Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4172

Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.03	9.04	0.000	96	70	796.616	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.66	12.66	0.000	82	119	235.344	10.00		0.00	
62	62 1,4-DCB-d4 150 15	15.15	15.16	0.000	152	150	194.845	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	491.970	17.40	17.4	87.02%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	225.901	17.16	17.2	85.82%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	697.975	17.54	17.5	87.70%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	306.029	17.58	17.6	87.89%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	391.713	17.19	17.2	100	
4	4 Chloromethane	2.78	2.79	-0.002	50	52	347.170	17.91	17.9	98	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	431.287	16.95	17.0	97	
5	5 vinyl chloride	2.96	2.97	-0.001	62	64	324.322	17.64	17.6	99	
6	6 bromomethane	3.37	3.38	-0.001	94	96	311.034	19.27	19.3	94	
7	7 Chloroethane	3.52	3.54	-0.003	64	66	236.890	17.40	17.4	99	
8	8 tri-Cl-F-methane	4.14	4.16	-0.002	101	103	548.800	17.66	17.7	99	?
111	111 isopropyl alcoho	4.27	4.28	-0.001	45	43	67.350	187.37	187.4	47	#
100	100 ethyl ether x5	4.44	4.45	-0.002	59	74	929.231	81.84	81.8	100	
102	102 Acrolein x10	4.15	4.17	-0.002	56	55	135.563	149.65	149.7	99	?
119	119 methyl acetate	5.06	5.07	-0.002	43	74	161.424	16.58	16.6	99	?
104	104 Carbon disulfide	5.18	5.19	-0.001	76	78	1078.389	16.24	16.2	99	
103	103 Acrylonitrilex10	4.89	4.91	-0.002	53	52	330.493	173.63	173.6	99	?
95	95 Acetone x10	4.31	4.33	-0.002	43	58	230.352	167.58	167.6	96	
108	108 F-113	5.02	5.05	-0.003	151	101	423.314	17.73	17.7	98	
13	13 11-dichloroethene	4.76	4.78	-0.002	61	96	530.128	16.97	17.0	99	
101	101 Acetonnitrilex10	4.20	4.22	-0.002	41	40	91.752	179.80	179.8	80	#
109	109 Iodomethane	4.80	4.82	-0.002	142	127	536.517	21.14	21.1	99	
113	113 Tert butyl alcoh	4.86	4.87	0.000	59	57	116.507	169.00	169.0	100	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4173

Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.97	4.98	-0.001	84	49	397.006	11.83	11.8	100	
	112 Allyl chloride	5.07	5.08	-0.001	41	76	588.305	17.03	17.0	97	?
200	200 Nitro methane x1	5.82	5.83	-0.001	61	46	610.779	175.74	175.7	95	#?
10	10 t-Bu-Me-ether	6.00	6.01	-0.001	73	57	557.717	16.56	16.6	96	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	406.048	16.96	17.0	95	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	1965.632	91.24	91.2	100	
21	21 11-dichloroethane	6.15	6.16	-0.001	63	83	750.915	17.96	18.0	99	
91	91 2-butanone MEKx10	6.83	6.84	-0.001	43	72	1231.875	164.89	164.9	97	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	1808.509	17.14	17.1	99	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	395.661	16.89	16.9	97	
23	23 22-Dichloropropan	7.35	7.35	0.000	77	97	576.991	15.99	16.0	99	
24	24 Br-Cl-methane	7.18	7.19	-0.001	128	130	141.700	16.86	16.9	99	
25	25 chloroform	7.27	7.27	0.000	83	85	689.236	16.48	16.5	100	
201	201 Ethyl acetate x2	7.31	7.31	0.000	43	61	378.636	35.55	35.6	90	?
116	116 ETBE	7.40	7.40	0.000	59	87	1052.083	16.37	16.4	100	
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	392.518	184.17	184.2	64	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	69.559	85.20	85.2	99	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	564.989	16.22	16.2	100	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	282.242	17.32	17.3	99	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	497.493	16.34	16.3	100	
36	36 benzene	8.75	8.76	-0.001	78	52	1199.382	17.33	17.3	100	
37	37 CCl4	8.68	8.69	0.000	117	119	455.994	17.10	17.1	99	
97	97 thiophene	8.89	8.89	0.000	84	58	583.305	16.95	16.9	99	
118	118 TAME	9.00	9.01	0.000	73	43	702.458	15.87	15.9	100	
39	39 12-di-Cl-propane	9.49	9.50	0.000	63	76	351.243	17.34	17.3	99	
40	40 trichloroethene	9.54	9.55	-0.001	130	132	377.871	17.62	17.6	98	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	125.425	17.85	17.8	98	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	450.244	15.94	15.9	96	
41	41 dibromomethane	9.45	9.45	0.000	174	172	180.293	18.45	18.5	98	
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	412.841	16.57	16.6	99	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	750.880	175.75	175.8	99	
56	56 toluene	11.23	11.23	0.000	91	92	1093.591	16.81	16.8	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4174

Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.36	11.37	0.000	69	99	232.775	17.29	17.3	100	
93	93 2-Hexanone x5	11.48	11.49	-0.001	43	58	392.829	86.81	86.8	97	
48	48 112-tri-Cl-Et	11.03	11.03	0.000	97	83	161.722	16.95	17.0	98	
58	58 1,2-di-br-ethane	11.82	11.83	0.000	107	109	172.988	16.98	17.0	98	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	224.132	17.48	17.5	99	
46	46 t-13-di-cl-propen	10.87	10.86	0.000	75	110	282.573	17.60	17.6	100	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	359.945	18.07	18.1	96	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.52	10.52	0.000	43	58	140.136	18.90	18.9	97	
49	49 1,3-di-cl-propane	11.29	11.29	0.000	76	78	281.641	18.31	18.3	100	
59	59 tetra-Cl-ethene	12.00	12.01	0.000	166	168	377.073	18.21	18.2	100	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	623.775	18.14	18.1	99	
61	61 1112-tetra-Cl-Et	12.62	12.63	0.000	131	133	260.584	18.92	18.9	100	?
64	64 ethylbenzene	12.90	12.91	0.000	91	106	1145.522	17.29	17.3	99	
65	65 m/p-Xylenes x2	13.10	13.11	0.000	91	106	1801.521	35.76	35.8	100	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	249.550	16.44	16.4	98	
52	52 bromoform	13.22	13.23	0.000	173	175	130.519	18.57	18.6	98	
66	66 styrene	13.43	13.43	0.000	104	78	627.907	17.65	17.7	98	
67	67 o-xylene	13.50	13.50	0.000	91	106	854.318	17.23	17.2	100	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	157.341	17.29	17.3	97	?
110	110 t-1,4-dichloro-2	13.67	13.68	0.000	89	53	29.653	20.23	20.2	82	#?
106	106 Cl-benzyl	15.12	15.13	0.000	91	126	217.674	18.94	18.9	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.64	13.64	0.000	110	97	40.148	16.92	16.9	97	?
71	71 isopropylbenzene	13.86	13.85	0.000	105	120	1123.964	17.55	17.6	99	
72	72 bromobenzene	14.10	14.10	0.000	156	158	256.336	18.24	18.2	98	
73	73 n-propylbenzene	14.29	14.28	0.000	120	78	307.368	17.81	17.8	100	
74	74 2-Cl-Tl 126 1	14.37	14.38	0.000	126	128	196.033	17.09	17.1	94	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	271.926	17.35	17.3	99	m
76	76 135-tri-Me-Bz	14.57	14.56	0.000	105	120	876.887	16.96	17.0	99	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	953.072	17.96	18.0	87	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	768.449	17.48	17.5	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

1/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4175

Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80 13-di-Cl-Bz 146	15.11	15.12	0.000	146	148	402.440	17.97	18.0	90	?
82	82 14-di-Cl-Bz 146	15.19	15.18	0.000	146	148	541.239	16.63	16.6	93	
81	81 sec-butylbenzene	15.04	15.05	0.000	105	134	1390.850	17.92	17.9	98	
77	77 4-iso-Pr-toluene	15.22	15.22	0.000	119	134	1009.580	18.03	18.0	98	
84	84 12-di-Cl-benzene	15.52	15.53	0.000	146	148	377.204	17.46	17.5	99	
85	85 n-butylbenzene	15.60	15.61	0.000	91	134	1017.452	17.34	17.3	100	
86	86 12-diBr-3-Cl-Pra	15.97	16.00	-0.001	157	155	28.653	18.10	18.1	87	
87	87 124-tri-Cl-Bz	17.24	17.26	0.000	180	182	286.395	16.93	16.9	99	
88	88 naphthalene	17.49	17.50	0.000	128	129	236.255	18.23	18.2	100	
90	90 123-tri-Cl-Bz	17.68	17.69	0.000	180	182	211.274	17.95	17.9	100	
89	89 hx-Cl-butadiene	17.52	17.53	0.000	225	260	228.481	17.77	17.8	99	

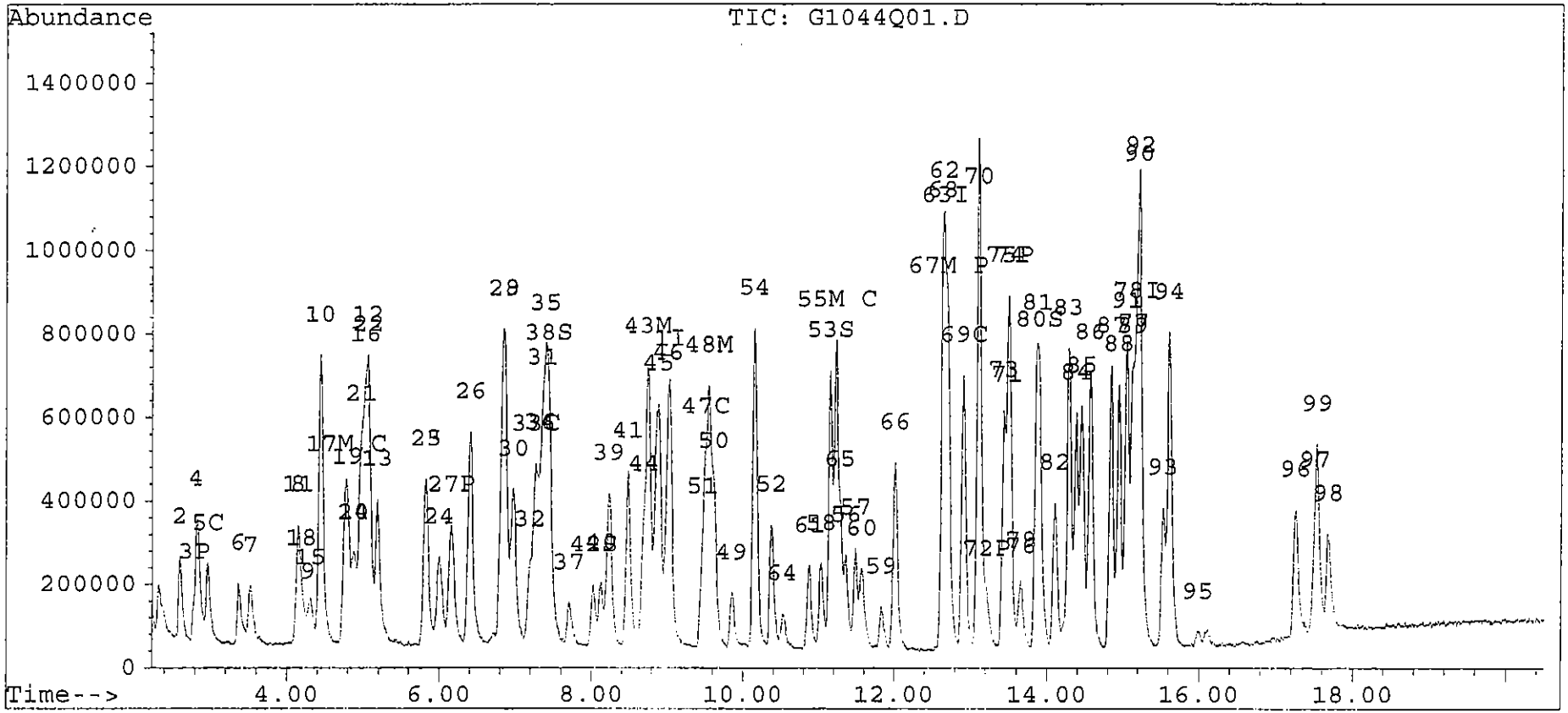
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

4176

Data File : C:\HPCHEM\1\DATA\03G1044\G1044Q01.D Vial: 9
Acq On : 10 Jan 03 6:50 pm Operator: Eddie
Sample : f=1 ccv/icv Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Jan 13 10:36 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 09:57:17 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4177

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	765.834	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	226.795	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	197.143	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.45	7.44	0.000	111	113	13.867	0.45	0.5	2.26%	
29	29 1,2-di-Cl-ethane-	8.03	8.03	0.000	65	102	10.557	0.64	0.6	3.22%	
55	55 toluene-d8(S2)	11.16	11.15	0.000	100	99	18.222	0.43	0.4	2.17%	
70	70 4-Br-1-F-Bz (S3)	13.91	13.90	0.000	174	95	9.453	0.47	0.5	2.37%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	9.202	0.39	0.4	63	#
4	4 Chloromethane	2.79	2.79	0.000	50	52	4.751	0.25	0.3	55	#?
9	9 F114 85 135	2.82	2.84	-0.003	85	135	8.035	0.33	0.3	69	?
5	5 vinyl chloride	2.97	2.97	0.000	62	64	4.990	0.28	0.3	54	#
6	6 bromomethane	3.39	3.38	0.000	94	96	5.861	0.34	0.3	97	
7	7 Chloroethane	3.52	3.54	-0.002	64	66	3.629	0.28	0.3	56	#
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	7.295	0.25	0.2	76	
111	111 isopropyl alcoho	4.31	4.28	0.003	45	43	1.236	3.99	4.0	60	#
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	20.361	1.87	1.9	77	
102	102 Acrolein x10	4.19	4.17	0.002	56	55	3.234	3.71	3.7	70	
119	119 methyl acetate	5.08	5.07	0.000	43	74	4.062	0.81	0.8	56	#?
104	104 Carbon disulfide	5.20	5.19	0.000	76	78	21.121	0.33	0.3	78	#
103	103 Acrylonitrilex10	4.94	4.91	0.004	53	52	4.569	2.49	2.5	66	m
95	95 Acetone x10	4.24	4.33	-0.009	43	58	0.989	0.67	0.7	98	?
108	108 F-113	5.04	5.05	-0.001	151	101	5.327	0.26	0.3	67	#
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	8.641	0.29	0.3	80	?
101	101 Acetonnitrilex10	4.23	4.22	0.001	41	40	2.063	5.25	5.2	1	#?
109	109 Iodomethane	4.79	4.82	-0.003	142	127	3.901	0.16	0.2	53	#?
113	113 Tert butyl alcoh	4.83	4.87	-0.004	59	57	2.556	3.73	3.7	1	#

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

1/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4178

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	28.023	0.81	0.8	89	
	112 Allyl chloride	5.08	5.08	0.000	41	76	11.807	0.44	0.4	72	#?
200	200 Nitro methane x1	5.83	5.83	0.000	61	46	10.089	3.02	3.0	92	#?
10	10 t-Bu-Me-ether	6.02	6.01	0.001	73	57	19.344	0.51	0.5	98	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	7.446	0.32	0.3	93	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	35.861	1.71	1.7	93	#
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	11.490	0.29	0.3	98	
91	91 2-butanone MEKx10	6.86	6.84	0.002	43	72	23.960	4.00	4.0	84	#
115	115 Di isoprop ether	6.65	6.85	-0.023	45	87	2.475	0.03	0.0	99	
22	22 c-12-di-Cl-ethene	6.98	6.97	0.000	96	61	6.875	0.30	0.3	96	
23	23 22-Dichloropropan	7.36	7.35	0.000	77	97	13.155	0.38	0.4	98	?
24	24 Br-Cl-methane	7.21	7.19	0.002	128	130	0.956	0.13	0.1	0	m
25	25 chloroform	7.28	7.27	0.000	83	85	14.881	0.46	0.5	96	
201	201 Ethyl acetate x2	7.34	7.31	0.003	43	61	5.585	0.53	0.5	43	#? 1/13/03
116	116 ETBE	7.41	7.40	0.000	59	87	20.917	0.34	0.3	99	
117	117 Iso-butyl alcoho	7.34	7.31	0.003	43	42	5.582	2.89	2.9	1	#?
26	26 tetrahydrofuranx5	7.73	7.71	0.002	72	42	1.945	2.48	2.5	22	#
34	34 111-tri-Cl-ethane	8.24	8.23	0.000	97	99	12.459	0.37	0.4	95	
30	30 12-dichloroethane	8.16	8.13	0.003	62	64	0.549	0.04	0.0	77	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	9.488	0.32	0.3	88	
36	36 benzene	8.76	8.76	0.000	78	52	19.613	0.29	0.3	92	
37	37 CCl4	8.68	8.69	0.000	117	119	7.832	0.31	0.3	92	
97	97 thiophene	8.90	8.89	0.000	84	58	10.129	0.31	0.3	94	
118	118 TAME	8.93	9.01	-0.008	73	43	4.367	0.10	0.1	99	
39	39 12-di-Cl-propane	9.51	9.50	0.001	63	76	5.869	0.30	0.3	63	#
40	40 trichloroethene	9.56	9.55	0.001	130	132	5.805	0.28	0.3	94	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	1.472	0.20	0.2	33	#
42	42 Br-di-Cl-methane	9.60	9.62	-0.002	83	85	10.138	0.46	0.5	98	
41	41 dibromomethane	9.46	9.45	0.001	174	172	2.292	0.24	0.2	28	#
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	7.832	0.33	0.3	60	#
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	10.352	2.52	2.5	75	#
56	56 toluene	11.24	11.23	0.000	91	92	21.278	0.34	0.3	87	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4179

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.51	11.37	0.016	69	99	0.955	0.08	0.1	83	?
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	10.744	3.07	3.1	92	?
48	48 112-tri-Cl-Et	11.03	11.03	0.000	97	83	5.203	0.62	0.6	70	
58	58 1,2-di-br-ethane	11.84	11.83	0.001	107	109	1.144	0.13	0.1	16	#
51	51 di-Br-Cl-methane	11.59	11.57	0.002	129	127	2.693	0.22	0.2	97	
46	46 t-13-di-cl-propen	10.89	10.86	0.003	75	110	4.584	0.30	0.3	66	#
105	105 1-Chlorohexane	12.65	12.64	0.001	55	93	12.961	0.77	0.8	41	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.47	10.52	-0.004	43	58	1.407	0.28	0.3	94	
49	49 1,3-di-cl-propane	11.31	11.29	0.002	76	78	4.247	0.29	0.3	42	#
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	5.221	0.26	0.3	99	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	9.971	0.36	0.4	48	#
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	3.219	0.24	0.2	98	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	21.430	0.25	0.2	84	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	31.419	0.65	0.6	89	
99	99 1-4-di-Cl-butane	13.48	13.46	0.002	55	41	5.503	0.46	0.5	59	#?
52	52 bromoform	13.26	13.23	0.003	173	175	0.806	0.13	0.1	30	m
66	66 styrene	13.43	13.43	0.000	104	78	10.850	0.32	0.3	85	
67	67 o-xylene	13.51	13.50	0.000	91	106	16.715	0.35	0.3	76	?
68	68 1122-Tetra-Cl-Et	13.53	13.50	0.002	83	85	2.658	0.44	0.4	87	?
110	110 t-1,4-dichloro-2	13.69	13.68	0.000	89	53	1.095	1.21	1.2	1	#
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	6.053	0.62	0.6	61	#?
<<< I3 : ISTD ID = 62 >>>											
71	71 isopropylbenzene	13.87	13.85	0.001	105	120	16.442	0.25	0.3	87	
72	72 bromobenzene	14.11	14.10	0.000	156	158	3.119	0.22	0.2	98	
73	73 n-propylbenzene	14.29	14.28	0.000	120	78	4.297	0.23	0.2	56	#
74	74 2-Cl-Tl 126 1	14.40	14.38	0.001	126	128	3.821	0.33	0.3	39	m
75	75 4-Cl-Tl 126 1	14.46	14.45	0.000	126	128	4.042	0.31	0.3	43	m
76	76 135-tri-Me-Bz	14.57	14.56	0.000	105	120	14.680	0.28	0.3	84	
79	79 tert-butylbenzene	14.85	14.84	0.000	119	91	13.115	0.24	0.2	81	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	11.184	0.25	0.3	97	
80	80 13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	5.522	0.20	0.2	80	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

2/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4180

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
82	82	14-di-Cl-Bz 146	15.20	15.18	0.001	146	148	9.029	0.29	0.3	1	m?
81	81	sec-butylbenzene	15.06	15.05	0.000	105	134	19.695	0.28	0.3	70	#
77	77	4-iso-Pr-toluene	15.23	15.22	0.000	119	134	14.306	0.25	0.3	91	?
84	84	12-di-Cl-benzene	15.54	15.53	0.000	146	148	5.444	0.25	0.2	91	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	17.944	0.36	0.4	73	#
87	87	124-tri-Cl-Bz	17.25	17.26	0.000	180	182	3.158	0.20	0.2	85	#
88	88	naphthalene	17.52	17.50	0.002	128	129	4.753	0.59	0.6	81	#?
90	90	123-tri-Cl-Bz	17.67	17.69	-0.001	180	182	2.940	0.28	0.3	1	m
89	89	hx-Cl-butadiene	17.51	17.53	-0.001	225	260	2.553	0.22	0.2	44	m?

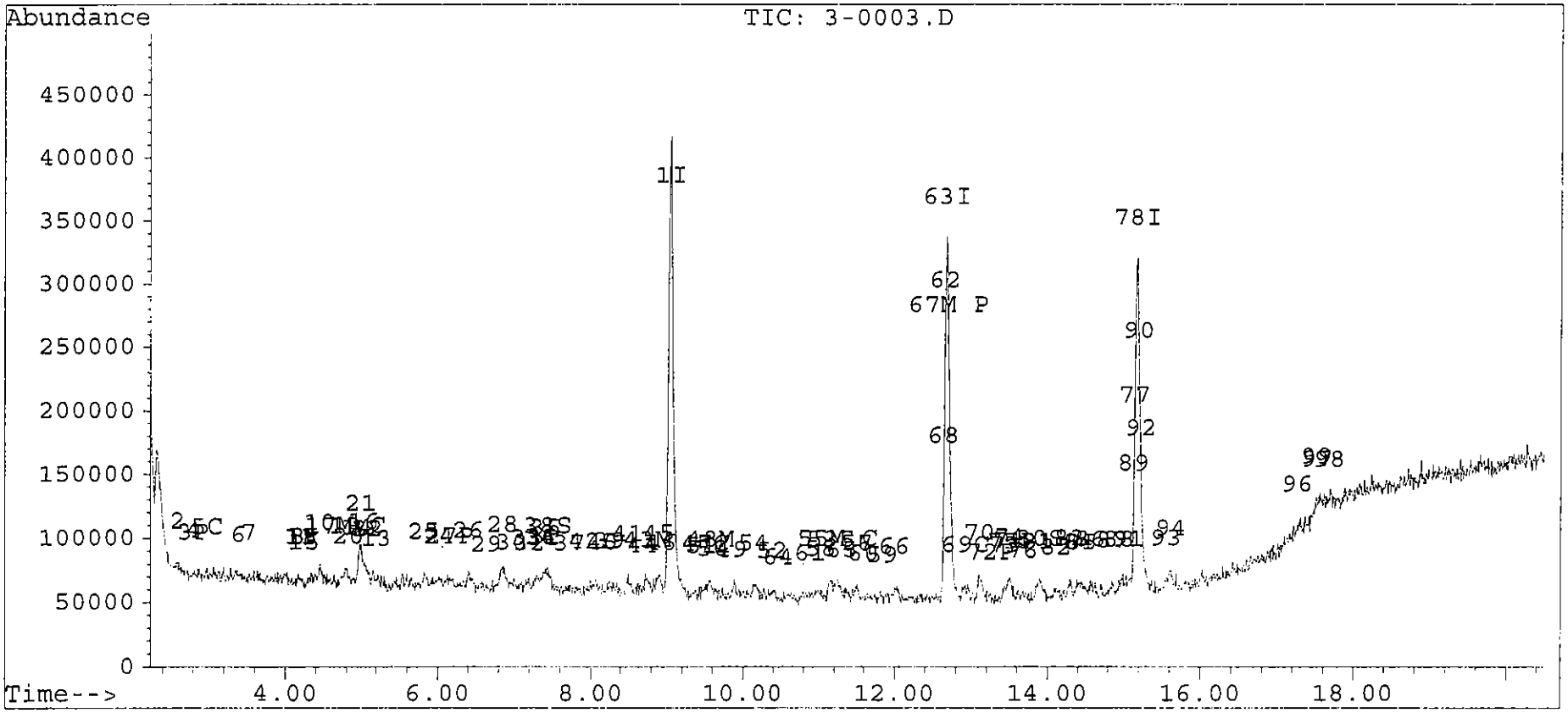
4/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-0003.D Vial: 16
Acq On : 10 Jan 03 2:27 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Jan 13 9:28 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4182

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	768.596	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	229.493	10.00		0.00	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	197.148	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.43	7.44	0.000	111	113	59.189	1.93	1.9	9.63%	
29	29 1,2-di-Cl-ethane-	8.04	8.03	0.000	65	102	26.643	1.62	1.6	8.09%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	78.299	1.86	1.9	9.29%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	36.886	1.85	1.9	9.25%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	44.272	1.87	1.9	95	
4	4 Chloromethane	2.79	2.79	0.000	50	52	30.836	1.65	1.6	91	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	46.094	1.87	1.9	82	
5	5 vinyl chloride	2.97	2.97	0.000	62	64	35.625	2.01	2.0	100	
6	6 bromomethane	3.39	3.38	0.000	94	96	43.488	2.52	2.5	82	
7	7 Chloroethane	3.53	3.54	-0.001	64	66	27.223	2.07	2.1	99	
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	56.379	1.91	1.9	87	m
111	111 isopropyl alcoho	4.26	4.28	-0.002	45	43	8.181	26.30	26.3	1	# 1/13/03
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	108.089	9.87	9.9	99	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	15.074	17.25	17.2	78	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	15.788	3.14	3.1	100	?
104	104 Carbon disulfide	5.20	5.19	0.000	76	78	133.095	2.06	2.1	100	
103	103 Acrylonitrilex10	4.91	4.91	0.000	53	52	37.044	20.10	20.1	100	
95	95 Acetone x10	4.31	4.33	-0.002	43	58	41.993	28.37	28.4	90	
108	108 F-113	5.04	5.05	-0.001	151	101	41.068	2.00	2.0	97	
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	61.263	2.03	2.0	95	
101	101 Acetonnitrilex10	4.21	4.22	0.000	41	40	1.527	3.87	3.9	1	#
109	109 Iodomethane	4.81	4.82	-0.001	142	127	55.824	2.32	2.3	97	
113	113 Tert butyl alcoh	4.86	4.87	-0.001	59	57	18.436	26.84	26.8	87	#

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4183

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	111.315	3.20	3.2	97	
	112 Allyl chloride	5.08	5.08	0.000	41	76	73.643	2.71	2.7	92	?
200	200 Nitro methane x1	5.82	5.83	0.000	61	46	68.361	20.39	20.4	97	#?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	73.627	1.95	1.9	94	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	45.222	1.96	2.0	94	?
98	98 Vinyl acetate x5	6.40	6.41	0.000	43	86	233.914	11.10	11.1	100	
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	83.925	2.08	2.1	97	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	146.366	24.33	24.3	95	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	206.054	2.36	2.4	97	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	46.067	2.04	2.0	95	
23	23 22-Dichloropropan	7.35	7.35	0.000	77	97	71.811	2.06	2.1	93	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	15.248	2.10	2.1	93	
25	25 chloroform	7.27	7.27	0.000	83	85	81.604	2.50	2.5	97	
201	201 Ethyl acetate x2	7.32	7.31	0.000	43	61	44.403	4.20	4.2	88	?
116	116 ETBE	7.41	7.40	0.000	59	87	124.488	2.01	2.0	100	
117	117 Iso-butyl alcoho	7.32	7.31	0.000	43	42	44.403	22.93	22.9	1	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	8.407	10.67	10.7	92	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	65.859	1.96	2.0	100	
30	30 12-dichloroethane	8.12	8.13	-0.002	62	64	31.555	2.35	2.3	93	
35	35 11-Di-Cl-propene	8.49	8.48	0.000	75	110	58.117	1.98	2.0	99	
36	36 benzene	8.75	8.76	-0.001	78	52	138.554	2.07	2.1	100	
37	37 CCl4	8.70	8.69	0.002	117	119	47.773	1.86	1.9	96	
97	97 thiophene	8.90	8.89	0.000	84	58	70.133	2.11	2.1	98	
118	118 TAME	9.00	9.01	0.000	73	43	97.622	2.29	2.3	92	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	38.931	1.99	2.0	100	
40	40 trichloroethene	9.56	9.55	0.000	130	132	41.064	1.98	2.0	94	
96	96 Me-methacrylate	9.86	9.85	0.001	69	100	19.691	2.68	2.7	78	
42	42 Br-di-Cl-methane	9.62	9.62	0.000	83	85	55.994	2.55	2.6	94	
41	41 dibromomethane	9.46	9.45	0.000	174	172	17.911	1.90	1.9	95	
45	45 c-13-di-Cl-propen	10.38	10.37	0.000	75	110	48.533	2.02	2.0	93	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	80.060	19.39	19.4	93	
56	56 toluene	11.22	11.23	0.000	91	92	126.101	2.01	2.0	95	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4184

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.36	11.37	0.000	69	99	35.707	3.06	3.1	93	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	47.646	13.58	13.6	91	
48	48 112-tri-Cl-Et	11.04	11.03	0.001	97	83	21.908	2.62	2.6	95	
58	58 1,2-di-br-ethane	11.84	11.83	0.002	107	109	19.207	2.19	2.2	88	
51	51 di-Br-Cl-methane	11.58	11.57	0.001	129	127	27.173	2.20	2.2	96	
46	46 t-13-di-cl-propen	10.87	10.86	0.000	75	110	30.276	1.95	2.0	99	
105	105 1-Chlorohexane	12.65	12.64	0.002	55	93	43.864	2.59	2.6	88	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	13.676	2.73	2.7	96	
49	49 1,3-di-cl-propane	11.30	11.29	0.000	76	78	30.516	2.04	2.0	98	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	40.927	2.03	2.0	96	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	71.440	2.54	2.5	90	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	28.400	2.11	2.1	100	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	140.640	1.61	1.6	97	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	213.036	4.35	4.4	100	
99	99 1-4-di-Cl-butane	13.45	13.46	0.000	55	41	32.572	2.72	2.7	94	?
52	52 bromoform	13.20	13.23	-0.002	173	175	13.982	2.28	2.3	97	
66	66 styrene	13.43	13.43	0.000	104	78	75.317	2.17	2.2	97	?
67	67 o-xylene	13.49	13.50	0.000	91	106	110.603	2.29	2.3	94	?
68	68 1122-Tetra-Cl-Et	13.49	13.50	0.000	83	85	21.540	3.55	3.6	99	?
110	110 t-1,4-dichloro-2	13.66	13.68	-0.001	89	53	7.032	7.71	7.7	31	#?
106	106 Cl-benzyl	15.11	15.13	-0.001	91	126	24.517	2.48	2.5	96	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.64	13.64	0.000	110	97	4.401	1.83	1.8	93	?
71	71 isopropylbenzene	13.86	13.85	0.000	105	120	135.584	2.09	2.1	99	
72	72 bromobenzene	14.10	14.10	0.000	156	158	27.613	1.94	1.9	96	
73	73 n-propylbenzene	14.28	14.28	0.000	120	78	36.443	1.99	2.0	94	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	23.738	2.05	2.0	88	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	32.882	2.54	2.5	95	m
76	76 135-tri-Me-Bz	14.56	14.56	0.000	105	120	107.323	2.05	2.1	100	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	113.211	2.10	2.1	96	
78	78 124-tri-Me-Bz	14.95	14.94	0.000	105	120	96.787	2.18	2.2	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

1/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4185

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	45.648	1.67	1.7	96	?
82	82	14-di-Cl-Bz 146	15.19	15.18	0.000	146	148	69.544	2.26	2.3	95	?
81	81	sec-butylbenzene	15.04	15.05	0.000	105	134	163.551	2.35	2.4	95	
77	77	4-iso-Pr-toluene	15.22	15.22	0.000	119	134	119.820	2.11	2.1	99	?
84	84	12-di-Cl-benzene	15.53	15.53	0.000	146	148	45.355	2.07	2.1	100	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	117.913	2.33	2.3	95	
86	86	12-diBr-3-Cl-Pra	15.98	16.00	-0.001	157	155	2.498	1.56	1.6	29	#
87	87	124-tri-Cl-Bz	17.26	17.26	0.000	180	182	29.532	1.89	1.9	93	
88	88	naphthalene	17.50	17.50	0.000	128	129	21.798	2.70	2.7	82	#
90	90	123-tri-Cl-Bz	17.70	17.69	0.000	180	182	22.060	2.11	2.1	99	
89	89	hx-Cl-butadiene	17.54	17.53	0.000	225	260	24.644	2.11	2.1	84	#

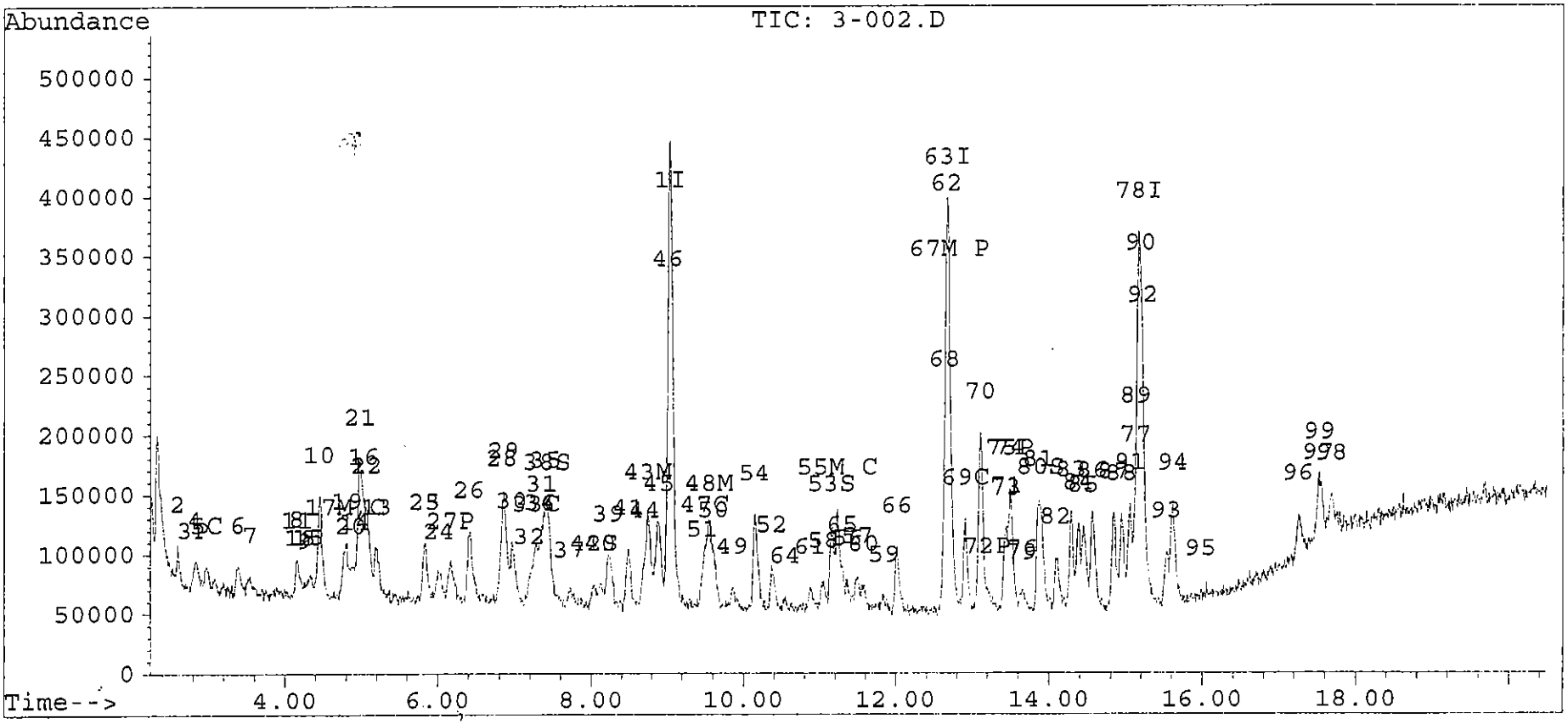
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-002.D
Acq On : 10 Jan 03 3:26 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:30 2003

Vial: 2
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4187

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.03	9.04	0.000	96	70	755.237	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	225.971	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	188.831	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	265.788	8.80	8.8	43.99%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	124.715	7.71	7.7	38.53%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	377.922	9.13	9.1	45.65%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	165.570	8.67	8.7	43.37%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.61	2.60	0.000	85	87	235.359	10.11	10.1	99	
4	4 Chloromethane	2.79	2.79	0.000	50	52	163.038	8.87	8.9	98	
9	9 F114 85 135	2.83	2.84	-0.001	85	135	252.154	10.44	10.4	98	
5	5 vinyl chloride	2.98	2.97	0.000	62	64	183.259	10.52	10.5	99	
6	6 bromomethane	3.38	3.38	0.000	94	96	181.174	10.70	10.7	98	m
7	7 Chloroethane	3.53	3.54	-0.001	64	66	133.510	10.35	10.3	99	
8	8 tri-Cl-F-methane	4.17	4.16	0.000	101	103	326.202	11.26	11.3	99	?
111	111 isopropyl alcoho	4.28	4.28	0.000	45	43	34.708	113.56	113.6	1	#
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	509.174	47.30	47.3	99	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	75.489	87.90	87.9	95	?
119	119 methyl acetate	5.06	5.07	-0.001	43	74	82.815	16.77	16.8	90	?
104	104 Carbon disulfide	5.19	5.19	0.000	76	78	626.926	9.87	9.9	100	
103	103 Acrylonitrilex10	4.90	4.91	0.000	53	52	178.667	98.65	98.7	100	
95	95 Acetone x10	4.33	4.33	0.000	43	58	128.289	88.19	88.2	92	
108	108 F-113	5.04	5.05	-0.001	151	101	259.145	12.84	12.8	99	?
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	309.126	10.41	10.4	99	
101	101 Acetonnitrilex10	4.23	4.22	0.002	41	40	53.569	138.16	138.2	59	#
109	109 Iodomethane	4.82	4.82	0.000	142	127	290.992	12.33	12.3	99	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	60.720	89.96	90.0	91	#

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

1/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4188

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	375.753	10.99	11.0	100	
	112 Allyl chloride	5.09	5.08	0.000	41	76	318.868	11.96	12.0	95	?
200	200 Nitro methane x1	5.82	5.83	-0.001	61	46	334.791	101.61	101.6	95	#?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	300.489	8.08	8.1	98	
19	19 t-12-di-Cl-ethene	5.83	5.82	0.000	96	61	225.516	9.93	9.9	97	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	1080.092	52.17	52.2	99	
21	21 11-dichloroethane	6.17	6.16	0.000	63	83	403.704	10.17	10.2	99	
91	91 2-butanone MEKx10	6.83	6.84	-0.001	43	72	680.153	115.05	115.1	99	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	993.426	11.60	11.6	99	?
22	22 c-12-di-Cl-ethene	6.98	6.97	0.000	96	61	219.592	9.88	9.9	99	
23	23 22-Dichloropropan	7.36	7.35	0.000	77	97	330.092	9.65	9.6	99	
24	24 Br-Cl-methane	7.20	7.19	0.000	128	130	78.733	11.05	11.0	100	
25	25 chloroform	7.27	7.27	0.000	83	85	372.529	11.61	11.6	100	
201	201 Ethyl acetate x2	7.32	7.31	0.000	43	61	206.670	19.88	19.9	91	?
116	116 ETBE	7.40	7.40	0.000	59	87	594.002	9.75	9.7	98	
117	117 Iso-butyl alcoho	7.32	7.31	0.000	43	42	221.032	116.16	116.2	62	#?
26	26 tetrahydrofuranx5	7.72	7.71	0.000	72	42	36.840	47.60	47.6	80	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	315.664	9.56	9.6	98	
30	30 12-dichloroethane	8.14	8.13	0.000	62	64	154.021	11.67	11.7	98	
35	35 11-Di-Cl-propene	8.49	8.48	0.000	75	110	286.388	9.92	9.9	100	
36	36 benzene	8.75	8.76	-0.001	78	52	661.631	10.08	10.1	98	
37	37 CCl4	8.69	8.69	0.000	117	119	267.339	10.57	10.6	100	
97	97 thiophene	8.90	8.89	0.000	84	58	323.713	9.89	9.9	98	
118	118 TAME	9.00	9.01	0.000	73	43	406.861	9.72	9.7	98	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	190.695	9.93	9.9	99	
40	40 trichloroethene	9.55	9.55	0.000	130	132	207.771	10.22	10.2	98	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	65.318	9.06	9.1	99	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	256.691	11.91	11.9	100	
41	41 dibromomethane	9.45	9.45	0.000	174	172	96.884	10.46	10.5	100	
45	45 c-13-di-Cl-propen	10.38	10.37	0.000	75	110	229.072	9.69	9.7	99	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	410.701	101.25	101.3	99	
56	56 toluene	11.23	11.23	0.000	91	92	601.438	9.74	9.7	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4189

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.36	11.37	0.000	69	99	132.945	11.60	11.6	99	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	218.029	63.26	63.3	93	
48	48 112-tri-Cl-Et	11.04	11.03	0.001	97	83	90.597	11.03	11.0	98	
58	58 1,2-di-br-ethane	11.84	11.83	0.001	107	109	94.012	10.89	10.9	98	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	125.300	10.31	10.3	99	
46	46 t-13-di-cl-propen	10.88	10.86	0.001	75	110	155.530	10.21	10.2	96	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	205.359	12.34	12.3	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	74.160	15.03	15.0	95	
49	49 1,3-di-cl-propane	11.30	11.29	0.001	76	78	157.929	10.71	10.7	96	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	216.892	10.91	10.9	98	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	352.480	12.72	12.7	100	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	138.607	10.48	10.5	98	?
64	64 ethylbenzene	12.90	12.91	0.000	91	106	637.777	7.42	7.4	99	
65	65 m/p-Xylenes x2	13.10	13.11	0.000	91	106	1000.145	20.75	20.8	98	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	146.606	12.42	12.4	99	?
52	52 bromoform	13.22	13.23	0.000	173	175	71.698	11.86	11.9	98	
66	66 styrene	13.43	13.43	0.000	104	78	352.645	10.32	10.3	99	?
67	67 o-xylene	13.50	13.50	0.000	91	106	485.194	10.18	10.2	99	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	91.096	15.26	15.3	95	?
110	110 t-1,4-dichloro-2	13.68	13.68	0.000	89	53	17.679	19.68	19.7	81	#
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	121.704	12.48	12.5	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.65	13.64	0.000	110	97	21.971	9.56	9.6	95	
71	71 isopropylbenzene	13.85	13.85	0.000	105	120	641.793	10.34	10.3	100	
72	72 bromobenzene	14.10	14.10	0.000	156	158	143.515	10.54	10.5	95	
73	73 n-propylbenzene	14.28	14.28	0.000	120	78	173.970	9.90	9.9	99	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	106.793	9.61	9.6	93	
75	75 4-Cl-Tl 126 1	14.44	14.45	0.000	126	128	163.598	13.21	13.2	100	m
76	76 135-tri-Me-Bz	14.56	14.56	0.000	105	120	509.842	10.18	10.2	98	
79	79 tert-butylbenzene	14.83	14.84	0.000	119	91	533.176	10.35	10.3	99	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	424.953	9.98	10.0	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

4/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4190

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	238.597	9.11	9.1	94	?
82	82	14-di-Cl-Bz 146	15.18	15.18	0.000	146	148	305.231	10.34	10.3	92	
81	81	sec-butylbenzene	15.05	15.05	0.000	105	134	797.663	11.98	12.0	97	
77	77	4-iso-Pr-toluene	15.22	15.22	0.000	119	134	572.630	10.55	10.6	100	
84	84	12-di-Cl-benzene	15.53	15.53	0.000	146	148	219.614	10.49	10.5	99	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	579.573	11.97	12.0	100	
86	86	12-diBr-3-Cl-Pra	15.99	16.00	0.000	157	155	14.611	9.52	9.5	93	
87	87	124-tri-Cl-Bz	17.26	17.26	0.000	180	182	158.333	10.59	10.6	97	
88	88	naphthalene	17.50	17.50	0.000	128	129	116.373	15.07	15.1	99	
90	90	123-tri-Cl-Bz	17.70	17.69	0.000	180	182	121.207	12.12	12.1	97	
89	89	hx-Cl-butadiene	17.54	17.53	0.000	225	260	130.257	11.63	11.6	98	

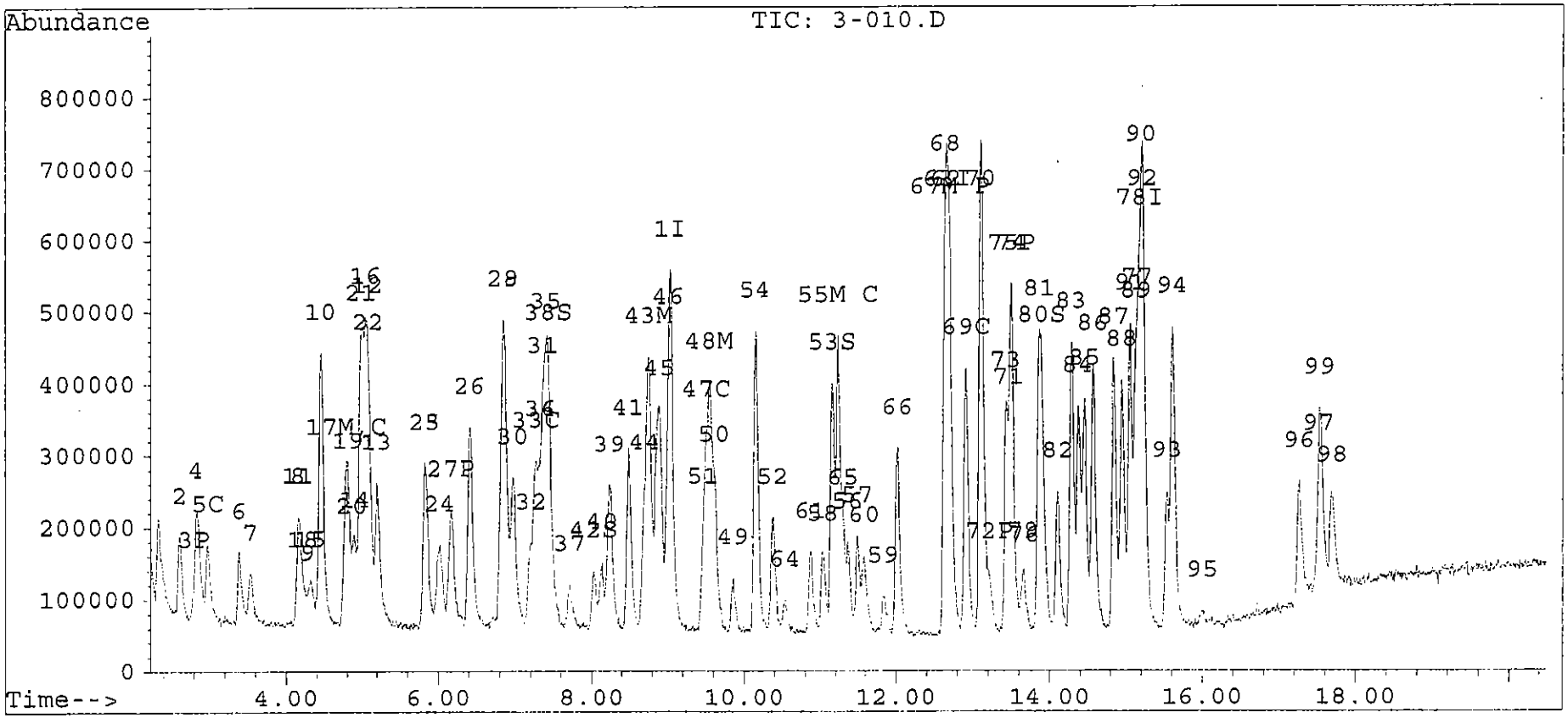
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-010.D
Acq On : 10 Jan 03 3:55 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:33 2003

Vial: 3
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4192

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	739.905	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.66	12.66	0.000	82	119	224.981	10.00		0.00	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	184.633	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	517.816	17.49	17.5	87.47%	
29	29 1,2-di-Cl-ethane-	8.03	8.03	0.000	65	102	242.470	15.29	15.3	76.47%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	725.871	17.90	17.9	89.50%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	327.081	17.52	17.5	87.62%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	427.426	18.74	18.7	100	
4	4 Chloromethane	2.79	2.79	0.000	50	52	374.044	20.77	20.8	100	
9	9 F114 85 135	2.84	2.84	0.000	85	135	462.947	19.56	19.6	100	
5	5 vinyl chloride	2.97	2.97	0.000	62	64	344.227	20.16	20.2	100	
6	6 bromomethane	3.38	3.38	0.000	94	96	281.305	16.95	17.0	100	
7	7 Chloroethane	3.54	3.54	0.000	64	66	250.119	19.79	19.8	100	
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	612.174	21.57	21.6	100	?
111	111 isopropyl alcoho	4.28	4.28	0.000	45	43	55.395	185.00	185.0	98	
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	980.952	93.02	93.0	100	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	215.710	256.38	256.4	100	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	187.169	38.69	38.7	100	?
104	104 Carbon disulfide	5.19	5.19	0.000	76	78	1173.322	18.86	18.9	99	
103	103 Acrylonitrilex10	4.91	4.91	0.000	53	52	348.877	196.63	196.6	100	
95	95 Acetone x10	4.33	4.33	0.000	43	58	268.909	188.68	188.7	100	
108	108 F-113	5.05	5.05	0.000	151	101	480.691	24.32	24.3	100	?
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	575.822	19.79	19.8	99	
101	101 Acetonnitrilex10	4.22	4.22	0.000	41	40	97.490	256.65	256.7	100	
109	109 Iodomethane	4.82	4.82	0.000	142	127	473.953	20.50	20.5	100	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	133.851	202.41	202.4	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4193

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	602.942	18.01	18.0	100	
	112 Allyl chloride	5.08	5.08	0.000	41	76	616.004	23.57	23.6	100	?
200	200 Nitro methane x1	5.83	5.83	0.000	61	46	633.827	196.35	196.3	100	?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	618.307	16.97	17.0	99	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	438.020	19.68	19.7	100	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	1161.950	57.29	57.3	100	
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	780.313	20.06	20.1	100	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	1296.553	223.87	223.9	100	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	1953.682	23.28	23.3	100	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	430.734	19.78	19.8	100	
23	23 22-Dichloropropan	7.35	7.35	0.000	77	97	619.878	18.49	18.5	100	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	153.832	22.03	22.0	100	
25	25 chloroform	7.27	7.27	0.000	83	85	722.194	22.98	23.0	100	
201	201 Ethyl acetate x2	7.31	7.31	0.000	43	61	296.783	29.13	29.1	99	?
116	116 ETBE	7.40	7.40	0.000	59	87	1154.600	19.34	19.3	100	
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	297.076	159.36	159.4	100	?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	75.144	99.10	99.1	100	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	604.949	18.69	18.7	100	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	298.086	23.05	23.1	100	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	549.558	19.43	19.4	100	
36	36 benzene	8.76	8.76	0.000	78	52	1277.049	19.85	19.9	100	
37	37 CCl4	8.69	8.69	0.000	117	119	493.900	19.94	19.9	100	
97	97 thiophene	8.89	8.89	0.000	84	58	623.624	19.45	19.5	98	
118	118 TAME	9.01	9.01	0.000	73	43	792.558	19.33	19.3	99	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	376.101	19.98	20.0	100	
40	40 trichloroethene	9.55	9.55	0.000	130	132	403.682	20.26	20.3	100	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	123.371	17.47	17.5	100	
42	42 Br-di-Cl-methane	9.62	9.62	0.000	83	85	484.084	22.93	22.9	99	
41	41 dibromomethane	9.45	9.45	0.000	174	172	194.764	21.46	21.5	100	
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	445.153	19.23	19.2	100	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	820.365	206.44	206.4	100	
56	56 toluene	11.23	11.23	0.000	91	92	1149.709	19.01	19.0	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4194

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.37	11.37	0.000	69	99	165.590	14.75	14.8	100	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	368.204	109.05	109.1	99	
48	48 112-tri-Cl-Et	11.03	11.03	0.000	97	83	172.036	21.38	21.4	100	
58	58 1,2-di-br-ethane	11.83	11.83	0.000	107	109	191.133	22.61	22.6	100	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	243.477	20.44	20.4	100	
46	46 t-13-di-cl-propen	10.86	10.86	0.000	75	110	301.394	20.19	20.2	100	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	374.248	22.95	22.9	100	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.52	10.52	0.000	43	58	143.757	29.26	29.3	99	
49	49 1,3-di-cl-propane	11.29	11.29	0.000	76	78	310.529	21.15	21.1	100	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	417.298	21.08	21.1	100	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	668.143	24.21	24.2	100	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	283.855	21.56	21.6	100	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	1239.073	14.48	14.5	98	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	1911.139	39.83	39.8	100	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	276.558	23.53	23.5	99	?
52	52 bromoform	13.23	13.23	0.000	173	175	143.599	23.85	23.8	100	
66	66 styrene	13.43	13.43	0.000	104	78	677.932	19.93	19.9	100	?
67	67 o-xylene	13.50	13.50	0.000	91	106	915.641	19.30	19.3	100	?
68	68 1122-Tetra-Cl-Et	13.50	13.50	0.000	83	85	173.152	29.14	29.1	100	?
110	110 t-1,4-dichloro-2	13.68	13.68	0.000	89	53	27.009	30.20	30.2	94	
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	238.713	24.59	24.6	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.64	13.64	0.000	110	97	45.443	20.21	20.2	100	
71	71 isopropylbenzene	13.85	13.85	0.000	105	120	1217.921	20.07	20.1	100	
72	72 bromobenzene	14.10	14.10	0.000	156	158	285.095	21.41	21.4	100	
73	73 n-propylbenzene	14.28	14.28	0.000	120	78	335.858	19.55	19.5	100	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	201.349	18.53	18.5	100	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	289.530	23.91	23.9	93	m
76	76 135-tri-Me-Bz	14.56	14.56	0.000	105	120	969.387	19.79	19.8	100	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	1020.985	20.26	20.3	99	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	847.796	20.36	20.4	100	

1/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4195

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	400.250	15.63	15.6	84	?
82	82	14-di-Cl-Bz 146	15.18	15.18	0.000	146	148	644.124	22.31	22.3	100	
81	81	sec-butylbenzene	15.05	15.05	0.000	105	134	1465.228	22.51	22.5	97	
77	77	4-iso-Pr-toluene	15.22	15.22	0.000	119	134	1085.210	20.45	20.5	100	
84	84	12-di-Cl-benzene	15.53	15.53	0.000	146	148	410.082	20.03	20.0	100	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	1096.665	23.17	23.2	100	
86	86	12-diBr-3-Cl-Pra	16.00	16.00	0.000	157	155	31.395	20.93	20.9	100	
87	87	124-tri-Cl-Bz	17.26	17.26	0.000	180	182	322.231	22.03	22.0	100	
88	88	naphthalene	17.50	17.50	0.000	128	129	245.906	32.56	32.6	100	
90	90	123-tri-Cl-Bz	17.69	17.69	0.000	180	182	239.739	24.52	24.5	100	
89	89	hx-Cl-butadiene	17.53	17.53	0.000	225	260	244.690	22.34	22.3	100	

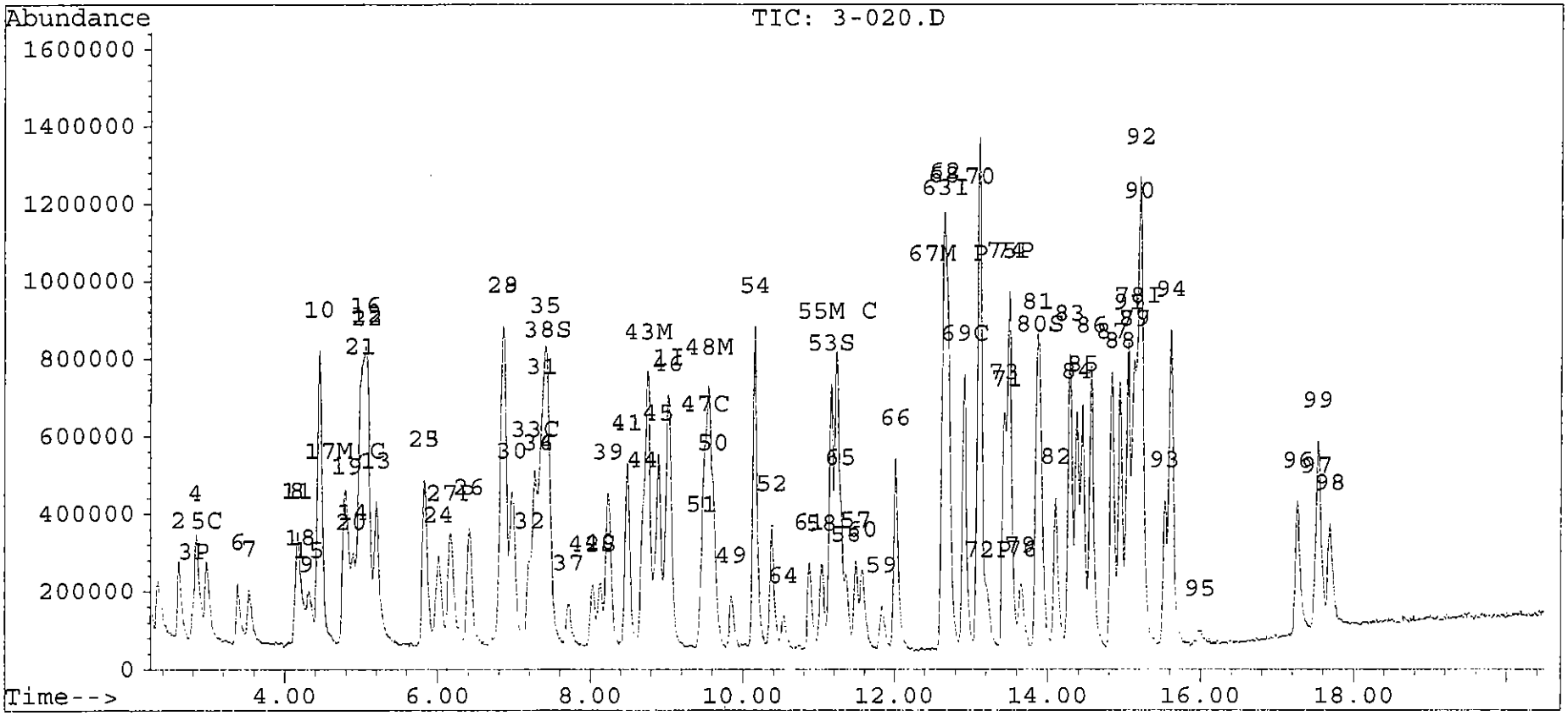
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-020.D
Acq On : 10 Jan 03 4:24 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:35 2003

Vial: 4
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4197

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	721.219	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.001	82	119	233.528	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.18	15.16	0.001	152	150	176.207	10.00		0.02	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	1038.870	36.01	36.0	180.04%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	475.685	30.78	30.8	153.91%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	1455.135	36.81	36.8	184.07%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	627.145	35.21	35.2	176.03%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	820.884	36.93	36.9	99	
4	4 Chloromethane	2.79	2.79	0.000	50	52	803.175	45.76	45.8	100	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	909.235	39.41	39.4	94	
5	5 vinyl chloride	2.97	2.97	0.000	62	64	682.967	41.04	41.0	99	
6	6 bromomethane	3.37	3.38	0.000	94	96	570.773	35.29	35.3	96	
7	7 Chloroethane	3.52	3.54	-0.002	64	66	505.034	40.99	41.0	99	
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	1192.828	43.11	43.1	100	?
111	111 isopropyl alcoho	4.26	4.28	-0.002	45	43	131.600	450.89	450.9	1	#
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	1975.186	192.15	192.1	99	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	340.415	415.08	415.1	92	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	271.933	57.66	57.7	96	?
104	104 Carbon disulfide	5.19	5.19	0.000	76	78	2357.195	38.87	38.9	100	
103	103 Acrylonitrilex10	4.90	4.91	0.000	53	52	701.313	405.50	405.5	98	
95	95 Acetone x10	4.32	4.33	0.000	43	58	465.240	334.90	334.9	98	
108	108 F-113	5.03	5.05	-0.002	151	101	925.581	48.03	48.0	100	
13	13 11-dichloroethene	4.77	4.78	0.000	61	96	1147.783	40.46	40.5	99	
101	101 Acetonnitrilex10	4.22	4.22	0.000	41	40	189.257	511.14	511.1	80	#
109	109 Iodomethane	4.81	4.82	0.000	142	127	954.242	42.35	42.3	99	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	240.444	373.03	373.0	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4198

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	1052.979	32.26	32.3	100	
	112 Allyl chloride	5.08	5.08	0.000	41	76	1168.854	45.89	45.9	99	?
200	200 Nitro methane x1	5.82	5.83	0.000	61	46	1264.975	402.01	402.0	100	?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	1211.982	34.13	34.1	98	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	867.973	40.01	40.0	99	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	4543.111	229.80	229.8	99	
21	21 11-dichloroethane	6.15	6.16	0.000	63	83	1539.657	40.61	40.6	98	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	2708.302	479.74	479.7	99	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	3898.884	47.66	47.7	100	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	857.123	40.38	40.4	99	
23	23 22-Dichloropropan	7.36	7.35	0.001	77	97	1207.116	36.94	36.9	99	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	312.235	45.88	45.9	99	
25	25 chloroform	7.27	7.27	0.000	83	85	1453.363	47.45	47.4	99	
201	201 Ethyl acetate x2	7.31	7.31	0.000	43	61	873.148	87.93	87.9	83	#?
116	116 ETBE	7.40	7.40	0.000	59	87	2264.664	38.92	38.9	99	
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	880.890	484.77	484.8	63	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	146.600	198.35	198.3	94	
34	34 111-tri-Cl-ethane	8.24	8.23	0.000	97	99	1193.974	37.85	37.8	97	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	600.265	47.63	47.6	99	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	1091.787	39.61	39.6	99	
36	36 benzene	8.75	8.76	0.000	78	52	2547.937	40.64	40.6	100	
37	37 CCl4	8.69	8.69	0.000	117	119	981.263	40.64	40.6	100	
97	97 thiophene	8.90	8.89	0.000	84	58	1239.916	39.68	39.7	99	
118	118 TAME	9.01	9.01	0.000	73	43	1521.011	38.05	38.1	100	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	741.594	40.42	40.4	100	
40	40 trichloroethene	9.55	9.55	0.000	130	132	804.090	41.41	41.4	100	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	250.724	36.43	36.4	97	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	955.698	46.44	46.4	98	
41	41 dibromomethane	9.45	9.45	0.000	174	172	383.350	43.33	43.3	99	
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	890.451	39.45	39.5	99	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	1655.105	427.28	427.3	98	
56	56 toluene	11.23	11.23	0.000	91	92	2291.459	38.88	38.9	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4199

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.37	11.37	0.000	69	99	512.644	46.85	46.8	99	
93	93 2-Hexanone x5	11.48	11.49	-0.001	43	58	831.419	252.62	252.6	99	
48	48 112-tri-Cl-Et	11.04	11.03	0.000	97	83	347.876	44.36	44.4	94	
58	58 1,2-di-br-ethane	11.84	11.83	0.001	107	109	371.448	45.07	45.1	100	
51	51 di-Br-Cl-methane	11.58	11.57	0.000	129	127	489.254	42.14	42.1	100	
46	46 t-13-di-cl-propen	10.87	10.86	0.000	75	110	594.704	40.88	40.9	96	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	719.249	45.24	45.2	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	303.184	59.45	59.4	96	
49	49 1,3-di-cl-propane	11.30	11.29	0.000	76	78	604.220	39.64	39.6	100	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	825.820	40.18	40.2	99	
60	60 chlorobenzene	12.71	12.70	0.000	112	77	1330.525	46.45	46.4	99	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	562.377	41.15	41.1	100	?
64	64 ethylbenzene	12.90	12.91	0.000	91	106	2446.417	27.53	27.5	98	
65	65 m/p-Xylenes x2	13.10	13.11	0.000	91	106	3754.507	75.38	75.4	99	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	532.573	43.66	43.7	96	
52	52 bromoform	13.22	13.23	0.000	173	175	281.887	45.10	45.1	96	
66	66 styrene	13.43	13.43	0.000	104	78	1346.269	38.14	38.1	98	
67	67 o-xylene	13.50	13.50	0.000	91	106	1764.503	35.83	35.8	100	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	326.262	52.90	52.9	100	?
110	110 t-1,4-dichloro-2	13.67	13.68	0.000	89	53	54.200	58.39	58.4	95	?
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	457.227	45.37	45.4	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.65	13.64	0.000	110	97	89.331	41.64	41.6	94	?
71	71 isopropylbenzene	13.86	13.85	0.000	105	120	2372.165	40.96	41.0	99	
72	72 bromobenzene	14.11	14.10	0.000	156	158	554.412	43.62	43.6	98	
73	73 n-propylbenzene	14.29	14.28	0.000	120	78	643.879	39.27	39.3	98	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	427.470	41.22	41.2	95	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	594.245	51.42	51.4	98	m
76	76 135-tri-Me-Bz	14.57	14.56	0.000	105	120	1885.346	40.33	40.3	99	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	1994.231	41.47	41.5	88	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	1639.260	41.24	41.2	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

4/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4200

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.13	15.12	0.000	146	148	844.281	34.55	34.6	94	?
82	82	14-di-Cl-Bz 146	15.19	15.18	0.000	146	148	1193.857	43.33	43.3	92	
81	81	sec-butylbenzene	15.05	15.05	0.000	105	134	2859.247	46.03	46.0	96	
77	77	4-iso-Pr-toluene	15.22	15.22	0.000	119	134	2064.029	40.76	40.8	99	
84	84	12-di-Cl-benzene	15.54	15.53	0.000	146	148	812.246	41.57	41.6	97	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	2099.124	46.47	46.5	99	
86	86	12-diBr-3-Cl-Pra	15.99	16.00	0.000	157	155	62.914	43.94	43.9	93	
87	87	124-tri-Cl-Bz	17.27	17.26	0.000	180	182	604.462	43.31	43.3	100	
88	88	naphthalene	17.50	17.50	0.000	128	129	459.400	63.75	63.7	100	
90	90	123-tri-Cl-Bz	17.69	17.69	0.000	180	182	448.256	48.03	48.0	98	
89	89	hx-Cl-butadiene	17.55	17.53	0.001	225	260	466.707	44.65	44.6	99	

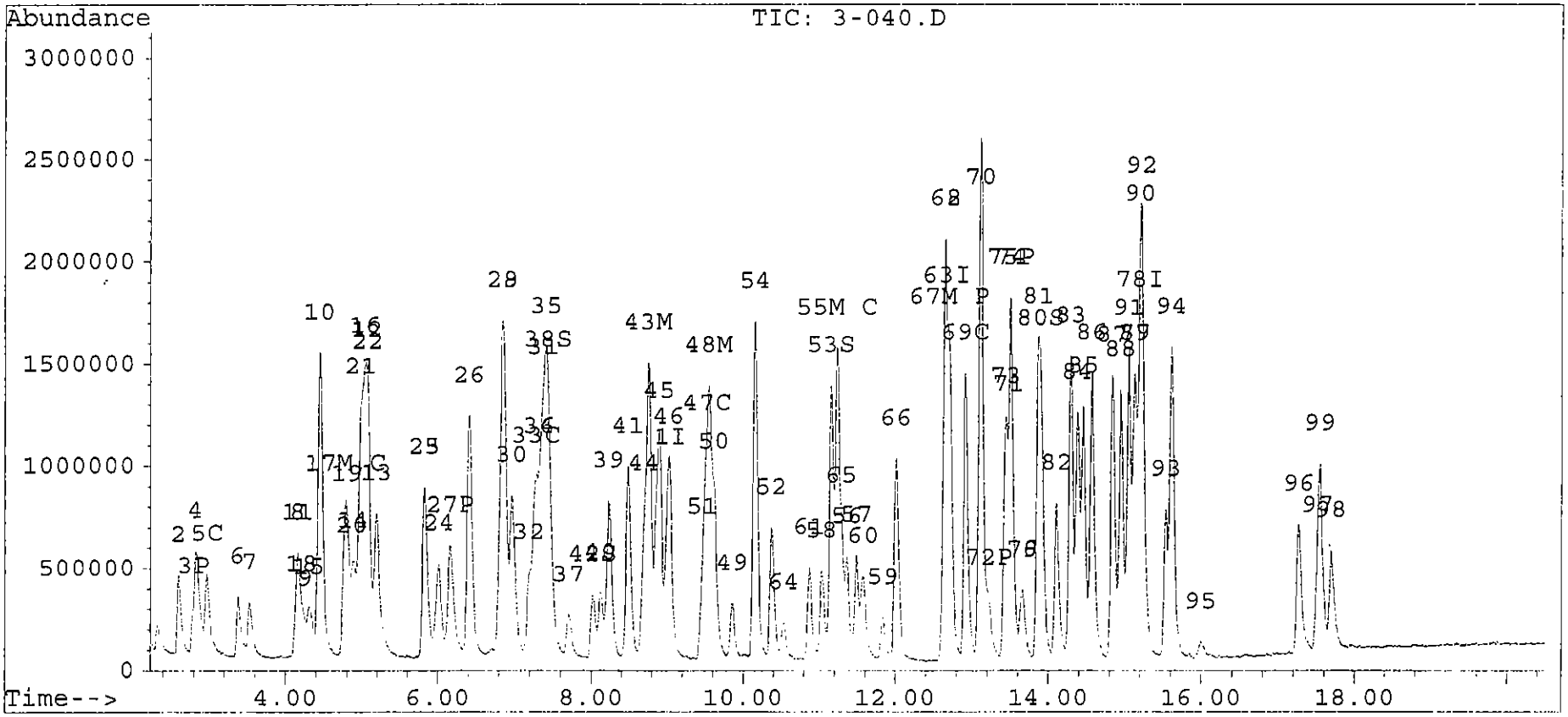
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-040.D
Acq On : 10 Jan 03 4:54 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:38 2003

Vial: 5
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4202

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	703.721	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	241.678	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.18	15.16	0.002	152	150	164.785	10.00		0.02	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	1963.588	69.75	69.8	348.75%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	894.560	59.33	59.3	296.64%	
55	55 toluene-d8(S2)	11.16	11.15	0.000	100	99	2774.904	71.95	71.9	359.74%	
70	70 4-Br-1-F-Bz (S3)	13.91	13.90	0.000	174	95	1159.540	69.60	69.6	348.02%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	1551.879	71.55	71.6	99	
4	4 Chloromethane	2.78	2.79	-0.002	50	52	1514.667	88.45	88.5	97	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	1714.061	76.15	76.2	97	
5	5 vinyl chloride	2.96	2.97	0.000	62	64	1258.237	77.49	77.5	99	
6	6 bromomethane	3.38	3.38	0.000	94	96	1116.110	70.72	70.7	96	
7	7 Chloroethane	3.52	3.54	-0.002	64	66	952.606	79.23	79.2	100	
8	8 tri-Cl-F-methane	4.15	4.16	0.000	101	103	2238.212	82.90	82.9	100	?
111	111 isopropyl alcoho	4.27	4.28	0.000	45	43	244.204	857.50	857.5	59	#
100	100 ethyl ether x5	4.44	4.45	-0.001	59	74	3742.221	373.10	373.1	100	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	601.157	751.24	751.2	90	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	696.519	151.37	151.4	95	?
104	104 Carbon disulfide	5.18	5.19	0.000	76	78	4372.134	73.88	73.9	100	
103	103 Acrylonitrilex10	4.90	4.91	0.000	53	52	1341.637	795.03	795.0	98	?
95	95 Acetone x10	4.32	4.33	0.000	43	58	912.905	673.49	673.5	97	
108	108 F-113	5.03	5.05	-0.002	151	101	1749.444	93.05	93.0	100	
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	2146.767	77.56	77.6	99	
101	101 Acetonnitrilex10	4.21	4.22	0.000	41	40	353.648	978.88	978.9	83	#
109	109 Iodomethane	4.81	4.82	-0.001	142	127	1666.625	75.80	75.8	99	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	485.913	772.60	772.6	85	#?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4203

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	1493.871	46.91	46.9	100	
	112 Allyl chloride	5.08	5.08	0.000	41	76	2056.270	82.74	82.7	98	?
200	200 Nitro methane x1	5.82	5.83	0.000	61	46	2385.881	777.09	777.1	99	?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	2415.631	69.73	69.7	98	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	1629.626	76.99	77.0	98	?
98	98 Vinyl acetate x5	6.40	6.41	0.000	43	86	6984.572	362.07	362.1	100	
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	2853.804	77.14	77.1	98	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	5159.574	936.67	936.7	98	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	7414.434	92.88	92.9	100	?
22	22 c-12-di-Cl-ethene	6.98	6.97	0.000	96	61	1613.152	77.88	77.9	99	
23	23 22-Dichloropropan	7.36	7.35	0.000	77	97	2269.373	71.18	71.2	100	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	593.248	89.34	89.3	100	
25	25 chloroform	7.27	7.27	0.000	83	85	2739.754	91.67	91.7	100	
201	201 Ethyl acetate x2	7.32	7.31	0.000	43	61	1526.995	157.60	157.6	87	?
116	116 ETBE	7.41	7.40	0.000	59	87	4329.036	76.24	76.2	99	
117	117 Iso-butyl alcoho	7.32	7.31	0.000	43	42	1546.333	872.13	872.1	70	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	287.877	399.18	399.2	97	
34	34 111-tri-Cl-ethane	8.24	8.23	0.000	97	99	2324.189	75.51	75.5	99	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	1155.412	93.96	94.0	99	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	2099.663	78.07	78.1	99	
36	36 benzene	8.75	8.76	-0.001	78	52	4710.056	76.99	77.0	100	
37	37 CCl4	8.69	8.69	0.000	117	119	1852.391	78.63	78.6	100	
97	97 thiophene	8.89	8.89	0.000	84	58	2337.761	76.68	76.7	98	
118	118 TAME	9.01	9.01	0.000	73	43	3045.504	78.09	78.1	100	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	1426.638	79.70	79.7	100	
40	40 trichloroethene	9.55	9.55	0.000	130	132	1515.012	79.96	80.0	99	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	519.513	77.36	77.4	98	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	1823.535	90.81	90.8	99	
41	41 dibromomethane	9.46	9.45	0.000	174	172	714.384	82.76	82.8	98	
45	45 c-13-di-Cl-propen	10.38	10.37	0.000	75	110	1727.952	78.47	78.5	100	
92	92 2-ClEt-Vi-ether10	10.16	10.15	0.000	63	43	3234.891	855.88	855.9	97	
56	56 toluene	11.23	11.23	0.000	91	92	4425.814	76.96	77.0	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4204

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.37	11.37	0.000	69	99	828.103	77.56	77.6	98	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	1601.350	498.66	498.7	98	
48	48 112-tri-Cl-Et	11.04	11.03	0.000	97	83	664.699	86.86	86.9	92	
58	58 1,2-di-br-ethane	11.83	11.83	0.000	107	109	723.238	89.94	89.9	100	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	967.601	85.41	85.4	99	
46	46 t-13-di-cl-propen	10.88	10.86	0.001	75	110	1109.294	78.14	78.1	96	
105	105 1-Chlorohexane	12.65	12.64	0.001	55	93	1336.615	86.16	86.2	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	587.112	111.24	111.2	97	
49	49 1,3-di-cl-propane	11.30	11.29	0.001	76	78	1155.285	73.25	73.2	99	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	1643.233	77.26	77.3	99	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	2470.738	83.34	83.3	99	
61	61 1112-tetra-Cl-Et	12.64	12.63	0.000	131	133	1108.773	78.39	78.4	99	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	4804.958	52.25	52.3	97	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	7222.435	140.12	140.1	99	
99	99 1-4-di-Cl-butane	13.47	13.46	0.001	55	41	1001.628	79.35	79.3	98	
52	52 bromoform	13.24	13.23	0.000	173	175	544.898	84.24	84.2	95	
66	66 styrene	13.44	13.43	0.000	104	78	2563.056	70.16	70.2	100	
67	67 o-xylene	13.51	13.50	0.001	91	106	3287.299	64.50	64.5	100	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	625.224	97.95	98.0	98	?
110	110 t-1,4-dichloro-2	13.68	13.68	0.000	89	53	103.110	107.34	107.3	94	?
106	106 Cl-benzyl	15.14	15.13	0.001	91	126	866.531	83.08	83.1	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.65	13.64	0.000	110	97	172.722	86.09	86.1	95	?
71	71 isopropylbenzene	13.87	13.85	0.001	105	120	4528.346	83.61	83.6	99	
72	72 bromobenzene	14.11	14.10	0.000	156	158	1030.644	86.70	86.7	98	
73	73 n-propylbenzene	14.30	14.28	0.001	120	78	1212.584	79.08	79.1	97	
74	74 2-Cl-Tl 126 1	14.39	14.38	0.000	126	128	745.993	76.92	76.9	99	
75	75 4-Cl-Tl 126 1	14.46	14.45	0.000	126	128	1075.809	99.53	99.5	92	m
76	76 135-tri-Me-Bz	14.58	14.56	0.001	105	120	3580.223	81.88	81.9	99	
79	79 tert-butylbenzene	14.85	14.84	0.000	119	91	3739.615	83.15	83.2	99	
78	78 124-tri-Me-Bz	14.96	14.94	0.001	105	120	3054.447	82.17	82.2	99	

1/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4205

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.14	15.12	0.002	146	148	1658.291	72.57	72.6	95	?
82	82	14-di-Cl-Bz 146	15.20	15.18	0.001	146	148	2207.723	85.68	85.7	93	
81	81	sec-butylbenzene	15.06	15.05	0.000	105	134	5499.576	94.67	94.7	96	
77	77	4-iso-Pr-toluene	15.23	15.22	0.001	119	134	3804.782	80.34	80.3	100	
84	84	12-di-Cl-benzene	15.54	15.53	0.000	146	148	1524.040	83.41	83.4	99	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	3991.637	94.49	94.5	99	
86	86	12-diBr-3-Cl-Pra	15.99	16.00	0.000	157	155	120.318	89.86	89.9	91	
87	87	124-tri-Cl-Bz	17.26	17.26	0.000	180	182	1187.497	90.98	91.0	100	
88	88	naphthalene	17.50	17.50	0.000	128	129	922.945	136.94	136.9	100	
90	90	123-tri-Cl-Bz	17.69	17.69	0.000	180	182	845.940	96.93	96.9	100	
89	89	hx-Cl-butadiene	17.54	17.53	0.000	225	260	859.594	87.93	87.9	98	

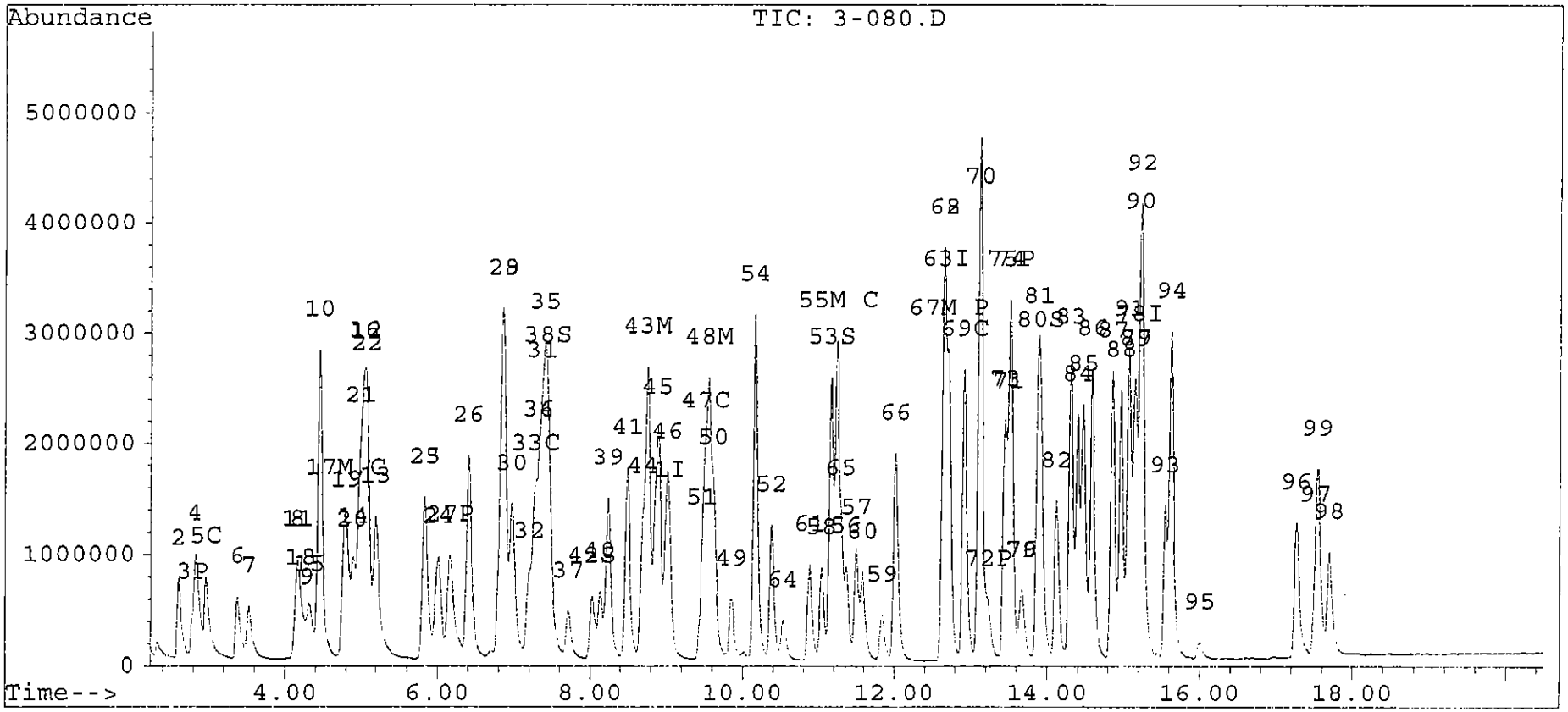
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-080.D
Acq On : 10 Jan 03 5:23 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:39 2003

Vial: 6
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

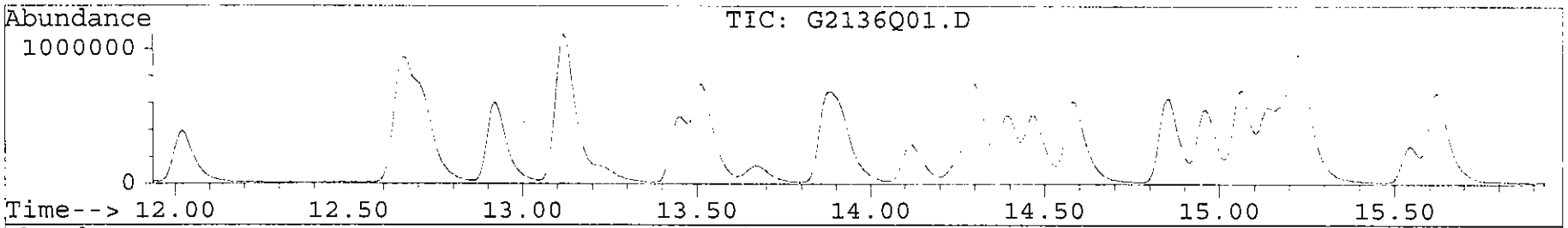


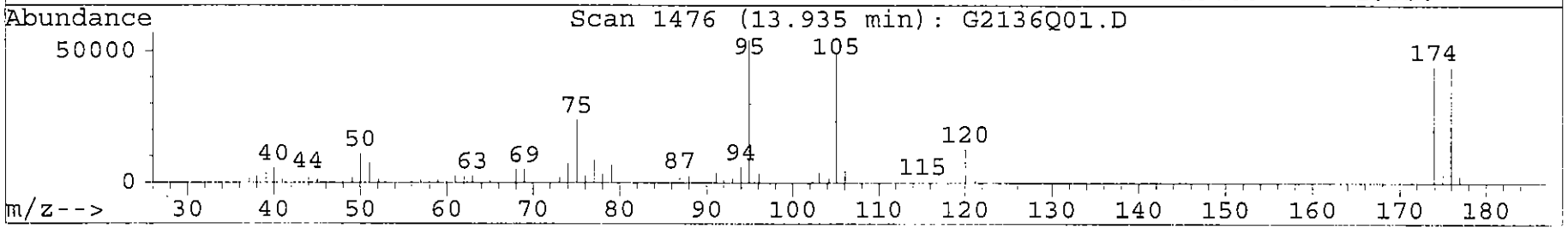
BFB

Data File : C:\HPCHEM\1\DATA\03G2136\G2136Q01.D
Acq On : 23 Apr 03 11:16 am
Sample : f=1
Misc :

Vial: 17
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2





Peak Apex is scan: 1476

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.4	11041	PASS
75	95	30	60	44.1	23880	PASS
95	95	100	100	100.0	54168	PASS
96	95	5	9	6.3	3436	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	81.8	44304	PASS
175	174	5	9	7.3	3246	PASS
176	174	95	101	99.7	44184	PASS
177	176	5	9	6.0	2672	PASS

FORM-5A

Applied P & Ch Laboratory

Volatile Organic Instrument Performance Check for Method 524.2

Bromofluorobenzene (BFB), Part II

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032809
Project ID:	JPL	BFB Inj. Date:	04/23/03	Batch No:	03G2136
		BFB Inj. Time:	11:16	Sequence No:	03G2136
Project No:	04-4428.10	Instrument ID:	G	GC Column:	DB-VEX
Data File Name:	G2136Q01	Heated Purge: (Y/N)	N	Column ID:	0.45 mm

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	03G2136-CCV-01	03G2136-CCV-01	G2136Q01	04/23/03	11:16
2	03G2136-LCS-01	03G2136-LCS-01	G2136L01	04/23/03	11:44
3	MW-4-2MS	03-2809-4MS	G2136M02	04/23/03	13:39
4	MW-4-2MSD	03-2809-4MSD	G2136N02	04/23/03	14:08
5	03G2136-MB-01	03G2136-MB-01	G2136K01	04/23/03	15:34
6	DUPE-1-2Q03	03-2809-1	2809-01	04/23/03	19:25
7	EB-2-4/21/03	03-2809-2	2809-02	04/23/03	19:54
8	MW-4-1	03-2809-3	2809-03	04/23/03	20:22
9	MW-4-2	03-2809-4	2809-04	04/23/03	20:50
10	MW-4-3	03-2809-5	2809-05	04/23/03	21:19
11	MW-4-4	03-2809-6	2809-06	04/23/03	21:48
12	MW-4-5	03-2809-7	2809-07	04/23/03	22:16
13	SOURCE-2Q03	03-2809-8	2809-08	04/23/03	22:44
14	TB-2-4/21/03	03-2809-9	2809-09	04/23/03	23:13
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Continuing Calibration Concentration Summary

Data File G2136Q01.D
Method File E524G003

Compound Name	Amount	Actual	Units	%Dev	Target Response
1 Fluorobenzene I1 1	10	10.00	ppb	0.00	607722
3 di-Cl-di-F-methane 85 87	20	19.12	ppb	4.40	331112
4 Chloromethane 50 52	20	17.50	ppb	12.50	258805
9 F114 85 135	20	18.05	ppb	9.77	350192
5 vinyl chloride 62 64	20	16.48	ppb	17.62	231039
6 bromomethane 94 96	20	13.76	ppb	31.20	171626
7 Chloroethane 64 66	20	18.46	ppb	7.71	191652
8 tri-Cl-F-methane 101 103	20	20.14	ppb	0.68	477441
111 isopropyl alcohol x10	200	169.22	ppb	15.39	46403
100 ethyl ether x5	100	81.63	ppb	18.37	707040
102 Acrolein x10	200	145.19	ppb	27.40	100338
119 methyl acetate	20	21.05	ppb	5.25	156875
104 Carbon disulfide	20	17.01	ppb	14.96	861637
103 Acrylonitrilex10	200	176.23	ppb	11.89	255903
95 Acetone x10	200	225.98	ppb	12.99	232152
108 F-113	20	20.72	ppb	3.62	377520
13 11-dichloroethene 61 96	20	18.52	ppb	7.41	441189
101 Acetonnitrilex10	200	203.97	ppb	1.98	79296
109 Iodomethane	20	19.20	ppb	4.01	374233
113 Tert butyl alcohol x10	200	168.01	ppb	15.99	88367
18 methylene chloride 49 84	20	16.78	ppb	16.08	408745
112 Allyl chloride	20	21.01	ppb	5.06	553724
200 Nitro methane x10	200	189.27	ppb	5.36	501840
10 t-Bu-Me-ether 73 57	20	17.73	ppb	11.37	455885
19 t-12-di-Cl-ethene 96 61	20	17.52	ppb	12.38	320062
98 Vinyl acetate x5	100	83.10	ppb	16.90	1365738
21 11-dichloroethane 63 83	20	20.33	ppb	1.64	648295
91 2-butanone MEKx10	200	183.39	ppb	8.31	1045199
115 Di isoprop ether	20	19.13	ppb	4.34	1540205
22 c-12-di-Cl-ethene 96 61	20	17.66	ppb	11.68	315685
23 22-Dichloropropane 77 97	20	20.09	ppb	0.44	552836
24 Br-Cl-methane 128 130	20	15.79	ppb	21.04	101219
25 chloroform 83 85	20	18.17	ppb	9.13	579919
201 Ethyl acetate x2	40	36.14	ppb	9.66	293621
116 ETBE	20	17.64	ppb	11.79	865052
117 Iso-butyl alcohol X10	200	179.94	ppb	10.03	292565
26 tetrahydrofuranx5	100	81.92	ppb	18.08	51022
27 Di-Br-F-Methane (S1) 111 1	20	18.36	ppb	8.18	395666
34 111-tri-Cl-ethane 97 99	20	19.12	ppb	4.41	508129
30 12-dichloroethane 64 62	20	17.49	ppb	12.54	217493
35 11-Di-Cl-propene 75 110	20	19.67	ppb	1.65	456844
29 1,2-di-Cl-ethane-d4 [Surr] 10	20	17.01	ppb	14.93	170835
36 benzene 78 52	20	19.74	ppb	1.32	1042279
37 CCl4 117 119	20	20.72	ppb	3.62	421632

97 thiophene	20	17.90	ppb	10.48	470062
118 TAME	20	17.18	ppb	14.11	579903
39 12-di-Cl-propane 63 76	20	20.18	ppb	0.92	311930
40 trichloroethene 130 132	20	18.28	ppb	8.59	299143
96 Me-methacrylate	20	17.81	ppb	10.93	95501
42 Br-di-Cl-methane 83 85	20	17.21	ppb	13.93	370960
41 dibromomethane 174 172	20	17.14	ppb	14.32	127739
45 c-13-di-Cl-propene 75 110	20	18.38	ppb	8.12	349240
55 toluene-d8(S2) 100 99	20	18.89	ppb	5.53	573560
92 2-ClEt-Vi-ether10	200	103.48	ppb	48.26	337272

Compound Name	Amount	Actual	Units	%Dev	Target Response
56 toluene 91 92	20	18.62	ppb	6.88	924330
107 Et methacrylate	20	17.19	ppb	14.05	176545
93 2-Hexanone x5	100	92.08	ppb	7.92	317873
48 112-tri-Cl-Et 97 83	20	17.18	ppb	14.10	124996
58 1,2-di-br-ethane 107 109	20	16.69	ppb	16.53	129708
51 di-Br-Cl-methane 129 127	20	17.90	ppb	10.50	175124
46 t-13-di-cl-propene 75 110	20	18.29	ppb	8.54	224046
105 1-Chlorohexane	20	22.45	ppb	12.24	337477
47 Cl-benzene-d5, I2	10	10.00	ppb	0.00	177786
54 MIBK	20	20.00	ppb	0.02	111859
49 1,3-di-cl-propane 76 78	20	20.01	ppb	0.07	232606
59 tetra-Cl-ethene 166 168	20	20.19	ppb	0.97	315959
60 chlorobenzene 112 77	20	19.97	ppb	0.15	518876
61 1112-tetra-Cl-Et 131 133	20	20.13	ppb	0.65	209462
64 ethylbenzene 91 106	20	20.85	ppb	4.24	1043641

Compound Name	Amount	Actual	Units	%Dev	Target Response
65 m/p-Xylenes x2	40	41.65	ppb	4.13	1585237
99 1-4-di-Cl-butane	20	19.17	ppb	4.13	219872
52 bromoform 173 175	20	18.33	ppb	8.36	97388
66 styrene 104 78	20	20.38	ppb	1.88	547585
67 o-xylene 91 106	20	20.11	ppb	0.55	753059
68 1122-Tetra-Cl-Et 83 85	20	18.04	ppb	9.82	124020
110 t-1,4-dichloro-2-butene	20	19.74	ppb	1.31	21959
106 Cl-benzyl	20	22.21	ppb	11.05	190403
62 1,4-DCB-d4 150 152 I3	10	10.00	ppb	0.00	136643
69 123-tri-Cl-Pr 110 97	20	18.00	ppb	9.98	29953
70 4-Br-1-F-Bz (S3) 174 95	20	20.30	ppb	1.48	247796
71 isopropylbenzene 105 120	20	23.37	ppb	16.85	1049331
72 bromobenzene 156 158	20	20.52	ppb	2.58	202215
73 n-propylbenzene 120 78	20	23.40	ppb	16.99	283204
74 2-Cl-Tl 126 128	20	20.00	ppb	0.00	160841
75 4-Cl-Tl 126 128	20	21.86	ppb	9.31	240330
76 135-tri-Me-Bz 105 120	20	22.47	ppb	12.34	814624
79 tert-butylbenzene 119 91	20	22.87	ppb	14.36	851316
78 124-tri-Me-Bz 105 120	20	22.64	ppb	13.19	697791
80 13-di-Cl-Bz 146 148	20	19.02	ppb	4.91	298615
82 14-di-Cl-Bz 146 148	20	20.12	ppb	0.59	459066
81 sec-butylbenzene 105 134	20	23.35	ppb	16.74	1270771

77	4-iso-Pr-toluene	119 134	20	22.90	ppb	14.50	899269
84	12-di-Cl-benzene	146 148	20	19.50	ppb	2.51	295404
85	n-butylbenzene	91 134	20	22.49	ppb	12.46	925579
86	12-diBr-3-Cl-Pra	157 155	20	17.80	ppb	11.00	19763
87	124-tri-Cl-Bz	180 182	20	18.99	ppb	5.07	226179
88	naphthalene	128 129	20	17.86	ppb	10.72	162271
90	123-tri-Cl-Bz	180 182	20	20.21	ppb	1.07	166889
					Ave.% Dev	8.80	

Evaluate Continuing Calibration Report

4212

Data File : C:\HPCHEM\1\DATA\03G2136\G2136Q01.D Vial: 17
Acq On : 23 Apr 03 11:16 am Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 Fluorobenzene I1 1	1.000	1.000	0.0	82	0.00
2		3 di-Cl-di-F-methane 85 8	0.308	0.272	11.6	77	-0.01
3	P	4 Chloromethane 50 5	0.243	0.213	12.5	69	-0.02
4		9 F114 85 135	0.319	0.288	9.8	76	-0.02
5	C	5 vinyl chloride 62 6	0.231	0.190	17.6	67	-0.01
6		6 bromomethane 94 9	0.227	0.141	37.9#	61	-0.02
7		7 Chloroethane 64 66	0.171	0.158	7.7	77	0.00
8		8 tri-Cl-F-methane 101 10	0.390	0.393	-0.7	78	0.00
9		111 isopropyl alcohol x10	0.005	0.004#	15.4	84	-0.02
10		100 ethyl ether x5	0.143	0.116	18.4	72	0.00
11		102 Acrolein x10	0.011	0.008#	27.4#	47	0.00
12		119 methyl acetate	0.128	0.129	-0.9	84	0.00
13		104 Carbon disulfide	0.834	0.709	15.0	73	0.00
14		103 Acrylonitrilex10	0.024	0.021#	11.9	73	0.00
15		95 Acetone x10	0.019	0.019#	-0.7	86	0.00
16		108 F-113	0.300	0.311	-3.6	79	0.00
17	M,C	13 11-dichloroethene 61 9	0.392	0.363	7.4	77	0.00
18		101 Acetonnitrilex10	0.006	0.007#	-7.3	81	0.00
19		109 Iodomethane	0.311	0.308	1.0	79	0.00
20		113 Tert butyl alcohol x10	0.009	0.007#	21.1#	66	0.00
21		18 methylene chloride 49 8	0.643	0.336	47.7#	68	0.00
22		112 Allyl chloride	0.434	0.456	-5.1	90	0.00
23		200 Nitro methane x10	0.044	0.041#	5.4	79	0.00
24		10 t-Bu-Me-ether 73 57	0.498	0.375	24.6#	74	0.00
25		19 t-12-di-Cl-ethene 96 6	0.301	0.263	12.4	73	0.00
26		98 Vinyl acetate x5	0.270	0.225	16.9	118	0.00
27	P	21 11-dichloroethane 63 8	0.525	0.533	-1.6	83	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

4213

Data File : C:\HPCHEM\1\DATA\03G2136\G2136Q01.D Vial: 17
Acq On : 23 Apr 03 11:16 am Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
28		91 2-butanone MEKx10	0.094	0.086	8.3	81	0.00
29		115 Di isoprop ether	1.125	1.267	-12.6	79	0.00
30		22 c-12-di-Cl-ethene 96 6	0.294	0.260	11.7	73	0.00
31		23 22-Dichloropropane 77 9	0.453	0.455	-0.4	89	0.01
32		24 Br-Cl-methane 128 13	0.094	0.083	11.2	66	0.01
33	C	25 chloroform 83 8	0.525	0.477	9.1	80	0.00
34		201 Ethyl acetate x2	0.134	0.121	9.7	99	0.00
35		116 ETBE	0.807	0.712	11.8	75	0.01
36		117 Iso-butyl alcohol X10	0.027	0.024#	10.0	98	0.00
37		26 tetrahydrofuranx5	0.010	0.008#	18.1	68	0.00
38	S	27 Di-Br-F-Methane (S1) 11	0.400	0.326	18.6	76	0.00
39		34 111-tri-Cl-ethane 97 9	0.437	0.418	4.4	84	0.00
40		30 12-dichloroethane 64 6	0.175	0.179	-2.5	73	0.00
41		35 11-Di-Cl-propene 75 11	0.382	0.376	1.6	83	0.01
42	S	29 1,2-di-Cl-ethane-d4 [Sur	0.165	0.141	14.9	70	0.00
43	M	36 benzene 78 5	0.869	0.858	1.3	82	0.00
44		37 CCl4 117 11	0.335	0.347	-3.6	85	0.01
45		97 thiophene	0.432	0.387	10.5	75	0.01
46		118 TAME	0.556	0.477	14.1	73	0.00
47	C	39 12-di-Cl-propane 63 7	0.254	0.257	-0.9	83	0.00
48	M	40 trichloroethene 130 13	0.269	0.246	8.6	74	0.01
49		96 Me-methacrylate	0.095	0.079	17.7	77	0.00
50		42 Br-di-Cl-methane 83 8	0.355	0.305	13.9	77	0.00
51		41 dibromomethane 174 17	0.123	0.105	14.3	66	0.01
52		45 c-13-di-Cl-propene 75 11	0.313	0.287	8.1	78	0.01
53	S	55 toluene-d8(S2) 100	0.500	0.472	5.5	79	0.00
54		92 2-ClEt-Vi-ether10	0.054	0.028#	48.3#	41	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2136\G2136Q01.D Vial: 17
Acq On : 23 Apr 03 11:16 am Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
55	M C	56 toluene	91 9	0.817	0.760	6.9	80	0.02
56		107 Et methacrylate		0.169	0.145	14.1	107	0.02
57		93 2-Hexanone x5		0.057	0.052	7.9	86	0.02
58		48 112-tri-Cl-Et	97 8	0.141	0.103	26.9#	73	0.02
59		58 1,2-di-br-ethane	107 109	0.114	0.107	6.6	68	0.02
60		51 di-Br-Cl-methane	129 12	0.161	0.144	10.5	72	0.02
61		46 t-13-di-cl-propene	75 11	0.202	0.184	8.5	74	0.00
62		105 1-Chlorohexane		0.310	0.278	10.5	90	0.02
63	I	47 Cl-benzene-d5, I2		1.000	1.000	0.0	79	0.02
64		54 MIBK		0.297	0.315	-6.0	78	0.02
65		49 1,3-di-cl-propane	76 78	0.654	0.654	-0.1	75	0.02
66		59 tetra-Cl-ethene	166 16	0.880	0.889	-1.0	76	0.02
67	M P	60 chlorobenzene	112 7	1.461	1.459	0.2	78	0.02
68		61 1112-tetra-Cl-Et	131 13	0.585	0.589	-0.7	74	0.02
69	C	64 ethylbenzene	91 10	2.816	2.935	-4.2	84	0.02
70		65 m/p-Xylenes x2		2.141	2.229	-4.1	83	0.02
71		99 1-4-di-Cl-butane		0.645	0.618	4.1	80	0.01
72	P	52 bromoform	173 17	0.274	0.274	-0.0	68	0.02
73		66 styrene	104 7	1.512	1.540	-1.9	81	0.01
74		67 o-xylene	91 10	2.106	2.118	-0.6	82	0.01
75	P	68 1122-Tetra-Cl-Et	83 8	0.387	0.349	9.8	72	0.02
76		110 t-1,4-dichloro-2-butene		0.081	0.062	23.3#	81	0.00
77		106 Cl-benzyl		0.572	0.535	6.3	80	0.01
78	I	62 1,4-DCB-d4 150 152 I3		1.000	1.000	0.0	74	0.04
79		69 123-tri-Cl-Pr	110 9	0.122	0.110	10.0	66	0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2136\G2136Q01.D Vial: 17
Acq On : 23 Apr 03 11:16 am Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound			AvgRF	CCRF	%Dev	Area%	Dev(min)
80	S	70 4-Br-1-F-Bz (S3)	174	9	0.893	0.907	-1.5	76	0.01
81		71 isopropylbenzene	105	12	3.286	3.840	-16.8	86	0.01
82		72 bromobenzene	156	15	0.721	0.740	-2.6	71	0.01
83		73 n-propylbenzene	120	7	0.886	1.036	-17.0	84	0.01
84		74 2-Cl-Tl	126	128	0.589	0.589	0.0	80	0.01
85		75 4-Cl-Tl	126	128	0.804	0.879	-9.3	83	0.02
86		76 135-tri-Me-Bz	105	12	2.653	2.981	-12.3	84	0.01
87		79 tert-butylbenzene	119	9	2.724	3.115	-14.4	83	0.01
88		78 124-tri-Me-Bz	105	12	2.256	2.553	-13.2	82	0.02
89		80 13-di-Cl-Bz	146	148	1.149	1.093	4.9	75	0.03
90		82 14-di-Cl-Bz	146	148	1.670	1.680	-0.6	71	0.01
91		81 sec-butylbenzene	105	13	3.983	4.650	-16.7	87	0.02
92		77 4-iso-Pr-toluene	119	13	2.874	3.291	-14.5	83	0.01
93		84 12-di-Cl-benzene	146	14	1.109	1.081	2.5	72	0.03
94		85 n-butylbenzene	91	13	3.012	3.387	-12.5	84	0.02
95		86 12-diBr-3-Cl-Pra	157	15	0.081	0.072	11.0	63	0.04
96		87 124-tri-Cl-Bz	180	18	0.792	0.828	-4.5	70	0.03
97		88 naphthalene	128	12	0.665	0.594	10.7	66	0.02
98		90 123-tri-Cl-Bz	180	18	0.604	0.611	-1.1	70	0.00
99		89 hx-Cl-butadiene	225	26	0.621	0.818	-31.8#	91	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4216

Data Filename: C:\HPCHEM\1\DATA\03G2136\G2136Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 23 11:16 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 23 16:32 2003
Print Time : Wed Apr 23 16:33 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.03	0.000	96	70	607.722	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.68	12.66	0.001	82	119	177.786	10.00		0.02	
62	62 1,4-DCB-d4 150 15	15.19	15.15	0.002	152	150	136.643	10.00		0.04	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	395.666	18.36	18.4	91.82%	
29	29 1,2-di-Cl-ethane-	8.02	8.02	0.000	65	102	170.835	17.01	17.0	85.07%	
55	55 toluene-d8(S2)	11.16	11.15	0.000	100	99	573.560	18.89	18.9	94.47%	
70	70 4-Br-1-F-Bz (S3)	13.91	13.90	0.000	174	95	247.796	20.30	20.3	101.48%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.58	2.60	-0.002	85	87	331.112	19.12	19.1	100	
4	4 Chloromethane	2.76	2.78	-0.002	50	52	258.805	17.50	17.5	98	
9	9 F114 85 135	2.80	2.83	-0.002	85	135	350.192	18.05	18.0	91	
5	5 vinyl chloride	2.95	2.96	-0.002	62	64	231.039	16.48	16.5	97	
6	6 bromomethane	3.36	3.37	-0.002	94	96	171.626	13.76	13.8	95	
7	7 Chloroethane	3.51	3.52	0.000	64	66	191.652	18.46	18.5	100	
8	8 tri-Cl-F-methane	4.14	4.14	0.000	101	103	477.441	20.14	20.1	98	?
111	111 isopropyl alcoho	4.25	4.27	-0.002	45	43	46.403	169.22	169.2	1	#
100	100 ethyl ether x5	4.44	4.44	0.000	59	74	707.040	81.63	81.6	99	
102	102 Acrolein x10	4.15	4.15	0.000	56	55	100.338	145.19	145.2	97	?
119	119 methyl acetate	5.05	5.06	0.000	43	74	156.875	21.05	21.1	95	?
104	104 Carbon disulfide	5.18	5.18	0.000	76	78	861.637	17.01	17.0	99	m
103	103 Acrylonitrilex10	4.88	4.89	0.000	53	52	255.903	176.23	176.2	98	?
95	95 Acetone x10	4.30	4.31	0.000	43	58	232.152	225.98	226.0	98	
108	108 F-113	5.03	5.02	0.000	151	101	377.520	20.72	20.7	98	?
13	13 11-dichloroethene	4.76	4.76	0.000	61	96	441.189	18.52	18.5	96	
101	101 Acetonnitrilex10	4.20	4.20	0.000	41	40	79.296	203.97	204.0	84	#
109	109 Iodomethane	4.79	4.80	0.000	142	127	374.233	19.20	19.2	99	
113	113 Tert butyl alcoh	4.86	4.86	0.000	59	57	88.367	168.01	168.0	96	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

4/23/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4217

Data Filename: C:\HPCHEM\1\DATA\03G2136\G2136Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 23 11:16 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 23 16:32 2003
Print Time : Wed Apr 23 16:33 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.97	4.97	0.000	84	49	408.745	16.78	16.8	95	
	112 Allyl chloride	5.07	5.07	0.000	41	76	553.724	21.01	21.0	98	?
200	200 Nitro methane x1	5.82	5.82	0.000	61	46	501.840	189.27	189.3	97	#?
10	10 t-Bu-Me-ether	6.00	6.00	0.000	73	57	455.885	17.73	17.7	96	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	320.062	17.52	17.5	90	?
98	98 Vinyl acetate x5	6.40	6.41	0.000	43	86	1365.738	83.10	83.1	100	
21	21 11-dichloroethane	6.16	6.15	0.000	63	83	648.295	20.33	20.3	99	
91	91 2-butanone MEKx10	6.83	6.83	0.000	43	72	1045.199	183.39	183.4	98	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	1540.205	19.13	19.1	98	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	315.685	17.66	17.7	92	
23	23 22-Dichloropropan	7.36	7.35	0.001	77	97	552.836	20.09	20.1	100	
24	24 Br-Cl-methane	7.20	7.18	0.001	128	130	101.219	15.79	15.8	98	
25	25 chloroform	7.27	7.27	0.000	83	85	579.919	18.17	18.2	100	
201	201 Ethyl acetate x2	7.32	7.31	0.000	43	61	293.621	36.14	36.1	96	?
116	116 ETBE	7.41	7.40	0.001	59	87	865.052	17.64	17.6	97	
117	117 Iso-butyl alcoho	7.32	7.31	0.000	43	42	292.565	179.94	179.9	1	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	51.022	81.92	81.9	78	
34	34 111-tri-Cl-ethane	8.24	8.23	0.000	97	99	508.129	19.12	19.1	100	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	217.493	17.49	17.5	96	
35	35 11-Di-Cl-propene	8.49	8.48	0.001	75	110	456.844	19.67	19.7	95	
36	36 benzene	8.75	8.75	0.000	78	52	1042.279	19.74	19.7	98	
37	37 CCl4	8.70	8.68	0.001	117	119	421.632	20.72	20.7	99	
97	97 thiophene	8.90	8.89	0.001	84	58	470.062	17.90	17.9	99	
118	118 TAME	9.01	9.00	0.000	73	43	579.903	17.18	17.2	99	
39	39 12-di-Cl-propane	9.50	9.49	0.000	63	76	311.930	20.18	20.2	95	
40	40 trichloroethene	9.55	9.54	0.001	130	132	299.143	18.28	18.3	99	
96	96 Me-methacrylate	9.86	9.85	0.000	69	100	95.501	17.81	17.8	96	
42	42 Br-di-Cl-methane	9.62	9.61	0.000	83	85	370.960	17.21	17.2	98	
41	41 dibromomethane	9.47	9.45	0.001	174	172	127.739	17.14	17.1	100	
45	45 c-13-di-Cl-propen	10.38	10.37	0.001	75	110	349.240	18.38	18.4	94	
92	92 2-ClEt-Vi-ether10	10.16	10.15	0.001	63	43	337.272	103.48	103.5	99	
56	56 toluene	11.24	11.23	0.002	91	92	924.330	18.62	18.6	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4218

Data Filename: C:\HPCHEM\1\DATA\03G2136\G2136Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 23 11:16 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 23 16:32 2003
Print Time : Wed Apr 23 16:34 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.38	11.36	0.002	69	99	176.545	17.19	17.2	97	
93	93 2-Hexanone x5	11.50	11.48	0.002	43	58	317.873	92.08	92.1	95	
48	48 112-tri-Cl-Et	11.04	11.03	0.002	97	83	124.996	17.18	17.2	98	
58	58 1,2-di-br-ethane	11.85	11.82	0.003	107	109	129.708	16.69	16.7	98	
51	51 di-Br-Cl-methane	11.59	11.57	0.003	129	127	175.124	17.90	17.9	99	
46	46 t-13-di-cl-propen	10.88	10.87	0.001	75	110	224.046	18.29	18.3	97	
105	105 1-Chlorohexane	12.66	12.64	0.002	55	93	337.477	22.45	22.4	95	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.54	10.52	0.001	43	58	111.859	20.00	20.0	96	
49	49 1,3-di-cl-propane	11.31	11.29	0.001	76	78	232.606	20.01	20.0	98	
59	59 tetra-Cl-ethene	12.02	12.00	0.001	166	168	315.959	20.19	20.2	100	
60	60 chlorobenzene	12.72	12.70	0.001	112	77	518.876	19.97	20.0	95	
61	61 1112-tetra-Cl-Et	12.65	12.62	0.002	131	133	209.462	20.13	20.1	99	?
64	64 ethylbenzene	12.92	12.90	0.001	91	106	1043.641	20.85	20.8	99	
65	65 m/p-Xylenes x2	13.12	13.10	0.001	91	106	1585.237	41.65	41.7	98	
99	99 1-4-di-Cl-butane	13.47	13.46	0.001	55	41	219.872	19.17	19.2	99	
52	52 bromoform	13.24	13.22	0.002	173	175	97.388	18.33	18.3	95	
66	66 styrene	13.44	13.43	0.001	104	78	547.585	20.38	20.4	99	
67	67 o-xylene	13.51	13.50	0.001	91	106	753.059	20.11	20.1	99	?
68	68 1122-Tetra-Cl-Et	13.53	13.51	0.002	83	85	124.020	18.04	18.0	97	?
110	110 t-1,4-dichloro-2	13.67	13.67	0.000	89	53	21.959	19.74	19.7	86	#?
106	106 Cl-benzyl	15.14	15.12	0.001	91	126	190.403	22.21	22.2	93	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.66	13.64	0.000	110	97	29.953	18.00	18.0	91	?
71	71 isopropylbenzene	13.87	13.86	0.000	105	120	1049.331	23.37	23.4	99	
72	72 bromobenzene	14.12	14.10	0.000	156	158	202.215	20.52	20.5	94	
73	73 n-propylbenzene	14.30	14.29	0.000	120	78	283.204	23.40	23.4	96	
74	74 2-Cl-Tl 126 1	14.39	14.37	0.000	126	128	160.841	20.00	20.0	96	
75	75 4-Cl-Tl 126 1	14.47	14.45	0.001	126	128	240.330	21.86	21.9	97	m
76	76 135-tri-Me-Bz	14.58	14.57	0.000	105	120	814.624	22.47	22.5	99	
79	79 tert-butylbenzene	14.85	14.84	0.000	119	91	851.316	22.87	22.9	99	
78	78 124-tri-Me-Bz	14.96	14.94	0.001	105	120	697.791	22.64	22.6	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

4/23/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4219

Data Filename: C:\HPCHEM\1\DATA\03G2136\G2136Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 23 11:16 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 23 16:32 2003
Print Time : Wed Apr 23 16:34 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80 13-di-Cl-Bz 146	15.14	15.11	0.002	146	148	298.615	19.02	19.0	99	?
82	82 14-di-Cl-Bz 146	15.20	15.19	0.000	146	148	459.066	20.12	20.1	99	
81	81 sec-butylbenzene	15.06	15.04	0.001	105	134	1270.771	23.35	23.3	99	
77	77 4-iso-Pr-toluene	15.23	15.22	0.000	119	134	899.269	22.90	22.9	100	
84	84 12-di-Cl-benzene	15.55	15.52	0.002	146	148	295.404	19.50	19.5	98	
85	85 n-butylbenzene	15.62	15.60	0.001	91	134	925.579	22.49	22.5	99	
86	86 12-diBr-3-Cl-Pra	16.02	15.97	0.003	157	155	19.763	17.80	17.8	88	
87	87 124-tri-Cl-Bz	17.27	17.24	0.002	180	182	226.179	18.99	19.0	98	
88	88 naphthalene	17.51	17.49	0.001	128	129	162.271	17.86	17.9	100	
90	90 123-tri-Cl-Bz	17.69	17.68	0.000	180	182	166.889	20.21	20.2	99	
89	89 hx-Cl-butadiene	17.55	17.52	0.002	225	260	223.483	24.86	24.9	96	

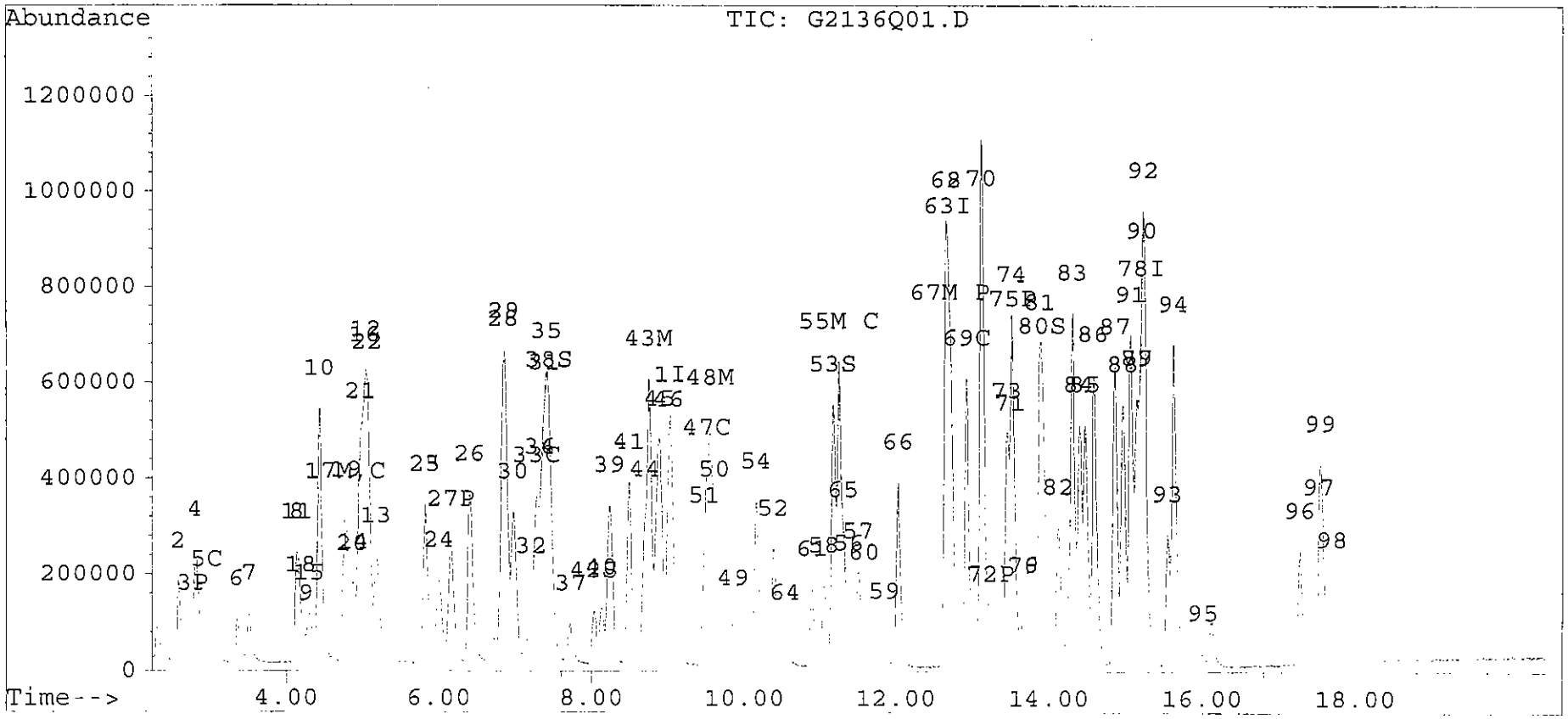
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

4220

Data File : C:\HPCHEM\1\DATA\03G2136\G2136Q01.D Vial: 17
Acq On : 23 Apr 03 11:16 am Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Apr 23 16:32 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



FORM-8A

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032809
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		CCV Data File:	G2136Q01	Instrument ID:	G

Batch No: 03G2136

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			04/23/03 11:16	607722	9.04	177786	12.68	136643	15.19
CCV Upper Limit				1215444	9.54	355572	13.18	273286	15.69
CCV Lower Limit				303861	8.54	88893	12.18	68321	14.69
1	03G2136-LCS-01	03G2136-LCS-01	04/23/03 11:44	578592	9.04	162818	12.68	125199	15.17
2	MW-4-2MS	03-2809-4MS	04/23/03 13:39	615187	9.04	173342	12.69	138143	15.17
3	MW-4-2MSD	03-2809-4MSD	04/23/03 14:08	595121	9.04	166748	12.67	133552	15.18
4	03G2136-MB-01	03G2136-MB-01	04/23/03 15:34	578470	9.04	153762	12.68	123416	15.18
5	DUPE-1-2Q03	03-2809-1	04/23/03 19:25	567144	9.08	150002	12.73	117831	15.22
6	EB-2-4/21/03	03-2809-2	04/23/03 19:54	564920	9.08	154955	12.71	113505	15.22
7	MW-4-1	03-2809-3	04/23/03 20:22	580332	9.07	159151	12.71	116448	15.20
8	MW-4-2	03-2809-4	04/23/03 20:50	607967	9.07	161558	12.71	124554	15.21
9	MW-4-3	03-2809-5	04/23/03 21:19	587667	9.07	158736	12.71	120037	15.20
10	MW-4-4	03-2809-6	04/23/03 21:48	568750	9.08	156107	12.72	117930	15.22
11	MW-4-5	03-2809-7	04/23/03 22:16	567416	9.07	160438	12.71	123668	15.21
12	SOURCE-2Q03	03-2809-8	04/23/03 22:44	556165	9.08	145488	12.72	107727	15.21
13	TB-2-4/21/03	03-2809-9	04/23/03 23:13	544371	9.08	139573	12.72	103225	15.21
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS-1 = FLUOROBENZENE
IS-2 = CHLOROBENZENE-D5
IS-3 = 1,4-DICHLOROBENZENE-D4

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

Applied P & Ch Laboratory
[illegible] Magnolia Ave. Chino CA 91710
[illegible] (909) 590-1828 Fax: (909) 590-1498

VOC Analysis General Logbook

Sequence # 03G1044 Batch # 03G1044 Matrix: W Date: 1/10/03 Analyst: [illegible]

Int IS/Surrogate: GC14507/14508 Methanol(mark-*M*): _____ PEG (mark-*PEG*): _____ Defoaming(mark-*DF*): _____

Calib. + Ini. Batch ☑ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path: _____

Op #	Type	Sample ID	Method	$V/X=f_1$	$V_f/V_i=f_2$	$V_{epg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
2377	SP	G1044P01	E524G-003	25T 25=1	/ =	/ =	1		G1044P01	1/10/03 1:51pm	
2378	Calib	3-0003		/ =	/ =	/ =			3-0003	GC14720	
2379		3-002		/ =	/ =	/ =			3-002		
2380		3-010		/ =	/ =	/ =			3-010		
2381		3-020		/ =	/ =	/ =			3-020		
2382		3-040		/ =	/ =	/ =			3-040		
2383		3-080		/ =	/ =	/ =			3-080		
2384	CCV	G1044Q01		/ =	/ =	/ =			G1044Q01	CCV/ICV/AFB GC14721	
2385	MS	M01		/ =	/ =	/ =			M01	S1011-03	<2
2386	LCS	L01		/ =	/ =	/ =			L01		
2387	MSD	N01		/ =	/ =	/ =			N01	S1011-03	<2
2388	MB	K01		/ =	/ =	/ =			K01		
2389	Sample	1084-03		/ =	/ =	/ =			1084-03		<2
2390		6844-02A		/ =	/ =	/ =			6844-02A		
2391		6844-01A		/ =	/ =	/ =			-01A		
2392		1017-1		/ =	/ =	/ =			1017-1		
2393		1011-02		/ =	/ =	/ =			1011-02		
2394		3		/ =	/ =	/ =			3		
2395		4		/ =	/ =	/ =			4		
2396		5		/ =	/ =	/ =			5		
2397		1047-01		/ =	/ =	/ =			1047-01		
2398		-02		/ =	/ =	/ =			-02		
2399		1051-2		/ =	/ =	/ =			1051-02		
2400		3		/ =	/ =	/ =			3		
2401		1084-1		/ =	/ =	/ =			1084-01		
2402		2		/ =	/ =	/ =			2		
2403		4		/ =	/ =	/ =			4		
2404				/ =	/ =	/ =					
2405				/ =	/ =	/ =					
2406				/ =	1/10/03	/ =					
2407				/ =	/ =	/ =					
2408				/ =	/ =	/ =					

Type	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$
LCS/LCSD	2386	GC-14721	~~200~~ × ~~2.5~~ /X= ~~20~~ 10 ppb		GC-	× /X= ppb
MS/MSD	2385/2387	GC-	× /X= ppb		GC-	× /X= ppb

Footnote/Anomaly:

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

VOC Analysis General Logbook

Sequence # 03J2136 Batch # 03J2136 Matrix: W Date: 04/23/03 Analyst: Eddie

Lot #: IS/Surrogate: GC-14507/14508 Methanol(mark-*M*): _____ PEG (mark-*PEG*): _____ Defoaming(mark-*DF*): _____

☐ Calib. + Ini. Batch ☒ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path: _____

Op. #	Type	Sample ID	Method	$V/X=f_1$	$V_f/V_i=f_2$	$V_{pg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
3593	SP	G2136P01	E524G 003	25/25 = 1	/ =	/ =	1		G2136P01	04/23/03	
3594	CCV	Q01		/ =	/ =	/ =			Q01	gc15087	11:16am
3595	LCS	L01		/ =	/ =	/ =			L01		
3596	MS	M01		/ =	/ =	/ =			M01	3 2819-03	<2
3597	MSD	N01		/ =	/ =	/ =			N01	↓	↓
3598	MS	M02		/ =	/ =	/ =			M02	3 2809-04	
3599	MSD	N02		/ =	/ =	/ =			N02	↓ 04	↓
3600	MB	K01		/ =	/ =	/ =			K01		
3601	Sample	2819-01		/ =	/ =	/ =			2819-01		<2
3602		02		/ =	/ =	/ =			02		
3603		03		/ =	/ =	/ =			03		
3604		04		/ =	/ =	/ =			04		
3605		05		/ =	/ =	/ =			05		
3606		06		/ =	/ =	/ =			06		
3607		07		/ =	/ =	/ =			07		
3608		2809-01		/ =	/ =	/ =			2809-01		
3609		02		/ =	/ =	/ =			02		
3610		03		/ =	/ =	/ =			03		
3611		04		/ =	/ =	/ =			04		
3612		05		/ =	/ =	/ =			05		
3613		06		/ =	/ =	/ =			06		
3614		07		/ =	/ =	/ =			07		
3615		08		/ =	/ =	/ =			08		
3616		09		/ =	/ =	/ =			09		
3617				/ =	/ =	/ =					
3618				/ =	/ =	/ =					
3619				/ =	/ =	/ =					
3620				/ =	/ =	/ =					
3621				/ =	/ =	/ =					
3622				/ =	/ =	/ =					
3623				/ =	/ =	/ =					
3624				/ =	/ =	/ =					

04/30/03

Type	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$
LCS/LCSD	3595	GC-15088	200 × 2.5 /X = 20 ppb		GC-	× /X = ppb
MS/MSD	3596/3597	GC-	× /X = ppb	3598/3599	GC-15088	200 × 2.5 /X = 20 ppb

Footnote/Anomaly:

Level C Data Package Deliverables

8270-SIM

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32809	Collected by:	
		Lab Sample ID:	03G2142-MB-01	Received Date:	04/23/2003
Sample ID:	**03G2142-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3520	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	04/23/03	Anal. Date:	04/24/03
Batch No:	03G2142	Prep. No:	1 of 1	Anal. Time:	21:58
Data File Name:	G2142K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	1,4-DIOXANE	123-91-1	μg/L	1	<1	U

Internal Standard			Control Limit, %	IS Rec.%
1	1,4-DIOXANE-D8	17647-74-4	50-200	80
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4226

Data Filename: C:\HPCHEM\1\DATA\03G2129\G2142K01.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Apr 24 21:58 2003
Method Update: Tue Dec 17 16:08 2002
Quant. Time : Apr 25 22:50 2003
Print Time : Fri Apr 25 22:50 2003
Miscleneous :

Sample : #03g2142,w f=.001
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

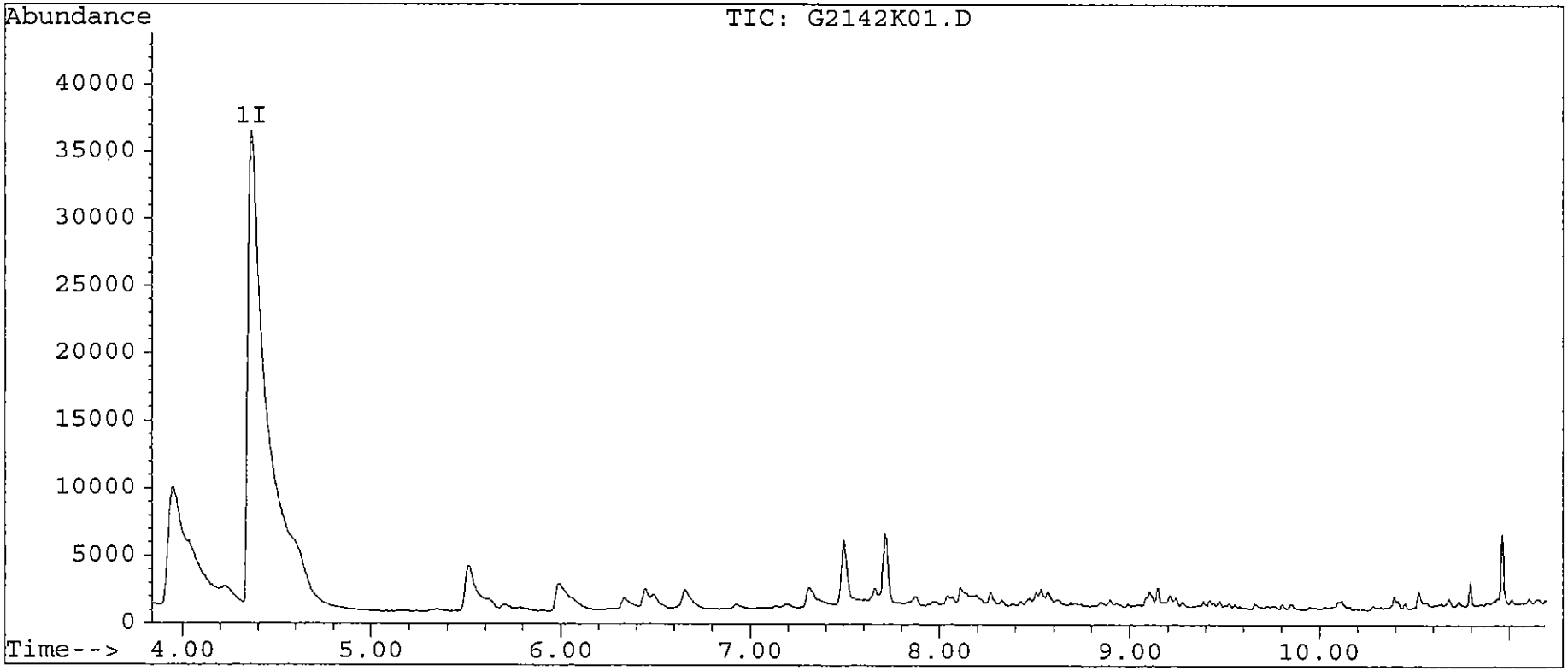
ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.37	4.36	0.002	96	66	251.605	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2129\G2142K01.D Vial: 1
Acq On : 24 Apr 03 9:58 pm Operator: Andy Huang
Sample : #03g2142,w f=.001 Inst : GC/MS - M
Misc : Multiplr: 1.00
Quant Time: Apr 25 22:50 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Multiple Level Calibration



Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/21/2003
Project ID:	JPL	Service ID:	32809	Collected by:	
		Lab Sample ID:	03-2809-3	Received Date:	04/21/2003
Sample ID:	**MW-4-1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3520	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	04/23/03	Anal. Date:	04/24/03
Batch No:	03G2142	Prep. No:	1 of 1	Anal. Time:	23:16
Data File Name:	2809-03	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	1,4-DIOXANE	123-91-1	μg/L	1	<1	U

Internal Standard			Control Limit, %	IS Rec.%
1	1,4-DIOXANE-D8	17647-74-4	50-200	73
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

FORM-3C

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8270-SIM

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32809
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G2142		
LCS Filename:	G2142L01	Date Analyzed:	042403	Time Analyzed:	22:17
LCSD Filename:	G2142J01	Date Analyzed:	042403	Time Analyzed:	22:37

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
1,4-DIOXANE	µg/L	20	0	18.9	95	40-140
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
1,4-DIOXANE	µg/L	20	18.9	95	0	30	40-140
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4230

Data Filename: C:\HPCHEM\1\DATA\03G2129\G2142L01.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Apr 24 22:17 2003
Method Update: Tue Dec 17 16:08 2002
Quant. Time : Apr 25 22:50 2003
Print Time : Fri Apr 25 22:50 2003
Miscleneous :

Sample : f=.001
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 0.001000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.37	4.36	0.003	96	66	235.999	20.00		0.01	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.44	4.43	0.003	88	58	271.269	18.92	18.9	66	#

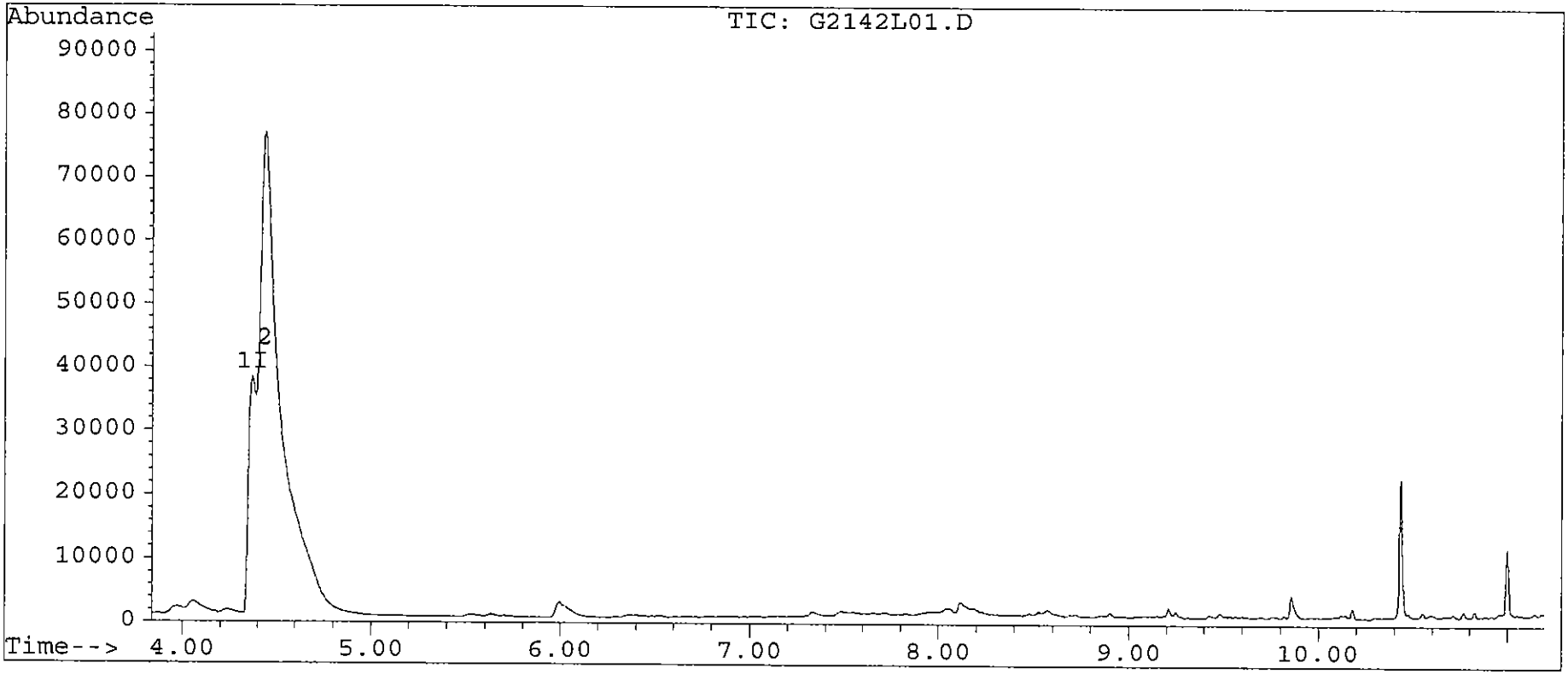
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2129\G2142L01.D Vial: 2
Acq On : 24 Apr 03 10:17 pm Operator: Andy Huang
Sample : f=.001 Inst : GC/MS - M
Misc : Multiplr: 1.00
Quant Time: Apr 25 22:50 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Multiple Level Calibration



Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4232

Data Filename: C:\HPCHEM\1\DATA\03G2129\G2142J01.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Apr 24 22:37 2003
Method Update: Tue Dec 17 16:08 2002
Quant. Time : Apr 25 22:50 2003
Print Time : Fri Apr 25 22:50 2003
Miscleneous :

Sample : f=.001
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 0.001000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.37	4.36	0.002	96	66	225.248	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.44	4.43	0.002	88	58	258.913	18.92	18.9	66	#

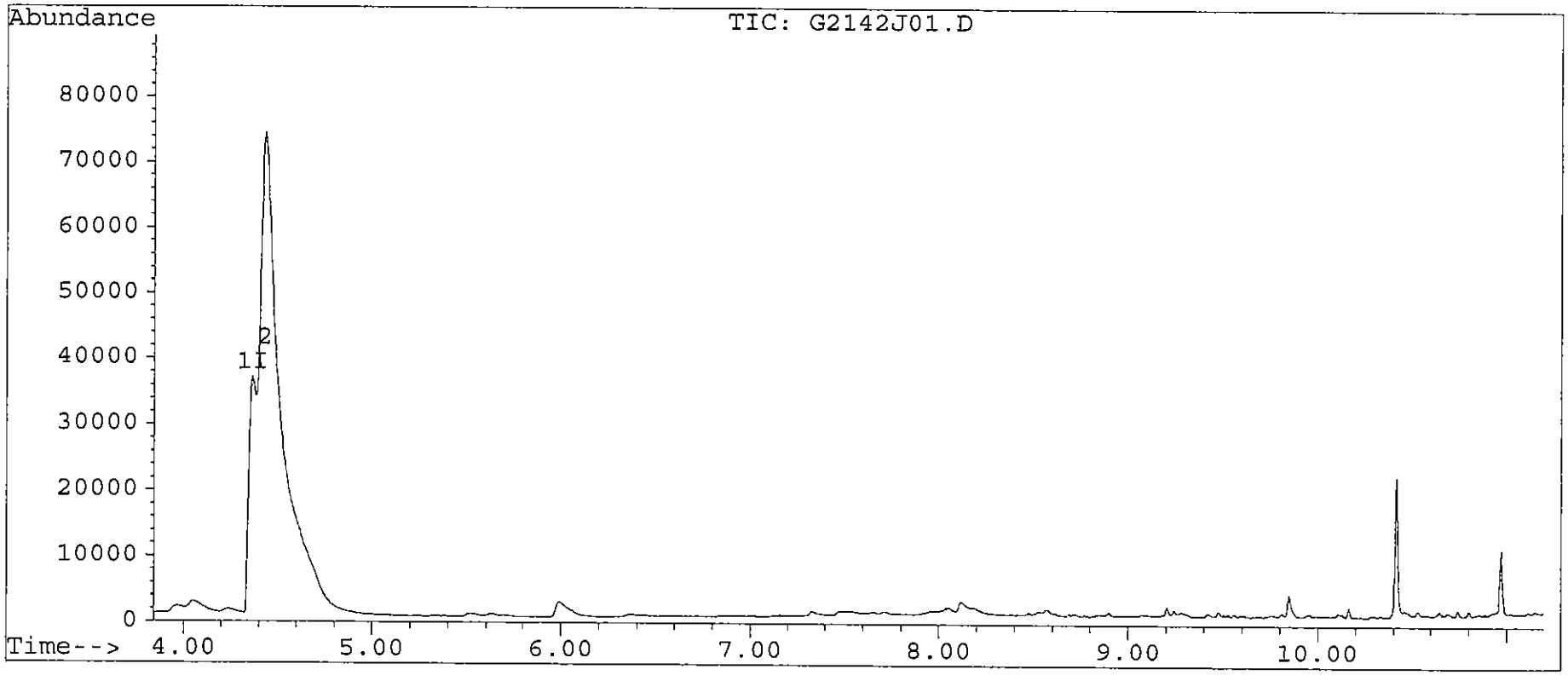
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2129\G2142J01.D Vial: 3
Acq On : 24 Apr 03 10:37 pm Operator: Andy Huang
Sample : f=.001 Inst : GC/MS - M
Misc : Multiplr: 1.00
Quant Time: Apr 25 22:50 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Multiple Level Calibration



FORM-4B

Applied P & Ch Laboratory

Method Blank Summary for Method 8270-SIM

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32809
Project ID:	JPL	Project No:	04-4428.10	Analysis Date:	04/24/03
		Sample Matrix:	Water	Analysis Time:	21:58
Sample ID:	**03G2142-MB-01**	Batch No:	03G2142	Instrument ID:	GC/MS: M
Lab Sample ID:	03G2142-MB-01	Data File Name:	G2142K01	GC Column:	DB-5.625
				Column ID:	0.25 mm

This Method Blank applies to the following samples and QC samples:

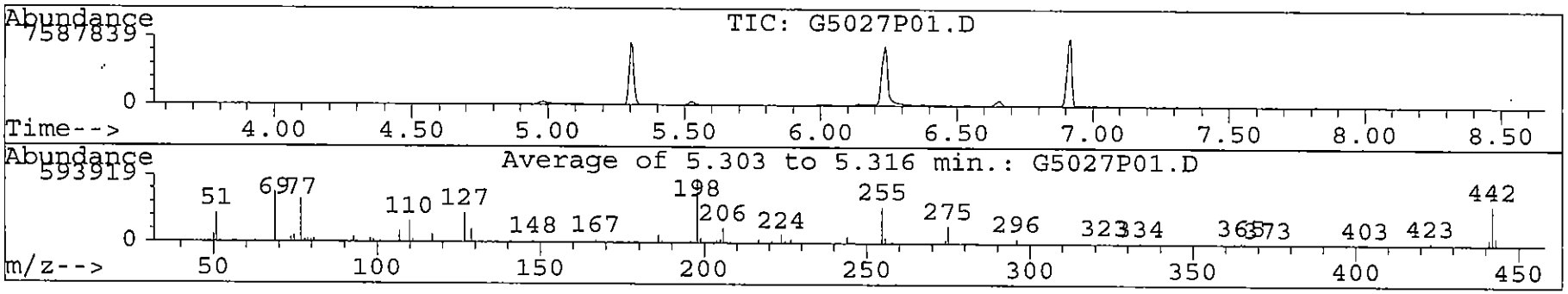
#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	03G2142-LCS-01	03G2142-LCS-01	Lab Control Spike	G2142L01	04/24/03	22:17
2	03G2142-LSD-01	03G2142-LSD-01	Lab Control Spike Duplicate	G2142J01	04/24/03	22:37
3	MW-4-1	03-2809-3	Field Sample	2809-03	04/24/03	23:16
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

DFTPP

Data File : C:\HPCHEM\1\DATA\02G5027\G5027P01.D
Acq On : 17 Dec 02 2:19 pm
Sample : ##02g5027,w dftpp gc14349
Misc :

Vial: 99
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: AVERAGE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	44.9	254307	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	78.3	443243	PASS
70	69	0	2	0.3	1277	PASS
127	198	25	75	46.2	261139	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	565803	PASS
199	198	5	9	6.7	37981	PASS
275	198	10	30	27.4	155040	PASS
365	198	1	100	3.7	20870	PASS
441	443	1	99	78.6	52501	PASS
442	198	40	110	61.8	349717	PASS
443	442	15	24	19.1	66784	PASS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 03-2809

Lab File ID: G5027P01 DFTPP Injection Date: 12/17/02

Instrument ID: GCMS-M DFTPP Injection Time: 1419

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	78.3
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	46.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	27.4
365	Greater than 0.75% of mass 198	3.7
441	Present, but less than mass 443	9.3 (78.6)3
442	40.0 - 100.0% of mass 198	61.8
443	17.0 - 23.0% of mass 442	11.8 (19.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD040	DS006-40	DS006-040.D	12/17/02	1438
02	SSTD030	DS006-30	DS006-030.D	12/17/02	1457
03	SSTD020	DS006-20	DS006-020.D	12/17/02	1516
04	SSTD010	DS006-10	DS006-10.D	12/17/02	1536
05	SSTD001	DS006-01	DS006-01.D	12/17/02	1555
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Initial Calibration

Calibration Files
30 =M06-030.D 20 =M06-020.D 10 =M06-010.D
1 =M06-001.D 40 =M06-040.D

		Compound	30	20	10	1	40	Avg	%RSD
1) I	1	1,4-Dioxane-d8	----------ISTD----------						
2)	2	1,4-Dioxane	1.151	1.165	1.216	1.379	1.165	1.215	7.81

(#) = Out of Range

Evaluate Continuing Calibration Report

4238

Data File : C:\HPCHEM\1\DATA\02G5027\G5027Q01.D
Acq On : 17 Dec 02 4:14 pm
Sample : gc14554
Misc :

Vial: 100
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 1.4-Dioxane-d8	1.000	1.000	0.0	86	0.00
2		2 1,4-Dioxane	1.215	1.370	-12.7	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4239

Data Filename: C:\HPCHEM\1\DATA\02G5027\G5027Q01.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Dec 17 16:14 2002
Method Update: Tue Dec 17 16:08 2002
Quant. Time : Dec 17 16:29 2002
Print Time : Tue Dec 17 16:29 2002
Miscleneous :

Sample : gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

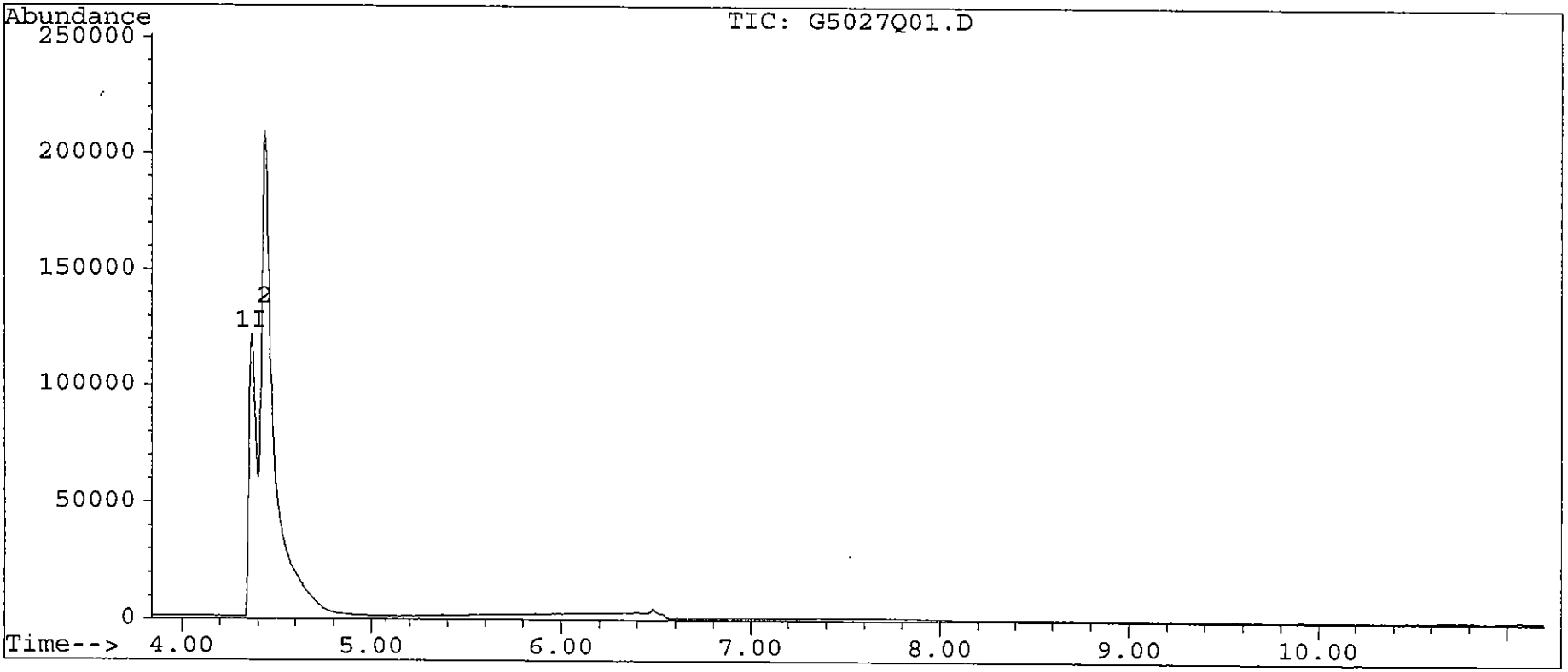
ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.37	4.36	0.002	96	66	402.190	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.44	4.43	0.002	88	58	551.016	22.55	22549.4	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06
5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\02G5027\G5027Q01.D Vial: 100
Acq On : 17 Dec 02 4:14 pm Operator: Andy Huang
Sample : gc14554 Inst : GC/MS - M
Misc : Multiplr: 1.00
Quant Time: Dec 17 16:29 2002 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Multiple Level Calibration



Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4241

Data Filename: C:\HPCHEM\1\DATA\02G5027\M06-040.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Dec 17 14:38 2002
Method Update: Fri Oct 18 22:02 2002
Quant. Time : Dec 17 15:07 2002
Print Time : Tue Dec 17 15:07 2002
Miscleneous :

Sample : 40ppm gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.36	4.37	-0.001	96	66	477.763	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.43	4.44	-0.003	88	58	1113.531	38.33	38334.5	76	#

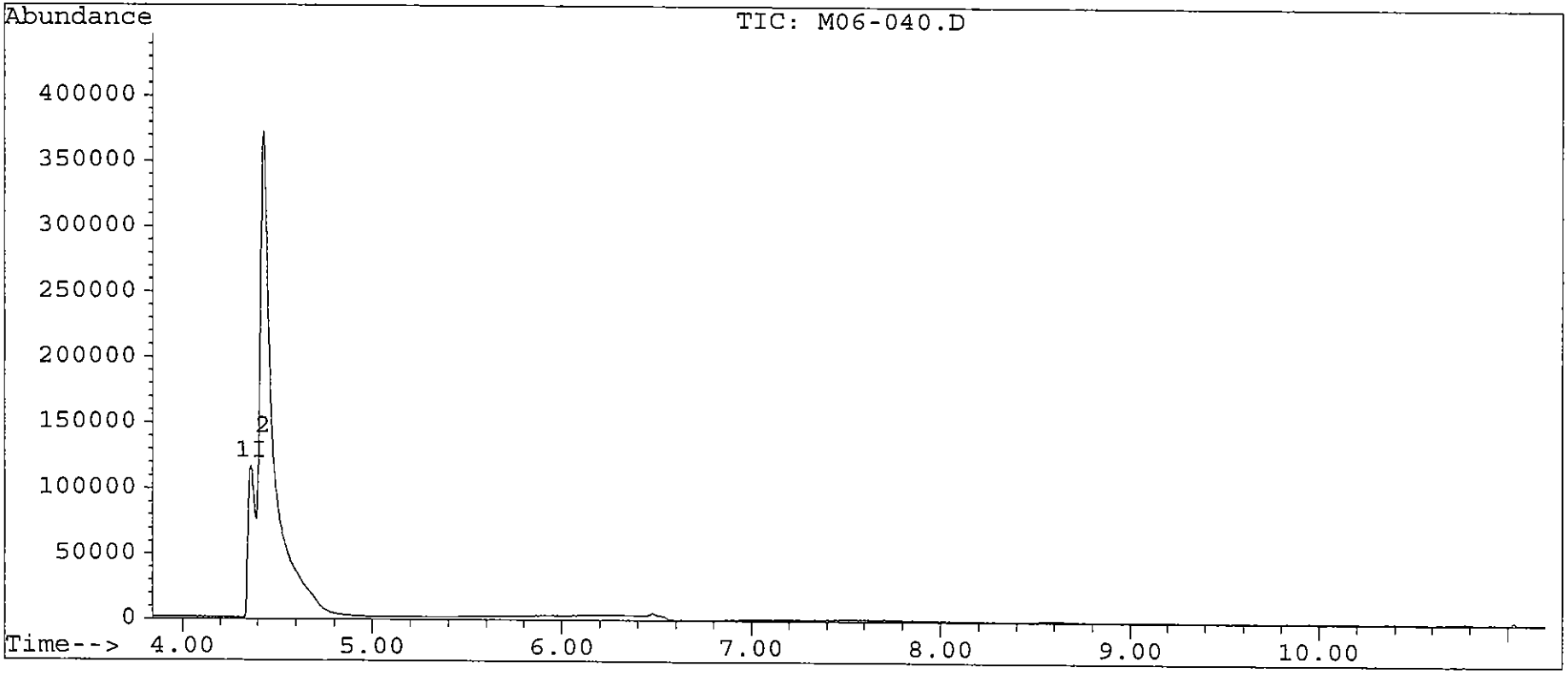
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06
5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\02G5027\M06-040.D
Acq On : 17 Dec 02 2:38 pm
Sample : 40ppm gc14554
Misc :
Quant Time: Dec 17 15:07 2002

Vial: 1
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Fri Oct 18 22:02:00 2002
Response via : Multiple Level Calibration



Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4243

Data Filename: C:\HPCHEM\1\DATA\02G5027\M06-030.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Dec 17 14:57 2002
Method Update: Tue Dec 17 15:08 2002
Quant. Time : Dec 17 15:17 2002
Print Time : Tue Dec 17 15:17 2002
Miscleneous :

Sample : 30ppm gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.37	4.36	0.000	96	66	513.693	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.44	4.43	0.002	88	58	886.552	28.47	28474.2	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06
5972

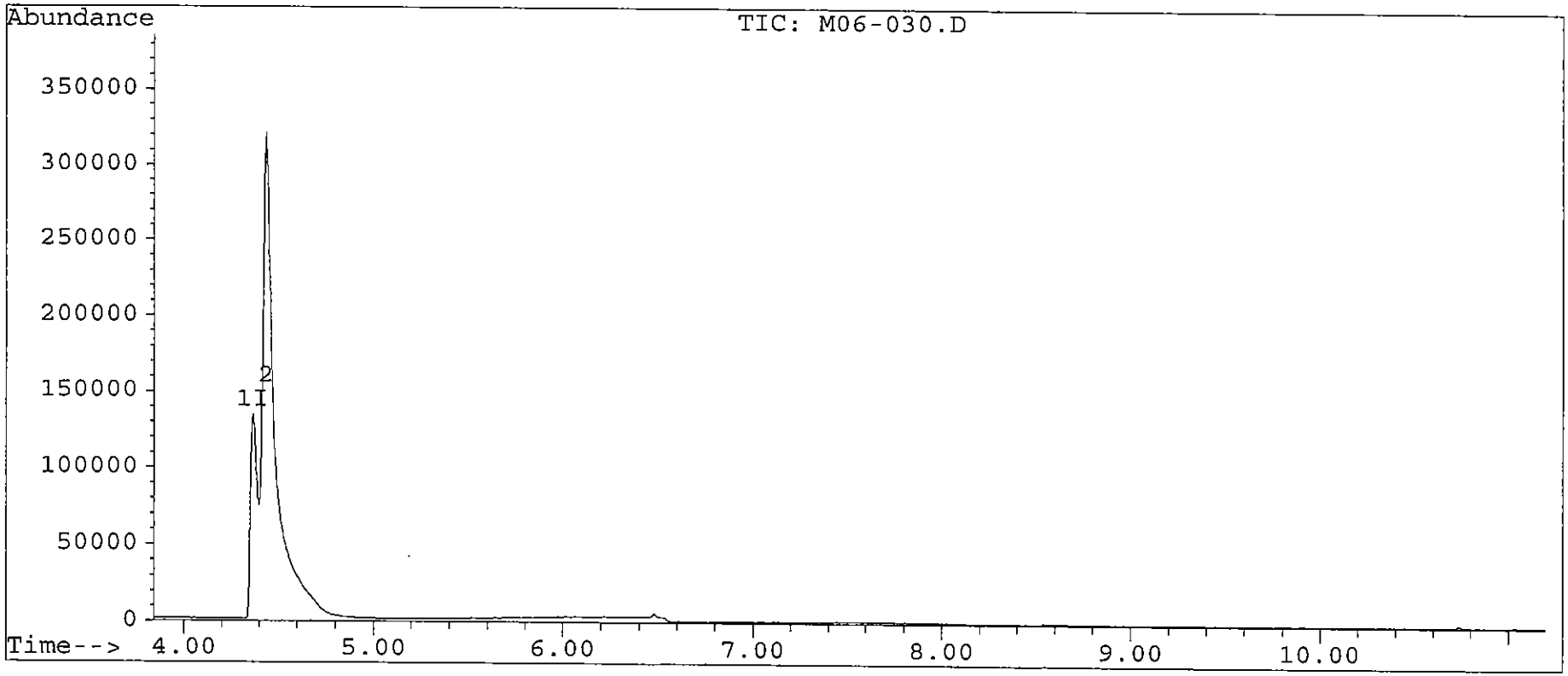
Quantitation Report

4244

Data File : C:\HPCHEM\1\DATA\02G5027\M06-030.D
Acq On : 17 Dec 02 2:57 pm
Sample : 30ppm gc14554
Misc :
Quant Time: Dec 17 15:17 2002

Vial: 2
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 15:08:08 2002
Response via : Multiple Level Calibration



Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4245

Data Filename: C:\HPCHEM\1\DATA\02G5027\M06-020.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Dec 17 15:16 2002
Method Update: Tue Dec 17 15:17 2002
Quant. Time : Dec 17 15:35 2002
Print Time : Tue Dec 17 15:35 2002
Miscleneous :

Sample : 20ppm gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.36	4.36	0.000	96	66	465.038	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.43	4.43	0.000	88	58	541.825	19.40	19401.4	97	

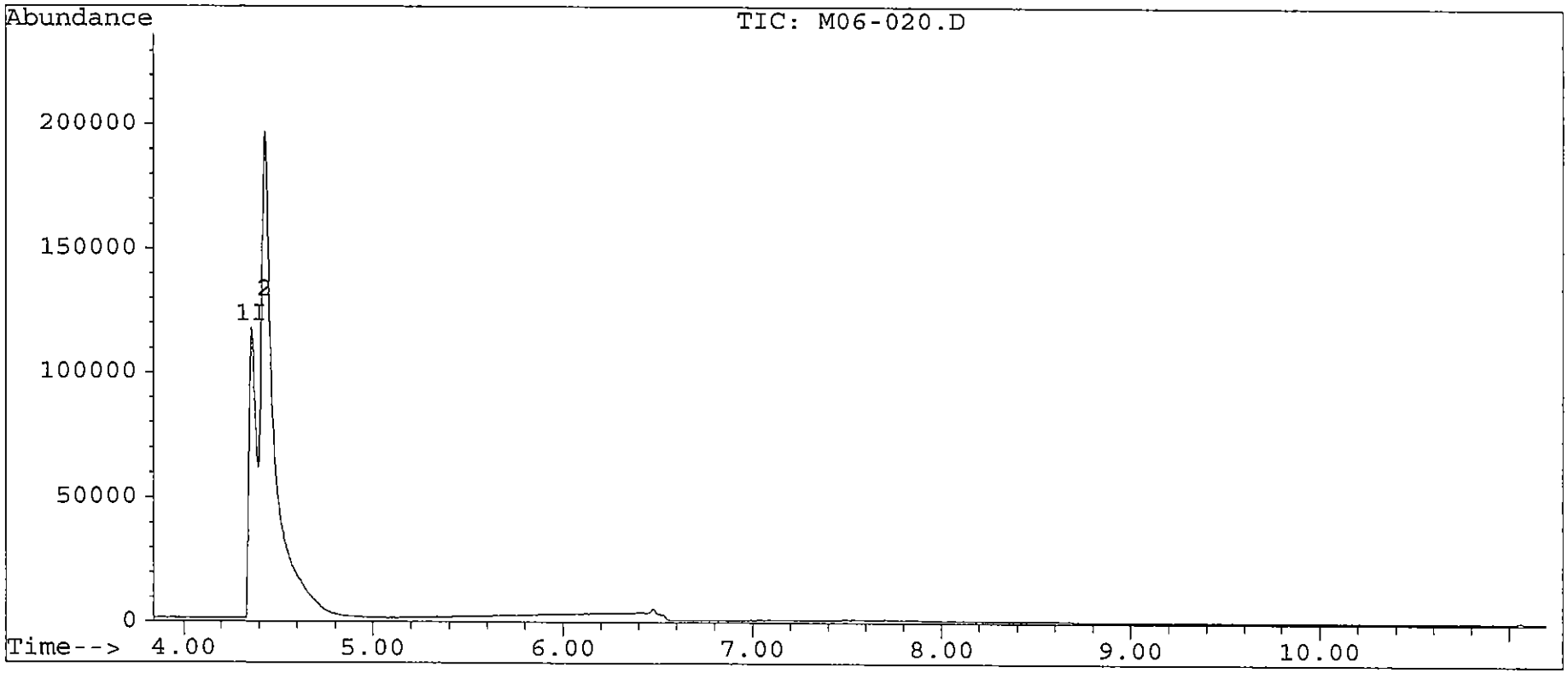
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06
5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\02G5027\M06-020.D
Acq On : 17 Dec 02 3:16 pm
Sample : 20ppm gc14554
Misc :
Quant Time: Dec 17 15:35 2002

Vial: 3
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 15:17:15 2002
Response via : Multiple Level Calibration



Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4247

Data Filename: C:\HPCHEM\1\DATA\02G5027\M06-010.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Dec 17 15:36 2002
Method Update: Tue Dec 17 15:36 2002
Quant. Time : Dec 17 15:51 2002
Print Time : Tue Dec 17 15:51 2002
Miscleneous :

Sample : 10ppm gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.36	4.36	0.000	96	66	464.928	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.43	4.43	0.000	88	58	282.615	10.16	10158.2	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

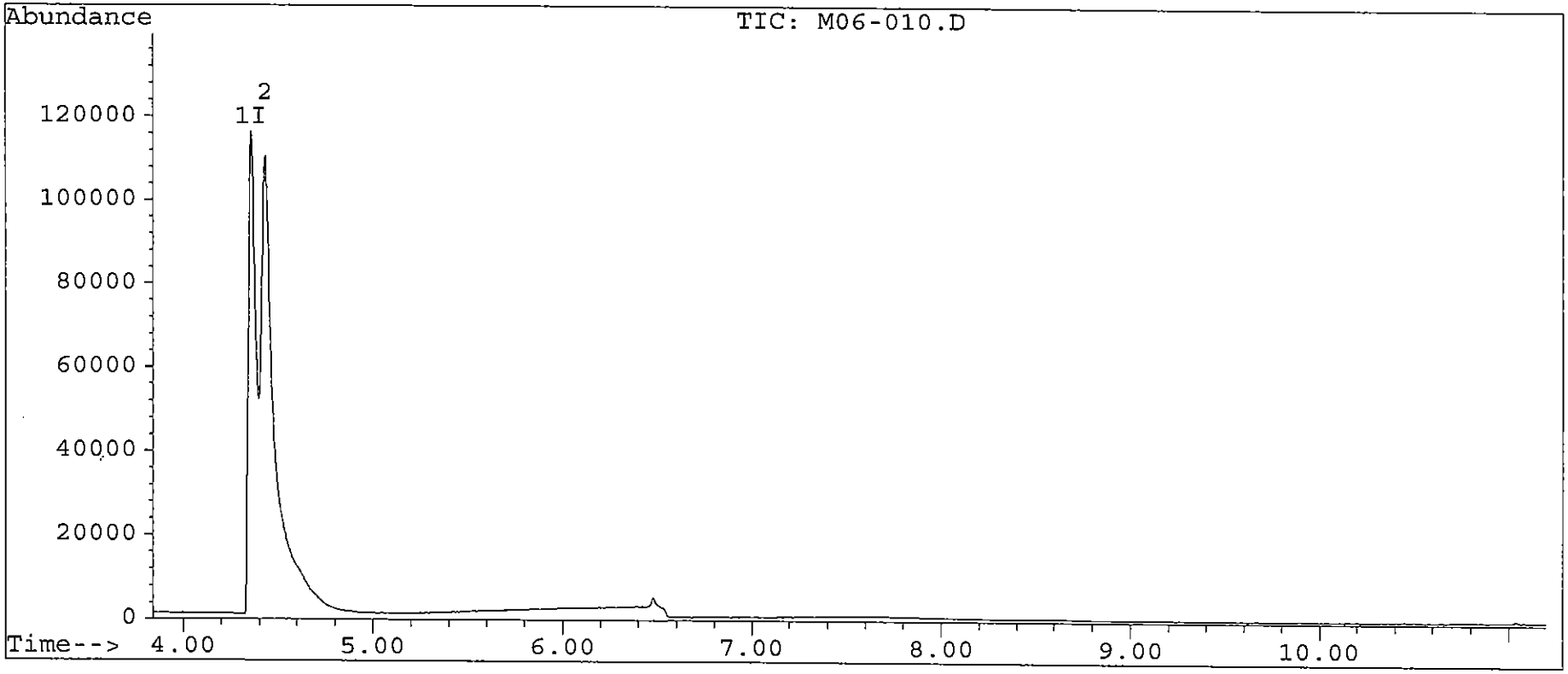
5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\02G5027\M06-010.D
Acq On : 17 Dec 02 3:36 pm
Sample : 10ppm gc14554
Misc :
Quant Time: Dec 17 15:51 2002

Vial: 4
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 15:36:28 2002
Response via : Multiple Level Calibration



Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4249

Data Filename: C:\HPCHEM\1\DATA\02G5027\M06-001.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Dec 17 15:55 2002
Method Update: Tue Dec 17 16:00 2002
Quant. Time : Dec 17 16:08 2002
Print Time : Tue Dec 17 16:08 2002
Miscleneous :

Sample : 1ppm gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.38	4.36	0.004	96	66	515.201	20.00		0.02	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.46	4.43	0.007	88	58	35.522	1.14	1137.6	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

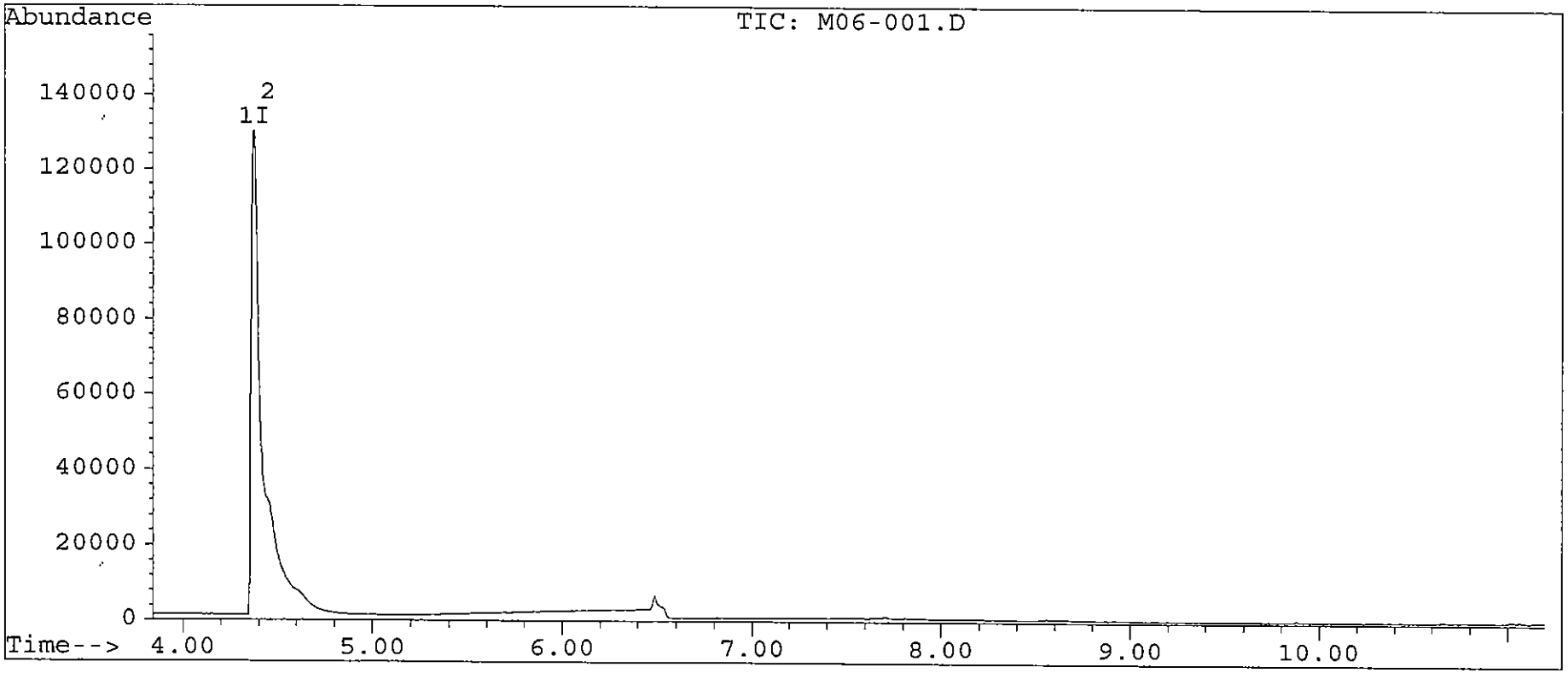
5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\02G5027\M06-001.D
Acq On : 17 Dec 02 3:55 pm
Sample : 1ppm gc14554
Misc :
Quant Time: Dec 17 16:08 2002

Vial: 5
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:00:39 2002
Response via : Multiple Level Calibration

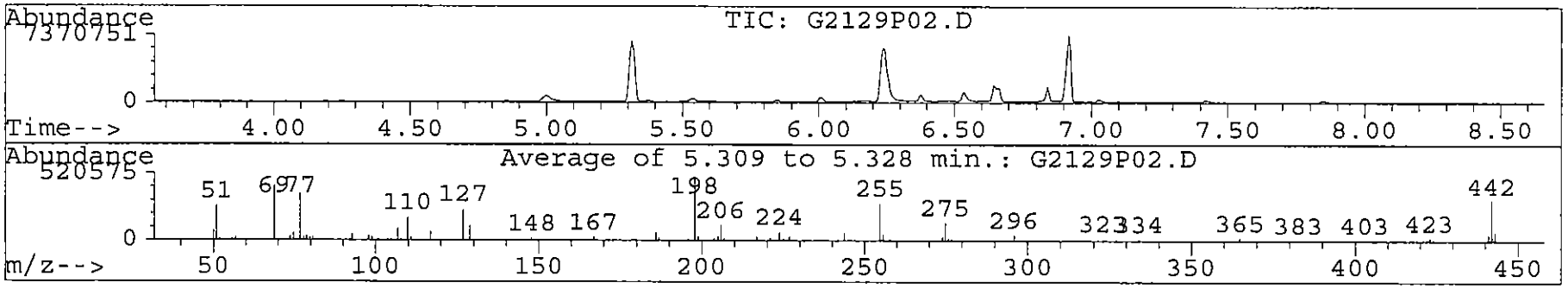


DFTPP

Data File : C:\HPCHEM\1\DATA\03G2129\G2129P02.D
Acq On : 24 Apr 03 8:14 pm
Sample : dftpp gc14349
Misc :

Vial: 99
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: AVERAGE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	54.1	268076	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	85.4	423536	PASS
70	69	0	2	0.7	3122	PASS
127	198	25	75	48.6	241002	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	495808	PASS
199	198	5	9	6.6	32902	PASS
275	198	10	30	27.3	135182	PASS
365	198	1	100	4.0	19855	PASS
441	443	1	99	77.6	48192	PASS
442	198	40	110	63.9	316848	PASS
443	442	15	24	19.6	62132	PASS

FORM-5B

Applied P & Ch Laboratory

Semivolatile Organic Instrument Performance Check for Method 8270-SIM

Decafluorotriphenylphosphine (DFTPP), Part II

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032809
Project ID:	JPL	DFTPP Inj. Date:	04/24/03	Batch No:	03G2142
		DFTPP Inj. Time:	20:14	Sequence No:	03G2129
Project No:	04-4428.10	Instrument ID:	M	GC Column:	DB-5.625
Data File Name:	G2129P02			Column ID:	0.25 mm

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	03G2142-CCV-01	03G2142-CCV-01	G2129Q03	04/24/03	21:39
2	03G2142-MB-01	03G2142-MB-01	G2142K01	04/24/03	21:58
3	03G2142-LCS-01	03G2142-LCS-01	G2142L01	04/24/03	22:17
4	03G2142-LSD-01	03G2142-LSD-01	G2142J01	04/24/03	22:37
5	MW-4-1	03-2809-3	2809-03	04/24/03	23:16
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Evaluate Continuing Calibration Report

4253

Data File : C:\HPCHEM\1\DATA\03G2129\G2129Q03.D Vial: 100
Acq On : 24 Apr 03 9:39 pm Operator: Andy Huang
Sample : gc14554 Inst : GC/MS - M
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 1.4-Dioxane-d8	1.000	1.000	0.0	68	0.00
2		2 1,4-Dioxane	1.215	1.159	4.6	67	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

FORM-8B

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270-SIM

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032809
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		CCV Data File:	G2129Q03	Instrument ID:	M
Batch No:	03G2142				

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #
12 Hour CCV STD			04/24/03 21:39	314830	4.36
CCV Upper Limit				629660	4.86
CCV Lower Limit				157415	3.86
1	03G2142-MB-01	03G2142-MB-01	04/24/03 21:58	251605	4.37
2	03G2142-LCS-01	03G2142-LCS-01	04/24/03 22:17	235999	4.37
3	03G2142-LSD-01	03G2142-LSD-01	04/24/03 22:37	225248	4.37
4	MW-4-1	03-2809-3	04/24/03 23:16	228993	4.37
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

IS-1 = 1,4-DIOXANE-D8

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

4255

Data Filename: C:\HPCHEM\1\DATA\03G2129\G2129Q03.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : Apr 24 21:39 2003
Method Update: Tue Dec 17 16:08 2002
Quant. Time : Apr 25 22:50 2003
Print Time : Fri Apr 25 22:50 2003
Miscleneous :

Sample : gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	4.36	4.36	0.000	96	66	314.830	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	4.44	4.43	0.002	88	58	364.946	19.08	19078.9	64	#

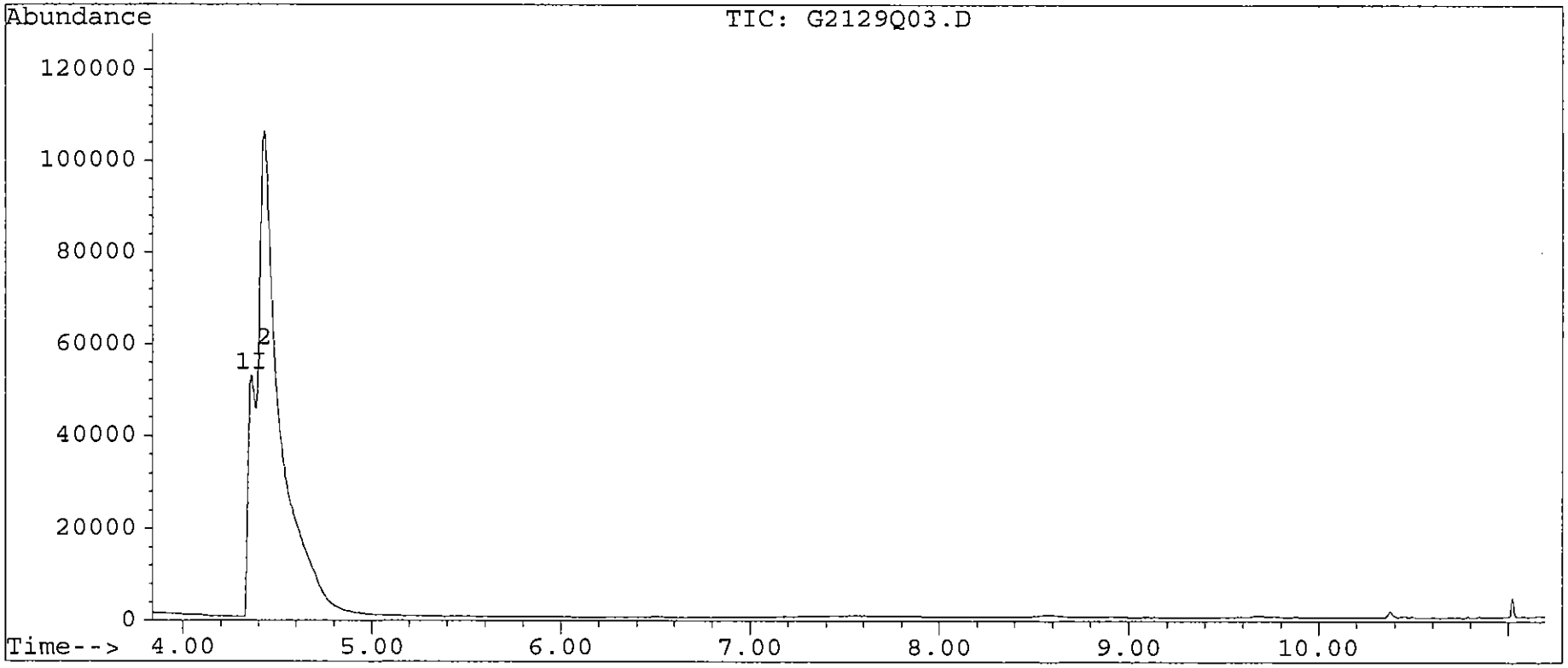
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

5972

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2129\G2129Q03.D Vial: 100
Acq On : 24 Apr 03 9:39 pm Operator: Andy Huang
Sample : gc14554 Inst : GC/MS - M
Misc : Multiplr: 1.00
Quant Time: Apr 25 22:50 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Multiple Level Calibration



Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Analysis Anomaly Record

Batch #: 0339 2142 Method: 1,4 Dioxane Matrix: W Date: 4/23/03

Samples Involved: 2810, 2809, 2765

- **Anomaly for MS/MSD/MD**
  - ☐ 1. MS/MSD out of control limit, sample matrix interference suspected
  - ☐ 2. MS or MSD out of control limit, but $\overline{MS}$ is O.K.
  - ☐ 3. One of MS/MSD, and $\overline{MS}$ out of control limit, but not enough sample for re-analysis
  - ☒ 4. Not enough sample for MS/MSD, LCS/LCSD may be used
  - ☐ 5. Spiked samples contain high concentration of analytes (>4 × spiked concentration)
  - ☐ 6. MS/MSD out of control limit, but post spike is O.K.
  - ☐ 7. MS/MSD out of control limit, due to the heterogenous matrix
  - ☐ 8. MS/MSD out of control limit, due to the very special matrix
  - ☐ 9. Not enough sample for matrix duplicate (MD)
- **Anomaly for Holding time (HT)**
  - ☐ 10. HT has been exceeded when received, authorized by the Client to carry on with the analyses
  - ☐ 11. Extraction HT was passed, authorized by the Client to carry on with the analyses
  - ☐ 12. Analysis HT was passed, authorized by the Client to carry on with the analyses
- **Surrogates Anomaly**
  - ☐ 13. Surrogate recovery out of control limit (see Level-1 Part III), sample matrix interference suspected
  - ☐ 14. Surrogate recovery out of control limit (see Level-1 Part III), but not enough sample for re-analysis
  - ☐ 15. Surrogate recovery out of control limit, due to very special matrix
  - ☐ 16. Surrogate diluted out (for highly contaminated samples)
  - ☐ 17. Lower surrogate recovery due to cleanup process
- **Chromatogram Pattern Anomaly**
  - ☐ 18. Not a typical gasoline chromatogram pattern
  - ☐ 19. Not a typical diesel chromatogram pattern
  - ☐ 20. Not a typical diesel chromatogram pattern, but similar to heavy-oil or motor oil
  - ☐ 21. Not a typical kerosene chromatogram pattern
  - ☐ 22. Not a typical jet fuel chromatogram pattern
  - ☐ 23. Not a complete PCB chromatogram pattern, interference/degration suspected
- **Other anomaly**

Problem Description: _____

Reason: _____

Analyst: ML Date: 4/23/03

Note: _____

APCL form 4-116 , Ver. 2.0 July. 1, 1995 No pencil. Use blue pen for record. Use red pen for correction.

Applied P & Ch Laboratory
11760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation Logbook

Batch # 03G2142 Matrix: W Target method: ~~PAH 610~~ 1,4-Dioxane EXT Method: 3520C Date: 4/23/03

Solvent: CH2Cl2 Lot # 127471 Exchange Solvent: NA Lot # NA Analyst: HL

Lot #: Surr.: GC-14785 NA Conc.: ~~75/50~~ NA ppm Na_2SO_4: KC0078

Op. #	Sample Type	Sample ID #	Smpl Amnt (mL or g)	Surr. Vol mL	Extract sub-ID	Final Vol. mL	Dilution F=V/X	Note & Anomaly
4421	MB	03G2142,MB	1000.0	NA ~~1.00~~	4/23/03 HL 1,4-Dioxane ~~PAH 610~~	1.00	0.001	
4422	LCS	201	1000.0					
4423	LCSD	-201	1000.0					
4424	Sample-1	03-2810-L	1000.0					
4425	MS			4/23/03 HL				
4426	MSD							
4427	Sample-2	03-2809-3	1000.0	NA	1,4-Dioxane ~~PAH 610~~	1.00	0.001	
4428	Sample-3	03-2765-1	1000.0					
4429	Sample-4							
4430	Sample-5							
4431	Sample-6							
4432	Sample-7							
4433	Sample-8							
4434	Sample-9							
4435	Sample-10							
4436	Sample-11							
4437	Sample-12							
4438	Sample-13			4/23/03 HL				
4439	Sample-14							
4440	Sample-15							
4441	Sample-16							
4442	Sample-17							
4443	Sample-18							
4444	Sample-19							
4445	Sample-20							
4446	MTX Dup.							
4447	LCS′							
4448	LCSD′							
4449	MS′							
4450	MSD′							

Type	Op #	STD Lot #	$C_{std}(ppm) \times V_{std}(mL)/X(g \text{ or } mL) = T$	Op #	STD Lot #	$C_{std}(ppm) \times V_{std}(mL)/X(g \text{ or } mL) = T$
LCS/LCSD	4422	GC-14768	1000 × 20.0 × 1.00 / X = ppb	4423	GC-14768	1000 × 20.0 × 1.00 / X = ppb
MS/MSD		GC-	1000 × × / X = ppb		GC-	1000 × × / X = ppb
LCS′/LCSD′		GC-	1000 × × / X = ppb		GC-	1000 × × / X = ppb
MS′/MSD′		GC-	1000 × × / X = ppb		GC-	1000 × × / X = ppb

4258

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation

Extraction method: **1** 3510–separate funnel; **2** 3520–L-L continue extraction; **3** 3550–Ultrasonic; **4** LUFT–Shaker; **5** 3540–Soxhlet; **6** Solid phase Extraction; **7** Microextraction; **8** SFE; **9** Dilution; **10** Concentration; **11** Other, specify.

Service ID: 2810 Batch # 0392142 Matrix W GC, GC/MS Method 1,4-Dioxane Ext Method 3520C

Sample Extraction

OP. by HL Date 4/23/03 Surro Lot GC- NA Conc. NA pp
LCS Lot GC- 14768 Conc. 20.0 pp MS Lot GC- 14768 Conc. 20.0 pp
Ext. solv. CHCl3 Lot # 027471 Exchage solv. NA Lot # NA

Sample ID	K01	101	J01	-2				
Sample Matrix	W							
Sample Amount, X (g/mL)	1000.0	1000.0	1000.0	1000.0				
Any TCLP, EP, WET, SPLP ?								
Surr. STD used, mL	NA							
Spike STD used, mL		1.00						
[Extracted at pH]								
Solvent amount, mL	200.0	X	X	X	X	X	X	X
Final volume, V_t mL	1.00							
Extraction DF $f_e = V/X$	0.001							
Sub-ID of extracts	1,4-Dioxane							
Anomaly Footnote† :								

Sample Cleanup

Op. by Date / / (For details, see Cleanup worksheet)

Cleanup method:								
Cleanup DF, f_c								
Preparation DF, $f_1 = f_e\ f_c$								

Pre-injection*:

Op. by Date / / IS Lot : GC- Conc. pp

2nd dilution, f_2	(1)							
V_t, μL	(40)							

Single Extract GC, GC/MS Analysis:

$V_2 = V_t/f_2$, μL	(40/f_2)							
$V_{solvent} = V_t - V_2$, μL								

Double Extract GC, GC/MS Analysis:

$V_> = \frac{1}{2} V_t/f_2$, μL	(20/f_2)							
$V_< = \frac{1}{2} \frac{V_t}{f_2} \frac{f_<}{f_>}$, μL	($\frac{20}{f_2} \frac{f_<}{f_>}$)							
$V_{solvent} = V_t - V_> - V_<$								
IS volume, μL	(10)							
Final Conc. of IS	(40 ppm)							
Total $F = 2\ f_1\ f_>$ or $f_1\ f_2$								

† Extraction Anomaly Footnote:
1. Difficult to concentrate to 1.0 mL.
2. Extract is dark color
3. Extract is sticky
4. Heterogenous matrix.
5. Too much precipitate during extraction.
6. There is an oil layer above the sample.
7. Mixture of soil & water.
8. BN-extract is interfered, A-extract only.
9. Sample has strong stink
10. Some solvent suspected
11. special color, specify

* For double extract analysis (ABN), $f_> = \max[f_A, f_B]$ and $f_< = \min[f_A, f_B]$, where f_A, f_B are f_1 for A and BN extracts, respectively. The values in () is the typical case for 625/8270 ABN analysis.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation

Extraction method: **1** 3510–separate funnel; **2** 3520–L-L continue extraction; **3** 3550–Ultrasonic; **4** LUFT–Shaker; **5** 3540–Soxhlet; **6** Solid phase Extraction; **7** Microextraction; **8** SFE; **9** Dilution; **10** Concentration; **11** Other, specify.

Service ID: 2809 Batch # 352442 Matrix W GC, GC/MS Method 1,4-Dioxane Ext Method 3520C

Sample Extraction

	OP. by	HL	Date	4/23/02	Surro Lot	GC- NA	Conc.	NA pp
	LCS Lot	GC- 14768	Conc.	20.0 pp	MS Lot	GC- 14768	Conc.	20.0 pp
	Ext. solv.	CHCl3	Lot #	027471	Exchage solv.	NA	Lot #	NA
Sample ID		-3						
Sample Matrix		W						
Sample Amount, X (g/mL)		1000.0						
Any TCLP, EP, WET, SPLP ?								
Surr. STD used, mL		NA						
Spike STD used, mL								
[Extracted at pH]		/	/	/	/	/	/	/	/
Solvent amount, mL		200.0	x	x	x	x	x	x	x
Final volume, V, mL		1.00						
Extraction DF $f_e = V/X$		200/1						
Sub-ID of extracts		1,4-Dioxane						
Anomaly Footnote† :								

Sample Cleanup

	Op. by		Date	/ /	(For details, see Cleanup worksheet)			
Cleanup method:								
Cleanup DF, f_c								
Preparation DF, $f_1 = f_e\, f_c$								

Pre-injection*:

	Op. by		Date	/ /	IS Lot :	GC-	Conc.	pp
2nd dilution, f_2	(1)							
V_t, μL	(40)							

Single Extract GC, GC/MS Analysis:

$V_2 = V_t/f_2$, μL	($40/f_2$)							
$V_{solvent} = V_t - V_2$, μL								

Double Extract GC, GC/MS Analysis:

$V_> = \frac{1}{2} V_t/f_2$, μL	($20/f_2$)							
$V_< = \frac{1}{2}\frac{V_t}{f_2}\frac{f_<}{f_>}$, μL	($\frac{20}{f_2}\frac{f_<}{f_>}$)							
$V_{solvent} = V_t - V_> - V_<$								
IS volume, μL	(10)							
Final Conc. of IS	(40 ppm)							
Total $F = 2\, f_1\, f_>$ or $f_1\, f_2$								

† Extraction Anomaly Footnote:

1. Difficult to concentrate to 1.0 mL.
2. Extract is dark color
3. Extract is sticky
4. Heterogenous matrix.
5. Too much precipitate during extraction.
6. There is an oil layer above the sample.
7. Mixture of soil & water.
8. BN-extract is interfered, A-extract only.
9. Sample has strong stink
10. Some solvent suspected
11. special color, specify

* For double extract analysis (ABN), $f_> = \max[f_A, f_B]$ and $f_< = \min[f_A, f_B]$, where f_A, f_B are f_1 for A and BN extracts, respectively. The values in () is the typical case for 625/8270 ABN analysis.

M LOG-063

lied P & Ch Laboratory
Magnolia Ave. Chino CA 91710
909) 590-1828 Fax: (909) 590-1498

Semi-VOC Analysis Logbook

nce # 02G502)

Starting Date: 12-17-02 Time 2:19 pm Analyst: JY

type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path: _____

ne Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others _____

	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
			SP	G502)P01	DFTPP625			99	G502)P01	✓	12-17-02 2:19pm
			Cali-	M06-040	D105M06			1	M06-040	✓	40ppm G1C14554
				-030				2	-030	✓	30
				-020				3	-020	✓	20
				-010				4	-010	✓	10
990				-001				5	-001	✓	1
991			CCV	G502)Q01				100	G502)Q01	✓	G1C14554
992	02G502)	W	MB	K01			0.001	6	K01	✓	
993			LCS	L01				7	L01	✓	
994			LCSD	J01				8	J01	✓	
995			MS	M01				9	M01	✓	$6556-03
996			MSD	N01				10	N01	✓	1
997			MS'	M02			0.000962	11	M02	✓	$6587-01
998			MSD'	N02				12	N02	✓	1
2999				6587-01				13	6587-01	✓	
3000				-02				14	-02	✓	
3001				-03				15	-03	✓	
3002				6556-01			0.002	16	6556-01	✓	
3003				-02			0.001	17	-02	✓	
3004				-03				18	-03	✓	
3005				6588-01			0.000962	19	6588-01	✓	
3006				6603-01				20	6603-01	✓	
3007				-02				21	-02	✓	
3008				6558-01				22	6558-01	✓	
3009				-03			0.001	23	-03	✓	
3010				6586-02				24	6586-02	✓	
3011				-04				25	-04	✓	
3012				-05				26	-05	✓	
3013				-06				27	-06	✓	overscale
3014				-08				28	-08	✓	✓

Footnote/Anomaly:

* Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

** Method name: [MMMM][S][nnn]. [MMMM] – method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] – APCL system code; [nnn] – initial calibration number.

† Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

FILE: [CUST.DOC.GC]GC_LOG .TEX Root-File: GC_LOG_ROOT.TEX 1-Page-File:[CUST.DOC.GC]GC_LOG1.TEX
APCL form 7-101, Nov 22, 2000; Ver 5.0 No pencil. Use blue pen for record. Use red pen for correction.

Supervisor Initial 4267

Applied P & Ch Laboratory
Magnolia Ave. Chino CA 91710
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M LOG-063

Semi-VOC Analysis Logbook

Sequence # 02G502J Starting Date: 12-17-02 Time 2:19 pm Analyst: JY

Type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path: _____

Line Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others _____

	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
			SP	G502J P01	DFTPP625			99	G502J P01	✓	12-17-02 2:19pm
			Cali-	M06-040	D105M06			1	M06-040	✓	40ppm GC14554
987				-030				2	-030	✓	30
988				-020				3	-020	✓	20
989				-010				4	-010	✓	10
990			↓	-001				5	-001	✓	1
991			CCV	G502J Q01				100	G502J Q01	✓	GC14554
992	02G502J	W	MB	K01			0.001	6	K01	✓	
993			LCS	L01				7	L01	✓	
994			LCSD	J01				8	J01	✓	
995			MS	M01				9	M01	✓	$6556-03
996			MSD	N01				10	N01	✓	1
997			MS'	M02			0.000962	11	M02	✓	$6587-01
998			MSD'	N02				12	N02	✓	1
999				6587-01				13	6587-01	✓	
3000				-02				14	-02	✓	
3001				-03				15	-03	✓	
3002				6556-01			0.002	16	6556-01	✓	
3003				-02			0.001	17	-02	✓	
3004				-03				18	-03	✓	
3005				6588-01			0.000962	19	6588-01	✓	
3006				6603-01				20	6603-01	✓	
3007				-02				21	-02	✓	
3008				6558-01				22	6558-01	✓	
3009				-03			0.001	23	-03	✓	
3010				6586-02				24	6586-02	✓	
3011				-04				25	-04	✓	
3012				-05				26	-05	✓	
3013				-06				27	-06	2.0 overscale	
3014				-08				28	-08	↓	✓

Footnote/Anomaly:

* Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

** Method name: [MMMM][S][nnn]. [MMMM] – method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] – APCL system code; [nnn] – initial calibration number.

† Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

Supervisor Initial [illegible]

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Semi-VOC Analysis Logbook

M

LOG-133

Sequence # 03G2129

Starting Date: 4-22-03 Time 9:37 pm Analyst: JVL

Seq. type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study

Datafile Path: C:\HPCHEM\1\DATA\03G2129

Routine Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others

Op. #	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
5225			SP	G2129P01	DFTPP625			99	G2129P01	✓	4-22-03 9:37pm G14349
5226			CCV	Q01	D1051M06			100	Q01	✓	G14554
5227	03G2129	9	MB	K01			0.0333	1	K01	✓	
5228			LCS	L01				2	L01	✓	
5229			LCSD	J01				3	J01	✓	
5230			MS	M01				4	M01	✓	$2808-01
5231			MSD	N01				5	N01	✓	1
5232				2808-01				6	2808-01	✓	
5233				2806-02				7	2806-02	✓	
5234				G2129E01				100	G2129E01		
5235			SP	P02	DFTPP625			99	P02	✓	4-24-03 8:14pm
5236			CCV	Q02	D1051M06			100	Q02	X	G14554
5237			↓	Q03				100	Q03		1
5238	03G2142	W	MB	G2142K01			0.001	1	G2142K01	✓	
5239			LCS	L01				2	L01	✓	
5240			LCSD	J01				3	J01	✓	
5241				2765-01				4	2765-01	✓	
5242				2809-03				5	2809-03	✓	
5243				2810-02				6	2810-02	✓	
5244				G2129E02				100	G2129E02		
5245			SP	P03	DFTPP625			99	P03	✓	4-25-03 4:24pm
5246			CCV	Q04	D1051M06			100	Q03	✓	G14554
5247	03G2189	9	MB	G2189K01			0.0333	91	G2189K01	✓	
5248			LCS	L01				2	L01	✓	
5249			LCSD	J01				3	J01	✓	
5250			MS	M01				4	M01	✓	$2862-01
5251			MSD	N01				5	N01	✓	1
5252				2862-01				6	2862-01	✓	
5253				-02				7	-02	✓	
5254				-12				8	-12	✓	

Footnote/Anomaly:

* Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

** Method name: [MMMM][S][nnn]. [MMMM] – method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] – APCL system code; [nnn] – initial calibration number.

† Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

Supervisor Initial 4-23