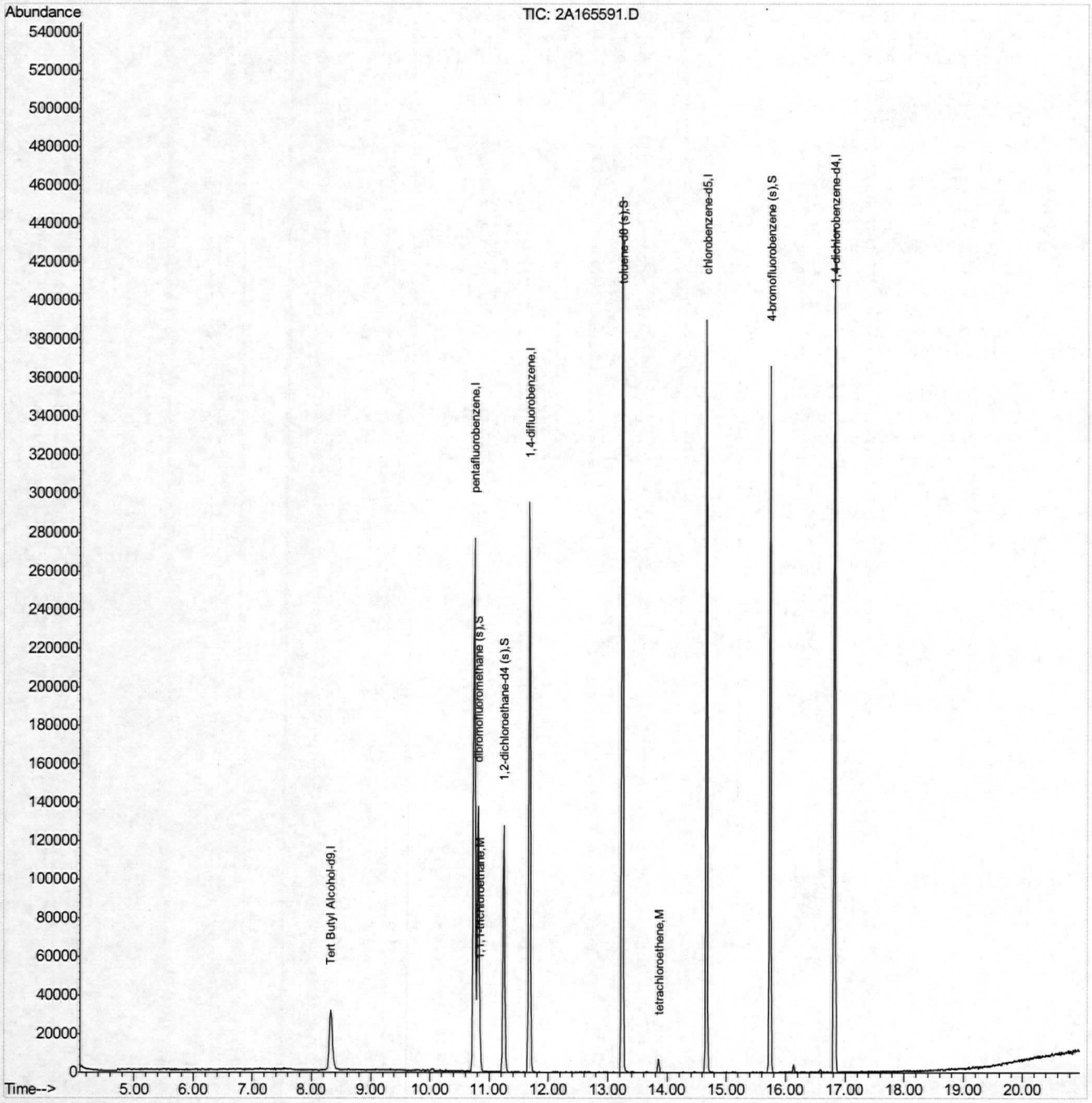
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165591.D
Acq On : 13 Feb 2016 3:03 pm
Operator : tracyk
Sample : jc14083-7
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 17 13:15:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



7.1.7

7

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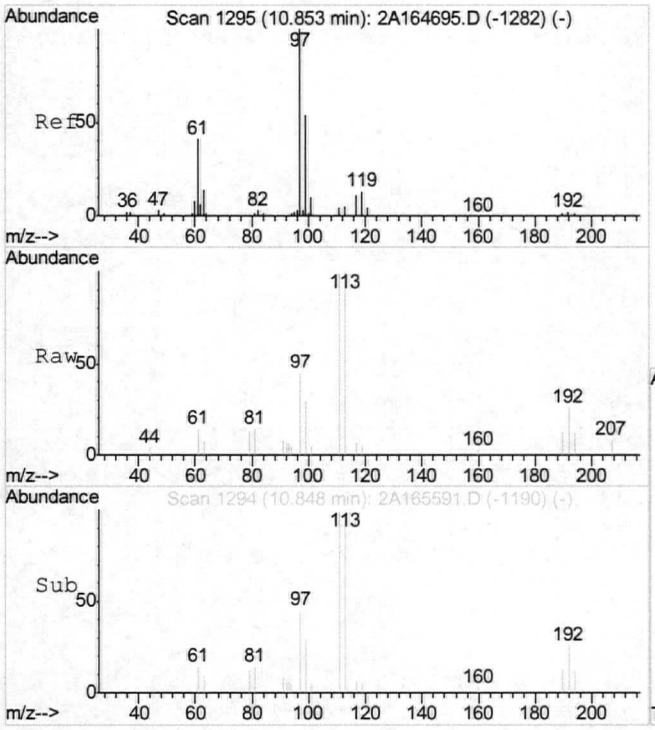
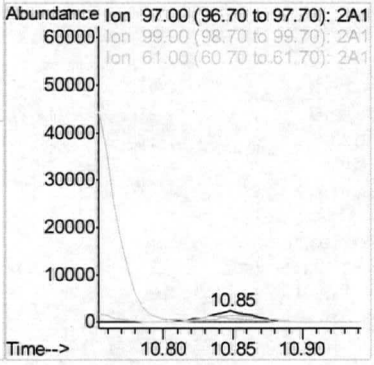
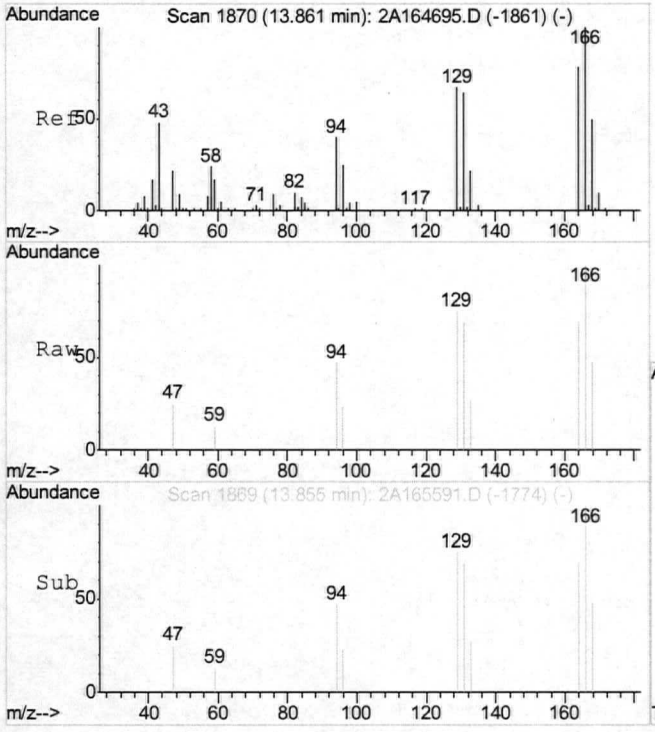


#50
1,1,1-trichloroethane
Concen: 1.70 ug/L
RT: 10.85 min Scan# 1294
Delta R.T. -0.01 min
Lab File: 2A165591.D
Acq: 13 Feb 2016 3:03 pm

Tgt Ion: 97 Resp: 5341

Ion	Ratio	Lower	Upper
97	100		
99	65.6	33.9	93.9
61	31.5	11.2	71.2

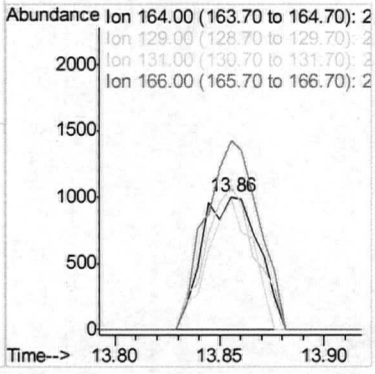




#85
tetrachloroethene
Concen: 1.05 ug/L
RT: 13.86 min Scan# 1869
Delta R.T. -0.01 min
Lab File: 2A165591.D
Acq: 13 Feb 2016 3:03 pm

Tgt Ion:164 Resp: 1871

Ion	Ratio	Lower	Upper
164	100		
129	106.5	56.5	116.5
131	98.4	52.3	112.3
166	142.5	98.9	158.9



7.1.7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165617.D
Acq On : 15 Feb 2016 2:34 pm
Operator : tracyk
Sample : jc14083-8
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 19 11:01:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	75964	500.00 ug/L	-0.01
5) pentafluorobenzene	10.75	168	280154	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	305179	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	246495	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	130291	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	107385	52.50 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.00%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	112451	47.94 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.88%		
76) toluene-d8 (s)	13.24	98	350515	51.61 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.22%		
100) 4-bromofluorobenzene (s)	15.74	95	124199	51.73 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.46%		
Target Compounds					Qvalue
39) cis-1,2-dichloroethene	10.21	96	1580	0.63 ug/L #	69
50) 1,1,1-trichloroethane	10.85	97	990	0.29 ug/L	91
66) trichloroethene	12.00	95	36449	16.51 ug/L	98
85) tetrachloroethene	13.86	164	2068	1.07 ug/L	93

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

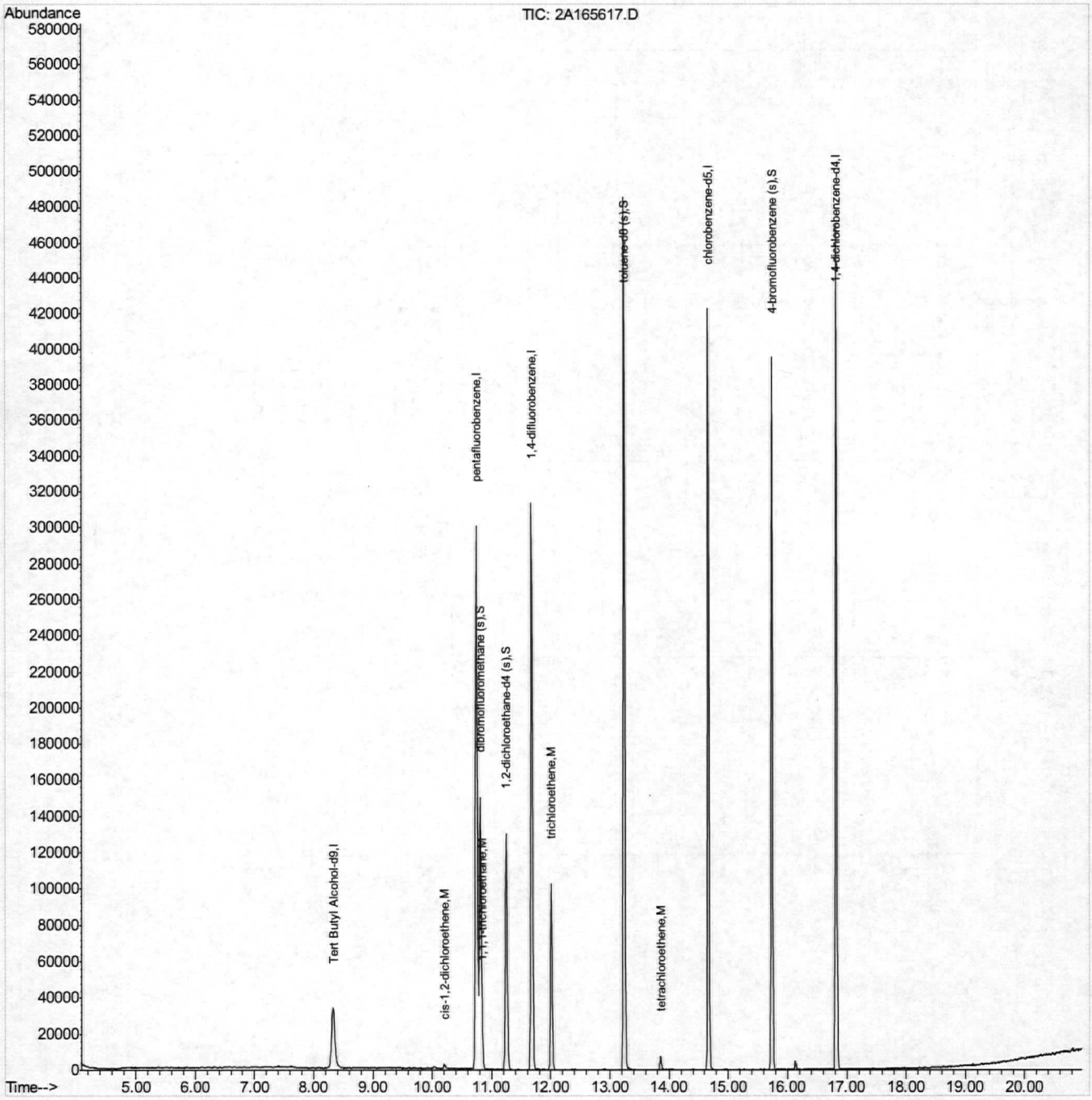
7.1.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165617.D
Acq On : 15 Feb 2016 2:34 pm
Operator : tracyk
Sample : jc14083-8
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 19 11:01:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



M2A7005.M Fri Feb 19 11:19:21 2016 MS2A

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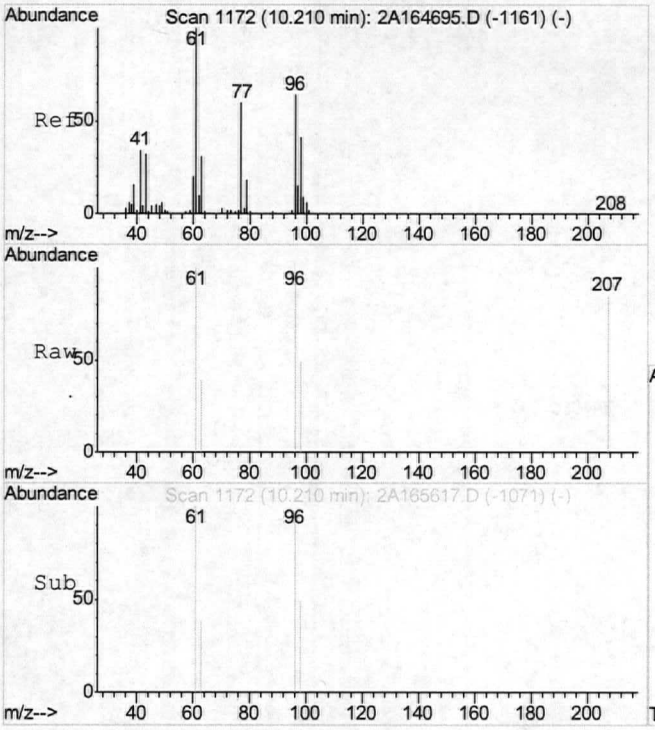
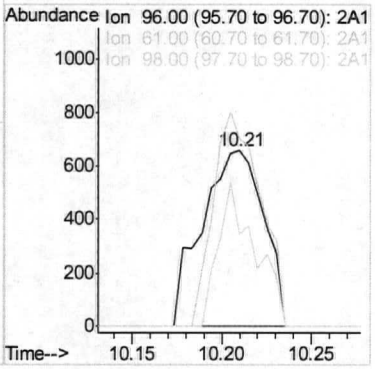
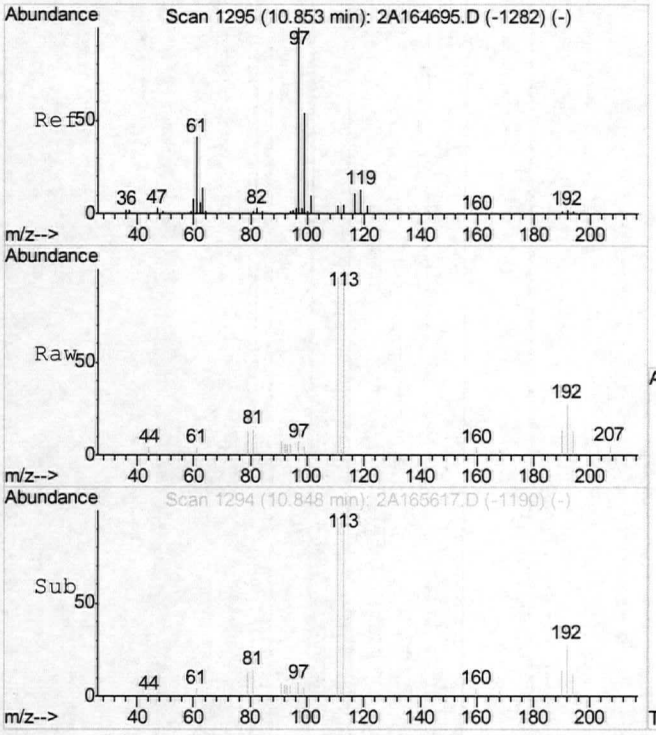


#39
cis-1,2-dichloroethene
Concen: 0.63 ug/L
RT: 10.21 min Scan# 1172
Delta R.T. -0.00 min
Lab File: 2A165617.D
Acq: 15 Feb 2016 2:34 pm

Tgt Ion: 96 Resp: 1580

Ion	Ratio	Lower	Upper
96	100		
61	107.0	126.1	186.1#
98	52.2	34.1	94.1

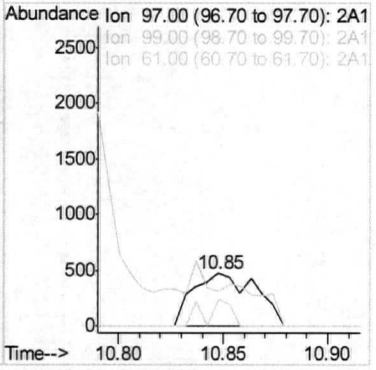




#50
1,1,1-trichloroethane
Concen: 0.29 ug/L
RT: 10.85 min Scan# 1294
Delta R.T. -0.01 min
Lab File: 2A165617.D
Acq: 15 Feb 2016 2:34 pm

Tgt Ion: 97 Resp: 990

Ion	Ratio	Lower	Upper
97	100		
99	66.7	33.9	93.9
61	51.4	11.2	71.2



7.1.8

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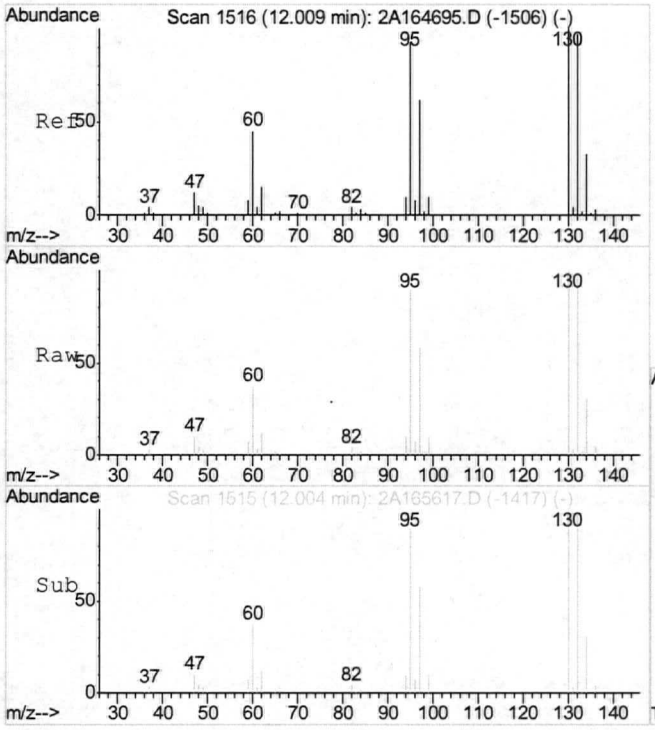
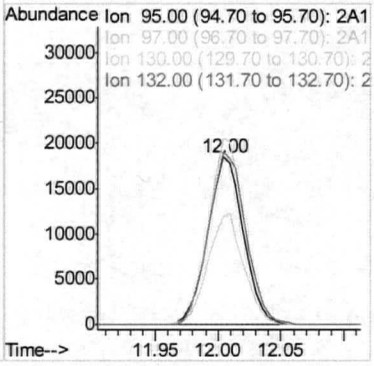
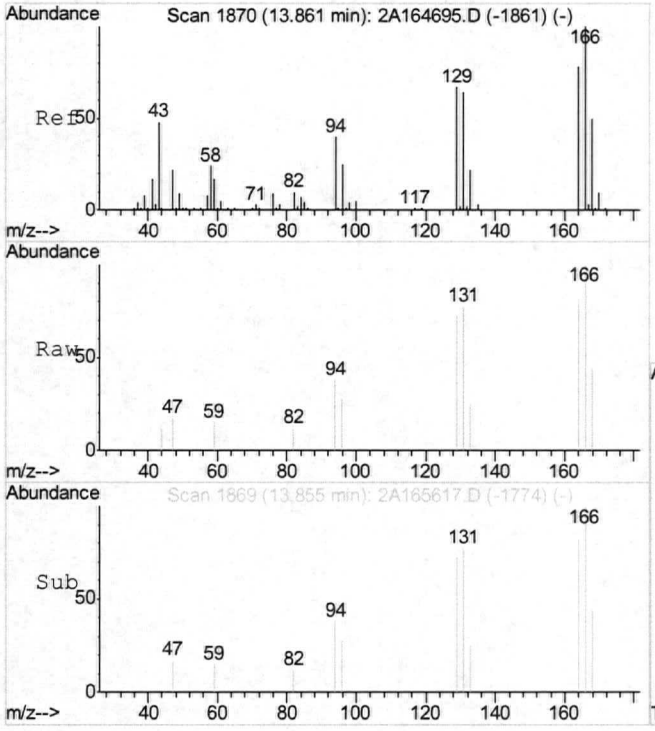


#66
trichloroethene
Concen: 16.51 ug/L
RT: 12.00 min Scan# 1515
Delta R.T. -0.01 min
Lab File: 2A165617.D
Acq: 15 Feb 2016 2:34 pm

Tgt Ion: 95 Resp: 36449

Ion	Ratio	Lower	Upper
95	100		
97	64.7	36.7	96.7
130	110.7	77.5	137.5
132	102.9	74.4	134.4

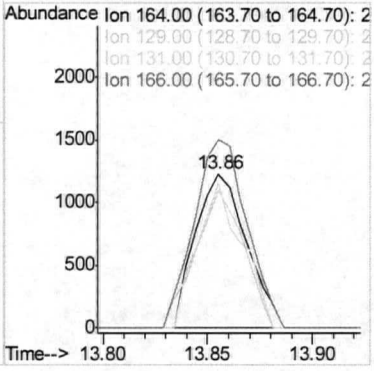




#85
tetrachloroethene
Concen: 1.07 ug/L
RT: 13.86 min Scan# 1869
Delta R.T. -0.01 min
Lab File: 2A165617.D
Acq: 15 Feb 2016 2:34 pm

Tgt Ion:164 Resp: 2068

Ion	Ratio	Lower	Upper
164	100		
129	89.7	56.5	116.5
131	93.7	52.3	112.3
166	122.4	98.9	158.9



7.1.8

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165593.D
Acq On : 13 Feb 2016 4:02 pm
Operator : tracyk
Sample : jc14083-9
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 17 13:16:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	68362	500.00 ug/L	-0.02
5) pentafluorobenzene	10.75	168	260359	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	282715	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	229071	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	123592	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	101098	53.18 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.36%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	105768	48.52 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 97.04%		
76) toluene-d8 (s)	13.24	98	323066	51.35 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.70%		
100) 4-bromofluorobenzene (s)	15.73	95	115687	50.79 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.58%		
Target Compounds					Qvalue
32) 1,1-dichloroethane	9.40	63	7464	2.06 ug/L	98
39) cis-1,2-dichloroethene	10.20	96	922	0.40 ug/L #	51
50) 1,1,1-trichloroethane	10.85	97	33408	10.67 ug/L	97
66) trichloroethene	12.00	95	1791	0.88 ug/L	94
85) tetrachloroethene	13.86	164	21919	12.19 ug/L	96

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

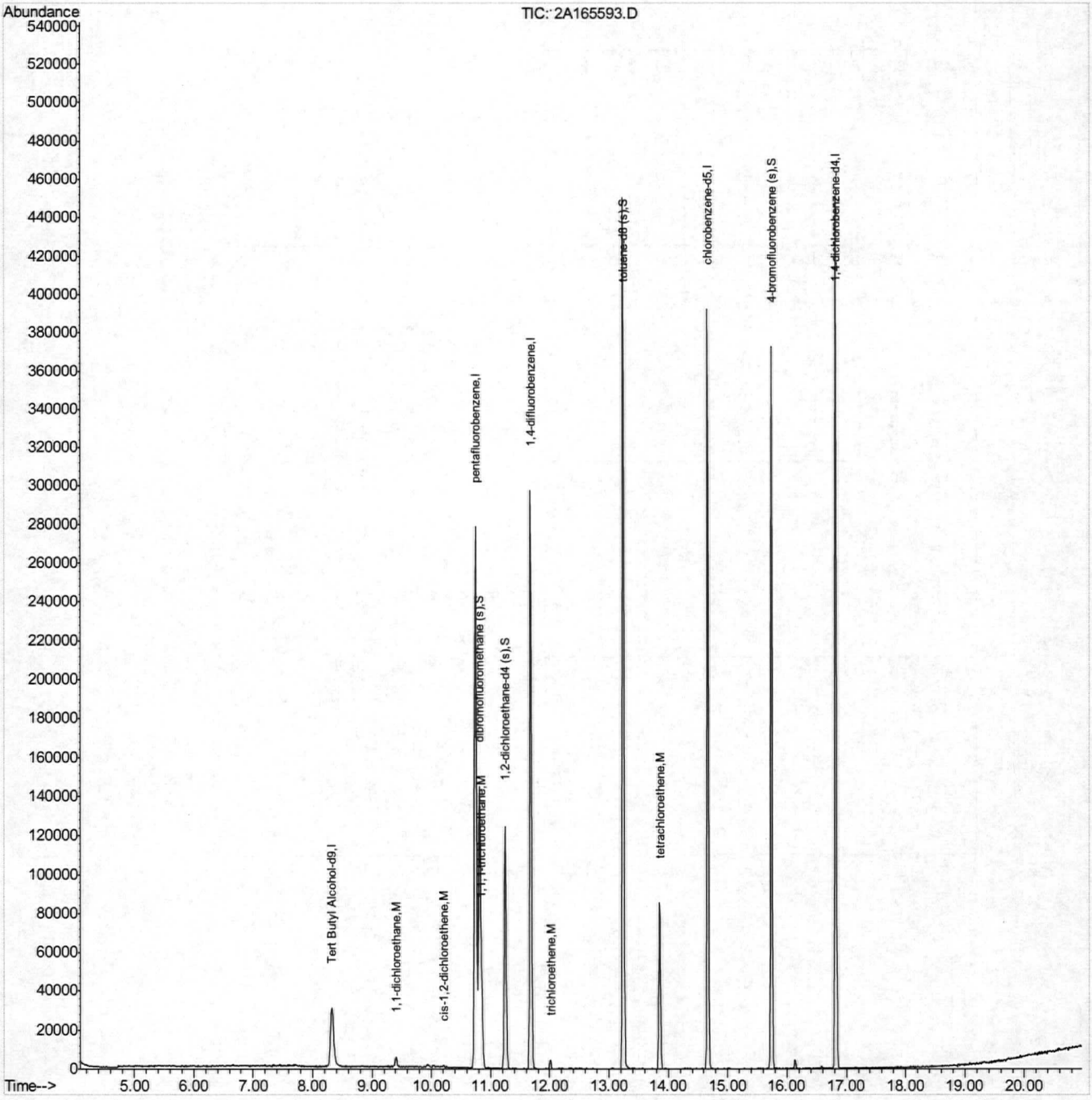
7.1.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165593.D
Acq On : 13 Feb 2016 4:02 pm
Operator : tracyk
Sample : jc14083-9
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 17 13:16:42 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



7.1.9

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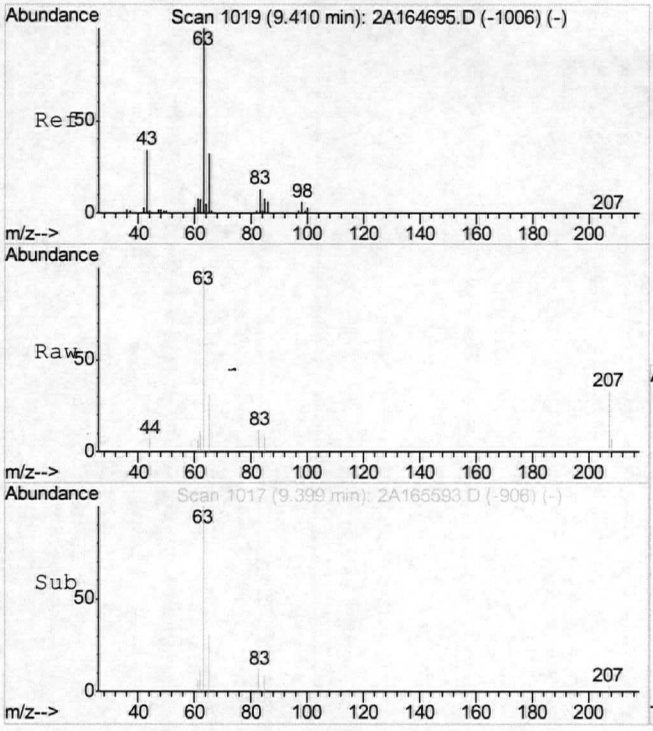
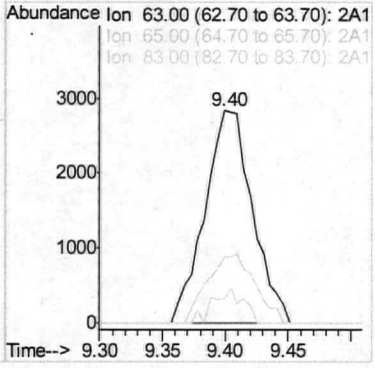
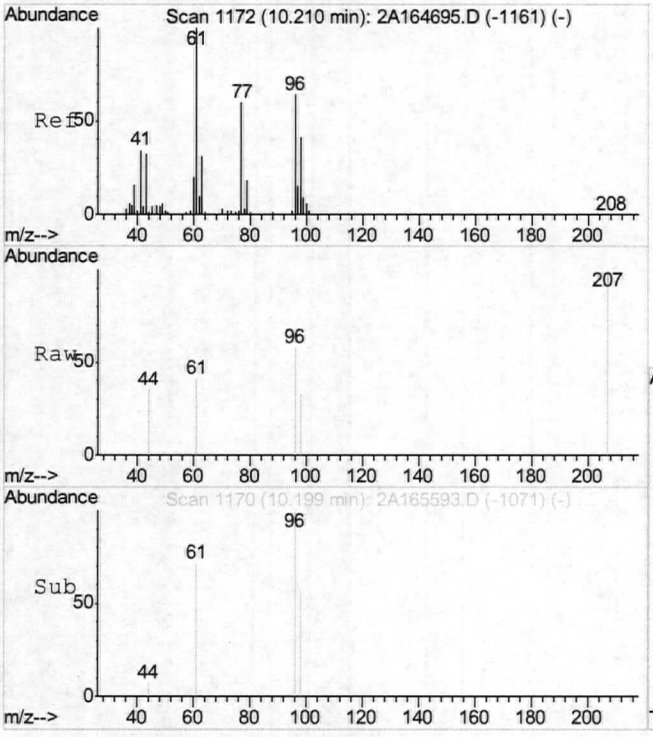


#32
1,1-dichloroethane
Concen: 2.06 ug/L
RT: 9.40 min Scan# 1017
Delta R.T. -0.01 min
Lab File: 2A165593.D
Acq: 13 Feb 2016 4:02 pm

Tgt Ion: 63 Resp: 7464

Ion	Ratio	Lower	Upper
63	100		
65	31.2	1.6	61.6
83	11.9	0.0	43.4

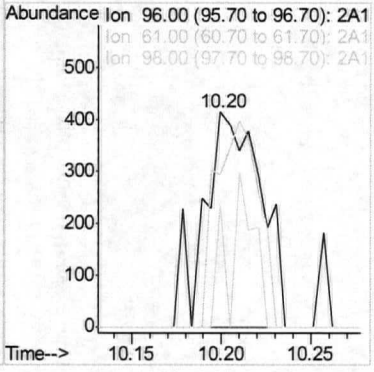




#39
cis-1,2-dichloroethene
Concen: 0.40 ug/L
RT: 10.20 min Scan# 1170
Delta R.T. -0.01 min
Lab File: 2A165593.D
Acq: 13 Feb 2016 4:02 pm

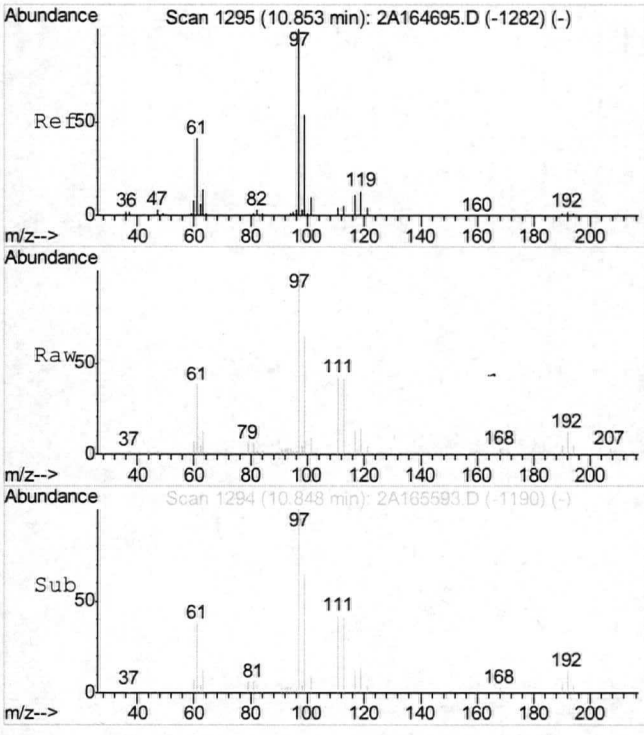
Tgt Ion: 96 Resp: 922

Ion	Ratio	Lower	Upper
96	100		
61	70.6	126.1	186.1#
98	57.1	34.1	94.1



7.1.9

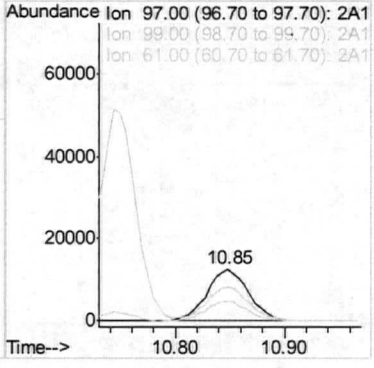
7

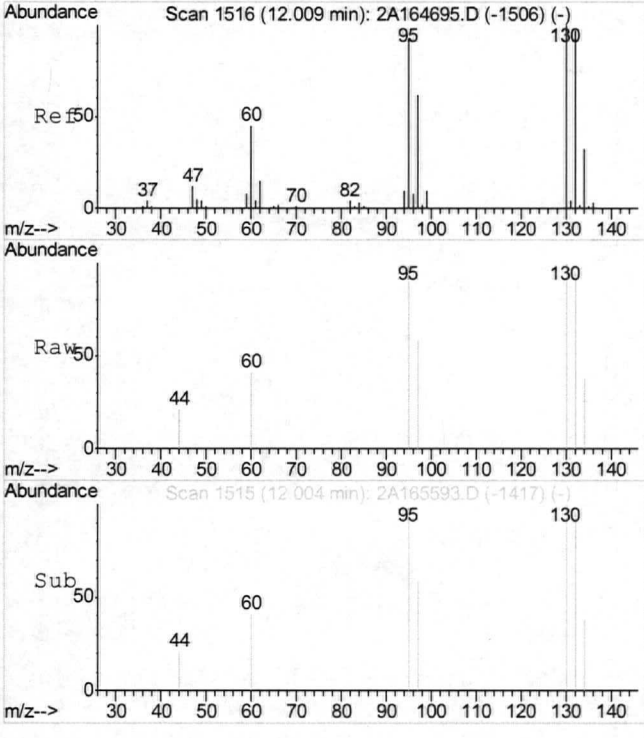


#50
1,1,1-trichloroethane
Concen: 10.67 ug/L
RT: 10.85 min Scan# 1294
Delta R.T. -0.01 min
Lab File: 2A165593.D
Acq: 13 Feb 2016 4:02 pm

Tgt Ion: 97 Resp: 33408

Ion	Ratio	Lower	Upper
97	100		
99	65.5	33.9	93.9
61	38.0	11.2	71.2

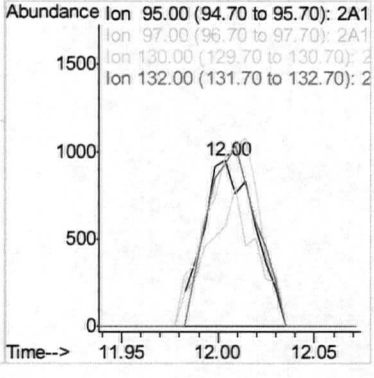




#66
trichloroethene
Concen: 0.88 ug/L
RT: 12.00 min Scan# 1515
Delta R.T. -0.01 min
Lab File: 2A165593.D
Acq: 13 Feb 2016 4:02 pm

Tgt Ion: 95 Resp: 1791

Ion	Ratio	Lower	Upper
95	100		
97	60.1	36.7	96.7
130	102.4	77.5	137.5
132	97.3	74.4	134.4



7.1.9

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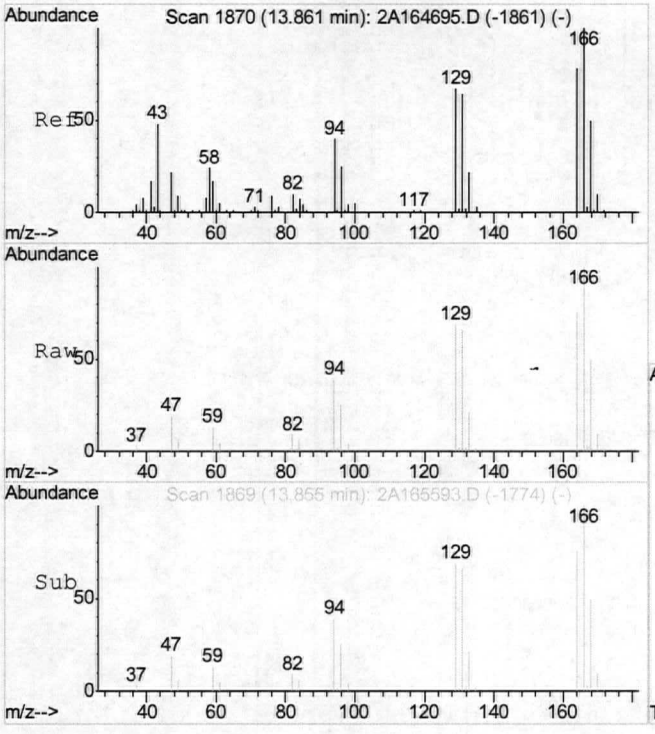
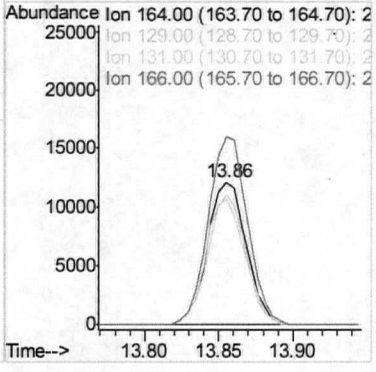


#85
tetrachloroethene
Concen: 12.19 ug/L
RT: 13.86 min Scan# 1869
Delta R.T. -0.01 min
Lab File: 2A165593.D
Acq: 13 Feb 2016 4:02 pm

Tgt Ion:164 Resp: 21919

Ion	Ratio	Lower	Upper
164	100		
129	91.2	56.5	116.5
131	87.5	52.3	112.3
166	132.1	98.9	158.9



7.1.9 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165592.D
Acq On : 13 Feb 2016 3:32 pm
Operator : tracyk
Sample : jc14083-10
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 17 13:16:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	82385	500.00 ug/L	-0.02
5) pentafluorobenzene	10.75	168	276344	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	299251	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	242235	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	128029	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	106227	52.65 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.30%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	111038	47.99 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.98%		
76) toluene-d8 (s)	13.24	98	345918	51.94 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.88%		
100) 4-bromofluorobenzene (s)	15.73	95	123224	52.23 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.46%		

Target Compounds	Qvalue

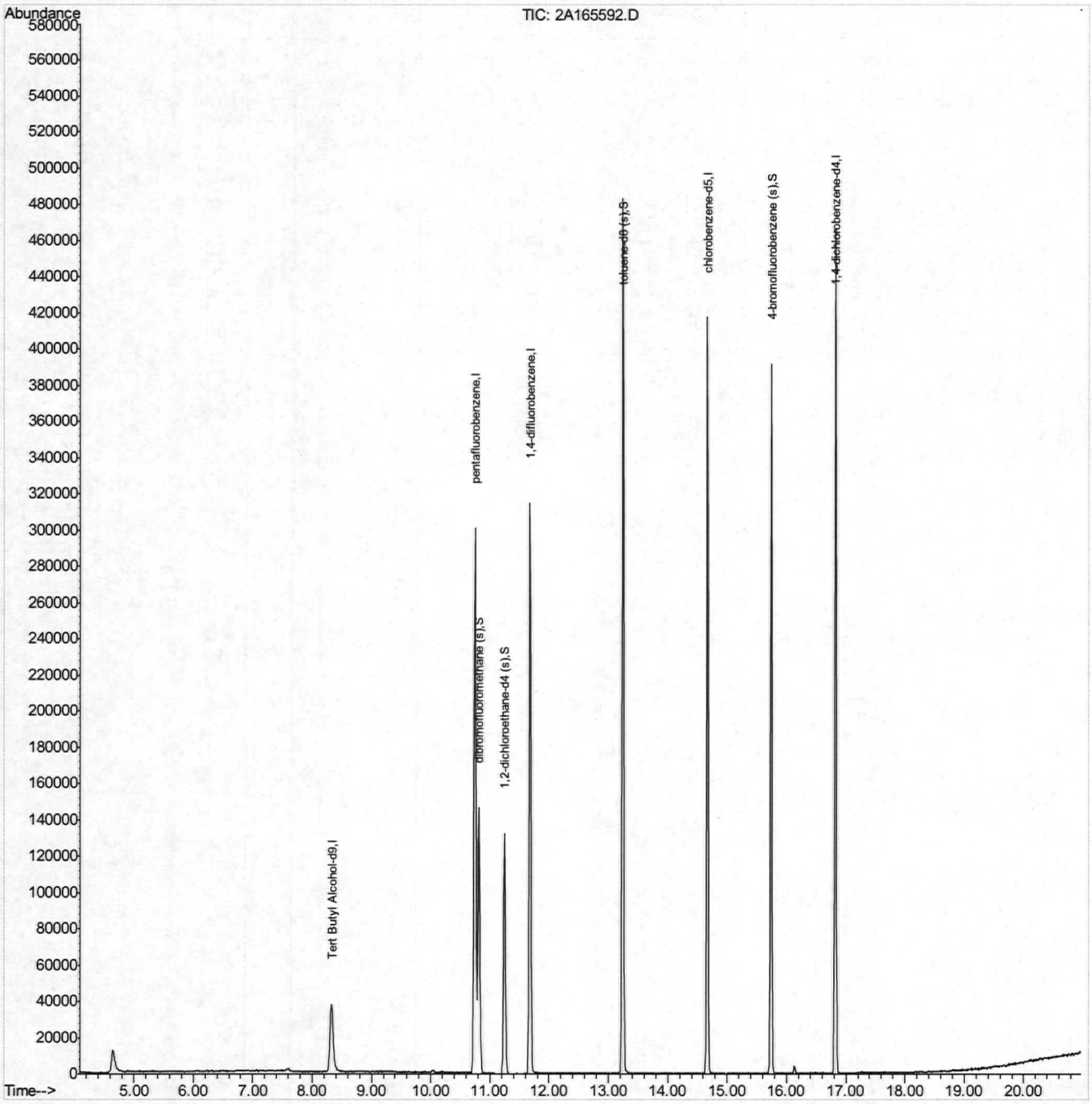
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.10 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165592.D
Acq On : 13 Feb 2016 3:32 pm
Operator : tracyk
Sample : jc14083-10
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 17 13:16:01 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



M2A7005.M Wed Feb 17 13:16:07 2016 MS2A

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165601.D
Acq On : 13 Feb 2016 7:57 pm
Operator : tracyk
Sample : jc14083-11
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 17 13:23:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	74092	500.00	ug/L	-0.02
5) pentafluorobenzene	10.75	168	270358	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	293783	50.00	ug/L	0.00
84) chlorobenzene-d5	14.66	117	235055	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	127153	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.82	113	103523	52.45	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.90%			
47) 1,2-dichloroethane-d4 (s)	11.25	65	109028	48.16	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.32%			
76) toluene-d8 (s)	13.24	98	337963	51.69	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.38%			
100) 4-bromofluorobenzene (s)	15.73	95	119361	50.94	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.88%			
Target Compounds						Qvalue
11) vinyl chloride	5.01	62	2153	0.93	ug/L	87
19) 1,1-dichloroethene	7.50	61	1057	0.39	ug/L #	60
32) 1,1-dichloroethane	9.40	63	15917	4.23	ug/L	95
39) cis-1,2-dichloroethene	10.21	96	6093	2.53	ug/L #	82
50) 1,1,1-trichloroethane	10.85	97	27599	8.49	ug/L	94
66) trichloroethene	12.01	95	2784	1.31	ug/L	93
85) tetrachloroethene	13.86	164	23294	12.63	ug/L	96

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

7.1.11

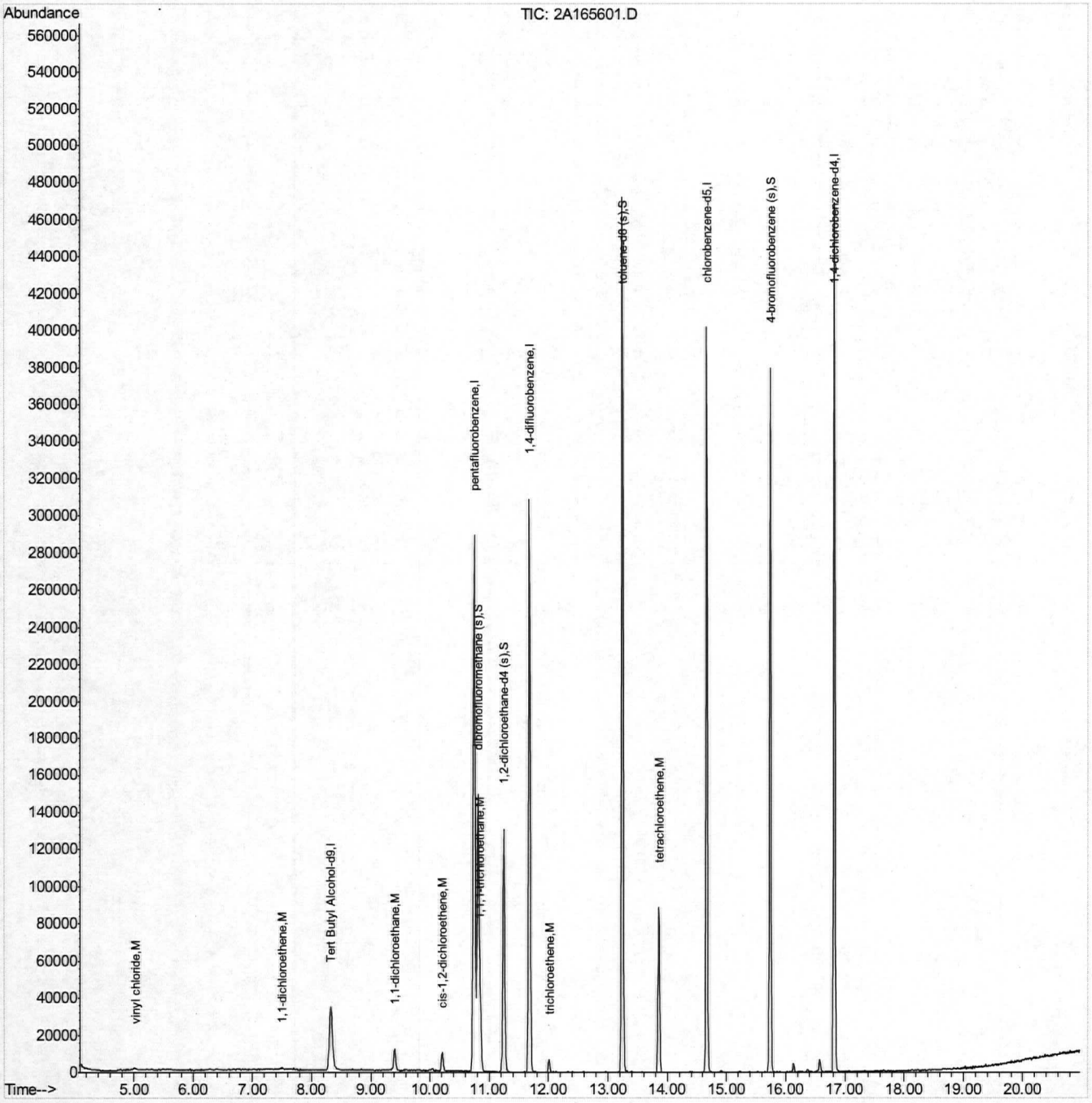
7

Quantitation Report (QT Reviewed)

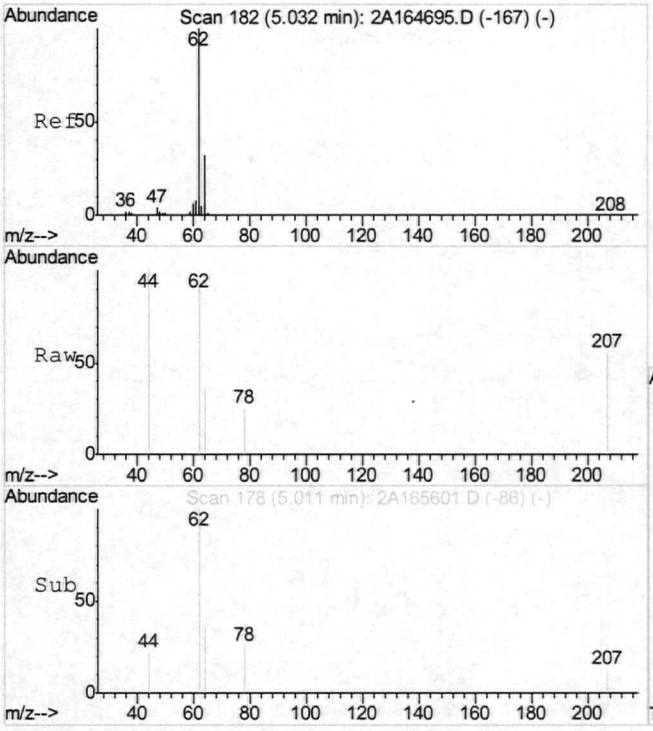
Data Path : C:\MSDChem\1\DATA\
Data File : 2A165601.D
Acq On : 13 Feb 2016 7:57 pm
Operator : tracyk
Sample : jc14083-11
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 17 13:23:10 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

7.1.11 7



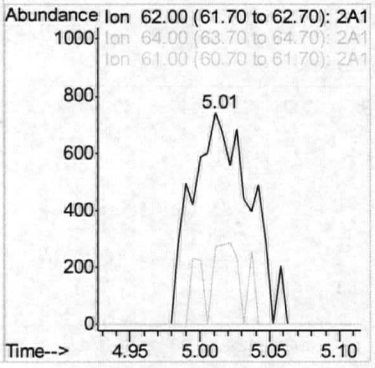
M2A7005.M Wed Feb 17 13:23:15 2016 MS2A

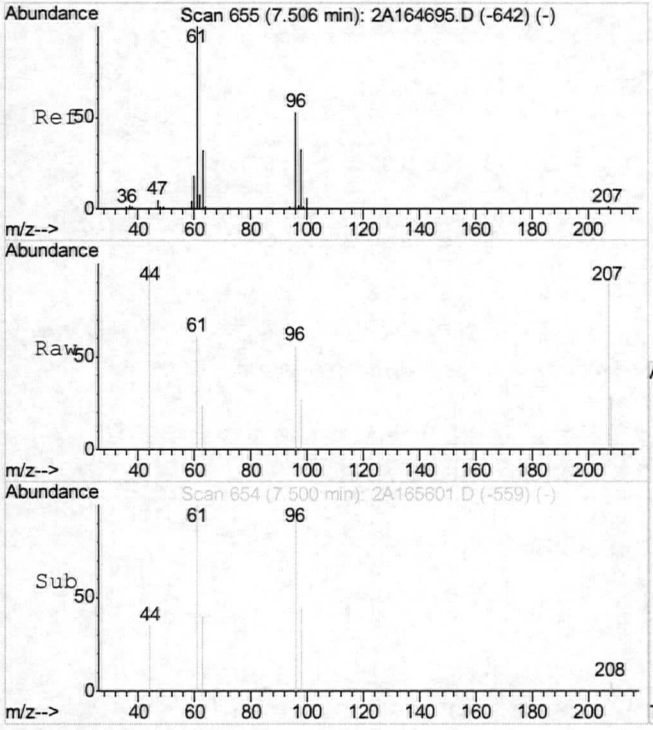


#11
vinyl chloride
Concen: 0.93 ug/L
RT: 5.01 min Scan# 178
Delta R.T. -0.02 min
Lab File: 2A165601.D
Acq: 13 Feb 2016 7:57 pm

Tgt Ion: 62 Resp: 2153

Ion	Ratio	Lower	Upper
62	100		
64	37.1	1.8	61.8
61	0.0	0.0	38.4

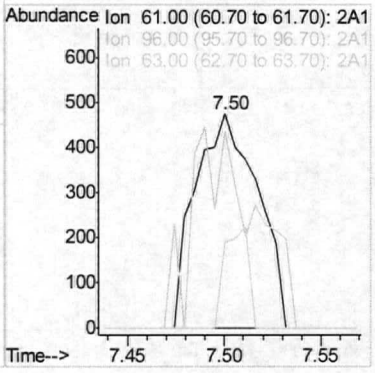




#19
1,1-dichloroethene
Concen: 0.39 ug/L
RT: 7.50 min Scan# 654
Delta R.T. -0.01 min
Lab File: 2A165601.D
Acq: 13 Feb 2016 7:57 pm

Tgt Ion: 61 Resp: 1057

Ion	Ratio	Lower	Upper
61	100		
96	91.8	22.9	82.9#
63	40.1	1.6	61.6



7.1.11

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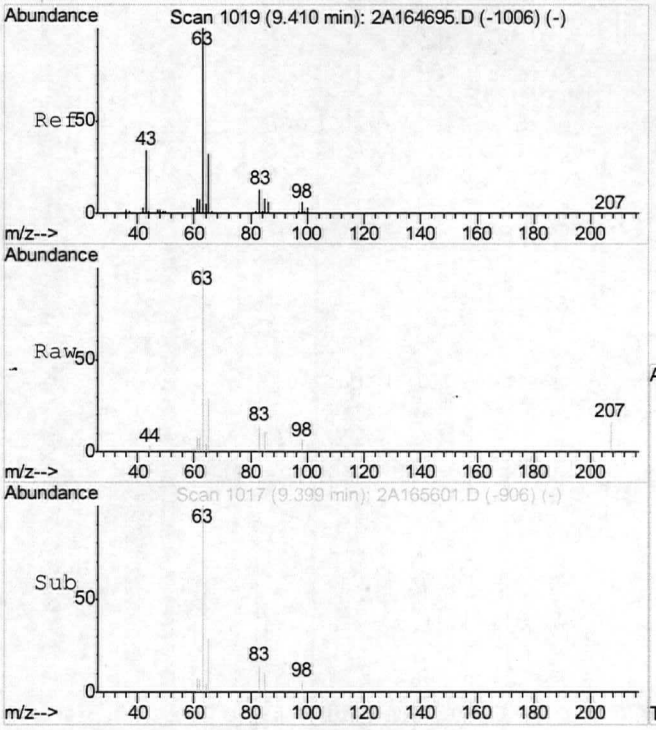
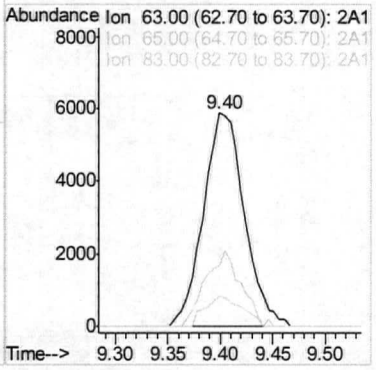
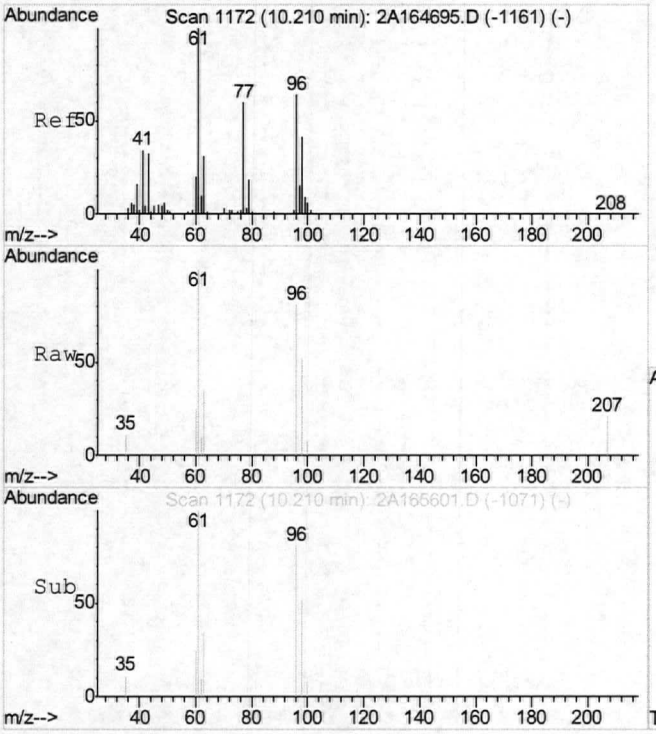


#32
1,1-dichloroethane
Concen: 4.23 ug/L
RT: 9.40 min Scan# 1017
Delta R.T. -0.01 min
Lab File: 2A165601.D
Acq: 13 Feb 2016 7:57 pm

Tgt Ion: 63 Resp: 15917

Ion	Ratio	Lower	Upper
63	100		
65	28.5	1.6	61.6
83	14.5	0.0	43.4

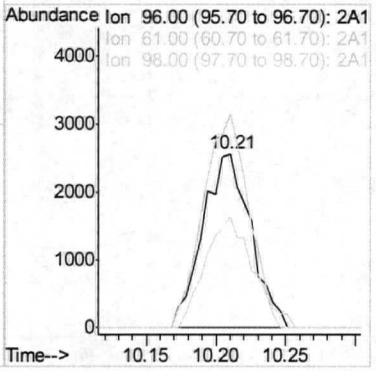


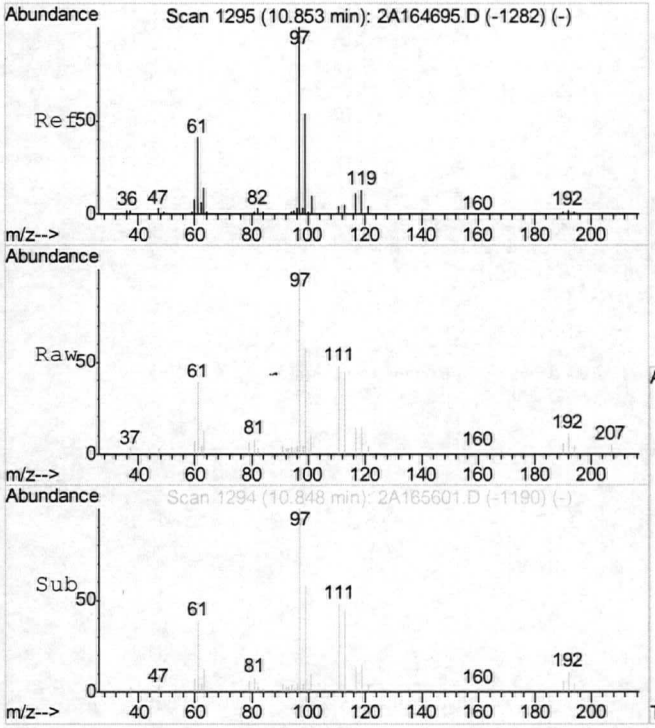


#39
cis-1,2-dichloroethene
Concen: 2.53 ug/L
RT: 10.21 min Scan# 1172
Delta R.T. -0.00 min
Lab File: 2A165601.D
Acq: 13 Feb 2016 7:57 pm

Tgt Ion: 96 Resp: 6093

Ion	Ratio	Lower	Upper
96	100		
61	122.9	126.1	186.1#
98	63.8	34.1	94.1

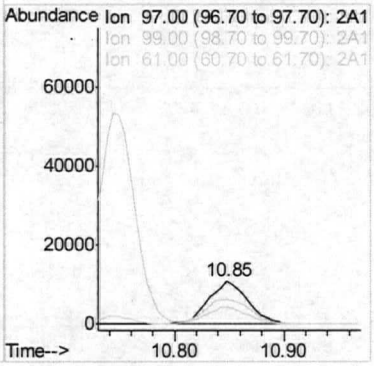


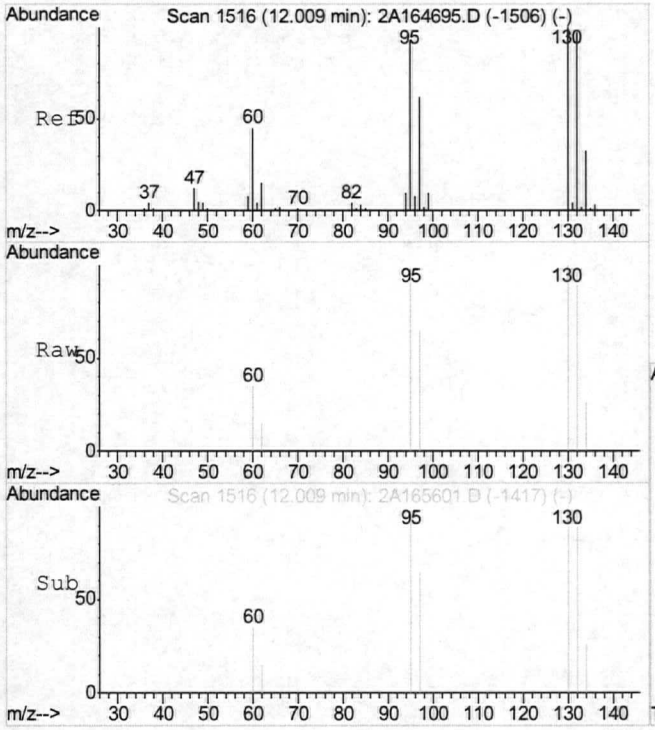


#50
1,1,1-trichloroethane
Concen: 8.49 ug/L
RT: 10.85 min Scan# 1294
Delta R.T. -0.01 min
Lab File: 2A165601.D
Acq: 13 Feb 2016 7:57 pm

Tgt Ion: 97 Resp: 27599

Ion	Ratio	Lower	Upper
97	100		
99	58.0	33.9	93.9
61	39.3	11.2	71.2

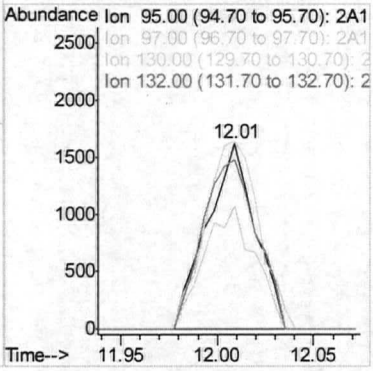




#66
trichloroethene
Concen: 1.31 ug/L
RT: 12.01 min Scan# 1516
Delta R.T. -0.00 min
Lab File: 2A165601.D
Acq: 13 Feb 2016 7:57 pm

Tgt Ion: 95 Resp: 2784

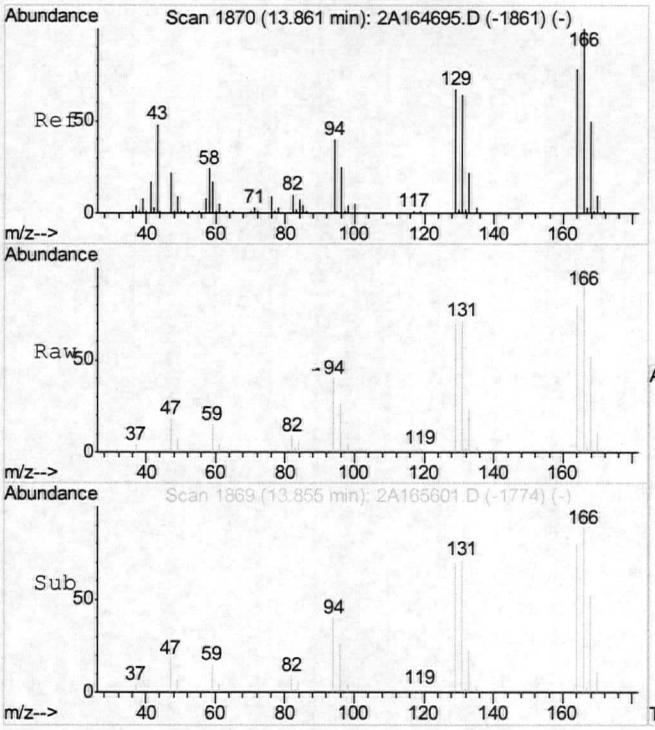
Ion	Ratio	Lower	Upper
95	100		
97	66.1	36.7	96.7
130	101.6	77.5	137.5
132	91.4	74.4	134.4



7.1.11

7

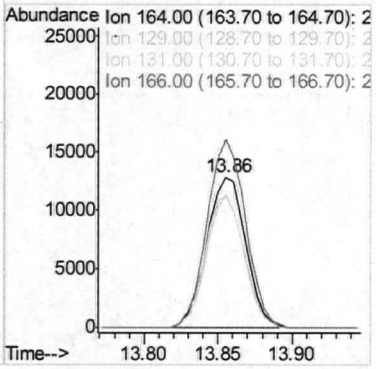
SGS ACCUTEST JC14083



#85
tetrachloroethene
Concen: 12.63 ug/L
RT: 13.86 min Scan# 1869
Delta R.T. -0.01 min
Lab File: 2A165601.D
Acq: 13 Feb 2016 7:57 pm

Tgt Ion:164 Resp: 23294

Ion	Ratio	Lower	Upper
164	100		
129	87.4	56.5	116.5
131	88.4	52.3	112.3
166	125.2	98.9	158.9



7.1.11

7

SGS ACCUTEST JC14083

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117221.D
Acq On : 12 Feb 2016 12:59 pm
Operator : XimenaC
Sample : jc14083-12
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 11:30:21 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	7.147	65	138715	500.00 ug/L	0.00
4) pentafluorobenzene	9.375	168	239665	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.293	114	287338	50.00 ug/L	0.00
88) chlorobenzene-d5	13.454	117	228318	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	128248	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.422	113	120529	58.87 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 117.74%		
51) 1,2-dichloroethane-d4 (s)	9.842	65	116187	58.65 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 117.30%		
80) toluene-d8 (s)	11.944	98	339339	50.31 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.62%		
106) 4-bromofluorobenzene (s)	14.613	95	109432	47.46 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 94.92%		
Target Compounds					Qvalue
37) 1,1-dichloroethane	8.122	63	3913	1.12 ug/L	89
54) 1,1,1-trichloroethane	9.469	97	4007	1.22 ug/L	84
89) tetrachloroethene	12.615	166	555	0.30 ug/L #	62

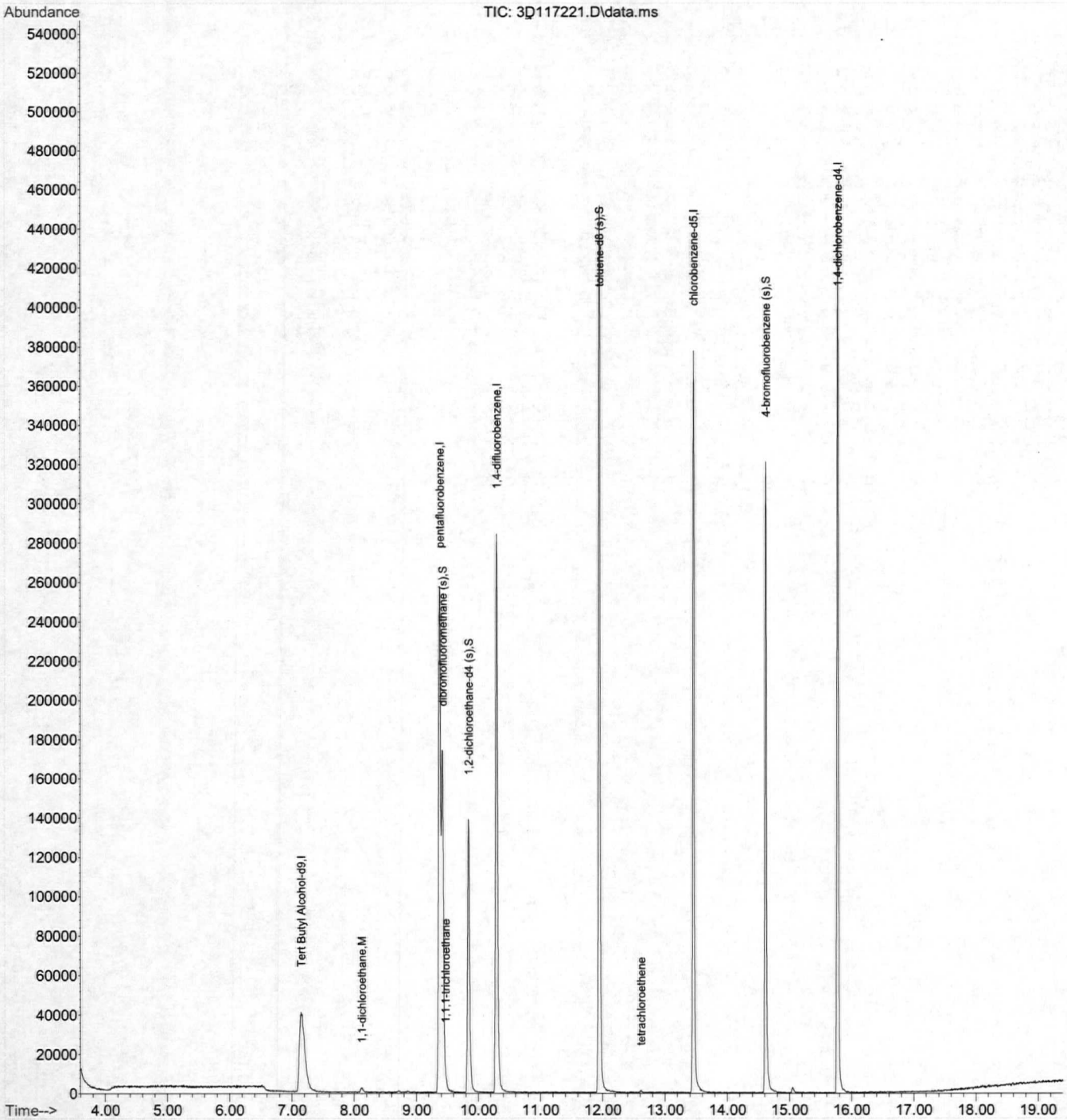
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.12 7

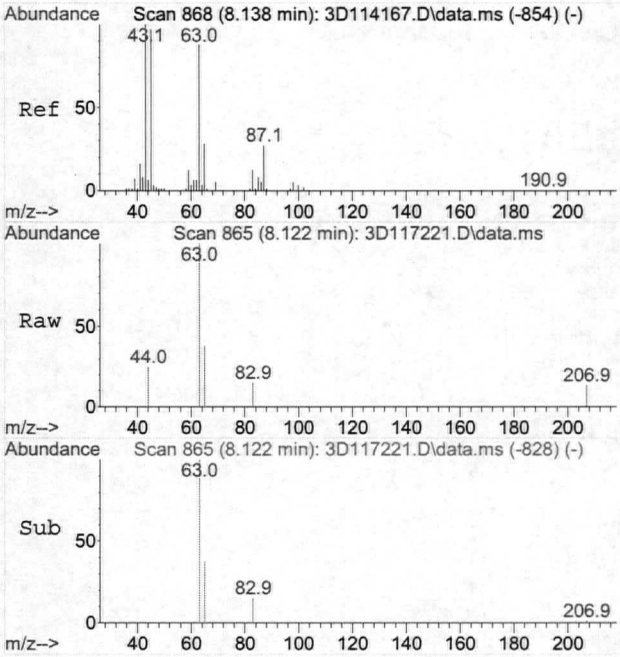
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117221.D
Acq On : 12 Feb 2016 12:59 pm
Operator : XimenaC
Sample : jc14083-12
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 11:30:21 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration



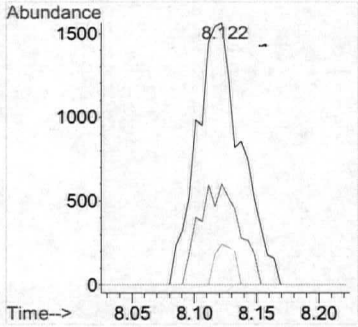
M3D4991.M Mon Feb 15 12:04:31 2016

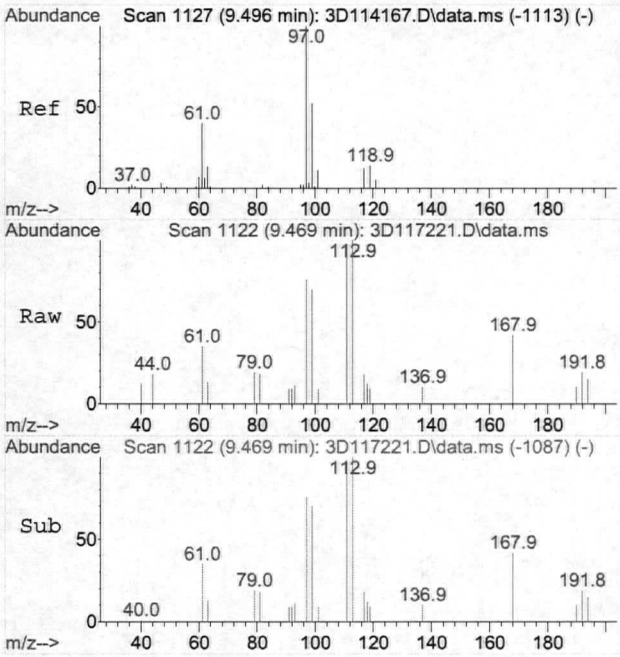


#37
1,1-dichloroethane
Concen: 1.12 ug/L
RT: 8.122 min Scan# 865
Delta R.T. -0.005 min
Lab File: 3D117221.D
Acq: 12 Feb 2016 12:59 pm

Tgt Ion: 63 Resp: 3913

Ion	Ratio	Lower	Upper
63	100		
65	38.2	1.4	61.4
83	15.5	0.0	43.0

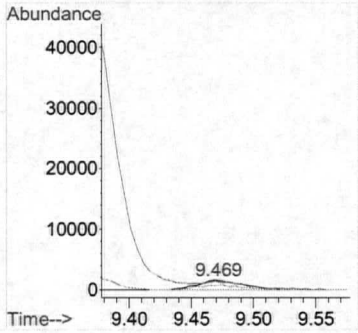




#54
1,1,1-trichloroethane
Concen: 1.22 ug/L
RT: 9.469 min Scan# 1122
Delta R.T. -0.016 min
Lab File: 3D117221.D
Acq: 12 Feb 2016 12:59 pm

Tgt Ion: 97 Resp: 4007

Ion	Ratio	Lower	Upper
97	100		
99	80.1	33.0	93.0
61	46.6	11.6	71.6



7.1.12

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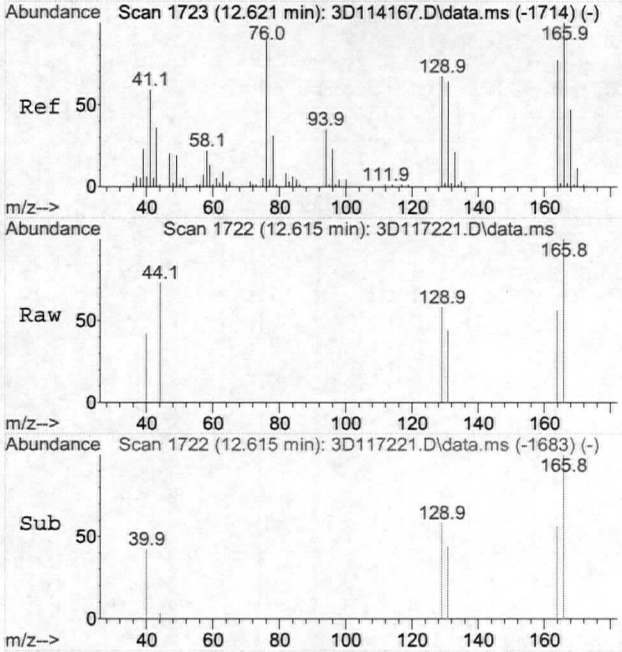
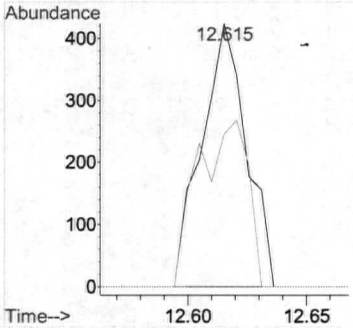


#89
tetrachloroethene
Concen: 0.30 ug/L
RT: 12.615 min Scan# 1722
Delta R.T. 0.005 min
Lab File: 3D117221.D
Acq: 12 Feb 2016 12:59 pm

Tgt Ion:166 Resp: 555

Ion	Ratio	Lower	Upper
166	100		
168	0.0	19.0	79.0#
129	57.8	38.7	98.7



7.1.12

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117222.D
Acq On : 12 Feb 2016 1:26 pm
Operator : XimenaC
Sample : jc14083-13
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 15 11:31:10 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.147	65	139668	500.00	ug/L	0.00
4) pentafluorobenzene	9.375	168	241354	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.293	114	290908	50.00	ug/L	0.00
88) chlorobenzene-d5	13.454	117	231836	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	128890	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.422	113	121875	59.12	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 118.24%			
51) 1,2-dichloroethane-d4 (s)	9.842	65	118229	59.27	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 118.54%			
80) toluene-d8 (s)	11.944	98	341163	49.96	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.92%			
106) 4-bromofluorobenzene (s)	14.613	95	109768	47.37	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 94.74%			
Target Compounds						Qvalue
43) cis-1,2-dichloroethene	8.861	96	4251	1.81	ug/L	79
54) 1,1,1-trichloroethane	9.480	97	11644	3.53	ug/L	93

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

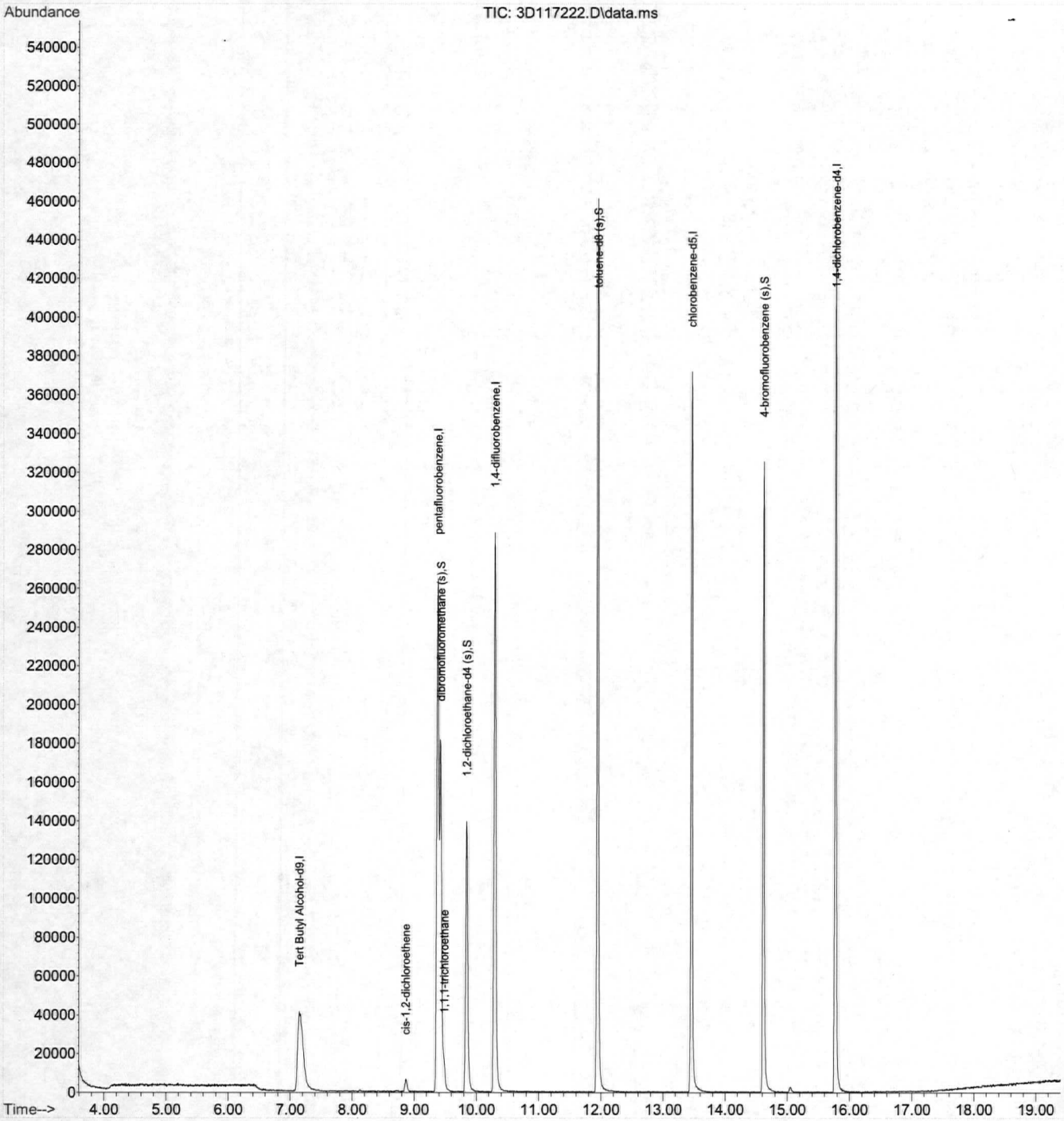
7.1.13

7

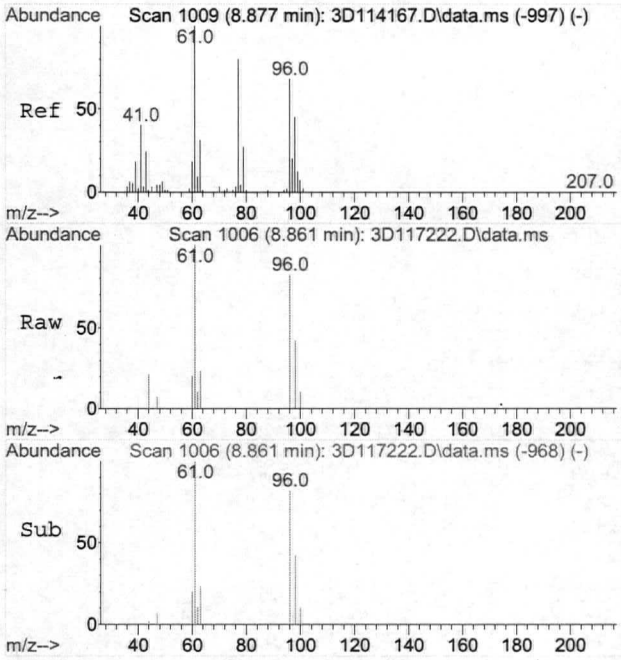
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117222.D
Acq On : 12 Feb 2016 1:26 pm
Operator : XimenaC
Sample : jc14083-13
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 15 11:31:10 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration



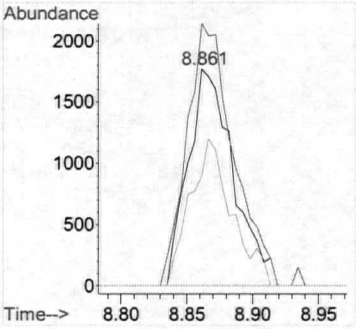
M3D4991.M Mon Feb 15 12:04:34 2016

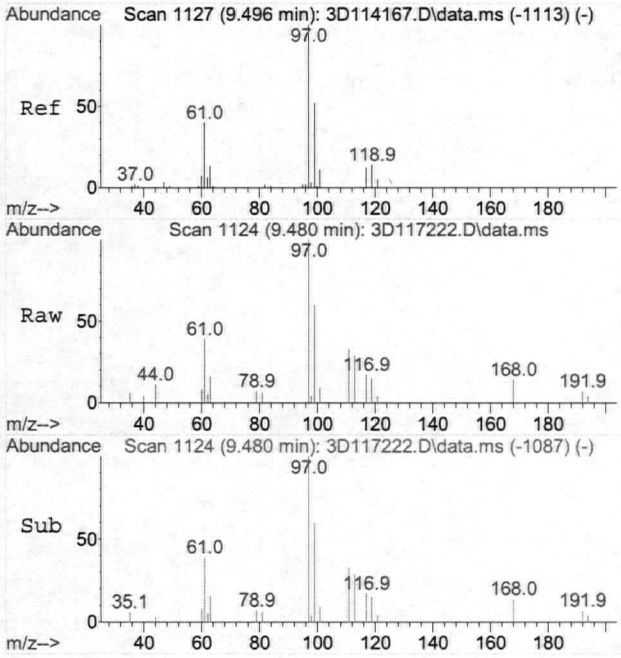


#43
cis-1,2-dichloroethene
Concen: 1.81 ug/L
RT: 8.861 min Scan# 1006
Delta R.T. -0.000 min
Lab File: 3D117222.D
Acq: 12 Feb 2016 1:26 pm

Tgt Ion: 96 Resp: 4251

Ion	Ratio	Lower	Upper
96	100		
61	121.4	121.4	181.4
98	50.7	31.8	91.8

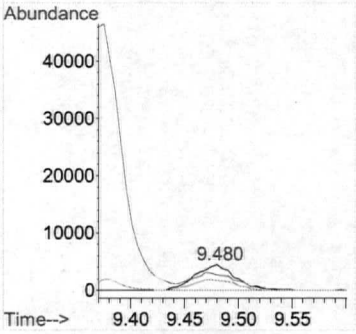




#54
1,1,1-trichloroethane
Concen: 3.53 ug/L
RT: 9.480 min Scan# 1124
Delta R.T. -0.005 min
Lab File: 3D117222.D
Acq: 12 Feb 2016 1:26 pm

Tgt Ion: 97 Resp: 11644

Ion	Ratio	Lower	Upper
97	100		
99	55.8	33.0	93.0
61	38.9	11.6	71.6



7.1.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117223.D
Acq On : 12 Feb 2016 1:54 pm
Operator : XimenaC
Sample : jc14083-14
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 15 11:31:33 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	7.147	65	135556	500.00 ug/L	0.00
4) pentafluorobenzene	9.375	168	234841	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.293	114	281151	50.00 ug/L	0.00
88) chlorobenzene-d5	13.454	117	225845	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	125841	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.422	113	117914	58.78 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 117.56%		
51) 1,2-dichloroethane-d4 (s)	9.842	65	115740	59.63 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 119.26%		
80) toluene-d8 (s)	11.944	98	334755	50.72 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.44%		
106) 4-bromofluorobenzene (s)	14.613	95	107272	47.42 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 94.84%		

Target Compounds Qvalue

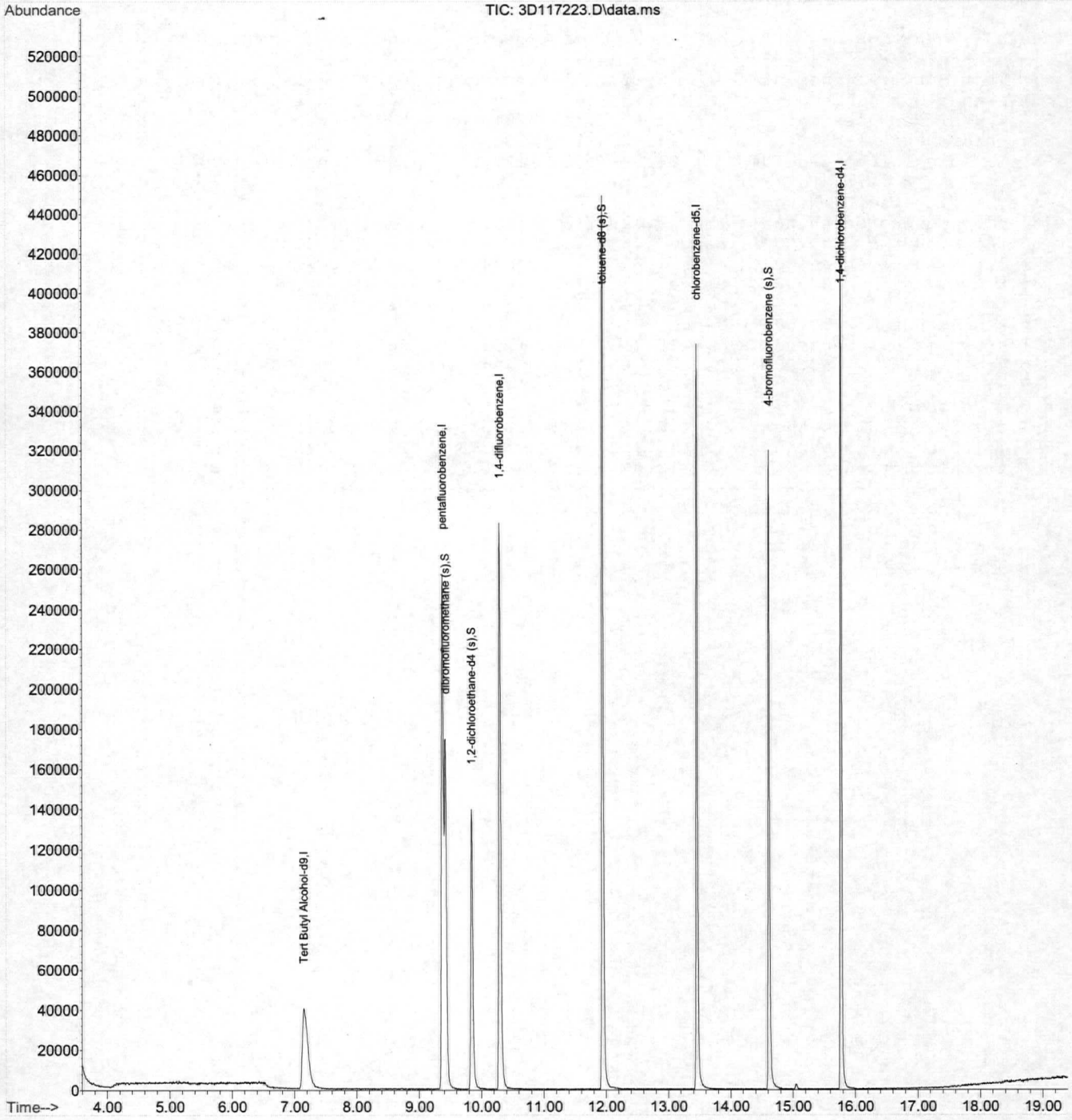
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.14 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117223.D
Acq On : 12 Feb 2016 1:54 pm
Operator : XimenaC
Sample : jc14083-14
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 15 11:31:33 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration



M3D4991.M Mon Feb 15 12:04:37 2016

SGS ACCUTEST JC14083

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165602.D
Acq On : 13 Feb 2016 8:26 pm
Operator : tracyk
Sample : jc14083-15
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 17 13:23:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	71064	500.00 ug/L	-0.02
5) pentafluorobenzene	10.75	168	270167	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	289080	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	233945	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	127033	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	103303	52.37 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.74%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	107437	47.49 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 94.98%		
76) toluene-d8 (s)	13.24	98	333591	51.85 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.70%		
100) 4-bromofluorobenzene (s)	15.74	95	118328	50.55 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.10%		
Target Compounds					Qvalue
39) cis-1,2-dichloroethene	10.21	96	2318	0.96 ug/L #	71
50) 1,1,1-trichloroethane	10.85	97	34118	10.50 ug/L	95
66) trichloroethene	12.00	95	617	0.29 ug/L	84

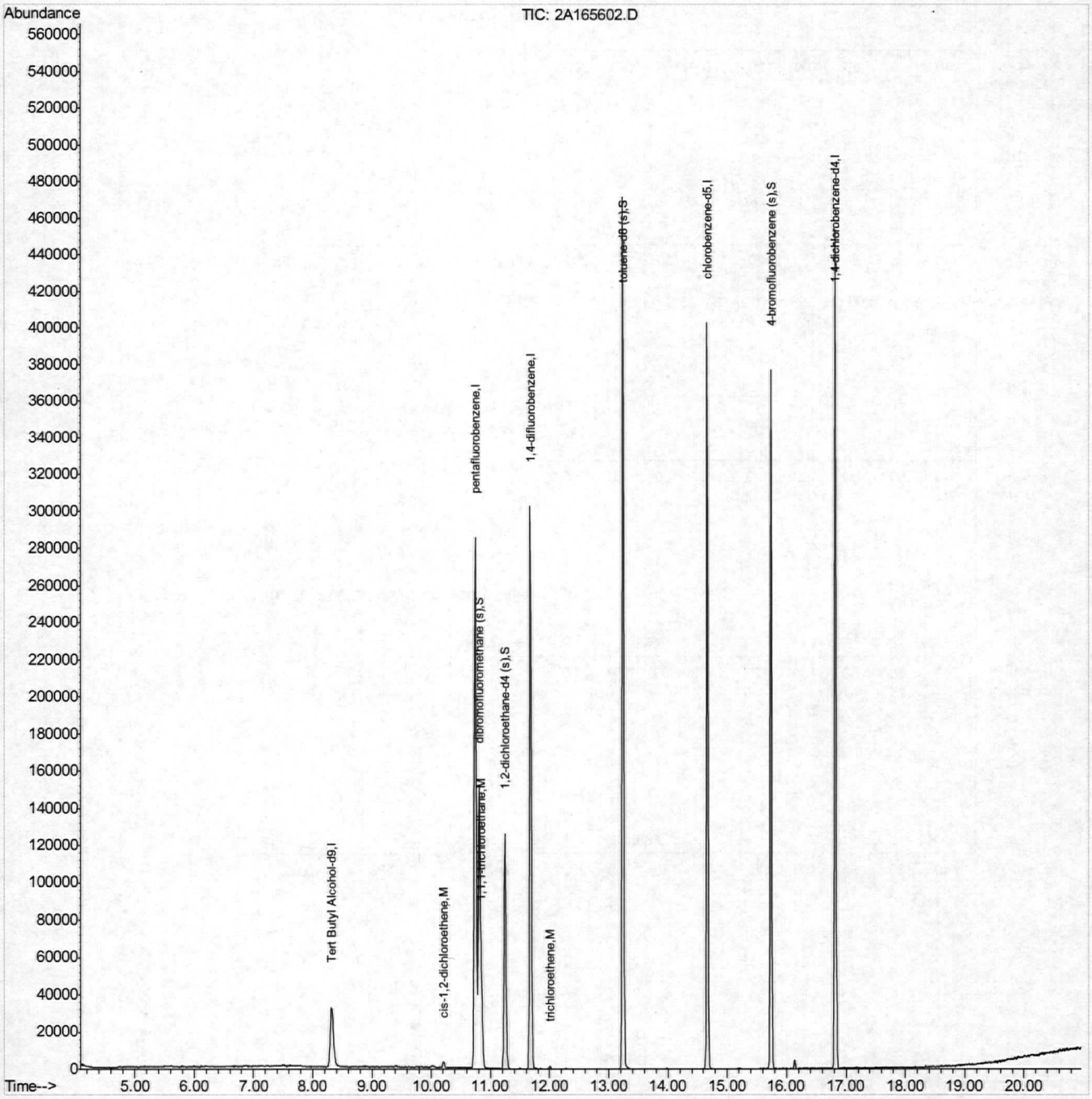
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.15 7

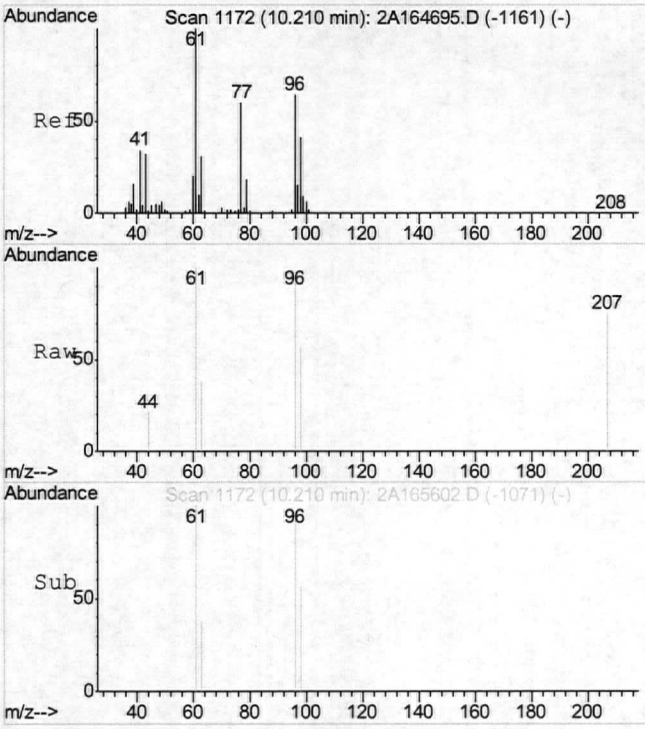
Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165602.D
Acq On : 13 Feb 2016 8:26 pm
Operator : tracyk
Sample : jc14083-15
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 17 13:23:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



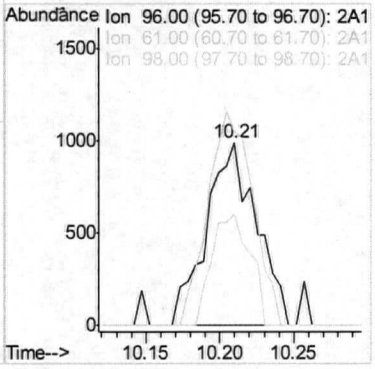
M2A7005.M Wed Feb 17 13:23:58 2016 MS2A

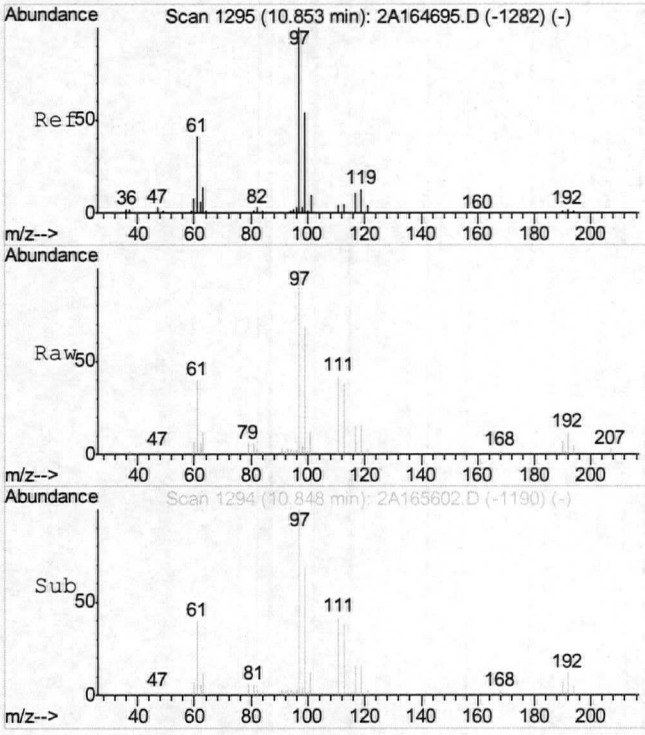


#39
cis-1,2-dichloroethene
Concen: 0.96 ug/L
RT: 10.21 min Scan# 1172
Delta R.T. -0.00 min
Lab File: 2A165602.D
Acq: 13 Feb 2016 8:26 pm

Tgt Ion: 96 Resp: 2318

Ion	Ratio	Lower	Upper
96	100		
61	106.1	126.1	186.1#
98	60.2	34.1	94.1

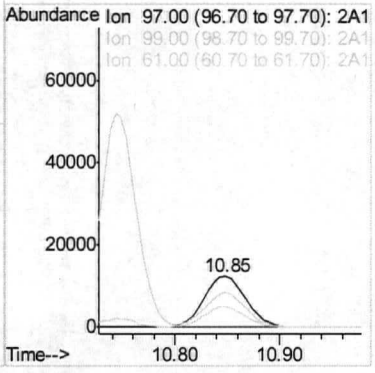




#50
1,1,1-trichloroethane
Concen: 10.50 ug/L
RT: 10.85 min Scan# 1294
Delta R.T. -0.01 min
Lab File: 2A165602.D
Acq: 13 Feb 2016 8:26 pm

Tgt Ion: 97 Resp: 34118

Ion	Ratio	Lower	Upper
97	100		
99	69.1	33.9	93.9
61	40.4	11.2	71.2



7.1.15

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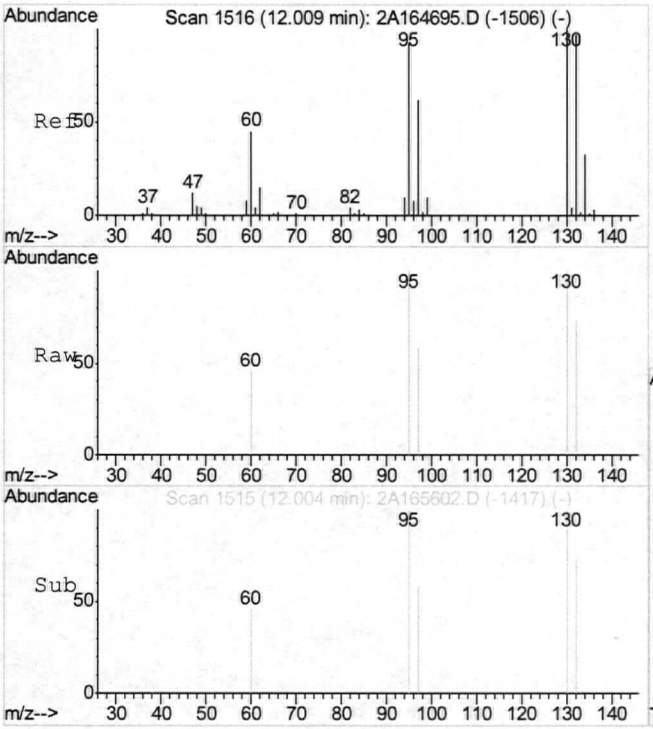
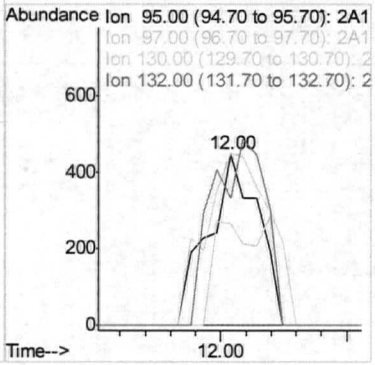


#66
trichloroethene
Concen: 0.29 ug/L
RT: 12.00 min Scan# 1515
Delta R.T. -0.01 min
Lab File: 2A165602.D
Acq: 13 Feb 2016 8:26 pm

Tgt Ion: 95 Resp: 617

Ion	Ratio	Lower	Upper
95	100		
97	59.5	36.7	96.7
130	100.4	77.5	137.5
132	74.5	74.4	134.4



7.1.15

7

SGS ACCUTEST JC14083

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165603.D
Acq On : 13 Feb 2016 8:56 pm
Operator : tracyk
Sample : jc14083-16
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 17 13:24:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	67207	500.00 ug/L	-0.02
5) pentafluorobenzene	10.74	168	254560	50.00 ug/L	-0.01
52) 1,4-difluorobenzene	11.67	114	278144	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	221657	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	119232	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	97487	52.45 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.90%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	100526	47.16 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 94.32%		
76) toluene-d8 (s)	13.24	98	318458	51.45 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.90%		
100) 4-bromofluorobenzene (s)	15.74	95	111811	50.89 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.78%		
Target Compounds					Qvalue
50) 1,1,1-trichloroethane	10.85	97	1847	0.60 ug/L	73

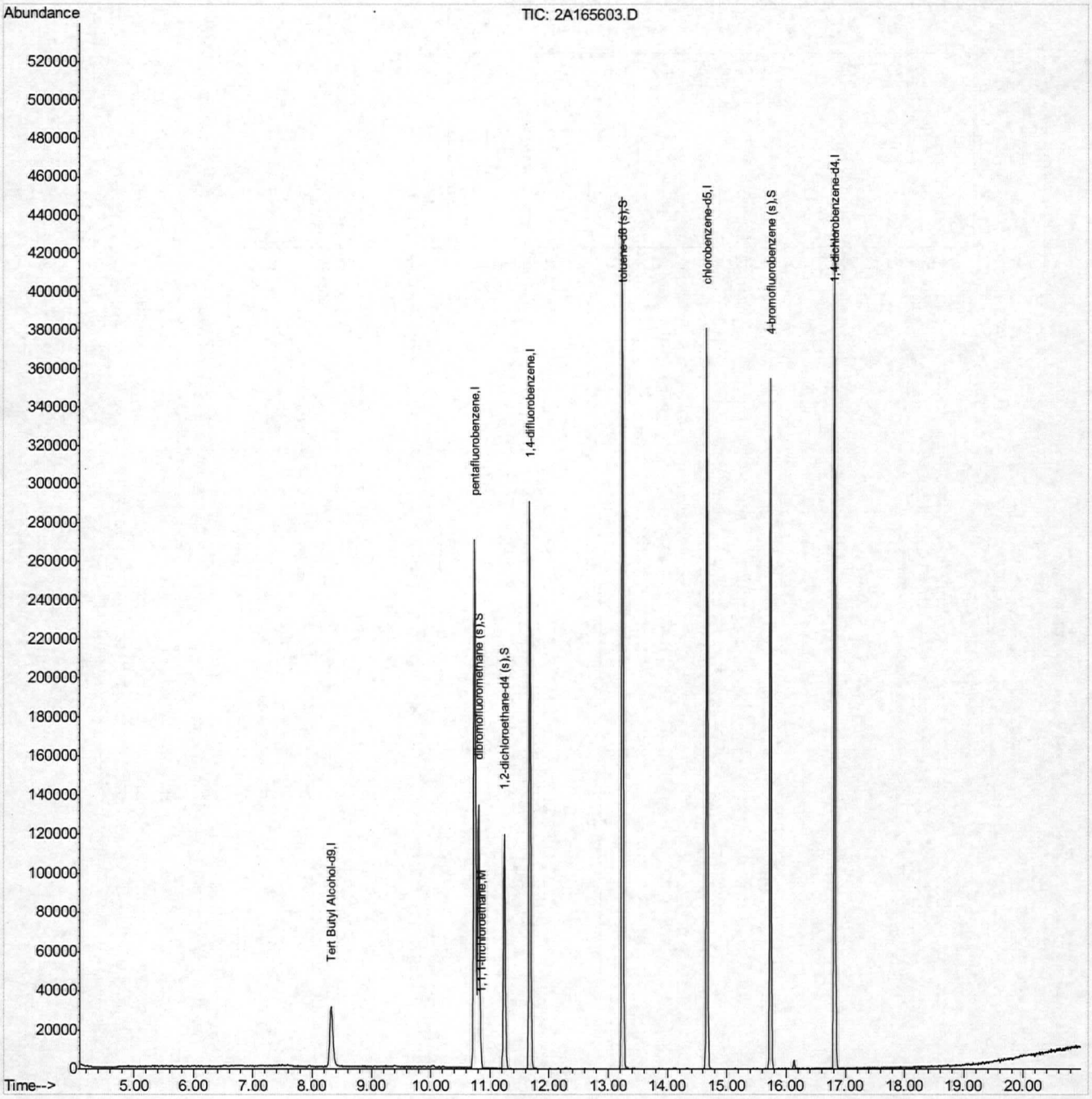
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.16 7

Quantitation Report (QT Reviewed)

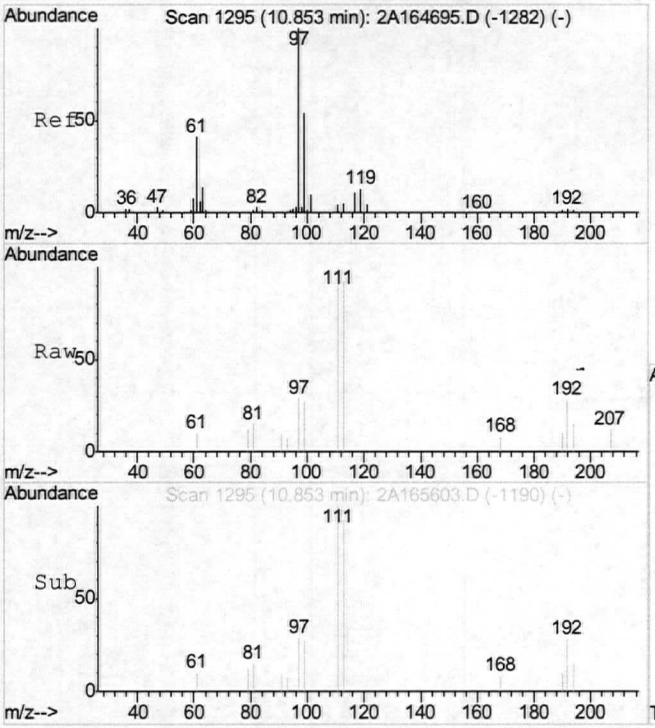
Data Path : C:\MSDChem\1\DATA\
Data File : 2A165603.D
Acq On : 13 Feb 2016 8:56 pm
Operator : tracyk
Sample : jc14083-16
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 17 13:24:32 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



7.1.16 7

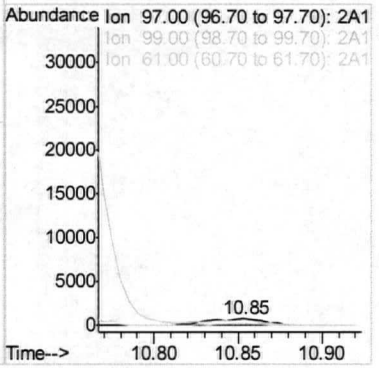
SGS ACCUTEST JC14083



#50
1,1,1-trichloroethane
Concen: 0.60 ug/L
RT: 10.85 min Scan# 1295
Delta R.T. 0.00 min
Lab File: 2A165603.D
Acq: 13 Feb 2016 8:56 pm

Tgt Ion: 97 Resp: 1847

Ion	Ratio	Lower	Upper
97	100		
99	93.1	33.9	93.9
61	34.6	11.2	71.2



7.1.16

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165604.D
Acq On : 13 Feb 2016 9:25 pm
Operator : tracyk
Sample : jc14083-17
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 17 13:26:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	71830	500.00 ug/L	-0.02
5) pentafluorobenzene	10.75	168	267029	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	289745	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	233246	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	125906	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	102468	52.56 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.12%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	107763	48.20 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.40%		
76) toluene-d8 (s)	13.24	98	333790	51.77 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.54%		
100) 4-bromofluorobenzene (s)	15.73	95	118000	50.86 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.72%		
Target Compounds					Qvalue
11) vinyl chloride	5.02	62	4606	2.01 ug/L	93
19) 1,1-dichloroethene	7.50	61	1073	0.40 ug/L #	54
32) 1,1-dichloroethane	9.40	63	39088	10.51 ug/L	98
39) cis-1,2-dichloroethene	10.20	96	127709	53.78 ug/L #	83
50) 1,1,1-trichloroethane	10.85	97	19976	6.22 ug/L	95
60) benzene	11.30	78	1913	0.23 ug/L	100
66) trichloroethene	12.01	95	5128	2.45 ug/L	92
85) tetrachloroethene	13.86	164	44979	24.57 ug/L	98
117) 1,2-dichlorobenzene	17.23	146	4605	1.00 ug/L	96

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

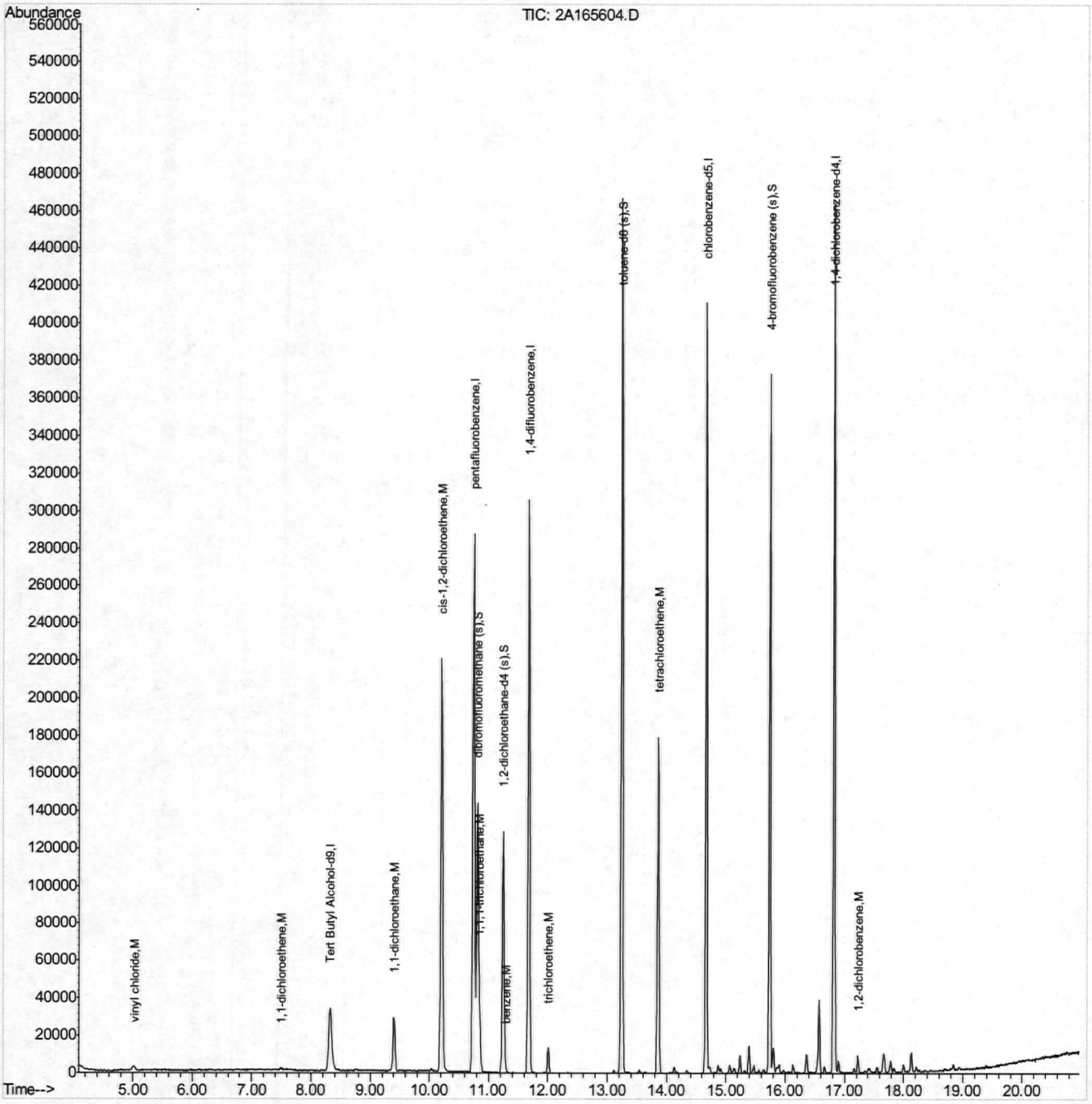
7.1.17

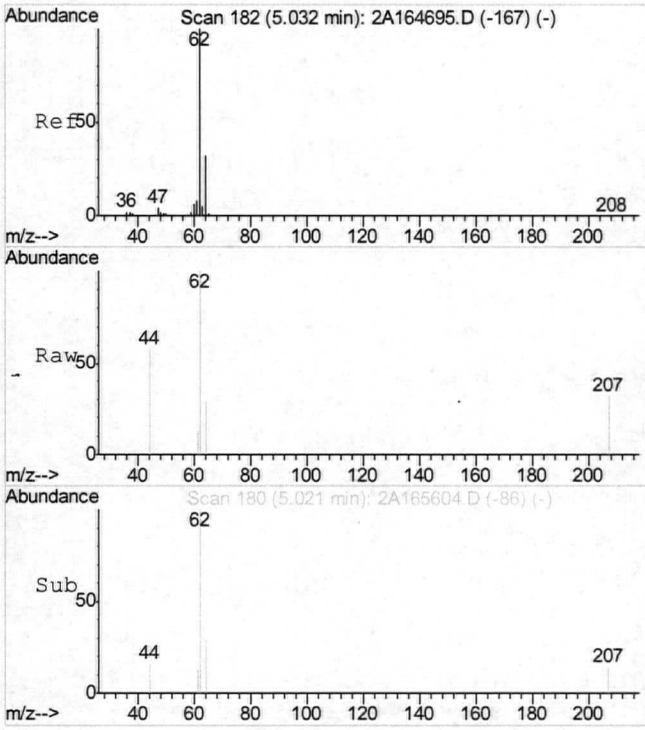
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165604.D
Acq On : 13 Feb 2016 9:25 pm
Operator : tracyk
Sample : jc14083-17
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 17 13:26:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

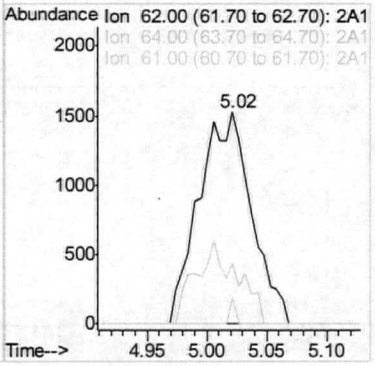


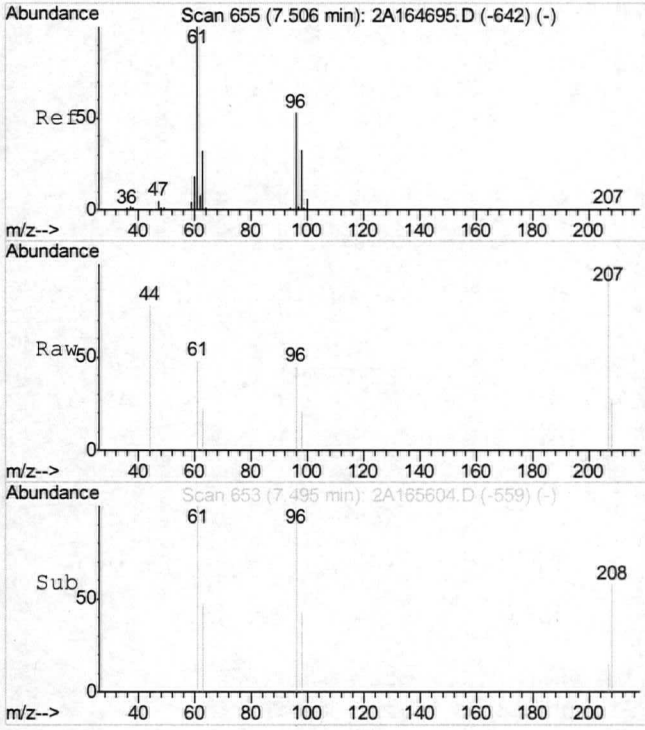


#11
vinyl chloride
Concen: 2.01 ug/L
RT: 5.02 min Scan# 180
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion: 62 Resp: 4606

Ion	Ratio	Lower	Upper
62	100		
64	28.8	1.8	61.8
61	12.5	0.0	38.4

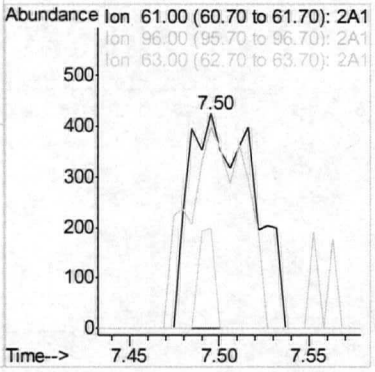




#19
1,1-dichloroethene
Concen: 0.40 ug/L
RT: 7.50 min Scan# 653
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion: 61 Resp: 1073

Ion	Ratio	Lower	Upper
61	100		
96	93.6	22.9	82.9#
63	47.2	1.6	61.6



7.1.17

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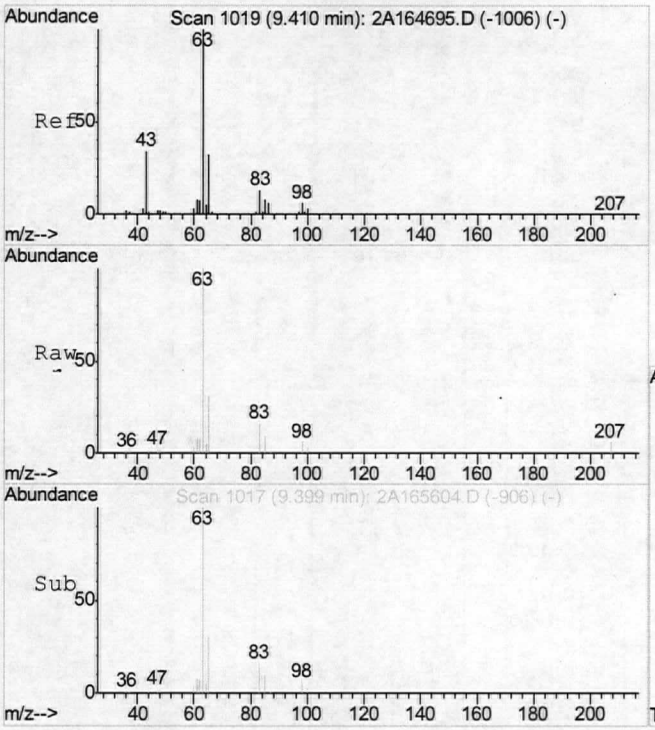
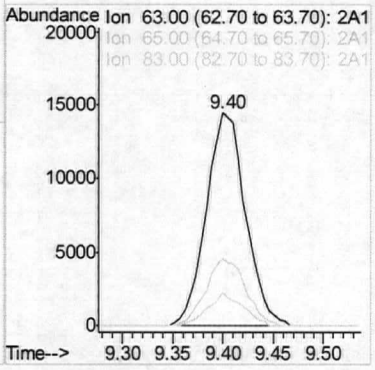
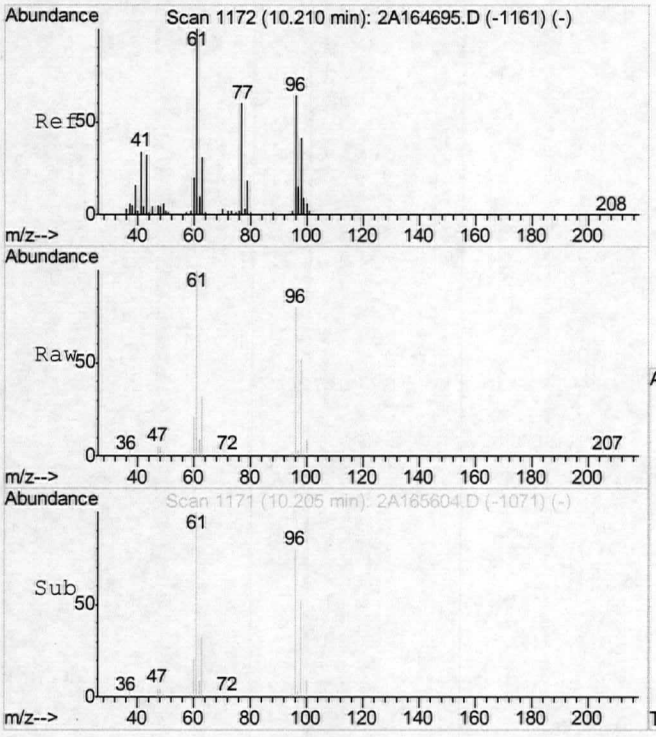


#32
1,1-dichloroethane
Concen: 10.51 ug/L
RT: 9.40 min Scan# 1017
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion: 63 Resp: 39088

Ion	Ratio	Lower	Upper
63	100		
65	31.5	1.6	61.6
83	15.5	0.0	43.4

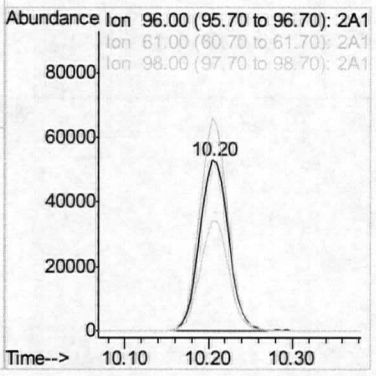




#39
cis-1,2-dichloroethene
Concen: 53.78 ug/L
RT: 10.20 min Scan# 1171
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion: 96 Resp: 127709

Ion	Ratio	Lower	Upper
96	100		
61	125.0	126.1	186.1#
98	64.6	34.1	94.1



7.1.17

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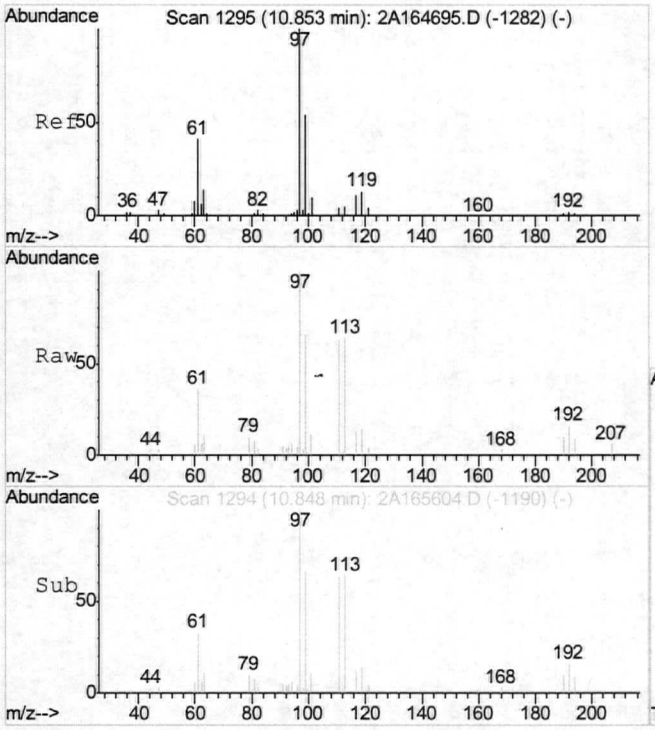
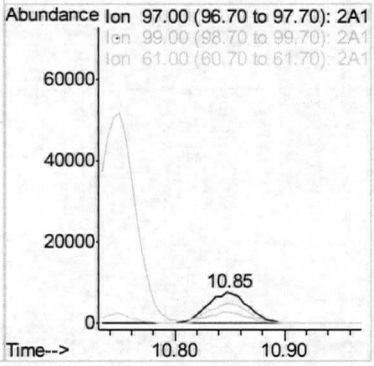
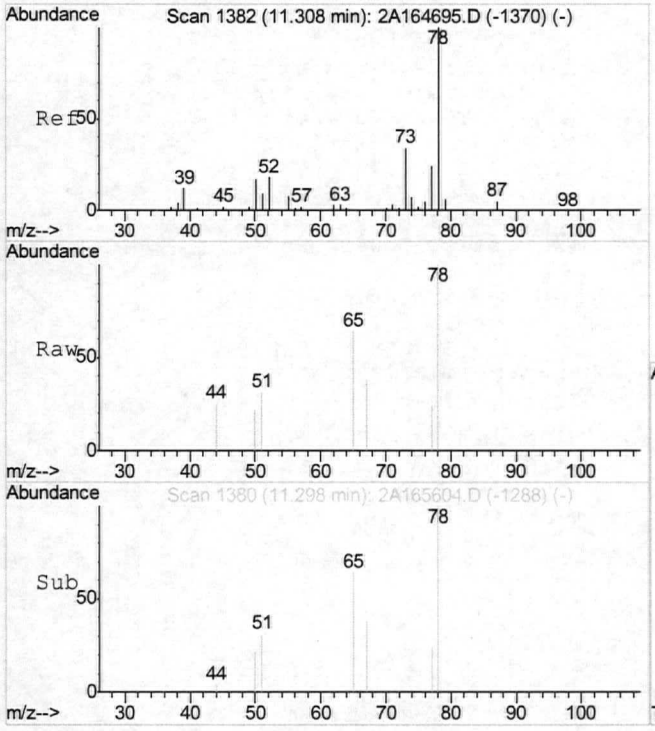


#50
1,1,1-trichloroethane
Concen: 6.22 ug/L
RT: 10.85 min Scan# 1294
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion: 97 Resp: 19976

Ion	Ratio	Lower	Upper
97	100		
99	66.3	33.9	93.9
61	36.4	11.2	71.2

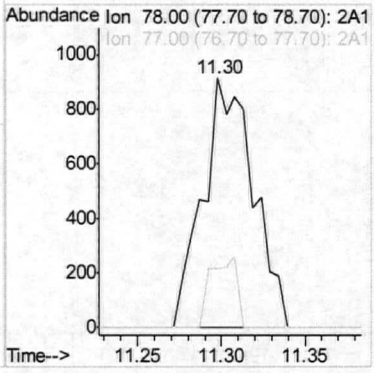




#60
benzene
Concen: 0.23 ug/L
RT: 11.30 min Scan# 1380
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion: 78 Resp: 1913

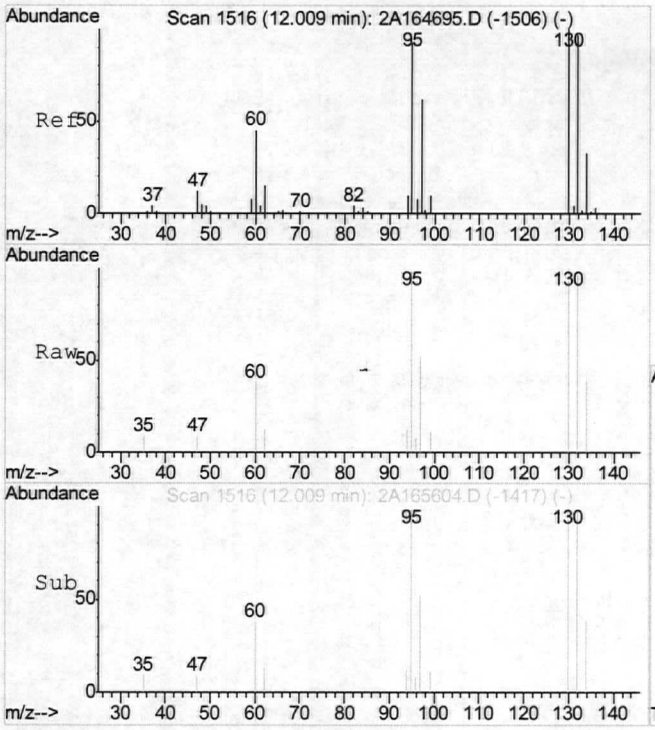
Ion	Ratio	Lower	Upper
78	100		
77	23.5	0.0	53.7



7.1.17

7

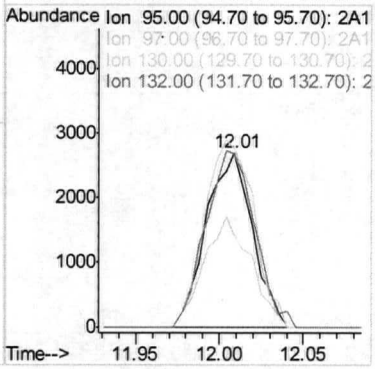
SGS ACCUTEST JC14083

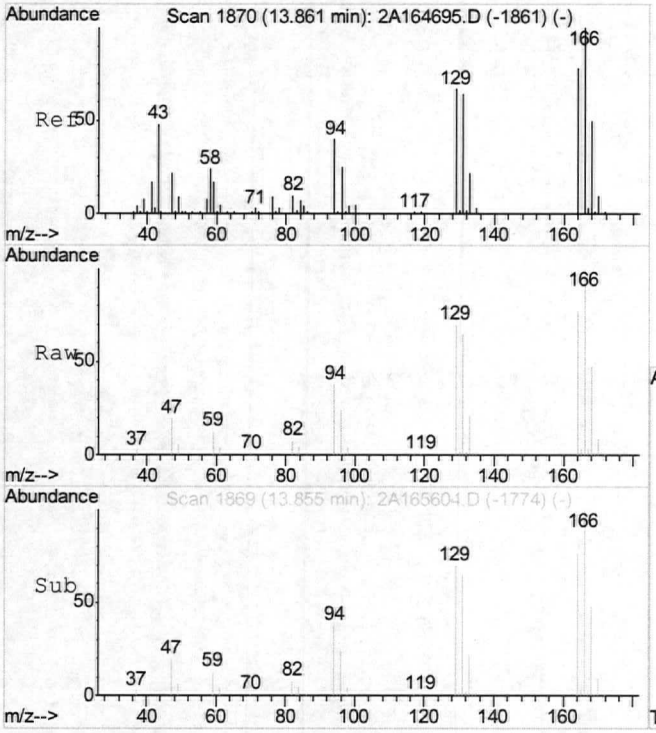


#66
trichloroethene
Concen: 2.45 ug/L
RT: 12.01 min Scan# 1516
Delta R.T. -0.00 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion: 95 Resp: 5128

Ion	Ratio	Lower	Upper
95	100		
97	52.8	36.7	96.7
130	102.2	77.5	137.5
132	99.3	74.4	134.4

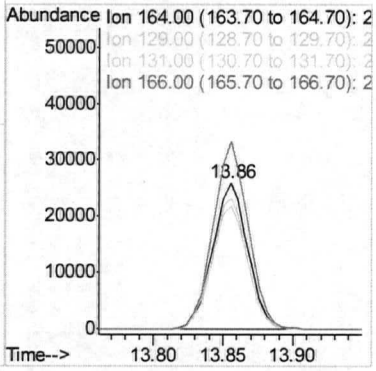




#85
tetrachloroethene
Concen: 24.57 ug/L
RT: 13.86 min Scan# 1869
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

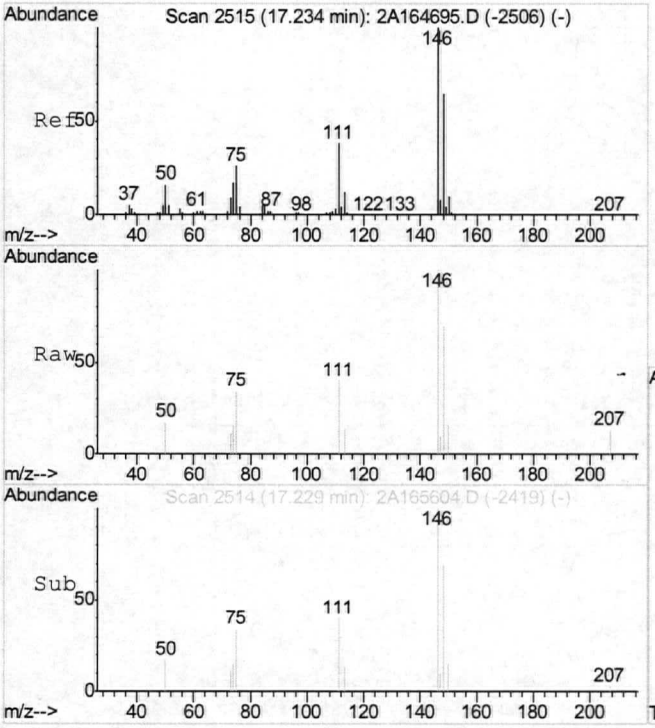
Tgt Ion:164 Resp: 44979

Ion	Ratio	Lower	Upper
164	100		
129	89.9	56.5	116.5
131	84.1	52.3	112.3
166	129.3	98.9	158.9



7.1.17

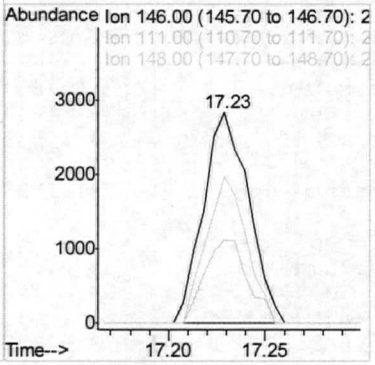
7



#117
1,2-dichlorobenzene
Concen: 1.00 ug/L
RT: 17.23 min Scan# 2514
Delta R.T. -0.01 min
Lab File: 2A165604.D
Acq: 13 Feb 2016 9:25 pm

Tgt Ion:146 Resp: 4605

Ion	Ratio	Lower	Upper
146	100		
111	39.7	8.5	68.5
148	69.6	35.3	95.3



7.1.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165618.D
Acq On : 15 Feb 2016 3:04 pm
Operator : tracyk
Sample : jc14083-18
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 19 15:36:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	72831	500.00 ug/L	0.00
5) pentafluorobenzene	10.75	168	276369	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.68	114	298236	50.00 ug/L	0.00
84) chlorobenzene-d5	14.67	117	239715	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	130103	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	105575	52.32 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.64%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	110682	47.83 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.66%		
76) toluene-d8 (s)	13.24	98	340472	51.30 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.60%		
100) 4-bromofluorobenzene (s)	15.73	95	121193	50.55 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.10%		
Target Compounds					Qvalue
50) 1,1,1-trichloroethane	10.85	97	1825	0.55 ug/L	88

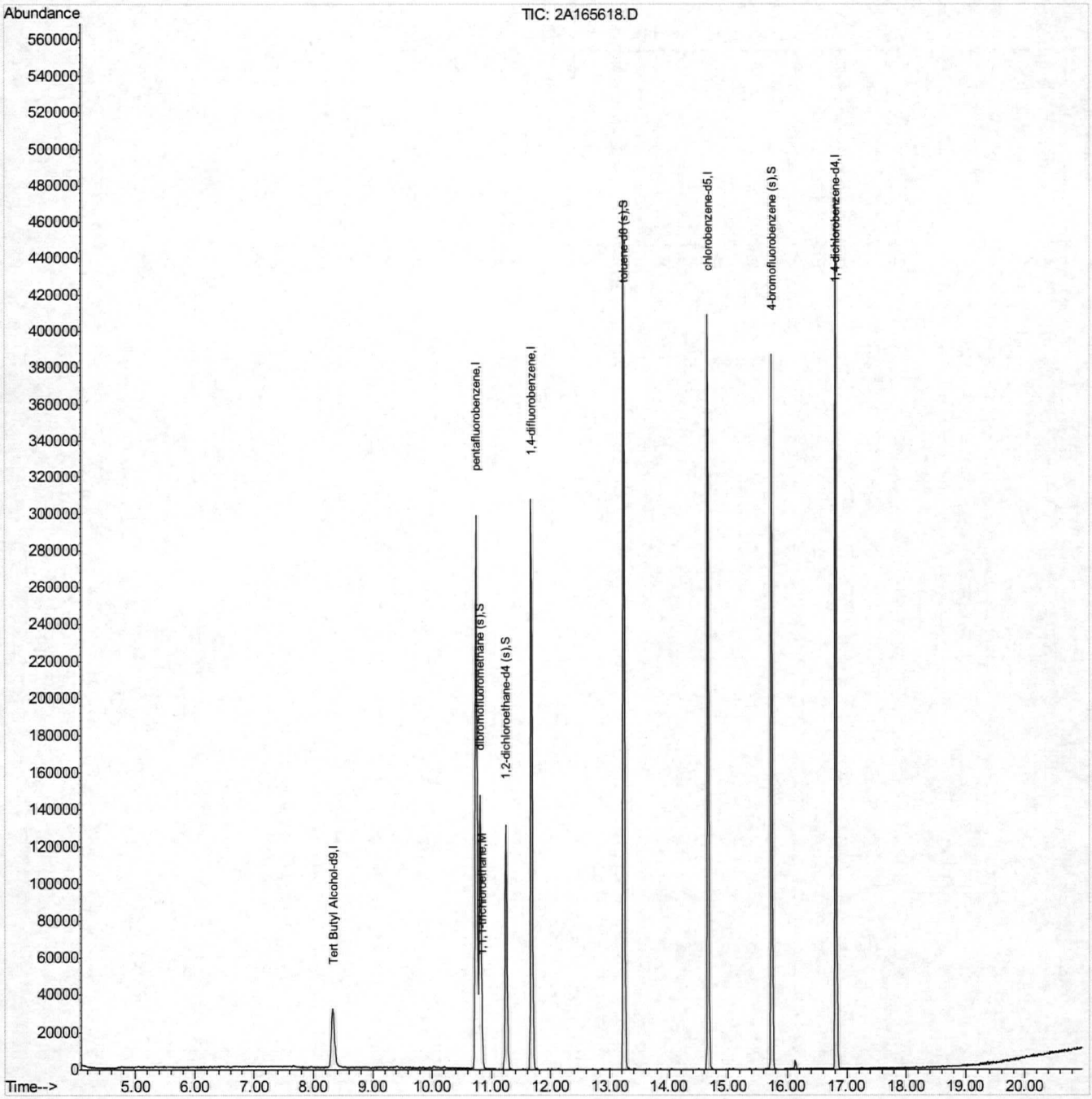
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.18 7

Quantitation Report (QT Reviewed)

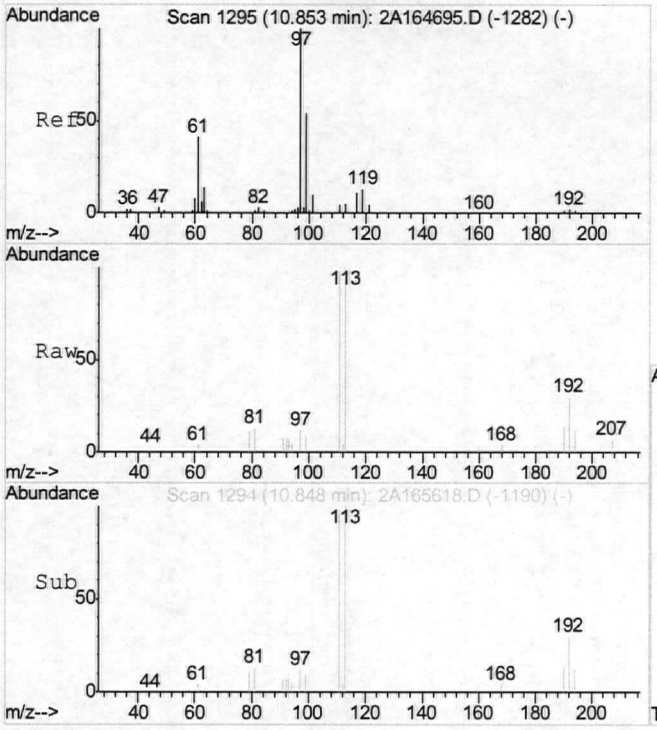
Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165618.D
Acq On : 15 Feb 2016 3:04 pm
Operator : tracyk
Sample : jc14083-18
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 19 15:36:31 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



7.1.18 7

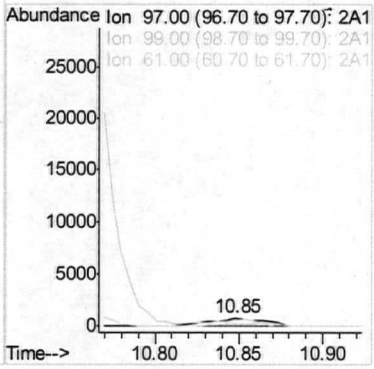
SGS ACCUTEST JC14083



#50
1,1,1-trichloroethane
Concen: 0.55 ug/L
RT: 10.85 min Scan# 1294
Delta R.T. -0.01 min
Lab File: 2A165618.D
Acq: 15 Feb 2016 3:04 pm

Tgt Ion: 97 Resp: 1825

Ion	Ratio	Lower	Upper
97	100		
99	73.6	33.9	93.9
61	33.8	11.2	71.2



7.1.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165599.D
Acq On : 13 Feb 2016 6:59 pm
Operator : tracyk
Sample : jc14083-19
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 17 13:21:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	75735	500.00 ug/L	-0.01
5) pentafluorobenzene	10.75	168	274002	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	295043	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	240116	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	130466	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	104698	52.34 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.68%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	107894	47.03 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 94.06%		
76) toluene-d8 (s)	13.24	98	339232	51.67 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.34%		
100) 4-bromofluorobenzene (s)	15.74	95	120971	50.31 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.62%		

Target Compounds	Qvalue

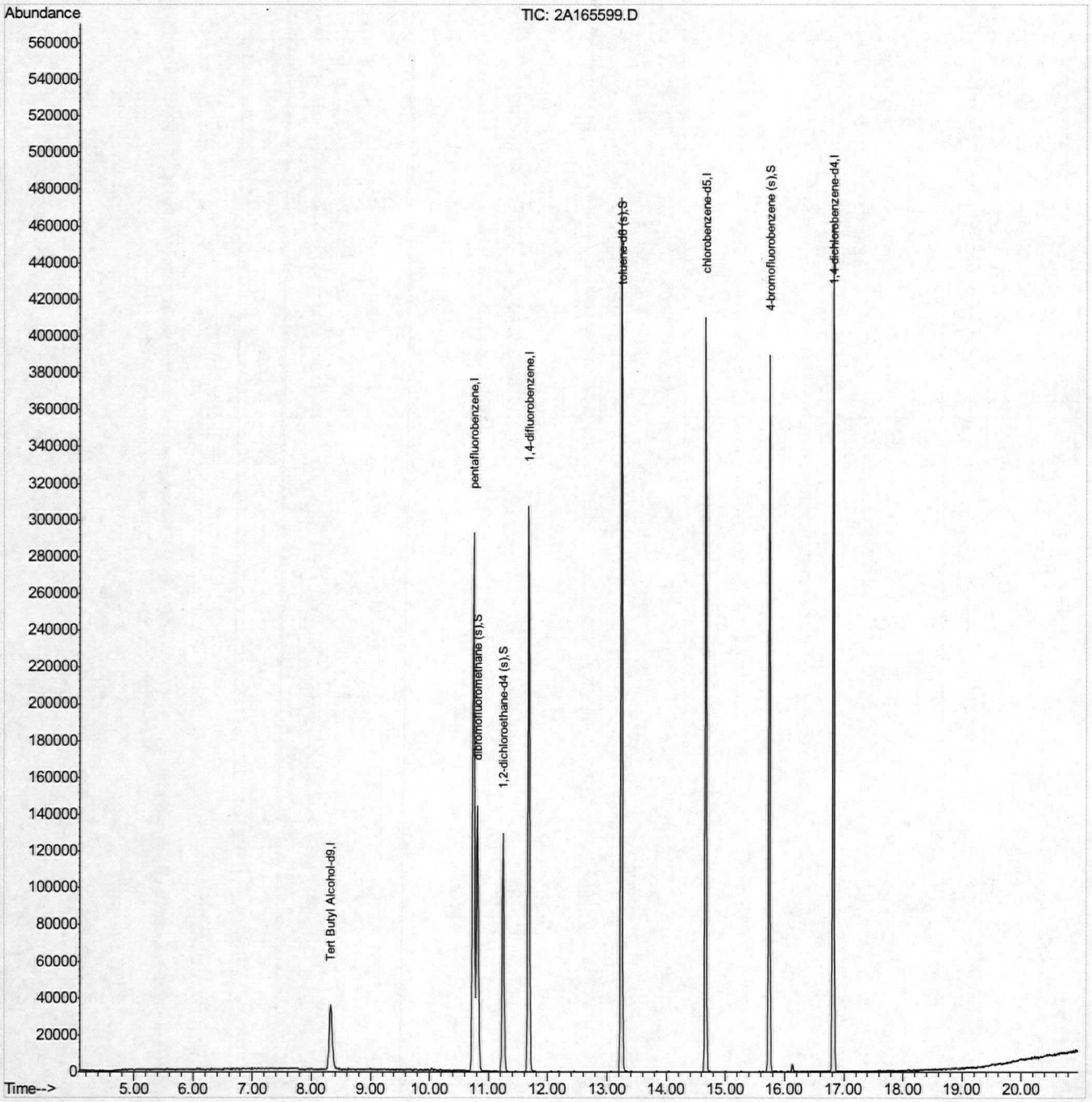
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.19 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165599.D
Acq On : 13 Feb 2016 6:59 pm
Operator : tracyk
Sample : jc14083-19
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 17 13:21:44 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



M2A7005.M Wed Feb 17 13:21:51 2016 MS2A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117216.D
Acq On : 12 Feb 2016 10:40 am
Operator : XimenaC
Sample : mb
Misc : MS98160,V3D5014,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 11:24:34 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.157	65	133619	500.00	ug/L	0.00
4) pentafluorobenzene	9.380	168	238446	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	278169	50.00	ug/L	0.00
88) chlorobenzene-d5	13.465	117	222998	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.777	152	125520	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.428	113	113040	55.50	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 111.00%			
51) 1,2-dichloroethane-d4 (s)	9.847	65	109547	55.58	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.16%			
80) toluene-d8 (s)	11.949	98	330619	50.63	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.26%			
106) 4-bromofluorobenzene (s)	14.618	95	107664	47.71	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 95.42%			

Target Compounds Qvalue

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

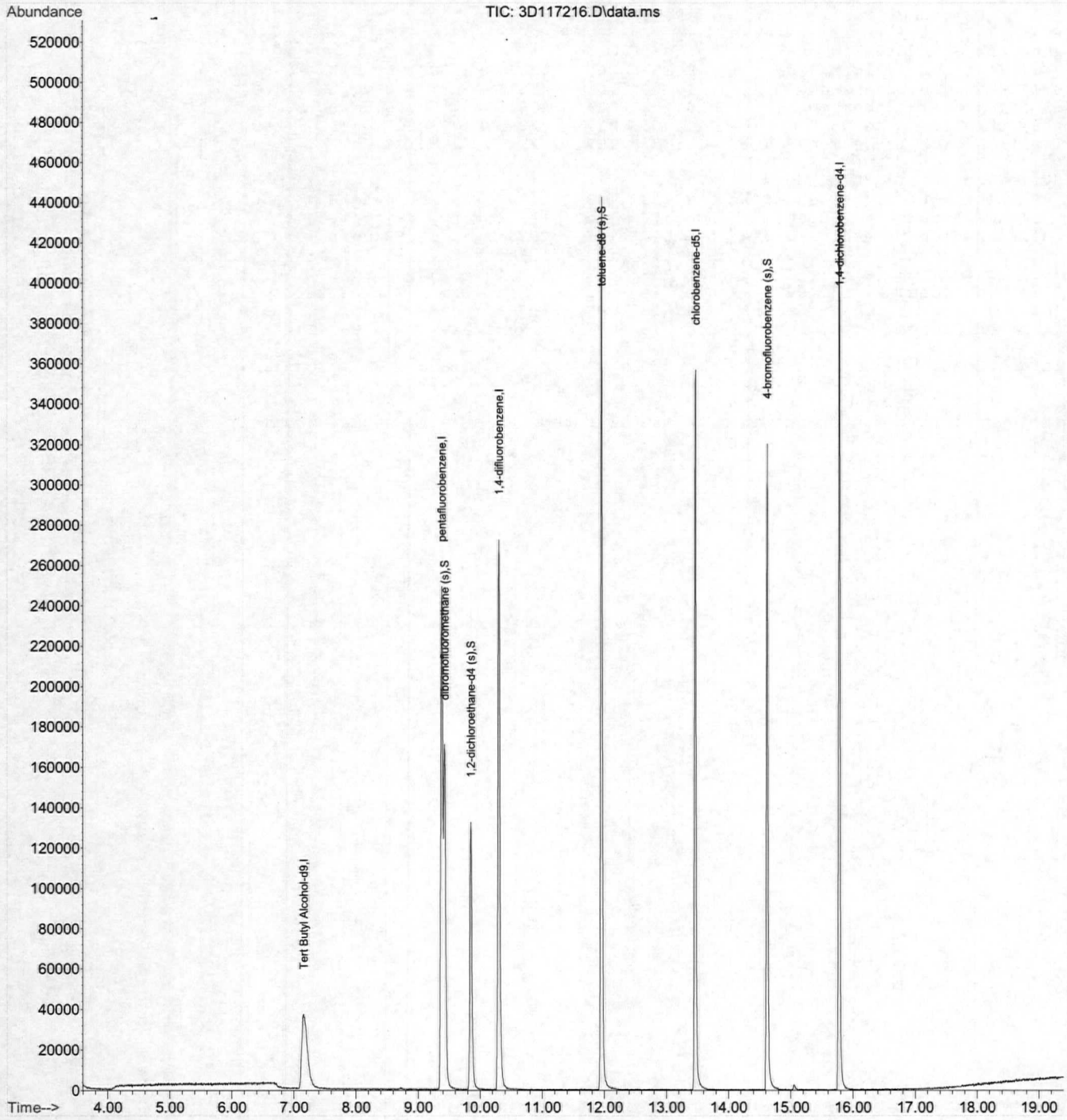
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117216.D
Acq On : 12 Feb 2016 10:40 am
Operator : XimenaC
Sample : mb
Misc : MS98160,V3D5014,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 11:24:34 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration



M3D4991.M Mon Feb 15 12:03:53 2016

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165584.D
Acq On : 13 Feb 2016 11:37 am
Operator : tracyk
Sample : mb
Misc : MS89899,V2A7042,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 15:35:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.32	65	80717	500.00 ug/L	-0.02
5) pentafluorobenzene	10.75	168	281818	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.68	114	304425	50.00 ug/L	0.00
84) chlorobenzene-d5	14.67	117	242757	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	127830	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	108980	52.97 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.94%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	110316	46.75 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 93.50%		
76) toluene-d8 (s)	13.24	98	348492	51.44 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.88%		
100) 4-bromofluorobenzene (s)	15.74	95	120708	51.24 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.48%		

Target Compounds	Qvalue

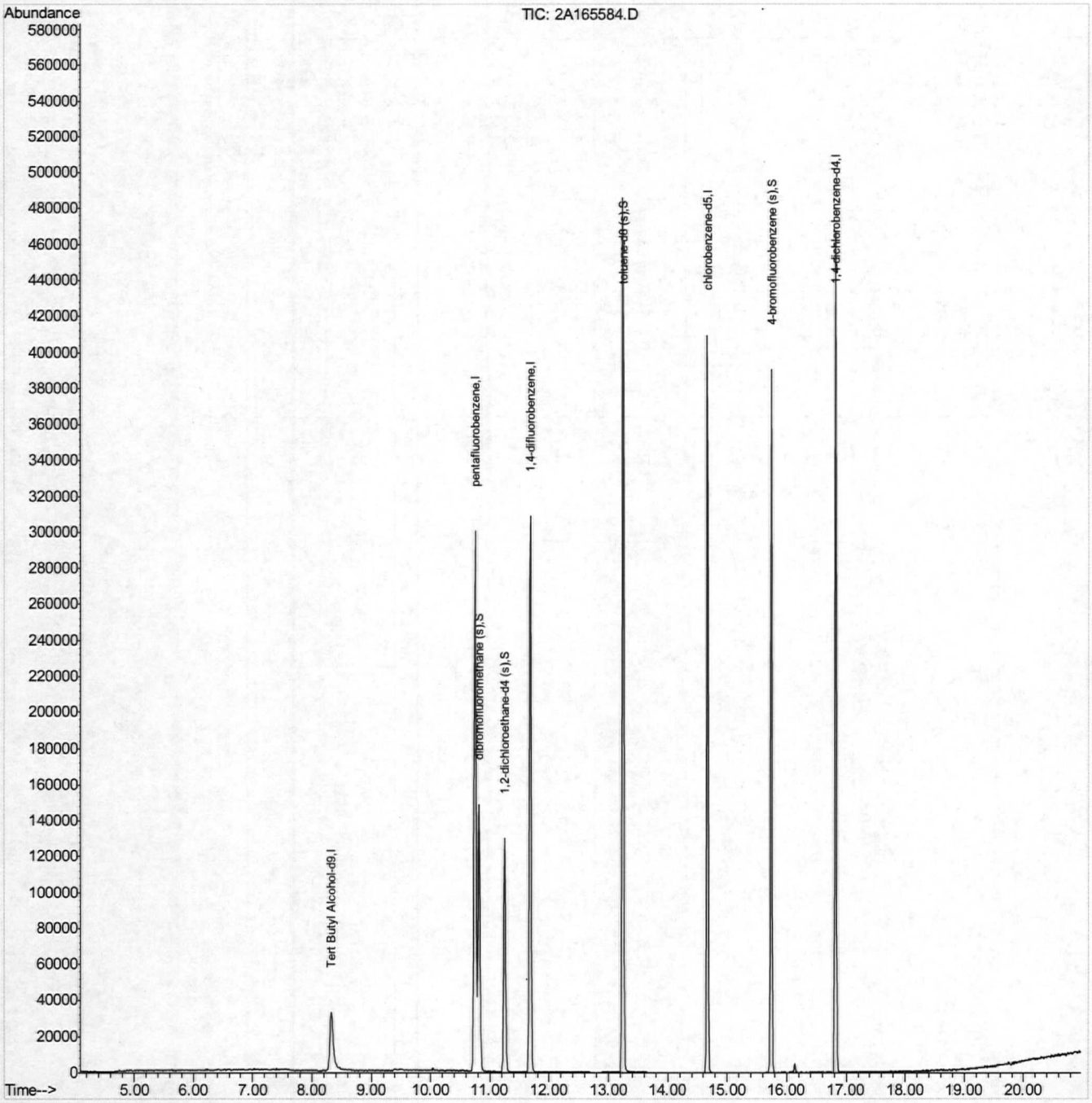
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165584.D
Acq On : 13 Feb 2016 11:37 am
Operator : tracyk
Sample : mb
Misc : MS89899,V2A7042,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 15:35:33 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



7.2.2

7

SGS ACCUTEST JC14083

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165609.D
Acq On : 15 Feb 2016 10:39 am
Operator : tracyk
Sample : mb1
Misc : MS89899,V2A7043,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 15:03:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	65487	500.00 ug/L	-0.01
5) pentafluorobenzene	10.75	168	271268	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	291773	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	233594	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	126711	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	103957	52.49 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.98%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	107448	47.31 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 94.62%		
76) toluene-d8 (s)	13.24	98	332621	51.23 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 102.46%		
100) 4-bromofluorobenzene (s)	15.73	95	119084	51.00 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.00%		

Target Compounds	Qvalue

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

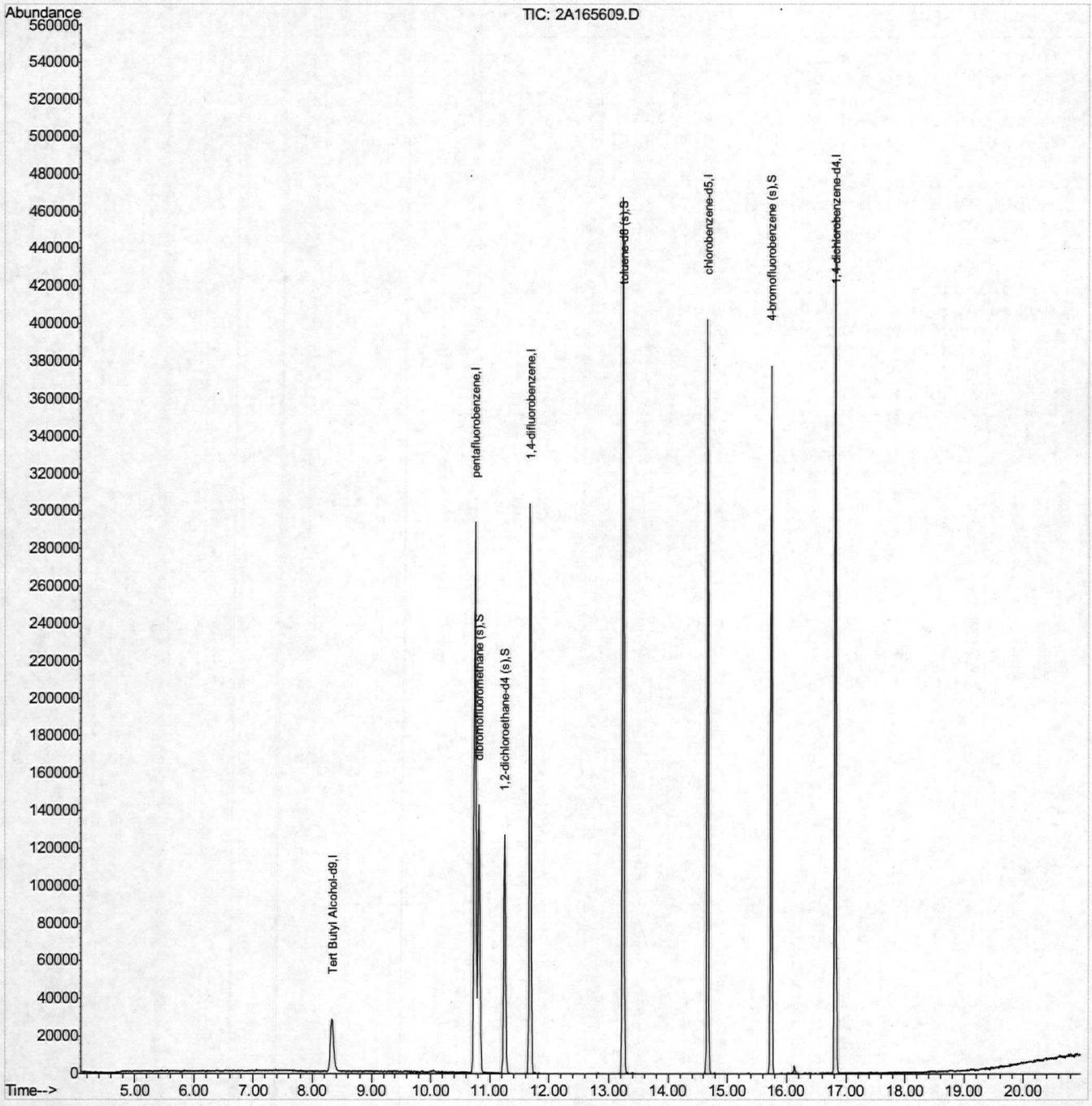
7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165609.D
Acq On : 15 Feb 2016 10:39 am
Operator : tracyk
Sample : mb1
Misc : MS89899,V2A7043,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 15:03:12 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117217.D
Acq On : 12 Feb 2016 11:07 am
Operator : XimenaC
Sample : bs
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 11:25:36 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.157	65	148015	500.00	ug/L	0.00
4) pentafluorobenzene	9.375	168	255211	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.293	114	302141	50.00	ug/L	0.00
88) chlorobenzene-d5	13.459	117	245594	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	136729	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.422	113	118962	54.57	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 109.14%			
51) 1,2-dichloroethane-d4 (s)	9.842	65	114318	54.19	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 108.38%			
80) toluene-d8 (s)	11.950	98	372289	52.49	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 104.98%			
106) 4-bromofluorobenzene (s)	14.613	95	124741	50.75	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.50%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.016	88	39032	1372.59	ug/L	93
3) tertiary butyl alcohol	7.267	59	81856	248.57	ug/L	99
8) chlorodifluoromethane	3.854	51	176966	38.36	ug/L	99
9) dichlorodifluoromethane	3.844	85	189137	36.49	ug/L	97
10) chloromethane	4.190	50	270958	44.15	ug/L	99
11) vinyl chloride	4.436	62	264736	44.86	ug/L	97
12) bromomethane	5.060	94	158982	50.13	ug/L	100
13) chloroethane	5.212	64	113550	57.26	ug/L	99
16) trichlorofluoromethane	5.668	101	230043	53.06	ug/L	98
18) ethyl ether	6.056	74	63447	55.78	ug/L	98
21) acrolein	6.303	56	269676	456.72	ug/L	97
22) 1,1-dichloroethene	6.465	61	206012	56.59	ug/L	99
23) acetone	6.518	58	13940	62.10	ug/L	96
24) allyl chloride	6.990	76	71435	51.96	ug/L	92
25) acetonitrile	6.953	40	129369	502.52	ug/L	91
27) iodomethane	6.748	142	253832	55.58	ug/L	99
28) iso-butyl alcohol	9.674	41	39901	431.48	ug/L	94
29) carbon disulfide	6.874	76	482048	52.84	ug/L	99
30) methylene chloride	7.184	84	137368	55.16	ug/L	97
31) methyl acetate	6.984	43	76557	45.70	ug/L	97
32) methyl tert butyl ether	7.509	73	713857	100.90	ug/L	95
33) trans-1,2-dichloroethene	7.556	61	161506	51.68	ug/L	99
34) di-isopropyl ether	8.106	45	354958	45.18	ug/L	96
35) ethyl tert-butyl ether	8.568	59	350331	47.44	ug/L	99
36) 2-butanone	8.835	72	12989	58.59	ug/L	66
37) 1,1-dichloroethane	8.122	63	204974	55.23	ug/L	99
38) chloroprene	8.232	53	121394	44.14	ug/L	99
39) acrylonitrile	7.509	53	240468	274.22	ug/L	99
40) vinyl acetate	8.117	86	17279	51.39	ug/L	98
41) ethyl acetate	8.851	45	14216	52.03	ug/L	48
42) 2,2-dichloropropane	8.867	77	201628	53.83	ug/L	100
43) cis-1,2-dichloroethene	8.856	96	127757	51.39	ug/L	98
44) propionitrile	8.919	54	188292	534.91	ug/L	94
46) bromochloromethane	9.171	128	67596	56.35	ug/L	94
47) tetrahydrofuran	9.213	42	37037	46.02	ug/L	93
48) chloroform	9.223	83	200466	55.60	ug/L	97
49) Tert-Butyl Formate	9.255	59	86933	38.74	ug/L #	85
52) freon 113	6.455	151	122524	52.08	ug/L	99
53) methacrylonitrile	9.108	41	56645	47.63	ug/L	89
54) 1,1,1-trichloroethane	9.480	97	199934	57.33	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117217.D
Acq On : 12 Feb 2016 11:07 am
Operator : XimenaC
Sample : bs
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 11:25:36 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
56)	2,2,4-Trimethylpentane	9.920	57	444754	47.94 ug/L	98
57)	tert-amyl methyl ether	9.952	73	359317	47.68 ug/L	98
59)	epichlorohydrin	11.556	57	51065	237.85 ug/L	99
60)	n-butyl alcohol	10.424	56	181978	2438.12 ug/L	99
61)	cyclohexane	9.559	84	198584	48.44 ug/L	98
62)	carbon tetrachloride	9.684	117	184722	57.54 ug/L	99
63)	1,1-dichloropropene	9.658	75	141901	56.01 ug/L	97
64)	hexane	7.860	57	74988	31.46 ug/L	98
65)	benzene	9.920	78	442321	53.39 ug/L	98
66)	heptane	10.093	57	67415	46.01 ug/L	99
67)	isopropyl acetate	9.842	43	201711	53.49 ug/L	97
68)	1,2-dichloroethane	9.931	62	136955	55.96 ug/L	96
69)	trichloroethene	10.644	95	107291	55.19 ug/L	99
72)	2-nitropropane	11.409	41	37034	53.80 ug/L	93
73)	2-chloroethyl vinyl ether	11.430	63	318239	264.10 ug/L	99
74)	methyl methacrylate	10.911	69	64062	52.56 ug/L	89
75)	1,2-dichloropropane	10.901	63	112276	52.83 ug/L	97
76)	methylcyclohexane	10.859	83	196080	47.21 ug/L	99
77)	dibromomethane	11.069	93	72985	55.21 ug/L	97
78)	bromodichloromethane	11.195	83	143665	55.46 ug/L	99
79)	cis-1,3-dichloropropene	11.656	75	160939	54.40 ug/L	98
81)	4-methyl-2-pentanone	11.745	58	45605	53.31 ug/L	90
82)	toluene	12.018	92	241068	53.35 ug/L	97
83)	3-methyl-1-butanol	11.771	70	68323	1005.35 ug/L	96
84)	trans-1,3-dichloropropene	12.217	75	137958	54.00 ug/L	96
85)	ethyl methacrylate	12.212	69	110691	47.63 ug/L	94
86)	1,1,2-trichloroethane	12.427	83	77157	52.11 ug/L	96
87)	2-hexanone	12.605	58	34523	53.48 ug/L	99
89)	tetrachloroethene	12.610	166	114603	57.16 ug/L	97
90)	1,3-dichloropropane	12.610	76	135511	51.35 ug/L	96
91)	butyl acetate	12.678	56	55933	52.33 ug/L	90
92)	3,3-Dimethyl-1-Butanol	12.773	57	129403	453.81 ug/L	96
93)	dibromochloromethane	12.878	129	110953	54.02 ug/L	98
94)	1,2-dibromoethane	13.024	107	92030	52.05 ug/L	97
95)	n-Butyl Ether	13.407	57	375988	46.00 ug/L	98
96)	chlorobenzene	13.491	112	263437	52.27 ug/L	99
97)	1,1,1,2-tetrachloroethane	13.549	131	125820	55.16 ug/L	97
98)	ethylbenzene	13.543	91	434184	50.63 ug/L	100
99)	m,p-xylene	13.653	106	340595	105.06 ug/L	94
100)	o-xylene	14.068	106	179646	53.17 ug/L	96
101)	styrene	14.083	104	266428	51.39 ug/L	96
103)	bromoform	14.340	173	81863	54.62 ug/L	97
105)	isopropylbenzene	14.408	105	483139	50.39 ug/L	99
107)	bromobenzene	14.807	156	125273	54.31 ug/L	94
108)	cyclohexanone	14.566	55	92647	337.54 ug/L	97
109)	1,1,2,2-tetrachloroethane	14.713	83	134726	47.07 ug/L	97
110)	trans-1,4-dichloro-2-b...	14.755	53	26110	49.69 ug/L	90
111)	1,2,3-trichloropropane	14.786	110	30884	52.11 ug/L	96
112)	n-propylbenzene	14.817	91	529319	49.65 ug/L	99
114)	2-chlorotoluene	14.964	126	114716	52.55 ug/L	95
115)	4-chlorotoluene	15.064	126	108713	53.38 ug/L	99
116)	1,3,5-trimethylbenzene	14.969	105	414122	50.70 ug/L	99
117)	tert-butylbenzene	15.316	119	349410	51.26 ug/L	99
118)	pentachloroethane	15.399	167	105599	57.30 ug/L	99
119)	1,2,4-trimethylbenzene	15.363	105	413209	51.21 ug/L	98
120)	sec-butylbenzene	15.530	105	560734	50.49 ug/L	99
121)	1,3-dichlorobenzene	15.719	146	238124	50.66 ug/L	98
122)	p-isopropyltoluene	15.651	119	476251	51.83 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117217.D
Acq On : 12 Feb 2016 11:07 am
Operator : XimenaC
Sample : bs
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 11:25:36 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	15.798	146	244443	50.10 ug/L	97
124) 1,2-dichlorobenzene	16.175	146	258351	51.16 ug/L	98
126) n-butylbenzene	16.055	92	236519	50.34 ug/L	99
128) 1,2-dibromo-3-chloropr...	16.904	157	34696	47.51 ug/L	97
129) 1,3,5-trichlorobenzene	17.082	180	268697	49.71 ug/L	99
130) 1,2,4-trichlorobenzene	17.643	180	275486	50.00 ug/L	99
131) hexachlorobutadiene	17.748	225	133764	51.77 ug/L	98
132) naphthalene	17.885	128	607391	48.34 ug/L	99
133) 1,2,3-trichlorobenzene	18.094	180	284807	49.96 ug/L	100
134) hexachloroethane	16.427	119	99116	54.27 ug/L	98
135) Benzyl chloride	15.908	91	248966	49.06 ug/L	99

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

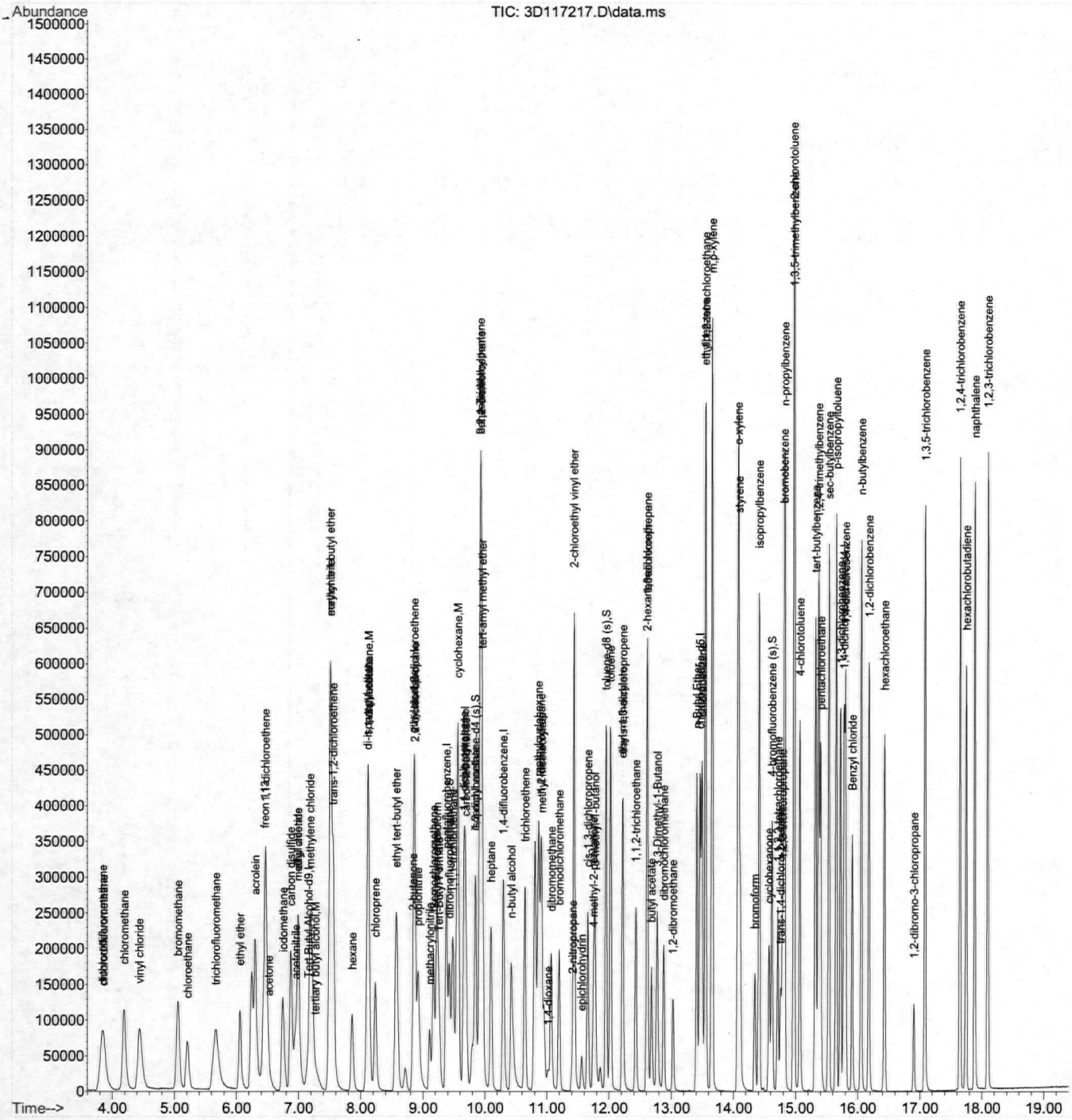
7.3.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117217.D
Acq On : 12 Feb 2016 11:07 am
Operator : XimenaC
Sample : bs
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 11:25:36 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165585.D
Acq On : 13 Feb 2016 12:06 pm
Operator : tracyk
Sample : bs
Misc : MS98332,V2A7042,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 15:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	76206	500.00 ug/L	0.00
5) pentafluorobenzene	10.75	168	280042	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	307829	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	249795	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	134035	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	108622	53.13 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.26%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	112975	48.18 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.36%		
76) toluene-d8 (s)	13.24	98	355668	51.92 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.84%		
100) 4-bromofluorobenzene (s)	15.73	95	127908	51.78 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.56%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.46	59	44888	251.41 ug/L	98
3) Ethanol	6.88	45	65119	4671.20 ug/L	98
4) 1,4-dioxane	12.38	88	21921	1549.79 ug/L	88
7) chlorodifluoromethane	4.34	51	74121	33.23 ug/L	93
8) dichlorodifluoromethane	4.29	85	116169	40.72 ug/L	95
10) chloromethane	4.73	50	115471	37.43 ug/L	99
11) vinyl chloride	5.03	62	118289	49.24 ug/L	99
12) bromomethane	5.80	94	86208	53.49 ug/L	96
13) chloroethane	6.00	64	63305	55.69 ug/L	97
14) trichlorofluoromethane	6.53	101	170612	53.97 ug/L	94
16) ethyl ether	7.01	74	55179	56.62 ug/L	88
18) acrolein	7.34	56	179975	502.65 ug/L	100
19) 1,1-dichloroethene	7.50	61	147974	52.10 ug/L	94
20) acetone	7.59	43	24806	42.25 ug/L	97
21) allyl chloride	8.13	76	53678	48.02 ug/L #	57
22) acetonitrile	8.12	40	63079	307.70 ug/L	97
23) iodomethane	7.83	142	198424	53.50 ug/L	99
24) iso-butyl alcohol	11.31	74	32907	470.91 ug/L #	81
25) carbon disulfide	7.96	76	317461	53.97 ug/L	98
26) methylene chloride	8.35	84	108641	49.57 ug/L #	82
27) methyl acetate	8.12	74	12692	46.79 ug/L #	64
28) methyl tert butyl ether	8.70	73	553502	92.56 ug/L	98
29) trans-1,2-dichloroethene	8.77	61	142836	46.55 ug/L	90
30) di-isopropyl ether	9.36	45	284606	38.99 ug/L	95
31) 2-butanone	10.17	72	9991	47.56 ug/L #	23
32) 1,1-dichloroethane	9.40	63	187121	47.99 ug/L	98
33) chloroprene	9.51	53	125399	40.48 ug/L	92
34) acrylonitrile	8.75	53	153332	217.16 ug/L	100
35) vinyl acetate	9.39	86	18514	50.99 ug/L	45
36) ethyl tert-butyl ether	9.86	59	299054	43.29 ug/L	94
37) ethyl acetate	10.19	45	10449	39.17 ug/L #	38
38) 2,2-dichloropropane	10.19	77	175415	53.17 ug/L	91
39) cis-1,2-dichloroethene	10.21	96	123548	49.61 ug/L	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165585.D
Acq On : 13 Feb 2016 12:06 pm
Operator : tracyk
Sample : bs
Misc : MS98332,V2A7042,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 15:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) methylacrylate	10.27	85	14444	51.19 ug/L #	80
41) propionitrile	10.31	54	117573	434.11 ug/L	93
42) bromochloromethane	10.54	128	64502	52.49 ug/L	84
43) tetrahydrofuran	10.58	42	25151	38.66 ug/L	83
44) chloroform	10.60	85	129786	51.11 ug/L	97
48) freon 113	7.46	151	77294	57.25 ug/L	98
49) methacrylonitrile	10.49	41	48138	37.13 ug/L	90
50) 1,1,1-trichloroethane	10.85	97	177281	52.64 ug/L	97
51) Cyclohexane	10.91	84	144981	49.06 ug/L	93
53) epichlorohydrin	12.90	57	37850	216.51 ug/L	98
54) n-butyl alcohol	11.82	56	113091	2294.37 ug/L	91
55) carbon tetrachloride	11.05	117	167447	51.93 ug/L	99
56) 1,1-dichloropropene	11.03	75	149808	51.03 ug/L	95
57) hexane	9.07	57	90630	39.49 ug/L	94
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	286092	40.38 ug/L	98
60) benzene	11.30	78	407995	46.17 ug/L	99
61) tert-amyl methyl ether	11.32	87	70663	46.97 ug/L	91
62) heptane	11.45	57	57495	41.99 ug/L	95
63) isopropyl acetate	11.22	43	196472	41.50 ug/L	95
64) 1,2-dichloroethane	11.34	62	146345	45.37 ug/L	94
66) trichloroethene	12.00	95	111924	50.25 ug/L	98
68) methyl methacrylate	12.26	100	24105	52.31 ug/L #	59
69) 2-nitropropane	12.76	41	33153	42.13 ug/L	99
70) 2-chloroethyl vinyl ether	12.77	63	270392	240.87 ug/L	95
71) 1,2-dichloropropane	12.27	63	99236	45.57 ug/L	100
72) dibromomethane	12.43	93	65876	48.10 ug/L	95
73) methylcyclohexane	12.20	83	137938	43.93 ug/L	94
74) bromodichloromethane	12.55	83	148813	48.97 ug/L	95
75) cis-1,3-dichloropropene	12.98	75	169287	48.18 ug/L	92
77) 4-methyl-2-pentanone	13.07	58	28226	42.29 ug/L #	84
78) toluene	13.31	92	246809	49.62 ug/L	99
79) 3-methyl-1-butanol	13.08	55	70329	895.23 ug/L	89
80) trans-1,3-dichloropropene	13.50	75	149465	46.70 ug/L	93
81) ethyl methacrylate	13.48	69	103073	44.51 ug/L	88
82) 1,1,2-trichloroethane	13.71	83	72447	48.30 ug/L	91
83) 2-hexanone	13.86	58	25211	41.50 ug/L #	83
85) tetrachloroethene	13.86	164	102620	52.34 ug/L	97
86) 1,3-dichloropropane	13.88	76	134567	44.33 ug/L	90
87) butyl acetate	13.91	56	48006	41.74 ug/L	94
88) 3,3-dimethyl-1-butanol	14.02	57	74818	431.84 ug/L	90
89) dibromochloromethane	14.13	129	123367	50.76 ug/L	98
90) 1,2-dibromoethane	14.27	107	93119	49.71 ug/L	96
91) chlorobenzene	14.69	112	290466	50.08 ug/L	97
92) 1,1,1,2-tetrachloroethane	14.75	131	114422	49.67 ug/L	99
93) ethylbenzene	14.73	91	457257	47.42 ug/L	97
94) m,p-xylene	14.83	106	359816	100.37 ug/L	96
95) o-xylene	15.22	106	179451	51.77 ug/L	100
96) styrene	15.23	104	297623	49.70 ug/L	96
97) bromoform	15.50	173	85593	50.75 ug/L	99
99) isopropylbenzene	15.53	105	461868	49.53 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165585.D
Acq On : 13 Feb 2016 12:06 pm
Operator : tracyk
Sample : bs
Misc : MS98332,V2A7042,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 15:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) cyclohexanone	15.72	98	20805	621.29 ug/L	70
102) bromobenzene	15.92	156	137215	51.20 ug/L	98
103) 1,1,2,2-tetrachloroethane	15.84	83	102397	46.85 ug/L	99
104) trans-1,4-dichloro-2-buten	15.87	53	27400	42.83 ug/L	87
105) 1,2,3-trichloropropane	15.91	110	28156	48.08 ug/L	95
106) n-propylbenzene	15.91	120	125298	53.62 ug/L	92
107) 2-chlorotoluene	16.06	126	116912	49.72 ug/L	87
108) 4-chlorotoluene	16.15	126	122972	51.23 ug/L	94
109) 1,3,5-trimethylbenzene	16.05	105	395398	51.73 ug/L	99
110) tert-butylbenzene	16.37	119	348123	52.32 ug/L	96
111) pentachloroethane	16.47	167	90933	50.89 ug/L	97
112) 1,2,4-trimethylbenzene	16.42	105	407872	52.06 ug/L	98
113) sec-butylbenzene	16.57	105	495623	51.61 ug/L	99
114) 1,3-dichlorobenzene	16.77	146	259057	51.03 ug/L	99
115) p-isopropyltoluene	16.68	119	447122	53.41 ug/L	98
116) 1,4-dichlorobenzene	16.85	146	261240	50.71 ug/L	98
117) 1,2-dichlorobenzene	17.23	146	255359	51.95 ug/L	99
118) benzyl chloride	16.96	91	239306	53.56 ug/L	98
119) n-butylbenzene	17.08	92	214091	50.28 ug/L	98
120) 1,2-dibromo-3-chloropropan	18.00	75	20345	46.24 ug/L	96
121) 1,3,5-TRICHLOROBENZENE	18.17	180	235942	52.40 ug/L	99
122) 1,2,4-trichlorobenzene	18.83	180	221838	52.27 ug/L	97
123) hexachlorobutadiene	18.93	225	118089	56.48 ug/L	97
124) naphthalene	19.12	128	398783	52.40 ug/L	99
125) 1,2,3-trichlorobenzene	19.37	180	197234	51.25 ug/L	98
126) hexachloroethane	17.47	201	92402	53.36 ug/L	99

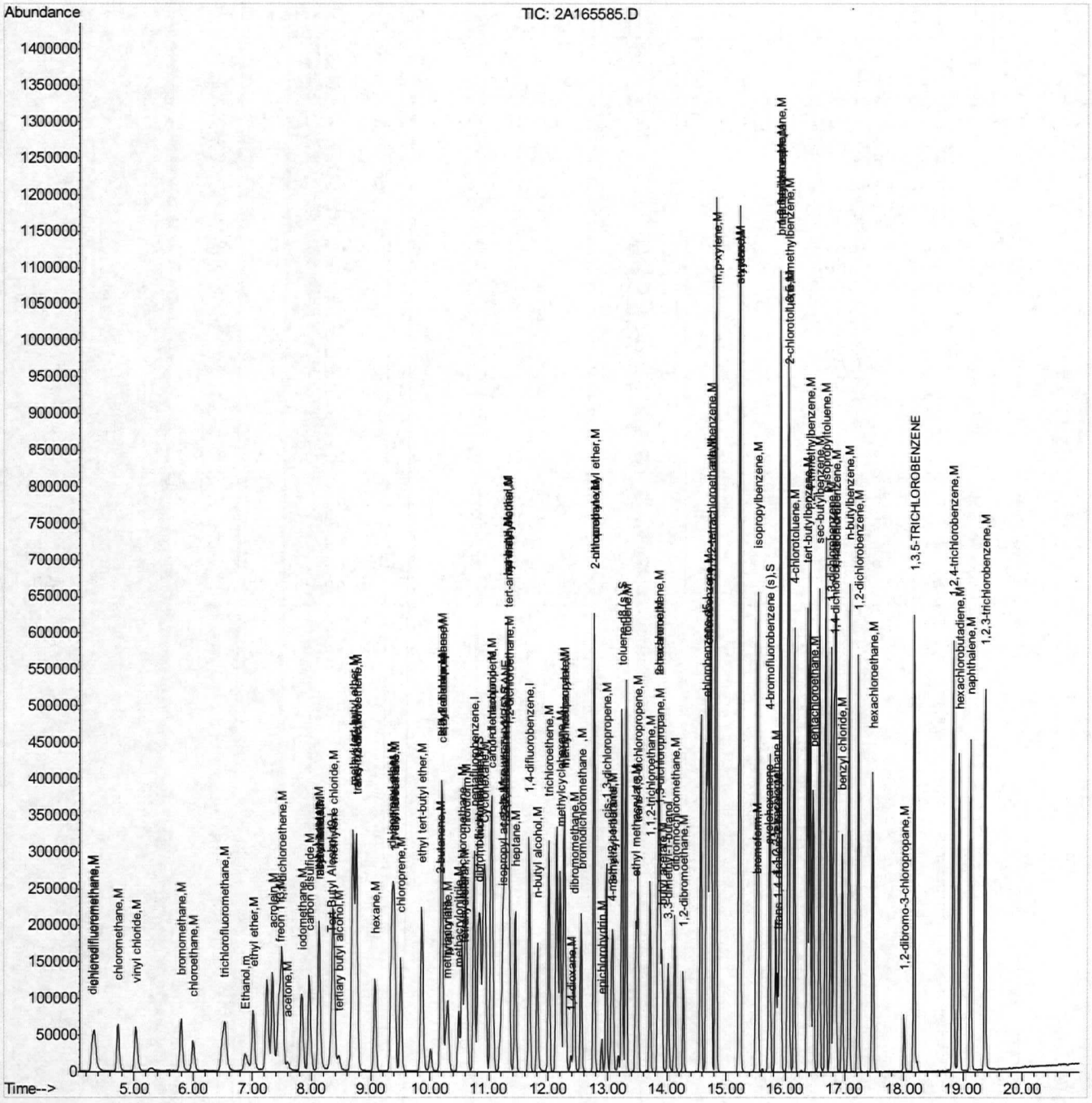
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.3.2 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165585.D
Acq On : 13 Feb 2016 12:06 pm
Operator : tracyk
Sample : bs
Misc : MS98332,V2A7042,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 15 15:36:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165610.D
Acq On : 15 Feb 2016 11:08 am
Operator : tracyk
Sample : bs
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 15:03:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	69812	500.00 ug/L	-0.01
5) pentafluorobenzene	10.75	168	272132	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.67	114	295206	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	242583	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	131492	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.81	113	104543	52.62 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.24%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	108645	47.68 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.36%		
76) toluene-d8 (s)	13.24	98	345198	52.54 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.08%		
100) 4-bromofluorobenzene (s)	15.73	95	124302	51.30 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.60%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.46	59	39902	243.96 ug/L	93
3) Ethanol	6.88	45	69386	5433.15 ug/L	97
4) 1,4-dioxane	12.38	88	19480	1503.35 ug/L	86
7) chlorodifluoromethane	4.34	51	91401	42.17 ug/L	93
8) dichlorodifluoromethane	4.30	85	123635	44.60 ug/L	98
10) chloromethane	4.73	50	115965	38.68 ug/L	99
11) vinyl chloride	5.03	62	116498	49.90 ug/L	99
12) bromomethane	5.79	94	86774	55.41 ug/L	98
13) chloroethane	5.99	64	63875	57.83 ug/L	98
14) trichlorofluoromethane	6.53	101	171987	55.99 ug/L	95
16) ethyl ether	7.01	74	54012	57.03 ug/L	92
18) acrolein	7.34	56	166195	477.65 ug/L	99
19) 1,1-dichloroethene	7.50	61	145097	52.57 ug/L	90
20) acetone	7.59	43	23261	40.77 ug/L	98
21) allyl chloride	8.13	76	55605	51.19 ug/L #	61
22) acetonitrile	8.12	40	62849	315.49 ug/L	93
23) iodomethane	7.83	142	195881	54.35 ug/L	99
24) iso-butyl alcohol	11.30	74	31416	462.64 ug/L #	67
25) carbon disulfide	7.96	76	321617	56.26 ug/L	96
26) methylene chloride	8.35	84	105866	49.71 ug/L	84
27) methyl acetate	8.12	74	13161	49.93 ug/L #	65
28) methyl tert butyl ether	8.70	73	549347	94.54 ug/L	100
29) trans-1,2-dichloroethene	8.76	61	137971	46.28 ug/L	92
30) di-isopropyl ether	9.36	45	278461	39.26 ug/L	94
31) 2-butanone	10.18	72	9746	47.74 ug/L #	62
32) 1,1-dichloroethane	9.40	63	178597	47.14 ug/L	99
33) chloroprene	9.51	53	129042	42.87 ug/L	90
34) acrylonitrile	8.75	53	145995	212.78 ug/L	97
35) vinyl acetate	9.38	86	18018	51.07 ug/L	52
36) ethyl tert-butyl ether	9.86	59	290725	43.31 ug/L	93
37) ethyl acetate	10.18	45	10054	38.79 ug/L #	94
38) 2,2-dichloropropane	10.19	77	171860	53.60 ug/L	91
39) cis-1,2-dichloroethene	10.20	96	118710	49.06 ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165610.D
Acq On : 15 Feb 2016 11:08 am
Operator : tracyk
Sample : bs
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 15:03:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) methylacrylate	10.28	85	13324	48.59 ug/L	84
41) propionitrile	10.30	54	109153	414.74 ug/L	98
42) bromochloromethane	10.54	128	62442	52.29 ug/L	85
43) tetrahydrofuran	10.58	42	23477	37.13 ug/L	85
44) chloroform	10.60	85	126599	51.31 ug/L	97
48) freon 113	7.46	151	86353	65.81 ug/L	97
49) methacrylonitrile	10.49	41	45579	36.18 ug/L	91
50) 1,1,1-trichloroethane	10.85	97	173449	53.00 ug/L	98
51) Cyclohexane	10.91	84	145036	50.50 ug/L	92
53) epichlorohydrin	12.90	57	34256	204.34 ug/L	99
54) n-butyl alcohol	11.81	56	95533	2021.03 ug/L	92
55) carbon tetrachloride	11.05	117	165331	53.47 ug/L	98
56) 1,1-dichloropropene	11.03	75	142977	50.78 ug/L	96
57) hexane	9.06	57	76023	34.54 ug/L	90
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	304331	44.79 ug/L	96
60) benzene	11.30	78	389377	45.95 ug/L	99
61) tert-amyl methyl ether	11.32	87	67181	46.56 ug/L	95
62) heptane	11.44	57	61455	46.80 ug/L	90
63) isopropyl acetate	11.22	43	192567	42.41 ug/L	94
64) 1,2-dichloroethane	11.33	62	142702	46.13 ug/L	97
66) trichloroethene	12.00	95	108128	50.62 ug/L	97
68) methyl methacrylate	12.26	100	23049	52.16 ug/L #	58
69) 2-nitropropane	12.77	41	31793	42.13 ug/L	94
70) 2-chloroethyl vinyl ether	12.77	63	266726	247.77 ug/L	96
71) 1,2-dichloropropane	12.27	63	93693	44.86 ug/L	98
72) dibromomethane	12.43	93	63900	48.65 ug/L	98
73) methylcyclohexane	12.20	83	145737	48.40 ug/L	90
74) bromodichloromethane	12.55	83	146620	50.32 ug/L	98
75) cis-1,3-dichloropropene	12.98	75	166901	49.53 ug/L	92
77) 4-methyl-2-pentanone	13.06	58	27155	42.42 ug/L #	76
78) toluene	13.31	92	237101	49.70 ug/L	96
79) 3-methyl-1-butanol	13.08	55	58035	770.33 ug/L	92
80) trans-1,3-dichloropropene	13.50	75	149922	48.85 ug/L	91
81) ethyl methacrylate	13.48	69	100497	45.25 ug/L	85
82) 1,1,2-trichloroethane	13.71	83	68990	47.96 ug/L	96
83) 2-hexanone	13.86	58	23646	40.59 ug/L	86
85) tetrachloroethene	13.86	164	96713	50.79 ug/L	98
86) 1,3-dichloropropane	13.88	76	129704	44.00 ug/L	89
87) butyl acetate	13.91	56	44394	39.75 ug/L #	84
88) 3,3-dimethyl-1-butanol	14.02	57	59721	354.95 ug/L	91
89) dibromochloromethane	14.13	129	121546	51.50 ug/L	98
90) 1,2-dibromoethane	14.27	107	90405	49.69 ug/L	97
91) chlorobenzene	14.69	112	278569	49.46 ug/L	97
92) 1,1,1,2-tetrachloroethane	14.75	131	113090	50.55 ug/L	98
93) ethylbenzene	14.73	91	438075	46.78 ug/L	98
94) m,p-xylene	14.83	106	343865	98.77 ug/L	96
95) o-xylene	15.22	106	172689	51.30 ug/L	99
96) styrene	15.23	104	287408	49.42 ug/L	95
97) bromoform	15.50	173	83882	51.21 ug/L	96
99) isopropylbenzene	15.53	105	443555	48.49 ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165610.D
Acq On : 15 Feb 2016 11:08 am
Operator : tracyk
Sample : bs
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 15:03:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) cyclohexanone	15.72	98	28652	872.17 ug/L	71
102) bromobenzene	15.92	156	133437	50.75 ug/L	95
103) 1,1,2,2-tetrachloroethane	15.84	83	96513	45.01 ug/L	98
104) trans-1,4-dichloro-2-buten	15.87	53	28044	44.68 ug/L	91
105) 1,2,3-trichloropropane	15.91	110	27287	47.50 ug/L	93
106) n-propylbenzene	15.91	120	120391	52.52 ug/L #	87
107) 2-chlorotoluene	16.06	126	113650	49.27 ug/L	86
108) 4-chlorotoluene	16.15	126	118453	50.30 ug/L	94
109) 1,3,5-trimethylbenzene	16.05	105	383043	51.09 ug/L	98
110) tert-butylbenzene	16.37	119	334079	51.18 ug/L	98
111) pentachloroethane	16.47	167	88665	50.58 ug/L	99
112) 1,2,4-trimethylbenzene	16.41	105	395529	51.46 ug/L	99
113) sec-butylbenzene	16.57	105	473427	50.25 ug/L	99
114) 1,3-dichlorobenzene	16.77	146	250658	50.33 ug/L	98
115) p-isopropyltoluene	16.68	119	431687	52.57 ug/L	98
116) 1,4-dichlorobenzene	16.85	146	252503	49.96 ug/L	99
117) 1,2-dichlorobenzene	17.23	146	244291	50.66 ug/L	99
118) benzyl chloride	16.96	91	224417	51.20 ug/L	98
119) n-butylbenzene	17.08	92	207135	49.58 ug/L	97
120) 1,2-dibromo-3-chloropropan	18.00	75	19774	45.81 ug/L	91
121) 1,3,5-TRICHLOROBENZENE	18.17	180	228815	51.80 ug/L	99
122) 1,2,4-trichlorobenzene	18.83	180	213244	51.21 ug/L	97
123) hexachlorobutadiene	18.93	225	112149	54.68 ug/L	98
124) naphthalene	19.12	128	378143	50.65 ug/L	98
125) 1,2,3-trichlorobenzene	19.37	180	189503	50.19 ug/L	97
126) hexachloroethane	17.47	201	90299	53.15 ug/L	98

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

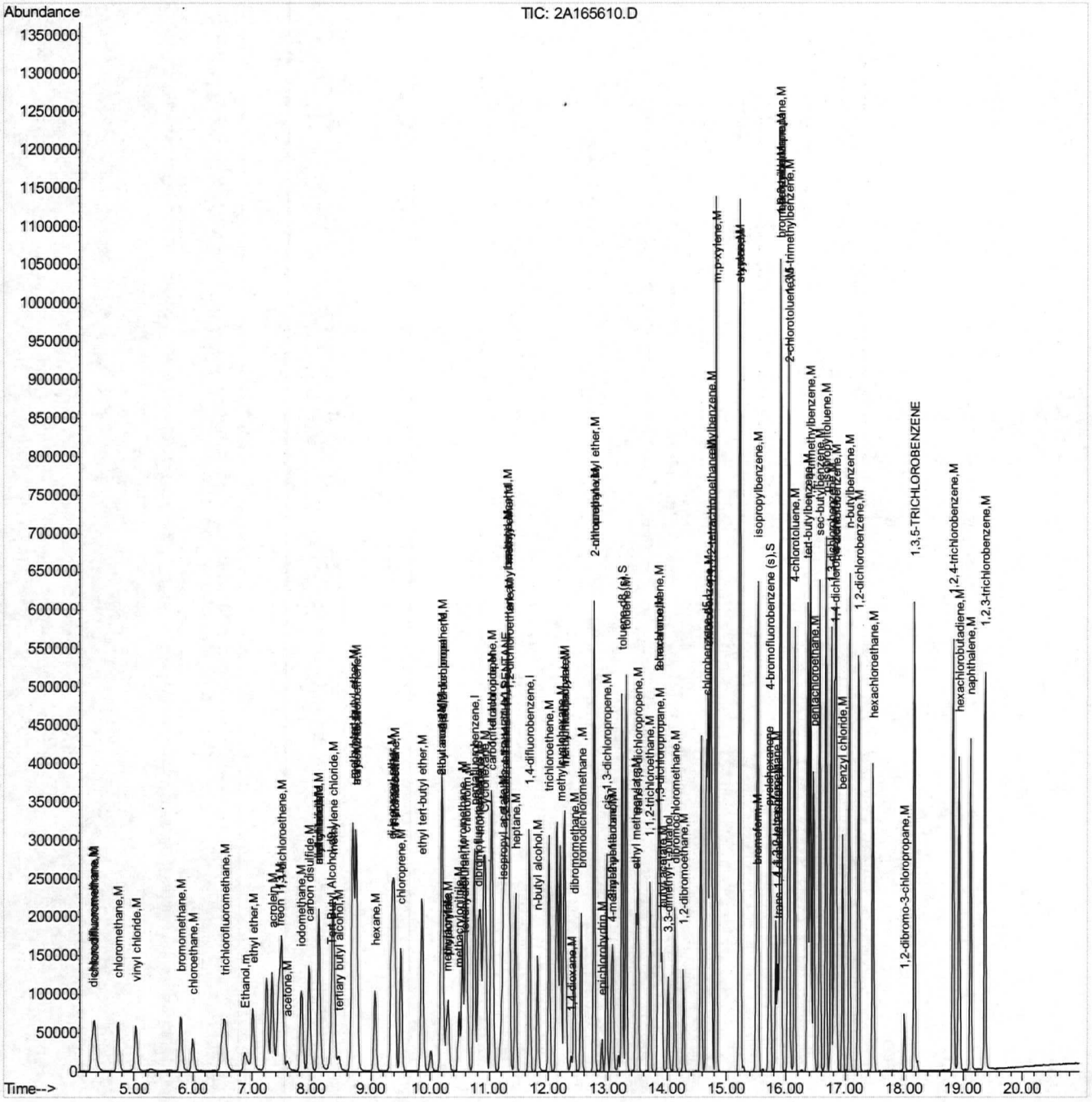
7.3.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165610.D
Acq On : 15 Feb 2016 11:08 am
Operator : tracyk
Sample : bs
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 15 15:03:53 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117228.D
Acq On : 12 Feb 2016 4:11 pm
Operator : XimenaC
Sample : jc14083-12ms
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 12:02:54 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.152	65	158305	500.00	ug/L	0.00
4) pentafluorobenzene	9.375	168	259870	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.293	114	309878	50.00	ug/L	0.00
88) chlorobenzene-d5	13.454	117	253900	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.766	152	135499	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.422	113	122114	55.01	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 110.02%			
51) 1,2-dichloroethane-d4 (s)	9.837	65	118454	55.15	ug/L	-0.01
Spiked Amount 50.000	Range 73 - 122		Recovery = 110.30%			
80) toluene-d8 (s)	11.939	98	383156	52.68	ug/L	-0.01
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.36%			
106) 4-bromofluorobenzene (s)	14.608	95	127501	52.34	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.68%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.011	88	45495	1495.87	ug/L	92
3) tertiary butyl alcohol	7.273	59	101145	287.18	ug/L	93
8) chlorodifluoromethane	3.854	51	305653	65.06	ug/L	99
9) dichlorodifluoromethane	3.833	85	279757	53.01	ug/L	98
10) chloromethane	4.195	50	360734	57.73	ug/L	100
11) vinyl chloride	4.436	62	356685	59.36	ug/L	100
12) bromomethane	5.060	94	196979	61.00	ug/L	99
13) chloroethane	5.212	64	142498	70.57	ug/L	96
16) trichlorofluoromethane	5.668	101	310358	70.30	ug/L	98
18) ethyl ether	6.056	74	72196	62.33	ug/L	97
21) acrolein	6.303	56	375042	623.77	ug/L	98
22) 1,1-dichloroethene	6.471	61	269190	72.62	ug/L	99
23) acetone	6.518	58	14735	64.47	ug/L	93
24) allyl chloride	6.990	76	88502	63.22	ug/L #	86
25) acetonitrile	6.953	40	146768	559.89	ug/L	91
27) iodomethane	6.748	142	307446	66.12	ug/L	98
28) iso-butyl alcohol	9.664	41	49545	526.16	ug/L	94
29) carbon disulfide	6.874	76	616722	66.39	ug/L	99
30) methylene chloride	7.184	84	159901	63.06	ug/L	98
31) methyl acetate	6.984	43	87759	51.45	ug/L	98
32) methyl tert butyl ether	7.503	73	793655	110.17	ug/L	94
33) trans-1,2-dichloroethene	7.556	61	198794	62.47	ug/L	99
34) di-isopropyl ether	8.106	45	431075	53.89	ug/L	99
35) ethyl tert-butyl ether	8.568	59	410996	54.66	ug/L	99
36) 2-butanone	8.835	72	14153	62.69	ug/L	78
37) 1,1-dichloroethane	8.122	63	252943	66.93	ug/L	99
38) chloroprene	8.227	53	166263	59.36	ug/L	99
39) acrylonitrile	7.509	53	265394	297.22	ug/L	96
40) vinyl acetate	8.112	86	19662	57.43	ug/L	86
41) ethyl acetate	8.846	45	16200	58.23	ug/L	42
42) 2,2-dichloropropane	8.856	77	230959	60.56	ug/L	97
43) cis-1,2-dichloroethene	8.856	96	148875	58.81	ug/L	96
44) propionitrile	8.914	54	207244	578.19	ug/L	90
46) bromochloromethane	9.165	128	74189	60.74	ug/L	94
47) tetrahydrofuran	9.213	42	37570	45.85	ug/L	89
48) chloroform	9.223	83	231066	62.94	ug/L	100
49) Tert-Butyl Formate	9.255	59	35487	15.53	ug/L #	85
52) freon 113	6.455	151	167781	70.03	ug/L	98
53) methacrylonitrile	9.103	41	63453	52.40	ug/L	95
54) 1,1,1-trichloroethane	9.475	97	240564	67.74	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117228.D
Acq On : 12 Feb 2016 4:11 pm
Operator : XimenaC
Sample : jc14083-12ms
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 12:02:54 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	9.920	57	639695	67.72 ug/L	100
57) tert-amyl methyl ether	9.952	73	416238	54.24 ug/L	98
59) epichlorohydrin	11.556	57	48610	220.77 ug/L	98
60) n-butyl alcohol	10.419	56	218662	2856.46 ug/L	97
61) cyclohexane	9.548	84	253797	60.36 ug/L	98
62) carbon tetrachloride	9.679	117	220953	67.11 ug/L	99
63) 1,1-dichloropropene	9.653	75	176448	67.91 ug/L	99
64) hexane	7.860	57	131298	53.72 ug/L	96
65) benzene	9.915	78	520273	61.23 ug/L	98
66) heptane	10.094	57	95154	63.32 ug/L	96
67) isopropyl acetate	9.837	43	238364	61.64 ug/L	95
68) 1,2-dichloroethane	9.931	62	156438	62.32 ug/L	99
69) trichloroethene	10.639	95	128783	64.59 ug/L	99
72) 2-nitropropane	11.399	41	26508	37.55 ug/L	99
74) methyl methacrylate	10.906	69	71484	57.19 ug/L	98
75) 1,2-dichloropropane	10.896	63	129953	59.62 ug/L	95
76) methylcyclohexane	10.859	83	265874	62.41 ug/L	96
77) dibromomethane	11.058	93	80508	59.38 ug/L	97
78) bromodichloromethane	11.189	83	162407	61.13 ug/L	99
79) cis-1,3-dichloropropene	11.651	75	177917	58.63 ug/L	99
81) 4-methyl-2-pentanone	11.740	58	51794	59.03 ug/L	98
82) toluene	12.012	92	282374	60.94 ug/L	98
83) 3-methyl-1-butanol	11.766	70	87385	1253.74 ug/L	97
84) trans-1,3-dichloropropene	12.212	75	150349	57.38 ug/L	98
85) ethyl methacrylate	12.206	69	123132	51.66 ug/L	98
86) 1,1,2-trichloroethane	12.421	83	85294	56.17 ug/L	99
87) 2-hexanone	12.600	58	34546	52.18 ug/L	94
89) tetrachloroethene	12.605	166	136470	65.84 ug/L	98
90) 1,3-dichloropropane	12.605	76	151059	55.36 ug/L	95
91) butyl acetate	12.673	56	66913	60.55 ug/L	97
92) 3,3-Dimethyl-1-Butanol	12.767	57	199502	676.76 ug/L	98
93) dibromochloromethane	12.872	129	123526	58.17 ug/L	99
94) 1,2-dibromoethane	13.019	107	99549	54.46 ug/L	94
95) n-Butyl Ether	13.402	57	487279	57.67 ug/L	98
96) chlorobenzene	13.486	112	296878	56.98 ug/L	99
97) 1,1,1,2-tetrachloroethane	13.543	131	138380	58.68 ug/L	99
98) ethylbenzene	13.538	91	504477	56.90 ug/L	99
99) m,p-xylene	13.648	106	394349	117.66 ug/L	96
100) o-xylene	14.062	106	205060	58.70 ug/L	98
101) styrene	14.073	104	303355	56.59 ug/L	99
103) bromoform	14.335	173	87127	56.24 ug/L	97
105) isopropylbenzene	14.403	105	557040	58.62 ug/L	100
107) bromobenzene	14.802	156	138196	60.46 ug/L	97
108) cyclohexanone	14.566	55	43546	160.09 ug/L	96
109) 1,1,2,2-tetrachloroethane	14.702	83	143618	50.63 ug/L	99
110) trans-1,4-dichloro-2-b...	14.749	53	25459	48.89 ug/L	90
111) 1,2,3-trichloropropane	14.781	110	32273	54.95 ug/L	99
112) n-propylbenzene	14.812	91	619324	58.62 ug/L	100
114) 2-chlorotoluene	14.959	126	128872	59.58 ug/L	96
115) 4-chlorotoluene	15.059	126	120940	59.93 ug/L	98
116) 1,3,5-trimethylbenzene	14.964	105	469176	57.96 ug/L	100
117) tert-butylbenzene	15.310	119	400663	59.31 ug/L	100
118) pentachloroethane	15.394	167	113617	62.21 ug/L	99
119) 1,2,4-trimethylbenzene	15.358	105	466642	58.36 ug/L	98
120) sec-butylbenzene	15.525	105	645995	58.70 ug/L	98
121) 1,3-dichlorobenzene	15.714	146	261687	56.17 ug/L	99
122) p-isopropyltoluene	15.646	119	540674	59.38 ug/L	100
123) 1,4-dichlorobenzene	15.793	146	266027	55.01 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117228.D
Acq On : 12 Feb 2016 4:11 pm
Operator : XimenaC
Sample : jc14083-12ms
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 12:02:54 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
124) 1,2-dichlorobenzene	16.170	146	277878	55.53 ug/L	99
126) n-butylbenzene	16.050	92	272501	58.52 ug/L	99
128) 1,2-dibromo-3-chloropr...	16.899	157	36443	50.36 ug/L	97
129) 1,3,5-trichlorobenzene	17.077	180	287864	53.74 ug/L	99
130) 1,2,4-trichlorobenzene	17.643	180	287460	52.65 ug/L	99
131) hexachlorobutadiene	17.743	225	150989	58.97 ug/L	97
132) naphthalene	17.879	128	642748	51.62 ug/L	100
133) 1,2,3-trichlorobenzene	18.089	180	296691	52.52 ug/L	99
134) hexachloroethane	16.422	119	112454	62.13 ug/L	99
135) Benzyl chloride	15.903	91	261477	51.99 ug/L	100

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

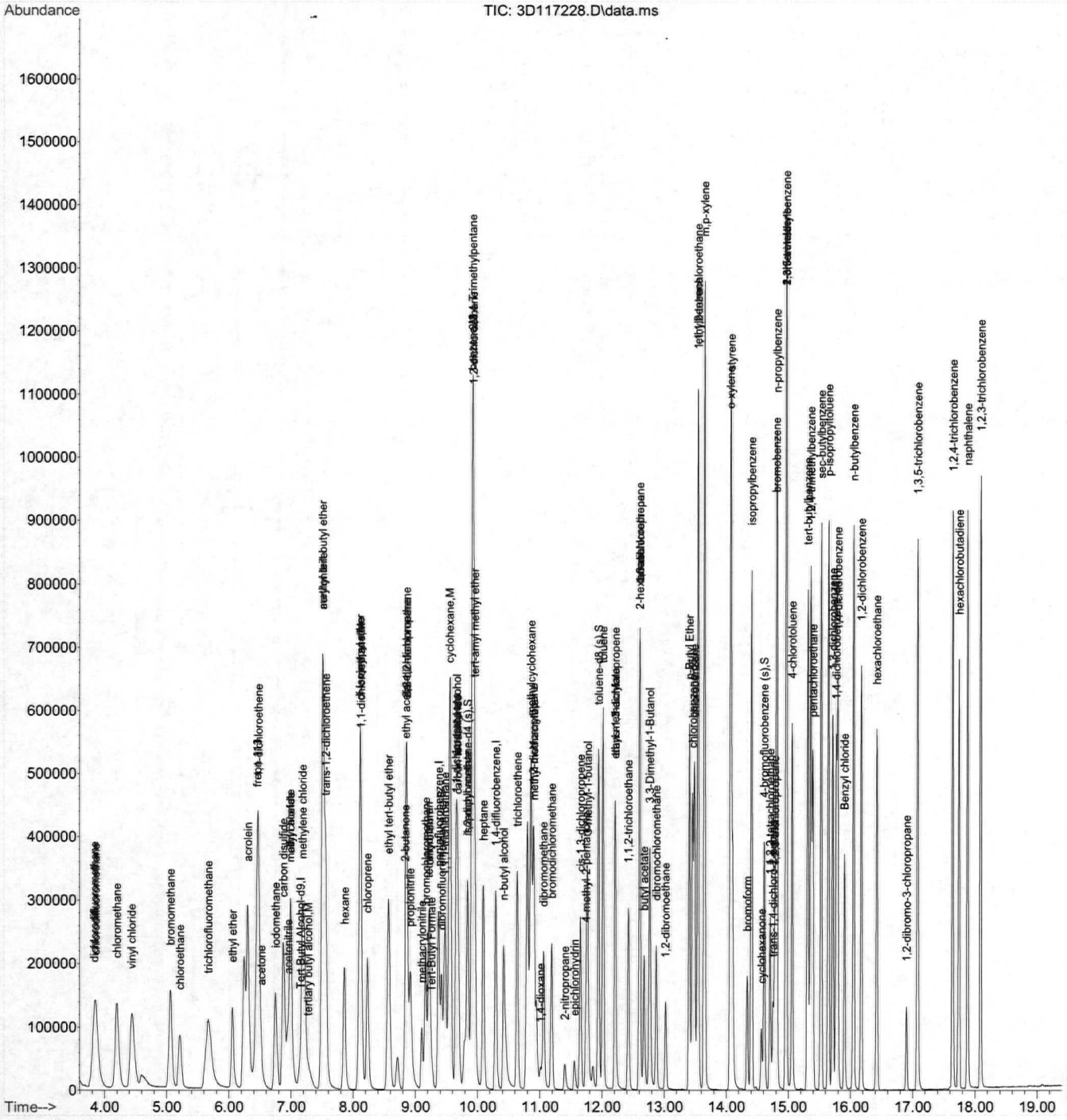
7.4.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117228.D
Acq On : 12 Feb 2016 4:11 pm
Operator : XimenaC
Sample : jc14083-12ms
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 12:02:54 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117229.D
Acq On : 12 Feb 2016 4:38 pm
Operator : XimenaC
Sample : jc14083-12msd
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 12:03:25 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.157	65	165776	500.00	ug/L	0.00
4) pentafluorobenzene	9.375	168	276172	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.293	114	332782	50.00	ug/L	0.00
88) chlorobenzene-d5	13.454	117	269255	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.766	152	144517	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.422	113	128468	54.46	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 108.92%			
51) 1,2-dichloroethane-d4 (s)	9.842	65	124821	54.68	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.36%			
80) toluene-d8 (s)	11.944	98	403917	51.71	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.42%			
106) 4-bromofluorobenzene (s)	14.608	95	135159	52.02	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.04%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.016	88	42396	1331.16	ug/L	97
3) tertiary butyl alcohol	7.262	59	101544	275.32	ug/L	97
8) chlorodifluoromethane	3.854	51	300352	60.16	ug/L	97
9) dichlorodifluoromethane	3.844	85	265779	47.39	ug/L	98
10) chloromethane	4.195	50	351560	52.94	ug/L	97
11) vinyl chloride	4.447	62	350356	54.86	ug/L	99
12) bromomethane	5.060	94	195625	57.00	ug/L	99
13) chloroethane	5.212	64	144284	67.24	ug/L	97
16) trichlorofluoromethane	5.668	101	304449	64.89	ug/L	98
18) ethyl ether	6.061	74	70919	57.61	ug/L	99
21) acrolein	6.303	56	365554	572.10	ug/L	96
22) 1,1-dichloroethene	6.476	61	271226	68.85	ug/L	99
23) acetone	6.523	58	14601	60.11	ug/L	90
24) allyl chloride	6.989	76	94444	63.48	ug/L #	78
25) acetonitrile	6.984	40	146558	526.08	ug/L #	1
27) iodomethane	6.748	142	308264	62.38	ug/L	99
28) iso-butyl alcohol	9.674	41	52336	522.99	ug/L	94
29) carbon disulfide	6.874	76	614246	62.22	ug/L	98
30) methylene chloride	7.183	84	160716	59.64	ug/L	100
31) methyl acetate	6.984	43	88209	48.66	ug/L	98
32) methyl tert butyl ether	7.509	73	802985	104.89	ug/L	94
33) trans-1,2-dichloroethene	7.556	61	196470	58.10	ug/L	99
34) di-isopropyl ether	8.106	45	441726	51.96	ug/L	96
35) ethyl tert-butyl ether	8.568	59	424029	53.07	ug/L	99
36) 2-butanone	8.835	72	13777	57.42	ug/L	82
37) 1,1-dichloroethane	8.117	63	248483	61.87	ug/L	99
38) chloroprene	8.227	53	170997	57.45	ug/L	99
39) acrylonitrile	7.503	53	264612	278.85	ug/L	98
40) vinyl acetate	8.111	86	20674	56.82	ug/L	91
41) ethyl acetate	8.846	45	16872	57.07	ug/L	78
42) 2,2-dichloropropane	8.851	77	226150	55.79	ug/L	99
43) cis-1,2-dichloroethene	8.856	96	148017	55.02	ug/L	97
44) propionitrile	8.919	54	204329	536.41	ug/L	99
46) bromochloromethane	9.165	128	74825	57.64	ug/L	93
47) tetrahydrofuran	9.213	42	37173	42.69	ug/L	90
48) chloroform	9.223	83	231792	59.41	ug/L	99
49) Tert-Butyl Formate	9.260	59	28245	11.63	ug/L #	85
52) freon 113	6.460	151	164111	64.46	ug/L	95
53) methacrylonitrile	9.102	41	62818	48.82	ug/L	96
54) 1,1,1-trichloroethane	9.475	97	240913	63.83	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117229.D
Acq On : 12 Feb 2016 4:38 pm
Operator : XimenaC
Sample : jc14083-12msd
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 12:03:25 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
56)	2,2,4-Trimethylpentane	9.920	57	633743	63.13 ug/L	100
57)	tert-amyl methyl ether	9.947	73	425879	52.22 ug/L	96
59)	epichlorohydrin	11.556	57	48008	203.03 ug/L	99
60)	n-butyl alcohol	10.418	56	217193	2641.99 ug/L	99
61)	cyclohexane	9.553	84	244320	54.10 ug/L	97
62)	carbon tetrachloride	9.684	117	221668	62.69 ug/L	99
63)	1,1-dichloropropene	9.658	75	178686	64.04 ug/L	98
64)	hexane	7.860	57	129237	49.23 ug/L	96
65)	benzene	9.915	78	520547	57.04 ug/L	100
66)	heptane	10.093	57	93426	57.89 ug/L	97
67)	isopropyl acetate	9.836	43	240922	58.01 ug/L	96
68)	1,2-dichloroethane	9.931	62	156380	58.01 ug/L	98
69)	trichloroethene	10.639	95	127595	59.59 ug/L	98
72)	2-nitropropane	11.399	41	26950	35.54 ug/L	99
74)	methyl methacrylate	10.906	69	72128	53.73 ug/L	93
75)	1,2-dichloropropane	10.896	63	131772	56.30 ug/L	99
76)	methylcyclohexane	10.859	83	261474	57.15 ug/L	97
77)	dibromomethane	11.058	93	79700	54.73 ug/L	99
78)	bromodichloromethane	11.189	83	164276	57.57 ug/L	99
79)	cis-1,3-dichloropropene	11.651	75	179707	55.15 ug/L	99
81)	4-methyl-2-pentanone	11.745	58	52400	55.61 ug/L	99
82)	toluene	12.012	92	283043	56.88 ug/L	99
83)	3-methyl-1-butanol	11.766	70	88295	1179.60 ug/L	97
84)	trans-1,3-dichloropropene	12.212	75	150348	53.43 ug/L	99
85)	ethyl methacrylate	12.206	69	123932	48.42 ug/L	98
86)	1,1,2-trichloroethane	12.427	83	85656	52.52 ug/L	97
87)	2-hexanone	12.600	58	35993	50.63 ug/L	98
89)	tetrachloroethene	12.605	166	135443	61.61 ug/L	98
90)	1,3-dichloropropane	12.605	76	151680	52.42 ug/L	95
91)	butyl acetate	12.673	56	69300	59.14 ug/L	92
92)	3,3-Dimethyl-1-Butanol	12.767	57	210965	674.83 ug/L	98
93)	dibromochloromethane	12.872	129	123287	54.75 ug/L	99
94)	1,2-dibromoethane	13.024	107	100514	51.86 ug/L	97
95)	n-Butyl Ether	13.402	57	490953	54.79 ug/L	99
96)	chlorobenzene	13.486	112	299343	54.18 ug/L	99
97)	1,1,1,2-tetrachloroethane	13.543	131	137477	54.97 ug/L	99
98)	ethylbenzene	13.538	91	506568	53.88 ug/L	99
99)	m,p-xylene	13.648	106	391073	110.03 ug/L	100
100)	o-xylene	14.062	106	206531	55.75 ug/L	99
101)	styrene	14.073	104	304760	53.61 ug/L	98
103)	bromoform	14.335	173	87807	53.44 ug/L	97
105)	isopropylbenzene	14.403	105	562053	55.46 ug/L	100
107)	bromobenzene	14.802	156	137574	56.43 ug/L	95
108)	cyclohexanone	14.566	55	42020	144.84 ug/L	98
109)	1,1,2,2-tetrachloroethane	14.702	83	145803	48.19 ug/L	100
110)	trans-1,4-dichloro-2-b...	14.749	53	25890	46.62 ug/L	88
111)	1,2,3-trichloropropane	14.775	110	32372	51.67 ug/L	98
112)	n-propylbenzene	14.812	91	619982	55.02 ug/L	99
114)	2-chlorotoluene	14.959	126	128738	55.80 ug/L	97
115)	4-chlorotoluene	15.059	126	122176	56.76 ug/L	99
116)	1,3,5-trimethylbenzene	14.964	105	471439	54.61 ug/L	100
117)	tert-butylbenzene	15.310	119	405287	56.26 ug/L	99
118)	pentachloroethane	15.394	167	114491	58.78 ug/L	97
119)	1,2,4-trimethylbenzene	15.357	105	462463	54.23 ug/L	98
120)	sec-butylbenzene	15.525	105	654175	55.73 ug/L	99
121)	1,3-dichlorobenzene	15.714	146	262945	52.92 ug/L	99
122)	p-isopropyltoluene	15.646	119	544468	56.06 ug/L	100
123)	1,4-dichlorobenzene	15.793	146	267405	51.85 ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117229.D
Acq On : 12 Feb 2016 4:38 pm
Operator : XimenaC
Sample : jc14083-12msd
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 12:03:25 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
124) 1,2-dichlorobenzene	16.175	146	280122	52.49 ug/L	99
126) n-butylbenzene	16.049	92	273047	54.98 ug/L	95
128) 1,2-dibromo-3-chloropr...	16.904	157	36539	47.34 ug/L	96
129) 1,3,5-trichlorobenzene	17.077	180	292970	51.28 ug/L	99
130) 1,2,4-trichlorobenzene	17.643	180	294074	50.50 ug/L	99
131) hexachlorobutadiene	17.743	225	154819	56.69 ug/L	97
132) naphthalene	17.879	128	662403	49.88 ug/L	100
133) 1,2,3-trichlorobenzene	18.089	180	302520	50.21 ug/L	99
134) hexachloroethane	16.422	119	114393	59.26 ug/L	99
135) Benzyl chloride	15.903	91	265995	49.59 ug/L	100

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

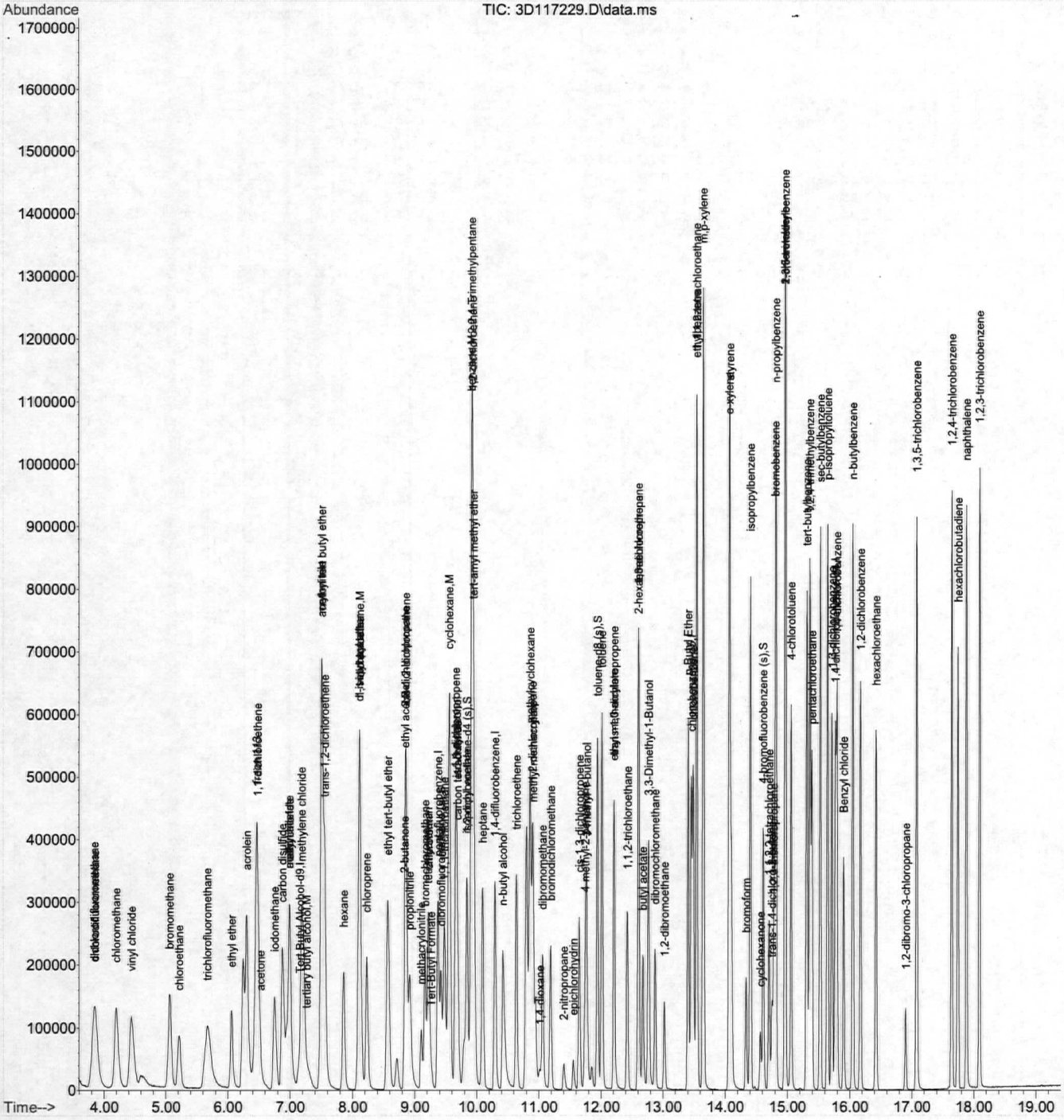
7.4.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117229.D
Acq On : 12 Feb 2016 4:38 pm
Operator : XimenaC
Sample : jc14083-12msd
Misc : MS98364,V3D5014,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 12:03:25 2016
Quant Method : C:\msdchem\1\METHODS\M3D4991.M
Quant Title : Method SW846 8260B, ZB 624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jan 27 12:14:15 2016
Response via : Initial Calibration



M3D4991.M Mon Feb 15 12:04:02 2016

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165595.D
Acq On : 13 Feb 2016 5:02 pm
Operator : tracyk
Sample : jc14083-2ms
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 17 13:17:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.33	65	83034	500.00 ug/L	0.00
5) pentafluorobenzene	10.75	168	265253	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.68	114	290415	50.00 ug/L	0.00
84) chlorobenzene-d5	14.67	117	236961	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	129271	50.00 ug/L	0.00

System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	101244	52.28 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.56%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	106706	48.04 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.08%		
76) toluene-d8 (s)	13.24	98	337383	52.20 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 104.40%		
100) 4-bromofluorobenzene (s)	15.74	95	121126	50.85 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.70%		

Target Compounds					Qvalue
2) tertiary butyl alcohol	8.47	59	50784	261.05 ug/L	92
3) Ethanol	7.02	45	170686	11237.05 ug/L #	31
4) 1,4-dioxane	12.38	88	25237	1637.51 ug/L	84
7) chlorodifluoromethane	4.35	51	75670	35.82 ug/L	93
8) dichlorodifluoromethane	4.30	85	141002	52.18 ug/L	97
10) chloromethane	4.74	50	129276	44.24 ug/L	99
11) vinyl chloride	5.04	62	138181	60.72 ug/L	99
12) bromomethane	5.80	94	93111	61.00 ug/L	98
13) chloroethane	6.00	64	70170	65.17 ug/L	98
14) trichlorofluoromethane	6.54	101	201150	67.18 ug/L	95
16) ethyl ether	7.02	74	52532	56.91 ug/L	89
18) acrolein	7.34	56	170638	503.14 ug/L	99
19) 1,1-dichloroethene	7.50	61	150453	55.93 ug/L	93
20) acetone	7.60	43	24392	43.86 ug/L	98
21) allyl chloride	8.13	76	51808	48.93 ug/L #	61
22) acetonitrile	8.13	40	63661	327.86 ug/L	97
23) iodomethane	7.84	142	197327	56.17 ug/L	98
24) iso-butyl alcohol	11.31	74	32226	486.88 ug/L #	66
25) carbon disulfide	7.96	76	316884	56.87 ug/L	97
26) methylene chloride	8.35	84	104379	50.28 ug/L #	80
27) methyl acetate	8.12	74	12739	49.59 ug/L #	66
28) methyl tert butyl ether	8.70	73	531144	93.77 ug/L	97
29) trans-1,2-dichloroethene	8.76	61	142134	48.91 ug/L	91
30) di-isopropyl ether	9.36	45	267256	38.66 ug/L	94
31) 2-butanone	10.18	72	11464	57.61 ug/L #	52
32) 1,1-dichloroethane	9.40	63	220194	59.62 ug/L	98
33) chloroprene	9.51	53	122345	41.70 ug/L	94
34) acrylonitrile	8.75	53	146221	218.64 ug/L	100
35) vinyl acetate	9.39	86	17068	49.63 ug/L	64
36) ethyl tert-butyl ether	9.87	59	283140	43.27 ug/L	92
37) ethyl acetate	10.19	45	10089	39.93 ug/L #	1
38) 2,2-dichloropropane	10.19	77	178321	57.06 ug/L	88
39) cis-1,2-dichloroethene	10.21	96	278817	118.21 ug/L	84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165595.D
Acq On : 13 Feb 2016 5:02 pm
Operator : tracyk
Sample : jc14083-2ms
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 17 13:17:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) methylacrylate	10.27	85	13402	50.14 ug/L #	67
41) propionitrile	10.31	54	116606	454.55 ug/L	94
42) bromochloromethane	10.54	128	60564	52.03 ug/L	87
43) tetrahydrofuran	10.58	42	23500	38.13 ug/L	74
44) chloroform	10.61	85	127957	53.20 ug/L	97
48) freon 113	7.46	151	83275	65.11 ug/L	96
49) methacrylonitrile	10.49	41	45781	37.28 ug/L	93
50) 1,1,1-trichloroethane	10.85	97	240156	75.29 ug/L	98
51) Cyclohexane	10.91	84	157537	56.28 ug/L	93
53) epichlorohydrin	12.90	57	34409	208.63 ug/L	98
54) n-butyl alcohol	11.82	56	123878	2663.91 ug/L	91
55) carbon tetrachloride	11.05	117	174758	57.45 ug/L	98
56) 1,1-dichloropropene	11.04	75	151765	54.79 ug/L	95
57) hexane	9.07	57	103135	47.63 ug/L	91
59) 2,2,4-TRIMETHYLPENTANE	11.28	57	308055	46.09 ug/L	96
60) benzene	11.30	78	401566	48.17 ug/L	100
61) tert-amyl methyl ether	11.32	87	66900	47.13 ug/L	89
62) heptane	11.45	57	60525	46.85 ug/L	94
63) isopropyl acetate	11.22	43	193088	43.23 ug/L	93
64) 1,2-dichloroethane	11.34	62	140469	46.15 ug/L	97
66) trichloroethene	12.01	95	124570	59.28 ug/L	99
68) methyl methacrylate	12.26	100	23444	53.93 ug/L #	60
69) 2-nitropropane	12.77	41	20894	28.14 ug/L	94
71) 1,2-dichloropropane	12.27	63	96804	47.12 ug/L	96
72) dibromomethane	12.43	93	63351	49.03 ug/L	94
73) methylcyclohexane	12.20	83	147785	49.89 ug/L	91
74) bromodichloromethane	12.55	83	145537	50.77 ug/L	98
75) cis-1,3-dichloropropene	12.98	75	163958	49.46 ug/L	92
77) 4-methyl-2-pentanone	13.06	58	28903	45.90 ug/L #	72
78) toluene	13.31	92	242103	51.59 ug/L	96
79) 3-methyl-1-butanol	13.09	55	76493	1032.08 ug/L	90
80) trans-1,3-dichloropropene	13.50	75	144183	47.75 ug/L	92
81) ethyl methacrylate	13.48	69	101618	46.51 ug/L	86
82) 1,1,2-trichloroethane	13.71	83	69574	49.17 ug/L	89
83) 2-hexanone	13.86	58	24687	43.08 ug/L	89
85) tetrachloroethene	13.86	164	201333	108.24 ug/L	97
86) 1,3-dichloropropane	13.88	76	132004	45.84 ug/L	88
87) butyl acetate	13.91	56	47321	43.37 ug/L #	83
88) 3,3-dimethyl-1-butanol	14.02	57	84261	512.69 ug/L	91
89) dibromochloromethane	14.13	129	119893	52.00 ug/L	98
90) 1,2-dibromoethane	14.27	107	88300	49.69 ug/L	96
91) chlorobenzene	14.69	112	283449	51.52 ug/L	96
92) 1,1,1,2-tetrachloroethane	14.75	131	112757	51.59 ug/L	97
93) ethylbenzene	14.73	91	451892	49.40 ug/L	98
94) m,p-xylene	14.83	106	355488	104.53 ug/L	95
95) o-xylene	15.22	106	176739	53.75 ug/L	99
96) styrene	15.23	104	286904	50.51 ug/L	97
97) bromoform	15.50	173	83204	52.00 ug/L	99
99) isopropylbenzene	15.53	105	465650	51.78 ug/L	99
101) cyclohexanone	15.72	98	13244	410.07 ug/L	70

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165595.D
Acq On : 13 Feb 2016 5:02 pm
Operator : tracyk
Sample : jc14083-2ms
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 17 13:17:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
102) bromobenzene	15.92	156	133844	51.78 ug/L	95
103) 1,1,2,2-tetrachloroethane	15.84	83	99482	47.19 ug/L	96
104) trans-1,4-dichloro-2-buten	15.87	53	22622	36.66 ug/L	81
105) 1,2,3-trichloropropane	15.91	110	27708	49.06 ug/L	94
106) n-propylbenzene	15.91	120	126772	56.25 ug/L	90
107) 2-chlorotoluene	16.06	126	117073	51.63 ug/L	85
108) 4-chlorotoluene	16.15	126	121346	52.42 ug/L	96
109) 1,3,5-trimethylbenzene	16.05	105	394292	53.49 ug/L	99
110) tert-butylbenzene	16.37	119	352168	54.88 ug/L	98
111) pentachloroethane	16.47	167	90380	52.44 ug/L	97
112) 1,2,4-trimethylbenzene	16.41	105	401969	53.20 ug/L	98
113) sec-butylbenzene	16.57	105	506159	54.65 ug/L	99
114) 1,3-dichlorobenzene	16.77	146	255534	52.19 ug/L	99
115) p-isopropyltoluene	16.68	119	455441	56.41 ug/L	98
116) 1,4-dichlorobenzene	16.85	146	257088	51.75 ug/L	97
117) 1,2-dichlorobenzene	17.23	146	249372	52.61 ug/L	98
118) benzyl chloride	16.96	91	224345	52.06 ug/L	98
119) n-butylbenzene	17.08	92	216149	52.63 ug/L	97
120) 1,2-dibromo-3-chloropropan	18.00	75	20381	48.03 ug/L	99
121) 1,3,5-TRICHLOROBENZENE	18.17	180	237281	54.64 ug/L	100
122) 1,2,4-trichlorobenzene	18.83	180	214686	52.44 ug/L	96
123) hexachlorobutadiene	18.93	225	120255	59.64 ug/L	98
124) naphthalene	19.12	128	389813	53.11 ug/L	98
125) 1,2,3-trichlorobenzene	19.37	180	190720	51.38 ug/L	97
126) hexachloroethane	17.47	201	92260	55.24 ug/L	98

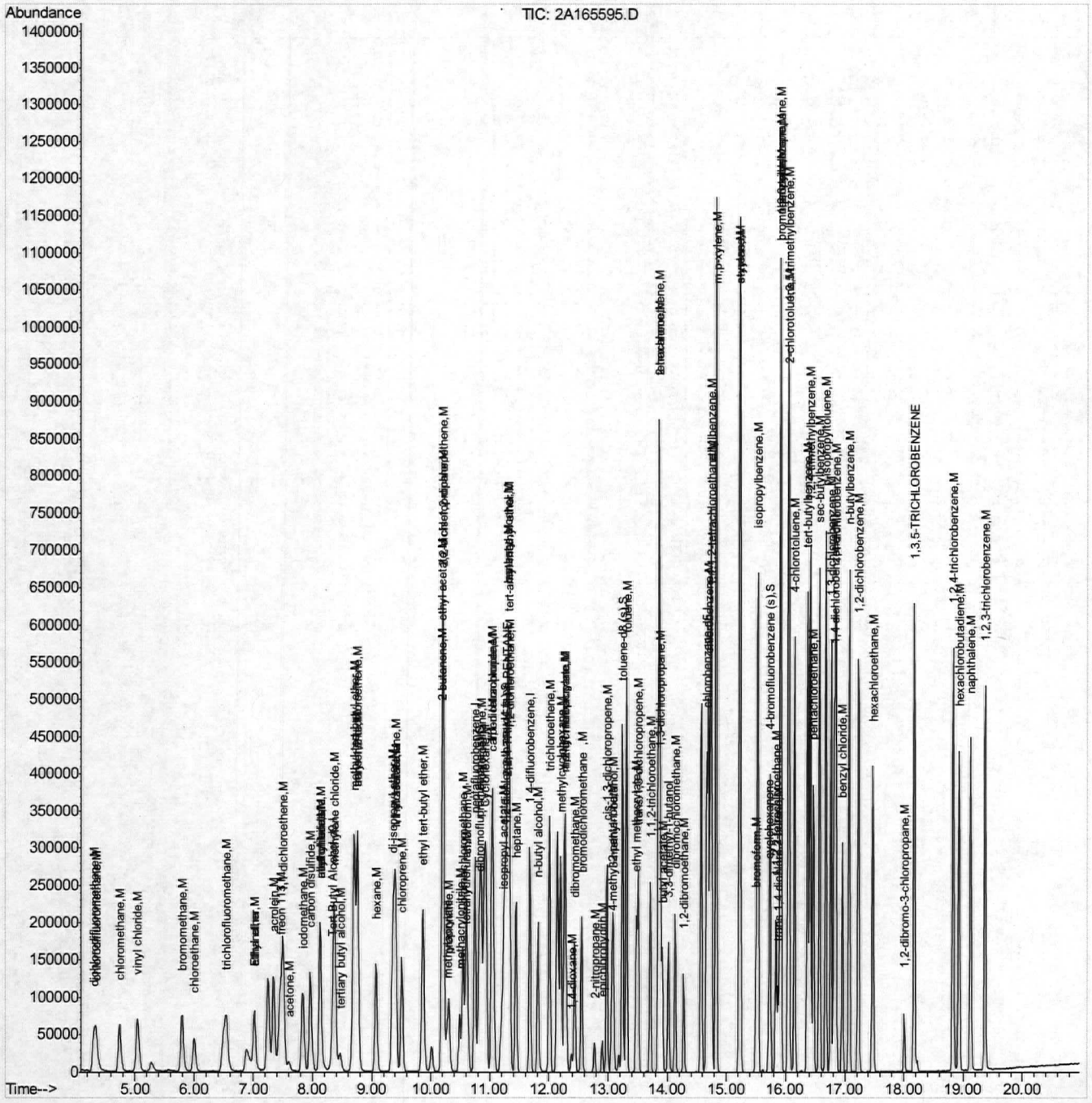
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.3 7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 2A165595.D
Acq On : 13 Feb 2016 5:02 pm
Operator : tracyk
Sample : jc14083-2ms
Misc : MS98364,V2A7042,5.0,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 17 13:17:52 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration



M2A7005.M Wed Feb 17 13:18:02 2016 MS2A

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165622.D
Acq On : 15 Feb 2016 5:03 pm
Operator : tracyk
Sample : jc14083-8ms
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 19 11:18:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M2A7005.M
Quant Title : SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Mon Jan 25 12:37:27 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.34	65	80479	500.00 ug/L	0.00
5) pentafluorobenzene	10.75	168	274774	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.68	114	299014	50.00 ug/L	0.00
84) chlorobenzene-d5	14.66	117	242969	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.82	152	130551	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	106338	53.01 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.02%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	109241	47.48 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 94.96%		
76) toluene-d8 (s)	13.24	98	349538	52.53 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.06%		
100) 4-bromofluorobenzene (s)	15.74	95	124002	51.54 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.08%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.47	59	50451	267.57 ug/L	98
3) Ethanol	7.02	45	171524	11650.72 ug/L #	31
4) 1,4-dioxane	12.38	88	27369	1832.22 ug/L	91
7) chlorodifluoromethane	4.35	51	121691	55.60 ug/L	96
8) dichlorodifluoromethane	4.32	85	153985	55.01 ug/L	100
10) chloromethane	4.74	50	142716	47.15 ug/L	97
11) vinyl chloride	5.05	62	152320	64.62 ug/L	99
12) bromomethane	5.80	94	103844	65.67 ug/L	95
13) chloroethane	6.00	64	77207	69.23 ug/L	99
14) trichlorofluoromethane	6.54	101	213430	68.81 ug/L	91
16) ethyl ether	7.02	74	60007	62.75 ug/L	91
18) acrolein	7.34	56	168056	478.36 ug/L	99
19) 1,1-dichloroethene	7.50	61	168725	60.54 ug/L	90
20) acetone	7.61	43	25759	44.72 ug/L	98
21) allyl chloride	8.13	76	59924	54.64 ug/L #	58
22) acetonitrile	8.13	40	72113	358.52 ug/L	93
23) iodomethane	7.84	142	219011	60.18 ug/L	99
24) iso-butyl alcohol	11.31	74	35419	516.58 ug/L	90
25) carbon disulfide	7.96	76	351087	60.83 ug/L	97
26) methylene chloride	8.36	84	116043	53.97 ug/L	85
27) methyl acetate	8.13	74	15247	57.29 ug/L #	64
28) methyl tert butyl ether	8.70	73	612745	104.43 ug/L	98
29) trans-1,2-dichloroethene	8.77	61	156799	52.09 ug/L	90
30) di-isopropyl ether	9.36	45	322886	45.09 ug/L	92
31) 2-butanone	10.18	72	10910	52.93 ug/L #	49
32) 1,1-dichloroethane	9.40	63	199863	52.24 ug/L	99
33) chloroprene	9.51	53	158390	52.11 ug/L	91
34) acrylonitrile	8.75	53	154244	222.64 ug/L	99
35) vinyl acetate	9.39	86	20246	56.83 ug/L	58
36) ethyl tert-butyl ether	9.87	59	335382	49.48 ug/L	93
37) ethyl acetate	10.19	45	11516	44.00 ug/L #	53
38) 2,2-dichloropropane	10.20	77	194659	60.13 ug/L	87
39) cis-1,2-dichloroethene	10.21	96	133554	54.66 ug/L	86