Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165607.D
Acq On : 15 Feb 2016 9:30 am
Operator : tracyk
Sample : cc7005-20
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 15:00:35 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	69910	500.00 ug/L	-0.02
5) pentafluorobenzene	10.75	168	262950	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.68	114	284183	50.00 ug/L	0.00
84) chlorobenzene-d5	14.67	117	231182	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.83	152	126168	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	10.82	113	99704	51.93 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.86%		
47) 1,2-dichloroethane-d4 (s)	11.25	65	105135	47.75 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.50%		
76) toluene-d8 (s)	13.24	98	329328	52.07 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 104.14%		
100) 4-bromofluorobenzene (s)	15.74	95	117524	50.55 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.10%		
Target Compounds					Qvalue
2) tertiary butyl alcohol	8.45	59	16728	102.13 ug/L	94
3) Ethanol	6.87	45	31821	2488.20 ug/L	87
4) 1,4-dioxane	12.38	88	7982	615.14 ug/L	87
7) chlorodifluoromethane	4.34	51	35082	16.75 ug/L	96
8) dichlorodifluoromethane	4.30	85	46409	17.33 ug/L	97
10) chloromethane	4.72	50	50547	17.45 ug/L	98
11) vinyl chloride	5.02	62	49894	22.12 ug/L	99
12) bromomethane	5.79	94	33774	22.32 ug/L	95
13) chloroethane	6.00	64	26073	24.43 ug/L	98
14) trichlorofluoromethane	6.53	101	68620	23.12 ug/L	95
16) ethyl ether	7.01	74	20049	21.91 ug/L	92
18) acrolein	7.34	56	67292	200.15 ug/L	100
19) 1,1-dichloroethene	7.50	61	51636	19.36 ug/L	85
20) acetone	7.59	43	9488	17.21 ug/L	92
21) allyl chloride	8.13	76	22209	21.16 ug/L #	67
22) acetonitrile	8.12	40	26592	138.15 ug/L	91
23) iodomethane	7.83	142	73625	21.14 ug/L	99
24) iso-butyl alcohol	11.31	74	12146	185.11 ug/L #	68
25) carbon disulfide	7.96	76	106511	19.28 ug/L	98
26) methylene chloride	8.35	84	42172	20.49 ug/L	85
27) methyl acetate	8.12	74	5134	20.16 ug/L #	51
28) methyl tert butyl ether	8.70	73	108736	19.37 ug/L	95
29) trans-1,2-dichloroethene	8.76	61	53622	18.61 ug/L	92
30) di-isopropyl ether	9.36	45	109129	15.92 ug/L	96
31) 2-butanone	10.19	72	3567	18.08 ug/L #	61
32) 1,1-dichloroethane	9.40	63	69833	19.07 ug/L	98
33) chloroprene	9.51	53	51931	17.85 ug/L	89
34) acrylonitrile	8.75	53	56489	85.20 ug/L	98
35) vinyl acetate	9.39	86	6725	19.73 ug/L	32
36) ethyl tert-butyl ether	9.86	59	116487	17.96 ug/L	94
37) ethyl acetate	10.19	45	3683	14.71 ug/L #	70
38) 2,2-dichloropropane	10.19	77	66794	21.56 ug/L	86
39) cis-1,2-dichloroethene	10.21	96	46276	19.79 ug/L	87

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165607.D
Acq On : 15 Feb 2016 9:30 am
Operator : tracyk
Sample : cc7005-20
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 15:00:35 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	5186	19.57 ug/L #	61
41) propionitrile	10.30	54	43478	170.97 ug/L	98
42) bromochloromethane	10.55	128	24286	21.05 ug/L	81
43) tetrahydrofuran	10.58	42	9465	15.49 ug/L	92
44) chloroform	10.60	85	49729	20.86 ug/L	96
48) freon 113	7.46	151	31952	25.20 ug/L	93
49) methacrylonitrile	10.49	41	18193	14.95 ug/L	91
50) 1,1,1-trichloroethane	10.85	97	65045	20.57 ug/L	97
51) Cyclohexane	10.91	84	52661	18.98 ug/L	94
53) epichlorohydrin	12.90	57	13219	81.91 ug/L	95
54) n-butyl alcohol	11.82	56	37925	833.44 ug/L	87
55) carbon tetrachloride	11.05	117	64279	21.59 ug/L	98
56) 1,1-dichloropropene	11.03	75	51182	18.88 ug/L	94
57) hexane	9.07	57	36760	17.35 ug/L	95
59) 2,2,4-TRIMETHYLPENTANE	11.27	57	115639	17.68 ug/L	96
60) benzene	11.30	78	154260	18.91 ug/L	99
61) tert-amyl methyl ether	11.32	87	27249	19.62 ug/L	92
62) heptane	11.44	57	23127	18.29 ug/L	89
63) isopropyl acetate	11.22	43	70311	16.09 ug/L	92
64) 1,2-dichloroethane	11.33	62	57125	19.18 ug/L	94
66) trichloroethene	12.01	95	41822	20.34 ug/L	97
68) methyl methacrylate	12.26	100	8879	20.87 ug/L #	58
69) 2-nitropropane	12.77	41	12391	17.05 ug/L	99
70) 2-chloroethyl vinyl ether	12.77	63	100215	96.70 ug/L	97
71) 1,2-dichloropropane	12.27	63	37137	18.47 ug/L	99
72) dibromomethane	12.43	93	25459	20.14 ug/L	96
73) methylcyclohexane	12.20	83	56305	19.43 ug/L	95
74) bromodichloromethane	12.55	83	57469	20.49 ug/L	99
75) cis-1,3-dichloropropene	12.98	75	65224	20.11 ug/L	92
77) 4-methyl-2-pentanone	13.06	58	10495	17.03 ug/L #	62
78) toluene	13.31	92	92352	20.11 ug/L	94
79) 3-methyl-1-butanol	13.09	55	22825	314.72 ug/L	94
80) trans-1,3-dichloropropene	13.51	75	60265	20.40 ug/L	90
81) ethyl methacrylate	13.48	69	38433	17.98 ug/L	85
82) 1,1,2-trichloroethane	13.71	83	27960	20.19 ug/L	89
83) 2-hexanone	13.86	58	9240	16.48 ug/L	92
85) tetrachloroethene	13.86	164	36929	20.35 ug/L	97
86) 1,3-dichloropropane	13.88	76	52417	18.66 ug/L	89
87) butyl acetate	13.91	56	16315	15.33 ug/L	96
88) 3,3-dimethyl-1-butanol	14.02	57	22931	143.01 ug/L	92
89) dibromochloromethane	14.13	129	49377	21.95 ug/L	97
90) 1,2-dibromoethane	14.27	107	36018	20.77 ug/L	100
91) chlorobenzene	14.69	112	108428	20.20 ug/L	96
92) 1,1,1,2-tetrachloroethane	14.75	131	46720	21.91 ug/L	98
93) ethylbenzene	14.73	91	173144	19.40 ug/L	99
94) m,p-xylene	14.83	106	135834	40.94 ug/L	95
95) o-xylene	15.22	106	66994	20.89 ug/L	100
96) styrene	15.23	104	112777	20.35 ug/L	97
97) bromoform	15.50	173	33539	21.49 ug/L	99
99) isopropylbenzene	15.53	105	177320	20.20 ug/L	97

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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165607.D
Acq On : 15 Feb 2016 9:30 am
Operator : tracyk
Sample : cc7005-20
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 15:00:35 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	10574	335.46 ug/L	76
102) bromobenzene	15.92	156	54264	21.51 ug/L	96
103) 1,1,2,2-tetrachloroethane	15.84	83	40427	19.65 ug/L	95
104) trans-1,4-dichloro-2-buten	15.87	53	10669	17.72 ug/L	91
105) 1,2,3-trichloropropane	15.91	110	11084	20.11 ug/L	99
106) n-propylbenzene	15.91	120	46059	20.94 ug/L	93
107) 2-chlorotoluene	16.06	126	46939	21.21 ug/L	88
108) 4-chlorotoluene	16.15	126	47246	20.91 ug/L	99
109) 1,3,5-trimethylbenzene	16.05	105	153302	21.31 ug/L	99
110) tert-butylbenzene	16.38	119	130441	20.83 ug/L	98
111) pentachloroethane	16.47	167	36749	21.85 ug/L	94
112) 1,2,4-trimethylbenzene	16.42	105	155476	21.08 ug/L	97
113) sec-butylbenzene	16.57	105	186836	20.67 ug/L	99
114) 1,3-dichlorobenzene	16.77	146	102347	21.42 ug/L	97
115) p-isopropyltoluene	16.68	119	167414	21.25 ug/L	100
116) 1,4-dichlorobenzene	16.85	146	103159	21.27 ug/L	97
117) 1,2-dichlorobenzene	17.23	146	99961	21.61 ug/L	98
118) benzyl chloride	16.96	91	88046	20.94 ug/L	98
119) n-butylbenzene	17.08	92	82466	20.57 ug/L	98
120) 1,2-dibromo-3-chloropropan	18.01	75	7674	18.53 ug/L	86
121) 1,3,5-TRICHLOROBENZENE	18.18	180	93113	21.97 ug/L	99
122) 1,2,4-trichlorobenzene	18.83	180	85326	21.36 ug/L	95
123) hexachlorobutadiene	18.93	225	45103	22.92 ug/L	95
124) naphthalene	19.12	128	151151	21.10 ug/L	99
125) 1,2,3-trichlorobenzene	19.37	180	77331	21.35 ug/L	99
126) hexachloroethane	17.47	201	35316	21.66 ug/L	98

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

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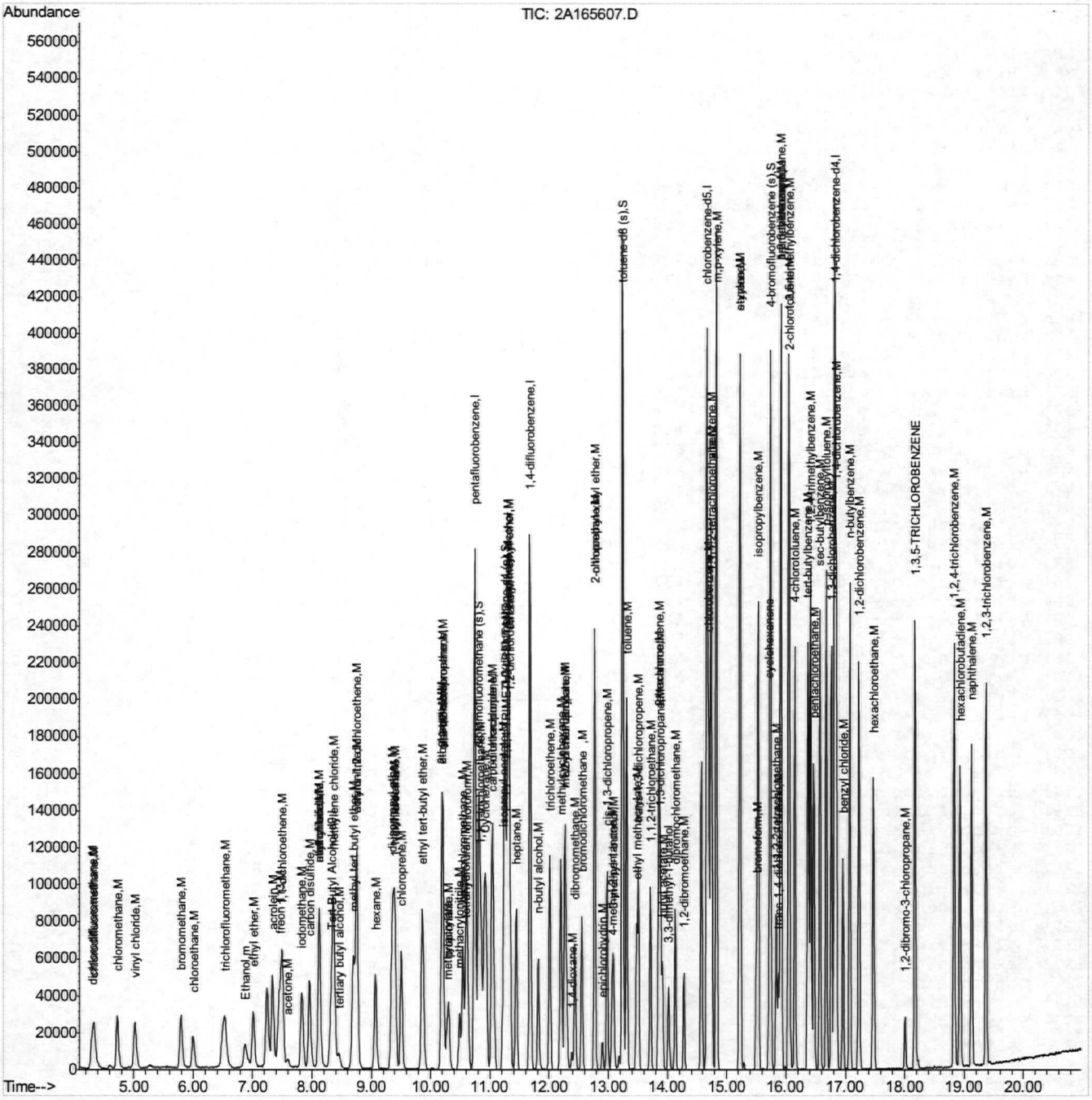
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 2A165607.D
Acq On : 15 Feb 2016 9:30 am
Operator : tracyk
Sample : cc7005-20
Misc : MS98364,V2A7043,5.0,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 15 15:00:35 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 : 3d116722.d
Acq On : 20 Jan 2016 12:04 pm
Operator : XimenaC
Sample : IC4991-0.2
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 12:01:06 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 : Thu Jan 21 09:23:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.147	65	145623	500.00 ug/L	0.00
4) pentafluorobenzene	9.375	168	233978	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.293	114	279897	50.00 ug/L	0.00
88) chlorobenzene-d5	13.465	117	231977	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.777	152	133455	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.422	113	100135	50.03 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.06%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	97083	50.13 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.26%		
80) toluene-d8 (s)	11.950	98	326162	49.62 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.24%		
106) 4-bromofluorobenzene (s)	14.618	95	116410	48.53 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.06%		

Target Compounds					Qvalue
27) iodomethane	6.738	142	712	0.17 ug/L	79
29) carbon disulfide	6.864	76	1869	0.22 ug/L	72
32) methyl tert butyl ether	7.519	73	1258	0.20 ug/L	55
34) di-isopropyl ether	8.106	45	1484	0.21 ug/L #	55
35) ethyl tert-butyl ether	8.584	59	1342	0.20 ug/L	88
37) 1,1-dichloroethane	8.133	63	585	0.17 ug/L #	50
42) 2,2-dichloropropane	8.872	77	689	0.20 ug/L #	46
48) chloroform	9.228	83	663	0.20 ug/L	73
57) tert-amyl methyl ether	9.952	73	1485	0.21 ug/L	52
65) benzene	9.926	78	1636	0.21 ug/L	81
78) bromodichloromethane	11.205	83	520	0.22 ug/L	89
79) cis-1,3-dichloropropene	11.672	75	500	0.18 ug/L #	69
82) toluene	12.033	92	713	0.17 ug/L #	64
90) 1,3-dichloropropane	12.631	76	512	0.20 ug/L #	48
96) chlorobenzene	13.491	112	1048	0.22 ug/L	88
97) 1,1,1,2-tetrachloroethane	13.559	131	508	0.24 ug/L	85
98) ethylbenzene	13.570	91	1857	0.23 ug/L	91
99) m,p-xylene	13.680	106	1231	0.40 ug/L	96
100) o-xylene	14.094	106	667	0.21 ug/L	61
101) styrene	14.125	104	930	0.19 ug/L	87
105) isopropylbenzene	14.424	105	2086	0.22 ug/L	89
109) 1,1,2,2-tetrachloroethane	14.718	83	660	0.24 ug/L	88
112) n-propylbenzene	14.838	91	2517	0.24 ug/L	89
116) 1,3,5-trimethylbenzene	14.980	105	1874	0.24 ug/L	81
117) tert-butylbenzene	15.326	119	1457	0.43 ug/L	85
119) 1,2,4-trimethylbenzene	15.378	105	1795	0.23 ug/L	87
120) sec-butylbenzene	15.541	105	2495	0.23 ug/L	99
121) 1,3-dichlorobenzene	15.730	146	1093	0.24 ug/L	92
122) p-isopropyltoluene	15.656	119	2094	0.23 ug/L	87
124) 1,2-dichlorobenzene	16.202	146	1114	0.23 ug/L	81
126) n-butylbenzene	16.071	92	902	0.20 ug/L #	74
129) 1,3,5-trichlorobenzene	17.093	180	1292	0.24 ug/L #	86
130) 1,2,4-trichlorobenzene	17.664	180	1292	0.24 ug/L	97
131) hexachlorobutadiene	17.743	225	569	0.23 ug/L #	37
132) naphthalene	17.906	128	2901	0.24 ug/L	80
133) 1,2,3-trichlorobenzene	18.105	180	1407	0.25 ug/L	93
135) Benzyl chloride	15.929	91	1057	0.21 ug/L #	60

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

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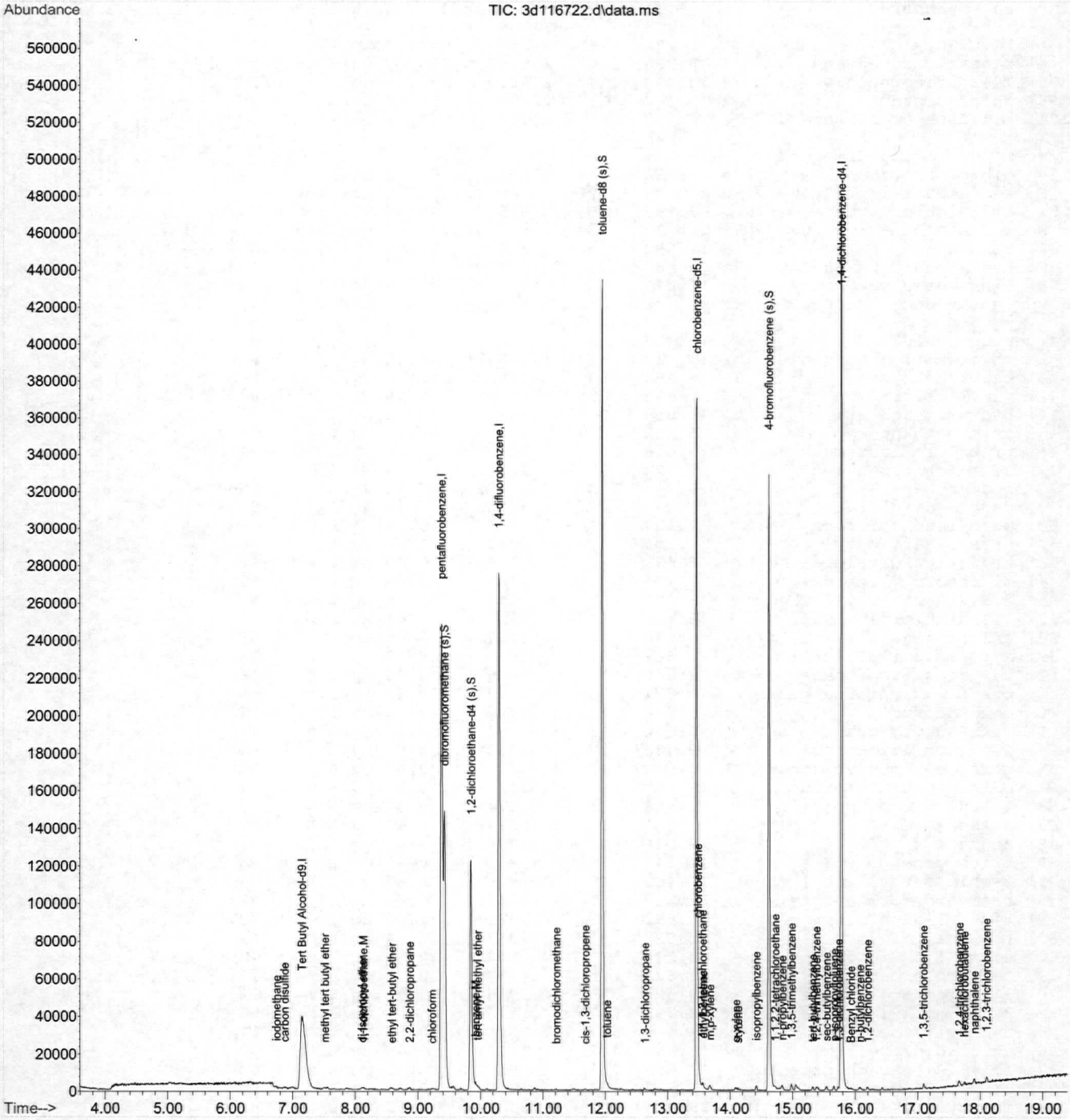
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116722.d
Acq On : 20 Jan 2016 12:04 pm
Operator : XimenaC
Sample : IC4991-0.2
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 27 12:01:06 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 : Thu Jan 21 09:23:40 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:38 2016 3D

Page: 2

7.7.14 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116723.d
Acq On : 20 Jan 2016 12:31 pm
Operator : XimenaC
Sample : IC4991-0.5
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 21 10:47:04 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 : Thu Jan 21 09:23:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.152	65	152133	500.00 ug/L	0.00
4) pentafluorobenzene	9.380	168	235057	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	276029	50.00 ug/L	0.00
88) chlorobenzene-d5	13.460	117	229566	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	133014	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	99941	49.70 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.40%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	96352	49.52 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.04%		
80) toluene-d8 (s)	11.950	98	323997	49.98 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.96%		
106) 4-bromofluorobenzene (s)	14.613	95	117751	49.25 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.50%		

Target Compounds					Qvalue
8) chlorodifluoromethane	3.839	51	1731	0.41 ug/L	66
10) chloromethane	4.164	50	3096	0.55 ug/L	84
11) vinyl chloride	4.436	62	2579	0.49 ug/L	84
12) bromomethane	5.055	94	1513	0.52 ug/L	86
13) chloroethane	5.202	64	794	0.43 ug/L #	56
16) trichlorofluoromethane	5.668	101	1271	0.31 ug/L	94
22) 1,1-dichloroethene	6.471	61	1411	0.42 ug/L	79
27) iodomethane	6.754	142	1778	0.42 ug/L	90
29) carbon disulfide	6.879	76	3726	0.44 ug/L	85
30) methylene chloride	7.178	84	1046	0.46 ug/L	96
32) methyl tert butyl ether	7.509	73	3091	0.50 ug/L	76
33) trans-1,2-dichloroethene	7.572	61	1138	0.40 ug/L	82
34) di-isopropyl ether	8.106	45	3487	0.48 ug/L #	56
35) ethyl tert-butyl ether	8.578	59	3017	0.44 ug/L	95
37) 1,1-dichloroethane	8.138	63	1396	0.41 ug/L #	50
38) chloroprene	8.248	53	1067	0.42 ug/L	63
39) acrylonitrile	7.561	53	1629	2.02 ug/L #	78
42) 2,2-dichloropropane	8.861	77	1669	0.48 ug/L #	46
43) cis-1,2-dichloroethene	8.877	96	1177	0.51 ug/L #	59
48) chloroform	9.234	83	1422	0.43 ug/L	87
49) Tert-Butyl Formate	9.270	59	864	0.42 ug/L #	74
54) 1,1,1-trichloroethane	9.480	97	1331	0.41 ug/L	81
57) tert-amyl methyl ether	9.968	73	3513	0.51 ug/L	92
62) carbon tetrachloride	9.685	117	1125	0.38 ug/L #	83
63) 1,1-dichloropropene	9.658	75	874	0.38 ug/L #	57
64) hexane	7.860	57	894	0.41 ug/L #	64
65) benzene	9.936	78	3464	0.46 ug/L	93
69) trichloroethene	10.649	95	737	0.41 ug/L	93
73) 2-chloroethyl vinyl ether	11.488	63	2016	1.85 ug/L	77
78) bromodichloromethane	11.210	83	1054	0.45 ug/L	72
79) cis-1,3-dichloropropene	11.682	75	1020	0.38 ug/L	92
82) toluene	12.023	92	1837	0.44 ug/L	89
84) trans-1,3-dichloropropene	12.248	75	840	0.36 ug/L #	72
89) tetrachloroethene	12.621	166	657	0.35 ug/L	78
90) 1,3-dichloropropane	12.621	76	1038	0.42 ug/L	92
92) 3,3-Dimethyl-1-Butanol	12.783	57	1177	25.01 ug/L #	92
95) n-Butyl Ether	13.433	57	2894	0.37 ug/L #	17
96) chlorobenzene	13.491	112	2145	0.45 ug/L	90
97) 1,1,1,2-tetrachloroethane	13.559	131	832	0.39 ug/L #	62
98) ethylbenzene	13.564	91	3296	0.41 ug/L	86
99) m,p-xylene	13.664	106	2431	0.80 ug/L	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116723.d
Acq On : 20 Jan 2016 12:31 pm
Operator : XimenaC
Sample : IC4991-0.5
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 21 10:47:04 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 : Thu Jan 21 09:23:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	14.083	106	1136	0.36 ug/L	82
101) styrene	14.115	104	1850	0.38 ug/L	91
105) isopropylbenzene	14.419	105	3597	0.39 ug/L	93
107) bromobenzene	14.817	156	826	0.37 ug/L #	80
108) cyclohexanone	14.576	55	1575	5.91 ug/L	95
109) 1,1,2,2-tetrachloroethane	14.713	83	1275	0.46 ug/L	84
112) n-propylbenzene	14.828	91	4361	0.42 ug/L	94
114) 2-chlorotoluene	14.975	126	777	0.37 ug/L #	84
115) 4-chlorotoluene	15.074	126	697	0.35 ug/L #	50
116) 1,3,5-trimethylbenzene	14.975	105	3003	0.38 ug/L	80
117) tert-butylbenzene	15.316	119	2615	0.60 ug/L	92
118) pentachloroethane	15.394	167	638	0.36 ug/L #	70
119) 1,2,4-trimethylbenzene	15.368	105	3087	0.39 ug/L	94
120) sec-butylbenzene	15.531	105	4061	0.38 ug/L	96
121) 1,3-dichlorobenzene	15.724	146	1983	0.43 ug/L	83
122) p-isopropyltoluene	15.651	119	3560	0.40 ug/L	94
123) 1,4-dichlorobenzene	15.798	146	2288	0.47 ug/L	92
124) 1,2-dichlorobenzene	16.191	146	2028	0.41 ug/L	91
126) n-butylbenzene	16.065	92	1715	0.38 ug/L	92
129) 1,3,5-trichlorobenzene	17.088	180	2215	0.42 ug/L #	89
130) 1,2,4-trichlorobenzene	17.654	180	2320	0.43 ug/L	88
131) hexachlorobutadiene	17.743	225	1038	0.41 ug/L	94
132) naphthalene	17.895	128	5341	0.44 ug/L	96
133) 1,2,3-trichlorobenzene	18.100	180	2382	0.43 ug/L	96
135) Benzyl chloride	15.924	91	2513	0.51 ug/L #	60

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

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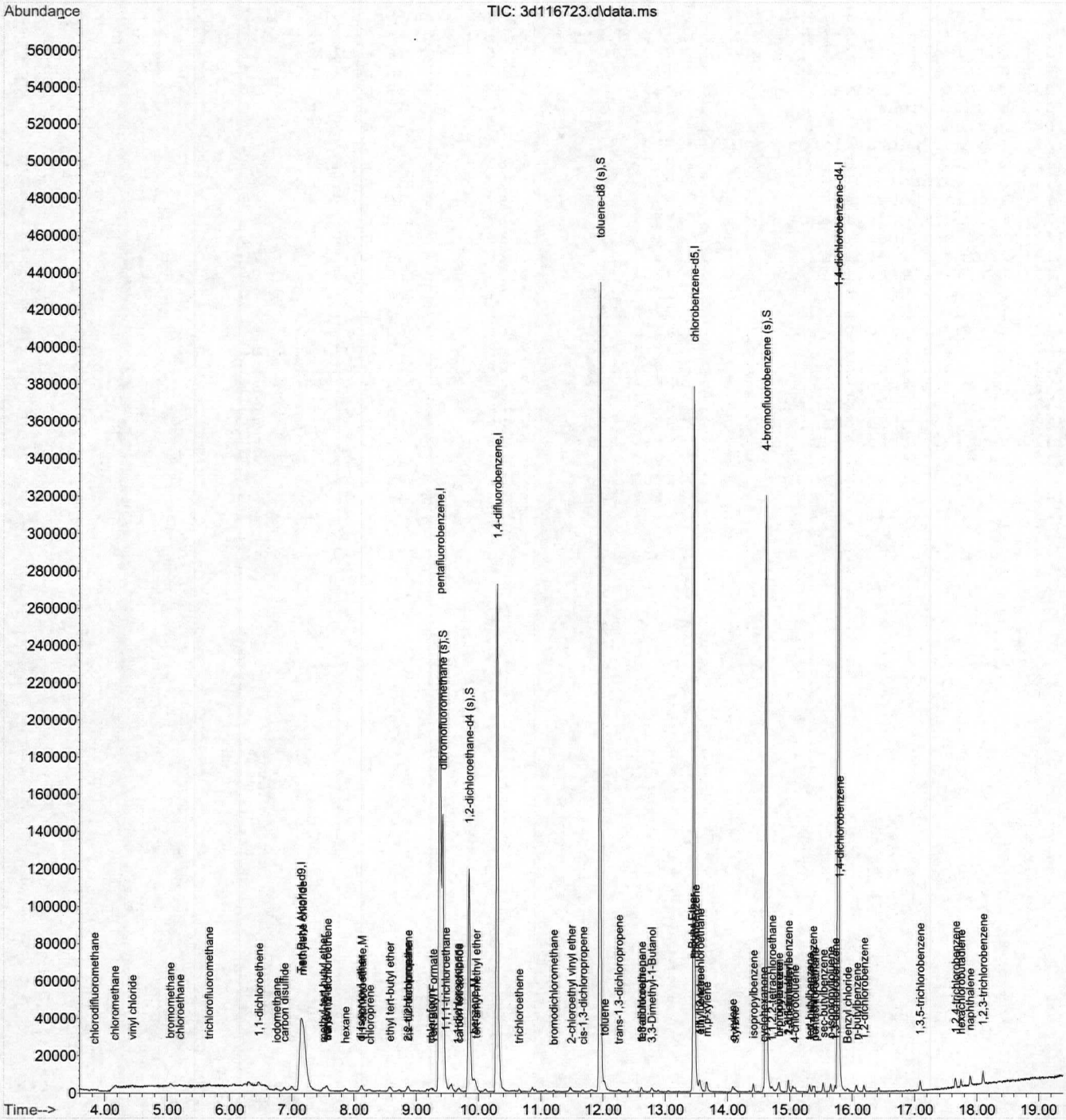
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116723.d
Acq On : 20 Jan 2016 12:31 pm
Operator : XimenaC
Sample : IC4991-0.5
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 21 10:47:04 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 : Thu Jan 21 09:23:40 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:39 2016 3D

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SGS ACCUTEST JC14083

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116724.d
Acq On : 20 Jan 2016 12:58 pm
Operator : XimenaC
Sample : IC4991-1
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 27 12:02:15 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 : Thu Jan 21 11:09:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.163	65	145514	500.00 ug/L	0.01
4) pentafluorobenzene	9.380	168	236784	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	281503	50.00 ug/L	0.00
88) chlorobenzene-d5	13.465	117	234264	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.777	152	132781	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	101529	50.20 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.40%		
51) 1,2-dichloroethane-d4 (s)	9.852	65	98786	50.47 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.94%		
80) toluene-d8 (s)	11.950	98	329693	49.90 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.80%		
106) 4-bromofluorobenzene (s)	14.618	95	118971	49.84 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.68%		

Target Compounds					Qvalue
3) tertiary butyl alcohol	7.294	59	1397	4.32 ug/L	83
8) chlorodifluoromethane	3.849	51	4272	1.00 ug/L	89
9) dichlorodifluoromethane	3.839	85	4552	0.95 ug/L	83
10) chloromethane	4.169	50	5815	1.02 ug/L	97
11) vinyl chloride	4.441	62	5445	0.99 ug/L	93
12) bromomethane	5.044	94	3147	1.07 ug/L	91
13) chloroethane	5.202	64	1923	1.05 ug/L	76
16) trichlorofluoromethane	5.679	101	3704	0.92 ug/L	87
18) ethyl ether	6.067	74	1084	1.03 ug/L #	65
21) acrolein	6.308	56	550817	1005.44 ug/L	98
22) 1,1-dichloroethene	6.476	61	3448	1.02 ug/L	83
24) allyl chloride	7.005	76	1061	0.83 ug/L #	71
27) iodomethane	6.748	142	3971	0.94 ug/L	96
29) carbon disulfide	6.879	76	8540	1.01 ug/L	95
30) methylene chloride	7.189	84	2192	0.95 ug/L	85
32) methyl tert butyl ether	7.514	73	6415	0.98 ug/L	90
33) trans-1,2-dichloroethene	7.566	61	2901	1.00 ug/L	92
34) di-isopropyl ether	8.122	45	7472	1.03 ug/L #	58
35) ethyl tert-butyl ether	8.583	59	6631	0.97 ug/L	95
37) 1,1-dichloroethane	8.133	63	3453	1.00 ug/L	92
38) chloroprene	8.248	53	2381	0.93 ug/L	83
39) acrylonitrile	7.545	53	3749	4.61 ug/L	89
42) 2,2-dichloropropane	8.872	77	3636	1.05 ug/L	87
43) cis-1,2-dichloroethene	8.877	96	2346	1.02 ug/L #	81
44) propionitrile	8.971	54	2769	8.48 ug/L #	32
46) bromochloromethane	9.176	128	1042	0.94 ug/L	90
48) chloroform	9.239	83	3326	0.99 ug/L	92
49) Tert-Butyl Formate	9.276	59	2019	0.97 ug/L #	88
52) freon 113	6.444	151	1893	0.87 ug/L	85
54) 1,1,1-trichloroethane	9.491	97	2954	0.91 ug/L	96
56) 2,2,4-Trimethylpentane	9.920	57	7420	0.86 ug/L	84
57) tert-amyl methyl ether	9.957	73	7232	1.03 ug/L	95
61) cyclohexane	9.553	84	3757	0.98 ug/L	93
62) carbon tetrachloride	9.690	117	2763	0.92 ug/L	96
63) 1,1-dichloropropene	9.674	75	2365	1.00 ug/L	99
64) hexane	7.865	57	2138	0.96 ug/L	91
65) benzene	9.931	78	7157	0.93 ug/L	90
66) heptane	10.104	57	1299	0.95 ug/L	82
68) 1,2-dichloroethane	9.957	62	2136	0.94 ug/L	91
69) trichloroethene	10.654	95	1750	0.97 ug/L	97
73) 2-chloroethyl vinyl ether	11.462	63	5228	4.66 ug/L	97

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116724.d
Acq On : 20 Jan 2016 12:58 pm
Operator : XimenaC
Sample : IC4991-1
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 27 12:02:15 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 : Thu Jan 21 11:09:37 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
75) 1,2-dichloropropane	10.917	63	1694	0.86 ug/L	87
76) methylcyclohexane	10.869	83	3710	0.96 ug/L	92
77) dibromomethane	11.084	93	1060	0.86 ug/L	90
78) bromodichloromethane	11.200	83	2323	0.96 ug/L	88
79) cis-1,3-dichloropropene	11.677	75	2773	1.01 ug/L	91
82) toluene	12.028	92	4443	1.06 ug/L	89
84) trans-1,3-dichloropropene	12.238	75	2368	0.99 ug/L	90
86) 1,1,2-trichloroethane	12.442	83	1400	1.01 ug/L	83
89) tetrachloroethene	12.615	166	1807	0.94 ug/L	96
90) 1,3-dichloropropane	12.626	76	2605	1.03 ug/L	92
92) 3,3-Dimethyl-1-Butanol	12.783	57	2771	10.19 ug/L #	92
93) dibromochloromethane	12.888	129	1926	0.98 ug/L	92
94) 1,2-dibromoethane	13.045	107	1577	0.94 ug/L	96
95) n-Butyl Ether	13.423	57	7952	1.00 ug/L #	80
96) chlorobenzene	13.501	112	4930	1.03 ug/L	87
97) 1,1,1,2-tetrachloroethane	13.554	131	2058	0.95 ug/L	94
98) ethylbenzene	13.559	91	8193	1.00 ug/L	95
99) m,p-xylene	13.664	106	6077	1.97 ug/L	84
100) o-xylene	14.083	106	3065	0.95 ug/L	99
101) styrene	14.099	104	5012	1.01 ug/L	98
103) bromoform	14.356	173	1510	1.06 ug/L	81
105) isopropylbenzene	14.419	105	8951	0.96 ug/L	97
107) bromobenzene	14.817	156	2345	1.05 ug/L	92
108) cyclohexanone	14.587	55	2578	9.67 ug/L	92
109) 1,1,2,2-tetrachloroethane	14.718	83	3052	1.10 ug/L	94
111) 1,2,3-trichloropropane	14.791	110	510	0.89 ug/L	96
112) n-propylbenzene	14.828	91	10401	1.00 ug/L	97
114) 2-chlorotoluene	14.975	126	2154	1.02 ug/L #	82
115) 4-chlorotoluene	15.085	126	1935	0.98 ug/L	99
116) 1,3,5-trimethylbenzene	14.980	105	7803	0.98 ug/L	93
117) tert-butylbenzene	15.321	119	6293	0.95 ug/L	98
118) pentachloroethane	15.405	167	1728	0.97 ug/L	93
119) 1,2,4-trimethylbenzene	15.373	105	7869	1.00 ug/L	90
120) sec-butylbenzene	15.536	105	10141	0.94 ug/L	98
121) 1,3-dichlorobenzene	15.730	146	4706	1.03 ug/L	97
122) p-isopropyltoluene	15.656	119	8303	0.93 ug/L	99
123) 1,4-dichlorobenzene	15.803	146	5342	1.13 ug/L	98
124) 1,2-dichlorobenzene	16.191	146	5294	1.08 ug/L	90
126) n-butylbenzene	16.060	92	4478	0.98 ug/L	94
128) 1,2-dibromo-3-chloropr...	16.915	157	700	0.99 ug/L	96
129) 1,3,5-trichlorobenzene	17.088	180	5323	1.01 ug/L	98
130) 1,2,4-trichlorobenzene	17.654	180	5340	1.00 ug/L	97
131) hexachlorobutadiene	17.754	225	2434	0.97 ug/L	88
132) naphthalene	17.890	128	11783	0.97 ug/L	96
133) 1,2,3-trichlorobenzene	18.100	180	5618	1.01 ug/L	96
134) hexachloroethane	16.427	119	1531	0.86 ug/L	98
135) Benzyl chloride	15.924	91	5432	1.10 ug/L #	83

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

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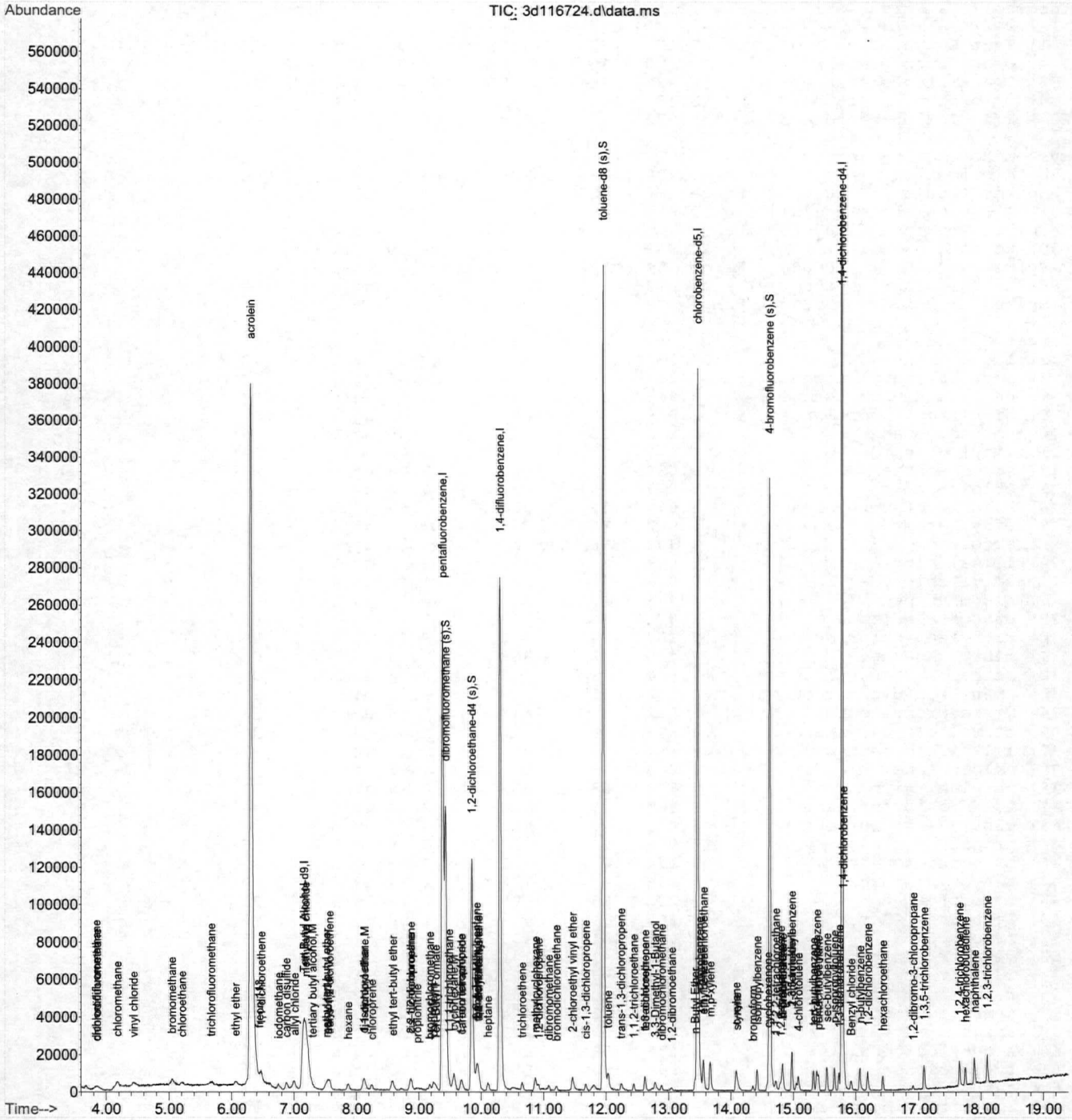
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116724.d
Acq On : 20 Jan 2016 12:58 pm
Operator : XimenaC
Sample : IC4991-1
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 27 12:02:15 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 : Thu Jan 21 11:09:37 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:40 2016 3D

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SGS ACCUTEST JC14083

7.7.16 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116725.d
Acq On : 20 Jan 2016 1:25 pm
Operator : XimenaC
Sample : IC4991-2
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 21 11:22:49 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 : Thu Jan 21 11:14:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.157	65	149834	500.00 ug/L	0.00
4) pentafluorobenzene	9.380	168	237781	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	282057	50.00 ug/L	0.00
88) chlorobenzene-d5	13.459	117	233632	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	129984	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	101734	50.09 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	= 100.18%	
51) 1,2-dichloroethane-d4 (s)	9.852	65	99604	50.68 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery	= 101.36%	
80) toluene-d8 (s)	11.949	98	328286	49.58 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery	= 99.16%	
106) 4-bromofluorobenzene (s)	14.613	95	116481	49.85 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery	= 99.70%	

Target Compounds					Qvalue
2) 1,4-dioxane	11.032	88	1427	49.57 ug/L #	43
3) tertiary butyl alcohol	7.262	59	4287	12.86 ug/L	92
8) chlorodifluoromethane	3.865	51	8783	2.04 ug/L	93
9) dichlorodifluoromethane	3.859	85	10016	2.07 ug/L	92
10) chloromethane	4.179	50	11121	1.95 ug/L	95
11) vinyl chloride	4.436	62	11875	2.16 ug/L	94
12) bromomethane	5.050	94	6026	2.04 ug/L	99
13) chloroethane	5.207	64	3710	2.01 ug/L	98
16) trichlorofluoromethane	5.674	101	8359	2.07 ug/L	94
18) ethyl ether	6.067	74	2181	2.06 ug/L	88
21) acrolein	6.303	56	1080390	1963.84 ug/L	99
22) 1,1-dichloroethene	6.465	61	7240	2.13 ug/L	93
24) allyl chloride	7.005	76	2493	1.95 ug/L #	60
27) iodomethane	6.748	142	8990	2.11 ug/L	92
29) carbon disulfide	6.879	76	17396	2.05 ug/L	98
30) methylene chloride	7.184	84	4769	2.06 ug/L	98
31) methyl acetate	7.000	43	3685	2.33 ug/L #	61
32) methyl tert butyl ether	7.514	73	13420	2.04 ug/L	95
33) trans-1,2-dichloroethene	7.572	61	6198	2.13 ug/L	93
34) di-isopropyl ether	8.122	45	14480	1.98 ug/L #	53
35) ethyl tert-butyl ether	8.573	59	13909	2.02 ug/L	96
37) 1,1-dichloroethane	8.127	63	7305	2.11 ug/L	97
38) chloroprene	8.248	53	5103	1.99 ug/L	91
39) acrylonitrile	7.530	53	8329	10.19 ug/L	87
42) 2,2-dichloropropane	8.867	77	7369	2.11 ug/L	94
43) cis-1,2-dichloroethene	8.872	96	4666	2.01 ug/L #	71
44) propionitrile	8.956	54	6224	18.98 ug/L #	56
46) bromochloromethane	9.171	128	2115	1.89 ug/L	93
47) tetrahydrofuran	9.234	42	1778	2.34 ug/L #	40
48) chloroform	9.228	83	6987	2.08 ug/L	91
49) Tert-Butyl Formate	9.265	59	4173	2.00 ug/L	97
52) freon 113	6.450	151	4331	1.98 ug/L	95
53) methacrylonitrile	9.134	41	2014	1.95 ug/L	71
54) 1,1,1-trichloroethane	9.485	97	6830	2.10 ug/L	89
56) 2,2,4-Trimethylpentane	9.926	57	15848	1.83 ug/L	91
57) tert-amyl methyl ether	9.962	73	14045	2.00 ug/L	98
59) epichlorohydrin	11.577	57	2172	11.29 ug/L	91
60) n-butyl alcohol	10.481	56	8029	120.04 ug/L	95
61) cyclohexane	9.564	84	8044	2.10 ug/L	99
62) carbon tetrachloride	9.695	117	6256	2.09 ug/L	97
63) 1,1-dichloropropene	9.674	75	4907	2.07 ug/L	96

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116725.d
Acq On : 20 Jan 2016 1:25 pm
Operator : XimenaC
Sample : IC4991-2
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 21 11:22:49 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 : Thu Jan 21 11:14:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
64) hexane	7.870	57	4597	2.07 ug/L	92
65) benzene	9.931	78	16199	2.09 ug/L	94
66) heptane	10.109	57	2694	1.97 ug/L	91
67) isopropyl acetate	9.857	43	7801	2.19 ug/L	72
68) 1,2-dichloroethane	9.936	62	4626	2.02 ug/L	86
69) trichloroethene	10.649	95	3561	1.96 ug/L	93
73) 2-chloroethyl vinyl ether	11.451	63	11809	10.50 ug/L	93
74) methyl methacrylate	10.948	69	2011	1.84 ug/L #	36
75) 1,2-dichloropropane	10.911	63	4101	2.07 ug/L	87
76) methylcyclohexane	10.864	83	7592	1.96 ug/L	98
77) dibromomethane	11.069	93	2534	2.05 ug/L	88
78) bromodichloromethane	11.200	83	4948	2.05 ug/L	98
79) cis-1,3-dichloropropene	11.666	75	5656	2.05 ug/L	92
81) 4-methyl-2-pentanone	11.766	58	1407	1.40 ug/L #	28
82) toluene	12.028	92	8457	2.01 ug/L	96
83) 3-methyl-1-butanol	11.787	70	2725	45.17 ug/L #	69
84) trans-1,3-dichloropropene	12.233	75	4682	1.96 ug/L	93
85) ethyl methacrylate	12.233	69	3713	1.79 ug/L	86
86) 1,1,2-trichloroethane	12.437	83	2636	1.91 ug/L	84
87) 2-hexanone	12.652	58	842	1.40 ug/L #	28
89) tetrachloroethene	12.615	166	3804	1.99 ug/L	90
90) 1,3-dichloropropane	12.621	76	5053	2.01 ug/L	94
91) butyl acetate	12.704	56	1689	1.55 ug/L #	67
92) 3,3-Dimethyl-1-Butanol	12.783	57	6536	24.10 ug/L #	92
93) dibromochloromethane	12.883	129	3703	1.90 ug/L	97
94) 1,2-dibromoethane	13.040	107	3335	1.98 ug/L	94
95) n-Butyl Ether	13.418	57	15970	2.02 ug/L #	89
96) chlorobenzene	13.496	112	9411	1.96 ug/L	89
97) 1,1,1,2-tetrachloroethane	13.554	131	4145	1.91 ug/L	93
98) ethylbenzene	13.554	91	16189	1.98 ug/L	96
99) m,p-xylene	13.659	106	12558	4.07 ug/L	90
100) o-xylene	14.073	106	6189	1.93 ug/L	96
101) styrene	14.094	104	9667	1.96 ug/L	98
103) bromoform	14.346	173	2713	1.90 ug/L	97
105) isopropylbenzene	14.414	105	17974	1.97 ug/L	96
107) bromobenzene	14.817	156	4500	2.05 ug/L	98
108) cyclohexanone	14.576	55	6326	24.24 ug/L	93
109) 1,1,2,2-tetrachloroethane	14.718	83	5921	2.18 ug/L	97
110) trans-1,4-dichloro-2-b...	14.770	53	766	1.53 ug/L #	42
111) 1,2,3-trichloropropane	14.791	110	1187	2.11 ug/L	91
112) n-propylbenzene	14.823	91	20108	1.98 ug/L	99
114) 2-chlorotoluene	14.969	126	4075	1.96 ug/L	100
115) 4-chlorotoluene	15.069	126	4026	2.08 ug/L	91
116) 1,3,5-trimethylbenzene	14.975	105	14909	1.92 ug/L	97
117) tert-butylbenzene	15.316	119	12186	1.88 ug/L	94
118) pentachloroethane	15.394	167	3612	2.06 ug/L	96
119) 1,2,4-trimethylbenzene	15.368	105	14829	1.93 ug/L	97
120) sec-butylbenzene	15.530	105	19930	1.89 ug/L	98
121) 1,3-dichlorobenzene	15.724	146	9177	2.05 ug/L	92
122) p-isopropyltoluene	15.651	119	16754	1.92 ug/L	99
123) 1,4-dichlorobenzene	15.798	146	10090	2.18 ug/L	97
124) 1,2-dichlorobenzene	16.186	146	10160	2.12 ug/L	97
126) n-butylbenzene	16.055	92	8980	2.01 ug/L	93
128) 1,2-dibromo-3-chloropr...	16.909	157	1469	2.12 ug/L	92
129) 1,3,5-trichlorobenzene	17.082	180	10746	2.09 ug/L	98
130) 1,2,4-trichlorobenzene	17.649	180	10866	2.07 ug/L	98
131) hexachlorobutadiene	17.743	225	4867	1.98 ug/L	92
132) naphthalene	17.885	128	25297	2.12 ug/L	98

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116725.d
Acq On : 20 Jan 2016 1:25 pm
Operator : XimenaC
Sample : IC4991-2
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 21 11:22:49 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 : Thu Jan 21 11:14:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
133) 1,2,3-trichlorobenzene	18.094	180	11249	2.08 ug/L	94
134) hexachloroethane	16.422	119	3063	1.76 ug/L	97
135) Benzyl chloride	15.913	91	11594	2.40 ug/L	96

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

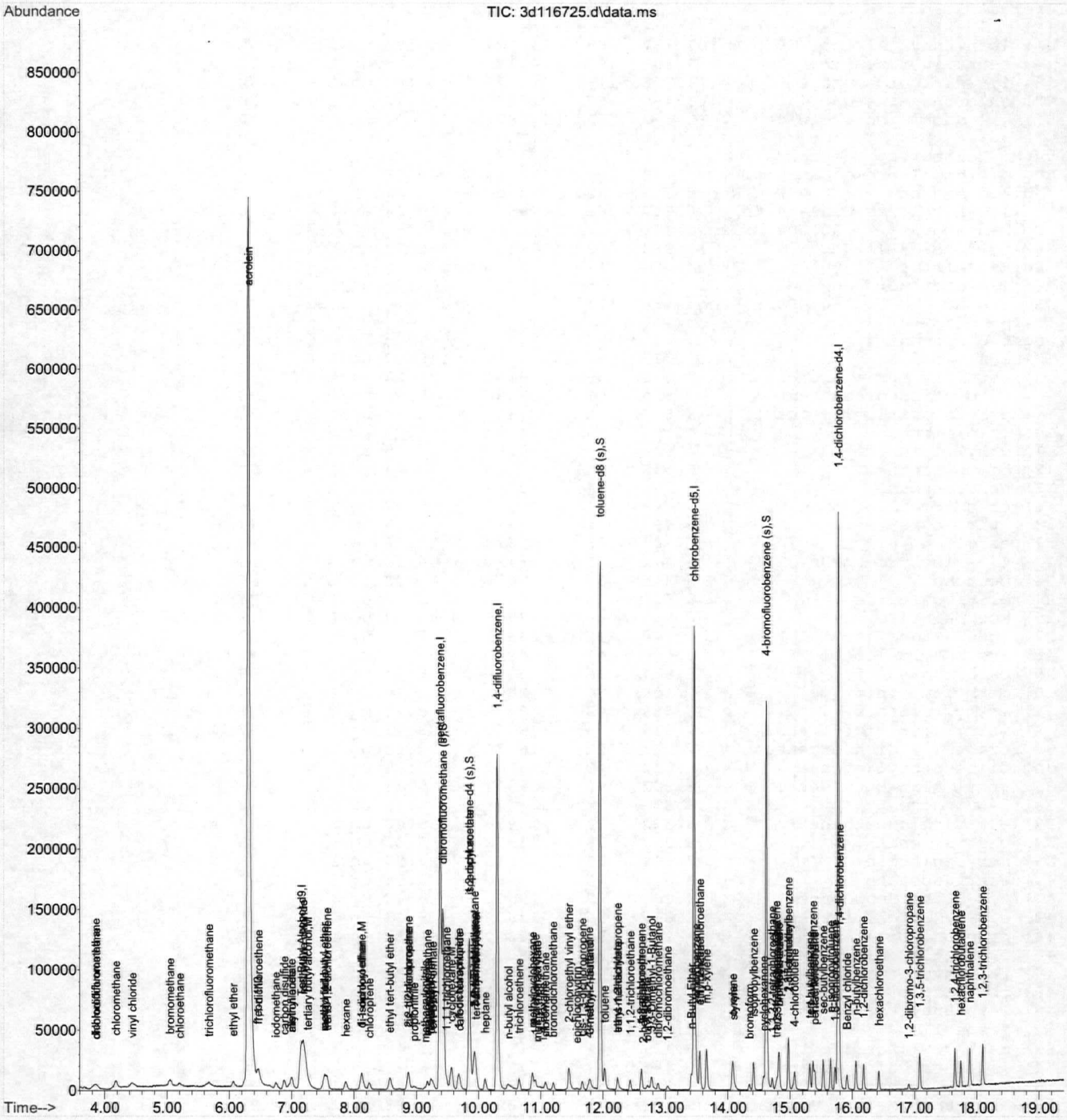
7.7.17

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116725.d
Acq On : 20 Jan 2016 1:25 pm
Operator : XimenaC
Sample : IC4991-2
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 21 11:22:49 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 : Thu Jan 21 11:14:40 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:41 2016 3D

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116726.d
Acq On : 20 Jan 2016 1:52 pm
Operator : XimenaC
Sample : IC4991-5
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 11:23:52 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 : Thu Jan 21 11:14:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.157	65	146147	500.00 ug/L	0.00
4) pentafluorobenzene	9.380	168	241178	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	283476	50.00 ug/L	0.00
88) chlorobenzene-d5	13.460	117	228853	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	128873	50.00 ug/L	0.00

System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	101553	49.29 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 98.58%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	99555	49.94 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.88%		
80) toluene-d8 (s)	11.950	98	332192	49.92 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.84%		
106) 4-bromofluorobenzene (s)	14.613	95	115298	49.76 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.52%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.032	88	3245	115.57 ug/L #	61
3) tertiary butyl alcohol	7.288	59	8154	25.08 ug/L	92
8) chlorodifluoromethane	3.854	51	23458	5.38 ug/L	98
9) dichlorodifluoromethane	3.833	85	26162	5.34 ug/L	98
10) chloromethane	4.169	50	29004	5.00 ug/L	98
11) vinyl chloride	4.426	62	29281	5.25 ug/L	98
12) bromomethane	5.055	94	15420	5.14 ug/L	98
13) chloroethane	5.202	64	9427	5.03 ug/L	95
16) trichlorofluoromethane	5.668	101	22473	5.49 ug/L	98
18) ethyl ether	6.067	74	5646	5.25 ug/L	97
21) acrolein	6.308	56	29628	53.10 ug/L	96
22) 1,1-dichloroethene	6.471	61	18436	5.36 ug/L	98
23) acetone	6.518	58	1058	4.03 ug/L	96
24) allyl chloride	6.995	76	6913	5.32 ug/L #	74
25) acetonitrile	6.984	40	12945	45.83 ug/L #	13
27) iodomethane	6.748	142	23562	5.46 ug/L	99
28) iso-butyl alcohol	9.690	41	5058	50.52 ug/L	92
29) carbon disulfide	6.874	76	45496	5.28 ug/L	98
30) methylene chloride	7.184	84	12808	5.44 ug/L	95
31) methyl acetate	6.990	43	8702	5.42 ug/L #	88
32) methyl tert butyl ether	7.519	73	36197	5.41 ug/L	97
33) trans-1,2-dichloroethene	7.561	61	16486	5.58 ug/L	98
34) di-isopropyl ether	8.112	45	38260	5.15 ug/L #	56
35) ethyl tert-butyl ether	8.573	59	35877	5.14 ug/L	95
36) 2-butanone	8.872	72	871	4.16 ug/L #	14
37) 1,1-dichloroethane	8.122	63	19839	5.66 ug/L	93
38) chloroprene	8.237	53	13952	5.37 ug/L	95
39) acrylonitrile	7.524	53	22610	27.28 ug/L	98
41) ethyl acetate	8.882	45	957	3.71 ug/L	67
42) 2,2-dichloropropane	8.867	77	19350	5.47 ug/L	96
43) cis-1,2-dichloroethene	8.867	96	12529	5.33 ug/L	98
44) propionitrile	8.940	54	18090	54.38 ug/L #	59
46) bromochloromethane	9.176	128	6013	5.30 ug/L	93
47) tetrahydrofuran	9.228	42	3790	4.92 ug/L	91
48) chloroform	9.228	83	18596	5.46 ug/L	99
49) Tert-Butyl Formate	9.265	59	10712	5.05 ug/L #	88
52) freon 113	6.444	151	11889	5.35 ug/L	91
53) methacrylonitrile	9.124	41	5700	5.44 ug/L	95
54) 1,1,1-trichloroethane	9.485	97	17680	5.36 ug/L	98
56) 2,2,4-Trimethylpentane	9.920	57	42854	4.89 ug/L	96
57) tert-amyl methyl ether	9.957	73	35078	4.93 ug/L	98

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116726.d
Acq On : 20 Jan 2016 1:52 pm
Operator : XimenaC
Sample : IC4991-5
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 11:23:52 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 : Thu Jan 21 11:14:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
59) epichlorohydrin	11.577	57	4900	25.34 ug/L	92
60) n-butyl alcohol	10.450	56	15343	228.25 ug/L	96
61) cyclohexane	9.564	84	20957	5.45 ug/L	97
62) carbon tetrachloride	9.690	117	16787	5.57 ug/L	97
63) 1,1-dichloropropene	9.669	75	13275	5.59 ug/L	98
64) hexane	7.865	57	12692	5.68 ug/L	95
65) benzene	9.926	78	42917	5.52 ug/L	99
66) heptane	10.104	57	7534	5.48 ug/L	94
67) isopropyl acetate	9.858	43	17110	4.78 ug/L	87
68) 1,2-dichloroethane	9.941	62	12580	5.48 ug/L	98
69) trichloroethene	10.654	95	10056	5.51 ug/L	98
72) 2-nitropropane	11.420	41	3522	5.17 ug/L	84
73) 2-chloroethyl vinyl ether	11.441	63	30308	26.81 ug/L	96
74) methyl methacrylate	10.938	69	5874	5.34 ug/L #	59
75) 1,2-dichloropropane	10.906	63	10897	5.47 ug/L	97
76) methylcyclohexane	10.864	83	20640	5.30 ug/L	96
77) dibromomethane	11.074	93	6856	5.53 ug/L	95
78) bromodichloromethane	11.200	83	12741	5.24 ug/L	97
79) cis-1,3-dichloropropene	11.661	75	15212	5.48 ug/L	93
81) 4-methyl-2-pentanone	11.761	58	4029	4.00 ug/L	93
82) toluene	12.028	92	23194	5.47 ug/L	99
83) 3-methyl-1-butanol	11.787	70	5669	93.51 ug/L	92
84) trans-1,3-dichloropropene	12.227	75	12942	5.40 ug/L	93
85) ethyl methacrylate	12.227	69	11492	5.53 ug/L	96
86) 1,1,2-trichloroethane	12.432	83	7486	5.39 ug/L	97
87) 2-hexanone	12.636	58	2782	4.59 ug/L	88
89) tetrachloroethene	12.610	166	10621	5.68 ug/L	97
90) 1,3-dichloropropane	12.615	76	13198	5.37 ug/L	97
91) butyl acetate	12.699	56	4191	3.92 ug/L #	70
92) 3,3-Dimethyl-1-Butanol	12.773	57	12325	46.39 ug/L #	96
93) dibromochloromethane	12.878	129	10144	5.30 ug/L	99
94) 1,2-dibromoethane	13.035	107	8885	5.39 ug/L	95
95) n-Butyl Ether	13.412	57	42572	5.50 ug/L	94
96) chlorobenzene	13.491	112	25498	5.43 ug/L	96
97) 1,1,1,2-tetrachloroethane	13.549	131	10992	5.17 ug/L	98
98) ethylbenzene	13.549	91	42654	5.34 ug/L	99
99) m,p-xylene	13.653	106	33027	10.93 ug/L	100
100) o-xylene	14.068	106	17731	5.63 ug/L	92
101) styrene	14.089	104	26446	5.47 ug/L	98
103) bromoform	14.340	173	7157	5.12 ug/L	98
105) isopropylbenzene	14.409	105	47642	5.27 ug/L	99
107) bromobenzene	14.807	156	12153	5.59 ug/L	96
108) cyclohexanone	14.571	55	15155	58.58 ug/L	96
109) 1,1,2,2-tetrachloroethane	14.707	83	13879	5.14 ug/L	100
110) trans-1,4-dichloro-2-b...	14.760	53	2856	5.77 ug/L	91
111) 1,2,3-trichloropropane	14.786	110	3128	5.60 ug/L	84
112) n-propylbenzene	14.823	91	52852	5.26 ug/L	99
114) 2-chlorotoluene	14.964	126	11257	5.47 ug/L	91
115) 4-chlorotoluene	15.069	126	10746	5.60 ug/L	98
116) 1,3,5-trimethylbenzene	14.970	105	39994	5.20 ug/L	97
117) tert-butylbenzene	15.316	119	32620	5.08 ug/L	98
118) pentachloroethane	15.399	167	8687	5.00 ug/L	95
119) 1,2,4-trimethylbenzene	15.363	105	39914	5.25 ug/L	94
120) sec-butylbenzene	15.531	105	54859	5.24 ug/L	98
121) 1,3-dichlorobenzene	15.719	146	23062	5.21 ug/L	98
122) p-isopropyltoluene	15.651	119	45228	5.22 ug/L	99
123) 1,4-dichlorobenzene	15.798	146	24589	5.35 ug/L	96
124) 1,2-dichlorobenzene	16.181	146	24978	5.25 ug/L	98

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116726.d
Acq On : 20 Jan 2016 1:52 pm
Operator : XimenaC
Sample : IC4991-5
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 11:23:52 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 : Thu Jan 21 11:14:29 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
126) n-butylbenzene	16.055	92	23997	5.42 ug/L	97
128) 1,2-dibromo-3-chloropr...	16.909	157	3431	4.98 ug/L	88
129) 1,3,5-trichlorobenzene	17.082	180	26441	5.19 ug/L	99
130) 1,2,4-trichlorobenzene	17.649	180	27204	5.24 ug/L	99
131) hexachlorobutadiene	17.743	225	12733	5.23 ug/L	98
132) naphthalene	17.885	128	61618	5.20 ug/L	99
133) 1,2,3-trichlorobenzene	18.094	180	28032	5.22 ug/L	97
134) hexachloroethane	16.427	119	8236	4.78 ug/L	97
135) Benzyl chloride	15.913	91	22872	4.78 ug/L	98

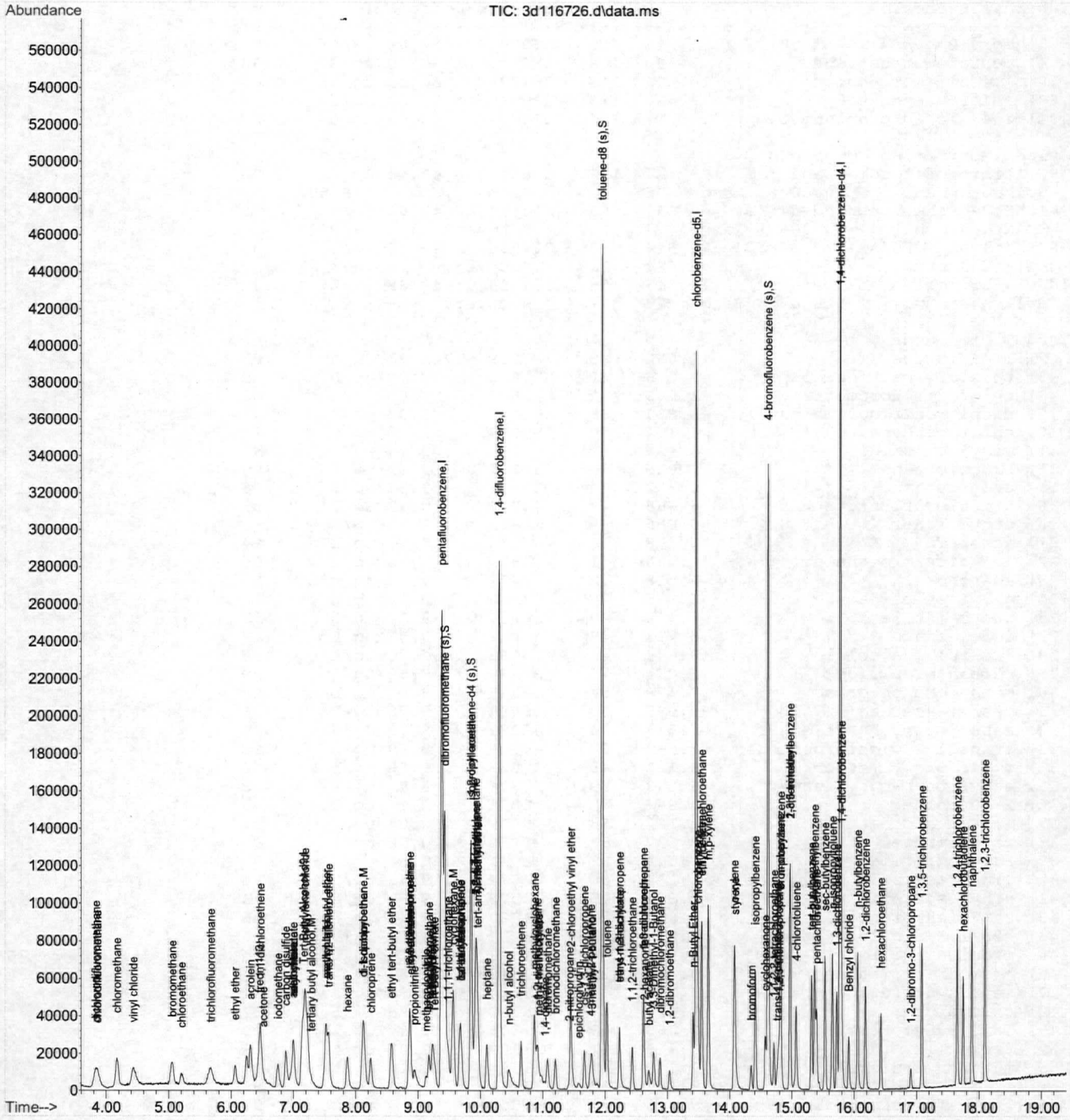
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.18 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116726.d
Acq On : 20 Jan 2016 1:52 pm
Operator : XimenaC
Sample : IC4991-5
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 11:23:52 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 : Thu Jan 21 11:14:29 2016
Response via : Initial Calibration



7.7.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116727.d
Acq On : 20 Jan 2016 2:19 pm
Operator : XimenaC
Sample : IC4991-10
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 11:59:20 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 : Thu Jan 21 11:14:21 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.147	65	160965	500.00 ug/L	0.00
4) pentafluorobenzene	9.380	168	252599	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	297878	50.00 ug/L	0.00
88) chlorobenzene-d5	13.459	117	239030	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.771	152	135056	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.427	113	106680	49.44 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 98.88%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	103614	49.63 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.26%		
80) toluene-d8 (s)	11.944	98	348534	49.85 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.70%		
106) 4-bromofluorobenzene (s)	14.613	95	121130	49.89 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.78%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.032	88	7599	245.73 ug/L	83
3) tertiary butyl alcohol	7.283	59	17620	49.20 ug/L	90
8) chlorodifluoromethane	3.849	51	46075	10.09 ug/L	97
9) dichlorodifluoromethane	3.833	85	51205	9.98 ug/L	93
10) chloromethane	4.174	50	54644	9.00 ug/L	96
11) vinyl chloride	4.436	62	56762	9.72 ug/L	98
12) bromomethane	5.055	94	30167	9.61 ug/L	100
13) chloroethane	5.202	64	18655	9.51 ug/L	98
16) trichlorofluoromethane	5.668	101	44714	10.42 ug/L	95
18) ethyl ether	6.056	74	10823	9.61 ug/L	96
21) acrolein	6.308	56	57760	98.83 ug/L	94
22) 1,1-dichloroethene	6.470	61	34500	9.58 ug/L	96
23) acetone	6.518	58	2029	7.38 ug/L	88
24) allyl chloride	6.995	76	13568	9.97 ug/L	97
25) acetonitrile	6.963	40	26266	88.79 ug/L	97
27) iodomethane	6.743	142	44828	9.92 ug/L	97
28) iso-butyl alcohol	9.674	41	9098	86.76 ug/L	98
29) carbon disulfide	6.874	76	86499	9.58 ug/L	99
30) methylene chloride	7.178	84	23845	9.67 ug/L	97
31) methyl acetate	6.995	43	16434	9.78 ug/L	96
32) methyl tert butyl ether	7.514	73	68071	9.72 ug/L	99
33) trans-1,2-dichloroethene	7.561	61	30606	9.89 ug/L	99
34) di-isopropyl ether	8.111	45	75089	9.66 ug/L #	62
35) ethyl tert-butyl ether	8.573	59	71736	9.82 ug/L	98
36) 2-butanone	8.866	72	2009	9.16 ug/L #	48
37) 1,1-dichloroethane	8.122	63	36879	10.04 ug/L	97
38) chloroprene	8.237	53	27436	10.08 ug/L	98
39) acrylonitrile	7.514	53	44851	51.68 ug/L	97
40) vinyl acetate	8.132	86	2872	9.42 ug/L	94
41) ethyl acetate	8.866	45	2572	9.51 ug/L #	23
42) 2,2-dichloropropane	8.861	77	34852	9.40 ug/L	95
43) cis-1,2-dichloroethene	8.866	96	23237	9.44 ug/L	99
44) propionitrile	8.929	54	34583	99.26 ug/L	64
46) bromochloromethane	9.176	128	11646	9.81 ug/L	95
47) tetrahydrofuran	9.218	42	8010	9.94 ug/L	94
48) chloroform	9.228	83	35169	9.86 ug/L	97
49) Tert-Butyl Formate	9.260	59	21809	9.82 ug/L #	89
52) freon 113	6.449	151	23309	10.01 ug/L	98
53) methacrylonitrile	9.118	41	11500	10.47 ug/L	94
54) 1,1,1-trichloroethane	9.485	97	33471	9.70 ug/L	98
56) 2,2,4-Trimethylpentane	9.925	57	87560	9.54 ug/L	98

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116727.d
Acq On : 20 Jan 2016 2:19 pm
Operator : XimenaC
Sample : IC4991-10
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 11:59:20 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 : Thu Jan 21 11:14:21 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
57) tert-amyl methyl ether	9.957	73	70039	9.39 ug/L	96
59) epichlorohydrin	11.567	57	10680	52.57 ug/L	97
60) n-butyl alcohol	10.439	56	35836	507.33 ug/L	98
61) cyclohexane	9.553	84	39207	9.70 ug/L	98
62) carbon tetrachloride	9.690	117	32019	10.12 ug/L	95
63) 1,1-dichloropropene	9.663	75	25296	10.13 ug/L	97
64) hexane	7.865	57	24948	10.62 ug/L	99
65) benzene	9.925	78	78755	9.64 ug/L	98
66) heptane	10.099	57	14585	10.10 ug/L	97
67) isopropyl acetate	9.852	43	35198	9.37 ug/L	93
68) 1,2-dichloroethane	9.936	62	23810	9.87 ug/L	98
69) trichloroethene	10.644	95	19043	9.94 ug/L	95
72) 2-nitropropane	11.425	41	7001	9.77 ug/L	86
73) 2-chloroethyl vinyl ether	11.441	63	62294	52.44 ug/L	99
74) methyl methacrylate	10.922	69	11249	9.74 ug/L #	82
75) 1,2-dichloropropane	10.906	63	20237	9.66 ug/L	94
76) methylcyclohexane	10.864	83	40838	9.97 ug/L	96
77) dibromomethane	11.068	93	12852	9.86 ug/L	94
78) bromodichloromethane	11.200	83	24618	9.64 ug/L	99
79) cis-1,3-dichloropropene	11.661	75	28892	9.90 ug/L	100
81) 4-methyl-2-pentanone	11.750	58	8202	7.75 ug/L	96
82) toluene	12.023	92	43275	9.71 ug/L	95
83) 3-methyl-1-butanol	11.776	70	13229	207.66 ug/L	98
84) trans-1,3-dichloropropene	12.222	75	25383	10.08 ug/L	97
85) ethyl methacrylate	12.217	69	22208	10.16 ug/L	97
86) 1,1,2-trichloroethane	12.432	83	14026	9.61 ug/L	97
87) 2-hexanone	12.626	58	6584	10.35 ug/L	87
89) tetrachloroethene	12.610	166	19833	10.16 ug/L	97
90) 1,3-dichloropropane	12.610	76	25729	10.02 ug/L	95
91) butyl acetate	12.689	56	9905	8.86 ug/L #	79
92) 3,3-Dimethyl-1-Butanol	12.772	57	26618	95.91 ug/L #	98
93) dibromochloromethane	12.877	129	18945	9.48 ug/L	95
94) 1,2-dibromoethane	13.029	107	16749	9.73 ug/L	96
95) n-Butyl Ether	13.412	57	79512	9.84 ug/L	96
96) chlorobenzene	13.491	112	47419	9.67 ug/L	100
97) 1,1,1,2-tetrachloroethane	13.548	131	21208	9.55 ug/L	95
98) ethylbenzene	13.548	91	81367	9.75 ug/L	99
99) m,p-xylene	13.653	106	62980	19.96 ug/L	94
100) o-xylene	14.068	106	32902	10.01 ug/L	94
101) styrene	14.083	104	51086	10.12 ug/L	97
103) bromoform	14.340	173	13860	9.50 ug/L	99
105) isopropylbenzene	14.408	105	88247	9.32 ug/L	99
107) bromobenzene	14.812	156	21883	9.60 ug/L	98
108) cyclohexanone	14.571	55	28608	105.52 ug/L	97
109) 1,1,2,2-tetrachloroethane	14.707	83	25653	9.07 ug/L	100
110) trans-1,4-dichloro-2-b...	14.760	53	5664	10.91 ug/L	95
111) 1,2,3-trichloropropane	14.786	110	5628	9.61 ug/L	95
112) n-propylbenzene	14.817	91	100440	9.54 ug/L	98
114) 2-chlorotoluene	14.964	126	21181	9.82 ug/L	98
115) 4-chlorotoluene	15.064	126	20208	10.05 ug/L	95
116) 1,3,5-trimethylbenzene	14.969	105	76565	9.49 ug/L	99
117) tert-butylbenzene	15.315	119	62324	9.26 ug/L	99
118) pentachloroethane	15.399	167	16542	9.09 ug/L	95
119) 1,2,4-trimethylbenzene	15.363	105	76140	9.55 ug/L	97
120) sec-butylbenzene	15.530	105	103779	9.46 ug/L	99
121) 1,3-dichlorobenzene	15.719	146	43954	9.47 ug/L	96
122) p-isopropyltoluene	15.646	119	85142	9.38 ug/L	98
123) 1,4-dichlorobenzene	15.798	146	45116	9.36 ug/L	97

7.7.19 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116727.d
Acq On : 20 Jan 2016 2:19 pm
Operator : XimenaC
Sample : IC4991-10
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 11:59:20 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 : Thu Jan 21 11:14:21 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
124) 1,2-dichlorobenzene	16.180	146	46782	9.38 ug/L	100
126) n-butylbenzene	16.055	92	46235	9.96 ug/L	98
128) 1,2-dibromo-3-chloropr...	16.904	157	6878	9.53 ug/L	97
129) 1,3,5-trichlorobenzene	17.082	180	49166	9.21 ug/L	98
130) 1,2,4-trichlorobenzene	17.648	180	50600	9.30 ug/L	99
131) hexachlorobutadiene	17.743	225	23789	9.32 ug/L	99
132) naphthalene	17.884	128	118449	9.54 ug/L	99
133) 1,2,3-trichlorobenzene	18.094	180	51832	9.21 ug/L	99
134) hexachloroethane	16.427	119	15911	8.82 ug/L	98
135) Benzyl chloride	15.908	91	46742	9.32 ug/L	99

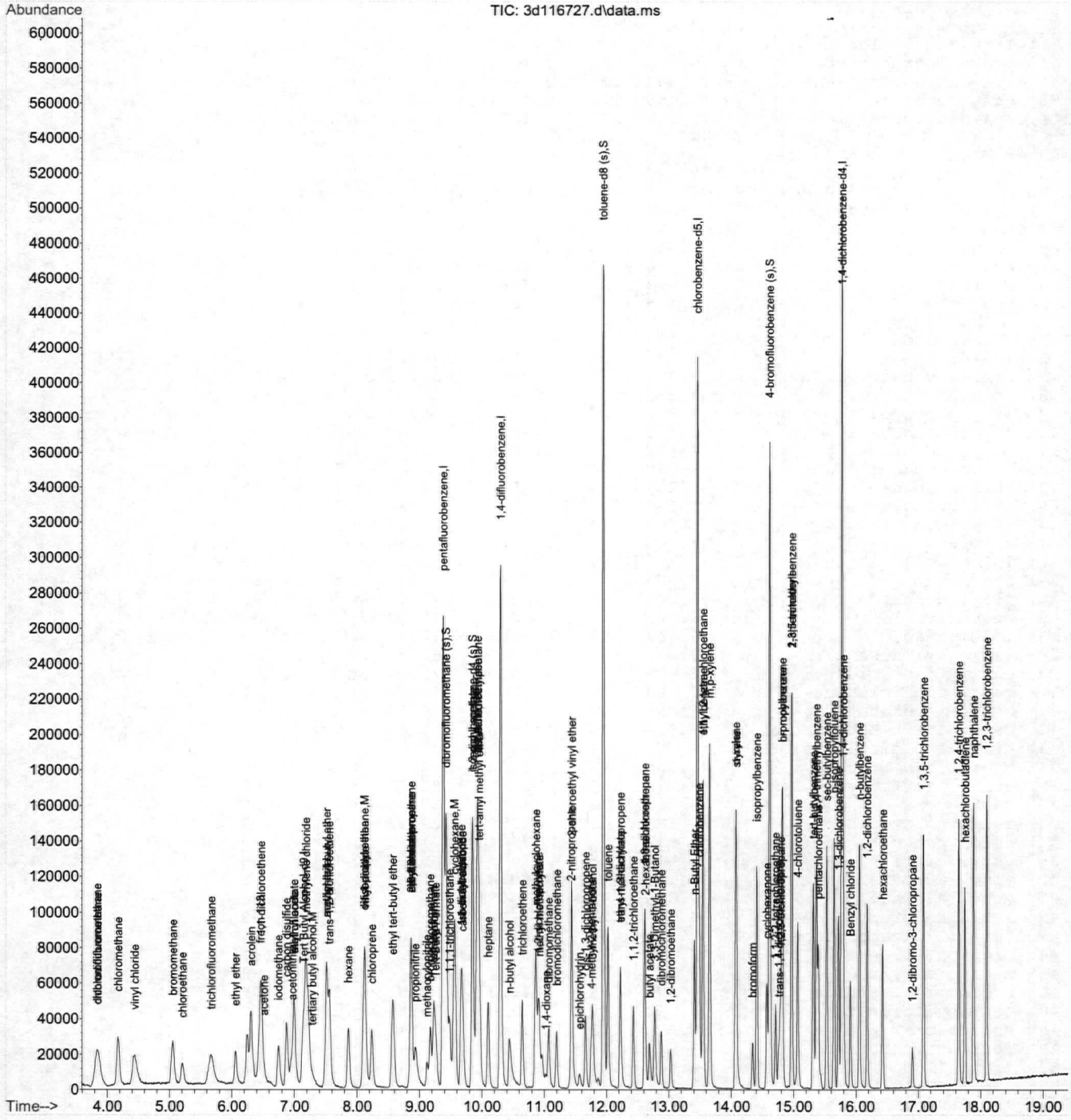
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.19 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116727.d
Acq On : 20 Jan 2016 2:19 pm
Operator : XimenaC
Sample : IC4991-10
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 27 11:59:20 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 : Thu Jan 21 11:14:21 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:43 2016 3D

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SGS ACCUTEST JC14083

7.7.19 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116728.d
Acq On : 20 Jan 2016 2:46 pm
Operator : XimenaC
Sample : IC4991-20
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 27 11:59:28 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 : Thu Jan 21 11:14:12 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.157	65	147070	500.00 ug/L	0.00
4) pentafluorobenzene	9.380	168	241432	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	290011	50.00 ug/L	0.00
88) chlorobenzene-d5	13.459	117	234431	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	131254	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	105212	51.02 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	= 102.04%	
51) 1,2-dichloroethane-d4 (s)	9.847	65	101209	50.72 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery	= 101.44%	
80) toluene-d8 (s)	11.944	98	339294	49.84 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery	= 99.68%	
106) 4-bromofluorobenzene (s)	14.613	95	118680	50.30 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery	= 100.60%	

Target Compounds					Qvalue
2) 1,4-dioxane	11.021	88	14245	504.16 ug/L	84
3) tertiary butyl alcohol	7.273	59	32886	100.51 ug/L	95
8) chlorodifluoromethane	3.859	51	91619	20.99 ug/L	98
9) dichlorodifluoromethane	3.844	85	101886	20.78 ug/L	98
10) chloromethane	4.190	50	118433	20.40 ug/L	99
11) vinyl chloride	4.452	62	114629	20.53 ug/L	99
12) bromomethane	5.060	94	63069	21.02 ug/L	96
13) chloroethane	5.207	64	40635	21.66 ug/L	98
16) trichlorofluoromethane	5.679	101	91382	22.28 ug/L	97
18) ethyl ether	6.061	74	22442	20.85 ug/L	90
21) acrolein	6.308	56	115426	206.64 ug/L	96
22) 1,1-dichloroethene	6.470	61	73840	21.44 ug/L	98
23) acetone	6.523	58	4590	17.46 ug/L	89
24) allyl chloride	7.000	76	28862	22.19 ug/L	96
25) acetonitrile	6.979	40	50622	179.03 ug/L #	32
27) iodomethane	6.754	142	96806	22.41 ug/L	99
28) iso-butyl alcohol	9.674	41	16915	168.76 ug/L	94
29) carbon disulfide	6.879	76	182010	21.09 ug/L	100
30) methylene chloride	7.183	84	51105	21.69 ug/L	97
31) methyl acetate	6.995	43	31405	19.56 ug/L	98
32) methyl tert butyl ether	7.514	73	143446	21.43 ug/L	98
33) trans-1,2-dichloroethene	7.561	61	64421	21.79 ug/L	99
34) di-isopropyl ether	8.106	45	156599	21.07 ug/L #	65
35) ethyl tert-butyl ether	8.573	59	150367	21.53 ug/L	100
36) 2-butanone	8.856	72	4062	19.37 ug/L	78
37) 1,1-dichloroethane	8.127	63	78352	22.32 ug/L	97
38) chloroprene	8.237	53	57044	21.92 ug/L	98
39) acrylonitrile	7.514	53	91173	109.90 ug/L	100
40) vinyl acetate	8.127	86	6018	20.66 ug/L	81
41) ethyl acetate	8.856	45	5685	22.00 ug/L #	26
42) 2,2-dichloropropane	8.867	77	74623	21.06 ug/L	99
43) cis-1,2-dichloroethene	8.861	96	49602	21.09 ug/L	98
44) propionitrile	8.929	54	70451	211.56 ug/L	81
45) methyl acrylate	8.950	85	5464	22.04 ug/L	88
46) bromochloromethane	9.176	128	24413	21.51 ug/L	95
47) tetrahydrofuran	9.223	42	15299	19.86 ug/L	100
48) chloroform	9.228	83	73146	21.45 ug/L	96
49) Tert-Butyl Formate	9.260	59	45521	21.44 ug/L #	88
52) freon 113	6.465	151	47506	21.34 ug/L	91
53) methacrylonitrile	9.113	41	23106	22.02 ug/L	97
54) 1,1,1-trichloroethane	9.485	97	72159	21.87 ug/L	98

7.7.20

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116728.d
Acq On : 20 Jan 2016 2:46 pm
Operator : XimenaC
Sample : IC4991-20
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 27 11:59:28 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 : Thu Jan 21 11:14:12 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	9.920	57	183714	20.93 ug/L	98
57) tert-amyl methyl ether	9.952	73	145207	20.37 ug/L	97
59) epichlorohydrin	11.561	57	20841	105.36 ug/L	96
60) n-butyl alcohol	10.429	56	69365	1008.65 ug/L	97
61) cyclohexane	9.559	84	80163	20.37 ug/L	96
62) carbon tetrachloride	9.690	117	67590	21.93 ug/L	98
63) 1,1-dichloropropene	9.663	75	52425	21.56 ug/L	98
64) hexane	7.865	57	49677	21.72 ug/L	96
65) benzene	9.920	78	168509	21.19 ug/L	100
66) heptane	10.093	57	29684	21.11 ug/L	96
67) isopropyl acetate	9.847	43	72005	19.68 ug/L	97
68) 1,2-dichloroethane	9.936	62	49708	21.16 ug/L	95
69) trichloroethene	10.644	95	40491	21.70 ug/L	95
72) 2-nitropropane	11.425	41	13726	19.68 ug/L	97
73) 2-chloroethyl vinyl ether	11.436	63	126194	109.11 ug/L	99
74) methyl methacrylate	10.917	69	24385	21.69 ug/L	87
75) 1,2-dichloropropane	10.901	63	43336	21.24 ug/L	96
76) methylcyclohexane	10.859	83	83846	21.03 ug/L	97
77) dibromomethane	11.063	93	26935	21.23 ug/L	94
78) bromodichloromethane	11.194	83	51320	20.64 ug/L	98
79) cis-1,3-dichloropropene	11.656	75	61379	21.61 ug/L	99
81) 4-methyl-2-pentanone	11.745	58	17098	16.60 ug/L	98
82) toluene	12.018	92	93137	21.48 ug/L	99
83) 3-methyl-1-butanol	11.771	70	25517	411.42 ug/L	98
84) trans-1,3-dichloropropene	12.217	75	53410	21.78 ug/L	98
85) ethyl methacrylate	12.212	69	46687	21.94 ug/L	99
86) 1,1,2-trichloroethane	12.427	83	29827	20.99 ug/L	98
87) 2-hexanone	12.610	58	14087	22.74 ug/L	95
89) tetrachloroethene	12.610	166	41808	21.84 ug/L	96
90) 1,3-dichloropropane	12.610	76	53201	21.12 ug/L	96
91) butyl acetate	12.683	56	21756	19.85 ug/L	95
92) 3,3-Dimethyl-1-Butanol	12.773	57	49873	183.23 ug/L	98
93) dibromochloromethane	12.877	129	40207	20.51 ug/L	97
94) 1,2-dibromoethane	13.029	107	35464	21.01 ug/L	98
95) n-Butyl Ether	13.407	57	170495	21.52 ug/L	99
96) chlorobenzene	13.491	112	99014	20.58 ug/L	97
97) 1,1,1,2-tetrachloroethane	13.549	131	45865	21.06 ug/L	97
98) ethylbenzene	13.543	91	171352	20.93 ug/L	100
99) m,p-xylene	13.648	106	135096	43.66 ug/L	99
100) o-xylene	14.068	106	69955	21.69 ug/L	99
101) styrene	14.078	104	108392	21.90 ug/L	98
103) bromoform	14.340	173	28517	19.93 ug/L	96
105) isopropylbenzene	14.408	105	193674	21.04 ug/L	98
107) bromobenzene	14.807	156	46638	21.06 ug/L	99
108) cyclohexanone	14.566	55	51893	196.95 ug/L	98
109) 1,1,2,2-tetrachloroethane	14.707	83	53771	19.57 ug/L	98
110) trans-1,4-dichloro-2-b...	14.754	53	9989	19.80 ug/L	90
111) 1,2,3-trichloropropane	14.786	110	11868	20.86 ug/L	99
112) n-propylbenzene	14.817	91	209828	20.50 ug/L	100
114) 2-chlorotoluene	14.964	126	45240	21.59 ug/L	97
115) 4-chlorotoluene	15.064	126	41412	21.18 ug/L	99
116) 1,3,5-trimethylbenzene	14.969	105	163012	20.79 ug/L	100
117) tert-butylbenzene	15.310	119	136292	20.83 ug/L	99
118) pentachloroethane	15.394	167	36566	20.67 ug/L	98
119) 1,2,4-trimethylbenzene	15.363	105	162804	21.02 ug/L	97
120) sec-butylbenzene	15.530	105	224614	21.07 ug/L	99
121) 1,3-dichlorobenzene	15.714	146	90972	20.16 ug/L	99
122) p-isopropyltoluene	15.646	119	185391	21.02 ug/L	99

7.7.20 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116728.d
Acq On : 20 Jan 2016 2:46 pm
Operator : XimenaC
Sample : IC4991-20
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 27 11:59:28 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 : Thu Jan 21 11:14:12 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	15.798	146	93616	19.99 ug/L	96
124) 1,2-dichlorobenzene	16.175	146	98333	20.29 ug/L	98
126) n-butylbenzene	16.049	92	97995	21.73 ug/L	97
128) 1,2-dibromo-3-chloropr...	16.904	157	14189	20.24 ug/L	95
129) 1,3,5-trichlorobenzene	17.077	180	101897	19.64 ug/L	99
130) 1,2,4-trichlorobenzene	17.643	180	105307	19.91 ug/L	98
131) hexachlorobutadiene	17.743	225	49769	20.06 ug/L	98
132) naphthalene	17.879	128	237439	19.68 ug/L	99
133) 1,2,3-trichlorobenzene	18.094	180	105335	19.25 ug/L	99
134) hexachloroethane	16.427	119	35243	20.10 ug/L	98
135) Benzyl chloride	15.908	91	93120	19.12 ug/L	99

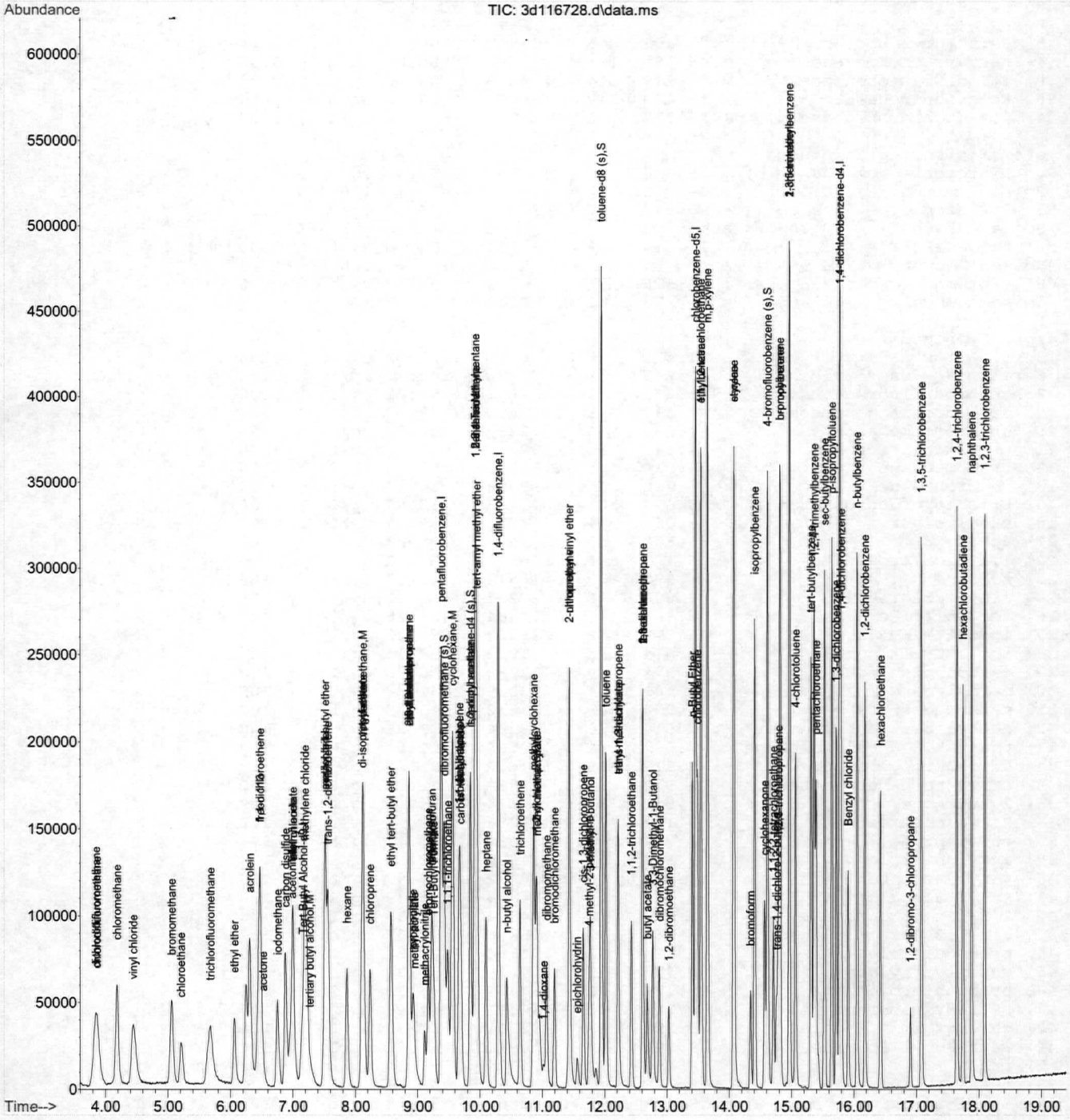
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.20 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116728.d
Acq On : 20 Jan 2016 2:46 pm
Operator : XimenaC
Sample : IC4991-20
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 27 11:59:28 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 : Thu Jan 21 11:14:12 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:44 2016 3D

SGS ACCUTEST JC14083

7.7.20

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116729.d
Acq On : 20 Jan 2016 3:13 pm
Operator : XimenaC
Sample : ICC4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 27 11:59:38 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 : Thu Jan 21 11:13:56 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.152	65	144612	500.00 ug/L	0.00
4) pentafluorobenzene	9.380	168	237560	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	286218	50.00 ug/L	0.00
88) chlorobenzene-d5	13.460	117	230607	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	124250	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	101600	50.07 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.14%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	97945	49.88 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.76%		
80) toluene-d8 (s)	11.950	98	337954	50.30 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.60%		
106) 4-bromofluorobenzene (s)	14.613	95	114743	51.37 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.74%		
Target Compounds					Qvalue
2) 1,4-dioxane	11.016	88	36716	1321.53 ug/L	100
3) tertiary butyl alcohol	7.268	59	79825	248.11 ug/L	100
8) chlorodifluoromethane	3.860	51	232007	54.02 ug/L	100
9) dichlorodifluoromethane	3.839	85	253860	52.62 ug/L	100
10) chloromethane	4.190	50	302269	52.92 ug/L	100
11) vinyl chloride	4.442	62	287217	52.29 ug/L	100
12) bromomethane	5.060	94	154781	52.43 ug/L	100
13) chloroethane	5.212	64	99858	54.10 ug/L	100
16) trichlorofluoromethane	5.674	101	225473	55.87 ug/L	100
18) ethyl ether	6.062	74	53122	50.17 ug/L	100
21) acrolein	6.308	56	267665	486.99 ug/L	100
22) 1,1-dichloroethene	6.471	61	176582	52.11 ug/L	100
23) acetone	6.523	58	10613	41.03 ug/L	100
24) allyl chloride	7.000	76	67221	52.52 ug/L	100
25) acetonitrile	6.963	40	119434	429.28 ug/L	100
27) iodomethane	6.748	142	229052	53.88 ug/L	100
28) iso-butyl alcohol	9.674	41	41632	422.13 ug/L	100
29) carbon disulfide	6.874	76	432788	50.96 ug/L	100
30) methylene chloride	7.189	84	119829	51.69 ug/L	100
31) methyl acetate	6.990	43	73832	46.75 ug/L	100
32) methyl tert butyl ether	7.514	73	338084	51.34 ug/L	100
33) trans-1,2-dichloroethene	7.561	61	150708	51.81 ug/L	100
34) di-isopropyl ether	8.112	45	374670	51.23 ug/L	100
35) ethyl tert-butyl ether	8.573	59	363064	52.82 ug/L	100
36) 2-butanone	8.840	72	11484	55.65 ug/L	100
37) 1,1-dichloroethane	8.127	63	183036	52.98 ug/L	100
38) chloroprene	8.237	53	136894	53.47 ug/L	100
39) acrylonitrile	7.514	53	214304	262.54 ug/L	100
40) vinyl acetate	8.122	86	17172	59.91 ug/L	100
41) ethyl acetate	8.851	45	14849	58.39 ug/L	100
42) 2,2-dichloropropane	8.867	77	174875	50.16 ug/L	100
43) cis-1,2-dichloroethene	8.861	96	115807	50.04 ug/L	100
44) propionitrile	8.924	54	171794	524.30 ug/L	100
45) methyl acrylate	8.935	85	14066	50.80 ug/L	100
46) bromochloromethane	9.171	128	57304	51.32 ug/L	100
47) tetrahydrofuran	9.218	42	36364	47.96 ug/L	100
48) chloroform	9.228	83	172251	51.32 ug/L	100
49) Tert-Butyl Formate	9.260	59	110871	53.07 ug/L	100
52) freon 113	6.450	151	116604	53.24 ug/L	100
53) methacrylonitrile	9.108	41	57067	55.26 ug/L	100
54) 1,1,1-trichloroethane	9.485	97	172660	53.18 ug/L	100

7.7.21 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116729.d
Acq On : 20 Jan 2016 3:13 pm
Operator : XimenaC
Sample : ICC4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 27 11:59:38 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 : Thu Jan 21 11:13:56 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	9.926	57	479297	55.50 ug/L	100
57) tert-amyl methyl ether	9.957	73	351207	50.06 ug/L	100
59) epichlorohydrin	11.556	57	51154	262.04 ug/L	100
60) n-butyl alcohol	10.424	56	179227	2640.70 ug/L	100
61) cyclohexane	9.559	84	198859	51.20 ug/L	100
62) carbon tetrachloride	9.690	117	162841	53.54 ug/L	100
63) 1,1-dichloropropene	9.664	75	127321	53.05 ug/L	100
64) hexane	7.860	57	118406	52.45 ug/L	100
65) benzene	9.920	78	399346	50.88 ug/L	100
66) heptane	10.099	57	72636	52.33 ug/L	100
67) isopropyl acetate	9.847	43	180186	49.91 ug/L	100
68) 1,2-dichloroethane	9.936	62	117587	50.72 ug/L	100
69) trichloroethene	10.644	95	97614	53.01 ug/L	100
72) 2-nitropropane	11.410	41	32034	46.55 ug/L	100
73) 2-chloroethyl vinyl ether	11.436	63	305987	268.06 ug/L	100
74) methyl methacrylate	10.911	69	61113	55.07 ug/L	100
75) 1,2-dichloropropane	10.901	63	105237	52.27 ug/L	100
76) methylcyclohexane	10.864	83	203261	51.66 ug/L	100
77) dibromomethane	11.069	93	64139	51.21 ug/L	100
78) bromodichloromethane	11.195	83	125059	50.96 ug/L	100
79) cis-1,3-dichloropropene	11.656	75	151551	54.07 ug/L	100
81) 4-methyl-2-pentanone	11.750	58	41731	41.06 ug/L	100
82) toluene	12.023	92	226805	52.99 ug/L	100
83) 3-methyl-1-butanol	11.771	70	65077	1063.16 ug/L	100
84) trans-1,3-dichloropropene	12.217	75	131086	54.16 ug/L	100
85) ethyl methacrylate	12.212	69	115486	55.00 ug/L	100
86) 1,1,2-trichloroethane	12.432	83	71411	50.91 ug/L	100
87) 2-hexanone	12.605	58	34914	57.10 ug/L	100
89) tetrachloroethene	12.610	166	102421	54.40 ug/L	100
90) 1,3-dichloropropane	12.610	76	127820	51.58 ug/L	100
91) butyl acetate	12.684	56	55424	51.40 ug/L	100
92) 3,3-Dimethyl-1-Butanol	12.773	57	130333	486.80 ug/L	100
93) dibromochloromethane	12.878	129	99470	51.58 ug/L	100
94) 1,2-dibromoethane	13.030	107	85399	51.44 ug/L	100
95) n-Butyl Ether	13.407	57	401882	51.56 ug/L	100
96) chlorobenzene	13.491	112	237551	50.20 ug/L	100
97) 1,1,1,2-tetrachloroethane	13.549	131	112492	52.52 ug/L	100
98) ethylbenzene	13.543	91	414457	51.47 ug/L	100
99) m,p-xylene	13.654	106	319816	105.06 ug/L	100
100) o-xylene	14.068	106	170660	53.79 ug/L	100
101) styrene	14.078	104	261421	53.70 ug/L	100
103) bromoform	14.340	173	71408	50.74 ug/L	100
105) isopropylbenzene	14.409	105	471378	54.10 ug/L	100
107) bromobenzene	14.807	156	111188	53.05 ug/L	100
108) cyclohexanone	14.566	55	110125	441.52 ug/L	100
109) 1,1,2,2-tetrachloroethane	14.707	83	126107	48.48 ug/L	100
110) trans-1,4-dichloro-2-b...	14.755	53	24238	50.76 ug/L	100
111) 1,2,3-trichloropropane	14.786	110	27537	51.13 ug/L	100
112) n-propylbenzene	14.817	91	496187	51.22 ug/L	100
114) 2-chlorotoluene	14.964	126	107616	54.25 ug/L	100
115) 4-chlorotoluene	15.064	126	99894	53.98 ug/L	100
116) 1,3,5-trimethylbenzene	14.970	105	394615	53.17 ug/L	100
117) tert-butylbenzene	15.316	119	341511	55.13 ug/L	100
118) pentachloroethane	15.394	167	93605	55.89 ug/L	100
119) 1,2,4-trimethylbenzene	15.363	105	383099	52.25 ug/L	100
120) sec-butylbenzene	15.531	105	549903	54.49 ug/L	100
121) 1,3-dichlorobenzene	15.714	146	212311	49.70 ug/L	100
122) p-isopropyltoluene	15.646	119	445840	53.40 ug/L	100

7.7.21 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116729.d
Acq On : 20 Jan 2016 3:13 pm
Operator : XimenaC
Sample : ICC4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 27 11:59:38 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 : Thu Jan 21 11:13:56 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	15.798	146	216746	48.88 ug/L	100
124) 1,2-dichlorobenzene	16.175	146	230507	50.23 ug/L	100
126) n-butylbenzene	16.050	92	232428	54.43 ug/L	100
128) 1,2-dibromo-3-chloropr...	16.904	157	32925	49.61 ug/L	100
129) 1,3,5-trichlorobenzene	17.077	180	245273	49.93 ug/L	100
130) 1,2,4-trichlorobenzene	17.643	180	251040	50.14 ug/L	100
131) hexachlorobutadiene	17.743	225	122447	52.15 ug/L	100
132) naphthalene	17.879	128	574921	50.35 ug/L	100
133) 1,2,3-trichlorobenzene	18.089	180	260609	50.31 ug/L	100
134) hexachloroethane	16.427	119	91856	55.35 ug/L	100
135) Benzyl chloride	15.908	91	219877	47.68 ug/L	100

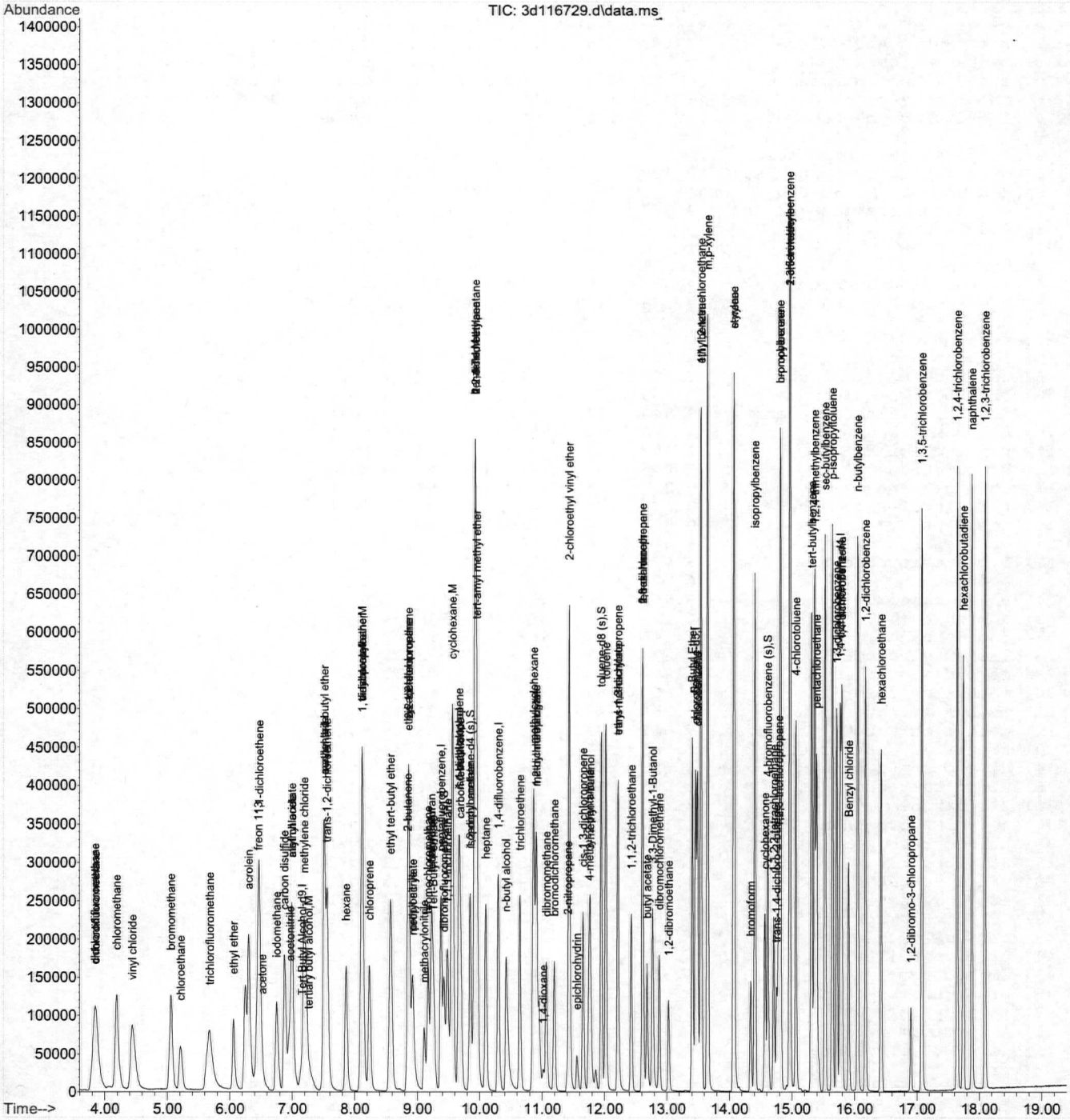
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.21 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116729.d
Acq On : 20 Jan 2016 3:13 pm
Operator : XimenaC
Sample : ICC4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 27 11:59:38 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 : Thu Jan 21 11:13:56 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116730.d
Acq On : 20 Jan 2016 3:40 pm
Operator : XimenaC
Sample : IC4991-100
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 27 11:59:47 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 : Thu Jan 21 11:13:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.163	65	157316	500.00 ug/L	0.01
4) pentafluorobenzene	9.380	168	265971	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	320827	50.00 ug/L	0.00
88) chlorobenzene-d5	13.459	117	253775	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	135071	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	111454	49.06 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 98.12%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	105461	47.97 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.94%		
80) toluene-d8 (s)	11.950	98	376502	50.00 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.00%		
106) 4-bromofluorobenzene (s)	14.613	95	124755	51.38 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.76%		

Target Compounds					Qvalue
2) 1,4-dioxane	11.021	88	75087	2484.38 ug/L	94
3) tertiary butyl alcohol	7.273	59	162392	463.97 ug/L	92
8) chlorodifluoromethane	3.859	51	462707	96.23 ug/L	99
9) dichlorodifluoromethane	3.849	85	503061	93.14 ug/L	97
10) chloromethane	4.200	50	597697	93.46 ug/L	99
11) vinyl chloride	4.447	62	569057	92.53 ug/L	99
12) bromomethane	5.065	94	305408	92.40 ug/L	98
13) chloroethane	5.217	64	202838	98.15 ug/L	99
16) trichlorofluoromethane	5.674	101	452323	100.11 ug/L	100
18) ethyl ether	6.062	74	106878	90.15 ug/L	95
21) acrolein	6.318	56	11756	19.10 ug/L	94
22) 1,1-dichloroethene	6.476	61	357993	94.37 ug/L	97
23) acetone	6.528	58	21629	74.69 ug/L	99
24) allyl chloride	6.995	76	134127	93.61 ug/L	99
25) acetonitrile	6.958	40	239021	767.34 ug/L	91
27) iodomethane	6.748	142	465766	97.87 ug/L	99
28) iso-butyl alcohol	9.674	41	85458	773.95 ug/L	97
29) carbon disulfide	6.874	76	879604	92.51 ug/L	99
30) methylene chloride	7.189	84	242014	93.25 ug/L	99
31) methyl acetate	6.984	43	148739	84.11 ug/L	99
32) methyl tert butyl ether	7.514	73	679729	92.19 ug/L	100
33) trans-1,2-dichloroethene	7.561	61	303980	93.33 ug/L	99
34) di-isopropyl ether	8.112	45	756633	92.41 ug/L	91
35) ethyl tert-butyl ether	8.573	59	734869	95.49 ug/L	99
36) 2-butanone	8.830	72	23630	102.27 ug/L	90
37) 1,1-dichloroethane	8.127	63	365942	94.61 ug/L	100
38) chloroprene	8.232	53	278359	97.11 ug/L	98
39) acrylonitrile	7.509	53	429371	469.83 ug/L	99
40) vinyl acetate	8.112	86	34690	108.10 ug/L	88
41) ethyl acetate	8.851	45	28681	100.73 ug/L	91
42) 2,2-dichloropropane	8.867	77	350433	89.77 ug/L	100
43) cis-1,2-dichloroethene	8.861	96	234136	90.37 ug/L	97
44) propionitrile	8.919	54	346561	944.70 ug/L	97
45) methyl acrylate	8.930	85	29354	92.05 ug/L	99
46) bromochloromethane	9.171	128	116875	93.49 ug/L	97
47) tetrahydrofuran	9.218	42	72716	85.67 ug/L	97
48) chloroform	9.228	83	348787	92.82 ug/L	99
49) Tert-Butyl Formate	9.260	59	228241	97.59 ug/L	100
52) freon 113	6.455	151	236802	96.57 ug/L	98
53) methacrylonitrile	9.108	41	118499	102.50 ug/L	97
54) 1,1,1-trichloroethane	9.485	97	352264	96.92 ug/L	98

7.7.22

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116730.d
Acq On : 20 Jan 2016 3:40 pm
Operator : XimenaC
Sample : IC4991-100
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 27 11:59:47 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 : Thu Jan 21 11:13:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
56) 2,2,4-Trimethylpentane	9.926	57	1014112	104.89 ug/L	100
57) tert-amyl methyl ether	9.957	73	720556	91.74 ug/L	99
59) epichlorohydrin	11.556	57	102987	470.65 ug/L	98
60) n-butyl alcohol	10.424	56	373817	4913.61 ug/L	99
61) cyclohexane	9.559	84	402380	92.43 ug/L	100
62) carbon tetrachloride	9.690	117	330426	96.93 ug/L	99
63) 1,1-dichloropropene	9.664	75	257464	95.71 ug/L	98
64) hexane	7.865	57	238608	94.29 ug/L	98
65) benzene	9.926	78	813089	92.42 ug/L	98
66) heptane	10.099	57	146089	93.90 ug/L	98
67) isopropyl acetate	9.842	43	375996	92.91 ug/L	99
68) 1,2-dichloroethane	9.936	62	237934	91.55 ug/L	99
69) trichloroethene	10.644	95	198958	96.38 ug/L	99
72) 2-nitropropane	11.409	41	65377	84.75 ug/L	93
73) 2-chloroethyl vinyl ether	11.430	63	614853	480.54 ug/L	98
74) methyl methacrylate	10.911	69	124710	75.66 ug/L	95
75) 1,2-dichloropropane	10.906	63	211897	93.90 ug/L	99
76) methylcyclohexane	10.864	83	421111	95.48 ug/L	99
77) dibromomethane	11.063	93	130892	93.24 ug/L	97
78) bromodichloromethane	11.195	83	259836	94.46 ug/L	99
79) cis-1,3-dichloropropene	11.656	75	308564	98.22 ug/L	99
81) 4-methyl-2-pentanone	11.745	58	88205	77.43 ug/L	100
82) toluene	12.018	92	463409	96.59 ug/L	98
83) 3-methyl-1-butanol	11.771	70	138118	2013.01 ug/L	99
84) trans-1,3-dichloropropene	12.217	75	266152	98.10 ug/L	97
85) ethyl methacrylate	12.212	69	236142	100.33 ug/L	99
86) 1,1,2-trichloroethane	12.427	83	145067	92.27 ug/L	98
87) 2-hexanone	12.600	58	66174	96.55 ug/L	97
89) tetrachloroethene	12.610	166	207946	100.37 ug/L	98
90) 1,3-dichloropropane	12.610	76	257424	94.40 ug/L	98
91) butyl acetate	12.678	56	117082	98.66 ug/L	96
92) 3,3-Dimethyl-1-Butanol	12.767	57	292871	994.02 ug/L	99
93) dibromochloromethane	12.878	129	206265	97.18 ug/L	99
94) 1,2-dibromoethane	13.024	107	173536	94.99 ug/L	96
95) n-Butyl Ether	13.407	57	815137	95.03 ug/L	99
96) chlorobenzene	13.491	112	485317	93.19 ug/L	100
97) 1,1,1,2-tetrachloroethane	13.549	131	235796	100.04 ug/L	100
98) ethylbenzene	13.543	91	840331	94.83 ug/L	100
99) m,p-xylene	13.648	106	649695	193.95 ug/L	98
100) o-xylene	14.068	106	348542	99.83 ug/L	99
101) styrene	14.078	104	532288	99.35 ug/L	98
103) bromoform	14.340	173	149211	96.35 ug/L	99
105) isopropylbenzene	14.408	105	976005	103.04 ug/L	99
107) bromobenzene	14.807	156	226184	99.26 ug/L	97
108) cyclohexanone	14.566	55	215500	794.77 ug/L	99
109) 1,1,2,2-tetrachloroethane	14.707	83	256341	90.66 ug/L	98
110) trans-1,4-dichloro-2-b...	14.755	53	51293	98.81 ug/L	98
111) 1,2,3-trichloropropane	14.781	110	55641	95.03 ug/L	98
112) n-propylbenzene	14.817	91	1010759	95.98 ug/L	100
114) 2-chlorotoluene	14.964	126	218885	101.51 ug/L	97
115) 4-chlorotoluene	15.064	126	202655	100.73 ug/L	100
116) 1,3,5-trimethylbenzene	14.969	105	817487	101.32 ug/L	99
117) tert-butylbenzene	15.316	119	716083	106.35 ug/L	99
118) pentachloroethane	15.394	167	198802	109.20 ug/L	97
119) 1,2,4-trimethylbenzene	15.363	105	789171	99.01 ug/L	99
120) sec-butylbenzene	15.530	105	1143124	104.19 ug/L	99
121) 1,3-dichlorobenzene	15.714	146	438170	94.36 ug/L	99
122) p-isopropyltoluene	15.646	119	926870	102.11 ug/L	100

7.7.22

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116730.d
Acq On : 20 Jan 2016 3:40 pm
Operator : XimenaC
Sample : IC4991-100
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 27 11:59:47 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 : Thu Jan 21 11:13:34 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
123) 1,4-dichlorobenzene	15.798	146	441923	91.68 ug/L	99
124) 1,2-dichlorobenzene	16.175	146	469862	94.19 ug/L	99
126) n-butylbenzene	16.050	92	472479	101.79 ug/L	98
128) 1,2-dibromo-3-chloropr...	16.904	157	69544	96.40 ug/L	100
129) 1,3,5-trichlorobenzene	17.077	180	506736	94.89 ug/L	99
130) 1,2,4-trichlorobenzene	17.643	180	516111	94.83 ug/L	100
131) hexachlorobutadiene	17.743	225	259110	101.51 ug/L	99
132) naphthalene	17.879	128	1185592	95.51 ug/L	100
133) 1,2,3-trichlorobenzene	18.089	180	528868	93.92 ug/L	99
134) hexachloroethane	16.422	119	202575	112.28 ug/L	98
135) Benzyl chloride	15.903	91	453760	90.51 ug/L	100

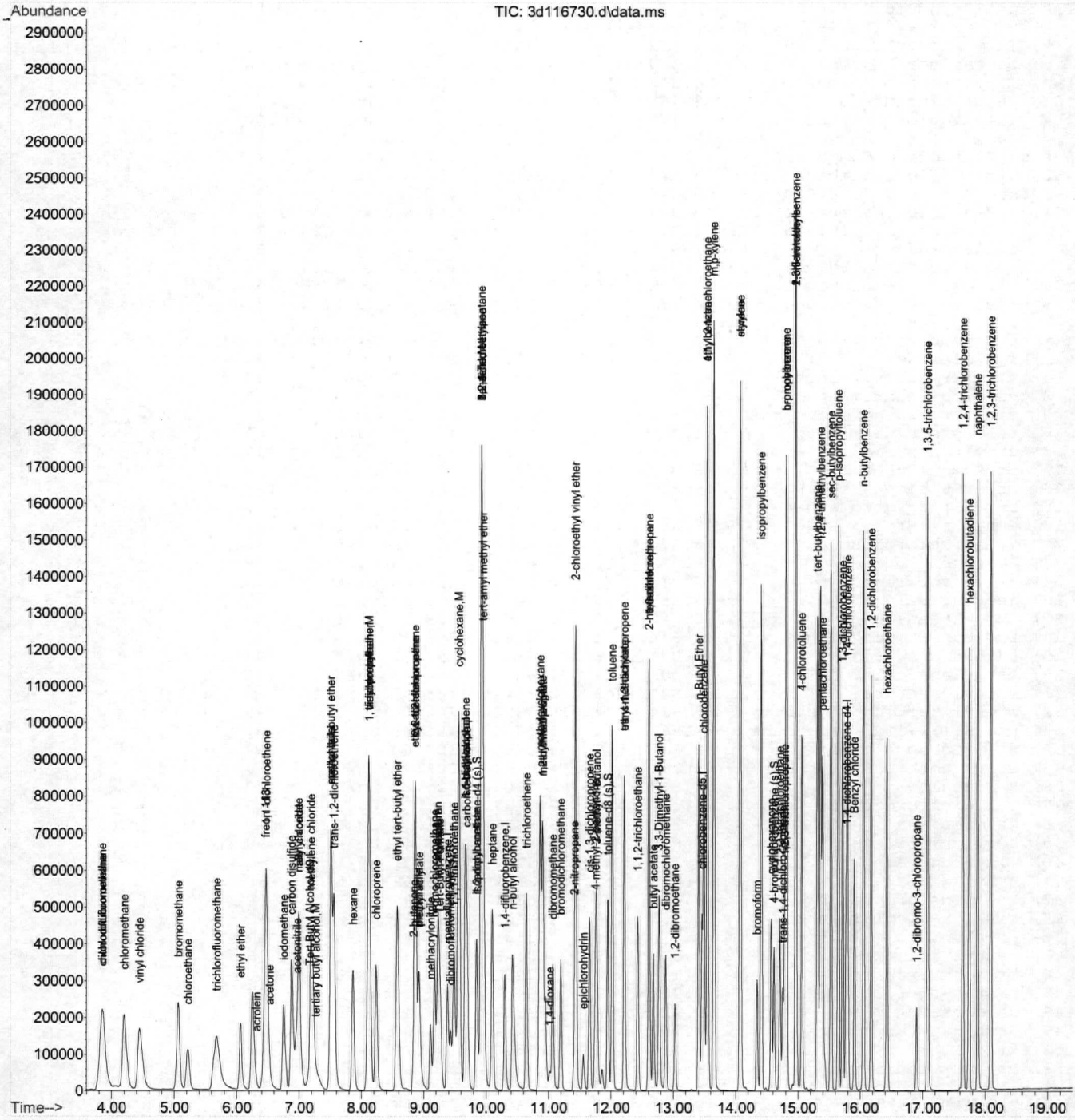
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.22 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116730.d
Acq On : 20 Jan 2016 3:40 pm
Operator : XimenaC
Sample : IC4991-100
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 27 11:59:47 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 : Thu Jan 21 11:13:34 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:46 2016 3D

Page: 4

SGS ACCUTEST JC14083

7.7.22

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116731.d
Acq On : 20 Jan 2016 4:07 pm
Operator : XimenaC
Sample : IC4991-200
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 27 11:59:56 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 : Thu Jan 21 11:13:48 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.162	65	154655	500.00 ug/L	0.01
4) pentafluorobenzene	9.380	168	237921	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	295808	50.00 ug/L	0.00
88) chlorobenzene-d5	13.465	117	245593	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.777	152	135111	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.427	113	103573	50.96 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.92%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	100125	50.91 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 101.82%		
80) toluene-d8 (s)	11.949	98	353852	50.96 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.92%		
106) 4-bromofluorobenzene (s)	14.618	95	121117	49.86 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.72%		
Target Compounds					Qvalue
2) 1,4-dioxane	11.021	88	154771	5208.97 ug/L	86
3) tertiary butyl alcohol	7.278	59	322891	938.41 ug/L	87
8) chlorodifluoromethane	3.854	51	850092	197.65 ug/L	100
9) dichlorodifluoromethane	3.849	85	895431	185.33 ug/L	98
10) chloromethane	4.205	50	1141785	199.58 ug/L	99
11) vinyl chloride	4.447	62	1053087	191.42 ug/L	98
12) bromomethane	5.060	94	509295	172.25 ug/L	99
13) chloroethane	5.217	64	361560	195.59 ug/L	100
16) trichlorofluoromethane	5.673	101	837838	207.29 ug/L	99
18) ethyl ether	6.061	74	208841	196.93 ug/L	96
22) 1,1-dichloroethene	6.470	61	666789	196.49 ug/L	98
23) acetone	6.523	58	44701	172.55 ug/L	98
24) allyl chloride	6.995	76	266061	207.58 ug/L	100
25) acetonitrile	6.953	40	469428	1684.69 ug/L	89
27) iodomethane	6.748	142	893967	209.99 ug/L	100
28) iso-butyl alcohol	9.674	41	177185	1793.87 ug/L	93
29) carbon disulfide	6.874	76	1618819	190.33 ug/L	100
30) methylene chloride	7.183	84	466527	200.95 ug/L	100
31) methyl acetate	6.984	43	293144	185.32 ug/L	100
32) methyl tert butyl ether	7.514	73	1333322	202.16 ug/L	99
33) trans-1,2-dichloroethene	7.561	61	570705	195.89 ug/L	99
34) di-isopropyl ether	8.111	45	1454525	198.60 ug/L	88
35) ethyl tert-butyl ether	8.573	59	1439281	209.08 ug/L	98
36) 2-butanone	8.830	72	47501	229.82 ug/L	92
37) 1,1-dichloroethane	8.127	63	697434	201.57 ug/L	99
38) chloroprene	8.232	53	518436	202.19 ug/L	99
39) acrylonitrile	7.508	53	848926	1038.44 ug/L	99
40) vinyl acetate	8.117	86	69197	241.05 ug/L	91
41) ethyl acetate	8.845	45	52599	206.52 ug/L	36
42) 2,2-dichloropropane	8.866	77	656351	187.97 ug/L	98
43) cis-1,2-dichloroethene	8.861	96	453125	195.51 ug/L	99
44) propionitrile	8.919	54	703535	2143.88 ug/L	87
45) methyl acrylate	8.929	85	60445	206.23 ug/L	95
46) bromochloromethane	9.171	128	232291	207.73 ug/L	100
47) tetrahydrofuran	9.212	42	145401	191.49 ug/L	96
48) chloroform	9.228	83	673914	200.49 ug/L	100
49) Tert-Butyl Formate	9.260	59	458194	219.00 ug/L #	88
52) freon 113	6.460	151	428538	195.37 ug/L	98
53) methacrylonitrile	9.102	41	240634	232.68 ug/L	96
54) 1,1,1-trichloroethane	9.485	97	675466	207.74 ug/L	99
56) 2,2,4-Trimethylpentane	9.931	57	1875594	216.87 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116731.d
Acq On : 20 Jan 2016 4:07 pm
Operator : XimenaC
Sample : IC4991-200
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 27 11:59:56 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 : Thu Jan 21 11:13:48 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
57) tert-amyl methyl ether	9.957	73	1430139	203.55 ug/L	99
59) epichlorohydrin	11.556	57	212941	1055.45 ug/L	99
60) n-butyl alcohol	10.424	56	783224	11165.77 ug/L	99
61) cyclohexane	9.564	84	754043	187.85 ug/L	100
62) carbon tetrachloride	9.690	117	630089	200.46 ug/L	98
63) 1,1-dichloropropene	9.663	75	485814	195.87 ug/L	100
64) hexane	7.860	57	423826	181.64 ug/L	98
65) benzene	9.926	78	1581836	195.01 ug/L	98
66) heptane	10.099	57	263140	183.43 ug/L	98
67) isopropyl acetate	9.847	43	764346	204.84 ug/L	99
68) 1,2-dichloroethane	9.936	62	470077	196.17 ug/L	100
69) trichloroethene	10.644	95	387355	203.52 ug/L	99
72) 2-nitropropane	11.409	41	129722	182.38 ug/L	95
73) 2-chloroethyl vinyl ether	11.435	63	1227898	1040.84 ug/L	99
74) methyl methacrylate	10.911	69	259692	193.47 ug/L	95
75) 1,2-dichloropropane	10.906	63	418307	201.05 ug/L	99
76) methylcyclohexane	10.869	83	785967	193.27 ug/L	98
77) dibromomethane	11.069	93	259717	200.66 ug/L	98
78) bromodichloromethane	11.194	83	523659	206.47 ug/L	99
79) cis-1,3-dichloropropene	11.656	75	621400	214.52 ug/L	99
81) 4-methyl-2-pentanone	11.750	58	184351	175.52 ug/L	98
82) toluene	12.023	92	915677	207.00 ug/L	99
83) 3-methyl-1-butanol	11.771	70	293833	4644.70 ug/L	99
84) trans-1,3-dichloropropene	12.217	75	531980	212.67 ug/L	99
85) ethyl methacrylate	12.211	69	485907	223.92 ug/L	99
86) 1,1,2-trichloroethane	12.432	83	290792	200.59 ug/L	97
87) 2-hexanone	12.599	58	139480	220.72 ug/L	97
89) tetrachloroethene	12.615	166	408966	203.97 ug/L	99
90) 1,3-dichloropropane	12.615	76	519388	196.80 ug/L	97
91) butyl acetate	12.683	56	244788	213.14 ug/L	96
92) 3,3-Dimethyl-1-Butanol	12.772	57	640307	2245.64 ug/L	99
93) dibromochloromethane	12.883	129	424349	206.60 ug/L	100
94) 1,2-dibromoethane	13.029	107	350786	198.41 ug/L	98
95) n-Butyl Ether	13.412	57	1589443	191.48 ug/L	99
96) chlorobenzene	13.491	112	971691	192.80 ug/L	98
97) 1,1,1,2-tetrachloroethane	13.554	131	477353	209.27 ug/L	99
98) ethylbenzene	13.548	91	1665705	194.23 ug/L	100
99) m,p-xylene	13.653	106	1282496	395.61 ug/L	100
100) o-xylene	14.073	106	700391	207.29 ug/L	100
101) styrene	14.083	104	1062000	204.83 ug/L	99
103) bromoform	14.345	173	312265	208.36 ug/L	99
105) isopropylbenzene	14.414	105	1926034	203.28 ug/L	99
107) bromobenzene	14.812	156	458487	201.15 ug/L	96
108) cyclohexanone	14.571	55	407718	1503.23 ug/L	99
109) 1,1,2,2-tetrachloroethane	14.712	83	523875	185.22 ug/L	98
110) trans-1,4-dichloro-2-b...	14.754	53	103357	199.05 ug/L	90
111) 1,2,3-trichloropropane	14.786	110	112877	192.73 ug/L	98
112) n-propylbenzene	14.823	91	1975110	187.50 ug/L	100
114) 2-chlorotoluene	14.969	126	437362	202.77 ug/L	99
115) 4-chlorotoluene	15.069	126	405641	201.57 ug/L	99
116) 1,3,5-trimethylbenzene	14.975	105	1647789	204.16 ug/L	100
117) tert-butylbenzene	15.321	119	1450200	215.31 ug/L	99
118) pentachloroethane	15.399	167	415160	227.97 ug/L	97
119) 1,2,4-trimethylbenzene	15.368	105	1613368	202.35 ug/L	98
120) sec-butylbenzene	15.536	105	2269376	206.79 ug/L	99
121) 1,3-dichlorobenzene	15.719	146	883276	190.15 ug/L	99
122) p-isopropyltoluene	15.651	119	1859124	204.76 ug/L	99
123) 1,4-dichlorobenzene	15.803	146	889187	184.41 ug/L	98

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116731.d
Acq On : 20 Jan 2016 4:07 pm
Operator : XimenaC
Sample : IC4991-200
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 27 11:59:56 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 : Thu Jan 21 11:13:48 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
124) 1,2-dichlorobenzene	16.180	146	955879	191.57 ug/L	99
126) n-butylbenzene	16.055	92	935039	201.38 ug/L	98
128) 1,2-dibromo-3-chloropr...	16.909	157	149585	207.28 ug/L	96
129) 1,3,5-trichlorobenzene	17.082	180	1052980	197.13 ug/L	99
130) 1,2,4-trichlorobenzene	17.648	180	1059656	194.64 ug/L	99
131) hexachlorobutadiene	17.748	225	534339	209.27 ug/L	99
132) naphthalene	17.884	128	2428008	195.54 ug/L	100
133) 1,2,3-trichlorobenzene	18.094	180	1071984	190.31 ug/L	99
134) hexachloroethane	16.432	119	426254	236.19 ug/L	99
135) Benzyl chloride	15.908	91	910553	181.58 ug/L	99

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

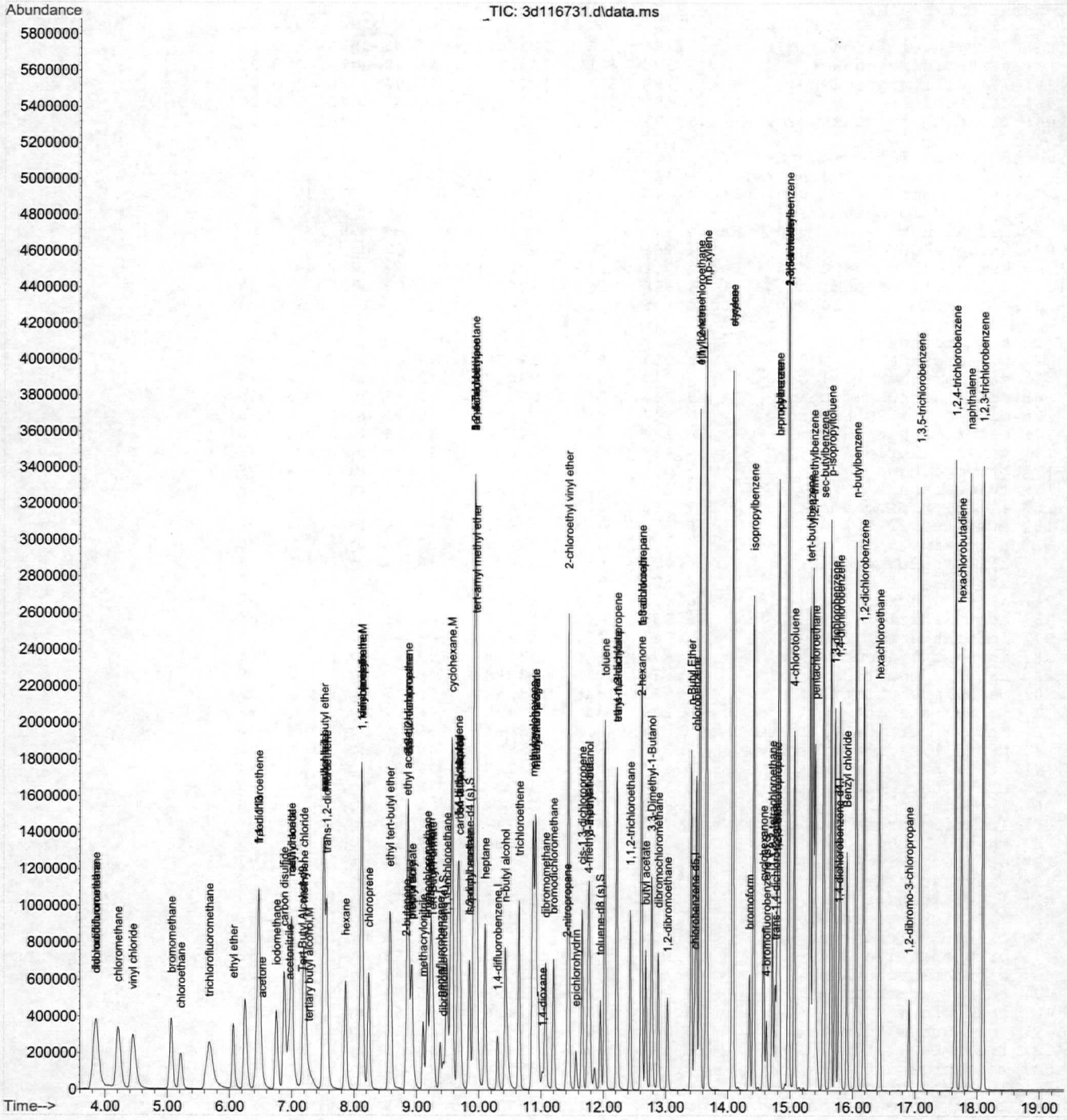
7.7.23

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116731.d
Acq On : 20 Jan 2016 4:07 pm
Operator : XimenaC
Sample : IC4991-200
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 27 11:59:56 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 : Thu Jan 21 11:13:48 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:09:47 2016 3D

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116734.d
Acq On : 20 Jan 2016 5:29 pm
Operator : XimenaC
Sample : ICV4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 27 12:10:30 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 12:02:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.157	65	153600	500.00 ug/L	0.00
4) pentafluorobenzene	9.375	168	243775	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	292921	50.00 ug/L	0.00
88) chlorobenzene-d5	13.459	117	241139	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.777	152	133946	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.427	113	105278	50.56 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.12%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	98829	49.05 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 98.10%		
80) toluene-d8 (s)	11.949	98	348078	50.62 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 101.24%		
106) 4-bromofluorobenzene (s)	14.618	95	120409	50.00 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.00%		
Target Compounds					Qvalue
2) 1,4-dioxane	11.021	88	37178	1259.86 ug/L	94
3) tertiary butyl alcohol	7.273	59	83017	242.93 ug/L	87
8) chlorodifluoromethane	3.854	51	187199	42.48 ug/L	99
9) dichlorodifluoromethane	3.844	85	182840	36.93 ug/L	99
10) chloromethane	4.184	50	254764	43.46 ug/L	100
11) vinyl chloride	4.436	62	253926	45.05 ug/L	99
12) bromomethane	5.055	94	143157	47.26 ug/L	99
13) chloroethane	5.212	64	100221	52.91 ug/L	98
16) trichlorofluoromethane	5.668	101	202455	48.89 ug/L	99
18) ethyl ether	6.056	74	53407	49.15 ug/L	98
21) acrolein	6.303	56	283541	502.72 ug/L	99
22) 1,1-dichloroethene	6.470	61	167064	48.05 ug/L	96
23) acetone	6.523	58	10968	51.15 ug/L	90
24) allyl chloride	6.995	76	61129	46.55 ug/L	92
25) acetonitrile	6.953	40	119062	484.18 ug/L	89
27) iodomethane	6.743	142	216366	49.60 ug/L	99
28) iso-butyl alcohol	9.674	41	41508	469.91 ug/L	92
29) carbon disulfide	6.874	76	423288	48.57 ug/L	99
30) methylene chloride	7.183	84	115082	48.38 ug/L	99
31) methyl acetate	6.984	43	70430	44.02 ug/L	99
32) methyl tert butyl ether	7.508	73	673984	99.74 ug/L	96
33) trans-1,2-dichloroethene	7.556	61	143597	48.10 ug/L	98
34) di-isopropyl ether	8.106	45	383125	51.06 ug/L	94
35) ethyl tert-butyl ether	8.568	59	367319	52.08 ug/L	98
36) 2-butanone	8.835	72	11164	52.72 ug/L	98
37) 1,1-dichloroethane	8.122	63	182747	51.55 ug/L	99
38) chloroprene	8.232	53	116004	44.15 ug/L	99
39) acrylonitrile	7.508	53	213888	255.35 ug/L	97
40) vinyl acetate	8.117	86	15910	49.54 ug/L	76
41) ethyl acetate	8.851	45	13768	52.76 ug/L	67
42) 2,2-dichloropropane	8.861	77	180349	50.41 ug/L	98
43) cis-1,2-dichloroethene	8.861	96	111089	46.78 ug/L	96
44) propionitrile	8.919	54	165918	493.46 ug/L	96
46) bromochloromethane	9.171	128	55503	48.44 ug/L	99
47) tetrahydrofuran	9.212	42	35158	45.74 ug/L	97
48) chloroform	9.228	83	167414	48.61 ug/L	100
49) Tert-Butyl Formate	9.260	59	94637	44.15 ug/L	98
52) freon 113	6.444	151	102327	45.53 ug/L	99
53) methacrylonitrile	9.108	41	55368	48.75 ug/L	95
54) 1,1,1-trichloroethane	9.480	97	175129	52.57 ug/L	99
56) 2,2,4-Trimethylpentane	9.920	57	426677	48.15 ug/L	99

7.7.24 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116734.d
Acq On : 20 Jan 2016 5:29 pm
Operator : XimenaC
Sample : ICV4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 27 12:10:30 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 12:02:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
57) tert-amyl methyl ether	9.952	73	361800	50.26 ug/L	99
59) epichlorohydrin	11.556	57	50324	241.78 ug/L	97
60) n-butyl alcohol	10.424	56	177997	2459.84 ug/L	99
61) cyclohexane	9.559	84	186027	46.80 ug/L	98
62) carbon tetrachloride	9.684	117	156789	50.37 ug/L	98
63) 1,1-dichloropropene	9.663	75	128310	52.24 ug/L	98
64) hexane	7.860	57	76431	33.08 ug/L	99
65) benzene	9.920	78	386858	48.16 ug/L	99
66) heptane	10.093	57	61790	43.50 ug/L	98
67) isopropyl acetate	9.842	43	199674	54.62 ug/L	96
68) 1,2-dichloroethane	9.936	62	114354	48.19 ug/L	98
69) trichloroethene	10.644	95	93577	49.65 ug/L	99
72) 2-nitropropane	11.409	41	31915	47.82 ug/L	96
73) 2-chloroethyl vinyl ether	11.435	63	311121	266.32 ug/L	99
74) methyl methacrylate	10.911	69	60789	51.45 ug/L	95
75) 1,2-dichloropropane	10.901	63	101940	49.48 ug/L	100
76) methylcyclohexane	10.864	83	181356	45.04 ug/L	99
77) dibromomethane	11.063	93	60639	47.31 ug/L	94
78) bromodichloromethane	11.194	83	121869	48.52 ug/L	98
79) cis-1,3-dichloropropene	11.656	75	146693	51.14 ug/L	99
81) 4-methyl-2-pentanone	11.750	58	42032	50.68 ug/L	99
82) toluene	12.023	92	217639	49.68 ug/L	98
83) 3-methyl-1-butanol	11.771	70	65632	996.15 ug/L	99
84) trans-1,3-dichloropropene	12.217	75	122331	49.39 ug/L	96
85) ethyl methacrylate	12.211	69	112936	50.13 ug/L	99
86) 1,1,2-trichloroethane	12.432	83	69499	48.41 ug/L	99
87) 2-hexanone	12.605	58	30516	48.77 ug/L	91
89) tetrachloroethene	12.610	166	100065	50.83 ug/L	98
90) 1,3-dichloropropane	12.615	76	121779	47.00 ug/L	99
91) butyl acetate	12.683	56	57738	55.02 ug/L	96
92) 3,3-Dimethyl-1-Butanol	12.772	57	129599	462.90 ug/L	100
93) dibromochloromethane	12.877	129	94555	46.89 ug/L	97
94) 1,2-dibromoethane	13.029	107	82420	47.48 ug/L	98
95) n-Butyl Ether	13.412	57	439442	54.76 ug/L	99
96) chlorobenzene	13.491	112	231938	46.87 ug/L	98
97) 1,1,1,2-tetrachloroethane	13.548	131	107072	47.81 ug/L	98
98) ethylbenzene	13.548	91	401865	47.73 ug/L	99
99) m,p-xylene	13.653	106	311911	97.99 ug/L	97
100) o-xylene	14.073	106	170737	51.47 ug/L	98
101) styrene	14.083	104	254750	50.04 ug/L	97
103) bromoform	14.345	173	69544	47.26 ug/L	95
105) isopropylbenzene	14.414	105	454965	48.44 ug/L	99
107) bromobenzene	14.812	156	107680	47.65 ug/L	97
108) cyclohexanone	14.571	55	141542	526.40 ug/L	99
109) 1,1,2,2-tetrachloroethane	14.712	83	122566	43.71 ug/L	98
110) trans-1,4-dichloro-2-b...	14.760	53	25068	48.70 ug/L	98
111) 1,2,3-trichloropropane	14.786	110	27159	46.77 ug/L	100
112) n-propylbenzene	14.823	91	495503	47.45 ug/L	100
114) 2-chlorotoluene	14.969	126	103519	48.41 ug/L	96
115) 4-chlorotoluene	15.069	126	97396	48.82 ug/L	100
116) 1,3,5-trimethylbenzene	14.975	105	382770	47.84 ug/L	99
117) tert-butylbenzene	15.315	119	324937	48.66 ug/L	97
118) pentachloroethane	15.399	167	90875	50.33 ug/L	96
119) 1,2,4-trimethylbenzene	15.363	105	380468	48.13 ug/L	97
120) sec-butylbenzene	15.530	105	528958	48.62 ug/L	99
121) 1,3-dichlorobenzene	15.719	146	208395	45.25 ug/L	98
122) p-isopropyltoluene	15.651	119	443293	49.25 ug/L	99
123) 1,4-dichlorobenzene	15.803	146	213803	44.73 ug/L	99

7.7.24

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116734.d
Acq On : 20 Jan 2016 5:29 pm
Operator : XimenaC
Sample : ICV4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 27 12:10:30 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 12:02:40 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
124) 1,2-dichlorobenzene	16.180	146	228635	46.22 ug/L	99
126) n-butylbenzene	16.055	92	225614	49.01 ug/L	96
128) 1,2-dibromo-3-chloropr...	16.909	157	33216	46.43 ug/L	97
129) 1,3,5-trichlorobenzene	17.082	180	241168	45.54 ug/L	100
130) 1,2,4-trichlorobenzene	17.648	180	246772	45.72 ug/L	99
131) hexachlorobutadiene	17.748	225	118188	46.69 ug/L	99
132) naphthalene	17.884	128	557285	45.27 ug/L	100
133) 1,2,3-trichlorobenzene	18.094	180	250731	44.90 ug/L	99
134) hexachloroethane	16.432	119	87323	48.81 ug/L	99
135) Benzyl chloride	15.913	91	248709	50.03 ug/L	99

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

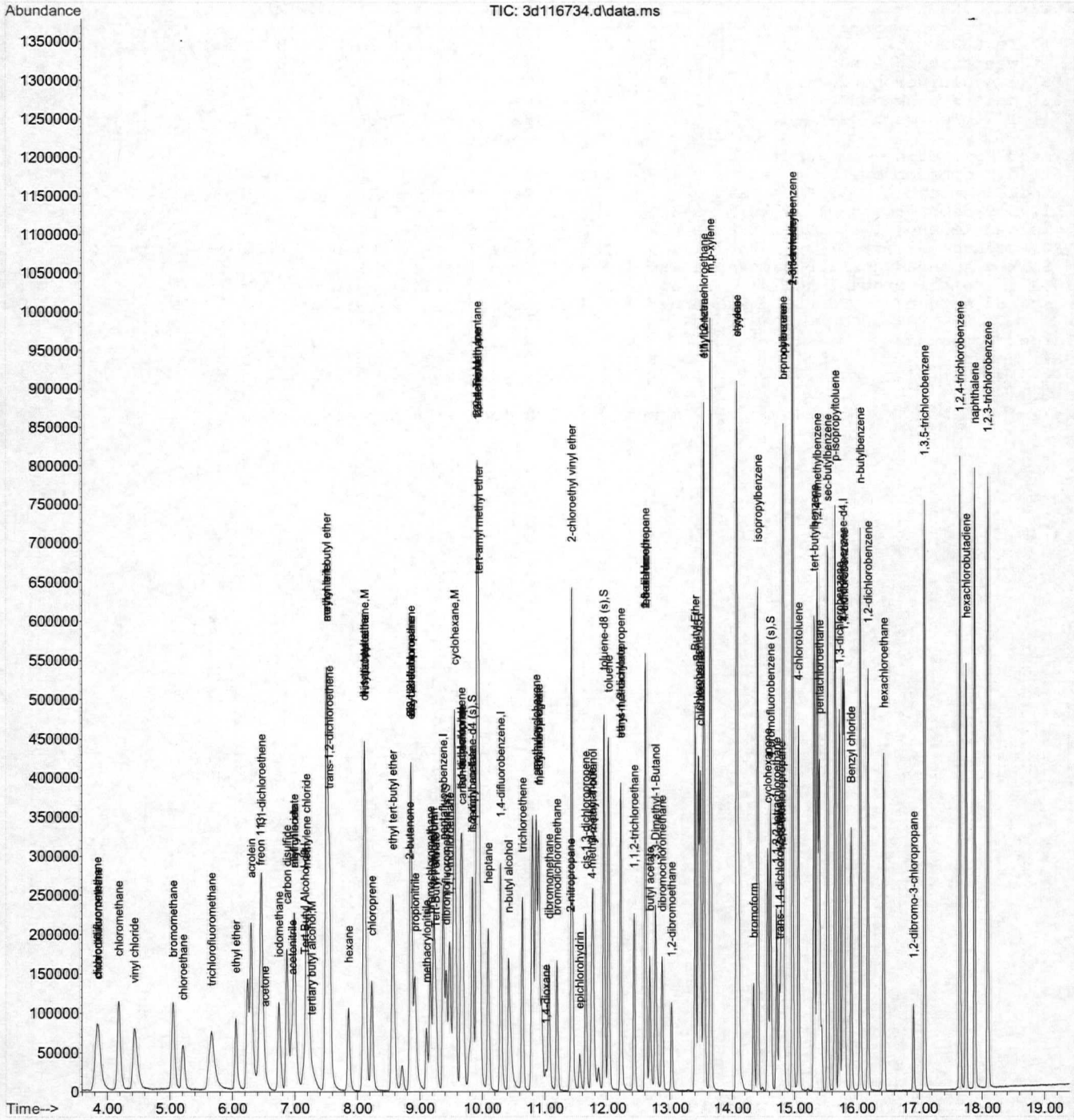
7.7.24

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3d116734.d
Acq On : 20 Jan 2016 5:29 pm
Operator : XimenaC
Sample : ICV4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 27 12:10:30 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 12:02:40 2016
Response via : Initial Calibration



M3D4991.M Wed Jan 27 12:10:36 2016 3D

Page: 4

SGS ACCUTEST JC14083

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 3D116737.D
Acq On : 21 Jan 2016 11:19 am
Operator : XimenaC
Sample : ICV4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 21 11:39:59 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 : Thu Jan 21 11:25:53 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Tert Butyl Alcohol-d9	7.152	65	168573	500.00 ug/L	0.00
4) pentafluorobenzene	9.380	168	258130	50.00 ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	305563	50.00 ug/L	0.00
88) chlorobenzene-d5	13.465	117	248483	50.00 ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.777	152	138231	50.00 ug/L	0.00
System Monitoring Compounds					
50) dibromofluoromethane (s)	9.428	113	111753	50.68 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.36%		
51) 1,2-dichloroethane-d4 (s)	9.847	65	110618	51.85 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 103.70%		
80) toluene-d8 (s)	11.949	98	355384	49.55 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.10%		
106) 4-bromofluorobenzene (s)	14.618	95	122782	49.41 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.82%		
Target Compounds					Qvalue
64) hexane	7.865	57	115377	47.87 ug/L	98

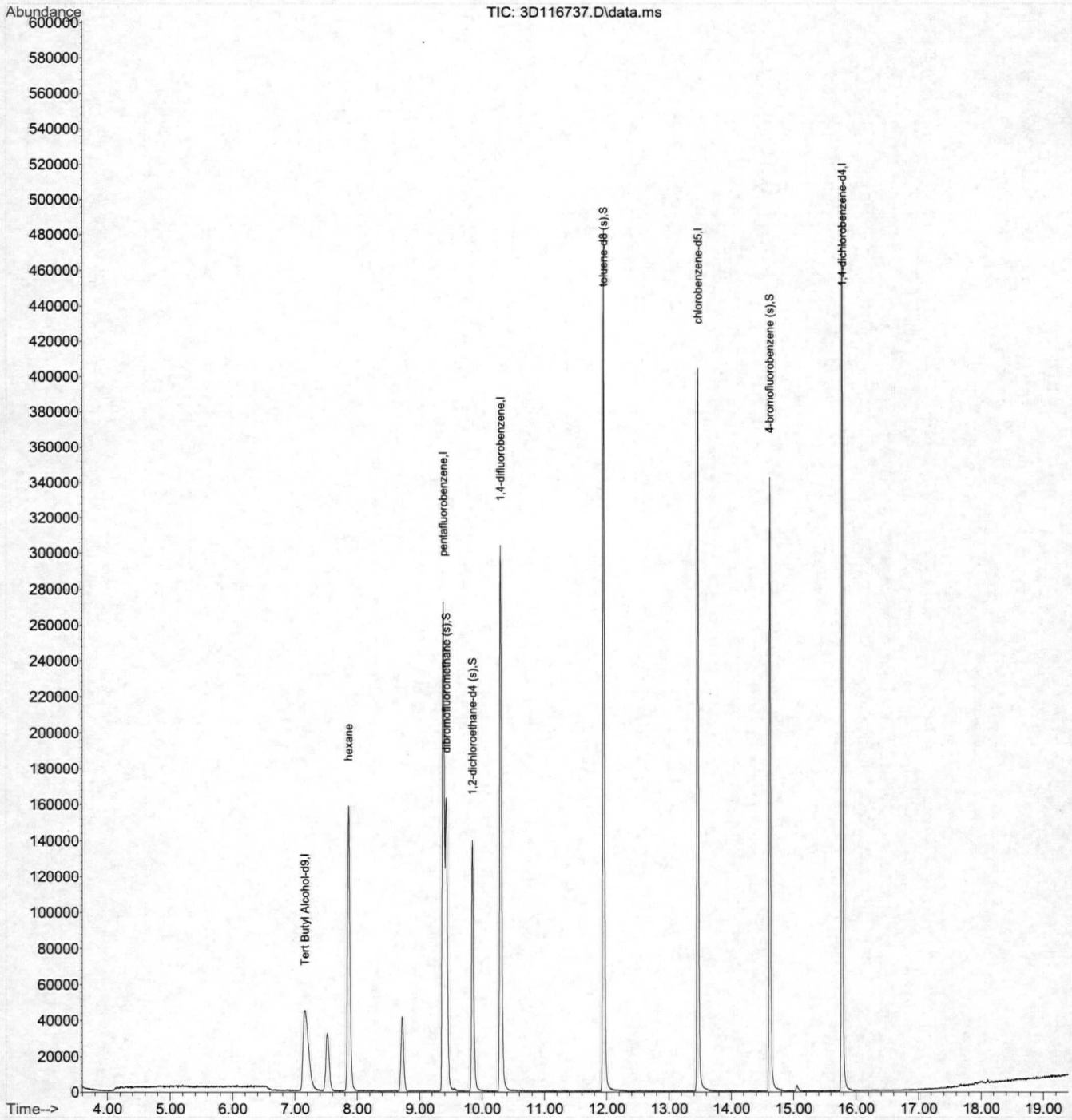
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.25 7

Quantitation Report (QT Reviewed)

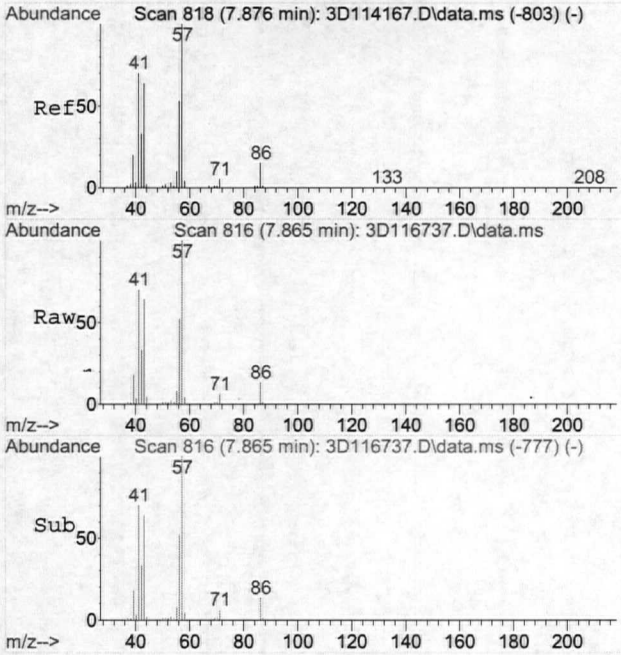
Data Path : C:\msdchem\1\DATA\
Data File : 3D116737.D
Acq On : 21 Jan 2016 11:19 am
Operator : XimenaC
Sample : ICV4991-50
Misc : MS96688,V3D4991,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 21 11:39:59 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 : Thu Jan 21 11:25:53 2016
Response via : Initial Calibration



M3D4991.M Thu Jan 21 11:40:27 2016 3D

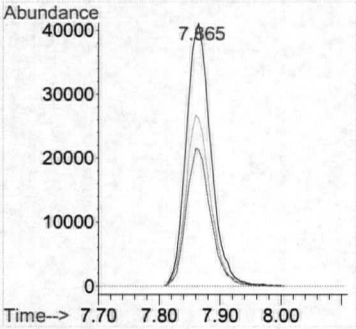
SGS ACCUTEST JC14083



#64
hexane
Concen: 47.87 ug/L
RT: 7.865 min Scan# 816
Delta R.T. 0.005 min
Lab File: 3D116737.D
Acq: 21 Jan 2016 11:19 am

Tgt Ion: 57 Resp: 115377

Ion	Ratio	Lower	Upper
57	100		
56	51.7	19.1	79.1
43	63.7	34.1	94.1



7.7.25

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117214.D
Acq On : 12 Feb 2016 9:41 am
Operator : XimenaC
Sample : cc4991-20
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 15 11:23:52 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	156888	500.00	ug/L	0.00
4) pentafluorobenzene	9.375	168	282883	50.00	ug/L	0.00
58) 1,4-difluorobenzene	10.298	114	323811	50.00	ug/L	0.00
88) chlorobenzene-d5	13.459	117	261877	50.00	ug/L	0.00
104) 1,4-dichlorobenzene-d4	15.772	152	145303	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.422	113	132393	54.79	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 109.58%			
51) 1,2-dichloroethane-d4 (s)	9.842	65	124104	53.08	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 106.16%			
80) toluene-d8 (s)	11.949	98	393342	51.75	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.50%			
106) 4-bromofluorobenzene (s)	14.613	95	130150	49.82	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.021	88	16313	541.22	ug/L	86
3) tertiary butyl alcohol	7.278	59	36808	105.45	ug/L	95
8) chlorodifluoromethane	3.849	51	98229	19.21	ug/L	99
9) dichlorodifluoromethane	3.844	85	93350	16.25	ug/L	98
10) chloromethane	4.190	50	122649	18.03	ug/L	99
11) vinyl chloride	4.441	62	122206	18.68	ug/L	98
12) bromomethane	5.060	94	65331	18.58	ug/L	99
13) chloroethane	5.202	64	46844	21.31	ug/L	99
16) trichlorofluoromethane	5.668	101	105412	21.93	ug/L	98
18) ethyl ether	6.062	74	28135	22.31	ug/L	97
21) acrolein	6.303	56	116884	178.59	ug/L	99
22) 1,1-dichloroethene	6.471	61	92752	22.99	ug/L	96
23) acetone	6.533	58	5782	23.24	ug/L	97
24) allyl chloride	6.995	76	30522	20.03	ug/L #	77
25) acetonitrile	6.969	40	55002	192.75	ug/L	81
27) iodomethane	6.748	142	116518	23.02	ug/L	99
28) iso-butyl alcohol	9.674	41	19214	187.45	ug/L	91
29) carbon disulfide	6.874	76	221290	21.88	ug/L	99
30) methylene chloride	7.184	84	61974	22.45	ug/L	98
31) methyl acetate	6.995	43	33650	18.12	ug/L	99
32) methyl tert butyl ether	7.514	73	154505	19.70	ug/L	97
33) trans-1,2-dichloroethene	7.561	61	74525	21.51	ug/L	98
34) di-isopropyl ether	8.112	45	151344	17.38	ug/L	91
35) ethyl tert-butyl ether	8.568	59	151381	18.50	ug/L	99
36) 2-butanone	8.851	72	4706	19.15	ug/L	87
37) 1,1-dichloroethane	8.122	63	88047	21.40	ug/L	97
38) chloroprene	8.232	53	54606	17.91	ug/L	98
39) acrylonitrile	7.514	53	102889	105.85	ug/L	99
40) vinyl acetate	8.127	86	7024	18.85	ug/L	65
41) ethyl acetate	8.856	45	5125	16.92	ug/L #	1
42) 2,2-dichloropropane	8.861	77	87163	20.99	ug/L	98
43) cis-1,2-dichloroethene	8.861	96	57257	20.78	ug/L	99
44) propionitrile	8.924	54	77442	198.48	ug/L	80
46) bromochloromethane	9.171	128	29910	22.50	ug/L	91
47) tetrahydrofuran	9.218	42	15935	17.86	ug/L	99
48) chloroform	9.228	83	86863	21.73	ug/L	95
49) Tert-Butyl Formate	9.260	59	42336	17.02	ug/L #	86
52) freon 113	6.450	151	54050	20.73	ug/L	97
53) methacrylonitrile	9.113	41	22747	17.26	ug/L	91
54) 1,1,1-trichloroethane	9.480	97	84225	21.79	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117214.D
Acq On : 12 Feb 2016 9:41 am
Operator : XimenaC
Sample : cc4991-20
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 15 11:23:52 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	174432	16.96 ug/L	97
57)	tert-amyl methyl ether	9.952	73	156287	18.71 ug/L	97
59)	epichlorohydrin	11.561	57	21065	91.55 ug/L	98
60)	n-butyl alcohol	10.429	56	69401	867.60 ug/L	97
61)	cyclohexane	9.559	84	90355	20.56 ug/L	94
62)	carbon tetrachloride	9.690	117	79871	23.21 ug/L	96
63)	1,1-dichloropropene	9.658	75	58296	21.47 ug/L	100
64)	hexane	7.860	57	38822	15.20 ug/L	96
65)	benzene	9.920	78	190248	21.43 ug/L	97
66)	heptane	10.099	57	26835	17.09 ug/L	98
67)	isopropyl acetate	9.847	43	71110	17.60 ug/L	95
68)	1,2-dichloroethane	9.936	62	58311	22.23 ug/L	99
69)	trichloroethene	10.644	95	45589	21.88 ug/L	97
72)	2-nitropropane	11.420	41	15150	20.53 ug/L	97
73)	2-chloroethyl vinyl ether	11.436	63	129019	99.91 ug/L	98
74)	methyl methacrylate	10.917	69	23978	18.36 ug/L	86
75)	1,2-dichloropropane	10.906	63	47240	20.74 ug/L	96
76)	methylcyclohexane	10.864	83	82620	18.56 ug/L	98
77)	dibromomethane	11.069	93	31612	22.31 ug/L	95
78)	bromodichloromethane	11.194	83	59418	21.40 ug/L	98
79)	cis-1,3-dichloropropene	11.656	75	65234	20.57 ug/L	98
81)	4-methyl-2-pentanone	11.750	58	16774	18.30 ug/L	93
82)	toluene	12.023	92	101274	20.91 ug/L	99
83)	3-methyl-1-butanol	11.776	70	25856	355.00 ug/L	96
84)	trans-1,3-dichloropropene	12.222	75	57410	20.97 ug/L	94
85)	ethyl methacrylate	12.217	69	41083	16.50 ug/L	96
86)	1,1,2-trichloroethane	12.432	83	32074	20.21 ug/L	93
87)	2-hexanone	12.610	58	11876	17.17 ug/L	91
89)	tetrachloroethene	12.610	166	47510	22.22 ug/L	97
90)	1,3-dichloropropane	12.615	76	56681	20.14 ug/L	100
91)	butyl acetate	12.689	56	20739	18.20 ug/L #	82
92)	3,3-Dimethyl-1-Butanol	12.773	57	47214	155.28 ug/L	96
93)	dibromochloromethane	12.877	129	46465	21.22 ug/L	99
94)	1,2-dibromoethane	13.030	107	38049	20.18 ug/L	95
95)	n-Butyl Ether	13.412	57	143062	16.42 ug/L	96
96)	chlorobenzene	13.491	112	108270	20.15 ug/L	99
97)	1,1,1,2-tetrachloroethane	13.549	131	52401	21.54 ug/L	96
98)	ethylbenzene	13.549	91	178262	19.49 ug/L	97
99)	m,p-xylene	13.653	106	141163	40.84 ug/L	99
100)	o-xylene	14.073	106	71969	19.98 ug/L	92
101)	styrene	14.083	104	104607	18.92 ug/L	99
103)	bromoform	14.346	173	32610	20.41 ug/L	97
105)	isopropylbenzene	14.414	105	194283	19.07 ug/L	99
107)	bromobenzene	14.812	156	52640	21.47 ug/L	94
108)	cyclohexanone	14.571	55	22672	77.73 ug/L	96
109)	1,1,2,2-tetrachloroethane	14.713	83	56549	18.59 ug/L	99
110)	trans-1,4-dichloro-2-b...	14.760	53	10258	18.37 ug/L	93
111)	1,2,3-trichloropropane	14.786	110	13285	21.09 ug/L	96
112)	n-propylbenzene	14.817	91	213255	18.82 ug/L	99
114)	2-chlorotoluene	14.964	126	48887	21.07 ug/L	91
115)	4-chlorotoluene	15.069	126	45029	20.81 ug/L	85
116)	1,3,5-trimethylbenzene	14.969	105	166839	19.22 ug/L	100
117)	tert-butylbenzene	15.316	119	132754	18.33 ug/L	98
118)	pentachloroethane	15.394	167	40995	20.93 ug/L	97
119)	1,2,4-trimethylbenzene	15.363	105	166023	19.36 ug/L	99
120)	sec-butylbenzene	15.530	105	223838	18.97 ug/L	99
121)	1,3-dichlorobenzene	15.719	146	102821	20.58 ug/L	97
122)	p-isopropyltoluene	15.651	119	187293	19.18 ug/L	99

7.7.26 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117214.D
Acq On : 12 Feb 2016 9:41 am
Operator : XimenaC
Sample : cc4991-20
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 15 11:23:52 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	103522	19.96 ug/L	99
124) 1,2-dichlorobenzene	16.181	146	109958	20.49 ug/L	99
126) n-butylbenzene	16.055	92	95848	19.20 ug/L	96
128) 1,2-dibromo-3-chloropr...	16.904	157	13181	16.98 ug/L	91
129) 1,3,5-trichlorobenzene	17.082	180	113900	19.83 ug/L	100
130) 1,2,4-trichlorobenzene	17.649	180	111823	19.10 ug/L	100
131) hexachlorobutadiene	17.748	225	54310	19.78 ug/L	98
132) naphthalene	17.885	128	245683	18.40 ug/L	100
133) 1,2,3-trichlorobenzene	18.094	180	116943	19.31 ug/L	97
134) hexachloroethane	16.427	119	37338	19.24 ug/L	97
135) Benzyl chloride	15.913	91	105176	19.50 ug/L	99

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

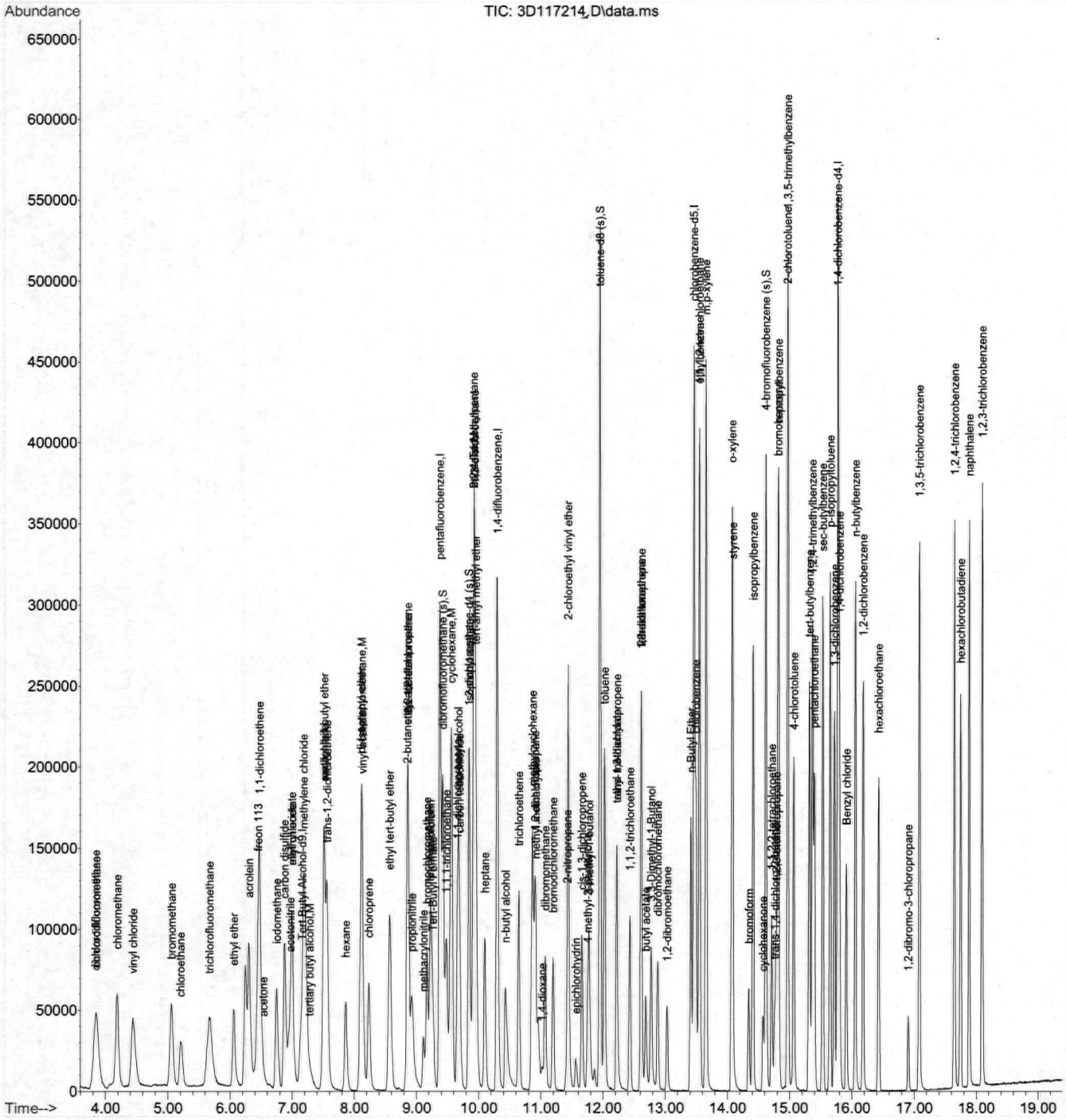
7.7.26

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\3D\
Data File : 3D117214.D
Acq On : 12 Feb 2016 9:41 am
Operator : XimenaC
Sample : cc4991-20
Misc : MS98170,V3D5014,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 15 11:23:52 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 12:03:50 2016

SGS ACCUTEST JC14083

7.7.26 7

ACCUTEST.

VOLATILE ANALYSIS LOG

TK 1/12

Batch ID: V3A V2A7005

Print Analyst Name: Tracy Karpinski

Analyst Signature: TKarpinski

Columns: ZB624 (60m x .25mm x 1.4 µm).

Method V8260C

Initial Cal. Method M2A7005

Date: 1/12/16

Standard Data

Lot #	Description	Conc.
V015-2258	14 A 8	100 ppm
V015-2213	125 B 47	100 ppm
V015-2258	21 C 3	100 ppm
V015-2213	136 ACRO 42	10000 ppm
V015-2258	1 EtOH 8	10000 ppm

Standard Data

Lot #	Description	Conc.
V015-2258	1/13 ~~14~~ 34 ExtA 1	100 ppm
V015-2258	12 ExtB 7	100 ppm
V015-2258	22 ExtC 3	100 ppm
V015-2213	148 ExtACRO 5	1000 ppm
V015-2213	133 Ext EtOH 3	10000 ppm

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

V015-2258 13 Hexane 8 100 ppm

V015-2258 7 IIS 250/2500 ppm

Supervisor Signature: [signature] **Date:** 1/13/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2A1641687	BFB											on		
	1641688	IC7005-0.2	8260C initial calibration	AQ			5						on	1µl of A.B.C.Acro, EtOH/ 500mL FV DI	
	1641689	IC7005-0.5	✓	AQ			5						on	2.5µl of A.B.C.Acro, EtOH/ 500mL FV DI	
	1641690	IC7005-1	✓	AQ			5						on	1µl of A.B.C.Acro, EtOH/ 100 mL FV DI	
	1641691	IC7005-2	✓	AQ			5						on	2µl of A.B.C.Acro, EtOH/ 100mL FV DI	
	1641692	IC7005-5	✓	AQ			5						on	5µl of A.B.C.Acro, EtOH/ 100mL FV DI	
	1641693	IC7005-10	✓	AQ			5						on	10µl of A.B.C.Acro, EtOH/ 100mL FV DI	
	1641694	IC7005-20	✓	AQ			5						on	20µl of A.B.C.Acro, EtOH/ 100mL FV DI	
	1641695	IC7005-50	✓	AQ			5						on	50µl of A.B.C.Acro, EtOH/ 100mL FV DI	
	1641696	IC7005-100	✓	AQ			5						on	100µl of A.B.C.Acro, EtOH/ 100mL FV DI	
	1641697	IC7005-200	✓	AQ			5						on	200µl of A.B.C.Acro, EtOH/ 100 mL FV DI	
	1641698	IB													
	1641699	IB													
	1641700	ICV7005-50	✓	AQ			5						on	25µl of ExtA ExtACRO ExtB Ext EtOH ExtC Hexane/50mL FV DI	
	1641701	IB													
														DR 1/13/16	

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

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

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2A7042

Print Analyst Name: Sushila Yadav

Date: 2/13/2016

Analyst Signature: sy

Columns: ZB624 (60mX0.25mmX1.4um)

Method V8260C

Initial Cal. Method M2A7005

Standard Data

Lot #	Description	Conc.
015-2258	109 STDA	100 ppm
015-2258	41 STDB	100 ppm
015-2258	107 STDC	100 ppm
015-2258	52 STD ACRO	1000 ppm
015-2258	55 STD EtOH	10,000 ppm
015-2258	84 I/S	250/2500 ppm

Standard Data

Lot #	Description	Conc.
015-2258	108 Ext A	100 ppm
015-2258	70 Ext B	100 ppm
015-2258	104 Ext C	100 ppm
015-2258	47 Ext ACRO	1000 ppm
015-2258	80 Ext HEX	10/100 ppm
015-2258	57 Ext EtOH	10,000 ppm
PH	216315	6/15/2018

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

015-2258

Supervisor Signature: [signature] **Date:** 2/17/2015

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	165580	IB											/		
	2A165581	BFB					5						ok	9:54 AM	
	165582	-CC7005-20					5				✓	✓	ok	#13, 14, 48↑ 10 ul std (A,B,C, ACRO, etoh) / 50ml DIH2O	
	165583	IB					5						40		
	165584	MB					5				✓	✓	ok		
	165585	BS					5				✓	✓	ok	25 ul Ext (A,B,C, ACRO, hex, etoh) / 50ml DIH	
	165586	IB					5				✓	✓	[illegible]		
	165587	JC14083-2	98364 SL	GW	1		5		1X		✓	✓	ok		✓
	165588	JC14083-3	✓	GW	1		5		1X		✓	✓	ok		✓
	165589	JC14083-4	✓	GW	1		5		1X		✓	✓	ok		✓
	165590	JC14083-6	✓	GW	1		5		1X		✓	✓	ok		✓
	165591	JC14083-7	✓	GW	1		5		1X		✓	✓	ok		✓
	165592	JC14083-10	✓	GW	1		5		1X		✓	✓	ok		✓
	165593	JC14083-9	✓	GW	1		5		1X		✓	✓	ok		✓
	165594	JC14042-3	98324 TLIZOT	SW	1		5		1X		✓	✓	ok		✓
	165595	JC14083-2 ms		GW	2		5		1X		✓	✓	ok	25 ul of Ext A Ext ACRO Ext B Ext EtOH Ext C Hexane / 50 mL FV	✓
	165596	IB											[illegible]		
	165597	JC14083-3 dup		GW	2		5		1X		✓	✓	ok		✓
	165598	JC14083-1	98364 SL	WFB	1		5		1X		✓	✓	ok		✓

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

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

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7.8.2

7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2A7042

Print Analyst Name: Susinla Yadav

Date: 2/13/2016

Analyst Signature: SY

Columns: ZB624(60m X 0.25mm X 1.4um)

Method V8260C

Initial Cal. Method M2A7005

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	Refer Page #	169

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

Supervisor Signature: [signature] **Date:** 2/17/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2H165599	JC14083-19	98364 SI	W	1		5		1X		✓	✓	ok		✓
	165600	JC14083-5	✓	G	1		5		1X		✓	✓	ok		✓
	165601	JC14083-11	✓	G	1		5		1X		✓	✓	ok		✓
	165602	JC14083-15	✓	G	1		5		1X		✓	✓	ok		✓
	165603	JC14083-16	✓	G	1		5		1X		✓	✓	ok		✓
	165604	JC14083-17	✓	G	1		5		1X		✓	✓	ok	9:25AM	✓

TK 2/15

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

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

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7.8.2

7

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2A7043

Print Analyst Name: Tracy Karpinski

Analyst Signature: TKjk

Columns: ZB624 (60mx.25mmx1.4µm)

Method V8260C

Initial Cal. Method M2A7005

Date: 2/15/16

Standard Data

Lot #	Description	Conc.
V015-2258	109 A 11	100ppm
V015-2258	41 B 50	100ppm
V015-2258	107 C 6	100ppm
V015-2258	52 ACRO 18	1000ppm
V015-2258	55 EtOH 1	10000ppm
V015-2258	125 FIS	250/2500ppm

Standard Data

Lot #	Description	Conc.
V015-2258	108 ExtA 5	100ppm
V015-2258	70 ExtB 16	100ppm
V015-2258	104 ExtC 4	100ppm
V015-2258	47 ExtAcro 3	1000ppm
V015-2258	57 ExtEtOH 3	10000ppm
V015-2258	80 Hexane 5	100ppm

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

216315 pH paper

Supervisor Signature: [signature] **Date:** 2/16/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2A165606	BFB											ok	8:53Am	
	165607	CC7005-20									✓	✓	ok	10µl of A.B.C.Acro, EtOH/ 50 mL FV DI #4, 13, 48↑	
	165608	IB											✓		
	165609	MB1								+	✓	✓	ok		
	165610	BS									✓	✓	ok	25µl of ExtA ExtAcro ExtB ExtEtOH ExtC Hexane/50mL FV DI	
	165611	IB											✓		
	165612	JC14192-2	98430 TCL11	STB	2		5		1x		✓	✓	ok		✓
	165613	JC14167-1	98422 TCL20+, TBA	GW	3		5		1x		✓	✓	ok		✓
	165614	JC14127-2	98401 NJTCL11+, TBA	GW	5		5		1x		✓	✓	/ok	1x C/O	✓
R	165615	JC14119-1	98394 8010L	GW	2		5/50		10x		✓	✓	ok	+2A165556	✓
R	165616	JC14119-2	✓	GW	2		5/50		10x		✓	✓	ok	+2A165557	✓
	165617	JC14083-8	98364 SL	GW	1		5		1x		✓	✓	ok		✓
	165618	JC14083-18	✓	GW	1		5		1x		✓	✓	ok		✓
R	165619	JC14085-2	98373 BTXM	GW	2		5		1x		✓	✓	ok		✓
R	165620	JC14100-1	98388 BTXMT	GW	2		5		1x		✓	✓	ok		✓
	165621	JC14167-1 Dup	98422 TCL20+, TBA	GW	4		5		1x		✓	✓	ok		✓
	165622	JC14083-8 MS	98364 SL	GW	2		5		1x		✓	✓	ok	25µl of ExtA ExtAcro ExtB ExtEtOH ExtC Hexane/50mL FV	✓

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

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

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7.8.3

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V2A7043

Print Analyst Name: Tracy Karpinski

Date: 2/15/16

Analyst Signature: TKarpinski

Columns: ZB624 60mx.25mm x1.4um

Method V8260C

Initial Cal. Method M2A7005

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See pg. 173	

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

Supervisor Signature: [signature] **Date:** 2/16/2016

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	2A1605023	1B											not used		
	1605024	JC14167-2	98422 TCE201, TBA	WTB	1		5		1X		✓		ok		✓
	1605025	JC14167-3	✓	WTB	1		5		1X		✓		ok		✓
	1605026	JC14127-1	98401 NJ TCL11+, TBA	WTB	5		5		1X		✓		ok		✓
	1605027	JC14127-3	✓	WTB	3		5		1X		✓		ok		✓
	1605028	JC14136-1	98407 PCE, 12DCA, 12DCPANE,	STB	1		5		1X		✓		ok	BENZ, MECL, TCE	✓
	1605029	JC14136-12A	✓	STB	3		5		1X		✓		ok	✓ 8:33pm	✓

TKL 2/16

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

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

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ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V3D4991

Print Analyst Name: XIMENA

Date: 1/20/16

Analyst Signature: [illegible]

Columns: ZB-624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method H3D4991

Standard Data

Lot #	Description	Conc.
VOIS-2258-34.2	Ext A	100 ppm
VOIS-2258-12.9	Ext B	100 ppm
VOIS-2258-43.5	Ext C	100 ppm
VOIS-2258-33	Ext Acr	1000 ppm
VOIS-2258-40	Hex	100 ppm

Standard Data

Lot #	Description	Conc.
VOIS-2258-14.16	STD A	100 ppm
VOIS-2258-41.18	STD B	100 ppm
VOIS-2258-38.00	STD C	100 ppm
VOIS-2213-136.33	STD Acr	1000 ppm
VOIS-2258-31	I/S	200/2000 ppm

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

Supervisor Signature: [illegible] **Date:** 1/21/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3D116721	bFb				1							ok		
	116 722	IC 4991-0.2	V8260C AQ	W		2	5						ok	1 ml A,B,C,Acr → 500ml	
	116 723	IC4991-0.5	✓	W		3	5						ok	2.5ml A,B,C,Acr → 500ml	
	116 724	IC4991 -1	✓	W		4	5						ok	200ml Acr + 2ml A,B,C → 200	
	116 725	IC 4991-2	✓	W		5	5						ok	200ml Acr + 2ml A,B,C → 100	
	116 726	IC 4991 -5	✓	W		6	5						ok	5ml A,B,C,Acr → 100ml	
	116 727	IC4991 -10	✓	W		7	5						ok	5ml A,B,C,Acr → 50ml	
	116 728	IC4991 -20	✓	W		8	5						ok	10ml A,B,C,Acr → 50ml	
	116 729	ICC 4991-50	✓	W		9	5						ok	25ml A,B,C,Acr → 50ml	
	116 730	IC 4991 -100	✓	W		10	5						ok	1ml Acr + 50ml A,B,C → 50ml	
	116 731	IC 4991 -200	✓	W		11	5						ok	100ml A,B,C → 50ml	
	116 732	ib				12	5						—		
	116 733	ib				13	5						—		
	116 734	ICV 4991-50	✓	W		14	5						ok	25ml Ext (A,B,C, Acr, hex) 50m	
	116735	IB				1							—		
	116736	BFB		W		2	5						ok		
	116737	ICV 4991-50		W		3	5						ok	25ml Hexane + 50ml H2O	

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

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

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V3D5014

Print Analyst Name: XIMENA

Analyst Signature: [illegible]

Columns: ZB-624 (60mx0.25mmx1.4

Method V8260C

Initial Cal. Method M3D4991

Date: 2/12/16

Standard Data

Lot #	Description	Conc.
V015-2258-	108.1 Std A	100 ppm
V015-2258	70.19 Std B	100 ppm
V015-2258	104.6 Std C	100 ppm
V015-2258	80.10 Hex	100 ppm
V015-2258	42.3 Std Aux	1000 ppm

Standard Data

Lot #	Description	Conc.
V015-2258-	109.6 STDA	100
V015-2258-	113.3 STD B	100
V015-2258-	107.3 STD C	100
V015-2258-	52.6 STD Aux	1000
V015-2258-	51 IIS	200/2000 ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044. pH paper 216315 Exp 6/15/18 **Supervisor Signature:** [illegible] **Date:** 2/19/16.

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3D 117213	bfb											OK	9:03 am	
	117 214	CC4991-20					5						OK	20ml Std ABC Aux	100ml
	117 215	lb					5						do		
	117 216	mb					5				W		OK		
	117 217	bs					5				W		OK	25ml Std CABC Aux hex	/s
	117 218	lb					5						do		
	117 219	JC 11317A-15	96698 VFC	A G			5				W		OK	10 ppb	
R	117 220	JC 14010-10	98311 TCL42	W	3		5		1X		W		OK		✓
	117 221	JC14083-12	98364 SL	G W	1		5		1X		W		OK		✓
	117 222	JC 14083-13	✓	G W	1		5		1X		W		OK		✓
	117 223	JC 14083-14	✓	G W	1		5		1X		W		OK		✓
DL	117 224	JC 14021-2	98317	G W	1		5 /50		10X		W		OK	BTX, VLS Do NOT report EPA TCL only	✓
R	117 225	JC 13769-1	98160	G W	2		5		1X		W		OK		✓
	117 226		TCL20+ITBA	G							W				
R	117 227	JC 13769-4	✓	W	2		5		1X				OK		✓
DL	117 227 XC	3/12/16 JC 13890-5	98364	G W	14		2 /50		25X		W		OK	MS 98243 TCL11	✓
	117 228	JC14083-12 ms	SL	G W	7		5		1X		W		OK	25ml Std CABC Aux hex	✓
	117 229	JC14083-12 msd	✓	G W	4		5		1X		W		OK		✓
	117 230	lb					5				W		do		
	117 231	mb					5				W		OK		

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

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

ACCUTEST.

VOLATILE ANALYSIS LOG

Batch ID: V3D5014 /V3D5015

Print Analyst Name: X IMENA

Date: 2/12/16

Analyst Signature: [illegible]

Columns: RB-624 (60m x 0.25mm x 1.4 um)

Method V8260C

Initial Cal. Method M3D4991

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	See pg	
	211	

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

Supervisor Signature: [illegible] **Date:** 2/9/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	3D117232	JC 11318-36	MDL 96689	A O			5					✓	OK	10 ppb	
	117233	JC 11318-36	LL ✓	A O			5					✓	OK		
	117234	JC 11318-36	✓	A O			5					✓	OK		
	117235	JC 11318-36	✓	A O			5					✓	OK		
	117236	JC 11318-36	✓	A O			5					✓	OK		
	117237	JC 11318-36	✓	A O			5					✓	OK		
	117238	JC 11318-36	✓	A O			5					✓	OK	8:45 PM	
	117239	bfb											not used	9:12 PM	
	117240	CC 4991-50					5						not used	23↑ 25 ul Std A B C Acn /50mL	
	117241	lb					5						ok		
	117242	mb					5						not used		
	117243	JC 11320A-8F	96701 VFC	A O			5					✓	RR	5 ppb	
	117244	JC 11320-86	96691 MDL	A O			5					✓	RR	10 ppb	
	117245	JC 11320-86	SME ✓	A O			5					✓	RR		
	117246	JC 11320_86	✓	A O			5					✓	RR		
	117247	JC 11320-86	✓	A			5					✓	RR		
	117248	JC 11320-86	✓	O			5					✓	RR		
	117249	JC 11320-86	✓	A O			5					✓	RR RR		
	117250	JC 11320-86	✓	A O			5					✓			

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

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

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7.8.5

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B

Appendix B

First Quarter 2016 Effluent Air Laboratory Analytical Reports

eurofins | Air Toxics

1/28/2016
Mr. Peter Hollatz
AECOM Environment
4320 Winfield Road

Warrenville IL 60555

Project Name: UTC-HS-Plant 1
Project #: 60480278
Workorder #: 1601299

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 1/22/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,

Ausha Scott
Project Manager

eurofins | Air Toxics

WORK ORDER #: 1601299

Work Order Summary

CLIENT:	Mr. Peter Hollatz AECOM Environment 4320 Winfield Road Warrenville, IL 60555	**BILL TO:**	Accounts Payable-Warrenville AECOM Environment 4320 Winfield Road Warrenville, IL 60555
PHONE:	630 829-2736	**P.O. #**	60480278
FAX:	630-657-6305	**PROJECT #**	60480278 UTC-HS-Plant 1
DATE RECEIVED:	01/22/2016	**CONTACT:**	Ausha Scott
DATE COMPLETED:	01/28/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	P1SVE-EFFC1-011916	Modified TO-14A	1.4 "Hg	15 psi
02A	P2SVE-EFFC4-011916	Modified TO-14A	2 "Hg	15.1 psi
03A	P2SVE-EFFC5-011916	Modified TO-14A	2 "Hg	14.6 psi
04A	P1SVE-EFFC2-011916	Modified TO-14A	2 "Hg	14.7 psi
05A	P1SVE-EFFC3-011916	Modified TO-14A	1.8 "Hg	15.2 psi
06A	Lab Blank	Modified TO-14A	NA	NA
07A	CCV	Modified TO-14A	NA	NA
08A	LCS	Modified TO-14A	NA	NA
08AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 01/28/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-14A
AECOM Environment
Workorder# 1601299

Five 1 Liter Summa Canister samples were received on January 22, 2016. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode.

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

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications. Please note that TO-14A was validated for specially treated canisters, and the use of Tedlar bags for sample collection is outside the scope of the method.

Requirement	*TO-14A*	*ATL Modifications*
Initial Calibration criteria	RSD</=30%	Follow TO-15 requirements of RSD</=30% with two compounds allowed out to </=40%RSD.
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action when recovery is less than 60%.
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Sample Drying System	Nafion Dryer	Multibed hydrophobic sorbent
BFB ion abundance criteria	Ion abundance listed in Table 4 of TO-14A	Follow ion abundance criteria listed in Method TO-15

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A signature and date were not provided by the field sampler.

The Chain of Custody (COC) information for sample P2SVE-EFFC5-011916 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

C - Estimated calculation due to estimated sampling rate.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC1-011916

Lab ID#: 1601299-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.1	15	4.3	62
cis-1,2-Dichloroethene	1.1	2.8	4.2	11
1,1,1-Trichloroethane	1.1	80	5.8	440
Trichloroethene	1.1	11	5.7	61
Tetrachloroethene	1.1	100	7.2	700

Client Sample ID: P2SVE-EFFC4-011916

Lab ID#: 1601299-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.1	1.7	4.4	7.0
cis-1,2-Dichloroethene	1.1	3.4	4.3	13
1,1,1-Trichloroethane	1.1	39	5.9	210
Trichloroethene	1.1	11	5.8	58
Tetrachloroethene	1.1	62	7.4	420

Client Sample ID: P2SVE-EFFC5-011916

Lab ID#: 1601299-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.1	1.9	4.3	7.8
cis-1,2-Dichloroethene	1.1	1.3	4.2	5.2
1,1,1-Trichloroethane	1.1	78	5.8	420
Trichloroethene	1.1	2.0	5.8	11
Tetrachloroethene	1.1	10	7.2	71

Client Sample ID: P1SVE-EFFC2-011916

Lab ID#: 1601299-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.1	2.5	4.2	9.9
1,1-Dichloroethane	1.1	89	4.3	360

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC2-011916

Lab ID#: 1601299-04A

cis-1,2-Dichloroethene	1.1	3.2	4.2	13
1,1,1-Trichloroethane	1.1	260	5.8	1400
Trichloroethene	1.1	8.5	5.8	46
Tetrachloroethene	1.1	14	7.2	94

Client Sample ID: P1SVE-EFFC3-011916

Lab ID#: 1601299-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.1	2.6	4.4	10
cis-1,2-Dichloroethene	1.1	1.3	4.3	5.3
1,1,1-Trichloroethane	1.1	68	5.9	370
Trichloroethene	1.1	6.6	5.8	36
Tetrachloroethene	1.1	12	7.3	78