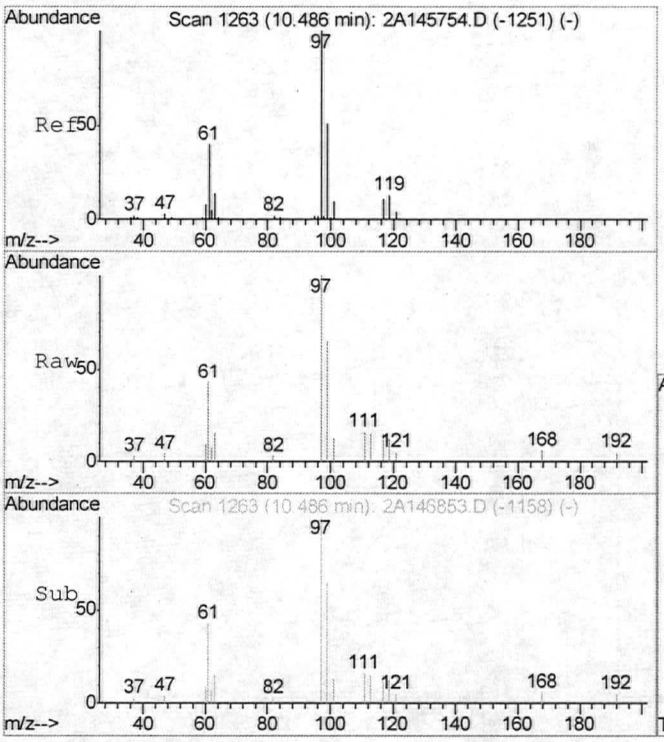
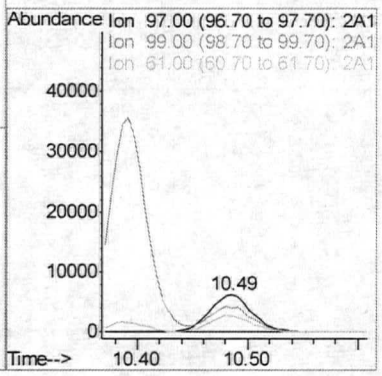
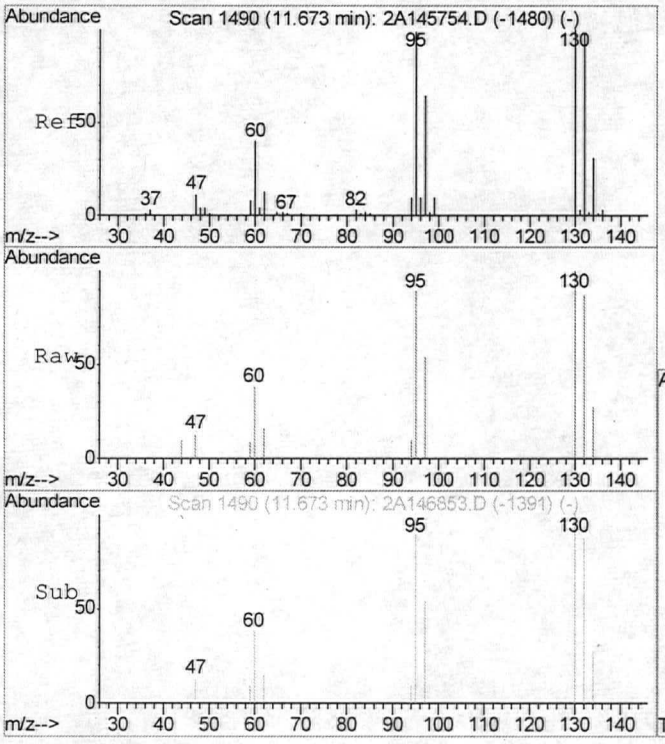


#50
1,1,1-trichloroethane
Concen: 6.18 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. 0.00 min
Lab File: 2A146853.D
Acq: 13 May 2014 1:38 pm

Tgt Ion: 97 Resp: 16821

Ion	Ratio	Lower	Upper
97	100		
99	65.3	33.7	93.7
61	42.8	9.9	69.9

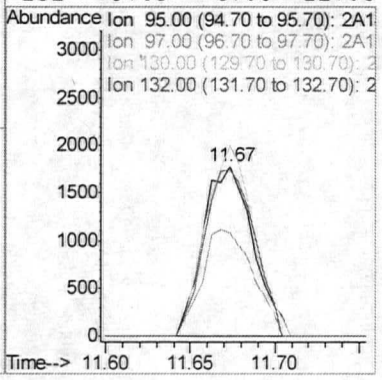




#66
trichloroethene
Concen: 2.15 ug/L
RT: 11.67 min Scan# 1490
Delta R.T. 0.00 min
Lab File: 2A146853.D
Acq: 13 May 2014 1:38 pm

Tgt Ion: 95 Resp: 3658

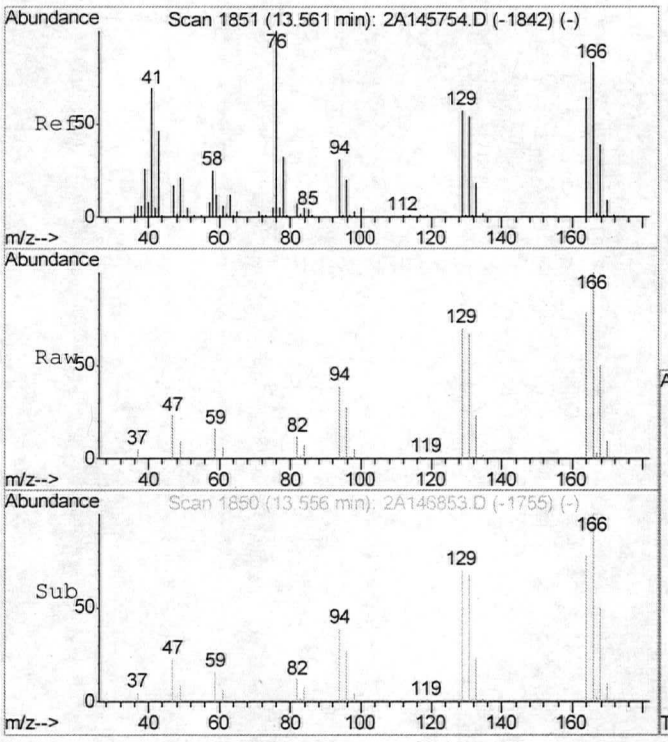
Ion	Ratio	Lower	Upper
95	100		
97	61.0	37.2	97.2
130	112.5	72.7	132.7
132	97.9	67.0	127.0



7.1.3

7

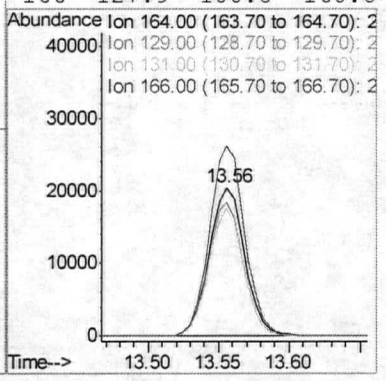
ACCUTEST LABORATORIES
JB66485



#85
tetrachloroethene
Concen: 25.45 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146853.D
Acq: 13 May 2014 1:38 pm

Tgt Ion:164 Resp: 35726

Ion	Ratio	Lower	Upper
164	100		
129	89.3	57.6	117.6
131	85.6	52.6	112.6
166	127.9	100.8	160.8



7.1.3 7

ACCUTEST LABORATORIES JB66485

Manual Integration Approval Summary

Sample Number:	JB66485-3	**Method:**	SW846 8260B
Lab FileID:	2A146853.D	**Analyst approved:**	05/13/14 16:18 Cathleen Castello
Injection Time:	05/13/14 13:38	**Supervisor approved:**	05/13/14 16:57 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146854.D
Acq On : 13 May 2014 2:08 pm
Operator : thomass1
Sample : jb66485-4
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 13 16:10:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	72436	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	176650	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	241516	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	213423	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	115934	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	79457	49.62 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.24%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	90248	50.03 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 100.06%		
76) toluene-d8 (s)	12.93	98	271588	52.71 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.42%		
100) 4-bromofluorobenzene (s)	15.44	95	100522	45.58 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.16%		
Target Compounds					Qvalue
50) 1,1,1-trichloroethane	10.49	97	3992	1.45 ug/L	94
85) tetrachloroethene	13.56	164	2848	1.98 ug/L	95

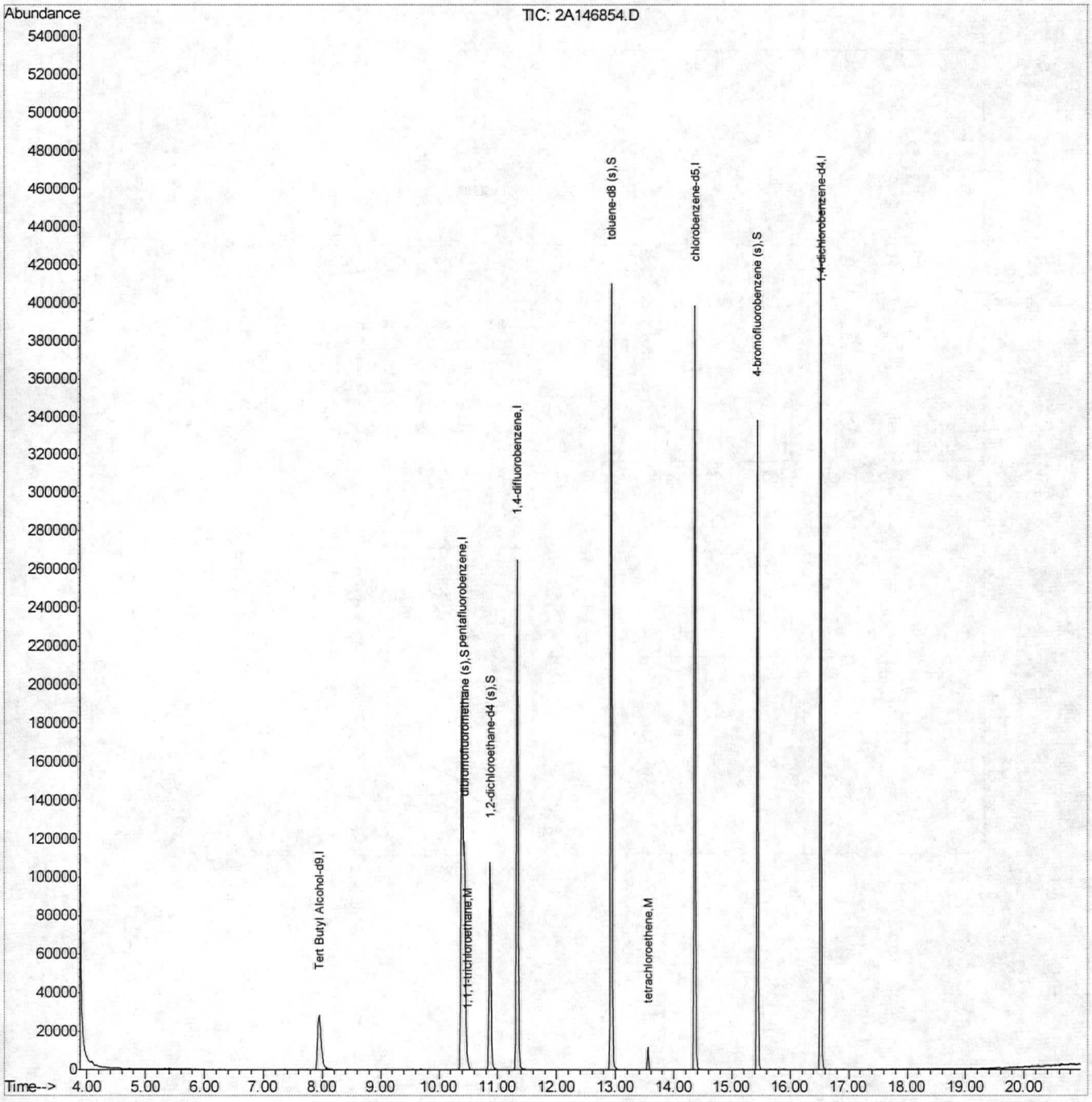
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.4

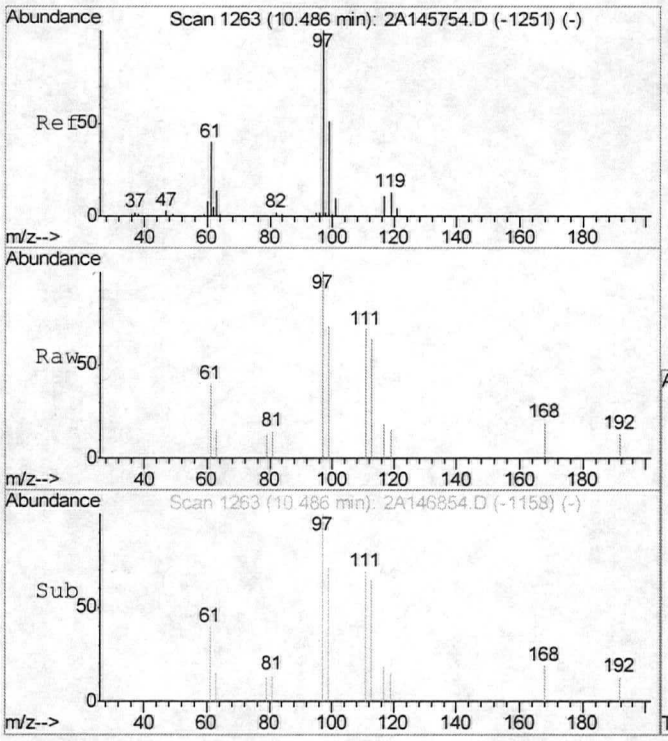
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146854.D
Acq On : 13 May 2014 2:08 pm
Operator : thomass1
Sample : jb66485-4
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 13 16:10:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



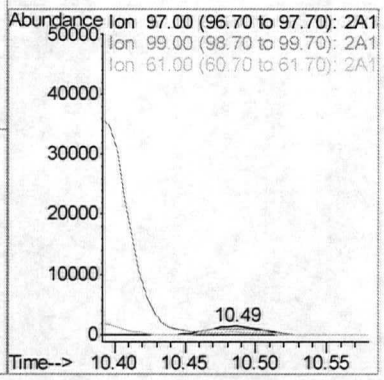
ACCUTEST LABORATORIES JB66485

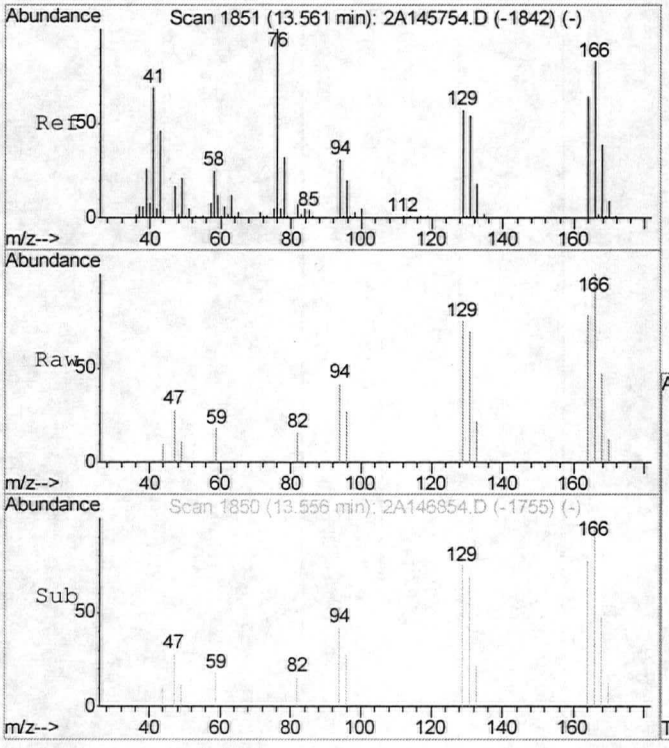


#50
1,1,1-trichloroethane
Concen: 1.45 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. -0.00 min
Lab File: 2A146854.D
Acq: 13 May 2014 2:08 pm

Tgt Ion: 97 Resp: 3992

Ion	Ratio	Lower	Upper
97	100		
99	70.8	33.7	93.7
61	40.4	9.9	69.9

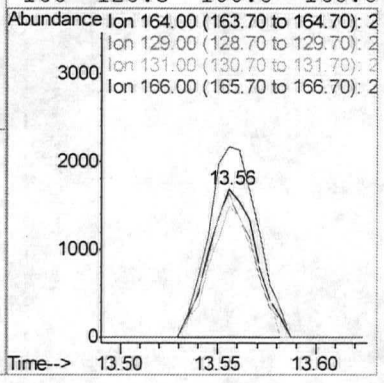




#85
tetrachloroethene
Concen: 1.98 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146854.D
Acq: 13 May 2014 2:08 pm

Tgt Ion:164 Resp: 2848

Ion	Ratio	Lower	Upper
164	100		
129	96.8	57.6	117.6
131	88.2	52.6	112.6
166	128.5	100.8	160.8



7.1.4

7

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 16:57

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146855.D
Acq On : 13 May 2014 2:38 pm
Operator : thomass1
Sample : jb66485-5
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 27 11:15:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	72079	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	179122	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	245837	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	216915	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	117136	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	80591	49.63 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.26%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	90988	49.74 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 99.48%		
76) toluene-d8 (s)	12.93	98	275922	52.61 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.22%		
100) 4-bromofluorobenzene (s)	15.44	95	100956	45.31 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 90.62%		
Target Compounds					Qvalue
32) 1,1-dichloroethane	9.03	63	2205	0.66 ug/L	86
39) cis-1,2-dichloroethene	9.83	96	873m	0.42 ug/L	
85) tetrachloroethene	13.56	164	591	0.40 ug/L	88

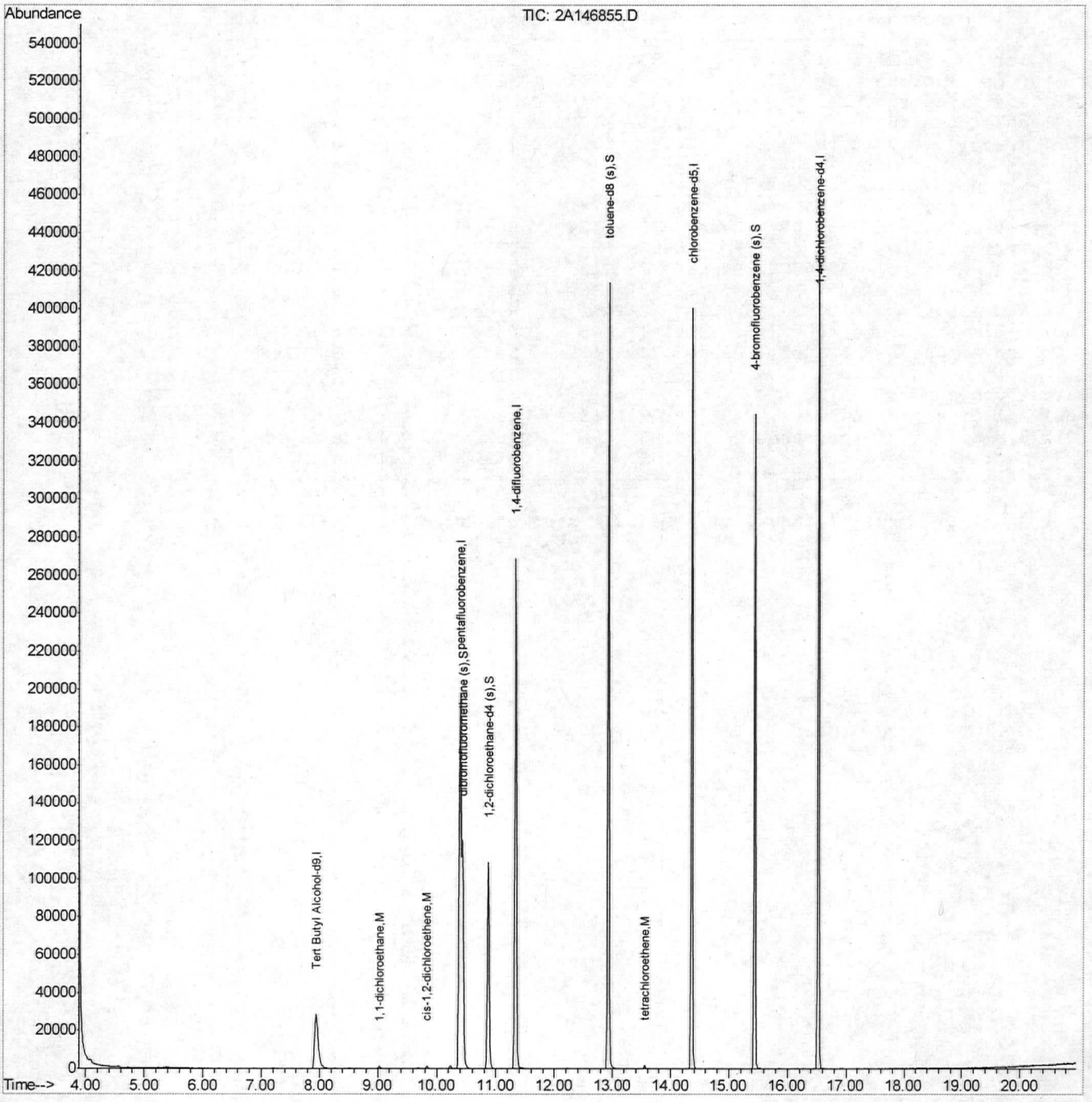
(#) = qualifier out of range (m) = manual integration (+) = signals summed

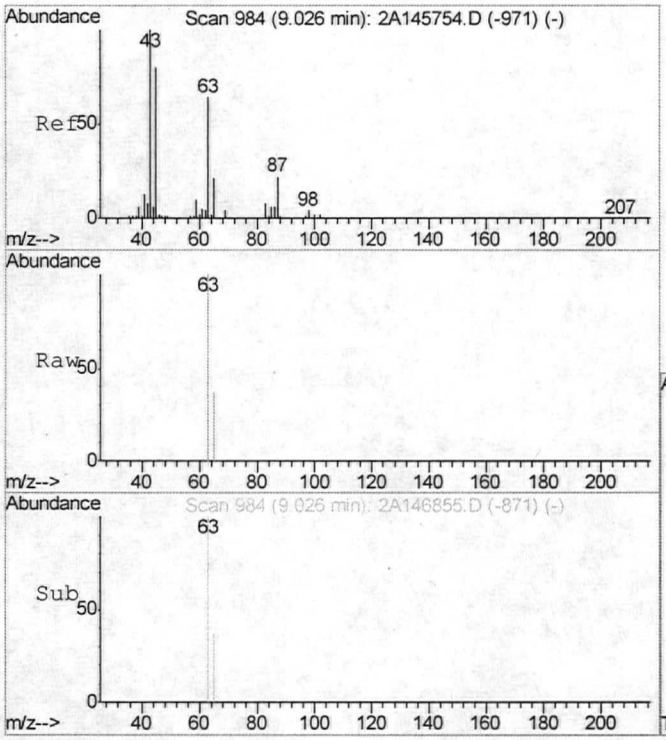
7.1.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146855.D
Acq On : 13 May 2014 2:38 pm
Operator : thomass1
Sample : jb66485-5
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 27 11:15:17 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

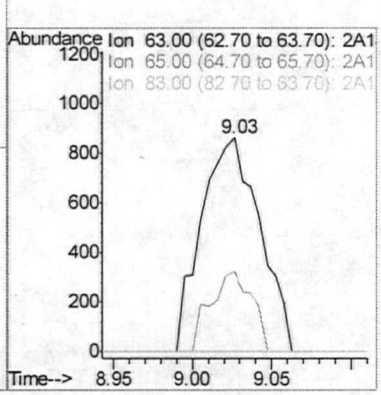


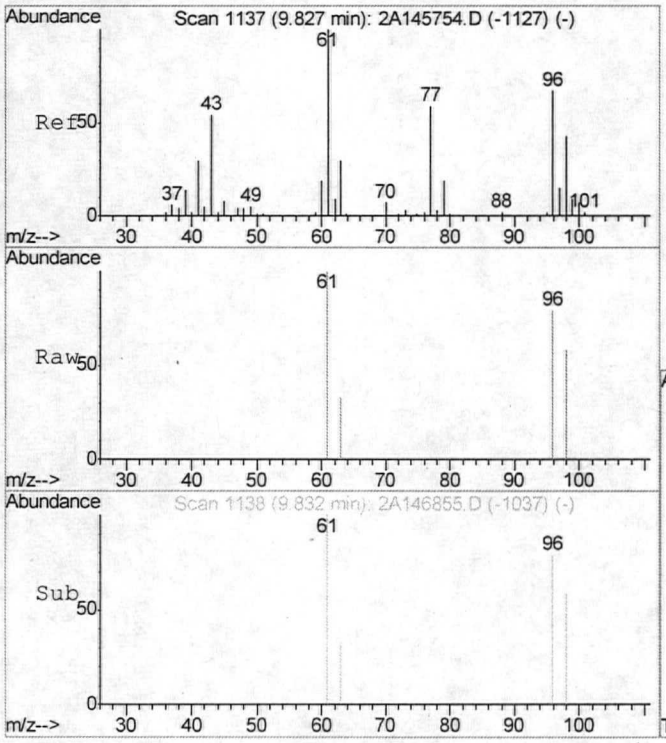


#32
1,1-dichloroethane
Concen: 0.66 ug/L
RT: 9.03 min Scan# 984
Delta R.T. -0.00 min
Lab File: 2A146855.D
Acq: 13 May 2014 2:38 pm

Tgt Ion: 63 Resp: 2205

Ion	Ratio	Lower	Upper
63	100		
65	37.4	3.4	63.4
83	0.0	0.0	42.7

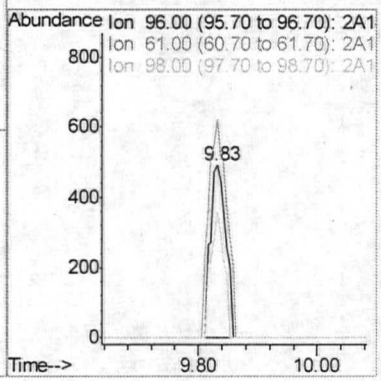




#39
cis-1,2-dichloroethene
Concen: 0.42 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. -0.00 min
Lab File: 2A146855.D
Acq: 13 May 2014 2:38 pm

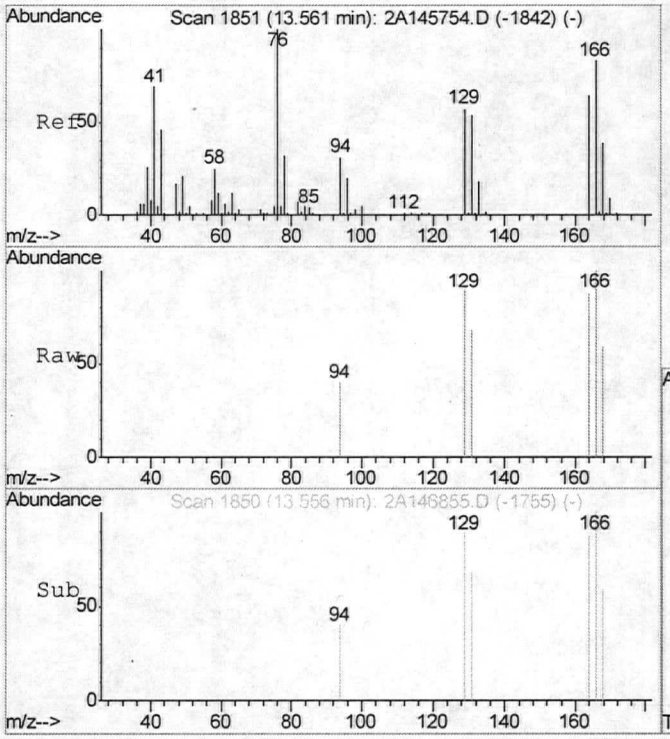
Tgt Ion: 96 Resp: 873

Ion	Ratio	Lower	Upper
96	100		
61	126.0	123.5	183.5
98	73.2	38.7	98.7



7.1.5

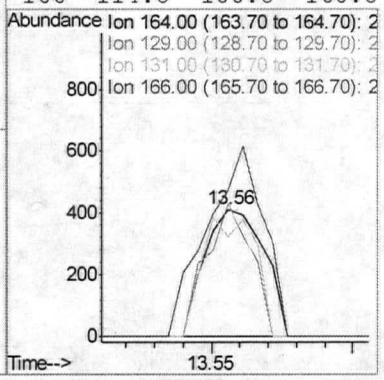
7



#85
tetrachloroethene
Concen: 0.40 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146855.D
Acq: 13 May 2014 2:38 pm

Tgt Ion:164 Resp: 591

Ion	Ratio	Lower	Upper
164	100		
129	103.9	57.6	117.6
131	78.3	52.6	112.6
166	114.8	100.8	160.8



7.1.5

Manual Integration Approval Summary

Sample Number:	JB66485-5	**Method:**	SW846 8260B
Lab FileID:	2A146855.D	**Analyst approved:**	05/13/14 16:18 Cathleen Castello
Injection Time:	05/13/14 14:38	**Supervisor approved:**	05/13/14 16:57 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146856.D
Acq On : 13 May 2014 3:07 pm
Operator : thomass1
Sample : jb66485-6
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 13 16:11:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	72587	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	178715	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	247497	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	215405	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	115718	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	80807	49.88 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.76%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	91857	50.33 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 100.66%		
76) toluene-d8 (s)	12.93	98	273415	51.78 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 103.56%		
100) 4-bromofluorobenzene (s)	15.44	95	101209	45.98 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.96%		
Target Compounds					Qvalue
50) 1,1,1-trichloroethane	10.48	97	1201	0.43 ug/L #	57
85) tetrachloroethene	13.56	164	1528	1.05 ug/L	92

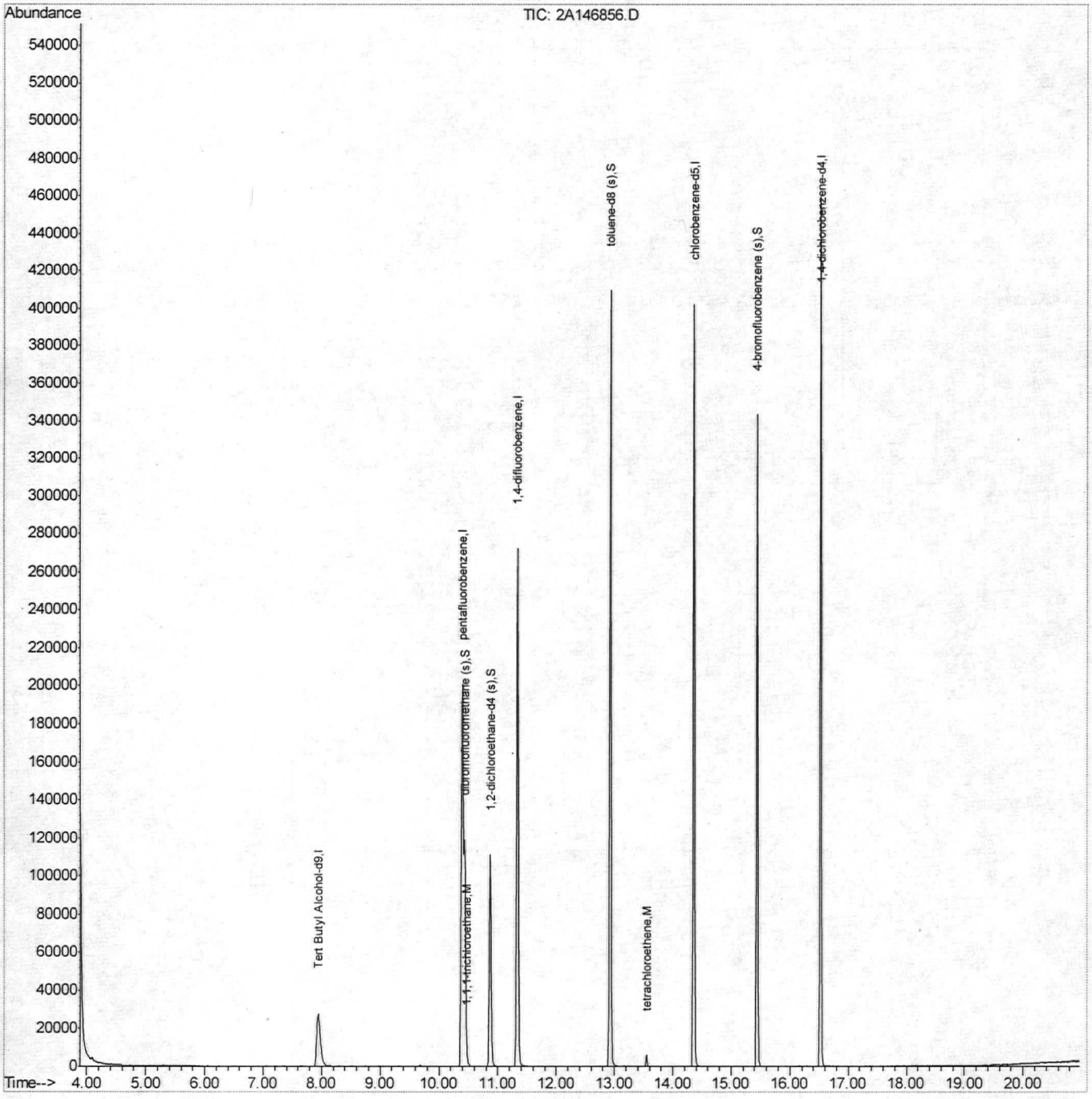
(#) = qualifier out of range (m) = manual integration (+) = signals summed

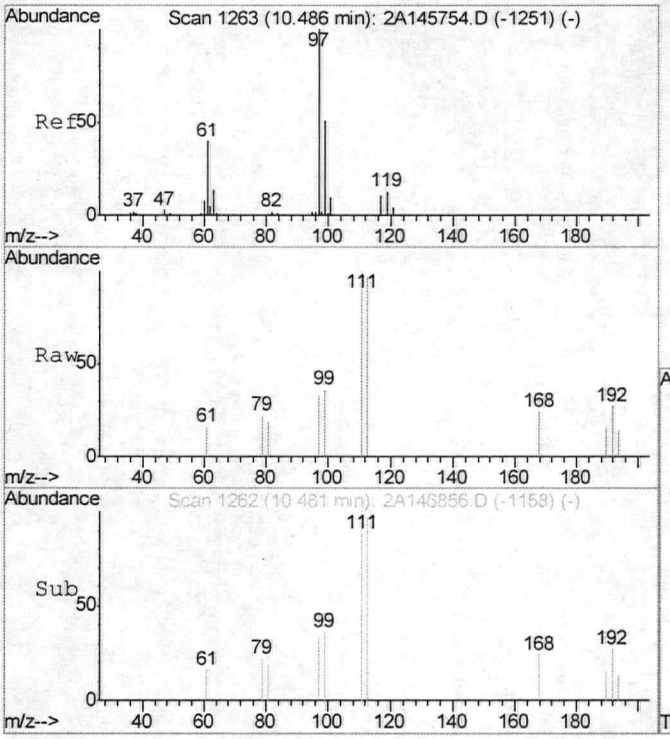
7.1.6

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146856.D
Acq On : 13 May 2014 3:07 pm
Operator : thomass1
Sample : jb66485-6
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 13 16:11:29 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

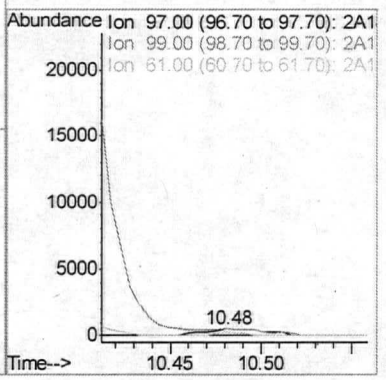


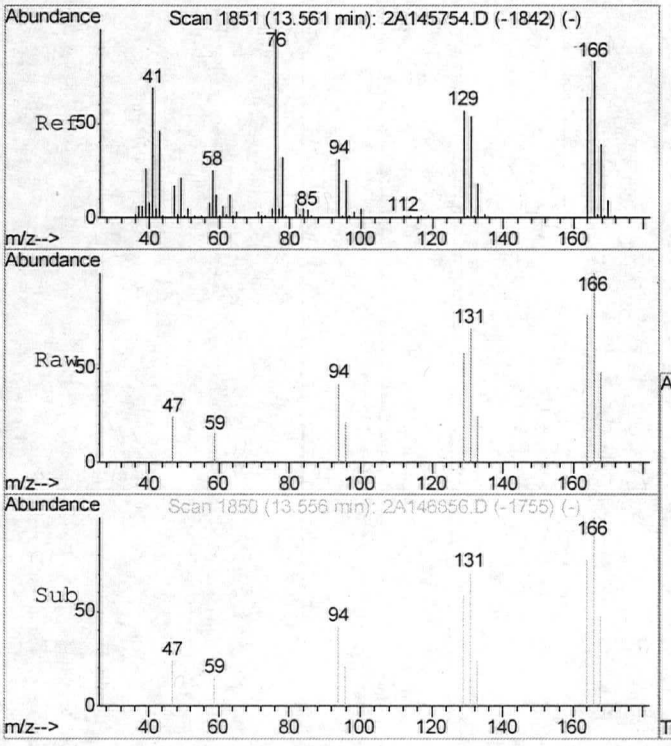


#50
1,1,1-trichloroethane
Concen: 0.43 ug/L
RT: 10.48 min Scan# 1262
Delta R.T. -0.01 min
Lab File: 2A146856.D
Acq: 13 May 2014 3:07 pm

Tgt Ion: 97 Resp: 1201

Ion	Ratio	Lower	Upper
97	100		
99	110.9	33.7	93.7#
61	49.4	9.9	69.9

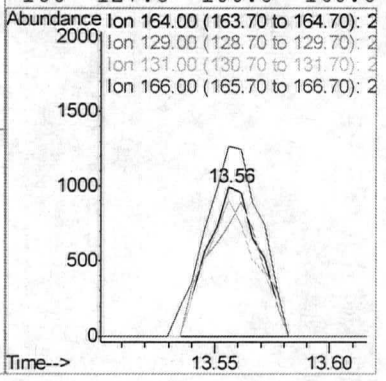




#85
tetrachloroethene
Concen: 1.05 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146856.D
Acq: 13 May 2014 3:07 pm

Tgt Ion:164 Resp: 1528

Ion	Ratio	Lower	Upper
164	100		
129	73.9	57.6	117.6
131	90.8	52.6	112.6
166	127.8	100.8	160.8



7.1.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146857.D
Acq On : 13 May 2014 3:37 pm
Operator : thomass1
Sample : jb66485-7
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 13 16:11:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	70034	500.00	ug/L	0.00
5) pentafluorobenzene	10.39	168	177735	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	244105	50.00	ug/L	0.00
84) chlorobenzene-d5	14.36	117	216096	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	114883	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.43	113	79285	49.21	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.42%			
47) 1,2-dichloroethane-d4 (s)	10.87	65	91548	50.44	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 100.88%			
76) toluene-d8 (s)	12.93	98	275376	52.88	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.76%			
100) 4-bromofluorobenzene (s)	15.44	95	100333	45.91	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.82%			
Target Compounds						Qvalue
85) tetrachloroethene	13.56	164	6900	4.73	ug/L	99

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

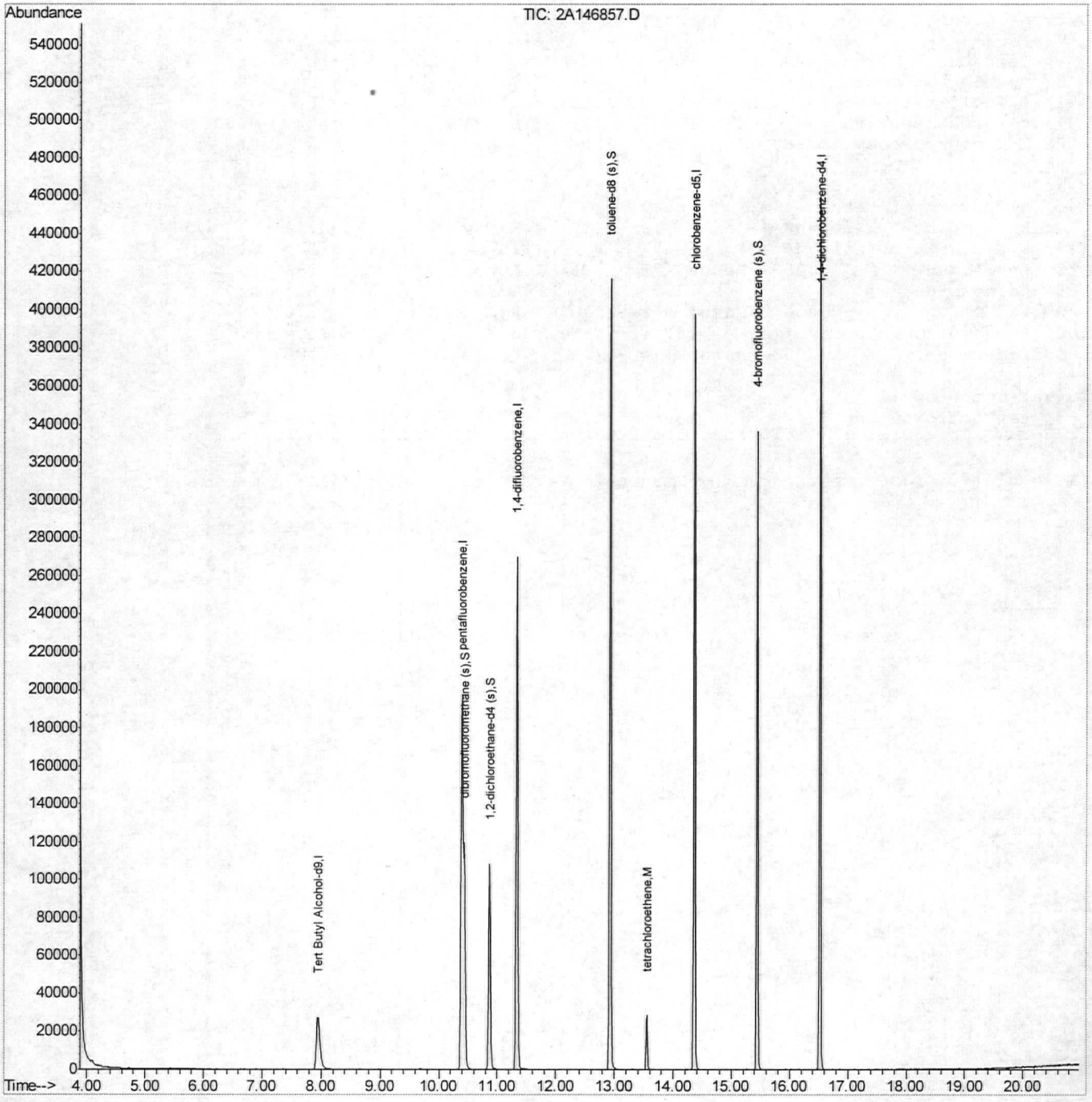
7.1.7

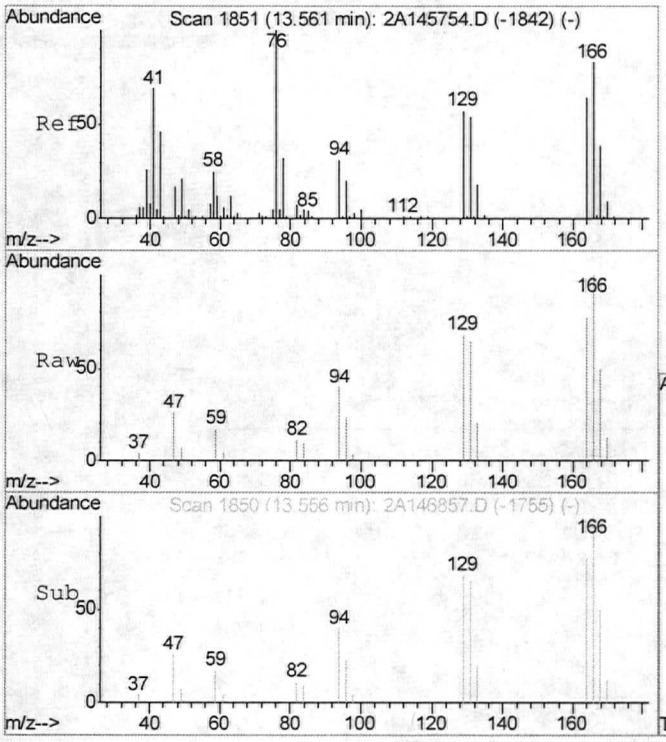
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146857.D
Acq On : 13 May 2014 3:37 pm
Operator : thomass1
Sample : jb66485-7
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 13 16:11:49 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

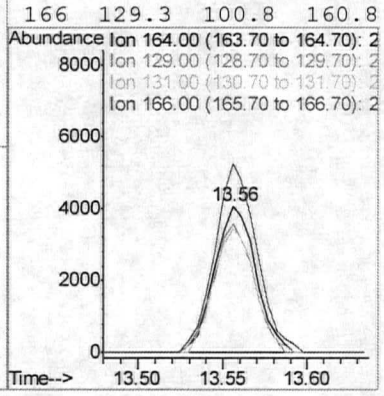




#85
tetrachloroethene
Concen: 4.73 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146857.D
Acq: 13 May 2014 3:37 pm

Tgt Ion:164 Resp: 6900

Ion	Ratio	Lower	Upper
164	100		
129	87.8	57.6	117.6
131	84.6	52.6	112.6
166	129.3	100.8	160.8



7.1.7

7

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/14/14 15:57

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146858.D
Acq On : 13 May 2014 4:07 pm
Operator : thomass1
Sample : jb66485-8
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 27 11:15:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	69432	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	175574	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	239688	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	213249	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	115244	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	78379	49.24 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 98.48%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	89514	49.92 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 99.84%		
76) toluene-d8 (s)	12.93	98	270126	52.82 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.64%		
100) 4-bromofluorobenzene (s)	15.44	95	99720	45.49 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 90.98%		
Target Compounds					Qvalue
11) vinyl chloride	4.83	62	36578	15.11 ug/L	99
19) 1,1-dichloroethene	7.17	96	2231	1.34 ug/L	97
29) trans-1,2-dichloroethene	8.40	96	1224	0.66 ug/L	98
32) 1,1-dichloroethane	9.03	63	33645	10.33 ug/L	97
39) cis-1,2-dichloroethene	9.83	96	167164m	82.78 ug/L	
50) 1,1,1-trichloroethane	10.49	97	4413	1.62 ug/L	93
66) trichloroethene	11.67	95	8658	5.06 ug/L	92
85) tetrachloroethene	13.56	164	16496	11.45 ug/L	98

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

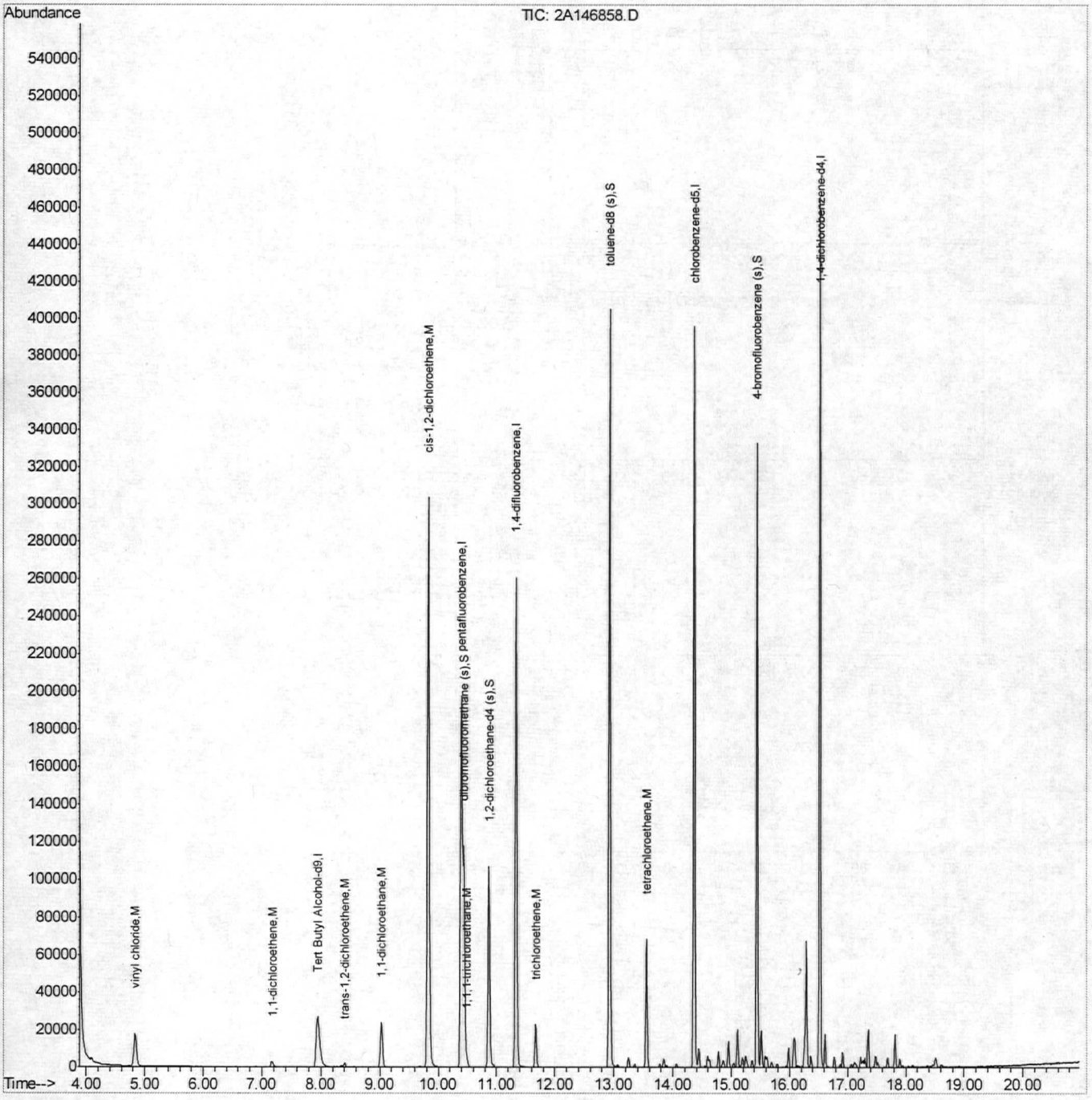
7.1.8

7

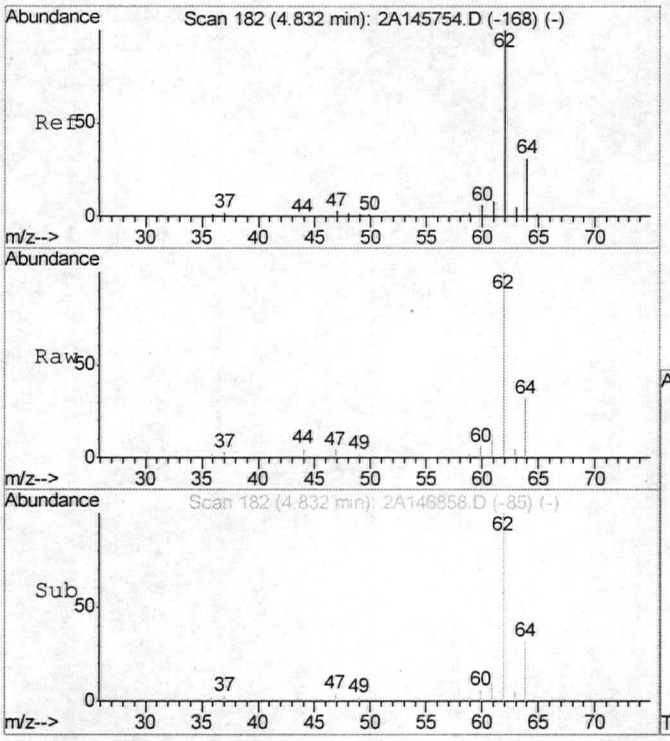
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146858.D
Acq On : 13 May 2014 4:07 pm
Operator : thomass1
Sample : jb66485-8
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 27 11:15:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



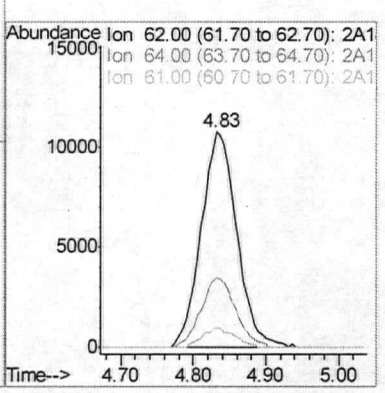
ACCUTEST LABORATORIES JB66485

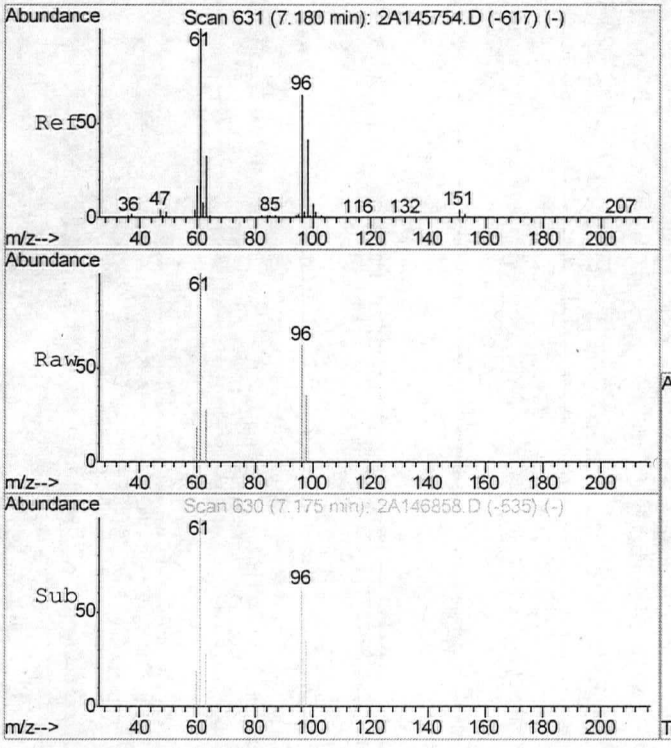


#11
vinyl chloride
Concen: 15.11 ug/L
RT: 4.83 min Scan# 182
Delta R.T. 0.01 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

Tgt Ion: 62 Resp: 36578

Ion	Ratio	Lower	Upper
62	100		
64	32.5	2.9	62.9
61	9.1	0.0	38.5

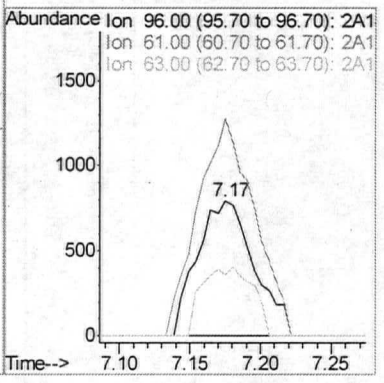




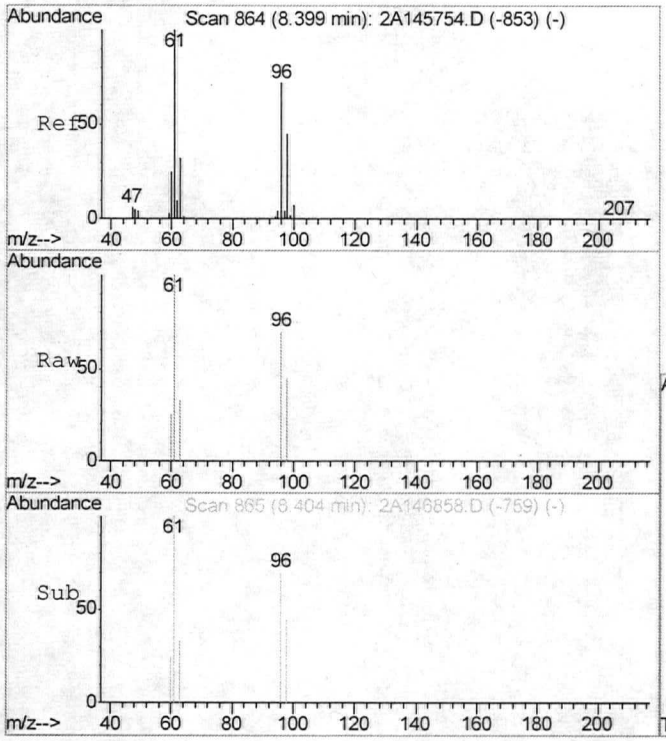
#19
1,1-dichloroethene
Concen: 1.34 ug/L
RT: 7.17 min Scan# 630
Delta R.T. -0.01 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

Tgt Ion: 96 Resp: 2231

Ion	Ratio	Lower	Upper
96	100		
61	161.3	131.6	191.6
63	45.1	22.2	82.2



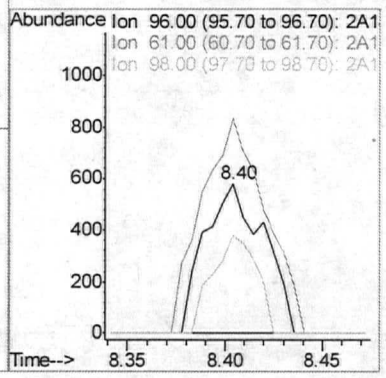
7.1.8

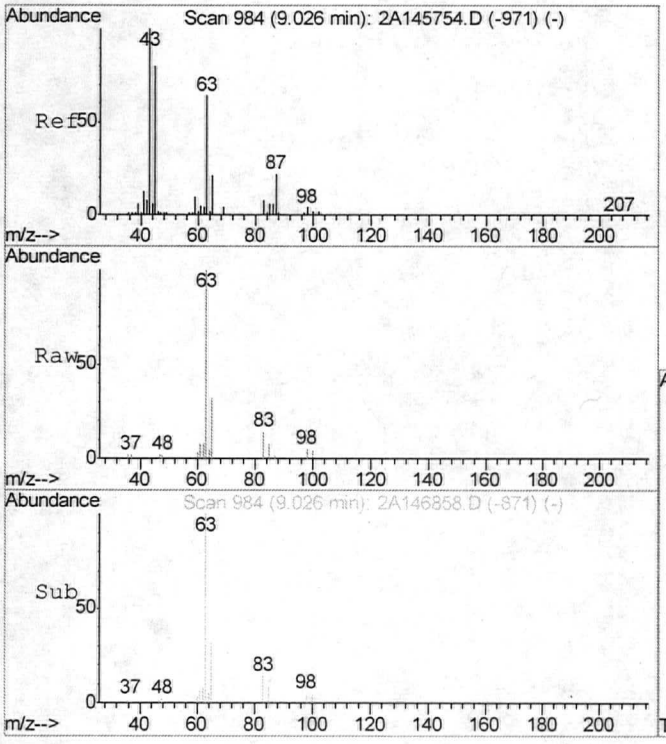


#29
trans-1,2-dichloroethene
Concen: 0.66 ug/L
RT: 8.40 min Scan# 865
Delta R.T. 0.01 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

Tgt Ion: 96 Resp: 1224

Ion	Ratio	Lower	Upper
96	100		
61	143.8	111.1	171.1
98	65.0	34.6	94.6

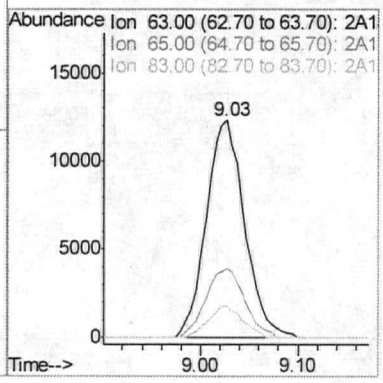




#32
1,1-dichloroethane
Concen: 10.33 ug/L
RT: 9.03 min Scan# 984
Delta R.T. -0.00 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

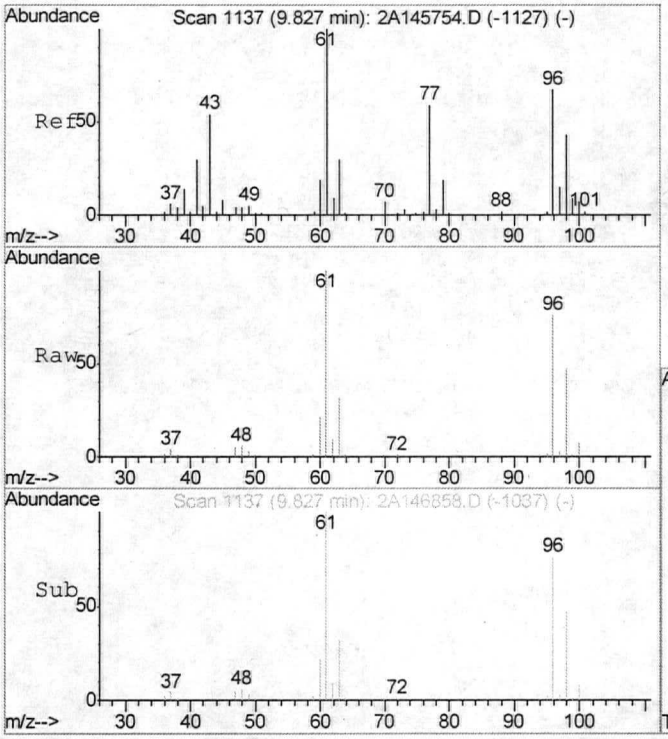
Tgt Ion: 63 Resp: 33645

Ion	Ratio	Lower	Upper
63	100		
65	31.9	3.4	63.4
83	14.3	0.0	42.7



7.1.8

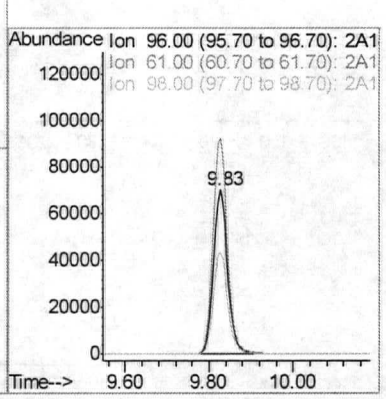
7

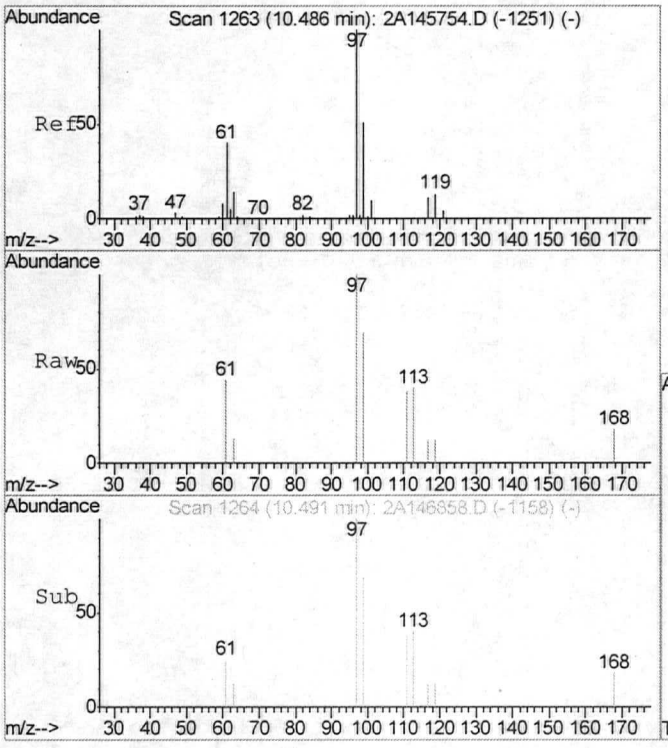


#39
cis-1,2-dichloroethene
Concen: 82.78 ug/L m
RT: 9.83 min Scan# 1137
Delta R.T. -0.01 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

Tgt Ion: 96 Resp: 167164

Ion	Ratio	Lower	Upper
96	100		
61	131.9	123.5	183.5
98	62.2	38.7	98.7

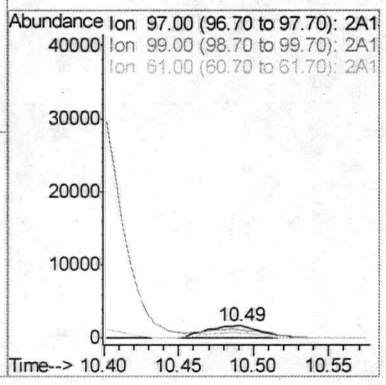




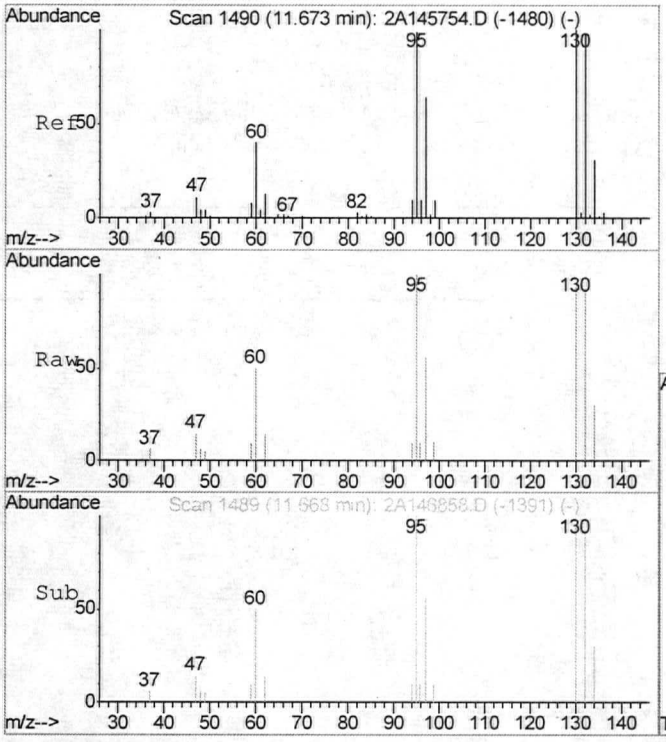
#50
1,1,1-trichloroethane
Concen: 1.62 ug/L
RT: 10.49 min Scan# 1264
Delta R.T. 0.01 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

Tgt Ion: 97 Resp: 4413

Ion	Ratio	Lower	Upper
97	100		
99	58.4	33.7	93.7
61	44.0	9.9	69.9



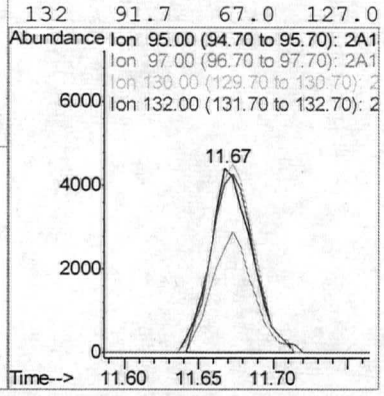
7.1.8

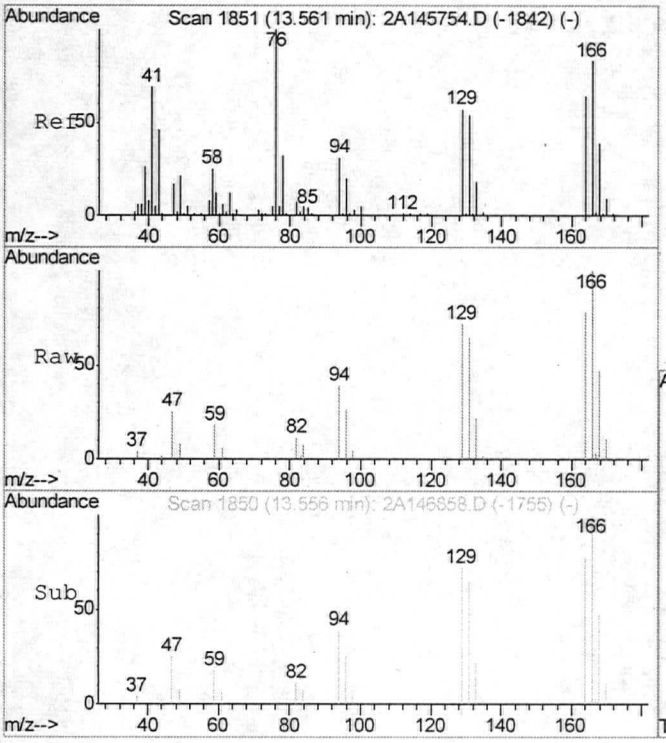


#66
trichloroethene
Concen: 5.06 ug/L
RT: 11.67 min Scan# 1489
Delta R.T. -0.01 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

Tgt Ion: 95 Resp: 8658

Ion	Ratio	Lower	Upper
95	100		
97	56.2	37.2	97.2
130	94.7	72.7	132.7
132	91.7	67.0	127.0

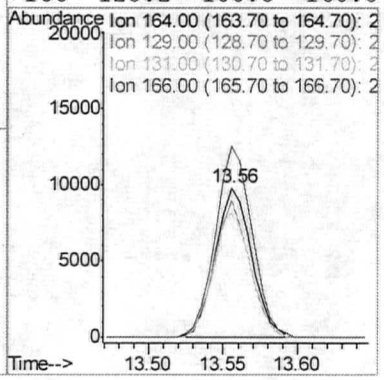




#85
tetrachloroethene
Concen: 11.45 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146858.D
Acq: 13 May 2014 4:07 pm

Tgt Ion:164 Resp: 16496

Ion	Ratio	Lower	Upper
164	100		
129	91.8	57.6	117.6
131	83.2	52.6	112.6
166	128.2	100.8	160.8



7.1.8

7

Manual Integration Approval Summary

Sample Number:	JB66485-8	**Method:**	SW846 8260B
Lab FileID:	2A146858.D	**Analyst approved:**	05/14/14 09:36 Cathleen Castello
Injection Time:	05/13/14 16:07	**Supervisor approved:**	05/14/14 15:57 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146850.D
Acq On : 13 May 2014 12:09 pm
Operator : thomass1
Sample : jb66485-9
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 13 16:07:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	76814	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	184731	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	253066	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	221324	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	117715	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	81781	48.83 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.66%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	93082	49.34 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 98.68%		
76) toluene-d8 (s)	12.93	98	285223	52.83 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.66%		
100) 4-bromofluorobenzene (s)	15.44	95	103355	46.15 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 92.30%		
Target Compounds					Qvalue
26) methylene chloride	7.98	84	2625	1.28 ug/L	85

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

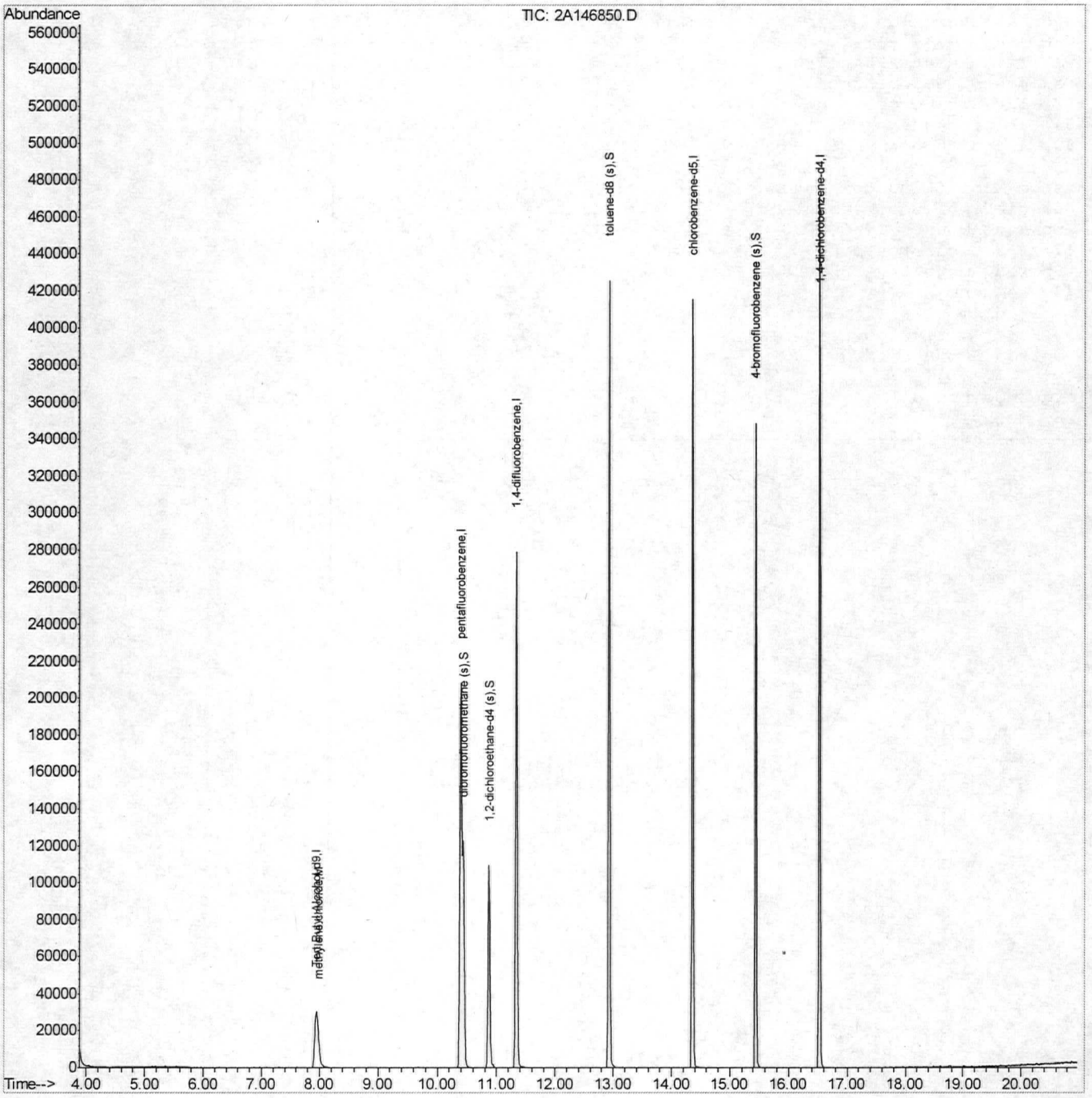
7.1.9

7

Quantitation Report (QT Reviewed)

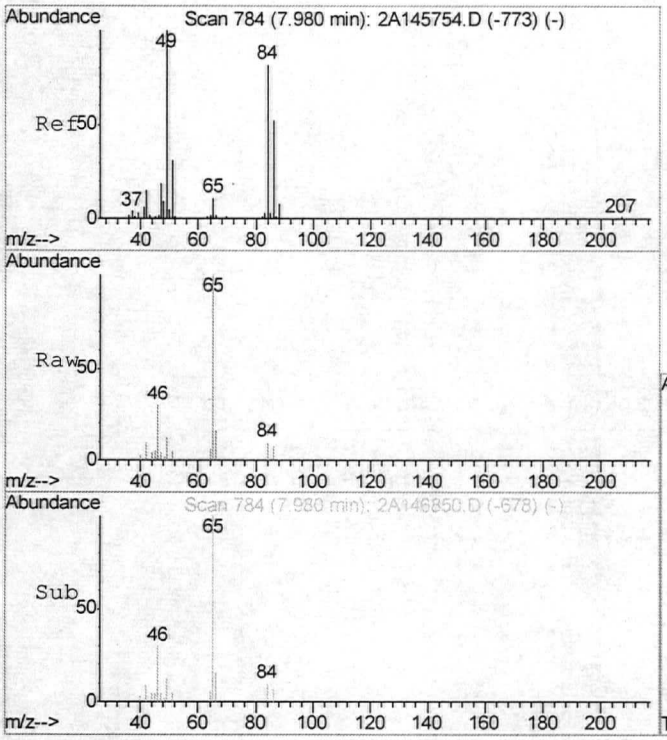
Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146850.D
Acq On : 13 May 2014 12:09 pm
Operator : thomass1
Sample : jb66485-9
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 13 16:07:57 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



M2A6216.M Tue May 27 11:20:50 2014 MS2A

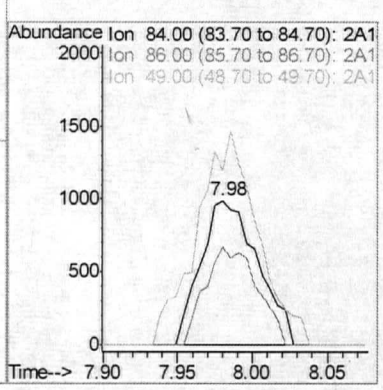
Page: 2



#26
methylene chloride
Concen: 1.28 ug/L
RT: 7.98 min Scan# 784
Delta R.T. -0.01 min
Lab File: 2A146850.D
Acq: 13 May 2014 12:09 pm

Tgt Ion: 84 Resp: 2625

Ion	Ratio	Lower	Upper
84	100		
86	68.3	34.1	94.1
49	102.3	95.3	155.3



7.1.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146775.D
Acq On : 9 May 2014 6:46 pm
Operator : thomass1
Sample : jb66485-10
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 12 08:24:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	78470	500.00 ug/L	-0.01
5) pentafluorobenzene	10.40	168	199048	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	275174	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	245443	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	127035	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	87302	48.38 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 96.76%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	99091	48.75 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 97.50%		
76) toluene-d8 (s)	12.93	98	308856	52.61 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.22%		
100) 4-bromofluorobenzene (s)	15.44	95	113145	46.82 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.64%		

Target Compounds	Qvalue

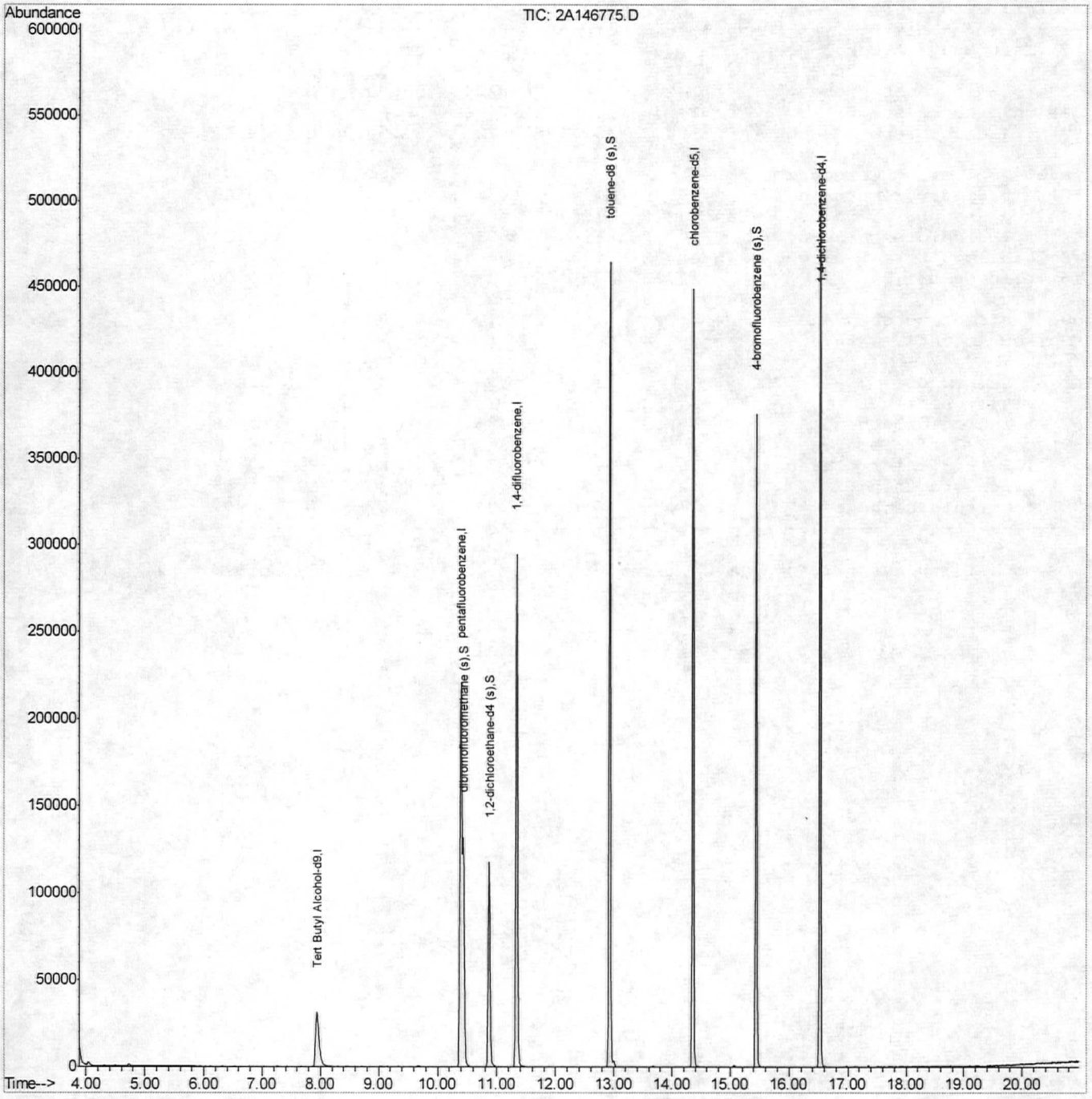
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.10

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146775.D
Acq On : 9 May 2014 6:46 pm
Operator : thomass1
Sample : jb66485-10
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 12 08:24:42 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



M2A6216.M Tue May 27 11:20:15 2014 MS2A

ACCUTEST LABORATORIES
JB66485

7.1.10
7

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146776.D
Acq On : 9 May 2014 7:16 pm
Operator : thomass1
Sample : jb66485-11
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 27 11:12:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	79749	500.00 ug/L	-0.01
5) pentafluorobenzene	10.40	168	192743	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	266620	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	232748	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	121833	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	84462	48.34 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 96.68%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	96892	49.23 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 98.46%		
76) toluene-d8 (s)	12.93	98	300139	52.76 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.52%		
100) 4-bromofluorobenzene (s)	15.44	95	107771	46.50 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.00%		
Target Compounds					Qvalue
11) vinyl chloride	4.82	62	2421	0.91 ug/L	90
32) 1,1-dichloroethane	9.03	63	30785	8.61 ug/L	98
39) cis-1,2-dichloroethene	9.83	96	7849m	3.54 ug/L	
50) 1,1,1-trichloroethane	10.49	97	17573	5.87 ug/L	97
66) trichloroethene	11.67	95	4426	2.33 ug/L	95
85) tetrachloroethene	13.56	164	31234	19.87 ug/L	97

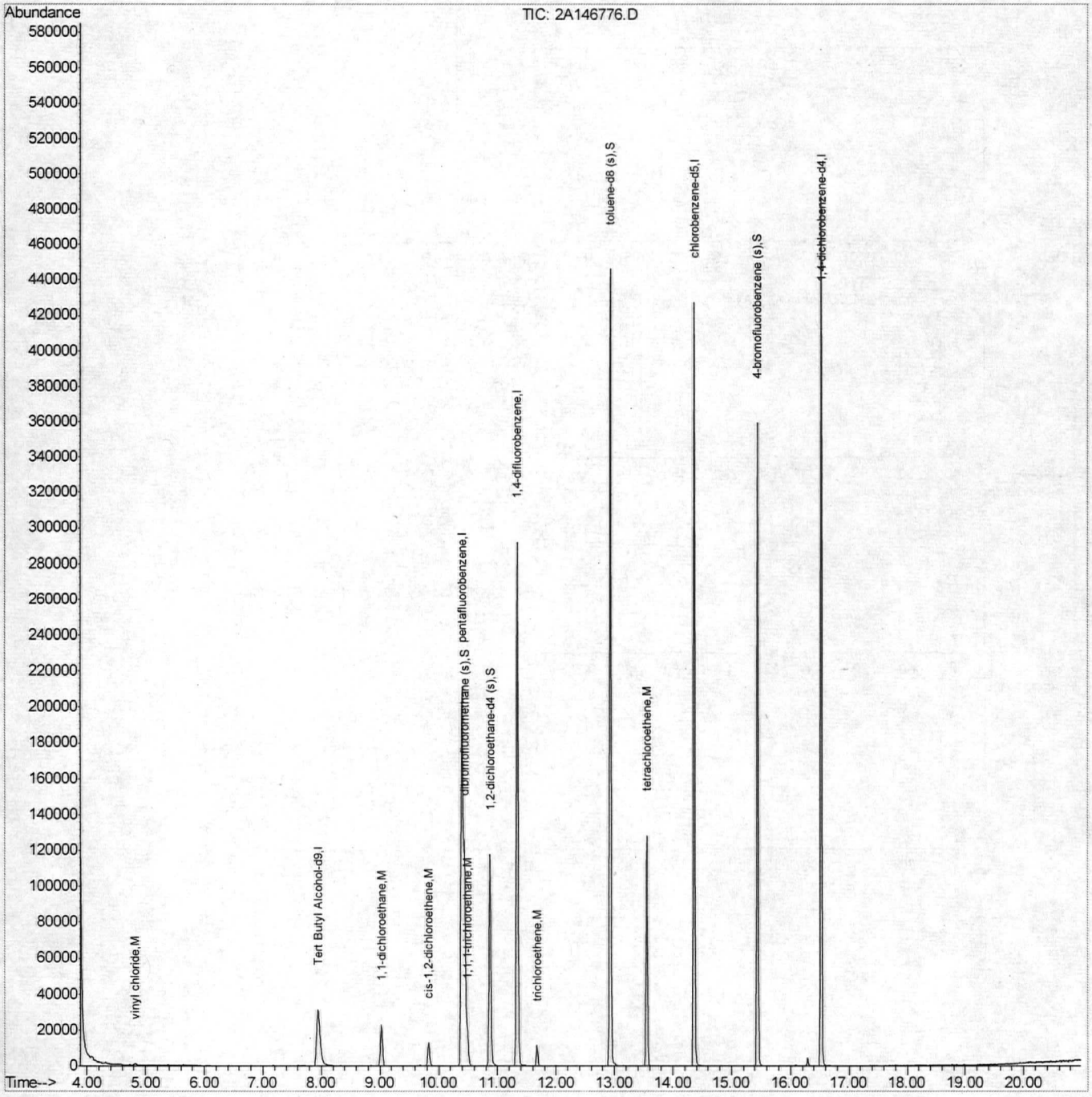
(#) = qualifier out of range (m) = manual integration (+) = signals summed

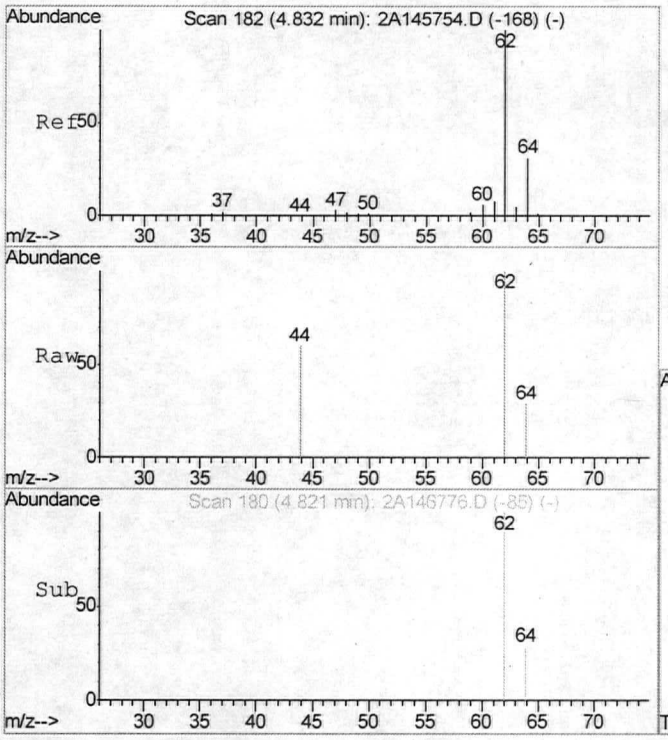
7.1.11

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146776.D
Acq On : 9 May 2014 7:16 pm
Operator : thomass1
Sample : jb66485-11
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 27 11:12:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

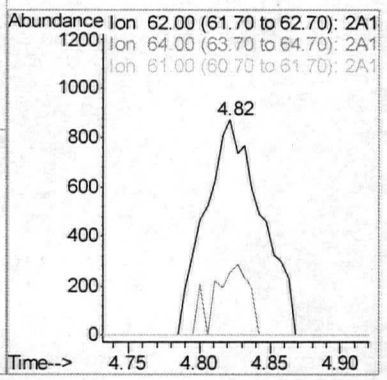


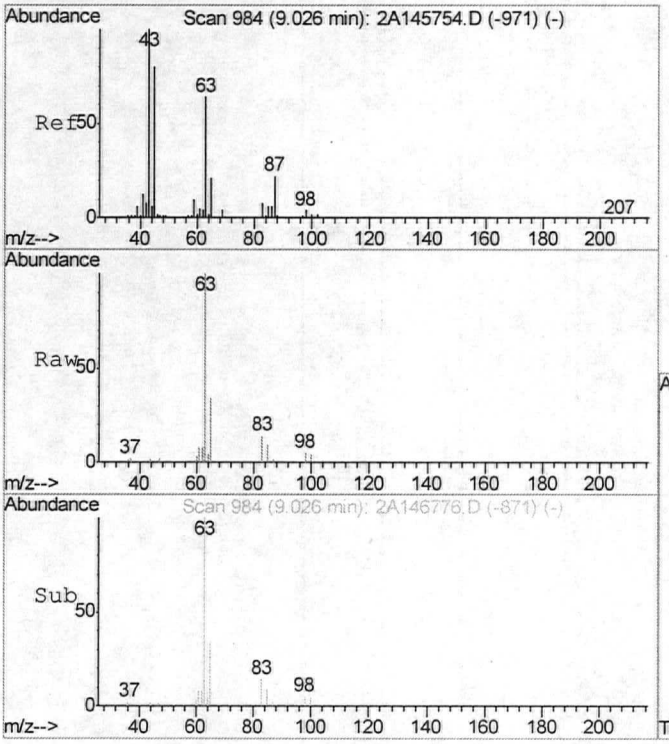


#11
vinyl chloride
Concen: 0.91 ug/L
RT: 4.82 min Scan# 180
Delta R.T. -0.01 min
Lab File: 2A146776.D
Acq: 9 May 2014 7:16 pm

Tgt Ion: 62 Resp: 2421

Ion	Ratio	Lower	Upper
62	100		
64	29.2	2.9	62.9
61	0.0	0.0	38.5

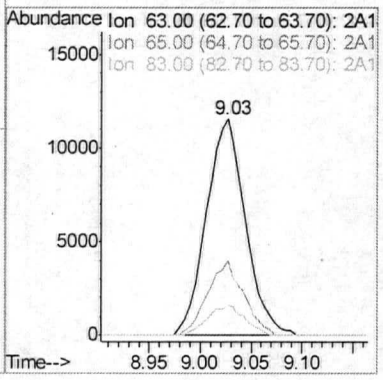




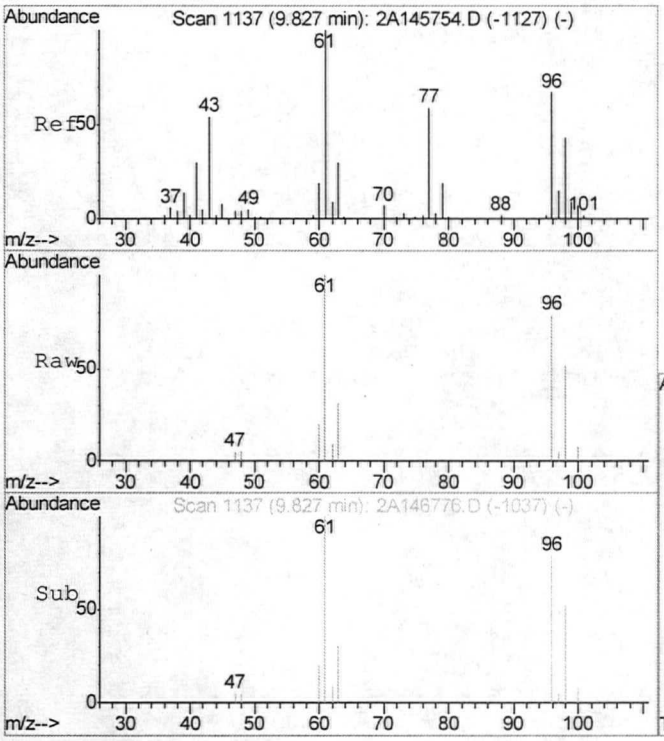
#32
1,1-dichloroethane
Concen: 8.61 ug/L
RT: 9.03 min Scan# 984
Delta R.T. -0.00 min
Lab File: 2A146776.D
Acq: 9 May 2014 7:16 pm

Tgt Ion: 63 Resp: 30785

Ion	Ratio	Lower	Upper
63	100		
65	34.3	3.4	63.4
83	13.9	0.0	42.7



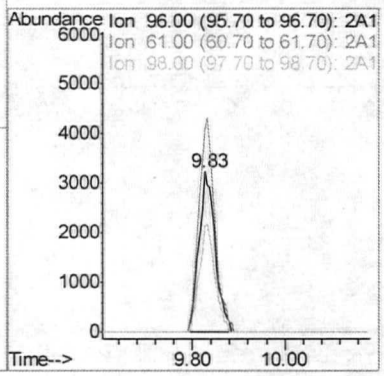
7.1.11 7

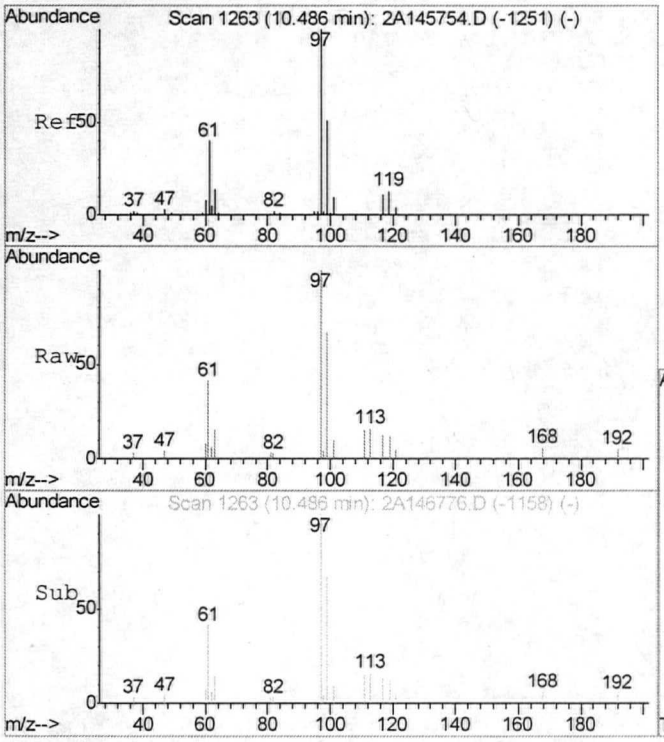


#39
cis-1,2-dichloroethene
Concen: 3.54 ug/L m
RT: 9.83 min Scan# 1137
Delta R.T. -0.01 min
Lab File: 2A146776.D
Acq: 9 May 2014 7:16 pm

Tgt Ion: 96 Resp: 7849

Ion	Ratio	Lower	Upper
96	100		
61	127.2	123.5	183.5
98	66.7	38.7	98.7

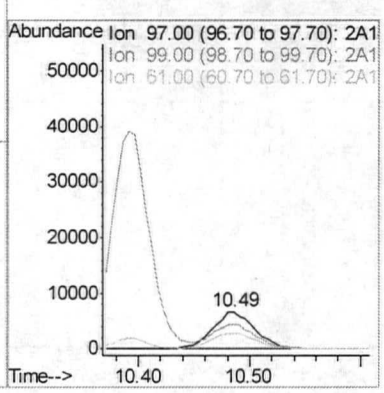




#50
1,1,1-trichloroethane
Concen: 5.87 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. -0.00 min
Lab File: 2A146776.D
Acq: 9 May 2014 7:16 pm

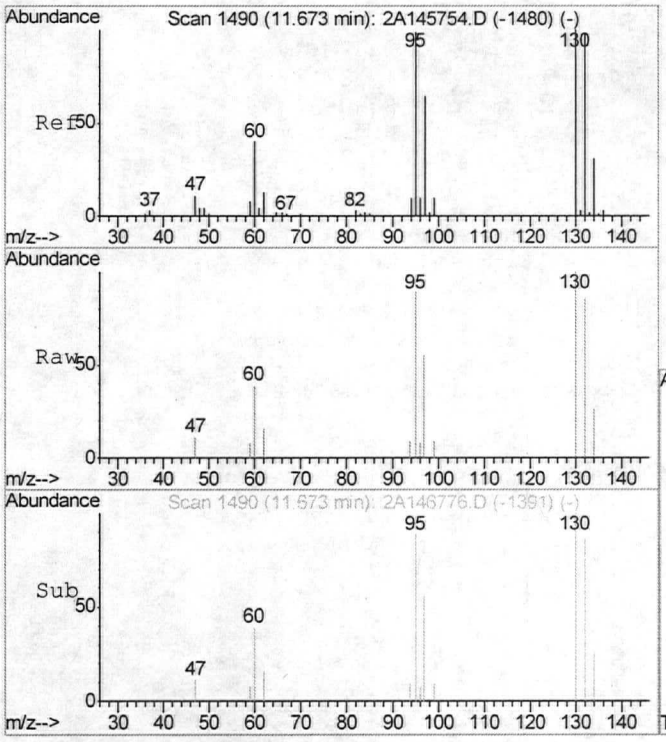
Tgt Ion: 97 Resp: 17573

Ion	Ratio	Lower	Upper
97	100		
99	66.7	33.7	93.7
61	40.6	9.9	69.9



7.1.11

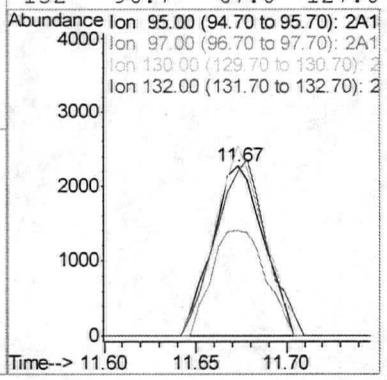
7

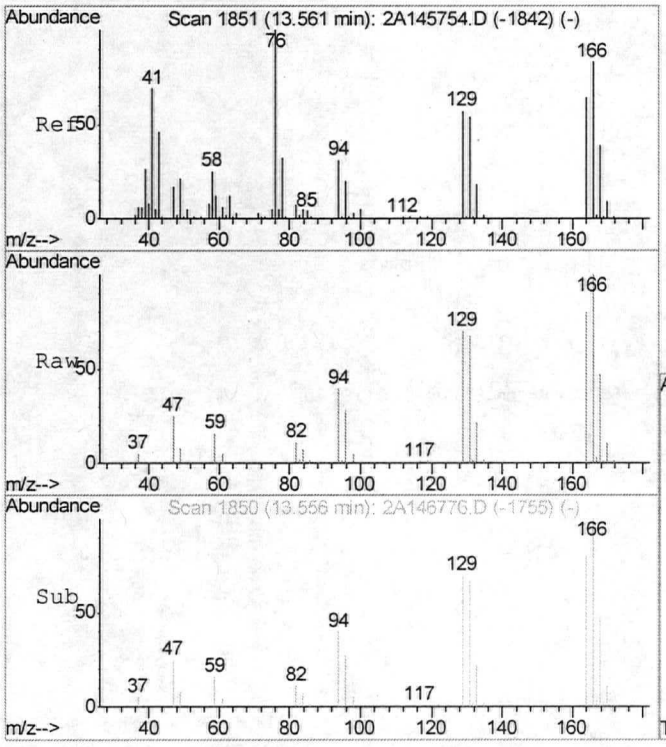


#66
trichloroethene
Concen: 2.33 ug/L
RT: 11.67 min Scan# 1490
Delta R.T. -0.00 min
Lab File: 2A146776.D
Acq: 9 May 2014 7:16 pm

Tgt Ion: 95 Resp: 4426

Ion	Ratio	Lower	Upper
95	100		
97	61.9	37.2	97.2
130	112.3	72.7	132.7
132	96.7	67.0	127.0

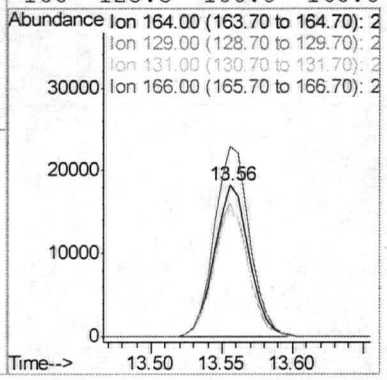




#85
tetrachloroethene
Concen: 19.87 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146776.D
Acq: 9 May 2014 7:16 pm

Tgt Ion:164 Resp: 31234

Ion	Ratio	Lower	Upper
164	100		
129	87.8	57.6	117.6
131	84.3	52.6	112.6
166	125.5	100.8	160.8



7.1.11

ACCUTEST LABORATORIES
JB66485

Manual Integration Approval Summary

Sample Number:	JB66485-11	**Method:**	SW846 8260B
Lab FileID:	2A146776.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 19:16	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146777.D
Acq On : 9 May 2014 7:46 pm
Operator : thomass1
Sample : jb66485-12
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 27 11:12:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	79097	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	191563	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	262383	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	236346	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	122257	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	84683	48.76 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.52%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	97161	49.67 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 99.34%		
76) toluene-d8 (s)	12.93	98	296257	52.92 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.84%		
100) 4-bromofluorobenzene (s)	15.44	95	108957	46.85 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.70%		
Target Compounds					Qvalue
19) 1,1-dichloroethene	7.18	96	4826	2.65 ug/L	97
32) 1,1-dichloroethane	9.02	63	41945	11.80 ug/L	98
39) cis-1,2-dichloroethene	9.83	96	5863m	2.66 ug/L	
50) 1,1,1-trichloroethane	10.49	97	149630	50.26 ug/L	98
66) trichloroethene	11.68	95	2970	1.59 ug/L	89
85) tetrachloroethene	13.56	164	37265	23.34 ug/L	97

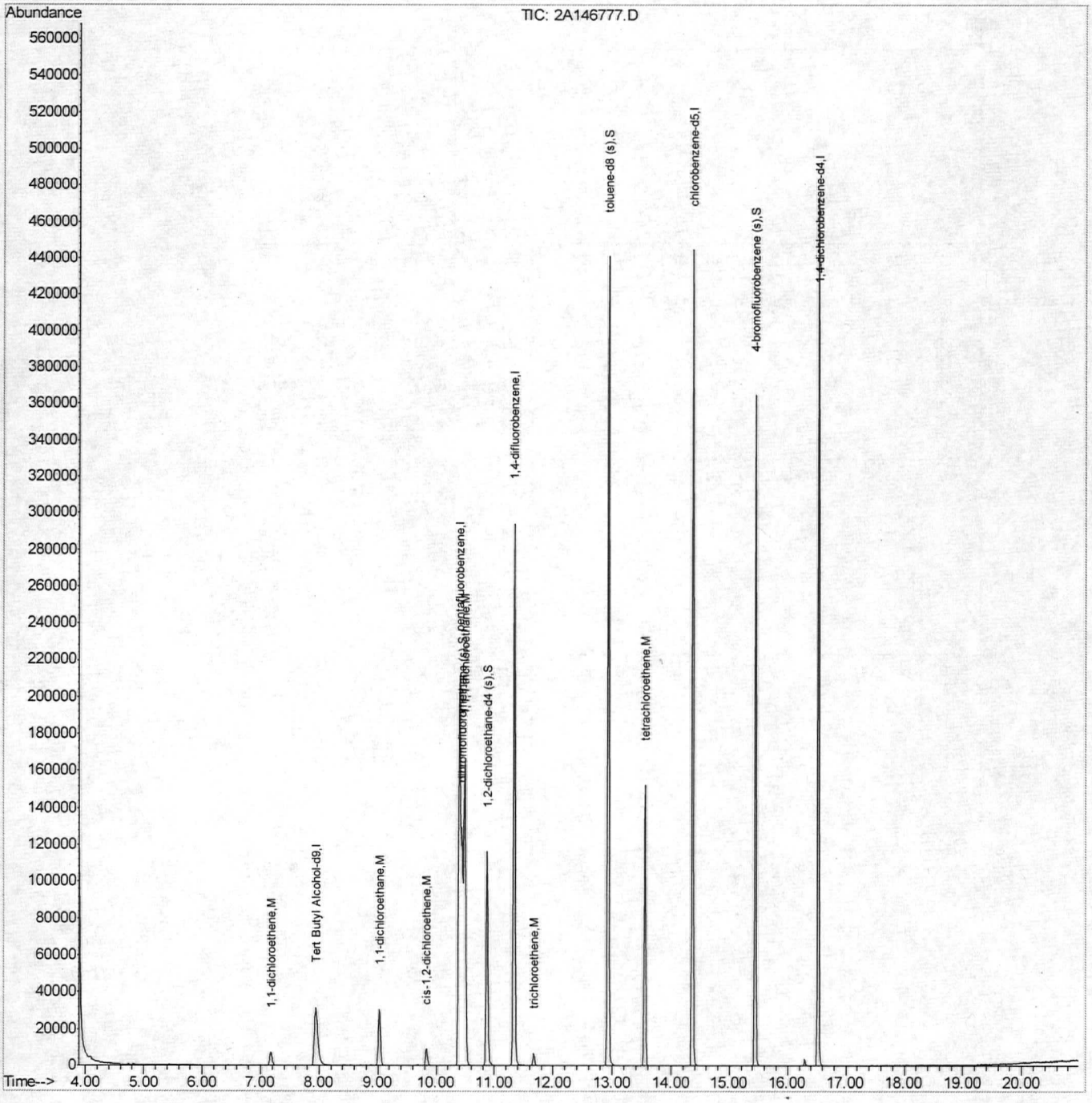
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.12

Quantitation Report (QT Reviewed)

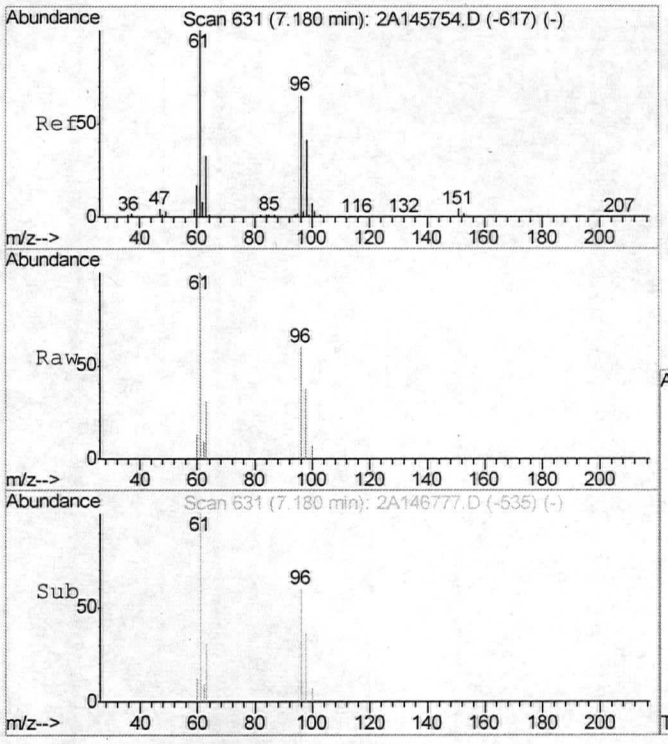
Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146777.D
Acq On : 9 May 2014 7:46 pm
Operator : thomass1
Sample : jb66485-12
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 27 11:12:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



M2A6216.M Tue May 27 11:20:26 2014 MS2A

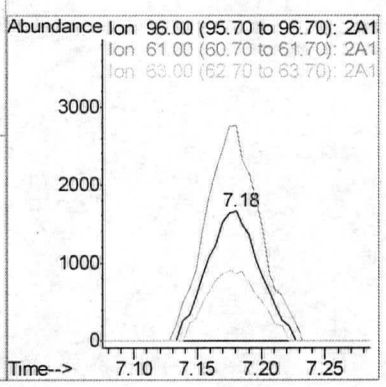
Page: 2

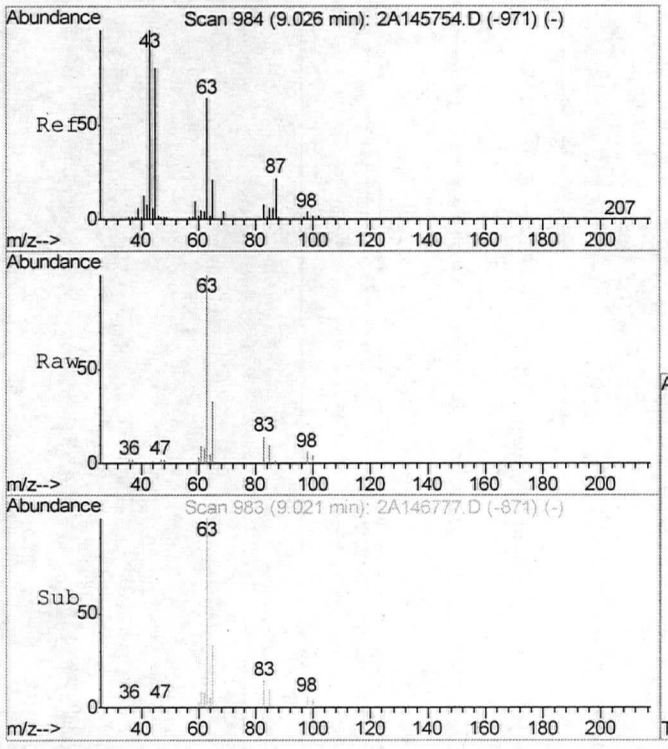


#19
1,1-dichloroethene
Concen: 2.65 ug/L
RT: 7.18 min Scan# 631
Delta R.T. -0.00 min
Lab File: 2A146777.D
Acq: 9 May 2014 7:46 pm

Tgt Ion: 96 Resp: 4826

Ion	Ratio	Lower	Upper
96	100		
61	166.6	131.6	191.6
63	52.1	22.2	82.2

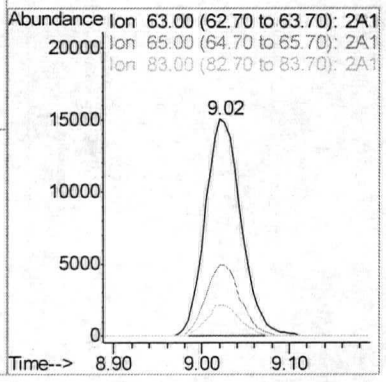




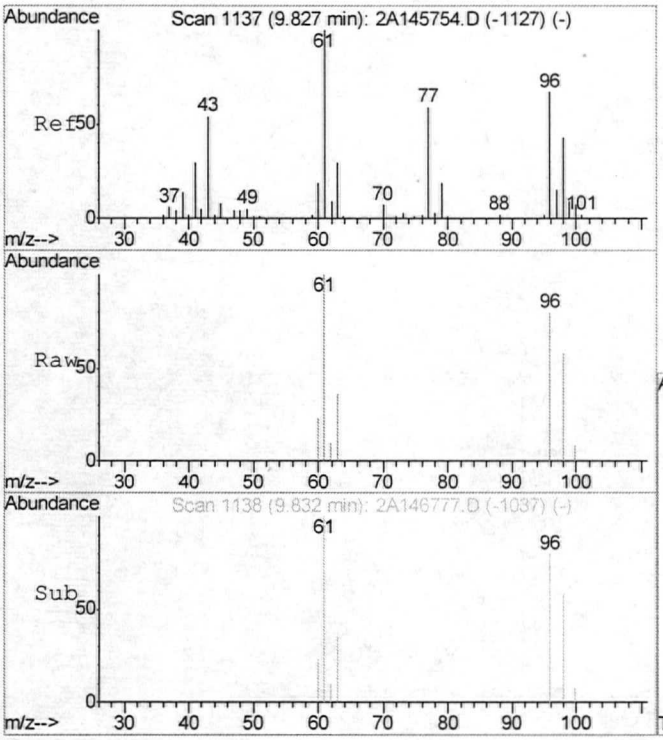
#32
1,1-dichloroethane
Concen: 11.80 ug/L
RT: 9.02 min Scan# 983
Delta R.T. -0.01 min
Lab File: 2A146777.D
Acq: 9 May 2014 7:46 pm

Tgt Ion: 63 Resp: 41945

Ion	Ratio	Lower	Upper
63	100		
65	32.7	3.4	63.4
83	14.1	0.0	42.7



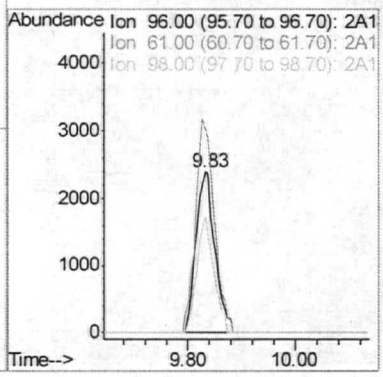
7.1.12

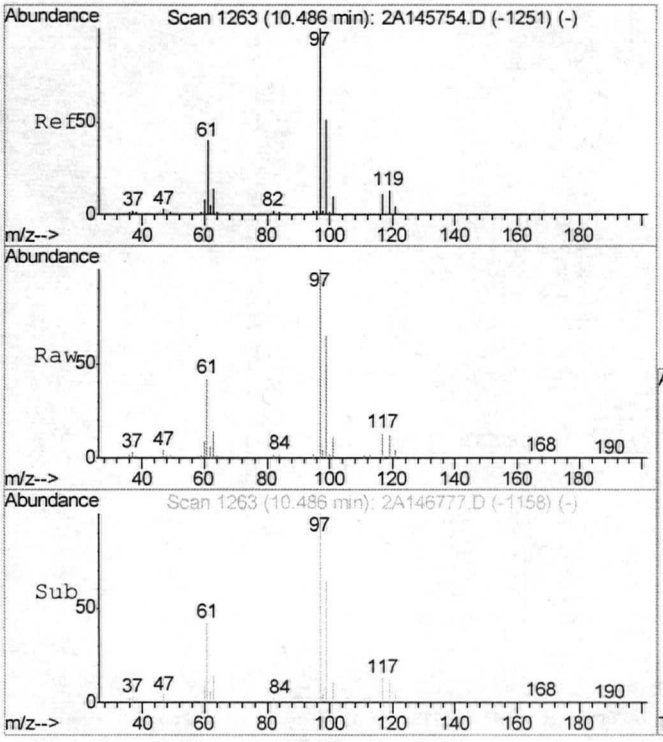


#39
cis-1,2-dichloroethene
Concen: 2.66 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. -0.00 min
Lab File: 2A146777.D
Acq: 9 May 2014 7:46 pm

Tgt Ion: 96 Resp: 5863

Ion	Ratio	Lower	Upper
96	100		
61	125.6	123.5	183.5
98	72.4	38.7	98.7

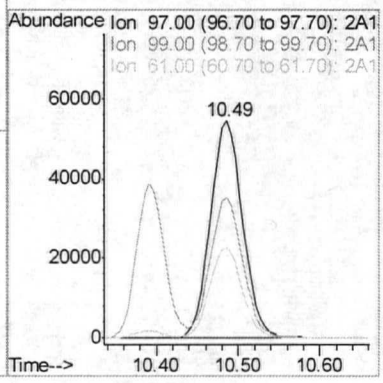




#50
1,1,1-trichloroethane
Concen: 50.26 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. -0.00 min
Lab File: 2A146777.D
Acq: 9 May 2014 7:46 pm

Tgt Ion: 97 Resp: 149630

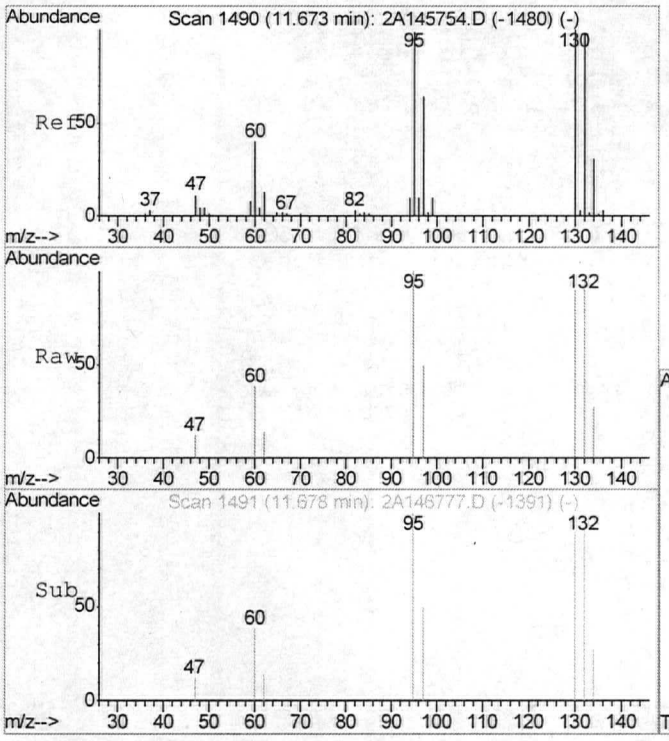
Ion	Ratio	Lower	Upper
97	100		
99	64.7	33.7	93.7
61	42.0	9.9	69.9



7.1.12

7

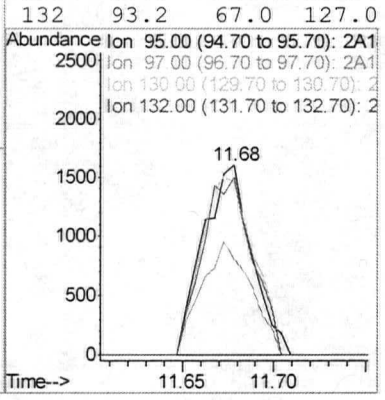
ACCUTEST LABORATORIES
JB66485

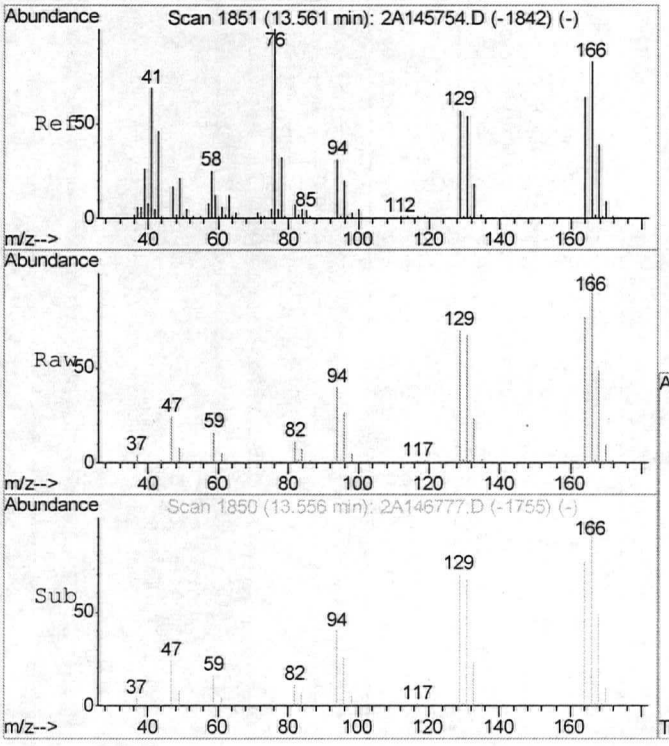


#66
trichloroethene
Concen: 1.59 ug/L
RT: 11.68 min Scan# 1491
Delta R.T. 0.01 min
Lab File: 2A146777.D
Acq: 9 May 2014 7:46 pm

Tgt Ion: 95 Resp: 2970

Ion	Ratio	Lower	Upper
95	100		
97	50.1	37.2	97.2
130	90.3	72.7	132.7
132	93.2	67.0	127.0

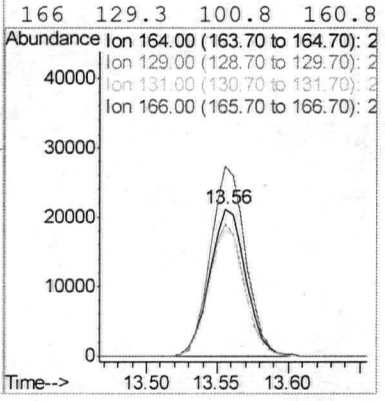




#85
tetrachloroethene
Concen: 23.34 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146777.D
Acq: 9 May 2014 7:46 pm

Tgt Ion:164 Resp: 37265

Ion	Ratio	Lower	Upper
164	100		
129	90.2	57.6	117.6
131	86.3	52.6	112.6
166	129.3	100.8	160.8



7.1.12

Manual Integration Approval Summary

Sample Number:	JB66485-12	**Method:**	SW846 8260B
Lab FileID:	2A146777.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 19:46	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

7.1.12.1

7

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146778.D
Acq On : 9 May 2014 8:16 pm
Operator : thomass1
Sample : jb66485-13
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 27 11:13:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	76517	500.00	ug/L	-0.02
5) pentafluorobenzene	10.39	168	188336	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	261548	50.00	ug/L	0.00
84) chlorobenzene-d5	14.36	117	230996	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	120926	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.43	113	83543	48.93	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.86%			
47) 1,2-dichloroethane-d4 (s)	10.87	65	96228	50.03	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 100.06%			
76) toluene-d8 (s)	12.93	98	292396	52.40	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 104.80%			
100) 4-bromofluorobenzene (s)	15.44	95	107173	46.59	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.18%			
Target Compounds						Qvalue
19) 1,1-dichloroethene	7.18	96	852	0.48	ug/L	84
32) 1,1-dichloroethane	9.02	63	5762	1.65	ug/L	99
39) cis-1,2-dichloroethene	9.83	96	21185m	9.78	ug/L	
50) 1,1,1-trichloroethane	10.49	97	51365	17.55	ug/L	95

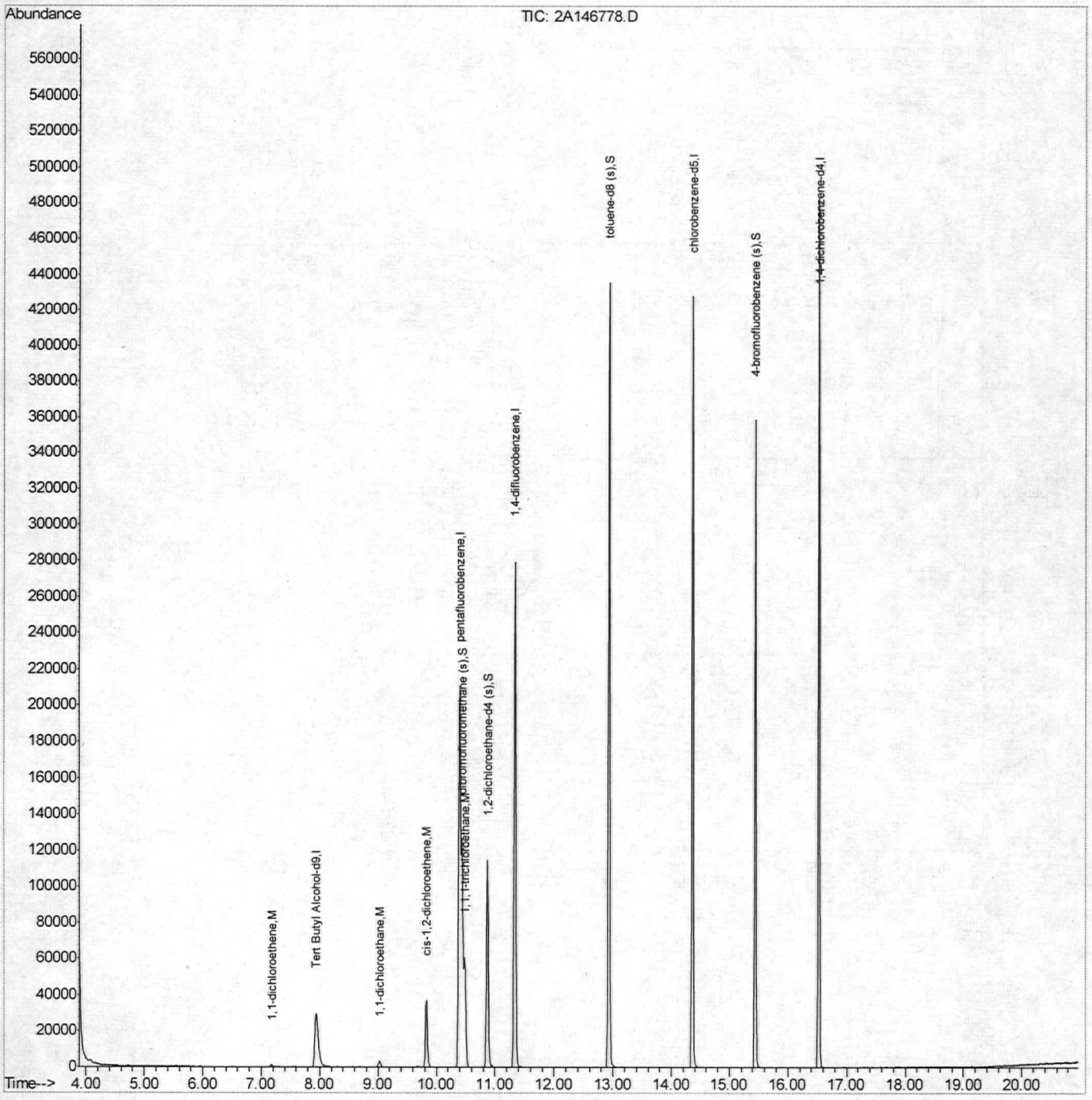
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.13 7

Quantitation Report (QT Reviewed)

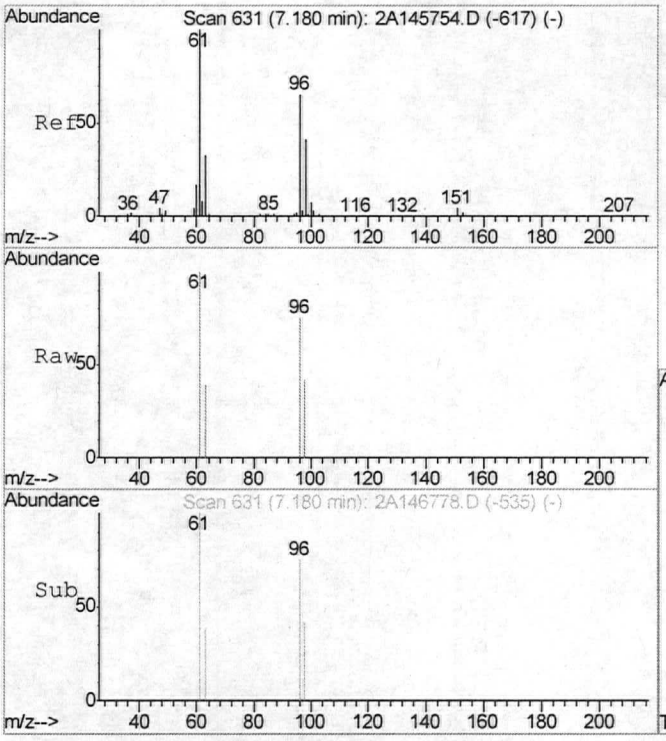
Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146778.D
Acq On : 9 May 2014 8:16 pm
Operator : thomass1
Sample : jb66485-13
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 27 11:13:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



M2A6216.M Tue May 27 11:20:30 2014 MS2A

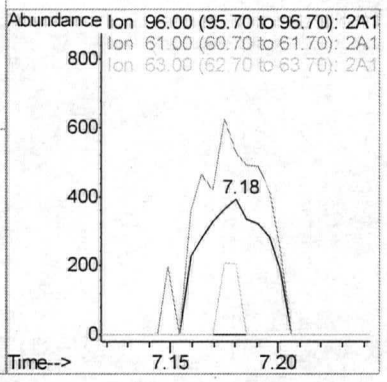
ACCUTEST LABORATORIES

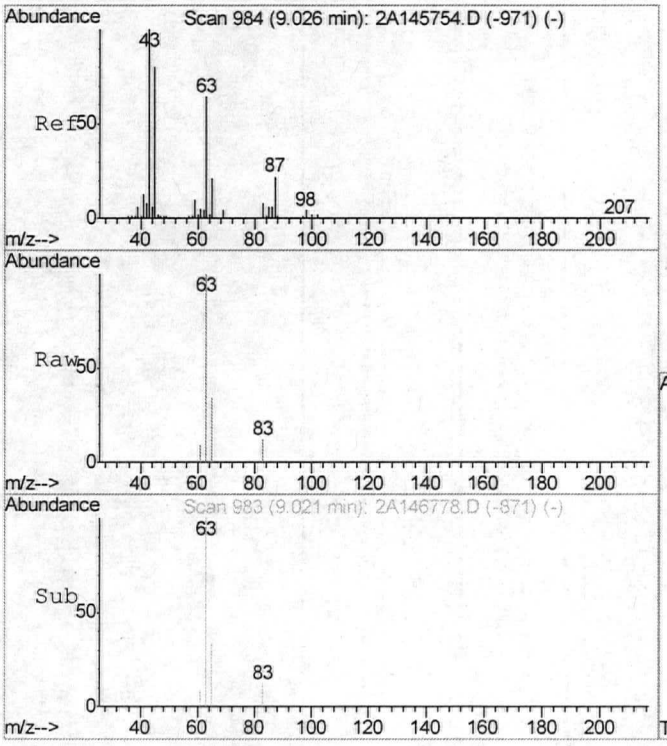


#19
1,1-dichloroethene
Concen: 0.48 ug/L
RT: 7.18 min Scan# 631
Delta R.T. -0.00 min
Lab File: 2A146778.D
Acq: 9 May 2014 8:16 pm

Tgt Ion: 96 Resp: 852

Ion	Ratio	Lower	Upper
96	100		
61	133.5	131.6	191.6
63	51.8	22.2	82.2

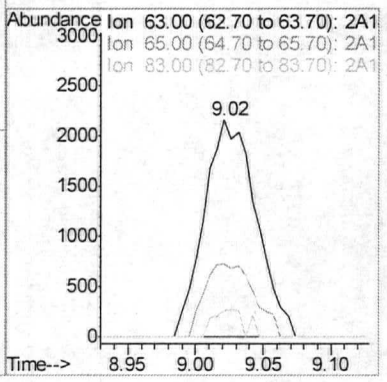




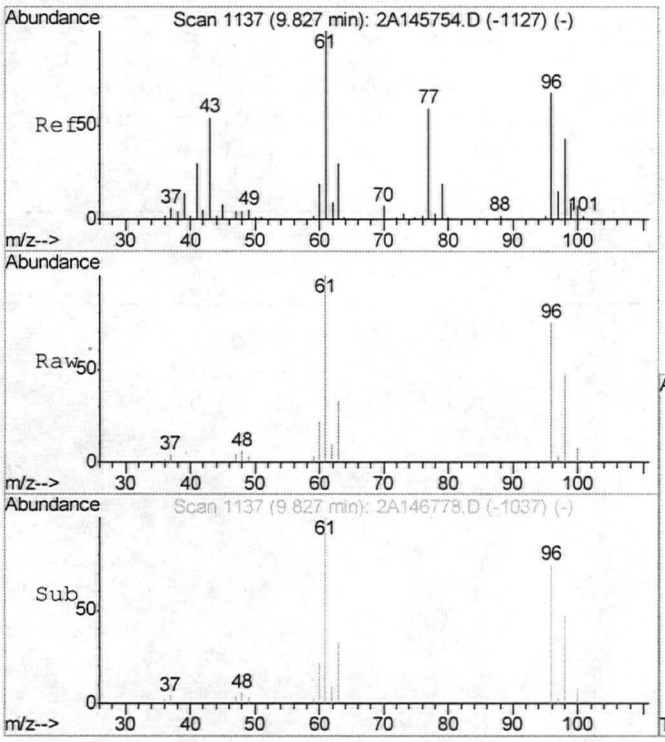
#32
1,1-dichloroethane
Concen: 1.65 ug/L
RT: 9.02 min Scan# 983
Delta R.T. -0.01 min
Lab File: 2A146778.D
Acq: 9 May 2014 8:16 pm

Tgt Ion: 63 Resp: 5762

Ion	Ratio	Lower	Upper
63	100		
65	33.9	3.4	63.4
83	12.5	0.0	42.7



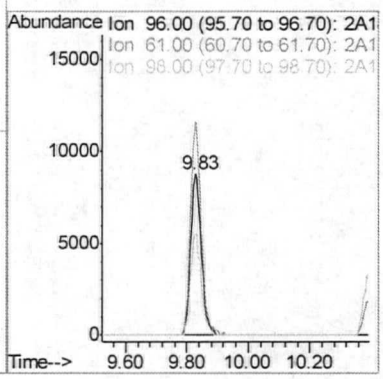
7.1.13

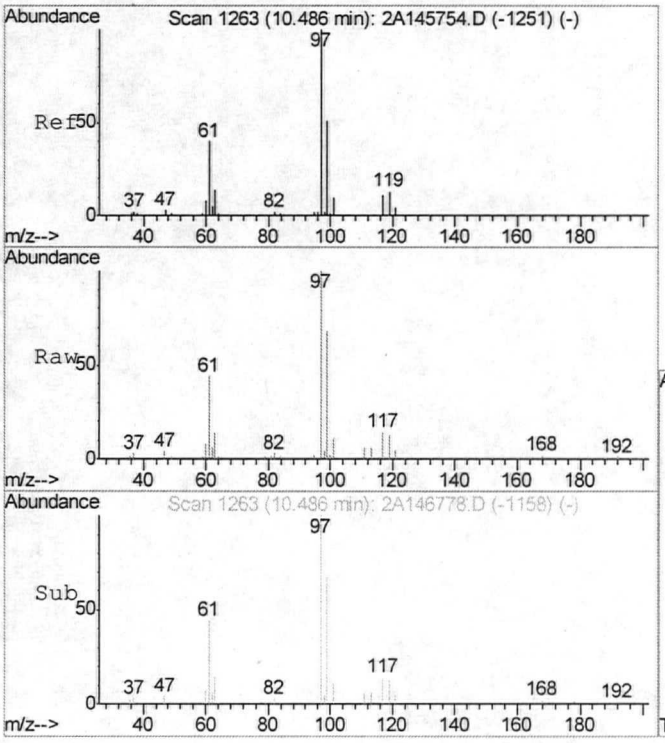


#39
cis-1,2-dichloroethene
Concen: 9.78 ug/L m
RT: 9.83 min Scan# 1137
Delta R.T. -0.01 min
Lab File: 2A146778.D
Acq: 9 May 2014 8:16 pm

Tgt Ion: 96 Resp: 21185

Ion	Ratio	Lower	Upper
96	100		
61	132.9	123.5	183.5
98	62.9	38.7	98.7

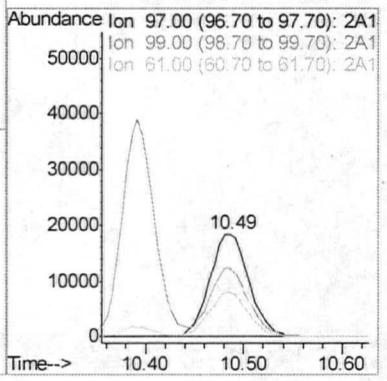




#50
1,1,1-trichloroethane
Concen: 17.55 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. -0.00 min
Lab File: 2A146778.D
Acq: 9 May 2014 8:16 pm

Tgt Ion: 97 Resp: 51365

Ion	Ratio	Lower	Upper
97	100		
99	67.5	33.7	93.7
61	43.6	9.9	69.9



7.1.13

7

Manual Integration Approval Summary

Sample Number:	JB66485-13	**Method:**	SW846 8260B
Lab FileID:	2A146778.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 20:16	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

Manual Integrations
APPROVED
(compounds with "m" flag)
Kanya Veerawat
05/11/14 03:55

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146762.D
Acq On : 9 May 2014 12:19 pm
Operator : thomass1
Sample : jb66485-14
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 27 11:59:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	89158	500.00	ug/L	0.00
5) pentafluorobenzene	10.39	168	203362	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	280324	50.00	ug/L	0.00
84) chlorobenzene-d5	14.36	117	242874	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	131014	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.44	113	89317	48.45	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 96.90%			
47) 1,2-dichloroethane-d4 (s)	10.87	65	100321	48.31	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 96.62%			
76) toluene-d8 (s)	12.93	98	309643	51.77	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 103.54%			
100) 4-bromofluorobenzene (s)	15.44	95	113787	45.65	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.30%			
Target Compounds						Qvalue
32) 1,1-dichloroethane	9.03	63	7659	2.03	ug/L	97
39) cis-1,2-dichloroethene	9.83	96	794m	0.34	ug/L	
50) 1,1,1-trichloroethane	10.48	97	8404	2.66	ug/L	94
85) tetrachloroethene	13.56	164	1002	0.61	ug/L	87

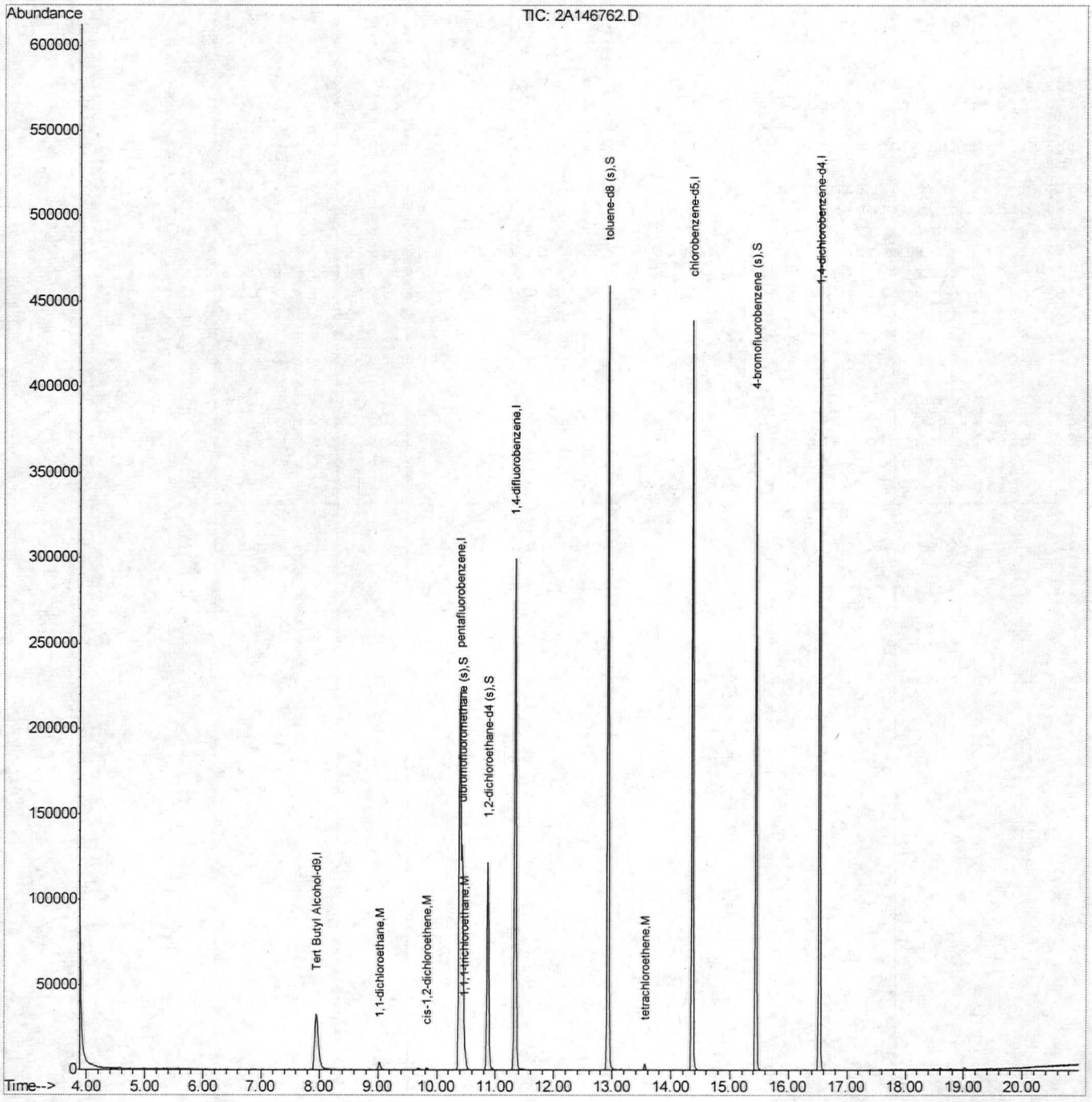
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.14 7

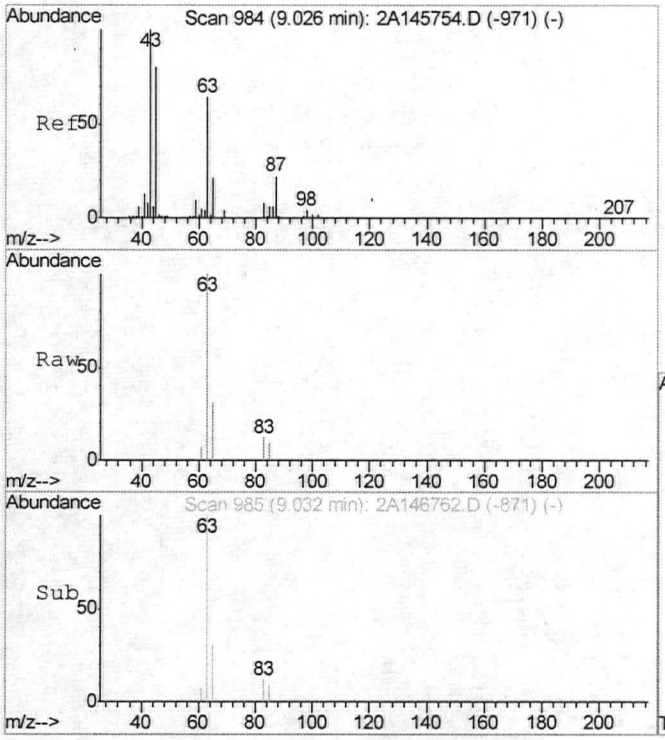
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146762.D
Acq On : 9 May 2014 12:19 pm
Operator : thomass1
Sample : jb66485-14
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 27 11:59:37 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



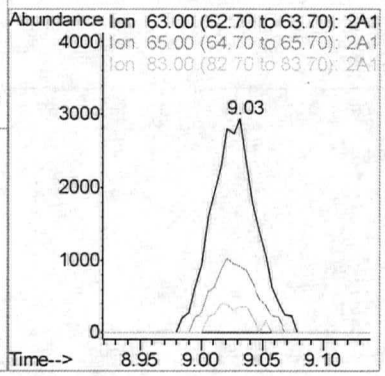
M2A6216.M Tue May 27 12:00:05 2014 MS2A

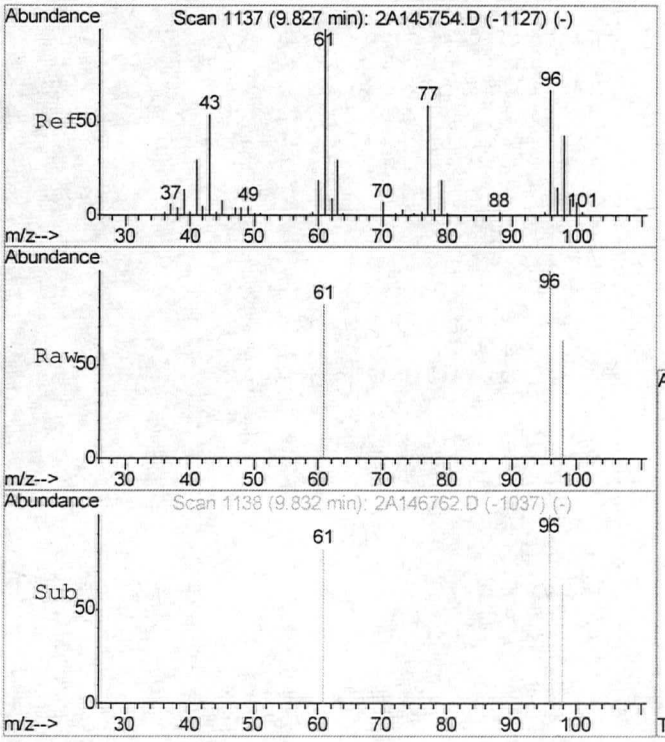


#32
1,1-dichloroethane
Concen: 2.03 ug/L
RT: 9.03 min Scan# 985
Delta R.T. 0.01 min
Lab File: 2A146762.D
Acq: 9 May 2014 12:19 pm

Tgt Ion: 63 Resp: 7659

Ion	Ratio	Lower	Upper
63	100		
65	31.3	3.4	63.4
83	12.4	0.0	42.7

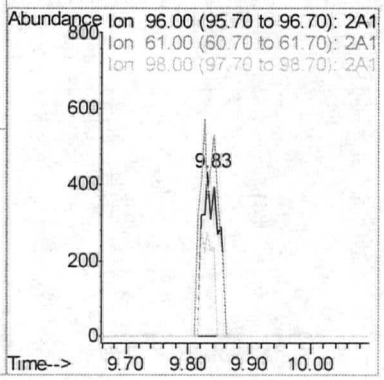




#39
cis-1,2-dichloroethene
Concen: 0.34 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. 0.00 min
Lab File: 2A146762.D
Acq: 9 May 2014 12:19 pm

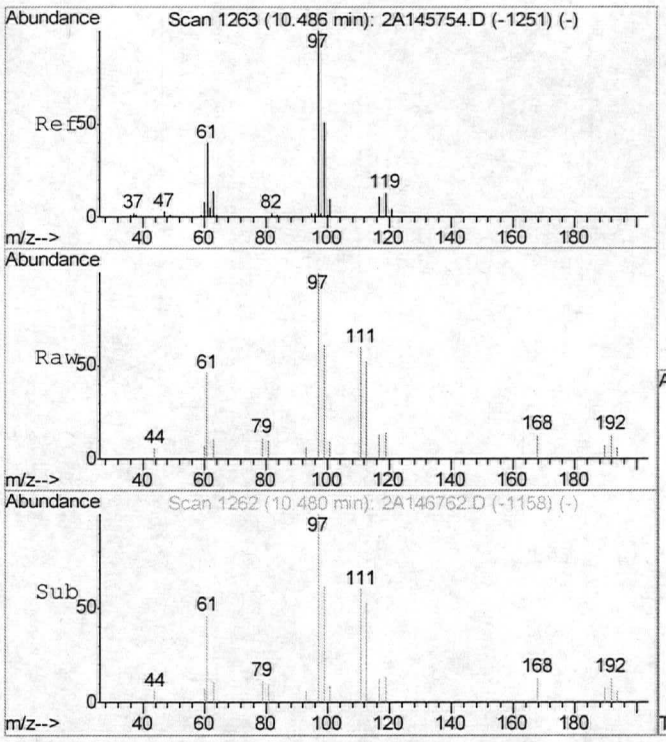
Tgt Ion: 96 Resp: 794

Ion	Ratio	Lower	Upper
96	100		
61	82.5	123.5	183.5#
98	63.1	38.7	98.7



7.1.14 7

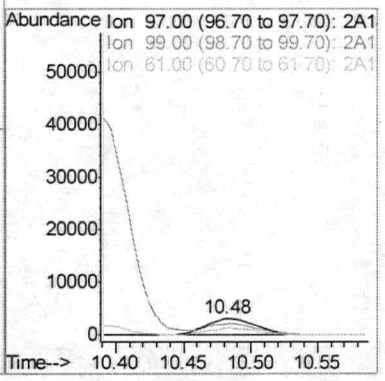
ACCUTEST LABORATORIES
JB66485

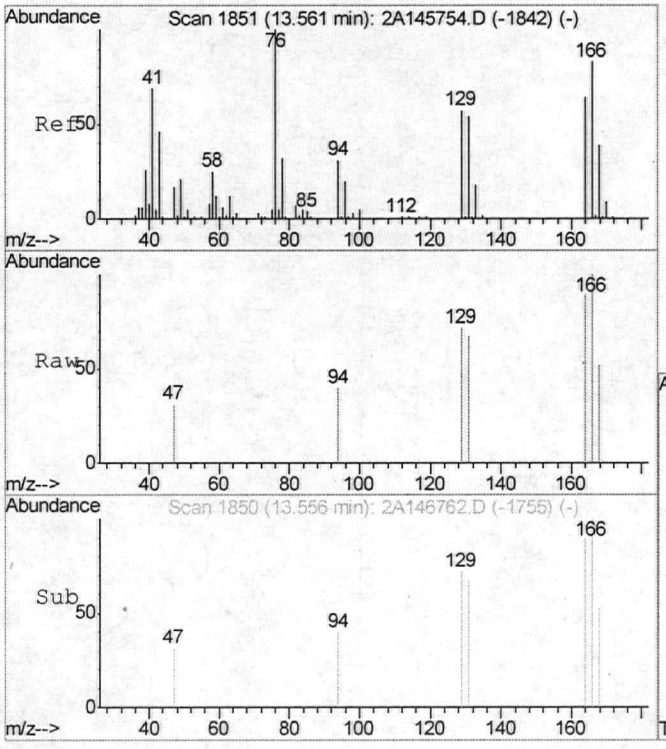


#50
1,1,1-trichloroethane
Concen: 2.66 ug/L
RT: 10.48 min Scan# 1262
Delta R.T. -0.01 min
Lab File: 2A146762.D
Acq: 9 May 2014 12:19 pm

Tgt Ion: 97 Resp: 8404

Ion	Ratio	Lower	Upper
97	100		
99	61.4	33.7	93.7
61	45.9	9.9	69.9

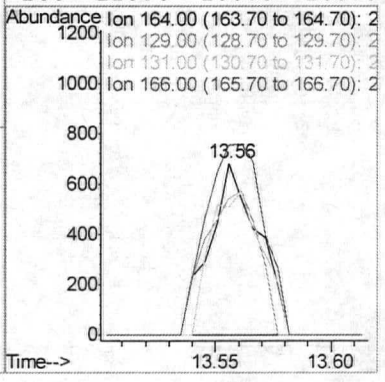




#85
tetrachloroethene
Concen: 0.61 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146762.D
Acq: 9 May 2014 12:19 pm

Tgt Ion:164 Resp: 1002

Ion	Ratio	Lower	Upper
164	100		
129	79.8	57.6	117.6
131	74.3	52.6	112.6
166	110.6	100.8	160.8



7.1.14 7

Manual Integration Approval Summary

Sample Number:	JB66485-14	**Method:**	SW846 8260B
Lab FileID:	2A146762.D	**Analyst approved:**	05/09/14 15:50 Cathleen Castello
Injection Time:	05/09/14 12:19	**Supervisor approved:**	05/11/14 03:55 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		9.83	Add-on compound quantitation

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146770.D
Acq On : 9 May 2014 4:17 pm
Operator : thomass1
Sample : jb66485-15
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 27 11:10:33 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	91168	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	215807	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	299214	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	261707	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	141538	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	94556	48.33 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 96.66%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	103595	47.01 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 94.02%		
76) toluene-d8 (s)	12.93	98	328952	51.53 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 103.06%		
100) 4-bromofluorobenzene (s)	15.44	95	122802	45.61 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.22%		
Target Compounds					Qvalue
19) 1,1-dichloroethene	7.17	96	547	0.27 ug/L #	72
32) 1,1-dichloroethane	9.02	63	6907	1.73 ug/L	93
39) cis-1,2-dichloroethene	9.83	96	1980m	0.80 ug/L	
50) 1,1,1-trichloroethane	10.48	97	20412	6.09 ug/L	95
66) trichloroethene	11.67	95	586	0.27 ug/L	89

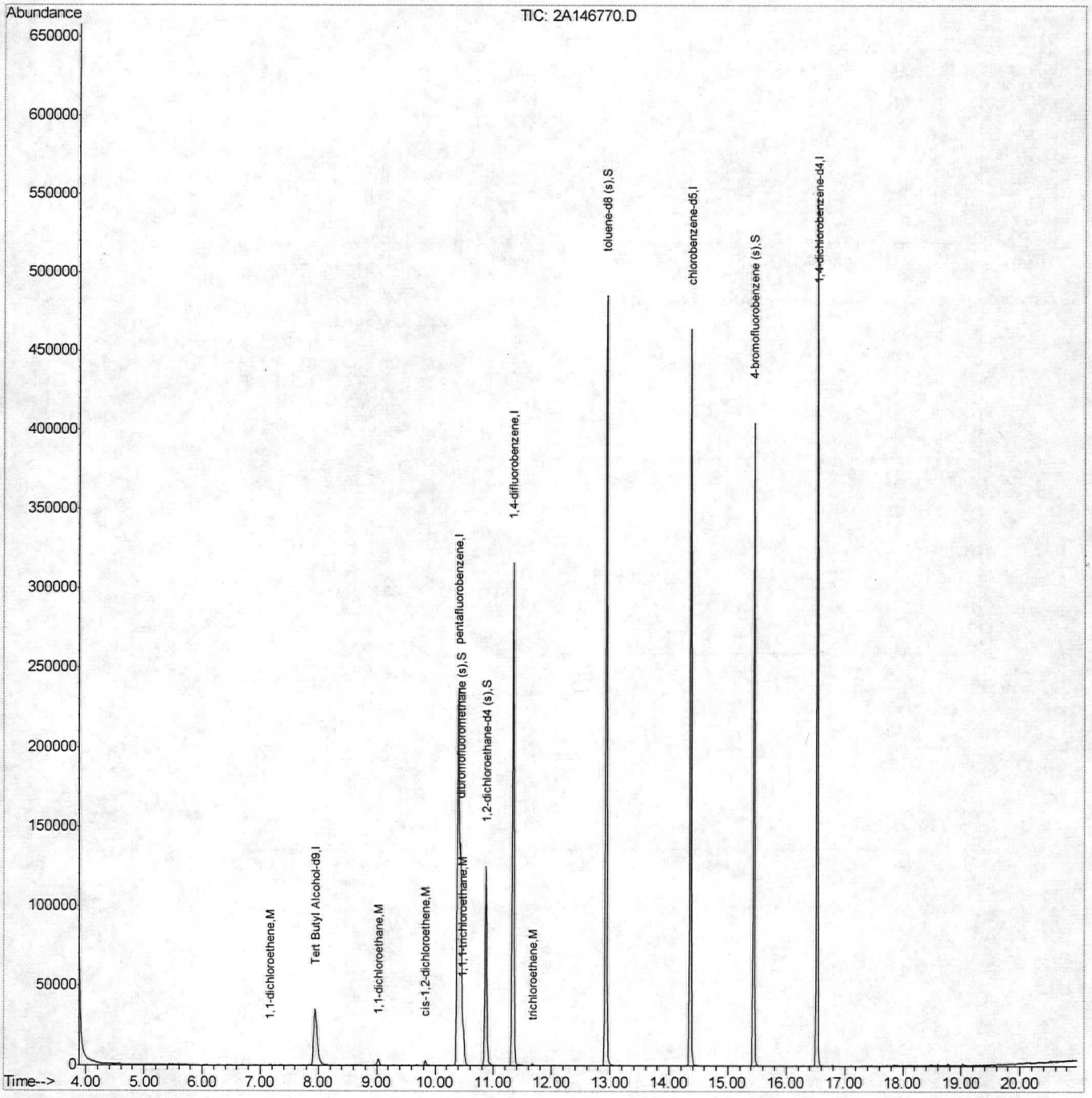
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.15 7

Quantitation Report (QT Reviewed)

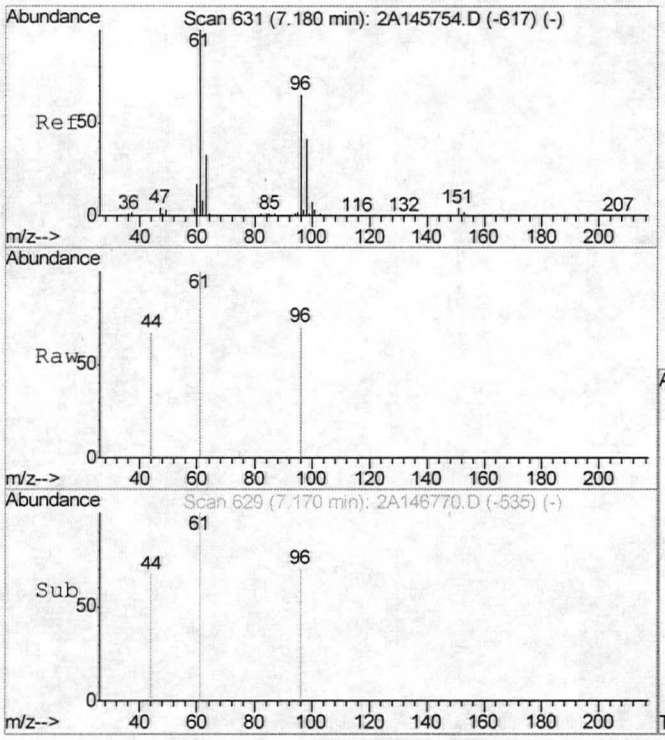
Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146770.D
Acq On : 9 May 2014 4:17 pm
Operator : thomass1
Sample : jb66485-15
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 27 11:10:33 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



M2A6216.M Tue May 27 11:19:52 2014 MS2A

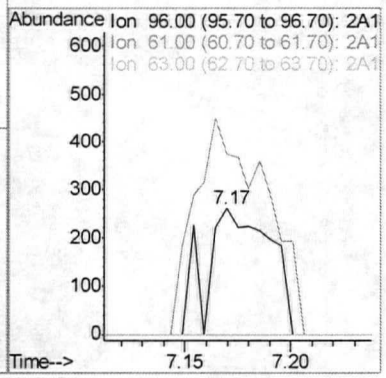
Page: 2

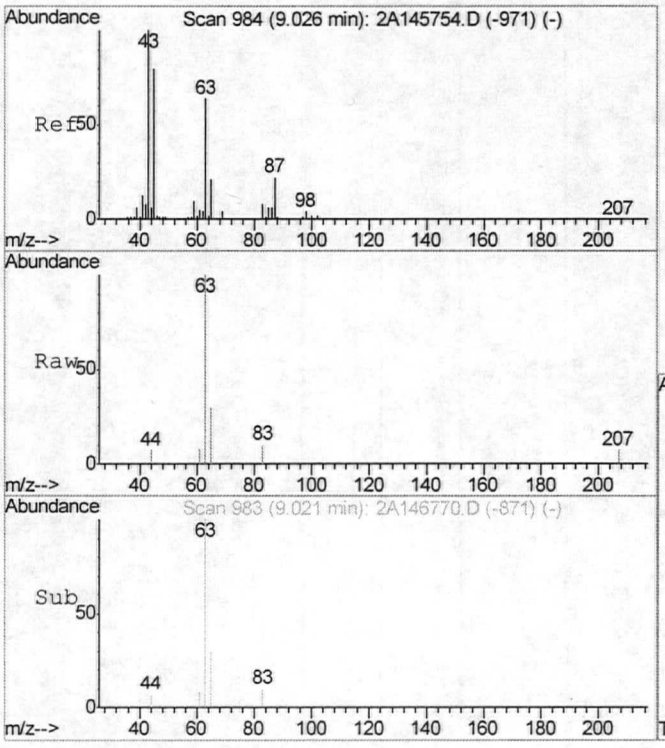


#19
1,1-dichloroethene
Concen: 0.27 ug/L
RT: 7.17 min Scan# 629
Delta R.T. -0.01 min
Lab File: 2A146770.D
Acq: 9 May 2014 4:17 pm

Tgt Ion: 96 Resp: 547

Ion	Ratio	Lower	Upper
96	100		
61	143.5	131.6	191.6
63	0.0	22.2	82.2#

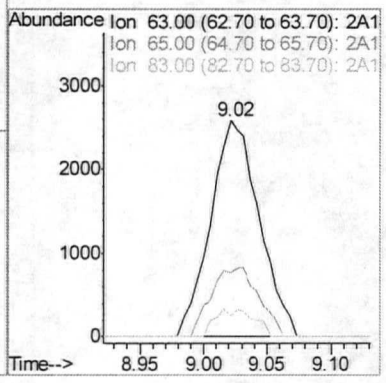




#32
1,1-dichloroethane
Concen: 1.73 ug/L
RT: 9.02 min Scan# 983
Delta R.T. -0.01 min
Lab File: 2A146770.D
Acq: 9 May 2014 4:17 pm

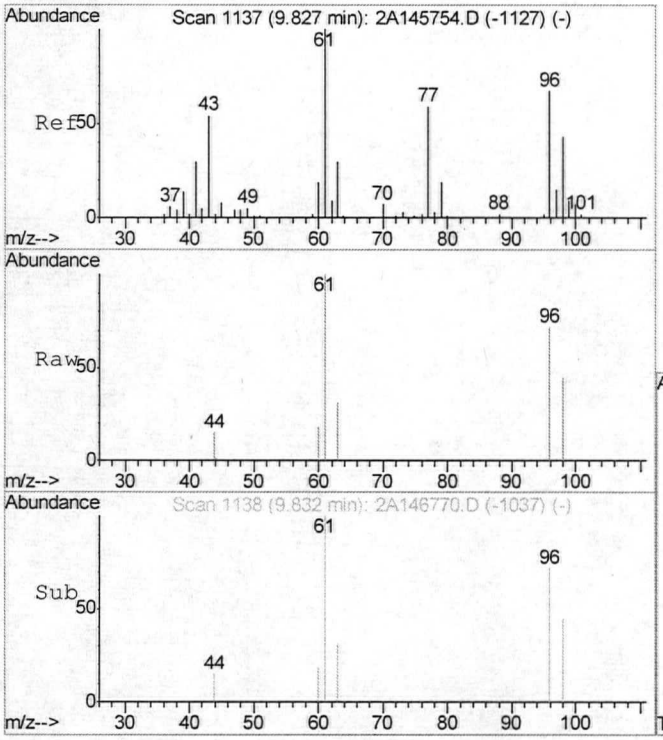
Tgt Ion: 63 Resp: 6907

Ion	Ratio	Lower	Upper
63	100		
65	29.6	3.4	63.4
83	9.6	0.0	42.7



7.1.15

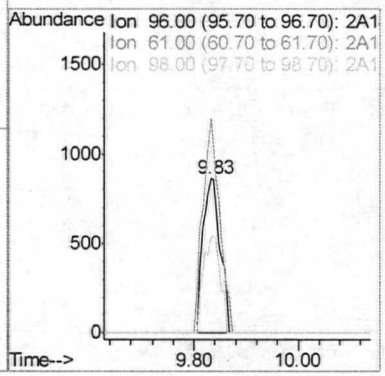
7

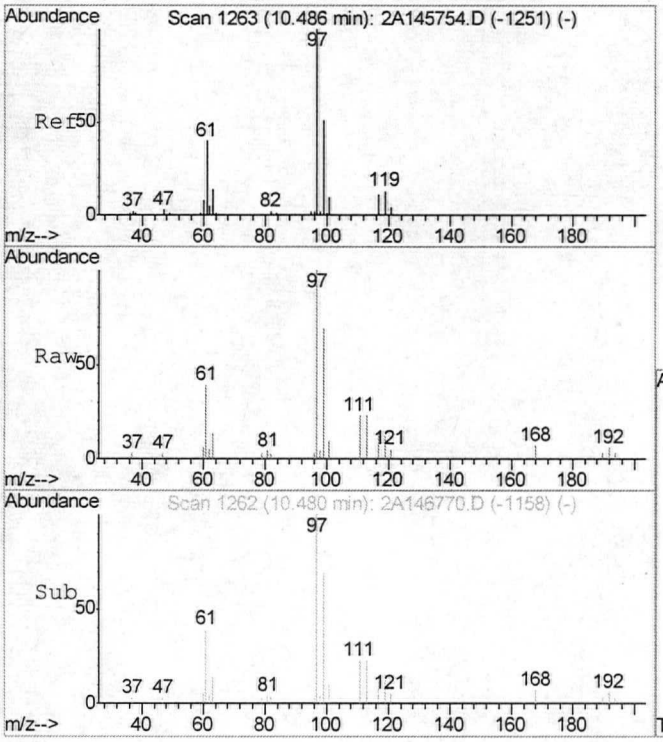


#39
cis-1,2-dichloroethene
Concen: 0.80 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. -0.00 min
Lab File: 2A146770.D
Acq: 9 May 2014 4:17 pm

Tgt Ion: 96 Resp: 1980

Ion	Ratio	Lower	Upper
96	100		
61	138.8	123.5	183.5
98	61.3	38.7	98.7

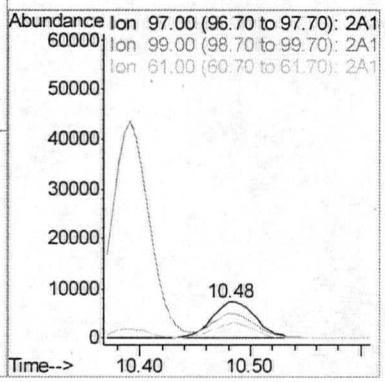




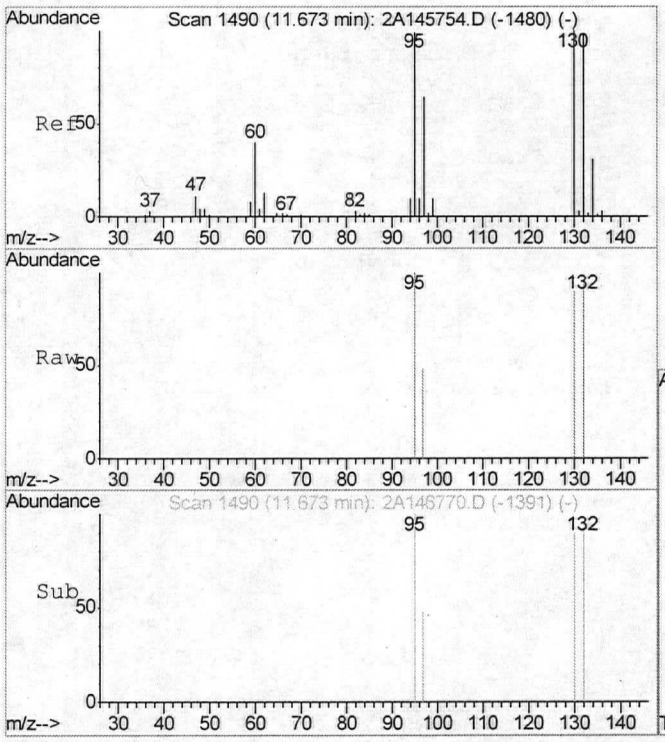
#50
1,1,1-trichloroethane
Concen: 6.09 ug/L
RT: 10.48 min Scan# 1262
Delta R.T. -0.01 min
Lab File: 2A146770.D
Acq: 9 May 2014 4:17 pm

Tgt Ion: 97 Resp: 20412

Ion	Ratio	Lower	Upper
97	100		
99	69.2	33.7	93.7
61	39.4	9.9	69.9



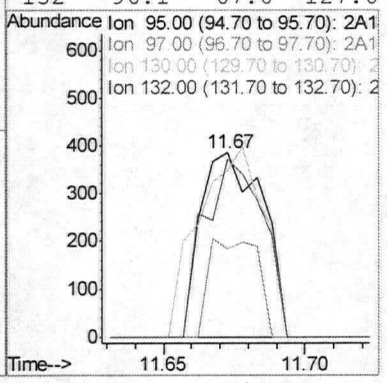
7.1.15 7



#66
trichloroethene
Concen: 0.27 ug/L
RT: 11.67 min Scan# 1490
Delta R.T. -0.00 min
Lab File: 2A146770.D
Acq: 9 May 2014 4:17 pm

Tgt Ion: 95 Resp: 586

Ion	Ratio	Lower	Upper
95	100		
97	47.8	37.2	97.2
130	90.4	72.7	132.7
132	96.1	67.0	127.0



7.1.15 7

Manual Integration Approval Summary

Sample Number:	JB66485-15	**Method:**	SW846 8260B
Lab FileID:	2A146770.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 16:17	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146771.D
Acq On : 9 May 2014 4:47 pm
Operator : thomass1
Sample : jb66485-16
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 27 11:10:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	87449	500.00 ug/L	0.00
5) pentafluorobenzene	10.40	168	208400	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	286426	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	252090	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	132899	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	90258	47.77 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 95.54%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	99052	46.54 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 93.08%		
76) toluene-d8 (s)	12.93	98	319648	52.31 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 104.62%		
100) 4-bromofluorobenzene (s)	15.44	95	116994	46.28 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 92.56%		
Target Compounds					Qvalue
32) 1,1-dichloroethane	9.03	63	1353	0.35 ug/L	86
39) cis-1,2-dichloroethene	9.83	96	1412m	0.59 ug/L	
50) 1,1,1-trichloroethane	10.49	97	1618	0.50 ug/L	87

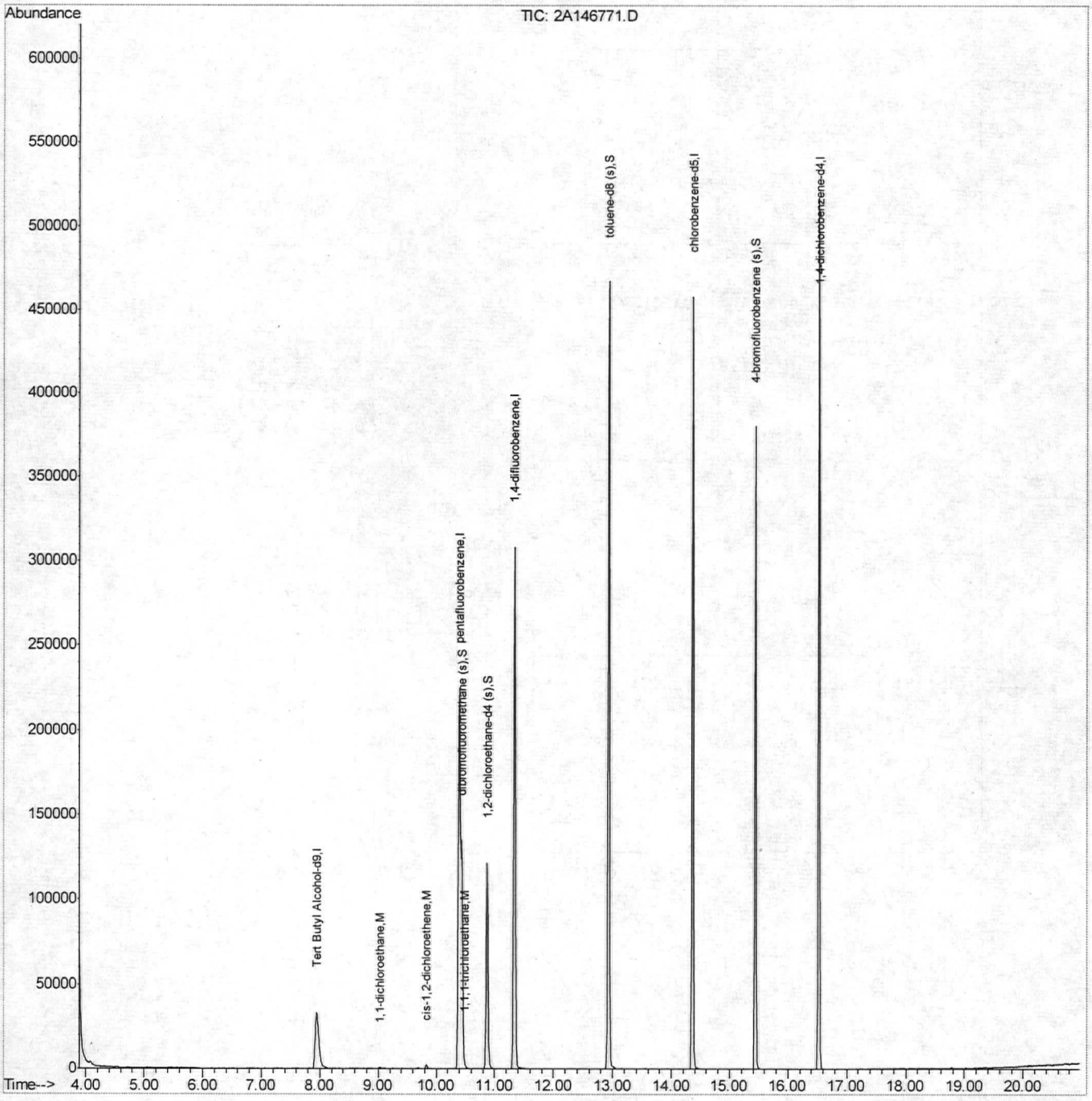
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.16 7

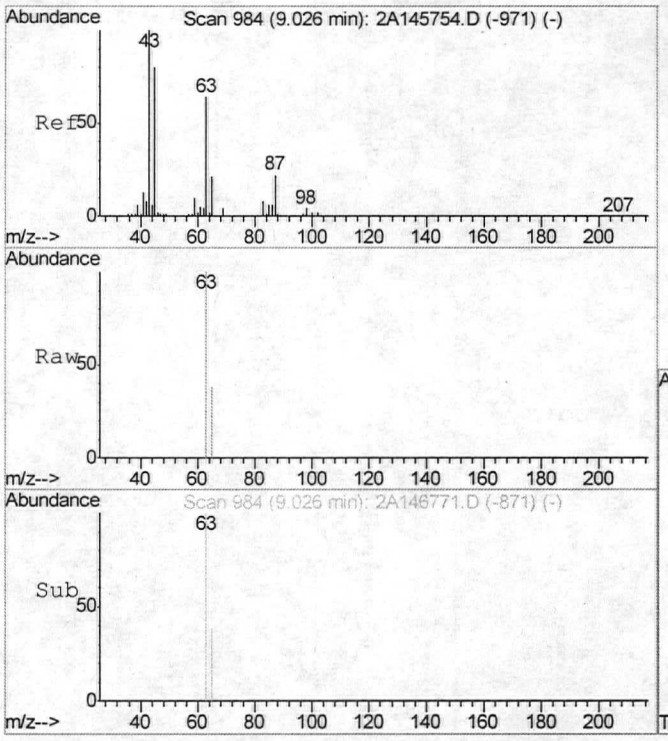
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146771.D
Acq On : 9 May 2014 4:47 pm
Operator : thomass1
Sample : jb66485-16
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 27 11:10:59 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



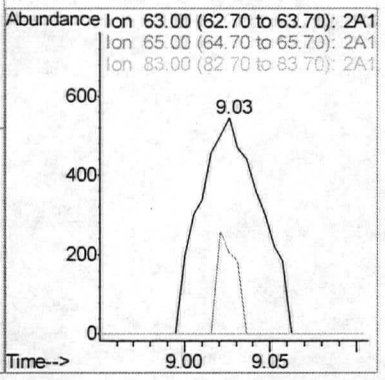
M2A6216.M Tue May 27 11:19:57 2014 MS2A

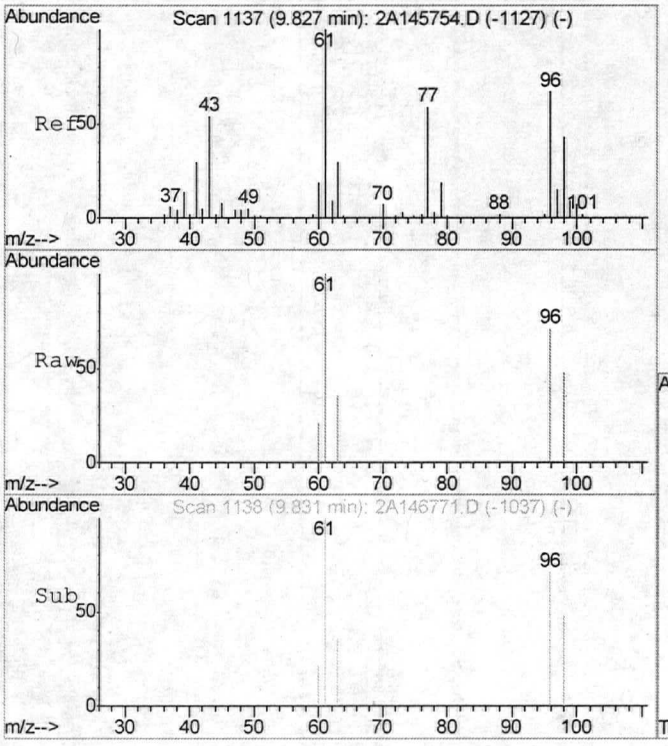


#32
1,1-dichloroethane
Concen: 0.35 ug/L
RT: 9.03 min Scan# 984
Delta R.T. -0.00 min
Lab File: 2A146771.D
Acq: 9 May 2014 4:47 pm

Tgt Ion: 63 Resp: 1353

Ion	Ratio	Lower	Upper
63	100		
65	37.5	3.4	63.4
83	0.0	0.0	42.7

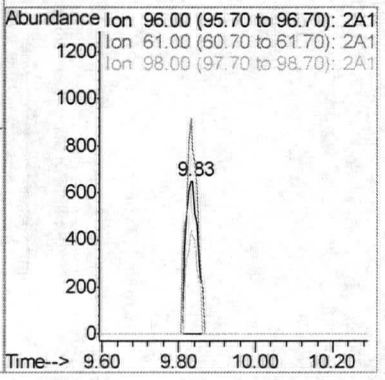




#39
cis-1,2-dichloroethene
Concen: 0.59 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. -0.00 min
Lab File: 2A146771.D
Acq: 9 May 2014 4:47 pm

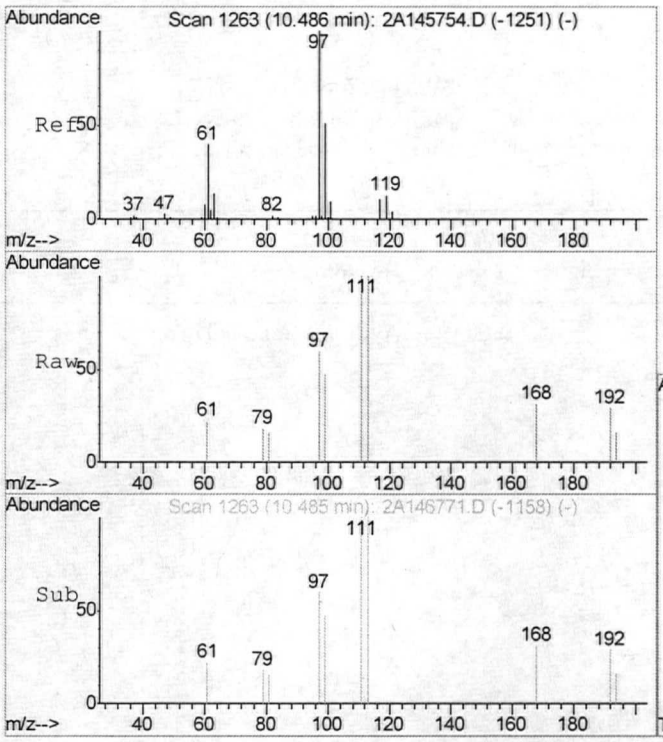
Tgt Ion: 96 Resp: 1412

Ion	Ratio	Lower	Upper
96	100		
61	141.4	123.5	183.5
98	68.2	38.7	98.7



7.1.16

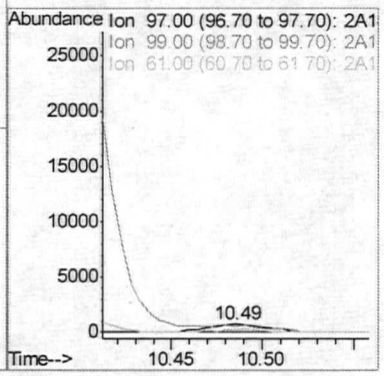
7



#50
1,1,1-trichloroethane
Concen: 0.50 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. -0.00 min
Lab File: 2A146771.D
Acq: 9 May 2014 4:47 pm

Tgt Ion: 97 Resp: 1618

Ion	Ratio	Lower	Upper
97	100		
99	77.7	33.7	93.7
61	37.4	9.9	69.9



7.1.16 7

ACCUTEST LABORATORIES JB66485

Manual Integration Approval Summary

Sample Number:	JB66485-16	**Method:**	SW846 8260B
Lab FileID:	2A146771.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 16:47	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

7.1.16.1

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146772.D
Acq On : 9 May 2014 5:17 pm
Operator : thomass1
Sample : jb66485-17
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 27 11:11:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	85292	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	209862	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	290531	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	251210	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	134341	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	92308	48.52 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.04%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	102109	47.64 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 95.28%		
76) toluene-d8 (s)	12.93	98	320226	51.66 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 103.32%		
100) 4-bromofluorobenzene (s)	15.44	95	117630	46.03 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 92.06%		
Target Compounds					Qvalue
19) 1,1-dichloroethene	7.17	96	760	0.38 ug/L #	49
32) 1,1-dichloroethane	9.02	63	6708	1.72 ug/L	94
39) cis-1,2-dichloroethene	9.83	96	2620m	1.09 ug/L	
50) 1,1,1-trichloroethane	10.49	97	1171	0.36 ug/L #	69
66) trichloroethene	11.67	95	31889	15.38 ug/L	97
85) tetrachloroethene	13.56	164	1745	1.03 ug/L	91

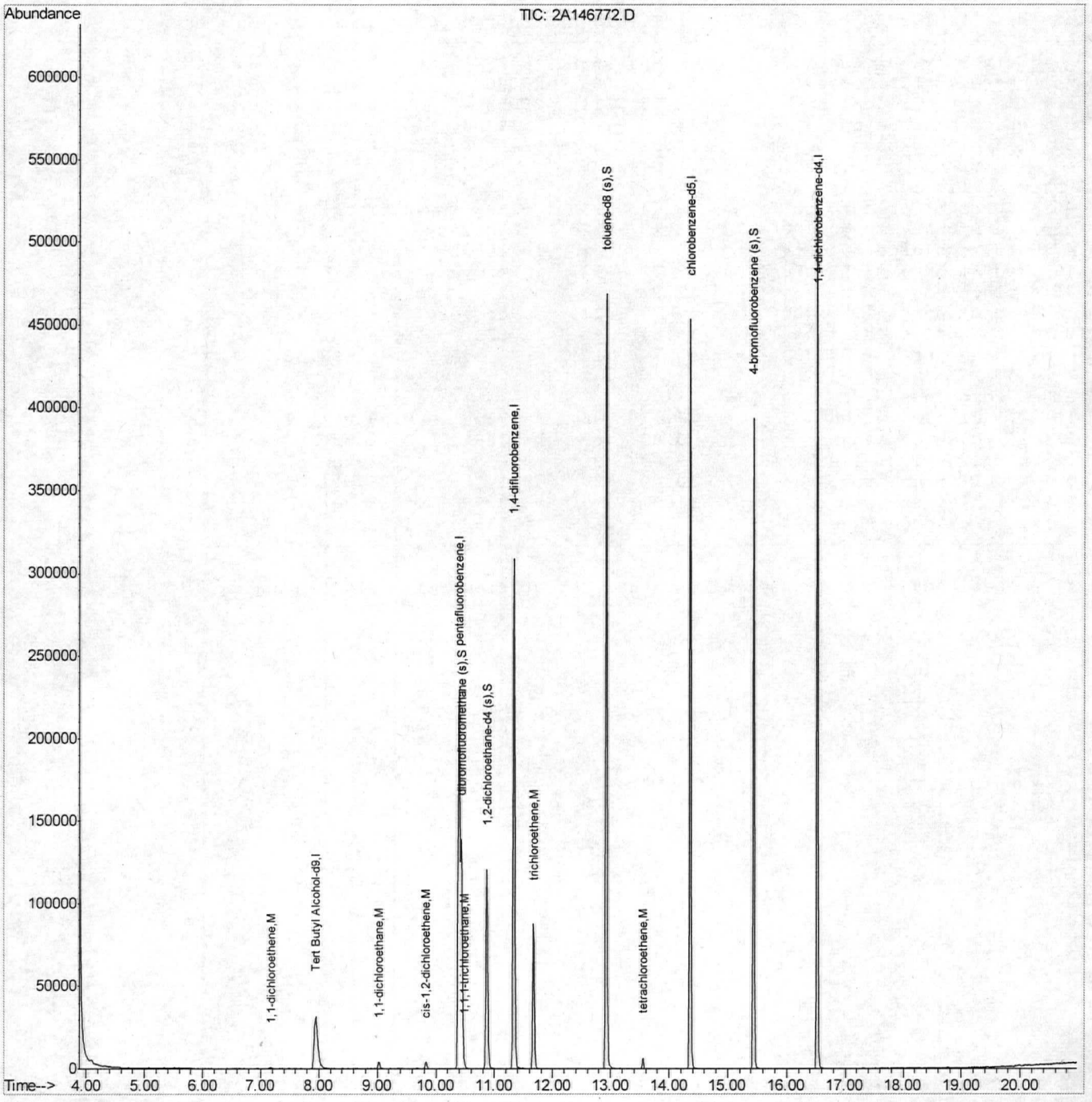
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.17 7

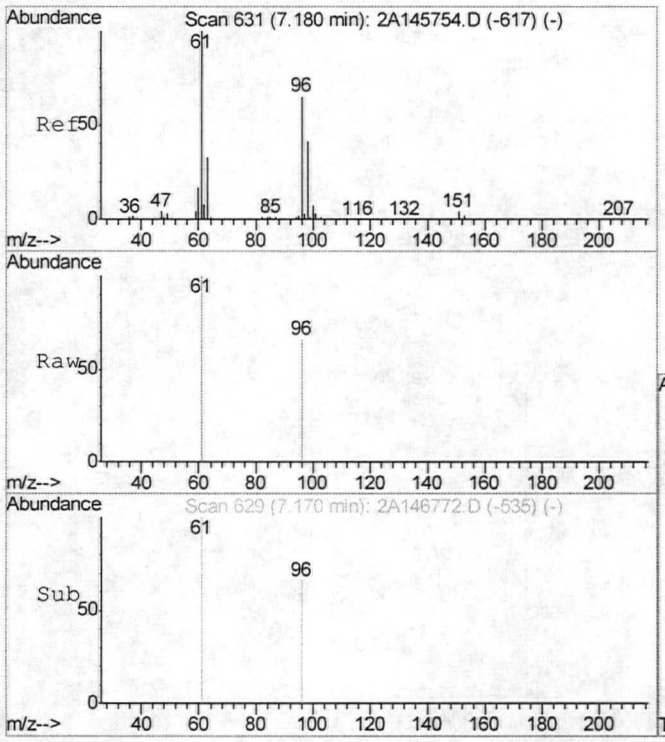
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146772.D
Acq On : 9 May 2014 5:17 pm
Operator : thomass1
Sample : jb66485-17
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 27 11:11:15 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



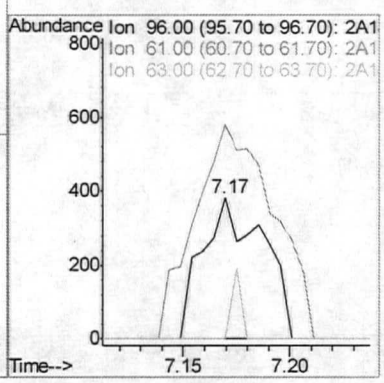
7.1.17 7

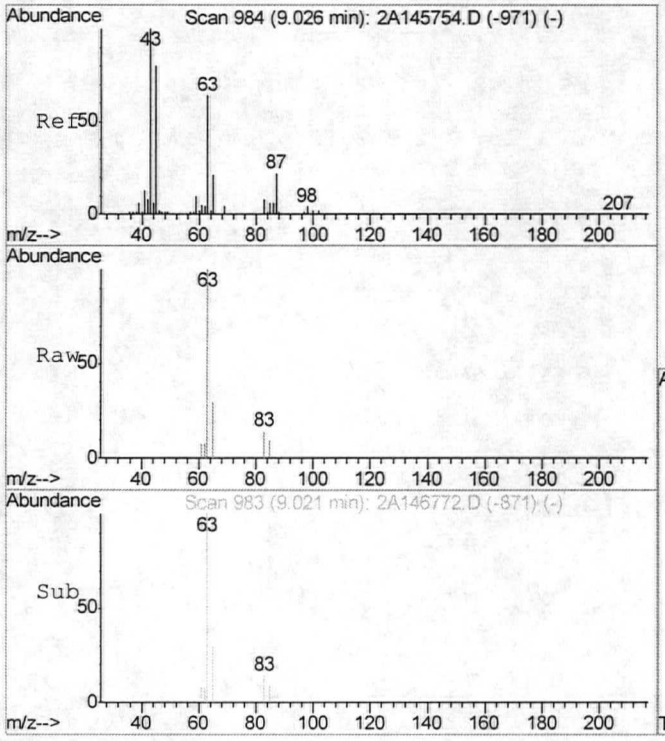


#19
1,1-dichloroethene
Concen: 0.38 ug/L
RT: 7.17 min Scan# 629
Delta R.T. -0.01 min
Lab File: 2A146772.D
Acq: 9 May 2014 5:17 pm

Tgt Ion: 96 Resp: 760

Ion	Ratio	Lower	Upper
96	100		
61	104.5	131.6	191.6#
63	0.0	22.2	82.2#

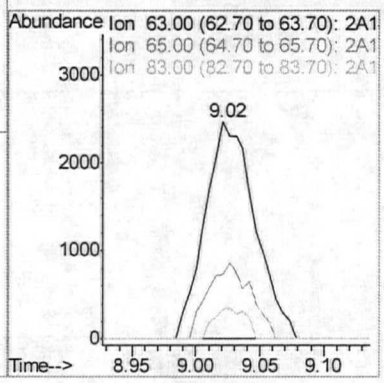




#32
1,1-dichloroethane
Concen: 1.72 ug/L
RT: 9.02 min Scan# 983
Delta R.T. -0.01 min
Lab File: 2A146772.D
Acq: 9 May 2014 5:17 pm

Tgt Ion: 63 Resp: 6708

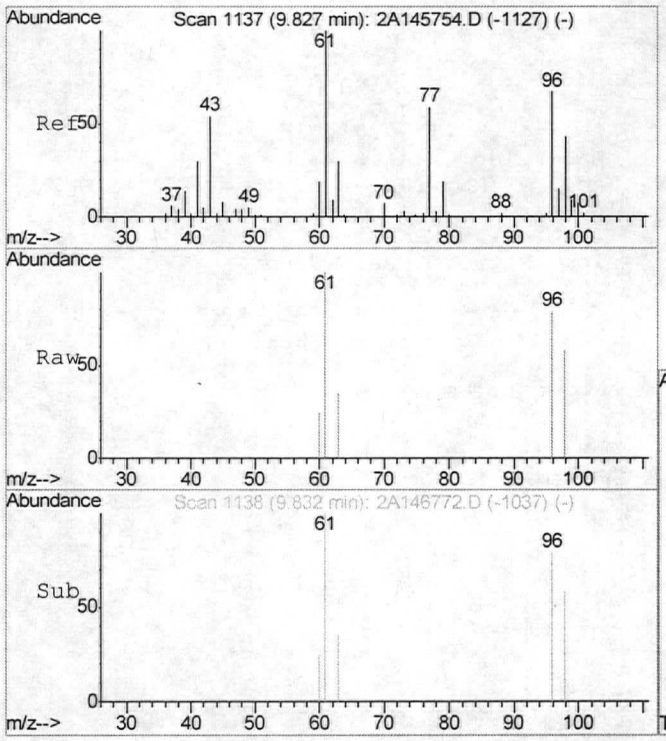
Ion	Ratio	Lower	Upper
63	100		
65	29.7	3.4	63.4
83	13.9	0.0	42.7



7.1.17

7

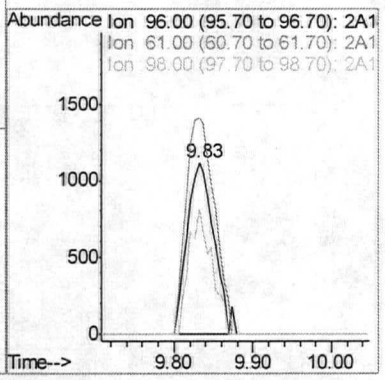
ACCUTEST LABORATORIES
JB66485

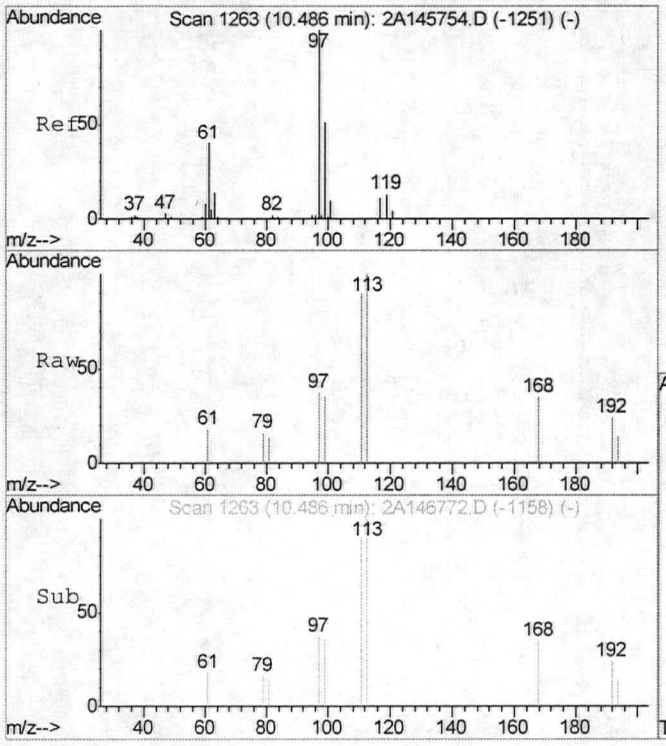


#39
cis-1,2-dichloroethene
Concen: 1.09 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. -0.00 min
Lab File: 2A146772.D
Acq: 9 May 2014 5:17 pm

Tgt Ion: 96 Resp: 2620

Ion	Ratio	Lower	Upper
96	100		
61	126.4	123.5	183.5
98	72.8	38.7	98.7

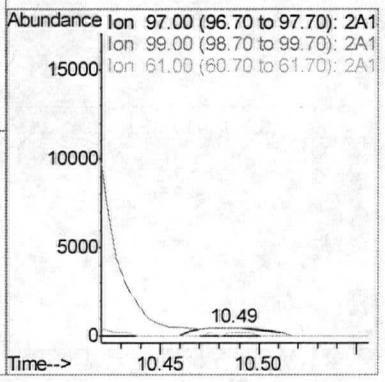




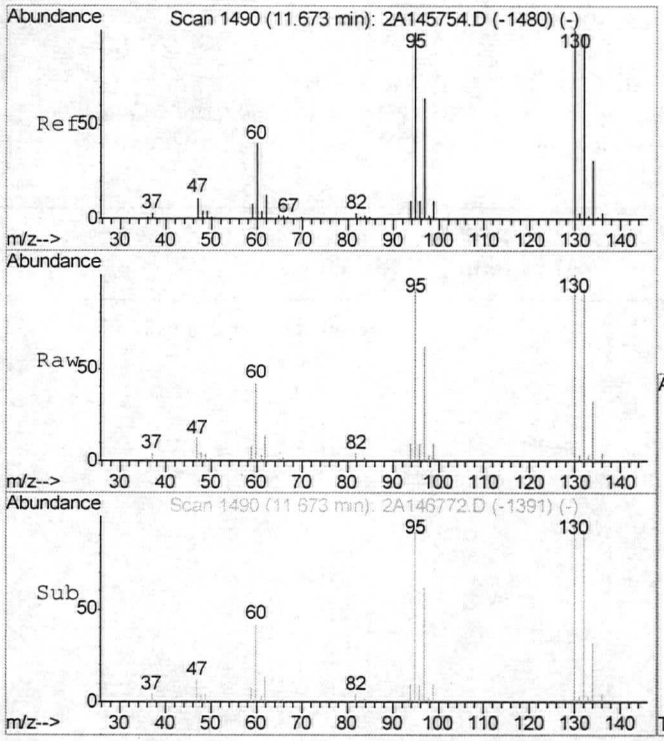
#50
1,1,1-trichloroethane
Concen: 0.36 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. -0.00 min
Lab File: 2A146772.D
Acq: 9 May 2014 5:17 pm

Tgt Ion: 97 Resp: 1171

Ion	Ratio	Lower	Upper
97	100		
99	95.7	33.7	93.7#
61	49.1	9.9	69.9



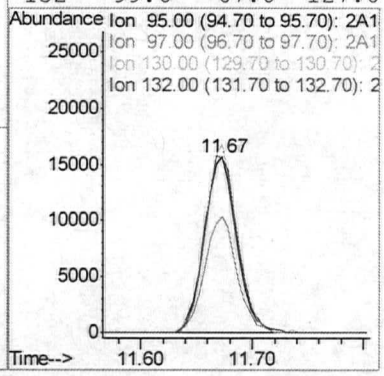
ACCUTEST LABORATORIES

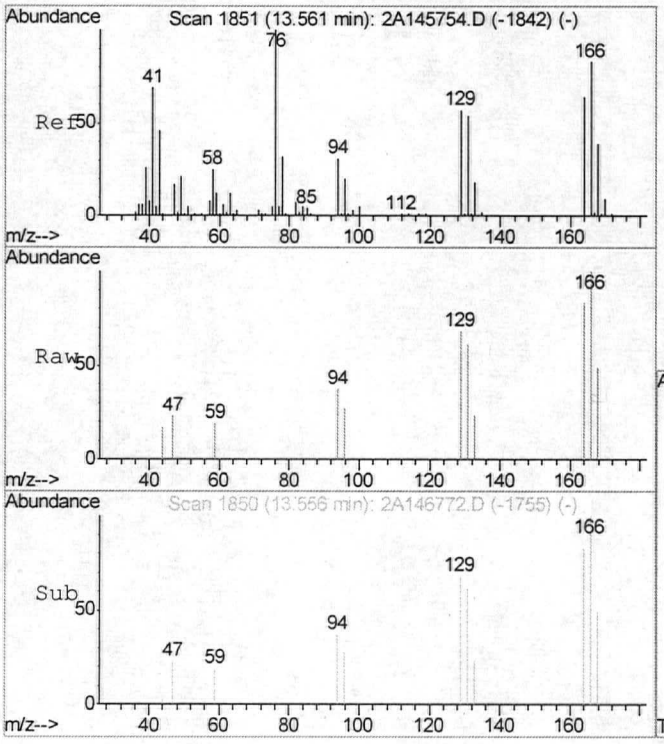


#66
trichloroethene
Concen: 15.38 ug/L
RT: 11.67 min Scan# 1490
Delta R.T. -0.00 min
Lab File: 2A146772.D
Acq: 9 May 2014 5:17 pm

Tgt Ion: 95 Resp: 31889

Ion	Ratio	Lower	Upper
95	100		
97	66.2	37.2	97.2
130	107.0	72.7	132.7
132	99.6	67.0	127.0

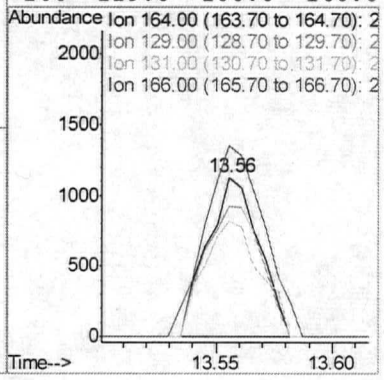




#85
tetrachloroethene
Concen: 1.03 ug/L
RT: 13.56 min Scan# 1850
Delta R.T. -0.01 min
Lab File: 2A146772.D
Acq: 9 May 2014 5:17 pm

Tgt Ion:164 Resp: 1745

Ion	Ratio	Lower	Upper
164	100		
129	81.7	57.6	117.6
131	72.7	52.6	112.6
166	119.8	100.8	160.8



7.1.17 7

Manual Integration Approval Summary

Sample Number:	JB66485-17	**Method:**	SW846 8260B
Lab FileID:	2A146772.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 17:17	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

7.1.17.1

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146773.D
Acq On : 9 May 2014 5:47 pm
Operator : thomass1
Sample : jb66485-18
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 27 11:11:30 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	86165	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	204216	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	281563	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	246439	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	129895	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	89004	48.07 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 96.14%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	100730	48.30 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 96.60%		
76) toluene-d8 (s)	12.93	98	311273	51.82 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 103.64%		
100) 4-bromofluorobenzene (s)	15.44	95	114632	46.39 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 92.78%		
Target Compounds					Qvalue
32) 1,1-dichloroethane	9.02	63	4903	1.29 ug/L	99
39) cis-1,2-dichloroethene	9.83	96	1348m	0.57 ug/L	
50) 1,1,1-trichloroethane	10.49	97	3270	1.03 ug/L	93

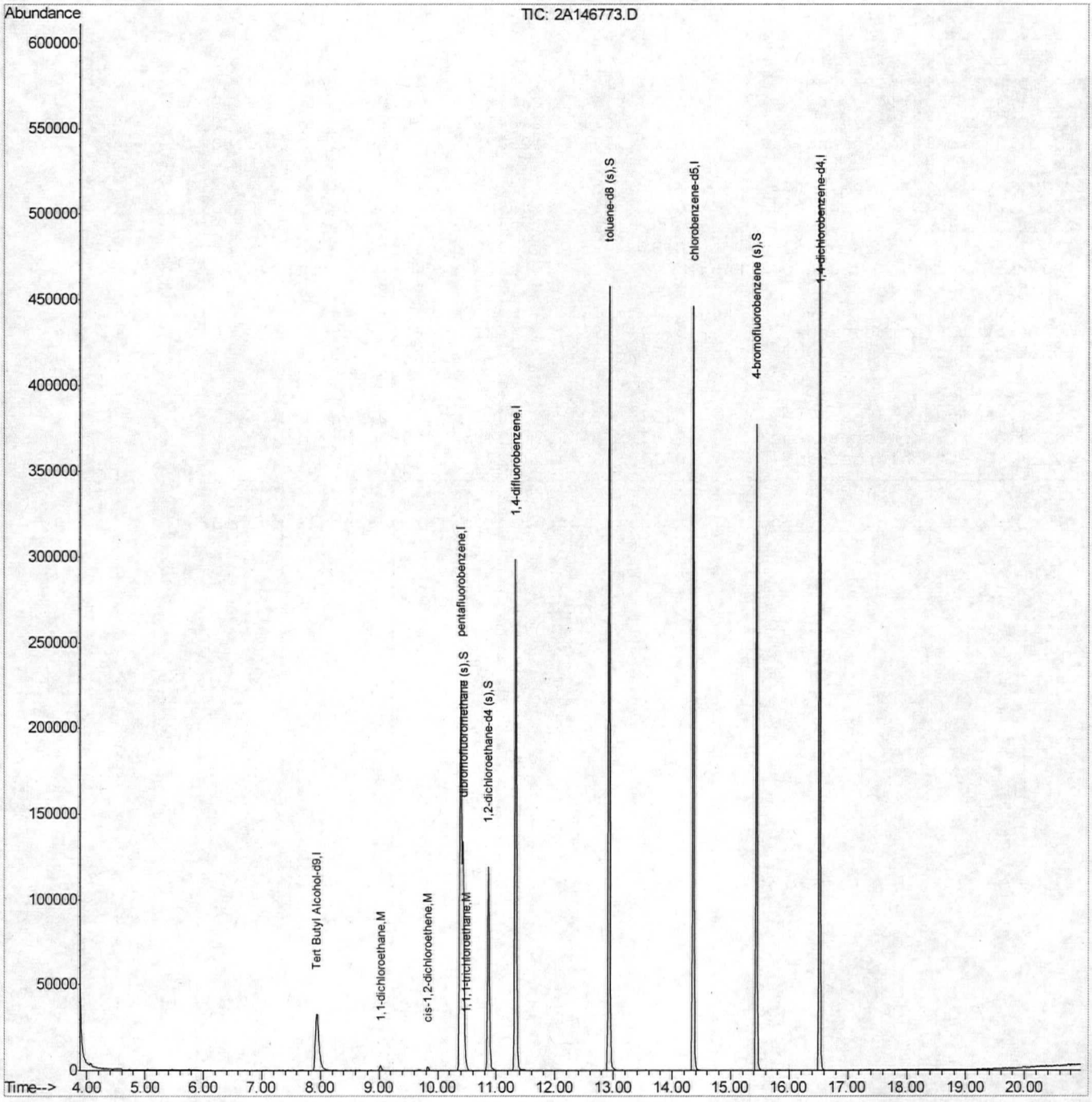
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.18 7

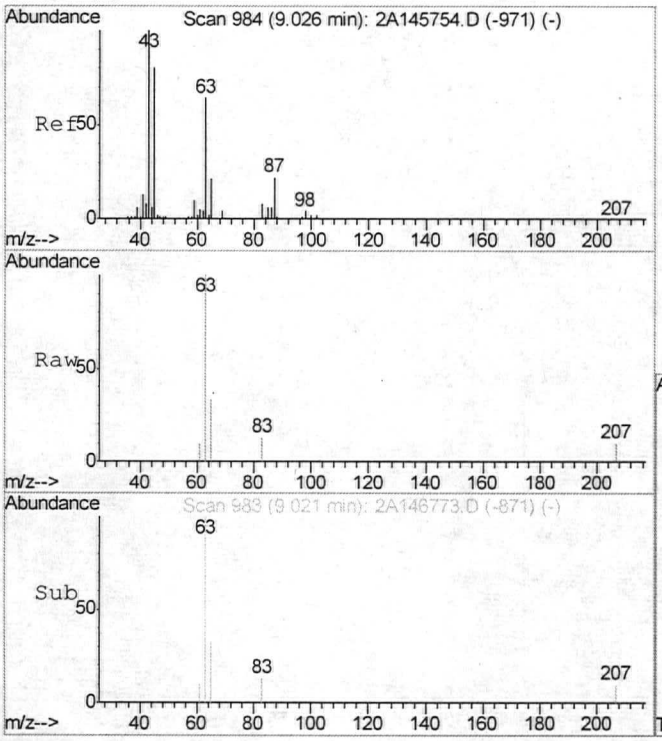
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146773.D
Acq On : 9 May 2014 5:47 pm
Operator : thomass1
Sample : jb66485-18
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 27 11:11:30 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



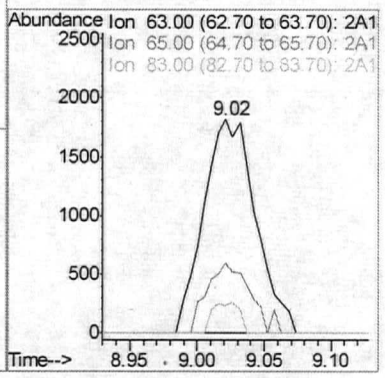
M2A6216.M Tue May 27 11:20:06 2014 MS2A

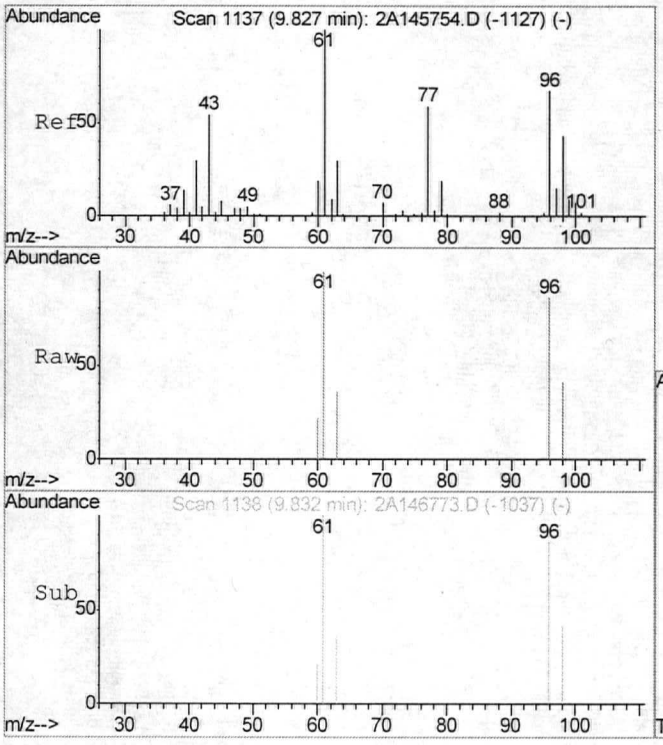


#32
1,1-dichloroethane
Concen: 1.29 ug/L
RT: 9.02 min Scan# 983
Delta R.T. -0.01 min
Lab File: 2A146773.D
Acq: 9 May 2014 5:47 pm

Tgt Ion: 63 Resp: 4903

Ion	Ratio	Lower	Upper
63	100		
65	32.8	3.4	63.4
83	12.9	0.0	42.7

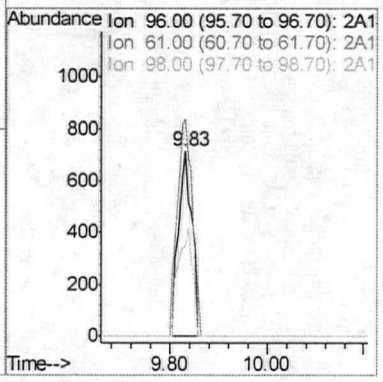




#39
cis-1,2-dichloroethene
Concen: 0.57 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. -0.00 min
Lab File: 2A146773.D
Acq: 9 May 2014 5:47 pm

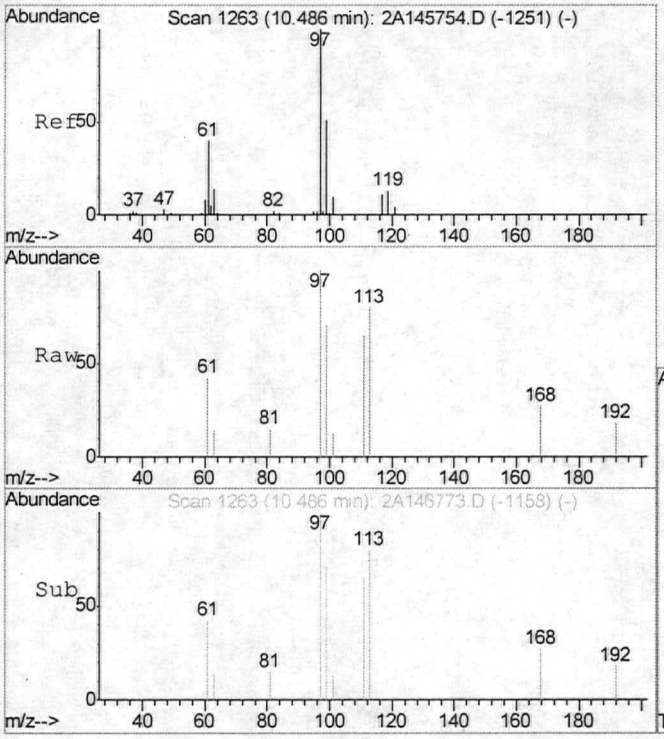
Tgt Ion: 96 Resp: 1348

Ion	Ratio	Lower	Upper
96	100		
61	116.9	123.5	183.5#
98	48.0	38.7	98.7



7.1.18

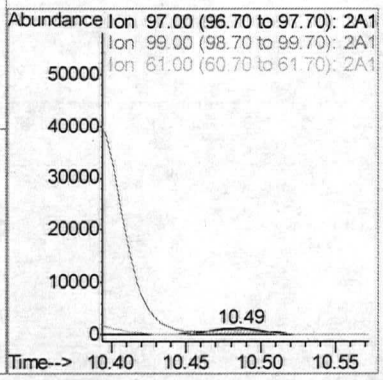
7



#50
1,1,1-trichloroethane
Concen: 1.03 ug/L
RT: 10.49 min Scan# 1263
Delta R.T. -0.00 min
Lab File: 2A146773.D
Acq: 9 May 2014 5:47 pm

Tgt Ion: 97 Resp: 3270

Ion	Ratio	Lower	Upper
97	100		
99	70.6	33.7	93.7
61	41.6	9.9	69.9



7.1.18

Manual Integration Approval Summary

Sample Number:	JB66485-18	**Method:**	SW846 8260B
Lab FileID:	2A146773.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 17:47	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

7.1.18.1

7

Manual Integrations
APPROVED
(compounds with "m" flag)
Mei Chen
05/13/14 15:53

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146774.D
Acq On : 9 May 2014 6:17 pm
Operator : thomass1
Sample : jb66485-19
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 27 11:11:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	84522	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	199781	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	275680	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	245881	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	127502	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	87170	48.13 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 96.26%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	98269	48.17 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 96.34%		
76) toluene-d8 (s)	12.93	98	311589	52.98 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.96%		
100) 4-bromofluorobenzene (s)	15.44	95	114720	47.30 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 94.60%		
Target Compounds					Qvalue
32) 1,1-dichloroethane	9.02	63	4563	1.23 ug/L	97
39) cis-1,2-dichloroethene	9.83	96	1415m	0.62 ug/L	
50) 1,1,1-trichloroethane	10.48	97	3230	1.04 ug/L	89

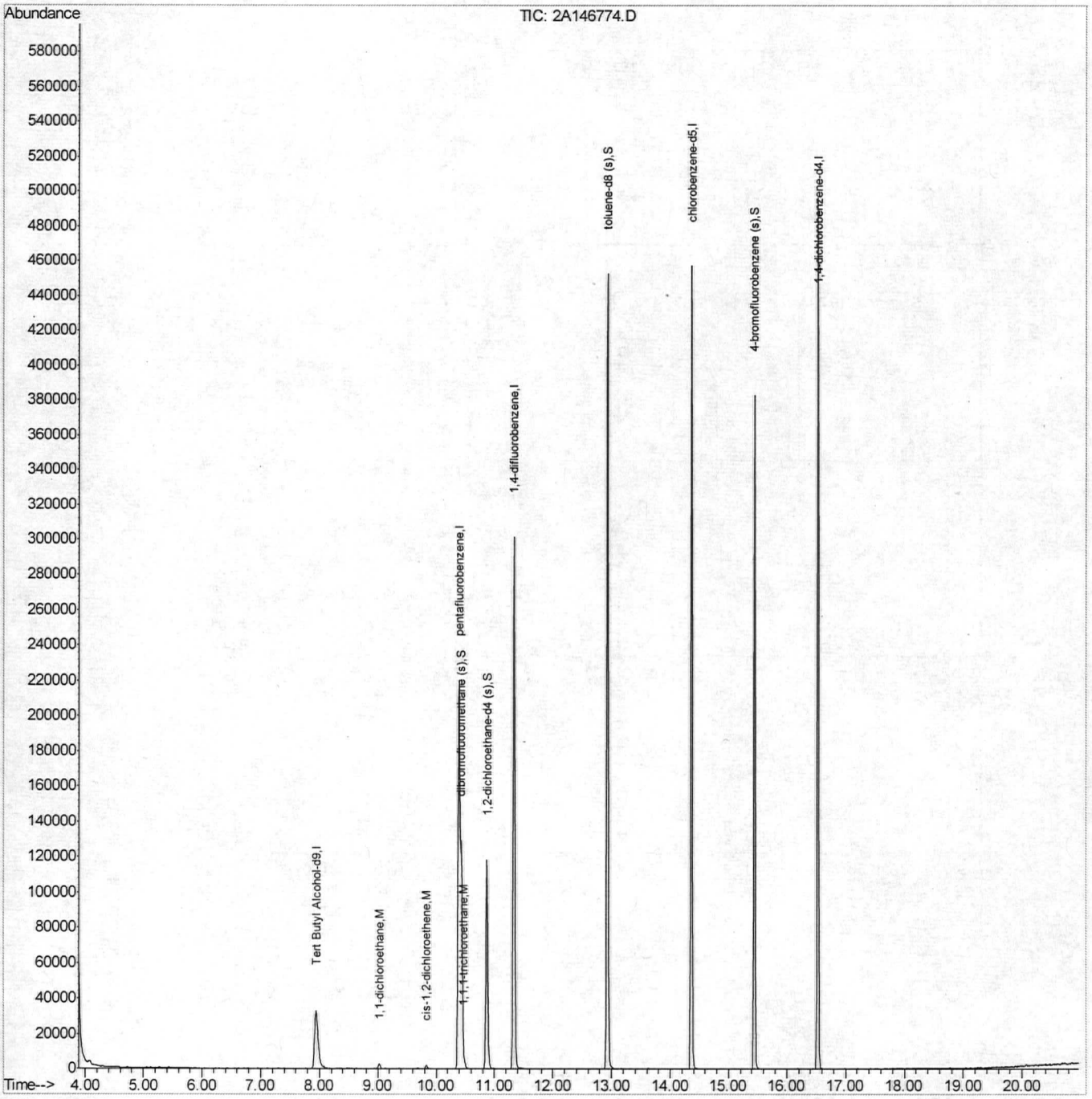
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.19 7

Quantitation Report (QT Reviewed)

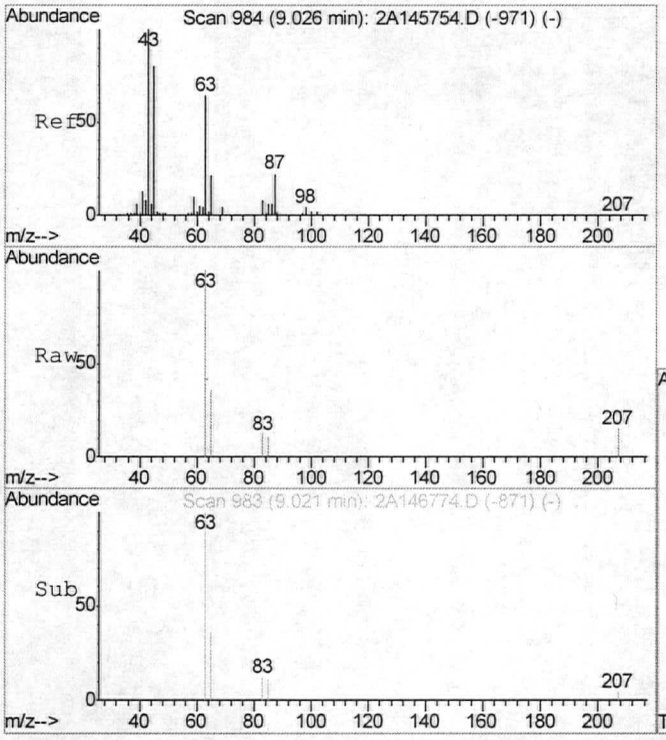
Data Path : C:\MSDChem\1\DATA\2A\
Data File : 2A146774.D
Acq On : 9 May 2014 6:17 pm
Operator : thomass1
Sample : jb66485-19
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 27 11:11:51 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



M2A6216.M Tue May 27 11:20:11 2014 MS2A

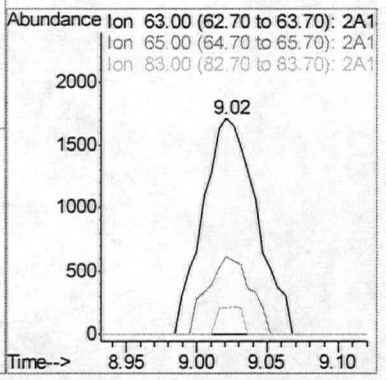
ACCUTEST LABORATORIES
JB66485

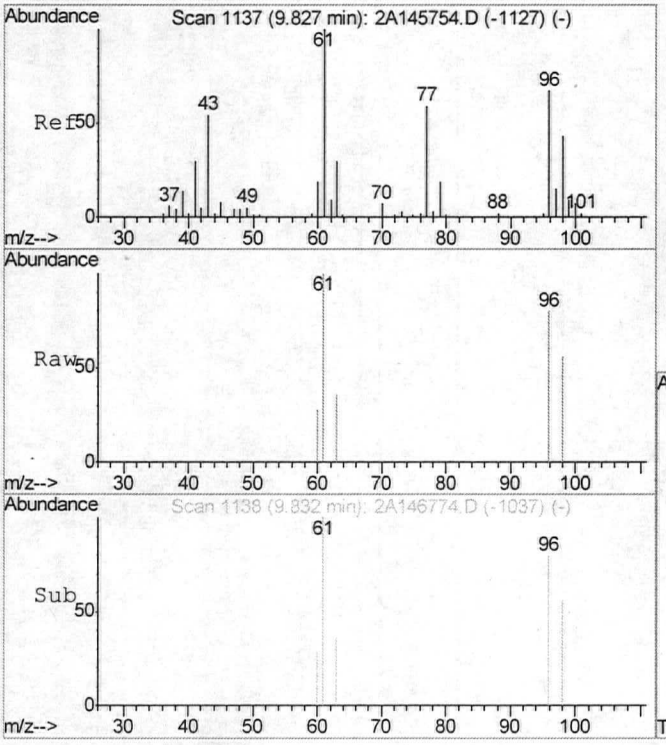


#32
1,1-dichloroethane
Concen: 1.23 ug/L
RT: 9.02 min Scan# 983
Delta R.T. -0.01 min
Lab File: 2A146774.D
Acq: 9 May 2014 6:17 pm

Tgt Ion: 63 Resp: 4563

Ion	Ratio	Lower	Upper
63	100		
65	36.0	3.4	63.4
83	12.5	0.0	42.7

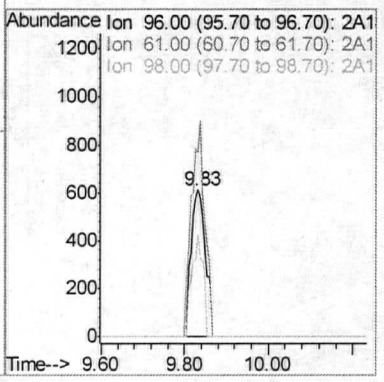




#39
cis-1,2-dichloroethene
Concen: 0.62 ug/L m
RT: 9.83 min Scan# 1138
Delta R.T. -0.00 min
Lab File: 2A146774.D
Acq: 9 May 2014 6:17 pm

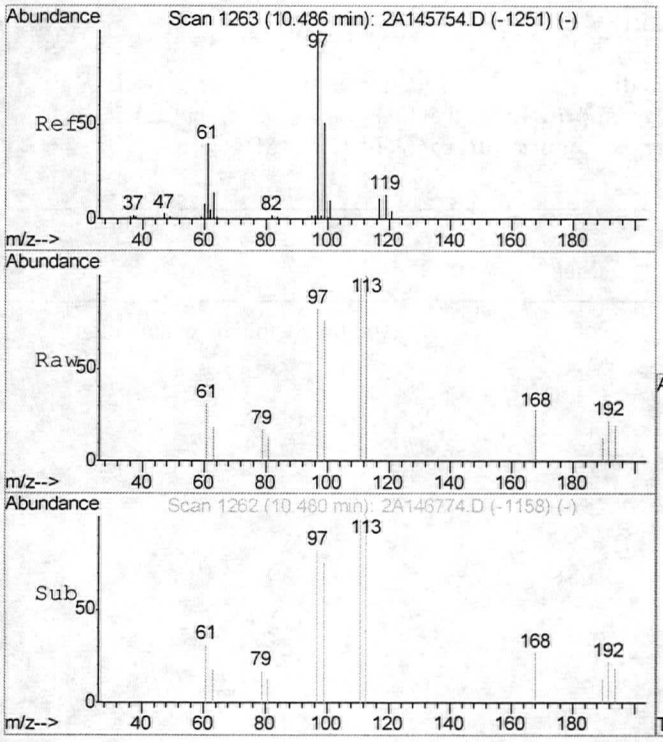
Tgt Ion: 96 Resp: 1415

Ion	Ratio	Lower	Upper
96	100		
61	125.7	123.5	183.5
98	70.1	38.7	98.7



7.1.19

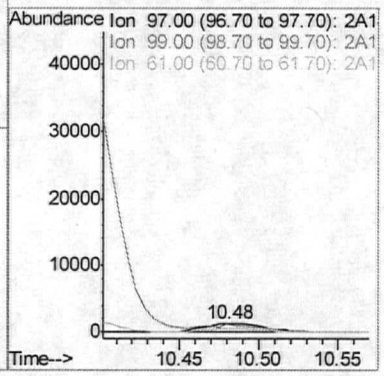
ACCUTEST LABORATORIES
JB66485



#50
1,1,1-trichloroethane
Concen: 1.04 ug/L
RT: 10.48 min Scan# 1262
Delta R.T. -0.01 min
Lab File: 2A146774.D
Acq: 9 May 2014 6:17 pm

Tgt Ion: 97 Resp: 3230

Ion	Ratio	Lower	Upper
97	100		
99	76.6	33.7	93.7
61	38.1	9.9	69.9



7.1.19 7

Manual Integration Approval Summary

Sample Number:	JB66485-19	**Method:**	SW846 8260B
Lab FileID:	2A146774.D	**Analyst approved:**	05/12/14 08:44 Cathleen Castello
Injection Time:	05/09/14 18:17	**Supervisor approved:**	05/13/14 15:53 Mei Chen

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		0.00	Add-on compound quantitation

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146759.D
Acq On : 9 May 2014 10:50 am
Operator : thomass1
Sample : mb
Misc : MS67239,V2A6257,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 09 12:12:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	90048	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	208017	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	286058	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	253745	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	134347	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	89459	47.44 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 94.88%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	99519	46.85 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 93.70%		
76) toluene-d8 (s)	12.93	98	320537	52.52 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.04%		
100) 4-bromofluorobenzene (s)	15.44	95	119236	46.65 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 93.30%		

Target Compounds	Qvalue

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

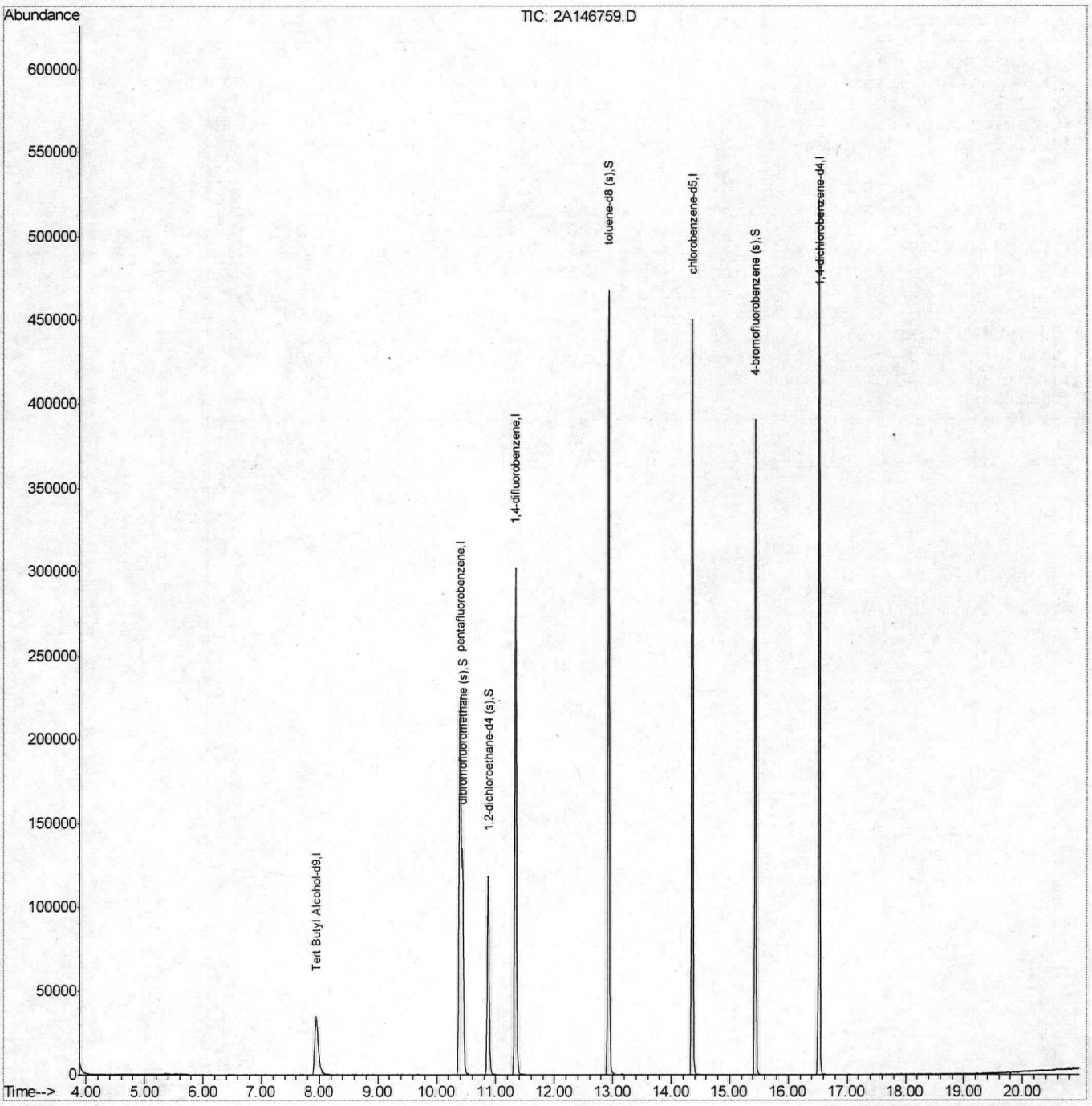
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146759.D
Acq On : 9 May 2014 10:50 am
Operator : thomass1
Sample : mb
Misc : MS67239,V2A6257,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 09 12:12:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146847.D
Acq On : 13 May 2014 10:40 am
Operator : thomass1
Sample : mb
Misc : MS67410,V2A6260,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 16:05:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	74900	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	183836	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	249206	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	220759	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	117516	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	81306	48.79 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 97.58%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	92558	49.30 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 98.60%		
76) toluene-d8 (s)	12.93	98	282648	53.16 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 106.32%		
100) 4-bromofluorobenzene (s)	15.44	95	102801	45.98 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.96%		

Target Compounds	Qvalue

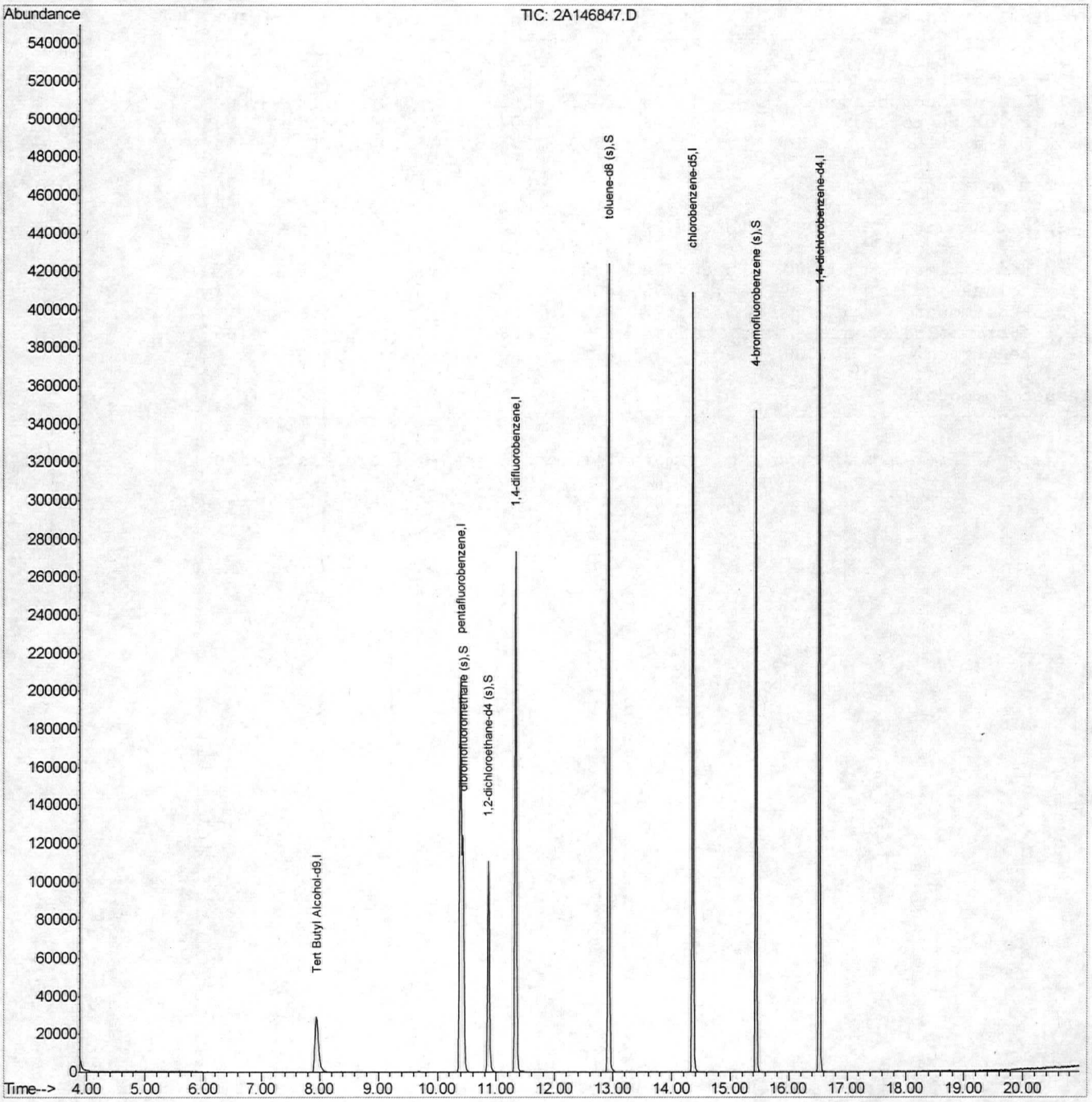
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146847.D
Acq On : 13 May 2014 10:40 am
Operator : thomass1
Sample : mb
Misc : MS67410,V2A6260,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 13 16:05:46 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB66485

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146760.D
Acq On : 9 May 2014 11:19 am
Operator : thomass1
Sample : bs
Misc : MS67229,V2A6257,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 09 12:12:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	89617	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	207672	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	287811	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	252607	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	139486	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	91092	48.38 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 96.76%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	101560	47.89 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 95.78%		
76) toluene-d8 (s)	12.93	98	321839	52.41 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 104.82%		
100) 4-bromofluorobenzene (s)	15.44	95	118945	44.83 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 89.66%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.08	59	50098	243.27 ug/L	97
4) 1,4-dioxane	12.04	88	23713	1393.52 ug/L	99
7) chlorodifluoromethane	4.21	51	76151	42.64 ug/L	98
8) dichlorodifluoromethane	4.20	85	116732	44.75 ug/L	98
10) chloromethane	4.56	50	141316	46.08 ug/L	97
11) vinyl chloride	4.84	62	137028	47.86 ug/L	97
12) bromomethane	5.53	94	85012	45.22 ug/L	99
13) chloroethane	5.73	64	74575	56.42 ug/L	100
14) trichlorofluoromethane	6.26	101	164206	55.39 ug/L	97
16) ethyl ether	6.70	74	58843	51.84 ug/L	92
18) acrolein	6.98	56	174372	416.73 ug/L	99
19) 1,1-dichloroethene	7.18	96	102356	51.78 ug/L	98
20) acetone	7.24	43	27758	50.13 ug/L	95
21) allyl chloride	7.76	76	60370	51.75 ug/L #	79
22) acetonitrile	7.72	40	87642	528.44 ug/L	95
23) iodomethane	7.47	142	194535	52.71 ug/L	97
24) iso-butyl alcohol	10.95	74	34126	469.23 ug/L #	69
25) carbon disulfide	7.61	76	353717	51.36 ug/L	96
26) methylene chloride	7.98	84	111482	48.39 ug/L	96
27) methyl acetate	7.76	74	14030	37.53 ug/L #	79
28) methyl tert butyl ether	8.35	73	598386	94.11 ug/L	98
29) trans-1,2-dichloroethene	8.40	96	108742	49.61 ug/L	99
30) di-isopropyl ether	9.01	45	338758	51.57 ug/L	79
31) 2-butanone	9.80	72	10776	46.84 ug/L #	89
32) 1,1-dichloroethane	9.02	63	195634	50.78 ug/L	98
33) chloroprene	9.14	53	141876	46.81 ug/L	98
34) acrylonitrile	8.34	53	177653	245.58 ug/L	99
35) vinyl acetate	9.02	86	17075	43.41 ug/L #	44
36) ethyl tert-butyl ether	9.52	59	321110	47.68 ug/L	99
37) ethyl acetate	9.82	45	12035	43.32 ug/L	88
38) 2,2-dichloropropane	9.83	77	165252	55.41 ug/L	94
39) cis-1,2-dichloroethene	9.83	96	118520	49.62 ug/L	96
40) methylacrylate	9.90	85	14054	42.44 ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146760.D
Acq On : 9 May 2014 11:19 am
Operator : thomass1
Sample : bs
Misc : MS67229,V2A6257,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 09 12:12:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) propionitrile	9.89	54	137939	497.29 ug/L	95
42) bromochloromethane	10.16	128	59231	49.72 ug/L	97
43) tetrahydrofuran	10.20	42	33671	50.69 ug/L	94
44) chloroform	10.22	85	126595	49.45 ug/L	96
45) t-butyl formate	10.26	59	92808	49.95 ug/L	97
48) freon 113	7.15	151	77753	51.64 ug/L	98
49) methacrylonitrile	10.09	41	60345	51.36 ug/L	97
50) 1,1,1-trichloroethane	10.49	97	173226	53.68 ug/L	98
51) Cyclohexane	10.56	84	155853	51.57 ug/L	91
53) epichlorohydrin	12.56	57	43417	251.60 ug/L	97
54) n-butyl alcohol	11.47	56	129266	2709.03 ug/L	93
55) carbon tetrachloride	10.70	117	160071	57.13 ug/L	96
56) 1,1-dichloropropene	10.67	75	139918	51.74 ug/L	98
59) 2,2,4-TRIMETHYLPENTANE	10.95	57	339217	57.23 ug/L #	99
60) benzene	10.95	78	429716	52.59 ug/L	100
61) tert-amyl methyl ether	10.99	87	70824	48.17 ug/L	98
63) isopropyl acetate	10.88	43	183799	53.69 ug/L	95
64) 1,2-dichloroethane	10.96	62	142265	55.57 ug/L	97
66) trichloroethene	11.67	95	108748	52.96 ug/L	98
68) methyl methacrylate	11.93	41	163195	56.69 ug/L	93
69) 2-nitropropane	12.43	41	38134	58.44 ug/L	95
70) 2-chloroethyl vinyl ether	12.45	63	276997	299.01 ug/L	100
71) 1,2-dichloropropane	11.92	63	108135	55.20 ug/L	99
72) dibromomethane	12.08	93	64524	52.64 ug/L	97
73) methylcyclohexane	11.88	83	156805	52.72 ug/L	98
74) bromodichloromethane	12.21	83	148899	54.11 ug/L	98
75) cis-1,3-dichloropropene	12.65	75	168726	50.90 ug/L	95
77) 4-methyl-2-pentanone	12.75	58	35667	50.25 ug/L	91
78) toluene	13.00	92	254435	51.83 ug/L	98
79) 3-methyl-1-butanol	12.77	55	81451	1068.95 ug/L	96
80) trans-1,3-dichloropropene	13.19	75	151122	50.00 ug/L	89
81) ethyl methacrylate	13.18	69	122024	50.34 ug/L	90
82) 1,1,2-trichloroethane	13.39	83	76760	52.63 ug/L	99
83) 2-hexanone	13.56	58	32933	50.86 ug/L	89
85) tetrachloroethene	13.56	164	100721	59.03 ug/L	97
86) 1,3-dichloropropane	13.57	76	145488	48.94 ug/L	96
87) butyl acetate	13.62	56	54715	46.23 ug/L	91
88) 3,3-dimethyl-1-butanol	13.72	57	88065	470.94 ug/L	96
89) dibromochloromethane	13.82	129	114958	52.18 ug/L	100
90) 1,2-dibromoethane	13.95	107	94529	49.73 ug/L	100
91) chlorobenzene	14.39	112	282367	50.89 ug/L	98
92) 1,1,1,2-tetrachloroethane	14.45	131	108341	51.93 ug/L	97
93) ethylbenzene	14.44	91	485049	51.36 ug/L	99
94) m,p-xylene	14.54	106	373167	104.95 ug/L	96
95) o-xylene	14.93	106	181542	52.04 ug/L	99
96) styrene	14.94	104	315520	53.26 ug/L	95
97) bromoform	15.19	173	79847	52.27 ug/L	99
99) isopropylbenzene	15.25	105	471966	48.45 ug/L	98
101) cyclohexanone	15.40	98	13304	372.45 ug/L	95
102) bromobenzene	15.62	156	134192	48.94 ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146760.D
Acq On : 9 May 2014 11:19 am
Operator : thomass1
Sample : bs
Misc : MS67229,V2A6257,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 09 12:12:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) 1,1,2,2-tetrachloroethane	15.53	83	116320	42.03 ug/L	99
104) trans-1,4-dichloro-2-buten	15.57	53	28036	47.69 ug/L	88
105) 1,2,3-trichloropropane	15.60	110	30025	45.28 ug/L	97
106) n-propylbenzene	15.63	120	127681	53.59 ug/L	91
107) 2-chlorotoluene	15.76	126	116219	48.89 ug/L	98
108) 4-chlorotoluene	15.86	126	119559	49.10 ug/L	95
109) 1,3,5-trimethylbenzene	15.76	105	392724	48.64 ug/L	99
110) tert-butylbenzene	16.09	119	333400	49.45 ug/L	100
111) pentachloroethane	16.17	167	82418	50.15 ug/L	98
112) 1,2,4-trimethylbenzene	16.13	105	408036	50.84 ug/L	99
113) sec-butylbenzene	16.29	105	504262	48.51 ug/L	99
114) 1,3-dichlorobenzene	16.47	146	245783	49.07 ug/L	98
115) p-isopropyltoluene	16.40	119	431317	49.95 ug/L	99
116) 1,4-dichlorobenzene	16.55	146	252308	49.07 ug/L	99
117) 1,2-dichlorobenzene	16.91	146	239012	49.18 ug/L	99
118) benzyl chloride	16.65	91	242580	50.53 ug/L	100
119) n-butylbenzene	16.79	92	222740	50.32 ug/L	97
120) 1,2-dibromo-3-chloropropan	17.67	75	19672	46.12 ug/L	94
121) 1,3,5-TRICHLOROBENZENE	17.85	180	208322	52.31 ug/L	100
122) 1,2,4-trichlorobenzene	18.49	180	180083	53.75 ug/L	99
123) hexachlorobutadiene	18.60	225	96296	53.84 ug/L	98
124) naphthalene	18.77	128	358059	49.84 ug/L	99
125) 1,2,3-trichlorobenzene	19.02	180	158273	53.02 ug/L	99
126) hexachloroethane	17.16	201	82717	54.65 ug/L	98

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

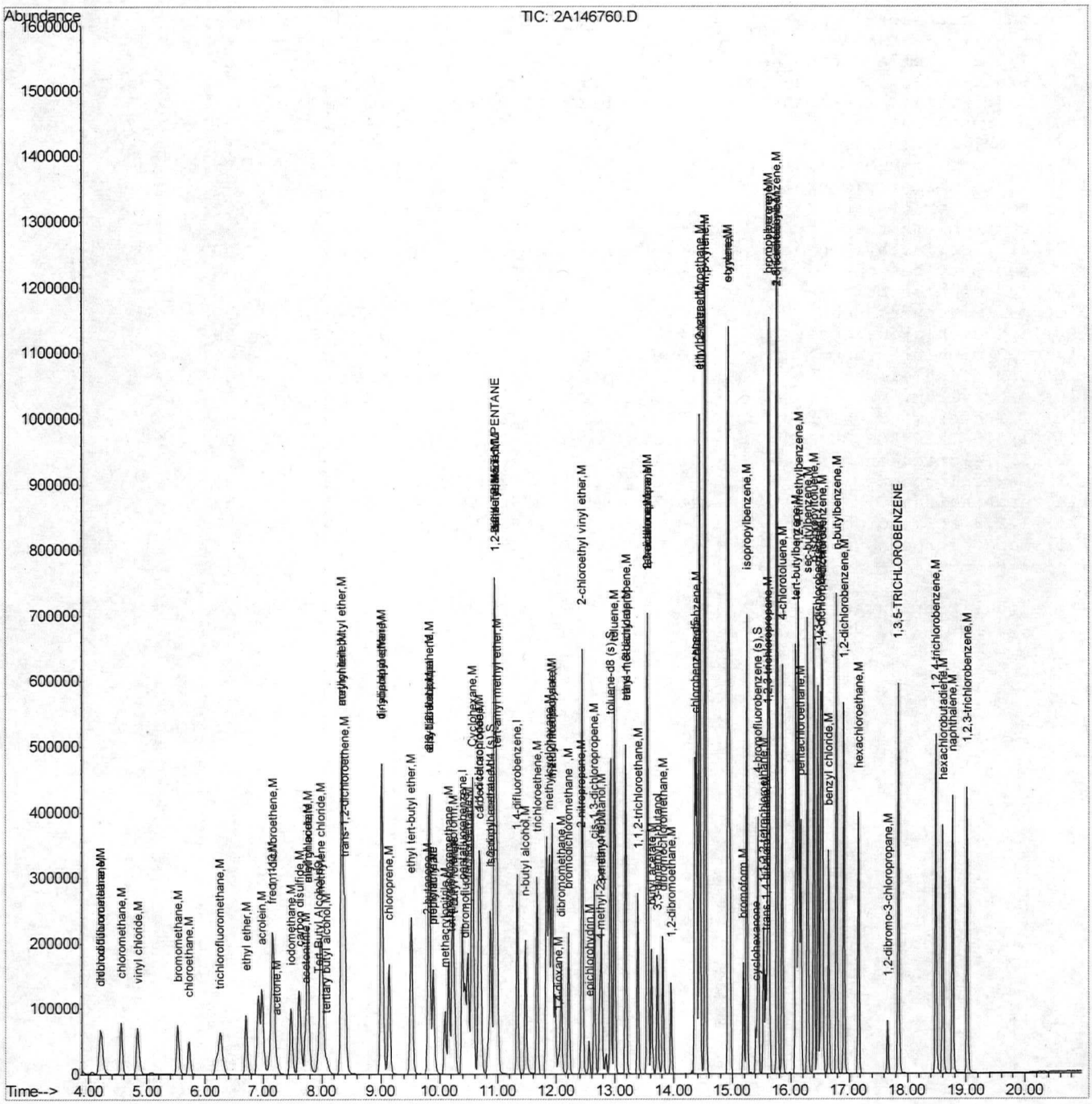
7.3.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146760.D
Acq On : 9 May 2014 11:19 am
Operator : thomass1
Sample : bs
Misc : MS67229,V2A6257,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 09 12:12:56 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB66485

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146848.D
Acq On : 13 May 2014 11:09 am
Operator : thomass1
Sample : bs
Misc : MS67410,V2A6260,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:06:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	75391	500.00	ug/L	-0.01
5) pentafluorobenzene	10.39	168	183977	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	251591	50.00	ug/L	0.00
84) chlorobenzene-d5	14.36	117	223234	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	127559	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.43	113	83422	50.02	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 100.04%			
47) 1,2-dichloroethane-d4 (s)	10.87	65	93501	49.77	ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 99.54%			
76) toluene-d8 (s)	12.93	98	284700	53.04	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 106.08%			
100) 4-bromofluorobenzene (s)	15.44	95	107086	44.13	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 88.26%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.08	59	42810	247.11	ug/L	98
4) 1,4-dioxane	12.04	88	19412	1356.03	ug/L	96
7) chlorodifluoromethane	4.21	51	64795	40.96	ug/L	97
8) dichlorodifluoromethane	4.19	85	99300	42.97	ug/L	98
10) chloromethane	4.55	50	115346	42.45	ug/L	98
11) vinyl chloride	4.83	62	109633	43.22	ug/L	98
12) bromomethane	5.53	94	70140	42.11	ug/L	99
13) chloroethane	5.72	64	60972	52.07	ug/L	97
14) trichlorofluoromethane	6.26	101	146326	55.71	ug/L	98
16) ethyl ether	6.70	74	46494	46.24	ug/L	95
18) acrolein	6.98	56	149327	402.84	ug/L	98
19) 1,1-dichloroethene	7.17	96	81374	46.47	ug/L	98
20) acetone	7.23	43	22813	46.50	ug/L	91
21) allyl chloride	7.76	76	47093	45.57	ug/L #	77
22) acetonitrile	7.71	40	73229	498.41	ug/L	89
23) iodomethane	7.47	142	157277	48.10	ug/L	95
24) iso-butyl alcohol	10.95	74	28725	446.66	ug/L #	45
25) carbon disulfide	7.60	76	273885	44.89	ug/L	95
26) methylene chloride	7.98	84	90590	44.38	ug/L	96
27) methyl acetate	7.76	74	11741	35.53	ug/L #	86
28) methyl tert butyl ether	8.34	73	499497	88.68	ug/L	98
29) trans-1,2-dichloroethene	8.39	96	87429	45.02	ug/L	98
30) di-isopropyl ether	9.01	45	293411	50.42	ug/L	80
31) 2-butanone	9.79	72	8692	42.65	ug/L #	66
32) 1,1-dichloroethane	9.02	63	160252	46.95	ug/L	97
33) chloroprene	9.14	53	121735	45.34	ug/L	95
34) acrylonitrile	8.34	53	141733	221.16	ug/L	99
35) vinyl acetate	9.01	86	14523	41.75	ug/L #	33
36) ethyl tert-butyl ether	9.52	59	276744	46.39	ug/L	99
37) ethyl acetate	9.82	45	10282	41.83	ug/L	89
38) 2,2-dichloropropane	9.82	77	140897	53.32	ug/L	92
39) cis-1,2-dichloroethene	9.82	96	96738	45.72	ug/L	96
40) methylacrylate	9.90	85	11221	38.40	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146848.D
Acq On : 13 May 2014 11:09 am
Operator : thomass1
Sample : bs
Misc : MS67410,V2A6260,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:06:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) propionitrile	9.89	54	111486	453.69 ug/L	99
42) bromochloromethane	10.16	128	49008	46.43 ug/L	97
43) tetrahydrofuran	10.20	42	27538	46.80 ug/L	91
44) chloroform	10.22	85	105986	46.73 ug/L	95
45) t-butyl formate	10.26	59	82777	50.29 ug/L	98
48) freon 113	7.14	151	63904	47.91 ug/L	98
49) methacrylonitrile	10.09	41	49698	47.75 ug/L	95
50) 1,1,1-trichloroethane	10.49	97	142915	49.99 ug/L	98
51) Cyclohexane	10.56	84	124229	46.40 ug/L	87
53) epichlorohydrin	12.56	57	38508	255.27 ug/L	98
54) n-butyl alcohol	11.47	56	109396	2622.67 ug/L	92
55) carbon tetrachloride	10.69	117	133949	54.69 ug/L	96
56) 1,1-dichloropropene	10.67	75	113737	48.11 ug/L	100
59) 2,2,4-TRIMETHYLPENTANE	10.95	57	276882	53.44 ug/L #	97
60) benzene	10.94	78	346160	48.46 ug/L	99
61) tert-amyl methyl ether	10.99	87	61351	47.73 ug/L	97
63) isopropyl acetate	10.88	43	162975	54.46 ug/L	93
64) 1,2-dichloroethane	10.96	62	123418	55.15 ug/L	98
66) trichloroethene	11.67	95	89156	49.66 ug/L	97
68) methyl methacrylate	11.93	41	139133	55.29 ug/L	90
69) 2-nitropropane	12.42	41	34691	60.82 ug/L	99
70) 2-chloroethyl vinyl ether	12.45	63	240061	296.44 ug/L	99
71) 1,2-dichloropropane	11.92	63	88234	51.52 ug/L	99
72) dibromomethane	12.08	93	54559	50.92 ug/L	96
73) methylcyclohexane	11.88	83	126695	48.73 ug/L	97
74) bromodichloromethane	12.21	83	125285	52.08 ug/L	98
75) cis-1,3-dichloropropene	12.65	75	138057	47.65 ug/L	92
77) 4-methyl-2-pentanone	12.75	58	29226	47.10 ug/L	87
78) toluene	13.00	92	206095	48.03 ug/L	96
79) 3-methyl-1-butanol	12.77	55	69465	1042.89 ug/L	97
80) trans-1,3-dichloropropene	13.19	75	126815	48.00 ug/L	88
81) ethyl methacrylate	13.18	69	99019	46.73 ug/L	89
82) 1,1,2-trichloroethane	13.39	83	62573	49.08 ug/L	96
83) 2-hexanone	13.56	58	26542	46.89 ug/L	89
85) tetrachloroethene	13.56	164	79379	52.64 ug/L	98
86) 1,3-dichloropropane	13.57	76	120249	45.78 ug/L	93
87) butyl acetate	13.62	56	47825	45.73 ug/L	86
88) 3,3-dimethyl-1-butanol	13.72	57	74872	453.07 ug/L	94
89) dibromochloromethane	13.82	129	95333	48.96 ug/L	99
90) 1,2-dibromoethane	13.95	107	78268	46.59 ug/L	99
91) chlorobenzene	14.39	112	233206	47.56 ug/L	99
92) 1,1,1,2-tetrachloroethane	14.45	131	91373	49.56 ug/L	97
93) ethylbenzene	14.44	91	395783	47.43 ug/L	100
94) m,p-xylene	14.54	106	304772	97.00 ug/L	97
95) o-xylene	14.93	106	150312	48.76 ug/L	98
96) styrene	14.94	104	258455	49.37 ug/L	95
97) bromoform	15.19	173	67353	49.89 ug/L	97
99) isopropylbenzene	15.25	105	392241	44.03 ug/L	99
101) cyclohexanone	15.40	98	10695	321.37 ug/L	93
102) bromobenzene	15.62	156	114249	45.56 ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146848.D
Acq On : 13 May 2014 11:09 am
Operator : thomass1
Sample : bs
Misc : MS67410,V2A6260,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:06:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
103) 1,1,2,2-tetrachloroethane	15.53	83	96886	38.28 ug/L	99
104) trans-1,4-dichloro-2-buten	15.57	53	23412	43.54 ug/L	85
105) 1,2,3-trichloropropane	15.60	110	25193	41.55 ug/L	98
106) n-propylbenzene	15.63	120	105651	48.49 ug/L #	89
107) 2-chlorotoluene	15.76	126	97176	44.70 ug/L	97
108) 4-chlorotoluene	15.86	126	101382	45.52 ug/L	95
109) 1,3,5-trimethylbenzene	15.76	105	331393	44.89 ug/L	99
110) tert-butylbenzene	16.09	119	280481	45.49 ug/L	99
111) pentachloroethane	16.17	167	75497	50.23 ug/L	97
112) 1,2,4-trimethylbenzene	16.13	105	342982	46.73 ug/L	100
113) sec-butylbenzene	16.29	105	420081	44.19 ug/L	99
114) 1,3-dichlorobenzene	16.47	146	210404	45.94 ug/L	98
115) p-isopropyltoluene	16.40	119	358922	45.45 ug/L	99
116) 1,4-dichlorobenzene	16.54	146	215503	45.83 ug/L	100
117) 1,2-dichlorobenzene	16.91	146	204811	46.08 ug/L	100
118) benzyl chloride	16.65	91	232283	52.91 ug/L	100
119) n-butylbenzene	16.79	92	186958	46.19 ug/L	93
120) 1,2-dibromo-3-chloropropan	17.66	75	17567	45.03 ug/L	95
121) 1,3,5-TRICHLOROBENZENE	17.85	180	178605	49.04 ug/L	99
122) 1,2,4-trichlorobenzene	18.49	180	155208	50.66 ug/L	99
123) hexachlorobutadiene	18.60	225	83256	50.91 ug/L	99
124) naphthalene	18.77	128	302381	46.02 ug/L	99
125) 1,2,3-trichlorobenzene	19.02	180	135690	49.70 ug/L	97
126) hexachloroethane	17.16	201	68254	49.31 ug/L	97

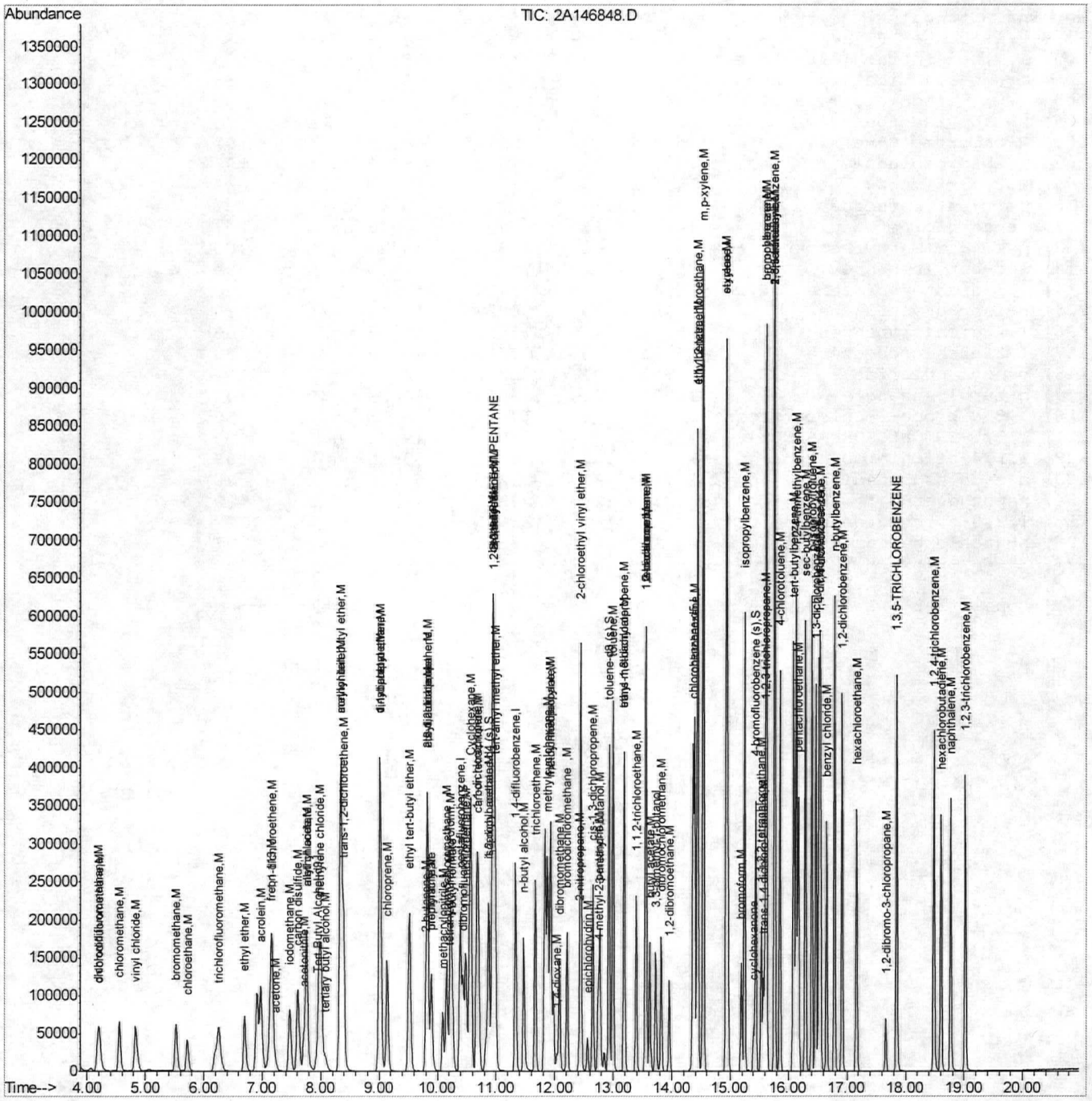
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.3.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146848.D
Acq On : 13 May 2014 11:09 am
Operator : thomass1
Sample : bs
Misc : MS67410,V2A6260,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 13 16:06:26 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES JB66485

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146767.D
Acq On : 9 May 2014 2:48 pm
Operator : thomass1
Sample : jb66485-14ms
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 09 15:29:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	101309	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	212209	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	293956	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	258338	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	140804	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	91652	47.64 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 95.28%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	101247	46.72 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 93.44%		
76) toluene-d8 (s)	12.93	98	331247	52.82 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 105.64%		
100) 4-bromofluorobenzene (s)	15.44	95	120549	45.00 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 90.00%		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.08	59	64438	276.79 ug/L	97
4) 1,4-dioxane	12.04	88	26574	1381.43 ug/L #	97
7) chlorodifluoromethane	4.21	51	62896	34.47 ug/L	98
8) dichlorodifluoromethane	4.19	85	115286	43.25 ug/L	99
10) chloromethane	4.55	50	135598	43.27 ug/L	96
11) vinyl chloride	4.83	62	123160	42.09 ug/L	98
12) bromomethane	5.52	94	81750	42.56 ug/L	100
13) chloroethane	5.72	64	57539	42.60 ug/L	97
14) trichlorofluoromethane	6.26	101	143169	47.26 ug/L	97
16) ethyl ether	6.70	74	57166	49.29 ug/L	93
18) acrolein	6.98	56	189765	443.82 ug/L	96
19) 1,1-dichloroethene	7.17	96	86176	42.67 ug/L	98
20) acetone	7.24	43	29897	52.84 ug/L	95
21) allyl chloride	7.76	76	46547	39.05 ug/L #	76
22) acetonitrile	7.71	40	87534	516.51 ug/L	86
23) iodomethane	7.47	142	176696	46.85 ug/L	100
24) iso-butyl alcohol	10.94	74	32781	442.10 ug/L #	69
25) carbon disulfide	7.61	76	280471	39.85 ug/L	99
26) methylene chloride	7.98	84	107626	45.71 ug/L	98
27) methyl acetate	7.75	74	15173	39.63 ug/L #	80
28) methyl tert butyl ether	8.35	73	318646	49.04 ug/L	98
29) trans-1,2-dichloroethene	8.39	96	97169	43.38 ug/L	99
30) di-isopropyl ether	9.01	45	342871	51.08 ug/L	87
31) 2-butanone	9.80	72	11521	49.01 ug/L	95
32) 1,1-dichloroethane	9.02	63	181305	46.05 ug/L	97
33) chloroprene	9.14	53	130353	42.09 ug/L	98
34) acrylonitrile	8.34	53	180064	243.59 ug/L	98
35) vinyl acetate	9.02	86	17012	42.37 ug/L #	45
36) ethyl tert-butyl ether	9.52	59	336841	48.95 ug/L	99
37) ethyl acetate	9.82	45	13464	47.28 ug/L	98
38) 2,2-dichloropropane	9.82	77	140732	46.18 ug/L	95
39) cis-1,2-dichloroethene	9.83	96	111377	45.63 ug/L	98
40) methylacrylate	9.90	85	14704	43.42 ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146767.D
Acq On : 9 May 2014 2:48 pm
Operator : thomass1
Sample : jb66485-14ms
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 09 15:29:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) propionitrile	9.89	54	144401	509.46 ug/L	98
42) bromochloromethane	10.16	128	58550	48.09 ug/L	98
43) tetrahydrofuran	10.20	42	32454	47.82 ug/L	97
44) chloroform	10.22	85	116579	44.56 ug/L	95
45) t-butyl formate	10.26	59	32055	16.88 ug/L #	82
48) freon 113	7.14	151	65977	42.89 ug/L	96
49) methacrylonitrile	10.09	41	63966	53.28 ug/L	95
50) 1,1,1-trichloroethane	10.49	97	153730	46.62 ug/L	99
51) Cyclohexane	10.56	84	138006	44.69 ug/L	95
53) epichlorohydrin	12.56	57	42172	239.27 ug/L	99
54) n-butyl alcohol	11.47	56	157562	3233.00 ug/L	95
55) carbon tetrachloride	10.70	117	136816	47.81 ug/L	96
56) 1,1-dichloropropene	10.67	75	125250	45.35 ug/L	98
57) hexane	8.73	57	99455	44.62 ug/L	94
59) 2,2,4-TRIMETHYLPENTANE	10.95	57	317556	52.45 ug/L #	98
60) benzene	10.95	78	389069	46.62 ug/L	100
61) tert-amyl methyl ether	10.98	87	76269	50.79 ug/L	98
62) heptane	11.13	57	60739	51.91 ug/L	95
63) isopropyl acetate	10.88	43	193352	55.30 ug/L	94
64) 1,2-dichloroethane	10.96	62	138255	52.88 ug/L	99
66) trichloroethene	11.67	95	96347	45.94 ug/L	96
68) methyl methacrylate	11.93	41	161840	55.05 ug/L	95
69) 2-nitropropane	12.42	41	26502	39.76 ug/L	97
71) 1,2-dichloropropane	11.92	63	101216	50.59 ug/L	99
72) dibromomethane	12.08	93	64412	51.45 ug/L	99
73) methylcyclohexane	11.88	83	139590	45.95 ug/L	96
74) bromodichloromethane	12.21	83	141322	50.28 ug/L	99
75) cis-1,3-dichloropropene	12.65	75	168089	49.65 ug/L	95
77) 4-methyl-2-pentanone	12.75	58	40373	55.69 ug/L	90
78) toluene	13.00	92	233880	46.65 ug/L	97
79) 3-methyl-1-butanol	12.77	55	107798	1385.15 ug/L	96
80) trans-1,3-dichloropropene	13.19	75	157302	50.96 ug/L	89
81) ethyl methacrylate	13.18	69	133748	54.02 ug/L	92
82) 1,1,2-trichloroethane	13.39	83	77254	51.86 ug/L	98
83) 2-hexanone	13.56	58	38110	57.62 ug/L	91
85) tetrachloroethene	13.56	164	85998	49.28 ug/L	98
86) 1,3-dichloropropane	13.57	76	146371	48.15 ug/L	94
87) butyl acetate	13.63	56	66511	54.95 ug/L	95
88) 3,3-dimethyl-1-butanol	13.72	57	134430	702.94 ug/L	97
89) dibromochloromethane	13.82	129	115230	51.14 ug/L	100
90) 1,2-dibromoethane	13.95	107	97015	49.91 ug/L	99
91) chlorobenzene	14.39	112	268281	47.28 ug/L	98
92) 1,1,1,2-tetrachloroethane	14.44	131	106036	49.70 ug/L	97
93) ethylbenzene	14.44	91	443776	45.95 ug/L	99
94) m,p-xylene	14.54	106	343668	94.51 ug/L	97
95) o-xylene	14.93	106	171629	48.11 ug/L	99
96) styrene	14.94	104	296033	48.87 ug/L	98
97) bromoform	15.19	173	80914	51.79 ug/L	98
99) isopropylbenzene	15.25	105	425055	43.23 ug/L	99
101) cyclohexanone	15.40	98	15962	452.09 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146767.D
Acq On : 9 May 2014 2:48 pm
Operator : thomass1
Sample : jb66485-14ms
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 09 15:29:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.62	156	130188	47.03 ug/L	96
103) 1,1,2,2-tetrachloroethane	15.53	83	126039	45.11 ug/L	100
104) trans-1,4-dichloro-2-buten	15.57	53	29938	50.44 ug/L	94
105) 1,2,3-trichloropropane	15.60	110	31496	47.06 ug/L	97
106) n-propylbenzene	15.63	120	109369	45.48 ug/L	90
107) 2-chlorotoluene	15.77	126	108437	45.19 ug/L	96
108) 4-chlorotoluene	15.86	126	112754	45.87 ug/L	96
109) 1,3,5-trimethylbenzene	15.77	105	364892	44.77 ug/L	100
110) tert-butylbenzene	16.09	119	297840	43.76 ug/L	99
111) pentachloroethane	16.17	167	84774	51.10 ug/L	98
112) 1,2,4-trimethylbenzene	16.13	105	364210	44.96 ug/L	99
113) sec-butylbenzene	16.29	105	455017	43.37 ug/L	99
114) 1,3-dichlorobenzene	16.47	146	239228	47.32 ug/L	99
115) p-isopropyltoluene	16.40	119	388774	44.60 ug/L	99
116) 1,4-dichlorobenzene	16.55	146	244987	47.20 ug/L	99
117) 1,2-dichlorobenzene	16.92	146	236023	48.11 ug/L	99
118) benzyl chloride	16.65	91	252839	52.17 ug/L	100
119) n-butylbenzene	16.79	92	195261	43.70 ug/L	94
120) 1,2-dibromo-3-chloropropan	17.67	75	21499	49.93 ug/L	94
121) 1,3,5-TRICHLOROBENZENE	17.85	180	194905	48.48 ug/L	99
122) 1,2,4-trichlorobenzene	18.49	180	180454	53.36 ug/L	99
123) hexachlorobutadiene	18.60	225	88292	48.91 ug/L	99
124) naphthalene	18.77	128	402282	55.47 ug/L	99
125) 1,2,3-trichlorobenzene	19.02	180	163191	54.16 ug/L	98
126) hexachloroethane	17.16	201	73967	48.41 ug/L	97

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

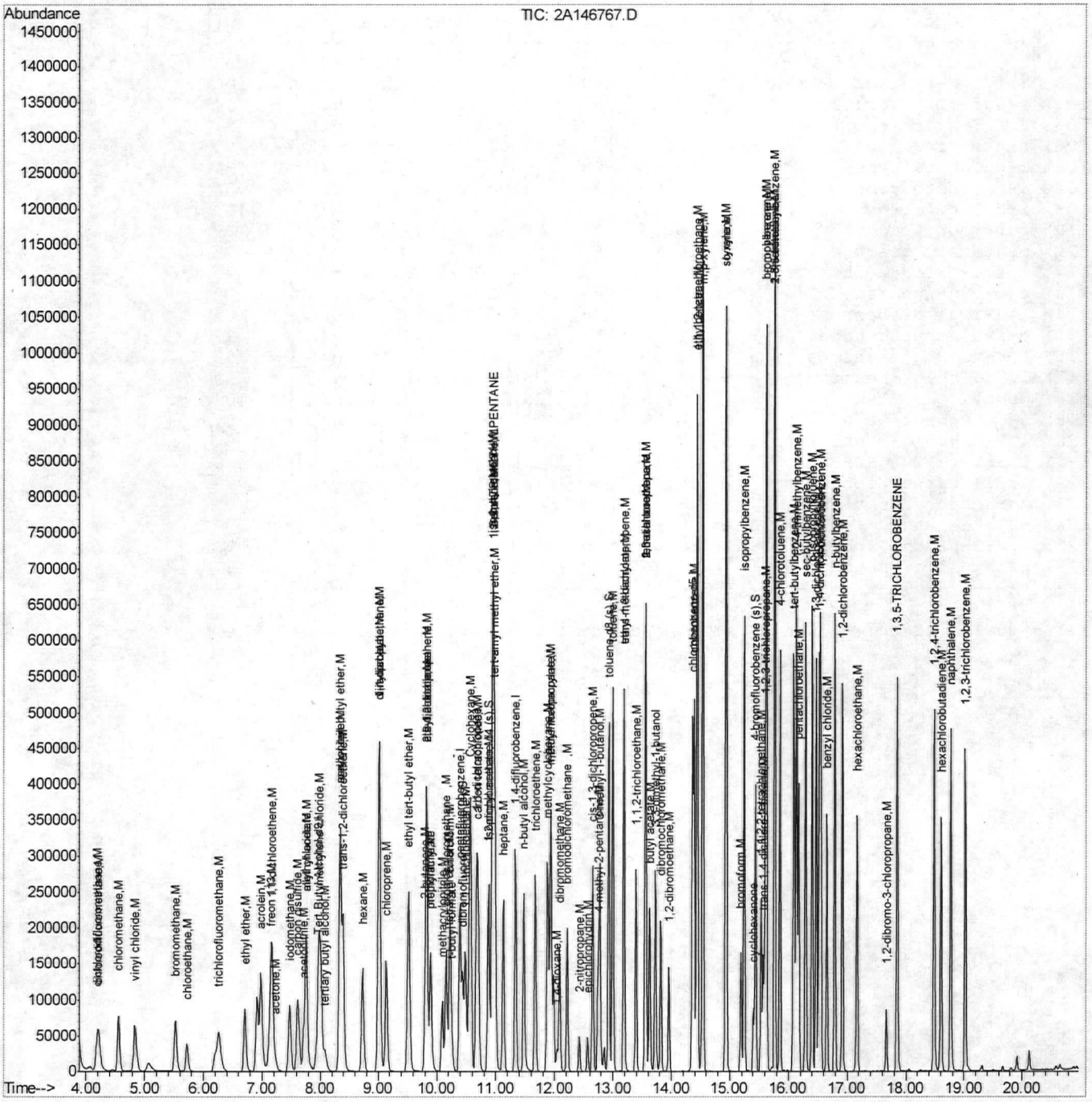
7.4.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146767.D
Acq On : 9 May 2014 2:48 pm
Operator : thomass1
Sample : jb66485-14ms
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 09 15:29:20 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146768.D
Acq On : 9 May 2014 3:17 pm
Operator : thomass1
Sample : jb66485-14msd
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 09 15:42:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	100748	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	213167	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	296696	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	257227	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	139168	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.44	113	92688	47.96 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 95.92%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	100490	46.16 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 92.32%		
76) toluene-d8 (s)	12.93	98	325837	51.47 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 102.94%		
100) 4-bromofluorobenzene (s)	15.44	95	120505	45.52 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 91.04%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.08	59	69020	298.12 ug/L	97
4) 1,4-dioxane	12.04	88	31318	1637.10 ug/L #	94
7) chlorodifluoromethane	4.22	51	62511	34.10 ug/L	95
8) dichlorodifluoromethane	4.19	85	109683	40.96 ug/L	99
10) chloromethane	4.56	50	133715	42.47 ug/L	98
11) vinyl chloride	4.84	62	119628	40.70 ug/L	97
12) bromomethane	5.53	94	83033	43.03 ug/L	98
13) chloroethane	5.73	64	56894	41.93 ug/L	97
14) trichlorofluoromethane	6.26	101	137778	45.27 ug/L	98
16) ethyl ether	6.71	74	59149	50.77 ug/L	96
18) acrolein	6.98	56	196147	456.69 ug/L	100
19) 1,1-dichloroethene	7.17	96	84336	41.57 ug/L	99
20) acetone	7.24	43	30511	53.68 ug/L	89
21) allyl chloride	7.77	76	46782	39.07 ug/L #	73
22) acetonitrile	7.72	40	91186	535.64 ug/L	93
23) iodomethane	7.48	142	179309	47.33 ug/L	100
24) iso-butyl alcohol	10.95	74	33976	455.62 ug/L #	75
25) carbon disulfide	7.61	76	274340	38.80 ug/L	98
26) methylene chloride	7.98	84	109249	46.19 ug/L	96
27) methyl acetate	7.76	74	15490	40.25 ug/L #	69
28) methyl tert butyl ether	8.35	73	321394	49.24 ug/L	98
29) trans-1,2-dichloroethene	8.40	96	97212	43.20 ug/L	98
30) di-isopropyl ether	9.01	45	348645	51.70 ug/L	84
31) 2-butanone	9.80	72	11515	48.76 ug/L #	69
32) 1,1-dichloroethane	9.02	63	184116	46.56 ug/L	98
33) chloroprene	9.14	53	128859	41.42 ug/L	98
34) acrylonitrile	8.34	53	187148	252.04 ug/L	99
35) vinyl acetate	9.02	86	17245	42.74 ug/L #	47
36) ethyl tert-butyl ether	9.52	59	340500	49.26 ug/L	99
37) ethyl acetate	9.82	45	13494	47.18 ug/L	72
38) 2,2-dichloropropane	9.82	77	138867	45.36 ug/L	94
39) cis-1,2-dichloroethene	9.83	96	114994	46.90 ug/L	96
40) methylacrylate	9.91	85	14894	43.77 ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146768.D
Acq On : 9 May 2014 3:17 pm
Operator : thomass1
Sample : jb66485-14msd
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 09 15:42:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) propionitrile	9.89	54	150861	529.86 ug/L	95
42) bromochloromethane	10.16	128	59388	48.56 ug/L	97
43) tetrahydrofuran	10.20	42	32654	47.89 ug/L	95
44) chloroform	10.22	85	118033	44.92 ug/L	96
45) t-butyl formate	10.26	59	25422	13.33 ug/L #	83
48) freon 113	7.15	151	62960	40.74 ug/L	100
49) methacrylonitrile	10.09	41	63986	53.06 ug/L	96
50) 1,1,1-trichloroethane	10.49	97	150933	45.56 ug/L	99
51) Cyclohexane	10.56	84	133743	43.11 ug/L	96
53) epichlorohydrin	12.56	57	41161	231.38 ug/L	98
54) n-butyl alcohol	11.47	56	170935	3475.01 ug/L	97
55) carbon tetrachloride	10.70	117	131919	45.68 ug/L	94
56) 1,1-dichloropropene	10.67	75	124151	44.53 ug/L	99
57) hexane	8.73	57	93852	41.72 ug/L	96
59) 2,2,4-TRIMETHYLPENTANE	10.95	57	296604	48.54 ug/L #	97
60) benzene	10.95	78	394819	46.87 ug/L	99
61) tert-amyl methyl ether	10.99	87	78218	51.60 ug/L	100
62) heptane	11.13	57	56926	48.20 ug/L	97
63) isopropyl acetate	10.88	43	195842	55.49 ug/L	94
64) 1,2-dichloroethane	10.96	62	139526	52.87 ug/L	98
66) trichloroethene	11.67	95	97492	46.05 ug/L	98
68) methyl methacrylate	11.93	41	162431	54.74 ug/L	96
69) 2-nitropropane	12.42	41	26271	39.05 ug/L	99
71) 1,2-dichloropropane	11.92	63	102368	50.69 ug/L	98
72) dibromomethane	12.08	93	65173	51.58 ug/L	97
73) methylcyclohexane	11.88	83	132815	43.32 ug/L	99
74) bromodichloromethane	12.21	83	143306	50.52 ug/L	99
75) cis-1,3-dichloropropene	12.65	75	168481	49.31 ug/L	95
77) 4-methyl-2-pentanone	12.75	58	40912	55.91 ug/L	90
78) toluene	13.00	92	233000	46.04 ug/L	97
79) 3-methyl-1-butanol	12.77	55	113537	1445.42 ug/L	97
80) trans-1,3-dichloropropene	13.19	75	157345	50.50 ug/L	89
81) ethyl methacrylate	13.18	69	134186	53.70 ug/L	92
82) 1,1,2-trichloroethane	13.39	83	76637	50.97 ug/L	95
83) 2-hexanone	13.56	58	38860	58.22 ug/L	91
85) tetrachloroethene	13.56	164	83362	47.98 ug/L	98
86) 1,3-dichloropropane	13.57	76	146161	48.29 ug/L	97
87) butyl acetate	13.62	56	67576	56.07 ug/L	93
88) 3,3-dimethyl-1-butanol	13.72	57	141031	740.64 ug/L	97
89) dibromochloromethane	13.82	129	116082	51.74 ug/L	100
90) 1,2-dibromoethane	13.95	107	97644	50.45 ug/L	98
91) chlorobenzene	14.39	112	269510	47.70 ug/L	98
92) 1,1,1,2-tetrachloroethane	14.44	131	107072	50.40 ug/L	98
93) ethylbenzene	14.44	91	439171	45.67 ug/L	100
94) m,p-xylene	14.54	106	342609	94.63 ug/L	97
95) o-xylene	14.93	106	172868	48.67 ug/L	98
96) styrene	14.94	104	302516	50.15 ug/L	97
97) bromoform	15.19	173	83436	53.64 ug/L	97
99) isopropylbenzene	15.25	105	421809	43.40 ug/L	98
101) cyclohexanone	15.40	98	17549	508.49 ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146768.D
Acq On : 9 May 2014 3:17 pm
Operator : thomass1
Sample : jb66485-14msd
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 09 15:42:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) bromobenzene	15.62	156	133672	48.86	ug/L	95
103) 1,1,2,2-tetrachloroethane	15.53	83	126714	45.89	ug/L	99
104) trans-1,4-dichloro-2-buten	15.57	53	30175	51.44	ug/L	91
105) 1,2,3-trichloropropane	15.60	110	31300	47.31	ug/L	99
106) n-propylbenzene	15.63	120	107681	45.30	ug/L	90
107) 2-chlorotoluene	15.77	126	109363	46.11	ug/L	93
108) 4-chlorotoluene	15.86	126	114188	47.00	ug/L	93
109) 1,3,5-trimethylbenzene	15.76	105	361096	44.83	ug/L	99
110) tert-butylbenzene	16.09	119	292855	43.53	ug/L	99
111) pentachloroethane	16.17	167	84934	51.80	ug/L	97
112) 1,2,4-trimethylbenzene	16.13	105	359111	44.85	ug/L	99
113) sec-butylbenzene	16.29	105	437614	42.20	ug/L	98
114) 1,3-dichlorobenzene	16.47	146	240729	48.17	ug/L	99
115) p-isopropyltoluene	16.40	119	379081	44.00	ug/L	100
116) 1,4-dichlorobenzene	16.55	146	246970	48.15	ug/L	99
117) 1,2-dichlorobenzene	16.92	146	237939	49.07	ug/L	99
118) benzyl chloride	16.65	91	250137	52.22	ug/L	100
119) n-butylbenzene	16.79	92	190328	43.10	ug/L	98
120) 1,2-dibromo-3-chloropropan	17.67	75	21548	50.63	ug/L	88
121) 1,3,5-TRICHLOROBENZENE	17.85	180	194344	48.91	ug/L	99
122) 1,2,4-trichlorobenzene	18.49	180	180308	53.94	ug/L	99
123) hexachlorobutadiene	18.61	225	83534	46.82	ug/L	98
124) naphthalene	18.77	128	405380	56.55	ug/L	99
125) 1,2,3-trichlorobenzene	19.02	180	165145	55.45	ug/L	97
126) hexachloroethane	17.17	201	72012	47.68	ug/L	99

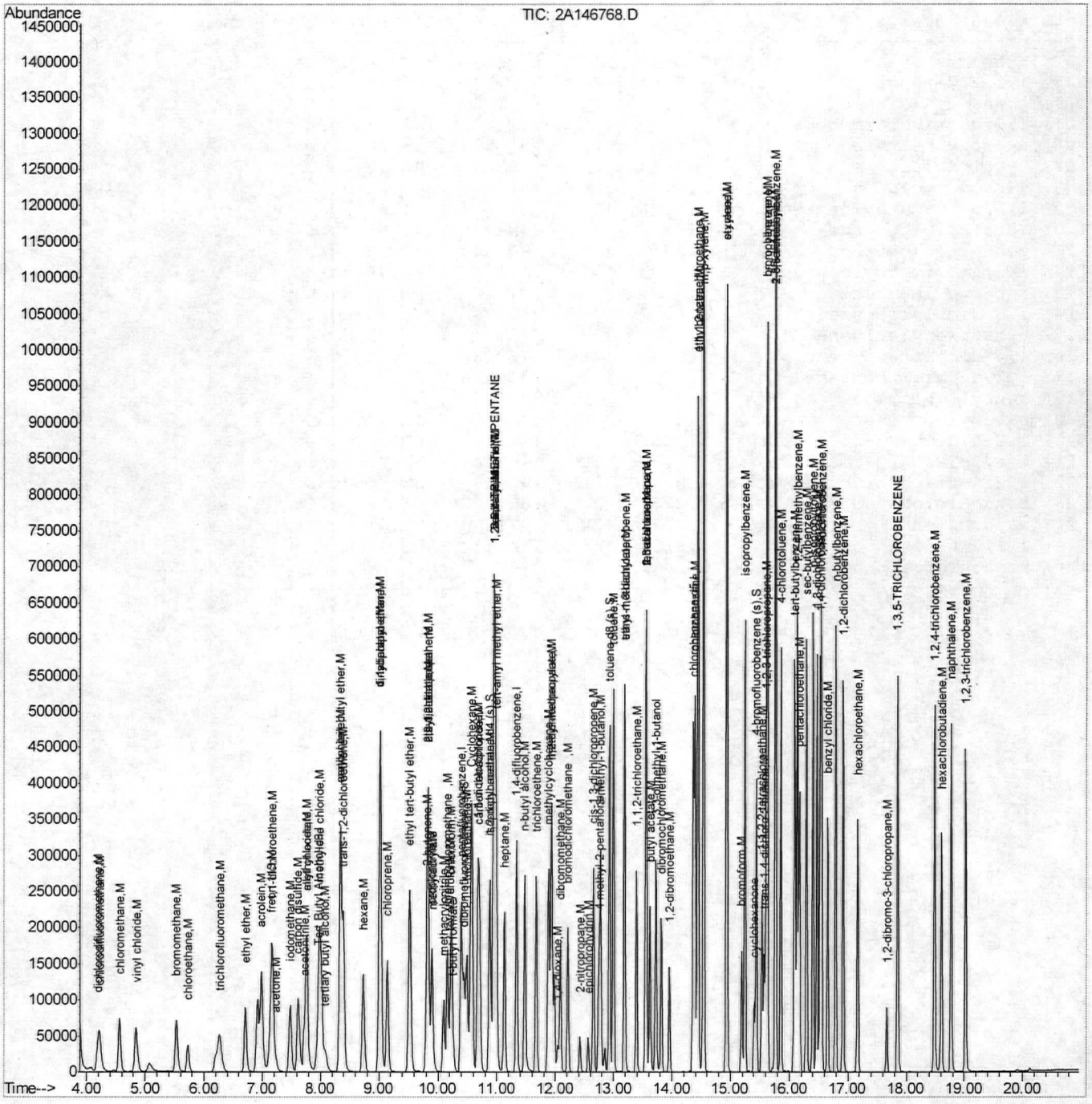
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146768.D
Acq On : 9 May 2014 3:17 pm
Operator : thomass1
Sample : jb66485-14msd
Misc : MS67264,V2A6257,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 09 15:42:35 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146859.D
Acq On : 13 May 2014 4:37 pm
Operator : thomass1
Sample : jb66485-4ms
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 14 09:08:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.94	65	72410	500.00 ug/L	-0.01
5) pentafluorobenzene	10.39	168	180106	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	247516	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	221740	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	127425	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	81446	49.88 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.76%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	92773	50.44 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 100.88%		
76) toluene-d8 (s)	12.93	98	280869	53.19 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 106.38%		
100) 4-bromofluorobenzene (s)	15.44	95	107335	44.28 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 88.56%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.08	59	44174	265.48 ug/L	96
4) 1,4-dioxane	12.04	88	18266	1328.51 ug/L #	98
7) chlorodifluoromethane	4.21	51	59328	38.31 ug/L	93
8) dichlorodifluoromethane	4.19	85	109774	48.52 ug/L	99
10) chloromethane	4.56	50	112549	42.31 ug/L	97
11) vinyl chloride	4.84	62	100591	40.51 ug/L	98
12) bromomethane	5.53	94	67956	41.68 ug/L	98
13) chloroethane	5.73	64	49289	42.99 ug/L	97
14) trichlorofluoromethane	6.26	101	134828	52.44 ug/L	96
16) ethyl ether	6.70	74	43924	44.62 ug/L	95
18) acrolein	6.98	56	153765	423.73 ug/L	99
19) 1,1-dichloroethene	7.17	96	69168	40.35 ug/L	95
20) acetone	7.24	43	23088	48.08 ug/L	89
21) allyl chloride	7.76	76	37109	36.68 ug/L #	71
22) acetonitrile	7.72	40	68044	473.07 ug/L	92
23) iodomethane	7.47	142	143176	44.73 ug/L	95
24) iso-butyl alcohol	10.95	74	27530	437.63 ug/L #	35
25) carbon disulfide	7.61	76	216194	36.19 ug/L	94
26) methylene chloride	7.98	84	87336	43.71 ug/L	94
27) methyl acetate	7.76	74	11817	36.49 ug/L #	73
28) methyl tert butyl ether	8.34	73	252631	45.81 ug/L	98
29) trans-1,2-dichloroethene	8.39	96	79765	41.96 ug/L	98
30) di-isopropyl ether	9.01	45	286658	50.32 ug/L	88
31) 2-butanone	9.80	72	8789	44.05 ug/L	95
32) 1,1-dichloroethane	9.02	63	147075	44.02 ug/L	97
33) chloroprene	9.14	53	112492	42.80 ug/L	95
34) acrylonitrile	8.34	53	139262	221.97 ug/L	99
35) vinyl acetate	9.02	86	13204	38.92 ug/L #	44
36) ethyl tert-butyl ether	9.52	59	277133	47.45 ug/L	98
37) ethyl acetate	9.82	45	10288	42.72 ug/L	90
38) 2,2-dichloropropane	9.82	77	124696	48.21 ug/L	92
39) cis-1,2-dichloroethene	9.83	96	91709	44.27 ug/L	98
40) methylacrylate	9.90	85	10806	37.80 ug/L	83

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146859.D
Acq On : 13 May 2014 4:37 pm
Operator : thomass1
Sample : jb66485-4ms
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 14 09:08:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) propionitrile	9.89	54	109109	453.56 ug/L	98
42) bromochloromethane	10.16	128	48460	46.90 ug/L	96
43) tetrahydrofuran	10.20	42	25176	43.70 ug/L	95
44) chloroform	10.22	85	99378	44.76 ug/L	93
45) t-butyl formate	10.25	59	30520	18.94 ug/L #	87
48) freon 113	7.14	151	54698	41.89 ug/L	97
49) methacrylonitrile	10.09	41	50035	49.11 ug/L	94
50) 1,1,1-trichloroethane	10.49	97	130250	46.54 ug/L	98
51) Cyclohexane	10.55	84	110265	42.07 ug/L	90
53) epichlorohydrin	12.56	57	32439	218.58 ug/L	97
54) n-butyl alcohol	11.47	56	104858	2555.26 ug/L	88
55) carbon tetrachloride	10.70	117	119190	49.47 ug/L	95
56) 1,1-dichloropropene	10.67	75	104385	44.88 ug/L	99
57) hexane	8.73	57	80818	43.06 ug/L	94
59) 2,2,4-TRIMETHYLPENTANE	10.95	57	259733	50.95 ug/L #	95
60) benzene	10.94	78	316425	45.03 ug/L	100
61) tert-amyl methyl ether	10.98	87	62975	49.80 ug/L	96
62) heptane	11.13	57	49898	50.64 ug/L	95
63) isopropyl acetate	10.88	43	150922	51.26 ug/L	94
64) 1,2-dichloroethane	10.96	62	120860	54.90 ug/L	99
66) trichloroethene	11.67	95	81580	46.19 ug/L	99
68) methyl methacrylate	11.93	41	136451	55.12 ug/L	90
69) 2-nitropropane	12.42	41	22619	40.31 ug/L	99
71) 1,2-dichloropropane	11.92	63	83159	49.36 ug/L	99
72) dibromomethane	12.08	93	54196	51.42 ug/L	97
73) methylcyclohexane	11.88	83	114336	44.70 ug/L	99
74) bromodichloromethane	12.21	83	120844	51.06 ug/L	99
75) cis-1,3-dichloropropene	12.65	75	138739	48.67 ug/L	91
77) 4-methyl-2-pentanone	12.74	58	28691	47.00 ug/L #	85
78) toluene	13.00	92	193475	45.83 ug/L	99
79) 3-methyl-1-butanol	12.77	55	67333	1027.52 ug/L	95
80) trans-1,3-dichloropropene	13.19	75	132561	51.00 ug/L	84
81) ethyl methacrylate	13.18	69	102775	49.30 ug/L	88
82) 1,1,2-trichloroethane	13.39	83	62885	50.14 ug/L	96
83) 2-hexanone	13.56	58	27585	49.54 ug/L	87
85) tetrachloroethene	13.56	164	73172	48.85 ug/L	98
86) 1,3-dichloropropane	13.57	76	121708	46.64 ug/L	92
87) butyl acetate	13.62	56	48781	46.96 ug/L	86
88) 3,3-dimethyl-1-butanol	13.72	57	70131	427.24 ug/L	93
89) dibromochloromethane	13.82	129	97519	50.42 ug/L	98
90) 1,2-dibromoethane	13.95	107	80192	48.06 ug/L	99
91) chlorobenzene	14.39	112	225940	46.39 ug/L	97
92) 1,1,1,2-tetrachloroethane	14.44	131	91430	49.93 ug/L	98
93) ethylbenzene	14.44	91	375922	45.35 ug/L	98
94) m,p-xylene	14.54	106	290145	92.96 ug/L	98
95) o-xylene	14.93	106	146310	47.78 ug/L	99
96) styrene	14.94	104	250449	48.16 ug/L	94
97) bromoform	15.19	173	69598	51.90 ug/L	96
99) isopropylbenzene	15.25	105	365870	41.12 ug/L	99
101) cyclohexanone	15.40	98	10876	328.05 ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146859.D
Acq On : 13 May 2014 4:37 pm
Operator : thomass1
Sample : jb66485-4ms
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 14 09:08:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.62	156	113782	45.42 ug/L	97
103) 1,1,2,2-tetrachloroethane	15.53	83	104930	41.50 ug/L	98
104) trans-1,4-dichloro-2-buten	15.57	53	25396	47.28 ug/L	85
105) 1,2,3-trichloropropane	15.60	110	26631	43.97 ug/L	95
106) n-propylbenzene	15.63	120	94349	43.35 ug/L	91
107) 2-chlorotoluene	15.77	126	94361	43.45 ug/L	92
108) 4-chlorotoluene	15.86	126	98532	44.29 ug/L	93
109) 1,3,5-trimethylbenzene	15.76	105	314370	42.62 ug/L	98
110) tert-butylbenzene	16.09	119	257398	41.79 ug/L	98
111) pentachloroethane	16.17	167	73582	49.01 ug/L	97
112) 1,2,4-trimethylbenzene	16.13	105	310045	42.29 ug/L	99
113) sec-butylbenzene	16.29	105	391474	41.23 ug/L	100
114) 1,3-dichlorobenzene	16.47	146	210295	45.96 ug/L	98
115) p-isopropyltoluene	16.40	119	335633	42.55 ug/L	99
116) 1,4-dichlorobenzene	16.55	146	213710	45.50 ug/L	100
117) 1,2-dichlorobenzene	16.91	146	206236	46.45 ug/L	99
118) benzyl chloride	16.65	91	218983	49.93 ug/L	99
119) n-butylbenzene	16.79	92	171026	42.30 ug/L	98
120) 1,2-dibromo-3-chloropropan	17.67	75	17864	45.84 ug/L	98
121) 1,3,5-TRICHLOROBENZENE	17.85	180	166911	45.88 ug/L	99
122) 1,2,4-trichlorobenzene	18.49	180	152005	49.67 ug/L	99
123) hexachlorobutadiene	18.60	225	74510	45.61 ug/L	99
124) naphthalene	18.77	128	315439	48.06 ug/L	100
125) 1,2,3-trichlorobenzene	19.02	180	136357	50.00 ug/L	99
126) hexachloroethane	17.16	201	62936	45.51 ug/L	97

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

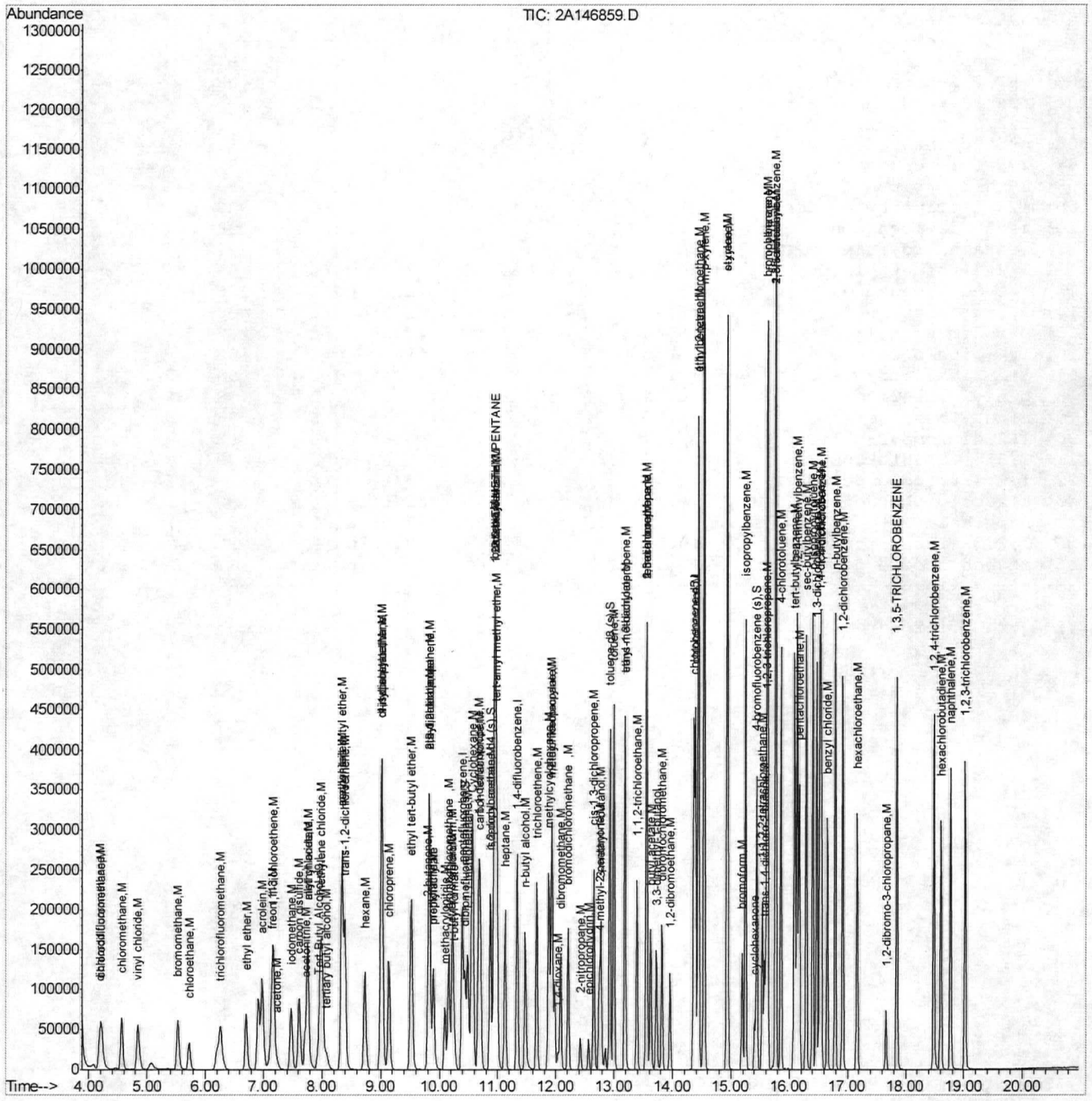
7.4.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146859.D
Acq On : 13 May 2014 4:37 pm
Operator : thomass1
Sample : jb66485-4ms
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 14 09:08:03 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146860.D
Acq On : 13 May 2014 5:06 pm
Operator : thomass1
Sample : jb66485-4msd
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 14 09:08:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	74392	500.00 ug/L	0.00
5) pentafluorobenzene	10.39	168	183722	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	253269	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	220800	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	126716	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.43	113	82527	49.55 ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 99.10%		
47) 1,2-dichloroethane-d4 (s)	10.87	65	93001	49.57 ug/L	0.00
Spiked Amount 50.000	Range 72 - 123		Recovery = 99.14%		
76) toluene-d8 (s)	12.93	98	282499	52.28 ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 104.56%		
100) 4-bromofluorobenzene (s)	15.44	95	105196	43.64 ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 87.28%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.07	59	49945	292.16 ug/L	98
4) 1,4-dioxane	12.04	88	23948	1695.36 ug/L #	95
7) chlorodifluoromethane	4.21	51	63160	39.98 ug/L	98
8) dichlorodifluoromethane	4.19	85	116584	50.52 ug/L	97
10) chloromethane	4.55	50	125165	46.13 ug/L	98
11) vinyl chloride	4.83	62	112026	44.22 ug/L	97
12) bromomethane	5.52	94	74459	44.77 ug/L	97
13) chloroethane	5.72	64	54268	46.41 ug/L	96
14) trichlorofluoromethane	6.26	101	141315	53.88 ug/L	100
16) ethyl ether	6.70	74	46620	46.43 ug/L	93
18) acrolein	6.98	56	160010	432.26 ug/L	100
19) 1,1-dichloroethene	7.17	96	72629	41.53 ug/L	97
20) acetone	7.23	43	24331	49.67 ug/L	88
21) allyl chloride	7.76	76	38654	37.45 ug/L #	73
22) acetonitrile	7.71	40	73622	501.78 ug/L	93
23) iodomethane	7.47	142	150280	46.02 ug/L	94
24) iso-butyl alcohol	10.94	74	28897	449.84 ug/L #	61
25) carbon disulfide	7.60	76	228162	37.44 ug/L	94
26) methylene chloride	7.98	84	90713	44.50 ug/L	94
27) methyl acetate	7.75	74	12542	37.90 ug/L #	86
28) methyl tert butyl ether	8.34	73	266417	47.36 ug/L	98
29) trans-1,2-dichloroethene	8.39	96	83456	43.03 ug/L	98
30) di-isopropyl ether	9.01	45	298570	51.37 ug/L	87
31) 2-butanone	9.80	72	9110	44.76 ug/L	98
32) 1,1-dichloroethane	9.02	63	152051	44.61 ug/L	97
33) chloroprene	9.14	53	116334	43.39 ug/L	95
34) acrylonitrile	8.34	53	144242	225.39 ug/L	97
35) vinyl acetate	9.01	86	13693	39.53 ug/L #	23
36) ethyl tert-butyl ether	9.52	59	289891	48.66 ug/L	99
37) ethyl acetate	9.82	45	10545	42.92 ug/L	85
38) 2,2-dichloropropane	9.82	77	127968	48.50 ug/L	90
39) cis-1,2-dichloroethene	9.82	96	95188	45.05 ug/L	98
40) methylacrylate	9.90	85	11226	38.46 ug/L	81

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146860.D
Acq On : 13 May 2014 5:06 pm
Operator : thomass1
Sample : jb66485-4msd
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 14 09:08:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) propionitrile	9.89	54	114664	467.27 ug/L	98
42) bromochloromethane	10.16	128	49925	47.37 ug/L	98
43) tetrahydrofuran	10.20	42	25511	43.41 ug/L	92
44) chloroform	10.22	85	103010	45.48 ug/L	99
45) t-butyl formate	10.25	59	21667	13.18 ug/L #	82
48) freon 113	7.14	151	57799	43.40 ug/L	95
49) methacrylonitrile	10.09	41	52320	50.34 ug/L	95
50) 1,1,1-trichloroethane	10.48	97	135633	47.51 ug/L	99
51) Cyclohexane	10.56	84	116292	43.49 ug/L	89
53) epichlorohydrin	12.56	57	31177	205.31 ug/L	98
54) n-butyl alcohol	11.47	56	118360	2818.77 ug/L	94
55) carbon tetrachloride	10.69	117	123889	50.25 ug/L	97
56) 1,1-dichloropropene	10.67	75	107428	45.14 ug/L	99
57) hexane	8.73	57	83134	43.29 ug/L	96
59) 2,2,4-TRIMETHYLPENTANE	10.95	57	274067	52.54 ug/L #	95
60) benzene	10.94	78	327825	45.59 ug/L	99
61) tert-amyl methyl ether	10.98	87	65724	50.79 ug/L	98
62) heptane	11.13	57	51294	50.88 ug/L	96
63) isopropyl acetate	10.88	43	155501	51.62 ug/L	93
64) 1,2-dichloroethane	10.96	62	124187	55.13 ug/L	98
66) trichloroethene	11.67	95	83390	46.15 ug/L	98
68) methyl methacrylate	11.93	41	136999	54.08 ug/L	92
69) 2-nitropropane	12.42	41	23301	40.58 ug/L	99
71) 1,2-dichloropropane	11.92	63	85828	49.79 ug/L	99
72) dibromomethane	12.08	93	55322	51.29 ug/L	96
73) methylcyclohexane	11.88	83	119857	45.79 ug/L	98
74) bromodichloromethane	12.21	83	123739	51.10 ug/L	98
75) cis-1,3-dichloropropene	12.65	75	141089	48.37 ug/L	91
77) 4-methyl-2-pentanone	12.75	58	29977	47.99 ug/L	86
78) toluene	13.00	92	196945	45.59 ug/L	98
79) 3-methyl-1-butanol	12.77	55	72385	1079.53 ug/L	95
80) trans-1,3-dichloropropene	13.19	75	133793	50.30 ug/L	87
81) ethyl methacrylate	13.18	69	102815	48.20 ug/L	90
82) 1,1,2-trichloroethane	13.39	83	64451	50.22 ug/L	98
83) 2-hexanone	13.56	58	28148	49.40 ug/L	86
85) tetrachloroethene	13.56	164	75023	50.30 ug/L	97
86) 1,3-dichloropropane	13.56	76	122630	47.20 ug/L	91
87) butyl acetate	13.62	56	48739	47.12 ug/L	89
88) 3,3-dimethyl-1-butanol	13.72	57	76370	467.23 ug/L	94
89) dibromochloromethane	13.82	129	99147	51.48 ug/L	99
90) 1,2-dibromoethane	13.95	107	81185	48.86 ug/L	98
91) chlorobenzene	14.39	112	227542	46.92 ug/L	99
92) 1,1,1,2-tetrachloroethane	14.45	131	93570	51.31 ug/L	98
93) ethylbenzene	14.44	91	377699	45.76 ug/L	98
94) m,p-xylene	14.54	106	288268	92.75 ug/L	97
95) o-xylene	14.93	106	147171	48.27 ug/L	99
96) styrene	14.94	104	248744	48.04 ug/L	94
97) bromoform	15.19	173	69730	52.22 ug/L	97
99) isopropylbenzene	15.25	105	372197	42.06 ug/L	99
101) cyclohexanone	15.40	98	12594	390.20 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146860.D
Acq On : 13 May 2014 5:06 pm
Operator : thomass1
Sample : jb66485-4msd
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 14 09:08:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.62	156	113819	45.69 ug/L	95
103) 1,1,2,2-tetrachloroethane	15.53	83	104778	41.67 ug/L	99
104) trans-1,4-dichloro-2-buten	15.57	53	25675	48.07 ug/L	86
105) 1,2,3-trichloropropane	15.60	110	26484	43.97 ug/L	100
106) n-propylbenzene	15.63	120	94700	43.76 ug/L	90
107) 2-chlorotoluene	15.76	126	95020	44.00 ug/L	97
108) 4-chlorotoluene	15.86	126	97716	44.17 ug/L	96
109) 1,3,5-trimethylbenzene	15.76	105	317765	43.33 ug/L	99
110) tert-butylbenzene	16.09	119	265603	43.36 ug/L	98
111) pentachloroethane	16.17	167	75162	50.34 ug/L	98
112) 1,2,4-trimethylbenzene	16.13	105	317440	43.54 ug/L	100
113) sec-butylbenzene	16.29	105	397213	42.07 ug/L	100
114) 1,3-dichlorobenzene	16.47	146	213931	47.02 ug/L	98
115) p-isopropyltoluene	16.40	119	341637	43.55 ug/L	99
116) 1,4-dichlorobenzene	16.55	146	216942	46.45 ug/L	98
117) 1,2-dichlorobenzene	16.91	146	207588	47.02 ug/L	99
118) benzyl chloride	16.65	91	220141	50.47 ug/L	99
119) n-butylbenzene	16.79	92	173063	43.04 ug/L	94
120) 1,2-dibromo-3-chloropropan	17.66	75	18497	47.73 ug/L	94
121) 1,3,5-TRICHLOROBENZENE	17.85	180	172290	47.62 ug/L	99
122) 1,2,4-trichlorobenzene	18.49	180	157127	51.63 ug/L	99
123) hexachlorobutadiene	18.60	225	77116	47.47 ug/L	99
124) naphthalene	18.77	128	328103	50.27 ug/L	100
125) 1,2,3-trichlorobenzene	19.02	180	141135	52.04 ug/L	99
126) hexachloroethane	17.16	201	64723	47.07 ug/L	98

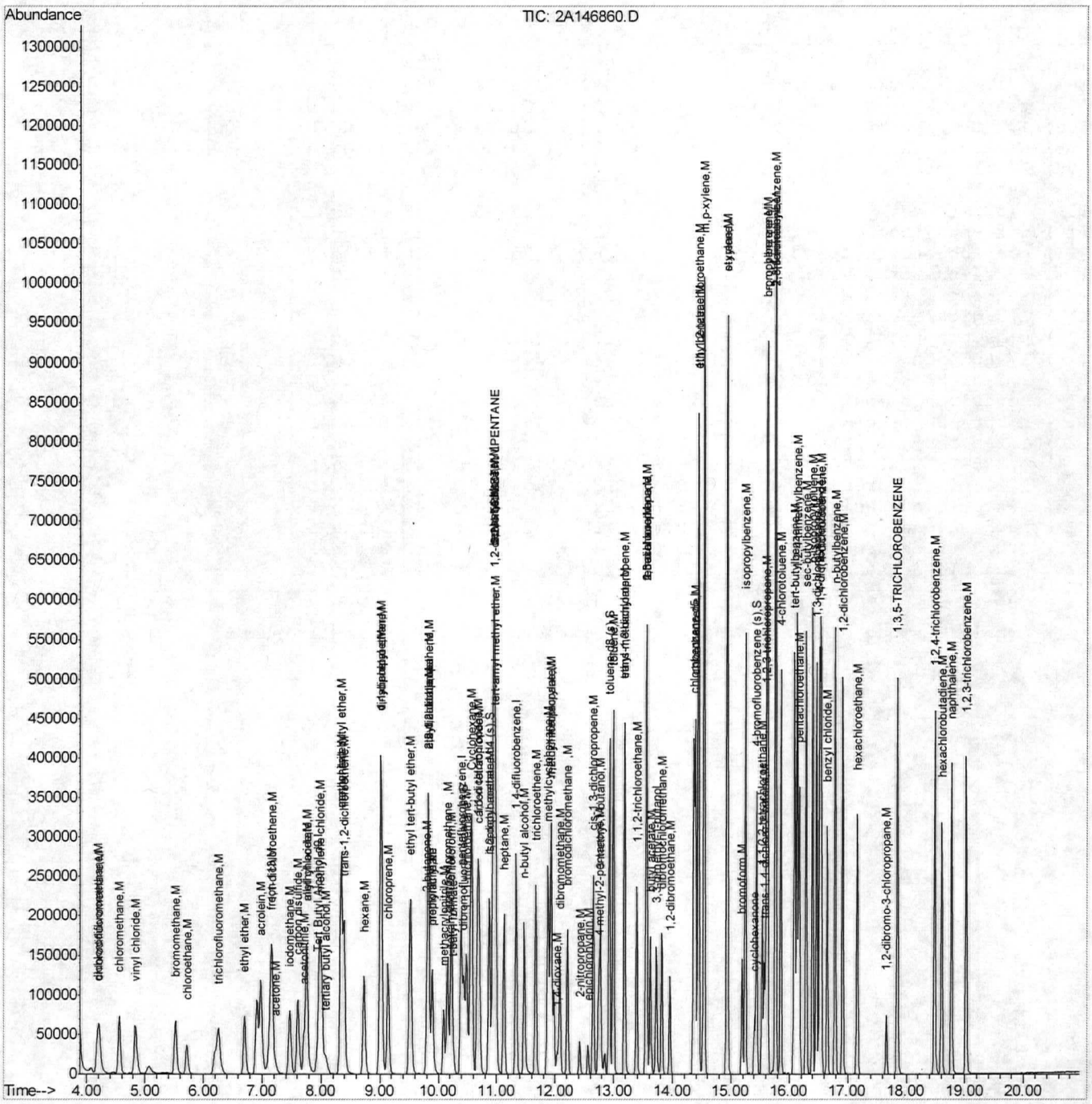
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A146860.D
Acq On : 13 May 2014 5:06 pm
Operator : thomass1
Sample : jb66485-4msd
Misc : MS67264,V2A6260,w,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 14 09:08:13 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Apr 07 10:04:29 2014
Response via : Initial Calibration

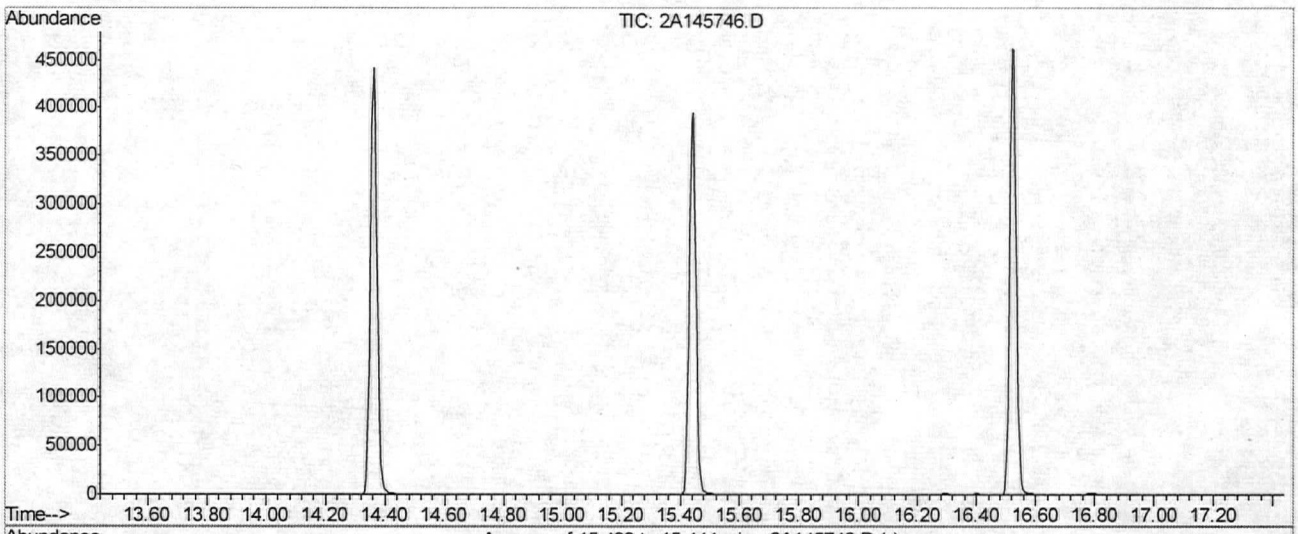


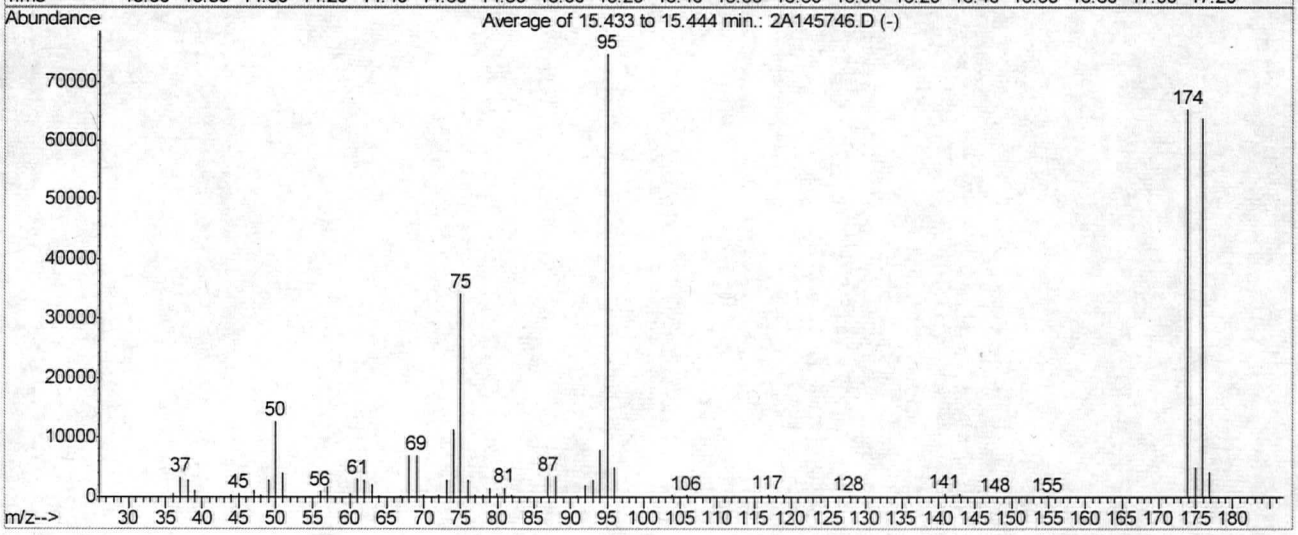
SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\2A145746.D
Acq On : 2 Apr 2014 12:21 pm
Sample : bfb
Misc : MS65187,V2A6216,,,,,1
MS Integration Params: RTEINT.P

Vial: 1
Operator: thomass1
Inst : Instrumen
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2209, 2210, 2211; Background Corrected with Scan 2201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	12664	PASS
75	95	30	60	45.6	34186	PASS
95	95	100	100	100.0	74917	PASS
96	95	5	9	6.7	5021	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	87.4	65504	PASS
175	174	5	9	7.6	4980	PASS
176	174	95	101	97.4	63816	PASS
177	176	5	9	6.7	4270	PASS

2A145746.D M2A6216.M Thu Apr 03 12:42:47 2014 MS2A

Average of 15.433 to 15.444 min.: 2A145746.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	627	52.00	63	69.00	7010	80.90	1636
37.00	3306	55.00	92	70.00	428	81.90	368
38.00	2900	56.00	993	71.95	392	86.90	3539
39.00	1097	57.00	1683	73.00	2943	87.90	3487
44.00	296	60.00	617	74.00	11327	90.90	227
45.00	605	61.00	3026	75.00	34186	92.00	1906
47.00	1084	62.00	2893	76.00	2938	93.00	2799
48.00	377	63.00	2073	76.95	454	94.00	7789
49.00	2802	63.95	151	78.00	352	95.00	74917
50.00	12664	66.95	128	78.90	1611	96.00	5021
51.00	4108	68.00	6844	79.90	492	103.90	301

Average of 15.433 to 15.444 min.: 2A145746.D
bfb
Modified:subtracted

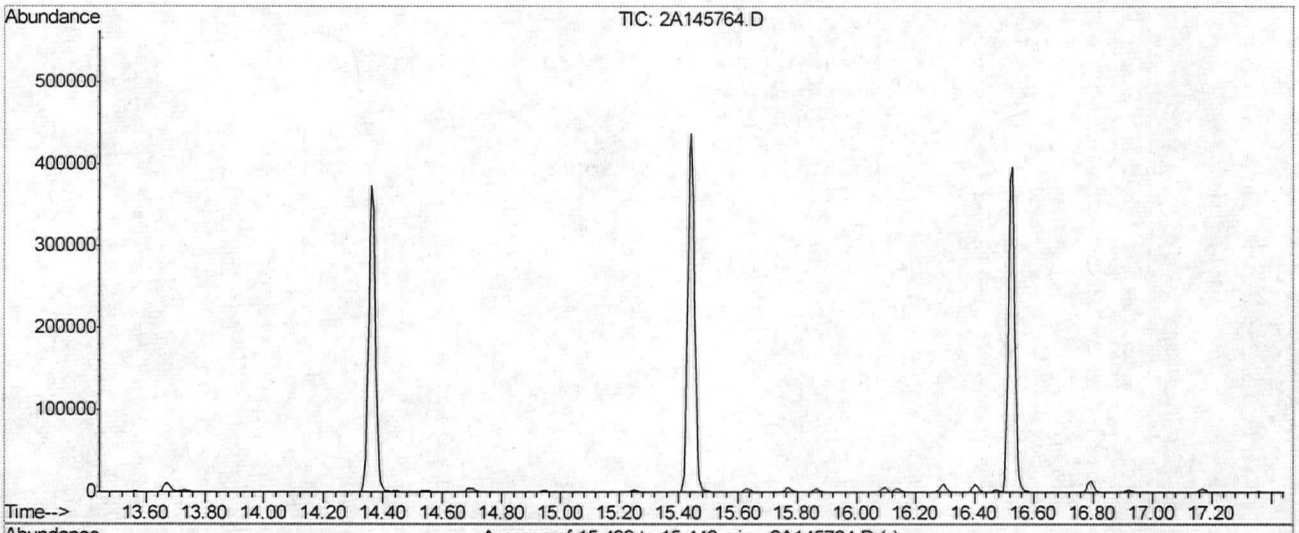
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.85	329	173.90	65504				
115.90	165	174.90	4980				
116.90	394	175.90	63816				
117.90	253	176.90	4270				
118.90	357						
127.85	244						
129.85	240						
140.90	662						
142.85	624						
147.80	68						
154.85	140						

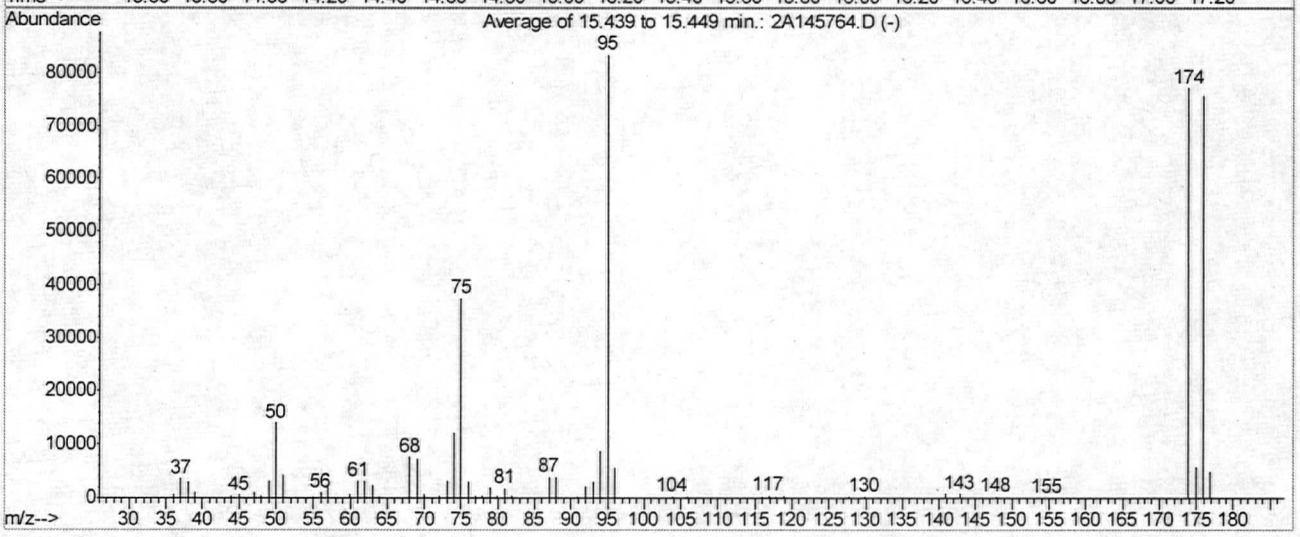
SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\2A145764.D
Acq On : 3 Apr 2014 10:01 am
Sample : bfb2
Misc : MS65187,V2A6216,,,,,1
MS Integration Params: RTEINT.P

Vial: 1
Operator: thomass1
Inst : Instrumen
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2210, 2211, 2212; Background Corrected with Scan 2202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	14067	PASS
75	95	30	60	44.9	37450	PASS
95	95	100	100	100.0	83493	PASS
96	95	5	9	6.5	5462	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	92.4	77146	PASS
175	174	5	9	7.5	5758	PASS
176	174	95	101	98.0	75605	PASS
177	176	5	9	6.5	4939	PASS

2A145764.D M2A6216.M Thu Apr 03 15:02:56 2014 MS2A

Average of 15.439 to 15.449 min.: 2A145764.D
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	688	52.00	64	69.00	7342	80.90	1827
37.00	3586	55.00	161	70.00	568	81.90	403
38.00	3099	56.00	1037	71.95	429	86.95	3932
39.00	1156	57.00	1834	73.00	3251	87.90	3763
44.00	356	59.95	712	74.00	12134	90.90	277
45.00	585	61.00	3196	75.00	37450	92.00	2087
47.00	1166	62.00	3182	76.00	3095	93.00	3107
48.00	463	63.00	2368	76.95	485	94.00	8851
49.00	3119	64.00	247	77.95	397	95.00	83493
50.00	14067	66.90	75	78.90	1875	96.00	5462
51.00	4371	68.00	7605	79.90	528	103.85	323

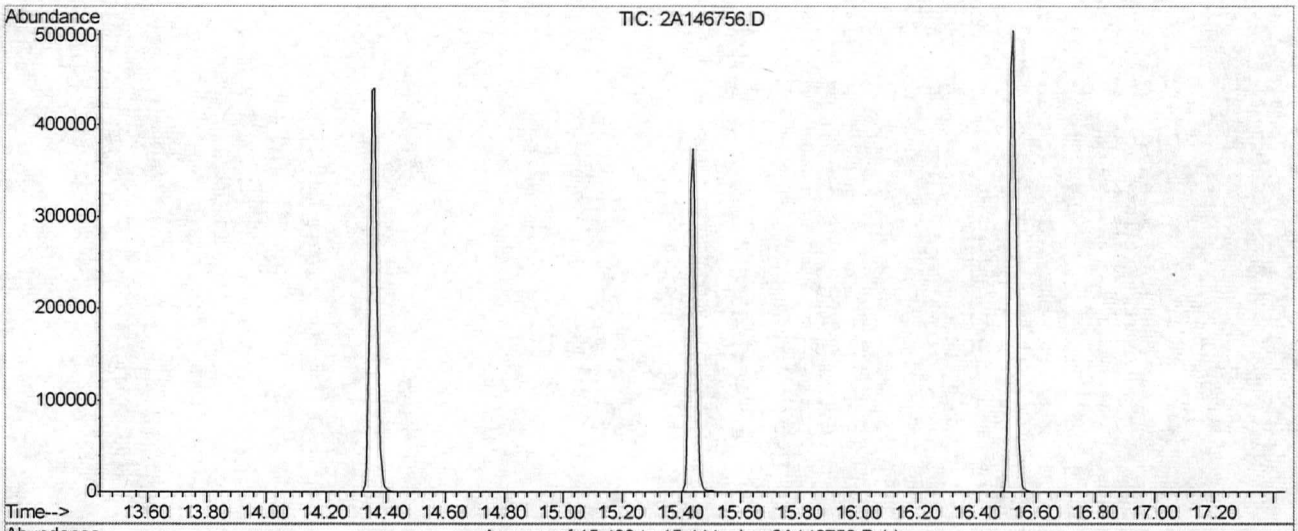
Average of 15.439 to 15.449 min.: 2A145764.D
bfb2
Modified:subtracted

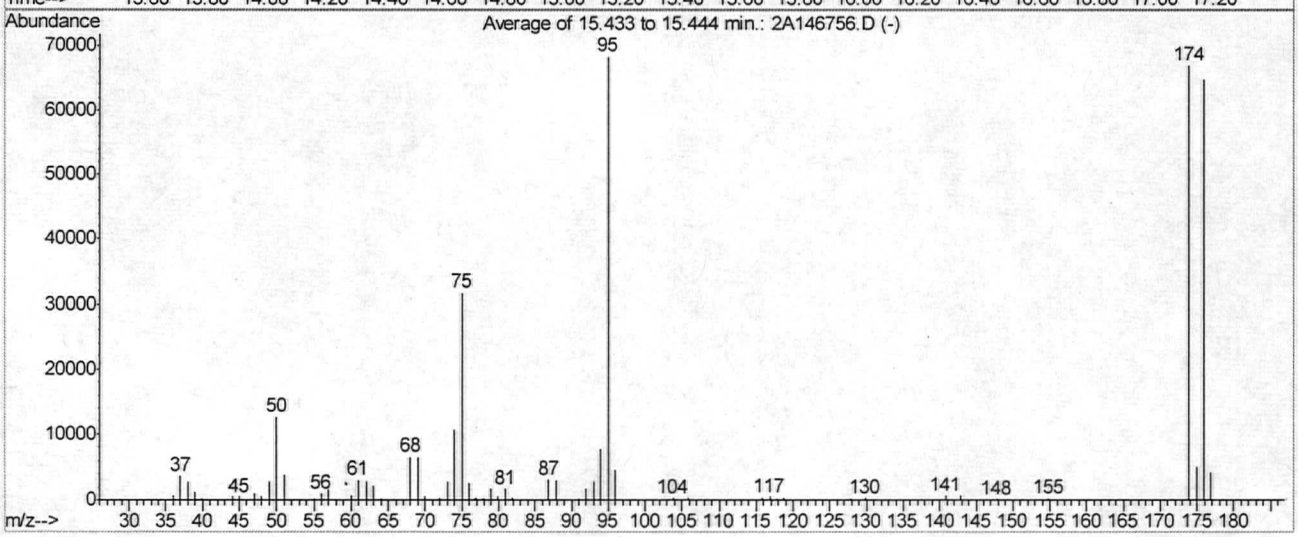
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.85	299	173.90	77146				
115.90	167	174.90	5758				
116.90	495	175.90	75605				
117.90	286	176.90	4939				
118.85	398						
127.80	262						
129.90	326						
140.90	783						
142.90	804						
147.85	216						
154.80	65						

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\2A146756.D Vial: 1
Acq On : 9 May 2014 8:52 am Operator: thomass1
Sample : bfb Inst : Instrumen
Misc : MS67229,V2A6257,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2209, 2210, 2211; Background Corrected with Scan 2201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.4	12608	PASS
75	95	30	60	46.4	31701	PASS
95	95	100	100	100.0	68344	PASS
96	95	5	9	6.7	4567	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.9	66893	PASS
175	174	5	9	7.6	5093	PASS
176	174	95	101	96.9	64826	PASS
177	176	5	9	6.4	4166	PASS

2A146756.D M2A6216.M Fri May 09 12:10:04 2014 MS2A

Average of 15.433 to 15.444 min.: 2A146756.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	628	51.00	3930	68.00	6532	78.00	107
37.00	3614	52.00	70	69.00	6456	78.90	1735
38.00	2880	55.00	133	69.95	462	79.90	507
39.00	1183	56.00	983	71.95	397	80.90	1692
39.90	134	57.00	1635	73.00	2803	81.90	418
44.00	452	59.95	630	74.00	10707	86.90	3110
45.00	522	60.95	3016	75.00	31701	87.90	3064
47.00	1054	62.00	2891	76.00	2679	90.95	238
47.95	476	63.00	2073	76.80	120	91.90	1697
49.00	2837	64.00	157	76.95	274	92.95	2789
50.00	12608	67.00	65	77.80	209	94.00	7657

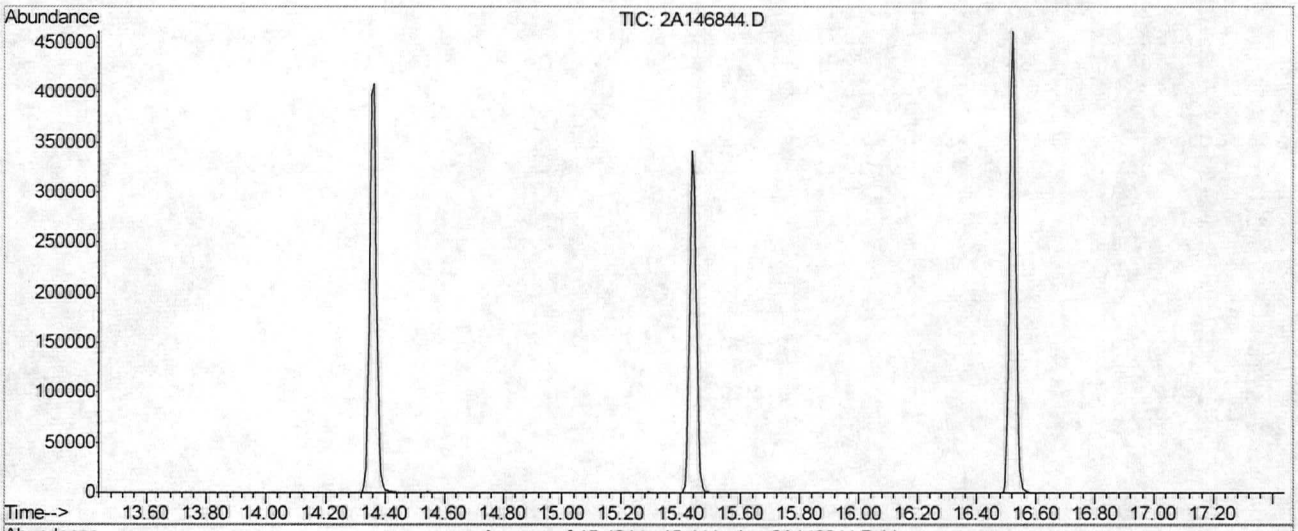
Average of 15.433 to 15.444 min.: 2A146756.D
bfb
Modified:subtracted

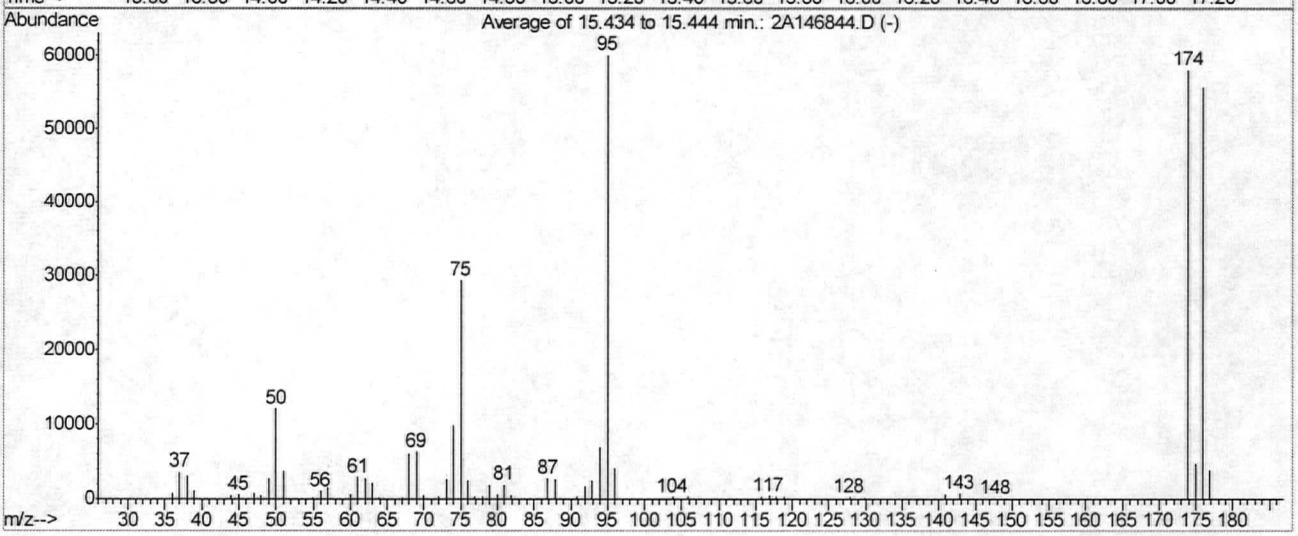
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	68344	142.85	691				
96.00	4567	147.85	124				
103.85	288	154.90	185				
105.85	276	173.90	66893				
115.85	276	174.90	5093				
116.85	449	175.90	64826				
117.85	225	176.90	4166				
118.80	313						
127.85	221						
129.85	279						
140.85	691						

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\2A146844.D Vial: 1
Acq On : 13 May 2014 8:37 am Operator: thomass1
Sample : bfb Inst : Instrumen
Misc : MS67410,V2A6260,w,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M2A6216.M (RTE Integrator)
Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2209, 2210, 2211; Background Corrected with Scan 2201

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	12141	PASS
75	95	30	60	48.9	29365	PASS
95	95	100	100	100.0	60080	PASS
96	95	5	9	6.9	4131	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	96.7	58082	PASS
175	174	5	9	8.1	4702	PASS
176	174	95	101	96.0	55776	PASS
177	176	5	9	6.9	3854	PASS

2A146844.D M2A6216.M Tue May 13 16:03:50 2014 MS2A

Average of 15.434 to 15.444 min.: 2A146844.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	728	54.95	136	69.95	462	81.90	436
37.00	3617	56.00	1025	71.95	375	86.90	2760
38.00	3076	57.00	1613	73.00	2654	87.90	2625
39.00	1101	60.00	594	74.00	9860	90.85	258
43.95	487	61.00	2857	75.00	29365	91.95	1689
45.00	585	62.00	2781	75.95	2521	92.90	2435
47.00	815	63.00	2097	76.95	356	94.00	6877
47.95	413	63.95	147	77.95	276	95.00	60080
49.00	2714	67.00	143	78.90	1880	96.00	4131
50.00	12141	68.00	6081	79.95	568	103.85	294
51.00	3738	69.00	6266	80.90	1918	105.90	269

Average of 15.434 to 15.444 min.: 2A146844.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.85	237	175.90	55776				
116.85	450	176.90	3854				
117.85	249						
118.85	372						
127.80	295						
129.85	235						
140.85	695						
142.90	748						
147.80	73						
173.90	58082						
174.90	4702						

7.5.4

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A145749.D
Acq On : 2 Apr 2014 2:00 pm
Operator : thomass1
Sample : IC6216-1
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 03 12:10:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	73621	50.00 ug/L	0.00
5) pentafluorobenzene	10.40	168	174068	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	256119	50.00 ug/L	0.00
84) chlorobenzene-d5	14.36	117	220952	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	110548	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	0.00	113	0d	0.00 ug/L	
Spiked Amount 50.000	Range 79 - 120		Recovery	= 0.00%#	
47) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00 ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery	= 0.00%#	
76) toluene-d8 (s)	0.00	98	0d	0.00 ug/L	
Spiked Amount 50.000	Range 78 - 119		Recovery	= 0.00%#	
100) 4-bromofluorobenzene (s)	0.00	95	0d	0.00 ug/L	
Spiked Amount 50.000	Range 74 - 119		Recovery	= 0.00%#	

Target Compounds					Qvalue
3) Ethanol	6.59	45	117	1.11 ug/L #	34
8) dichlorodifluoromethane	4.19	85	1679	0.88 ug/L #	49
10) chloromethane	4.54	50	2407	1.07 ug/L	93
11) vinyl chloride	4.80	62	2120	0.98 ug/L	87
12) bromomethane	5.51	94	1601	1.09 ug/L	79
13) chloroethane	5.72	64	974	0.95 ug/L #	45
14) trichlorofluoromethane	6.25	101	1875	0.86 ug/L	83
16) ethyl ether	6.72	74	725	0.83 ug/L #	65
18) acrolein	6.98	56	765741	1792.26 ug/L	99
19) 1,1-dichloroethene	7.18	96	1802	1.16 ug/L #	79
21) allyl chloride	7.77	76	840	0.51 ug/L #	61
22) acetonitrile	7.77	40	1246	4.76 ug/L #	1
23) iodomethane	7.47	142	3274	1.14 ug/L	83
25) carbon disulfide	7.61	76	6099	1.14 ug/L	96
26) methylene chloride	7.98	84	2110	1.15 ug/L	92
28) methyl tert butyl ether	8.35	73	5423	1.13 ug/L	96
29) trans-1,2-dichloroethene	8.40	96	1984	1.15 ug/L	83
30) di-isopropyl ether	9.02	45	4304	0.83 ug/L #	56
32) 1,1-dichloroethane	9.02	63	3323	1.10 ug/L	88
34) acrylonitrile	8.37	53	2991	5.27 ug/L	95
36) ethyl tert-butyl ether	9.53	59	4399	0.84 ug/L	98
38) 2,2-dichloropropane	9.83	77	2645	1.11 ug/L	93
39) cis-1,2-dichloroethene	9.84	96	2051	1.09 ug/L	86
41) propionitrile	9.92	54	1993	7.74 ug/L #	60
42) bromochloromethane	10.17	128	962	1.11 ug/L	92
43) tetrahydrofuran	10.22	42	504	0.95 ug/L #	34
44) chloroform	10.22	85	2406	1.20 ug/L #	79
49) methacrylonitrile	10.12	41	827	0.95 ug/L	78
50) 1,1,1-trichloroethane	10.49	97	2754	1.08 ug/L	90
51) Cyclohexane	10.56	84	2515	0.54 ug/L	95
55) carbon tetrachloride	10.69	117	2419	1.07 ug/L	98
56) 1,1-dichloropropene	10.68	75	2442	1.11 ug/L	97
59) 2,2,4-TRIMETHYLPENTANE	10.96	57	4440	0.78 ug/L #	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A145749.D
Acq On : 2 Apr 2014 2:00 pm
Operator : thomass1
Sample : IC6216-1
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 03 12:10:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
60) benzene	10.95	78	7696	1.17 ug/L	93
63) isopropyl acetate	10.90	43	2199	0.77 ug/L	59
64) 1,2-dichloroethane	10.98	62	2299	1.07 ug/L	82
66) trichloroethene	11.67	95	1872	1.11 ug/L	97
68) methyl methacrylate	11.95	41	2540	0.84 ug/L	81
71) 1,2-dichloropropane	11.93	63	1764	1.07 ug/L	94
72) dibromomethane	12.09	93	1075	1.11 ug/L	91
74) bromodichloromethane	12.22	83	2350	1.05 ug/L	94
75) cis-1,3-dichloropropene	12.66	75	2971	1.17 ug/L	94
78) toluene	13.01	92	4642	1.18 ug/L	92
80) trans-1,3-dichloropropene	13.19	75	2648	1.08 ug/L	89
81) ethyl methacrylate	13.19	69	2118	1.06 ug/L	96
82) 1,1,2-trichloroethane	13.40	83	1280	1.06 ug/L	80
85) tetrachloroethene	13.56	164	1572	1.13 ug/L	90
86) 1,3-dichloropropane	13.57	76	2711	1.16 ug/L	97
89) dibromochloromethane	13.82	129	1883	1.07 ug/L	97
90) 1,2-dibromoethane	13.96	107	1677	1.10 ug/L	99
91) chlorobenzene	14.39	112	5087	1.17 ug/L	93
92) 1,1,1,2-tetrachloroethane	14.45	131	1815	1.08 ug/L	94
93) ethylbenzene	14.44	91	8664	1.11 ug/L	99
94) m,p-xylene	14.54	106	6628	2.35 ug/L	90
95) o-xylene	14.93	106	3140	1.14 ug/L	82
96) styrene	14.95	104	5162	1.09 ug/L	95
97) bromoform	15.19	173	1235	1.06 ug/L	88
99) isopropylbenzene	15.25	105	8271	1.17 ug/L	99
101) cyclohexanone	15.41	98	142	0.63 ug/L #	1
102) bromobenzene	15.63	156	2147	1.15 ug/L	91
103) 1,1,2,2-tetrachloroethane	15.54	83	2343	1.21 ug/L	92
104) trans-1,4-dichloro-2-buten	15.58	53	373	0.95 ug/L	87
105) 1,2,3-trichloropropane	15.60	110	502	1.08 ug/L	87
106) n-propylbenzene	15.63	120	1911	1.08 ug/L #	84
107) 2-chlorotoluene	15.77	126	2017	0.98 ug/L	88
108) 4-chlorotoluene	15.86	126	1866	0.87 ug/L	90
109) 1,3,5-trimethylbenzene	15.77	105	6589	1.10 ug/L	93
110) tert-butylbenzene	16.09	119	5540	1.13 ug/L	96
111) pentachloroethane	16.18	167	1352	0.99 ug/L	98
112) 1,2,4-trimethylbenzene	16.13	105	6582	1.13 ug/L	99
113) sec-butylbenzene	16.29	105	8599	1.13 ug/L	99
114) 1,3-dichlorobenzene	16.47	146	4147	1.15 ug/L	94
115) p-isopropyltoluene	16.40	119	7116	1.12 ug/L	98
116) 1,4-dichlorobenzene	16.55	146	4365	1.18 ug/L	98
117) 1,2-dichlorobenzene	16.92	146	4061	1.16 ug/L	94
119) n-butylbenzene	16.79	92	3555	1.08 ug/L	98
121) 1,3,5-TRICHLOROBENZENE	17.86	180	3242	1.11 ug/L	94
122) 1,2,4-trichlorobenzene	18.49	180	2734	1.05 ug/L	95
123) hexachlorobutadiene	18.61	225	1738	0.31 ug/L	89
124) naphthalene	18.77	128	5750	1.04 ug/L	96
125) 1,2,3-trichlorobenzene	19.02	180	2512	1.05 ug/L	89
126) hexachloroethane	17.17	201	1120	0.46 ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A145749.D
Acq On : 2 Apr 2014 2:00 pm
Operator : thomass1
Sample : IC6216-1
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 03 12:10:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

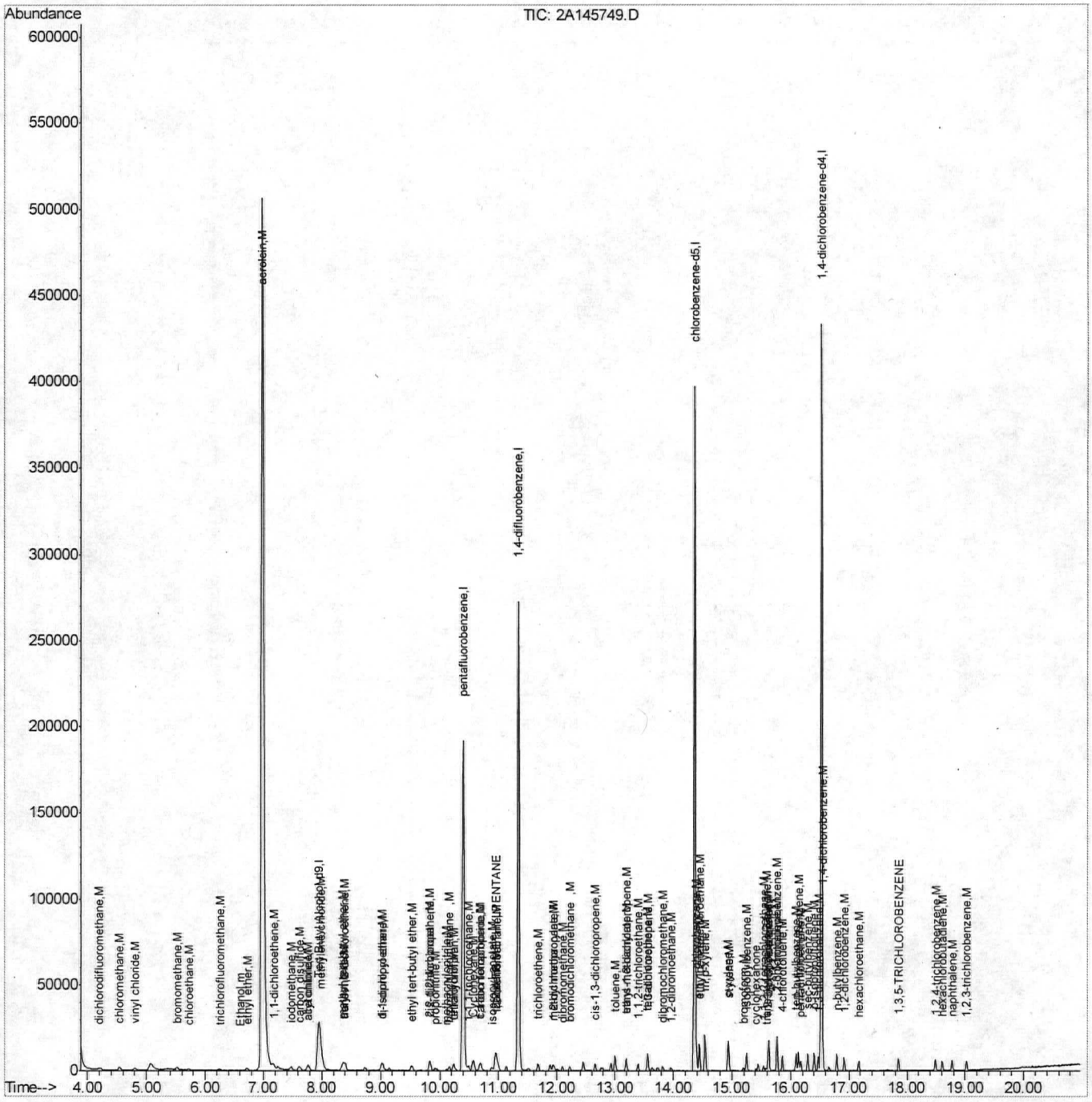
7.6.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A145749.D
Acq On : 2 Apr 2014 2:00 pm
Operator : thomass1
Sample : IC6216-1
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 03 12:10:10 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES
JB66485

7.6.1

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A145750.D
Acq On : 2 Apr 2014 2:30 pm
Operator : thomass1
Sample : IC6216-2
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 03 12:11:30 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.95	65	74867	50.00	ug/L	0.00
5) pentafluorobenzene	10.40	168	178143	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.33	114	260356	50.00	ug/L	0.00
84) chlorobenzene-d5	14.36	117	222769	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.52	152	111000	50.00	ug/L	0.00

System Monitoring Compounds						
46) dibromofluoromethane (s)	10.44	113	2712	1.88	ug/L	0.00
Spiked Amount 50.000	Range 79 - 120		Recovery = 3.76%#			
47) 1,2-dichloroethane-d4 (s)	0.00	65	0d	0.00	ug/L	
Spiked Amount 50.000	Range 72 - 123		Recovery = 0.00%#			
76) toluene-d8 (s)	12.93	98	9385	1.84	ug/L	0.00
Spiked Amount 50.000	Range 78 - 119		Recovery = 3.68%#			
100) 4-bromofluorobenzene (s)	15.44	95	3543	1.72	ug/L	0.00
Spiked Amount 50.000	Range 74 - 119		Recovery = 3.44%#			

Target Compounds						Qvalue
2) tertiary butyl alcohol	8.08	59	1375	0.87	ug/L	59
3) Ethanol	6.58	45	1552	14.51	ug/L #	34
7) chlorodifluoromethane	4.21	51	2636	1.86	ug/L	63
8) dichlorodifluoromethane	4.20	85	3866	1.99	ug/L	85
10) chloromethane	4.54	50	5060	2.20	ug/L	99
11) vinyl chloride	4.81	62	4749	2.14	ug/L	89
12) bromomethane	5.52	94	3182	2.12	ug/L	91
13) chloroethane	5.73	64	1964	1.87	ug/L	95
14) trichlorofluoromethane	6.25	101	4404	1.98	ug/L	90
16) ethyl ether	6.71	74	1806	2.01	ug/L	100
18) acrolein	6.98	56	382019	873.68	ug/L	100
19) 1,1-dichloroethene	7.18	96	3280	2.06	ug/L	91
21) allyl chloride	7.77	76	1794	1.07	ug/L	88
22) acetonitrile	7.76	40	2961	11.06	ug/L #	8
23) iodomethane	7.48	142	5789	1.98	ug/L	99
24) iso-butyl alcohol	10.95	74	860	17.18	ug/L #	19
25) carbon disulfide	7.62	76	10987	2.01	ug/L	98
26) methylene chloride	7.99	84	3660	1.95	ug/L	96
28) methyl tert butyl ether	8.36	73	10151	2.06	ug/L	97
29) trans-1,2-dichloroethene	8.40	96	3619	2.05	ug/L	94
30) di-isopropyl ether	9.02	45	10458	1.98	ug/L #	64
32) 1,1-dichloroethane	9.03	63	6170	1.99	ug/L	91
33) chloroprene	9.15	53	4496	1.85	ug/L	97
34) acrylonitrile	8.37	53	5733	9.88	ug/L	97
36) ethyl tert-butyl ether	9.52	59	10761	2.01	ug/L	99
38) 2,2-dichloropropane	9.83	77	4949	2.03	ug/L	92
39) cis-1,2-dichloroethene	9.84	96	3839	1.99	ug/L	91
41) propionitrile	9.91	54	4300	16.32	ug/L	81
42) bromochloromethane	10.17	128	1838	2.08	ug/L	90
43) tetrahydrofuran	10.23	42	1104	2.04	ug/L #	67
44) chloroform	10.23	85	4053	1.97	ug/L	96
45) t-butyl formate	10.27	59	2676	1.98	ug/L #	89
49) methacrylonitrile	10.11	41	1706	1.92	ug/L	84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A145750.D
Acq On : 2 Apr 2014 2:30 pm
Operator : thomass1
Sample : IC6216-2
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 03 12:11:30 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
50) 1,1,1-trichloroethane	10.49	97	5020	1.93 ug/L	90
51) Cyclohexane	10.56	84	4747	1.00 ug/L	88
55) carbon tetrachloride	10.70	117	4623	2.00 ug/L	98
56) 1,1-dichloropropene	10.68	75	4428	1.98 ug/L	93
57) hexane	8.73	57	3517	1.14 ug/L	95
59) 2,2,4-TRIMETHYLPENTANE	10.96	57	9851	1.70 ug/L #	97
60) benzene	10.95	78	13852	2.06 ug/L	98
61) tert-amyl methyl ether	10.99	87	2348	1.84 ug/L #	79
62) heptane	11.14	57	1748	1.39 ug/L	93
63) isopropyl acetate	10.89	43	6053	2.09 ug/L	97
64) 1,2-dichloroethane	10.97	62	4326	1.98 ug/L	99
66) trichloroethene	11.67	95	3456	2.02 ug/L	98
68) methyl methacrylate	11.95	41	5015	1.63 ug/L	91
69) 2-nitropropane	12.43	41	1051	1.97 ug/L	73
70) 2-chloroethyl vinyl ether	12.45	63	7108	10.23 ug/L	98
71) 1,2-dichloropropane	11.93	63	3371	2.01 ug/L	97
72) dibromomethane	12.09	93	2082	2.11 ug/L	98
73) methylcyclohexane	11.88	83	4759	1.13 ug/L	91
74) bromodichloromethane	12.22	83	4626	2.03 ug/L	96
75) cis-1,3-dichloropropene	12.66	75	5509	2.14 ug/L	97
77) 4-methyl-2-pentanone	12.76	58	1061	1.78 ug/L #	83
78) toluene	13.00	92	8111	2.03 ug/L	99
79) 3-methyl-1-butanol	12.79	55	2449	7.50 ug/L	98
80) trans-1,3-dichloropropene	13.20	75	5085	2.04 ug/L	95
81) ethyl methacrylate	13.19	69	3935	1.93 ug/L	99
82) 1,1,2-trichloroethane	13.40	83	2502	2.03 ug/L	99
83) 2-hexanone	13.57	58	895	1.68 ug/L #	74
85) tetrachloroethene	13.56	164	2723	1.95 ug/L	93
86) 1,3-dichloropropane	13.57	76	4906	2.09 ug/L	98
87) butyl acetate	13.63	56	1842	0.64 ug/L #	70
88) 3,3-dimethyl-1-butanol	13.73	57	2915	5.14 ug/L	95
89) dibromochloromethane	13.82	129	3656	2.06 ug/L	93
90) 1,2-dibromoethane	13.96	107	3068	1.99 ug/L	99
91) chlorobenzene	14.39	112	8994	2.06 ug/L	90
92) 1,1,1,2-tetrachloroethane	14.45	131	3456	2.04 ug/L	98
93) ethylbenzene	14.45	91	15433	1.96 ug/L	98
94) m,p-xylene	14.54	106	11774	4.14 ug/L	96
95) o-xylene	14.93	106	5731	2.07 ug/L	95
96) styrene	14.94	104	9300	1.95 ug/L	98
97) bromoform	15.19	173	2409	2.04 ug/L	94
99) isopropylbenzene	15.25	105	14617	2.06 ug/L	97
101) cyclohexanone	15.41	98	444	1.97 ug/L #	62
102) bromobenzene	15.62	156	4185	2.23 ug/L	95
103) 1,1,2,2-tetrachloroethane	15.54	83	4044	2.08 ug/L	98
104) trans-1,4-dichloro-2-buten	15.57	53	783	1.99 ug/L #	69
105) 1,2,3-trichloropropane	15.61	110	954	2.05 ug/L	92
106) n-propylbenzene	15.63	120	3490	1.97 ug/L	99
107) 2-chlorotoluene	15.77	126	3534	1.71 ug/L	99
108) 4-chlorotoluene	15.86	126	3606	1.68 ug/L	94
109) 1,3,5-trimethylbenzene	15.77	105	11971	1.99 ug/L	98

Quantitation Report (QT Reviewed)

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Data File : 2A145750.D
Acq On : 2 Apr 2014 2:30 pm
Operator : thomass1
Sample : IC6216-2
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 03 12:11:30 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
110) tert-butylbenzene	16.09	119	10067	2.04 ug/L	98
111) pentachloroethane	16.18	167	2364	1.72 ug/L	97
112) 1,2,4-trimethylbenzene	16.13	105	11607	1.98 ug/L	98
113) sec-butylbenzene	16.29	105	14954	1.96 ug/L	99
114) 1,3-dichlorobenzene	16.47	146	7505	2.07 ug/L	97
115) p-isopropyltoluene	16.40	119	12247	1.93 ug/L	96
116) 1,4-dichlorobenzene	16.55	146	7618	2.05 ug/L	99
117) 1,2-dichlorobenzene	16.92	146	7100	2.02 ug/L	94
118) benzyl chloride	16.66	91	6728	1.85 ug/L	99
119) n-butylbenzene	16.79	92	6167	1.86 ug/L	96
120) 1,2-dibromo-3-chloropropan	17.67	75	599	0.94 ug/L	90
121) 1,3,5-TRICHLOROBENZENE	17.86	180	5490	1.87 ug/L	98
122) 1,2,4-trichlorobenzene	18.49	180	4666	1.78 ug/L	95
123) hexachlorobutadiene	18.60	225	2828	0.49 ug/L	98
124) naphthalene	18.77	128	10317	1.85 ug/L	98
125) 1,2,3-trichlorobenzene	19.03	180	4235	1.76 ug/L	98
126) hexachloroethane	17.17	201	2261	0.93 ug/L	88

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

7.6.2 7

Quantitation Report (QT Reviewed)

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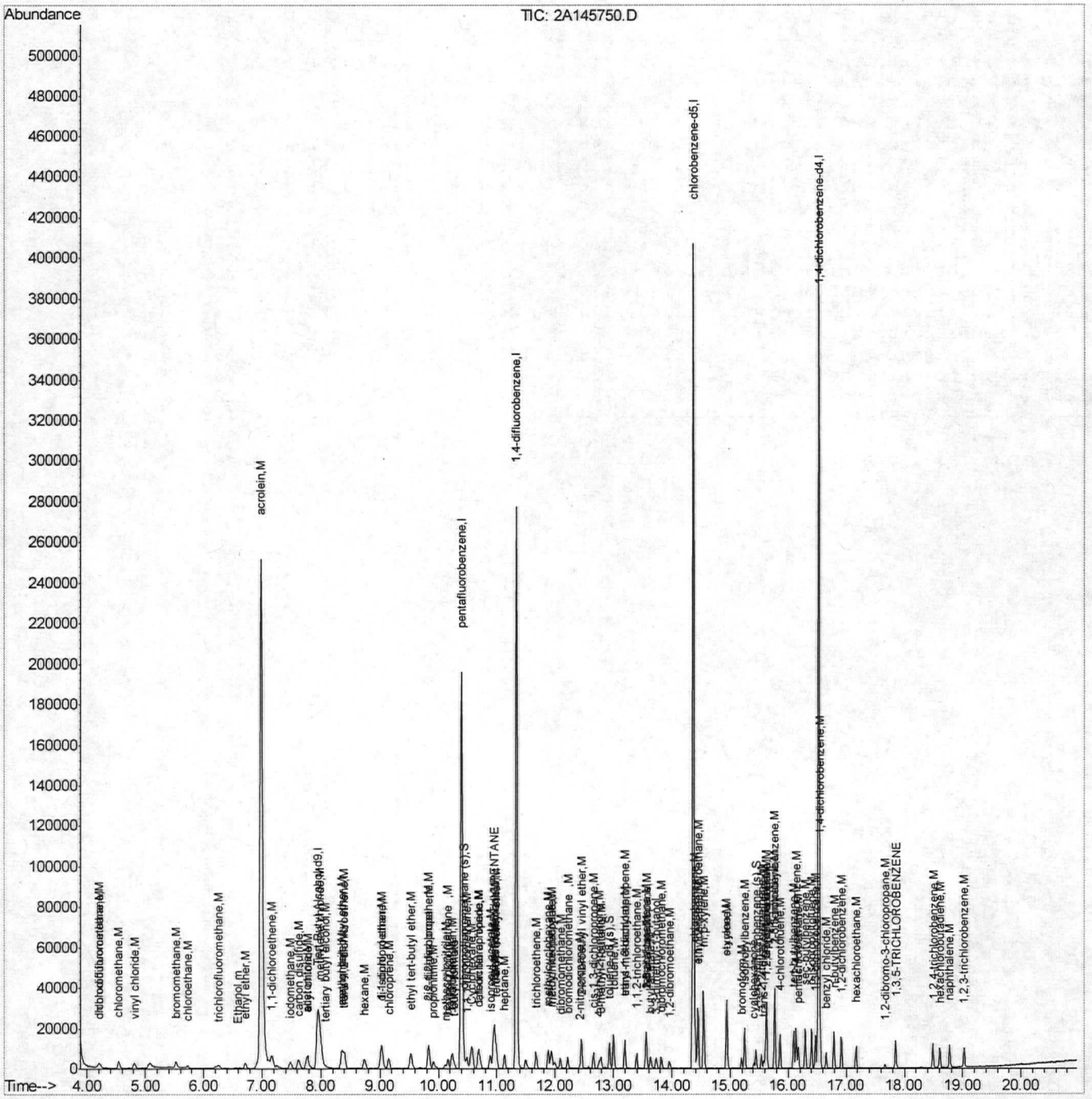
Data File : 2A145750.D
Acq On : 2 Apr 2014 2:30 pm
Operator : thomass1
Sample : IC6216-2
Misc : MS65187,V2A6216,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 03 12:11:30 2014
Quant Method : C:\MSDCHEM\1\METHODS\M2A6216.M
Quant Title : Method SW846 8260B, ZB624 60mx0.25mmx1.4um
QLast Update : Wed Apr 02 08:38:48 2014
Response via : Initial Calibration



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