Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292484.D
Acq On : 12 Jul 2017 2:04 pm
Operator : JiaminC
Sample : ic8203-100
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 17 11:04:41 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 14:44:06 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) ethyl acetate	9.180	45	40707	88.16 ug/L	89
39) 2,2-dichloropropane	9.279	77	436996	85.21 ug/L	98
40) cis-1,2-dichloroethene	9.237	96	273839	88.78 ug/L	99
41) propionitrile	9.248	54	434774	864.22 ug/L	98
42) methyl acrylate	9.263	85	41178	92.88 ug/L	97
43) bromochloromethane	9.535	128	142685	93.70 ug/L	100
44) tetrahydrofuran	9.546	42	88189	87.69 ug/L	99
45) chloroform	9.619	83	438018	86.82 ug/L	97
47) methacrylonitrile	9.441	41	164341	95.49 ug/L	96
48) 1,1,1-trichloroethane	9.886	97	497823	101.51 ug/L	98
49) cyclohexane	10.001	84	469692	92.90 ug/L	98
50) 1,1-dichloropropene	10.043	75	304234	90.04 ug/L	98
51) carbon tetrachloride	10.079	117	414404	94.51 ug/L	99
52) isopropyl acetate	10.194	43	541694	92.21 ug/L	97
53) tert amyl alcohol	10.173	55	72588	416.50 ug/L	98
56) tert-amyl methyl ether	10.367	73	860605	88.11 ug/L	98
57) 2,2,4-trimethylpentane	10.393	57	1157210	99.26 ug/L	99
58) epichlorohydrin	11.884	57	163465	470.00 ug/L	98
59) n-butyl alcohol	10.749	56	507463	4400.58 ug/L	99
60) benzene	10.294	78	922503	85.16 ug/L	98
61) heptane	10.540	57	178737	93.36 ug/L	98
62) 1,2-dichloroethane	10.325	62	297154	86.83 ug/L	99
63) trichloroethene	11.015	95	249360	91.31 ug/L	96
64) ethyl acrylate	10.995	55	339031	98.66 ug/L	100
65) 2-nitropropane	11.763	41	109971	97.24 ug/L	95
66) 2-chloroethyl vinyl ether	11.795	63	688917	455.48 ug/L	97
67) methyl methacrylate	11.256	100	75108	100.10 ug/L	97
68) 1,2-dichloropropane	11.303	63	234354	87.19 ug/L	97
69) methylcyclohexane	11.308	83	519009	92.51 ug/L	97
70) dibromomethane	11.413	93	166016	88.55 ug/L	98
71) bromodichloromethane	11.565	83	346657	95.34 ug/L	97
72) cis-1,3-dichloropropene	12.014	75	410490	96.64 ug/L	100
73) 4-methyl-2-pentanone	12.109	58	432528	336.40 ug/L	91
74) 3-methyl-1-butanol	12.109	70	185408	1716.18 ug/L	99
77) toluene	12.386	92	561065	95.11 ug/L	96
78) trans-1,3-dichloropropene	12.574	75	351839	96.22 ug/L	95
79) ethyl methacrylate	12.553	69	333467	103.06 ug/L	99
80) 1,1,2-trichloroethane	12.794	83	197465	97.70 ug/L	98
81) 2-hexanone	12.945	58	410670	340.72 ug/L	99
82) tetrachloroethene	12.935	166	277904	88.74 ug/L	98
83) 1,3-dichloropropane	12.972	76	319241	89.31 ug/L	97
84) butyl acetate	13.024	56	161318	92.81 ug/L	93
85) dibromochloromethane	13.217	129	283975	98.84 ug/L	99
86) 1,2-dibromoethane	13.374	107	264462	100.78 ug/L	97
87) n-butyl ether	13.788	57	918338	93.36 ug/L	99
88) chlorobenzene	13.845	112	612133	92.34 ug/L	98
89) 1,1,1,2-tetrachloroethane	13.908	131	262987	98.14 ug/L	98
90) ethylbenzene	13.897	91	979035	88.12 ug/L	99
91) m,p-xylene	14.018	106	765368	183.03 ug/L	95
92) o-xylene	14.420	106	426490	93.12 ug/L	92

7.7.24

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292484.D
Acq On : 12 Jul 2017 2:04 pm
Operator : JiaminC
Sample : ic8203-100
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 17 11:04:41 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 14:44:06 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 3,3-dimethyl-1-butanol	13.123	69	256139	917.25 ug/L	97
94) butyl acrylate	14.243	55	501600	99.30 ug/L	97
95) styrene	14.431	104	662778	90.90 ug/L	99
96) bromoform	14.666	173	243382	106.60 ug/L	99
97) isopropylbenzene	14.766	105	1096469	90.27 ug/L	97
98) cis-1,4-dichloro-2-butene	14.802	88	113156	102.76 ug/L	92
101) bromobenzene	15.153	156	313645	93.39 ug/L	97
102) 1,1,2,2-tetrachloroethane	15.043	83	359932	98.36 ug/L	99
103) trans-1,4-dichloro-2-b...	15.079	53	96212	101.69 ug/L	95
104) 1,2,3-trichloropropane	15.132	110	85914	97.05 ug/L	92
105) n-propylbenzene	15.179	91	1174344	83.05 ug/L	96
106) 2-chlorotoluene	15.310	126	281915	95.06 ug/L	97
107) 4-chlorotoluene	15.425	91	785742	87.52 ug/L	97
108) 1,3,5-trimethylbenzene	15.330	105	917997	87.68 ug/L	99
109) tert-butylbenzene	15.665	119	836002	97.61 ug/L	97
110) 1,2,4-trimethylbenzene	15.717	105	942408	84.50 ug/L	97
111) sec-butylbenzene	15.885	105	1261518	90.34 ug/L	97
112) 1,3-dichlorobenzene	16.052	146	581938	83.13 ug/L	97
113) p-isopropyltoluene	16.010	119	1056244	90.94 ug/L	96
114) 1,4-dichlorobenzene	16.141	146	595798	87.39 ug/L	98
115) 1,2-dichlorobenzene	16.502	146	635375	86.88 ug/L	98
116) n-butylbenzene	16.403	92	605544	95.60 ug/L	95
117) 1,2-dibromo-3-chloropr...	17.219	75	97058	103.98 ug/L	97
118) 1,3,5-trichlorobenzene	17.386	180	675528	93.98 ug/L	98
119) 1,2,4-trichlorobenzene	17.977	180	601752	105.18 ug/L	98
120) hexachlorobutadiene	18.076	225	312006	94.09 ug/L	99
121) naphthalene	18.249	128	1192158	92.19 ug/L	98
122) 1,2,3-trichlorobenzene	18.458	180	517804	104.51 ug/L	99
123) hexachloroethane	16.779	119	248282	116.64 ug/L	100
124) Benzyl chloride	16.230	91	696637	99.51 ug/L	99
125) 2-ethylhexyl acrylate	17.977	70	51897	47.13 ug/L	92
126) 2-methylnaphthalene	19.389	142	316816	68.19 ug/L	98

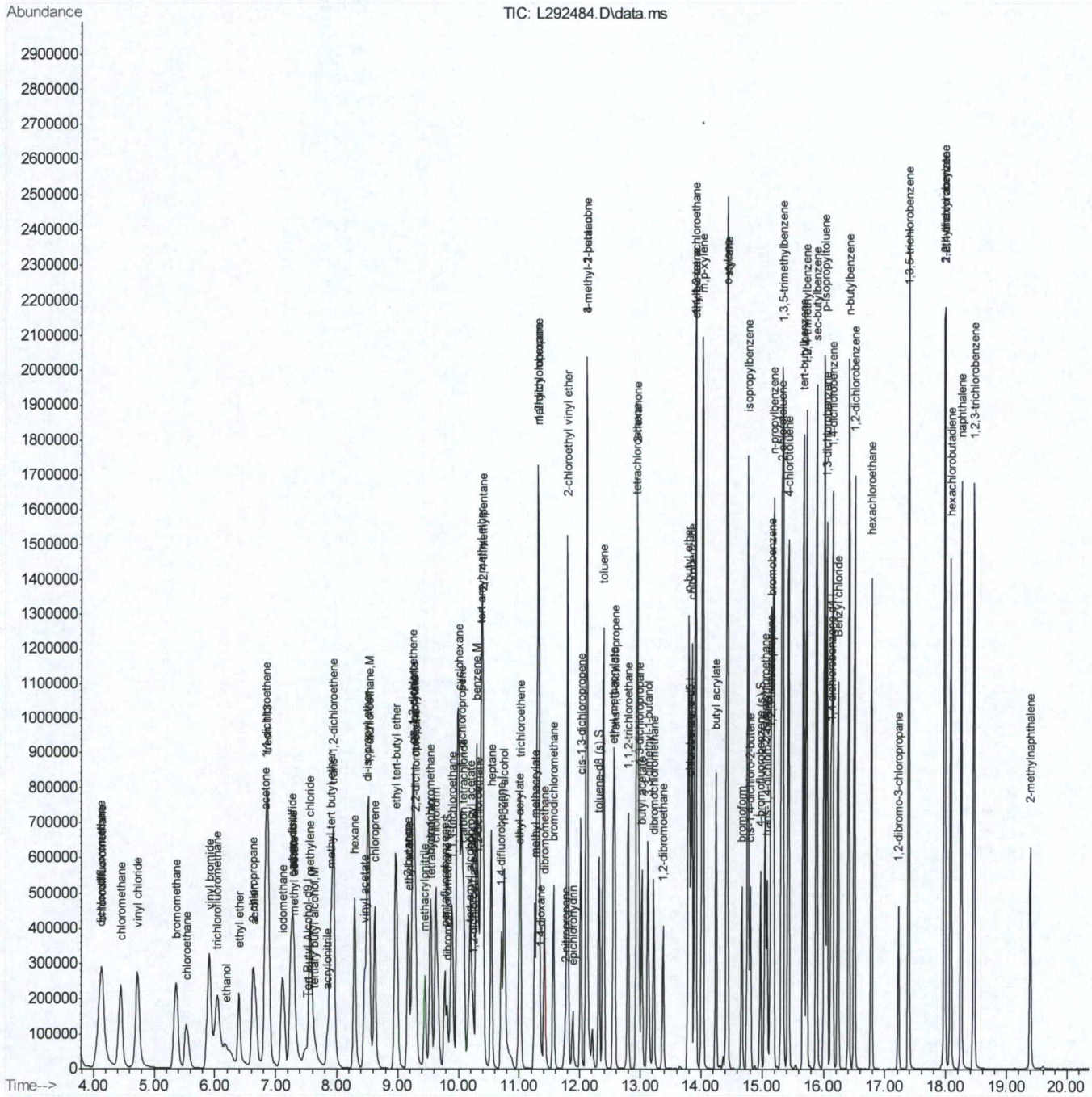
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.24 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292484.D
Acq On : 12 Jul 2017 2:04 pm
Operator : JiaminC
Sample : ic8203-100
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 17 11:04:41 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 14:44:06 2017
Response via : Initial Calibration



7.7.24 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292485.D
Acq On : 12 Jul 2017 2:31 pm
Operator : JiaminC
Sample : ic8203-200
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 17 11:04:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 14:45:40 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.537	65	211978	500.00	ug/L	0.03
5) pentafluorobenzene	9.771	168	240557	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.707	114	367349	50.00	ug/L	0.00
75) chlorobenzene-d5	13.814	117	328957	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.120	152	214497	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.818	113	122245	51.55	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.10%			
55) 1,2-dichloroethane-d4 (s)	10.236	65	124053	45.78	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 91.56%			
76) toluene-d8 (s)	12.318	98	416781	51.55	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 103.10%			
100) 4-bromofluorobenzene (s)	14.970	95	185701	50.82	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.350	88	140403	4534.35	ug/L	96
3) ethanol	6.193	45	540290	20482.30	ug/L #	100
4) tertiary butyl alcohol	7.663	59	479844	1113.90	ug/L	92
6) chlorodifluoromethane	4.138	51	1043090	174.53	ug/L	99
7) dichlorodifluoromethane	4.117	85	1274472	177.36	ug/L	97
9) chloromethane	4.457	50	1189379	204.69	ug/L	96
11) vinyl chloride	4.739	62	1192389	165.64	ug/L	99
12) bromomethane	5.372	94	769376	190.61	ug/L	98
13) chloroethane	5.539	64	503894	175.85	ug/L	97
14) vinyl bromide	5.911	106	1009601	187.87	ug/L	99
15) trichlorofluoromethane	6.047	101	1175249	176.76	ug/L	98
16) ethyl ether	6.397	74	281786	191.47	ug/L	95
17) 2-chloropropane	6.627	43	985744	177.29	ug/L	100
18) acrolein	6.643	56	150402	199.15	ug/L	94
19) freon 113	6.863	151	568319	166.91	ug/L	100
20) 1,1-dichloroethene	6.847	96	570598	168.86	ug/L	96
21) acetone	6.842	58	237925	701.05	ug/L	98
22) acetonitrile	7.297	40	446113	2318.49	ug/L	93
23) iodomethane	7.124	142	1323106	178.04	ug/L	97
25) carbon disulfide	7.271	76	2228951	169.29	ug/L	97
26) methylene chloride	7.564	84	658713	174.48	ug/L	97
27) methyl acetate	7.297	74	91940	191.82	ug/L	94
28) methyl tert butyl ether	7.909	73	1749540	179.01	ug/L	98
29) trans-1,2-dichloroethene	7.945	96	475272	164.38	ug/L	98
30) hexane	8.291	57	611848	170.79	ug/L	99
31) di-isopropyl ether	8.505	45	1705975	168.45	ug/L	98
32) ethyl tert-butyl ether	8.971	59	1851674	180.89	ug/L	97
33) 2-butanone	9.169	72	293153	736.85	ug/L #	82
34) 1,1-dichloroethane	8.526	63	797666	162.50	ug/L	97
35) chloroprene	8.625	53	697499	173.74	ug/L	98
36) acrylonitrile	7.846	53	263256	195.58	ug/L	99
37) vinyl acetate	8.458	86	96695	208.05	ug/L #	82

7.7.25 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292485.D
Acq On : 12 Jul 2017 2:31 pm
Operator : JiaminC
Sample : ic8203-200
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 17 11:04:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 14:45:40 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) ethyl acetate	9.185	45	83934	183.07 ug/L	90
39) 2,2-dichloropropane	9.290	77	798390	155.62 ug/L	98
40) cis-1,2-dichloroethene	9.242	96	516765	167.08 ug/L	98
41) propionitrile	9.258	54	872309	1738.62 ug/L	82
42) methyl acrylate	9.269	85	83339	187.49 ug/L	95
43) bromochloromethane	9.541	128	278504	181.25 ug/L	96
44) tetrahydrofuran	9.551	42	184006	182.71 ug/L	99
45) chloroform	9.624	83	830350	164.24 ug/L	96
47) methacrylonitrile	9.446	41	335336	192.66 ug/L	95
48) 1,1,1-trichloroethane	9.891	97	940010	188.15 ug/L	100
49) cyclohexane	10.001	84	847351	166.26 ug/L	98
50) 1,1-dichloropropene	10.048	75	561675	165.50 ug/L	99
51) carbon tetrachloride	10.085	117	773628	174.55 ug/L	98
52) isopropyl acetate	10.200	43	1089488	184.14 ug/L	96
53) tert amyl alcohol	10.179	55	153802	888.94 ug/L	94
56) tert-amyl methyl ether	10.377	73	1641505	163.64 ug/L	96
57) 2,2,4-trimethylpentane	10.398	57	2045426	168.74 ug/L	97
58) epichlorohydrin	11.889	57	353236	984.30 ug/L	99
59) n-butyl alcohol	10.754	56	1033860	8789.98 ug/L	98
60) benzene	10.299	78	1711702	154.37 ug/L	95
61) heptane	10.540	57	327376	165.67 ug/L	98
62) 1,2-dichloroethane	10.330	62	574580	163.71 ug/L	98
63) trichloroethene	11.016	95	471826	167.63 ug/L	99
64) ethyl acrylate	11.000	55	685288	191.98 ug/L	99
65) 2-nitropropane	11.769	41	226276	193.14 ug/L	90
66) 2-chloroethyl vinyl ether	11.795	63	1293033	830.67 ug/L	94
67) methyl methacrylate	11.261	100	157913	202.18 ug/L	94
68) 1,2-dichloropropane	11.308	63	441271	160.02 ug/L	97
69) methylcyclohexane	11.319	83	921051	159.07 ug/L	97
70) dibromomethane	11.418	93	338795	176.16 ug/L	97
71) bromodichloromethane	11.570	83	683698	181.62 ug/L	97
72) cis-1,3-dichloropropene	12.015	75	788585	179.13 ug/L	97
73) 4-methyl-2-pentanone	12.114	58	827479	630.91 ug/L #	81
74) 3-methyl-1-butanol	12.109	70	368198	3342.46 ug/L	98
77) toluene	12.391	92	1057971	172.38 ug/L	90
78) trans-1,3-dichloropropene	12.574	75	680605	178.56 ug/L	99
79) ethyl methacrylate	12.558	69	665367	195.70 ug/L	99
80) 1,1,2-trichloroethane	12.799	83	396026	187.73 ug/L	98
81) 2-hexanone	12.951	58	801885	647.57 ug/L	93
82) tetrachloroethene	12.935	166	519420	160.45 ug/L	98
83) 1,3-dichloropropane	12.977	76	629667	170.31 ug/L	97
84) butyl acetate	13.024	56	331779	184.00 ug/L	93
85) dibromochloromethane	13.223	129	574380	191.23 ug/L	99
86) 1,2-dibromoethane	13.374	107	543161	197.57 ug/L	98
87) n-butyl ether	13.793	57	1673880	163.78 ug/L	93
88) chlorobenzene	13.845	112	1158299	168.36 ug/L	95
89) 1,1,1,2-tetrachloroethane	13.913	131	514925	183.94 ug/L	99
90) ethylbenzene	13.903	91	1741601	152.00 ug/L	92
91) m,p-xylene	14.023	106	1451214	335.09 ug/L	85
92) o-xylene	14.420	106	814509	171.20 ug/L	86

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292485.D
Acq On : 12 Jul 2017 2:31 pm
Operator : JiaminC
Sample : ic8203-200
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 17 11:04:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 14:45:40 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 3,3-dimethyl-1-butanol	13.129	69	517182	1787.79	ug/L	95
94) butyl acrylate	14.243	55	1012226	191.59	ug/L	95
95) styrene	14.431	104	1251445	165.65	ug/L	95
96) bromoform	14.666	173	514994	213.72	ug/L	98
97) isopropylbenzene	14.766	105	1966781	156.38	ug/L	90
98) cis-1,4-dichloro-2-butene	14.807	88	252168	217.57	ug/L	97
101) bromobenzene	15.153	156	623612	166.66	ug/L	99
102) 1,1,2,2-tetrachloroethane	15.048	83	750068	182.96	ug/L	98
103) trans-1,4-dichloro-2-b...	15.079	53	206752	194.03	ug/L	95
104) 1,2,3-trichloropropane	15.132	110	177975	179.87	ug/L	99
105) n-propylbenzene	15.179	91	2103899	135.12	ug/L	89
106) 2-chlorotoluene	15.315	126	568642	172.05	ug/L #	85
107) 4-chlorotoluene	15.425	91	1506967	152.26	ug/L	92
108) 1,3,5-trimethylbenzene	15.336	105	1681944	145.12	ug/L	91
109) tert-butylbenzene	15.670	119	1559624	162.68	ug/L	94
110) 1,2,4-trimethylbenzene	15.723	105	1754175	142.59	ug/L	90
111) sec-butylbenzene	15.885	105	2246426	144.88	ug/L	88
112) 1,3-dichlorobenzene	16.052	146	1143125	148.26	ug/L	94
113) p-isopropyltoluene	16.010	119	1921864	148.93	ug/L	89
114) 1,4-dichlorobenzene	16.146	146	1176447	155.92	ug/L	95
115) 1,2-dichlorobenzene	16.502	146	1230522	152.13	ug/L	95
116) n-butylbenzene	16.408	92	1163066	164.41	ug/L	88
117) 1,2-dibromo-3-chloropr...	17.219	75	204403	194.13	ug/L	96
118) 1,3,5-trichlorobenzene	17.386	180	1238655	154.70	ug/L	96
119) 1,2,4-trichlorobenzene	17.977	180	1105166	171.00	ug/L	96
120) hexachlorobutadiene	18.076	225	583354	157.90	ug/L	98
121) naphthalene	18.249	128	2132282	149.24	ug/L	93
122) 1,2,3-trichlorobenzene	18.458	180	980853	175.40	ug/L	98
123) hexachloroethane	16.779	119	523897	213.36	ug/L	99
124) Benzyl chloride	16.235	91	1385620	176.45	ug/L	95
125) 2-ethylhexyl acrylate	17.977	70	116901	74.40	ug/L	89
126) 2-methylnaphthalene	19.389	142	635611	113.63	ug/L	98

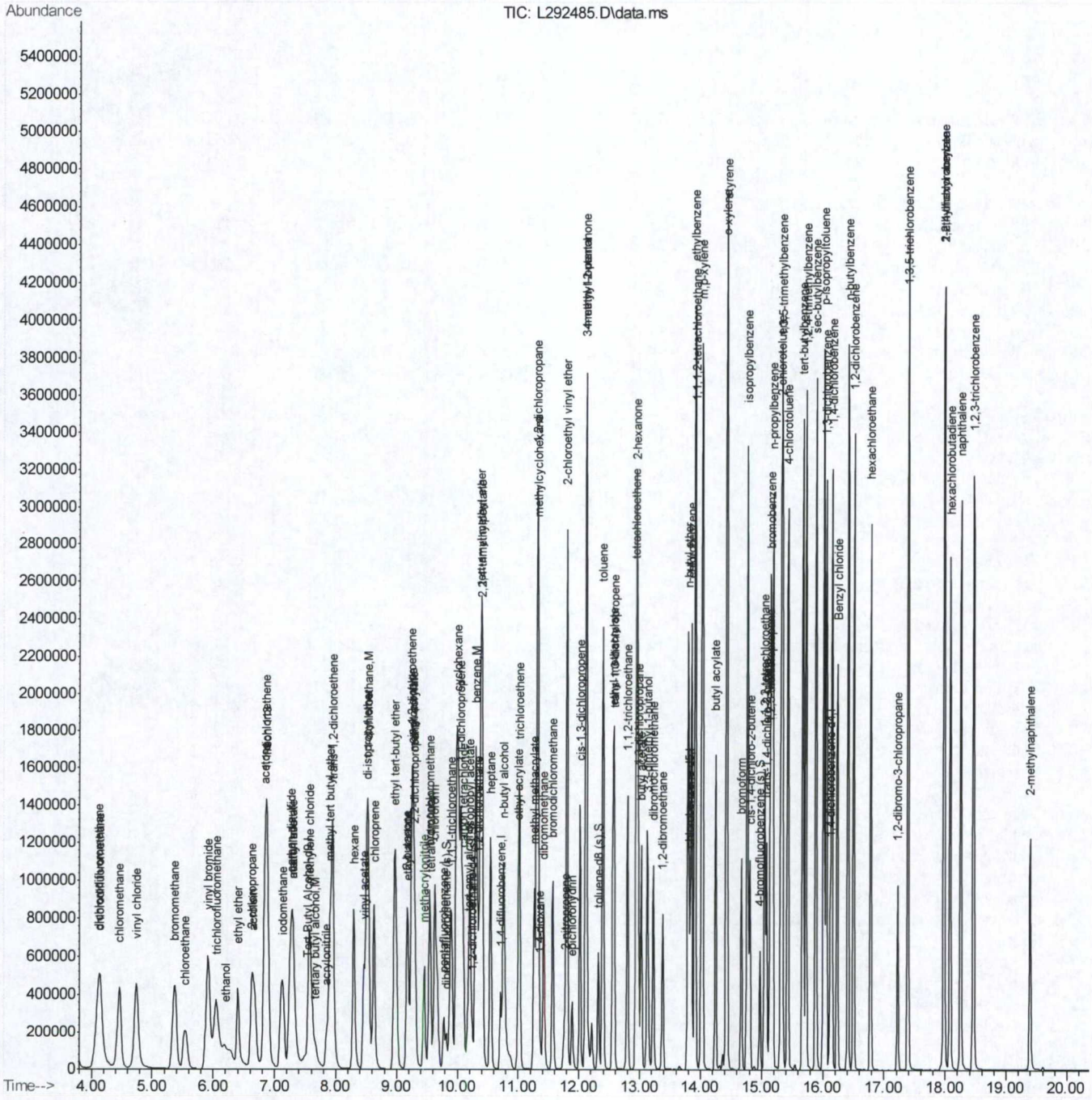
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.25 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292485.D
Acq On : 12 Jul 2017 2:31 pm
Operator : JiaminC
Sample : ic8203-200
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 17 11:04:50 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 14:45:40 2017
Response via : Initial Calibration



7.7.25 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292488.D
Acq On : 12 Jul 2017 3:52 pm
Operator : JiaminC
Sample : icv8203-50
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 17 11:04:58 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 15:06:51 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.485	65	207500	500.00	ug/L	-0.03
5) pentafluorobenzene	9.771	168	251154	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.702	114	372730	50.00	ug/L	0.00
75) chlorobenzene-d5	13.808	117	343920	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	203084	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.807	113	125802	50.65	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.30%			
55) 1,2-dichloroethane-d4 (s)	10.231	65	129766	47.60	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 95.20%			
76) toluene-d8 (s)	12.312	98	420550	49.60	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.20%			
100) 4-bromofluorobenzene (s)	14.964	95	179048	51.67	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.34%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.345	88	35505	1189.86	ug/L	99
3) ethanol	6.204	45	133677	5161.48	ug/L #	100
4) tertiary butyl alcohol	7.637	59	120772	282.39	ug/L	93
6) chlorodifluoromethane	4.138	51	247318	40.37	ug/L	98
7) dichlorodifluoromethane	4.117	85	376618	50.84	ug/L	98
9) chloromethane	4.436	50	321077	52.79	ug/L	96
11) vinyl chloride	4.718	62	357405	48.48	ug/L	100
12) bromomethane	5.356	94	216161	51.60	ug/L	98
13) chloroethane	5.524	64	143483	48.70	ug/L	96
14) vinyl bromide	5.895	106	284529	51.06	ug/L	98
15) trichlorofluoromethane	6.041	101	341167	49.79	ug/L	97
16) ethyl ether	6.392	74	74876	48.99	ug/L	95
17) 2-chloropropane	6.622	43	272636	47.57	ug/L	99
18) acrolein	6.632	56	36680	46.55	ug/L	96
19) freon 113	6.863	151	203054	58.19	ug/L	100
20) 1,1-dichloroethene	6.836	96	160880	46.32	ug/L	97
21) acetone	6.831	58	59626	170.92	ug/L	93
22) acetonitrile	7.260	40	93443	453.12	ug/L	89
23) iodomethane	7.108	142	343491	44.76	ug/L	99
25) carbon disulfide	7.260	76	623649	46.26	ug/L	97
26) methylene chloride	7.553	84	181067	46.53	ug/L	99
27) methyl acetate	7.291	74	24818	49.93	ug/L	99
28) methyl tert butyl ether	7.898	73	993046	98.35	ug/L	98
29) trans-1,2-dichloroethene	7.940	96	141587	47.85	ug/L	96
30) hexane	8.280	57	153698	41.70	ug/L	99
31) di-isopropyl ether	8.500	45	506573	48.68	ug/L	97
32) ethyl tert-butyl ether	8.960	59	521909	49.31	ug/L	97
33) 2-butanone	9.164	72	72541	176.38	ug/L	96
34) 1,1-dichloroethane	8.521	63	240206	47.76	ug/L	99
35) chloroprene	8.615	53	195577	47.35	ug/L	99
36) acrylonitrile	7.846	53	77068	55.01	ug/L	95
37) vinyl acetate	8.453	86	25898	52.94	ug/L #	85

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292488.D
Acq On : 12 Jul 2017 3:52 pm
Operator : JiaminC
Sample : icv8203-50
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 17 11:04:58 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 15:06:51 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) ethyl acetate	9.174	45	22214	47.07 ug/L	92
39) 2,2-dichloropropane	9.284	77	252834	48.27 ug/L	97
40) cis-1,2-dichloroethene	9.237	96	151555	47.81 ug/L	99
41) propionitrile	9.248	54	240565	466.87 ug/L	93
42) methyl acrylate	9.258	85	22295	48.55 ug/L	99
43) bromochloromethane	9.535	128	75045	47.27 ug/L	98
44) tetrahydrofuran	9.546	42	50366	48.37 ug/L	98
45) chloroform	9.619	83	242788	46.83 ug/L	97
47) methacrylonitrile	9.441	41	84421	46.65 ug/L	95
48) 1,1,1-trichloroethane	9.880	97	257466	49.65 ug/L	95
49) cyclohexane	9.990	84	216408	41.45 ug/L	90
50) 1,1-dichloropropene	10.043	75	165703	48.99 ug/L	98
51) carbon tetrachloride	10.074	117	219810	48.11 ug/L	98
52) isopropyl acetate	10.189	43	296034	48.35 ug/L	99
53) tert amyl alcohol	10.173	55	40432	226.98 ug/L	99
56) tert-amyl methyl ether	10.367	73	465167	46.55 ug/L	98
57) 2,2,4-trimethylpentane	10.388	57	635302	52.57 ug/L	98
58) epichlorohydrin	11.884	57	87251	240.09 ug/L	98
59) n-butyl alcohol	10.749	56	286249	2440.77 ug/L	97
60) benzene	10.294	78	507063	46.12 ug/L	99
61) heptane	10.534	57	107246	54.53 ug/L	98
62) 1,2-dichloroethane	10.320	62	162252	46.40 ug/L	100
63) trichloroethene	11.010	95	136957	48.74 ug/L	98
64) ethyl acrylate	10.989	55	185341	51.43 ug/L	100
65) 2-nitropropane	11.763	41	61810	51.73 ug/L #	78
66) 2-chloroethyl vinyl ether	11.789	63	443958	286.48 ug/L	99
67) methyl methacrylate	11.256	100	38444	48.42 ug/L	93
68) 1,2-dichloropropane	11.303	63	129022	47.05 ug/L	98
69) methylcyclohexane	11.308	83	266779	46.36 ug/L	97
70) dibromomethane	11.413	93	89700	46.58 ug/L	99
71) bromodichloromethane	11.559	83	185637	49.05 ug/L	99
72) cis-1,3-dichloropropene	12.009	75	223727	50.67 ug/L	99
73) 4-methyl-2-pentanone	12.108	58	237236	182.56 ug/L	96
74) 3-methyl-1-butanol	12.103	70	108543	991.49 ug/L	98
77) toluene	12.386	92	306375	48.49 ug/L	99
78) trans-1,3-dichloropropene	12.574	75	196234	49.78 ug/L	93
79) ethyl methacrylate	12.553	69	176231	49.70 ug/L	99
80) 1,1,2-trichloroethane	12.794	83	108524	49.54 ug/L	98
81) 2-hexanone	12.945	58	223625	176.47 ug/L	97
82) tetrachloroethene	12.935	166	158948	47.91 ug/L	96
83) 1,3-dichloropropane	12.972	76	178608	46.90 ug/L	98
84) butyl acetate	13.019	56	90002	48.17 ug/L	100
85) dibromochloromethane	13.217	129	155791	49.83 ug/L	99
86) 1,2-dibromoethane	13.369	107	142709	49.71 ug/L	95
87) n-butyl ether	13.787	57	522209	49.77 ug/L	99
88) chlorobenzene	13.840	112	338954	47.88 ug/L	97
89) 1,1,1,2-tetrachloroethane	13.908	131	142867	49.21 ug/L	98
90) ethylbenzene	13.897	91	557810	47.84 ug/L	100
91) m,p-xylene	14.018	106	425569	95.72 ug/L	98
92) o-xylene	14.415	106	232476	47.42 ug/L	99

7.7.26

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292488.D
Acq On : 12 Jul 2017 3:52 pm
Operator : JiaminC
Sample : icv8203-50
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 17 11:04:58 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 15:06:51 2017
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
93)	3,3-dimethyl-1-butanol	13.123	69	151361	506.43 ug/L	98
94)	butyl acrylate	14.242	55	274293	49.89 ug/L	99
95)	styrene	14.431	104	371759	47.89 ug/L	98
96)	bromoform	14.661	173	127766	50.33 ug/L	98
97)	isopropylbenzene	14.760	105	617687	48.02 ug/L	99
98)	cis-1,4-dichloro-2-butene	14.802	88	60315	49.06 ug/L	95
101)	bromobenzene	15.147	156	172697	49.57 ug/L	94
102)	1,1,2,2-tetrachloroethane	15.043	83	200181	52.02 ug/L	100
103)	trans-1,4-dichloro-2-b...	15.074	53	52609	52.41 ug/L	98
104)	1,2,3-trichloropropane	15.132	110	46396	50.16 ug/L	95
105)	n-propylbenzene	15.173	91	665069	46.62 ug/L	100
106)	2-chlorotoluene	15.309	126	154080	50.11 ug/L	100
107)	4-chlorotoluene	15.419	91	438231	48.20 ug/L	99
108)	1,3,5-trimethylbenzene	15.330	105	509903	47.78 ug/L	99
109)	tert-butylbenzene	15.665	119	454296	51.00 ug/L	99
110)	1,2,4-trimethylbenzene	15.717	105	529018	46.76 ug/L	97
111)	sec-butylbenzene	15.880	105	705431	49.41 ug/L	99
112)	1,3-dichlorobenzene	16.052	146	328449	46.19 ug/L	99
113)	p-isopropyltoluene	16.010	119	596266	50.08 ug/L	100
114)	1,4-dichlorobenzene	16.141	146	329940	47.23 ug/L	97
115)	1,2-dichlorobenzene	16.502	146	356175	47.65 ug/L	98
116)	n-butylbenzene	16.403	92	337469	51.30 ug/L	98
117)	1,2-dibromo-3-chloropr...	17.218	75	50086	50.41 ug/L	94
118)	1,3,5-trichlorobenzene	17.386	180	358424	48.50 ug/L	97
119)	1,2,4-trichlorobenzene	17.972	180	329030	54.65 ug/L	99
120)	hexachlorobutadiene	18.076	225	169669	49.67 ug/L	99
121)	naphthalene	18.249	128	653565	50.45 ug/L	99
122)	1,2,3-trichlorobenzene	18.458	180	272932	52.26 ug/L	99
123)	hexachloroethane	16.774	119	124755	53.16 ug/L	99
124)	Benzyl chloride	16.230	91	371825	50.67 ug/L	100
125)	2-ethylhexyl acrylate	17.977	70	21633	9.40 ug/L	93
126)	2-methylnaphthalene	19.389	142	154750	23.05 ug/L	98

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

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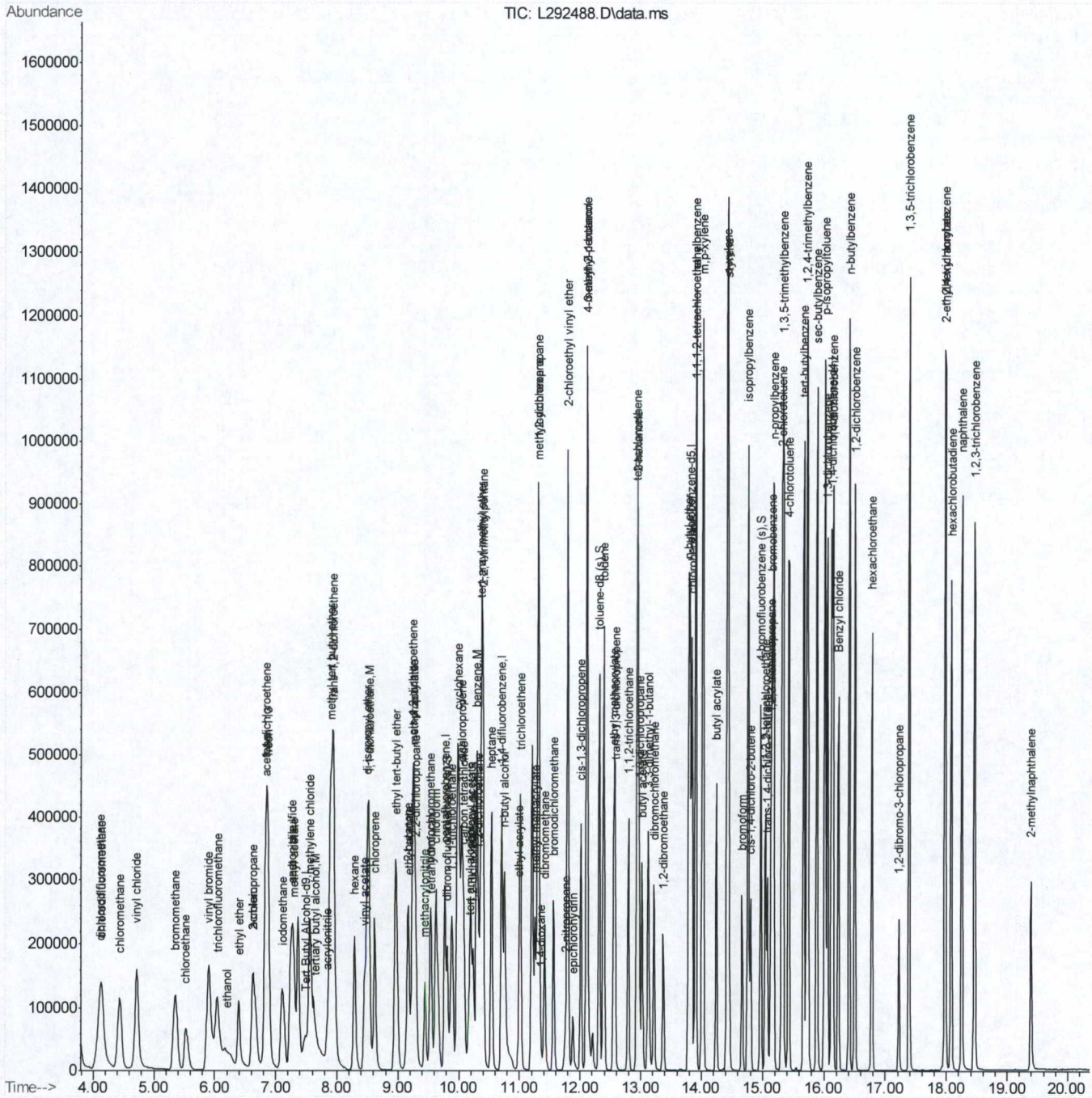
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292488.D
Acq On : 12 Jul 2017 3:52 pm
Operator : JiaminC
Sample : icv8203-50
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 17 11:04:58 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 15:06:51 2017
Response via : Initial Calibration



7.7.26

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : L292489.D
Acq On : 12 Jul 2017 4:19 pm
Operator : JiaminC
Sample : icv8203-50
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 13 08:21:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 15:54:43 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	7.501	65	249826	500.00 ug/L	-0.01
5) pentafluorobenzene	9.771	168	283550	50.00 ug/L	0.00
54) 1,4-difluorobenzene	10.707	114	403269	50.00 ug/L	0.00
75) chlorobenzene-d5	13.814	117	365843	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.120	152	234245	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	9.818	113	135172	48.21 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 96.42%		
55) 1,2-dichloroethane-d4 (s)	10.236	65	148296	50.28 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.56%		
76) toluene-d8 (s)	12.318	98	449404	49.83 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.66%		
100) 4-bromofluorobenzene (s)	14.970	95	192955	48.28 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 96.56%		
Target Compounds					Qvalue
22) acetonitrile	7.281	40	123598	530.87 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 : L292489.D
Acq On : 12 Jul 2017 4:19 pm
Operator : JiaminC
Sample : icv8203-50
Misc : MS17946,VL8203,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 13 08:21:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Wed Jul 12 15:54:43 2017
Response via : Initial Calibration

7.7.27

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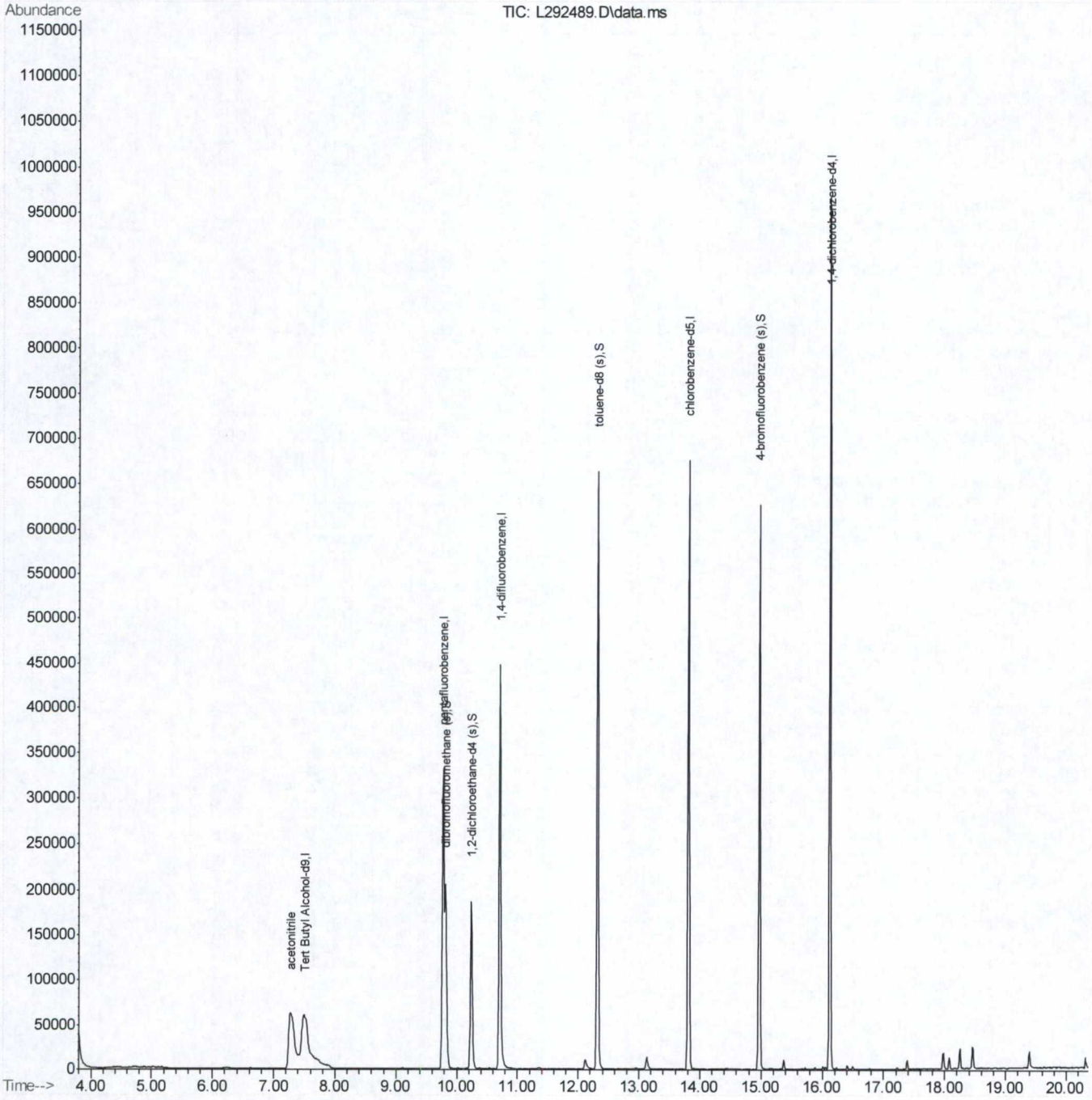


SGS ACCUTEST JC48812

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293617a.D
Acq On : 15 Aug 2017 10:09 pm
Operator : JiaminC
Sample : cc8203-50
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 10:09:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.511	65	154934	500.00	ug/L	0.00
5) pentafluorobenzene	9.765	168	216779	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	10.702	114	315694	50.00	ug/L	0.00
75) chlorobenzene-d5	13.808	117	288427	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	173758	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.802	113	111328	51.93	ug/L	-0.02
Spiked Amount 50.000	Range 76 - 120		Recovery = 103.86%			
55) 1,2-dichloroethane-d4 (s)	10.231	65	121619	52.67	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.34%			
76) toluene-d8 (s)	12.307	98	347849	48.92	ug/L	-0.01
Spiked Amount 50.000	Range 84 - 119		Recovery = 97.84%			
100) 4-bromofluorobenzene (s)	14.964	95	150207	50.66	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.32%			
Target Compounds						Qvalue
2) 1,4-dioxane	11.340	88	23443	1052.18	ug/L	70
3) ethanol	6.225	45	73497	3800.65	ug/L #	100
4) tertiary butyl alcohol	7.605	59	92083	288.36	ug/L	94
6) chlorodifluoromethane	4.127	51	208152	39.36	ug/L	95
7) dichlorodifluoromethane	4.112	85	267356	41.81	ug/L	97
9) chloromethane	4.441	50	190415	36.27	ug/L	98
11) vinyl chloride	4.718	62	222779	35.01	ug/L	95
12) bromomethane	5.351	94	164586	45.51	ug/L	96
13) chloroethane	5.519	64	105340	41.42	ug/L	93
14) vinyl bromide	5.900	106	192628	40.05	ug/L	95
15) trichlorofluoromethane	6.036	101	283717	47.97	ug/L	98
16) ethyl ether	6.392	74	58832	44.60	ug/L	96
17) 2-chloropropane	6.627	43	208042	42.05	ug/L	93
18) acrolein	6.633	56	29144	42.85	ug/L	99
19) freon 113	6.863	151	130593	43.36	ug/L	98
20) 1,1-dichloroethene	6.857	96	137870	45.99	ug/L	94
21) acetone	6.826	58	44301	147.13	ug/L	98
22) acetonitrile	7.281	40	79009	443.88	ug/L	97
23) iodomethane	7.108	142	303701	45.85	ug/L	96
25) carbon disulfide	7.271	76	519127	44.61	ug/L	98
26) methylene chloride	7.558	84	147476	43.91	ug/L	96
27) methyl acetate	7.286	74	21663	50.50	ug/L #	75
28) methyl tert butyl ether	7.893	73	396386	45.48	ug/L	97
29) trans-1,2-dichloroethene	7.935	96	111405	43.62	ug/L	97
30) hexane	8.280	57	124455	39.12	ug/L	98
31) di-isopropyl ether	8.489	45	355943	39.63	ug/L	97
32) ethyl tert-butyl ether	8.955	59	410849	44.97	ug/L	96
33) 2-butanone	9.159	72	60123	169.37	ug/L #	89
34) 1,1-dichloroethane	8.515	63	185102	42.64	ug/L	99
35) chloroprene	8.610	53	159382	44.71	ug/L	99
36) acrylonitrile	7.846	53	51015	42.19	ug/L	96
37) vinyl acetate	8.447	86	19722	46.71	ug/L #	73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293617a.D
Acq On : 15 Aug 2017 10:09 pm
Operator : JiaminC
Sample : cc8203-50
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 10:09:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) ethyl acetate	9.169	45	17378	42.66 ug/L	93
39) 2,2-dichloropropane	9.274	77	205425	45.44 ug/L	98
40) cis-1,2-dichloroethene	9.232	96	121310	44.33 ug/L	99
41) propionitrile	9.248	54	185357	416.77 ug/L	87
42) methyl acrylate	9.263	85	18568	46.84 ug/L #	89
43) bromochloromethane	9.530	128	63678	46.47 ug/L	92
44) tetrahydrofuran	9.546	42	36254	40.33 ug/L	97
45) chloroform	9.614	83	200527	44.81 ug/L	100
47) methacrylonitrile	9.436	41	67610	43.28 ug/L	86
48) 1,1,1-trichloroethane	9.875	97	214284	47.88 ug/L	96
49) cyclohexane	9.990	84	179665	39.87 ug/L	99
50) 1,1-dichloropropene	10.037	75	132966	45.54 ug/L	97
51) carbon tetrachloride	10.074	117	180355	45.74 ug/L	99
52) isopropyl acetate	10.189	43	228778	43.29 ug/L	99
53) tert amyl alcohol	10.168	55	34137	222.03 ug/L	93
56) tert-amyl methyl ether	10.362	73	376475	44.48 ug/L	97
57) 2,2,4-trimethylpentane	10.388	57	433643	42.36 ug/L	97
58) epichlorohydrin	11.878	57	64834	210.64 ug/L	99
59) n-butyl alcohol	10.743	56	198758	2000.95 ug/L	98
60) benzene	10.288	78	393492	42.26 ug/L	99
61) heptane	10.529	57	64157	38.51 ug/L	97
62) 1,2-dichloroethane	10.320	62	141550	47.80 ug/L	99
63) trichloroethene	11.010	95	108463	45.58 ug/L	95
64) ethyl acrylate	10.989	55	144703	47.41 ug/L	99
65) 2-nitropropane	11.753	41	48001	47.43 ug/L	96
66) 2-chloroethyl vinyl ether	11.790	63	260306	198.32 ug/L	98
67) methyl methacrylate	11.251	100	32567	48.43 ug/L #	88
68) 1,2-dichloropropane	11.298	63	98147	42.26 ug/L	89
69) methylcyclohexane	11.303	83	207412	42.55 ug/L	98
70) dibromomethane	11.413	93	74446	45.65 ug/L	96
71) bromodichloromethane	11.559	83	154305	48.14 ug/L	98
72) cis-1,3-dichloropropene	12.009	75	172774	46.20 ug/L	98
73) 4-methyl-2-pentanone	12.103	58	191982	174.42 ug/L	99
74) 3-methyl-1-butanol	12.103	70	85060	917.36 ug/L	98
77) toluene	12.386	92	234836	44.32 ug/L	100
78) trans-1,3-dichloropropene	12.569	75	155420	47.01 ug/L	97
79) ethyl methacrylate	12.553	69	142536	47.93 ug/L	97
80) 1,1,2-trichloroethane	12.789	83	82734	45.04 ug/L	98
81) 2-hexanone	12.940	58	182958	172.16 ug/L	95
82) tetrachloroethene	12.930	166	129935	46.70 ug/L	99
83) 1,3-dichloropropane	12.972	76	140470	43.99 ug/L	99
84) butyl acetate	13.019	56	67126	42.84 ug/L	99
85) dibromochloromethane	13.212	129	127871	48.77 ug/L	99
86) 1,2-dibromoethane	13.369	107	115447	47.95 ug/L	99
87) n-butyl ether	13.788	57	394573	44.84 ug/L	99
88) chlorobenzene	13.840	112	273925	46.14 ug/L	99
89) 1,1,1,2-tetrachloroethane	13.903	131	118417	48.64 ug/L	97
90) ethylbenzene	13.897	91	444555	45.46 ug/L	99
91) m,p-xylene	14.018	106	339338	91.01 ug/L	100
92) o-xylene	14.415	106	181159	44.06 ug/L	95

7.7.28

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293617a.D
Acq On : 15 Aug 2017 10:09 pm
Operator : JiaminC
Sample : cc8203-50
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 10:09:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	3,3-dimethyl-1-butanol	13.123	69	120295	479.93	ug/L	93
94)	butyl acrylate	14.237	55	227042	49.24	ug/L	98
95)	styrene	14.426	104	302732	46.50	ug/L	98
96)	bromoform	14.661	173	106932	50.23	ug/L	97
97)	isopropylbenzene	14.760	105	501025	46.45	ug/L	99
98)	cis-1,4-dichloro-2-butene	14.802	88	21474	20.83	ug/L	95
101)	bromobenzene	15.147	156	142256	47.73	ug/L	98
102)	1,1,2,2-tetrachloroethane	15.043	83	160210	48.65	ug/L	99
103)	trans-1,4-dichloro-2-b...	15.074	53	18553	21.60	ug/L	93
104)	1,2,3-trichloropropane	15.132	110	38528	48.68	ug/L	87
105)	n-propylbenzene	15.174	91	543398	44.52	ug/L	99
106)	2-chlorotoluene	15.310	126	124552	47.35	ug/L	99
107)	4-chlorotoluene	15.419	91	357426	45.95	ug/L	99
108)	1,3,5-trimethylbenzene	15.330	105	428800	46.96	ug/L	97
109)	tert-butylbenzene	15.665	119	374804	49.18	ug/L	98
110)	1,2,4-trimethylbenzene	15.717	105	445075	45.98	ug/L	98
111)	sec-butylbenzene	15.880	105	577176	47.25	ug/L	100
112)	1,3-dichlorobenzene	16.047	146	270687	44.49	ug/L	99
113)	p-isopropyltoluene	16.005	119	492899	48.39	ug/L	97
114)	1,4-dichlorobenzene	16.141	146	271630	45.44	ug/L	97
115)	1,2-dichlorobenzene	16.497	146	294813	46.10	ug/L	99
116)	n-butylbenzene	16.403	92	267581	47.54	ug/L	98
117)	1,2-dibromo-3-chloropr...	17.213	75	42907	50.47	ug/L	91
118)	1,3,5-trichlorobenzene	17.386	180	315917	49.96	ug/L	96
119)	1,2,4-trichlorobenzene	17.972	180	263489	51.15	ug/L	97
120)	hexachlorobutadiene	18.076	225	137011	46.88	ug/L	99
121)	naphthalene	18.249	128	539435	48.67	ug/L	98
122)	1,2,3-trichlorobenzene	18.458	180	220287	49.30	ug/L	99
123)	hexachloroethane	16.774	119	87555	43.60	ug/L	99
124)	Benzyl chloride	16.230	91	344195	54.82	ug/L	100
125)	2-ethylhexyl acrylate	17.977	70	12057	6.82	ug/L	94
126)	2-methylnaphthalene	19.389	142	115146	20.22	ug/L	98

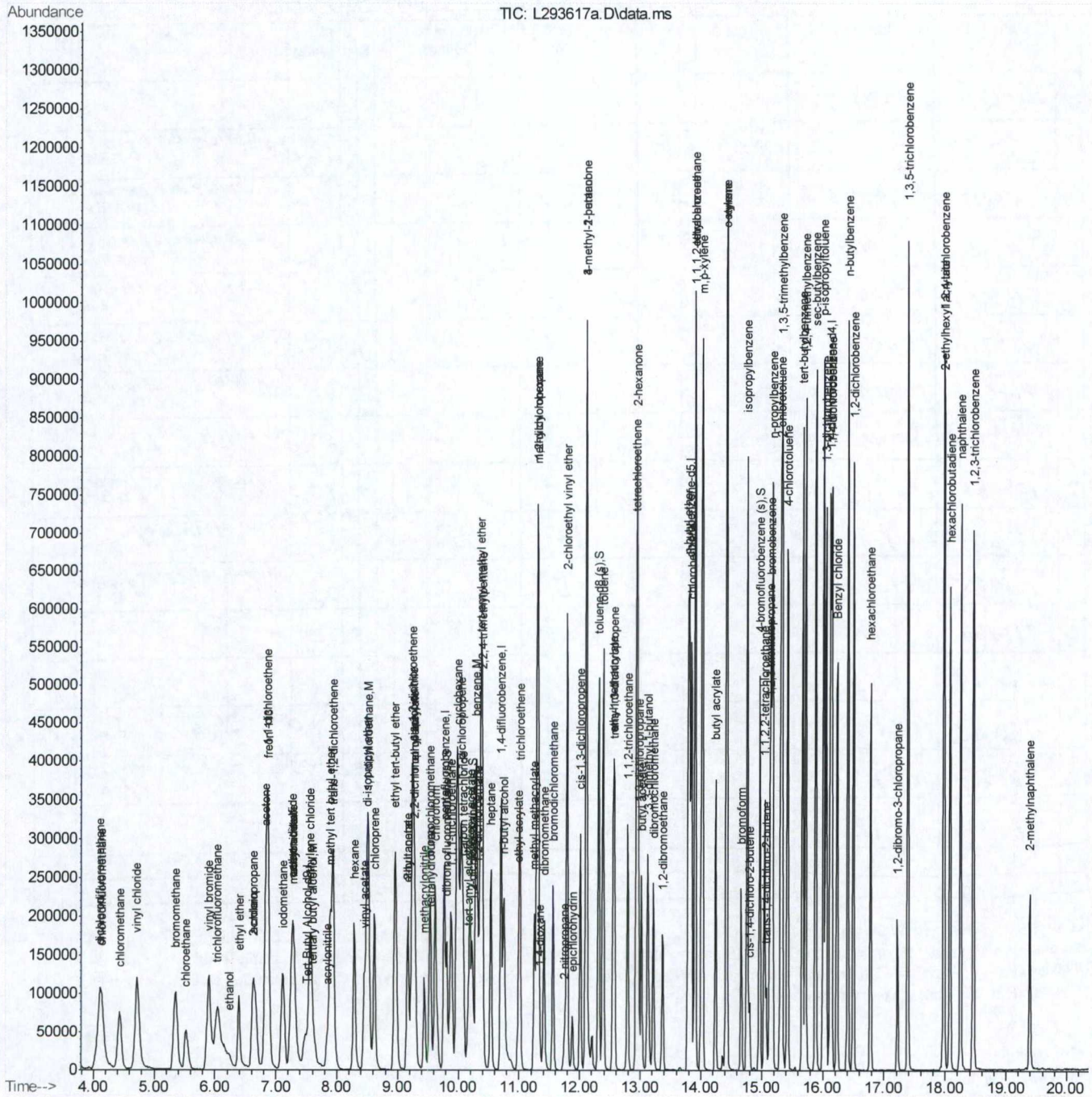
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.28 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293617a.D
Acq On : 15 Aug 2017 10:09 pm
Operator : JiaminC
Sample : cc8203-50
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 16 10:09:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration



ML8203.M Wed Aug 16 10:28:33 2017 Page: 4

7.7.28
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SGS

VOLATILE ANALYSIS LOG

Batch ID: V2D7077

Print Analyst Name: AUSTIN PARK

Date: 7/26/2017

Analyst Signature: [signature]

Columns: DB624 (60mx 0.25mmx1.4µm)

Method V8260C

Initial Cal. Method M2D7077

Standard Data

Lot #	Description	Conc.
017-2530-04.28	A/B/K MIX	100-10,000 ppm
017-2530-06.32	E STD	100ppm
017-2530-30.2	C STD	100ppm.
017-2498-142.3	EXT. Acetonitrile	1000ppm
017-2530-25	INT/SUR	20/4000ppm.

Standard Data

Lot #	Description	Conc.
017-2498-140.1	EXT. Ketones	300ppm
017-2498-141.3	EXT. Hexanes	100ppm
017-2498-128	5 EXT. E STD	100ppm
017-2530-32.3	EXT-A/B MIX	100-10,000ppm
017-2530-20.8	EXT-C	100ppm

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: BKelly **Date:** 7/28/17

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
	2D168755.	BFB				1							ok		
	168756.	IC7077-0.2	8260C initial calibration	AQ		2	5						ok	0.2µl A/B/K.C.E/100ml D.I H2O.	
	168757	IC7077-0.5	✓	AQ		3	5						ok	0.5µl A/B/K.C.E/100ml D.I H2O.	
	168758	IC7077-1	✓	AQ		4	5						ok	1µl A/B/K, C.E/100ml D.I H2O.	
	168759	IC7077-2	✓	AQ		5	5						ok	2µl A/B/K, C.E/100ml D.I H2O.	
	168760	IC7077-5	✓	AQ		6	5						ok	5µl A/B/K.C.E/100ml D.I H2O.	
	168761	IC7077-10	✓	AQ		7	5						ok	10µl A/B/K.C.E/100ml D.I H2O.	
	168762	IC7077-20	✓	AQ		8	5						ok	20µl A/B/K.C.E/100ml D.I H2O.	
	168763	IC7077-50	✓	AQ		9	5						ok	50µl A/B/K.C.E/100ml D.I H2O.	
	168764	IC7077-100	✓	AQ		10	5						ok	100µl A/B/K.C.E/100ml D.I H2O.	
	168765	IC7077-200	✓	AQ		11	5						ok	200µl A/B/K, C.E/100ml D.I H2O.	
	168766	IB				12							-		
	168767	IB				13							-		
	168768	ICV7077-50	✓	AQ		14	5						ok	50µl EXT-A/B.EXT.C. EXT.E EXT.Hexane.EXT.Ketones/100ml D.I H2O.	
	168769	ICV7077-50	✓	AQ		15	5						ok	50µl EXT-Acetonitrile/100ml D.I. H2O	
	168770	IB.				16							-		

[signature] 7/26/2017

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

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Form: OR001-10
Rev. Date: 1/19/16

7.8.1 7

SGS ACCUTEST JC48812

SGS

VOLATILE ANALYSIS LOG

Batch ID: V2D7085

Date: 8/5/17

Print Analyst Name: Jra-MMCha

Analyst Signature:

Columns: DB624 (60m x 0.25mm x 1.4um)

Method V8260C

Initial Cal. Method M2D7077 BCL 8/17

Standard Data

Lot #	Description	Conc.
W17-2530-48	SL	100ppm
W17-2530-35	IS	250/250ppm

Standard Data

Lot #	Description	Conc.
W17-2530-49	ExtSL	100ppm

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: BKelly Date: 8/7/17

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
	20 168937	BFB					5		1X				ok		
	168938	IC7077-2	8260 SL	AG			5		1X		✓		ok	2mL SL/100mL	
	168939	IC7077-0.2	✓	AG			5		1X		✓		ok	2mL SL/1000mL	
	168940	IC7077-0.5	✓	AG			5		1X		✓		ok	5mL SL/1000mL	
	168941	IC7077-1	✓	AG			5		1X		✓		ok	1mL SL/100mL	
	168942	IC7077-5	✓	AG			5		1X		✓		ok	5mL SL/100mL	
	168943	~~10~~ IC7077-10 JM 08/15/17	✓	AG			5		1X		✓		ok	10mL SL/100mL	
	168944	IC7077-20	✓	AG			5		1X		✓		ok	20mL SL/100mL	
	168945	IC ~~IC~~7077-50	✓	AG			5		1X		✓		ok	50mL SL/100mL	
	168946	BCL 8/17 IC7077-100	✓	AG			5		1X		✓		ok	50mL SL/50mL	
	168947	IC7077-200	✓	AG			5		1X		✓		ok	100mL SL/50mL	
	168948	IB					5		1X				–		
	168949	IB					5		1X				–		
	168950	ICV7077-50	✓	AG			5		1X		✓		ok	50mL ExtSL/100mL	
	~~168950~~ 168951 JM 08/15/17	ICV7077-50	✓	AG			5		1X				not ok	50mL SL/100mL	
	168952	IB					5		1X				–		

BCL 8/7/17

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: OR001-10
Rev. Date: 1/19/16

7.8.2 7

SGS

VOLATILE ANALYSIS LOG

Batch ID: V2D7100

Print Analyst Name: JIA-MIN CHU

Date: 8/17/17

Analyst Signature:

Columns: DB624 (60M x 0.25MM x 1.4UM)

Method V8260C

Initial Cal. Method M2D7077

Standard Data PHpaper216315

Lot #	Description	Conc.
1017-2530-53(26)	ABK	100-1000ppm
1017-2530-59(6)	C	100ppm
1017-2530-55(5)	E	100ppm
1017-2530-45	IS	250-2500ppm

Standard Data

Lot #	Description	Conc.

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: Meeh **Date:** 8/18/17

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
	20 169267	IB					5		1X				NG	BFB failed	
	169268	CC7077-20					5		1X				NG	20uL ABK, C, E/100mL	
	169269	CC7077-20					5		1X				NG	20uL ABK, C, E/100mL BFB failed	
	169270A	BFB					5		1X				ok	2.05ppm #12, 16, 28, 81,	
	169270	CC7077-20				1	5		1X				ok	20uL ABK, C, E/100mL	
	169271	CC7077-20				2	5		1X				ok		
	169272	MB				3	5		1X		W		ok		
	169273	BS				4	5		1X		W		ok	20uL ABK, C, E/100mL	
F/6	169274	JC48852-3	19107 TCL20+	GW	2	5	5/50		10X ✓		W		ok	+ 2D169266	✓
	169275	JC49093-6	19224 SL	GW	1	6	1/50		50X ✓		W		dy/RR	L/D/X.	✓
	169276	JC49064-1	19219 PAUGTMB	GW	2	7	5		1X ✓		W		ok		✓
	169277	JC49064-2	✓	GW	2	8	5		1X ✓		W		ok		✓
	169278	JC49064-3	✓	GW	1	9	5		1X ✓		W		ok		✓
R	169279	JC48812-16	✗ 19112 SL JAG5MTB	GW	2	10	5		1X ✓		W		ok	✓	✓
R	169280	JC48812-17	✓	GW	1	11	5		1X ✓		W		ok		✓
	169281	JC48812-18	✓	GW	2	12	5		1X ✓		W		ok		✓
	169282	JC49064-4	19219 PAUGTMB	GW	2	13	5		1X ✓		W		ok		✓
	169283	JC49064-5	✓	GW	2	14	5		1X ✓		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: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST JC48812

SGS

VOLATILE ANALYSIS LOG

Batch ID: V2D7100

Print Analyst Name: Jim Munchus

Date: 8/17/17

Analyst Signature:

Columns: DB624(60mx0.25mmx1.4um)

Method V8260C

Initial Cal. Method M2D7077

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
see page 9		

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: 8/18/17

R	Data File 2D	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	169284	JC49064-1MS		GW	1	15	5		1X ✓		W		dL	22µl ABK, GE 144mL	✓
	169 285	1B				16	5		1X		W				
	169 286	JC49064-2DUP		GW	1	17	5		1X ✓		W		dL		✓
	169 287	JC49064-6	19219 PAHCTMB	GW	2	18	5		1X ✓		W		dL		✓
	169 288	JC49064-7	✓	GW	2	19	5		1X ✓		W		dL		✓
	169 289	JC49065-1	✓	GW	2	20	5		1X ✓		W		dL		✓
	169 290	JC49065-2	✓	GW	2	21	5		1X		W		dL		✓
	169291A	BFB2					5		1X				dL	1:24 am	
	169 291	CC7077-50				22	5		1X				dL	25µl ABK, GE 150mL	
	169 292	1B				23	5		1X		W				
	169 293	MB2				24	5		1X		W		dL		
	169 294	JC49065-3	✓	GW	2	25	5		1X ✓		W		dL		✓
	169 295	JC49065-4	✓	GW	2	26	5		1X ✓		W		dL		✓
	169 296	JC49065-5	✓	GW	1	27	5		1X ✓		W		dL		✓
	169 297	JC49065-6	✓	GW	2	28	5		1X ✓		W		dL		✓
	169 298	JC49065-7	✓	GW	2	29	5		1X ✓		W		dL		✓
	169 299	JC49065-8	✓	GW	2	30	5		1X ✓		W		dL	5:27am	✓
														JM 8/18/17	

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

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Form: OR001-10
Rev. Date: 1/19/16

7.8.3 7

SGS

VOLATILE ANALYSIS LOG

Batch ID: VL8203

Print Analyst Name: Jia-Min Chu

Date: 7/12/17 (Wed)

Analyst Signature:

Columns: ZB624 (60M x 0.25MM x 1.4UM)

Method V8260C

Initial Cal. Method ML8203

Standard Data (ppm)

Lot #	Description	Conc.
WH-247K-124.24	ABK	100-10,000
WH-247K-2.7	C	100
WH-247K-124.35	E	100
WH-247K-136	IJS	250-2500

Standard Data (ppm)

Lot #	Description	Conc.
WH-247K-133.3	Ext AB	100-10,000
WH-247K-135.8	Ext C	100
WH-247K-128.3	Ext E	100
WH-247K-141.1	Ext Mix	100
WH-247K-140.3	Ext Ketones	300

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: BM **Date:** 7/13/17

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
	~~292474~~	~~IB~~													
	292475	BFB				1	5		1X				ok	9:38AM	
	292476	IC8203-0.2	8260 Initial	A G	/	2	5		1X		✓		ok	2uAB+C+E/1000mL	
	292477	IC8203-0.5	✓	A G	/	3	5		1X		✓		ok	5uAB+C+E/1000mL	
	292478	IC8203-1	✓	A G	/	4	5		1X		✓		ok	1uAB+C+E/100mL	
	292479	IC8203-2	✓	A G	/	5	5		1X		✓		ok	2uAB+C+E/100mL	
	292480	IC8203-5	✓	A G	/	6	5		1X		✓		ok	5uAB+C+E/100mL	
	292481	IC8203-10	✓	A G	/	7	5		1X		✓		ok	10uAB+C+E/100mL	
	292482	IC8203-20	✓	A G	/	8	5		1X		✓		ok	20uAB+C+E/100mL	
	292483	IC8203-50	✓	A G	/	9	5		1X		✓		ok	50uAB+C+E/100mL	
	292484	IC8203-100	✓	A G	/	10	5		1X		✓		ok	50uAB+C+E/50mL	
	292485	IC8203-200	✓	A G	/	11	5		1X		✓		ok	100uAB+C+E/50mL	
	292486	IB				12	5		1X		✓		c/o		
	292487	IB				13	5		1X		✓		c/o		
	292488	ICV8203-50	✓	A G	/	14	5		1X		✓		ok	50uL Ext AB+C+E/Hexane 1100mL	
	292489	ICV8203-50	✓	A G	/	15	5		1X		✓		ok	Ext Acetonitrile/100mL 50uL 4:19PM	
	292490	IB				16	5		1X				c/o		

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

BM 7/13/17

Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST JC48812

SGS

VOLATILE ANALYSIS LOG

Batch ID: VL 8249

Print Analyst Name: Jra-MM Chu

Date: 08/15/2017

Analyst Signature:

Standard Data pH paper 216315

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
017-2530-53(13)	A/B/K	100 ppm
017-2530-56(2)	C	100 ppm
017-2530-55(6)	E	100 ppm
017-2530-45	FB	250/2500 ppm
216315	pH paper	ppm

Columns: ZB 624 (60m x0.25mmx1.4µm)

Method VP200c

Initial Cal. Method ML 8203

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: BM Date: 8/14/17

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
	~~293617B~~	~~BFB~~											ok	1ng 10:09pm	
	L293617A	CC8203-50				22	5					✓	ok	25µL A/B/K, C, E / 50mL	
	293 618A	FB				23	5					✓	c/o		
	293 619	CC8203-05				24	5					✓	ok	for #11 1mL A/B/K, C, E → 50mL	
	293 619A	MB										✓	ok		
	293 620	BS				25	5					✓	ok	25µL A/B/K/C/E / 50mL	
	293 621	JC48812-12MS	19/12 32	GW	8	26	5		1x			✓	ok	20µL A/B/K/C/E / vial	✓
	293 622	JC48812-12MSD	✓	GW	5	27	5		1x			✓	ok		✓
	293 623	FB				28	5					✓	c/o		
	293 624	JC48812-19	✓	WTB	1	29	5		1x			✓	ok	[illegible]	✓
	293 625	JC48812-12	✓	GW	7	30	5		1x			✓	ok		✓
	293 626	JC48812-1	✓	WTB	1	31	5		1x			✓	ok		✓
	293 627	JC48812-2	✓	GW	1	32	5		1x			✓	ok		✓
	293 628	JC48812-3	✓	GW	1	33	5		1x			✓	ok		✓
	293 629	JC48812-4	✓	GW	1	34	5		1x			✓	ok		✓
	293 630	JC48812-5	✓	GW	1	35	5		1x			✓	ok		✓
	293 631	JC48812-6	✓	GW	2	36	5		1x			✓	ok		✓
	293 632	JC48812-7	✓	GW	1	37	5		1x			✓	ok		✓
	293 633	JC48812-8	✓	GW	2	38	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: OR001-10
Rev. Date: 1/19/16

SGS

VOLATILE ANALYSIS LOG

Batch ID: VL 8249

Print Analyst Name: Jia-Min Chu

Date: 08/15/2017

Analyst Signature:

Columns: ZB 624 (60m x0.25mm x1.4µm)

Method: V8260C

Initial Cal. Method: ML 8203

Standard Data		
Lot #	Description	Conc.

Standard Data		
Lot #	Description	Conc.
	Py 65	

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

Supervisor Signature: Date: 8/16/17

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
	293 634	JC48812-9	19/12 SL	GW	1	39	5		1x		W		ok	CT-RCI	✓
	293 635	JC48812-10	✓	GW	1	40	5		1x		W		ok		✓
	293 636	JC48812-11	✓	GW	1	41	5		1x		W		ok		✓
	293 637	JC48812-13	✓	GW	1	42	5		1x		W		ok		✓
	293 638	JC48812-14	✓	GW	2	43	5		1x		W		ok		✓
	293 639	JC48812-15	✓	GW	2	44	5		1x		W		ok		✓
	293 640	JC48812-16	✓	GW	1	45	5		1x		W		nn	RRIXCCMT	✓
	293 641	JC48812-17	✓	GW	2	46	5		1x		W		nn	RRIXCCMT 9:34am	✓
	293617	CL8203-50				22	5						NG	CMPHST SOLLABK,E,C → 100mL	
	293618	IB				23	5								
														JMC 8/16/17	

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: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST
New Jersey

08/25/17

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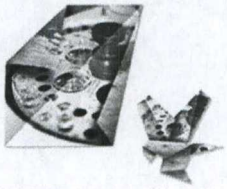

Technical Report for

United Technologies Corporation

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

60480278

SGS Accutest Job Number: JC48814

Sampling Dates: 08/08/17 - 08/09/17

Report to:

AECOM, INC.
4320 Winfield Road
Warrenville, IL 60555
peter.hollatz@aecom.com

ATTN: Peter Hollatz

Total number of pages in report: 164

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy T. Cole
Nancy Cole
Laboratory Director

Client Service contact: Diane Komar 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sample Summary

United Technologies Corporation

Job No: JC48814

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JC48814-1	08/08/17	08:35 AH	08/11/17	AQ	Ground Water	HSSER-RAMW08-080817
JC48814-2	08/08/17	09:55 AH	08/11/17	AQ	Ground Water	HSSER-RAMW07-080817
JC48814-3	08/08/17	10:50 AH	08/11/17	AQ	Ground Water	HSSER-RAMW06-080817
JC48814-4	08/08/17	11:50 AH	08/11/17	AQ	Ground Water	HSSER-RAMW05-080817
JC48814-5	08/08/17	12:10 AH	08/11/17	AQ	Equipment Blank	HSSER-EBLK02-080817
JC48814-6	08/08/17	12:40 AH	08/11/17	AQ	Ground Water	HSSER-RAMW04-080817
JC48814-7	08/09/17	08:50 AH	08/11/17	AQ	Ground Water	HSSER-RAMW03-080917
JC48814-8	08/09/17	10:05 AH	08/11/17	AQ	Ground Water	HSSER-RAMW02-080917
JC48814-9	08/09/17	11:10 AH	08/11/17	AQ	Ground Water	HSSER-RAMW01-080917
JC48814-10	08/09/17	10:25 AH	08/11/17	AQ	Field Blank Water	HSSER-FBLK02-080917
JC48814-11	08/09/17	00:00 AH	08/11/17	AQ	Ground Water	HSSER-DUP02-080917
JC48814-12	08/09/17	11:10 AH	08/11/17	AQ	Trip Blank Water	HSSER-TRIP02-080917

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	United Technologies Corporation	**Job No**	JC48814
Site:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	**Report Date**	8/25/2017 3:00:42 PM

On 08/11/2017, 9 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) and 1 Equipment Blank(s) were received at SGS Accutest at a maximum corrected temperature of 1.3 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC48814 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ	**Batch ID:** V2E5921

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC48814-10DUP, JC48814-7MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: JC48814
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 08/08/17 thru 08/09/17

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC48814-1	**HSSER-RAMW08-080817**					
No hits reported in this sample.						
JC48814-2	**HSSER-RAMW07-080817**					
1,1-Dichloroethane		0.0014	0.0010	0.00021	mg/l	SW846 8260C
1,1-Dichloroethene		0.00075 J	0.0010	0.00047	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0032	0.0010	0.00050	mg/l	SW846 8260C
Tetrachloroethene		0.00085 J	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0777	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.00075 J	0.0010	0.00027	mg/l	SW846 8260C
JC48814-3	**HSSER-RAMW06-080817**					
1,1-Dichloroethane		0.0017	0.0010	0.00021	mg/l	SW846 8260C
1,1-Dichloroethene		0.00078 J	0.0010	0.00047	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0020	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0604	0.0010	0.00025	mg/l	SW846 8260C
JC48814-4	**HSSER-RAMW05-080817**					
1,1-Dichloroethane		0.0011	0.0010	0.00021	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0026	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0290	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.0019	0.0010	0.00027	mg/l	SW846 8260C
JC48814-5	**HSSER-EBLK02-080817**					
No hits reported in this sample.						
JC48814-6	**HSSER-RAMW04-080817**					
1,1-Dichloroethane		0.00024 J	0.0010	0.00021	mg/l	SW846 8260C
Tetrachloroethene		0.00065 J	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.00035 J	0.0010	0.00025	mg/l	SW846 8260C
JC48814-7	**HSSER-RAMW03-080917**					
1,1-Dichloroethane		0.00041 J	0.0010	0.00021	mg/l	SW846 8260C
Tetrachloroethene		0.0010	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.00058 J	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.00036 J	0.0010	0.00027	mg/l	SW846 8260C

Summary of Hits

Job Number: JC48814
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 08/08/17 thru 08/09/17

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC48814-8	**HSSER-RAMW02-080917**					
1,1-Dichloroethane		0.00043 J	0.0010	0.00021	mg/l	SW846 8260C
Tetrachloroethene		0.0017	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.00075 J	0.0010	0.00025	mg/l	SW846 8260C
JC48814-9	**HSSER-RAMW01-080917**					
1,1-Dichloroethane		0.00082 J	0.0010	0.00021	mg/l	SW846 8260C
Tetrachloroethene		0.0055	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0012	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.00059 J	0.0010	0.00027	mg/l	SW846 8260C
JC48814-10	**HSSER-FBLK02-080917**					
No hits reported in this sample.						
JC48814-11	**HSSER-DUP02-080917**					
1,1-Dichloroethane		0.00041 J	0.0010	0.00021	mg/l	SW846 8260C
Tetrachloroethene		0.00096 J	0.0010	0.00050	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.00057 J	0.0010	0.00025	mg/l	SW846 8260C
Trichloroethene		0.00035 J	0.0010	0.00027	mg/l	SW846 8260C
JC48814-12	**HSSER-TRIP02-080917**					
No hits reported in this sample.						

Sample Results

Report of Analysis

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW08-080817		
Lab Sample ID:	JC48814-1	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135587.D	1	08/16/17 01:34	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	112%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW07-080817		
Lab Sample ID:	JC48814-2	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135588.D	1	08/16/17 02:02	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0014	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	0.00075	0.0010	0.00047	mg/l	J
156-59-2	cis-1,2-Dichloroethene	0.0032	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.00085	0.0010	0.00050	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0777	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.00075	0.0010	0.00027	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	114%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW06-080817		
Lab Sample ID:	JC48814-3	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135589.D	1	08/16/17 02:29	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0017	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	0.00078	0.0010	0.00047	mg/l	J
156-59-2	cis-1,2-Dichloroethene	0.0020	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0604	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	114%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW05-080817		
Lab Sample ID:	JC48814-4	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135590.D	1	08/16/17 02:57	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0011	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0026	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0290	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.0019	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	112%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-EBLK02-080817		
Lab Sample ID:	JC48814-5	**Date Sampled:**	08/08/17
Matrix:	AQ - Equipment Blank	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135585.D	1	08/16/17 00:39	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	114%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW04-080817		
Lab Sample ID:	JC48814-6	**Date Sampled:**	08/08/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135591.D	1	08/16/17 03:25	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00024	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.00065	0.0010	0.00050	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00035	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	113%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW03-080917		
Lab Sample ID:	JC48814-7	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135592.D	1	08/16/17 03:52	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00041	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0010	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00058	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.00036	0.0010	0.00027	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	112%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW02-080917		
Lab Sample ID:	JC48814-8	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135593.D	1	08/16/17 04:20	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00043	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0017	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00075	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	112%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-RAMW01-080917		
Lab Sample ID:	JC48814-9	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135594.D	1	08/16/17 04:48	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00082	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0055	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0012	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.00059	0.0010	0.00027	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	115%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-FBLK02-080917		
Lab Sample ID:	JC48814-10	**Date Sampled:**	08/09/17
Matrix:	AQ - Field Blank Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135595.D	1	08/16/17 05:16	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		80-120%
17060-07-0	1,2-Dichloroethane-D4	115%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-DUP02-080917		
Lab Sample ID:	JC48814-11	**Date Sampled:**	08/09/17
Matrix:	AQ - Ground Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135596.D	1	08/16/17 05:43	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00041	0.0010	0.00021	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.00096	0.0010	0.00050	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00057	0.0010	0.00025	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	0.00035	0.0010	0.00027	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		80-120%
17060-07-0	1,2-Dichloroethane-D4	115%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

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

SGS Accutest

Report of Analysis

Client Sample ID:	HSSER-TRIP02-080917		
Lab Sample ID:	JC48814-12	**Date Sampled:**	08/09/17
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/11/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E135586.D	1	08/16/17 01:06	JP	n/a	n/a	V2E5921
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00021	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00047	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00050	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00040	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00022	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00050	mg/l	
108-88-3	Toluene	ND	0.0010	0.00025	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00025	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00024	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00027	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00062	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	111%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

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GW

CHAIN OF CUSTODY

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

FED-EX Tracking # 7250 6932 7824
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job # JC48814

Client / Reporting Information

Company Name: AECOM
Street Address: 4320 WINFIELD RD
City State Zip: WARRENVILLE IL 60555
Project Contact E-mail: PETER HOLLATZ / peter.hollatz@aecom.com
Phone # Fax #: 630.918.9648
Sampler(s) Name(s) Phone #: N. PINS / A. HOLLATZ

Project Information

Project Name: UTAS PLANTS 1/2 FACILITY
Street
City State: ROCKFORD IL
Project #: 60532451
Client Purchase Order #
Project Manager: PETER HOLLATZ

Billing Information (if different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

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

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	* VOCs	LAB USE ONLY
1	HSSER-RAMW08-080817		8/8/17	0835	AH	GW	3	3								X	
2	HSSER-RAMW07-080817		8/8/17	0955	AH	GW	3	3								X	
3	HSSER-RAMW06-080817		8/8/17	1050	AH	GW	3	3								X	V533
4	HSSER-RAMW05-080817		8/8/17	1150	AH	GW	3	3								X	
5	HSSER-EBLK02-080817		8/8/17	1210	AH	GW	3	3								X	
6	HSSER-RAMW04-080817		8/8/17	1240	AH	GW	3	3								X	
7	HSSER-RAMW03-080917		8/9/17	0850	AH	GW	3	3								X	
8	HSSER-RAMW02-080917		8/9/17	1005	AH	GW	3	3								X	
9	HSSER-RAMW01-080917		8/9/17	1110	AH	GW	3	3								X	
8	HSSER-MS02-080917		8/9/17	1005	AH	GW	3	3								X	
8	HSSER-MSD02-080917		8/9/17	1005	AH	GW	3	3								X	

INITIAL ASESSMENT IBIDS
LABEL VERIFICATION DS

Turnaround Time (Business days)

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

Emergency & Rush T/A data available VIA Lablink

Approved By (SGS Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format _____
- [ ] Other _____

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

Comments / Special Instructions

* LIST OF 13 VOCs
LEVEL IV QC

Sample inventory is verified upon receipt in the Laboratory

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

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 N. P. (AECOM)	8/10/17 1500	1 FedEX	2 FedEX	920 8-11-17	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not Intact	Preserved where applicable [ ] On Ice [ ] Cooler Temp. 2.1 LIG

Form:SM088-01CRev.Date:9/13/16

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JC48814: Chain of Custody
Page 1 of 3

SGS ACCUTEST

GW

CHAIN OF CUSTODY

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

FED-EX Tracking # 7250 6932 7824
Bottle Order Control #
SGS Accutest Quote #
SGS Accutest Job # JC48814

Client / Reporting Information

Company Name: AECOM
Street Address: 4320 WINFIELD RD
City / State / Zip: WARRENVILLE IL 60555
Project Contact / E-mail: PETER HOLLATZ peter.hollatz@aecom.com
Phone # / Fax #: 630.918.9648
Sampler(s) Name(s) / Phone #: N. PINS / A. HOLLATZ

Project Information

Project Name: UTAS PLANTS 1/2 FACILITY
Street
City / State: ROCKFORD IL
Project # 60532451
Client Purchase Order #
Project Manager: PETER HOLLATZ

Billing Information (if different from Report to)

Company Name
Street Address
City / State / Zip
Attention:

Requested Analysis (see TEST CODE sheet)

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

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	* VOCs	LAB USE ONLY
10	HSSER-FBLK02-080917		8/9/17	1025	AH	GW	3	3								X	
11	HSSER-DUP02-080917		8/9/17	0000	AH	GW	3	3								X	
12	HSSER-TRIP02-080817		8/8/17	—	—	GW	2	2								X	

Turnaround Time (Business days)

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

Emergency & Rush T/A data available VIA Lablink

Approved By (SGS Accutest PM): / Date:

TIAL ASESSMENT
ASEL VERIFICATION

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

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

Comments / Special Instructions

* LIST OF 13 VOCs
LEVEL IV QC

Sample inventory is verified upon receipt in the Laboratory

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

Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1 N. P. (AECOM)	8/10/17 1500	1 FedEX	2 FedEX	920 8-11-17	2
3		3	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact
Preserved where applicable ☐
On Ice ☑
Cooler Temp. (2) D.S 920 8-11-17
2.1°C Ig

Form:SM088-01CRev.Date:9/13/16

JC48814: Chain of Custody
Page 2 of 3

SGS Accutest Sample Receipt Summary

Job Number: JC48814 **Client:** **Project:**

Date / Time Received: 8/11/2017 9:20:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (1.3);

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

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

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

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

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

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

SM089-02
Rev. Date 12/1/16

5.1

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JC48814: Chain of Custody
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Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JC48814

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC48814-1 Collected: 08-AUG-17 08:35 By: AH HSSER-RAMW08-080817			Received: 11-AUG-17 By: DDH			
JC48814-1	SW846 8260C	16-AUG-17 01:34	JP			V8260SL
JC48814-2 Collected: 08-AUG-17 09:55 By: AH HSSER-RAMW07-080817			Received: 11-AUG-17 By: DDH			
JC48814-2	SW846 8260C	16-AUG-17 02:02	JP			V8260SL
JC48814-3 Collected: 08-AUG-17 10:50 By: AH HSSER-RAMW06-080817			Received: 11-AUG-17 By: DDH			
JC48814-3	SW846 8260C	16-AUG-17 02:29	JP			V8260SL
JC48814-4 Collected: 08-AUG-17 11:50 By: AH HSSER-RAMW05-080817			Received: 11-AUG-17 By: DDH			
JC48814-4	SW846 8260C	16-AUG-17 02:57	JP			V8260SL
JC48814-5 Collected: 08-AUG-17 12:10 By: AH HSSER-EBLK02-080817			Received: 11-AUG-17 By: DDH			
JC48814-5	SW846 8260C	16-AUG-17 00:39	JP			V8260SL
JC48814-6 Collected: 08-AUG-17 12:40 By: AH HSSER-RAMW04-080817			Received: 11-AUG-17 By: DDH			
JC48814-6	SW846 8260C	16-AUG-17 03:25	JP			V8260SL
JC48814-7 Collected: 09-AUG-17 08:50 By: AH HSSER-RAMW03-080917			Received: 11-AUG-17 By: DDH			
JC48814-7	SW846 8260C	16-AUG-17 03:52	JP			V8260SL
JC48814-8 Collected: 09-AUG-17 10:05 By: AH HSSER-RAMW02-080917			Received: 11-AUG-17 By: DDH			
JC48814-8	SW846 8260C	16-AUG-17 04:20	JP			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JC48814

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60480278

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC48814-9	Collected: 09-AUG-17 11:10 By: AH		Received: 11-AUG-17 By: DDH			
HSSER-RAMW01-080917						
JC48814-9	SW846 8260C	16-AUG-17 04:48	JP			V8260SL
JC48814-10	Collected: 09-AUG-17 10:25 By: AH		Received: 11-AUG-17 By: DDH			
HSSER-FBLK02-080917						
JC48814-10	SW846 8260C	16-AUG-17 05:16	JP			V8260SL
JC48814-11	Collected: 09-AUG-17 00:00 By: AH		Received: 11-AUG-17 By: DDH			
HSSER-DUP02-080917						
JC48814-11	SW846 8260C	16-AUG-17 05:43	JP			V8260SL
JC48814-12	Collected: 09-AUG-17 11:10 By: AH		Received: 11-AUG-17 By: DDH			
HSSER-TRIP02-080917						
JC48814-12	SW846 8260C	16-AUG-17 01:06	JP			V8260SL

SGS Accutest Internal Chain of Custody

Job Number: JC48814
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 08/11/17

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC48814-1.1	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-1.1	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-1.1	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-1.1	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-2.1	Secured Storage	Jessica Potts	08/16/17 17:35	Retrieve from Storage
JC48814-2.1	Jessica Potts	GCMS2E	08/16/17 17:35	Load on Instrument
JC48814-2.1	GCMS2E	Jessica Potts	08/17/17 09:01	Unload from Instrument
JC48814-2.1	Jessica Potts	Secured Storage	08/17/17 09:01	Return to Storage
JC48814-2.2	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-2.2	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-2.2	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-2.2	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-3.1	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-3.1	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-3.1	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-3.1	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-4.1	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-4.1	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-4.1	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-4.1	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-5.2	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-5.2	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-5.2	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-5.2	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-6.2	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-6.2	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-6.2	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-6.2	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-7.1	Secured Storage	Jessica Potts	08/16/17 08:25	Retrieve from Storage
JC48814-7.1	Jessica Potts	GCMS2E	08/16/17 08:25	Load on Instrument
JC48814-7.1	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-7.1	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-7.2	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-7.2	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-7.2	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-7.2	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage

SGS Accutest Internal Chain of Custody

Job Number: JC48814
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 08/11/17

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC48814-8.8	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-8.8	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-8.8	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-8.8	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-9.1	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-9.1	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-9.1	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-9.1	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-10.1	Secured Storage	Jessica Potts	08/16/17 08:18	Retrieve from Storage
JC48814-10.1	Jessica Potts	GCMS2E	08/16/17 08:18	Load on Instrument
JC48814-10.1	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-10.1	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-10.2	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-10.2	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-10.2	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-10.2	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-11.2	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-11.2	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-11.2	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-11.2	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage
JC48814-12.2	Secured Storage	Jessica Potts	08/15/17 16:54	Retrieve from Storage
JC48814-12.2	Jessica Potts	GCMS2E	08/15/17 16:54	Load on Instrument
JC48814-12.2	GCMS2E	Jessica Potts	08/16/17 10:10	Unload from Instrument
JC48814-12.2	Jessica Potts	Secured Storage	08/16/17 10:10	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC48814
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E5921-MB	2E135582.D	1	08/15/17	JP	n/a	n/a	V2E5921

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

JC48814-1, JC48814-2, JC48814-3, JC48814-4, JC48814-5, JC48814-6, JC48814-7, JC48814-8, JC48814-9, JC48814-10, JC48814-11, JC48814-12

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	80-120%
17060-07-0	1,2-Dichloroethane-D4	114%	81-124%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	107%	80-120%

Blank Spike Summary

Job Number: JC48814
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E5921-BS	2E135583.D	1	08/15/17	JP	n/a	n/a	V2E5921

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

JC48814-1, JC48814-2, JC48814-3, JC48814-4, JC48814-5, JC48814-6, JC48814-7, JC48814-8, JC48814-9, JC48814-10, JC48814-11, JC48814-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	56.9	114	79-120
107-06-2	1,2-Dichloroethane	50	54.1	108	78-126
75-35-4	1,1-Dichloroethene	50	54.8	110	69-126
156-59-2	cis-1,2-Dichloroethene	50	50.3	101	80-120
156-60-5	trans-1,2-Dichloroethene	50	53.8	108	76-120
100-41-4	Ethylbenzene	50	50.3	101	80-120
75-09-2	Methylene chloride	50	51.5	103	77-120
127-18-4	Tetrachloroethene	50	46.1	92	70-131
108-88-3	Toluene	50	49.6	99	80-120
71-55-6	1,1,1-Trichloroethane	50	54.6	109	81-128
79-00-5	1,1,2-Trichloroethane	50	49.9	100	83-118
79-01-6	Trichloroethene	50	49.1	98	80-120
75-01-4	Vinyl chloride	50	54.2	108	51-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	80-120%
17060-07-0	1,2-Dichloroethane-D4	112%	81-124%
2037-26-5	Toluene-D8	104%	80-120%
460-00-4	4-Bromofluorobenzene	107%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC48814
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC48814-7MS	2E135603.D	1	08/16/17	JP	n/a	n/a	V2E5921
JC48814-7	2E135592.D	1	08/16/17	JP	n/a	n/a	V2E5921

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

JC48814-1, JC48814-2, JC48814-3, JC48814-4, JC48814-5, JC48814-6, JC48814-7, JC48814-8, JC48814-9, JC48814-10, JC48814-11, JC48814-12

CAS No.	Compound	JC48814-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-34-3	1,1-Dichloroethane	0.41	J	50	50.9	101	73-126
107-06-2	1,2-Dichloroethane	ND		50	48.4	97	72-131
75-35-4	1,1-Dichloroethene	ND		50	50.1	100	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	45.1	90	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	48.1	96	70-126
100-41-4	Ethylbenzene	ND		50	45.3	91	51-140
75-09-2	Methylene chloride	ND		50	45.4	91	73-125
127-18-4	Tetrachloroethene	1.0		50	44.6	87	61-139
108-88-3	Toluene	ND		50	44.1	88	60-135
71-55-6	1,1,1-Trichloroethane	0.58	J	50	50.5	100	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	42.9	86	78-121
79-01-6	Trichloroethene	0.36	J	50	46.1	91	62-141
75-01-4	Vinyl chloride	ND		50	56.2	112	43-146

CAS No.	Surrogate Recoveries	MS	JC48814-7	Limits
1868-53-7	Dibromofluoromethane	107%	107%	80-120%
17060-07-0	1,2-Dichloroethane-D4	114%	112%	81-124%
2037-26-5	Toluene-D8	103%	101%	80-120%
460-00-4	4-Bromofluorobenzene	105%	105%	80-120%

* = Outside of Control Limits.