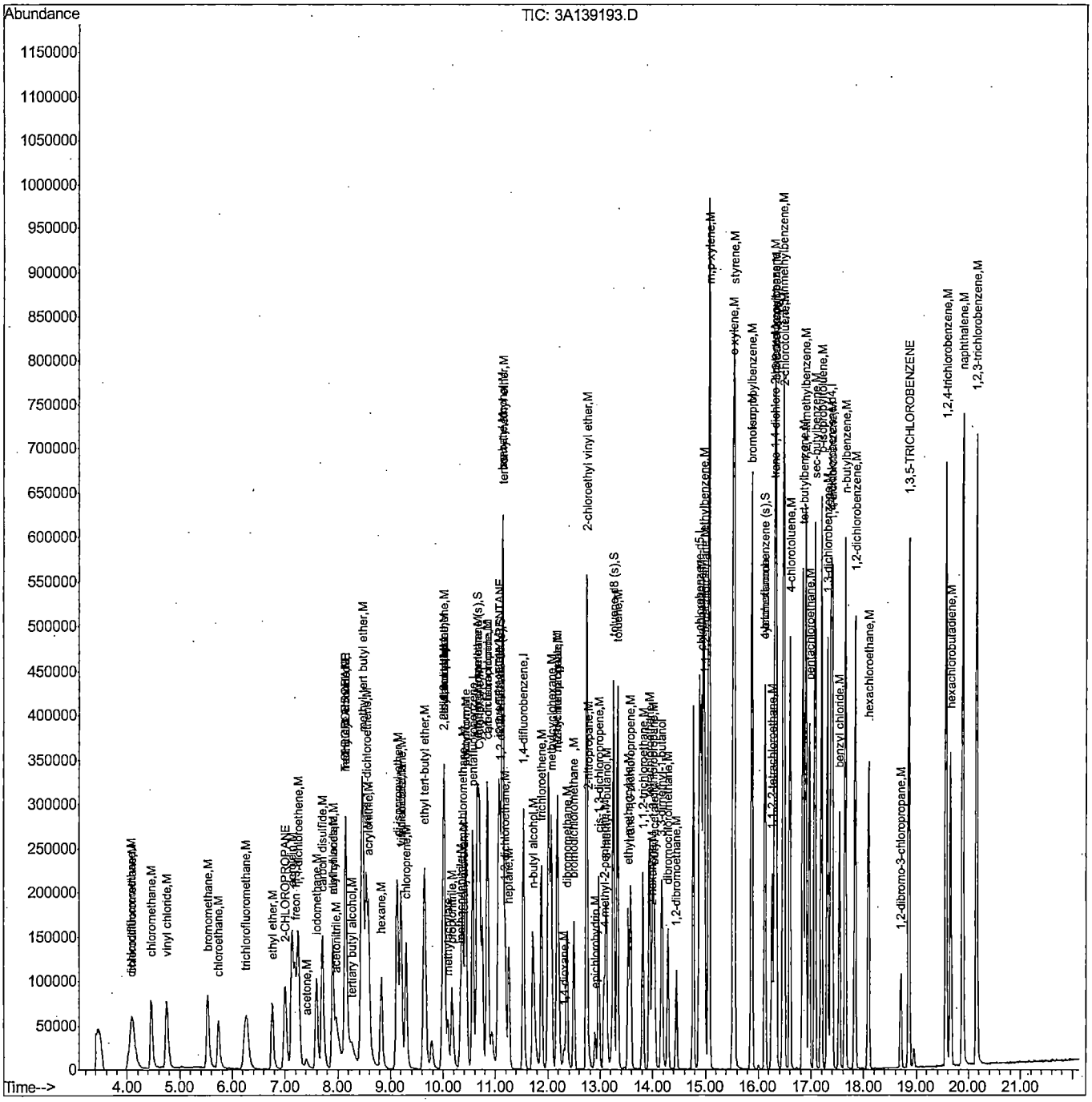
7.3.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139193.D
Acq On : 23 Feb 2015 11:32 pm
Operator : zobiah
Sample : bs
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 24 10:28:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57202.D
Acq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	6.993	65	86485	500.00 ug/L	0.00
4) pentafluorobenzene	9.567	168	253602	50.00 ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	297151	50.00 ug/L	0.00
83) chlorobenzene-d5	13.893	117	274702	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	145415	50.00 ug/L	0.00
System Monitoring Compounds					
45) dibromofluoromethane (s)	9.546	113	116774	41.19 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.38%		
46) 1,2-dichloroethane-d4 (s)	9.997	65	118417	43.42 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 86.84%		
75) toluene-d8 (s)	12.278	98	394847	43.71 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.42%		
100) 4-bromofluorobenzene (s)	15.130	95	151454	42.46 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 84.92%		
Target Compounds					Qvalue
2) 1,4-dioxane	11.266	88	28455	1261.86 ug/L #	75
3) tertiary butyl alcohol	7.129	59	63303	268.13 ug/L	95
5) chlorodifluoromethane	3.349	51	96911	48.02 ug/L	98
6) dichlorodifluoromethane	3.349	85	113241	44.44 ug/L	99
7) chloromethane	3.653	50	143866	44.44 ug/L	99
8) vinyl chloride	3.905	62	137118	43.43 ug/L	99
10) bromomethane	4.581	94	104694	43.05 ug/L	99
11) chloroethane	4.780	64	73449	46.90 ug/L	97
12) trichlorofluoromethane	5.310	101	170712	49.84 ug/L	98
14) ethyl ether	5.782	74	62804	47.77 ug/L	93
16) 2-chloropropane	5.965	43	195769	48.59 ug/L	95
17) acrolein	6.002	56	236324	380.69 ug/L	100
18) 1,1-dichloroethene	6.217	96	110983	45.78 ug/L	96
19) acetone	6.269	43	31992	47.53 ug/L	94
20) allyl chloride	6.809	76	63694	51.84 ug/L	84
21) acetonitrile	6.720	40	64772	466.12 ug/L	98
22) iodomethane	6.490	142	229182	48.56 ug/L	94
23) iso-butyl alcohol	9.850	41	38302	447.77 ug/L	97
24) carbon disulfide	6.626	76	407820	44.08 ug/L	98
25) methylene chloride	7.003	84	133193	44.31 ug/L	98
26) 1-chloropropane	7.066	42	202957	49.65 ug/L	99
27) methyl acetate	6.815	74	16940	35.28 ug/L	89
28) methyl tert butyl ether	7.449	73	678299	94.99 ug/L	95
29) trans-1,2-dichloroethene	7.460	96	120182	44.25 ug/L	98
30) di-isopropyl ether	8.178	45	396322	48.69 ug/L	99
31) ethyl tert-butyl ether	8.702	59	373797	47.62 ug/L	99
32) 2-butanone	8.912	72	12786	43.43 ug/L	90
33) 1,1-dichloroethane	8.099	63	233904	47.31 ug/L	99
34) chloroprene	8.241	53	164478	49.19 ug/L	95
35) acrylonitrile	7.360	53	212001	223.46 ug/L	97
36) vinyl acetate	8.131	86	18783	55.62 ug/L	97
37) ethyl acetate	8.975	45	15211	43.70 ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57202.D
Acq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.949	77	185867	55.54	ug/L	99
39) cis-1,2-dichloroethene	8.928	96	135334	44.65	ug/L	98
40) propionitrile	8.975	54	159878	407.70	ug/L	99
41) methyl acrylate	9.043	55	99972	42.20	ug/L	99
42) bromochloromethane	9.253	128	69868	47.92	ug/L	99
43) tetrahydrofuran	9.321	42	32043	40.59	ug/L	97
44) chloroform	9.337	83	228006	47.20	ug/L	99
47) freon 113	6.238	151	83647	52.54	ug/L	93
48) methacrylonitrile	9.200	41	68958	46.23	ug/L	94
49) 1,1,1-trichloroethane	9.630	97	187620	51.78	ug/L	99
50) tert-amyl methyl ether	10.202	73	347235	46.56	ug/L	100
52) epichlorohydrin	11.827	57	56463	225.66	ug/L	99
53) n-butyl alcohol	10.658	56	166117	2313.71	ug/L	95
54) cyclohexane	9.730	84	153261	45.78	ug/L	91
56) carbon tetrachloride	9.861	117	169890	55.10	ug/L	99
57) 1,1-dichloropropene	9.829	75	170214	49.73	ug/L	99
58) hexane	7.884	57	111881	37.94	ug/L	98
59) benzene	10.102	78	478044	47.08	ug/L	99
60) ISO-OCTANE	10.191	57	361638	43.04	ug/L	94
61) heptane	10.380	57	72563	44.70	ug/L	98
62) isopropyl acetate	10.086	43	206846	48.19	ug/L	97
63) 1,2-dichloroethane	10.092	62	165040	54.43	ug/L	98
64) trichloroethene	10.873	95	126916	48.53	ug/L	97
66) 2-nitropropane	11.670	43	29405	47.96	ug/L	97
67) 2-chloroethyl vinyl ether	11.733	63	424815	235.40	ug/L	99
68) methyl methacrylate	11.198	41	102879	50.06	ug/L	92
69) 1,2-dichloropropane	11.140	63	133969	48.60	ug/L	93
70) methylcyclohexane	11.140	83	173944	46.84	ug/L	90
72) dibromomethane	11.282	93	85343	47.80	ug/L	97
73) bromodichloromethane	11.439	83	175967	51.81	ug/L	99
74) cis-1,3-dichloropropene	11.948	75	216710	49.85	ug/L	94
76) 4-methyl-2-pentanone	12.079	58	47306	45.87	ug/L	90
77) toluene	12.357	92	293112	48.86	ug/L	99
78) 3-methyl-1-butanol	12.100	70	59550	912.37	ug/L	95
79) trans-1,3-dichloropropene	12.551	75	192580	48.82	ug/L	96
80) ethyl methacrylate	12.598	69	153363	47.88	ug/L	93
81) 1,1,2-trichloroethane	12.771	83	101645	47.94	ug/L	98
82) 2-hexanone	13.001	58	44945	44.78	ug/L	92
84) tetrachloroethene	12.986	166	132665	50.67	ug/L	99
85) 1,3-dichloropropane	12.970	76	185966	47.16	ug/L	100
86) butyl acetate	13.106	56	79478	46.80	ug/L	94
87) dibromochloromethane	13.237	129	146686	51.82	ug/L	99
88) 1,2-dibromoethane	13.400	107	121908	46.95	ug/L	100
89) n-Butyl Ether	13.919	57	512074	46.29	ug/L	100
90) chlorobenzene	13.924	112	339450	48.53	ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	130418	52.55	ug/L	96
92) ethylbenzene	14.013	91	560323	48.01	ug/L	99
93) m,p-xylene	14.129	106	430628	98.13	ug/L	95
94) o-xylene	14.574	106	214589	49.31	ug/L	97
95) styrene	14.580	104	368056	50.86	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57202.D
Acq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	bromoform	14.816	173	100909	50.45 ug/L	99
99)	isopropylbenzene	14.947	105	553426	48.25 ug/L	99
101)	bromobenzene	15.324	156	154515	49.67 ug/L	94
102)	cyclohexanone	15.072	55	132857	860.84 ug/L	95
103)	1,1,2,2-tetrachloroethane	15.225	83	165872	41.26 ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	36615	44.59 ug/L	94
105)	1,2,3-trichloropropane	15.298	110	37844	45.96 ug/L	97
106)	n-propylbenzene	15.377	91	679081	49.64 ug/L	99
107)	2-chlorotoluene	15.502	126	139757	48.01 ug/L	99
108)	4-chlorotoluene	15.607	91	407825	46.34 ug/L	98
109)	1,3,5-trimethylbenzene	15.534	105	472381	49.41 ug/L	100
110)	tert-butylbenzene	15.890	119	403560	50.72 ug/L	99
111)	pentachloroethane	15.938	167	102218	53.87 ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	495163	51.96 ug/L	100
113)	sec-butylbenzene	16.111	105	614575	48.02 ug/L	99
114)	1,3-dichlorobenzene	16.263	146	279078	46.57 ug/L	99
115)	p-isopropyltoluene	16.231	119	522425	51.63 ug/L	100
116)	1,4-dichlorobenzene	16.347	146	281017	46.09 ug/L	99
117)	1,2-dichlorobenzene	16.724	146	280894	48.72 ug/L	99
118)	n-butylbenzene	16.635	92	276716	49.31 ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	28629	45.44 ug/L	98
120)	1,3,5-trichlorobenzene	17.652	180	229283	50.49 ug/L	100
121)	1,2,4-trichlorobenzene	18.224	180	210056	50.00 ug/L	100
122)	hexachlorobutadiene	18.355	225	111203	54.65 ug/L	98
123)	naphthalene	18.480	128	455269	45.90 ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	193539	50.26 ug/L	100
125)	hexachloroethane	16.997	119	107903	50.39 ug/L	97
126)	Benzyl chloride	16.457	91	361804	59.87 ug/L	100

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

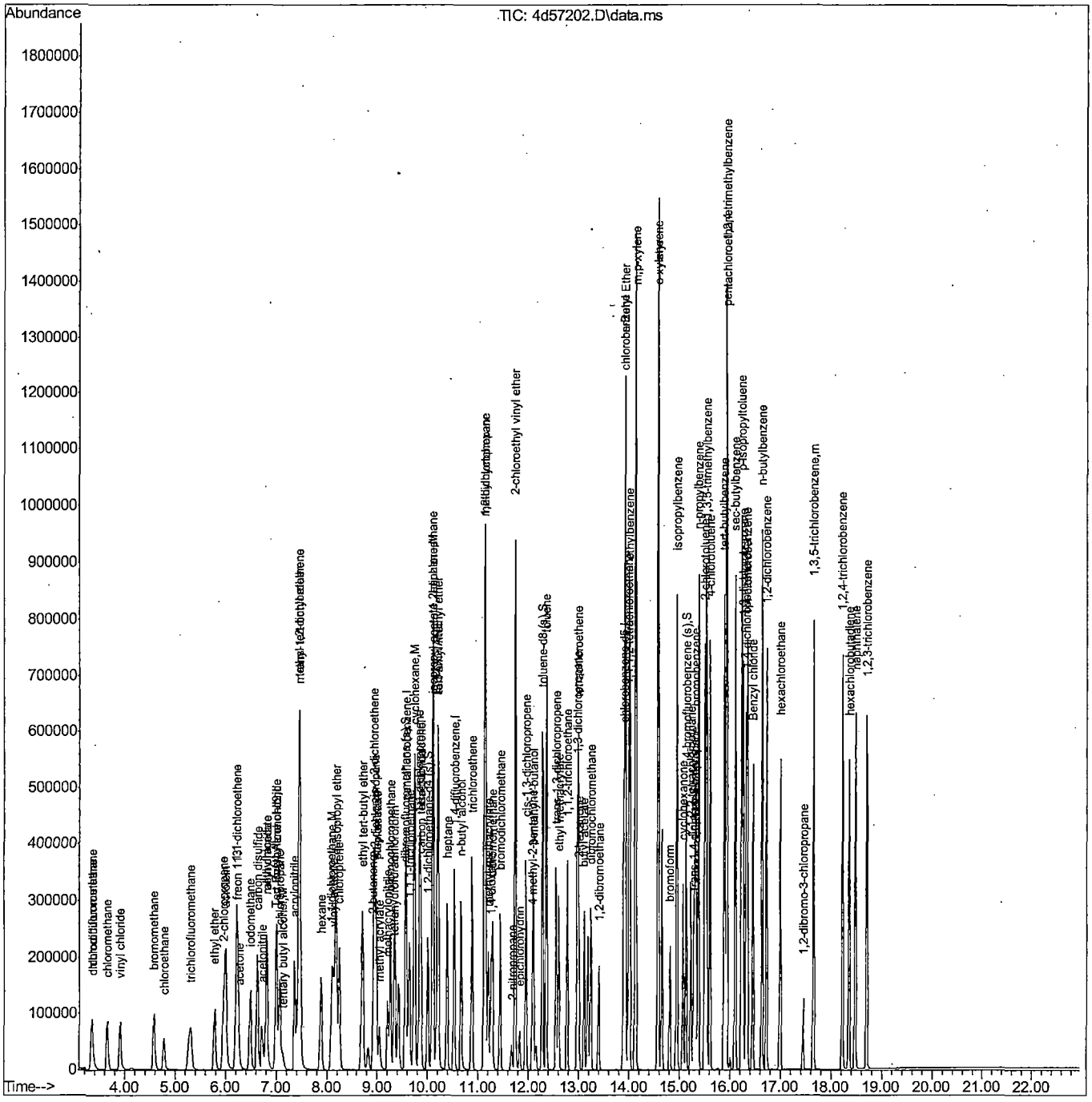
7.3.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57202.D
Acq On : 26 Feb 2015 10:54 am
Operator : PayalR
Sample : bs
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 26 11:53:56 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration



7.3.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139183.D
Acq On : 23 Feb 2015 6:32 pm
Operator : zobiah
Sample : jb88565-2ms
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 24 10:11:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	186843	500.00	ug/L	0.01
5) pentafluorobenzene	10.57	168	283171	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	328688	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	282148	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	163293	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	111828	53.47	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.94%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	109827	55.34	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 110.68%			
79) toluene-d8 (s)	13.25	98	361258	49.43	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 98.86%			
104) 4-bromofluorobenzene (s)	16.12	95	135445	54.09	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.18%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	116331	311.67	ug/L	94
4) 1,4-dioxane	12.32	88	50500	1271.11	ug/L	91
8) chlorodifluoromethane	4.11	51	168447	60.22	ug/L	96
9) dichlorodifluoromethane	4.07	85	245683	53.55	ug/L	99
10) chloromethane	4.46	50	197197	58.92	ug/L	97
11) vinyl chloride	4.76	62	220502	54.49	ug/L	99
12) bromomethane	5.53	94	122849	50.77	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	171945	53.07	ug/L	97
16) chloroethane	5.75	64	87505	54.34	ug/L	96
17) trichlorofluoromethane	6.27	101	214879	51.74	ug/L	95
19) 1-CHLOROPROPANE	8.15	42	179846	58.14	ug/L	91
20) ethyl ether	6.76	74	57877	52.99	ug/L	91
21) acrolein	7.13	56	233464	494.54	ug/L	98
22) 1,1-dichloroethene	7.26	96	106614	46.06	ug/L	97
23) acetone	7.41	43	43856	69.93	ug/L	98
24) allyl chloride	7.91	76	56868	50.12	ug/L	92
25) acetonitrile	7.97	40	119028	724.67	ug/L	81
26) iodomethane	7.60	142	223426	45.65	ug/L	99
27) iso-butyl alcohol	11.13	74	35494	506.96	ug/L #	61
28) carbon disulfide	7.71	76	435130	48.18	ug/L	99
29) methylene chloride	8.15	84	128658	47.92	ug/L	99
30) methyl acetate	7.92	43	96270	66.20	ug/L	98
31) methyl tert butyl ether	8.47	73	415794	53.98	ug/L	100
32) trans-1,2-dichloroethene	8.54	61	159454	51.42	ug/L	97
33) di-isopropyl ether	9.13	45	362940	58.56	ug/L	96
34) 2-butanone	10.01	72	14115	58.51	ug/L #	73
35) 1,1-dichloroethane	9.21	63	209586	55.08	ug/L	100
36) chloroprene	9.30	53	135919	54.63	ug/L	98
37) acrylonitrile	8.59	53	246945	334.54	ug/L	97
38) vinyl acetate	9.20	86	15119	46.33	ug/L	92
39) ethyl tert-butyl ether	9.65	59	407409	54.27	ug/L	98
40) ethyl acetate	10.01	45	13137	59.63	ug/L #	1
41) 2,2-dichloropropane	10.00	77	205278	51.88	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139183.D
Acq On : 23 Feb 2015 6:32 pm
Operator : zobiah
Sample : jb88565-2ms
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 24 10:11:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	126718	49.84 ug/L	95
43) methylacrylate	10.09	85	15939	51.87 ug/L	78
44) propionitrile	10.17	54	209422	717.82 ug/L	99
45) bromochloromethane	10.37	128	63441	48.32 ug/L	98
46) tetrahydrofuran	10.39	42	39111	62.90 ug/L	95
47) chloroform	10.43	85	122049	49.89 ug/L	95
48) t-butyl formate	10.44	59	26818	13.21 ug/L #	76
51) freon 113	7.19	151	93148	51.06 ug/L	96
52) methacrylonitrile	10.33	41	96812	77.05 ug/L	93
53) 1,1,1-trichloroethane	10.65	97	200620	54.71 ug/L	99
54) Cyclohexane	10.70	84	197924	51.47 ug/L	94
56) epichlorohydrin	12.90	57	45559	247.92 ug/L	99
57) n-butyl alcohol	11.71	56	224628	3558.53 ug/L	95
58) carbon tetrachloride	10.85	117	163990	47.58 ug/L	92
59) 1,1-dichloropropene	10.84	75	135546	49.35 ug/L	96
61) hexane	8.83	57	112162	57.19 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	361461	47.33 ug/L	96
63) benzene	11.13	78	414961	48.91 ug/L	99
64) tert-amyl methyl ether	11.14	87	89773	48.66 ug/L	96
65) heptane	11.25	57	58035	52.25 ug/L	90
66) isopropyl acetate	11.06	43	256233	60.73 ug/L	97
67) 1,2-dichloroethane	11.19	62	129692	50.63 ug/L	99
69) trichloroethene	11.88	95	97757	46.67 ug/L	98
71) methyl methacrylate	12.17	69	68462	57.74 ug/L	88
72) 2-nitropropane	12.76	41	24485	41.20 ug/L	96
74) 1,2-dichloropropane	12.18	63	103906	49.88 ug/L	100
75) dibromomethane	12.36	93	66352	48.70 ug/L	93
76) methylcyclohexane	12.06	83	182640	48.26 ug/L	98
77) bromodichloromethane	12.49	83	133228	48.08 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	156453	47.31 ug/L	98
80) 4-methyl-2-pentanone	13.07	58	51232	63.62 ug/L	90
81) toluene	13.33	92	225572	47.32 ug/L	99
82) 3-methyl-1-butanol	13.11	55	155258	1581.17 ug/L	96
83) trans-1,3-dichloropropene	13.57	75	141181	48.51 ug/L	99
84) ethyl methacrylate	13.53	69	134039	56.38 ug/L	99
85) 1,1,2-trichloroethane	13.81	83	74884	47.20 ug/L	99
86) 2-hexanone	13.98	58	45229	60.75 ug/L	97
88) tetrachloroethene	13.94	164	75029	44.37 ug/L	97
90) 1,3-dichloropropane	14.00	76	145963	50.80 ug/L	98
91) butyl acetate	14.04	56	74011	65.73 ug/L	95
92) 3,3-dimethyl-1-butanol	14.17	57	233876	721.12 ug/L	98
93) dibromochloromethane	14.29	129	101919	48.17 ug/L	98
94) 1,2-dibromoethane	14.44	107	90872	48.21 ug/L	94
95) chlorobenzene	14.92	112	252760	45.23 ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	120623	50.13 ug/L	98
97) ethylbenzene	14.95	91	437901	47.79 ug/L	96
98) m,p-xylene	15.07	106	336277	95.46 ug/L	97
99) o-xylene	15.52	106	182773	50.26 ug/L	100
100) styrene	15.54	104	281857	47.69 ug/L	100
101) bromoform	15.87	173	73791	45.67 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139183.D
Acq On : 23 Feb 2015 6:32 pm
Operator : zobiah
Sample : jb88565-2ms
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 24 10:11:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) isopropylbenzene	15.88	105	487634	51.46 ug/L	99
105) cyclohexanone	16.13	98	29434	172.05 ug/L	85
106) bromobenzene	16.34	156	115443	46.46 ug/L	98
107) 1,1,2,2-tetrachloroethane	16.26	83	149832	54.25 ug/L	97
108) trans-1,4-dichloro-2-buten	16.30	53	34574	53.80 ug/L	92
109) 1,2,3-trichloropropane	16.34	110	35101	53.11 ug/L	85
110) n-propylbenzene	16.32	120	116669	48.18 ug/L	97
111) 2-chlorotoluene	16.49	126	113084	47.28 ug/L	93
112) 4-chlorotoluene	16.60	126	109797	47.20 ug/L	98
113) 1,3,5-trimethylbenzene	16.47	105	416252	50.35 ug/L	98
114) tert-butylbenzene	16.85	119	367218	49.08 ug/L	99
115) pentachloroethane	16.97	167	95251	53.35 ug/L	97
116) 1,2,4-trimethylbenzene	16.89	105	407231	49.71 ug/L	99
117) sec-butylbenzene	17.07	105	551101	47.69 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	232459	45.00 ug/L	97
119) p-isopropyltoluene	17.20	119	450824	46.40 ug/L	98
120) 1,4-dichlorobenzene	17.40	146	237376	43.95 ug/L	99
121) 1,2-dichlorobenzene	17.83	146	250078	45.16 ug/L	98
122) benzyl chloride	17.54	91	301882	53.63 ug/L	99
123) n-butylbenzene	17.65	92	224834	45.36 ug/L	96
124) 1,2-dibromo-3-chloropropan	18.71	75	36296	55.18 ug/L	93
125) 1,3,5-TRICHLOROBENZENE	18.86	180	228854	40.03 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	253032	41.04 ug/L	99
127) hexachlorobutadiene	19.66	225	94186	34.80 ug/L	99
128) naphthalene	19.89	128	759746	46.92 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	282218	40.80 ug/L	97
130) hexachloroethane	18.09	201	78446	38.51 ug/L	97

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

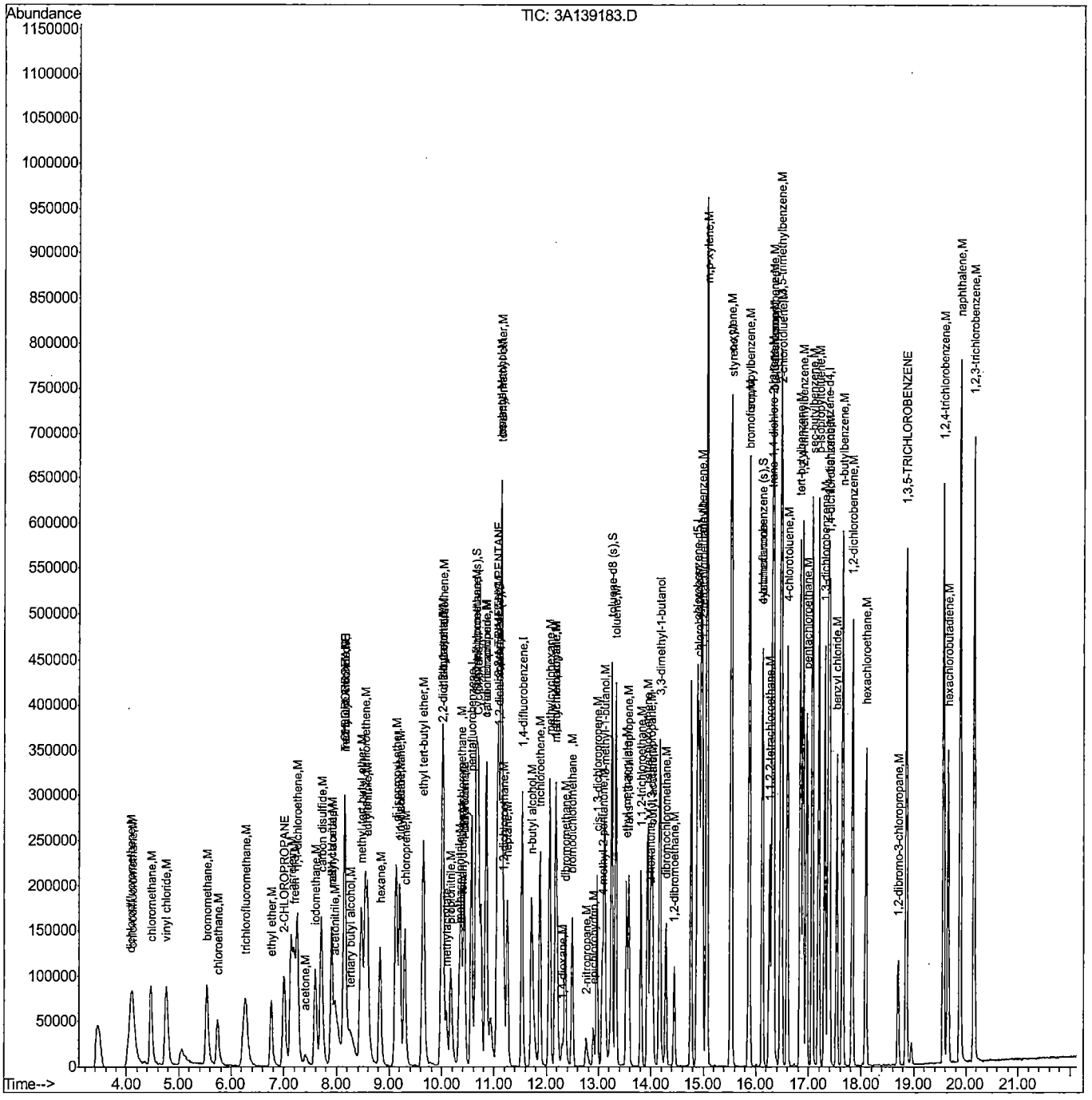
7.4.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139183.D
Acq On : 23 Feb 2015 6:32 pm
Operator : zobiah
Sample : jb88565-2ms
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 24 10:11:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139184.D
Acq On : 23 Feb 2015 7:02 pm
Operator : zobiah
Sample : jb88565-2msd
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 24 10:11:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	194989	500.00	ug/L	0.00
5) pentafluorobenzene	10.56	168	285286	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	335174	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	291038	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	167833	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	111366	52.85	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.70%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	111367	55.70	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 111.40%			
79) toluene-d8 (s)	13.25	98	371489	49.85	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.70%			
104) 4-bromofluorobenzene (s)	16.12	95	137500	53.43	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.86%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.29	59	117153	300.76	ug/L	94
4) 1,4-dioxane	12.32	88	54089	1304.57	ug/L	93
8) chlorodifluoromethane	4.10	51	170787	60.60	ug/L	96
9) dichlorodifluoromethane	4.07	85	247962	53.65	ug/L	97
10) chloromethane	4.46	50	202790	60.15	ug/L	100
11) vinyl chloride	4.75	62	227783	55.87	ug/L	99
12) bromomethane	5.53	94	119937	49.20	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	176403	54.04	ug/L	98
16) chloroethane	5.74	64	91030	56.11	ug/L	97
17) trichlorofluoromethane	6.27	101	218401	52.20	ug/L	97
19) 1-CHLOROPROPANE	8.15	42	185789	59.71	ug/L	93
20) ethyl ether	6.76	74	64586	58.69	ug/L	91
21) acrolein	7.13	56	302113	635.21	ug/L	97
22) 1,1-dichloroethene	7.25	96	107809	46.23	ug/L	99
23) acetone	7.40	43	39371	62.31	ug/L	88
24) allyl chloride	7.90	76	61161	53.51	ug/L	87
25) acetonitrile	7.97	40	124427	751.92	ug/L	84
26) iodomethane	7.60	142	235082	47.67	ug/L	97
27) iso-butyl alcohol	11.13	74	39220	556.03	ug/L #	47
28) carbon disulfide	7.71	76	443847	48.78	ug/L	99
29) methylene chloride	8.15	84	138484	51.19	ug/L	95
30) methyl acetate	7.91	43	103947	70.95	ug/L	100
31) methyl tert butyl ether	8.47	73	452097	58.26	ug/L	97
32) trans-1,2-dichloroethene	8.54	61	166833	53.40	ug/L	97
33) di-isopropyl ether	9.13	45	394565	63.19	ug/L	99
34) 2-butanone	10.01	72	14147	58.21	ug/L #	43
35) 1,1-dichloroethane	9.21	63	221295	57.73	ug/L	99
36) chloroprene	9.30	53	141103	56.29	ug/L	95
37) acrylonitrile	8.58	53	248132	333.66	ug/L	99
38) vinyl acetate	9.20	86	15575	47.29	ug/L	84
39) ethyl tert-butyl ether	9.65	59	447663	59.19	ug/L	99
40) ethyl acetate	10.00	45	15463	69.30	ug/L #	33
41) 2,2-dichloropropane	10.00	77	210096	52.70	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139184.D
Acq On : 23 Feb 2015 7:02 pm
Operator : zobiah
Sample : jb88565-2msd
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 24 10:11:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	135703	52.98 ug/L	98
43) methylacrylate	10.09	85	16527	53.29 ug/L	90
44) propionitrile	10.17	54	212456	722.82 ug/L	99
45) bromochloromethane	10.37	128	68712	51.94 ug/L	98
46) tetrahydrofuran	10.39	42	39206	62.59 ug/L	89
47) chloroform	10.43	85	129886	52.70 ug/L	100
48) t-butyl formate	10.44	59	24072	11.77 ug/L #	78
51) freon 113	7.20	151	91686	49.89 ug/L	94
52) methacrylonitrile	10.33	41	99114	78.22 ug/L	90
53) 1,1,1-trichloroethane	10.65	97	207277	56.10 ug/L	98
54) Cyclohexane	10.70	84	198726	51.29 ug/L	97
56) epichlorohydrin	12.90	57	45796	244.39 ug/L	99
57) n-butyl alcohol	11.71	56	235539	3659.17 ug/L	96
58) carbon tetrachloride	10.85	117	166234	47.30 ug/L	97
59) 1,1-dichloropropene	10.84	75	138634	49.50 ug/L	96
61) hexane	8.82	57	110858	55.43 ug/L	97
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	377730	48.50 ug/L	97
63) benzene	11.13	78	439185	50.77 ug/L	100
64) tert-amyl methyl ether	11.14	87	99760	53.03 ug/L	92
65) heptane	11.26	57	59125	52.20 ug/L	90
66) isopropyl acetate	11.06	43	270734	62.92 ug/L	97
67) 1,2-dichloroethane	11.19	62	143745	55.03 ug/L	98
69) trichloroethene	11.88	95	101639	47.58 ug/L	98
71) methyl methacrylate	12.17	69	71971	59.52 ug/L	95
72) 2-nitropropane	12.76	41	26482	43.70 ug/L	98
74) 1,2-dichloropropane	12.18	63	113998	53.67 ug/L	100
75) dibromomethane	12.36	93	72247	52.00 ug/L	95
76) methylcyclohexane	12.06	83	184948	47.92 ug/L	95
77) bromodichloromethane	12.49	83	145642	51.54 ug/L	97
78) cis-1,3-dichloropropene	12.97	75	173786	51.53 ug/L	99
80) 4-methyl-2-pentanone	13.07	58	52300	63.69 ug/L	91
81) toluene	13.33	92	237928	48.95 ug/L	99
82) 3-methyl-1-butanol	13.11	55	160873	1606.65 ug/L	96
83) trans-1,3-dichloropropene	13.57	75	156513	52.74 ug/L	99
84) ethyl methacrylate	13.53	69	142735	58.87 ug/L	99
85) 1,1,2-trichloroethane	13.81	83	82043	50.71 ug/L	98
86) 2-hexanone	13.98	58	48355	63.70 ug/L	94
88) tetrachloroethene	13.94	164	77372	44.35 ug/L	96
90) 1,3-dichloropropane	14.00	76	159520	53.82 ug/L	97
91) butyl acetate	14.04	56	78887	67.92 ug/L	94
92) 3,3-dimethyl-1-butanol	14.17	57	254057	756.61 ug/L	98
93) dibromochloromethane	14.29	129	110868	50.80 ug/L	99
94) 1,2-dibromoethane	14.44	107	99520	51.18 ug/L	97
95) chlorobenzene	14.92	112	274418	47.61 ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	127650	51.43 ug/L	99
97) ethylbenzene	14.95	91	461827	48.86 ug/L	97
98) m,p-xylene	15.07	106	359193	98.85 ug/L	96
99) o-xylene	15.52	106	190737	50.85 ug/L	99
100) styrene	15.54	104	304019	49.87 ug/L	96
101) bromoform	15.86	173	80402	48.24 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139184.D
Acq On : 23 Feb 2015 7:02 pm
Operator : zobiah
Sample : jb88565-2msd
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 24 10:11:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
103) isopropylbenzene	15.88	105	502915	51.64	ug/L	99
105) cyclohexanone	16.13	98	30017	170.71	ug/L	91
106) bromobenzene	16.34	156	127954	50.10	ug/L	98
107) 1,1,2,2-tetrachloroethane	16.26	83	162011	57.07	ug/L	98
108) trans-1,4-dichloro-2-buten	16.30	53	38871	58.85	ug/L	94
109) 1,2,3-trichloropropane	16.34	110	38090	56.07	ug/L	89
110) n-propylbenzene	16.31	120	120846	48.55	ug/L	93
111) 2-chlorotoluene	16.49	126	122470	49.82	ug/L	98
112) 4-chlorotoluene	16.60	126	118971	49.77	ug/L	98
113) 1,3,5-trimethylbenzene	16.47	105	433263	50.99	ug/L	99
114) tert-butylbenzene	16.85	119	373531	48.57	ug/L	98
115) pentachloroethane	16.97	167	98899	53.90	ug/L	97
116) 1,2,4-trimethylbenzene	16.89	105	424904	50.47	ug/L	98
117) sec-butylbenzene	17.07	105	561111	47.25	ug/L	99
118) 1,3-dichlorobenzene	17.31	146	253570	47.76	ug/L	97
119) p-isopropyltoluene	17.20	119	463496	46.41	ug/L	99
120) 1,4-dichlorobenzene	17.40	146	260046	46.85	ug/L	99
121) 1,2-dichlorobenzene	17.84	146	270314	47.50	ug/L	99
122) benzyl chloride	17.53	91	318919	55.13	ug/L	98
123) n-butylbenzene	17.65	92	232536	45.64	ug/L	97
124) 1,2-dibromo-3-chloropropan	18.70	75	38513	56.96	ug/L	96
125) 1,3,5-TRICHLOROBENZENE	18.86	180	246792	42.00	ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	276794	43.68	ug/L	99
127) hexachlorobutadiene	19.66	225	97639	35.10	ug/L	99
128) naphthalene	19.89	128	827427	49.72	ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	309185	43.49	ug/L	99
130) hexachloroethane	18.09	201	80913	38.63	ug/L	95

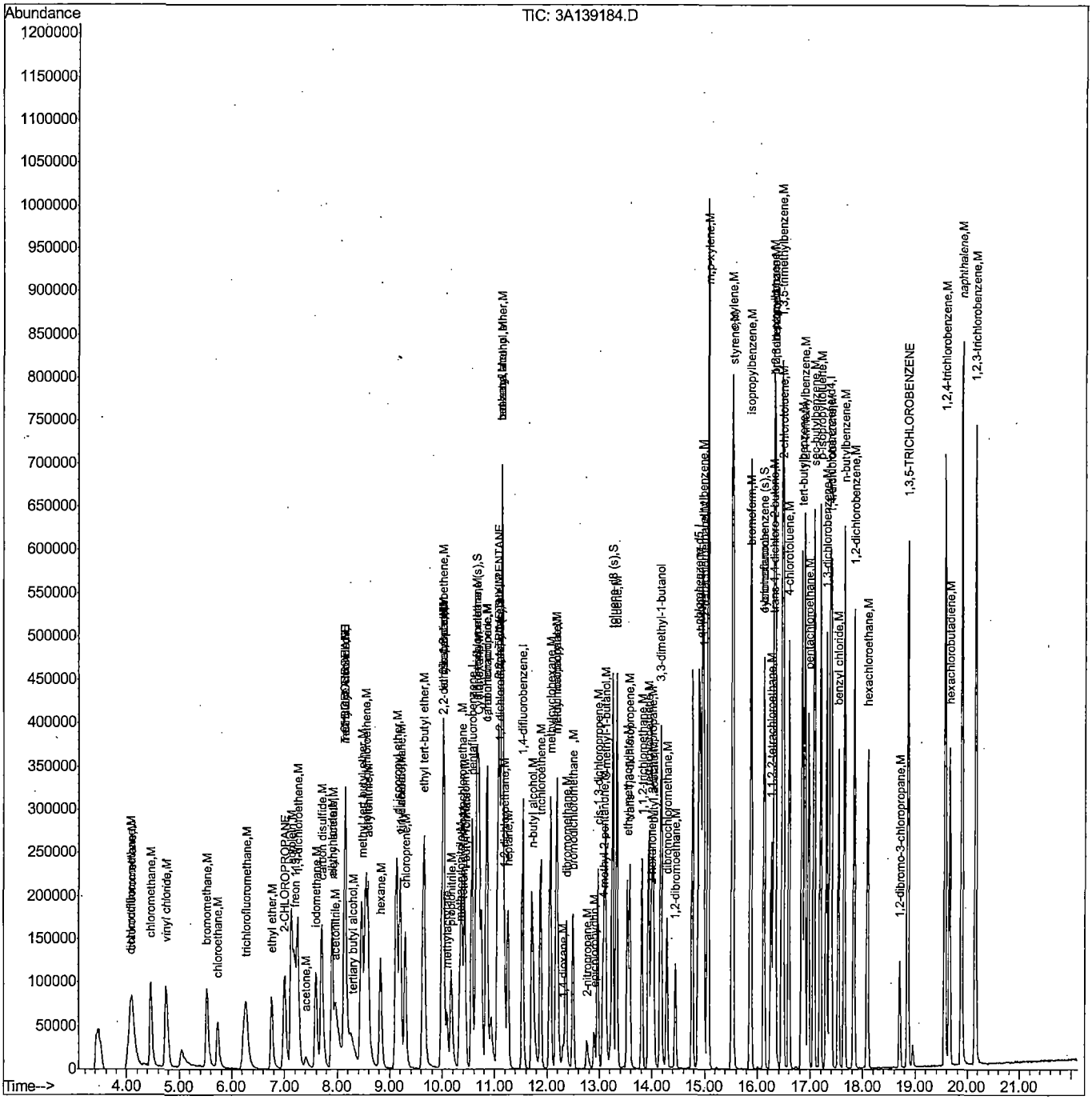
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139184.D
Acq On : 23 Feb 2015 7:02 pm
Operator : zobiah
Sample : jb88565-2msd
Misc : MS81194,V3A6023,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 24 10:11:38 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139220.D
Acq On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	189853	500.00 ug/L	0.02
5) pentafluorobenzene	10.57	168	283522	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.54	114	349718	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	300232	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166670	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	113576	54.23 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.46%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	116590	58.68 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 117.36%		
79) toluene-d8 (s)	13.25	98	384929	49.50 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.00%		
104) 4-bromofluorobenzene (s)	16.12	95	138799	54.31 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.62%		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.29	59	112022	295.37 ug/L	91
4) 1,4-dioxane	12.31	88	48907	1211.50 ug/L	95
8) chlorodifluoromethane	4.10	51	171830	61.35 ug/L	96
9) dichlorodifluoromethane	4.06	85	218573	47.58 ug/L	97
10) chloromethane	4.46	50	199167	59.44 ug/L	98
11) vinyl chloride	4.77	62	231088	57.03 ug/L	99
12) bromomethane	5.53	94	113515	46.85 ug/L	95
15) 2-CHLOROPROPANE	7.00	43	187707	57.86 ug/L	98
16) chloroethane	5.74	64	82386	51.10 ug/L	93
17) trichlorofluoromethane	6.27	101	223021	53.63 ug/L	95
19) 1-CHLOROPROPANE	8.16	42	198222	64.40 ug/L	94
20) ethyl ether	6.76	74	65925	60.28 ug/L	93
21) acrolein	7.14	56	272874	577.31 ug/L	97
22) 1,1-dichloroethene	7.26	96	125277	54.05 ug/L	98
23) acetone	7.40	43	40805	64.98 ug/L	92
24) allyl chloride	7.90	76	67738	59.63 ug/L	88
25) acetonitrile	7.97	40	91226	554.71 ug/L	93
26) iodomethane	7.60	142	260780	53.21 ug/L	99
27) iso-butyl alcohol	11.14	74	40995	584.81 ug/L #	27
28) carbon disulfide	7.72	76	532594	58.90 ug/L	99
29) methylene chloride	8.15	84	153043	56.93 ug/L	96
30) methyl acetate	7.91	43	106007	72.80 ug/L	99
31) methyl tert butyl ether	8.47	73	423277	54.88 ug/L	98
32) trans-1,2-dichloroethene	8.54	61	176287	56.78 ug/L	98
33) di-isopropyl ether	9.13	45	403582	65.04 ug/L	96
34) 2-butanone	10.02	72	14728	60.97 ug/L #	70
35) 1,1-dichloroethane	9.21	63	241957	63.51 ug/L	97
36) chloroprene	9.30	53	159814	64.15 ug/L	98
37) acrylonitrile	8.59	53	242589	328.24 ug/L	99
38) vinyl acetate	9.20	86	17250	52.28 ug/L	98
39) ethyl tert-butyl ether	9.65	59	451997	60.13 ug/L	98
40) ethyl acetate	10.01	45	15098	68.13 ug/L #	1
41) 2,2-dichloropropane	10.00	77	211713	53.44 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139220.D
Acq On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	138165	54.28 ug/L	98
43) methylacrylate	10.10	85	17898	57.75 ug/L	99
44) propionitrile	10.17	54	203954	698.21 ug/L	98
45) bromochloromethane	10.37	128	68009	51.73 ug/L	95
46) tetrahydrofuran	10.40	42	38538	61.90 ug/L	100
47) chloroform	10.43	85	135387	55.27 ug/L	99
48) t-butyl formate	10.44	59	52090	25.63 ug/L #	91
51) freon 113	7.19	151	101142	55.38 ug/L	95
52) methacrylonitrile	10.34	41	117203	92.19 ug/L	94
53) 1,1,1-trichloroethane	10.65	97	201799	54.96 ug/L	97
54) Cyclohexane	10.70	84	195042	50.65 ug/L	96
56) epichlorohydrin	12.90	57	54931	280.95 ug/L	99
57) n-butyl alcohol	11.72	56	228878	3407.82 ug/L	95
58) carbon tetrachloride	10.85	117	165384	45.10 ug/L	98
59) 1,1-dichloropropene	10.84	75	148304	50.75 ug/L	96
61) hexane	8.82	57	119836	57.43 ug/L	96
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	429773	52.89 ug/L	98
63) benzene	11.13	78	469945	52.06 ug/L	100
64) tert-amyl methyl ether	11.15	87	100800	51.35 ug/L	92
65) heptane	11.26	57	63711	53.91 ug/L	92
66) isopropyl acetate	11.07	43	271386	60.45 ug/L	96
67) 1,2-dichloroethane	11.19	62	146763	53.85 ug/L	99
69) trichloroethene	11.88	95	113728	51.03 ug/L	99
71) methyl methacrylate	12.17	69	73271	58.08 ug/L	94
72) 2-nitropropane	12.76	41	26223	41.48 ug/L	98
74) 1,2-dichloropropane	12.18	63	118456	53.45 ug/L	99
75) dibromomethane	12.36	93	76673	52.89 ug/L	99
76) methylcyclohexane	12.06	83	194723	48.36 ug/L	99
77) bromodichloromethane	12.50	83	157216	53.32 ug/L	97
78) cis-1,3-dichloropropene	12.97	75	188517	53.58 ug/L	99
80) 4-methyl-2-pentanone	13.08	58	48547	56.66 ug/L	93
81) toluene	13.33	92	261798	51.62 ug/L	98
82) 3-methyl-1-butanol	13.11	55	139542	1335.66 ug/L	95
83) trans-1,3-dichloropropene	13.58	75	167059	53.95 ug/L	96
84) ethyl methacrylate	13.54	69	139930	55.31 ug/L	97
85) 1,1,2-trichloroethane	13.82	83	85449	50.62 ug/L	97
86) 2-hexanone	13.98	58	44157	55.75 ug/L	90
88) tetrachloroethene	13.94	164	88205	49.01 ug/L	95
90) 1,3-dichloropropane	14.01	76	166449	54.44 ug/L	99
91) butyl acetate	14.04	56	77945	65.05 ug/L	97
92) 3,3-dimethyl-1-butanol	14.17	57	210030	616.81 ug/L	98
93) dibromochloromethane	14.29	129	117845	52.35 ug/L	99
94) 1,2-dibromoethane	14.45	107	102557	51.13 ug/L	100
95) chlorobenzene	14.92	112	293183	49.31 ug/L	99
96) 1,1,1,2-tetrachloroethane	14.98	131	125291	48.93 ug/L	98
97) ethylbenzene	14.96	91	493705	50.64 ug/L	98
98) m,p-xylene	15.07	106	379706	101.30 ug/L	95
99) o-xylene	15.52	106	200945	51.93 ug/L	96
100) styrene	15.54	104	316634	50.35 ug/L	98
101) bromoform	15.87	173	82120	47.76 ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139220.D
Acq On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) isopropylbenzene	15.88	105	519762	53.74 ug/L	99
105) cyclohexanone	16.13	98	25456	145.78 ug/L	95
106) bromobenzene	16.34	156	131266	51.75 ug/L	99
107) 1,1,2,2-tetrachloroethane	16.26	83	163190	57.89 ug/L	95
108) trans-1,4-dichloro-2-buten	16.30	53	38883	59.28 ug/L	92
109) 1,2,3-trichloropropane	16.34	110	37850	56.10 ug/L	88
110) n-propylbenzene	16.32	120	125382	50.72 ug/L	91
111) 2-chlorotoluene	16.49	126	126926	51.99 ug/L	94
112) 4-chlorotoluene	16.60	126	124350	52.38 ug/L	96
113) 1,3,5-trimethylbenzene	16.47	105	437905	51.90 ug/L	99
114) tert-butylbenzene	16.85	119	388346	50.85 ug/L	99
115) pentachloroethane	16.97	167	100335	55.06 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	432673	51.75 ug/L	99
117) sec-butylbenzene	17.08	105	566294	48.02 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	260690	49.45 ug/L	96
119) p-isopropyltoluene	17.20	119	460279	46.41 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	262944	47.70 ug/L	98
121) 1,2-dichlorobenzene	17.84	146	268004	47.42 ug/L	97
122) benzyl chloride	17.54	91	342644	59.64 ug/L	99
123) n-butylbenzene	17.65	92	226752	44.82 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.71	75	36702	54.66 ug/L	94
125) 1,3,5-TRICHLOROBENZENE	18.86	180	235234	40.31 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	255043	40.53 ug/L	98
127) hexachlorobutadiene	19.66	225	97936	35.46 ug/L	98
128) naphthalene	19.89	128	793100	47.99 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	288854	40.92 ug/L	98
130) hexachloroethane	18.09	201	86614	41.32 ug/L	98

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

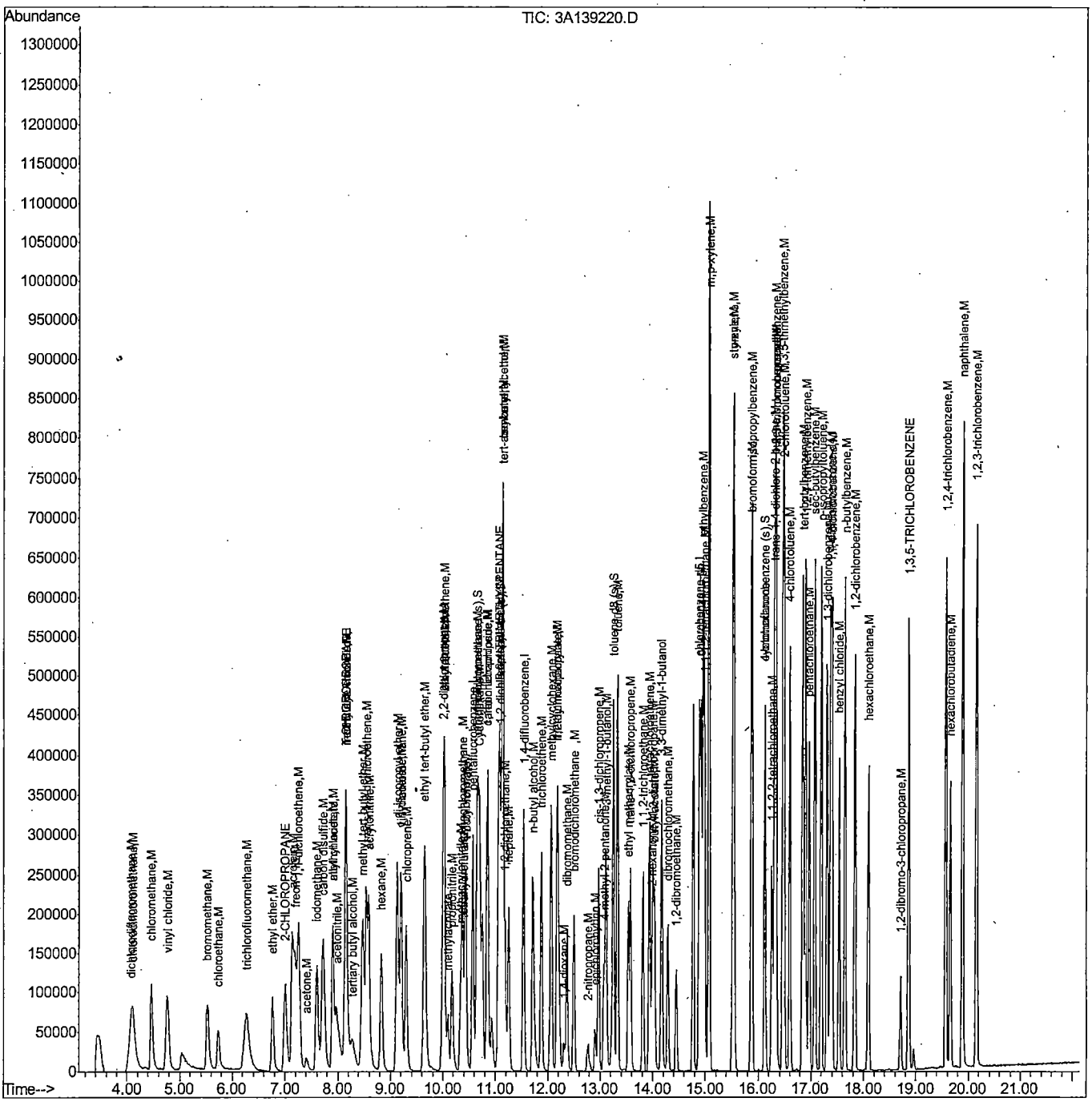
7.4.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139220.D
Acq On : 24 Feb 2015 1:39 pm
Operator : zobiah
Sample : jb88562-2ms
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 24 14:41:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



7.4.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On : 24 Feb 2015 2:10 pm
Operator : zobiah
Sample : jb88562-2msd
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	206993	500.00 ug/L	0.02
5) pentafluorobenzene	10.57	168	294151	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	361732	50.00 ug/L	0.00
87) chlorobenzene-d5	14.89	117	310978	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	176539	50.00 ug/L	0.00
System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	117282	53.98 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.96%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	118590	57.53 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 115.06%		
79) toluene-d8 (s)	13.25	98	398903	49.60 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.20%		
104) 4-bromofluorobenzene (s)	16.13	95	147105	54.34 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.68%		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.28	59	120916	292.42 ug/L	94
4) 1,4-dioxane	12.31	88	53726	1220.67 ug/L	93
8) chlorodifluoromethane	4.11	51	173367	59.66 ug/L	96
9) dichlorodifluoromethane	4.06	85	219059	45.96 ug/L	98
10) chloromethane	4.46	50	216053	62.15 ug/L	98
11) vinyl chloride	4.76	62	243330	57.89 ug/L	98
12) bromomethane	5.53	94	116882	46.50 ug/L	99
15) 2-CHLOROPROPANE	7.01	43	186547	55.42 ug/L	96
16) chloroethane	5.73	64	90334	54.01 ug/L	95
17) trichlorofluoromethane	6.27	101	210276	48.74 ug/L	97
19) 1-CHLOROPROPANE	8.16	42	201866	63.14 ug/L	92
20) ethyl ether	6.77	74	68032	59.96 ug/L	89
21) acrolein	7.13	56	272815	556.32 ug/L	100
22) 1,1-dichloroethene	7.26	96	130438	54.24 ug/L	91
23) acetone	7.40	43	42389	65.07 ug/L	91
24) allyl chloride	7.91	76	74557	63.26 ug/L	87
25) acetonitrile	7.98	40	86186	505.13 ug/L	95
26) iodomethane	7.60	142	281536	55.37 ug/L	98
27) iso-butyl alcohol	11.14	74	42755	587.87 ug/L #	85
28) carbon disulfide	7.72	76	550009	58.63 ug/L	99
29) methylene chloride	8.15	84	164963	59.14 ug/L	95
30) methyl acetate	7.91	43	102691	67.98 ug/L	99
31) methyl tert butyl ether	8.47	73	470047	58.75 ug/L	100
32) trans-1,2-dichloroethene	8.54	61	183939	57.10 ug/L	96
33) di-isopropyl ether	9.13	45	402356	62.50 ug/L	99
34) 2-butanone	10.01	72	15533	61.98 ug/L #	63
35) 1,1-dichloroethane	9.20	63	250886	63.48 ug/L	99
36) chloroprene	9.30	53	151357	58.56 ug/L	98
37) acrylonitrile	8.58	53	261417	340.93 ug/L	99
38) vinyl acetate	9.20	86	17380	50.88 ug/L	79
39) ethyl tert-butyl ether	9.65	59	469075	60.15 ug/L	97
40) ethyl acetate	10.01	45	15228	66.29 ug/L #	7
41) 2,2-dichloropropane	10.00	77	218195	53.08 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On : 24 Feb 2015 2:10 pm
Operator : zobiah
Sample : jb88562-2msd
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	148324	56.16 ug/L	95
43) methylacrylate	10.10	85	18969	58.92 ug/L	99
44) propionitrile	10.17	54	220433	727.36 ug/L	99
45) bromochloromethane	10.37	128	73659	54.00 ug/L	95
46) tetrahydrofuran	10.39	42	40222	62.27 ug/L	97
47) chloroform	10.43	85	145353	57.20 ug/L	97
48) t-butyl formate	10.44	59	30398	14.42 ug/L #	72
51) freon 113	7.20	151	94820	50.04 ug/L	95
52) methacrylonitrile	10.33	41	109317	83.35 ug/L	94
53) 1,1,1-trichloroethane	10.65	97	209607	55.02 ug/L	99
54) Cyclohexane	10.69	84	194188	48.61 ug/L	96
56) epichlorohydrin	12.90	57	51299	253.66 ug/L	97
57) n-butyl alcohol	11.71	56	246777	3552.29 ug/L	94
58) carbon tetrachloride	10.85	117	171241	45.15 ug/L	95
59) 1,1-dichloropropene	10.84	75	153549	50.80 ug/L	96
61) hexane	8.83	57	110560	51.22 ug/L	93
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	404548	48.13 ug/L	96
63) benzene	11.13	78	500699	53.63 ug/L	99
64) tert-amyl methyl ether	11.14	87	104916	51.68 ug/L	96
65) heptane	11.26	57	60642	49.61 ug/L	91
66) isopropyl acetate	11.06	43	268761	57.88 ug/L	97
67) 1,2-dichloroethane	11.19	62	158134	56.09 ug/L	98
69) trichloroethene	11.88	95	119238	51.72 ug/L	98
71) methyl methacrylate	12.17	69	80215	61.47 ug/L	97
72) 2-nitropropane	12.76	41	28352	43.35 ug/L	93
74) 1,2-dichloropropane	12.18	63	128479	56.05 ug/L	98
75) dibromomethane	12.36	93	81514	54.36 ug/L	94
76) methylcyclohexane	12.06	83	181831	43.66 ug/L	97
77) bromodichloromethane	12.50	83	167851	55.04 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	202749	55.71 ug/L	98
80) 4-methyl-2-pentanone	13.08	58	53508	60.38 ug/L	93
81) toluene	13.33	92	274444	52.31 ug/L	100
82) 3-methyl-1-butanol	13.11	55	151258	1399.72 ug/L	97
83) trans-1,3-dichloropropene	13.58	75	177106	55.30 ug/L	97
84) ethyl methacrylate	13.54	69	151707	57.98 ug/L	99
85) 1,1,2-trichloroethane	13.81	83	93194	53.38 ug/L	98
86) 2-hexanone	13.98	58	49014	59.82 ug/L	95
88) tetrachloroethene	13.94	164	92046	49.38 ug/L	94
90) 1,3-dichloropropane	14.00	76	180416	56.97 ug/L	98
91) butyl acetate	14.04	56	78896	63.57 ug/L	92
92) 3,3-dimethyl-1-butanol	14.17	57	226208	639.26 ug/L	97
93) dibromochloromethane	14.29	129	125250	53.71 ug/L	94
94) 1,2-dibromoethane	14.45	107	110946	53.40 ug/L	100
95) chlorobenzene	14.92	112	312044	50.67 ug/L	97
96) 1,1,1,2-tetrachloroethane	14.98	131	137385	51.80 ug/L	97
97) ethylbenzene	14.96	91	519440	51.43 ug/L	98
98) m,p-xylene	15.07	106	403493	103.92 ug/L	95
99) o-xylene	15.52	106	214697	53.56 ug/L	93
100) styrene	15.54	104	341637	52.45 ug/L	99
101) bromoform	15.86	173	90580	50.86 ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On : 24 Feb 2015 2:10 pm
Operator : zobiah
Sample : jb88562-2msd
Misc : MS81224,V3A6024,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) isopropylbenzene	15.88	105	550190	53.71 ug/L	100
105) cyclohexanone	16.12	98	28981	156.69 ug/L	93
106) bromobenzene	16.34	156	142910	53.19 ug/L	96
107) 1,1,2,2-tetrachloroethane	16.26	83	176586	59.14 ug/L	96
108) trans-1,4-dichloro-2-buten	16.30	53	42573	61.28 ug/L	97
109) 1,2,3-trichloropropane	16.34	110	42355	59.27 ug/L	85
110) n-propylbenzene	16.32	120	134877	51.52 ug/L	96
111) 2-chlorotoluene	16.49	126	134385	51.97 ug/L	87
112) 4-chlorotoluene	16.60	126	134634	53.54 ug/L	96
113) 1,3,5-trimethylbenzene	16.47	105	466394	52.19 ug/L	98
114) tert-butylbenzene	16.85	119	423037	52.30 ug/L	99
115) pentachloroethane	16.97	167	108547	56.24 ug/L	96
116) 1,2,4-trimethylbenzene	16.90	105	466929	52.73 ug/L	99
117) sec-butylbenzene	17.07	105	608981	48.75 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	280970	50.32 ug/L	98
119) p-isopropyltoluene	17.20	119	501987	47.79 ug/L	100
120) 1,4-dichlorobenzene	17.40	146	285961	48.97 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	294486	49.19 ug/L	96
122) benzyl chloride	17.54	91	350754	57.64 ug/L	98
123) n-butylbenzene	17.65	92	248088	46.29 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.70	75	41102	57.80 ug/L	99
125) 1,3,5-TRICHLOROBENZENE	18.86	180	264081	42.72 ug/L	97
126) 1,2,4-trichlorobenzene	19.57	180	290622	43.60 ug/L	98
127) hexachlorobutadiene	19.66	225	105901	36.20 ug/L	96
128) naphthalene	19.89	128	890633	50.88 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	324311	43.37 ug/L	97
130) hexachloroethane	18.09	201	92519	41.64 ug/L	96

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

7.4.4 7

Quantitation Report (QT Reviewed)

```
Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139221.D
Acq On    : 24 Feb 2015   2:10 pm
Operator  : zobiah
Sample    : jb88562-2msd
Misc      : MS81224,V3A6024,5.0,,,,1
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Feb 24 14:41:31 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title  : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration
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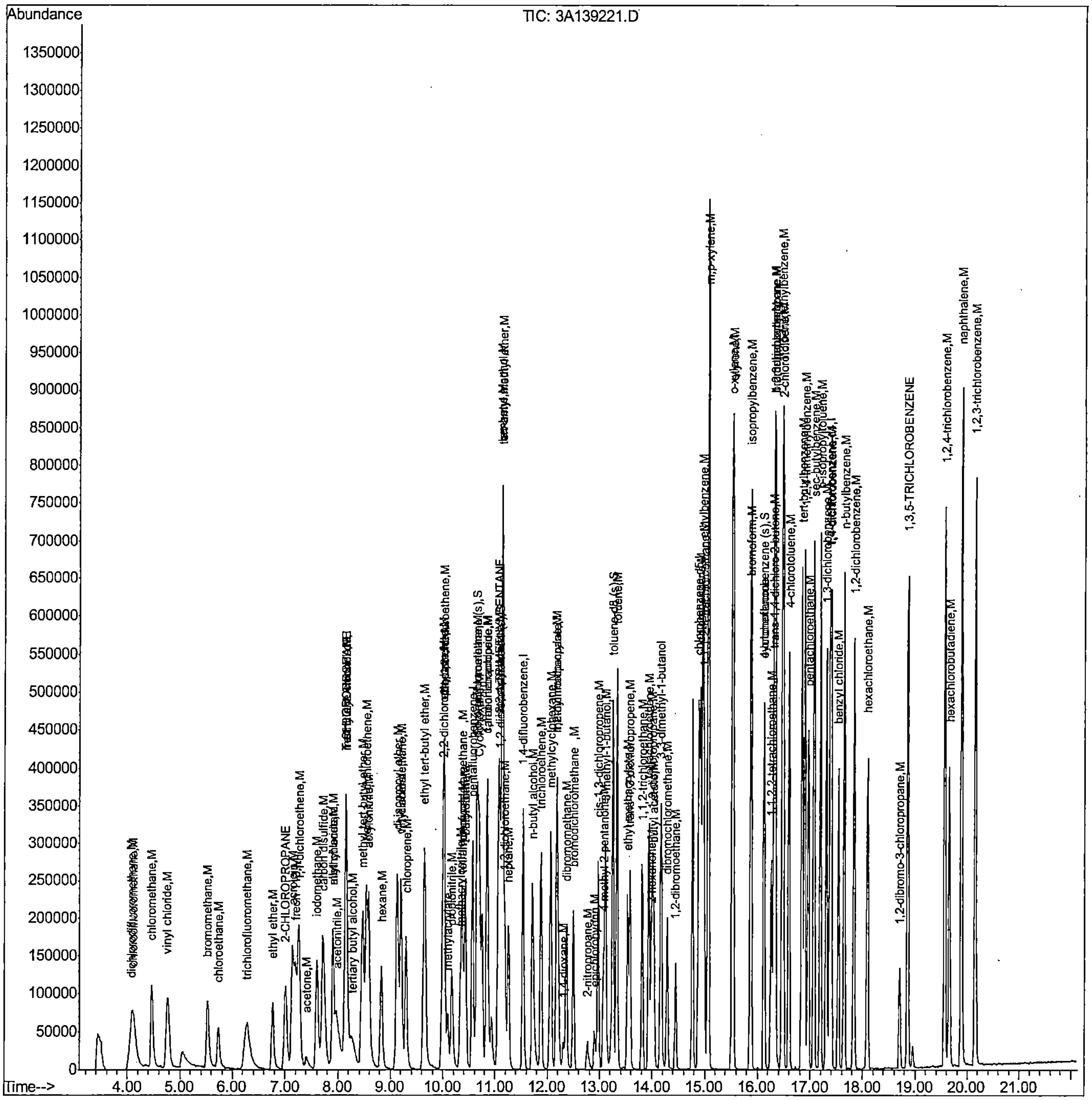


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	93891	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	265615	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	315881	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	292775	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	154195	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	123942	41.75	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 83.50%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	125820	44.04	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 88.08%			
75) toluene-d8 (s)	12.278	98	421118	43.85	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.70%			
100) 4-bromofluorobenzene (s)	15.130	95	161439	42.68	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 85.36%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	32717	1336.42	ug/L	93
3) tertiary butyl alcohol	7.129	59	74288	289.84	ug/L	97
5) chlorodifluoromethane	3.359	51	76988	36.42	ug/L	93
6) dichlorodifluoromethane	3.349	85	124223	46.54	ug/L	98
7) chloromethane	3.658	50	146159	43.11	ug/L	99
8) vinyl chloride	3.910	62	129455	39.15	ug/L	99
10) bromomethane	4.586	94	103220	40.52	ug/L	98
11) chloroethane	4.785	64	63494	38.71	ug/L	97
12) trichlorofluoromethane	5.315	101	156487	43.62	ug/L	99
14) ethyl ether	5.787	74	63687	46.25	ug/L	96
16) 2-chloropropane	5.965	43	171154	40.56	ug/L	95
17) acrolein	6.007	56	204152	313.99	ug/L	99
18) 1,1-dichloroethene	6.217	96	95996	37.81	ug/L	95
19) acetone	6.269	43	32212	45.69	ug/L	91
20) allyl chloride	6.809	76	54074	42.02	ug/L	86
21) acetonitrile	6.720	40	72433	497.68	ug/L	100
22) iodomethane	6.489	142	218589	44.23	ug/L	96
23) iso-butyl alcohol	9.850	41	43564	486.25	ug/L	96
24) carbon disulfide	6.631	76	350641	36.18	ug/L	98
25) methylene chloride	7.003	84	133991	42.56	ug/L	97
26) 1-chloropropane	7.071	42	180112	42.07	ug/L	97
27) methyl acetate	6.814	74	21023	41.80	ug/L #	88
28) methyl tert butyl ether	7.454	73	364555	48.74	ug/L	97
29) trans-1,2-dichloroethene	7.459	96	114194	40.15	ug/L	97
30) di-isopropyl ether	8.178	45	399545	46.86	ug/L	98
31) ethyl tert-butyl ether	8.702	59	393848	47.91	ug/L	99
32) 2-butanone	8.917	72	14049	45.57	ug/L	92
33) 1,1-dichloroethane	8.099	63	240421	46.43	ug/L	99
34) chloroprene	8.246	53	146152	41.73	ug/L	95
35) acrylonitrile	7.365	53	219048	220.45	ug/L	97
36) vinyl acetate	8.136	86	15466	43.73	ug/L	87
37) ethyl acetate	8.975	45	16388	44.95	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) 2,2-dichloropropane	8.948	77	166835	47.60 ug/L	99
39) cis-1,2-dichloroethene	8.927	96	136377	42.96 ug/L	100
40) propionitrile	8.980	54	183969	447.92 ug/L	99
41) methyl acrylate	9.043	55	110761	44.64 ug/L	100
42) bromochloromethane	9.258	128	72735	47.63 ug/L	98
43) tetrahydrofuran	9.326	42	36108	43.67 ug/L	95
44) chloroform	9.342	83	226536	44.77 ug/L	99
47) freon 113	6.243	151	66605	39.94 ug/L	95
48) methacrylonitrile	9.200	41	75342	48.23 ug/L	95
49) 1,1,1-trichloroethane	9.630	97	213889	56.36 ug/L	99
50) tert-amyl methyl ether	10.201	73	366397	46.91 ug/L	99
52) epichlorohydrin	11.832	57	50168	188.62 ug/L	100
53) n-butyl alcohol	10.658	56	175821	2303.67 ug/L	93
54) cyclohexane	9.735	84	132090	37.12 ug/L	88
56) carbon tetrachloride	9.861	117	151652	46.27 ug/L	99
57) 1,1-dichloropropene	9.834	75	147604	40.57 ug/L	99
58) hexane	7.884	57	112089	35.76 ug/L	97
59) benzene	10.102	78	464898	43.07 ug/L	99
60) ISO-OCTANE	10.191	57	323353	36.20 ug/L #	89
61) heptane	10.385	57	62931	36.47 ug/L	99
62) isopropyl acetate	10.086	43	224112	49.11 ug/L	97
63) 1,2-dichloroethane	10.097	62	175047	54.30 ug/L	99
64) trichloroethene	10.873	95	121972	43.88 ug/L	98
66) 2-nitropropane	11.675	43	32840	50.38 ug/L	98
68) methyl methacrylate	11.198	41	110846	50.74 ug/L	91
69) 1,2-dichloropropane	11.140	63	135318	46.18 ug/L	94
70) methylcyclohexane	11.140	83	146980	37.23 ug/L	99
72) dibromomethane	11.282	93	92492	48.74 ug/L	98
73) bromodichloromethane	11.439	83	187016	51.79 ug/L	99
74) cis-1,3-dichloropropene	11.947	75	228633	49.47 ug/L	94
76) 4-methyl-2-pentanone	12.084	58	52948	48.30 ug/L	91
77) toluene	12.356	92	290955	45.62 ug/L	99
78) 3-methyl-1-butanol	12.099	70	66749	962.03 ug/L	97
79) trans-1,3-dichloropropene	12.550	75	213396	50.89 ug/L	95
80) ethyl methacrylate	12.603	69	173070	50.83 ug/L	95
81) 1,1,2-trichloroethane	12.771	83	110671	49.11 ug/L	98
82) 2-hexanone	13.001	58	50851	47.66 ug/L	92
84) tetrachloroethene	12.986	166	154152	55.24 ug/L	99
85) 1,3-dichloropropane	12.970	76	202629	48.21 ug/L	99
86) butyl acetate	13.106	56	84217	46.52 ug/L	92
87) dibromochloromethane	13.242	129	160957	53.35 ug/L	99
88) 1,2-dibromoethane	13.400	107	134432	48.58 ug/L	97
89) n-Butyl Ether	13.919	57	541365	45.91 ug/L	100
90) chlorobenzene	13.924	112	344560	46.22 ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	137174	51.86 ug/L	98
92) ethylbenzene	14.013	91	560524	45.06 ug/L	99
93) m,p-xylene	14.129	106	425482	90.97 ug/L	95
94) o-xylene	14.574	106	221753	47.82 ug/L	98
95) styrene	14.579	104	383003	49.66 ug/L	98
97) bromoform	14.815	173	110012	51.61 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	14.946	105	536275	44.09	ug/L	98
101)	bromobenzene	15.324	156	161420	48.93	ug/L	95
102)	cyclohexanone	15.072	55	47144	288.07	ug/L	94
103)	1,1,2,2-tetrachloroethane	15.224	83	186179	43.67	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	40557	46.57	ug/L	90
105)	1,2,3-trichloropropane	15.298	110	41412	47.43	ug/L	95
106)	n-propylbenzene	15.376	91	617285	42.55	ug/L	99
107)	2-chlorotoluene	15.502	126	140381	45.48	ug/L	100
108)	4-chlorotoluene	15.607	91	417151	44.70	ug/L	99
109)	1,3,5-trimethylbenzene	15.534	105	462720	45.64	ug/L	99
110)	tert-butylbenzene	15.890	119	375775	44.54	ug/L	100
111)	pentachloroethane	15.937	167	103964	51.67	ug/L	98
112)	1,2,4-trimethylbenzene	15.932	105	464803	46.00	ug/L	99
113)	sec-butylbenzene	16.110	105	570797	42.06	ug/L	99
114)	1,3-dichlorobenzene	16.262	146	292513	46.03	ug/L	99
115)	p-isopropyltoluene	16.231	119	481261	44.86	ug/L	100
116)	1,4-dichlorobenzene	16.346	146	296873	45.92	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	295077	48.26	ug/L	99
118)	n-butylbenzene	16.635	92	250208	42.05	ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	31114	46.57	ug/L	97
120)	1,3,5-trichlorobenzene	17.652	180	228384	47.43	ug/L	100
121)	1,2,4-trichlorobenzene	18.223	180	215432	48.36	ug/L	98
122)	hexachlorobutadiene	18.354	225	95117	44.08	ug/L	99
123)	naphthalene	18.480	128	502241	47.75	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	200858	49.19	ug/L	99
125)	hexachloroethane	16.996	119	102366	45.09	ug/L	98
126)	Benzyl chloride	16.456	91	327780	51.15	ug/L	100

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

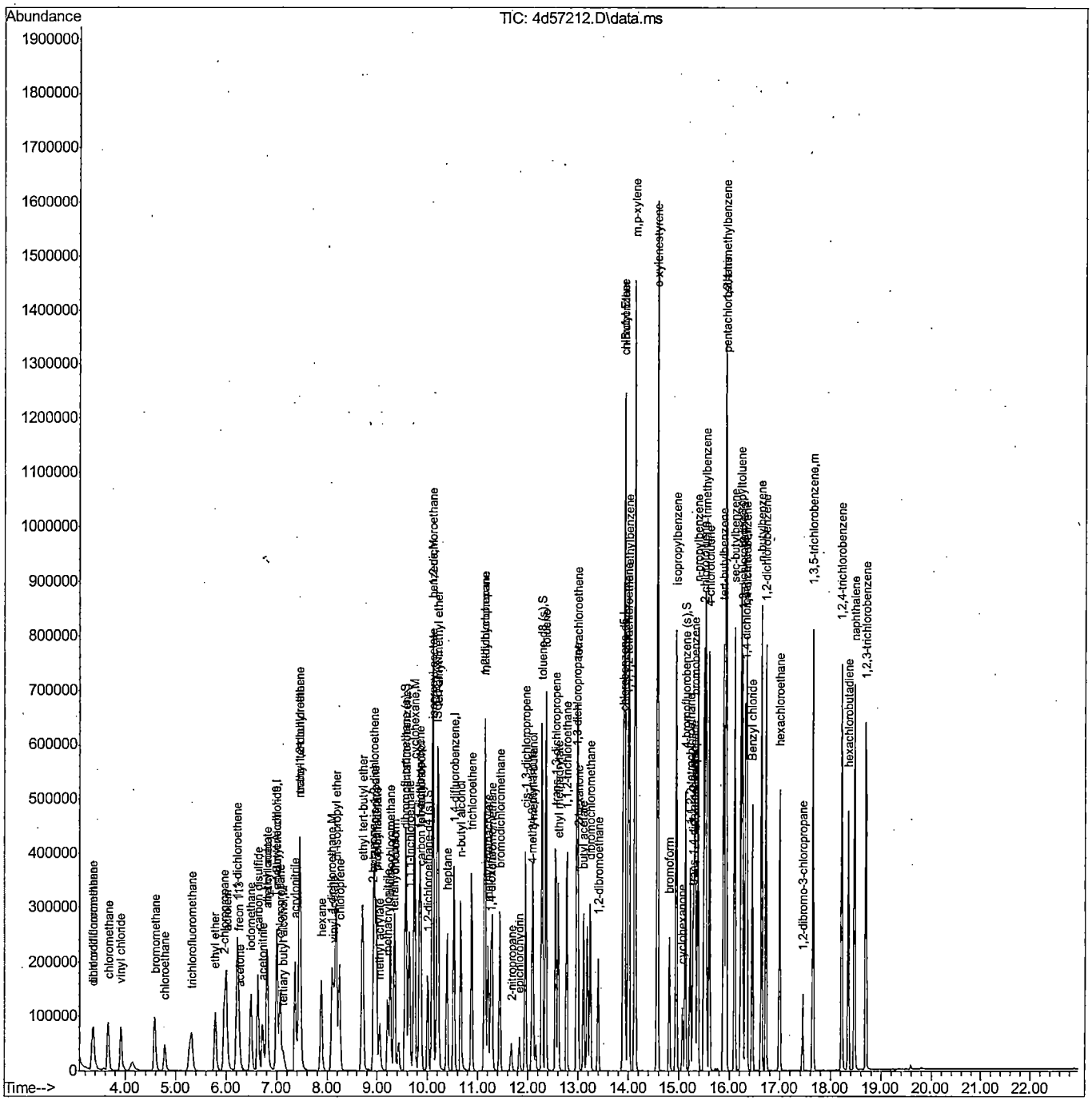
7.4.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57212.D
Acq On : 26 Feb 2015 3:28 pm
Operator : PayalR
Sample : jb88565-7ms
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 26 16:02:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	96644	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	274578	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	326137	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	300309	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	158462	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	126759	41.30	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.60%			
46) 1,2-dichloroethane-d4 (s)	10.002	65	126148	42.72	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 85.44%			
75) toluene-d8 (s)	12.278	98	432302	43.60	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 87.20%			
100) 4-bromofluorobenzene (s)	15.130	95	166395	42.81	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 85.62%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	33862	1343.79	ug/L	98
3) tertiary butyl alcohol	7.129	59	76362	289.45	ug/L	96
5) chlorodifluoromethane	3.365	51	75763	34.68	ug/L	95
6) dichlorodifluoromethane	3.359	85	120032	43.50	ug/L	99
7) chloromethane	3.658	50	146136	41.69	ug/L	99
8) vinyl chloride	3.915	62	128379	37.56	ug/L	99
10) bromomethane	4.586	94	105183	39.94	ug/L	100
11) chloroethane	4.785	64	63266	37.31	ug/L	95
12) trichlorofluoromethane	5.315	101	153410	41.37	ug/L	100
14) ethyl ether	5.787	74	65315	45.88	ug/L	98
16) 2-chloropropane	5.970	43	168080	38.53	ug/L	95
17) acrolein	6.002	56	205013	305.03	ug/L	99
18) 1,1-dichloroethene	6.222	96	94988	36.19	ug/L	99
19) acetone	6.274	43	34462	47.29	ug/L	93
20) allyl chloride	6.815	76	53218	40.01	ug/L #	83
21) acetonitrile	6.725	40	75019	498.62	ug/L	99
22) iodomethane	6.495	142	223118	43.67	ug/L	97
23) iso-butyl alcohol	9.850	41	43458	469.23	ug/L	98
24) carbon disulfide	6.631	76	350218	34.96	ug/L	97
25) methylene chloride	7.009	84	136497	41.94	ug/L	96
26) 1-chloropropane	7.071	42	175571	39.67	ug/L	97
27) methyl acetate	6.815	74	20804	40.01	ug/L	89
28) methyl tert butyl ether	7.459	73	371191	48.01	ug/L	97
29) trans-1,2-dichloroethene	7.459	96	112871	38.39	ug/L	96
30) di-isopropyl ether	8.178	45	405413	46.00	ug/L	99
31) ethyl tert-butyl ether	8.702	59	403210	47.44	ug/L	99
32) 2-butanone	8.912	72	13946	43.76	ug/L	91
33) 1,1-dichloroethane	8.104	63	242205	45.25	ug/L	99
34) chloroprene	8.246	53	141160	38.99	ug/L	96
35) acrylonitrile	7.365	53	221915	216.04	ug/L	96
36) vinyl acetate	8.136	86	16017	43.81	ug/L	88
37) ethyl acetate	8.975	45	15874	42.12	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	164231	45.33 ug/L	100
39) cis-1,2-dichloroethene	8.927	96	137826	42.00 ug/L	99
40) propionitrile	8.980	54	183955	433.27 ug/L	99
41) methyl acrylate	9.048	55	110828	43.21 ug/L	98
42) bromochloromethane	9.258	128	74156	46.98 ug/L	97
43) tetrahydrofuran	9.326	42	35800	41.89 ug/L	97
44) chloroform	9.342	83	226617	43.33 ug/L	98
47) freon 113	6.248	151	65379	37.93 ug/L	89
48) methacrylonitrile	9.205	41	75640	46.84 ug/L	98
49) 1,1,1-trichloroethane	9.635	97	211361	53.88 ug/L	98
50) tert-amyl methyl ether	10.202	73	376482	46.62 ug/L	99
52) epichlorohydrin	11.832	57	47951	174.61 ug/L	100
53) n-butyl alcohol	10.658	56	180635	2292.32 ug/L	94
54) cyclohexane	9.735	84	128793	35.05 ug/L	89
56) carbon tetrachloride	9.861	117	147352	43.55 ug/L	99
57) 1,1-dichloropropene	9.835	75	144165	38.38 ug/L	98
58) hexane	7.884	57	107922	33.34 ug/L	94
59) benzene	10.102	78	463377	41.58 ug/L	100
60) ISO-OCTANE	10.196	57	318443	34.53 ug/L #	88
61) heptane	10.385	57	60115	33.74 ug/L	99
62) isopropyl acetate	10.086	43	224457	47.64 ug/L	97
63) 1,2-dichloroethane	10.097	62	175035	52.59 ug/L	99
64) trichloroethene	10.873	95	119825	41.75 ug/L	98
66) 2-nitropropane	11.675	43	33399	49.63 ug/L	97
68) methyl methacrylate	11.198	41	111831	49.58 ug/L	91
69) 1,2-dichloropropane	11.140	63	137105	45.32 ug/L	94
70) methylcyclohexane	11.140	83	144504	35.45 ug/L	98
72) dibromomethane	11.282	93	93358	47.65 ug/L	98
73) bromodichloromethane	11.439	83	187641	50.33 ug/L	99
74) cis-1,3-dichloropropene	11.947	75	229268	48.05 ug/L	94
76) 4-methyl-2-pentanone	12.084	58	53845	47.57 ug/L	92
77) toluene	12.356	92	288666	43.84 ug/L	97
78) 3-methyl-1-butanol	12.100	70	67373	940.49 ug/L	96
79) trans-1,3-dichloropropene	12.550	75	214909	49.64 ug/L	96
80) ethyl methacrylate	12.603	69	174568	49.66 ug/L	94
81) 1,1,2-trichloroethane	12.771	83	111053	47.73 ug/L	98
82) 2-hexanone	13.001	58	50779	46.10 ug/L	90
84) tetrachloroethene	12.991	166	149941	52.39 ug/L	97
85) 1,3-dichloropropane	12.970	76	203436	47.19 ug/L	99
86) butyl acetate	13.106	56	84186	45.34 ug/L	92
87) dibromochloromethane	13.242	129	162430	52.49 ug/L	99
88) 1,2-dibromoethane	13.400	107	136064	47.94 ug/L	99
89) n-Butyl Ether	13.919	57	547006	45.23 ug/L	100
90) chlorobenzene	13.924	112	351538	45.97 ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	137822	50.80 ug/L	98
92) ethylbenzene	14.013	91	552454	43.30 ug/L	98
93) m,p-xylene	14.134	106	425573	88.71 ug/L	98
94) o-xylene	14.574	106	221430	46.55 ug/L	96
95) styrene	14.579	104	385215	48.69 ug/L	98
97) bromoform	14.815	173	111838	51.15 ug/L	98

7.4.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194,V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	14.952	105	530651	42.45	ug/L	99
101)	bromobenzene	15.324	156	163344	48.18	ug/L	95
102)	cyclohexanone	15.072	55	48320	287.31	ug/L	95
103)	1,1,2,2-tetrachloroethane	15.224	83	187886	42.88	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	41336	46.19	ug/L	90
105)	1,2,3-trichloropropane	15.298	110	42475	47.33	ug/L	95
106)	n-propylbenzene	15.376	91	611273	41.00	ug/L	99
107)	2-chlorotoluene	15.507	126	139848	44.09	ug/L	97
108)	4-chlorotoluene	15.607	91	420372	43.83	ug/L	99
109)	1,3,5-trimethylbenzene	15.534	105	465357	44.67	ug/L	99
110)	tert-butylbenzene	15.890	119	371257	42.82	ug/L	100
111)	pentachloroethane	15.943	167	107892	52.18	ug/L	97
112)	1,2,4-trimethylbenzene	15.932	105	475908	45.83	ug/L	99
113)	sec-butylbenzene	16.110	105	567976	40.73	ug/L	99
114)	1,3-dichlorobenzene	16.262	146	296112	45.34	ug/L	100
115)	p-isopropyltoluene	16.231	119	477134	43.28	ug/L	99
116)	1,4-dichlorobenzene	16.346	146	300282	45.20	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	302726	48.18	ug/L	99
118)	n-butylbenzene	16.635	92	246509	40.31	ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	31727	46.21	ug/L	99
120)	1,3,5-trichlorobenzene	17.652	180	235309	47.55	ug/L	100
121)	1,2,4-trichlorobenzene	18.223	180	222663	48.64	ug/L	100
122)	hexachlorobutadiene	18.354	225	94761	42.74	ug/L	99
123)	naphthalene	18.480	128	519453	48.06	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	209160	49.84	ug/L	99
125)	hexachloroethane	16.997	119	101181	43.36	ug/L	97
126)	Benzyl chloride	16.456	91	327921	49.79	ug/L	100

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

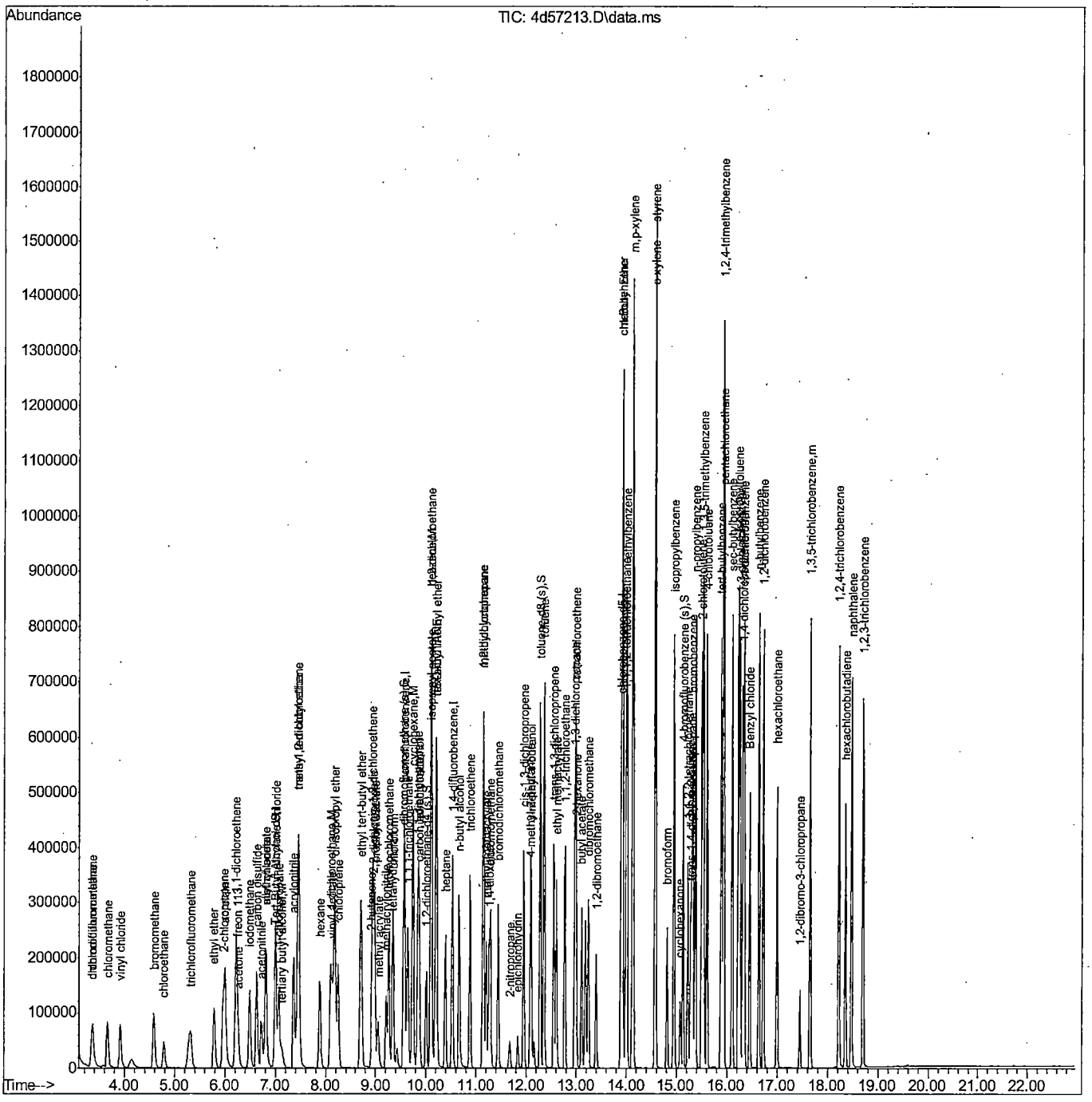
7.4.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57213.D
Acq On : 26 Feb 2015 3:56 pm
Operator : PayalR
Sample : jb88565-7msd
Misc : MS81194;V4D2537,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 27 08:34:42 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:18:51 2015
Response via : Initial Calibration

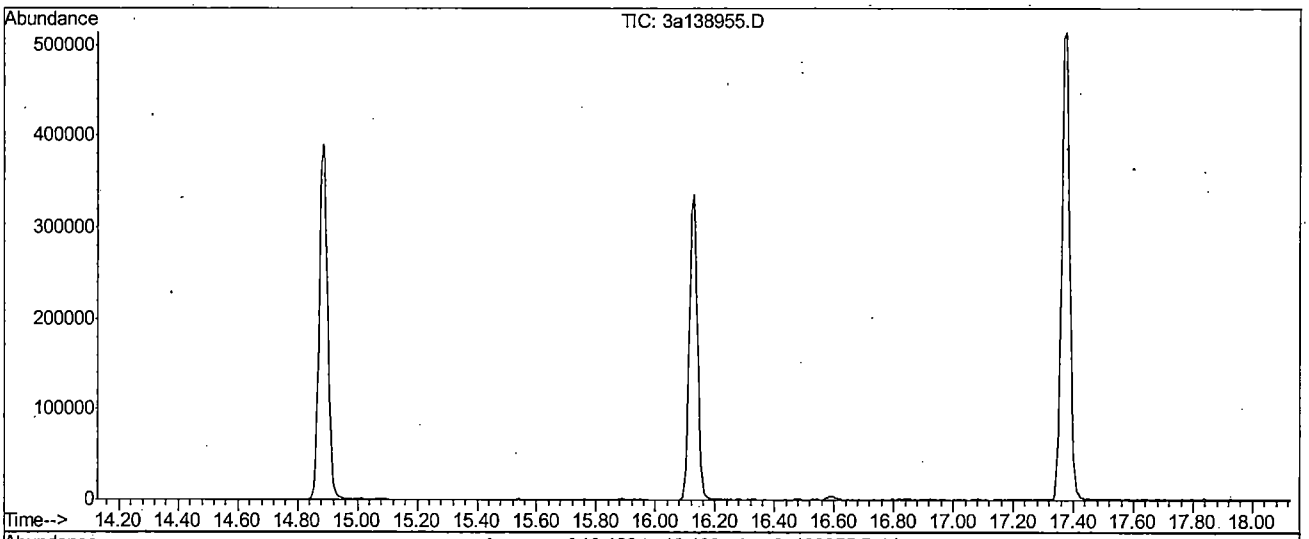


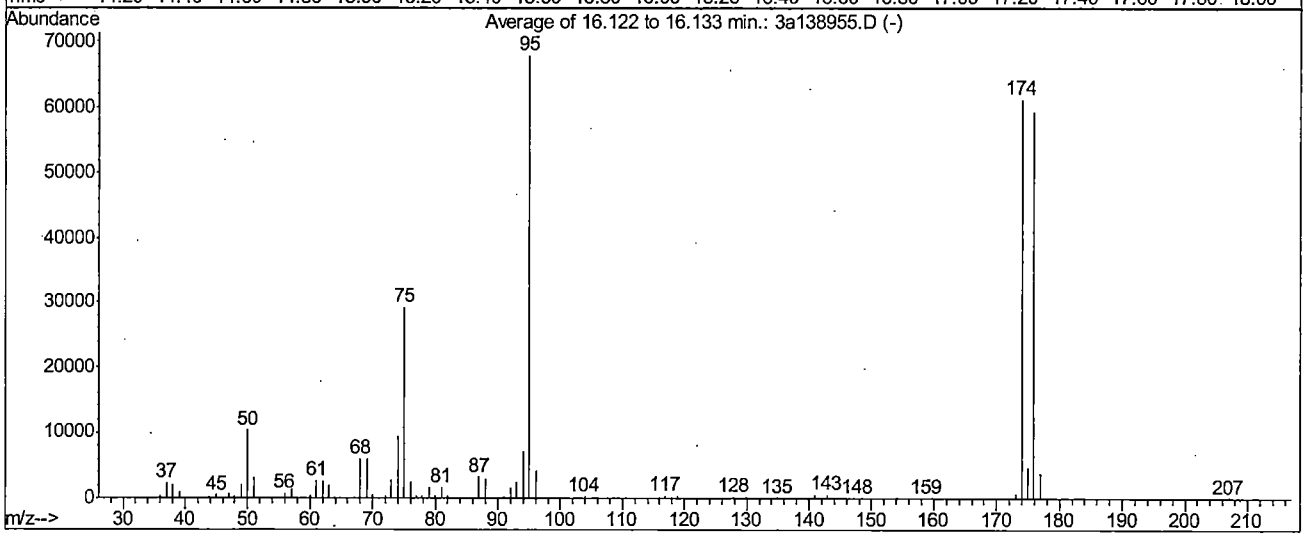
SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\3a138955.D
Acq On : 13 Feb 2015 3:38 pm
Sample : bfb
Misc : MS80458,V3A6014,5.0,,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: zobiah
Inst : MS3A
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2498, 2499, 2500; Background Corrected with Scan 2489

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	10412	PASS
75	95	30	60	43.1	29280	PASS
95	95	100	100	100.0	67885	PASS
96	95	5	9	6.1	4165	PASS
173	174	0.00	2	1.0	639	PASS
174	95	50	120	90.2	61242	PASS
175	174	5	9	7.6	4654	PASS
176	174	95	101	96.7	59237	PASS
177	176	5	9	6.6	3886	PASS

3a138955.D M3A6014.M Mon Feb 16 12:38:40 2015 ACCUNJ

Average of 16.122 to 16.133 min.: 3a138955.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	330	52.00	137	69.00	5878	80.95	1633
37.00	2265	54.90	72	70.00	482	81.85	303
38.05	2034	56.00	775	72.00	286	86.95	3233
39.05	851	57.05	1363	73.00	2726	87.90	2996
43.95	186	60.00	431	74.00	9392	90.90	247
45.00	484	61.00	2665	75.00	29280	92.00	1589
47.05	765	62.00	2600	76.00	2510	93.00	2467
48.00	332	63.00	1931	76.90	432	94.00	7120
49.00	2047	63.95	127	77.95	361	95.00	67885
50.00	10412	66.95	178	78.90	1588	96.00	4165
51.05	3143	68.00	5978	79.90	427	96.90	53

Average of 16.122 to 16.133 min.: 3a138955.D
bfb
Modified:subtracted

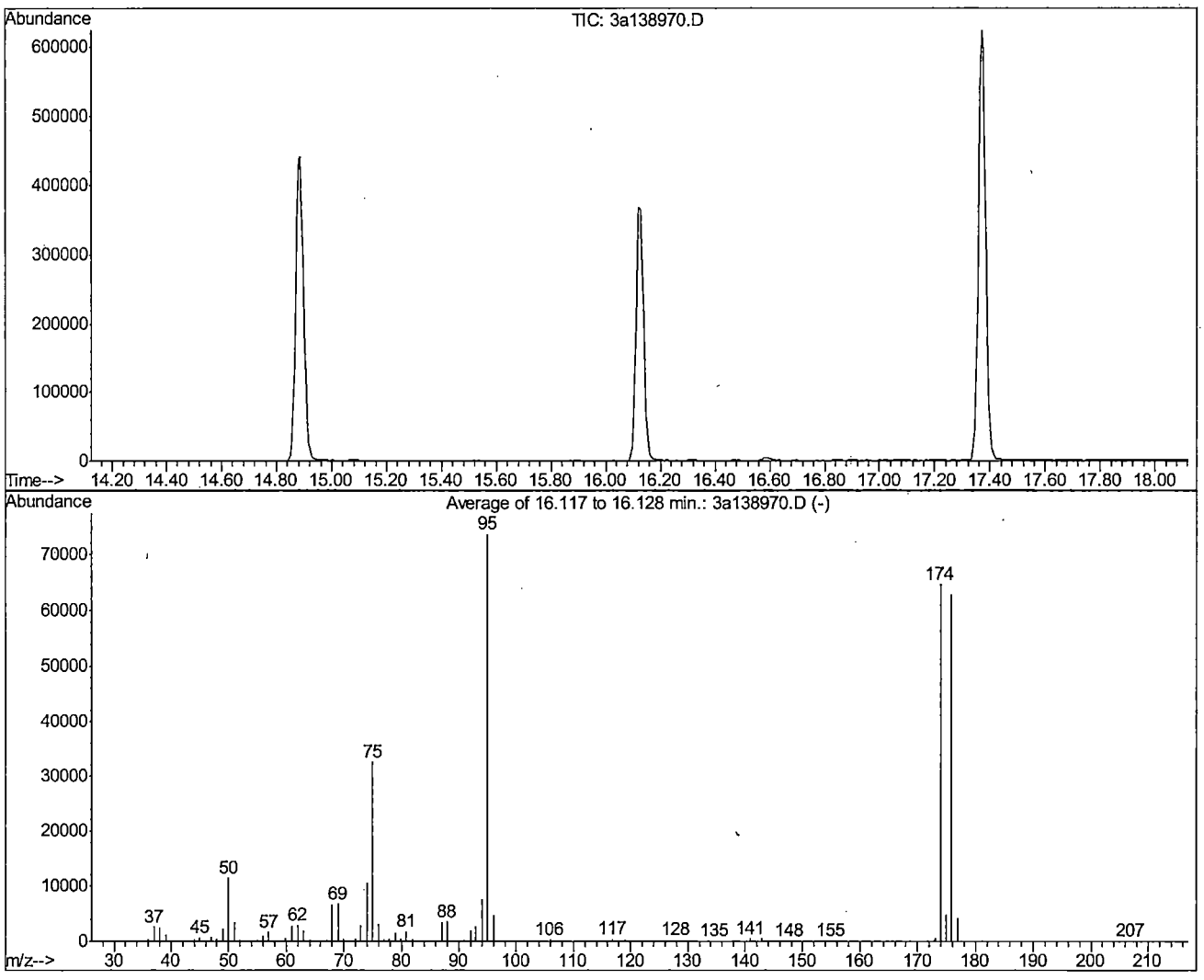
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.95	277	140.95	513				
105.00	56	142.90	577				
105.90	236	147.80	68				
115.90	128	154.70	51				
116.85	394	158.90	55				
117.80	71	173.00	639				
117.95	121	173.90	61242				
118.85	336	174.95	4654				
127.95	267	175.90	59237				
129.95	253	176.90	3886				
134.85	171	207.00	135				

SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\3a138970.D
Acq On : 16 Feb 2015 10:21 am
Sample : bfb
Misc : MS80458,V3A6014,5.0,,,,1
MS Integration Params: rteint.p

Vial: 3
Operator: zobiah
Inst : MS3A
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um



AutoFind: Scans 2497, 2498, 2499; Background Corrected with Scan 2488

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.5	11455	PASS
75	95	30	60	44.2	32578	PASS
95	95	100	100	100.0	73666	PASS
96	95	5	9	6.5	4779	PASS
173	174	0.00	2	0.9	585	PASS
174	95	50	120	87.8	64645	PASS
175	174	5	9	7.4	4755	PASS
176	174	95	101	97.1	62776	PASS
177	176	5	9	6.7	4227	PASS

3a138970.D M3A6014.M Mon Feb 16 12:40:51 2015 ACCUNJ

Average of 16.117 to 16.128 min.: 3a138970.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	469	51.00	3376	68.00	6535	79.95	474
37.00	2612	52.00	126	69.00	6786	80.90	1736
38.00	2428	55.05	135	70.00	467	81.90	345
39.05	1049	56.00	927	72.00	377	87.00	3461
39.90	186	57.00	1695	73.00	2793	87.95	3550
44.00	325	59.95	609	74.00	10581	91.00	274
45.05	569	61.00	2726	75.00	32578	91.95	1880
46.95	715	62.00	2910	76.00	2934	93.00	2674
47.95	385	63.00	1890	76.90	462	94.00	7568
49.00	2252	64.05	204	77.95	318	95.00	73666
50.00	11455	66.95	212	78.90	1514	96.00	4779

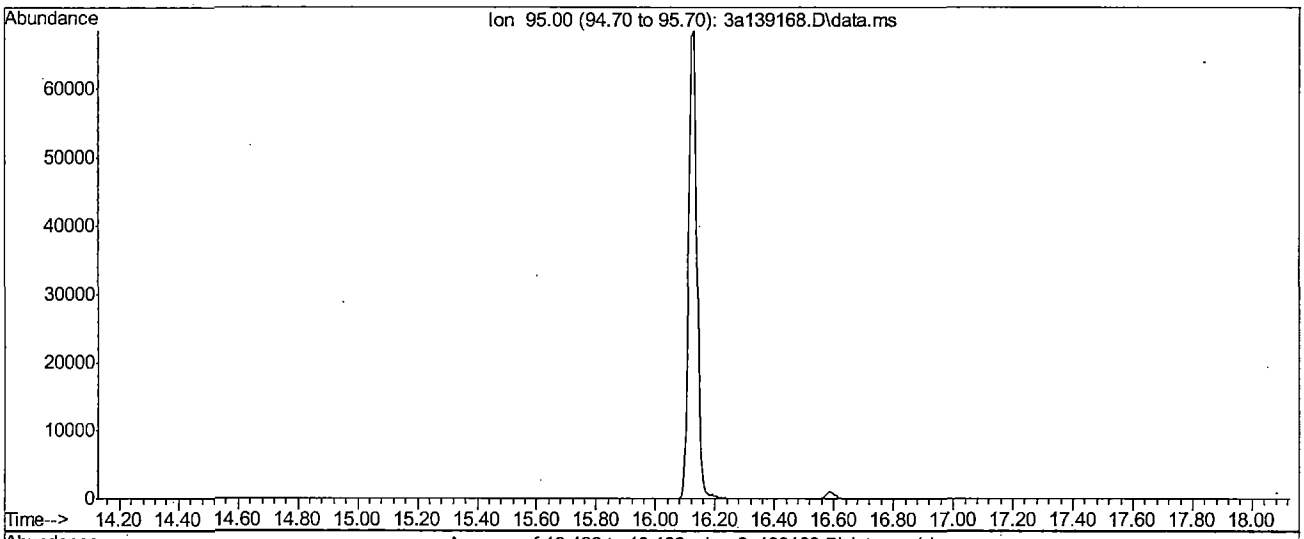
Average of 16.117 to 16.128 min.: 3a138970.D
bfb
Modified:subtracted

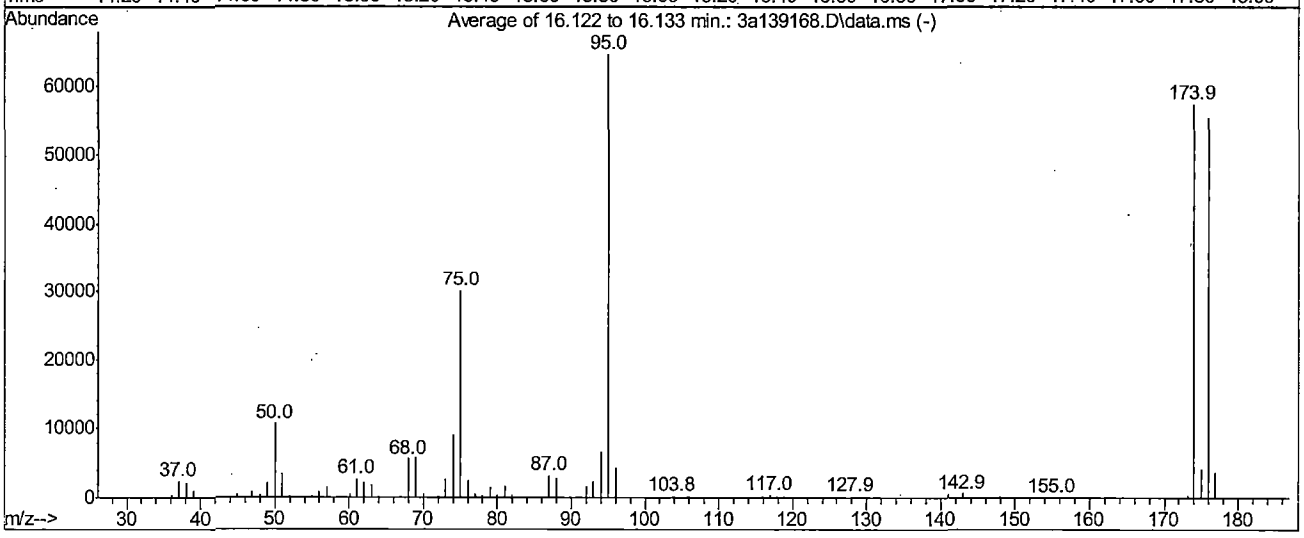
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	205	130.00	68	175.90	62776		
103.80	91	134.80	59	176.95	4227		
103.95	183	136.80	50	177.80	56		
105.90	302	140.95	544	207.00	79		
115.95	146	142.90	528				
116.85	431	147.85	141				
117.85	241	154.95	171				
118.80	94	172.90	155				
118.95	221	173.05	585				
127.95	235	173.90	64645				
129.80	127	174.95	4755				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\3A\v3A6023\3a139168.D Vial: 1
Acq On : 23 Feb 2015 9:52 am Operator: zobiah
Sample : BFB Inst : MS3A
Misc : MS81093,V3A6023,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2498, 2499, 2500; Background Corrected with Scan 2488

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	10699	PASS
75	95	30	60	46.7	30139	PASS
95	95	100	100	100.0	64493	PASS
96	95	5	9	6.8	4371	PASS
173	174	0.00	2	0.7	412	PASS
174	95	50	120	88.9	57344	PASS
175	174	5	9	7.1	4052	PASS
176	174	95	101	96.5	55339	PASS
177	176	5	9	6.5	3591	PASS

3a139168.D M3A6014.M Mon Feb 23 17:17:01 2015 RPT1

Average of 16.122 to 16.133 min.: 3a139168.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	410	51.05	3442	67.00	121	78.95	1536
37.00	2339	51.90	117	68.00	5615	79.90	403
38.05	2172	52.05	113	69.00	5744	80.95	1587
39.05	958	55.00	139	70.00	497	81.95	338
39.90	28	56.00	852	72.00	167	85.90	56
43.95	250	56.95	1562	73.00	2620	86.95	3173
45.00	491	60.05	484	74.00	9040	87.95	2885
46.95	824	61.00	2674	75.00	30139	90.95	140
48.00	330	62.00	2234	76.00	2500	92.00	1609
49.00	2208	63.05	1863	76.95	421	93.00	2383
50.00	10699	64.05	150	78.00	345	94.00	6677

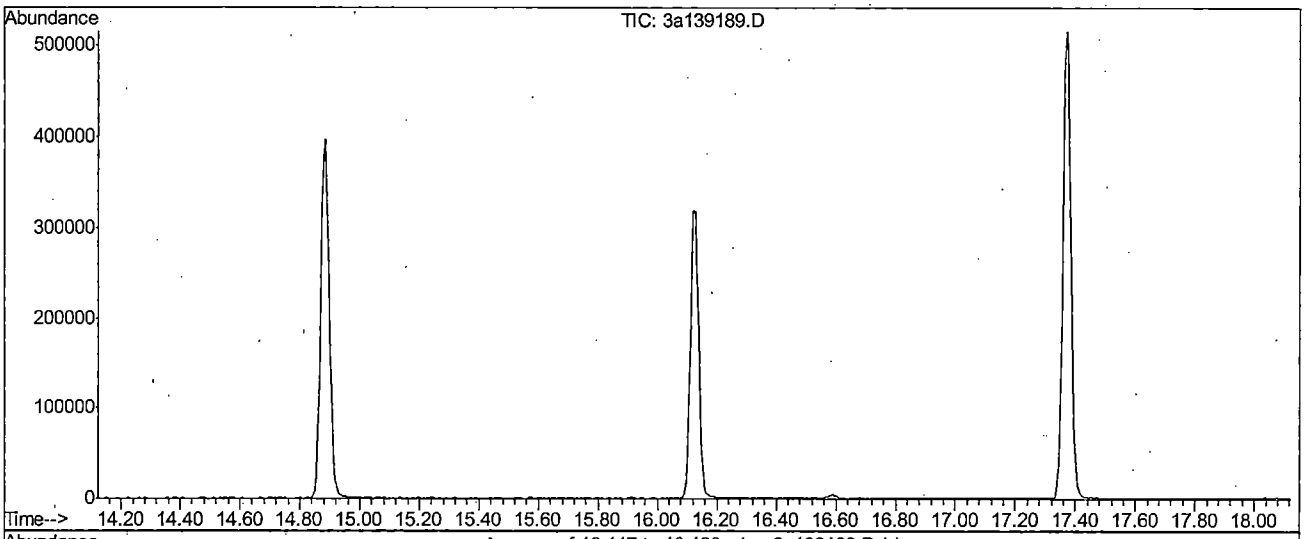
Average of 16.122 to 16.133 min.: 3a139168.D\data.ms
BFB
Modified:subtracted

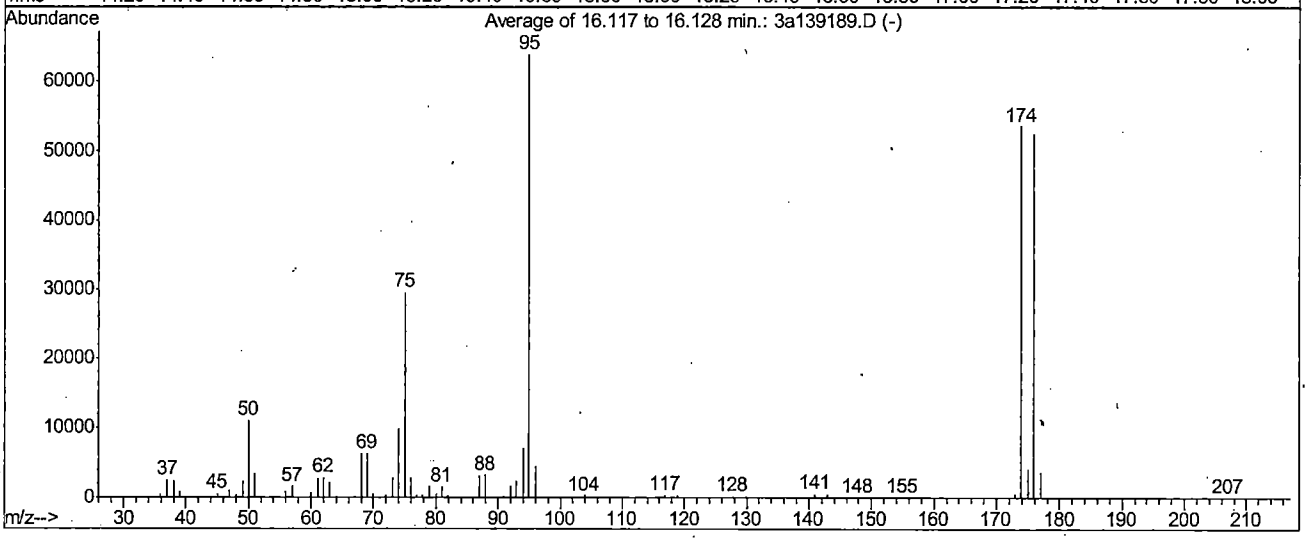
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	64493	118.85	230	173.90	57344		
96.00	4371	127.90	235	174.95	4052		
97.00	57	129.85	138	175.90	55339		
103.75	181	130.80	63	176.95	3591		
104.00	89	136.90	55				
105.80	88	140.95	486				
105.95	167	142.95	614				
115.90	198	147.85	177				
116.95	347	154.80	50				
117.95	147	155.00	51				
118.70	68	173.10	412				

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\3a139189.D Vial: 22
Acq On : 23 Feb 2015 9:32 pm Operator: zobiah
Sample : bfb Inst : MS3A
Misc : MS81194,V3A6024,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2497, 2498, 2499; Background Corrected with Scan 2487

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	11051	PASS
75	95	30	60	46.2	29517	PASS
95	95	100	100	100.0	63882	PASS
96	95	5	9	6.8	4346	PASS
173	174	0.00	2	0.8	436	PASS
174	95	50	120	83.9	53613	PASS
175	174	5	9	7.6	4067	PASS
176	174	95	101	98.0	52560	PASS
177	176	5	9	7.0	3685	PASS

3a139189.D M3A6014.M Tue Feb 24 10:22:06 2015 ACCUNJ

Average of 16.117 to 16.128 min.: 3a139189.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	455	51.00	3495	68.00	6195	78.90	1581
37.00	2475	51.95	115	69.00	6253	79.95	478
38.05	2350	55.00	113	69.95	437	80.95	1492
39.05	871	56.00	789	71.95	323	81.95	344
39.95	72	57.00	1562	73.00	2709	86.95	3106
44.00	219	60.00	594	74.00	9845	87.90	3228
45.00	536	61.00	2575	75.00	29517	90.90	221
47.00	917	62.00	2867	76.00	2869	92.00	1594
47.95	375	63.00	2052	76.95	392	93.00	2235
49.05	2354	63.95	127	77.85	288	94.00	7060
50.00	11051	67.00	131	78.10	87	95.00	63882

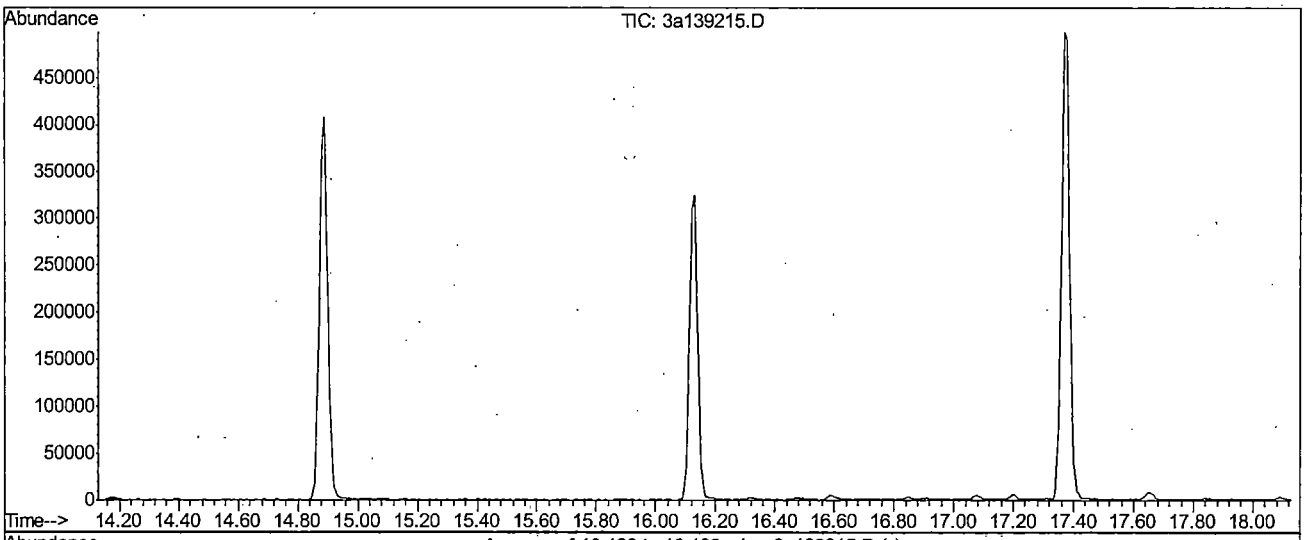
Average of 16.117 to 16.128 min.: 3a139189.D
bfb
Modified:subtracted

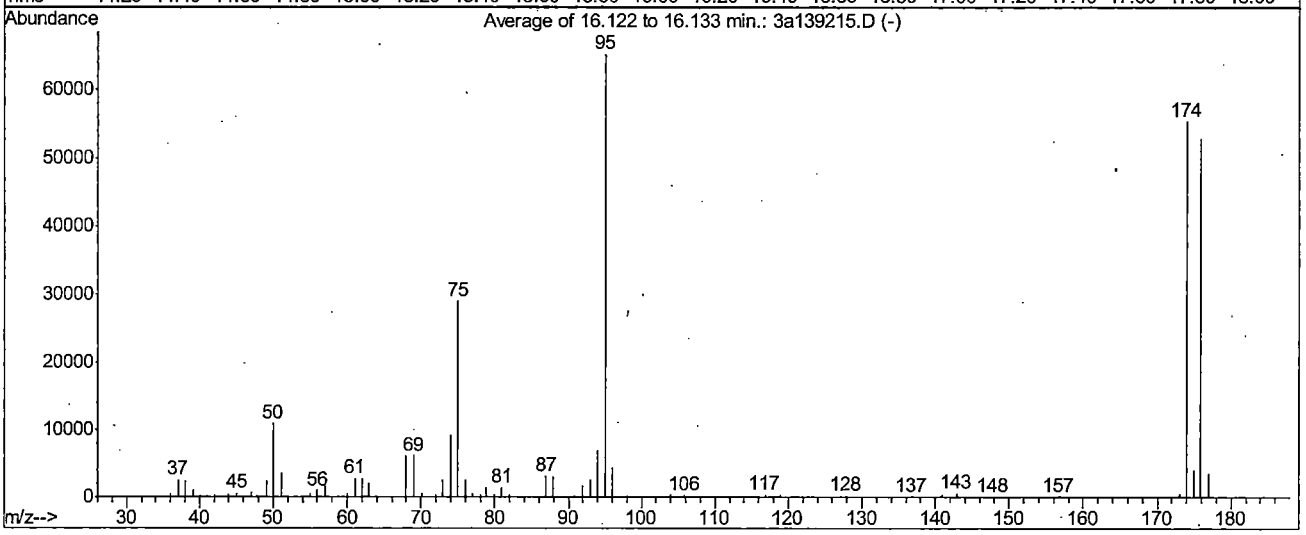
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	4346	142.90	479	207.10	82		
96.90	62	145.80	58				
103.95	265	147.90	50				
105.85	227	155.00	84				
115.95	196	157.00	76				
116.85	415	172.30	53				
117.85	244	172.95	436				
118.90	253	173.90	53613				
127.85	230	174.95	4067				
129.80	137	175.90	52560				
140.95	545	176.90	3685				

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\3a139215.D Vial: 1
Acq On : 24 Feb 2015 10:42 am Operator: zobiah
Sample : bfb Inst : MS3A
Misc : MS81224,V3A6025,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2498, 2499, 2500; Background Corrected with Scan 2488

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	10999	PASS
75	95	30	60	44.5	29045	PASS
95	95	100	100	100.0	65197	PASS
96	95	5	9	6.6	4288	PASS
173	174	0.00	2	0.8	461	PASS
174	95	50	120	85.0	55434	PASS
175	174	5	9	7.2	4012	PASS
176	174	95	101	95.5	52954	PASS
177	176	5	9	6.6	3503	PASS

3a139215.D M3A6014.M Tue Feb 24 14:45:07 2015 ACCUNJ

Average of 16.122 to 16.133 min.: 3a139215.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	436	48.10	59	63.00	1952	77.00	434
37.00	2565	49.00	2297	63.95	144	78.05	311
38.05	2274	50.00	10999	66.90	51	78.90	1425
39.05	1049	51.05	3560	68.00	6075	79.95	411
39.95	143	52.10	245	69.00	6171	80.90	1420
41.00	175	55.00	513	70.05	556	81.90	383
42.05	287	56.00	967	72.05	261	87.00	3169
44.00	349	57.00	1620	73.00	2510	87.95	2935
45.05	506	60.05	572	74.00	9263	90.85	212
47.00	757	61.00	2685	75.00	29045	92.00	1600
47.90	174	62.00	2600	76.00	2562	93.00	2472

Average of 16.122 to 16.133 min.: 3a139215.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	6870	129.90	54	172.80	211		
95.00	65197	134.90	52	173.05	461		
96.00	4288	136.85	115	173.90	55434		
98.10	114	140.80	150	174.95	4012		
103.95	261	140.95	361	175.90	52954		
105.85	269	142.90	571	176.90	3503		
115.95	207	147.80	73	178.00	57		
116.85	337	154.90	73				
117.95	119	156.80	117				
118.85	288	171.80	57				
127.95	198	172.10	67				

7.5.5

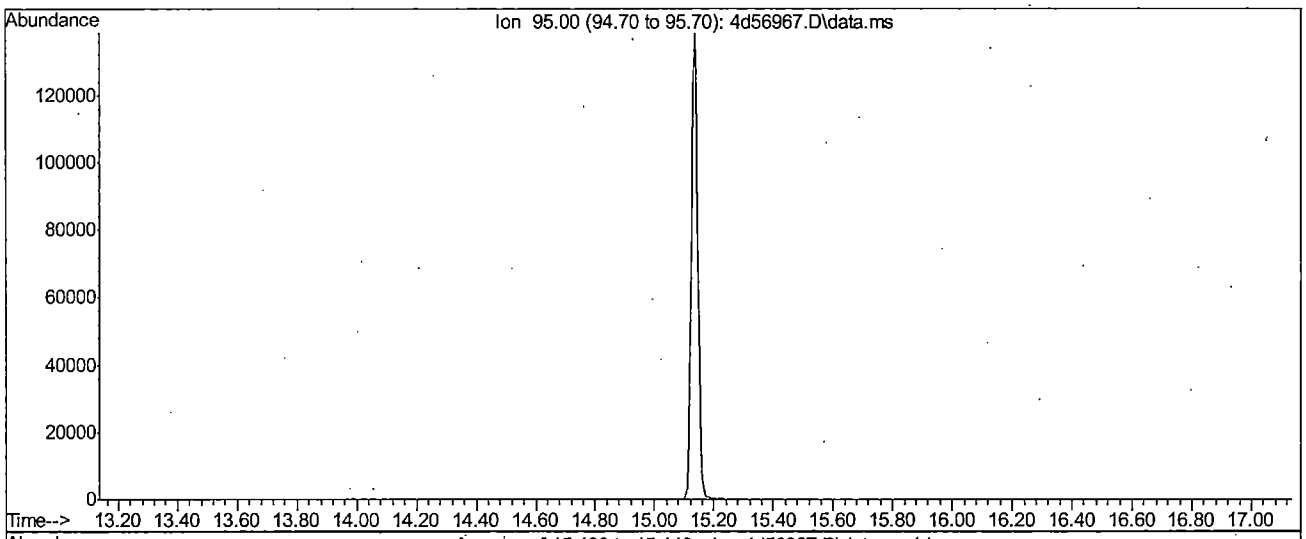
7

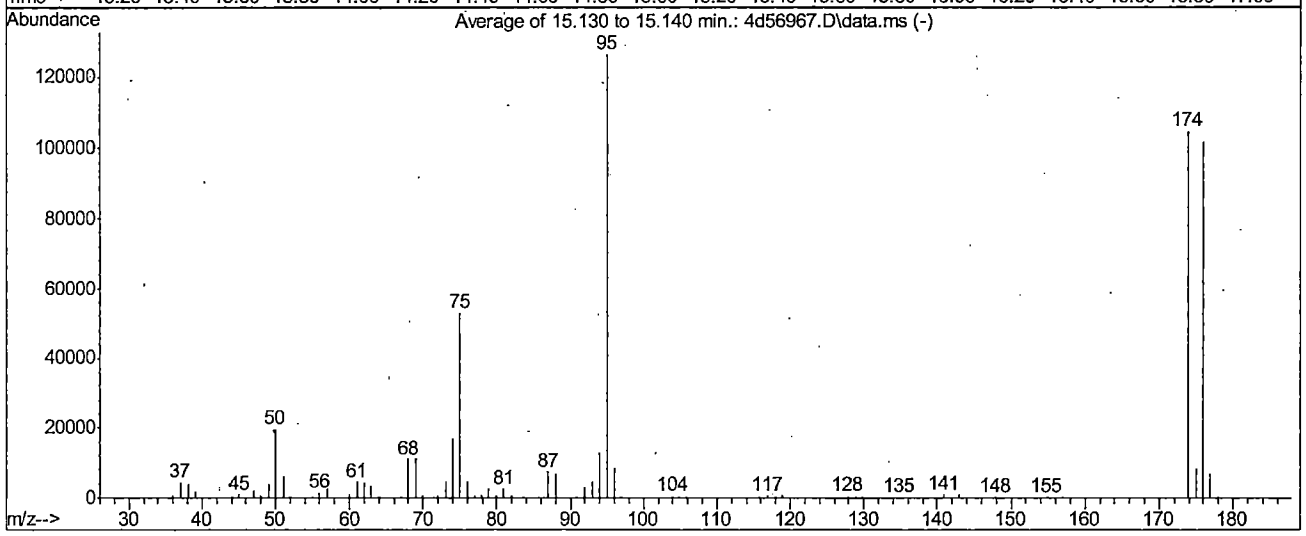
SW-846 Method 8260

Data File : C:\msdchem\1\data\4d56967.D
Acq On : 18 Feb 2015 4:13 pm
Sample : bfb
Misc : MS80920,V4D2528,5,,,,1
MS Integration Params: rteint.p

Vial: 1
Operator: PayalR
Inst : MS4D
Multiplr: 1.00

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C





AutoFind: Scans 2297, 2298, 2299; Background Corrected with Scan 2289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	19491	PASS
75	95	30	60	41.8	52832	PASS
95	95	100	100	100.0	126467	PASS
96	95	5	9	6.6	8304	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	82.8	104765	PASS
175	174	5	9	7.7	8046	PASS
176	174	95	101	97.2	101808	PASS
177	176	5	9	6.8	6876	PASS

4d56967.D M4D2528.M Thu Feb 19 08:59:57 2015 RPT1

7.5.6

7

Average of 15.130 to 15.140 min.: 4d56967.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	799	51.05	6142	67.00	271	78.90	2485
37.05	4270	52.05	274	68.00	10954	79.95	666
38.10	3914	55.00	250	69.00	10871	80.90	2493
39.05	1517	56.00	1361	70.00	804	81.90	504
39.95	43	57.00	2602	72.00	534	85.95	163
44.00	453	58.00	53	73.00	4431	87.00	7325
45.05	928	60.00	927	74.00	16708	88.00	6955
47.00	1831	61.00	4438	75.00	52832	90.90	349
48.00	613	62.00	4344	76.00	4509	92.00	2793
49.00	3930	63.00	3334	77.00	804	93.00	4412
50.00	19491	64.00	289	77.95	630	94.00	12718

Average of 15.130 to 15.140 min.: 4d56967.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	126467	128.85	192	173.90	104765		
96.00	8304	129.85	386	174.95	8046		
96.95	259	130.90	114	175.90	101808		
103.95	417	134.85	121	176.95	6876		
104.90	190	136.90	108	177.95	195		
105.85	404	140.90	838				
115.85	332	142.90	834				
116.90	611	145.90	123				
117.90	334	147.90	246				
118.90	515	154.90	279				
127.90	403	156.90	182				

7.5.6

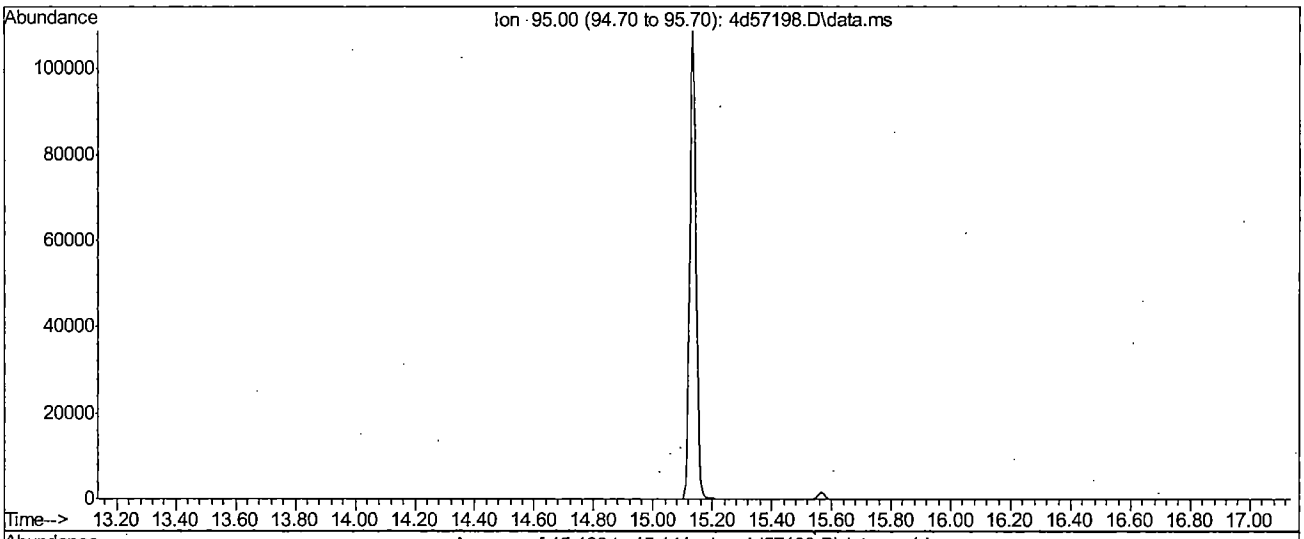
7

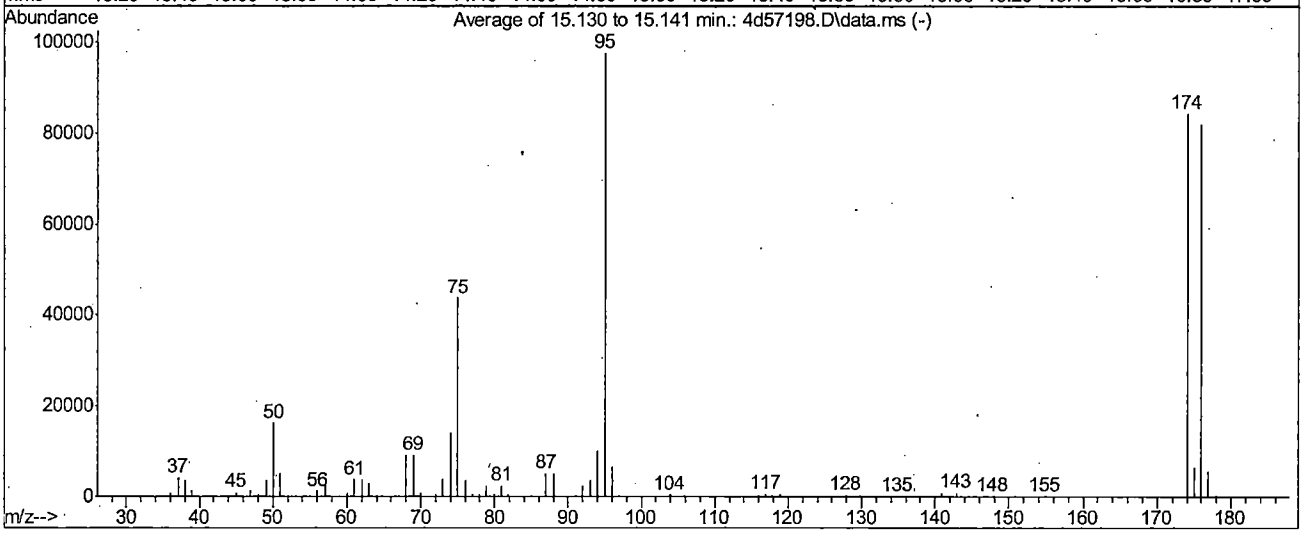
M4D2528.M Thu Feb 19 08:40:11 2015 RPT1

SW-846 Method 8260

Data File : C:\msdchem\1\data\4d57198.D Vial: 1
Acq On : 26 Feb 2015 8:57 am Operator: PayalR
Sample : bfb Inst : MS4D
Misc : MS81323,V4D2537,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\methods\M4D2528.M (RTE Integrator)
Title : SW-846 Method 8260B/8260C





AutoFind: Scans 2297, 2298, 2299; Background Corrected with Scan 2289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	16224	PASS
75	95	30	60	44.7	43648	PASS
95	95	100	100	100.0	97608	PASS
96	95	5	9	6.6	6409	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.4	84365	PASS
175	174	5	9	7.8	6541	PASS
176	174	95	101	97.3	82067	PASS
177	176	5	9	6.6	5391	PASS

4d57198.D M4D2528.M Thu Feb 26 11:51:25 2015 RPT1

Average of 15.130 to 15.141 min.: 4d57198.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	680	52.05	236	68.00	8990	79.95	592
37.10	4024	55.00	217	69.00	9041	80.90	2283
38.05	3443	56.00	1206	70.00	646	81.90	437
39.05	1379	57.00	2219	72.05	391	86.00	57
44.00	256	58.00	55	73.00	3670	87.00	5017
45.05	764	60.00	826	74.00	14101	88.00	4973
47.00	1300	61.00	3650	75.00	43648	90.95	296
48.00	502	62.00	3639	76.05	3620	92.00	2267
49.05	3408	63.00	2669	76.95	590	93.00	3428
50.05	16224	64.00	265	77.95	491	94.00	10051
51.05	4959	67.05	258	78.90	2308	95.00	97608

Average of 15.130 to 15.141 min.: 4d57198.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	6409	129.90	315	175.00	6541		
97.00	198	134.85	119	175.95	82067		
103.90	392	136.90	62	176.95	5391		
104.90	112	140.95	760	177.95	158		
105.90	376	142.90	785				
115.95	301	147.90	213				
116.90	533	154.90	202				
117.90	314	156.80	54				
118.90	443	157.00	114				
127.95	335	171.90	65				
128.95	109	174.00	84365				

7.5.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	146227	500.00 ug/L	-0.01
5) pentafluorobenzene	10.57	168	281537	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.54	114	312822	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	276214	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	171567	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	2584	1.11 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 2.22%#		
50) 1,2-dichloroethane-d4 (s)	11.09	65	2935	1.14 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 2.28%#		
79) toluene-d8 (s)	13.25	98	8602	1.09 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 2.18%#		
104) 4-bromofluorobenzene (s)	16.13	95	4593	1.38 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 2.76%#		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.27	59	1019	2.90 ug/L	100
8) chlorodifluoromethane	4.10	51	2624	0.58 ug/L	65
9) dichlorodifluoromethane	4.05	85	4252	0.77 ug/L	71
10) chloromethane	4.46	50	3220	0.72 ug/L	85
11) vinyl chloride	4.76	62	3830	0.76 ug/L	92
12) bromomethane	5.53	94	2803	1.06 ug/L #	70
15) 2-CHLOROPROPANE	6.99	43	3546	0.66 ug/L #	91
16) chloroethane	5.74	64	1727	0.87 ug/L	75
20) ethyl ether	6.77	74	1082	0.76 ug/L	78
22) 1,1-dichloroethene	7.26	96	2261	0.83 ug/L	91
24) allyl chloride	7.90	76	972	0.67 ug/L #	68
26) iodomethane	7.60	142	4797	0.89 ug/L	95
27) iso-butyl alcohol	11.13	74	449	5.17 ug/L #	27
28) carbon disulfide	7.71	76	9933	0.84 ug/L	98
29) methylene chloride	8.15	84	2885	0.89 ug/L	98
30) methyl acetate	7.92	43	1471	0.66 ug/L	53
31) methyl tert butyl ether	8.48	73	7578	0.81 ug/L	98
32) trans-1,2-dichloroethene	8.55	61	3360	0.84 ug/L	93
33) di-isopropyl ether	9.13	45	6404	0.65 ug/L	94
35) 1,1-dichloroethane	9.21	63	3809	0.78 ug/L	94
36) chloroprene	9.30	53	2425	0.64 ug/L	68
37) acrylonitrile	8.60	53	3413	3.08 ug/L	84
39) ethyl tert-butyl ether	9.66	59	6879	0.68 ug/L	94
41) 2,2-dichloropropane	10.01	77	3973	0.83 ug/L	84
42) cis-1,2-dichloroethene	10.02	96	2499	0.82 ug/L #	66
44) propionitrile	10.19	54	2405	5.79 ug/L	74
45) bromochloromethane	10.38	128	1221	0.88 ug/L #	53
47) chloroform	10.43	85	2320	0.81 ug/L	95
48) t-butyl formate	10.44	59	1600	0.55 ug/L #	83
51) freon 113	7.18	151	1586	0.72 ug/L	88
53) 1,1,1-trichloroethane	10.65	97	3505	0.80 ug/L #	71
54) Cyclohexane	10.70	84	4037	0.82 ug/L	77
58) carbon tetrachloride	10.85	117	3177	0.96 ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
59) 1,1-dichloropropene	10.84	75	2586	0.86 ug/L	92
61) hexane	8.83	57	2061	0.77 ug/L	76
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	7301	0.73 ug/L	94
63) benzene	11.14	78	8650	0.95 ug/L	98
64) tert-amyl methyl ether	11.14	87	1663	0.82 ug/L #	66
65) heptane	11.26	57	963	0.60 ug/L	99
66) isopropyl acetate	11.08	43	4332	0.74 ug/L	91
67) 1,2-dichloroethane	11.20	62	2360	0.88 ug/L	75
69) trichloroethene	11.89	95	2142	1.02 ug/L #	75
71) methyl methacrylate	12.20	69	897	0.63 ug/L	81
72) 2-nitropropane	12.78	41	424	0.54 ug/L #	41
73) 2-chloroethyl vinyl ether	12.75	63	5234	3.49 ug/L	89
74) 1,2-dichloropropane	12.19	63	2211	0.97 ug/L	97
75) dibromomethane	12.36	93	1329	0.97 ug/L	91
76) methylcyclohexane	12.06	83	3625	0.79 ug/L	95
77) bromodichloromethane	12.49	83	2867	1.02 ug/L	72
78) cis-1,3-dichloropropene	12.97	75	3105	0.86 ug/L	89
81) toluene	13.33	92	4714	0.94 ug/L	87
83) trans-1,3-dichloropropene	13.59	75	2689	0.83 ug/L	97
84) ethyl methacrylate	13.55	69	1727	0.61 ug/L	87
85) 1,1,2-trichloroethane	13.82	83	1584	0.98 ug/L #	68
88) tetrachloroethene	13.95	164	1703	1.06 ug/L #	76
90) 1,3-dichloropropane	14.00	76	2707	0.86 ug/L	88
92) 3,3-dimethyl-1-butanol	14.17	57	1843	5.15 ug/L	92
93) dibromochloromethane	14.29	129	1843	0.90 ug/L #	67
94) 1,2-dibromoethane	14.46	107	1778	0.94 ug/L	96
95) chlorobenzene	14.92	112	5532	0.96 ug/L	84
96) 1,1,1,2-tetrachloroethane	14.99	131	2318	1.01 ug/L #	79
97) ethylbenzene	14.96	91	8983	0.91 ug/L	95
98) m,p-xylene	15.07	106	7021	1.86 ug/L #	77
99) o-xylene	15.52	106	3462	0.90 ug/L	98
100) styrene	15.55	104	5433	0.87 ug/L	94
101) bromoform	15.87	173	1540	1.08 ug/L	84
103) isopropylbenzene	15.89	105	9753	0.86 ug/L	97
106) bromobenzene	16.34	156	2675	0.98 ug/L	89
107) 1,1,2,2-tetrachloroethane	16.26	83	2776	0.83 ug/L	91
108) trans-1,4-dichloro-2-buten	16.30	53	556	0.65 ug/L #	37
109) 1,2,3-trichloropropane	16.35	110	653	0.82 ug/L	88
110) n-propylbenzene	16.31	120	2432	0.87 ug/L #	71
111) 2-chlorotoluene	16.50	126	2647	1.00 ug/L	75
112) 4-chlorotoluene	16.60	126	2471	0.92 ug/L #	83
113) 1,3,5-trimethylbenzene	16.47	105	8271	0.81 ug/L	99
114) tert-butylbenzene	16.85	119	7066	0.78 ug/L	95
115) pentachloroethane	16.97	167	1672	0.80 ug/L	90
116) 1,2,4-trimethylbenzene	16.90	105	8316	0.86 ug/L	95
117) sec-butylbenzene	17.08	105	11401	0.80 ug/L	97
118) 1,3-dichlorobenzene	17.31	146	5559	0.96 ug/L	94
119) p-isopropyltoluene	17.20	119	9783	0.87 ug/L	93
120) 1,4-dichlorobenzene	17.40	146	5784	0.96 ug/L	95
121) 1,2-dichlorobenzene	17.84	146	5918	0.97 ug/L	84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
122) benzyl chloride	17.54	91	6081	0.84 ug/L	96
123) n-butylbenzene	17.65	92	4935	0.82 ug/L	94
124) 1,2-dibromo-3-chloropropan	18.70	75	643	0.79 ug/L	92
125) 1,3,5-TRICHLOROBENZENE	18.86	180	5735	0.89 ug/L	97
126) 1,2,4-trichlorobenzene	19.58	180	6445	0.92 ug/L	80
127) hexachlorobutadiene	19.66	225	2720	0.92 ug/L	85
128) naphthalene	19.89	128	16650	0.86 ug/L	97
129) 1,2,3-trichlorobenzene	20.16	180	7312	0.94 ug/L	96

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

7.6.1

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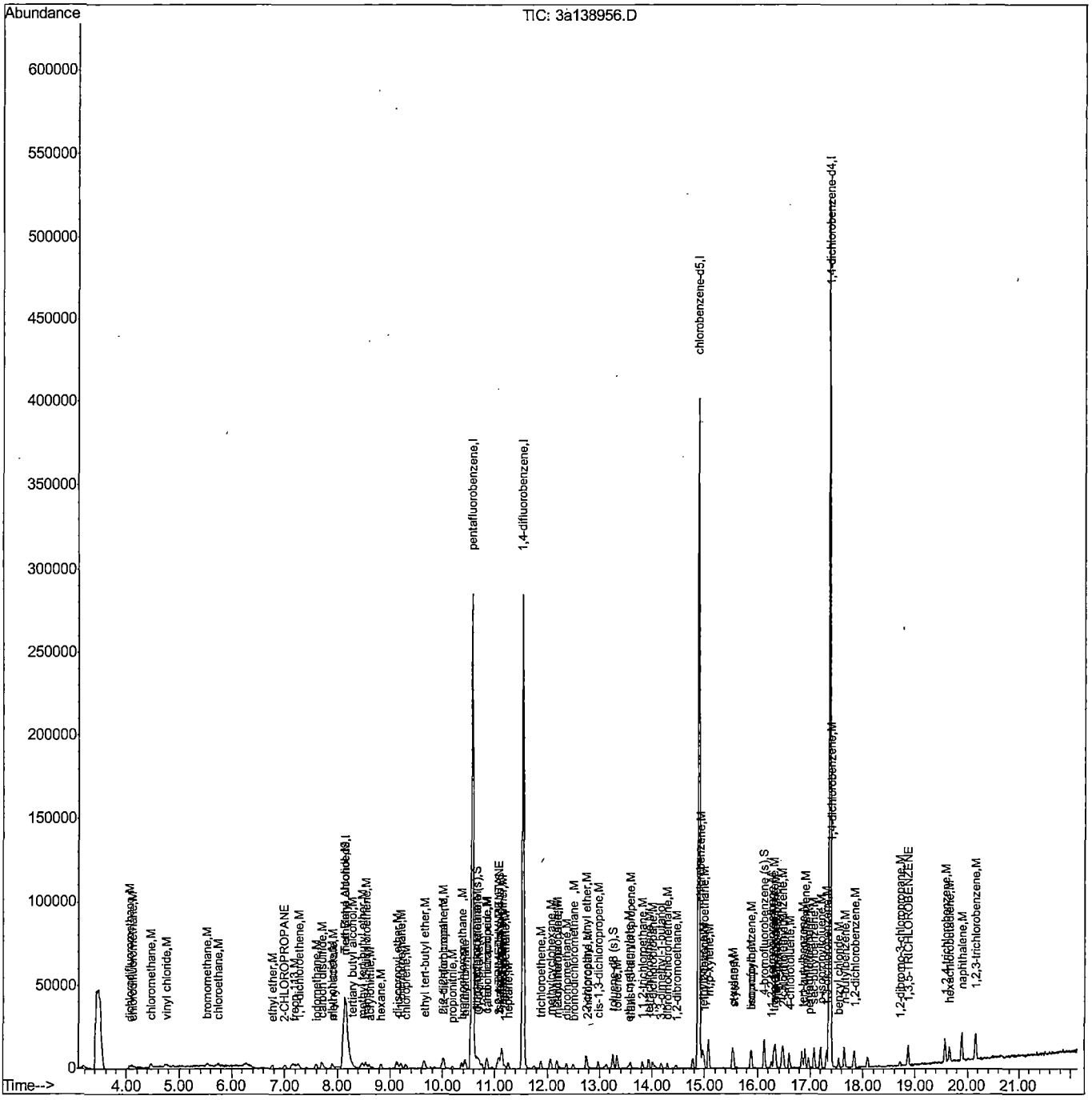
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138956.D
Acq On : 13 Feb 2015 5:10 pm
Operator : zobiah
Sample : ic6014-1
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 12:19:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



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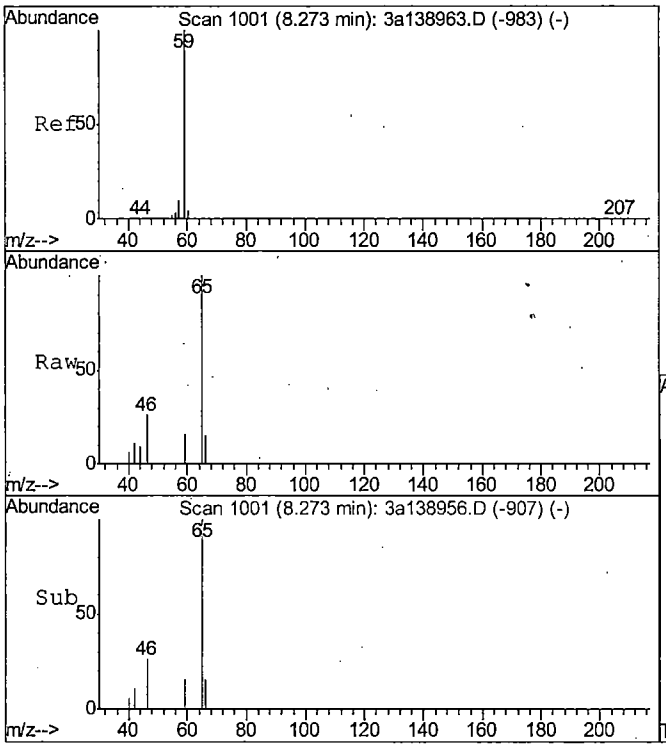
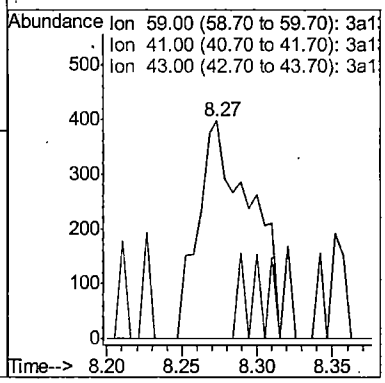
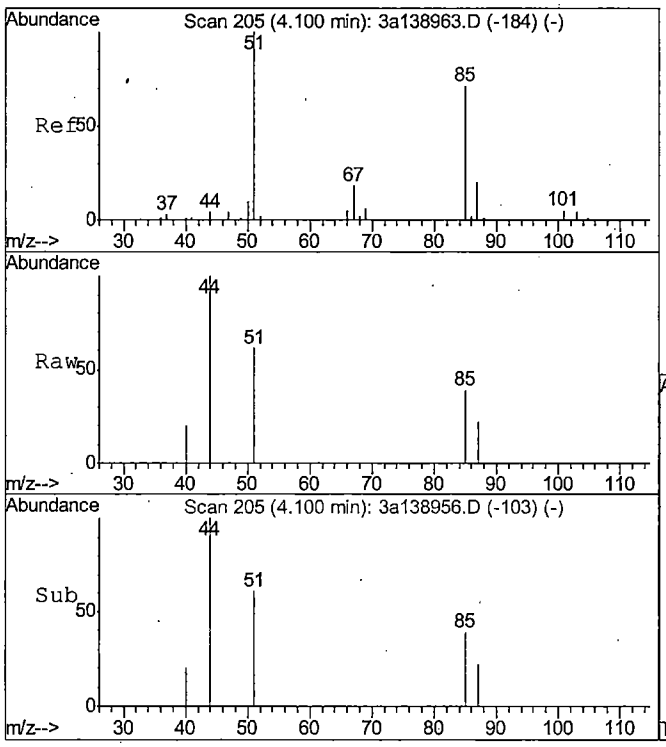


#2
tertiary butyl alcohol
Concen: 2.90 ug/L
RT: 8.27 min Scan# 1001
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 59 Resp: 1019

Ion	Ratio	Lower	Upper
59	100		
41	0.0	0.0	30.0
43	0.0	0.0	30.0

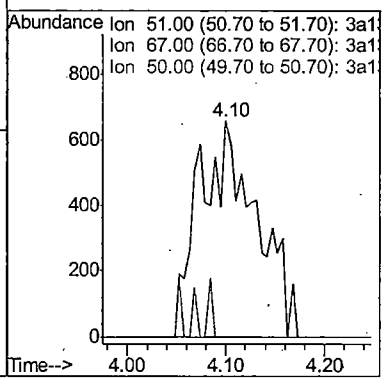


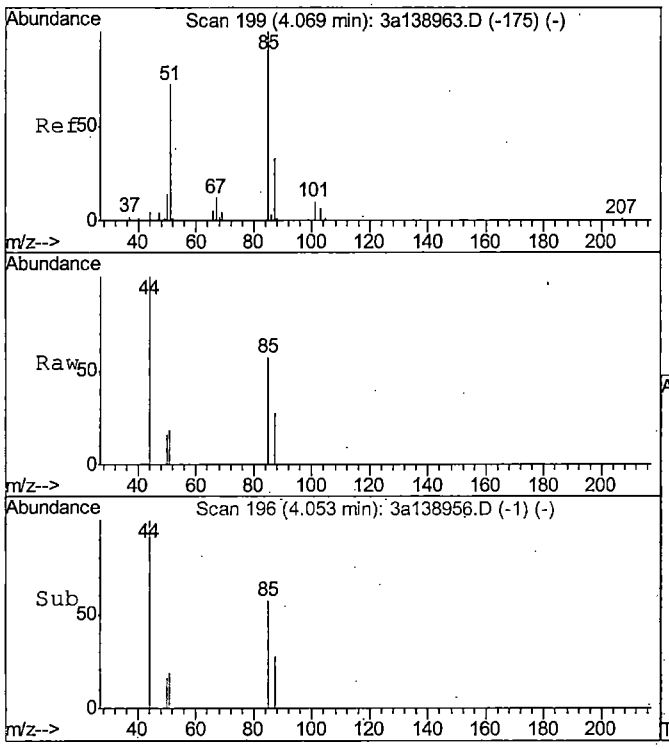


#8
chlorodifluoromethane
Concen: 0.58 ug/L
RT: 4.10 min Scan# 205
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 51 Resp: 2624

Ion	Ratio	Lower	Upper
51	100		
67	0.0	0.0	47.1
50	0.0	0.0	40.4

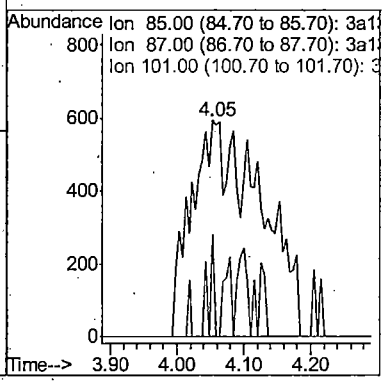


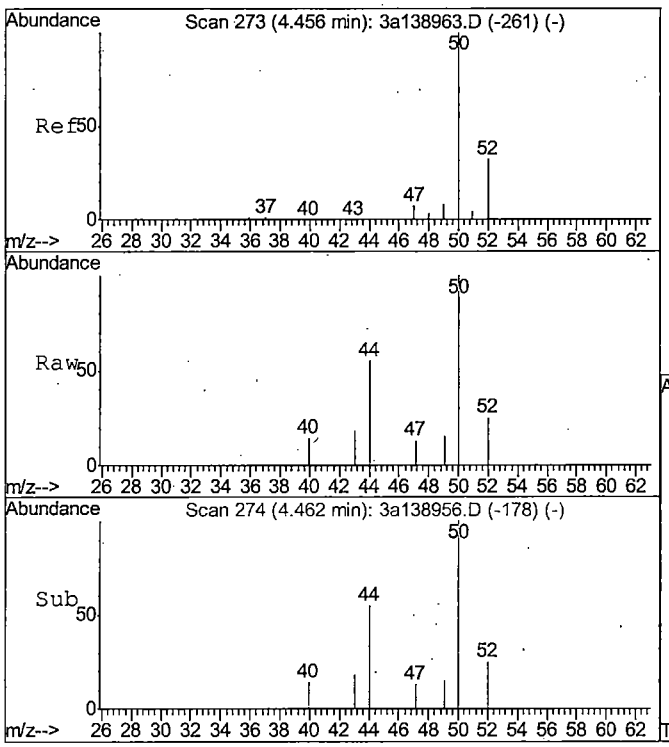


#9
dichlorodifluoromethane
Concen: 0.77 ug/L
RT: 4.05 min Scan# 196
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 85 Resp: 4252

Ion	Ratio	Lower	Upper
85	100		
87	47.6	1.0	61.0
101	0.0	0.0	38.6

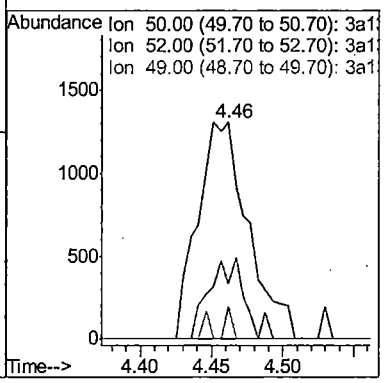




#10
chloromethane
Concen: 0.72 ug/L
RT: 4.46 min Scan# 274
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 50 Resp: 3220

Ion	Ratio	Lower	Upper
50	100		
52	25.3	3.9	63.9
49	15.1	0.0	39.9



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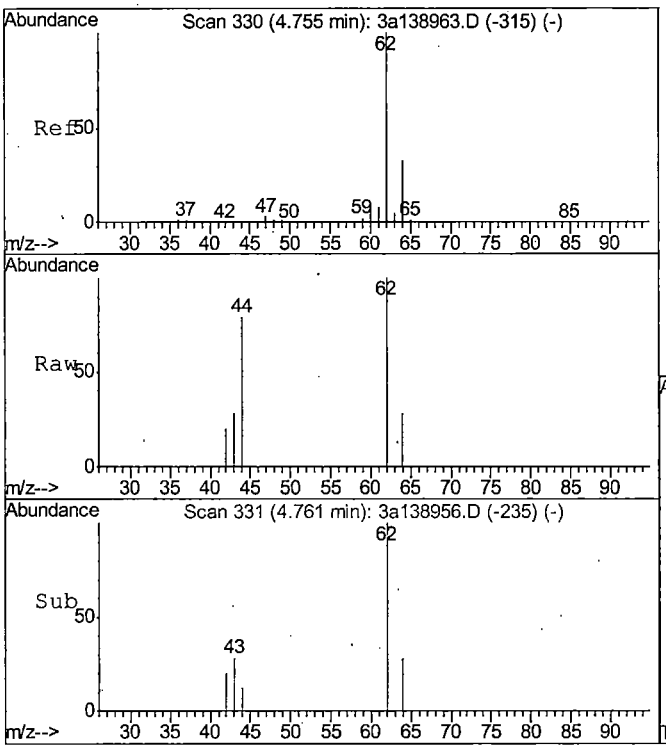
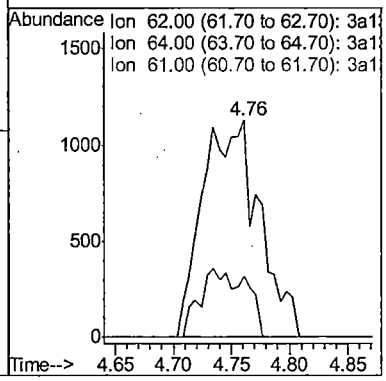
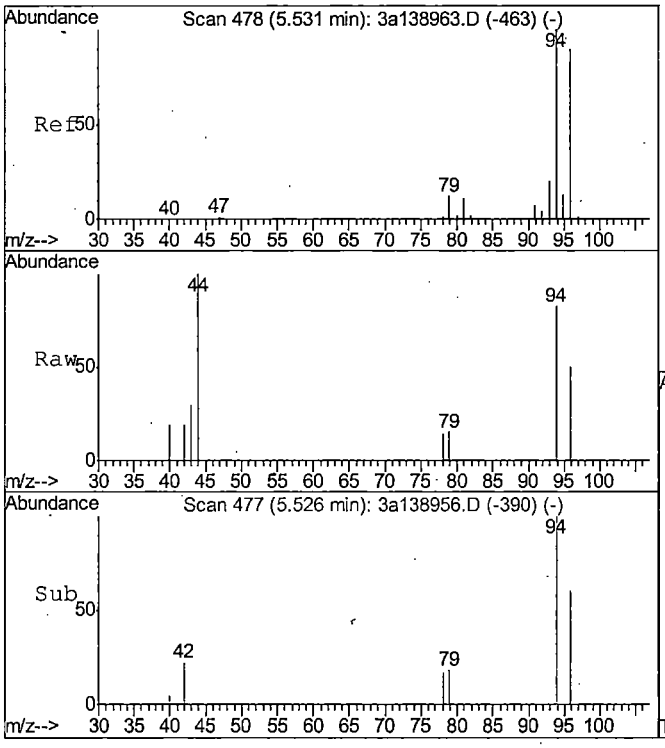


#11
vinyl chloride
Concen: 0.76 ug/L
RT: 4.76 min Scan# 331
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 62 Resp: 3830

Ion	Ratio	Lower	Upper
62	100		
64	27.9	0.0	59.8
61	0.0	0.0	38.4

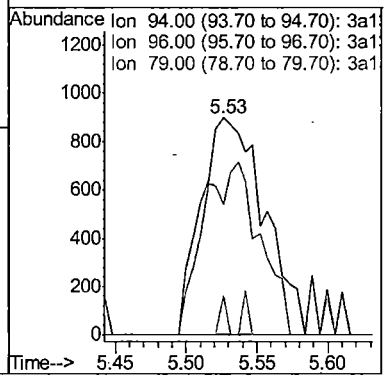




#12
bromomethane
Concen: 1.06 ug/L
RT: 5.53 min Scan# 477
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 94 Resp: 2803

Ion	Ratio	Lower	Upper
94	100		
96	59.9	61.7	121.7#
79	18.3	0.0	44.2



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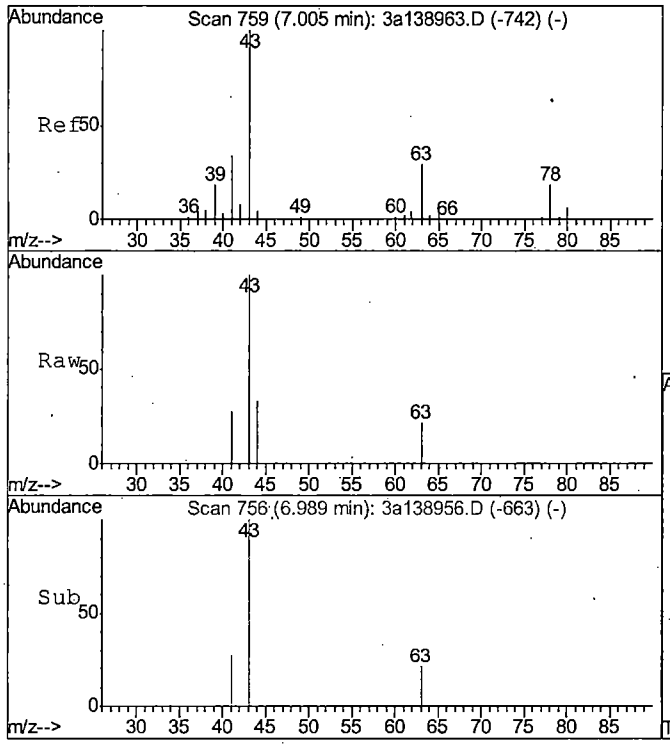
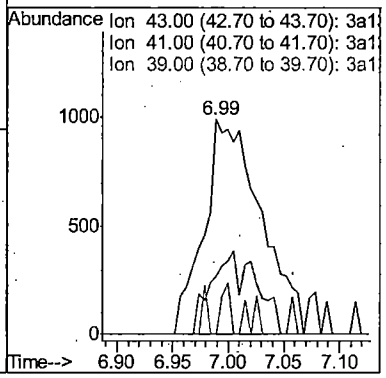
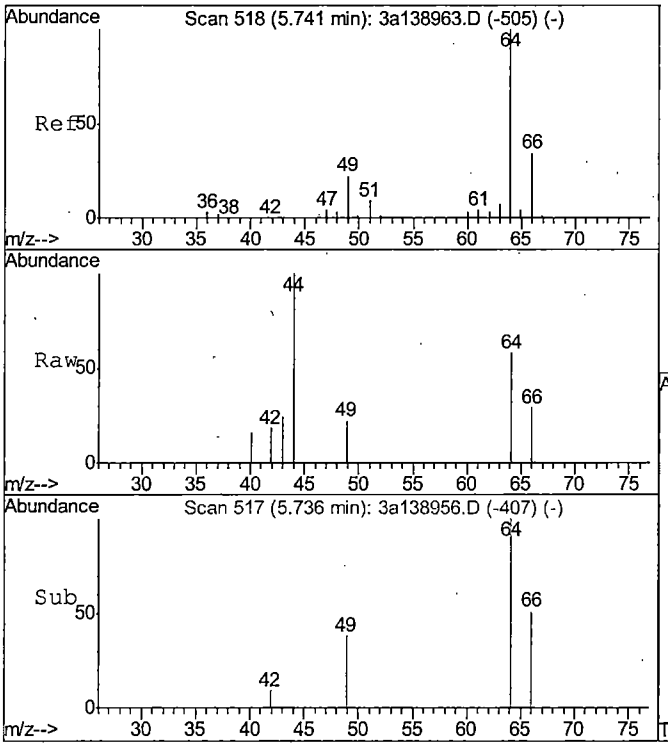


#15
2-CHLOROPROPANE
Concen: 0.66 ug/L
RT: 6.99 min Scan# 756
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 43 Resp: 3546

Ion	Ratio	Lower	Upper
43	100		
41	30.9	20.1	42.3
39	3.7	12.3	18.3#

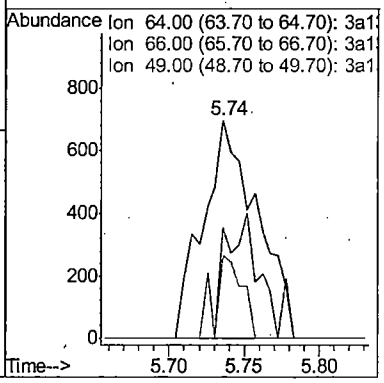




#16
chloroethane
Concen: 0.87 ug/L
RT: 5.74 min Scan# 517
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 64 Resp: 1727

Ion	Ratio	Lower	Upper
64	100		
66	50.6	3.6	63.6
49	37.8	0.0	58.1



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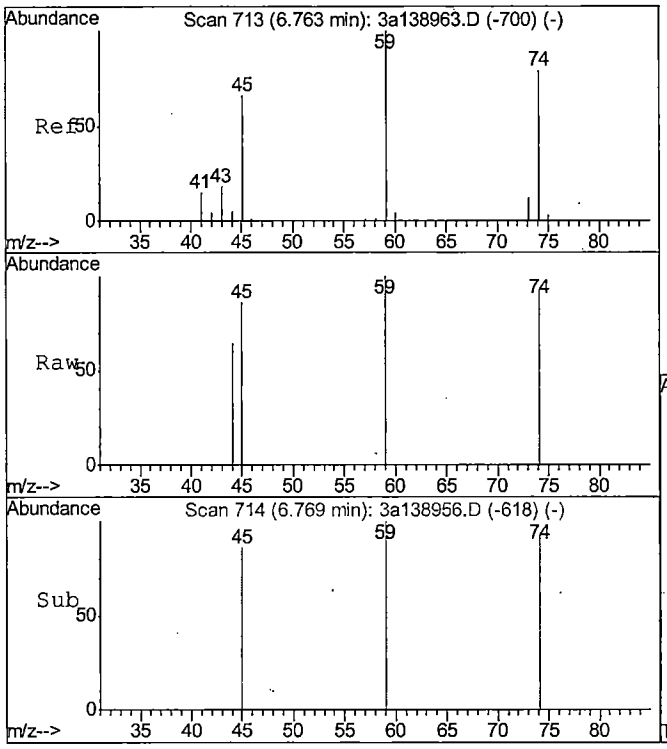
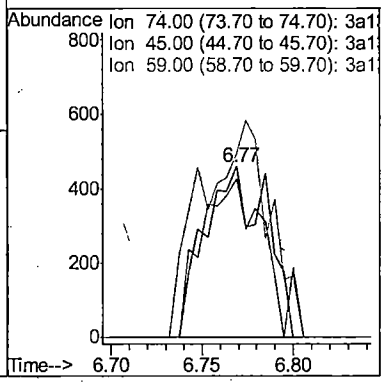
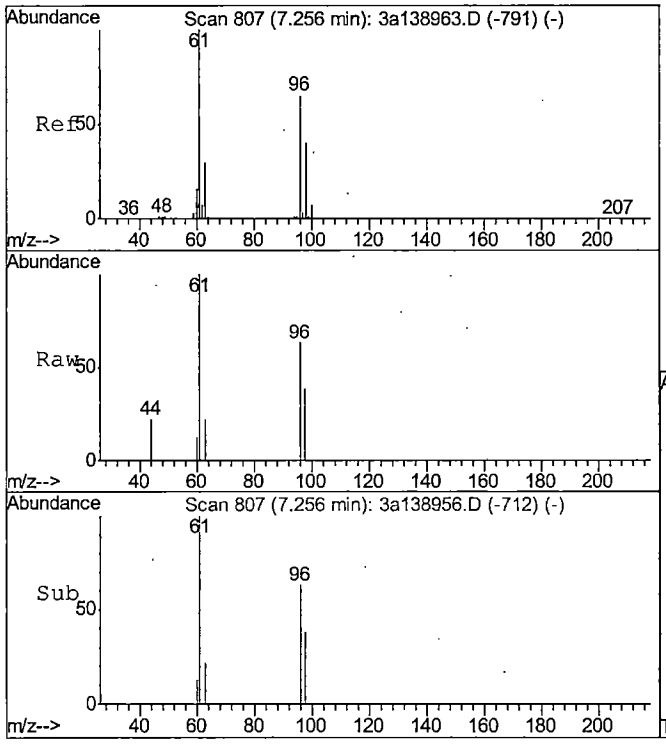


#20
ethyl ether
Concen: 0.76 ug/L
RT: 6.77 min Scan# 714
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 74 Resp: 1082

Ion	Ratio	Lower	Upper
74	100		
45	92.6	83.6	143.6
59	107.4	106.6	166.6

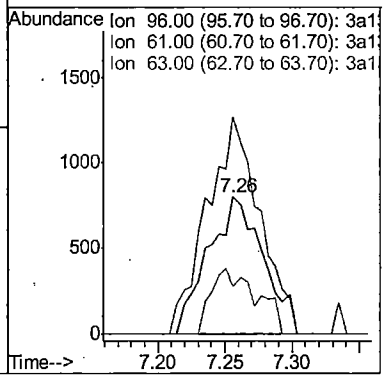




#22
1,1-dichloroethene
Concen: 0.83 ug/L
RT: 7.26 min Scan# 807
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 96 Resp: 2261

Ion	Ratio	Lower	Upper
96	100		
61	158.7	133.2	193.2
63	34.3	23.0	83.0



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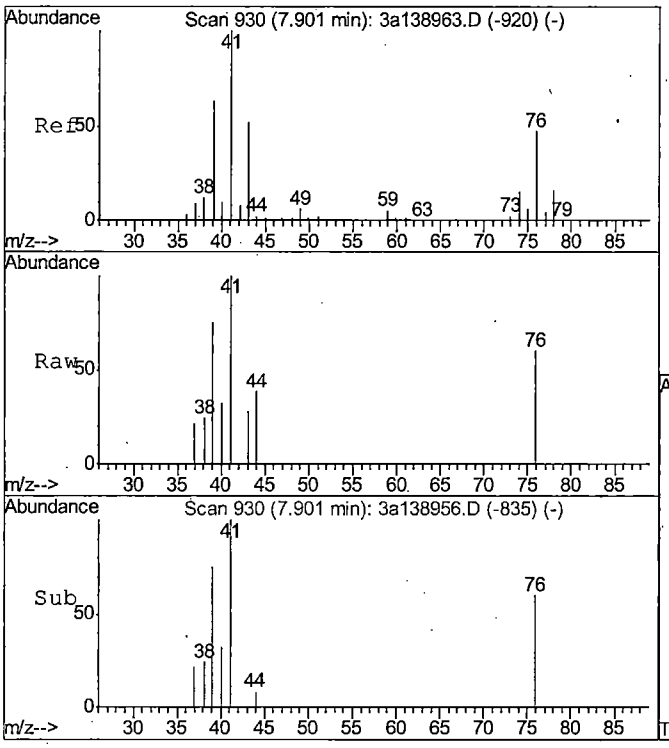
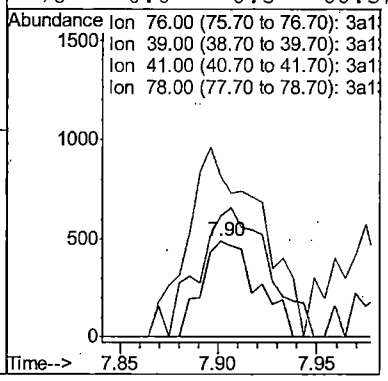
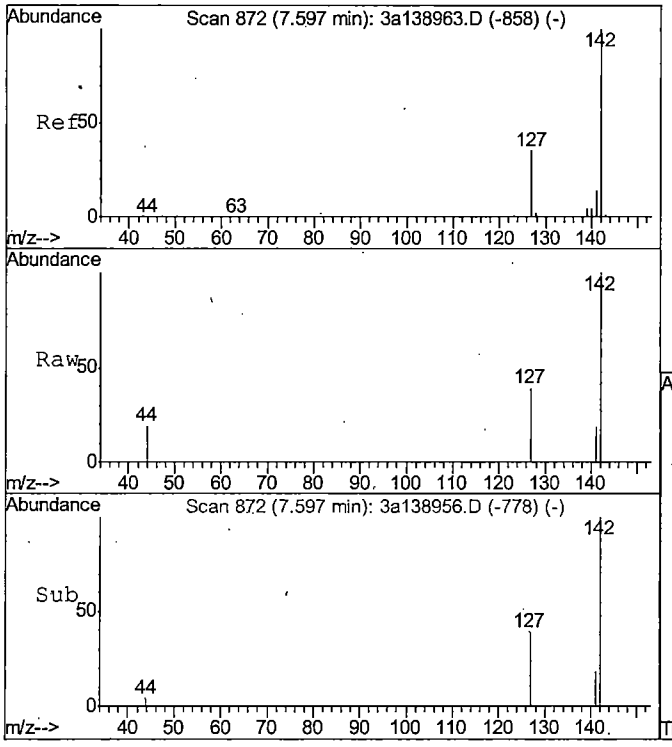


#24
allyl chloride
Concen: 0.67 ug/L
RT: 7.90 min Scan# 930
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 76 Resp: 972

Ion	Ratio	Lower	Upper
76	100		
39	126.0	108.7	168.7
41	167.3	205.9	265.9#
78	0.0	0.3	60.3#

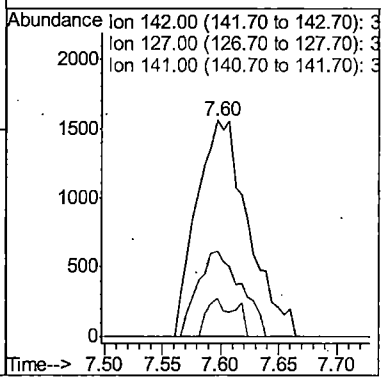




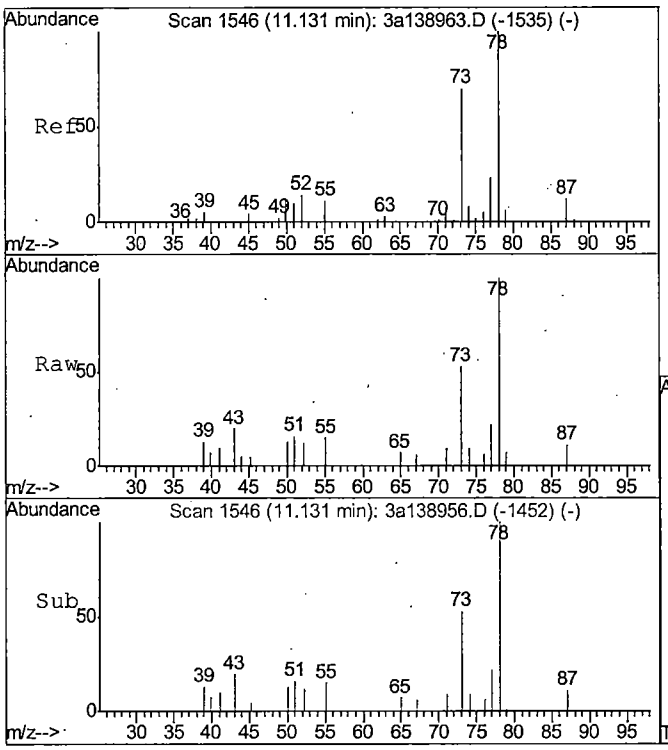
#26
iodomethane
Concen: 0.89 ug/L
RT: 7.60 min Scan# 872
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:142 Resp: 4797

Ion	Ratio	Lower	Upper
142	100		
127	39.2	7.1	67.1
141	17.5	0.0	43.9



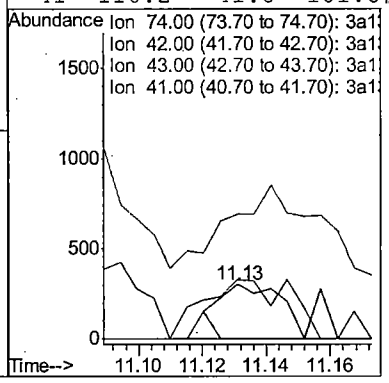
ACCUTEST LABORATORIES JB88565

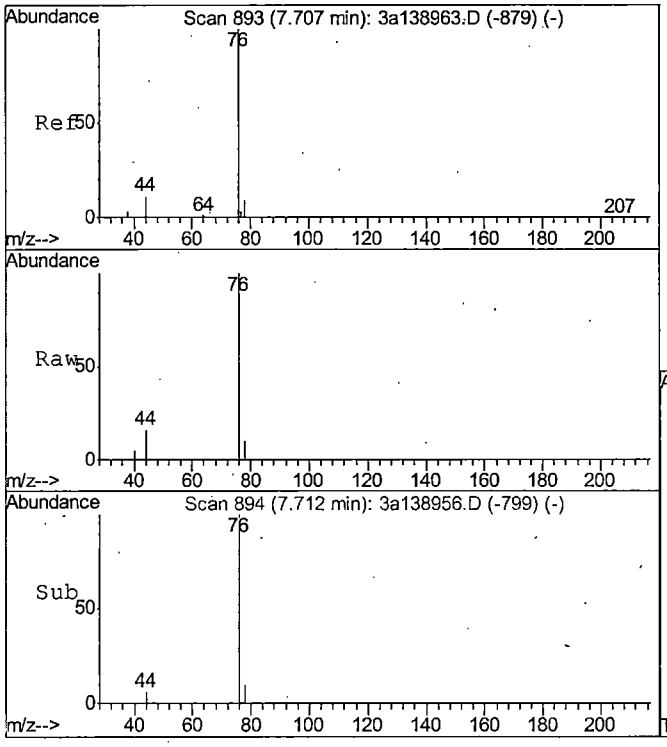


#27
iso-butyl alcohol
Concen: 5.17 ug/L
RT: 11.13 min Scan# 1546
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 74 Resp: 449

Ion	Ratio	Lower	Upper
74	100		
42	0.0	0.0	51.9
43	97.0	208.7	268.7#
41	110.2	41.8	101.8#

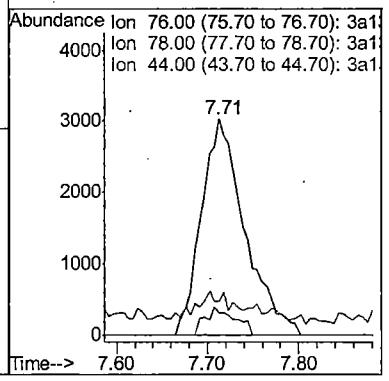




#28
carbon disulfide
Concen: 0.84 ug/L
RT: 7.71 min Scan# 894
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 76 Resp: 9933

Ion	Ratio	Lower	Upper
76	100		
78	10.1	0.0	38.7
44	10.5	0.0	41.0



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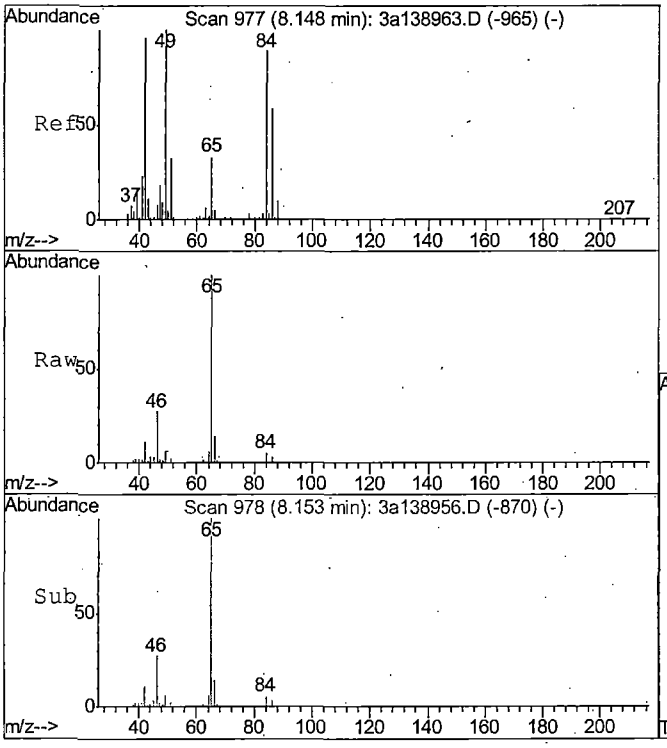
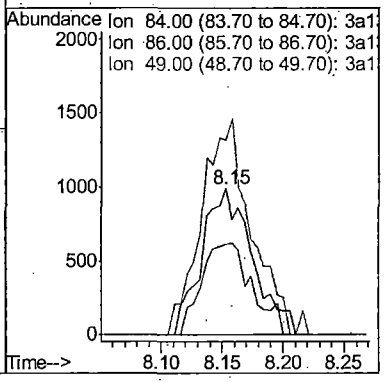
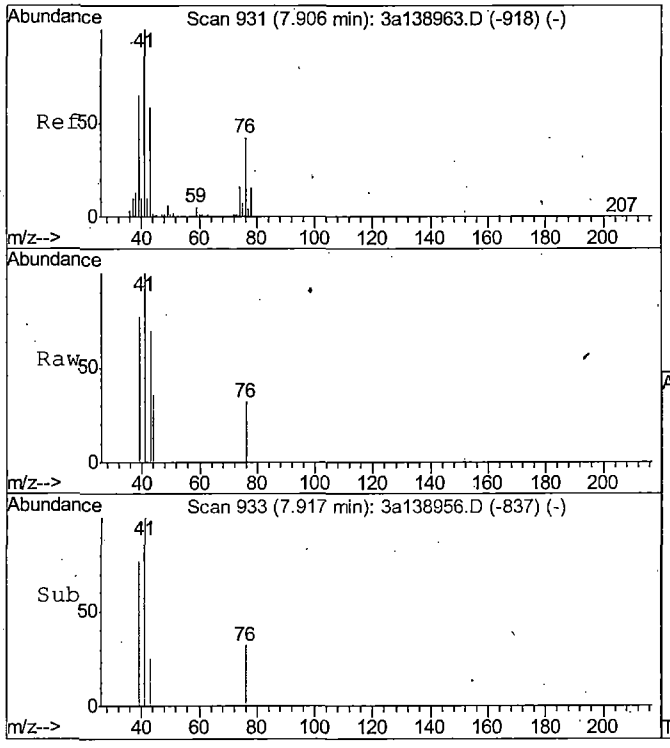


#29
methylene chloride
Concen: 0.89 ug/L
RT: 8.15 min Scan# 978
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 84 Resp: 2885

Ion	Ratio	Lower	Upper
84	100		
86	62.3	33.8	93.8
49	132.8	104.4	164.4

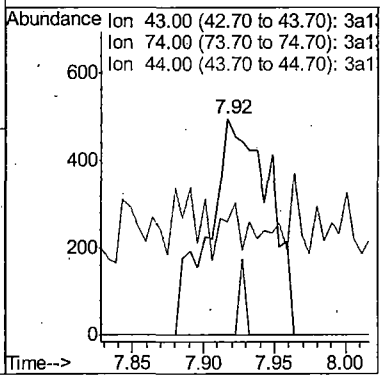




#30
methyl acetate
Concen: 0.66 ug/L
RT: 7.92 min Scan# 933
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 43 Resp: 1471

Ion	Ratio	Lower	Upper
43	100		
74	0.0	0.0	53.3
44	15.1	0.0	32.8



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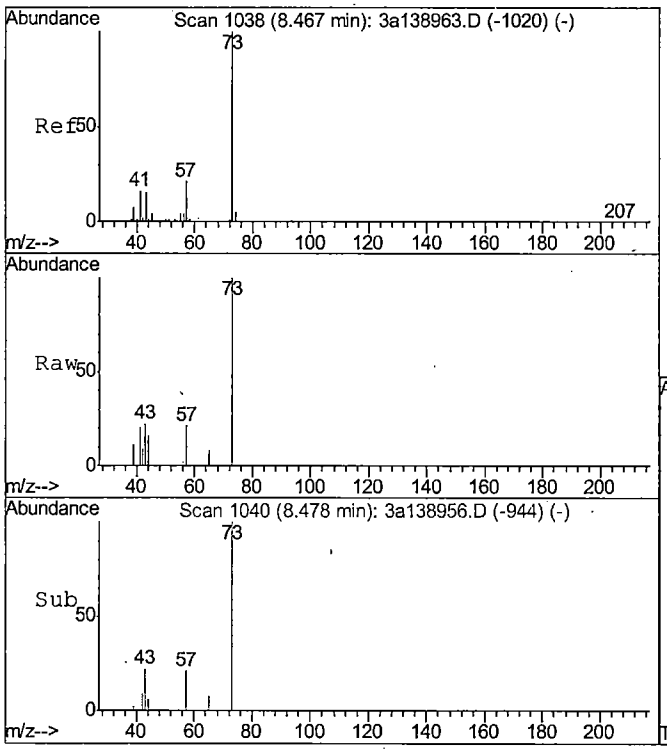
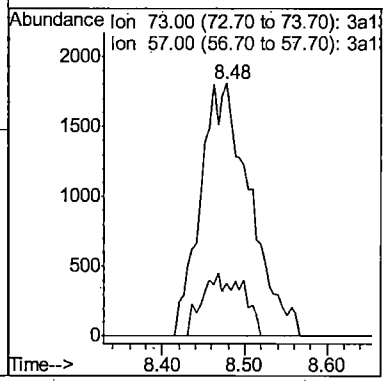
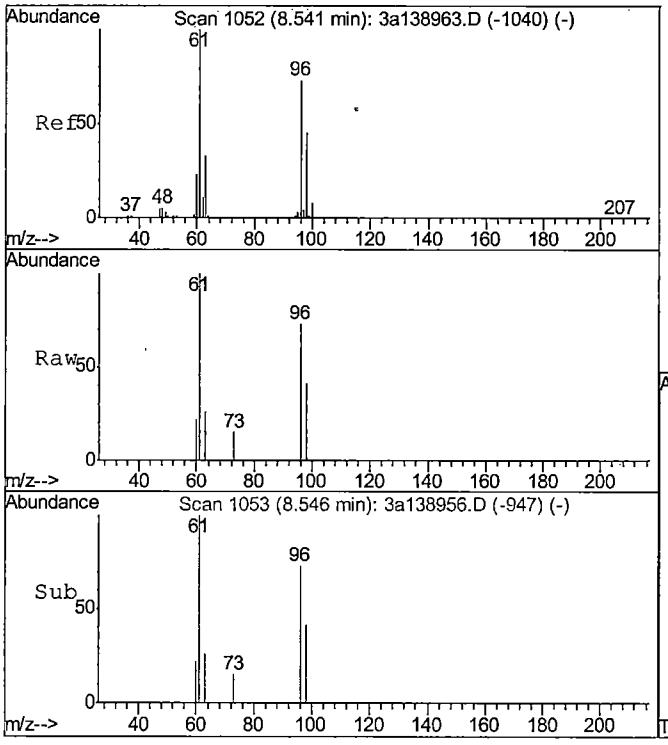


#31
methyl tert butyl ether
Concen: 0.81 ug/L
RT: 8.48 min Scan# 1040
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 73 Resp: 7578

Ion	Ratio	Lower	Upper
73	100		
57	20.9	0.0	51.7

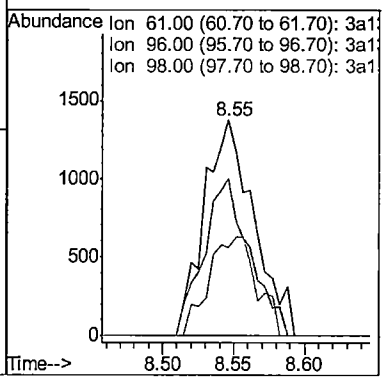




#32
trans-1,2-dichloroethene
Concen: 0.84 ug/L
RT: 8.55 min Scan# 1053
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 61 Resp: 3360

Ion	Ratio	Lower	Upper
61	100		
96	73.0	35.5	95.5
98	40.7	12.5	72.5



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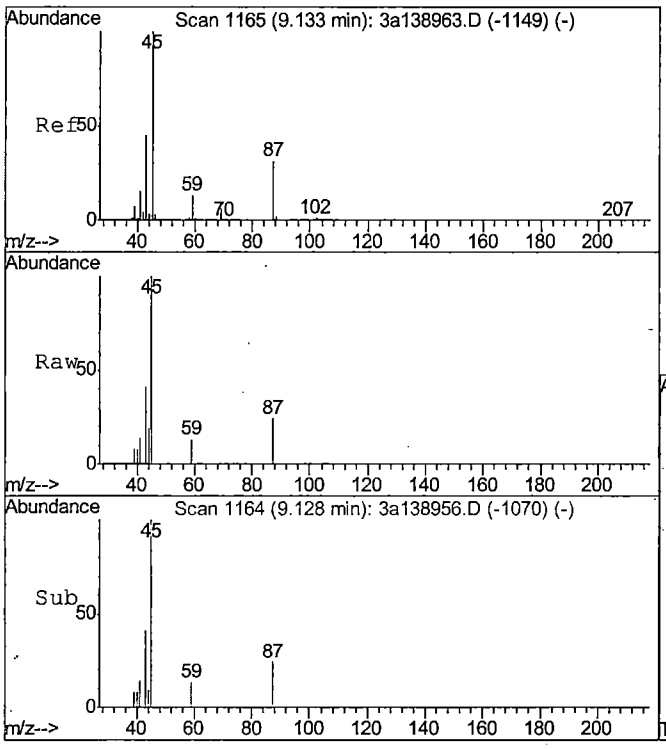
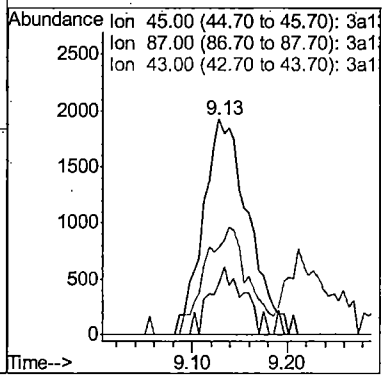
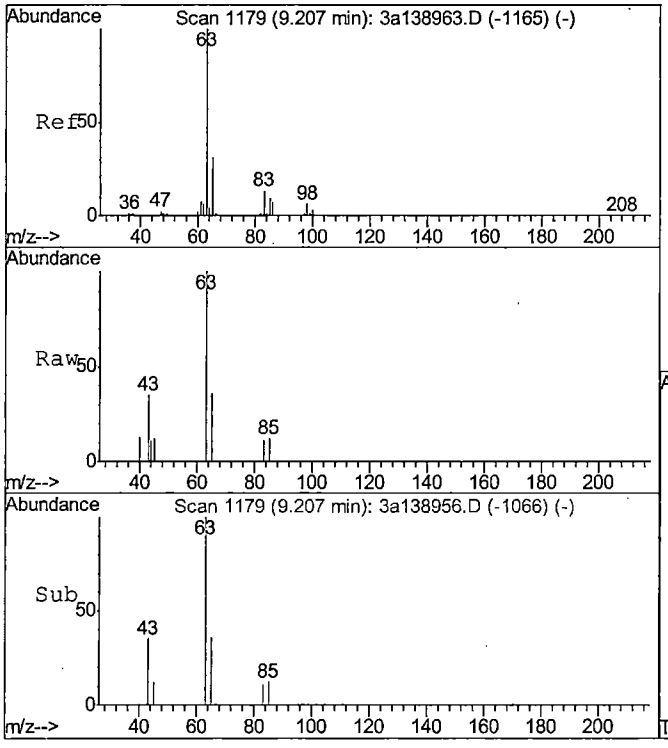


#33
di-isopropyl ether
Concen: 0.65 ug/L
RT: 9.13 min Scan# 1164
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 45 Resp: 6404

Ion	Ratio	Lower	Upper
45	100		
87	23.9	0.0	55.7
43	40.7	15.4	75.4

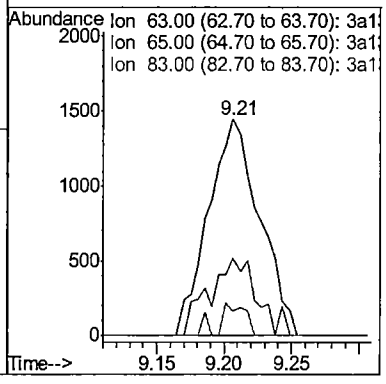




#35
1,1-dichloroethane
Concen: 0.78 ug/L
RT: 9.21 min Scan# 1179
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 63 Resp: 3809

Ion	Ratio	Lower	Upper
63	100		
65	35.6	1.9	61.9
83	11.1	0.0	42.5



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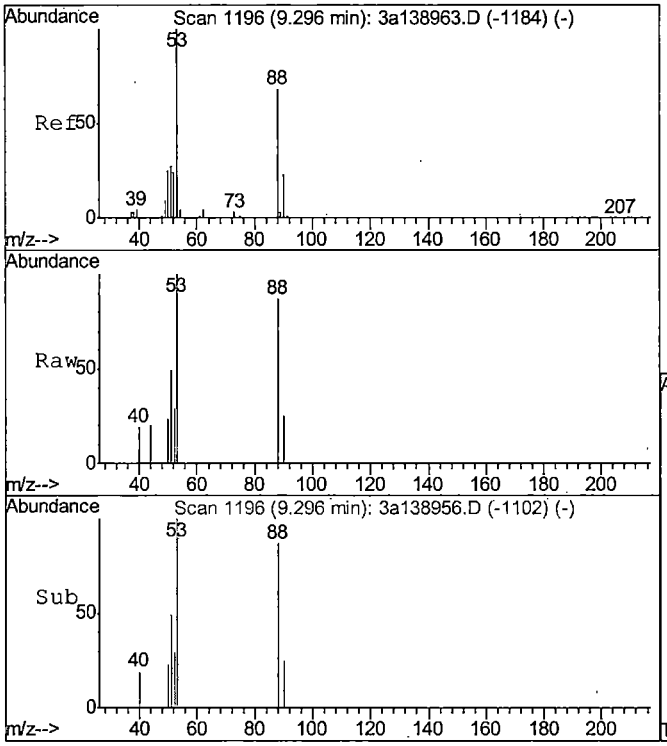
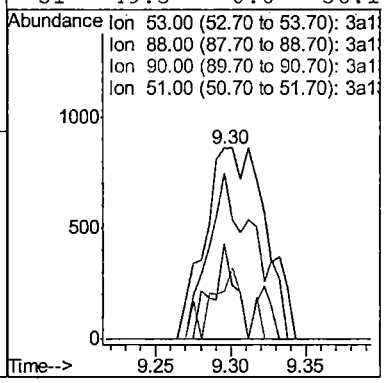
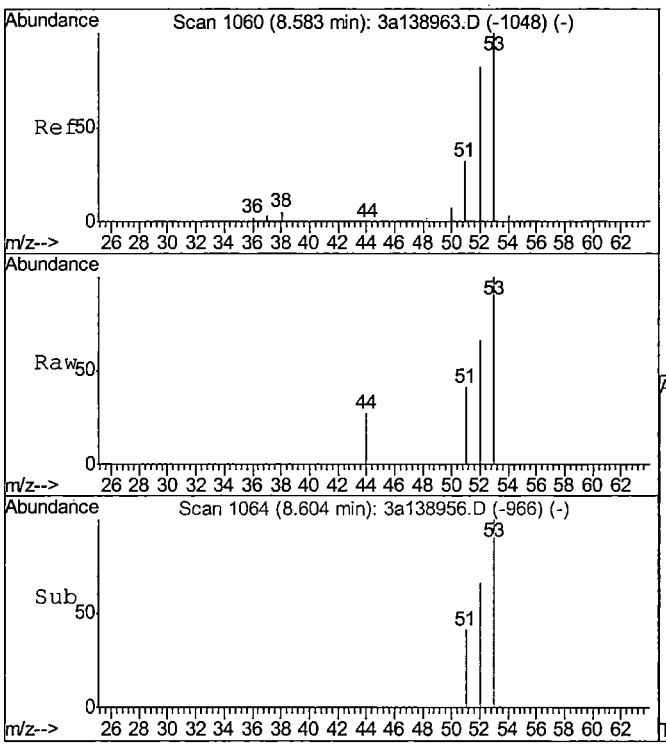


#36
chloroprene
Concen: 0.64 ug/L
RT: 9.30 min Scan# 1196
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 53 Resp: 2425

Ion	Ratio	Lower	Upper
53	100		
88	86.6	31.6	91.6
90	24.9	0.0	49.7
51	49.5	0.0	56.1

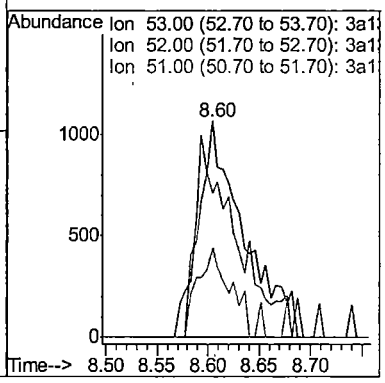




#37
acrylonitrile
Concen: 3.08 ug/L
RT: 8.60 min Scan# 1064
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 53 Resp: 3413

Ion	Ratio	Lower	Upper
53	100		
52	66.3	50.7	110.7
51	41.2	3.2	63.2



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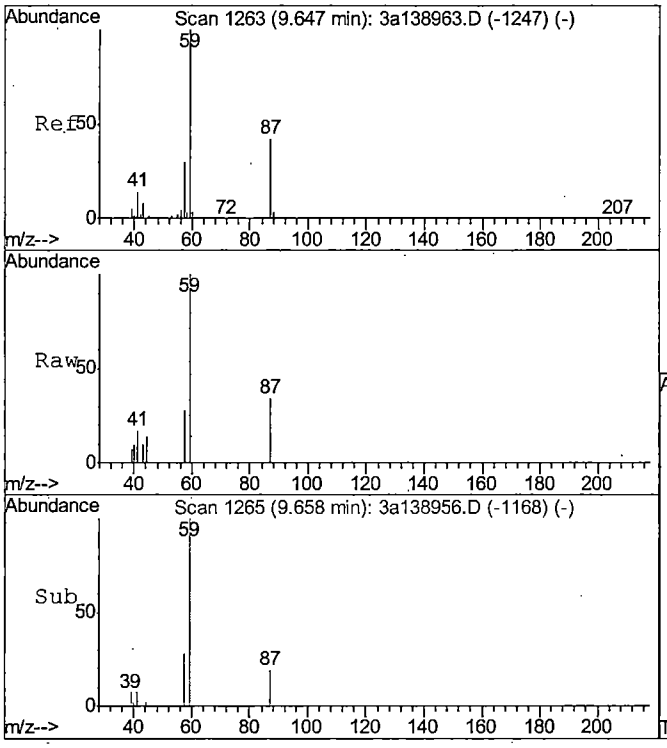
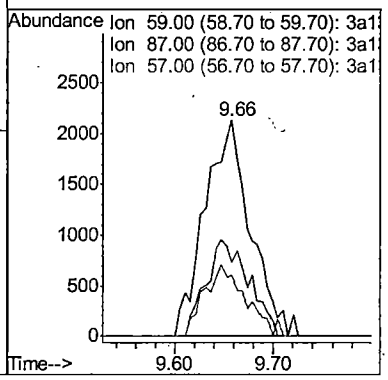
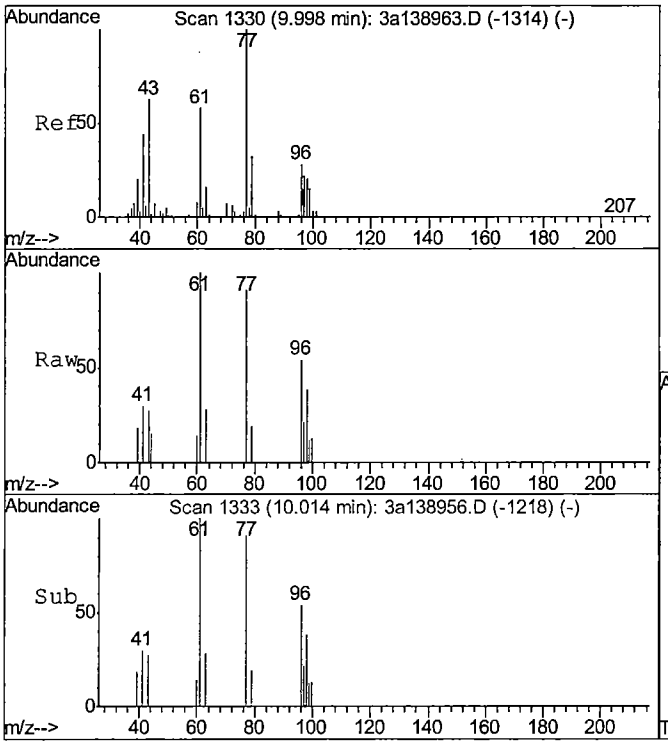


#39
ethyl tert-butyl ether
Concen: 0.68 ug/L
RT: 9.66 min Scan# 1265
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 59 Resp: 6879

Ion	Ratio	Lower	Upper
59	100		
87	34.3	8.6	68.6
57	28.5	0.8	60.8

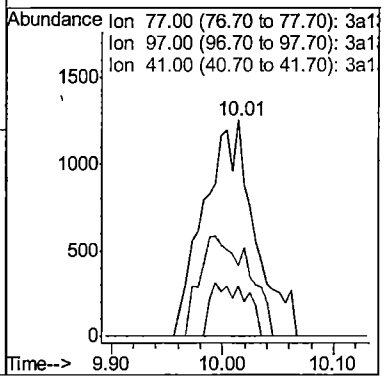




#41
2,2-dichloropropane
Concen: 0.83 ug/L
RT: 10.01 min Scan# 1333
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 77 Resp: 3973

Ion	Ratio	Lower	Upper
77	100		
97	23.1	0.0	51.9
41	32.8	17.9	77.9



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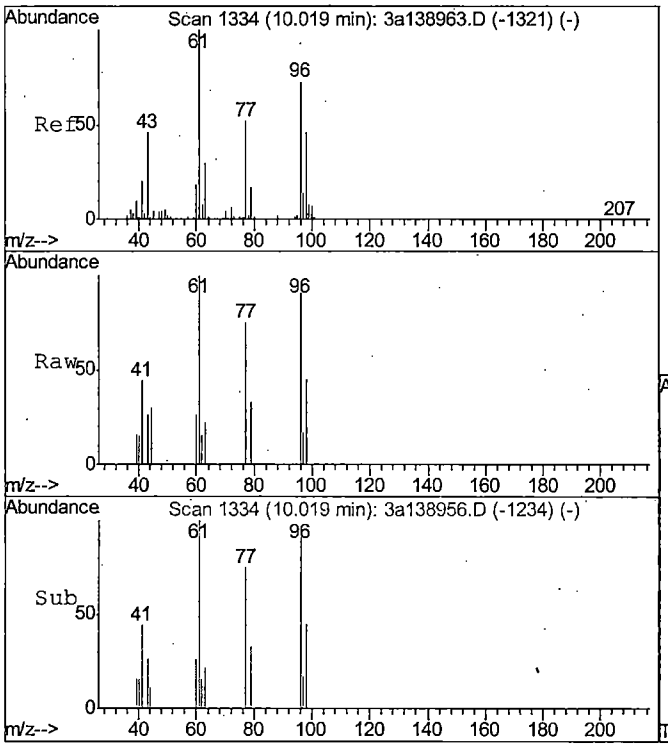
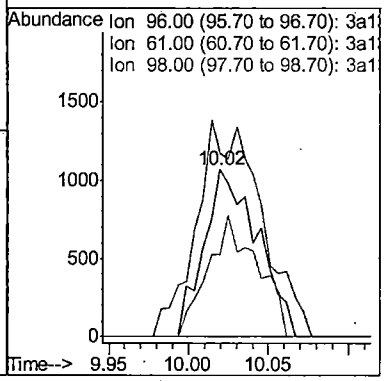
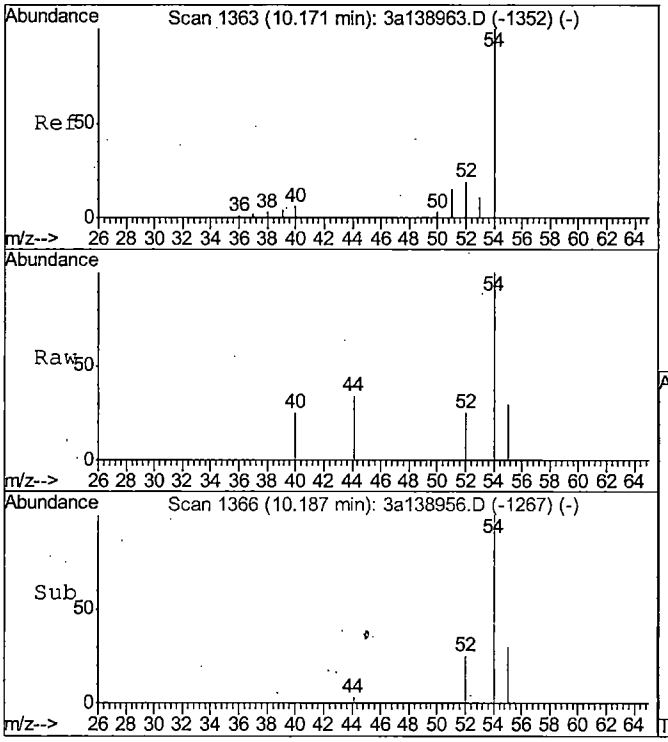


#42
cis-1,2-dichloroethene
Concen: 0.82 ug/L
RT: 10.02 min Scan# 1334
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 96 Resp: 2499

Ion	Ratio	Lower	Upper
96	100		
61	95.1	116.6	176.6#
98	49.3	34.4	94.4

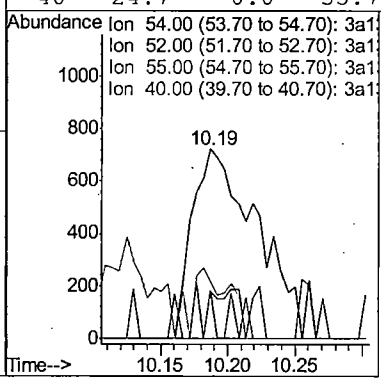




#44
propionitrile
Concen: 5.79 ug/L
RT: 10.19 min Scan# 1366
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 54 Resp: 2405

Ion	Ratio	Lower	Upper
54	100		
52	24.9	0.0	49.2
55	29.8	0.0	46.8
40	24.7	0.0	35.7



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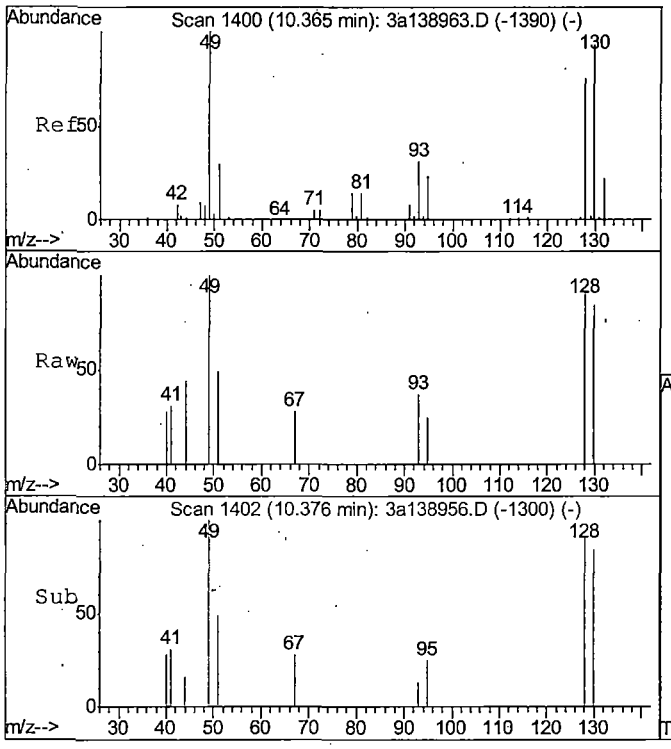
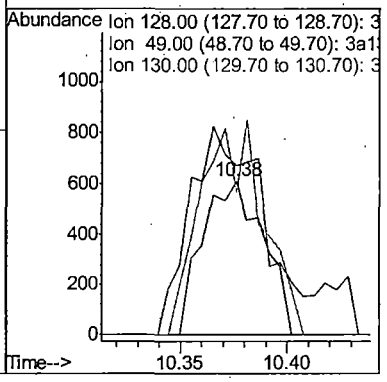
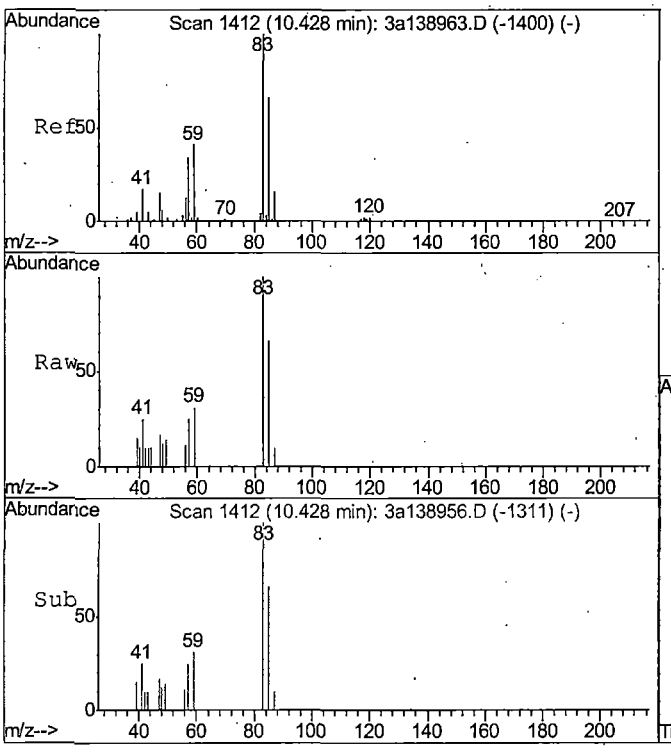


#45
bromochloromethane
Concen: 0.88 ug/L
RT: 10.38 min Scan# 1402
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:128 Resp: 1221

Ion	Ratio	Lower	Upper
128	100		
49	85.1	117.0	217.4#
130	92.5	89.0	165.4

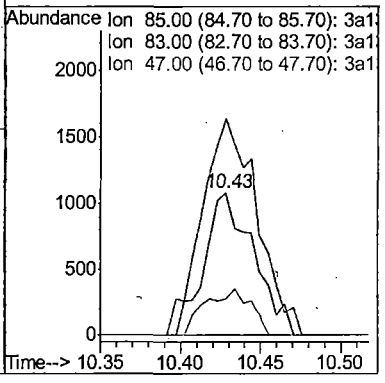




#47
chloroform
Concen: 0.81 ug/L
RT: 10.43 min Scan# 1412
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 85 Resp: 2320

Ion	Ratio	Lower	Upper
85	100		
83	151.2	124.7	184.7
47	25.9	3.8	63.8



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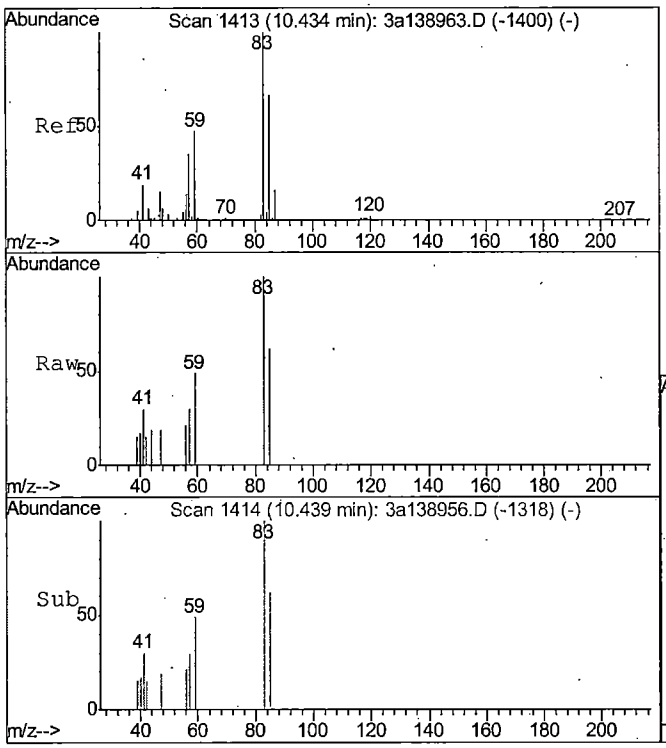
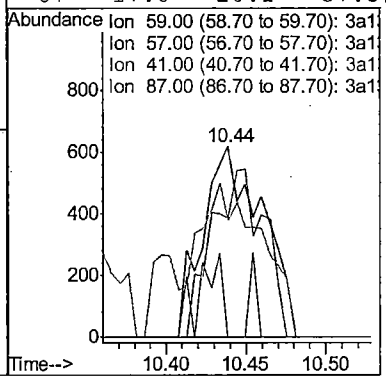
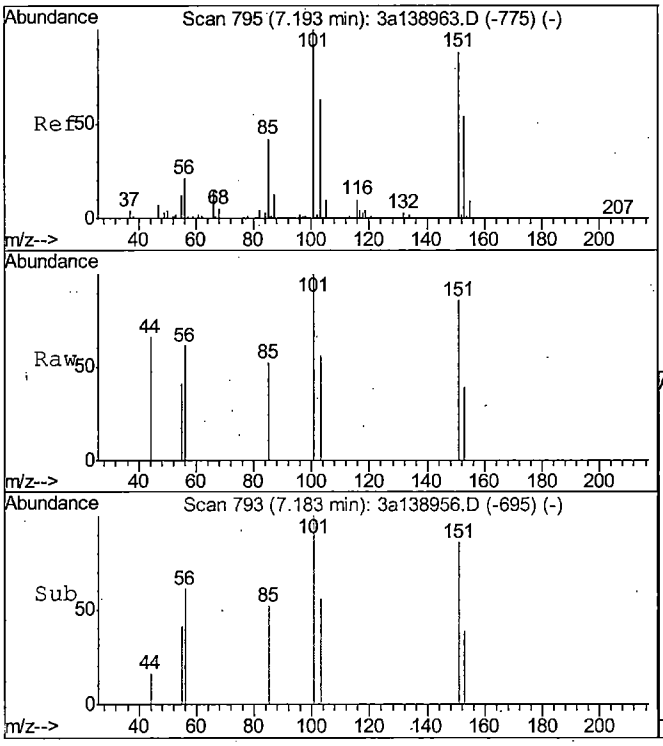


#48
t-butyl formate
Concen: 0.55 ug/L
RT: 10.44 min Scan# 1414
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 59 Resp: 1600

Ion	Ratio	Lower	Upper
59	100		
57	77.5	58.0	107.6
41	85.0	43.0	79.8#
87	17.0	20.1	37.3#

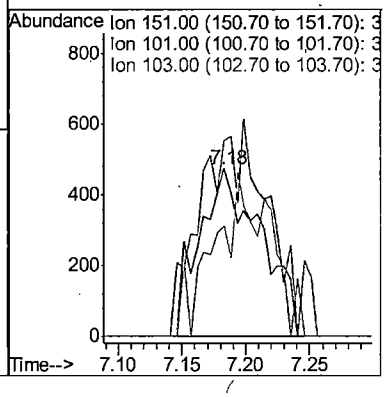




#51
freon 113
Concen: 0.72 ug/L
RT: 7.18 min Scan# 793
Delta R.T. -0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:151 Resp: 1586

Ion	Ratio	Lower	Upper
151	100		
101	116.5	95.5	155.5
103	65.8	51.4	111.4



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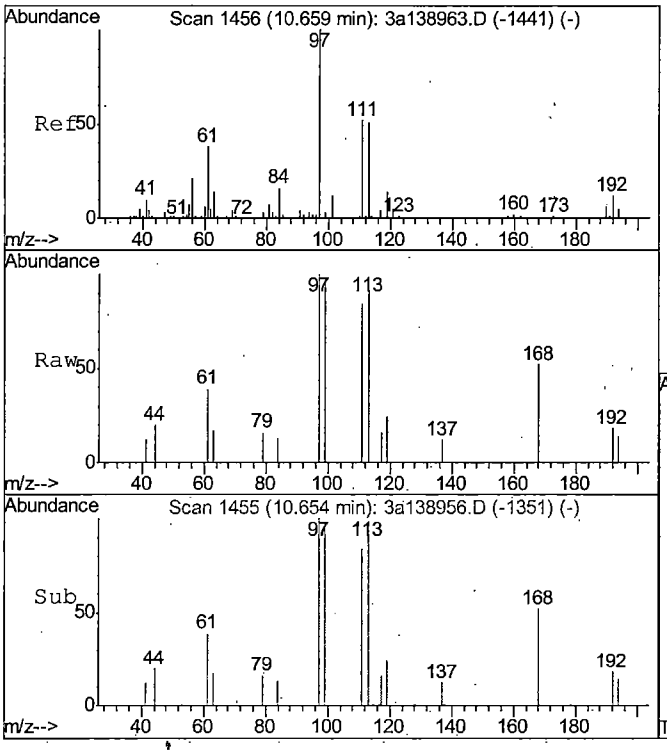
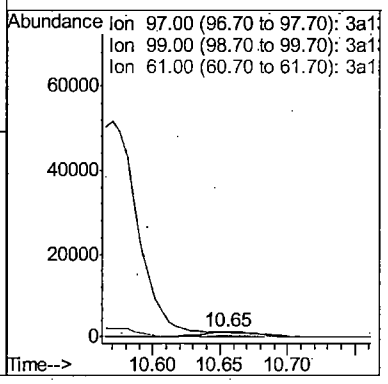
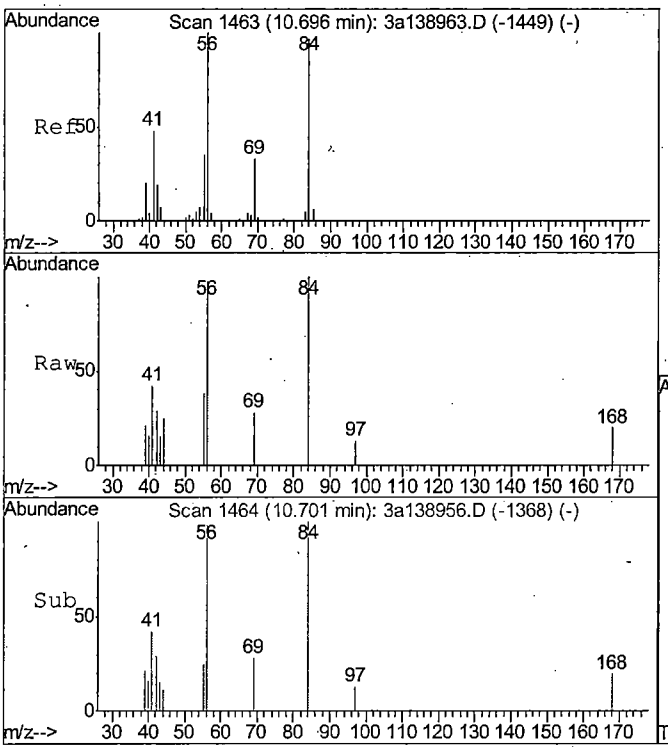


#53
1,1,1-trichloroethane
Concen: 0.80 ug/L
RT: 10.65 min Scan# 1455
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 97 Resp: 3505

Ion	Ratio	Lower	Upper
97	100		
99	99.2	34.0	94.0#
61	39.1	13.2	73.2

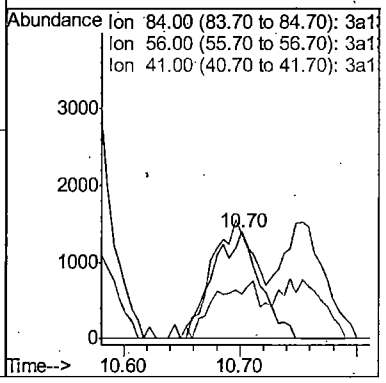




#54
Cyclohexane
Concen: 0.82 ug/L
RT: 10.70 min Scan# 1464
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 84 Resp: 4037

Ion	Ratio	Lower	Upper
84	100		
56	98.4	92.8	152.8
41	41.6	32.2	92.2



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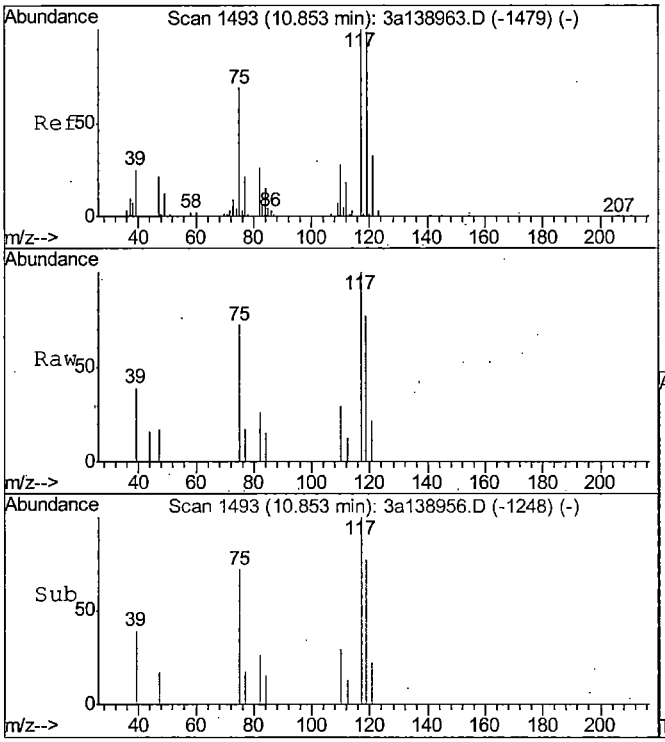
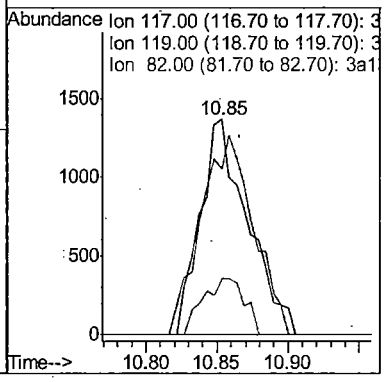
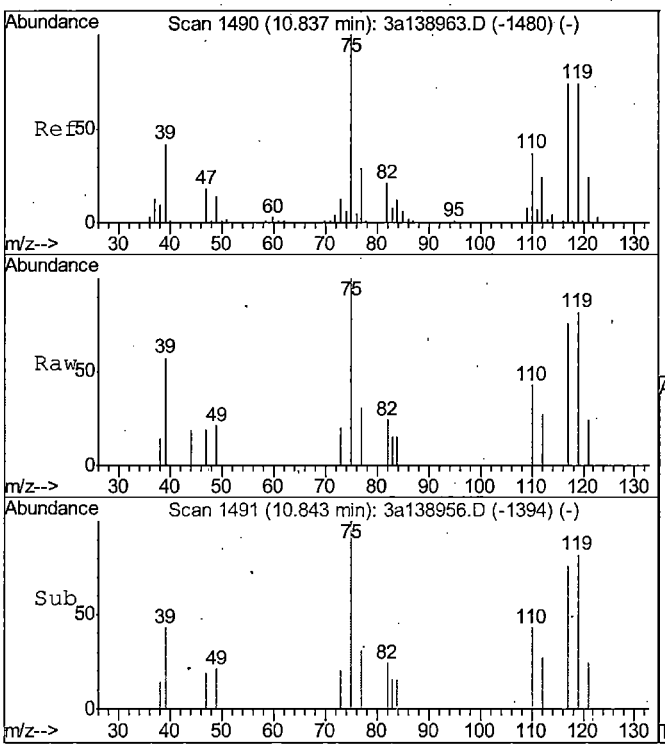


#58
carbon tetrachloride
Concen: 0.96 ug/L
RT: 10.85 min Scan# 1493
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:117 Resp: 3177

Ion	Ratio	Lower	Upper
117	100		
119	76.8	63.3	123.3
82	25.7	0.0	55.3

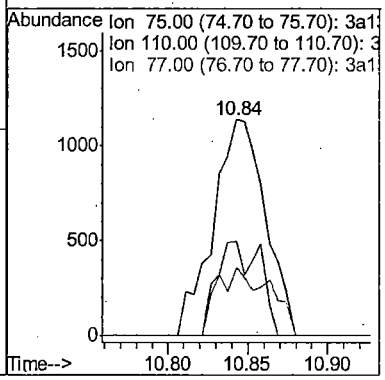




#59
1,1-dichloropropene
Concen: 0.86 ug/L
RT: 10.84 min Scan# 1491
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 2586

Ion	Ratio	Lower	Upper
75	100		
110	43.3	5.3	65.3
77	31.1	0.7	60.7



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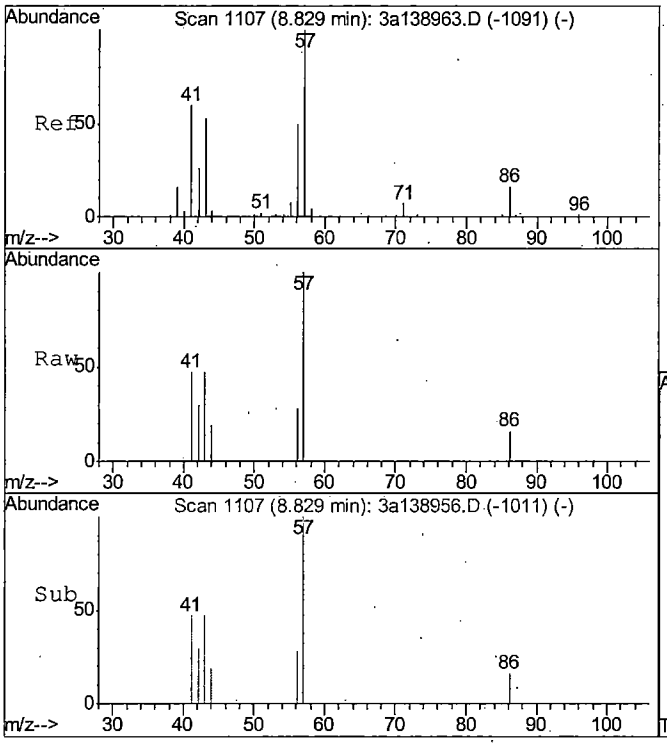
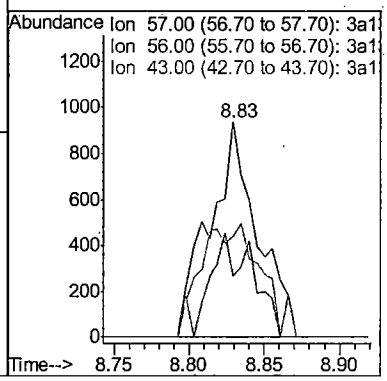
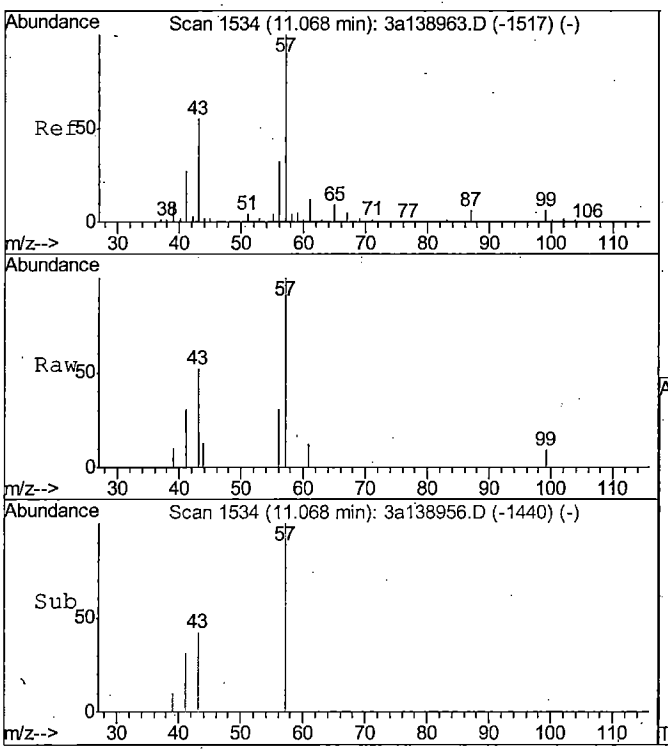


#61
hexane
Concen: 0.77 ug/L
RT: 8.83 min Scan# 1107
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 2061

Ion	Ratio	Lower	Upper
57	100		
56	28.5	20.2	80.2
43	47.2	31.1	91.1

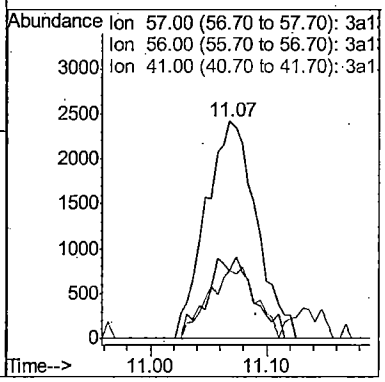




#62
2,2,4-TRIMETHYLPENTANE
Concen: 0.73 ug/L
RT: 11.07 min Scan# 1534
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 7301

Ion	Ratio	Lower	Upper
57	100		
56	34.3	27.2	40.8
41	30.3	29.8	44.6



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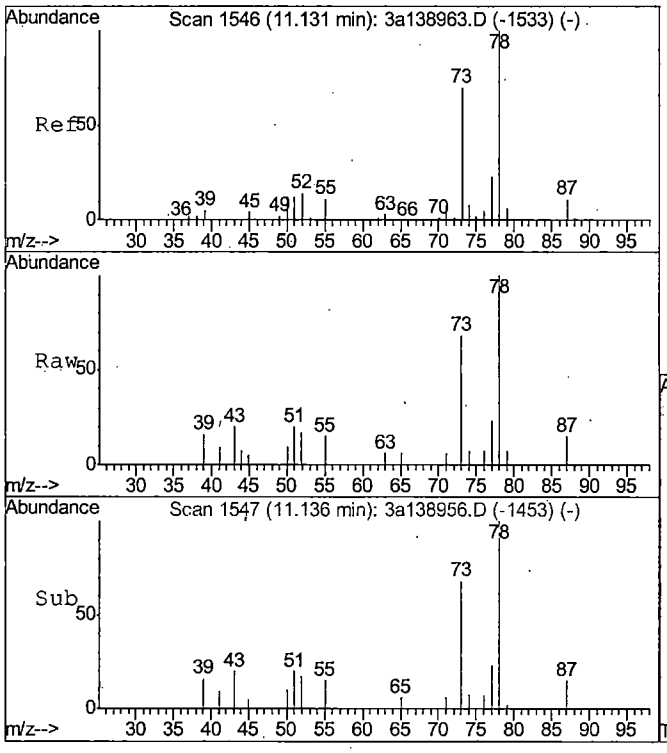
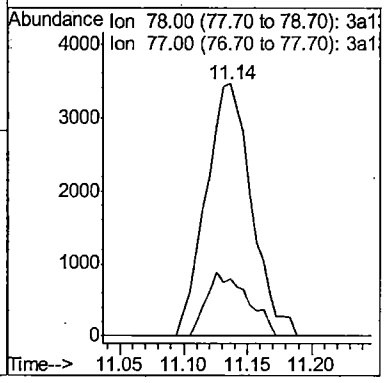
JB88565

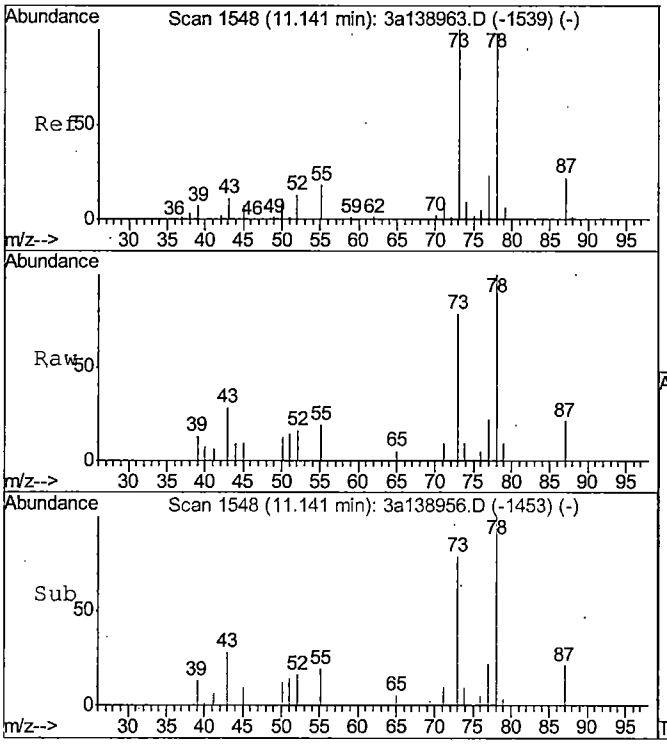


#63
benzene
Concen: 0.95 ug/L
RT: 11.14 min Scan# 1547
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 78 Resp: 8650

Ion	Ratio	Lower	Upper
78	100		
77	22.6	0.0	53.4

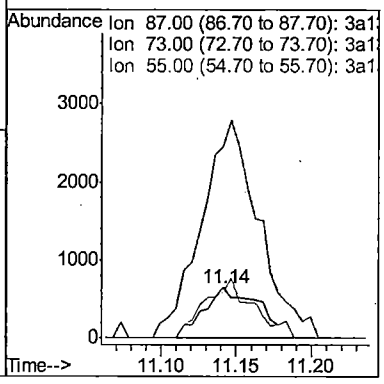




#64
tert-amyl methyl ether
Concen: 0.82 ug/L
RT: 11.14 min Scan# 1548
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 87 Resp: 1663

Ion	Ratio	Lower	Upper
87	100		
73	344.7	411.6	471.6#
55	90.7	50.7	110.7



7.6.1

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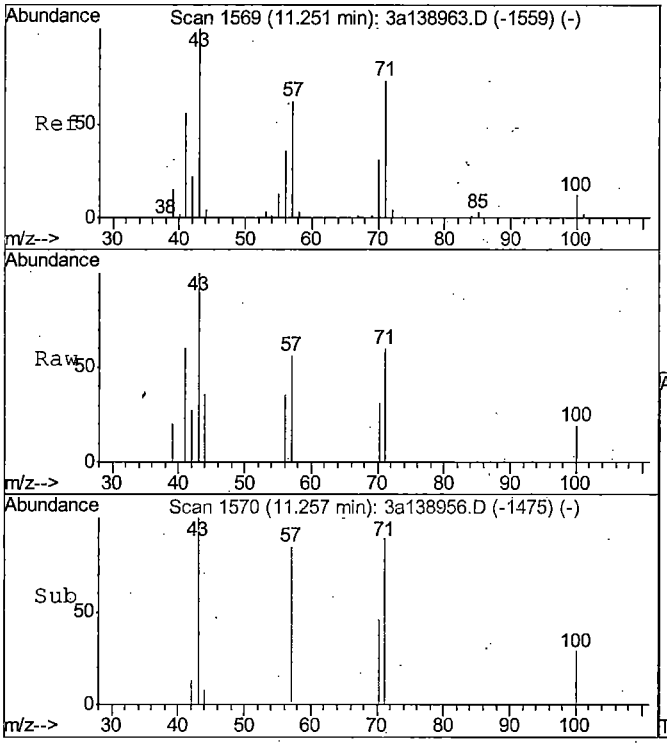
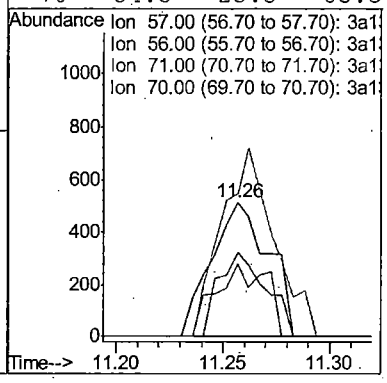
ACCUTEST LABORATORIES JB88565

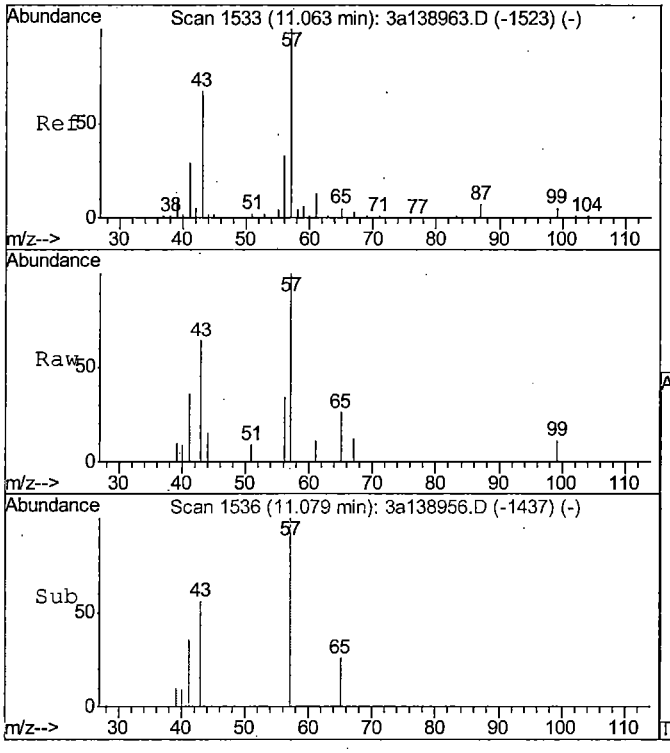


#65
heptane
Concen: 0.60 ug/L
RT: 11.26 min Scan# 1570
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 963

Ion	Ratio	Lower	Upper
57	100		
56	62.6	34.1	94.1
71	106.8	78.0	138.0
70	54.5	23.3	83.3

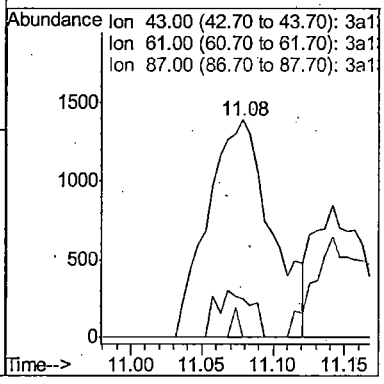




#66
isopropyl acetate
Concen: 0.74 ug/L
RT: 11.08 min Scan# 1536
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 43 Resp: 4332

Ion	Ratio	Lower	Upper
43	100		
61	18.1	0.0	48.0
87	0.0	0.0	39.6



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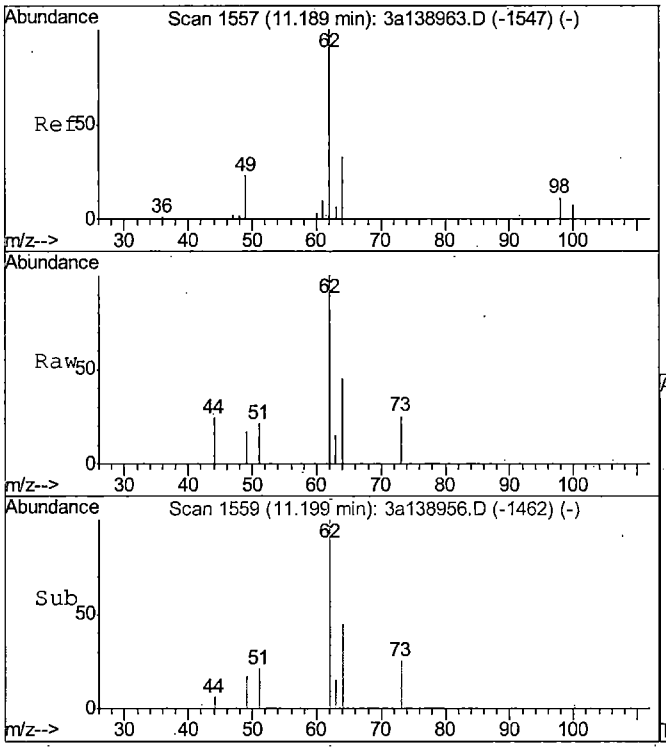
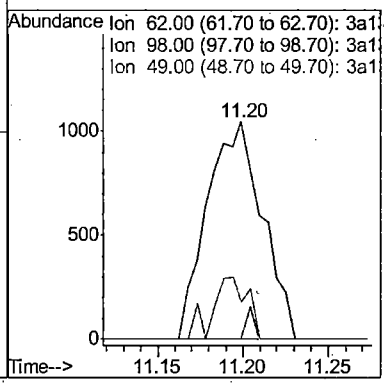
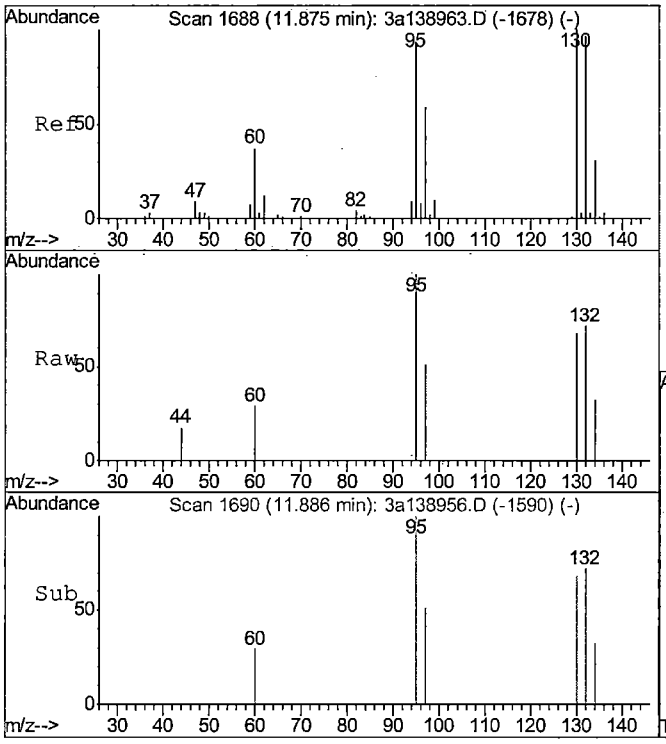


#67
1,2-dichloroethane
Concen: 0.88 ug/L
RT: 11.20 min Scan# 1559
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 62 Resp: 2360

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	39.4
49	16.8	0.6	60.6

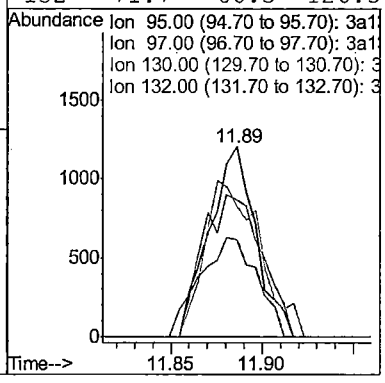




#69
trichloroethene
Concen: 1.02 ug/L
RT: 11.89 min Scan# 1690
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 95 Resp: 2142

Ion	Ratio	Lower	Upper
95	100		
97	51.2	31.7	91.7
130	68.1	70.3	130.3#
132	71.7	66.3	126.3



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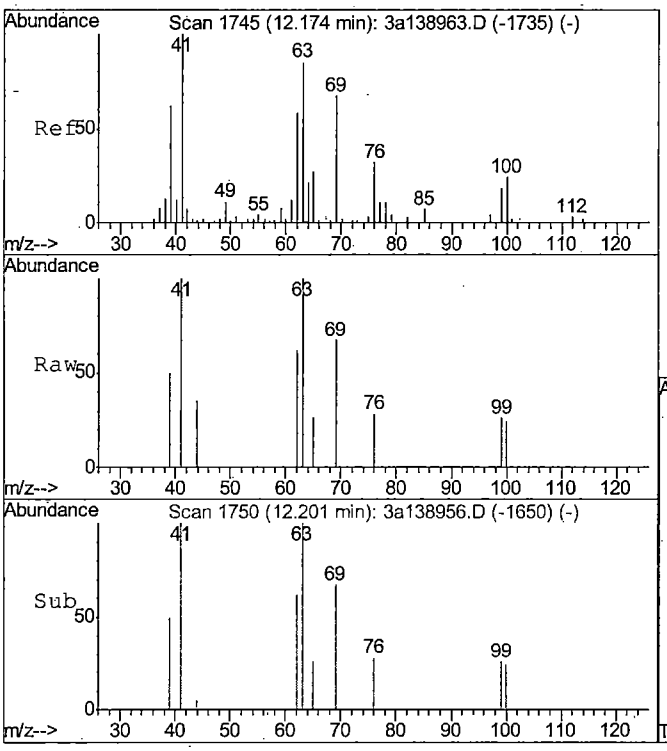
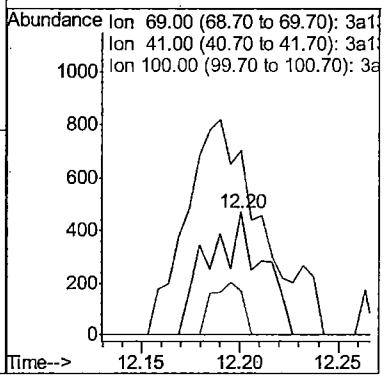
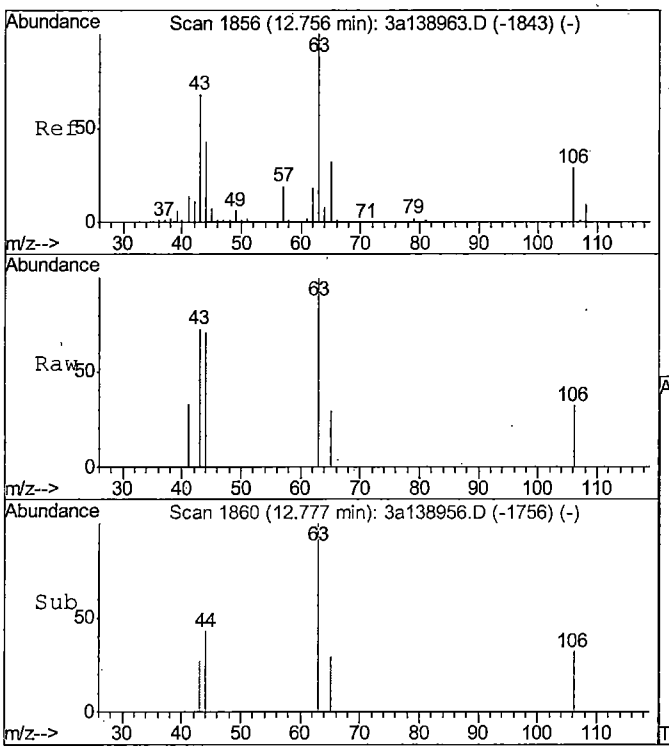


#71
methyl methacrylate
Concen: 0.63 ug/L
RT: 12.20 min Scan# 1750
Delta R.T. 0.03 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 69 Resp: 897

Ion	Ratio	Lower	Upper
69	100		
41	245.0	186.1	246.1
100	24.4	7.0	67.0

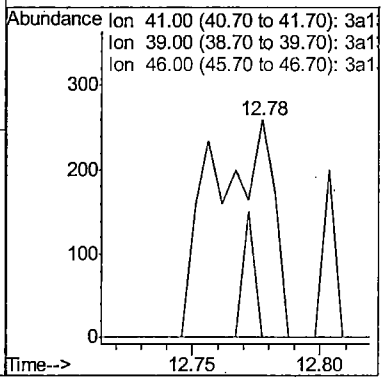




#72
2-nitropropane
Concen: 0.54 ug/L
RT: 12.78 min Scan# 1860
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 41 Resp: 424

Ion	Ratio	Lower	Upper
41	100		
39	0.0	8.7	68.7#
46	0.0	0.0	34.3



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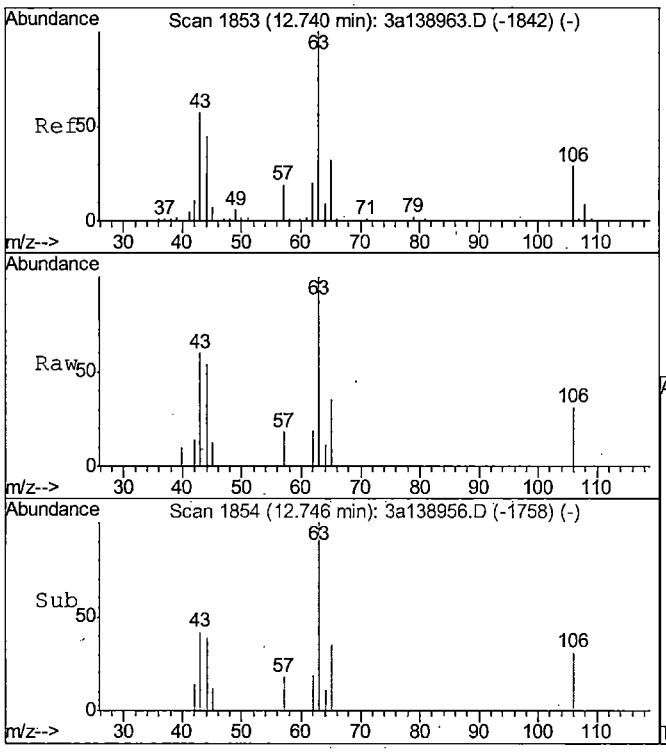
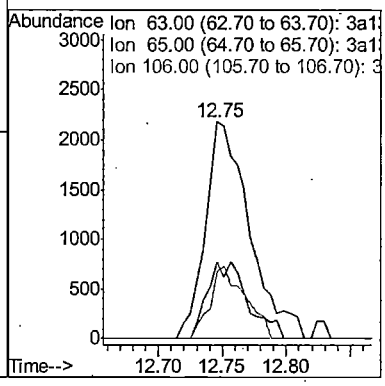
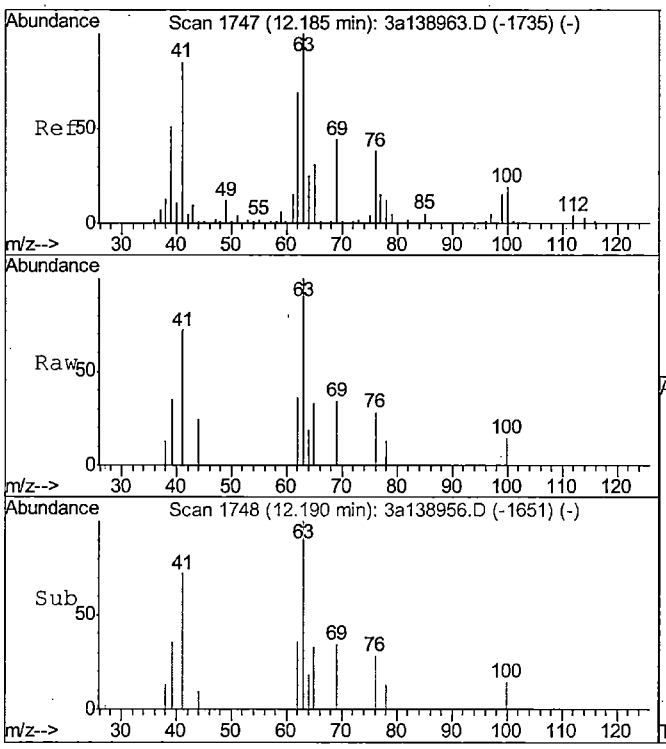


#73
2-chloroethyl vinyl ether
Concen: 3.49 ug/L
RT: 12.75 min Scan# 1854
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 63 Resp: 5234

Ion	Ratio	Lower	Upper
63	100		
65	35.4	1.2	61.2
106	31.3	0.0	54.1

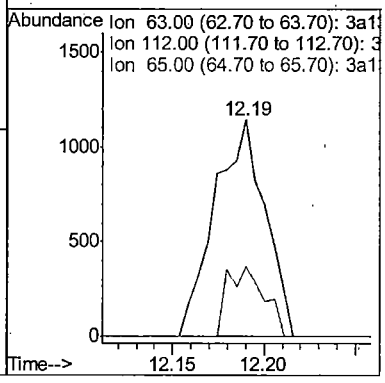




#74
1,2-dichloropropane
Concen: 0.97 ug/L
RT: 12.19 min Scan# 1748
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 63 Resp: 2211

Ion	Ratio	Lower	Upper
63	100		
112	0.0	0.0	33.4
65	32.5	1.3	61.3



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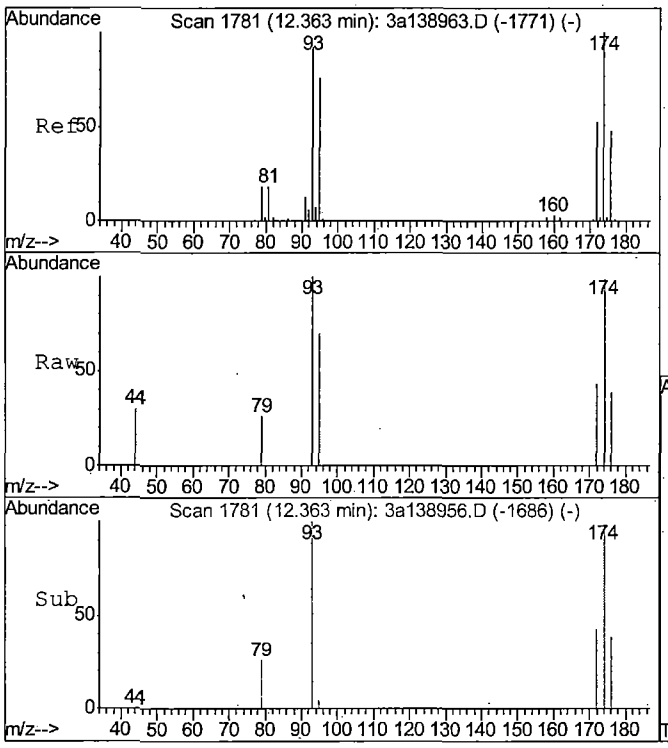
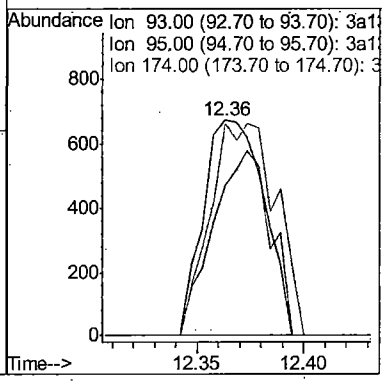
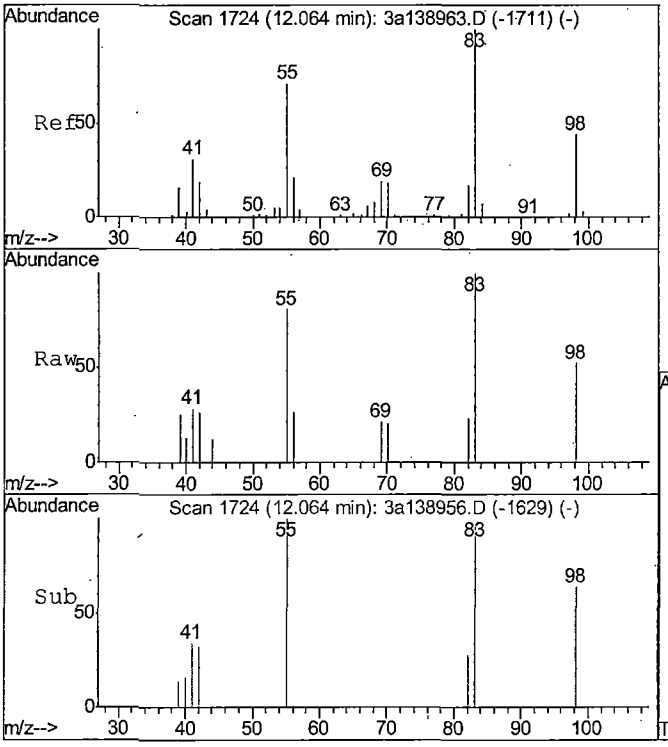


#75
dibromomethane
Concen: 0.97 ug/L
RT: 12.36 min Scan# 1781
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 93 Resp: 1329

Ion	Ratio	Lower	Upper
93	100		
95	70.1	53.5	113.5
174	98.7	72.4	132.4

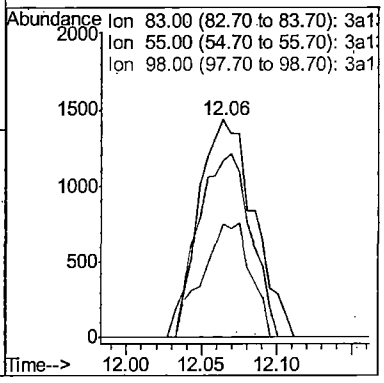




#76
methylcyclohexane
Concen: 0.79 ug/L
RT: 12.06 min Scan# 1724
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 3625

Ion	Ratio	Lower	Upper
83	100		
55	81.3	51.1	111.1
98	52.1	12.7	72.7



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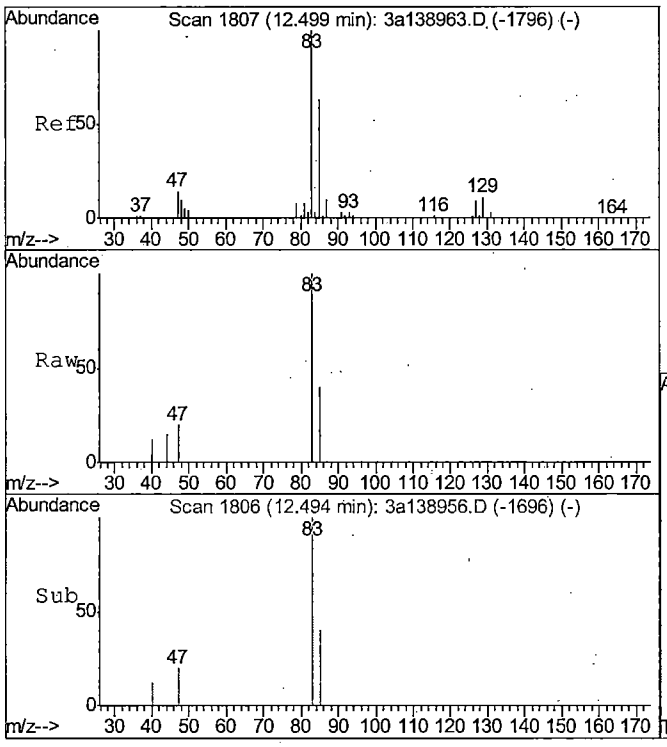
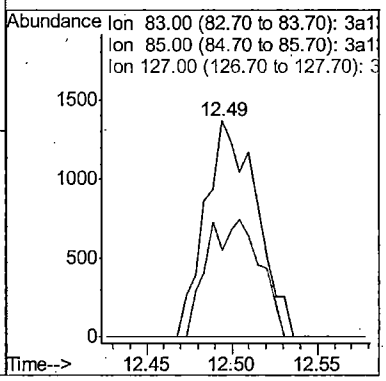
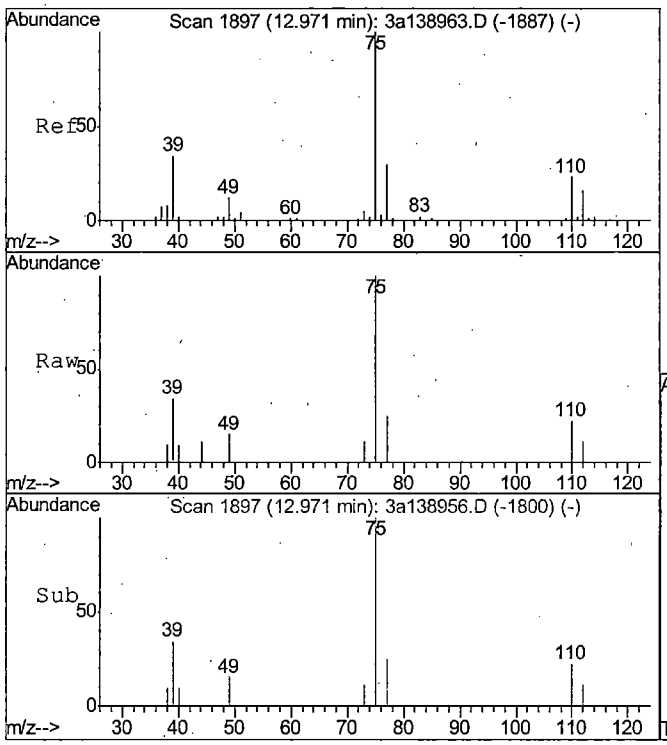


#77
bromodichloromethane
Concen: 1.02 ug/L
RT: 12.49 min Scan# 1806
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 2867

Ion	Ratio	Lower	Upper
83	100		
85	40.0	32.4	92.4
127	0.0	0.0	38.5

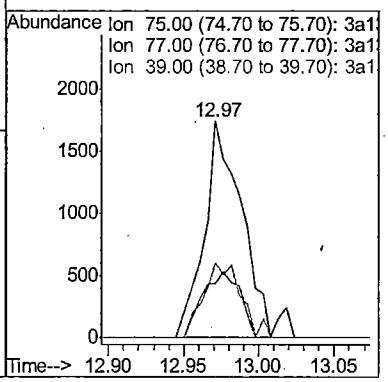




#78
cis-1,3-dichloropropene
Concen: 0.86 ug/L
RT: 12.97 min Scan# 1897
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 3105

Ion	Ratio	Lower	Upper
75	100		
77	24.9	1.2	61.2
39	34.1	10.2	70.2



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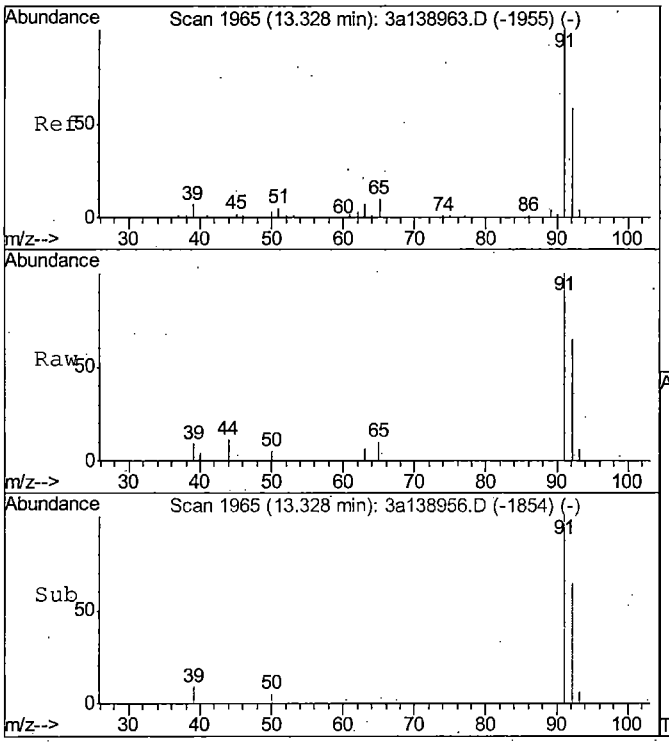
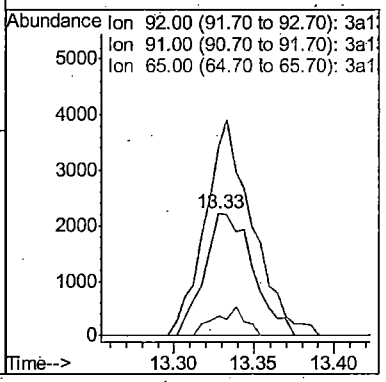
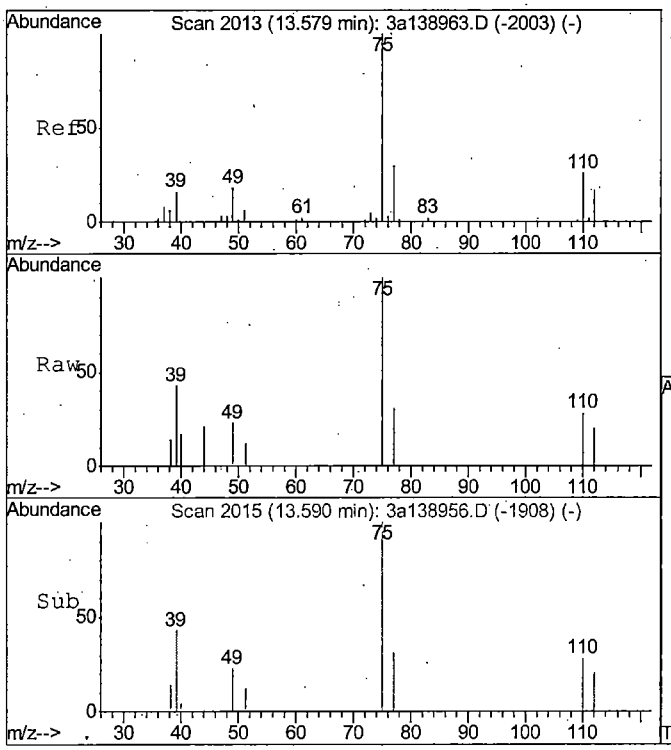


#81
toluene
Concen: 0.94 ug/L
RT: 13.33 min Scan# 1965
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 92 Resp: 4714

Ion	Ratio	Lower	Upper
92	100		
91	153.7	142.1	202.1
65	15.7	0.0	49.2

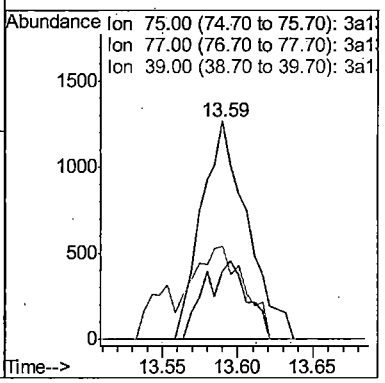




#83
trans-1,3-dichloropropene
Concen: 0.83 ug/L
RT: 13.59 min Scan# 2015
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 2689

Ion	Ratio	Lower	Upper
75	100		
77	31.3	0.8	60.8
39	42.6	9.9	69.9



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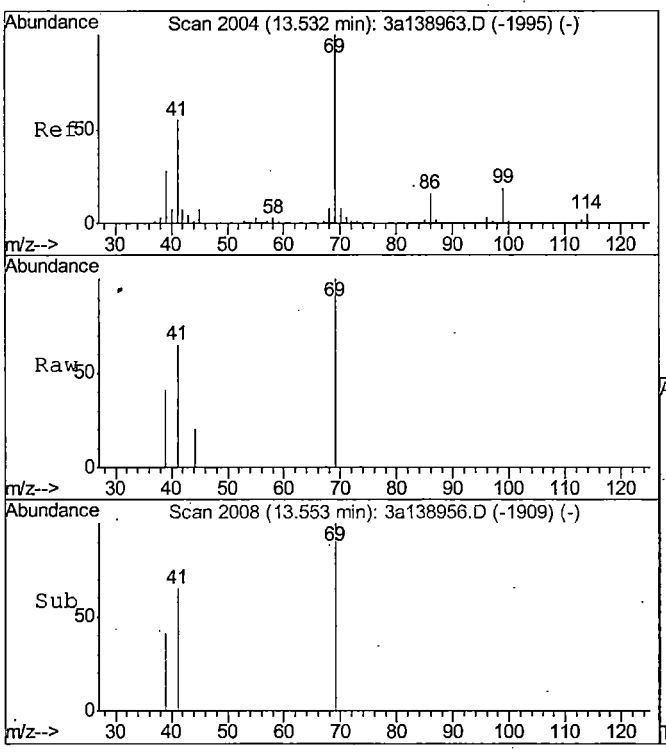
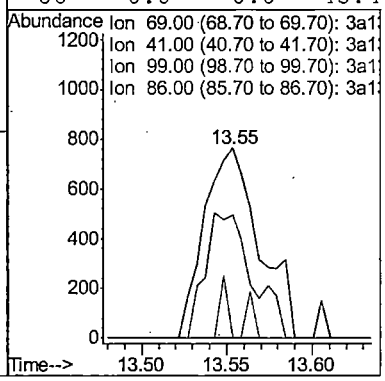
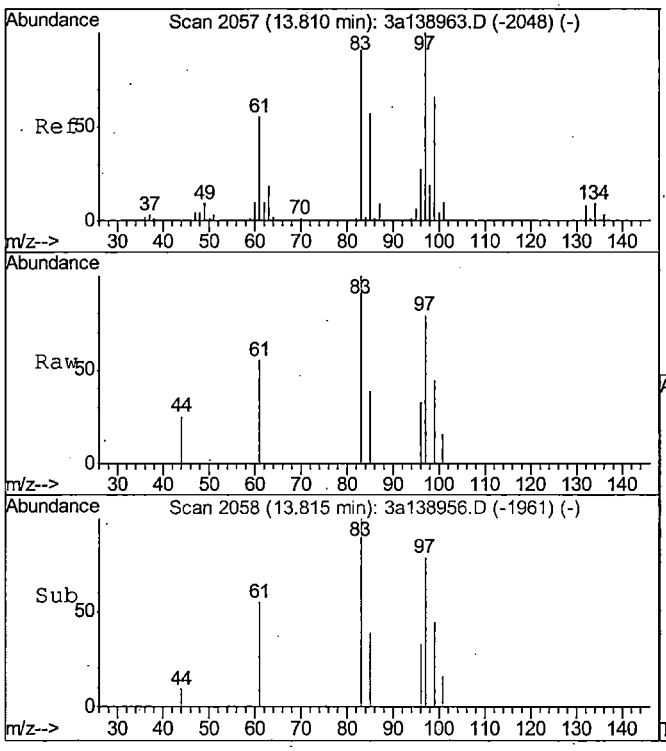


#84
ethyl methacrylate
Concen: 0.61 ug/L
RT: 13.55 min Scan# 2008
Delta R.T. 0.02 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 69 Resp: 1727

Ion	Ratio	Lower	Upper
69	100		
41	64.8	35.3	95.3
99	0.0	0.0	47.3
86	0.0	0.0	45.4

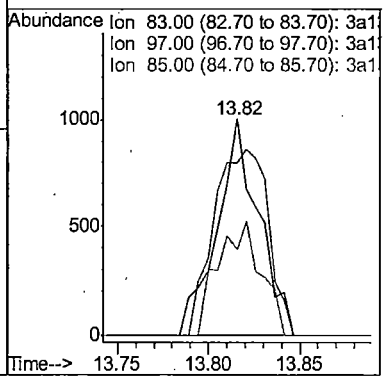




#85
1,1,2-trichloroethane
Concen: 0.98 ug/L
RT: 13.82 min Scan# 2058
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 1584

Ion	Ratio	Lower	Upper
83	100		
97	79.3	84.3	144.3#
85	39.0	34.5	94.5



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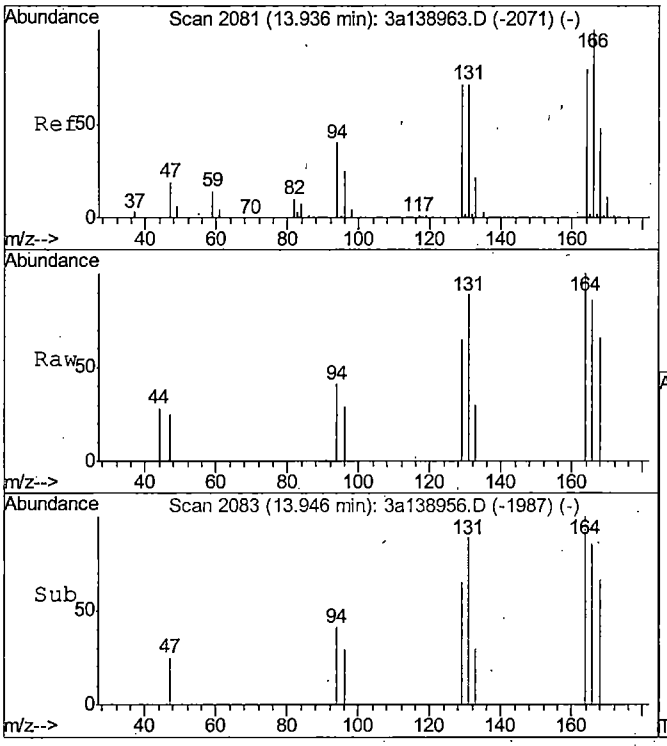
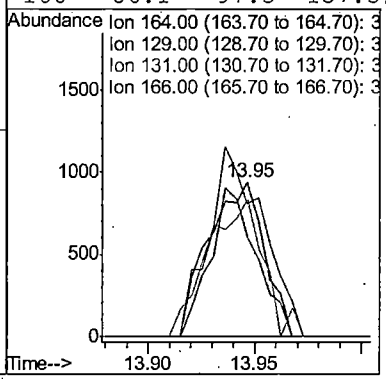
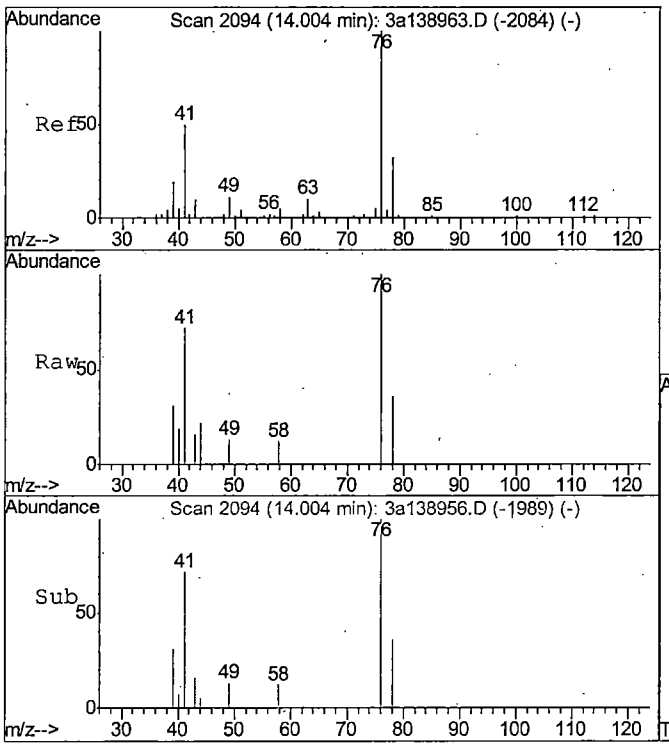


#88
tetrachloroethene
Concen: 1.06 ug/L
RT: 13.95 min Scan# 2083
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:164 Resp: 1703

Ion	Ratio	Lower	Upper
164	100		
129	64.5	59.9	119.9
131	89.1	56.9	116.9
166	86.1	97.3	157.3#

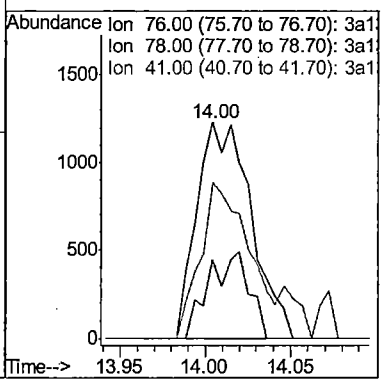




#90
1,3-dichloropropane
Concen: 0.86 ug/L
RT: 14.00 min Scan# 2094
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 76 Resp: 2707

Ion	Ratio	Lower	Upper
76	100		
78	36.0	1.6	61.6
41	71.5	30.6	90.6



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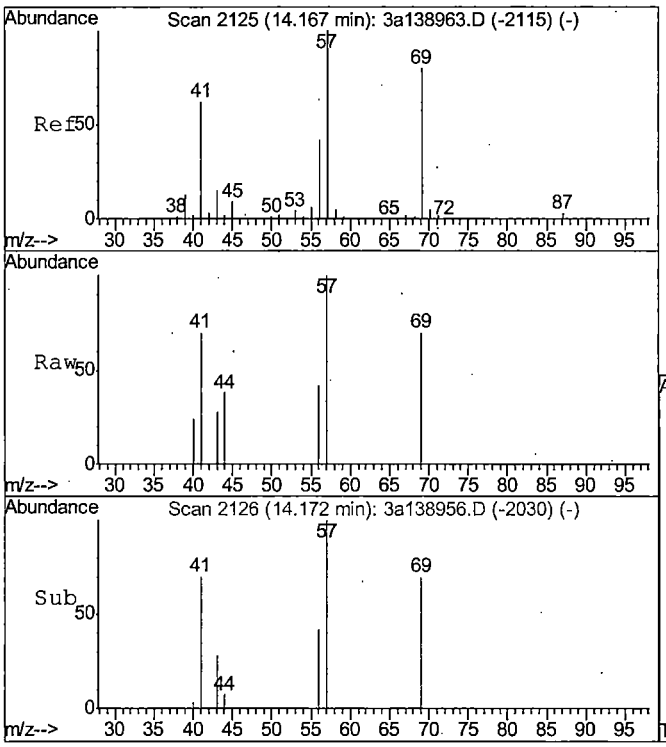
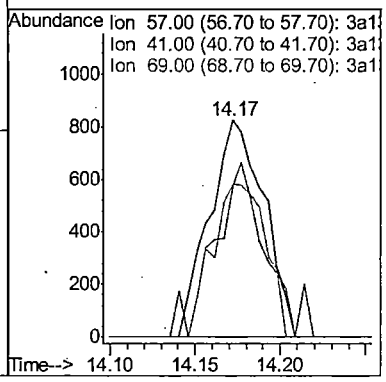
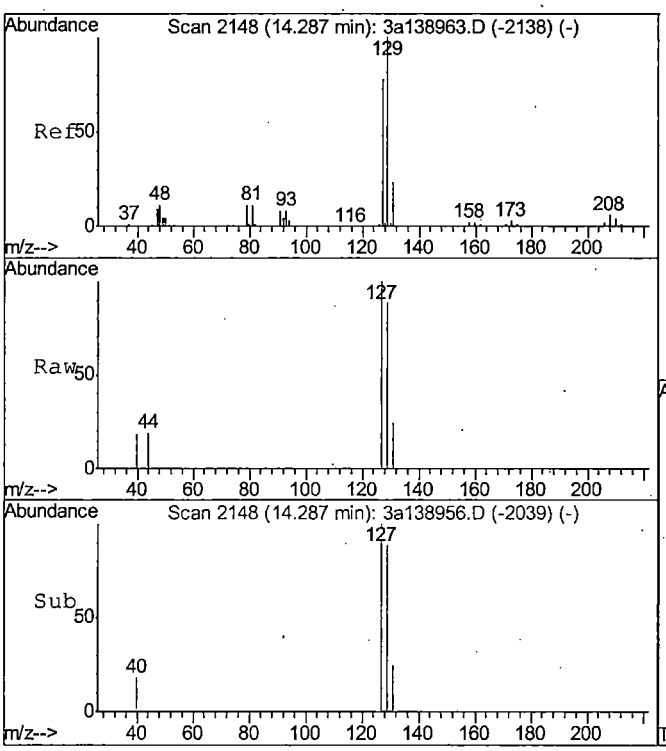


#92
3,3-dimethyl-1-butanol
Concen: 5.15 ug/L
RT: 14.17 min Scan# 2126
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 57 Resp: 1843

Ion	Ratio	Lower	Upper
57	100		
41	76.2	47.4	88.0
69	69.2	51.8	96.2

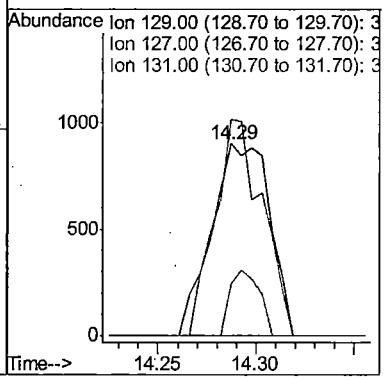




#93
dibromochloromethane
Concen: 0.90 ug/L
RT: 14.29 min Scan# 2148
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:129 Resp: 1843

Ion	Ratio	Lower	Upper
129	100		
127	112.5	46.6	106.6#
131	26.8	0.0	53.7



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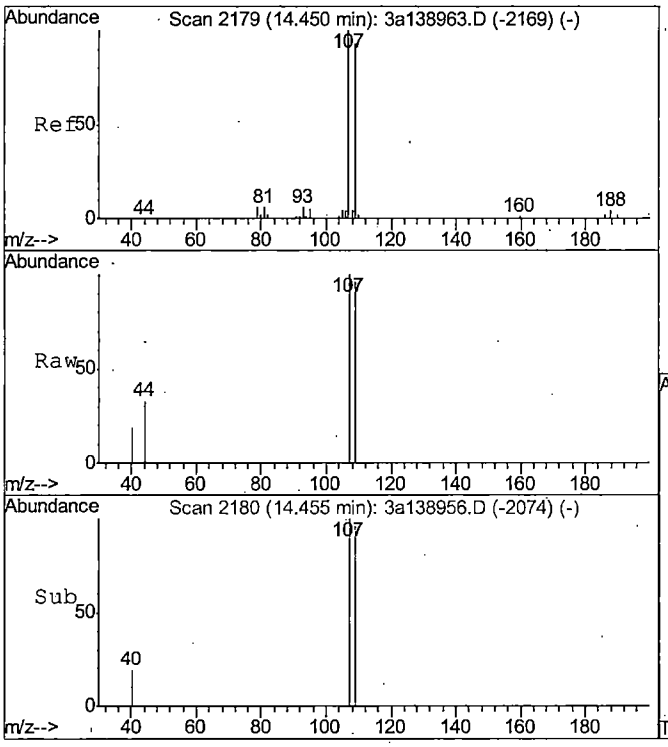
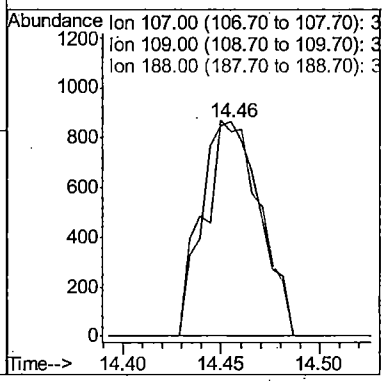
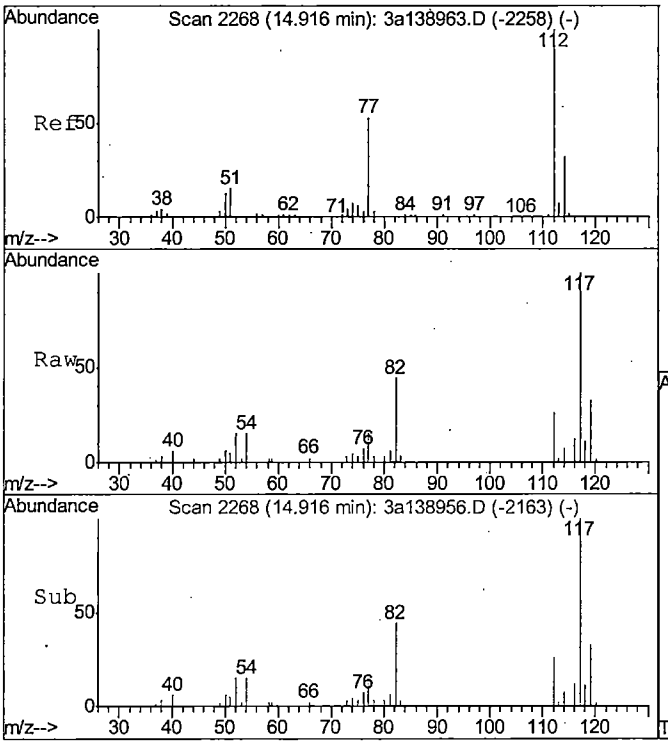


#94
1,2-dibromoethane
Concen: 0.94 ug/L
RT: 14.46 min Scan# 2180
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:107 Resp: 1778

Ion	Ratio	Lower	Upper
107	100		
109	95.6	61.8	121.8
188	0.0	0.0	33.3

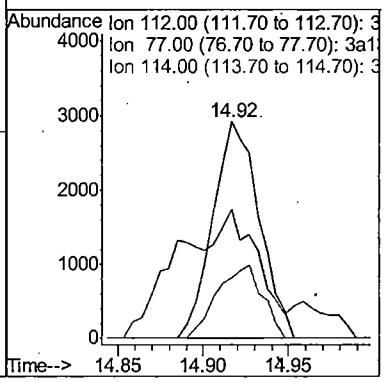




#95
chlorobenzene
Concen: 0.96 ug/L
RT: 14.92 min Scan# 2268
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:112 Resp: 5532

Ion	Ratio	Lower	Upper
112	100		
77	42.8	28.6	88.6
114	27.8	1.6	61.6



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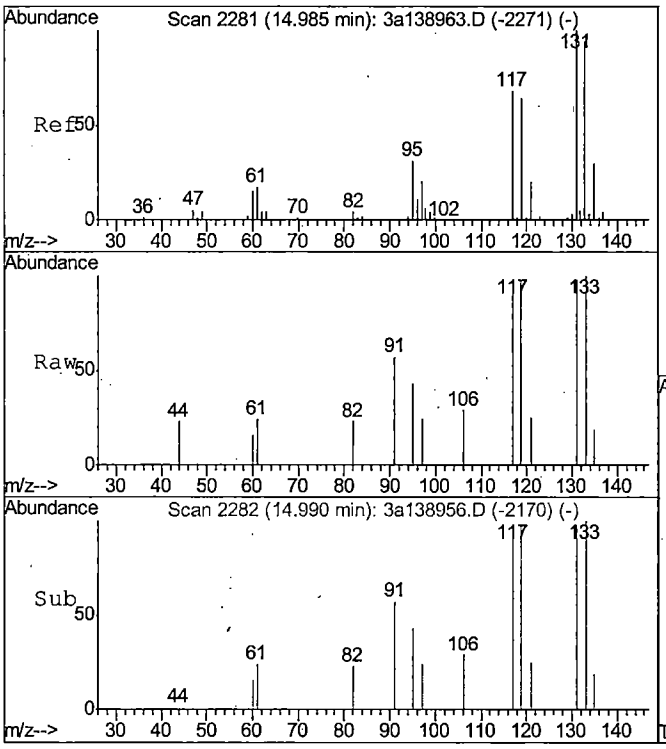
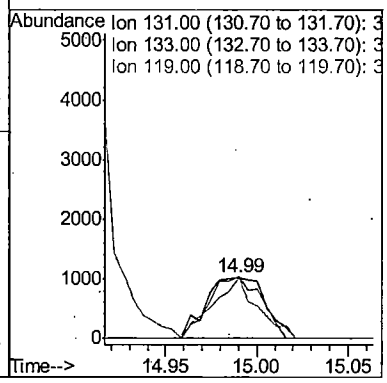
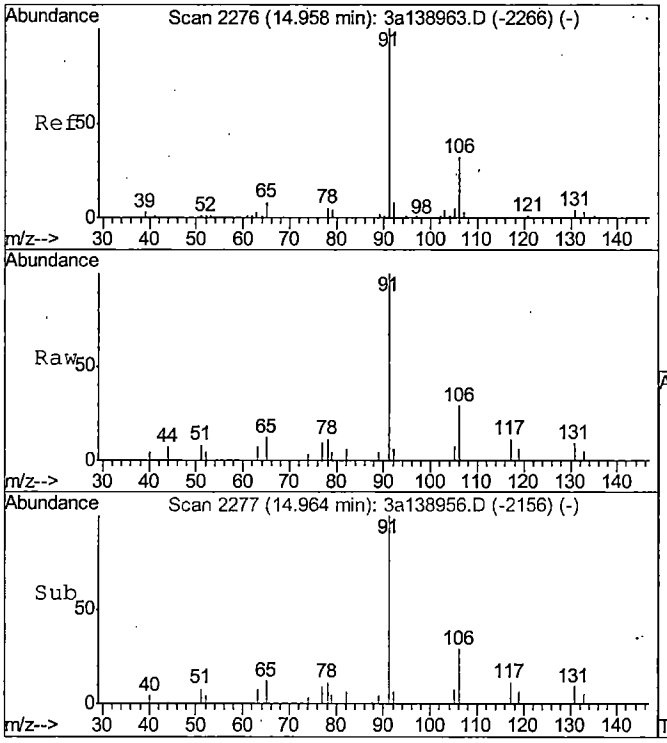


#96
1,1,1,2-tetrachloroethane
Concen: 1.01 ug/L
RT: 14.99 min Scan# 2282
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:131 Resp: 2318

Ion	Ratio	Lower	Upper
131	100		
133	101.9	64.6	124.6
119	99.9	37.3	97.3#

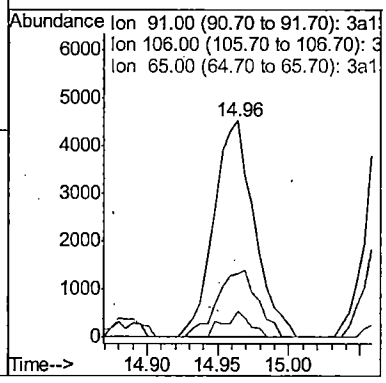




#97
ethylbenzene
Concen: 0.91 ug/L
RT: 14.96 min Scan# 2277
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 91 Resp: 8983

Ion	Ratio	Lower	Upper
91	100		
106	29.1	1.4	61.4
65	11.6	0.0	38.0



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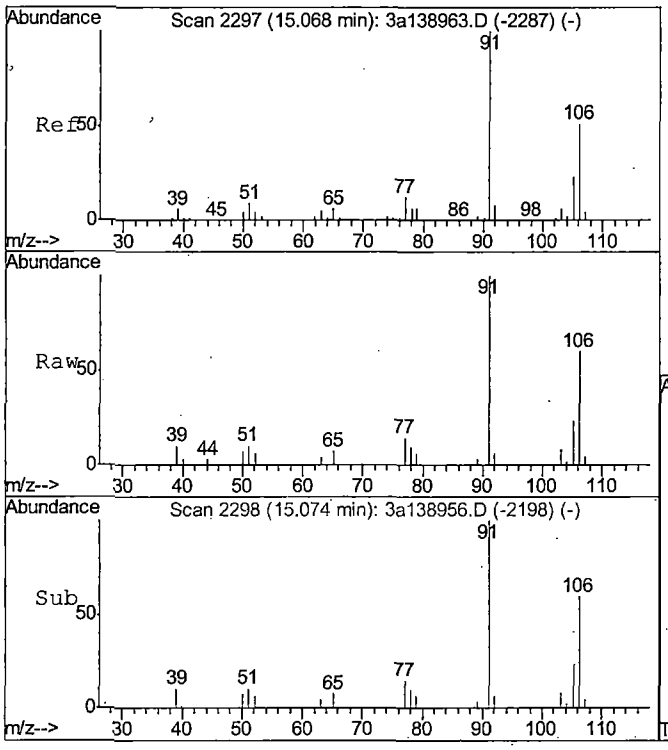
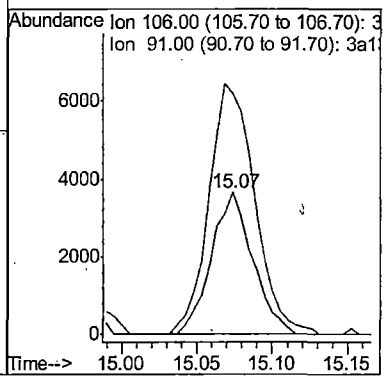
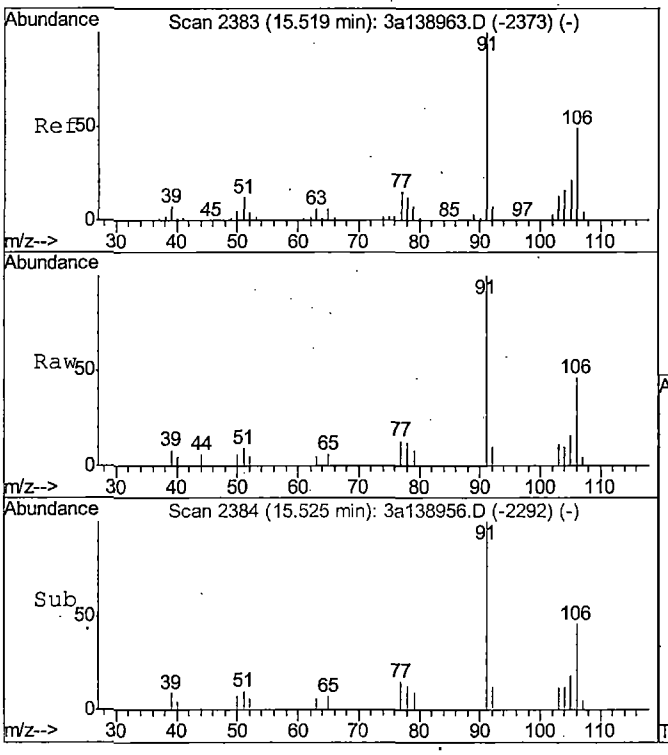


#98
m,p-xylene
Concen: 1.86 ug/L
RT: 15.07 min Scan# 2298
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:106 Resp: 7021

Ion	Ratio	Lower	Upper
106	100		
91	167.8	172.7	232.7#

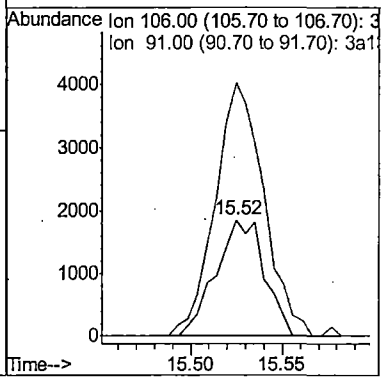




#99
o-xylene
Concen: 0.90 ug/L
RT: 15.52 min Scan# 2384
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:106 Resp: 3462

Ion	Ratio	Lower	Upper
106	100		
91	216.0	183.1	243.1



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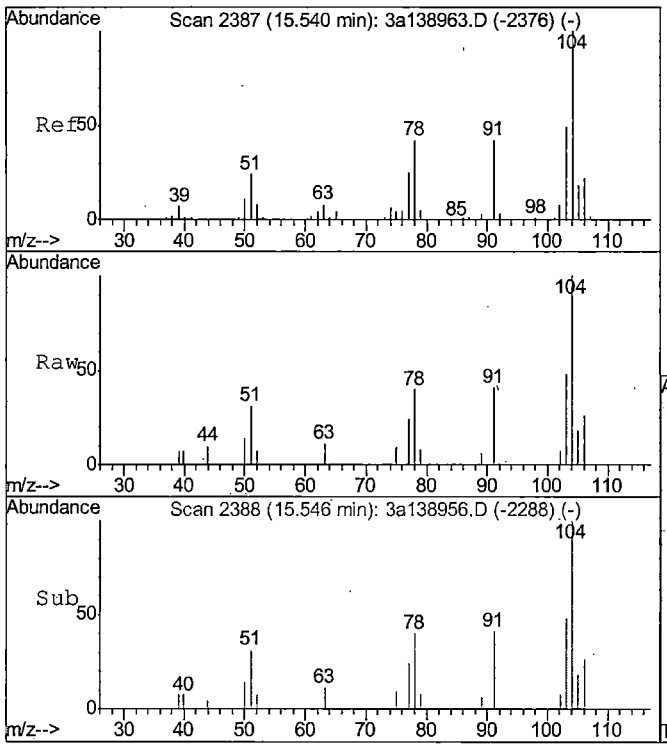
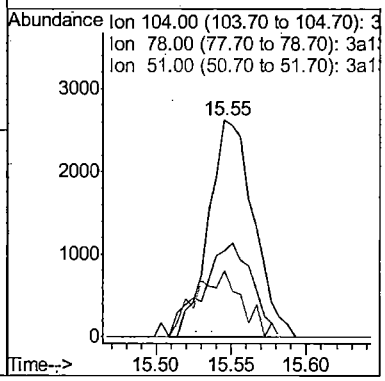
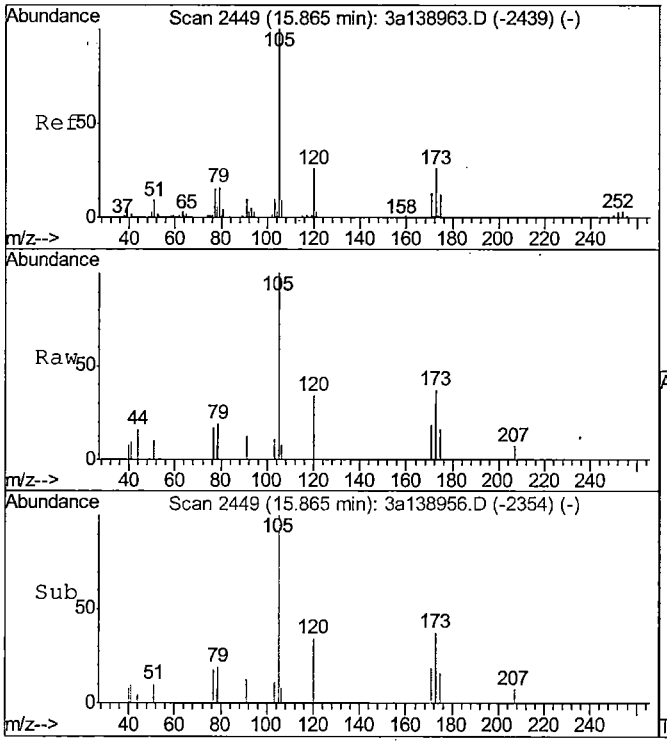


#100
styrene
Concen: 0.87 ug/L
RT: 15.55 min Scan# 2388
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:104 Resp: 5433

Ion	Ratio	Lower	Upper
104	100		
78	39.6	16.3	76.3
51	30.5	0.4	60.4

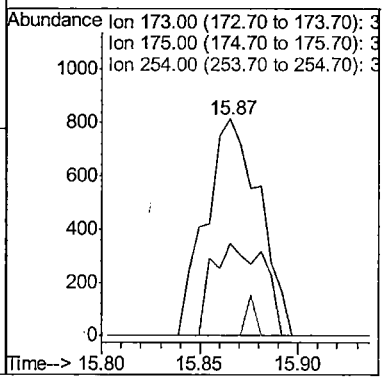




#101
bromoform
Concen: 1.08 ug/L
RT: 15.87 min Scan# 2449
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:173 Resp: 1540

Ion	Ratio	Lower	Upper
173	100		
175	42.2	21.2	81.2
254	0.0	0.0	41.0



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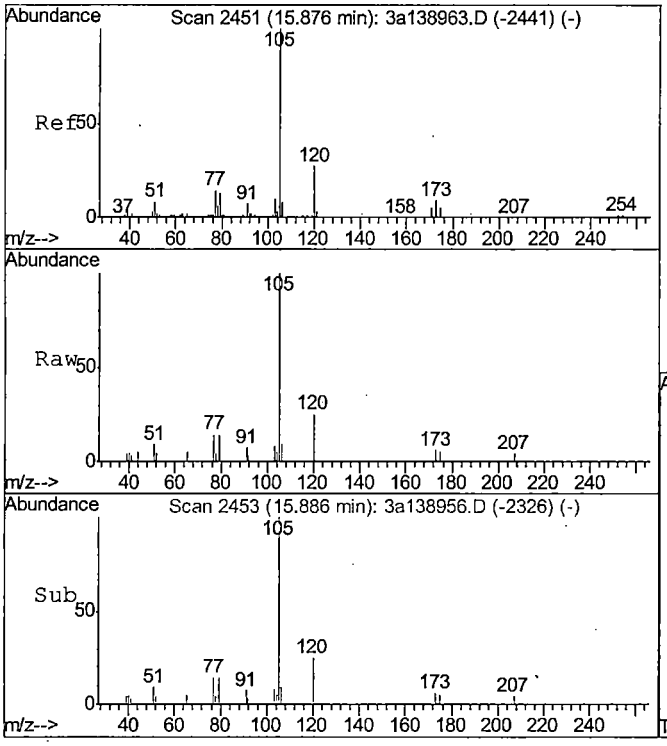
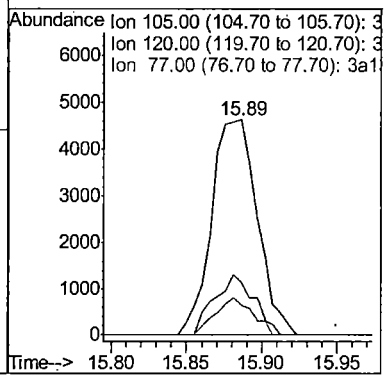
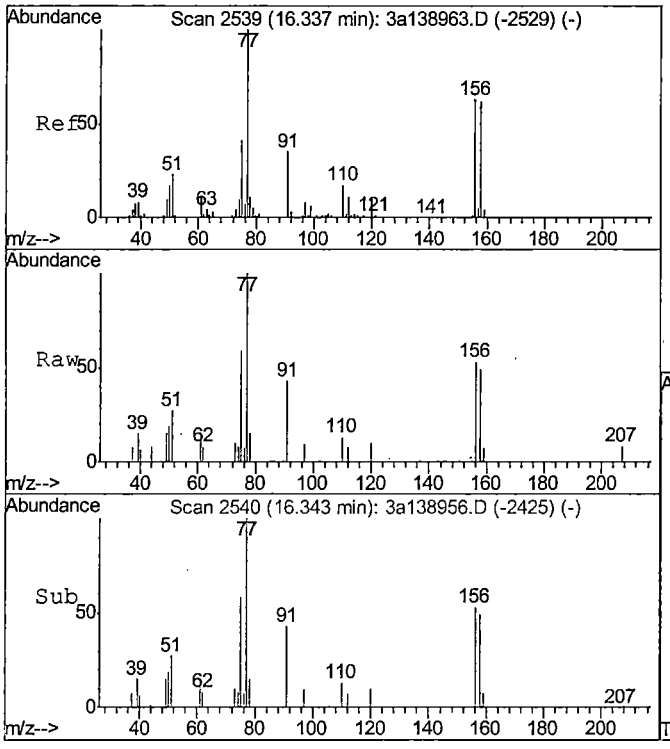


#103
isopropylbenzene
Concen: 0.86 ug/L
RT: 15.89 min Scan# 2453
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 9753

Ion	Ratio	Lower	Upper
105	100		
120	24.7	0.0	56.3
77	13.6	0.0	44.5

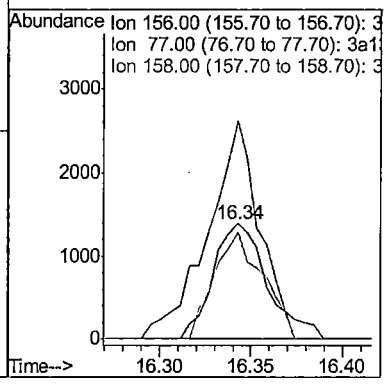




#106
bromobenzene
Concen: 0.98 ug/L
RT: 16.34 min Scan# 2540
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:156 Resp: 2675

Ion	Ratio	Lower	Upper
156	100		
77	174.8	165.2	225.2
158	92.9	67.7	127.7



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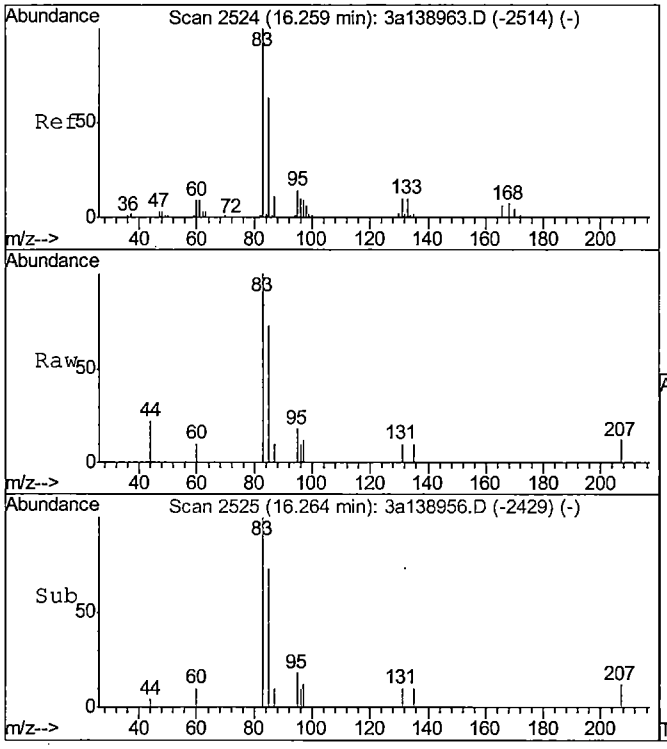
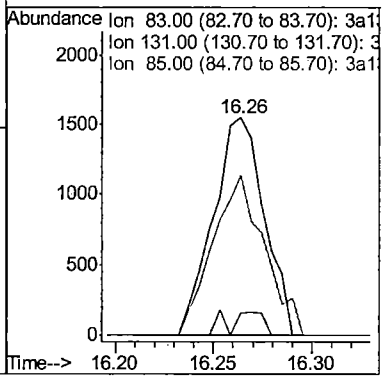
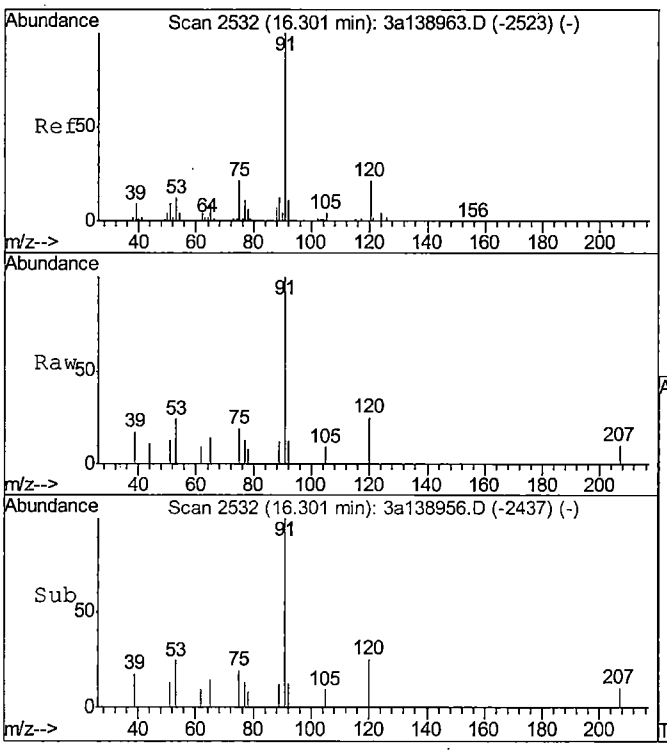


#107
1,1,2,2-tetrachloroethane
Concen: 0.83 ug/L
RT: 16.26 min Scan# 2525
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 83 Resp: 2776

Ion	Ratio	Lower	Upper
83	100		
131	10.3	0.0	39.5
85	73.1	35.6	95.6

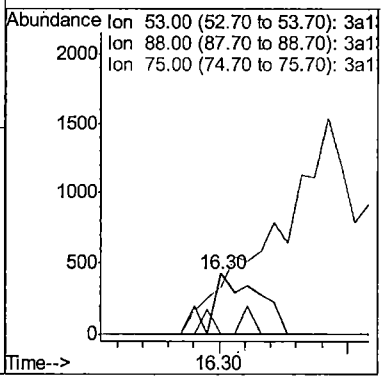




#108
trans-1,4-dichloro-2-butene
Concen: 0.65 ug/L
RT: 16.30 min Scan# 2532
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 53 Resp: 556

Ion	Ratio	Lower	Upper
53	100		
88	0.0	20.6	80.6#
75	77.6	125.6	185.6#



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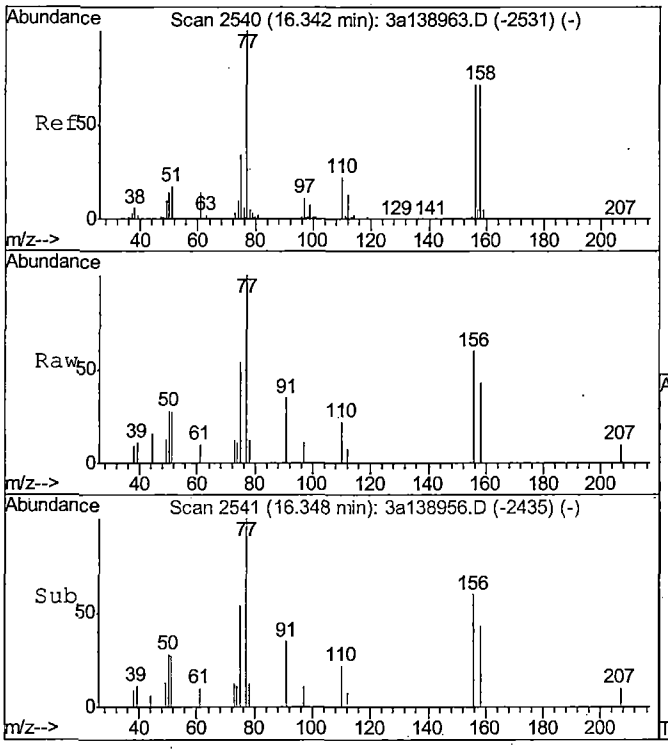
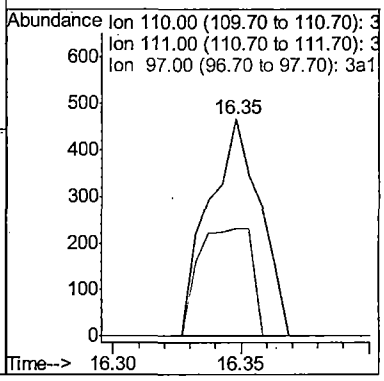
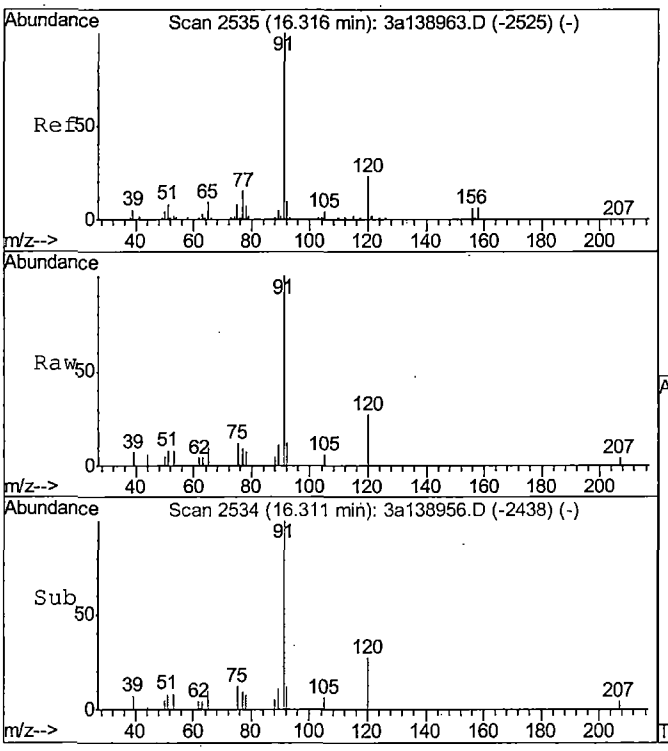


#109
1,2,3-trichloropropane
Concen: 0.82 ug/L
RT: 16.35 min Scan# 2541
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:110 Resp: 653

Ion	Ratio	Lower	Upper
110	100		
111	0.0	0.0	40.3
97	49.8	26.7	86.7

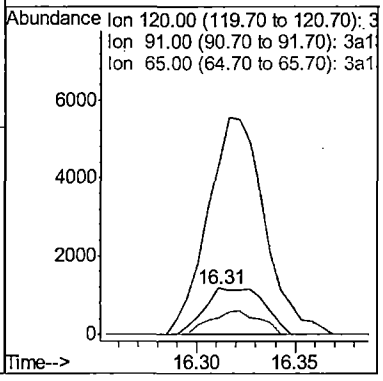




#110
n-propylbenzene
Concen: 0.87 ug/L
RT: 16.31 min Scan# 2534
Delta R.T. -0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:120 Resp: 2432

Ion	Ratio	Lower	Upper
120	100		
91	374.3	423.5	483.5#
65	36.5	15.2	75.2



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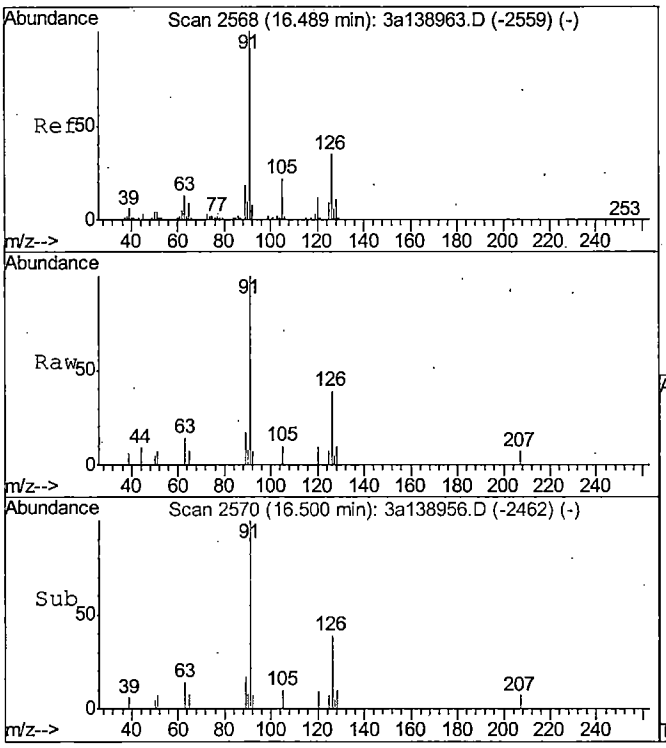
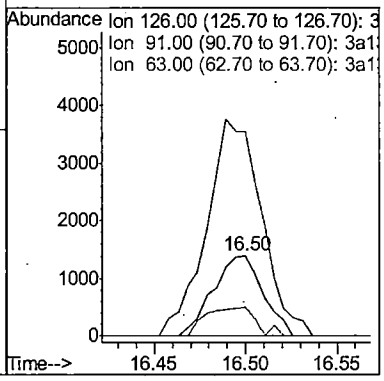
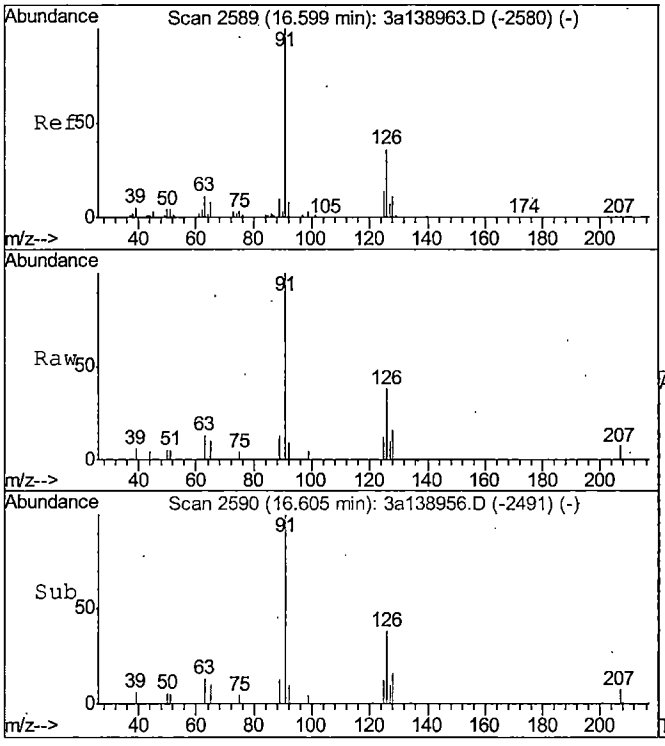


#111
2-chlorotoluene
Concen: 1.00 ug/L
RT: 16.50 min Scan# 2570
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:126 Resp: 2647

Ion	Ratio	Lower	Upper
126	100		
91	235.9	202.9	376.7
63	35.7	27.5	51.1

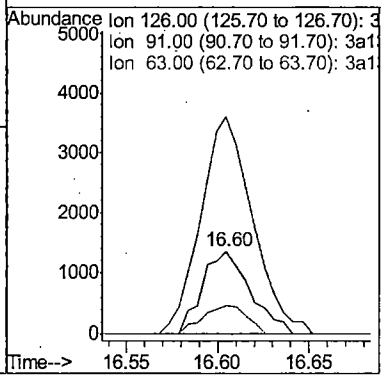




#112
4-chlorotoluene
Concen: 0.92 ug/L
RT: 16.60 min Scan# 2590
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:126 Resp: 2471

Ion	Ratio	Lower	Upper
126	100		
91	253.8	261.2	321.2#
63	34.1	3.8	63.8



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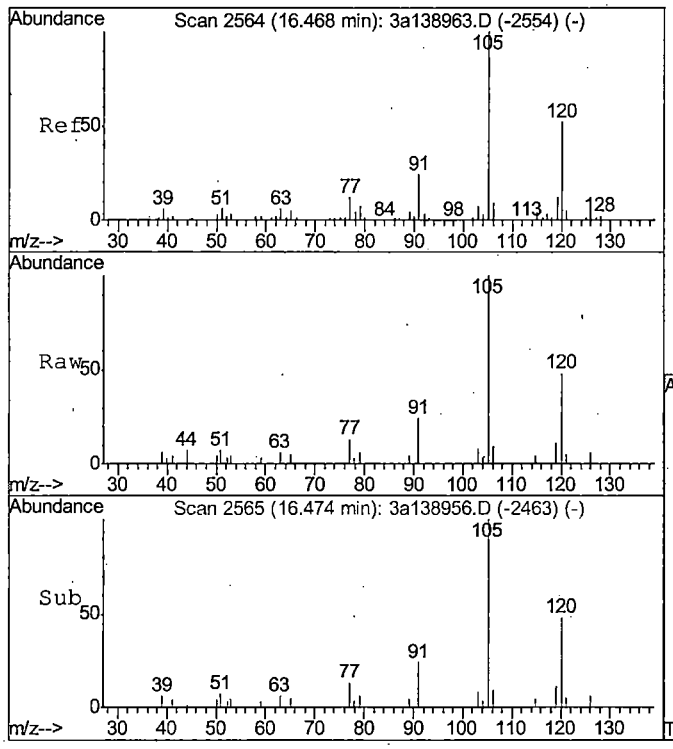
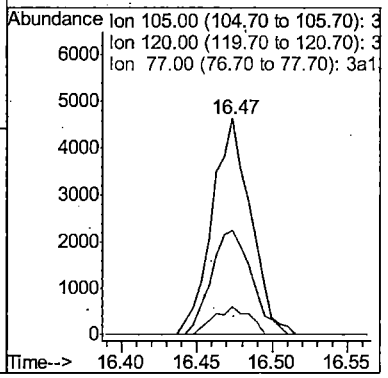
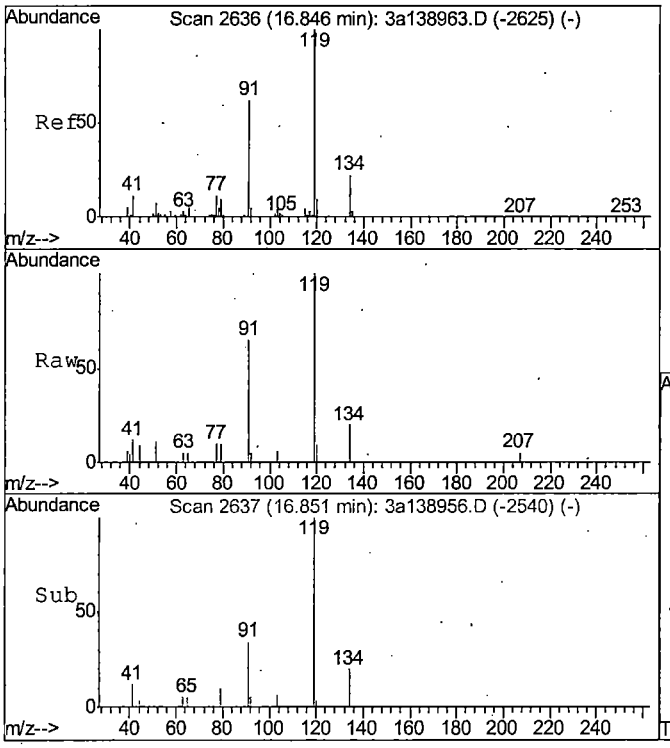


#113
1,3,5-trimethylbenzene
Concen: 0.81 ug/L
RT: 16.47 min Scan# 2565
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 8271

Ion	Ratio	Lower	Upper
105	100		
120	48.3	19.0	79.0
77	12.9	0.0	42.6

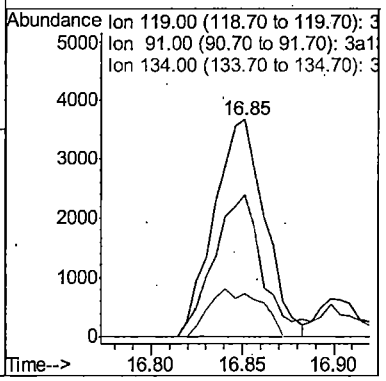




#114
tert-butylbenzene
Concen: 0.78 ug/L
RT: 16.85 min Scan# 2637
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:119 Resp: 7066

Ion	Ratio	Lower	Upper
119	100		
91	64.7	37.9	97.9
134	19.5	0.0	54.3



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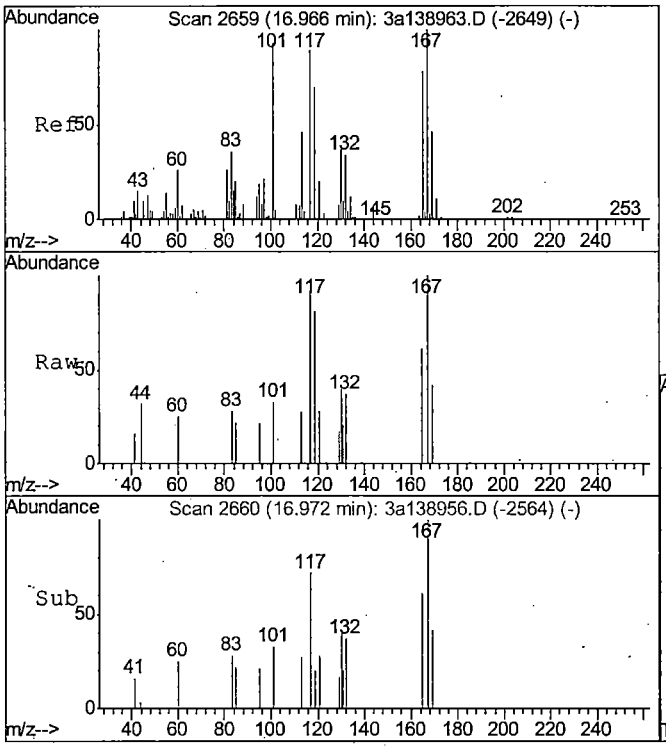
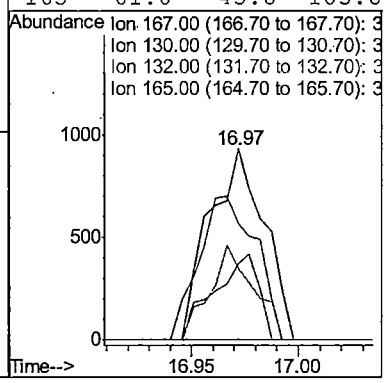
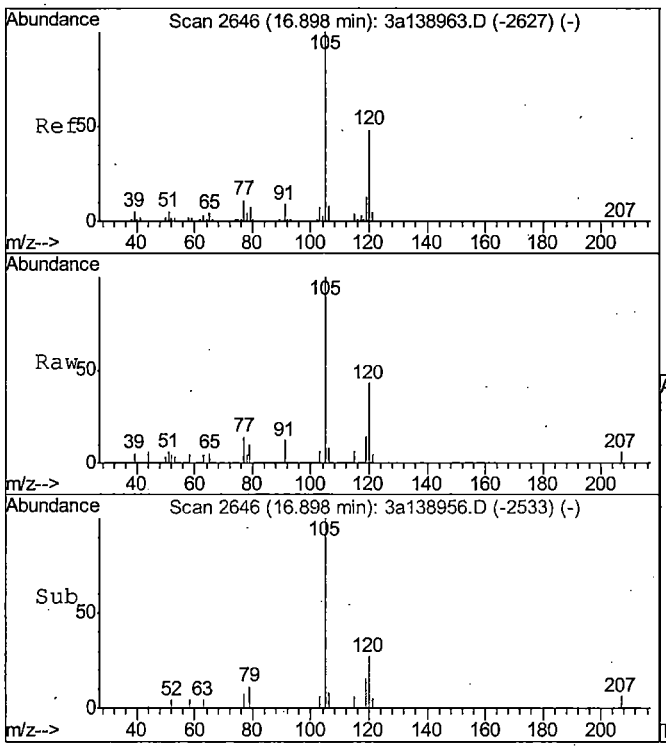


#115
pentachloroethane
Concen: 0.80 ug/L
RT: 16.97 min Scan# 2660
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:167 Resp: 1672

Ion	Ratio	Lower	Upper
167	100		
130	40.4	7.2	67.2
132	36.9	6.3	66.3
165	61.0	45.8	105.8

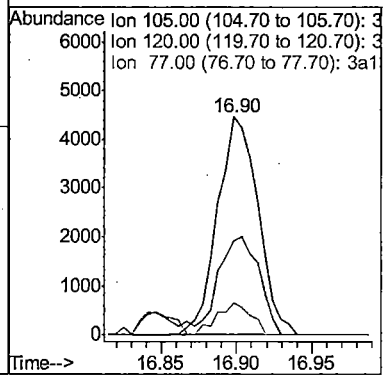




#116
1,2,4-trimethylbenzene
Concen: 0.86 ug/L
RT: 16.90 min Scan# 2646
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 8316

Ion	Ratio	Lower	Upper
105	100		
120	43.0	16.5	76.5
77	14.3	0.0	42.3



7.6.1

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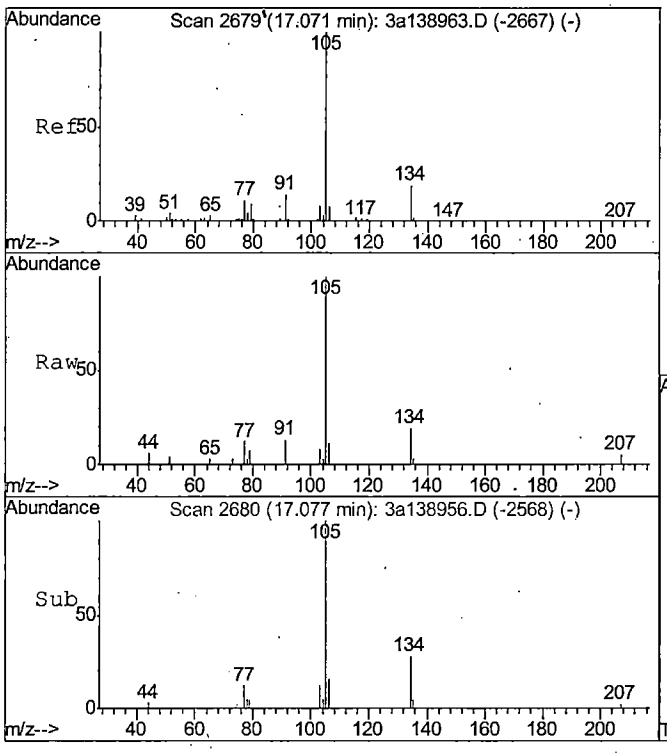
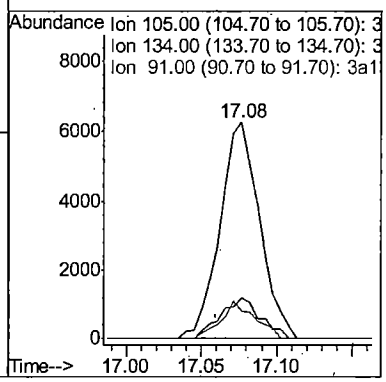
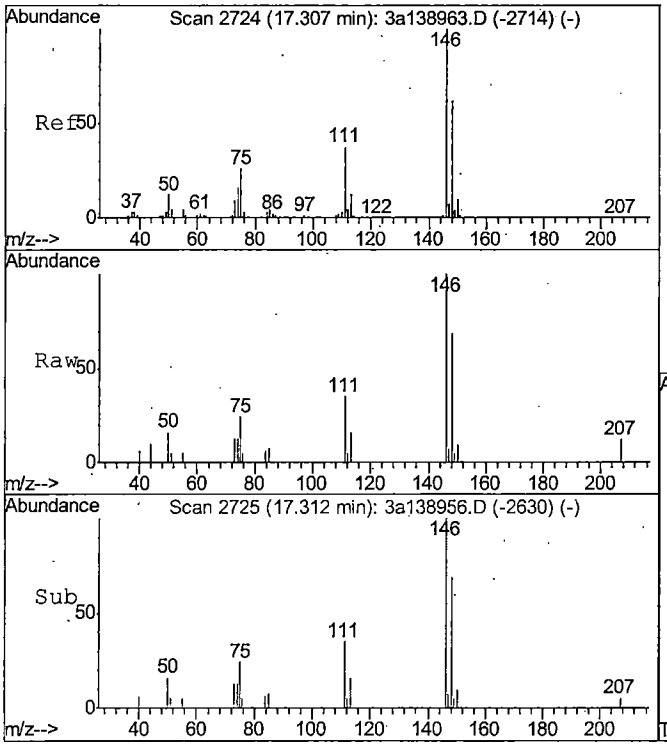


#117
sec-butylbenzene
Concen: 0.80 ug/L
RT: 17.08 min Scan# 2680
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:105 Resp: 11401

Ion	Ratio	Lower	Upper
105	100		
134	19.3	0.0	48.4
91	12.8	0.0	44.9

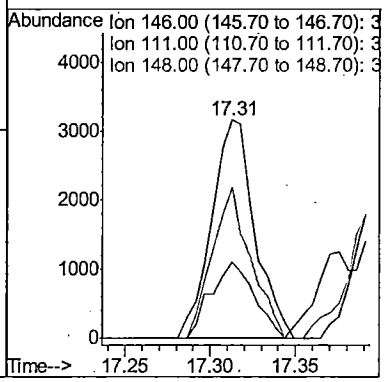




#118
1,3-dichlorobenzene
Concen: 0.96 ug/L
RT: 17.31 min Scan# 2725
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:146 Resp: 5559

Ion	Ratio	Lower	Upper
146	100		
111	35.1	6.1	66.1
148	69.2	32.6	92.6



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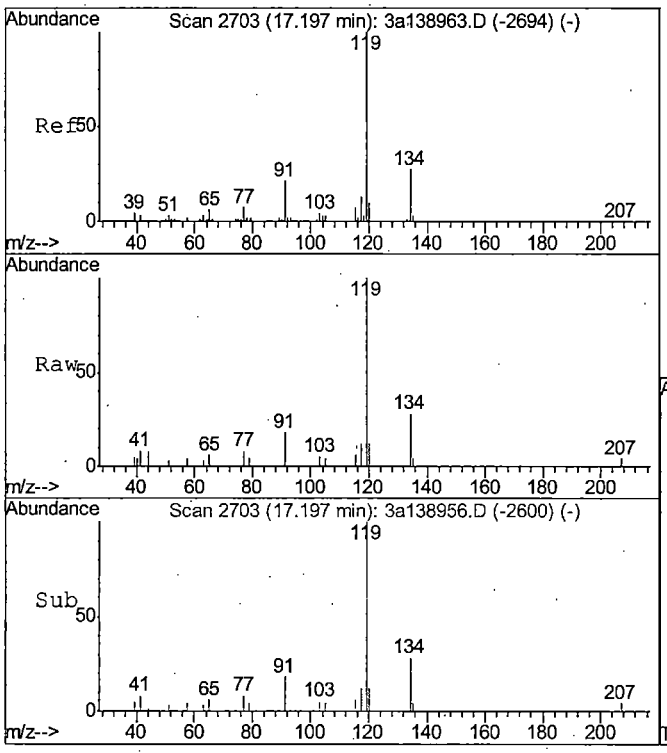
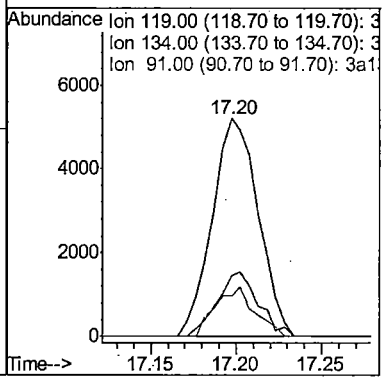
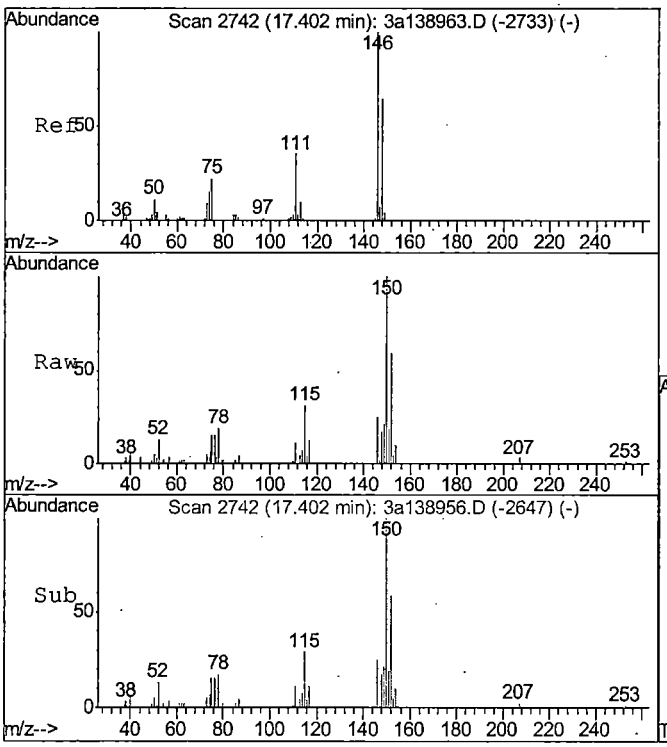


#119
p-isopropyltoluene
Concen: 0.87 ug/L
RT: 17.20 min Scan# 2703
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:119 Resp: 9783

Ion	Ratio	Lower	Upper
119	100		
134	28.0	0.0	55.0
91	18.4	0.0	52.1

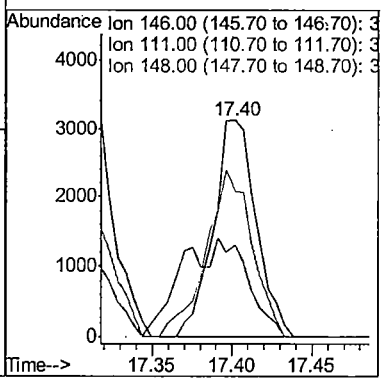




#120
1,4-dichlorobenzene
Concen: 0.96 ug/L
RT: 17.40 min Scan# 2742
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:146 Resp: 5784

Ion	Ratio	Lower	Upper
146	100		
111	41.4	6.9	66.9
148	66.4	33.7	93.7



7.6.1

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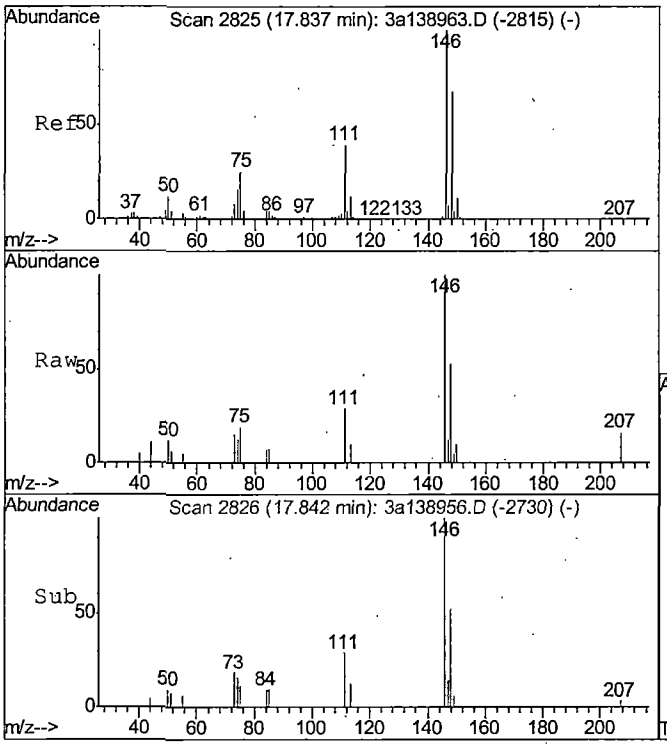
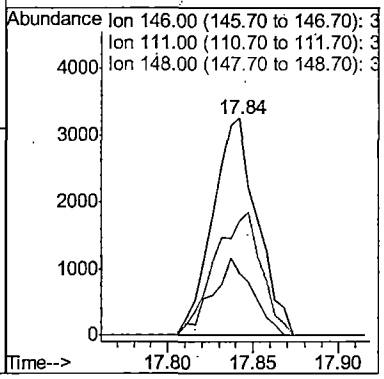
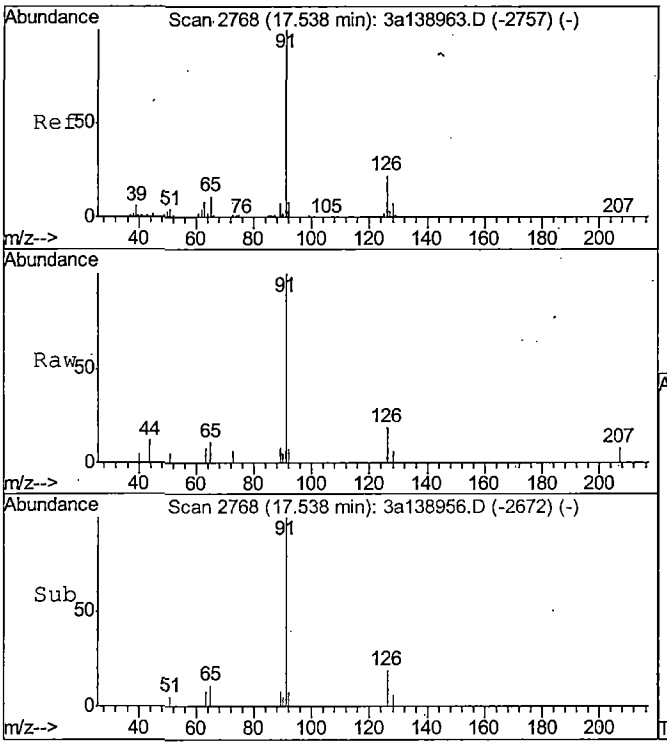


#121
1,2-dichlorobenzene
Concen: 0.97 ug/L
RT: 17.84 min Scan# 2826
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:146 Resp: 5918

Ion	Ratio	Lower	Upper
146	100		
111	29.2	10.3	70.3
148	52.7	33.6	93.6

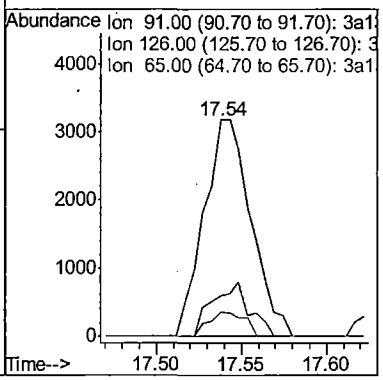




#122
benzyl chloride
Concen: 0.84 ug/L
RT: 17.54 min Scan# 2768
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 91 Resp: 6081

Ion	Ratio	Lower	Upper
91	100		
126	19.6	14.4	26.7
65	8.5	8.2	15.2



7.6.1

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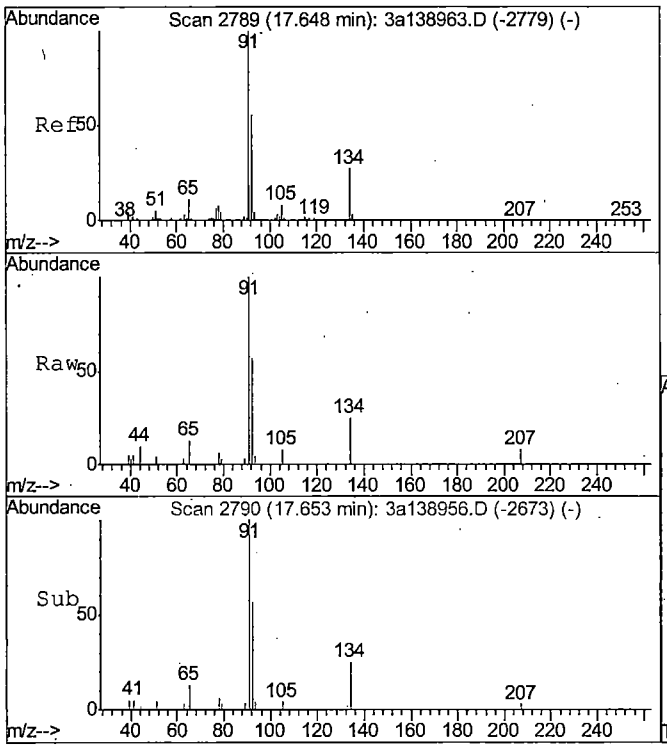
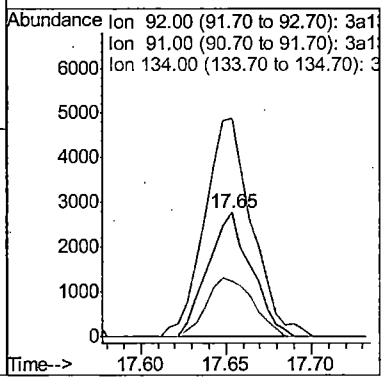
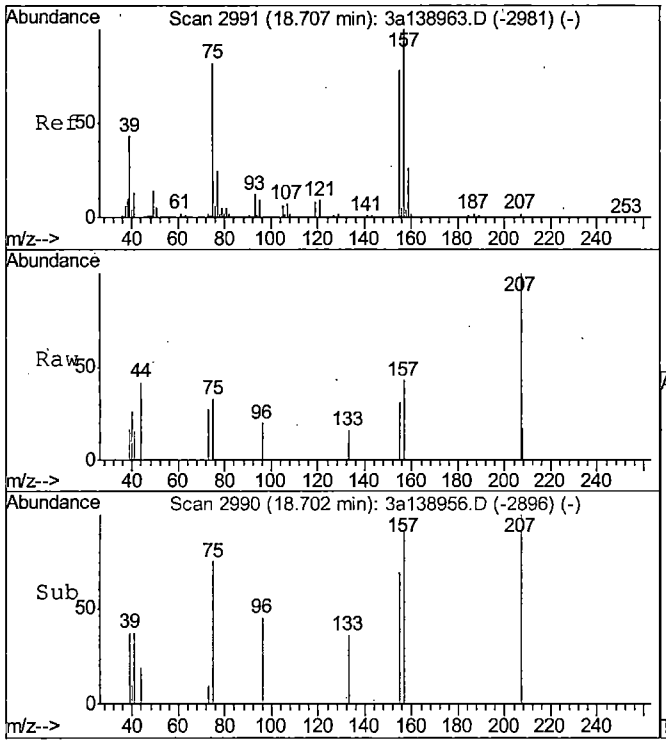


#123
n-butylbenzene
Concen: 0.82 ug/L
RT: 17.65 min Scan# 2790
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 92 Resp: 4935

Ion	Ratio	Lower	Upper
92	100		
91	170.5	150.4	210.4
134	44.8	15.7	75.7

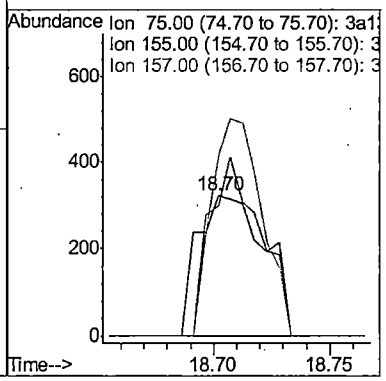




#124
1,2-dibromo-3-chloropropane
Concen: 0.79 ug/L
RT: 18.70 min Scan# 2990
Delta R.T. -0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion: 75 Resp: 643

Ion	Ratio	Lower	Upper
75	100		
155	92.6	60.4	120.4
157	128.8	85.5	145.5



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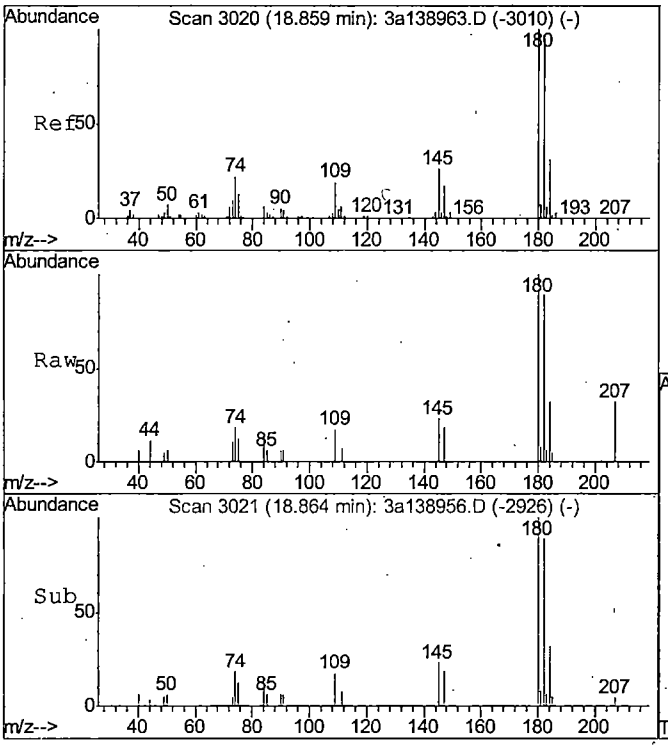
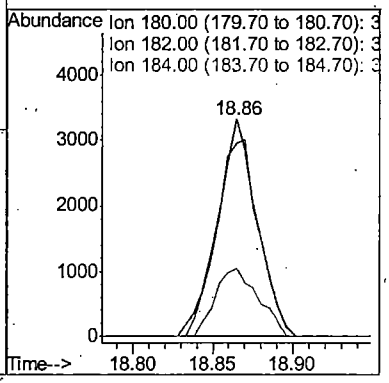
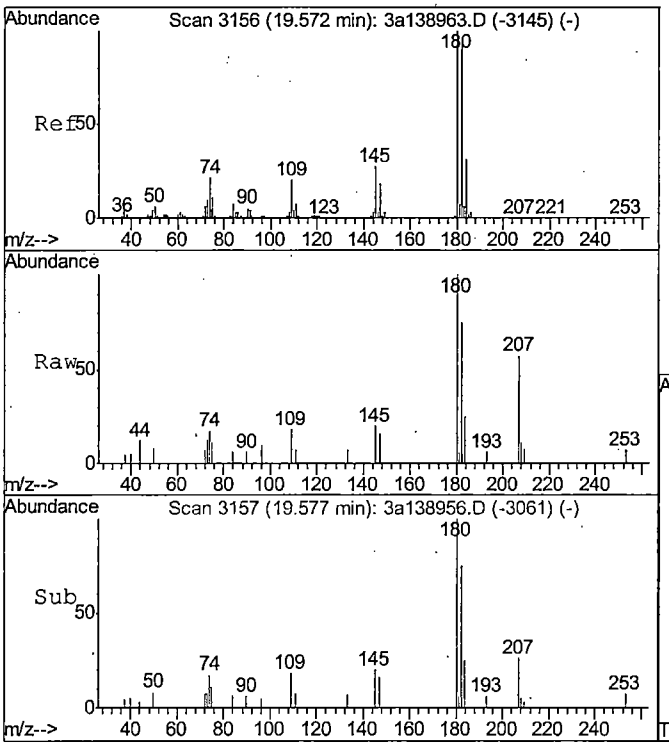


#125
1,3,5-TRICHLOROBENZENE
Concen: 0.89 ug/L
RT: 18.86 min Scan# 3021
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:180 Resp: 5735

Ion	Ratio	Lower	Upper
180	100		
182	96.8	65.0	125.0
184	34.1	0.0	59.8

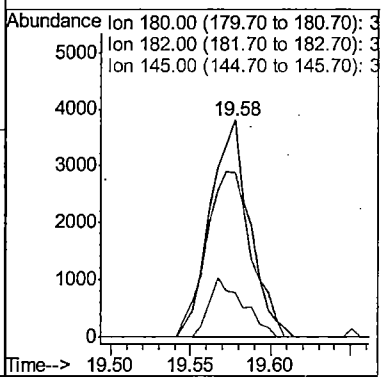




#126
1,2,4-trichlorobenzene
Concen: 0.92 ug/L
RT: 19.58 min Scan# 3157
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:180 Resp: 6445

Ion	Ratio	Lower	Upper
180	100		
182	75.5	66.5	126.5
145	20.2	0.0	58.2



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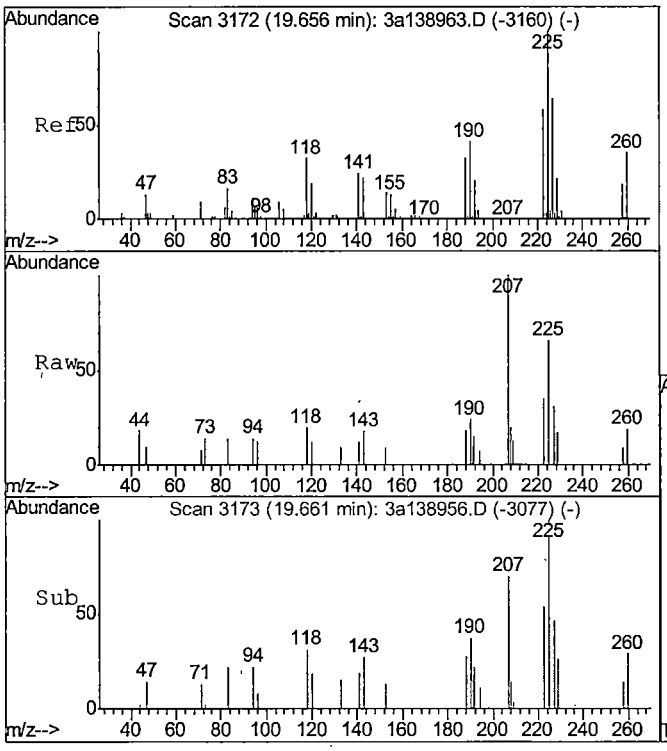
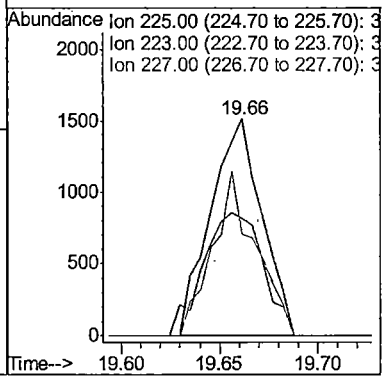
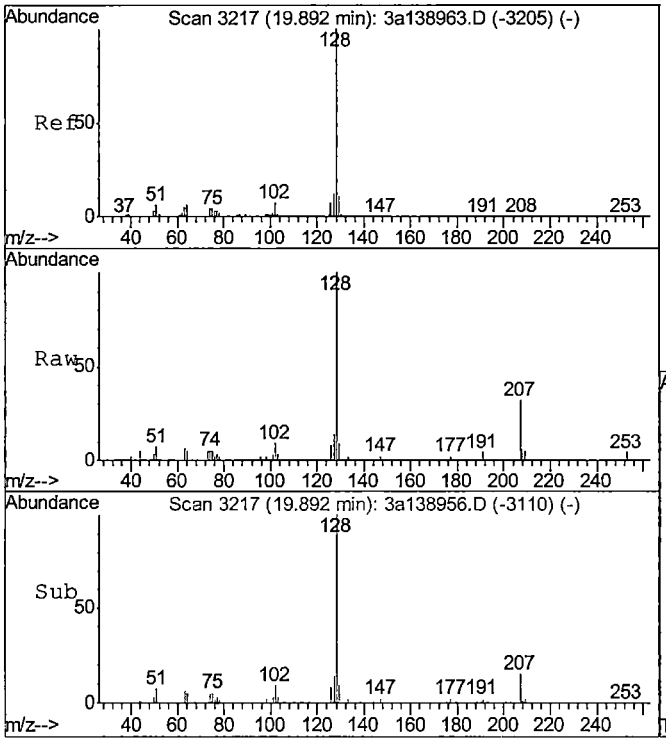


#127
hexachlorobutadiene
Concen: 0.92 ug/L
RT: 19.66 min Scan# 3173
Delta R.T. 0.01 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:225 Resp: 2720

Ion	Ratio	Lower	Upper
225	100		
223	53.6	31.1	91.1
227	46.2	32.0	92.0

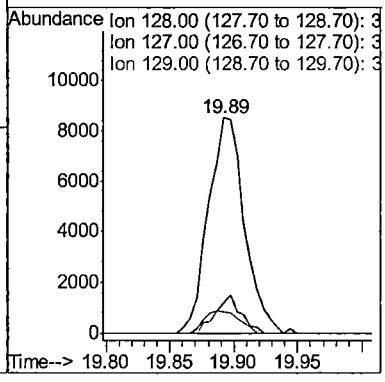




#128
naphthalene
Concen: 0.86 ug/L
RT: 19.89 min Scan# 3217
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:128 Resp: 16650

Ion	Ratio	Lower	Upper
128	100		
127	13.7	0.0	42.6
129	9.4	0.0	41.0



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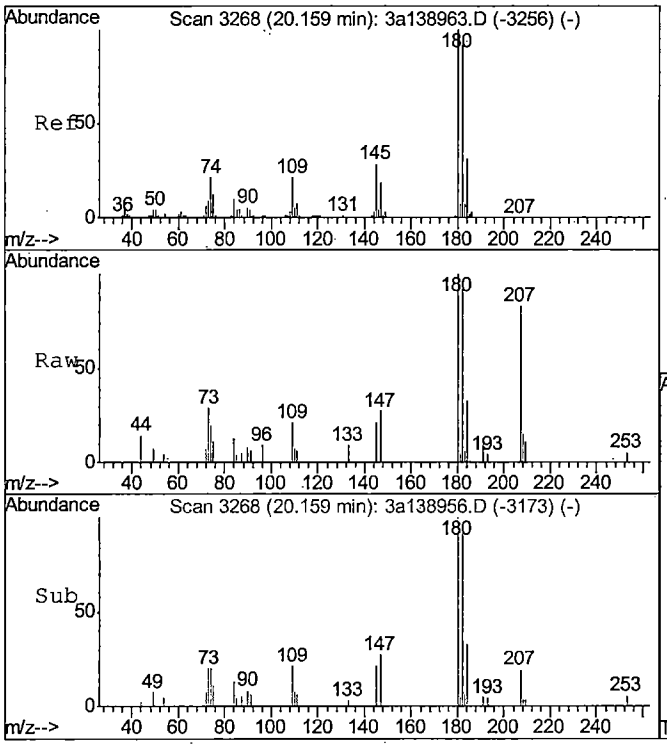
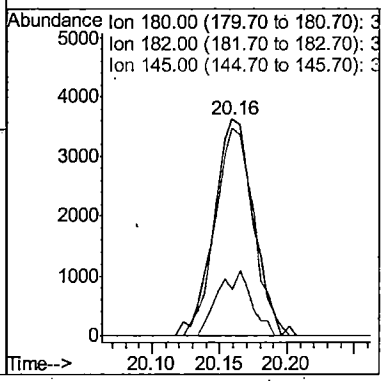


#129
1,2,3-trichlorobenzene
Concen: 0.94 ug/L
RT: 20.16 min Scan# 3268
Delta R.T. 0.00 min
Lab File: 3a138956.D
Acq: 13 Feb 2015 5:10 pm

Tgt Ion:180 Resp: 7312

Ion	Ratio	Lower	Upper
180	100		
182	95.8	64.9	124.9
145	21.0	0.0	59.4



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Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu 02/18/15 15:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	141886	500.00 ug/L	-0.01
5) pentafluorobenzene	10.57	168	272370	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	296369	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	269228	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	167305	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	3801	1.68 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery =	3.36%#	
50) 1,2-dichloroethane-d4 (s)	11.10	65	3823	1.54 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery =	3.08%#	
79) toluene-d8 (s)	13.25	98	12334	1.65 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery =	3.30%#	
104) 4-bromofluorobenzene (s)	16.12	95	5811	1.79 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery =	3.58%#	

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.29	59	2723m	7.99 ug/L	
4) 1,4-dioxane	12.33	88	1159	34.03 ug/L	72
8) chlorodifluoromethane	4.11	51	5097m	1.17 ug/L	
9) dichlorodifluoromethane	4.05	85	8480	1.60 ug/L	93
10) chloromethane	4.45	50	5924	1.37 ug/L	97
11) vinyl chloride	4.74	62	7306	1.49 ug/L	98
12) bromomethane	5.53	94	5174	2.02 ug/L	91
15) 2-CHLOROPROPANE	7.00	43	6281	1.21 ug/L #	93
16) chloroethane	5.73	64	3210	1.67 ug/L	79
20) ethyl ether	6.76	74	1830	1.33 ug/L #	72
21) acrolein	7.14	56	8157	12.24 ug/L	99
22) 1,1-dichloroethene	7.26	96	4539	1.73 ug/L #	76
24) allyl chloride	7.90	76	2117	1.52 ug/L #	57
26) iodomethane	7.60	142	9116	1.74 ug/L	93
27) iso-butyl alcohol	11.13	74	1173	13.96 ug/L #	72
28) carbon disulfide	7.71	76	17235	1.51 ug/L	95
29) methylene chloride	8.15	84	5047	1.62 ug/L	86
31) methyl tert butyl ether	8.47	73	15223	1.68 ug/L	97
32) trans-1,2-dichloroethene	8.55	61	5963	1.55 ug/L	86
33) di-isopropyl ether	9.13	45	11410	1.20 ug/L	97
35) 1,1-dichloroethane	9.21	63	7214	1.53 ug/L	89
36) chloroprene	9.30	53	4794	1.31 ug/L	94
37) acrylonitrile	8.60	53	6314	5.88 ug/L	98
39) ethyl tert-butyl ether	9.65	59	14403	1.48 ug/L	90
41) 2,2-dichloropropane	10.00	77	7722	1.66 ug/L	96
42) cis-1,2-dichloroethene	10.02	96	4794	1.63 ug/L	94
44) propionitrile	10.19	54	4622	11.50 ug/L	90
45) bromochloromethane	10.38	128	2470	1.84 ug/L	80
46) tetrahydrofuran	10.39	42	1131	1.19 ug/L #	34
47) chloroform	10.43	85	4716	1.70 ug/L	98
48) t-butyl formate	10.43	59	3690	1.31 ug/L #	86
51) freon 113	7.19	151	3376	1.58 ug/L	89
53) 1,1,1-trichloroethane	10.66	97	6902	1.62 ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) Cyclohexane	10.70	84	6802	1.42 ug/L	78
56) epichlorohydrin	12.91	57	1392	5.99 ug/L	80
58) carbon tetrachloride	10.85	117	6097	1.95 ug/L	97
59) 1,1-dichloropropene	10.85	75	4990	1.76 ug/L	97
61) hexane	8.83	57	3394	1.34 ug/L	95
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	13182	1.39 ug/L	94
63) benzene	11.13	78	14989	1.73 ug/L	91
64) tert-amyl methyl ether	11.14	87	3240	1.68 ug/L #	77
65) heptane	11.26	57	2081	1.38 ug/L	99
66) isopropyl acetate	11.07	43	7341	1.32 ug/L	97
67) 1,2-dichloroethane	11.19	62	4698	1.86 ug/L	98
69) trichloroethene	11.88	95	3807	1.91 ug/L	92
71) methyl methacrylate	12.18	69	1767	1.31 ug/L	89
72) 2-nitropropane	12.77	41	819	1.11 ug/L #	41
73) 2-chloroethyl vinyl ether	12.75	63	10796	7.60 ug/L	95
74) 1,2-dichloropropane	12.19	63	3595	1.67 ug/L	98
75) dibromomethane	12.37	93	2403	1.85 ug/L	90
76) methylcyclohexane	12.06	83	6433	1.48 ug/L	94
77) bromodichloromethane	12.50	83	4926	1.86 ug/L	94
78) cis-1,3-dichloropropene	12.97	75	5912	1.73 ug/L	93
81) toluene	13.33	92	8926	1.87 ug/L	94
82) 3-methyl-1-butanol	13.12	55	2908	23.89 ug/L	90
83) trans-1,3-dichloropropene	13.58	75	5166	1.68 ug/L	96
84) ethyl methacrylate	13.54	69	3968	1.49 ug/L	85
85) 1,1,2-trichloroethane	13.81	83	2811	1.84 ug/L	95
88) tetrachloroethene	13.95	164	2984	1.91 ug/L	89
90) 1,3-dichloropropane	14.00	76	5175	1.68 ug/L	88
91) butyl acetate	14.05	56	1715	1.17 ug/L	91
92) 3,3-dimethyl-1-butanol	14.17	57	3653	10.48 ug/L	93
93) dibromochloromethane	14.29	129	3866	1.94 ug/L	88
94) 1,2-dibromoethane	14.45	107	3548	1.93 ug/L	94
95) chlorobenzene	14.92	112	10568	1.88 ug/L	91
96) 1,1,1,2-tetrachloroethane	14.99	131	4381	1.95 ug/L	81
97) ethylbenzene	14.96	91	16696	1.74 ug/L	95
98) m,p-xylene	15.07	106	13011	3.54 ug/L	83
99) o-xylene	15.52	106	7098	1.89 ug/L	98
100) styrene	15.55	104	10948	1.80 ug/L	84
101) bromoform	15.87	173	2832	2.03 ug/L	85
103) isopropylbenzene	15.88	105	18194	1.65 ug/L	97
106) bromobenzene	16.34	156	4722	1.78 ug/L	92
107) 1,1,2,2-tetrachloroethane	16.26	83	5605	1.71 ug/L	91
108) trans-1,4-dichloro-2-buten	16.31	53	1319	1.59 ug/L	78
109) 1,2,3-trichloropropane	16.34	110	1194	1.53 ug/L	90
110) n-propylbenzene	16.32	120	4442	1.63 ug/L	97
111) 2-chlorotoluene	16.49	126	4567	1.77 ug/L	94
112) 4-chlorotoluene	16.60	126	4866m	1.87 ug/L	
113) 1,3,5-trimethylbenzene	16.47	105	15613	1.56 ug/L	91
114) tert-butylbenzene	16.85	119	13502	1.53 ug/L	99
115) pentachloroethane	16.97	167	2987	1.47 ug/L	86
116) 1,2,4-trimethylbenzene	16.90	105	15372	1.63 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
117) sec-butylbenzene	17.08	105	21145	1.53 ug/L	95
118) 1,3-dichlorobenzene	17.31	146	10508	1.87 ug/L	93
119) p-isopropyltoluene	17.20	119	17698	1.62 ug/L	97
120) 1,4-dichlorobenzene	17.40	146	10709	1.83 ug/L	91
121) 1,2-dichlorobenzene	17.84	146	11245	1.90 ug/L	95
122) benzyl chloride	17.54	91	11491	1.64 ug/L	99
123) n-butylbenzene	17.65	92	9889	1.69 ug/L	99
124) 1,2-dibromo-3-chloropropan	18.71	75	1362	1.71 ug/L	90
125) 1,3,5-TRICHLOROBENZENE	18.86	180	11186	1.79 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	12007	1.75 ug/L	99
127) hexachlorobutadiene	19.66	225	5282	1.84 ug/L	97
128) naphthalene	19.89	128	29653	1.58 ug/L	98
129) 1,2,3-trichlorobenzene	20.16	180	13206	1.75 ug/L	92
130) hexachloroethane	18.09	201	2754	4.36 ug/L	97

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

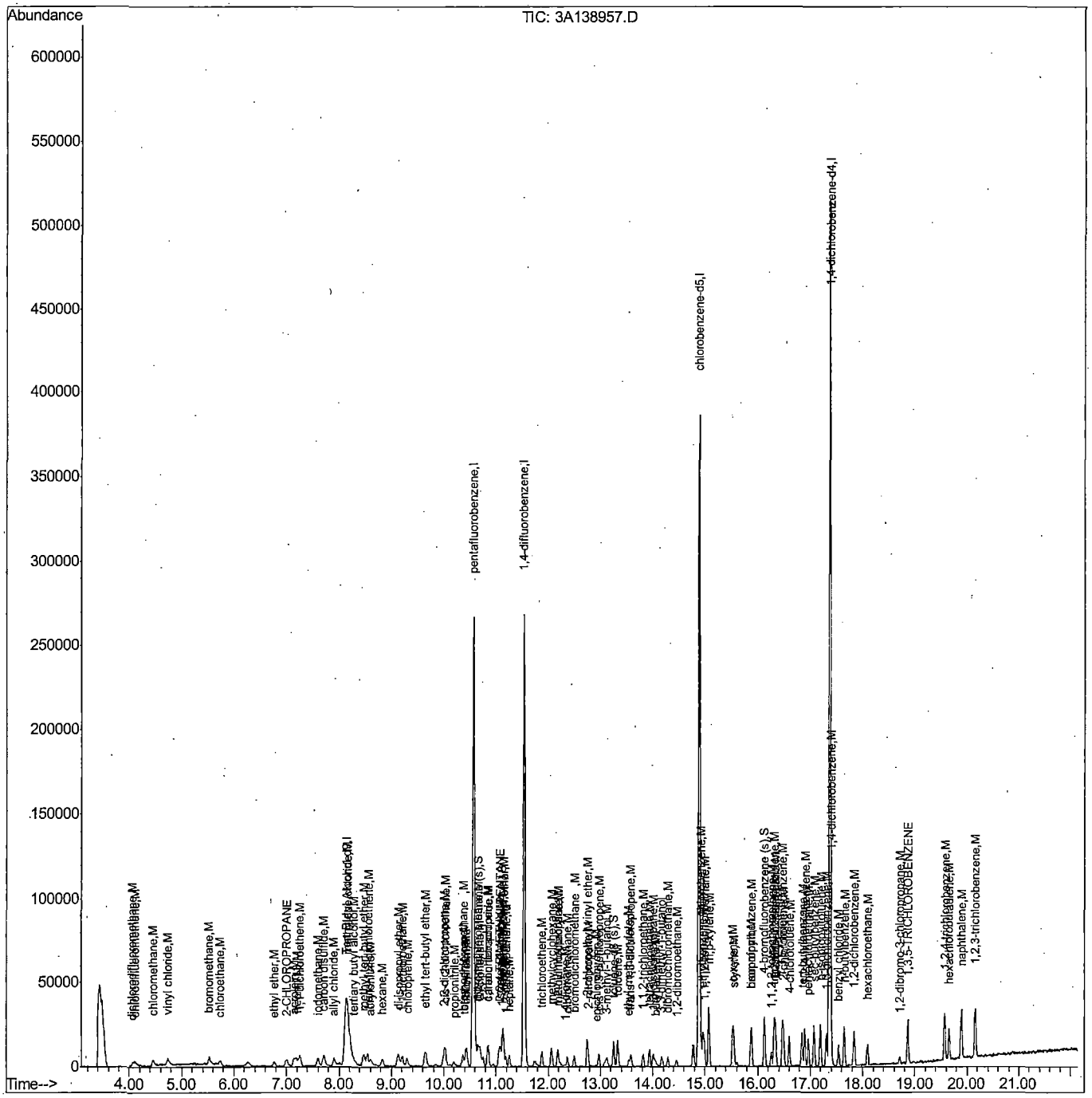
7.6.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138957.D
Acq On : 13 Feb 2015 5:40 pm
Operator : zobiah
Sample : ic6014-2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 13:02:41 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Manual Integration Approval Summary

Sample Number: V3A6014-IC6014
Lab FileID: 3A138957.D
Injection Time: 02/13/15 17:40
Method: SW846 8260B
Analyst approved: 02/18/15 09:40 Dejana Salaj
Supervisor approved: 02/18/15 15:01 Jessica Reitan-Chu

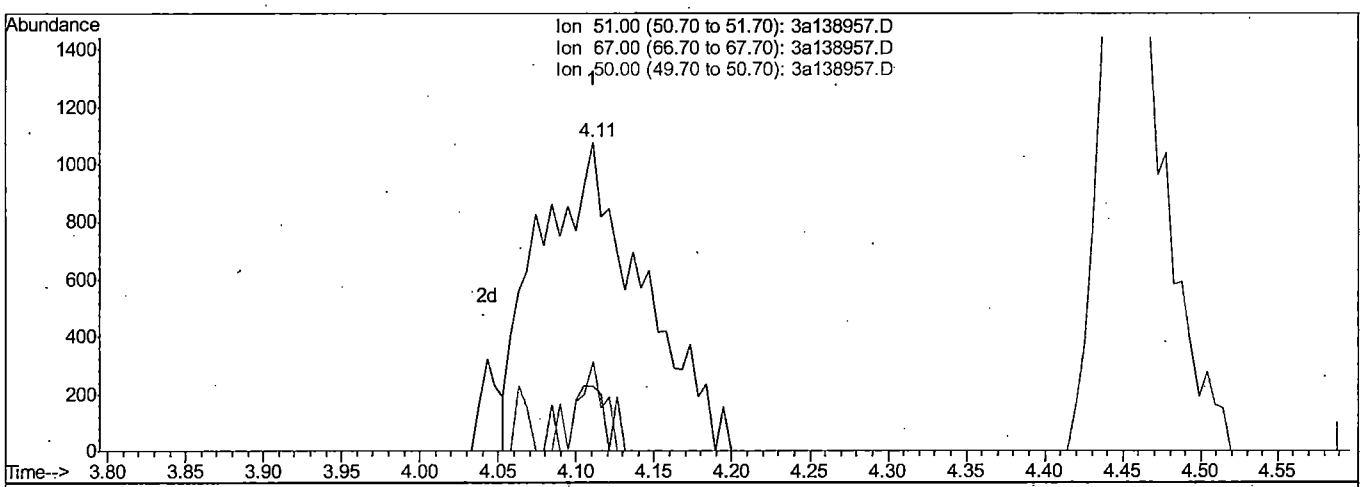
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlorodifluoromethane	75-45-6		4.11	Poor instrument integration
p-Chlorotoluene	106-43-4		16.60	Poor instrument integration

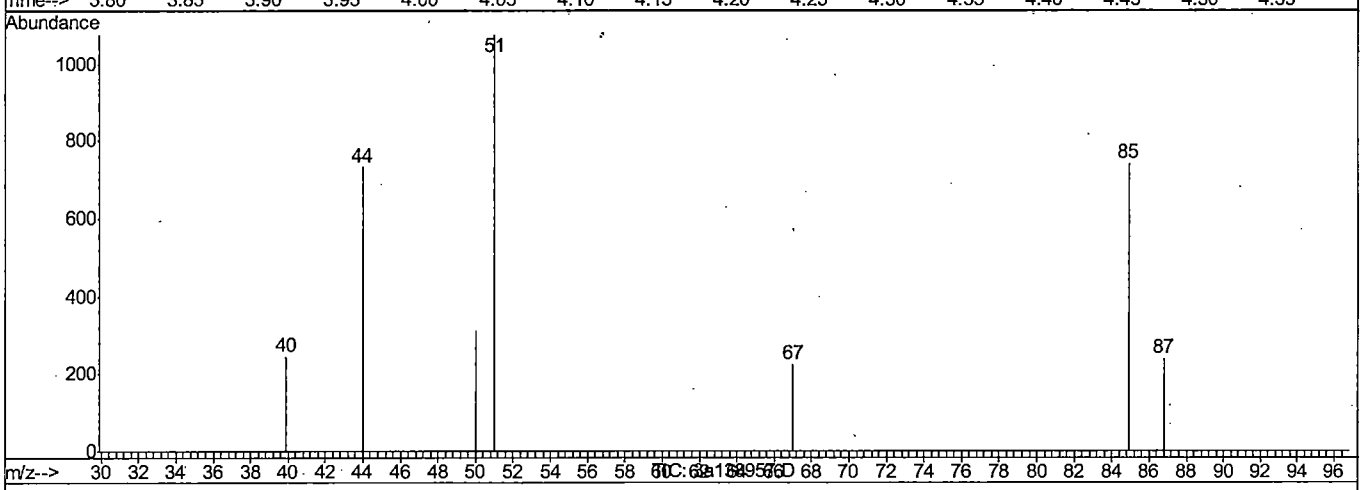
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 09:21:23 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:06:24 2015
Response via : Multiple Level Calibration





(8) chlorodifluoromethane (M)

4.11min 1.12ug/L

response 4893

Ion	Exp%	Act%
51.00	100	100
67.00	17.10	21.00
50.00	10.40	29.09
0.00	0.00	0.00

3a138957.D M3A6014.M Mon Feb 16 10:21:13 2015 ACCUNJ

7.6.2.2 7

ACCUTEST LABORATORIES JB88565

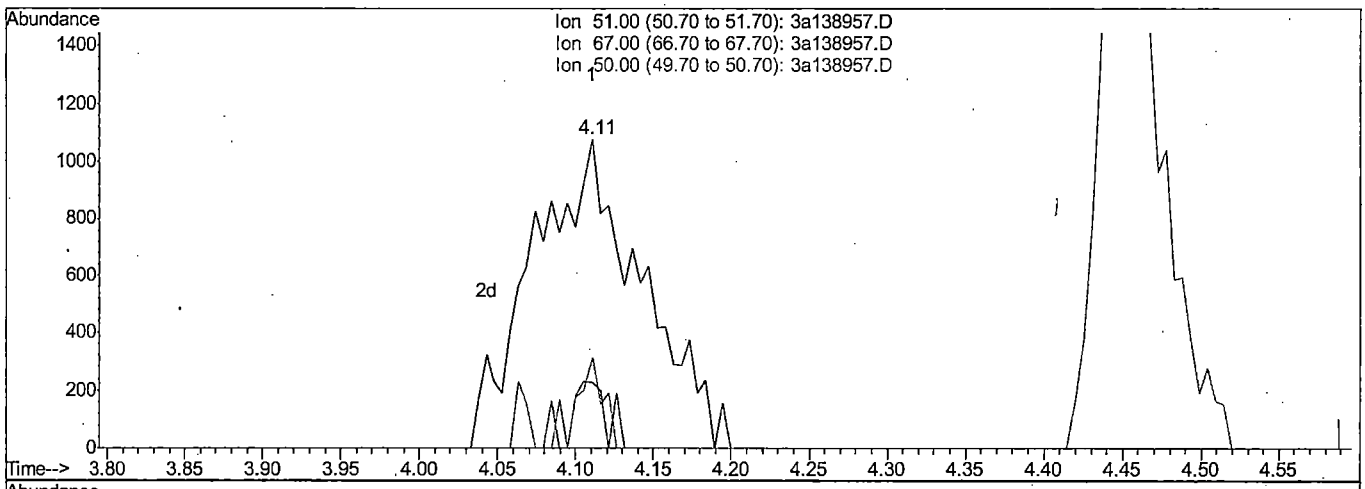
3A138957.D edits: chlorodifluoromethane

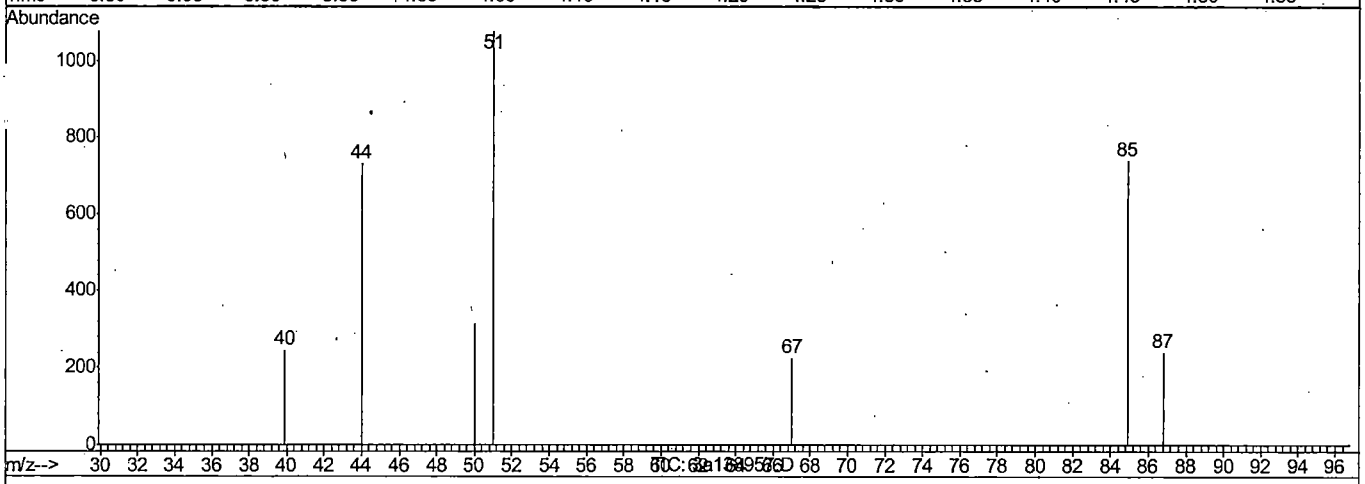
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 09:21:23 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:06:24 2015
Response via : Multiple Level Calibration





(8) chlorodifluoromethane (M)

4.11min 1.17ug/L m

response 5097

Ion	Exp%	Act%
51.00	100	100
67.00	17.10	21.00
50.00	10.40	29.09
0.00	0.00	0.00

3a138957.D M3A6014.M Mon Feb 16 10:21:23 2015 ACCUNJ

7.6.2.3

7

ACCUTEST LABORATORIES JB88565

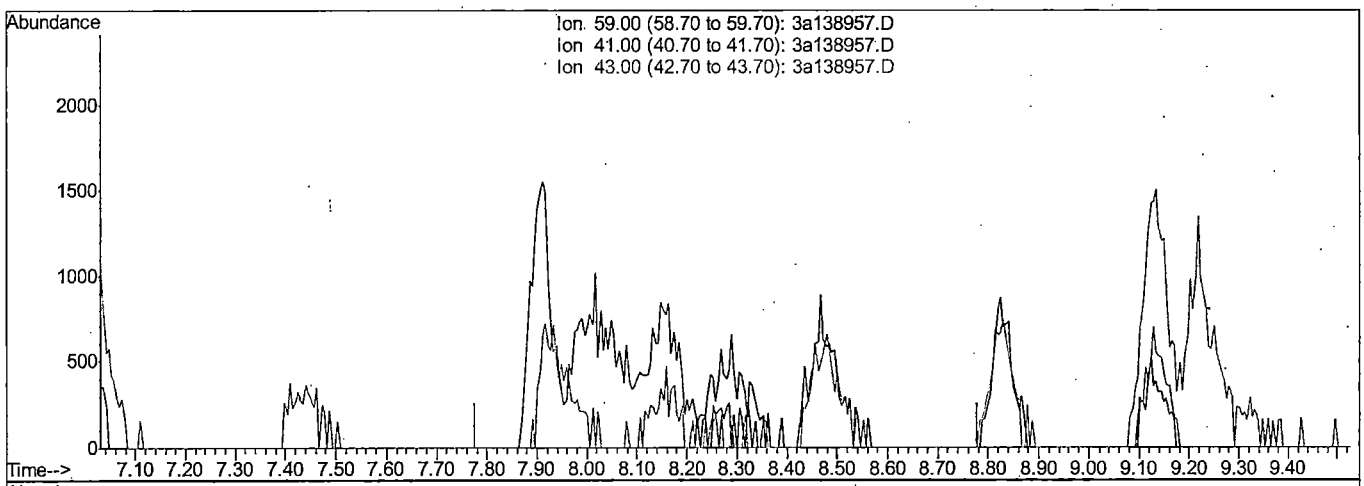
3A138957.D edits: chlorodifluoromethane

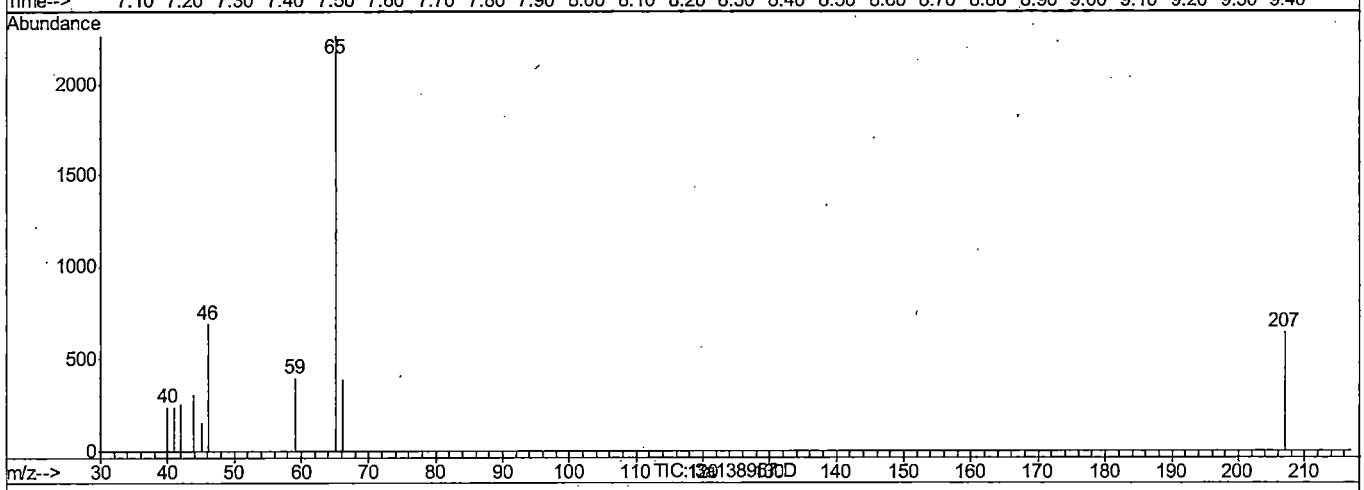
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\RAWDATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 09:07:38 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 12:28:42 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.28min 0.00ug/L

response 0

Ion	Exp%	Act%
59.00	100	0.00
41.00	0.00	0.00
43.00	0.00	0.00
0.00	0.00	0.00

3a138957.D M3A6014.M Wed Feb 18 13:00:54 2015 ACCUNJ

7.6.2.4

7

ACCUTEST LABORATORIES JB88565

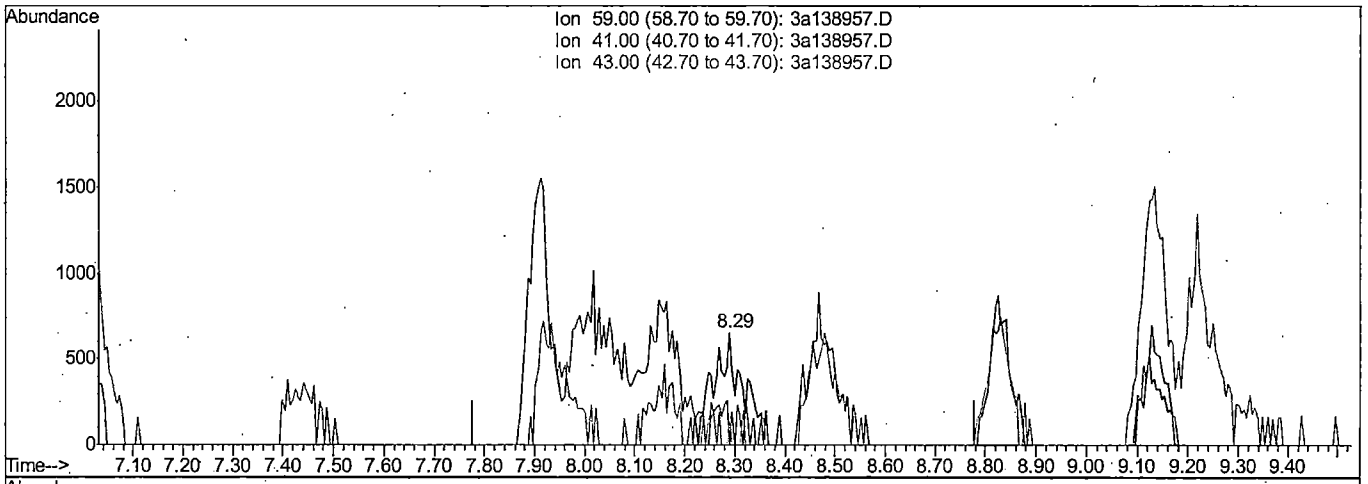
3A138957.D edits: tertiary butyl alcohol

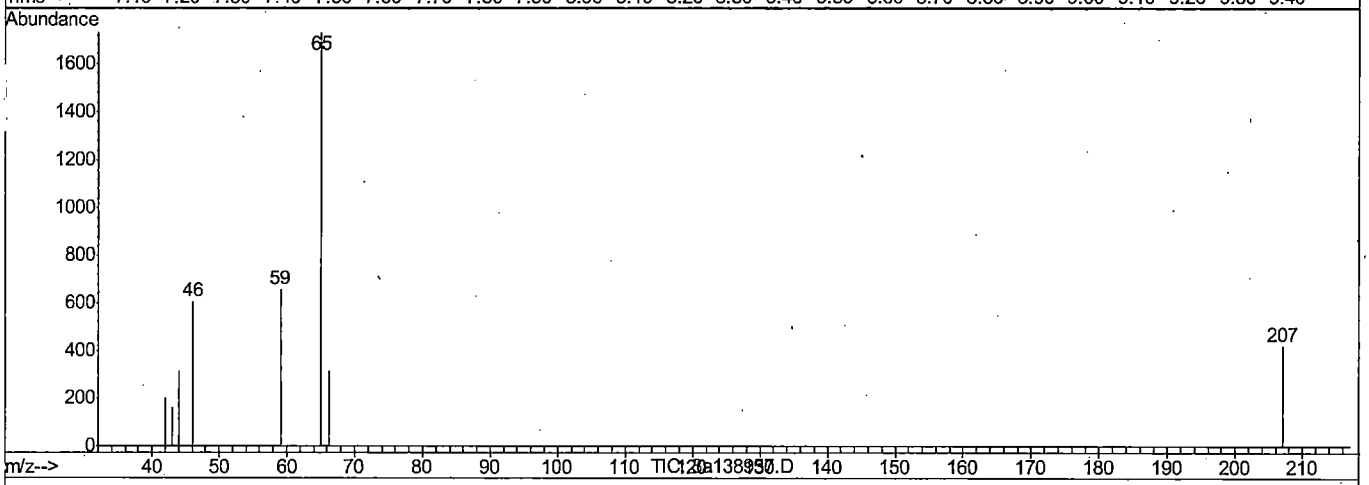
Quantitation Report (Qedit)

Data File : C:\MSDChem\1\DATA\3a138957.D Vial: 3
Acq On : 13 Feb 2015 5:40 pm Operator: zobiah
Sample : ic6014-2 Inst : MS3A
Misc : MS80901,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 12:19:27 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 12:28:42 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.29min 7.99ug/L m

response 2723

Ion	Exp%	Act%
59.00	100	100
41.00	0.00	0.00
43.00	0.00	24.35
0.00	0.00	0.00

3a138957.D M3A6014.M Wed Feb 18 13:02:14 2015 ACCUNJ

7.6.2.5 7

ACCUTEST LABORATORIES JB88565

3A138957.D edits: tertiary butyl alcohol

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
02/18/15 15:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	141960	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	276157	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	312228	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	279709	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	173314	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	9913	4.86	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 9.72%#			
50) 1,2-dichloroethane-d4 (s)	11.10	65	10155	4.76	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 9.52%#			
79) toluene-d8 (s)	13.25	98	33249	4.79	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 9.58%#			
104) 4-bromofluorobenzene (s)	16.12	95	13755	3.85	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 7.70%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.29	59	7738m	27.13	ug/L	
4) 1,4-dioxane	12.31	88	3798	125.82	ug/L #	73
8) chlorodifluoromethane	4.09	51	12729	4.67	ug/L	93
9) dichlorodifluoromethane	4.07	85	21655	4.84	ug/L	85
10) chloromethane	4.45	50	14855	4.55	ug/L	99
11) vinyl chloride	4.74	62	17854	4.52	ug/L	96
12) bromomethane	5.53	94	12011	5.09	ug/L	91
15) 2-CHLOROPROPANE	7.00	43	15984	5.06	ug/L	96
16) chloroethane	5.74	64	8156	5.19	ug/L	94
17) trichlorofluoromethane	6.28	101	19545	4.83	ug/L	86
19) 1-CHLOROPROPANE	8.16	42	24872	4.73	ug/L #	88
20) ethyl ether	6.76	74	5085	4.77	ug/L	92
21) acrolein	7.14	56	22748	49.41	ug/L	94
22) 1,1-dichloroethene	7.26	96	11781	5.22	ug/L	98
23) acetone	7.42	43	3199	5.23	ug/L	96
24) allyl chloride	7.91	76	5648	5.10	ug/L	96
25) acetonitrile	7.99	40	7564	47.22	ug/L	82
26) iodomethane	7.60	142	23456	4.91	ug/L	96
27) iso-butyl alcohol	11.14	74	3500	53.64	ug/L	84
28) carbon disulfide	7.71	76	44209	5.02	ug/L	98
29) methylene chloride	8.15	84	13245	5.06	ug/L	93
30) methyl acetate	7.92	43	7113	5.00	ug/L	94
31) methyl tert butyl ether	8.47	73	37321	4.97	ug/L	94
32) trans-1,2-dichloroethene	8.54	61	15179	5.02	ug/L	92
33) di-isopropyl ether	9.12	45	30242	5.00	ug/L	92
34) 2-butanone	10.03	72	1054	4.48	ug/L #	15
35) 1,1-dichloroethane	9.21	63	18981	5.12	ug/L	94
36) chloroprene	9.30	53	12406	5.11	ug/L	93
37) acrylonitrile	8.59	53	18006	25.01	ug/L	92
39) ethyl tert-butyl ether	9.65	59	36103	4.93	ug/L	99
40) ethyl acetate	10.01	45	695	3.62	ug/L #	33
41) 2,2-dichloropropane	9.99	77	19780	5.13	ug/L	95
42) cis-1,2-dichloroethene	10.02	96	12583	5.07	ug/L	86

7.6.3 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
43) methylacrylate	10.12	85	967	3.61 ug/L #	64
44) propionitrile	10.18	54	14068	49.44 ug/L	93
45) bromochloromethane	10.38	128	6614	5.17 ug/L	89
46) tetrahydrofuran	10.40	42	3045	5.02 ug/L	82
47) chloroform	10.43	85	12663	5.31 ug/L	93
48) t-butyl formate	10.43	59	9732	4.92 ug/L #	90
51) freon 113	7.19	151	9637	5.42 ug/L	98
53) 1,1,1-trichloroethane	10.65	97	18561	5.19 ug/L	93
54) Cyclohexane	10.69	84	19293	5.14 ug/L	94
56) epichlorohydrin	12.90	57	4275	24.49 ug/L	97
57) n-butyl alcohol	11.72	56	12627	210.58 ug/L	94
58) carbon tetrachloride	10.85	117	16175	4.94 ug/L	94
59) 1,1-dichloropropene	10.84	75	13221	5.07 ug/L	93
61) hexane	8.83	57	9262	4.97 ug/L	87
62) 2,2,4-TRIMETHYLPENTANE	11.06	57	34296	4.73 ug/L	95
63) benzene	11.13	78	40598	5.04 ug/L	100
64) tert-amyl methyl ether	11.14	87	8541	4.87 ug/L #	83
65) heptane	11.26	57	5388	5.11 ug/L	84
66) isopropyl acetate	11.06	43	19248	4.80 ug/L	95
67) 1,2-dichloroethane	11.19	62	12313	5.06 ug/L	92
69) trichloroethene	11.88	95	10146	5.10 ug/L	96
71) methyl methacrylate	12.18	69	5464	4.85 ug/L	83
72) 2-nitropropane	12.77	41	2966	5.42 ug/L	75
73) 2-chloroethyl vinyl ether	12.74	63	29573	25.31 ug/L	97
74) 1,2-dichloropropane	12.18	63	9751	4.93 ug/L	100
75) dibromomethane	12.36	93	6895	5.33 ug/L	89
76) methylcyclohexane	12.06	83	17945	4.99 ug/L	99
77) bromodichloromethane	12.49	83	13293	5.05 ug/L	93
78) cis-1,3-dichloropropene	12.97	75	15429	4.91 ug/L	96
80) 4-methyl-2-pentanone	13.08	58	3617	4.73 ug/L #	81
81) toluene	13.33	92	23679	5.23 ug/L	100
82) 3-methyl-1-butanol	13.11	55	8526	91.41 ug/L	90
83) trans-1,3-dichloropropene	13.58	75	14183	5.13 ug/L	98
84) ethyl methacrylate	13.54	69	11111	4.92 ug/L	92
85) 1,1,2-trichloroethane	13.82	83	7613	5.05 ug/L	97
86) 2-hexanone	14.00	58	3197	4.52 ug/L	82
88) tetrachloroethene	13.94	164	8523	5.08 ug/L	92
90) 1,3-dichloropropane	14.00	76	14709	5.16 ug/L	91
91) butyl acetate	14.05	56	5267	4.72 ug/L	94
92) 3,3-dimethyl-1-butanol	14.17	57	10281	41.93 ug/L	97
93) dibromochloromethane	14.29	129	10570	5.04 ug/L	98
94) 1,2-dibromoethane	14.45	107	9534	5.10 ug/L	87
95) chlorobenzene	14.92	112	26820	4.84 ug/L	97
96) 1,1,1,2-tetrachloroethane	14.99	131	11387	4.77 ug/L	93
97) ethylbenzene	14.96	91	46508	5.12 ug/L	97
98) m,p-xylene	15.07	106	34791	9.96 ug/L	87
99) o-xylene	15.52	106	18259	5.06 ug/L	90
100) styrene	15.55	104	29159	4.98 ug/L	96
101) bromoform	15.87	173	8186	5.11 ug/L	98
103) isopropylbenzene	15.88	105	48808	4.85 ug/L	97

7.6.3 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
105) cyclohexanone	16.13	98	10034	55.26 ug/L	93
106) bromobenzene	16.34	156	12797	4.85 ug/L	92
107) 1,1,2,2-tetrachloroethane	16.26	83	15161	5.17 ug/L	94
108) trans-1,4-dichloro-2-buten	16.30	53	3510	5.15 ug/L	86
109) 1,2,3-trichloropropane	16.34	110	3445	4.91 ug/L	95
110) n-propylbenzene	16.31	120	12738	4.96 ug/L	91
111) 2-chlorotoluene	16.49	126	12685	5.00 ug/L	97
112) 4-chlorotoluene	16.60	126	12796	5.18 ug/L	94
113) 1,3,5-trimethylbenzene	16.47	105	42445	4.84 ug/L	98
114) tert-butylbenzene	16.85	119	35838	4.51 ug/L	97
115) pentachloroethane	16.97	167	8689	4.59 ug/L	94
116) 1,2,4-trimethylbenzene	16.90	105	42902	4.93 ug/L	99
117) sec-butylbenzene	17.07	105	57067	4.65 ug/L	97
118) 1,3-dichlorobenzene	17.31	146	27312	4.98 ug/L	97
119) p-isopropyltoluene	17.20	119	48650	4.72 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	28364	4.95 ug/L	92
121) 1,2-dichlorobenzene	17.84	146	28675	4.88 ug/L	96
122) benzyl chloride	17.54	91	29292	4.90 ug/L	99
123) n-butylbenzene	17.65	92	25864	4.92 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.70	75	3291	4.71 ug/L	93
125) 1,3,5-TRICHLOROBENZENE	18.86	180	29011	4.78 ug/L	98
126) 1,2,4-trichlorobenzene	19.57	180	30907	4.72 ug/L	97
127) hexachlorobutadiene	19.66	225	13715	4.77 ug/L	98
128) naphthalene	19.89	128	78677	4.58 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	34348	4.68 ug/L	93
130) hexachloroethane	18.09	201	7969	4.43 ug/L	92

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

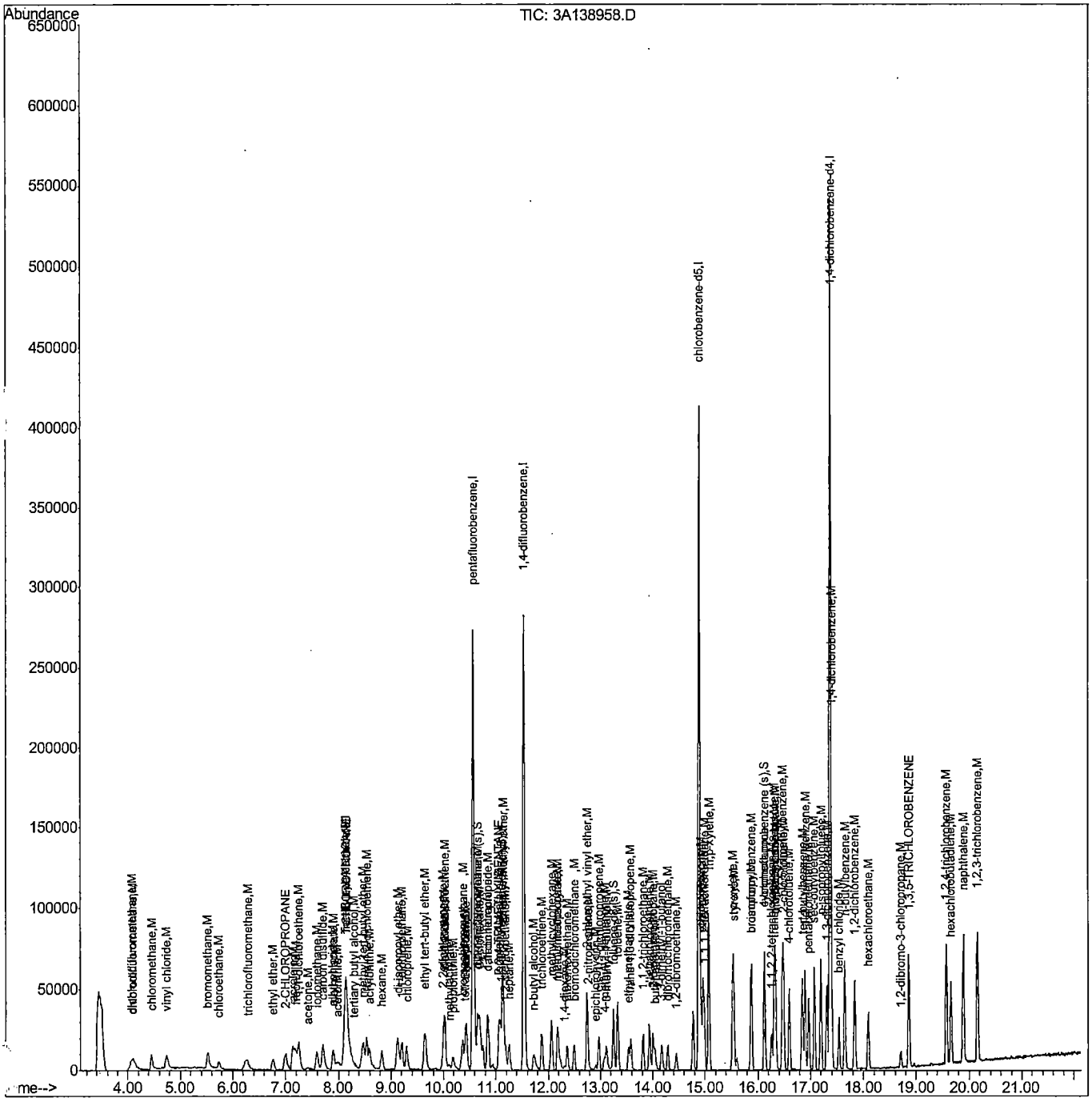
7.6.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138958.D
Acq On : 13 Feb 2015 6:11 pm
Operator : zobiah
Sample : ic6014-5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 16 12:19:44 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Manual Integration Approval Summary

Sample Number:	V3A6014-IC6014	**Method:**	SW846 8260B
Lab FileID:	3A138958.D	**Analyst approved:**	02/18/15 09:40 Dejana Salaj
Injection Time:	02/13/15 18:11	**Supervisor approved:**	02/18/15 15:01 Jessica Reitan-Chu

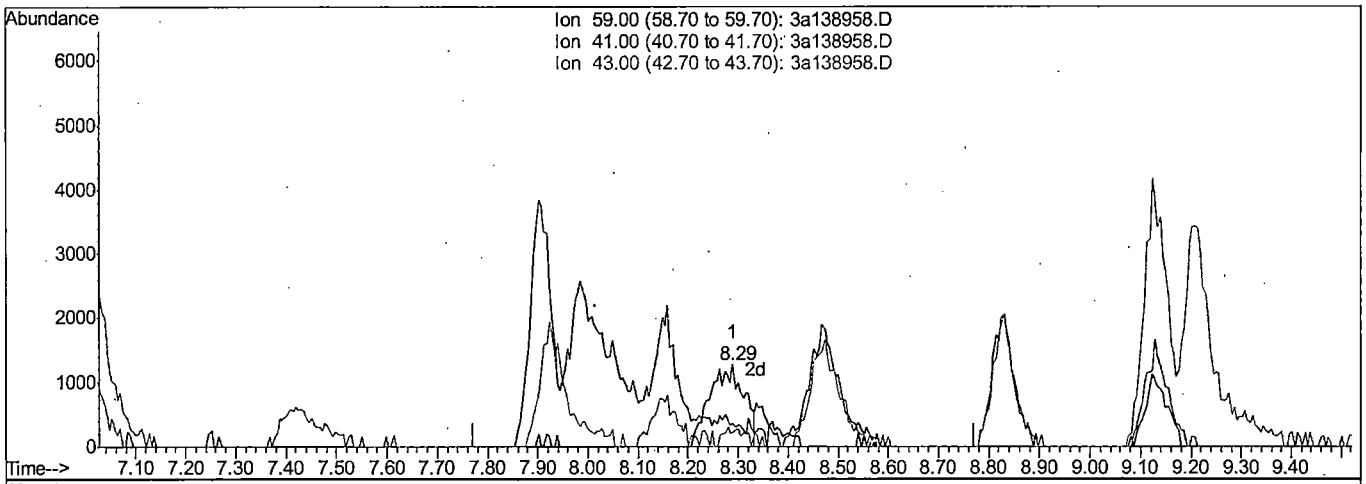
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tert Butyl Alcohol	75-65-0		8.29	Poor instrument integration

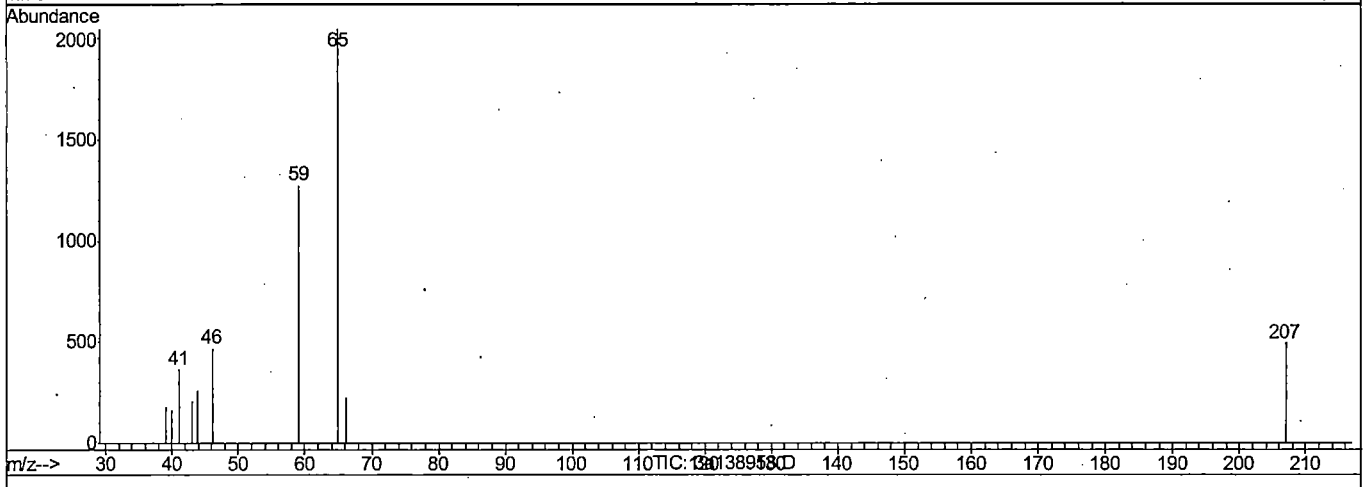
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138958.D Vial: 4
Acq On : 13 Feb 2015 6:11 pm Operator: zobiah
Sample : ic6014-5 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 10:30:10 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:24:22 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.29min 21.04ug/L

response 6000

Ion	Exp%	Act%
59.00	100	100
41.00	0.00	11.36
43.00	0.00	16.22
0.00	0.00	0.00

3a138958.D M3A6014.M Mon Feb 16 10:30:20 2015 ACCUNJ

7.6.3.2 7

ACCUTEST LABORATORIES JB88565

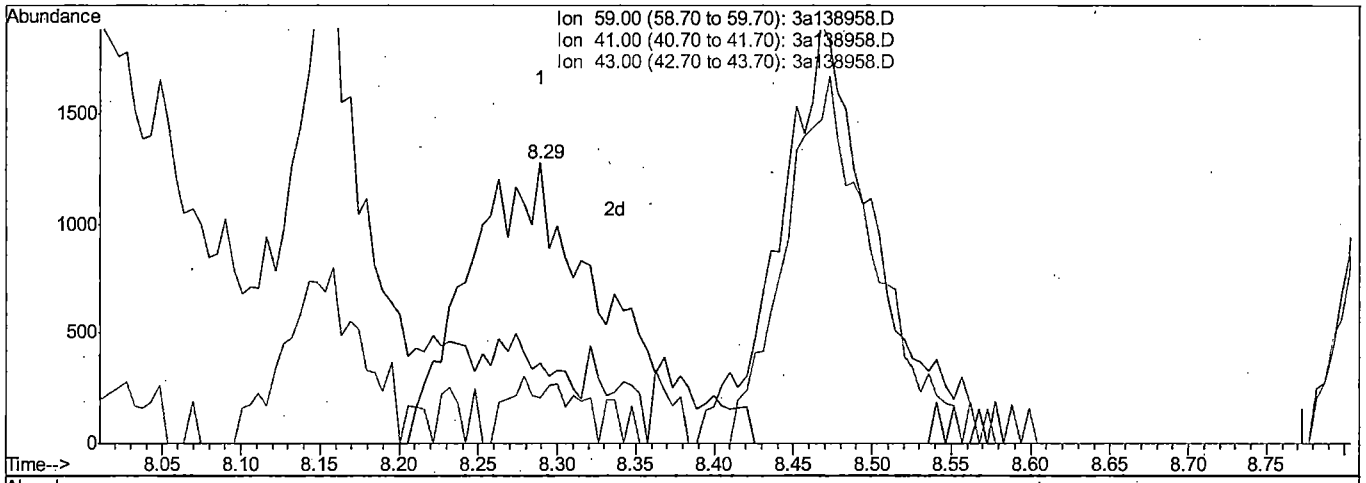
3A138958.D edits: tertiary butyl alcohol

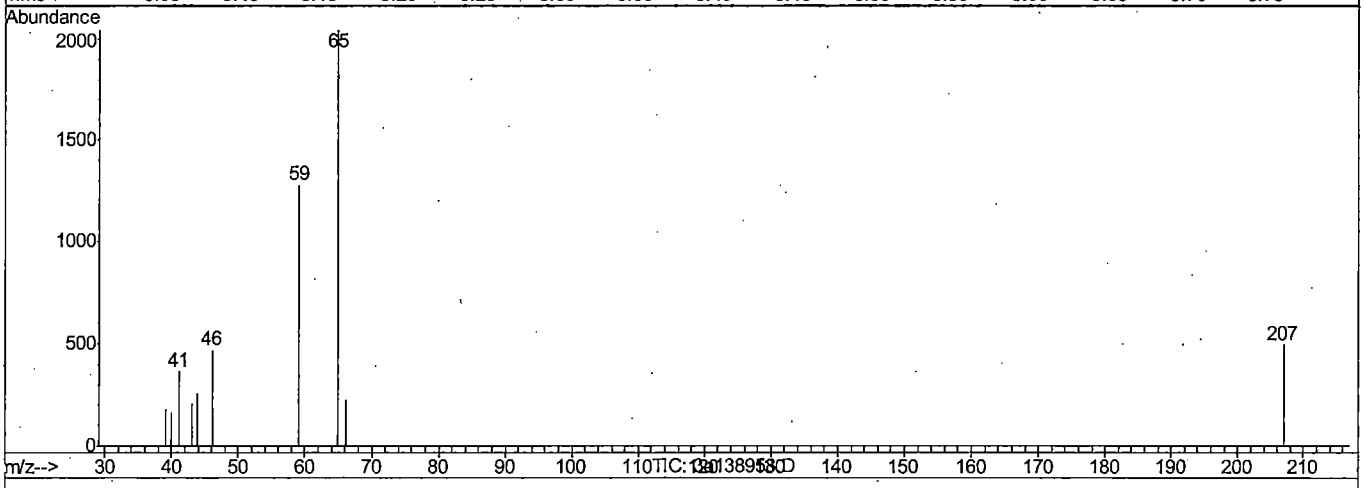
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3a138958.D Vial: 4
Acq On : 13 Feb 2015 6:11 pm Operator: zobiah
Sample : ic6014-5 Inst : MS3A
Misc : MS80458,V3A6014,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: Feb 16 10:30:10 2015 Results File: M3A6014.RES

Method : C:\MSDCHEM\1\METHODS\M3A6014.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
Last Update : Mon Feb 16 10:24:22 2015
Response via : Multiple Level Calibration





(2) tertiary butyl alcohol (M)

8.29min 27.13ug/L m

response 7738

Ion	Exp%	Act%
59.00	100	100
41.00	0.00	28.53
43.00	0.00	16.22
0.00	0.00	0.00

3a138958.D M3A6014.M Mon Feb 16 10:30:33 2015 ACCUNJ

7.6.3.3

7

ACCUTEST LABORATORIES JB88565

3A138958.D edits: tertiary butyl alcohol

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138959.D
Acq On : 13 Feb 2015 6:41 pm
Operator : zobiah
Sample : ic6014-0.2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 11:07:25 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	122185	500.00 ug/L	0.00
5) pentafluorobenzene	10.57	168	265268	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	299570	50.00 ug/L	0.00
87) chlorobenzene-d5	14.89	117	270687	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	173190	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	429	0.22 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 0.44%#		
50) 1,2-dichloroethane-d4 (s)	11.09	65	551	0.27 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 0.54%#		
79) toluene-d8 (s)	13.26	98	1661	0.25 ug/L	0.01
Spiked Amount 50.000	Range 78 - 121		Recovery = 0.50%#		
104) 4-bromofluorobenzene (s)	16.13	95	1706	0.48 ug/L	0.01
Spiked Amount 50.000	Range 77 - 120		Recovery = 0.96%#		

Target Compounds					Qvalue
31) methyl tert butyl ether	8.47	73	1250	0.17 ug/L	55
63) benzene	11.14	78	1501	0.19 ug/L	86
81) toluene	13.34	92	683	0.16 ug/L	82
97) ethylbenzene	14.97	91	1624	0.18 ug/L	73
98) m,p-xylene	15.07	106	1113	0.33 ug/L	92
99) o-xylene	15.53	106	527	0.15 ug/L #	78

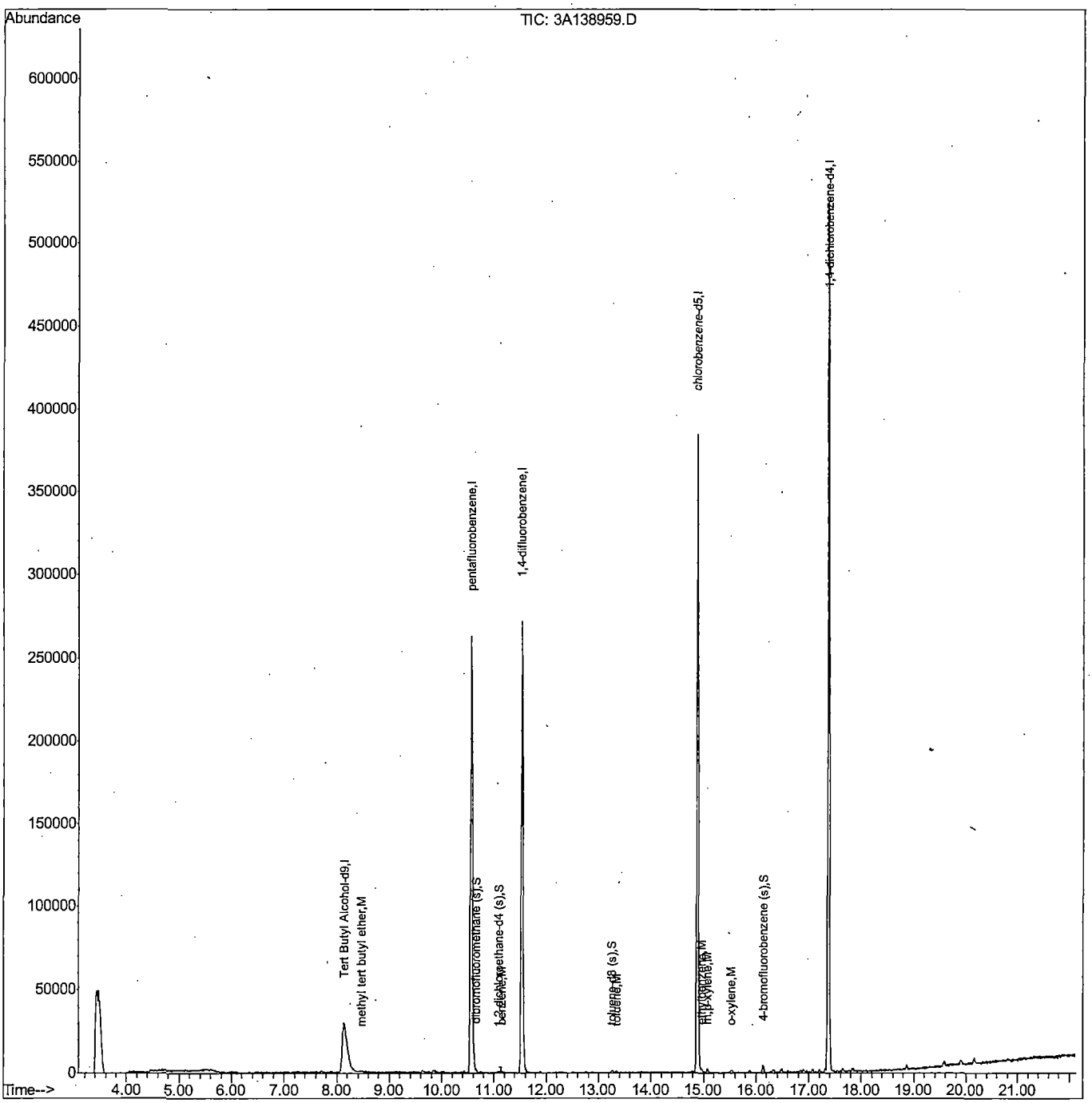
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138959.D
Acq On : 13 Feb 2015 6:41 pm
Operator : zobiah
Sample : ic6014-0.2
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 11:07:25 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 10:24:22 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138960.D
Acq On : 13 Feb 2015 7:11 pm
Operator : zobiah
Sample : ic6014-0.5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:29:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	136346	500.00 ug/L	-0.01
5) pentafluorobenzene	10.57	168	267729	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	294577	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	266943	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	172422	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	950	0.43 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.86%#	
50) 1,2-dichloroethane-d4 (s)	11.10	65	990	0.41 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.82%#	
79) toluene-d8 (s)	13.26	98	3227	0.44 ug/L	0.01
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.88%#	
104) 4-bromofluorobenzene (s)	16.13	95	1958	0.58 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery =	1.16%#	

Target Compounds					Qvalue
22) 1,1-dichloroethene	7.27	96	1087	0.42 ug/L #	35
31) methyl tert butyl ether	8.46	73	3557	0.40 ug/L	99
51) freon 113	7.19	151	665	0.32 ug/L #	21
53) 1,1,1-trichloroethane	10.65	97	1482	0.35 ug/L	87
54) Cyclohexane	10.71	84	1530	0.33 ug/L #	80
58) carbon tetrachloride	10.85	117	1590	0.51 ug/L	87
59) 1,1-dichloropropene	10.85	75	1202	0.43 ug/L #	72
63) benzene	11.14	78	3868	0.45 ug/L	93
69) trichloroethene	11.88	95	786	0.40 ug/L #	85
75) dibromomethane	12.36	93	505	0.39 ug/L #	73
76) methylcyclohexane	12.06	83	1645	0.38 ug/L	87
77) bromodichloromethane	12.50	83	1100	0.42 ug/L	84
78) cis-1,3-dichloropropene	12.99	75	1376	0.41 ug/L	79
81) toluene	13.34	92	1951	0.41 ug/L	92
83) trans-1,3-dichloropropene	13.58	75	1092	0.36 ug/L	80
85) 1,1,2-trichloroethane	13.82	83	633	0.42 ug/L	74
88) tetrachloroethene	13.94	164	718	0.46 ug/L #	77
90) 1,3-dichloropropane	14.01	76	1271	0.42 ug/L	92
93) dibromochloromethane	14.28	129	858	0.43 ug/L #	54
94) 1,2-dibromoethane	14.45	107	821	0.45 ug/L	71
95) chlorobenzene	14.92	112	2712	0.49 ug/L	73
96) 1,1,1,2-tetrachloroethane	14.99	131	1080	0.49 ug/L	90
97) ethylbenzene	14.96	91	4300	0.45 ug/L	92
98) m,p-xylene	15.07	106	3196	0.88 ug/L #	62
99) o-xylene	15.53	106	1483	0.40 ug/L #	72
100) styrene	15.56	104	2458	0.41 ug/L	73
101) bromoform	15.86	173	705	0.51 ug/L	83
103) isopropylbenzene	15.88	105	4465	0.39 ug/L	90
109) 1,2,3-trichloropropane	16.34	110	341	0.43 ug/L #	30
111) 2-chlorotoluene	16.49	126	1230	0.46 ug/L	79
112) 4-chlorotoluene	16.61	126	968	0.36 ug/L #	45
13) 1,3,5-trimethylbenzene	16.47	105	3967	0.39 ug/L	93
16) 1,2,4-trimethylbenzene	16.90	105	3941	0.41 ug/L	94

7.6.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138960.D
Acq On : 13 Feb 2015 7:11 pm
Operator : zobiah
Sample : ic6014-0.5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:29:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
118) 1,3-dichlorobenzene	17.31	146	2568	0.44 ug/L	83
120) 1,4-dichlorobenzene	17.40	146	3156	0.52 ug/L	97
121) 1,2-dichlorobenzene	17.84	146	2976	0.49 ug/L	92
126) 1,2,4-trichlorobenzene	19.58	180	2957	0.42 ug/L	93
127) hexachlorobutadiene	19.67	225	1300	0.44 ug/L	89
129) 1,2,3-trichlorobenzene	20.16	180	3488	0.45 ug/L	93

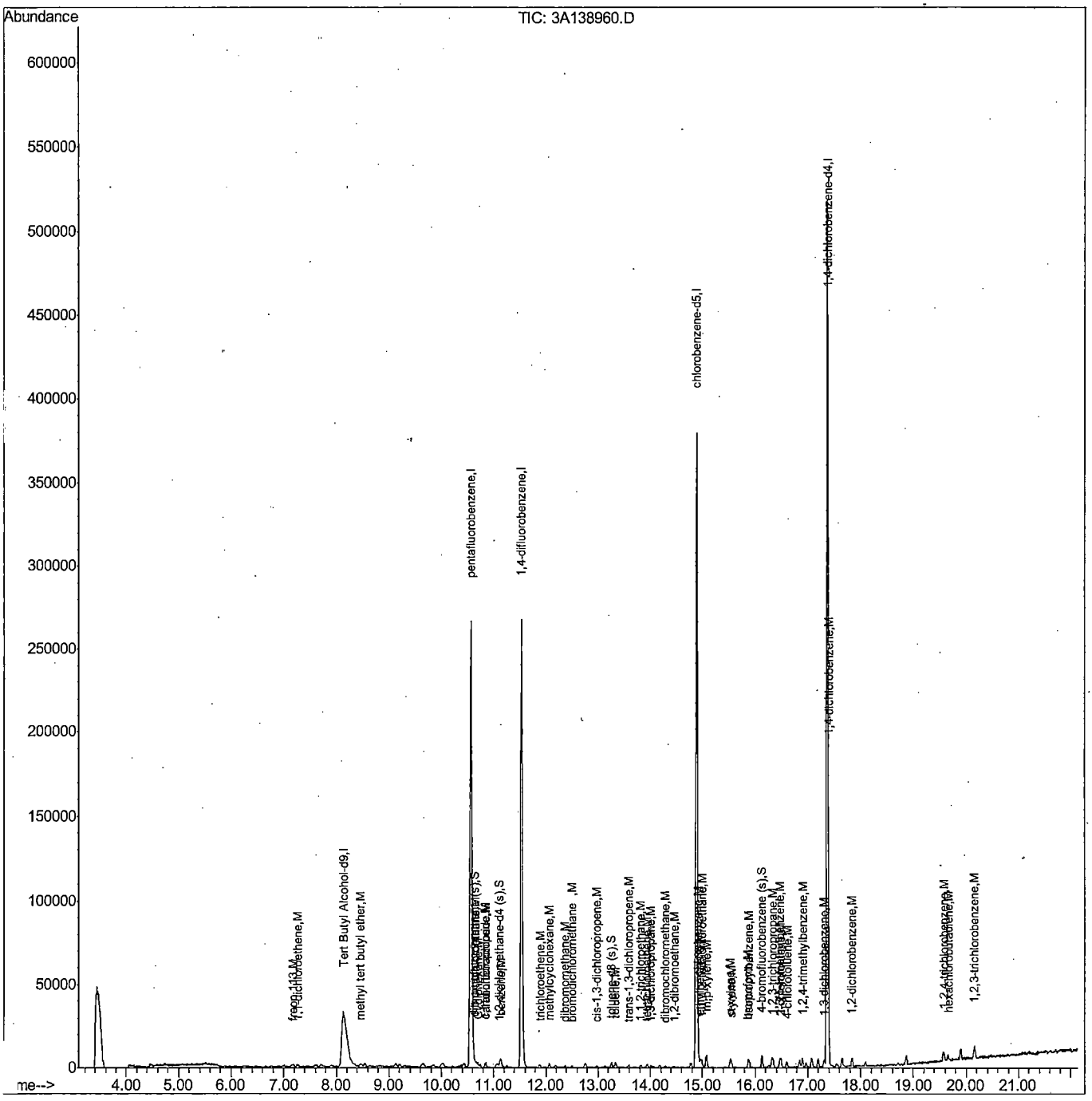
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138960.D
Acq On : 13 Feb 2015 7:11 pm
Operator : zobiah
Sample : ic6014-0.5
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:29:24 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.13	65	141188	500.00	ug/L	-0.02
5) pentafluorobenzene	10.57	168	268651	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	295937	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	266978	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.38	152	168481	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	18490	8.29	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 16.58%#			
50) 1,2-dichloroethane-d4 (s)	11.09	65	18675	7.62	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 15.24%#			
79) toluene-d8 (s)	13.25	98	58246	7.82	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 15.64%#			
104) 4-bromofluorobenzene (s)	16.13	95	24469	7.48	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 14.96%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	14850	43.80	ug/L	100
4) 1,4-dioxane	12.31	88	7552	222.83	ug/L	95
8) chlorodifluoromethane	4.10	51	25652	5.96	ug/L	98
9) dichlorodifluoromethane	4.07	85	44818	8.56	ug/L	99
10) chloromethane	4.46	50	31303	7.33	ug/L	96
11) vinyl chloride	4.75	62	37553	7.78	ug/L	95
12) bromomethane	5.54	94	24079	9.52	ug/L	93
15) 2-CHLOROPROPANE	7.00	43	30839	6.02	ug/L #	93
16) chloroethane	5.75	64	16838	8.87	ug/L	94
17) trichlorofluoromethane	6.27	101	40244	8.08	ug/L	92
19) 1-CHLOROPROPANE	8.16	42	39266	7.62	ug/L #	95
20) ethyl ether	6.76	74	10147	7.46	ug/L	92
21) acrolein	7.14	56	44671	67.95	ug/L	97
22) 1,1-dichloroethene	7.26	96	22740	8.77	ug/L	86
23) acetone	7.42	43	5809	6.89	ug/L	92
24) allyl chloride	7.91	76	11216	8.15	ug/L #	79
25) acetonitrile	7.97	40	12947	63.98	ug/L	90
26) iodomethane	7.60	142	47132	9.13	ug/L	99
27) iso-butyl alcohol	11.14	74	6547	79.00	ug/L	92
28) carbon disulfide	7.72	76	86536	7.70	ug/L	100
29) methylene chloride	8.14	84	25575	8.30	ug/L	84
30) methyl acetate	7.92	43	14158	6.66	ug/L	94
31) methyl tert butyl ether	8.47	73	76005	8.48	ug/L	96
32) trans-1,2-dichloroethene	8.54	61	29704	7.82	ug/L	97
33) di-isopropyl ether	9.13	45	58261	6.22	ug/L	93
34) 2-butanone	10.02	72	1962	6.95	ug/L #	65
35) 1,1-dichloroethane	9.21	63	36628	7.90	ug/L	98
36) chloroprene	9.30	53	22644	6.29	ug/L	89
37) acrylonitrile	8.59	53	36192	34.19	ug/L	98
38) vinyl acetate	9.20	86	2028	5.28	ug/L #	1
39) ethyl tert-butyl ether	9.65	59	70626	7.35	ug/L	95
40) ethyl acetate	10.01	45	1759	5.98	ug/L	56
41) 2,2-dichloropropane	10.00	77	38388	8.38	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.03	96	24663	8.51 ug/L	90
43) methylacrylate	10.10	85	2242	8.58 ug/L #	91
44) propionitrile	10.18	54	28245	71.22 ug/L	97
45) bromochloromethane	10.38	128	13037	9.85 ug/L #	72
46) tetrahydrofuran	10.39	42	5779	6.15 ug/L	79
47) chloroform	10.43	85	23186	8.49 ug/L	94
48) t-butyl formate	10.43	59	19502	7.00 ug/L	91
51) freon 113	7.21	151	18090	8.58 ug/L	90
52) methacrylonitrile	10.33	41	8129	4.76 ug/L	96
53) 1,1,1-trichloroethane	10.65	97	35725	8.52 ug/L	96
54) Cyclohexane	10.69	84	38163	8.10 ug/L	82
56) epichlorohydrin	12.91	57	7878	33.94 ug/L	92
57) n-butyl alcohol	11.72	56	25957	304.03 ug/L	92
58) carbon tetrachloride	10.85	117	31971	10.24 ug/L	98
59) 1,1-dichloropropene	10.85	75	25062	8.85 ug/L	97
61) hexane	8.83	57	17487	6.91 ug/L	94
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	64452	6.83 ug/L	98
63) benzene	11.14	78	76511	8.86 ug/L	97
64) tert-amyl methyl ether	11.14	87	16970	8.79 ug/L	89
65) heptane	11.25	57	9614	6.38 ug/L	93
66) isopropyl acetate	11.07	43	36159	6.49 ug/L	96
67) 1,2-dichloroethane	11.19	62	23436	9.27 ug/L	99
69) trichloroethene	11.88	95	19129	9.60 ug/L	96
71) methyl methacrylate	12.18	69	11116	8.23 ug/L	86
72) 2-nitropropane	12.75	41	5385	7.28 ug/L	94
73) 2-chloroethyl vinyl ether	12.75	63	54938	38.74 ug/L	96
74) 1,2-dichloropropane	12.18	63	18640	8.65 ug/L	96
75) dibromomethane	12.37	93	12464	9.61 ug/L	94
76) methylcyclohexane	12.06	83	33128	7.61 ug/L	93
77) bromodichloromethane	12.49	83	24609	9.28 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	30130	8.84 ug/L	95
80) 4-methyl-2-pentanone	13.08	58	7222	8.19 ug/L #	80
81) toluene	13.33	92	43613	9.17 ug/L	98
82) 3-methyl-1-butanol	13.11	55	16592	136.52 ug/L	88
83) trans-1,3-dichloropropene	13.58	75	26516	8.61 ug/L	96
84) ethyl methacrylate	13.54	69	22094	8.29 ug/L	93
85) 1,1,2-trichloroethane	13.81	83	14835	9.74 ug/L	95
86) 2-hexanone	13.99	58	6247	7.50 ug/L	95
88) tetrachloroethene	13.94	164	16185	10.42 ug/L	92
90) 1,3-dichloropropane	14.01	76	27327	8.95 ug/L	93
91) butyl acetate	14.04	56	10527	7.25 ug/L #	82
92) 3,3-dimethyl-1-butanol	14.17	57	21870	63.27 ug/L	98
93) dibromochloromethane	14.29	129	20563	10.39 ug/L	97
94) 1,2-dibromoethane	14.45	107	18521	10.17 ug/L	99
95) chlorobenzene	14.92	112	51979	9.34 ug/L	93
96) 1,1,1,2-tetrachloroethane	14.98	131	22008	9.89 ug/L	96
97) ethylbenzene	14.96	91	86366	9.07 ug/L	99
98) m,p-xylene	15.07	106	67764	18.60 ug/L	96
99) o-xylene	15.52	106	35127	9.43 ug/L	100
100) styrene	15.55	104	56773	9.39 ug/L	90

7.6.6 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	15178	10.99 ug/L	96
103) isopropylbenzene	15.88	105	94055	8.49 ug/L	100
105) cyclohexanone	16.12	98	17093	203.96 ug/L	86
106) bromobenzene	16.34	156	25655	9.60 ug/L #	83
107) 1,1,2,2-tetrachloroethane	16.26	83	28452	8.63 ug/L	98
108) trans-1,4-dichloro-2-buten	16.31	53	6796	8.11 ug/L	90
109) 1,2,3-trichloropropane	16.34	110	6970	8.90 ug/L	87
110) n-propylbenzene	16.32	120	24895	9.10 ug/L #	76
111) 2-chlorotoluene	16.49	126	23957	9.21 ug/L	91
112) 4-chlorotoluene	16.60	126	23841	9.08 ug/L	89
113) 1,3,5-trimethylbenzene	16.47	105	81933	8.15 ug/L	99
114) tert-butylbenzene	16.85	119	71378	8.04 ug/L	95
115) pentachloroethane	16.97	167	17192	8.39 ug/L	96
116) 1,2,4-trimethylbenzene	16.90	105	82732	8.73 ug/L	99
117) sec-butylbenzene	17.08	105	114084	8.18 ug/L	98
118) 1,3-dichlorobenzene	17.31	146	52296	9.23 ug/L	99
119) p-isopropyltoluene	17.20	119	95567	8.70 ug/L	98
120) 1,4-dichlorobenzene	17.40	146	53789	9.13 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	56249	9.42 ug/L	95
122) benzyl chloride	17.54	91	56739	8.02 ug/L	98
123) n-butylbenzene	17.65	92	49661	8.42 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	6753	8.42 ug/L	95
125) 1,3,5-TRICHLOROBENZENE	18.86	180	57033	9.04 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	60690	8.81 ug/L	99
127) hexachlorobutadiene	19.66	225	25652	8.86 ug/L	93
128) naphthalene	19.89	128	160112	8.45 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	69033	9.08 ug/L	98
130) hexachloroethane	18.09	201	15499	10.04 ug/L	95

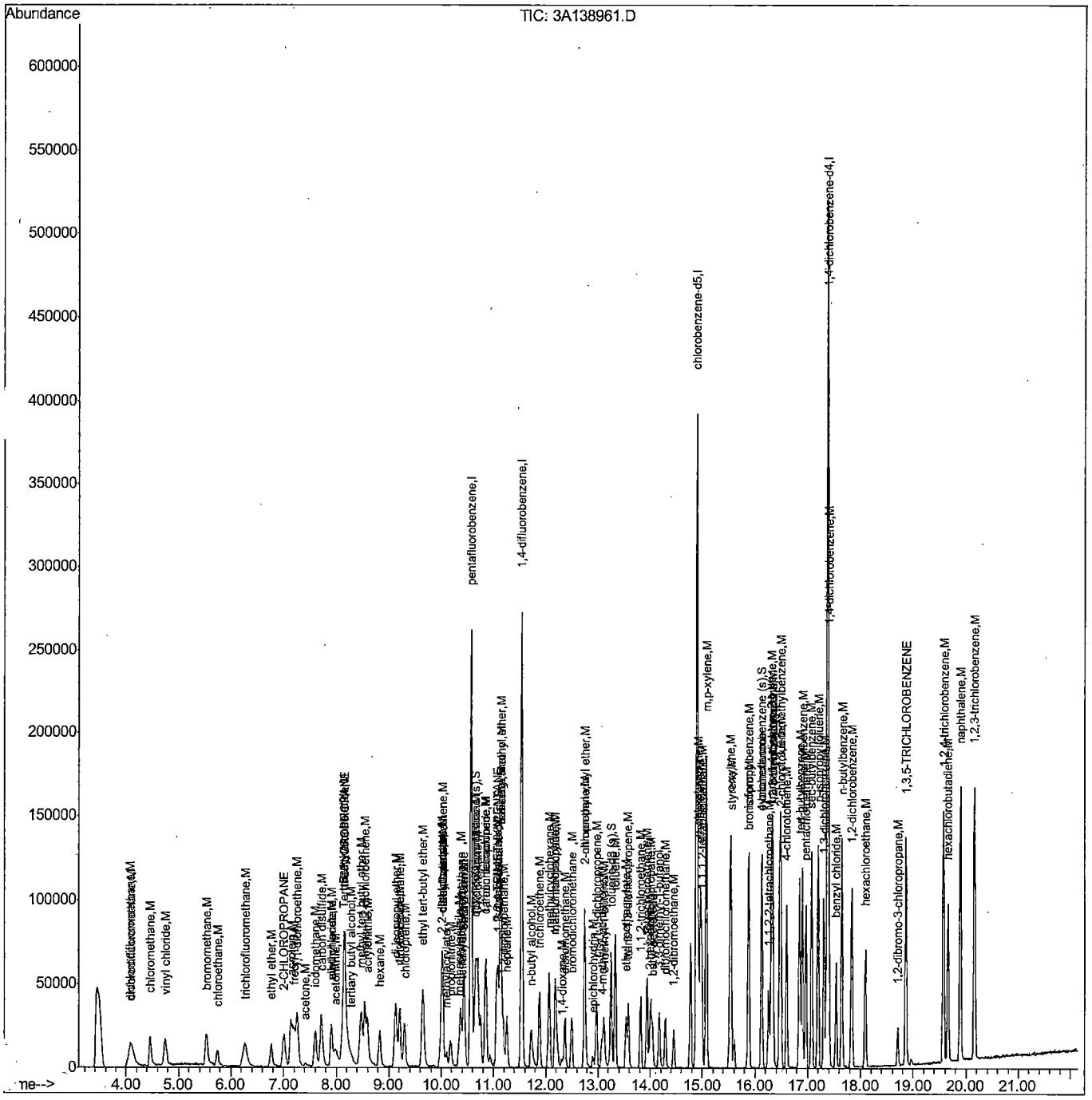
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.6 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138961.D
Acq On : 13 Feb 2015 7:41 pm
Operator : zobiah
Sample : icc6014-10
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 09:15:40 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

7.6.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	140726	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	272118	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	300007	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	270500	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	169098	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	95308	42.17	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 84.34%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	92640	37.32	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 74.64%			
79) toluene-d8 (s)	13.25	98	308524	40.84	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 81.68%			
104) 4-bromofluorobenzene (s)	16.12	95	122990	37.44	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 74.88%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	28975	85.73	ug/L	100
4) 1,4-dioxane	12.32	88	14935	442.12	ug/L	92
8) chlorodifluoromethane	4.10	51	54836	12.57	ug/L	97
9) dichlorodifluoromethane	4.08	85	90975	17.15	ug/L	95
10) chloromethane	4.46	50	63970	14.79	ug/L	99
11) vinyl chloride	4.75	62	76974	15.75	ug/L	96
12) bromomethane	5.54	94	45280	17.67	ug/L	93
15) 2-CHLOROPROPANE	7.00	43	61237	11.80	ug/L #	93
16) chloroethane	5.74	64	30906	16.08	ug/L	92
17) trichlorofluoromethane	6.28	101	82645	16.39	ug/L	98
19) 1-CHLOROPROPANE	8.15	42	65846	12.62	ug/L #	97
20) ethyl ether	6.77	74	21521	15.62	ug/L	83
21) acrolein	7.14	56	92635	139.11	ug/L	98
22) 1,1-dichloroethene	7.26	96	44480	16.94	ug/L	88
23) acetone	7.40	43	11801	13.82	ug/L	94
24) allyl chloride	7.91	76	21946	15.75	ug/L #	86
25) acetonitrile	7.99	40	34266	167.17	ug/L #	81
26) iodomethane	7.60	142	95964	18.35	ug/L	97
27) iso-butyl alcohol	11.13	74	13320	158.69	ug/L	93
28) carbon disulfide	7.71	76	171216	15.04	ug/L	97
29) methylene chloride	8.15	84	52041	16.67	ug/L	87
30) methyl acetate	7.92	43	27718	12.87	ug/L	95
31) methyl tert butyl ether	8.47	73	152687	16.82	ug/L	96
32) trans-1,2-dichloroethene	8.54	61	59286	15.42	ug/L	87
33) di-isopropyl ether	9.13	45	115698	12.19	ug/L	93
34) 2-butanone	10.01	72	4541	15.88	ug/L #	84
35) 1,1-dichloroethane	9.20	63	73067	15.56	ug/L	98
36) chloroprene	9.30	53	47351	12.98	ug/L	97
37) acrylonitrile	8.59	53	73596	68.64	ug/L	98
38) vinyl acetate	9.20	86	5416	13.93	ug/L #	41
39) ethyl tert-butyl ether	9.64	59	143056	14.70	ug/L	94
40) ethyl acetate	10.01	45	3725	12.50	ug/L	79
41) 2,2-dichloropropane	10.00	77	75643	16.31	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	49608	16.89 ug/L	93
43) methylacrylate	10.10	85	5461	16.98 ug/L #	86
44) propionitrile	10.18	54	59107	147.14 ug/L	98
45) bromochloromethane	10.37	128	25251	18.84 ug/L	89
46) tetrahydrofuran	10.39	42	11570	12.16 ug/L	88
47) chloroform	10.43	85	47609	17.21 ug/L	98
48) t-butyl formate	10.44	59	38601	13.68 ug/L	94
51) freon 113	7.19	151	37377	17.51 ug/L	89
52) methacrylonitrile	10.33	41	20177	11.66 ug/L	96
53) 1,1,1-trichloroethane	10.66	97	72099	16.98 ug/L	95
54) Cyclohexane	10.69	84	74761	15.66 ug/L	85
56) epichlorohydrin	12.90	57	16658	70.80 ug/L	95
57) n-butyl alcohol	11.72	56	52670	608.55 ug/L	94
58) carbon tetrachloride	10.85	117	63021	19.91 ug/L	99
59) 1,1-dichloropropene	10.84	75	50152	17.46 ug/L	99
61) hexane	8.82	57	35715	13.93 ug/L	93
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	135084	14.12 ug/L	99
63) benzene	11.13	78	152774	17.45 ug/L	99
64) tert-amyl methyl ether	11.14	87	34054	17.40 ug/L	97
65) heptane	11.26	57	19615	12.83 ug/L	94
66) isopropyl acetate	11.06	43	73401	13.00 ug/L	95
67) 1,2-dichloroethane	11.19	62	46150	18.01 ug/L	97
69) trichloroethene	11.88	95	38605	19.11 ug/L	99
71) methyl methacrylate	12.17	69	22920	16.74 ug/L	85
72) 2-nitropropane	12.76	41	10834	14.44 ug/L	99
73) 2-chloroethyl vinyl ether	12.74	63	113115	78.68 ug/L	90
74) 1,2-dichloropropane	12.18	63	37954	17.37 ug/L	96
75) dibromomethane	12.37	93	25545	19.44 ug/L	95
76) methylcyclohexane	12.06	83	66580	15.09 ug/L	95
77) bromodichloromethane	12.50	83	49663	18.48 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	60297	17.45 ug/L	98
80) 4-methyl-2-pentanone	13.08	58	14018	15.69 ug/L #	83
81) toluene	13.33	92	88485	18.35 ug/L	98
82) 3-methyl-1-butanol	13.11	55	34054	276.39 ug/L	88
83) trans-1,3-dichloropropene	13.58	75	54473	17.45 ug/L	97
84) ethyl methacrylate	13.54	69	45652	16.89 ug/L	90
85) 1,1,2-trichloroethane	13.81	83	29559	19.15 ug/L	97
86) 2-hexanone	13.98	58	13163	15.60 ug/L	95
88) tetrachloroethene	13.94	164	32070	20.38 ug/L	98
90) 1,3-dichloropropane	14.00	76	56674	18.31 ug/L	91
91) butyl acetate	14.04	56	21816	14.84 ug/L	89
92) 3,3-dimethyl-1-butanol	14.17	57	44599	127.35 ug/L	97
93) dibromochloromethane	14.29	129	41638	20.77 ug/L	99
94) 1,2-dibromoethane	14.45	107	35992	19.52 ug/L	93
95) chlorobenzene	14.92	112	105993	18.80 ug/L	96
96) 1,1,1,2-tetrachloroethane	14.98	131	45952	20.38 ug/L	98
97) ethylbenzene	14.96	91	175902	18.24 ug/L	100
98) m,p-xylene	15.07	106	139544	37.81 ug/L	94
99) o-xylene	15.52	106	73104	19.37 ug/L	96
00) styrene	15.54	104	116428	19.01 ug/L	89

7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.86	173	31439	22.48 ug/L	97
103) isopropylbenzene	15.88	105	194916	17.53 ug/L	99
105) cyclohexanone	16.12	98	33459	397.78 ug/L	83
106) bromobenzene	16.34	156	50819	18.94 ug/L	88
107) 1,1,2,2-tetrachloroethane	16.26	83	56009	16.92 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	13333	15.85 ug/L	88
109) 1,2,3-trichloropropane	16.34	110	14421	18.34 ug/L	94
110) n-propylbenzene	16.32	120	49481	18.01 ug/L	93
111) 2-chlorotoluene	16.49	126	48397	18.53 ug/L	91
112) 4-chlorotoluene	16.60	126	48516	18.40 ug/L	98
113) 1,3,5-trimethylbenzene	16.47	105	168401	16.69 ug/L	96
114) tert-butylbenzene	16.85	119	150793	16.92 ug/L	95
115) pentachloroethane	16.97	167	36252	17.63 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	169687	17.85 ug/L	98
117) sec-butylbenzene	17.08	105	233846	16.70 ug/L	98
118) 1,3-dichlorobenzene	17.31	146	106705	18.76 ug/L	98
119) p-isopropyltoluene	17.20	119	200640	18.20 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	109097	18.45 ug/L	97
121) 1,2-dichlorobenzene	17.84	146	111541	18.61 ug/L	96
122) benzyl chloride	17.54	91	112742	15.88 ug/L	98
123) n-butylbenzene	17.65	92	100681	17.00 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	13675	16.99 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	18.86	180	115424	18.24 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	127099	18.38 ug/L	96
127) hexachlorobutadiene	19.66	225	53587	18.43 ug/L	97
128) naphthalene	19.89	128	338852	17.81 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	142377	18.66 ug/L	99
130) hexachloroethane	18.09	201	34137	18.31 ug/L	96

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

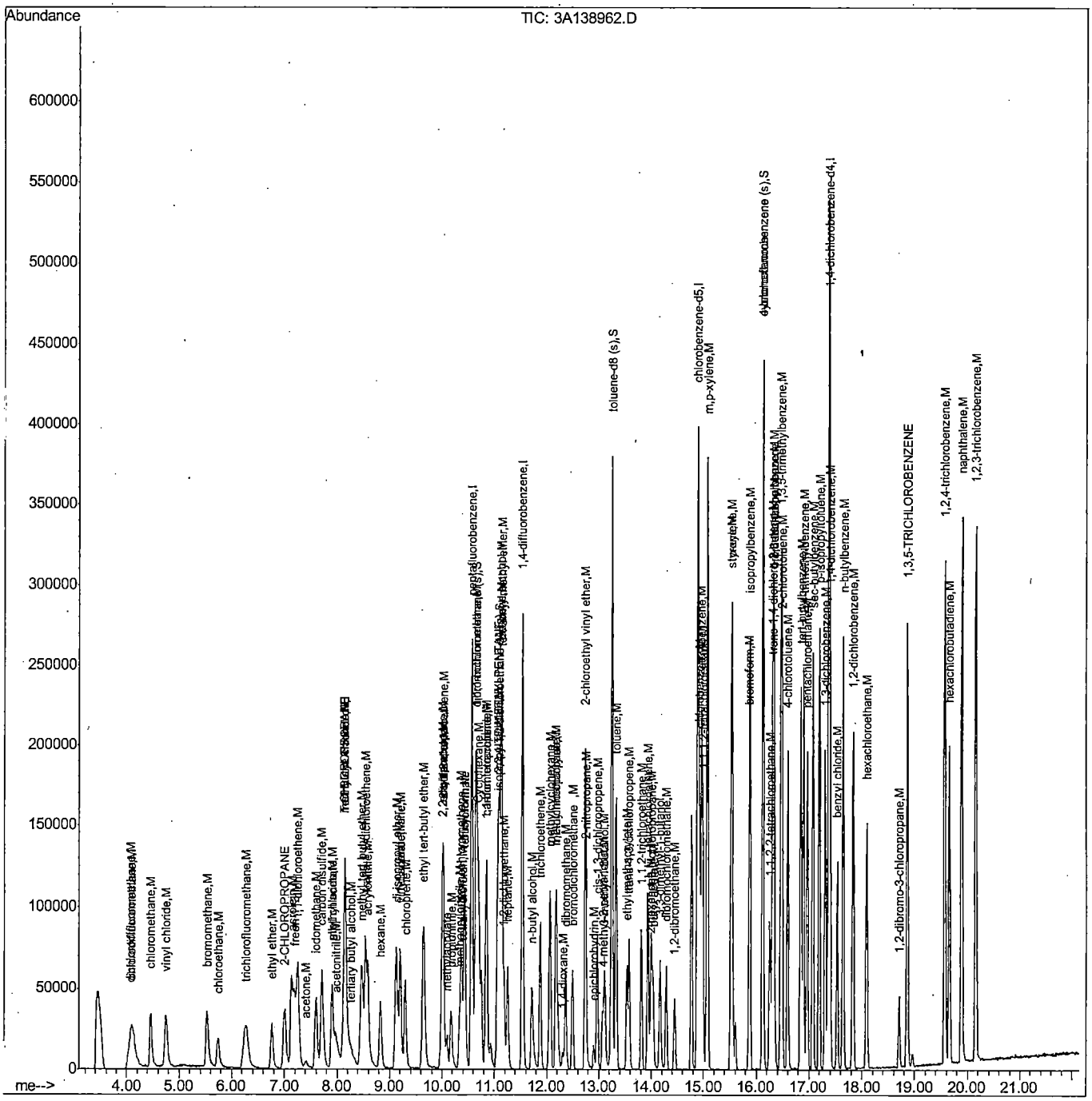
7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138962.D
Acq On : 13 Feb 2015 8:11 pm
Operator : zobiah
Sample : ic6014-20
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 16 09:16:05 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

7.6.7 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	140903	500.00	ug/L	-0.01
5) pentafluorobenzene	10.56	168	269287	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	303965	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	273080	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166969	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	97687	43.68	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 87.36%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	94352	38.41	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 76.82%			
79) toluene-d8 (s)	13.25	98	320157	41.83	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 83.66%			
104) 4-bromofluorobenzene (s)	16.12	95	126031	38.86	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 77.72%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	75546	223.25	ug/L	100
4) 1,4-dioxane	12.31	88	39651	1172.32	ug/L	93
8) chlorodifluoromethane	4.10	51	144081	33.39	ug/L	97
9) dichlorodifluoromethane	4.07	85	238146	45.36	ug/L	97
10) chloromethane	4.46	50	173437	40.52	ug/L	96
11) vinyl chloride	4.76	62	207441	42.90	ug/L	96
12) bromomethane	5.53	94	111603	44.01	ug/L	98
15) 2-CHLOROPROPANE	7.00	43	148555	28.93	ug/L #	93
16) chloroethane	5.74	64	73412	38.59	ug/L	95
17) trichlorofluoromethane	6.26	101	216068	43.29	ug/L	98
19) 1-CHLOROPROPANE	8.15	42	151479	29.33	ug/L #	96
20) ethyl ether	6.76	74	54963	40.32	ug/L	83
21) acrolein	7.13	56	231137	350.75	ug/L	95
22) 1,1-dichloroethene	7.26	96	110584	42.56	ug/L	92
23) acetone	7.40	43	30855	36.52	ug/L	95
24) allyl chloride	7.90	76	56580	41.02	ug/L #	82
25) acetonitrile	7.96	40	83323	410.78	ug/L	95
26) iodomethane	7.60	142	240845	46.53	ug/L	97
27) iso-butyl alcohol	11.13	74	34527	415.66	ug/L #	85
28) carbon disulfide	7.71	76	426527	37.87	ug/L	99
29) methylene chloride	8.15	84	126875	41.08	ug/L	87
30) methyl acetate	7.91	43	68345	32.06	ug/L	93
31) methyl tert butyl ether	8.47	73	382434	42.56	ug/L	99
32) trans-1,2-dichloroethene	8.54	61	145555	38.25	ug/L	92
33) di-isopropyl ether	9.13	45	291590	31.05	ug/L	96
34) 2-butanone	10.01	72	12777	45.16	ug/L #	79
35) 1,1-dichloroethane	9.21	63	183745	39.54	ug/L	99
36) chloroprene	9.30	53	119570	33.13	ug/L	93
37) acrylonitrile	8.58	53	182542	172.04	ug/L	99
38) vinyl acetate	9.20	86	16229	42.17	ug/L	64
39) ethyl tert-butyl ether	9.65	59	368365	38.26	ug/L	96
40) ethyl acetate	10.00	45	9959	33.77	ug/L #	41
41) 2,2-dichloropropane	10.00	77	190959	41.60	ug/L	96

7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	122220	42.06 ug/L	94
43) methylacrylate	10.09	85	13804	39.33 ug/L	85
44) propionitrile	10.17	54	147871	371.98 ug/L	98
45) bromochloromethane	10.37	128	63785	48.10 ug/L	85
46) tetrahydrofuran	10.39	42	29335	31.15 ug/L	77
47) chloroform	10.43	85	117498	42.92 ug/L	97
48) t-butyl formate	10.43	59	103069	36.91 ug/L	96
51) freon 113	7.19	151	95590	45.24 ug/L	89
52) methacrylonitrile	10.33	41	58050	33.90 ug/L	95
53) 1,1,1-trichloroethane	10.66	97	183214	43.61 ug/L	98
54) Cyclohexane	10.70	84	193491	40.97 ug/L	83
56) epichlorohydrin	12.90	57	45179	189.52 ug/L	95
57) n-butyl alcohol	11.71	56	151089	1722.97 ug/L	93
58) carbon tetrachloride	10.85	117	165028	51.46 ug/L	95
59) 1,1-dichloropropene	10.84	75	128455	44.14 ug/L	97
61) hexane	8.83	57	90882	34.98 ug/L	94
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	375012	38.69 ug/L	98
63) benzene	11.13	78	395706	44.62 ug/L	99
64) tert-amyl methyl ether	11.14	87	87219	44.00 ug/L	92
65) heptane	11.25	57	53141	34.32 ug/L	92
66) isopropyl acetate	11.06	43	200140	34.99 ug/L	96
67) 1,2-dichloroethane	11.19	62	118268	45.55 ug/L	96
69) trichloroethene	11.88	95	99425	48.57 ug/L	95
71) methyl methacrylate	12.17	69	60426	43.57 ug/L #	83
72) 2-nitropropane	12.76	41	29283	38.52 ug/L	98
73) 2-chloroethyl vinyl ether	12.74	63	298849	205.17 ug/L	95
74) 1,2-dichloropropane	12.18	63	95264	43.04 ug/L	99
75) dibromomethane	12.36	93	65008	48.82 ug/L	96
76) methylcyclohexane	12.06	83	184427	41.25 ug/L	92
77) bromodichloromethane	12.50	83	131657	48.35 ug/L	99
78) cis-1,3-dichloropropene	12.97	75	155794	44.50 ug/L	93
80) 4-methyl-2-pentanone	13.07	58	37457	41.37 ug/L	91
81) toluene	13.33	92	229756	47.03 ug/L	99
82) 3-methyl-1-butanol	13.11	55	96455	772.65 ug/L	92
83) trans-1,3-dichloropropene	13.58	75	141399	44.70 ug/L	96
84) ethyl methacrylate	13.53	69	117485	42.91 ug/L	90
85) 1,1,2-trichloroethane	13.81	83	74272	47.49 ug/L	97
86) 2-hexanone	13.98	58	36387	42.56 ug/L	87
88) tetrachloroethene	13.94	164	86142	54.22 ug/L	99
90) 1,3-dichloropropane	14.00	76	141709	45.35 ug/L	91
91) butyl acetate	14.04	56	57075	38.45 ug/L	90
92) 3,3-dimethyl-1-butanol	14.17	57	131748	372.66 ug/L	95
93) dibromochloromethane	14.29	129	110063	54.38 ug/L	98
94) 1,2-dibromoethane	14.45	107	93276	50.10 ug/L	99
95) chlorobenzene	14.92	112	273382	48.04 ug/L	95
96) 1,1,1,2-tetrachloroethane	14.98	131	122800	53.96 ug/L	98
97) ethylbenzene	14.96	91	462201	47.47 ug/L	99
98) m,p-xylene	15.07	106	365168	98.00 ug/L	95
99) o-xylene	15.52	106	192810	50.62 ug/L	93
00) styrene	15.54	104	304212	49.19 ug/L	91

7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	82118	58.15 ug/L	95
103) isopropylbenzene	15.88	105	519366	47.32 ug/L	99
105) cyclohexanone	16.12	98	95628	1151.38 ug/L	82
106) bromobenzene	16.34	156	131243	49.54 ug/L	87
107) 1,1,2,2-tetrachloroethane	16.26	83	143450	43.90 ug/L	97
108) trans-1,4-dichloro-2-buten	16.30	53	34579	41.64 ug/L	86
109) 1,2,3-trichloropropane	16.34	110	36257	46.71 ug/L	93
110) n-propylbenzene	16.32	120	130938	48.28 ug/L	91
111) 2-chlorotoluene	16.49	126	124567	48.30 ug/L	97
112) 4-chlorotoluene	16.60	126	124868	47.97 ug/L	93
113) 1,3,5-trimethylbenzene	16.47	105	449371	45.09 ug/L	97
114) tert-butylbenzene	16.85	119	416505	47.34 ug/L	94
115) pentachloroethane	16.97	167	100600	49.54 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	445475	47.45 ug/L	97
117) sec-butylbenzene	17.07	105	634011	45.86 ug/L	98
118) 1,3-dichlorobenzene	17.31	146	270696	48.19 ug/L	99
119) p-isopropyltoluene	17.20	119	526914	48.40 ug/L	97
120) 1,4-dichlorobenzene	17.40	146	275230	47.13 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	285691	48.28 ug/L	97
122) benzyl chloride	17.54	91	293701	41.91 ug/L	97
123) n-butylbenzene	17.65	92	263082	44.99 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.71	75	34882	43.89 ug/L	94
125) 1,3,5-TRICHLOROBENZENE	18.86	180	298947	47.84 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	330761	48.44 ug/L	99
127) hexachlorobutadiene	19.66	225	143635	50.04 ug/L	97
128) naphthalene	19.89	128	877524	46.71 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	373042	49.51 ug/L	97
130) hexachloroethane	18.09	201	98612	47.55 ug/L	97

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

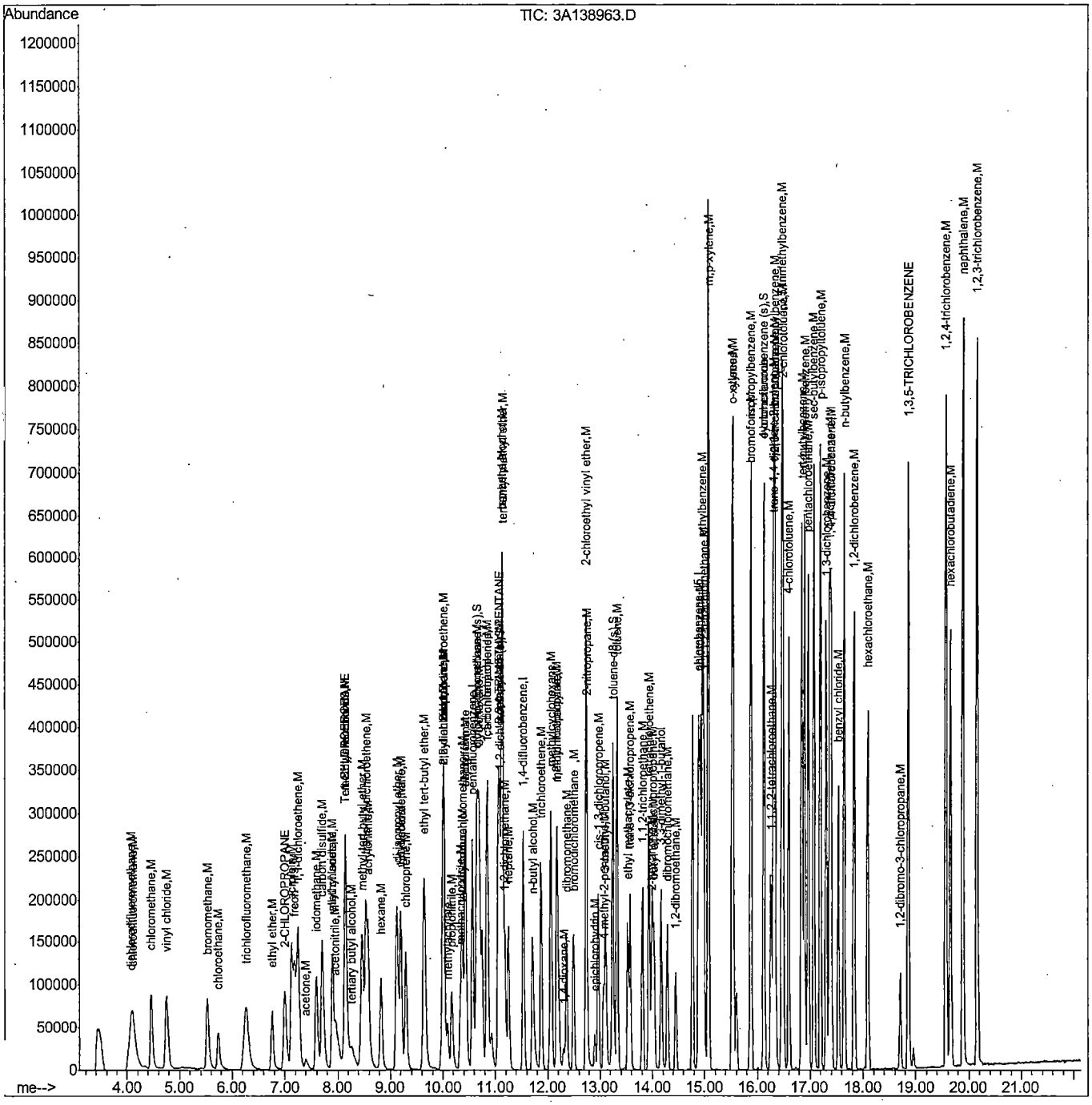
7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138963.D
Acq On : 13 Feb 2015 8:41 pm
Operator : zobiah
Sample : ic6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 16 09:10:00 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	176405	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	312953	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	368102	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	326366	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	198290	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	441118	169.73	ug/L	0.00
Spiked Amount 50.000 Range 76 - 122 Recovery = 339.46%#						
50) 1,2-dichloroethane-d4 (s)	11.09	65	435642	152.61	ug/L	0.00
Spiked Amount 50.000 Range 71 - 124 Recovery = 305.22%#						
79) toluene-d8 (s)	13.25	98	1518987	163.88	ug/L	0.00
Spiked Amount 50.000 Range 78 - 121 Recovery = 327.76%#						
104) 4-bromofluorobenzene (s)	16.12	95	587777	152.59	ug/L	0.00
Spiked Amount 50.000 Range 77 - 120 Recovery = 305.18%#						
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	365293	862.25	ug/L	100
4) 1,4-dioxane	12.31	88	200433	4733.37	ug/L	95
8) chlorodifluoromethane	4.09	51	656643	130.92	ug/L	97
9) dichlorodifluoromethane	4.05	85	968357	158.71	ug/L	97
10) chloromethane	4.46	50	763340	153.47	ug/L	98
11) vinyl chloride	4.77	62	966759	172.02	ug/L	97
15) 2-CHLOROPROPANE	7.00	43	693391	116.21	ug/L	96
17) trichlorofluoromethane	6.25	101	943636	162.68	ug/L	99
19) 1-CHLOROPROPANE	8.15	42	653242	108.84	ug/L #	94
20) ethyl ether	6.76	74	254780	160.83	ug/L	86
21) acrolein	7.13	56	1078779	1408.63	ug/L	99
22) 1,1-dichloroethene	7.25	96	484981	160.62	ug/L	90
23) acetone	7.40	43	138344	140.88	ug/L	95
24) allyl chloride	7.90	76	255399	159.33	ug/L	90
25) acetonitrile	7.96	40	401864	1704.77	ug/L	99
26) iodomethane	7.59	142	1066905	177.36	ug/L	99
27) iso-butyl alcohol	11.13	74	164862	1707.81	ug/L	92
28) carbon disulfide	7.71	76	1888741	144.30	ug/L	99
29) methylene chloride	8.15	84	572012	159.36	ug/L	91
30) methyl acetate	7.91	43	325812	131.53	ug/L	94
31) methyl tert butyl ether	8.47	73	1749357	167.53	ug/L	98
32) trans-1,2-dichloroethene	8.54	61	653184	147.69	ug/L	90
33) di-isopropyl ether	9.13	45	1447887	132.68	ug/L	96
34) 2-butanone	10.01	72	57703	175.48	ug/L #	74
35) 1,1-dichloroethane	9.20	63	827498	153.23	ug/L	99
36) chloroprene	9.30	53	559824	133.48	ug/L	94
37) acrylonitrile	8.58	53	858426	696.15	ug/L	97
38) vinyl acetate	9.19	86	76995	172.16	ug/L	75
39) ethyl tert-butyl ether	9.65	59	1760022	157.29	ug/L	95
40) ethyl acetate	10.00	45	50911	148.55	ug/L #	57
41) 2,2-dichloropropane	10.00	77	830298	155.65	ug/L	94
42) cis-1,2-dichloroethene	10.02	96	554484	164.19	ug/L	92
43) methylacrylate	10.09	85	72066	167.61	ug/L	83

7.6.9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
44) propionitrile	10.17	54	735810	1592.71 ug/L	100
45) bromochloromethane	10.37	128	287921	186.81 ug/L	89
46) tetrahydrofuran	10.39	42	149672	136.75 ug/L	89
47) chloroform	10.43	85	530738	166.80 ug/L	98
48) t-butyl formate	10.44	59	511773	157.70 ug/L	95
51) freon 113	7.19	151	408038	166.18 ug/L	95
52) methacrylonitrile	10.33	41	290811	146.12 ug/L	97
53) 1,1,1-trichloroethane	10.65	97	831881	170.37 ug/L	96
54) Cyclohexane	10.70	84	856415	156.02 ug/L	87
56) epichlorohydrin	12.90	57	228638	792.00 ug/L	94
57) n-butyl alcohol	11.71	56	849932	8003.57 ug/L	96
58) carbon tetrachloride	10.85	117	747379	192.45 ug/L	96
59) 1,1-dichloropropene	10.84	75	603893	171.35 ug/L	97
61) hexane	8.82	57	417020	132.53 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	1789890	152.49 ug/L	98
63) benzene	11.13	78	1842703	171.58 ug/L	100
64) tert-amyl methyl ether	11.14	87	426911	177.82 ug/L	92
65) heptane	11.25	57	251661	134.20 ug/L	95
66) isopropyl acetate	11.06	43	988965	142.77 ug/L	94
67) 1,2-dichloroethane	11.19	62	570565	181.44 ug/L	97
69) trichloroethene	11.88	95	466682	188.24 ug/L	95
71) methyl methacrylate	12.17	69	298413	177.68 ug/L	84
72) 2-nitropropane	12.76	41	142534	154.85 ug/L	94
73) 2-chloroethyl vinyl ether	12.74	63	1416471	803.02 ug/L	95
74) 1,2-dichloropropane	12.18	63	459716	171.51 ug/L	98
75) dibromomethane	12.36	93	307456	190.66 ug/L	94
76) methylcyclohexane	12.06	83	880212	162.59 ug/L	93
77) bromodichloromethane	12.50	83	632419	191.77 ug/L	97
78) cis-1,3-dichloropropene	12.97	75	771897	182.07 ug/L	95
80) 4-methyl-2-pentanone	13.07	58	195014	177.84 ug/L	91
81) toluene	13.33	92	1120070	189.34 ug/L	99
82) 3-methyl-1-butanol	13.11	55	533675	3530.15 ug/L	95
83) trans-1,3-dichloropropene	13.57	75	677168	176.79 ug/L	97
84) ethyl methacrylate	13.53	69	581526	175.40 ug/L	94
85) 1,1,2-trichloroethane	13.81	83	355126	187.51 ug/L	100
86) 2-hexanone	13.98	58	180772	174.59 ug/L	91
88) tetrachloroethene	13.94	164	401826	211.63 ug/L	98
90) 1,3-dichloropropane	14.00	76	686939	183.95 ug/L	92
91) butyl acetate	14.04	56	292165	164.70 ug/L	91
92) 3,3-dimethyl-1-butanol	14.17	57	808262	1912.96 ug/L	95
93) dibromochloromethane	14.29	129	526121	217.52 ug/L	99
94) 1,2-dibromoethane	14.45	107	446181	200.51 ug/L	96
95) chlorobenzene	14.92	112	1293275	190.16 ug/L	96
96) 1,1,1,2-tetrachloroethane	14.98	131	598741	220.14 ug/L	100
97) ethylbenzene	14.96	91	2171935	186.66 ug/L	99
98) m,p-xylene	15.07	106	1708310	383.62 ug/L	97
99) o-xylene	15.52	106	930185	204.33 ug/L	96
100) styrene	15.54	104	1427743	193.19 ug/L	92
101) bromoform	15.87	173	390169	231.18 ug/L	98
103) isopropylbenzene	15.88	105	2545835	195.31 ug/L	99

7.6.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
105) cyclohexanone	16.12	98	376832	3820.46 ug/L	82
106) bromobenzene	16.34	156	614198	195.21 ug/L	88
107) 1,1,2,2-tetrachloroethane	16.26	83	681327	175.57 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	161463	163.73 ug/L	89
109) 1,2,3-trichloropropane	16.34	110	166156	180.23 ug/L	94
110) n-propylbenzene	16.32	120	622382	193.24 ug/L	90
111) 2-chlorotoluene	16.49	126	604057	197.22 ug/L	99
112) 4-chlorotoluene	16.60	126	589077	190.57 ug/L	93
113) 1,3,5-trimethylbenzene	16.47	105	2304920	194.76 ug/L	98
114) tert-butylbenzene	16.85	119	2177000	208.34 ug/L	96
115) pentachloroethane	16.97	167	525263	217.81 ug/L	96
116) 1,2,4-trimethylbenzene	16.90	105	2207135	197.94 ug/L	98
117) sec-butylbenzene	17.07	105	3193862	194.51 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	1283980	192.49 ug/L	97
119) p-isopropyltoluene	17.20	119	2645427	204.62 ug/L	98
120) 1,4-dichlorobenzene	17.40	146	1302400	187.80 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	1376966	195.94 ug/L	99
122) benzyl chloride	17.54	91	1387947	166.76 ug/L	97
123) n-butylbenzene	17.65	92	1280954	184.47 ug/L	99
124) 1,2-dibromo-3-chloropropan	18.71	75	172994	183.30 ug/L	85
125) 1,3,5-TRICHLOROBENZENE	18.86	180	1584187	213.45 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	1733865	213.81 ug/L	99
127) hexachlorobutadiene	19.66	225	799275	234.45 ug/L	98
128) naphthalene	19.89	128	4503318	201.86 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	1883037	210.45 ug/L	99
130) hexachloroethane	18.09	201	551171	212.22 ug/L	94

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

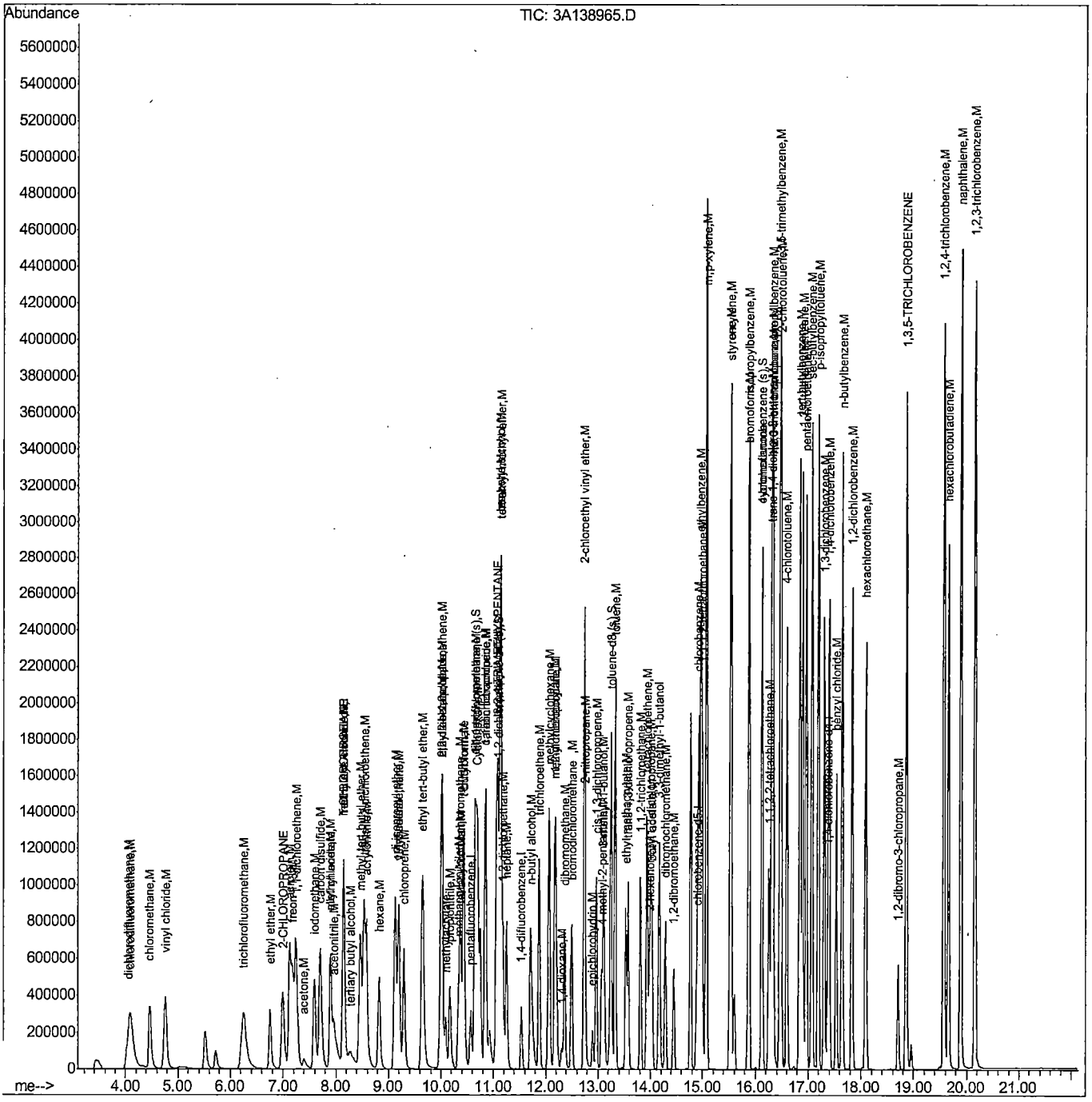
7.6.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A138965.D
Acq On : 13 Feb 2015 9:41 pm
Operator : zobiah
Sample : ic6014-200
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 10:53:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Jan 28 10:54:40 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.15	65	173858	500.00 ug/L	0.02
5) pentafluorobenzene	10.57	168	302569	50.00 ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	336476	50.00 ug/L	0.00
87) chlorobenzene-d5	14.88	117	302334	50.00 ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	177185	50.00 ug/L	0.00

System Monitoring Compounds					
49) dibromofluoromethane (s)	10.65	113	102750	45.98 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 91.96%		
50) 1,2-dichloroethane-d4 (s)	11.09	65	101693	47.96 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 95.92%		
79) toluene-d8 (s)	13.25	98	331053	44.25 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 88.50%		
104) 4-bromofluorobenzene (s)	16.12	95	126099	46.41 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 92.82%		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.29	59	90997	260.54 ug/L	100
4) 1,4-dioxane	12.31	88	50253	1359.37 ug/L	92
8) chlorodifluoromethane	4.09	51	169700	56.78 ug/L	96
9) dichlorodifluoromethane	4.08	85	197372	40.26 ug/L	96
10) chloromethane	4.46	50	173186	48.43 ug/L	99
11) vinyl chloride	4.75	62	199381	46.11 ug/L	96
12) bromomethane	5.54	94	112016	43.33 ug/L	97
15) 2-CHLOROPROPANE	7.00	43	176073	50.86 ug/L	98
16) chloroethane	5.75	64	81295	47.25 ug/L	97
17) trichlorofluoromethane	6.26	101	227106	51.18 ug/L	99
19) 1-CHLOROPROPANE	8.15	42	174360	52.38 ug/L	86
20) ethyl ether	6.77	74	65279	55.93 ug/L	94
21) acrolein	7.13	56	280072	555.23 ug/L	96
22) 1,1-dichloroethene	7.26	96	116168	46.97 ug/L	95
23) acetone	7.40	43	35325	52.71 ug/L	98
24) allyl chloride	7.90	76	65854	54.32 ug/L	87
25) acetonitrile	7.97	40	82372	469.34 ug/L #	70
26) iodomethane	7.60	142	250743	47.94 ug/L	98
27) iso-butyl alcohol	11.14	74	37568	525.50 ug/L #	71
28) carbon disulfide	7.71	76	456679	47.32 ug/L	98
29) methylene chloride	8.15	84	133132	46.40 ug/L	96
30) methyl acetate	7.91	43	78347	50.29 ug/L	98
31) methyl tert butyl ether	8.48	73	837247	101.73 ug/L	98
32) trans-1,2-dichloroethene	8.54	61	158884	47.95 ug/L	97
33) di-isopropyl ether	9.13	45	347017	52.40 ug/L	98
34) 2-butanone	10.01	72	13671	53.04 ug/L #	64
35) 1,1-dichloroethane	9.21	63	207349	51.00 ug/L	97
36) chloroprene	9.30	53	143333	53.92 ug/L	99
37) acrylonitrile	8.59	53	232324	294.56 ug/L	98
38) vinyl acetate	9.20	86	20763	58.50 ug/L	96
39) ethyl tert-butyl ether	9.65	59	398192	49.64 ug/L	99
40) ethyl acetate	10.00	45	13111	55.84 ug/L	77
41) 2,2-dichloropropane	10.00	77	222164	52.54 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	132387	48.73 ug/L	97
43) methylacrylate	10.10	85	16359	49.97 ug/L	96
44) propionitrile	10.17	54	182114	584.20 ug/L	97
45) bromochloromethane	10.37	128	68448	48.79 ug/L	96
46) tetrahydrofuran	10.39	42	36001	54.19 ug/L	92
47) chloroform	10.43	85	127920	48.94 ug/L	99
48) t-butyl formate	10.44	59	126465	58.32 ug/L	99
51) freon 113	7.20	151	115623	59.32 ug/L	97
52) methacrylonitrile	10.34	41	66504	51.20 ug/L	97
53) 1,1,1-trichloroethane	10.66	97	206257	52.64 ug/L	98
54) Cyclohexane	10.70	84	214019	52.08 ug/L	93
56) epichlorohydrin	12.90	57	52776	280.55 ug/L	96
57) n-butyl alcohol	11.72	56	198032	3064.58 ug/L	98
58) carbon tetrachloride	10.85	117	181002	51.30 ug/L	96
59) 1,1-dichloropropene	10.84	75	145009	51.57 ug/L	98
61) hexane	8.82	57	107932	53.76 ug/L	98
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	408475	52.25 ug/L	96
63) benzene	11.13	78	438595	50.50 ug/L	100
64) tert-amyl methyl ether	11.14	87	92967	49.23 ug/L	95
65) heptane	11.26	57	69625	61.24 ug/L	94
66) isopropyl acetate	11.06	43	258838	59.93 ug/L	98
67) 1,2-dichloroethane	11.19	62	130593	49.80 ug/L	98
69) trichloroethene	11.88	95	102380	47.74 ug/L	98
71) methyl methacrylate	12.17	69	69220	57.03 ug/L	94
72) 2-nitropropane	12.76	41	33892	57.51 ug/L	95
73) 2-chloroethyl vinyl ether	12.74	63	334356	265.55 ug/L	98
74) 1,2-dichloropropane	12.18	63	107794	50.55 ug/L	99
75) dibromomethane	12.36	93	68091	48.82 ug/L	99
76) methylcyclohexane	12.06	83	219921	56.76 ug/L	97
77) bromodichloromethane	12.50	83	138188	48.71 ug/L	98
78) cis-1,3-dichloropropene	12.97	75	166357	49.14 ug/L	98
80) 4-methyl-2-pentanone	13.08	58	45609	55.33 ug/L	97
81) toluene	13.33	92	244606	50.12 ug/L	98
82) 3-methyl-1-butanol	13.11	55	122513	1218.81 ug/L	97
83) trans-1,3-dichloropropene	13.58	75	147676	49.57 ug/L	99
84) ethyl methacrylate	13.54	69	131332	53.96 ug/L	98
85) 1,1,2-trichloroethane	13.81	83	77917	47.98 ug/L	98
86) 2-hexanone	13.98	58	41112	53.95 ug/L	97
88) tetrachloroethene	13.94	164	85962	47.44 ug/L	95
90) 1,3-dichloropropane	14.00	76	152190	49.43 ug/L	97
91) butyl acetate	14.03	56	66113	54.79 ug/L	99
92) 3,3-dimethyl-1-butanol	14.17	57	165926	495.25 ug/L	98
93) dibromochloromethane	14.29	129	111856	49.34 ug/L	99
94) 1,2-dibromoethane	14.44	107	96956	48.00 ug/L	99
95) chlorobenzene	14.92	112	280885	46.91 ug/L	100
96) 1,1,1,2-tetrachloroethane	14.98	131	134321	52.10 ug/L	99
97) ethylbenzene	14.96	91	474099	48.29 ug/L	99
98) m,p-xylene	15.07	106	373012	98.82 ug/L	97
99) o-xylene	15.52	106	202841	52.05 ug/L	98
00) styrene	15.54	104	311004	49.11 ug/L	96

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	83441	48.19 ug/L	96
103) isopropylbenzene	15.88	105	549647	53.46 ug/L	99
105) cyclohexanone	16.13	98	72832	392.35 ug/L	96
106) bromobenzene	16.34	156	132853	49.27 ug/L	95
107) 1,1,2,2-tetrachloroethane	16.26	83	149038	49.73 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	37476	53.74 ug/L	98
109) 1,2,3-trichloropropane	16.34	110	37498	52.28 ug/L	95
110) n-propylbenzene	16.32	120	141940	54.02 ug/L	95
111) 2-chlorotoluene	16.49	126	129182	49.78 ug/L	98
112) 4-chlorotoluene	16.60	126	123974	49.12 ug/L	99
113) 1,3,5-trimethylbenzene	16.47	105	471225	52.53 ug/L	98
114) tert-butylbenzene	16.85	119	436631	53.78 ug/L	99
115) pentachloroethane	16.97	167	108698	56.11 ug/L	98
116) 1,2,4-trimethylbenzene	16.90	105	481833	54.21 ug/L	98
117) sec-butylbenzene	17.07	105	657484	52.44 ug/L	99
118) 1,3-dichlorobenzene	17.31	146	259842	46.36 ug/L	99
119) p-isopropyltoluene	17.20	119	555219	52.67 ug/L	98
120) 1,4-dichlorobenzene	17.40	146	266747	45.52 ug/L	99
121) 1,2-dichlorobenzene	17.84	146	282171	46.96 ug/L	97
122) benzyl chloride	17.54	91	353901	57.94 ug/L	99
123) n-butylbenzene	17.65	92	273436	50.84 ug/L	98
124) 1,2-dibromo-3-chloropropan	18.70	75	36527	51.17 ug/L	98
125) 1,3,5-TRICHLOROBENZENE	18.86	180	287104	46.28 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	321134	48.00 ug/L	98
127) hexachlorobutadiene	19.66	225	138411	47.13 ug/L	96
128) naphthalene	19.89	128	867551	49.38 ug/L	99
129) 1,2,3-trichlorobenzene	20.16	180	359804	47.94 ug/L	99
130) hexachloroethane	18.09	201	102679	45.61 ug/L	97

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

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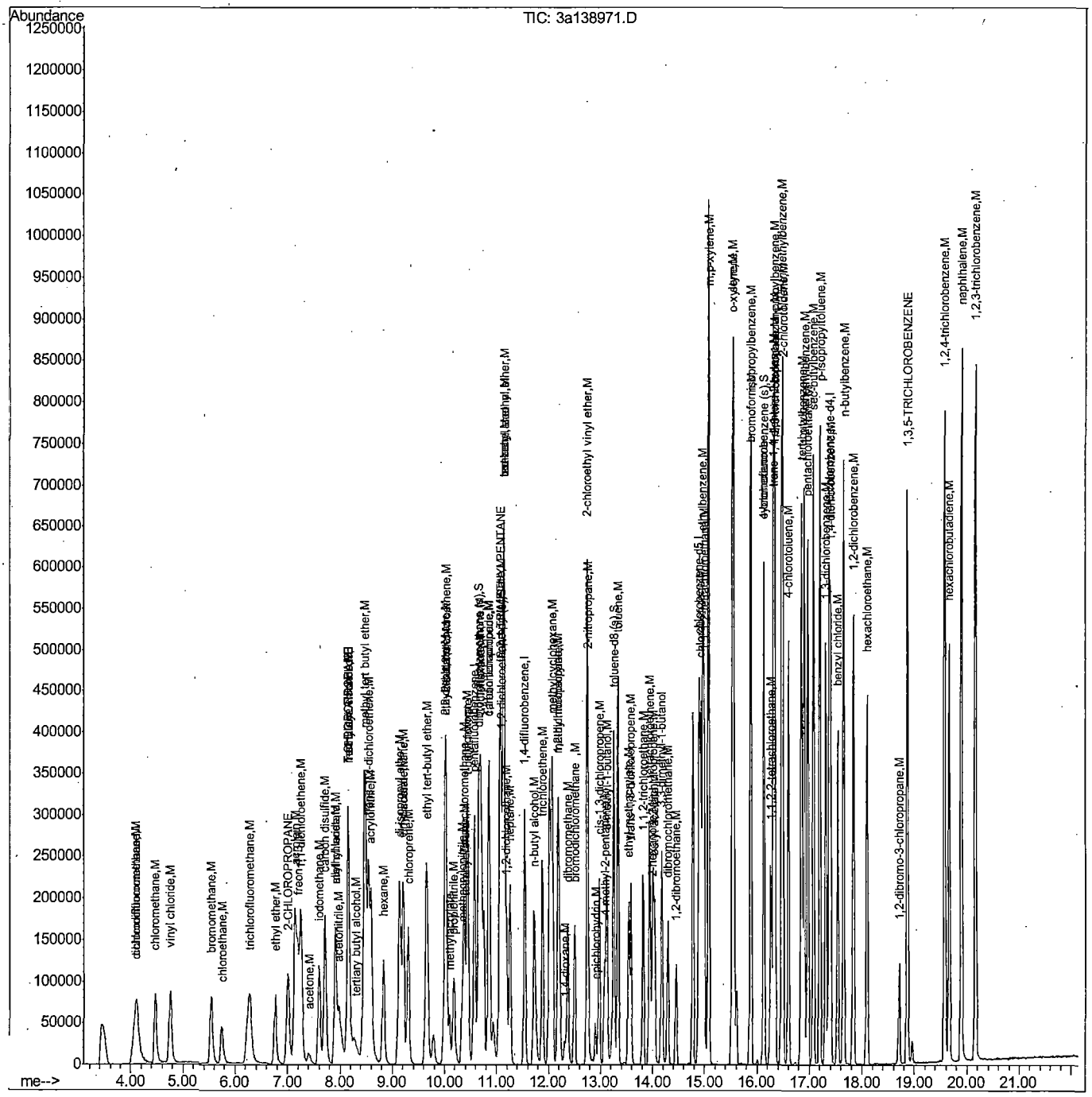
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 3a138971.D
Acq On : 16 Feb 2015 10:53 am
Operator : zobiah
Sample : icv6014-50
Misc : MS80901,V3A6014,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 14:20:09 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Feb 16 12:28:42 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139169.D
Acq On : 23 Feb 2015 10:28 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 17:17:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.142	65	151803	500.00	ug/L	0.00
5) pentafluorobenzene	10.570	168	258680	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.535	114	305857	50.00	ug/L	0.00
87) chlorobenzene-d5	14.885	117	272800	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.370	152	157322	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.649	113	100824	52.77	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.54%			
50) 1,2-dichloroethane-d4 (s)	11.094	65	100448	55.41	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 110.82%			
79) toluene-d8 (s)	13.249	98	338629	49.79	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 99.58%			
104) 4-bromofluorobenzene (s)	16.128	95	126765	52.55	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.10%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.274	59	35096	115.73	ug/L	97
4) 1,4-dioxane	12.321	88	17154	531.44	ug/L	89
8) chlorodifluoromethane	4.111	51	63326	24.78	ug/L	97
9) dichlorodifluoromethane	4.090	85	84303	20.11	ug/L	97
10) chloromethane	4.462	50	74464	24.36	ug/L	99
11) vinyl chloride	4.755	62	82775	22.39	ug/L	96
12) bromomethane	5.537	94	51750	23.41	ug/L	99
15) 2-CHLOROPROPANE	7.005	43	70642	23.87	ug/L	97
16) chloroethane	5.741	64	36385	24.74	ug/L	97
17) trichlorofluoromethane	6.271	101	82339	21.70	ug/L	95
19) 1-CHLOROPROPANE	8.158	42	75983	24.72	ug/L	97
20) ethyl ether	6.764	74	23216	23.27	ug/L	92
21) acrolein	7.136	56	84686	196.37	ug/L	100
22) 1,1-dichloroethene	7.256	96	44360	20.98	ug/L	98
23) acetone	7.403	43	13716	23.94	ug/L	99
24) allyl chloride	7.907	76	23367	22.55	ug/L	87
25) acetonitrile	7.969	40	30533	203.49	ug/L	96
26) iodomethane	7.597	142	95629	21.39	ug/L	98
27) iso-butyl alcohol	11.136	74	14634	228.81	ug/L #	88
28) carbon disulfide	7.713	76	183497	22.24	ug/L	99
29) methylene chloride	8.148	84	54163	22.08	ug/L	92
30) methyl acetate	7.912	43	34399	25.89	ug/L	94
31) methyl tert butyl ether	8.473	73	162021	23.03	ug/L	97
32) trans-1,2-dichloroethene	8.541	61	65558	23.14	ug/L	97
33) di-isopropyl ether	9.139	45	141923	25.07	ug/L	97
34) 2-butanone	10.019	72	4180	18.97	ug/L #	65
35) 1,1-dichloroethane	9.207	63	82941	23.86	ug/L	98
36) chloroprene	9.296	53	51138	22.50	ug/L	96
37) acrylonitrile	8.593	53	82572	122.45	ug/L	96
38) vinyl acetate	9.202	86	5308	20.06	ug/L	67
39) ethyl tert-butyl ether	9.658	59	157202	22.92	ug/L	98
40) ethyl acetate	10.014	45	4994	26.07	ug/L #	1

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139169.D
Acq On : 23 Feb 2015 10:28 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 17:17:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 2,2-dichloropropane	10.009	77	85464	23.64 ug/L	93
42) cis-1,2-dichloroethene	10.025	96	51300	22.09 ug/L	95
43) methylacrylate	10.098	85	5635	22.22 ug/L	98
44) propionitrile	10.182	54	67141	251.92 ug/L	97
45) bromochloromethane	10.376	128	25869	21.57 ug/L	96
46) tetrahydrofuran	10.392	42	13990	24.63 ug/L	97
47) chloroform	10.428	85	50203	22.46 ug/L	98
48) t-butyl formate	10.439	59	44322	23.91 ug/L	96
51) freon 113	7.188	151	31996	19.20 ug/L	91
52) methacrylonitrile	10.339	41	25110	25.22 ug/L	84
53) 1,1,1-trichloroethane	10.659	97	75206	22.45 ug/L	99
54) Cyclohexane	10.696	84	74926	21.33 ug/L	99
56) epichlorohydrin	12.903	57	19714	115.29 ug/L	98
57) n-butyl alcohol	11.718	56	66319	1129.04 ug/L	95
58) carbon tetrachloride	10.858	117	64564	20.13 ug/L	97
59) 1,1-dichloropropene	10.843	75	53083	20.77 ug/L	96
61) hexane	8.835	57	33283	18.24 ug/L	99
62) 2,2,4-TRIMETHYLPENTANE	11.068	57	101797	14.32 ug/L	100
63) benzene	11.131	78	167411	21.21 ug/L	100
64) tert-amyl methyl ether	11.147	87	34643	20.18 ug/L	93
65) heptane	11.252	57	16550	16.01 ug/L	88
66) isopropyl acetate	11.063	43	82404	20.99 ug/L	97
67) 1,2-dichloroethane	11.189	62	50162	21.04 ug/L	99
69) trichloroethene	11.886	95	39825	20.43 ug/L	99
71) methyl methacrylate	12.180	69	24208	21.94 ug/L	98
72) 2-nitropropane	12.756	41	13016	23.54 ug/L	93
73) 2-chloroethyl vinyl ether	12.741	63	127642	111.52 ug/L	99
74) 1,2-dichloropropane	12.185	63	42027	21.68 ug/L	97
75) dibromomethane	12.368	93	26649	21.02 ug/L	97
76) methylcyclohexane	12.064	83	58554	16.63 ug/L	93
77) bromodichloromethane	12.499	83	54668	21.20 ug/L	99
78) cis-1,3-dichloropropene	12.971	75	65096	21.15 ug/L	99
80) 4-methyl-2-pentanone	13.071	58	16474	21.99 ug/L	91
81) toluene	13.328	92	92667	20.89 ug/L	98
82) 3-methyl-1-butanol	13.113	55	42014	459.82 ug/L	99
83) trans-1,3-dichloropropene	13.579	75	59008	21.79 ug/L	93
84) ethyl methacrylate	13.538	69	49165	22.22 ug/L	96
85) 1,1,2-trichloroethane	13.810	83	30804	20.87 ug/L	95
86) 2-hexanone	13.988	58	15206	21.95 ug/L	90
88) tetrachloroethene	13.941	164	29509	18.05 ug/L	96
90) 1,3-dichloropropane	14.009	76	59356	21.37 ug/L	96
91) butyl acetate	14.036	56	25393	23.32 ug/L	96
92) 3,3-dimethyl-1-butanol	14.172	57	56955	221.05 ug/L	95
93) dibromochloromethane	14.287	129	41379	20.23 ug/L	98
94) 1,2-dibromoethane	14.450	107	36853	20.22 ug/L	95
95) chlorobenzene	14.916	112	105545	19.54 ug/L	99
96) 1,1,1,2-tetrachloroethane	14.985	131	46364	19.93 ug/L	98
97) ethylbenzene	14.958	91	179077	20.21 ug/L	98
98) m,p-xylene	15.069	106	139381	40.92 ug/L	96
99) o-xylene	15.525	106	73341	20.86 ug/L	89

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139169.D
Acq On : 23 Feb 2015 10:28 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 17:17:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) styrene	15.546	104	115659	20.24	ug/L	98
101) bromoform	15.865	173	29266	18.73	ug/L	97
103) isopropylbenzene	15.876	105	190324	20.85	ug/L	99
105) cyclohexanone	16.128	98	10764	65.31	ug/L	97
106) bromobenzene	16.337	156	48623	20.31	ug/L	99
107) 1,1,2,2-tetrachloroethane	16.259	83	57035	21.43	ug/L	97
108) trans-1,4-dichloro-2-b...	16.301	53	14304	23.10	ug/L	96
109) 1,2,3-trichloropropane	16.343	110	13968	21.93	ug/L	85
110) n-propylbenzene	16.316	120	46895	20.10	ug/L	94
111) 2-chlorotoluene	16.489	126	46946	20.37	ug/L	91
112) 4-chlorotoluene	16.599	126	46485	20.74	ug/L	99
113) 1,3,5-trimethylbenzene	16.468	105	162963	20.46	ug/L	99
114) tert-butylbenzene	16.846	119	137702	19.10	ug/L	100
115) pentachloroethane	16.972	167	36576	21.26	ug/L	94
116) 1,2,4-trimethylbenzene	16.898	105	164876	20.89	ug/L	99
117) sec-butylbenzene	17.071	105	211106	18.96	ug/L	99
118) 1,3-dichlorobenzene	17.307	146	97561	19.61	ug/L	98
119) p-isopropyltoluene	17.197	119	176105	18.81	ug/L	99
120) 1,4-dichlorobenzene	17.402	146	100435	19.30	ug/L	99
121) 1,2-dichlorobenzene	17.837	146	101875	19.10	ug/L	98
122) benzyl chloride	17.538	91	113765	20.98	ug/L	99
123) n-butylbenzene	17.648	92	88638	18.56	ug/L	98
124) 1,2-dibromo-3-chloropr...	18.702	75	13058	20.60	ug/L	95
125) 1,3,5-TRICHLOROBENZENE	18.859	180	93511	16.98	ug/L	97
126) 1,2,4-trichlorobenzene	19.572	180	104412	17.58	ug/L	99
127) hexachlorobutadiene	19.656	225	35460	13.60	ug/L	95
128) naphthalene	19.892	128	287017	18.40	ug/L	99
129) 1,2,3-trichlorobenzene	20.159	180	114613	17.20	ug/L	98
130) hexachloroethane	18.094	201	29225	17.41	ug/L	93

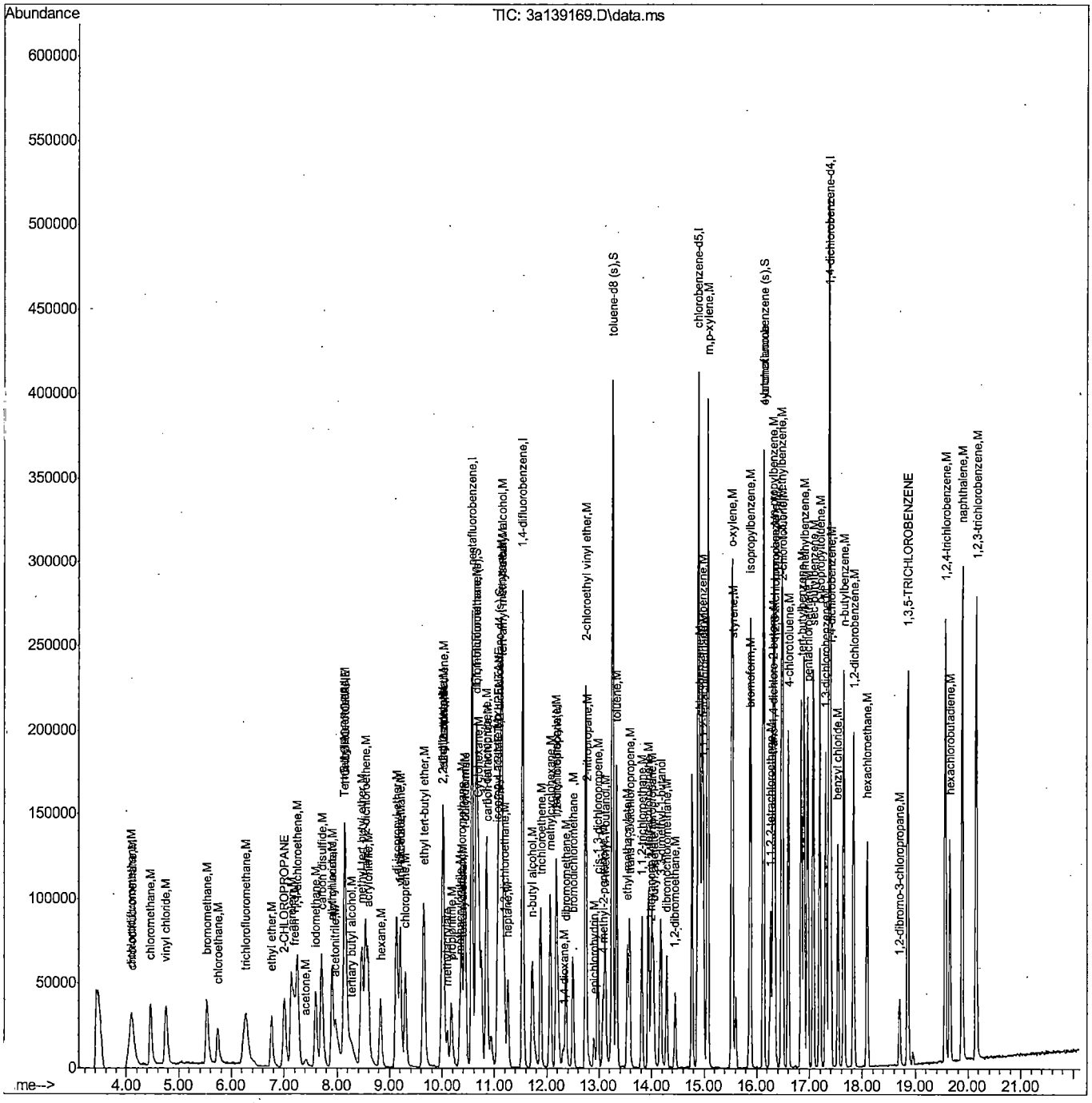
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.11 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\3A\v3A6023\
Data File : 3a139169.D
Acq On : 23 Feb 2015 10:28 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81093,V3A6023,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 23 17:17:23 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	175332	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	277539	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	318774	50.00	ug/L	0.00
87) chlorobenzene-d5	14.88	117	281914	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	163589	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	105548	51.49	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 102.98%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	105431	54.20	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 108.40%			
79) toluene-d8 (s)	13.25	98	358977	50.65	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 101.30%			
104) 4-bromofluorobenzene (s)	16.12	95	134833	53.75	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.50%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.28	59	93730	267.61	ug/L	94
4) 1,4-dioxane	12.31	88	47995	1287.37	ug/L	95
8) chlorodifluoromethane	4.10	51	169397	61.79	ug/L	97
9) dichlorodifluoromethane	4.06	85	224481	49.92	ug/L	98
10) chloromethane	4.46	50	186540	56.87	ug/L	99
11) vinyl chloride	4.74	62	202874	51.15	ug/L	98
12) bromomethane	5.53	94	120041	50.62	ug/L	96
15) 2-CHLOROPROPANE	7.00	43	169245	53.29	ug/L	97
16) chloroethane	5.74	64	89472	56.69	ug/L	97
17) trichlorofluoromethane	6.27	101	199027	48.89	ug/L	95
19) 1-CHLOROPROPANE	8.15	42	178648	58.98	ug/L	96
20) ethyl ether	6.76	74	60199	56.23	ug/L	88
21) acrolein	7.13	56	219290	473.94	ug/L	97
22) 1,1-dichloroethene	7.25	96	104482	46.05	ug/L	98
23) acetone	7.41	43	35739	58.14	ug/L	98
24) allyl chloride	7.90	76	57735	51.92	ug/L	92
25) acetonitrile	7.97	40	111254	691.08	ug/L	79
26) iodomethane	7.60	142	229522	47.84	ug/L	98
27) iso-butyl alcohol	11.14	74	37904	552.37	ug/L	98
28) carbon disulfide	7.71	76	432197	48.83	ug/L	99
29) methylene chloride	8.15	84	132087	50.19	ug/L	95
30) methyl acetate	7.91	43	93534	65.62	ug/L	98
31) methyl tert butyl ether	8.47	73	422956	56.02	ug/L	100
32) trans-1,2-dichloroethene	8.54	61	162643	53.51	ug/L	99
33) di-isopropyl ether	9.13	45	378450	62.30	ug/L	98
34) 2-butanone	10.01	72	13073	55.29	ug/L #	69
35) 1,1-dichloroethane	9.20	63	208856	56.01	ug/L	98
36) chloroprene	9.30	53	135805	55.69	ug/L	93
37) acrylonitrile	8.58	53	228154	315.36	ug/L	97
38) vinyl acetate	9.20	86	15221	47.49	ug/L	81
39) ethyl tert-butyl ether	9.65	59	415319	56.44	ug/L	98
40) ethyl acetate	10.00	45	12699	58.84	ug/L #	31
41) 2,2-dichloropropane	10.00	77	190589	49.14	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	131813	52.90 ug/L	92
43) methylacrylate	10.09	85	15155	50.43 ug/L	98
44) propionitrile	10.17	54	186748	653.09 ug/L	97
45) bromochloromethane	10.37	128	66076	51.34 ug/L	98
46) tetrahydrofuran	10.39	42	37847	62.10 ug/L	87
47) chloroform	10.43	85	124635	51.98 ug/L	97
48) t-butyl formate	10.44	59	117480	59.06 ug/L	96
51) freon 113	7.19	151	86884	48.59 ug/L	91
52) methacrylonitrile	10.33	41	70658	58.57 ug/L	92
53) 1,1,1-trichloroethane	10.66	97	192622	53.59 ug/L	98
54) Cyclohexane	10.70	84	189659	50.32 ug/L	96
56) epichlorohydrin	12.90	57	51871	291.05 ug/L	97
57) n-butyl alcohol	11.71	56	194818	3182.27 ug/L	96
58) carbon tetrachloride	10.85	117	166311	49.75 ug/L	94
59) 1,1-dichloropropene	10.84	75	134631	50.54 ug/L	96
61) hexane	8.83	57	95169	50.03 ug/L	93
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	300505	40.57 ug/L	97
63) benzene	11.13	78	426453	51.83 ug/L	100
64) tert-amyl methyl ether	11.14	87	91164	50.95 ug/L	95
65) heptane	11.25	57	48398	44.93 ug/L	91
66) isopropyl acetate	11.06	43	234618	57.34 ug/L	96
67) 1,2-dichloroethane	11.19	62	130608	52.57 ug/L	97
69) trichloroethene	11.88	95	97324	47.91 ug/L	97
71) methyl methacrylate	12.17	69	65566	57.02 ug/L	98
72) 2-nitropropane	12.76	41	34460	59.79 ug/L	96
73) 2-chloroethyl vinyl ether	12.74	63	338329	283.62 ug/L	100
74) 1,2-dichloropropane	12.18	63	108888	53.90 ug/L	98
75) dibromomethane	12.36	93	67154	50.82 ug/L	93
76) methylcyclohexane	12.06	83	169509	46.18 ug/L	95
77) bromodichloromethane	12.50	83	137559	51.18 ug/L	99
78) cis-1,3-dichloropropene	12.97	75	162607	50.70 ug/L	96
80) 4-methyl-2-pentanone	13.08	58	46594	59.66 ug/L	95
81) toluene	13.33	92	236035	51.05 ug/L	99
82) 3-methyl-1-butanol	13.11	55	130602	1371.44 ug/L	95
83) trans-1,3-dichloropropene	13.58	75	145749	51.64 ug/L	97
84) ethyl methacrylate	13.53	69	132535	57.48 ug/L	99
85) 1,1,2-trichloroethane	13.81	83	78495	51.02 ug/L	95
86) 2-hexanone	13.98	58	40781	56.48 ug/L	100
88) tetrachloroethene	13.94	164	75763	44.84 ug/L	95
90) 1,3-dichloropropane	14.00	76	151887	52.91 ug/L	98
91) butyl acetate	14.03	56	68586	60.96 ug/L	99
92) 3,3-dimethyl-1-butanol	14.17	57	176429	557.35 ug/L	98
93) dibromochloromethane	14.29	129	107108	50.67 ug/L	99
94) 1,2-dibromoethane	14.44	107	95318	50.61 ug/L	97
95) chlorobenzene	14.92	112	269104	48.20 ug/L	98
96) 1,1,1,2-tetrachloroethane	14.98	131	125487	52.20 ug/L	95
97) ethylbenzene	14.95	91	460327	50.28 ug/L	98
98) m,p-xylene	15.07	106	358652	101.90 ug/L	95
99) o-xylene	15.52	106	192262	52.91 ug/L	99
100) styrene	15.54	104	298868	50.61 ug/L	100

7.6.12 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	77299	47.88 ug/L	93
103) isopropylbenzene	15.88	105	505282	53.23 ug/L	99
105) cyclohexanone	16.12	98	27950	163.08 ug/L	91
106) bromobenzene	16.34	156	123961	49.79 ug/L	99
107) 1,1,2,2-tetrachloroethane	16.26	83	151875	54.89 ug/L	99
108) trans-1,4-dichloro-2-buten	16.30	53	34966	54.31 ug/L	97
109) 1,2,3-trichloropropane	16.34	110	36666	55.37 ug/L	81
110) n-propylbenzene	16.32	120	123851	51.05 ug/L	93
111) 2-chlorotoluene	16.49	126	120778	50.41 ug/L	96
112) 4-chlorotoluene	16.60	126	118748	50.96 ug/L	96
113) 1,3,5-trimethylbenzene	16.47	105	433727	52.37 ug/L	98
114) tert-butylbenzene	16.85	119	373338	49.81 ug/L	98
115) pentachloroethane	16.97	167	97852	54.71 ug/L	97
116) 1,2,4-trimethylbenzene	16.90	105	426531	51.98 ug/L	100
117) sec-butylbenzene	17.07	105	561447	48.50 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	246404	47.62 ug/L	98
119) p-isopropyltoluene	17.20	119	463885	47.66 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	252559	46.68 ug/L	98
121) 1,2-dichlorobenzene	17.84	146	264830	47.74 ug/L	98
122) benzyl chloride	17.54	91	262007	46.46 ug/L	97
123) n-butylbenzene	17.65	92	226310	45.57 ug/L	99
124) 1,2-dibromo-3-chloropropan	18.71	75	35442	53.78 ug/L	91
125) 1,3,5-TRICHLOROBENZENE	18.86	180	242946	42.41 ug/L	99
126) 1,2,4-trichlorobenzene	19.57	180	269160	43.57 ug/L	100
127) hexachlorobutadiene	19.66	225	91392	33.71 ug/L	98
128) naphthalene	19.89	128	773318	47.67 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	301612	43.53 ug/L	99
130) hexachloroethane	18.09	201	81044	39.59 ug/L	95

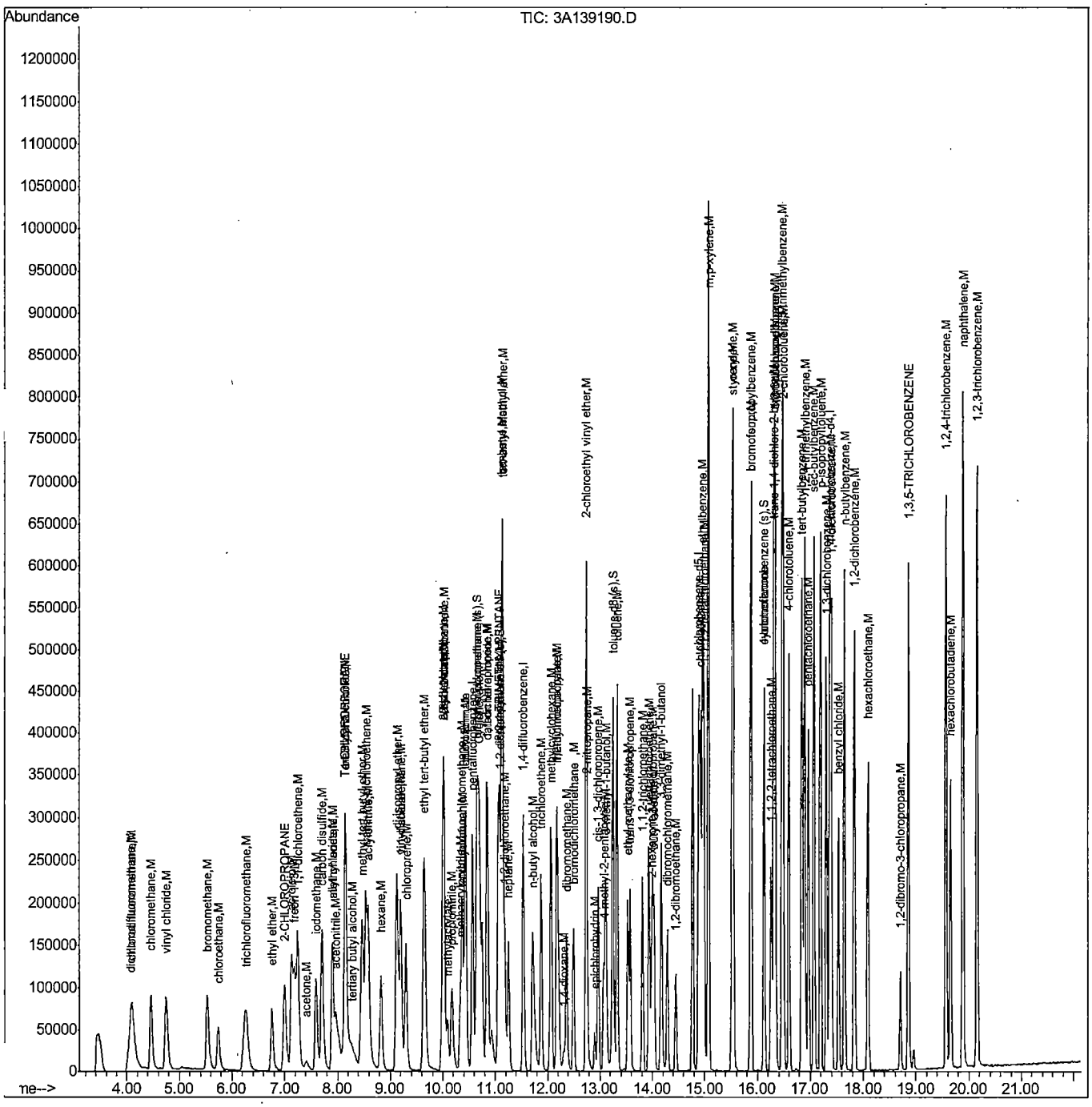
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.12 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139190.D
Acq On : 23 Feb 2015 10:02 pm
Operator : zobiah
Sample : cc6014-50
Misc : MS81194,V3A6024,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 24 10:22:27 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

7.6.12 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.14	65	149974	500.00	ug/L	0.00
5) pentafluorobenzene	10.57	168	275056	50.00	ug/L	0.00
55) 1,4-difluorobenzene	11.53	114	330021	50.00	ug/L	0.00
87) chlorobenzene-d5	14.89	117	295455	50.00	ug/L	0.00
102) 1,4-dichlorobenzene-d4	17.37	152	166054	50.00	ug/L	0.00
System Monitoring Compounds						
49) dibromofluoromethane (s)	10.65	113	109199	53.75	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 107.50%			
50) 1,2-dichloroethane-d4 (s)	11.09	65	109096	56.59	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 113.18%			
79) toluene-d8 (s)	13.25	98	367534	50.09	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.18%			
104) 4-bromofluorobenzene (s)	16.12	95	137201	53.88	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.76%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.27	59	30915	103.19	ug/L	98
4) 1,4-dioxane	12.31	88	15003	470.47	ug/L	94
8) chlorodifluoromethane	4.09	51	66559	24.50	ug/L	99
9) dichlorodifluoromethane	4.07	85	79691	17.88	ug/L	96
10) chloromethane	4.45	50	62392	19.19	ug/L	96
11) vinyl chloride	4.75	62	71714	18.24	ug/L	99
12) bromomethane	5.53	94	45417	19.32	ug/L	95
15) 2-CHLOROPROPANE	7.00	43	80900	25.70	ug/L	99
16) chloroethane	5.74	64	32093	20.52	ug/L	97
17) trichlorofluoromethane	6.25	101	79396	19.68	ug/L	93
19) 1-CHLOROPROPANE	8.15	42	84314	25.97	ug/L	97
20) ethyl ether	6.76	74	25626	24.15	ug/L	94
21) acrolein	7.13	56	87384	190.56	ug/L	98
22) 1,1-dichloroethene	7.25	96	46790	20.81	ug/L	99
23) acetone	7.40	43	14127	23.19	ug/L	96
24) allyl chloride	7.90	76	25544	23.18	ug/L	95
25) acetonitrile	7.97	40	29997	188.02	ug/L	83
26) iodomethane	7.60	142	95950	20.18	ug/L	99
27) iso-butyl alcohol	11.14	74	15369	225.99	ug/L #	82
28) carbon disulfide	7.71	76	191752	21.86	ug/L	98
29) methylene chloride	8.14	84	56252	21.57	ug/L	98
30) methyl acetate	7.91	43	37229	26.35	ug/L	97
31) methyl tert butyl ether	8.47	73	164765	22.02	ug/L	94
32) trans-1,2-dichloroethene	8.54	61	69817	23.18	ug/L	98
33) di-isopropyl ether	9.13	45	148833	24.72	ug/L	97
34) 2-butanone	10.02	72	4642	19.81	ug/L #	77
35) 1,1-dichloroethane	9.21	63	88424	23.93	ug/L	96
36) chloroprene	9.30	53	58216	24.09	ug/L	96
37) acrylonitrile	8.58	53	85233	118.87	ug/L	97
38) vinyl acetate	9.20	86	5652	20.08	ug/L #	43
39) ethyl tert-butyl ether	9.65	59	162334	22.26	ug/L	100
40) ethyl acetate	10.01	45	4742	23.51	ug/L #	1
41) 2,2-dichloropropane	10.00	77	88548	23.04	ug/L	98

7.6.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	10.02	96	53166	21.53 ug/L	96
43) methylacrylate	10.10	85	5540	20.81 ug/L #	76
44) propionitrile	10.17	54	65635	231.61 ug/L	94
45) bromochloromethane	10.37	128	26145	20.50 ug/L	95
46) tetrahydrofuran	10.40	42	14455	23.93 ug/L	97
47) chloroform	10.43	85	52297	22.01 ug/L	99
48) t-butyl formate	10.43	59	43067	21.85 ug/L	94
51) freon 113	7.19	151	38710	21.85 ug/L	92
52) methacrylonitrile	10.34	41	25652	24.41 ug/L	92
53) 1,1,1-trichloroethane	10.66	97	77409	21.73 ug/L	97
54) Cyclohexane	10.70	84	79668	21.33 ug/L	96
56) epichlorohydrin	12.90	57	19278	104.48 ug/L	97
57) n-butyl alcohol	11.72	56	60361	952.37 ug/L	98
58) carbon tetrachloride	10.85	117	65685	18.98 ug/L	98
59) 1,1-dichloropropene	10.84	75	58368	21.16 ug/L	97
61) hexane	8.83	57	45456	23.08 ug/L	94
62) 2,2,4-TRIMETHYLPENTANE	11.07	57	143187	18.67 ug/L	98
63) benzene	11.13	78	178746	20.98 ug/L	97
64) tert-amyl methyl ether	11.14	87	34659	18.71 ug/L	96
65) heptane	11.26	57	23525	21.09 ug/L	95
66) isopropyl acetate	11.06	43	90685	21.41 ug/L	97
67) 1,2-dichloroethane	11.19	62	56058	21.79 ug/L	99
69) trichloroethene	11.88	95	42435	20.18 ug/L	98
71) methyl methacrylate	12.18	69	25575	21.48 ug/L	93
72) 2-nitropropane	12.76	41	13686	22.94 ug/L	96
73) 2-chloroethyl vinyl ether	12.74	63	130759	105.88 ug/L	98
74) 1,2-dichloropropane	12.18	63	45195	21.61 ug/L	96
75) dibromomethane	12.36	93	28598	20.91 ug/L	89
76) methylcyclohexane	12.06	83	71133	18.72 ug/L	96
77) bromodichloromethane	12.50	83	58326	20.96 ug/L	95
78) cis-1,3-dichloropropene	12.97	75	71013	21.39 ug/L	99
80) 4-methyl-2-pentanone	13.08	58	16731	20.69 ug/L	93
81) toluene	13.33	92	98634	20.61 ug/L	97
82) 3-methyl-1-butanol	13.11	55	37837	383.78 ug/L	88
83) trans-1,3-dichloropropene	13.58	75	62589	21.42 ug/L	97
84) ethyl methacrylate	13.54	69	49352	20.67 ug/L	96
85) 1,1,2-trichloroethane	13.82	83	32236	20.24 ug/L	98
86) 2-hexanone	13.98	58	14481	19.37 ug/L	98
88) tetrachloroethene	13.94	164	32457	18.33 ug/L	96
90) 1,3-dichloropropane	14.00	76	62395	20.74 ug/L	96
91) butyl acetate	14.04	56	25798	21.88 ug/L	92
92) 3,3-dimethyl-1-butanol	14.17	57	50309	190.00 ug/L	96
93) dibromochloromethane	14.29	129	42957	19.39 ug/L	99
94) 1,2-dibromoethane	14.45	107	38639	19.57 ug/L	97
95) chlorobenzene	14.92	112	113023	19.32 ug/L	98
96) 1,1,1,2-tetrachloroethane	14.98	131	47733	18.94 ug/L	97
97) ethylbenzene	14.96	91	191152	19.92 ug/L	99
98) m,p-xylene	15.07	106	146335	39.67 ug/L	99
99) o-xylene	15.52	106	76648	20.13 ug/L	99
00) styrene	15.54	104	120421	19.46 ug/L	100

7.6.13 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) bromoform	15.87	173	29614	17.50 ug/L	94
103) isopropylbenzene	15.88	105	199672	20.72 ug/L	98
105) cyclohexanone	16.13	98	13755	79.07 ug/L	94
106) bromobenzene	16.34	156	50687	20.06 ug/L	96
107) 1,1,2,2-tetrachloroethane	16.26	83	57693	20.54 ug/L	100
108) trans-1,4-dichloro-2-buten	16.30	53	13985	21.40 ug/L	89
109) 1,2,3-trichloropropane	16.34	110	13620	20.26 ug/L	85
110) n-propylbenzene	16.32	120	48362	19.64 ug/L	91
111) 2-chlorotoluene	16.49	126	48849	20.08 ug/L	95
112) 4-chlorotoluene	16.60	126	48826	20.64 ug/L	98
113) 1,3,5-trimethylbenzene	16.47	105	169673	20.18 ug/L	99
114) tert-butylbenzene	16.85	119	144442	18.98 ug/L	98
115) pentachloroethane	16.97	167	36439	20.07 ug/L	99
116) 1,2,4-trimethylbenzene	16.90	105	169066	20.30 ug/L	99
117) sec-butylbenzene	17.07	105	222890	18.97 ug/L	100
118) 1,3-dichlorobenzene	17.31	146	101416	19.31 ug/L	98
119) p-isopropyltoluene	17.20	119	184956	18.72 ug/L	99
120) 1,4-dichlorobenzene	17.40	146	103498	18.84 ug/L	97
121) 1,2-dichlorobenzene	17.84	146	106236	18.87 ug/L	95
122) benzyl chloride	17.54	91	116863	20.42 ug/L	98
123) n-butylbenzene	17.65	92	93412	18.53 ug/L	95
124) 1,2-dibromo-3-chloropropan	18.71	75	12460	18.63 ug/L	95
125) 1,3,5-TRICHLOROBENZENE	18.86	180	95884	16.49 ug/L	97
126) 1,2,4-trichlorobenzene	19.57	180	105048	16.75 ug/L	99
127) hexachlorobutadiene	19.66	225	39689	14.42 ug/L	95
128) naphthalene	19.89	128	283978	17.25 ug/L	99
129) 1,2,3-trichlorobenzene	20.15	180	115676	16.45 ug/L	96
130) hexachloroethane	18.09	201	30688	17.34 ug/L	94

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

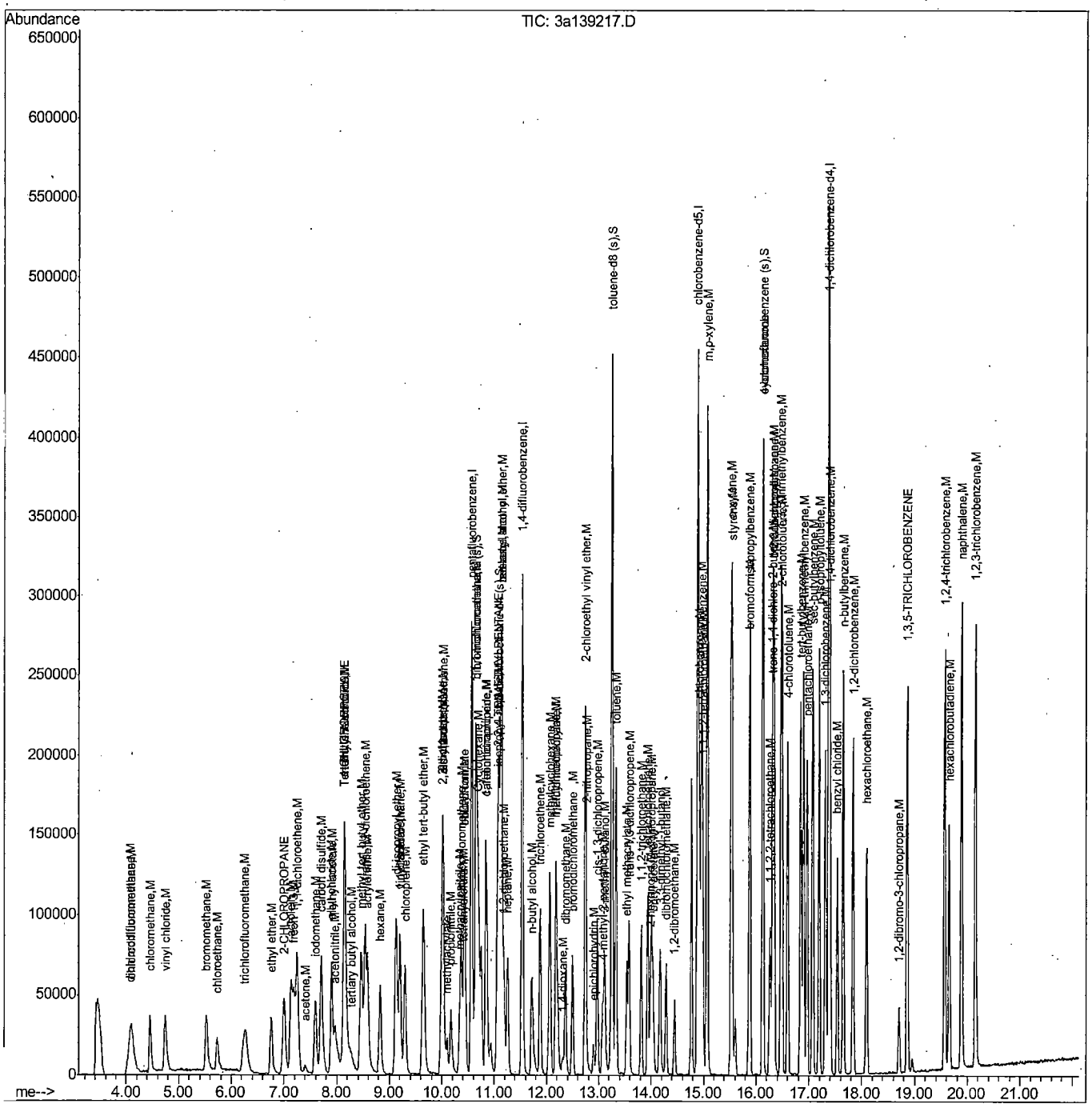
7.6.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 3A139217.D
Acq On : 24 Feb 2015 11:55 am
Operator : zobiah
Sample : cc6014-20
Misc : MS81224,V3A6025,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 14:39:45 2015
Quant Method : C:\MSDCHEM\1\METHODS\M3A6014.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Feb 19 10:03:43 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

7.6.13 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56968.D
Acq On : 18 Feb 2015 4:45 pm
Operator : PayalR
Sample : ic2528-0.2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 08:48:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	117439	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	290121	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	359394	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	327398	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	162961	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery	=	0.00%#	
46) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery	=	0.00%#	
75) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery	=	0.00%#	
100) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery	=	0.00%#	
Target Compounds						Qvalue
7) chloromethane	3.637	50	862	0.23	ug/L	88
16) 2-chloropropane	5.960	43	983	0.22	ug/L #	48
18) 1,1-dichloroethene	6.222	96	565	0.21	ug/L #	65
22) iodomethane	6.495	142	1021	0.19	ug/L	88
29) trans-1,2-dichloroethene	7.470	96	641	0.20	ug/L	94
31) ethyl tert-butyl ether	8.707	59	1616	0.17	ug/L	99
33) 1,1-dichloroethane	8.099	63	1217	0.20	ug/L	90
39) cis-1,2-dichloroethene	8.938	96	783	0.22	ug/L	88
44) chloroform	9.342	83	1299	0.22	ug/L	87
49) 1,1,1-trichloroethane	9.630	97	810	0.19	ug/L #	66
50) tert-amyl methyl ether	10.207	73	1589	0.18	ug/L	52
54) cyclohexane	9.735	84	803	0.20	ug/L	87
56) carbon tetrachloride	9.861	117	745	0.19	ug/L #	61
57) 1,1-dichloropropene	9.840	75	939	0.22	ug/L #	73
59) benzene	10.107	78	2754	0.21	ug/L	89
64) trichloroethene	10.883	95	697	0.21	ug/L	83
70) methylcyclohexane	11.135	83	783	0.17	ug/L	99
72) dibromomethane	11.292	93	431	0.20	ug/L	90
73) bromodichloromethane	11.439	83	800	0.19	ug/L	86
74) cis-1,3-dichloropropene	11.958	75	1105	0.21	ug/L	95
77) toluene	12.362	92	1612	0.21	ug/L	96
79) trans-1,3-dichloropropene	12.561	75	1058	0.22	ug/L	95
81) 1,1,2-trichloroethane	12.776	83	457	0.17	ug/L	89
84) tetrachloroethene	12.991	166	695	0.21	ug/L	95
85) 1,3-dichloropropane	12.975	76	954	0.20	ug/L	90
87) dibromochloromethane	13.243	129	633	0.19	ug/L	74
88) 1,2-dibromoethane	13.405	107	593	0.19	ug/L	95
90) chlorobenzene	13.929	112	1816	0.21	ug/L	97
91) 1,1,1,2-tetrachloroethane	13.992	131	579	0.19	ug/L	97
92) ethylbenzene	14.019	91	3132	0.21	ug/L	97
93) m,p-xylene	14.134	106	2260	0.40	ug/L	97
94) o-xylene	14.574	106	1106	0.20	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56968.D
Acq On : 18 Feb 2015 4:45 pm
Operator : PayalR
Sample : ic2528-0.2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 08:48:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	styrene	14.580	104	1796	0.20 ug/L	96
99)	isopropylbenzene	14.952	105	2760	0.20 ug/L	97
101)	bromobenzene	15.335	156	679	0.19 ug/L	94
103)	1,1,2,2-tetrachloroethane	15.225	83	1019	0.22 ug/L	94
106)	n-propylbenzene	15.382	91	3438	0.21 ug/L	95
107)	2-chlorotoluene	15.508	126	689	0.20 ug/L #	79
108)	4-chlorotoluene	15.612	91	2264	0.22 ug/L	89
109)	1,3,5-trimethylbenzene	15.539	105	2342	0.21 ug/L	94
110)	tert-butylbenzene	15.890	119	1902	0.20 ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	2262	0.20 ug/L	99
113)	sec-butylbenzene	16.111	105	3135	0.20 ug/L	97
114)	1,3-dichlorobenzene	16.268	146	1622	0.24 ug/L	89
115)	p-isopropyltoluene	16.231	119	2458	0.20 ug/L	97
116)	1,4-dichlorobenzene	16.347	146	1741	0.25 ug/L	88
117)	1,2-dichlorobenzene	16.729	146	1447	0.22 ug/L	97
118)	n-butylbenzene	16.640	92	1341	0.20 ug/L	92
120)	1,3,5-trichlorobenzene	17.657	180	1121	0.22 ug/L #	80
121)	1,2,4-trichlorobenzene	18.229	180	1145	0.25 ug/L	95
122)	hexachlorobutadiene	18.360	225	517	0.22 ug/L #	44
123)	naphthalene	18.486	128	2522	0.23 ug/L	98
124)	1,2,3-trichlorobenzene	18.706	180	913	0.21 ug/L	92
125)	hexachloroethane	16.997	119	468	0.18 ug/L	92
126)	Benzyl chloride	16.462	91	1482	0.20 ug/L #	61

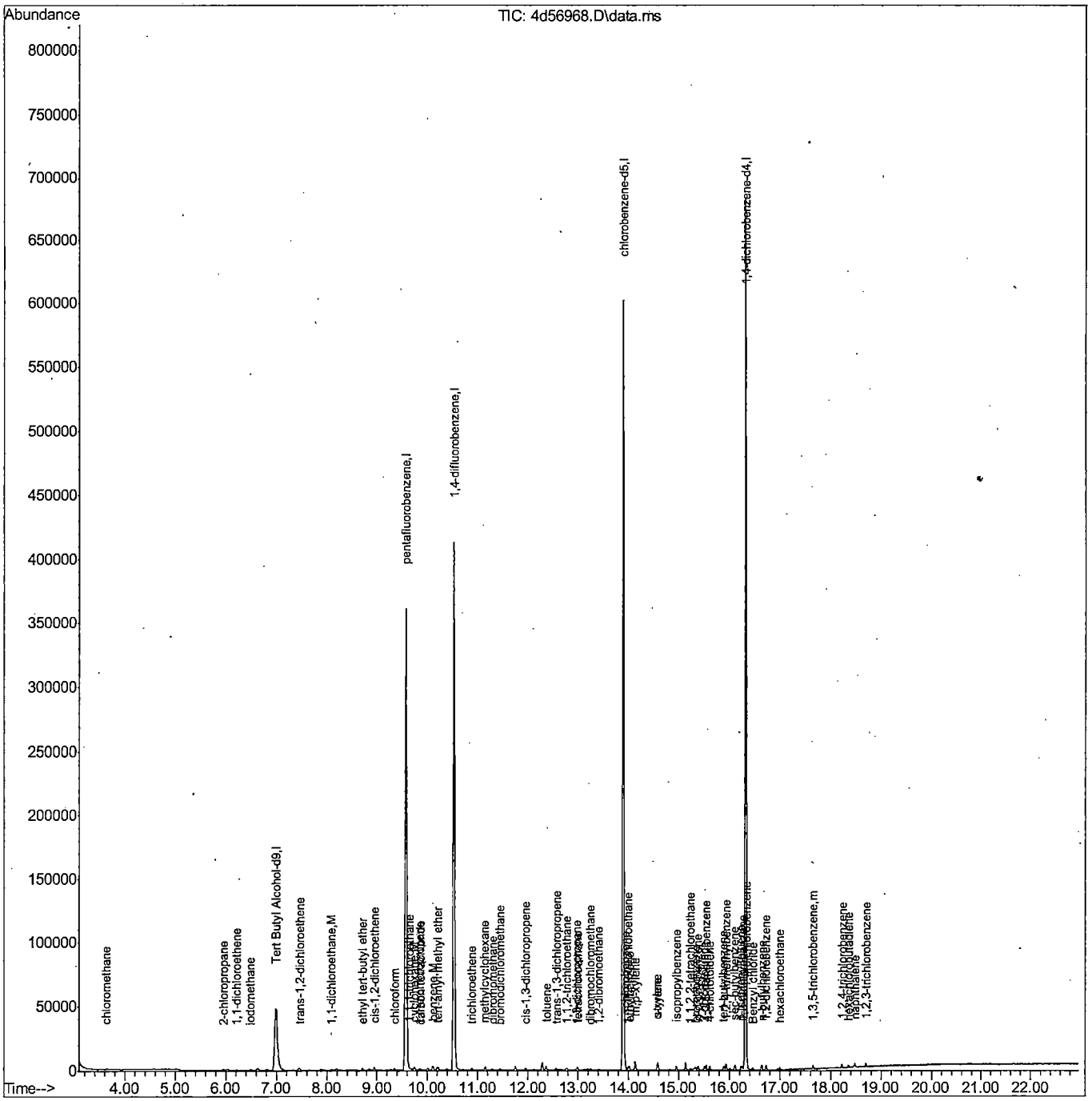
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.14 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56968.D
Acq On : 18 Feb 2015 4:45 pm
Operator : PayalR
Sample : ic2528-0.2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 08:48:32 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



7.6.14

7

Cal Report: 4D56969.D

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
02/23/15 10:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

7.6.15

7

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	113817	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	283168	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	351732	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	323825	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	160993	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery	=	0.00%#	
46) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery	=	0.00%#	
75) toluene-d8 (s)	12.283	98	6438	0.63	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery	=	1.26%#	
100) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery	=	0.00%#	
Target Compounds						Qvalue
7) chloromethane	3.648	50	1844	0.50	ug/L	92
8) vinyl chloride	3.894	62	1700	0.46	ug/L	94
10) bromomethane	4.586	94	1571	0.59	ug/L	76
11) chloroethane	4.791	64	797	0.46	ug/L	64
12) trichlorofluoromethane	5.305	101	1754	0.44	ug/L	89
16) 2-chloropropane	5.976	43	2319	0.52	ug/L #	75
18) 1,1-dichloroethene	6.222	96	1358	0.52	ug/L	97
20) allyl chloride	6.825	76	601	0.43	ug/L #	54
22) iodomethane	6.495	142	2666	0.52	ug/L	98
24) carbon disulfide	6.636	76	5905	0.60	ug/L	96
25) methylene chloride	7.009	84	1924	0.58	ug/L	96
26) 1-chloropropane	7.072	42	2199	0.45	ug/L #	84
28) methyl tert butyl ether	7.460	73	3954	0.50	ug/L	95
29) trans-1,2-dichloroethene	7.470	96	1645	0.53	ug/L	86
30) di-isopropyl ether	8.183	45	4383	0.47	ug/L	72
31) ethyl tert-butyl ether	8.707	59	4200	0.46	ug/L	97
33) 1,1-dichloroethane	8.104	63	2770	0.48	ug/L	90
34) chloroprene	8.256	53	1775	0.45	ug/L	97
35) acrylonitrile	7.407	53	2181	2.08	ug/L	90
38) 2,2-dichloropropane	8.954	77	2026	0.50	ug/L	78
39) cis-1,2-dichloroethene	8.938	96	1728	0.50	ug/L	85
42) bromochloromethane	9.258	128	682	0.42	ug/L	97
44) chloroform	9.342	83	2879	0.51	ug/L	94
47) freon 113	6.238	151	655	0.38	ug/L	94
49) 1,1,1-trichloroethane	9.635	97	2087	0.49	ug/L	90
50) tert-amyl methyl ether	10.202	73	3974	0.45	ug/L	93
54) cyclohexane	9.735	84	2109	0.54	ug/L	97
56) carbon tetrachloride	9.856	117	1855	0.49	ug/L	90
57) 1,1-dichloropropene	9.840	75	2015	0.48	ug/L	92
58) hexane	7.895	57	1665	0.53	ug/L	96
59) benzene	10.112	78	6319	0.50	ug/L	94
60) ISO-OCTANE	10.186	57	4817	0.47	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
61) heptane	10.385	57	882	0.46 ug/L	86
62) isopropyl acetate	10.102	43	2262	0.43 ug/L #	84
63) 1,2-dichloroethane	10.102	62	1688	0.47 ug/L	92
64) trichloroethene	10.878	95	1653	0.51 ug/L	86
67) 2-chloroethyl vinyl ether	11.748	63	4927	2.26 ug/L	99
69) 1,2-dichloropropane	11.145	63	1635	0.48 ug/L	93
70) methylcyclohexane	11.140	83	2134	0.47 ug/L	98
72) dibromomethane	11.287	93	1065	0.51 ug/L	94
73) bromodichloromethane	11.439	83	1974	0.48 ug/L	92
74) cis-1,3-dichloropropene	11.953	75	2607	0.50 ug/L	95
77) toluene	12.362	92	3516	0.47 ug/L	94
78) 3-methyl-1-butanol	12.115	70	458	5.91 ug/L #	70
79) trans-1,3-dichloropropene	12.556	75	2296	0.50 ug/L	89
80) ethyl methacrylate	12.608	69	1726	0.46 ug/L	92
81) 1,1,2-trichloroethane	12.776	83	1211	0.47 ug/L	92
84) tetrachloroethene	12.991	166	1539	0.48 ug/L	91
85) 1,3-dichloropropane	12.975	76	2334	0.49 ug/L	91
86) butyl acetate	13.117	56	740	0.35 ug/L	92
87) dibromochloromethane	13.243	129	1528	0.45 ug/L	93
88) 1,2-dibromoethane	13.405	107	1473	0.47 ug/L	90
89) n-Butyl Ether	13.924	57	6504	0.47 ug/L #	67
90) chlorobenzene	13.924	112	4314	0.50 ug/L	93
91) 1,1,1,2-tetrachloroethane	13.998	131	1490	0.50 ug/L	95
92) ethylbenzene	14.013	91	7119	0.48 ug/L	99
93) m,p-xylene	14.139	106	5303	0.96 ug/L	88
94) o-xylene	14.574	106	2592	0.48 ug/L	90
95) styrene	14.585	104	4153	0.47 ug/L	99
97) bromoform	14.821	173	1081	0.46 ug/L	93
99) isopropylbenzene	14.952	105	6453	0.48 ug/L	97
101) bromobenzene	15.329	156	1769	0.51 ug/L	93
102) cyclohexanone	15.083	55	827	4.76 ug/L	81
103) 1,1,2,2-tetrachloroethane	15.224	83	2116	0.47 ug/L	93
104) trans-1,4-dichloro-2-b...	15.282	53	405	0.45 ug/L	89
105) 1,2,3-trichloropropane	15.298	110	412	0.46 ug/L	95
106) n-propylbenzene	15.376	91	7560	0.47 ug/L	99
107) 2-chlorotoluene	15.508	126	1633m	0.49 ug/L	
108) 4-chlorotoluene	15.607	91	5074	0.50 ug/L	95
109) 1,3,5-trimethylbenzene	15.539	105	5258	0.47 ug/L	99
110) tert-butylbenzene	15.890	119	4439	0.47 ug/L	97
111) pentachloroethane	15.943	167	1011	0.46 ug/L	94
112) 1,2,4-trimethylbenzene	15.932	105	5227	0.47 ug/L	98
113) sec-butylbenzene	16.111	105	7123	0.47 ug/L	98
114) 1,3-dichlorobenzene	16.263	146	3436	0.51 ug/L	95
115) p-isopropyltoluene	16.236	119	5484	0.45 ug/L	98
116) 1,4-dichlorobenzene	16.346	146	3552	0.52 ug/L	95
117) 1,2-dichlorobenzene	16.729	146	3293	0.51 ug/L	93
118) n-butylbenzene	16.640	92	3040	0.46 ug/L	97
120) 1,3,5-trichlorobenzene	17.652	180	2535	0.49 ug/L	97
121) 1,2,4-trichlorobenzene	18.229	180	2171	0.47 ug/L	98
122) hexachlorobutadiene	18.360	225	1078	0.46 ug/L	98

7.6.15 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
123) naphthalene	18.480	128	5135	0.47 ug/L	95
124) 1,2,3-trichlorobenzene	18.706	180	2019	0.48 ug/L	96
125) hexachloroethane	16.997	119	1111	0.44 ug/L	92
126) Benzyl chloride	16.457	91	3124	0.42 ug/L	93

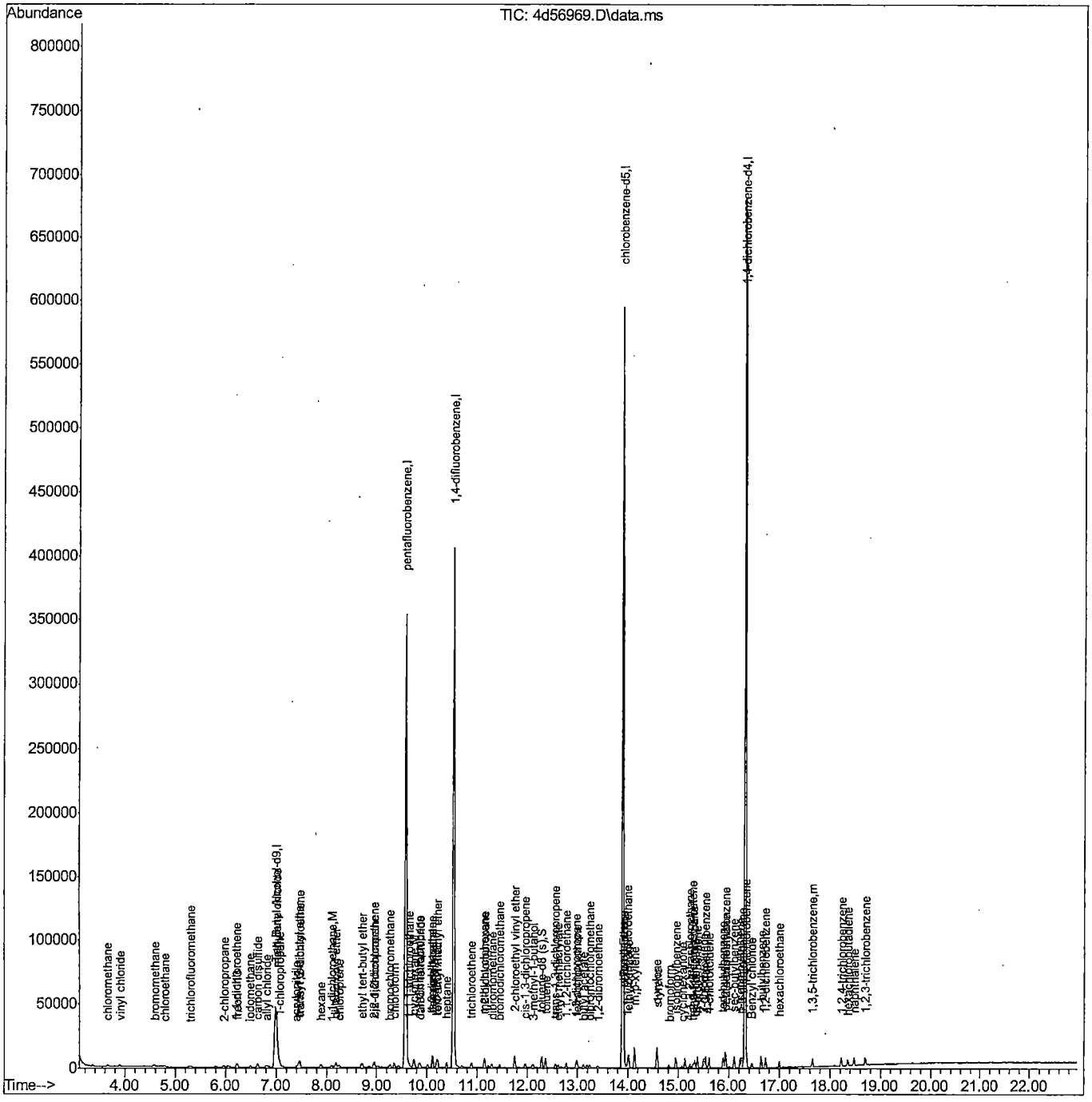
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.15 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 08:52:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Manual Integration Approval Summary

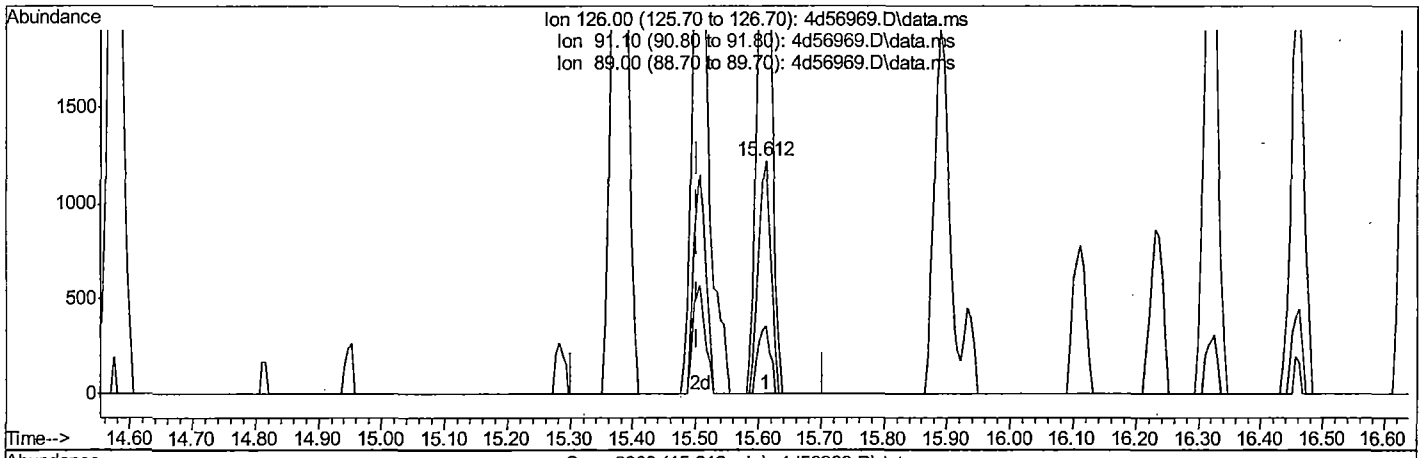
Sample Number:	V4D2528-IC2528	**Method:**	SW846 8260B
Lab FileID:	4D56969.D	**Analyst approved:**	02/19/15 09:01 Ying Li
Injection Time:	02/18/15 17:12	**Supervisor approved:**	02/23/15 10:10 Jessica Reitan-Chu

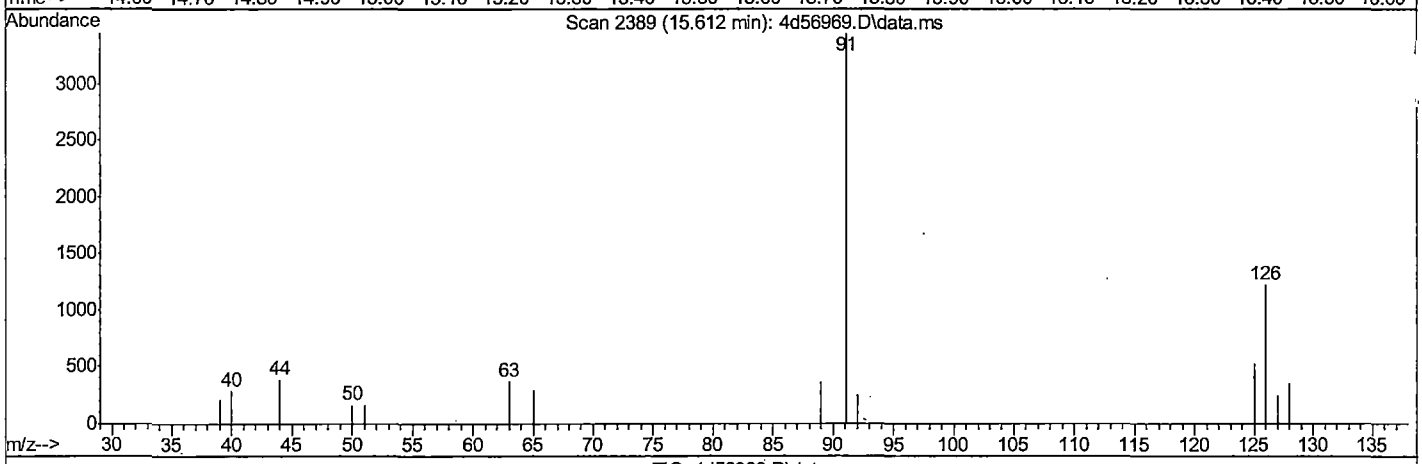
Parameter	CAS	Sig#	R.T. (min.)	Reason
o-Chlorotoluene	95-49-8		15.51	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 17:35:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration





TIC: 4d56969.D\data.ms

(107) 2-chlorotoluene

15.612min (+0.110) 0.50ug/L

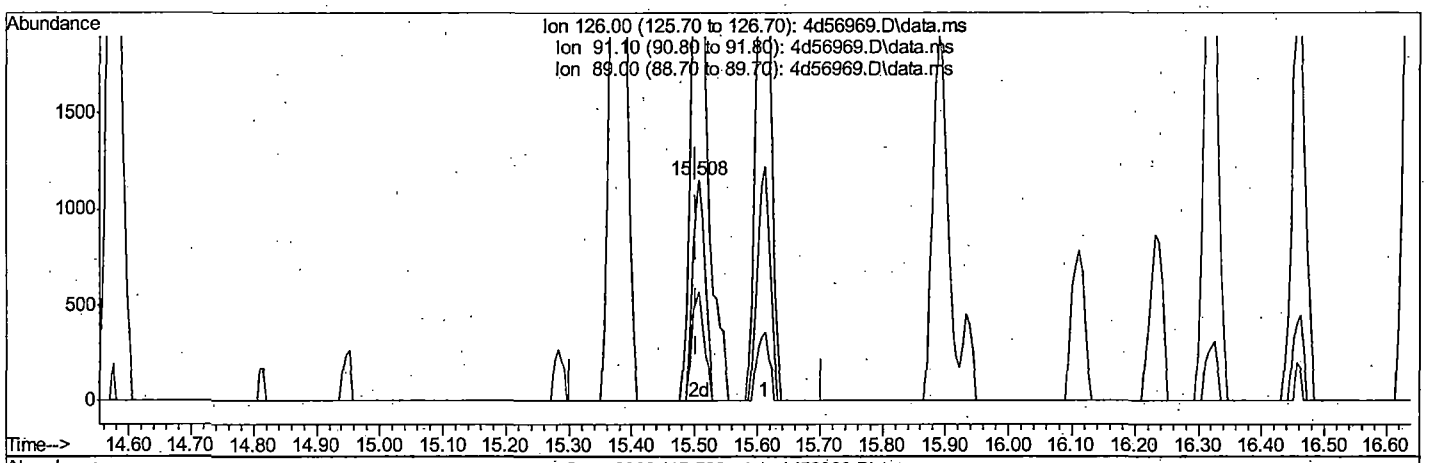
response 1683

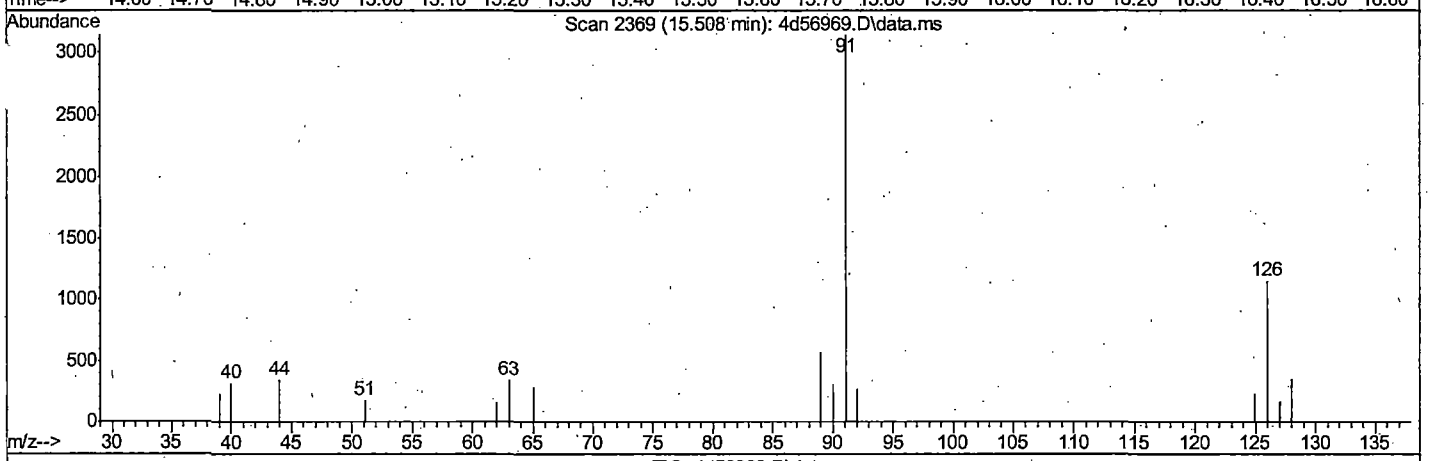
Ion	Exp%	Act%
126.00	100	100
91.10	297.20	281.05
89.00	50.90	29.41
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 4d56969.D
Acq On : 18 Feb 2015 5:12 pm
Operator : PayalR
Sample : ic2528-0.5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 17:35:51 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration





TIC: 4d56969.D\data.ms

(107) 2-chlorotoluene

15.508min (+0.005) 0.49ug/L m

response 1633

Ion	Exp%	Act%
126.00	100	100
91.10	297.20	272.42
89.00	50.90	49.26
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	113048	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	286544	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	356089	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	324710	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	162202	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	4014	1.29	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery	=	2.58%#	
46) 1,2-dichloroethane-d4 (s)	10.008	65	3723	1.24	ug/L	0.01
Spiked Amount 50.000	Range 71 - 124		Recovery	=	2.48%#	
75) toluene-d8 (s)	12.283	98	12323	1.19	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery	=	2.38%#	
100) 4-bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery	=	0.00%#	
Target Compounds						Qvalue
2) 1,4-dioxane	11.276	88	616	20.79	ug/L #	75
5) chlorodifluoromethane	3.344	51	1979	0.92	ug/L	65
6) dichlorodifluoromethane	3.349	85	2713	0.86	ug/L	94
7) chloromethane	3.643	50	3867	1.04	ug/L	99
8) vinyl chloride	3.894	62	3885	1.05	ug/L	96
10) bromomethane	4.576	94	3124	1.16	ug/L	93
11) chloroethane	4.780	64	1760	1.00	ug/L	85
12) trichlorofluoromethane	5.299	101	4029	1.00	ug/L	90
14) ethyl ether	5.797	74	1097	0.77	ug/L	91
16) 2-chloropropane	5.965	43	4639	1.04	ug/L #	48
17) acrolein	6.002	56	1330055	2114.71	ug/L	99
18) 1,1-dichloroethene	6.222	96	2413	0.91	ug/L	95
20) allyl chloride	6.820	76	1192	0.85	ug/L #	74
21) acetonitrile	6.773	40	949	5.91	ug/L	97
22) iodomethane	6.490	142	4717	0.91	ug/L	98
23) iso-butyl alcohol	9.866	41	775	7.73	ug/L	89
24) carbon disulfide	6.631	76	9560	0.96	ug/L	97
25) methylene chloride	7.009	84	3144	0.93	ug/L	97
26) 1-chloropropane	7.082	42	4716	0.95	ug/L #	93
28) methyl tert butyl ether	7.454	73	6957	0.88	ug/L	94
29) trans-1,2-dichloroethene	7.470	96	2659	0.85	ug/L	94
30) di-isopropyl ether	8.178	45	8648	0.92	ug/L	75
31) ethyl tert-butyl ether	8.707	59	8355	0.90	ug/L	97
33) 1,1-dichloroethane	8.104	63	4755	0.81	ug/L	91
34) chloroprene	8.246	53	3418	0.86	ug/L	98
35) acrylonitrile	7.397	53	4424	4.17	ug/L	90
38) 2,2-dichloropropane	8.949	77	3452	0.84	ug/L	95
39) cis-1,2-dichloroethene	8.933	96	3086	0.88	ug/L	98
40) propionitrile	9.001	54	3348	7.76	ug/L	93
41) methyl acrylate	9.085	55	1907	0.71	ug/L #	53
42) bromochloromethane	9.263	128	1390	0.84	ug/L	99
43) tetrahydrofuran	9.342	42	787	0.89	ug/L #	29

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	chloroform	9.342	83	4780	0.83	ug/L		98
47)	freon 113	6.227	151	1641	0.94	ug/L		85
48)	methacrylonitrile	9.216	41	1246	0.75	ug/L		81
49)	1,1,1-trichloroethane	9.635	97	3593	0.83	ug/L		85
50)	tert-amyl methyl ether	10.202	73	8217	0.92	ug/L		96
52)	epichlorohydrin	11.832	57	1343	4.47	ug/L		92
53)	n-butyl alcohol	10.679	56	3421	38.98	ug/L		92
54)	cyclohexane	9.730	84	3513	0.89	ug/L		99
56)	carbon tetrachloride	9.856	117	3175	0.83	ug/L		97
57)	1,1-dichloropropene	9.835	75	3533	0.84	ug/L		98
58)	hexane	7.884	57	3315	1.05	ug/L		91
59)	benzene	10.102	78	10898	0.85	ug/L		98
60)	ISO-OCTANE	10.186	57	9957	0.97	ug/L		93
61)	heptane	10.385	57	1806	0.93	ug/L		96
62)	isopropyl acetate	10.097	43	4855	0.91	ug/L		91
63)	1,2-dichloroethane	10.102	62	3177	0.87	ug/L		98
64)	trichloroethene	10.878	95	2768	0.85	ug/L		87
67)	2-chloroethyl vinyl ether	11.743	63	10101	4.58	ug/L		98
68)	methyl methacrylate	11.214	41	2056	0.89	ug/L		90
69)	1,2-dichloropropane	11.145	63	2876	0.84	ug/L		96
70)	methylcyclohexane	11.140	83	4248	0.93	ug/L		96
72)	dibromomethane	11.282	93	1791	0.85	ug/L		91
73)	bromodichloromethane	11.444	83	3494	0.84	ug/L		97
74)	cis-1,3-dichloropropene	11.953	75	4475	0.84	ug/L		99
76)	4-methyl-2-pentanone	12.089	58	931	0.76	ug/L	#	71
77)	toluene	12.357	92	6197	0.82	ug/L		99
78)	3-methyl-1-butanol	12.110	70	1205	15.37	ug/L		88
79)	trans-1,3-dichloropropene	12.556	75	4033	0.86	ug/L		96
80)	ethyl methacrylate	12.608	69	3111	0.82	ug/L		99
81)	1,1,2-trichloroethane	12.776	83	2210	0.85	ug/L		95
84)	tetrachloroethene	12.991	166	2636	0.81	ug/L		94
85)	1,3-dichloropropane	12.970	76	4018	0.85	ug/L		99
86)	butyl acetate	13.112	56	1839	0.86	ug/L		96
87)	dibromochloromethane	13.243	129	2830	0.83	ug/L		99
88)	1,2-dibromoethane	13.400	107	2603	0.83	ug/L		97
89)	n-Butyl Ether	13.919	57	11620	0.84	ug/L	#	67
90)	chlorobenzene	13.924	112	7449	0.86	ug/L		96
91)	1,1,1,2-tetrachloroethane	13.992	131	2473	0.83	ug/L		92
92)	ethylbenzene	14.013	91	11938	0.81	ug/L		98
93)	m,p-xylene	14.134	106	9053	1.63	ug/L		97
94)	o-xylene	14.574	106	4413	0.81	ug/L		99
95)	styrene	14.580	104	7260	0.82	ug/L		97
97)	bromoform	14.816	173	1947	0.82	ug/L		91
99)	isopropylbenzene	14.952	105	11086	0.81	ug/L		98
101)	bromobenzene	15.329	156	3103	0.88	ug/L		93
102)	cyclohexanone	15.078	55	1742	9.96	ug/L		97
103)	1,1,2,2-tetrachloroethane	15.224	83	3833	0.85	ug/L		99
104)	trans-1,4-dichloro-2-b...	15.282	53	757	0.84	ug/L		95
105)	1,2,3-trichloropropane	15.298	110	802	0.88	ug/L		89
106)	n-propylbenzene	15.377	91	13333	0.82	ug/L		97

7.6.16

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 2-chlorotoluene	15.508	126	2905	0.86	ug/L	92
108) 4-chlorotoluene	15.607	91	8513	0.83	ug/L	100
109) 1,3,5-trimethylbenzene	15.539	105	9140	0.81	ug/L	99
110) tert-butylbenzene	15.890	119	7704	0.81	ug/L	96
111) pentachloroethane	15.943	167	1772	0.80	ug/L	90
112) 1,2,4-trimethylbenzene	15.932	105	9254	0.83	ug/L	99
113) sec-butylbenzene	16.111	105	12271	0.80	ug/L	99
114) 1,3-dichlorobenzene	16.268	146	5868	0.86	ug/L	98
115) p-isopropyltoluene	16.231	119	9688	0.80	ug/L	100
116) 1,4-dichlorobenzene	16.346	146	5943	0.86	ug/L	99
117) 1,2-dichlorobenzene	16.729	146	5599	0.86	ug/L	98
118) n-butylbenzene	16.640	92	5502	0.83	ug/L	98
119) 1,2-dibromo-3-chloropr...	17.453	75	542	0.78	ug/L	92
120) 1,3,5-trichlorobenzene	17.657	180	4333	0.84	ug/L	97
121) 1,2,4-trichlorobenzene	18.229	180	3906	0.85	ug/L	95
122) hexachlorobutadiene	18.360	225	1950	0.82	ug/L	92
123) naphthalene	18.480	128	9185	0.84	ug/L	99
124) 1,2,3-trichlorobenzene	18.706	180	3529	0.83	ug/L	92
125) hexachloroethane	16.997	119	1944	0.76	ug/L	97
126) Benzyl chloride	16.457	91	6410	0.85	ug/L	97

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

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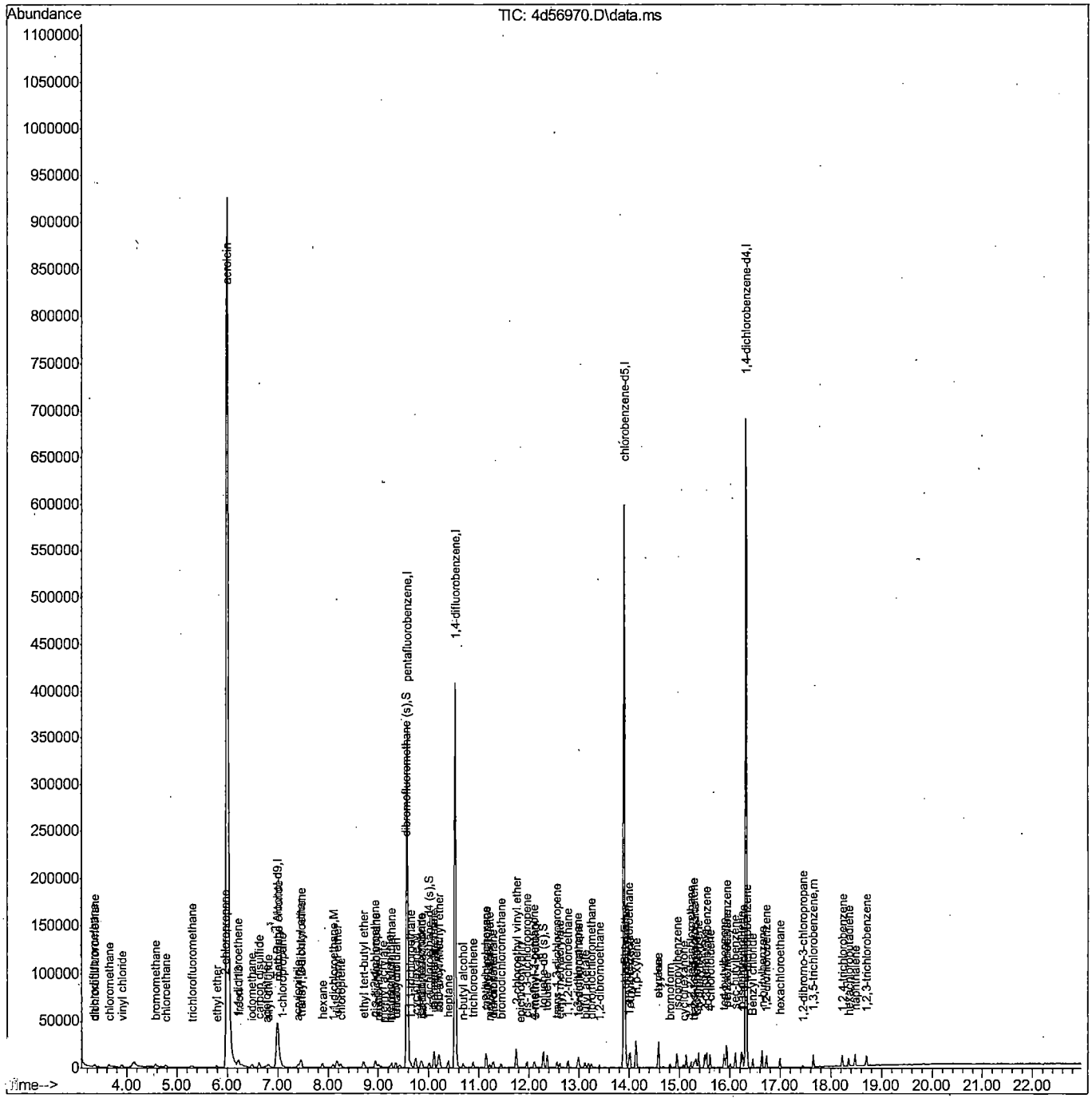
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56970.D
Acq On : 18 Feb 2015 5:40 pm
Operator : PayalR
Sample : ic2528-1
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 19 08:53:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	120732	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	282507	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	349070	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	318751	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	159389	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.557	113	6204	2.03	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 4.06%#			
46) 1,2-dichloroethane-d4 (s)	10.002	65	6023	2.04	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 4.08%#			
75) toluene-d8 (s)	12.283	98	20673	2.04	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 4.08%#			
100) 4-bromofluorobenzene (s)	15.135	95	8325	2.13	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 4.26%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.276	88	1667	52.67	ug/L #	92
3) tertiary butyl alcohol	7.145	59	3476	10.61	ug/L	90
5) chlorodifluoromethane	3.344	51	4952	2.34	ug/L	94
6) dichlorodifluoromethane	3.349	85	6213	2.01	ug/L	92
7) chloromethane	3.637	50	8050	2.19	ug/L	99
8) vinyl chloride	3.894	62	7994	2.19	ug/L	99
10) bromomethane	4.576	94	6209	2.34	ug/L	91
11) chloroethane	4.786	64	3969	2.29	ug/L	95
12) trichlorofluoromethane	5.310	101	8494	2.14	ug/L	98
14) ethyl ether	5.792	74	3037	2.16	ug/L	96
16) 2-chloropropane	5.965	43	10308	2.34	ug/L #	48
17) acrolein	6.002	56	716432	1155.36	ug/L	99
18) 1,1-dichloroethene	6.217	96	6098	2.33	ug/L	94
20) allyl chloride	6.815	76	3080	2.23	ug/L	96
21) acetonitrile	6.752	40	3118	19.68	ug/L	92
22) iodomethane	6.495	142	12098	2.37	ug/L	96
23) iso-butyl alcohol	9.861	41	2134	21.58	ug/L	93
24) carbon disulfide	6.631	76	23317	2.36	ug/L	99
25) methylene chloride	7.009	84	7555	2.27	ug/L	95
26) 1-chloropropane	7.071	42	10917	2.23	ug/L	97
28) methyl tert butyl ether	7.454	73	17908	2.29	ug/L	99
29) trans-1,2-dichloroethene	7.459	96	6798	2.20	ug/L	95
30) di-isopropyl ether	8.178	45	19848	2.13	ug/L	81
31) ethyl tert-butyl ether	8.702	59	19379	2.11	ug/L	98
33) 1,1-dichloroethane	8.104	63	12439	2.14	ug/L	98
34) chloroprene	8.251	53	8035	2.06	ug/L	99
35) acrylonitrile	7.386	53	11896	11.36	ug/L	99
37) ethyl acetate	8.990	45	735	1.94	ug/L #	53
38) 2,2-dichloropropane	8.948	77	8687	2.15	ug/L	100
39) cis-1,2-dichloroethene	8.933	96	7488	2.16	ug/L	99
40) propionitrile	8.996	54	9887	23.24	ug/L	98
41) methyl acrylate	9.069	55	6008	2.28	ug/L #	89

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) bromochloromethane	9.263	128	3678	2.26 ug/L	90
43) tetrahydrofuran	9.336	42	2232	2.55 ug/L	80
44) chloroform	9.336	83	11846	2.09 ug/L	99
47) freon 113	6.233	151	4026	2.34 ug/L	96
48) methacrylonitrile	9.216	41	3666	2.23 ug/L	94
49) 1,1,1-trichloroethane	9.635	97	9393	2.21 ug/L	96
50) tert-amyl methyl ether	10.202	73	18515	2.10 ug/L	98
52) epichlorohydrin	11.837	57	3288	11.17 ug/L	94
53) n-butyl alcohol	10.668	56	8961	104.16 ug/L	95
54) cyclohexane	9.730	84	9147	2.35 ug/L	98
56) carbon tetrachloride	9.856	117	8339	2.23 ug/L	99
57) 1,1-dichloropropene	9.835	75	9230	2.23 ug/L	98
58) hexane	7.884	57	7959	2.58 ug/L	99
59) benzene	10.102	78	27052	2.15 ug/L	99
60) ISO-OCTANE	10.191	57	22902	2.27 ug/L	98
61) heptane	10.380	57	4551	2.40 ug/L	98
62) isopropyl acetate	10.097	43	11420	2.19 ug/L	97
63) 1,2-dichloroethane	10.097	62	8172	2.30 ug/L	96
64) trichloroethene	10.878	95	6855	2.15 ug/L	93
66) 2-nitropropane	11.675	43	1633	2.30 ug/L	92
67) 2-chloroethyl vinyl ether	11.738	63	23765	10.98 ug/L	98
68) methyl methacrylate	11.208	41	6271	2.76 ug/L	96
69) 1,2-dichloropropane	11.140	63	7414	2.20 ug/L	99
70) methylcyclohexane	11.140	83	9865	2.21 ug/L	100
72) dibromomethane	11.282	93	4685	2.27 ug/L	96
73) bromodichloromethane	11.439	83	9062	2.22 ug/L	98
74) cis-1,3-dichloropropene	11.948	75	11480	2.20 ug/L	98
76) 4-methyl-2-pentanone	12.089	58	2767	2.31 ug/L	99
77) toluene	12.356	92	15991	2.15 ug/L	98
78) 3-methyl-1-butanol	12.110	70	3259	42.40 ug/L	95
79) trans-1,3-dichloropropene	12.550	75	10386	2.27 ug/L	96
80) ethyl methacrylate	12.603	69	8305	2.22 ug/L	98
81) 1,1,2-trichloroethane	12.771	83	5786	2.28 ug/L	99
82) 2-hexanone	13.007	58	2458	2.19 ug/L	99
84) tetrachloroethene	12.986	166	6807	2.14 ug/L	97
85) 1,3-dichloropropane	12.970	76	10414	2.24 ug/L	99
86) butyl acetate	13.111	56	4461	2.13 ug/L	89
87) dibromochloromethane	13.243	129	7254	2.18 ug/L	96
88) 1,2-dibromoethane	13.400	107	6828	2.22 ug/L	99
89) n-Butyl Ether	13.919	57	29270	2.15 ug/L	98
90) chlorobenzene	13.924	112	17808	2.10 ug/L	98
91) 1,1,1,2-tetrachloroethane	13.992	131	6480	2.22 ug/L	92
92) ethylbenzene	14.013	91	30465	2.10 ug/L	100
93) m,p-xylene	14.129	106	22995	4.23 ug/L	98
94) o-xylene	14.574	106	11097	2.08 ug/L	92
95) styrene	14.579	104	18051	2.07 ug/L	97
97) bromoform	14.815	173	4911	2.11 ug/L	99
99) isopropylbenzene	14.952	105	29015	2.16 ug/L	99
01) bromobenzene	15.324	156	7917	2.29 ug/L	91
02) cyclohexanone	15.078	55	3616	21.03 ug/L	96

7.6.17 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
103) 1,1,2,2-tetrachloroethane	15.224	83	10345	2.33 ug/L	99
104) trans-1,4-dichloro-2-b...	15.277	53	2083	2.35 ug/L	85
105) 1,2,3-trichloropropane	15.303	110	2101	2.35 ug/L	97
106) n-propylbenzene	15.376	91	34456	2.14 ug/L	98
107) 2-chlorotoluene	15.508	126	7250	2.18 ug/L	88
108) 4-chlorotoluene	15.607	91	21903	2.17 ug/L	99
109) 1,3,5-trimethylbenzene	15.539	105	23538	2.13 ug/L	97
110) tert-butylbenzene	15.890	119	19788	2.12 ug/L	98
111) pentachloroethane	15.943	167	4626	2.13 ug/L	93
112) 1,2,4-trimethylbenzene	15.932	105	23366	2.13 ug/L	97
113) sec-butylbenzene	16.110	105	31707	2.11 ug/L	99
114) 1,3-dichlorobenzene	16.263	146	14448	2.16 ug/L	97
115) p-isopropyltoluene	16.231	119	24585	2.06 ug/L	98
116) 1,4-dichlorobenzene	16.346	146	14491	2.14 ug/L	96
117) 1,2-dichlorobenzene	16.724	146	13814	2.15 ug/L	99
118) n-butylbenzene	16.640	92	13746	2.11 ug/L	99
119) 1,2-dibromo-3-chloropr...	17.447	75	1630	2.37 ug/L #	69
120) 1,3,5-trichlorobenzene	17.652	180	10965	2.15 ug/L	98
121) 1,2,4-trichlorobenzene	18.229	180	9737	2.15 ug/L	99
122) hexachlorobutadiene	18.355	225	4922	2.12 ug/L	96
123) naphthalene	18.480	128	23179	2.15 ug/L	99
124) 1,2,3-trichlorobenzene	18.706	180	9089	2.18 ug/L	96
125) hexachloroethane	16.991	119	5141	2.05 ug/L	99
126) Benzyl chloride	16.457	91	14610	1.97 ug/L	100

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

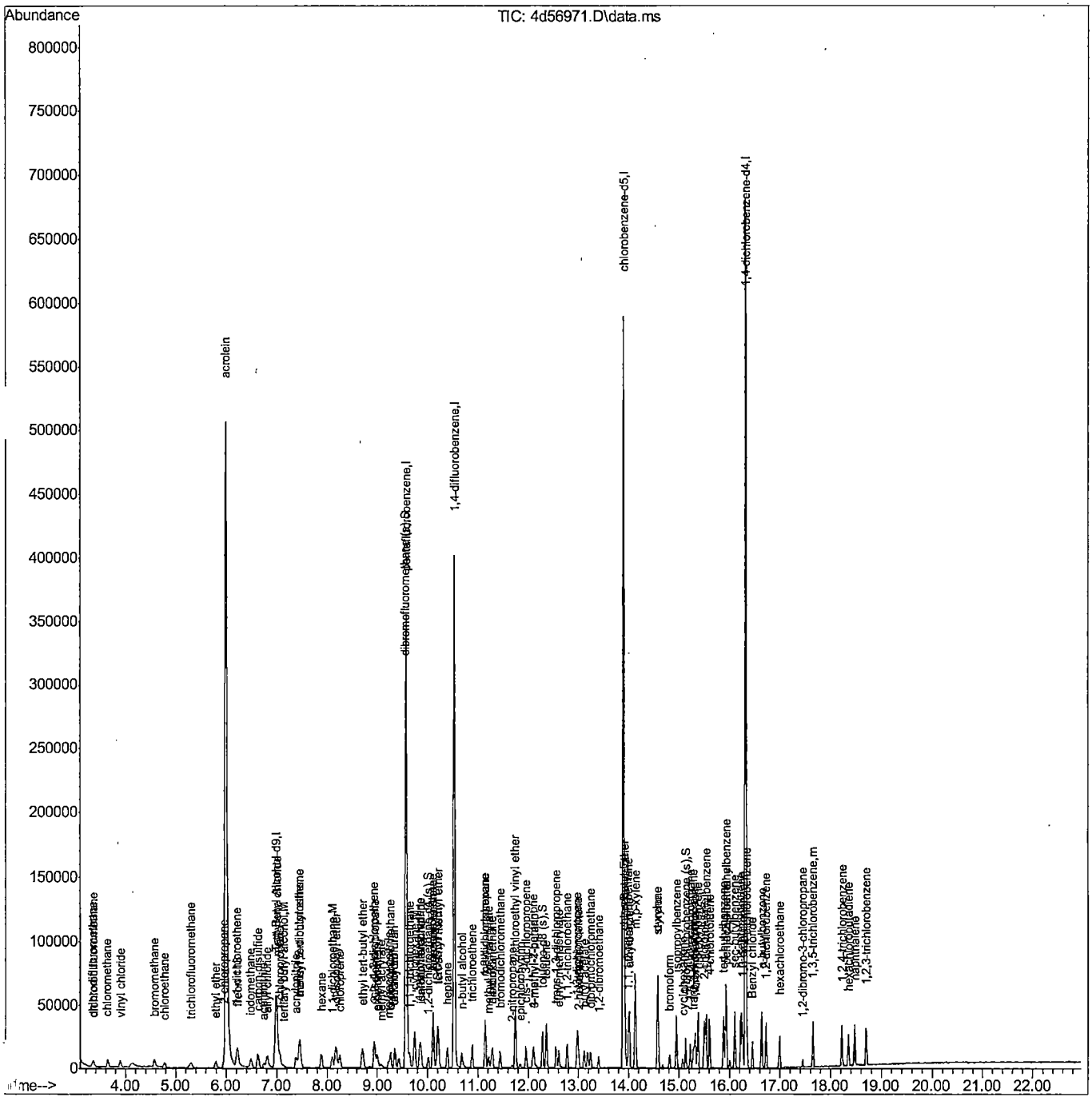
7.6.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56971.D
Acq On : 18 Feb 2015 6:07 pm
Operator : PayalR
Sample : ic2528-2
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 08:54:34 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



7.6.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.993	65	112674	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	279758	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	348421	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	318490	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	161627	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.557	113	16067	5.30	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 10.60%#			
46) 1,2-dichloroethane-d4 (s)	10.002	65	15704	5.37	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 10.74%#			
75) toluene-d8 (s)	12.278	98	52761	5.21	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 10.42%#			
100) 4-bromofluorobenzene (s)	15.135	95	20869	5.27	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 10.54%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.271	88	3665	124.09	ug/L #	89
3) tertiary butyl alcohol	7.129	59	7803	25.52	ug/L	89
5) chlorodifluoromethane	3.354	51	11430	5.46	ug/L	99
6) dichlorodifluoromethane	3.354	85	14107	4.60	ug/L	98
7) chloromethane	3.648	50	17211	4.74	ug/L	100
8) vinyl chloride	3.905	62	17540	4.85	ug/L	100
10) bromomethane	4.581	94	13023	4.97	ug/L	99
11) chloroethane	4.785	64	9128	5.32	ug/L	96
12) trichlorofluoromethane	5.315	101	19131	4.87	ug/L	98
14) ethyl ether	5.797	74	7267	5.21	ug/L	99
16) 2-chloropropane	5.976	43	22282	5.11	ug/L	99
17) acrolein	6.018	56	33914	55.23	ug/L	94
18) 1,1-dichloroethene	6.227	96	13654	5.26	ug/L	99
19) acetone	6.306	43	3548	5.03	ug/L	92
20) allyl chloride	6.820	76	7279	5.31	ug/L	97
21) acetonitrile	6.746	40	6906	44.03	ug/L	98
22) iodomethane	6.495	142	26757	5.29	ug/L	98
23) iso-butyl alcohol	9.861	41	4866	49.68	ug/L	92
24) carbon disulfide	6.636	76	51321	5.25	ug/L	99
25) methylene chloride	7.008	84	16476	4.99	ug/L	98
26) 1-chloropropane	7.077	42	23241	4.79	ug/L	95
27) methyl acetate	6.846	74	2258	4.94	ug/L #	56
28) methyl tert butyl ether	7.459	73	40768	5.27	ug/L	100
29) trans-1,2-dichloroethene	7.465	96	15103	4.94	ug/L	96
30) di-isopropyl ether	8.183	45	46703	5.07	ug/L	91
31) ethyl tert-butyl ether	8.702	59	44837	4.94	ug/L	98
32) 2-butanone	8.927	72	1435	4.52	ug/L #	90
33) 1,1-dichloroethane	8.104	63	28084	4.88	ug/L	98
34) chloroprene	8.251	53	18930	4.91	ug/L	97
35) acrylonitrile	7.381	53	27494	26.52	ug/L	96
37) ethyl acetate	8.980	45	1823	4.86	ug/L	84
38) 2,2-dichloropropane	8.954	77	19284	4.81	ug/L	97

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39)	cis-1,2-dichloroethene	8.933	96	16664	4.85	ug/L		99
40)	propionitrile	8.985	54	22144	52.57	ug/L		97
41)	methyl acrylate	9.059	55	13592	5.20	ug/L	#	90
42)	bromochloromethane	9.263	128	8474	5.25	ug/L		92
43)	tetrahydrofuran	9.331	42	4450	5.13	ug/L		92
44)	chloroform	9.342	83	26774	4.77	ug/L		98
47)	freon 113	6.243	151	9393	5.52	ug/L		97
48)	methacrylonitrile	9.216	41	8369	5.15	ug/L		97
49)	1,1,1-trichloroethane	9.635	97	20655	4.91	ug/L		99
50)	tert-amyl methyl ether	10.201	73	42964	4.93	ug/L		97
52)	epichlorohydrin	11.832	57	7446	25.33	ug/L		99
53)	n-butyl alcohol	10.668	56	20636	240.31	ug/L		96
54)	cyclohexane	9.735	84	19970	5.15	ug/L		99
56)	carbon tetrachloride	9.861	117	18603	4.99	ug/L		100
57)	1,1-dichloropropene	9.834	75	20174	4.88	ug/L		97
58)	hexane	7.884	57	17900	5.80	ug/L		97
59)	benzene	10.107	78	60069	4.79	ug/L		99
60)	ISO-OCTANE	10.191	57	51159	5.08	ug/L		99
61)	heptane	10.380	57	9820	5.18	ug/L		98
62)	isopropyl acetate	10.091	43	25841	4.96	ug/L		99
63)	1,2-dichloroethane	10.097	62	18606	5.24	ug/L		97
64)	trichloroethene	10.878	95	15282	4.80	ug/L		98
66)	2-nitropropane	11.675	43	3397	4.80	ug/L		93
67)	2-chloroethyl vinyl ether	11.738	63	55257	25.59	ug/L		99
68)	methyl methacrylate	11.203	41	11718	5.16	ug/L		96
69)	1,2-dichloropropane	11.140	63	16579	4.93	ug/L		97
70)	methylcyclohexane	11.140	83	22626	5.08	ug/L		99
72)	dibromomethane	11.287	93	10718	5.19	ug/L		96
73)	bromodichloromethane	11.439	83	20084	4.93	ug/L		98
74)	cis-1,3-dichloropropene	11.947	75	25852	4.97	ug/L		100
76)	4-methyl-2-pentanone	12.084	58	6057	5.06	ug/L		99
77)	toluene	12.356	92	36017	4.84	ug/L		99
78)	3-methyl-1-butanol	12.105	70	7511	97.89	ug/L		95
79)	trans-1,3-dichloropropene	12.550	75	23049	5.04	ug/L		96
80)	ethyl methacrylate	12.603	69	18870	5.05	ug/L		98
81)	1,1,2-trichloroethane	12.771	83	13057	5.14	ug/L		97
82)	2-hexanone	13.007	58	5642	5.04	ug/L		96
84)	tetrachloroethene	12.991	166	15250	4.80	ug/L		98
85)	1,3-dichloropropane	12.970	76	23463	5.05	ug/L		99
86)	butyl acetate	13.111	56	10364	4.95	ug/L		99
87)	dibromochloromethane	13.242	129	16852	5.07	ug/L		100
88)	1,2-dibromoethane	13.400	107	15881	5.16	ug/L		100
89)	n-Butyl Ether	13.919	57	65684	4.83	ug/L	#	92
90)	chlorobenzene	13.924	112	40802	4.82	ug/L		99
91)	1,1,1,2-tetrachloroethane	13.992	131	14536	4.99	ug/L		98
92)	ethylbenzene	14.013	91	68677	4.73	ug/L		100
93)	m,p-xylene	14.134	106	51486	9.47	ug/L		100
94)	o-xylene	14.574	106	25763	4.84	ug/L		96
95)	styrene	14.579	104	42063	4.83	ug/L		99
97)	bromoform	14.815	173	11377	4.90	ug/L		99

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	14.952	105	63162	4.63	ug/L	99
101)	bromobenzene	15.329	156	17408	4.97	ug/L	90
102)	cyclohexanone	15.072	55	10088	57.87	ug/L	95
103)	1,1,2,2-tetrachloroethane	15.224	83	22576	5.02	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	4710	5.24	ug/L	90
105)	1,2,3-trichloropropane	15.298	110	4704	5.19	ug/L	98
106)	n-propylbenzene	15.376	91	76862	4.72	ug/L	99
107)	2-chlorotoluene	15.507	126	16304	4.83	ug/L	91
108)	4-chlorotoluene	15.607	91	49263	4.81	ug/L	98
109)	1,3,5-trimethylbenzene	15.539	105	53654	4.78	ug/L	99
110)	tert-butylbenzene	15.890	119	44430	4.69	ug/L	98
111)	pentachloroethane	15.937	167	10256	4.65	ug/L	94
112)	1,2,4-trimethylbenzene	15.932	105	53011	4.76	ug/L	98
113)	sec-butylbenzene	16.110	105	71516	4.69	ug/L	99
114)	1,3-dichlorobenzene	16.262	146	32800	4.83	ug/L	100
115)	p-isopropyltoluene	16.231	119	55994	4.62	ug/L	100
116)	1,4-dichlorobenzene	16.346	146	32928	4.80	ug/L	98
117)	1,2-dichlorobenzene	16.724	146	31773	4.89	ug/L	99
118)	n-butylbenzene	16.640	92	31037	4.69	ug/L	98
119)	1,2-dibromo-3-chloropr...	17.453	75	3487	5.01	ug/L	95
120)	1,3,5-trichlorobenzene	17.652	180	24396	4.72	ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	22308	4.85	ug/L	99
122)	hexachlorobutadiene	18.354	225	11336	4.81	ug/L	94
123)	naphthalene	18.480	128	53389	4.89	ug/L	98
124)	1,2,3-trichlorobenzene	18.706	180	20988	4.97	ug/L	98
125)	hexachloroethane	16.996	119	11760	4.62	ug/L	99
126)	Benzyl chloride	16.456	91	33777	4.49	ug/L	99

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

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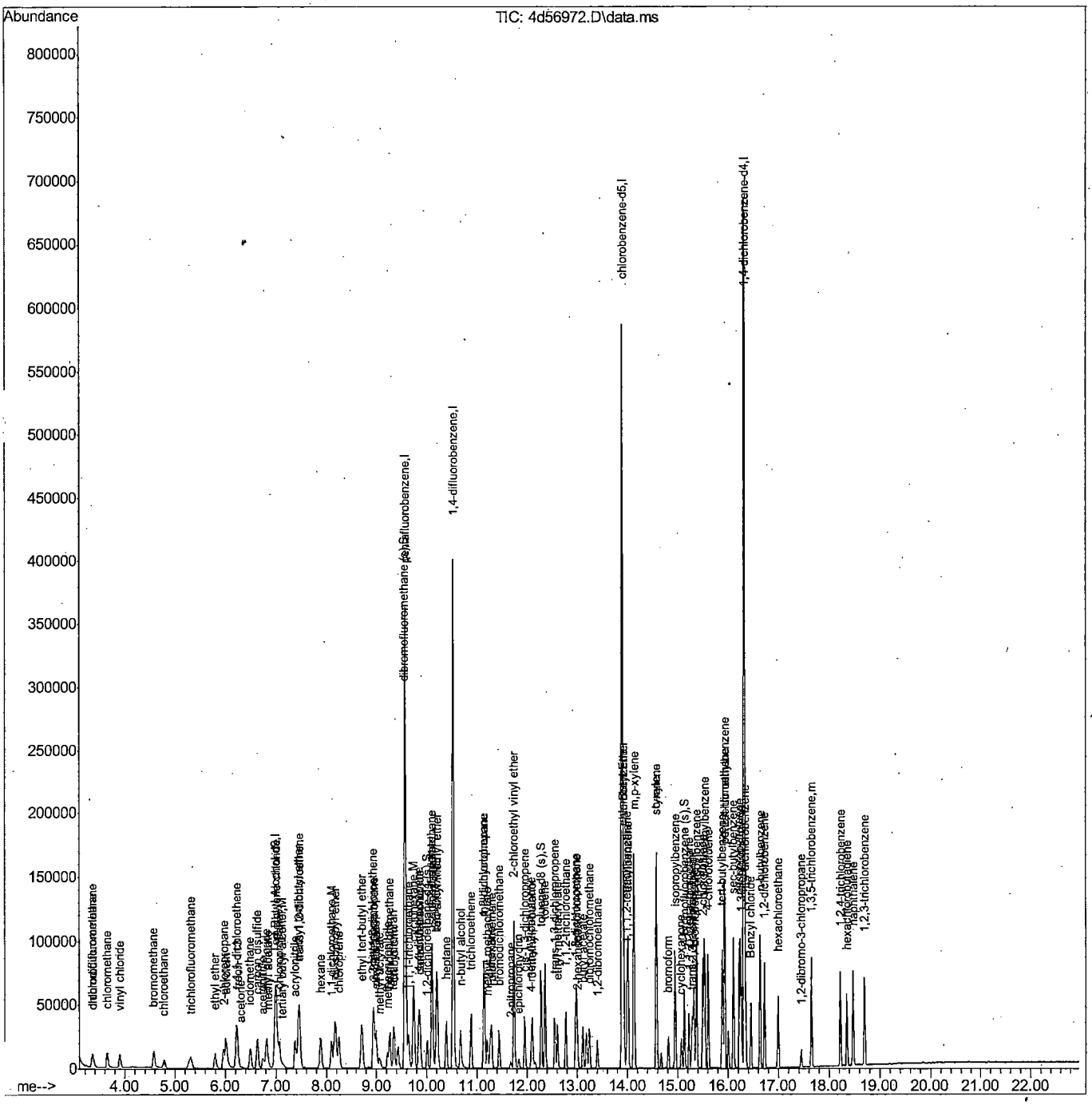
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56972.D
Acq On : 18 Feb 2015 6:35 pm
Operator : PayalR
Sample : ic2528-5
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 08:55:06 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	114889	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	283503	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	355158	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	323328	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	163205	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	28668	9.34	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 18.68%#			
46) 1,2-dichloroethane-d4 (s)	10.002	65	28094	9.48	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 18.96%#			
75) toluene-d8 (s)	12.278	98	95424	9.25	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 18.50%#			
100) 4-bromofluorobenzene (s)	15.130	95	37424	9.36	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 18.72%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.271	88	7020	233.10	ug/L	99
3) tertiary butyl alcohol	7.135	59	14452	46.36	ug/L	93
5) chlorodifluoromethane	3.354	51	20152	9.50	ug/L	98
6) dichlorodifluoromethane	3.349	85	25374	8.17	ug/L	98
7) chloromethane	3.648	50	31415	8.53	ug/L	99
8) vinyl chloride	3.905	62	30708	8.38	ug/L	98
10) bromomethane	4.586	94	23487	8.84	ug/L	97
11) chloroethane	4.786	64	15415	8.86	ug/L	97
12) trichlorofluoromethane	5.320	101	33497	8.42	ug/L	97
14) ethyl ether	5.792	74	13893	9.83	ug/L	97
16) 2-chloropropane	5.971	43	40141	9.08	ug/L	99
17) acrolein	6.013	56	57855	92.97	ug/L	100
18) 1,1-dichloroethene	6.222	96	24623	9.36	ug/L	98
19) acetone	6.290	43	7003	9.79	ug/L	85
20) allyl chloride	6.820	76	12597	9.07	ug/L	98
21) acetonitrile	6.741	40	13318	83.79	ug/L	94
22) iodomethane	6.495	142	47999	9.36	ug/L	98
23) iso-butyl alcohol	9.856	41	9087	91.55	ug/L	99
24) carbon disulfide	6.642	76	92112	9.30	ug/L	100
25) methylene chloride	7.014	84	29914	8.94	ug/L	98
26) 1-chloropropane	7.077	42	41933	8.53	ug/L	97
27) methyl acetate	6.830	74	4568	9.86	ug/L #	78
28) methyl tert butyl ether	7.460	73	74014	9.44	ug/L	99
29) trans-1,2-dichloroethene	7.465	96	27672	8.92	ug/L	99
30) di-isopropyl ether	8.183	45	84644	9.06	ug/L	96
31) ethyl tert-butyl ether	8.702	59	81492	8.86	ug/L	98
32) 2-butanone	8.922	72	2823	8.77	ug/L	89
33) 1,1-dichloroethane	8.104	63	51111	8.76	ug/L	98
34) chloroprene	8.246	53	34151	8.73	ug/L	98
35) acrylonitrile	7.376	53	50369	47.94	ug/L	98
36) vinyl acetate	8.141	86	3018	8.25	ug/L	93
37) ethyl acetate	8.980	45	3640	9.58	ug/L	94

7.6.19

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	34270	8.44 ug/L	99
39) cis-1,2-dichloroethene	8.933	96	30404	8.73 ug/L	99
40) propionitrile	8.985	54	40455	94.77 ug/L	97
41) methyl acrylate	9.053	55	25327	9.57 ug/L #	96
42) bromochloromethane	9.258	128	15370	9.39 ug/L	97
43) tetrahydrofuran	9.331	42	8014	9.12 ug/L	94
44) chloroform	9.342	83	48332	8.50 ug/L	98
47) freon 113	6.233	151	16510	9.57 ug/L	99
48) methacrylonitrile	9.211	41	15435	9.37 ug/L	98
49) 1,1,1-trichloroethane	9.635	97	37098	8.70 ug/L	99
50) tert-amyl methyl ether	10.202	73	77580	8.79 ug/L	97
52) epichlorohydrin	11.832	57	13328	44.49 ug/L	98
53) n-butyl alcohol	10.663	56	38369	438.33 ug/L	99
54) cyclohexane	9.735	84	35977	9.10 ug/L	100
56) carbon tetrachloride	9.861	117	33278	8.76 ug/L	98
57) 1,1-dichloropropene	9.835	75	36589	8.68 ug/L	97
58) hexane	7.884	57	31457	10.00 ug/L	95
59) benzene	10.107	78	108179	8.47 ug/L	100
60) ISO-OCTANE	10.191	57	89470	8.72 ug/L	98
61) heptane	10.385	57	17371	9.00 ug/L	97
62) isopropyl acetate	10.092	43	47517	8.95 ug/L	100
63) 1,2-dichloroethane	10.097	62	34085	9.41 ug/L	100
64) trichloroethene	10.873	95	27745	8.55 ug/L	97
66) 2-nitropropane	11.675	43	6323	8.76 ug/L	98
67) 2-chloroethyl vinyl ether	11.738	63	99171	45.05 ug/L	99
68) methyl methacrylate	11.203	41	21890	9.46 ug/L	93
69) 1,2-dichloropropane	11.140	63	30252	8.83 ug/L	98
70) methylcyclohexane	11.140	83	39855	8.77 ug/L	98
72) dibromomethane	11.287	93	19698	9.36 ug/L	98
73) bromodichloromethane	11.439	83	37341	9.00 ug/L	97
74) cis-1,3-dichloropropene	11.948	75	47395	8.93 ug/L	99
76) 4-methyl-2-pentanone	12.084	58	11276	9.23 ug/L	99
77) toluene	12.357	92	65373	8.63 ug/L	98
78) 3-methyl-1-butanol	12.100	70	13975	178.68 ug/L	97
79) trans-1,3-dichloropropene	12.551	75	42437	9.10 ug/L	97
80) ethyl methacrylate	12.603	69	35108	9.22 ug/L	99
81) 1,1,2-trichloroethane	12.771	83	23512	9.09 ug/L	99
82) 2-hexanone	13.001	58	10550	9.24 ug/L	96
84) tetrachloroethene	12.986	166	27588	8.56 ug/L	100
85) 1,3-dichloropropane	12.970	76	42927	9.11 ug/L	99
86) butyl acetate	13.112	56	18536	8.72 ug/L	97
87) dibromochloromethane	13.243	129	30726	9.10 ug/L	99
88) 1,2-dibromoethane	13.400	107	28260	9.05 ug/L	99
89) n-Butyl Ether	13.919	57	120540	8.73 ug/L	96
90) chlorobenzene	13.924	112	74598	8.68 ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	26709	9.03 ug/L	97
92) ethylbenzene	14.013	91	124200	8.43 ug/L	100
93) m,p-xylene	14.134	106	94030	17.04 ug/L	95
94) o-xylene	14.574	106	46420	8.59 ug/L	98
95) styrene	14.580	104	78121	8.84 ug/L	99

7.6.19

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.816	173	21560	9.14	ug/L	98
99)	isopropylbenzene	14.947	105	118035	8.58	ug/L	99
101)	bromobenzene	15.324	156	31930	9.03	ug/L	94
102)	cyclohexanone	15.072	55	17376	98.72	ug/L	97
103)	1,1,2,2-tetrachloroethane	15.225	83	41229	9.09	ug/L	98
104)	trans-1,4-dichloro-2-b...	15.277	53	8582	9.45	ug/L	95
105)	1,2,3-trichloropropane	15.298	110	8688	9.49	ug/L	97
106)	n-propylbenzene	15.377	91	139534	8.48	ug/L	100
107)	2-chlorotoluene	15.502	126	29444	8.64	ug/L	96
108)	4-chlorotoluene	15.607	91	89011	8.60	ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	97076	8.56	ug/L	98
110)	tert-butylbenzene	15.890	119	80165	8.38	ug/L	99
111)	pentachloroethane	15.938	167	19498	8.75	ug/L	97
112)	1,2,4-trimethylbenzene	15.932	105	98174	8.73	ug/L	98
113)	sec-butylbenzene	16.111	105	130588	8.49	ug/L	99
114)	1,3-dichlorobenzene	16.263	146	59403	8.66	ug/L	98
115)	p-isopropyltoluene	16.231	119	103548	8.47	ug/L	99
116)	1,4-dichlorobenzene	16.347	146	59944	8.65	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	57928	8.82	ug/L	99
118)	n-butylbenzene	16.640	92	56074	8.40	ug/L	99
119)	1,2-dibromo-3-chloropr...	17.448	75	6476	9.21	ug/L	79
120)	1,3,5-trichlorobenzene	17.652	180	44929	8.61	ug/L	100
121)	1,2,4-trichlorobenzene	18.224	180	41081	8.84	ug/L	99
122)	hexachlorobutadiene	18.355	225	19918	8.37	ug/L	98
123)	naphthalene	18.480	128	98778	8.95	ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	38828	9.10	ug/L	99
125)	hexachloroethane	16.997	119	21558	8.39	ug/L	99
126)	Benzyl chloride	16.457	91	61026	8.04	ug/L	99

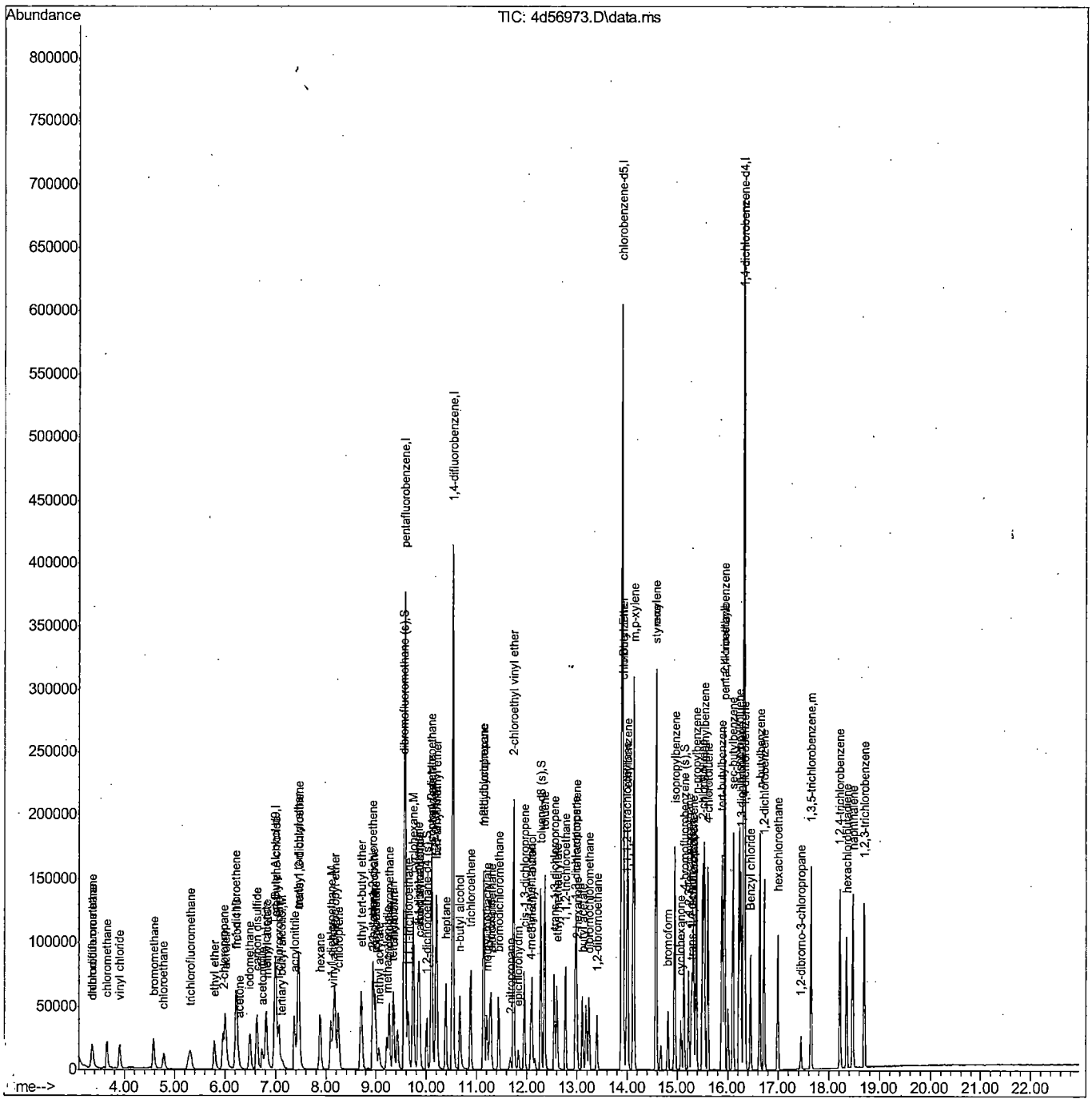
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.19 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56973.D
Acq On : 18 Feb 2015 7:02 pm
Operator : PayalR
Sample : ic2528-10
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 08:05:15 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

7.6.19 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	115028	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	282531	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	349600	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	320162	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	162118	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	151182	49.42	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.84%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	148266	50.23	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 100.46%			
75) toluene-d8 (s)	12.278	98	511256	50.35	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 100.70%			
100) 4-bromofluorobenzene (s)	15.130	95	197406	49.70	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 99.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	16255	539.10	ug/L	93
3) tertiary butyl alcohol	7.135	59	32552	104.30	ug/L	97
5) chlorodifluoromethane	3.360	51	45849	21.69	ug/L	99
6) dichlorodifluoromethane	3.354	85	58073	18.75	ug/L	97
7) chloromethane	3.653	50	70206	19.13	ug/L	100
8) vinyl chloride	3.910	62	71400	19.55	ug/L	99
10) bromomethane	4.581	94	51596	19.48	ug/L	100
11) chloroethane	4.786	64	35090	20.24	ug/L	99
12) trichlorofluoromethane	5.320	101	77939	19.65	ug/L	99
14) ethyl ether	5.787	74	30975	21.99	ug/L	96
16) 2-chloropropane	5.971	43	88805	20.15	ug/L	100
17) acrolein	6.007	56	130948	211.16	ug/L	98
18) 1,1-dichloroethene	6.222	96	54490	20.78	ug/L	98
19) acetone	6.275	43	15319	21.50	ug/L	95
20) allyl chloride	6.815	76	28902	20.89	ug/L	99
21) acetonitrile	6.731	40	32283	203.80	ug/L	98
22) iodomethane	6.495	142	106955	20.93	ug/L	100
23) iso-butyl alcohol	9.856	41	20190	204.11	ug/L	99
24) carbon disulfide	6.636	76	205303	20.81	ug/L	99
25) methylene chloride	7.009	84	66391	19.90	ug/L	99
26) 1-chloropropane	7.072	42	91914	18.77	ug/L	98
27) methyl acetate	6.825	74	11034	23.91	ug/L	94
28) methyl tert butyl ether	7.460	73	162219	20.76	ug/L	100
29) trans-1,2-dichloroethene	7.465	96	60688	19.64	ug/L	98
30) di-isopropyl ether	8.178	45	188881	20.29	ug/L	95
31) ethyl tert-butyl ether	8.702	59	184540	20.13	ug/L	99
32) 2-butanone	8.917	72	6629	20.67	ug/L	89
33) 1,1-dichloroethane	8.104	63	111543	19.19	ug/L	99
34) chloroprene	8.246	53	78386	20.12	ug/L	99
35) acrylonitrile	7.370	53	111807	106.77	ug/L	98
36) vinyl acetate	8.136	86	7372	20.22	ug/L	99
37) ethyl acetate	8.980	45	8113	21.43	ug/L	91

7.6.20 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	75455	18.65 ug/L	100
39) cis-1,2-dichloroethene	8.933	96	67130	19.33 ug/L	97
40) propionitrile	8.985	54	91209	214.39 ug/L	99
41) methyl acrylate	9.048	55	54321	20.59 ug/L	99
42) bromochloromethane	9.258	128	33746	20.69 ug/L	98
43) tetrahydrofuran	9.326	42	17470	19.94 ug/L	97
44) chloroform	9.342	83	105630	18.65 ug/L	99
47) freon 113	6.243	151	37923	22.06 ug/L	100
48) methacrylonitrile	9.206	41	35119	21.39 ug/L	98
49) 1,1,1-trichloroethane	9.635	97	81623	19.21 ug/L	99
50) tert-amyl methyl ether	10.202	73	173856	19.76 ug/L	99
52) epichlorohydrin	11.827	57	30210	102.44 ug/L	100
53) n-butyl alcohol	10.658	56	89119	1034.29 ug/L	100
54) cyclohexane	9.730	84	81028	20.82 ug/L	99
56) carbon tetrachloride	9.861	117	74795	19.99 ug/L	99
57) 1,1-dichloropropene	9.835	75	81341	19.61 ug/L	100
58) hexane	7.890	57	71474	23.09 ug/L	99
59) benzene	10.102	78	237498	18.89 ug/L	99
60) ISO-OCTANE	10.191	57	203768	20.18 ug/L	99
61) heptane	10.385	57	39390	20.72 ug/L	98
62) isopropyl acetate	10.092	43	105058	20.11 ug/L	100
63) 1,2-dichloroethane	10.097	62	74126	20.79 ug/L	99
64) trichloroethene	10.878	95	61337	19.20 ug/L	97
66) 2-nitropropane	11.675	43	14226	20.02 ug/L	98
67) 2-chloroethyl vinyl ether	11.738	63	222393	102.64 ug/L	99
68) methyl methacrylate	11.198	41	47987	21.08 ug/L	99
69) 1,2-dichloropropane	11.140	63	66885	19.84 ug/L	99
70) methylcyclohexane	11.140	83	91950	20.56 ug/L	99
72) dibromomethane	11.282	93	43228	20.87 ug/L	100
73) bromodichloromethane	11.439	83	82501	20.19 ug/L	99
74) cis-1,3-dichloropropene	11.948	75	103541	19.83 ug/L	99
76) 4-methyl-2-pentanone	12.084	58	25396	21.13 ug/L	99
77) toluene	12.357	92	140625	18.85 ug/L	98
78) 3-methyl-1-butanol	12.100	70	31859	413.82 ug/L	98
79) trans-1,3-dichloropropene	12.551	75	94647	20.63 ug/L	98
80) ethyl methacrylate	12.603	69	79328	21.18 ug/L	99
81) 1,1,2-trichloroethane	12.771	83	52002	20.42 ug/L	99
82) 2-hexanone	13.002	58	23838	21.22 ug/L	97
84) tetrachloroethene	12.986	166	60829	19.06 ug/L	99
85) 1,3-dichloropropane	12.970	76	93752	20.08 ug/L	99
86) butyl acetate	13.106	56	42613	20.25 ug/L	96
87) dibromochloromethane	13.243	129	68997	20.63 ug/L	99
88) 1,2-dibromoethane	13.400	107	62298	20.15 ug/L	99
89) n-Butyl Ether	13.919	57	268891	19.66 ug/L	99
90) chlorobenzene	13.924	112	162651	19.11 ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	59075	20.16 ug/L	98
92) ethylbenzene	14.013	91	271476	18.60 ug/L	100
93) m,p-xylene	14.134	106	206974	37.89 ug/L	96
94) o-xylene	14.574	106	102062	19.08 ug/L	99
95) styrene	14.580	104	173293	19.81 ug/L	99

7.6.20 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97)	bromoform	14.816	173	48077	20.59 ug/L	99
99)	isopropylbenzene	14.947	105	258569	18.91 ug/L	99
101)	bromobenzene	15.324	156	69992	19.93 ug/L	98
102)	cyclohexanone	15.073	55	35490	202.98 ug/L	99
103)	1,1,2,2-tetrachloroethane	15.225	83	90354	20.04 ug/L	100
104)	trans-1,4-dichloro-2-b...	15.277	53	19062	21.14 ug/L	94
105)	1,2,3-trichloropropane	15.298	110	19073	20.98 ug/L	97
106)	n-propylbenzene	15.377	91	310821	19.02 ug/L	99
107)	2-chlorotoluene	15.502	126	65452	19.35 ug/L	95
108)	4-chlorotoluene	15.607	91	193841	18.85 ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	216502	19.23 ug/L	100
110)	tert-butylbenzene	15.890	119	176115	18.53 ug/L	99
111)	pentachloroethane	15.943	167	43279	19.56 ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	217077	19.43 ug/L	100
113)	sec-butylbenzene	16.111	105	289242	18.92 ug/L	100
114)	1,3-dichlorobenzene	16.263	146	130736	19.19 ug/L	100
115)	p-isopropyltoluene	16.231	119	231709	19.08 ug/L	100
116)	1,4-dichlorobenzene	16.347	146	132278	19.22 ug/L	98
117)	1,2-dichlorobenzene	16.724	146	127768	19.59 ug/L	99
118)	n-butylbenzene	16.635	92	127550	19.23 ug/L	99
119)	1,2-dibromo-3-chloropr...	17.453	75	14293	20.46 ug/L	96
120)	1,3,5-trichlorobenzene	17.652	180	101310	19.56 ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	93154	20.18 ug/L	99
122)	hexachlorobutadiene	18.355	225	45184	19.12 ug/L	98
123)	naphthalene	18.480	128	222883	20.34 ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	88098	20.79 ug/L	98
125)	hexachloroethane	16.997	119	49983	19.57 ug/L	100
126)	Benzyl chloride	16.457	91	136982	18.17 ug/L	99

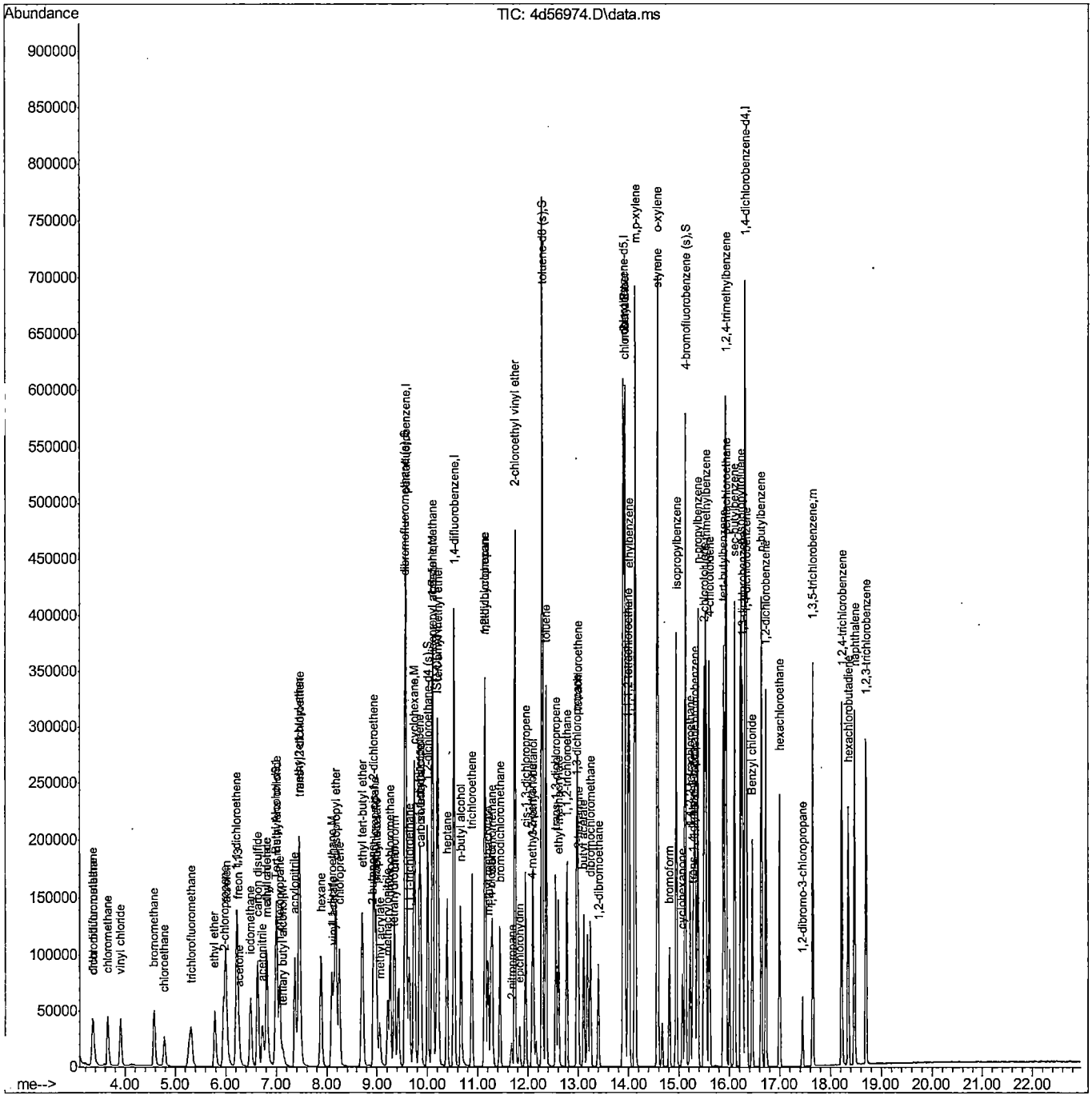
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.20 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56974.D
Acq On : 18 Feb 2015 7:30 pm
Operator : PayalR
Sample : ic2528-20
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 19 08:06:13 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

7.6.20 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	120123	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	272880	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	339533	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	309274	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	158462	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	150658	51.00	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 102.00%			
46) 1,2-dichloroethane-d4 (s)	10.002	65	146118	51.25	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 102.50%			
75) toluene-d8 (s)	12.278	98	505857	51.30	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 102.60%			
100) 4-bromofluorobenzene (s)	15.130	95	196793	50.69	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 101.38%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	42053	1335.54	ug/L #	91
3) tertiary butyl alcohol	7.135	59	86745	266.15	ug/L	98
5) chlorodifluoromethane	3.360	51	114080	55.88	ug/L	98
6) dichlorodifluoromethane	3.349	85	143042	47.82	ug/L	97
7) chloromethane	3.658	50	170933	48.22	ug/L	99
8) vinyl chloride	3.910	62	171792	48.71	ug/L	98
10) bromomethane	4.581	94	120448	47.09	ug/L	99
11) chloroethane	4.780	64	90167	53.84	ug/L	99
12) trichlorofluoromethane	5.320	101	192318	50.20	ug/L	99
14) ethyl ether	5.787	74	78776	57.91	ug/L	99
16) 2-chloropropane	5.971	43	214911	50.49	ug/L	99
17) acrolein	6.007	56	336687	562.12	ug/L	100
18) 1,1-dichloroethene	6.222	96	134758	53.22	ug/L	98
19) acetone	6.269	43	41690	60.58	ug/L	99
20) allyl chloride	6.815	76	70519	52.77	ug/L	95
21) acetonitrile	6.720	40	84421	551.78	ug/L	97
22) iodomethane	6.495	142	265334	53.76	ug/L	98
23) iso-butyl alcohol	9.850	41	50622	529.86	ug/L	98
24) carbon disulfide	6.631	76	502174	52.69	ug/L	100
25) methylene chloride	7.009	84	163116	50.63	ug/L	99
26) 1-chloropropane	7.072	42	219547	46.42	ug/L	99
27) methyl acetate	6.820	74	29490	66.15	ug/L	99
28) methyl tert butyl ether	7.454	73	405376	53.72	ug/L	100
29) trans-1,2-dichloroethene	7.460	96	148596	49.78	ug/L	100
30) di-isopropyl ether	8.178	45	459981	51.15	ug/L	99
31) ethyl tert-butyl ether	8.702	59	451798	51.03	ug/L	100
32) 2-butanone	8.912	72	18116	58.49	ug/L	97
33) 1,1-dichloroethane	8.099	63	274947	48.98	ug/L	99
34) chloroprene	8.246	53	192773	51.22	ug/L	99
35) acrylonitrile	7.365	53	285628	282.42	ug/L	99
36) vinyl acetate	8.136	86	20100	57.09	ug/L	95
37) ethyl acetate	8.975	45	21086	57.67	ug/L	98

7.6.21

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	181716	46.50	ug/L	98
39) cis-1,2-dichloroethene	8.928	96	165502	49.35	ug/L	98
40) propionitrile	8.980	54	236038	574.45	ug/L	99
41) methyl acrylate	9.043	55	140581	55.18	ug/L	98
42) bromochloromethane	9.258	128	84785	53.83	ug/L	97
43) tetrahydrofuran	9.326	42	45000	53.18	ug/L	98
44) chloroform	9.342	83	261546	47.81	ug/L	99
47) freon 113	6.238	151	91957	55.38	ug/L	97
48) methacrylonitrile	9.206	41	89576	56.49	ug/L	98
49) 1,1,1-trichloroethane	9.635	97	201507	49.11	ug/L	99
50) tert-amyl methyl ether	10.202	73	426275	50.15	ug/L	100
52) epichlorohydrin	11.827	57	77454	270.43	ug/L	98
53) n-butyl alcohol	10.658	56	235582	2815.15	ug/L	100
54) cyclohexane	9.730	84	194431	51.43	ug/L	99
56) carbon tetrachloride	9.856	117	181640	49.99	ug/L	100
57) 1,1-dichloropropene	9.835	75	199085	49.43	ug/L	99
58) hexane	7.884	57	173666	57.77	ug/L	98
59) benzene	10.102	78	583449	47.77	ug/L	100
60) ISO-OCTANE	10.191	57	486188	49.58	ug/L	100
61) heptane	10.385	57	95442	51.70	ug/L	99
62) isopropyl acetate	10.086	43	266892	52.59	ug/L	100
63) 1,2-dichloroethane	10.097	62	182602	52.73	ug/L	99
64) trichloroethene	10.873	95	150562	48.53	ug/L	100
66) 2-nitropropane	11.675	43	37909	54.94	ug/L	99
67) 2-chloroethyl vinyl ether	11.738	63	555224	263.85	ug/L	100
68) methyl methacrylate	11.198	41	124354	56.24	ug/L	99
69) 1,2-dichloropropane	11.140	63	163559	49.95	ug/L	99
70) methylcyclohexane	11.140	83	222754	51.29	ug/L	99
72) dibromomethane	11.282	93	108341	53.85	ug/L	99
73) bromodichloromethane	11.439	83	204530	51.54	ug/L	100
74) cis-1,3-dichloropropene	11.948	75	256839	50.64	ug/L	99
76) 4-methyl-2-pentanone	12.084	58	65119	55.79	ug/L	100
77) toluene	12.357	92	351668	48.54	ug/L	98
78) 3-methyl-1-butanol	12.100	70	86172	1152.48	ug/L	99
79) trans-1,3-dichloropropene	12.551	75	236149	53.00	ug/L	100
80) ethyl methacrylate	12.603	69	205390	56.45	ug/L	99
81) 1,1,2-trichloroethane	12.771	83	128954	52.13	ug/L	99
82) 2-hexanone	13.001	58	63139	57.87	ug/L	100
84) tetrachloroethene	12.986	166	150827	48.92	ug/L	99
85) 1,3-dichloropropane	12.970	76	233266	51.73	ug/L	99
86) butyl acetate	13.106	56	106999	52.63	ug/L	98
87) dibromochloromethane	13.237	129	174464	54.01	ug/L	99
88) 1,2-dibromoethane	13.400	107	157527	52.75	ug/L	99
89) n-Butyl Ether	13.919	57	660009	49.95	ug/L	100
90) chlorobenzene	13.924	112	402458	48.95	ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	146720	51.85	ug/L	99
92) ethylbenzene	14.013	91	668634	47.42	ug/L	98
93) m,p-xylene	14.134	106	510142	96.67	ug/L	96
94) o-xylene	14.574	106	256804	49.69	ug/L	99
95) styrene	14.580	104	437702	51.79	ug/L	99

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.816	173	125319	55.55	ug/L	100
99)	isopropylbenzene	14.947	105	639134	47.82	ug/L	99
101)	bromobenzene	15.324	156	173644	50.59	ug/L	100
102)	cyclohexanone	15.072	55	82914	485.15	ug/L	97
103)	1,1,2,2-tetrachloroethane	15.225	83	226848	51.49	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	49451	56.10	ug/L	99
105)	1,2,3-trichloropropane	15.298	110	48081	54.11	ug/L	100
106)	n-propylbenzene	15.377	91	752799	47.13	ug/L	100
107)	2-chlorotoluene	15.502	126	161267	48.77	ug/L	96
108)	4-chlorotoluene	15.607	91	478271	47.58	ug/L	100
109)	1,3,5-trimethylbenzene	15.534	105	536562	48.75	ug/L	98
110)	tert-butylbenzene	15.890	119	447400	48.17	ug/L	100
111)	pentachloroethane	15.938	167	109649	50.70	ug/L	98
112)	1,2,4-trimethylbenzene	15.932	105	534648	48.95	ug/L	99
113)	sec-butylbenzene	16.111	105	712902	47.71	ug/L	99
114)	1,3-dichlorobenzene	16.263	146	325190	48.84	ug/L	100
115)	p-isopropyltoluene	16.231	119	570672	48.06	ug/L	100
116)	1,4-dichlorobenzene	16.347	146	327286	48.65	ug/L	100
117)	1,2-dichlorobenzene	16.724	146	320864	50.33	ug/L	100
118)	n-butylbenzene	16.635	92	317802	49.01	ug/L	98
119)	1,2-dibromo-3-chloropr...	17.453	75	37391	54.76	ug/L	97
120)	1,3,5-trichlorobenzene	17.652	180	256174	50.59	ug/L	100
121)	1,2,4-trichlorobenzene	18.224	180	241566	53.53	ug/L	98
122)	hexachlorobutadiene	18.355	225	114214	49.44	ug/L	98
123)	naphthalene	18.480	128	599031	55.92	ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	227805	55.01	ug/L	99
125)	hexachloroethane	16.997	119	125945	50.46	ug/L	99
126)	Benzyl chloride	16.457	91	348617	47.31	ug/L	100

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

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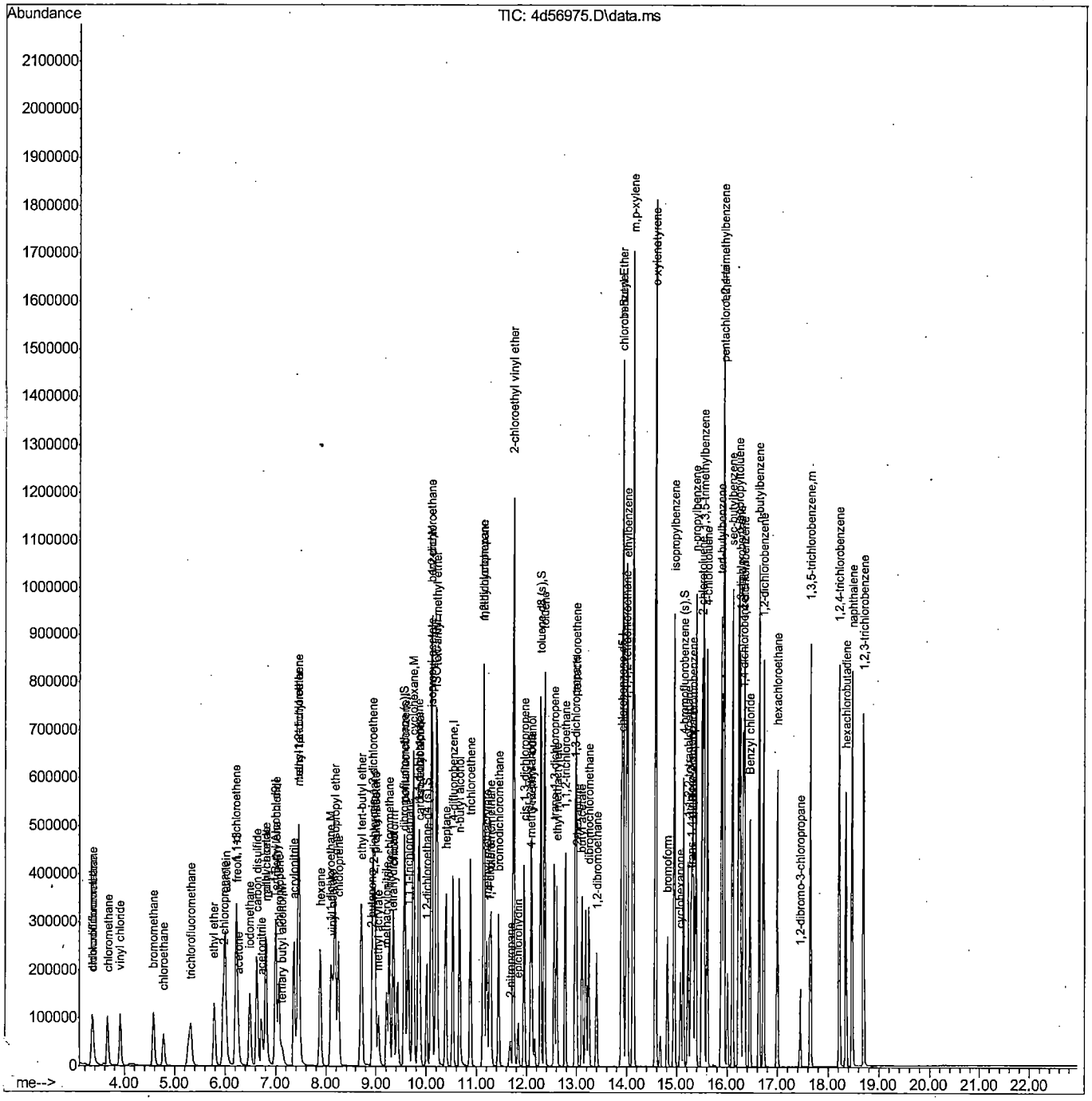
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56975.D
Acq On : 18 Feb 2015 7:57 pm
Operator : PayalR
Sample : icc2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 19 08:07:02 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.003	65	120361	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	283328	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	349178	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	320613	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	164007	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	302802	98.71	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 197.42%#			
46) 1,2-dichloroethane-d4 (s)	10.003	65	289964	97.95	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 195.90%#			
75) toluene-d8 (s)	12.278	98	1005113	99.11	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 198.22%#			
100) 4-bromofluorobenzene (s)	15.130	95	397097	98.83	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 197.66%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	80352	2546.82	ug/L #	89
3) tertiary butyl alcohol	7.135	59	161354	494.09	ug/L	99
5) chlorodifluoromethane	3.360	51	233489	110.16	ug/L	99
6) dichlorodifluoromethane	3.349	85	290611	93.57	ug/L	99
7) chloromethane	3.664	50	346165	94.06	ug/L	100
8) vinyl chloride	3.921	62	345810	94.43	ug/L	99
10) bromomethane	4.581	94	231818	87.29	ug/L	99
11) chloroethane	4.780	64	178124	102.44	ug/L	100
12) trichlorofluoromethane	5.320	101	384792	96.74	ug/L	100
14) ethyl ether	5.787	74	156641	110.91	ug/L	96
16) 2-chloropropane	5.965	43	429052	97.08	ug/L #	93
17) acrolein	6.028	56	8702	13.99	ug/L	92
18) 1,1-dichloroethene	6.222	96	276988	105.35	ug/L	98
19) acetone	6.269	43	74369	104.07	ug/L	99
20) allyl chloride	6.815	76	141326	101.86	ug/L	94
21) acetonitrile	6.720	40	163405	1028.64	ug/L	100
22) iodomethane	6.495	142	541443	105.66	ug/L	100
23) iso-butyl alcohol	9.850	41	94749	955.17	ug/L	98
24) carbon disulfide	6.636	76	1014682	102.55	ug/L	100
25) methylene chloride	7.009	84	327944	98.04	ug/L	97
26) 1-chloropropane	7.072	42	432209	88.02	ug/L	99
27) methyl acetate	6.815	74	57599	124.44	ug/L	96
28) methyl tert butyl ether	7.460	73	811976	103.63	ug/L	99
29) trans-1,2-dichloroethene	7.460	96	302115	97.48	ug/L	99
30) di-isopropyl ether	8.183	45	901791	96.58	ug/L	97
31) ethyl tert-butyl ether	8.707	59	897721	97.66	ug/L	100
32) 2-butanone	8.912	72	35210	109.48	ug/L	97
33) 1,1-dichloroethane	8.105	63	545862	93.66	ug/L	99
34) chloroprene	8.246	53	384063	98.29	ug/L	99
35) acrylonitrile	7.365	53	555163	528.68	ug/L	98
36) vinyl acetate	8.136	86	39950	109.29	ug/L	99
37) ethyl acetate	8.975	45	40022	105.42	ug/L	98

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7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	360736	88.90 ug/L	99
39) cis-1,2-dichloroethene	8.933	96	334224	95.98 ug/L	97
40) propionitrile	8.980	54	450784	1056.62 ug/L	99
41) methyl acrylate	9.043	55	273270	103.31 ug/L #	99
42) bromochloromethane	9.258	128	170383	104.19 ug/L	97
43) tetrahydrofuran	9.326	42	84642	96.34 ug/L	99
44) chloroform	9.342	83	524245	92.30 ug/L	99
47) freon 113	6.243	151	187988	109.04 ug/L	99
48) methacrylonitrile	9.206	41	173884	105.62 ug/L	97
49) 1,1,1-trichloroethane	9.635	97	405782	95.25 ug/L	99
50) tert-amyl methyl ether	10.202	73	827708	93.79 ug/L	99
52) epichlorohydrin	11.827	57	146345	496.85 ug/L	99
53) n-butyl alcohol	10.658	56	443541	5153.82 ug/L	99
54) cyclohexane	9.735	84	389879	100.28 ug/L	97
56) carbon tetrachloride	9.861	117	367461	98.33 ug/L	99
57) 1,1-dichloropropene	9.835	75	397952	96.07 ug/L	100
58) hexane	7.884	57	348702	112.79 ug/L	98
59) benzene	10.107	78	1153122	91.81 ug/L	100
60) ISO-OCTANE	10.196	57	969027	96.09 ug/L	99
61) heptane	10.385	57	191968	101.11 ug/L	98
62) isopropyl acetate	10.086	43	505823	96.92 ug/L	99
63) 1,2-dichloroethane	10.097	62	356269	100.03 ug/L	99
64) trichloroethene	10.873	95	301428	94.48 ug/L	99
66) 2-nitropropane	11.670	43	72238	101.80 ug/L	99
67) 2-chloroethyl vinyl ether	11.738	63	1061252	490.40 ug/L	99
68) methyl methacrylate	11.198	41	240995	105.98 ug/L	98
69) 1,2-dichloropropane	11.140	63	325293	96.59 ug/L	99
70) methylcyclohexane	11.140	83	451519	101.09 ug/L	99
72) dibromomethane	11.282	93	212588	102.75 ug/L	100
73) bromodichloromethane	11.439	83	411433	100.81 ug/L	99
74) cis-1,3-dichloropropene	11.948	75	513635	98.47 ug/L	99
76) 4-methyl-2-pentanone	12.084	58	125398	104.46 ug/L	99
77) toluene	12.357	92	700907	94.08 ug/L	100
78) 3-methyl-1-butanol	12.100	70	161948	2106.10 ug/L	99
79) trans-1,3-dichloropropene	12.551	75	461962	100.81 ug/L	100
80) ethyl methacrylate	12.603	69	399650	106.81 ug/L	98
81) 1,1,2-trichloroethane	12.771	83	256310	100.75 ug/L	100
82) 2-hexanone	13.002	58	121158	107.99 ug/L	99
84) tetrachloroethene	12.986	166	308131	96.41 ug/L	100
85) 1,3-dichloropropane	12.970	76	461005	98.61 ug/L	100
86) butyl acetate	13.106	56	204823	97.18 ug/L	100
87) dibromochloromethane	13.243	129	351477	104.96 ug/L	100
88) 1,2-dibromoethane	13.400	107	309596	100.00 ug/L	100
89) n-Butyl Ether	13.919	57	1296044	94.61 ug/L	100
90) chlorobenzene	13.924	112	805723	94.53 ug/L	100
91) 1,1,1,2-tetrachloroethane	13.992	131	299108	101.95 ug/L	99
92) ethylbenzene	14.013	91	1335468	91.36 ug/L	99
93) m,p-xylene	14.134	106	1020952	186.62 ug/L	97
94) o-xylene	14.574	106	515696	96.25 ug/L	99
95) styrene	14.580	104	881394	100.61 ug/L	99

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.816	173	254050	108.63	ug/L	99
99)	isopropylbenzene	14.947	105	1283691	92.80	ug/L	100
101)	bromobenzene	15.324	156	353647	99.56	ug/L	100
102)	cyclohexanone	15.073	55	167067	944.49	ug/L	98
103)	1,1,2,2-tetrachloroethane	15.225	83	446770	97.97	ug/L	100
104)	trans-1,4-dichloro-2-b...	15.277	53	95455	104.63	ug/L	99
105)	1,2,3-trichloropropane	15.303	110	94379	102.62	ug/L	97
106)	n-propylbenzene	15.377	91	1523284	92.15	ug/L	99
107)	2-chlorotoluene	15.502	126	329829	96.37	ug/L	95
108)	4-chlorotoluene	15.607	91	969301	93.18	ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	1089720	95.67	ug/L	100
110)	tert-butylbenzene	15.890	119	911089	94.78	ug/L	100
111)	pentachloroethane	15.938	167	227976	101.84	ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	1091880	96.58	ug/L	100
113)	sec-butylbenzene	16.111	105	1443814	93.37	ug/L	100
114)	1,3-dichlorobenzene	16.263	146	665347	96.54	ug/L	99
115)	p-isopropyltoluene	16.231	119	1161077	94.48	ug/L	100
116)	1,4-dichlorobenzene	16.347	146	664487	95.44	ug/L	100
117)	1,2-dichlorobenzene	16.724	146	652356	98.87	ug/L	99
118)	n-butylbenzene	16.635	92	650450	96.92	ug/L	99
119)	1,2-dibromo-3-chloropr...	17.453	75	73362	103.80	ug/L	97
120)	1,3,5-trichlorobenzene	17.652	180	531733	101.46	ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	497253	106.47	ug/L	99
122)	hexachlorobutadiene	18.355	225	237221	99.21	ug/L	100
123)	naphthalene	18.480	128	1186396	107.00	ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	464944	108.48	ug/L	99
125)	hexachloroethane	16.997	119	261872	101.38	ug/L	98
126)	Benzyl chloride	16.457	91	677993	88.90	ug/L	100

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

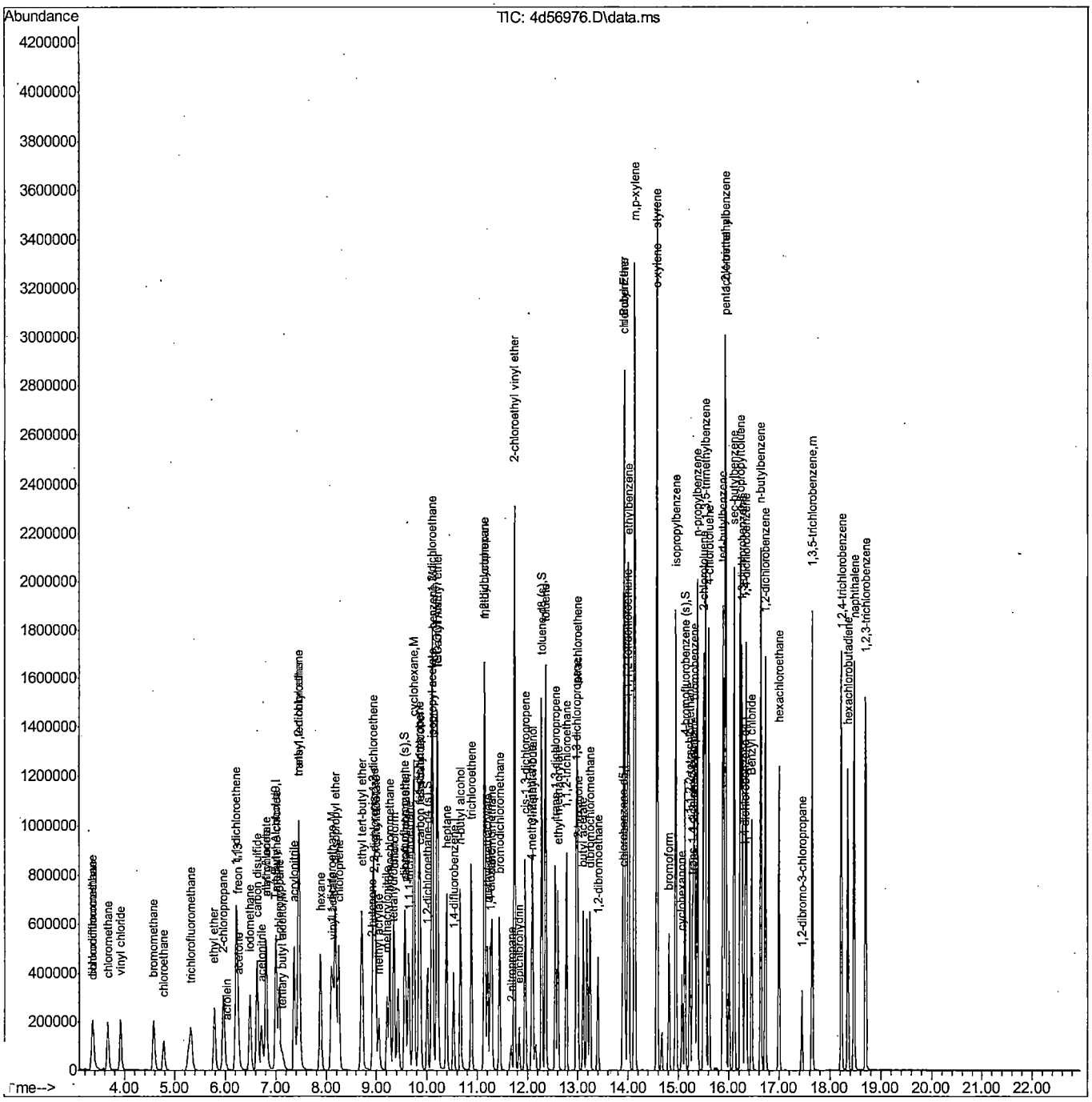
7.6.22

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56976.D
Acq On : 18 Feb 2015 8:25 pm
Operator : PayalR
Sample : ic2528-100
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 08:08:19 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



7.6.22

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ACCUTEST LABORATORIES
JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.009	65	127871	500.00	ug/L	0.01
4) pentafluorobenzene	9.573	168	293920	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.522	114	363006	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	335126	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	171721	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.552	113	611649	192.21	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 384.42%#			
46) 1,2-dichloroethane-d4 (s)	10.002	65	576797	187.83	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 375.66%#			
75) toluene-d8 (s)	12.278	98	2018772	191.48	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 382.96%#			
100) 4-bromofluorobenzene (s)	15.130	95	804844	191.32	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 382.64%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	164603	4910.81	ug/L #	82
3) tertiary butyl alcohol	7.140	59	325300	937.61	ug/L	97
5) chlorodifluoromethane	3.360	51	469848	213.69	ug/L	98
6) dichlorodifluoromethane	3.349	85	580199	180.09	ug/L	98
7) chloromethane	3.674	50	674773	176.74	ug/L	99
8) vinyl chloride	3.931	62	676979	178.19	ug/L	98
11) chloroethane	4.775	64	335981	186.26	ug/L	99
12) trichlorofluoromethane	5.320	101	770890	186.82	ug/L	98
14) ethyl ether	5.792	74	317078	216.41	ug/L	96
16) 2-chloropropane	5.971	43	847003	184.73	ug/L #	93
17) acrolein	6.023	56	14132	21.91	ug/L	98
18) 1,1-dichloroethene	6.222	96	546935	200.53	ug/L	96
19) acetone	6.269	43	148487	200.31	ug/L	100
20) allyl chloride	6.815	76	283751	197.14	ug/L	93
21) acetonitrile	6.720	40	325373	1974.42	ug/L	99
22) iodomethane	6.495	142	1072147	201.68	ug/L	99
23) iso-butyl alcohol	9.856	41	187580	1822.86	ug/L	96
24) carbon disulfide	6.631	76	1991564	194.02	ug/L	100
25) methylene chloride	7.009	84	653829	188.42	ug/L	96
26) 1-chloropropane	7.072	42	866787	170.16	ug/L	99
27) methyl acetate	6.815	74	116911	243.49	ug/L	92
28) methyl tert butyl ether	7.460	73	1597740	196.57	ug/L	100
29) trans-1,2-dichloroethene	7.460	96	602846	187.51	ug/L	100
30) di-isopropyl ether	8.183	45	1787083	184.50	ug/L	96
31) ethyl tert-butyl ether	8.707	59	1780560	186.72	ug/L	99
32) 2-butanone	8.912	72	70504	211.33	ug/L	96
33) 1,1-dichloroethane	8.104	63	1090302	180.34	ug/L	98
34) chloroprene	8.246	53	754950	186.24	ug/L	98
35) acrylonitrile	7.365	53	1099679	1009.49	ug/L	99
36) vinyl acetate	8.136	86	82601	217.83	ug/L	90
37) ethyl acetate	8.975	45	77982	198.00	ug/L	96
38) 2,2-dichloropropane	8.954	77	690943	164.14	ug/L	98

7.6.23

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
39) cis-1,2-dichloroethene	8.933	96	667084	184.67 ug/L	95
40) propionitrile	8.985	54	885777	2001.41 ug/L	99
41) methyl acrylate	9.043	55	542126	197.56 ug/L #	98
42) bromochloromethane	9.258	128	345923	203.92 ug/L	95
43) tetrahydrofuran	9.326	42	165779	181.89 ug/L	98
44) chloroform	9.342	83	1032519	175.25 ug/L	98
47) freon 113	6.238	151	376073	210.27 ug/L	100
48) methacrylonitrile	9.206	41	344923	201.97 ug/L	95
49) 1,1,1-trichloroethane	9.635	97	800341	181.09 ug/L	100
50) tert-amyl methyl ether	10.207	73	1638819	179.00 ug/L	99
52) epichlorohydrin	11.832	57	297582	971.82 ug/L	99
53) n-butyl alcohol	10.663	56	887928	9924.44 ug/L	99
54) cyclohexane	9.735	84	778686	192.66 ug/L	95
56) carbon tetrachloride	9.861	117	726987	187.13 ug/L	99
57) 1,1-dichloropropene	9.835	75	790192	183.49 ug/L	100
58) hexane	7.884	57	694843	216.19 ug/L	99
59) benzene	10.107	78	2307617	176.73 ug/L	100
60) ISO-OCTANE	10.196	57	1903953	181.61 ug/L	98
61) heptane	10.385	57	383459	194.28 ug/L	98
62) isopropyl acetate	10.092	43	995774	183.53 ug/L	98
63) 1,2-dichloroethane	10.097	62	710040	191.77 ug/L	100
64) trichloroethene	10.873	95	614042	185.13 ug/L	100
66) 2-nitropropane	11.675	43	147956	200.56 ug/L	99
67) 2-chloroethyl vinyl ether	11.738	63	2056265	913.99 ug/L	98
68) methyl methacrylate	11.198	41	478498	202.41 ug/L	97
69) 1,2-dichloropropane	11.140	63	648893	185.35 ug/L	98
70) methylcyclohexane	11.140	83	906160	195.16 ug/L	97
72) dibromomethane	11.282	93	430888	200.32 ug/L	99
73) bromodichloromethane	11.439	83	834116	196.59 ug/L	100
74) cis-1,3-dichloropropene	11.948	75	1035401	190.93 ug/L	99
76) 4-methyl-2-pentanone	12.084	58	252335	202.19 ug/L	98
77) toluene	12.357	92	1393659	179.93 ug/L	99
78) 3-methyl-1-butanol	12.100	70	332172	4155.28 ug/L	97
79) trans-1,3-dichloropropene	12.551	75	937544	196.79 ug/L	99
80) ethyl methacrylate	12.603	69	795676	204.55 ug/L	98
81) 1,1,2-trichloroethane	12.771	83	517012	195.49 ug/L	99
82) 2-hexanone	13.002	58	240636	206.30 ug/L	96
84) tetrachloroethene	12.986	166	631602	189.06 ug/L	99
85) 1,3-dichloropropane	12.970	76	920988	188.47 ug/L	99
86) butyl acetate	13.106	56	416179	188.90 ug/L	98
87) dibromochloromethane	13.243	129	720105	205.73 ug/L	99
88) 1,2-dibromoethane	13.400	107	626730	193.67 ug/L	99
89) n-Butyl Ether	13.919	57	2477588	173.03 ug/L	98
90) chlorobenzene	13.924	112	1616105	181.40 ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	608970	198.59 ug/L	99
92) ethylbenzene	14.013	91	2660994	174.15 ug/L	98
93) m,p-xylene	14.134	106	1991712	348.30 ug/L	98
94) o-xylene	14.574	106	1028287	183.60 ug/L	99
95) styrene	14.580	104	1759481	192.14 ug/L	99
97) bromoform	14.816	173	522935	213.91 ug/L	100

7.6.23 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
99)	isopropylbenzene	14.952	105	2590426	178.86 ug/L	99
101)	bromobenzene	15.324	156	720957	193.84 ug/L	99
102)	cyclohexanone	15.073	55	289764	1564.56 ug/L	98
103)	1,1,2,2-tetrachloroethane	15.225	83	889924	186.39 ug/L	100
104)	trans-1,4-dichloro-2-b...	15.277	53	191211	200.18 ug/L	98
105)	1,2,3-trichloropropane	15.303	110	187578	194.79 ug/L	99
106)	n-propylbenzene	15.377	91	2979887	172.17 ug/L	99
107)	2-chlorotoluene	15.508	126	660167	184.22 ug/L	90
108)	4-chlorotoluene	15.607	91	1949080	178.94 ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	2174138	182.30 ug/L	100
110)	tert-butylbenzene	15.890	119	1842180	183.02 ug/L	99
111)	pentachloroethane	15.943	167	470832	200.88 ug/L	98
112)	1,2,4-trimethylbenzene	15.932	105	2192553	185.23 ug/L	99
113)	sec-butylbenzene	16.111	105	2904528	179.39 ug/L	99
114)	1,3-dichlorobenzene	16.263	146	1349089	186.96 ug/L	99
115)	p-isopropyltoluene	16.231	119	2348321	182.51 ug/L	98
116)	1,4-dichlorobenzene	16.347	146	1357941	186.28 ug/L	100
117)	1,2-dichlorobenzene	16.724	146	1335125	193.25 ug/L	100
118)	n-butylbenzene	16.640	92	1306807	185.98 ug/L	97
119)	1,2-dibromo-3-chloropr...	17.453	75	148540	200.73 ug/L	99
120)	1,3,5-trichlorobenzene	17.652	180	1083847	197.51 ug/L	100
121)	1,2,4-trichlorobenzene	18.229	180	1025739	209.76 ug/L	100
122)	hexachlorobutadiene	18.355	225	486475	194.31 ug/L	100
123)	naphthalene	18.480	128	2347420	202.21 ug/L	99
124)	1,2,3-trichlorobenzene	18.706	180	942331	209.99 ug/L	99
125)	hexachloroethane	16.997	119	547245	202.33 ug/L	99
126)	Benzyl chloride	16.457	91	1346450	168.61 ug/L	99

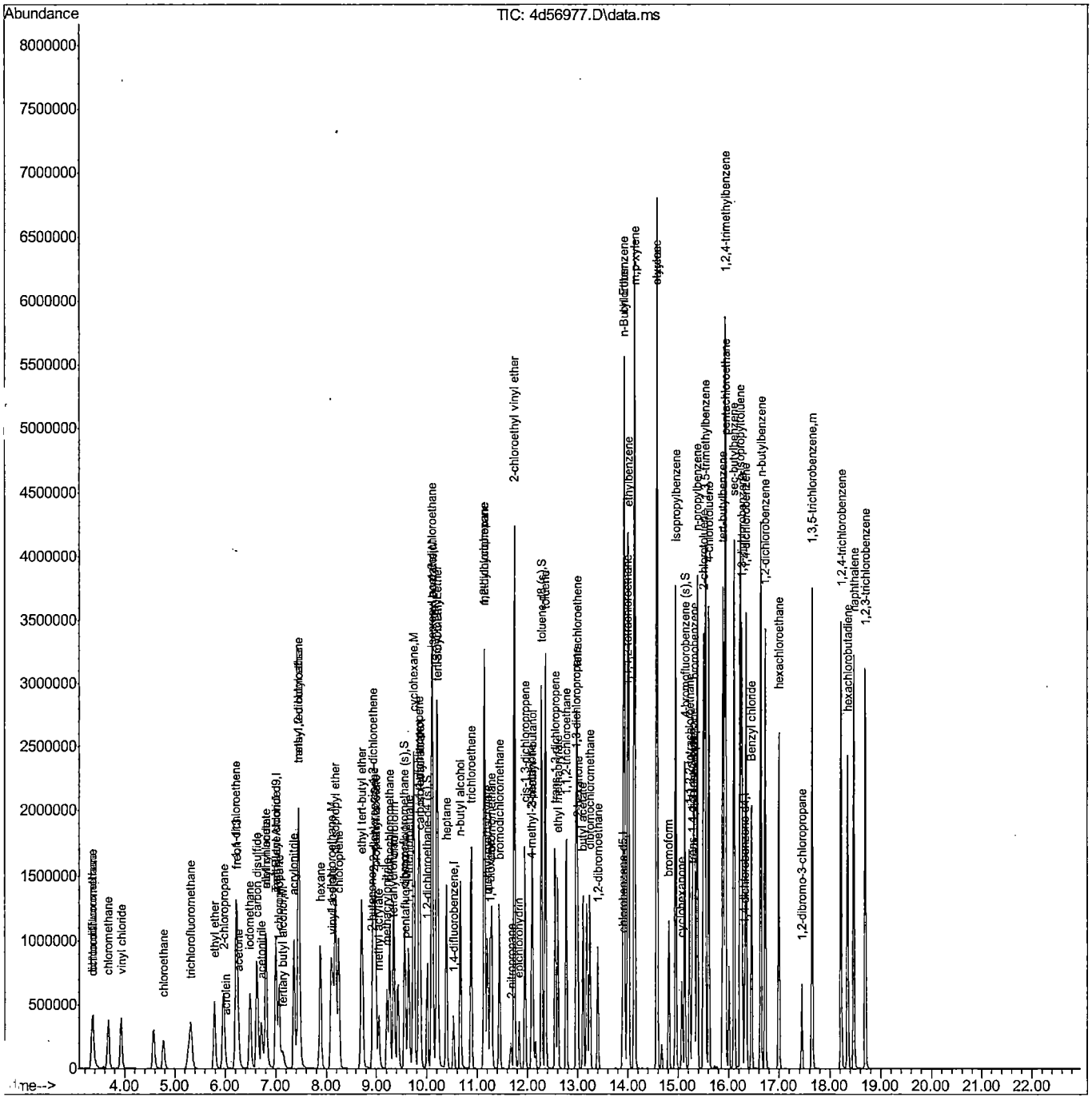
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.23 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56977.D
Acq On : 18 Feb 2015 8:52 pm
Operator : PayalR
Sample : ic2528-200
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 19 08:55:37 2015
Quant Method : C:\MSDCHEM\1\METHODS\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Wed Feb 18 08:19:40 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.998	65	118549	500.00	ug/L	0.00
4) pentafluorobenzene	9.567	168	301075	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.521	114	369273	50.00	ug/L	0.00
83) chlorobenzene-d5	13.893	117	336329	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	171659	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	9.551	113	155254	46.13	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 92.26%			
46) 1,2-dichloroethane-d4 (s)	9.997	65	148085	45.73	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 91.46%			
75) toluene-d8 (s)	12.278	98	526764	46.92	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 93.84%			
100) 4-bromofluorobenzene (s)	15.130	95	203212	48.26	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 96.52%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.266	88	39653	1282.83	ug/L #	90
3) tertiary butyl alcohol	7.124	59	83391	257.69	ug/L	97
5) chlorodifluoromethane	3.349	51	110868	46.28	ug/L	99
6) dichlorodifluoromethane	3.338	85	143739	47.51	ug/L	98
7) chloromethane	3.648	50	171745	44.69	ug/L	99
8) vinyl chloride	3.905	62	173911	46.40	ug/L	99
10) bromomethane	4.576	94	122865	42.55	ug/L	98
11) chloroethane	4.775	64	83655	44.99	ug/L	100
12) trichlorofluoromethane	5.310	101	195812	48.15	ug/L	99
14) ethyl ether	5.782	74	80094	51.31	ug/L	98
16) 2-chloropropane	5.965	43	216797	45.33	ug/L	99
17) acrolein	6.002	56	323710	439.24	ug/L	98
18) 1,1-dichloroethene	6.217	96	137864	47.90	ug/L	100
19) acetone	6.264	43	41722	52.21	ug/L	99
20) allyl chloride	6.809	76	72234	49.52	ug/L	98
21) acetonitrile	6.715	40	83182	504.22	ug/L	94
22) iodomethane	6.490	142	275523	49.18	ug/L	100
23) iso-butyl alcohol	9.850	41	47639	469.11	ug/L	99
24) carbon disulfide	6.626	76	513053	46.71	ug/L	99
25) methylene chloride	7.003	84	166251	46.59	ug/L	97
26) 1-chloropropane	7.066	42	220266	45.39	ug/L	99
27) methyl acetate	6.815	74	25882	45.40	ug/L	96
28) methyl tert butyl ether	7.454	73	819862	96.71	ug/L	95
29) trans-1,2-dichloroethene	7.454	96	154353	47.88	ug/L	98
30) di-isopropyl ether	8.178	45	468515	48.48	ug/L	98
31) ethyl tert-butyl ether	8.702	59	449586	48.25	ug/L	98
32) 2-butanone	8.907	72	17641	50.48	ug/L	99
33) 1,1-dichloroethane	8.099	63	279988	47.70	ug/L	100
34) chloroprene	8.241	53	195953	49.36	ug/L	98
35) acrylonitrile	7.360	53	287820	255.54	ug/L	98
36) vinyl acetate	8.131	86	26187	65.32	ug/L	88
37) ethyl acetate	8.975	45	20774	50.27	ug/L	95

7.6.24

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.948	77	174371	43.89	ug/L	99
39) cis-1,2-dichloroethene	8.928	96	171219	47.58	ug/L	98
40) propionitrile	8.980	54	232288	498.96	ug/L	100
41) methyl acrylate	9.043	55	139958	49.77	ug/L	98
42) bromochloromethane	9.253	128	87580	50.60	ug/L	99
43) tetrahydrofuran	9.326	42	42903	45.78	ug/L	98
44) chloroform	9.336	83	267063	46.57	ug/L	100
47) freon 113	6.233	151	99628	52.71	ug/L	96
48) methacrylonitrile	9.200	41	88126	49.77	ug/L	98
49) 1,1,1-trichloroethane	9.630	97	207251	48.18	ug/L	98
50) tert-amyl methyl ether	10.202	73	429001	48.45	ug/L	99
52) epichlorohydrin	11.827	57	76378	245.64	ug/L	99
53) n-butyl alcohol	10.658	56	233260	2614.36	ug/L	98
54) cyclohexane	9.730	84	201581	48.46	ug/L	97
56) carbon tetrachloride	9.856	117	186531	48.68	ug/L	99
57) 1,1-dichloropropene	9.835	75	205283	48.26	ug/L	98
58) hexane	7.884	57	156132	42.60	ug/L	99
59) benzene	10.102	78	600475	47.59	ug/L	100
60) ISO-OCTANE	10.191	57	434654	41.63	ug/L	98
61) heptane	10.385	57	91367	45.29	ug/L	99
62) isopropyl acetate	10.086	43	257492	48.27	ug/L	99
63) 1,2-dichloroethane	10.097	62	184012	48.83	ug/L	100
64) trichloroethene	10.873	95	157863	48.58	ug/L	97
66) 2-nitropropane	11.670	43	36792	48.29	ug/L	98
67) 2-chloroethyl vinyl ether	11.738	63	579398	258.35	ug/L	99
68) methyl methacrylate	11.198	41	123033	48.18	ug/L	98
69) 1,2-dichloropropane	11.140	63	170033	49.64	ug/L	100
70) methylcyclohexane	11.140	83	222674	48.25	ug/L	91
72) dibromomethane	11.282	93	110809	49.95	ug/L	100
73) bromodichloromethane	11.439	83	212261	50.29	ug/L	99
74) cis-1,3-dichloropropene	11.948	75	264065	48.88	ug/L	100
76) 4-methyl-2-pentanone	12.084	58	64700	50.48	ug/L	97
77) toluene	12.356	92	367677	49.31	ug/L	98
78) 3-methyl-1-butanol	12.100	70	83826	1033.47	ug/L	98
79) trans-1,3-dichloropropene	12.550	75	241637	49.29	ug/L	99
80) ethyl methacrylate	12.603	69	207005	52.01	ug/L	99
81) 1,1,2-trichloroethane	12.771	83	133283	50.59	ug/L	100
82) 2-hexanone	13.001	58	61805	49.55	ug/L	98
84) tetrachloroethene	12.986	166	161671	50.43	ug/L	100
85) 1,3-dichloropropane	12.970	76	239987	49.71	ug/L	99
86) butyl acetate	13.106	56	108847	52.34	ug/L	97
87) dibromochloromethane	13.243	129	181272	52.30	ug/L	100
88) 1,2-dibromoethane	13.400	107	162142	51.01	ug/L	100
89) n-Butyl Ether	13.919	57	683197	50.44	ug/L	100
90) chlorobenzene	13.924	112	421784	49.25	ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	152937	50.33	ug/L	100
92) ethylbenzene	14.013	91	702774	49.18	ug/L	99
93) m,p-xylene	14.129	106	533798	99.35	ug/L	98
94) o-xylene	14.574	106	266534	50.03	ug/L	98
95) styrene	14.580	104	455252	51.38	ug/L	100

7.6.24

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromoform	14.815	173	129727	52.98	ug/L	99
99)	isopropylbenzene	14.947	105	665999	49.19	ug/L	100
101)	bromobenzene	15.329	156	182724	49.76	ug/L	93
102)	cyclohexanone	15.072	55	73094	401.20	ug/L	99
103)	1,1,2,2-tetrachloroethane	15.224	83	230606	48.59	ug/L	99
104)	trans-1,4-dichloro-2-b...	15.277	53	47553	49.05	ug/L	97
105)	1,2,3-trichloropropane	15.298	110	48811	50.21	ug/L	98
106)	n-propylbenzene	15.376	91	790322	48.94	ug/L	99
107)	2-chlorotoluene	15.502	126	168261	48.97	ug/L	100
108)	4-chlorotoluene	15.607	91	499796	48.11	ug/L	99
109)	1,3,5-trimethylbenzene	15.539	105	560021	49.62	ug/L	99
110)	tert-butylbenzene	15.890	119	465508	49.56	ug/L	100
111)	pentachloroethane	15.937	167	114634	51.18	ug/L	99
112)	1,2,4-trimethylbenzene	15.932	105	558649	49.66	ug/L	100
113)	sec-butylbenzene	16.110	105	746704	49.43	ug/L	100
114)	1,3-dichlorobenzene	16.263	146	339881	48.04	ug/L	98
115)	p-isopropyltoluene	16.231	119	597136	50.00	ug/L	100
116)	1,4-dichlorobenzene	16.346	146	343062	47.67	ug/L	99
117)	1,2-dichlorobenzene	16.724	146	331076	48.64	ug/L	99
118)	n-butylbenzene	16.640	92	329407	49.73	ug/L	98
119)	1,2-dibromo-3-chloropr...	17.453	75	37012	49.76	ug/L	98
120)	1,3,5-trichlorobenzene	17.652	180	268365	50.06	ug/L	100
121)	1,2,4-trichlorobenzene	18.223	180	250013	50.41	ug/L	100
122)	hexachlorobutadiene	18.355	225	119667	49.82	ug/L	96
123)	naphthalene	18.480	128	594090	50.74	ug/L	100
124)	1,2,3-trichlorobenzene	18.706	180	234188	51.51	ug/L	99
125)	hexachloroethane	16.997	119	131224	51.92	ug/L	99
126)	Benzyl chloride	16.457	91	362159	50.76	ug/L	100

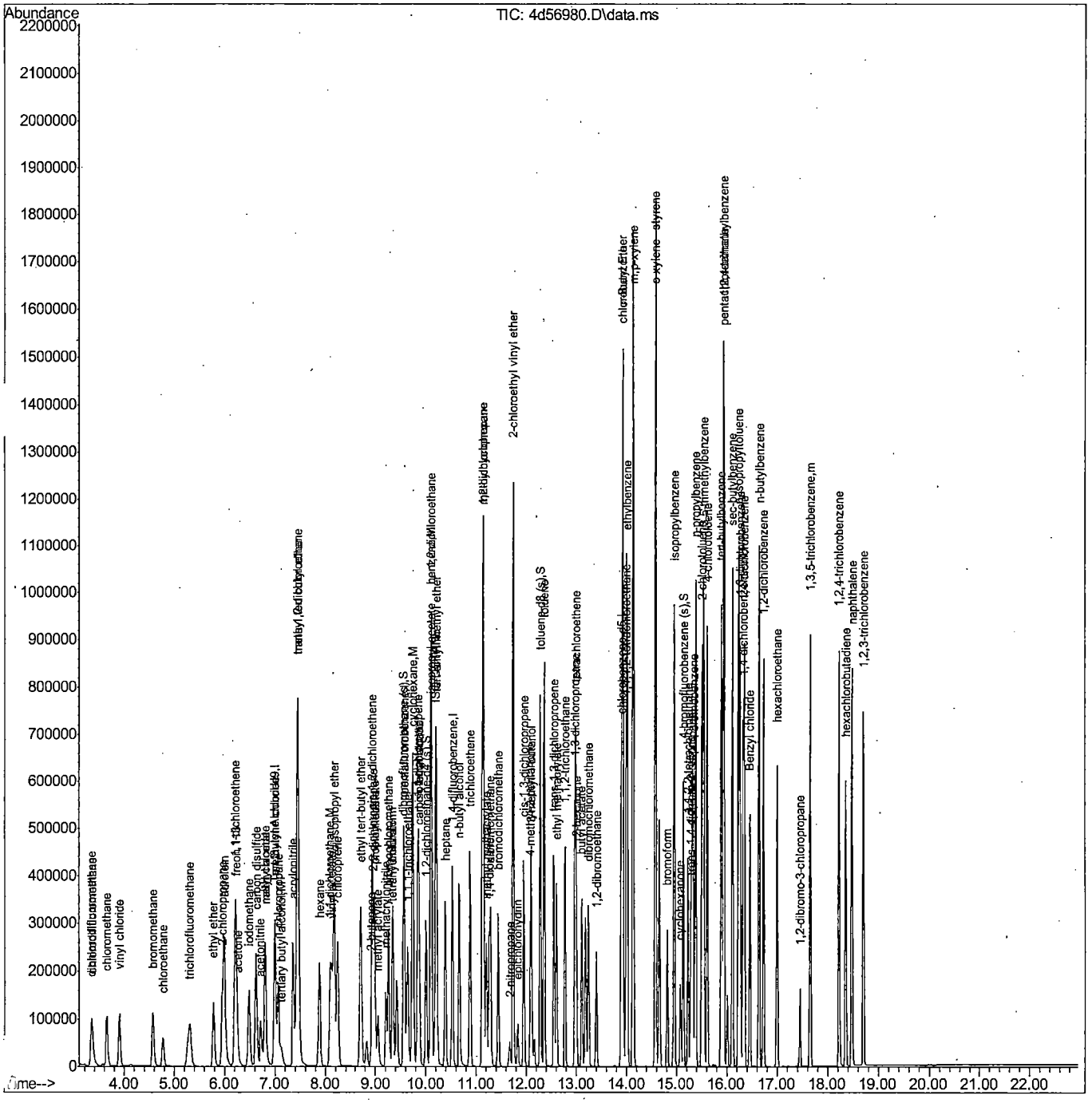
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.24 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d56980.D
Acq On : 18 Feb 2015 10:15 pm
Operator : PayalR
Sample : icv2528-50
Misc : MS80920,V4D2528,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 19 08:40:29 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration



7.6.24

7

ACCUTEST LABORATORIES
JB88565

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On : 26 Feb 2015 9:29 am
Operator : PayalR
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	6.998	65	96405	500.00 ug/L	0.00
4) pentafluorobenzene	9.572	168	264836	50.00 ug/L	0.00
51) 1,4-difluorobenzene	10.527	114	314214	50.00 ug/L	0.00
83) chlorobenzene-d5	13.893	117	283643	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.320	152	148120	50.00 ug/L	0.00
System Monitoring Compounds					
45) dibromofluoromethane (s)	9.551	113	121966	41.20 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 82.40%		
46) 1,2-dichloroethane-d4 (s)	10.002	65	126457	44.40 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 88.80%		
75) toluene-d8 (s)	12.278	98	413812	43.32 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 86.64%		
100) 4-bromofluorobenzene (s)	15.130	95	157169	43.26 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 86.52%		
Target Compounds					Qvalue
2) 1,4-dioxane	11.271	88	13629	542.20 ug/L #	80
3) tertiary butyl alcohol	7.129	59	30152	114.57 ug/L	90
5) chlorodifluoromethane	3.349	51	43609	20.69 ug/L	97
6) dichlorodifluoromethane	3.354	85	65817	24.73 ug/L	97
7) chloromethane	3.653	50	69691	20.61 ug/L	98
8) vinyl chloride	3.910	62	66123	20.06 ug/L	99
10) bromomethane	4.581	94	48297	19.02 ug/L	100
11) chloroethane	4.786	64	30348	18.56 ug/L	98
12) trichlorofluoromethane	5.310	101	81754	22.86 ug/L	99
14) ethyl ether	5.787	74	26223	19.10 ug/L	98
16) 2-chloropropane	5.965	43	82279	19.56 ug/L	96
17) acrolein	6.007	56	83311	128.51 ug/L	99
18) 1,1-dichloroethene	6.217	96	46789	18.48 ug/L	97
19) acetone	6.275	43	17773	25.29 ug/L	87
20) allyl chloride	6.809	76	24211	18.87 ug/L	85
21) acetonitrile	6.726	40	30120	207.56 ug/L	99
22) iodomethane	6.490	142	96686	19.62 ug/L	96
23) iso-butyl alcohol	9.856	41	19253	215.53 ug/L	92
24) carbon disulfide	6.631	76	170830	17.68 ug/L	98
25) methylene chloride	7.009	84	56376	17.96 ug/L	96
26) 1-chloropropane	7.072	42	85375	20.00 ug/L	95
27) methyl acetate	6.820	74	8572	17.09 ug/L #	80
28) methyl tert butyl ether	7.454	73	154844	20.77 ug/L	97
29) trans-1,2-dichloroethene	7.460	96	52718	18.59 ug/L	96
30) di-isopropyl ether	8.178	45	171083	20.13 ug/L	95
31) ethyl tert-butyl ether	8.702	59	168830	20.60 ug/L	99
32) 2-butanone	8.917	72	6655	21.65 ug/L	93
33) 1,1-dichloroethane	8.099	63	99549	19.28 ug/L	99
34) chloroprene	8.246	53	69502	19.90 ug/L	95
35) acrylonitrile	7.370	53	93571	94.45 ug/L	98
36) vinyl acetate	8.136	86	6509	18.46 ug/L	96
37) ethyl acetate	8.980	45	7015	19.30 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On : 26 Feb 2015 9:29 am
Operator : PayalR
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) 2,2-dichloropropane	8.954	77	82052	23.48	ug/L	99
39) cis-1,2-dichloroethene	8.928	96	59296	18.73	ug/L	99
40) propionitrile	8.980	54	79112	193.19	ug/L	99
41) methyl acrylate	9.048	55	47882	19.36	ug/L #	99
42) bromochloromethane	9.258	128	31096	20.42	ug/L	97
43) tetrahydrofuran	9.331	42	15543	18.85	ug/L	94
44) chloroform	9.342	83	100558	19.93	ug/L	98
47) freon 113	6.238	151	34928	21.01	ug/L	90
48) methacrylonitrile	9.205	41	32574	20.91	ug/L	93
49) 1,1,1-trichloroethane	9.635	97	82136	21.71	ug/L	98
50) tert-amyl methyl ether	10.202	73	159531	20.48	ug/L	98
52) epichlorohydrin	11.832	57	25819	97.59	ug/L	99
53) n-butyl alcohol	10.663	56	76652	1009.65	ug/L	94
54) cyclohexane	9.735	84	67714	19.13	ug/L	94
56) carbon tetrachloride	9.861	117	73750	22.62	ug/L	99
57) 1,1-dichloropropene	9.835	75	71261	19.69	ug/L	99
58) hexane	7.884	57	57450	18.42	ug/L	96
59) benzene	10.107	78	211476	19.70	ug/L	99
60) ISO-OCTANE	10.196	57	178307	20.07	ug/L	95
61) heptane	10.385	57	33148	19.31	ug/L	98
62) isopropyl acetate	10.092	43	98943	21.80	ug/L	96
63) 1,2-dichloroethane	10.097	62	74502	23.23	ug/L	99
64) trichloroethene	10.878	95	55994	20.25	ug/L	98
66) 2-nitropropane	11.675	43	13248	20.43	ug/L	96
67) 2-chloroethyl vinyl ether	11.738	63	188868	98.97	ug/L	100
68) methyl methacrylate	11.203	41	46652	21.47	ug/L	94
69) 1,2-dichloropropane	11.140	63	59592	20.45	ug/L	94
70) methylcyclohexane	11.140	83	77980	19.86	ug/L	98
72) dibromomethane	11.287	93	39643	21.00	ug/L	96
73) bromodichloromethane	11.439	83	80089	22.30	ug/L	100
74) cis-1,3-dichloropropene	11.948	75	98197	21.36	ug/L	93
76) 4-methyl-2-pentanone	12.084	58	22620	20.74	ug/L	92
77) toluene	12.357	92	132708	20.92	ug/L	99
78) 3-methyl-1-butanol	12.100	70	28406	411.58	ug/L	94
79) trans-1,3-dichloropropene	12.551	75	89428	21.44	ug/L	95
80) ethyl methacrylate	12.603	69	71742	21.18	ug/L	94
81) 1,1,2-trichloroethane	12.771	83	47101	21.01	ug/L	98
82) 2-hexanone	13.001	58	22310	21.02	ug/L	88
84) tetrachloroethene	12.991	166	58772	21.74	ug/L	97
85) 1,3-dichloropropane	12.970	76	85054	20.89	ug/L	99
86) butyl acetate	13.112	56	36877	21.03	ug/L	97
87) dibromochloromethane	13.243	129	67096	22.96	ug/L	99
88) 1,2-dibromoethane	13.400	107	56070	20.91	ug/L	98
89) n-Butyl Ether	13.919	57	240481	21.05	ug/L	99
90) chlorobenzene	13.924	112	151472	20.97	ug/L	99
91) 1,1,1,2-tetrachloroethane	13.992	131	59430	23.19	ug/L	98
92) ethylbenzene	14.013	91	256945	21.32	ug/L	98
93) m,p-xylene	14.134	106	193789	42.77	ug/L	96
94) o-xylene	14.574	106	98480	21.92	ug/L	98
95) styrene	14.580	104	162606	21.76	ug/L	96

7.6.25

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On : 26 Feb 2015 9:29 am
Operator : PayalR
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
97)	bromoform	14.816	173	44948	21.77	ug/L		99
99)	isopropylbenzene	14.952	105	250399	21.43	ug/L		98
101)	bromobenzene	15.329	156	67348	21.25	ug/L		86
102)	cyclohexanone	15.072	55	82909	527.39	ug/L		95
103)	1,1,2,2-tetrachloroethane	15.224	83	80787	19.73	ug/L		99
104)	trans-1,4-dichloro-2-b...	15.277	53	16744	20.02	ug/L	#	81
105)	1,2,3-trichloropropane	15.303	110	18024	21.49	ug/L		92
106)	n-propylbenzene	15.377	91	288156	20.68	ug/L		99
107)	2-chlorotoluene	15.508	126	62179	20.97	ug/L		98
108)	4-chlorotoluene	15.607	91	183286	20.45	ug/L		99
109)	1,3,5-trimethylbenzene	15.539	105	211736	21.74	ug/L		99
110)	tert-butylbenzene	15.890	119	179048	22.09	ug/L		99
111)	pentachloroethane	15.943	167	45200	23.39	ug/L		98
112)	1,2,4-trimethylbenzene	15.932	105	213289	21.97	ug/L		99
113)	sec-butylbenzene	16.111	105	280077	21.48	ug/L		99
114)	1,3-dichlorobenzene	16.263	146	124553	20.40	ug/L		98
115)	p-isopropyltoluene	16.231	119	228702	22.19	ug/L		99
116)	1,4-dichlorobenzene	16.346	146	123946	19.96	ug/L		99
117)	1,2-dichlorobenzene	16.724	146	123651	21.05	ug/L		99
118)	n-butylbenzene	16.640	92	116123	20.32	ug/L		95
119)	1,2-dibromo-3-chloropr...	17.453	75	13134	20.46	ug/L		95
120)	1,3,5-trichlorobenzene	17.652	180	100765	21.79	ug/L		99
121)	1,2,4-trichlorobenzene	18.229	180	86753	20.27	ug/L		99
122)	hexachlorobutadiene	18.355	225	48694	23.49	ug/L		98
123)	naphthalene	18.480	128	201648	19.96	ug/L		99
124)	1,2,3-trichlorobenzene	18.706	180	82272	20.97	ug/L		99
125)	hexachloroethane	16.997	119	46271	21.22	ug/L		98
126)	Benzyl chloride	16.457	91	144773	23.52	ug/L		100

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

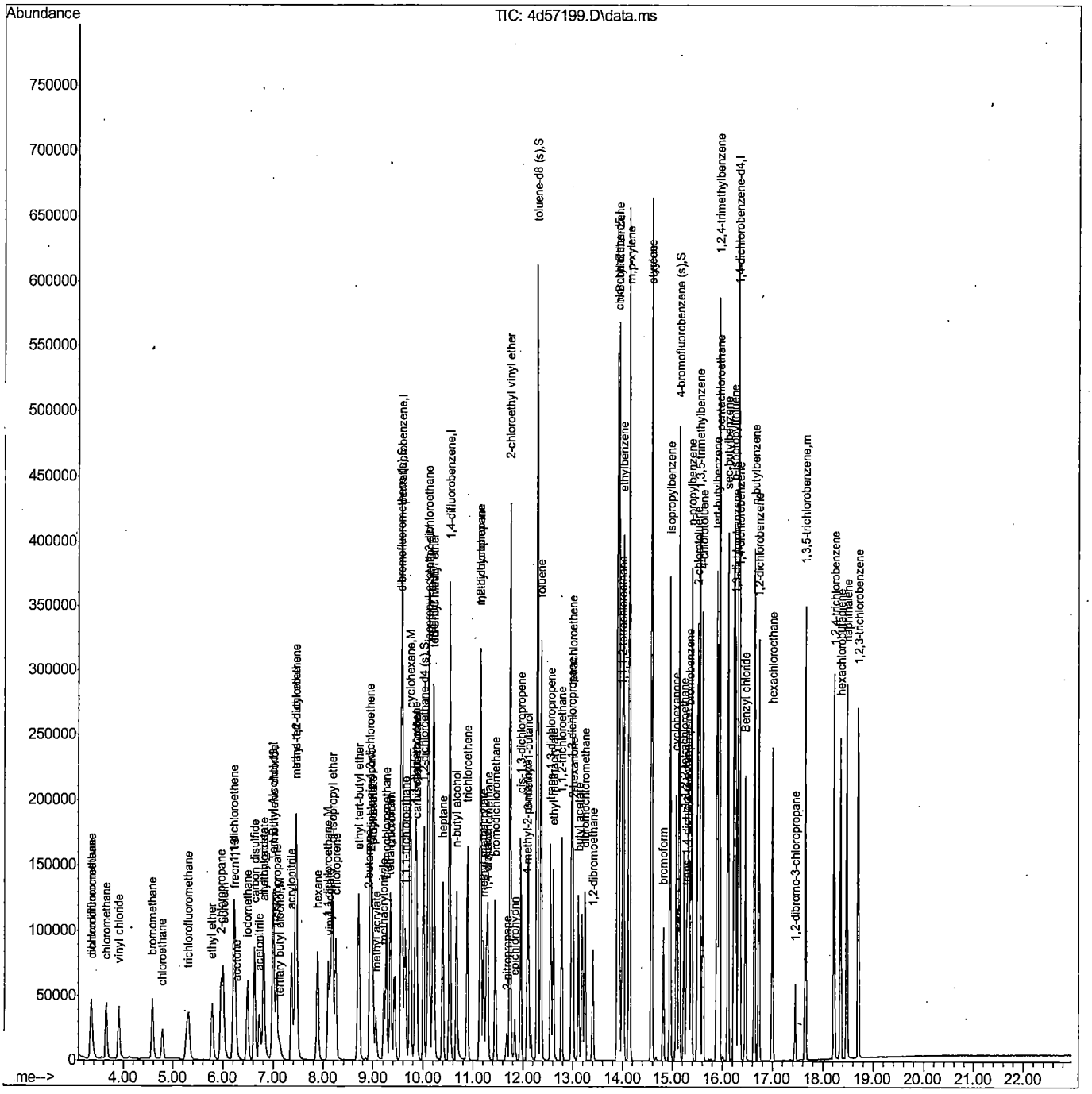
7.6.25

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4d57199.D
Acq On : 26 Feb 2015 9:29 am
Operator : PayalR
Sample : cc2528-20
Misc : MS81323,V4D2537,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 26 11:51:48 2015
Quant Method : C:\msdchem\1\methods\M4D2528.M
Quant Title : SW-846 Method 8260B/8260C
QLast Update : Thu Feb 19 08:39:58 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB88565

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6014

Print Analyst Name: Zabia Hamid

Date: 2/13/15 (Friday)

Analyst Signature: [signature]

Columns: 7B624 (60m x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data

Lot #	Description	Conc.
VOT-206	53 Ext A (1D)	100 ppm
	75 B (4)	
	69 C (6)	
	23 Acrolein (3)	1000
	48 Hexane (5)	100

Standard Data

Lot #	Description	Conc.
VOT-206	61 STD A	100 ppm
	29 B	
	76 C	
	60 Acrolein	1000
	59 Surrogate (6)	100

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:** 2/16/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A138955	BFB											ok	3:38pm	
	138956	IC6014-1	V8260B	AQ			5		1x				ok	(5ul) 50mLFV A,B,C, Acrolein surrogate	
	138957	IC6014-2											ok	(10ul) 50mLFV	
	138958	IC6014-5											ok	(5ul) 100mLFV	
	138959	IC6014-0.2											ok	~~5ul~~ 1ml/5000 mLFV ~~50mLFV~~	zh 2/16/15
	138960	IC6014-0.5											ok	2.5ul 50mLFV	
	138961	IC6014-10											ok	5ul 50mLFV	
	138962	IC6014-20											ok	(10ul) A,B,C, Acrolein 50mLFV + 25ul surrogate	
	138963	IC6014-50											ok	25ul 50mLFV A,B,C, Acrolein, surrogate	
	138964	IC6014-100											ok	50ul 50mLFV	
	138965	IC6014-200											ok	100ul 50mLFV	
	138966	IB													
	138967	IB													
	~~138968~~	zh 2/16 ~~IC6014-50~~											NOT USED ~~PURGED~~	~~(25ul) 50mLFV~~ ~~5ul A Hexane, B, C, surrogate~~	zh 2/16
	138968	IB													
	138969	IB													
	138970	BFB											ok		
	138971	ICV6014-50		AQ									ok	25ul 50mLFV EXA,B,C,Acrolein, surrogate, Hexane	

zh 2/16/15

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

7.7.1

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: ~~V3A6022~~ V3A6023

Print Analyst Name: Zobia Hamid

Date: 2/23/15

Analyst Signature: Hamid

Columns: ZB624 (60m x 0.25mm x 1.4µm).

Method V8260B

Initial Cal. Method M3A6014

Standard Data

Lot #	Description	Conc.
VAS-296	53 Ext A 16	100 ppm
	75 B 6	
	84 C 2	
	85 Acrolein 7	1000
	87 Hexane 1	100

Standard Data

Lot #	Description	Conc.
VAS-2016	62 STD A (50)	100 ppm
	83 B (10)	
	~~88 B 41~~ 24 2/23 STDC (7)	
	60 Acrolein (16)	1000
	74 IS	200/200

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044. pH 2/2/13

Supervisor Signature: [signature] **Date:** 2/24/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139168	BFB											OK	9:52am	
	139169	CCC014-20											OK	(10ul) 150mLFV MBC, Acrolein	
	139170	IB											OK		
	139171	MB1											OK		
	139172	BS											OK	(25ul) 150mLFV Ext A, B, C, Acrolein, Hexane	
R	139173	JB88462-11	81093 TCL20+	GW	1		25/50		20X				OK	+3A	✓
R	139174	JB88233-4	80138 TCL20+ +TB3	GW	2		5		1X				OK		✓
	139175	JB88233-9		TB	1				1X				OK		✓
	139176	JB88233-5		GW	2				1X				OK		✓
	139177	JB88233-8		GW	~~81~~ 24 2/23		2/50		25X				OK		✓
	139178	JB88565-1	81194 SL		1		5		1X				OK		✓
	139179	JB88565-2			1		5		1X				OK		✓
R	139180	JB88462-4	81093		2		2/50		25X				OK		✓
R	139181	~~JB88462-12~~ ~~JB88565-2MD~~	TCL20+		21		2/50		25X				Not Used		✓
R	139182	JB88462-12			1		2/50		25X ~~20X~~				OK	+3A139165	✓
	139183	JB88565-2MSD	81194 V8260SL		4		5ml		1X				OK		✓
	139184	JB88565-2MSD			2				1X				OK		✓
	139185	IB													
	139186	JB88565-~~5~~ 4 24 2/23	81194 V8260SL	GW	1		5ml		1X				OK	double checked collect bottle run JB88565-4	✓

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
r. Date: 2/14/2007

7.7.2

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6023

Print Analyst Name: Zobia Hamid

Analyst Signature: Zhamid

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Date: 2/23/15 (Monday)

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	See pg. 43	

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: Patel **Date:** 2/24/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139187	JB88565-5	M881194 V8260SC	W	1		5ml		1X				OW	Double checked correct bottle ran JB88565-5	✓
	3A139188	JB88565-6	ZH 2/24		1				1X				OW	Double checked correct bottle ran JB88565-6 9:02 PM	✓
	139189	JB88565-6			1								Not ran	cut off	
		~~JB88565-7~~ ZH 2/24/15			1										

ZH 2/23

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

45

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

7.7.2

7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6025 | V3A6024

Print Analyst Name: Zobia Hamid

Date: 2/24/2015 (Tuesday)

Analyst Signature: Zhamid

Columns: ZB624 (60M x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data

Lot #	Description	Conc.
V015 2016	53 Ex + A 14	100 ppm
	75 B 7	
	84 C 4	
	85 Acrolein 1	1000
	87 Hexanol 1	100

Standard Data

Lot #	Description	Conc.
V015 2016	62 STD A (48)	100 ppm
	83 B (15)	
	88 C (11)	
	60 Acrolein (9)	1000
	74 I/S	250/2000ppm

212 713 DHD ARF

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:** 2/25/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139215	BFB				1							ok	10:42am	
	139216	CC0014-20				2							not used		
	139217	CC0014-20				3					✓		ok		
	139218	IB				4					✓		ok		
	139219	MB2				5					✓		ok		
	139220	JB88562-2 MS	81224 V8260SL	GW	5	6	5		1x		✓		ok		✓
	139221	JB88562-2 MSD	↓	GW	6	7	5		1x		✓		ok		✓
	139222	IB				8					✓		ok		
	139223	MB1				9					✓		ok		
	139224	BS				10					✓		ok		
R	139225	JB88615-14	81214 V8260PMVGTMB	GW	2	11	5/50		10x	✓	✓		ok	+ 1A148286	✓
R	139226	JB88562-6	81224 V8260SL	GW	2	12	10/50		5x	✓	✓		ok	+3A139210	✓
	139227	JB88615-10	81214 V8260PMVGTMB	GW	1	13	2.5/50		20x	✓	✓		ok		✓
	139228	JB88615-11	↓	GW	1	14	1/50		50x	✓	✓		ok		✓
	139229	JB88615-10 MS	81224 312121 V8260SL	GW	1	15	2.5/50		20x	✓	✓		ok	(21.5ml)/43 mL EV Albu. Acrolein	✓
	139230	JB88615-10 MSD	↓	↓	1	16	↓		20x	✓	✓		ok	↓	✓
	139231	IB				17					✓		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
Date: 2/14/2007

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6025 | V3A6024

Print Analyst Name: Zobia Hamid

Date: 2/24/2015 (Tuesday)

Analyst Signature: Z Hamid

Columns: ZB624 (60M X 0.25mm X 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data

Lot #	Description	Conc.
Vol 2016	53 Ex + A 14	100 ppm
	75 B 7	
	84 C 4	
	85 Acrolein 1	1000
	87 Hexanol 1	100

Standard Data

Lot #	Description	Conc.
Vol 2016	62 STD A (48)	100 ppm
	83 B (15)	
	88 C (11)	
	60 Acrolein (9)	1000
	74 I/S	250/2000ppm

212, 713 DHP 9/2/

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:** 2/25/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml) or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139215	BFB				1							ok	10:42am	
	139216	CC60014-20				2							NOT USED		
	139217	CC60014-20				3						✓	ok		
	139218	IB				4						✓	ok		
	139219	MB2				5						✓	ok		
	139220	JB88562-2MS	81224 V8260SL	GW	5	6	5		1x			✓	ok		✓
	139221	JB88562-2 MSD	↓	GW	6	7	5		1x			✓	ok		✓
	139222	IB				8						✓	ok		
	139223	MB1				9						✓	ok		
	139224	BS				10						✓	ok		
R	139225	JB88615-14	81214 V8260PAVGTMB	GW	2	11	5/50		10x	✓	✓	✓	ok	+1A148286	✓
R	139226	JB88562-6	81224 V8260SL	GW	2	12	10/50		5x	✓	✓	✓	ok	+3A139210	✓
	139227	JB88615-10	81214 V8260PAVGTMB	GW	1	13	2.5/50		20x	✓	✓	✓	OK		✓
	139228	JB88615-11	↓	GW	1	14	1/50		50x	✓	✓	✓	ok		✓
	139229	JB88615-10MS	~~81224~~ 81214 V8260SL	GW	1	15	2.5/50		20x	✓	✓	✓	OK	(21.5ml)/43 mL EV Acrolein	✓
	139230	JB88615-10MSD	↓	↓	1	16	↓		20x	✓	✓	✓	OK	↓	✓
	139231	IB				17						✓	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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V3A6025

Print Analyst Name: Zabid Hamid

Date: 2/24/2015

Analyst Signature: Zhamid

Columns: ZB624 (60m x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method M3A6014

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	See pg. 51	

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:** 2/25/15

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3A139232	JB88562-7	81224 V8260SL	GW	1	18	5		1x		✓		OK		✓
	139233	JB88562-8			1	19					✓		OK		✓
	139234	JB88562-9			1	20					✓		OK		✓
	139235	JB88562-10		FB	1	21					✓		OK	9:47pm	✓
	139236	BFB2				22							OK	10:17pm	
	139237	CC0014-50				23					✓		OK ~~Fail~~ 2/25	(25ul) 50mL FW #3S1 Fail for A,B,C,D,Aroclor UTCAC	
	139238	IB				24					✓		OK		
	139239	MB2				25					✓		OK		
	139240	JB88615-5	81214 V8260 PAUGTMB	GW	1	26	0.25 / 50		200x		✓		OK / OL	500x @ 2/25/15 RR ~~100x~~ + comB	✓
	139241	JB88615-9			1	27	0.25 / 50		200x		✓		OK		✓
	139242	JB88615-4			1	28	5		1x		✓		OK		✓
	139243	JB88615-4			1	29	5 / 50		10x		✓		NOT NEEDED		✓
	139244	JB88565-3	81194 V8260SL	GW	1	30	5		1x		✓		RR	CCV fail for Ø UTCAC 2/24/15 RR1x BH 2/25/15	✓
	139245	JB88565-7			1	31					✓				✓
	139246	JB88565-8			2	32					✓				✓
	139247	JB88565-9			1	33					✓				✓
	139248	JB88562-11 2/24 mm	81224 SL	WEB	1	34					✓				✓

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
Date: 2/14/2007

ACCUTEST LABORATORIES JB88565

7.7.4 7

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4D2528

Print Analyst Name: Robert Scot

Date: 2/18/15

Analyst Signature:

Columns: DB624 (60m x 0.18mm x 1.4um)

Method V8260B/C

Initial Cal. Method M4D2518

Standard Data

Lot #	Description	Conc.
V015-4016-53	9 8XA	100ppb
-75	2 B	
-84	1 C	
-86	1 Acrolein	1000ppb
-71	Internal Std	100/100ppb

Standard Data

Lot #	Description	Conc.
V015-4016-61	13 8XA	100ppb
-28	63 B	
-76	2 C	
-60	26 Acrolein	1000ppb
-53	6 Surrogate	100ppb
-43, 7	Hexane	-100ppb

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: **Date:** 2/19/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	4D56967	BFB				1	5		1X				ok	4:13 PM	
	56968	IC2528-a2	8260 Initial	A Q		2	5		1X				ok	0.25ml A,B,C,AC,SURR 250ml PR	
	56969	IC2528-0.5				3	5		1X				ok	0.5ml	
	56970	IC2528-1				4	5		1X				ok	1ml 100ml AC	
	56971	IC2528-2				5	5		1X				ok	2ml 200ml AC	
	56972	IC2528-5				6	5		1X				ok	5ml	
	56973	IC2528-10				7	5		1X				ok	10ml	
	56974	IC2528-20				8	5		1X				ok	10ml 20ml SURR 250ml PR	
	56975	IC2528-50				9	5		1X				ok	50ml 250ml PR	
	56976	IC2528-100				10	5		1X				ok	50ml no Acrolein 250ml PR	
	56977	IC2528-200				11	5		1X				ok	100ml no Acrolein 250ml PR	
	56978	IB				12	5		1X				clip		
	56979	IB				13	5		1X				↓		
	56980	ICV2518-50				14	5		1X				ok	50ml 1:2 A,B,C,AC,SURR, Hexane 250ml PR	
	56981	IB				15	5		1X				ok		
														PR 2/19	

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4D2537

Print Analyst Name: Payal Lana

Analyst Signature: Payal Lana

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

Method V8260B

Initial Cal. Method M4D2528

Date: 2/26/2015

Standard Data

Lot #	Description	Conc.
V015-2016-53.18	EXTA	100ppm
78	9	B
98.	1	C
85.	7	Acrolein
79		IS

Standard Data

Lot #	Description	Conc.
V15-2016-69.48	STDA	100ppm
83.	15	B
92.	10	C
60.	3	Acrolein
212913		pH Buffer

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: _____ **Date:** 2/27/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	4D57198	BFB				1	5		1x				ok	8:57 A.M.	
	57199	CC2528-20				2	5		1x		✓		ok	10ml STDA,B,C,AC → 50ml DI H2O (#6,19)	
	57200	IB				3	5		1x		✓		%		
	57201	MB				4	5		1x	✓	✓		ok		
	57202	BS				5	5		1x		✓		ok	25ml EXTA,B,C,AC → 50ml DI H2O	IB H2O
	57203	IB				6	5		1x		✓		%		
R	57204	JB88565-3	81194 SL	9 W	2	7	5		1x		✓		ok		✓
	57205	JB88565-7			2	8	5		1x		✓		ok		✓
	57206	JB88565-8			1	9	5		1x		✓		ok		✓
	57207	JB88565-9			2	10	5		1x		✓		ok		✓
	57208	JB88568-11	81224 SL	W	2	11	5		1x		✓		ok		✓
	57209	JB88568-12		W	2	12	5		1x		✓		ok		✓
O L	57210	JB88786-2	81323 SL	IN	4	13	1/50		50x		✓		ok		✓
	57211	JB88547-2	81225 TCL20+TBA	W	2	14	5/50		10x		✓		ok		✓
	57212	JB88565-7MS	81194 SL		1/2	15	5		1x		✓		ok	25ml STDA,B,C,AC → 50ml Sample	✓
	57213	JB88565-7MSD			1/2	16	5		1x		✓		ok		✓
	57214	IB				17	5		1x		✓		%		

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

ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4D2537

Print Analyst Name: Payal Pane

Analyst Signature: Payal Pane

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

Method 8260B

Initial Cal. Method M402528

Date: 2/26/2015

Standard Data		
Lot #	Description	Conc.
	Reference	

Standard Data		
Lot #	Description	Conc.
	Range 1/5	

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: _____ **Date:** 2/27/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2057215	JB88836-1	81348 TCL20+	W	5	18	5		1X		✓	✓	ok		
	57216	JB88633-1	81327 TCL20+	↓	7	19	5		1X		✓	✓	ok		
	57217	JB88633-2	↓	↓	7	20	5		1X		✓	✓	ok		
	57218	JB88778-1	81333 BTXMT	↓	1	21	5		1X			✓	ok		
	57219	JB88827-5	81370 TCL	SOIL	4	22	5		1X			✓	ok		
	57220	JB88827-6	↓	SOIL	2	23	5		1X			✓	ok		
	57221	JB88817-6	81363 TCE,VC,BZ	↓	1	24	5		1X		✓	✓	ok	EthBZ, MTBE, PCE, TBA, Toluene, XYL	
	57222	JB88817-5	81363 TCE	W	1	25	5		1X			✓	ok		
	57223	JB88817-2	↓	↓	1	26	5		1X			✓	ok	8:30 PM	
	57224	JB				27	5		1X			✓	ok		
	57225	JB				28	5		1X				Not Logd		

PP 2/26

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

Appendix B

First Quarter 2015 Effluent Air Laboratory Analytical Reports

eurofins | Air Toxics

1/22/2015
Mr. Peter Hollatz
AECOM Environment
27755 Diehl Road
Suite 100
Warrenville IL 60555

Project Name: UTC SER 9110
Project #: 60312350
Workorder #: 1501114

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 1/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,

Ausha Scott
Project Manager

eurofins | Air Toxics

WORK ORDER #: 1501114

Work Order Summary

CLIENT:	Mr. Peter Hollatz AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555	**BILL TO:**	Accounts Payable-Warrenville AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555
PHONE:	630-836-1700	**P.O. #**	51992ACM
FAX:	630-836-1711	**PROJECT #**	60312350 UTC SER 9110
DATE RECEIVED:	01/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	01/22/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	P1SVE-EFFC2-010915	Modified TO-14A	4.5 "Hg	15.1 psi
02A	P2SVE-EFFC4-010915	Modified TO-14A	1.8 "Hg	15.5 psi
03A	P2SVE-EFFC5-010915	Modified TO-14A	3.5 "Hg	15.1 psi
04A	P1SVE-EFFC1-010915	Modified TO-14A	2.8 "Hg	15 psi
05A	P1SVE-EFFC3-010915	Modified TO-14A	1.8 "Hg	14.8 psi
06A	FBLK01-010915	Modified TO-14A	1.4 "Hg	14.6 psi
07A	P1DUP01-010915	Modified TO-14A	4.3 "Hg	15.2 psi
07AA	P1DUP01-010915 Lab Duplicate	Modified TO-14A	4.3 "Hg	15.2 ps
08A	Lab Blank	Modified TO-14A	NA	NA
09A	CCV	Modified TO-14A	NA	NA
10A	LCS	Modified TO-14A	NA	NA
10AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 01/22/15

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-14A
AECOM Environment
Workorder# 1501114

Seven 1 Liter Summa Canister samples were received on January 10, 2015. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode.

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

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications. Please note that TO-14A was validated for specially treated canisters, and the use of Tedlar bags for sample collection is outside the scope of the method.

Requirement	*TO-14A*	*ATL Modifications*
Initial Calibration criteria	RSD</=30%	Follow TO-15 requirements of RSD</=30% with two compounds allowed out to </=40%RSD.
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action when recovery is less than 60%.
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Sample Drying System	Nafion Dryer	Multibed hydrophobic sorbent
BFB ion abundance criteria	Ion abundance listed in Table 4 of TO-14A	Follow ion abundance criteria listed in Method TO-15

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

C - Estimated calculation due to estimated sampling rate.

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

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

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC2-010915

Lab ID#: 1501114-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	3.7	4.7	15
1,1-Dichloroethane	1.2	69	4.8	280
cis-1,2-Dichloroethene	1.2	3.4	4.7	14
1,1,1-Trichloroethane	1.2	210	6.5	1200
Trichloroethene	1.2	9.3	6.4	50
Tetrachloroethene	1.2	8.2	8.1	55

Client Sample ID: P2SVE-EFFC4-010915

Lab ID#: 1501114-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	2.2	4.3	8.6
1,1-Dichloroethane	1.1	4.1	4.4	17
cis-1,2-Dichloroethene	1.1	7.4	4.3	29
1,1,1-Trichloroethane	1.1	150	5.9	800
Trichloroethene	1.1	11	5.8	57
Tetrachloroethene	1.1	50	7.4	340

Client Sample ID: P2SVE-EFFC5-010915

Lab ID#: 1501114-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	4.0	4.5	16
1,1-Dichloroethane	1.1	4.6	4.6	19
cis-1,2-Dichloroethene	1.1	7.2	4.5	29
1,1,1-Trichloroethane	1.1	360	6.2	1900
Trichloroethene	1.1	4.9	6.2	26
Tetrachloroethene	1.1	12	7.8	83

Client Sample ID: P1SVE-EFFC1-010915

Lab ID#: 1501114-04A

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC1-010915

Lab ID#: 1501114-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	1.1	4.4	4.4
1,1-Dichloroethane	1.1	20	4.5	82
cis-1,2-Dichloroethene	1.1	4.0	4.4	16
1,1,1-Trichloroethane	1.1	86	6.1	470
Trichloroethene	1.1	8.2	6.0	44
Tetrachloroethene	1.1	55	7.6	370

Client Sample ID: P1SVE-EFFC3-010915

Lab ID#: 1501114-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	2.2	4.2	8.9
1,1-Dichloroethane	1.1	4.7	4.3	19
cis-1,2-Dichloroethene	1.1	18	4.2	70
1,1,1-Trichloroethane	1.1	220	5.8	1200
Trichloroethene	1.1	6.0	5.7	32
Tetrachloroethene	1.1	11	7.2	77

Client Sample ID: FBLK01-010915

Lab ID#: 1501114-06A

No Detections Were Found.

Client Sample ID: P1DUP01-010915

Lab ID#: 1501114-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.2	20	4.8	79
cis-1,2-Dichloroethene	1.2	4.6	4.7	18
1,1,1-Trichloroethane	1.2	84	6.5	460
Trichloroethene	1.2	8.6	6.4	46
Tetrachloroethene	1.2	80	8.0	540

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1DUP01-010915 Lab Duplicate

Lab ID#: 1501114-07AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.2	20	4.8	80
cis-1,2-Dichloroethene	1.2	4.6	4.7	18
1,1,1-Trichloroethane	1.2	82	6.5	450
Trichloroethene	1.2	8.8	6.4	47
Tetrachloroethene	1.2	80	8.0	540

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Client Sample ID: P1SVE-EFFC2-010915

Lab ID#: 1501114-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011611**	**Date of Collection:**	**1/9/15 10:35:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**1/16/15 06:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	3.7	4.7	15
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethane	1.2	69	4.8	280
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	3.4	4.7	14
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	210	6.5	1200
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	9.3	6.4	50
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	8.2	8.1	55
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: P2SVE-EFFC4-010915

Lab ID#: 1501114-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011612**	**Date of Collection:**	**1/9/15 11:00:00 AM**
Dil. Factor:	**2.18**	**Date of Analysis:**	**1/16/15 06:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	2.2	4.3	8.6
Acetone	11	Not Detected	26	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.1	4.1	4.4	17
2-Butanone (Methyl Ethyl Ketone)	4.4	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	7.4	4.3	29
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	150	5.9	800
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	11	5.8	57
Toluene	1.1	Not Detected	4.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	50	7.4	340
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: P2SVE-EFFC5-010915

Lab ID#: 1501114-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011613**	**Date of Collection:**	**1/9/15 11:05:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**1/16/15 07:21 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	4.0	4.5	16
Acetone	11	Not Detected	27	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.1	4.6	4.6	19
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.1	7.2	4.5	29
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	360	6.2	1900
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	4.9	6.2	26
Toluene	1.1	Not Detected	4.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	12	7.8	83
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: P1SVE-EFFC1-010915

Lab ID#: 1501114-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011614**	**Date of Collection:**	**1/9/15 11:20:00 AM**
Dil. Factor:	**2.23**	**Date of Analysis:**	**1/16/15 07:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	1.1	4.4	4.4
Acetone	11	Not Detected	26	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.1	20	4.5	82
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	1.1	4.0	4.4	16
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	86	6.1	470
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	8.2	6.0	44
Toluene	1.1	Not Detected	4.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	55	7.6	370
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: P1SVE-EFFC3-010915

Lab ID#: 1501114-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011615**	**Date of Collection:**	**1/9/15 11:50:00 AM**
Dil. Factor:	**2.13**	**Date of Analysis:**	**1/16/15 08:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
1,1-Dichloroethene	1.1	2.2	4.2	8.9
Acetone	11	Not Detected	25	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.1	4.7	4.3	19
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.1	18	4.2	70
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	220	5.8	1200
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
Trichloroethene	1.1	6.0	5.7	32
Toluene	1.1	Not Detected	4.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	11	7.2	77
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: FBLK01-010915

Lab ID#: 1501114-06A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011616**	**Date of Collection:**	**1/9/15 11:55:00 AM**
Dil. Factor:	**2.09**	**Date of Analysis:**	**1/16/15 09:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	25	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: P1DUP01-010915

Lab ID#: 1501114-07A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011617**	**Date of Collection: 1/9/15**	
Dil. Factor:	**2.37**	**Date of Analysis: 1/16/15 09:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethane	1.2	20	4.8	79
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	4.6	4.7	18
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	84	6.5	460
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	8.6	6.4	46
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	80	8.0	540
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: P1DUP01-010915 Lab Duplicate

Lab ID#: 1501114-07AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011620**	**Date of Collection:**	**1/9/15**
Dil. Factor:	**2.37**	**Date of Analysis:**	**1/16/15 11:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethane	1.2	20	4.8	80
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	4.6	4.7	18
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	82	6.5	450
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	8.8	6.4	47
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	80	8.0	540
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1501114-08A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011607**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/16/15 02:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: CCV

Lab ID#: 1501114-09A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/16/15 11:12 AM**	

Compound	**%Recovery**
Vinyl Chloride	97
Chloroethane	97
1,1-Dichloroethene	96
Acetone	95
Methylene Chloride	96
trans-1,2-Dichloroethene	99
1,1-Dichloroethane	96
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	94
Chloroform	96
1,1,1-Trichloroethane	95
Carbon Tetrachloride	99
Benzene	93
1,2-Dichloroethane	94
Trichloroethene	94
Toluene	94
1,1,2-Trichloroethane	98
Tetrachloroethene	95
Ethyl Benzene	97
m,p-Xylene	99
o-Xylene	99

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCS

Lab ID#: 1501114-10A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/16/15 11:46 AM**	

Compound	**%Recovery**	**Method Limits**
Vinyl Chloride	100	70-130
Chloroethane	103	70-130
1,1-Dichloroethene	98	70-130
Acetone	99	70-130
Methylene Chloride	96	70-130
trans-1,2-Dichloroethene	91	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	106	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	98	70-130
Carbon Tetrachloride	99	70-130
Benzene	99	70-130
1,2-Dichloroethane	98	70-130
Trichloroethene	99	70-130
Toluene	98	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	99	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	101	70-130
o-Xylene	105	70-130

Container Type: NA - Not Applicable

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

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Client Sample ID: LCSD

Lab ID#: 1501114-10AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**a011604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 1/16/15 12:21 PM**	

Compound	**%Recovery**	**Method Limits**
Vinyl Chloride	100	70-130
Chloroethane	106	70-130
1,1-Dichloroethene	97	70-130
Acetone	95	70-130
Methylene Chloride	94	70-130
trans-1,2-Dichloroethene	90	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	107	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	96	70-130
Benzene	99	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	98	70-130
Toluene	98	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	99	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	101	70-130
o-Xylene	105	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Peter Hollatz
Collected by: (Print and Sign) Allan Hollatz
Company: AECOM Email: Peter.Hollatz@aecom.com
Address: 2755 Dabrich Rd City: Warrenville State: IL Zip: 60555
Phone: 630-836-1700 Fax: 630-836-1711

Project Info:
P.O. #: —
Project #: 60312350
Project Name: UTC SER 9110

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	P1SVE-EFFC2-010915	12042	1-9-15	1035	TO-14A	-29	-4		
02A	P2SVE-EFFC4-010915	36493	1-9-15	1100	TO-14A	-30	-3		
03A	P2SVE-EFFC5-010915	15760	1-9-15	1105	TO-14A	-29.5	-4		
04A	P1SVE-EFFC1-010915	30811	1-9-15	1120	TO-14A	-30	-4		
05A	P1SVE-EFFC3-010915	31784	1-9-15	1150	TO-14A	-29.5	-2		
06A	FBLK01-010915	31768	1-9-15	1155	TO-14A	-29.5	-2		
07A	~~P2SVE~~ P1DUP01-010915	34596	1-9-15	—	TO-14A	-30	-3		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Allan Hollatz	1-9-15 1800	Fedex 872879050424	1-9-15 1800
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		David McGuill EAR	1/10/15 1050
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		NA	Good	Yes No None	1501114

Form 1293 rev.11

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3/27/2015
Mr. Peter Hollatz
AECOM Environment
27755 Diehl Road
Suite 100
Warrenville IL 60555

Project Name: UTC SER 9110
Project #: 60339110
Workorder #: 1503292

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 3/16/2015 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,

Ausha Scott
Project Manager

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WORK ORDER #: 1503292

Work Order Summary

CLIENT:	Mr. Peter Hollatz AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555	**BILL TO:**	Accounts Payable-Warrenville AECOM Environment 27755 Diehl Road Suite 100 Warrenville, IL 60555
PHONE:	630-836-1700	**P.O. #**	58743
FAX:	630-836-1711	**PROJECT #**	60339110 UTC SER 9110
DATE RECEIVED:	03/16/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	03/27/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	P2SVE-EFFC5-031315	Modified TO-14A	4.7 "Hg	14.8 psi
01AA	P2SVE-EFFC5-031315 Lab Duplicate	Modified TO-14A	4.7 "Hg	14.8 psi
02A	P2SVE-EFFC4-031315	Modified TO-14A	4.9 "Hg	14.9 psi
03A	P1SVE-EFFC2-031315	Modified TO-14A	6.1 "Hg	14.8 psi
04A	P1SVE-EFFC3-031315	Modified TO-14A	3.9 "Hg	15 psi
05A	P1SVE-EFFC1-031315	Modified TO-14A	6.9 "Hg	14.7 psi
06A	Lab Blank	Modified TO-14A	NA	NA
07A	CCV	Modified TO-14A	NA	NA
08A	LCS	Modified TO-14A	NA	NA
08AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 03/27/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

LABORATORY NARRATIVE
Modified TO-14A
AECOM Environment
Workorder# 1503292

Five 1 Liter Summa Canister samples were received on March 16, 2015. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode.

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

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications. Please note that TO-14A was validated for specially treated canisters, and the use of Tedlar bags for sample collection is outside the scope of the method.

Requirement	*TO-14A*	*ATL Modifications*
Initial Calibration criteria	RSD</=30%	Follow TO-15 requirements of RSD</=30% with two compounds allowed out to </=40%RSD.
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action when recovery is less than 60%.
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Sample Drying System	Nafion Dryer	Multibed hydrophobic sorbent
BFB ion abundance criteria	Ion abundance listed in Table 4 of TO-14A	Follow ion abundance criteria listed in Method TO-15

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample P2SVE-EFFC5-031315 due to the presence of high level target species.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.
C - Estimated calculation due to estimated sampling rate.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P2SVE-EFFC5-031315

Lab ID#: 1503292-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	2.4	8.0	9.4	32
1,1-Dichloroethane	2.4	22	9.6	87
cis-1,2-Dichloroethene	2.4	16	9.4	62
1,1,1-Trichloroethane	2.4	660	13	3600
Trichloroethene	2.4	12	13	64
Tetrachloroethene	2.4	29	16	200

Client Sample ID: P2SVE-EFFC5-031315 Lab Duplicate

Lab ID#: 1503292-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	7.7	4.7	30
1,1-Dichloroethane	1.2	22	4.8	87
cis-1,2-Dichloroethene	1.2	16	4.7	62
1,1,1-Trichloroethane	1.2	660 E	6.5	3600 E
Trichloroethene	1.2	12	6.4	63
Tetrachloroethene	1.2	29	8.1	190

Client Sample ID: P2SVE-EFFC4-031315

Lab ID#: 1503292-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	3.1	4.8	12
1,1-Dichloroethane	1.2	4.9	4.9	20
cis-1,2-Dichloroethene	1.2	5.5	4.8	22
1,1,1-Trichloroethane	1.2	190	6.6	1000
Trichloroethene	1.2	6.9	6.5	37
Toluene	1.2	1.6	4.5	5.9
Tetrachloroethene	1.2	27	8.2	180

Client Sample ID: P1SVE-EFFC2-031315

Lab ID#: 1503292-03A

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC2-031315

Lab ID#: 1503292-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.3	5.4	5.1	22
1,1,1-Trichloroethane	1.3	18	6.9	100
Trichloroethene	1.3	3.0	6.8	16
Tetrachloroethene	1.3	3.5	8.5	24

Client Sample ID: P1SVE-EFFC3-031315

Lab ID#: 1503292-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	3.1	4.6	12
1,1-Dichloroethane	1.2	4.4	4.7	18
cis-1,2-Dichloroethene	1.2	14	4.6	57
1,1,1-Trichloroethane	1.2	200	6.3	1100
Trichloroethene	1.2	14	6.2	78
Tetrachloroethene	1.2	4.2	7.9	29

Client Sample ID: P1SVE-EFFC1-031315

Lab ID#: 1503292-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.3	2.4	5.2	9.3
1,1-Dichloroethane	1.3	17	5.3	67
cis-1,2-Dichloroethene	1.3	3.6	5.2	14
1,1,1-Trichloroethane	1.3	58	7.1	310
Trichloroethene	1.3	5.8	7.0	31
Tetrachloroethene	1.3	32	8.8	220

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Client Sample ID: P2SVE-EFFC5-031315

Lab ID#: 1503292-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032108**	**Date of Collection:**	**3/13/15 10:30:00 AM**
Dil. Factor:	**4.76**	**Date of Analysis:**	**3/21/15 02:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.4	Not Detected	6.1	Not Detected
Chloroethane	9.5	Not Detected	25	Not Detected
1,1-Dichloroethene	2.4	8.0	9.4	32
Acetone	24	Not Detected	56	Not Detected
Methylene Chloride	24	Not Detected	83	Not Detected
trans-1,2-Dichloroethene	2.4	Not Detected	9.4	Not Detected
1,1-Dichloroethane	2.4	22	9.6	87
2-Butanone (Methyl Ethyl Ketone)	9.5	Not Detected	28	Not Detected
cis-1,2-Dichloroethene	2.4	16	9.4	62
Chloroform	2.4	Not Detected	12	Not Detected
1,1,1-Trichloroethane	2.4	660	13	3600
Carbon Tetrachloride	2.4	Not Detected	15	Not Detected
Benzene	2.4	Not Detected	7.6	Not Detected
1,2-Dichloroethane	2.4	Not Detected	9.6	Not Detected
Trichloroethene	2.4	12	13	64
Toluene	2.4	Not Detected	9.0	Not Detected
1,1,2-Trichloroethane	2.4	Not Detected	13	Not Detected
Tetrachloroethene	2.4	29	16	200
Ethyl Benzene	2.4	Not Detected	10	Not Detected
m,p-Xylene	2.4	Not Detected	10	Not Detected
o-Xylene	2.4	Not Detected	10	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: P2SVE-EFFC5-031315 Lab Duplicate

Lab ID#: 1503292-01AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032107**	**Date of Collection:**	**3/13/15 10:30:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**3/21/15 01:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	7.7	4.7	30
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethane	1.2	22	4.8	87
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	16	4.7	62
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	660 E	6.5	3600 E
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	12	6.4	63
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	29	8.1	190
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: P2SVE-EFFC4-031315

Lab ID#: 1503292-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032109**	**Date of Collection:**	**3/13/15 10:35:00 AM**
Dil. Factor:	**2.41**	**Date of Analysis:**	**3/21/15 03:07 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
1,1-Dichloroethene	1.2	3.1	4.8	12
Acetone	12	Not Detected	29	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
1,1-Dichloroethane	1.2	4.9	4.9	20
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	5.5	4.8	22
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	190	6.6	1000
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	6.9	6.5	37
Toluene	1.2	1.6	4.5	5.9
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	27	8.2	180
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: P1SVE-EFFC2-031315

Lab ID#: 1503292-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032110**	**Date of Collection:**	**3/13/15 11:00:00 AM**
Dil. Factor:	**2.52**	**Date of Analysis:**	**3/21/15 03:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	13	Not Detected	30	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
1,1-Dichloroethane	1.3	5.4	5.1	22
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	18	6.9	100
Carbon Tetrachloride	1.3	Not Detected	7.9	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Trichloroethene	1.3	3.0	6.8	16
Toluene	1.3	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	3.5	8.5	24
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	Not Detected	5.5	Not Detected
o-Xylene	1.3	Not Detected	5.5	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: P1SVE-EFFC3-031315

Lab ID#: 1503292-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032111**	**Date of Collection:**	**3/13/15 11:40:00 AM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**3/21/15 04:00 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	3.1	4.6	12
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Dichloroethane	1.2	4.4	4.7	18
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	14	4.6	57
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	200	6.3	1100
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	14	6.2	78
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	4.2	7.9	29
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: P1SVE-EFFC1-031315

Lab ID#: 1503292-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032112**	**Date of Collection:**	**3/13/15 12:25:00 PM**
Dil. Factor:	**2.60**	**Date of Analysis:**	**3/21/15 04:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
1,1-Dichloroethene	1.3	2.4	5.2	9.3
Acetone	13	Not Detected	31	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
1,1-Dichloroethane	1.3	17	5.3	67
2-Butanone (Methyl Ethyl Ketone)	5.2	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.3	3.6	5.2	14
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	58	7.1	310
Carbon Tetrachloride	1.3	Not Detected	8.2	Not Detected
Benzene	1.3	Not Detected	4.2	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Trichloroethene	1.3	5.8	7.0	31
Toluene	1.3	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.1	Not Detected
Tetrachloroethene	1.3	32	8.8	220
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected

Container Type: 1 Liter Summa Canister

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

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Client Sample ID: Lab Blank

Lab ID#: 1503292-06A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032105**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/21/15 12:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: CCV

Lab ID#: 1503292-07A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/21/15 11:20 AM**	

Compound	**%Recovery**
Vinyl Chloride	100
Chloroethane	101
1,1-Dichloroethene	99
Acetone	96
Methylene Chloride	92
trans-1,2-Dichloroethene	103
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	102
Chloroform	97
1,1,1-Trichloroethane	97
Carbon Tetrachloride	101
Benzene	97
1,2-Dichloroethane	96
Trichloroethene	96
Toluene	91
1,1,2-Trichloroethane	97
Tetrachloroethene	96
Ethyl Benzene	100
m,p-Xylene	100
o-Xylene	103

Container Type: NA - Not Applicable

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

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Client Sample ID: LCS

Lab ID#: 1503292-08A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/21/15 11:45 AM**	

Compound	**%Recovery**	**Method Limits**
Vinyl Chloride	101	70-130
Chloroethane	98	70-130
1,1-Dichloroethene	99	70-130
Acetone	99	70-130
Methylene Chloride	90	70-130
trans-1,2-Dichloroethene	87	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	111	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	96	70-130
Carbon Tetrachloride	101	70-130
Benzene	97	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	87	70-130
Toluene	92	70-130
1,1,2-Trichloroethane	98	70-130
Tetrachloroethene	96	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	101	70-130
o-Xylene	106	70-130

Container Type: NA - Not Applicable

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

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Client Sample ID: LCSD

Lab ID#: 1503292-08AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	**3032104**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 3/21/15 12:09 PM**	

Compound	**%Recovery**	**Method Limits**
Vinyl Chloride	103	70-130
Chloroethane	99	70-130
1,1-Dichloroethene	99	70-130
Acetone	100	70-130
Methylene Chloride	91	70-130
trans-1,2-Dichloroethene	87	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	113	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	98	70-130
Carbon Tetrachloride	100	70-130
Benzene	98	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	86	70-130
Toluene	91	70-130
1,1,2-Trichloroethane	98	70-130
Tetrachloroethene	95	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	100	70-130
o-Xylene	105	70-130

Container Type: NA - Not Applicable

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

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180 BLUE RAVINE ROAD, SUITE B
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Project Manager Peter Hollatz
Collected by: (Print and Sign) Allan Hollatz
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Address 27755 Diehl Rd City Warrenville State IL Zip 60555
Phone 630-839-5386 Fax 630-836-1711

Project Info:
P.O. # 58743
Project # 60339110
Project Name UTC SER 9110

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	P2SVE-EFFC5-031315	31771	3-13-15	1030	TO-14A	-27	-4		
02A	P2SVE-EFFC4-031315	12372	3-13-15	1035	TO-14A	-26.5	-3		
03A	P2SVE-EFFC2-031315	34183	3-13-15	1100	TO-14A	-26.5	-4		
04A	P2SVE-EFFC3-031315	11613	3-13-15	1140	TO-14A	-30	-4		
05A	P2SVE-EFFC1-031315	11413	3-13-15	1225	TO-14A	-29	-4		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Allan Hollatz	3-13-15 1800	[illegible]	3/16/15 [illegible]
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	[illegible]		[illegible]	Good	Yes No (None)	1503292

Form 1293 rev.11

Appendix C

First Quarter 2015 Systems Moisture Separator Tank Analytical Reports

New Jersey
ACCUTEST
LABORATORIES

04/01/15

Technical Report for

United Technologies Corporation

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

60339110

Accutest Job Number: JB90207

Sampling Date: 03/13/15

Report to:

AECOM, INC.
27755 Diehl Road Suite 100
Warrenville, IL 60555
peter.hollatz@aecom.com

ATTN: Peter Hollatz

Total number of pages in report: **129**

Nancy F. Cole
Nancy Cole
Laboratory Director

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.

Client Service contact: Marie Meidhof 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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Sample Summary

United Technologies Corporation

Job No: JB90207

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB90207-1	03/13/15	12:50 AH	03/18/15	AQ	Ground Water	HSSER-MSCELL5-031315
JB90207-2	03/13/15	12:50 AH	03/18/15	AQ	Trip Blank Water	TRIP BLANK-01

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CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	United Technologies Corporation	**Job No**	JB90207
Site:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	**Report Date**	4/1/2015 8:57:27 AM

On 03/18/2015, 1 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of #1: (3/1.2) C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB90207 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 8260B

Matrix: AQ	**Batch ID:** VA8018

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB90111-2MS, JB90111-2MSD were used as the QC samples indicated.
- RPD(s) for MSD for Vinyl chloride are outside control limits for sample JB90111-2MSD. Outside control limits due to matrix interference.

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: JB90207
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 03/13/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB90207-1	**HSSER-MSCELL5-031315**					
1,1-Dichloroethane		0.0016	0.0010	0.00035	mg/l	SW846 8260B
1,1-Dichloroethene		0.0015	0.0010	0.00050	mg/l	SW846 8260B
cis-1,2-Dichloroethene		0.0015	0.0010	0.00033	mg/l	SW846 8260B
Tetrachloroethene		0.0011	0.0010	0.00035	mg/l	SW846 8260B
1,1,1-Trichloroethane		0.0198	0.0010	0.00032	mg/l	SW846 8260B
Trichloroethene		0.00063 J	0.0010	0.00025	mg/l	SW846 8260B
JB90207-2	**TRIP BLANK-01**					

No hits reported in this sample.

New Jersey
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Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	HSSER-MSCELL5-031315		
Lab Sample ID:	JB90207-1	**Date Sampled:**	03/13/15
Matrix:	AQ - Ground Water	**Date Received:**	03/18/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A212085.D	1	03/21/15	JM	n/a	n/a	VA8018
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	0.0016	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	0.0015	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0015	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	0.0011	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0198	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	0.00063	0.0010	0.00025	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-122%
17060-07-0	1,2-Dichloroethane-D4	95%		71-124%
2037-26-5	Toluene-D8	115%		78-121%
460-00-4	4-Bromofluorobenzene	105%		77-120%

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

Client Sample ID:	TRIP BLANK-01		
Lab Sample ID:	JB90207-2	**Date Sampled:**	03/13/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/18/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A212084.D	1	03/21/15	JM	n/a	n/a	VA8018
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	0.0010	0.00035	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00030	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00033	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00040	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.00081	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00035	mg/l	
108-88-3	Toluene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00032	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00028	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00025	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-122%
17060-07-0	1,2-Dichloroethane-D4	98%		71-124%
2037-26-5	Toluene-D8	113%		78-121%
460-00-4	4-Bromofluorobenzene	107%		77-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

ACCUTEST LABORATORIES

GW
GW

CHAIN OF CUSTODY

PAGE 1 OF 1

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

FED-EX Tracking # 6025016351 8309
Accutest Quote #
Bottle Order Control #
Accutest Job # JB 90207

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 Diehl Rd Suite 100
City / State / Zip: Warrenville IL 60555
Project Contact: Peter Hollatz
E-mail: Peter.Hollatz@aecom.com
Phone #: 630-839-5386
Fax #: 630-836-1711
Sampler(s) Name(s): A. Hollatz
Phone #: 630-836-1100

Project Information

Project Name: UTC-HS-Plant 2
Street:
City / State:
Project #: 60339110-4181
Client Purchase Order #: —
Project Manager: Peter Hollatz

Billing Information (If different from Report to)

Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet): VOC 8260B

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MeOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MeOH	ENCORE	VOC 8260B	LAB USE ONLY
1	HSSER-MSCELL5-031315		3-13-15	1250	A.H	GW	3	X								X	11369
2	Trip Blank-01		3-13-15	—	—		2	X								X	

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other
- Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

List of 13 VOCs

INITIAL ASESSMENT NL 3/19

LABEL VERIFICATION AR

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date/Time:	Received By:
1 [signature]	3/16/15 1800	1 FED EX	2 FED EX	3/18/15 9:15	2 [signature]
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal # 121	Intact / Not Intact	Preserved where applicable
5		5			On Ice ☑ Cooler Temp. 3.0°C IR

JB90207: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB90207 **Client:** _____ **Project:** _____

Date / Time Received: 3/18/2015 9:45:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Initial/Adjusted): #1: (3/1.2); 0

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

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

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

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
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

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

5.1

5

JB90207: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JB90207

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60339110

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JB90207-1	Collected: 13-MAR-15 12:50 By: AH		Received: 18-MAR-15 By: AL			
HSSER-MSCELL5-031315						
JB90207-1	SW846 8260B	21-MAR-15 08:36	JM			V8260SL
JB90207-2	Collected: 13-MAR-15 12:50 By: AH		Received: 18-MAR-15 By: AL			
TRIP BLANK-01						
JB90207-2	SW846 8260B	21-MAR-15 08:04	JM			V8260SL

Accutest Internal Chain of Custody

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 03/18/15

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JB90207-1.2	Secured Storage	Jemima Merilan	03/20/15 15:25	Retrieve from Storage
JB90207-1.2	Jemima Merilan	GCMSA	03/20/15 15:25	Load on Instrument
JB90207-1.2	GCMSA	Jemima Merilan	03/23/15 11:10	Unload from Instrument
JB90207-1.2	Jemima Merilan	Secured Storage	03/23/15 11:10	Return to Storage
JB90207-2.2	Secured Storage	Jemima Merilan	03/20/15 15:25	Retrieve from Storage
JB90207-2.2	Jemima Merilan	GCMSA	03/20/15 15:25	Load on Instrument
JB90207-2.2	GCMSA	Jemima Merilan	03/23/15 11:10	Unload from Instrument
JB90207-2.2	Jemima Merilan	Secured Storage	03/23/15 11:10	Return to Storage

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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

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA8018-MB1	A212067.D	1	03/20/15	JM	n/a	n/a	VA8018

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

JB90207-1, JB90207-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.35	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.30	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.33	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.81	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.32	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.25	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	76-122%
17060-07-0	1,2-Dichloroethane-D4	95%	71-124%
2037-26-5	Toluene-D8	113%	78-121%
460-00-4	4-Bromofluorobenzene	105%	77-120%

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

Blank Spike Summary

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA8018-BS	A212068.D	1	03/20/15	JM	n/a	n/a	VA8018

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

JB90207-1, JB90207-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	50.9	102	78-128
107-06-2	1,2-Dichloroethane	50	51.1	102	77-133
75-35-4	1,1-Dichloroethene	50	54.3	109	74-129
156-59-2	cis-1,2-Dichloroethene	50	48.7	97	75-123
156-60-5	trans-1,2-Dichloroethene	50	44.2	88	73-122
100-41-4	Ethylbenzene	50	49.8	100	83-118
75-09-2	Methylene chloride	50	50.5	101	75-121
127-18-4	Tetrachloroethene	50	47.2	94	60-153
108-88-3	Toluene	50	51.4	103	83-121
71-55-6	1,1,1-Trichloroethane	50	50.7	101	80-132
79-00-5	1,1,2-Trichloroethane	50	53.0	106	83-120
79-01-6	Trichloroethene	50	49.2	98	84-123
75-01-4	Vinyl chloride	50	52.7	105	57-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	76-122%
17060-07-0	1,2-Dichloroethane-D4	97%	71-124%
2037-26-5	Toluene-D8	117%	78-121%
460-00-4	4-Bromofluorobenzene	107%	77-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JB90111-2MS	A212073.D	25	03/21/15	JM	n/a	n/a	VA8018
JB90111-2MSD	A212074.D	25	03/21/15	JM	n/a	n/a	VA8018
JB90111-2	A212072.D	25	03/21/15	JM	n/a	n/a	VA8018

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

JB90207-1, JB90207-2

CAS No.	Compound	JB90111-2 ug/l	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		1250	1250	100	1250	1190	95	5	67-130/11
107-06-2	1,2-Dichloroethane	ND		1250	1320	106	1250	1310	105	1	72-137/10
75-35-4	1,1-Dichloroethene	ND		1250	1120	90	1250	1070	86	5	51-137/14
156-59-2	cis-1,2-Dichloroethene	ND		1250	1290	103	1250	1230	98	5	59-133/11
156-60-5	trans-1,2-Dichloroethene	ND		1250	1090	87	1250	1050	84	4	60-130/12
100-41-4	Ethylbenzene	1870		1250	3060	95	1250	3030	93	1	57-134/10
75-09-2	Methylene chloride	ND		1250	1290	103	1250	1230	98	5	68-125/11
127-18-4	Tetrachloroethene	ND		1250	1050	84	1250	1010	81	4	47-141/12
108-88-3	Toluene	3570		1250	4770	96	1250	4810	99	1	61-135/11
71-55-6	1,1,1-Trichloroethane	ND		1250	1130	90	1250	1100	88	3	60-140/13
79-00-5	1,1,2-Trichloroethane	ND		1250	1400	112	1250	1400	112	0	79-126/11
79-01-6	Trichloroethene	ND		1250	1190	95	1250	1180	94	1	57-138/11
75-01-4	Vinyl chloride	ND		1250	1250	100	1250	1020	82	20* [a]	47-143/15

CAS No.	Surrogate Recoveries	MS	MSD	JB90111-2	Limits
1868-53-7	Dibromofluoromethane	110%	105%	104%	76-122%
17060-07-0	1,2-Dichloroethane-D4	98%	97%	97%	71-124%
2037-26-5	Toluene-D8	117%	118%	118%	78-121%
460-00-4	4-Bromofluorobenzene	109%	108%	106%	77-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	VA8000-BFB	**Injection Date:**	03/02/15
Lab File ID:	A211625.D	**Injection Time:**	11:58
Instrument ID:	GCMSA		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	13588	18.0		Pass
75	30.0 - 60.0% of mass 95	35560	47.2		Pass
95	Base peak, 100% relative abundance	75288	100.0		Pass
96	5.0 - 9.0% of mass 95	5223	6.94		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	75042	99.7		Pass
175	5.0 - 9.0% of mass 174	5819	7.73	(7.75) [a]	Pass
176	95.0 - 101.0% of mass 174	73426	97.5	(97.8) [a]	Pass
177	5.0 - 9.0% of mass 176	4882	6.48	(6.65) [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
VA8000-IC8000	A211626.D	03/02/15	12:35	00:37	Initial cal 0.2
VA8000-IC8000	A211627.D	03/02/15	13:07	01:09	Initial cal 0.5
VA8000-IC8000	A211628.D	03/02/15	13:38	01:40	Initial cal 1
VA8000-IC8000	A211629.D	03/02/15	14:10	02:12	Initial cal 2
VA8000-IC8000	A211630.D	03/02/15	14:42	02:44	Initial cal 5
VA8000-IC8000	A211631.D	03/02/15	15:13	03:15	Initial cal 10
VA8000-IC8000	A211632.D	03/02/15	15:45	03:47	Initial cal 20
VA8000-ICC8000	A211633.D	03/02/15	16:16	04:18	Initial cal 50
VA8000-IC8000	A211635.D	03/02/15	17:22	05:24	Initial cal 200
VA8000-IC8000	A211637.D	03/02/15	18:24	06:26	Initial cal 100
VA8000-ICV8000	A211638.D	03/02/15	19:27	07:29	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	VA8018-BFB	**Injection Date:**	03/20/15
Lab File ID:	A212064.D	**Injection Time:**	21:36
Instrument ID:	GCMSA		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.95 - 40.0% of mass 95	13228	18.8		Pass
75	30.0 - 60.0% of mass 95	33896	48.1		Pass
95	Base peak, 100% relative abundance	70464	100.0		Pass
96	5.0 - 9.0% of mass 95	4761	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	70221	99.7		Pass
175	5.0 - 9.0% of mass 174	5598	7.94	(7.97) [a]	Pass
176	95.0 - 101.0% of mass 174	70019	99.4	(99.7) [a]	Pass
177	5.0 - 9.0% of mass 176	4572	6.49	(6.53) [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
VA8018-CC8000	A212065.D	03/20/15	22:08	00:32	Continuing cal 50
VA8018-MB1	A212067.D	03/20/15	23:10	01:34	Method Blank
VA8018-BS	A212068.D	03/20/15	23:42	02:06	Blank Spike
ZZZZZZ	A212070.D	03/21/15	00:44	03:08	(unrelated sample)
ZZZZZZ	A212071.D	03/21/15	01:15	03:39	(unrelated sample)
JB90111-2	A212072.D	03/21/15	01:46	04:10	(used for QC only; not part of job JB90207)
JB90111-2MS	A212073.D	03/21/15	02:18	04:42	Matrix Spike
JB90111-2MSD	A212074.D	03/21/15	02:49	05:13	Matrix Spike Duplicate
ZZZZZZ	A212076.D	03/21/15	03:52	06:16	(unrelated sample)
ZZZZZZ	A212077.D	03/21/15	04:23	06:47	(unrelated sample)
ZZZZZZ	A212078.D	03/21/15	04:55	07:19	(unrelated sample)
ZZZZZZ	A212079.D	03/21/15	05:26	07:50	(unrelated sample)
ZZZZZZ	A212080.D	03/21/15	05:58	08:22	(unrelated sample)
ZZZZZZ	A212081.D	03/21/15	06:29	08:53	(unrelated sample)
ZZZZZZ	A212082.D	03/21/15	07:01	09:25	(unrelated sample)
ZZZZZZ	A212083.D	03/21/15	07:33	09:57	(unrelated sample)
JB90207-2	A212084.D	03/21/15	08:04	10:28	TRIP BLANK-01
JB90207-1	A212085.D	03/21/15	08:36	11:00	HSSER-MSCELL5-031315

Volatile Internal Standard Area Summary

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	VA8018-CC8000	**Injection Date:**	03/20/15
Lab File ID:	A212065.D	**Injection Time:**	22:08
Instrument ID:	GCMSA	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	511954	7.77	358667	10.09	337359	11.05	316759	14.45	202657	17.04
Upper Limit [a]	1023908	8.27	717334	10.59	674718	11.55	633518	14.95	405314	17.54
Lower Limit [b]	255977	7.27	179334	9.59	168680	10.55	158380	13.95	101329	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
VA8018-MB1	473744	7.75	354405	10.09	330150	11.05	290409	14.44	193392	17.04
VA8018-BS	513603	7.77	364156	10.10	344604	11.04	325143	14.44	205150	17.04
ZZZZZZ	486827	7.77	353269	10.09	329749	11.04	294585	14.44	191733	17.04
ZZZZZZ	470525	7.76	346929	10.10	328242	11.04	294229	14.44	192003	17.04
JB90111-2	481201	7.78	340552	10.09	319669	11.04	297607	14.45	192362	17.04
JB90111-2MS	504630	7.77	344907	10.09	335527	11.05	315295	14.45	198817	17.04
JB90111-2MSD	509422	7.76	357081	10.10	336994	11.04	320015	14.45	207142	17.04
ZZZZZZ	512384	7.76	367986	10.10	340159	11.05	305576	14.44	200293	17.04
ZZZZZZ	479180	7.77	359751	10.10	333104	11.04	296626	14.44	195830	17.04
ZZZZZZ	478345	7.77	360829	10.09	334658	11.05	294294	14.45	191582	17.04
ZZZZZZ	504734	7.76	368337	10.10	336956	11.04	299606	14.44	196947	17.04
ZZZZZZ	479097	7.79	350521	10.10	324056	11.05	287578	14.44	182495	17.04
ZZZZZZ	460437	7.77	357784	10.09	332584	11.05	288014	14.44	193337	17.04
ZZZZZZ	473112	7.78	353197	10.10	325719	11.04	287611	14.44	189488	17.04
ZZZZZZ	449835	7.76	336555	10.10	310011	11.04	271407	14.44	176717	17.04
JB90207-2	436406	7.77	339028	10.09	315795	11.05	280576	14.44	182495	17.04
JB90207-1	440326	7.78	338325	10.09	312510	11.04	280629	14.44	185908	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.

Volatile Surrogate Recovery Summary

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JB90207-1	A212085.D	106	95	115	105
JB90207-2	A212084.D	105	98	113	107
JB90111-2MS	A212073.D	110	98	117	109
JB90111-2MSD	A212074.D	105	97	118	108
VA8018-BS	A212068.D	107	97	117	107
VA8018-MB1	A212067.D	103	95	113	105

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-122%
S2 = 1,2-Dichloroethane-D4	71-124%
S3 = Toluene-D8	78-121%
S4 = 4-Bromofluorobenzene	77-120%

Initial Calibration Summary

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: VA8000-ICC8000
Lab FileID: A211633.D

Response Factor Report MSA

```
Method        : C:\msdchem\1\METHODS\MA8000.M (RTE Integrator)
Title         : SW 846  8260b ZB624 60m x 0.25mm x 1.4um
Last Update   : Tue Mar 03 17:06:49 2015
Response via  : Initial Calibration

Calibration Files
5   =A211630.D   2   =A211629.D   20  =A211632.D   50  =A211633.D
100 =A211637.D   1   =A211628.D   200 =A211635.D   0.5 =A211627.D
10  =A211631.D   0.2 =A211626.D       =                =

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

1) I   Tert Butyl Alcohol-d9 ----------------ISTD--------------------
2)  1,4-dioxane
     0.077 0.070 0.077 0.073 0.069       0.066       0.075        0.072    5.72
3)  tertiary butyl alcohol
     1.065 1.061 0.996 0.958 0.905 1.012 0.918       1.016        0.991    6.07

4) I   pentafluorobenzene    ----------------ISTD--------------------
5)  chlorotrifluoroethene
                                                                  0.000#  -1.00
6)  chlorodifluoromethane
     0.653 0.594 0.639 0.680 0.699 0.698 0.709       0.582        0.657    7.41
7)  dichlorodifluoromethane
     0.659 0.558 0.648 0.758 0.772 0.588 0.753       0.579        0.664   13.09
8)  chloromethane
     0.481 0.418 0.470 0.528 0.554 0.472             0.402        0.475   11.40
9)  vinyl chloride
     0.630 0.577 0.637 0.690 0.721 0.646 0.793 0.721 0.565        0.664   11.06
10) bromomethane
     0.319 0.315 0.318 0.355 0.334 0.379 0.380 0.423 0.286        0.345   12.28
11) chloroethane
     0.188 0.205 0.192 0.209 0.183 0.179 0.191       0.192        0.192    5.35
12) vinyl bromide
                                                                  0.000#  -1.00
13) trichlorofluoromethane
     0.588 0.465 0.646 0.770 0.775 0.418 0.825       0.546        0.629   24.01
           ----- Linear regression -----  Coefficient =  0.9991
             Response Ratio = -0.04261 + 0.82645 *A

14) pentane
                                                                  0.000#  -1.00
15) ethyl ether
     0.161 0.152 0.165 0.168 0.164       0.175       0.136        0.160    8.01
16) Freon 123a
                                                                  0.000#  -1.00
17) acrolein
     0.094       0.100 0.101 0.103       0.109       0.090        0.099    6.63
18) freon 113
     0.301 0.258 0.331 0.342 0.389 0.301 0.385       0.295        0.325   13.97
19) 1,1-dichloroethene
     0.520 0.473 0.584 0.585 0.599 0.544 0.673 0.624 0.485        0.565   11.59
20) acetone
     0.224 0.188 0.212 0.219 0.215       0.229       0.210        0.214    6.17
21) allyl chloride
     0.149       0.176 0.180 0.190       0.214       0.144        0.175   14.87
```

6.7.1

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Initial Calibration Summary

Job Number: JB90207 **Sample:** VA8000-ICC8000
Account: UTC United Technologies Corporation **Lab FileID:** A211633.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
22)  acetonitrile
      0.055       0.055 0.057 0.057       0.057       0.050        0.055    4.59
23)  iodomethane
      0.687 0.683 0.759 0.746 0.756 0.685 0.851 0.692 0.661        0.725    8.22
24)  carbon disulfide
      1.129 1.336 1.244 1.253 1.290 1.675 1.434       1.133        1.312   13.55
25)  methylene chloride
      0.357 0.370 0.370 0.367 0.369 0.365 0.420 0.435 0.338        0.377    8.15
26)  methyl acetate
      0.451 0.383 0.435 0.421 0.423 0.447 0.449       0.413        0.428    5.33
27)  methyl tert butyl ether
      1.247 1.178 1.254 1.286 1.211 1.199 1.321 1.356 1.115 1.072  1.224    7.21
28)  trans-1,2-dichloroethene
      0.293 0.297 0.315 0.311 0.303 0.345 0.317 0.416 0.272        0.319   13.04
29)  hexane
      0.292       0.289 0.307 0.359       0.326       0.242        0.302   13.00
30)  di-isopropyl ether
      1.010 0.976 1.052 1.037 1.058 1.039 1.126       1.008        1.038    4.30
31)  t-butyl formate
      0.417 0.382 0.430 0.436 0.437 0.388 0.468       0.411        0.421    6.67
32)  ethyl tert-butyl ether
      1.196 1.118 1.189 1.219 1.209 1.179 1.294 0.840 1.120        1.152   11.14
33)  2-butanone
      0.064 0.056 0.067 0.074 0.071       0.076       0.066        0.068   10.25
34)  1,1-dichloroethane
      0.530 0.458 0.554 0.557 0.536 0.493 0.574 0.588 0.495 0.648  0.543   10.00
35)  chloroprene
      0.458 0.391 0.438 0.451 0.455 0.449 0.475       0.399        0.439    6.68
36)  acrylonitrile
      0.176 0.175 0.170 0.174 0.169 0.150 0.182 0.172 0.151        0.169    6.53
37)  vinyl acetate
      0.051       0.054 0.056 0.053       0.058       0.055        0.055    4.12
38)  ethyl acetate
      0.064       0.064 0.076 0.073       0.076       0.074        0.071    7.93
39)  ethyl acrylate
                                                                   0.000#  -1.00
40)  2,2-dichloropropane
      0.583 0.590 0.595 0.615 0.623 0.642 0.593 0.810 0.540        0.621   12.26
41)  cis-1,2-dichloroethene
      0.320 0.318 0.343 0.349 0.342 0.302 0.361 0.415 0.309 0.241  0.330   13.59
42)  propionitrile
      0.096 0.094 0.096 0.102 0.098 0.071 0.104       0.084        0.093   11.47
43)  bromochloromethane
      0.179 0.171 0.192 0.194 0.188 0.181 0.199 0.176 0.168 0.141  0.179    9.25
44)  tetrahydrofuran
      0.213 0.189 0.202 0.206 0.198       0.214       0.190        0.202    5.00
45)  chloroform
      0.533 0.515 0.571 0.593 0.555 0.533 0.595 0.708 0.513        0.568   10.67
46)  dibromofluoromethane (s)
      0.283 0.225 0.317 0.326 0.312 0.301 0.337       0.274        0.297   12.08
47)  1,2-dichloroethane-d4 (s)
      0.349 0.315 0.382 0.401 0.369 0.429 0.400       0.369        0.377    9.31
48)  methacrylonitrile
      0.170 0.184 0.178 0.189 0.183 0.130 0.191       0.160        0.173   11.71
49)  cyclohexane
      0.423 0.361 0.496 0.545 0.596 0.449 0.612 0.476 0.379        0.482   18.55
            ----- Linear regression -----  Coefficient =  0.9992
              Response Ratio = -0.02704 + 0.61438 *A

50)  1,1,1-trichloroethane
```

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Initial Calibration Summary

Job Number: JB90207 **Sample:** VA8000-ICC8000
Account: UTC United Technologies Corporation **Lab FileID:** A211633.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.508 0.474 0.586 0.624 0.604 0.464 0.662 0.534 0.484        0.549   13.20
51)  iso-butyl alcohol
      0.032       0.035 0.037 0.037       0.038       0.034        0.036    5.77
52)  tert-amyl methyl ether
      1.207 1.159 1.198 1.236 1.233 1.260 1.336 1.003 1.164 1.326  1.212    7.81

53) I   1,4-difluorobenzene   ----------------ISTD--------------------
54)  Di-isobutylene
                                                                   0.000#  -1.00
55)  epichlorohydrin
      0.068 0.067 0.066 0.069 0.070 0.053 0.072       0.061        0.066    9.50
56)  n-butyl alcohol
      0.031 0.028 0.031 0.032 0.033 0.024 0.032 0.021 0.030        0.029   13.12
57)  carbon tetrachloride
      0.499 0.472 0.537 0.565 0.536 0.483 0.578 0.435 0.452 0.496  0.505    9.38
58)  1,1-dichloropropene
      0.386 0.336 0.396 0.412 0.396 0.373 0.403 0.424 0.341 0.458  0.392    9.34
59)  benzene
      1.122 1.012 1.168 1.200 1.135 1.132 1.166 1.296 1.025 1.322  1.158    8.62
60)  Iso-octane
      1.053       1.107 1.168 1.339       1.232       0.874        1.129   14.15
61)  heptane
      0.174 0.147 0.182 0.191 0.216 0.162 0.193       0.150        0.177   13.25
62)  tert amyl alcohol
                                                                   0.000#  -1.00
63)  isopropyl acetate
      0.891 0.799 0.824 0.796 0.774 0.755 0.770       0.768        0.797    5.48
64)  1,2-dichloroethane
      0.479 0.429 0.464 0.477 0.429 0.413 0.445 0.474 0.422        0.448    5.77
65)  trichloroethene
      0.307 0.275 0.328 0.324 0.313 0.278 0.322 0.321 0.281 0.394  0.314   10.99
66)  2-nitropropane
      0.205 0.214 0.205 0.218 0.198       0.215       0.189        0.206    5.10
67)  tert-amyl ethyl ether
                                                                   0.000#  -1.00
68)  methylcyclohexane
      0.480       0.498 0.523 0.588       0.579       0.414        0.513   12.70
69)  2-chloroethyl vinyl ether
      0.219 0.211 0.228 0.232 0.227 0.202 0.238 0.161 0.217        0.215   10.79
70)  methyl methacrylate
      0.238 0.257 0.258 0.278 0.274       0.286       0.236        0.261    7.38
71)  1,2-dichloropropane
      0.293 0.289 0.293 0.307 0.291 0.290 0.300 0.229 0.264        0.284    8.31
72)  dibromomethane
      0.220 0.212 0.230 0.231 0.214 0.231 0.230 0.167 0.211        0.216    9.35
73)  bromodichloromethane
      0.426 0.424 0.471 0.480 0.452 0.413 0.478 0.419 0.409        0.442    6.60
74)  cis-1,3-dichloropropene
      0.495 0.457 0.531 0.555 0.534 0.426 0.564 0.499 0.453 0.499  0.501    9.12
75)  toluene-d8 (s)
      0.924 0.846 1.064 1.120 1.104 1.098 1.162       0.916        1.029   11.30
76)  4-methyl-2-pentanone
      0.217 0.222 0.217 0.226 0.223       0.232       0.194        0.219    5.46
77)  toluene
      0.701 0.644 0.756 0.788 0.771 0.684 0.820 0.779 0.663 0.953  0.756   12.00
78)  3-methyl-1-butanol
      0.046 0.040 0.048 0.051 0.051 0.037 0.051       0.045        0.046   11.30
79)  trans-1,3-dichloropropene
      0.492 0.448 0.515 0.529 0.511 0.395 0.546 0.513 0.437        0.487   10.18
80)  ethyl methacrylate
```

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Initial Calibration Summary

Job Number: JB90207 **Sample:** VA8000-ICC8000
Account: UTC United Technologies Corporation **Lab FileID:** A211633.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.441 0.391 0.459 0.479 0.469 0.378 0.495 0.428 0.389        0.436    9.81
 81)  1,1,2-trichloroethane
      0.242 0.256 0.259 0.266 0.256 0.207 0.276 0.243 0.222        0.247    8.76
 82)  2-hexanone
      0.188 0.152 0.185 0.202 0.200 0.154 0.219       0.156        0.182   13.90

 83) I   chlorobenzene-d5       ----------------ISTD--------------------
 84)  tetrachloroethene
      0.332 0.327 0.347 0.354 0.331 0.346 0.322 0.379 0.299        0.338    6.64
 85)  1,3-dichloropropane
      0.551 0.563 0.558 0.553 0.522 0.501 0.529 0.614 0.503        0.544    6.48
 86)  butyl acetate
      0.317 0.298 0.297 0.298 0.285 0.274 0.282       0.298        0.294    4.52
 87)  3,3-dimethyl-1-butanol
      0.122 0.111 0.124 0.128 0.128 0.106 0.120 0.084 0.120        0.116   12.07
 88)  dibromochloromethane
      0.447 0.443 0.461 0.477 0.436 0.445 0.446 0.413 0.417 0.444  0.443    4.22
 89)  1,2-dibromoethane
      0.388 0.392 0.381 0.405 0.375 0.355 0.380 0.425 0.370 0.489  0.396    9.56
 90)  n-butyl ether
      1.418 1.245 1.501 1.548 1.441 1.396 1.394 1.550 1.310        1.423    7.20
 91)  chlorobenzene
      0.949 0.894 0.985 1.012 0.954 0.902 0.962 0.928 0.910 1.161  0.966    8.09
 92)  1,1,1,2-tetrachloroethane
      0.466 0.420 0.486 0.492 0.453 0.407 0.456 0.521 0.442        0.460    7.81
 93)  ethylbenzene
      1.626 1.424 1.699 1.742 1.643 1.506 1.626 1.735 1.471 1.995  1.647    9.96
 94)  m,p-xylene
      0.612 0.544 0.645 0.660 0.626 0.587 0.634 0.630 0.586 0.733  0.626    8.12
 95)  o-xylene
      0.649 0.572 0.694 0.720 0.681 0.633 0.683 0.732 0.598 0.620  0.658    7.97
 96)  styrene
      1.007 0.853 1.064 1.096 1.041 0.987 1.060 1.114 0.915 1.053  1.019    7.98
 97)  bromoform
      0.384 0.354 0.405 0.396 0.373 0.356 0.380 0.340 0.344 0.386  0.372    5.98

 98) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
 99)  isopropylbenzene
      2.693 2.400 3.038 3.171 3.086 2.432 3.004 2.954 2.567 3.064  2.841   10.20
100)  cyclohexanone  **this compound failed in initial calibration
      0.059 0.065 0.068 0.070 0.096 0.045 0.055       0.058        0.065   23.34
101)  4-bromofluorobenzene (s)
      0.675 0.740 0.720 0.720 0.697       0.714       0.655        0.703    4.19
102)  bromobenzene
      0.676 0.677 0.766 0.775 0.746 0.767 0.761 0.825 0.647 0.964  0.761   11.85
103)  1,1,2,2-tetrachloroethane
      0.935 0.936 0.973 0.972 0.943 0.880 0.932 0.923 0.860 1.031  0.939    5.11
104)  trans-1,4-dichloro-2-butene
      0.275 0.288 0.273 0.278 0.266 0.297 0.259       0.255        0.274    5.13
105)  1,2,3-trichloropropane
      0.303 0.290 0.266 0.287 0.264 0.306 0.266       0.263        0.281    6.48
106)  n-propylbenzene
      2.724 2.665 3.119 3.176 3.049 2.703 3.041 3.104 2.601 3.569  2.975   10.10
107)  2-chlorotoluene
      0.621 0.645 0.705 0.710 0.688 0.577 0.699 0.764 0.581        0.666    9.56
108)  4-chlorotoluene
      1.788 1.680 1.941 1.919 1.857 1.746 1.866 2.010 1.625        1.826    6.93
109)  p-ethyltoluene
                                                                   0.000#  -1.00
110)  1,3,5-trimethylbenzene
```

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Initial Calibration Summary

Job Number: JB90207 **Sample:** VA8000-ICC8000
Account: UTC United Technologies Corporation **Lab FileID:** A211633.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      2.349 2.064 2.578 2.736 2.697 1.986 2.692 2.588 2.171 2.498  2.436   11.36
111)  tert-butylbenzene
      2.067 1.898 2.310 2.444 2.436 1.853 2.385 2.214 1.924 2.458  2.199   11.08
112)  pentachloroethane
      0.571 0.544 0.647 0.680 0.671 0.535 0.675 0.610 0.555 0.483  0.597   11.60
113)  1,2,4-trimethylbenzene
      2.309 2.068 2.522 2.603 2.494 2.027 2.600 2.608 2.125 2.894  2.425   11.66
114)  sec-butylbenzene
      3.089 2.801 3.515 3.725 3.714 2.938 3.683 3.273 2.853        3.288   11.62
115)  1,3-dichlorobenzene
      1.442 1.295 1.475 1.486 1.421 1.419 1.435 1.615 1.292 1.652  1.453    7.99
116)  p-isopropyltoluene
      2.656 2.398 3.011 3.147 3.127 2.468 3.155 3.068 2.522        2.839   11.31
117)  1,2,3-trimethylbenzene
                                                                   0.000#  -1.00
118)  1,4-dichlorobenzene
      1.399 1.505 1.479 1.498 1.422 1.407 1.451 1.663 1.330        1.462    6.40
119)  p-diethylbenzene
                                                                   0.000#  -1.00
120)  1,2-dichlorobenzene
      1.478 1.392 1.539 1.569 1.482 1.455 1.518 1.799 1.417 1.972  1.562   11.72
121)  n-butylbenzene
      1.322 1.156 1.411 1.440 1.403 1.284 1.425 1.337 1.138 1.335  1.325    8.04
122)  1,2,4,5-tetramethylbenzene
                                                                   0.000#  -1.00
123)  1,2-dibromo-3-chloropropane
      0.301 0.336 0.304 0.306 0.282 0.367 0.286 0.295 0.281        0.306    9.17
124)  1,3,5-trichlorobenzene
      1.486 1.434 1.621 1.616 1.548 1.442 1.633 1.789 1.359 1.935  1.586   11.01
125)  1,2,4-trichlorobenzene
      1.585 1.528 1.624 1.648 1.587 1.689 1.635 1.968 1.431        1.633    8.97
126)  hexachlorobutadiene
      0.709 0.592 0.759 0.819 0.826 0.752 0.846 0.738 0.609        0.739   12.23
127)  naphthalene
      4.993 5.007 5.014 4.995 4.782 4.702 4.676 5.072 4.488 6.500  5.023   11.01
128)  1,2,3-trichlorobenzene
      1.735 1.821 1.815 1.805 1.756 1.800 1.749 2.023 1.597 2.542  1.864   13.96
129)  hexachloroethane
      0.508 0.479 0.603 0.624 0.638 0.349 0.657 0.629 0.495        0.554   18.49
            ----- Linear regression -----  Coefficient =  0.9997
              Response Ratio = -0.01730 + 0.65719 *A

130)  Ethylenimine
                                                                   0.000#  -1.00
131)  Bis(chloromethyl)ether
                                                                   0.000#  -1.00
132)  2-methylnaphthalene
                                                                   0.000#  -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MA8000.M          Tue Mar 03 17:23:04 2015   RPT1
```

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Initial Calibration Verification

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VA8000-ICV8000
Lab FileID: A211638.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\A211638.D
Acq On : 2 Mar 2015 7:27 pm
Sample : icv8000-50
Misc : MS79298,VA8000,5,,,,1
MS Integration Params: RTENOX.P

Vial: 5
Operator: JemimaM
Inst : MSA
Multiplr: 1.00

Method : C:\msdchem\1\METHODS\MA8000.M (RTE Integrator)
Title : SW 846 8260b ZB624 60m x 0.25mm x 1.4um
Last Update : Tue Mar 03 17:06:49 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 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	109	0.00	7.78
2	M	1,4-dioxane	0.072	0.070	2.8	104	0.00	11.80
3	M	tertiary butyl alcohol	0.991	0.943	4.8	107	0.00	7.90
4	I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	10.09
5		chlorotrifluoroethene		----------NA----------				
6	M	chlorodifluoromethane	0.657	0.554	15.7	84	0.00	4.15
7	M	dichlorodifluoromethane	0.664	0.730	-9.9	100	0.00	4.13
8	M	chloromethane	0.475	0.552	-16.2	108	0.00	4.49
9	M	vinyl chloride	0.664	0.735	-10.7	110	0.00	4.77
10	M	bromomethane	0.345	0.370	-7.2	108	0.00	5.46
11	M	chloroethane	0.192	0.235	-22.4#	116	0.00	5.63
12		vinyl bromide		----------NA----------				
		----------	True	Calc.	% Drift	----------		
13	M	trichlorofluoromethane	50.000	47.215	5.6	99	0.00	6.15
		----------	AvgRF	CCRF	% Dev	----------		
14	m	pentane		----------NA----------				
15	M	ethyl ether	0.160	0.191	-19.4	118	0.00	6.58
16		Freon 123a		----------NA----------				
17	M	acrolein	0.099	0.116	-17.2	120	0.01	6.86
18		freon 113	0.325	0.362	-11.4	110	0.00	6.99
19	M	1,1-dichloroethene	0.565	0.598	-5.8	106	0.00	7.03
20	M	acetone	0.214	0.219	-2.3	104	0.00	7.10
21	M	allyl chloride	0.175	0.189	-8.0	109	0.00	7.59
22	M	acetonitrile	0.055	0.059	-7.3	107	0.00	7.59
23	M	iodomethane	0.725	0.786	-8.4	109	0.00	7.34
24	M	carbon disulfide	1.312	1.319	-0.5	109	0.00	7.47
25	M	methylene chloride	0.377	0.384	-1.9	108	0.00	7.81
26	M	methyl acetate	0.428	0.347	18.9	85	0.00	7.58
27	M	methyl tert butyl ether	1.224	1.277	-4.3	103	0.00	8.13
28	M	trans-1,2-dichloroethene	0.319	0.317	0.6	105	0.00	8.20
29		hexane	0.302	0.251	16.9	85	0.00	8.50
30	M	di-isopropyl ether	1.038	1.086	-4.6	109	0.00	8.75
31	m	t-butyl formate	0.421	0.456	-8.3	109	0.00	9.97
32	M	ethyl tert-butyl ether	1.152	1.188	-3.1	101	0.00	9.25
33	M	2-butanone	0.068	0.074	-8.8	103	0.00	9.53
34	M	1,1-dichloroethane	0.543	0.585	-7.7	109	0.00	8.79
35	M	chloroprene	0.439	0.420	4.3	96	0.00	8.90
36	M	acrylonitrile	0.169	0.188	-11.2	112	0.00	8.16
37	M	vinyl acetate	0.055	0.065	-18.2	121	0.00	8.78

Initial Calibration Verification

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VA8000-ICV8000
Lab FileID: A211638.D

38	M	ethyl acetate	0.071	0.077	-8.5	105	0.00	9.54
39		ethyl acrylate		----------NA----------				
40	M	2,2-dichloropropane	0.621	0.624	-0.5	105	0.00	9.57
41	M	cis-1,2-dichloroethene	0.330	0.351	-6.4	104	0.00	9.57
42	M	propionitrile	0.093	0.105	-12.9	107	0.00	9.65
43	M	bromochloromethane	0.179	0.194	-8.4	103	0.00	9.89
44	M	tetrahydrofuran	0.202	0.210	-4.0	105	0.00	9.93
45	M	chloroform	0.568	0.581	-2.3	102	0.00	9.95
46	S	dibromofluoromethane (s)	0.297	0.321	-8.1	102	0.00	10.16
47	S	1,2-dichloroethane-d4 (s)	0.377	0.389	-3.2	100	0.00	10.59
48	M	methacrylonitrile	0.173	0.185	-6.9	101	0.00	9.83
		----------	True	Calc.	% Drift	----------		
49		cyclohexane	50.000	49.819	0.4	111	0.00	10.28
		----------	AvgRF	CCRF	% Dev	----------		
50	M	1,1,1-trichloroethane	0.549	0.610	-11.1	101	0.00	10.21
51		iso-butyl alcohol	0.036	0.042	-16.7	118	0.00	10.41
52	M	tert-amyl methyl ether	1.212	1.255	-3.5	105	0.00	10.68
53	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.05
54	M	Di-isobutylene		----------NA----------				
55	M	epichlorohydrin	0.066	0.068	-3.0	105	0.00	12.37
56	M	n-butyl alcohol	0.029	0.034	-17.2	113	0.00	11.19
57	M	carbon tetrachloride	0.505	0.532	-5.3	99	0.00	10.41
58	M	1,1-dichloropropene	0.392	0.419	-6.9	107	0.00	10.39
59	M	benzene	1.158	1.182	-2.1	104	0.00	10.66
60	M	Iso-octane	1.129	1.005	11.0	91	0.00	10.65
61	M	heptane	0.177	0.172	2.8	95	0.00	10.82
62	m	tert amyl alcohol		----------NA----------				
63	M	isopropyl acetate	0.797	0.684	14.2	91	0.00	10.57
64	M	1,2-dichloroethane	0.448	0.451	-0.7	100	0.00	10.69
65	M	trichloroethene	0.314	0.319	-1.6	104	0.00	11.40
66	M	2-nitropropane	0.206	0.211	-2.4	102	0.00	12.23
67	m	tert-amyl ethyl ether		----------NA----------				
68	m	methylcyclohexane	0.513	0.486	5.3	98	0.00	11.62
69	M	2-chloroethyl vinyl ether	0.215	0.236	-9.8	107	0.00	12.23
70	M	methyl methacrylate	0.261	0.284	-8.8	108	0.00	11.67
71	M	1,2-dichloropropane	0.284	0.310	-9.2	106	0.00	11.68
72	M	dibromomethane	0.216	0.227	-5.1	103	0.00	11.85
73	M	bromodichloromethane	0.442	0.451	-2.0	99	0.00	11.99
74	M	cis-1,3-dichloropropene	0.501	0.543	-8.4	103	0.00	12.47
75	S	toluene-d8 (s)	1.029	1.083	-5.2	102	0.00	12.78
76	M	4-methyl-2-pentanone	0.219	0.221	-0.9	103	0.00	12.57
77	M	toluene	0.756	0.768	-1.6	103	0.00	12.86
78	M	3-methyl-1-butanol	0.046	0.052	-13.0	107	0.00	12.59
79	M	trans-1,3-dichloropropene	0.487	0.493	-1.2	98	0.00	13.07
80	M	ethyl methacrylate	0.436	0.459	-5.3	101	0.00	13.05
81	M	1,1,2-trichloroethane	0.247	0.255	-3.2	101	0.00	13.32
82	M	2-hexanone	0.182	0.199	-9.3	103	0.00	13.49
83	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	14.45
84	M	tetrachloroethene	0.338	0.337	0.3	100	0.00	13.49
85	M	1,3-dichloropropane	0.544	0.530	2.6	101	0.00	13.51
86	M	butyl acetate	0.294	0.299	-1.7	106	0.00	13.57
87		3,3-dimethyl-1-butanol	0.116	0.128	-10.3	106	0.00	13.69
88	M	dibromochloromethane	0.443	0.442	0.2	98	0.00	13.81
89	M	1,2-dibromoethane	0.396	0.375	5.3	98	0.00	13.97
90	M	n-butyl ether	1.423	1.418	0.4	97	0.00	14.36
91	M	chlorobenzene	0.966	0.962	0.4	100	0.00	14.48

Initial Calibration Verification

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VA8000-ICV8000
Lab FileID: A211638.D

92	M	1,1,1,2-tetrachloroethane	0.460	0.456	0.9	98	0.00	14.54
93	M	ethylbenzene	1.647	1.639	0.5	99	0.00	14.53
94	M	m,p-xylene	0.626	0.639	-2.1	102	0.00	14.65
95	M	o-xylene	0.658	0.694	-5.5	102	0.00	15.12
96	M	styrene	1.019	1.044	-2.5	101	0.00	15.13
97	M	bromoform	0.372	0.372	0.0	99	0.00	15.44
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	17.04
99	M	isopropylbenzene	2.841	3.017	-6.2	99	0.00	15.50
100	m	cyclohexanone	0.065	0.071	-9.2	105	0.00	15.71
101	S	4-bromofluorobenzene (s)	0.703	0.704	-0.1	101	0.00	15.74
102	M	bromobenzene	0.761	0.756	0.7	101	0.00	15.96
103	M	1,1,2,2-tetrachloroethane	0.939	0.907	3.4	97	0.00	15.85
104	M	trans-1,4-dichloro-2-bute	0.274	0.266	2.9	99	0.00	15.90
105	M	1,2,3-trichloropropane	0.281	0.268	4.6	97	0.00	15.94
106	M	n-propylbenzene	2.975	3.177	-6.8	104	0.00	15.96
107	M	2-chlorotoluene	0.666	0.680	-2.1	99	0.00	16.13
108	M	4-chlorotoluene	1.826	1.830	-0.2	99	0.00	16.24
109	m	p-ethyltoluene		----------NA----------				
110	M	1,3,5-trimethylbenzene	2.436	2.604	-6.9	99	0.00	16.12
111	M	tert-butylbenzene	2.199	2.387	-8.5	101	0.00	16.51
112	M	pentachloroethane	0.597	0.652	-9.2	99	0.00	16.62
113	M	1,2,4-trimethylbenzene	2.425	2.606	-7.5	104	0.00	16.56
114	M	sec-butylbenzene	3.288	3.542	-7.7	98	0.00	16.75
115	M	1,3-dichlorobenzene	1.453	1.397	3.9	97	0.00	16.98
116	M	p-isopropyltoluene	2.839	3.027	-6.6	100	0.00	16.88
117	M	1,2,3-trimethylbenzene		----------NA----------				
118	M	1,4-dichlorobenzene	1.462	1.416	3.1	98	0.00	17.07
119	m	p-diethylbenzene		----------NA----------				
120	M	1,2-dichlorobenzene	1.562	1.489	4.7	98	0.00	17.51
121	M	n-butylbenzene	1.325	1.421	-7.2	102	0.00	17.35
122	m	1,2,4,5-tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa	0.306	0.289	5.6	98	0.00	18.37
124	M	1,3,5-trichlorobenzene	1.586	1.515	4.5	97	0.00	18.56
125	M	1,2,4-trichlorobenzene	1.633	1.596	2.3	100	0.00	19.28
126	M	hexachlorobutadiene	0.739	0.747	-1.1	94	0.00	19.40
127	M	naphthalene	5.023	4.833	3.8	100	0.00	19.61
128	M	1,2,3-trichlorobenzene	1.864	1.743	6.5	100	0.00	19.88
		----------	True	Calc.	% Drift	----------		
129	M	hexachloroethane	50.000	46.755	6.5	99	0.00	17.79
		----------	AvgRF	CCRF	% Dev	----------		
130		Ethylenimine		----------NA----------				
131		Bis(chloromethyl)ether		----------NA----------				
132		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A211633.D MA8000.M Tue Mar 03 17:23:40 2015 RPT1

6.7.2

6

Continuing Calibration Summary

Job Number: JB90207
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VA8018-CC8000
Lab FileID: A212065.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\a-...8018-va8020\A212065.D Vial: 25
Acq On : 20 Mar 2015 10:08 pm Operator: JemimaM
Sample : cc8000-50 Inst : MSA
Misc : MS81957,VA8018,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA8000.M (RTE Integrator)
Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
Last Update : Thu Mar 12 11:55:47 2015
Response via : Multiple Level Calibration

Min. RRF : 0.010 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	121	0.00	7.77
2	M	1,4-dioxane	0.072	0.069	4.2	115	0.00	11.80
3	M	tertiary butyl alcohol	0.991	0.961	3.0	121	0.02	7.89
4	I	pentafluorobenzene	1.000	1.000	0.0	124	0.00	10.09
5		chlorotrifluoroethene		----------NA----------				
6	M	chlorodifluoromethane	0.657	0.604	8.1	110	0.02	4.15
7	M	dichlorodifluoromethane	0.664	0.771	-16.1	127	0.02	4.14
8	M	chloromethane	0.475	0.583	-22.7#	138	0.01	4.49
9	M	vinyl chloride	0.664	0.719	-8.3	130	0.00	4.78
10	M	bromomethane	0.345	0.358	-3.8	125	0.02	5.47
11	M	chloroethane	0.192	0.229	-19.3	136	0.01	5.64
12		vinyl bromide		----------NA----------				
		----------	True	Calc.	% Drift	----------		
13	M	trichlorofluoromethane	50.000	44.511	11.0	112	0.02	6.16
		----------	AvgRF	CCRF	% Dev	----------		
14	m	pentane		----------NA----------				
15	M	ethyl ether	0.160	0.167	-4.4	124	0.00	6.57
16		Freon 123a		----------NA----------				
17	M	acrolein	0.099	0.091	8.1	112	0.00	6.86
18		freon 113	0.325	0.359	-10.5	131	0.01	7.01
19	M	1,1-dichloroethene	0.565	0.597	-5.7	127	0.00	7.04
20	M	acetone	0.214	0.219	-2.3	124	0.00	7.11
21	M	allyl chloride	0.175	0.166	5.1	115	0.00	7.60
22	M	acetonitrile	0.055	0.063	-14.5	139	0.00	7.59
23	M	iodomethane	0.725	0.746	-2.9	124	0.00	7.34
24	M	carbon disulfide	1.312	1.247	5.0	124	0.01	7.47
25	M	methylene chloride	0.377	0.375	0.5	127	0.00	7.80
26	M	methyl acetate	0.428	0.452	-5.6	134	0.00	7.58
27	M	methyl tert butyl ether	1.224	1.213	0.9	117	0.00	8.14
28	M	trans-1,2-dichloroethene	0.319	0.295	7.5	118	0.00	8.19
29		hexane	0.302	0.343	-13.6	139	0.00	8.50
30	M	di-isopropyl ether	1.038	1.124	-8.3	135	0.00	8.76
31	m	t-butyl formate	0.421	0.420	0.2	120	0.00	9.97
32	M	ethyl tert-butyl ether	1.152	1.200	-4.2	123	0.00	9.25
33	M	2-butanone	0.068	0.070	-2.9	118	0.00	9.53
34	M	1,1-dichloroethane	0.543	0.549	-1.1	123	0.00	8.79
35	M	chloroprene	0.439	0.459	-4.6	127	0.00	8.90
36	M	acrylonitrile	0.169	0.183	-8.3	131	0.00	8.15
37	M	vinyl acetate	0.055	0.055	0.0	122	0.00	8.78

Continuing Calibration Summary

Job Number: JB90207 **Sample:** VA8018-CC8000
Account: UTC United Technologies Corporation **Lab FileID:** A212065.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

38	M	ethyl acetate	0.071	0.076	-7.0	125	0.00	9.54
39		ethyl acrylate		----------NA----------				
40	M	2,2-dichloropropane	0.621	0.543	12.6	110	0.00	9.57
41	M	cis-1,2-dichloroethene	0.330	0.329	0.3	117	0.00	9.57
42	M	propionitrile	0.093	0.100	-7.5	122	0.00	9.64
43	M	bromochloromethane	0.179	0.176	1.7	113	0.00	9.89
44	M	tetrahydrofuran	0.202	0.209	-3.5	126	0.00	9.93
45	M	chloroform	0.568	0.537	5.5	113	0.00	9.95
46	S	dibromofluoromethane (s)	0.297	0.314	-5.7	120	0.00	10.15
47	S	1,2-dichloroethane-d4 (s)	0.377	0.363	3.7	113	0.00	10.59
48	M	methacrylonitrile	0.173	0.177	-2.3	117	0.00	9.83
		----------	True	Calc.	% Drift	----------		
49		cyclohexane	50.000	48.661	2.7	130	0.00	10.28
		----------	AvgRF	CCRF	% Dev	----------		
50	M	1,1,1-trichloroethane	0.549	0.558	-1.6	111	0.00	10.20
51		iso-butyl alcohol	0.036	0.038	-5.6	128	0.00	10.41
52	M	tert-amyl methyl ether	1.212	1.190	1.8	120	0.00	10.69
53	I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	11.05
54	M	Di-isobutylene		----------NA----------				
55	M	epichlorohydrin	0.066	0.072	-9.1	118	0.00	12.38
56	M	n-butyl alcohol	0.029	0.035	-20.7#	123	0.00	11.18
57	M	carbon tetrachloride	0.505	0.558	-10.5	111	0.00	10.41
58	M	1,1-dichloropropene	0.392	0.423	-7.9	115	0.00	10.38
59	M	benzene	1.158	1.248	-7.8	116	0.00	10.66
60	M	Iso-octane	1.129	1.446	-28.1#	138	0.00	10.65
61	M	heptane	0.177	0.222	-25.4#	130	0.00	10.82
62	m	tert amyl alcohol		----------NA----------				
63	M	isopropyl acetate	0.797	0.891	-11.8	125	0.00	10.57
64	M	1,2-dichloroethane	0.448	0.457	-2.0	107	0.00	10.69
65	M	trichloroethene	0.314	0.320	-1.9	110	0.00	11.40
66	M	2-nitropropane	0.206	0.209	-1.5	107	0.00	12.23
67	m	tert-amyl ethyl ether		----------NA----------				
68	m	methylcyclohexane	0.513	0.606	-18.1	130	0.00	11.62
69	M	2-chloroethyl vinyl ether	0.215	0.260	-20.9#	125	0.00	12.23
70	M	methyl methacrylate	0.261	0.297	-13.8	120	0.00	11.67
71	M	1,2-dichloropropane	0.284	0.326	-14.8	119	0.00	11.68
72	M	dibromomethane	0.216	0.223	-3.2	108	0.00	11.85
73	M	bromodichloromethane	0.442	0.463	-4.8	108	0.00	11.99
74	M	cis-1,3-dichloropropene	0.501	0.537	-7.2	108	0.00	12.47
75	S	toluene-d8 (s)	1.029	1.199	-16.5	120	0.00	12.78
76	M	4-methyl-2-pentanone	0.219	0.242	-10.5	120	0.00	12.57
77	M	toluene	0.756	0.783	-3.6	111	0.00	12.86
78	M	3-methyl-1-butanol	0.046	0.056	-21.7#	122	0.00	12.59
79	M	trans-1,3-dichloropropene	0.487	0.514	-5.5	109	0.00	13.08
80	M	ethyl methacrylate	0.436	0.503	-15.4	118	0.00	13.05
81	M	1,1,2-trichloroethane	0.247	0.270	-9.3	113	0.00	13.32
82	M	2-hexanone	0.182	0.228	-25.3#	126	0.00	13.49
83	I	chlorobenzene-d5	1.000	1.000	0.0	115	0.00	14.45
84	M	tetrachloroethene	0.338	0.330	2.4	107	0.00	13.49
85	M	1,3-dichloropropane	0.544	0.554	-1.8	115	0.00	13.51
86	M	butyl acetate	0.294	0.335	-13.9	130	0.00	13.57
87		3,3-dimethyl-1-butanol	0.116	0.137	-18.1	124	0.00	13.68
88	M	dibromochloromethane	0.443	0.427	3.6	103	0.00	13.81
89	M	1,2-dibromoethane	0.396	0.384	3.0	109	0.00	13.97
90	M	n-butyl ether	1.423	1.641	-15.3	122	0.00	14.36
91	M	chlorobenzene	0.966	0.973	-0.7	111	0.00	14.48

Continuing Calibration Summary

Job Number: JB90207 **Sample:** VA8018-CC8000
Account: UTC United Technologies Corporation **Lab FileID:** A212065.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

92	M	1,1,1,2-tetrachloroethane	0.460	0.454	1.3	106	0.00	14.54
93	M	ethylbenzene	1.647	1.690	-2.6	112	0.00	14.53
94	M	m,p-xylene	0.626	0.645	-3.0	113	0.00	14.65
95	M	o-xylene	0.658	0.697	-5.9	112	0.00	15.12
96	M	styrene	1.019	1.069	-4.9	112	0.00	15.13
97	M	bromoform	0.372	0.363	2.4	106	0.00	15.44
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	112	0.00	17.04
99	M	isopropylbenzene	2.841	3.056	-7.6	108	0.00	15.50
100	m	cyclohexanone	0.065	0.110	-69.2#	176	0.00	15.71
101	S	4-bromofluorobenzene (s)	0.703	0.769	-9.4	120	0.00	15.74
102	M	bromobenzene	0.761	0.761	0.0	110	0.00	15.96
103	M	1,1,2,2-tetrachloroethane	0.939	0.999	-6.4	116	0.00	15.85
104	M	trans-1,4-dichloro-2-bute	0.274	0.223	18.6	90	0.00	15.90
105	M	1,2,3-trichloropropane	0.281	0.268	4.6	105	0.00	15.94
106	M	n-propylbenzene	2.975	3.129	-5.2	111	0.00	15.96
107	M	2-chlorotoluene	0.666	0.694	-4.2	110	0.00	16.13
108	M	4-chlorotoluene	1.826	1.863	-2.0	109	0.00	16.24
109	m	p-ethyltoluene		----------NA----------				
110	M	1,3,5-trimethylbenzene	2.436	2.620	-7.6	108	0.00	16.12
111	M	tert-butylbenzene	2.199	2.224	-1.1	102	0.00	16.51
112	M	pentachloroethane	0.597	0.633	-6.0	105	0.00	16.62
113	M	1,2,4-trimethylbenzene	2.425	2.517	-3.8	109	0.00	16.56
114	M	sec-butylbenzene	3.288	3.546	-7.8	107	0.00	16.75
115	M	1,3-dichlorobenzene	1.453	1.399	3.7	106	0.00	16.98
116	M	p-isopropyltoluene	2.839	2.925	-3.0	104	0.00	16.88
117	M	1,2,3-trimethylbenzene		----------NA----------				
118	M	1,4-dichlorobenzene	1.462	1.394	4.7	105	0.00	17.07
119	m	p-diethylbenzene		----------NA----------				
120	M	1,2-dichlorobenzene	1.562	1.470	5.9	105	0.00	17.51
121	M	n-butylbenzene	1.325	1.363	-2.9	106	0.00	17.35
122	m	1,2,4,5-tetramethylbenzen		----------NA----------				
123	M	1,2-dibromo-3-chloropropa	0.306	0.270	11.8	99	0.00	18.36
124	M	1,3,5-trichlorobenzene	1.586	1.385	12.7	96	0.00	18.56
125	M	1,2,4-trichlorobenzene	1.633	1.360	16.7	93	0.00	19.28
126	M	hexachlorobutadiene	0.739	0.695	6.0	95	0.00	19.40
127	M	naphthalene	5.023	4.343	13.5	98	0.00	19.61
128	M	1,2,3-trichlorobenzene	1.864	1.522	18.3	95	0.00	19.88
		----------	True	Calc.	% Drift	----------		
129	M	hexachloroethane	50.000	42.929	14.1	98	0.00	17.79
		----------	AvgRF	CCRF	% Dev	----------		
130		Ethylenimine		----------NA----------				
131		Bis(chloromethyl)ether		----------NA----------				
132		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
A211633.D MA8000.M Mon Mar 23 16:59:14 2015 RPT1

6.7.3

6

New Jersey
ACCUTEST
LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212085.D
Acq On : 21 Mar 2015 8:36 am
Operator : JemimaM
Sample : jb90207-1
Misc : MS82243,VA8018,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Mar 23 17:16:27 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.775	65	440326	500.00	ug/L	0.00
4) pentafluorobenzene	10.092	168	338325	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.044	114	312510	50.00	ug/L	0.00
83) chlorobenzene-d5	14.444	117	280629	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.038	152	185908	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.160	113	106143	52.85	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.70%			
47) 1,2-dichloroethane-d4 (s)	10.594	65	120745	47.36	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 94.72%			
75) toluene-d8 (s)	12.775	98	370196	57.55	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 115.10%			
101) 4-bromofluorobenzene (s)	15.735	95	136874	52.37	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 104.74%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.048	61	5744	1.50	ug/L	85
20) acetone	7.106	43	16892	11.67	ug/L	86
33) 2-butanone	9.543	72	6003	13.11	ug/L #	1
34) 1,1-dichloroethane	8.795	63	5735	1.56	ug/L	94
41) cis-1,2-dichloroethene	9.564	96	3337	1.49	ug/L #	74
50) 1,1,1-trichloroethane	10.212	97	73623	19.82	ug/L	94
65) trichloroethene	11.405	95	1241	0.63	ug/L #	77
84) tetrachloroethene	13.502	164	2019	1.07	ug/L	96

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

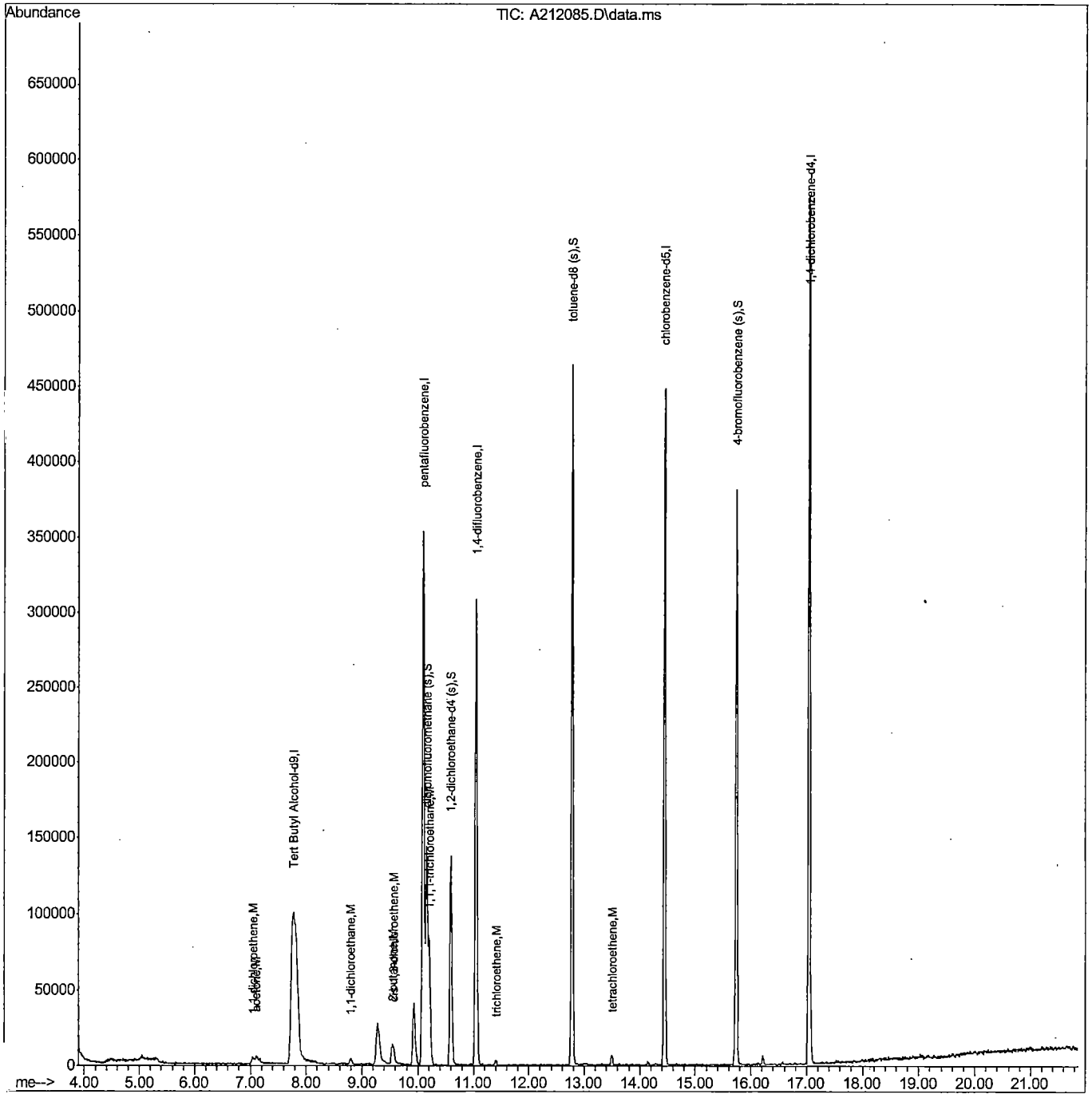
7.1.1

7

Quantitation Report (QT Reviewed)

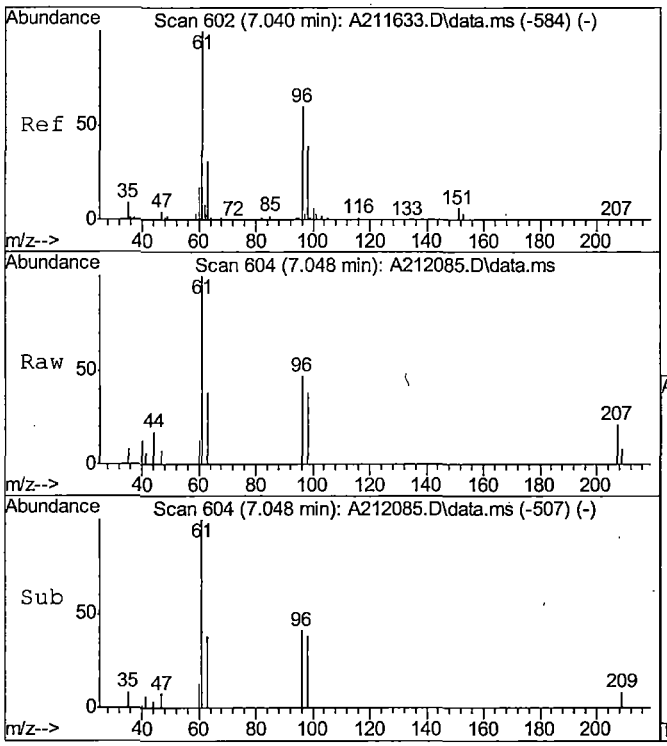
Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212085.D
Acq On : 21 Mar 2015 8:36 am
Operator : JemimaM
Sample : jb90207-1
Misc : MS82243,VA8018,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Mar 23 17:16:27 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration



MA8000.M Mon Mar 23 17:16:34 2015 RPT1

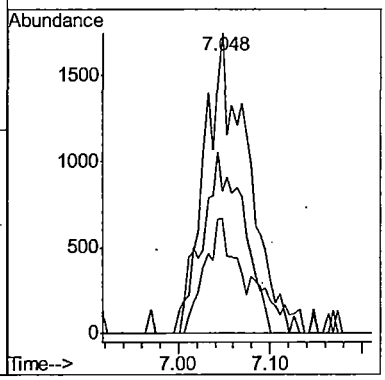
ACCUTEST LABORATORIES

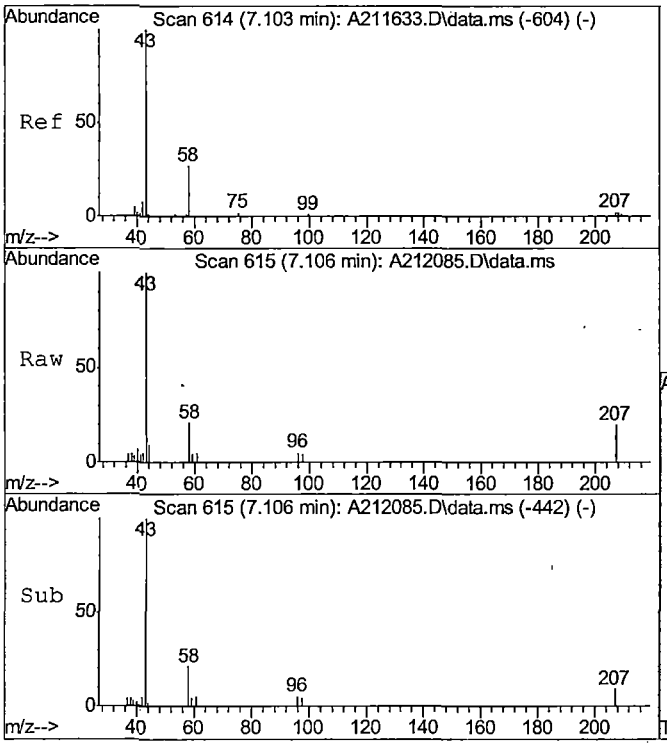


#19
1,1-dichloroethene
Concen: 1.50 ug/L
RT: 7.048 min Scan# 604
Delta R.T. 0.008 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion: 61 Resp: 5744

Ion	Ratio	Lower	Upper
61	100		
96	47.4	29.8	89.8
63	38.5	1.4	61.4

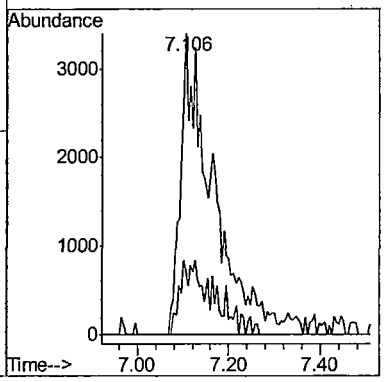




#20
acetone
Concen: 11.67 ug/L
RT: 7.106 min Scan# 615
Delta R.T. 0.003 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion: 43 Resp: 16892

Ion	Ratio	Lower	Upper
43	100		
58	6.7	0.0	42.2



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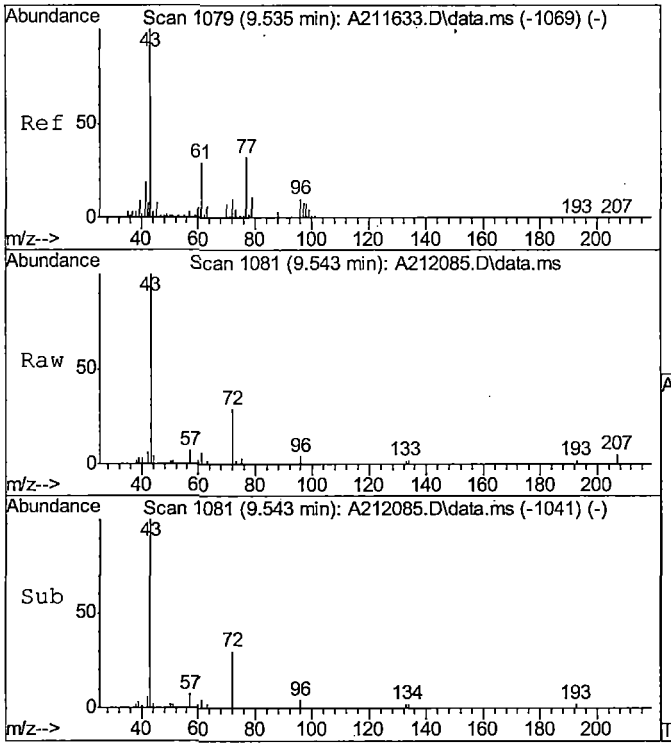
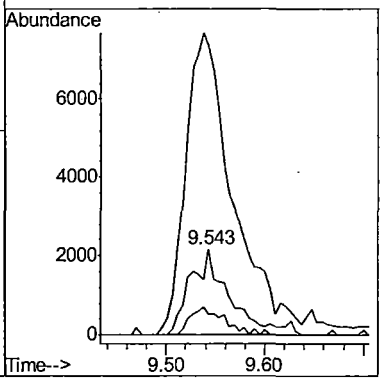
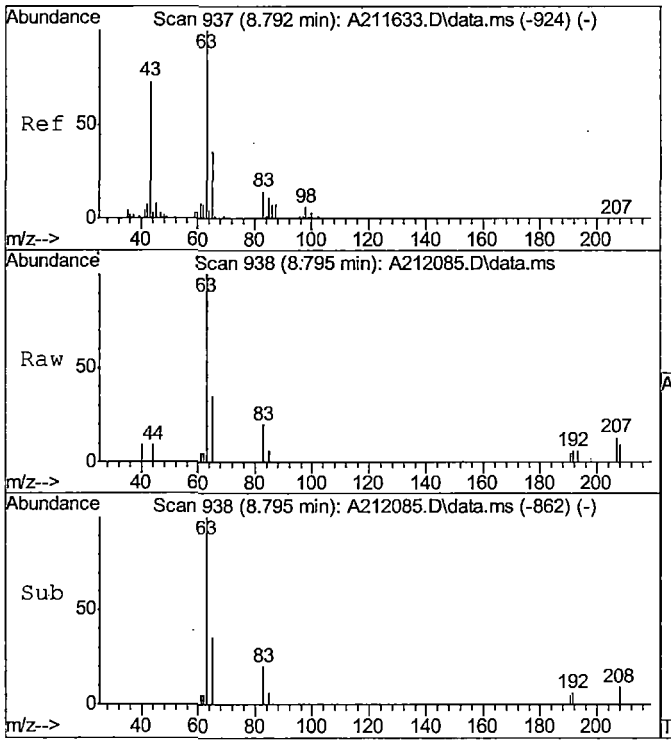


#33
2-butanone
Concen: 13.11 ug/L
RT: 9.543 min Scan# 1081
Delta R.T. 0.008 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion: 72 Resp: 6003

Ion	Ratio	Lower	Upper
72	100		
43	426.5	970.8	1030.8#
57	26.7	0.0	52.9

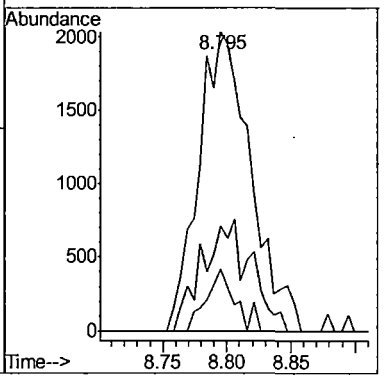




#34
1,1-dichloroethane
Concen: 1.56 ug/L
RT: 8.795 min Scan# 938
Delta R.T. 0.003 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion: 63 Resp: 5735

Ion	Ratio	Lower	Upper
63	100		
65	34.8	5.7	65.7
83	20.4	0.0	43.9



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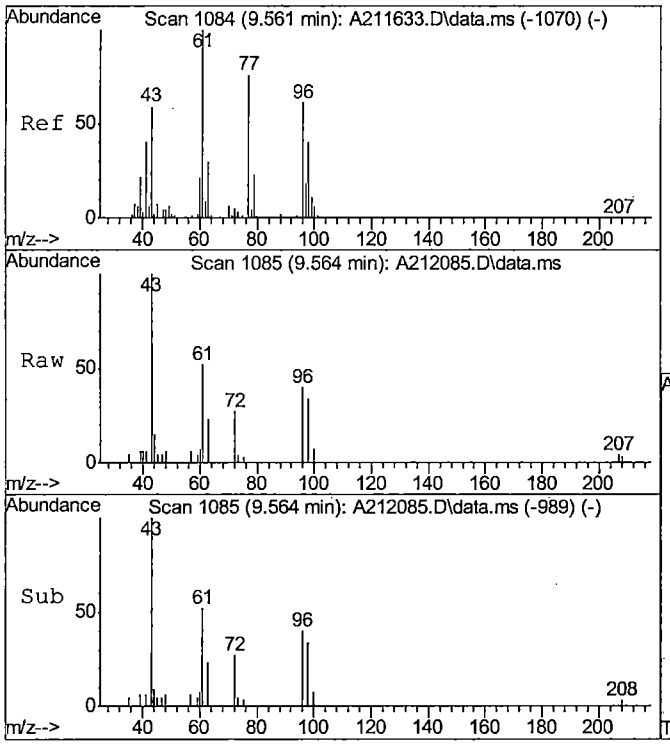
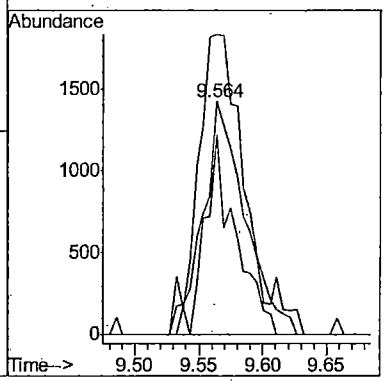
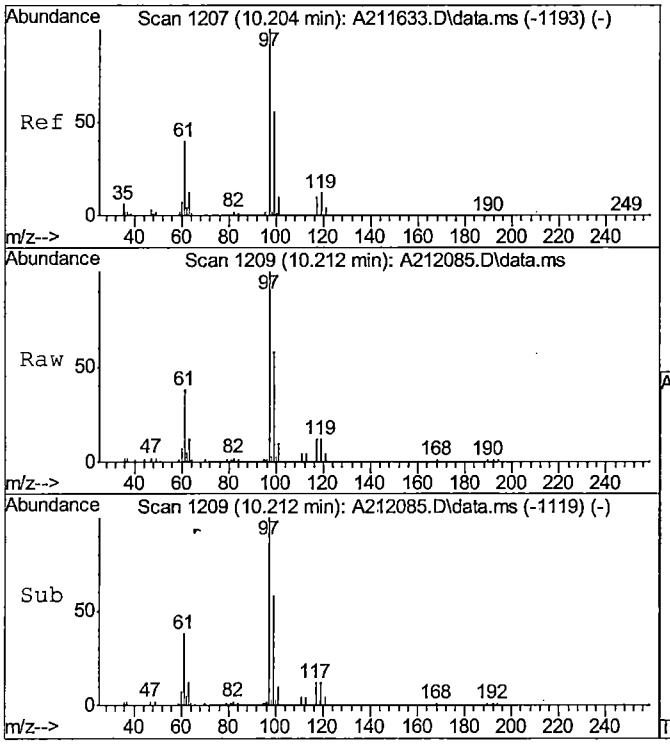


#41
cis-1,2-dichloroethene
Concen: 1.49 ug/L
RT: 9.564 min Scan# 1085
Delta R.T. 0.003 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion: 96 Resp: 3337

Ion	Ratio	Lower	Upper
96	100		
61	128.9	132.7	192.7#
98	86.1	35.2	95.2

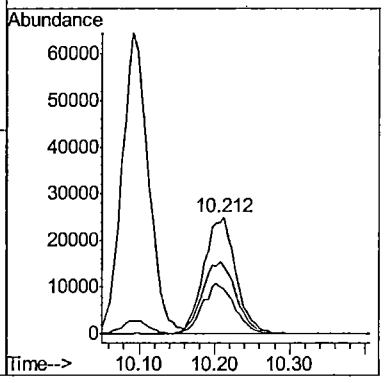




#50
1,1,1-trichloroethane
Concen: 19.82 ug/L
RT: 10.212 min Scan# 1209
Delta R.T. 0.008 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion: 97 Resp: 73623

Ion	Ratio	Lower	Upper
97	100		
99	57.9	34.4	94.4
61	37.6	9.8	69.8



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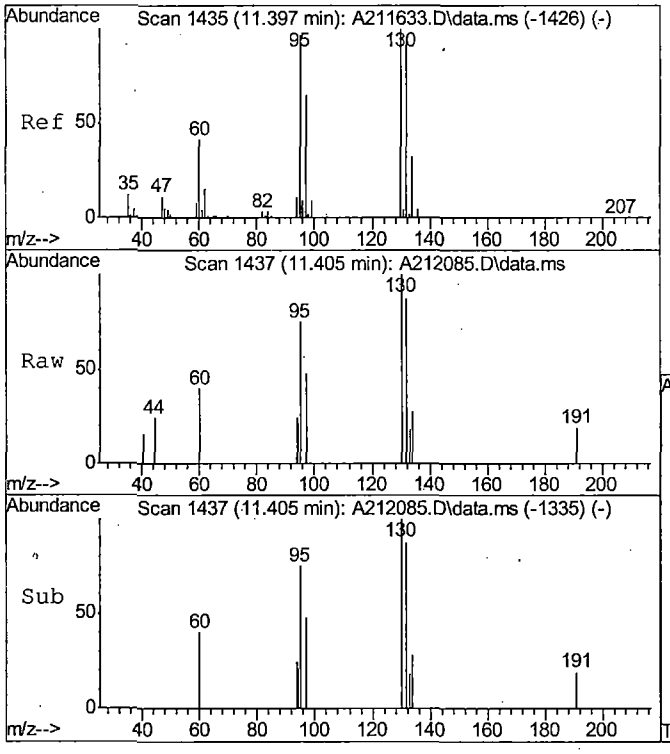
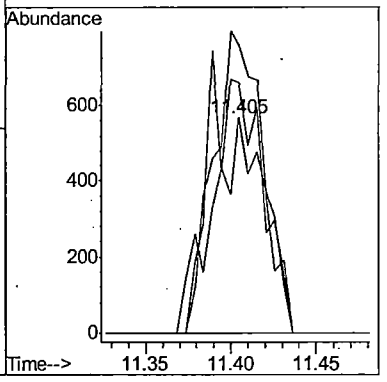
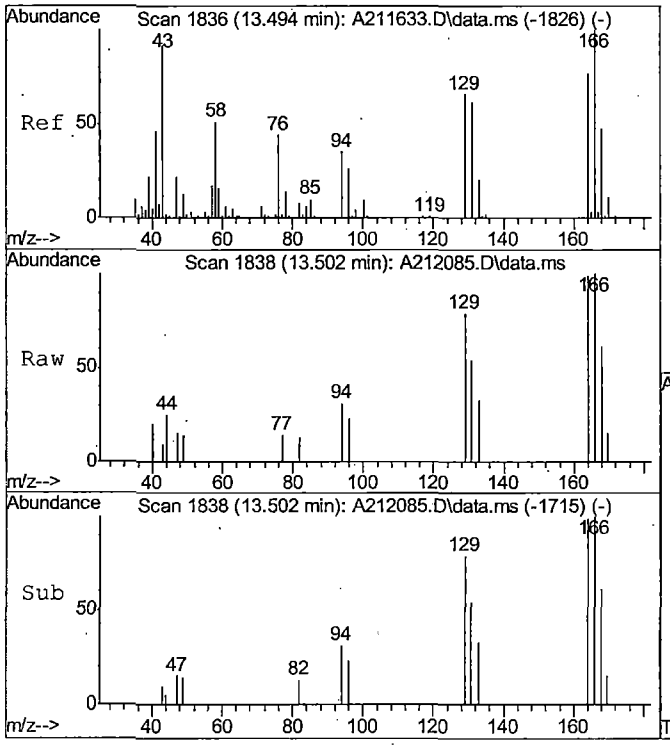


#65
trichloroethene
Concen: 0.63 ug/L
RT: 11.405 min Scan# 1437
Delta R.T. 0.009 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion: 95 Resp: 1241

Ion	Ratio	Lower	Upper
95	100		
130	133.6	73.3	133.3#
132	116.4	69.7	129.7

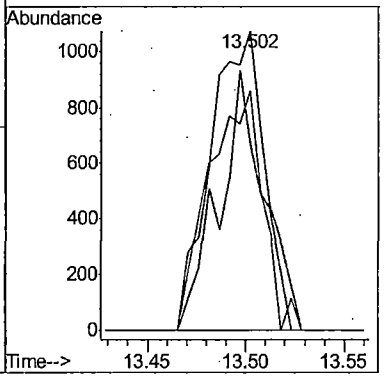




#84
tetrachloroethene
Concen: 1.07 ug/L
RT: 13.502 min Scan# 1838
Delta R.T. 0.008 min
Lab File: A212085.D
Acq: 21 Mar 2015 8:36 am

Tgt Ion:164 Resp: 2019

Ion	Ratio	Lower	Upper
164	100		
168	61.7	30.8	90.8
129	80.0	55.3	115.3



7.1.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212084.D
Acq On : 21 Mar 2015 8:04 am
Operator : JemimaM
Sample : jb90207-2
Misc : MS82243,VA8018,5,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Mar 23 17:15:23 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.773	65	436406	500.00	ug/L	0.00
4) pentafluorobenzene	10.090	168	339028	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.048	114	315795	50.00	ug/L	0.00
83) chlorobenzene-d5	14.442	117	280576	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.041	152	182495	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.158	113	105531	52.44	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.88%			
47) 1,2-dichloroethane-d4 (s)	10.593	65	124681	48.80	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 97.60%			
75) toluene-d8 (s)	12.779	98	367570	56.54	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 113.08%			
101) 4-bromofluorobenzene (s)	15.734	95	137366	53.55	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 107.10%			

Target Compounds Qvalue

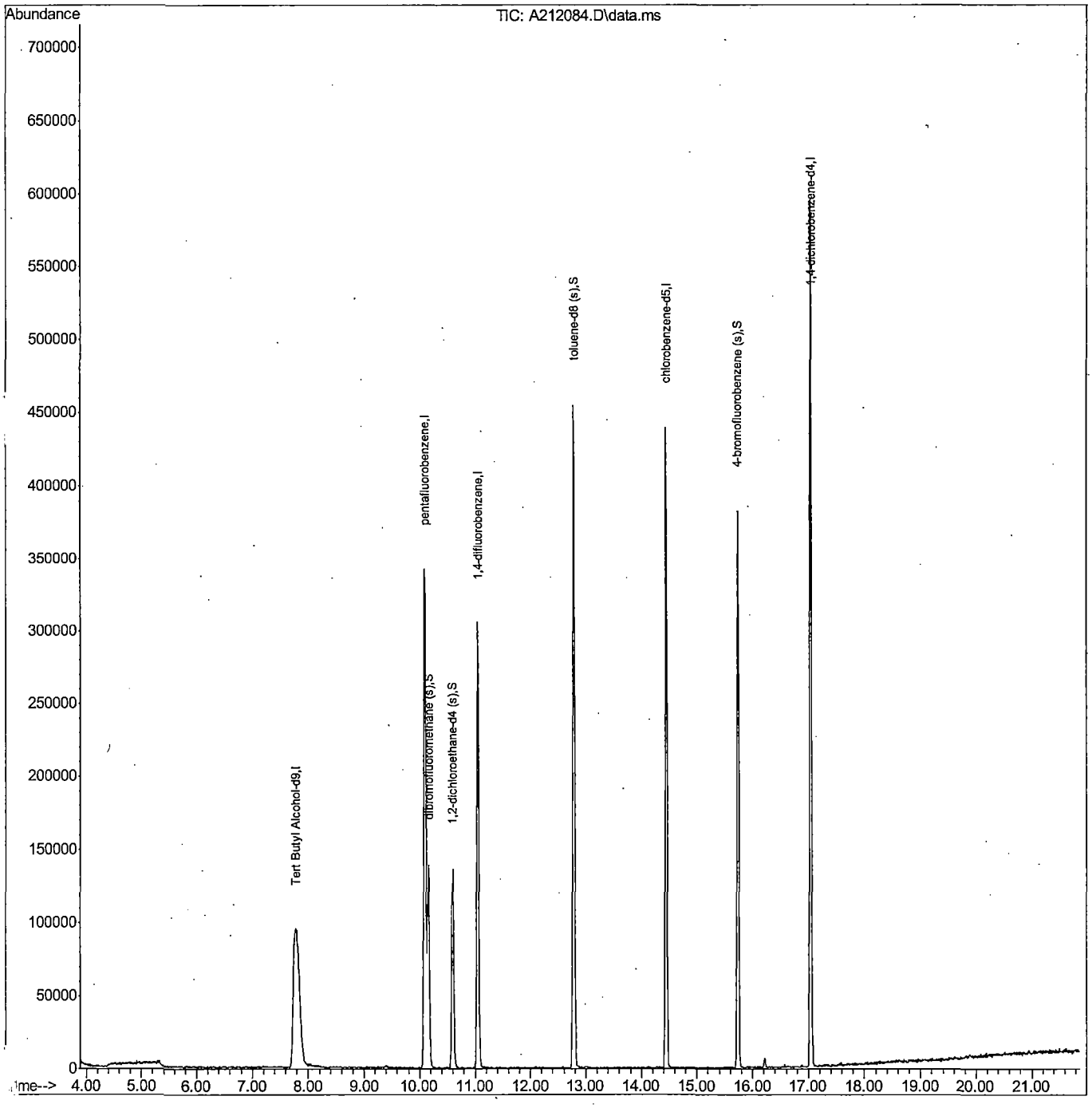
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212084.D
Acq On : 21 Mar 2015 8:04 am
Operator : JemimaM
Sample : jb90207-2
Misc : MS82243,VA8018,5,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Mar 23 17:15:23 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212067.D
Acq On : 20 Mar 2015 11:10 pm
Operator : JemimaM
Sample : mb1
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 23 16:59:57 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.750	65	473744	500.00	ug/L	-0.03
4) pentafluorobenzene	10.093	168	354405	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.045	114	330150	50.00	ug/L	0.00
83) chlorobenzene-d5	14.445	117	290409	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.039	152	193392	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.156	113	108677	51.66	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.32%			
47) 1,2-dichloroethane-d4 (s)	10.590	65	127245	47.64	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 95.28%			
75) toluene-d8 (s)	12.776	98	385569	56.73	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 113.46%			
101) 4-bromofluorobenzene (s)	15.737	95	143251	52.69	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 105.38%			

Target Compounds Qvalue

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

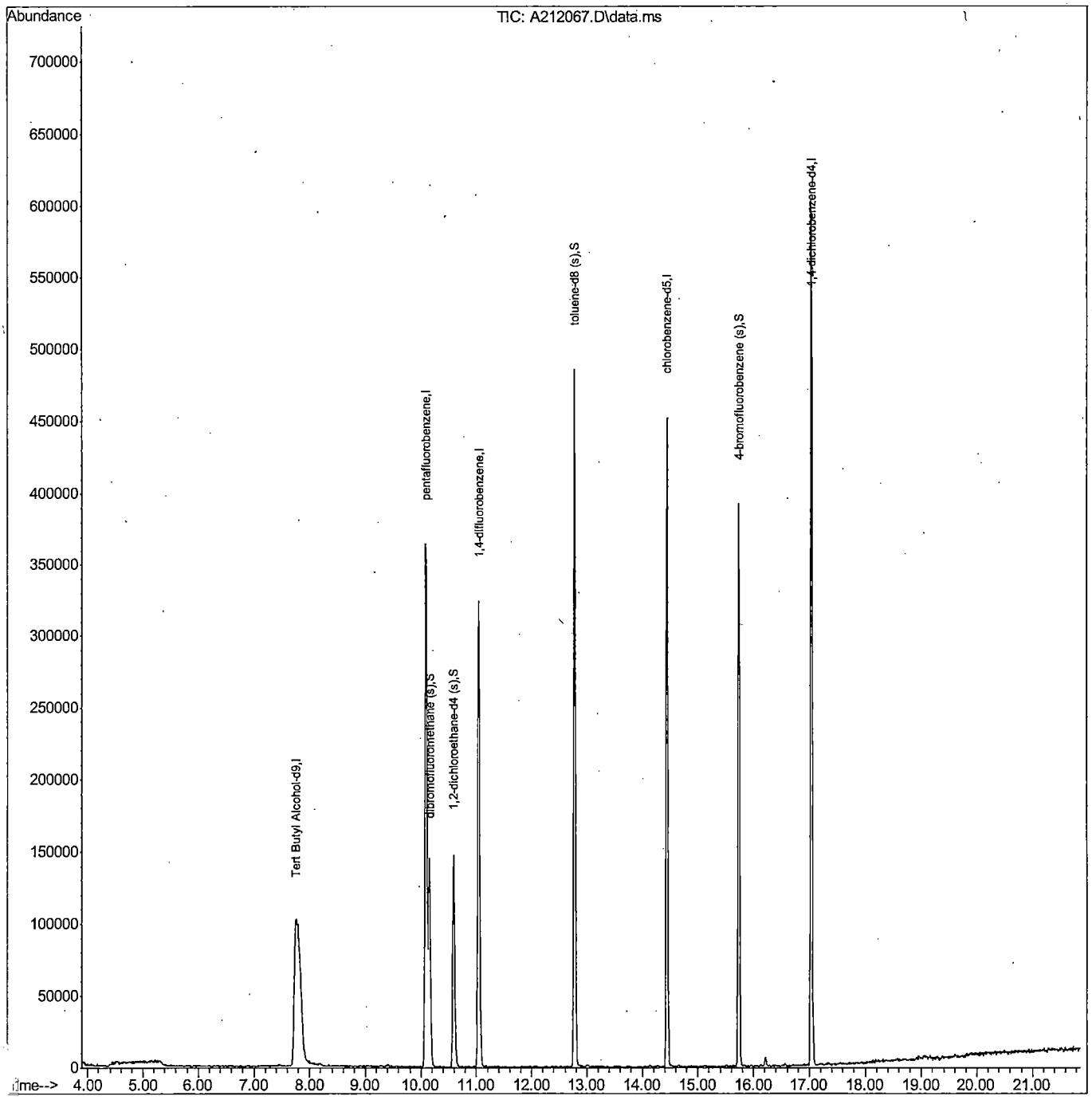
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212067.D
Acq On : 20 Mar 2015 11:10 pm
Operator : JemimaM
Sample : mb1
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 23 16:59:57 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB90207

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212068.D
Acq On : 20 Mar 2015 11:42 pm
Operator : JemimaM
Sample : bs
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 17:00:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.769	65	513603	500.00	ug/L	-0.01
4) pentafluorobenzene	10.096	168	364156	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.043	114	344604	50.00	ug/L	0.00
83) chlorobenzene-d5	14.443	117	325143	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.042	152	205150	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.154	113	115441	53.40	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.80%			
47) 1,2-dichloroethane-d4 (s)	10.588	65	133777	48.75	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 97.50%			
75) toluene-d8 (s)	12.779	98	414850	58.48	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 116.96%			
101) 4-bromofluorobenzene (s)	15.734	95	153597	53.26	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 106.52%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.817	88	87642	1177.70	ug/L	94
3) tertiary butyl alcohol	7.910	59	240712	236.37	ug/L	93
6) chlorodifluoromethane	4.150	51	189232	39.55	ug/L	97
7) dichlorodifluoromethane	4.139	85	234436	48.46	ug/L	96
8) chloromethane	4.490	50	204805	59.20	ug/L	95
9) vinyl chloride	4.782	62	255225	52.75	ug/L	96
10) bromomethane	5.468	94	134325	53.38	ug/L	89
11) chloroethane	5.635	64	93479	66.69	ug/L	99
13) trichlorofluoromethane	6.168	101	241617	42.72	ug/L	98
15) ethyl ether	6.582	74	61329	52.60	ug/L	93
17) acrolein	6.859	56	385060	531.90	ug/L	100
18) freon 113	7.005	151	116995	49.38	ug/L #	49
19) 1,1-dichloroethene	7.042	61	223552	54.31	ug/L	99
20) acetone	7.110	43	77442	49.71	ug/L	64
21) allyl chloride	7.601	76	69455	54.35	ug/L #	93
22) acetonitrile	7.591	40	229302	569.86	ug/L	90
23) iodomethane	7.335	142	269761	51.12	ug/L	94
24) carbon disulfide	7.481	76	449112	47.01	ug/L	98
25) methylene chloride	7.805	84	138465	50.48	ug/L	96
26) methyl acetate	7.586	43	130932	42.04	ug/L	96
27) methyl tert butyl ether	8.135	73	830356	93.16	ug/L	90
28) trans-1,2-dichloroethene	8.193	96	102635	44.21	ug/L	97
29) hexane	8.496	57	79903	36.28	ug/L	96
30) di-isopropyl ether	8.757	45	390439	51.64	ug/L	98
31) t-butyl formate	9.976	59	163146	53.20	ug/L	99
32) ethyl tert-butyl ether	9.244	59	397675	47.41	ug/L	94
33) 2-butanone	9.537	72	25089	50.92	ug/L #	86
34) 1,1-dichloroethane	8.794	63	201256	50.85	ug/L	93
35) chloroprene	8.899	53	149846	46.82	ug/L	98
36) acrylonitrile	8.156	53	338684	275.67	ug/L	98
37) vinyl acetate	8.784	86	22587	56.90	ug/L	95
38) ethyl acetate	9.542	45	26315	50.76	ug/L #	63

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212068.D
Acq On : 20 Mar 2015 11:42 pm
Operator : JemimaM
Sample : bs
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 17:00:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 2,2-dichloropropane	9.563	77	188752	41.72	ug/L	99
41) cis-1,2-dichloroethene	9.568	96	116963	48.68	ug/L	96
42) propionitrile	9.646	54	351428	516.79	ug/L	83
43) bromochloromethane	9.892	128	64092	49.19	ug/L	94
44) tetrahydrofuran	9.929	42	77347	52.62	ug/L	95
45) chloroform	9.950	83	194319	46.95	ug/L	94
48) methacrylonitrile	9.830	67	63507	50.41	ug/L	91
49) cyclohexane	10.279	84	201055	47.13	ug/L	99
50) 1,1,1-trichloroethane	10.206	97	202855	50.73	ug/L	99
51) iso-butyl alcohol	10.410	41	137397	531.13	ug/L	95
52) tert-amyl methyl ether	10.682	73	402596	45.61	ug/L	96
55) epichlorohydrin	12.377	57	135201	298.88	ug/L	95
56) n-butyl alcohol	11.179	56	604011	3007.77	ug/L	96
57) carbon tetrachloride	10.415	117	191373	54.96	ug/L	97
58) 1,1-dichloropropene	10.389	75	146439	54.14	ug/L	97
59) benzene	10.661	78	424684	53.22	ug/L	98
60) Iso-octane	10.645	57	411747	52.92	ug/L	98
61) heptane	10.818	71	62451	51.21	ug/L	96
63) isopropyl acetate	10.572	43	321190	58.46	ug/L	95
64) 1,2-dichloroethane	10.687	62	157757	51.09	ug/L	97
65) trichloroethene	11.399	95	106639	49.24	ug/L	99
66) 2-nitropropane	12.225	41	72027	50.67	ug/L	93
68) methylcyclohexane	11.618	83	191253	54.05	ug/L	96
69) 2-chloroethyl vinyl ether	12.235	63	430736	290.65	ug/L	97
70) methyl methacrylate	11.676	69	101125	56.25	ug/L	97
71) 1,2-dichloropropane	11.681	63	112288	57.34	ug/L	98
72) dibromomethane	11.854	93	77177	51.76	ug/L	93
73) bromodichloromethane	11.984	83	154368	50.73	ug/L	98
74) cis-1,3-dichloropropene	12.471	75	180932	52.37	ug/L	97
76) 4-methyl-2-pentanone	12.570	58	83596	55.44	ug/L	91
77) toluene	12.858	92	267555	51.35	ug/L	99
78) 3-methyl-1-butanol	12.596	55	381921	1197.75	ug/L	97
79) trans-1,3-dichloropropene	13.077	75	167626	49.91	ug/L	98
80) ethyl methacrylate	13.057	69	165391	54.98	ug/L	96
81) 1,1,2-trichloroethane	13.313	83	90397	53.00	ug/L	99
82) 2-hexanone	13.491	58	74780	59.63	ug/L	90
84) tetrachloroethene	13.496	164	103667	47.22	ug/L	98
85) 1,3-dichloropropane	13.517	76	176183	49.84	ug/L	98
86) butyl acetate	13.564	56	100893	52.85	ug/L	97
87) 3,3-dimethyl-1-butanol	13.684	57	477007	632.39	ug/L	98
88) dibromochloromethane	13.810	129	134621	46.75	ug/L	96
89) 1,2-dibromoethane	13.972	107	118749	46.11	ug/L	96
90) n-butyl ether	14.359	57	571262	61.75	ug/L	99
91) chlorobenzene	14.479	112	307401	48.96	ug/L	99
92) 1,1,1,2-tetrachloroethane	14.547	131	143040	47.78	ug/L	99
93) ethylbenzene	14.531	91	533495	49.82	ug/L	98
94) m,p-xylene	14.652	106	414551	101.90	ug/L	95
95) o-xylene	15.122	106	218346	51.02	ug/L	95
96) styrene	15.133	104	338862	51.14	ug/L	94
97) bromoform	15.441	173	112538	46.53	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212068.D
Acq On : 20 Mar 2015 11:42 pm
Operator : JemimaM
Sample : bs
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 17:00:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	15.499	105	613818	52.66	ug/L	99
100)	cyclohexanone	15.708	55	123547	466.48	ug/L	98
102)	bromobenzene	15.954	156	150625	48.27	ug/L	92
103)	1,1,2,2-tetrachloroethane	15.855	83	195487	50.76	ug/L	98
104)	trans-1,4-dichloro-2-b...	15.896	53	44976	40.02	ug/L	96
105)	1,2,3-trichloropropane	15.938	110	55529	48.24	ug/L	91
106)	n-propylbenzene	15.954	91	666861	54.63	ug/L	98
107)	2-chlorotoluene	16.132	126	142077	52.02	ug/L	97
108)	4-chlorotoluene	16.236	91	380801	50.83	ug/L	99
110)	1,3,5-trimethylbenzene	16.121	105	522866	52.31	ug/L	97
111)	tert-butylbenzene	16.514	119	455176	50.45	ug/L	99
112)	pentachloroethane	16.623	167	128659	52.53	ug/L	97
113)	1,2,4-trimethylbenzene	16.566	105	528160	53.08	ug/L	96
114)	sec-butylbenzene	16.754	105	709865	52.62	ug/L	99
115)	1,3-dichlorobenzene	16.979	146	278390	46.69	ug/L	98
116)	p-isopropyltoluene	16.885	119	606048	52.03	ug/L	98
118)	1,4-dichlorobenzene	17.068	146	284656	47.47	ug/L	100
120)	1,2-dichlorobenzene	17.507	146	299328	46.70	ug/L	97
121)	n-butylbenzene	17.345	92	282629	51.99	ug/L	99
123)	1,2-dibromo-3-chloropr...	18.365	75	55061	43.79	ug/L	96
124)	1,3,5-trichlorobenzene	18.553	180	280805	43.15	ug/L	99
125)	1,2,4-trichlorobenzene	19.280	180	278316	41.54	ug/L	99
126)	hexachlorobutadiene	19.401	225	137881	45.48	ug/L	96
127)	naphthalene	19.605	128	878523	42.63	ug/L	99
128)	1,2,3-trichlorobenzene	19.882	180	304675	39.83	ug/L	98
129)	hexachloroethane	17.795	201	112688	43.11	ug/L	99

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

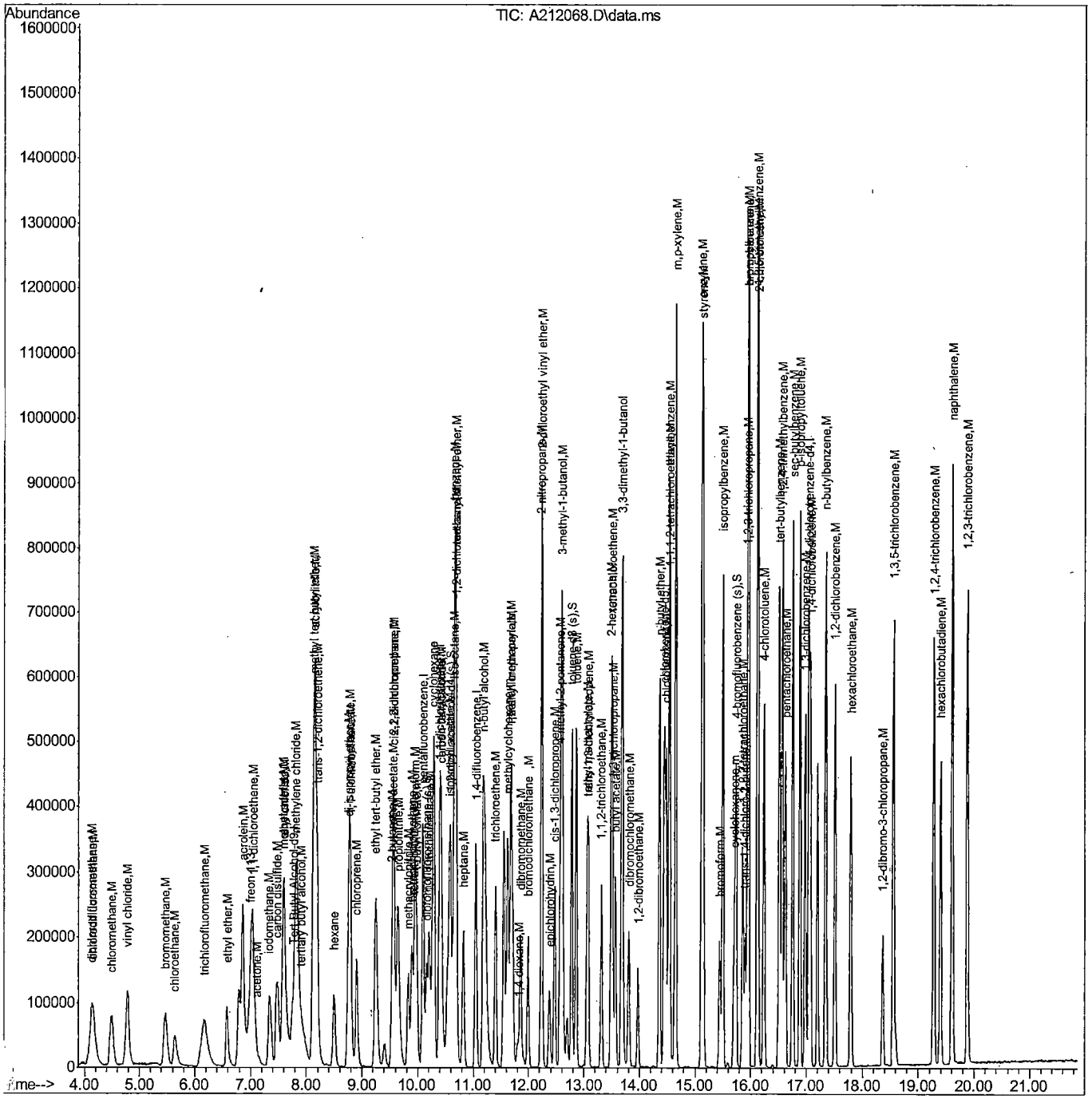
7.3.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212068.D
Acq On : 20 Mar 2015 11:42 pm
Operator : JemimaM
Sample : bs
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 17:00:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration



ACCUTEST LABORATORIES JB90207

Manual Integrations
APPROVED
(compounds with."m" flag)
Kanya Veerawat
03/26/15 15:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212073.D
Acq On : 21 Mar 2015 2:18 am
Operator : JemimaM
Sample : jb90111-2ms
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 23 17:06:47 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.767	65	504630	500.00	ug/L	-0.02
4) pentafluorobenzene	10.094	168	344907	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.046	114	335527	50.00	ug/L	0.00
83) chlorobenzene-d5	14.446	117	315295	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.040	152	198817	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.157	113	112104	54.75	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 109.50%			
47) 1,2-dichloroethane-d4 (s)	10.591	65	127619	49.10	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 98.20%			
75) toluene-d8 (s)	12.777	98	404392	58.55	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 117.10%			
101) 4-bromofluorobenzene (s)	15.737	95	152499	54.56	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 109.12%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.810	88	91478	1251.11	ug/L	95
3) tertiary butyl alcohol	7.903	59	268754m	268.60	ug/L	
6) chlorodifluoromethane	4.153	51	192817	42.55	ug/L	97
7) dichlorodifluoromethane	4.142	85	228144	49.79	ug/L	98
8) chloromethane	4.493	50	199064	60.75	ug/L	94
9) vinyl chloride	4.780	62	228885	49.94	ug/L	98
10) bromomethane	5.465	94	124257	52.14	ug/L	90
11) chloroethane	5.638	64	75134	56.59	ug/L	93
13) trichlorofluoromethane	6.161	101	203882	38.34	ug/L	98
15) ethyl ether	6.579	74	60809	55.06	ug/L	97
17) acrolein	6.857	56	335678	489.57	ug/L	97
18) freon 113	7.008	151	112463	50.12	ug/L #	98
19) 1,1-dichloroethene	7.040	61	175193	44.93	ug/L	99
20) acetone	7.102	43	87377	59.22	ug/L	65
21) allyl chloride	7.594	76	51112	42.23	ug/L #	83
22) acetonitrile	7.573	40	234202	614.52	ug/L #	43
23) iodomethane	7.338	142	252084	50.44	ug/L	96
24) carbon disulfide	7.463	76	372158	41.13	ug/L	100
25) methylene chloride	7.803	84	134509	51.77	ug/L	89
26) methyl acetate	7.584	43	166236	56.35	ug/L	96
27) methyl tert butyl ether	8.138	73	449222	53.21	ug/L	93
28) trans-1,2-dichloroethene	8.190	96	96132	43.72	ug/L	97
29) hexane	8.499	57	105617	50.63	ug/L	98
30) di-isopropyl ether	8.755	45	406647	56.79	ug/L	95
31) t-butyl formate	9.974	59	112460	38.72	ug/L	90
32) ethyl tert-butyl ether	9.242	59	429434	54.06	ug/L	97
33) 2-butanone	9.534	72	26322	56.40	ug/L #	83
34) 1,1-dichloroethane	8.792	63	186695	49.80	ug/L	98
35) chloroprene	8.902	53	146841	48.44	ug/L	99
36) acrylonitrile	8.148	53	342567	294.39	ug/L	97
37) vinyl acetate	8.771	86	20187	53.70	ug/L #	38
38) ethyl acetate	9.534	45	27187	55.37	ug/L	46

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212073.D
Acq On : 21 Mar 2015 2:18 am
Operator : JemimaM
Sample : jb90111-2ms
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 23 17:06:47 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40)	2,2-dichloropropane	9.566	77	154599	36.08 ug/L	99
41)	cis-1,2-dichloroethene	9.561	96	117316	51.55 ug/L	93
42)	propionitrile	9.639	54	372920	579.01 ug/L	97
43)	bromochloromethane	9.890	128	65184	52.82 ug/L	92
44)	tetrahydrofuran	9.927	42	78292	56.24 ug/L	99
45)	chloroform	9.948	83	189205	48.26 ug/L	97
48)	methacrylonitrile	9.833	67	67118	56.25 ug/L	93
49)	cyclohexane	10.277	84	167495	41.72 ug/L	97
50)	1,1,1-trichloroethane	10.204	97	171739	45.35 ug/L	99
51)	iso-butyl alcohol	10.403	41	138901	566.91 ug/L	95
52)	tert-amyl methyl ether	10.685	73	434488	51.96 ug/L	97
55)	epichlorohydrin	12.374	57	122665	278.50 ug/L	99
56)	n-butyl alcohol	11.182	56	621093	3176.51 ug/L	96
57)	carbon tetrachloride	10.418	117	156996	46.31 ug/L	98
58)	1,1-dichloropropene	10.387	75	119038	45.20 ug/L	97
59)	benzene	10.659	78	408544	52.58 ug/L	99
60)	Iso-octane	10.643	57	472535	62.38 ug/L	97
61)	heptane	10.821	71	66897	56.35 ug/L	96
63)	isopropyl acetate	10.575	43	306303	57.26 ug/L	99
64)	1,2-dichloroethane	10.685	62	158899	52.86 ug/L	97
65)	trichloroethene	11.402	95	100456	47.64 ug/L	97
66)	2-nitropropane	12.223	41	58863	42.53 ug/L #	1
68)	methylcyclohexane	11.621	83	191154	55.49 ug/L #	94
70)	methyl methacrylate	11.674	69	102991	58.84 ug/L	97
71)	1,2-dichloropropane	11.684	63	111504	58.48 ug/L	98
72)	dibromomethane	11.851	93	78352	53.97 ug/L	97
73)	bromodichloromethane	11.987	83	157472	53.15 ug/L	96
74)	cis-1,3-dichloropropene	12.469	75	180830	53.76 ug/L	97
76)	4-methyl-2-pentanone	12.563	58	86637	59.02 ug/L	94
77)	toluene	12.856	92	968164	190.86 ug/L	99
78)	3-methyl-1-butanol	12.594	55	391817	1262.03 ug/L	98
79)	trans-1,3-dichloropropene	13.075	75	175694	53.73 ug/L	98
80)	ethyl methacrylate	13.054	69	173968	59.40 ug/L	97
81)	1,1,2-trichloroethane	13.316	83	93167	56.10 ug/L	99
82)	2-hexanone	13.494	58	79912	65.44 ug/L	94
84)	tetrachloroethene	13.494	164	89786	42.18 ug/L	97
85)	1,3-dichloropropane	13.515	76	182121	53.13 ug/L	98
86)	butyl acetate	13.567	56	109098	58.93 ug/L	98
87)	3,3-dimethyl-1-butanol	13.687	57	450952	616.52 ug/L	98
88)	dibromochloromethane	13.807	129	140584	50.34 ug/L	95
89)	1,2-dibromoethane	13.975	107	125752	50.36 ug/L	96
90)	n-butyl ether	14.362	57	509844	56.84 ug/L	99
91)	chlorobenzene	14.477	112	308287	50.63 ug/L	99
92)	1,1,1,2-tetrachloroethane	14.545	131	148843	51.28 ug/L	95
93)	ethylbenzene	14.529	91	1270239	122.33 ug/L	99
94)	m,p-xylene	14.650	106	1604632	406.75 ug/L	95
95)	o-xylene	15.120	106	654123	157.62 ug/L	99
96)	styrene	15.131	104	372766	58.02 ug/L	91
97)	bromoform	15.445	173	118948	50.72 ug/L	96
99)	isopropylbenzene	15.497	105	637177	56.41 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212073.D
Acq On : 21 Mar 2015 2:18 am
Operator : JemimaM
Sample : jb90111-2ms
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 23 17:06:47 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) cyclohexanone	15.706	55	141505	551.31	ug/L	98
102) bromobenzene	15.957	156	154561	51.11	ug/L	97
103) 1,1,2,2-tetrachloroethane	15.858	83	212730	57.00	ug/L	98
104) trans-1,4-dichloro-2-b...	15.894	53	46168	42.39	ug/L	90
105) 1,2,3-trichloropropane	15.936	110	58116	52.09	ug/L	92
106) n-propylbenzene	15.957	91	789782	66.76	ug/L	98
107) 2-chlorotoluene	16.130	126	142621m	53.88	ug/L	
108) 4-chlorotoluene	16.239	91	382101	52.63	ug/L	99
110) 1,3,5-trimethylbenzene	16.124	105	1161472	119.91	ug/L	98
111) tert-butylbenzene	16.517	119	427871	48.94	ug/L	98
112) pentachloroethane	16.621	167	138243	58.24	ug/L	98
113) 1,2,4-trimethylbenzene	16.564	105	2533788	262.77	ug/L	96
114) sec-butylbenzene	16.752	105	677471	51.82	ug/L	99
115) 1,3-dichlorobenzene	16.977	146	285501	49.41	ug/L	97
116) p-isopropyltoluene	16.883	119	573513	50.80	ug/L	98
118) 1,4-dichlorobenzene	17.071	146	289562	49.82	ug/L	99
120) 1,2-dichlorobenzene	17.510	146	308646	49.69	ug/L	97
121) n-butylbenzene	17.348	92	271306	51.50	ug/L	95
123) 1,2-dibromo-3-chloropr...	18.363	75	58680	48.16	ug/L	92
124) 1,3,5-trichlorobenzene	18.556	180	289631	45.92	ug/L	99
125) 1,2,4-trichlorobenzene	19.278	180	290825	44.79	ug/L	99
126) hexachlorobutadiene	19.398	225	128841	43.85	ug/L	91
127) naphthalene	19.608	128	1688585	84.54	ug/L	99
128) 1,2,3-trichlorobenzene	19.880	180	323187	43.60	ug/L	99
129) hexachloroethane	17.798	201	107506	42.46	ug/L	99

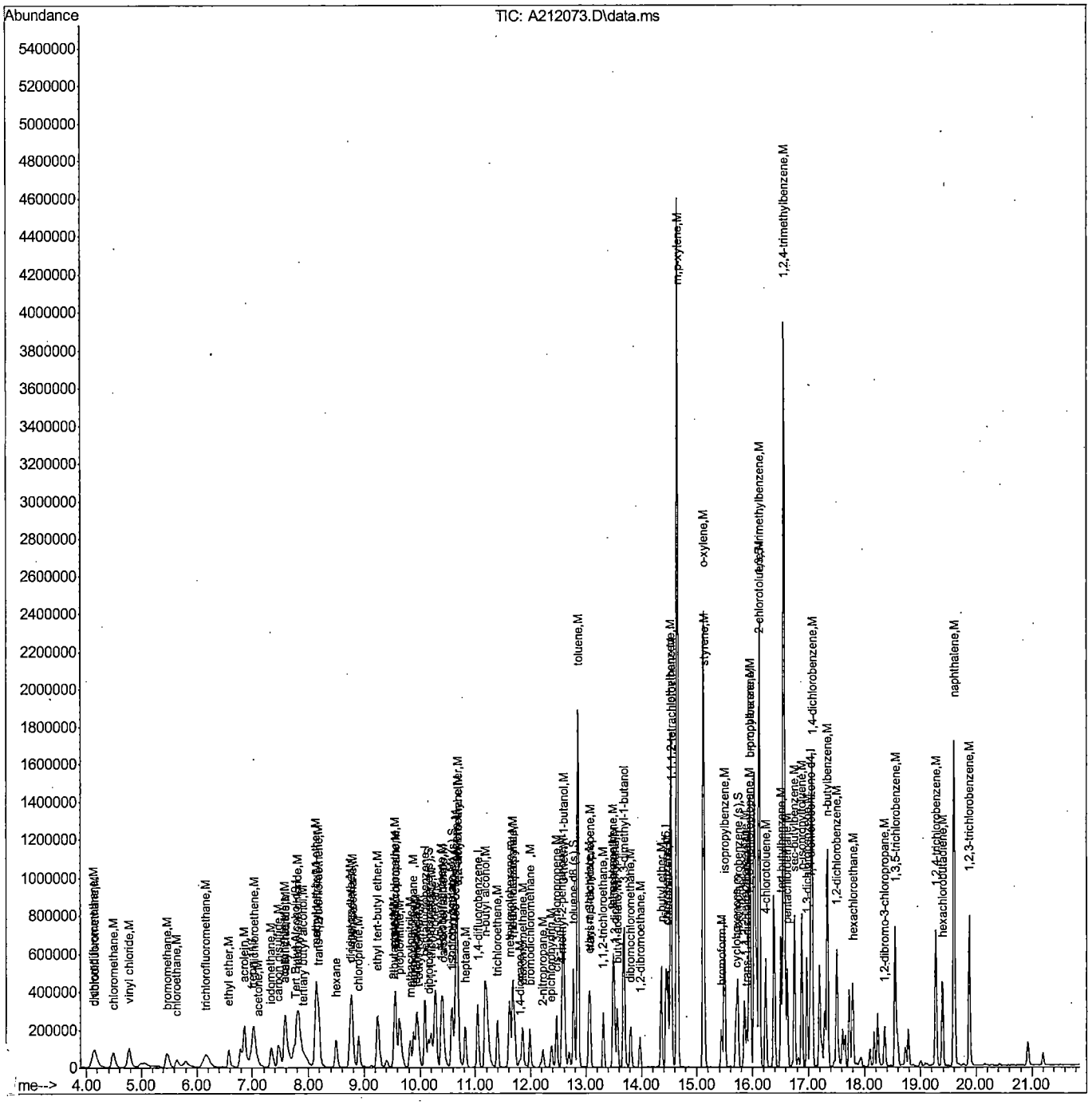
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.1 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212073.D
Acq On : 21 Mar 2015 2:18 am
Operator : JemimaM
Sample : jb90111-2ms
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 23 17:06:47 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: JB90111-2MS
Lab FileID: A212073.D
Injection Time: 03/21/15 02:18
Method: SW846 8260B
Analyst approved: 03/23/15 17:19 Ying Li
Supervisor approved: 03/26/15 15:10 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tert Butyl Alcohol	75-65-0		7.90	Split peak
o-Chlorotoluene	95-49-8		16.13	Poor instrument integration

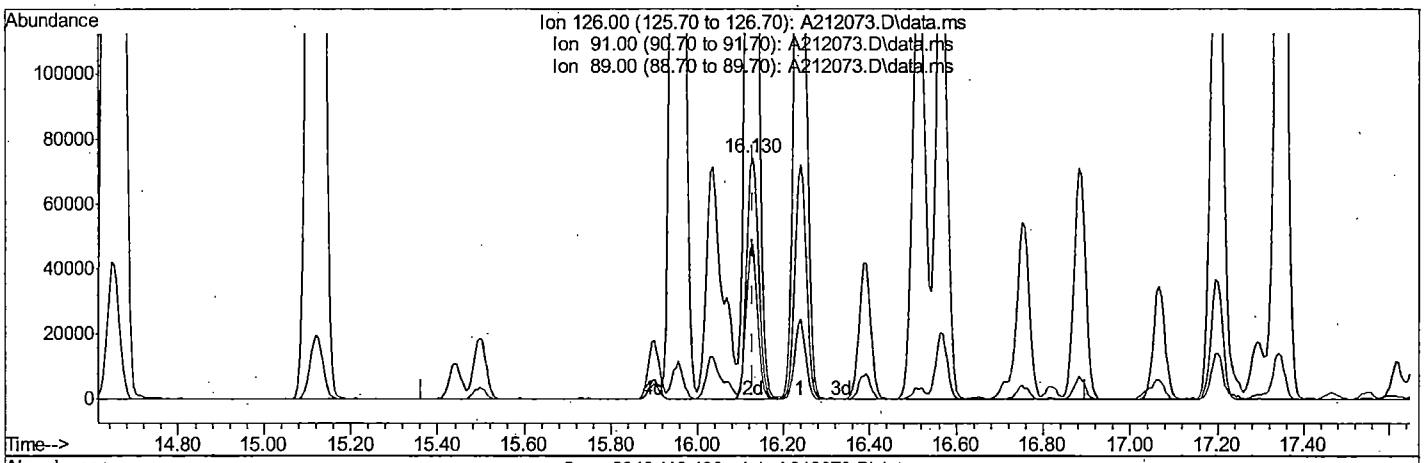
Quantitation Report (Qedit)

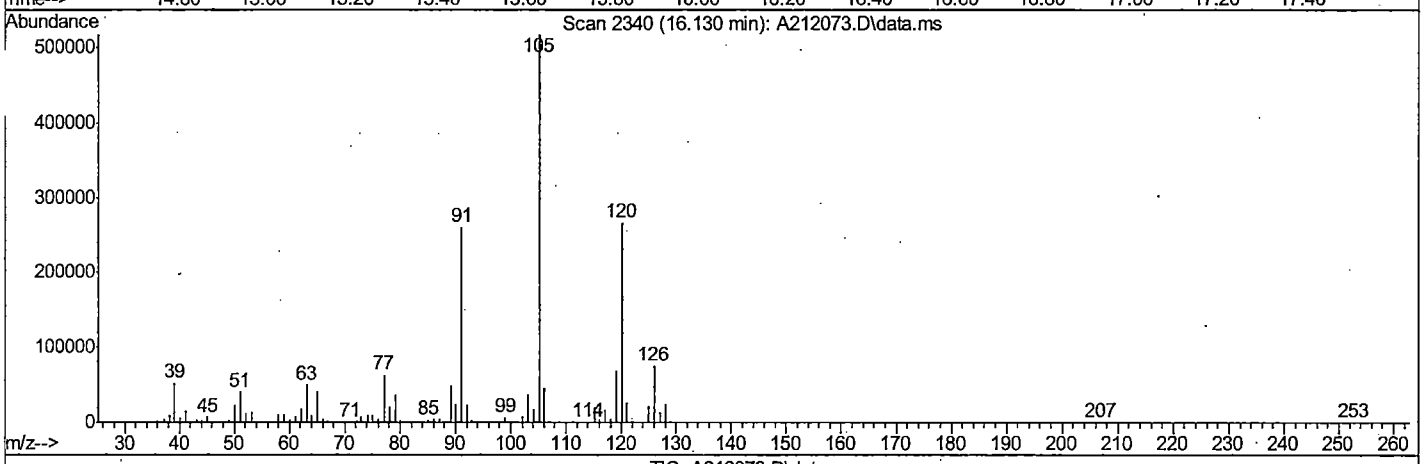
Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212073.D
Acq On : 21 Mar 2015 2:18 am
Operator : JemimaM
Sample : jb90111-2ms
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 23 08:42:44 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

7.4.1.2

7





TIC: A212073.D\data.ms

(107) 2-chlorotoluene (M)

16.130min (-0.000) 53.88ug/L m

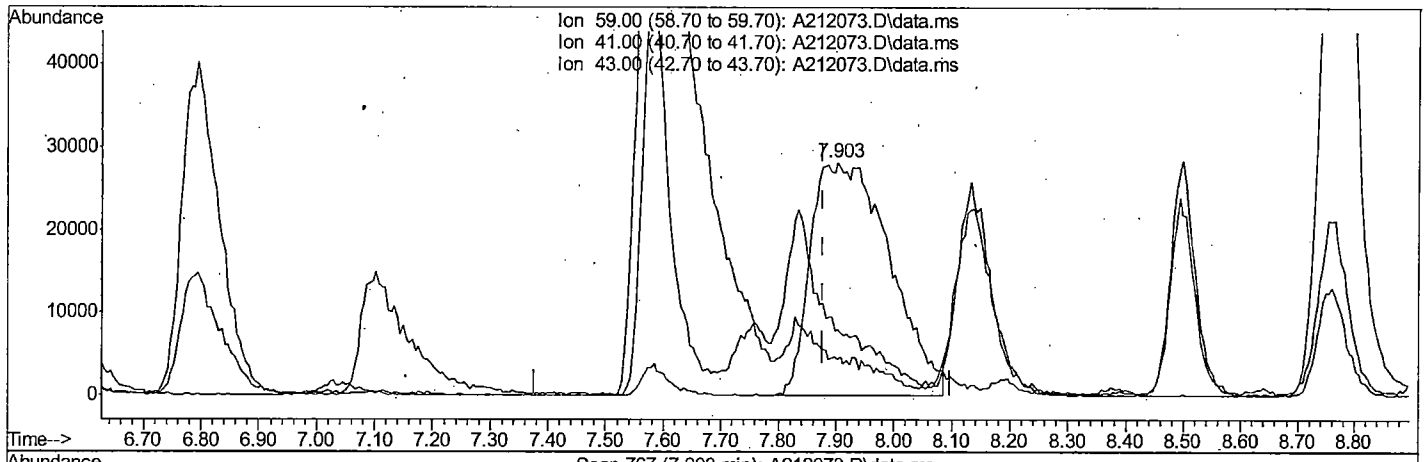
response 142621

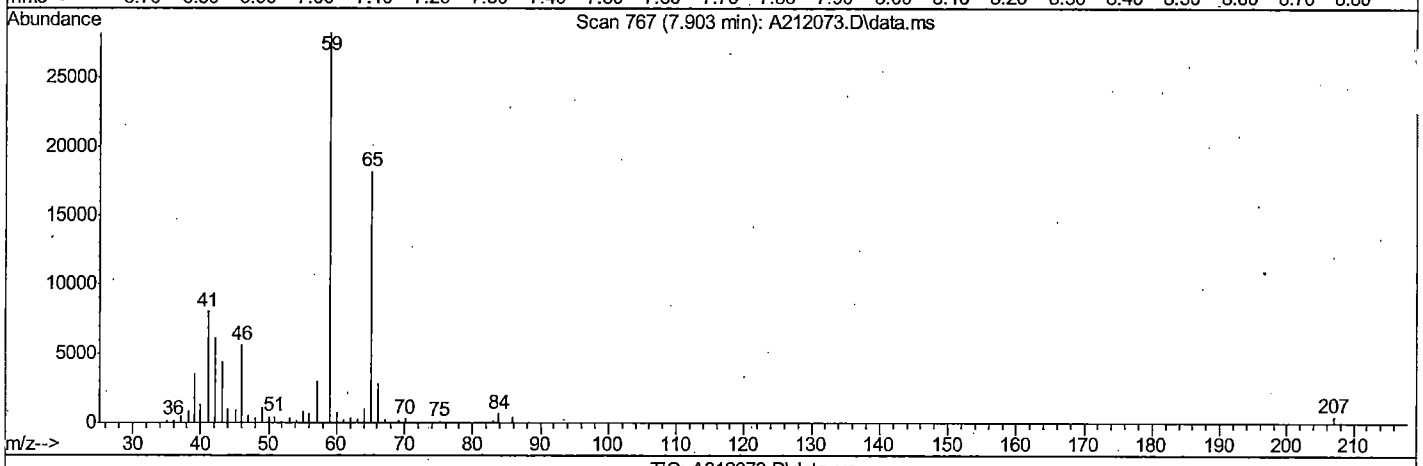
Ion	Exp%	Act%
126.00	100	100
91.00	303.10	349.49#
89.00	56.40	64.26
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212073.D
Acq On : 21 Mar 2015 2:18 am
Operator : JemimaM
Sample : jb90111-2ms
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 23 17:05:49 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration





TIC: A212073.D\data.ms

(3) tertiary butyl alcohol (M)

7.903min (+0.026) 268.60ug/L m

response 268754

Ion	Exp%	Act%
59.00	100	100
41.00	17.70	28.36
43.00	12.30	15.49
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 03/26/15 15:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212074.D
Acq On : 21 Mar 2015 2:49 am
Operator : JemimaM
Sample : jb90111-2msd
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 23 17:07:30 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.758	65	509422	500.00	ug/L	-0.02
4) pentafluorobenzene	10.096	168	357081	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.043	114	336994	50.00	ug/L	0.00
83) chlorobenzene-d5	14.447	117	320015	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.041	152	207142	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.153	113	110850	52.29	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 104.58%			
47) 1,2-dichloroethane-d4 (s)	10.593	65	130085	48.34	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 96.68%			
75) toluene-d8 (s)	12.779	98	409506	59.03	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 118.06%			
101) 4-bromofluorobenzene (s)	15.734	95	157327	54.03	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 108.06%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.817	88	91989	1246.26	ug/L	97
3) tertiary butyl alcohol	7.884	59	268983m	266.30	ug/L	
6) chlorodifluoromethane	4.149	51	173313	36.94	ug/L	94
7) dichlorodifluoromethane	4.144	85	175553	37.01	ug/L	97
8) chloromethane	4.479	50	182091	53.67	ug/L	92
9) vinyl chloride	4.772	62	193572	40.80	ug/L	97
10) bromomethane	5.457	94	116112	47.06	ug/L	92
11) chloroethane	5.640	64	68168	49.59	ug/L	98
13) trichlorofluoromethane	6.163	101	168974	31.21	ug/L	97
15) ethyl ether	6.576	74	60915	53.28	ug/L	98
17) acrolein	6.858	56	334255	470.87	ug/L	98
18) freon 113	6.994	151	96657	41.61	ug/L	97
19) 1,1-dichloroethene	7.036	61	173527	42.99	ug/L	99
20) acetone	7.089	43	84757	55.48	ug/L	77
21) allyl chloride	7.596	76	52535	41.93	ug/L	89
22) acetonitrile	7.585	40	234796	595.08	ug/L #	69
23) iodomethane	7.334	142	248400	48.01	ug/L	97
24) carbon disulfide	7.470	76	370502	39.55	ug/L	97
25) methylene chloride	7.800	84	132803	49.37	ug/L	92
26) methyl acetate	7.580	43	164981	54.02	ug/L	96
27) methyl tert butyl ether	8.129	73	443891	50.79	ug/L	91
28) trans-1,2-dichloroethene	8.192	96	95734	42.05	ug/L	95
29) hexane	8.495	57	96082	44.49	ug/L	98
30) di-isopropyl ether	8.757	45	394232	53.18	ug/L	99
31) t-butyl formate	9.981	59	107884	35.88	ug/L	90
32) ethyl tert-butyl ether	9.243	59	419298	50.98	ug/L	95
33) 2-butanone	9.526	72	25299	52.36	ug/L #	77
34) 1,1-dichloroethane	8.794	63	185051	47.68	ug/L	94
35) chloroprene	8.903	53	137064	43.67	ug/L	96
36) acrylonitrile	8.155	53	330660	274.47	ug/L	97
37) vinyl acetate	8.773	86	18977	48.76	ug/L	43
38) ethyl acetate	9.536	45	27645	54.38	ug/L	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212074.D
Acq On : 21 Mar 2015 2:49 am
Operator : JemimaM
Sample : jb90111-2msd
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 23 17:07:30 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	2,2-dichloropropane	9.568	77	152381	34.35	ug/L		96
41)	cis-1,2-dichloroethene	9.562	96	115861	49.17	ug/L		92
42)	propionitrile	9.641	54	369537	554.19	ug/L		91
43)	bromochloromethane	9.892	128	64986	50.86	ug/L		97
44)	tetrahydrofuran	9.923	42	77142	53.52	ug/L		96
45)	chloroform	9.949	83	186653	45.99	ug/L		99
48)	methacrylonitrile	9.824	67	67051	54.28	ug/L		91
49)	cyclohexane	10.274	84	164553	39.70	ug/L		94
50)	1,1,1-trichloroethane	10.206	97	173009	44.13	ug/L		97
51)	iso-butyl alcohol	10.404	41	141334	557.17	ug/L		96
52)	tert-amyl methyl ether	10.687	73	424734	49.07	ug/L		97
55)	epichlorohydrin	12.376	57	120393	272.15	ug/L		98
56)	n-butyl alcohol	11.179	56	626016	3187.75	ug/L		97
57)	carbon tetrachloride	10.420	117	156001	45.81	ug/L		99
58)	1,1-dichloropropene	10.384	75	121756	46.03	ug/L		99
59)	benzene	10.661	78	402888	51.63	ug/L		99
60)	Iso-octane	10.645	57	421695	55.42	ug/L		99
61)	heptane	10.818	71	60725	50.92	ug/L		96
63)	isopropyl acetate	10.572	43	305321	56.83	ug/L		99
64)	1,2-dichloroethane	10.682	62	158029	52.34	ug/L		97
65)	trichloroethene	11.398	95	100296	47.36	ug/L		98
66)	2-nitropropane	12.219	41	59178	42.57	ug/L	#	1
68)	methylcyclohexane	11.613	83	164344	47.50	ug/L		93
70)	methyl methacrylate	11.675	69	101650	57.82	ug/L		99
71)	1,2-dichloropropane	11.681	63	111816	58.39	ug/L		100
72)	dibromomethane	11.853	93	76633	52.55	ug/L		94
73)	bromodichloromethane	11.989	83	156624	52.63	ug/L		99
74)	cis-1,3-dichloropropene	12.470	75	178211	52.75	ug/L		95
76)	4-methyl-2-pentanone	12.564	58	84563	57.35	ug/L		90
77)	toluene	12.857	92	980882	192.52	ug/L		99
78)	3-methyl-1-butanol	12.596	55	391372	1255.11	ug/L		98
79)	trans-1,3-dichloropropene	13.077	75	173887	52.95	ug/L		98
80)	ethyl methacrylate	13.056	69	177069	60.19	ug/L		98
81)	1,1,2-trichloroethane	13.312	83	93152	55.85	ug/L		97
82)	2-hexanone	13.490	58	78607	64.09	ug/L		97
84)	tetrachloroethene	13.490	164	87227	40.37	ug/L		97
85)	1,3-dichloropropane	13.511	76	178832	51.40	ug/L		98
86)	butyl acetate	13.563	56	106870	56.88	ug/L		98
87)	3,3-dimethyl-1-butanol	13.684	57	449662	605.69	ug/L		99
88)	dibromochloromethane	13.809	129	138649	48.92	ug/L		95
89)	1,2-dibromoethane	13.971	107	125198	49.40	ug/L		98
90)	n-butyl ether	14.358	57	505101	55.48	ug/L		99
91)	chlorobenzene	14.479	112	306642	49.62	ug/L		99
92)	1,1,1,2-tetrachloroethane	14.547	131	147724	50.14	ug/L		93
93)	ethylbenzene	14.531	91	1277916	121.25	ug/L		99
94)	m,p-xylene	14.651	106	1635613	408.49	ug/L		93
95)	o-xylene	15.122	106	646706	153.54	ug/L		97
96)	styrene	15.132	104	367130	56.30	ug/L		96
97)	bromoform	15.441	173	117690	49.44	ug/L		95
99)	isopropylbenzene	15.499	105	617718	52.49	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212074.D
Acq On : 21 Mar 2015 2:49 am
Operator : JemimaM
Sample : jb90111-2msd
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 23 17:07:30 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
100) cyclohexanone	15.708	55	143159	535.34 ug/L	99
102) bromobenzene	15.959	156	154782	49.12 ug/L	91
103) 1,1,2,2-tetrachloroethane	15.854	83	209093	53.77 ug/L	98
104) trans-1,4-dichloro-2-b...	15.896	53	46788	41.23 ug/L	95
105) 1,2,3-trichloropropane	15.938	110	56931	48.98 ug/L	89
106) n-propylbenzene	15.954	91	767573	62.27 ug/L	99
107) 2-chlorotoluene	16.131	126	137311m	49.79 ug/L	
108) 4-chlorotoluene	16.236	91	370763	49.02 ug/L	99
110) 1,3,5-trimethylbenzene	16.121	105	1158636	114.81 ug/L	98
111) tert-butylbenzene	16.513	119	394409	43.30 ug/L	98
112) pentachloroethane	16.618	167	131438	53.14 ug/L	97
113) 1,2,4-trimethylbenzene	16.566	105	2526320	251.46 ug/L	95
114) sec-butylbenzene	16.754	105	637511	46.80 ug/L	98
115) 1,3-dichlorobenzene	16.979	146	277481	46.09 ug/L	99
116) p-isopropyltoluene	16.885	119	543467	46.20 ug/L	100
118) 1,4-dichlorobenzene	17.068	146	279767	46.20 ug/L	99
120) 1,2-dichlorobenzene	17.512	146	298742	46.16 ug/L	98
121) n-butylbenzene	17.345	92	255556	46.56 ug/L	96
123) 1,2-dibromo-3-chloropr...	18.365	75	57386	45.20 ug/L	89
124) 1,3,5-trichlorobenzene	18.558	180	270412	41.15 ug/L	97
125) 1,2,4-trichlorobenzene	19.280	180	274882	40.63 ug/L	100
126) hexachlorobutadiene	19.400	225	123889	40.47 ug/L	99
127) naphthalene	19.604	128	1651191	79.35 ug/L	99
128) 1,2,3-trichlorobenzene	19.876	180	305083	39.50 ug/L	97
129) hexachloroethane	17.795	201	100566	38.25 ug/L	99

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

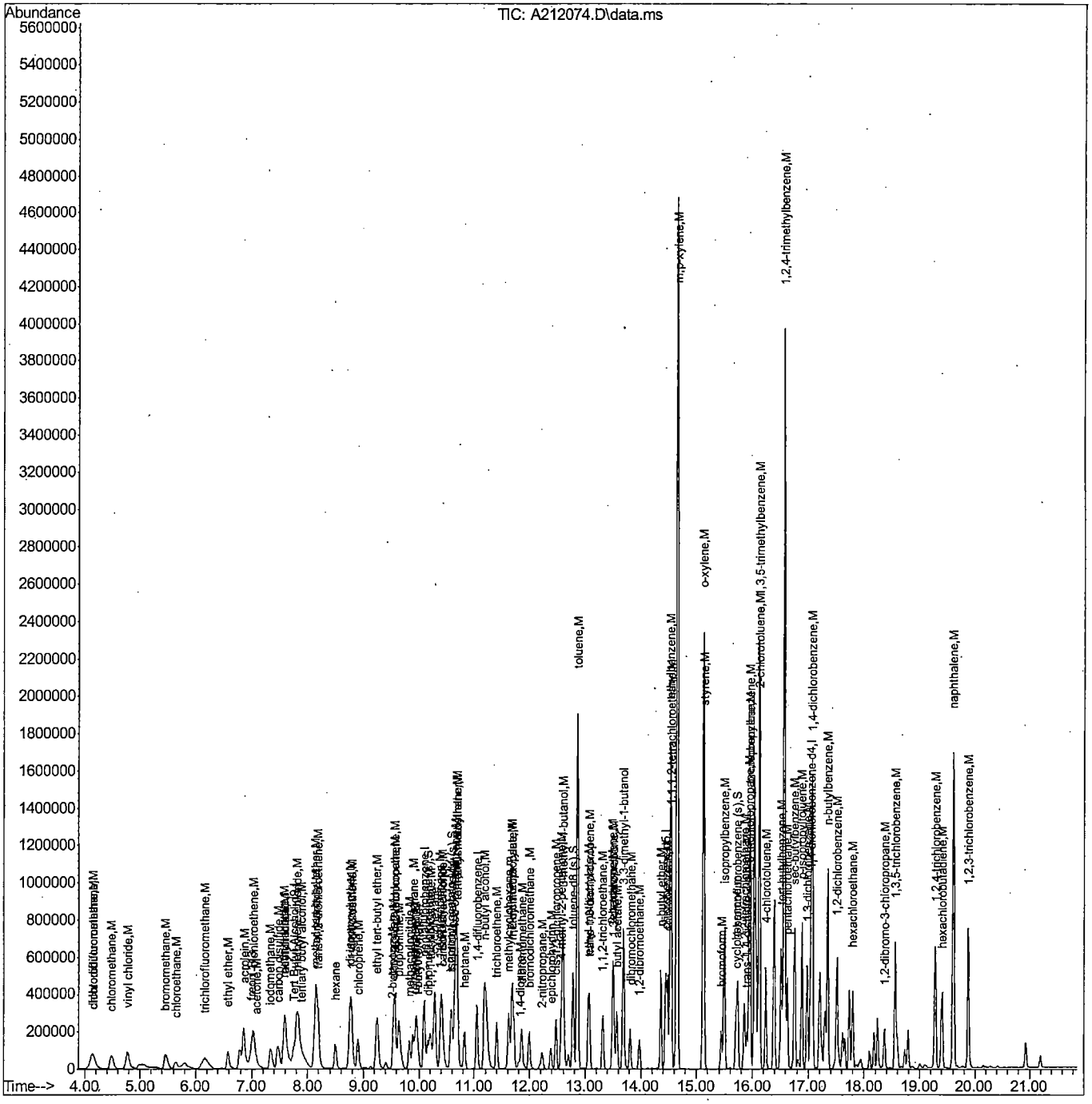
7.4.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212074.D
Acq On : 21 Mar 2015 2:49 am
Operator : JemimaM
Sample : jb90111-2msd
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 23 17:07:30 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration



7.4.2

7

Manual Integration Approval Summary

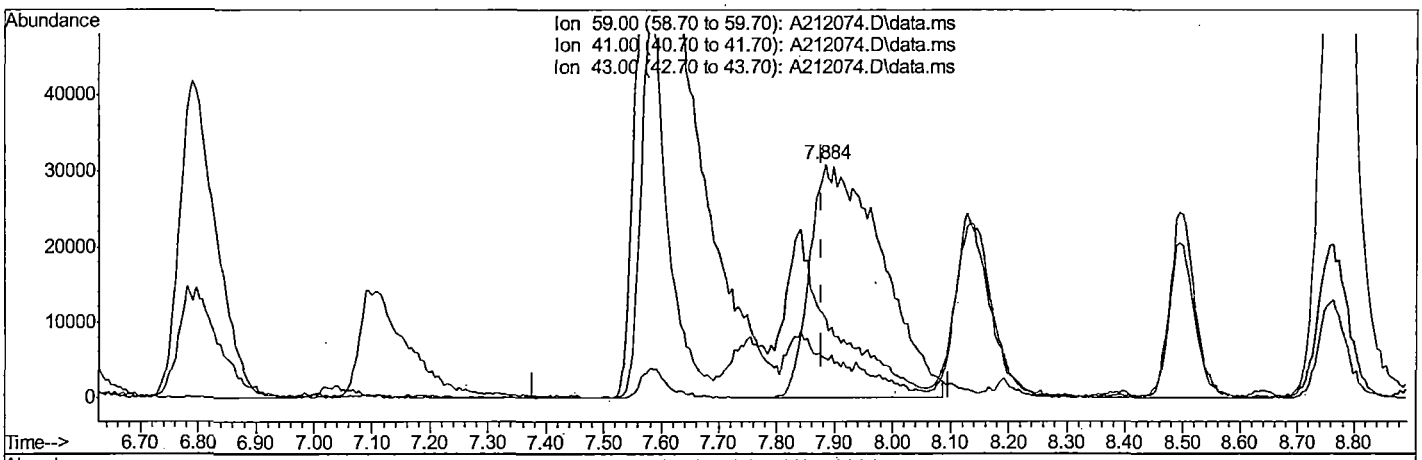
Sample Number:	JB90111-2MSD	**Method:**	SW846 8260B
Lab FileID:	A212074.D	**Analyst approved:**	03/23/15 17:19 Ying Li
Injection Time:	03/21/15 02:49	**Supervisor approved:**	03/26/15 15:10 Kanya Veerawat

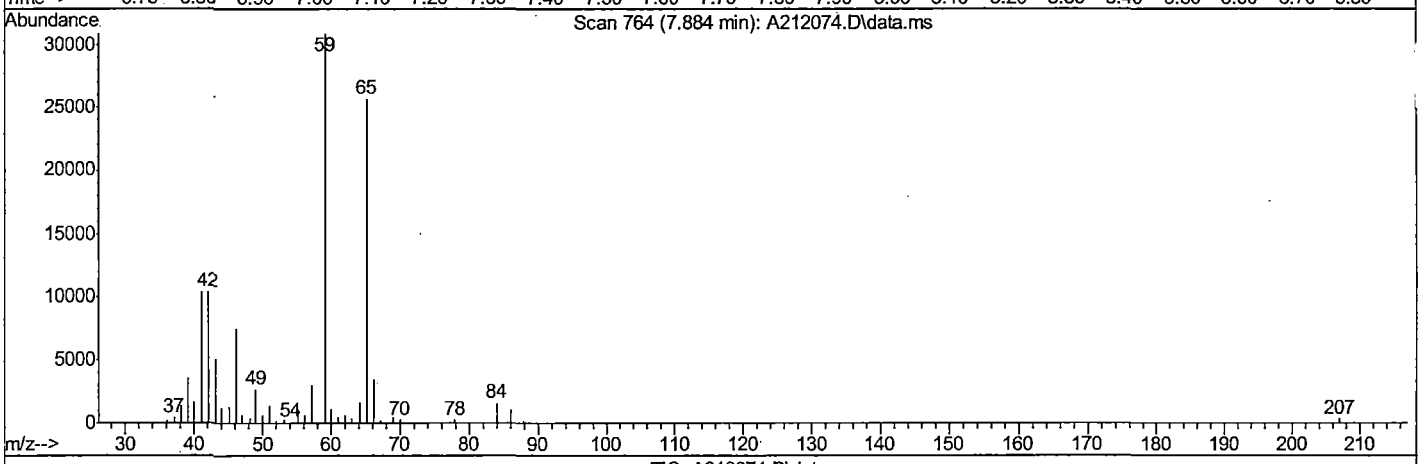
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tert Butyl Alcohol	75-65-0		7.88	Split peak
o-Chlorotoluene	95-49-8		16.13	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212074.D
Acq On : 21 Mar 2015 2:49 am
Operator : JemimaM
Sample : jb90111-2msd
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 23 08:42:47 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration





TIC: A212074.D\data.ms

(3) tertiary butyl alcohol (M)

7.884min (+0.007) 266.30ug/L m

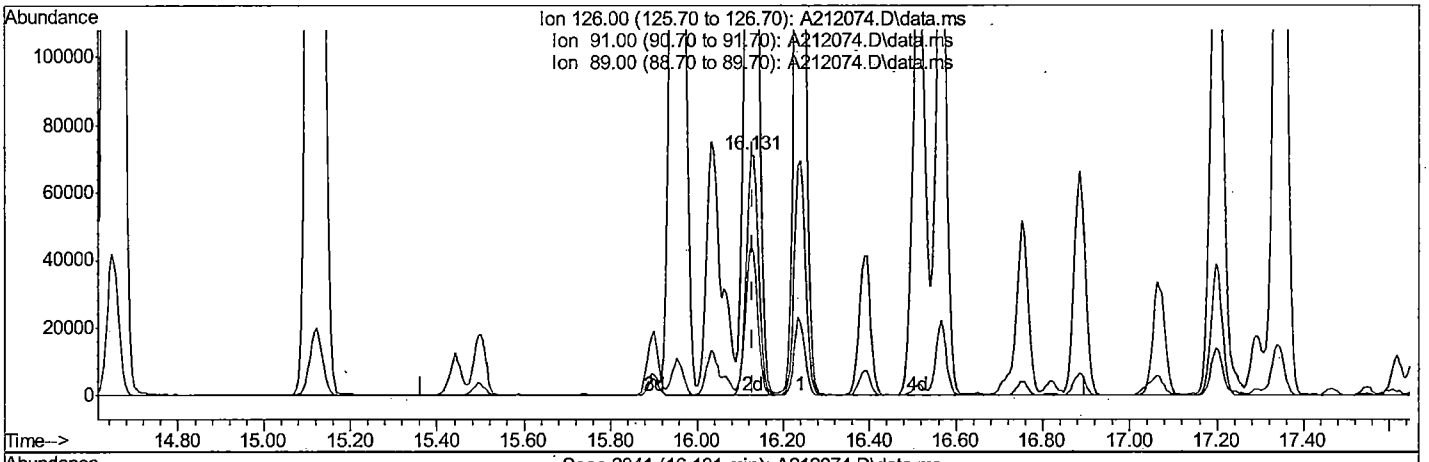
response 268983

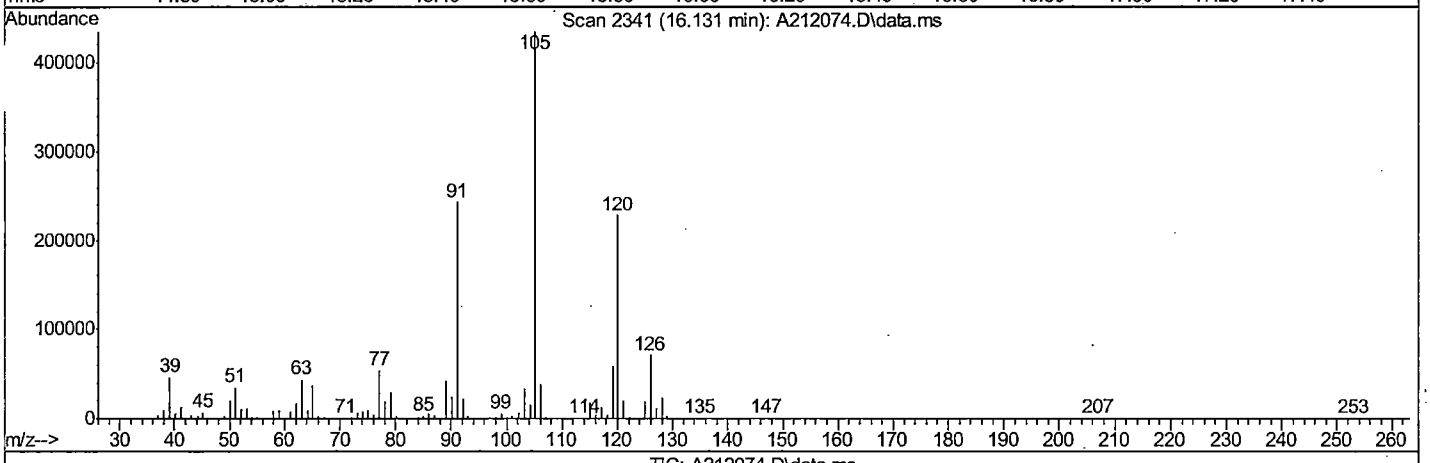
Ion	Exp%	Act%
59.00	100	100
41.00	17.70	33.41
43.00	12.30	16.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212074.D
Acq On : 21 Mar 2015 2:49 am
Operator : JemimaM
Sample : jb90111-2msd
Misc : MS82199,VA8018,5,,,,25
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 23 08:42:47 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 12 11:55:47 2015
Response via : Initial Calibration





TIC: A212074.D\data.ms

(107) 2-chlorotoluene (M)

16.131min (+0.001) 49.79ug/L m

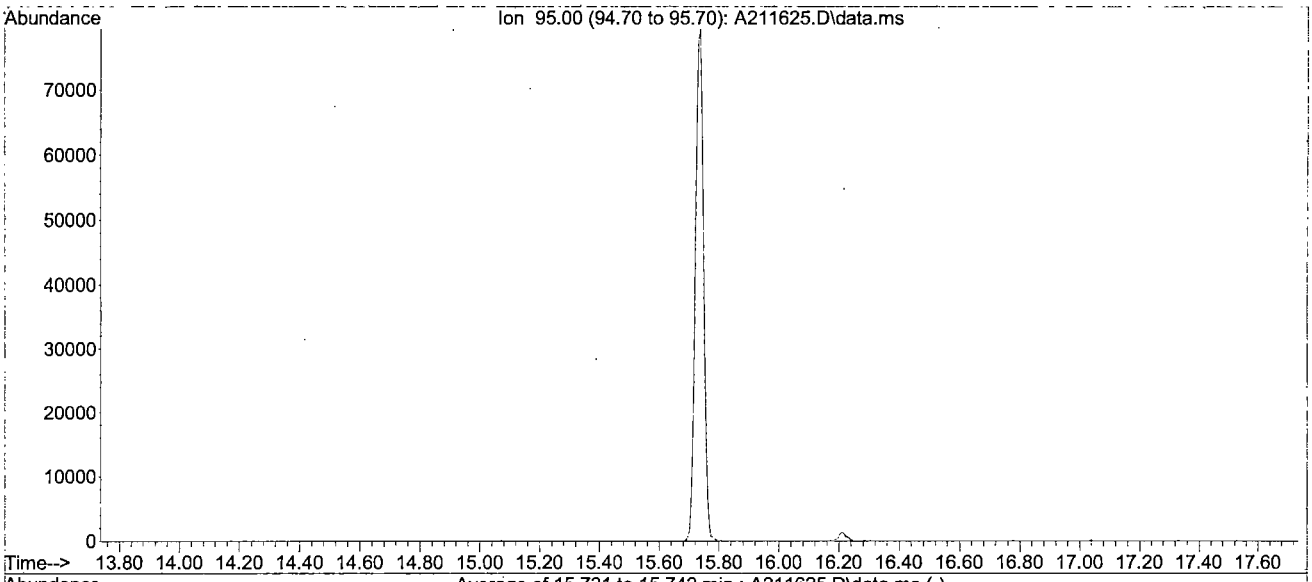
response 137311

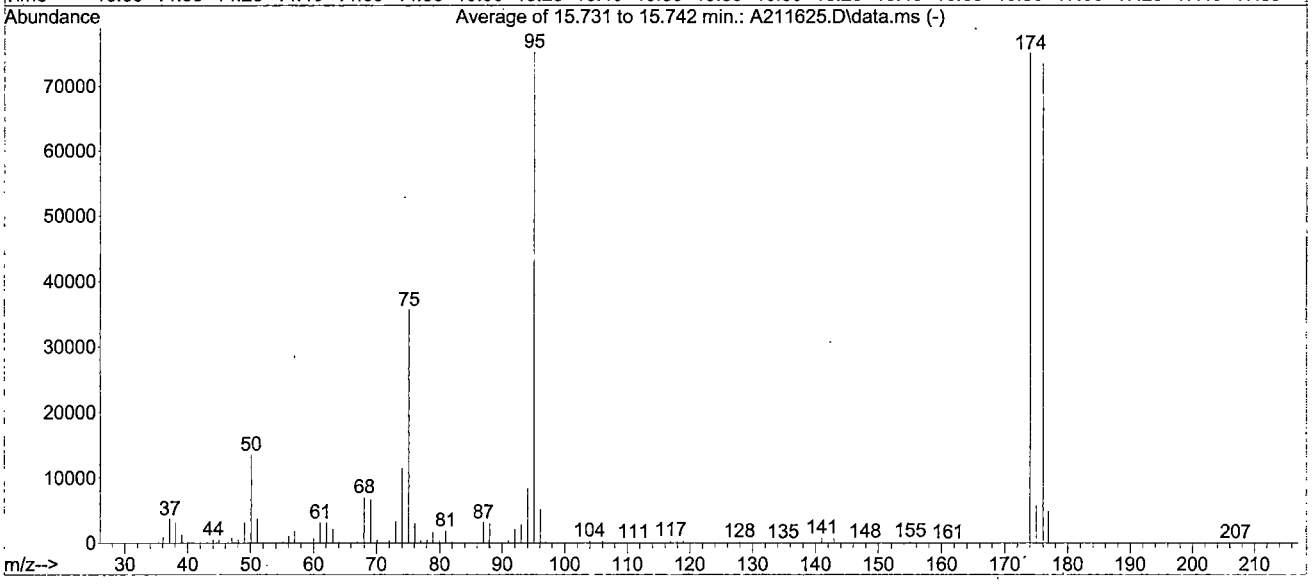
Ion	Exp%	Act%
126.00	100	100
91.00	303.10	343.15#
89.00	56.40	59.24
0.00	0.00	0.00

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\A211625.D Vial: 1
Acq On : 2 Mar 2015 11:58 am Operator: JemimaM
Sample : bfb Inst : MSA
Misc : MS79298,VA8000,5,,,,1 Multiplr: 1.00
MS Integration Params: RTENOX.P

Method : C:\msdchem\1\METHODS\MA8000.M (RTE Integrator)
Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2264, 2265, 2266; Background Corrected with Scan 2254

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	13588	PASS
75	95	30	60	47.2	35560	PASS
95	95	100	100	100.0	75288	PASS
96	95	5	9	6.9	5223	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.7	75042	PASS
175	174	5	9	7.8	5819	PASS
176	174	95	101	97.8	73426	PASS
177	176	5	9	6.6	4882	PASS

A211625.D MA8000.M Tue Mar 03 09:49:56 2015 RPT1

Average of 15.731 to 15.742 min.: A211625.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	848	50.10	13588	63.10	2164	76.05	2996
37.10	3731	51.10	3743	64.05	240	77.00	383
38.10	3183	51.90	53	66.95	169	78.05	500
39.10	1229	52.05	114	67.20	113	78.95	1585
40.00	74	55.10	174	68.05	6977	80.00	447
43.20	48	56.05	983	69.05	6640	80.95	1902
44.05	562	57.05	1855	70.05	562	81.95	399
45.00	491	57.90	37	72.00	453	86.00	34
47.05	746	60.00	752	73.05	3215	87.00	3135
48.05	499	61.05	3131	74.05	11387	88.00	3043
49.05	3082	62.05	3091	75.10	35560	91.00	304

Average of 15.731 to 15.742 min.: A211625.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	2114	111.00	91	130.10	71	146.70	37
93.00	2722	111.90	42	130.95	79	147.05	87
94.10	8438	115.95	219	134.85	127	147.90	210
95.05	75288	116.95	469	135.10	110	148.20	61
96.05	5223	117.40	93	136.90	171	148.40	61
96.80	49	118.00	341	140.05	80	149.90	49
96.95	141	118.90	324	141.00	786	155.00	273
103.95	340	127.90	228	142.00	113	156.90	207
104.80	39	128.70	61	142.25	120	158.90	100
106.00	309	128.95	123	142.95	687	161.00	52
107.00	42	129.90	126	145.95	210	172.40	132

Average of 15.731 to 15.742 min.: A211625.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	75042						
175.00	5819						
176.00	73426						
176.95	4882						
177.90	103						
178.10	63						
206.95	119						

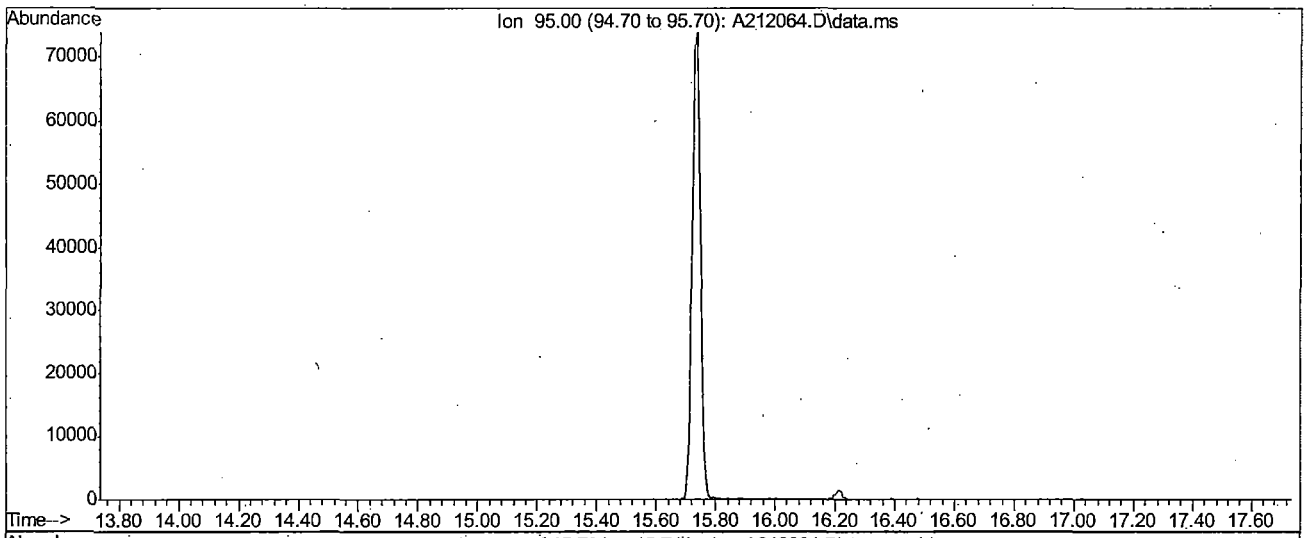
7.5.1

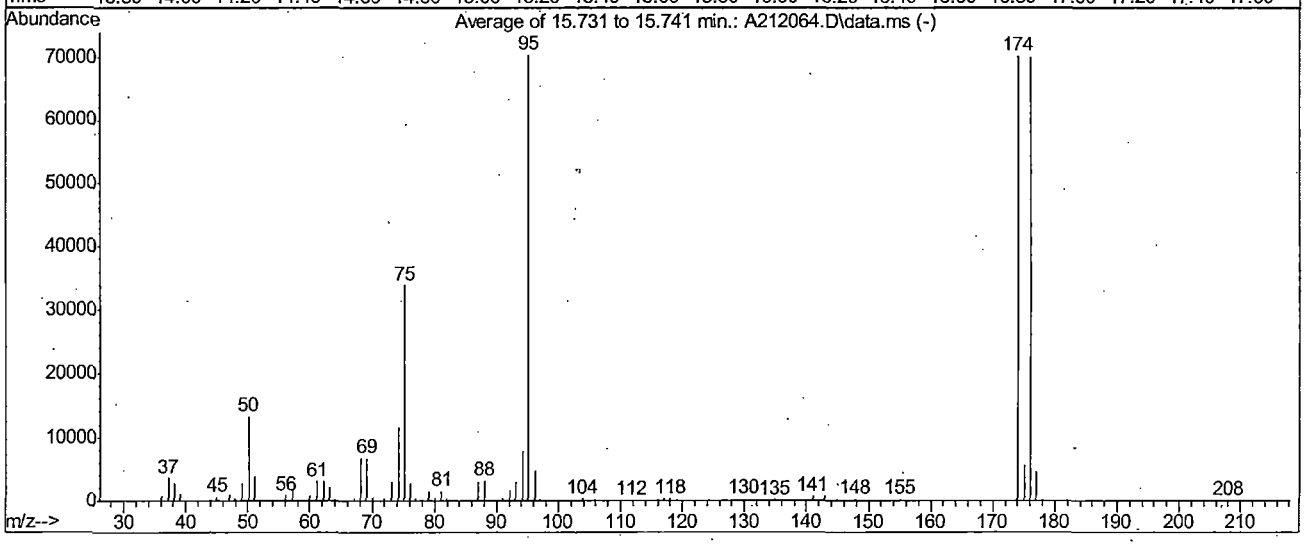
7

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\a-...8018-va8020\A212064.D Vial: 24
Acq On : 20 Mar 2015 9:36 pm Operator: JemimaM
Sample : bfb Inst : MSA
Misc : MS81957,VA8018,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\MA8000.M (RTE Integrator)
Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um





AutoFind: Scans 2264, 2265, 2266; Background Corrected with Scan 2253

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	13228	PASS
75	95	30	60	48.1	33896	PASS
95	95	100	100	100.0	70464	PASS
96	95	5	9	6.8	4761	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.7	70221	PASS
175	174	5	9	8.0	5598	PASS
176	174	95	101	99.7	70019	PASS
177	176	5	9	6.5	4572	PASS

A212064.D MA8000.M Mon Mar 23 16:58:45 2015 RPT1

Average of 15.731 to 15.741 min.: A212064.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	666	50.05	13228	62.10	3060	75.10	33896
37.10	3605	51.10	3779	63.05	2109	76.05	2768
38.05	2788	51.85	79	64.00	209	77.00	341
39.10	1079	52.15	99	65.10	36	77.85	196
43.20	34	54.95	144	67.10	337	78.10	102
43.95	199	55.30	52	68.05	6710	78.90	1440
45.00	590	56.05	876	69.05	6770	80.05	430
47.00	876	57.05	1849	70.05	472	81.00	1526
47.85	316	58.00	89	72.00	333	81.95	398
48.10	161	60.00	732	73.05	2964	86.95	2966
49.05	2774	61.05	3061	74.10	11564	87.95	3111

Average of 15.731 to 15.741 min.: A212064.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.60	81	105.90	174	129.85	274	145.00	118
90.90	290	106.10	83	130.90	51	147.00	81
92.05	1589	110.60	35	133.00	41	147.85	272
93.05	2807	111.80	46	134.90	137	148.90	46
94.05	7771	116.05	186	135.10	55	150.00	39
95.05	70464	116.95	294	136.90	41	153.00	40
96.05	4761	118.00	311	139.90	40	155.00	267
97.05	194	118.70	44	140.95	646	156.95	88
103.10	39	119.00	170	141.85	129	158.85	93
103.85	333	127.85	209	142.95	646	171.20	41
105.20	43	128.85	153	144.10	43	171.70	36

Average of 15.731 to 15.741 min.: A212064.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.90	51						
172.30	81						
174.00	70221						
175.00	5598						
176.00	70019						
176.95	4572						
177.95	111						
207.00	64						
208.10	79						

7.5.2

7

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
03/04/15 17:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 17:03:13 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.768	65	416752	500.00 ug/L	0.00
4) pentafluorobenzene	10.090	168	312908	50.00 ug/L	0.00
53) 1,4-difluorobenzene	11.042	114	311728	50.00 ug/L	0.00
83) chlorobenzene-d5	14.442	117	266016	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.041	152	175819	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	0.000	113	0d	0.00 ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery	= 0.00%#	
47) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00 ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery	= 0.00%#	
75) toluene-d8 (s)	0.000	98	0d	0.00 ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery	= 0.00%#	
101) 4-bromofluorobenzene (s)	0.000	95	0d	0.00 ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery	= 0.00%#	

Target Compounds					Qvalue
27) methyl tert butyl ether	8.134	73	1342	0.18 ug/L	61
34) 1,1-dichloroethane	8.783	63	811m	0.26 ug/L	
41) cis-1,2-dichloroethene	9.567	96	302	0.15 ug/L #	61
43) bromochloromethane	9.886	128	177	0.16 ug/L #	1
52) tert-amyl methyl ether	10.681	73	1660m	0.24 ug/L	
57) carbon tetrachloride	10.409	117	618m	0.19 ug/L	
58) 1,1-dichloropropene	10.383	75	571	0.24 ug/L #	46
59) benzene	10.666	78	1649	0.24 ug/L	75
65) trichloroethene	11.398	95	491m	0.25 ug/L	
74) cis-1,3-dichloropropene	12.481	75	622	0.20 ug/L	80
77) toluene	12.857	92	1188	0.27 ug/L #	52
88) dibromochloromethane	13.809	129	472	0.20 ug/L	78
89) 1,2-dibromoethane	13.971	107	520	0.25 ug/L #	69
91) chlorobenzene	14.468	112	1235	0.25 ug/L	75
93) ethylbenzene	14.536	91	2123	0.26 ug/L	88
94) m,p-xylene	14.656	106	1560	0.49 ug/L #	66
95) o-xylene	15.117	106	660	0.19 ug/L #	52
96) styrene	15.137	104	1120	0.21 ug/L	86
97) bromoform	15.441	173	411	0.22 ug/L	75
99) isopropylbenzene	15.504	105	2155	0.22 ug/L	92
102) bromobenzene	15.959	156	678	0.27 ug/L	71
103) 1,1,2,2-tetrachloroethane	15.854	83	725	0.22 ug/L	91
106) n-propylbenzene	15.964	91	2510	0.25 ug/L	97
110) 1,3,5-trimethylbenzene	16.115	105	1757	0.21 ug/L	83
111) tert-butylbenzene	16.518	119	1729	0.23 ug/L	72
112) pentachloroethane	16.628	167	340	0.16 ug/L #	64
113) 1,2,4-trimethylbenzene	16.565	105	2035	0.25 ug/L	96
115) 1,3-dichlorobenzene	16.973	146	1162	0.24 ug/L	78
120) 1,2-dichlorobenzene	17.517	146	1387	0.27 ug/L	97
121) n-butylbenzene	17.350	92	939	0.20 ug/L #	69
124) 1,3,5-trichlorobenzene	18.558	180	1361	0.25 ug/L	72
127) naphthalene	19.604	128	4571	0.26 ug/L	82
128) 1,2,3-trichlorobenzene	19.886	180	1788	0.28 ug/L	80

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

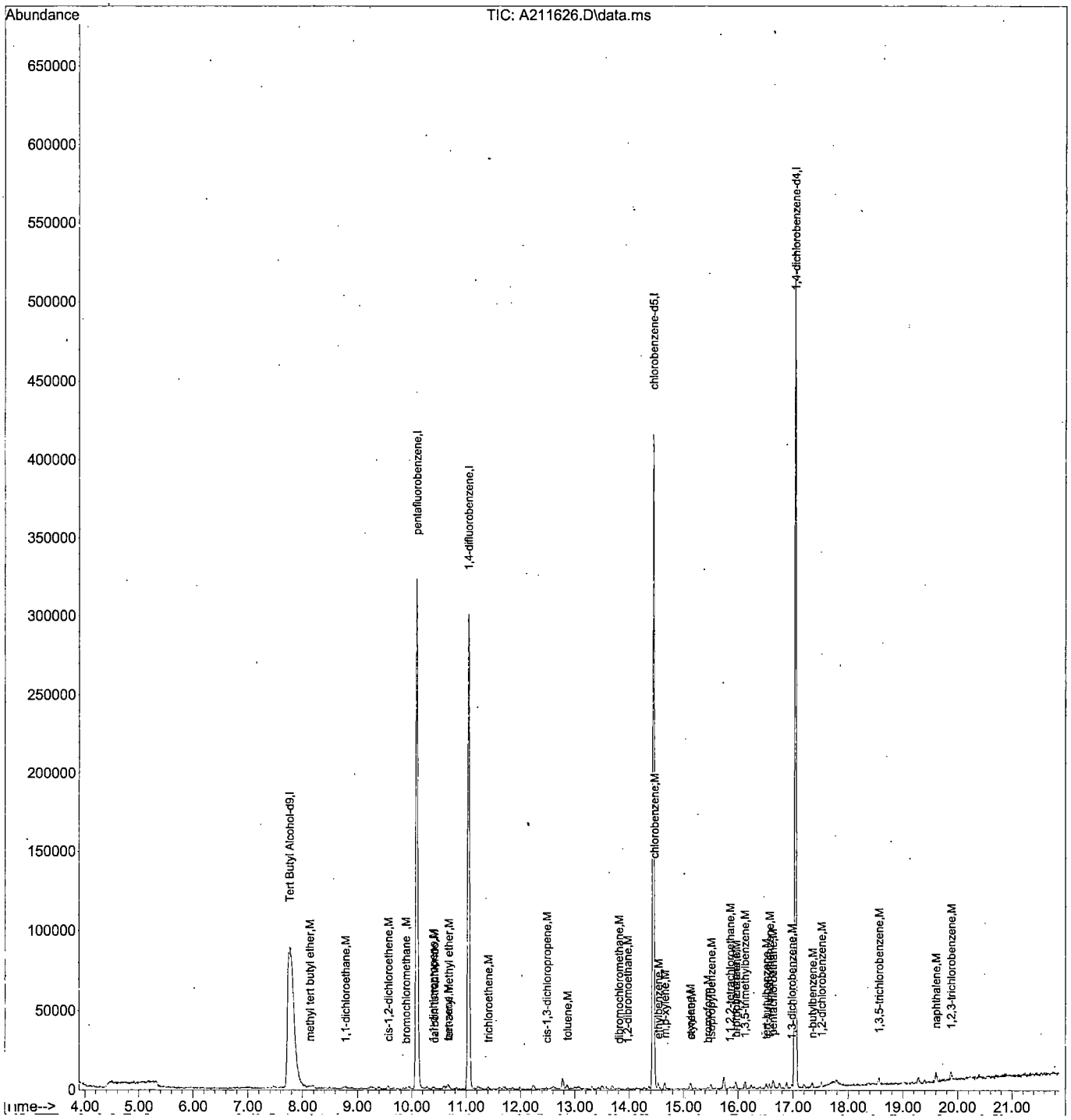
7.6.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 17:03:13 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration



MA8000.M Tue Mar 03 17:08:35 2015 RPT1

Page: 2

ACCUTEST LABORATORIES JB90207

Manual Integration Approval Summary

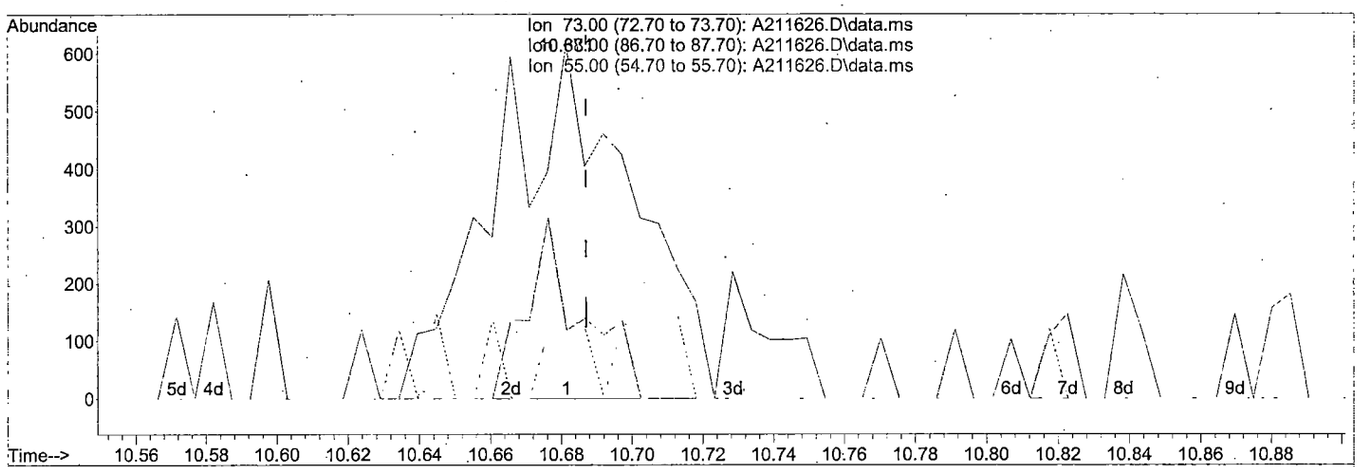
Sample Number:	VA8000-IC8000	**Method:**	SW846 8260B
Lab FileID:	A211626.D	**Analyst approved:**	03/04/15 17:07 Ying Li
Injection Time:	03/02/15 12:35	**Supervisor approved:**	03/04/15 17:16 Jessica Reitan-Chu

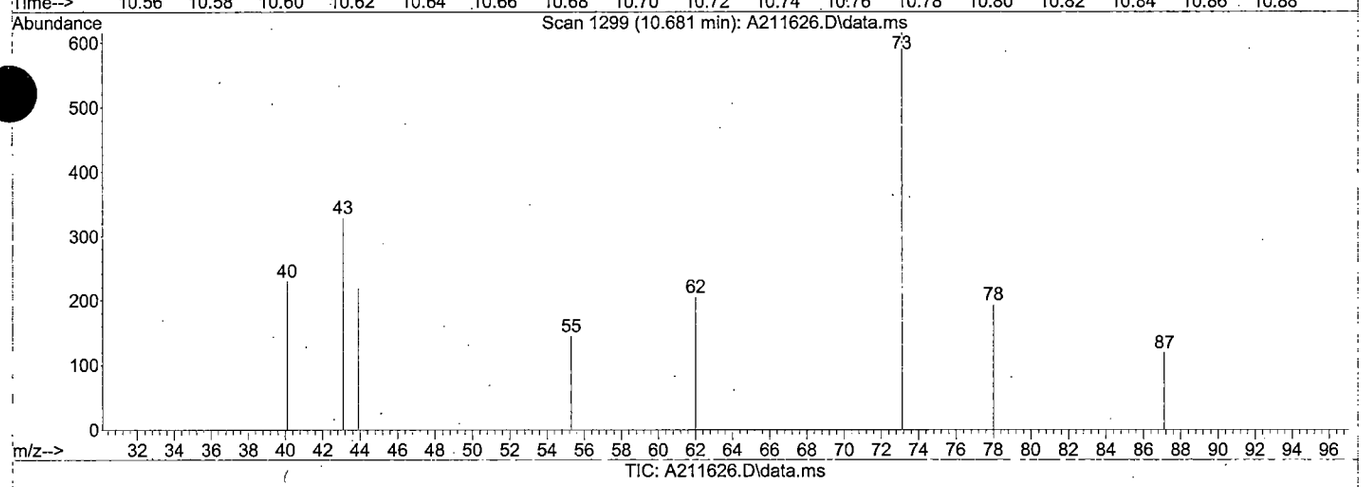
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,1-Dichloroethane	75-34-3		8.78	Split peak
Carbon tetrachloride	56-23-5		10.41	Split peak
tert-Amyl Methyl Ether	994-05-8		10.68	Split peak
Trichloroethene	79-01-6		11.40	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 02 15:40:04 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration





(52) tert-amyl methyl ether (M)

10.681min (-0.006) 0.24ug/L m

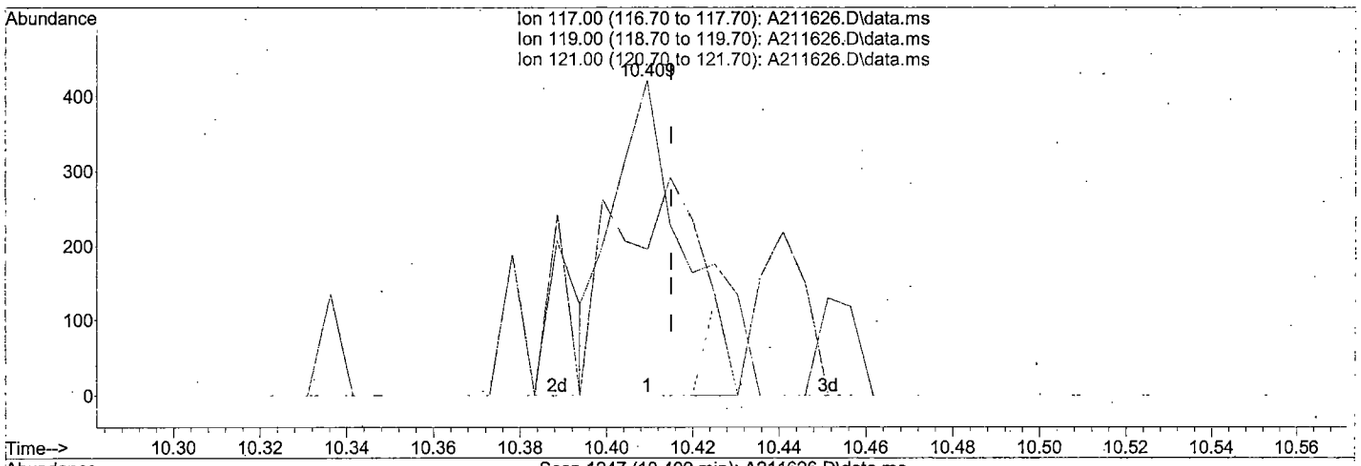
response 1660

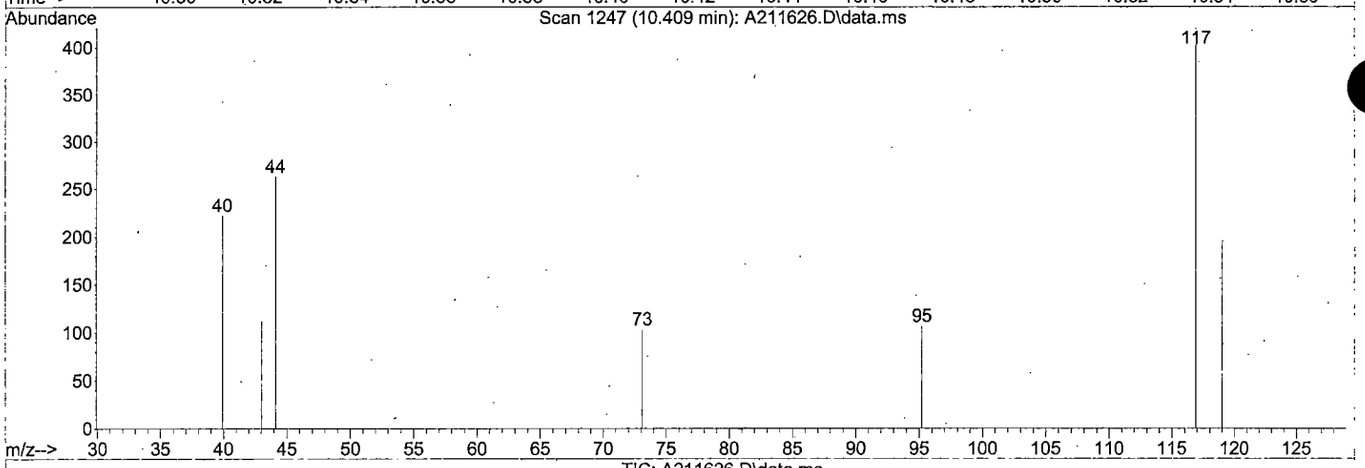
Ion	Exp%	Act%
73.00	100	100
87.00	25.00	19.35
55.00	21.10	23.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:40:10 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration





TIC: A211626.D\data.ms

(57) carbon tetrachloride (M)

10.409min (-0.006) 0.16ug/L

response 515

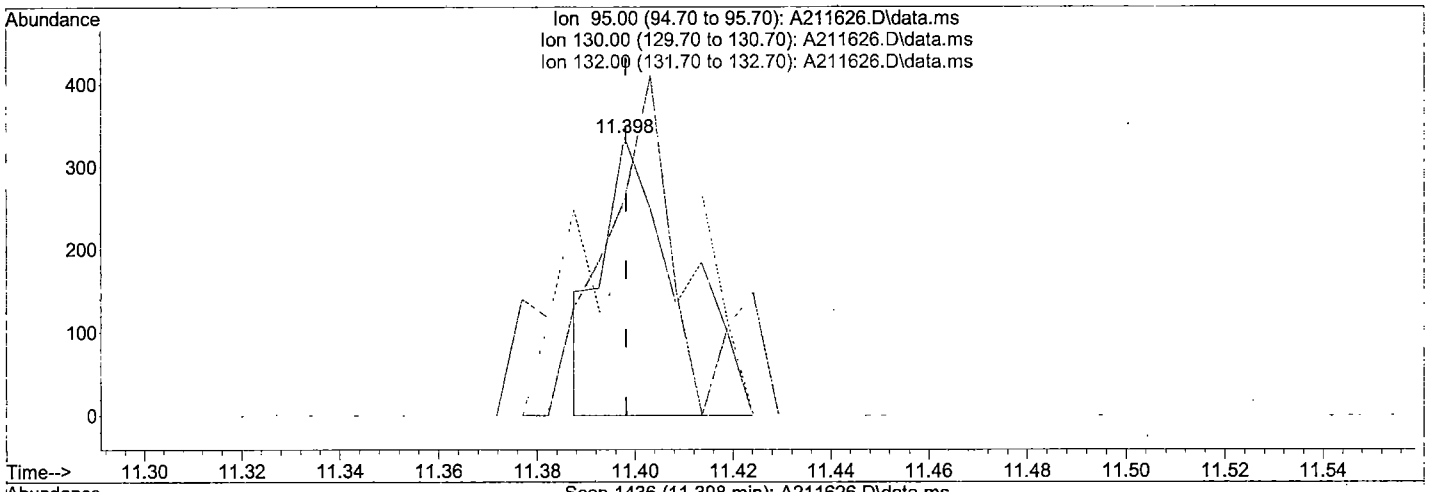
Ion	Exp%	Act%
117.00	100	100
119.00	92.50	46.56#
121.00	31.60	0.00#
0.00	0.00	0.00

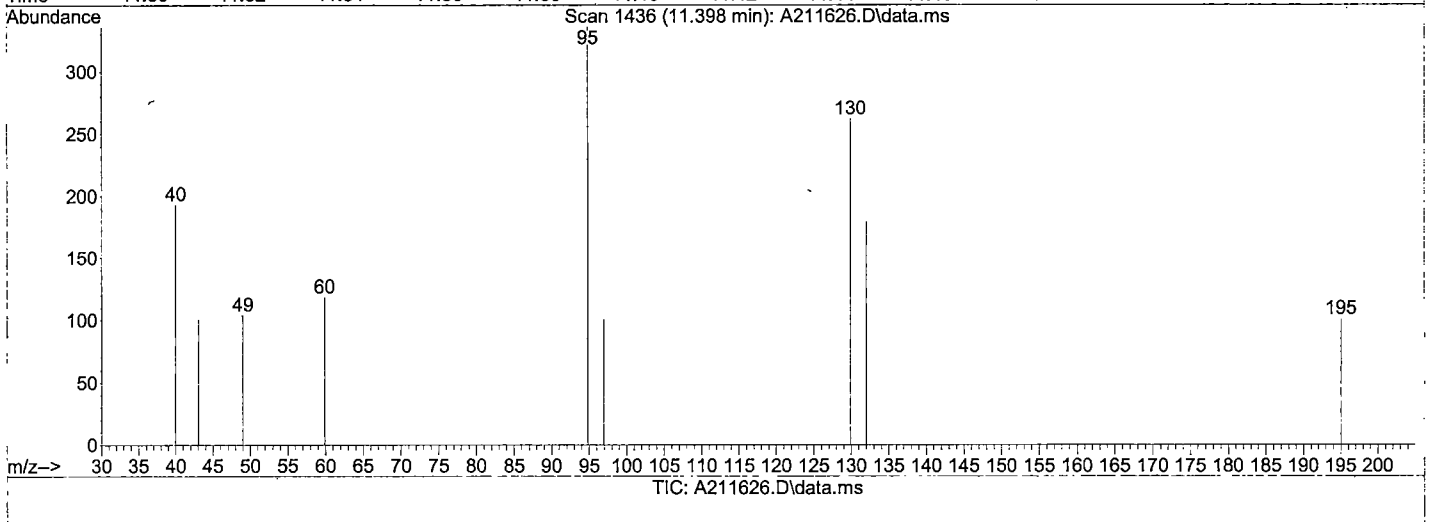
7.6.1.3 7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:40:10 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration





(65) trichloroethene (M)

11.398min (-0.000) 0.19ug/L

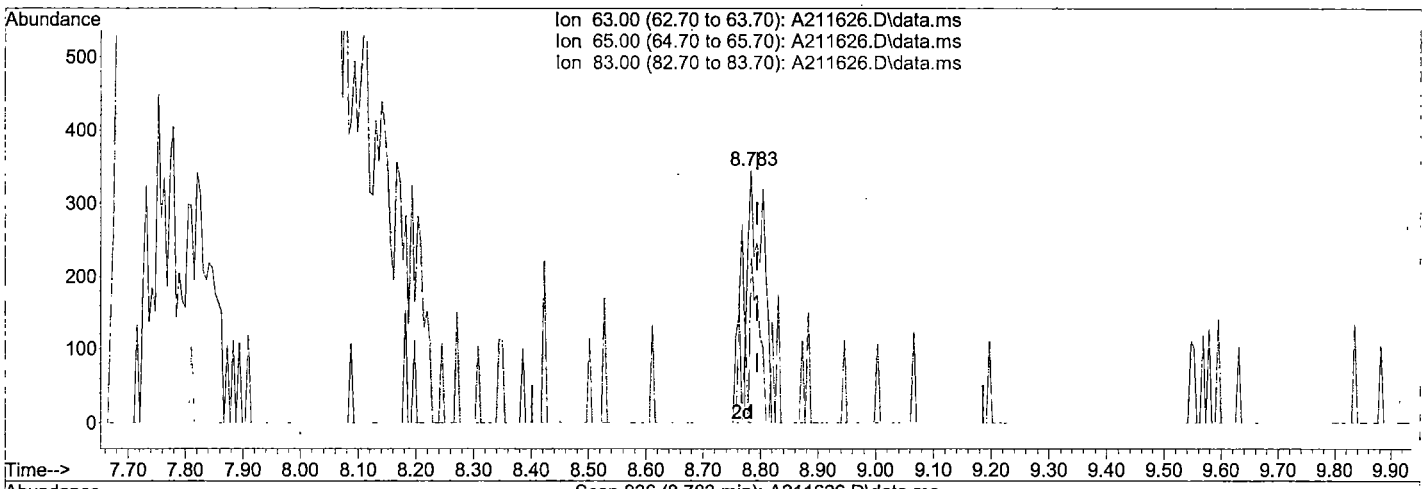
response 363

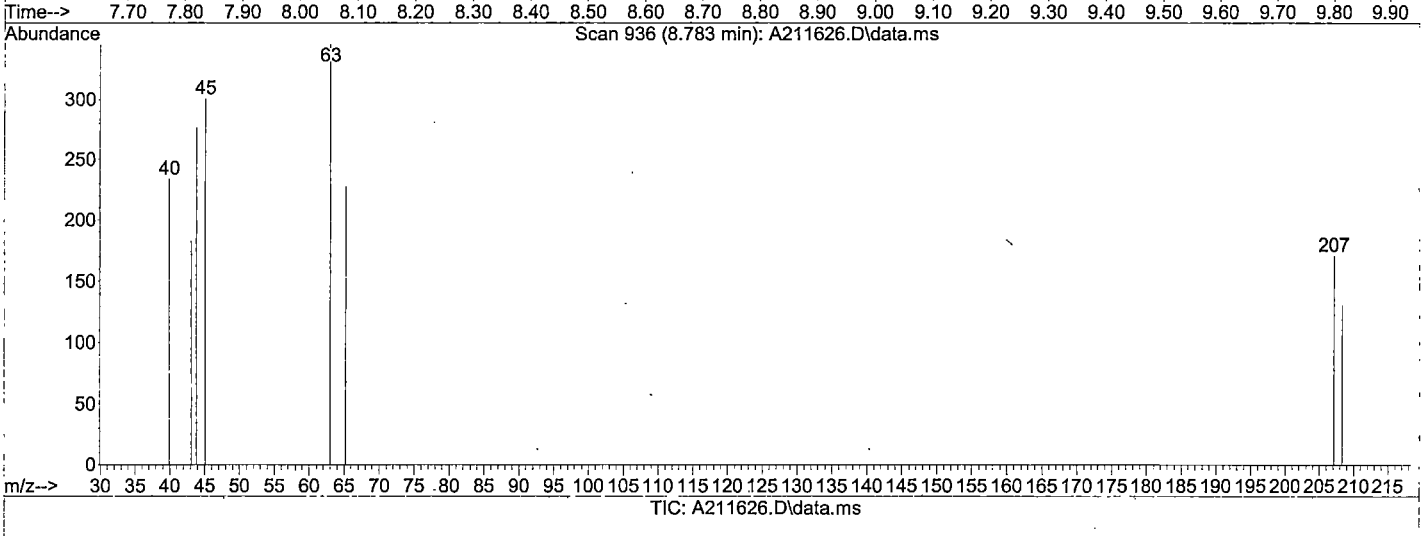
Ion	Exp%	Act%
95.00	100	100
130.00	101.60	39.29#
132.00	94.70	53.57#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:40:10 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration





TIC: A211626.D\data.ms

(34) 1,1-dichloroethane (M)

8.783min (-0.011) 0.19ug/L

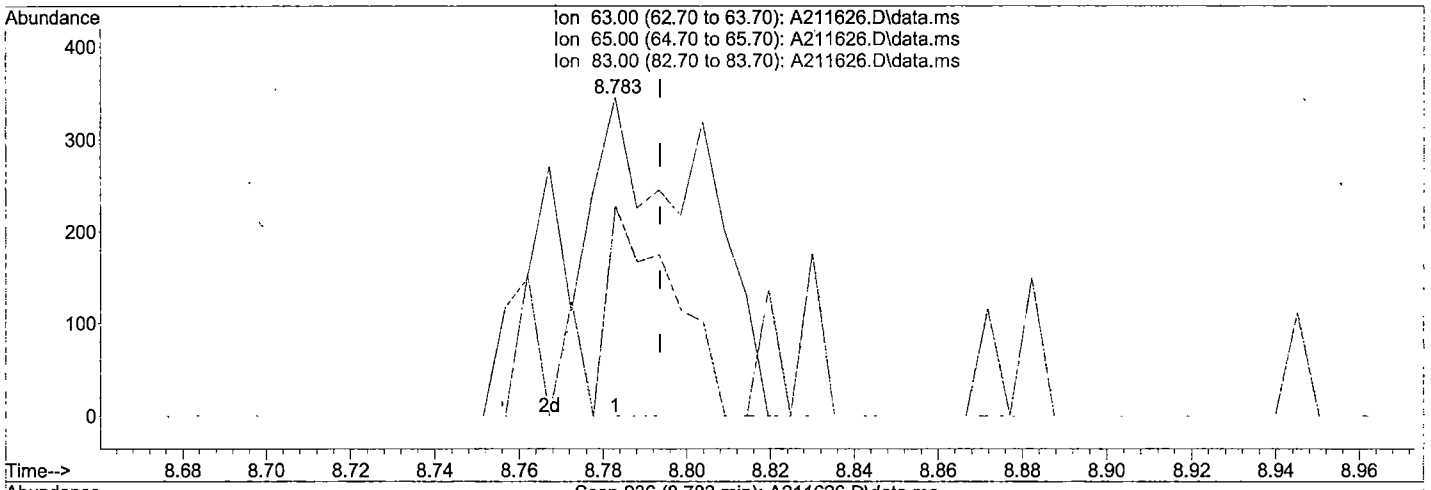
response 607

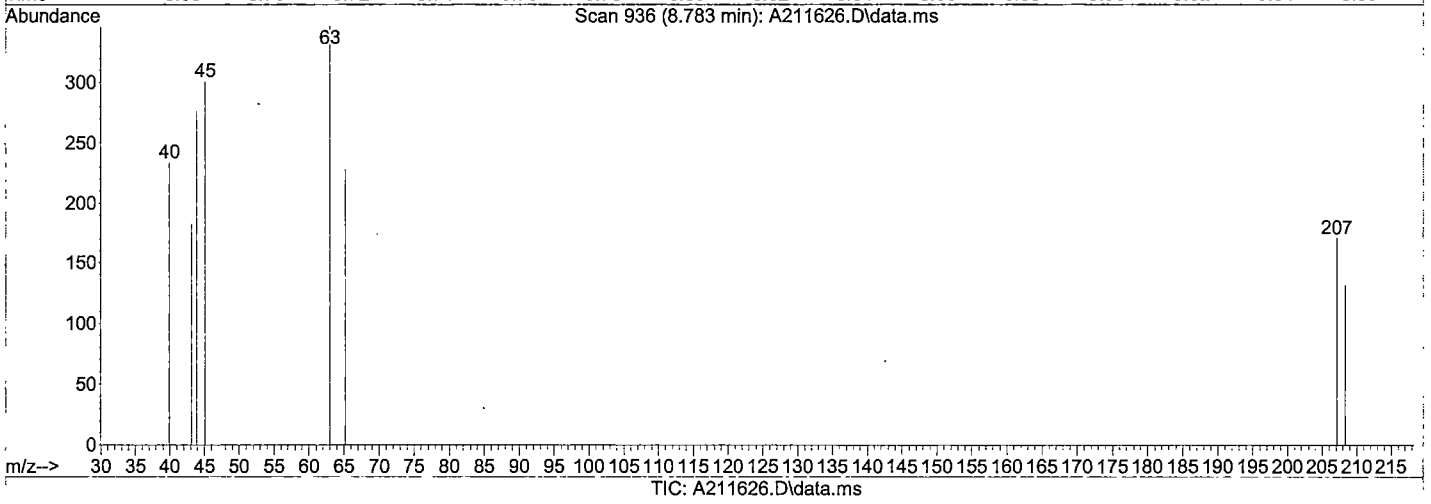
Ion	Exp%	Act%
63.00	100	100
65.00	31.20	30.06
83.00	13.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:40:10 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration





(34) 1,1-dichloroethane (M)

8.783min (-0.011) 0.26ug/L m

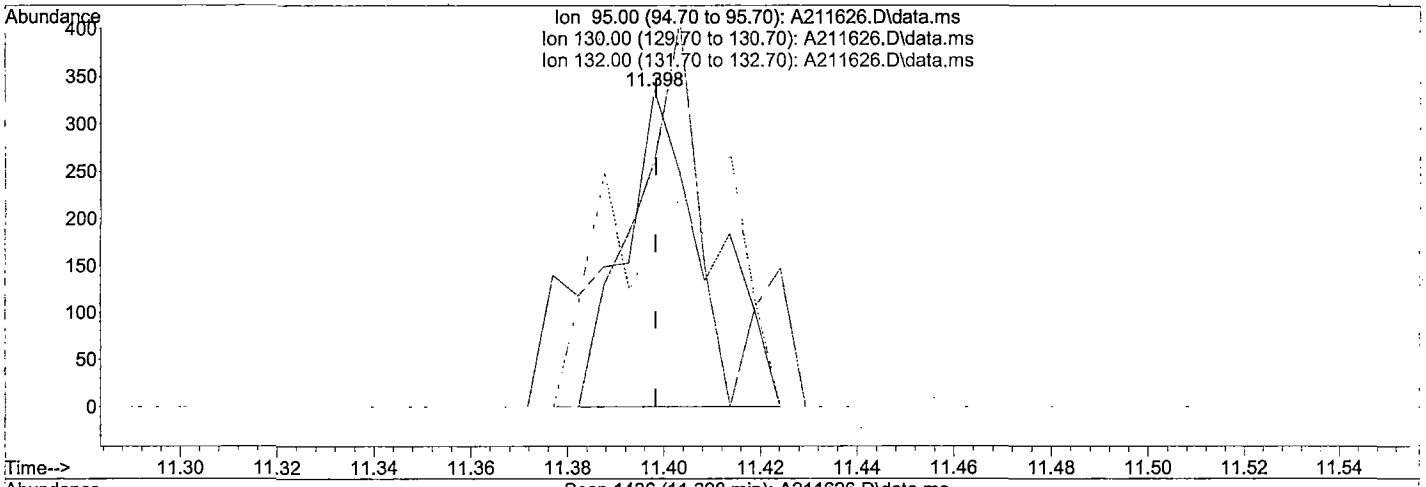
response 811

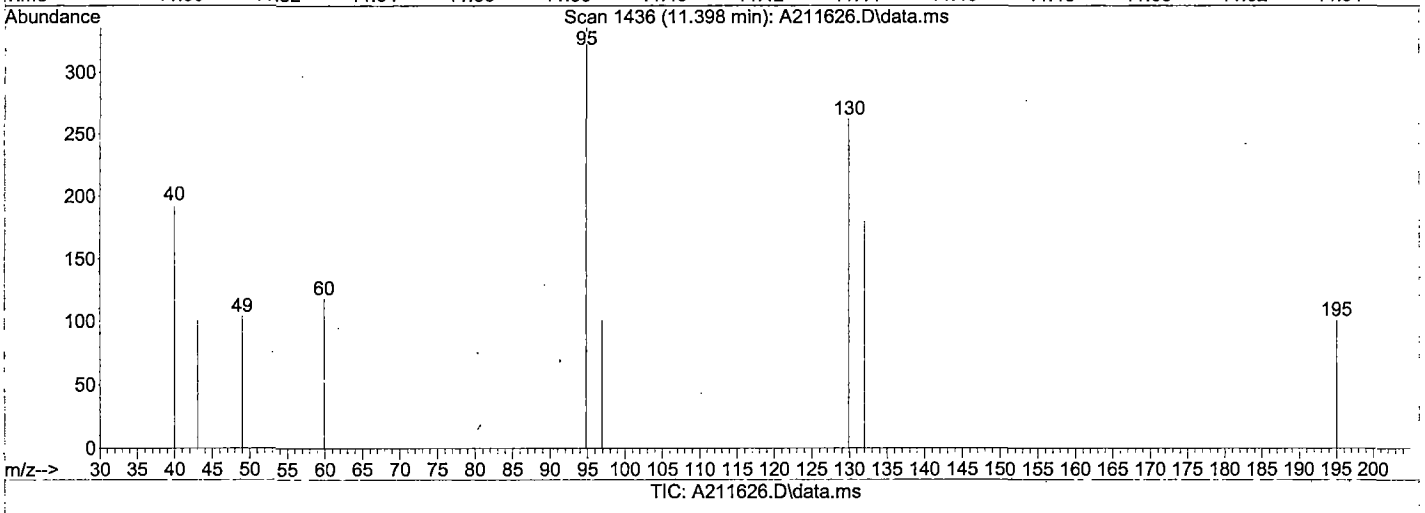
Ion	Exp%	Act%
63.00	100	100
65.00	31.20	65.90#
83.00	13.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 09:40:10 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration





(65) trichloroethene (M)

11.398min (-0.000) 0.25ug/L m

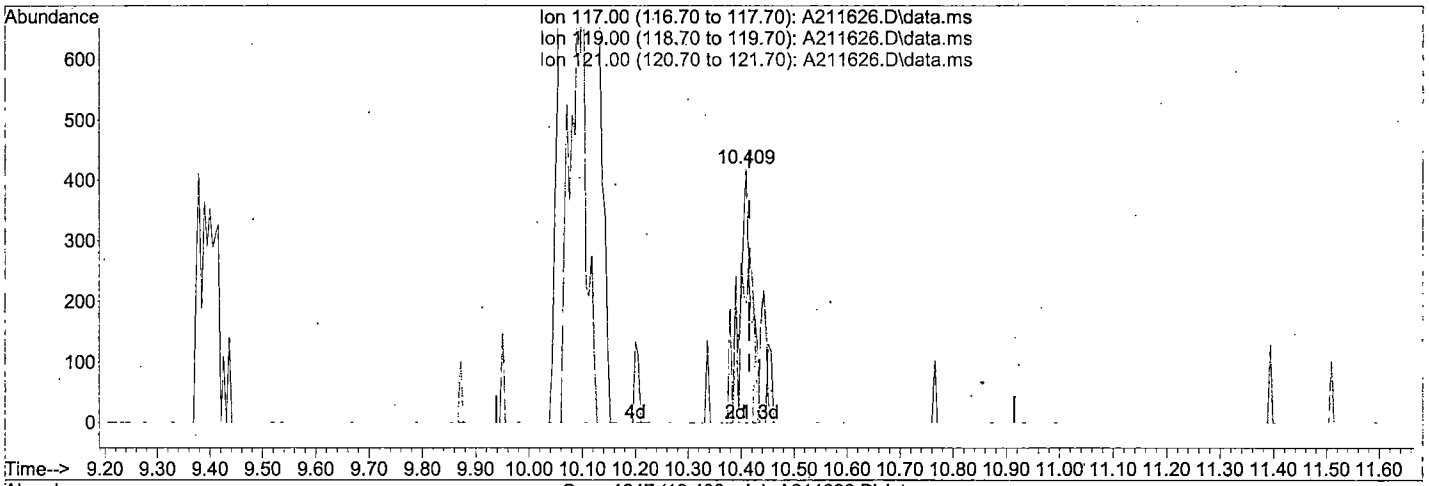
response 491

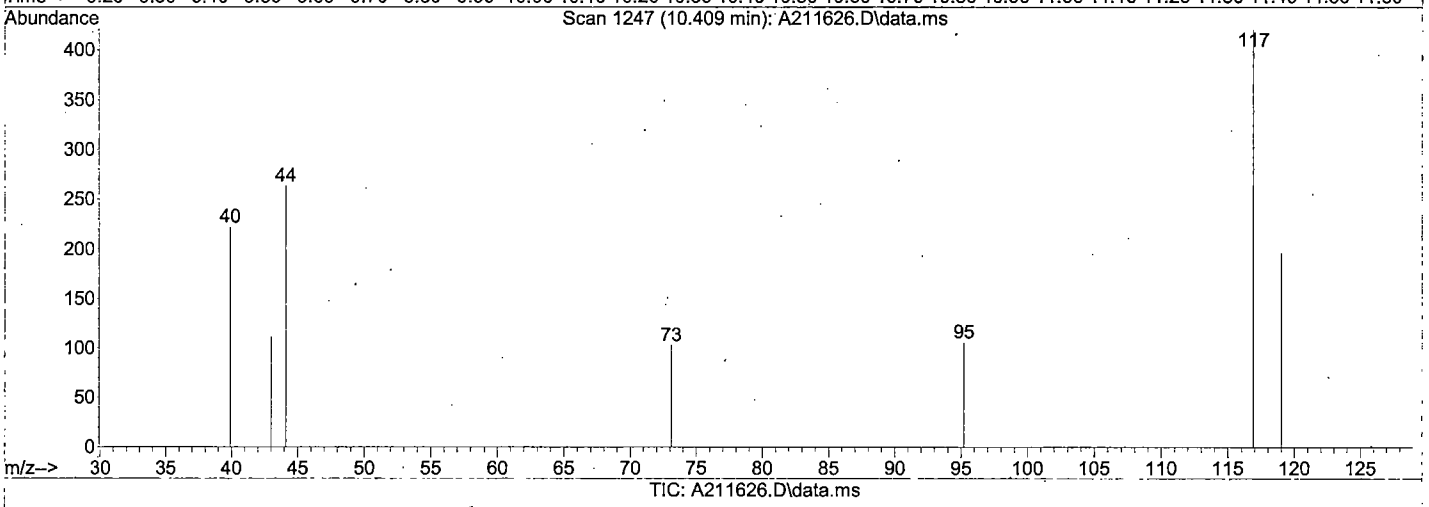
Ion	Exp%	Act%
95.00	100	100
130.00	101.60	77.98
132.00	94.70	53.57#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 17:03:13 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 10:17:39 2015
Response via : Initial Calibration





(57) carbon tetrachloride (M)

10.409min (-0.006) 0.19ug/L m

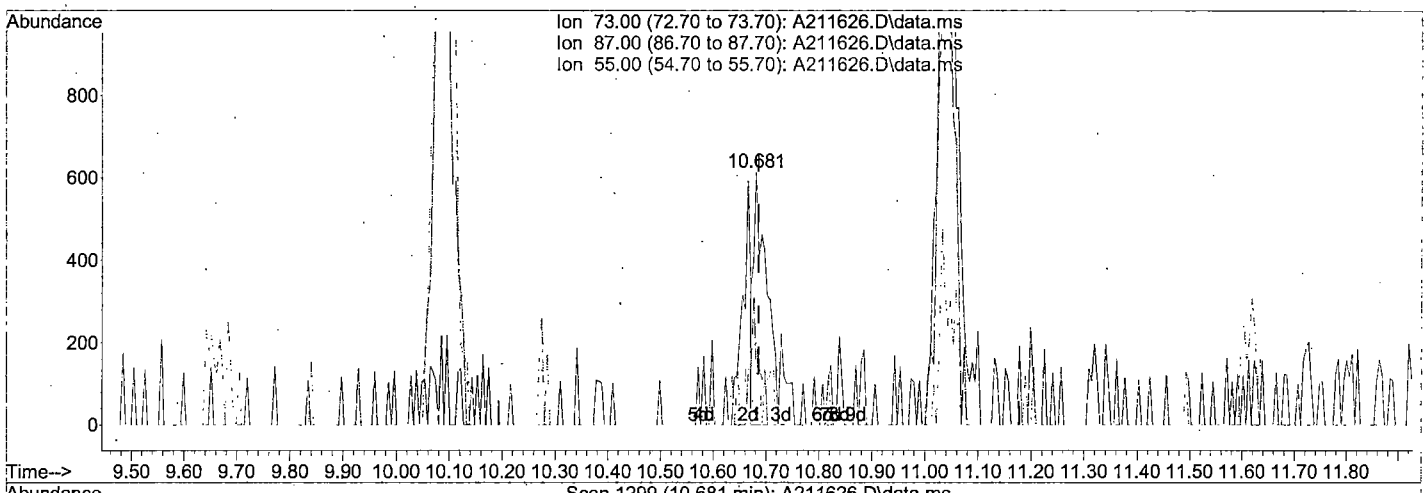
response 618

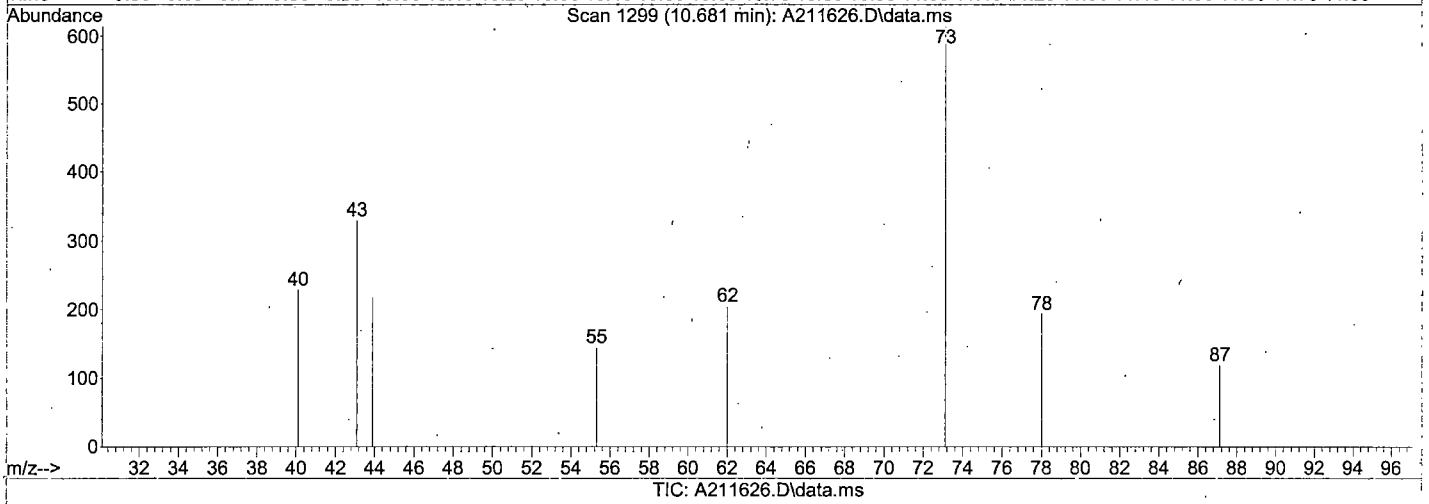
Ion	Exp%	Act%
117.00	100	100
119.00	92.50	46.56#
121.00	31.60	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\va8000 initial raw\
Data File : A211626.D
Acq On : 2 Mar 2015 12:35 pm
Operator : JemimaM
Sample : ic8000-0.2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 17:20:13 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 17:06:49 2015
Response via : Initial Calibration





TIC: A211626.D\data.ms

(52) tert-amyl methyl ether (M)

10.681min (-0.004) 0.14ug/L

response 1042

Ion	Exp%	Act%
73.00	100	100
87.00	24.90	19.35
55.00	22.00	23.58
0.00	0.00	0.00

Manual Integrations
APPROVED
(compounds with "m" flag)
Jessica Reitan-Chu
03/04/15 17:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211627.D
Acq On : 2 Mar 2015 1:07 pm
Operator : JemimaM
Sample : ic8000-0.5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 17:16:25 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:25:04 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.759	65	432439	500.00 ug/L	0.00
4) pentafluorobenzene	10.096	168	315996	50.00 ug/L	0.00
53) 1,4-difluorobenzene	11.043	114	317245	50.00 ug/L	0.00
83) chlorobenzene-d5	14.443	117	268505	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.042	152	180391	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	0.000	113	0d	0.00 ug/L	
Spiked Amount 50.000	Range 76 - 122		Recovery =	0.00%#	
47) 1,2-dichloroethane-d4 (s)	0.000	65	0d	0.00 ug/L	
Spiked Amount 50.000	Range 71 - 124		Recovery =	0.00%#	
75) toluene-d8 (s)	0.000	98	0d	0.00 ug/L	
Spiked Amount 50.000	Range 78 - 121		Recovery =	0.00%#	
101) 4-bromofluorobenzene (s)	0.000	95	0d	0.00 ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery =	0.00%#	

Target Compounds					Qvalue
9) vinyl chloride	4.736	62	2277	0.62 ug/L #	49
10) bromomethane	5.452	94	1336	0.70 ug/L	78
19) 1,1-dichloroethene	7.047	61	1973	0.63 ug/L #	60
23) iodomethane	7.340	142	2186	0.51 ug/L	84
25) methylene chloride	7.811	84	1375	0.63 ug/L #	55
27) methyl tert butyl ether	8.130	73	4285	0.58 ug/L	69
28) trans-1,2-dichloroethene	8.193	96	1315	0.73 ug/L #	40
32) ethyl tert-butyl ether	9.244	59	2654	0.37 ug/L	74
34) 1,1-dichloroethane	8.789	63	1858	0.59 ug/L	81
36) acrylonitrile	8.172	53	2715	2.75 ug/L	96
40) 2,2-dichloropropane	9.547	77	2558	0.70 ug/L #	62
41) cis-1,2-dichloroethene	9.589	96	1310	0.64 ug/L #	29
43) bromochloromethane	9.908	128	556	0.50 ug/L	96
45) chloroform	9.945	83	2236	0.67 ug/L	80
49) cyclohexane	10.280	84	1503	0.52 ug/L	95
50) 1,1,1-trichloroethane	10.201	97	1688m	0.48 ug/L	
52) tert-amyl methyl ether	10.687	73	3170	0.45 ug/L	93
56) n-butyl alcohol	11.210	56	3400	18.28 ug/L	87
57) carbon tetrachloride	10.410	117	1381	0.42 ug/L	84
58) 1,1-dichloropropene	10.395	75	1346	0.55 ug/L	86
59) benzene	10.661	78	4111	0.60 ug/L	95
64) 1,2-dichloroethane	10.698	62	1504	0.53 ug/L	84
65) trichloroethene	11.409	95	1019	0.52 ug/L #	50
69) 2-chloroethyl vinyl ether	12.241	63	2546	1.83 ug/L	97
71) 1,2-dichloropropane	11.676	63	727	0.41 ug/L	98
72) dibromomethane	11.869	93	531	0.39 ug/L #	50
73) bromodichloromethane	11.990	83	1330	0.47 ug/L	76
74) cis-1,3-dichloropropene	12.476	75	1584	0.50 ug/L	83
77) toluene	12.858	92	2471	0.55 ug/L #	65
79) trans-1,3-dichloropropene	13.078	75	1627	0.53 ug/L	95
80) ethyl methacrylate	13.062	69	1357	0.53 ug/L	84
81) 1,1,2-trichloroethane	13.308	83	771	0.56 ug/L #	33
84) tetrachloroethene	13.486	164	1017	0.58 ug/L #	67
85) 1,3-dichloropropane	13.512	76	1649	0.57 ug/L	96
87) 3,3-dimethyl-1-butanol	13.690	57	2258	3.48 ug/L #	80
88) dibromochloromethane	13.815	129	1108	0.47 ug/L #	73
89) 1,2-dibromoethane	13.977	107	1142	0.55 ug/L	99
90) n-butyl ether	14.364	57	4161	0.56 ug/L #	80
91) chlorobenzene	14.479	112	2491	0.50 ug/L	76
92) 1,1,1,2-tetrachloroethane	14.547	131	1399	0.57 ug/L #	65
93) ethylbenzene	14.532	91	4659	0.56 ug/L	85

7.6.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211627.D
Acq On : 2 Mar 2015 1:07 pm
Operator : JemimaM
Sample : ic8000-0.5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 17:16:25 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:25:04 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
94) m,p-xylene	14.652	106	3381m	1.05 ug/L	
95) o-xylene	15.117	106	1965	0.55 ug/L	93
96) styrene	15.138	104	2990	0.57 ug/L	64
97) bromoform	15.447	173	914	0.48 ug/L	75
99) isopropylbenzene	15.499	105	5328	0.53 ug/L	92
102) bromobenzene	15.959	156	1489	0.57 ug/L #	70
103) 1,1,2,2-tetrachloroethane	15.850	83	1665	0.49 ug/L	75
106) n-propylbenzene	15.959	91	5600	0.54 ug/L	83
107) 2-chlorotoluene	16.137	126	1379	0.57 ug/L #	73
108) 4-chlorotoluene	16.242	91	3625	0.56 ug/L	92
110) 1,3,5-trimethylbenzene	16.122	105	4668	0.54 ug/L	98
111) tert-butylbenzene	16.514	119	3993	0.51 ug/L	96
112) pentachloroethane	16.613	167	1101	0.51 ug/L	88
113) 1,2,4-trimethylbenzene	16.566	105	4705	0.57 ug/L	92
114) sec-butylbenzene	16.754	105	5904	0.50 ug/L	92
115) 1,3-dichlorobenzene	16.985	146	2913	0.58 ug/L	90
116) p-isopropyltoluene	16.885	119	5534	0.55 ug/L	98
118) 1,4-dichlorobenzene	17.068	146	3000	0.59 ug/L	86
120) 1,2-dichlorobenzene	17.508	146	3245	0.61 ug/L	73
121) n-butylbenzene	17.345	92	2412	0.51 ug/L	86
123) 1,2-dibromo-3-chloropr...	18.381	75	532	0.48 ug/L #	65
124) 1,3,5-trichlorobenzene	18.559	180	3227	0.58 ug/L	92
125) 1,2,4-trichlorobenzene	19.281	180	3550	0.60 ug/L #	71
126) hexachlorobutadiene	19.406	225	1331	0.48 ug/L	98
127) naphthalene	19.605	128	9150	0.51 ug/L	98
128) 1,2,3-trichlorobenzene	19.887	180	3649	0.56 ug/L	86
129) hexachloroethane	17.795	201	1134	0.55 ug/L #	67

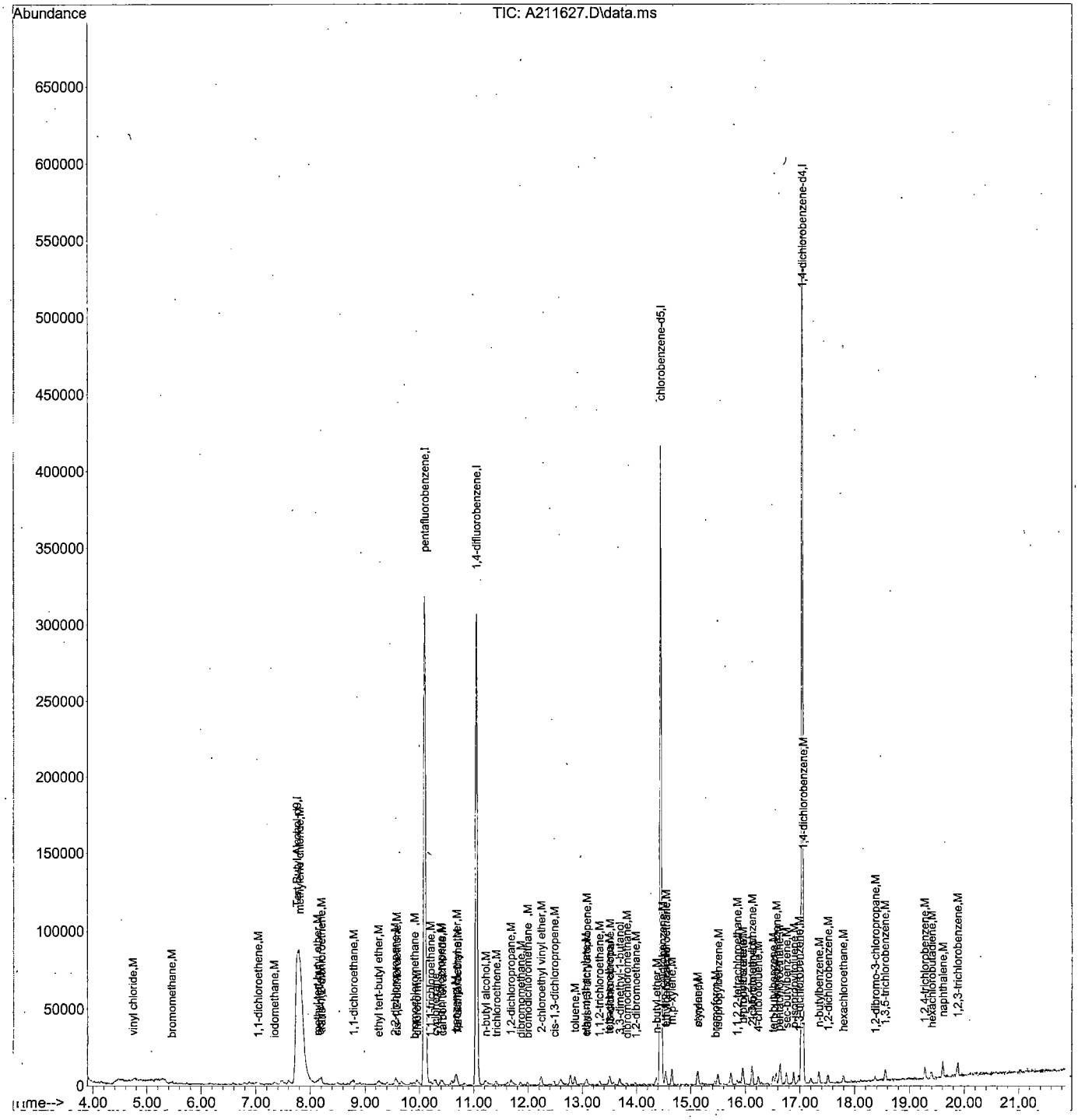
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211627.D
Acq On : 2 Mar 2015 1:07 pm
Operator : JemimaM
Sample : ic8000-0.5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 17:16:25 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:25:04 2015
Response via : Initial Calibration



7.6.2

7

Manual Integration Approval Summary

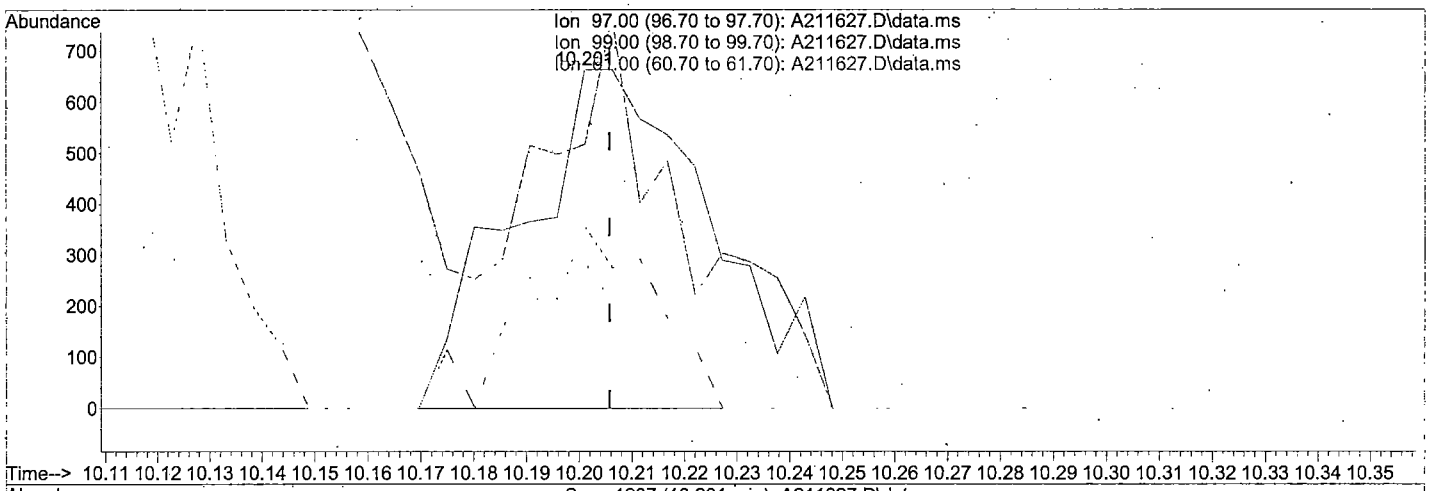
Sample Number:	VA8000-IC8000	**Method:**	SW846 8260B
Lab FileID:	A211627.D	**Analyst approved:**	03/04/15 17:07 Ying Li
Injection Time:	03/02/15 13:07	**Supervisor approved:**	03/04/15 17:16 Jessica Reitan-Chu

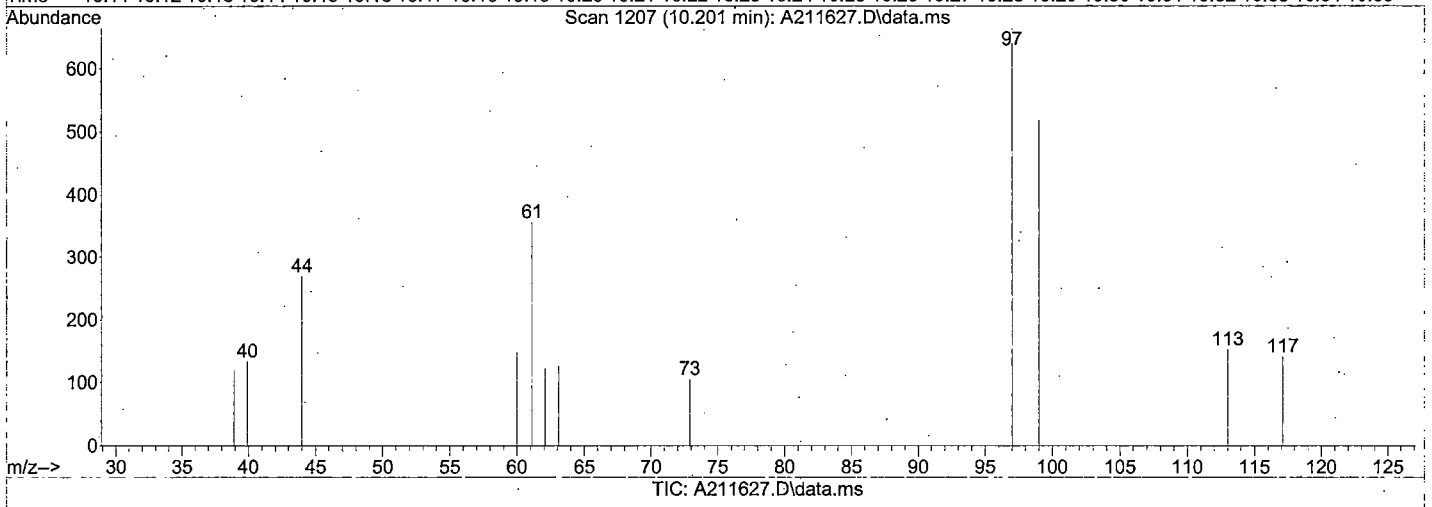
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,1,1-Trichloroethane	71-55-6		10.20	Split peak
m,p-Xylene			14.65	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211627.D
Acq On : 2 Mar 2015 1:07 pm
Operator : JemimaM
Sample : ic8000-0.5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 02 16:25:09 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:25:04 2015
Response via : Initial Calibration





(50) 1,1,1-trichloroethane (M)

10.201min (-0.005) 0.48ug/L m

response 1688

Ion	Exp%	Act%
97.00	100	100
99.00	62.10	78.01
61.00	38.70	53.61
0.00	0.00	0.00

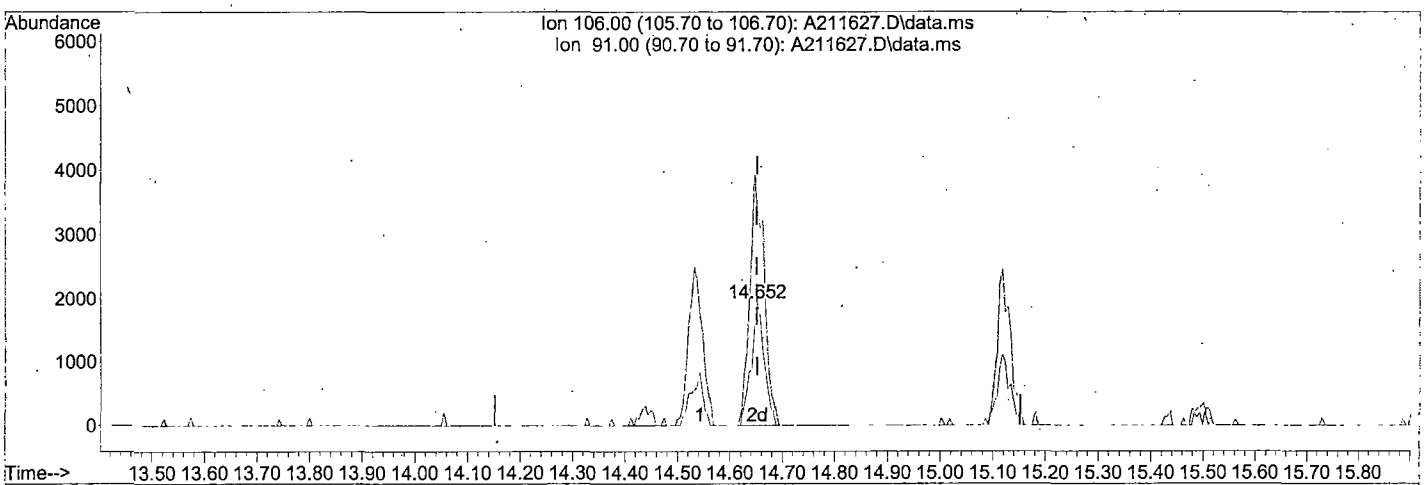
7.6.2.2

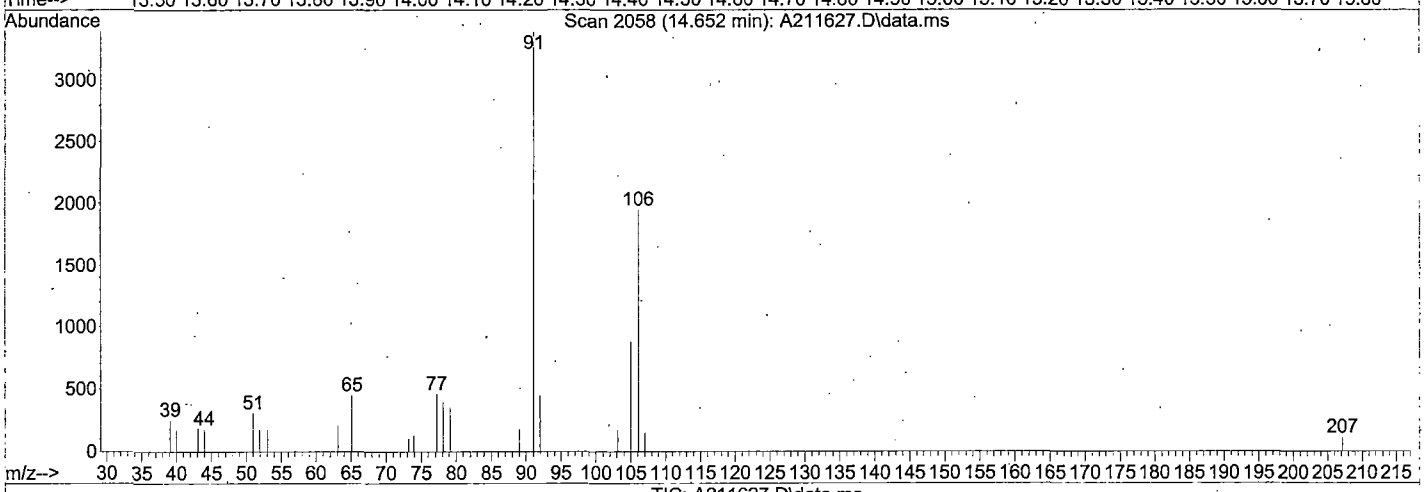
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211627.D
Acq On : 2 Mar 2015 1:07 pm
Operator : JemimaM
Sample : ic8000-0.5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 02 16:25:09 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:25:04 2015
Response via : Initial Calibration.





TIC: A211627.D\data.ms

(94) m,p-xylene (M)

14.652min (+0.001) 1.05ug/L m

response 3381

Ion	Exp%	Act%
106.00	100	100
91.00	204.70	174.28#
0.00	0.00	0.00
0.00	0.00	0.00

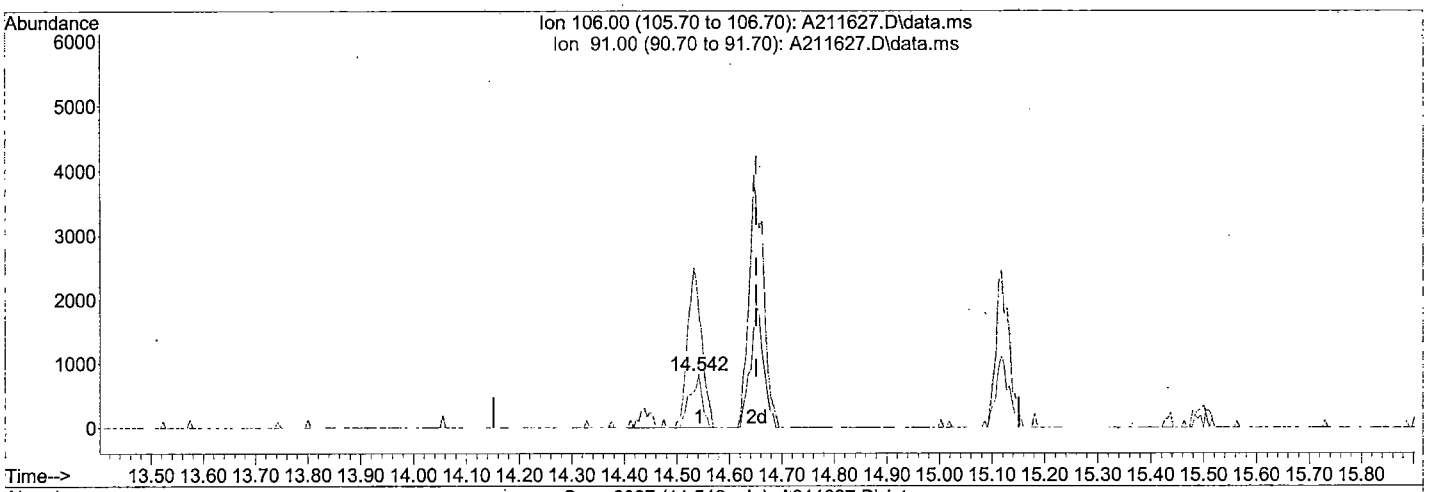
7.6.2.3

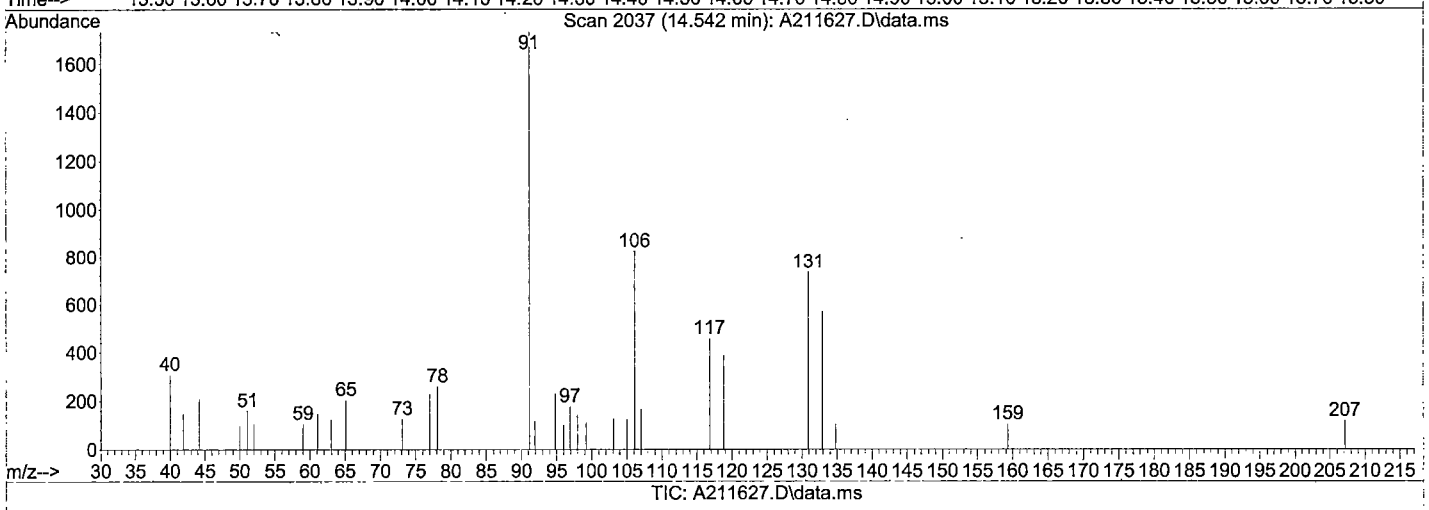
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\va8000 initial raw\
Data File : A211627.D
Acq On : 2 Mar 2015 1:07 pm
Operator : JemimaM
Sample : ic8000-0.5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 02 17:14:06 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 17:08:31 2015
Response via : Initial Calibration





(94) m,p-xylene (M)

14.542min (-0.109) 0.42ug/L

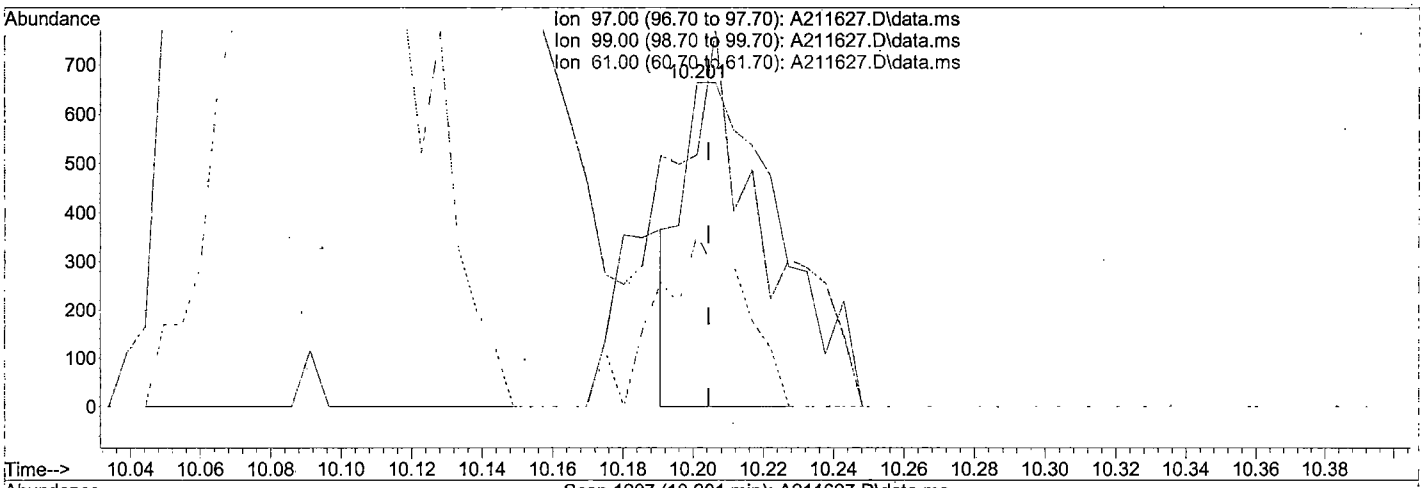
response 1356

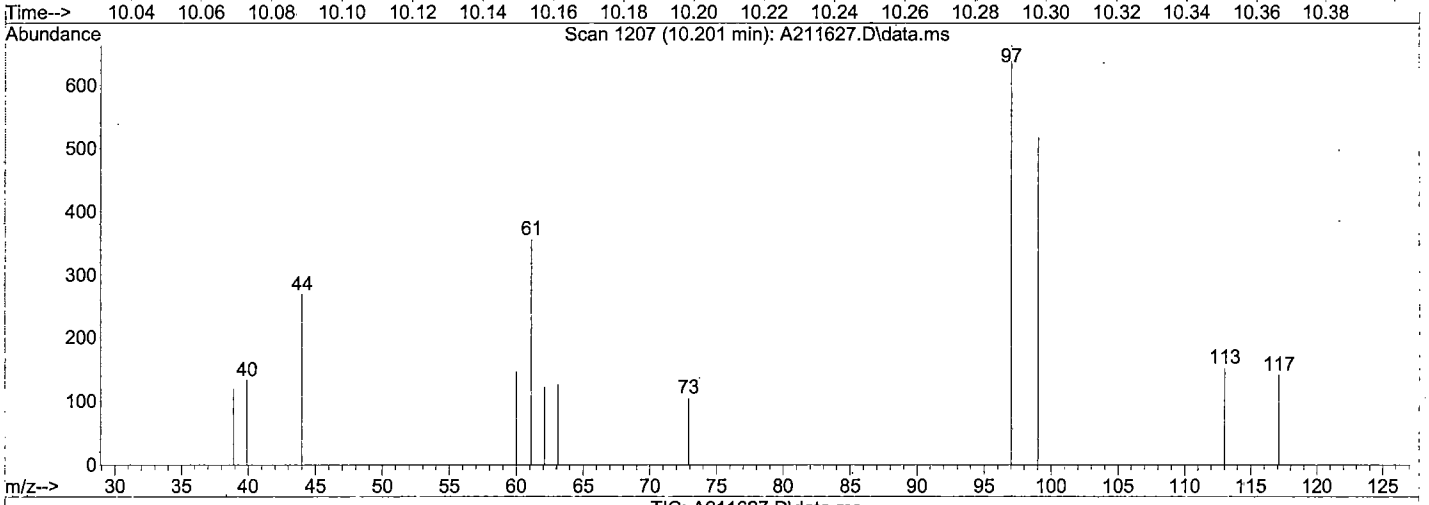
Ion	Exp%	Act%
106.00	100	100
91.00	204.70	209.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\va8000,initial raw\
Data File : A211627.D
Acq On : 2 Mar 2015 1:07 pm
Operator : JemimaM
Sample : ic8000-0.5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 16:54:02 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 16:51:42 2015
Response via : Initial Calibration





TIC: A211627.D\data.ms

(50) 1,1,1-trichloroethane (M)

10.201min (-0.003) 0.38ug/L

response 1311

Ion	Exp%	Act%
97.00	100	100
99.00	64.40	78.01
61.00	39.80	53.61
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Jessica Reitan-Chu
03/04/15 16:23

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211628.D
Acq On : 2 Mar 2015 1:38 pm
Operator : JemimaM
Sample : ic8000-1
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 09:46:35 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:45:06 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.777	65	419536	500.00 ug/L	0.01
4) pentafluorobenzene	10.094	168	311537	50.00 ug/L	0.00
53) 1,4-difluorobenzene	11.046	114	318509	50.00 ug/L	0.00
83) chlorobenzene-d5	14.440	117	260836	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.040	152	178175	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.162	113	1874	1.04 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 2.08%#		
47) 1,2-dichloroethane-d4 (s)	10.596	65	2676	1.12 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 2.24%#		
75) toluene-d8 (s)	12.782	98	6996	1.00 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 2.00%#		
101) 4-bromofluorobenzene (s)	0.000	95	0d	0.00 ug/L	
Spiked Amount 50.000	Range 77 - 120		Recovery = 0.00%#		

Target Compounds					Qvalue
3) tertiary butyl alcohol	7.929	59	4245	4.95 ug/L	74
6) chlorodifluoromethane	4.158	51	4349	1.11 ug/L	88
7) dichlorodifluoromethane	4.121	85	3664	1.02 ug/L	81
8) chloromethane	4.461	50	2939	1.07 ug/L	75
9) vinyl chloride	4.765	62	4026	1.12 ug/L	86
10) bromomethane	5.450	94	2361	1.25 ug/L #	50
11) chloroethane	5.649	64	1116	0.96 ug/L	67
13) trichlorofluoromethane	6.130	101	2607m	0.74 ug/L	
18) freon 113	6.972	151	1873	0.99 ug/L #	14
19) 1,1-dichloroethene	7.050	61	3390	1.10 ug/L	88
23) iodomethane	7.348	142	4266	1.00 ug/L	74
24) carbon disulfide	7.474	76	10437	1.43 ug/L	92
25) methylene chloride	7.824	84	2272	1.05 ug/L	77
26) methyl acetate	7.605	43	2784	1.27 ug/L #	71
27) methyl tert butyl ether	8.133	73	7470	1.02 ug/L	61
28) trans-1,2-dichloroethene	8.190	96	2149	1.21 ug/L #	57
30) di-isopropyl ether	8.776	45	6475	1.03 ug/L	88
31) t-butyl formate	9.984	59	2417	0.94 ug/L	86
32) ethyl tert-butyl ether	9.257	59	7344	1.05 ug/L	95
34) 1,1-dichloroethane	8.787	63	3073	0.98 ug/L	88
35) chloroprene	8.917	53	2795	1.04 ug/L	85
36) acrylonitrile	8.180	53	4682	4.81 ug/L #	73
40) 2,2-dichloropropane	9.566	77	4001	1.12 ug/L	73
41) cis-1,2-dichloroethene	9.582	96	1883	0.93 ug/L #	41
42) propionitrile	9.665	54	4452	7.69 ug/L	88
43) bromochloromethane	9.890	128	1128	1.02 ug/L #	75
45) chloroform	9.948	83	3321	1.01 ug/L	90
48) methacrylonitrile	9.838	67	809	0.77 ug/L #	64
49) cyclohexane	10.288	84	2800	0.98 ug/L	85
50) 1,1,1-trichloroethane	10.209	97	2890	0.84 ug/L	79
52) tert-amyl methyl ether	10.675	73	7850	1.12 ug/L	87
55) epichlorohydrin	12.380	57	1681	4.03 ug/L	87
56) n-butyl alcohol	11.203	56	7795	41.74 ug/L	75
57) carbon tetrachloride	10.424	117	3076	0.93 ug/L	83
58) 1,1-dichloropropene	10.398	75	2377	0.97 ug/L	99
59) benzene	10.664	78	7211	1.04 ug/L	90
61) heptane	10.821	71	1035	0.98 ug/L	83
63) isopropyl acetate	10.575	43	4811	0.68 ug/L	86
64) 1,2-dichloroethane	10.696	62	2628	0.92 ug/L	85
65) trichloroethene	11.407	95	1769	0.90 ug/L	98
69) 2-chloroethyl vinyl ether	12.244	63	6434	4.61 ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211628.D
Acq On : 2 Mar 2015 1:38 pm
Operator : JemimaM
Sample : ic8000-1
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 09:46:35 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:45:06 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
71) 1,2-dichloropropane	11.689	63	1849	1.04 ug/L	72
72) dibromomethane	11.857	93	1471	1.07 ug/L	87
73) bromodichloromethane	11.993	83	2633	0.93 ug/L	95
74) cis-1,3-dichloropropene	12.469	75	2714	0.86 ug/L	92
77) toluene	12.861	92	4359	0.97 ug/L	81
78) 3-methyl-1-butanol	12.605	55	4776	16.32 ug/L	97
79) trans-1,3-dichloropropene	13.081	75	2517	0.82 ug/L	78
80) ethyl methacrylate	13.060	69	2405	0.93 ug/L	91
81) 1,1,2-trichloroethane	13.311	83	1321	0.95 ug/L	94
82) 2-hexanone	13.499	58	983	0.82 ug/L #	68
84) tetrachloroethene	13.499	164	1805	1.06 ug/L #	56
85) 1,3-dichloropropane	13.520	76	2611	0.93 ug/L	97
86) butyl acetate	13.572	56	1427	0.94 ug/L #	62
87) 3,3-dimethyl-1-butanol	13.687	57	5537	8.78 ug/L	95
88) dibromochloromethane	13.808	129	2322	1.02 ug/L	81
89) 1,2-dibromoethane	13.970	107	1852	0.92 ug/L	72
90) n-butyl ether	14.362	57	7285	1.01 ug/L	97
91) chlorobenzene	14.482	112	4703	0.97 ug/L	83
92) 1,1,1,2-tetrachloroethane	14.545	131	2121	0.88 ug/L	82
93) ethylbenzene	14.529	91	7854	0.97 ug/L	83
94) m,p-xylene	14.650	106	6122	1.96 ug/L	97
95) o-xylene	15.126	106	3300	0.96 ug/L #	70
96) styrene	15.136	104	5148	1.00 ug/L	90
97) bromoform	15.445	173	1859	1.01 ug/L	75
99) isopropylbenzene	15.492	105	8667	0.87 ug/L	94
100) cyclohexanone	15.701	55	1599	7.76 ug/L #	86
102) bromobenzene	15.952	156	2733	1.06 ug/L #	73
103) 1,1,2,2-tetrachloroethane	15.853	83	3137	0.94 ug/L	85
104) trans-1,4-dichloro-2-b...	15.894	53	1059	1.13 ug/L #	65
105) 1,2,3-trichloropropane	15.936	110	1091	1.13 ug/L	76
106) n-propylbenzene	15.957	91	9633	0.94 ug/L	93
107) 2-chlorotoluene	16.130	126	2055	0.86 ug/L	90
108) 4-chlorotoluene	16.240	91	6222	0.97 ug/L	97
110) 1,3,5-trimethylbenzene	16.119	105	7076	0.82 ug/L	92
111) tert-butylbenzene	16.517	119	6604	0.85 ug/L	98
112) pentachloroethane	16.621	167	1905	0.89 ug/L	72
113) 1,2,4-trimethylbenzene	16.564	105	7223	0.88 ug/L	91
114) sec-butylbenzene	16.752	105	10471	0.90 ug/L	94
115) 1,3-dichlorobenzene	16.977	146	5058	1.02 ug/L	98
116) p-isopropyltoluene	16.883	119	8793	0.88 ug/L	93
118) 1,4-dichlorobenzene	17.071	146	5013	0.99 ug/L	88
120) 1,2-dichlorobenzene	17.516	146	5186	0.99 ug/L	85
121) n-butylbenzene	17.348	92	4574	0.97 ug/L	90
123) 1,2-dibromo-3-chloropr...	18.363	75	1307	1.19 ug/L #	82
124) 1,3,5-trichlorobenzene	18.557	180	5140	0.93 ug/L	96
125) 1,2,4-trichlorobenzene	19.284	180	6020	1.03 ug/L	84
126) hexachlorobutadiene	19.404	225	2680	0.98 ug/L	86
127) naphthalene	19.603	128	16757	0.95 ug/L	93
128) 1,2,3-trichlorobenzene	19.885	180	6416	0.99 ug/L	87
129) hexachloroethane	17.793	201	1243	0.61 ug/L	77

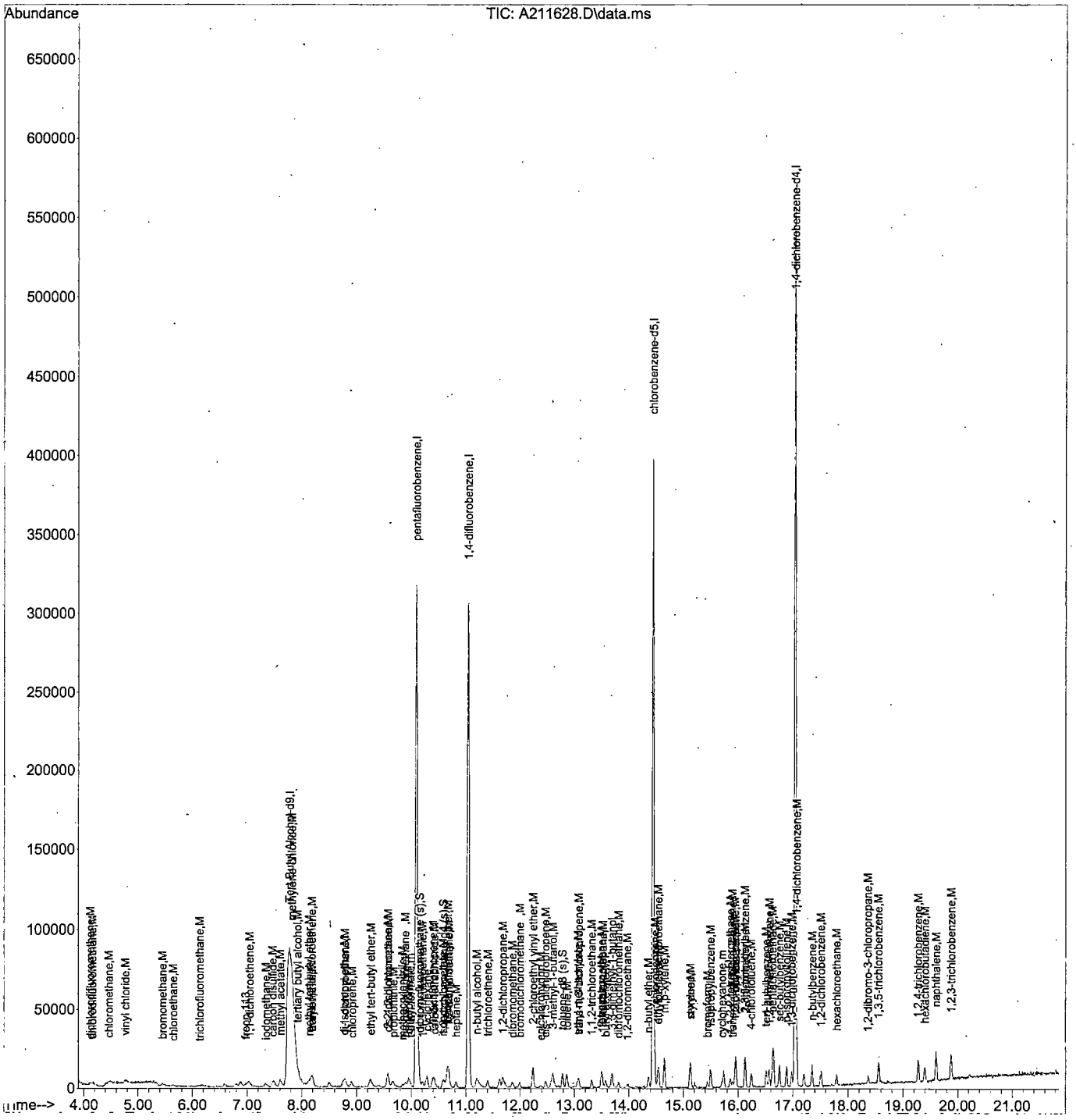
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.3 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211628.D
Acq On : 2 Mar 2015 1:38 pm
Operator : JemimaM
Sample : ic8000-1
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 09:46:35 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:45:06 2015
Response via : Initial Calibration



Manual Integration Approval Summary

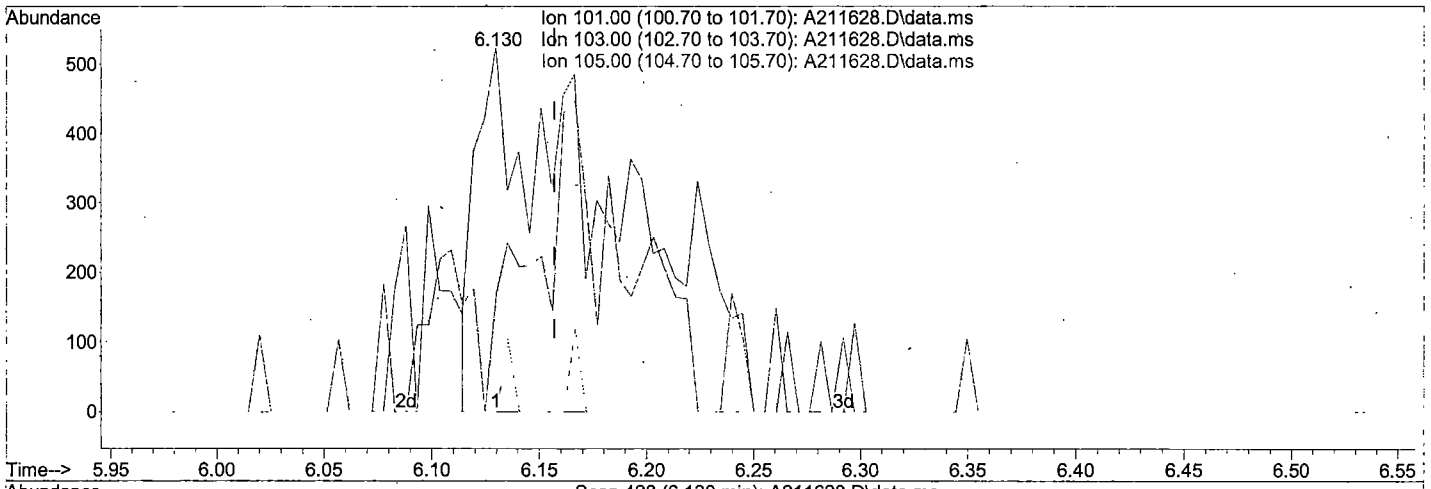
Sample Number:	VA8000-IC8000	**Method:**	SW846 8260B
Lab FileID:	A211628.D	**Analyst approved:**	03/03/15 10:24 Ying Li
Injection Time:	03/02/15 13:38	**Supervisor approved:**	03/04/15 16:23 Jessica Reitan-Chu

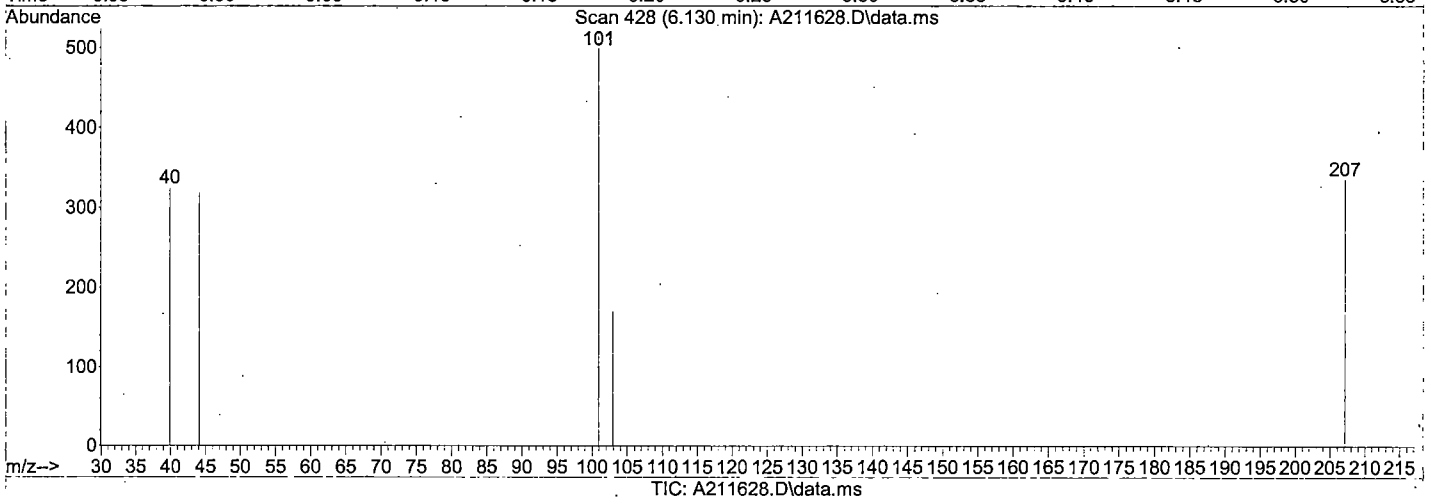
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.13	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211628.D
Acq On : 2 Mar 2015 1:38 pm
Operator : JemimaM
Sample : ic8000-1
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 02 16:45:10 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:45:06 2015
Response via : Initial Calibration





(13) trichlorofluoromethane (M)

6.130min (-0.027) 0.67ug/L

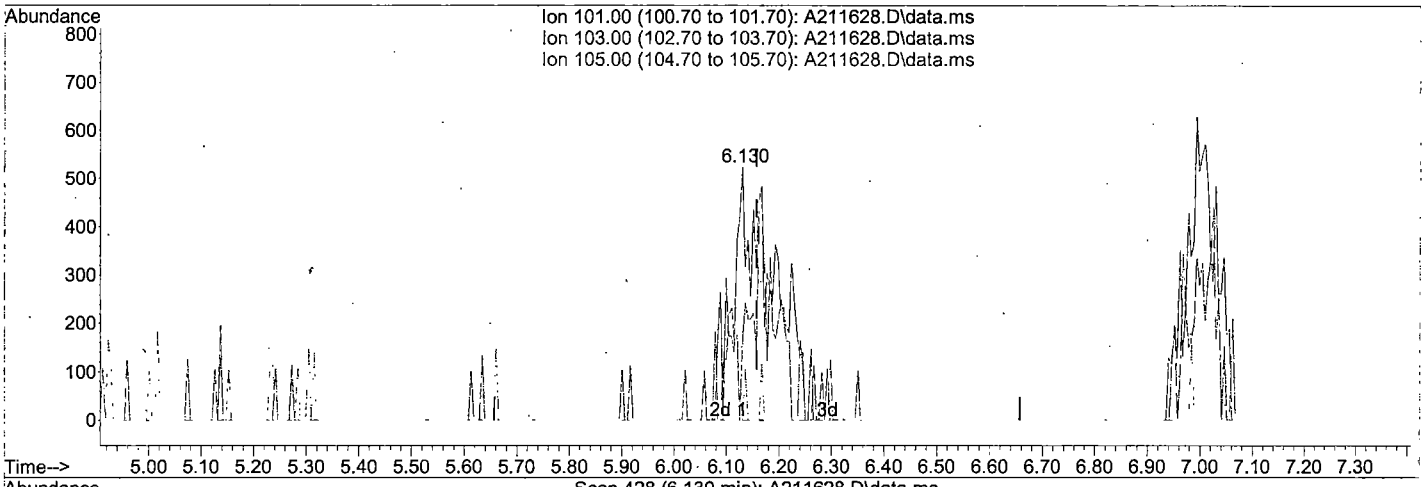
response 2362

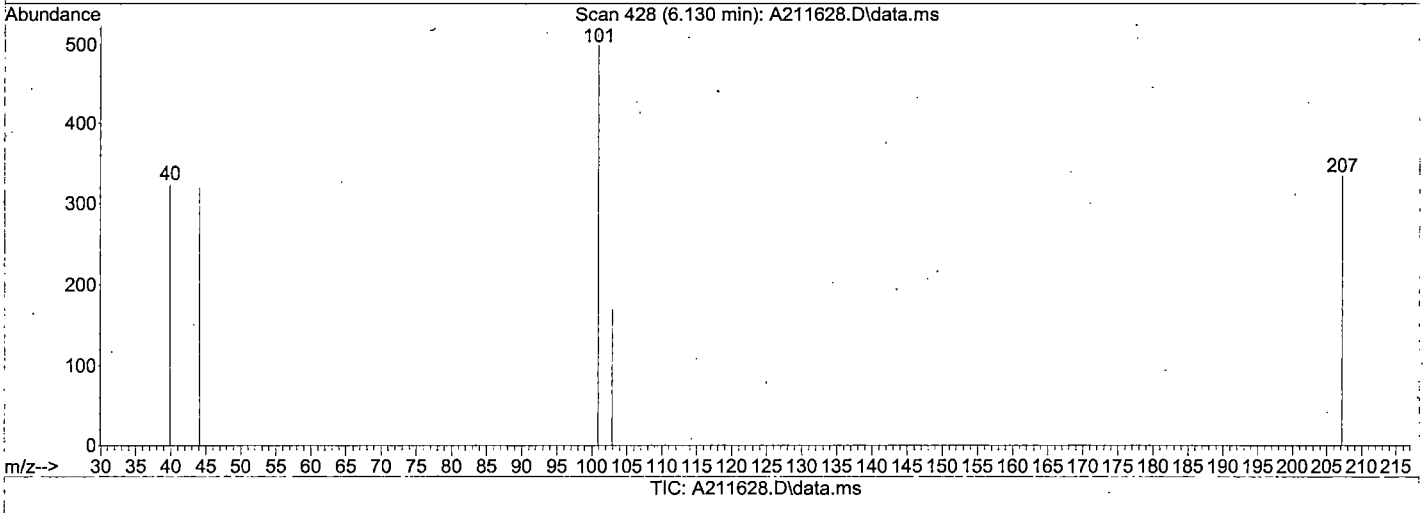
Ion	Exp%	Act%
101.00	100	100
103.00	64.50	32.38#
105.00	10.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : A211628.D
Acq On : 2 Mar 2015 1:38 pm
Operator : JemimaM
Sample : ic8000-1
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 07:44:41 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:45:06 2015
Response via : Initial Calibration





(13) trichlorofluoromethane (M)

6.130min (-0.027) 0.74ug/L m

response 2607

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	32.38#
105.00	10.40	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211629.D
Acq On : 2 Mar 2015 2:10 pm
Operator : JemimaM
Sample : ic8000-2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 09:47:59 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:48:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.764	65	404564	500.00	ug/L	0.00
4) pentafluorobenzene	10.096	168	294996	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.043	114	298119	50.00	ug/L	0.00
83) chlorobenzene-d5	14.442	117	247190	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.042	152	161408	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.148	113	2655	1.56	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 3.12%#			
47) 1,2-dichloroethane-d4 (s)	10.593	65	3717	1.64	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 3.28%#			
75) toluene-d8 (s)	12.779	98	10090	1.55	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 3.10%#			
101) 4-bromofluorobenzene (s)	15.734	95	4777	1.23	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 2.46%#			

Target Compounds						Qvalue
2) 1,4-dioxane	11.833	88	2835	46.42	ug/L	79
3) tertiary butyl alcohol	7.884	59	8588	10.39	ug/L	90
6) chlorodifluoromethane	4.139	51	7012	1.88	ug/L	92
7) dichlorodifluoromethane	4.144	85	6583	1.93	ug/L	86
8) chloromethane	4.453	50	4935	1.90	ug/L	92
9) vinyl chloride	4.751	62	6810	1.99	ug/L	92
10) bromomethane	5.452	94	3716	2.08	ug/L	89
11) chloroethane	5.645	64	2423	2.19	ug/L	72
13) trichlorofluoromethane	6.163	101	5483	1.64	ug/L	73
15) ethyl ether	6.576	74	1794	2.10	ug/L #	68
17) acrolein	6.869	56	8900	16.78	ug/L	87
18) freon 113	7.000	151	3050	1.70	ug/L #	58
19) 1,1-dichloroethene	7.021	61	5584	1.91	ug/L	82
20) acetone	7.105	43	2221	1.84	ug/L	57
23) iodomethane	7.329	142	8065	2.00	ug/L	93
24) carbon disulfide	7.471	76	15763	2.28	ug/L	88
25) methylene chloride	7.800	84	4363	2.13	ug/L #	68
26) methyl acetate	7.607	43	4521	2.17	ug/L	66
27) methyl tert butyl ether	8.140	73	13900	2.00	ug/L	97
28) trans-1,2-dichloroethene	8.192	96	3503	2.09	ug/L #	63
30) di-isopropyl ether	8.762	45	11513	1.94	ug/L	94
31) t-butyl formate	9.976	59	4507	1.86	ug/L	83
32) ethyl tert-butyl ether	9.244	59	13198	1.99	ug/L	95
33) 2-butanone	9.547	72	657	1.68	ug/L #	96
34) 1,1-dichloroethane	8.799	63	5404	1.82	ug/L	97
35) chloroprene	8.893	53	4619	1.81	ug/L	96
36) acrylonitrile	8.166	53	10324	11.21	ug/L	98
40) 2,2-dichloropropane	9.557	77	6959	2.05	ug/L	86
41) cis-1,2-dichloroethene	9.568	96	3749	1.96	ug/L	94
42) propionitrile	9.657	54	11080	20.22	ug/L	99
43) bromochloromethane	9.882	128	2014	1.93	ug/L #	68
44) tetrahydrofuran	9.934	42	2235	2.11	ug/L	67
45) chloroform	9.955	83	6073	1.94	ug/L	95
48) methacrylonitrile	9.840	67	2169	2.18	ug/L	81
49) cyclohexane	10.274	84	4260	1.57	ug/L	81
50) 1,1,1-trichloroethane	10.201	97	5591	1.71	ug/L	94
52) tert-amyl methyl ether	10.687	73	13674	2.06	ug/L	88
55) epichlorohydrin	12.377	57	3992	10.22	ug/L	90
56) n-butyl alcohol	11.200	56	16783	96.01	ug/L	86
57) carbon tetrachloride	10.415	117	5632	1.83	ug/L	96
58) 1,1-dichloropropene	10.394	75	4003	1.75	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211629.D
Acq On : 2 Mar 2015 2:10 pm
Operator : JemimaM
Sample : ic8000-2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 09:47:59 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:48:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
59) benzene	10.661	78	12063	1.86 ug/L	93
61) heptane	10.818	71	1747	1.76 ug/L #	72
63) isopropyl acetate	10.583	43	9527	1.44 ug/L	95
64) 1,2-dichloroethane	10.692	62	5114	1.92 ug/L	90
65) trichloroethene	11.399	95	3280	1.78 ug/L	89
66) 2-nitropropane	12.230	41	2550	2.11 ug/L #	71
69) 2-chloroethyl vinyl ether	12.235	63	12573	9.63 ug/L	95
70) methyl methacrylate	11.681	69	3059	1.98 ug/L #	64
71) 1,2-dichloropropane	11.681	63	3452	2.06 ug/L	69
72) dibromomethane	11.864	93	2532	1.97 ug/L #	79
73) bromodichloromethane	11.984	83	5052	1.91 ug/L	97
74) cis-1,3-dichloropropene	12.476	75	5447	1.84 ug/L	92
76) 4-methyl-2-pentanone	12.570	58	2642	2.22 ug/L #	72
77) toluene	12.858	92	7680	1.82 ug/L	91
78) 3-methyl-1-butanol	12.596	55	9489	34.63 ug/L	99
79) trans-1,3-dichloropropene	13.077	75	5346	1.86 ug/L	82
80) ethyl methacrylate	13.062	69	4661	1.93 ug/L	91
81) 1,1,2-trichloroethane	13.313	83	3047	2.34 ug/L #	78
82) 2-hexanone	13.501	58	1810	1.62 ug/L #	50
84) tetrachloroethene	13.496	164	3236	2.00 ug/L	76
85) 1,3-dichloropropane	13.522	76	5565	2.09 ug/L	95
86) butyl acetate	13.569	56	2946	2.05 ug/L #	53
87) 3,3-dimethyl-1-butanol	13.684	57	10985	18.37 ug/L	96
88) dibromochloromethane	13.810	129	4383	2.04 ug/L	87
89) 1,2-dibromoethane	13.977	107	3879	2.04 ug/L	91
90) n-butyl ether	14.359	57	12310	1.81 ug/L	97
91) chlorobenzene	14.474	112	8837	1.92 ug/L	92
92) 1,1,1,2-tetrachloroethane	14.547	131	4151	1.82 ug/L	94
93) ethylbenzene	14.537	91	14077	1.83 ug/L	96
94) m,p-xylene	14.652	106	10748	3.62 ug/L #	73
95) o-xylene	15.122	106	5657	1.73 ug/L	99
96) styrene	15.128	104	8439	1.74 ug/L	96
97) bromoform	15.447	173	3501	2.01 ug/L	92
99) isopropylbenzene	15.494	105	15493	1.72 ug/L	98
100) cyclohexanone	15.713	55	4209	22.55 ug/L #	86
102) bromobenzene	15.954	156	4373	1.87 ug/L	82
103) 1,1,2,2-tetrachloroethane	15.860	83	6045	2.01 ug/L	95
104) trans-1,4-dichloro-2-b...	15.896	53	1859	2.18 ug/L #	76
105) 1,2,3-trichloropropane	15.938	110	1872	2.14 ug/L	81
106) n-propylbenzene	15.954	91	17207	1.86 ug/L	98
107) 2-chlorotoluene	16.127	126	4167	1.94 ug/L	86
108) 4-chlorotoluene	16.242	91	10845	1.87 ug/L	97
110) 1,3,5-trimethylbenzene	16.116	105	13327	1.71 ug/L	96
111) tert-butylbenzene	16.514	119	12251	1.74 ug/L	82
112) pentachloroethane	16.623	167	3511	1.82 ug/L	91
113) 1,2,4-trimethylbenzene	16.566	105	13354	1.81 ug/L	96
114) sec-butylbenzene	16.754	105	18086	1.72 ug/L	96
115) 1,3-dichlorobenzene	16.979	146	8359	1.86 ug/L	84
116) p-isopropyltoluene	16.880	119	15485	1.71 ug/L	97
118) 1,4-dichlorobenzene	17.073	146	9716	2.12 ug/L	88
120) 1,2-dichlorobenzene	17.507	146	8990	1.90 ug/L	91
121) n-butylbenzene	17.345	92	7464	1.75 ug/L	99
123) 1,2-dibromo-3-chloropr...	18.360	75	2167	2.17 ug/L #	70
124) 1,3,5-trichlorobenzene	18.559	180	9256	1.85 ug/L	97
125) 1,2,4-trichlorobenzene	19.286	180	9865	1.87 ug/L	86
126) hexachlorobutadiene	19.401	225	3824	1.55 ug/L	98
127) naphthalene	19.605	128	32327	2.03 ug/L	97
128) 1,2,3-trichlorobenzene	19.877	180	11754	2.01 ug/L	90

7.6.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211629.D
Acq On : 2 Mar 2015 2:10 pm
Operator : JemimaM
Sample : ic8000-2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 09:47:59 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:48:12 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
129) hexachloroethane	17.795	201	3094	1.68 ug/L	94

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

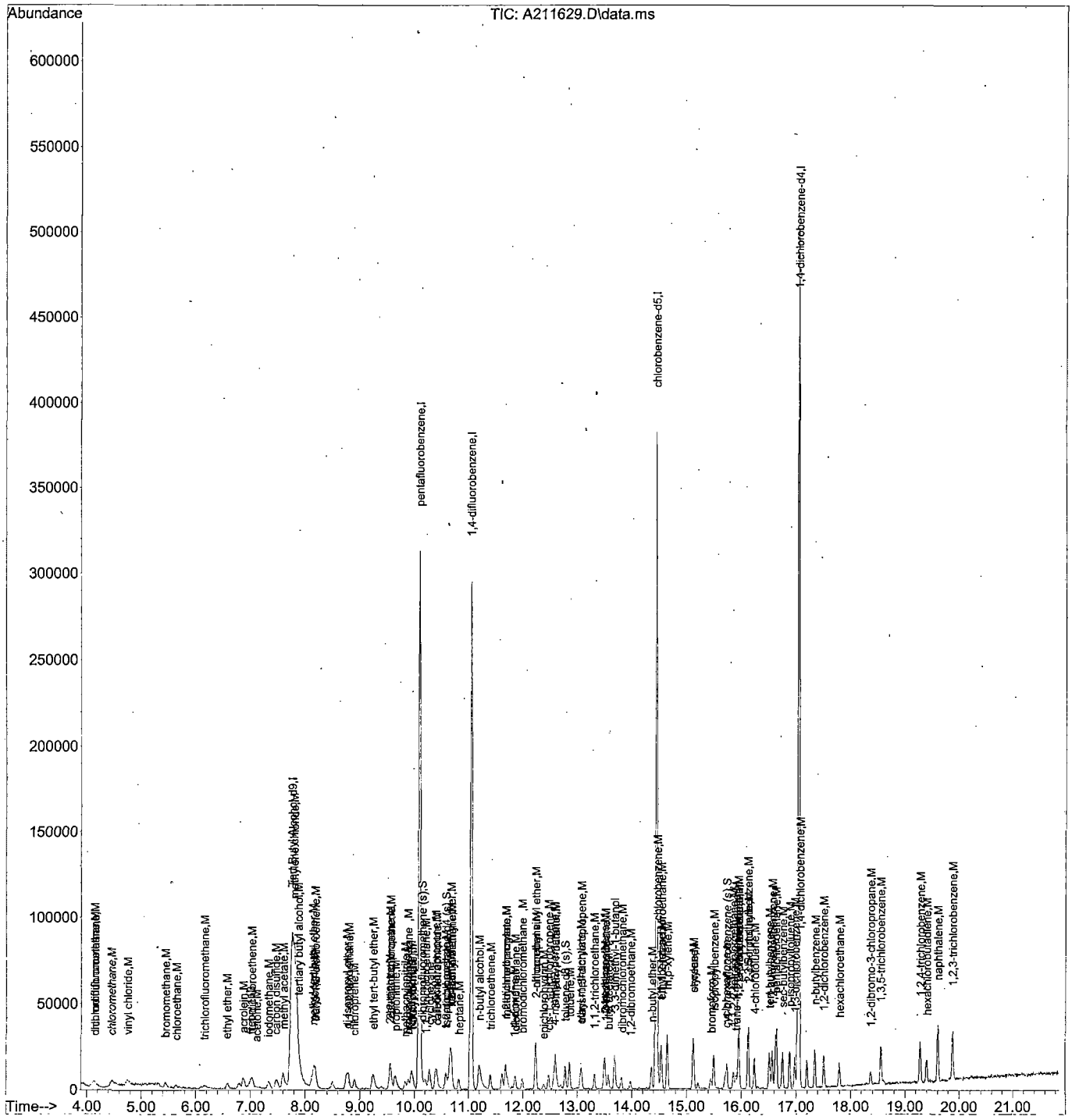
7.6.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211629.D
Acq On : 2 Mar 2015 2:10 pm
Operator : JemimaM
Sample : ic8000-2
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 09:47:59 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:48:12 2015
Response via : Initial Calibration



MA8000.M Tue Mar 03 17:08:48 2015 RPT1

Page: 4

7.6.4
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211630.D
Acq On : 2 Mar 2015 2:42 pm
Operator : JemimaM
Sample : ic8000-5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 03 07:53:40 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:57:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.785	65	411895	500.00 ug/L	0.02
4) pentafluorobenzene	10.097	168	294769	50.00 ug/L	0.00
53) 1,4-difluorobenzene	11.048	114	299428	50.00 ug/L	0.00
83) chlorobenzene-d5	14.443	117	255317	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.042	152	173997	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.154	113	8344	4.90 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 9.80%#		
47) 1,2-dichloroethane-d4 (s)	10.593	65	10277	4.54 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 9.08%#		
75) toluene-d8 (s)	12.780	98	27681	4.22 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 8.44%#		
101) 4-bromofluorobenzene (s)	15.740	95	11750	2.81 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 5.62%#		

Target Compounds					Qvalue
2) 1,4-dioxane	11.817	88	7889	126.87 ug/L	74
3) tertiary butyl alcohol	7.900	59	21934	26.05 ug/L	74
6) chlorodifluoromethane	4.145	51	19259	5.18 ug/L	94
7) dichlorodifluoromethane	4.129	85	19417	5.70 ug/L	98
8) chloromethane	4.464	50	14186	5.47 ug/L	97
9) vinyl chloride	4.767	62	18561	5.43 ug/L	92
10) bromomethane	5.452	94	9417	5.28 ug/L	92
11) chloroethane	5.630	64	5548	5.02 ug/L	88
13) trichlorofluoromethane	6.158	101	17338	5.18 ug/L	80
15) ethyl ether	6.577	74	4759	5.58 ug/L #	76
17) acrolein	6.870	56	27826	52.49 ug/L	88
18) freon 113	6.990	151	8881	4.94 ug/L #	1
19) 1,1-dichloroethene	7.047	61	15330	5.24 ug/L	81
20) acetone	7.115	43	6601	5.48 ug/L	57
21) allyl chloride	7.602	76	4390	4.63 ug/L #	81
22) acetonitrile	7.644	40	16321	58.00 ug/L #	52
23) iodomethane	7.340	142	20265	5.04 ug/L	98
24) carbon disulfide	7.471	76	33287	4.81 ug/L	92
25) methylene chloride	7.801	84	10530	5.16 ug/L	79
26) methyl acetate	7.597	43	13282	6.39 ug/L	69
27) methyl tert butyl ether	8.135	73	36746	5.29 ug/L	98
28) trans-1,2-dichloroethene	8.193	96	8640	5.16 ug/L	88
29) hexane	8.496	57	8595	5.67 ug/L	95
30) di-isopropyl ether	8.758	45	29774	5.02 ug/L	93
31) t-butyl formate	9.976	59	12288	5.07 ug/L	96
32) ethyl tert-butyl ether	9.249	59	35264	5.33 ug/L	99
33) 2-butanone	9.547	72	1875	4.79 ug/L #	78
34) 1,1-dichloroethane	8.799	63	15637	5.28 ug/L	88
35) chloroprene	8.909	53	13488	5.30 ug/L	91
36) acrylonitrile	8.161	53	25983	28.24 ug/L	95
37) vinyl acetate	8.779	86	1513	5.27 ug/L #	37
38) ethyl acetate	9.547	45	1878	4.68 ug/L	61
40) 2,2-dichloropropane	9.568	77	17184	5.07 ug/L	93
41) cis-1,2-dichloroethene	9.568	96	9445	4.93 ug/L	85
42) propionitrile	9.657	54	28428	51.92 ug/L	84
43) bromochloromethane	9.903	128	5289	5.08 ug/L	83
44) tetrahydrofuran	9.934	42	6283	5.95 ug/L	94
45) chloroform	9.945	83	15704	5.03 ug/L	92
48) methacrylonitrile	9.840	67	5001	5.02 ug/L #	73
49) cyclohexane	10.269	84	12461	4.60 ug/L	87
50) 1,1,1-trichloroethane	10.196	97	14986	4.60 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211630.D
Acq On : 2 Mar 2015 2:42 pm
Operator : JemimaM
Sample : ic8000-5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 03 07:53:40 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:57:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) iso-butyl alcohol	10.426	41	9561	49.44 ug/L #	36
52) tert-amyl methyl ether	10.682	73	35590	5.37 ug/L	89
55) epichlorohydrin	12.377	57	10210	26.03 ug/L	97
56) n-butyl alcohol	11.184	56	46463	264.63 ug/L	96
57) carbon tetrachloride	10.421	117	14937	4.83 ug/L	86
58) 1,1-dichloropropene	10.395	75	11547	5.03 ug/L	95
59) benzene	10.661	78	33589	5.15 ug/L	95
60) Iso-octane	10.640	57	31541	5.23 ug/L	90
61) heptane	10.818	71	5222	5.24 ug/L	88
63) isopropyl acetate	10.578	43	26672	4.02 ug/L	86
64) 1,2-dichloroethane	10.688	62	14329	5.35 ug/L	98
65) trichloroethene	11.404	95	9202	4.97 ug/L	87
66) 2-nitropropane	12.220	41	6148	5.06 ug/L #	45
68) methylcyclohexane	11.624	83	14364	4.96 ug/L #	99
69) 2-chloroethyl vinyl ether	12.236	63	32849	25.04 ug/L	99
70) methyl methacrylate	11.686	69	7122	4.60 ug/L	76
71) 1,2-dichloropropane	11.681	63	8773	5.23 ug/L	95
72) dibromomethane	11.859	93	6584	5.10 ug/L	93
73) bromodichloromethane	11.990	83	12770	4.80 ug/L	93
74) cis-1,3-dichloropropene	12.471	75	14820	4.98 ug/L	90
76) 4-methyl-2-pentanone	12.570	58	6483	5.41 ug/L	91
77) toluene	12.858	92	20975	4.96 ug/L	96
78) 3-methyl-1-butanol	12.597	55	27676	100.57 ug/L	99
79) trans-1,3-dichloropropene	13.078	75	14722	5.09 ug/L	98
80) ethyl methacrylate	13.057	69	13203	5.44 ug/L	91
81) 1,1,2-trichloroethane	13.318	83	7242	5.53 ug/L	91
82) 2-hexanone	13.491	58	5641	5.03 ug/L	86
84) tetrachloroethene	13.496	164	8488	5.08 ug/L	88
85) 1,3-dichloropropane	13.517	76	14071	5.12 ug/L	98
86) butyl acetate	13.569	56	8099	5.46 ug/L	75
87) 3,3-dimethyl-1-butanol	13.690	57	31063	50.30 ug/L	99
88) dibromochloromethane	13.805	129	11423	5.15 ug/L	93
89) 1,2-dibromoethane	13.972	107	9912	5.04 ug/L	86
90) n-butyl ether	14.359	57	36195	5.15 ug/L	98
91) chlorobenzene	14.479	112	24225	5.09 ug/L	88
92) 1,1,1,2-tetrachloroethane	14.547	131	11909	5.06 ug/L	96
93) ethylbenzene	14.532	91	41513	5.24 ug/L	97
94) m,p-xylene	14.652	106	31241	10.20 ug/L	96
95) o-xylene	15.117	106	16564	4.90 ug/L	95
96) styrene	15.133	104	25713	5.12 ug/L	91
97) bromoform	15.447	173	9796	5.45 ug/L	96
99) isopropylbenzene	15.494	105	46857	4.84 ug/L	97
100) cyclohexanone	15.703	55	10319	51.28 ug/L	96
102) bromobenzene	15.954	156	11767	4.66 ug/L	96
103) 1,1,2,2-tetrachloroethane	15.855	83	16273	5.01 ug/L	94
104) trans-1,4-dichloro-2-b...	15.902	53	4791	5.22 ug/L	99
105) 1,2,3-trichloropropane	15.939	110	5273	5.59 ug/L	86
106) n-propylbenzene	15.954	91	47398	4.75 ug/L	97
107) 2-chlorotoluene	16.127	126	10803	4.65 ug/L	89
108) 4-chlorotoluene	16.237	91	31108	4.99 ug/L	96
110) 1,3,5-trimethylbenzene	16.122	105	40880	4.87 ug/L	99
111) tert-butylbenzene	16.514	119	35960	4.74 ug/L	93
112) pentachloroethane	16.619	167	9930	4.77 ug/L	87
113) 1,2,4-trimethylbenzene	16.566	105	40176	5.04 ug/L	96
114) sec-butylbenzene	16.755	105	53752	4.76 ug/L	98
115) 1,3-dichlorobenzene	16.979	146	25094	5.19 ug/L	99
116) p-isopropyltoluene	16.885	119	46216	4.72 ug/L	96
118) 1,4-dichlorobenzene	17.068	146	24346	4.94 ug/L	96

7.6.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211630.D
Acq On : 2 Mar 2015 2:42 pm
Operator : JemimaM
Sample : ic8000-5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 03 07:53:40 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:57:42 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
120) 1,2-dichlorobenzene	17.508	146	25725	5.05 ug/L	96
121) n-butylbenzene	17.346	92	23004	5.01 ug/L	98
123) 1,2-dibromo-3-chloropr...	18.371	75	5243	4.87 ug/L	81
124) 1,3,5-trichlorobenzene	18.559	180	25852	4.80 ug/L	97
125) 1,2,4-trichlorobenzene	19.281	180	27585	4.85 ug/L	98
126) hexachlorobutadiene	19.401	225	12341	4.64 ug/L	96
127) naphthalene	19.605	128	86880	5.05 ug/L	98
128) 1,2,3-trichlorobenzene	19.877	180	30182	4.78 ug/L	94
129) hexachloroethane	17.795	201	8843	4.46 ug/L	92

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

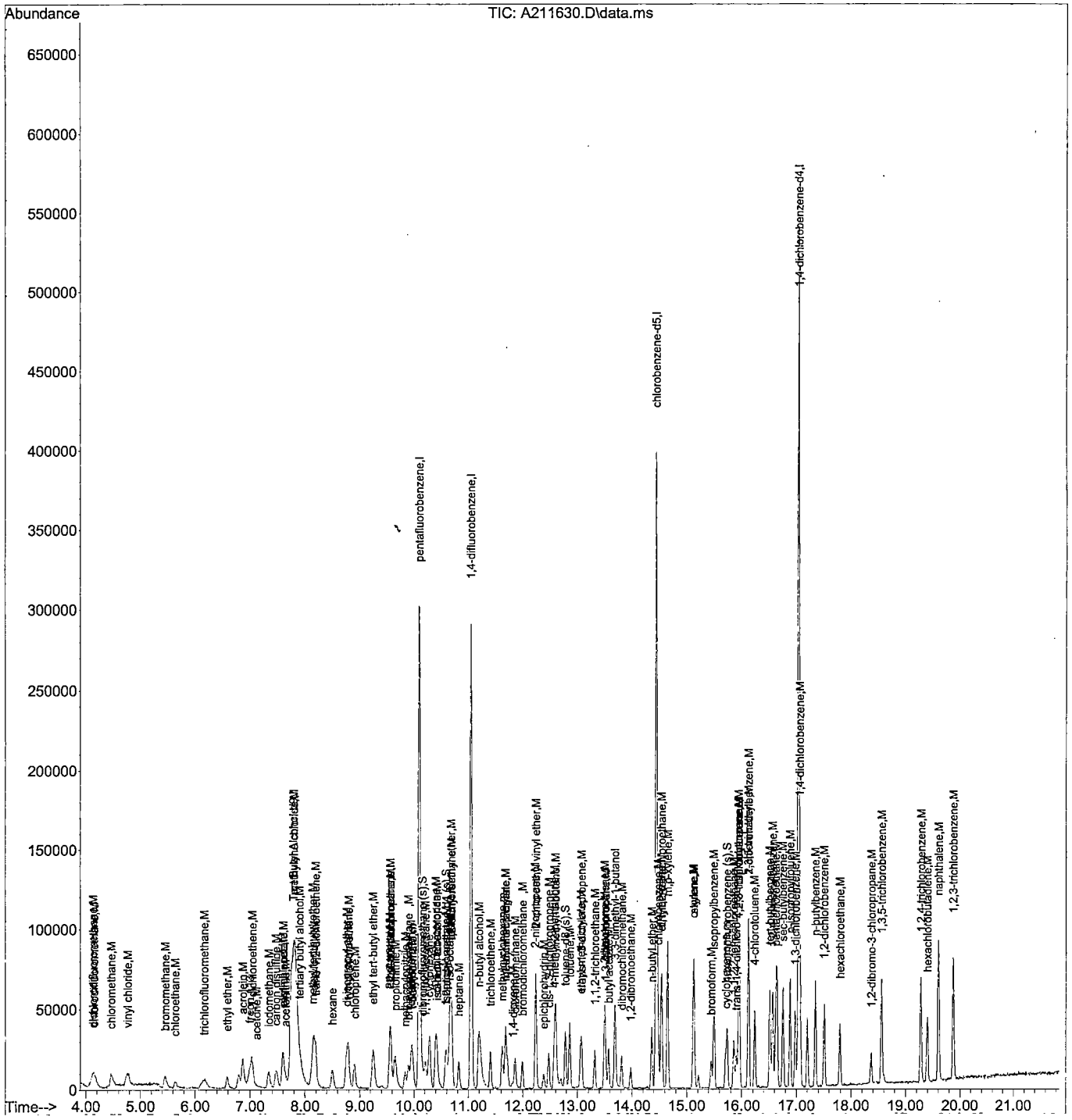
7.6.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211630.D
Acq On : 2 Mar 2015 2:42 pm
Operator : JemimaM
Sample : ic8000-5
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 03 07:53:40 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Mon Mar 02 16:57:42 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211631.D
Acq On : 2 Mar 2015 3:13 pm
Operator : JemimaM
Sample : ic8000-10
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 08:56:28 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.779	65	405022	500.00 ug/L	0.00
4) pentafluorobenzene	10.096	168	292796	50.00 ug/L	0.00
53) 1,4-difluorobenzene	11.047	114	301620	50.00 ug/L	0.00
83) chlorobenzene-d5	14.442	117	255831	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.041	152	171354	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.158	113	16019	9.22 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 18.44%#		
47) 1,2-dichloroethane-d4 (s)	10.592	65	21625	9.80 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 19.60%#		
75) toluene-d8 (s)	12.779	98	55237	8.38 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 16.76%#		
101) 4-bromofluorobenzene (s)	15.734	95	22435	7.81 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 15.62%#		

Target Compounds					Qvalue
2) 1,4-dioxane	11.801	88	15158	258.29 ug/L	92
3) tertiary butyl alcohol	7.883	59	41153	51.06 ug/L	92
6) chlorodifluoromethane	4.144	51	34092	8.82 ug/L	98
7) dichlorodifluoromethane	4.128	85	33895	8.61 ug/L	92
8) chloromethane	4.478	50	23559	7.98 ug/L	95
9) vinyl chloride	4.777	62	33108	8.47 ug/L	99
10) bromomethane	5.451	94	16747	8.23 ug/L	94
11) chloroethane	5.639	64	11219	9.94 ug/L	98
13) trichlorofluoromethane	6.168	101	31961	9.06 ug/L	90
15) ethyl ether	6.581	74	7944	8.82 ug/L	84
17) acrolein	6.869	56	52645	95.65 ug/L	90
18) freon 113	7.010	151	17284	9.07 ug/L #	98
19) 1,1-dichloroethene	7.036	61	28396	8.58 ug/L	89
20) acetone	7.125	43	12319	9.83 ug/L	97
21) allyl chloride	7.606	76	8435	8.21 ug/L #	65
22) acetonitrile	7.596	40	29562	89.83 ug/L #	78
23) iodomethane	7.339	142	38730	9.13 ug/L	97
24) carbon disulfide	7.480	76	66373	8.63 ug/L	93
25) methylene chloride	7.810	84	19783	8.96 ug/L	87
26) methyl acetate	7.590	43	24194	9.63 ug/L	99
27) methyl tert butyl ether	8.134	73	65275	9.11 ug/L	99
28) trans-1,2-dichloroethene	8.192	96	15910	8.52 ug/L	82
29) hexane	8.500	57	14178	8.01 ug/L	99
30) di-isopropyl ether	8.757	45	59008	9.70 ug/L	76
31) t-butyl formate	9.980	59	24062	9.74 ug/L #	77
32) ethyl tert-butyl ether	9.243	59	65579	9.72 ug/L	96
33) 2-butanone	9.531	72	3871	9.76 ug/L #	1
34) 1,1-dichloroethane	8.793	63	28976	9.39 ug/L	92
35) chloroprene	8.903	53	23339	9.07 ug/L	97
36) acrylonitrile	8.160	53	44145	44.53 ug/L	93
37) vinyl acetate	8.783	86	3194	10.03 ug/L	82
38) ethyl acetate	9.552	45	4350	10.33 ug/L #	77
40) 2,2-dichloropropane	9.567	77	31635	8.70 ug/L	91
41) cis-1,2-dichloroethene	9.567	96	18083	9.36 ug/L	93
42) propionitrile	9.646	54	49280	90.13 ug/L	86
43) bromochloromethane	9.892	128	9852	9.40 ug/L	93
44) tetrahydrofuran	9.933	42	11114	9.50 ug/L	95
45) chloroform	9.949	83	30014	9.02 ug/L	95
48) methacrylonitrile	9.834	67	9351	9.23 ug/L	89
49) cyclohexane	10.273	84	22214	8.38 ug/L	87
50) 1,1,1-trichloroethane	10.200	97	28325	8.81 ug/L	95

7.6.6 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211631.D
Acq On : 2 Mar 2015 3:13 pm
Operator : JemimaM
Sample : ic8000-10
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 08:56:28 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) iso-butyl alcohol	10.415	41	20023	102.62 ug/L #	92
52) tert-amyl methyl ether	10.687	73	68158	9.58 ug/L	98
55) epichlorohydrin	12.381	57	18253	46.10 ug/L	98
56) n-butyl alcohol	11.194	56	89807	508.96 ug/L	97
57) carbon tetrachloride	10.415	117	27263	9.09 ug/L	90
58) 1,1-dichloropropene	10.388	75	20575	8.69 ug/L	93
59) benzene	10.666	78	61815	8.85 ug/L	99
60) Iso-octane	10.650	57	52711	7.74 ug/L	97
61) heptane	10.823	71	9067	8.50 ug/L	95
63) isopropyl acetate	10.577	43	46321	7.02 ug/L	80
64) 1,2-dichloroethane	10.687	62	25482	9.42 ug/L	92
65) trichloroethene	11.403	95	16942	9.24 ug/L	93
66) 2-nitropropane	12.224	41	11390	9.92 ug/L #	83
68) methylcyclohexane	11.618	83	24946	8.38 ug/L #	99
69) 2-chloroethyl vinyl ether	12.235	63	65551	50.53 ug/L	95
70) methyl methacrylate	11.680	69	14253	9.31 ug/L	81
71) 1,2-dichloropropane	11.680	63	15931	9.29 ug/L	92
72) dibromomethane	11.853	93	12738	9.76 ug/L	90
73) bromodichloromethane	11.989	83	24647	9.91 ug/L	100
74) cis-1,3-dichloropropene	12.475	75	27319	9.03 ug/L	97
76) 4-methyl-2-pentanone	12.575	58	11731	9.93 ug/L	99
77) toluene	12.857	92	39991	8.77 ug/L	99
78) 3-methyl-1-butanol	12.596	55	54639	195.77 ug/L	100
79) trans-1,3-dichloropropene	13.077	75	26358	8.97 ug/L	100
80) ethyl methacrylate	13.056	69	23484	8.92 ug/L	96
81) 1,1,2-trichloroethane	13.317	83	13386	8.97 ug/L	92
82) 2-hexanone	13.495	58	9402	8.56 ug/L	91
84) tetrachloroethene	13.490	164	15314	9.46 ug/L	92
85) 1,3-dichloropropane	13.511	76	25716	9.25 ug/L	98
86) butyl acetate	13.568	56	15236	10.14 ug/L	99
87) 3,3-dimethyl-1-butanol	13.683	57	61439	103.52 ug/L	99
88) dibromochloromethane	13.804	129	21348	9.42 ug/L	96
89) 1,2-dibromoethane	13.971	107	18938	9.35 ug/L	95
90) n-butyl ether	14.363	57	67048	9.21 ug/L	98
91) chlorobenzene	14.478	112	46553	9.42 ug/L	91
92) 1,1,1,2-tetrachloroethane	14.546	131	22616	9.60 ug/L	96
93) ethylbenzene	14.531	91	75279	8.94 ug/L	97
94) m,p-xylene	14.651	106	59946	18.73 ug/L	95
95) o-xylene	15.116	106	30607	9.09 ug/L	98
96) styrene	15.132	104	46820	8.98 ug/L	92
97) bromoform	15.441	173	17581	9.24 ug/L	98
99) isopropylbenzene	15.498	105	87960	9.03 ug/L	97
100) cyclohexanone	15.702	55	19929	92.93 ug/L	97
102) bromobenzene	15.959	156	22167	8.50 ug/L	99
103) 1,1,2,2-tetrachloroethane	15.854	83	29478	9.16 ug/L	91
104) trans-1,4-dichloro-2-b...	15.896	53	8744	9.31 ug/L	95
105) 1,2,3-trichloropropane	15.943	110	9007	9.37 ug/L	93
106) n-propylbenzene	15.953	91	89152	8.74 ug/L	97
107) 2-chlorotoluene	16.131	126	19919	8.73 ug/L	99
108) 4-chlorotoluene	16.241	91	55687	8.90 ug/L	99
110) 1,3,5-trimethylbenzene	16.121	105	74413	8.91 ug/L	96
111) tert-butylbenzene	16.513	119	65938	8.75 ug/L	98
112) pentachloroethane	16.623	167	19011	9.29 ug/L	97
113) 1,2,4-trimethylbenzene	16.565	105	72813	8.76 ug/L	92
114) sec-butylbenzene	16.753	105	97787	8.46 ug/L	99
115) 1,3-dichlorobenzene	16.978	146	44266	8.89 ug/L	99
116) p-isopropyltoluene	16.884	119	86447	8.62 ug/L	99
118) 1,4-dichlorobenzene	17.073	146	45588	9.10 ug/L	93

7.6.9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211631.D
Acq On : 2 Mar 2015 3:13 pm
Operator : JemimaM
Sample : ic8000-10
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 08:56:28 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
120) 1,2-dichlorobenzene	17.512	146	48556	9.07 ug/L	94
121) n-butylbenzene	17.345	92	38985	8.59 ug/L	95
123) 1,2-dibromo-3-chloropr...	18.370	75	9638	9.18 ug/L	95
124) 1,3,5-trichlorobenzene	18.558	180	46565	8.57 ug/L	90
125) 1,2,4-trichlorobenzene	19.280	180	49048	8.22 ug/L	97
126) hexachlorobutadiene	19.400	225	20862	7.95 ug/L	94
127) naphthalene	19.609	128	153812	8.94 ug/L	98
128) 1,2,3-trichlorobenzene	19.881	180	54744	8.57 ug/L	98
129) hexachloroethane	17.800	201	16966	8.94 ug/L	98

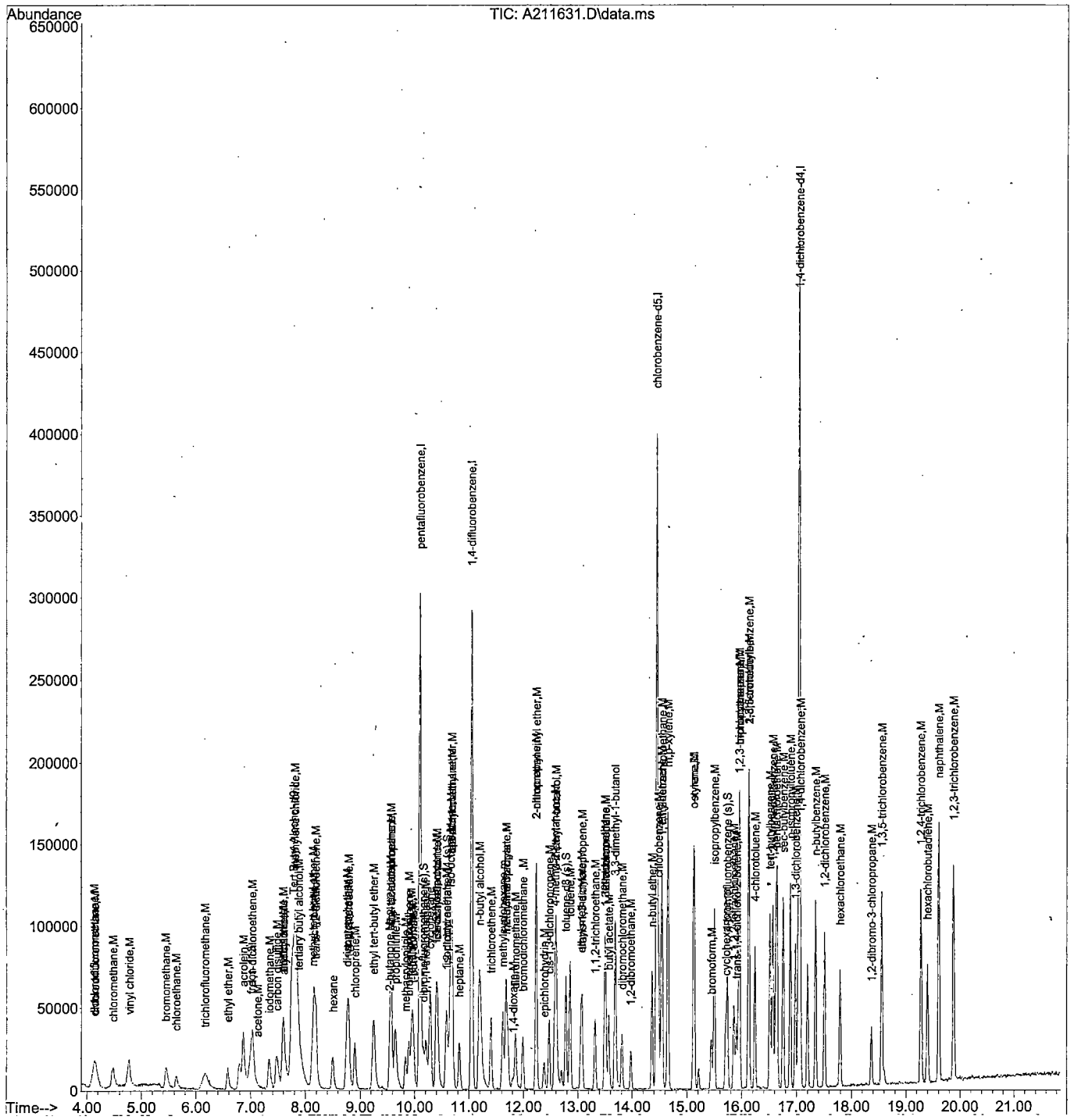
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.6 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211631.D
Acq On : 2 Mar 2015 3:13 pm
Operator : JemimaM
Sample : ic8000-10
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 08:56:28 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211632.D
Acq On : 2 Mar 2015 3:45 pm
Operator : JemimaM
Sample : ic8000-20
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 08:55:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.770	65	420450	500.00 ug/L	-0.01
4) pentafluorobenzene	10.092	168	297351	50.00 ug/L	0.00
53) 1,4-difluorobenzene	11.044	114	306758	50.00 ug/L	0.00
83) chlorobenzene-d5	14.444	117	268526	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.043	152	175044	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.155	113	94252	53.40 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 106.80%		
47) 1,2-dichloroethane-d4 (s)	10.594	65	113653	50.72 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 101.44%		
75) toluene-d8 (s)	12.775	98	326311	48.67 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 97.34%		
101) 4-bromofluorobenzene (s)	15.736	95	126106	42.95 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 85.90%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.818	88	32514	533.71 ug/L	90
6) chlorodifluoromethane	4.151	51	75981	19.37 ug/L	98
7) dichlorodifluoromethane	4.161	85	77046	19.27 ug/L	96
8) chloromethane	4.475	50	55904	18.65 ug/L	91
9) vinyl chloride	4.773	62	75711	19.08 ug/L	93
10) bromomethane	5.453	94	37864	18.33 ug/L	99
11) chloroethane	5.631	64	22870	19.96 ug/L	98
13) trichlorofluoromethane	6.164	101	76835	18.09 ug/L	93
15) ethyl ether	6.583	74	19585	21.42 ug/L	88
17) acrolein	6.860	56	118723	212.40 ug/L	98
18) freon 113	7.012	151	39425	20.38 ug/L	98
19) 1,1-dichloroethene	7.038	61	69438	20.66 ug/L	99
20) acetone	7.106	43	25167	19.78 ug/L	71
21) allyl chloride	7.592	76	20957	20.09 ug/L #	76
22) acetonitrile	7.592	40	65064	194.68 ug/L	87
23) iodomethane	7.341	142	90263	20.95 ug/L	98
24) carbon disulfide	7.482	76	147942	18.93 ug/L	98
25) methylene chloride	7.812	84	44041	19.65 ug/L	93
26) methyl acetate	7.587	43	51713	20.28 ug/L	97
27) methyl tert butyl ether	8.136	73	149128	20.49 ug/L	96
28) trans-1,2-dichloroethene	8.194	96	37451	19.76 ug/L	98
29) hexane	8.497	57	34357	19.11 ug/L	96
30) di-isopropyl ether	8.764	45	125094	20.24 ug/L	96
31) t-butyl formate	9.967	59	51119	20.39 ug/L	98
32) ethyl tert-butyl ether	9.245	59	141389	20.64 ug/L	96
33) 2-butanone	9.538	72	7966	19.77 ug/L #	77
34) 1,1-dichloroethane	8.800	63	65921	21.03 ug/L	91
35) chloroprene	8.905	53	52140	19.95 ug/L	97
36) acrylonitrile	8.152	53	100818	100.14 ug/L	98
37) vinyl acetate	8.779	86	6411	19.82 ug/L	76
38) ethyl acetate	9.548	45	7653	17.90 ug/L	70
40) 2,2-dichloropropane	9.564	77	70797	19.16 ug/L	94
41) cis-1,2-dichloroethene	9.564	96	40786	20.79 ug/L	88
42) propionitrile	9.648	54	114715	206.60 ug/L	80
43) bromochloromethane	9.888	128	22854	21.48 ug/L	98
44) tetrahydrofuran	9.925	42	23976	20.18 ug/L	98
45) chloroform	9.946	83	67893	20.09 ug/L	97
48) methacrylonitrile	9.831	67	21151	20.56 ug/L	98
49) cyclohexane	10.281	84	58997	18.35 ug/L	98
50) 1,1,1-trichloroethane	10.207	97	69710	21.35 ug/L	97
51) iso-butyl alcohol	10.406	41	41490	209.39 ug/L	98

7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211632.D
Acq On : 2 Mar 2015 3:45 pm
Operator : JemimaM
Sample : ic8000-20
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 08:55:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
52) tert-amyl methyl ether	10.688	73	142445	19.71 ug/L	95
55) epichlorohydrin	12.378	57	40265	99.99 ug/L	97
56) n-butyl alcohol	11.191	56	189404	1055.43 ug/L	94
57) carbon tetrachloride	10.417	117	65836	21.59 ug/L	98
58) 1,1-dichloropropene	10.396	75	48566	20.17 ug/L	93
59) benzene	10.662	78	143365	20.18 ug/L	97
60) Iso-octane	10.647	57	135798	19.60 ug/L	97
61) heptane	10.819	71	22383	20.62 ug/L	96
63) isopropyl acetate	10.579	43	101129	15.06 ug/L	82
64) 1,2-dichloroethane	10.688	62	56900	20.68 ug/L	97
65) trichloroethene	11.400	95	40188	21.55 ug/L	98
66) 2-nitropropane	12.226	41	25128	21.52 ug/L	96
68) methylcyclohexane	11.619	83	61065	20.18 ug/L	99
69) 2-chloroethyl vinyl ether	12.231	63	140013	106.13 ug/L	98
70) methyl methacrylate	11.672	69	31661	20.33 ug/L	95
71) 1,2-dichloropropane	11.682	63	35945	20.62 ug/L	90
72) dibromomethane	11.850	93	28261	21.29 ug/L	85
73) bromodichloromethane	11.991	83	57853	22.88 ug/L	93
74) cis-1,3-dichloropropene	12.472	75	65187	21.20 ug/L	99
76) 4-methyl-2-pentanone	12.571	58	26670	22.20 ug/L	97
77) toluene	12.859	92	92768	20.00 ug/L	100
78) 3-methyl-1-butanol	12.592	55	118846	418.70 ug/L	99
79) trans-1,3-dichloropropene	13.079	75	63171	21.13 ug/L	95
80) ethyl methacrylate	13.053	69	56347	21.04 ug/L	97
81) 1,1,2-trichloroethane	13.314	83	31821	20.96 ug/L	95
82) 2-hexanone	13.497	58	22672	20.31 ug/L	95
84) tetrachloroethene	13.492	164	37291	21.96 ug/L	93
85) 1,3-dichloropropane	13.513	76	59935	20.53 ug/L	96
86) butyl acetate	13.570	56	31929	20.25 ug/L	99
87) 3,3-dimethyl-1-butanol	13.685	57	133565	214.41 ug/L	99
88) dibromochloromethane	13.806	129	49556	20.84 ug/L	97
89) 1,2-dibromoethane	13.973	107	40905	19.23 ug/L	97
90) n-butyl ether	14.360	57	161222	21.10 ug/L	100
91) chlorobenzene	14.475	112	105813	20.40 ug/L	99
92) 1,1,1,2-tetrachloroethane	14.543	131	52181	21.11 ug/L	97
93) ethylbenzene	14.533	91	182493	20.64 ug/L	99
94) m,p-xylene	14.648	106	138531	41.23 ug/L	98
95) o-xylene	15.118	106	74536	21.09 ug/L	100
96) styrene	15.134	104	114288	20.89 ug/L	94
97) bromoform	15.443	173	43477	21.77 ug/L	94
99) isopropylbenzene	15.500	105	212743	21.39 ug/L	99
100) cyclohexanone	15.704	55	47576	217.17 ug/L	97
102) bromobenzene	15.955	156	53623	20.14 ug/L	94
103) 1,1,2,2-tetrachloroethane	15.856	83	68144	20.74 ug/L	96
104) trans-1,4-dichloro-2-b...	15.898	53	19087	19.90 ug/L	96
105) 1,2,3-trichloropropane	15.940	110	18652	18.99 ug/L	99
106) n-propylbenzene	15.955	91	218385	20.97 ug/L	98
107) 2-chlorotoluene	16.128	126	49344	21.18 ug/L	93
108) 4-chlorotoluene	16.238	91	135936	21.27 ug/L	97
110) 1,3,5-trimethylbenzene	16.123	105	180483	21.16 ug/L	99
111) tert-butylbenzene	16.515	119	161750	21.01 ug/L	98
112) pentachloroethane	16.619	167	45298	21.67 ug/L	98
113) 1,2,4-trimethylbenzene	16.567	105	176590	20.80 ug/L	92
114) sec-butylbenzene	16.755	105	246133	20.86 ug/L	99
115) 1,3-dichlorobenzene	16.980	146	103295	20.30 ug/L	97
116) p-isopropyltoluene	16.886	119	210818	20.58 ug/L	98
118) 1,4-dichlorobenzene	17.069	146	103589	20.25 ug/L	98
120) 1,2-dichlorobenzene	17.509	146	107786	19.71 ug/L	99

7.6.7

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211632.D
Acq On : 2 Mar 2015 3:45 pm
Operator : JemimaM
Sample : ic8000-20
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 08:55:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
121) n-butylbenzene	17.346	92	98781	21.30 ug/L	96
123) 1,2-dibromo-3-chloropr...	18.361	75	21288	19.84 ug/L	87
124) 1,3,5-trichlorobenzene	18.560	180	113464	20.43 ug/L	97
125) 1,2,4-trichlorobenzene	19.276	180	113723	18.66 ug/L	98
126) hexachlorobutadiene	19.402	225	53153	19.82 ug/L	99
127) naphthalene	19.606	128	351088	19.97 ug/L	99
128) 1,2,3-trichlorobenzene	19.878	180	127080	19.47 ug/L	96
129) hexachloroethane	17.796	201	42240	21.80 ug/L	99

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

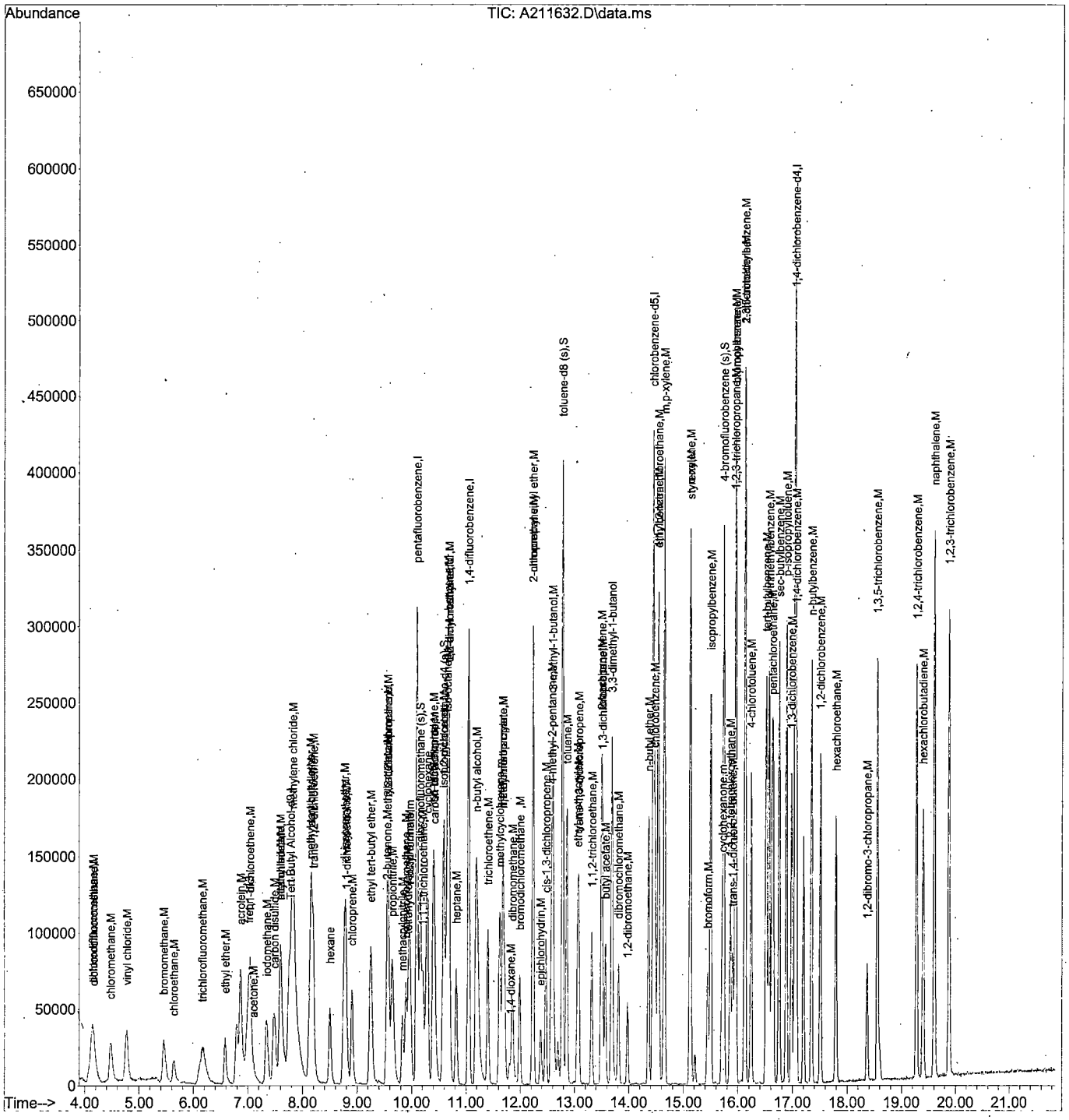
7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211632.D
Acq On : 2 Mar 2015 3:45 pm
Operator : JemimaM
Sample : ic8000-20
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 03 08:55:37 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:54:55 2015
Response via : Initial Calibration



7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211633.D
Acq On : 2 Mar 2015 4:16 pm
Operator : JemimaM
Sample : icc8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 08:58:09 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:57:02 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.783	65	423186	500.00	ug/L	0.00
4) pentafluorobenzene	10.095	168	288222	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.046	114	301536	50.00	ug/L	0.00
83) chlorobenzene-d5	14.446	117	274765	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.040	152	180330	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.152	113	93976	54.93	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 109.86%			
47) 1,2-dichloroethane-d4 (s)	10.591	65	115533	53.19	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 106.38%			
75) toluene-d8 (s)	12.778	98	337573	51.22	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 102.44%			
101) 4-bromofluorobenzene (s)	15.738	95	129794	42.91	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 85.82%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.805	88	77236	1259.62	ug/L	100
3) tertiary butyl alcohol	7.893	59	202775	241.12	ug/L	78
6) chlorodifluoromethane	4.137	51	196122	51.77	ug/L	99
7) dichlorodifluoromethane	4.122	85	218337	57.02	ug/L	100
8) chloromethane	4.477	50	152075	52.65	ug/L	100
9) vinyl chloride	4.770	62	198996	51.94	ug/L	100
10) bromomethane	5.450	94	102339	51.31	ug/L	100
11) chloroethane	5.628	64	60300	54.33	ug/L	100
13) trichlorofluoromethane	6.146	101	221793	49.08	ug/L	100
15) ethyl ether	6.575	74	48313	54.51	ug/L	100
17) acrolein	6.852	56	289698	534.69	ug/L	100
18) freon 113	6.998	151	98475	52.52	ug/L	100
19) 1,1-dichloroethene	7.040	61	168663	51.77	ug/L	100
20) acetone	7.103	43	63105	51.18	ug/L	100
21) allyl chloride	7.595	76	51855	51.27	ug/L	100
22) acetonitrile	7.595	40	163551	514.04	ug/L	100
23) iodomethane	7.333	142	215123	51.51	ug/L	100
24) carbon disulfide	7.464	76	361118	47.82	ug/L	100
25) methylene chloride	7.798	84	105712	48.68	ug/L	100
26) methyl acetate	7.584	43	121430	49.26	ug/L	100
27) methyl tert butyl ether	8.133	73	370660	52.54	ug/L	100
28) trans-1,2-dichloroethene	8.191	96	89700	48.82	ug/L	100
29) hexane	8.499	57	88441	50.74	ug/L	100
30) di-isopropyl ether	8.756	45	298752	49.89	ug/L	100
31) t-butyl formate	9.969	59	125548	51.72	ug/L	100
32) ethyl tert-butyl ether	9.242	59	351362	52.93	ug/L	100
33) 2-butanone	9.535	72	21469	55.01	ug/L	99
34) 1,1-dichloroethane	8.792	63	160534	52.83	ug/L	100
35) chloroprene	8.902	53	130115	51.36	ug/L	100
36) acrylonitrile	8.154	53	250614	257.63	ug/L	100
37) vinyl acetate	8.777	86	16150	51.32	ug/L	98
38) ethyl acetate	9.545	45	21935	53.44	ug/L	100
40) 2,2-dichloropropane	9.561	77	177211	49.49	ug/L	100
41) cis-1,2-dichloroethene	9.561	96	100484	52.84	ug/L	100
42) propionitrile	9.639	54	294234	546.68	ug/L	100
43) bromochloromethane	9.891	128	55941	54.24	ug/L	100
44) tetrahydrofuran	9.927	42	59490	51.69	ug/L	100
45) chloroform	9.943	83	170991	52.20	ug/L	100
48) methacrylonitrile	9.828	67	54459	54.62	ug/L	100
49) cyclohexane	10.278	84	157140	46.57	ug/L	100
50) 1,1,1-trichloroethane	10.204	97	179908	56.84	ug/L	100

7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211633.D
Acq On : 2 Mar 2015 4:16 pm
Operator : JemimaM
Sample : icc8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 08:58:09 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:57:02 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) iso-butyl alcohol	10.408	41	105576	550.91 ug/L	99
52) tert-amyl methyl ether	10.685	73	356123	50.96 ug/L	100
55) epichlorohydrin	12.375	57	103427	261.30 ug/L	100
56) n-butyl alcohol	11.188	56	485740	2760.33 ug/L	100
57) carbon tetrachloride	10.414	117	170401	56.85 ug/L	100
58) 1,1-dichloropropene	10.382	75	124227	52.49 ug/L	100
59) benzene	10.659	78	361786	51.82 ug/L	100
60) Iso-octane	10.644	57	352254	51.74 ug/L	100
61) heptane	10.821	71	57488	53.88 ug/L	100
63) isopropyl acetate	10.576	43	239993	39.15 ug/L	81
64) 1,2-dichloroethane	10.685	62	143879	53.25 ug/L	100
65) trichloroethene	11.397	95	97792	53.34 ug/L	100
66) 2-nitropropane	12.228	41	65856	57.39 ug/L	100
68) methylcyclohexane	11.616	83	157673	53.00 ug/L	100
69) 2-chloroethyl vinyl ether	12.234	63	349908	269.83 ug/L	100
70) methyl methacrylate	11.674	69	83805	54.74 ug/L	100
71) 1,2-dichloropropane	11.679	63	92458	53.95 ug/L	100
72) dibromomethane	11.857	93	69748	53.46 ug/L	100
73) bromodichloromethane	11.988	83	144804	58.26 ug/L	100
74) cis-1,3-dichloropropene	12.469	75	167301	55.34 ug/L	100
76) 4-methyl-2-pentanone	12.568	58	68194	57.74 ug/L	100
77) toluene	12.856	92	237746	52.15 ug/L	100
78) 3-methyl-1-butanol	12.595	55	308721	1106.47 ug/L	100
79) trans-1,3-dichloropropene	13.076	75	159510	54.28 ug/L	100
80) ethyl methacrylate	13.055	69	144386	54.85 ug/L	100
81) 1,1,2-trichloroethane	13.316	83	80303	53.80 ug/L	100
82) 2-hexanone	13.494	58	60997	55.58 ug/L	100
84) tetrachloroethene	13.494	164	97346	56.02 ug/L	100
85) 1,3-dichloropropane	13.515	76	151874	50.84 ug/L	100
86) butyl acetate	13.562	56	81794	50.70 ug/L	100
87) 3,3-dimethyl-1-butanol	13.682	57	351882	552.04 ug/L	100
88) dibromochloromethane	13.808	129	130999	53.83 ug/L	100
89) 1,2-dibromoethane	13.975	107	111257	51.13 ug/L	100
90) n-butyl ether	14.357	57	425275	54.40 ug/L	100
91) chlorobenzene	14.477	112	278154	52.42 ug/L	100
92) 1,1,1,2-tetrachloroethane	14.545	131	135253	53.47 ug/L	100
93) ethylbenzene	14.530	91	478534	52.89 ug/L	100
94) m,p-xylene	14.650	106	362886	105.56 ug/L	100
95) o-xylene	15.121	106	197720	54.67 ug/L	100
96) styrene	15.131	104	301020	53.76 ug/L	100
97) bromoform	15.445	173	108902	53.28 ug/L	100
99) isopropylbenzene	15.497	105	571798	55.81 ug/L	100
100) cyclohexanone	15.706	55	126354	559.86 ug/L	100
102) bromobenzene	15.957	156	139836	50.98 ug/L	100
103) 1,1,2,2-tetrachloroethane	15.858	83	175237	51.76 ug/L	100
104) trans-1,4-dichloro-2-b...	15.900	53	50081	50.69 ug/L	100
105) 1,2,3-trichloropropane	15.937	110	51709	51.10 ug/L	100
106) n-propylbenzene	15.957	91	572761	53.38 ug/L	100
107) 2-chlorotoluene	16.130	126	128109	53.37 ug/L	100
108) 4-chlorotoluene	16.240	91	346116	52.56 ug/L	100
110) 1,3,5-trimethylbenzene	16.120	105	493386	56.16 ug/L	100
111) tert-butylbenzene	16.517	119	440722	55.57 ug/L	100
112) pentachloroethane	16.622	167	122606	56.94 ug/L	100
113) 1,2,4-trimethylbenzene	16.564	105	469441	53.67 ug/L	100
114) sec-butylbenzene	16.752	105	671801	55.26 ug/L	100
115) 1,3-dichlorobenzene	16.977	146	267972	51.13 ug/L	100
116) p-isopropyltoluene	16.883	119	567517	53.78 ug/L	100
118) 1,4-dichlorobenzene	17.072	146	270152	51.25 ug/L	100

7.6.8 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211633.D
Acq On : 2 Mar 2015 4:16 pm
Operator : JemimaM
Sample : icc8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 08:58:09 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:57:02 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
120) 1,2-dichlorobenzene	17.511	146	282914	50.21 ug/L	100
121) n-butylbenzene	17.349	92	259694	54.34 ug/L	100
123) 1,2-dibromo-3-chloropr...	18.369	75	55246	49.99 ug/L	100
124) 1,3,5-trichlorobenzene	18.557	180	291395	50.94 ug/L	100
125) 1,2,4-trichlorobenzene	19.279	180	297259	47.35 ug/L	100
126) hexachlorobutadiene	19.399	225	147692	53.47 ug/L	100
127) naphthalene	19.608	128	900722	49.72 ug/L	100
128) 1,2,3-trichlorobenzene	19.880	180	325542	48.41 ug/L	100
129) hexachloroethane	17.793	201	112546	56.37 ug/L	100

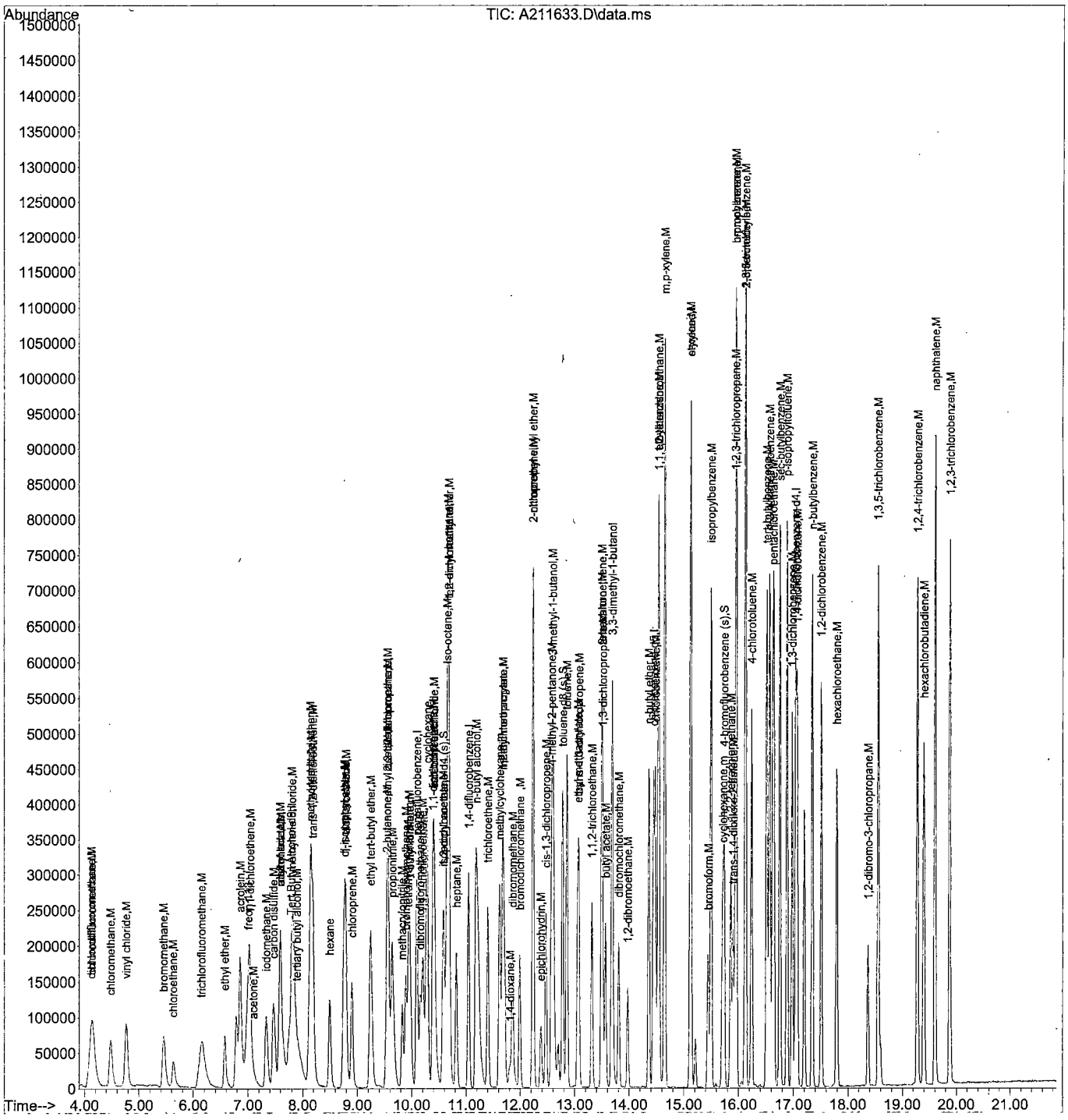
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.8 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211633.D
Acq On : 2 Mar 2015 4:16 pm
Operator : JemimaM
Sample : icc8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 03 08:58:09 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:57:02 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211635.D
Acq On : 2 Mar 2015 5:22 pm
Operator : JemimaM
Sample : ic8000-200
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 08:59:17 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:58:30 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.821	65	466036	500.00 ug/L	0.04
4) pentafluorobenzene	10.091	168	306645	50.00 ug/L	0.00
53) 1,4-difluorobenzene	11.043	114	331469	50.00 ug/L	0.00
83) chlorobenzene-d5	14.443	117	336987	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.042	152	216051	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.154	113	412941	226.85 ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 453.70%#		
47) 1,2-dichloroethane-d4 (s)	10.588	65	490061	212.07 ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 424.14%#		
75) toluene-d8 (s)	12.774	98	1540509	212.65 ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 425.30%#		
101) 4-bromofluorobenzene (s)	15.734	95	616693	170.17 ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 340.34%#		

Target Compounds					Qvalue
2) 1,4-dioxane	11.801	88	309001	4576.05 ug/L	99
3) tertiary butyl alcohol	7.910	59	855406	925.70 ug/L	63
6) chlorodifluoromethane	4.150	51	869238	215.76 ug/L	94
7) dichlorodifluoromethane	4.139	85	923403	226.68 ug/L	96
8) chloromethane	4.505	50	833354	271.45 ug/L	97
9) vinyl chloride	4.788	62	972434	238.66 ug/L	97
10) bromomethane	5.462	94	466232	220.04 ug/L	94
11) chloroethane	5.630	64	234849	198.96 ug/L	96
13) trichlorofluoromethane	6.153	101	1011843	202.21 ug/L	98
15) ethyl ether	6.576	74	214986	227.98 ug/L	92
17) acrolein	6.859	56	1333644	2313.60 ug/L	99
18) freon 113	6.995	151	471672	236.43 ug/L	100
19) 1,1-dichloroethene	7.037	61	825259	238.07 ug/L	98
20) acetone	7.099	43	281356	214.47 ug/L	61
21) allyl chloride	7.591	76	262586	244.03 ug/L #	74
22) acetonitrile	7.586	40	700154	2066.37 ug/L	96
23) iodomethane	7.340	142	1043926	234.93 ug/L	98
24) carbon disulfide	7.481	76	1758698	218.60 ug/L	99
25) methylene chloride	7.806	84	514571	222.77 ug/L	98
26) methyl acetate	7.581	43	550248	209.80 ug/L	99
27) methyl tert butyl ether	8.135	73	1620758	215.94 ug/L	98
28) trans-1,2-dichloroethene	8.187	96	388258	198.61 ug/L	98
29) hexane	8.491	57	399515	215.43 ug/L	100
30) di-isopropyl ether	8.757	45	1381542	217.00 ug/L	89
31) t-butyl formate	9.976	59	574135	222.33 ug/L	98
32) ethyl tert-butyl ether	9.244	59	1587414	224.76 ug/L	98
33) 2-butanone	9.531	72	93264	224.78 ug/L	96
34) 1,1-dichloroethane	8.789	63	704112	217.81 ug/L	97
35) chloroprene	8.899	53	582577	216.16 ug/L	97
36) acrylonitrile	8.156	53	1115527	1078.26 ug/L	99
37) vinyl acetate	8.773	86	70935	212.22 ug/L	62
38) ethyl acetate	9.537	45	92702	212.36 ug/L	56
40) 2,2-dichloropropane	9.568	77	727416	190.93 ug/L	97
41) cis-1,2-dichloroethene	9.563	96	442336	218.61 ug/L	91
42) propionitrile	9.647	54	1278715	2233.10 ug/L	84
43) bromochloromethane	9.887	128	243499	221.92 ug/L	98
44) tetrahydrofuran	9.924	42	262575	214.54 ug/L	99
45) chloroform	9.945	83	729339	209.26 ug/L	98
48) methacrylonitrile	9.830	67	234378	220.95 ug/L	99
49) cyclohexane	10.274	84	750753	201.45 ug/L	92
50) 1,1,1-trichloroethane	10.201	97	812596	241.34 ug/L	99

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211635.D
Acq On : 2 Mar 2015 5:22 pm
Operator : JemimaM
Sample : ic8000-200
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 08:59:17 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:58:30 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) iso-butyl alcohol	10.410	41	464726	2281.11 ug/L	97
52) tert-amyl methyl ether	10.687	73	1638139	220.37 ug/L	99
55) epichlorohydrin	12.377	57	477352	1097.07 ug/L	97
56) n-butyl alcohol	11.184	56	2101487	10879.39 ug/L	98
57) carbon tetrachloride	10.410	117	766044	232.51 ug/L	98
58) 1,1-dichloropropene	10.384	75	534370	205.37 ug/L	97
59) benzene	10.661	78	1546553	201.50 ug/L	99
60) Iso-octane	10.645	57	1633995	218.34 ug/L	98
61) heptane	10.818	71	255289	217.65 ug/L	96
63) isopropyl acetate	10.572	43	1021145	162.81 ug/L	97
64) 1,2-dichloroethane	10.682	62	590214	198.73 ug/L	99
65) trichloroethene	11.399	95	426476	211.64 ug/L	96
66) 2-nitropropane	12.225	41	285080	225.99 ug/L	91
68) methylcyclohexane	11.618	83	767492	234.68 ug/L	100
69) 2-chloroethyl vinyl ether	12.235	63	1575336	1105.10 ug/L	99
70) methyl methacrylate	11.676	69	378598	224.98 ug/L	96
71) 1,2-dichloropropane	11.676	63	398039	211.33 ug/L	96
72) dibromomethane	11.854	93	304774	212.49 ug/L	96
73) bromodichloromethane	11.990	83	634266	232.16 ug/L	96
74) cis-1,3-dichloropropene	12.471	75	748125	225.12 ug/L	98
76) 4-methyl-2-pentanone	12.565	58	307596	236.93 ug/L	97
77) toluene	12.858	92	1087402	216.99 ug/L	97
78) 3-methyl-1-butanol	12.602	55	1353900	4414.25 ug/L	98
79) trans-1,3-dichloropropene	13.078	75	723695	224.04 ug/L	98
80) ethyl methacrylate	13.057	69	656397	226.86 ug/L	97
81) 1,1,2-trichloroethane	13.313	83	366009	223.09 ug/L	97
82) 2-hexanone	13.491	58	289903	240.31 ug/L	99
84) tetrachloroethene	13.496	164	434239	203.75 ug/L	98
85) 1,3-dichloropropane	13.512	76	712490	194.46 ug/L	98
86) butyl acetate	13.564	56	379925	192.02 ug/L	100
87) 3,3-dimethyl-1-butanol	13.689	57	1623090	2076.17 ug/L	98
88) dibromochloromethane	13.810	129	600610	201.23 ug/L	96
89) 1,2-dibromoethane	13.972	107	512165	191.90 ug/L	98
90) n-butyl ether	14.359	57	1879395	196.02 ug/L	100
91) chlorobenzene	14.479	112	1297174	199.33 ug/L	99
92) 1,1,1,2-tetrachloroethane	14.547	131	614782	198.16 ug/L	99
93) ethylbenzene	14.531	91	2191822	197.49 ug/L	99
94) m,p-xylene	14.652	106	1710190	405.61 ug/L	96
95) o-xylene	15.117	106	920543	207.54 ug/L	99
96) styrene	15.133	104	1429322	208.14 ug/L	97
97) bromoform	15.442	173	512834	204.59 ug/L	96
99) isopropylbenzene	15.499	105	2596216	211.50 ug/L	98
100) cyclohexanone	15.708	55	473269	1750.30 ug/L	99
102) bromobenzene	15.959	156	657792	200.15 ug/L	99
103) 1,1,2,2-tetrachloroethane	15.855	83	805747	198.66 ug/L	96
104) trans-1,4-dichloro-2-b...	15.897	53	224146	189.38 ug/L	98
105) 1,2,3-trichloropropane	15.938	110	229606	189.40 ug/L	94
106) n-propylbenzene	15.954	91	2628128	204.43 ug/L	99
107) 2-chlorotoluene	16.132	126	604069	210.02 ug/L	98
108) 4-chlorotoluene	16.236	91	1612585	204.41 ug/L	100
110) 1,3,5-trimethylbenzene	16.121	105	2326502	221.03 ug/L	99
111) tert-butylbenzene	16.514	119	2060883	216.90 ug/L	96
112) pentachloroethane	16.624	167	583314	226.12 ug/L	97
113) 1,2,4-trimethylbenzene	16.566	105	2247014	214.44 ug/L	95
114) sec-butylbenzene	16.754	105	3182556	218.50 ug/L	96
115) 1,3-dichlorobenzene	16.979	146	1239947	197.47 ug/L	99
116) p-isopropyltoluene	16.885	119	2726593	215.66 ug/L	99
118) 1,4-dichlorobenzene	17.068	146	1253545	198.49 ug/L	99

7.6.9

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211635.D
Acq On : 2 Mar 2015 5:22 pm
Operator : JemimaM
Sample : ic8000-200
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 08:59:17 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:58:30 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
120) 1,2-dichlorobenzene	17.513	146	1311638	194.31 ug/L	98
121) n-butylbenzene	17.351	92	1231158	215.04 ug/L	96
123) 1,2-dibromo-3-chloropr...	18.365	75	246927	186.48 ug/L	100
124) 1,3,5-trichlorobenzene	18.559	180	1411291	205.91 ug/L	98
125) 1,2,4-trichlorobenzene	19.280	180	1412854	187.86 ug/L	98
126) hexachlorobutadiene	19.401	225	730965	220.88 ug/L	99
127) naphthalene	19.605	128	4040869	186.18 ug/L	99
128) 1,2,3-trichlorobenzene	19.882	180	1511844	187.67 ug/L	99
129) hexachloroethane	17.795	201	567517	237.26 ug/L	98

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

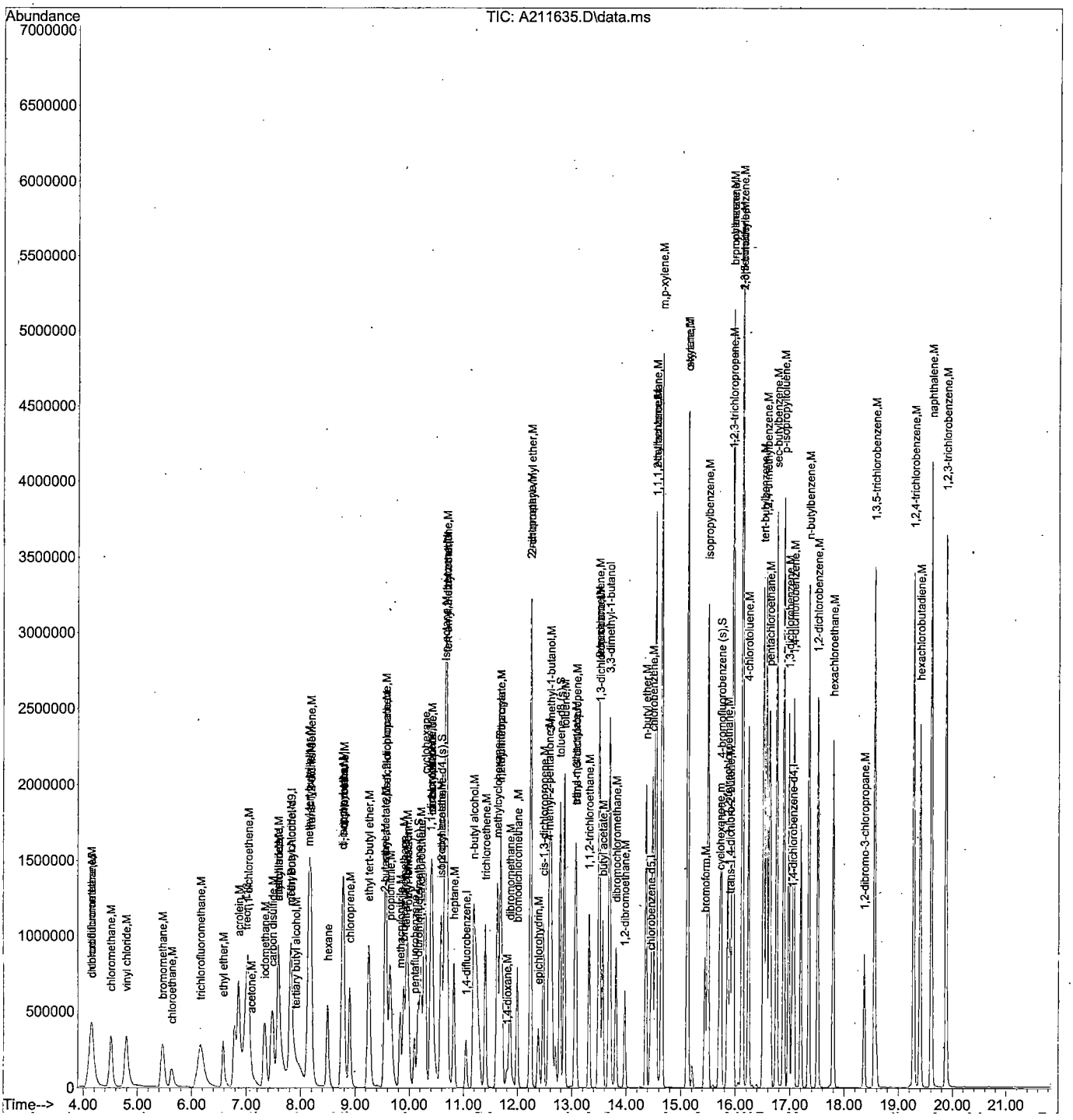
7.6.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211635.D
Acq On : 2 Mar 2015 5:22 pm
Operator : JemimaM
Sample : ic8000-200
Misc : MS79298,VA8000,5;,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 03 08:59:17 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:58:30 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211637.D
Acq On : 2 Mar 2015 6:24 pm
Operator : JemimaM
Sample : ic8000-100
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 09:00:14 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:59:34 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.782	65	458692	500.00	ug/L	0.00
4) pentafluorobenzene	10.094	168	301212	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.046	114	318896	50.00	ug/L	0.00
83) chlorobenzene-d5	14.446	117	300251	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.040	152	189335	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.152	113	188228	105.27	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 210.54%#			
47) 1,2-dichloroethane-d4 (s)	10.591	65	222516	98.03	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 196.06%#			
75) toluene-d8 (s)	12.777	98	704407	101.07	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 202.14%#			
101) 4-bromofluorobenzene (s)	15.737	95	263746	83.05	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 166.10%#			
Target Compounds						Qvalue
2) 1,4-dioxane	11.799	88	158136	2379.36	ug/L	98
3) tertiary butyl alcohol	7.887	59	415084	456.39	ug/L	94
6) chlorodifluoromethane	4.142	51	421352	106.48	ug/L	95
7) dichlorodifluoromethane	4.137	85	465163	116.25	ug/L	94
8) chloromethane	4.498	50	333800	110.69	ug/L	94
9) vinyl chloride	4.775	62	434116	108.47	ug/L	96
10) bromomethane	5.450	94	201076	96.61	ug/L	95
11) chloroethane	5.633	64	109950	94.83	ug/L	98
13) trichlorofluoromethane	6.151	101	466829	96.34	ug/L	98
15) ethyl ether	6.574	74	98804	106.67	ug/L	95
17) acrolein	6.857	56	620689	1096.19	ug/L	98
18) freon 113	6.998	151	234407	119.62	ug/L	99
19) 1,1-dichloroethene	7.035	61	360563	105.89	ug/L	98
20) acetone	7.092	43	129449	100.46	ug/L	63
21) allyl chloride	7.594	76	114187	108.03	ug/L #	92
22) acetonitrile	7.589	40	344043	1033.69	ug/L	97
23) iodomethane	7.338	142	455245	104.30	ug/L	99
24) carbon disulfide	7.469	76	777419	98.37	ug/L	99
25) methylene chloride	7.803	84	222035	97.86	ug/L	98
26) methyl acetate	7.578	43	254679	98.86	ug/L	99
27) methyl tert butyl ether	8.133	73	729278	98.92	ug/L	98
28) trans-1,2-dichloroethene	8.190	96	182819	95.20	ug/L	99
29) hexane	8.494	57	216380	118.78	ug/L	100
30) di-isopropyl ether	8.760	45	637138	101.88	ug/L	84
31) t-butyl formate	9.969	59	263517	103.89	ug/L	98
32) ethyl tert-butyl ether	9.242	59	728515	105.01	ug/L	97
33) 2-butanone	9.529	72	42582	104.48	ug/L #	92
34) 1,1-dichloroethane	8.792	63	323179	101.77	ug/L	95
35) chloroprene	8.902	53	273884	103.46	ug/L	98
36) acrylonitrile	8.154	53	508190	500.07	ug/L	97
37) vinyl acetate	8.771	86	32148	97.92	ug/L	67
38) ethyl acetate	9.540	45	44005	102.63	ug/L	69
40) 2,2-dichloropropane	9.561	77	375420	100.32	ug/L	97
41) cis-1,2-dichloroethene	9.561	96	206110	103.70	ug/L	96
42) propionitrile	9.644	54	591683	1051.93	ug/L	82
43) bromochloromethane	9.890	128	113033	104.87	ug/L	98
44) tetrahydrofuran	9.927	42	119436	99.35	ug/L	99
45) chloroform	9.948	83	334584	97.73	ug/L	99
48) methacrylonitrile	9.827	67	110145	105.71	ug/L	95
49) cyclohexane	10.272	84	359069	99.22	ug/L	92
50) 1,1,1-trichloroethane	10.204	97	364077	110.08	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211637.D
Acq On : 2 Mar 2015 6:24 pm
Operator : JemimaM
Sample : ic8000-100
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 09:00:14 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:59:34 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) iso-butyl alcohol	10.413	41	223400	1116.02 ug/L	98
52) tert-amyl methyl ether	10.685	73	742660	101.71 ug/L	99
55) epichlorohydrin	12.374	57	224497	536.29 ug/L	99
56) n-butyl alcohol	11.187	56	1038998	5590.96 ug/L	99
57) carbon tetrachloride	10.413	117	341890	107.86 ug/L	99
58) 1,1-dichloropropene	10.387	75	252774	100.98 ug/L	96
59) benzene	10.659	78	723739	98.01 ug/L	99
60) Iso-octane	10.649	57	853890	118.60 ug/L	98
61) heptane	10.821	71	137840	122.15 ug/L	98
63) isopropyl acetate	10.575	43	493875	89.05 ug/L	99
64) 1,2-dichloroethane	10.685	62	273878	95.85 ug/L	98
65) trichloroethene	11.396	95	199591	102.95 ug/L	99
66) 2-nitropropane	12.223	41	126021	103.84 ug/L	91
68) methylcyclohexane	11.616	83	374791	119.12 ug/L	100
69) 2-chloroethyl vinyl ether	12.233	63	724573	528.33 ug/L	99
70) methyl methacrylate	11.674	69	174544	107.81 ug/L	97
71) 1,2-dichloropropane	11.679	63	185770	102.52 ug/L	97
72) dibromomethane	11.851	93	136510	98.93 ug/L	98
73) bromodichloromethane	11.987	83	288424	109.73 ug/L	97
74) cis-1,3-dichloropropene	12.469	75	340468	106.49 ug/L	96
76) 4-methyl-2-pentanone	12.563	58	142431	114.04 ug/L	98
77) toluene	12.856	92	491896	102.03 ug/L	99
78) 3-methyl-1-butanol	12.594	55	646340	2190.41 ug/L	98
79) trans-1,3-dichloropropene	13.075	75	325810	104.84 ug/L	98
80) ethyl methacrylate	13.054	69	298874	107.37 ug/L	97
81) 1,1,2-trichloroethane	13.316	83	163245	103.42 ug/L	98
82) 2-hexanone	13.494	58	127376	109.75 ug/L	96
84) tetrachloroethene	13.494	164	198612	104.59 ug/L	99
85) 1,3-dichloropropane	13.515	76	313582	96.06 ug/L	98
86) butyl acetate	13.562	56	171332	97.19 ug/L	96
87) 3,3-dimethyl-1-butanol	13.687	57	768902	1103.88 ug/L	99
88) dibromochloromethane	13.808	129	261599	98.37 ug/L	99
89) 1,2-dibromoethane	13.975	107	224919	94.59 ug/L	99
90) n-butyl ether	14.362	57	865175	101.28 ug/L	100
91) chlorobenzene	14.477	112	572714	98.77 ug/L	99
92) 1,1,1,2-tetrachloroethane	14.545	131	271982	98.39 ug/L	97
93) ethylbenzene	14.529	91	986909	99.80 ug/L	98
94) m,p-xylene	14.650	106	751692	200.09 ug/L	98
95) o-xylene	15.120	106	408843	103.45 ug/L	99
96) styrene	15.131	104	624832	102.12 ug/L	98
97) bromoform	15.439	173	224159	100.37 ug/L	97
99) isopropylbenzene	15.497	105	1168493	108.62 ug/L	99
100) cyclohexanone	15.706	55	363888	1535.67 ug/L	100
102) bromobenzene	15.957	156	282676	98.15 ug/L	99
103) 1,1,2,2-tetrachloroethane	15.853	83	357122	100.48 ug/L	97
104) trans-1,4-dichloro-2-b...	15.894	53	100744	97.13 ug/L	99
105) 1,2,3-trichloropropane	15.936	110	99836	93.97 ug/L	94
106) n-propylbenzene	15.957	91	1154556	102.48 ug/L	97
107) 2-chlorotoluene	16.130	126	260559	103.37 ug/L	98
108) 4-chlorotoluene	16.240	91	703137	101.70 ug/L	99
110) 1,3,5-trimethylbenzene	16.119	105	1021271	110.72 ug/L	96
111) tert-butylbenzene	16.512	119	922621	110.81 ug/L	99
112) pentachloroethane	16.621	167	253908	112.32 ug/L	96
113) 1,2,4-trimethylbenzene	16.564	105	944377	102.84 ug/L	97
114) sec-butylbenzene	16.752	105	1406526	110.19 ug/L	99
115) 1,3-dichlorobenzene	16.977	146	538013	97.77 ug/L	99
116) p-isopropyltoluene	16.883	119	1184130	106.87 ug/L	99
118) 1,4-dichlorobenzene	17.071	146	538344	97.27 ug/L	100

7.6.10

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211637.D
Acq On : 2 Mar 2015 6:24 pm
Operator : JemimaM
Sample : ic8000-100
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 09:00:14 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:59:34 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
120) 1,2-dichlorobenzene	17.510	146	561224	94.87	ug/L	97
121) n-butylbenzene	17.348	92	531150	105.86	ug/L	98
123) 1,2-dibromo-3-chloropr...	18.363	75	106803	92.04	ug/L	97
124) 1,3,5-trichlorobenzene	18.557	180	586107	97.58	ug/L	99
125) 1,2,4-trichlorobenzene	19.278	180	601035	91.19	ug/L	100
126) hexachlorobutadiene	19.399	225	312892	107.89	ug/L	96
127) naphthalene	19.608	128	1810849	95.21	ug/L	99
128) 1,2,3-trichlorobenzene	19.880	180	664870	94.18	ug/L	99
129) hexachloroethane	17.793	201	241634	115.27	ug/L	98

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

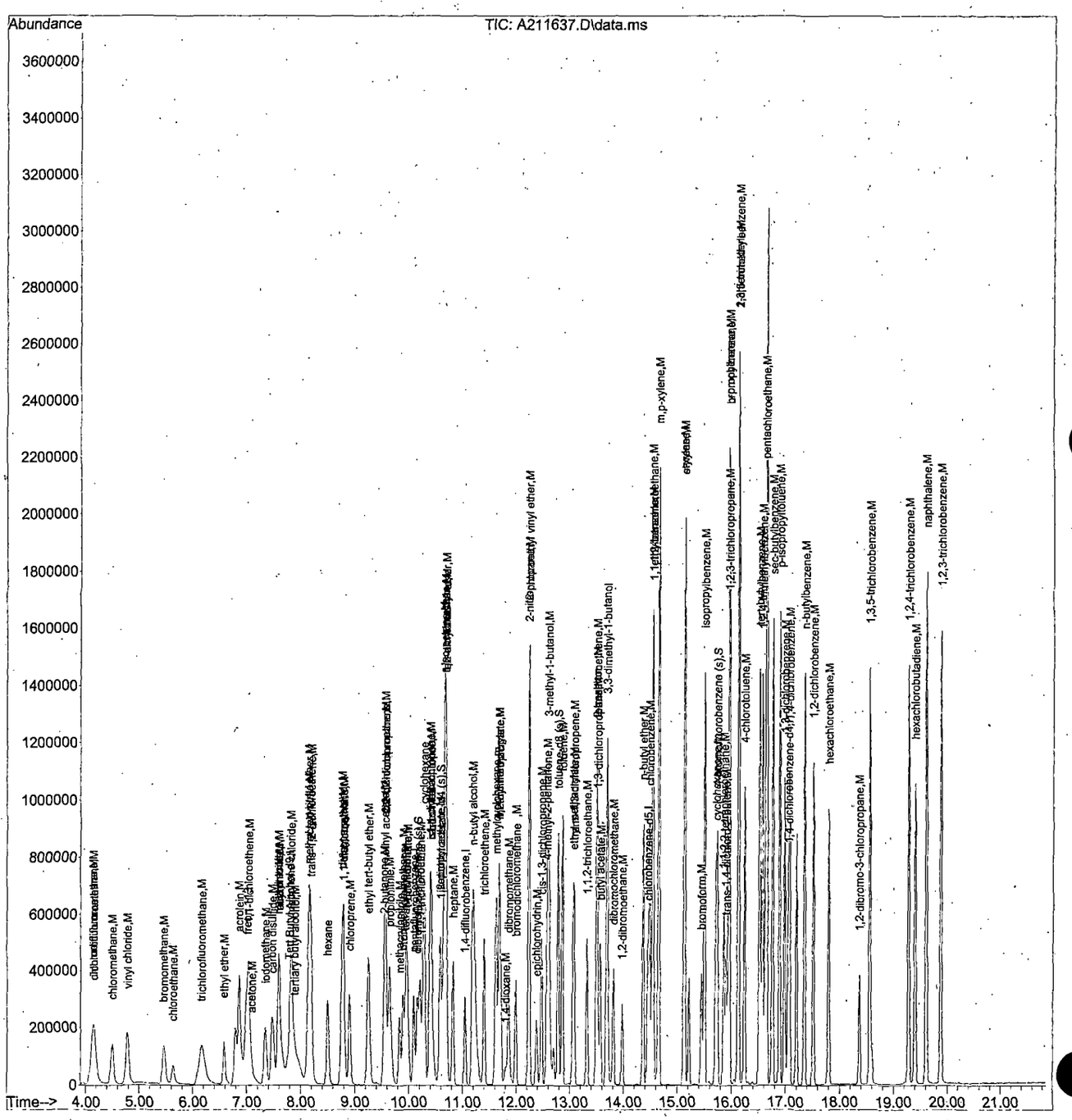
7.6.10

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211637.D
Acq On : 2 Mar 2015 6:24 pm
Operator : JemimaM
Sample : ic8000-100
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 09:00:14 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 08:59:34 2015
Response via : Initial Calibration



7.6.10 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211638.D
Acq On : 2 Mar 2015 7:27 pm
Operator : JemimaM
Sample : icv8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 18:17:11 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 17:06:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.777	65	459201	500.00	ug/L	0.00
4) pentafluorobenzene	10.094	168	298528	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.046	114	317750	50.00	ug/L	0.00
83) chlorobenzene-d5	14.445	117	289794	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.039	152	186705	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.156	113	95929	54.13	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 108.26%			
47) 1,2-dichloroethane-d4 (s)	10.591	65	116033	51.58	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 103.16%			
75) toluene-d8 (s)	12.777	98	344167	52.62	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 105.24%			
101) 4-bromofluorobenzene (s)	15.737	95	131422	50.07	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 100.14%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.804	88	80485	1209.66	ug/L	95
3) tertiary butyl alcohol	7.897	59	216580	237.87	ug/L	73
6) chlorodifluoromethane	4.147	51	165355	42.16	ug/L	93
7) dichlorodifluoromethane	4.126	85	217963	54.96	ug/L	92
8) chloromethane	4.487	50	164745	58.09	ug/L	93
9) vinyl chloride	4.775	62	219416	55.32	ug/L	100
10) bromomethane	5.460	94	110362	53.50	ug/L	96
11) chloroethane	5.632	64	70134	61.03	ug/L	98
13) trichlorofluoromethane	6.150	101	220255	47.21	ug/L	96
15) ethyl ether	6.579	74	56888	59.51	ug/L	92
17) acrolein	6.861	56	347284	585.18	ug/L	98
18) freon 113	6.992	151	108215	55.72	ug/L	97
19) 1,1-dichloroethene	7.034	61	178652	52.94	ug/L	98
20) acetone	7.097	43	65526	51.31	ug/L	64
21) allyl chloride	7.594	76	56337	53.78	ug/L	89
22) acetonitrile	7.594	40	175224	531.20	ug/L	93
23) iodomethane	7.337	142	234746	54.27	ug/L	98
24) carbon disulfide	7.473	76	393760	50.27	ug/L	98
25) methylene chloride	7.808	84	114692	51.00	ug/L	97
26) methyl acetate	7.583	43	103682	40.61	ug/L	98
27) methyl tert butyl ether	8.132	73	762155	104.31	ug/L	92
28) trans-1,2-dichloroethene	8.195	96	94576	49.69	ug/L	97
29) hexane	8.498	57	74851	41.46	ug/L	99
30) di-isopropyl ether	8.755	45	324322	52.33	ug/L	99
31) t-butyl formate	9.973	59	136256	54.20	ug/L	99
32) ethyl tert-butyl ether	9.246	59	354542	51.56	ug/L	96
33) 2-butanone	9.534	72	22087	54.68	ug/L	99
34) 1,1-dichloroethane	8.791	63	174612	53.82	ug/L	92
35) chloroprene	8.901	53	125355	47.78	ug/L	98
36) acrylonitrile	8.159	53	280715	278.72	ug/L	99
37) vinyl acetate	8.776	86	19513	59.97	ug/L	81
38) ethyl acetate	9.544	45	22931	53.96	ug/L	84
40) 2,2-dichloropropane	9.565	77	186396	50.26	ug/L	99
41) cis-1,2-dichloroethene	9.565	96	104758	53.18	ug/L	94
42) propionitrile	9.649	54	314847	564.79	ug/L	73
43) bromochloromethane	9.890	128	57879	54.18	ug/L	96
44) tetrahydrofuran	9.932	42	62599	51.95	ug/L	99
45) chloroform	9.947	83	173582	51.16	ug/L	97
48) methacrylonitrile	9.827	67	55264	53.52	ug/L	93
49) cyclohexane	10.277	84	174672	49.82	ug/L	95
50) 1,1,1-trichloroethane	10.209	97	182088	55.55	ug/L	99

7.6.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211638.D
Acq On : 2 Mar 2015 7:27 pm
Operator : JemimaM
Sample : icv8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 18:17:11 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 17:06:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) iso-butyl alcohol	10.407	41	124746	588.24 ug/L #	92
52) tert-amyl methyl ether	10.685	73	374721	51.78 ug/L	95
55) epichlorohydrin	12.374	57	108766	260.76 ug/L	93
56) n-butyl alcohol	11.187	56	547656	2957.62 ug/L	97
57) carbon tetrachloride	10.413	117	169020	52.64 ug/L	96
58) 1,1-dichloropropene	10.387	75	133159	53.39 ug/L	97
59) benzene	10.664	78	375557	51.04 ug/L	98
60) Iso-octane	10.648	57	319327	44.51 ug/L	100
61) heptane	10.821	71	54796	48.73 ug/L	96
63) isopropyl acetate	10.575	43	217239	42.88 ug/L	94
64) 1,2-dichloroethane	10.690	62	143447	50.39 ug/L	99
65) trichloroethene	11.401	95	101285	50.72 ug/L	96
66) 2-nitropropane	12.228	41	67036	51.14 ug/L	93
68) methylcyclohexane	11.621	83	154417	47.33 ug/L	97
69) 2-chloroethyl vinyl ether	12.233	63	374680	274.19 ug/L	100
70) methyl methacrylate	11.673	69	90222	54.43 ug/L	94
71) 1,2-dichloropropane	11.684	63	98356	54.47 ug/L	100
72) dibromomethane	11.851	93	72057	52.41 ug/L	94
73) bromodichloromethane	11.987	83	143160	51.02 ug/L	96
74) cis-1,3-dichloropropene	12.468	75	172386	54.11 ug/L	100
76) 4-methyl-2-pentanone	12.568	58	70357	50.61 ug/L	98
77) toluene	12.855	92	244045	50.80 ug/L	97
78) 3-methyl-1-butanol	12.594	55	328821	1118.37 ug/L	100
79) trans-1,3-dichloropropene	13.075	75	156691	50.60 ug/L	98
80) ethyl methacrylate	13.054	69	145826	52.57 ug/L	98
81) 1,1,2-trichloroethane	13.315	83	81106	51.57 ug/L	99
82) 2-hexanone	13.493	58	63131	54.59 ug/L	98
84) tetrachloroethene	13.493	164	97780	49.98 ug/L	95
85) 1,3-dichloropropane	13.514	76	153484	48.71 ug/L	98
86) butyl acetate	13.566	56	86632	50.91 ug/L	97
87) 3,3-dimethyl-1-butanol	13.687	57	372265	553.73 ug/L	99
88) dibromochloromethane	13.807	129	128130	49.92 ug/L	96
89) 1,2-dibromoethane	13.974	107	108796	47.40 ug/L	98
90) n-butyl ether	14.356	57	410819	49.83 ug/L	99
91) chlorobenzene	14.477	112	278709	49.80 ug/L	99
92) 1,1,1,2-tetrachloroethane	14.544	131	132016	49.48 ug/L	97
93) ethylbenzene	14.534	91	475103	49.78 ug/L	99
94) m,p-xylene	14.649	106	370513	102.19 ug/L	95
95) o-xylene	15.120	106	201149	52.74 ug/L	96
96) styrene	15.130	104	302657	51.25 ug/L	95
97) bromoform	15.444	173	107759	49.99 ug/L	97
99) isopropylbenzene	15.496	105	563321	53.10 ug/L	100
100) cyclohexanone	15.706	55	132768	550.82 ug/L	99
102) bromobenzene	15.957	156	141058	49.67 ug/L	99
103) 1,1,2,2-tetrachloroethane	15.852	83	169253	48.29 ug/L	96
104) trans-1,4-dichloro-2-b...	15.899	53	49593	48.49 ug/L	96
105) 1,2,3-trichloropropane	15.941	110	50065	47.79 ug/L	94
106) n-propylbenzene	15.957	91	593253	53.40 ug/L	100
107) 2-chlorotoluene	16.129	126	126917	51.06 ug/L	95
108) 4-chlorotoluene	16.239	91	341679	50.12 ug/L	100
110) 1,3,5-trimethylbenzene	16.119	105	486229	53.45 ug/L	96
111) tert-butylbenzene	16.511	119	445643	54.27 ug/L	98
112) pentachloroethane	16.621	167	121794	54.63 ug/L	99
113) 1,2,4-trimethylbenzene	16.563	105	486501	53.73 ug/L	99
114) sec-butylbenzene	16.752	105	661235	53.85 ug/L	98
115) 1,3-dichlorobenzene	16.977	146	260768	48.06 ug/L	100
116) p-isopropyltoluene	16.882	119	565202	53.31 ug/L	100
118) 1,4-dichlorobenzene	17.071	146	264409	48.45 ug/L	99

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211638.D
Acq On : 2 Mar 2015 7:27 pm
Operator : JemimaM
Sample : icv8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 18:17:11 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 17:06:49 2015
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
120) 1,2-dichlorobenzene	17.510	146	278038	47.66 ug/L	95
121) n-butylbenzene	17.348	92	265334	53.63 ug/L	98
123) 1,2-dibromo-3-chloropr...	18.368	75	53970	47.16 ug/L	98
124) 1,3,5-trichlorobenzene	18.556	180	282768	47.74 ug/L	99
125) 1,2,4-trichlorobenzene	19.278	180	298018	48.87 ug/L	99
126) hexachlorobutadiene	19.398	225	139491	50.55 ug/L	98
127) naphthalene	19.607	128	902371	48.11 ug/L	99
128) 1,2,3-trichlorobenzene	19.879	180	325336	46.73 ug/L	100
129) hexachloroethane	17.792	201	111508	46.76 ug/L	98

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

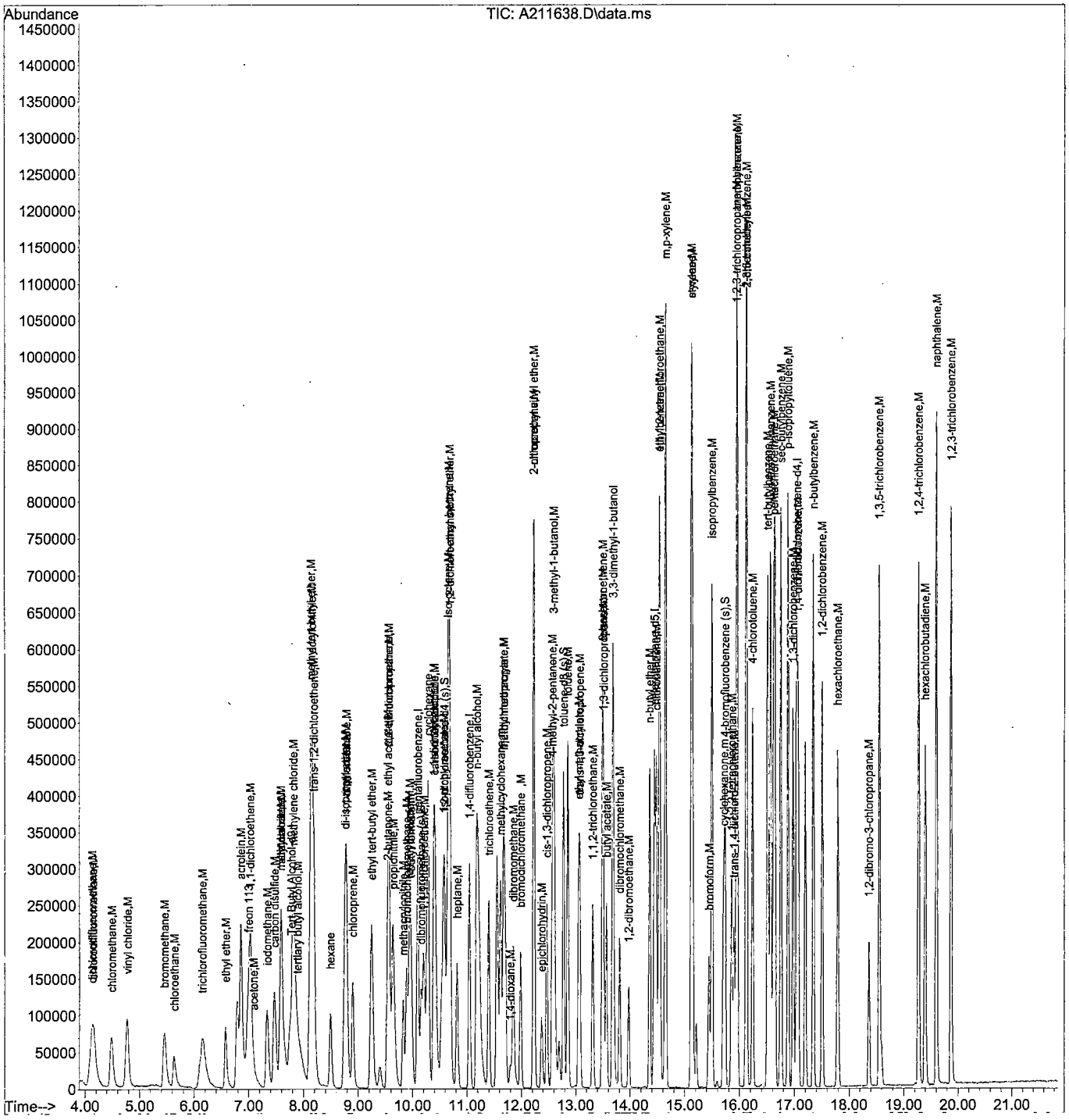
7.6.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : A211638.D
Acq On : 2 Mar 2015 7:27 pm
Operator : JemimaM
Sample : icv8000-50
Misc : MS79298,VA8000,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 03 18:17:11 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue Mar 03 17:06:49 2015
Response via : Initial Calibration



7.6.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212065.D
Acq On : 20 Mar 2015 10:08 pm
Operator : JemimaM
Sample : cc8000-50
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 23 16:35:19 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.772	65	511954	500.00	ug/L	-0.01
4) pentafluorobenzene	10.094	168	358667	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.046	114	337359	50.00	ug/L	0.00
83) chlorobenzene-d5	14.446	117	316759	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.040	152	202657	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.152	113	112596	52.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 105.76%			
47) 1,2-dichloroethane-d4 (s)	10.591	65	130134	48.15	ug/L	0.00
Spiked Amount 50.000	Range 71 - 124		Recovery = 96.30%			
75) toluene-d8 (s)	12.777	98	404469	58.24	ug/L	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 116.48%			
101) 4-bromofluorobenzene (s)	15.737	95	155746	54.67	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 109.34%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.799	88	88697	1195.72	ug/L	98
3) tertiary butyl alcohol	7.892	59	246081	242.42	ug/L	92
6) chlorodifluoromethane	4.153	51	216708	45.99	ug/L	97
7) dichlorodifluoromethane	4.137	85	276621	58.06	ug/L	94
8) chloromethane	4.487	50	209120	61.37	ug/L	99
9) vinyl chloride	4.775	62	257727	54.08	ug/L	94
10) bromomethane	5.465	94	128332	51.78	ug/L	93
11) chloroethane	5.638	64	82158	59.51	ug/L	95
13) trichlorofluoromethane	6.161	101	248601	44.51	ug/L	98
15) ethyl ether	6.574	74	60033	52.27	ug/L	95
17) acrolein	6.857	56	324726	455.42	ug/L	99
18) freon 113	7.008	151	128684	55.15	ug/L	99
19) 1,1-dichloroethene	7.045	61	214239	52.84	ug/L	97
20) acetone	7.108	43	78483	51.15	ug/L	92
21) allyl chloride	7.599	76	59714	47.45	ug/L #	92
22) acetonitrile	7.589	40	227171	573.21	ug/L #	87
23) iodomethane	7.338	142	267477	51.46	ug/L	94
24) carbon disulfide	7.474	76	447208	47.52	ug/L	99
25) methylene chloride	7.803	84	134570	49.81	ug/L	93
26) methyl acetate	7.578	43	162189	52.87	ug/L	98
27) methyl tert butyl ether	8.138	73	435063	49.56	ug/L	98
28) trans-1,2-dichloroethene	8.190	96	105925	46.33	ug/L	95
29) hexane	8.499	57	123166	56.78	ug/L	99
30) di-isopropyl ether	8.760	45	403113	54.13	ug/L	91
31) t-butyl formate	9.974	59	150649	49.88	ug/L	97
32) ethyl tert-butyl ether	9.247	59	430573	52.12	ug/L	95
33) 2-butanone	9.529	72	25237	52.00	ug/L #	83
34) 1,1-dichloroethane	8.792	63	196891	50.51	ug/L	98
35) chloroprene	8.902	53	164779	52.27	ug/L	97
36) acrylonitrile	8.154	53	327856	270.94	ug/L	97
37) vinyl acetate	8.781	86	19637	50.23	ug/L	85
38) ethyl acetate	9.545	45	27411	53.69	ug/L	81

7.6.12

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212065.D
Acq On : 20 Mar 2015 10:08 pm
Operator : JemimaM
Sample : cc8000-50
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 23 16:35:19 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) 2,2-dichloropropane	9.566	77	194718	43.70	ug/L	94
41) cis-1,2-dichloroethene	9.566	96	117941	49.83	ug/L	97
42) propionitrile	9.644	54	358346	535.03	ug/L	82
43) bromochloromethane	9.890	128	62953	49.05	ug/L	95
44) tetrahydrofuran	9.927	42	75090	51.87	ug/L	97
45) chloroform	9.948	83	192647	47.26	ug/L	97
48) methacrylonitrile	9.827	67	63460	51.15	ug/L	95
49) cyclohexane	10.277	84	204756	48.66	ug/L	99
50) 1,1,1-trichloroethane	10.204	97	200136	50.82	ug/L	97
51) iso-butyl alcohol	10.408	41	134716	528.74	ug/L	96
52) tert-amyl methyl ether	10.685	73	426876	49.10	ug/L	96
55) epichlorohydrin	12.380	57	121852	275.15	ug/L	95
56) n-butyl alcohol	11.182	56	598662	3045.16	ug/L	97
57) carbon tetrachloride	10.413	117	188395	55.27	ug/L	100
58) 1,1-dichloropropene	10.382	75	142663	53.87	ug/L	99
59) benzene	10.664	78	420973	53.89	ug/L	98
60) Iso-octane	10.648	57	487707	64.03	ug/L	99
61) heptane	10.821	71	74836	62.69	ug/L	98
63) isopropyl acetate	10.570	43	300494	55.87	ug/L	99
64) 1,2-dichloroethane	10.685	62	154292	51.05	ug/L	97
65) trichloroethene	11.402	95	107962	50.92	ug/L	95
66) 2-nitropropane	12.228	41	70434	50.61	ug/L #	64
68) methylcyclohexane	11.621	83	204385	59.00	ug/L #	97
69) 2-chloroethyl vinyl ether	12.233	63	438905	302.52	ug/L	96
70) methyl methacrylate	11.674	69	100197	56.93	ug/L	99
71) 1,2-dichloropropane	11.684	63	109912	57.34	ug/L	99
72) dibromomethane	11.851	93	75365	51.63	ug/L	91
73) bromodichloromethane	11.987	83	156029	52.38	ug/L	98
74) cis-1,3-dichloropropene	12.469	75	181236	53.58	ug/L	98
76) 4-methyl-2-pentanone	12.568	58	81534	55.24	ug/L	91
77) toluene	12.856	92	264227	51.81	ug/L	98
78) 3-methyl-1-butanol	12.594	55	376077	1204.75	ug/L	99
79) trans-1,3-dichloropropene	13.080	75	173249	52.70	ug/L	96
80) ethyl methacrylate	13.054	69	169815	57.66	ug/L	94
81) 1,1,2-trichloroethane	13.316	83	91044	54.52	ug/L	98
82) 2-hexanone	13.494	58	76850	62.59	ug/L	98
84) tetrachloroethene	13.494	164	104628	48.92	ug/L	96
85) 1,3-dichloropropane	13.515	76	175404	50.93	ug/L	98
86) butyl acetate	13.567	56	105979	56.98	ug/L	97
87) 3,3-dimethyl-1-butanol	13.682	57	434799	591.69	ug/L	99
88) dibromochloromethane	13.807	129	135100	48.15	ug/L	95
89) 1,2-dibromoethane	13.975	107	121581	48.46	ug/L	99
90) n-butyl ether	14.362	57	519779	57.68	ug/L	99
91) chlorobenzene	14.477	112	308068	50.36	ug/L	97
92) 1,1,1,2-tetrachloroethane	14.545	131	143798	49.31	ug/L	97
93) ethylbenzene	14.534	91	535426	51.32	ug/L	99
94) m,p-xylene	14.650	106	408774	103.14	ug/L	98
95) o-xylene	15.120	106	220777	52.95	ug/L	98
96) styrene	15.131	104	338486	52.44	ug/L	96
97) bromoform	15.444	173	115044	48.83	ug/L	100

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212065.D
Acq On : 20 Mar 2015 10:08 pm
Operator : JemimaM
Sample : cc8000-50
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 23 16:35:19 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99)	isopropylbenzene	15.497	105	619241	53.78	ug/L	99
100)	cyclohexanone	15.706	55	222124	849.00	ug/L	98
102)	bromobenzene	15.957	156	154290	50.05	ug/L	97
103)	1,1,2,2-tetrachloroethane	15.852	83	202548	53.24	ug/L	96
104)	trans-1,4-dichloro-2-b...	15.900	53	45095	40.62	ug/L	93
105)	1,2,3-trichloropropane	15.941	110	54232	47.69	ug/L	91
106)	n-propylbenzene	15.957	91	634057	52.58	ug/L	99
107)	2-chlorotoluene	16.130	126	140620	52.12	ug/L	98
108)	4-chlorotoluene	16.239	91	377537	51.02	ug/L	100
110)	1,3,5-trimethylbenzene	16.119	105	531055	53.79	ug/L	99
111)	tert-butylbenzene	16.511	119	450714	50.57	ug/L	96
112)	pentachloroethane	16.621	167	128204	52.98	ug/L	98
113)	1,2,4-trimethylbenzene	16.564	105	510094	51.90	ug/L	98
114)	sec-butylbenzene	16.752	105	718718	53.93	ug/L	99
115)	1,3-dichlorobenzene	16.977	146	283617	48.15	ug/L	98
116)	p-isopropyltoluene	16.883	119	592768	51.51	ug/L	99
118)	1,4-dichlorobenzene	17.071	146	282460	47.68	ug/L	98
120)	1,2-dichlorobenzene	17.510	146	297910	47.05	ug/L	96
121)	n-butylbenzene	17.348	92	276136	51.42	ug/L	97
123)	1,2-dibromo-3-chloropr...	18.363	75	54788	44.11	ug/L	92
124)	1,3,5-trichlorobenzene	18.556	180	280618	43.65	ug/L	99
125)	1,2,4-trichlorobenzene	19.278	180	275685	41.65	ug/L	96
126)	hexachlorobutadiene	19.398	225	140750	46.99	ug/L	100
127)	naphthalene	19.608	128	880171	43.23	ug/L	99
128)	1,2,3-trichlorobenzene	19.880	180	308433	40.82	ug/L	100
129)	hexachloroethane	17.793	201	110844	42.93	ug/L	99

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

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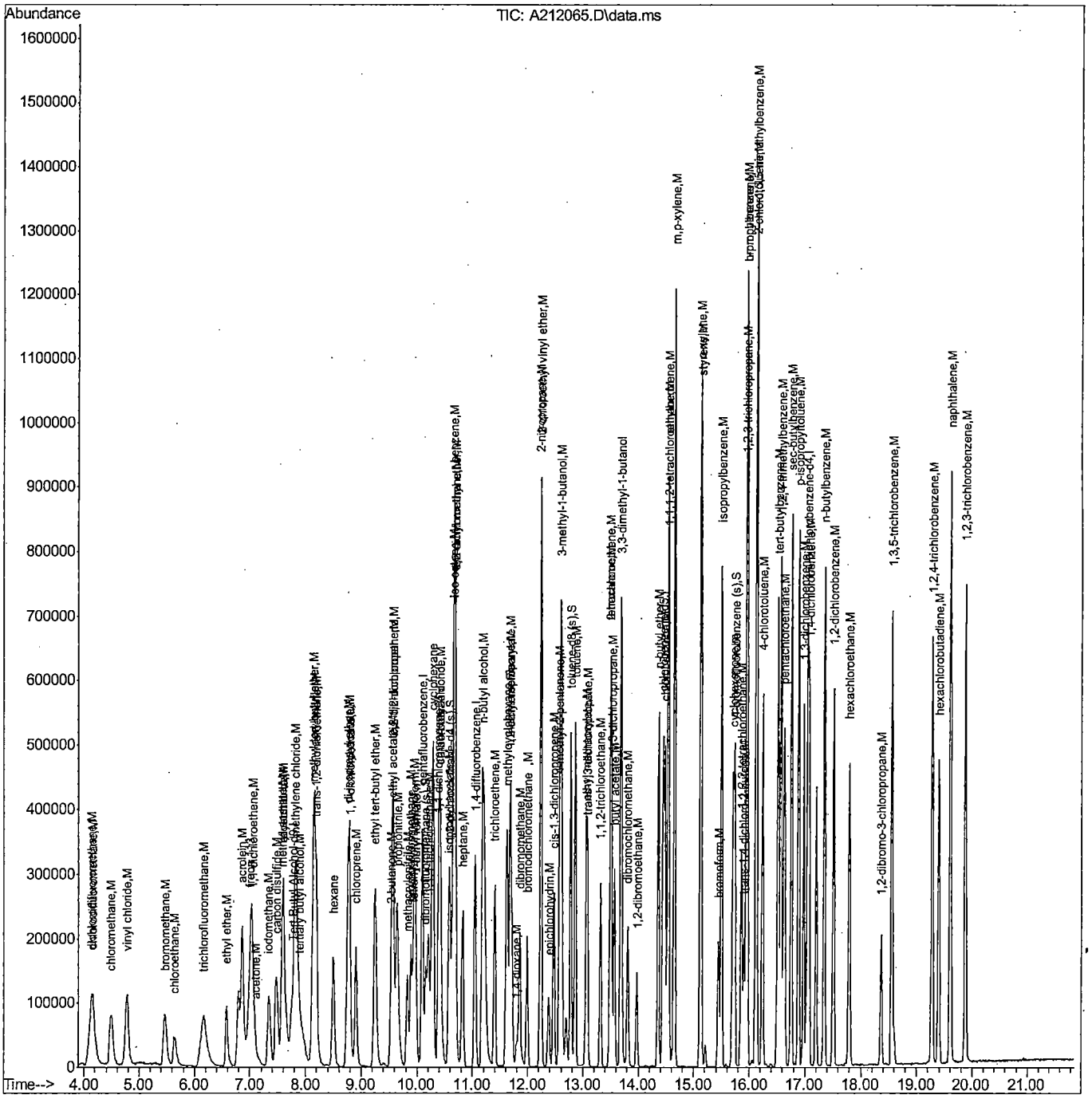
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\a-core\va8018-va8020\
Data File : A212065.D
Acq On : 20 Mar 2015 10:08 pm
Operator : JemimaM
Sample : cc8000-50
Misc : MS81957,VA8018,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 23 16:35:19 2015
Quant Method : C:\msdchem\1\METHODS\MA8000.M
Quant Title : SW 846 8260C ZB624 60m x 0.25mm x 1.4um
QLast Update : Thu Mar 19 13:54:38 2015
Response via : Initial Calibration



ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VA8000

Print Analyst Name: Jemima Menlen

Analyst Signature: JMenlen

Columns: ZB624 (60m x 0.25mm x 1.0um)

Method V8260B

Initial Cal. Method MA8000

Date: 3/2/15 (MONDAY)

Standard Data

Lot #	Description	Conc.
V015 2016	99 EXT A	100 ppm
	75 B (85)	
	98 C 6	
	85 Ext Acrolein 8	1000
	87 hexane 6	100

Standard Data

Lot #	Description	Conc.
V015 2016	62 STD A 59	100 ppm
	83 B 33	
	100 C 4	
	60 Acrolein 42	1000
	82 surrogate 3	100

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

V015 2016 90 int only 250/2500 ppm

Supervisor Signature: [signature] **Date:** 3/3/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	>A211625	1B/B				1	5ml						ok		11:58 Am
	211626	IC8000-0.2	8130P3 8260B13			2							ok	(2ml)/100mL FV STD A, B, C, Acrolein	
	211627	IC8000-0.5	Initial calibration			3							ok	STD A, B, C (5µL)/100mL Acrolein	
	211628	IC8000-1				4							ok	(5µL)/500mL FV	
	211629	IC8000-2				5							ok	(10µL)/500mL FV	
	211630	IC8000-5				6							ok	(25µL)/500mL FV	
	211631	IC8000-10				7							ok	(10µL)/100mL FV	
	211632	IC8000-20				8							ok	(10µL)/50mL FV	
	211633	IC8000-50 ~~IC8000-50~~				9							ok	(25µL)/50mL FV	
	211634	IC8000-100				10			Run 5600 in the morning not finish instrument off line.					(50µL)/50mL FV	
	211635	IC8000-200				11							ok	(100µL)/50mL FV	
	211636	IB				12							clip		
	211637	IC8000-100 ~~IB~~				13							ok		
	211637A 211638	IB IC8000-50				14							ok	(25µL)/50mL FV Ext A, B, C, Acrolein hexane	
														JL 3/3/2015	

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 calculation; 4 = analyst's correction error

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

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ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VA 8018

Print Analyst Name: Jemima Mendoza

Date: 3/20/15

Analyst Signature: JMendoza

Columns: ZB624 60mx0.25mmx1.4um

Method V8260B

Initial Cal. Method MA 8000

Standard Data

Lot #	Description	Conc.
V015 2016	139.3 Ext A	100 ppm
	110.16 B	
	132.2 C	
	137.2 Acro	1000
	136.8 hexane	100

Standard Data

Lot #	Description	Conc.
V015 2016	116.43 STD A	100 ppm
	133.23 B	
	135.2 C	
	109.15 Acrolein	1000
	97 I/S	250/2500

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

212713 pH paper **Supervisor Signature:** _____ **Date:** 3/23/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	A 212064	BFB											ok	9:36pm	
	212065	CC8000-50										✓	ok	25ul / 50ml FV A,B,C,Acro #8A #82A	
	212066	IB										✓	ok		
	212067	MB1								✓	✓		ok		
	212068	BS										✓	ok	25ul / 50ml FV Ext A,B,C,Acro,hexane	
	212069	IB										✓	ok		
	212070	JB90111-4	82199 BTXMT	W	1		1/50		50x			✓	ok/DD	RR 10X Combine BPQC	✓
	212071	JB90111-3			1		5/50		10x			✓	ok		✓
	212072	JB90111-2			1		2/50		25x			✓	ok		✓
	212073	JB90111-2ms			1				25x			✓	ok	50ul A,B,C,Acro to 4ml sample → 100ml FV	✓
	212074	JB90111-2msd			1				25x			✓	ok		✓
	212075	IB										✓	ok		
	212076	JB90111-1	82199 BTXMT	W	1		5ml		1x			✓	ok		✓
	212077	~~JB90111~~ 90187-1 JM 3/20	82216 TCL11+		6				1x	✓	✓		ok		✓
	212078	JB90187-2			4				1x	✓	✓		ok		✓
	212079	JB90187-4			3				1x	✓	✓		ok		✓
	212080	JB90187-6		FB	1				1x	✓	✓		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

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

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ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: VA 8018

Print Analyst Name: Jemima Meridan

Date: 3/20/15

Analyst Signature: JMeridan

Columns: 28624 (60m x 0.25mm x 1.4um)

Method V8260B

Initial Cal. Method MA 8000

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	See pg 63	

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: 3/23/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	A212081	JB90187-7	82199 TCLHT	TB	2		5ml		1x	✓	✓		ok		✓
	212082	JB90187-8	↓	LW	4		↓		1x	✓	✓		ok		✓
	212083	JB90187-9	↓	↓	5		↓		1x	✓	✓		ok		✓
	212084	JB90207-2	82243 SL	TB	2		↓		1x	✓	✓		ok	UTCGC	✓
	212085	JB90207-1	↓	LW	2		↓		1x	✓	✓		ok	UTCGC 8:36am BPGC	✓
	212086	JB90201-1	82245 TCLHT	↓	1		↓		1x				Not Run	↓	
	212087	JB90201-2	↓	↓	1		↓		1x				↓		

JM 3/23

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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Appendix D

First Quarter 2015 Phase1/Phase 2 AS/SVE System Operations Data Sheets

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

DATE	11-13-14	11-14-14	1-9-14 ~~1-14-14~~	1-10-15	1-11-15	1-12-15	1-13-15	1-14-15	1-15-15	1-16-15
TIME	9:59 Am	8:07 AM	0955	1:30PM	8:44AM	12:27Pm	10:03AM	9:19Am	7:56Am	10:16Am
OBSERVER'S INITIALS	RK	RK	A.H.	DL	DE	RK	RK	RK	RK	RK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	33226	33248	33277	33905	33924	33952	33973	33997	34019	34045
C-2201 SPRG (hrs)	28457	28479	28485	28513	28533	28561	28582	28606	28629	28655
F-2501 H-XCH (hrs)	28457	28479	28485	28513	28533	28561	28582	28606	28629	28655
ANALOGS										
MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27
701 SVE (-wc)	68.0	81.6	81.6	81.5	81.6	81.6	81.6	81.6	81.6	81.6
2501 SPRG (psi)	12.9	12.9	11.7	12.8	12.8	11.5	13.0	11.7	12.8	11.6
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	0	0	0	0	0	0	0	0	0
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

DATE	1-17-15	1-18-15	1-19-15	1-20-15	1-21-15	1-22-15	1-23-15	1-24-15	1-25-15	1-26-15
TIME	11:35	8:56 AM	2:20 PM	7:53 AM	12:15 PM	8:51 AM	8:41 A.M.	11:30 AM	9:04 AM	9:55 AM
OBSERVER'S INITIALS	DL	KA	KA	RK	RK	RK	RK	DL	DE	RK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	34021	34092	34121	31149	34167	24188	24212	34239	34260	34285
C-2201 SPRG (hrs)	28681	28702	28732	28750	28778	28799	28823	28851	28872	28897
F-2501 H-XCH (hrs)	28681	28702	28732	28750	28778	28799	28823	28851	28872	28897
ANALOGS										
MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	-81.6	-81.6	-81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6
PT-2501 SPRG (psi)	11.5	13.3	14.0	13.3	13.4	13.6	13.9	11.5	14.3	14.1
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

DATE	1-27-15	1-28-15	1-29-15	1-30-15	1-31-15	2-1-15	2-2-15	2-3-15	2-4-15	2-5-15
TIME	9:10Am	2:40P	0850	7:34Am	10:13AM	8:04AM	2:08PM	10:34Am	1:10Pm	10:04Am
OBSERVER'S INITIALS	RK	RK	A.H.	RK	KA	DE	NA	RK	RK	RK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA		NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	34308	34337	34355	34378	34405	34427	34457	34477	34504	34524
C-2201 SPRG (hrs)	28920	28950	28968	28991	29018	29040	29071	29091	29118	29139
F-2501 H-XCH (hrs)	28920	28950	28968	28991	29018	29040	29071	29091	29118	29139
ANALOGS										
MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27
[illegible] 701 SVE (-wc)	81.6	81.6	81.6	68.0	81.6	81.6	81.6	68.0	81.6	81.6
[illegible] 2501 SPRG (psi)	11.6	11.7	13.8	12.8	13.8	11.5	11.5	12.7	13.4	13.4
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	0	0	0	0	0	0	0	0	0
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

DATE	2-6-15	2-7-15	2-8-15	2-9-15	2-10-15	2-11-15	2-12-15	2-13-15	2-20-15	2-21-15
TIME	9:51 Am	10:15 Am	11:30 Am	10:39 Am	12:24 Pm	1:16 Pm	1:02 Pm	2:24 Pm	12:49 Pm	11:30
OBSERVER'S INITIALS	RK	RK	DL	RK	RK	RK	RK	KA	RK	DL
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	34548	34573	34598	34621	34647	34671	34695	34720	34746	34769
C-2201 SPRG (hrs)	29163	29188	29213	29237	29263	29288	29312	29337	29366	29386
F-2501 H-XCH (hrs)	29163	29188	29213	29237	29263	29288	29312	29337	29363	29386
ANALOGS										
MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	81.6	81.6	81.6	68.0	81.6	81.6	68.0	81.6	81.6	81.6
PT-2501 SPRG (psi)	13.4	13.3	13.4	12.6	13.5	13.5	12.7	13.7	11.5	13.3
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	0	0	0	0	0	0	0	0	0
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

DATE	2-22-15	2-23-15	2-24-15	2-25-15	2-26-15	2-27-15	2-28-15	3-1-15	3-2-15	3-3-15
TIME	11:35 Am	1:17 Pm	10:01 Am	0000	12:20 Pm	8:35 Am	9:23 Am	8:11 AM	12:53 Pm	10:53 Am
OBSERVER'S INITIALS	KA	RK	RK	A.H.	RK	RK	KA	DE	RK	RK
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HOURS METERS										
B-701 SVE (hrs)	34793	34818	34839	34863	34889	34910	34934	34957	34986	35008
C-2201 SPRG (hrs)	29410	29436	29457	29481	29508	29528	29553	29576	29605	29627
F-2501 H-XCH (hrs)	29410	29436	29457	29481	29508	29528	29553	29576	29605	29627
ANALOGS										
MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	-81.6	81.6	81.6	81.6	81.6	68.0	-81.6	-81.6	81.6	81.6
2501 SPRG (psi)	13.4	13.5	13.3	13.3	11.4	13.2	13.1	13.4	13.4	11.5
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	0	0	0	0	0	0	0	0	0
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	30	30	30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

DATE	3-4-15	3-5-15	3-6-15	3-7-15	3-8-15	3-10-15	3-11-15	3-12-15	3-13-15	3-13-15
TIME	1:07 Am	10:52 Am	2:30 P.m	11:59 Am	9:10 Am	7:44 AM	2:31 P	2:12 P	7:30 Am	1045
OBSERVER'S INITIALS	RK	RK	KA	RK	KA	RK	RK	RK	RK	A.H.
ALARMS										
Shut Down Alarm Code	NA	NA	NA	NA	NA	NA	NA	OLA8201	OLA8201	N/A
Non-critical Alarm Code	NA	NA	NA	NA	NA	NA	NA			N/A.
HOURS METERS										
B-701 SVE (hrs)	35034	35056	35083	35105	35125	35171	35202	Down	Down	35211
C-2201 SPRG (hrs)	29654	29676	29704	29725	29746	29793	29824			29833
F-2501 H-XCH (hrs)	29654	29676	29704	29725	29746	29793	29824			29833
ANALOGS										
MV-701 SVE POS (%)	27	27	27	27	27	27	27			27
PT-701 SVE (-wc)	68.0	81.6	68.0	81.6	81.6	81.6	68.0			68
PT-2501 SPRG (psi)	12.6	13.4	12.6	13.3	13.4	11.4	12.6			12.7
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0			2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0			17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60			60
SVON-102 SVE (min)	60	60	60	60	60	60	60			60
SVON-103 SVE (min)	180	180	180	180	180	180	180			180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60			60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60			60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180			180
SPRG DELAY (min)	0	0	0	0	0	0	0			0
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30			30

WEEKLY DOCUMENTATION SHEET

SYSTEM COMPONENTS

DATE	10-20-14	10-27-14	11-4-14	11-10-14	11/14/14	1-9-14	1-12-15	1-19-15	1-26-15
TIME	8:35 Am	8:36 Am	8:31 Am	9:51 Am	1055	0955	12:30 Pm	2:23 PM	9:56 Am
OBSERVER'S INITIALS	RK	RK	RK	RK	NHS	[illegible]	RK	KA	RK

SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.

Comments and Notes	NA	NA	NA	NA	NA	NA	NA	NA	NA

SOIL VAPOR EXTRACTION (SVE)

Hours of Operation (hrs)	32648	32816	33009	33154	33251	33877	33952	34121	34285
Inlet Vacuum (-wc)	90	88	88	90	90	90	88	88	88
Pre-Filter Vacuum (-wc)	95	94	96	96	98	100	110	110	110
Post-Filter Vacuum (-wc)	78	79	75	78	80	80	78	80	78
Outlet Pressure (wc)	6	6	6	6	6	7	7	7	7
Outlet Temperature (°F)	160	155	160	158	154	130	140	146	152
Outlet Magnehelic* (in H_2O)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Water Level Sight Glass (in)	0	0	0	0	0	0	0	0	4"

AIR SPARGE (SPRG)

Hours Operation (hrs)	27874	28043	28238	28384	28483	~~28486~~	28561	28731	28897
Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK

HEAT EXCHANGER (H-XCH)

Hours Operation (hrs)	27874	28043	28238	28384	28483	28486	28561	28731	28897
Inlet Temperature (°F)	210	205	210	210	210	175	195	210	212
Inlet Pressure (psi)	16	16	18	16	17	16.5	16	17	17
Outlet Temperature (°F)	118	110	120	115	115	86	100	104	114
Outlet Pressure (psi)	14.5	13.5	15.5	14.5	14.0	19.0	14.5	14.5	14
Outlet Magnehelic* (in H_2O)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

ELECTRICAL USAGE (see display panel below main breaker and next to control panel)

Kilowatts (kwh)	159884	160745	161730	162473	162978	163241	163633	164531	165391

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

WEEKLY DOCUMENTATION SHEET

SYSTEM COMPONENTS

DATE	2-2-15	2-9-15	2-23-15	3-2-15	3-10-15				
TIME	2:12 PM	10:40 AM	1:18 PM	8:46 AM	7:46 AM				
OBSERVER'S INITIALS	KA	TL	TL	TL	TL				

SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.

Comments and Notes		NA	NA	82°F NA	81°F NA				

SOIL VAPOR EXTRACTION (SVE)

Hours of Operation (hrs)	34457	34621	34819	34986	35171				
Inlet Vacuum (-wc)	88	82	92	90	86				
Pre-Filter Vacuum (-wc)	110	110	120+	100+	100+				
Post-Filter Vacuum (-wc)	78	72	82	82	78				
Outlet Pressure (wc)	7	7	7	7	7				
Outlet Temperature (°F)	142	144	148	152	141				
Outlet Magnehelic* (in H_2O)	0.9	0.9	0.9	0.9	0.9				
Water Level Sight Glass (in)	0	0	0	0	0				

AIR SPARGE (SPRG)

Hours Operation (hrs)	29071	29237	29436	29605	29793				
Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK				

HEAT EXCHANGER (H-XCH)

Hours Operation (hrs)	29071	29237	29436	29605	29793				
Inlet Temperature (°F)	210	210	205	215	199				
Inlet Pressure (psi)	16	16	17.5	16.5	16				
Outlet Temperature (°F)	110	110	113	116	110				
Outlet Pressure (psi)	15	13	14	14.5	12.5				
Outlet Magnehelic* (in H_2O)	14.5	4.0	4.0	4.0	4.0				

ELECTRICAL USAGE (see display panel below main breaker and next to control panel)

Kilowatts (kwh)	166300	167184	168285	169196	170209				

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

MONTHLY DOCUMENTATION SHEET

SVE MANIFOLD

DATE	11/14/14	1-9-15	1-29-15	2-25-15	3-13-15						
TIME	1055	0955	0850	1000	1045						
INITIALS	MP/AS	A.H.	A.H.	A.H.	A.H						

MAGNEHELIC GAUGE*

CELL 1	SVE-1 (in H_2O)	1.1	1.1	1.1	1.1	1.0						
	SVE-2 (in H_2O)	1.5	1.6	1.5	1.5	1.4						
CELL 2	SVE-3 (in H_2O)	1.2	1.3	1.3	1.3	1.3						
	SVE-4 (in H_2O)	1.4	1.4	1.3	1.4	2.6						
CELL 3	SVE-5 (in H_2O)	1.1	1.2	1.0	0.9	1.0						
	SVE-6 (in H_2O)	0.7	1.0	0.9	0.3	0.5						

VACUUM GAUGE

CELL 1	SVE-1 (-wc)	30	30	30	30	32						
	SVE-2 (-wc)	30	26	30	30	30						
CELL 2	SVE-3 (-wc)	20	20	20	20	20						
	SVE-4 (-wc)	20	20	18	18	20						
CELL 3	SVE-5 (-wc)	36	36	36	36	36						
	SVE-6 (-wc)	40	40	38	38	38						

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

MONTHLY DOCUMENTATION SHEET

AIR SPARGE MANIFOLD

DATE		1/14/14	1-9-15	1-29-15	2-25-15	3-12-15					
TIME		1055	0955	0850	1000	1045					
INITIALS		MAS	A.H.	A.H.	A.H.	A.H.					
					ROTOMETER						
CELL 1	AS-1 (scfm)	17	21	20	19	20					
	AS-2 (scfm)	20.5	21	21	21	21					
	AS-3 (scfm)	21	21	20	20.5	20					
	AS-4 (scfm)	19	19	20	19	20					
	AS-5 (scfm)	18	20	20	19	20					
CELL 2	AS-6 (scfm)	16.5	16.5	17	16	17					
	AS-7 (scfm)	16	16.5	17	16	16.5					
	AS-8 (scfm)	22	21.5	22	22	22					
	AS-9 (scfm)	20	21.0	17	17	20					
	AS-10 (scfm)	25	25	24	24	24					
CELL 3	AS-11 (scfm)	17	16	20	18	21					
	AS-12 (scfm)	16	16	24	23.5	24					
	AS-13 (scfm)	15.5	16	22	21	22					
	AS-14 (scfm)	21.5	23	30	26	27.5					
	AS-15 (scfm)	20.5	21.5	Not working.	10.5	10.5					
					PRESSURE GAUGE						
CELL 1	AS-1 (psi)	11.5	11	10.0	10.5	9.5					
	AS-2 (psi)	11	11	10.0	10.5	10					
	AS-3 (psi)	10	10.5	9.5	10	9.0					
	AS-4 (psi)	11	11	10.0	10.5	10					
	AS-5 (psi)	11.5	11.5	10.0	10.5	10					
CELL 2	AS-6 (psi)	10	11	10.0	10.5	10					
	AS-7 (psi)	12	12	10.0	12.0	11					
	AS-8 (psi)	11	11	11.0	11	11					
	AS-9 (psi)	11.5	14	12.0	12	11.5					
	AS-10 (psi)	12.5	12.5	12.0	12.5	10.0					
CELL 3	AS-11 (psi)	11.5	11.5	9.5	16	9.5					
	AS-12 (psi)	13.5	13.5	10.5	14	11					
	AS-13 (psi)	13	13	10.0	10	11					
	AS-14 (psi)	13.5	14	10.5	12.5	11					
	AS-15 (psi)	13	13.5	13.0	13.5	13.5					

MONTHLY DOCUMENTATION SHEET

WELL HEAD GAUGES

DATE		3/14/14	5-15-14	6/26/14	7/23/14	9/16/14	10-29-14	11/14/14	1-9-15	1-29-15	2-25-15
TIME		1020	1100	1430	1035	1150	1330	1055	1020	0850	1000
INITIALS		NP	A.H.	NP	NP	NP	AH	NP/AS	A.H.	A.H.	A.H.
CELL 1	AS-1 (psi)	COVERED	3.5	2.0	2.5	3.0	0.0	7.0	0	7.0	covered
	AS-2 (psi)		3.0	0.0	1.0	2.0	6.0	10.0	4.0	3.0	
	AS-3 (psi)		9.0	11.0	10.5	10.0	4.0	4.0	4.0	11.5	
	AS-4 (psi)		3.0	1.0	1.5	2.0	0.0	10.0	0	9.5	
	AS-5 (psi)		13.0	12.0	12.5	12.0	12.0	13.0	12	12.0	
CELL 2	AS-6 (psi)		7.0	7.0	7.0	7.0	12.0	9.5	0	10	
	AS-7 (psi)		6.5	5.0	4.5	5.5	8.5	9.0 ~~7.0~~	10	9.0	
	AS-8 (psi)		4.5	2.0	3.0	4.0	3.0	~~0~~ 4.5	6.5	5.0	
	AS-9 (psi)		0.0	0.0	0.0	0.0	11.5	~~0~~ 1.5	10.5	11.0	11
	AS-10 (psi)		1.5	1.0	1.0	1.0	3.0	5.0 ~~4.5~~	7.0	5.0	0
CELL 3	AS-11 (psi)		7.0	5.0	5.0	5.5	1.0	11.0	12	9.5	10
	AS-12 (psi)		0.0	0.0	0.0	0.0	3.0	11.0	10.5	10	10
	AS-13 (psi)		7.0	6.0	6.5	6.5	0.0	10.0	11	8.0	8.0
	AS-14 (psi)		0.0	0.0	0.0	0.0	3.0	11.0	10.5	10	10
	AS-15 (psi)		4.0	2.0	2.5	3.0	0.0	7.0	*0	*Broken	*Broken

CELL 1	SVE-1 (in H_2O)	COVERED	6.5	6.5	6.0	6.5	6.5	6.5	6.5	6.5	covered
	SVE-2 (in H_2O)		2.0	4.5	3.0	3.0	1.5	2.0	5.0	1.5	
CELL 2	SVE-3 (in H_2O)		3.0	2.5	2.5	3.0	2.0	* 0.00	*0 broken	*broken	
	SVE-4 (in H_2O)		1.0	1.0	1.0	1.0	1.0	10.5	1.0	1.0	1.0
CELL 3	SVE-5 (in H_2O)		2.5	1.5	2.0	2.5	2.5	3.0	2.5	3.0	2.5
	SVE-6 (in H_2O)		1.0	1.0	1.0	1.0	0.0	* 0.0	0.0	1.0	0.0

MONTHLY DOCUMENTATION SHEET
BUILDING 2
SVE MANIFOLD

DATE	5-15-14	6/26/14	7/23/14	9/16/14	10-29-14	11/14/14	1-9-15	2-25-15	3-13-15	
TIME	1115	1405	0945	1100	1430	1025	1240	0950	1000	
INITIALS	A.H.	NP	NP	NP	A.H.	NP/AS	A.H.	A.H.	A.H.	

MAGNEHELIC GAUGE*

SVE-10 (in H_2O)	0.20	0.20	0.20	0.26	0.25	0.0	0.5	0.0	0.0	
SVE-12 (in H_2O)	0.55	0.55	0.35	1.50	0.60	0.0	0.60	0.0	0.0	
SVE-8 (in H_2O)	0.70	0.60	0.60	0.65	0.80	0.90	1.10	1.35	0.65	
SVE-7 (in H_2O)	0.35	0.35	0.40	0.35	0.35	0.35	1.70	0.1	0.3	

VACUUM GAUGE

SVE-10 (-wc)	55	60	60	15	35	45	35	70	50	
SVE-12 (-wc)	52	58	60	55	58	58	60	70	48	
SVE-8 (-wc)	56	60	60	58	60	88	70	70	48	
SVE-7 (-wc)	80	70	70	70	75	90	75	70	68	

ELECTRICAL USAGE

Kilowatts (kwh)	504953.0	599206.10	661995.20	668301.60	763311.60	800793.20	805379.50	884637.20	919912.60	

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	11-9-14	11-10-14	11-11-14	11-12-14	11-13-14	11-14-22	~~11-15-14~~ 1-9-15	~~11-16-14~~ 1-10-15	~~11-17-14~~ 1-11-15
TIME	11:50 Am	10:11 Am	8:42 Am	1:28 Pm	10:05 Am	8:06 Am	1255	1:46 Pm	8:52 AM
OBSERVER'S INITIALS	KA	TRL	TRL	TRL	RL	RL	A.H.	DC	DE
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	62 Cloudy	CLEAR 60°F	RAINING 58°F	CLEAR 41°F	CLOUDY 36°F	CLOUDY 35°F	Sunny 0°F	Cloudy 15°F	CLOUDY 19°F
ALARMS									
Alarm Code	NA	NA	NA	NA	NA	NA	N/A.	NA	NA
P&ID									
PDT-701 SVE (-wc)	0.21	0.18	0.20	0.22	0.24	0.23	0.25	.08	0.18
PT-701 SVE (-wc)	-75	-76	-80	-59	-72	-69	-52	-92	-89
PT-702 SVE (-wc)	53.4	52.3	52.1	57.3	58.7	57.3	67.9	55.8	51.5
PT-2201 SPRG (psi)	15.0	14.7	27.0	15.1	28.0	15.1	14.4	16.6	16.2
P-401 PUMP (cycles)	18	19	19	20	21	22	24	24	24
P&ID2									
PDT-801 SVE (-wc)	0.37	0.35	0.33	0.33	0.35	0.30	0.25	0.19	0.16
PT-801 SVE (-wc)	-136	-139	-140	-128	-127	-126	-125	-144	-145
PT-802 SVE (-wc)	49.2	48.3	49.8	51.4	51.0	52.0	56.2	51.0	50.4
*PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)	183	183	183	183	183	183	184	185	187

* Transmitter not reading correct signal, compressor is on.

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

							1-9-15	1-10-15	1-11-15
DATE	11-9-14	11-10-14	11-11-14	11-12-14	11-13-14	11-14-14	~~11-15-14~~	~~11-16-14~~	~~11-17-14~~
TIME	11:50AM	10:11AM	8:42AM	1:28PM	10:05AM	8:06AM	1255	1:40PM	8:52AM
OBSERVER'S INITIALS	KA	RK	RK	RK	RK	RK	R.H.	DL	DE
HOURS METERS									
B-701 SVE (hrs)	3905	3927	3950	3979	3999	4021	4038	4053	4072
C-2201 SPRG (hrs)	3890	3912	3934	3963	3984	4006	4013	4037	4057
C-2202 SPRG (hrs)	3890	3912	3934	3963	3984	4006	4013	4037	4057
B-801 SVE (hrs)	3895	3917	3940	3969	3989	4011	4018	4043	4062
C-2301 SPRG (hrs)	3895	3917	3940	3969	3989	4011	4018	4043	4062
C-2302 SPRG (hrs)	3895	3917	3940	3969	3989	4011	4018	4043	4062
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10	10	10
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30	30	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10	10	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30	30	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

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BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	1-12-15	1-13-15	1-14-15	1-15-15	1-16-15	1-17-15	1-18-15	1-19-15	1-20-15
TIME	12:50 Am	10:11 Am	9:33 Am	9:02 Am	1040	11:45 Am	9:02 AM	2:05 pm	8:01 Am
OBSERVER'S INITIALS	TK	TK	TK	TK	A.H.	DL	KA	KA	TK
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	Sunny 72°F	Cloudy 74°F	Pipe Frozen	Pipe Frozen	Cloudy 70°F	Cloudy 70°F	Sunny 72°F	Cloudy 72°F	Cloudy 70°F
ALARMS									
Alarm Code	NA	NA	401	Down	N/A.	NA	NA	NA	NA
P&ID									
PDT-701 SVE (-wc)	0.14	0.17	Down		0.23	.20	0.22	0.15	0.22
PT-701 SVE (-wc)	-70	-69			-60	-69	-70	-68	-71
PT-702 SVE (-wc)	58.3	57.7			61.7	57.6	58.5	58.0	569
PT-2201 SPRG (psi)	16.6	16.1			28.2	27.8	27.9	27.9	16.0
P-401 PUMP (cycles)	24	24			31	31	31	31	31
P&ID2									
PDT-801 SVE (-wc)	0.30	0.15			0.35	.29	0.27	0.29	0.26
PT-801 SVE (-wc)	-111	-151			-113	-127	-125	-122	-126
PT-802 SVE (-wc)	55.2	50.0			54.9	52.6	53.0	53.4	53.7
* PT-2301 SPRG (psi)	0.0	0.0			0.0	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)	189	190			191	191	192	193	193

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BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	1-12-15	1-13-15	1-14-15	1-15-15	1-16-15	1-17-15	1-18-15	1-19-15	1-20-15
TIME	12:51 Pm	10:11 Am	9:33A	8:02 Am	10:40 am	11:45 AM	9.03 AM	2:05 PM	8:01 AM
OBSERVER'S INITIALS	TAL	TAL	TAL	TAL	AH.	DL	KA	KA	TAL
HOURS METERS									
B-701 SVE (hrs)	4100	4121	DOWN	DOWN	4129	4159	4175	4204	4222
C-2201 SPRG (hrs)	4085	4106			4113	4138	4159	4188	4206
C-2202 SPRG (hrs)	4084	4106			4113	4138	4159	4188	4206
B-801 SVE (hrs)	4090	4112			4119	4144	4165	4194	4212
C-2301 SPRG (hrs)	4090	4111			4119	4143	4165	4194	4212
C-2302 SPRG (hrs)	4090	4111			4118	4143	4165	4194	4212
SET POINTS									
PAL-701 SVE (wc)	-27	-27			-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0			100	100	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0			10	10	10	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0			30	30	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25			-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0			100	100	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0			10	10	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0			30	30	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0			0	0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40			40	40	40	40	40
SV-2802 SPRG (min)	20	20			20	20	20	20	20
SV-2901 SPRG (min)	20	20			20	20	20	20	20
SV-2902 SPRG (min)	20	20			20	20	20	20	20

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BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	1-21-15	1-22-15	1-23-15	1-24-15	1-25-15	1-26-15	1-27-15	1-28-15	1-30-15
TIME	12:20 Pm	8:56 Am	8:48 Am.	11:45 Am	9:15 AM	09:55	9:04 Am	09:45	7:39 Am
OBSERVER'S INITIALS	RC	RC	RC	DL		A.H.	RC	A.H	RC
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	Cloudy 68°F	Cloudy 72°F	Cloudy 74°F	Cloudy 72°	Cloudy 60°	Cloudy 50°F	SVE702 TRIPS. IN ALARM	Cloudy 70°F	CLEAR 68°F
ALARMS									
Alarm Code	NA	NA	NA	04-8201 FUL ALM 00-21/01/03/11	S Y S	0117		NA	NA
P&ID									
PDT-701 SVE (-wc)	0.19	0.21	0.20	0.0	T	0.19 ~~-55~~	D	0.14	0.17
PT-701 SVE (-wc)	-59	-64	-68	-7	E	~~64.9~~ -55	O	-58	-51
PT-702 SVE (-wc)	61.4	58.5	58.8	Ø	M	64.9	W	61.9	65.7
PT-2201 SPRG (psi)	27.9	28.1	28.0	0.2		27.9	N	28.0	15.5
P-401 PUMP (cycles)	32	32	32	32		32		32	32
P&ID2									
PDT-801 SVE (-wc)	0.32	0.30	0.26	Ø	O	O		0.24	0.21
PT-801 SVE (-wc)	-115	-114	-119	-37		F		-121	-124
PT-802 SVE (-wc)	55.5	54.4	54.2	0.0	F			54.5	55.2
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	F	F		0.0	0.0
P-501 PUMP (cycles)	194	194	195	195				195	195

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Control Panel Touch Screen

DATE	1-21-15	1-22-15	1-23-15	1-24-15	1-25-15	1-26-15	1-27-15	1-28-15	1-29-15
TIME	12:20 Pm	8:56 Am	8:48 Am	11:45 Am	9:15 AM	09:55	9:04 Am	09:45	7:39 Am
OBSERVER'S INITIALS	RC	RC	RC	DL	DE	N.H.	RC	N.H.	TRL
HOURS METERS									
B-701 SVE (hrs)	4241	4261	4285	4303	S	4303	D	4369	4391
C-2201 SPRG (hrs)	4225	4246	4270	4288	Y	4288	O	4311	4333
C-2202 SPRG (hrs)	4225	4246	4270	4288	S	4288	W	4311	4333
B-801 SVE (hrs)	4231	4251	4275	4293	T	4293	N	4312	4334
C-2301 SPRG (hrs)	4231	4251	4275	4293		4293		4312	4334
C-2302 SPRG (hrs)	4231	4251	4275	4293	E	4293		4312	4334
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	M	-27		-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0		100		100	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0		10		10	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0		30		30	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	D	0.0		0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25		-25		-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	F	100		100	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0		10		10	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	F	30		30	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
SV-2801 SPRG (min)	40	40	40	40		40		40	40
SV-2802 SPRG (min)	20	20	20	20		20		20	20
SV-2901 SPRG (min)	20	20	20	20		20		20	20
SV-2902 SPRG (min)	20	20	20	20		20		20	20

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BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	1-31-15	2-1-15	2-2-15	2-3-15	2-4-15	2-5-15	2-6-15	2-7-15	2-8-15
TIME	10:02AM	8:13 AM	1:25PM	10:39am	1:00 Am	10:10 Am	9:56am	10:19Am	11:40
OBSERVER'S INITIALS	KA	DE	KA	RK	RK	RK	RK	RK	DL
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	68°F CLEAR	68°F CLOUDY	68°F SUNNY	CLEAR Sunny 66°F	Cloudy - 69°F	SUNNY 66°F	PARTLY Sunny 66°F	SUNNY 69°F	cloudy 69F
ALARMS									
Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA
P&ID									
PDT-701 SVE (-wc)	0.15	0.19	0.15	0.15	0.21	0.21	0.15	0.24	0.19
PT-701 SVE (-wc)	-58	-66	-64	-73	-65	-65	-77	-75	-72
PT-702 SVE (-wc)	61.3	59.4	60.9	57.2	58.7	59.6	56.3	55.0	56.8
PT-2201 SPRG (psi)	28.1	28.6	28.3	20.4	28.3	28.1	15.5	29.0	27.8
P-401 PUMP (cycles)	32	33	33	34	34	35	35	36	36
P&ID2									
PDT-801 SVE (-wc)	0.27	0.26	0.21	0.13	0.14	0.12	0.12	0.24	0.24
PT-801 SVE (-wc)	-118	-123	-122	-147	-141	-156	-160	-133	-123
PT-802 SVE (-wc)	55.4	54.2	56.1	49.2	50.1	48.7	44.9	51.0	53.3
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)	197	197	199	200	202	203	204	206	206

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BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	1-31-15	2-1-15	2-2-15	2-3-15	2-4-15	2-5-15	2-6-15	2-7-15	2-8-15
TIME	10:02 AM	8:13 AM	2:30 PM	10:39 AM	1:00 PM	10:10 AM	9:56 AM	10:19 AM	11:45 AM
OBSERVER'S INITIALS	KA	DE	KA	RK	RK	RK	RK	RK	DL
HOURS METERS									
B-701 SVE (hrs)	4417	4439	4469	4490	4516	4537	4561	4585	4610
C-2201 SPRG (hrs)	4359	4381	4411	4432	4458	4479	4503	4527	4552
C-2202 SPRG (hrs)	4359	4381	4411	4432	4458	4479	4503	4527	4552
B-801 SVE (hrs)	4360	4382	4413	4433	4459	4480	4504	4528	4553
C-2301 SPRG (hrs)	4360	4382	4412	4432	4459	4480	4504	4528	4553
C-2302 SPRG (hrs)	4360	4382	4412	4432	4459	4480	4504	4528	4553
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

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Control Panel Touch Screen

DATE	2-9-15	2-10-15	2-11-15	2-12-15	2-20-15	2-21-15	2-22-15	2-23-15	2-24-15
TIME	10:53am	12:30pm	1:22pm	1:10pm	1:39pm	11:30	11:25 Am	1:40 Pm	10:06Am
OBSERVER'S INITIALS	TRC	TRC	TRC	TRC	TRC	DL	KA	RC	RC
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	Cloudy 72°F	Partly Sunny 72°F	Cloudy 73°F	Sunny 70°F	Snow 71°F	Cloudy 71°F	Sunny 71°F	Sunny 70°F	Cloudy 73°F
ALARMS									
Alarm Code	NA	NA	NA	NA	NA	NA	NA	NA	NA
P&ID									
PDT-701 SVE (-wc)	0.17	0.19	0.20	0.18	0.08	0.05	0.24	0.20	0.04
PT-701 SVE (-wc)	-68	-67	-68	-60	-94	-104	-66	-62	-101
PT-702 SVE (-wc)	57.8	56.1	56.5	60.1	50.0	43.1	59.0	60.4	47.7
PT-2201 SPRG (psi)	28.0	27.7	27.7	15.2	28.0	14.9	28.2	15.6	15.1
P-401 PUMP (cycles)	37	37	38	38	38	39	39	39	39
P&ID2									
PDT-801 SVE (-wc)	0.18	0.25	0.24	0.26	0.07	0.24	0.27	0.31	0.12
PT-801 SVE (-wc)	-132	-113	-116	-109	-198	-120	-109	-106	-164
PT-802 SVE (-wc)	52.1	55.0	54.9	55.8	41.2	54.3	57.0	58.0	48.3
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
P-501 PUMP (cycles)	207	208	209	210	210	211	212	212	22

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BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	2-9-15	2-10-15	2-11-15	2-12-15	2-20-15	2-21-15	2-22-15	2-23-15	2-24-15
TIME	10:53 Am	12:30 Pm	1:22 Pm	1:10 Pm	1:39 Pm	11:30	11:25	1:40 P	10:06 Am
OBSERVER'S INITIALS	RK	RK	RK	RK	RK	DL	MIRT	RK	RK
HOURS METERS									
B-701 SVE (hrs)	4634	4659	4684	4708	4757	4778	4802	4829	4849
C-2201 SPRG (hrs)	4576	4601	4626	4650	4699	4720	4744	4771	4791
C-2202 SPRG (hrs)	4576	4601	4626	4650	4698	4720	4744	4770	4791
B-801 SVE (hrs)	4577	4602	4627	4651	4700	4721	4745	4772	4792
C-2301 SPRG (hrs)	4577	4602	4627	4651	4699	4721	4745	4771	4792
C-2302 SPRG (hrs)	4577	4602	4627	4651	4698	4721	4745	4771	4792
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

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Control Panel Touch Screen

DATE	2-25-15	2-26-15	2-27-15	2-28-15	3-1-15	3-2-15	3-3-15	3-4-15	3-5-15
TIME	0930	1505	8:50Am	9:15AM	8:18 AM	1:08 Pm	10:58Am	1:10Pm	10:56Am
OBSERVER'S INITIALS	A.H.	A.H.	RC	KA	DE	RK	RC	RC	RC
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	78°F Clear	70°F Clear	CLEAR 76°F	SUNNY 72°F	CLOUDY 74°F	CLEAR 76°F	CLOUDY SNOW. 72°F	CLEAR 72°F	Sunny 72°F
ALARMS									
Alarm Code	N/A.	N/A.	NA	NA	NA	NA	NA	NA	NA
P&ID									
PDT-701 SVE (-wc)	0.19	0.15	0.09	0.07	0.04	0.10	0.22	0.20	0.21
PT-701 SVE (-wc)	-87	-65	-77	-71	-78	-79	-83	-68	-65
PT-702 SVE (-wc)	51.9	61.0	55.5	51.5	53.2	53.1	52.9	58.1	58.2
PT-2201 SPRG (psi)	26.1	16.7	28.6	28.4	27.8	14.9	26.8	27.1	28.5
P-401 PUMP (cycles)	40	41	41	41	42	42	43	43	44
P&ID2									
PDT-801 SVE (-wc)	0.14	0.24	0.21	0.23	0.14	0.30	0.21	0.28	0.20
PT-801 SVE (-wc)	-148	-105	-117	-105	-141	-106	-137	-112	-107
PT-802 SVE (-wc)	49.1	57.7	56.1	57.1	51.3	55.1	51.2	51.0	55.4
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)	212	214	214	214	215	215	215	215	215

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Control Panel Touch Screen

DATE	2-25-15	2-26-15	2-27-15	2-28-15	3-1-15	3-2-15	3-3-15	3-4-15	3-5-15
TIME	0930	1505	8:50Am	9:15 Am	8:18 AM	1:08 Pm	10:58 Am	1:10 P	10:30 A.M
OBSERVER'S INITIALS	A.H.	A.H	TK	KA	DE	TK	TK	TK	TK
HOURS METERS									
B-701 SVE (hrs)	4872	4897	4914	4939	4962	4991	5012	5039	5060
C-2201 SPRG (hrs)	4814	4829	4847	4871	4895	4923	4945	4971	4993
C-2202 SPRG (hrs)	4814	4829	4847	4871	4895	4923	4945	4971	4993
B-801 SVE (hrs)	4815	4830	4848	4872	4896	4924	4946	4972	4994
C-2301 SPRG (hrs)	4815	4830	4848	4872	4896	4924	4946	4972	4994
C-2302 SPRG (hrs)	4815	4830	4848	4872	4895	4924	4946	4972	4994
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27	-27	-27
PAH-702 SVE (wc)	100	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10	10	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30	30	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10	10	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30	30	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	3-6-15	3-7-15	3-8-15	3-10-15	3-11-15	3-12-15	3-13-15	3-14-15	
TIME	2:20 Pm	11:44 Am	9:00 Am	8:05 Am	2:35 Pm	2:34 Pm	7:33 Am		
OBSERVER'S INITIALS	KA	TAL	KA	TAL	TAL	TAL	RC		
WEATHER CONDITIONS									
Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	SUNNY 74°F	Sunny 78°F	Cloudy 74°F	Fog/Cloudy 74°F	Sunny 82°F	Sunny 79°F	Sunny 72°F		
ALARMS									
Alarm Code	NA	NA	NA	NA	NA	NA	NA		
P&ID									
PDT-701 SVE (-wc)	0.21	0.20	0.23	0.21	0.17	0.21	0.18		
PT-701 SVE (-wc)	-71	-73	-72	-77	-68	-69	-72		
PT-702 SVE (-wc)	55.2	55.6	55.4	52.7	54.6	54.5	54.4		
PT-2201 SPRG (psi)	27.4	14.8	27.3	26.6	27.0	26.9	14.6		
P-401 PUMP (cycles)	45	45	45	46	46	47	47		
P&ID2									
PDT-801 SVE (-wc)	0.27	0.31	0.29	0.24	0.26	0.25	0.18		
PT-801 SVE (-wc)	-111	-114	-114	-121	-112	-109	-116		
PT-802 SVE (-wc)	54.4	53.4	55.0	53.4	51.7	52.4	53.6		
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
P-501 PUMP (cycles)	215	215	215	215	215	215	215		

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	3-6-15	3-7-15	3-8-15	3-10-15	3-11-15	3-12-15	3-13-15	3-14-15	
TIME	2:20 Pm	11:44 Am	9:00 Am	8:05 Am	2:35 Pm	2:34 Pm	7:33 AM		
OBSERVER'S INITIALS	KA	TK	KA	TK	TK	JTL	TK		
HOURS METERS									
B-701 SVE (hrs)	5088	5110	5129	5176	5207	5231	5248		
C-2201 SPRG (hrs)	5020	5042	5062	5109	5140	5164	5180		
C-2202 SPRG (hrs)	5020	5042	5062	5109	5140	5163	5180		
B-801 SVE (hrs)	5021	5043	5063	5110	5141	5165	5181		
C-2301 SPRG (hrs)	5021	5043	5063	5110	5141	5164	5181		
C-2302 SPRG (hrs)	5021	5043	5063	5110	5141	5164	5181		
SET POINTS									
PAL-701 SVE (wc)	-27	-27	-27	-27	-27	-27	-27		
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0		
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0		
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25		
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0		
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0		
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
SV-2801 SPRG (min)	40	40	40	40	40	40	40		
SV-2802 SPRG (min)	20	20	20	20	20	20	20		
SV-2901 SPRG (min)	20	20	20	20	20	20	20		
SV-2902 SPRG (min)	20	20	20	20	20	20	20		

WEEKLY DOCUMENTATION SHEET
BUILDING 1
SYSTEM COMPONENTS

DATE	11-3-14	11-10-14	11/17/14	1-9-14	1-10-15	1-19-15	1-29-15	2-2-15	2-9-15
TIME	12:37 Pm	10:09 Am	0955	1255	12:41 Pm	2:00 pm	0945	2:25 PM	10:55 Am
OBSERVER'S INITIALS	RK	RK	NP/AS	A.H.	RK	KA	A.H.	KA	RK

SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE; MOISTURE, ETC.

Comments and Notes	NA	NA	N/A	N/A	NA	NA	N/A	NA	NA

SOIL VAPOR EXTRACTION (SVE) BLOWER B-701

Pre-Filter Vacuum (-wc)	57	63	66	50	68	68	50	58	61
Post-Filter Vacuum (-wc)	64	64	63	52	72	68	58	52	76
Inlet Magnehelic* (in H_2O)	0.5	0.5	0.15	0.0	0.0	0.0	0.1	0.1	0.1
Inlet Vacuum (-wc)	57	78	78	80	80	80	80	80	76

SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)

Inlet Pressure (wc)	45	42	42	55	44	42	34	42	39
Inlet Temperature (°F)	125	112	100	90	100	106	100	100	102
Outlet Pressure (wc)	8	8	9	8	8	8	9.5	9.5	8
Outlet Temperature (°F)	92	82	62	78	74	80	86	78	72
Water Level Sight Glass (in)	3"	3"	12"	0"	0	12"	7"	10"	6"

AIR SPARGE (SPRG) COMPRESSOR C-2201

Upper Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK
Lower Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK

AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)

Inlet Pressure (psi)	15.5	16	30	26	16	27	26.5	27.5	27.5
Inlet Temperature (°F)	210	200	180	230	225	225	235	235	240
Outlet Pressure (psi)	16.0	16.5	30	25	16	26	26.0	27	27
Outlet Temperature (°F)	105	92	70	108	115	104	125	100	116

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

WEEKLY DOCUMENTATION SHEET
BUILDING 1
SYSTEM COMPONENTS

DATE	2-23-15	3-2-15	3-10-15						
TIME	1:41 pm	1:06 pm	8:02 AM						
OBSERVER'S INITIALS	TK	RK	TK						
SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE; MOISTURE, ETC.									
Comments and Notes	Sunny 70°F	Sunny 76°F	Cloudy Fog 74°F						
SOIL VAPOR EXTRACTION (SVE) BLOWER B-701									
Pre-Filter Vacuum (-wc)	61	78	68						
Post-Filter Vacuum (-wc)	82	100+	-100+						
Inlet Magnehelic* (in H_2O)	0.5	0.1	0.2						
Inlet Vacuum (-wc)	90	-82	-80						
SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (wc)	40	30	28						
Inlet Temperature (°F)	100	110	110						
Outlet Pressure (wc)	8	8	8						
Outlet Temperature (°F)	65	84	82						
Water Level Sight Glass (in)	16"	13"	3"						
AIR SPARGE (SPRG) COMPRESSOR C-2201									
Upper Oil Sight Glass (half pt.)	OK	OK	OK						
Lower Oil Sight Glass (half pt.)	OK	OK	OK						
AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (psi)	14	14	26						
Inlet Temperature (°F)	190	195	225						
Outlet Pressure (psi)	13	13	25.5						
Outlet Temperature (°F)	110	105	110						

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

WEEKLY DOCUMENTATION SHEET
BUILDING 2
SYSTEM COMPONENTS

DATE	11-10-14	11/14/14	1-9-15	1-12-15	1-19-15	1-29-15	2-2-15	2-9-15	2-23-15
TIME	10:28AM	1025	1240	12:36pm	2:15pm	0935	2:40PM	10:47Am	1:24pm
OBSERVER'S INITIALS	TK	NP/AS	A.H.	TK	KA	A.H.	KA	TK	TK
SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.									
Comments and Notes	CLEAR 58°F	CLOUDY 40°F	Sunny 64°F	Sunny 68°F	Cloudy 70°F	Cloudy 70°F	SUNNY 68°F	CLOUDY 69°F	CLEAR 66°F
SOIL VAPOR EXTRACTION (SVE) BLOWER B-801									
Pre-Filter Vacuum (-wc)	60	62	70	52	52	50	55	60	50
Post-Filter Vacuum (-wc)	64	65	75	58	58	55	60	66	55
Inlet Magnehelic* (in H_2O)	0.35	0.30	0.20	0.20	0.20	0.20	0.20	0.1	0.1
Inlet Vacuum (-wc)	-60	-60	58	-60	60	-60	-60	-80	-80
SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (wc)	50	52	54	56	54	55	55	52	58
Inlet Temperature (°F)	110	98	100	98	98	100	90	95	70
Outlet Pressure (wc)	0	0	0	0	0	0	0	2	2
Outlet Temperature (°F)	80	64	92	72	82	82	62	70	72
Water Level Sight Glass (in)	4"	4"	0"	16"	8"	7"	8"	14"	20"
AIR SPARGE (SPRG) COMPRESSOR C-2301									
Upper Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK
Lower Oil Sight Glass (half pt.)	OK	OK	OK	OK	OK	OK	OK	OK	OK
AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (psi)	19.5	22	19	16	18	14.5	18	18	15.5
Inlet Temperature (°F)	185	175	180	180	200	215	190	195	172
Outlet Pressure (psi)	19.5	21.5	19	15.5	17	14.0	18.0	17.5	14.5
Outlet Temperature (°F)	98	80	110	130	112	114	116	113	116

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

WEEKLY DOCUMENTATION SHEET
BUILDING 2
SYSTEM COMPONENTS

DATE	3-2-15	3-10-15							
TIME	12:59Pm	7:55 AM							
OBSERVER'S INITIALS	RK	RK							
SYSTEM LEAKS, EXCESSIVE OR UNFAMILAR NOISE, MOISTURE, ETC.									
Comments and Notes Room TEMP-	NA 74°F	NA 72°F							
SOIL VAPOR EXTRACTION (SVE) BLOWER B-801									
Pre-Filter Vacuum (-wc)	46	50							
Post-Filter Vacuum (-wc)	52	55							
Inlet Magnehelic* (in H_2O)	0.2-	0.1.5							
Inlet Vacuum (-wc)	-60	-60							
SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (wc)	56	54							
Inlet Temperature (°F)	101	100							
Outlet Pressure (wc)	2	2							
Outlet Temperature (°F)	78	70							
Water Level Sight Glass (in)	0	2"							
AIR SPARGE (SPRG) COMPRESSOR C-2301									
Upper Oil Sight Glass (half pt.)	OK	OK							
Lower Oil Sight Glass (half pt.)	OK	OK							
AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)									
Inlet Pressure (psi)	17.5	180							
Inlet Temperature (°F)	200	209							
Outlet Pressure (psi)	15.5	16.5							
Outlet Temperature (°F)	119	119							

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

MONTHLY DOCUMENTATION SHEET
BUILDING 1 UPPER CELL
AIR SPARGE MANIFOLD

	DATE	3/14/14	5-15-14	6/24/14	7/23/14	9/12/14	10-29-14	11/4/14	1-9-15	2-26-15	3-12-15
	TIME	0920	1130	1355	0900	1250	1445	0955	1255	0930	0945
	INITIALS	MP	A.H.	MP	MP	MP	A.H.	MP/AS	A.H.	A.H.	A.H.
	ROTOMETER										
UPPER CELL	AS-47 (scfm)	0	12	0	0	7	4.0	2	0	0	0
	AS-38 (scfm)	10.5	12	11.5	11	11	11	10.5	7	11.5	11.0
	AS-37 (scfm)	15.5	15	16	16	16	15	15	16	16	15.5
	AS-23 (scfm)	16	16.5	17	17	17	16.5	16	18	17	16.5
	AS-24 (scfm)	14.5	15	15	15	15.5	14.5	14.5	16	15	15
	AS-39 (scfm)	17	17	17	17	17	16.5	16.5	17.5	17.5	17
	AS-48 (scfm)	18.5	19	19	19	19	18	18	19.5	19.0	18.5
	AS-52 (scfm)	16	16	16	16	16	15.5	16	16.5	16	16
	AS-56 (scfm)	15	15	15	15	14.5	14.5	14.5	15	15	15
	AS-54 (scfm)	16	17	16	16	17	23	23	26	24	23
	AS-58 (scfm)	13	13	13	13	13	13.5	13	13.5	13.5	13
	PRESSURE GAUGE										
UPPER CELL	AS-47 (psi)	0	13	27	27.5	12.5	25	27	—	0.0	0
	AS-38 (psi)	15	14	17	15	14	15	17	14	15	15
	AS-37 (psi)	9	7.5	8	8	8	8	8.5	7.5	7.5	7.5
	AS-23 (psi)	13	11	12	12.5	11.5	12	12.5	11.5	11.5	11.5
	AS-24 (psi)	13.5	12	12.5	12.5	12	12.5	13	12	12	12
	AS-39 (psi)	12.5	11	11.5	11	11	11.5	12	11	11	11
	AS-48 (psi)	12	10.5	11	11	11	11	11.5	10.5	11	10.5
	AS-52 (psi)	11.5	10	11	11	10.5	11	11	10	10.5	10
	AS-56 (psi)	11	10	11	11	10.5	10.5	11	10	10	10
	AS-54 (psi)	14	11.5	13	17.5	12	17.5	17	11.5	12.5	12.5
	AS-58 (psi)	11	11.5	11.5	11.5	10	11.5	14	7.0	9.0	10.0

MONTHLY DOCUMENTATION SHEET
BUILDING 1 LOWER CELL
AIR SPARGE MANIFOLD

	DATE	3/14/14	5-15-14	6/26/14	7/23/14	9/16/14	10-29-14	11/14/14	1-9-15	2-25-15	3-12-15
	TIME	0900	1130	1355	0900	1250	1445	0955	1255	0930	0945
	INITIALS	NJP	A.H.	NP	NP	NP	A.H.	NP/AS	A.H.	A.H.	A.H.
	ROTOMETER										
LOWER CELL	AS-49 (scfm)	14.5	13.5	14	14	14.5	13.5	15	18.5	14	15
	AS-44 (scfm)	12	11.5	11	11	12	10.5	11	0	14	15
	AS-31 (scfm)	11	10	10	10	10	10	11	15	12.5	13
	AS-32 (scfm)	23	21.5	21	22	23	22	23	0	12	13
	AS-45 (scfm)	16.5	15.5	15	15	15.5	15	15	16.5	16	15
	AS-51 (scfm)	16.5	15.5	16	15	16	15	15.5	16.5	15.5	15
	AS-55 (scfm)	20	18.5	19	19	19.5	18.5	19.5	22.5	19	18
	AS-53 (scfm)	17	17	17	17	17	17.5	17	21	18	17
	AS-59 (scfm)	16	15	15	15	16	15	16	15.5	16	15
	AS-57 (scfm)	19	16	15	20	19	20	20	24	20	17
	AS-50 (scfm)	26	AH 23	23	22	23.5	24	25	29	25	23
	PRESSURE GAUGE										
LOWER CELL	AS-49 (psi)	10	11	11.5	10	11	10	10	11	10	10.5
	AS-44 (psi)	10.5	11.5	12	11.5	11	11	11	16	12	12.5
	AS-31 (psi)	10	10.5	11	10	10.5	10	10	10.5	10	10
	AS-32 (psi)	10	11.5	11	10.5	11.5	11	13	13	9.5	8.5
	AS-45 (psi)	11.5	12.5	12.5	11.5	12	11.5	11.5	12	11.5	12
	AS-51 (psi)	10.5	11	11.5	10.5	11	10.5	10.5	11	10.5	10.5
	AS-55 (psi)	10.5	11	11.5	10.5	11	10.5	10.5	11	10.5	10.5
	AS-53 (psi)	10	12	12.5	11	12	11	11	12	11	11.5
	AS-59 (psi)	10.5	11.5	11.5	10.5	11	10.5	10.5	11	10.5	11
	AS-57 (psi)	12.5	13.5	14	12.5	13	12.5	12.5	14	12.5	13
	AS-50 (psi)	11.5	12.5	13	11.5	12	11.5	11.5	12.5	11.5	12

MONTHLY DOCUMENTATION SHEET
BUILDING 2 UPPER CELL
AIR SPARGE MANIFOLD

DATE		3/14/14	5-15-14	6/26/14	7/23/14	9/16/14	10-29-14	11/14/14	1-9-15	2-25-15	3-13-15
TIME		0855	1115	1400	0945	1100	1430	1025	1240	0950	1000
INITIALS		NP	A.H.	NP	NP	NP	A.H.	NP/TS	A.H.	A.H.	A.H.
ROTOMETER											
UPPER CELL	AS-20 (scfm)	14	14	15	15.5	15.5	15.5	15.5	18	14	15.5
	AS-26 (scfm)	0	9	11	9	9	9.0	9	10	9	9
	AS-16 (scfm)	14	14	16	14	14.5	14.5	15.5	20.5	16.5	17.5
	AS-18 (scfm)	13	13.5	0	0	0	11.0	11	14	13	11
	AS-22 (scfm)	13	14	16	12	13	14	14	16	14	14
	AS-28 (scfm)	16	16	16	15	15.5	13.5	14	15.5	13.5	13.5
	AS-30 (scfm)	19	19	24	19	19.5	20	19	23	20	20
	AS-36 (scfm)	15.5	15.5	20	14	16.5	16	15.5	18.5	16	16
	AS-42 (scfm)	15	15.0	19	15.5	15.5	15.5	15.5	17.5	16	16
	AS-40 (scfm)	16	16	20	16	16	16.5	16	18.5	16.5	16.5
	AS-34 (scfm)	17	17	21	17	17	17.0	17	19.5	17	17
PRESSURE GAUGE											
UPPER CELL	AS-20 (psi)	10	10	11	10	11	10	11	10	9.5	10
	AS-26 (psi)	0	10.5	11	10.5	11.5	10.5	11	10.5	10	10
	AS-16 (psi)	10	9.5	10	10	11	9.5	11	10	9.5	10
	AS-18 (psi)	16.5	12	15	14	15	15	16	15	14	14.5
	AS-22 (psi)	10	10	10.5	10.5	11	10	11	10	9.5	10
	AS-28 (psi)	11	11	12	11	12	11	11.5	10.5	10.5	10.5
	AS-30 (psi)	11	11	11	11	12	10.5	11.5	10.5	10	10.5
	AS-36 (psi)	12.5	12	12.5	12	13	12	13	12	11.5	12.0
	AS-42 (psi)	11.5	11	11.	11	12	11	12	11	10.5	10.5
	AS-40 (psi)	11	11	11.5	11	12	11	12	10.5	10.5	10.5
	AS-34 (psi)	11	11	11.5	11	11	11	12	10.5	10.5	10.5

MONTHLY DOCUMENTATION SHEET
BUILDING 2 LOWER CELL
AIR SPARGE MANIFOLD

DATE		3/14/14	5-15-14	6/26/14	7/23/14	9/16/14	10-29-14	11/14/14	1-9-15	2-25-15	3-13-15
TIME		0845	1115	1400	0945	1100	1430	1025	1240	0950	1000
INITIALS		NJP	A.H.	NP	NP	NP	A.H.	NP/AS	A.H.	A.H.	A.H.
ROTOMETER											
LOWER CELL	AS-27 (scfm)	15	17	16	15	16	14	14	15.5	15	15
	AS-25 (scfm)	13	14	13	17	20	14	14	15.5	15	15
	AS-17 (scfm)	11.5	13.5	15	15	14	14	14	15.5	15	15
	AS-19 (scfm)	15	15	15.5	16	17	15	14.5	17.5	16.5	16
	AS-21 (scfm)	24	23	19	17	19.5	20.5	19	~~23~~	22	20
	AS-29 (scfm)	27	15	17	14	18	17	17	~~12~~ 22	17.5	13
	AS-43 (scfm)	12.5	13	12	12	13	11	12	~~25~~ 12	11.5	11.5
	AS-46 (scfm)	10	10	14	13	14.5	22	21.5	~~13~~ 25	23	22
	AS-41 (scfm)	16	17.5	16	14	15	12	13	13	12.5	13
	AS-33 (scfm)	13.5	13.5	20	19	21	17	18	20	18	18
	AS-35 (scfm)	12.5	15	15	15	15	13.5	13	15	14	14
PRESSURE GAUGE											
LOWER CELL	AS-27 (psi)	11	~~17~~ AH 11.5	11.5	14	11	11	11	11	11	11.5
	AS-25 (psi)	10	~~14~~ AH 10.5	10	9	5	10	9	10	10	10.5
	AS-17 (psi)	10	~~13.5~~ AH 10.5	10.5	11.5	10.5	10	10	10	10	10.5
	AS-19 (psi)	12	~~15~~ AH 12.5	12	14	12.5	12	12	12	12	12.5
	AS-21 (psi)	11	~~23~~ AH 12	11	12.5	11	11	11	11	11	12
	AS-29 (psi)	12	~~15~~ AH 14.5	14	14.5	13.5	12.5	12	12.5	13	13.5
	AS-43 (psi)	10	~~13~~ AH 11	10.5	11	10.5	10	10.5	10	10	10.5
	AS-46 (psi)	10	~~10~~ AH 10.5	10.5	11.5	10	11.5	10.5	11	11	12
	AS-41 (psi)	10	~~17.5~~ AH 10.5	10.5	10.5	10.5	10	10	10	10	10
	AS-33 (psi)	10	~~13.5~~ AH 11	11	12	11	10.5	11	10.5	10.5	11
	AS-35 (psi)	9.5	9.5	11	11.5	10.5	10.5	10.5	10.5	10.5	11

MONTHLY DOCUMENTATION SHEET
BUILDING 1
SVE MANIFOLD

DATE	5-15-14	6/26/14	7/23/14	9/16/14	10-29-14	11/14/14	1-9-15	2-25-15	3-12-15	
TIME	1130	1350	0900	1250	1445	0755	1255	0930	0945	
INITIALS	A.H.	NP	NP	NP	A.H.	NAS	A.H.	A.H.	A.H.	

MAGNEHELIC GAUGE*

SVE-15 (in H_2O)	0.0	0.0	0.0	0.05	0.6	0.0	0.0	0.0	0.0	
SVE-14 (in H_2O)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0+	0.0	
SVE-13 (in H_2O)	0.0	0.0	0.48	0.6	0.0	0.0	0.0	0.25	0.65	
SVE-11 (in H_2O)	0.5	0.45	0.45	0.45	0.45	0.40	0.35	0.60	0.45	
SVE-9 (in H_2O)	0.8	0.7	0.65	0.65	over 2.0	0.75	0.3	0.0	0.90	

VACUUM GAUGE

SVE-15 (-wc)	65	60	60	55	60	65	50	80	68	
SVE-14 (-wc)	65	60	60	60	65	65	52	47	70	
SVE-13 (-wc)	70	60	60	60	65	65	50	78	70	
SVE-11 (-wc)	26	26	28	24	28	29	22	33	29	
SVE-9 (-wc)	63	58	58	55	60	60	48	80	64	

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

MONTHLY DOCUMENTATION SHEET
BUILDING 1
PID MEASUREMENTS

DATE	1-9-15	2-25-15	3-12-15									
TIME	1255	0970	0945									
INITIALS	A.H	A.H.	A.H.									

SVE Effluent	0.9	0.4	1.9									
SVE - 15	moisture	moisture	moisture									
SVE - 14												
SVE - 13												
SVE - 11												
SVE - 9	↓	↓	↓									
Exhaust	0.9	0.4	1.9									

MONTHLY DOCUMENTATION SHEET
BUILDING 2
PID MEASUREMENTS

DATE	1-9-15	2-25-15	3-13-15									
TIME	1240	0950	1000									
INITIALS	A.H.	A.H.	A.H.									

SVE Effluent	0.00	0.00	0.00									
SVE - 10	moisture	moisture	moisture									
SVE - 12												
SVE - 8												
SVE - 7												
Exhaust	0.00	0.00	0.00									

Appendix E

First Quarter 2015 Groundwater Sampling Data Sheets

AECOM

Well ID:	GMZ-01

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2/17/2015 Time: Start 1015 (24hr)
Project No: 60339110-4212 Finish 1150
Site Location: Rockford, Illinois
Weather: Partly Cloudy - 15° Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 47.73 Screen interval(ft): 15 Approx. depth of pump intake(ft): 40
Water table depth (ft): 33.95 Casing type/diameter: 2" PVC Minimum purge volume: 6.7 (gals)
Water column length (ft): 13.78 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11m64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 1035			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1040	–	12.54	6.99	2091	53.0	3.17	3285	~~33.96~~ 500	33.96	ORANGE
1045	2500	11.00	7.00	2101	43.1	3.25	670	500	33.96	↓
1050	5000	9.42	6.99	2114	50.5	3.24	158	500	33.96	↓
1055	7500	9.75	6.98	2100	50.8	2.70	105	500	33.96	CLOUDY
1100	10000	10.01	6.98	2109	52.1	2.69	58.2	500	33.96	↓
1105	12500	10.79	6.98	2107	56.7	2.75	52.4	500	33.96	↓
1110	15000	10.02	6.99	2117	35.3	2.55	64.7	500	33.96	↓
1115	17500	9.58	6.97	2114	-1.5	1.76	58.1	500	33.96	↓
1120	20000	9.79	6.98	2109	-16.6	1.46	47.1	500	33.96	↓
1125	22500	10.20	6.98	2112	-19.7	1.18	50.4	500	33.96	↓
1130	25000	10.06	6.99	2115	-59.0	0.95	42.1	500	33.96	↓
1135	27500	10.75	7.00	2105	-54.4	1.05	57.2	500	33.96	↓
				* 3 VOLUMES REMOVED						
						NOT STABLE: ORP, DO & TURBIDITY				

(continued on back)

Sample Collector(s): N. Pins Date: 2/17/2015

SAMPLE COLLECTION DATA

Well ID: **GMZ-01**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-GMZ01- 02715	VOC's	3 - 40mL Clear Vials	1135	500	
	Ferrous Iron	OVERRANGE mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	GMZ-02

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date:	2/19/2015	Time: Start	0910 (24hr)
Project No:	60339110-4212			Finish	0955
Site Location:	Rockford, Illinois				
Weather:	CLEAR -8°	Collector(s):	N. PINS / A. HOLLATZ		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.80 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37

Water table depth (ft): 31.47 Casing type/diameter: 2" PVC Minimum purge volume: 6.5 (gals)

Water column length (ft): 13.33 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09F66
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7748-3570
Begin purge at 0910			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0920	5000	10.11	7.85	1456	145.7	9.23	10.47	500	31.50	CLEAR
0925	7500	10.51	7.84	1452	156.7	9.24	7.63	500	31.50	↓
0930	10000	10.17	7.82	1445	162.3	9.05	3.43	500	31.50	↓
0935	12500	10.46	7.83	1451	164.6	9.14	1.84	500	31.50	↓
0940	15000	10.31	7.82	1460	165.8	9.19	1.80	500	31.50	↓
0945	17500	10.75	7.82	1472	168.0	9.10	1.72	500	31.50	↓

(continued on back)

Sample Collector(s): N. PINS / A. HOLLATZ Date: 2/19/2015

SAMPLE COLLECTION DATA

Well ID: **GMZ-02**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-GMZ02- 021915	VOC's	3 - 40mL Clear Vials	0945	500	
HSSER_MS01- 021915	VOC's	3 - 40mL Clear Vials	0945	500	
HSSER-MSD01- 021915	VOC's	3 - 40mL Clear Vials	0945	500	
	Ferrous Iron	0.30 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	GMZ-03

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date: 2-18-15	Time:	Start	1440 (24hr)
Project No:	60339110-4212			Finish	1555
Site Location:	Rockford, Illinois				
Weather:	Partly sunny 0-5°F	Collector(s):	A. Wallace		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.60 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37

Water table depth (ft): 29.91 Casing type/diameter: 2" PVC Minimum purge volume: 7.20 (gals)

Water column length (ft): 14.69 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09F66
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1450			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1500	5000	11.54	7.95	980	162.8	9.88	18.1	500	29.95	clear/none
1505	7,500	11.77	7.96	974	182.1	9.65	10.50	500	29.95	
1510	10,000	11.84	7.96	978	191.4	9.58	6.21	500	29.95	
1515	12,500	11.82	7.96	975	200.6	9.46	4.47	500	29.95	
1520	15,000	11.80	7.96	976	205.6	9.45	3.24	500	29.95	
1525	17,500	11.61	7.95	977	209.3	9.60	2.46	500	29.95	
1530	20,000	11.70	7.95	970	212.1	9.41	2.13	500	29.95	
1535	22,500	11.79	7.95	971	215.2	9.41	1.57	500	29.95	
1540	25,000	11.80	7.95	971	217.6	9.38	1.43	500	29.95	
1545	27,500	12.10	7.94	972	218.1	9.34	1.13	500	29.95	
	☆ Turbidity not stable, Remove 3 well volumes, sample.									

(continued on back)

Sample Collector(s): [signature] Date: 2-18-15

SAMPLE COLLECTION DATA

Well ID: **GMZ-03**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-GMZ03-021815	VOC's	3 - 40mL Clear Vials	1545	500	
HSSER-Dup01- 021815	VOC's	3 - 40mL Clear Vials	0000	500	
	Ferrous Iron	1.72 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	GMZ-04

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2/18/2015 Time: Start 1330 (24hr)
Project No: 60339110-4212 Finish 1500
Site Location: Rockford, Illinois
Weather: MOSTLY CLOUDY - 5° Collector(s): N. PINS

1. **WELL and WATER LEVEL DATA: (measured from Top of Casing)**

Total well length (ft): 45.30 Screen interval(ft): 15 Approx. depth of pump intake(ft): 38
Water table depth (ft): 29.18 Casing type/diameter: 2" PVC Minimum purge volume: 7.9 (gals)
Water column length (ft): 16.12 (calculations on reverse)

2. **WELL PURGE DATA**

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11M64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 1345			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1350	-	10.37	7.60	2080	33.6	8.92	62.9	500	29.20	CLOUDY
1355	2500	11.05	7.82	2132	35.2	8.73	58.7	500	29.20	
1400	5000	11.23	7.85	2154	39.3	8.80	51.4	500	29.20	
1405	7500	10.98	7.90	2121	40.5	8.82	42.4	500	29.20	
1410	10000	9.82	7.91	2078	46.5	9.04	34.9	500	29.20	
1415	12500	9.56	7.96	2050	48.2	8.99	23.9	500	29.20	CLEAR
1420	15000	9.38	7.85	2072	53.1	9.00	17.4	500	29.20	
1425	17500	9.23	7.89	2011	55.1	8.76	12.8	500	29.20	
1430	20000	10.35	7.82	1961	55.6	9.29	10.45	500	29.20	
1435	22500	11.21	7.92	1957	54.9	9.05	8.05	500	29.20	
1440	25000	13.89	7.95	1925	53.4	9.30	7.30	500	29.20	
1445	27500	13.94	8.02	1935	52.9	9.53	5.45	500	29.20	
1450	30000	13.86	8.03	1932	51.1	9.45	4.12	500	29.20	
				* 3 VOLUMES REMOVED						
						NOT STABLE: TURBIDITY				

(continued on back)

Sample Collector(s): N. PINS Date: 2/18/2015

SAMPLE COLLECTION DATA

Well ID: **GMZ-04**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-GMZ04- 021815	VOC's	3 - 40mL Clear Vials	1450	500	
	Ferrous Iron	0.81 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	MW07FGA

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2/17/2015 Time: Start 1435 (24hr)
Project No: 60339110-4212 Finish 1535
Site Location: Rockford, Illinois
Weather: MOSTLY CLOUDY - 15 Collector(s): N. PINS

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 46.79 Screen interval(ft): 15 Approx. depth of pump intake(ft): 39
Water table depth (ft): 29.17 Casing type/diameter: 4" SS Minimum purge volume: 34.5 (gals)
Water column length (ft): 17.62 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11m64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 1445			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1450	–	5.39	7.06	1622	122.8	6.41	41.0	400	29.18	CLOUDY
1455	2000	5.30	7.00	1619	121.5	6.11	50.4	400	29.18	↓
1500	4000	5.22	6.97	1608	122.7	6.09	56.1	400	29.18	↓
1505	6000	5.12	6.95	1605	120.4	6.05	52.2	400	29.18	↓
1510	8000	5.27	6.95	1600	118.4	5.92	49.9	400	29.18	↓
1515	10000	5.22	6.95	1603	116.7	5.98	47.1	400	29.18	✓

(continued on back)

Sample Collector(s): N. PINS Date: 2/17/2015

SAMPLE COLLECTION DATA

Well ID: **MW-07FGA**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-MW07FGA-021715	VOC's	3 - 40mL Clear Vials	1515	400	
	Ferrous Iron	9.15 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	MW-203

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date:	2/18/2015	Time: Start	0800 (24hr)
Project No:	60339110-4212			Finish	0920
Site Location:	Rockford, Illinois				
Weather:	MOSTLY CLOUDY - 5°	Collector(s):	N. PINS		

1. **WELL and WATER LEVEL DATA: (measured from Top of Casing)**

Total well length (ft): 49.50 Screen interval(ft): 15 Approx. depth of pump intake(ft): 40
Water table depth (ft): 29.96 Casing type/diameter: 2" SS Minimum purge volume: 9.5 (gals)
Water column length (ft): 19.54 (calculations on reverse)

2. **WELL PURGE DATA**

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11M64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 0825			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0830	–	7.43	6.41	967	217.2	2.62	8.76	500	29.98	CLEAR
0835	2500	8.05	6.50	983	212.0	0.82	6.21	500	29.98	
0840	5000	7.93	6.73	1041	196.0	0.51	4.05	500	29.98	
0845	7500	7.91	6.74	1062	192.4	0.48	3.35	500	29.98	
0850	10000	8.02	6.75	1160	178.8	0.29	3.15	500	29.98	
0855	12500	7.95	6.76	1205	133.9	0.24	3.05	500	29.98	
0900	15000	8.06	6.76	1216	129.4	0.22	2.95	500	29.98	
0905	17500	8.13	6.77	1229	126.8	0.22	2.75	500	29.98	

(continued on back)

Sample Collector(s): N. PINS Date: 2/18/2015

SAMPLE COLLECTION DATA

Well ID: **MW-203**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-MW203-021815	VOC's	3 - 40mL Clear Vials	0905	500	
	Ferrous Iron	1.76 mg/L			

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

AECOM

Well ID:	PMW-01

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date:	2/18/2015	Time: Start	1105 (24hr)
Project No:	60339110-4212			Finish	1220
Site Location:	Rockford, Illinois				
Weather:	PARTLY CLOUDY -7°	Collector(s):	N. PINS		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 39.50 Screen interval(ft): 25 Approx. depth of pump intake(ft): 37

Water table depth (ft): 32.00 Casing type/diameter: 2" PVC Minimum purge volume: 3.7 (gals)

Water column length (ft): 7.50 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11M64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 1125			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1130	-	10.00	7.06	1580	36.1	2.94	92.6	500	32.02	CLOUDY
1135	2500	11.34	7.06	1442	33.6	3.76	52.0	500	32.02	↓
1140	5000	11.44	7.08	1370	36.4	3.74	125	500	32.02	↓
1145	7500	12.08	7.07	1351	39.2	4.14	75.6	500	32.02	↓
1150	10000	12.50	7.09	1400	41.0	4.35	52.7	500	32.02	↓
1155	12500	11.41	7.07	1388	43.8	4.37	48.7	500	32.02	↓
1200	15000	11.89	7.06	1359	46.6	4.35	43.3	500	32.02	↓
				* 3 VOLUMES REMOVED						
						NOT STABLE: ORP & TURBIDITY				

(continued on back)

Sample Collector(s): N. PINS Date: 2/18/2015

SAMPLE COLLECTION DATA

Well ID: **PMW-01**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-PMW01- 021815	VOC's	3 - 40mL Clear Vials	1200	500	
	Ferrous Iron	6.63 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	PMW-02

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 2/18/2015
Time: Start 0925 (24hr) Finish 1100
Project No: 60339110-4212
Site Location: Rockford, Illinois
Weather: Cloudy - 7°
Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 40.00
Screen interval(ft): 25
Approx. depth of pump intake(ft): 37
Water table depth (ft): 28.54
Casing type/diameter: 2" PVC
Minimum purge volume: 5.6 (gals)
Water column length (ft): 11.46
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11M64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 0945			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0950	-	8.72	6.30	1699	140.2	2.74	41.9	400	28.57	CLOUDY
0955	2000	6.30	6.73	1790	87.5	1.27	28.4	400	28.57	↓
1000	4000	6.93	6.64	1713	83.3	1.34	17.6	400	28.57	CLEAR
1005	6000	8.22	6.67	1758	80.3	1.36	12.4	400	28.57	
1010	8000	7.45	6.65	1798	80.0	1.29	9.16	400	28.57	
1015	10000	10.32	6.65	1782	79.2	1.04	6.42	400	28.57	
1020	12000	10.84	6.68	1786	73.4	0.83	4.17	400	28.57	
1025	14000	10.40	6.69	1808	73.1	0.79	3.35	400	28.57	
1030	16000	9.84	6.67	1818	76.5	0.79	2.45	400	28.57	
1035	18000	10.26	6.65	1804	77.7	0.78	1.66	400	28.57	
1040	20000	8.42	6.67	1813	75.7	0.85	1.32	400	28.57	
1045	22000	8.26	6.68	1814	77.2	0.80	1.14	400	28.57	↓
				* 3 VOLUMES REMOVED						
						NOT STABLE: TEMPERATURE & TURBIDITY				

(continued on back)

Sample Collector(s): N. Pins
Date: 2/18/2015

SAMPLE COLLECTION DATA

Well ID: **PMW-02**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-PMW02- 021815	VOC's	3 - 40mL Clear Vials	1045	400	
HSSER-EBLK01- 021817	VOC's	3 - 40mL Clear Vials	0925	—	
	Ferrous Iron	0.27 mg/L			

VOCs - Volalile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	SMW-01

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2/17/2015 Time: Start 1205 (24hr)
Project No: 60339110-4212 Finish 1310
Site Location: Rockford, Illinois
Weather: MOSTLY CLOUDY - 15 Collector(s): N. PINS

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 39.50 Screen interval(ft): 15 Approx. depth of pump intake(ft): 32
Water table depth (ft): 32.00 Casing type/diameter: 2" PVC Minimum purge volume: 37 (gals)
Water column length (ft): 7.50 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11M64
	Lamotte	2020	2485 - 3312
	Lamotte	Smart 2 Colorimeter	0429 - 2402
Begin purge at 1220			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1225	-	6.75	7.53	1307	79.0	7.42	125	400	32.09	CLOUDY
1230	2000	7.78	7.23	1273	89.9	7.38	74.1	400	32.10	↓
1235	4000	8.35	7.17	1239	97.3	7.34	63.9	400	32.10	↓
1240	6000	8.39	7.14	1238	102.3	7.37	27.4	400	32.10	↓
1245	8000	8.77	7.13	1249	105.2	7.23	14.2	400	32.10	CLEAR
1250	10000	9.87	7.11	1267	108.6	7.28	17.2	400	32.10	↓
1255	12000	9.75	7.10	1270	110.4	7.26	12.8	400	32.10	↓
1300	14000	9.56	7.10	1285	112.2	7.25	6.71	400	32.10	↓

* 3 VOLUMES REMOVED
NOT STABLE: TURBIDITY

(continued on back)

Sample Collector(s): N. PINS Date: 2/17/2015

SAMPLE COLLECTION DATA

Well ID: **SMW-01**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW01- 021715	VOC's	3 - 40mL Clear Vials	1300	400	
	Ferrous Iron	1.90 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	SMW-02

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date:	2/17/2015	Time: Start	1315 (24hr)
Project No:	60339110-4212			Finish	1430
Site Location:	Rockford, Illinois				
Weather:	Mostly Cloudy - 15	Collector(s):	N. Pins		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 40.00 Screen interval(ft): 15 Approx. depth of pump intake(ft): 32

Water table depth (ft): 28.54 Casing type/diameter: 2" PVC Minimum purge volume: 5.6 (gals)

Water column length (ft): 11.46 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	111764
	Lamotte	2020	2485 - 3312
	Lamotte	Smart 2 Colorimeter	0429 · 2402
Begin purge at 1320			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1325	-	7.51	6.96	1485	116.5	2.86	60.1	400	28.60	CLOUDY
1330	2000	8.34	6.91	1566	104.3	2.65	84.7	400	28.60	↓
1335	4000	8.72	6.89	1597	103.8	2.77	79.2	400	28.60	↓
1340	6000	8.85	6.90	1610	104.6	3.16	47.2	400	28.60	↓
1345	8000	9.28	6.90	1613	103.9	3.61	29.5	400	28.60	CLEAR
1350	10000	8.61	6.91	1619	100.9	3.64	24.0	400	28.60	↓
1355	12000	8.63	6.90	1610	100.1	3.65	16.1	400	28.60	↓
1400	14000	8.55	6.89	1611	99.5	3.74	13.7	400	28.60	↓
1405	16000	9.18	6.89	1610	98.8	3.81	11.4	400	28.60	↓
1410	18000	9.22	6.89	1619	99.4	3.87	8.88	400	28.60	↓
1415	20000	8.61	6.89	1624	99.5	3.97	6.72	400	28.60	↓
1420	22000	8.48	6.88	1620	100.1	3.93	6.12	400	28.60	↓
				* 3 VOLUMES REMOVED						
						NOT STABLE: TURBIDITY				

(continued on back)

Sample Collector(s): N. Pins Date: 2/17/2015

SAMPLE COLLECTION DATA

Well ID: **SMW-02**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW02- 021715	VOC's	3 - 40mL Clear Vials	1420	400	
	Ferrous Iron	3.34 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	SMW-04

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2/19/2015 Time: Start 0805 (24hr)
Project No: 60339110-4212 Finish 0910
Site Location: Rockford, Illinois
Weather: CLEAR - -8° Collector(s): N. PINS / A. HOLLATZ

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 42.50 Screen interval(ft): 15 Approx. depth of pump intake(ft): 35
Water table depth (ft): 31.15 Casing type/diameter: 2" PVC Minimum purge volume: 5.6 (gals)
Water column length (ft): 11.35 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09F66
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 0815			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0825	5000	6.14	6.97	1917	225.2	1.67	8.25	500	31.16	CLEAR
0830	7500	5.71	6.98	1923	182.7	1.99	4.66	500	31.16	
0835	10000	5.82	6.96	1907	134.2	1.59	2.62	500	31.16	
0840	12500	6.31	6.96	1898	96.7	0.95	1.80	500	31.16	
0845	15000	6.20	6.97	1899	97.2	0.78	1.45	500	31.16	
0850	17500	6.18	6.98	1909	95.3	0.76	1.14	500	31.16	
0855	20000	5.95	6.97	1905	95.7	0.70	0.96	500	31.16	
0900	22500	7.07	6.97	1887	91.4	0.64	0.83	500	31.16	
				3 VOLUMES REMOVED						
						NOT STABLE: TEMPERATURE, DO & TURBIDITY				

(continued on back)

Sample Collector(s): N. PINS / A. HOLLATZ Date: 2/19/2015

SAMPLE COLLECTION DATA

Well ID: **SMW-04**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW04-021915	VOC's	3 - 40mL Clear Vials	0900	500	
	Ferrous Iron	0.15 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	SMW-08

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2/17/2015 Time: Start 0845 (24hr)
Project No: 60339110-4212 Finish 1010
Site Location: Rockford, Illinois
Weather: PARTLY CLOUDY - 15° Collector(s): N. PINS

1. **WELL and WATER LEVEL DATA: (measured from Top of Casing)**

Total well length (ft): 41.85 Screen interval(ft): 15 Approx. depth of pump intake(ft): 34
Water table depth (ft): 31.34 Casing type/diameter: 2" PVC Minimum purge volume: 5.1 (gals)
Water column length (ft): 10.51 (calculations on reverse)

2. **WELL PURGE DATA**

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11M64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 0900			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0905	-	10.38	6.80	228.2	23.2	2.12	2565	400	31.93	ORANGE
0910	2000	10.32	6.75	2250	22.8	0.75	1948	400	31.93	↓
0915	4000	8.47	6.73	2281	28.9	0.83	1230	400	31.93	↓
0920	6000	8.13	6.73	2278	35.4	0.89	725	400	31.93	↓
0925	8000	7.86	6.73	2273	42.4	0.95	320	400	31.93	↓
0930	10000	7.78	6.74	2275	65.8	0.77	180	400	31.93	CLOUDY
0935	12000	8.05	6.75	2277	69.1	0.73	110	400	31.93	↓
0940	14000	8.72	6.75	2267	72.1	0.76	50.1	400	31.93	↓
0945	16000	8.54	6.75	2274	73.7	0.75	40.8	400	31.93	↓
0950	18000	8.81	6.75	2260	79.4	0.73	27.1	400	31.93	↓
0955	20000	8.80	6.74	2267	81.4	0.75	18.2	400	31.93	↓
				* 3 VOLUMES REMOVED						
					NOT STABLE: ORP & TURBIDITY					

(continued on back)

Sample Collector(s): N. PINS Date: 2/17/2015

SAMPLE COLLECTION DATA

Well ID: **SMW-08**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW08- 021715	VOC's	3 - 40mL Clear Vials	0955	400	
HSSER-FBLK01- 021715	VOC's	3 - 40mL Clear Vials	0945	–	
	Ferrous Iron	5.74 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	SMW-19

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2/19/2015 Time: Start 0956 (24hr)
Project No: 60339110-4212 Finish 1105
Site Location: Rockford, Illinois
Weather: CLEAR ~8° Collector(s): N. Pins / A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.16 Screen interval(ft): 15 Approx. depth of pump intake(ft): 35
Water table depth (ft): 30.12 Casing type/diameter: 2" SS Minimum purge volume: 5.4 (gals)
Water column length (ft): 11.04 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09766
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1005			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1015	5000	8.26	7.06	1541	130.5	4.62	24.4	500	30.14	CLEAR
1020	7500	8.48	7.06	1528	135.0	4.62	14.4	500	30.14	↑
1025	10000	7.85	7.07	1528	139.9	4.67	8.57	500	30.14	
1030	12500	8.22	7.06	1513	144.0	4.72	5.24	500	30.14	
1035	15000	8.41	7.06	1498	145.7	4.69	3.51	500	30.14	
1040	17500	8.87	7.06	1492	145.1	4.61	2.39	500	30.14	
1045	20000	8.59	7.06	1479	143.7	4.63	1.87	500	30.14	
1050	22500	8.81	7.07	1467	140.7	4.59	1.66	500	30.14	↓
				≥ 3	VOLUMES	REMOVED				
						NOT	STABLE:	TURBIDITY		

(continued on back)

Sample Collector(s): N. Pins / A. Hollatz Date: 2/19/2015

SAMPLE COLLECTION DATA

Well ID: **SMW-19**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW19- 021915	VOC's	3 - 40mL Clear Vials	1050	500	
	Ferrous Iron	0.27 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	SMW-20

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date:	2-18-15	Time: Start	1335 (24hr)
Project No:	60339110-4212			Finish	1435
Site Location:	Rockford, Illinois				
Weather:	Cloudy 0-5°F	Collector(s):	N. Hollatz		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 40.15 Screen interval(ft): 15 Approx. depth of pump intake(ft): 33

Water table depth (ft): 30.26 Casing type/diameter: 2" PVC Minimum purge volume: 4.9 (gals)

Water column length (ft): 9.89 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09F66
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510

Begin purge at 1345

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1355	5000	9.91	8.08	790	111.9	10.13	14.4	500	30.26	Clear/none
1400	7500	9.98	8.10	800	123.3	9.88	10.62	500	30.26	
1405	10,000	10.45	8.09	804	128.9	9.68	6.26	500	30.26	
1410	12,500	10.40	8.10	808	134.0	9.23	3.26	500	30.26	
1415	15,000	11.39	8.10	811	137.3	9.14	3.14	500	30.26	
1420	17,500	11.46	8.09	811	142.6	8.95	3.06	500	30.26	
1425	20,000	11.49	8.09	822	144.4	9.02	2.12	500	30.26	

* Turbidity not stable, removed 3 well volumes, sampled.

(continued on back)

Sample Collector(s): [signature] Date: 2-18-15

SAMPLE COLLECTION DATA

Well ID: **SMW-20**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW20-021815	VOC's	3 - 40mL Clear Vials	1925	500	
	Ferrous Iron	1.07 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	SMW-21

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Date: 2/18/2015
Time: Start 1505 (24hr) Finish 1615
Project No: 60339110-4212
Site Location: Rockford, Illinois
Weather: Partly Cloudy - 5°
Collector(s): N. Pins

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.40
Screen interval(ft): 15
Approx. depth of pump intake(ft): 34
Water table depth (ft): 29.71
Casing type/diameter: 2" PVC
Minimum purge volume: 5.7 (gals)
Water column length (ft): 11.69
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11m64
	Lamotte	2020	2485-3312
	Lamotte	Smart 2 Colorimeter	0429-2402
Begin purge at 1510			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1515	-	10.41	8.02	1137	60.4	9.31	68.2	500	29.75	CLOUDY
1520	2500	9.59	8.08	1120	61.3	8.99	47.2	500	29.75	↓
1525	5000	9.85	8.08	1106	61.7	8.99	30.8	500	29.75	↓
1530	7500	10.15	8.02	1116	62.7	9.18	24.9	500	29.75	↓
1535	10000	9.49	8.11	1130	63.6	9.34	17.8	500	29.75	CLEAR
1540	12500	9.54	8.10	1126	63.9	9.30	10.89	500	29.75	↓
1545	15000	10.22	8.04	1122	65.9	9.14	8.02	500	29.75	↓
1550	17500	10.47	8.09	1120	66.1	9.08	4.29	500	29.75	↓
1555	20000	9.98	8.10	1128	66.0	9.28	3.92	500	29.75	↓
1600	22500	10.42	8.03	1114	67.5	9.12	3.18	500	29.75	↓
				*3 VOLUMES REMOVED						
						NOT STABLE: TURBIDITY				

(continued on back)

Sample Collector(s): N. Pins
Date: 2/18/2015

SAMPLE COLLECTION DATA

Well ID: **SMW-21**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-SMW21-021815	VOC's	3 - 40mL Clear Vials	1600	500	
	Ferrous Iron	0.62 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

CHAIN OF C__ODY

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ACCUTEST LABORATORIES

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

FED-EX Tracking # 6250 6351 0110
Bottle Order Control #
Accutest Quote #
Accutest Job #

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 DEHI RD # 100
City / State / Zip: WOODSTOCK IL 60555
Project Contact / E-mail: Peter Hollatz / peter.hollatz@aecom.com
Phone # / Fax #: 630-839-5386 / 630-836-1711
Sampler(s) Name(s) / Phone #: N. Pins / N. Hoy ATT
Project Manager: PETER HOLLATZ

Project Information

Project Name: UTC - ROCKFORD - PLANT 1
Street:
City / State: ROCKFORD IL
Project #: 60339-11.10
Client Purchase Order #:

Billing Information (if different from Report to)

Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

VOCs *

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE		VOCs *	LAB USE ONLY
	HSSEN-GMW01-021715		2/17/15	1135	NP	GW	3	3									X	
	HSSEN-GMW02-021915		2/19/15	0945	AH	GW	3	3									X	
	HSSEN-GMW03-021815		2/18/15	1545	AH	GW	3	3									X	
	HSSEN-GMW04-021815		2/18/15	1450	NP	GW	3	3									X	
	HSSEN-DTEMA-021715		2/17/15	1515	NP	GW	3	3									X	
	HSSEN-MW03-021815		2/18/15	0905	NP	GW	3	3									X	
	HSSEN-PMW01-021815		2/18/15	1700	NP	GW	3	3									X	
	HSSEN-PMW02-021815		2/18/15	1045	NP	GW	3	3									X	
	HSSEN-SMW01-021715		2/17/15	1300	NP	GW	3	3									X	
	HSSEN-SMW02-021715		2/17/15	1420	NP	GW	3	3									X	
	HSSEN-SMW04-021915		2/19/15	0905	NP	GW	3	3									X	
	HSSEN-SMW08-021715		2/17/15	0955	NP	GW	3	3									X	

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

* LIST OF 13 VOCs
LEVEL III DATA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 N. Pins (AECOM)	2/19/15 1700	1	2		2
3		3	4		4
5		5			

Custody Seal # ( ) [ ] Intact [ ] Not intact
Preserved where applicable [ ]
On Ice [ ]
Cooler Temp.

021715

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

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

FED-EX Tracking # 6250 7351 0710
Bottle Order Control #
Accutest Quote #
Accutest Job #

Client / Reporting Information

Company Name: AECOM
Street Address: 77055 DERN RD # 100
City / State / Zip: WARRENVILLE IL 60555
Project Contact / E-mail: PETER.HOLLATZ | peter.hollatz@aecom.com
Phone # / Fax #: 630 839 5386 | 630 936 7711
Sampler(s) Name(s) / Phone #: AL PINIS | A. HOLLATZ
Project Manager: PETER HOLLATZ

Project Information

Project Name: UTC ROCKFORD - PLANT 1
Street:
City / State: ROCKFORD IL
Project #: 60339110
Client Purchase Order #:
Attention:

Billing Information (if different from Report to)

Company Name:
Street Address:
City / State / Zip:

Requested Analysis (see TEST CODE sheet)

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCL	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	* VOC										LAB USE ONLY
	HSSE2-SMW19-021915		2/19/15	1050	NP	GW	3	3								X										
	HSSE2-SMW20-021815		2/18/15	1425	AH	GW	3	3								X										
	HSSE2-SMW21-021815		2/18/15	1600	NP	GW	3	3								X										
	HSSE2-MW01-021915		2/19/15	0945	AH	GW	3	3								X										
	HSSE2-MW0D1-021915		2/19/15	0945	AH	GW	3	3								X										
	HSSE2-TRIP01-021815		2/18/15	0000	AH	GW	3	3								X										
	HSSE2-EBLK01-021715		2/17/15	1245	NP	GW	3	3								X										
	HSSE2-EBLK01-021815		2/18/15	0925	NP	GW	3	3								X										
	HSSE2-TRIP02-021915		2/19/15	—	—	GW	2	2								X										

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

* LIST OF 13 VOCs
LEVEL IV DATA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 X/ T (AECOM)	2/19/15 1700	1	2		2
Relinquished By: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished By: 5	Date Time:	Received By: 5	Custody Seal # [ ] Intact [ ] Not intact	Preserved where applicable: [ ]	On Ice [ ] Temp.

Project Name: US Plant 1/2 Facility

Project Number: 60339110 - 4212

Date: 7/17/15

Calibration Form

Parameter	Instrument Manf/Model	Instrument Serial No.	Standard Manf/Model	Standard SN/Exp. Date	Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
pH 4.00	YSI 556 MPS	11F53	NL Labs	~~B4713~~ B4140821 8-21-16	4.00 @ 25C	17.45	3.98	4.00	A.H. 0745	
								—		Post Cal
pH 7.00				B47130903 9-3-15	7.00 @ 25C	17.18	7.12	7.00	A.H. 0743	
								—		Post Cal
pH 10.00			↓	B5014081 8-11-16	10.00 @ 25C	17.70	10.20	10.03	A.H. 0747	
						~~17.46~~	~~10.25~~	~~10.05~~		Post Cal
Specific Cond.			YSI	14510076 3-16	1,000 uS/cm @ 25C	~~18.28~~	~~90.2~~	~~96.2~~	~~A.H.~~ A.H. 0740	
								—		Post Cal
ORP			↓	14D100406 4-16	244 mV @ 15 C	17.52	241.9	244.0	A.H. 0751	
								—		Post Cal
DO			H2O Saturated Air	—	100% H20 Sat. Air	18.28	90.2	96.2	A.H. 0738	BP =
								—		Post Cal, BP =
Turbidity	LaMotte 2020	2537 3512	—	—	0 NTU	NA	0.01	0.00	A.H. 0757	
						NA		—		Post Cal
					10 NTU	NA	10.05	10.01	A.H. 0753	
						NA		—		Post Cal

BP = Barometric Pressure (mmHg)

Project Name: UTC PLANT 1

Project Number: # 60339110

Date: 2/17/2015

Calibration Form

Parameter	Instrument Manf/Model	Instrument Serial No.	Standard Manf/Model	Standard SN/Exp. Date	Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
pH 4.00	YSI 556 MPS	11M64	B44140821	8/2016	4.00 @ 25C	20.26	4.00	4.00	MP	
								—		Post Cal
pH 7.00			B47130903	9/2015	7.00 @ 25C	19.97	7.16	7.00	MP	
								—		Post Cal
pH 10.00			B50140811	8/2016	10.00 @ 25C	20.03	10.00	10.00	MP	
								—		Post Cal
Specific Cond.			14J100308	3/2016	1412 ~~1,000~~ uS/cm @ 25C	20.10	1400	1412	MP	
								—		Post Cal
ORP			14J100415	9/2016	200 mV @ 20 C	20.12	211.4	200.0	MP	
								—		Post Cal
DO			H2O Saturated Air	—	100% H20 Sat. Air	19.66	95.9	98.0	MP	BP =
								—		Post Cal, BP =
Turbidity	LAMOTTE 2020 WE	2485-3312	—	—	0 NTU	NA	0.07	0.00	MP	
						NA		—		Post Cal
					10 NTU	NA	9.96	10.00	MP	
						NA		—		Post Cal

BP = Barometric Pressure (mmHg)

Project Name: UTAS Plant 1/2 Facility

Project Number: 60339140

Date: 2-18-15

Calibration Form

Parameter	Instrument Manf/Model	Instrument Serial No.	Standard Manf/Model	Standard SN/Exp. Date	Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
pH 4.00	YSI 556 MPS	09F66	NC Labs	B4114 0821 6-21-16	4.00 @ 25C	19.08	4.07	4.00	A.H 0746	
							—	—		Post Cal
pH 7.00			↓	B4713 0903 4-3-15	7.00 @ 25C	19.15	6.50	7.00	A.H 0744	
								—		Post Cal
pH 10.00			↓	B5 014 0811 8-11-16	10.00 @ 25C	19.32	10.08	10.01	A.H 0747	
								—		Post Cal
Specific Cond.			YSI	14D100 306 3-16	1413 ~~1,000~~ uS/cm @ 25C A.H.	18.75	1272	1413	A.H. 0742	
								—		Post Cal
ORP			↓	14D100 406 4-16	244 mV @ 15 C	19.36	216.1	244.0	A.H. 0749	
								—		Post Cal
DO			H2O Saturated Air	—	100% H20 Sat. Air	14.96	111.0	96.2	A.H 0737	BP =
								—		Post Cal, BP =
Turbidity	LaMotte 2020	2537	—	—	0 NTU	NA	0.00	0.00	A.H 0750	
						NA		—		Post Cal
		3512			10 NTU	NA	9.83	10.01	A.H 0750	
						NA		—		Post Cal

BP = Barometric Pressure (mmHg)

Project Name: UTC PLANT 1

Project Number: 60339110

Date: 2/18/2015

Calibration Form

Parameter	Instrument Manf/Model	Instrument Serial No.	Standard Manf/Model	Standard SN/Exp. Date	Standard Value @ __C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
pH 4.00	YSI 556 MPS	11M64	B44140821	8/2016	4.00 @ 25C	15.58	4.06	4.00	AD	
								—		Post Cal
pH 7.00			B47130903	9/2015	7.00 @ 25C	15.46	7.01	7.00	AD	
								—		Post Cal
pH 10.00			B50140811	8/2016	10.00 @ 25C	16.43	10.07	10.01	AD	
								—		Post Cal
Specific Cond.			14J160308	3/2016	1413 ~~1,000~~ uS/cm @ 25C	15.64	1369	1413	AD	
								—		Post Cal
ORP			14J100415	9/2016	____mV @ ____C	16.05	208.7	200.0	AD	
								—		Post Cal
DO			H2O Saturated Air	—	100% H20 Sat. Air	13.05	109.5	99.1	AD	BP =
								—		Post Cal, BP =
Turbidity	LAMOTTE 2020 we	2485-3312	—	—	0 NTU	NA	0.04	0.00	AD	
						NA		—		Post Cal
					10 NTU	NA	10.07	10.00	AD	
						NA		—		Post Cal

BP = Barometric Pressure (mmHg)

Project Name: UTC PLANT 1

Project Number: 60339110

Date: 2/19/2015

Calibration Form

Parameter	Instrument Manf/Model	Instrument Serial No.	Standard Manf/Model	Standard SN/Exp. Date	Standard Value @ __C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
pH 4.00	YSI 556 MPS	09F66	B44140821	8/2016	4.00 @ 25C	17.46	4.04	4.00	AH. 747	
								—		Post Cal
pH 7.00			B47130903	9/2015	7.00 @ 25C	17.18	7.00	7.00	AH 744	
								—		Post Cal
pH 10.00			B50140811	8/2016	10.00 @ 25C	17.59	10.10	10.01	AH. 749	
								—		Post Cal
Specific Cond.			14J100308	3/2016	~~1,000~~ 1413 uS/cm @ 25C	16.62	1268	1413	AH. 741	
								—		Post Cal
ORP			14D100406	4/2016	____mV @ ____C	17.31	243.9	244.0	A.H 751	
								—		Post Cal
DO			H2O Saturated Air		100% H20 Sat. Air	13.21	105.0	96.1	A.H. 739	BP =
								—		Post Cal, BP =
Turbidity	LAMOTTE 2020 we	2537-3512	—	—	0 NTU	NA	0.04	0.00	AH. 735	
						NA		—		Post Cal
					10 NTU	NA	10.06	10.00	A.H. 736	
						NA		—		Post Cal

BP = Barometric Pressure (mmHg)

AECOM

Well ID:	RAMW-01

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date:	2-17-15	Time: Start	0840 (24hr)
Project No:	60339110-4212			Finish	1000
Site Location:	Rockford, Illinois				
Weather:	Clear 16-20°F	Collector(s):	J. Halatz		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 46.00 Screen interval(ft): 15 Approx. depth of pump intake(ft): 38

Water table depth (ft): 31.54 Casing type/diameter: 2" PVC Minimum purge volume: 7.6 (gals)

Water column length (ft): 14.46 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11F53
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7796-3510
Begin purge at 0845			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0855	5000	12.94	7.38	1137	235.6	7.00	9.90	500	31.54	clear/none
0900	7500	11.47	7.64	1038	342.2	6.79	8.62	500	31.54	
0905	10,000	13.53	7.49	1037	317.7	4.99	6.81	500	31.54	
0910	12,500	13.24	7.01	1040	201.6	4.59	4.06	500	31.54	
0915	15,000	12.85	7.00	1041	189.5	4.13	3.01	500	31.54	
0920	17,500	13.07	7.01	1042	177.6	3.99	2.01	500	31.54	
0925	20,000	13.29	7.01	1042	168.2	3.83	1.29	500	31.54	
0930	22,500	12.53	7.03	1053	164.8	3.76	1.25	500	31.54	
0935	25,000	12.53	7.02	1055	162.2	3.47	0.96	500	31.54	
0940	27,500	12.94	7.01	1060	161.5	3.44	0.84	500	31.54	
	* Turbidity not stable, removed three well volumes, sampled									

(continued on back)

Sample Collector(s): J. Halatz Date: 2-17-15

SAMPLE COLLECTION DATA Well ID: **RAMW-01**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW01-021715	VOC's	3 - 40mL Clear Vials	0940	500	
HSSER-FBLK02-021715	VOC's	3 - 40mL Clear Vials	0835	—	
	Ferrous Iron	mg/L	0.18		

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	RAMW-02

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date: 2-17-15	Time:	Start	1010 (24hr)
Project No:	60339110-4212			Finish	1130
Site Location:	Rockford, Illinois				
Weather:	Clear 10-15°F	Collector(s):	A. Hollatz		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.84 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37

Water table depth (ft): 31.40 Casing type/diameter: 2" PVC Minimum purge volume: 6.60 (gals)

Water column length (ft): 13.44 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11F53
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1020			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1030	5000	10.54	7.12	1340	156.0	2.60	13.5	500	31.42	clear/none
1035	7500	11.33	7.11	1290	145.6	3.23	12.2	500	31.42	
1040	10000	12.73	7.11	1245	132.9	3.26	8.67	500	31.42	
1045	12500	12.48	7.11	1244	106.7	3.31	5.48	500	31.42	
1050	15000	12.80	7.10	1235	17.6	3.20	3.50	500	31.42	
1055	17500	12.72	7.10	1236	-4.5	3.17	2.36	500	31.42	
1100	20000	12.40	7.09	1237	-9.4	3.19	1.72	500	31.42	
1105	22,500	13.02	7.09	1232	-14.8	3.10	1.39	500	31.42	
1110	25,000	13.01	7.08	1228	-14.9	3.03	1.23	500	31.42	
	* Turbidity / ORP not stable, removed three well volumes Sample.									

(continued on back)

Sample Collector(s): [signature] Date: 2-17-15

SAMPLE COLLECTION DATA Well ID: **RAMW-02**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW02-021715	VOC's	3 - 40mL Clear Vials	1110	500	
HSSER-MS02-021715	VOC's	3 - 40mL Clear Vials	1110	500	
HESSER-MSD02-021715	VOC's	3 - 40mL Clear Vials	1110	500	
	Ferrous Iron	mg/L	0.86		

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	RAMW-03

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility	Date: 2-17-15	Time:	Start	1140	(24hr)
Project No: 60339110-4212			Finish	1305	
Site Location: Rockford, Illinois					
Weather: Partly Cloudy 10-15°F	Collector(s): A. Hollatz				

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 45.30 Screen interval(ft): 15 Approx. depth of pump intake(ft): 38

Water table depth (ft): 31.18 Casing type/diameter: 2" PVC Minimum purge volume: 6.90 (gals)

Water column length (ft): 14.12 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11F53
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1150			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1200	5000	12.95	7.24	774	104.6	5.55	10.72	500	31.20	clear/none
1205	7500	13.08	7.20	776	107.4	5.24	8.21	500	31.20	
1210	10000	13.04	7.18	783	109.9	5.21	5.86	500	31.20	
1215	12500	12.43	7.18	796	110.8	5.33	4.16	500	31.20	
1220	15000	12.32	7.17	807	113.0	5.17	3.35	500	31.20	
1225	17,500	12.90	7.17	807	114.1	5.24	2.51	500	31.20	
1230	20,000	12.83	7.19	814	114.1	5.31	1.89	500	31.20	
1235	22,500	12.41	7.18	817	105.3	5.30	1.56	500	31.20	
1240	25,000	12.55	7.17	818	108.7	5.17	1.19	500	31.20	
1245	27,500	12.88	7.17	816	110.2	5.12	1.11	500	31.20	
	* Turbidity not stable, three well volumes removed, sampled.									

(continued on back)

Sample Collector(s): [signature] Date: 2-17-15

SAMPLE COLLECTION DATA Well ID: **RAMW-03**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW03-021715	VOC's	3 - 40mL Clear Vials	1245	500	
HSSER-Dup02- 021715	VOC's	3 - 40mL Clear Vials	0000	500	
	Ferrous Iron	0.22 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	RAMW-04

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date: 2-17-15	Time:	Start	1315 (24hr)
Project No:	60339110-4212			Finish	1440
Site Location:	Rockford, Illinois				
Weather:	Partly Sunny 10-15°F	Collector(s):	A. Hollatz		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 45.00 Screen interval(ft): 15 Approx. depth of pump intake(ft): ~~41~~ A.# 38

Water table depth (ft): 31.04 Casing type/diameter: 2" PVC Minimum purge volume: 6.90 (gals)

Water column length (ft): 13.96 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11F53
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	2798-3510
Begin purge at 1330			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1340	5000	10.58	7.51	889	110.9	13.31	1.29	500	31.04	clear/none
1345	7500	10.20	7.51	896	111.9	12.71	0.79	500	31.04	
1350	10,000	10.90	7.51	895	113.2	12.19	0.84	500	31.04	
1355	12,500	10.48	7.50	898	113.8	12.21	0.61	500	31.04	
1400	15,000	10.43	7.49	898	117.1	12.10	0.66	500	31.04	
1405	17,500	10.36	7.48	898	119.6	11.75	0.78	500	31.04	
1410	20,000	10.82	7.48	901	120.1	11.56	0.55	500	31.04	
1415	22500	10.71	7.48	901	121.2	11.33	0.46	500	31.04	
1420	25,000	10.58	7.48	905	121.7	11.57	0.46	500	31.04	
1425	27,500	10.56	7.46	905	122.5	11.65	0.76	500	31.04	
	* Turbidity not stable, removed three well volumes, sampled.									

(continued on back)

Sample Collector(s): [signature] Date: 2-17-15

SAMPLE COLLECTION DATA

Well ID: **RAMW-04**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW04-021715	VOC's	3 - 40mL Clear Vials	1425	500	
HSSER-EBLK02- 021715	VOC's	3 - 40mL Clear Vials	1315	—	
	Ferrous Iron	0.00 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	RAMW-05

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility	Date: 2-17-15	Time:	Start	1450	(24hr)
Project No: 60339110-4212			Finish	1605	
Site Location: Rockford, Illinois					
Weather: Clear 10-15°F	Collector(s): Altollatz				

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 43.85 Screen interval(ft): 15 Approx. depth of pump intake(ft): 36

Water table depth (ft): 29.94 Casing type/diameter: 2" PVC Minimum purge volume: 6.50 (gals)

Water column length (ft): 13.91 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	11F53
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1500			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1510	5000	13.95	7.95	834	113.4	12.40	28.9	500	29.94	clear / none
1515	7500	13.87	7.99	837	113.6	12.28	16.4	500	29.94	
1520	10,000	14.25	7.97	830	114.6	11.73	36.2	500	29.94	
1525	12,500	13.84	7.98	840	114.7	12.07	14.6	500	29.94	
1530	15,000	14.29	7.97	832	113.9	11.60	8.81	500	29.94	
1535	17500	14.52	7.98	833	114.2	11.60	7.01	500	29.94	
1540	20000	14.26	7.98	833	114.4	11.63	5.59	500	29.94	
1545	22,500	14.21	7.97	832	116.7	11.47	3.81	500	29.94	
1550	25,000	14.60	7.96	831	118.5	11.33	3.09	500	29.94	
1555	27,500	14.51	7.97	831	117.9	11.36	2.03	500	29.94	

* Turbidity not stable, Removed three well volumes, sampled.

(continued on back)

Sample Collector(s): [signature] Date: 2-17-15

SAMPLE COLLECTION DATA

Well ID: **RAMW-05**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW05-021715	VOC's	3 - 40mL Clear Vials	1555	500	
	Ferrous Iron	0.22 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	RAMW-06

Ground Water Sample Collection Record

Client:	UTAS Plants 1/2 Facility	Date: 2-18-15	Time:	Start	0810 (24hr)
Project No:	60339110-4212			Finish	0925
Site Location:	Rockford, Illinois				
Weather:	Clear 0-5°F	Collector(s):	A. Hollatz		

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.27 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37

Water table depth (ft): 30.01 Casing type/diameter: 2" PVC Minimum purge volume: 7.0 (gals)

Water column length (ft): 14.26 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09F666
	Lamotte	2020	2537-3572
	Lamotte	Smart 2 Colorimeter	7798-3510

Begin purge at 0820

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0830	5000	13.62	7.95	1302	224.6	9.52	1.94	500	30.04	clear/none.
0835	7500	13.44	7.96	1301	224.6	9.87	1.84	500	30.04	
0840	10000	13.43	7.95	1297	224.0	9.81	1.42	500	30.04	
0845	12,500	14.18	7.94	1281	222.0	9.10	1.12	500	30.04	
0850	15,000	14.40	7.95	1296	221.0	9.83	0.68	500	30.04	
0855	17,500	14.34	7.94	1285	221.0	9.47	0.62	500	30.04	
0900	20,000	14.70	7.96	1279	217.6	9.41	0.55	500	30.04	
0905	22,500	14.55	7.94	1290	216.1	9.58	0.44	500	30.04	
0910	25,000	14.40	7.95	1283	216.5	9.66	0.31	500	30.04	
0915	27,500	14.60	7.94	1279	215.4	9.59	0.36	500	30.04	
	* Turbidity not stable, Removed three well volumes, sampled.									

(continued on back)

Sample Collector(s): [signature] Date: 2-18-15

SAMPLE COLLECTION DATA

Well ID: **RAMW-06**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW06-021816	VOC's	3 - 40mL Clear Vials	0915	500	
	Ferrous Iron	0.00 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	RAMW-07

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 2-18-15 Time: Start 0935 (24hr)
Project No: 60339110-4212 Finish 1050
Site Location: Rockford, Illinois
Weather: Clear 0-5°F Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 48.60 Screen interval(ft): 15. Approx. depth of pump intake(ft): 41
Water table depth (ft): 34.41 Casing type/diameter: 2" PVC Minimum purge volume: 7.0 (gals)
Water column length (ft): 14.19 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09F66
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 0945			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0955	5000	9.52	7.18	1209	180.8	0.95	1.50	500	34.41	Clear/none
A.H. 0946/1000	7500	10.47	7.18	1226	178.3	1.22	1.27	500	34.41	
1005	10000	11.21	7.18	1249	177.1	1.49	1.18	500	34.41	
1010	12,500	11.14	7.18	1266	178.0	1.72	0.88	500	34.41	
1015	15,000	11.81	7.17	1273	178.0	1.80	0.61	500	34.41	
1020	17,500	11.31	7.18	1290	176.2	1.90	0.69	500	34.41	
1025	20,000	11.19	7.17	1284	176.7	1.88	0.49	500	34.41	
1030	22,500	10.93	7.18	1302	175.0	1.97	0.32	500	34.41	
1035	25,000	11.01	7.18	1303	173.7	1.99	0.52	500	34.41	
1040	27,500	11.25	7.17	1288	174.2	1.96	0.46	500	34.41	
	A Turbidity not stable, removed three well volumes, sampled.									

(continued on back)

Sample Collector(s): [signature] Date: 2-18-15

SAMPLE COLLECTION DATA

Well ID: **RAMW-07**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW07-021815	VOC's	3 - 40mL Clear Vials	1040	500	
	Ferrous Iron	0.28 mg/L			

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

AECOM

Well ID:	RAMW-08

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility	Date: 2-18-15	Time:	Start	1105	(24hr)
Project No: 60339110-4212			Finish	1225	
Site Location: Rockford, Illinois					
Weather: Clear 0-50°F	Collector(s): A. Hollatz				

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.29 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37

Water table depth (ft): 30.54 Casing type/diameter: 2" PVC Minimum purge volume: 6.5 (gals)

Water column length (ft): 13.75 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	09F66
	Lamotte	2020	2537-3512
	Lamotte	Smart 2 Colorimeter	7798-3510
Begin purge at 1120			

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1130	5000	12.35	7.52	1035	-147.2	0.59	32.8	500	30.73	Clear/none
1135	7500	14.00	7.56	1053	-197.2	0.41	19.6	500	30.73	
1140	10000	14.50	7.53	1063	-178.2	0.34	16.3	500	30.73	
1145	12,500	14.88	7.51	1073	-184.8	0.41	13.5	500	30.73	
1150	15,000	15.20	7.49	1077	-184.6	0.59	12.7	500	30.73	
1155	17,500	15.07	7.46	1078	-146.4	0.69	10.75	500	30.73	
1200	20,000	14.92	7.42	1075	-148.8	0.60	10.29	500	30.73	
1205	22,500	14.64	7.41	1078	-179.4	0.56	8.34	500	30.73	
1210	25,000	15.34	7.39	1067	-150.7	0.43	8.28	500	30.73	
1215	27,500	15.27	7.38	1069	-159.4	0.39	7.99	500	30.73	

* ORP/DO not stable, removed 3 well volumes, sampled.

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Sample Collector(s): [signature] Date: 2-18-15

SAMPLE COLLECTION DATA Well ID: **RAMW-08**

Sample ID	Parameters	Bottles/Preservatives	Time (24 hr)	Flow Rate (ml/min)	Comments
HSSER-RAMW08-021815	VOC's	3 - 40mL Clear Vials	1215	500	
	Ferrous Iron	* See note. mg/L			Overrange (0-10 mg/L)

VOCs - Volatile organic compounds

G - Glass
HCl - Hydrchloric acid

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

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

FED-EX Tracking #: 6250 6351 0710
Bottle Order Control #:
Accutest Quote #:
Accutest Job #:

Client / Reporting Information

Company Name: AECOM
Street Address: 27755 DIEHL RD #100
City / State / Zip: WARRENVILLE IL 60555
Project Contact / E-mail: PETER HOLLATZ / peter.hollatz@aecom.com
Phone # / Fax #: 630.839.5886 / 630.836.1711
Sampler(s) Name(s) / Phone #: N. PINS / A. HOLLATZ

Project Information

Project Name: UTC - ROCKFORD - PLANT 1
Street:
City / State: ROCKFORD IL
Project #: 60339110
Client Purchase Order #:
Project Manager: PETER HOLLATZ

Billing Information (If different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOCs	LAB USE ONLY
	HSSER-RAMW01-021715		2/17/15	0940	AH	GW	3	3								X	
	HSSER-RAMW02-021715		2/17/15	1110	AH	GW	3	3								X	
	HSSER-RAMW03-021715		2/17/15	1245	AH	GW	3	3								X	
	HSSER-RAMW04-021715		2/17/15	1425	AH	GW	3	3								X	
	HSSER-RAMW05-021715		2/17/15	1555	AH	GW	3	3								X	
	HSSER-RAMW06-021815		2/18/15	0915	AH	GW	3	3								X	
	HSSER-RAMW07-021815		2/18/15	1040	AH	GW	3	3								X	
	HSSER-RAMW08-021815		2/18/15	1215	AH	GW	3	3								X	
	HSSER-MS02-021715		2/17/15	1110	AH	GW	3	3								X	
	HSSER-MSD02-021715		2/17/15	1110	AH	GW	3	3								X	
	HSSER-DUP02-021715		2/17/15	0000	AH	GW	3	3								X	
	HSSER-FBLK02-021715		2/17/15	0835	AH	GW	3	3								X	

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other
- Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM) / Date:

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

LIST OF 13 VOCs
LEVEL IV DATA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature] (AECOM)	2/19/15 1100	1	2		2
Relinquished: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished: 5	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not Intact	Preserved where applicable [ ] On Ice [ ] temp.

CHAIN OF C__ODY

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

FED-EX Tracking #: 6250 6351 0700
Bottle Order Control #:
Accutest Quote #:
Accutest Job #:

Client / Reporting Information

Company Name: AECOM
Street Address: 77755 DISH RD #100
City: WAUKEGAN State: IL Zip: 60085
Project Contact: PETER HOLLATZ E-mail: peter.hollatz@aecom.com
Phone #: 630.839.5386 Fax #: 630.836.7100
Sampler(s) Name(s): N. Pinis / A. Hollatz Phone #:

Project Information

Project Name: LATE ROCKFORD PLANT 1
Street:
City: ROCKFORD State: IL
Project #: 60539110
Client Purchase Order #:
Project Manager: PETER HOLLATZ

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

VOC*

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VOC*	LAB USE ONLY
	MSSB1-TB1607-021715		2/17/15	1315	AH	GW	3	3								X	
	MSSB1-TB1901-021915		2/19/15	—	—	GW	2	2								X	

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other:

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] 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

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary; NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

* LIST OF 13 VOC
LEVEL IV DATA

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	N. P. (AECOM)	2/19/15 1700	1	2		2
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not Intact	Preserved where applicable [ ] On Ice [ ] Cooler Temp:

Appendix F

Second Quarter 2015 Progress Report

AECOM

Submitted to:
UTC Aerospace Systems
Rockford, IL

Submitted by:
AECOM
Warrenville, IL
60339110
June 2015

QUARTERLY PROGRESS REPORT – Second Quarter 2015 (March 2015 – May 2015)

UTC Aerospace Systems Plants 1/2 Facility
Southeast Rockford Groundwater Contamination
Superfund Site
2421 11th Street
Rockford, Illinois 61104
ILD981000417, ILD010219665
AECOM Project No. 60339110

This Quarterly Progress Report has been prepared on behalf of UTC Aerospace Systems (UTAS, fka Hamilton Sundstrand or HS) by AECOM Technical Services Inc. (AECOM). This report summarizes activities that occurred during the months of March, April, and May of the Second Quarter of 2015 at the above-referenced facility.

Progress Report- Reporting Quarters			
Q1	December	January	February
Q2	March	April	May
Q3	June	July	August
Q4	September	October	November

This report is the twenty-seventh in the series of Quarterly Progress Reports and consistent with United States Environmental Protection Agency (USEPA) approval of combining project reporting documents from a letter dated April 15, 2011. Quarterly Progress Reports are included as attachments to the Groundwater Management Zone (GMZ) Monitoring and System Performances Reports.

This Quarterly Progress Report follows the requirements outlined in Section X of the Consent Decree (CD) and includes the following:

Actions taken during the prior quarter to maintain compliance with the CD:

- Summaries of sampling results and tests;
- An identification of work plans and other deliverables completed in accordance with the CD;
- Actions scheduled for the next quarter;
- Information on the progress, percentage of completion, delays, and efforts to mitigate delays;
- Modifications to Work Plans and/or schedules; and
- Activities undertaken in support of the Community Relations Plan.

Each of these sections is described in more detail below.

Actions Taken During the Second Quarter to Achieve Compliance with the Consent Decree

The following actions were taken during March, April, and May of the Second Quarter of 2015:

- On March 12, 2015, AECOM submitted to the USEPA the Annual GMZ Monitoring and System Performance Report.
- Phase 1 and Phase 2 AS/SVE system air sampling of the SVE system effluent prior to the system being deactivated (switched to the pulse-off mode). SVE process air effluent sampling was conducted on March 13, 2015.
- Phase 2 SVE system water sample was collected from the Phase 2 Cell 5 moisture separator. The moisture separator water sample was collected on March 13, 2015.
- AECOM completed GMZ and performance well quarterly monitoring (2nd quarter 2015) well network sampling between May 11 and May 14, 2015. The following wells were sampled

for volatile organic compounds (VOCs): GMZ wells (which include the Phase 1 AS/SVE performance monitoring network) SMW01, SMW02, SMW04, SMW08, SMW19, SMW20, SMW21, MW07FG, MW203, GMZ01, GMZ02, GMZ03, GMZ04, PMW01 and PMW02; and performance monitoring wells RAMW01 RAMW02, RAMW03, RAMW04, RAMW05, RAMW06, RAMW07, and RAMW08.

- Phase 1 and Phase 2 AS/SVE system air sampling of the SVE system effluent after being reactivated (switched to the pulse-on mode). SVE process air effluent sampling was conducted on May 15, 2015.

Summary of Sampling and Tests

- One water sample from the Phase 2 system moisture separator was collected on March 13, 2015.
- Three process air samples were collected from the Phase 1 AS/SVE system effluent during the March 13, 2015 sampling event.
- Two process air samples were collected from the Phase 2 AS/SVE system effluent during the March 13, 2015 sampling event.

Work Plans and Other Deliverables Completed In Accordance With the CD

- The *2014 Annual GMZ Monitoring and System Performance Report, Area 9/10 Remedial Action* (June 2014) was submitted in accordance with Section X, paragraph 30 of the CD and consistent with Section V of the Statement of Work (SOW).

Actions Scheduled for Next Quarter

The following actions are scheduled for the next quarter:

- Operation of the Phase 1 and Phase 2 AS/SVE systems will be in pulse-on mode (system in run mode) from approximately May 15, 2015 until approximately July 15, 2015;
- Operation of the Phase 1 and Phase 2 AS/SVE systems will be in pulse-off mode (system not in operation) to approximately September 15, 2015; and
- Completion of the Third Quarter 2015 Groundwater Monitoring event in August 2015. The monitoring event will include the GMZ monitoring well network (which includes the Phase 1 AS/SVE performance monitoring network) and the Phase 2 AS/SVE performance monitoring network.

Percentage of Completion/Anticipated Delays

There are 39 specific deliverables or activities required to be completed as part of the CD. Some of these are ongoing activities and others, such as submittal of documents, require approval by the USEPA/Illinois Environmental Protection Agency to fulfill the requirements of the CD. To date, UTAS has completed their current obligations for 28 of the 39 items or 72%. There are currently no anticipated delays to the schedule.

Modifications to Work Plans/Schedules Proposed

None

Activities Undertaken In Support of Community Relations Plan

No activities are required with regard to the Community Relations Plan at this time.