Continuing Calibration Summary

Job Number: JC43354
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D3423-CC3413
Lab FileID: 4D79196.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\4D79196.D Vial: 28
Acq On : 17 May 2017 7:49 pm Operator: BridgetK
Sample : cc3413-50 Inst : MS4D
Misc : MS15947,V4D3423,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D3413.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Wed May 10 12:20:55 2017
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	83	0.00	7.56
2	M	tertiary butyl alcohol	1.464	1.638	-11.9	82	0.00	7.69
3		Ethanol	0.134	0.152	-13.4	85	0.01	6.11
4	M	1,4-dioxane	0.107	0.126	-17.8	86	0.00	11.75
5	I	pentafluorobenzene	1.000	1.000	0.0	80	0.00	10.10
6	M	chlorodifluoromethane	0.524	0.627	-19.7	88	0.01	3.82
7	M	dichlorodifluoromethane	0.842	1.002	-19.0	89	0.02	3.81
8	M	chloromethane	1.000	1.176	-17.6	88	0.02	4.16
9	M	vinyl chloride	0.956	1.201	-25.6#	91	0.02	4.44
10		1,3-butadiene		----------NA----------				
11	M	bromomethane	0.632	0.792	-25.3#	92	0.02	5.14
12	M	chloroethane	0.456	0.565	-23.9#	92	0.01	5.34
13	M	trichlorofluoromethane	0.955	1.177	-23.2#	91	0.01	5.89
14		vinyl bromide	0.572	0.532	7.0	69	0.01	5.74
15	M	ethyl ether	0.318	0.368	-15.7	79	0.00	6.36
16	M	acrolein	0.155	0.192	-23.9#	91	0.00	6.57
17		freon 113	0.454	0.496	-9.3	79	0.01	6.84
18	M	1,1-dichloroethene	0.516	0.583	-13.0	79	0.01	6.81
19	M	acetone	0.063	0.076	-20.6#	84	0.00	6.82
20	M	acetonitrile	0.110	0.118	-7.3	82	0.01	7.28
21	M	iodomethane	1.066	1.208	-13.3	78	0.01	7.08
22	M	carbon disulfide	1.783	2.022	-13.4	78	0.01	7.24
23	M	methylene chloride	0.638	0.706	-10.7	79	0.00	7.59
24	M	methyl acetate	0.571	0.631	-10.5	81	0.00	7.39
25	M	methyl tert butyl ether	1.851	2.032	-9.8	78	0.00	8.05
26	M	trans-1,2-dichloroethene	0.620	0.651	-5.0	79	0.00	8.05
27	M	di-isopropyl ether	2.072	2.298	-10.9	80	0.00	8.76
28	M	2-butanone	0.084	0.098	-16.7	84	0.00	9.44
29	M	1,1-dichloroethane	1.095	1.250	-14.2	79	0.00	8.67
30	M	chloroprene	0.841	0.966	-14.9	80	0.00	8.82
31	M	acrylonitrile	0.265	0.308	-16.2	81	0.00	7.93
32		hexane	0.413	0.428	-3.6	71	0.00	8.48
33	M	vinyl acetate	0.117	0.127	-8.5	78	0.00	8.69
34	M	ethyl tert-butyl ether	1.988	2.221	-11.7	79	0.00	9.27
35	M	ethyl acetate	0.115	0.122	-6.1	81	0.00	9.52
36	M	2,2-dichloropropane	0.820	0.804	2.0	71	0.00	9.52
37	M	cis-1,2-dichloroethene	0.665	0.744	-11.9	80	0.00	9.48
38		methyl acrylate	0.118	0.132	-11.9	80	0.00	9.58
39	M	propionitrile	0.111	0.127	-14.4	82	0.00	9.51
40	M	bromochloromethane	0.335	0.384	-14.6	79	0.00	9.80
41	M	tetrahydrofuran	0.122	0.124	-1.6	82	0.00	9.87

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Job Number: JC43354 **Sample:** V4D3423-CC3413
Account: UTC United Technologies Corporation **Lab FileID:** 4D79196.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	M	chloroform	0.725	0.771	-6.3	81	0.00	9.88
43	M	t-butyl formate	0.529	0.575	-8.7	76	0.00	9.97
44	S	dibromofluoromethane (s)	0.495	0.509	-2.8	81	0.00	10.09
45	M	methacrylonitrile	0.307	0.352	-14.7	81	0.00	9.74
46	M	1,1,1-trichloroethane	0.853	0.972	-14.0	80	0.00	10.19
47		cyclohexane	0.753	0.932	-23.8#	89	0.00	10.30
48		1,1-dichloropropene	0.789	0.919	-16.5	81	0.00	10.38
49		iso-butyl alcohol	0.045	0.048	-6.7	88	0.00	10.37
50		carbon tetrachloride	0.763	0.886	-16.1	80	0.00	10.42
51		tert amyl alcohol	0.036	0.039	-8.3	84	0.00	10.51
52	I	1,4-difluorobenzene	1.000	1.000	0.0	81	0.00	11.04
53	S	1,2-dichloroethane-d4 (s)	0.361	0.360	0.3	80	0.00	10.53
54	M	n-butyl alcohol	0.017	0.020	-17.6	87	0.00	11.15
55		2,2,4-trimethylpentane	1.512	1.618	-7.0	77	0.00	10.75
56	M	benzene	1.565	1.757	-12.3	82	0.00	10.65
57	M	tert-amyl methyl ether	0.294	0.321	-9.2	81	0.00	10.74
58	M	heptane	0.312	0.310	0.6	72	0.00	10.93
59	M	isopropyl acetate	0.091	0.105	-15.4	80	0.00	10.61
60	M	1,2-dichloroethane	0.557	0.620	-11.3	81	0.00	10.63
61	M	trichloroethene	0.390	0.454	-16.4	80	0.00	11.39
62		ethyl acrylate	0.653	0.713	-9.2	81	0.00	11.41
63	M	2-nitropropane	0.134	0.138	-3.0	82	0.00	12.13
64	M	2-chloroethyl vinyl ether	0.285	0.292	-2.5	73	0.00	12.19
65	M	methyl methacrylate	0.120	0.136	-13.3	81	0.00	11.69
66	M	1,2-dichloropropane	0.428	0.495	-15.7	83	0.00	11.64
67	M	dibromomethane	0.288	0.331	-14.9	83	0.00	11.78
68	M	methylcyclohexane	0.634	0.743	-17.2	79	0.00	11.67
69	M	bromodichloromethane	0.552	0.627	-13.6	82	0.00	11.92
70		epichlorohydrin	0.054	0.055	-1.9	81	0.00	12.27
71	M	cis-1,3-dichloropropene	0.678	0.731	-7.8	77	0.00	12.39
72	M	4-methyl-2-pentanone	0.200	0.230	-15.0	88	0.00	12.51
73	M	3-methyl-1-butanol	0.027	0.031	-14.8	86	0.00	12.51
74	I	chlorobenzene-d5	1.000	1.000	0.0	81	0.00	14.20
75	S	toluene-d8 (s)	1.294	1.275	1.5	81	0.00	12.71
76		toluene	1.037	1.163	-12.2	82	0.00	12.78
77		trans-1,3-dichloropropene	0.692	0.748	-8.1	77	0.00	12.94
78		ethyl methacrylate	0.645	0.755	-17.1	84	0.00	12.99
79		1,1,2-trichloroethane	0.387	0.446	-15.2	83	0.00	13.15
80	M	tetrachloroethene	0.359	0.427	-18.9	84	0.00	13.37
81	M	1,3-dichloropropane	0.684	0.771	-12.7	82	0.00	13.33
82		2-hexanone	0.221	0.261	-18.1	88	0.00	13.35
83	M	butyl acetate	0.379	0.423	-11.6	87	0.00	13.45
84	M	3,3-dimethyl-1-butanol	0.065	0.074	-13.8	87	0.00	13.52
85	M	dibromochloromethane	0.527	0.602	-14.2	82	0.00	13.59
86	M	1,2-dibromoethane	0.503	0.562	-11.7	82	0.00	13.74
87		n-butyl ether	1.829	2.050	-12.1	82	0.00	14.21
88	M	chlorobenzene	1.188	1.344	-13.1	82	0.00	14.23
89	M	1,1,1,2-tetrachloroethane	0.446	0.527	-18.2	84	0.00	14.29
90	M	ethylbenzene	1.937	2.212	-14.2	83	0.00	14.31
91	M	m,p-xylene	0.739	0.841	-13.8	82	0.00	14.42
92	M	o-xylene	0.739	0.849	-14.9	83	0.00	14.84
93	M	styrene	1.272	1.467	-15.3	83	0.00	14.84
94	M	bromoform	0.395	0.465	-17.7	82	0.00	15.06
95		butyl acrylate	1.033	1.225	-18.6	86	0.00	14.68
96		isopropylbenzene	1.914	2.206	-15.3	82	0.00	15.20
97		cis-1,4-dichloro-2-butene	0.195	0.016	91.8#	6#	0.00	15.22
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	83	0.00	16.58

Continuing Calibration Summary

Job Number: JC43354 **Sample:** V4D3423-CC3413
Account: UTC United Technologies Corporation **Lab FileID:** 4D79196.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	S	4-bromofluorobenzene (s)	0.926	0.914	1.3	82	0.00	15.37
100	M	bromobenzene	1.081	1.194	-10.5	83	0.00	15.57
101	M	1,1,2,2-tetrachloroethane	1.436	1.587	-10.5	85	0.00	15.45
102	M	trans-1,4-dichloro-2-bute	0.317	0.035	89.0#	8#	0.00	15.50
103	M	1,2,3-trichloropropane	0.300	0.334	-11.3	84	0.00	15.53
104	M	n-propylbenzene	4.488	5.157	-14.9	84	0.00	15.62
105	M	2-chlorotoluene	0.913	1.061	-16.2	84	0.00	15.74
106	M	4-chlorotoluene	2.738	3.019	-10.3	83	0.00	15.85
107	M	1,3,5-trimethylbenzene	3.089	3.530	-14.3	84	0.00	15.78
108	M	tert-butylbenzene	0.546	0.640	-17.2	83	0.00	16.14
109	M	1,2,4-trimethylbenzene	3.167	3.570	-12.7	83	0.00	16.17
110	M	sec-butylbenzene	3.998	4.657	-16.5	83	0.00	16.36
111	M	1,3-dichlorobenzene	1.920	2.167	-12.9	83	0.00	16.52
112	M	p-isopropyltoluene	3.369	3.910	-16.1	82	0.00	16.49
113	M	1,4-dichlorobenzene	1.946	2.175	-11.8	83	0.00	16.60
114		benzyl chloride	2.296	2.077	9.5	66	0.00	16.71
115	M	1,2-dichlorobenzene	1.899	2.143	-12.8	83	0.00	17.01
116	M	n-butylbenzene	1.759	2.091	-18.9	82	0.00	16.91
117	M	1,2-dibromo-3-chloropropa	0.242	0.287	-18.6	83	0.00	17.81
118		1,3,5-trichlorobenzene	1.704	1.982	-16.3	84	0.00	18.05
119		2-ethylhexyl acrylate	0.576	0.946	-64.2#	108	0.00	18.74
		----------	True	Calc.	% Drift	----------		
120	M	1,2,4-trichlorobenzene	50.000	57.966	-15.9	85	0.00	18.72
		----------	AvgRF	CCRF	% Dev	----------		
121	M	hexachlorobutadiene	0.730	0.903	-23.7#	83	0.00	18.88
122	M	naphthalene	3.288	4.090	-24.4#	87	0.00	19.01
		----------	True	Calc.	% Drift	----------		
123	M	1,2,3-trichlorobenzene	50.000	58.918	-17.8	86	0.00	19.27
		----------	AvgRF	CCRF	% Dev	----------		
124	m	hexachloroethane	0.650	0.692	-6.5	76	0.00	17.31
		----------	True	Calc.	% Drift	----------		
125		2-methylnaphthalene	25.000	26.559	-6.2	85	0.00	20.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D78959.D M4D3413.M Thu May 18 13:32:06 2017 RPT1

6.9.3 6

Continuing Calibration Summary

Job Number: JC43354
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V4D3424-CC3413
Lab FileID: 4D79224.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\4D79224.D Vial: 3
Acq On : 18 May 2017 9:14 am Operator: BridgetK
Sample : CC3413-20 Inst : MS4D
Misc : MS16090,V4D3424,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D3413.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Wed May 10 12:20:55 2017
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	121	0.00	7.55
2	M	tertiary butyl alcohol	1.464	1.041	28.9#	84	0.00	7.68
3		Ethanol	0.134	0.102	23.9#	91	0.00	6.11
4	M	1,4-dioxane	0.107	0.078	27.1#	81	0.00	11.75
5	I	pentafluorobenzene	1.000	1.000	0.0	99	0.00	10.10
6	M	chlorodifluoromethane	0.524	0.498	5.0	96	0.00	3.81
7	M	dichlorodifluoromethane	0.842	0.814	3.3	92	0.01	3.81
8	M	chloromethane	1.000	0.903	9.7	88	0.00	4.14
9	M	vinyl chloride	0.956	0.897	6.2	86	-0.01	4.41
10		1,3-butadiene		----------NA----------				
11	M	bromomethane	0.632	0.576	8.9	86	0.00	5.12
12	M	chloroethane	0.456	0.434	4.8	89	0.00	5.33
13	M	trichlorofluoromethane	0.955	0.945	1.0	91	-0.01	5.87
14		vinyl bromide	0.572	0.388	32.2#	64	0.00	5.73
15	M	ethyl ether	0.318	0.277	12.9	81	0.00	6.35
16	M	acrolein	0.155	0.145	6.5	90	0.00	6.56
17		freon 113	0.454	0.383	15.6	81	0.00	6.83
18	M	1,1-dichloroethene	0.516	0.439	14.9	81	0.00	6.80
19	M	acetone	0.063	0.055	12.7	80	0.00	6.82
20	M	acetonitrile	0.110	0.096	12.7	87	0.00	7.27
21	M	iodomethane	1.066	0.911	14.5	80	0.00	7.07
22	M	carbon disulfide	1.783	1.574	11.7	82	0.00	7.22
23	M	methylene chloride	0.638	0.555	13.0	84	0.00	7.58
24	M	methyl acetate	0.571	0.505	11.6	84	0.00	7.38
25	M	methyl tert butyl ether	1.851	1.585	14.4	81	0.00	8.04
26	M	trans-1,2-dichloroethene	0.620	0.501	19.2	81	0.00	8.04
27	M	di-isopropyl ether	2.072	1.832	11.6	85	0.00	8.75
28	M	2-butanone	0.084	0.072	14.3	80	0.00	9.44
29	M	1,1-dichloroethane	1.095	0.996	9.0	85	0.00	8.67
30	M	chloroprene	0.841	0.775	7.8	86	0.00	8.82
31	M	acrylonitrile	0.265	0.236	10.9	84	0.00	7.92
32		hexane	0.413	0.375	9.2	83	0.00	8.48
33	M	vinyl acetate	0.117	0.096	17.9	79	0.00	8.69
34	M	ethyl tert-butyl ether	1.988	1.710	14.0	80	0.00	9.26
35	M	ethyl acetate	0.115	0.098	14.8	82	0.00	9.51
36	M	2,2-dichloropropane	0.820	0.786	4.1	90	0.00	9.51
37	M	cis-1,2-dichloroethene	0.665	0.564	15.2	82	0.00	9.48
38		methyl acrylate	0.118	0.093	21.2#	72	0.00	9.58
39	M	propionitrile	0.111	0.100	9.9	84	0.00	9.50
40	M	bromochloromethane	0.335	0.292	12.8	81	0.00	9.80
41	M	tetrahydrofuran	0.122	0.103	15.6	83	0.00	9.87

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42	M	chloroform	0.725	0.617	14.9	84	0.00	9.88
43	M	t-butyl formate	0.529	0.432	18.3	75	0.00	9.96
44	S	dibromofluoromethane (s)	0.495	0.533	-7.7	107	0.00	10.08
45	M	methacrylonitrile	0.307	0.264	14.0	80	0.00	9.73
46	M	1,1,1-trichloroethane	0.853	0.779	8.7	85	0.00	10.18
47		cyclohexane	0.753	0.681	9.6	82	0.00	10.30
48		1,1-dichloropropene	0.789	0.723	8.4	83	0.00	10.38
49		iso-butyl alcohol	0.045	0.037	17.8	85	0.00	10.36
50		carbon tetrachloride	0.763	0.704	7.7	85	0.00	10.41
51		tert amyl alcohol	0.036	0.030	16.7	84	0.00	10.51
52	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	11.04
53	S	1,2-dichloroethane-d4 (s)	0.361	0.397	-10.0	111	0.00	10.53
54	M	n-butyl alcohol	0.017	0.014	17.6	84	0.00	11.15
55		2,2,4-trimethylpentane	1.512	1.319	12.8	83	0.00	10.74
56	M	benzene	1.565	1.326	15.3	82	0.00	10.64
57	M	tert-amyl methyl ether	0.294	0.242	17.7	79	-0.01	10.73
58	M	heptane	0.312	0.269	13.8	82	0.00	10.92
59	M	isopropyl acetate	0.091	0.078	14.3	81	0.00	10.61
60	M	1,2-dichloroethane	0.557	0.509	8.6	88	0.00	10.62
61	M	trichloroethene	0.390	0.334	14.4	80	0.00	11.39
62		ethyl acrylate	0.653	0.537	17.8	80	0.00	11.41
63	M	2-nitropropane	0.134	0.110	17.9	89	0.00	12.13
64	M	2-chloroethyl vinyl ether	0.285	0.194	31.9#	64	0.00	12.18
65	M	methyl methacrylate	0.120	0.098	18.3	78	0.00	11.68
66	M	1,2-dichloropropane	0.428	0.375	12.4	84	0.00	11.64
67	M	dibromomethane	0.288	0.253	12.2	84	0.00	11.77
68	M	methylcyclohexane	0.634	0.554	12.6	80	0.00	11.66
69	M	bromodichloromethane	0.552	0.486	12.0	85	0.00	11.91
70		epichlorohydrin	0.054	0.043	20.4#	81	0.00	12.27
71	M	cis-1,3-dichloropropene	0.678	0.575	15.2	80	0.00	12.39
72	M	4-methyl-2-pentanone	0.200	0.172	14.0	83	0.00	12.51
73	M	3-methyl-1-butanol	0.027	0.023	14.8	81	0.00	12.51
74	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.20
75	S	toluene-d8 (s)	1.294	1.302	-0.6	102	0.00	12.71
76		toluene	1.037	0.869	16.2	81	0.00	12.78
77		trans-1,3-dichloropropene	0.692	0.601	13.2	81	0.00	12.94
78		ethyl methacrylate	0.645	0.554	14.1	81	0.00	12.99
79		1,1,2-trichloroethane	0.387	0.339	12.4	83	0.00	13.15
80	M	tetrachloroethene	0.359	0.309	13.9	82	0.00	13.36
81	M	1,3-dichloropropane	0.684	0.586	14.3	82	0.00	13.33
82		2-hexanone	0.221	0.191	13.6	82	0.00	13.35
83	M	butyl acetate	0.379	0.309	18.5	83	0.00	13.45
84	M	3,3-dimethyl-1-butanol	0.065	0.051	21.5#	78	0.00	13.52
85	M	dibromochloromethane	0.527	0.457	13.3	83	0.00	13.58
86	M	1,2-dibromoethane	0.503	0.421	16.3	81	0.00	13.74
87		n-butyl ether	1.829	1.545	15.5	82	0.00	14.21
88	M	chlorobenzene	1.188	1.001	15.7	81	0.00	14.23
89	M	1,1,1,2-tetrachloroethane	0.446	0.393	11.9	83	0.00	14.29
90	M	ethylbenzene	1.937	1.677	13.4	83	0.00	14.31
91	M	m,p-xylene	0.739	0.634	14.2	82	0.00	14.42
92	M	o-xylene	0.739	0.638	13.7	82	0.00	14.84
93	M	styrene	1.272	1.081	15.0	81	0.00	14.84
94	M	bromoform	0.395	0.345	12.7	82	0.00	15.06
95		butyl acrylate	1.033	0.895	13.4	81	0.00	14.67
96		isopropylbenzene	1.914	1.662	13.2	82	0.00	15.20
97		cis-1,4-dichloro-2-butene	0.195	0.087	55.4#	45#	0.00	15.22
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	16.58

Continuing Calibration Summary

Job Number: JC43354 **Sample:** V4D3424-CC3413
Account: UTC United Technologies Corporation **Lab FileID:** 4D79224.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	S	4-bromofluorobenzene (s)	0.926	0.907	2.1	104	0.00	15.37
100	M	bromobenzene	1.081	0.870	19.5	82	0.00	15.57
101	M	1,1,2,2-tetrachloroethane	1.436	1.149	20.0	84	0.00	15.45
102	M	trans-1,4-dichloro-2-bute	0.317	0.147	53.6#	49#	0.00	15.50
103	M	1,2,3-trichloropropane	0.300	0.251	16.3	84	0.00	15.53
104	M	n-propylbenzene	4.488	3.772	16.0	84	0.00	15.62
105	M	2-chlorotoluene	0.913	0.763	16.4	83	0.00	15.74
106	M	4-chlorotoluene	2.738	2.247	17.9	84	0.00	15.84
107	M	1,3,5-trimethylbenzene	3.089	2.596	16.0	83	0.00	15.78
108	M	tert-butylbenzene	0.546	0.443	18.9	79	0.00	16.14
109	M	1,2,4-trimethylbenzene	3.167	2.642	16.6	82	0.00	16.17
110	M	sec-butylbenzene	3.998	3.425	14.3	84	0.00	16.36
111	M	1,3-dichlorobenzene	1.920	1.601	16.6	83	0.00	16.52
112	M	p-isopropyltoluene	3.369	2.881	14.5	82	0.00	16.49
113	M	1,4-dichlorobenzene	1.946	1.593	18.1	83	0.00	16.60
114		benzyl chloride	2.296	2.055	10.5	90	0.00	16.71
115	M	1,2-dichlorobenzene	1.899	1.559	17.9	82	0.00	17.01
116	M	n-butylbenzene	1.759	1.560	11.3	85	0.00	16.91
117	M	1,2-dibromo-3-chloropropa	0.242	0.206	14.9	84	0.00	17.81
118		1,3,5-trichlorobenzene	1.704	1.394	18.2	83	0.00	18.05
119		2-ethylhexyl acrylate	0.576	0.363	37.0#	123	0.00	18.74
		----------	True	Calc.	% Drift	----------		
120	M	1,2,4-trichlorobenzene	20.000	16.243	18.8	84	0.00	18.72
		----------	AvgRF	CCRF	% Dev	----------		
121	M	hexachlorobutadiene	0.730	0.649	11.1	85	0.00	18.87
122	M	naphthalene	3.288	2.672	18.7	81	0.00	19.01
		----------	True	Calc.	% Drift	----------		
123	M	1,2,3-trichlorobenzene	20.000	16.317	18.4	85	0.00	19.27
		----------	AvgRF	CCRF	% Dev	----------		
124	m	hexachloroethane	0.650	0.542	16.6	84	0.00	17.31
		----------	True	Calc.	% Drift	----------		
125		2-methylnaphthalene	10.000	7.871	21.3#	83	0.00	20.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D78958.D M4D3413.M Fri May 19 10:22:18 2017 RPT1

6.9.4 6

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4D79212.D
Acq On : 18 May 2017 3:10 am
Operator : BridgetK
Sample : jc43354-1
Misc : MS16090,V4D3423,5,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: May 18 13:41:11 2017
Quant Method : C:\MSDCHEM\1\METHODS\M4D3413.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Wed May 10 12:20:55 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.550	65	136676	500.00	ug/L	0.00
5) pentafluorobenzene	10.098	168	190728	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.042	114	286438	50.00	ug/L	0.00
74) chlorobenzene-d5	14.198	117	241534	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.578	152	123397	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.082	113	99218	52.49	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.98%			
53) 1,2-dichloroethane-d4 (s)	10.533	65	110717	53.52	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.04%			
75) toluene-d8 (s)	12.709	98	312446	49.98	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.96%			
99) 4-bromofluorobenzene (s)	15.372	95	115200	50.43	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.86%			
Target Compounds						Qvalue
42) chloroform	9.878	85	977	0.35	ug/L	98
76) toluene	12.782	92	9590	1.91	ug/L	98
93) styrene	14.843	104	1254	0.20	ug/L	94

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

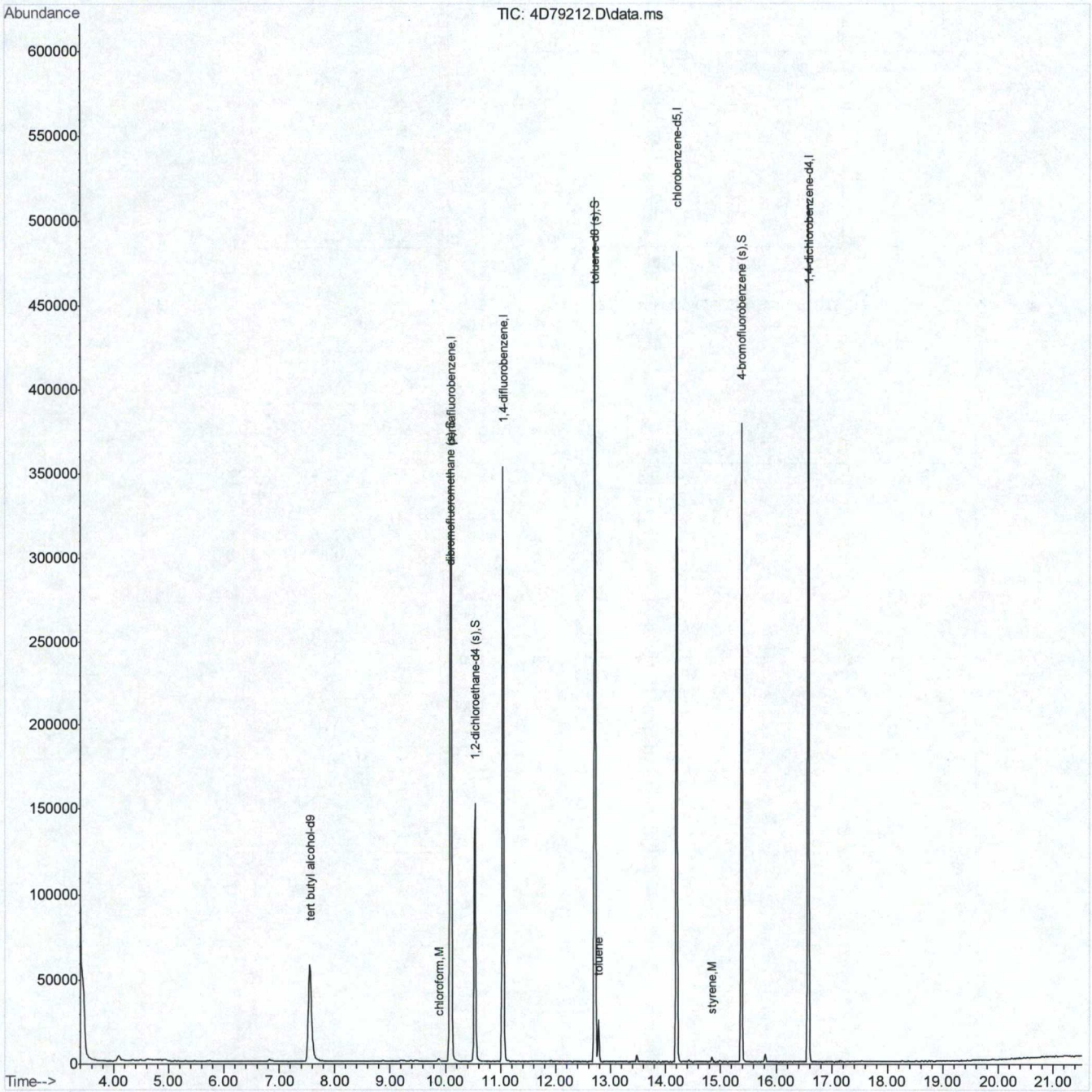
7.1.1

7

Quantitation Report (QT Reviewed)

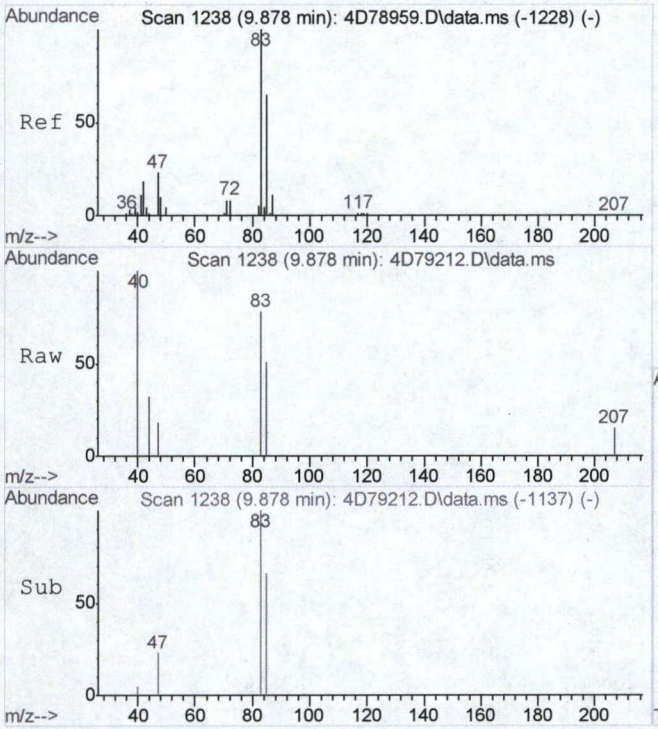
Data Path : C:\msdchem\1\data\
Data File : 4D79212.D
Acq On : 18 May 2017 3:10 am
Operator : BridgetK
Sample : jc43354-1
Misc : MS16090,V4D3423,5,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: May 18 13:41:11 2017
Quant Method : C:\MSDCHEM\1\METHODS\M4D3413.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Wed May 10 12:20:55 2017
Response via : Initial Calibration



7.1.1

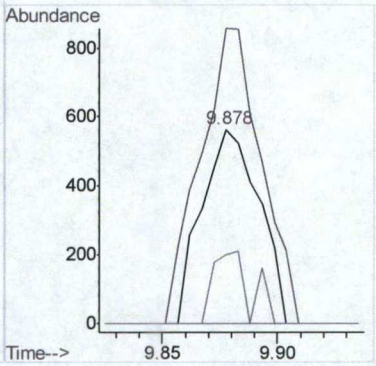
7

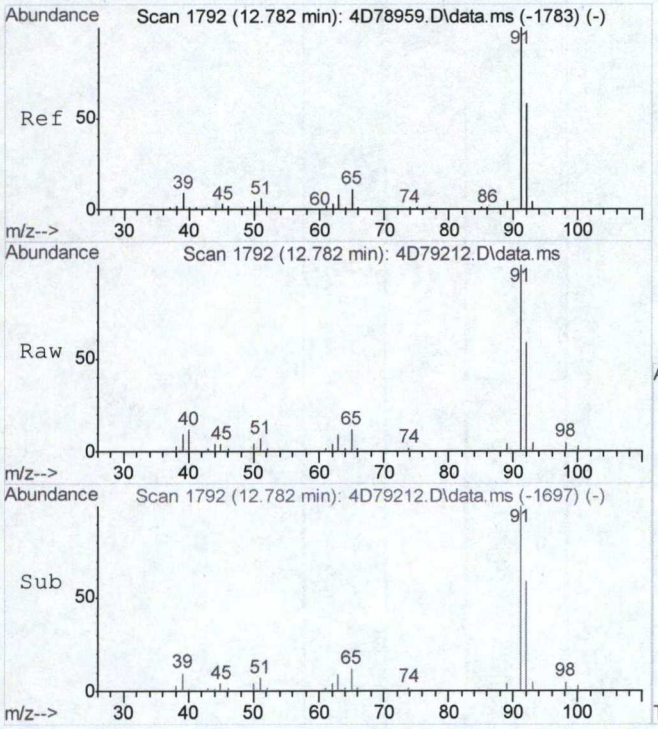


#42
chloroform
Concen: 0.35 ug/L
RT: 9.878 min Scan# 1238
Delta R.T. -0.000 min
Lab File: 4D79212.D
Acq: 18 May 2017 3:10 am

Tgt Ion: 85 Resp: 977

Ion	Ratio	Lower	Upper
85	100		
83	152.2	124.6	184.6
47	35.5	6.7	66.7

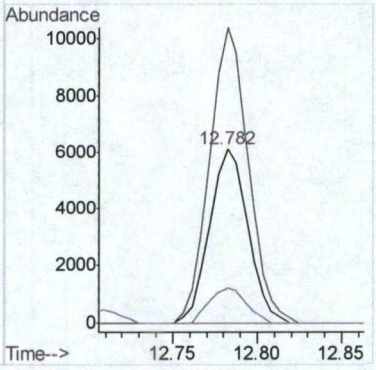




#76
toluene
Concen: 1.91 ug/L
RT: 12.782 min Scan# 1792
Delta R.T. 0.000 min
Lab File: 4D79212.D
Acq: 18 May 2017 3:10 am

Tgt Ion: 92 Resp: 9590

Ion	Ratio	Lower	Upper
92	100		
91	170.2	152.6	192.6
65	19.9	0.0	39.3



7.1.1

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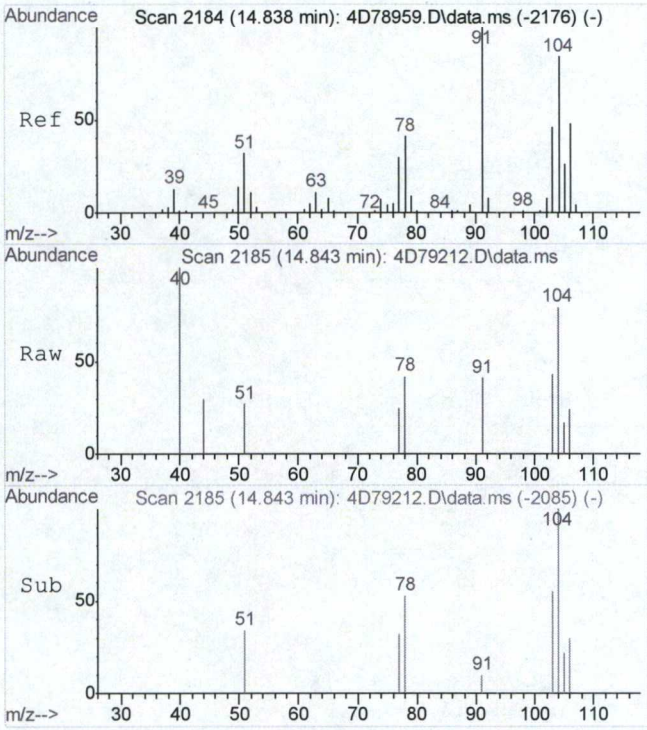
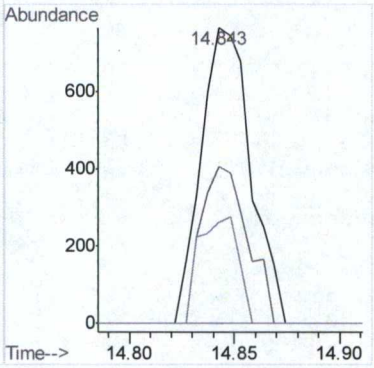
SGS ACCUTEST JC43354



#93
styrene
Concen: 0.20 ug/L
RT: 14.843 min Scan# 2185
Delta R.T. 0.005 min
Lab File: 4D79212.D
Acq: 18 May 2017 3:10 am

Tgt Ion:104 Resp: 1254

Ion	Ratio	Lower	Upper
104	100		
78	52.9	18.9	78.9
51	34.0	8.2	68.2



7.1.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 4D79213.D
Acq On : 18 May 2017 3:38 am
Operator : BridgetK
Sample : jc43354-2
Misc : MS16090,V4D3423,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Time: May 18 13:42:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\M4D3413.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Wed May 10 12:20:55 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) tert butyl alcohol-d9	7.555	65	142562	500.00 ug/L	0.00
5) pentafluorobenzene	10.103	168	196678	50.00 ug/L	0.00
52) 1,4-difluorobenzene	11.042	114	292706	50.00 ug/L	0.00
74) chlorobenzene-d5	14.198	117	248752	50.00 ug/L	0.00
98) 1,4-dichlorobenzene-d4	16.578	152	126029	50.00 ug/L	0.00
System Monitoring Compounds					
44) dibromofluoromethane (s)	10.087	113	102982	52.84 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.68%		
53) 1,2-dichloroethane-d4 (s)	10.533	65	113784	53.83 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.66%		
75) toluene-d8 (s)	12.709	98	324579	50.41 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.82%		
99) 4-bromofluorobenzene (s)	15.372	95	118925	50.98 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.96%		
Target Compounds					Qvalue
26) trans-1,2-dichloroethene	8.053	96	523	0.21 ug/L #	68
29) 1,1-dichloroethane	8.672	63	21974	5.10 ug/L	98
37) cis-1,2-dichloroethene	9.479	96	5149	1.97 ug/L	91
42) chloroform	9.883	85	568	0.20 ug/L #	82
46) 1,1,1-trichloroethane	10.187	97	57610	17.17 ug/L	98
61) trichloroethene	11.393	130	11763	5.16 ug/L	97
80) tetrachloroethene	13.369	164	110388	61.77 ug/L	97

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

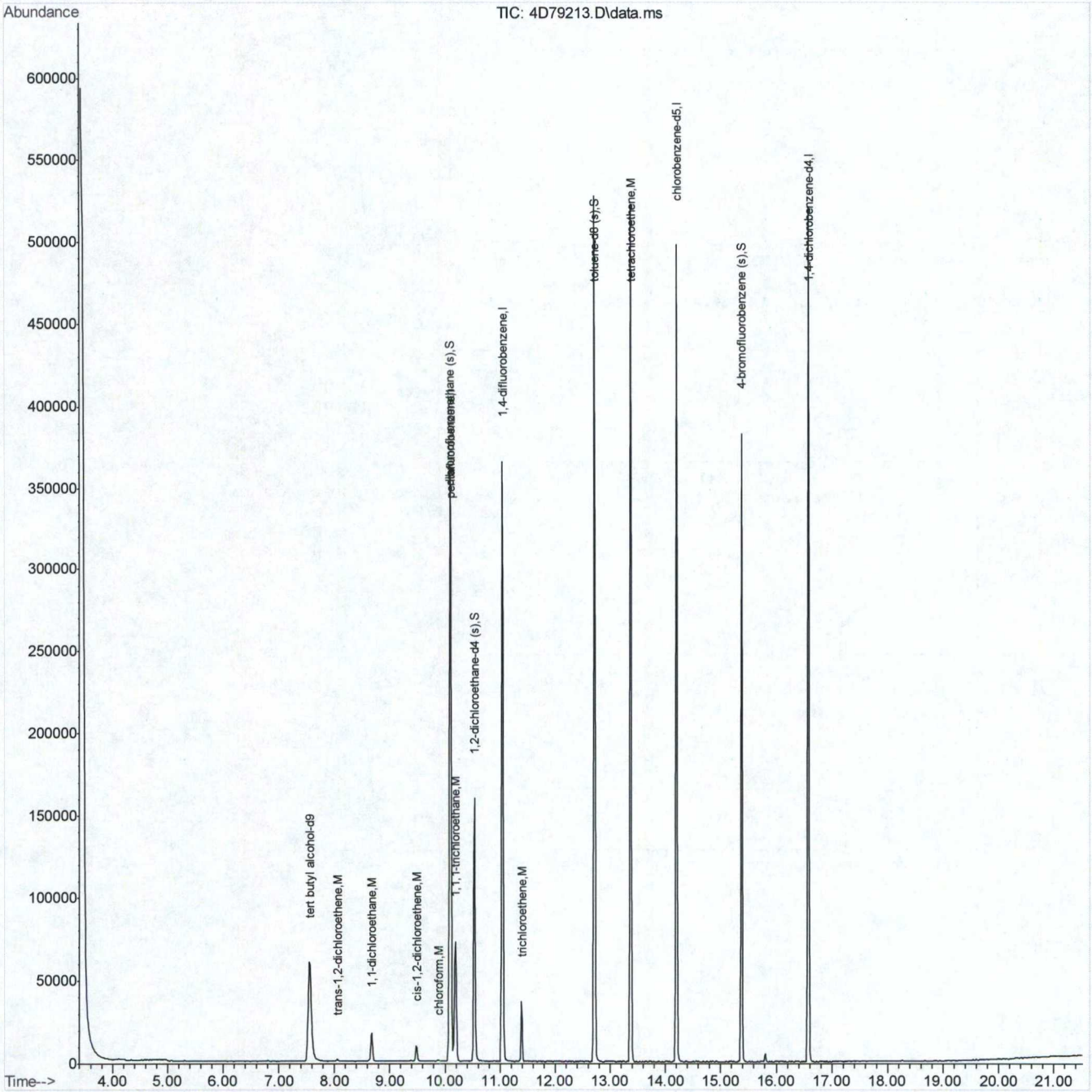
7.1.2

7

Quantitation Report (QT Reviewed)

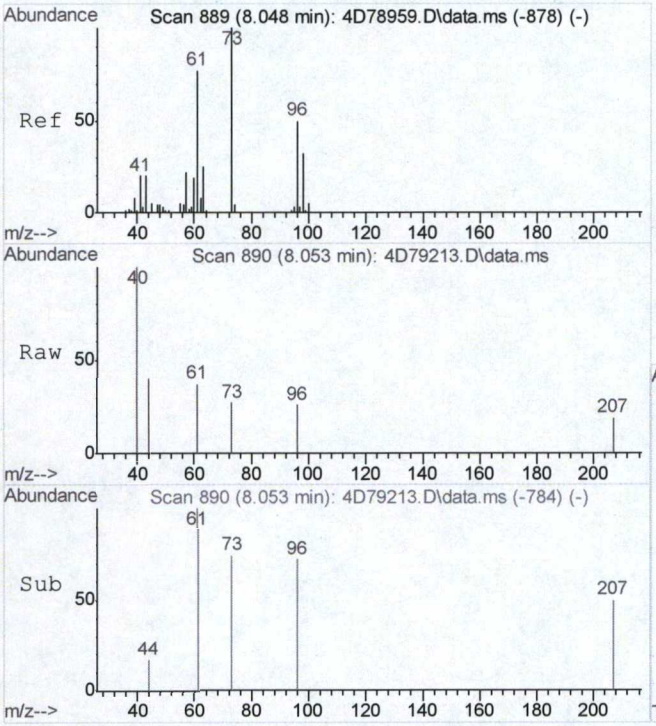
Data Path : C:\msdchem\1\data\
Data File : 4D79213.D
Acq On : 18 May 2017 3:38 am
Operator : BridgetK
Sample : jc43354-2
Misc : MS16090,V4D3423,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Time: May 18 13:42:01 2017
Quant Method : C:\MSDCHEM\1\METHODS\M4D3413.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Wed May 10 12:20:55 2017
Response via : Initial Calibration



7.1.2

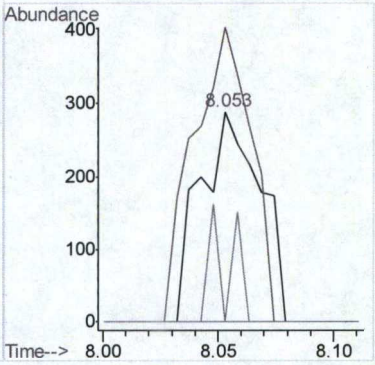
7

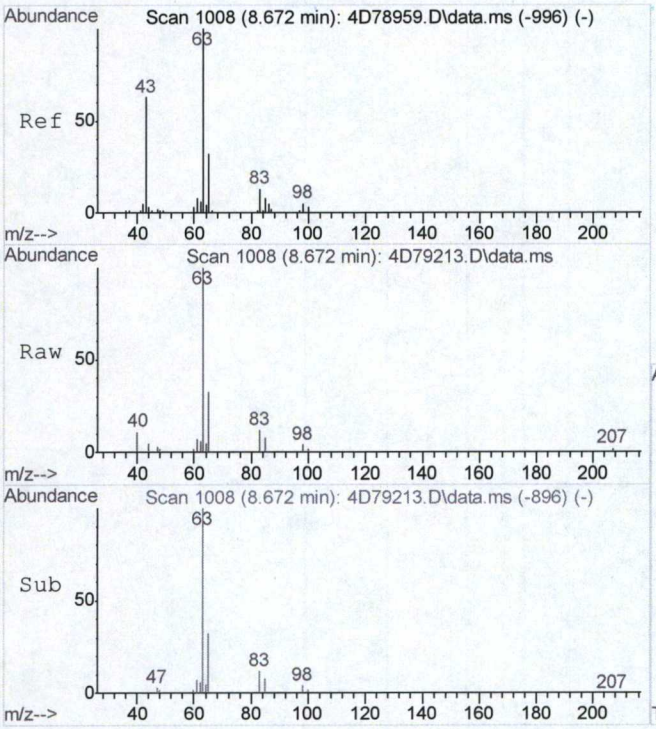


#26
trans-1,2-dichloroethene
Concen: 0.21 ug/L
RT: 8.053 min Scan# 890
Delta R.T. 0.005 min
Lab File: 4D79213.D
Acq: 18 May 2017 3:38 am

Tgt Ion: 96 Resp: 523

Ion	Ratio	Lower	Upper
96	100		
61	139.6	123.8	183.8
98	0.0	34.8	94.8#

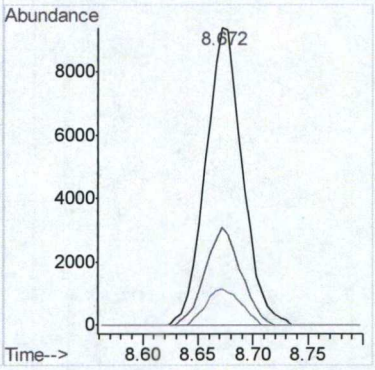


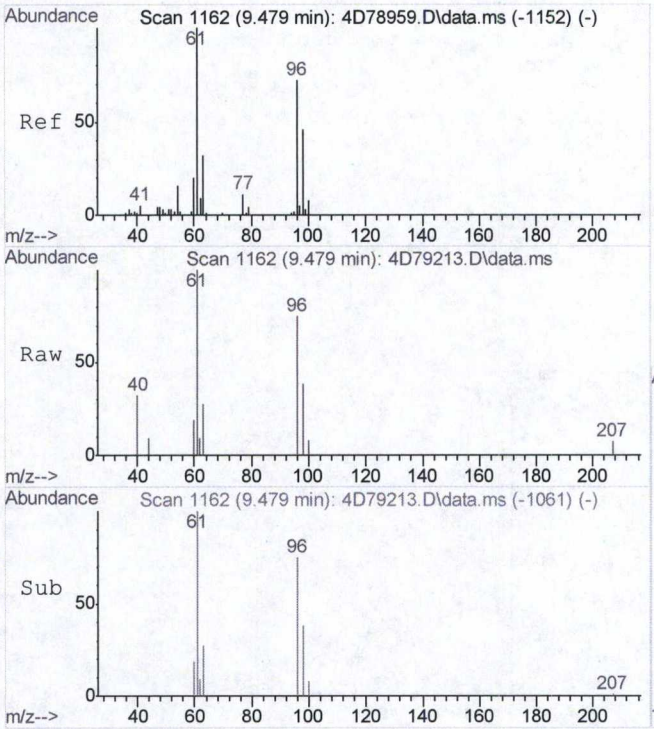


#29
1,1-dichloroethane
Concen: 5.10 ug/L
RT: 8.672 min Scan# 1008
Delta R.T. -0.000 min
Lab File: 4D79213.D
Acq: 18 May 2017 3:38 am

Tgt Ion: 63 Resp: 21974

Ion	Ratio	Lower	Upper
63	100		
65	33.0	1.6	61.6
83	12.5	0.0	43.1

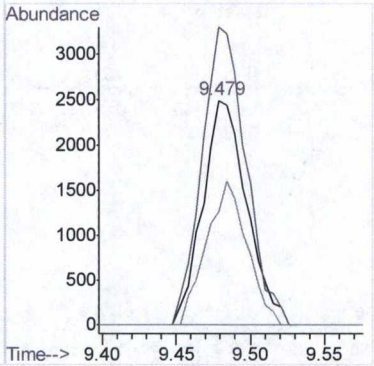


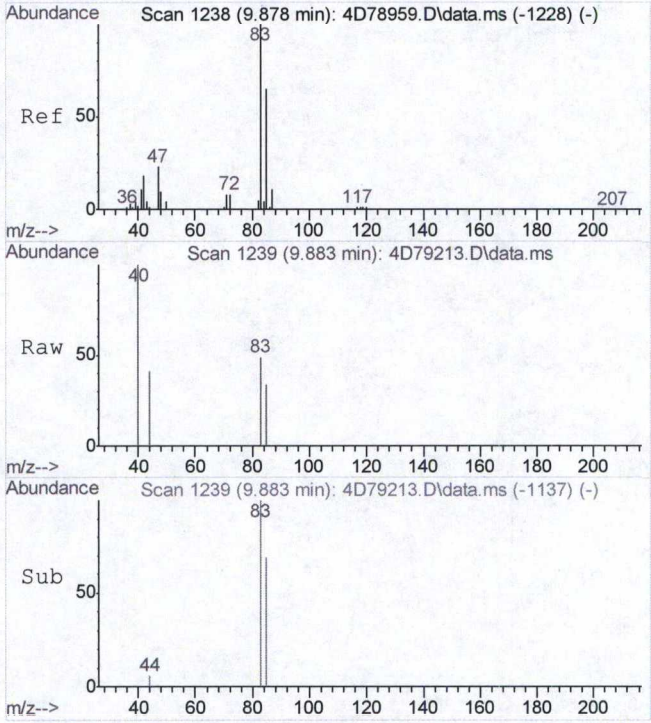


#37
cis-1,2-dichloroethene
Concen: 1.97 ug/L
RT: 9.479 min Scan# 1162
Delta R.T. 0.000 min
Lab File: 4D79213.D
Acq: 18 May 2017 3:38 am

Tgt Ion: 96 Resp: 5149

Ion	Ratio	Lower	Upper
96	100		
61	132.6	108.6	168.6
98	50.8	33.9	93.9

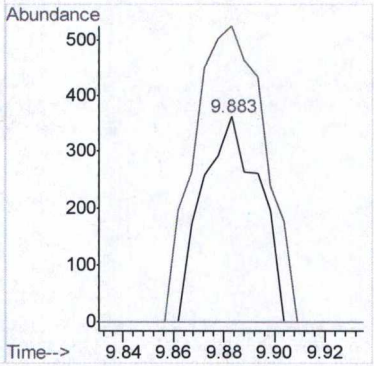




#42
chloroform
Concen: 0.20 ug/L
RT: 9.883 min Scan# 1239
Delta R.T. 0.005 min
Lab File: 4D79213.D
Acq: 18 May 2017 3:38 am

Tgt Ion: 85 Resp: 568

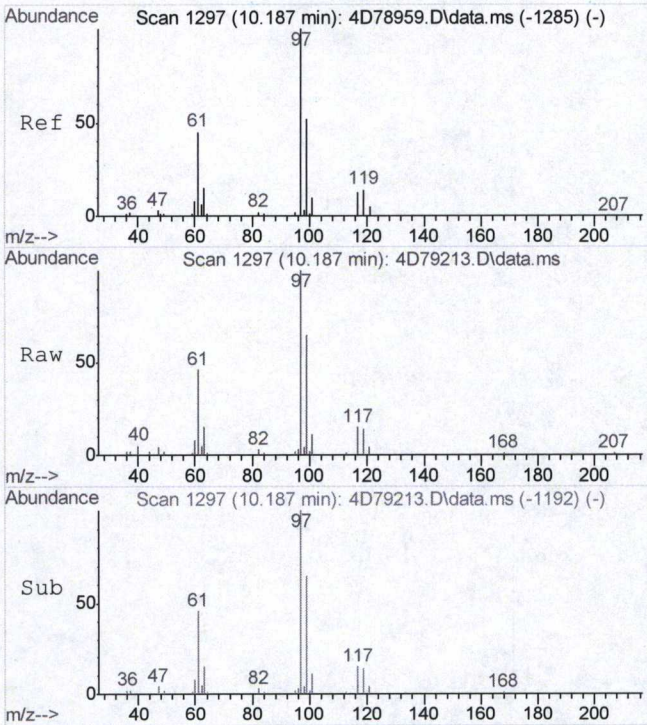
Ion	Ratio	Lower	Upper
85	100		
83	145.3	124.6	184.6
47	0.0	6.7	66.7#



7.1.2

7

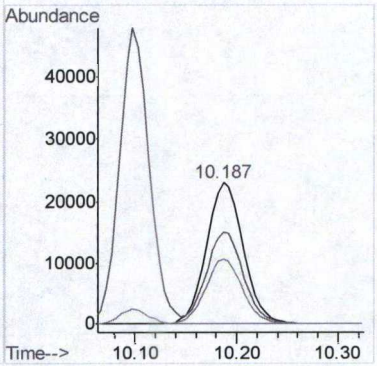
SGS ACCUTEST JC43354

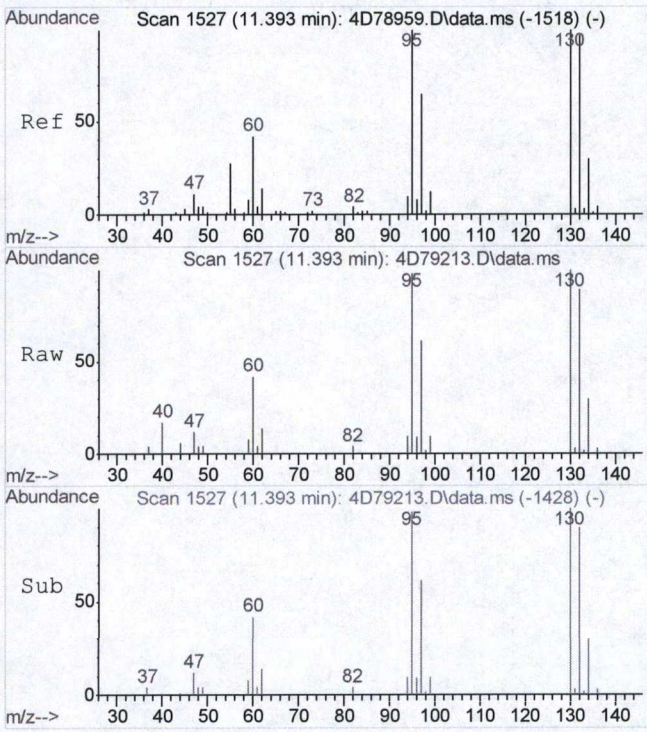


#46
1,1,1-trichloroethane
Concen: 17.17 ug/L
RT: 10.187 min Scan# 1297
Delta R.T. -0.000 min
Lab File: 4D79213.D
Acq: 18 May 2017 3:38 am

Tgt Ion: 97 Resp: 57610

Ion	Ratio	Lower	Upper
97	100		
99	65.5	34.0	94.0
61	46.5	14.9	74.9

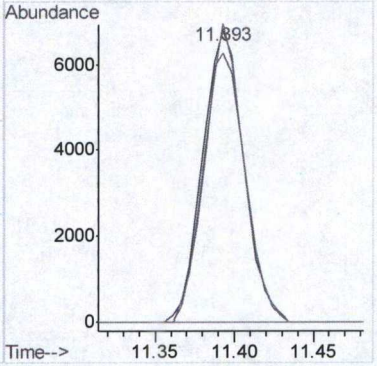




#61
trichloroethene
Concen: 5.16 ug/L
RT: 11.393 min Scan# 1527
Delta R.T. -0.000 min
Lab File: 4D79213.D
Acq: 18 May 2017 3:38 am

Tgt Ion:130 Resp: 11763

Ion	Ratio	Lower	Upper
130	100		
95	97.8	70.1	130.1
130	100.0	70.0	130.0
132	90.3	67.2	127.2



7.1.2 7

SGS ACCUTEST JC43354