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

50

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534L01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:18 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:25 2003
Print Time : Tue May 20 11:26 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	9.51	9.44	0.007	96	70	665.707	10.00		0.06	
47	47	Cl-benzene-d5, I2	13.11	13.05	0.004	82	119	201.715	10.00		0.06	
62	62	1,4-DCB-d4 150 15	15.61	15.56	0.004	152	150	191.235	10.00		0.06	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Methane (	7.95	7.90	0.003	111	113	505.864	20.47	20.5	102.33%	
29	29	1,2-di-Cl-ethane-	8.51	8.47	0.003	65	102	235.186	20.93	20.9	104.67%	
55	55	toluene-d8(S2)	11.60	11.54	0.004	100	99	665.769	19.85	19.9	99.26%	
70	70	4-Br-1-F-Bz (S3)	14.34	14.28	0.004	174	95	278.155	17.65	17.7	88.25%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	2.98	2.95	0.003	85	87	307.843	21.81	21.8	94	
4	4	Chloromethane	3.18	3.15	0.003	50	52	233.348	20.03	20.0	93	
9	9	F114 85 135	3.22	3.20	0.002	85	135	361.777	19.97	20.0	99	
5	5	vinyl chloride	3.38	3.35	0.003	62	64	271.350	21.03	21.0	99	
6	6	bromomethane	3.81	3.78	0.003	94	96	212.058	18.48	18.5	91	
7	7	Chloroethane	3.98	3.94	0.004	64	66	212.653	20.92	20.9	96	
8	8	tri-Cl-F-methane	4.64	4.62	0.003	101	103	562.553	21.36	21.4	98	?
111	111	isopropyl alcoho	4.75	4.73	0.003	45	43	69.322	259.99	260.0	14	#
100	100	ethyl ether x5	4.95	4.90	0.005	59	74	940.105	99.03	99.0	98	
102	102	Acrolein x10	4.65	4.62	0.003	56	55	118.199	159.23	159.2	83	?
119	119	methyl acetate	5.59	5.54	0.005	43	74	203.078	17.31	17.3	97	?
104	104	Carbon disulfide	5.74	5.69	0.005	76	78	777.491	18.76	18.8	98	
103	103	Acrylonitrilex10	5.41	5.36	0.005	53	52	345.153	210.32	210.3	96	
95	95	Acetone x10	4.81	4.77	0.004	43	58	413.861	363.25	363.2	88	
108	108	F-113	5.55	5.50	0.005	151	101	465.261	20.30	20.3	96	
13	13	11-dichloroethene	5.30	5.24	0.006	61	96	481.896	20.01	20.0	99	
101	101	Acetonnitrilex10	4.70	4.65	0.005	41	40	74.887	178.63	178.6	22	#
109	109	Iodomethane	5.34	5.29	0.005	142	127	500.396	18.32	18.3	92	
113	113	Tert butyl alcoh	5.37	5.32	0.005	59	57	103.340	168.50	168.5	81	#

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

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

51

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534L01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:18 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:25 2003
Print Time : Tue May 20 11:27 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	5.50	5.45	0.005	84	49	353.601	21.67	21.7	97	
	112 Allyl chloride	5.61	5.56	0.005	41	76	531.709	21.10	21.1	93	?
200	200 Nitro methane x1	6.37	6.31	0.006	61	46	575.317	220.81	220.8	91	#?
10	10 t-Bu-Me-ether	6.56	6.51	0.006	73	57	681.711	20.67	20.7	99	
19	19 t-12-di-Cl-ethene	6.38	6.31	0.007	96	61	365.932	20.87	20.9	92	?
98	98 Vinyl acetate x5	6.96	6.90	0.006	43	86	1717.341	133.37	133.4	99	
21	21 11-dichloroethane	6.72	6.66	0.007	63	83	749.943	21.45	21.4	98	
91	91 2-butanone MEKx10	7.37	7.31	0.006	43	72	1395.367	223.37	223.4	94	?
115	115 Di isoprop ether	7.39	7.34	0.005	45	87	1783.369	18.85	18.8	99	?
22	22 c-12-di-Cl-ethene	7.51	7.46	0.006	96	61	375.553	20.06	20.1	95	
23	23 22-Dichloropropan	7.88	7.82	0.007	77	97	609.203	21.38	21.4	99	
24	24 Br-Cl-methane	7.72	7.67	0.005	128	130	162.448	20.23	20.2	95	
25	25 chloroform	7.79	7.74	0.006	83	85	678.206	19.88	19.9	100	
201	201 Ethyl acetate x2	7.82	7.78	0.005	43	61	353.436	44.98	45.0	74	#?
116	116 ETBE	7.91	7.86	0.006	59	87	1115.736	20.63	20.6	100	
117	117 Iso-butyl alcoho	7.82	7.78	0.005	43	42	361.789	223.85	223.9	37	#?
26	26 tetrahydrofuranx5	8.21	8.17	0.004	72	42	73.893	103.90	103.9	95	
34	34 111-tri-Cl-ethane	8.73	8.68	0.005	97	99	571.463	21.50	21.5	98	
30	30 12-dichloroethane	8.63	8.57	0.006	62	64	277.000	19.82	19.8	94	
35	35 11-Di-Cl-propene	8.97	8.91	0.006	75	110	469.215	19.89	19.9	95	
36	36 benzene	9.23	9.17	0.006	78	52	1141.219	20.14	20.1	99	
37	37 CCl4	9.18	9.12	0.007	117	119	495.280	20.72	20.7	99	
97	97 thiophene	9.38	9.32	0.007	84	58	557.379	19.73	19.7	98	
118	118 TAME	9.47	9.40	0.007	73	43	776.870	20.29	20.3	100	
39	39 12-di-Cl-propane	9.96	9.90	0.006	63	76	345.364	20.64	20.6	99	
40	40 trichloroethene	10.01	9.95	0.006	130	132	404.229	19.95	20.0	98	
96	96 Me-methacrylate	10.29	10.23	0.006	69	100	133.574	20.20	20.2	98	
42	42 Br-di-Cl-methane	10.07	10.02	0.005	83	85	449.701	20.42	20.4	96	
41	41 dibromomethane	9.92	9.86	0.006	174	172	166.389	19.39	19.4	98	
45	45 c-13-di-Cl-propen	10.83	10.76	0.007	75	110	417.761	20.28	20.3	96	?
92	92 2-ClEt-Vi-ether10	10.59	10.53	0.006	63	43	346.159	200.60	200.6	98	
56	56 toluene	11.67	11.61	0.006	91	92	1045.337	19.21	19.2	99	

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

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

52

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534L01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:18 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:25 2003
Print Time : Tue May 20 11:27 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	11.79	11.73	0.006	69	99	230.164	24.49	24.5	97	
93	93 2-Hexanone x5	11.92	11.86	0.006	43	58	471.684	127.50	127.5	97	
48	48 112-tri-Cl-Et	11.48	11.42	0.006	97	83	153.862	18.65	18.6	93	
58	58 1,2-di-br-ethane	12.28	12.22	0.007	107	109	172.429	19.65	19.6	99	
51	51 di-Br-Cl-methane	12.02	11.96	0.006	129	127	269.482	20.09	20.1	99	
46	46 t-13-di-cl-propen	10.83	10.76	0.007	75	110	417.761	20.28	20.3	96	?
105	105 1-Chlorohexane	13.07	13.01	0.006	55	93	345.456	19.29	19.3	98	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.97	10.91	0.004	43	58	142.651	22.23	22.2	89	
49	49 1,3-di-cl-propane	11.74	11.68	0.005	76	78	276.321	19.34	19.3	97	
59	59 tetra-Cl-ethene	12.44	12.39	0.004	166	168	339.013	19.63	19.6	99	
60	60 chlorobenzene	13.15	13.08	0.005	112	77	658.043	20.37	20.4	99	
61	61 1112-tetra-Cl-Et	13.07	13.01	0.005	131	133	313.022	21.52	21.5	96	?
64	64 ethylbenzene	13.34	13.28	0.004	91	106	1120.315	19.58	19.6	99	
65	65 m/p-Xylenes x2	13.54	13.48	0.004	91	106	1724.098	40.01	40.0	96	
99	99 1-4-di-Cl-butane	13.89	13.84	0.004	55	41	265.705	22.03	22.0	100	
52	52 bromoform	13.66	13.61	0.004	173	175	123.350	19.84	19.8	96	
66	66 styrene	13.86	13.81	0.004	104	78	651.207	20.72	20.7	83	
67	67 o-xylene	13.93	13.88	0.004	91	106	824.097	19.85	19.8	100	?
68	68 1122-Tetra-Cl-Et	13.94	13.89	0.004	83	85	150.721	21.54	21.5	93	?
110	110 t-1,4-dichloro-2	14.09	14.04	0.004	89	53	28.781	18.28	18.3	75	#?
106	106 Cl-benzyl	15.57	15.52	0.004	91	126	241.153	23.83	23.8	93	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.09	14.04	0.003	110	97	43.083	19.43	19.4	99	?
71	71 isopropylbenzene	14.30	14.24	0.004	105	120	1166.406	18.17	18.2	99	
72	72 bromobenzene	14.55	14.49	0.004	156	158	265.490	19.35	19.4	96	
73	73 n-propylbenzene	14.72	14.66	0.004	120	78	344.553	18.23	18.2	94	
74	74 2-Cl-Tl 126 1	14.83	14.76	0.004	126	128	214.162	18.90	18.9	99	
75	75 4-Cl-Tl 126 1	14.89	14.84	0.003	126	128	322.142	18.96	19.0	99	m
76	76 135-tri-Me-Bz	14.99	14.94	0.003	105	120	911.832	18.22	18.2	100	
79	79 tert-butylbenzene	15.28	15.22	0.004	119	91	1039.198	18.44	18.4	100	
78	78 124-tri-Me-Bz	15.39	15.33	0.004	105	120	778.215	18.61	18.6	97	

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

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

53

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534L01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:18 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:25 2003
Print Time : Tue May 20 11:27 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	15.58	15.52	0.004	146	148	394.544	17.77	17.8	100	
82	82	14-di-Cl-Bz 146	15.64	15.58	0.004	146	148	594.393	18.62	18.6	99	m? 5/20/03
81	81	sec-butylbenzene	15.49	15.44	0.003	105	134	1390.069	17.67	17.7	100	
77	77	4-iso-Pr-toluene	15.66	15.61	0.004	119	134	1078.194	18.10	18.1	100	?
84	84	12-di-Cl-benzene	15.98	15.93	0.003	146	148	388.397	18.20	18.2	99	
85	85	n-butylbenzene	16.05	16.00	0.004	91	134	914.990	17.75	17.8	99	
86	86	12-diBr-3-Cl-Pra	16.45	16.38	0.004	157	155	25.067	18.15	18.1	97	
87	87	124-tri-Cl-Bz	17.73	17.66	0.005	180	182	239.469	17.72	17.7	98	
88	88	naphthalene	17.99	17.92	0.005	128	129	247.930	18.95	18.9	100	?
90	90	123-tri-Cl-Bz	18.17	18.11	0.004	180	182	181.198	17.65	17.6	84	
89	89	hx-Cl-butadiene	18.01	17.95	0.004	225	260	228.103	17.53	17.5	95	?

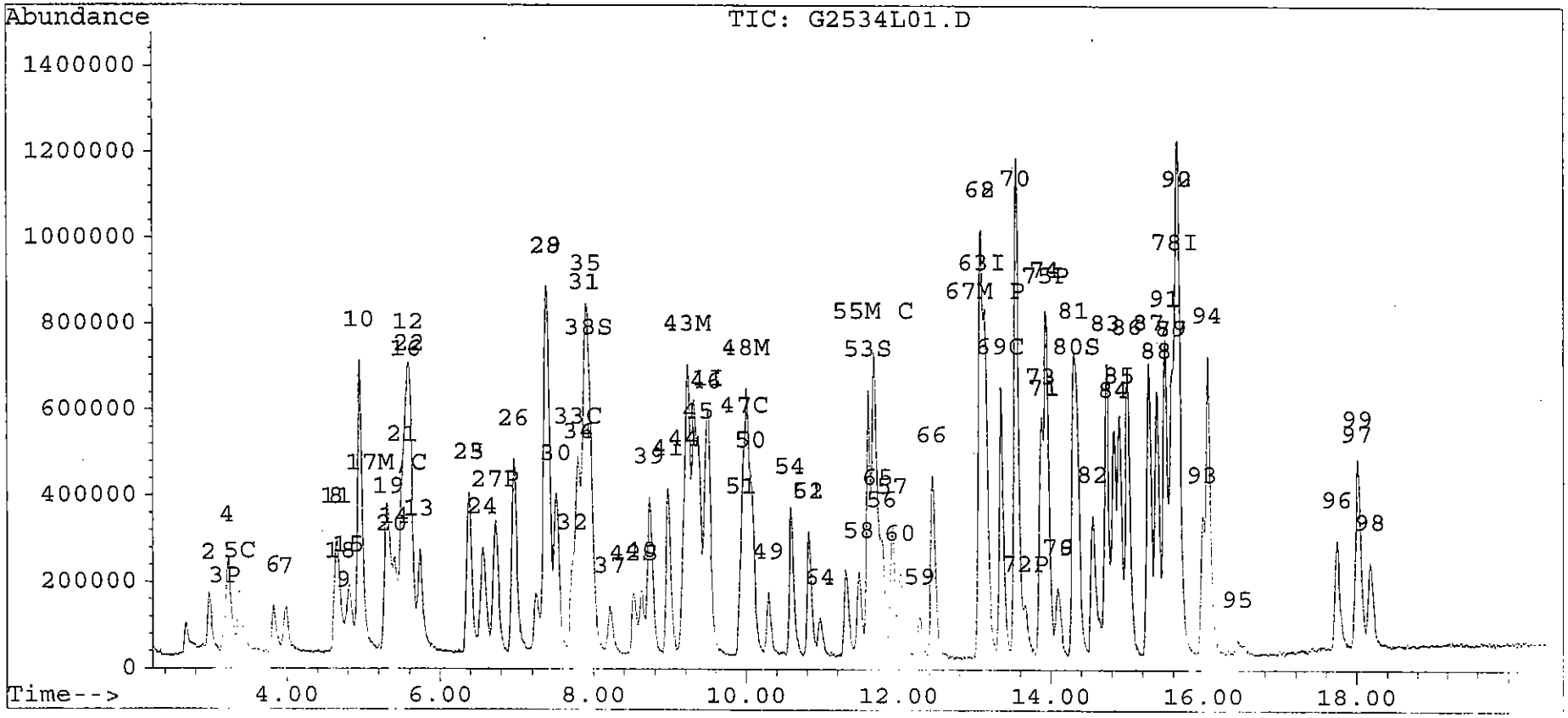
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2534\G2534L01.D
Acq On : 19 May 03 5:18 pm
Sample : f=1
Misc :
Quant Time: May 20 11:25 2003

Vial: 11
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Tue May 20 11:18:18 2003
Response via : Multiple Level Calibration



FORM-3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G2534		
MS Filename:	G2534M01	Date Analyzed:	051903	Time Analyzed:	17:47
MSD Filename:	G2534N01	Date Analyzed:	051903	Time Analyzed:	18:16
MS Sample No:	**MW-22-1**	Sample Lab ID:	03-3130-2		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	μg/L	20	0	18.7	94	65-121
CHLOROBENZENE	μg/L	20	0	19.2	96	65-134
1,1-DICHLOROETHENE	μg/L	20	0	18.7	94	65-127
TOLUENE	μg/L	20	0	18.0	90	65-134
TRICHLOROETHENE	μg/L	20	0	19.1	96	65-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	μg/L	20	20.5	103	9	28	65-121
CHLOROBENZENE	μg/L	20	21.4	107	11	35	65-134
1,1-DICHLOROETHENE	μg/L	20	20.3	102	8	31	65-127
TOLUENE	μg/L	20	19.8	99	10	35	65-134
TRICHLOROETHENE	μg/L	20	21.6	108	12	30	65-125
# 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** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534M01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:47 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:30 2003
Print Time : Tue May 20 11:32 2003
Miscleneous :

Sample : f=1 $3130-02
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	9.50	9.44	0.006	96	70	691.053	10.00		0.06	
47	47	Cl-benzene-d5, I2	13.11	13.05	0.004	82	119	213.121	10.00		0.06	
62	62	1,4-DCB-d4 150 15	15.63	15.56	0.005	152	150	194.829	10.00		0.07	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Methane (	7.95	7.90	0.003	111	113	487.683	19.01	19.0	95.03%	
29	29	1,2-di-Cl-ethane-	8.52	8.47	0.004	65	102	226.889	19.45	19.5	97.27%	
55	55	toluene-d8(S2)	11.59	11.54	0.003	100	99	654.734	18.81	18.8	94.03%	
70	70	4-Br-1-F-Bz (S3)	14.34	14.28	0.004	174	95	277.885	17.31	17.3	86.54%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	2.99	2.95	0.004	85	87	275.408	18.80	18.8	93	
4	4	Chloromethane	3.18	3.15	0.003	50	52	231.932	19.26	19.3	91	
9	9	F114 85 135	3.24	3.20	0.003	85	135	281.833	15.16	15.2	97	
5	5	vinyl chloride	3.38	3.35	0.003	62	64	252.238	18.84	18.8	97	
6	6	bromomethane	3.82	3.78	0.004	94	96	200.816	16.85	16.9	97	
7	7	Chloroethane	3.98	3.94	0.004	64	66	198.148	18.78	18.8	96	
8	8	tri-Cl-F-methane	4.66	4.62	0.005	101	103	527.036	19.28	19.3	97	?
111	111	isopropyl alcoho	4.77	4.73	0.005	45	43	54.714	197.68	197.7	14	#
100	100	ethyl ether x5	4.95	4.90	0.005	59	74	913.115	92.65	92.6	99	
102	102	Acrolein x10	4.66	4.62	0.004	56	55	127.495	165.29	165.3	93	?
119	119	methyl acetate	5.58	5.54	0.004	43	74	277.767	23.28	23.3	94	?
104	104	Carbon disulfide	5.74	5.69	0.005	76	78	696.351	16.18	16.2	97	
103	103	Acrylonitrilex10	5.41	5.36	0.005	53	52	311.411	185.04	185.0	95	
95	95	Acetone x10	4.82	4.77	0.005	43	58	209.490	171.47	171.5	91	
108	108	F-113	5.56	5.50	0.006	151	101	432.173	18.16	18.2	94	?
13	13	11-dichloroethene	5.29	5.24	0.005	61	96	467.892	18.72	18.7	99	
101	101	Acetonnitrilex10	4.70	4.65	0.004	41	40	92.483	210.70	210.7	1	#
109	109	Iodomethane	5.33	5.29	0.004	142	127	383.114	13.55	13.6	91	
113	113	Tert butyl alcoh	5.37	5.32	0.005	59	57	134.643	211.49	211.5	99	

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

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

57

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534M01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:47 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:30 2003
Print Time : Tue May 20 11:33 2003
Miscleneous :

Sample : f=1 $3130-02
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	5.51	5.45	0.006	84	49	317.061	18.72	18.7	93	
	112 Allyl chloride	5.62	5.56	0.006	41	76	492.315	18.68	18.7	93	
200	200 Nitro methane x1	6.37	6.31	0.006	61	46	561.328	207.54	207.5	95	#?
10	10 t-Bu-Me-ether	6.56	6.51	0.006	73	57	655.424	19.14	19.1	99	
19	19 t-12-di-Cl-ethene	6.38	6.31	0.007	96	61	356.652	19.60	19.6	91	?
98	98 Vinyl acetate x5	6.96	6.90	0.006	43	86	1094.707	86.72	86.7	99	
21	21 11-dichloroethane	6.73	6.66	0.008	63	83	726.302	20.01	20.0	97	
91	91 2-butanone MEKx10	7.38	7.31	0.007	43	72	1160.570	178.97	179.0	98	?
115	115 Di isoprop ether	7.39	7.34	0.005	45	87	1762.381	17.94	17.9	99	?
22	22 c-12-di-Cl-ethene	7.51	7.46	0.005	96	61	357.533	18.40	18.4	95	
23	23 22-Dichloropropan	7.88	7.82	0.007	77	97	586.418	19.83	19.8	98	
24	24 Br-Cl-methane	7.73	7.67	0.006	128	130	154.293	18.54	18.5	92	
25	25 chloroform	7.79	7.74	0.006	83	85	666.838	18.83	18.8	99	
201	201 Ethyl acetate x2	7.82	7.78	0.005	43	61	288.668	36.31	36.3	66	#?
116	116 ETBE	7.91	7.86	0.006	59	87	1091.397	19.44	19.4	98	
117	117 Iso-butyl alcoho	7.82	7.78	0.005	43	42	307.007	185.48	185.5	37	#?
26	26 tetrahydrofuranx5	8.22	8.17	0.005	72	42	68.514	92.81	92.8	77	
34	34 111-tri-Cl-ethane	8.73	8.68	0.005	97	99	548.036	19.86	19.9	98	
30	30 12-dichloroethane	8.62	8.57	0.005	62	64	280.026	19.33	19.3	94	
35	35 11-Di-Cl-propene	8.97	8.91	0.006	75	110	458.444	18.72	18.7	96	
36	36 benzene	9.24	9.17	0.007	78	52	1099.558	18.69	18.7	99	
37	37 CCl4	9.18	9.12	0.007	117	119	482.339	19.44	19.4	98	
97	97 thiophene	9.37	9.32	0.006	84	58	538.578	18.37	18.4	93	
118	118 TAME	9.46	9.40	0.006	73	43	767.834	19.32	19.3	98	
39	39 12-di-Cl-propane	9.95	9.90	0.005	63	76	329.253	18.95	19.0	93	
40	40 trichloroethene	10.01	9.95	0.006	130	132	400.967	19.06	19.1	94	
96	96 Me-methacrylate	10.29	10.23	0.006	69	100	134.598	19.65	19.7	99	
42	42 Br-di-Cl-methane	10.06	10.02	0.005	83	85	442.571	19.37	19.4	98	
41	41 dibromomethane	9.91	9.86	0.005	174	172	158.138	17.81	17.8	98	
45	45 c-13-di-Cl-propen	10.82	10.76	0.006	75	110	405.929	18.99	19.0	97	?
56	56 toluene	11.67	11.61	0.006	91	92	1018.981	18.04	18.0	98	
107	107 Et methacrylate	11.78	11.73	0.005	69	99	175.630	18.43	18.4	98	

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

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

58

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534M01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:47 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:30 2003
Print Time : Tue May 20 11:33 2003
Miscleneous :

Sample : f=1 $3130-02
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
93	93	2-Hexanone x5	11.91	11.86	0.006	43	58	350.858	92.95	93.0	92	
48	48	112-tri-Cl-Et	11.48	11.42	0.006	97	83	157.564	18.40	18.4	97	
58	58	1,2-di-br-ethane	12.27	12.22	0.006	107	109	166.105	18.28	18.3	98	
51	51	di-Br-Cl-methane	12.02	11.96	0.006	129	127	273.438	19.64	19.6	100	
46	46	t-13-di-cl-propen	10.82	10.76	0.006	75	110	405.929	18.99	19.0	97	?
105	105	1-Chlorohexane	13.06	13.01	0.005	55	93	339.796	18.28	18.3	98	?
<<< I2 : ISTD ID = 47 >>>												
54	54	MIBK	10.96	10.91	0.004	43	58	162.239	23.93	23.9	91	
49	49	1,3-di-cl-propane	11.73	11.68	0.004	76	78	280.523	18.58	18.6	96	
59	59	tetra-Cl-ethene	12.45	12.39	0.004	166	168	344.755	18.90	18.9	99	
60	60	chlorobenzene	13.14	13.08	0.004	112	77	655.333	19.20	19.2	99	
61	61	1112-tetra-Cl-Et	13.07	13.01	0.004	131	133	306.485	19.94	19.9	99	?
64	64	ethylbenzene	13.34	13.28	0.004	91	106	1100.987	18.21	18.2	100	
65	65	m/p-Xylenes x2	13.54	13.48	0.004	91	106	1702.008	37.39	37.4	99	
99	99	1-4-di-Cl-butane	13.89	13.84	0.004	55	41	262.111	20.48	20.5	99	
52	52	bromoform	13.67	13.61	0.005	173	175	126.667	19.28	19.3	96	
66	66	styrene	13.86	13.81	0.004	104	78	628.207	18.84	18.8	80	
67	67	o-xylene	13.93	13.88	0.004	91	106	821.848	18.74	18.7	98	?
68	68	1122-Tetra-Cl-Et	13.93	13.89	0.004	83	85	141.700	19.17	19.2	97	?
110	110	t-1,4-dichloro-2	14.09	14.04	0.004	89	53	29.244	17.58	17.6	70	#?
106	106	Cl-benzyl	15.58	15.52	0.005	91	126	233.316	21.69	21.7	91	?
<<< I3 : ISTD ID = 62 >>>												
69	69	123-tri-Cl-Pr	14.08	14.04	0.003	110	97	43.236	19.14	19.1	100	?
71	71	isopropylbenzene	14.29	14.24	0.004	105	120	1161.362	17.75	17.8	98	
72	72	bromobenzene	14.55	14.49	0.004	156	158	254.520	18.21	18.2	93	
73	73	n-propylbenzene	14.73	14.66	0.004	120	78	340.459	17.68	17.7	95	
74	74	2-Cl-Tl 126 1	14.82	14.76	0.004	126	128	227.237	19.69	19.7	92	
75	75	4-Cl-Tl 126 1	14.90	14.84	0.004	126	128	309.339	17.87	17.9	92	m
76	76	135-tri-Me-Bz	15.01	14.94	0.004	105	120	917.250	17.99	18.0	98	
79	79	tert-butylbenzene	15.29	15.22	0.004	119	91	1017.501	17.73	17.7	90	
78	78	124-tri-Me-Bz	15.39	15.33	0.004	105	120	789.762	18.54	18.5	96	
80	80	13-di-Cl-Bz 146	15.58	15.52	0.004	146	148	444.369	19.64	19.6	90	?

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

5/20(13

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

59

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534M01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 17:47 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:30 2003
Print Time : Tue May 20 11:33 2003
Miscleneous :

Sample : f=1 $3130-02
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	15.64	15.58	0.004	146	148	600.231	18.46	18.5	89	m? bc
81	81	sec-butylbenzene	15.49	15.44	0.004	105	134	1352.416	16.88	16.9	99	5/20/03
77	77	4-iso-Pr-toluene	15.66	15.61	0.004	119	134	1076.506	17.73	17.7	99	?
84	84	12-di-Cl-benzene	15.99	15.93	0.004	146	148	388.184	17.86	17.9	96	
85	85	n-butylbenzene	16.06	16.00	0.004	91	134	918.559	17.49	17.5	99	
86	86	12-diBr-3-Cl-Pra	16.47	16.38	0.006	157	155	25.630	18.20	18.2	95	
87	87	124-tri-Cl-Bz	17.74	17.66	0.005	180	182	243.735	17.70	17.7	97	
88	88	naphthalene	17.99	17.92	0.005	128	129	236.861	17.85	17.9	98	?
90	90	123-tri-Cl-Bz	18.18	18.11	0.005	180	182	189.198	18.08	18.1	90	
89	89	hx-Cl-butadiene	18.01	17.95	0.004	225	260	233.618	17.62	17.6	97	?

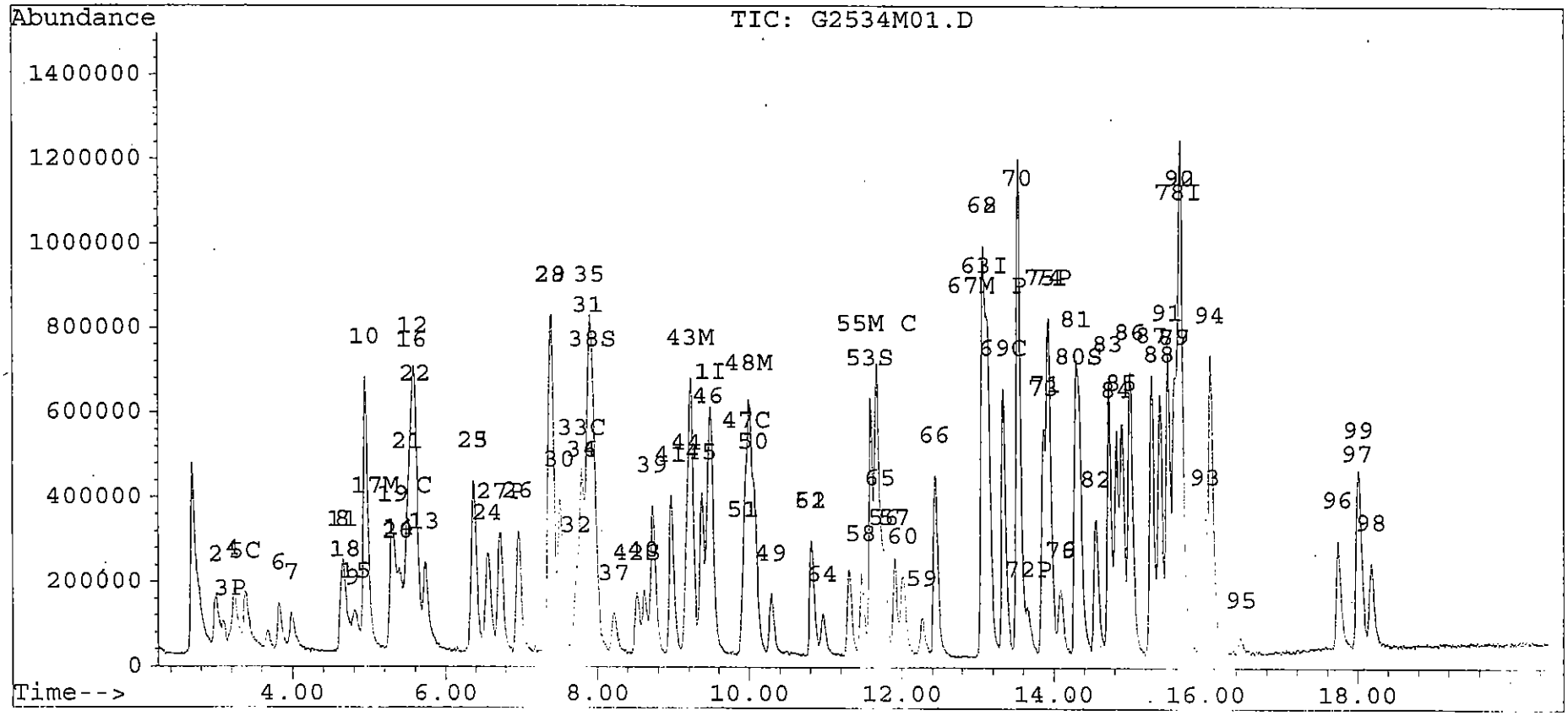
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2534\G2534M01.D
Acq On : 19 May 03 5:47 pm
Sample : f=1 $3130-02
Misc :
Quant Time: May 20 11:30 2003

Vial: 12
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Tue May 20 11:18:18 2003
Response via : Multiple Level Calibration



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

19

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534N01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 18:16 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:35 2003
Print Time : Tue May 20 11:36 2003
Miscleneous :

Sample : f=1 $3130-02
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	9.50	9.44	0.006	96	70	624.964	10.00		0.06	
47	47 Cl-benzene-d5, I2	13.11	13.05	0.005	82	119	187.075	10.00		0.06	
62	62 1,4-DCB-d4 150 15	15.62	15.56	0.004	152	150	178.631	10.00		0.06	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.95	7.90	0.003	111	113	498.400	21.48	21.5	107.39%	
29	29 1,2-di-Cl-ethane-	8.52	8.47	0.004	65	102	234.280	22.21	22.2	111.06%	
55	55 toluene-d8(S2)	11.60	11.54	0.004	100	99	651.158	20.68	20.7	103.41%	
70	70 4-Br-1-F-Bz (S3)	14.35	14.28	0.004	174	95	281.775	19.14	19.1	95.71%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.98	2.95	0.003	85	87	279.319	21.08	21.1	94	
4	4 Chloromethane	3.19	3.15	0.004	50	52	230.548	20.97	21.0	93	
9	9 F114 85 135	3.23	3.20	0.003	85	135	304.331	17.97	18.0	91	
5	5 vinyl chloride	3.39	3.35	0.004	62	64	259.672	21.44	21.4	97	
6	6 bromomethane	3.82	3.78	0.004	94	96	222.134	20.62	20.6	94	
7	7 Chloroethane	3.98	3.94	0.004	64	66	193.720	20.30	20.3	95	
8	8 tri-Cl-F-methane	4.65	4.62	0.003	101	103	511.315	20.68	20.7	91	?
111	111 isopropyl alcoho	4.76	4.73	0.003	45	43	31.924	127.54	127.5	1	#
100	100 ethyl ether x5	4.95	4.90	0.005	59	74	924.855	103.79	103.8	97	
102	102 Acrolein x10	4.66	4.62	0.005	56	55	204.992	290.61	290.6	86	?
119	119 methyl acetate	5.58	5.54	0.004	43	74	158.929	14.19	14.2	97	?
104	104 Carbon disulfide	5.74	5.69	0.005	76	78	698.072	17.94	17.9	96	
103	103 Acrylonitrilex10	5.41	5.36	0.005	53	52	320.554	208.25	208.2	96	?
95	95 Acetone x10	4.81	4.77	0.004	43	58	209.870	191.14	191.1	93	
108	108 F-113	5.56	5.50	0.006	151	101	439.239	20.41	20.4	96	?
13	13 11-dichloroethene	5.30	5.24	0.006	61	96	458.384	20.28	20.3	100	
101	101 Acetonnitrilex10	4.69	4.65	0.004	41	40	80.519	203.20	203.2	21	#
109	109 Iodomethane	5.33	5.29	0.004	142	127	334.332	13.08	13.1	96	
113	113 Tert butyl alcoh	5.39	5.32	0.008	59	57	132.150	229.53	229.5	89	#?

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

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

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534N01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 18:16 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:35 2003
Print Time : Tue May 20 11:36 2003
Miscleneous :

Sample : f=1 $3130-02
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	5.50	5.45	0.005	84	49	325.790	21.27	21.3	97	
	112 Allyl chloride	5.62	5.56	0.006	41	76	494.025	20.87	20.9	91	
200	200 Nitro methane x1	6.38	6.31	0.007	61	46	562.477	229.96	230.0	94	#?
10	10 t-Bu-Me-ether	6.56	6.51	0.006	73	57	664.011	21.44	21.4	99	
19	19 t-12-di-Cl-ethene	6.38	6.31	0.007	96	61	358.960	21.81	21.8	92	?
98	98 Vinyl acetate x5	6.96	6.90	0.006	43	86	1860.796	152.00	152.0	99	
21	21 11-dichloroethane	6.73	6.66	0.008	63	83	741.220	22.58	22.6	99	
91	91 2-butanone MEKx10	7.38	7.31	0.007	43	72	1192.534	203.34	203.3	99	?
115	115 Di isoprop ether	7.39	7.34	0.005	45	87	1763.634	19.86	19.9	99	?
22	22 c-12-di-Cl-ethene	7.51	7.46	0.005	96	61	370.741	21.10	21.1	97	
23	23 22-Dichloropropan	7.87	7.82	0.006	77	97	586.065	21.91	21.9	98	
24	24 Br-Cl-methane	7.71	7.67	0.004	128	130	163.322	21.63	21.6	98	
25	25 chloroform	7.79	7.74	0.006	83	85	678.724	21.19	21.2	100	
201	201 Ethyl acetate x2	7.83	7.78	0.006	43	61	381.596	51.08	51.1	83	#?
116	116 ETBE	7.91	7.86	0.006	59	87	1121.446	22.10	22.1	100	
117	117 Iso-butyl alcoho	7.83	7.78	0.006	43	42	390.143	255.10	255.1	36	#?
26	26 tetrahydrofuranx5	8.21	8.17	0.004	72	42	70.029	104.89	104.9	76	
34	34 111-tri-Cl-ethane	8.73	8.68	0.005	97	99	556.646	22.31	22.3	97	
30	30 12-dichloroethane	8.62	8.57	0.005	62	64	284.077	21.57	21.6	96	
35	35 11-Di-Cl-propene	8.96	8.91	0.005	75	110	458.294	20.70	20.7	97	
36	36 benzene	9.23	9.17	0.006	78	52	1089.565	20.48	20.5	99	
37	37 CCl4	9.17	9.12	0.006	117	119	491.508	21.91	21.9	98	
97	97 thiophene	9.36	9.32	0.005	84	58	546.623	20.61	20.6	94	
118	118 TAME	9.46	9.40	0.006	73	43	775.409	21.56	21.6	100	
39	39 12-di-Cl-propane	9.95	9.90	0.005	63	76	334.797	21.31	21.3	95	
40	40 trichloroethene	10.00	9.95	0.005	130	132	410.175	21.56	21.6	99	
96	96 Me-methacrylate	10.29	10.23	0.006	69	100	132.649	21.28	21.3	99	
42	42 Br-di-Cl-methane	10.06	10.02	0.004	83	85	446.673	21.60	21.6	97	
41	41 dibromomethane	9.92	9.86	0.006	174	172	161.745	20.05	20.0	99	
45	45 c-13-di-Cl-propen	10.81	10.76	0.005	75	110	411.377	21.28	21.3	95	?
56	56 toluene	11.67	11.61	0.006	91	92	1012.850	19.83	19.8	97	
107	107 Et methacrylate	11.79	11.73	0.006	69	99	260.113	29.16	29.2	99	

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

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

63

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534N01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 18:16 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:35 2003
Print Time : Tue May 20 11:36 2003
Miscleneous :

Sample : f=1 $3130-02
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
93	93	2-Hexanone x5	11.91	11.86	0.005	43	58	378.924	109.92	109.9	95	
48	48	112-tri-Cl-Et	11.47	11.42	0.005	97	83	154.714	19.96	20.0	96	
58	58	1,2-di-br-ethane	12.28	12.22	0.007	107	109	165.340	20.06	20.1	97	
51	51	di-Br-Cl-methane	12.02	11.96	0.006	129	127	271.215	21.51	21.5	99	
46	46	t-13-di-cl-propen	10.81	10.76	0.005	75	110	411.377	21.28	21.3	95	?
105	105	1-Chlorohexane	13.07	13.01	0.007	55	93	336.796	20.03	20.0	99	?
<<< I2 : ISTD ID = 47 >>>												
54	54	MIBK	10.96	10.91	0.004	43	58	173.016	29.09	29.1	95	
49	49	1,3-di-cl-propane	11.73	11.68	0.004	76	78	271.488	20.49	20.5	97	
59	59	tetra-Cl-ethene	12.45	12.39	0.004	166	168	336.342	21.00	21.0	99	
60	60	chlorobenzene	13.15	13.08	0.005	112	77	641.660	21.41	21.4	97	
61	61	1112-tetra-Cl-Et	13.07	13.01	0.005	131	133	305.867	22.67	22.7	99	?
64	64	ethylbenzene	13.35	13.28	0.005	91	106	1105.141	20.82	20.8	99	
65	65	m/p-Xylenes x2	13.54	13.48	0.005	91	106	1681.875	42.09	42.1	98	
99	99	1-4-di-Cl-butane	13.90	13.84	0.005	55	41	263.267	23.64	23.6	99	?
52	52	bromoform	13.67	13.61	0.005	173	175	123.433	21.40	21.4	100	
66	66	styrene	13.88	13.81	0.005	104	78	611.293	20.99	21.0	79	?
67	67	o-xylene	13.94	13.88	0.005	91	106	819.565	21.28	21.3	99	?
68	68	1122-Tetra-Cl-Et	13.95	13.89	0.005	83	85	145.194	22.37	22.4	97	?
110	110	t-1,4-dichloro-2	14.12	14.04	0.005	89	53	28.854	19.76	19.8	80	#?
106	106	Cl-benzyl	15.59	15.52	0.005	91	126	245.782	26.33	26.3	94	?
<<< I3 : ISTD ID = 62 >>>												
69	69	123-tri-Cl-Pr	14.09	14.04	0.004	110	97	41.709	20.14	20.1	92	?
71	71	isopropylbenzene	14.31	14.24	0.005	105	120	1156.802	19.29	19.3	99	
72	72	bromobenzene	14.56	14.49	0.005	156	158	260.123	20.30	20.3	95	
73	73	n-propylbenzene	14.74	14.66	0.005	120	78	340.263	19.28	19.3	94	
74	74	2-Cl-Tl 126 1	14.83	14.76	0.005	126	128	226.954	21.45	21.4	100	
75	75	4-Cl-Tl 126 1	14.90	14.84	0.004	126	128	302.754	19.07	19.1	100	m
76	76	135-tri-Me-Bz	15.01	14.94	0.005	105	120	914.021	19.55	19.5	98	
79	79	tert-butylbenzene	15.28	15.22	0.004	119	91	1028.809	19.55	19.5	100	
78	78	124-tri-Me-Bz	15.40	15.33	0.004	105	120	778.435	19.93	19.9	97	
80	80	13-di-Cl-Bz 146	15.59	15.52	0.004	146	148	375.361	18.09	18.1	93	?

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

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

64

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534N01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 18:16 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 11:35 2003
Print Time : Tue May 20 11:36 2003
Miscleneous :

Sample : f=1 $3130-02
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	15.59	15.58	0.000	146	148	375.361	12.59	12.6	94	?
81	81	sec-butylbenzene	15.50	15.44	0.004	105	134	1325.666	18.05	18.0	100	
77	77	4-iso-Pr-toluene	15.67	15.61	0.004	119	134	1056.332	18.98	19.0	100	
84	84	12-di-Cl-benzene	15.99	15.93	0.004	146	148	392.063	19.67	19.7	97	
85	85	n-butylbenzene	16.06	16.00	0.004	91	134	899.472	18.68	18.7	99	
86	86	12-diBr-3-Cl-Pra	16.45	16.38	0.005	157	155	25.623	19.68	19.7	93	
87	87	124-tri-Cl-Bz	17.74	17.66	0.005	180	182	233.233	18.44	18.4	98	
88	88	naphthalene	17.98	17.92	0.004	128	129	220.608	18.11	18.1	97	
90	90	123-tri-Cl-Bz	18.17	18.11	0.004	180	182	181.604	18.91	18.9	88	
89	89	hx-Cl-butadiene	18.01	17.95	0.004	225	260	233.201	19.18	19.2	97	

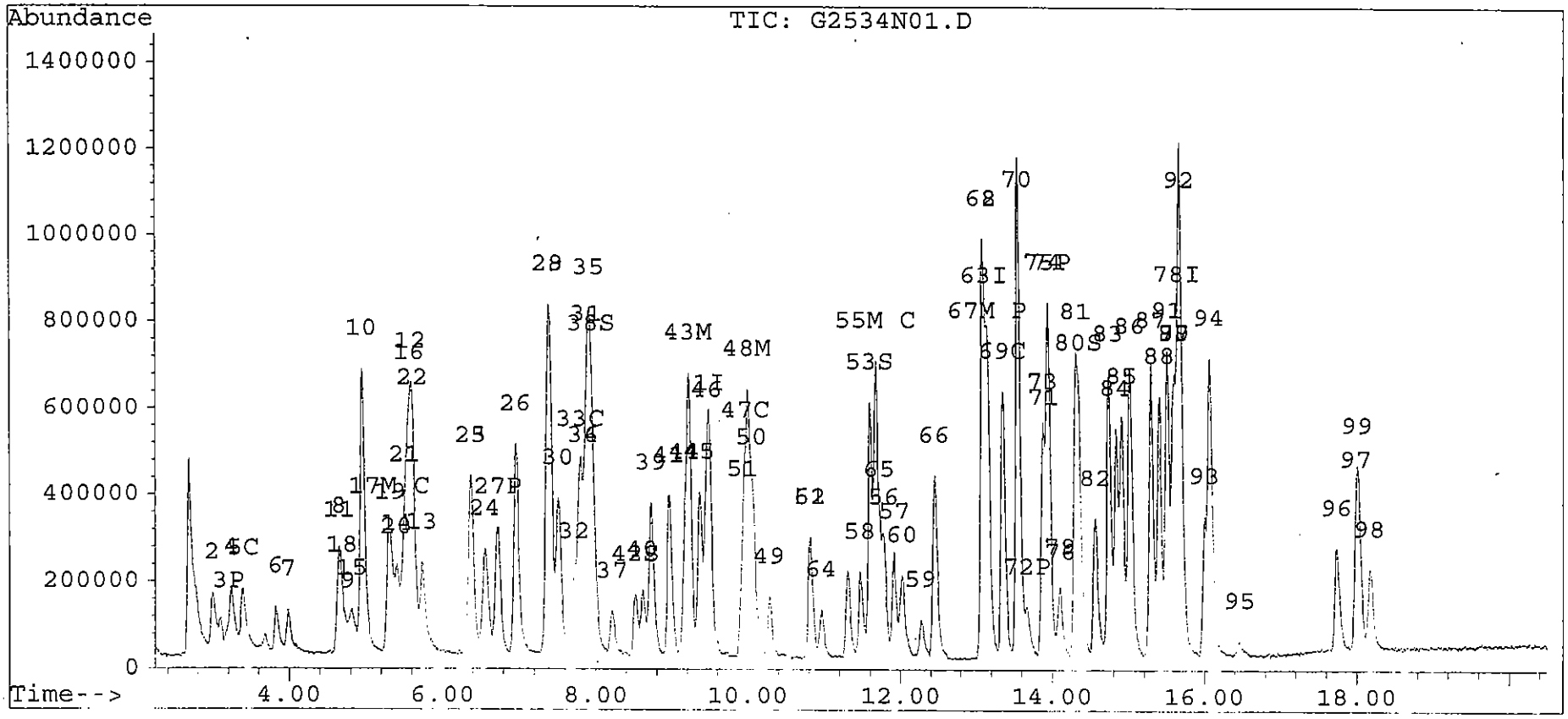
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2534\G2534N01.D
Acq On : 19 May 03 6:16 pm
Sample : f=1 $3130-02
Misc :
Quant Time: May 20 11:35 2003

Vial: 13
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Tue May 20 11:18:18 2003
Response via : Multiple Level Calibration



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

Data Filename: C:\HPCHEM\1\DATA\03G2534\3130-02.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 21:39 2003
Method Update: Tue May 20 11:18 2003
Quant. Time : May 20 09:38 2003
Print Time : Tue May 20 11:37 2003
Miscleneous :

Sample : f=1 3 ms
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	9.49	9.52	-0.002	96	70	693.146	10.00		-0.02	
47	47 Cl-benzene-d5, I2	13.10	13.12	-0.002	82	119	199.411	10.00		-0.02	
62	62 1,4-DCB-d4 150 15	15.60	15.63	-0.002	152	150	188.055	10.00		-0.03	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.95	7.97	-0.001	111	113	508.058	19.74	19.7	98.70%	
29	29 1,2-di-Cl-ethane-	8.51	8.54	-0.002	65	102	214.765	18.36	18.4	91.80%	
55	55 toluene-d8(S2)	11.59	11.61	-0.001	100	99	724.287	20.74	20.7	103.71%	
70	70 4-Br-1-F-Bz (S3)	14.34	14.36	0.000	174	95	303.054	19.56	19.6	97.78%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
111	111 isopropyl alcoho	4.78	4.76	0.003	45	43	5.594	20.15	~~20.1~~	~~22~~	#
102	102 Acrolein x10	4.91	4.67	0.025	56	55	0.238	4.48	~~4.5~~	~~1~~	#
101	101 Acetonnitrilex10	4.73	4.71	0.002	41	40	0.294	10.18	~~10.2~~	~~1~~	#
113	113 Tert butyl alcoh	5.37	5.38	0.000	59	57	0.612	0.96	~~1.0~~	~~79~~	#
18	18 methylene chlorid	5.50	5.50	0.000	84	49	33.459	1.97	2.0	98	
98	98 Vinyl acetate x5	6.97	6.97	0.000	43	86	0.857	12.55	12.5	69	#
91	91 2-butanone MEKx10	7.59	7.37	0.023	43	72	2.655	0.41	~~0.4~~	~~95~~	
201	201 Ethyl acetate x2	7.82	7.83	0.000	43	61	2.437	4.58	4.6	52	#?
117	117 Iso-butyl alcoho	7.82	7.83	0.000	43	42	2.437	15.01	15.0	50	#?
107	107 Et methacrylate	11.63	11.80	-0.017	69	99	0.735	1.66	1.7	58	#
93	93 2-Hexanone x5	11.92	11.93	0.000	43	58	2.269	6.18	6.2	24	#
48	48 112-tri-Cl-Et	11.59	11.49	0.011	97	83	23.776	2.92	2.9	8	#
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.95	10.99	-0.003	43	58	20.366	3.15	3.2	74	
59	59 tetra-Cl-ethene	12.43	12.46	-0.002	166	168	7.531	0.44	0.4	74	
110	110 t-1,4-dichloro-2	14.12	14.11	0.001	89	53	1.050	0.67	0.7	9	#

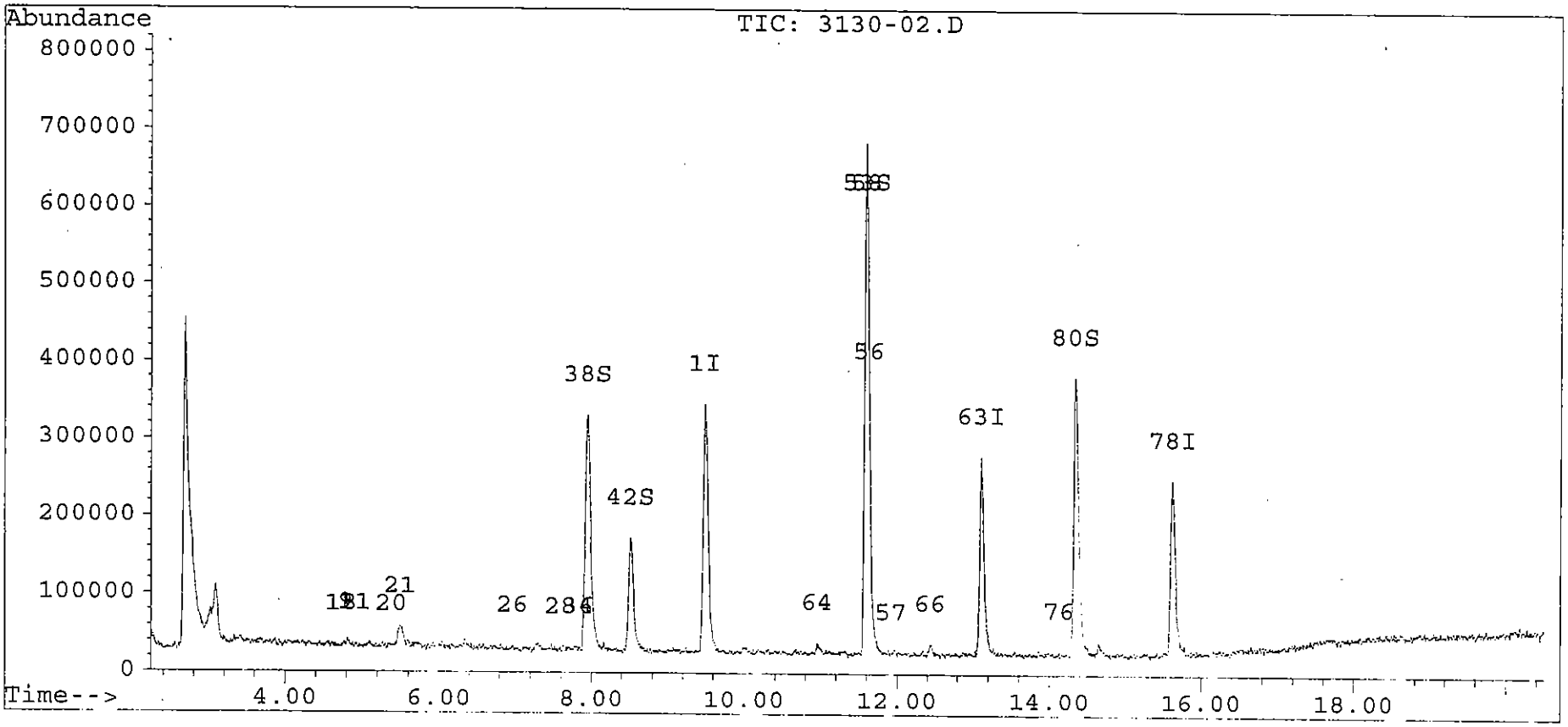
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2534\3130-02.D
Acq On : 19 May 03 9:39 pm
Sample : f=1 3 ms
Misc :
Quant Time: May 20 9:38 2003

Vial: 34
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Tue May 20 11:18:18 2003
Response via : Multiple Level Calibration



FORM-4A

Applied P & Ch Laboratory

Method Blank Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	33205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Analysis Date:	05/19/03
		Sample Matrix:	Water	Analysis Time:	20:12
Sample ID:	**03G2534-MB-01**	Batch No:	03G2534	Instrument ID:	GC/MS: G
Lab Sample ID:	03G2534-MB-01	Data File Name:	G2534K01	GC Column:	DB-VEX
		Heated Purge: (Y/N)	N	Column ID:	0.45 mm

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

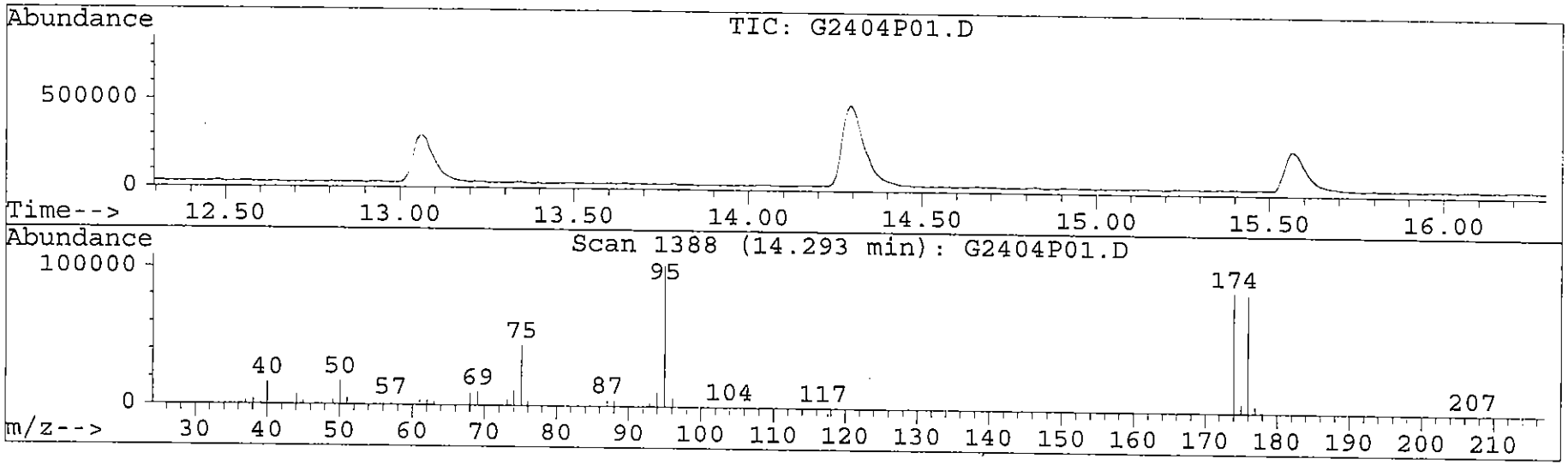
#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	03G2534-LCS-01	03G2534-LCS-01	Lab Control Spike	G2534L01	05/19/03	17:18
2	MW-22-1MS	03-3130-2MS	Matrix Spike	G2534M01	05/19/03	17:47
3	MW-22-1MSD	03-3130-2MSD	Matrix Spike Duplicate	G2534N01	05/19/03	18:16
4	DUPE-7-2Q03	03-3205-1	Field Sample	3205-01	05/20/03	00:32
5	EB-13-5/13/03	03-3205-2	Field Sample	3205-02	05/20/03	01:02
6	MW-18-1	03-3205-3	Field Sample	3205-03	05/20/03	01:31
7	MW-18-2	03-3205-4	Field Sample	3205-04	05/20/03	02:01
8	MW-18-3	03-3205-5	Field Sample	3205-05	05/20/03	02:31
9	MW-18-4	03-3205-6	Field Sample	3205-06	05/20/03	03:00
10	MW-18-5	03-3205-7	Field Sample	3205-07	05/20/03	03:29
11	TB-13-5/13/03	03-3205-8	Field Sample	3205-08	05/20/03	03:59
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

BFB

Data File : C:\HPCHEM\1\DATA\03G2404\G2404P01.D
Acq On : 15 May 03 10:18 am
Sample : ##03g2404, w
Misc :

Vial: 18
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2



Peak Apex is scan: 1388

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	17208	PASS
75	95	30	60	43.0	44184	PASS
95	95	100	100	100.0	102784	PASS
96	95	5	9	6.1	6301	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	84.8	87112	PASS
175	174	5	9	7.7	6735	PASS
176	174	95	101	97.9	85240	PASS
177	176	5	9	6.8	5764	PASS

G2404P01.D E524G004.M Thu May 15 17:23:19 2003

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 03-3205

Lab File ID: G2404 P01 BFB Injection Date: 05/15/2003

Instrument ID: GCMS-G BFB Injection Time: 1018

GC Column: VOCOL ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.7
75	30.0 - 60.0% of mass 95	43.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	84.8
175	5.0 - 9.0% of mass 174	6.6 (7.7)1
176	95.0 - 101.0% of mass 174	82.9 (97.9)1
177	5.0 - 9.0% of mass 176	5.6 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

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	VSTD003	004-003	004-0003.D	05/15/03	1047
02	VSTD002	004-002	004-0002.D	05/15/03	1145
03	VSTD010	004-0010	004-0010.D	05/15/03	1214
04	VSTD020	004-0020	004-0020.D	05/15/03	1243
05	VSTD040	004-0040	004-0040.D	05/15/03	1312
06	VSTD080	004-0080	004-0080.D	05/15/03	1341
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

INITIAL CALIBRATION SUMMARY

Method File E524G004
Last Calibration Update Fri May 16 10:36:26 2003

Level 1 File Name	4-003.D	**Level 1 ID**	0.3
Level 2 File Name	4-002.D	**Level 2 ID**	2
Level 3 File Name	4-010.D	**Level 3 ID**	10
Level 4 File Name	4-020.D	**Level 4 ID**	20
Level 5 File Name	4-040.D	**Level 5 ID**	40
Level 6 File Name	4-080.D	**Level 6 ID**	80
Level 7 File Name	4-020.D	**Level 7 ID**	cc

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
1 Fluorobenzene I1 1	815158	799651	824804	746757	764394	689688	-1	------	------	------	------
3 di-Cl-di-F-methane 85 87	4181	35493	168476	314256	706635	1288384	-1	0.0000	0.2120	0.0000	0.1090
4 Chloromethane 50 52	1706	19850	102587	246113	534218	1069891	-1	-0.0408	0.1954	0.0000	0.9966
9 F114 85 135	4199	44804	220942	386132	819274	1556249	-1	-0.0188	0.2815	0.0000	0.9991
5 vinyl chloride 62 64	3355	33999	162051	300841	621901	1167862	-1	0.0000	0.1938	0.0000	0.1466
6 bromomethane 94 96	4372	26980	129267	267214	519945	1000442	-1	0.0000	0.1724	0.0000	0.0536
7 Chloroethane 64 66	3179	26106	123679	236431	478026	873637	-1	0.0000	0.1527	0.0000	0.0781
8 tri-Cl-F-methane 101 103	8951	64415	295972	594414	1265977	2395096	-1	0.0000	0.3956	0.0000	0.0724
111 isopropyl alcohol x10	3587	6299	29925	70395	111196	226721	-1	0.0000	0.0040	0.0000	0.1113
100 ethyl ether x5	26492	132391	571623	1090032	2124645	3947698	-1	0.0028	0.1423	0.0000	0.9997
102 Acrolein x10	1454	15421	124387	164659	294058	649263	-1	-0.0048	0.0115	0.0000	0.9858
119 methyl acetate	7468	34881	93789	329077	525452	898426	-1	0.0239	0.1624	0.0000	0.9860
104 Carbon disulfide	15360	108670	470593	924294	1876377	3448920	-1	0.0000	0.6226	0.0000	0.0560
103 Acrylonitrilex10	4460	38141	123788	403095	766254	1455017	-1	-0.0461	0.0268	0.0000	0.9965
95 Acetone x10	18003	42021	146218	266351	522927	928171	-1	0.0183	0.0166	0.0000	0.9999
108 F-113	7993	56604	258951	515229	1098171	2025833	-1	0.0000	0.3443	0.0000	0.0590
13 11-dichloroethene 61 96	8587	60316	284348	535921	1112083	2068506	-1	0.0000	0.3617	0.0000	0.0355
101 Acetonnitrilex10	2831	10077	31282	102405	196047	363830	-1	-0.0063	0.0067	0.0000	0.9966
109 Iodomethane	6929	75147	336586	628909	1205092	2300947	-1	-0.0067	0.4140	0.0000	0.9991
113 Tert butyl alcohol x10	1373	18588	77974	138129	265783	388696	-1	0.0000	0.0092	0.0000	0.1787
18 methylene chloride 49 84	-1	48402	184549	355095	696481	1289109	-1	0.0000	0.2451	0.0000	0.1330

112 Allyl chloride	13441	77142	331252	615063	1148799	1977528	-1	0.0468	0.3564	0.0000	0.9986
200 Nitro methane x10	6304	66437	325452	650702	1254351	2397871	-1	0.0000	0.0391	0.0000	0.1719
10 t-Bu-Me-ether 73 57	11529	91189	366763	722425	1502372	2824413	-1	0.0000	0.4955	0.0000	0.0864
19 t-12-di-Cl-ethene 96 61	5258	44435	215839	423127	799696	1549462	-1	0.0000	0.2634	0.0000	0.0969
98 Vinyl acetate x5	3645	167151	292003	1342007	2982123	5784036	-1	-0.2666	0.2134	0.0000	0.9933
21 11-dichloroethane 63 83	11126	88915	412703	833014	1647004	3000180	-1	0.0000	0.5252	0.0000	0.0765
91 2-butanone MEKx10	25733	153111	642126	1432839	2827847	5285771	-1	0.0000	0.0938	0.0000	0.0952
115 Di isoprop ether	40820	232542	1079994	2060781	4081017	7613956	-1	0.0000	1.4212	0.0000	0.0923
22 c-12-di-Cl-ethene 96 61	6716	44823	222557	432230	852613	1623067	-1	0.0000	0.2812	0.0000	0.0324
23 22-Dichloropropane 77 97	11379	71432	324674	629042	1268689	2353196	-1	0.0000	0.4280	0.0000	0.0585
24 Br-Cl-methane 128 130	619	19664	94361	180264	365219	680793	-1	-0.0056	0.1234	0.0000	0.9997
25 chloroform 83 85	15134	81585	381866	741343	1478585	2772452	-1	0.0000	0.5124	0.0000	0.1068
201 Ethyl acetate x2	2846	46100	136924	355515	703484	1425799	-1	-0.0563	0.1306	0.0000	0.9958
116 ETBE	33538	144136	644550	1245123	2437411	4486393	-1	0.0049	0.8099	0.0000	0.9998
117 Iso-butyl alcohol X10	940	62706	135151	357401	710558	1430613	-1	-0.0353	0.0259	0.0000	0.9953
26 tetrahydrofuranx5	257	8307	43847	84254	161549	290888	-1	0.0000	0.0107	0.0000	0.0325
27 Di-Br-F-Methane (S1) 111 1	8284	60816	289627	568312	1126216	2075916	-1	0.0000	0.3713	0.0000	0.0331
34 111-tri-Cl-ethane 97 99	8942	65770	311389	599971	1237882	2397744	-1	0.0000	0.3993	0.0000	0.0616
30 12-dichloroethane 64 62	1802	33229	153871	310815	631494	1211777	-1	-0.0194	0.2197	0.0000	0.9990
35 11-Di-Cl-propene 75 110	8689	58001	275836	532605	1078521	2009125	-1	0.0000	0.3543	0.0000	0.0301
29 1,2-di-Cl-ethane-d4 [Surr] 10	4884	26465	134448	261823	505671	963545	-1	0.0000	0.1688	0.0000	0.0341
36 benzene 78 52	20191	142907	668867	1302042	2578473	4754791	-1	0.0000	0.8512	0.0000	0.0359
37 CCl4 117 119	8483	58348	273728	543038	1134691	2073848	-1	0.0000	0.3590	0.0000	0.0461
97 thiophene	9443	75171	331986	649163	1291816	2373848	-1	0.0000	0.4243	0.0000	0.0680
118 TAME	2423	114119	445234	894867	1715454	3200762	-1	-0.0058	0.5780	0.0000	0.9994
39 12-di-Cl-propane 63 76	5331	41840	206799	390600	777542	1446554	-1	0.0000	0.2514	0.0000	0.0677
40 trichloroethene 130 132	7533	51222	233771	454200	926225	1695738	-1	0.0000	0.3044	0.0000	0.0393
96 Me-methacrylate	1437	15341	47596	161499	295494	591170	-1	-0.0168	0.1076	0.0000	0.9949
42 Br-di-Cl-methane 83 85	12659	54887	257854	508851	988624	1842908	-1	-0.0042	0.3328	0.0000	0.9996
41 dibromomethane 174 172	618	19288	93298	195812	390733	738622	-1	-0.0102	0.1342	0.0000	0.9994

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
45 c-13-di-Cl-propene 75 110	7615	48884	239463	477602	948616	1759634	-1	------	------	------	------
55 toluene-d8(S2) 100 99	13666	83281	390496	768293	1521774	2828221	-1	0.0000	0.5038	0.0000	0.0376
92 2-ClEt-Vi-ether10	5311	41678	205749	413282	830636	1543091	-1	0.0000	0.0259	0.0000	0.0904
56 toluene 91 92	24063	127484	612856	1179183	2400670	4445368	-1	0.0000	0.8174	0.0000	0.1033

107 Et methacrylate	3479	23955	53825	215372	441923	820108	-1	-0.0241	0.1510	0.0000	0.9952
93 2-Hexanone x5	1510	42848	144809	430950	860345	1584358	-1	-0.0326	0.0581	0.0000	0.9977
48 112-tri-Cl-Et 97 83	906	19429	109523	184224	367637	694437	-1	-0.0023	0.1252	0.0000	0.9994
58 1,2-di-br-ethane 107 109	1824	20769	99010	199115	395372	752280	-1	-0.0087	0.1362	0.0000	0.9993
51 di-Br-Cl-methane 129 127	7347	33435	155803	299945	605212	1137349	-1	-0.0082	0.2056	0.0000	0.9995
46 t-13-di-cl-propene 75 110	7615	48884	239463	477602	948616	1759634	-1	0.0000	0.3094	0.0000	0.0348
105 1-Chlorohexane	11922	55414	207900	393247	824539	1487258	-1	-0.0003	0.2692	0.0000	0.9998
47 Cl-benzene-d5, I2	231880	227963	249245	222899	243736	235423	-1	0.0000	1.0000	0.0000	0.0000
54 MIBK	4406	1842	61603	163289	329191	585241	-1	0.0022	0.3172	0.0000	0.9942
49 1,3-di-cl-propane 76 78	5042	34635	178128	334360	648825	1196619	-1	0.0000	0.7083	0.0000	0.0687
59 tetra-Cl-ethene 166 168	5645	43932	206527	398332	812967	1516368	-1	0.0000	0.8560	0.0000	0.0716

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
60 chlorobenzene 112 77	11129	80876	394322	752942	1478617	2729365	-1	0.0000	------	------	------
61 1112-tetra-Cl-Et 131 133	4438	35454	177813	344569	695345	1340863	-1	0.0000	0.7212	0.0000	0.0707
64 ethylbenzene 91 106	21645	144618	668986	1270086	2566878	4842788	-1	0.0000	2.8368	0.0000	0.0896
65 m/p-Xylenes x2	30844	222047	1015495	1972002	3905278	7205695	-1	0.0000	2.1361	0.0000	0.0886
99 1-4-di-Cl-butane	6740	36572	153006	301374	572112	1066373	-1	0.0798	0.5616	0.0000	0.9979
52 bromoform 173 175	2520	15462	69675	136091	278788	522738	-1	0.0000	0.3083	0.0000	0.1137
66 styrene 104 78	15564	84384	382712	759242	1511886	2814241	-1	0.1396	1.4904	0.0000	0.9987
67 o-xylene 91 106	15170	107821	489526	954644	1857499	3377446	-1	0.0000	2.0583	0.0000	0.1015
68 1122-Tetra-Cl-Et 83 85	2369	17006	81453	170717	330326	601304	-1	0.0000	0.3469	0.0000	0.0735
110 t-1,4-dichloro-2-butene	598	5155	17689	36488	58046	107382	-1	0.0000	0.0781	0.0000	0.2649
106 Cl-benzyl	1709	34984	130453	246745	493146	894786	-1	0.0686	0.4730	0.0000	0.9980
62 1,4-DCB-d4 150 152 I3	220209	211064	218269	198057	195846	179706	-1	0.0000	1.0000	0.0000	0.0000
69 123-tri-Cl-Pr 110 97	247	4417	25007	46613	92169	179941	-1	0.0000	0.1159	0.0000	0.0641
70 4-Br-1-F-Bz (S3) 174 95	7551	36349	170967	334015	639559	1173651	-1	0.0000	0.8241	0.0000	0.0360
71 isopropylbenzene 105 120	20338	154289	681700	1327629	2705126	5006864	-1	0.0000	3.3574	0.0000	0.0661
72 bromobenzene 156 158	3634	32102	153148	304357	590583	1107164	-1	0.0000	0.7174	0.0000	0.1196
73 n-propylbenzene 120 78	5459	46356	210844	394872	801684	1463801	-1	0.0000	0.9881	0.0000	0.0916
74 2-Cl-Tl 126 128	3366	25894	120864	249899	481903	908178	-1	0.0000	0.5924	0.0000	0.0839
75 4-Cl-Tl 126 128	4268	41895	196931	372201	722805	1334882	-1	0.0000	0.8886	0.0000	0.1380
76 135-tri-Me-Bz 105 120	17066	117538	539476	1018963	2059638	3828683	-1	0.0000	2.6173	0.0000	0.0399
79 tert-butylbenzene 119 91	16192	139975	610164	1182229	2412602	4386919	-1	0.0000	2.9464	0.0000	0.1001
78 124-tri-Me-Bz 105 120	13993	99021	441266	843153	1722397	3314335	-1	0.0000	2.1864	0.0000	0.0560
80 13-di-Cl-Bz 146 148	8334	52974	229141	454607	873397	1637769	-1	0.0000	1.1613	0.0000	0.0711

82 14-di-Cl-Bz 146 148	9119	77324	360564	688087	1350534	2427479	-1	0.0000	1.6689	0.0000	0.0921
81 sec-butylbenzene 105 134	27562	188712	808141	1585357	3307792	5902646	-1	0.0000	4.1126	0.0000	0.0619
77 4-iso-Pr-toluene 119 134	19882	146089	661221	1200767	2437020	4387114	-1	0.0000	3.1156	0.0000	0.0554
84 12-di-Cl-benzene 146 148	6500	51953	234009	454651	862171	1667156	-1	0.0000	1.1158	0.0000	0.0757
85 n-butylbenzene 91 134	17225	125422	538366	1017966	2160614	4022017	-1	0.0000	2.6951	0.0000	0.0677
86 12-diBr-3-Cl-Pra 157 155	-1	1829	14905	28995	56245	114486	-1	-0.0147	0.0803	0.0000	0.9979
87 124-tri-Cl-Bz 180 182	2922	30767	135221	262726	578192	1051545	-1	-0.0553	0.7381	0.0000	0.9992
88 naphthalene 128 129	1954	26649	107459	235161	598470	1033706	-1	-0.0995	0.7367	0.0000	0.9955
90 123-tri-Cl-Bz 180 182	1279	22090	101362	206041	447433	779205	-1	-0.0222	0.5495	0.0000	0.9986
89 hx-Cl-butadiene 225 260	4633	32362	134569	257067	538819	952000	-1	0.0000	0.6806	0.0000	0.0759

Response Factor Report GCMS-G

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Initial Calibration

Calibration Files
0.3 =4-003.D 2 =4-002.D 10 =4-010.D
20 =4-020.D 40 =4-040.D 80 =4-080.D

			Compound	0.3	2	10	20	40	80	Avg	%RSD	r^2
1)	I	1	Fluorobenzene I1	---ISTD---								
2)		3	di-Cl-di-F-metha	0.171	0.222	0.204	0.210	0.231	0.234	0.212	10.90	
3)	P	4	Chloromethane	0.070	0.124	0.124	0.165	0.175	0.194	0.142	31.72#	0.996
4)		9	F114 85 135	0.172	0.280	0.268	0.259	0.268	0.282	0.255	16.33	0.999
5)	C	5	vinyl chloride	0.137	0.213	0.196	0.201	0.203	0.212	0.194	14.66	
6)		6	bromomethane	0.179	0.169	0.157	0.179	0.170	0.181	0.172	5.36	
7)		7	Chloroethane	0.130	0.163	0.150	0.158	0.156	0.158	0.153	7.81	
8)		8	tri-Cl-F-methane	0.366	0.403	0.359	0.398	0.414	0.434	0.396	7.24	
9)		111	isopropyl alcoh		0.004	0.004	0.005	0.004	0.004	0.004#	11.13	
10)		100	ethyl ether x5	0.217	0.166	0.139	0.146	0.139	0.143	0.158	19.19	1.000
11)		102	Acrolein x10		0.010	0.015	0.011	0.010	0.012	0.011#	19.61	0.986
12)		119	methyl acetate		0.218	0.114	0.220	0.172	0.163	0.177	24.90	0.980
13)		104	Carbon disulfid	0.628	0.679	0.571	0.619	0.614	0.625	0.623	5.60	
14)		103	Acrylonitrilex1		0.024	0.015	0.027	0.025	0.026	0.023#	20.79	0.996
15)		95	Acetone x10		0.026	0.018	0.018	0.017	0.017	0.019#	20.91	1.000
16)		108	F-113	0.327	0.354	0.314	0.345	0.359	0.367	0.344	5.90	
17)	M,C	13	11-dichloroethen	0.351	0.377	0.345	0.359	0.364	0.375	0.362	3.55	
18)		101	Acetonnitrilex1	0.012	0.006	0.004	0.007	0.006	0.007	0.007#	36.67	0.996
19)		109	Iodomethane	0.283	0.470	0.408	0.421	0.394	0.417	0.399	15.58	0.999
20)		113	Tert butyl alco		0.012	0.009	0.009	0.009	0.007	0.009#	17.87	
21)		18	methylene chlori		0.303	0.224	0.238	0.228	0.234	0.245	13.30	
22)		112	Allyl chloride	0.550	0.482	0.402	0.412	0.376	0.358	0.430	16.86	0.998
23)		200	Nitro methane x	0.026	0.042	0.039	0.044	0.041	0.043	0.039#	17.19	~~0.9~~
24)		10	t-Bu-Me-ether	0.471	0.570	0.445	0.484	0.491	0.512	0.496	8.64	
25)		19	t-12-di-Cl-ethen	0.215	0.278	0.262	0.283	0.262	0.281	0.263	9.69	
26)		98	Vinyl acetate x5	0.030	0.209	0.071	0.180	0.195	0.210	0.149	52.56	0.993
27)	P	21	11-dichloroethan	0.455	0.556	0.500	0.558	0.539	0.544	0.525	7.65	
28)		91	2-butanone MEKx1	0.105	0.096	0.078	0.096	0.092	0.096	0.094	9.52	

(#) = Out of Range

Response Factor Report GCMS-G

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Initial Calibration

Calibration Files
0.3 =4-003.D 2 =4-002.D 10 =4-010.D
20 =4-020.D 40 =4-040.D 80 =4-080.D

		Compound	0.3	2	10	20	40	80	Avg	%RSD	r^2
29)		115 Di isoprop ethe	1.669	1.454	1.309	1.380	1.335	1.380	1.421	9.23	
30)		22 c-12-di-Cl-ethen	0.275	0.280	0.270	0.289	0.279	0.294	0.281	3.24	
31)		23 22-Dichloropropa	0.465	0.447	0.394	0.421	0.415	0.426	0.428	5.85	
32)		24 Br-Cl-methane	0.025	0.123	0.114	0.121	0.119	0.123	0.104	37.24	1.000
33)	C	25 chloroform	0.619	0.510	0.463	0.496	0.484	0.502	0.512	10.68	
34)		201 Ethyl acetate x		0.144	0.083	0.119	0.115	0.129	0.118	19.14	0.996
35)		116 ETBE	1.371	0.901	0.781	0.834	0.797	0.813	0.916	24.75	1.000
36)		117 Iso-butyl alcoh	0.004	0.039	0.016	0.024	0.023	0.026	0.022#	52.71	0.995
37)		26 tetrahydrofuranx		0.010	0.011	0.011	0.011	0.011	0.011#	3.25	
38)	S	27 Di-Br-F-Methane		0.380	0.351	0.381	0.368	0.376	0.371	3.31	
39)		34 111-tri-Cl-ethan	0.366	0.411	0.378	0.402	0.405	0.435	0.399	6.16	
40)		30 12-dichloroethan	0.074	0.208	0.187	0.208	0.207	0.220	0.184	29.91	0.999
41)		35 11-Di-Cl-propene	0.355	0.363	0.334	0.357	0.353	0.364	0.354	3.01	
42)	S	29 1,2-di-Cl-ethane		0.165	0.163	0.175	0.165	0.175	0.169	3.41	
43)	M	36 benzene	0.826	0.894	0.811	0.872	0.843	0.862	0.851	3.59	
44)		37 CCl4	0.347	0.365	0.332	0.364	0.371	0.376	0.359	4.61	
45)		97 thiophene	0.386	0.470	0.403	0.435	0.422	0.430	0.424	6.80	
46)		118 TAME	0.099	0.714	0.540	0.599	0.561	0.580	0.515	41.29	0.999
47)	C	39 12-di-Cl-propane	0.218	0.262	0.251	0.262	0.254	0.262	0.251	6.77	
48)	M	40 trichloroethene	0.308	0.320	0.283	0.304	0.303	0.307	0.304	3.93	
49)		96 Me-methacrylate	0.059	0.096	0.058	0.108	0.097	0.107	0.087	26.49	0.994
50)		42 Br-di-Cl-methane	0.518	0.343	0.313	0.341	0.323	0.334	0.362	21.31	1.000
51)		41 dibromomethane	0.025	0.121	0.113	0.131	0.128	0.134	0.109	38.23	0.999
52)		45 c-13-di-Cl-prope	0.311	0.306	0.290	0.320	0.310	0.319	0.309	3.48	
53)	S	55 toluene-d8(S2)		0.521	0.473	0.514	0.498	0.513	0.504	3.76	
54)		92 2-ClEt-Vi-ether1	0.022	0.026	0.025	0.028	0.027	0.028	0.026#	9.04	
55)	M C	56 toluene	0.984	0.797	0.743	0.790	0.785	0.806	0.817	10.33	
56)		107 Et methacrylate	0.142	0.150	0.065	0.144	0.145	0.149	0.132	24.94	0.995
57)		93 2-Hexanone x5	0.012	0.054	0.035	0.058	0.056	0.057	0.045#	40.36	0.998

(#) = Out of Range

Response Factor Report GCMS-G

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Initial Calibration

Calibration Files
0.3 =4-003.D 2 =4-002.D 10 =4-010.D
20 =4-020.D 40 =4-040.D 80 =4-080.D

		Compound	0.3	2	10	20	40	80	Avg	%RSD	r2
58)		48 112-tri-Cl-Et	0.037	0.121	0.133	0.123	0.120	0.126	0.110	32.76	0.999
59)		58 1,2-di-br-ethane	0.075	0.130	0.120	0.133	0.129	0.136	0.121	19.23	0.999
60)		51 di-Br-Cl-methane	0.300	0.209	0.189	0.201	0.198	0.206	0.217	19.04	1.000
61)		46 t-13-di-cl-prope	0.311	0.306	0.290	0.320	0.310	0.319	0.309	3.48	
62)		105 1-Chlorohexane	0.488	0.346	0.252	0.263	0.270	0.270	0.315	28.95	1.000
63)	I	47 Cl-benzene-d5, I2	----------ISTD----------								
64)		54 MIBK	0.633	0.040	0.247	0.366	0.338	0.311	0.323	59.49	0.993
65)		49 1,3-di-cl-propan	0.725	0.760	0.715	0.750	0.665	0.635	0.708	6.87	
66)		59 tetra-Cl-ethene	0.811	0.964	0.829	0.894	0.834	0.805	0.856	7.16	
67)	M P	60 chlorobenzene	1.600	1.774	1.582	1.689	1.517	1.449	1.602	7.29	
68)		61 1112-tetra-Cl-Et	0.638	0.778	0.713	0.773	0.713	0.712	0.721	7.07	
69)	C	64 ethylbenzene	3.112	3.172	2.684	2.849	2.633	2.571	2.837	8.96	
70)		65 m/p-Xylenes x2	2.217	2.435	2.037	2.212	2.003	1.913	2.136	8.86	
71)		99 1-4-di-Cl-butane	0.969	0.802	0.614	0.676	0.587	0.566	0.702	22.19	0.997
72)	P	52 bromoform	0.362	0.339	0.280	0.305	0.286	0.278	0.308	11.37	
73)		66 styrene	2.237	1.851	1.535	1.703	1.551	1.494	1.729	16.33	0.998
74)		67 o-xylene	2.181	2.365	1.964	2.141	1.905	1.793	2.058	10.15	
75)	P	68 1122-Tetra-Cl-Et	0.341	0.373	0.327	0.383	0.339	0.319	0.347	7.35	
76)		110 t-1,4-dichloro-	0.086	0.113	0.071	0.082	0.060	0.057	0.078	26.49	
77)		106 Cl-benzyl	0.246	0.767	0.523	0.553	0.506	0.475	0.512	32.62	0.997
78)	I	62 1,4-DCB-d4 150 152	----------ISTD----------								
79)		69 123-tri-Cl-Pr		0.105	0.115	0.118	0.118	0.125	0.116	6.41	
80)	S	70 4-Br-1-F-Bz (S3)		0.861	0.783	0.843	0.816	0.816	0.824	3.60	
81)		71 isopropylbenzene	3.079	3.655	3.123	3.352	3.453	3.483	3.357	6.61	
82)		72 bromobenzene	0.550	0.760	0.702	0.768	0.754	0.770	0.717	11.96	
83)		73 n-propylbenzene	0.826	1.098	0.966	0.997	1.023	1.018	0.988	9.16	
84)		74 2-Cl-Tl 126	0.510	0.613	0.554	0.631	0.615	0.632	0.592	8.39	

(#) = Out of Range

Response Factor Report GCMS-G

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Initial Calibration

Calibration Files
0.3 =4-003.D 2 =4-002.D 10 =4-010.D
20 =4-020.D 40 =4-040.D 80 =4-080.D

	Compound		0.3	2	10	20	40	80	Avg	%RSD	
85)	75 4-Cl-Tl	126	0.646	0.992	0.902	0.940	0.923	0.929	0.889	13.80	
86)	76 135-tri-Me-Bz		2.583	2.784	2.472	2.572	2.629	2.663	2.617	3.99	
87)	79 tert-butylbenzen		2.451	3.316	2.795	2.985	3.080	3.051	2.946	10.01	
88)	78 124-tri-Me-Bz		2.118	2.346	2.022	2.129	2.199	2.305	2.186	5.60	
89)	80 13-di-Cl-Bz	146	1.262	1.255	1.050	1.148	1.115	1.139	1.161	7.11	
90)	82 14-di-Cl-Bz	146	1.380	1.832	1.652	1.737	1.724	1.689	1.669	9.21	
91)	81 sec-butylbenzene		4.172	4.470	3.703	4.002	4.222	4.106	4.113	6.19	
92)	77 4-iso-Pr-toluene		3.010	3.461	3.029	3.031	3.111	3.052	3.116	5.54	
93)	84 12-di-Cl-benzene		0.984	1.231	1.072	1.148	1.101	1.160	1.116	7.57	
94)	85 n-butylbenzene		2.607	2.971	2.467	2.570	2.758	2.798	2.695	6.77	
95)	86 12-diBr-3-Cl-Pra			0.043	0.068	0.073	0.072	0.080	0.067	20.80	0.998
96)	87 124-tri-Cl-Bz		0.442	0.729	0.620	0.663	0.738	0.731	0.654	17.40	0.999
97)	88 naphthalene		0.296	0.631	0.492	0.594	0.764	0.719	0.583	29.17	0.994
98)	90 123-tri-Cl-Bz		0.194	0.523	0.464	0.520	0.571	0.542	0.469	29.72	0.999
99)	89 hx-Cl-butadiene		0.701	0.767	0.617	0.649	0.688	0.662	0.681	7.59	

(#) = Out of Range

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

79

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-003.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 10:47 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:27 2003
Print Time : Fri May 16 10:39 2003
Miscleneous :

Sample : f=1 0.3ppb
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	9.44	9.44	0.000	96	70	815.158	10.00		0.00	
47 47	Cl-benzene-d5, I2	13.05	13.05	0.000	82	119	231.880	10.00		0.00	
62 62	1,4-DCB-d4 150 15	15.57	15.56	0.001	152	150	220.209	10.00		0.02	
System Monitoring Compounds (Surrogate)											
										%Recovery	
27 27	Di-Br-F-Methane (	7.90	7.90	0.000	111	113	8.284	0.28	0.3	1.39%	
29 29	1,2-di-Cl-ethane-	8.46	8.47	0.000	65	102	4.884	0.42	0.4	2.08%	
55 55	toluene-d8(S2)	11.54	11.54	0.000	100	99	13.666	0.34	0.3	1.68%	
70 70	4-Br-1-F-Bz (S3)	14.29	14.28	0.000	174	95	7.551	0.43	0.4	2.17%	
Target Compounds											
<<< I1 : ISTD ID = 1 >>>										Qvalue	
3 3	di-Cl-di-F-methan	2.95	2.95	0.000	85	87	4.181	0.18	0.2	55	m
4 4	Chloromethane	3.18	3.15	0.003	50	52	1.706	0.09	0.1	42	m?
9 9	F114 85 135	3.19	3.20	-0.002	85	135	4.199	0.17	0.2	54	?
5 5	vinyl chloride	3.35	3.35	0.000	62	64	3.355	0.19	0.2	58	#
6 6	bromomethane	3.81	3.78	0.002	94	96	4.372	0.34	0.3	2	m
7 7	Chloroethane	3.98	3.94	0.004	64	66	3.179	0.24	0.2	60	m
8 8	tri-Cl-F-methane	4.61	4.62	-0.001	101	103	8.951	0.19	0.2	94	?
111 111	isopropyl alcoho	4.72	4.73	0.000	45	43	3.587	11.45	11.5	41	#
100 100	ethyl ether x5	4.90	4.90	0.000	59	74	26.492	2.94	2.9	92	
102 102	Acrolein x10	4.63	4.62	0.001	56	55	1.454	1.48	1.5	92	?
119 119	methyl acetate	5.56	5.54	0.001	43	74	7.468	0.59	0.6	53	#?
104 104	Carbon disulfide	5.68	5.69	0.000	76	78	15.360	0.28	0.3	80	#
103 103	Acrylonitrilex10	5.37	5.36	0.001	53	52	4.460	2.97	3.0	62	m
95 95	Acetone x10	4.79	4.77	0.001	43	58	18.003	14.12	14.1	80	#
108 108	F-113	5.50	5.50	0.000	151	101	7.993	0.31	0.3	37	m
13 13	11-dichloroethene	5.24	5.24	0.000	61	96	8.587	0.26	0.3	74	
101 101	Acetonnitrilex10	4.65	4.65	0.000	41	40	2.831	5.69	5.7	41	#?
109 109	Iodomethane	5.29	5.29	0.000	142	127	6.929	0.23	0.2	91	
113 113	Tert butyl alcoh	5.33	5.32	0.001	59	57	1.373	2.08	2.1	1	#

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

5/16/03

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

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-003.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 10:47 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:27 2003
Print Time : Fri May 16 10:40 2003
Miscleneous :

Sample : f=1 0.3ppb
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

80

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	5.45	5.45	0.000	84	49	15.250	0.61	0.6	97	
	112 Allyl chloride	5.54	5.56	-0.002	41	76	13.441	0.34	0.3	59	#?
200	200 Nitro methane x1	6.31	6.31	0.000	61	46	6.304	1.86	1.9	84	#?
10	10 t-Bu-Me-ether	6.52	6.51	0.002	73	57	11.529	0.40	0.4	98	
19	19 t-12-di-Cl-ethene	6.33	6.31	0.001	96	61	5.258	0.25	0.3	49	?
98	98 Vinyl acetate x5	6.74	6.90	-0.017	43	86	3.645	0.29	0.3	100	
21	21 11-dichloroethane	6.66	6.66	0.000	63	83	11.126	0.27	0.3	85	#
91	91 2-butanone MEKx10	7.32	7.31	0.000	43	72	25.733	4.14	4.1	89	#?
115	115 Di isoprop ether	7.34	7.34	0.000	45	87	40.820	0.45	0.4	92	?
22	22 c-12-di-Cl-ethene	7.46	7.46	0.000	96	61	6.716	0.35	0.4	99	
23	23 22-Dichloropropan	7.84	7.82	0.002	77	97	11.379	0.28	0.3	68	~~#?~~
24	24 Br-Cl-methane	7.66	7.67	0.000	128	130	0.619	0.09	0.1	0	m
25	25 chloroform	7.74	7.74	0.000	83	85	15.134	0.39	0.4	93	?
201	201 Ethyl acetate x2	7.77	7.78	0.000	43	61	2.846	0.32	0.3	52	#?
116	116 ETBE	7.85	7.86	0.000	59	87	33.538	0.57	0.6	81	#?
117	117 Iso-butyl alcoho	7.77	7.78	0.000	43	42	0.940	0.61	0.6	16	#?
26	26 tetrahydrofuranx5	8.07	8.17	-0.011	72	42	0.257	0.44	0.4	46	
34	34 111-tri-Cl-ethane	8.68	8.68	0.000	97	99	8.942	0.21	0.2	95	
30	30 12-dichloroethane	8.57	8.57	0.000	62	64	1.802	0.14	0.1	54	#
35	35 11-Di-Cl-propene	8.91	8.91	0.000	75	110	8.689	0.27	0.3	66	#
36	36 benzene	9.19	9.17	0.001	78	52	20.191	0.30	0.3	87	
37	37 CCl4	9.11	9.12	-0.001	117	119	8.483	0.20	0.2	94	
97	97 thiophene	9.30	9.32	-0.001	84	58	9.443	0.34	0.3	74	#
118	118 TAME	9.72	9.40	0.034	73	43	2.423	0.06	0.1	92	
39	39 12-di-Cl-propane	9.90	9.90	0.000	63	76	5.331	0.29	0.3	49	#
40	40 trichloroethene	9.94	9.95	-0.001	130	132	7.533	0.30	0.3	84	
96	96 Me-methacrylate	10.22	10.23	0.000	69	100	1.437	0.28	0.3	33	#
42	42 Br-di-Cl-methane	10.02	10.02	0.000	83	85	12.659	0.47	0.5	93	
41	41 dibromomethane	9.85	9.86	-0.001	174	172	0.618	0.10	0.1	85	
45	45 c-13-di-Cl-propen	10.76	10.76	0.000	75	110	7.615	0.36	0.4	64	#?
92	92 2-ClEt-Vi-ether10	10.52	10.53	-0.002	63	43	5.311	5.01	5.0	39	#
56	56 toluene	11.61	11.61	0.000	91	92	24.063	0.36	0.4	97	

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

5/16/03

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

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-003.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 10:47 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:27 2003
Print Time : Fri May 16 10:40 2003
Miscleneous :

Sample : f=1 0.3ppb
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

81

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.73	11.73	0.000	69	99	3.479	0.39	0.4	58	m
93	93 2-Hexanone x5	11.90	11.86	0.004	43	58	1.510	0.41	0.4	1	#
48	48 112-tri-Cl-Et	11.44	11.42	0.002	97	83	0.906	0.12	0.1	1	m
58	58 1,2-di-br-ethane	12.22	12.22	0.000	107	109	1.824	0.22	0.2	87	
51	51 di-Br-Cl-methane	11.95	11.96	-0.001	129	127	7.347	0.49	0.5	83	
46	46 t-13-di-cl-propen	10.76	10.76	0.000	75	110	7.615	0.36	0.4	64	#?
105	105 1-Chlorohexane	13.05	13.01	0.005	55	93	11.922	0.44	0.4	50	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.90	10.91	-0.001	43	58	4.406	0.80	0.8	73	
49	49 1,3-di-cl-propane	11.69	11.68	0.001	76	78	5.042	0.40	0.4	58	#
59	59 tetra-Cl-ethene	12.39	12.39	0.000	166	168	5.645	0.32	0.3	40	#
60	60 chlorobenzene	13.08	13.08	0.000	112	77	11.129	0.32	0.3	59	#?
61	61 1112-tetra-Cl-Et	13.01	13.01	0.000	131	133	4.438	0.31	0.3	97	
64	64 ethylbenzene	13.28	13.28	0.000	91	106	21.645	0.30	0.3	68	#
65	65 m/p-Xylenes x2	13.48	13.48	0.000	91	106	30.844	0.54	0.5	97	
99	99 1-4-di-Cl-butane	13.85	13.84	0.000	55	41	6.740	0.54	0.5	76	#
52	52 bromoform	13.61	13.61	0.000	173	175	2.520	0.53	0.5	28	#
66	66 styrene	13.81	13.81	0.000	104	78	15.564	0.40	0.4	80	
67	67 o-xylene	13.88	13.88	0.000	91	106	15.170	0.28	0.3	97	?
68	68 1122-Tetra-Cl-Et	13.89	13.89	0.000	83	85	2.369	0.41	0.4	18	m?
110	110 t-1,4-dichloro-2	14.05	14.04	0.000	89	53	0.598	0.46	0.5	9	#
106	106 Cl-benzyl	15.50	15.52	-0.001	91	126	1.709	0.15	0.1	53	#
<<< I3 : ISTD ID = 62 >>>											
71	71 isopropylbenzene	14.24	14.24	0.000	105	120	20.338	0.21	0.2	96	
72	72 bromobenzene	14.50	14.49	0.000	156	158	3.634	0.25	0.3	95	
73	73 n-propylbenzene	14.69	14.66	0.002	120	78	5.459	0.22	0.2	76	
74	74 2-Cl-Tl 126 1	14.78	14.76	0.001	126	128	3.366	0.21	0.2	43	#
75	75 4-Cl-Tl 126 1	14.84	14.84	0.000	126	128	4.268	0.20	0.2	43	#
76	76 135-tri-Me-Bz	14.95	14.94	0.000	105	120	17.066	0.23	0.2	91	
79	79 tert-butylbenzene	15.22	15.22	0.000	119	91	16.192	0.20	0.2	98	
78	78 124-tri-Me-Bz	15.35	15.33	0.001	105	120	13.993	0.21	0.2	97	
80	80 13-di-Cl-Bz 146	15.54	15.52	0.001	146	148	8.334	0.33	0.3	87	

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

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

82

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-003.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 10:47 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:27 2003
Print Time : Fri May 16 10:40 2003
Miscleneous :

Sample : f=1 0.3ppb
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	15.60	15.58	0.001	146	148	9.119	0.25	0.2	83	
81	81	sec-butylbenzene	15.45	15.44	0.000	105	134	27.562	0.23	0.2	96	
77	77	4-iso-Pr-toluene	15.63	15.61	0.002	119	134	19.882	0.23	0.2	94	
84	84	12-di-Cl-benzene	15.94	15.93	0.000	146	148	6.500	0.27	0.3	18	m
85	85	n-butylbenzene	16.02	16.00	0.001	91	134	17.225	0.22	0.2	96	
87	87	124-tri-Cl-Bz	17.69	17.66	0.002	180	182	2.922	0.20	0.2	84	m
88	88	naphthalene	17.97	17.92	0.003	128	129	1.954	0.14	0.1	69	m?
90	90	123-tri-Cl-Bz	18.14	18.11	0.002	180	182	1.279	0.13	0.1	31	#
89	89	hx-Cl-butadiene	17.94	17.95	0.000	225	260	4.633	0.29	0.3	56	#?

5/16/03

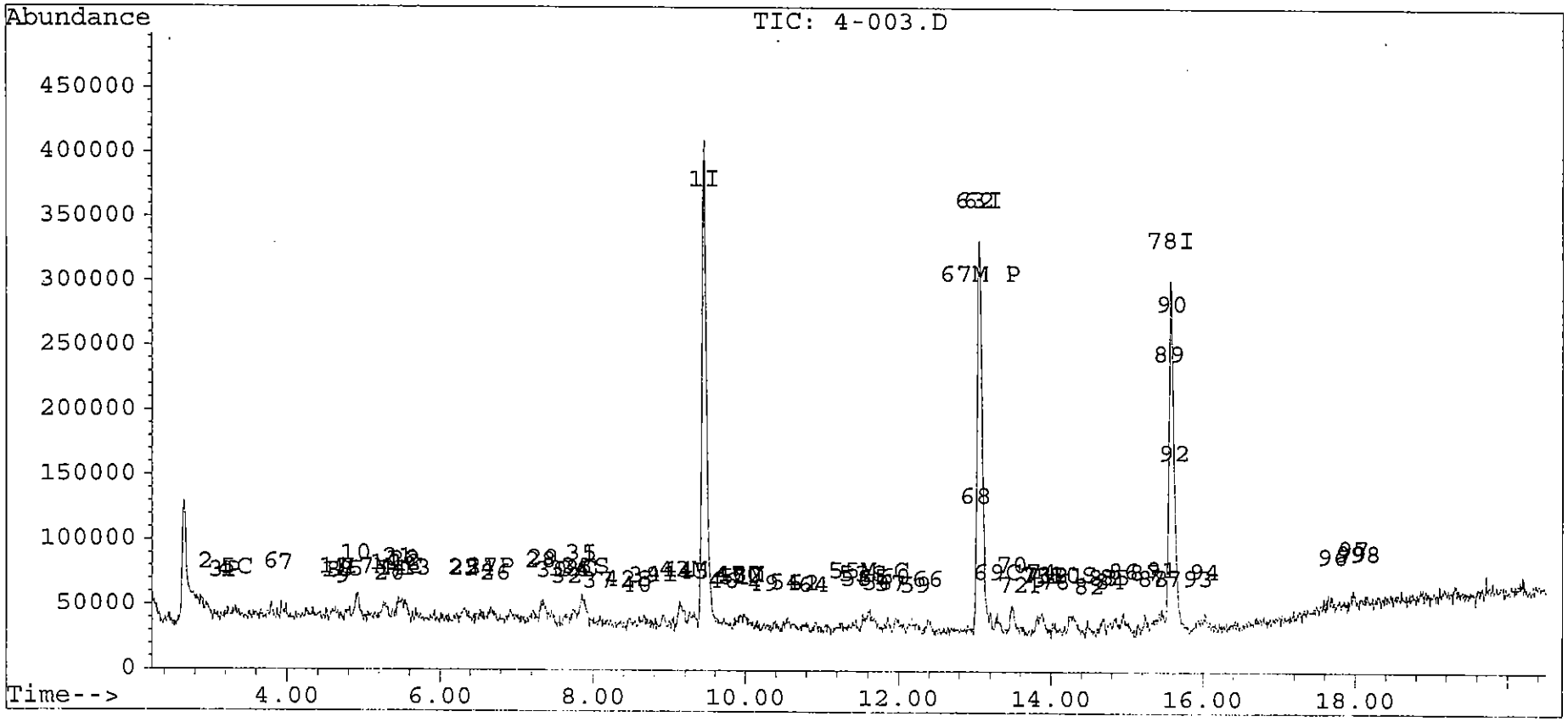
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2404\4-003.D
Acq On : 15 May 03 10:47 am
Sample : f=1 0.3ppb
Misc :
Quant Time: May 15 17:27 2003

Vial: 1
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Multiple Level Calibration



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

84

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-002.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 11:45 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:30 2003
Print Time : Fri May 16 10:39 2003
Miscleneous :

Sample : f=1 2ppb
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	9.45	9.44	0.000	96	70	799.651	10.00		0.00	
47	47	Cl-benzene-d5, I2	13.06	13.05	0.000	82	119	227.963	10.00		0.00	
62	62	1,4-DCB-d4 150 15	15.57	15.56	0.000	152	150	211.064	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Methane (	7.91	7.90	0.000	111	113	60.816	2.08	2.1	10.42%	
29	29	1,2-di-Cl-ethane-	8.47	8.47	0.000	65	102	26.465	2.29	2.3	11.47%	
55	55	toluene-d8(S2)	11.54	11.54	0.000	100	99	83.281	2.09	2.1	10.45%	
70	70	4-Br-1-F-Bz (S3)	14.30	14.28	0.000	174	95	36.349	2.18	2.2	10.88%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	2.96	2.95	0.000	85	87	35.493	1.53	1.5	83	
4	4	Chloromethane	3.19	3.15	0.004	50	52	19.850	1.08	1.1	64	~~#~~
9	9	F114 85 135	3.20	3.20	0.000	85	135	44.804	1.80	1.8	99	m?
5	5	vinyl chloride	3.35	3.35	0.000	62	64	33.999	1.99	2.0	93	5/16/03
6	6	bromomethane	3.78	3.78	0.000	94	96	26.980	2.17	2.2	90	m
7	7	Chloroethane	3.96	3.94	0.002	64	66	26.106	2.02	2.0	97	m
8	8	tri-Cl-F-methane	4.61	4.62	0.000	101	103	64.415	1.43	1.4	98	?
111	111	isopropyl alcoho	4.73	4.73	0.000	45	43	6.299	20.50	20.5	1	#
100	100	ethyl ether x5	4.91	4.90	0.000	59	74	132.391	14.98	15.0	100	
102	102	Acrolein x10	4.62	4.62	0.000	56	55	15.421	15.96	16.0	80	?
119	119	methyl acetate	5.54	5.54	0.000	43	74	34.881	2.79	2.8	81	?
104	104	Carbon disulfide	5.68	5.69	0.000	76	78	108.670	2.00	2.0	100	
103	103	Acrylonitrilex10	5.37	5.36	0.000	53	52	38.141	25.88	25.9	98	?
95	95	Acetone x10	4.76	4.77	-0.001	43	58	42.021	33.60	33.6	85	#
108	108	F-113	5.50	5.50	0.000	151	101	56.604	2.21	2.2	93	
13	13	11-dichloroethene	5.24	5.24	0.000	61	96	60.316	1.84	1.8	99	
101	101	Acetonnitrilex10	4.65	4.65	0.000	41	40	10.077	20.64	20.6	100	
109	109	Iodomethane	5.29	5.29	0.000	142	127	75.147	2.56	2.6	100	
113	113	Tert butyl alcoh	5.35	5.32	0.003	59	57	18.588	28.67	28.7	84	#?

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

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

85

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-002.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 11:45 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:30 2003
Print Time : Fri May 16 10:39 2003
Miscleneous :

Sample : f=1 2ppb
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	5.45	5.45	0.000	84	49	48.402	1.98	2.0	98	
	112 Allyl chloride	5.57	5.56	0.000	41	76	77.142	1.99	2.0	91	?
200	200 Nitro methane x1	6.33	6.31	0.001	61	46	66.437	20.04	20.0	98	#?
10	10 t-Bu-Me-ether	6.52	6.51	0.001	73	57	91.189	3.23	3.2	96	
19	19 t-12-di-Cl-ethene	6.33	6.31	0.001	96	61	44.435	2.16	2.2	98	?
98	98 Vinyl acetate x5	6.91	6.90	0.000	43	86	167.151	13.52	13.5	96	
21	21 11-dichloroethane	6.68	6.66	0.002	63	83	88.915	2.20	2.2	95	
91	91 2-butanone MEKx10	7.33	7.31	0.001	43	72	153.111	25.09	25.1	100	?
115	115 Di isoprop ether	7.34	7.34	0.000	45	87	232.542	2.61	2.6	99	?
22	22 c-12-di-Cl-ethene	7.46	7.46	0.000	96	61	44.823	2.42	2.4	100	
23	23 22-Dichloropropan	7.82	7.82	0.001	77	97	71.432	1.80	1.8	99	
24	24 Br-Cl-methane	7.67	7.67	0.000	128	130	19.664	2.95	2.9	99	
25	25 chloroform	7.74	7.74	0.000	83	85	81.585	2.12	2.1	99	
201	201 Ethyl acetate x2	7.79	7.78	0.001	43	61	46.100	5.34	5.3	52	m?
116	116 ETBE	7.86	7.86	0.000	59	87	144.136	2.50	2.5	98	
117	117 Iso-butyl alcoho	7.79	7.78	0.001	43	42	62.706	41.51	41.5	38	m?
26	26 tetrahydrofuranx5	8.17	8.17	0.000	72	42	8.307	14.52	14.5	33	#
34	34 111-tri-Cl-ethane	8.67	8.68	0.000	97	99	65.770	1.55	1.5	98	
30	30 12-dichloroethane	8.57	8.57	0.000	62	64	33.229	2.59	2.6	87	
35	35 11-Di-Cl-propene	8.91	8.91	0.000	75	110	58.001	1.83	1.8	95	
36	36 benzene	9.18	9.17	0.000	78	52	142.907	2.15	2.2	95	
37	37 CCl4	9.13	9.12	0.000	117	119	58.348	1.44	1.4	93	
97	97 thiophene	9.32	9.32	0.000	84	58	75.171	2.74	2.7	96	
118	118 TAME	9.41	9.40	0.000	73	43	114.119	3.00	3.0	94	
39	39 12-di-Cl-propane	9.92	9.90	0.002	63	76	41.840	2.29	2.3	98	
40	40 trichloroethene	9.97	9.95	0.001	130	132	51.222	2.08	2.1	100	
96	96 Me-methacrylate	10.25	10.23	0.002	69	100	15.341	3.06	3.1	91	
42	42 Br-di-Cl-methane	10.02	10.02	0.000	83	85	54.887	2.10	2.1	99	
41	41 dibromomethane	9.87	9.86	0.000	174	172	19.288	3.18	3.2	98	
45	45 c-13-di-Cl-propen	10.76	10.76	0.000	75	110	48.884	2.37	2.4	99	?
92	92 2-ClEt-Vi-ether10	10.53	10.53	0.000	63	43	41.678	40.10	40.1	93	
56	56 toluene	11.62	11.61	0.001	91	92	127.484	1.93	1.9	99	

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

5/16/03

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

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-002.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 11:45 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:30 2003
Print Time : Fri May 16 10:39 2003
Miscleneous :

Sample : f=1 2ppb
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	11.73	11.73	0.000	69	99	23.955	2.77	2.8	94	
93	93 2-Hexanone x5	11.85	11.86	0.000	43	58	42.848	11.73	11.7	83	#
48	48 112-tri-Cl-Et	11.43	11.42	0.000	97	83	19.429	2.53	2.5	97	
58	58 1,2-di-br-ethane	12.23	12.22	0.001	107	109	20.769	2.54	2.5	98	
51	51 di-Br-Cl-methane	11.98	11.96	0.002	129	127	33.435	2.27	2.3	99	
46	46 t-13-di-cl-propen	10.76	10.76	0.000	75	110	48.884	2.37	2.4	99	?
105	105 1-Chlorohexane	13.03	13.01	0.002	55	93	55.414	2.08	2.1	83	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.84	10.91	-0.006	43	58	1.842	0.34	0.3	92	
49	49 1,3-di-cl-propane	11.69	11.68	0.001	76	78	34.635	2.80	2.8	87	#
59	59 tetra-Cl-ethene	12.39	12.39	0.000	166	168	43.932	2.51	2.5	98	
60	60 chlorobenzene	13.10	13.08	0.001	112	77	80.876	2.33	2.3	90	
61	61 1112-tetra-Cl-Et	13.03	13.01	0.001	131	133	35.454	2.53	2.5	100	?
64	64 ethylbenzene	13.30	13.28	0.001	91	106	144.618	2.04	2.0	97	
65	65 m/p-Xylenes x2	13.50	13.48	0.001	91	106	222.047	3.97	4.0	99	
99	99 1-4-di-Cl-butane	13.84	13.84	0.000	55	41	36.572	2.96	3.0	91	#?
52	52 bromoform	13.62	13.61	0.001	173	175	15.462	3.32	3.3	91	
66	66 styrene	13.81	13.81	0.000	104	78	84.384	2.20	2.2	88	?
67	67 o-xylene	13.88	13.88	0.000	91	106	107.821	2.03	2.0	98	?
68	68 1122-Tetra-Cl-Et	13.89	13.89	0.000	83	85	17.006	2.99	3.0	100	?
110	110 t-1,4-dichloro-2	14.07	14.04	0.002	89	53	5.155	4.07	4.1	54	m
106	106 Cl-benzyl	15.52	15.52	0.000	91	126	34.984	3.09	3.1	93	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.04	14.04	0.000	110	97	4.417	2.00	2.0	83	
71	71 isopropylbenzene	14.25	14.24	0.000	105	120	154.289	1.65	1.6	97	
72	72 bromobenzene	14.49	14.49	0.000	156	158	32.102	2.34	2.3	88	
73	73 n-propylbenzene	14.68	14.66	0.000	120	78	46.356	1.95	1.9	99	
74	74 2-Cl-Tl 126 1	14.78	14.76	0.001	126	128	25.894	1.70	1.7	99	
75	75 4-Cl-Tl 126 1	14.85	14.84	0.000	126	128	41.895	2.03	2.0	99	m
76	76 135-tri-Me-Bz	14.95	14.94	0.000	105	120	117.538	1.65	1.7	96	
79	79 tert-butylbenzene	15.23	15.22	0.000	119	91	139.975	1.76	1.8	87	
78	78 124-tri-Me-Bz	15.34	15.33	0.000	105	120	99.021	1.59	1.6	89	

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

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

87

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-002.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 11:45 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:30 2003
Print Time : Fri May 16 10:39 2003
Miscleneous :

Sample : f=1 2ppb
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	15.53	15.52	0.000	146	148	52.974	2.18	2.2	18	#?
82	82	14-di-Cl-Bz 146	15.59	15.58	0.000	146	148	77.324	2.18	2.2	46	#?
81	81	sec-butylbenzene	15.45	15.44	0.000	105	134	188.712	1.67	1.7	99	
77	77	4-iso-Pr-toluene	15.61	15.61	0.000	119	134	146.089	1.74	1.7	99	?
84	84	12-di-Cl-benzene	15.95	15.93	0.001	146	148	51.953	2.24	2.2	99	
85	85	n-butylbenzene	16.00	16.00	0.000	91	134	125.422	1.64	1.6	99	
86	86	12-diBr-3-Cl-Pra	16.40	16.38	0.000	157	155	1.829	1.61	1.6	0	m
87	87	124-tri-Cl-Bz	17.68	17.66	0.000	180	182	30.767	2.20	2.2	96	
88	88	naphthalene	17.93	17.92	0.000	128	129	26.649	1.94	1.9	88	
90	90	123-tri-Cl-Bz	18.11	18.11	0.000	180	182	22.090	2.30	2.3	83	
89	89	hx-Cl-butadiene	17.96	17.95	0.000	225	260	32.362	2.09	2.1	91	#

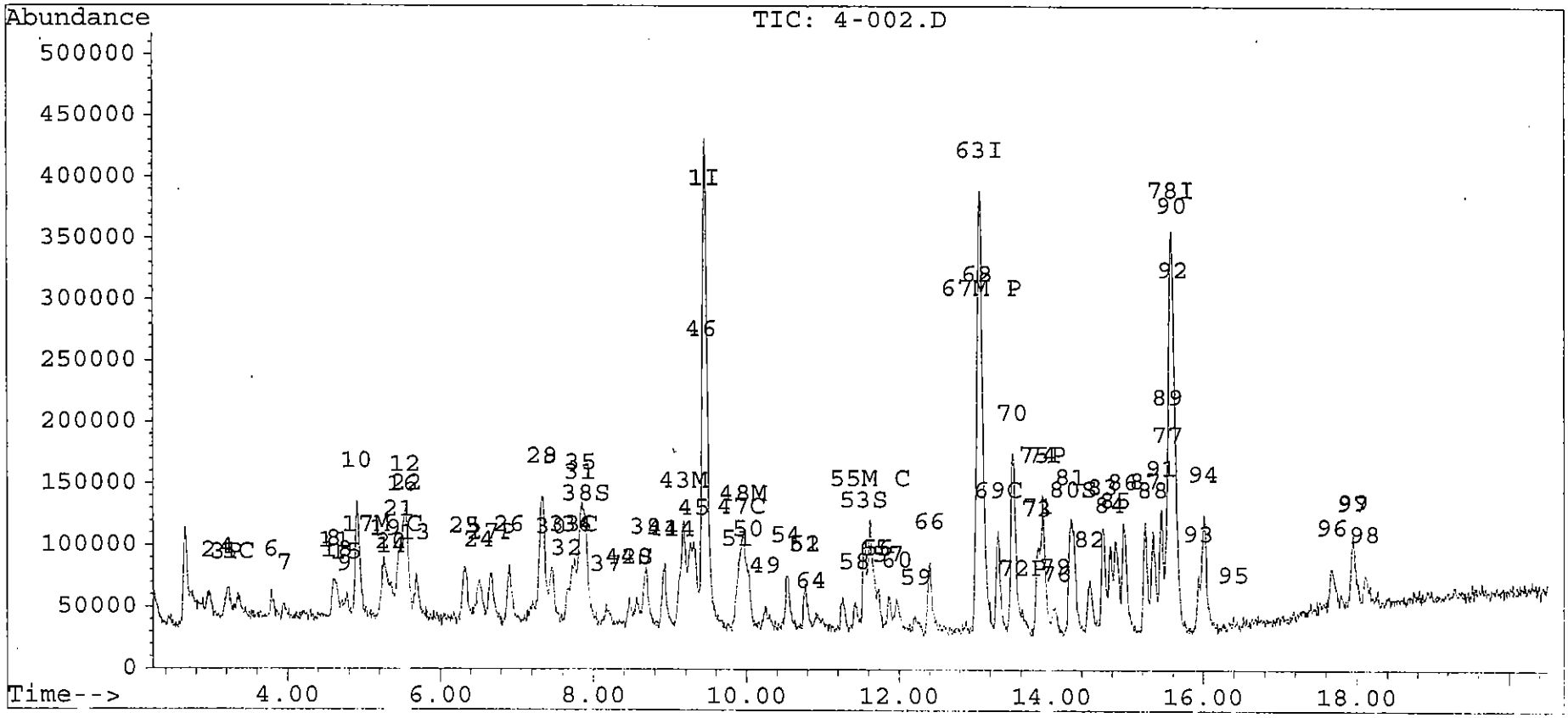
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2404\4-002.D
Acq On : 15 May 03 11:45 am
Sample : f=1 2ppb
Misc :
Quant Time: May 15 17:30 2003

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

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Multiple Level Calibration



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

68

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-010.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:14 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:32 2003
Print Time : Fri May 16 10:40 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	9.45	9.44	0.000	96	70	824.804	10.00		0.00	
47	47	Cl-benzene-d5, I2	13.04	13.05	0.000	82	119	249.245	10.00		0.00	
62	62	1,4-DCB-d4 150 15	15.56	15.56	0.000	152	150	218.269	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Methane (	7.91	7.90	0.000	111	113	289.627	9.62	9.6	48.12%	
29	29	1,2-di-Cl-ethane-	8.47	8.47	0.000	65	102	134.448	11.30	11.3	56.50%	
55	55	toluene-d8(S2)	11.54	11.54	0.000	100	99	390.496	9.50	9.5	47.51%	
70	70	4-Br-1-F-Bz (S3)	14.28	14.28	0.000	174	95	170.967	9.90	9.9	49.49%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	2.95	2.95	0.000	85	87	168.476	7.02	7.0	95	
4	4	Chloromethane	3.17	3.15	0.003	50	52	102.587	5.43	5.4	89	
9	9	F114 85 135	3.20	3.20	0.000	85	135	220.942	8.60	8.6	95	m
5	5	vinyl chloride	3.35	3.35	0.000	62	64	162.051	9.20	9.2	98	
6	6	bromomethane	3.78	3.78	0.000	94	96	129.267	10.06	10.1	98	m
7	7	Chloroethane	3.94	3.94	0.000	64	66	123.679	9.28	9.3	96	
8	8	tri-Cl-F-methane	4.60	4.62	-0.002	101	103	295.972	6.37	6.4	96	?
111	111	isopropyl alcoho	4.70	4.73	-0.003	45	43	29.925	94.43	94.4	13	#
100	100	ethyl ether x5	4.90	4.90	0.000	59	74	571.623	62.72	62.7	98	
102	102	Acrolein x10	4.61	4.62	0.000	56	55	124.387	124.83	124.8	92	?
119	119	methyl acetate	5.54	5.54	0.000	43	74	93.789	7.27	7.3	98	?
104	104	Carbon disulfide	5.69	5.69	0.000	76	78	470.593	8.39	8.4	99	
103	103	Acrylonitrilex10	5.36	5.36	0.000	53	52	123.788	81.44	81.4	99	
95	95	Acetone x10	4.77	4.77	0.000	43	58	146.218	113.34	113.3	92	
108	108	F-113	5.52	5.50	0.002	151	101	258.951	9.80	9.8	89	?
13	13	11-dichloroethene	5.24	5.24	0.000	61	96	284.348	8.41	8.4	99	
101	101	Acetonnitrilex10	4.65	4.65	0.000	41	40	31.282	62.11	62.1	9	#
109	109	Iodomethane	5.28	5.29	0.000	142	127	336.586	11.11	11.1	97	
113	113	Tert butyl alcoh	5.33	5.32	0.000	59	57	77.974	116.60	116.6	100	

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

5/16/03

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

90

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-010.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:14 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:32 2003
Print Time : Fri May 16 10:40 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	5.46	5.45	0.000	84	49	184.549	7.33	7.3	92	
	112 Allyl chloride	5.56	5.56	0.000	41	76	331.252	8.28	8.3	88	#?
200	200 Nitro methane x1	6.33	6.31	0.002	61	46	325.452	95.15	95.2	99	?
10	10 t-Bu-Me-ether	6.50	6.51	-0.001	73	57	366.763	12.59	12.6	96	
19	19 t-12-di-Cl-ethene	6.32	6.31	0.000	96	61	215.839	10.16	10.2	97	?
98	98 Vinyl acetate x5	6.91	6.90	0.000	43	86	292.003	22.90	22.9	100	
21	21 11-dichloroethane	6.66	6.66	0.000	63	83	412.703	9.92	9.9	98	
91	91 2-butanone MEKx10	7.32	7.31	0.000	43	72	642.126	102.03	102.0	94	#?
115	115 Di isoprop ether	7.33	7.34	-0.001	45	87	1079.994	11.76	11.8	99	?
22	22 c-12-di-Cl-ethene	7.46	7.46	0.000	96	61	222.557	11.63	11.6	99	
23	23 22-Dichloropropan	7.81	7.82	0.000	77	97	324.674	7.91	7.9	98	
24	24 Br-Cl-methane	7.68	7.67	0.000	128	130	94.361	13.72	13.7	93	
25	25 chloroform	7.74	7.74	0.000	83	85	381.866	9.64	9.6	97	
201	201 Ethyl acetate x2	7.84	7.78	0.007	43	61	136.924	15.36	15.4	52	m?
116	116 ETBE	7.86	7.86	0.000	59	87	644.550	10.84	10.8	100	?
117	117 Iso-butyl alcoho	7.84	7.78	0.007	43	42	135.151	86.73	86.7	35	m?
26	26 tetrahydrofuranx5	8.16	8.17	-0.001	72	42	43.847	74.29	74.3	75	
34	34 111-tri-Cl-ethane	8.68	8.68	0.000	97	99	311.389	7.09	7.1	96	
30	30 12-dichloroethane	8.57	8.57	0.000	62	64	153.871	11.63	11.6	99	
35	35 11-Di-Cl-propene	8.92	8.91	0.000	75	110	275.836	8.44	8.4	97	
36	36 benzene	9.18	9.17	0.000	78	52	668.867	9.78	9.8	98	
37	37 CCl4	9.13	9.12	0.001	117	119	273.728	6.54	6.5	99	
97	97 thiophene	9.32	9.32	0.000	84	58	331.986	11.74	11.7	93	
118	118 TAME	9.41	9.40	0.000	73	43	445.234	11.37	11.4	99	
39	39 12-di-Cl-propane	9.91	9.90	0.000	63	76	206.799	10.99	11.0	99	
40	40 trichloroethene	9.96	9.95	0.000	130	132	233.771	9.20	9.2	95	
96	96 Me-methacrylate	10.23	10.23	0.000	69	100	47.596	9.20	9.2	99	
42	42 Br-di-Cl-methane	10.01	10.02	0.000	83	85	257.854	9.56	9.6	98	
41	41 dibromomethane	9.86	9.86	0.000	174	172	93.298	14.92	14.9	96	
45	45 c-13-di-Cl-propen	10.76	10.76	0.000	75	110	239.463	11.26	11.3	96	?
92	92 2-ClEt-Vi-ether10	10.53	10.53	0.000	63	43	205.749	191.92	191.9	97	
56	56 toluene	11.62	11.61	0.001	91	92	612.856	8.98	9.0	98	

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

5/16/03

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

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-010.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:14 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:32 2003
Print Time : Fri May 16 10:40 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	11.72	11.73	-0.001	69	99	53.825	6.03	6.0	98	
93	93 2-Hexanone x5	11.86	11.86	0.000	43	58	144.809	38.44	38.4	95	
48	48 112-tri-Cl-Et	11.42	11.42	0.000	97	83	109.523	13.84	13.8	98	m
58	58 1,2-di-br-ethane	12.22	12.22	0.000	107	109	99.010	11.72	11.7	99	
51	51 di-Br-Cl-methane	11.96	11.96	0.000	129	127	155.803	10.24	10.2	97	
46	46 t-13-di-cl-propen	10.76	10.76	0.000	75	110	239.463	11.26	11.3	96	?
105	105 1-Chlorohexane	13.01	13.01	0.000	55	93	207.900	7.57	7.6	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.91	10.91	0.000	43	58	61.603	10.39	10.4	86	
49	49 1,3-di-cl-propane	11.68	11.68	0.000	76	78	178.128	13.19	13.2	91	
59	59 tetra-Cl-ethene	12.38	12.39	0.000	166	168	206.527	10.78	10.8	99	
60	60 chlorobenzene	13.08	13.08	0.000	112	77	394.322	10.40	10.4	100	
61	61 1112-tetra-Cl-Et	13.02	13.01	0.000	131	133	177.813	11.60	11.6	99	?
64	64 ethylbenzene	13.29	13.28	0.000	91	106	668.986	8.64	8.6	99	
65	65 m/p-Xylenes x2	13.48	13.48	0.000	91	106	1015.495	16.59	16.6	96	
99	99 1-4-di-Cl-butane	13.83	13.84	0.000	55	41	153.006	11.33	11.3	98	?
52	52 bromoform	13.61	13.61	0.000	173	175	69.675	13.68	13.7	99	
66	66 styrene	13.81	13.81	0.000	104	78	382.712	9.14	9.1	85	?
67	67 o-xylene	13.89	13.88	0.000	91	106	489.526	8.43	8.4	97	?
68	68 1122-Tetra-Cl-Et	13.89	13.89	0.000	83	85	81.453	13.09	13.1	95	?
110	110 t-1,4-dichloro-2	14.05	14.04	0.000	89	53	17.689	12.76	12.8	80	#?
106	106 Cl-benzyl	15.52	15.52	0.000	91	126	130.453	10.52	10.5	94	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.02	14.04	0.000	110	97	25.007	10.94	10.9	97	?
71	71 isopropylbenzene	14.24	14.24	0.000	105	120	681.700	7.04	7.0	99	
72	72 bromobenzene	14.50	14.49	0.000	156	158	153.148	10.79	10.8	94	
73	73 n-propylbenzene	14.67	14.66	0.000	120	78	210.844	8.56	8.6	99	
74	74 2-Cl-Tl 126 1	14.78	14.76	0.001	126	128	120.864	7.68	7.7	89	
75	75 4-Cl-Tl 126 1	14.85	14.84	0.000	126	128	196.931	9.24	9.2	89	m
76	76 135-tri-Me-Bz	14.95	14.94	0.000	105	120	539.476	7.33	7.3	97	
79	79 tert-butylbenzene	15.22	15.22	0.000	119	91	610.164	7.44	7.4	100	
78	78 124-tri-Me-Bz	15.33	15.33	0.000	105	120	441.266	6.83	6.8	93	

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

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

92

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-010.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:14 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:32 2003
Print Time : Fri May 16 10:40 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	15.52	15.52	0.000	146	148	229.141	9.13	9.1	90	?
82	82 14-di-Cl-Bz 146	15.58	15.58	0.000	146	148	360.564	9.82	9.8	92	?
81	81 sec-butylbenzene	15.44	15.44	0.000	105	134	808.141	6.92	6.9	98	
77	77 4-iso-Pr-toluene	15.60	15.61	0.000	119	134	661.221	7.60	7.6	100	?
84	84 12-di-Cl-benzene	15.93	15.93	0.000	146	148	234.009	9.77	9.8	99	
85	85 n-butylbenzene	15.99	16.00	0.000	91	134	538.366	6.82	6.8	99	
86	86 12-diBr-3-Cl-Pra	16.39	16.38	0.000	157	155	14.905	12.66	12.7	90	
87	87 124-tri-Cl-Bz	17.67	17.66	0.000	180	182	135.221	9.33	9.3	96	
88	88 naphthalene	17.91	17.92	0.000	128	129	107.459	7.56	7.6	100	?
90	90 123-tri-Cl-Bz	18.11	18.11	0.000	180	182	101.362	10.23	10.2	91	
89	89 hx-Cl-butadiene	17.94	17.95	0.000	225	260	134.569	8.42	8.4	95	?

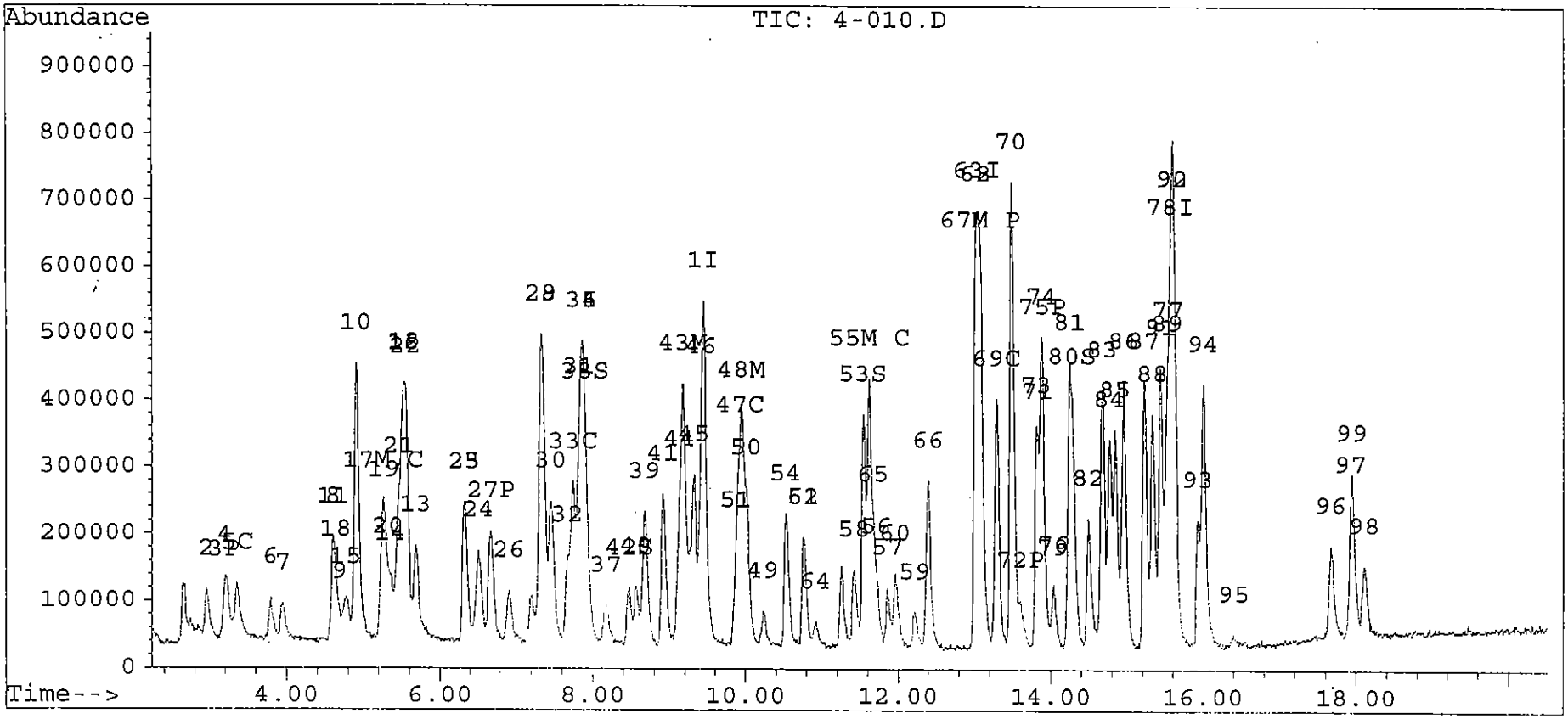
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2404\4-010.D
Acq On : 15 May 03 12:14 pm
Sample : f=1
Misc :
Quant Time: May 15 17:32 2003

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

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Multiple Level Calibration



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

94

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-020.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:43 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:34 2003
Print Time : Fri May 16 10:40 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	9.44	9.44	0.000	96	70	746.757	10.00		0.00	
47	47	Cl-benzene-d5, I2	13.05	13.05	0.000	82	119	222.899	10.00		0.00	
62	62	1,4-DCB-d4 150 15	15.56	15.56	0.000	152	150	198.057	10.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Methane (	7.90	7.90	0.000	111	113	568.312	20.86	20.9	104.29%	
29	29	1,2-di-Cl-ethane-	8.47	8.47	0.000	65	102	261.823	24.31	24.3	121.53%	
55	55	toluene-d8(S2)	11.54	11.54	0.000	100	99	768.293	20.65	20.7	103.25%	
70	70	4-Br-1-F-Bz (S3)	14.28	14.28	0.000	174	95	334.015	21.31	21.3	106.56%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	2.95	2.95	0.000	85	87	314.256	14.46	14.5	96	
4	4	Chloromethane	3.15	3.15	0.000	50	52	246.113	14.38	14.4	92	
9	9	F114 85 135	3.20	3.20	0.000	85	135	386.132	16.59	16.6	92	
5	5	vinyl chloride	3.35	3.35	0.000	62	64	300.841	18.87	18.9	95	
6	6	bromomethane	3.78	3.78	0.000	94	96	267.214	22.98	23.0	98	
7	7	Chloroethane	3.94	3.94	0.000	64	66	236.431	19.59	19.6	94	
8	8	tri-Cl-F-methane	4.62	4.62	0.000	101	103	594.414	14.13	14.1	96	?
111	111	isopropyl alcoho	4.73	4.73	0.000	45	43	70.395	245.35	245.3	1	#
100	100	ethyl ether x5	4.90	4.90	0.000	59	74	1090.032	132.11	132.1	98	
102	102	Acrolein x10	4.62	4.62	0.000	56	55	164.659	182.51	182.5	87	?
119	119	methyl acetate	5.54	5.54	0.000	43	74	329.077	28.19	28.2	99	?
104	104	Carbon disulfide	5.69	5.69	0.000	76	78	924.294	18.21	18.2	97	
103	103	Acrylonitrilex10	5.36	5.36	0.000	53	52	403.095	292.90	292.9	99	
95	95	Acetone x10	4.77	4.77	0.000	43	58	266.351	228.04	228.0	87	#
108	108	F-113	5.50	5.50	0.000	151	101	515.229	21.53	21.5	94	
13	13	11-dichloroethene	5.24	5.24	0.000	61	96	535.921	17.51	17.5	96	
101	101	Acetonnitrilex10	4.65	4.65	0.000	41	40	102.405	224.56	224.6	5	#
109	109	Iodomethane	5.29	5.29	0.000	142	127	628.909	22.94	22.9	94	
113	113	Tert butyl alcoh	5.32	5.32	0.000	59	57	138.129	228.15	228.2	96	

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

mb 7/16/03

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

95

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-020.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:43 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:34 2003
Print Time : Fri May 16 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	5.45	5.45	0.000	84	49	355.095	15.59	15.6	94	
	112 Allyl chloride	5.56	5.56	0.000	41	76	615.063	16.98	17.0	90	?
200	200 Nitro methane x1	6.31	6.31	0.000	61	46	650.702	210.13	210.1	99	?
10	10 t-Bu-Me-ether	6.51	6.51	0.000	73	57	722.425	27.40	27.4	99	
19	19 t-12-di-Cl-ethene	6.31	6.31	0.000	96	61	423.127	21.99	22.0	94	?
98	98 Vinyl acetate x5	6.90	6.90	0.000	43	86	1342.007	116.26	116.3	100	
21	21 11-dichloroethane	6.66	6.66	0.000	63	83	833.014	22.11	22.1	98	
91	91 2-butanone MEKx10	7.31	7.31	0.000	43	72	1432.839	251.48	251.5	98	?
115	115 Di isoprop ether	7.34	7.34	0.000	45	87	2060.781	24.79	24.8	100	?
22	22 c-12-di-Cl-ethene	7.46	7.46	0.000	96	61	432.230	24.94	24.9	97	
23	23 22-Dichloropropan	7.82	7.82	0.000	77	97	629.042	16.94	16.9	99	
24	24 Br-Cl-methane	7.67	7.67	0.000	128	130	180.264	28.95	29.0	90	
25	25 chloroform	7.74	7.74	0.000	83	85	741.343	20.68	20.7	98	
201	201 Ethyl acetate x2	7.78	7.78	0.000	43	61	355.515	44.06	44.1	71	#?
116	116 ETBE	7.86	7.86	0.000	59	87	1245.123	23.14	23.1	100	
117	117 Iso-butyl alcoho	7.78	7.78	0.000	43	42	357.401	253.32	253.3	37	#?
26	26 tetrahydrofuranx5	8.17	8.17	0.000	72	42	84.254	157.68	157.7	81	
34	34 111-tri-Cl-ethane	8.68	8.68	0.000	97	99	599.971	15.09	15.1	96	
30	30 12-dichloroethane	8.57	8.57	0.000	62	64	310.815	25.94	25.9	99	
35	35 11-Di-Cl-propene	8.91	8.91	0.000	75	110	532.605	17.99	18.0	99	
36	36 benzene	9.17	9.17	0.000	78	52	1302.042	21.02	21.0	98	
37	37 CCl4	9.12	9.12	0.000	117	119	543.038	14.32	14.3	97	
97	97 thiophene	9.32	9.32	0.000	84	58	649.163	25.36	25.4	94	
118	118 TAME	9.40	9.40	0.000	73	43	894.867	25.23	25.2	99	
39	39 12-di-Cl-propane	9.90	9.90	0.000	63	76	390.600	22.94	22.9	100	
40	40 trichloroethene	9.95	9.95	0.000	130	132	454.200	19.75	19.7	95	
96	96 Me-methacrylate	10.23	10.23	0.000	69	100	161.499	34.49	34.5	98	
42	42 Br-di-Cl-methane	10.02	10.02	0.000	83	85	508.851	20.83	20.8	96	
41	41 dibromomethane	9.86	9.86	0.000	174	172	195.812	34.60	34.6	99	
45	45 c-13-di-Cl-propen	10.76	10.76	0.000	75	110	477.602	24.80	24.8	96	?
92	92 2-ClEt-Vi-ether10	10.53	10.53	0.000	63	43	413.282	425.80	425.8	99	
56	56 toluene	11.61	11.61	0.000	91	92	1179.183	19.09	19.1	100	

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

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

96

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-020.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:43 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:34 2003
Print Time : Fri May 16 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	11.73	11.73	0.000	69	99	215.372	26.64	26.6	100	
93	93 2-Hexanone x5	11.86	11.86	0.000	43	58	430.950	126.34	126.3	96	
48	48 112-tri-Cl-Et	11.42	11.42	0.000	97	83	184.224	25.70	25.7	93	
58	58 1,2-di-br-ethane	12.22	12.22	0.000	107	109	199.115	26.03	26.0	98	
51	51 di-Br-Cl-methane	11.96	11.96	0.000	129	127	299.945	21.77	21.8	98	
46	46 t-13-di-cl-propen	10.76	10.76	0.000	75	110	477.602	24.80	24.8	96	?
105	105 1-Chlorohexane	13.01	13.01	0.000	55	93	393.247	15.81	15.8	98	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.91	10.91	0.000	43	58	163.289	30.79	30.8	91	
49	49 1,3-di-cl-propane	11.68	11.68	0.000	76	78	334.360	27.68	27.7	95	
59	59 tetra-Cl-ethene	12.39	12.39	0.000	166	168	398.332	23.24	23.2	98	
60	60 chlorobenzene	13.08	13.08	0.000	112	77	752.942	22.22	22.2	99	
61	61 1112-tetra-Cl-Et	13.01	13.01	0.000	131	133	344.569	25.14	25.1	100	?
64	64 ethylbenzene	13.28	13.28	0.000	91	106	1270.086	18.35	18.3	100	
65	65 m/p-Xylenes x2	13.48	13.48	0.000	91	106	1972.002	36.02	36.0	98	
99	99 1-4-di-Cl-butane	13.84	13.84	0.000	55	41	301.374	24.95	25.0	99	?
52	52 bromoform	13.61	13.61	0.000	173	175	136.091	29.89	29.9	100	
66	66 styrene	13.81	13.81	0.000	104	78	759.242	20.27	20.3	86	?
67	67 o-xylene	13.88	13.88	0.000	91	106	954.644	18.39	18.4	100	?
68	68 1122-Tetra-Cl-Et	13.89	13.89	0.000	83	85	170.717	30.67	30.7	97	?
110	110 t-1,4-dichloro-2	14.04	14.04	0.000	89	53	36.488	29.43	29.4	86	?
106	106 Cl-benzyl	15.52	15.52	0.000	91	126	246.745	22.25	22.3	89	#?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.04	14.04	0.000	110	97	46.613	22.48	22.5	100	?
71	71 isopropylbenzene	14.24	14.24	0.000	105	120	1327.629	15.10	15.1	100	
72	72 bromobenzene	14.49	14.49	0.000	156	158	304.357	23.63	23.6	96	
73	73 n-propylbenzene	14.66	14.66	0.000	120	78	394.872	17.66	17.7	96	
74	74 2-Cl-Tl 126 1	14.76	14.76	0.000	126	128	249.899	17.49	17.5	100	
75	75 4-Cl-Tl 126 1	14.84	14.84	0.000	126	128	372.201	19.24	19.2	100	m
76	76 135-tri-Me-Bz	14.94	14.94	0.000	105	120	1018.963	15.26	15.3	98	
79	79 tert-butylbenzene	15.22	15.22	0.000	119	91	1182.229	15.88	15.9	98	
78	78 124-tri-Me-Bz	15.33	15.33	0.000	105	120	843.153	14.39	14.4	90	

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

5/16/03

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

97

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-020.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 12:43 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:34 2003
Print Time : Fri May 16 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
80	80	13-di-Cl-Bz 146	15.52	15.52	0.000	146	148	454.607	19.97	20.0	100	?
82	82	14-di-Cl-Bz 146	15.58	15.58	0.000	146	148	688.087	20.66	20.7	98	?
81	81	sec-butylbenzene	15.44	15.44	0.000	105	134	1585.357	14.97	15.0	100	
77	77	4-iso-Pr-toluene	15.61	15.61	0.000	119	134	1200.767	15.21	15.2	100	?
84	84	12-di-Cl-benzene	15.93	15.93	0.000	146	148	454.651	20.93	20.9	99	
85	85	n-butylbenzene	16.00	16.00	0.000	91	134	1017.966	14.22	14.2	100	
86	86	12-diBr-3-Cl-Pra	16.38	16.38	0.000	157	155	28.995	27.14	27.1	100	
87	87	124-tri-Cl-Bz	17.66	17.66	0.000	180	182	262.726	19.97	20.0	98	
88	88	naphthalene	17.92	17.92	0.000	128	129	235.161	18.22	18.2	98	
90	90	123-tri-Cl-Bz	18.11	18.11	0.000	180	182	206.041	22.91	22.9	91	
89	89	hx-Cl-butadiene	17.95	17.95	0.000	225	260	257.067	17.72	17.7	97	

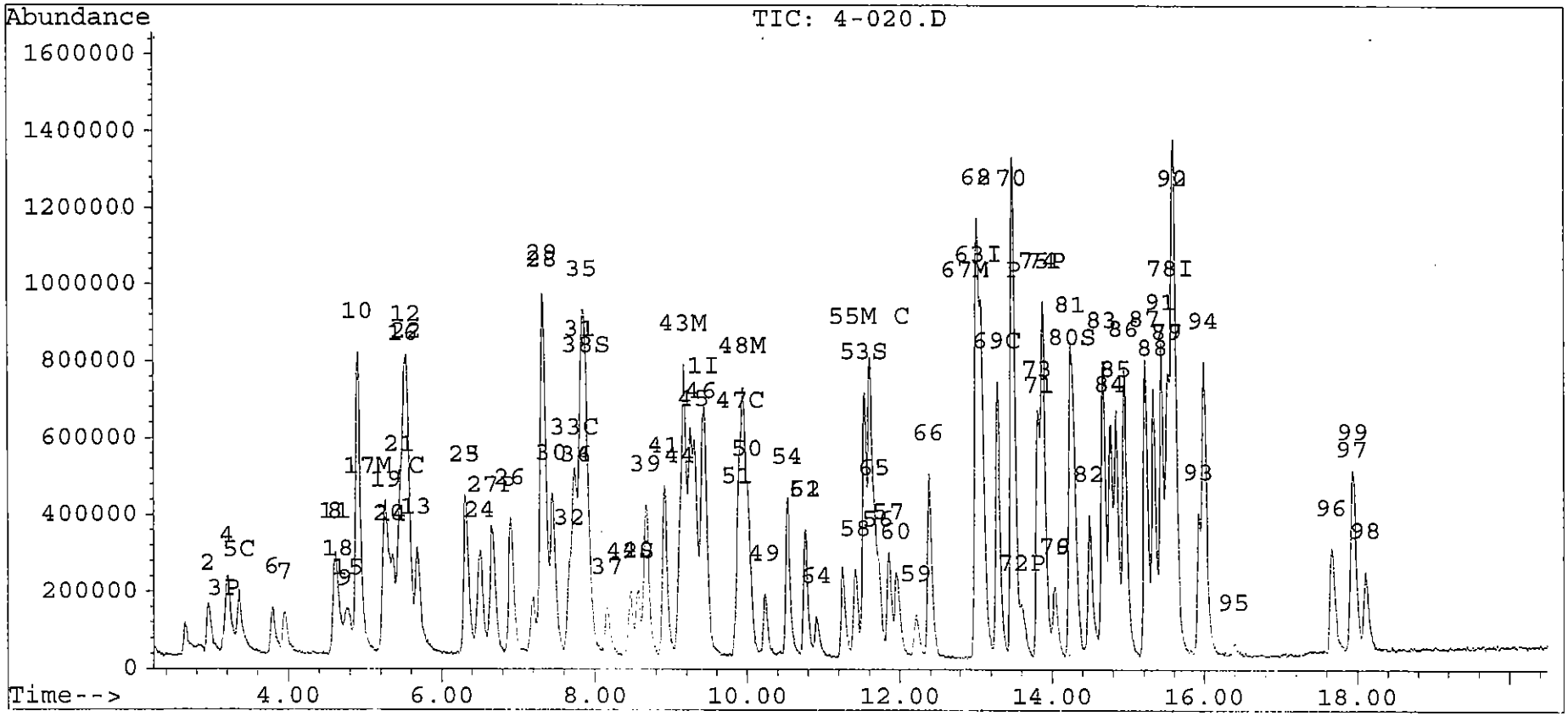
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2404\4-020.D
Acq On : 15 May 03 12:43 pm
Sample : f=1
Misc :
Quant Time: May 15 17:34 2003

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

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Multiple Level Calibration



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

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-040.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:12 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:35 2003
Print Time : Fri May 16 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	9.45	9.44	0.000	96	70	764.394	10.00		0.00	
47	47 Cl-benzene-d5, I2	13.06	13.05	0.000	82	119	243.736	10.00		0.00	
62	62 1,4-DCB-d4 150 15	15.58	15.56	0.001	152	150	195.846	10.00		0.02	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.90	7.90	0.000	111	113	1126.216	40.38	40.4	201.91%	
29	29 1,2-di-Cl-ethane-	8.46	8.47	0.000	65	102	505.671	45.86	45.9	229.31%	
55	55 toluene-d8(S2)	11.54	11.54	0.000	100	99	1521.774	39.96	40.0	199.79%	
70	70 4-Br-1-F-Bz (S3)	14.29	14.28	0.000	174	95	639.559	41.27	41.3	206.34%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.96	2.95	0.000	85	87	706.635	31.78	31.8	96	
4	4 Chloromethane	3.16	3.15	0.002	50	52	534.218	30.50	30.5	95	
9	9 F114 85 135	3.20	3.20	0.000	85	135	819.274	34.39	34.4	98	
5	5 vinyl chloride	3.35	3.35	0.000	62	64	621.901	38.11	38.1	95	
6	6 bromomethane	3.78	3.78	0.000	94	96	519.945	43.67	43.7	99	
7	7 Chloroethane	3.94	3.94	0.000	64	66	478.026	38.70	38.7	95	
8	8 tri-Cl-F-methane	4.61	4.62	0.000	101	103	1265.977	29.39	29.4	94	?
111	111 isopropyl alcoho	4.70	4.73	-0.002	45	43	111.196	378.61	378.6	1	#
100	100 ethyl ether x5	4.90	4.90	0.000	59	74	2124.645	251.56	251.6	97	
102	102 Acrolein x10	4.62	4.62	0.000	56	55	294.058	318.42	318.4	92	?
119	119 methyl acetate	5.54	5.54	0.000	43	74	525.452	43.98	44.0	97	?
104	104 Carbon disulfide	5.68	5.69	0.000	76	78	1876.377	36.11	36.1	98	
103	103 Acrylonitrilex10	5.37	5.36	0.000	53	52	766.254	543.94	543.9	96	
95	95 Acetone x10	4.77	4.77	0.000	43	58	522.927	437.38	437.4	85	#
108	108 F-113	5.51	5.50	0.000	151	101	1098.171	44.84	44.8	95	
13	13 11-dichloroethene	5.24	5.24	0.000	61	96	1112.083	35.50	35.5	96	
101	101 Acetonnitrilex10	4.66	4.65	0.000	41	40	196.047	419.98	420.0	4	#
109	109 Iodomethane	5.28	5.29	0.000	142	127	1205.092	42.93	42.9	94	
113	113 Tert butyl alcoh	5.33	5.32	0.000	59	57	265.783	428.87	428.9	96	#

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

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

100

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-040.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:12 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:35 2003
Print Time : Fri May 16 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	5.44	5.45	0.000	84	49	696.481	29.87	29.9	97	
	112 Allyl chloride	5.55	5.56	0.000	41	76	1148.799	30.98	31.0	87	#?
200	200 Nitro methane x1	6.32	6.31	0.000	61	46	1254.351	395.72	395.7	95	#?
10	10 t-Bu-Me-ether	6.50	6.51	0.000	73	57	1502.372	55.67	55.7	99	
19	19 t-12-di-Cl-ethene	6.31	6.31	0.000	96	61	799.696	40.61	40.6	92	?
98	98 Vinyl acetate x5	6.90	6.90	0.000	43	86	2982.123	252.38	252.4	100	
21	21 11-dichloroethane	6.66	6.66	0.000	63	83	1647.004	42.71	42.7	97	
91	91 2-butanone MEKx10	7.32	7.31	0.000	43	72	2827.847	484.86	484.9	99	?
115	115 Di isoprop ether	7.33	7.34	0.000	45	87	4081.017	47.96	48.0	100	?
22	22 c-12-di-Cl-ethene	7.45	7.46	0.000	96	61	852.613	48.06	48.1	98	
23	23 22-Dichloropropan	7.82	7.82	0.000	77	97	1268.689	33.37	33.4	99	
24	24 Br-Cl-methane	7.66	7.67	-0.001	128	130	365.219	57.30	57.3	94	
25	25 chloroform	7.74	7.74	0.000	83	85	1478.585	40.29	40.3	98	
201	201 Ethyl acetate x2	7.77	7.78	0.000	43	61	703.484	85.18	85.2	67	#?
116	116 ETBE	7.85	7.86	0.000	59	87	2437.411	44.24	44.2	100	
117	117 Iso-butyl alcoho	7.77	7.78	0.000	43	42	710.558	492.01	492.0	1	#?
26	26 tetrahydrofuranx5	8.15	8.17	-0.002	72	42	161.549	295.35	295.4	85	
34	34 111-tri-Cl-ethane	8.68	8.68	0.000	97	99	1237.882	30.42	30.4	96	
30	30 12-dichloroethane	8.57	8.57	0.000	62	64	631.494	51.49	51.5	97	
35	35 11-Di-Cl-propene	8.91	8.91	0.000	75	110	1078.521	35.59	35.6	99	
36	36 benzene	9.17	9.17	0.000	78	52	2578.473	40.66	40.7	99	
37	37 CCl4	9.12	9.12	0.000	117	119	1134.691	29.24	29.2	98	
97	97 thiophene	9.31	9.32	0.000	84	58	1291.816	49.31	49.3	96	
118	118 TAME	9.41	9.40	0.000	73	43	1715.454	47.25	47.3	99	
39	39 12-di-Cl-propane	9.90	9.90	0.000	63	76	777.542	44.60	44.6	99	
40	40 trichloroethene	9.95	9.95	0.000	130	132	926.225	39.34	39.3	97	
96	96 Me-methacrylate	10.23	10.23	0.000	69	100	295.494	61.66	61.7	97	
42	42 Br-di-Cl-methane	10.01	10.02	0.000	83	85	988.624	39.54	39.5	95	
41	41 dibromomethane	9.86	9.86	0.000	174	172	390.733	67.44	67.4	99	
45	45 c-13-di-Cl-propen	10.76	10.76	0.000	75	110	948.616	48.13	48.1	96	?
92	92 2-ClEt-Vi-ether10	10.53	10.53	0.000	63	43	830.636	836.05	836.1	98	
56	56 toluene	11.62	11.61	0.000	91	92	2400.670	37.96	38.0	99	

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

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

101

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-040.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:12 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:35 2003
Print Time : Fri May 16 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	11.73	11.73	0.000	69	99	441.923	53.40	53.4	100	
93	93 2-Hexanone x5	11.86	11.86	0.000	43	58	860.345	246.40	246.4	97	
48	48 112-tri-Cl-Et	11.42	11.42	0.000	97	83	367.637	50.11	50.1	96	
58	58 1,2-di-br-ethane	12.22	12.22	0.000	107	109	395.372	50.48	50.5	99	
51	51 di-Br-Cl-methane	11.96	11.96	0.000	129	127	605.212	42.92	42.9	99	
46	46 t-13-di-cl-propen	10.76	10.76	0.000	75	110	948.616	48.11	48.1	96	?
105	105 1-Chlorohexane	13.02	13.01	0.000	55	93	824.539	32.39	32.4	98	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.91	10.91	0.000	43	58	329.191	56.77	56.8	93	
49	49 1,3-di-cl-propane	11.68	11.68	0.000	76	78	648.825	49.12	49.1	95	
59	59 tetra-Cl-ethene	12.38	12.39	0.000	166	168	812.967	43.38	43.4	99	
60	60 chlorobenzene	13.09	13.08	0.000	112	77	1478.617	39.90	39.9	100	
61	61 1112-tetra-Cl-Et	13.02	13.01	0.000	131	133	695.345	46.40	46.4	99	?
64	64 ethylbenzene	13.29	13.28	0.000	91	106	2566.878	33.91	33.9	100	
65	65 m/p-Xylenes x2	13.49	13.48	0.000	91	106	3905.278	65.23	65.2	98	
99	99 1-4-di-Cl-butane	13.85	13.84	0.000	55	41	572.112	43.32	43.3	97	
52	52 bromoform	13.62	13.61	0.000	173	175	278.788	55.99	56.0	96	
66	66 styrene	13.81	13.81	0.000	104	78	1511.886	36.92	36.9	86	
67	67 o-xylene	13.89	13.88	0.000	91	106	1857.499	32.72	32.7	99	?
68	68 1122-Tetra-Cl-Et	13.89	13.89	0.000	83	85	330.326	54.27	54.3	97	?
110	110 t-1,4-dichloro-2	14.05	14.04	0.000	89	53	58.046	42.81	42.8	74	#?
106	106 Cl-benzyl	15.53	15.52	0.000	91	126	493.146	40.68	40.7	93	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.04	14.04	0.000	110	97	92.169	44.94	44.9	96	?
71	71 isopropylbenzene	14.24	14.24	0.000	105	120	2705.126	31.12	31.1	100	
72	72 bromobenzene	14.50	14.49	0.000	156	158	590.583	46.37	46.4	95	
73	73 n-propylbenzene	14.67	14.66	0.000	120	78	801.684	36.26	36.3	99	
74	74 2-Cl-Tl 126 1	14.78	14.76	0.001	126	128	481.903	34.11	34.1	96	
75	75 4-Cl-Tl 126 1	14.84	14.84	0.000	126	128	722.805	37.79	37.8	96	m
76	76 135-tri-Me-Bz	14.95	14.94	0.000	105	120	2059.638	31.20	31.2	100	
79	79 tert-butylbenzene	15.23	15.22	0.000	119	91	2412.602	32.76	32.8	98	
78	78 124-tri-Me-Bz	15.34	15.33	0.000	105	120	1722.397	29.72	29.7	92	

5/16/03

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

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

102

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-040.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:12 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:35 2003
Print Time : Fri May 16 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
80	80	13-di-Cl-Bz 146	15.54	15.52	0.000	146	148	873.397	38.80	38.8	99	?
82	82	14-di-Cl-Bz 146	15.59	15.58	0.000	146	148	1350.534	41.01	41.0	98	?
81	81	sec-butylbenzene	15.45	15.44	0.000	105	134	3307.792	31.58	31.6	99	
77	77	4-iso-Pr-toluene	15.62	15.61	0.000	119	134	2437.020	31.21	31.2	99	?
84	84	12-di-Cl-benzene	15.93	15.93	0.000	146	148	862.171	40.14	40.1	99	
85	85	n-butylbenzene	16.01	16.00	0.000	91	134	2160.614	30.52	30.5	99	
86	86	12-diBr-3-Cl-Pra	16.40	16.38	0.000	157	155	56.245	53.24	53.2	98	
87	87	124-tri-Cl-Bz	17.68	17.66	0.001	180	182	578.192	44.46	44.5	98	
88	88	naphthalene	17.93	17.92	0.000	128	129	598.470	46.90	46.9	100	?
90	90	123-tri-Cl-Bz	18.11	18.11	0.000	180	182	447.433	50.31	50.3	91	
89	89	hx-Cl-butadiene	17.95	17.95	0.000	225	260	538.819	37.56	37.6	97	?

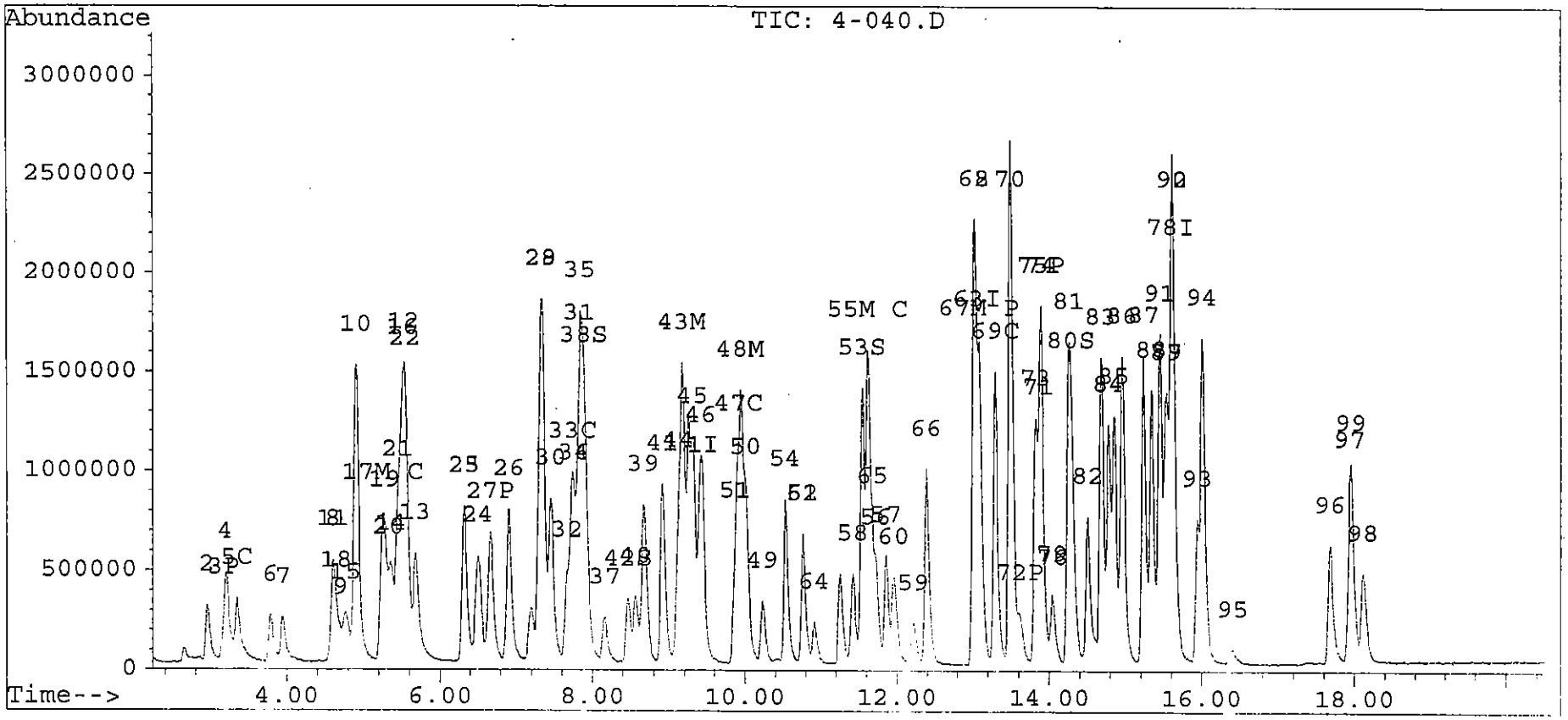
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2404\4-040.D
Acq On : 15 May 03 1:12 pm
Sample : f=1
Misc :
Quant Time: May 15 17:35 2003

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

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Multiple Level Calibration



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

104

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-080.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:41 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:37 2003
Print Time : Fri May 16 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	9.45	9.44	0.000	96	70	689.688	10.00		0.00	
47	47	Cl-benzene-d5, I2	13.06	13.05	0.000	82	119	235.423	10.00		0.00	
62	62	1,4-DCB-d4 150 15	15.58	15.56	0.001	152	150	179.706	10.00		0.02	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Methane (	7.91	7.90	0.000	111	113	2075.916	82.50	82.5	412.49%	
29	29	1,2-di-Cl-ethane-	8.47	8.47	0.000	65	102	963.545	96.85	96.9	484.27%	
55	55	toluene-d8(S2)	11.55	11.54	0.000	100	99	2828.221	82.31	82.3	411.54%	
70	70	4-Br-1-F-Bz (S3)	14.30	14.28	0.000	174	95	1173.651	82.53	82.5	412.67%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	2.96	2.95	0.000	85	87	1288.384	64.21	64.2	95	
4	4	Chloromethane	3.16	3.15	0.000	50	52	1069.891	67.70	67.7	96	
9	9	F114 85 135	3.20	3.20	0.000	85	135	1556.249	72.41	72.4	98	
5	5	vinyl chloride	3.35	3.35	0.000	62	64	1167.862	79.31	79.3	95	
6	6	bromomethane	3.78	3.78	0.000	94	96	1000.442	93.14	93.1	100	
7	7	Chloroethane	3.94	3.94	0.000	64	66	873.637	78.39	78.4	96	
8	8	tri-Cl-F-methane	4.60	4.62	-0.002	101	103	2395.096	61.63	61.6	94	?
111	111	isopropyl alcoho	4.73	4.73	0.000	45	43	226.721	855.58	855.6	1	#
100	100	ethyl ether x5	4.90	4.90	0.000	59	74	3947.698	518.04	518.0	97	
102	102	Acrolein x10	4.62	4.62	0.000	56	55	649.263	779.20	779.2	87	?
119	119	methyl acetate	5.55	5.54	0.000	43	74	898.426	83.34	83.3	97	?
104	104	Carbon disulfide	5.68	5.69	0.000	76	78	3448.920	73.56	73.6	97	
103	103	Acrylonitrilex10	5.37	5.36	0.000	53	52	1455.017	1144.74	1144.7	96	
95	95	Acetone x10	4.77	4.77	0.000	43	58	928.171	860.42	860.4	88	
108	108	F-113	5.51	5.50	0.001	151	101	2025.833	91.68	91.7	97	
13	13	11-dichloroethene	5.24	5.24	0.000	61	96	2068.506	73.19	73.2	98	
101	101	Acetonnitrilex10	4.67	4.65	0.002	41	40	363.830	863.84	863.8	23	#
109	109	Iodomethane	5.28	5.29	0.000	142	127	2300.947	90.86	90.9	91	m
113	113	Tert butyl alcoh	5.34	5.32	0.002	59	57	388.696	695.14	695.1	87	#

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

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

105

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-080.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:41 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:37 2003
Print Time : Fri May 16 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	5.45	5.45	0.000	84	49	1289.109	61.27	61.3	97	
	112 Allyl chloride	5.56	5.56	0.000	41	76	1977.528	59.11	59.1	86	#?
200	200 Nitro methane x1	6.32	6.31	0.000	61	46	2397.871	838.41	838.4	94	#?
10	10 t-Bu-Me-ether	6.50	6.51	0.000	73	57	2824.413	115.99	116.0	99	
19	19 t-12-di-Cl-ethene	6.32	6.31	0.000	96	61	1549.462	87.20	87.2	93	?
98	98 Vinyl acetate x5	6.91	6.90	0.000	43	86	5784.036	542.54	542.5	100	
21	21 11-dichloroethane	6.67	6.66	0.001	63	83	3000.180	86.22	86.2	98	
91	91 2-butanone MEKx10	7.33	7.31	0.001	43	72	5285.771	1004.46	1004.5	99	?
115	115 Di isoprop ether	7.34	7.34	0.000	45	87	7613.956	99.18	99.2	100	?
22	22 c-12-di-Cl-ethene	7.46	7.46	0.000	96	61	1623.067	101.40	101.4	100	
23	23 22-Dichloropropan	7.82	7.82	0.000	77	97	2353.196	68.60	68.6	99	
24	24 Br-Cl-methane	7.67	7.67	0.000	128	130	680.793	118.39	118.4	94	
25	25 chloroform	7.74	7.74	0.000	83	85	2772.452	83.72	83.7	99	
201	201 Ethyl acetate x2	7.78	7.78	0.000	43	61	1425.799	191.34	191.3	78	#?
116	116 ETBE	7.86	7.86	0.000	59	87	4486.393	90.26	90.3	100	
117	117 Iso-butyl alcoho	7.78	7.78	0.000	43	42	1430.613	1097.90	1097.9	1	#?
26	26 tetrahydrofuranx5	8.16	8.17	0.000	72	42	290.888	589.43	589.4	79	
34	34 111-tri-Cl-ethane	8.67	8.68	0.000	97	99	2397.744	65.31	65.3	96	
30	30 12-dichloroethane	8.57	8.57	0.000	62	64	1211.777	109.51	109.5	94	
35	35 11-Di-Cl-propene	8.92	8.91	0.000	75	110	2009.125	73.48	73.5	100	
36	36 benzene	9.18	9.17	0.000	78	52	4754.791	83.10	83.1	98	
37	37 CCl4	9.12	9.12	0.000	117	119	2073.848	59.22	59.2	98	
97	97 thiophene	9.32	9.32	0.000	84	58	2373.848	100.43	100.4	98	
118	118 TAME	9.41	9.40	0.000	73	43	3200.762	97.71	97.7	100	
39	39 12-di-Cl-propane	9.91	9.90	0.000	63	76	1446.554	91.97	92.0	98	
40	40 trichloroethene	9.96	9.95	0.000	130	132	1695.738	79.83	79.8	97	
96	96 Me-methacrylate	10.24	10.23	0.000	69	100	591.170	136.72	136.7	97	
42	42 Br-di-Cl-methane	10.02	10.02	0.000	83	85	1842.908	81.69	81.7	95	
41	41 dibromomethane	9.87	9.86	0.000	174	172	738.622	141.29	141.3	100	
45	45 c-13-di-Cl-propen	10.77	10.76	0.001	75	110	1759.634	98.94	98.9	97	?
92	92 2-ClEt-Vi-ether10	10.53	10.53	0.000	63	43	1543.091	1721.39	1721.4	97	
56	56 toluene	11.63	11.61	0.002	91	92	4445.368	77.91	77.9	98	

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

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

106

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-080.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:41 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:37 2003
Print Time : Fri May 16 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	11.74	11.73	0.001	69	99	820.108	109.82	109.8	97	
93	93 2-Hexanone x5	11.87	11.86	0.000	43	58	1584.358	502.91	502.9	97	
48	48 112-tri-Cl-Et	11.43	11.42	0.001	97	83	694.437	104.91	104.9	99	
58	58 1,2-di-br-ethane	12.23	12.22	0.002	107	109	752.280	106.46	106.5	98	
51	51 di-Br-Cl-methane	11.97	11.96	0.001	129	127	1137.349	89.40	89.4	100	
46	46 t-13-di-cl-propen	10.77	10.76	0.001	75	110	1759.634	98.91	98.9	97	?
105	105 1-Chlorohexane	13.02	13.01	0.002	55	93	1487.258	64.76	64.8	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.92	10.91	0.000	43	58	585.241	104.49	104.5	92	
49	49 1,3-di-cl-propane	11.69	11.68	0.000	76	78	1196.619	93.78	93.8	96	
59	59 tetra-Cl-ethene	12.40	12.39	0.000	166	168	1516.368	83.78	83.8	99	
60	60 chlorobenzene	13.10	13.08	0.001	112	77	2729.365	76.25	76.2	99	
61	61 1112-tetra-Cl-Et	13.02	13.01	0.001	131	133	1340.863	92.63	92.6	98	?
64	64 ethylbenzene	13.30	13.28	0.001	91	106	4842.788	66.23	66.2	99	
65	65 m/p-Xylenes x2	13.49	13.48	0.000	91	106	7205.695	124.61	124.6	97	
99	99 1-4-di-Cl-butane	13.85	13.84	0.001	55	41	1066.373	83.59	83.6	97	
52	52 bromoform	13.62	13.61	0.001	173	175	522.738	108.69	108.7	98	
66	66 styrene	13.82	13.81	0.000	104	78	2814.241	71.15	71.1	84	
67	67 o-xylene	13.89	13.88	0.001	91	106	3377.446	61.59	61.6	98	?
68	68 1122-Tetra-Cl-Et	13.90	13.89	0.001	83	85	601.304	102.27	102.3	95	?
110	110 t-1,4-dichloro-2	14.06	14.04	0.000	89	53	107.382	82.00	82.0	70	#?
106	106 Cl-benzyl	15.53	15.52	0.001	91	126	894.786	76.41	76.4	93	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.04	14.04	0.000	110	97	179.941	95.62	95.6	98	?
71	71 isopropylbenzene	14.25	14.24	0.001	105	120	5006.864	62.77	62.8	100	
72	72 bromobenzene	14.50	14.49	0.000	156	158	1107.164	94.74	94.7	95	
73	73 n-propylbenzene	14.68	14.66	0.000	120	78	1463.801	72.16	72.2	99	
74	74 2-Cl-Tl 126 1	14.78	14.76	0.001	126	128	908.178	70.06	70.1	98	
75	75 4-Cl-Tl 126 1	14.85	14.84	0.000	126	128	1334.882	76.06	76.1	98	m
76	76 135-tri-Me-Bz	14.95	14.94	0.000	105	120	3828.683	63.21	63.2	99	
79	79 tert-butylbenzene	15.23	15.22	0.000	119	91	4386.919	64.93	64.9	98	
78	78 124-tri-Me-Bz	15.35	15.33	0.000	105	120	3314.335	62.32	62.3	97	

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

8/16/03

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

107

Data Filename: C:\HPCHEM\1\DATA\03G2404\4-080.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 15 13:41 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 15 17:37 2003
Print Time : Fri May 16 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	15.53	15.52	0.000	146	148	1637.769	79.29	79.3	100	?
82	82	14-di-Cl-Bz 146	15.60	15.58	0.001	146	148	2427.479	80.33	80.3	100	?
81	81	sec-butylbenzene	15.45	15.44	0.000	105	134	5902.646	61.42	61.4	99	
77	77	4-iso-Pr-toluene	15.62	15.61	0.000	119	134	4387.114	61.23	61.2	100	?
84	84	12-di-Cl-benzene	15.94	15.93	0.000	146	148	1667.156	84.58	84.6	99	
85	85	n-butylbenzene	16.01	16.00	0.000	91	134	4022.017	61.91	61.9	99	
86	86	12-diBr-3-Cl-Pra	16.41	16.38	0.001	157	155	114.486	118.10	118.1	97	
87	87	124-tri-Cl-Bz	17.68	17.66	0.001	180	182	1051.545	88.11	88.1	98	
88	88	naphthalene	17.93	17.92	0.000	128	129	1033.706	88.28	88.3	99	
90	90	123-tri-Cl-Bz	18.13	18.11	0.001	180	182	779.205	95.48	95.5	89	
89	89	hx-Cl-butadiene	17.96	17.95	0.001	225	260	952.000	72.31	72.3	95	

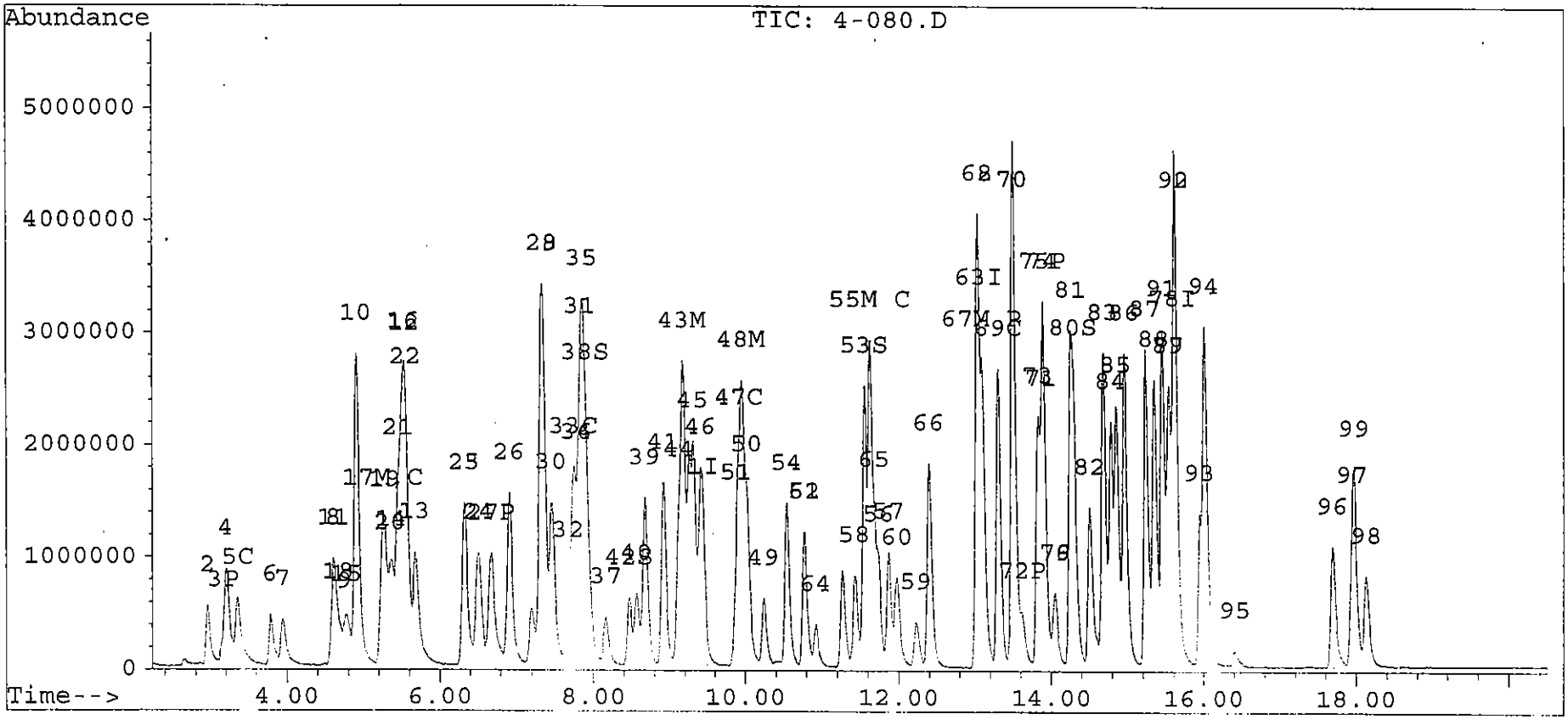
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2404\4-080.D
Acq On : 15 May 03 1:41 pm
Sample : f=1
Misc :
Quant Time: May 15 17:37 2003

Vial: 7
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Multiple Level Calibration



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

109

Data Filename: C:\HPCHEM\1\DATA\03G2404\G2404Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 16 11:08 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 16 12:09 2003
Print Time : Fri May 16 12:09 2003
Miscleneous :

Sample : f=1 ccv/icv/bfb
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	9.52	9.44	0.008	96	70	649.888	10.00		0.07	
47	47 Cl-benzene-d5, I2	13.12	13.05	0.006	82	119	204.425	10.00		0.07	
62	62 1,4-DCB-d4 150 15	15.63	15.56	0.005	152	150	177.200	10.00		0.07	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.97	7.90	0.004	111	113	516.235	21.39	21.4	106.97%	
29	29 1,2-di-Cl-ethane-	8.54	8.47	0.005	65	102	242.901	22.15	22.1	110.74%	
55	55 toluene-d8(S2)	11.61	11.54	0.005	100	99	685.077	20.92	20.9	104.62%	
70	70 4-Br-1-F-Bz (S3)	14.36	14.28	0.005	174	95	298.875	20.47	20.5	102.34%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.99	2.95	0.005	85	87	277.528	20.14	20.1	92	
4	4 Chloromethane	3.19	3.15	0.005	50	52	246.888	21.53	21.5	94	
9	9 F114 85 135	3.24	3.20	0.003	85	135	298.895	17.01	17.0	91	
5	5 vinyl chloride	3.38	3.35	0.004	62	64	269.070	21.36	21.4	96	
6	6 bromomethane	3.83	3.78	0.005	94	96	279.586	24.95	25.0	94	
7	7 Chloroethane	3.99	3.94	0.005	64	66	210.692	21.23	21.2	96	
8	8 tri-Cl-F-methane	4.65	4.62	0.004	101	103	559.460	21.76	21.8	95	?
111	111 isopropyl alcoho	4.76	4.73	0.003	45	43	52.983	203.55	203.6	14	#
100	100 ethyl ether x5	4.96	4.90	0.006	59	74	996.988	107.60	107.6	99	
102	102 Acrolein x10	4.67	4.62	0.006	56	55	100.897	139.76	139.8	77	?
119	119 methyl acetate	5.59	5.54	0.005	43	74	241.873	21.45	21.4	93	?
104	104 Carbon disulfide	5.74	5.69	0.005	76	78	738.097	18.24	18.2	95	
103	103 Acrylonitrilex10	5.42	5.36	0.006	53	52	344.451	214.62	214.6	96	
95	95 Acetone x10	4.82	4.77	0.005	43	58	439.971	396.54	396.5	88	
108	108 F-113	5.57	5.50	0.007	151	101	479.223	21.41	21.4	96	?
13	13 11-dichloroethene	5.30	5.24	0.006	61	96	472.350	20.09	20.1	98	
101	101 Acetonnitrilex10	4.71	4.65	0.006	41	40	101.324	243.89	243.9	1	#
109	109 Iodomethane	5.34	5.29	0.005	142	127	351.403	13.22	13.2	99	m
113	113 Tert butyl alcoh	5.38	5.32	0.006	59	57	129.323	216.00	216.0	88	#

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

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

110

Data Filename: C:\HPCHEM\1\DATA\03G2404\G2404Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 16 11:08 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 16 12:09 2003
Print Time : Fri May 16 12:10 2003
Miscleneous :

Sample : f=1 ccv/icv/bfb
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	5.50	5.45	0.006	84	49	376.106	23.61	23.6	99	
	112 Allyl chloride	5.62	5.56	0.006	41	76	549.774	22.42	22.4	90	
200	200 Nitro methane x1	6.38	6.31	0.007	61	46	503.531	197.96	198.0	91	#?
10	10 t-Bu-Me-ether	6.56	6.51	0.006	73	57	676.223	21.00	21.0	100	
19	19 t-12-di-Cl-ethene	6.39	6.31	0.008	96	61	366.814	21.43	21.4	93	?
98	98 Vinyl acetate x5	6.97	6.90	0.008	43	86	1821.937	143.85	143.9	99	
21	21 11-dichloroethane	6.74	6.66	0.009	63	83	717.926	21.03	21.0	99	
91	91 2-butanone MEKx10	7.37	7.31	0.006	43	72	1429.484	234.40	234.4	71	m
115	115 Di isoprop ether	7.41	7.34	0.007	45	87	1696.951	18.37	18.4	97	
22	22 c-12-di-Cl-ethene	7.53	7.46	0.007	96	61	376.787	20.62	20.6	96	
23	23 22-Dichloropropan	7.89	7.82	0.008	77	97	611.798	21.99	22.0	100	
24	24 Br-Cl-methane	7.74	7.67	0.007	128	130	165.470	21.08	21.1	96	
25	25 chloroform	7.81	7.74	0.008	83	85	670.049	20.12	20.1	98	?
201	201 Ethyl acetate x2	7.83	7.78	0.006	43	61	361.793	46.95	47.0	80	#?
116	116 ETBE	7.92	7.86	0.007	59	87	1171.113	22.19	22.2	98	
117	117 Iso-butyl alcoho	7.83	7.78	0.006	43	42	378.345	238.82	238.8	1	#?
26	26 tetrahydrofuranx5	8.23	8.17	0.006	72	42	73.174	105.40	105.4	86	
34	34 111-tri-Cl-ethane	8.75	8.68	0.007	97	99	552.365	21.29	21.3	97	
30	30 12-dichloroethane	8.63	8.57	0.007	62	64	288.522	21.09	21.1	95	
35	35 11-Di-Cl-propene	8.99	8.91	0.008	75	110	460.611	20.00	20.0	97	
36	36 benzene	9.25	9.17	0.008	78	52	1136.626	20.55	20.5	99	
37	37 CCl4	9.19	9.12	0.008	117	119	490.276	21.01	21.0	98	
97	97 thiophene	9.39	9.32	0.007	84	58	566.534	20.54	20.5	96	
118	118 TAME	9.47	9.40	0.007	73	43	798.122	21.35	21.3	98	
39	39 12-di-Cl-propane	9.97	9.90	0.007	63	76	344.200	21.07	21.1	95	?
40	40 trichloroethene	10.02	9.95	0.007	130	132	412.821	20.87	20.9	98	
96	96 Me-methacrylate	10.31	10.23	0.008	69	100	140.547	21.65	21.7	100	
42	42 Br-di-Cl-methane	10.09	10.02	0.008	83	85	470.944	21.90	21.9	95	
41	41 dibromomethane	9.95	9.86	0.009	174	172	172.546	20.55	20.5	99	?
45	45 c-13-di-Cl-propen	10.83	10.76	0.007	75	110	431.214	21.45	21.4	96	?
92	92 2-ClEt-Vi-ether10	10.60	10.53	0.007	63	43	376.438	223.46	223.5	95	
56	56 toluene	11.69	11.61	0.008	91	92	1033.014	19.45	19.4	100	

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

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

111

Data Filename: C:\HPCHEM\1\DATA\03G2404\G2404Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 16 11:08 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 16 12:09 2003
Print Time : Fri May 16 12:10 2003
Miscleneous :

Sample : f=1 ccv/icv/bfb
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	11.80	11.73	0.007	69	99	255.854	27.67	27.7	99	
93	93 2-Hexanone x5	11.93	11.86	0.007	43	58	531.705	146.36	146.4	93	
48	48 112-tri-Cl-Et	11.49	11.42	0.007	97	83	163.013	20.22	20.2	98	
58	58 1,2-di-br-ethane	12.29	12.22	0.008	107	109	179.065	20.86	20.9	99	
51	51 di-Br-Cl-methane	12.03	11.96	0.008	129	127	277.463	21.16	21.2	97	
46	46 t-13-di-cl-propen	10.83	10.76	0.007	75	110	431.214	21.45	21.4	96	?
105	105 1-Chlorohexane	13.08	13.01	0.008	55	93	343.562	19.65	19.7	100	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.99	10.91	0.006	43	58	153.762	23.65	23.6	89	
49	49 1,3-di-cl-propane	11.75	11.68	0.006	76	78	294.186	20.32	20.3	94	
59	59 tetra-Cl-ethene	12.46	12.39	0.005	166	168	346.025	19.77	19.8	99	
60	60 chlorobenzene	13.16	13.08	0.006	112	77	678.907	20.73	20.7	99	
61	61 1112-tetra-Cl-Et	13.08	13.01	0.005	131	133	324.606	22.02	22.0	100	?
64	64 ethylbenzene	13.35	13.28	0.005	91	106	1145.468	19.75	19.8	100	
65	65 m/p-Xylenes x2	13.55	13.48	0.005	91	106	1723.939	39.48	39.5	99	
99	99 1-4-di-Cl-butane	13.91	13.84	0.005	55	41	275.180	22.55	22.5	99	
52	52 bromoform	13.67	13.61	0.005	173	175	134.679	21.37	21.4	96	
66	66 styrene	13.87	13.81	0.005	104	78	667.454	20.97	21.0	84	
67	67 o-xylene	13.95	13.88	0.006	91	106	879.630	20.91	20.9	99	?
68	68 1122-Tetra-Cl-Et	13.95	13.89	0.005	83	85	152.489	21.50	21.5	97	?
110	110 t-1,4-dichloro-2	14.11	14.04	0.005	89	53	38.966	24.42	24.4	9	m?
106	106 Cl-benzyl	15.58	15.52	0.005	91	126	259.687	25.41	25.4	93	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.09	14.04	0.004	110	97	46.786	22.77	22.8	97	?
71	71 isopropylbenzene	14.31	14.24	0.005	105	120	1194.531	20.08	20.1	100	
72	72 bromobenzene	14.56	14.49	0.005	156	158	271.114	21.33	21.3	96	
73	73 n-propylbenzene	14.74	14.66	0.005	120	78	349.176	19.94	19.9	95	
74	74 2-Cl-Tl 126 1	14.83	14.76	0.004	126	128	225.624	21.49	21.5	99	
75	75 4-Cl-Tl 126 1	14.91	14.84	0.005	126	128	336.390	21.36	21.4	99	
76	76 135-tri-Me-Bz	15.01	14.94	0.004	105	120	951.479	20.52	20.5	100	
79	79 tert-butylbenzene	15.29	15.22	0.004	119	91	1061.912	20.34	20.3	98	
78	78 124-tri-Me-Bz	15.39	15.33	0.004	105	120	793.217	20.47	20.5	94	

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

5/16/03

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

112

Data Filename: C:\HPCHEM\1\DATA\03G2404\G2404Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 16 11:08 2003
Method Update: Fri May 16 10:36 2003
Quant. Time : May 16 12:09 2003
Print Time : Fri May 16 12:10 2003
Miscleneous :

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

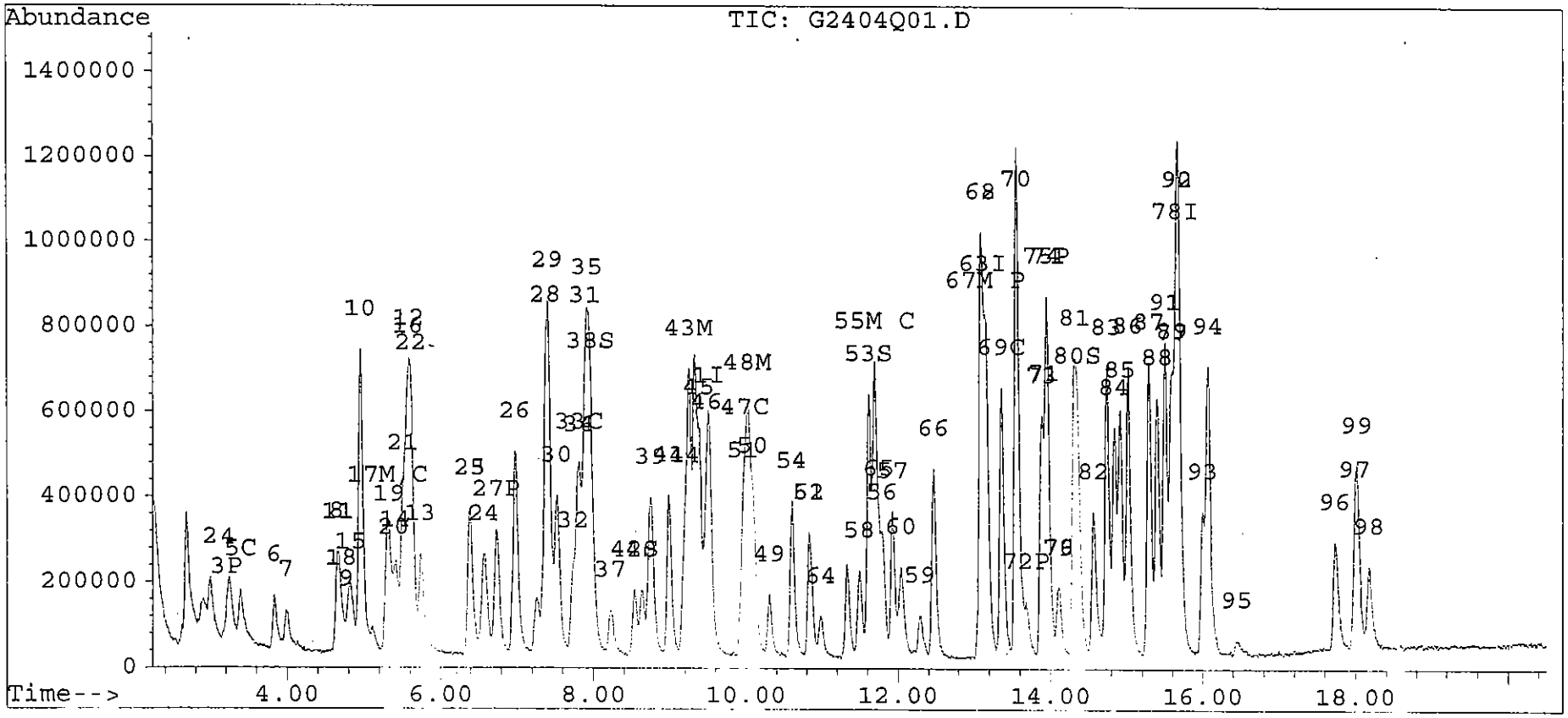
ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.59	15.52	0.004	146	148	451.713	21.95	22.0	91	?
82	82	14-di-Cl-Bz 146	15.65	15.58	0.004	146	148	605.588	20.48	20.5	89	m?
81	81	sec-butylbenzene	15.51	15.44	0.004	105	134	1357.391	18.63	18.6	99	
77	77	4-iso-Pr-toluene	15.67	15.61	0.004	119	134	1119.193	20.27	20.3	99	?
84	84	12-di-Cl-benzene	16.00	15.93	0.004	146	148	418.081	21.15	21.1	97	
85	85	n-butylbenzene	16.06	16.00	0.004	91	134	912.663	19.11	19.1	99	
86	86	12-diBr-3-Cl-Pra	16.44	16.38	0.004	157	155	26.931	20.75	20.7	98	
87	87	124-tri-Cl-Bz	17.73	17.66	0.004	180	182	244.810	19.47	19.5	96	
88	88	naphthalene	17.98	17.92	0.004	128	129	218.555	18.09	18.1	98	
90	90	123-tri-Cl-Bz	18.18	18.11	0.005	180	182	181.441	19.04	19.0	87	
89	89	hx-Cl-butadiene	18.02	17.95	0.004	225	260	237.104	19.66	19.7	97	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2404\G2404Q01.D Vial: 18
Acq On : 16 May 03 11:08 am Operator: Eddie
Sample : f=1 ccv/icv/bfb Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: May 16 12:09 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 2003
Response via : Multiple Level Calibration



Continuing Calibration Concentration Summary

Data File G2404Q01.D
Method File E524G004

Compound Name	Amount	Actual	Units	%Dev	Target Response
1 Fluorobenzene I1 1	10	10.00	ppb	0.00	649888
3 di-Cl-di-F-methane 85 87	20	20.14	ppb	0.70	277528
4 Chloromethane 50 52	20	21.53	ppb	7.65	246888
9 F114 85 135	20	17.01	ppb	14.97	298895
5 vinyl chloride 62 64	20	21.36	ppb	6.82	269070
6 bromomethane 94 96	20	24.95	ppb	24.76	279586
7 Chloroethane 64 66	20	21.23	ppb	6.16	210692
8 tri-Cl-F-methane 101 103	20	21.76	ppb	8.80	559460
111 isopropyl alcohol x10	200	203.55	ppb	1.78	52983
100 ethyl ether x5	100	107.60	ppb	7.60	996988
102 Acrolein x10	200	139.76	ppb	30.12	100897
119 methyl acetate	20	21.45	ppb	7.23	241873
104 Carbon disulfide	20	18.24	ppb	8.80	738097
103 Acrylonitrilex10	200	214.62	ppb	7.31	344451
95 Acetone x10	200	396.54	ppb	98.27	439971
108 F-113	20	21.41	ppb	7.07	479223
13 11-dichloroethene 61 96	20	20.09	ppb	0.46	472350
101 Acetonnitrilex10	200	243.89	ppb	21.95	101324
[illegible] Iodomethane	20	13.22	ppb	33.89	351403
[illegible] Tert butyl alcohol x10	200	216.00	ppb	8.00	129323
18 methylene chloride 49 84	20	23.61	ppb	18.05	376106
112 Allyl chloride	20	22.42	ppb	12.12	549774
200 Nitro methane x10	200	197.96	ppb	1.02	503531
10 t-Bu-Me-ether 73 57	20	21.00	ppb	4.99	676223
19 t-12-di-Cl-ethene 96 61	20	21.43	ppb	7.15	366814
98 Vinyl acetate x5	100	143.85	ppb	43.85	1821937
21 11-dichloroethane 63 83	20	21.03	ppb	5.16	717926
91 2-butanone MEKx10	200	234.40	ppb	17.20	1429484
115 Di isoprop ether	20	18.37	ppb	8.14	1696951
22 c-12-di-Cl-ethene 96 61	20	20.62	ppb	3.09	376787
23 22-Dichloropropane 77 97	20	21.99	ppb	9.97	611798
24 Br-Cl-methane 128 130	20	21.08	ppb	5.42	165470
25 chloroform 83 85	20	20.12	ppb	0.61	670049
201 Ethyl acetate x2	40	46.95	ppb	17.39	361793
116 ETBE	20	22.19	ppb	10.95	1171113
117 Iso-butyl alcohol X10	200	238.82	ppb	19.41	378345
26 tetrahydrofuranx5	100	105.40	ppb	5.40	73174
27 Di-Br-F-Methane (S1) 111 1	20	21.39	ppb	6.97	516235
34 111-tri-Cl-ethane 97 99	20	21.29	ppb	6.44	552365
30 12-dichloroethane 64 62	20	21.09	ppb	5.45	288522
35 11-Di-Cl-propene 75 110	20	20.00	ppb	0.02	460611
29 1,2-di-Cl-ethane-d4 [Surr] 10	20	22.15	ppb	10.74	242901
36 benzene 78 52	20	20.55	ppb	2.74	1136626
[illegible]Cl4 117 119	20	21.01	ppb	5.06	490276

97 thiophene	20	20.54	ppb	2.72	566534
TAME	20	21.35	ppb	6.73	798122
39 12-di-Cl-propane 63 76	20	21.07	ppb	5.34	344200
40 trichloroethene 130 132	20	20.87	ppb	4.36	412821
96 Me-methacrylate	20	21.65	ppb	8.25	140547
42 Br-di-Cl-methane 83 85	20	21.90	ppb	9.50	470944
41 dibromomethane 174 172	20	20.55	ppb	2.73	172546
45 c-13-di-Cl-propene 75 110	20	21.45	ppb	7.23	431214
55 toluene-d8(S2) 100 99	20	20.92	ppb	4.62	685077
92 2-ClEt-Vi-ether10	200	223.46	ppb	11.73	376438

Compound Name	Amount	Actual	Units	%Dev	Target Response
56 toluene 91 92	20	19.45	ppb	2.77	1033014
107 Et methacrylate	20	27.67	ppb	38.34	255854
93 2-Hexanone x5	100	146.36	ppb	46.36	531705
48 112-tri-Cl-Et 97 83	20	20.22	ppb	1.10	163013
58 1,2-di-br-ethane 107 109	20	20.86	ppb	4.30	179065
51 di-Br-Cl-methane 129 127	20	21.16	ppb	5.82	277463
46 t-13-di-cl-propene 75 110	20	21.45	ppb	7.23	431214
105 1-Chlorohexane	20	19.65	ppb	1.75	343562
47 Cl-benzene-d5, I2	10	10.00	ppb	0.00	204425
54 MIBK	20	23.65	ppb	18.24	153762
49 1,3-di-cl-propane 76 78	20	20.32	ppb	1.58	294186
59 tetra-Cl-ethene 166 168	20	19.77	ppb	1.13	346025
60 chlorobenzene 112 77	20	20.73	ppb	3.67	678907
112-tetra-Cl-Et 131 133	20	22.02	ppb	10.09	324606
thylbenzene 91 106	20	19.75	ppb	1.24	1145468

Compound Name	Amount	Actual	Units	%Dev	Target Response
65 m/p-Xylenes x2	40	39.48	ppb	1.30	1723939
99 1-4-di-Cl-butane	20	22.55	ppb	12.74	275180
52 bromoform 173 175	20	21.37	ppb	6.85	134679
66 styrene 104 78	20	20.97	ppb	4.85	667454
67 o-xylene 91 106	20	20.91	ppb	4.53	879630
68 1122-Tetra-Cl-Et 83 85	20	21.50	ppb	7.52	152489
110 t-1,4-dichloro-2-butene	20	24.42	ppb	22.08	38966
106 Cl-benzyl	20	25.41	ppb	27.04	259687
62 1,4-DCB-d4 150 152 I3	10	10.00	ppb	0.00	177200
69 123-tri-Cl-Pr 110 97	20	22.77	ppb	13.86	46786
70 4-Br-1-F-Bz (S3) 174 95	20	20.47	ppb	2.34	298875
71 isopropylbenzene 105 120	20	20.08	ppb	0.39	1194531
72 bromobenzene 156 158	20	21.33	ppb	6.63	271114
73 n-propylbenzene 120 78	20	19.94	ppb	0.29	349176
74 2-Cl-Tl 126 128	20	21.49	ppb	7.47	225624
75 4-Cl-Tl 126 128	20	21.36	ppb	6.82	336390
76 135-tri-Me-Bz 105 120	20	20.52	ppb	2.58	951479
79 tert-butylbenzene 119 91	20	20.34	ppb	1.70	1061912
78 124-tri-Me-Bz 105 120	20	20.47	ppb	2.37	793217
80 13-di-Cl-Bz 146 148	20	21.95	ppb	9.75	451713
82 14-di-Cl-Bz 146 148	20	20.48	ppb	2.39	605588
ec-butylbenzene 105 134	20	18.63	ppb	6.87	1357391

77	4-iso-Pr-toluene	119 134	20	20.27	ppb	1.36	1119193
	2-di-Cl-benzene	146 148	20	21.15	ppb	5.73	418081
85	n-butylbenzene	91 134	20	19.11	ppb	4.45	912663
86	12-diBr-3-Cl-Pra	157 155	20	20.75	ppb	3.74	26931
87	124-tri-Cl-Bz	180 182	20	19.47	ppb	2.66	244810
88	naphthalene	128 129	20	18.09	ppb	9.54	218555
90	123-tri-Cl-Bz	180 182	20	19.04	ppb	4.81	181441
					Ave.% Dev	9.11	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2404\G2404Q01.D Vial: 18
Acq On : 16 May 03 11:08 am Operator: Eddie
Sample : f=1 ccv/icv/bfb Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 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	87	0.00
2		3 di-Cl-di-F-methane 85 8	0.212	0.214	-0.7	88	0.00
3	P	4 Chloromethane 50 5	0.142	0.190	-33.8#	100	0.00
4		9 F114 85 135	0.255	0.230	9.7	77	0.00
5	C	5 vinyl chloride 62 6	0.194	0.207	-6.8	89	0.00
6		6 bromomethane 94 9	0.172	0.215	-24.8#	105	0.00
7		7 Chloroethane 64 66	0.153	0.162	-6.2	89	0.00
8		8 tri-Cl-F-methane 101 10	0.396	0.430	-8.8	94	0.00
9		111 isopropyl alcohol x10	0.004	0.004#	-1.8	75	0.00
10		100 ethyl ether x5	0.158	0.153	3.0	91	0.00
11		102 Acrolein x10	0.011	0.008#	32.1#	61	0.00
12		119 methyl acetate	0.177	0.186	-4.9	74	0.00
13		104 Carbon disulfide	0.623	0.568	8.8	80	0.00
14		103 Acrylonitrilex10	0.023	0.027#	-13.0	85	0.00
15		95 Acetone x10	0.019	0.034#	-76.7#	165#	0.00
16		108 F-113	0.344	0.369	-7.1	93	0.00
17	M,C	13 11-dichloroethene 61 9	0.362	0.363	-0.5	88	0.00
18		101 Acetonnitrilex10	0.007	0.008#	-12.6	99	0.00
19		109 Iodomethane	0.399	0.270	32.2#	56	0.00
20		113 Tert butyl alcohol x10	0.009	0.010#	-8.0	94	0.00
21		18 methylene chloride 49 8	0.245	0.289	-18.1	106	0.00
22		112 Allyl chloride	0.430	0.423	1.6	89	0.00
23		200 Nitro methane x10	0.039	0.039#	1.0	77	0.00
24		10 t-Bu-Me-ether 73 57	0.496	0.520	-5.0	94	0.00
25		19 t-12-di-Cl-ethene 96 6	0.263	0.282	-7.2	87	0.00
26		98 Vinyl acetate x5	0.149	0.280	-88.1#	136	0.00
27	P	21 11-dichloroethane 63 8	0.525	0.552	-5.2	86	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2404\G2404Q01.D Vial: 18
Acq On : 16 May 03 11:08 am Operator: Eddie
Sample : f=1 ccv/icv/bfb Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 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	0.110	-17.2	100	0.00
29		115 Di isoprop ether	1.421	1.306	8.1	82	0.00
30		22 c-12-di-Cl-ethene 96 6	0.281	0.290	-3.1	87	0.00
31		23 22-Dichloropropane 77 9	0.428	0.471	-10.0	97	0.00
32		24 Br-Cl-methane 128 13	0.104	0.127	-22.0#	92	0.00
33	C	25 chloroform 83 8	0.512	0.516	-0.6	90	0.00
34		201 Ethyl acetate x2	0.118	0.139	-17.9	102	0.00
35		116 ETBE	0.916	0.901	1.7	94	0.00
36		117 Iso-butyl alcohol X10	0.022	0.029#	-31.8#	106	0.00
37		26 tetrahydrofuranx5	0.011	0.011#	-5.4	87	0.00
38	S	27 Di-Br-F-Methane (S1) 11	0.371	0.397	-7.0	91	0.00
39		34 111-tri-Cl-ethane 97 9	0.399	0.425	-6.4	92	0.00
40		30 12-dichloroethane 64 6	0.184	0.222	-20.8#	93	0.00
41		35 11-Di-Cl-propene 75 11	0.354	0.354	-0.0	86	0.00
42	S	29 1,2-di-Cl-ethane-d4 [Sur	0.169	0.187	-10.7	93	0.00
43	M	36 benzene 78 5	0.851	0.874	-2.7	87	0.00
44		37 CCl4 117 11	0.359	0.377	-5.1	90	0.00
45		97 thiophene	0.424	0.436	-2.7	87	0.00
46		118 TAME	0.515	0.614	-19.1	89	0.00
47	C	39 12-di-Cl-propane 63 7	0.251	0.265	-5.3	88	0.00
48	M	40 trichloroethene 130 13	0.304	0.318	-4.4	91	0.00
49		96 Me-methacrylate	0.087	0.108	-23.7#	87	0.00
50		42 Br-di-Cl-methane 83 8	0.362	0.362	-0.1	93	0.00
51		41 dibromomethane 174 17	0.109	0.133	-22.2#	88	0.00
52		45 c-13-di-Cl-propene 75 11	0.309	0.332	-7.2	90	0.00
53	S	55 toluene-d8(S2) 100	0.504	0.527	-4.6	89	0.00
54		92 2-ClEt-Vi-ether10	0.026	0.029#	-11.7	91	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2404\G2404Q01.D Vial: 18
Acq On : 16 May 03 11:08 am Operator: Eddie
Sample : f=1 ccv/icv/bfb Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 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	0.795	2.8	88	0.00
56		107 Et methacrylate		0.132	0.197	-48.6#	119	0.00
57		93 2-Hexanone x5		0.045	0.082	-80.2#	123	0.00
58		48 112-tri-Cl-Et	97 8	0.110	0.125	-13.9	88	0.00
59		58 1,2-di-br-ethane	107 109	0.121	0.138	-14.3	90	0.00
60		51 di-Br-Cl-methane	129 12	0.217	0.213	1.7	93	0.00
61		46 t-13-di-cl-propene	75 11	0.309	0.332	-7.2	90	0.00
62		105 1-Chlorohexane		0.315	0.264	16.0	87	0.00
63	I	47 Cl-benzene-d5, I2		1.000	1.000	0.0	92	0.00
64		54 MIBK		0.323	0.376	-16.6	94	0.00
65		49 1,3-di-cl-propane	76 78	0.708	0.720	-1.6	88	0.00
66		59 tetra-Cl-ethene	166 16	0.856	0.846	1.1	87	0.00
67	M P	60 chlorobenzene	112 7	1.602	1.661	-3.7	90	0.00
68		61 1112-tetra-Cl-Et	131 13	0.721	0.794	-10.1	94	0.00
69	C	64 ethylbenzene	91 10	2.837	2.802	1.2	90	0.00
70		65 m/p-Xylenes x2		2.136	2.108	1.3	87	0.00
71		99 1-4-di-Cl-butane		0.702	0.673	4.2	91	0.00
72	P	52 bromoform	173 17	0.308	0.329	-6.9	99	0.00
73		66 styrene	104 7	1.729	1.633	5.6	88	0.00
74		67 o-xylene	91 10	2.058	2.151	-4.5	92	0.00
75	P	68 1122-Tetra-Cl-Et	83 8	0.347	0.373	-7.5	89	0.00
76		110 t-1,4-dichloro-2-butene		0.078	0.095	-22.1#	107	0.00
77		106 Cl-benzyl		0.512	0.635	-24.1#	105	0.00
78	I	62 1,4-DCB-d4 150 152 I3		1.000	1.000	0.0	89	0.00
79		69 123-tri-Cl-Pr	110 9	0.116	0.132	-13.9	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2404\G2404Q01.D Vial: 18
Acq On : 16 May 03 11:08 am Operator: Eddie
Sample : f=1 ccv/icv/bfb Inst : GCMS-G
Misc : Multiplr: 1.00

120

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 10:36:26 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		0.824	0.843	-2.3	89	0.00
81		71 isopropylbenzene	105	12		3.357	3.371	-0.4	90	0.00
82		72 bromobenzene	156	15		0.717	0.765	-6.6	89	0.00
83		73 n-propylbenzene	120	7		0.988	0.985	0.3	88	0.00
84		74 2-Cl-Tl	126	128		0.592	0.637	-7.5	90	0.00
85		75 4-Cl-Tl	126	128		0.889	0.949	-6.8	90	0.00
86		76 135-tri-Me-Bz	105	12		2.617	2.685	-2.6	93	0.00
87		79 tert-butylbenzene	119	9		2.946	2.996	-1.7	90	0.00
88		78 124-tri-Me-Bz	105	12		2.186	2.238	-2.4	94	0.00
89		80 13-di-Cl-Bz	146	148		1.161	1.275	-9.8	99	0.00
90		82 14-di-Cl-Bz	146	148		1.669	1.709	-2.4	88	0.00
91		81 sec-butylbenzene	105	13		4.113	3.830	6.9	86	0.00
92		77 4-iso-Pr-toluene	119	13		3.116	3.158	-1.4	93	0.00
93		84 12-di-Cl-benzene	146	14		1.116	1.180	-5.7	92	0.00
94		85 n-butylbenzene	91	13		2.695	2.575	4.4	90	0.00
95		86 12-diBr-3-Cl-Pra	157	15		0.067	0.076	-13.0	93	0.00
96		87 124-tri-Cl-Bz	180	18		0.654	0.691	-5.6	93	0.00
97		88 naphthalene	128	12		0.583	0.617	-5.8	93	0.00
98		90 123-tri-Cl-Bz	180	18		0.469	0.512	-9.1	88	0.00
99		89 hx-Cl-butadiene	225	26		0.681	0.669	1.7	92	0.00

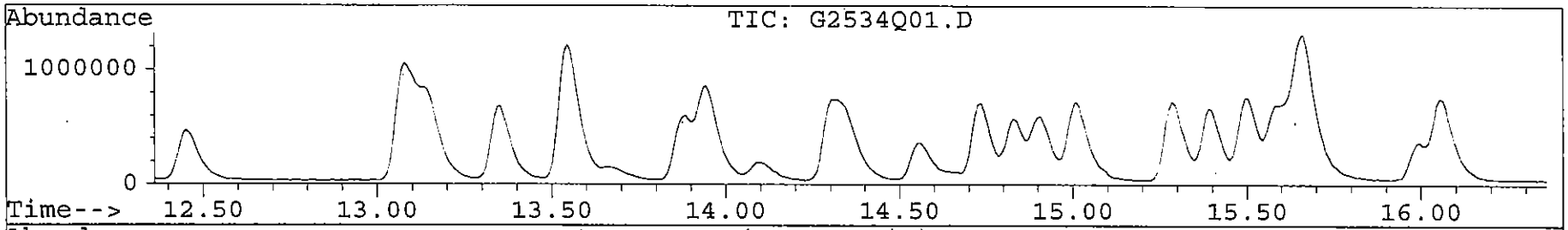
(#) = Out of Range SPCC's out = 0 CCC's out = 0
G2404Q01.D E524G004.M Fri May 16 12:11:27 2003

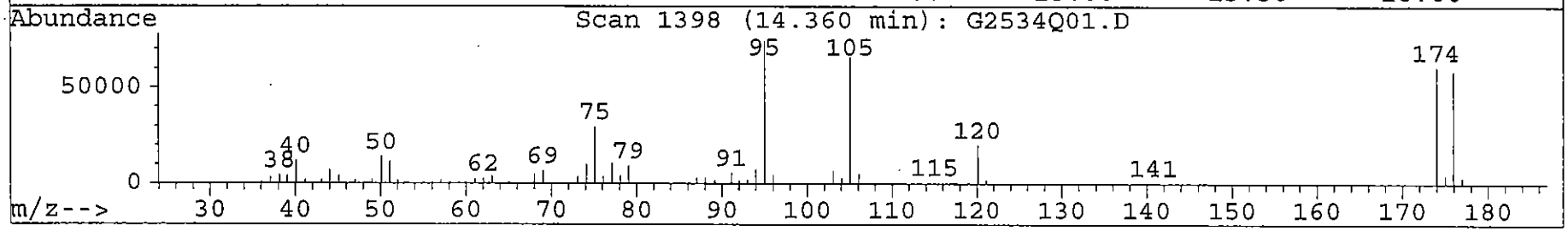
BFB

Data File : C:\HPCHEM\1\DATA\03G2534\G2534Q01.D
Acq On : 19 May 03 4:49 pm
Sample : f=1 ccv
Misc :

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

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2





Peak Apex is scan: 1398

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	14018	PASS
75	95	30	60	40.1	29696	PASS
95	95	100	100	100.0	74024	PASS
96	95	5	9	6.6	4915	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	82.5	61048	PASS
175	174	5	9	7.3	4481	PASS
176	174	95	101	96.5	58928	PASS
177	176	5	9	5.8	3407	PASS

G2534Q01.D E524G004.M Tue May 20 11:15:27 2003

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:	033205
Project ID:	JPL GW Mon-2Q03	BFB Inj. Date:	05/19/03	Batch No:	03G2534
		BFB Inj. Time:	16:49	Sequence No:	03G2534
Project No:	04-4428.10	Instrument ID:	G	GC Column:	DB-VEX
Data File Name:	G2534Q01	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	03G2534-CCV-01	03G2534-CCV-01	G2534Q01	05/19/03	16:49
2	03G2534-LCS-01	03G2534-LCS-01	G2534L01	05/19/03	17:18
3	MW-22-1MS	03-3130-2MS	G2534M01	05/19/03	17:47
4	MW-22-1MSD	03-3130-2MSD	G2534N01	05/19/03	18:16
5	03G2534-MB-01	03G2534-MB-01	G2534K01	05/19/03	20:12
6	DUPE-7-2Q03	03-3205-1	3205-01	05/20/03	00:32
7	EB-13-5/13/03	03-3205-2	3205-02	05/20/03	01:02
8	MW-18-1	03-3205-3	3205-03	05/20/03	01:31
9	MW-18-2	03-3205-4	3205-04	05/20/03	02:01
10	MW-18-3	03-3205-5	3205-05	05/20/03	02:31
11	MW-18-4	03-3205-6	3205-06	05/20/03	03:00
12	MW-18-5	03-3205-7	3205-07	05/20/03	03:29
13	TB-13-5/13/03	03-3205-8	3205-08	05/20/03	03:59
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

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

123

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 16:49 2003
Method Update: Fri May 16 12:11 2003
Quant. Time : May 20 11:16 2003
Print Time : Tue May 20 11:17 2003
Miscleneous :

Sample : f=1 ccv
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	9.51	9.44	0.007	96	70	696.385	10.00		0.06	
47	47	Cl-benzene-d5, I2	13.12	13.05	0.005	82	119	217.118	10.00		0.07	
62	62	1,4-DCB-d4 150 15	15.63	15.56	0.005	152	150	186.313	10.00		0.07	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Methane (	7.96	7.90	0.004	111	113	521.115	20.15	20.2	100.77%	
29	29	1,2-di-Cl-ethane-	8.53	8.47	0.004	65	102	239.972	20.42	20.4	102.10%	
55	55	toluene-d8(S2)	11.60	11.54	0.004	100	99	693.153	19.76	19.8	98.79%	
70	70	4-Br-1-F-Bz (S3)	14.35	14.28	0.004	174	95	301.114	19.61	19.6	98.06%	
Target Compounds											Qvalue	
<<< I1 : ISTD ID = 1 >>>												
3	3	di-Cl-di-F-methan	2.99	2.95	0.004	85	87	309.653	20.97	21.0	93	
4	4	Chloromethane	3.18	3.15	0.004	50	52	251.325	20.56	20.6	91	
9	9	F114 85 135	3.24	3.20	0.003	85	135	351.251	18.59	18.6	97	
5	5	vinyl chloride	3.38	3.35	0.004	62	64	280.900	20.81	20.8	98	
6	6	bromomethane	3.83	3.78	0.005	94	96	221.134	18.42	18.4	85	m
7	7	Chloroethane	3.98	3.94	0.005	64	66	217.609	20.46	20.5	96	
8	8	tri-Cl-F-methane	4.65	4.62	0.004	101	103	568.603	20.64	20.6	92	?
111	111	isopropyl alcoho	4.78	4.73	0.006	45	43	60.767	217.87	217.9	1	#
100	100	ethyl ether x5	4.95	4.90	0.005	59	74	989.373	99.63	99.6	98	
102	102	Acrolein x10	4.66	4.62	0.005	56	55	122.234	157.46	157.5	79	?
119	119	methyl acetate	5.60	5.54	0.006	43	74	205.204	16.67	16.7	99	?
104	104	Carbon disulfide	5.74	5.69	0.006	76	78	783.822	18.08	18.1	97	
103	103	Acrylonitrilex10	5.41	5.36	0.005	53	52	347.141	202.87	202.9	97	
95	95	Acetone x10	4.82	4.77	0.005	43	58	469.337	394.72	394.7	91	
108	108	F-113	5.57	5.50	0.007	151	101	496.504	20.71	20.7	97	?
13	13	11-dichloroethene	5.29	5.24	0.005	61	96	502.571	19.95	20.0	100	
101	101	Acetonnitrilex10	4.71	4.65	0.006	41	40	103.421	232.77	232.8	15	#
109	109	Iodomethane	5.34	5.29	0.006	142	127	474.077	16.60	16.6	94	?
113	113	Tert butyl alcoh	5.37	5.32	0.005	59	57	120.381	187.64	187.6	85	#?

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

MSV 5/20/03

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

124

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 16:49 2003
Method Update: Fri May 16 12:11 2003
Quant. Time : May 20 11:16 2003
Print Time : Tue May 20 11:17 2003
Miscleneous :

Sample : f=1 ccv
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	5.50	5.45	0.005	84	49	357.316	20.93	20.9	95	
	112 Allyl chloride	5.62	5.56	0.006	41	76	566.911	21.53	21.5	91	?
200	200 Nitro methane x1	6.37	6.31	0.006	61	46	579.503	212.62	212.6	97	#?
10	10 t-Bu-Me-ether	6.56	6.51	0.006	73	57	687.757	19.93	19.9	99	
19	19 t-12-di-Cl-ethene	6.37	6.31	0.006	96	61	365.332	19.92	19.9	90	?
98	98 Vinyl acetate x5	6.96	6.90	0.006	43	86	1916.784	141.46	141.5	98	
21	21 11-dichloroethane	6.72	6.66	0.007	63	83	729.629	19.95	19.9	98	
91	91 2-butanone MEKx10	7.37	7.31	0.006	43	72	1462.810	223.85	223.8	93	#?
115	115 Di isoprop ether	7.39	7.34	0.005	45	87	1827.519	18.47	18.5	97	?
22	22 c-12-di-Cl-ethene	7.52	7.46	0.007	96	61	384.942	19.66	19.7	95	
23	23 22-Dichloropropan	7.89	7.82	0.007	77	97	621.068	20.84	20.8	99	?
24	24 Br-Cl-methane	7.72	7.67	0.005	128	130	167.328	19.92	19.9	95	
25	25 chloroform	7.79	7.74	0.006	83	85	671.671	18.82	18.8	100	?
201	201 Ethyl acetate x2	7.82	7.78	0.005	43	61	393.341	47.58	47.6	82	#?
116	116 ETBE	7.91	7.86	0.006	59	87	1171.933	20.72	20.7	99	?
117	117 Iso-butyl alcoho	7.82	7.78	0.005	43	42	409.818	241.27	241.3	1	#?
26	26 tetrahydrofuranx5	8.23	8.17	0.006	72	42	73.877	99.31	99.3	79	
34	34 111-tri-Cl-ethane	8.73	8.68	0.005	97	99	560.579	20.16	20.2	96	
30	30 12-dichloroethane	8.63	8.57	0.006	62	64	293.077	20.04	20.0	94	
35	35 11-Di-Cl-propene	8.98	8.91	0.007	75	110	483.926	19.61	19.6	97	
36	36 benzene	9.24	9.17	0.007	78	52	1161.177	19.59	19.6	99	
37	37 CCl4	9.19	9.12	0.008	117	119	500.192	20.01	20.0	98	
97	97 thiophene	9.38	9.32	0.006	84	58	575.552	19.48	19.5	97	
118	118 TAME	9.47	9.40	0.007	73	43	784.093	19.58	19.6	99	
39	39 12-di-Cl-propane	9.96	9.90	0.006	63	76	362.992	20.73	20.7	96	
40	40 trichloroethene	10.02	9.95	0.007	130	132	428.249	20.21	20.2	97	
96	96 Me-methacrylate	10.29	10.23	0.006	69	100	128.592	18.71	18.7	94	
42	42 Br-di-Cl-methane	10.07	10.02	0.006	83	85	467.155	20.28	20.3	96	
41	41 dibromomethane	9.92	9.86	0.006	174	172	170.037	18.96	19.0	99	
45	45 c-13-di-Cl-propen	10.82	10.76	0.006	75	110	442.013	20.52	20.5	98	?
92	92 2-ClEt-Vi-ether10	10.59	10.53	0.006	63	43	370.077	205.01	205.0	97	
56	56 toluene	11.68	11.61	0.007	91	92	1053.296	18.50	18.5	98	

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

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

125

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 16:49 2003
Method Update: Fri May 16 12:11 2003
Quant. Time : May 20 11:16 2003
Print Time : Tue May 20 11:18 2003
Miscleneous :

Sample : f=1 ccv
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	11.79	11.73	0.007	69	99	248.112	25.19	25.2	98	
93	93 2-Hexanone x5	11.92	11.86	0.007	43	58	516.042	133.09	133.1	95	
48	48 112-tri-Cl-Et	11.49	11.42	0.007	97	83	164.651	19.07	19.1	98	
58	58 1,2-di-br-ethane	12.27	12.22	0.006	107	109	175.497	19.13	19.1	99	
51	51 di-Br-Cl-methane	12.03	11.96	0.007	129	127	272.277	19.42	19.4	99	
46	46 t-13-di-cl-propen	10.82	10.76	0.006	75	110	442.013	20.52	20.5	98	?
105	105 1-Chlorohexane	13.08	13.01	0.007	55	93	368.383	19.66	19.7	97	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.97	10.91	0.004	43	58	145.050	21.00	21.0	83	
49	49 1,3-di-cl-propane	11.74	11.68	0.005	76	78	302.095	19.64	19.6	94	
59	59 tetra-Cl-ethene	12.45	12.39	0.005	166	168	349.215	18.79	18.8	99	
60	60 chlorobenzene	13.15	13.08	0.005	112	77	678.038	19.50	19.5	100	
61	61 1112-tetra-Cl-Et	13.08	13.01	0.005	131	133	321.009	20.50	20.5	99	?
64	64 ethylbenzene	13.35	13.28	0.005	91	106	1162.099	18.87	18.9	99	
65	65 m/p-Xylenes x2	13.54	13.48	0.005	91	106	1731.107	37.33	37.3	100	
99	99 1-4-di-Cl-butane	13.89	13.84	0.004	55	41	276.088	21.22	21.2	99	?
52	52 bromoform	13.67	13.61	0.005	173	175	124.788	18.64	18.6	99	
66	66 styrene	13.88	13.81	0.005	104	78	660.492	19.47	19.5	81	?
67	67 o-xylene	13.94	13.88	0.005	91	106	870.690	19.48	19.5	99	?
68	68 1122-Tetra-Cl-Et	13.95	13.89	0.005	83	85	157.269	20.88	20.9	98	?
110	110 t-1,4-dichloro-2	14.10	14.04	0.005	89	53	30.864	18.21	18.2	72	#?
106	106 Cl-benzyl	15.50	15.52	-0.001	91	126	159.323	14.06	14.1	53	#?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	14.10	14.04	0.004	110	97	47.407	21.95	21.9	97	?
71	71 isopropylbenzene	14.30	14.24	0.004	105	120	1245.976	19.92	19.9	99	
72	72 bromobenzene	14.55	14.49	0.004	156	158	267.246	19.99	20.0	93	
73	73 n-propylbenzene	14.73	14.66	0.004	120	78	354.454	19.25	19.3	96	
74	74 2-Cl-Tl 126 1	14.83	14.76	0.004	126	128	212.025	19.21	19.2	100	
75	75 4-Cl-Tl 126 1	14.91	14.84	0.004	126	128	331.027	19.99	20.0	100	m
76	76 135-tri-Me-Bz	15.01	14.94	0.004	105	120	945.079	19.38	19.4	98	
79	79 tert-butylbenzene	15.28	15.22	0.004	119	91	1055.116	19.22	19.2	99	
78	78 124-tri-Me-Bz	15.40	15.33	0.004	105	120	816.993	20.06	20.1	97	

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

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

126

Data Filename: C:\HPCHEM\1\DATA\03G2534\G2534Q01.D
Method : C:\HPCHEM\1\METHODS\E524G004.M
Acq. Time : May 19 16:49 2003
Method Update: Fri May 16 12:11 2003
Quant. Time : May 20 11:16 2003
Print Time : Tue May 20 11:18 2003
Miscleneous :

Sample : f=1 ccv
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	15.59	15.52	0.004	146	148	393.743	18.20	18.2	100	
82	82	14-di-Cl-Bz 146	15.64	15.58	0.004	146	148	659.992	21.23	21.2	99	m?
81	81	sec-butylbenzene	15.50	15.44	0.004	105	134	1349.801	17.62	17.6	100	?
77	77	4-iso-Pr-toluene	15.66	15.61	0.004	119	134	1148.361	19.78	19.8	99	?
84	84	12-di-Cl-benzene	16.00	15.93	0.004	146	148	415.242	19.97	20.0	99	
85	85	n-butylbenzene	16.06	16.00	0.004	91	134	963.542	19.19	19.2	100	
86	86	12-diBr-3-Cl-Pra	16.45	16.38	0.004	157	155	28.392	20.80	20.8	21	#
87	87	124-tri-Cl-Bz	17.73	17.66	0.004	180	182	257.359	19.46	19.5	97	
88	88	naphthalene	17.98	17.92	0.004	128	129	249.689	19.54	19.5	95	?
90	90	123-tri-Cl-Bz	18.18	18.11	0.004	180	182	197.180	19.66	19.7	89	
89	89	hx-Cl-butadiene	18.00	17.95	0.003	225	260	244.858	19.31	19.3	97	?

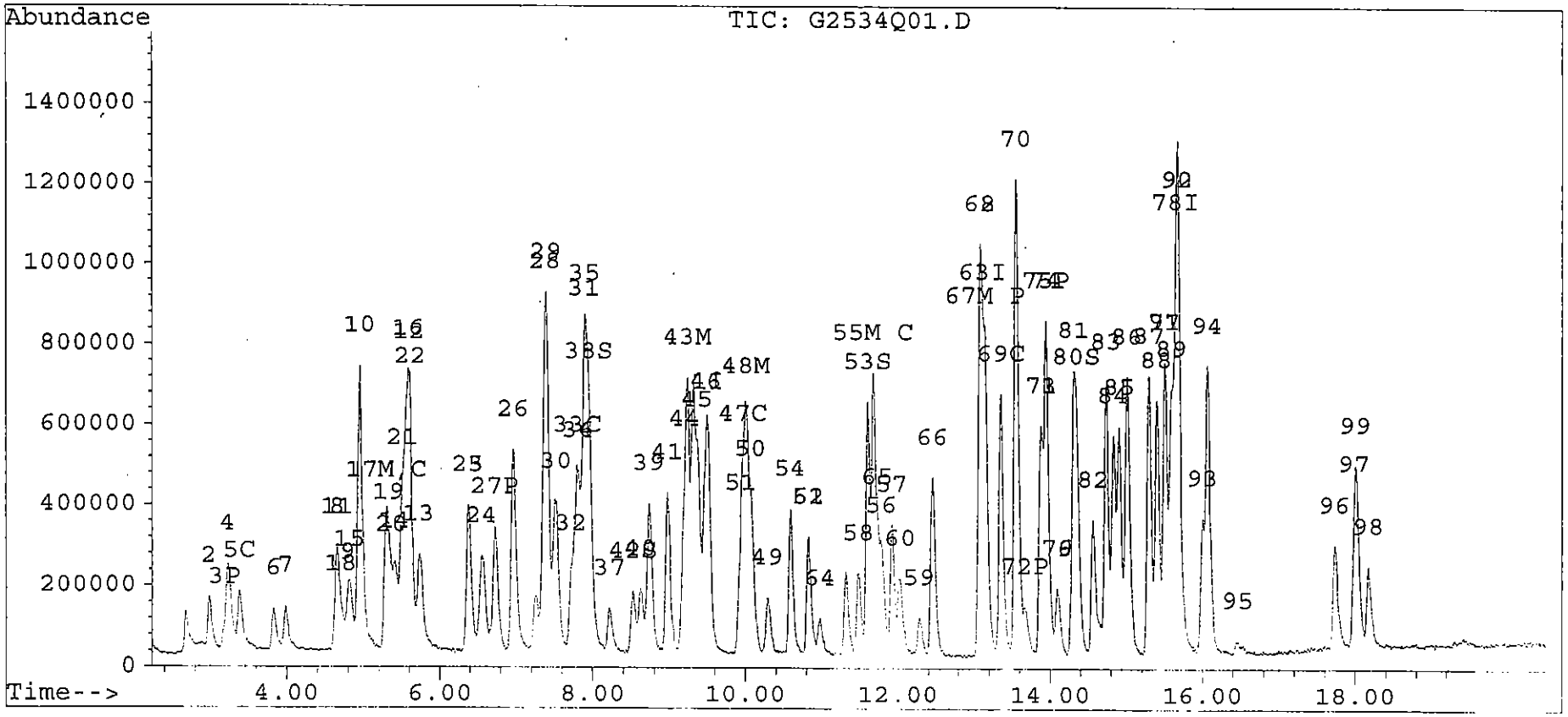
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2534\G2534Q01.D
Acq On : 19 May 03 4:49 pm
Sample : f=1 ccv
Misc :
Quant Time: May 20 11:16 2003

Vial: 17
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 12:11:07 2003
Response via : Multiple Level Calibration



Continuing Calibration Concentration Summary

Data File G2534Q01.D
Method File E524G004

Compound Name	Amount	Actual	Units	%Dev	Target Response
1 Fluorobenzene I1 1	10	10.00	ppb	0.00	696385
3 di-Cl-di-F-methane 85 87	20	20.97	ppb	4.86	309653
4 Chloromethane 50 52	20	20.56	ppb	2.79	251325
9 F114 85 135	20	18.59	ppb	7.07	351251
5 vinyl chloride 62 64	20	20.81	ppb	4.07	280900
6 bromomethane 94 96	20	18.42	ppb	7.91	221134
7 Chloroethane 64 66	20	20.46	ppb	2.32	217609
8 tri-Cl-F-methane 101 103	20	20.64	ppb	3.19	568603
111 isopropyl alcohol x10	200	217.87	ppb	8.93	60767
100 ethyl ether x5	100	99.63	ppb	0.37	989373
102 Acrolein x10	200	157.46	ppb	21.27	122234
119 methyl acetate	20	16.67	ppb	16.63	205204
104 Carbon disulfide	20	18.08	ppb	9.61	783822
103 Acrylonitrilex10	200	202.87	ppb	1.44	347141
95 Acetone x10	200	394.72	ppb	97.36	469337
108 F-113	20	20.71	ppb	3.53	496504
13 11-dichloroethene 61 96	20	19.95	ppb	0.25	502571
101 Acetonnitrilex10	200	232.77	ppb	16.39	103421
109 Iodomethane	20	16.60	ppb	16.98	474077
113 Tert butyl alcohol x10	200	187.64	ppb	6.18	120381
18 methylene chloride 49 84	20	20.93	ppb	4.66	357316
112 Allyl chloride	20	21.53	ppb	7.65	566911
200 Nitro methane x10	200	212.62	ppb	6.31	579503
10 t-Bu-Me-ether 73 57	20	19.93	ppb	0.35	687757
19 t-12-di-Cl-ethene 96 61	20	19.92	ppb	0.40	365332
98 Vinyl acetate x5	100	141.46	ppb	41.46	1916784
21 11-dichloroethane 63 83	20	19.95	ppb	0.26	729629
91 2-butanone MEKx10	200	223.85	ppb	11.92	1462810
115 Di isoprop ether	20	18.47	ppb	7.67	1827519
22 c-12-di-Cl-ethene 96 61	20	19.66	ppb	1.71	384942
23 22-Dichloropropane 77 97	20	20.84	ppb	4.18	621068
24 Br-Cl-methane 128 130	20	19.92	ppb	0.39	167328
25 chloroform 83 85	20	18.82	ppb	5.88	671671
201 Ethyl acetate x2	40	47.58	ppb	18.94	393341
116 ETBE	20	20.72	ppb	3.59	1171933
117 Iso-butyl alcohol X10	200	241.27	ppb	20.63	409818
26 tetrahydrofuranx5	100	99.31	ppb	0.69	73877
27 Di-Br-F-Methane (S1) 111 1	20	20.15	ppb	0.77	521115
34 111-tri-Cl-ethane 97 99	20	20.16	ppb	0.81	560579
30 12-dichloroethane 64 62	20	20.04	ppb	0.19	293077
35 11-Di-Cl-propene 75 110	20	19.61	ppb	1.94	483926
29 1,2-di-Cl-ethane-d4 [Surr] 10	20	20.42	ppb	2.10	239972
36 benzene 78 52	20	19.59	ppb	2.05	1161177
37 CCl4 117 119	20	20.01	ppb	0.03	500192

97 thiophene	20	19.48	ppb	2.62	575552
118 TAME	20	19.58	ppb	2.11	784093
39 12-di-Cl-propane 63 76	20	20.73	ppb	3.67	362992
40 trichloroethene 130 132	20	20.21	ppb	1.03	428249
96 Me-methacrylate	20	18.71	ppb	6.43	128592
42 Br-di-Cl-methane 83 85	20	20.28	ppb	1.41	467155
41 dibromomethane 174 172	20	18.96	ppb	5.21	170037
45 c-13-di-Cl-propene 75 110	20	20.52	ppb	2.58	442013
55 toluene-d8(S2) 100 99	20	19.76	ppb	1.21	693153
92 2-ClEt-Vi-ether10	200	205.01	ppb	2.51	370077

Compound Name	Amount	Actual	Units	%Dev	Target Response
56 toluene 91 92	20	18.50	ppb	7.48	1053296
107 Et methacrylate	20	25.19	ppb	25.96	248112
93 2-Hexanone x5	100	133.09	ppb	33.09	516042
48 112-tri-Cl-Et 97 83	20	19.07	ppb	4.65	164651
58 1,2-di-br-ethane 107 109	20	19.13	ppb	4.33	175497
51 di-Br-Cl-methane 129 127	20	19.42	ppb	2.92	272277
46 t-13-di-cl-propene 75 110	20	20.52	ppb	2.58	442013
105 1-Chlorohexane	20	19.66	ppb	1.68	368383
47 Cl-benzene-d5, I2	10	10.00	ppb	0.00	217118
54 MIBK	20	21.00	ppb	4.98	145050
49 1,3-di-cl-propane 76 78	20	19.64	ppb	1.78	302095
59 tetra-Cl-ethene 166 168	20	18.79	ppb	6.05	349215
60 chlorobenzene 112 77	20	19.50	ppb	2.52	678038
61 1112-tetra-Cl-Et 131 133	20	20.50	ppb	2.51	321009
64 ethylbenzene 91 106	20	18.87	ppb	5.66	1162099

Compound Name	Amount	Actual	Units	%Dev	Target Response
65 m/p-Xylenes x2	40	37.33	ppb	6.69	1731107
99 1-4-di-Cl-butane	20	21.22	ppb	6.10	276088
52 bromoform 173 175	20	18.64	ppb	6.78	124788
66 styrene 104 78	20	19.47	ppb	2.63	660492
67 o-xylene 91 106	20	19.48	ppb	2.58	870690
68 1122-Tetra-Cl-Et 83 85	20	20.88	ppb	4.40	157269
110 t-1,4-dichloro-2-butene	20	18.21	ppb	8.95	30864
106 Cl-benzyl	20	14.06	ppb	29.68	159323
62 1,4-DCB-d4 150 152 I3	10	10.00	ppb	0.00	186313
69 123-tri-Cl-Pr 110 97	20	21.95	ppb	9.73	47407
70 4-Br-1-F-Bz (S3) 174 95	20	19.61	ppb	1.94	301114
71 isopropylbenzene 105 120	20	19.92	ppb	0.41	1245976
72 bromobenzene 156 158	20	19.99	ppb	0.03	267246
73 n-propylbenzene 120 78	20	19.25	ppb	3.74	354454
74 2-Cl-Tl 126 128	20	19.21	ppb	3.95	212025
75 4-Cl-Tl 126 128	20	19.99	ppb	0.03	331027
76 135-tri-Me-Bz 105 120	20	19.38	ppb	3.10	945079
79 tert-butylbenzene 119 91	20	19.22	ppb	3.90	1055116
78 124-tri-Me-Bz 105 120	20	20.06	ppb	0.28	816993
80 13-di-Cl-Bz 146 148	20	18.20	ppb	9.01	393743
82 14-di-Cl-Bz 146 148	20	21.23	ppb	6.13	659992
81 sec-butylbenzene 105 134	20	17.62	ppb	11.92	1349801

77 4-iso-Pr-toluene	119 134	20	19.78	ppb	1.08	1148361
84 12-di-Cl-benzene	146 148	20	19.97	ppb	0.13	415242
85 n-butylbenzene	91 134	20	19.19	ppb	4.06	963542
86 12-diBr-3-Cl-Pra	157 155	20	20.80	ppb	3.99	28392
87 124-tri-Cl-Bz	180 182	20	19.46	ppb	2.68	257359
88 naphthalene	128 129	20	19.54	ppb	2.29	249689
90 123-tri-Cl-Bz	180 182	20	19.66	ppb	1.68	197180
				Ave.% Dev	6.35	

Evaluate Continuing Calibration Report

131

Data File : C:\HPCHEM\1\DATA\03G2534\G2534Q01.D Vial: 17
Acq On : 19 May 03 4:49 pm Operator: Eddie
Sample : f=1 ccv Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 12:11:07 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	93	0.00
2		3 di-Cl-di-F-methane 85 8	0.212	0.222	-4.9	99	0.00
3	P	4 Chloromethane 50 5	0.142	0.180	-27.1#	102	0.00
4		9 F114 85 135	0.255	0.252	1.0	91	0.00
5	C	5 vinyl chloride 62 6	0.194	0.202	-4.1	93	0.00
6		6 bromomethane 94 9	0.172	0.159	7.9	83	0.00
7		7 Chloroethane 64 66	0.153	0.156	-2.3	92	0.00
8		8 tri-Cl-F-methane 101 10	0.396	0.408	-3.2	96	0.00
9		111 isopropyl alcohol x10	0.004	0.004#	-8.9	86	0.00
10		100 ethyl ether x5	0.158	0.142	10.2	91	0.00
11		102 Acrolein x10	0.011	0.009#	23.2#	74	0.00
12		119 methyl acetate	0.177	0.147	16.9	62	0.00
13		104 Carbon disulfide	0.623	0.563	9.6	85	0.00
14		103 Acrylonitrilex10	0.023	0.025#	-6.3	86	0.00
15		95 Acetone x10	0.019	0.034#	-75.9#	176#	0.00
16		108 F-113	0.344	0.356	-3.5	96	0.00
17	M,C	13 11-dichloroethene 61 9	0.362	0.361	0.2	94	0.00
18		101 Acetonnitrilex10	0.007	0.007#	-7.3	101	0.00
19		109 Iodomethane	0.399	0.340	14.7	75	0.00
20		113 Tert butyl alcohol x10	0.009	0.009#	6.2	87	0.00
21		18 methylene chloride 49 8	0.245	0.257	-4.7	101	0.00
22		112 Allyl chloride	0.430	0.407	5.3	92	0.00
23		200 Nitro methane x10	0.039	0.042#	-6.3	89	0.00
24		10 t-Bu-Me-ether 73 57	0.496	0.494	0.4	95	0.00
25		19 t-12-di-Cl-ethene 96 6	0.263	0.262	0.4	86	0.00
26		98 Vinyl acetate x5	0.149	0.275	-84.7#	143	0.00
27	P	21 11-dichloroethane 63 8	0.525	0.524	0.3	88	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2534\G2534Q01.D Vial: 17
Acq On : 19 May 03 4:49 pm Operator: Eddie
Sample : f=1 ccv Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 12:11:07 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	0.105	-11.9	102	0.00
29		115 Di isoprop ether			1.421	1.312	7.7	89	0.00
30		22 c-12-di-Cl-ethene	96	6	0.281	0.276	1.7	89	0.00
31		23 22-Dichloropropane	77	9	0.428	0.446	-4.2	99	0.00
32		24 Br-Cl-methane	128	13	0.104	0.120	-15.1	93	0.00
33	C	25 chloroform	83	8	0.512	0.482	5.9	91	0.00
34		201 Ethyl acetate x2			0.118	0.141	-19.6	111	0.00
35		116 ETBE			0.916	0.841	8.2	94	0.00
36		117 Iso-butyl alcohol X10			0.022	0.029#	-33.2#	115	0.00
37		26 tetrahydrofuranx5			0.011	0.011#	0.7	88	0.00
38	S	27 Di-Br-F-Methane (S1)		11	0.371	0.374	-0.8	92	0.00
39		34 111-tri-Cl-ethane	97	9	0.399	0.402	-0.8	93	0.00
40		30 12-dichloroethane	64	6	0.184	0.210	-14.5	94	0.00
41		35 11-Di-Cl-propene	75	11	0.354	0.347	1.9	91	0.00
42	S	29 1,2-di-Cl-ethane-d4 [Sur			0.169	0.172	-2.1	92	0.00
43	M	36 benzene	78	5	0.851	0.834	2.1	89	0.00
44		37 CCl4	117	11	0.359	0.359	-0.0	92	0.00
45		97 thiophene			0.424	0.413	2.6	89	0.00
46		118 TAME			0.515	0.563	-9.2	88	0.00
47	C	39 12-di-Cl-propane	63	7	0.251	0.261	-3.7	93	0.00
48	M	40 trichloroethene	130	13	0.304	0.307	-1.0	94	0.00
49		96 Me-methacrylate			0.087	0.092	-5.7	80	0.00
50		42 Br-di-Cl-methane	83	8	0.362	0.335	7.3	92	0.00
51		41 dibromomethane	174	17	0.109	0.122	-12.4	87	0.00
52		45 c-13-di-Cl-propene	75	11	0.309	0.317	-2.6	93	0.00
53	S	55 toluene-d8(S2)		100	0.504	0.498	1.2	90	0.00
54		92 2-ClEt-Vi-ether10			0.026	0.027#	-2.5	90	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

133

Data File : C:\HPCHEM\1\DATA\03G2534\G2534Q01.D Vial: 17
Acq On : 19 May 03 4:49 pm Operator: Eddie
Sample : f=1 ccv Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 12:11:07 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	0.756	7.5	89	0.00
56		107 Et methacrylate			0.132	0.178	-34.5#	115	0.00
57		93 2-Hexanone x5			0.045	0.074	-63.2#	120	0.00
58		48 112-tri-Cl-Et	97	8	0.110	0.118	-7.3	89	0.00
59		58 1,2-di-br-ethane	107	109	0.121	0.126	-4.5	88	0.00
60		51 di-Br-Cl-methane	129	12	0.217	0.195	10.0	91	0.00
61		46 t-13-di-cl-propene	75	11	0.309	0.317	-2.6	93	0.00
62		105 1-Chlorohexane			0.315	0.264	16.0	94	0.00
63	I	47 Cl-benzene-d5, I2			1.000	1.000	0.0	97	0.00
64		54 MIBK			0.323	0.334	-3.5	89	0.00
65		49 1,3-di-cl-propane	76	78	0.708	0.696	1.8	90	0.00
66		59 tetra-Cl-ethene	166	16	0.856	0.804	6.1	88	0.00
67	M P	60 chlorobenzene	112	7	1.602	1.561	2.5	90	0.00
68		61 1112-tetra-Cl-Et	131	13	0.721	0.739	-2.5	93	0.00
69	C	64 ethylbenzene	91	10	2.837	2.676	5.7	91	0.00
70		65 m/p-Xylenes x2			2.136	1.993	6.7	88	0.00
71		99 1-4-di-Cl-butane			0.702	0.636	9.5	92	0.00
72	P	52 bromoform	173	17	0.308	0.287	6.8	92	0.00
73		66 styrene	104	7	1.729	1.521	12.0	87	0.00
74		67 o-xylene	91	10	2.058	2.005	2.6	91	0.00
75	P	68 1122-Tetra-Cl-Et	83	8	0.347	0.362	-4.4	92	0.00
76		110 t-1,4-dichloro-2-butene			0.078	0.071	9.0	85	0.00
77		106 Cl-benzyl			0.512	0.367	28.3#	65	0.00
78	I	62 1,4-DCB-d4 150 152 I3			1.000	1.000	0.0	94	0.00
79		69 123-tri-Cl-Pr	110	9	0.116	0.127	-9.7	102	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2534\G2534Q01.D
Acq On : 19 May 03 4:49 pm
Sample : f=1 ccv
Misc :

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

Method : C:\HPCHEM\1\METHODS\E524G004.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Fri May 16 12:11:07 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	0.824	0.808	1.9	90	0.00
81		71 isopropylbenzene	105	12	3.357	3.344	0.4	94	0.00
82		72 bromobenzene	156	15	0.717	0.717	0.0	88	0.00
83		73 n-propylbenzene	120	7	0.988	0.951	3.7	90	0.00
84		74 2-Cl-Tl	126	128	0.592	0.569	4.0	85	0.00
85		75 4-Cl-Tl	126	128	0.889	0.888	0.0	89	0.00
86		76 135-tri-Me-Bz	105	12	2.617	2.536	3.1	93	0.00
87		79 tert-butylbenzene	119	9	2.946	2.832	3.9	89	0.00
88		78 124-tri-Me-Bz	105	12	2.186	2.193	-0.3	97	0.00
89		80 13-di-Cl-Bz	146	148	1.161	1.057	9.0	87	0.00
90		82 14-di-Cl-Bz	146	148	1.669	1.771	-6.1	96	0.00
91		81 sec-butylbenzene	105	13	4.113	3.622	11.9	85	0.00
92		77 4-iso-Pr-toluene	119	13	3.116	3.082	1.1	96	0.00
93		84 12-di-Cl-benzene	146	14	1.116	1.114	0.1	91	0.00
94		85 n-butylbenzene	91	13	2.695	2.586	4.1	95	0.00
95		86 12-diBr-3-Cl-Pra	157	15	0.067	0.076	-13.3	98	0.00
96		87 124-tri-Cl-Bz	180	18	0.654	0.691	-5.6	98	0.00
97		88 naphthalene	128	12	0.583	0.670	-15.0	106	0.00
98		90 123-tri-Cl-Bz	180	18	0.469	0.529	-12.8	96	0.00
99		89 hx-Cl-butadiene	225	26	0.681	0.657	3.4	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
G2534Q01.D E524G004.M Tue May 20 11:18:35 2003

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:	033205
Project ID:	JPL GW Mon-2Q03	Project No:	04-4428.10	Sample Matrix:	Water
		CCV Data File:	G2534Q01	Instrument ID:	G

Batch No: 03G2534

#	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			05/19/03 16:49	696385	9.51	217118	13.12	186313	15.63
CCV Upper Limit				1392770	10.01	434236	13.62	372626	16.13
CCV Lower Limit				348192	9.01	108559	12.62	93156	15.13
1	03G2534-LCS-01	03G2534-LCS-01	05/19/03 17:18	665707	9.51	201715	13.11	191235	15.61
2	MW-22-1MS	03-3130-2MS	05/19/03 17:47	691053	9.50	213121	13.11	194829	15.63
3	MW-22-1MSD	03-3130-2MSD	05/19/03 18:16	624964	9.50	187075	13.11	178631	15.62
4	03G2534-MB-01	03G2534-MB-01	05/19/03 20:12	648041	9.50	183940	13.11	165027	15.62
5	DUPE-7-2Q03	03-3205-1	05/20/03 00:32	620688	9.49	171702	13.10	163610	15.61
6	EB-13-5/13/03	03-3205-2	05/20/03 01:02	695666	9.49	193429	13.09	185445	15.60
7	MW-18-1	03-3205-3	05/20/03 01:31	773530	9.49	217651	13.09	200475	15.60
8	MW-18-2	03-3205-4	05/20/03 02:01	778718	9.49	214922	13.09	202989	15.60
9	MW-18-3	03-3205-5	05/20/03 02:31	762413	9.49	215331	13.09	203858	15.60
10	MW-18-4	03-3205-6	05/20/03 03:00	720261	9.49	203673	13.10	201204	15.62
11	MW-18-5	03-3205-7	05/20/03 03:29	696192	9.49	200469	13.10	188398	15.60
12	TB-13-5/13/03	03-3205-8	05/20/03 03:59	766362	9.49	208701	13.09	198030	15.60
13									
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
1780 Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

VOC Analysis General Logbook

03G2404 Batch # 03G2404 Matrix: W Date: 5-15-03 Analyst: Eddie

IS/Surrogate: GC- 15114/15115 Methanol(mark-*M*): _____ PEG (mark-*PEG*): _____ Defoaming(mark-*DF*): _____

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

#	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
3817	SP	G2404P01	E5246	25/25 = 1	/ =	/ =	/		G2404P01	5-15-03 10:18AM	GC15137
3818	calib	4-003	004	/ =	/ =	/ =			4-003	gc15137	
3819		4-002		/ =	/ =	/ =			4-002		
3820		4-010		/ =	/ =	/ =			4-010		
3821		4-020		/ =	/ =	/ =			4-020		
3822		4-040		/ =	/ =	/ =			4-040		
3823		4-080		/ =	/ =	/ =			4-080		
3824	CW	G2404B01		/ =	/ =	/ =			G2404B01	CW/ICV 5-16-03 11:08AM	
3825	LY	L01		/ =	/ =	/ =			L01	GC15138	
3826	M3	M01		/ =	/ =	/ =			M01	3082-04 <2	
3827	M3D	N01		/ =	/ =	/ =			N01	3082-04 <2	
3828	M13	K01		/ =	/ =	/ =			K01		
3829	Sample	3082-01		/ =	/ =	/ =			3082-01		<2
3830		02		/ =	/ =	/ =			02		
3831		03		/ =	/ =	/ =			03		
		04		/ =	/ =	/ =			04	MS	
		05		/ =	/ =	/ =			05		
3834		06		/ =	/ =	/ =			06		
3835		07		/ =	/ =	/ =			07		
3836		3102-01		/ =	/ =	/ =			3102-01		
3837		02		/ =	/ =	/ =			02		
3838		03		/ =	/ =	/ =			03		
3839		04		/ =	/ =	/ =			04		
3840		05		/ =	/ =	/ =			05		
3841		06		/ =	/ =	/ =			06		
3842		07		/ =	/ =	/ =			07		
3843		08		/ =	/ =	/ =			08		
3844		3115-01		/ =	/ =	/ =			3115-01		
3845		02		/ =	/ =	/ =			02		
3846		03		/ =	/ =	/ =			03		
3847		04		/ =	/ =	/ =			04	purge 12 hrs	
3848				/ =	/ =	/ =					

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	3825	GC- 15138	30 × 2.5 /X= 20 ppb		GC-	× /X= ppb
MS/MSD	3826/3827	GC-	× /X= ppb		GC-	× /X= ppb

Note/Anomaly:

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

VOC Analysis General Logbook

Sequence # 03G12534 Batch # 03G12534 Matrix: W Date: 5-19-03 Analyst: Eddie

Lot #: IS/Surrogate: GC- 15114/15115 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	$V/X=f_1$	$V_f/V_i=f_2$	$V_{spg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
3849	SP	G12534P01	E524G	25/25= 1	/ =	/ =	1		G12534P01		
3850	CW	201	004	/ =	/ =	/ =			201	5-19-03 4:49 pm	GL4137
3851	MS	L01		/ =	/ =	/ =			L01		
3852	MS	M01		/ =	/ =	/ =			M01	03130-02	<2
3853	MSD	N01		/ =	/ =	/ =			N01	03130-02	<2
3854	MB	K01		/ =	/ =	/ =			K01		
3855	Sample	3115-04A		/ =	/ =	/ =			3115-04A		<2
3856		3130-01		/ =	/ =	/ =			3130-01	eb	
3857		02		/ =	/ =	/ =			02	bs	
3858		03		/ =	/ =	/ =			03		
3859		04		/ =	/ =	/ =			04		
3860		05		/ =	/ =	/ =			05		
3861		06		/ =	/ =	/ =			06		
3862		07		/ =	/ =	/ =			07		
3863		3205-01		/ =	/ =	/ =			3205-01		
3864		02		/ =	/ =	/ =			02		
3865		03		/ =	/ =	/ =			03		
3866		04		/ =	/ =	/ =			04		
3867		05		/ =	/ =	/ =			05		
3868		06		/ =	/ =	/ =			06		
3869		07		/ =	/ =	/ =			07		
3870		08		/ =	/ =	/ =			08		
3871				/ =	/ =	/ =					
3872				/ =	/ =	/ =					
3873				/ =	/ =	/ =					
3874				/ =	/ =	/ =					
3875				/ =	/ =	/ =					
3876				/ =	/ =	/ =					
3877				/ =	/ =	/ =					
3878				/ =	/ =	/ =					
3879				/ =	/ =	/ =					
3880				/ =	/ =	/ =					

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	3851	GC-	× /X= ppb		GC-	× /X= ppb
MS/MSD	3852/3853	GC- 15131	20 × 1.5 /X= 20 ppb		GC-	× /X= ppb

Footnote/Anomaly: