

Appendix A.6
Focussed Remedial Investigation Report
Volume 4 of 6

299 Main Street Site
Westbury, New York
(Site Code 1-30-043S)

December 1999

❖ Impact Environmental Consulting, Inc. • 1 Village Plaza Park • New York • 11754
516.269.8800 • fax 516.269.1599



Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21887.D
 Acq Time : 30 Oct 99 8:08 pm
 Sample : 20 ng BNA ICC
 Misc :
 Quant Time: Nov 1 7:52 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.49	152	402680	40.00	ng	-0.03
21) Naphthalene-d8	12.18	136	1573692	40.00	ng	0.00
36) Acenaphthene-d10	17.63	164	770664	40.00	ng	-0.01
57) Phenanthrene-d10	22.16	188	1402087	40.00	ng	-0.02
69) Chrysene-d12	30.48	240	912865	40.00	ng	-0.02
80) Perylene-d12	34.63	264	815967	40.00	ng	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.48	112	372302	21.64	ng	
6) 2-Chlorophenol-d4	8.03	132	392753	22.99	ng	
7) Phenol-d5	8.02	99	434916	22.98	ng	
13) 1,2-Dichlorobenzene-d4	9.01	152	227592	23.17	ng	
22) Nitrobenzene-d5	10.21	82	339256	22.58	ng	
40) 2-Fluorobiphenyl	15.67	172	630427	23.07	ng	
55) 2,4,6-Tribromophenol	20.14	330	88704	23.02	ng	
72) Terphenyl-d14	27.35	244	522589	21.36	ng	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	2.82	79	271312	20.87	ng	m 0
3) N-nitroso-dimethylamine	2.84	42	131487	23.53	ng	89
5) Aniline	7.83	93	395523	25.57	ng	97
8) Phenol	8.05	94	430912	23.69	ng	91
9) bis(2-Chloroethyl) ether	8.06	93	408638	24.32	ng	97
10) 2-Chlorophenol	8.08	128	385133	22.69	ng	96
11) 1,3-Dichlorobenzene	8.37	146	376106	22.12	ng	98
12) 1,4-Dichlorobenzene	8.53	146	383432	22.19	ng	95
14) 1,2-Dichlorobenzene	9.04	146	372847	22.72	ng	98
15) Benzyl alcohol	9.14	108	218137	20.49	ng	97
16) 2-Methylphenol	9.64	108	317873	21.65	ng	100
17) Bis(2-chloroisopropyl) ether	9.57	45	540192	21.26	ng	96
18) Hexachloroethane	9.85	117	212551	23.13	ng	94
19) 3+4-Methyphenols	10.12	108	695232	44.92	ng	98
20) N-Nitroso-di-n-propylamine	9.98	70	203457	21.71	ng	95
23) Nitrobenzene	10.26	77	294368	23.65	ng	98
24) Isophorone	10.99	82	662399	22.44	ng	98
25) 2-Nitrophenol	11.21	139	193271	22.01	ng	97
26) 2,4-Dimethylphenol	11.58	107	335598	22.05	ng	97
27) bis(2-Chloroethoxy) methane	11.81	93	457271	22.22	ng	95
28) 2,4-Dichlorophenol	11.96	162	277315	22.84	ng	98
29) Benzoic Acid	12.15	105	188208	18.46	ng	97
30) 1,2,4-Trichlorobenzene	12.11	180	307912	22.94	ng	99
31) Naphthalene	12.23	128	1006344	22.85	ng	100
32) 4-Chloroaniline	12.67	127	312046	22.75	ng	98
33) Hexachlorobutadiene	12.86	225	160783	22.75	ng	99

(#) = qualifier out of range (m) = manual integration
 S21887.D B21030C.M Mon Nov 01 08:15:36 1999

BNA2

Page 1

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Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) 4-Chloro-3-methylphenol	14.36	107	313664	23.56	ng	59
35) 2-Methylnaphthalene	14.36	142	891546	22.87	ng	100
37) Hexachlorocyclopentadiene	15.10	237	123745	21.92	ng	97
38) 2,4,6-Trichlorophenol	15.47	196	198327	22.94	ng	96
39) 2,4,5-Trichlorophenol	15.60	196	201031	21.90	ng	98
41) 2-Chloronaphthalene	15.84	162	554760	22.78	ng	98
42) 2-Nitroaniline	16.46	65	143088	21.86	ng	91
43) Dimethylphthalate	17.21	163	608020	22.34	ng	95
44) Acenaphthylene	17.12	152	906461	22.72	ng	99
45) 2,6-Dinitrotoluene	17.40	165	153907	22.63	ng	93
46) 3-Nitroaniline	16.46	138	247214	21.98	ng	99
47) Acenaphthene	17.71	153	539455	23.07	ng	99
48) 2,4-Dinitrophenol	18.11	184	62261	19.35	ng	95
49) Dibenzofuran	18.22	168	751130	22.70	ng	98
50) 4-Nitrophenol	18.60	109	52835	23.39	ng	90
51) 2,4-Dinitrotoluene	17.40	165	153907	22.63	ng	93
52) Fluorene	19.28	166	576260	23.28	ng	99
53) Diethylphthalate	19.43	149	658484	22.58	ng	98
54) 4-Chlorophenyl-phenylether	19.42	204	282035	22.75	ng	98
56) 4-Nitroaniline	19.71	138	130793	23.16	ng	97
58) 4,6-Dinitro-2-methylphenol	19.82	198	97334	21.19	ng	95
59) N-Nitrosodiphenylamine	19.88	169	378488	24.23	ng	100
60) 1,2-Diphenylhydrazine	19.89	77	750831	23.43	ng	93
61) 4-Bromophenyl-phenylether	20.91	248	150904	22.86	ng	90
62) Hexachlorobenzene	21.25	284	187453	22.53	ng	97
63) Pentachlorophenol	21.92	266	104620	22.66	ng	100
64) Phenanthrene	22.23	178	777697	23.12	ng	99
65) Anthracene	22.36	178	817462	23.53	ng	99
66) Carbazole	23.04	167	742360	36.39	ng	100
67) Di-n-butylphthalate	24.54	149	1345666	23.00	ng	98
68) Fluoranthene	25.95	202	827974	23.18	ng	99
70) Benzidine	28.14	184	3177	24.89	ng	m. 0
71) Pyrene	26.61	202	825371	21.25	ng	94
73) Butylbenzylphthalate	29.16	149	613145	20.94	ng	98
74) Benzo[a]anthracene	30.42	228	560901	21.56	ng	96
75) 3,3'-Dichlorobenzidine	30.60	252	123421	33.97	ng	94
76) Chrysene	30.55	228	555051	21.77	ng	98
77) bis(2-Ethylhexyl)phthalate	31.09	149	812166	21.30	ng	98
78) Di-n-octylphthalate	32.90	149	1477086	21.98	ng	100
79) Indeno [1,2,3-cd] pyrene	37.44	276	441000	23.06	ng	91
81) Benzo[b]fluoranthene	33.60	252	441925	19.26	ng	97
82) Benzo[k]fluoranthene	33.67	252	542574	21.97	ng	92
83) Benzo[a]pyrene	34.46	252	454458	21.28	ng	91
84) Dibenz[a,h]anthracene	37.52	278	367849	21.81	ng	97

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Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) Benzo[g,h,i]perylene	38.19	276	365726	22.01	ng	98

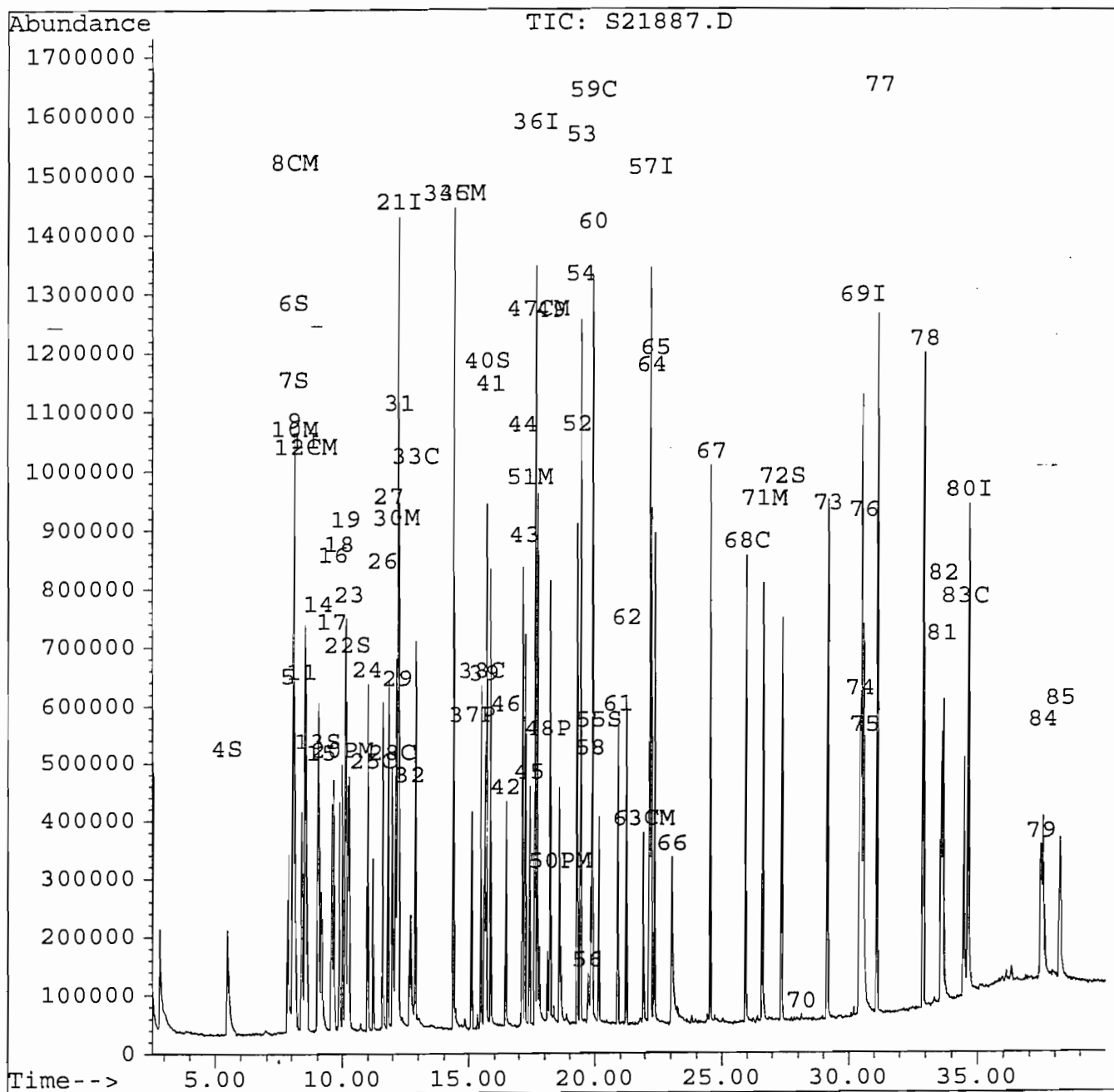
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Quantitation Report

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 Sample : 20 ng BNA ICC
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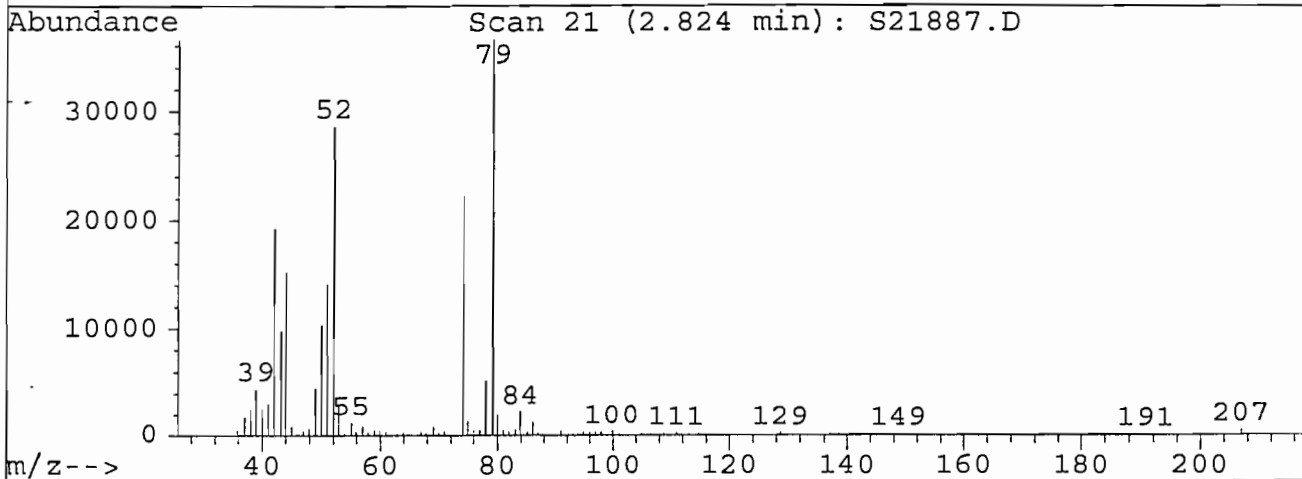
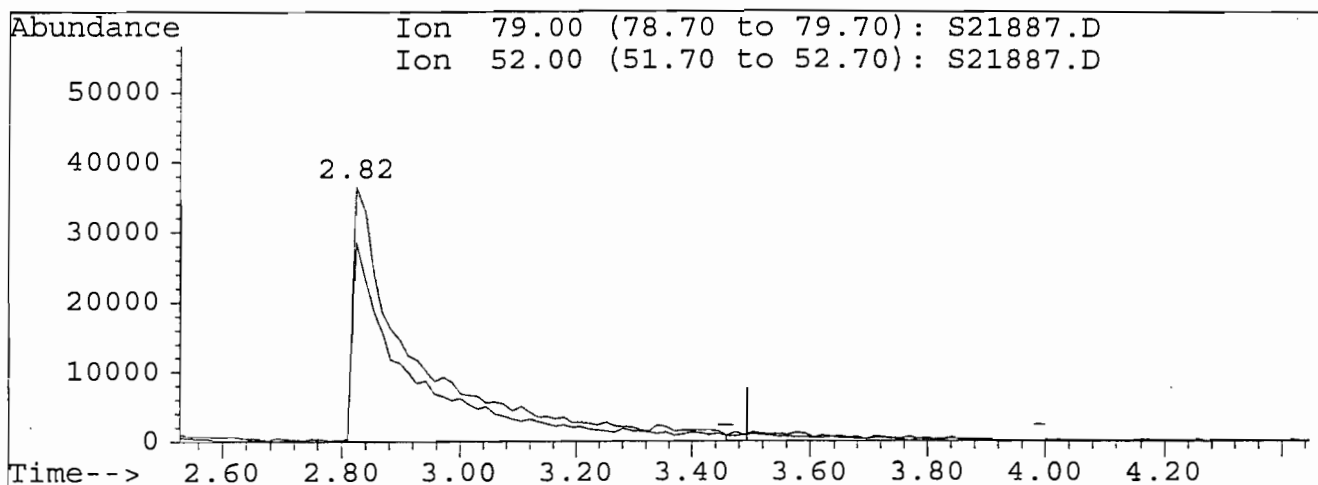
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Quantitation Report

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 Sample : 20 ng BNA ICC
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Operator:
 Inst : bn2
 Multiplr: 1.00

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 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21887.D

(2) Pyridine
 2.82min 20.87ng m
 response 271312

Ion	Exp%	Act%
79.00	100	100
52.00	80.00	78.19
0.00	0.00	0.00
0.00	0.00	0.00

000148

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21888.D
 Acq Time : 30 Oct 99 8:58 pm
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 Misc :
 Quant Time: Nov 1 7:54 1999

Operator:
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 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
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 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.50	152	407757	40.00	ng	-0.01
21) Naphthalene-d8	12.19	136	1580234	40.00	ng	0.00
36) Acenaphthene-d10	17.62	164	771487	40.00	ng	-0.02
57) Phenanthrene-d10	22.17	188	1372028	40.00	ng	0.00
69) Chrysene-d12	30.49	240	820403	40.00	ng	0.00
80) Perylene-d12	34.64	264	695670	40.00	ng	0.00

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.49	112	866846	49.76	ng	
6) 2-Chlorophenol-d4	8.04	132	903060	52.20	ng	
7) Phenol-d5	8.03	99	1006323	52.52	ng	
13) 1,2-Dichlorobenzene-d4	9.00	152	517030	51.98	ng	
22) Nitrobenzene-d5	10.23	82	794983	52.70	ng	-
40) 2-Fluorobiphenyl	15.68	172	1442960	52.74	ng	
55) 2,4,6-Tribromophenol	20.15	330	201783	52.31	ng	
72) Terphenyl-d14	27.37	244	1170569	53.23	ng	

Target Compounds						Qvalue
2) Pyridine	2.79	79	639645	48.60	ng	m 0
3) N-nitroso-dimethylamine	2.82	42	293203	51.83	ng	100
5) Aniline	7.84	93	771863	49.27	ng	98
8) Phenol	8.06	94	994741	54.01	ng	95
9) bis(2-Chloroethyl)ether	8.07	93	923603	54.27	ng	95
10) 2-Chlorophenol	8.07	128	904975	52.66	ng	100
11) 1,3-Dichlorobenzene	8.38	146	887767	51.56	ng	99
12) 1,4-Dichlorobenzene	8.55	146	904683	51.70	ng	98
14) 1,2-Dichlorobenzene	9.05	146	869598	52.34	ng	99
15) Benzyl alcohol	9.17	108	539099	50.00	ng	99
16) 2-Methylphenol	9.65	108	759844	51.11	ng	98
17) Bis(2-chloroisopropyl)ethe	9.58	45	1316101	51.16	ng	99
18) Hexachloroethane	9.86	117	481477	51.75	ng	96
19) 3+4-Methyphenols	10.13	108	1660020	105.91	ng	94
20) N-Nitroso-di-n-propylamine	10.01	70	482949	50.89	ng	98
23) Nitrobenzene	10.27	77	674731	53.99	ng	98
24) Isophorone	11.00	82	1569775	52.95	ng	97
25) 2-Nitrophenol	11.22	139	457006	51.84	ng	95
26) 2,4-Dimethylphenol	11.60	107	815737	53.38	ng	98
27) bis(2-Chloroethoxy)methane	11.82	93	1096110	53.05	ng	99
28) 2,4-Dichlorophenol	11.97	162	655894	53.80	ng	100
29) Benzoic Acid	12.27	105	510708	49.89	ng	88
30) 1,2,4-Trichlorobenzene	12.12	180	711821	52.81	ng	99
31) Naphthalene	12.25	128	2317564	52.40	ng	100
32) 4-Chloroaniline	12.71	127	592018	49.46	ng	m 98
33) Hexachlorobutadiene	12.87	225	373072	52.58	ng	99

(#) = qualifier out of range (m) = manual integration
 S21888.D B21030C.M Mon Nov 01 08:18:40 1999

BNA2

Page 1

Quantitation Report

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Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) 4-Chloro-3-methylphenol	14.37	107	716296	53.58	ng	76
35) 2-Methylnaphthalene	14.37	142	2089077	53.37	ng	94
37) Hexachlorocyclopentadiene	15.11	237	285677	50.55	ng	99
38) 2,4,6-Trichlorophenol	15.48	196	453331	52.38	ng	97
39) 2,4,5-Trichlorophenol	15.59	196	491606	53.49	ng	99
41) 2-Chloronaphthalene	15.86	162	1292720	53.02	ng	95
42) 2-Nitroaniline	16.48	65	334294	51.03	ng	91
43) Dimethylphthalate	17.24	163	1428667	52.44	ng	98
44) Acenaphthylene	17.13	152	2102970	52.66	ng	100
45) 2,6-Dinitrotoluene	17.41	165	350734	51.51	ng	80
46) 3-Nitroaniline	16.48	138	570694	50.68	ng	99
47) Acenaphthene	17.72	153	1252919	53.52	ng	100
48) 2,4-Dinitrophenol	18.12	184	153695	47.71	ng	91
49) Dibenzofuran	18.23	168	1747804	52.77	ng	99
50) 4-Nitrophenol	18.61	109	115325	51.01	ng	93
51) 2,4-Dinitrotoluene	17.41	165	350734	51.51	ng	80
52) Fluorene	19.29	166	1347326	54.38	ng	99
53) Diethylphthalate	19.46	149	1563196	53.55	ng	100
54) 4-Chlorophenyl-phenylether	19.44	204	657627	52.99	ng	95
56) 4-Nitroaniline	19.75	138	249537	44.13	ng	98
58) 4,6-Dinitro-2-methylphenol	19.84	198	222459	49.48	ng	92
59) N-Nitrosodiphenylamine	19.90	169	858946	56.20	ng	99
60) 1,2-Diphenylhydrazine	19.90	77	1732208	55.24	ng	98
61) 4-Bromophenyl-phenylether	20.92	248	341791	52.92	ng	95
62) Hexachlorobenzene	21.26	284	441846	54.27	ng	97
63) Pentachlorophenol	21.93	266	231422	51.22	ng	98
64) Phenanthrene	22.24	178	1808791	54.96	ng	100
65) Anthracene	22.37	178	1851531	54.46	ng	99
66) Carbazole	23.09	167	1364664	68.36	ng	99
67) Di-n-butylphthalate	24.55	149	3091274	54.00	ng	99
68) Fluoranthene	25.96	202	1876018	53.66	ng	98
70) Benzidine	28.14	184	6232	54.32	ng	m 0
71) Pyrene	26.62	202	1869579	53.57	ng	98
73) Butylbenzylphthalate	29.17	149	1402282	53.28	ng	100
74) Benzo[a]anthracene	30.43	228	1223430	52.32	ng	98
75) 3,3'-Dichlorobenzidine	30.63	252	185637	56.85	ng	90
76) Chrysene	30.57	228	1156426	50.47	ng	99
77) bis(2-Ethylhexyl)phthalate	31.10	149	1843453	53.79	ng	100
78) Di-n-octylphthalate	32.93	149	3223172	53.37	ng	100
79) Indeno [1,2,3-cd] pyrene	37.45	276	916552	53.33	ng	95
81) Benzo[b]fluoranthene	33.63	252	1016605	51.97	ng	96
82) Benzo[k]fluoranthene	33.68	252	1080742	51.34	ng	97
83) Benzo[a]pyrene	34.47	252	931363	50.15	ng	95
84) Dibenz[a,h]anthracene	37.54	278	761316	52.94	ng	97

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Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85) Benzo[g,h,i]perylene	38.23	276	736328	51.99 ng	99

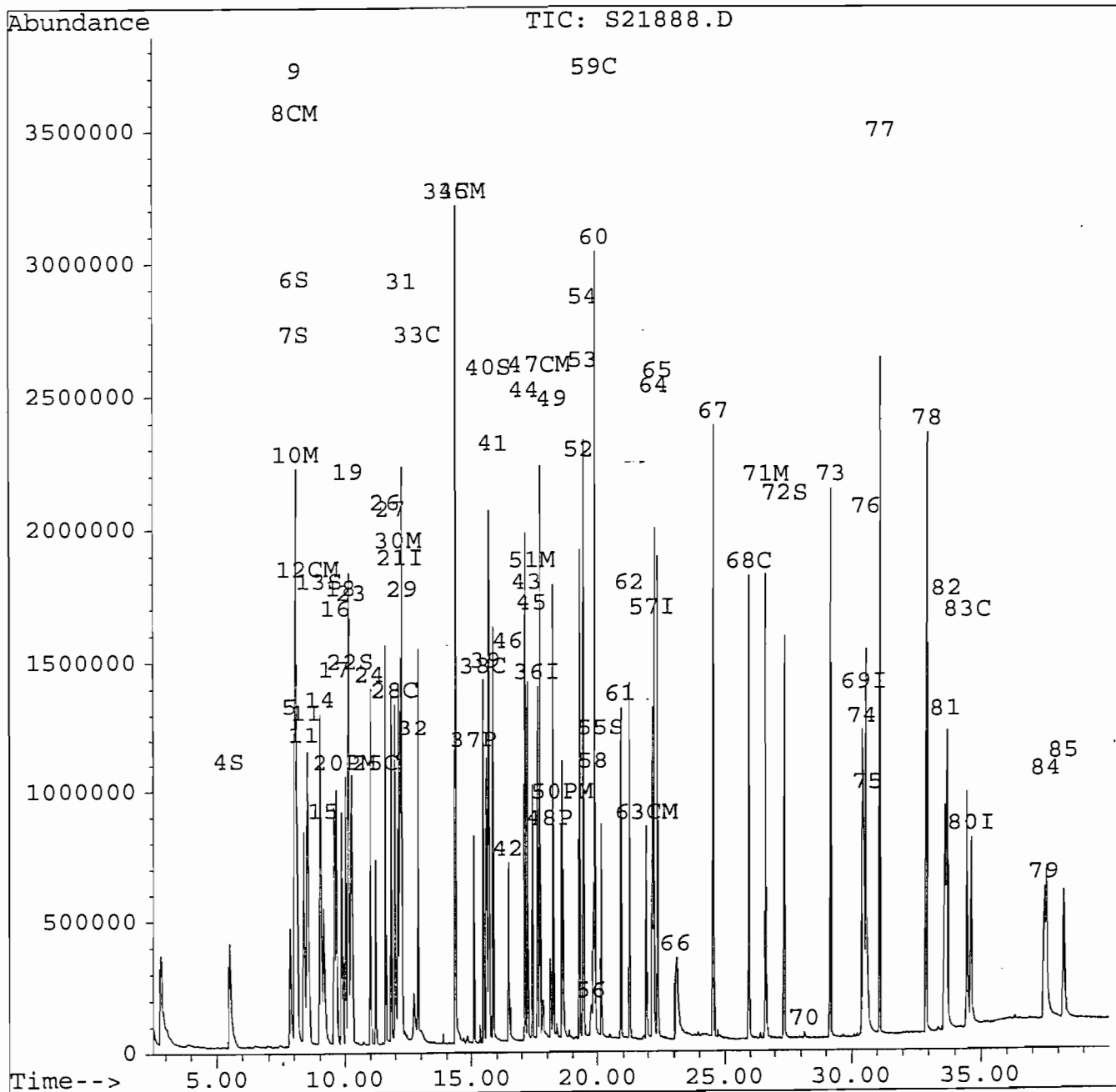
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Quantitation Report

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Operator:
Inst      : bn2
Multiplr: 1.00
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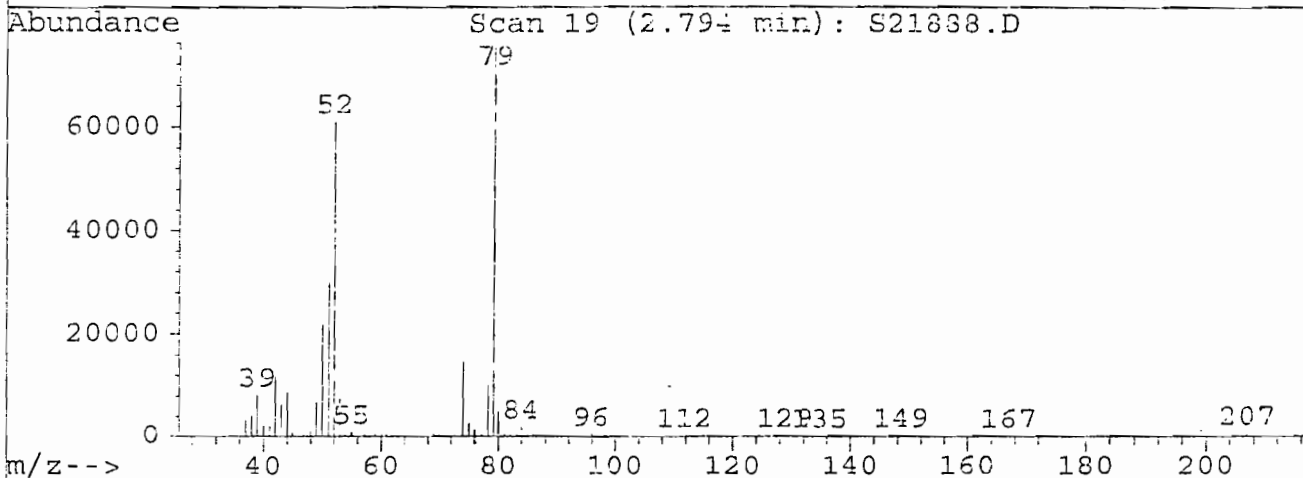
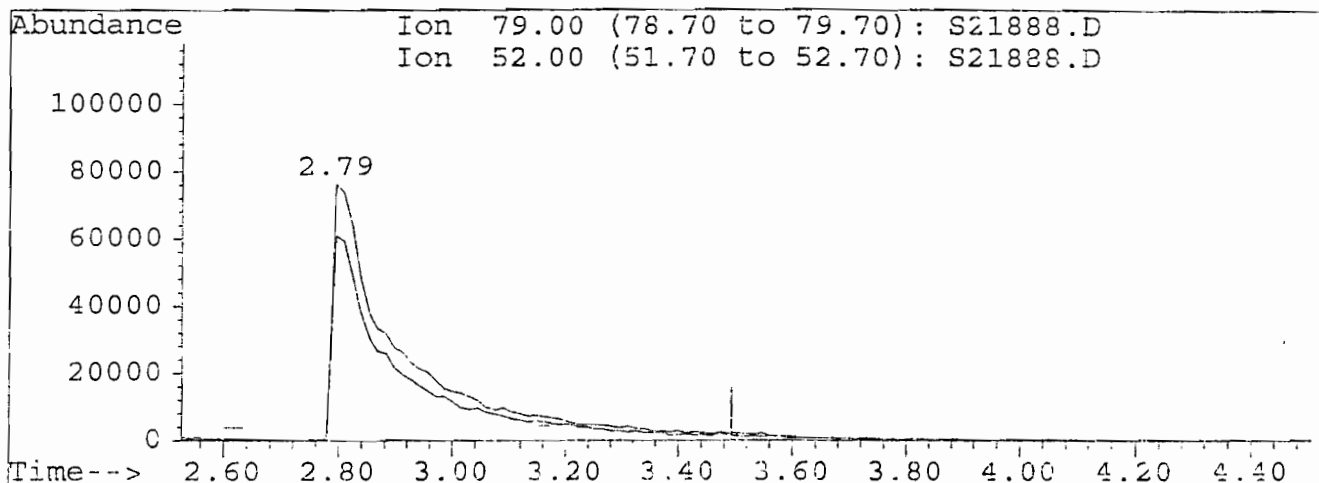
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Quantitation Report

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TIC: S21888.D

(2) Pyridine

2.79min 48.60ng m

response 639645

Ion	Exp%	Act%
79.00	100	100
52.00	80.00	79.80
0.00	0.00	0.00
0.00	0.00	0.00

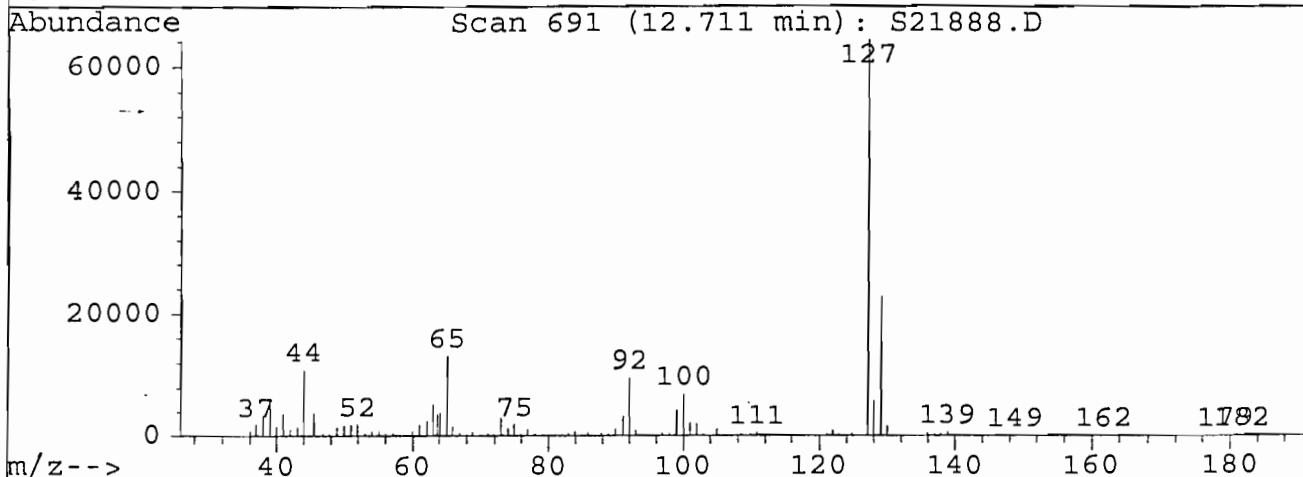
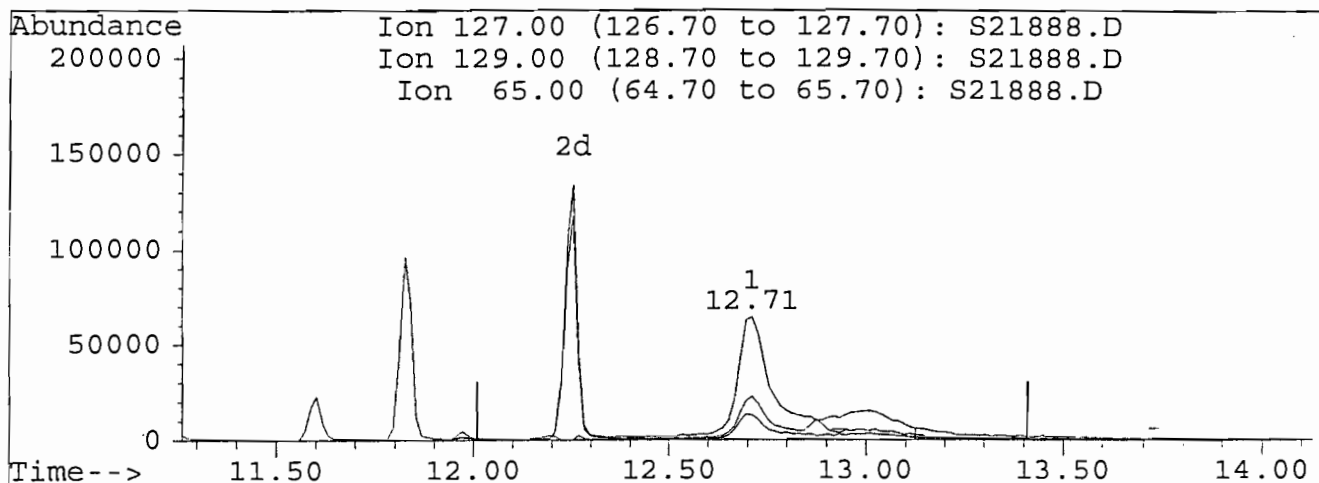
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TIC: S21888.D

(32) 4-Chloroaniline

12.71min 49.46ng m

response 592018

Ion	Exp%	Act%
127.00	100	100
129.00	33.60	35.45
65.00	20.00	20.50
0.00	0.00	0.00

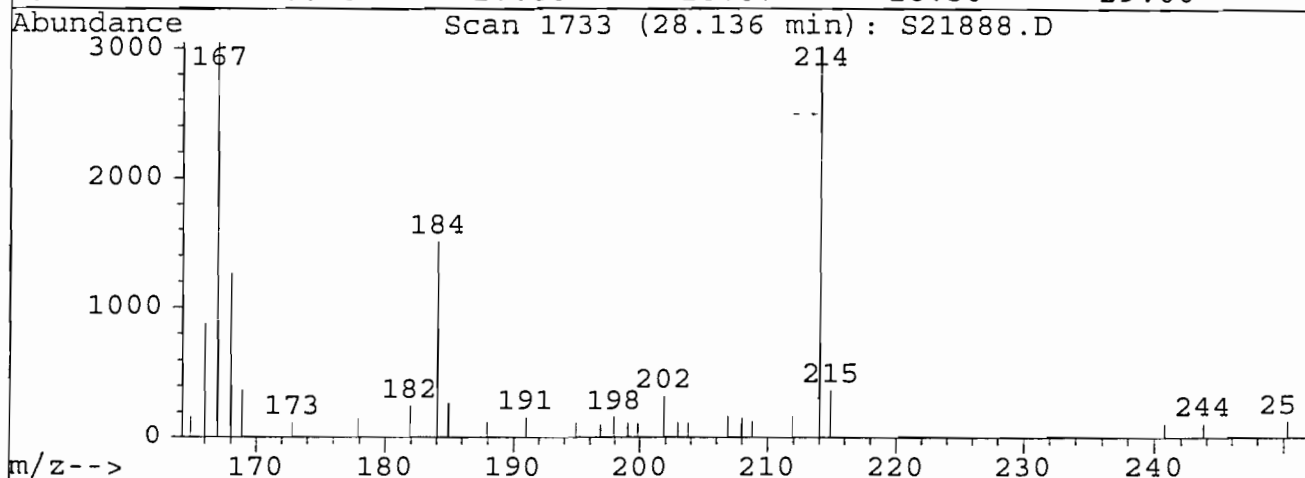
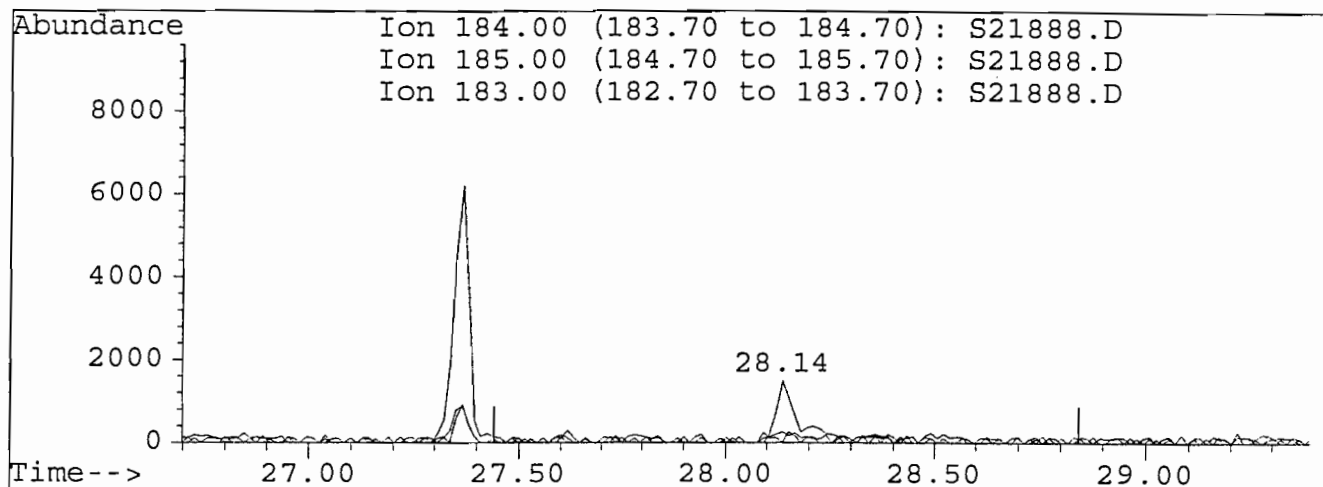
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Quantitation Report

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Operator:
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 Multiplr: 1.00

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 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21888.D

(70) Benzidine

28.14min 54.32ng m
 response 6232

Ion	Exp%	Act%
184.00	100	100
185.00	19.70	17.45
183.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21889.D
 Acq Time : 30 Oct 99 9:48 pm
 Sample : 80 ng BNA ICC
 Misc :
 Quant Time: Nov 1 7:50 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.52	152	442266	40.00	ng	0.00
21) Naphthalene-d8	12.19	136	1744501	40.00	ng	0.00
36) Acenaphthene-d10	17.64	164	844461	40.00	ng	0.00
57) Phenanthrene-d10	22.17	188	1526020	40.00	ng	0.00
69) Chrysene-d12	30.50	240	907796	40.00	ng	0.00
80) Perylene-d12	34.63	264	755390	40.00	ng	0.00

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.49	112	1511543	80.00	ng	
6) 2-Chlorophenol-d4	8.04	132	1501044	80.00	ng	
7) Phenol-d5	8.04	99	1662573	80.00	ng	
13) 1,2-Dichlorobenzene-d4	9.02	152	863044	80.00	ng	
22) Nitrobenzene-d5	10.24	82	1332351	80.00	ng	
40) 2-Fluorobiphenyl	15.70	172	2395934	80.00	ng	
55) 2,4,6-Tribromophenol	20.17	330	337802	80.00	ng	
72) Terphenyl-d14	27.37	244	1946583	79.39	ng	

Target Compounds						Qvalue
2) Pyridine	2.79	79	1142035	80.33	ng	m 0
3) N-nitroso-dimethylamine	2.82	42	490893	80.00	ng	100
5) Aniline	7.84	93	1359220	80.00	ng	100
8) Phenol	8.07	94	1598087	79.63	ng	100
9) bis(2-Chloroethyl)ether	8.09	93	1476616	80.00	ng	100
10) 2-Chlorophenol	8.09	128	1491209	80.00	ng	100
11) 1,3-Dichlorobenzene	8.38	146	1494088	80.00	ng	100
12) 1,4-Dichlorobenzene	8.56	146	1518478	80.00	ng	100
14) 1,2-Dichlorobenzene	9.05	146	1441775	80.00	ng	100
15) Benzyl alcohol	9.18	108	935540	79.93	ng	100
16) 2-Methylphenol	9.67	108	1290083	80.00	ng	100
17) Bis(2-chloroisopropyl)ethe	9.58	45	2232220	80.00	ng	100
18) Hexachloroethane	9.87	117	807313	80.00	ng	100
19) 3+4-Methyphenols	10.16	108	2720015	160.00	ng	100
20) N-Nitroso-di-n-propylamine	10.04	70	823390	80.18	ng	100
23) Nitrobenzene	10.29	77	1103774	80.00	ng	100
24) Isophorone	11.03	82	2618318	80.00	ng	100
25) 2-Nitrophenol	11.22	139	778562	80.00	ng	100
26) 2,4-Dimethylphenol	11.62	107	1349649	80.00	ng	100
27) bis(2-Chloroethoxy)methane	11.84	93	1824849	80.00	ng	100
28) 2,4-Dichlorophenol	11.99	162	1076609	80.00	ng	100
29) Benzoic Acid	12.37	105	904151	80.00	ng	100
30) 1,2,4-Trichlorobenzene	12.12	180	1190303	80.00	ng	100
31) Naphthalene	12.25	128	3906421	80.00	ng	100
32) 4-Chloroaniline	12.71	127	1057161	78.76	ng	m 100
33) Hexachlorobutadiene	12.89	225	626684	80.00	ng	100

(#) = qualifier out of range (m) = manual integration
 S21889.D B21030C.M Mon Nov 01 08:22:23 1999

000156
 BNA2

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21889.D
 Acq Time : 30 Oct 99 9:48 pm
 Sample : 80 ng BNA ICC
 Misc :
 Quant Time: Nov 1 7:50 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) 4-Chloro-3-methylphenol	14.37	107	1180768	80.00	ng	100
35) 2-Methylnaphthalene	14.38	142	3457232	80.00	ng	100
37) Hexachlorocyclopentadiene	15.11	237	494854	80.00	ng	100
38) 2,4,6-Trichlorophenol	15.48	196	757858	80.00	ng	100
39) 2,4,5-Trichlorophenol	15.59	196	804779	80.00	ng	100
41) 2-Chloronaphthalene	15.86	162	2135215	80.00	ng	100
42) 2-Nitroaniline	16.48	65	573683	80.00	ng	100
43) Dimethylphthalate	17.25	163	2385606	80.00	ng	100
44) Acenaphthylene	17.13	152	3496929	80.00	ng	100
45) 2,6-Dinitrotoluene	17.45	165	596220	80.00	ng	100
46) 3-Nitroaniline	16.50	138	986038	80.00	ng	100
47) Acenaphthene	17.74	153	2049845	80.00	ng	100
48) 2,4-Dinitrophenol	18.14	184	282095	80.00	ng	100
49) Dibenzofuran	18.24	168	2900162	80.00	ng	100
50) 4-Nitrophenol	18.63	109	197975	77.32	ng	100
51) 2,4-Dinitrotoluene	17.45	165	596220	80.00	ng	100
52) Fluorene	19.31	166	2169738	80.00	ng	100
53) Diethylphthalate	19.47	149	2556047	80.00	ng	100
54) 4-Chlorophenyl-phenylether	19.44	204	1086699	80.00	ng	100
56) 4-Nitroaniline	19.77	138	495115	80.00	ng	100
58) 4,6-Dinitro-2-methylphenol	19.86	198	400026	80.00	ng	100
59) N-Nitrosodiphenylamine	19.92	169	1359944	80.00	ng	100
60) 1,2-Diphenylhydrazine	19.92	77	2789946	80.00	ng	100
61) 4-Bromophenyl-phenylether	20.93	248	574678	80.00	ng	100
62) Hexachlorobenzene	21.28	284	724464	80.00	ng	100
63) Pentachlorophenol	21.95	266	402011	80.00	ng	100
64) Phenanthrene	22.26	178	2928409	80.00	ng	100
65) Anthracene	22.39	178	3025036	80.00	ng	100
66) Carbazole	23.12	167	1776397	80.00	ng	100
67) Di-n-butylphthalate	24.56	149	5093862	79.79	ng	100
68) Fluoranthene	25.98	202	3110734	80.00	ng	100
70) Benzidine	28.14	184	10156	80.54	ng	100
71) Pyrene	26.63	202	3089595	79.39	ng	100
73) Butylbenzylphthalate	29.18	149	2329960	79.39	ng	100
74) Benzo[a]anthracene	30.44	228	2069973	79.39	ng	100
75) 3,3'-Dichlorobenzidine	30.62	252	289075	79.39	ng	100
76) Chrysene	30.57	228	2028383	79.39	ng	100
77) bis(2-Ethylhexyl)phthalate	31.11	149	3033641	79.39	ng	100
78) Di-n-octylphthalate	32.92	149	5345925	79.39	ng	100
79) Indeno [1,2,3-cd] pyrene	37.48	276	1521501	79.39	ng	100
81) Benzo[b]fluoranthene	33.64	252	1699193	80.00	ng	100
82) Benzo[k]fluoranthene	33.71	252	1828612	79.53	ng	100
83) Benzo[a]pyrene	34.48	252	1585828	79.42	ng	100
84) Dibenz[a,h]anthracene	37.57	278	1249219	80.00	ng	100

(#) = qualifier out of range (m) = manual integration
 S21889.D B21030C.M Mon Nov 01 08:22:26 1999

000157

BNA2

Page 2

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21889.D
 Acq Time : 30 Oct 99 9:48 pm
 Sample : 80 ng BNA ICC
 Misc :
 Quant Time: Nov 1 7:50 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

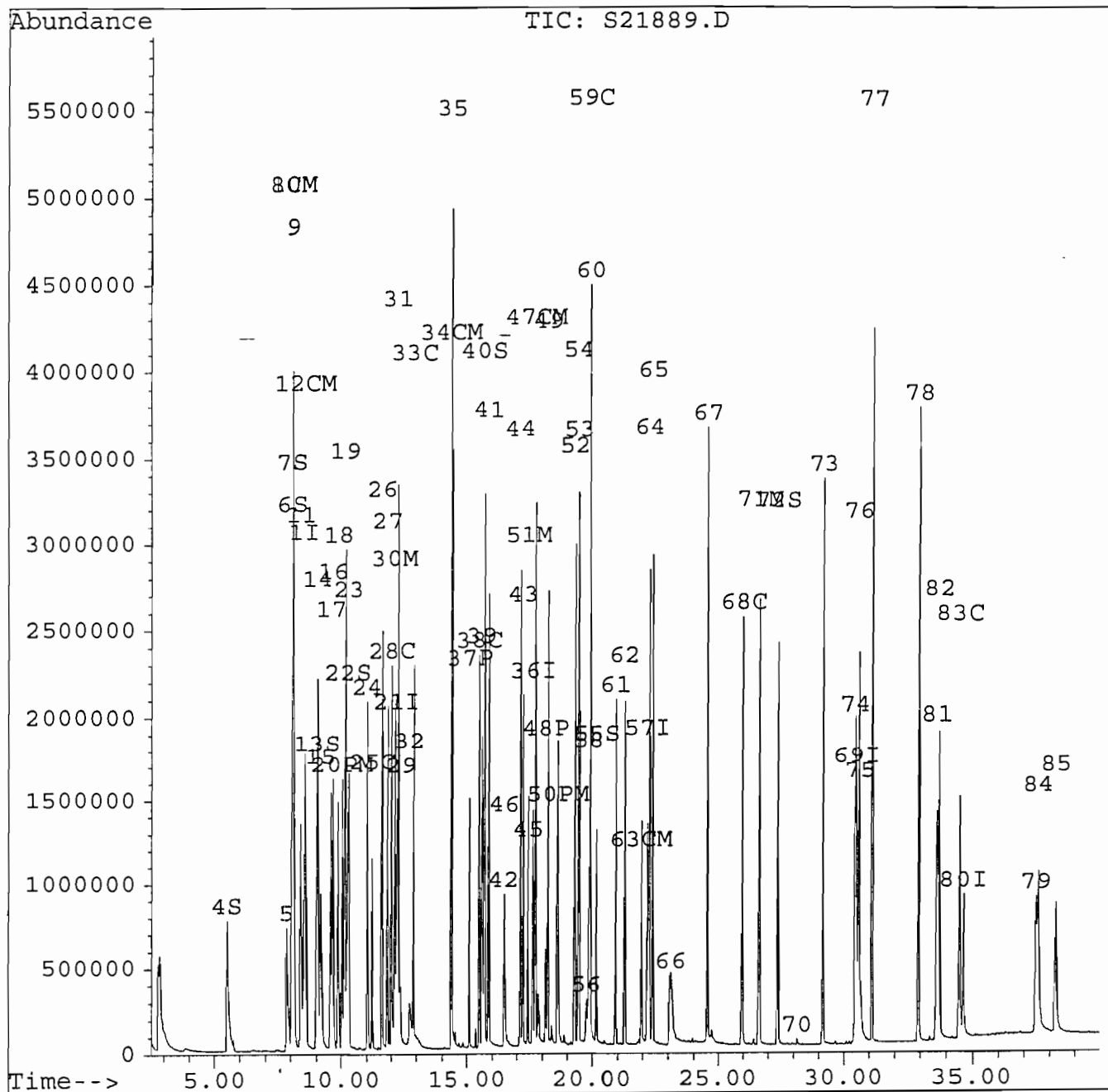
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) Benzo[g,h,i]perylene	38.25	276	1230373	80.00	ng	100

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21889.D
 Acq Time : 30 Oct 99 9:48 pm
 Sample : 80 ng BNA ICC
 Misc :
 Quant Time: Nov 1 7:50 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



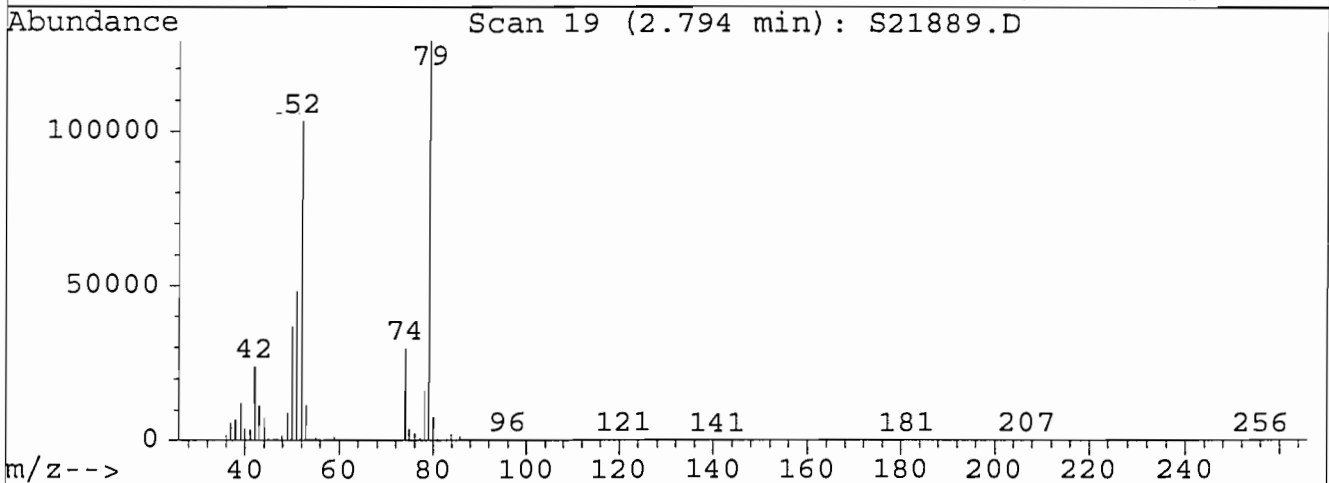
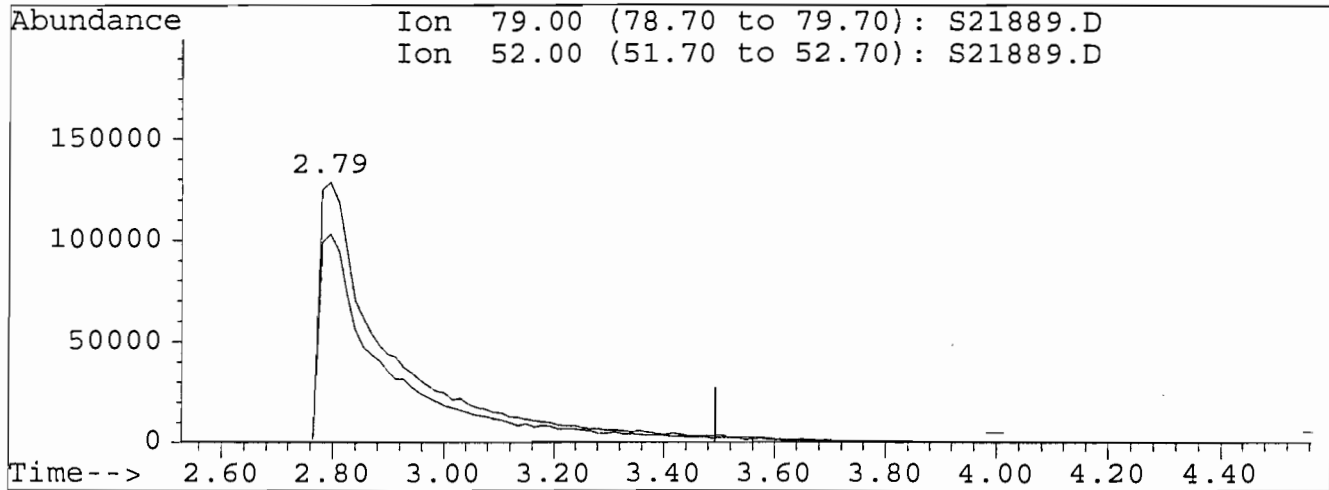
000159

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21889.D
 Acq Time : 30 Oct 99 9:48 pm
 Sample : 80 ng BNA ICC
 Misc :
 Quant Time: Nov 1 7:50 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21889.D

(2) Pyridine

2.79min 80.33ng m

response 1142035

Ion	Exp%	Act%
79.00	100	100
52.00	80.00	80.04
0.00	0.00	0.00
0.00	0.00	0.00

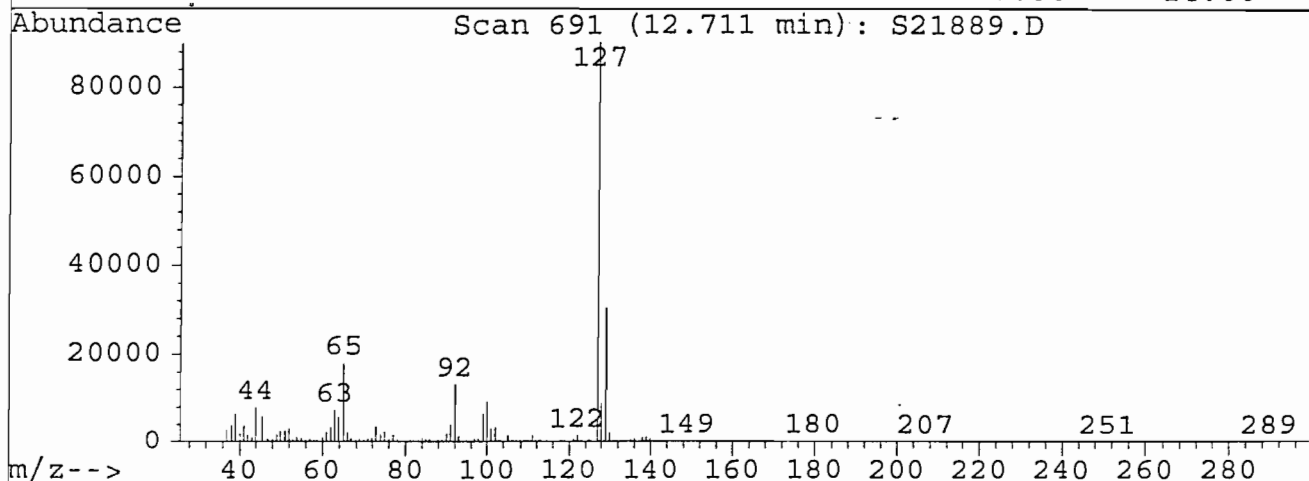
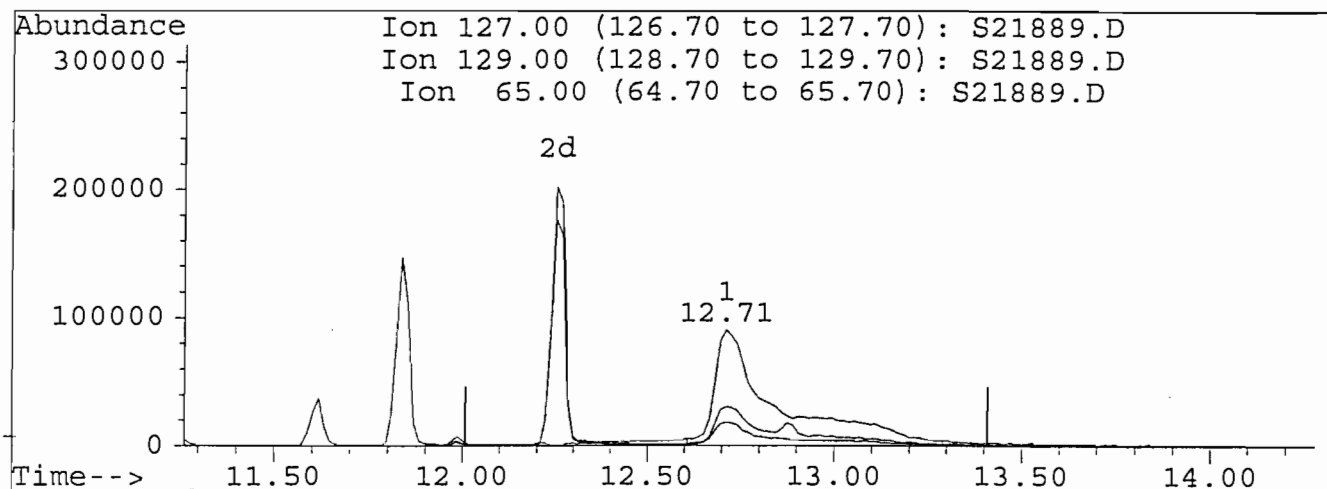
000160

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21889.D
 Acq Time : 30 Oct 99 9:48 pm
 Sample : 80 ng BNA ICC
 Misc :
 Quant Time: Nov 1 7:50 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21889.D

(32) 4-Chloroaniline

12.71min 78.76ng m

response 1057161

Ion	Exp%	Act%
127.00	100	100
129.00	33.60	33.56
65.00	20.00	19.98
0.00	0.00	0.00

000161

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21890.D
 Acq Time : 30 Oct 99 10:38 pm
 Sample : 120 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:02 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-Dichlorobenzene-d4	8.52	152	455618	40.00	ng	0.00
21) Naphthalene-d8	12.21	136	1835047	40.00	ng	0.02
36) Acenaphthene-d10	17.63	164	868711	40.00	ng	-0.01
57) Phenanthrene-d10	22.18	188	1576264	40.00	ng	0.00
69) Chrysene-d12	30.50	240	983473	40.00	ng	0.00
80) Perylene-d12	34.64	264	825099	40.00	ng	0.01

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.51	112	2310824	118.72	ng	
6) 2-Chlorophenol-d4	8.04	132	2261926	117.02	ng	
7) Phenol-d5	8.06	99	2375586	110.96	ng	
13) 1,2-Dichlorobenzene-d4	9.02	152	1306247	117.53	ng	
22) Nitrobenzene-d5	10.26	82	2013962	114.96	ng	
40) 2-Fluorobiphenyl	15.72	172	3536595	114.79	ng	
55) 2,4,6-Tribromophenol	20.18	330	540967	124.54	ng	
72) Terphenyl-d14	27.38	244	3032321	115.03	ng	

Target Compounds						Qvalue
2) Pyridine	2.78	79	1673812	113.82	ng	m 0
3) N-nitroso-dimethylamine	2.82	42	757624	119.85	ng	100
5) Aniline	7.85	93	2406077	137.47	ng	97
8) Phenol	8.09	94	2247138	109.19	ng	95
9) bis(2-Chloroethyl) ether	8.09	93	2118998	111.44	ng	91
10) 2-Chlorophenol	8.10	128	2194330	114.27	ng	99
11) 1,3-Dichlorobenzene	8.38	146	2262347	117.59	ng	100
12) 1,4-Dichlorobenzene	8.56	146	2340520	119.70	ng	100
14) 1,2-Dichlorobenzene	9.06	146	2161365	116.41	ng	98
15) Benzyl alcohol	9.18	108	1426903	118.44	ng	99
16) 2-Methylphenol	9.67	108	1944221	117.03	ng	100
17) Bis(2-chloroisopropyl) ether	9.58	45	3398026	118.21	ng	100
18) Hexachloroethane	9.86	117	1264607	121.64	ng	97
19) 3+4-Methyphenols	10.17	108	4142081	236.51	ng	96
20) N-Nitroso-di-n-propylamine	10.05	70	1227133	115.73	ng	99
23) Nitrobenzene	10.30	77	1724644	118.83	ng	99
24) Isophorone	11.04	82	3998929	116.15	ng	100
25) 2-Nitrophenol	11.24	139	1300928	127.08	ng	96
26) 2,4-Dimethylphenol	11.63	107	2028542	114.31	ng	99
27) bis(2-Chloroethoxy) methane	11.86	93	2732732	113.89	ng	100
28) 2,4-Dichlorophenol	12.00	162	1637497	115.67	ng	98
29) Benzoic Acid	12.46	105	1444267	121.48	ng	98
30) 1,2,4-Trichlorobenzene	12.12	180	1792447	114.53	ng	99
31) Naphthalene	12.27	128	5852787	113.95	ng	100
32) 4-Chloroaniline	12.68	127	1635245	117.64	ng	99
33) Hexachlorobutadiene	12.89	225	953677	115.74	ng	100

(#) = qualifier out of range (m) = manual integration
 S21890.D B21030C.M Mon Nov 01 08:27:09 1999

BNA2

Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21890.D
 Acq Time : 30 Oct 99 10:38 pm
 Sample : 120 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:02 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) 4-Chloro-3-methylphenol	14.38	107	1700810	109.55	ng	65
35) 2-Methylnaphthalene	14.38	142	5152568	113.35	ng	94
37) Hexachlorocyclopentadiene	15.11	237	845199	132.82	ng	99
38) 2,4,6-Trichlorophenol	15.49	196	1149884	117.99	ng	97
39) 2,4,5-Trichlorophenol	15.60	196	1258405	121.60	ng	98
41) 2-Chloronaphthalene	15.88	162	3188122	116.11	ng	98
42) 2-Nitroaniline	16.50	65	926490	125.59	ng	92
43) Dimethylphthalate	17.26	163	3599185	117.33	ng	94
44) Acenaphthylene	17.15	152	5214157	115.96	ng	100
45) 2,6-Dinitrotoluene	17.45	165	957906	124.94	ng	82
46) 3-Nitroaniline	16.50	138	1599171	126.12	ng	98
47) Acenaphthene	17.75	153	3136115	118.98	ng	99
48) 2,4-Dinitrophenol	18.16	184	526168	145.05	ng	95
49) Dibenzofuran	18.25	168	4295059	115.17	ng	97
50) 4-Nitrophenol	18.65	109	324954	127.65	ng	97
51) 2,4-Dinitrotoluene	17.45	165	957906	124.94	ng	82
52) Fluorene	19.32	166	3299356	118.25	ng	99
53) Diethylphthalate	19.49	149	3910254	118.97	ng	99
54) 4-Chlorophenyl-phenylether	19.45	204	1660505	118.83	ng	98
56) 4-Nitroaniline	19.80	138	812105	127.56	ng	99
58) 4,6-Dinitro-2-methylphenol	19.89	198	696313	134.81	ng	m 66
59) N-Nitrosodiphenylamine	19.92	169	1986421	113.13	ng	100
60) 1,2-Diphenylhydrazine	19.92	77	4157051	115.40	ng	96
61) 4-Bromophenyl-phenylether	20.95	248	879025	118.47	ng	90
62) Hexachlorobenzene	21.29	284	1087033	116.21	ng	98
63) Pentachlorophenol	21.95	266	676209	130.28	ng	99
64) Phenanthrene	22.27	178	4457249	117.88	ng	100
65) Anthracene	22.42	178	4548370	116.45	ng	100
66) Carbazole	23.08	167	2739880	119.46	ng	99
67) Di-n-butylphthalate	24.56	149	7740066	117.68	ng	100
68) Fluoranthene	25.99	202	4719804	117.51	ng	98
70) Benzidine	28.14	184	18934	137.67	ng	m 96
71) Pyrene	26.65	202	4753737	113.62	ng	96
73) Butylbenzylphthalate	29.19	149	3581021	113.49	ng	100
74) Benzo[a]anthracene	30.45	228	3217226	114.77	ng	99
75) 3,3'-Dichlorobenzidine	30.63	252	513662	131.21	ng	96
76) Chrysene	30.60	228	3191495	116.19	ng	99
77) bis(2-Ethylhexyl)phthalate	31.12	149	4622113	112.51	ng	99
78) Di-n-octylphthalate	32.93	149	8259552	114.09	ng	100
79) Indeno [1,2,3-cd] pyrene	37.50	276	2464336	119.60	ng	98
81) Benzo[b]fluoranthene	33.66	252	3094639	133.39	ng	m 98
82) Benzo[k]fluoranthene	33.74	252	2623721	105.09	ng	m 96
83) Benzo[a]pyrene	34.51	252	2566126	118.52	ng	98
84) Dibenz[a,h]anthracene	37.59	278	2011103	117.91	ng	99

(#) = qualifier out of range (m) = manual integration
 S21890.D B21030C.M Mon Nov 01 08:27:12 1999

000163

Quantitation Report

Data File: D:\HPCHEM\1\DATA\B21030\S21890.D

Acq Time : 30 Oct 99 10:38 pm

Sample : 120 ng BNA ICC

Misc :

Quant Time: Nov 1 8:02 1999

Operator:

Inst : bn2

Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration

Last Update : Mon Nov 01 08:09:54 1999

Response via : Single Level Calibration

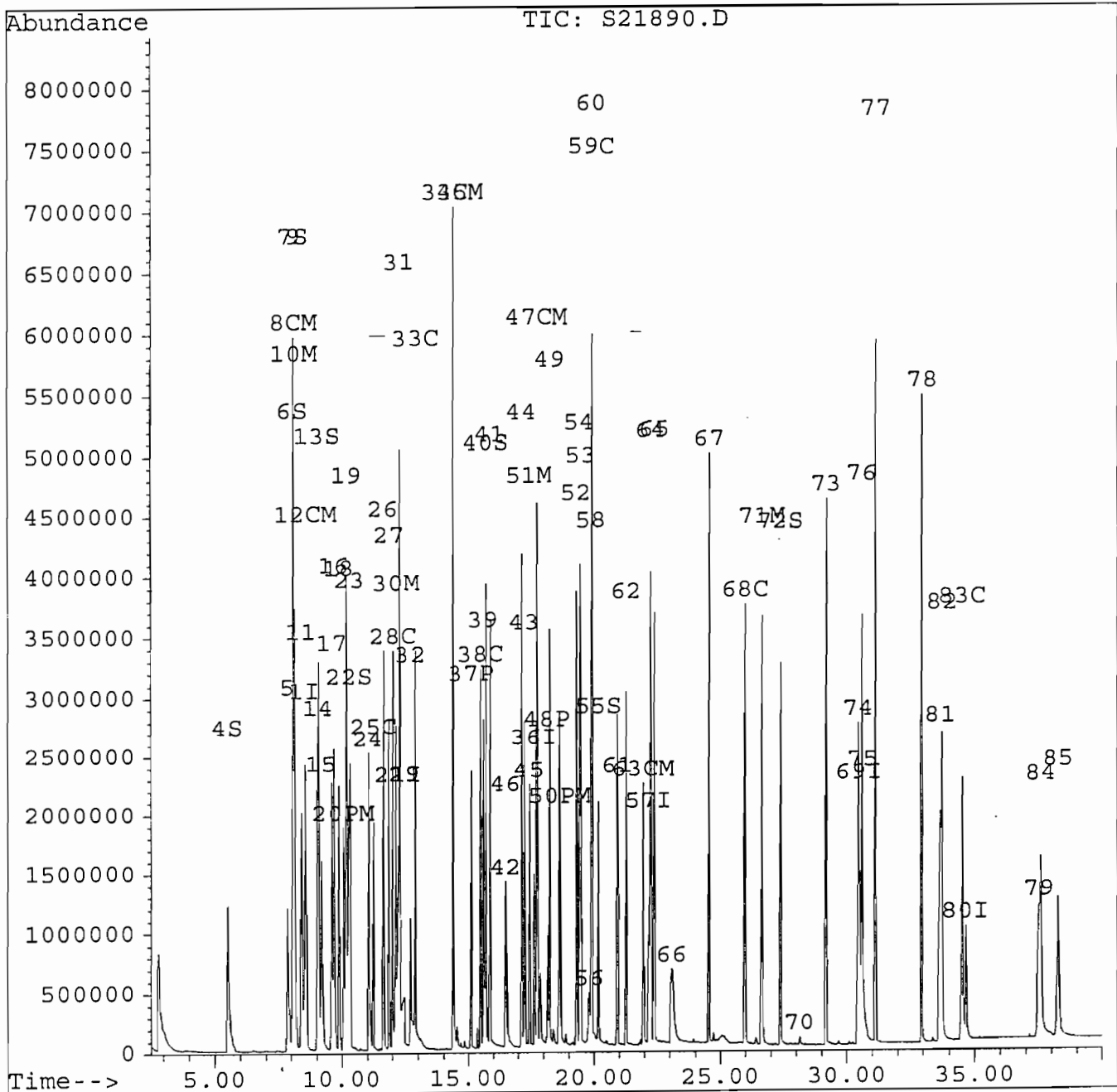
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) Benzo[g,h,i]perylene	38.28	276	1975015	117.57	ng	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21890.D
 Acq Time : 30 Oct 99 10:38 pm
 Sample : 120 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:02 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



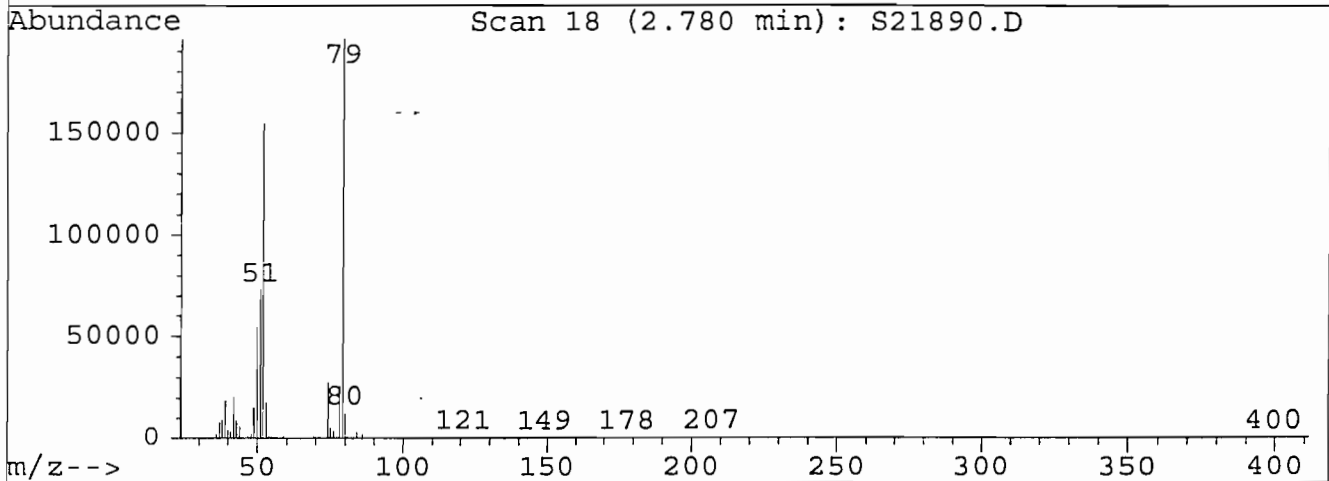
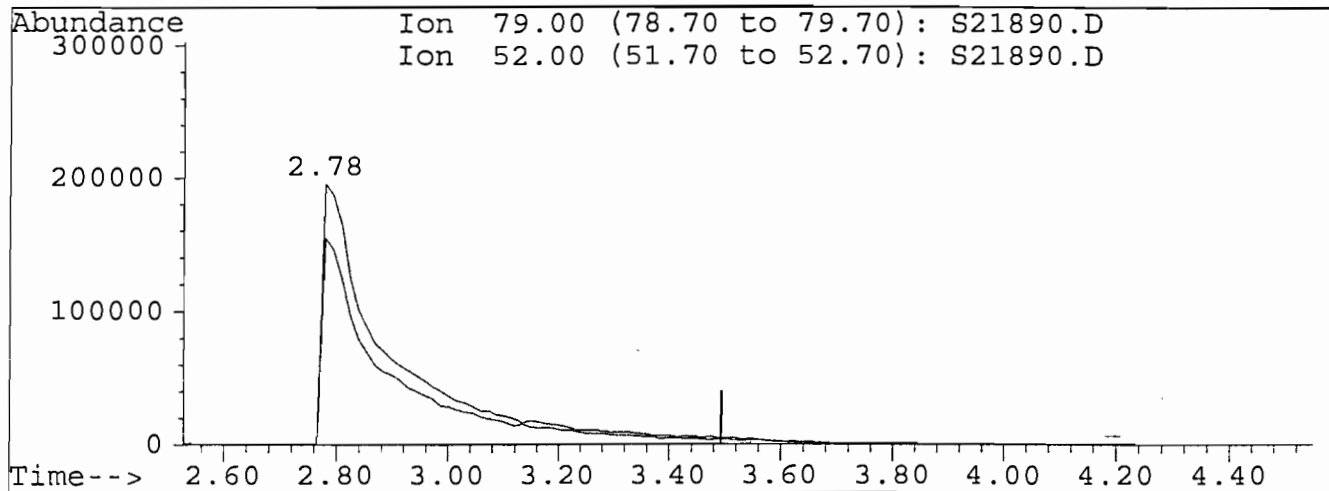
000165

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21890.D
 Acq Time : 30 Oct 99 10:38 pm
 Sample : 120 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:02 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21890.D

(2) Pyridine
 2.78min 113.82ng m
 response 1673812

Ion	Exp%	Act%
79.00	100	100
52.00	80.00	78.98
0.00	0.00	0.00
0.00	0.00	0.00

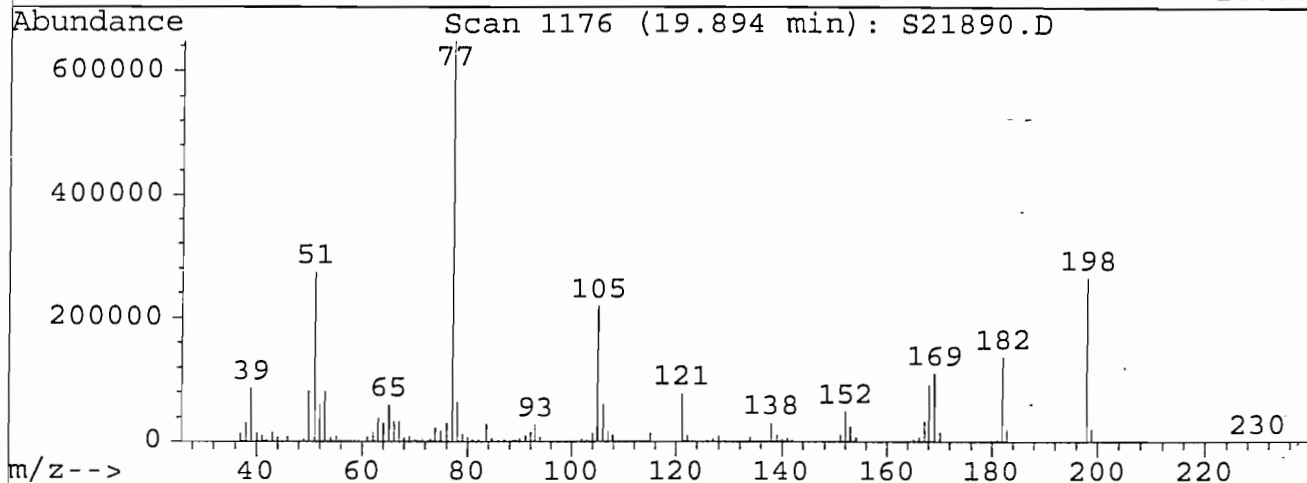
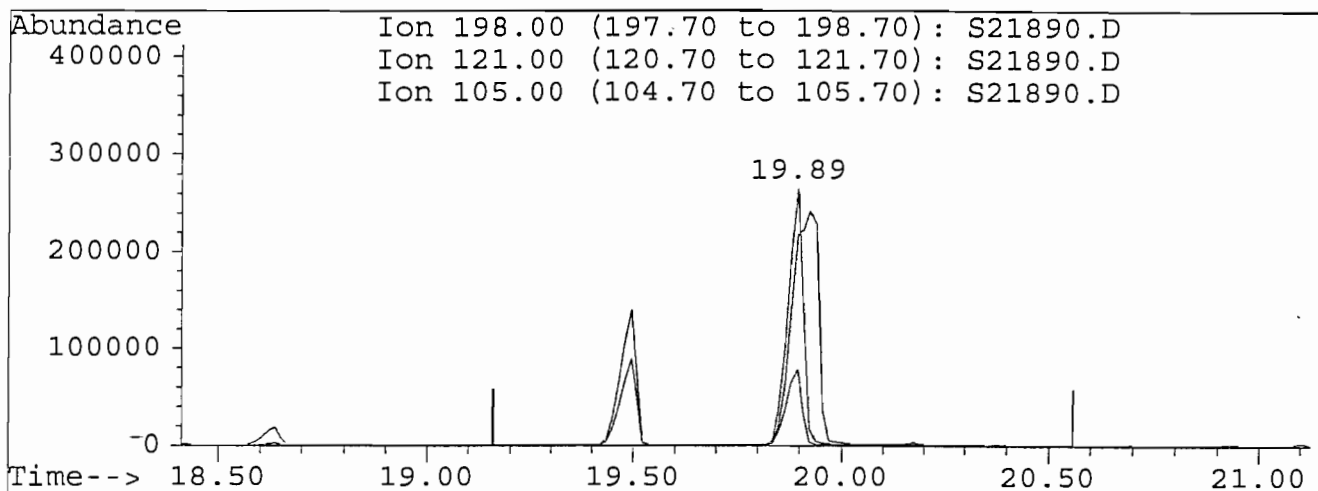
000166

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21890.D
 Acq Time : 30 Oct 99 10:38 pm
 Sample : 120 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:02 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21890.D

(58) 4,6-Dinitro-2-methylphenol

19.89min 134.81ng m

response 696313

Ion	Exp%	Act%
198.00	100	100
121.00	31.90	29.50
105.00	46.00	82.48
0.00	0.00	0.00

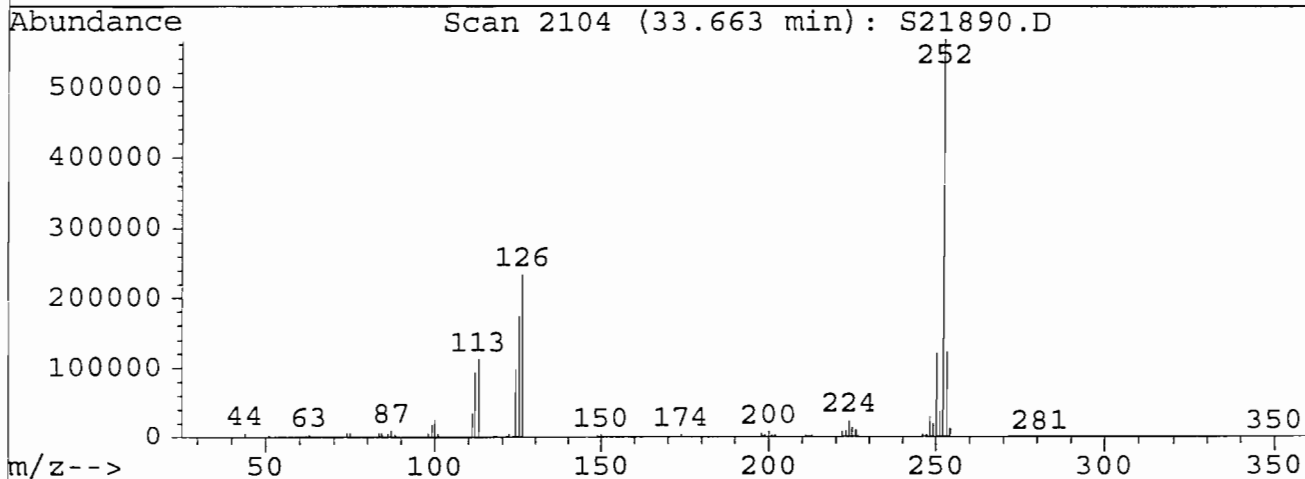
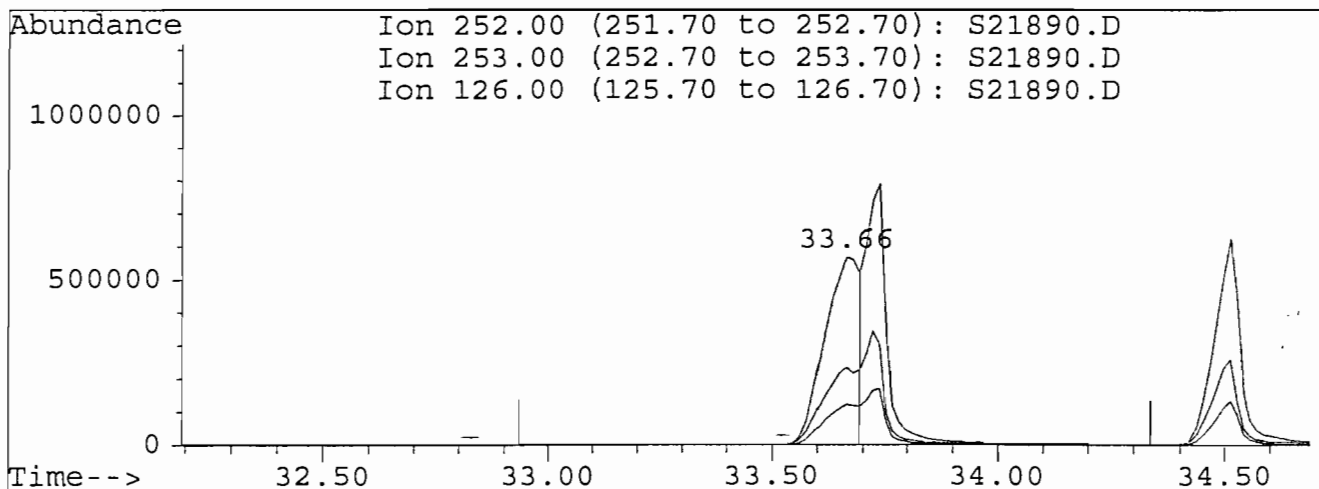
000167

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21890.D
 Acq Time : 30 Oct 99 10:38 pm
 Sample : 120 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:02 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21890.D

(81) Benzo[b]fluoranthene

33.66min 133.39ng m

response 3094639

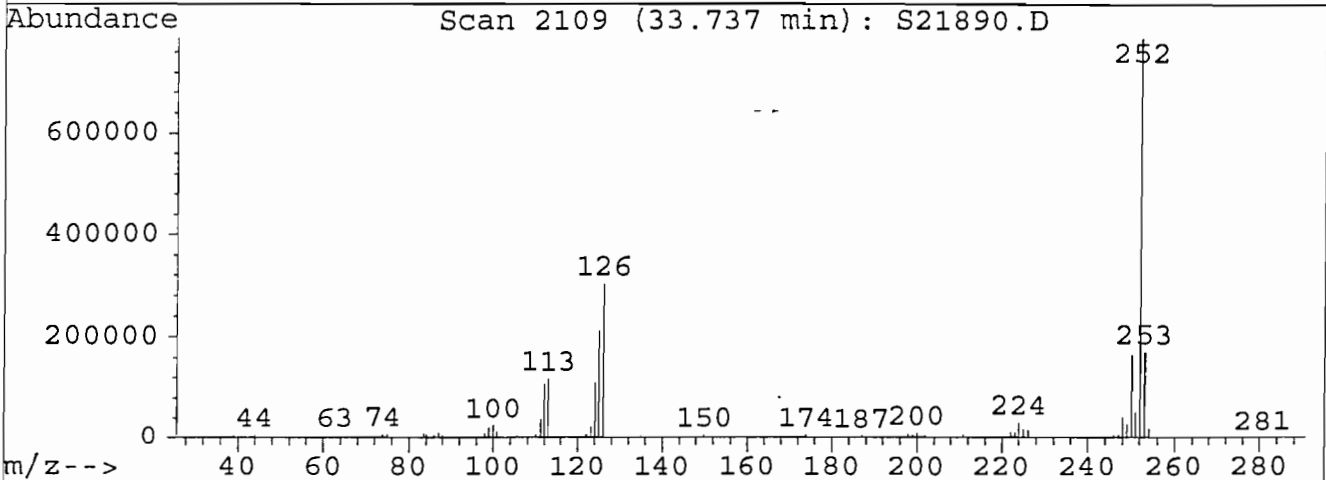
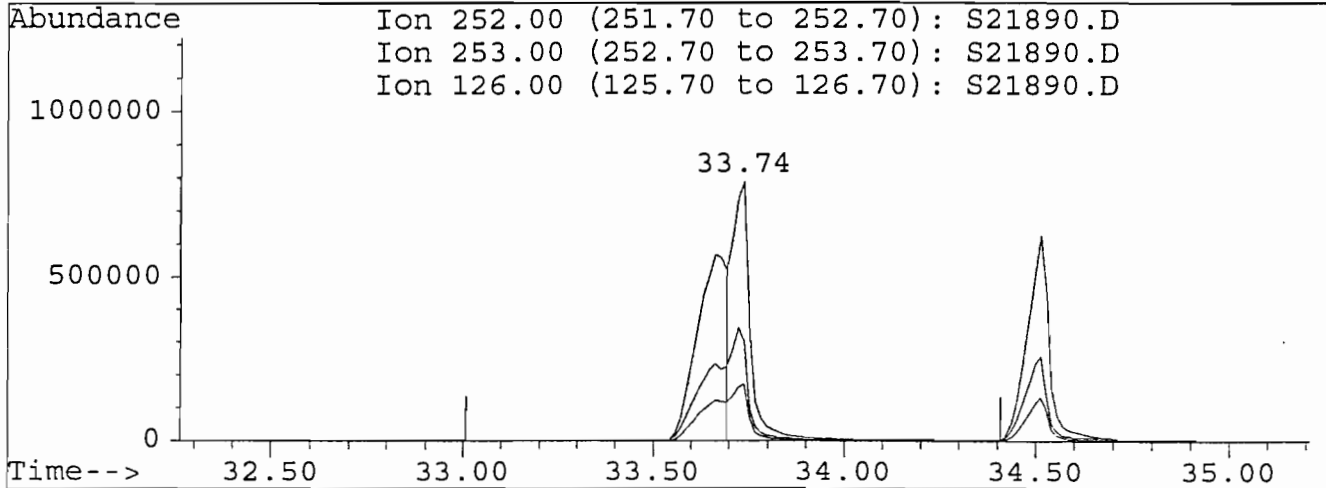
Ion	Exp%	Act%
252.00	100	100
253.00	21.10	21.56
126.00	39.50	41.22
0.00	0.00	0.00

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21890.D
 Acq Time : 30 Oct 99 10:38 pm
 Sample : 120 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:02 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21890.D

(82) Benzo[k]fluoranthene

33.74min 105.09ng m

response 2623721

Ion	Exp%	Act%
252.00	100	100
253.00	21.00	21.68
126.00	41.30	38.32
0.00	0.00	0.00

000169

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.52	152	470988	40.00	ng	0.00
21) Naphthalene-d8	12.21	136	1898017	40.00	ng	0.02
36) Acenaphthene-d10	17.63	164	909507	40.00	ng	0.00
57) Phenanthrene-d10	22.18	188	1651672	40.00	ng	0.00
69) Chrysene-d12	30.52	240	1023261	40.00	ng	0.02
80) Perylene-d12	34.65	264	842862	40.00	ng	0.02

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.52	112	3196723	158.87	ng	
6) 2-Chlorophenol-d4	8.06	132	3088715	154.58	ng	
7) Phenol-d5	8.07	99	3056443	138.10	ng	
13) 1,2-Dichlorobenzene-d4	9.02	152	1764282	153.57	ng	
22) Nitrobenzene-d5	10.28	82	2688472	148.37	ng	
40) 2-Fluorobiphenyl	15.72	172	4877543	151.21	ng	
55) 2,4,6-Tribromophenol	20.19	330	764512	168.11	ng	
72) Terphenyl-d14	27.40	244	4090796	149.15	ng	

Target Compounds						Qvalue
2) Pyridine	2.78	79	2350485	154.61	ng	m 0
3) N-nitroso-dimethylamine	2.82	42	1092933	167.25	ng	97
5) Aniline	7.85	93	3568519	197.22	ng	99
8) Phenol	8.12	94	2891748	135.93	ng	98
9) bis(2-Chloroethyl)ether	8.10	93	2769157	140.88	ng	92
10) 2-Chlorophenol	8.10	128	2954931	148.86	ng	98
11) 1,3-Dichlorobenzene	8.40	146	3169812	159.38	ng	99
12) 1,4-Dichlorobenzene	8.56	146	3173695	157.01	ng	99
14) 1,2-Dichlorobenzene	9.06	146	2952253	153.82	ng	99
15) Benzyl alcohol	9.21	108	1977865	158.82	ng	100
16) 2-Methylphenol	9.68	108	2631150	153.21	ng	99
17) Bis(2-chloroisopropyl)ethe	9.60	45	4697745	158.09	ng	99
18) Hexachloroethane	9.88	117	1727364	160.73	ng	98
19) 3+4-Methyphenols	10.20	108	5459001	301.53	ng	100
20) N-Nitroso-di-n-propylamine	10.08	70	1552247	141.62	ng	99
23) Nitrobenzene	10.32	77	2309635	153.86	ng	98
24) Isophorone	11.06	82	5515558	154.89	ng	100
25) 2-Nitrophenol	11.25	139	1850131	174.73	ng	92
26) 2,4-Dimethylphenol	11.65	107	2795153	152.28	ng	99
27) bis(2-Chloroethoxy)methane	11.87	93	3673770	148.03	ng	100
28) 2,4-Dichlorophenol	12.02	162	2185652	149.27	ng	98
29) Benzoic Acid	12.54	105	2036528	165.62	ng	97
30) 1,2,4-Trichlorobenzene	12.14	180	2439566	150.70	ng	99
31) Naphthalene	12.29	128	8085524	152.19	ng	99
32) 4-Chloroaniline	12.69	127	3261715	226.86	ng	97
33) Hexachlorobutadiene	12.89	225	1295675	000170	ng	99

(#) = qualifier out of range (m) = manual integration
 S21891.D B21030C.M Mon Nov 01 08:35:57 1999

BNA2

Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) 4-Chloro-3-methylphenol	14.39	107	2238511	139.40	ng	78
35) 2-Methylnaphthalene	14.40	142	6918147	147.14	ng	99
37) Hexachlorocyclopentadiene	15.11	237	1173959	176.21	ng	99
38) 2,4,6-Trichlorophenol	15.50	196	1577115	154.57	ng	100
39) 2,4,5-Trichlorophenol	15.61	196	1709586	157.79	ng	99
41) 2-Chloronaphthalene	15.88	162	4389656	152.70	ng	100
42) 2-Nitroaniline	16.52	65	1277475	165.40	ng	94
43) Dimethylphthalate	17.27	163	4907449	152.80	ng	97
44) Acenaphthylene	17.16	152	7184099	152.60	ng	99
45) 2,6-Dinitrotoluene	17.48	165	1321497	164.64	ng	98
46) 3-Nitroaniline	16.52	138	2219717	167.21	ng	99
47) Acenaphthene	17.76	153	4158685	150.69	ng	99
48) 2,4-Dinitrophenol	18.18	184	770157	202.79	ng	92
49) Dibenzofuran	18.27	168	5893933	150.95	ng	99
50) 4-Nitrophenol	18.67	109	455805	171.01	ng	98
51) 2,4-Dinitrotoluene	17.48	165	1321497	164.64	ng	98
52) Fluorene	19.33	166	4365337	149.44	ng	99
53) Diethylphthalate	19.53	149	5378619	156.30	ng	99
54) 4-Chlorophenyl-phenylether	19.47	204	2249614	153.77	ng	97
56) 4-Nitroaniline	19.82	138	1165782	174.89	ng	98
58) 4,6-Dinitro-2-methylphenol	19.93	198	919935	169.98	ng	m 50
59) N-Nitrosodiphenylamine	19.94	169	2607584	141.72	ng	99
60) 1,2-Diphenylhydrazine	19.94	77	5503160	145.80	ng	95
61) 4-Bromophenyl-phenylether	20.95	248	1192683	153.40	ng	95
62) Hexachlorobenzene	21.31	284	1507251	153.78	ng	98
63) Pentachlorophenol	21.97	266	940132	172.85	ng	98
64) Phenanthrene	22.29	178	5964874	150.56	ng	100
65) Anthracene	22.42	178	6145761	150.17	ng	100
66) Carbazole	23.06	167	4093085	170.31	ng	99
67) Di-n-butylphthalate	24.57	149	10624490	154.17	ng	99
68) Fluoranthene	25.99	202	6465619	153.63	ng	97
70) Benzidine	28.14	184	24109	168.48	ng	m 82
71) Pyrene	26.66	202	6462860	148.46	ng	99
73) Butylbenzylphthalate	29.20	149	4926777	150.07	ng	100
74) Benzo[a]anthracene	30.47	228	4445991	152.44	ng	98
75) 3,3'-Dichlorobenzidine	30.62	252	811466	199.23	ng	92
76) Chrysene	30.62	228	4286249	149.98	ng	99
77) bis(2-Ethylhexyl)phthalate	31.13	149	6297829	147.34	ng	97
78) Di-n-octylphthalate	32.96	149	11137787	147.87	ng	100
79) Indeno [1,2,3-cd] pyrene	37.51	276	3330302	155.35	ng	99
81) Benzo[b]fluoranthene	33.70	252	4531841	191.22	ng	m 96
82) Benzo[k]fluoranthene	33.76	252	3825931	150.01	ng	m 94
83) Benzo[a]pyrene	34.53	252	3459000	156.39	ng	97
84) Dibenz[a,h]anthracene	37.62	278	2684629	154.08	ng	99

000171

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1:00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration

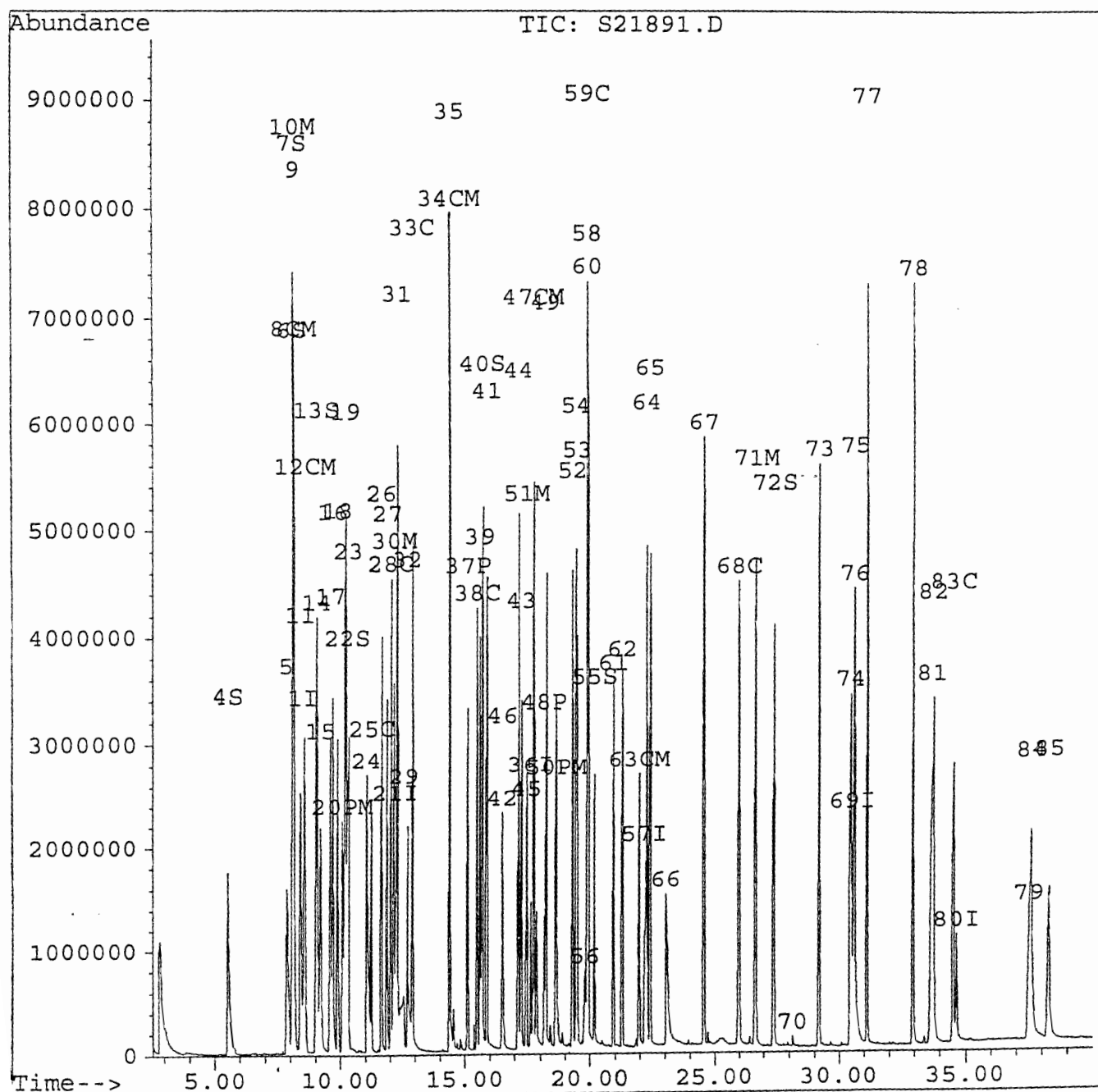
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
85) Benzo[g,h,i]perylene	38.30	276	2611323	152.17	ng	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



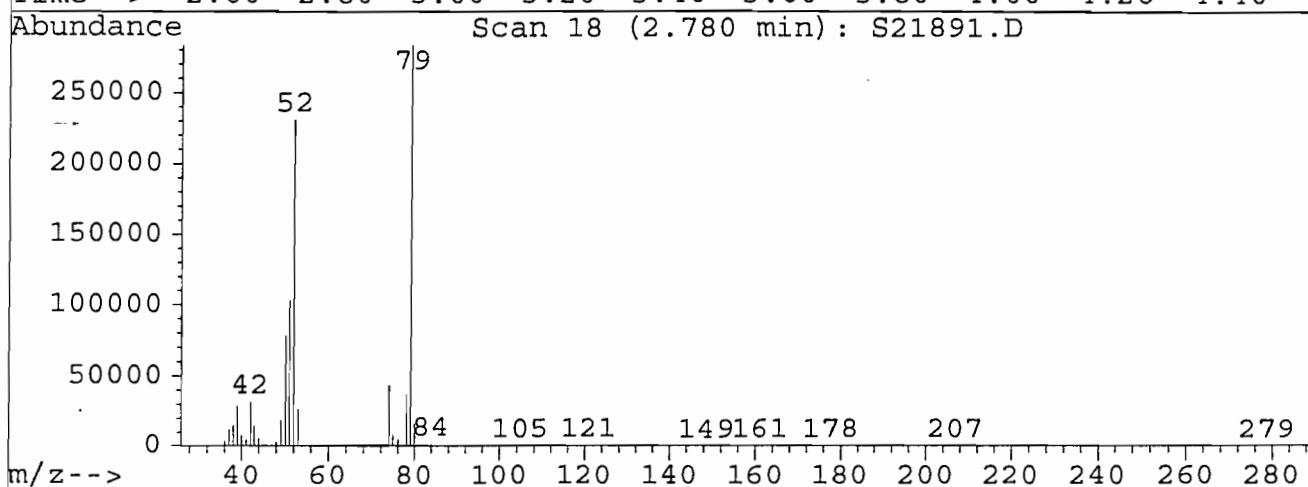
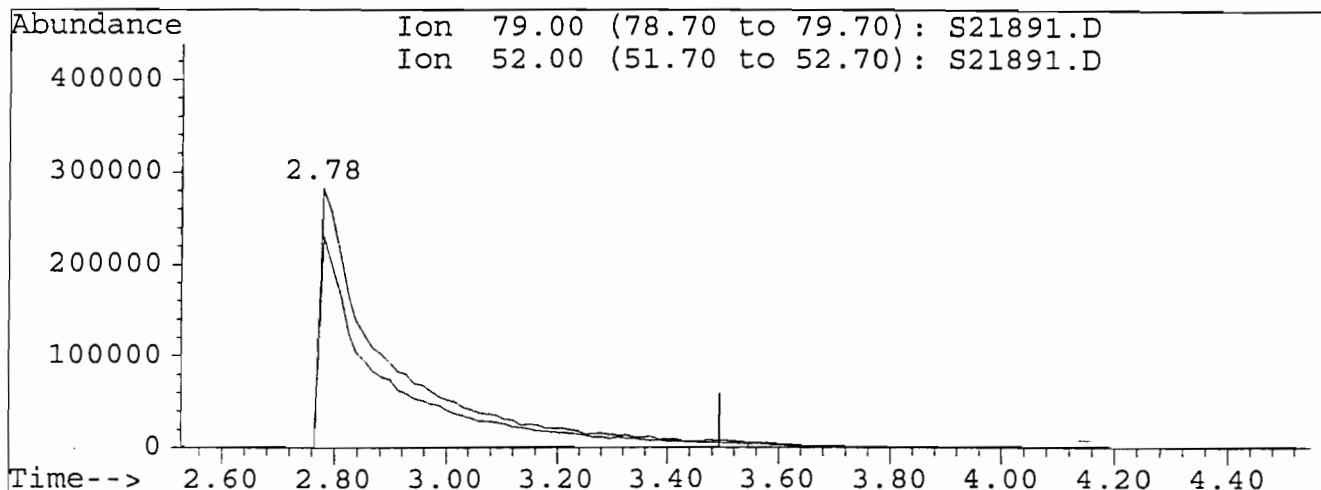
000173

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21891.D

(2) Pyridine

2.78min 154.61ng m

response 2350485

Ion	Exp%	Act%
79.00	100	100
52.00	80.00	81.37
0.00	0.00	0.00
0.00	0.00	0.00

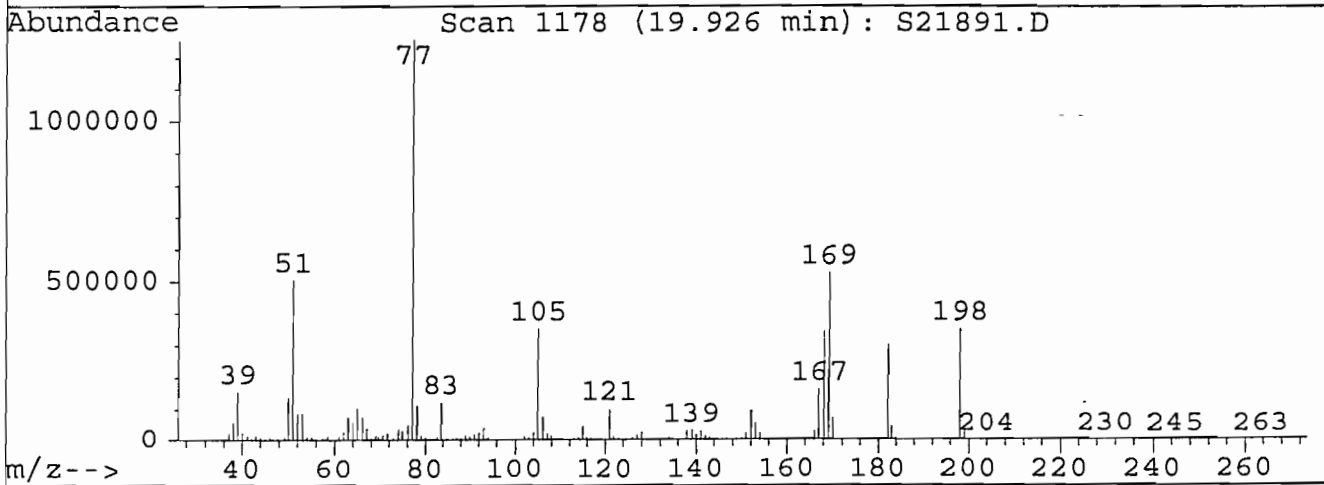
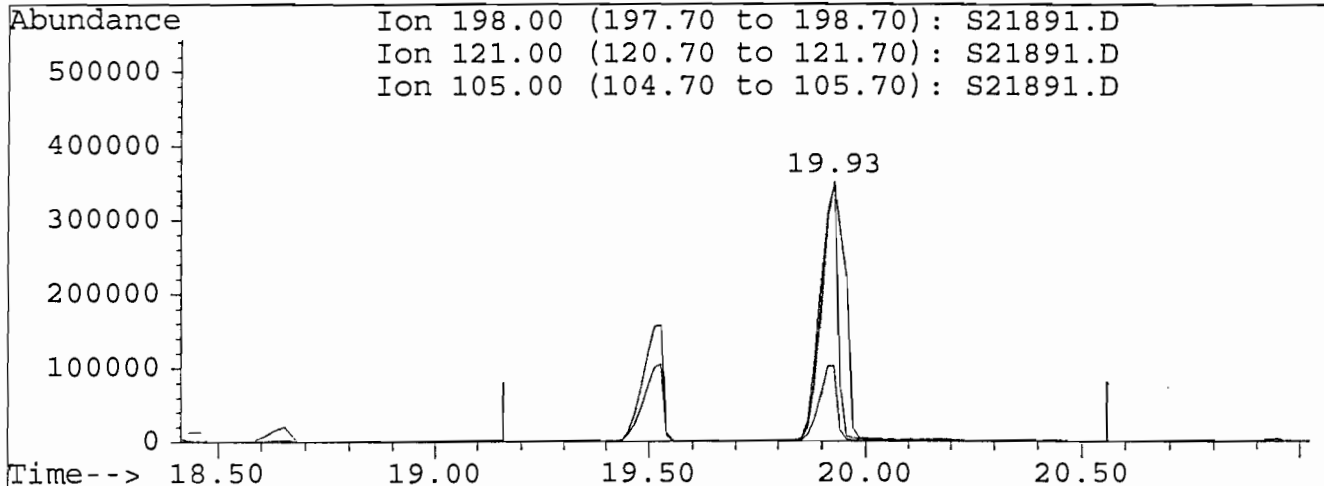
000174

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21891.D

(58) 4,6-Dinitro-2-methylphenol

19.93min 169.98ng m

response 919935

Ion	Exp%	Act%
198.00	100	100
121.00	31.90	28.88
105.00	46.00	99.73
0.00	0.00	0.00

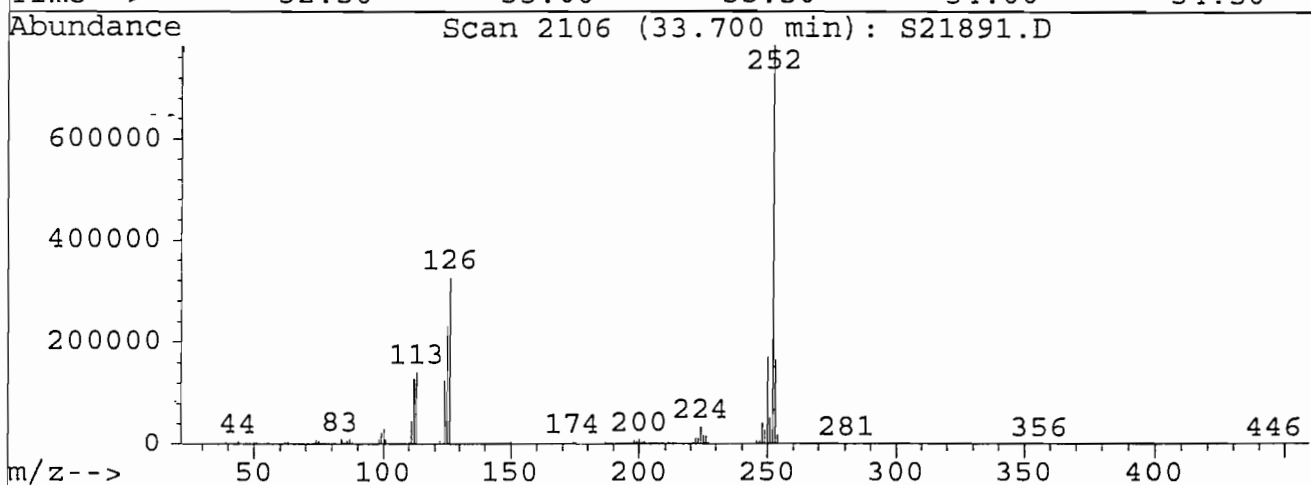
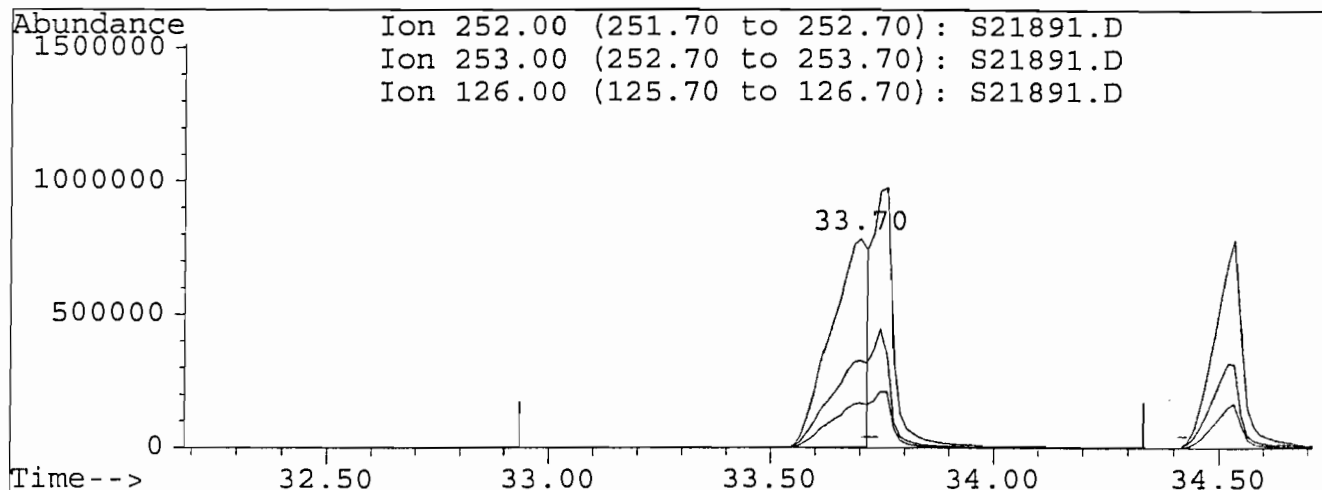
000175

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21891.D

(81) Benzo[b]fluoranthene

33.70min 191.22ng m

response 4531841

Ion	Exp%	Act%
252.00	100	100
253.00	21.10	21.28
126.00	39.50	41.68
0.00	0.00	0.00

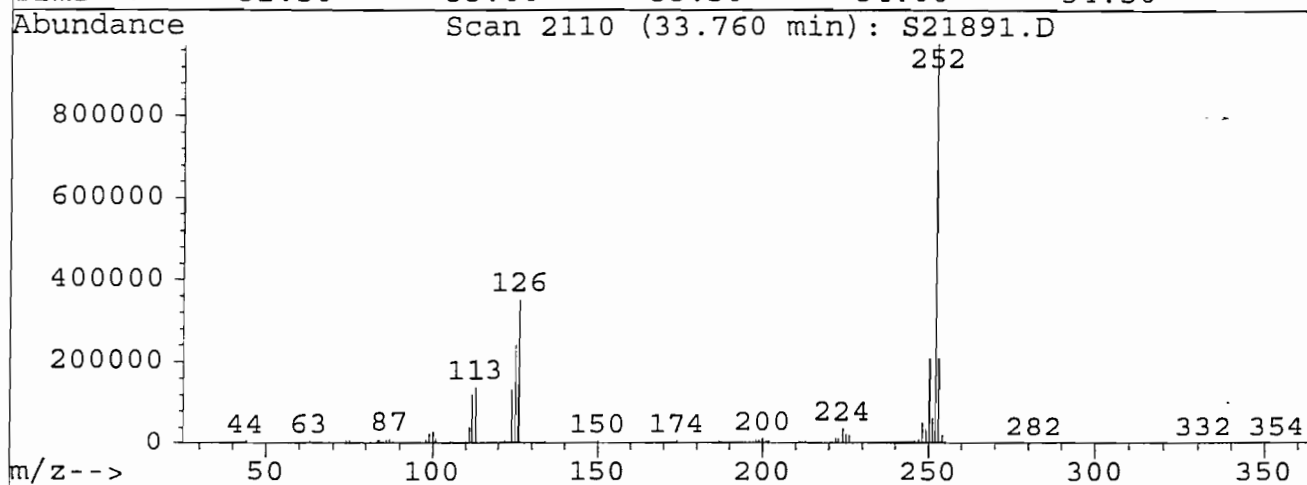
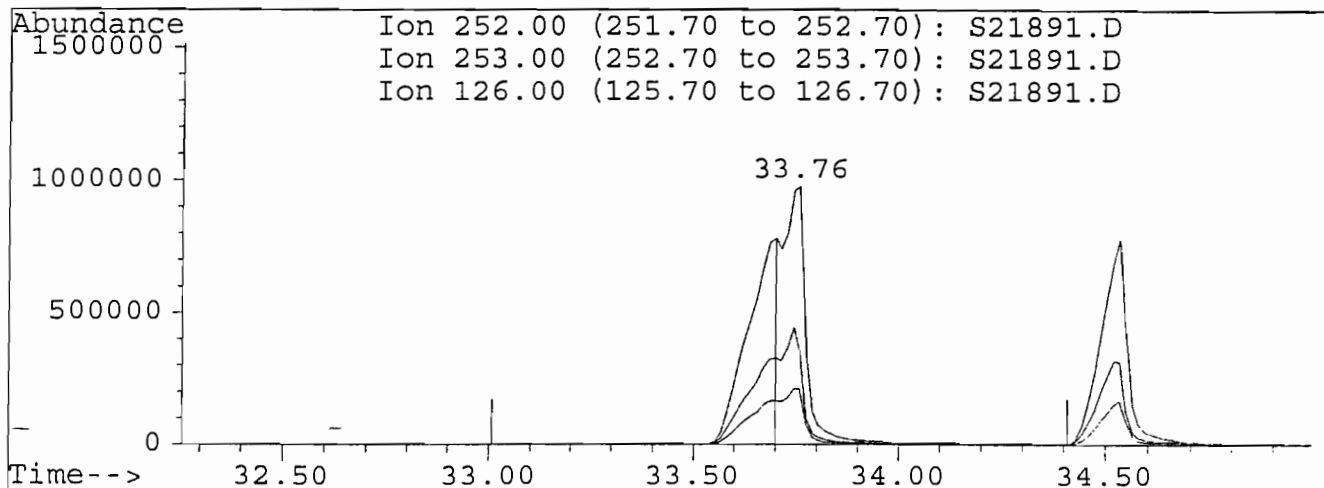
000176

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21030\S21891.D
 Acq Time : 30 Oct 99 11:29 pm
 Sample : 160 ng BNA ICC
 Misc :
 Quant Time: Nov 1 8:04 1999

Operator:
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Single Level Calibration



TIC: S21891.D

(82) Benzo[k]fluoranthene

33.76min 150.01ng m

response 3825931

Ion	Exp%	Act%
252.00	100	100
253.00	21.00	21.46
126.00	41.30	36.01
0.00	0.00	0.00

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Contract: IMPACT ENVIRONMENTAL

Group:

Time:

Init. Calib. Date(s): 10/30/99 10/30/99

Init. Calib. Times: 2008 2329

All other compounds must meet a minimum RRF of 0.010.

0001.3

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Contract: IMPACT ENVIRONMENTAL

Group:

Time:

Init. Calib. Date(s): 10/30/99 10/30/99

Init. Calib. Times: 2008 2329

All other compounds must meet a minimum RRF of 0.010.

000179

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Contract: IMPACT ENVIRONMENTAL

Group:

Time:

Init. Calib. Date(s): 10/30/99 10/30/99

Init. Calib. Times: 2008 2329

All other compounds must meet a minimum RRF of 0.010.

000180

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21957.D
 Acq Time : 5 Nov 99 9:46 am
 Sample : 80 ng BNA CCC
 Misc :
 Quant Time: Nov 5 12:16 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.44	152	643810	40.00	ng	-0.08
21) Naphthalene-d8	12.13	136	2528733	40.00	ng	-0.06
36) Acenaphthene-d10	17.56	164	1185172	40.00	ng	-0.08
57) Phenanthrene-d10	22.09	188	2162454	40.00	ng	-0.08
69) Chrysene-d12	30.41	240	1515416	40.00	ng	-0.09
80) Perylene-d12	34.55	264	1403958	40.00	ng	-0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
4) 2-Fluorophenol	5.42	112	2174093	78.11	ng	
6) 2-Chlorophenol-d4	7.98	132	2109146	75.19	ng	
7) Phenol-d5	7.98	99	2271929	75.29	ng	
13) 1,2-Dichlorobenzene-d4	8.94	152	1208471	74.89	ng	
22) Nitrobenzene-d5	10.17	82	1959830	80.09	ng	
40) 2-Fluorobiphenyl	15.63	172	3231055	75.22	ng	
55) 2,4,6-Tribromophenol	20.09	330	517504	82.61	ng	
72) Terphenyl-d14	27.28	244	2759765	67.63	ng	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Pyridine	2.74	79	1634643	79.77	ng	97
3) N-nitroso-dimethylamine	2.78	42	786811	83.77	ng	100
5) Aniline	7.77	93	1867607	66.92	ng	99
8) Phenol	8.01	94	2169887	74.26	ng	98
9) bis(2-Chloroethyl)ether	8.02	93	2118801	77.15	ng	98
10) 2-Chlorophenol	8.01	128	2065094	75.05	ng	97
11) 1,3-Dichlorobenzene	8.32	146	2119254	76.23	ng	98
12) 1,4-Dichlorobenzene	8.48	146	2171326	76.71	ng	99
14) 1,2-Dichlorobenzene	8.99	146	2046004	76.24	ng	97
15) Benzyl alcohol	9.12	108	1385294	81.31	ng	99
16) 2-Methylphenol	9.60	108	1792026	75.77	ng	99
17) Bis(2-chloroisopropyl)ethe	9.51	45	3433236	83.53	ng	96
18) Hexachloroethane	9.80	117	1247230	81.48	ng	98
19) 3+4-Methyphenols	10.09	108	3839438	151.81	ng	95
20) N-Nitroso-di-n-propylamine	9.98	70	1182256	79.66	ng	98
23) Nitrobenzene	10.23	77	1648134	79.02	ng	96
24) Isophorone	10.96	82	3708501	76.38	ng	98
25) 2-Nitrophenol	11.17	139	1416903	94.96	ng	93
26) 2,4-Dimethylphenol	11.55	107	1786959	72.00	ng	98
27) bis(2-Chloroethoxy)methane	11.79	93	2557755	76.65	ng	99
28) 2,4-Dichlorophenol	11.92	162	1486632	74.49	ng	98
29) Benzoic Acid	12.38	105	1619636	99.50	ng	99
30) 1,2,4-Trichlorobenzene	12.06	180	1618537	73.58	ng	100
31) Naphthalene	12.19	128	5429300	75.33	ng	100
32) 4-Chloroaniline	12.62	127	1133805	48.79	ng	99
33) Hexachlorobutadiene	12.81	225	853638	73.65	ng	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21957.D
 Acq Time : 5 Nov 99 9:46 am
 Sample : 80 ng BNA CCC
 Misc :
 Quant Time: Nov 5 12:16 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
34) 4-Chloro-3-methylphenol	14.30	107	1608266	74.67	ng	70
35) 2-Methylnaphthalene	14.30	142	4761566	74.89	ng	93
37) Hexachlorocyclopentadiene	15.03	237	827019	89.61	ng	100
38) 2,4,6-Trichlorophenol	15.41	196	1058561	77.39	ng	97
39) 2,4,5-Trichlorophenol	15.51	196	1169739	80.22	ng	99
41) 2-Chloronaphthalene	15.80	162	2896458	75.50	ng	98
42) 2-Nitroaniline	16.42	65	963189	92.13	ng	97
43) Dimethylphthalate	17.19	163	3286897	77.02	ng	99
44) Acenaphthylene	17.07	152	4696565	74.92	ng	100
45) 2,6-Dinitrotoluene	17.38	165	946127	86.45	ng	96
46) 3-Nitroaniline	16.42	138	1632585	90.60	ng	99
47) Acenaphthene	17.66	153	2791155	75.25	ng	-100
48) 2,4-Dinitrophenol	18.06	184	570388	106.76	ng	m 88
49) Dibenzofuran	18.16	168	3906215	75.36	ng	98
50) 4-Nitrophenol	18.56	109	332600	89.96	ng	93
51) 2,4-Dinitrotoluene	17.38	165	946127	86.45	ng	96
52) Fluorene	19.23	166	2968686	75.41	ng	100
53) Diethylphthalate	19.41	149	3578161	77.19	ng	99
54) 4-Chlorophenyl-phenylether	19.36	204	1488987	75.85	ng	97
56) 4-Nitroaniline	19.70	138	779956	86.40	ng	97
58) 4,6-Dinitro-2-methylphenol	19.79	198	779406	105.06	ng	m 93
59) N-Nitrosodiphenylamine	19.83	169	1697399	68.22	ng	99
60) 1,2-Diphenylhydrazine	19.83	77	3875035	76.14	ng	95
61) 4-Bromophenyl-phenylether	20.86	248	762326	72.74	ng	91
62) Hexachlorobenzene	21.18	284	982030	74.42	ng	97
63) Pentachlorophenol	21.86	266	681315	89.87	ng	m 98
64) Phenanthrene	22.18	178	3983424	74.14	ng	100
65) Anthracene	22.31	178	4118262	74.26	ng	100
66) Carbazole	23.01	167	3622204	108.00	ng	98
67) Di-n-butylphthalate	24.48	149	6960928	74.55	ng	99
68) Fluoranthene	25.88	202	4419016	77.54	ng	95
70) Benzidine	28.05	184	16685	71.17	ng	83
71) Pyrene	26.54	202	4523604	70.04	ng	99
73) Butylbenzylphthalate	29.09	149	3381619	69.61	ng	100
74) Benzo[a]anthracene	30.35	228	3363075	77.34	ng	99
75) 3,3'-Dichlorobenzidine	30.65	252	463279	65.99	ng	m 91
76) Chrysene	30.50	228	3289186	77.66	ng	99
77) bis(2-Ethylhexyl)phthalate	31.02	149	4316302	68.20	ng	99
78) Di-n-octylphthalate	32.84	149	7868306	69.96	ng	100
79) Indeno [1,2,3-cd] pyrene	37.36	276	2921257	88.69	ng	96
81) Benzo[b]fluoranthene	33.55	252	3279853	78.25	ng	97
82) Benzo[k]fluoranthene	33.63	252	2959972	70.54	ng	98
83) Benzo[a]pyrene	34.40	252	2857765	76.85	ng	99
84) Dibenz[a,h]anthracene	37.45	278	2346974	79.36	ng	91

(#) = qualifier out of range (m) = manual integration

S21957.D B21030C.M

Fri Nov 05 12:17:32 1999

000182

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21957.D

Acq Time : 5 Nov 99 9:46 am

Sample : 80 ng BNA CCC

Misc :

Quant Time: Nov 5 12:16 1999

Operator: BOB

Inst : bn2

Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration

Last Update : Mon Nov 01 08:09:54 1999

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
85) Benzo[g,h,i]perylene	38.13	276	2344197	80.86 ng	99

000183

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21957.D

Acq Time : 5 Nov 99 9:46 am

Sample : 80 ng BNA CCC

Misc :

Quant Time: Nov 5 12:16 1999

Operator: BOB

Inst : bn2

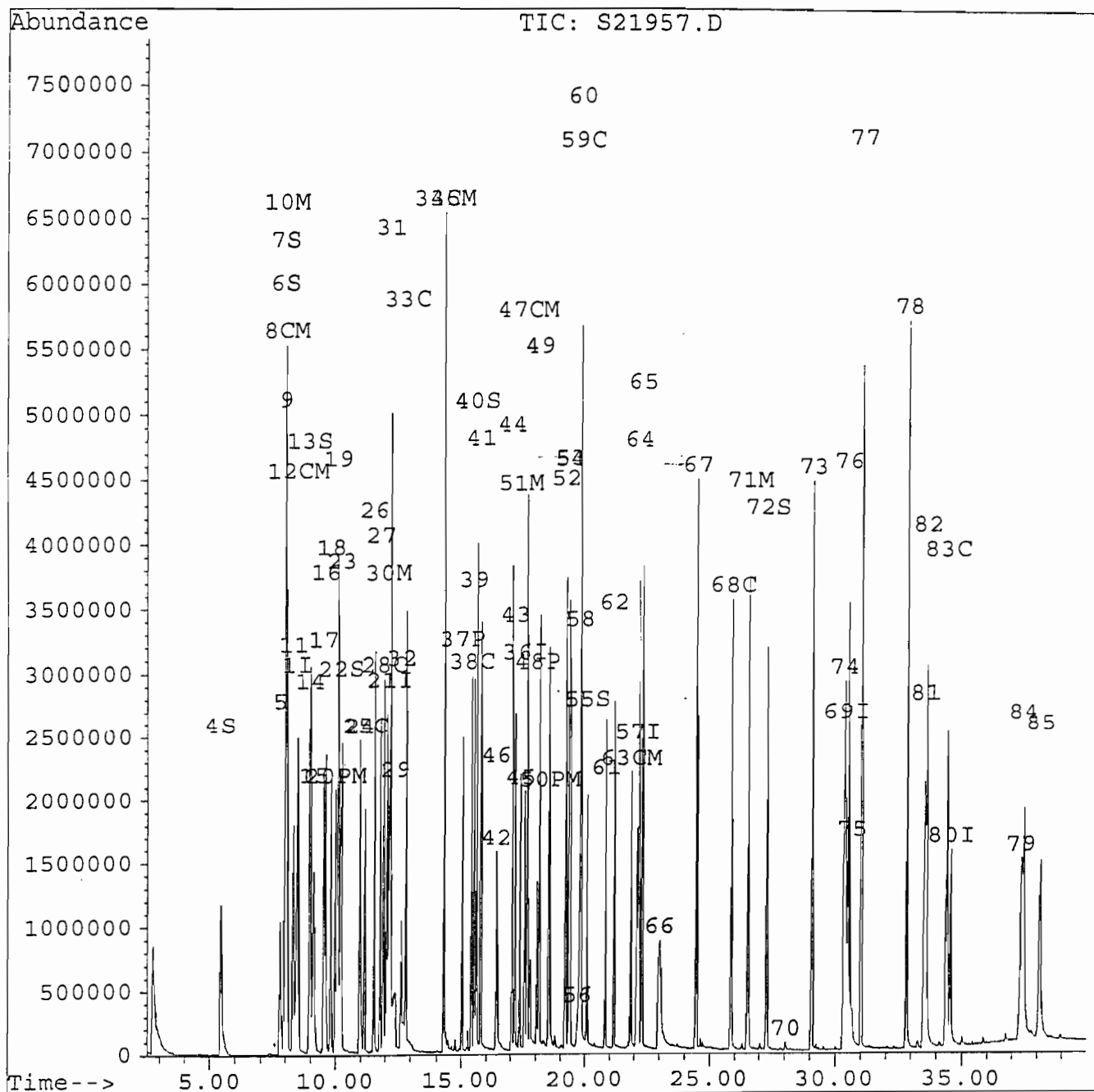
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration

Last Update : Mon Nov 01 08:09:54 1999

Response via : Multiple Level Calibration



000184

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21105\S21957.D

Acq Time : 5 Nov 99 9:46 am

Sample : 80 ng BNA CCC

Misc :

Operator: BOB

Inst : bn2

Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration

Last Update : Mon Nov 01 08:09:54 1999

Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min

Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	146	-0.08
2	Pyridine	1.273	1.270	0.3	143	-0.06
3	N-nitroso-dimethylamine	0.584	0.611	-4.7	160	-0.04
4 S	2-Fluorophenol	1.729	1.688	2.4	144	-0.07
5	Aniline	1.734	1.450	16.4	137	-0.07
6 S	2-Chlorophenol-d4	1.743	1.638	6.0	141	-0.06
7 S	Phenol-d5	1.875	1.764	5.9	137	-0.06
8 CM	Phenol	1.816	1.685	7.2	136	-0.06
9	bis(2-Chloroethyl)ether	1.706	1.646	3.6	143	-0.06
10 M	2-Chlorophenol	1.710	1.604	-6.2	138	-0.08
11	1,3-Dichlorobenzene	1.727	1.646	4.7	142	-0.06
12 CM	1,4-Dichlorobenzene	1.759	1.686	4.1	143	-0.08
13 S	1,2-Dichlorobenzene-d4	1.003	0.939	6.4	140	-0.07
14	1,2-Dichlorobenzene	1.667	1.589	4.7	142	-0.06
15	Benzyl alcohol	1.059	1.076	-1.6	148	-0.06
16	2-Methylphenol	1.469	1.392	5.3	139	-0.07
17	Bis(2-chloroisopropyl)ether	2.554	2.666	-4.4	154	-0.07
18	Hexachloroethane	0.951	0.969	-1.9	154	-0.07
19	3+4-Methyphenols	1.571	1.491	5.1	141	-0.07
20 PM	N-Nitroso-di-n-propylamine	0.922	0.918	0.4	144	-0.06
21 I	Naphthalene-d8	1.000	1.000	0.0	145	-0.06
22 S	Nitrobenzene-d5	0.387	0.388	-0.1	147	-0.07
23	Nitrobenzene	0.330	0.326	1.2	149	-0.05
24	Isophorone	0.768	0.733	4.5	142	-0.07
25 C	2-Nitrophenol	0.236	0.280	-18.7	182	-0.05
26	2,4-Dimethylphenol	0.393	0.353	10.0	132	-0.06
27	bis(2-Chloroethoxy)methane	0.528	0.506	4.2	140	-0.05
28 C	2,4-Dichlorophenol	0.316	0.294	6.9	138	-0.06
29	Benzoic Acid	0.257	0.320	-24.4	179	0.00
30 M	1,2,4-Trichlorobenzene	0.348	0.320	8.0	136	-0.06
31	Naphthalene	1.140	1.074	5.8	139	-0.06
32	4-Chloroaniline	0.345	0.224	35.1	107	-0.09
33 C	Hexachlorobutadiene	0.183	0.169	7.9	136	-0.08
34 CM	4-Chloro-3-methylphenol	0.341	0.318	6.7	136	-0.07
35	2-Methylnaphthalene	1.006	0.941	6.4	138	-0.08
36 I	Acenaphthene-d10	1.000	1.000	0.0	140	-0.08
37 P	Hexachlorocyclopentadiene	0.311	0.349	-12.0	167	-0.08
38 C	2,4,6-Trichlorophenol	0.462	0.447	3.3	140	-0.07
39	2,4,5-Trichlorophenol	0.492	0.493	-0.3	145	-0.08
40 S	2-Fluorobiphenyl	1.450	1.363	6.0	135	-0.07

000185

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21105\S21957.D
 Acq Time : 5 Nov 99 9:46 am
 Sample : 80 ng BNA CCC
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
41	2-Chloronaphthalene	1.295	1.222	5.6	136	-0.07
42	2-Nitroaniline	0.353	0.406	-15.2	168	-0.07
43	Dimethylphthalate	1.440	1.387	3.7	138	-0.07
44	Acenaphthylene	2.116	1.981	6.4	134	-0.07
45	2,6-Dinitrotoluene	0.369	0.399	-8.1	159	-0.07
46	3-Nitroaniline	0.608	0.689	-13.2	166	-0.08
47 CM	Acenaphthene	1.252	1.178	5.9	136	-0.08
48 P	2,4-Dinitrophenol	0.180	0.241	-33.5	202	-0.08
49	Dibenzofuran	1.749	1.648	5.8	135	-0.08
50 PM	4-Nitrophenol	0.125	0.140	-12.5	168	-0.07
51 M	2,4-Dinitrotoluene	0.369	0.399	-8.1	159	-0.07
52	Fluorene	1.329	1.252	5.7	137	-0.08
53	Diethylphthalate	1.564	1.510	3.5	140	-0.07
54	4-Chlorophenyl-phenylether	0.663	0.628	5.2	137	-0.08
55 S	2,4,6-Tribromophenol	0.211	-0.218	-3.3	153	-0.08
56	4-Nitroaniline	0.305	0.329	-8.0	158	-0.07
57 I	Phenanthrene-d10	1.000	1.000	0.0	142	-0.08
58	4,6-Dinitro-2-methylphenol	0.137	0.180	-31.3	195	-0.07
59 C	N-Nitrosodiphenylamine	0.460	0.392	14.7	125	-0.08
60	1,2-Diphenylhydrazine	0.941	0.896	4.8	139	-0.08
61	4-Bromophenyl-phenylether	0.194	0.176	9.1	133	-0.07
62	Hexachlorobenzene	0.244	0.227	7.0	136	-0.10
63 CM	Pentachlorophenol	0.140	0.158	-12.3	169	-0.09
64	Phenanthrene	0.994	0.921	7.3	136	-0.08
65	Anthracene	1.026	0.952	7.2	136	-0.08
66	Carbazole	0.727	0.838	-15.2	204	-0.11
67	Di-n-butylphthalate	1.727	1.609	6.8	137	-0.08
68 C	Fluoranthene	1.054	1.022	3.1	142	-0.10
69 I	Chrysene-d12	1.000	1.000	0.0	167	-0.09
70	Benzidine	0.006	0.006#	11.0	164	-0.09
71 M	Pyrene	1.705	1.493	12.4	146	-0.09
72 S	Terphenyl-d14	1.077	0.911	15.5	142	-0.09
73	Butylbenzylphthalate	1.282	1.116	13.0	145	-0.09
74	Benzo[a]anthracene	1.148	1.110	3.3	162	-0.09
75	3,3'-Dichlorobenzidine	0.197	0.153	22.3	160	0.03
76	Chrysene	1.118	1.085	2.9	162	-0.08
77	bis(2-Ethylhexyl)phthalate	1.671	1.424	14.8	142	-0.09
78	Di-n-octylphthalate	2.969	2.596	12.6	147	-0.08
79	Indeno [1,2,3-cd] pyrene	0.869	0.964	10.0	192	-0.12

000186

80-I----Perylene-d12-----1.000--1.000-----0.0-----186-----0.08--

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21105\S21957.D
 Acq Time : 5 Nov 99 9:46 am
 Sample : 80 ng BNA CCC
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
81	Benzo[b]fluoranthene	1.194	1.168	2.2	193	-0.08
82	Benzo[k]fluoranthene	1.196	1.054	11.8	162	-0.08
83 C	Benzo[a]pyrene	1.059	1.018	3.9	180	-0.08
84	Dibenz[a,h]anthracene	0.843	0.836	0.8	188	-0.12
85	Benzo[g,h,i]perylene	0.826	0.835	-1.1	191	-0.12

000187

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21985.D
 Acq Time : 7 Nov 99 10:18 am
 Sample : 80 ng BNA CCC
 Misc :
 Quant Time: Nov 9 16:59 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi)
1) 1,4-Dichlorobenzene-d4	8.41	152	601149	40.00	ng	-0.1
21) Naphthalene-d8	12.11	136	2345207	40.00	ng	-0.0
36) Acenaphthene-d10	17.54	164	1079043	40.00	ng	-0.1
57) Phenanthrene-d10	22.07	188	1837453	40.00	ng	-0.1
69) Chrysene-d12	30.38	240	1222481	40.00	ng	-0.1
80) Perylene-d12	34.51	264	1089106	40.00	ng	-0.1

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recover
4) 2-Fluorophenol	5.39	112	2034679	78.29	ng	
6) 2-Chlorophenol-d4	7.95	132	2003624	76.50	ng	
7) Phenol-d5	7.95	99	2142768	76.05	ng	
13) 1,2-Dichlorobenzene-d4	8.93	152	1138691	75.58	ng	
22) Nitrobenzene-d5	-10.16	82	1792877	79.00	ng	
40) 2-Fluorobiphenyl	15.61	172	2946576	75.34	ng	
55) 2,4,6-Tribromophenol	20.06	330	442842	77.64	ng	
72) Terphenyl-d14	27.26	244	2335850	70.96	ng	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalu
2) Pyridine	2.69	79	1483672	77.54	ng	m
3) N-nitroso-dimethylamine	2.74	42	766183	87.37	ng	9
5) Aniline	7.76	93	1433705	55.02	ng	9
8) Phenol	7.98	94	1998572	73.25	ng	9
9) bis(2-Chloroethyl)ether	7.99	93	1900336	74.11	ng	9
10) 2-Chlorophenol	7.99	128	1941201	75.55	ng	9
11) 1,3-Dichlorobenzene	8.29	146	1974415	76.06	ng	9
12) 1,4-Dichlorobenzene	8.45	146	2057297	77.84	ng	9
14) 1,2-Dichlorobenzene	8.96	146	1927547	76.93	ng	9
15) Benzyl alcohol	9.10	108	1201192	75.51	ng	9
16) 2-Methylphenol	9.56	108	1665183	75.40	ng	9
17) Bis(2-chloroisopropyl)ethe	9.49	45	3242356	84.48	ng	9
18) Hexachloroethane	9.77	117	1171641	81.98	ng	9
19) 3+4-Methyphenols	10.07	108	3503712	148.37	ng	9
20) N-Nitroso-di-n-propylamine	9.95	70	1132157	81.69	ng	9
23) Nitrobenzene	10.20	77	1550223	80.15	ng	9
24) Isophorone	10.94	82	3421734	75.99	ng	9
25) 2-Nitrophenol	11.13	139	1209368	87.39	ng	m 9
26) 2,4-Dimethylphenol	11.53	107	1729688	75.15	ng	9
27) bis(2-Chloroethoxy)methane	11.77	93	2359994	76.25	ng	9
28) 2,4-Dichlorophenol	11.90	162	1376823	74.39	ng	9
29) Benzoic Acid	12.32	105	1329875	88.09	ng	9
30) 1,2,4-Trichlorobenzene	12.04	180	1503775	73.71	ng	10
31) Naphthalene	12.17	128	5001464	74.83	ng	10
32) 4-Chloroaniline	12.72	127	1252901	58.13	ng	m 9
33) Hexachlorobutadiene	12.79	225	797939	74.23	ng	9

000188

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21985.D
 Acq Time : 7 Nov 99 10:18 am
 Sample : 80 ng BNA CCC
 Misc :
 Quant Time: Nov 9 16:59 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
34) 4-Chloro-3-methylphenol	14.27	107	1469044	73.54	ng	9
35) 2-Methylnaphthalene	14.29	142	4432234	75.16	ng	9
37) Hexachlorocyclopentadiene	15.02	237	753223	89.64	ng	9
38) 2,4,6-Trichlorophenol	15.39	196	943565	75.77	ng	9
39) 2,4,5-Trichlorophenol	15.49	196	1045999	78.79	ng	9
41) 2-Chloronaphthalene	15.77	162	2639625	75.57	ng	9
42) 2-Nitroaniline	16.40	65	830365	87.23	ng	9
43) Dimethylphthalate	17.15	163	3054294	78.61	ng	9
44) Acenaphthylene	17.05	152	4380210	76.74	ng	10
45) 2,6-Dinitrotoluene	17.35	165	832453	83.54	ng	8
46) 3-Nitroaniline	16.40	138	1409177	85.89	ng	9
47) Acenaphthene	17.64	153	2573443	76.20	ng	9
48) 2,4-Dinitrophenol	18.04	184	441108	90.69	ng	m 10
49) Dibenzofuran	18.15	168	3513743	74.46	ng	9
50) 4-Nitrophenol	18.52	109	287758	85.49	ng	9
51) 2,4-Dinitrotoluene	17.35	165	832453	83.54	ng	8
52) Fluorene	19.21	166	2649942	73.93	ng	10
53) Diethylphthalate	19.38	149	3303749	78.28	ng	10
54) 4-Chlorophenyl-phenylether	19.35	204	1340233	74.99	ng	9
56) 4-Nitroaniline	19.67	138	710702	86.47	ng	9
58) 4,6-Dinitro-2-methylphenol	19.76	198	663147	105.20	ng	9
59) N-Nitrosodiphenylamine	19.81	169	1493453	70.64	ng	9
60) 1,2-Diphenylhydrazine	19.82	77	3525503	81.52	ng	9
61) 4-Bromophenyl-phenylether	20.83	248	686468	77.09	ng	9
62) Hexachlorobenzene	21.16	284	885135	78.94	ng	9
63) Pentachlorophenol	21.83	266	568834	88.30	ng	9
64) Phenanthrene	22.14	178	3548362	77.73	ng	9
65) Anthracene	22.29	178	3603679	76.48	ng	10
66) Carbazole	22.99	167	2429911	81.63	ng	m 9
67) Di-n-butylphthalate	24.45	149	6113472	77.05	ng	9
68) Fluoranthene	25.85	202	3824336	78.97	ng	9
70) Benzidine	28.03	184	13787	72.90	ng	m 8
71) Pyrene	26.52	202	3874629	74.37	ng	9
73) Butylbenzylphthalate	29.07	149	2780598	70.95	ng	9
74) Benzo[a]anthracene	30.32	228	2699633	76.96	ng	9
75) 3,3'-Dichlorobenzidine	30.51	252	411299	72.58	ng	m 9
76) Chrysene	30.46	228	2684297	78.56	ng	9
77) bis(2-Ethylhexyl)phthalate	31.00	149	3550268	69.53	ng	10
78) Di-n-octylphthalate	32.81	149	6393893	70.47	ng	10
79) Indeno [1,2,3-cd] pyrene	37.31	276	2167970	81.60	ng	10
81) Benzo[b]fluoranthene	33.51	252	2340825	71.99	ng	9
82) Benzo[k]fluoranthene	33.59	252	2485223	76.34	ng	9
83) Benzo[a]pyrene	34.36	252	2234469	77.46	ng	9
84) Dibenz[a,h]anthracene	37.40	278	1727030	70.01	ng	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21985.D
 Acq Time : 7 Nov 99 10:18 am
 Sample : 80 ng BNA CCC
 Misc :
 Quant Time: Nov 9 16:59 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

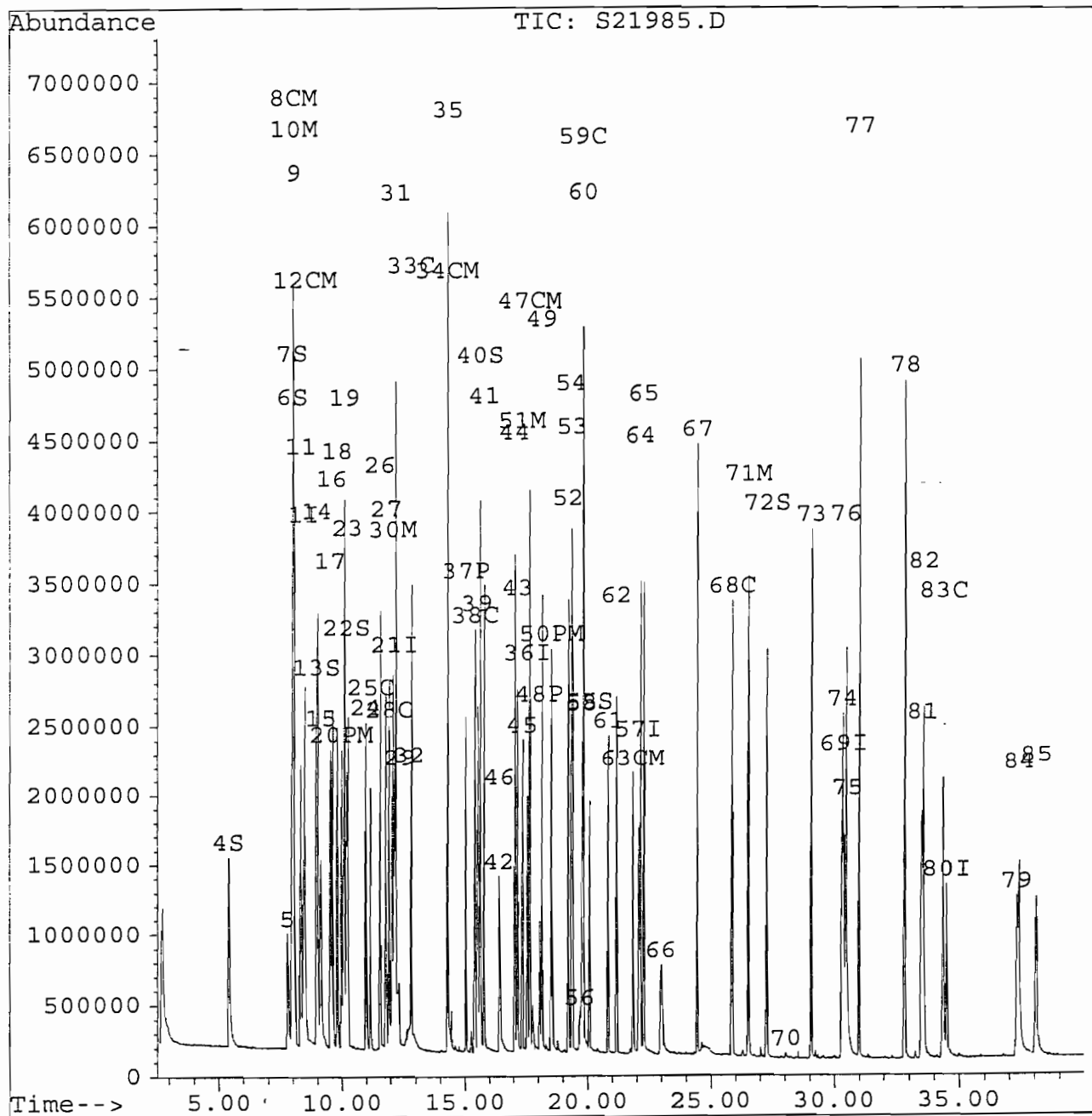
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
85) Benzo[g,h,i]perylene	38.07	276	1735166	77.15 ng	10

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21985.D
Acq Time : 7 Nov 99 10:18 am
Sample : 80 ng BNA CCC
Misc :
Quant Time: Nov 9 16:59 1999

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Operator: BOB
Inst      : bn2
Multiplr: 1.00
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```
Method       : D:\HPCHEM\1\METHODS\B21030C.M
Title        : CLP BNA Calibration
Last Update  : Mon Nov 01 08:09:54 1999
Response via : Multiple Level Calibration
```



000191

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21107\S21985.D
 Acq Time : 7 Nov 99 10:18 am
 Sample : 80 ng BNA CCC
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	136	-0.11
2	Pyridine	1.273	1.234	3.1	130	-0.10
3	N-nitroso-dimethylamine	0.584	0.637	-9.2	156	-0.09
4 S	2-Fluorophenol	1.729	1.692	2.1	135	-0.11
5	Aniline	1.734	1.192	31.2	105	-0.08
6 S	2-Chlorophenol-d4	1.743	1.666	4.4	133	-0.09
7 S	Phenol-d5	1.875	1.782	4.9	129	-0.09
8 CM	Phenol	1.816	1.662	8.4	125	-0.09
9	bis(2-Chloroethyl)ether	1.706	1.581	7.4	129	-0.09
10 M	2-Chlorophenol	1.710	1.615	5.6	130	-0.09
11	1,3-Dichlorobenzene	1.727	1.642	4.9	132	-0.09
12 CM	1,4-Dichlorobenzene	1.759	1.711	2.7	135	-0.11
13 S	1,2-Dichlorobenzene-d4	1.003	0.947	5.5	132	-0.09
14	1,2-Dichlorobenzene	1.667	1.603	3.8	134	-0.09
15	Benzyl alcohol	1.059	0.999	5.6	128	-0.08
16	2-Methylphenol	1.469	1.385	5.7	129	-0.10
17	Bis(2-chloroisopropyl)ether	2.554	2.697	-5.6	145	-0.09
18	Hexachloroethane	0.951	0.975	-2.5	145	-0.10
19	3+4-Methyphenols	1.571	1.457	7.3	129	-0.09
20 PM	N-Nitroso-di-n-propylamine	0.922	0.942	-2.1	137	-0.09
21 I	Naphthalene-d8	1.000	1.000	0.0	134	-0.08
22 S	Nitrobenzene-d5	0.387	0.382	1.3	135	-0.09
23	Nitrobenzene	0.330	0.331	-0.2	140	-0.09
24	Isophorone	0.768	0.730	5.0	131	-0.09
25 C	2-Nitrophenol	0.236	0.258	-9.2	155	-0.09
26	2,4-Dimethylphenol	0.393	0.369	6.1	128	-0.09
27	bis(2-Chloroethoxy)methane	0.528	0.503	4.7	129	-0.07
28 C	2,4-Dichlorophenol	0.316	0.294	7.0	128	-0.08
29	Benzoic Acid	0.257	0.284	-10.1	147	-0.05
30 M	1,2,4-Trichlorobenzene	0.348	0.321	7.9	126	-0.08
31	Naphthalene	1.140	1.066	6.5	128	-0.08
32	4-Chloroaniline	0.345	0.267	22.6	119	0.00
33 C	Hexachlorobutadiene	0.183	0.170	7.2	127	-0.10
34 CM	4-Chloro-3-methylphenol	0.341	0.313	8.1	124	-0.09
35	2-Methylnaphthalene	1.006	0.945	6.0	128	-0.09
36 I	Acenaphthene-d10	1.000	1.000	0.0	128	-0.10
37 P	Hexachlorocyclopentadiene	0.311	0.349	-12.1	152	-0.09
38 C	2,4,6-Trichlorophenol	0.462	0.437	5.3	125	-0.09
39	2,4,5-Trichlorophenol	0.492	0.485	1.5	130	-0.10
40 S	2-Fluorobiphenyl	1.450	1.365	5.8	123	-0.09

(#) = Out of Range

S21985.D B21030C.M

Tue Nov 09 17:00:20 1999

000192

Page 1

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21107\S21985.D
 Acq Time : 7 Nov 99 10:18 am
 Sample : 80 ng BNA CCC
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
41	2-Chloronaphthalene	1.295	1.223	5.5	124	-0.09
42	2-Nitroaniline	0.353	0.385	-9.0	145	-0.09
43	Dimethylphthalate	1.440	1.415	1.7	128	-0.10
44	Acenaphthylene	2.116	2.030	4.1	125	-0.09
45	2,6-Dinitrotoluene	0.369	0.386	-4.4	140	-0.10
46	3-Nitroaniline	0.608	0.653	-7.4	143	-0.10
47 CM	Acenaphthene	1.252	1.192	4.7	126	-0.10
48 P	2,4-Dinitrophenol	0.180	0.204	-13.4	156	-0.10
49	Dibenzofuran	1.749	1.628	6.9	121	-0.10
50 PM	4-Nitrophenol	0.125	0.133	-6.9	145	-0.11
51 M -	2,4-Dinitrotoluene	0.369	0.386	-4.4	140	-0.10
52	Fluorene	1.329	1.228	7.6	122	-0.10
53	Diethylphthalate	1.564	1.531	2.1	129	-0.10
54	4-Chlorophenyl-phenylether	0.663	0.621	6.3	123	-0.10
55 S	2,4,6-Tribromophenol	0.211	0.205	2.9	131	-0.11
56	4-Nitroaniline	0.305	0.329	-8.1	144	-0.10
57 I	Phenanthrene-d10	1.000	1.000	0.0	120	-0.11
58	4,6-Dinitro-2-methylphenol	0.137	0.180	-31.5	166	-0.10
59 C	N-Nitrosodiphenylamine	0.460	0.406	11.7	110	-0.11
60	1,2-Diphenylhydrazine	0.941	0.959	-1.9	126	-0.10
61	4-Bromophenyl-phenylether	0.194	0.187	3.6	119	-0.09
62	Hexachlorobenzene	0.244	0.241	1.3	122	-0.12
63 CM	Pentachlorophenol	0.140	0.155	-10.4	141	-0.12
64	Phenanthrene	0.994	0.966	2.8	121	-0.12
65	Anthracene	1.026	0.981	4.4	119	-0.11
66	Carbazole	0.727	0.661	9.1	137	-0.13
67	Di-n-butylphthalate	1.727	1.664	3.7	120	-0.10
68 C	Fluoranthene	1.054	1.041	1.3	123	-0.13
69 I	Chrysene-d12	1.000	1.000	0.0	135	-0.12
70	Benzidine	0.006	0.006#	8.9	136	-0.11
71 M	Pyrene	1.705	1.585	7.0	125	-0.11
72 S	Terphenyl-d14	1.077	0.955	11.3	120	-0.11
73	Butylbenzylphthalate	1.282	1.137	11.3	119	-0.11
74	Benzo[a]anthracene	1.148	1.104	3.8	130	-0.12
75	3,3'-Dichlorobenzidine	0.197	0.168	14.4	142	-0.11
76	Chrysene	1.118	1.098	1.8	132	-0.11
77	bis(2-Ethylhexyl)phthalate	1.671	1.452	13.1	117	-0.11
78	Di-n-octylphthalate	2.969	2.615	11.9	120	-0.11
79	Indeno [1,2,3-cd] pyrene	0.869	0.887	-2.0	142	-0.17

80-I----Perylene-d12-----1.000--1.000-----0.0----144----0.13--

(#) = Out of Range

S21985.D B21030C.M

Tue Nov 09 17:00:29 1999

000193

Page 2

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21107\S21985.D
 Acq Time : 7 Nov 99 10:18 am
 Sample : 80 ng BNA CCC
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
81	Benzo[b]fluoranthene	1.194	1.075	10.0	138	-0.12
82	Benzo[k]fluoranthene	1.196	1.141	4.6	136	-0.12
83 C	Benzo[a]pyrene	1.059	1.026	3.2	141	-0.13
84	Dibenz[a,h]anthracene	0.843	0.793	5.9	138	-0.17
85	Benzo[g,h,i]perylene	0.826	0.797	3.6	141	-0.18

000194

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21108\S22002.D
 Acq Time : 8 Nov 99 11:18 am
 Sample : 80 NG BNA CCC
 Misc :
 Quant Time: Nov 8 18:23 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-Dichlorobenzene-d4	8.38	152	438643	40.00	ng	-0.1
21) Naphthalene-d8	12.06	136	1738989	40.00	ng	-0.1
36) Acenaphthene-d10	17.48	164	805881	40.00	ng	-0.1
57) Phenanthrene-d10	22.01	188	1473232	40.00	ng	-0.1
69) Chrysene-d12	30.33	240	1032155	40.00	ng	-0.1
80) Perylene-d12	34.46	264	873535	40.00	ng	-0.1

System Monitoring Compounds						%Recover
4) 2-Fluorophenol	5.39	112	1454368	76.70	ng	
6) 2-Chlorophenol-d4	7.92	132	1478101	77.34	ng	
7) Phenol-d5	7.92	99	1623838	78.98	ng	
13) 1,2-Dichlorobenzene-d4	8.90	152	836103	76.05	ng	
22) Nitrobenzene-d5	10.11	82	1343855	79.86	ng	
40) 2-Fluorobiphenyl	15.56	172	2219947	76.00	ng	
55) 2,4,6-Tribromophenol	20.01	330	351442	82.50	ng	
72) Terphenyl-d14	27.22	244	1950724	70.18	ng	

Target Compounds						Qvalu
2) Pyridine	2.71	79	1078189	77.23	ng	m
3) N-nitroso-dimethylamine	2.72	42	534628	83.55	ng	9
5) Aniline	7.72	93	1350270	71.01	ng	9
8) Phenol	7.95	94	1577237	79.22	ng	9
9) bis(2-Chloroethyl) ether	7.97	93	1520724	81.28	ng	9
10) 2-Chlorophenol	7.97	128	1437282	76.66	ng	9
11) 1,3-Dichlorobenzene	8.26	146	1457536	76.95	ng	9
12) 1,4-Dichlorobenzene	8.43	146	1469983	76.22	ng	9
14) 1,2-Dichlorobenzene	8.93	146	1409119	77.07	ng	9
15) Benzyl alcohol	9.05	108	935781	80.62	ng	9
16) 2-Methylphenol	9.54	108	1250844	77.63	ng	10
17) Bis(2-chloroisopropyl) ethe	9.46	45	2344188	83.71	ng	9
18) Hexachloroethane	9.74	117	835388	80.10	ng	9
19) 3+4-Methyphenols	10.02	108	2684384	155.79	ng	9
20) N-Nitroso-di-n-propylamine	9.90	70	822537	81.34	ng	9
23) Nitrobenzene	10.16	77	1178855	82.19	ng	9
24) Isophorone	10.88	82	2560469	76.69	ng	9
25) 2-Nitrophenol	11.10	139	901410	87.85	ng	m
26) 2,4-Dimethylphenol	11.49	107	1312802	76.92	ng	9
27) bis(2-Chloroethoxy) methane	11.72	93	1768394	77.06	ng	9
28) 2,4-Dichlorophenol	11.86	162	1052521	76.69	ng	9
29) Benzoic Acid	12.23	105	981104	87.64	ng	9
30) 1,2,4-Trichlorobenzene	11.99	180	1102218	72.86	ng	9
31) Naphthalene	12.12	128	3814062	76.96	ng	9
32) 4-Chloroaniline	12.58	127	806060	50.44	ng	9
33) Hexachlorobutadiene	12.76	225	593999	74.52	ng	10

000195

(#) = qualifier out of range (m) = manual integration
 S22002.D B21030C.M Mon Nov 08 18:26:35 1999

BNA2 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21108\S22002.D
 Acq Time : 8 Nov 99 11:18 am
 Sample : 80 NG BNA CCC
 Misc :
 Quant Time: Nov 8 18:23 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
34) 4-Chloro-3-methylphenol	14.24	107	1161340	78.41	ng	7
35) 2-Methylnaphthalene	14.24	142	3355844	76.75	ng	9
37) Hexachlorocyclopentadiene	14.98	237	494312	78.77	ng	9
38) 2,4,6-Trichlorophenol	15.35	196	722780	77.71	ng	9
39) 2,4,5-Trichlorophenol	15.45	196	811281	81.82	ng	9
41) 2-Chloronaphthalene	15.72	162	1999438	76.64	ng	9
42) 2-Nitroaniline	16.36	65	665096	93.56	ng	9
43) Dimethylphthalate	17.11	163	2251348	77.58	ng	10
44) Acenaphthylene	16.99	152	3326791	78.04	ng	10
45) 2,6-Dinitrotoluene	17.29	165	634229	85.22	ng	7
46) 3-Nitroaniline	16.36	138	1082460	88.34	ng	9
47) Acenaphthene	17.59	153	1964781	77.90	ng	9
48) 2,4-Dinitrophenol	18.00	184	339149	93.36	ng	9
49) Dibenzofuran	18.09	168	2763195	78.40	ng	9
50) 4-Nitrophenol	18.49	109	235589	93.71	ng	9
51) 2,4-Dinitrotoluene	17.29	165	634229	85.22	ng	7
52) Fluorene	19.16	166	2095765	78.29	ng	10
53) Diethylphthalate	19.33	149	2484437	78.82	ng	10
54) 4-Chlorophenyl-phenylether	19.30	204	1013602	75.93	ng	9
56) 4-Nitroaniline	19.63	138	602035	98.08	ng	9
58) 4,6-Dinitro-2-methylphenol	19.70	198	500262	98.98	ng	9
59) N-Nitrosodiphenylamine	19.76	169	1278436	75.42	ng	9
60) 1,2-Diphenylhydrazine	19.76	77	2851768	82.24	ng	9
61) 4-Bromophenyl-phenylether	20.78	248	533915	74.78	ng	9
62) Hexachlorobenzene	21.11	284	673822	74.95	ng	9
63) Pentachlorophenol	21.79	266	429693	83.19	ng	9
64) Phenanthrene	22.10	178	2828554	77.28	ng	9
65) Anthracene	22.24	178	2956309	78.25	ng	10
66) Carbazole	22.92	167	2148946	91.81	ng	9
67) Di-n-butylphthalate	24.41	149	4897836	76.99	ng	9
68) Fluoranthene	25.80	202	3138954	80.85	ng	9
70) Benzidine	27.99	184	12110	75.84	ng	m
71) Pyrene	26.47	202	3190344	72.53	ng	9
73) Butylbenzylphthalate	29.01	149	2373540	71.73	ng	9
74) Benzo[a]anthracene	30.27	228	2275237	76.82	ng	9
75) 3,3'-Dichlorobenzidine	30.46	252	380078	79.39	ng	9
76) Chrysene	30.40	228	2267199	78.59	ng	9
77) bis(2-Ethylhexyl)phthalate	30.95	149	3048524	70.72	ng	10
78) Di-n-octylphthalate	32.77	149	5535420	72.26	ng	10
79) Indeno [1,2,3-cd] pyrene	37.25	276	1738484	77.50	ng	9
81) Benzo[b]fluoranthene	33.45	252	2001571	76.74	ng	9
82) Benzo[k]fluoranthene	33.53	252	1971794	75.52	ng	9
83) Benzo[a]pyrene	34.31	252	1796244	77.64	ng	9
84) Dibenz[a,h]anthracene	37.34	278	1407237	76.48	ng	9

(#) = qualifier out of range (m) = manual integration
 S22002.D B21030C.M Mon Nov 08 18:26:37 1999

BNM 000196 Page 2

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21108\S22002.D
 Acq Time : 8 Nov 99 11:18 am
 Sample : 80 NG BNA CCC
 Misc :
 Quant Time: Nov 8 18:23 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
85) Benzo[g,h,i]perylene	37.99	276	1373826	76.16 ng	9

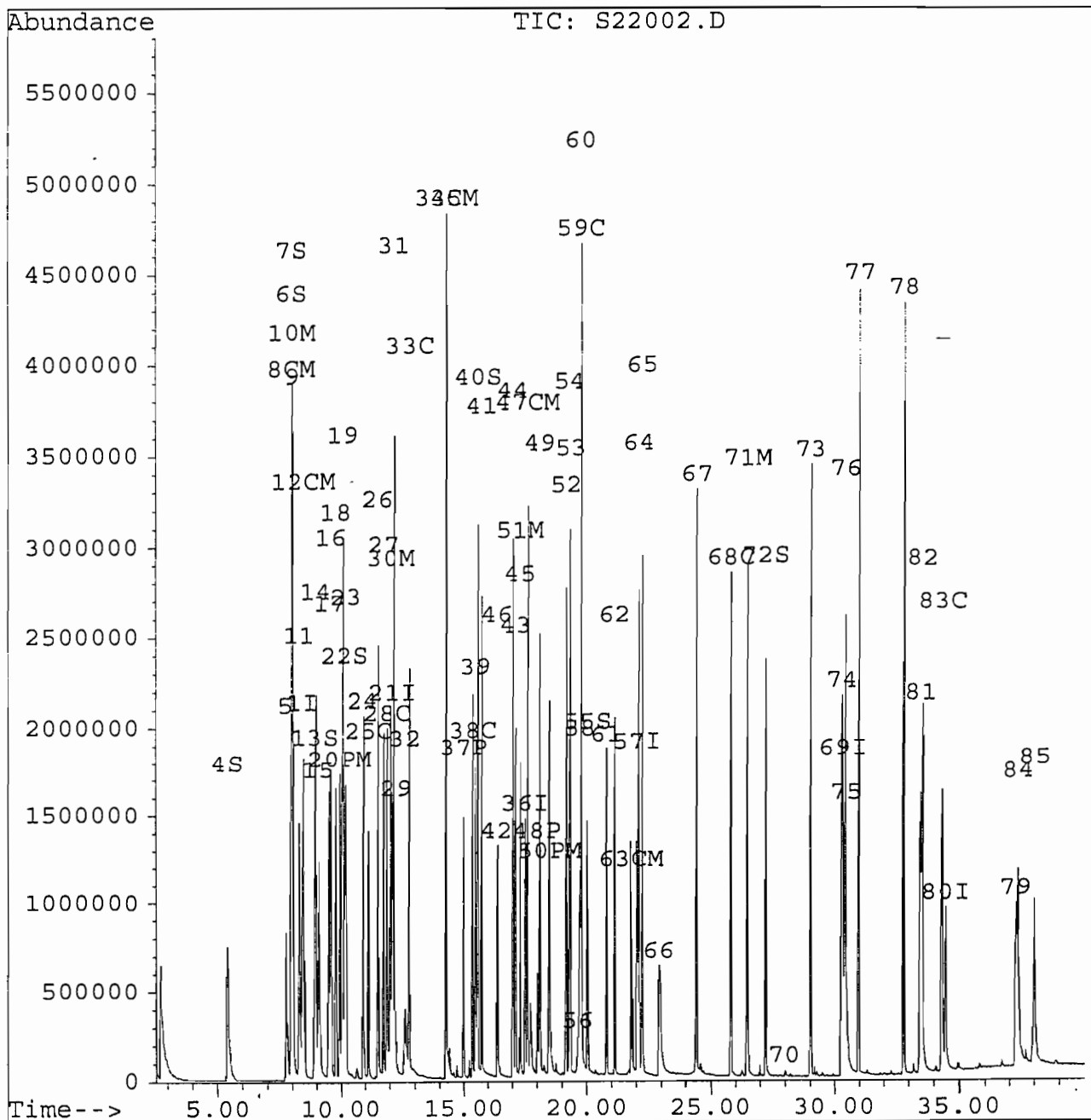
000197

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21108\S22002.D
 Acq Time : 8 Nov 99 11:18 am
 Sample : 80 NG BNA CCC
 Misc :
 Quant Time: Nov 8 18:23 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration



000198

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21108\S22002.D
 Acq Time : 8 Nov 99 11:18 am
 Sample : 80 NG BNA CCC
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	-0.13
2	Pyridine	1.273	1.229	3.5	94	-0.09
3	N-nitroso-dimethylamine	0.584	0.609	-4.4	109	-0.10
4 S	2-Fluorophenol	1.729	1.658	4.1	96	-0.11
5	Aniline	1.734	1.539	11.2	99	-0.12
6 S	2-Chlorophenol-d4	1.743	1.685	3.3	98	-0.12
7 S	Phenol-d5	1.875	1.851	1.3	98	-0.12
8 CM	Phenol	1.816	1.798	1.0	99	-0.12
9	bis(2-Chloroethyl)ether	1.706	1.733	-1.6	103	-0.12
10 M	2-Chlorophenol	1.710	1.638	4.2	96	-0.12
11	1,3-Dichlorobenzene	1.727	1.661	3.8	98	-0.12
12 CM	1,4-Dichlorobenzene	1.759	1.676	4.7	97	-0.13
13 S	1,2-Dichlorobenzene-d4	1.003	0.953	4.9	97	-0.12
14	1,2-Dichlorobenzene	1.667	1.606	3.7	98	-0.12
15	Benzyl alcohol	1.059	1.067	-0.8	100	-0.13
16	2-Methylphenol	1.469	1.426	3.0	97	-0.13
17	Bis(2-chloroisopropyl)ether	2.554	2.672	-4.6	105	-0.12
18	Hexachloroethane	0.951	0.952	-0.1	103	-0.13
19	3+4-Methyphenols	1.571	1.530	2.6	99	-0.13
20 PM	N-Nitroso-di-n-propylamine	0.922	0.938	-1.7	100	-0.13
21 I	Naphthalene-d8	1.000	1.000	0.0	100	-0.13
22 S	Nitrobenzene-d5	0.387	0.386	0.2	101	-0.13
23	Nitrobenzene	0.330	0.339	-2.7	107	-0.13
24	Isophorone	0.768	0.736	4.1	98	-0.15
25 C	2-Nitrophenol	0.236	0.259	-9.8	116	-0.12
26	2,4-Dimethylphenol	0.393	0.377	3.9	97	-0.13
27	bis(2-Chloroethoxy)methane	0.528	0.508	3.7	97	-0.12
28 C	2,4-Dichlorophenol	0.316	0.303	4.1	98	-0.13
29	Benzoic Acid	0.257	0.282	-9.6	109	-0.14
30 M	1,2,4-Trichlorobenzene	0.348	0.317	8.9	93	-0.13
31	Naphthalene	1.140	1.097	3.8	98	-0.13
32	4-Chloroaniline	0.345	0.232	32.9	76	-0.13
33 C	Hexachlorobutadiene	0.183	0.171	6.8	95	-0.13
34 CM	4-Chloro-3-methylphenol	0.341	0.334	2.0	98	-0.13
35	2-Methylnaphthalene	1.006	0.965	4.1	97	-0.14
36 I	Acenaphthene-d10	1.000	1.000	0.0	95	-0.16
37 P	Hexachlorocyclopentadiene	0.311	0.307	1.5	100	-0.13
38 C	2,4,6-Trichlorophenol	0.462	0.448	2.9	95	-0.13
39	2,4,5-Trichlorophenol	0.492	0.503	-2.3	101	-0.14
40 S	2-Fluorobiphenyl	1.450	1.377	5.0	93	-0.14

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21108\S22002.D

Acq Time : 8 Nov 99 11:18 am

Sample : 80 NG BNA CCC

Misc :

Operator: BOB

Inst : bn2

Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration

Last Update : Mon Nov 01 08:09:54 1999

Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min

Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
41	2-Chloronaphthalene	1.295	1.241	4.2	94	-0.14
42	2-Nitroaniline	0.353	0.413	-16.9	116	-0.13
43	Dimethylphthalate	1.440	1.397	3.0	94	-0.14
44	Acenaphthylene	2.116	2.064	2.4	95	-0.14
45	2,6-Dinitrotoluene	0.369	0.394	-6.5	106	-0.16
46	3-Nitroaniline	0.608	0.672	-10.4	110	-0.14
47 CM	Acenaphthene	1.252	1.219	2.6	96	-0.16
48 P	2,4-Dinitrophenol	0.180	0.210	-16.7	120	-0.14
49	Dibenzofuran	1.749	1.714	2.0	95	-0.16
50 PM	4-Nitrophenol	0.125	0.146	-17.1	119	-0.14
51 M	2,4-Dinitrotoluene	0.369	0.394	-6.5	106	-0.16
52	Fluorene	1.329	1.300	2.1	97	-0.15
53	Diethylphthalate	1.564	1.541	1.5	97	-0.14
54	4-Chlorophenyl-phenylether	0.663	0.629	5.1	93	-0.14
55 S	2,4,6-Tribromophenol	0.211	0.218	-3.1	104	-0.16
56	4-Nitroaniline	0.305	0.374	-22.6	122	-0.14
57 I	Phenanthrene-d10	1.000	1.000	0.0	97	-0.16
58	4,6-Dinitro-2-methylphenol	0.137	0.170	-23.7	125	-0.16
59 C	N-Nitrosodiphenylamine	0.460	0.434	5.7	94	-0.16
60	1,2-Diphenylhydrazine	0.941	0.968	-2.8	102	-0.16
61	4-Bromophenyl-phenylether	0.194	0.181	6.5	93	-0.14
62	Hexachlorobenzene	0.244	0.229	6.3	93	-0.17
63 CM	Pentachlorophenol	0.140	0.146	-4.0	107	-0.16
64	Phenanthrene	0.994	0.960	3.4	97	-0.16
65	Anthracene	1.026	1.003	2.2	98	-0.16
66	Carbazole	0.727	0.729	-0.3	121	-0.20
67	Di-n-butylphthalate	1.727	1.662	3.8	96	-0.15
68 C	Fluoranthene	1.054	1.065	-1.1	101	-0.18
59 I	Chrysene-d12	1.000	1.000	0.0	114	-0.17
70	Benzidine	0.006	0.006#	5.2	119	-0.15
1 M	Pyrene	1.705	1.545	9.3	103	-0.16
' S	Terphenyl-d14	1.077	0.945	12.3	100	-0.15
	Butylbenzylphthalate	1.282	1.150	10.3	102	-0.17
	Benzo[a]anthracene	1.148	1.102	4.0	110	-0.17
	3,3'-Dichlorobenzidine	0.197	0.184	6.3	131	-0.16
	Chrysene	1.118	1.098	1.8	112	-0.17
	bis(2-Ethylhexyl)phthalate	1.671	1.477	11.6	100	-0.16
	Di-n-octylphthalate	2.969	2.681	9.7	104	-0.16
	Indeno [1,2,3-cd] pyrene	0.869	0.842	3.1	114	-0.23

000200

--Perylene-d12-----1.000--1.000-----0.0-----116-----0.17--

t of Range

B21030C.M

Mon Nov 08 18:26:20 1999

BNA2

Page 2

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\B21108\S22002.D
 Acq Time : 8 Nov 99 11:18 am
 Sample : 80 NG BNA CCC
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Mon Nov 01 08:09:54 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
 Max. RRF Dev : 100% Max. Rel. Area : 400%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
81	Benzo[b]fluoranthene	1.194	1.146	4.1	118	-0.18
82	Benzo[k]fluoranthene	1.196	1.129	5.6	108	-0.18
83 C	Benzo[a]pyrene	1.059	1.028	3.0	113	-0.17
84	Dibenz[a,h]anthracene	0.843	0.805	4.4	113	-0.23
85	Benzo[g,h,i]perylene	0.826	0.786	4.8	112	-0.26

000201

CHEMTECH CONSULTING GROUP

SEMIVOLATILE

RAW QC DATA

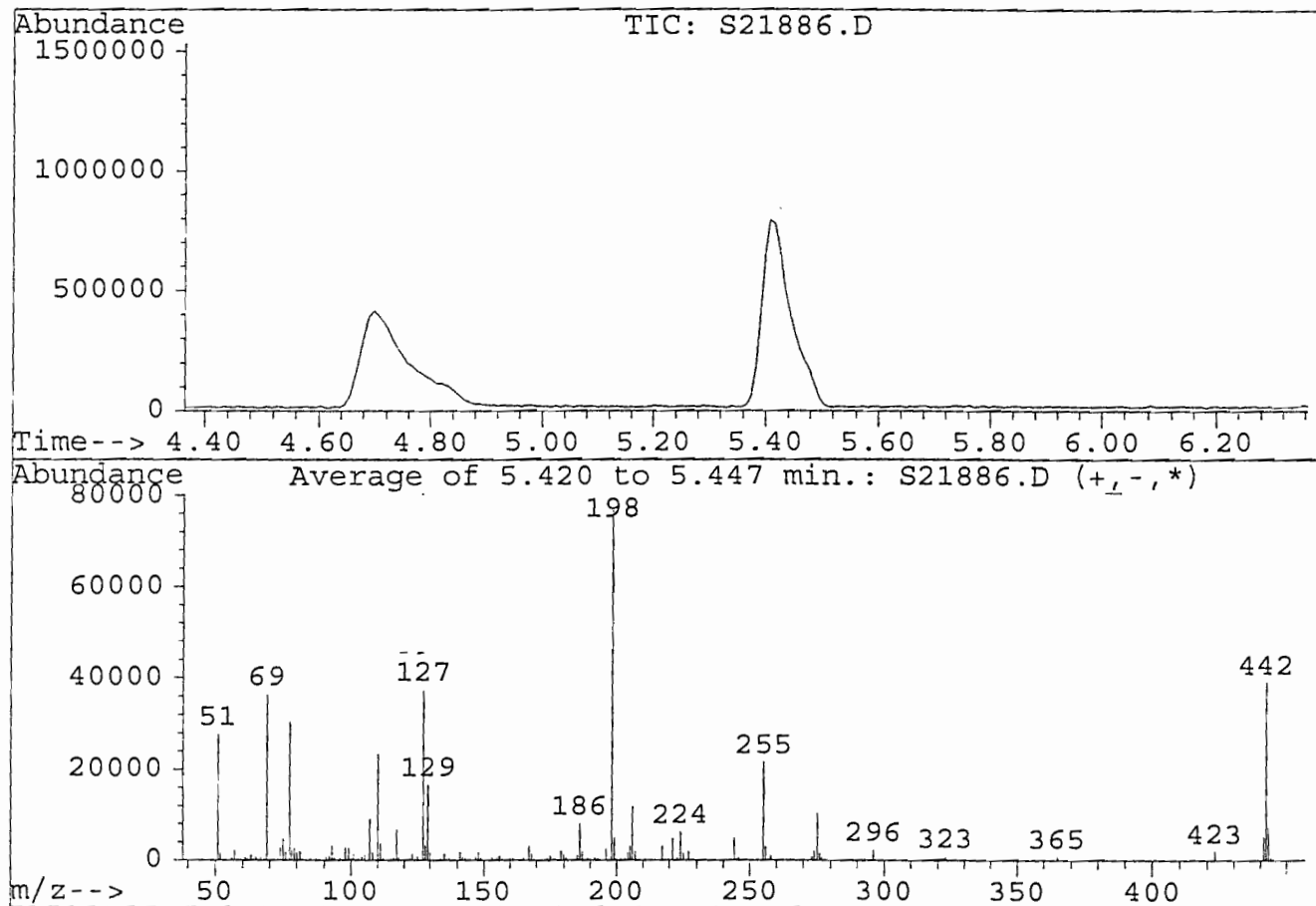
000202

DFTPP

Data File : D:\HPCHEM\1\DATA\B21030\S21886.D
Acq Time : 30 Oct 99 7:46 pm
Sample : 50 ng DFTPP
Misc :

Operator:
Inst : bn2
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
Title : CLP BNA Calibration



Peak Apex is scan: 333

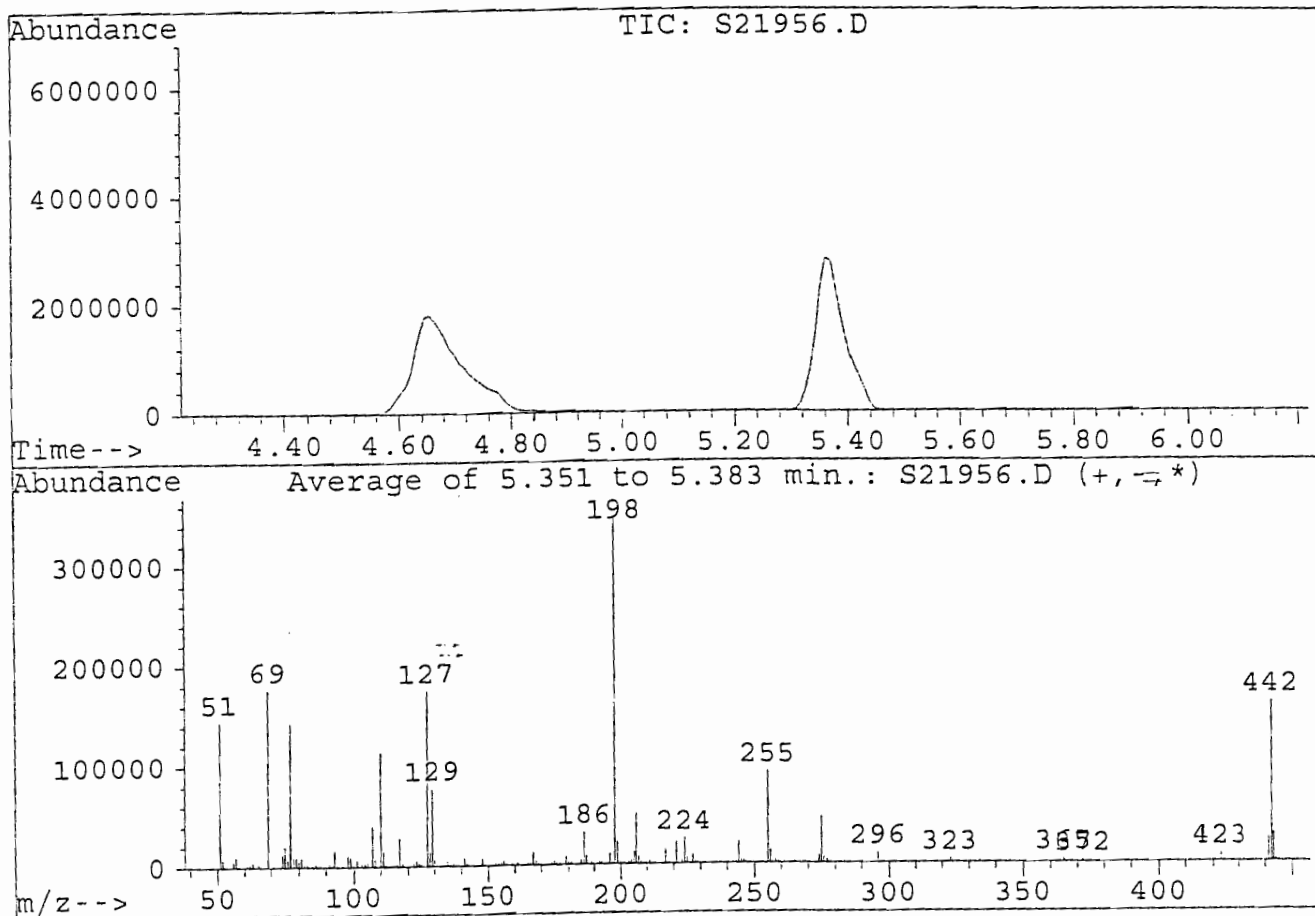
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.3	27757	PASS
68	69	0	2	0.7	239	PASS
69	198	0	100	47.6	36432	PASS
70	69	0	2	0.3	115	PASS
127	198	40	60	48.9	37453	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	76563	PASS
199	198	5	9	6.4	4925	PASS
275	198	10	30	13.5	10374	PASS
365	198	1	100	1.1	814	PASS
441	443	0	100	71.0	5238	PASS
442	198	40	100	51.0	39021	PASS
443	442	17	23	18.9	7380	PASS

DFTPP

Data File : D:\HPCHEM\1\DATA\B21105\S21956.D
 Acq Time : 5 Nov 99 9:24 am
 Sample : 50 ng DFTPP
 Misc :

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration



Peak Apex is scan: 306

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.3	145174	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	50.3	177162	PASS
70	69	0	2	0.3	457	PASS
127	198	40	60	49.8	175326	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	351936	PASS
199	198	5	9	6.5	22939	PASS
275	198	10	30	13.4	47186	PASS
365	198	1	100	1.1	3762	PASS
441	443	0	100	83.1	24365	PASS
442	198	40	100	45.9	161498	PASS
443	442	17	23	18.2	29312	PASS

DFTPP

Data File : D:\HPCHEM\1\DATA\B21107\S21984.D

Acq Time : 7 Nov 99 9:54 am

Sample : 50 ng DFTPP

Misc :

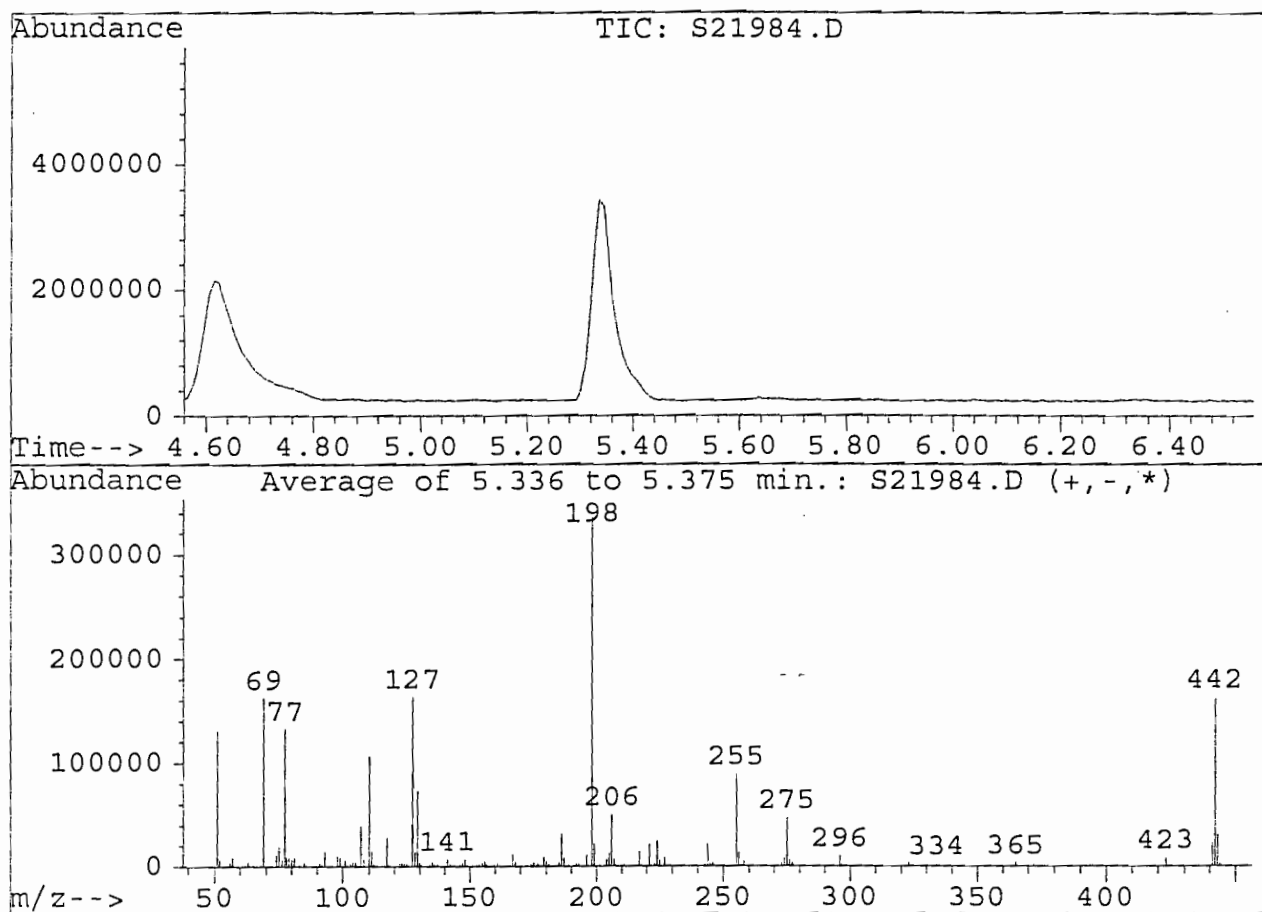
Operator: BOB

Inst : bn2

Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration



Peak Apex is scan: 355

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.7	130733	PASS
68	69	0	2	0.3	445	PASS
69	198	0	100	48.1	162460	PASS
70	69	0	2	0.5	873	PASS
127	198	40	60	48.5	163574	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	337459	PASS
199	198	5	9	6.3	21409	PASS
275	198	10	30	14.0	47165	PASS
365	198	1	100	1.1	3591	PASS
441	443	0	100	76.9	23263	PASS
442	198	40	100	48.4	163221	PASS
443	442	17	23	18.5	30251	PASS

DFTPP

Data File : D:\HPCHEM\1\DATA\B21108\S22000.D

Acq Time : 8 Nov 99 9:58 am

Sample : 50 ng DFTPP

Misc :

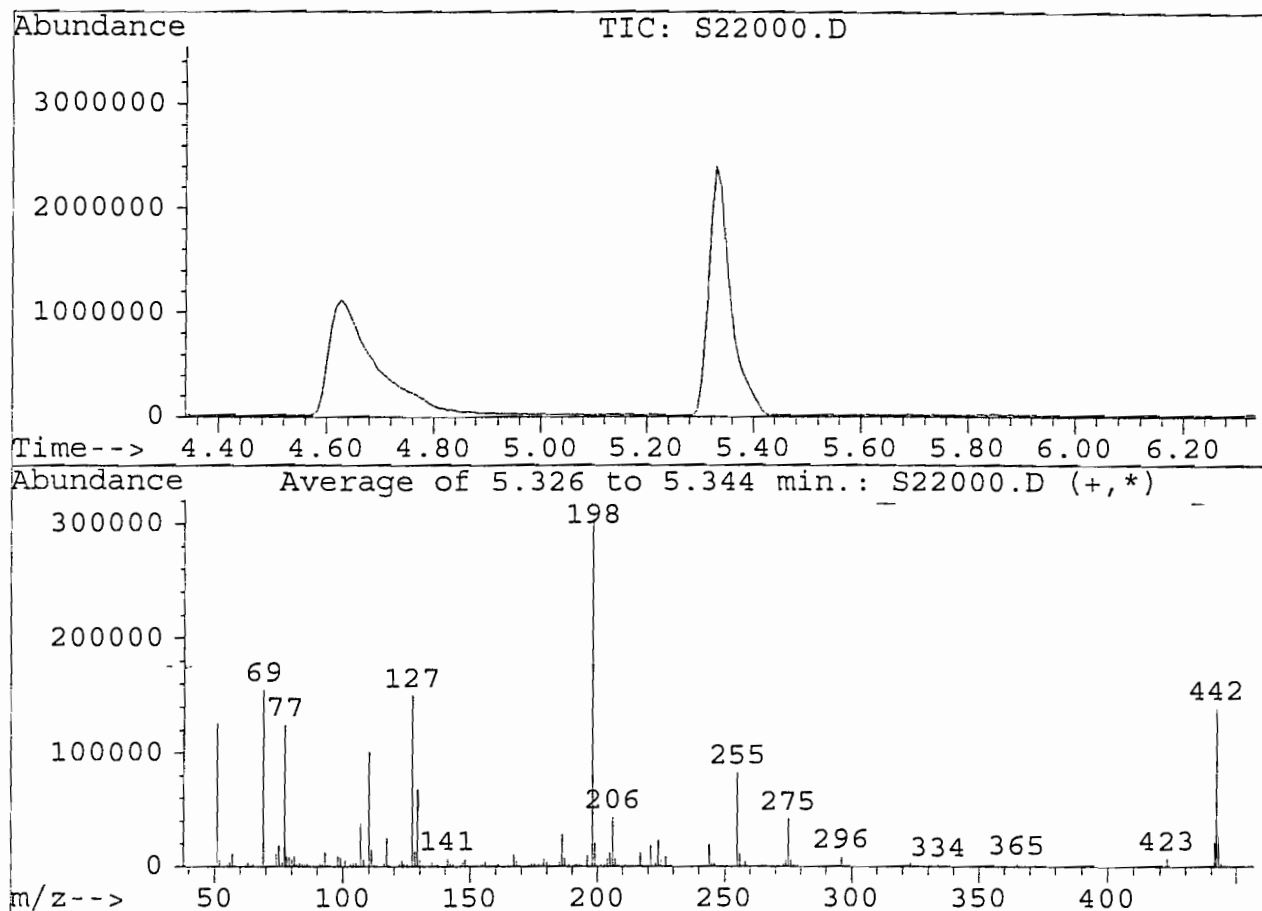
Operator: BOB

Inst : bn2

Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030.M

Title : CLP BNA Calibration



Peak Apex is scan: 326

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.9	125157	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	50.7	155080	PASS
70	69	0	2	0.6	875	PASS
127	198	40	60	48.9	149845	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	306155	PASS
199	198	5	9	6.8	20688	PASS
275	198	10	30	13.7	42067	PASS
365	198	1	100	1.0	3110	PASS
441	443	0	100	82.2	21645	PASS
442	198	40	100	45.4	139093	PASS
443	442	17	23	18.9	26331	PASS

SAMPLE NO.

SBLK01

Contract: IMPACT ENVIRONMENTAL

Site:

Location:

Group: GP-014-SS8

Lab Sample ID: SBLK01

Lab File ID: S21986.D

Date Received:

Date Extracted: 10/19/99

Date Analyzed: 11/7/99

Dilution Factor: 1.0

pH:

(ug/L or ug/Kg)

ug/Kg

Q

FORM I SV

000207

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21986.D

Acq Time : 7 Nov 99 11:08 am

Sample : BLANK

Misc :

Quant Time: Nov 10 15:40 1999

Operator: BOB

Inst : bn2

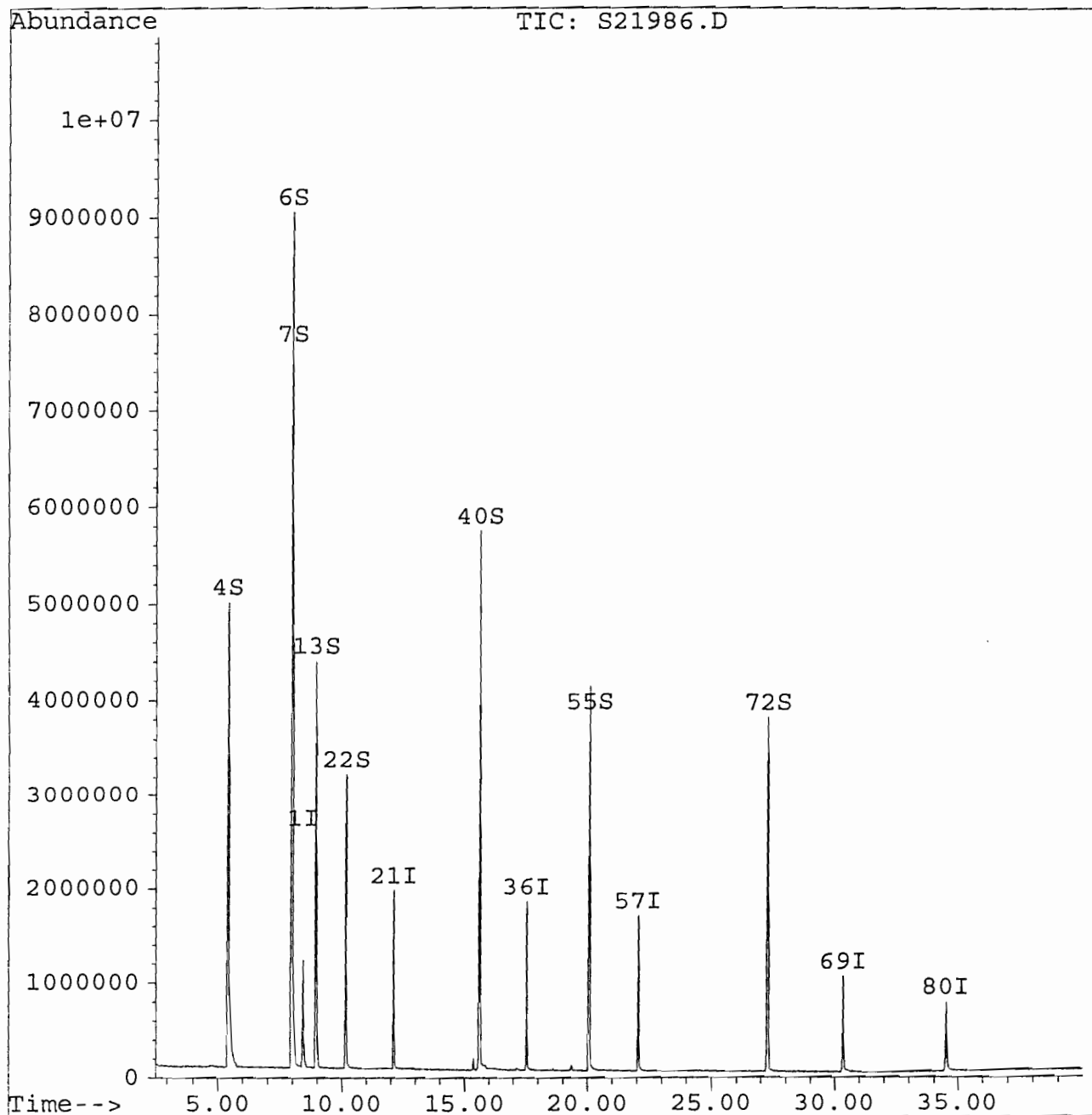
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration

Last Update : Wed Nov 10 09:59:44 1999

Response via : Multiple Level Calibration



000208

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21986.D
 Acq Time : 7 Nov 99 11:08 am
 Sample : BLANK
 Misc :
 Quant Time: Nov 10 15:40 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 10 09:59:44 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi)
1) 1,4-Dichlorobenzene-d4	8.40	152	588840	40.00	ng	-0.1
21) Naphthalene-d8	12.09	136	2240400	40.00	ng	-0.1
36) Acenaphthene-d10	17.53	164	973740	40.00	ng	-0.1
57) Phenanthrene-d10	22.05	188	1597821	40.00	ng	-0.1
69) Chrysene-d12	30.33	240	905154	40.00	ng	-0.1
80) Perylene-d12	34.48	264	703145	40.00	ng	-0.1

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recover
4) 2-Fluorophenol	5.40	112	6094338	239.41	ng	
6) 2-Chlorophenol-d4	7.96	132	6436689	250.89	ng	
7) Phenol-d5	7.98	99	5862833	212.42	ng	
13) 1,2-Dichlorobenzene-d4	8.92	152	2012297	136.35	ng	
22) Nitrobenzene-d5	10.14	82	2849457	131.43	ng	
40) 2-Fluorobiphenyl	15.61	172	4836736	137.05	ng	
55) 2,4,6-Tribromophenol	20.08	330	1430494	277.92	ng	
72) Terphenyl-d14	27.27	244	3517406	144.31	ng	

Target Compounds Qvalu

000209

1B

BLKSPK1

Contract: IMPACT ENVIRONMENTAL

Site:

Location:

Group: GP-014-SS8

Lab Sample ID: BLKSPK1

Lab File ID: S21987.D

Date Received:

decanted: (Y/N): N

Date Extracted: 10/19/99

Date Analyzed: 11/7/99

Dilution Factor: 1.0

pH:

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

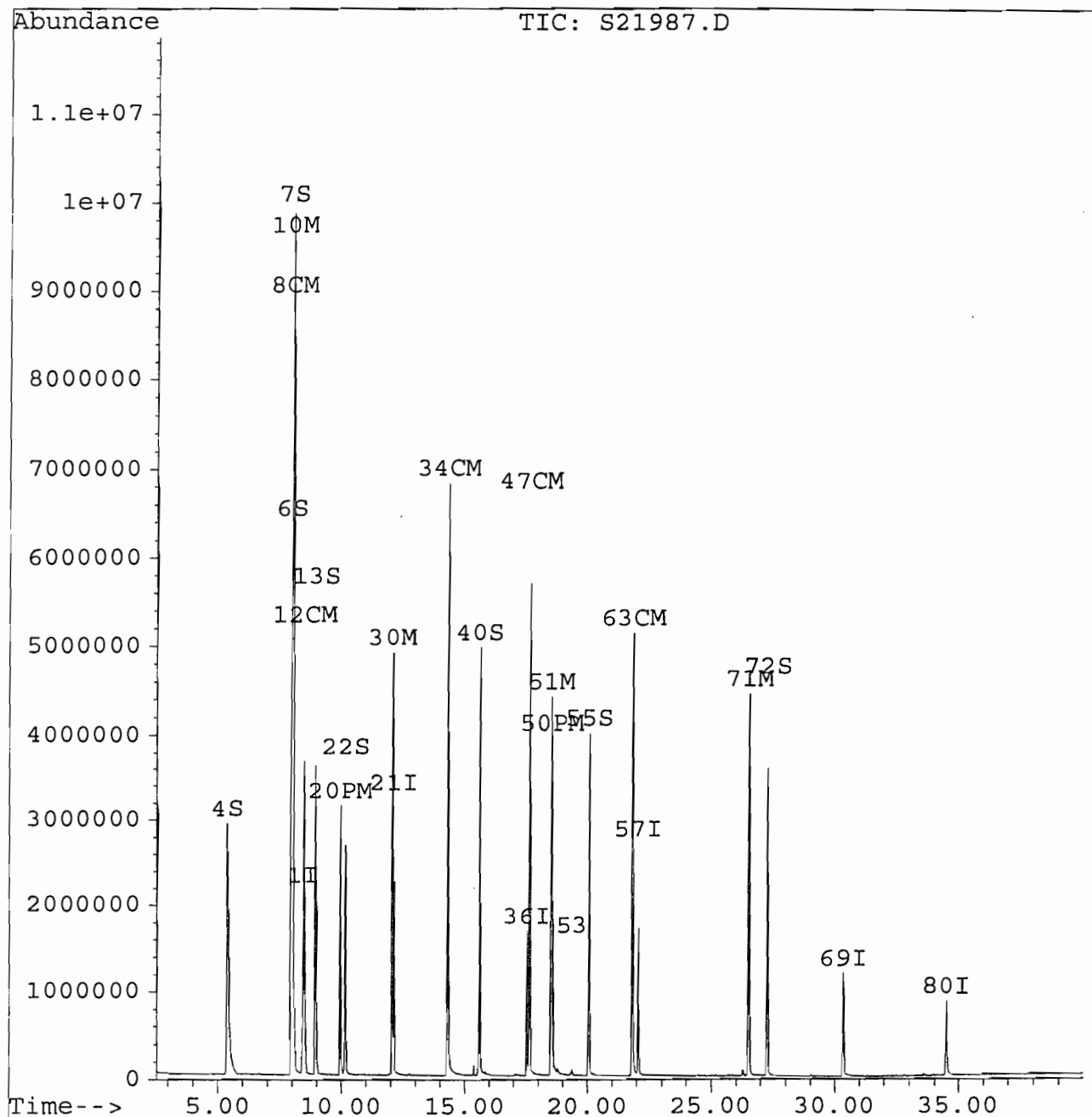
000210

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21987.D
Acq Time : 7 Nov 99 11:58 am
Sample : BLANK SPIKE
Misc :
Quant Time: Nov 10 15:41 1999

Operator: BOB
Inst : bn2
Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
Title : CLP BNA Calibration
Last Update : Wed Nov 10 09:59:44 1999
Response via : Multiple Level Calibration



000211

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21107\S21987.D
 Acq Time : 7 Nov 99 11:58 am
 Sample : BLANK SPIKE
 Misc :
 Quant Time: Nov 10 15:41 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 10 09:59:44 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi)
1) 1,4-Dichlorobenzene-d4	8.42	152	547438	40.00	ng	-0.1
21) Naphthalene-d8	12.10	136	2197634	40.00	ng	-0.0
36) Acenaphthene-d10	17.53	164	965207	40.00	ng	-0.1
57) Phenanthrene-d10	22.06	188	1654034	40.00	ng	-0.1
69) Chrysene-d12	30.34	240	1007875	40.00	ng	-0.1
80) Perylene-d12	34.49	264	808512	40.00	ng	-0.1

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recover
4) 2-Fluorophenol	5.37	112	5117417	216.23	ng	
6) 2-Chlorophenol-d4	7.95	132	5227220	219.16	ng	
7) Phenol-d5	7.98	99	4868670	189.74	ng	
13) 1,2-Dichlorobenzene-d4	8.92	152	1671400	121.82	ng	
22) Nitrobenzene-d5	10.14	82	2379555	111.89	ng	
40) 2-Fluorobiphenyl	15.60	172	4204065	120.18	ng	
55) 2,4,6-Tribromophenol	20.07	330	1278225	250.54	ng	
72) Terphenyl-d14	27.27	244	3165313	116.63	ng	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalu
8) Phenol	8.02	94	5160085	207.68	ng	8
10) 2-Chlorophenol	8.00	128	5528707	236.29	ng	9
12) 1,4-Dichlorobenzene	8.46	146	3125956	129.88	ng	9
20) N-Nitroso-di-n-propylamine	9.94	70	1669243	132.27	ng	9
30) 1,2,4-Trichlorobenzene	12.03	180	2597643	135.88	ng	10
34) 4-Chloro-3-methylphenol	14.30	107	4517846	241.36	ng	m 3
47) Acenaphthene	17.65	153	4100198	135.73	ng	10
50) 4-Nitrophenol	18.55	109	894960	297.23	ng	9
51) 2,4-Dinitrotoluene	18.52	165	1491027	167.28	ng	m 4
53) Diethylphthalate	19.36	149	82048	2.17	ng	9
63) Pentachlorophenol	21.84	266	1865068	321.62	ng	10
71) Pyrene	26.53	202	5946675	138.45	ng	9

000212

(#) = qualifier out of range (m) = manual integration

SAMPLE NO.

GP-015-SS12MS

Contract: IMPACT ENVIRONMENTAL

Group: GP-014-SSε

Lab Sample ID: O88010MS

Lab File ID: S21964.D

Date Received: 10/18/99

Date Extracted: 10/19/99

Date Analyzed: 11/5/99

Dilution Factor: 1.0

pH:

(ug/L or ug/Kg)

ug/Kg

Q

FORM I SV

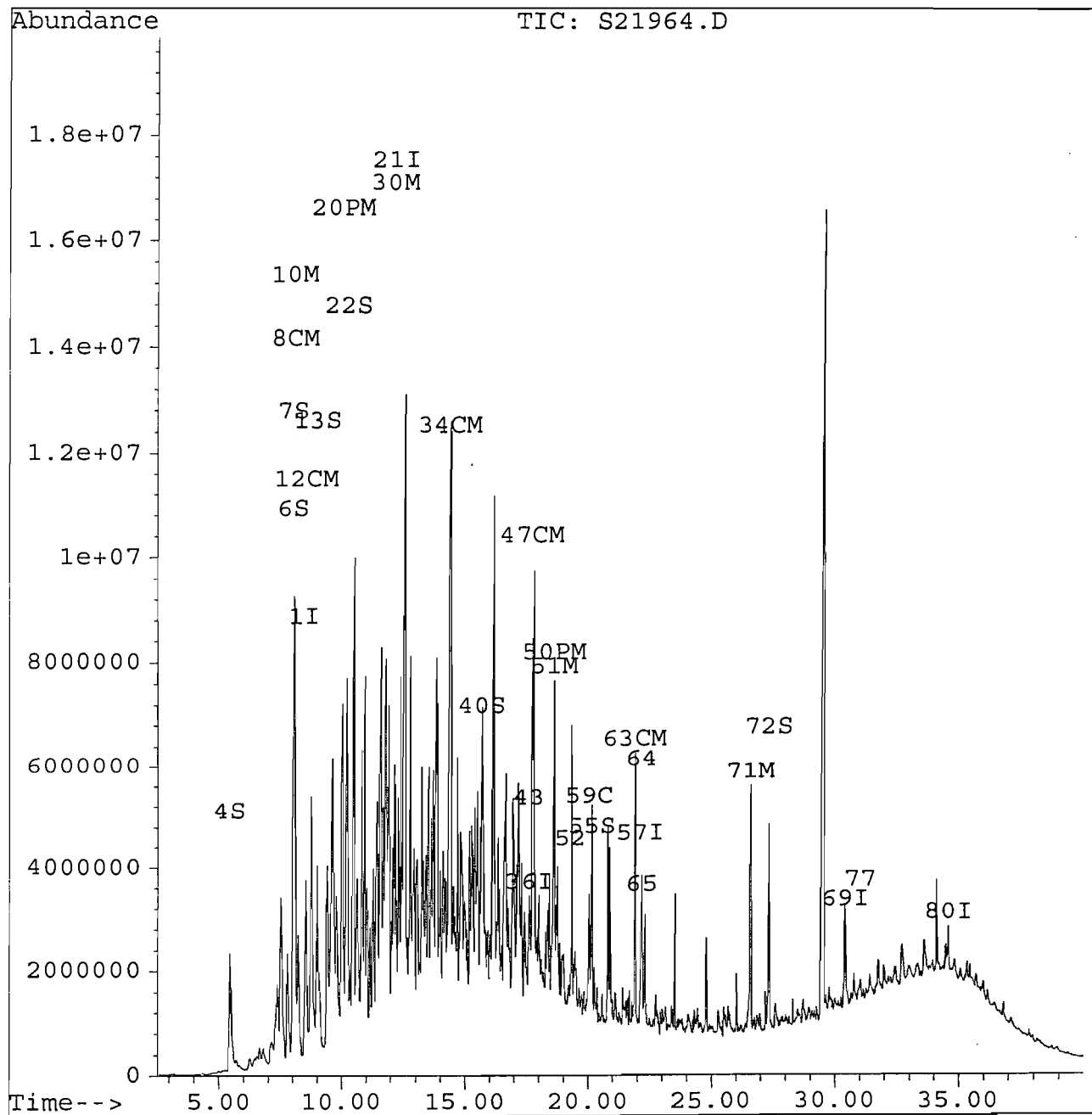
000213

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21964.D
 Acq Time : 5 Nov 99 3:42 pm
 Sample : 13827ASP-88010 MS-QB506
 Misc :
 Quant Time: Nov 10 15:50 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 10 09:59:44 1999
 Response via : Multiple Level Calibration



000214

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21964.D
 Acq Time : 5 Nov 99 3:42 pm
 Sample : 13827ASP-88010 MS-QB506
 Misc :
 Quant Time: Nov 10 15:50 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 10 09:59:44 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi)
1) 1,4-Dichlorobenzene-d4	8.48	152	592940	40.00	ng	-0.0
21) Naphthalene-d8	12.19	136	2134176	40.00	ng	0.0
36) Acenaphthene-d10	17.61	164	1060296	40.00	ng	-0.0
57) Phenanthrene-d10	22.14	188	1857105	40.00	ng	-0.0
69) Chrysene-d12	30.43	240	1236599	40.00	ng	-0.0
80) Perylene-d12	34.58	264	958451	40.00	ng	-0.0

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recover
4) 2-Fluorophenol	5.43	112	5151807	200.98	ng	
6) 2-Chlorophenol-d4	8.01	132	5411344	209.47	ng	
7) Phenol-d5	8.02	99	5100249	183.51	ng	
13) 1,2-Dichlorobenzene-d4	8.99	152	1693465	113.95	ng	
22) Nitrobenzene-d5	10.23	82	2403804	116.39	ng	
40) 2-Fluorobiphenyl	15.68	172	4283562	111.47	ng	
55) 2,4,6-Tribromophenol	20.15	330	1473305	262.88	ng	
72) Terphenyl-d14	27.34	244	3890263	116.82	ng	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalu
8) Phenol	8.07	94	5293899	196.71	ng	9
10) 2-Chlorophenol	8.05	128	5904395	232.98	ng	9
12) 1,4-Dichlorobenzene	8.53	146	3257323	124.95	ng	9
20) N-Nitroso-di-n-propylamine	10.01	70	1440760	105.40	ng	9
30) 1,2,4-Trichlorobenzene	12.13	180	2728503	146.97	ng	9
34) 4-Chloro-3-methylphenol	14.37	107	3685947	202.77	ng	4
43) Dimethylphthalate	17.61	163	177482	4.65	ng	9
47) Acenaphthene	17.73	153	4344825	130.93	ng	10
50) 4-Nitrophenol	18.62	109	1069072	323.22	ng	8
51) 2,4-Dinitrotoluene	18.61	165	1693890	173.00	ng	m 6
52) Fluorene	19.26	166	150580	4.28	ng	9
59) N-Nitrosodiphenylamine	20.03	169	106323	4.98	ng	7
63) Pentachlorophenol	21.91	266	2310135	354.81	ng	9
64) Phenanthrene	22.20	178	157570	3.42	ng	9
65) Anthracene	22.20	178	157570	3.31	ng	9
71) Pyrene	26.60	202	7058523	133.94	ng	9
77) bis(2-Ethylhexyl)phthalate	31.04	149	110211	2.13	ng	9

000215

1B

GP-015-SS12MSD

Contract: IMPACT ENVIRONMENTAL

Site:

Location:

Group: GP-014-SS8

Lab Sample ID: O88010SD

Lab File ID: S21965.D

Date Received: 10/18/99

Date Extracted: 10/19/99

Date Analyzed: 11/5/99

Dilution Factor: 1.0

pH:

(ug/L or ug/Kg)

ug/Kg

Q

[illegible]

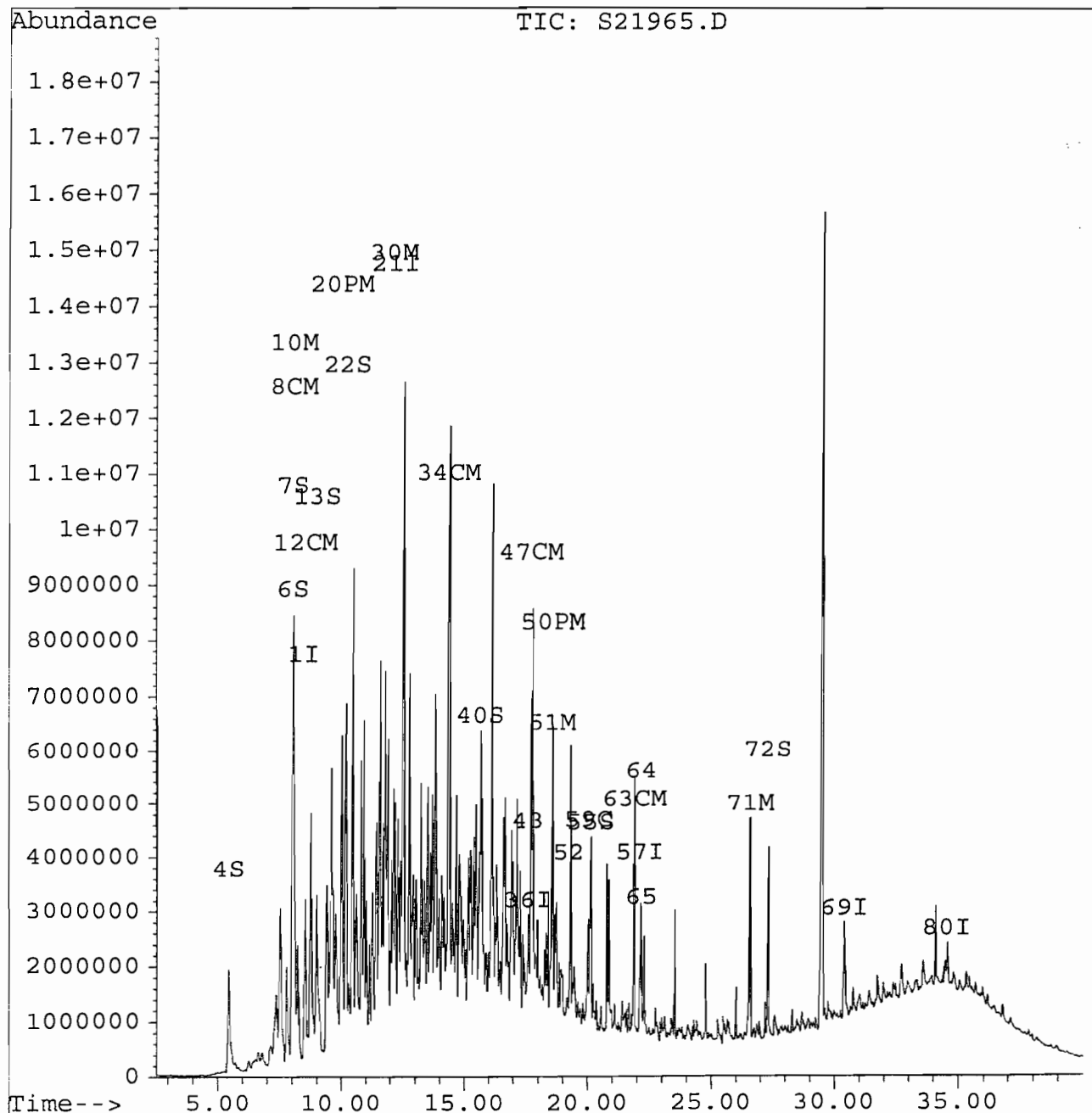
000216

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21965.D
 Acq Time : 5 Nov 99 4:33 pm
 Sample : 13827ASP-88010 MSD-QB506
 Misc :
 Quant Time: Nov 10 15:43 1999

Operator: BOB
 Inst : bn2
 Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M
 Title : CLP BNA Calibration
 Last Update : Wed Nov 10 09:59:44 1999
 Response via : Multiple Level Calibration



000217

Quantitation Report

Data File : D:\HPCHEM\1\DATA\B21105\S21965.D

Acq Time : 5 Nov 99 4:33 pm

Sample : 13827ASP-88010 MSD-QB506

Misc :

Quant Time: Nov 10 15:43 1999

Operator: BOB

Inst : bn2

Multiplr: 1.00

Method : D:\HPCHEM\1\METHODS\B21030C.M

Title : CLP BNA Calibration

Last Update : Wed Nov 10 09:59:44 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi)
1) 1,4-Dichlorobenzene-d4	8.48	152	493199	40.00	ng	-0.0
21) Naphthalene-d8	12.17	136	1834163	40.00	ng	-0.0
36) Acenaphthene-d10	17.58	164	891499	40.00	ng	-0.0
57) Phenanthrene-d10	22.13	188	1555498	40.00	ng	-0.0
69) Chrysene-d12	30.41	240	1007864	40.00	ng	-0.0
80) Perylene-d12	34.56	264	805728	40.00	ng	-0.0

System Monitoring Compounds						%Recover
4) 2-Fluorophenol	5.44	112	4464930	209.41	ng	
6) 2-Chlorophenol-d4	7.99	132	4558487	212.14	ng	
7) Phenol-d5	8.01	99	4394846	190.11	ng	
13) 1,2-Dichlorobenzene-d4	8.98	152	1430185	115.70	ng	
22) Nitrobenzene-d5	10.21	82	2070171	116.63	ng	
40) 2-Fluorobiphenyl	15.67	172	3557424	110.10	ng	
55) 2,4,6-Tribromophenol	20.13	330	1173180	248.96	ng	
72) Terphenyl-d14	27.32	244	3134104	115.48	ng	

Target Compounds						Qvalu
8) Phenol	8.05	94	4672069	208.71	ng	9
10) 2-Chlorophenol	8.05	128	5150477	244.33	ng	9
12) 1,4-Dichlorobenzene	8.51	146	2799834	129.12	ng	9
20) N-Nitroso-di-n-propylamine	9.99	70	1260241	110.84	ng	9
30) 1,2,4-Trichlorobenzene	12.11	180	2328205	145.92	ng	9
34) 4-Chloro-3-methylphenol	14.35	107	3223201	206.32	ng	4
43) Dimethylphthalate	17.60	163	154929	4.83	ng	9
47) Acenaphthene	17.70	153	3669834	131.53	ng	10
50) 4-Nitrophenol	18.60	109	861590	309.81	ng	9
51) 2,4-Dinitrotoluene	18.58	165	1398683	169.89	ng	m
52) Fluorene	19.25	166	122333	4.13	ng	9
59) N-Nitrosodiphenylamine	20.02	169	79787	4.46	ng	7
63) Pentachlorophenol	21.90	266	1885811	345.80	ng	9
64) Phenanthrene	22.19	178	131341	3.40	ng	9
65) Anthracene	22.19	178	131341	3.29	ng	9
71) Pyrene	26.59	202	5839676	135.96	ng	9

000218

(#) = qualifier out of range (m) = manual integration

S21965.D B21030C.M

Wed Nov 10 15:44:26 1999

BNA2

Page 1

CHEMTECH CONSULTING GROUP

MISCELLANEOUS DATA

000219

CHEMTECH

Extraction Logpage For: **SEMI VOLATILE**

Ref. Bna (5011) 8270

Batch # 63506

Sr. #	Sample #	Proj. #	Wt./Vol. (g./mL)	Date	pH	Final Vol. (mL)	Ver. Ser.	Ver. Spk.	Comment
1	88007	13827 ASP	30.0	10/19		1.0	CT		
2	88008		30.3				CT		11/2/89
3	88009		30.6				CT		
4	88010		30.5				CT		
5	88011		30.1				CT		
6	88012		30.2				CT		
7	88013		30.1				CT		
8	88014		30.3				CT		
9	88015		30.6				CT		
10	88016		30.3				CT		
11	88017		30.1				CT		
12	88018		30.0				CT		
13	88019		30.1				CT		
14	88020		30.0				CT		
15	89411	13827 NS	30.2	11/1		1.0	CT		
16									
17									
18									
19									
20									
MS	88010	13827 ASP	30.3	10/19		1.0	CT	CT	7.00
MSD	88010		30.3				CT	CT	11/2/89

* BLK, BLK SPIKE Extracted per day of Extraction Batch

CHEMTECH

Extraction Logpage For: **SEMI VOLATILE**

Matrix: 5011 Method #: 3557

Batch #: 63506

Date: 10/19/94

Cleanup Method: By:

Setup by: Date: / /

Concentration by: Date: / /

QC	mL Spike	Std. Ref. #: From logbook
Blank Spike	1.0	X 0310
Matrix Spike		
Matrix Spike Duplicate		
Surrogate	1.0	X 0320

Solvent/Chemical Used	Lot #:	Comment
Dichloro Methane	N 29270	
Aceton	N 50262	
Hexane	L 20317	17.5 mL
Sodium Sulfate	L 42152	
Ether		

Daily QC

Sr. #	Sample #	Proj. #	Wt./Vol. (g./mL)	Date	pH	Final Vol. (mL)	Ver. Ser.	Ver. Spk.	Balance Check
1	BLK1	13827 ASP	30.0	10/19		1.0	CT		7.00
2	BLK SPK1		J	10/19			CT	CT	11/2/89
3	BLK2								
4	BLK SPK2								
5	BLK3								
6	BLKSPK3								

000220

CHEMTECHDaily Analysis Runlog For GC/MS #: **BNA2**Start Date: 11/08/99 End Date: 11/8/99 Analyst VAD Review By: _____

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
DFTPP	B0385	QC Check Std.	
CCC 25	B0388 B0389	Initial Calibration Stds.	
Internal Stds.	S0207		

<u>SR #:</u>	<u>Sample ID</u>	<u>Batch #:</u>	<u>Data File Name</u>	<u>Dil. Fact.</u>	<u>Method #:</u>	<u>Comment</u>
1	50 mg AETP17		S22007			O.K.
2	50 mg BNAcc		S22008			O.K.
3	50 mg BNAcc		S22009			O.K.
4	137951R-875710R 100		S22013		CIP	O.K.
5	13827 ACP-88018 100 50R		S22014	5x	8270	O.K.
6	-88018		S22015			O.K.
7	88019		S22016			2.16? cont. run
8	88011		S22017			2.16
9	88012		S22018			2.16
10	88015		S22009			confirmation
11	88016		S22010			run.
12	88018		S22011			
13	13846 ACP-88700 06512		S22017			15+ LR
14	88701		S22013			15+ LR
15	88702		S22014			cut!
16						
17						
18						
19						
20						

000221

000165

Start Date: 11/07/99 End Date: 11/7/99 Analyst: VAD Review By: _____

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
DFTPP	B0385	QC Check Std.	
CCC 25	B0389	Initial Calibration Stds.	
Internal Stds.	S0207		

<u>SR. #:</u>	<u>Sample ID</u>	<u>Batch #:</u>	<u>Data File Name</u>	<u>Dil. Fact.</u>	<u>Method #:</u>	<u>Comment</u>
1	Strong DFTPP		S21984			OK
2	Strong BNA200		S21985			OK
3	Blank	08506	S21986		8270	OK
4	Bl. Spike	↓	S21987			OK
5	13824 Amp - 88708 CURS06		S21988			15L R12
6	- 88009		S21989			15L R12
7	-- 88011		S21990			15L R12
8	88012		S21991			15L R12
9	88015		S21992			15L R12
10	88016		S21993			15L R12
11	88018	↓	S21994			R12, 10L 5X
12	13897A Amp - 88720 CURS13		S21995			
13	88721		S21996			do not use
14	88722		S21997			
15	88721 Amp CURS13		S21998			
16	88721 Amp		S21999			
17						
18						
19						
20						

Start Date: 11/5/99 End Date: 11/5/99 Analyst: LAD Review By: _____

<u>STD. NAME</u>	<u>STD REF. #:</u>	<u>STD NAME</u>	<u>STD REF. #:</u>
DFTPP	60385	QC Check Std.	
CCC 25	60389	Initial Calibration Stds.	
Internal Stds.	S0207		

<u>SR. #:</u>	<u>Sample ID</u>	<u>Batch #:</u>	<u>Data File Name</u>	<u>Dil. Fact.</u>	<u>Method #:</u>	<u>Comment</u>
1	50 ng DFTPP		S21956			ok
2	80 ng BNA CCC		S21957			ok
3	Blank spike	Q6578	S21958		8270	ok
4	Blank spike	Q6504	S21959		- ↓	ok - -
5	13877 ADP-8846	OB 504	S21960			Confirmation run
6	13827 ADP-88017	OB 508	S21961			ok
7	88019		S21962			ok
8	88010		S21963			ok
9	88010 MS		S21964			ok
10	88010 MS D		S21965			ok
11	88007		S21966			ok
12	88020		S21967			ok
13	88013		S21968			ok
14	88014	↓	S21969			ok
15	13965 ADP-89617	OB 518	S21970		↓	Confirmation run
16						
17						
18						
19						
20						

000162

SEMIVOLATILE ANALYSIS
CASE NARRATIVE SUPPORT DOCUMENT

Project No.: 13827 ASPDate: 11/10/99Project Name: Impact EnvironmentalAnalyst: WABSupervisor: Bob

Department Head: _____

QC Review by: _____

LAB SAMPLE NO.	COMMENTS
88007	} none
88008	
88010	
88013	
88014	
88017	
88019	
88020	
88009	} samples were seen to confirm poor internal std recovery due to sample matrix
88011	
88012	
88015	
88016	
88018	
<u>GENERAL COMMENTS:</u> 8270 c Analysis. States Compound list.	

NOTES:

1. Please report unusual (e.g. different matrix, analytical problems, etc.) items.
2. For no unusual items, please write 'NONE.'
3. Return the completed document to QC Department with the analytical data.

SHIPPING AND RECEIVING DOCUMENTATION

000226

CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Impact Environmental

ADDRESS: 1 Village Plaza

CITY: Kings Park STATE: NY ZIP: 11754

ATTENTION: Kevin Klecka

PHONE: (516) 269-8800 FAX: (516) 269-1599

DATA TURNAROUND INFORMATION

AX: _____ DAYS *
HARD COPY: _____ DAYS *
DD: _____ DAYS *

TO BE APPROVED BY CHEMTECH

* NORMAL TURNAROUND TIME - 14 DAYS

PROJECT INFORMATION

PROJECT NAME: #1-3D-0435

PROJECT NO.: 98-335 Westbury

PROJECT MANAGER: Richard Parrish

LOCATION: 299 Main St., Westbury, NY

PHONE: _____ FAX: _____

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ NY'S ASP "B"
☐ NJ REDUCED ☐ NY'S ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT: _____

BILLING INFORMATION

BILL TO: Client PO #:

ADDRESS:

CITY: _____ STATE: _____ ZIP: _____

ATTENTION: _____ PHONE: _____

ANALYSIS

1	2	3	4	5	6	7	8	9
8370 (STRE)	8370 (STRE)							

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	335-GP-014 - SS8	S	X		10/14/99	10:18	2	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

ELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	RECEIVED BY:	RECEIVED FOR LAB BY:	DATE/TIME:
K-K	10/18/99	10/18/99	10/18/99	10/18/99	10/18/99	10/18/99
ELINQUISHED BY:						
ELINQUISHED BY:						



CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Impact Environmental
ADDRESS: 1 Village Plaza STATE: NJ ZIP: 07054
CITY: King's Park
ATTENTION: Kevin Klecka
PHONE: (616) 269-8800 FAX: (616) 269-1599

PROJECT INFORMATION

PROJECT NAME: #1-30-0435
PROJECT NO.: 98-335, Westbury
PROJECT MANAGER: Richard Parrish
LOCATION: 299 Main St., Westbury, NY
PHONE: — FAX: —

BILLING INFORMATION

BILL TO: Client PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:
ANALYSIS

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EOD: _____ DAYS *
TO BE APPROVED BY CHEMTECH
* NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT: _____

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX			SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
		CO	GC	GC	GC	GC	DATE	TIME		1	2	3	4	5	6	7	8	9	
0000228	335-GP-018-SS8	S			X	X	10/14/99	2 ¹⁵	2	X	X								
	335-GP-018-SS12	S			X	X	10/14/99	2 ¹⁵	2	X	X								
	335-GP-019-SS8	S			X	X	10/14/99	3 ⁰¹	2	X	X								
	335-GP-019-SS12	S			X	X	10/14/99	3 ¹⁵	2	X	X								
	335-GP-020-SS8	S			X	X	10/14/99	12 ²⁵	2	X	X								
	335-GP-020-SS12	S			X	X	10/14/99	12 ¹⁵	2	X	X								
	335-GP-020-SS8																		

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY										Conditions of bottles or coolers at receipt:		Comments:	
ELINQUISHED BY SAMPLER:	DATE/TIME:	1.	RECEIVED BY:	DATE/TIME:	2.	RECEIVED BY:	DATE/TIME:	3.	RECEIVED FOR TAB BY:	Page	of	Shipment Complete:	Temp. of Cooler
<u>[Signature]</u>	<u>10/15/99</u>	<u>200</u>	<u>[Signature]</u>	<u>10/15/99</u>	<u>[Signature]</u>	<u>10/18/99</u>	<u>1400</u>	<u>[Signature]</u>	<u>10/18/99</u>	1	1	Yes	40



ANALAB/ICM DIVISION

205 Campus Plaza 1 • Raritan Center • Edison, NJ • 08837
Tel: 732.225.4111 Fax: 732.225.4110

DATA PACKAGE FOR VOLATILE ORGANICS

**PROJECT NAME: # 1-30-0435
PROJECT # 98-335, WESTBURY**

**IMPACT ENVIRONMENTAL
1 VILLAGE PLAZA
KING PARK NY 11754
916-269-8800**

**CHEMTECH PROJECT
ATTENTION**

**L5320ASP
KEVIN KLEAKA**

CASE NARRATIVE-VOLATILE ORGANICS**Impact Environmental****Project Name: # 1-30-0435****Project # 98-335, Westbury****Chemtech Project # L5320ASP****A. Number of Samples and Date of Receipt**

18 Aqueous Samples, 1 Trip Blank Plus 3 Field Blank were delivered to the laboratory intact on 10/26/99.

B. Parameters

Test requested was Volatile Organics. This data package contains results for Volatile Organics.

C. Analytical Techniques:

Samples were analyzed for Volatile Organics according Method 624. The analyses were performed on instruments VOA5, using GC column RTX624 which is 75 meters, 0.53mm ID, 3.0mm df (crossbond 6% cyanopropylphenyl-94%) dimethylpolysiloxane. The Purge Trap was supplied by Supelco, VO CARB 3000, Tekmar 3000.

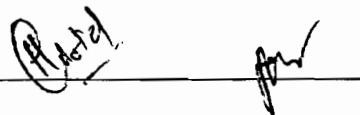
D. QA/ QC Samples:

The Surrogate Recoveries for each sample are found in Form II-A. Initial Calibration of Single Component Analytes results are found on Form 6 D & E. The Matrix Spike and Matrix Spike Duplicate were analyzed and are reported on Form 3F.

System Monitoring Compound recoveries were acceptable except for 335-GP-034-GW01. MS/MSD recoveries and RPDs met requirements. Internal Standard Areas and Retention Times met criteria. Calibrations met requirements. Blank analyses did not indicate the presence of contamination.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature

Name: Divyajit Mehta

Date:

11/11/99Title: Lab Manager**000001**



ANALAB/ICM DIVISION

205 Campus Plaza 1 • Raritan Center • Edison, NJ • 08837
Tel: 732.225.4111 Fax: 732.225.4110

COVER PAGE

Lab Name: Chemtech Consulting Group
Lab Code: CHEM Project No.: L5320ASP

Client: IMPACT ENVIRONMENTAL
Project Name: #1-30-0435

Client Sample No.	Lab Sample ID
335-GP-021-GW01	91747
335-GP-022-GW01	91748
335-GP-023-GW01	91749
335-GP-024-GW01	91750
335-GP-025-GW01	91751
335-GP-026-GW01	91752
335-GP-027-GW01	91753
335-GP-028-GW01	91754
335-GP-029-GW01	91755
335-GP-030-GW01	91756
335-GP-031-GW01	91757
335-GP-032-GW01	91758
335-GP-033-GW01	91759
335-GP-034-GW01	91760
335-GP-035-GW01	91761
335-GP-036-GW01	91762
335-GP-037-GW01	91763
335-GP-FB-GW(10/19)	91764
335-GP-FB-GW(10/20)	91765
335-GP-FB-GW(10/21)	91766
335-GP-FB-GW(10/22)	91767
335-TRIP BK	91768

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designed, as verified by the following signature.

Signature: _____

Name: DIVYAJIT MEHTA

Date: _____

Title: LAB DIRECTOR

000002

DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.

J - Indicates an estimated value. This flag is used:

- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).
- (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".

B - Indicates the analyte was found in the blank as well as the sample; report as "12 B".

E - Indicates the analyte's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

P - This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

N - This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

CHEMTECH CONSULTING GROUP

II

VOLATILES

DATA

000004

CHEMTECH CONSULTING GROUP

VOLATILES

QC DATA

000005

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-GW

	SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER #	TOT OUT
01	VBLK01	90	88	89		
02	BLKSPK	97	97	97		
03	335-GP-021-GW01	101	96	102		
04	335-GP-022-GW01	100	95	102		
05	335-GP-023-GW01	98	89	100		
06	335-GP-024-GW01	101	96	102		
07	335-GP-025-GW01	95	92	99		
08	335-GP-026-GW01	94	98	100		
09	335-GP-027-GW01	91	101	95		
10	335-GP-028-GW01	93	87	94		
11	VBLK02	99	89	100		
12	335-GP-029-GW01MS	95	93	81		
13	335-GP-029-GW01	100	99	102		
14	335-GP-030-GW01	91	106	92		
15	335-GP-031-GW01	105	103	100		
16	335-GP-032-GW01	102	96	101		
17	335-GP-033-GW01	89	87	86		
18	335-GP-034-GW01	143 *	93	95		1
19	335-GP-036-GW01	90	92	92		
20	335-GP-037-GW01	91	91	88		
21	335-GP-FB-GW 10 21	98	88	90		
22	335-GP-FB-GW 10 22	95	90	88		
23	335-TRIP BK	103	91	98		
24	335-GP-030-GW01DL	88 D	90 D	88 D		
25	335-GP-035-GW01	92	89	93		
26	335-GP-034-GW01DL	120 D	95 D	85 D		
27	335-GP-034-GW01DL1	105 D	101 D	106 D		
28	VBLK03	94	88	99		
29	335-GP-FB-GW 10 19	102	91	101		
30	335-GP-FB-GW 10 20	100	90	101		

QC LIMITS

SMC1 (TOL) = Toluene-d8

(88-110)

SMC2 (BFB) = Bromofluorobenzene

(86-115)

SMC3 (DCE) = 1,2-Dichloroethane-d4

(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A
VOLATILE MATRIX SPIKE

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: _____

COMPOUND	MS CONC.	SAMPLE CONC.	SPIKE ADDED	%R	
Chloromethane	18.58	0.00	20.00	92.9	
Bromomethane	19.12	0.00	20.00	95.6	
Vinyl Chloride	18.71	0.00	20.00	93.6	
Chloroethane	15.99	0.00	20.00	80.0	
Trichlorofluoromethane	20.11	0.00	20.00	100.6	
Methylene Chloride	18.26	0.00	20.00	91.3	
1,1-Dichloroethene	18.83	0.00	20.00	94.2	
1,1-Dichloroethane	18.50	0.00	20.00	92.5	
trans-1,2-Dichloroethene	18.52	0.00	20.00	92.6	
Chloroform	18.68	0.00	20.00	93.4	
1,2-Dichloroethane	18.66	0.00	20.00	93.3	
1,1,1-Trichloroethane	18.65	0.00	20.00	93.3	
Carbon Tetrachloride	18.45	0.00	20.00	92.3	
Bromodichloromethane	18.83	0.00	20.00	94.2	
1,2-Dichloropropane	18.23	0.00	20.00	91.2	
cis-1,3-Dichloropropene	18.49	0.00	20.00	92.5	
Trichloroethene	19.13	0.00	20.00	95.7	
Dibromochloromethane	17.88	0.00	20.00	89.4	
1,1,2-Trichloroethane	18.02	0.00	20.00	90.1	
Benzene	18.54	0.00	20.00	92.7	
trans-1,3-Dichloropropene	18.42	0.00	20.00	92.1	
2-Chloroethylvinyl ether	21.00	0.00	20.00	105.0	
Bromoform	17.44	0.00	20.00	87.2	
Tetrachloroethene	18.41	0.00	20.00	92.1	
1,1,2,2-Tetrachloroethane	17.29	0.00	20.00	86.5	
Toluene	18.67	0.00	20.00	93.4	
Chlorobenzene	18.37	0.00	20.00	91.9	
Ethylbenzene	18.44	0.00	20.00	92.2	
1,2-Dichlorobenzene	17.51	0.00	20.00	87.6	
1,3-Dichlorobenzene	18.32	0.00	20.00	91.6	
1,4-Dichlorobenzene	19.52	0.00	20.00	97.6	

VOLATILE METHOD BLANK SUMMARY

VBLK01

Lab Name: CHEMTECHContract: IMPACTProject No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02Lab File ID: V9619.DLab Sample ID: VBLK01Date Analyzed: '10/28/99Time Analyzed: 0003GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) NInstrument ID: VOA 1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLKSPK	BLKSPK	V9620.D	0047
02	335-GP-021-GW01	O91747	V9621.D	0132
03	335-GP-022-GW01	O91748	V9622.D	0217
04	335-GP-023-GW01	O91749	V9623.D	0301
05	335-GP-024-GW01	O91750	V9624.D	0345
06	335-GP-025-GW01	O91751	V9625.D	0430
07	335-GP-026-GW01	O91752	V9626.D	0514
08	335-GP-027-GW01	O91753	V9627.D	0558
09	335-GP-028-GW01	O91754	V9628.D	0643
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBK02

Lab Name: CHEMTECH Contract: IMPACT

Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-02

Lab File ID: V9631.D Lab Sample ID: VBK02

Date Analyzed: '10/28/99 Time Analyzed: 1221

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA 1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	335-GP-029-GW01MS	O91755MS	V9638.D	1748
02	335-GP-029-GW01	O91755	V9639.D	1832
03	335-GP-030-GW01	O91756	V9640.D	1916
04	335-GP-031-GW01	O91757	V9641.D	2001
05	335-GP-032-GW01	O91758	V9642.D	2045
06	335-GP-033-GW01	O91759	V9643.D	2130
07	335-GP-034-GW01	O91760	V9644.D	2214
08	335-GP-036-GW01	O91762	V9646.D	2343
09	335-GP-037-GW01	O91763	V9647.D	0028
10	335-GP-FB-GW 10 21	O91766	V9650.D	0248
11	335-GP-FB-GW 10 22	O91767	V9651.D	0332
12	335-TRIP BK	O91768	V9652.D	0418
13	335-GP-030-GW01DL	O91756DL	V9653.D	0503
14	335-GP-035-GW01	O91761	V9655.D	0632
15	335-GP-034-GW01DL	O91760DL	V9656.D	0717
16	335-GP-034-GW01DL	O91760L1	V9657.D	0801
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBK03

Lab Name: CHEMTECH Contract: IMPACT

Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-02

Lab File ID: V9676.D Lab Sample ID: VBK03

Date Analyzed: '10/30/99 Time Analyzed: 0904

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA 1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	335-GP-FB-GW 10 19	O91764	V9684.D	1529
02	335-GP-FB-GW 10 20	O91765	V9685.D	1613
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COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-021-
 Lab File ID: V9601.D BFB Injection Date: '10/27/99
 Instrument ID: VOA 1 BFB Injection Time: 0947
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.1
75	30.0 - 60.0% of mass 95	45.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	< 2.0% of mass 174	0.0 (0.0)1
174	> 50.0% of mass 95	50.8
175	5.0 - 9.0% of mass 174	3.5 (6.8)1
176	> 95.0 % but < 101.0% of mass 174	49.3 (97.1)1
177	5.0 - 9.0% of mass 176	3.3 (6.6)2

1-Value is % mass 174

2-Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	V9616.D	10/27/99	2150
02	VSTD020	VSTD020	V9617.D	10/27/99	2234
03	VSTD005	VSTD005	V9618.D	10/27/99	2318
04	VBLK01	VBLK01	V9619.D	10/28/99	0003
05	BLKSPK	BLKSPK	V9620.D	10/28/99	0047
06	335-GP-021-GW01	O91747	V9621.D	10/28/99	0132
07	335-GP-022-GW01	O91748	V9622.D	10/28/99	0217
08	335-GP-023-GW01	O91749	V9623.D	10/28/99	0301
09	335-GP-024-GW01	O91750	V9624.D	10/28/99	0345
10	335-GP-025-GW01	O91751	V9625.D	10/28/99	0430
11	335-GP-026-GW01	O91752	V9626.D	10/28/99	0514
12	335-GP-027-GW01	O91753	V9627.D	10/28/99	0558
13	335-GP-028-GW01	O91754	V9628.D	10/28/99	0643
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**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name : CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-Lab File ID: V9629.DBFB Injection Date: 10/28/99Instrument ID: VOA 1BFB Injection Time: 1015GC Column: RTX624ID: 0.53 (mm)Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.7
75	30.0 - 60.0% of mass 95	46.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	< 2.0% of mass 174	0.3 (0.6)1
174	> 50.0% of mass 95	51.2
175	5.0 - 9.0% of mass 174	3.7 (7.1)1
176	> 95.0 % but < 101.0% of mass 174	50.1 (97.9)1
177	5.0 - 9.0% of mass 176	3.4 (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:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD2002	V9630.D	10/28/99	1047
02	VBLK02	VBLK02	V9631.D	10/28/99	1221
03	335-GP-029-GW01MS	O91755MS	V9638.D	10/28/99	1748
04	335-GP-029-GW01	O91755	V9639.D	10/28/99	1832
05	335-GP-030-GW01	O91756	V9640.D	10/28/99	1916
06	335-GP-031-GW01	O91757	V9641.D	10/28/99	2001
07	335-GP-032-GW01	O91758	V9642.D	10/28/99	2045
08	335-GP-033-GW01	O91759	V9643.D	10/28/99	2130
09	335-GP-034-GW01	O91760	V9644.D	10/28/99	2214
10	335-GP-036-GW01	O91762	V9646.D	10/28/99	2343
11	335-GP-037-GW01	O91763	V9647.D	10/29/99	0028
12	335-GP-FB-GW 10 21	O91766	V9650.D	10/29/99	0248
13	335-GP-FB-GW 10 22	O91767	V9651.D	10/29/99	0332
14	335-TRIP BK	O91768	V9652.D	10/29/99	0418
15	335-GP-030-GW01DL	O91756DL	V9653.D	10/29/99	0503
16	335-GP-035-GW01	O91761	V9655.D	10/29/99	0632
17	335-GP-034-GW01DL	O91760DL	V9656.D	10/29/99	0717
18	335-GP-034-GW01DL	O91760L1	V9657.D	10/29/99	0801
19					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-021-
 Lab File ID: V9674.D BFB Injection Date: '10/30/99
 Instrument ID: VOA 1 BFB Injection Time: 0722
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.0
75	30.0 - 60.0% of mass 95	45.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	< 2.0% of mass 174	0.2 (0.4)1
174	> 50.0% of mass 95	52.6
175	5.0 - 9.0% of mass 174	3.7 (7.0)1
176	> 95.0 % but < 101.0% of mass 174	51.4 (97.6)1
177	5.0 - 9.0% of mass 176	3.4 (6.6)2

1-Value is % mass 174

2-Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD2003	V9675.D	10/30/99	0754
02	VBLK03	VBLK03	V9676.D	10/30/99	0904
03	335-GP-FB-GW 10 19	O91764	V9684.D	10/30/99	1529
04	335-GP-FB-GW 10 20	O91765	V9685.D	10/30/99	1613
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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-Lab File ID (Standard): V9617.DDate Analyzed: 10/27/99Instrument ID: VOA 1Time Analyzed: 2234GC Column: RTX624ID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (CBZ)		IS2 DFB		IS3 BCM	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	3215355	22.36	3842534	14.37	684261	10.80
UPPER LIMIT	6430710	22.86	7685068	14.87	1368522	11.30
LOWER LIMIT	1607678	21.86	1921267	13.87	342131	10.30
SAMPLE NO.						
01 VBLK01	3319333	22.32	3869363	14.31	701104	10.71
02 BLKSPK	3145833	22.36	3798564	14.37	665429	10.81
03 335-GP-021-GW01	2999552	22.35	3591079	14.34	632339	10.78
04 335-GP-022-GW01	3075012	22.37	3607192	14.37	644224	10.80
05 335-GP-023-GW01	3161242	22.38	3838526	14.35	664193	10.77
06 335-GP-024-GW01	3138598	22.36	3842243	14.36	658934	10.81
07 335-GP-025-GW01	2705340	22.38	3206944	14.35	589326	10.77
08 335-GP-026-GW01	2373721	22.36	2688935	14.37	511850	10.82
09 335-GP-027-GW01	2054025	22.37	2283458	14.35	460653	10.77
10 335-GP-028-GW01	2963731	22.35	3439773	14.34	652446	10.78
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22						

IS1 (CBZ) = Chlorobenzene-d5

IS2 DFB = 1,4-Difluorobenzene

IS3 BCM = Bromochloromethane

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-Lab File ID (Standard): V9630.DDate Analyzed: 10/28/99Instrument ID: VOA 1Time Analyzed: 1047GC Column: RTX624ID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (CBZ) AREA #	RT #	IS2 DFB AREA #	RT #	IS3 BCM AREA #	RT #
12 HOUR STD	2701409	22.36	3235182	14.32	583937	10.72
UPPER LIMIT	5402818	22.86	6470364	14.82	1167874	11.22
LOWER LIMIT	1350705	21.86	1617591	13.82	291969	10.22
SAMPLE NO.						
01 VBLK02	3135273	22.37	3680742	14.35	671113	10.76
02 335-GP-029-GW01MS	2997414	22.38	3672114	14.38	646924	10.83
03 335-GP-029-GW01	2639421	22.40	3212999	14.39	576281	10.82
04 335-GP-030-GW01	2976230	22.37	3549114	14.38	637915	10.83
05 335-GP-031-GW01	2561878	22.37	3016752	14.37	553688	10.80
06 335-GP-032-GW01	2847755	22.38	3344489	14.38	595601	10.80
07 335-GP-033-GW01	2385893	22.37	2821843	14.38	529839	10.82
08 335-GP-034-GW01	2638312	22.40	2424381	14.38	452092	10.80
09 335-GP-036-GW01	2052479	22.38	2305796	14.37	462184	10.81
10 335-GP-037-GW01	2501662	22.37	2903984	14.39	548878	10.82
11 335-GP-FB-GW 10 21	2700457	22.39	3204098	14.39	596948	10.82
12 335-GP-FB-GW 10 22	2908482	22.40	3597200	14.37	631900	10.80
13 335-TRIP BK	2739942	22.39	3308325	14.37	588910	10.82
14 335-GP-030-GW01DL	2827660	22.39	3354965	14.38	594015	10.83
15 335-GP-035-GW01	2681957	22.40	3193874	14.41	580248	10.84
16 335-GP-034-GW01DL	2726262	22.38	3270379	14.39	589694	10.84
17 335-GP-034-GW01DL1	2465485	22.39	2888861	14.39	516128	10.84
18						
19						
20						
21						
22						

IS1 (CBZ) = Chlorobenzene-d5

IS2 DFB = 1,4-Difluorobenzene

IS3 BCM = Bromochloromethane

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-Lab File ID (Standard): V9675.DDate Analyzed: 10/30/99Instrument ID: VOA 1Time Analyzed: 0754GC Column: RTX624ID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (CBZ)		IS2 DFB		IS3 BCM	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2684853	22.36	3225769	14.34	571349	10.77
UPPER LIMIT	5369706	22.86	6451538	14.84	1142698	11.27
LOWER LIMIT	1342427	21.86	1612885	13.84	285675	10.27
SAMPLE NO.						
01 VBLK03	2860638	22.38	3371421	14.39	599604	10.84
02 335-GP-FB-GW 10 19	2517533	22.39	3044185	14.39	553754	10.86
03 335-GP-FB-GW 10 20	2695331	22.37	3253512	14.39	573401	10.83
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22						

IS1 (CBZ) = Chlorobenzene-d5

IS2 DFB = 1,4-Difluorobenzene

IS3 BCM = Bromochloromethane

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

000016

CHEMTECH CONSULTING GROUP

VOLATILES

SAMPLE DATA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-021-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91747

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9621.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	2		
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	1.5		
95-47-6	o-xylene	1.1		
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-021-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91747
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9621.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000019

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9621.D

Acq Time : 28 Oct 99 1:32 am

Sample : L5320ASP-91747

Misc : ~~25~~MLS 5mls 10-28-99

Quant Time: Oct 28 12:03 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.78	128	632339	30.00	ug/L	-0.02
19) 1,4-Difluorobenzene	14.34	114	3591079	30.00	ug/L	-0.03
34) Chlorobenzene-d5	22.35	117	2999552	30.00	ug/L	-0.02
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.89	65	1144794	30.66	ug/L	102.19%
36) Toluene-d8	18.42	98	4111595	30.16	ug/L	100.55%
45) Bromofluorobenzene	25.51	95	2309435	28.86	ug/L	96.19%
Target Compounds						Qvalue
NT 8) Acetone	5.12	43	107367	10.73	ug/L	95
NT 13) MTBE	6.56	73	1747559	13.90	ug/L	96
NT 15) cis-1,2-Dichloroethene	9.92	96	205640	4.43	ug/L	96
37) Toluene	18.66	91	327001	1.96	ug/L	99
42) m+ p-Xylenes	23.08	106	109286	1.45	ug/L	98
43) o-xylene	24.10	91	173638	1.08	ug/L	98

000020

(#) = qualifier out of range (m) = manual integration

V9621.D V11027AW.M

Thu Oct 28 12:03:08 1999

VOA1

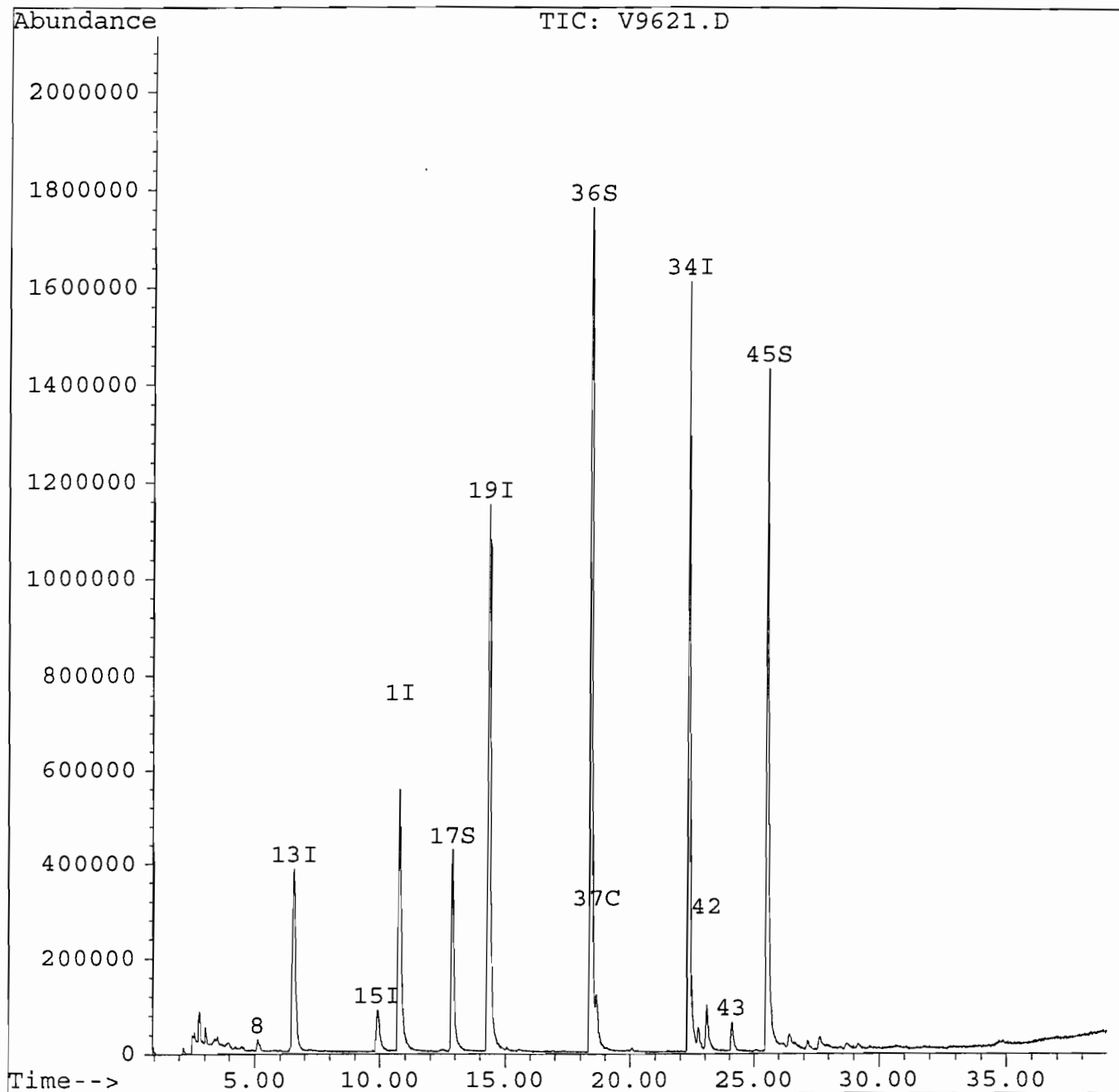
Page 1

Quantitation Report

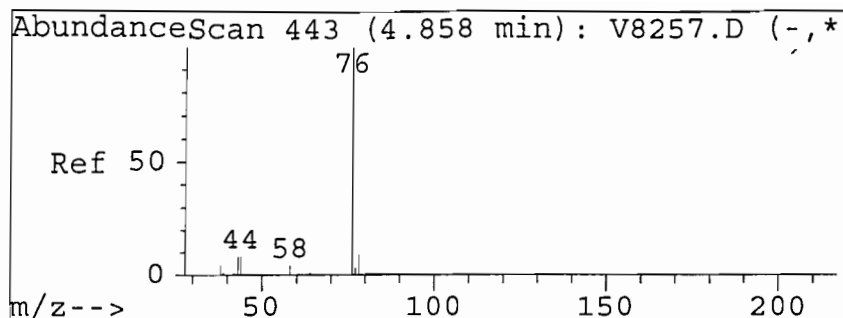
Data File : D:\HPCHEM\1\DATA\V1102799\V9621.D
Acq Time : 28 Oct 99 1:32 am
Sample : L5320ASP-91747
Misc : 25MLS
Quant Time: Oct 28 12:03 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

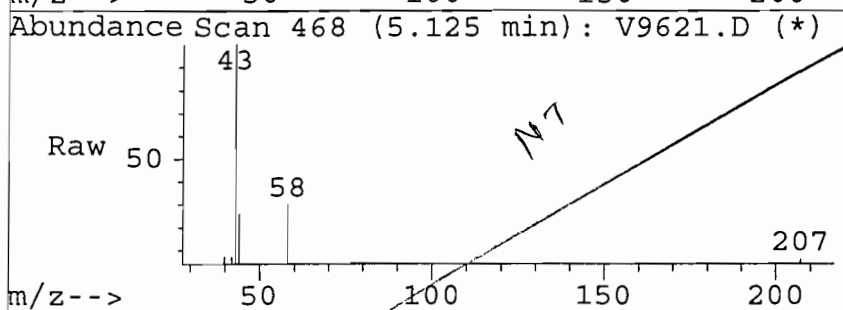
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000021

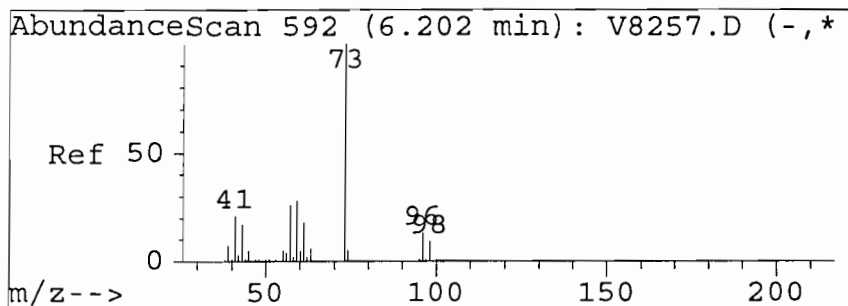
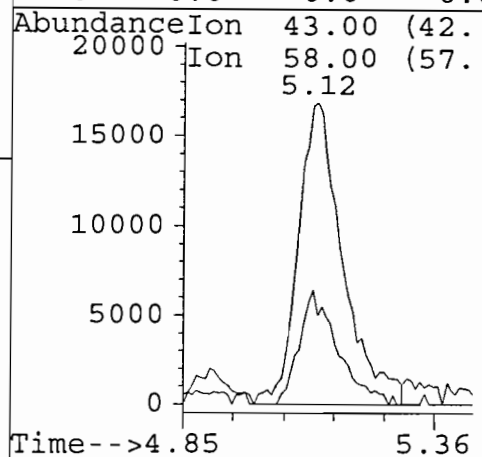
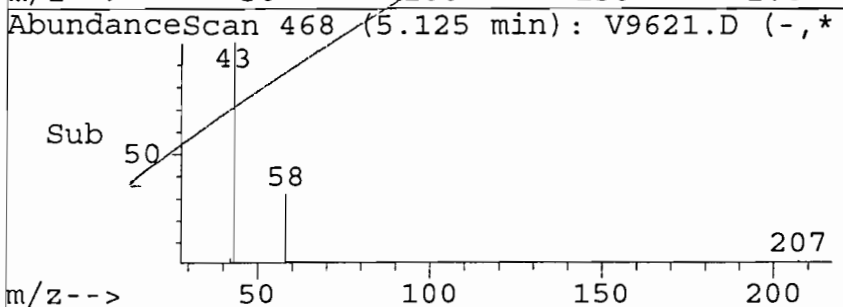


#8
Acetone
Concen: 10.73 ug/L
RT: 5.12 min Scan# 468
Delta R.T. 0.02 min
Lab File: V9621.D
Acq: 28 Oct 99 1:32 am

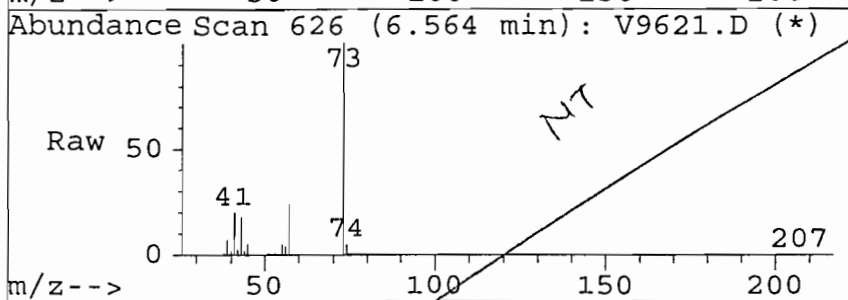


Tgt Ion:43 Resp: 107367

Ion	Ratio	Lower	Upper
43	100		
58	29.8	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

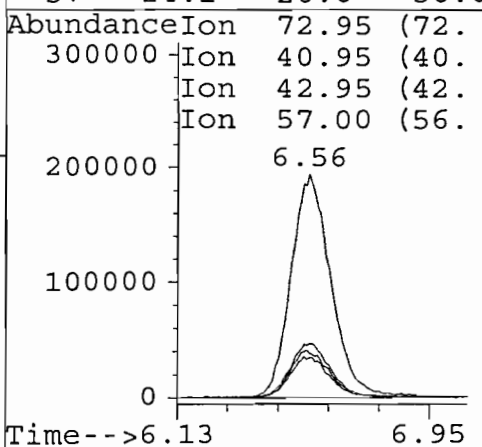
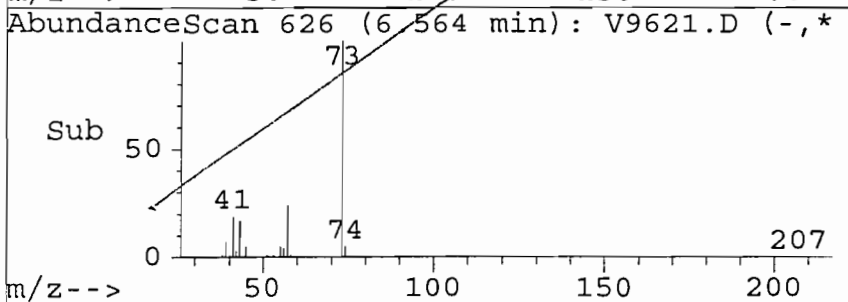


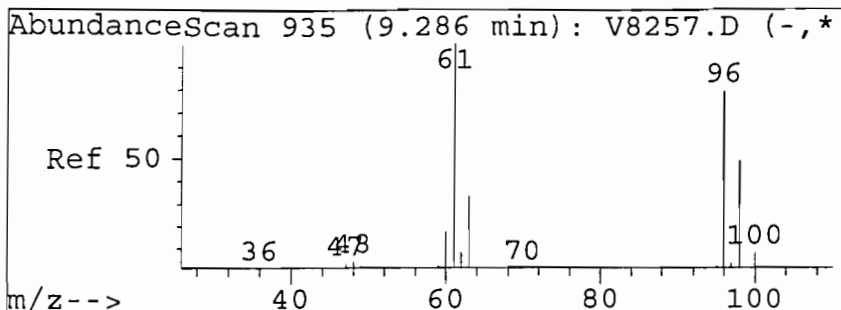
#13
MTBE
Concen: 13.90 ug/L
RT: 6.56 min Scan# 626
Delta R.T. 0.02 min
Lab File: V9621.D
Acq: 28 Oct 99 1:32 am



Tgt Ion:72.95 Resp: 1747559

Ion	Ratio	Lower	Upper
73	100		
41	19.7	11.4	34.2
43	17.8	10.0	30.0
57	24.1	20.0	30.0

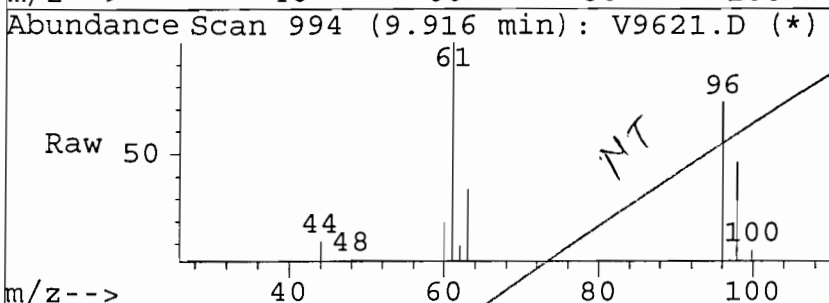




#15
cis-1,2-Dichloroethene
Concen: 4.43 ug/L
RT: 9.92 min Scan# 994
Delta R.T. 0.02 min
Lab File: V9621.D
Acq: 28 Oct 99 1:32 am

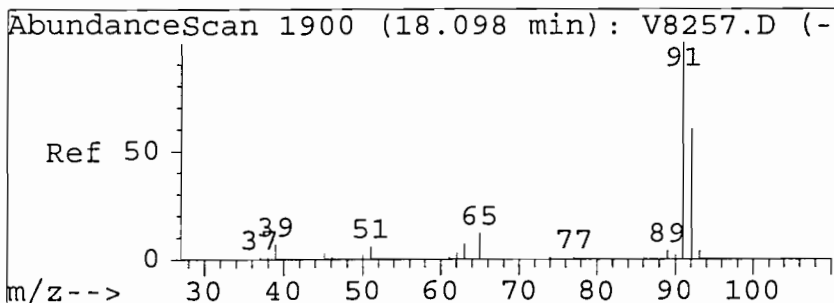
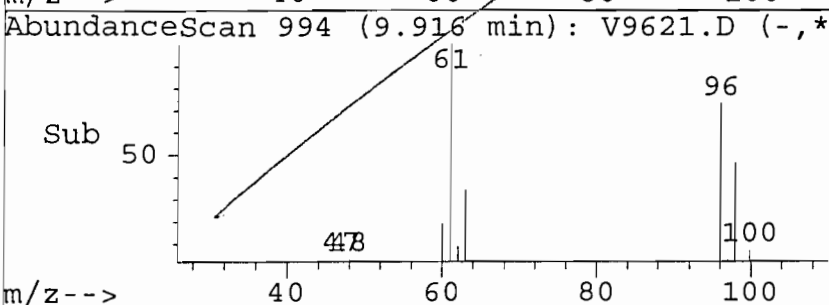
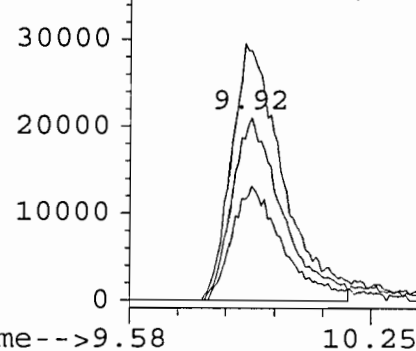
Tgt Ion:95.95 Resp: 205640

Ion	Ratio	Lower	Upper
96	100		
61	136.4	71.3	213.9
98	62.3	32.5	97.5
0	0.0	0.0	0.0



AbundanceIon 95.95 (95.

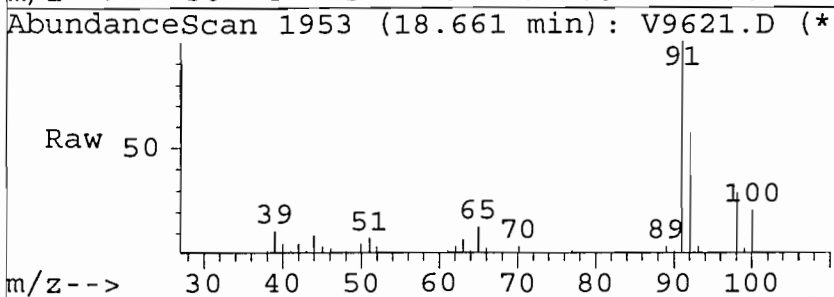
40000	Ion 61.00 (60.
	Ion 97.95 (97.



#37
Toluene
Concen: 1.96 ug/L
RT: 18.66 min Scan# 1953
Delta R.T. 0.03 min
Lab File: V9621.D
Acq: 28 Oct 99 1:32 am

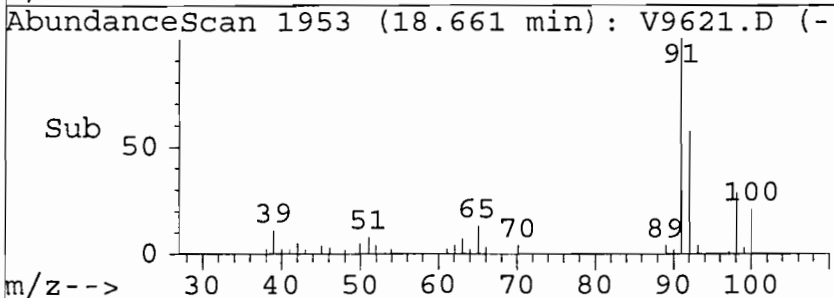
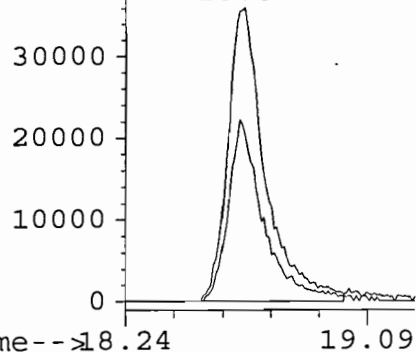
Tgt Ion:91 Resp: 327001

Ion	Ratio	Lower	Upper
91	100		
92	56.7	28.8	86.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

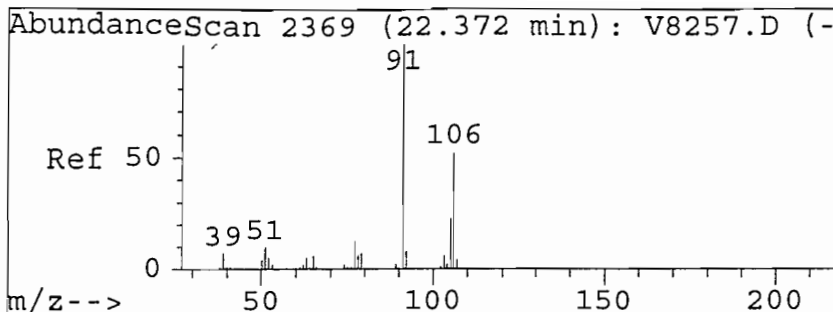


AbundanceIon 91.00 (90.

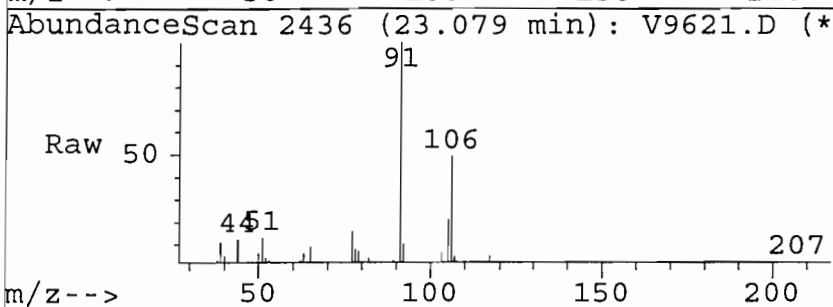
40000	Ion 92.00 (91.
-------	----------------



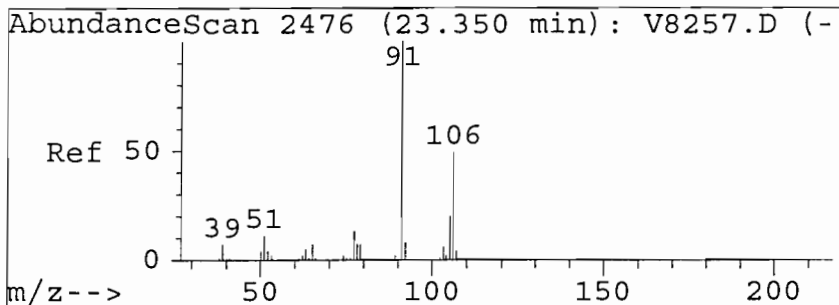
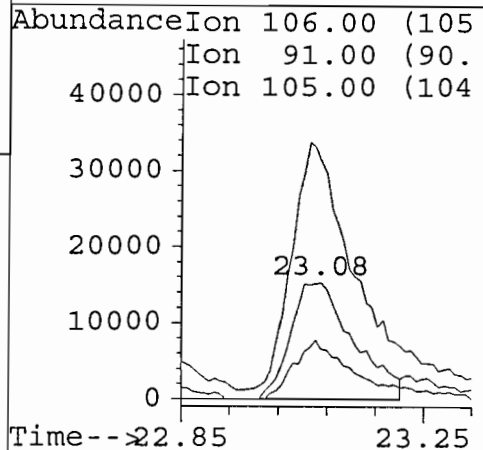
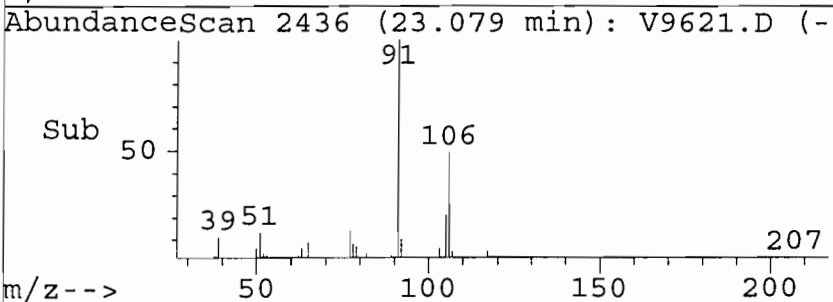
000023



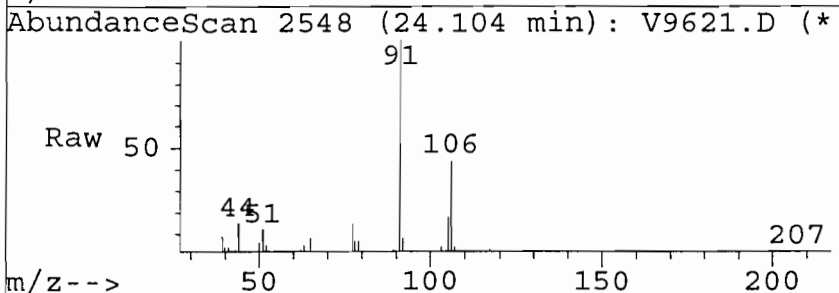
#42
m+ p-Xylenes
Concen: 1.45 ug/L
RT: 23.08 min Scan# 2436
Delta R.T. 0.05 min
Lab File: V9621.D
Acq: 28 Oct 99 1:32 am



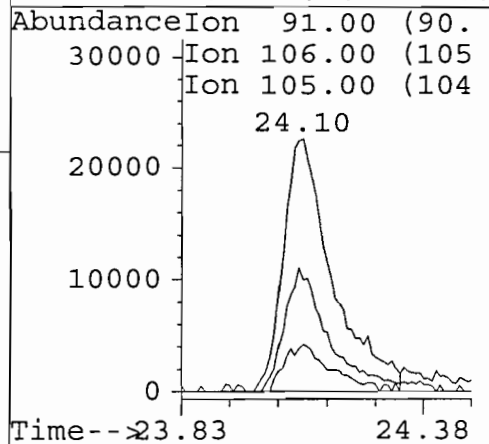
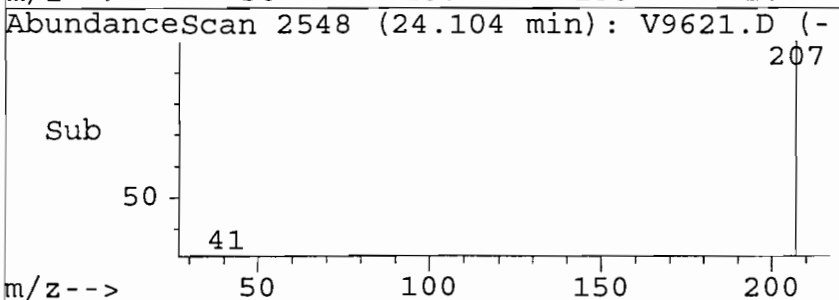
Tgt Ion:106 Resp: 109286
Ion Ratio Lower Upper
106 100
91 204.9 100.8 302.4
105 43.3 22.3 66.9
0 0.0 0.0 0.0



#43
o-xylene
Concen: 1.08 ug/L
RT: 24.10 min Scan# 2548
Delta R.T. 0.05 min
Lab File: V9621.D
Acq: 28 Oct 99 1:32 am



Tgt Ion:91 Resp: 173638
Ion Ratio Lower Upper
91 100
106 44.0 23.0 69.0
105 18.4 9.2 27.6
0 0.0 0.0 0.0



000024

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9621.D
Acq Time : 28 Oct 99 1:32 am
Sample : L5320ASP-91747
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000025

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-022-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91748

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9622.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	1.3		
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-022-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91748
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9622.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000027

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9622.D
 Acq Time : 28 Oct 99 2:17 am
 Sample : L5320ASP-91748
 Misc : 25MLS 5 m/s 10-28-99
 Quant Time: Oct 28 12:03 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

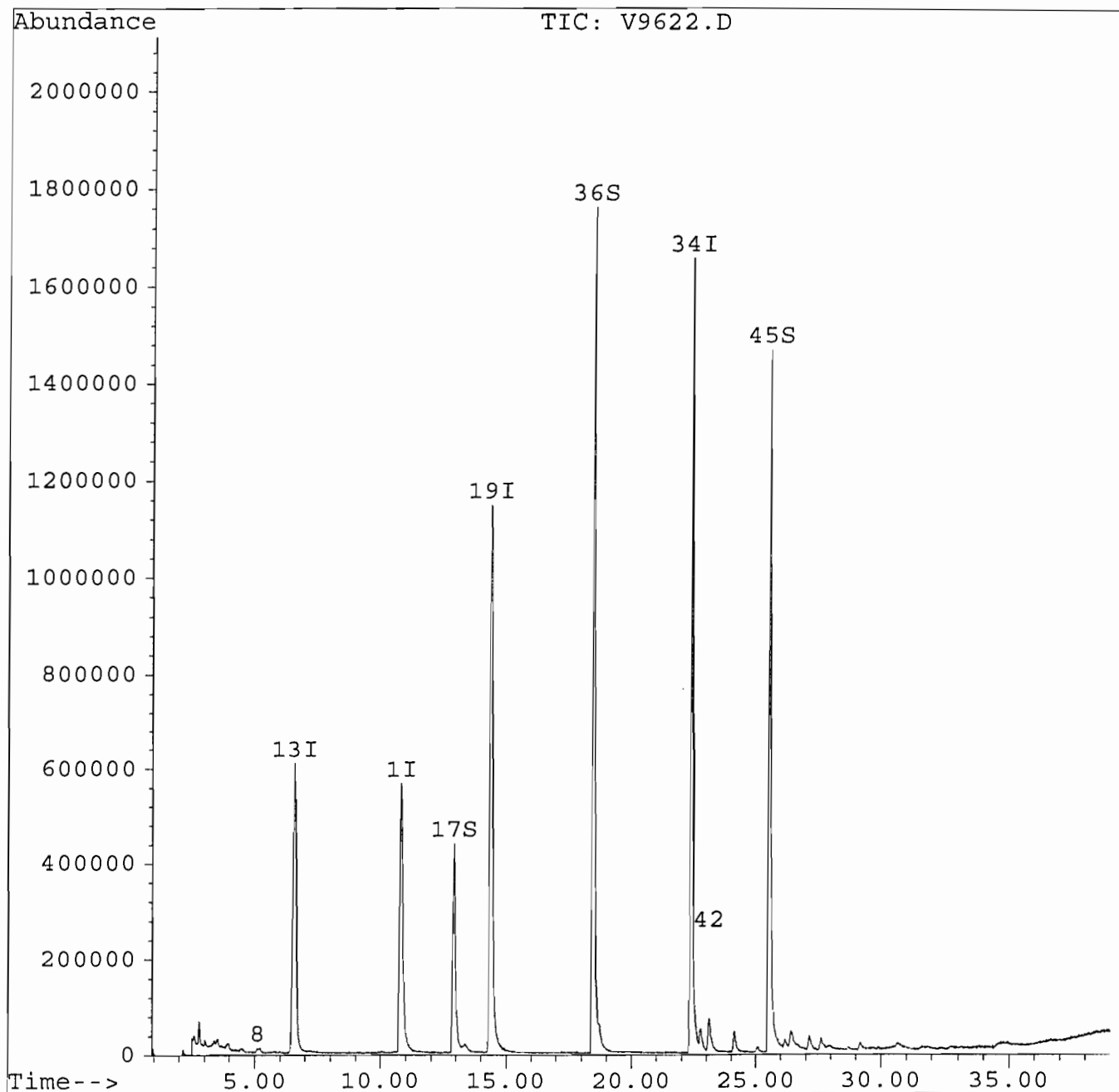
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.80	128	644224	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.37	114	3607192	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.37	117	3075012	30.00	ug/L	0.00
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	1169023	30.73	ug/L	102.43%
36) Toluene-d8	18.46	98	4207968	30.11	ug/L	100.38%
45) Bromofluorobenzene	25.51	95	2345697	28.59	ug/L	95.31%
Target Compounds						Qvalue
MT 8) Acetone	5.11	43	47194	4.63	ug/L	93
MT 13) MTBE	6.55	73	2788805	21.78	ug/L	97
42) m+ p-Xylenes	23.10	106	96469	1.25	ug/L	91

Quantitation Report

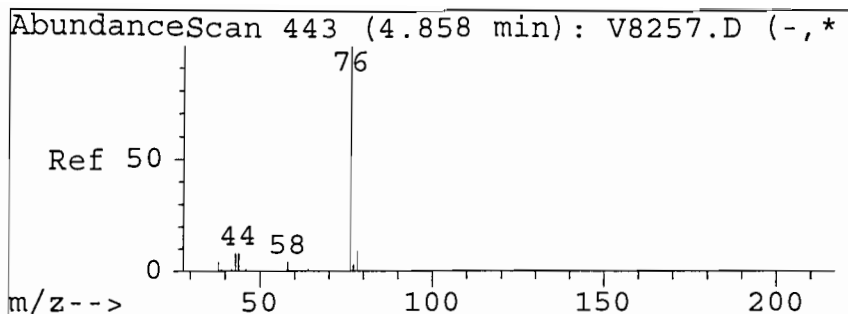
Data File : D:\HPCHEM\1\DATA\V1102799\V9622.D
Acq Time : 28 Oct 99 2:17 am
Sample : L5320ASP-91748
Misc : 25MLS
Quant Time: Oct 28 12:03 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

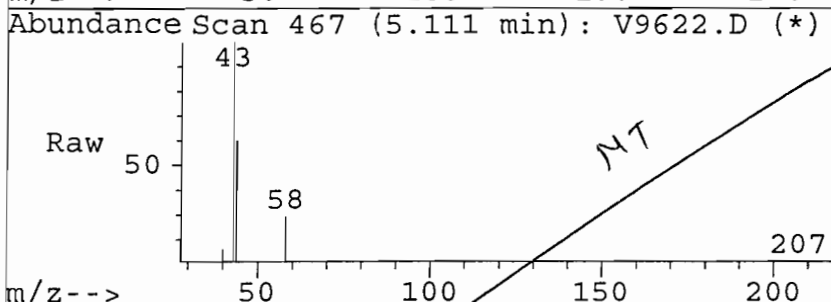
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



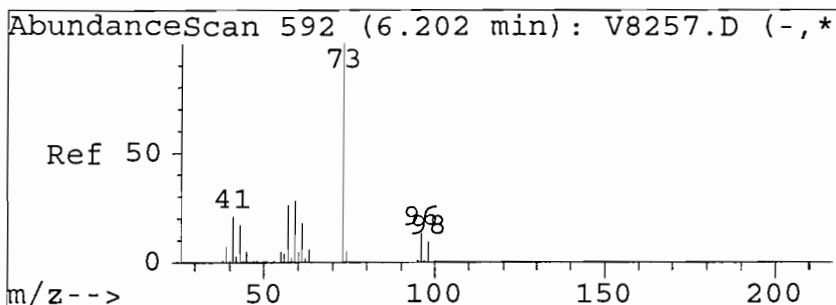
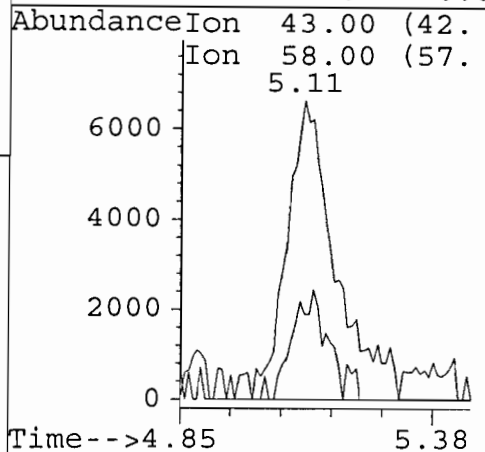
000029



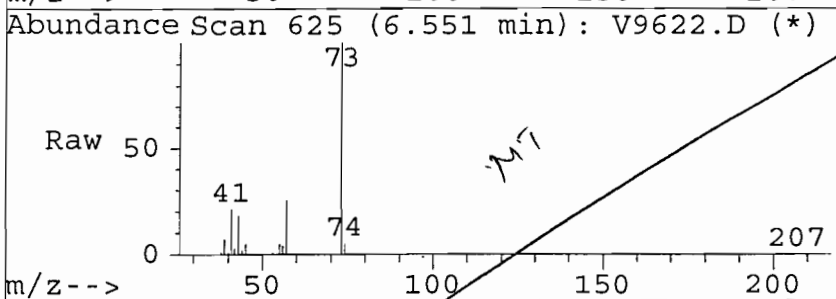
#8
Acetone
Concen: 4.63 ug/L
RT: 5.11 min Scan# 467
Delta R.T. 0.00 min
Lab File: V9622.D
Acq: 28 Oct 99 2:17 am



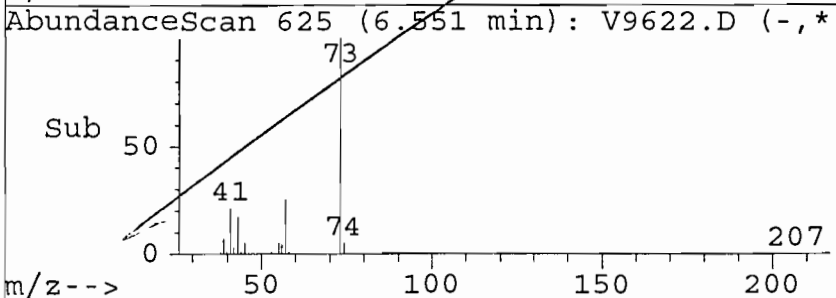
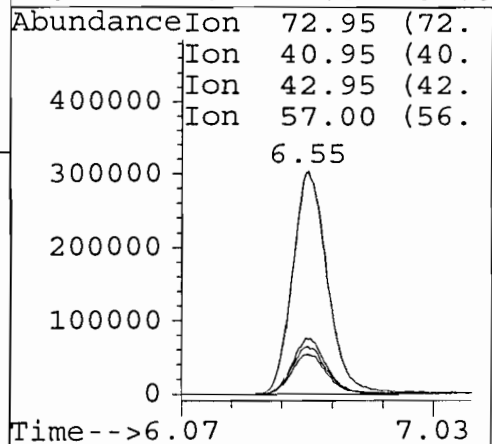
Tgt Ion:43	Resp:	47194
Ion Ratio	Lower	Upper
43 100		
58 28.7	16.3	48.8
0 0.0	0.0	0.0
0 0.0	0.0	0.0



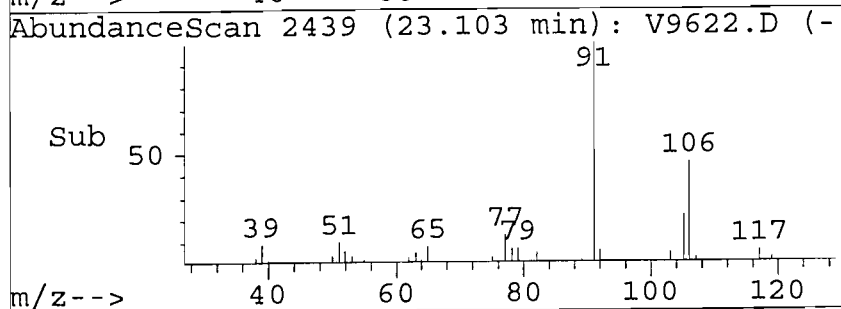
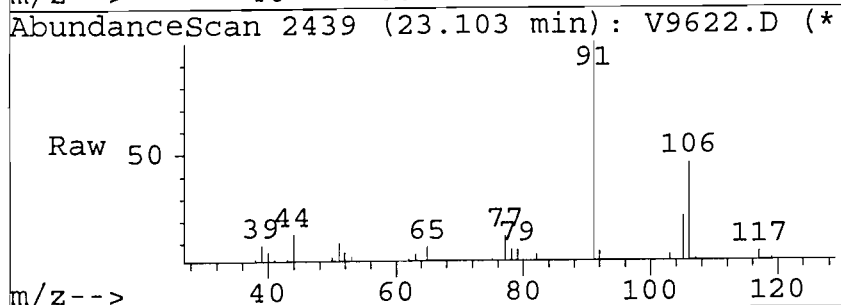
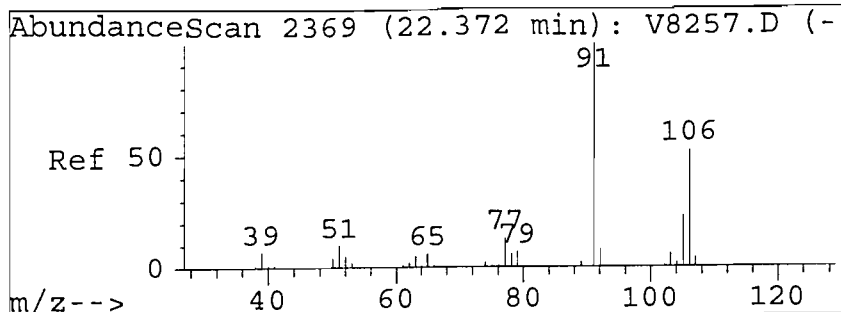
#13
MTBE
Concen: 21.78 ug/L
RT: 6.55 min Scan# 625
Delta R.T. 0.00 min
Lab File: V9622.D
Acq: 28 Oct 99 2:17 am



Tgt Ion:72.95		Resp: 2788805	
Ion	Ratio	Lower	Upper
73	100		
41	21.3	11.4	34.2
43	17.7	10.0	30.0
57	24.6	20.0	30.0



000030



#42

m+ p-Xylenes

Concen: 1.25 ug/L

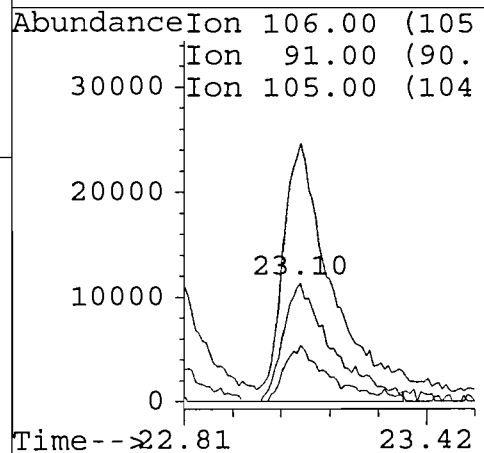
RT: 23.10 min Scan# 2439

Delta R.T. 0.07 min

Lab File: V9622.D

Acq: 28 Oct 99 2:17 am

Tgt Ion:	106	Resp:	96469
Ion	Ratio	Lower	Upper
106	100		
91	217.3	100.8	302.4
105	47.1	22.3	66.9
0	0.0	0.0	0.0



000031

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9622.D
Acq Time : 28 Oct 99 2:17 am
Sample : L5320ASP-91748
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000032

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-023-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91749

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9623.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m+ p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-023-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91749
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9623.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units: _____
 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
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27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9623.D

Acq Time : 28 Oct 99 3:01 am

Sample : L5320ASP-91749

Misc : 25MLS 5mLs 10-35-99

Quant Time: Oct 28 12:03 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

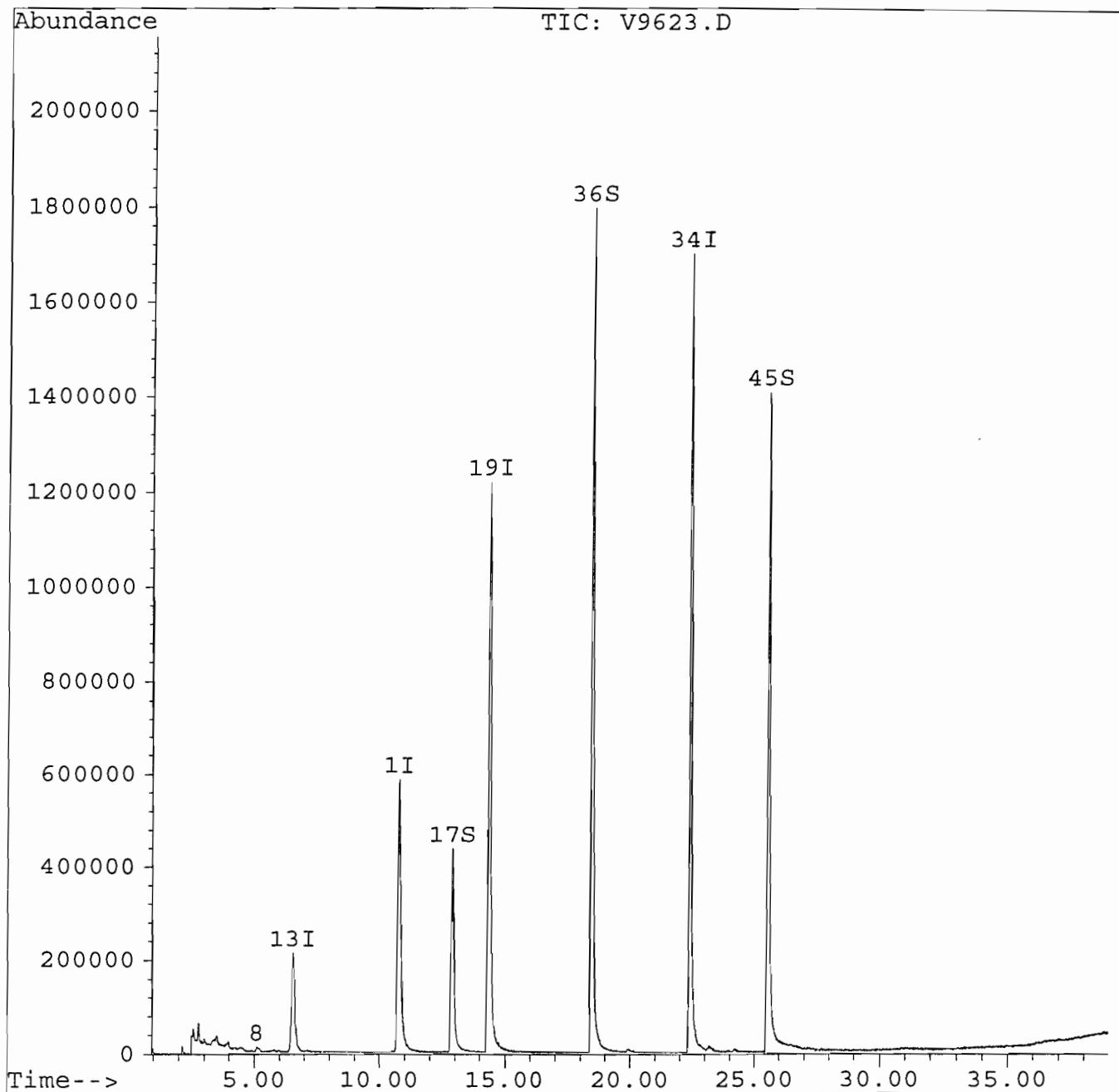
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.77	128	664193	30.00	ug/L	-0.03
19) 1,4-Difluorobenzene	14.35	114	3838526	30.00	ug/L	-0.02
34) Chlorobenzene-d5	22.38	117	3161242	30.00	ug/L	0.02
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.88	65	1176454	29.99	ug/L	99.98%
36) Toluene-d8	18.46	98	4223830	29.40	ug/L	98.01%
45) Bromofluorobenzene	25.53	95	2255164	26.74	ug/L	89.13%
Target Compounds						Qvalue
N1 { 8) Acetone	5.11	43	40332	3.84	ug/L	91
{ 13) MTBE	6.54	73	969204	7.34	ug/L	97

Quantitation Report

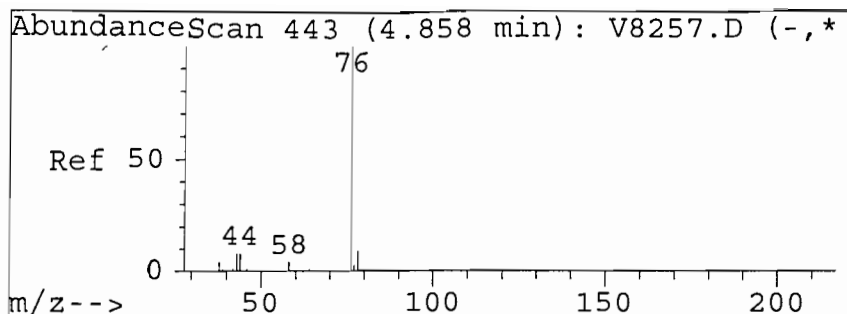
Data File : D:\HPCHEM\1\DATA\V1102799\V9623.D
Acq Time : 28 Oct 99 3:01 am
Sample : L5320ASP-91749
Misc : 25MLS
Quant Time: Oct 28 12:03 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

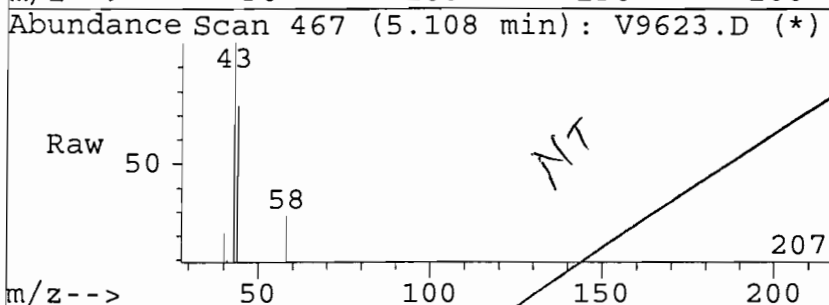
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



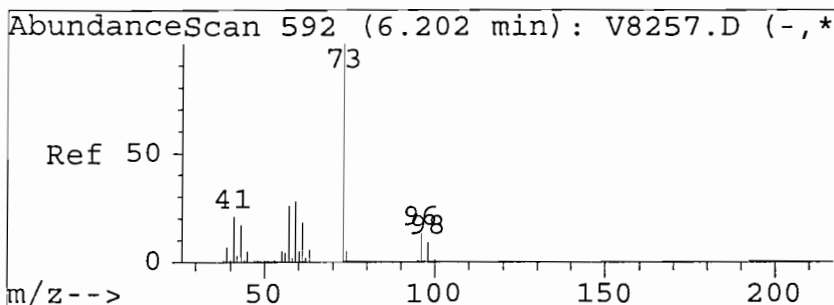
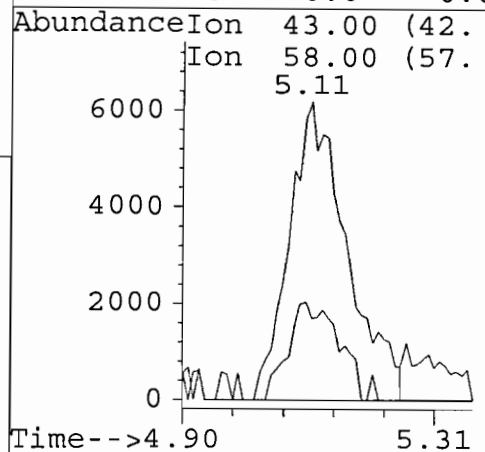
000036



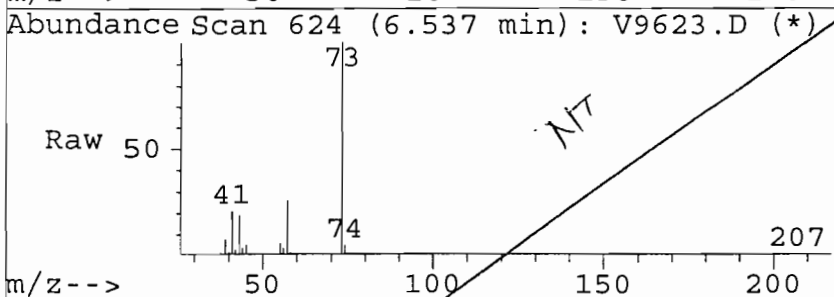
#8
Acetone
Concen: 3.84 ug/L
RT: 5.11 min Scan# 467
Delta R.T. 0.00 min
Lab File: V9623.D
Acq: 28 Oct 99 3:01 am



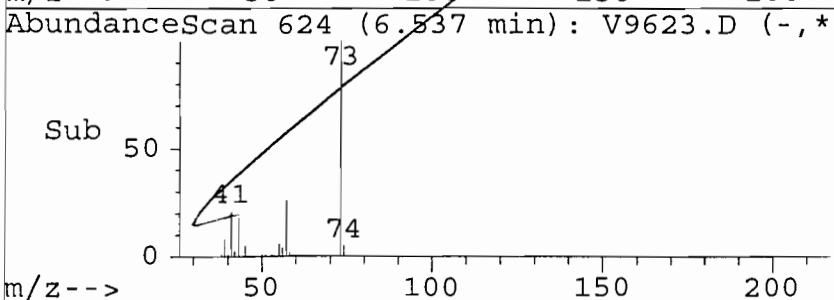
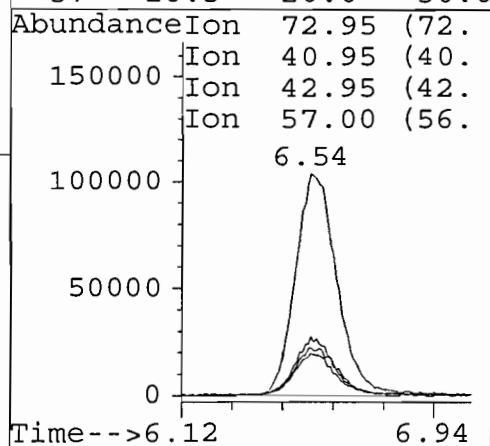
Tgt Ion	Ratio	Lower	Upper
43	100		
58	27.6	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#13
MTBE
Concen: 7.34 ug/L
RT: 6.54 min Scan# 624
Delta R.T. -0.01 min
Lab File: V9623.D
Acq: 28 Oct 99 3:01 am



Tgt Ion	Ratio	Lower	Upper
73	100		
41	21.4	11.4	34.2
43	18.8	10.0	30.0
57	26.5	20.0	30.0



000037

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9623.D
Acq Time : 28 Oct 99 3:01 am
Sample : L5320ASP-91749
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-024-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-021

Matrix: (soil/water) WATER Lab Sample ID: O91750

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9624.D

Level: (low/med) _____ Date Received: 10/26/99

% Moisture: not dec. 100 Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m+ p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
'TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-024-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
Matrix: (soil/water) WATER Lab Sample ID: O91750
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9624.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
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30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9624.D

Acq Time : 28 Oct 99 3:45 am

Sample : L5320ASP-91750

Misc : 25MLS 5m/s 09 10-28-99

Quant Time: Oct 28 12:04 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.81	128	658934	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.36	114	3842243	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.36	117	3138598	30.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	1190431	30.59	ug/L	101.98%
36) Toluene-d8	18.45	98	4332514	30.38	ug/L	101.26%
45) Bromofluorobenzene	25.50	95	2403314	28.70	ug/L	95.67%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
NT 8) Acetone	5.12	43	32384	3.10	ug/L	89

000041

(#) = qualifier out of range (m) = manual integration

V9624.D V11027AW.M

Thu Oct 28 12:04:08 1999

VOA1

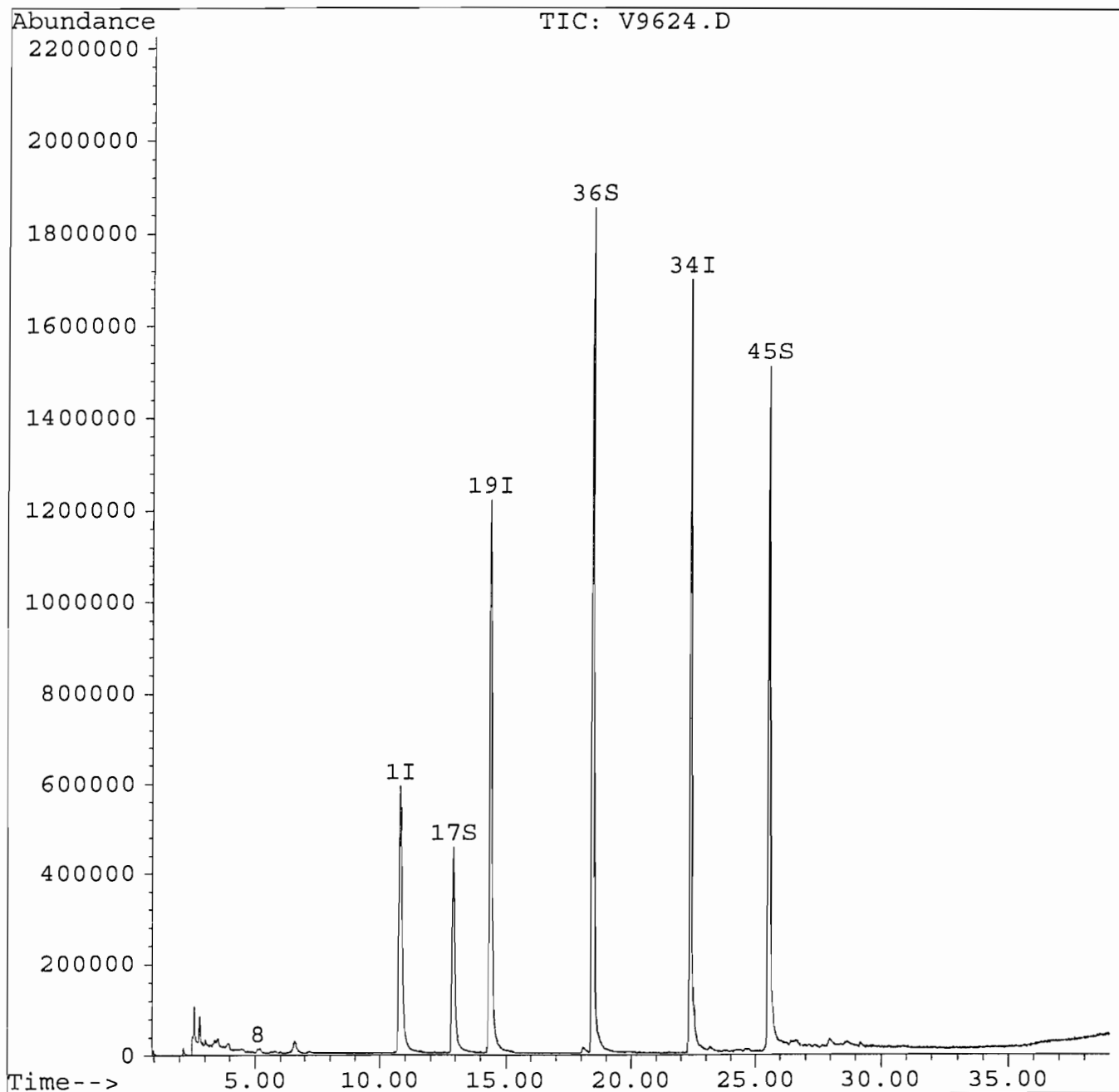
Page 1

Quantitation Report

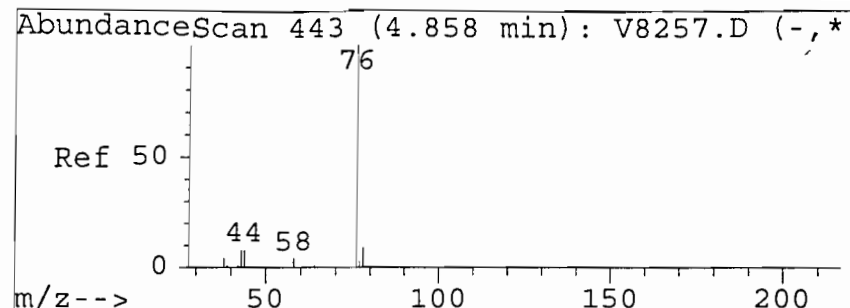
Data File : D:\HPCHEM\1\DATA\V1102799\V9624.D
Acq Time : 28 Oct 99 3:45 am
Sample : L5320ASP-91750
Misc : 25MLS
Quant Time: Oct 28 12:04 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

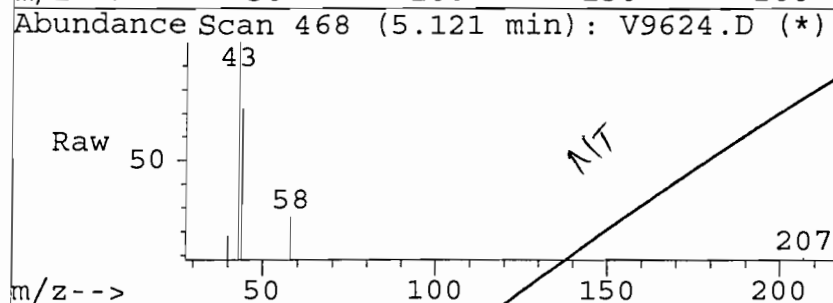
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



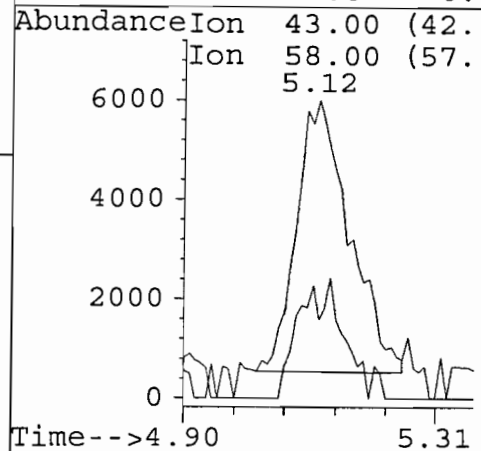
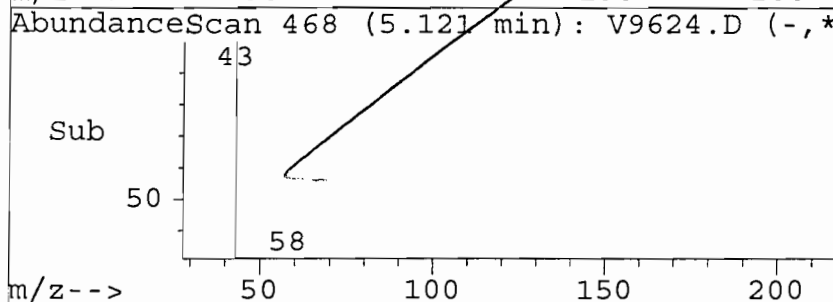
000042



#8
 Acetone
 Concen: 3.10 ug/L
 RT: 5.12 min Scan# 468
 Delta R.T. 0.01 min
 Lab File: V9624.D
 Acq: 28 Oct 99 3:45 am



Tgt Ion:	43	Resp:	32384
Ion	Ratio	Lower	Upper
43	100		
58	26.5	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



000043

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9624.D

Acq Time : 28 Oct 99 3:45 am

Sample : L5320ASP-91750

Misc : 25MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000044

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-025-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91751

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9625.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	1.4		
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-025-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
Matrix: (soil/water) WATER Lab Sample ID: O91751
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9625.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
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23.				
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27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9625.D
 Acq Time : 28 Oct 99 4:30 am
 Sample : L5320ASP-91751
 Misc : ~~25~~MLS 5mL 10-28-99
 Quant Time: Oct 28 12:04 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.77	128	589326	30.00	ug/L	-0.03
19) 1,4-Difluorobenzene	14.35	114	3206944	30.00	ug/L	-0.02
34) Chlorobenzene-d5	22.38	117	2705340	30.00	ug/L	0.01
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.87	65	1032883	29.68	ug/L	98.93%
36) Toluene-d8	18.44	98	3516134	28.60	ug/L	95.34%
45) Bromofluorobenzene	25.52	95	1981142	27.45	ug/L	91.49%
Target Compounds						Qvalue
Nr { 8) Acetone	5.10	43	81344	8.72	ug/L	100
13) MTBE	6.55	73	576305	4.92	ug/L	97
37) Toluene	18.67	91	204927	1.36	ug/L	96

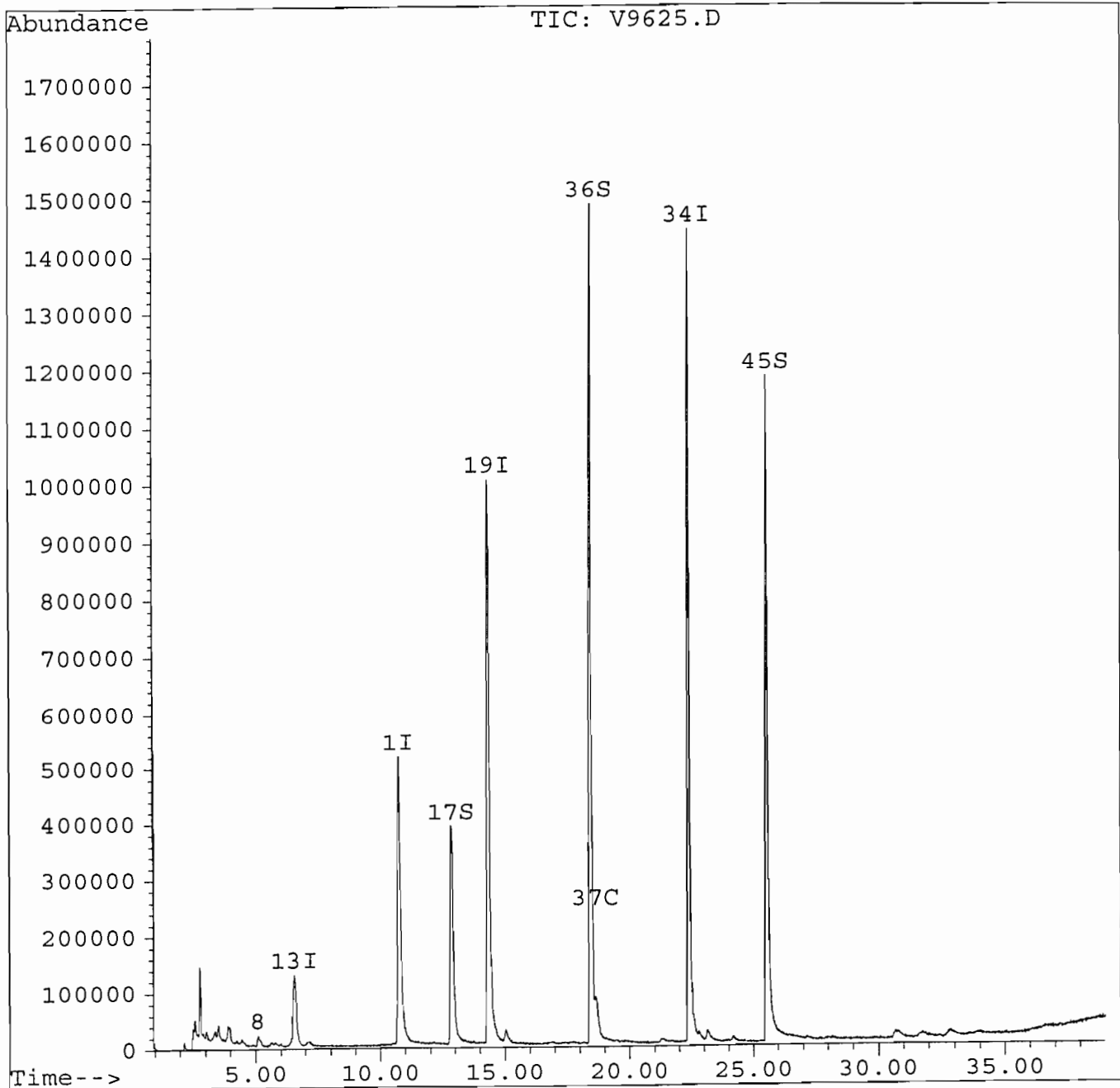
000047

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9625.D
Acq Time : 28 Oct 99 4:30 am
Sample : L5320ASP-91751
Misc : 25MLS
Quant Time: Oct 28 12:04 1999

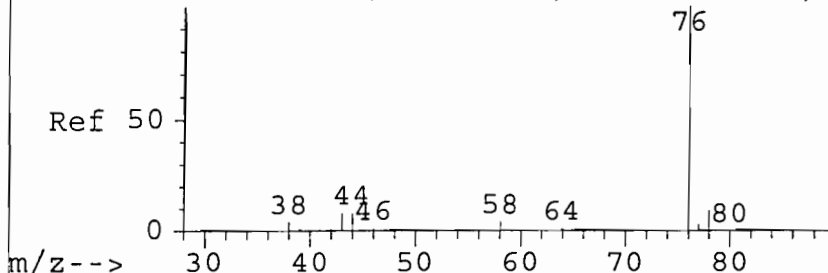
Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000048

AbundanceScan 443 (4.858 min): V8257.D (-,*



#8

Acetone

Concen: 8.72 ug/L

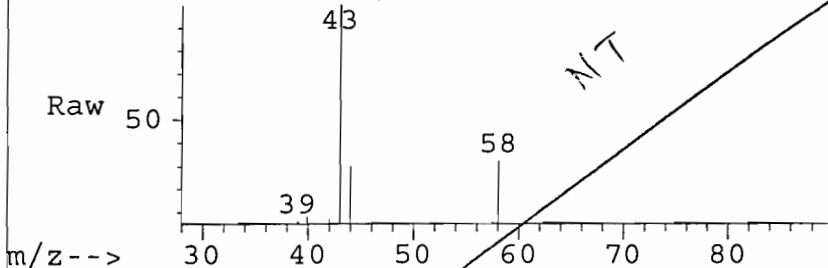
RT: 5.10 min Scan# 466

Delta R.T. -0.00 min

Lab File: V9625.D

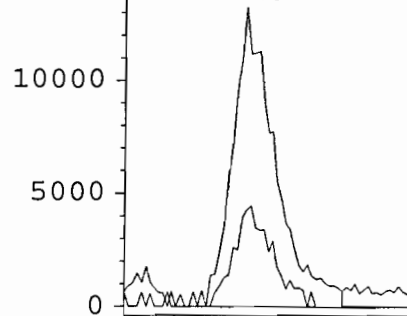
Acq: 28 Oct 99 4:30 am

Abundance Scan 466 (5.104 min): V9625.D (*)



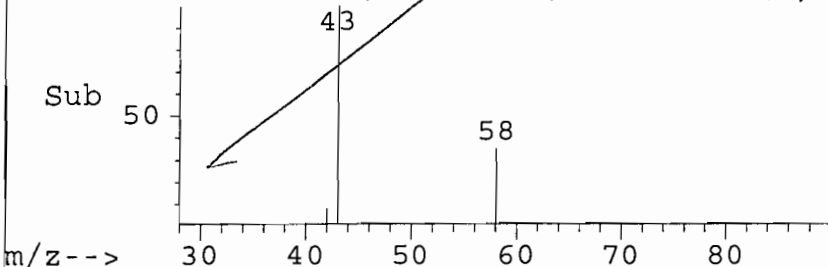
Tgt Ion:	43	Resp:	81344
Ion Ratio	Lower	Upper	
43	100		
58	32.2	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceIon 43.00 (42.
15000 Ion 58.00 (57.
5.10

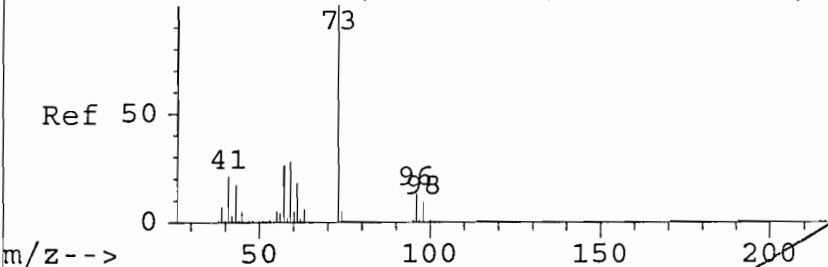


Time-->4.85 5.38

AbundanceScan 466 (5.104 min): V9625.D (-,*



AbundanceScan 592 (6.202 min): V8257.D (-,*



#13

MTBE

Concen: 4.92 ug/L

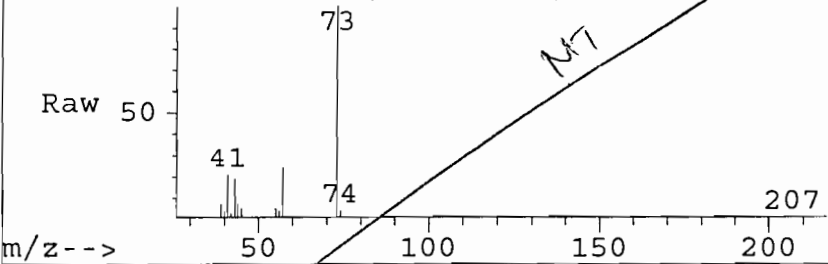
RT: 6.55 min Scan# 625

Delta R.T. 0.00 min

Lab File: V9625.D

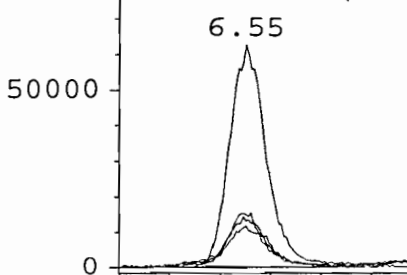
Acq: 28 Oct 99 4:30 am

Abundance Scan 625 (6.553 min): V9625.D (*)



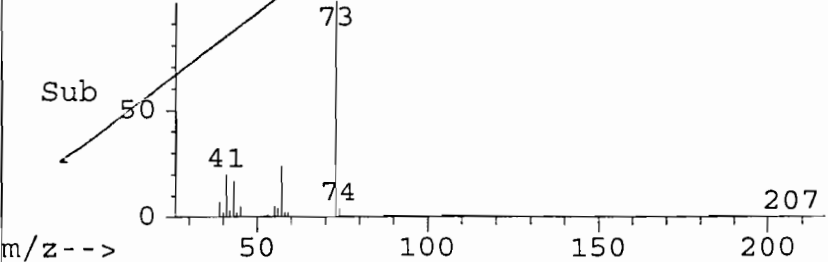
Tgt Ion:	72.95	Resp:	576305
Ion Ratio	Lower	Upper	
73	100		
41	20.9	11.4	34.2
43	18.9	10.0	30.0
57	23.9	20.0	30.0

AbundanceIon 72.95 (72.
100000 Ion 40.95 (40.
Ion 42.95 (42.
Ion 57.00 (56.

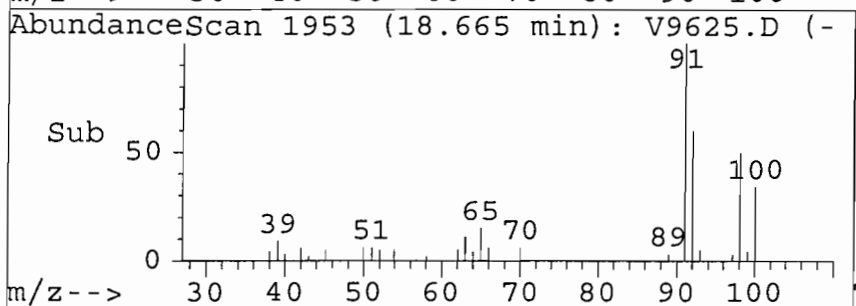
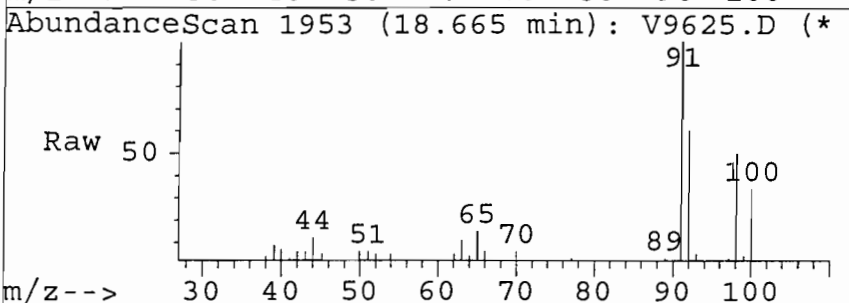
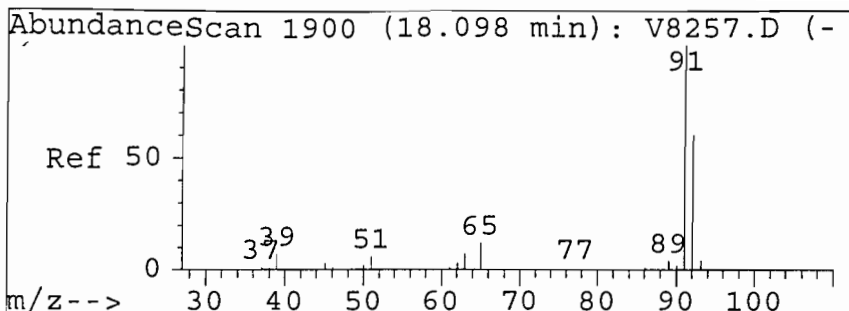


Time-->6.10 7.00

AbundanceScan 625 (6.553 min): V9625.D (-,*

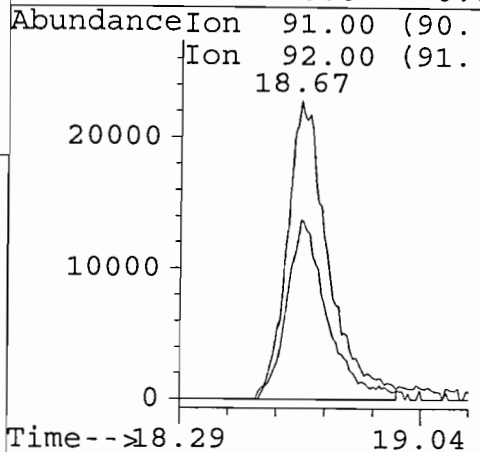


000049



#37
Toluene
Concen: 1.36 ug/L
RT: 18.67 min Scan# 1953
Delta R.T. 0.03 min
Lab File: V9625.D
Acq: 28 Oct 99 4:30 am

Tgt Ion:91 Resp: 204927
Ion Ratio Lower Upper
91 100
92 60.3 28.8 86.4
0 0.0 0.0 0.0
0 0.0 0.0 0.0



000050

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9625.D
Acq Time : 28 Oct 99 4:30 am
Sample : L5320ASP-91751
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000051

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-026-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02

Matrix: (soil/water) WATER

Lab Sample ID: O91752

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9626.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

74-87-3	Chloromethane	2.3	U
74-83-9	Bromomethane	1.8	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	1.6	U
75-09-2	Trichlorofluoromethane	1.5	U
75-09-2	Methylene Chloride	0.6	U
75-35-4	1,1-Dichloroethene	1.2	U
75-34-3	1,1-Dichloroethane	0.7	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.4	U
107-06-2	1,2-Dichloroethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.4	U
75-27-4	Bromodichloromethane	0.6	U
78-87-5	1,2-Dichloropropane	0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
79-01-6	Trichloroethene	0.3	U
124-48-1	Dibromochloromethane	0.5	U
79-00-5	1,1,2-Trichloroethane	0.9	U
71-43-2	Benzene	2.9	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
110-75-8	2-Chloroethyl Vinyl Ether	1.5	U
75-25-2	Bromoform	0.7	U
127-18-4	Tetrachloroethene	0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1.9	
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	24	
136777-61-2	m + p-Xylenes	11	
95-47-6	o-xylene	7.1	
95-50-1	1,2-Dichlorobenzene	1.6	
541-73-1	1,3-Dichlorobenzene	0.4	U
106-46-7	1,4-Dichlorobenzene	0.3	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-026-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91752
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9626.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 14 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 98-82-8	Benzene, (1-methylethyl)-	25.00	7.2	J
2. 103-65-1	Benzene, propyl-	26.08	13	J
3. 611-14-3	Benzene, 1-ethyl-2-methyl-	26.37	16	J
4. 526-73-8	Benzene, 1,2,3-trimethyl-	26.57	16	J
5.	Unknown	27.07	31	J
6. 108-67-8	Benzene, 1,3,5-trimethyl-	27.54	24	J
7. 526-73-8	Benzene, 1,2,3-trimethyl-	28.62	5.6	J
8. 496-11-7	Indane	29.09	28	J
9. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	29.40	3.1	J
10.	Unknown	30.11	3.4	J
11. 99-87-6	Benzene, 1-methyl-4-(1-methy	30.37	6.2	J
12. 27133-93-3	2,3-Dihydro-1-methylindene	30.59	10	J
13. 527-53-7	Benzene, 1,2,3,5-tetramethyl	31.56	3.9	J
14. 2039-89-6	Benzene, 2-ethenyl-1,4-dimet	32.62	12	J
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D
 Acq Time : 28 Oct 99 5:14 am
 Sample : L5320ASP-91752
 Misc : 25MLS
 Quant Time: Oct 28 12:04 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.82	128	511850	30.00	ug/L	0.02
19) 1,4-Difluorobenzene	14.37	114	2688935	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.36	117	2373721	30.00	ug/L	0.00
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	903240	29.88	ug/L	99.61%
36) Toluene-d8	18.44	98	3048318	28.26	ug/L	94.20%
45) Bromofluorobenzene	25.49	95	1868396	29.50	ug/L	98.34%
Target Compounds						Qvalue
8) Acetone	5.14	43	36736	4.53	ug/L	98
13) MTBE	6.56	73	1398187	13.74	ug/L	98
15) cis-1,2-Dichloroethene	9.92	96	268831	7.15	ug/L	95
24) Benzene	12.82	78	340551	2.87	ug/L	94
37) Toluene	18.66	91	255873	1.93	ug/L	97
41) Ethylbenzene	22.69	91	4028970	24.31	ug/L	98
42) m+ p-Xylenes	23.03	106	666548	11.21	ug/L	98
43) o-xylene	24.05	91	908246	7.12	ug/L	99
49) 1,2-Dichlorobenzene	29.52	146	96353	1.56	ug/L	97

000054

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D

Acq Time : 28 Oct 99 5:14 am

Sample : L5320ASP-91752

Misc : 25MLS

Quant Time: Oct 28 12:04 1999

Operator: AV

Inst : 5971 - In

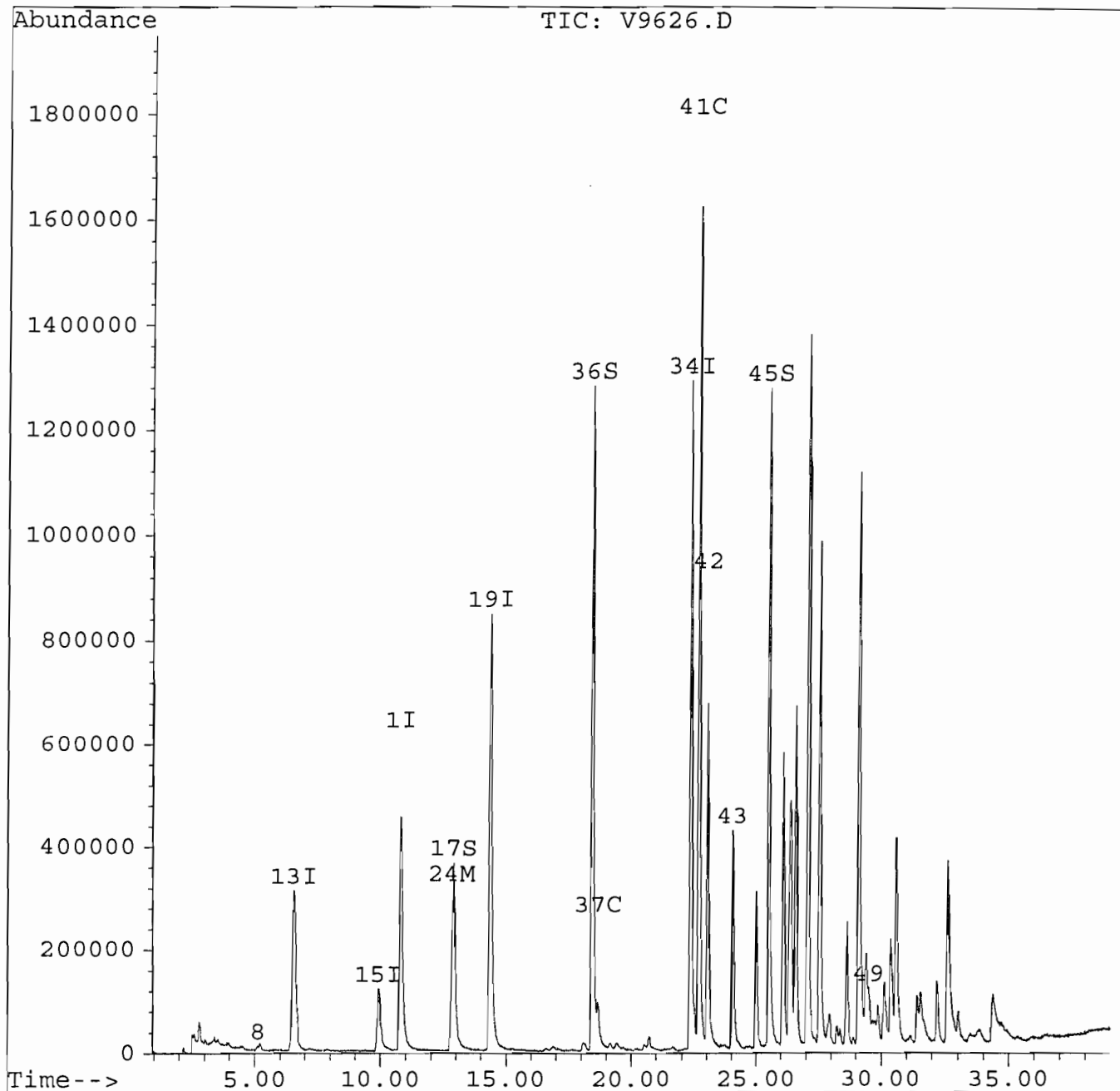
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

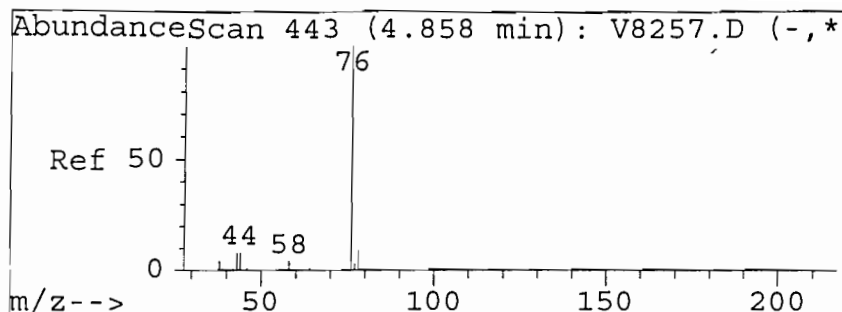
Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

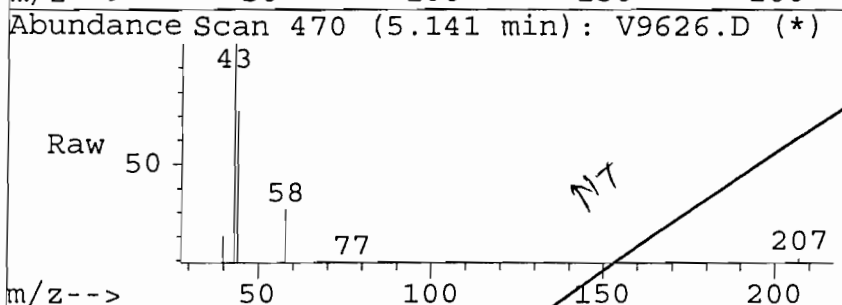
Response via : Multiple Level Calibration



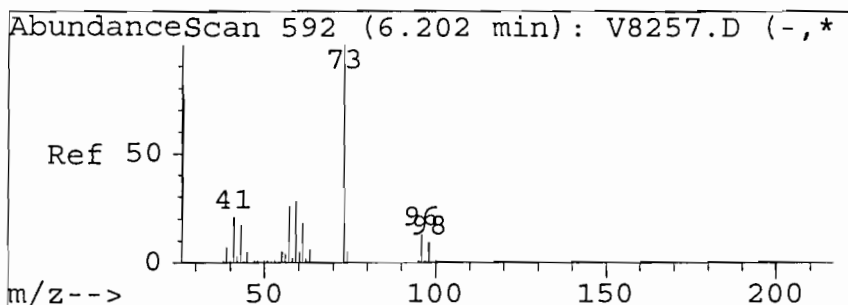
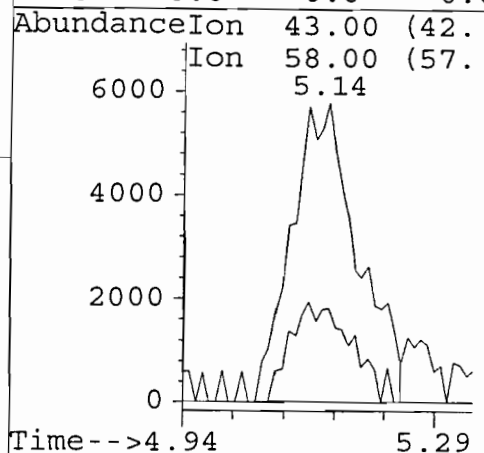
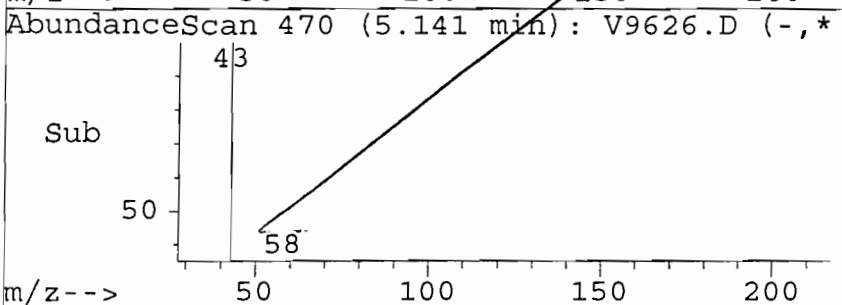
000055



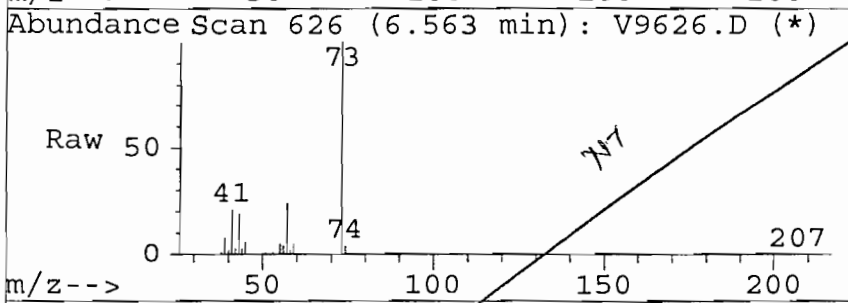
#8
Acetone
Concen: 4.53 ug/L
RT: 5.14 min Scan# 470
Delta R.T. 0.03 min
Lab File: V9626.D
Acq: 28 Oct 99 5:14 am



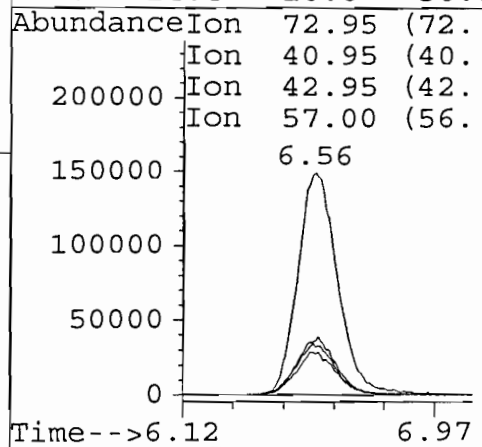
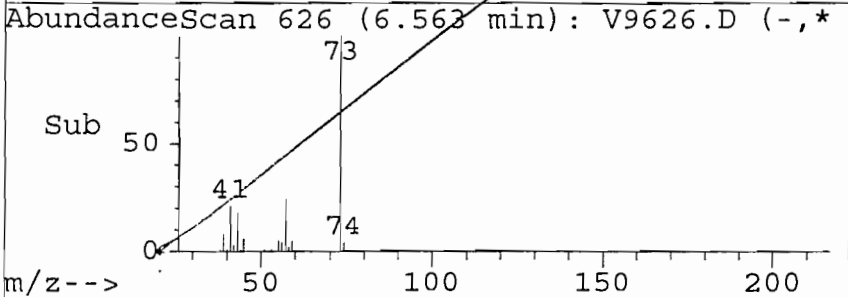
Tgt	Ion:43	Resp:	36736
Ion	Ratio	Lower	Upper
43	100		
58	31.4	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



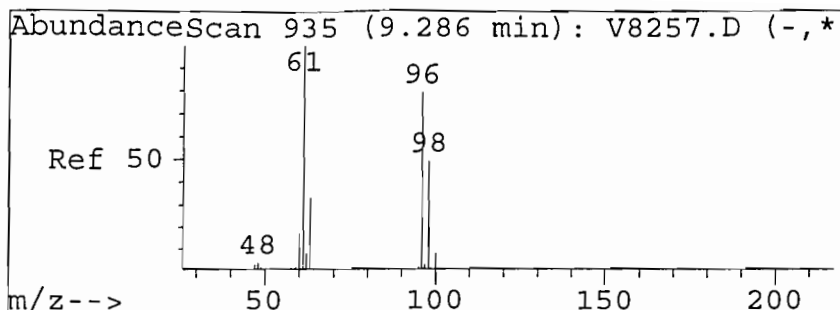
#13
MTBE
Concen: 13.74 ug/L
RT: 6.56 min Scan# 626
Delta R.T. 0.01 min
Lab File: V9626.D
Acq: 28 Oct 99 5:14 am



Tgt Ion: 72.95		Resp: 1398187	
Ion	Ratio	Lower	Upper
73	100		
41	21.5	11.4	34.2
43	18.5	10.0	30.0
57	24.4	20.0	30.0



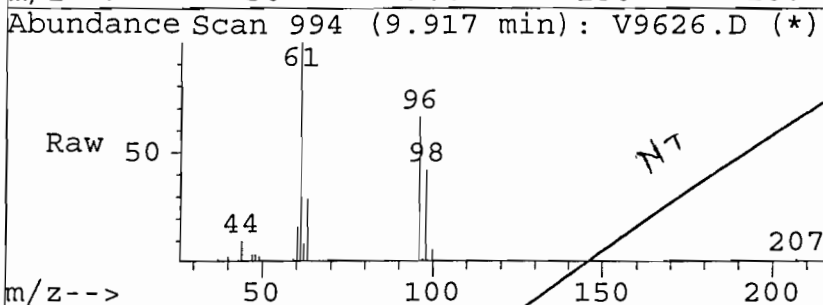
000056



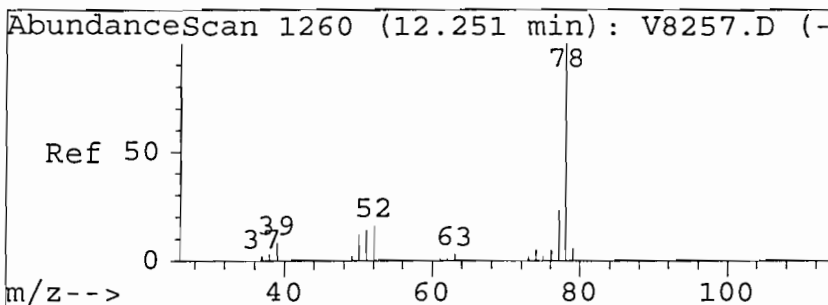
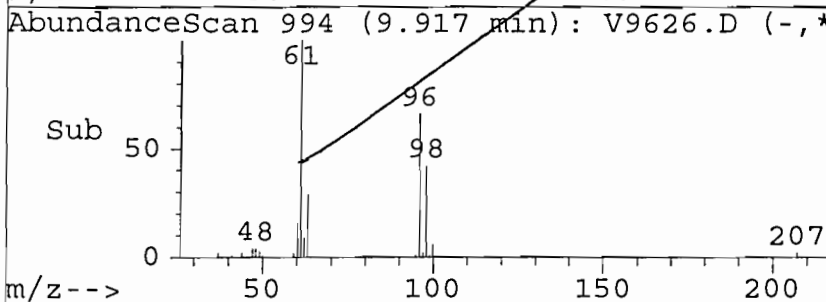
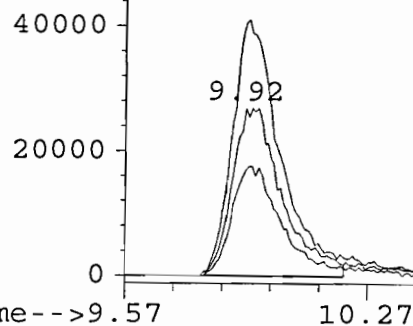
#15
cis-1,2-Dichloroethene
Concen: 7.15 ug/L
RT: 9.92 min Scan# 994
Delta R.T. 0.02 min
Lab File: V9626.D
Acq: 28 Oct 99 5:14 am

Tgt Ion: 95.95 Resp: 268831

Ion	Ratio	Lower	Upper
96	100		
61	150.8	71.3	213.9
98	63.4	32.5	97.5
0	0.0	0.0	0.0



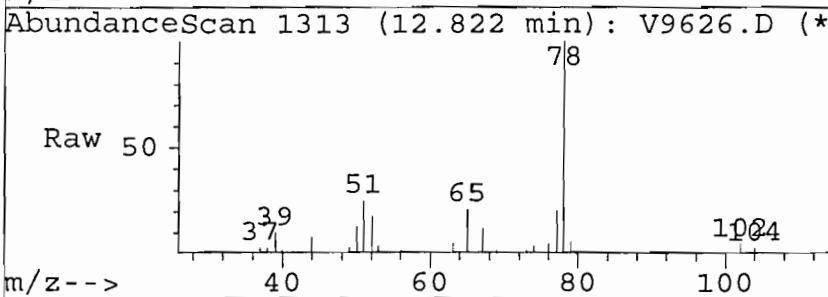
AbundanceIon 95.95 (95.
Ion 61.00 (60.
Ion 97.95 (97.



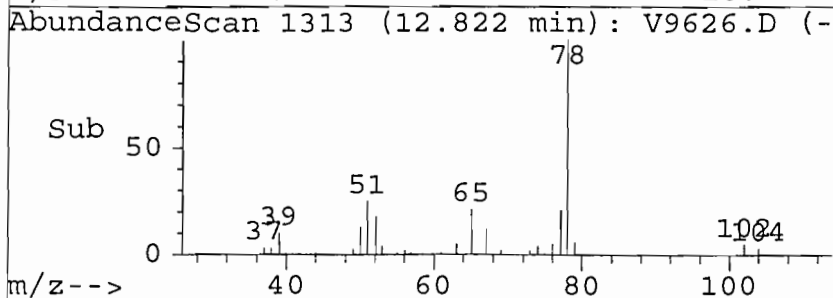
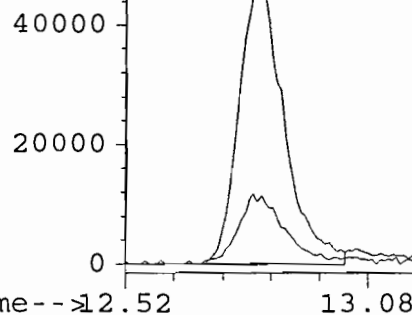
#24
Benzene
Concen: 2.87 ug/L
RT: 12.82 min Scan# 1313
Delta R.T. 0.03 min
Lab File: V9626.D
Acq: 28 Oct 99 5:14 am

Tgt Ion: 78 Resp: 340551

Ion	Ratio	Lower	Upper
78	100		
77	21.3	12.2	36.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

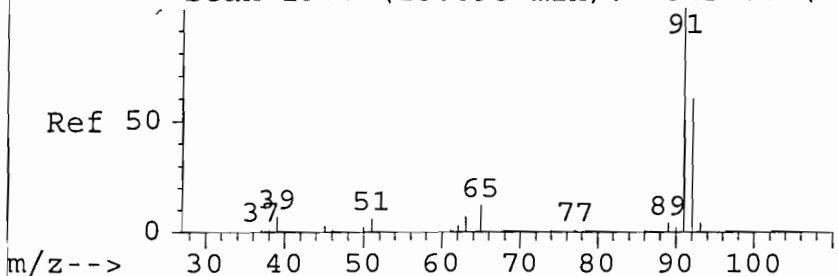


AbundanceIon 78.00 (77.
Ion 77.00 (76.
12.82



000057

AbundanceScan 1900 (18.098 min): V8257.D (-



#37

Toluene

Concen: 1.93 ug/L

RT: 18.66 min Scan# 1953

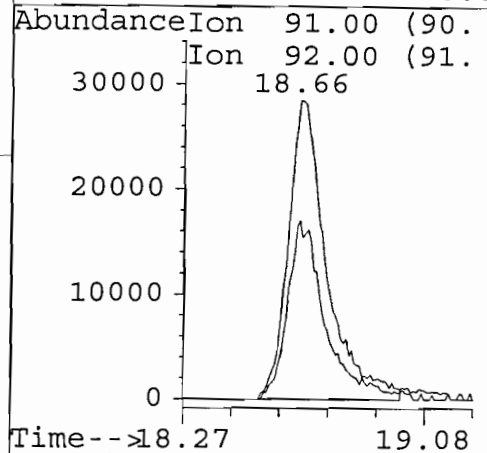
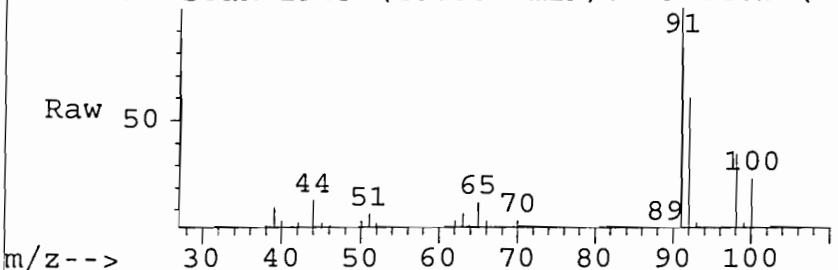
Delta R.T. 0.03 min

Lab File: V9626.D

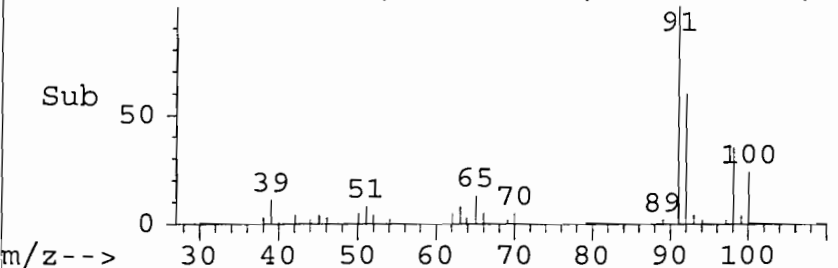
Acq: 28 Oct 99 5:14 am

Tgt Ion:	91	Resp:	255873
Ion	Ratio	Lower	Upper
91	100		
92	60.1	28.8	86.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

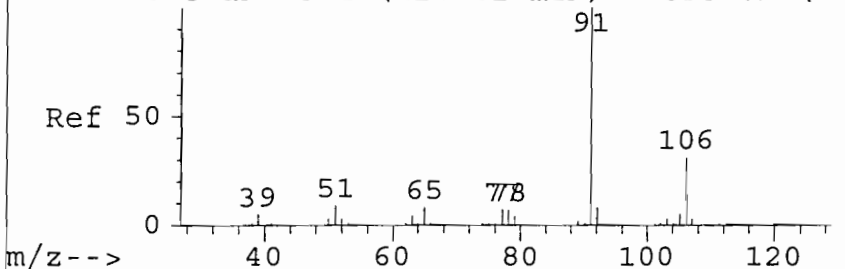
AbundanceScan 1953 (18.661 min): V9626.D (*)



AbundanceScan 1953 (18.661 min): V9626.D (-



AbundanceScan 2334 (22.051 min): V8257.D (-



#41

Ethylbenzene

Concen: 24.31 ug/L

RT: 22.69 min Scan# 2393

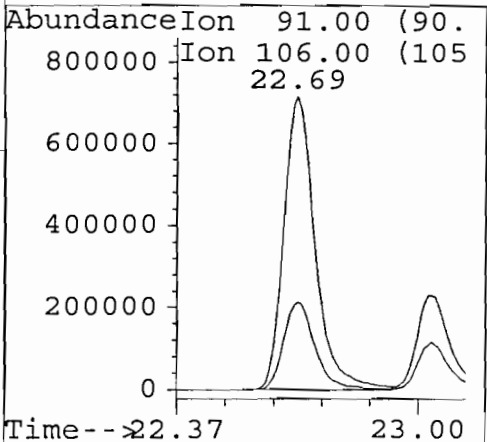
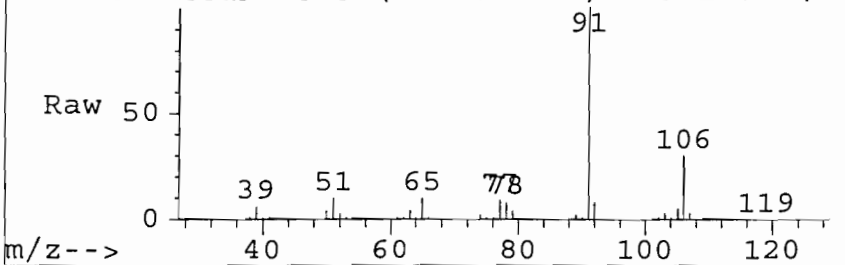
Delta R.T. -0.02 min

Lab File: V9626.D

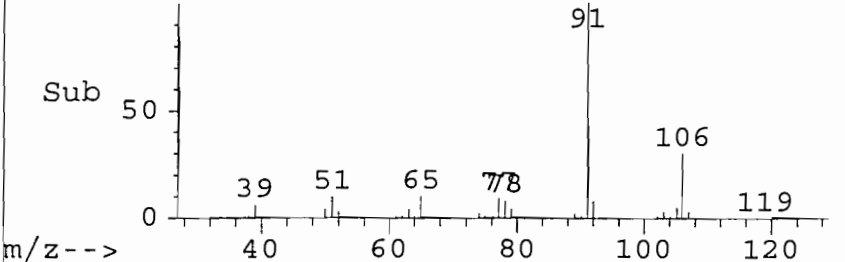
Acq: 28 Oct 99 5:14 am

Tgt Ion:	91	Resp:	4028970
Ion	Ratio	Lower	Upper
91	100		
106	29.6	15.2	45.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

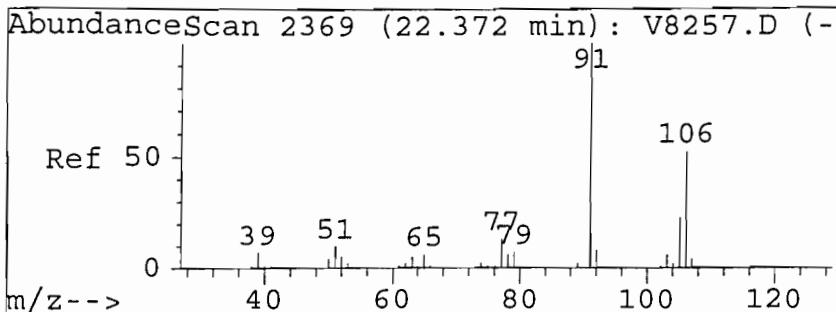
AbundanceScan 2393 (22.686 min): V9626.D (*)



AbundanceScan 2393 (22.686 min): V9626.D (-

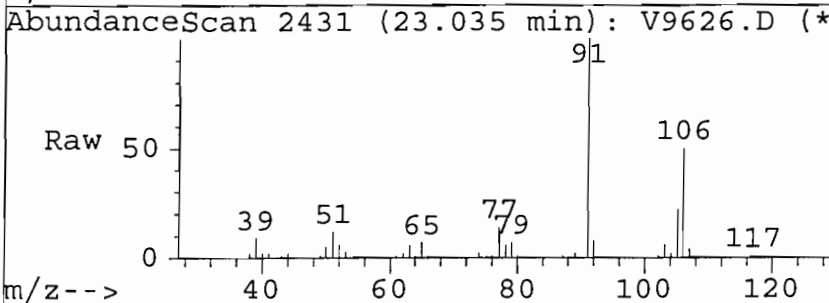


000058

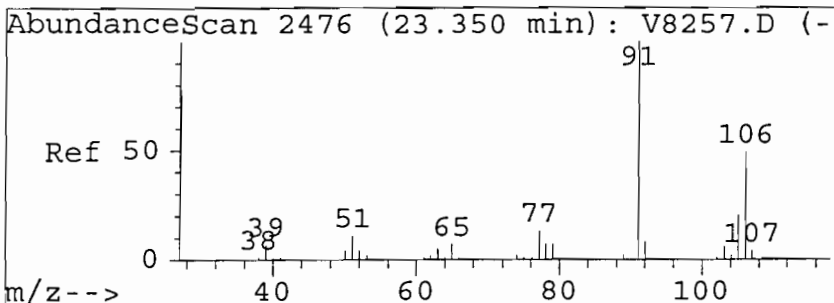
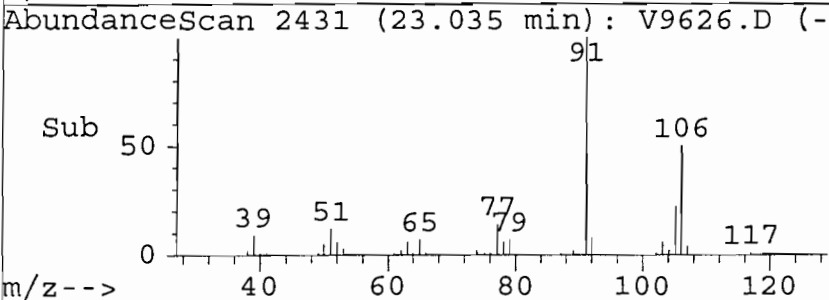
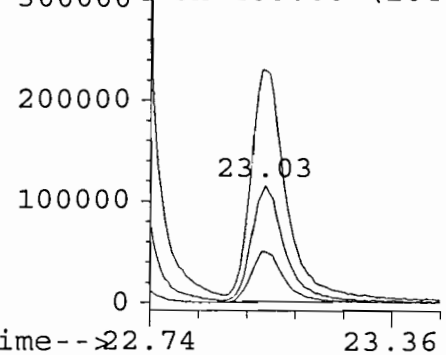


#42
m+ p-Xylenes
Concen: 11.21 ug/L
RT: 23.03 min Scan# 2431
Delta R.T. 0.00 min
Lab File: V9626.D
Acq: 28 Oct 99 5:14 am

Tgt Ion:106	Resp: 666548
Ion Ratio	Lower Upper
106 100	
91 198.5	100.8 302.4
105 43.2	22.3 66.9
0 0.0	0.0 0.0

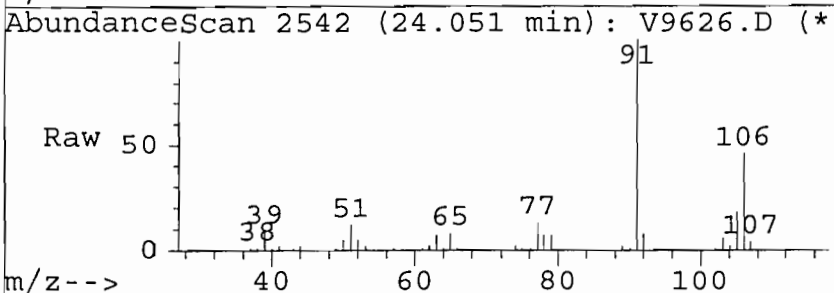


AbundanceIon 106.00 (105
Ion 91.00 (90.
Ion 105.00 (104

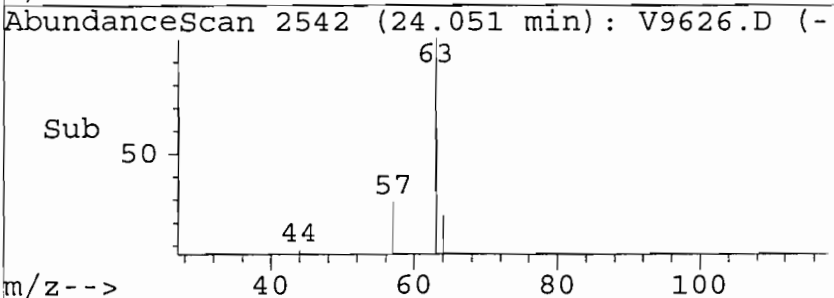
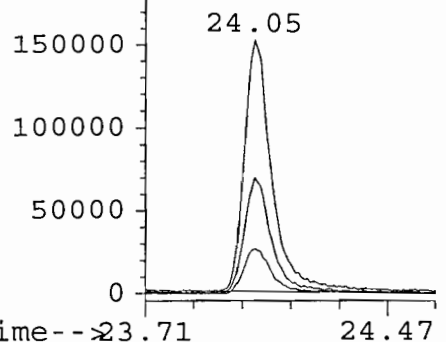


#43
o-xylene
Concen: 7.12 ug/L
RT: 24.05 min Scan# 2542
Delta R.T. -0.01 min
Lab File: V9626.D
Acq: 28 Oct 99 5:14 am

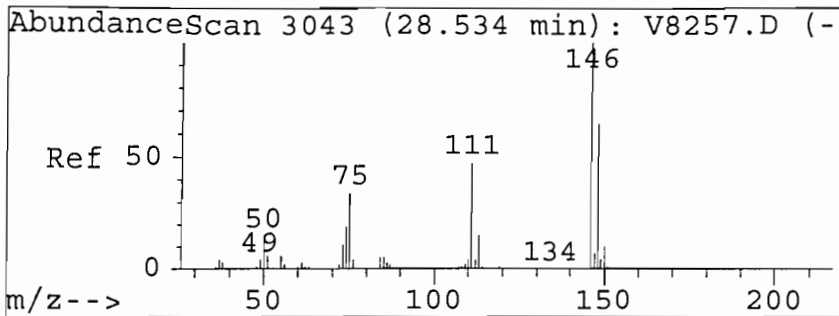
Tgt Ion:91	Resp: 908246
Ion Ratio	Lower Upper
91 100	
106 45.7	23.0 69.0
105 17.9	9.2 27.6
0 0.0	0.0 0.0



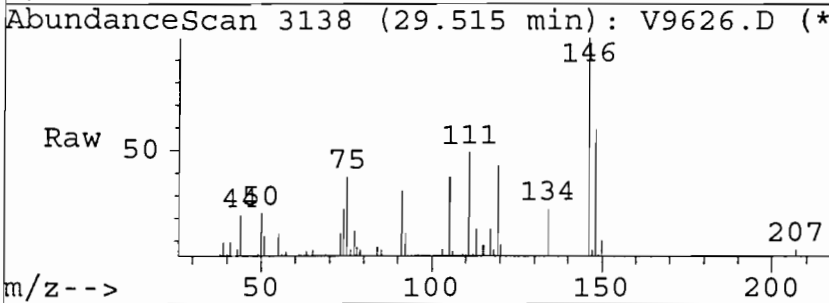
AbundanceIon 91.00 (90.
Ion 106.00 (105
Ion 105.00 (104



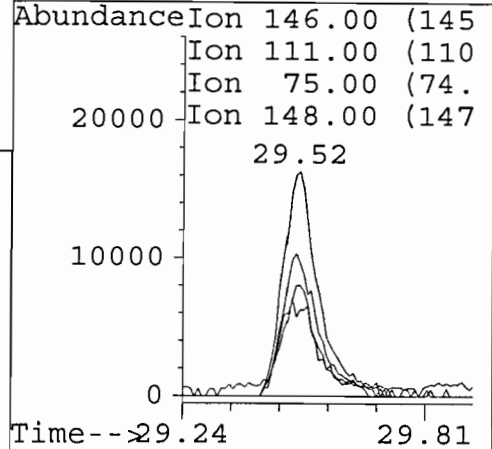
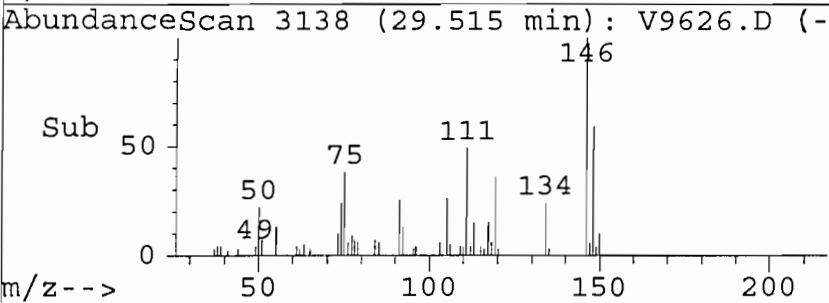
000059



#49
 1,2-Dichlorobenzene
 Concen: 1.56 ug/L
 RT: 29.52 min Scan# 3138
 Delta R.T. 0.04 min
 Lab File: V9626.D
 Acq: 28 Oct 99 5:14 am



Tgt Ion:	146	Resp:	96353
Ion	Ratio	Lower	Upper
146	100		
111	49.2	25.3	75.8
75	38.5	19.9	59.7
148	59.1	38.0	88.6



000060

Library Search Compound Report

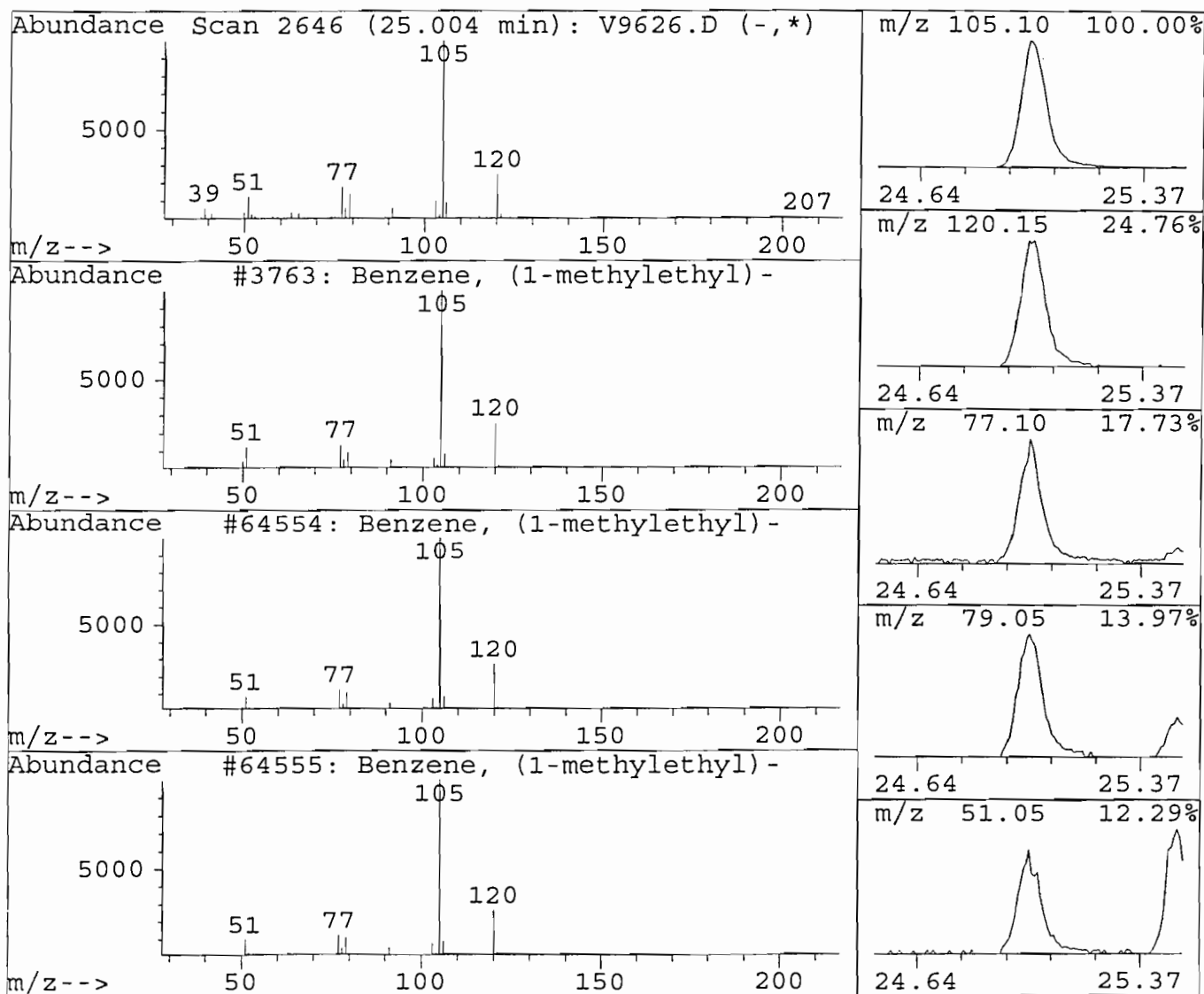
Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D
Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.00	7.21 ug/L	1754137	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1-methylethyl)-	3763	000098-82-8	94
2	Benzene, (1-methylethyl)-	64554	000098-82-8	91
3	Benzene, (1-methylethyl)-	64555	000098-82-8	91
4	Benzene, (1-methylethyl)-	64553	000098-82-8	91
5	Benzene, (1-methylethyl)-	64556	000098-82-8	91



000061

Library Search Compound Report

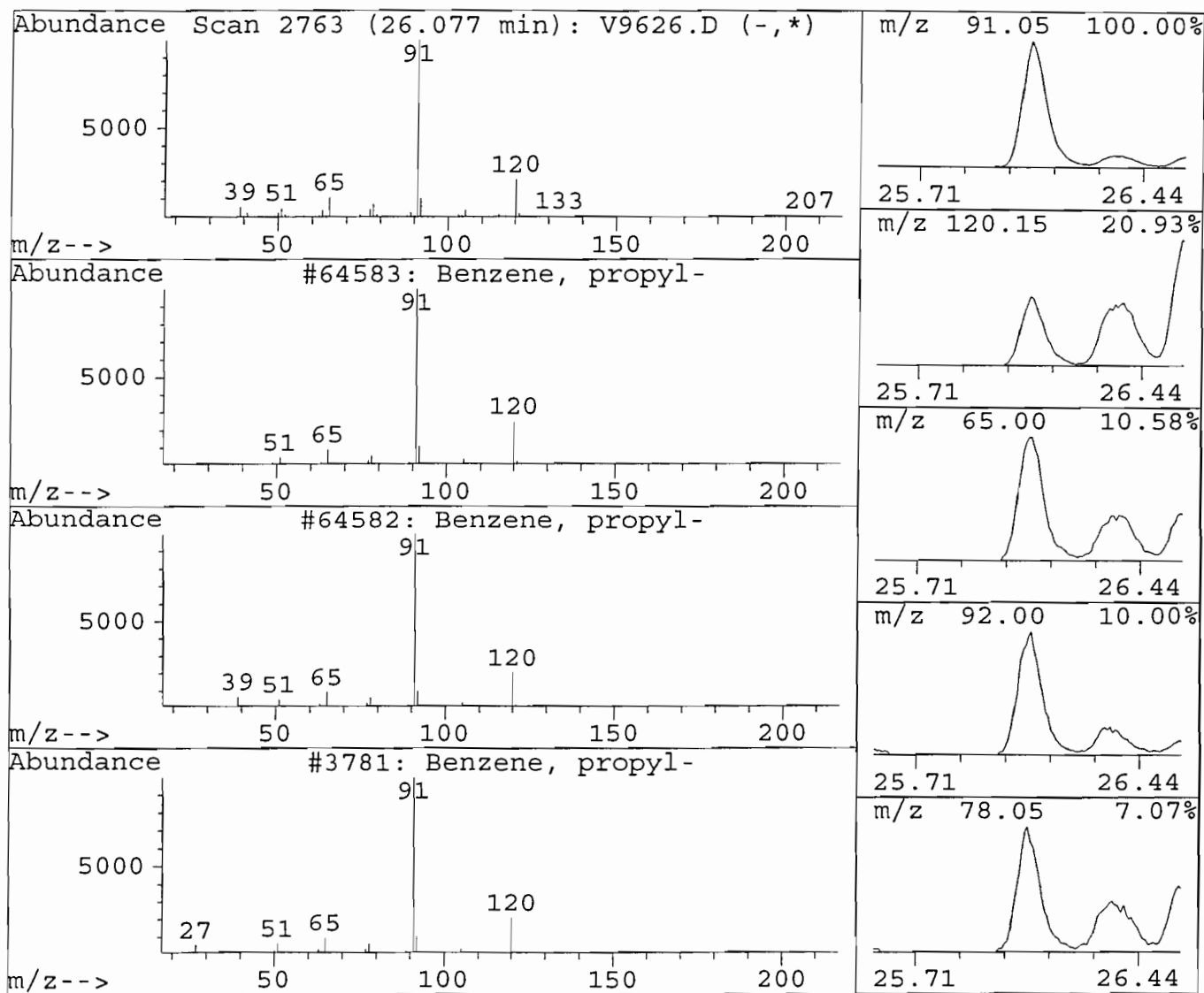
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Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.08	13.00 ug/L	3165448	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, propyl-	64583	000103-65-1	91
2	Benzene, propyl-	64582	000103-65-1	91
3	Benzene, propyl-	3781	000103-65-1	91
4	Propanenitrile, 3-[(phenylmethyl)am	12493	000706-03-6	72
5	Ethanol, 2-[(phenylmethyl)amino]-	10033	000104-63-2	56



Library Search Compound Report

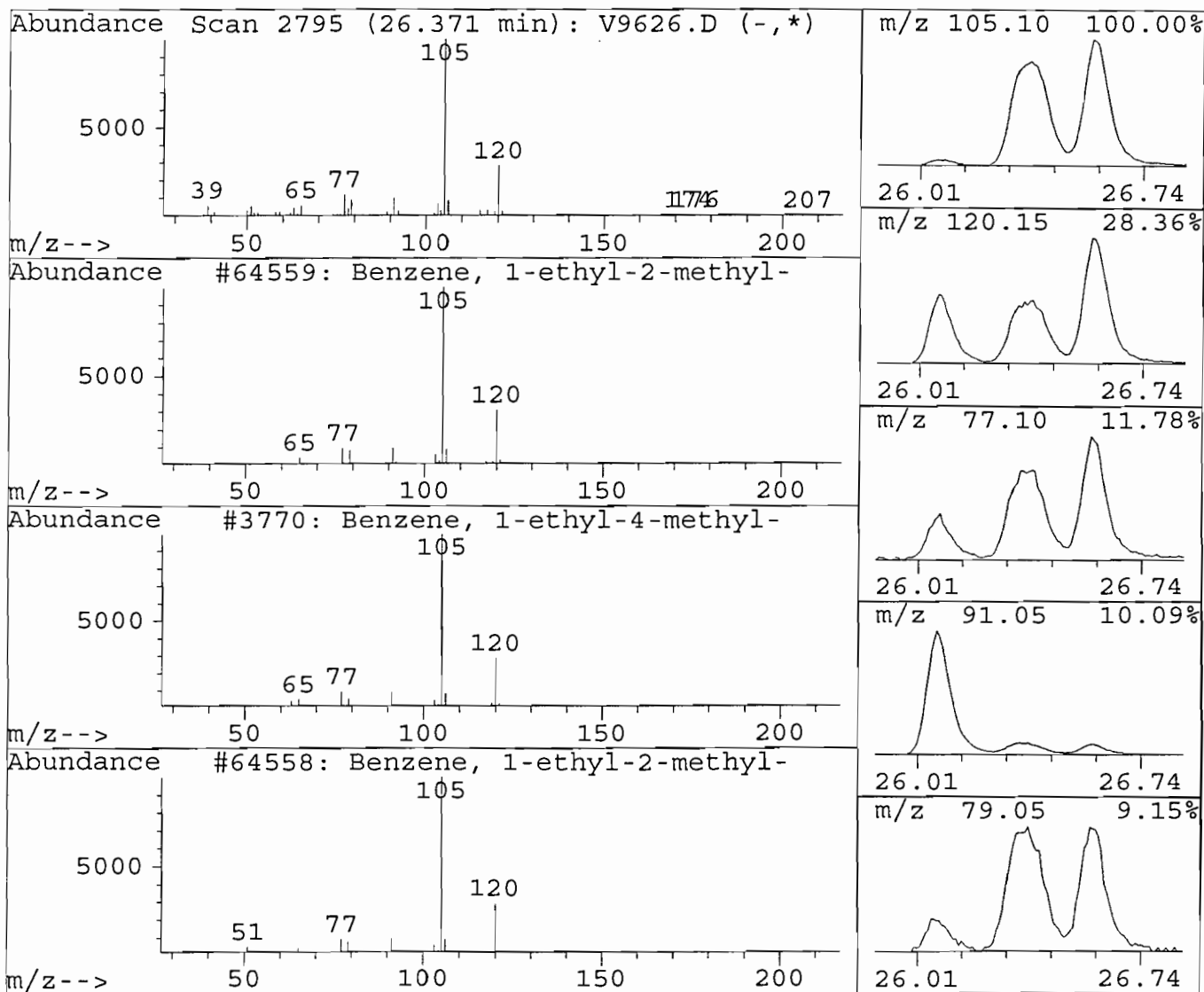
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Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.37	15.93 ug/L	3877607	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	95
2	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	95
3	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	95
4	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	95
5	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95



Library Search Compound Report

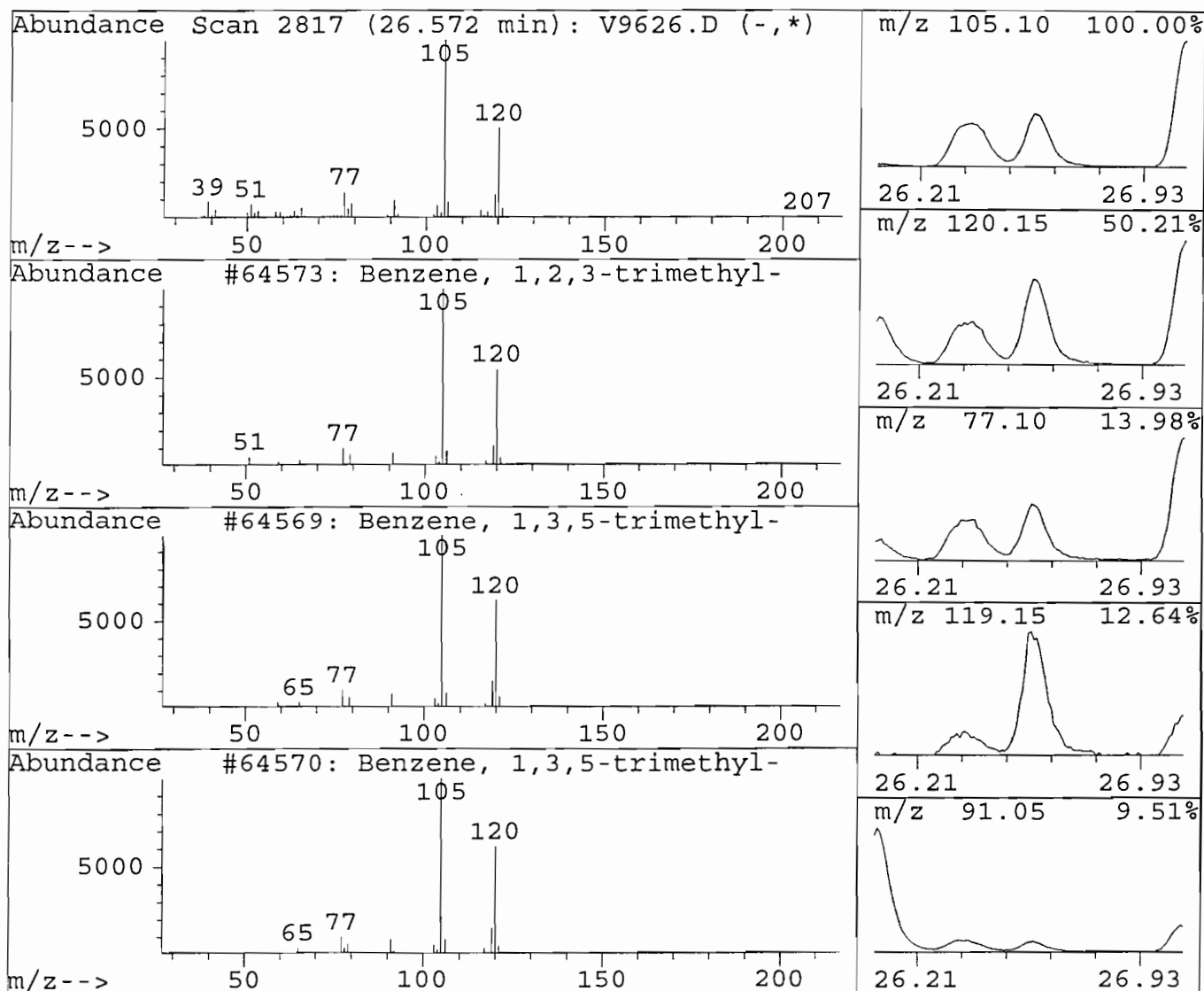
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Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.57	15.80 ug/L	3845957	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
2	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
3	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	95
4	Benzene, 1,3,5-trimethyl-	64571	000108-67-8	94
5	Benzene, 1,2,4-trimethyl-	64579	000095-63-6	94



Library Search Compound Report

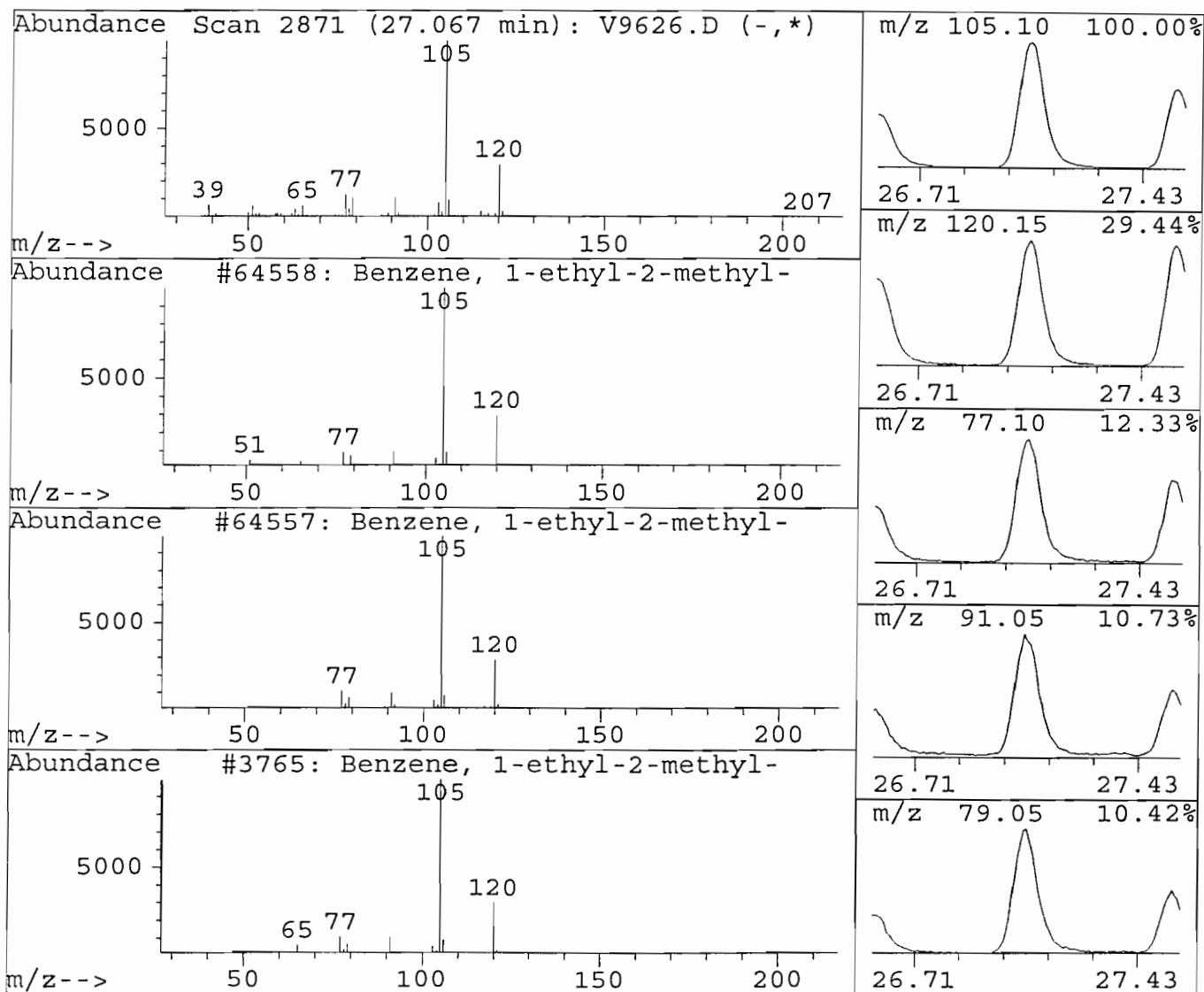
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Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.07	31.38 ug/L	7638388	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
3	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	95
4	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	95
5	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94



000065

Library Search Compound Report

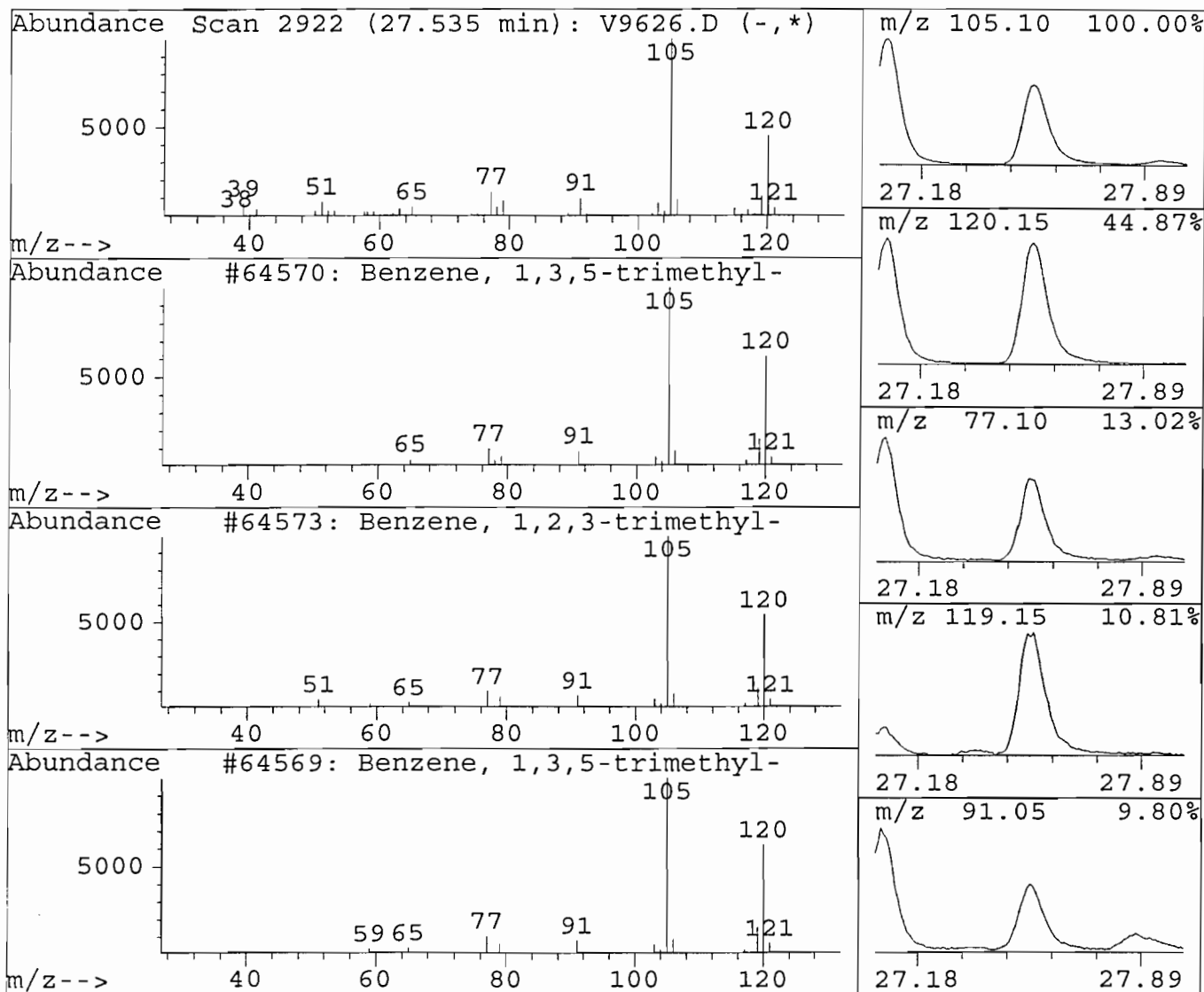
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Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.54	23.57 ug/L	5737504	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	95
2	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
3	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
4	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	95
5	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	94



000066

Library Search Compound Report

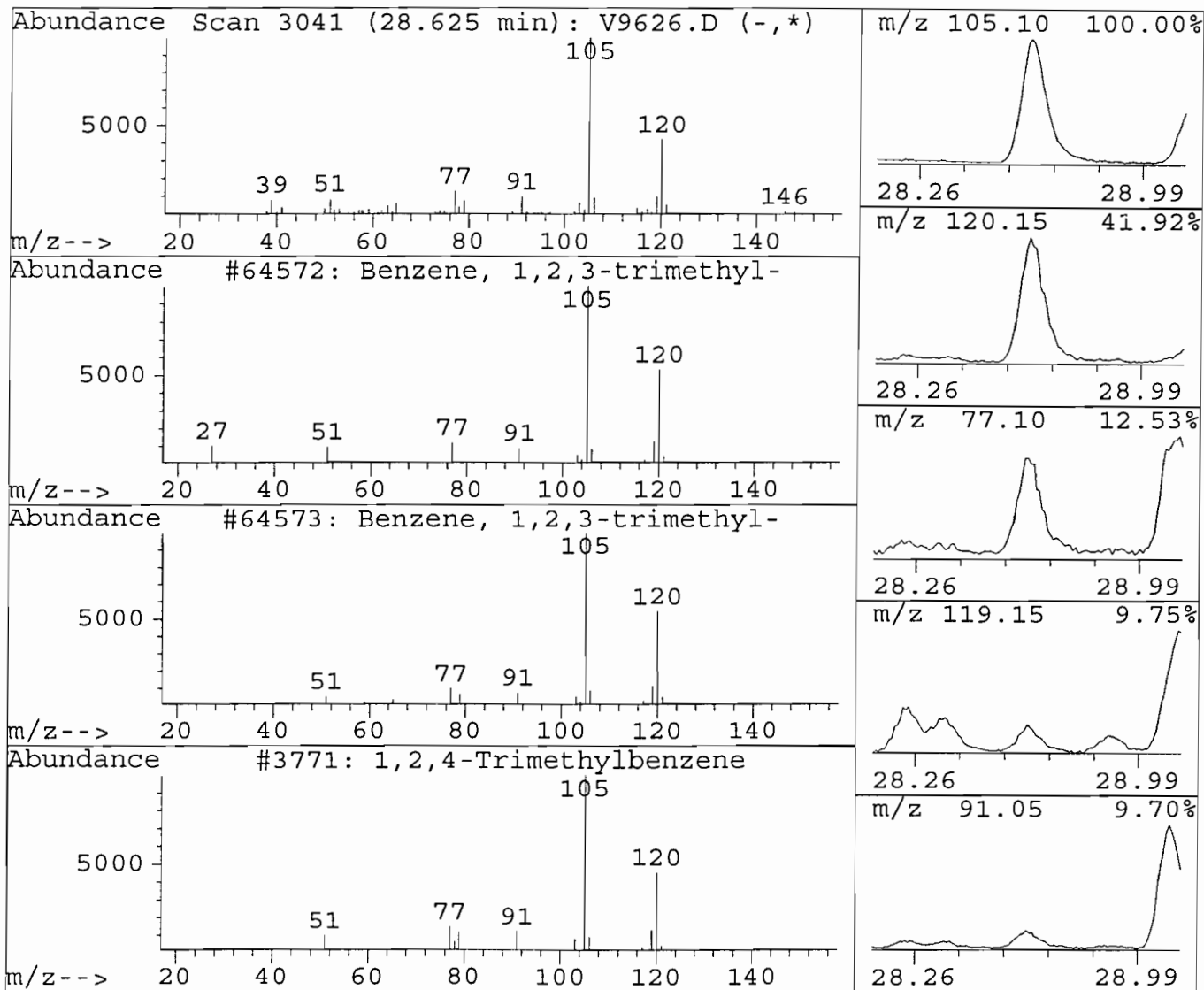
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Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.62	5.59 ug/L	1361084	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64572	000526-73-8	95
2	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
3	1,2,4-Trimethylbenzene	3771	000095-36-3	94
4	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	94
5	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	91



000067

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D

Acq Time : 28 Oct 99 5:14 am

Sample : L5320ASP-91752

Misc : 25MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

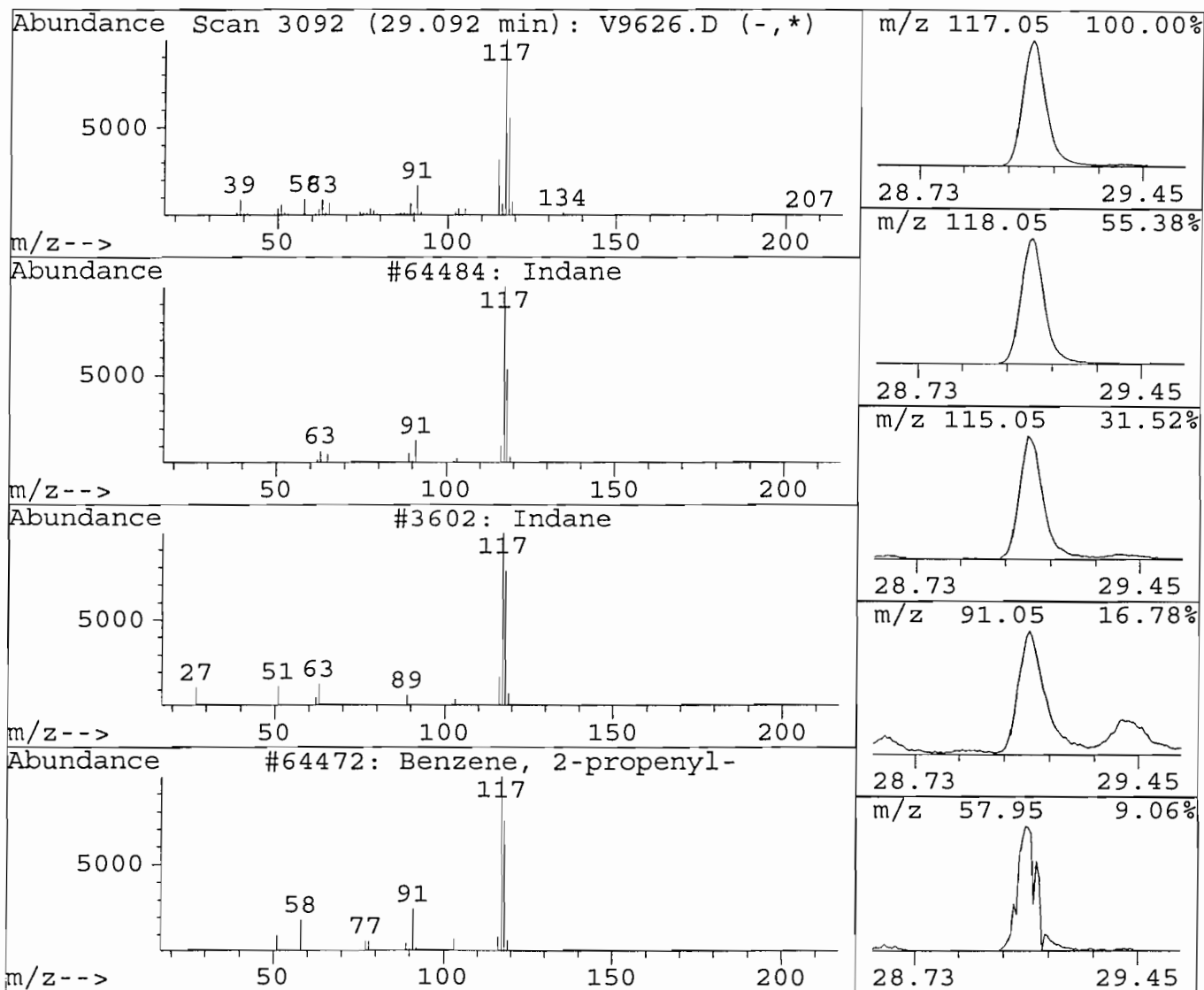
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.09	27.68 ug/L	6739702	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indane	64484	000496-11-7	81
2	Indane	3602	000496-11-7	53
3	Benzene, 2-propenyl-	64472	000300-57-2	50
4	Benzene, ethenylmethyl-	3598	025013-15-4	49
5	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	49



Library Search Compound Report

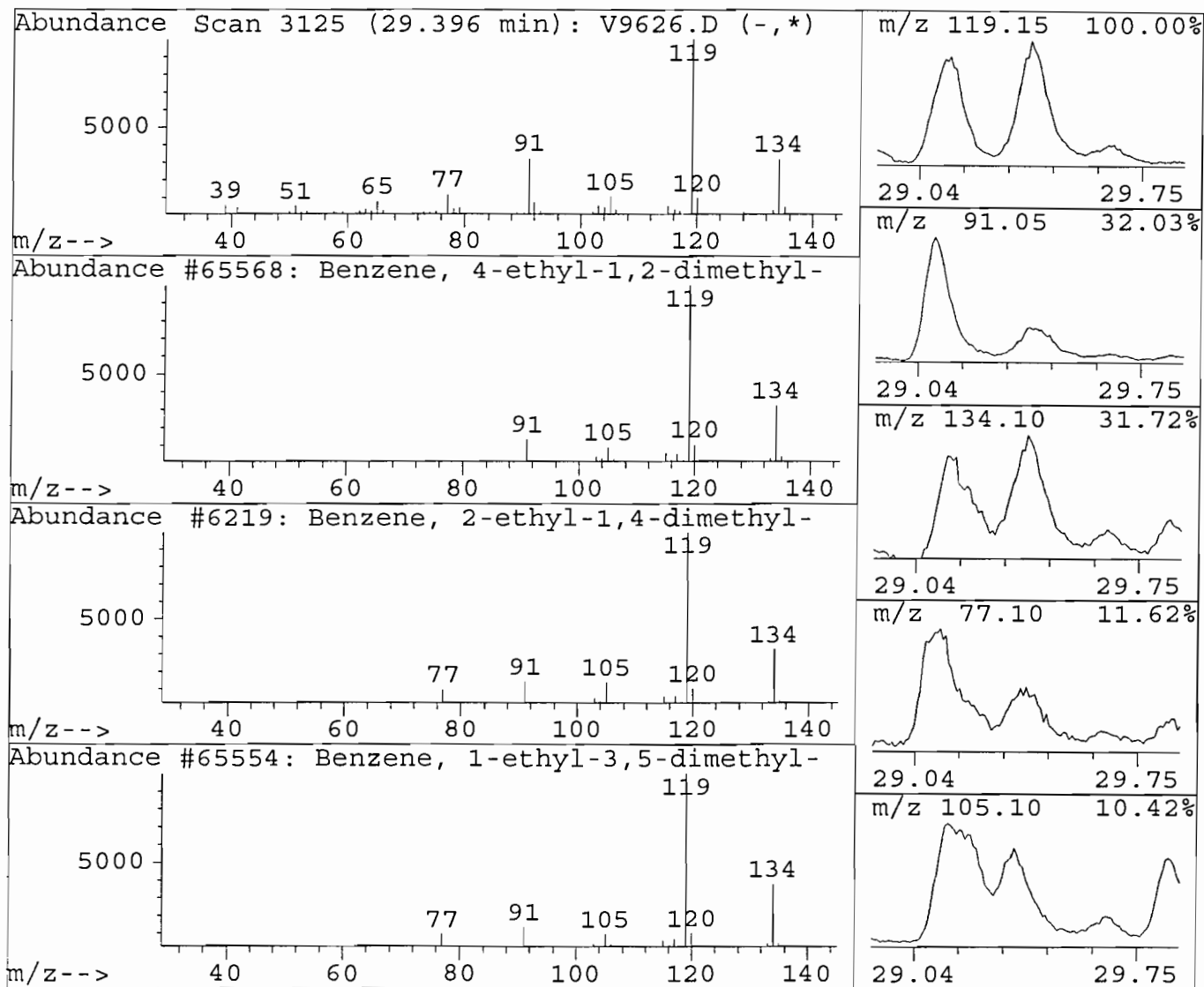
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Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.40	3.09 ug/L	751763	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	65568	000934-80-5	93
2	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	91
3	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	91
4	Benzene, 1-ethyl-2,3-dimethyl-	65555	000933-98-2	91
5	Benzene, 2-ethyl-1,4-dimethyl-	65570	001758-88-9	91



Library Search Compound Report

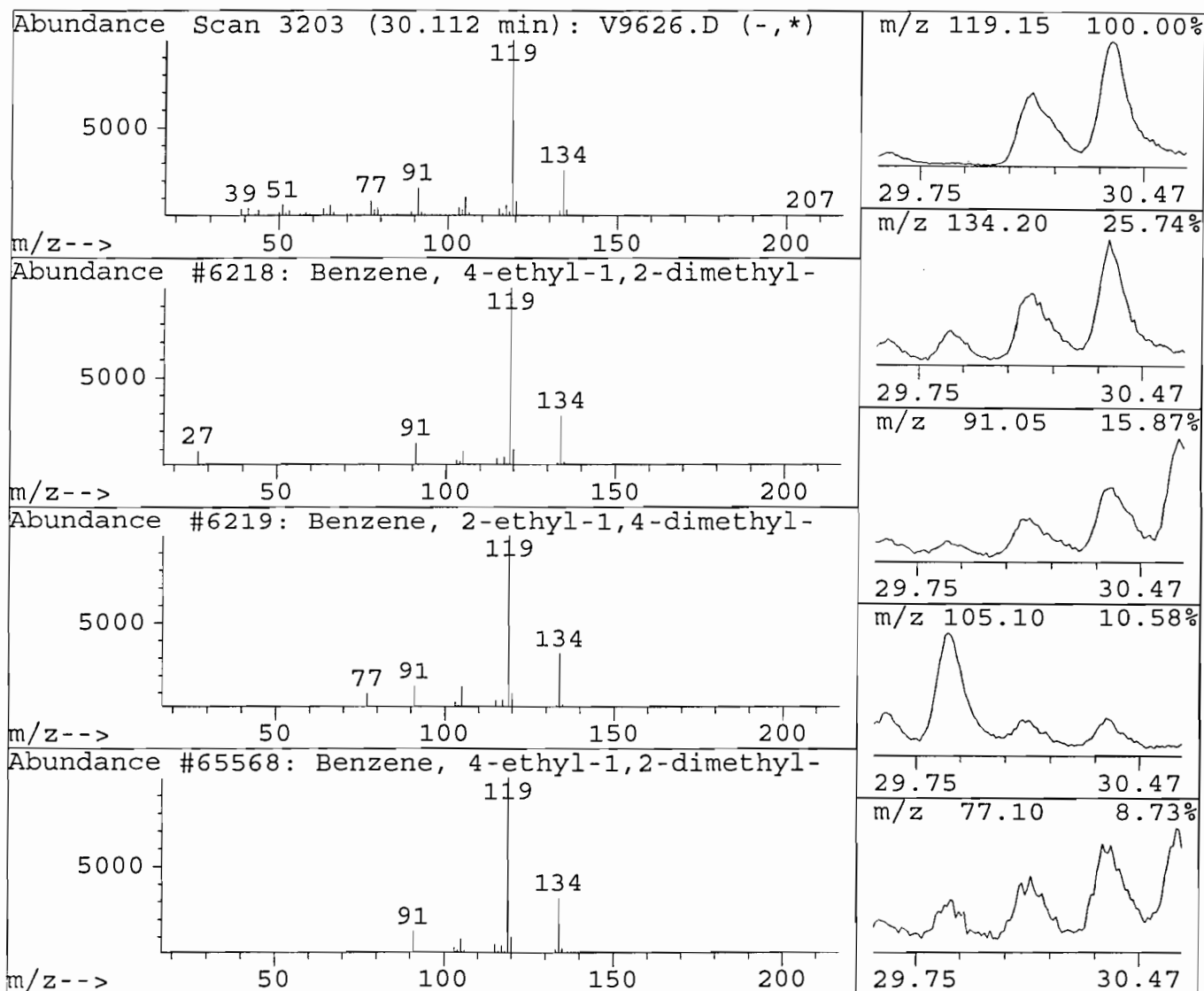
Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D
Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.11	3.36 ug/L	817133	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	95
2	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	95
3	Benzene, 4-ethyl-1,2-dimethyl-	65568	000934-80-5	95
4	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	93
5	Benzene, 1-methyl-4-(1-methylethyl)	65534	000099-87-6	93



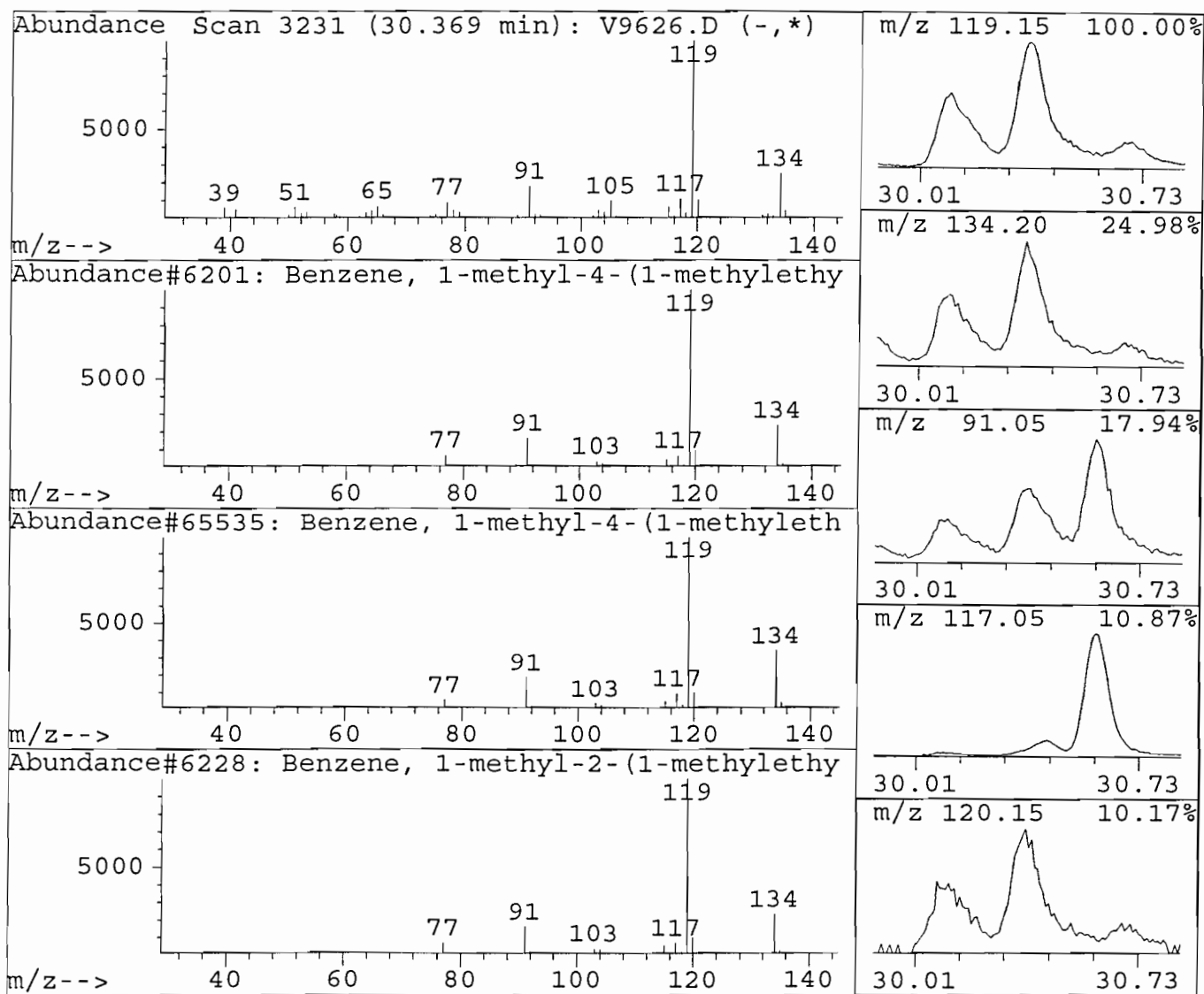
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D
Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.37	6.16 ug/L	1499208	Chlorobenzene-d5	22.36	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)		6201	000099-87-6	95
2	Benzene, 1-methyl-4-(1-methylethyl)		65535	000099-87-6	95
3	Benzene, 1-methyl-2-(1-methylethyl)		6228	000527-84-4	95
4	Benzene, 1-methyl-4-(1-methylethyl)		65536	000099-87-6	95
5	Benzene, 1-methyl-3-(1-methylethyl)		65579	000535-77-3	95



000071

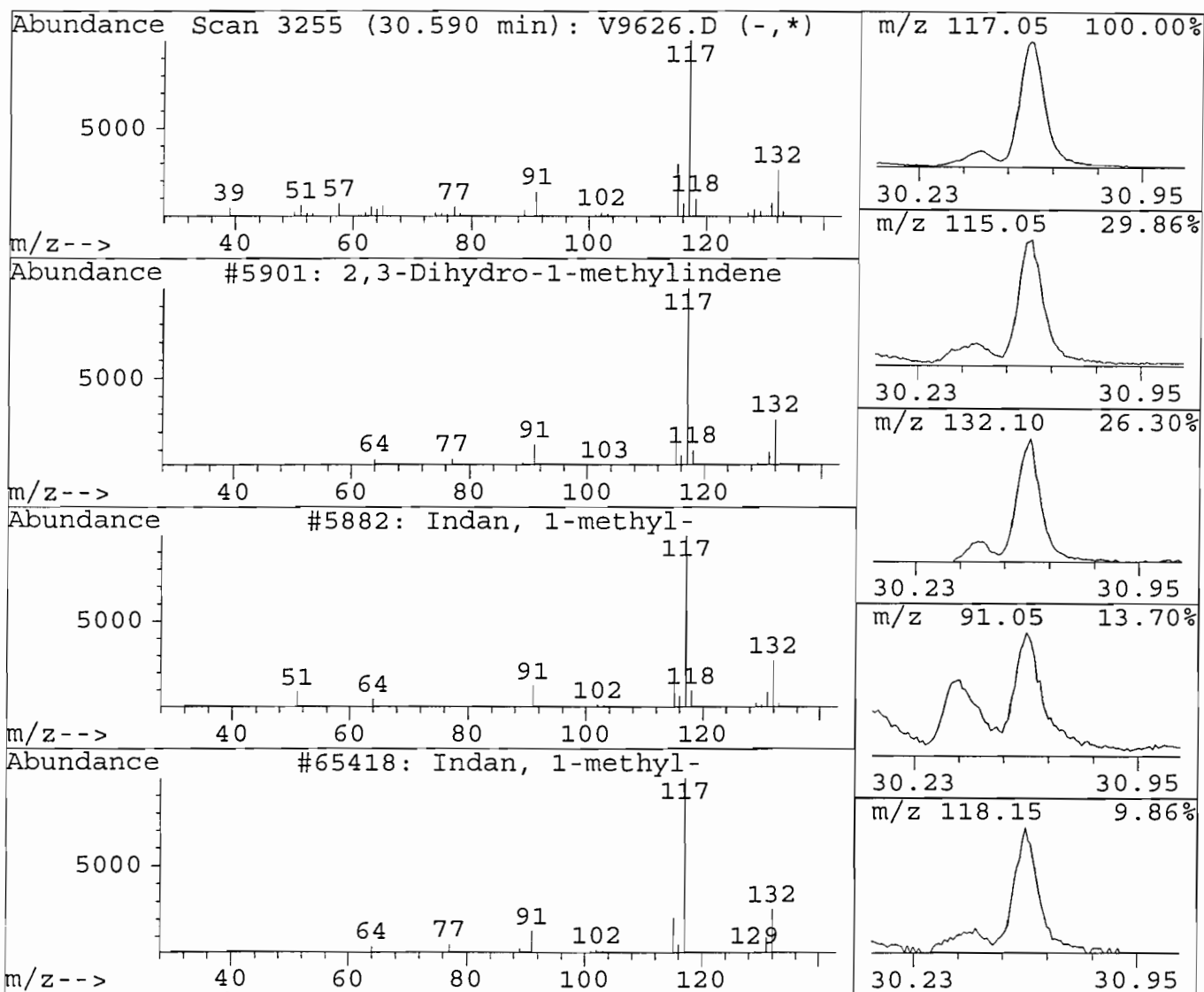
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D
Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.59	10.04 ug/L	2444199	Chlorobenzene-d5	22.36	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	2,3-Dihydro-1-methylindene		5901	027133-93-3	93
2	Indan, 1-methyl-		5882	000767-58-8	93
3	Indan, 1-methyl-		65418	000767-58-8	87
4	Benzene, 1-ethenyl-3-ethyl-, mixt.		36689	055319-72-7	80
5	Benzene, (2-methyl-1-propenyl)-		65428	000768-49-0	72



Library Search Compound Report

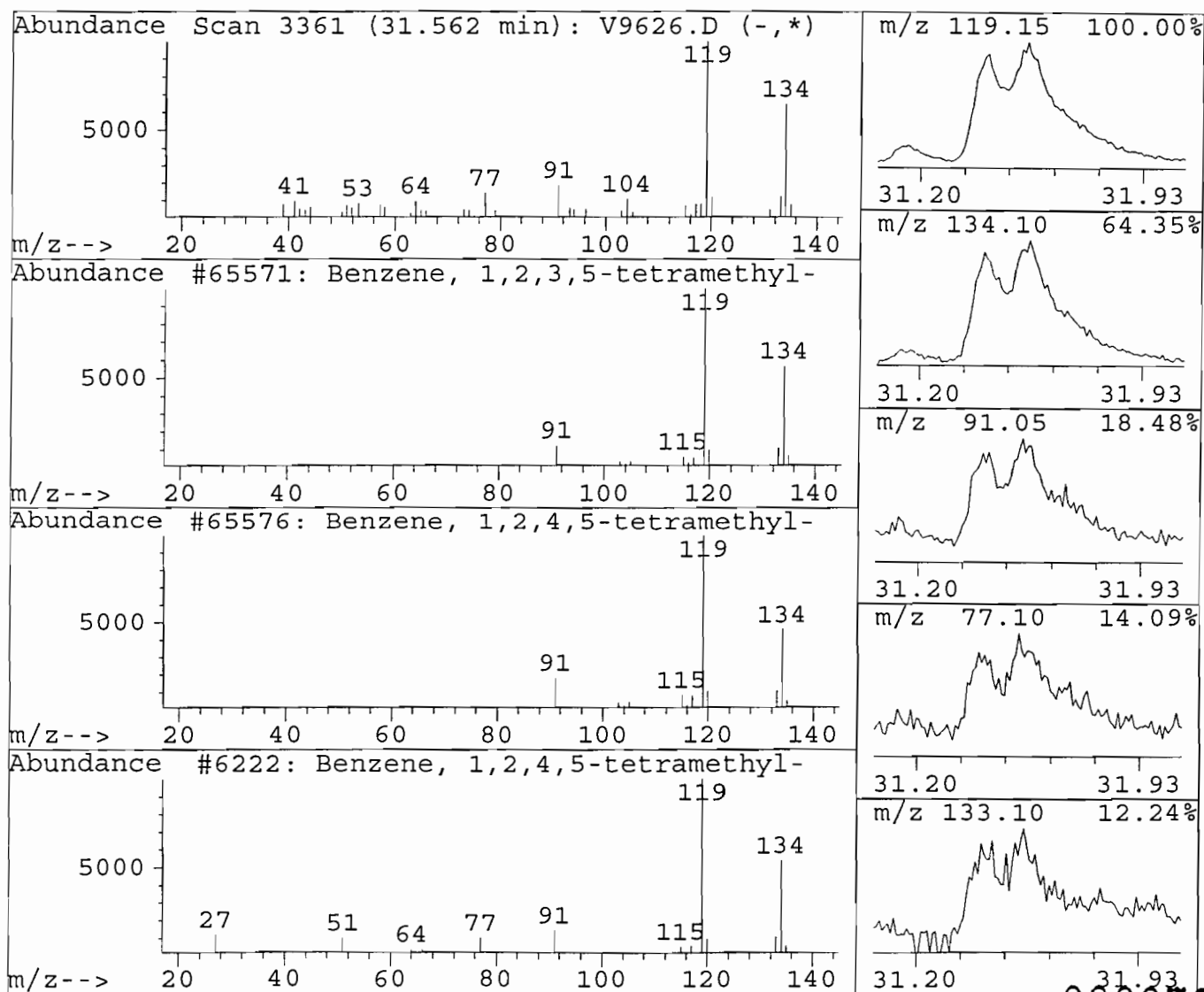
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Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.56	3.87 ug/L	942553	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	65571	000527-53-7	87
2	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	87
3	Benzene, 1,2,4,5-tetramethyl-	6222	000095-93-2	87
4	Benzene, 1,2,4,5-tetramethyl-	65575	000095-93-2	87
5	Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	87



000073

Library Search Compound Report

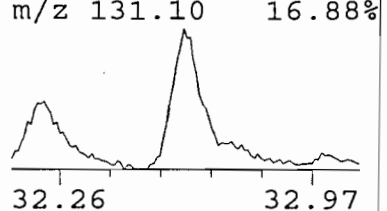
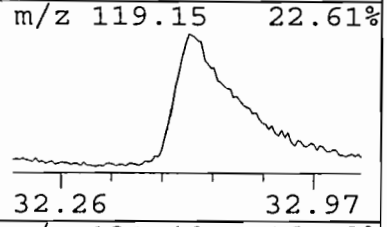
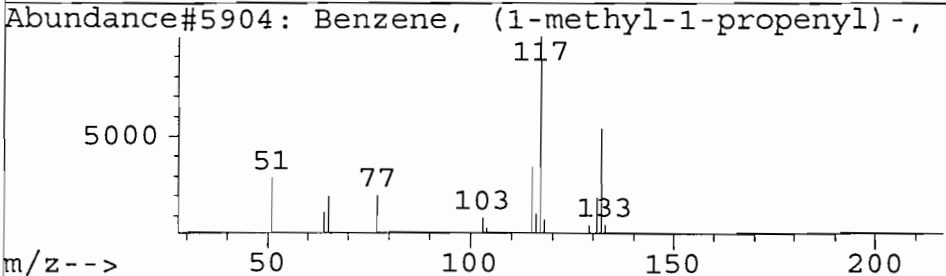
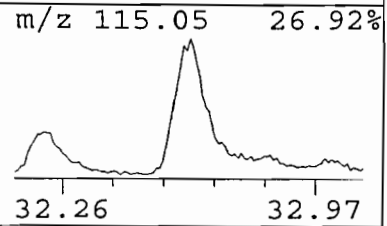
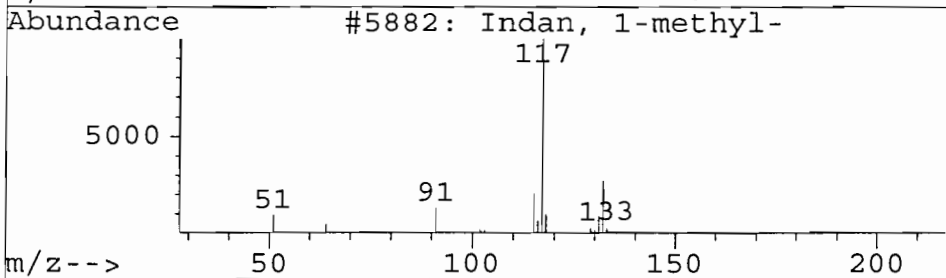
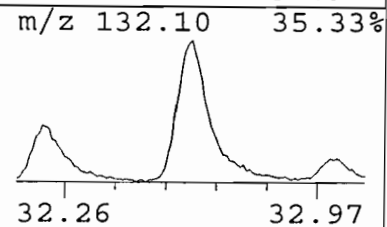
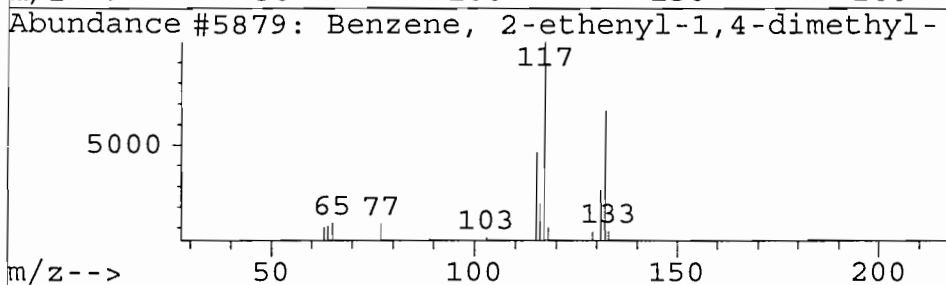
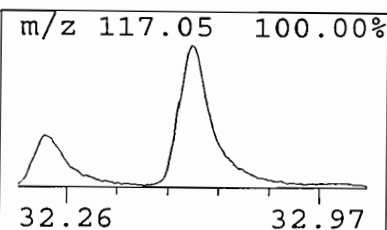
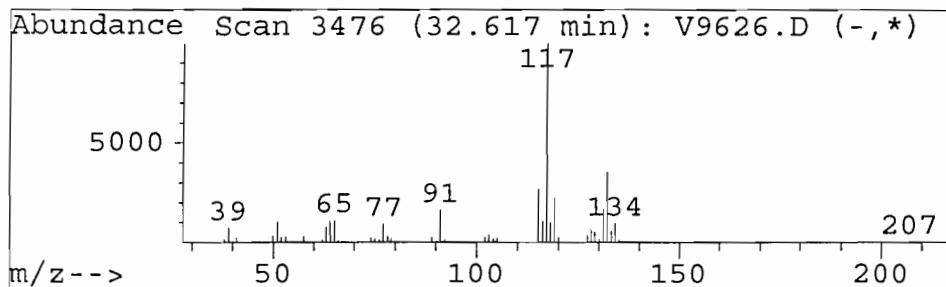
Data File : D:\HPCHEM\1\DATA\V1102799\V9626.D
Acq Time : 28 Oct 99 5:14 am
Sample : L5320ASP-91752
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.62	11.73 ug/L	2856764	Chlorobenzene-d5	22.36

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-	5879	002039-89-6	96
2	Indan, 1-methyl-	5882	000767-58-8	94
3	Benzene, (1-methyl-1-propenyl)-, (Z	5904	000767-99-7	83
4	Benzene, 1-methyl-2-(2-propenyl)-	65419	001587-04-8	81
5	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	81



000074

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-027-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02

Matrix: (soil/water) WATER

Lab Sample ID: O91753

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9627.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

74-87-3	Chloromethane	2.3	U
74-83-9	Bromomethane	1.8	U
75-01-4	Vinyl Chloride	1.1	J
75-00-3	Chloroethane	1.6	U
75-09-2	Trichlorofluoromethane	1.5	U
75-09-2	Methylene Chloride	0.6	U
75-35-4	1,1-Dichloroethene	1.2	U
75-34-3	1,1-Dichloroethane	0.7	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.4	U
107-06-2	1,2-Dichloroethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.4	U
75-27-4	Bromodichloromethane	0.6	U
78-87-5	1,2-Dichloropropane	0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
79-01-6	Trichloroethene	0.3	U
124-48-1	Dibromochloromethane	0.5	U
79-00-5	1,1,2-Trichloroethane	0.9	U
71-43-2	Benzene	2.8	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
110-75-8	2-Chloroethyl Vinyl Ether	1.5	U
75-25-2	Bromoform	0.7	U
127-18-4	Tetrachloroethene	0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	91	
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	81	
136777-61-2	m + p-Xylenes	98	
95-47-6	o-xylene	75	
95-50-1	1,2-Dichlorobenzene	11	
541-73-1	1,3-Dichlorobenzene	0.4	U
106-46-7	1,4-Dichlorobenzene	0.3	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-027-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91753
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9627.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 20 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 98-82-8	Benzene, (1-methylethyl)-	25.03	16	J
2. 103-65-1	Benzene, propyl-	26.09	25	J
3. 611-14-3	Benzene, 1-ethyl-2-methyl-	26.35	60	J
4. 526-73-8	Benzene, 1,2,3-trimethyl-	26.60	41	J
5. 622-96-8	Benzene, 1-ethyl-4-methyl-	27.08	37	J
6. 108-67-8	Benzene, 1,3,5-trimethyl-	27.54	160	J
7.	Unknown	28.62	22	J
8.	Unknown	29.10	58	J
9. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	29.39	14	J
10. 99-87-6	Benzene, 1-methyl-4-(1-methy	30.10	7.7	J
11.	Unknown	30.14	8.8	J
12. 874-41-9	Benzene, 1-ethyl-2,4-dimethy	30.34	16	J
13. 27133-93-3	2,3-Dihydro-1-methylindene	30.58	15	J
14. 99-87-6	Benzene, 1-methyl-4-(1-methy	31.38	7.9	J
15. 95-93-2	Benzene, 1,2,4,5-tetramethyl	31.51	9.6	J
16. 27133-93-3	2,3-Dihydro-1-methylindene	32.17	6.6	J
17. 2039-89-6	Benzene, 2-ethenyl-1,4-dimet	32.58	28	J
18. 119-64-2	Naphthalene, 1,2,3,4-tetrahy	32.98	12	J
19. 90-12-0	Naphthalene, 1-methyl-	37.23	12	J
20.	Unknown	37.69	11	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000076

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D

Acq Time : 28 Oct 99 5:58 am

Sample : L5320ASP-91753

Misc : ~~25~~MLS 5m/s 99 10-28-99

Quant Time: Oct 28 12:28 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.77	128	460653	30.00	ug/L	-0.03
19) 1,4-Difluorobenzene	14.35	114	2283458	30.00	ug/L	-0.02
34) Chlorobenzene-d5	22.37	117	2054025	30.00	ug/L	0.00
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.89	65	773693	28.44	ug/L	94.80%
36) Toluene-d8	18.46	98	2536476	27.18	ug/L	90.58%
45) Bromofluorobenzene	25.51	95	1659211	30.28	ug/L	100.92%
Target Compounds						Qvalue
3) Vinyl Chloride	2.82	62	29210	1.08	ug/L	97
8) Acetone	5.11	43	32222	4.42	ug/L	91
NT { 13) MTBE	6.54	73	1032958	11.28	ug/L	97
15) cis-1,2-Dichloroethene	9.85	96	1050519	31.03	ug/L	98
24) Benzene	12.79	78	283308	2.82	ug/L	99
37) Toluene	18.62	91	10469886	91.41	ug/L	96
41) Ethylbenzene	22.70	91	11649852	81.22	ug/L	99
42) m+ p-Xylenes	23.03	106	5040165	97.96	ug/L	98
43) o-xylene	24.06	91	8234827	74.63	ug/L	97
49) 1,2-Dichlorobenzene	29.48	146	573769	10.74	ug/L	98
NT 50) Naphthalene	34.24	128	5420509	63.51	ug/L m	92

(#) = qualifier out of range (m) = manual integration

V9627.D V11027AW.M

Thu Oct 28 12:28:21 1999

VOA1

Page 1

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Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D

Acq Time : 28 Oct 99 5:58 am

Sample : L5320ASP-91753

Misc : 25MLS

Quant Time: Oct 28 12:28 1999

Operator: AV

Inst : 5971 - In

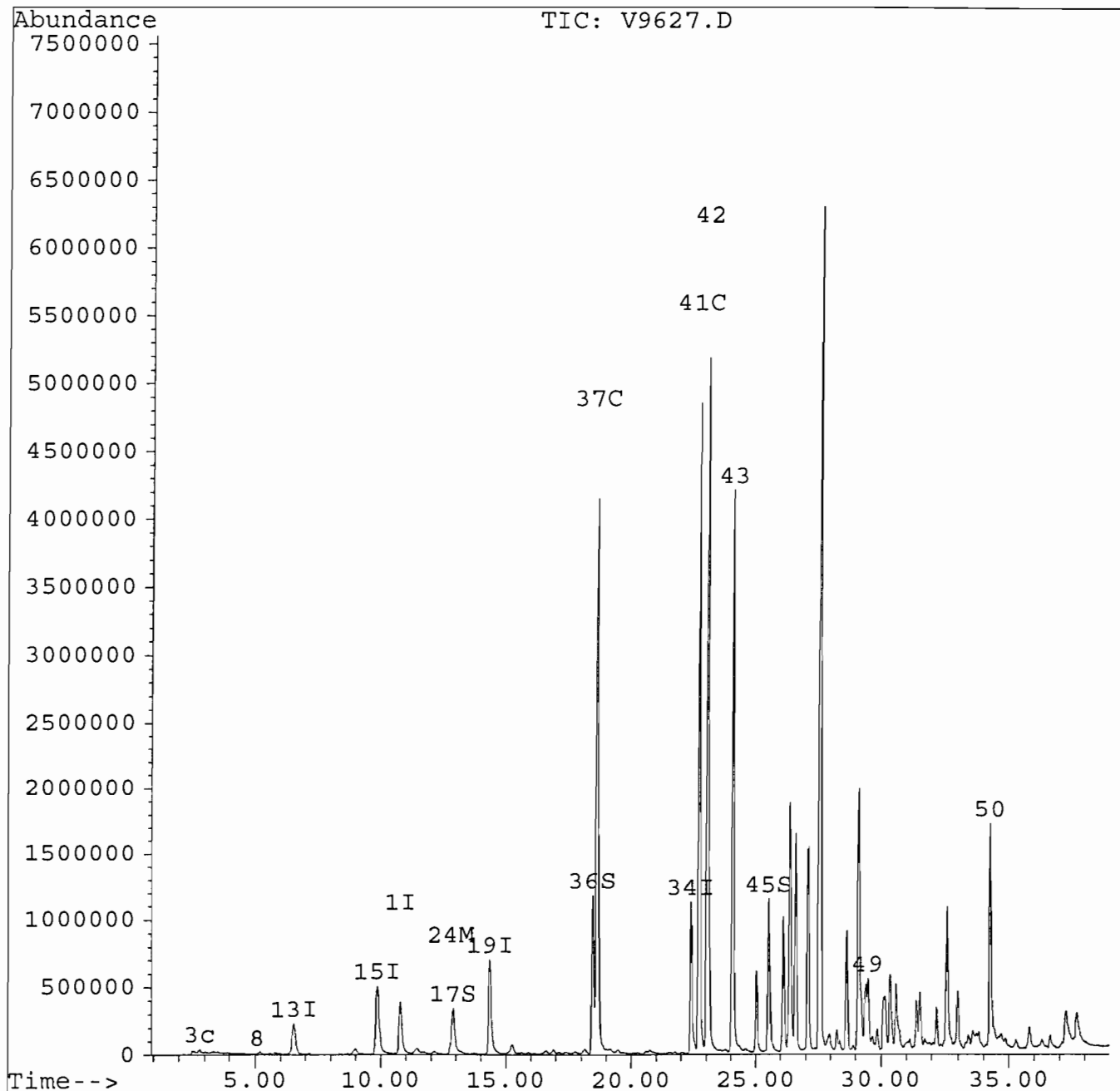
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

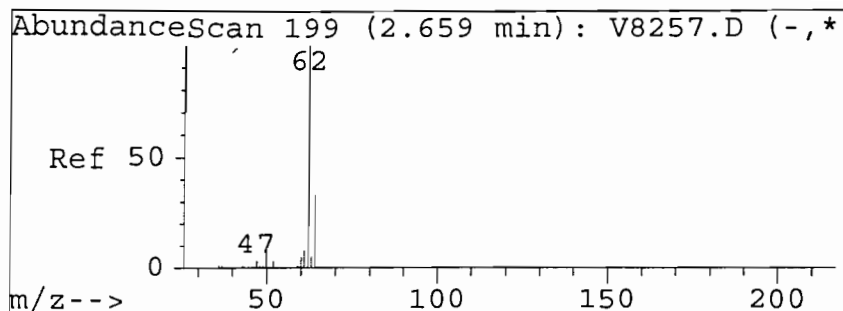
Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

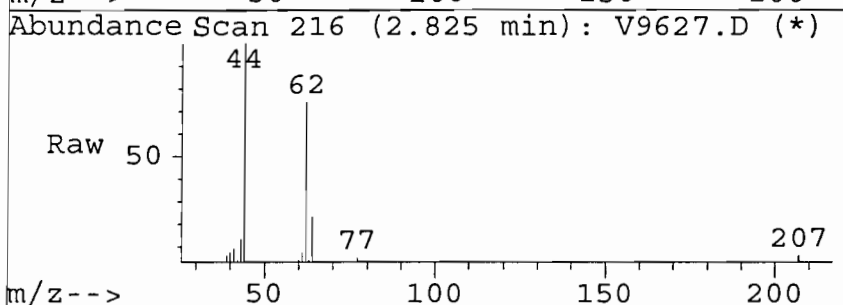
Response via : Multiple Level Calibration



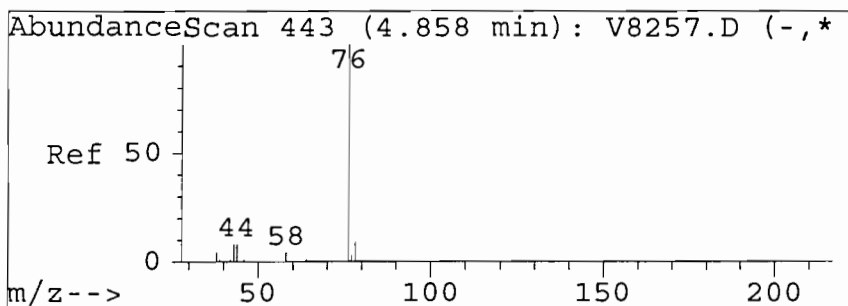
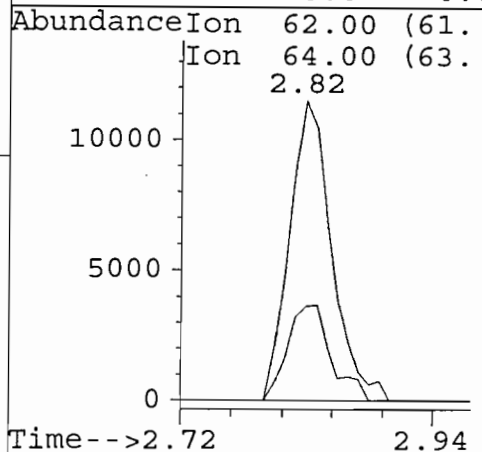
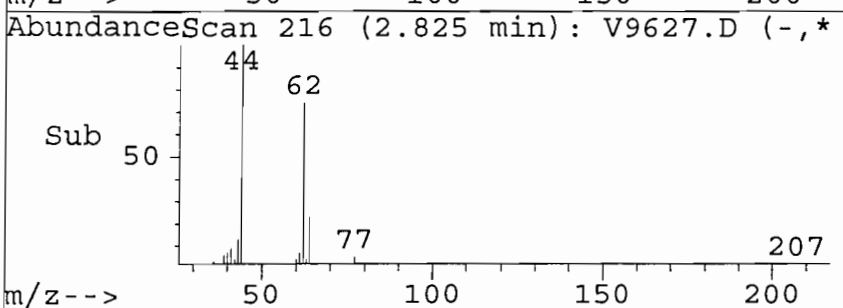
000078



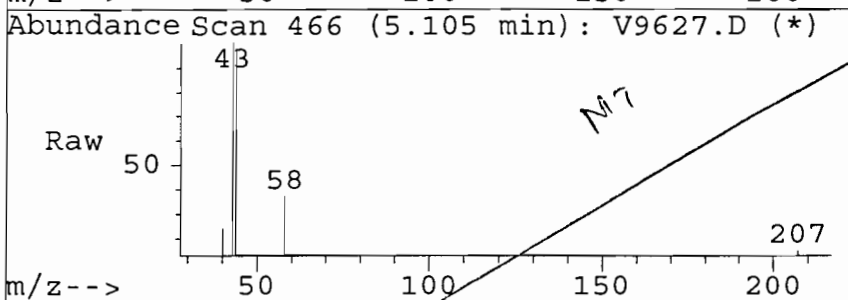
#3
 Vinyl Chloride
 Concen: 1.08 ug/L
 RT: 2.82 min Scan# 216
 Delta R.T. 0.00 min
 Lab File: V9627.D
 Acq: 28 Oct 99 5:58 am



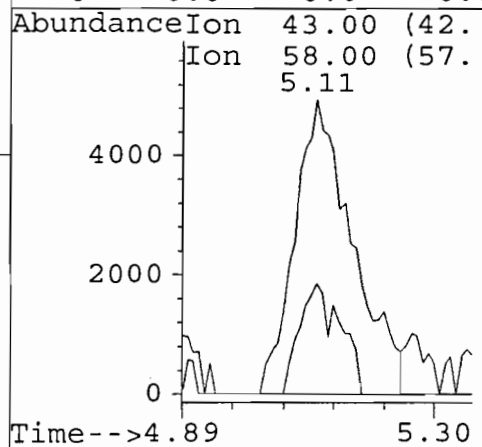
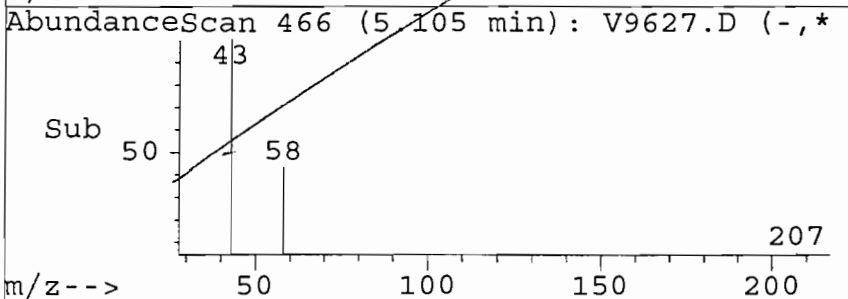
Tgt Ion	Ratio	Lower	Upper
62	100		
64	31.6	16.7	50.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



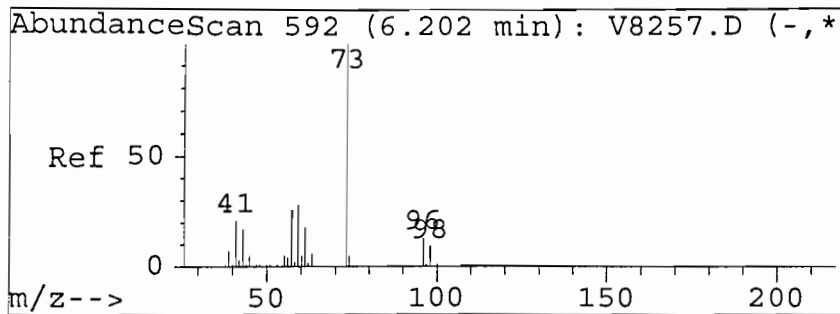
#8
 Acetone
 Concen: 4.42 ug/L
 RT: 5.11 min Scan# 466
 Delta R.T. -0.00 min
 Lab File: V9627.D
 Acq: 28 Oct 99 5:58 am



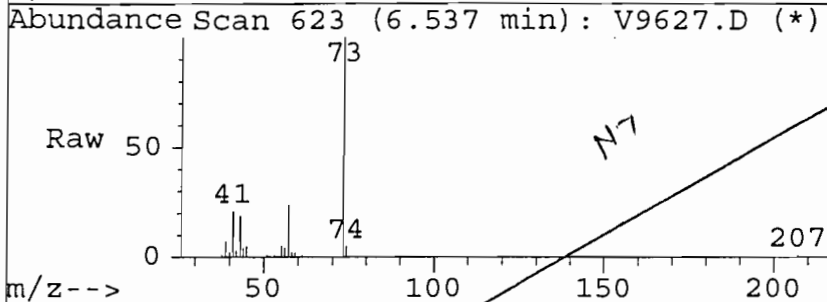
Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.4	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



000079

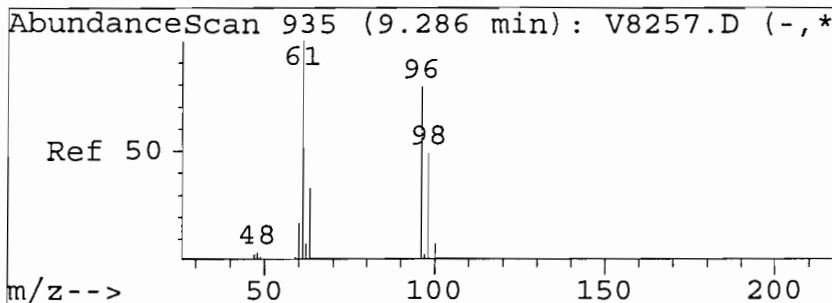
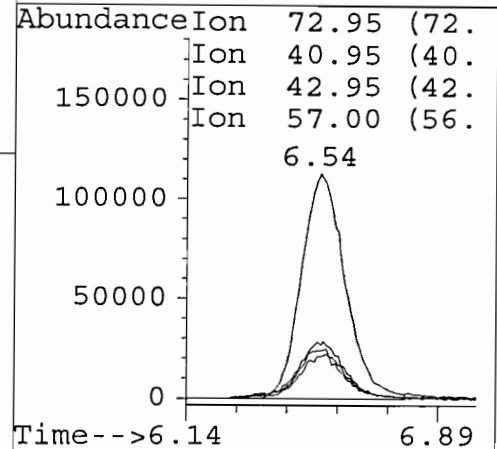
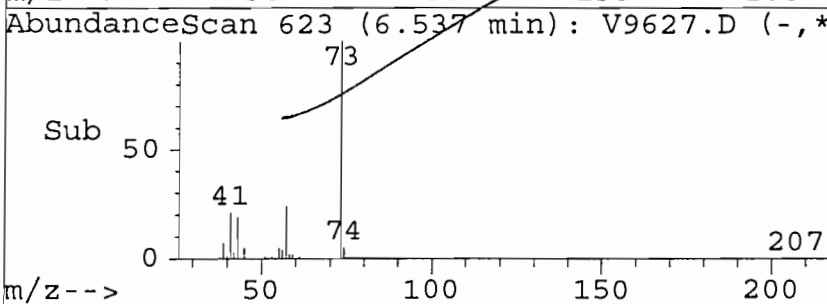


#13
MTBE
Concen: 11.28 ug/L
RT: 6.54 min Scan# 623
Delta R.T. -0.01 min
Lab File: V9627.D
Acq: 28 Oct 99 5:58 am

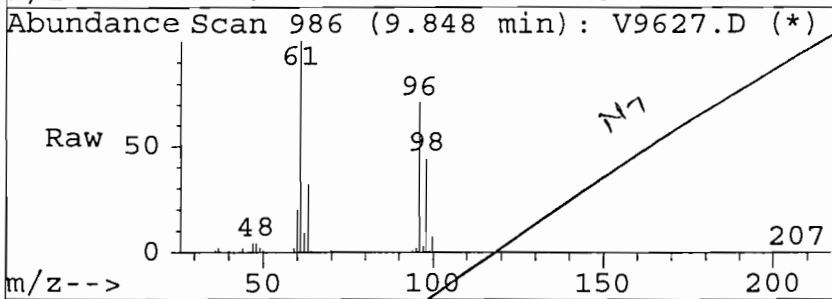


Tgt Ion: 72.95 Resp: 1032958

Ion	Ratio	Lower	Upper
73	100		
41	21.2	11.4	34.2
43	18.6	10.0	30.0
57	23.7	20.0	30.0

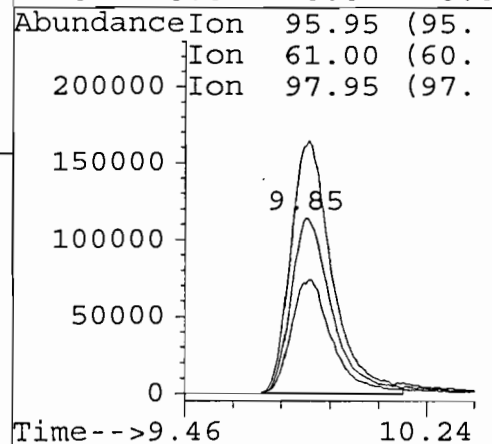
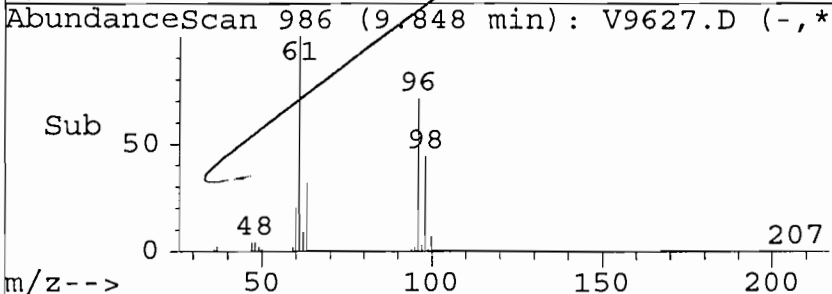


#15
cis-1,2-Dichloroethene
Concen: 31.03 ug/L
RT: 9.85 min Scan# 986
Delta R.T. -0.05 min
Lab File: V9627.D
Acq: 28 Oct 99 5:58 am

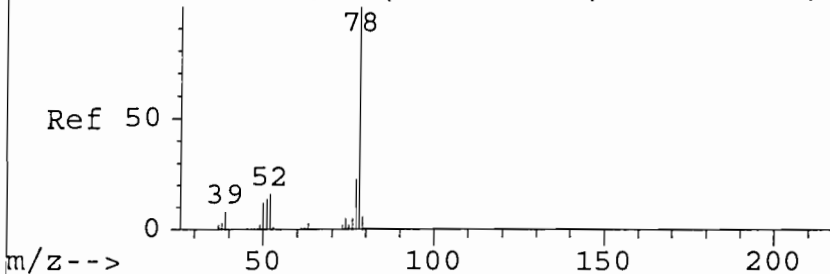


Tgt Ion: 95.95 Resp: 1050519

Ion	Ratio	Lower	Upper
96	100		
61	141.4	71.3	213.9
98	62.5	32.5	97.5
0	0.0	0.0	0.0



AbundanceScan 1260 (12.251 min): V8257.D (-



#24

Benzene

Concen: 2.82 ug/L

RT: 12.79 min Scan# 1309

Delta R.T. 0.00 min

Lab File: V9627.D

Acq: 28 Oct 99 5:58 am

Tgt Ion:78 Resp: 283308

Ion Ratio Lower Upper

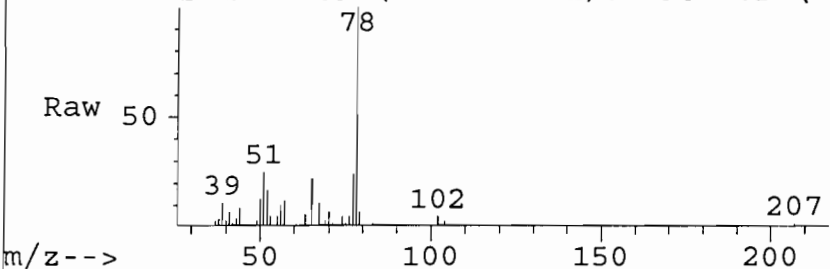
78 100

77 23.8 12.2 36.6

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1309 (12.794 min): V9627.D (*)



AbundanceIon 78.00 (77.

Ion 77.00 (76.

12.79

40000

30000

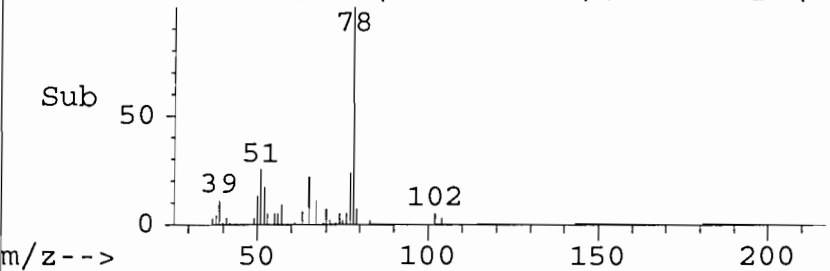
20000

10000

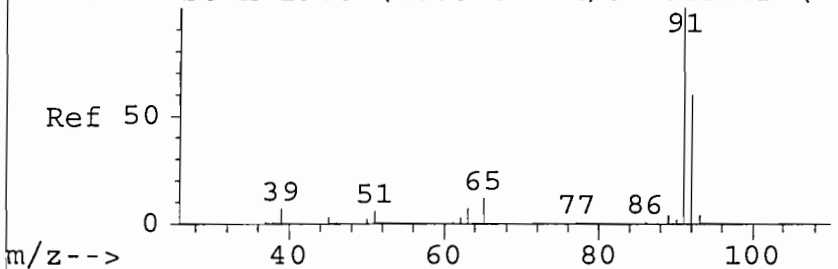
0

Time-->12.46 13.15

AbundanceScan 1309 (12.794 min): V9627.D (-



AbundanceScan 1900 (18.098 min): V8257.D (-



#37

Toluene

Concen: 91.41 ug/L

RT: 18.62 min Scan# 1947

Delta R.T. -0.01 min

Lab File: V9627.D

Acq: 28 Oct 99 5:58 am

Tgt Ion:91 Resp:10469886

Ion Ratio Lower Upper

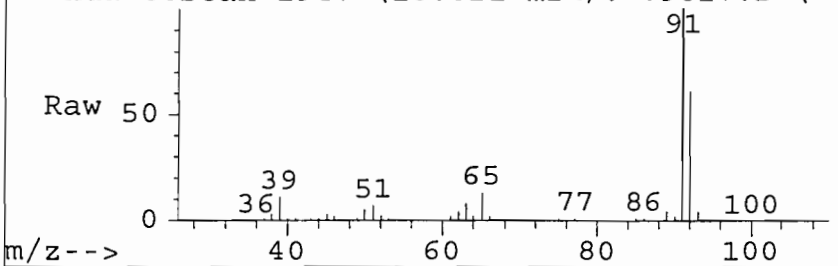
91 100

92 60.6 28.8 86.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1947 (18.621 min): V9627.D (*)



AbundanceIon 91.00 (90.

Ion 92.00 (91.

18.62

2000000

1500000

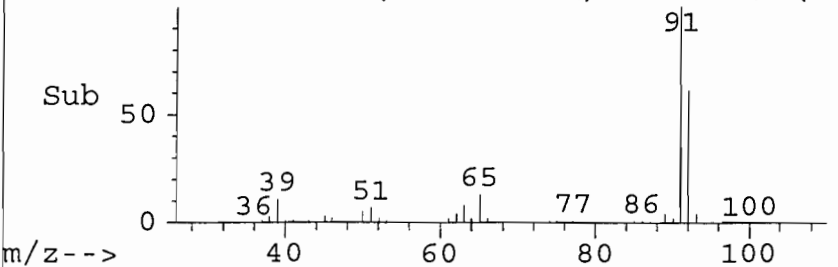
1000000

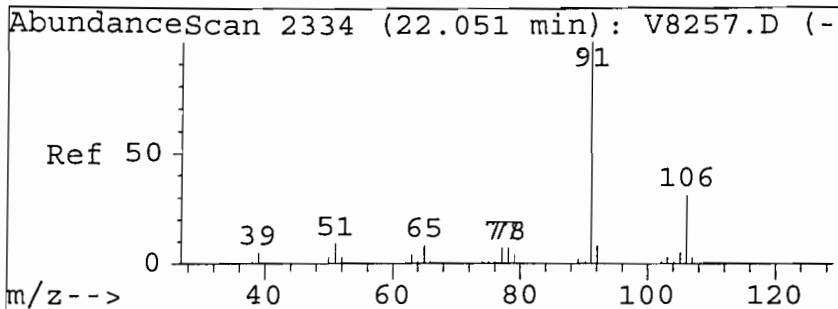
500000

0

Time-->18.12 19.27

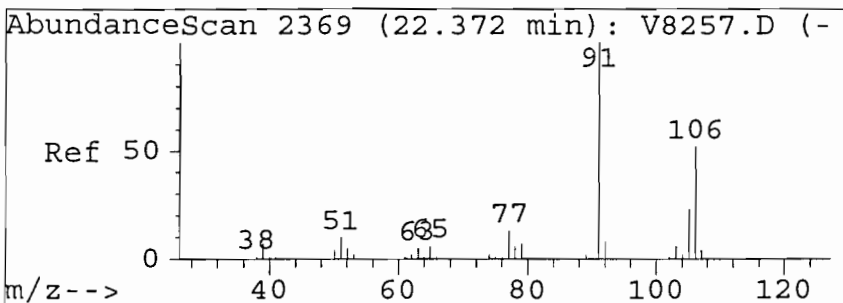
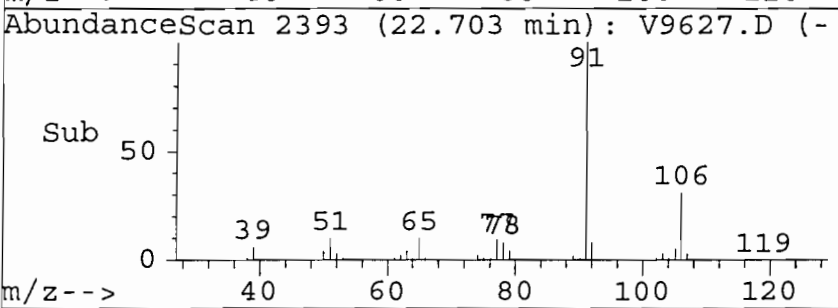
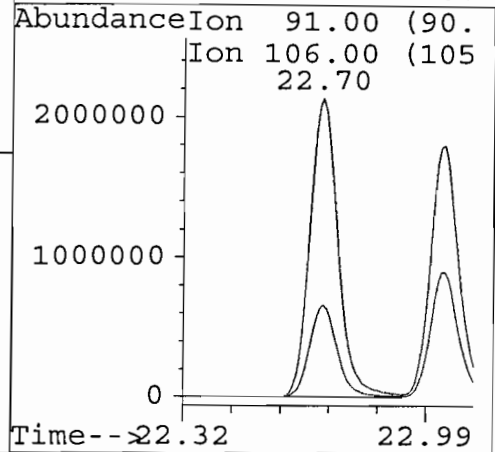
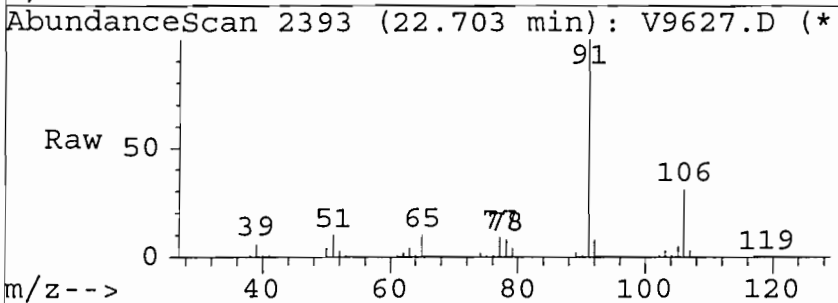
AbundanceScan 1947 (18.621 min): V9627.D (-





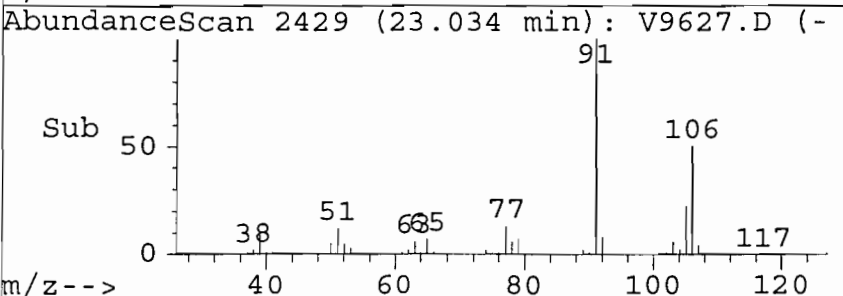
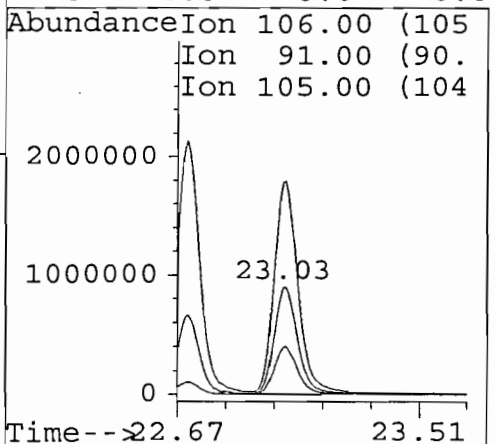
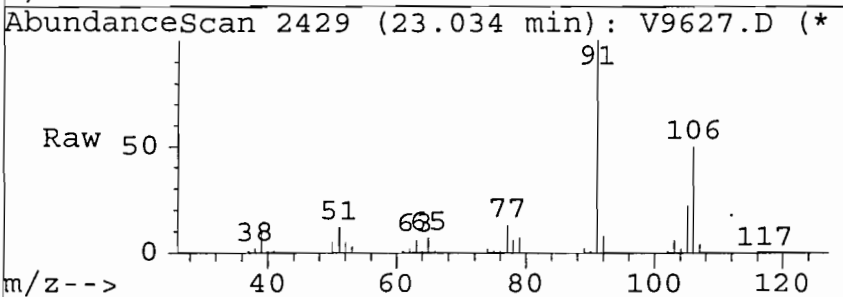
#41
Ethylbenzene
Concen: 81.22 ug/L
RT: 22.70 min Scan# 2393
Delta R.T. 0.00 min
Lab File: V9627.D
Acq: 28 Oct 99 5:58 am

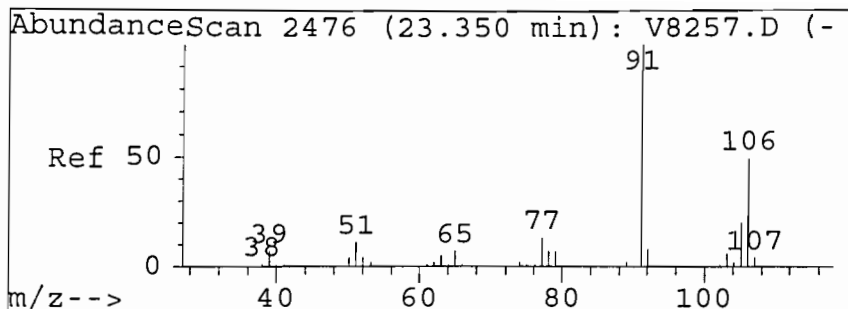
Tgt Ion:91 Resp:11649852
Ion Ratio Lower Upper
91 100
106 31.0 15.2 45.7
0 0.0 0.0 0.0
0 0.0 0.0 0.0



#42
m+ p-Xylenes
Concen: 97.96 ug/L
RT: 23.03 min Scan# 2429
Delta R.T. 0.00 min
Lab File: V9627.D
Acq: 28 Oct 99 5:58 am

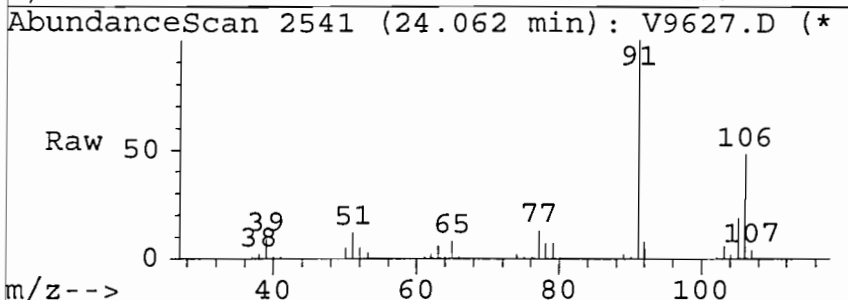
Tgt Ion:106 Resp: 5040165
Ion Ratio Lower Upper
106 100
91 198.4 100.8 302.4
105 43.3 22.3 66.9
0 0.0 0.0 0.0



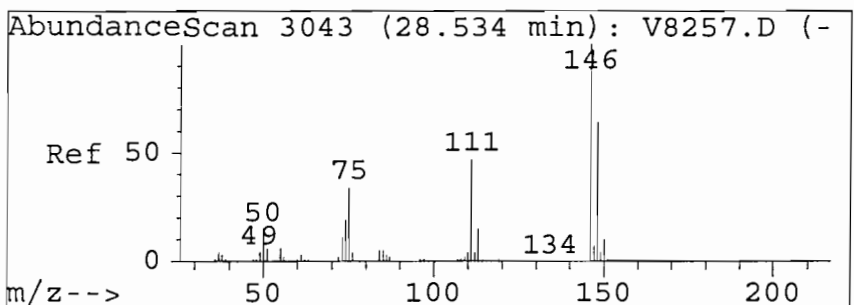
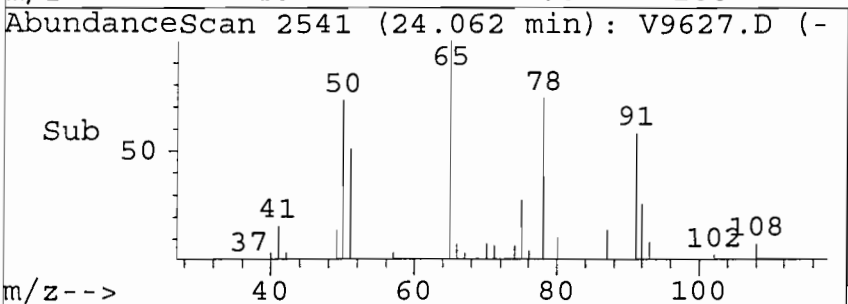
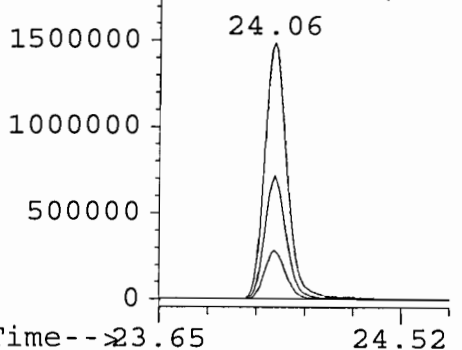


#43
o-xylene
Concen: 74.63 ug/L
RT: 24.06 min Scan# 2541
Delta R.T. 0.00 min
Lab File: V9627.D
Acq: 28 Oct 99 5:58 am

Tgt Ion:91 Resp: 8234827
Ion Ratio Lower Upper
91 100
106 48.3 23.0 69.0
105 19.0 9.2 27.6
0 0.0 0.0 0.0

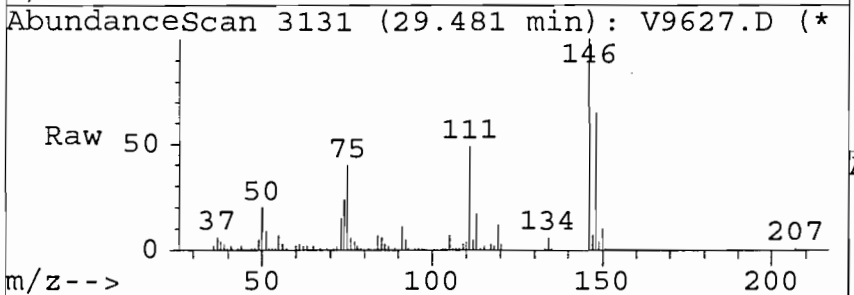


AbundanceIon 91.00 (90.
2000000 Ion 106.00 (105
Ion 105.00 (104

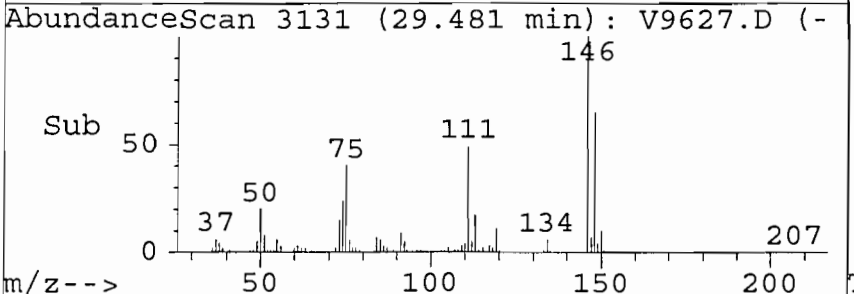
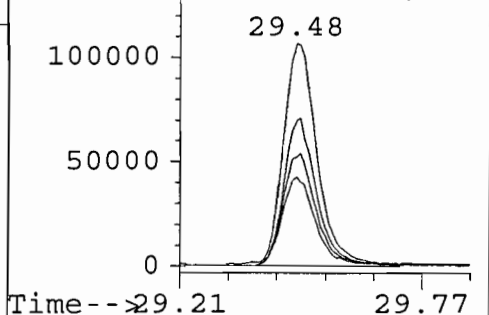


#49
1,2-Dichlorobenzene
Concen: 10.74 ug/L
RT: 29.48 min Scan# 3131
Delta R.T. 0.00 min
Lab File: V9627.D
Acq: 28 Oct 99 5:58 am

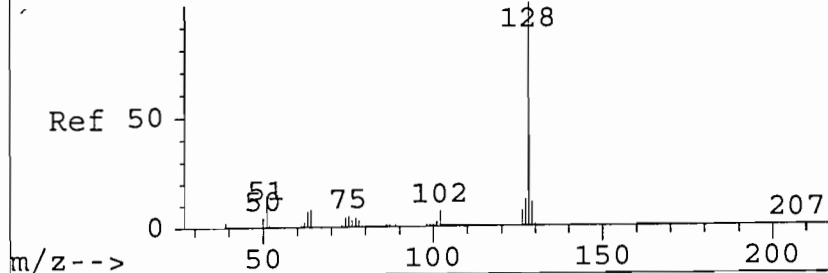
Tgt Ion:146 Resp: 573769
Ion Ratio Lower Upper
146 100
111 49.0 25.3 75.8
75 40.0 19.9 59.7
148 65.5 38.0 88.6



AbundanceIon 146.00 (145
150000 Ion 111.00 (110
Ion 75.00 (74.
Ion 148.00 (147



AbundanceScan 3552 (33.187 min): V8257.D (-



#50

Naphthalene

Concen: 63.51 ug/L m

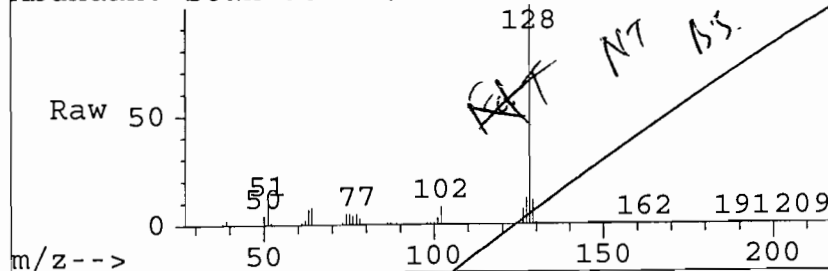
RT: 34.24 min Scan# 3649

Delta R.T. -0.10 min

Lab File: V9627.D

Acq: 28 Oct 99 5:58 am

AbundanceScan 3649 (34.240 min): V9627.D (*)

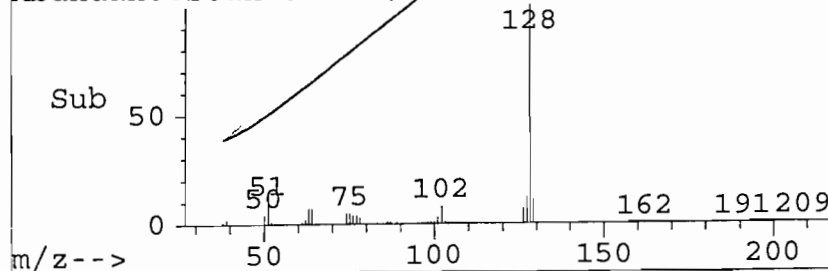


Tgt Ion:128.05 Resp: 5420509

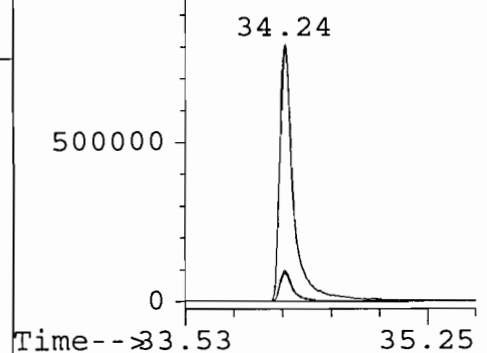
Ion	Ratio	Lower	Upper
128	100		
127	12.0	6.6	12.2
129	11.2	5.3	9.9#
0	0.0	0.0	0.0

Ion	Ratio	Lower	Upper
128	100		
127	12.0	6.6	12.2
129	11.2	5.3	9.9#
0	0.0	0.0	0.0

AbundanceScan 3649 (34.240 min): V9627.D (-



AbundanceIon 128.05 (127
Ion 127.10 (126
Ion 129.05 (128



000084

Library Search Compound Report

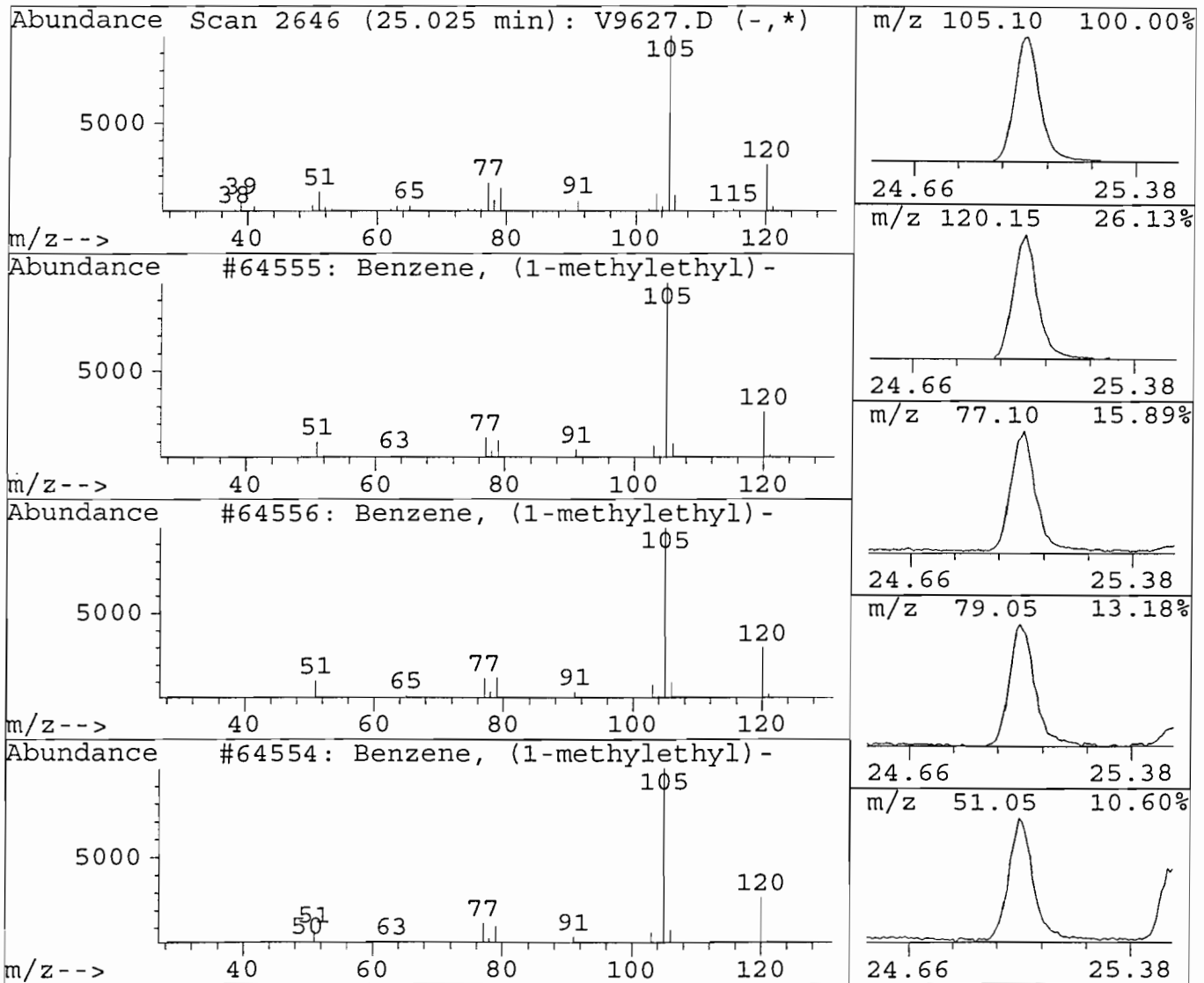
Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D
Acq Time : 28 Oct 99 5:58 am
Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.03	15.70 ug/L	3390765	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1-methylethyl)-	64555	000098-82-8	95
2	Benzene, (1-methylethyl)-	64556	000098-82-8	94
3	Benzene, (1-methylethyl)-	64554	000098-82-8	94
4	Benzene, (1-methylethyl)-	64553	000098-82-8	94
5	Benzene, (1-methylethyl)-	64552	000098-82-8	91



000085

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D

Acq Time : 28 Oct 99 5:58 am

Sample : L5320ASP-91753

Misc : 25MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

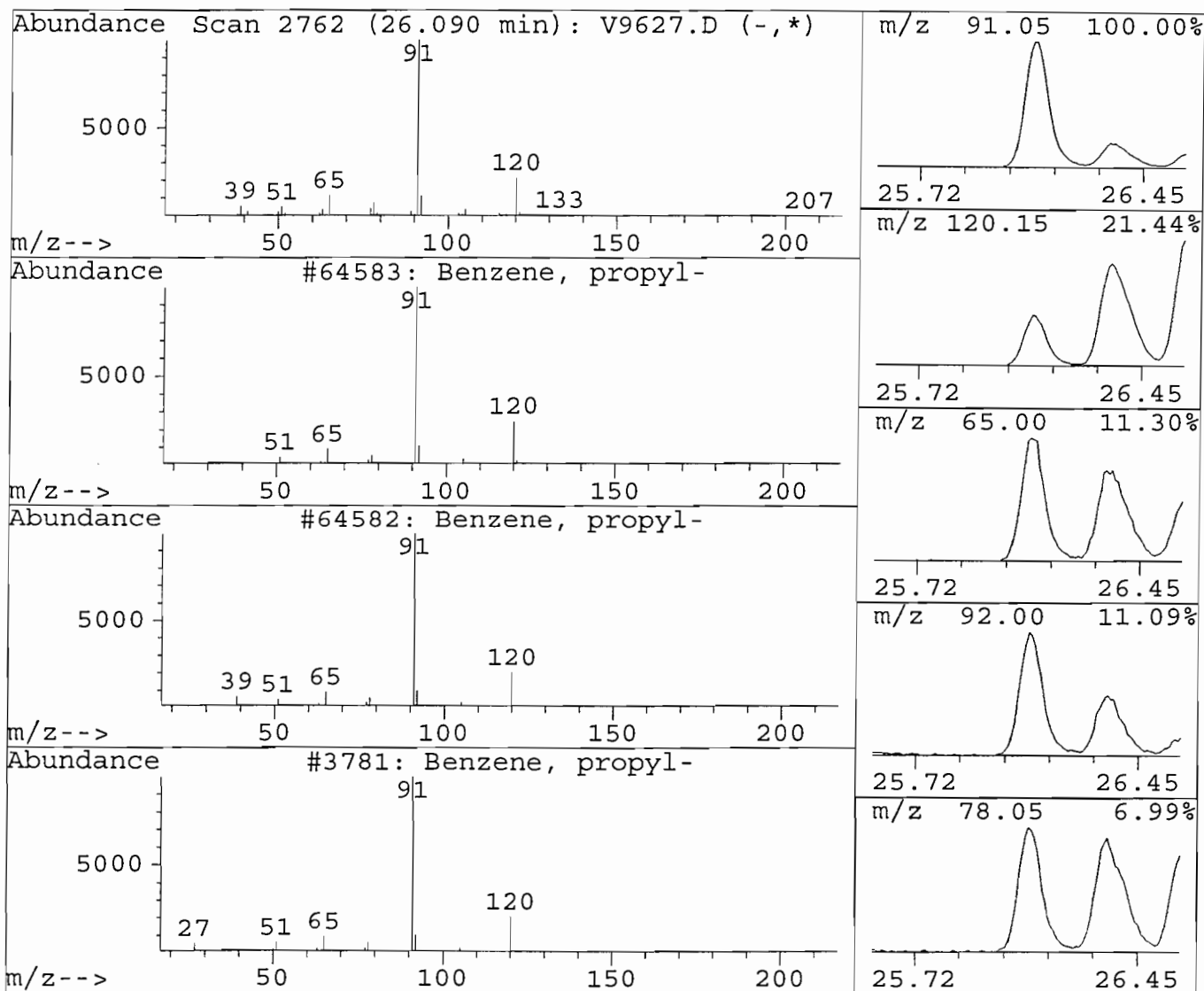
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.09	25.04 ug/L	5408379	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, propyl-	64583	000103-65-1	91
2	Benzene, propyl-	64582	000103-65-1	91
3	Benzene, propyl-	3781	000103-65-1	91
4	Benzene, (ethenyloxy)-	3759	000766-94-9	59
5	1,2-Ethanediamine, N-(phenylmethyl)	9756	004152-09-4	50



000086

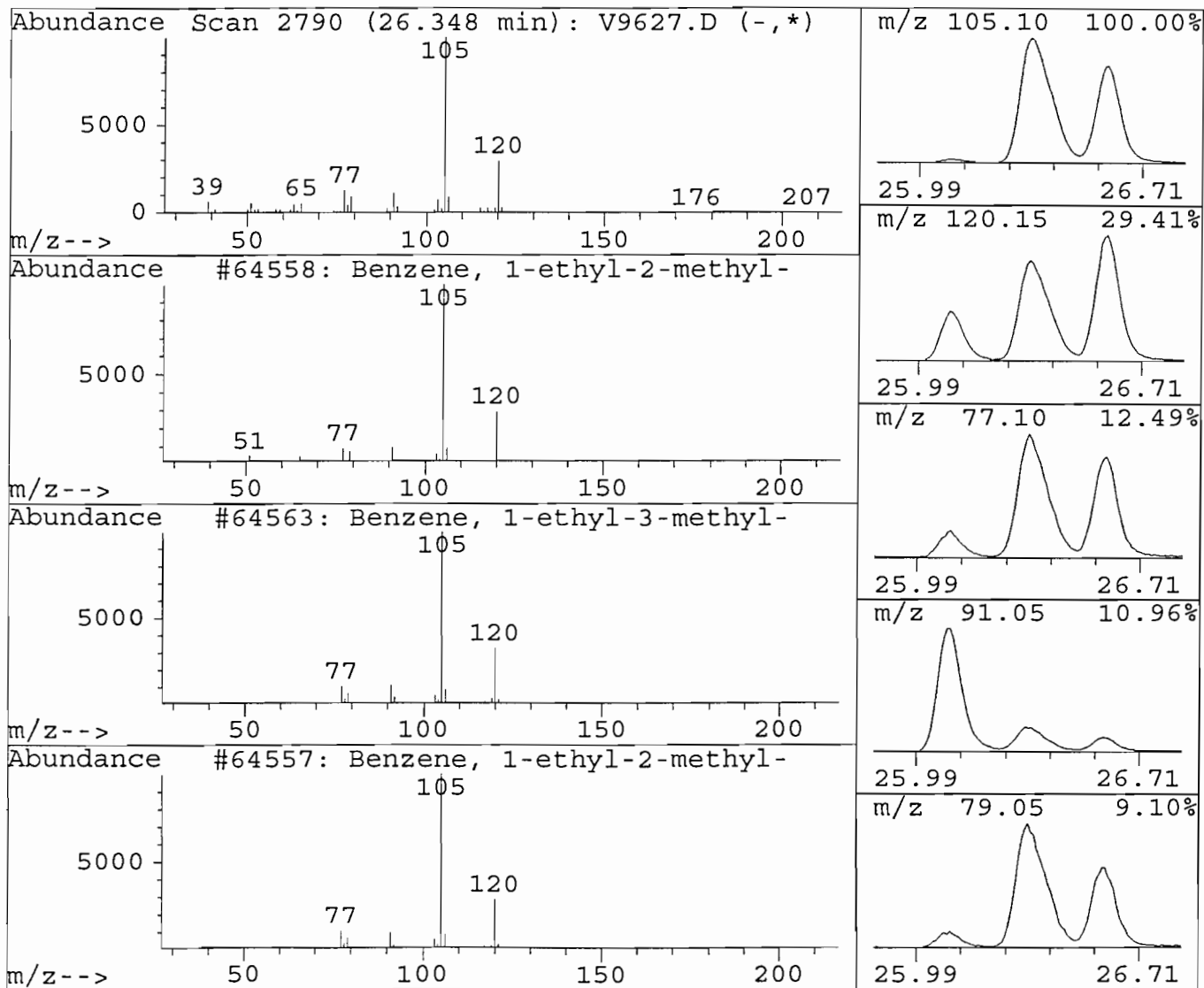
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D
Acq Time : 28 Oct 99 5:58 am
Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.35	59.64 ug/L	12883061	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-		64558	000611-14-3	95
2	Benzene, 1-ethyl-3-methyl-		64563	000620-14-4	95
3	Benzene, 1-ethyl-2-methyl-		64557	000611-14-3	95
4	Benzene, 1-ethyl-2-methyl-		3765	000611-14-3	95
5	Benzene, 1-ethyl-2-methyl-		64559	000611-14-3	95



000087

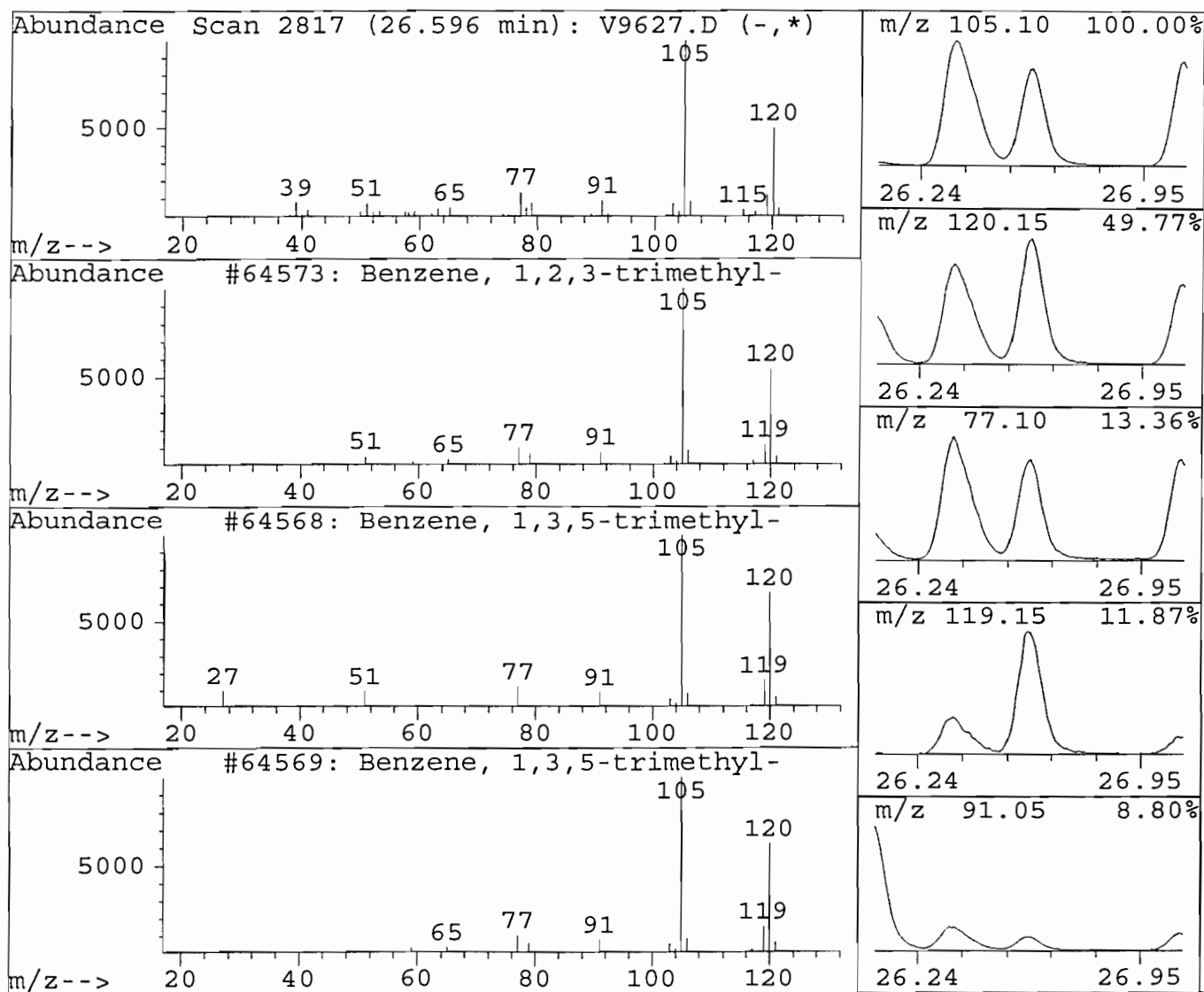
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D
Acq Time : 28 Oct 99 5:58 am
Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.60	41.27 ug/L	8915296	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-		64573	000526-73-8	95
2	Benzene, 1,3,5-trimethyl-		64568	000108-67-8	95
3	Benzene, 1,3,5-trimethyl-		64569	000108-67-8	95
4	Benzene, 1,2,3-trimethyl-		64572	000526-73-8	94
5	Benzene, 1,3,5-trimethyl-		64570	000108-67-8	94



000088

Library Search Compound Report

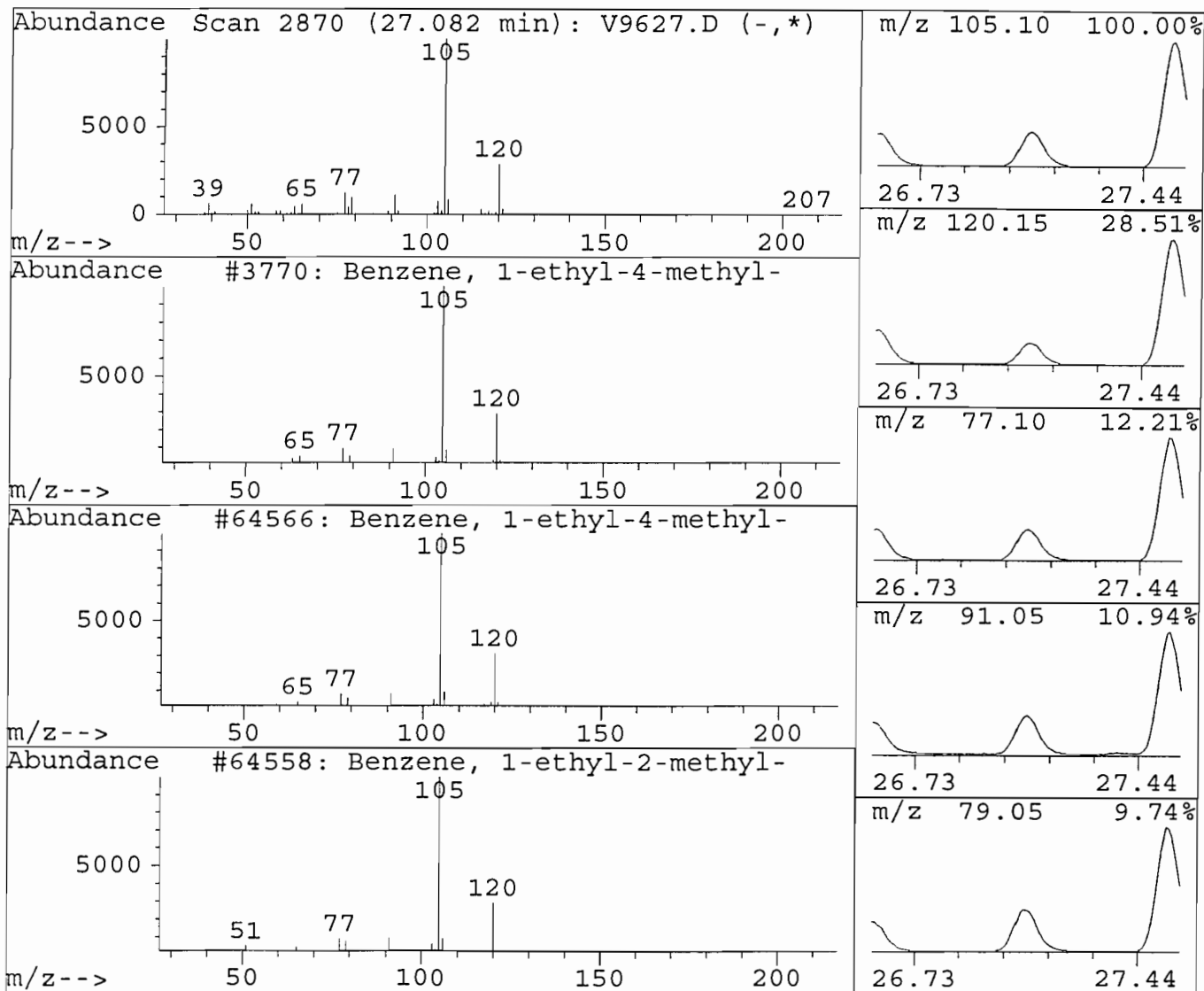
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.08	36.84 ug/L	7958617	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
2	Benzene, 1-ethyl-4-methyl-	64566	000622-96-8	91
3	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	91
4	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	91
5	Benzene, 1-ethyl-3-methyl-	64564	000620-14-4	91



000089

Library Search Compound Report

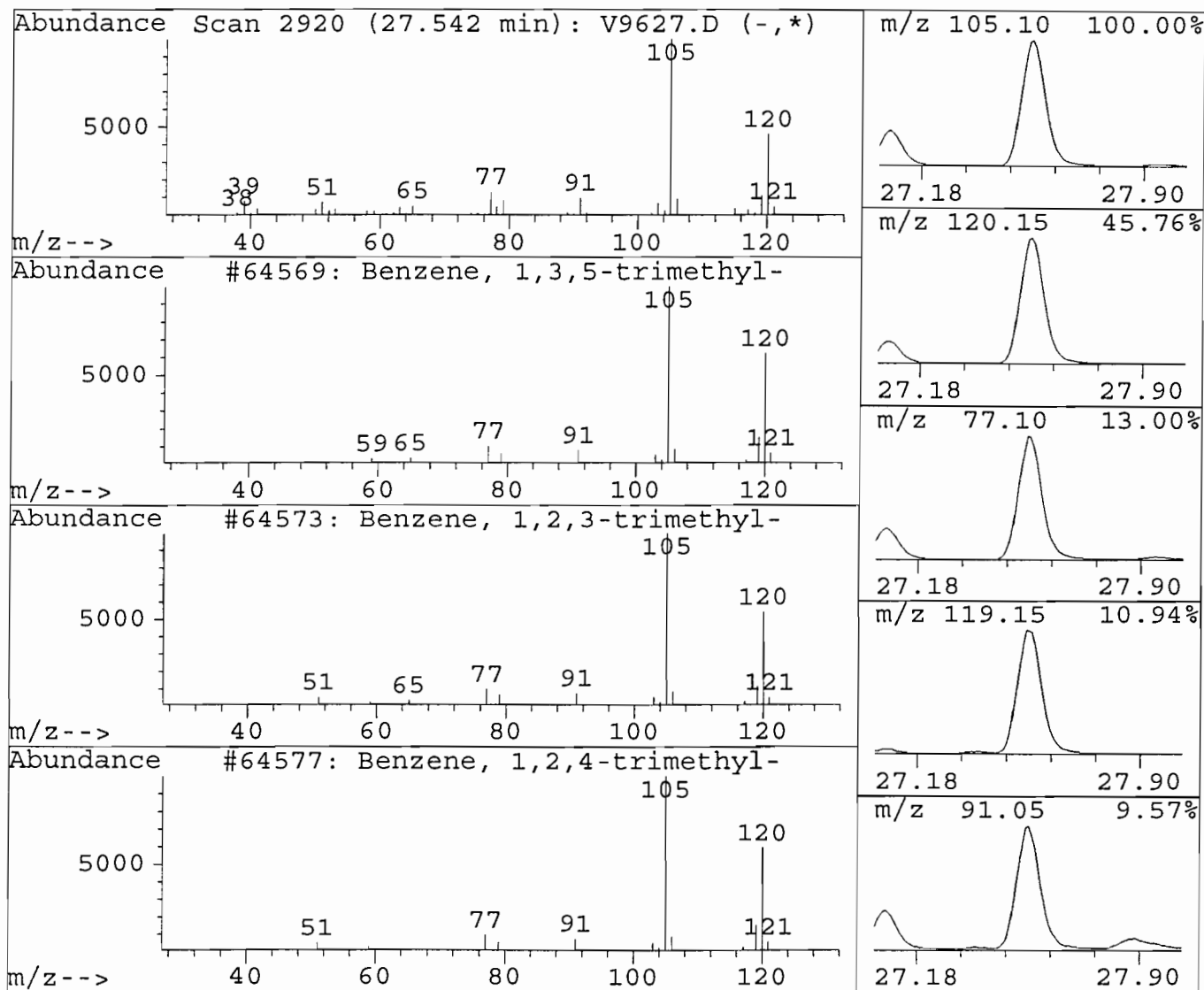
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Acq Time : 28 Oct 99 5:58 am
Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.54	155.58 ug/L	33610053	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
2	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
3	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	95
4	Benzene, 1,3,5-trimethyl-	64568	000108-67-8	95
5	Benzene, 1,2,4-trimethyl-	64578	000095-63-6	95



Library Search Compound Report

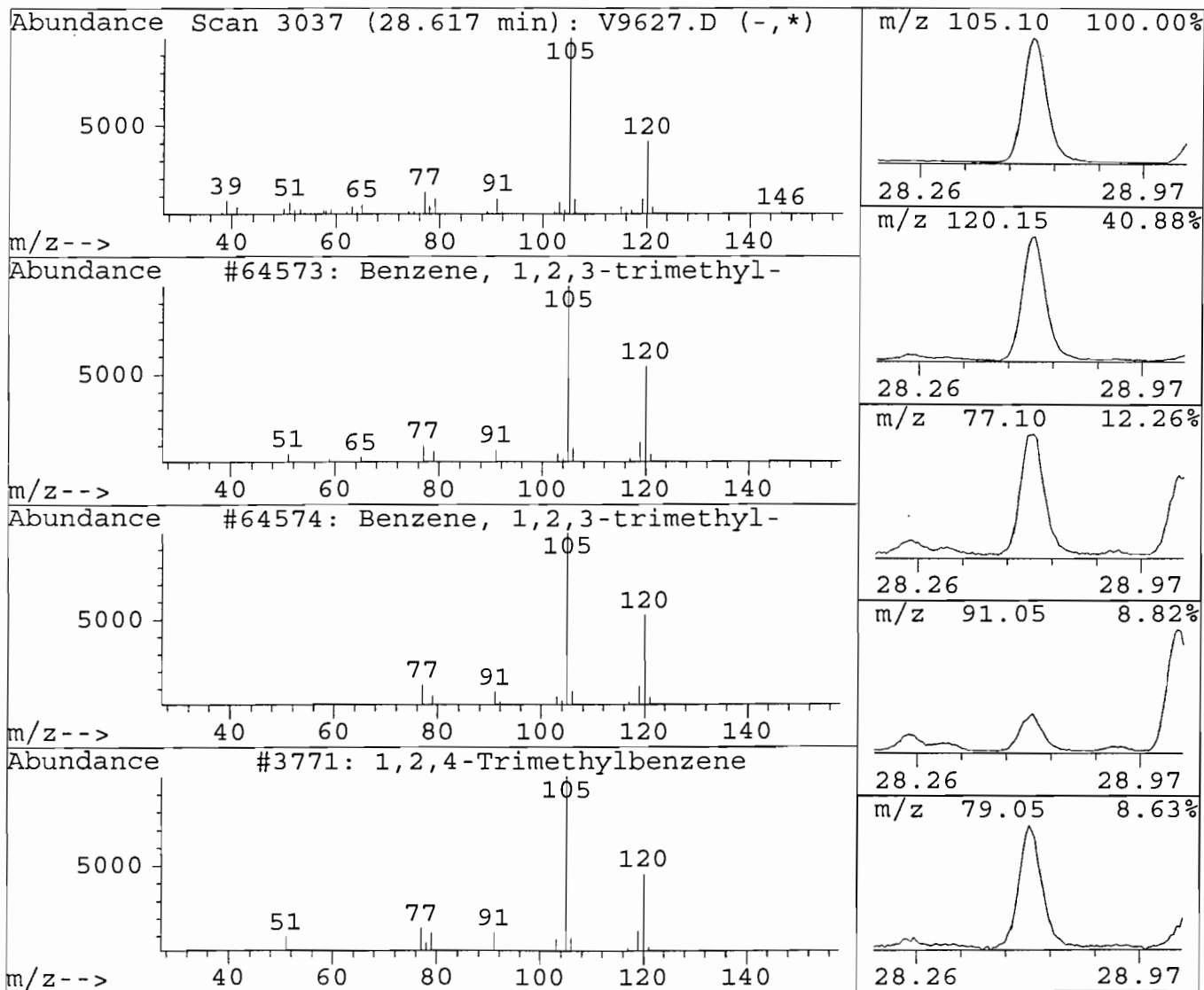
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.62	21.78 ug/L	4705801	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
2	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	94
3	1,2,4-Trimethylbenzene	3771	000095-36-3	94
4	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	94
5	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	94



000091

Library Search Compound Report

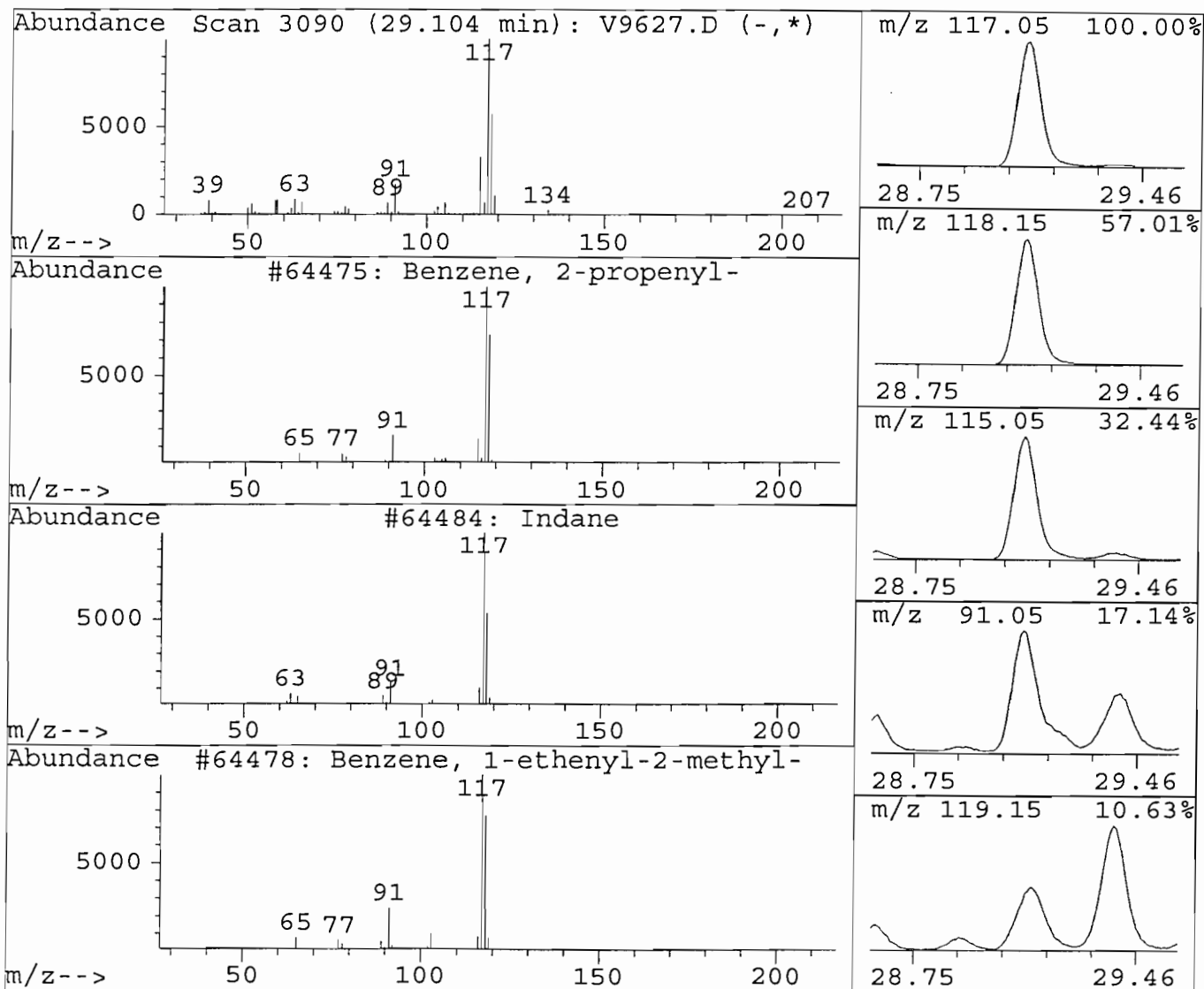
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.10	57.97 ug/L	12523663	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-propenyl-	64475	000300-57-2	72
2	Indane	64484	000496-11-7	68
3	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	68
4	Benzene, cyclopropyl-	3592	000873-49-4	59
5	Benzene, 2-propenyl-	3594	000300-57-2	59



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D

Acq Time : 28 Oct 99 5:58 am

Sample : L5320ASP-91753

Misc : 25MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

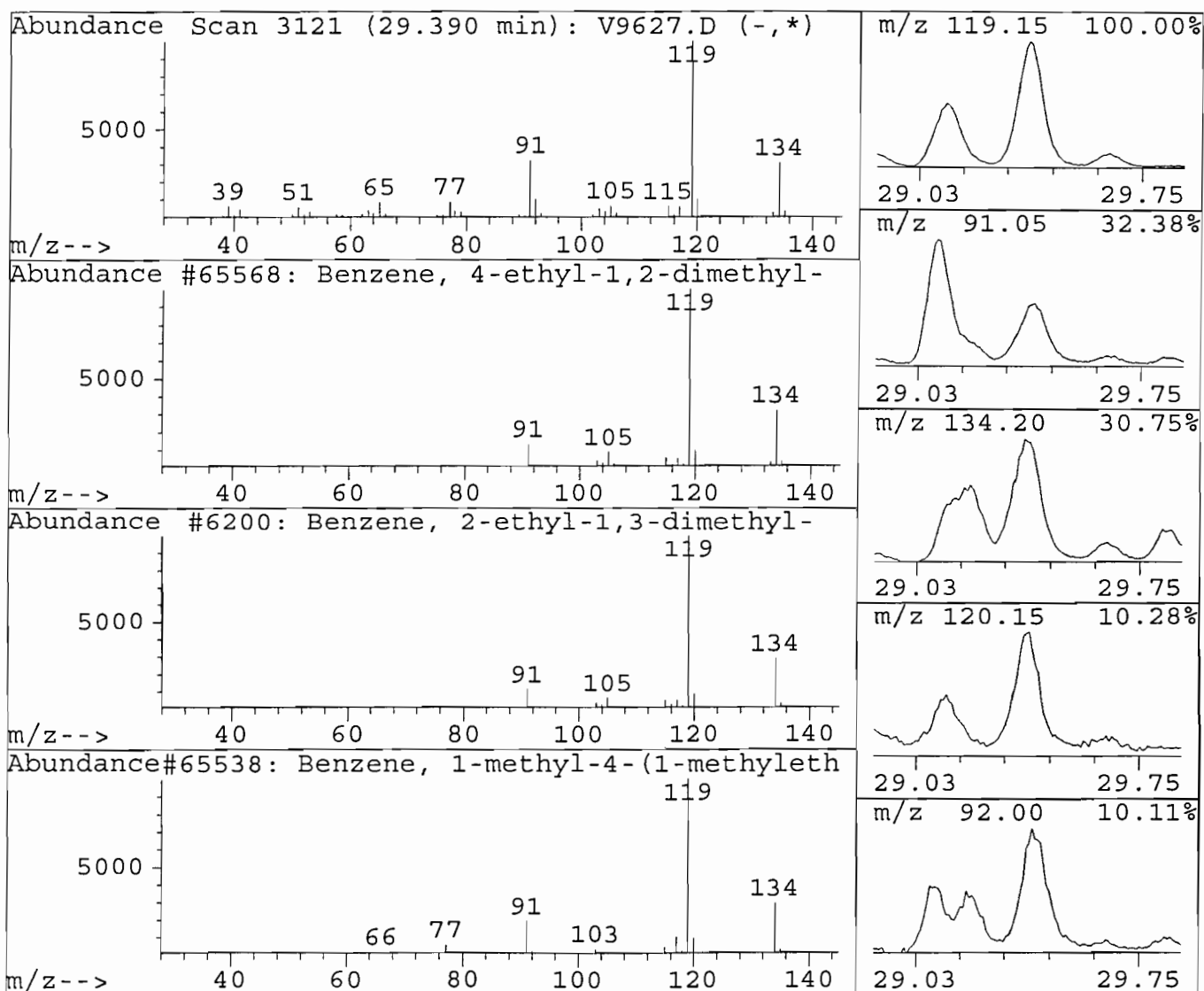
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Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.39	13.72 ug/L	2963144	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 4-ethyl-1,2-dimethyl-	65568	000934-80-5	90
2	Benzene, 2-ethyl-1,3-dimethyl-	6200	002870-04-4	90
3	Benzene, 1-methyl-4-(1-methylethyl)	65538	000099-87-6	90
4	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	90
5	Benzene, 1,2,4,5-tetramethyl-	65575	000095-93-2	90



000093

Library Search Compound Report

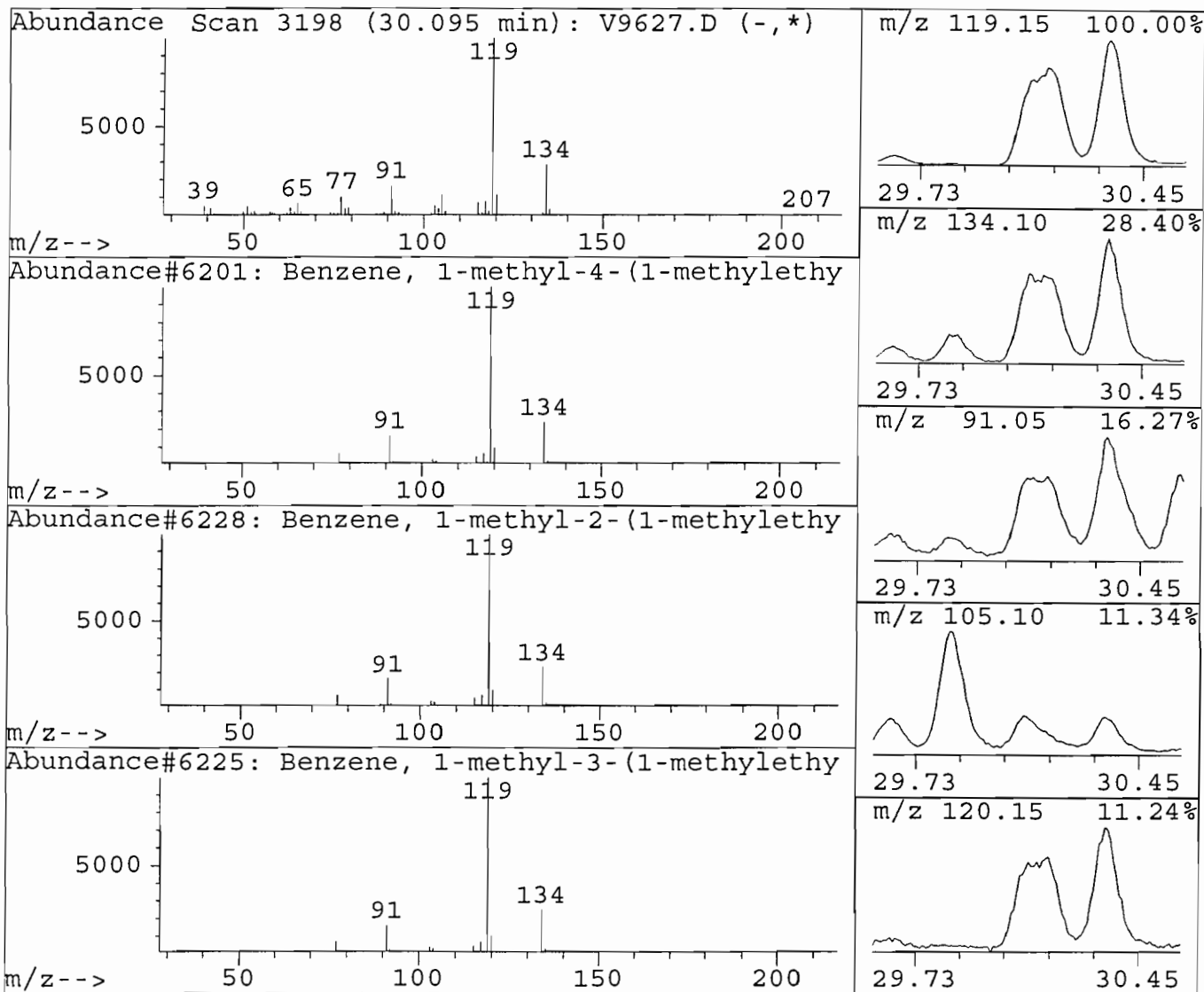
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.10	7.75 ug/L	1674178	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	95
2	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	95
3	Benzene, 1-methyl-3-(1-methylethyl)	6225	000535-77-3	95
4	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	95
5	Benzene, 1-methyl-4-(1-methylethyl)	65534	000099-87-6	94



000094

Library Search Compound Report

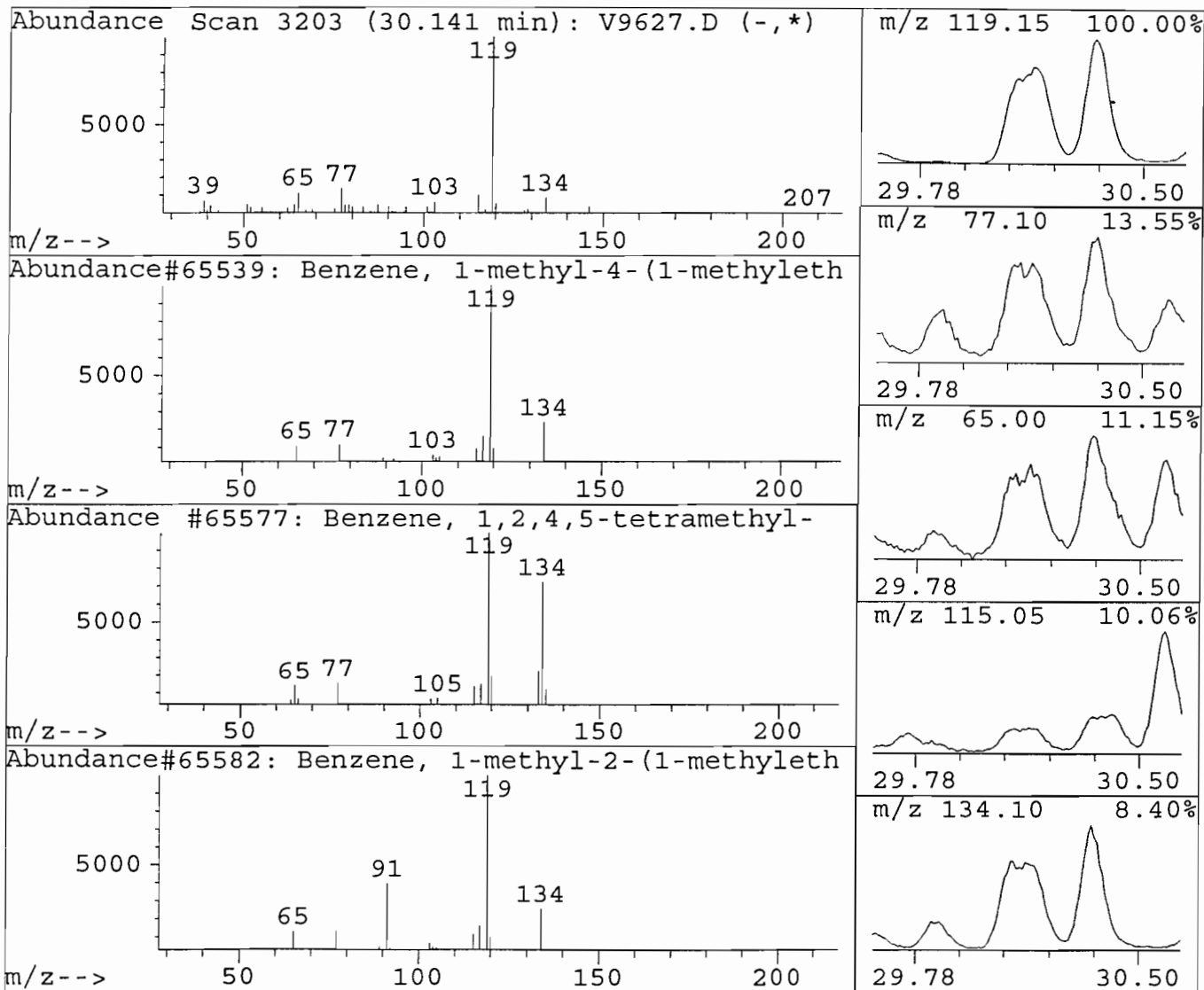
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.14	8.78 ug/L	1896788	Chlorobenzene-d5	22.37

Hit# of	7	Tentative ID	Ref#	CAS#	Qual
1		Benzene, 1-methyl-4-(1-methylethyl)	65539	000099-87-6	43
2		Benzene, 1,2,4,5-tetramethyl-	65577	000095-93-2	38
3		Benzene, 1-methyl-2-(1-methylethyl)	65582	000527-84-4	38
4		Benzene, 1,4-diethyl-	65560	000105-05-5	38
5		Butanedioyl dichloride	10608	000543-20-4	38



000095

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9627.D

Acq Time : 28 Oct 99 5:58 am

Sample : L5320ASP-91753

Misc : 25MLS

Operator: AV

Inst : 5971 - In

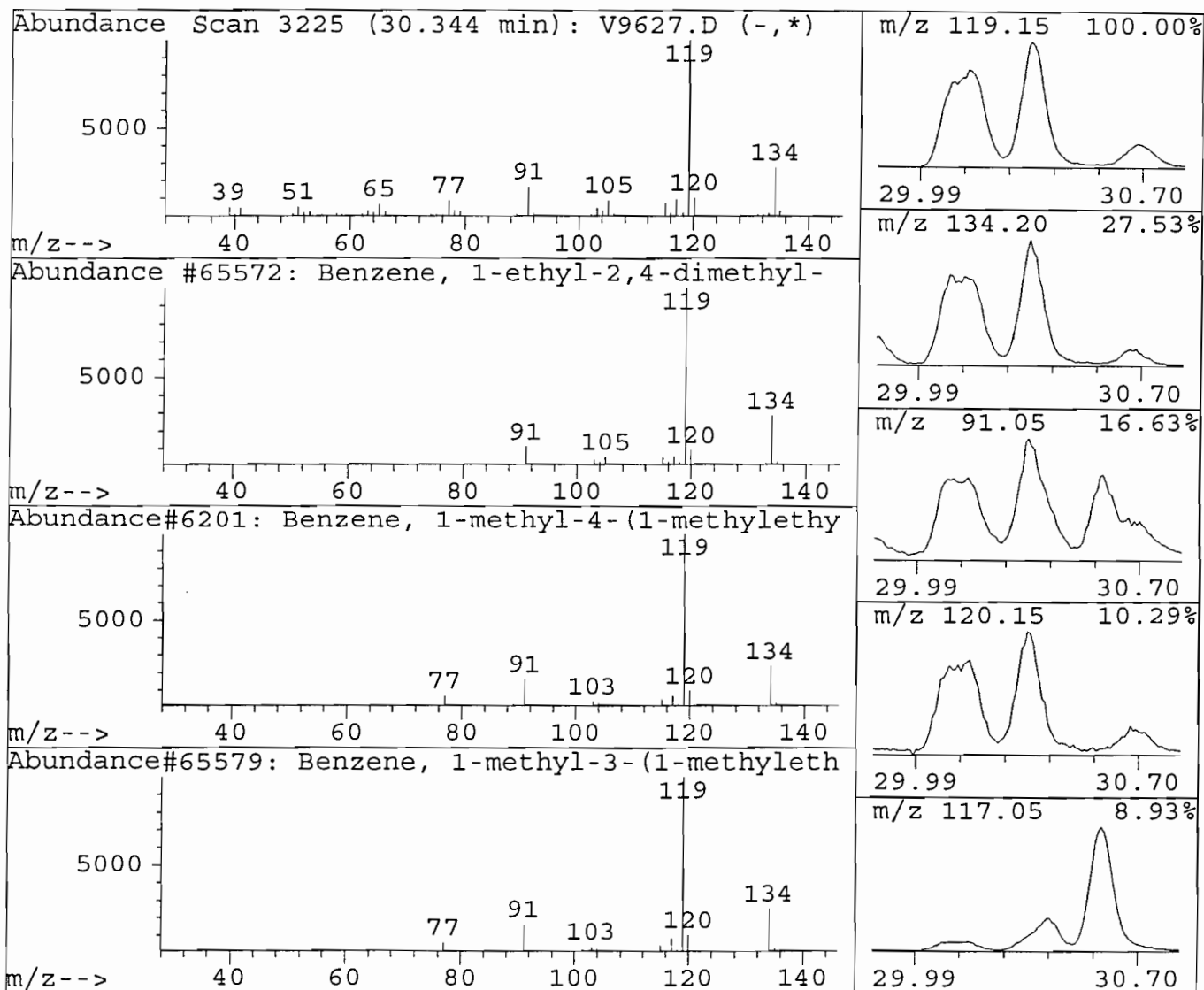
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Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.34	16.16 ug/L	3491817	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2,4-dimethyl-		65572	000874-41-9	95
2	Benzene, 1-methyl-4-(1-methylethyl)		6201	000099-87-6	95
3	Benzene, 1-methyl-3-(1-methylethyl)		65579	000535-77-3	95
4	Benzene, 1-methyl-4-(1-methylethyl)		65538	000099-87-6	94
5	Benzene, 2-ethyl-1,3-dimethyl-		6200	002870-04-4	94



000096

Library Search Compound Report

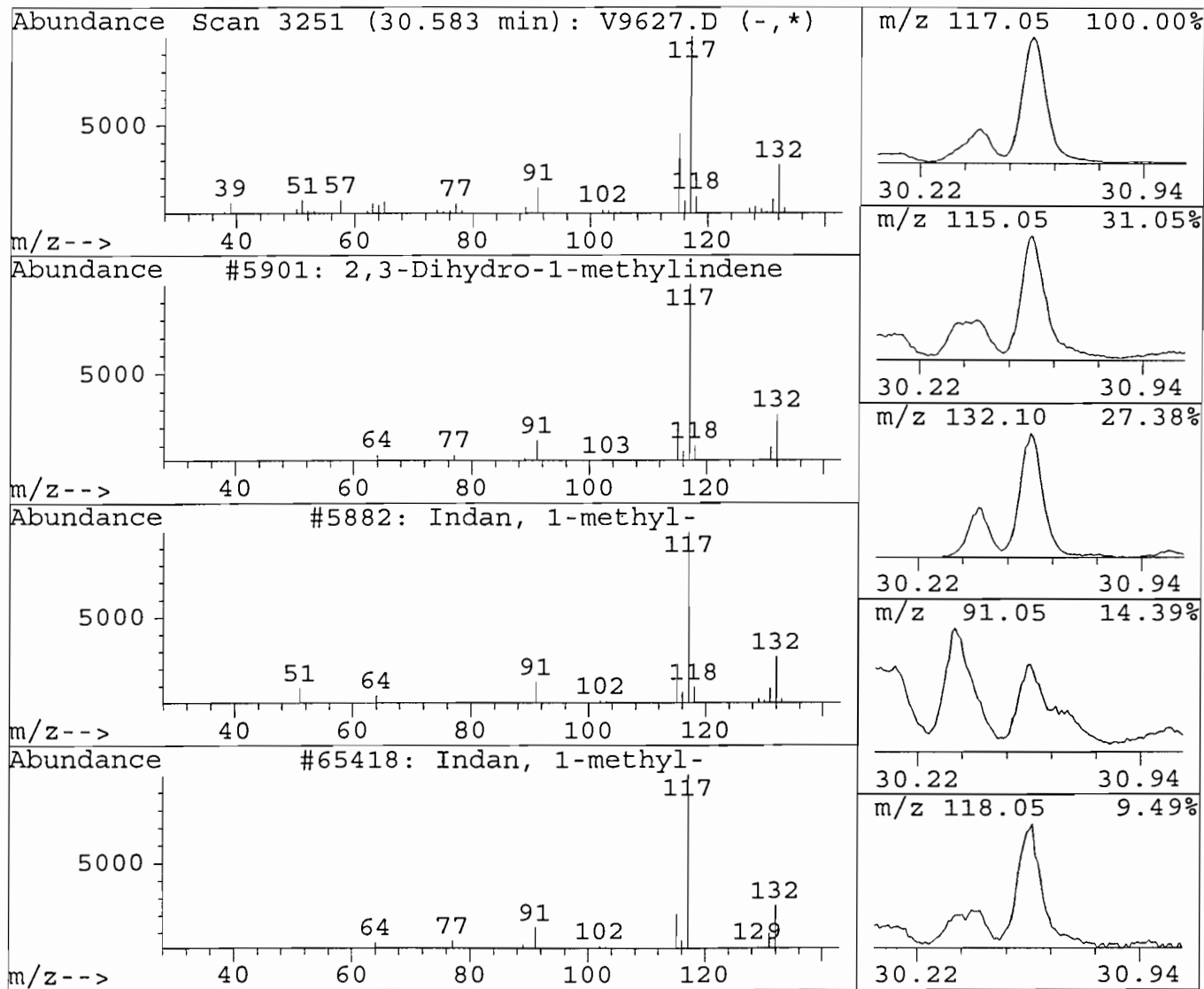
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Acq Time : 28 Oct 99 5:58 am
Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.58	15.33 ug/L	3311472	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,3-Dihydro-1-methylindene	5901	027133-93-3	93
2	Indan, 1-methyl-	5882	000767-58-8	93
3	Indan, 1-methyl-	65418	000767-58-8	87
4	Benzene, (2-methyl-1-propenyl)-	65428	000768-49-0	72
5	1H-Indene, 2,3-dihydro-2-methyl-	5876	000824-63-5	72



000097

Library Search Compound Report

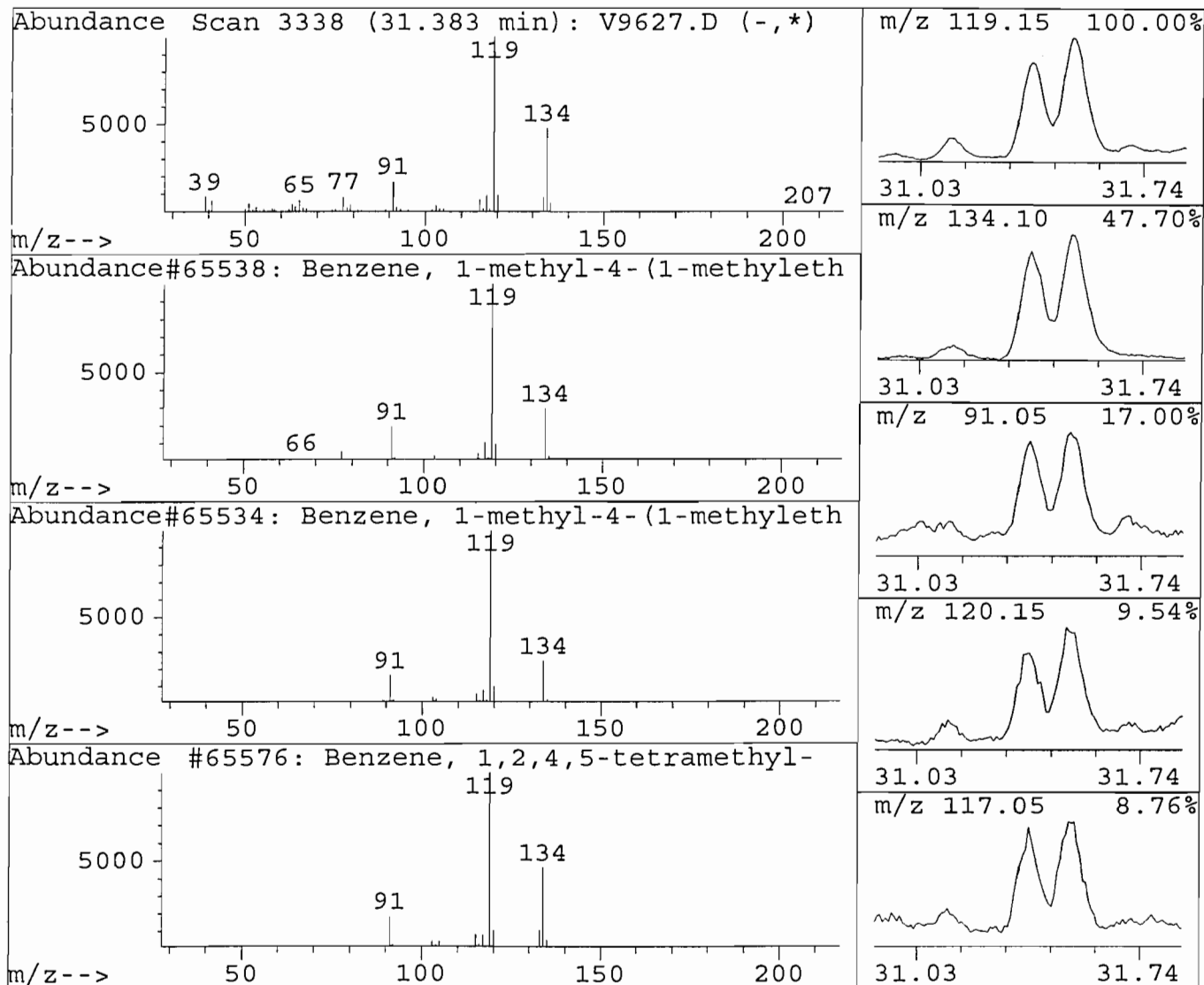
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Acq Time : 28 Oct 99 5:58 am
Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.38	7.88 ug/L	1701453	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)	65538	000099-87-6	95
2	Benzene, 1-methyl-4-(1-methylethyl)	65534	000099-87-6	94
3	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	94
4	Benzene, methyl(1-methylethyl)-	6208	025155-15-1	91
5	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	91



000098

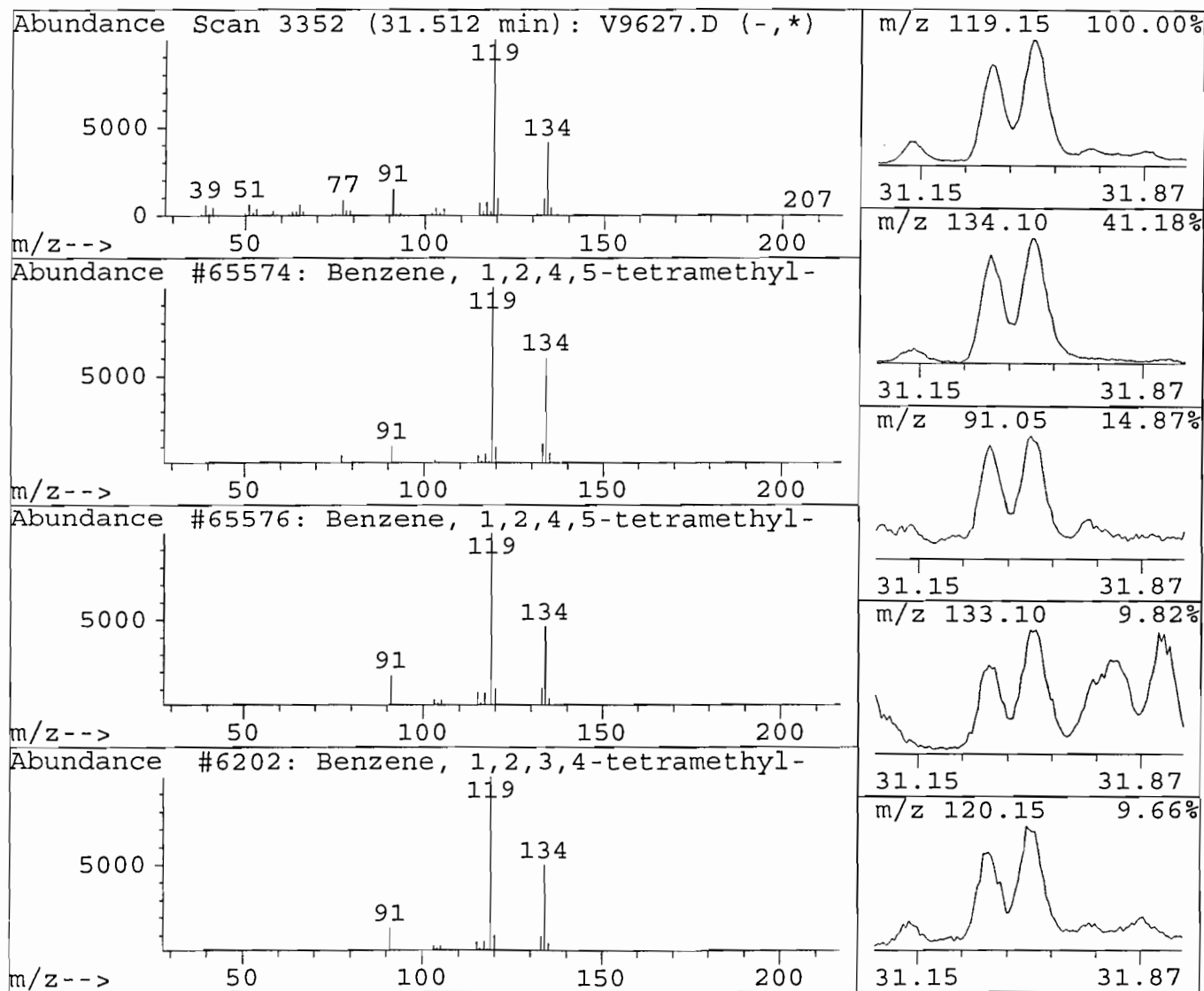
Library Search Compound Report

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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
31.51	9.56 ug/L	2065348	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-		65574	000095-93-2	94
2	Benzene, 1,2,4,5-tetramethyl-		65576	000095-93-2	94
3	Benzene, 1,2,3,4-tetramethyl-		6202	000488-23-3	94
4	Benzene, 1-ethyl-2,3-dimethyl-		6211	000933-98-2	91
5	Benzene, 4-ethyl-1,2-dimethyl-		65568	000934-80-5	91



000099

Library Search Compound Report

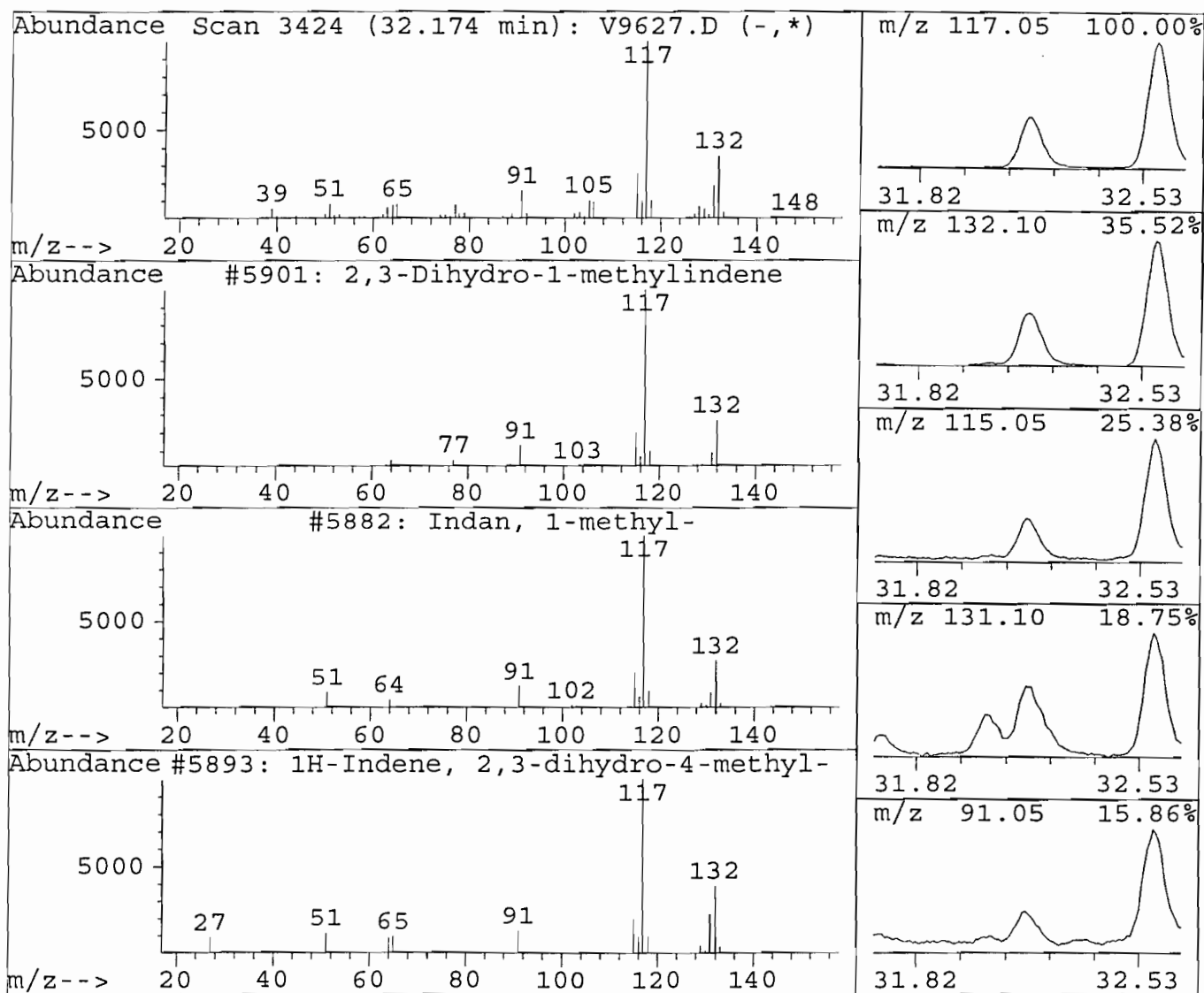
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.17	6.63 ug/L	1431302	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,3-Dihydro-1-methylindene	5901	027133-93-3	96
2	Indan, 1-methyl-	5882	000767-58-8	93
3	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	93
4	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	93
5	Benzene, (2-methyl-1-propenyl)-	65428	000768-49-0	90



000100

Library Search Compound Report

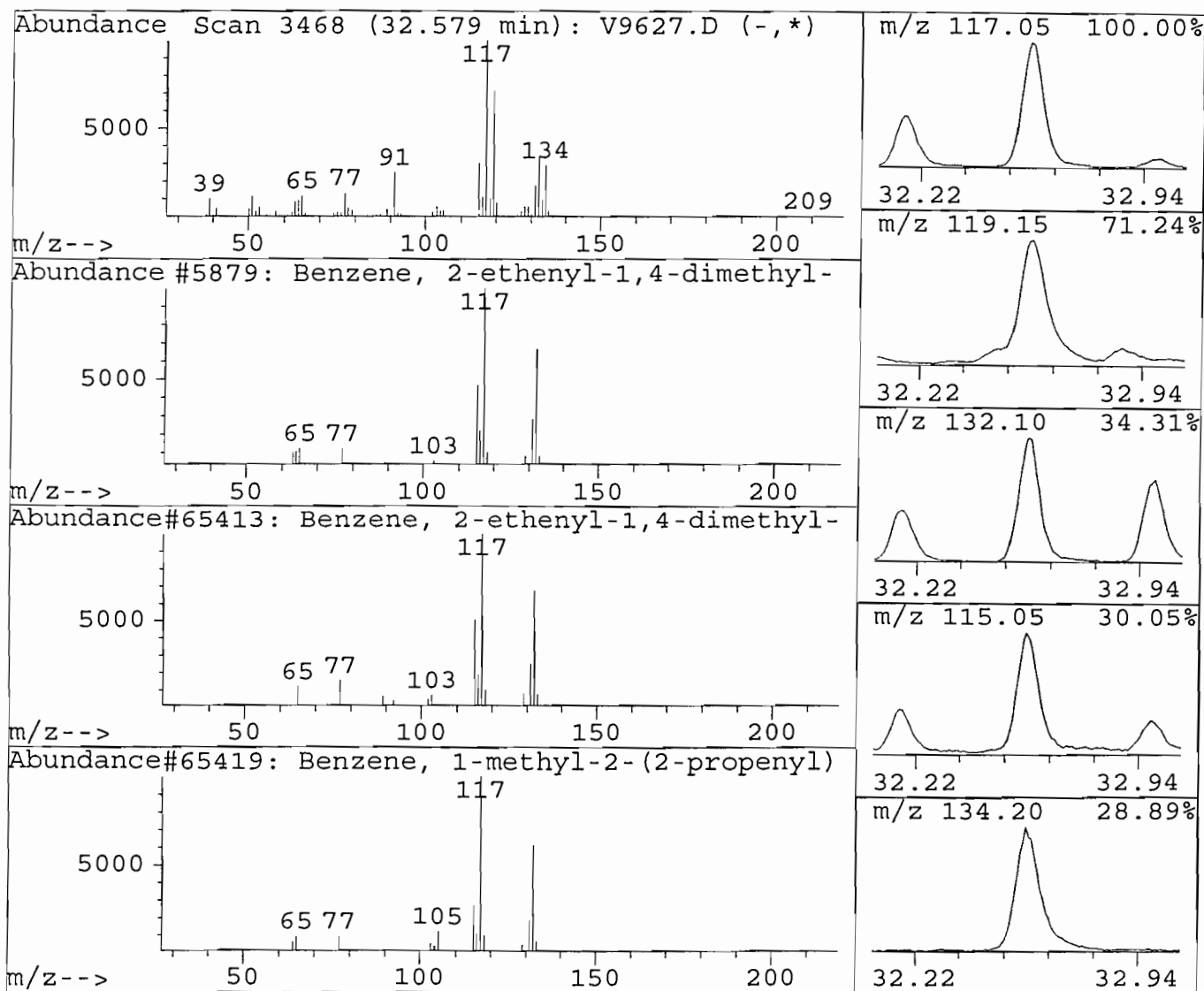
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.58	28.22 ug/L	6095449	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-ethenyl-1,4-dimethyl-	5879	002039-89-6	91
2	Benzene, 2-ethenyl-1,4-dimethyl-	65413	002039-89-6	86
3	Benzene, 1-methyl-2-(2-propenyl)-	65419	001587-04-8	70
4	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	64
5	Indan, 1-methyl-	5882	000767-58-8	62



000101

Library Search Compound Report

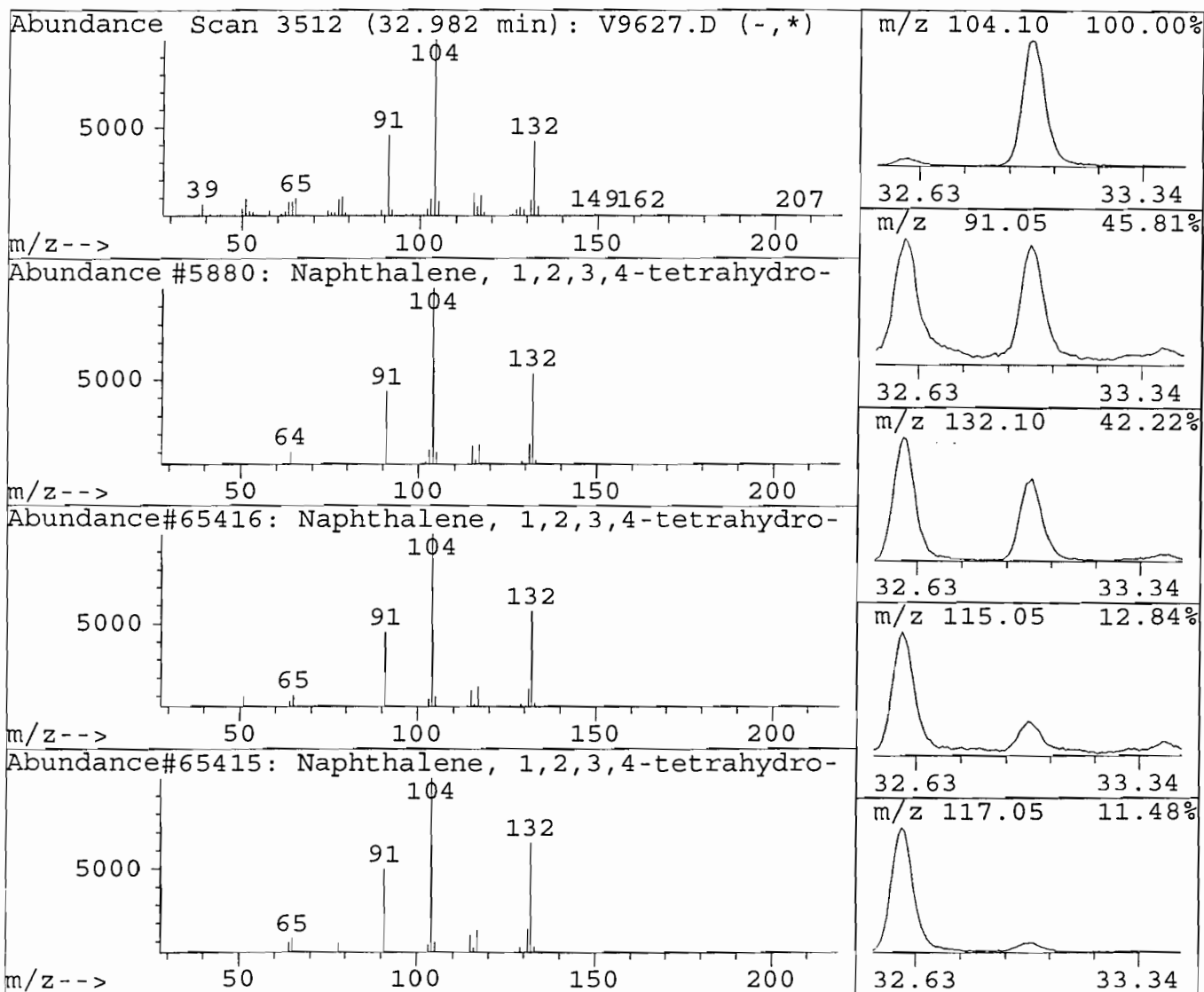
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.98	12.41 ug/L	2681683	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	5880	000119-64-2	96
2	Naphthalene, 1,2,3,4-tetrahydro-	65416	000119-64-2	95
3	Naphthalene, 1,2,3,4-tetrahydro-	65415	000119-64-2	95
4	Naphthalene, 1,2,3,4-tetrahydro-	65414	000119-64-2	94
5	Benzene, cyclobutyl-	65420	004392-30-7	64



Library Search Compound Report

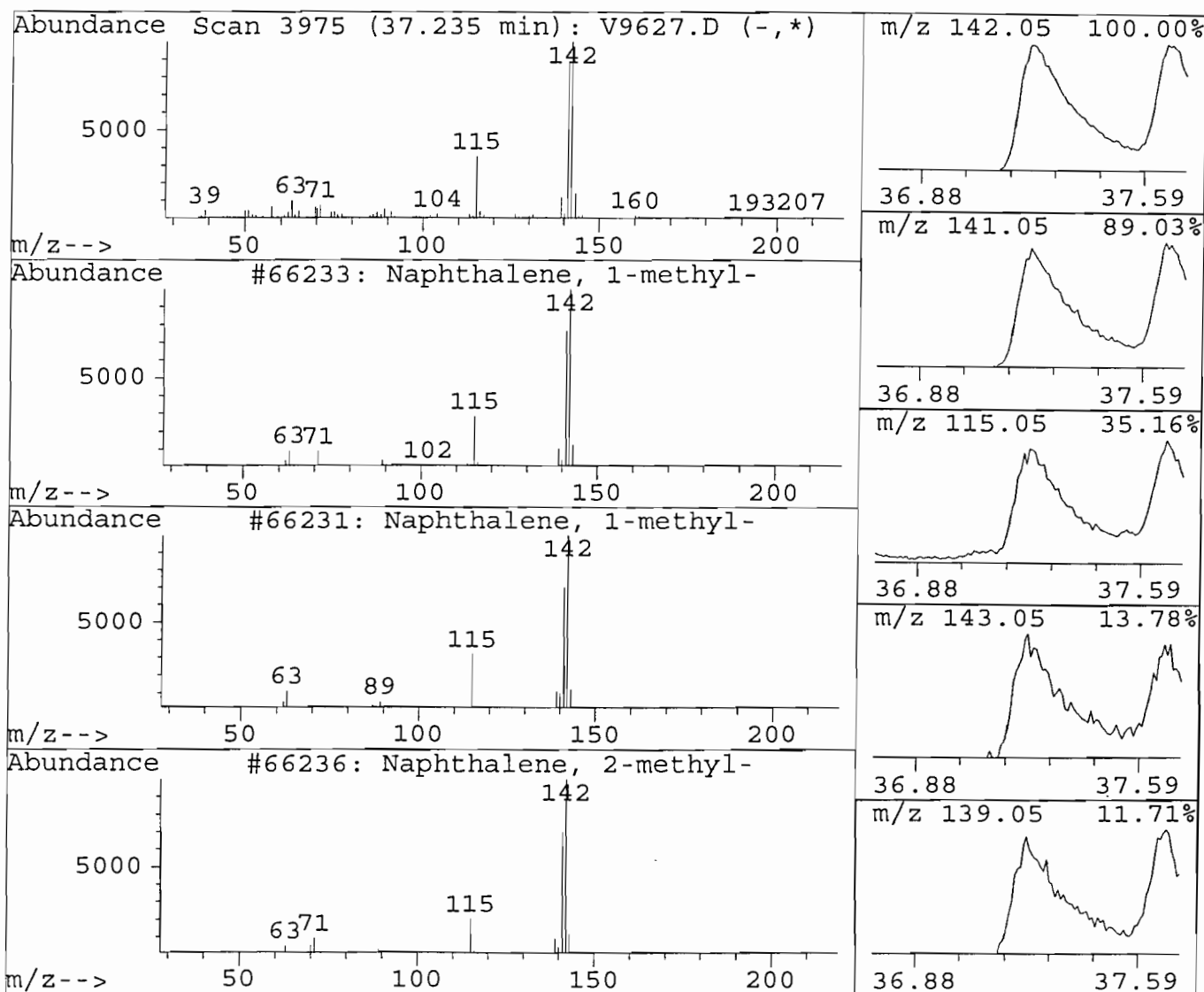
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Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.23	12.36 ug/L	2669891	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1-methyl-	66233	000090-12-0	94
2	Naphthalene, 1-methyl-	66231	000090-12-0	94
3	Naphthalene, 2-methyl-	66236	000091-57-6	91
4	Naphthalene, 1-methyl-	66230	000090-12-0	91
5	Naphthalene, 2-methyl-	66237	000091-57-6	90



000103

Library Search Compound Report

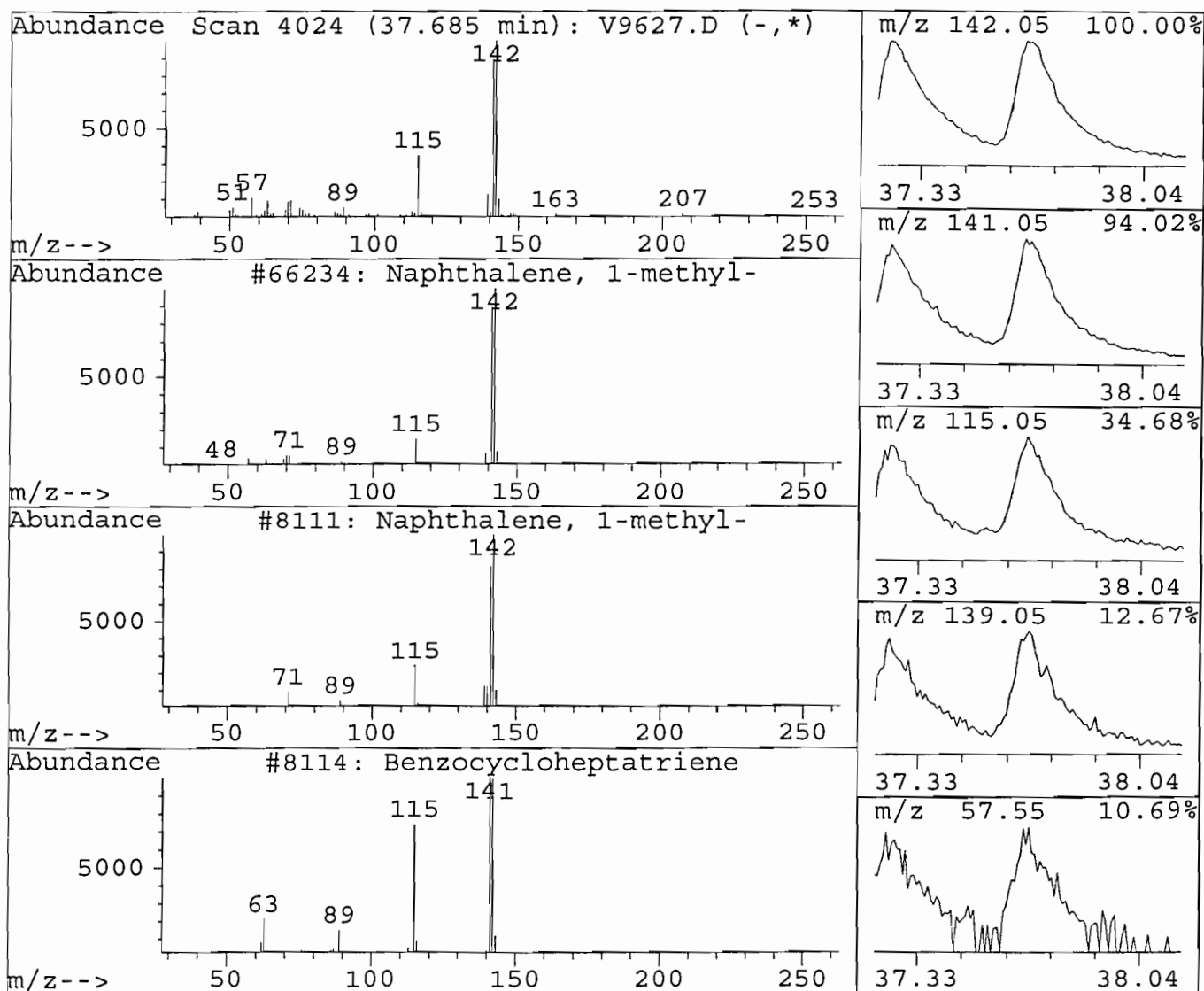
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Acq Time : 28 Oct 99 5:58 am
Sample : L5320ASP-91753
Misc : 25MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.69	10.73 ug/L	2318565	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1-methyl-	66234	000090-12-0	91
2	Naphthalene, 1-methyl-	8111	000090-12-0	90
3	Benzocycloheptatriene	8114	000264-09-5	87
4	1,4-Methanonaphthalene, 1,4-dihydro	8112	004453-90-1	86
5	Naphthalene, 2-methyl-	66236	000091-57-6	86



000104

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-028-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site:

Location:

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91754

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9628.D

Level: (low/med)

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-028-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
Matrix: (soil/water) WATER Lab Sample ID: O91754
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9628.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9628.D
 Acq Time : 28 Oct 99 6:43 am
 Sample : L5320ASP-91754
 Misc : 25MLS 5 mls off 10-28-99
 Quant Time: Oct 28 12:06 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

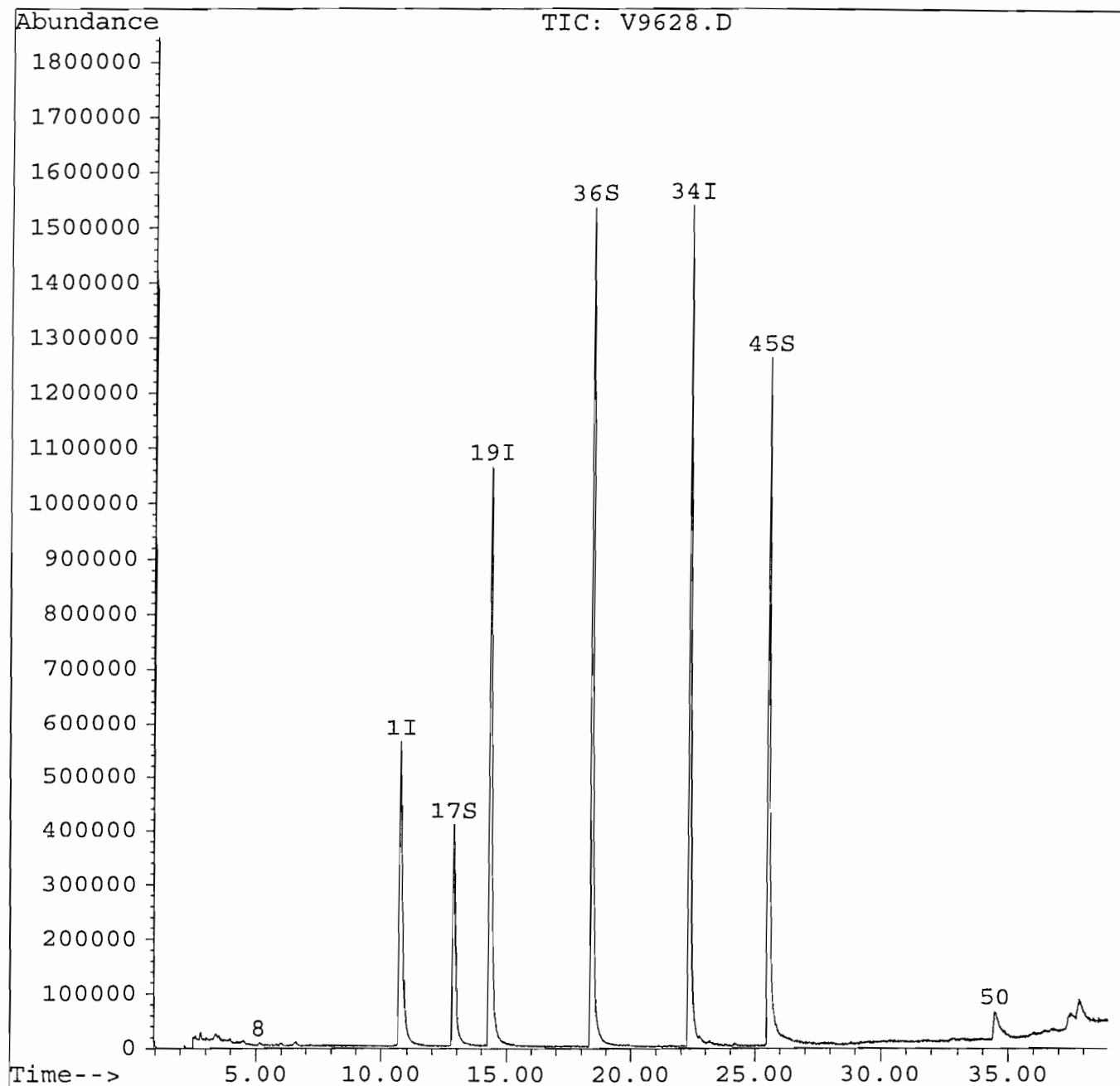
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.78	128	652446	30.00	ug/L	-0.02
19) 1,4-Difluorobenzene	14.34	114	3439773	30.00	ug/L	-0.03
34) Chlorobenzene-d5	22.35	117	2963731	30.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.87	65	1085096	28.16	ug/L	93.88%
36) Toluene-d8	18.43	98	3744562	27.80	ug/L	92.68%
45) Bromofluorobenzene	25.51	95	2068530	26.16	ug/L	87.20%
Target Compounds						Qvalue
8) Acetone	5.13	43	23071	2.23	ug/L	83
50) Naphthalene	34.49	128	357139	2.90	ug/L	95

Quantitation Report

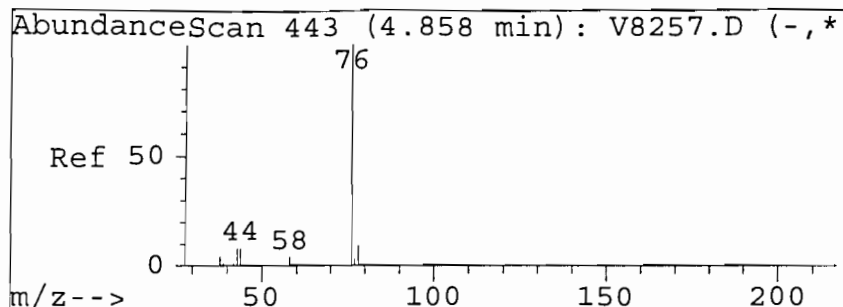
Data File : D:\HPCHEM\1\DATA\V1102799\V9628.D
Acq Time : 28 Oct 99 6:43 am
Sample : L5320ASP-91754
Misc : 25MLS
Quant Time: Oct 28 12:06 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

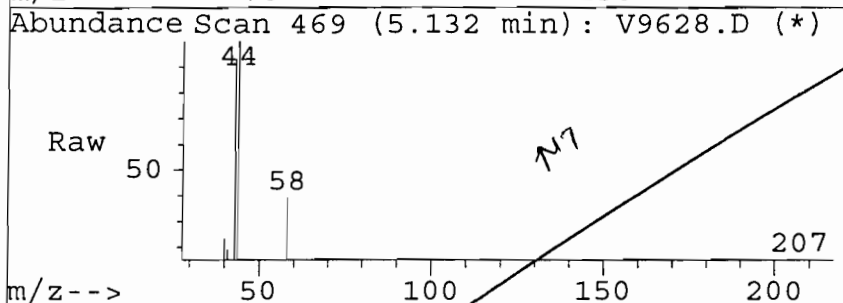
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



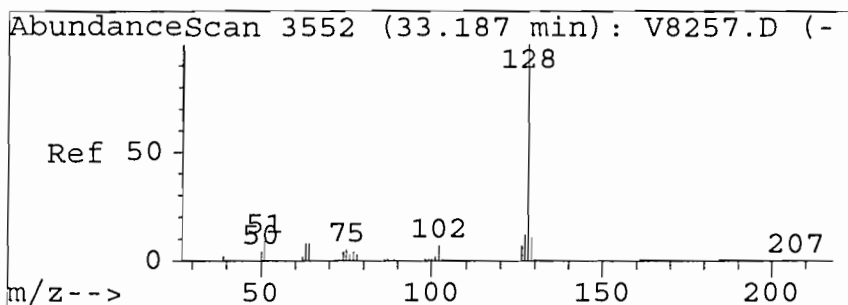
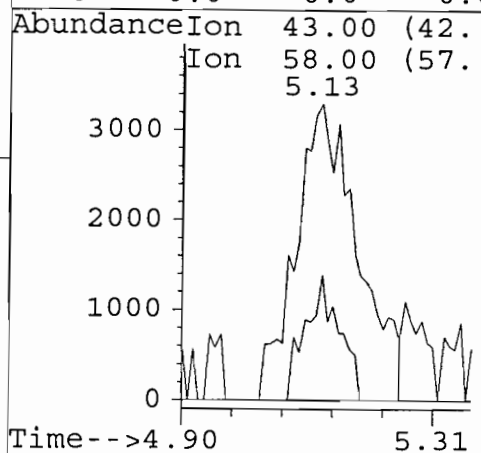
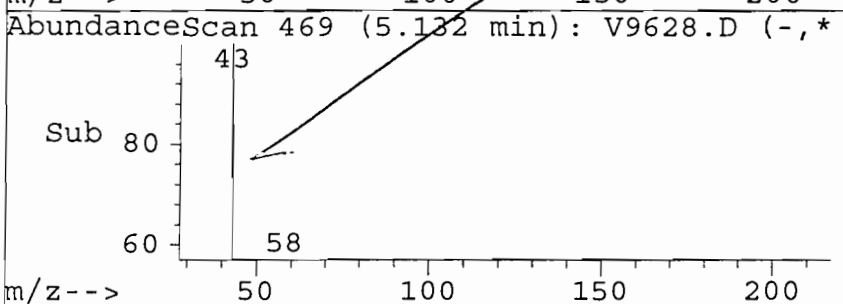
000108



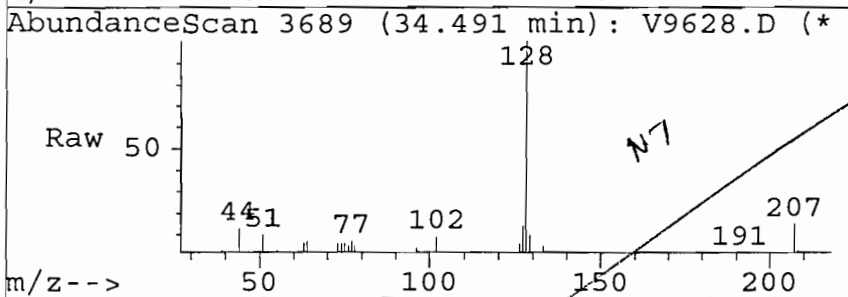
#8
Acetone
Concen: 2.23 ug/L
RT: 5.13 min Scan# 469
Delta R.T. 0.03 min
Lab File: V9628.D
Acq: 28 Oct 99 6:43 am



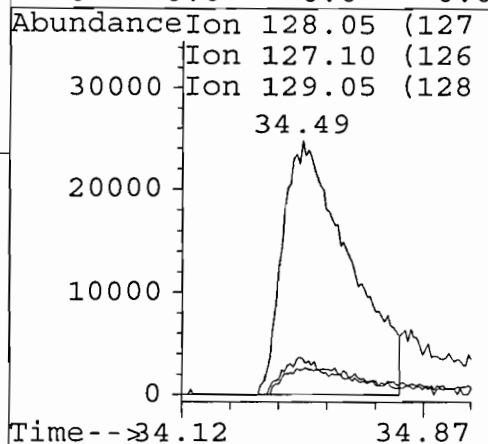
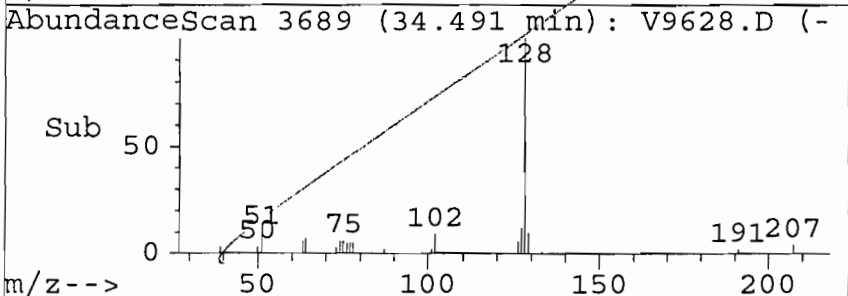
Tgt Ion	Ratio	Lower	Upper
43	100		
58	42.1	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#50
Naphthalene
Concen: 2.90 ug/L
RT: 34.49 min Scan# 3689
Delta R.T. 0.16 min
Lab File: V9628.D
Acq: 28 Oct 99 6:43 am



Tgt Ion	Ratio	Lower	Upper
128	100		
127	7.2	6.6	12.2
129	6.4	5.3	9.9
0	0.0	0.0	0.0



000109

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9628.D

Acq Time : 28 Oct 99 6:43 am

Sample : L5320ASP-91754

Misc : 25MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000110

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-029-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91755

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9639.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	2		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	5.7		
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	11		
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	3		
136777-61-2	m + p-Xylenes	10		
95-47-6	o-xylene	5.6		
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-029-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91755
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9639.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 10 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	2.79	3.7	J
2. 611-14-3	Benzene, 1-ethyl-2-methyl-	26.39	11	J
3. 108-67-8	Benzene, 1,3,5-trimethyl-	26.64	4	J
4. 611-14-3	Benzene, 1-ethyl-2-methyl-	27.13	3.8	J
5. 95-36-3	1,2,4-Trimethylbenzene	27.59	12	J
6. 526-73-8	Benzene, 1,2,3-trimethyl-	28.67	4.8	J
7.	Unknown	29.15	4.5	J
8.	Unknown	32.63	6.3	J
9. 119-64-2	Naphthalene, 1,2,3,4-tetrahy	33.03	3.1	J
10. 1680-51-9	Naphthalene, 1,2,3,4-tetrahy	35.85	3.1	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000112

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D

Acq Time : 28 Oct 99 6:32 pm

Sample : L5320ASP-91755

Misc : 5MLS

Quant Time: Oct 29 6:48 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.82	128	576281	30.00	ug/L	0.02
19) 1,4-Difluorobenzene	14.39	114	3212999	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.40	117	2639421	30.00	ug/L	0.03
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.92	65	1044471	30.69	ug/L	102.30%
36) Toluene-d8	18.47	98	3597939	30.00	ug/L	99.99%
45) Bromofluorobenzene	25.54	95	2087964	29.65	ug/L	98.84%
Target Compounds						Qvalue
8) Acetone	5.12	43	37984	4.16	ug/L	91
10) Methylene Chloride	6.01	84	72838	1.95	ug/L	98
13) MTBE	6.56	73	2949371	25.75	ug/L	97
15) cis-1,2-Dichloroethene	9.92	96	785236	18.54	ug/L	99
21) 2-Butanone	10.56	43	23183	1.44	ug/L	94
25) Trichloroethene	15.02	130	248593	5.71	ug/L	97
37) Toluene	18.66	91	1550983	10.54	ug/L	98
41) Ethylbenzene	22.75	91	556397	3.02	ug/L	98
42) m+ p-Xylenes	23.07	106	692437	10.47	ug/L	97
43) o-xylene	24.11	91	790558	5.58	ug/L	97

(#) = qualifier out of range (m) = manual integration

V9639.D V11027AW.M

Fri Oct 29 06:48:18 1999

VOA1

Page 1

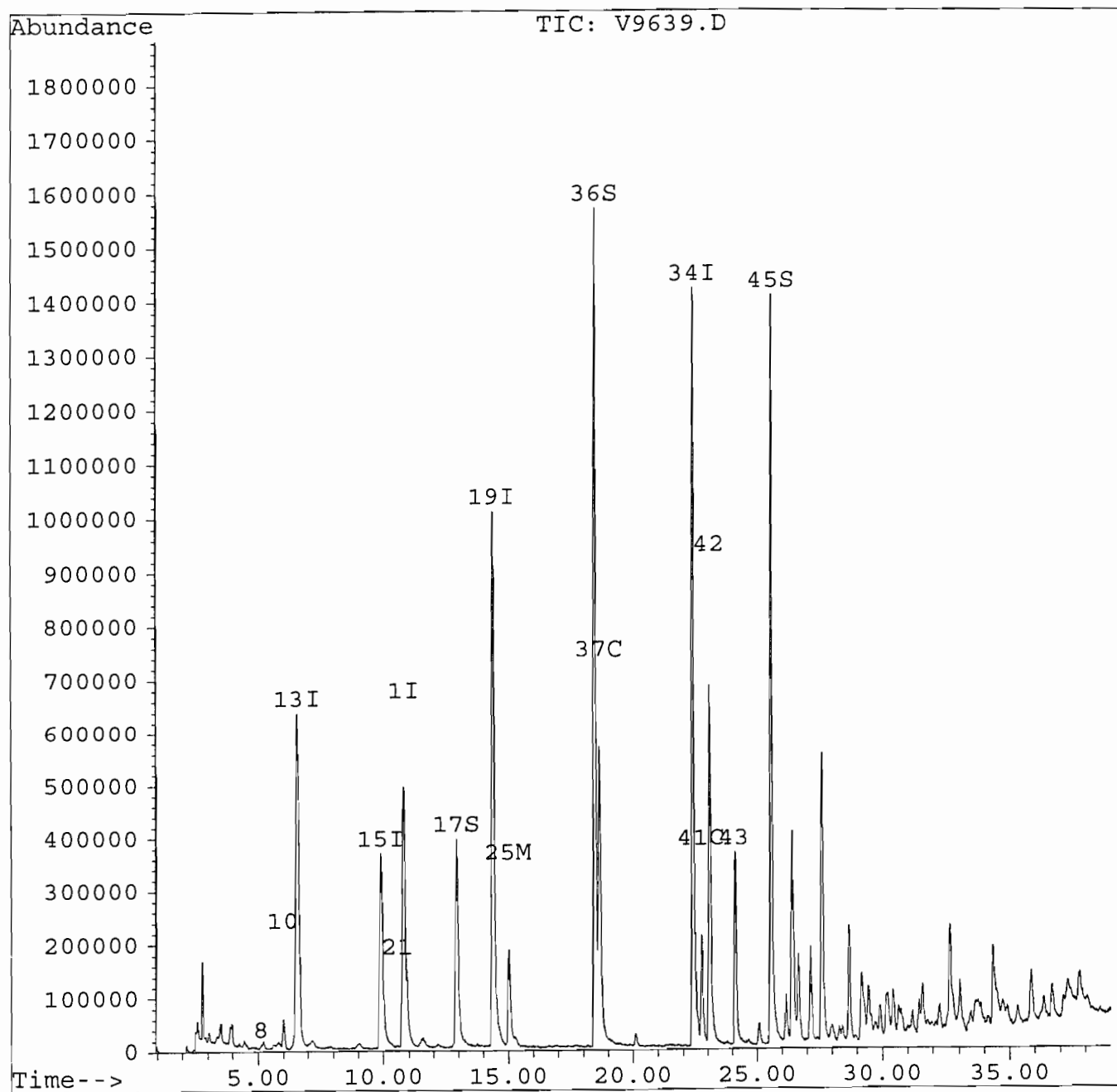
000113

Quantitation Report

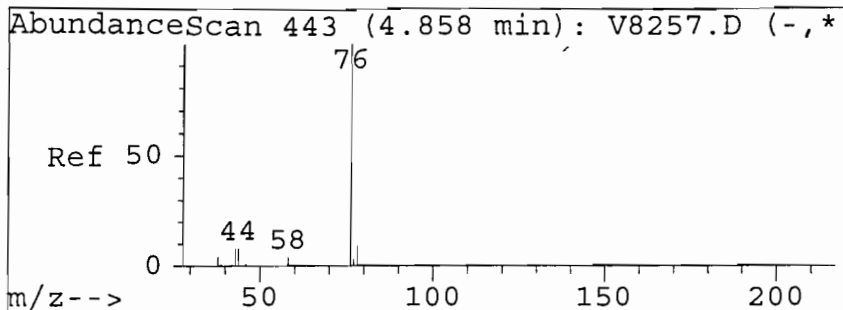
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : 5MLS
Quant Time: Oct 29 6:48 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

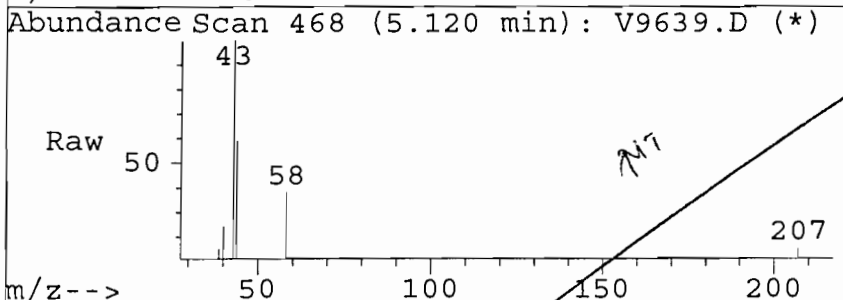
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



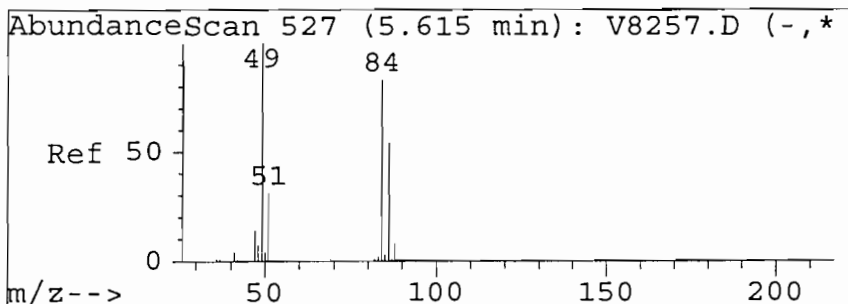
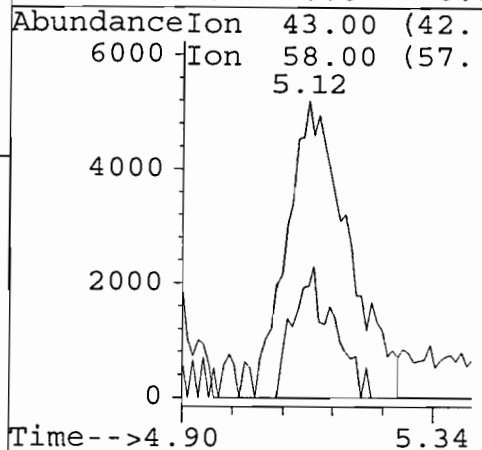
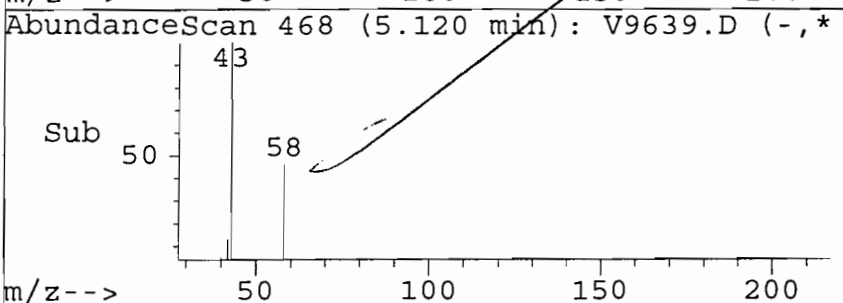
000114



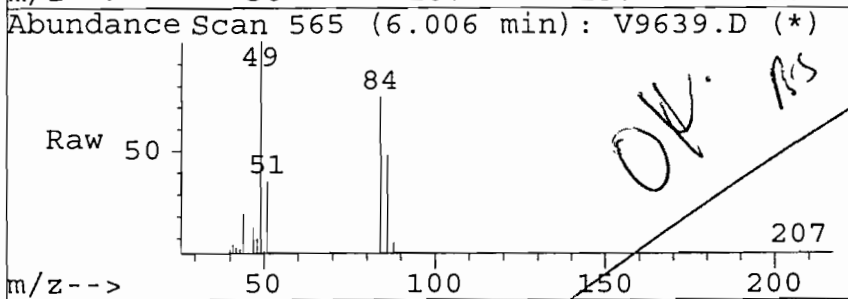
#8
Acetone
Concen: 4.16 ug/L
RT: 5.12 min Scan# 468
Delta R.T. 0.01 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm



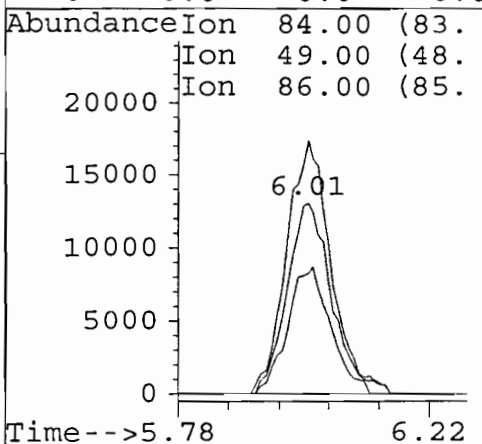
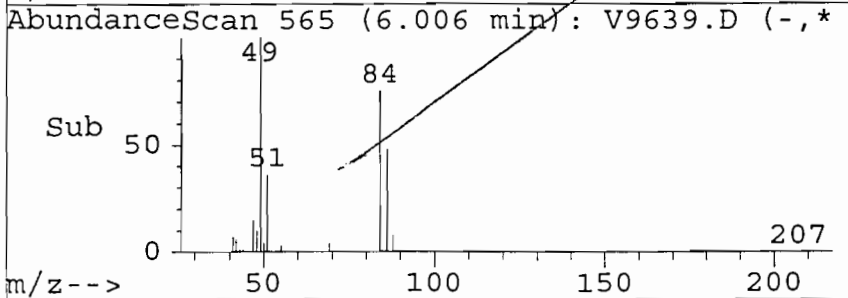
Tgt Ion:43 Resp: 37984
Ion Ratio Lower Upper
43 100
58 37.6 16.3 48.8
0 0.0 0.0 0.0
0 0.0 0.0 0.0



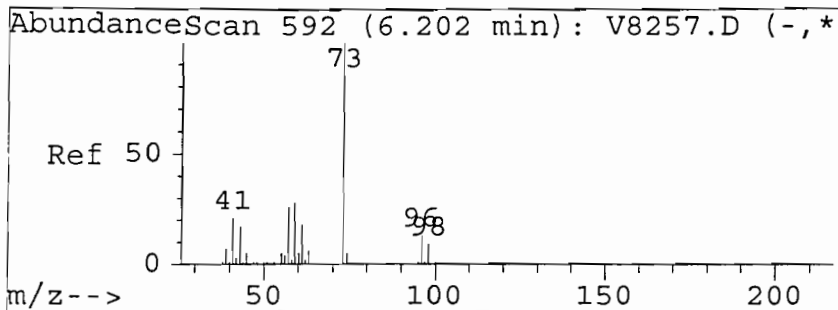
#10
Methylene Chloride
Concen: 1.95 ug/L
RT: 6.01 min Scan# 565
Delta R.T. 0.01 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm



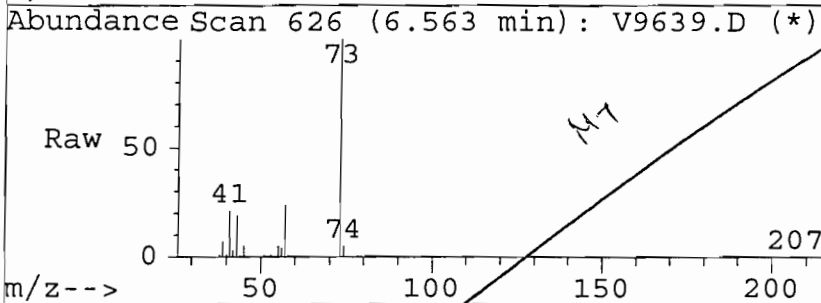
Tgt Ion:84 Resp: 72838
Ion Ratio Lower Upper
84 100
49 133.3 67.5 202.6
86 63.4 30.8 92.4
0 0.0 0.0 0.0



000115

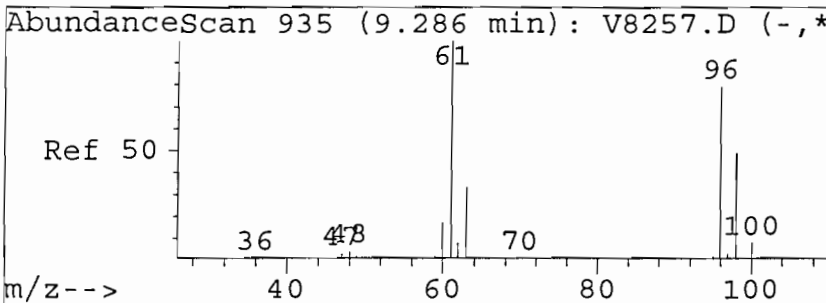
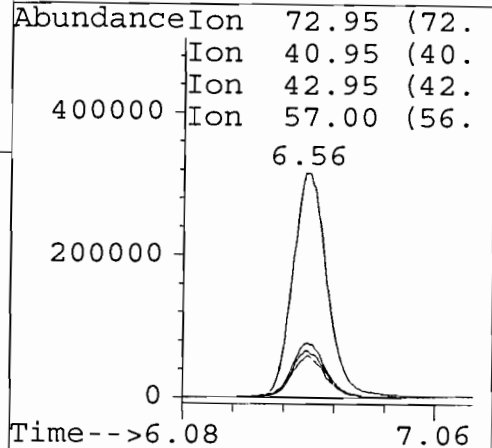
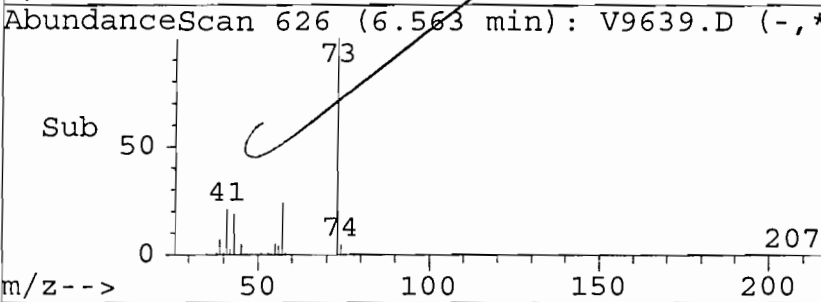


#13
MTBE
Concen: 25.75 ug/L
RT: 6.56 min Scan# 626
Delta R.T. 0.01 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm

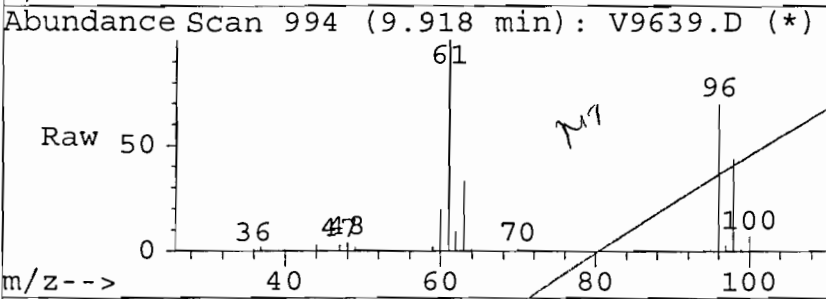


Tgt Ion: 72.95 Resp: 2949371

Ion	Ratio	Lower	Upper
73	100		
41	20.8	11.4	34.2
43	18.9	10.0	30.0
57	24.3	20.0	30.0

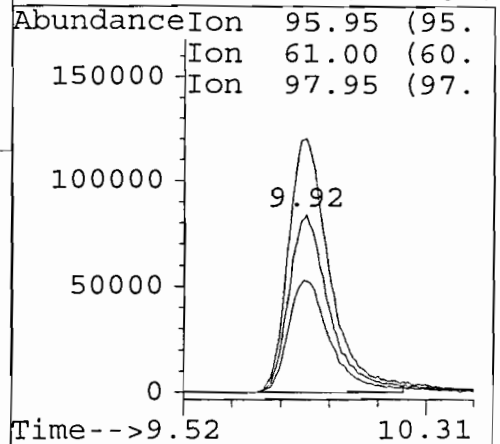
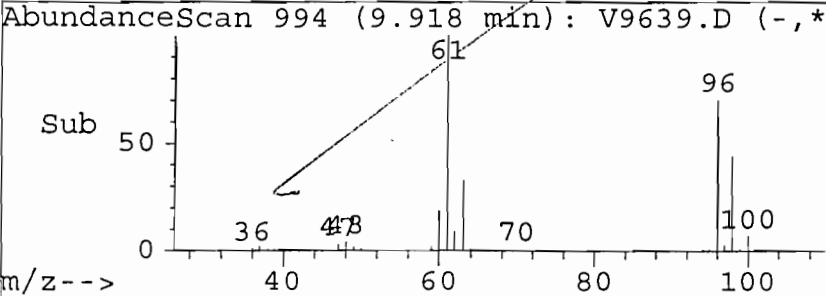


#15
cis-1,2-Dichloroethene
Concen: 18.54 ug/L
RT: 9.92 min Scan# 994
Delta R.T. 0.02 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm



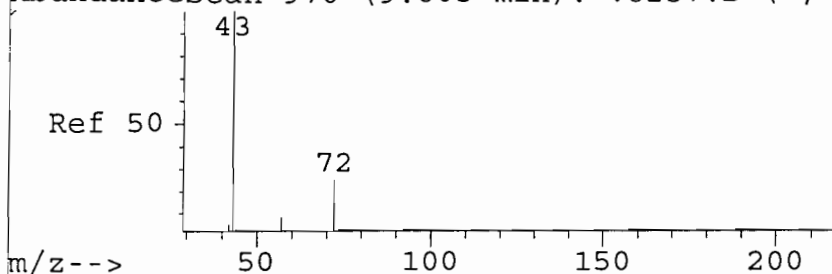
Tgt Ion: 95.95 Resp: 785236

Ion	Ratio	Lower	Upper
96	100		
61	143.0	71.3	213.9
98	62.7	32.5	97.5
0	0.0	0.0	0.0



000116

AbundanceScan 970 (9.605 min): V8257.D (-,*



#21

2-Butanone

Concen: 1.44 ug/L

RT: 10.56 min Scan# 1065

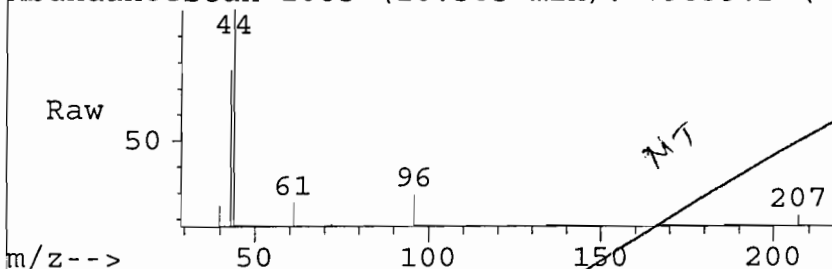
Delta R.T. 0.32 min

Lab File: V9639.D

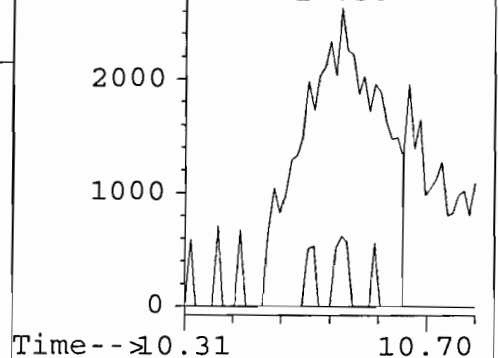
Acq: 28 Oct 99 6:32 pm

Tgt Ion:	43	Resp:	23183
Ion	Ratio	Lower	Upper
43	100		
72	23.6	10.3	30.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

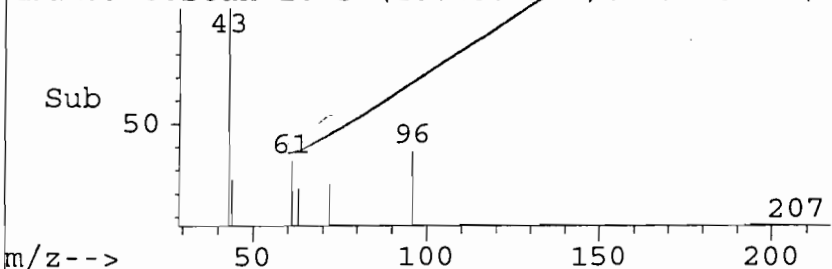
AbundanceScan 1065 (10.565 min): V9639.D (*)



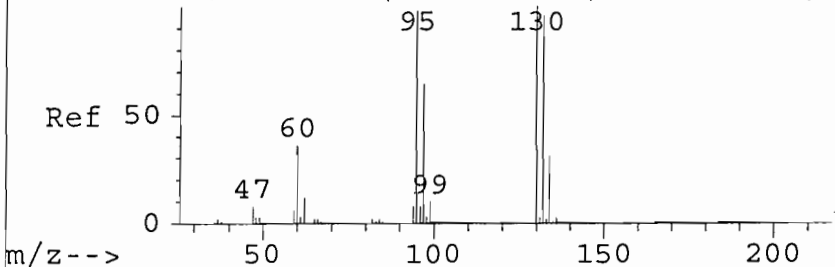
AbundanceIon 43.00 (42.
3000 Ion 72.00 (71.
10.56



AbundanceScan 1065 (10.565 min): V9639.D (-



AbundanceScan 1504 (14.479 min): V8257.D (-



#25

Trichloroethene

Concen: 5.71 ug/L

RT: 15.02 min Scan# 1553

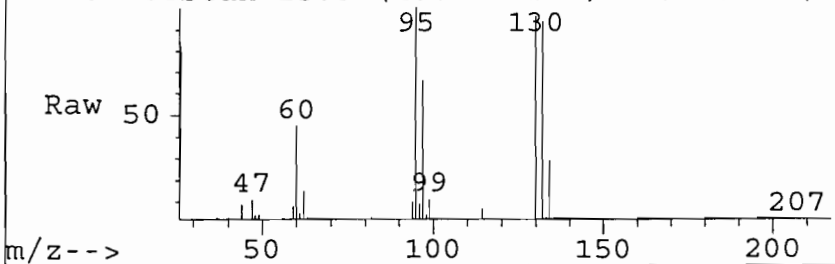
Delta R.T. 0.03 min

Lab File: V9639.D

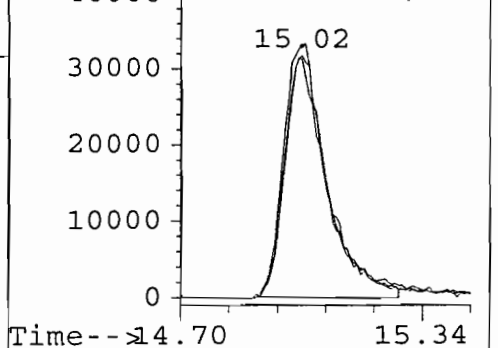
Acq: 28 Oct 99 6:32 pm

Tgt Ion:	130	Resp:	248593
Ion	Ratio	Lower	Upper
130	100		
132	98.4	46.0	138.0
95	104.2	52.2	156.6
0	0.0	0.0	0.0

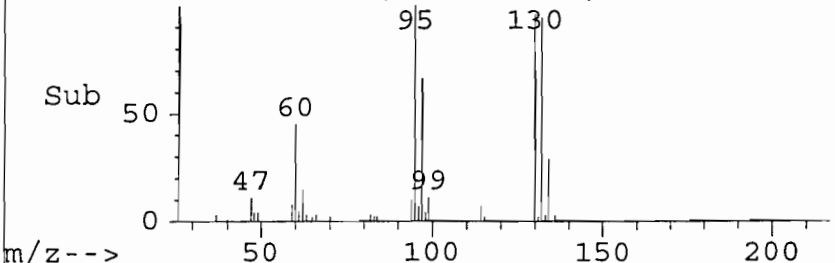
AbundanceScan 1553 (15.016 min): V9639.D (*)



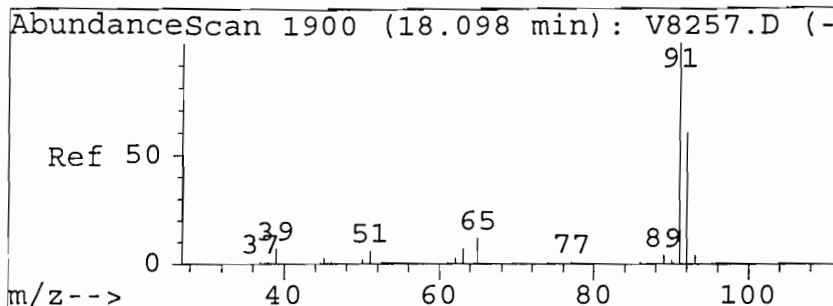
AbundanceIon 130.00 (129
40000 Ion 132.00 (131
Ion 95.00 (94.



AbundanceScan 1553 (15.016 min): V9639.D (-

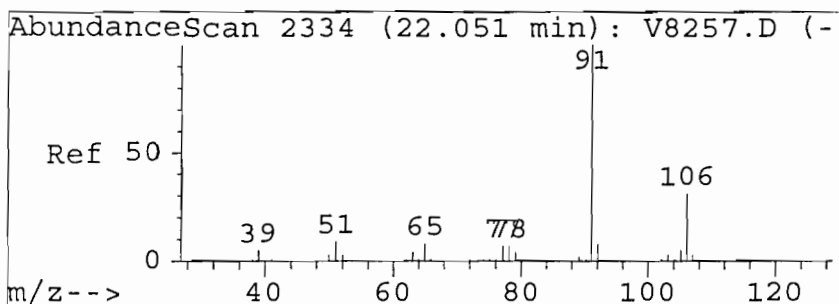
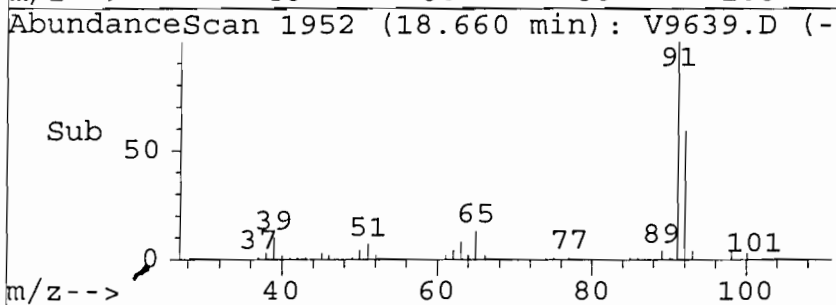
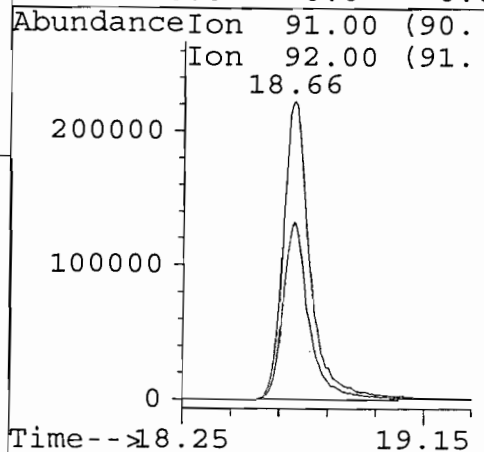
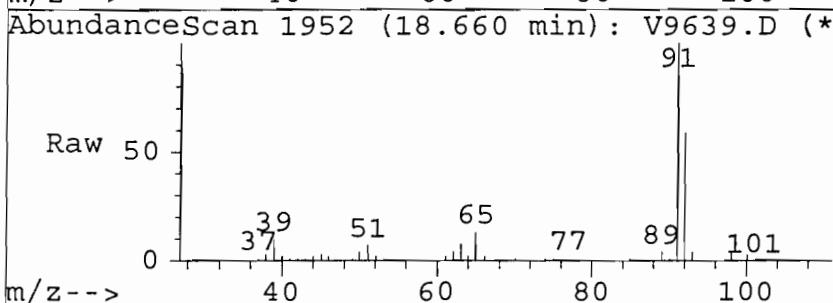


000117



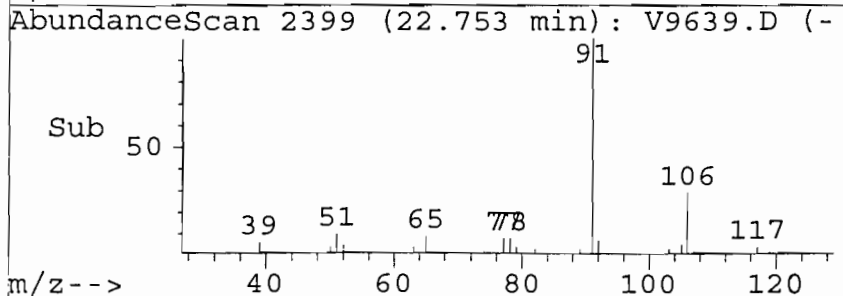
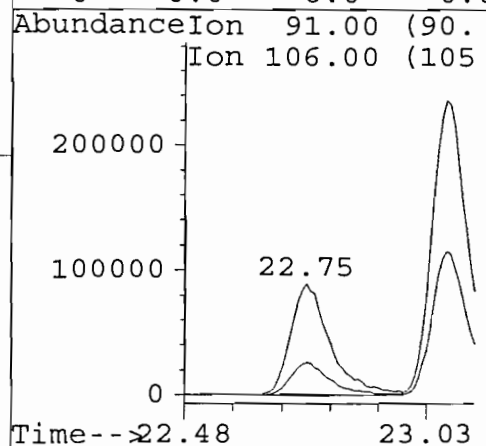
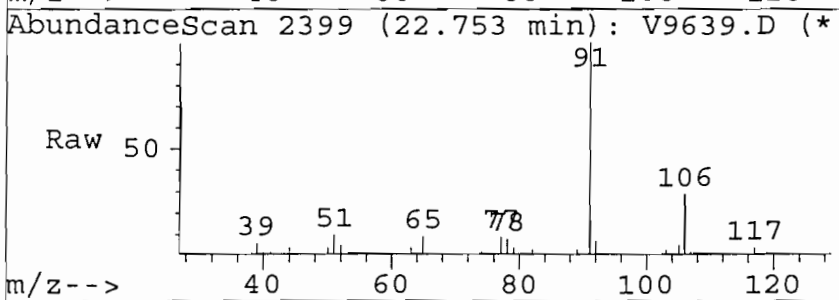
#37
Toluene
Concen: 10.54 ug/L
RT: 18.66 min Scan# 1952
Delta R.T. 0.03 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm

Tgt Ion:91 Resp: 1550983
Ion Ratio Lower Upper
91 100
92 59.4 28.8 86.4
0 0.0 0.0 0.0
0 0.0 0.0 0.0

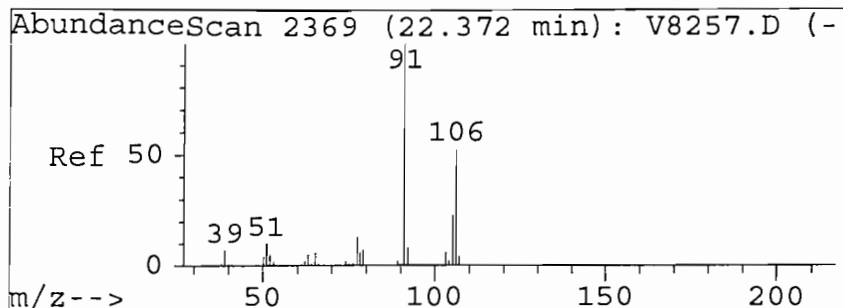


#41
Ethylbenzene
Concen: 3.02 ug/L
RT: 22.75 min Scan# 2399
Delta R.T. 0.05 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm

Tgt Ion:91 Resp: 556397
Ion Ratio Lower Upper
91 100
106 29.3 15.2 45.7
0 0.0 0.0 0.0
0 0.0 0.0 0.0

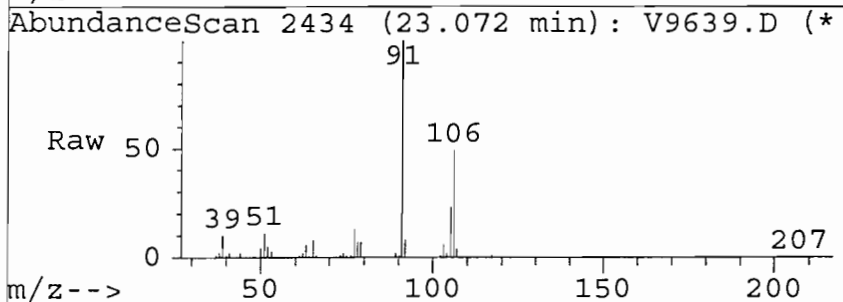


000118

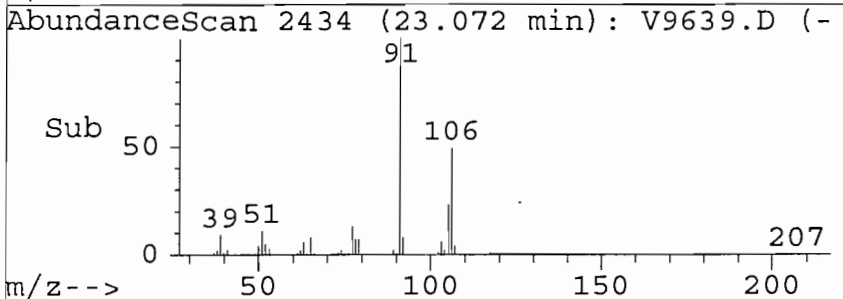
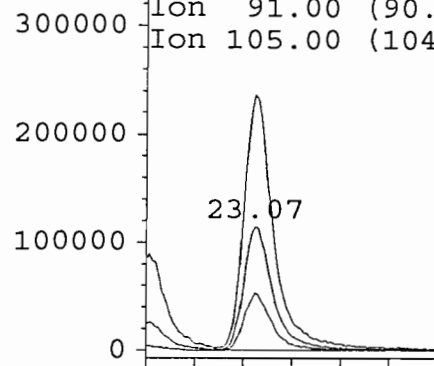


#42
m+ p-Xylenes
Concen: 10.47 ug/L
RT: 23.07 min Scan# 2434
Delta R.T. 0.04 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm

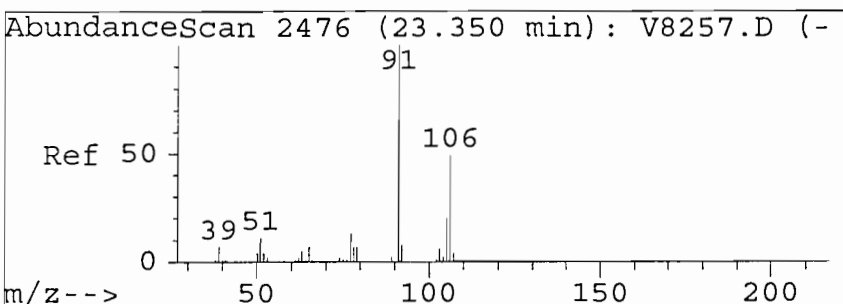
Tgt	Ion:106	Resp:	692437
Ion	Ratio	Lower	Upper
106	100		
91	205.6	100.8	302.4
105	46.7	22.3	66.9
0	0.0	0.0	0.0



Abundance	Ion	106.00	(105
	Ion	91.00	(90.
	Ion	105.00	(104

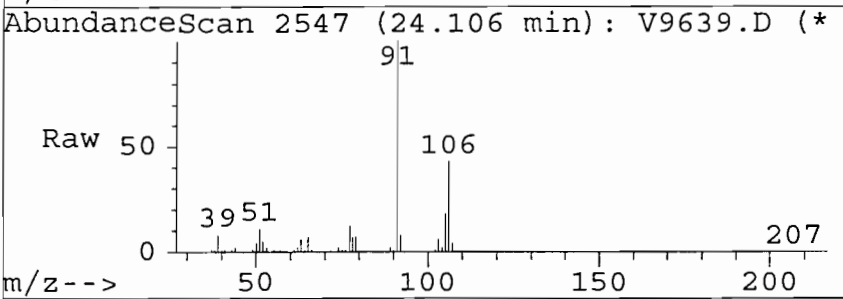


Time--> 22.74 23.48

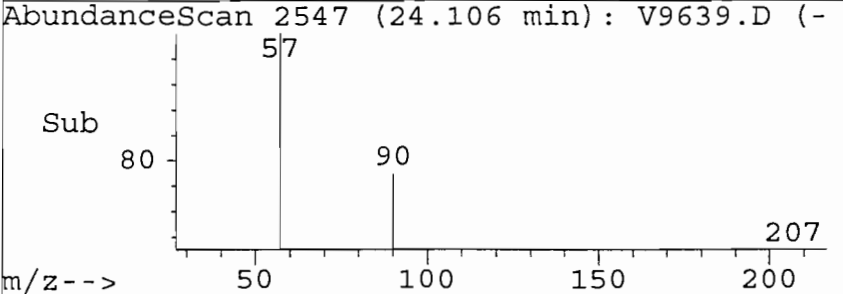
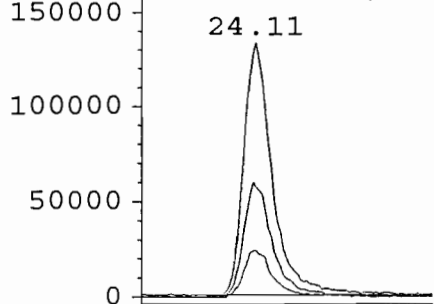


#43
o-xylene
Concen: 5.58 ug/L
RT: 24.11 min Scan# 2547
Delta R.T. 0.05 min
Lab File: V9639.D
Acq: 28 Oct 99 6:32 pm

Tgt	Ion:91	Resp:	790558
Ion	Ratio	Lower	Upper
91	100		
106	43.2	23.0	69.0
105	18.2	9.2	27.6
0	0.0	0.0	0.0



Abundance	Ion	91.00	(90.
	Ion	106.00	(105
	Ion	105.00	(104



Time--> 23.76 24.50

000119

Library Search Compound Report

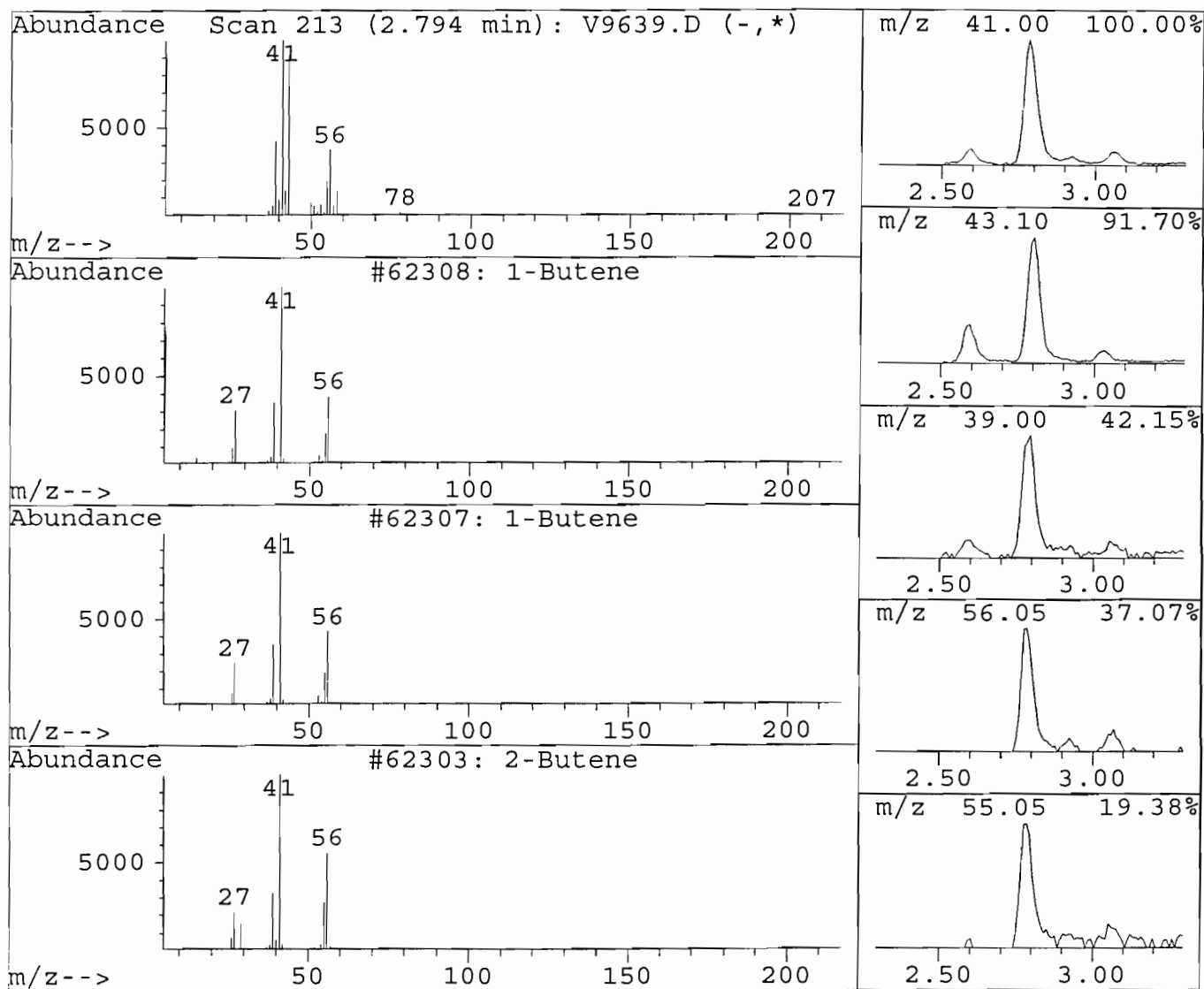
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
2.79	3.66 ug/L	519111	Bromochloromethane	10.82

Hit# of 12	Tentative ID	Ref#	CAS#	Qual
1	1-Butene	62308	000106-98-9	53
2	1-Butene	62307	000106-98-9	52
3	2-Butene	62303	000107-01-7	50
4	1-Butene	62309	000106-98-9	50
5	2-Butene	76	000107-01-7	40



000120

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D

Acq Time : 28 Oct 99 6:32 pm

Sample : L5320ASP-91755

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

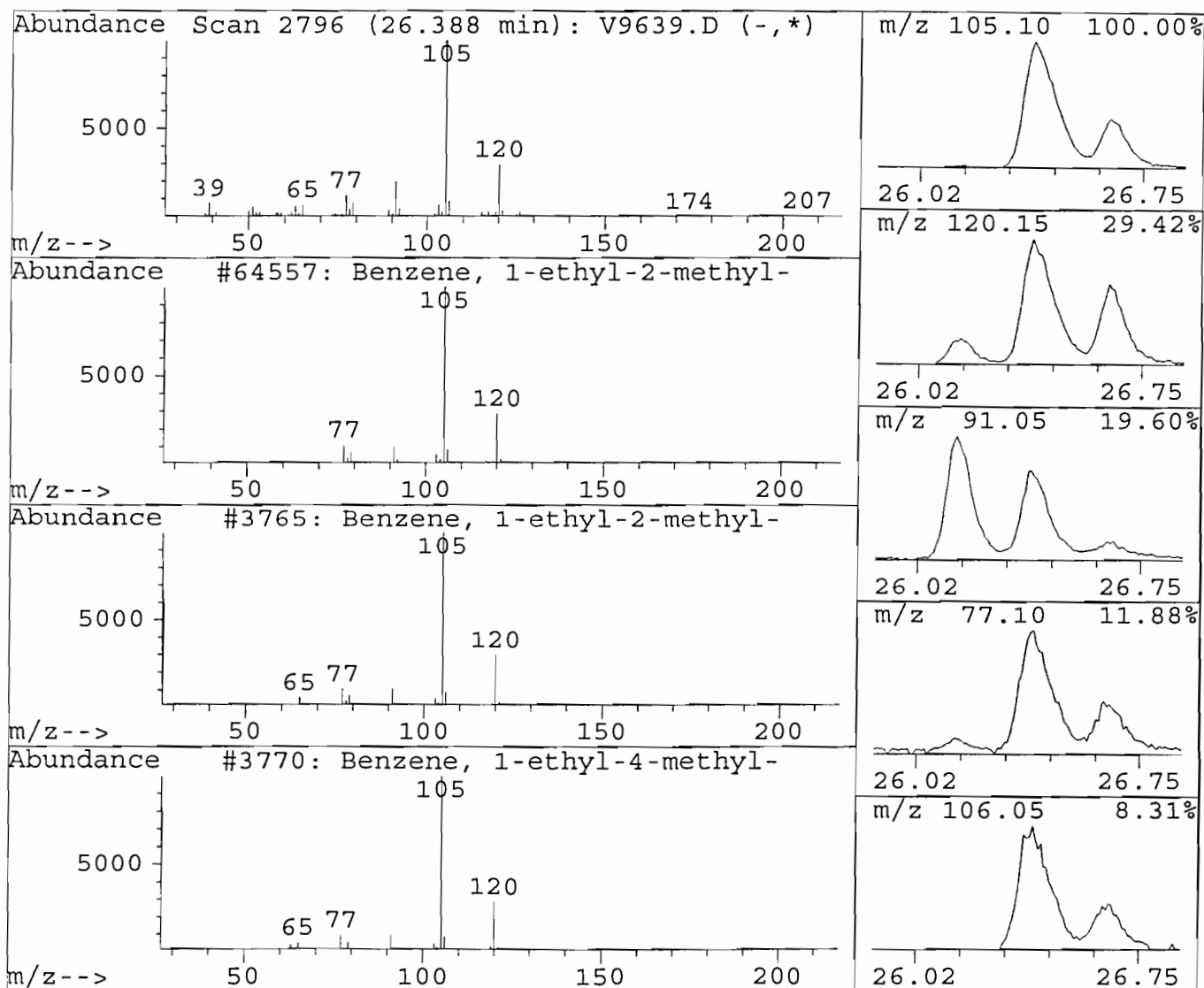
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.39	10.52 ug/L	2837816	Chlorobenzene-d5	22.40	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-		64557	000611-14-3	90
2	Benzene, 1-ethyl-2-methyl-		3765	000611-14-3	90
3	Benzene, 1-ethyl-4-methyl-		3770	000622-96-8	90
4	Benzene, 1-ethyl-3-methyl-		3769	000620-14-4	90
5	Benzene, 1-ethyl-3-methyl-		64563	000620-14-4	90



Library Search Compound Report

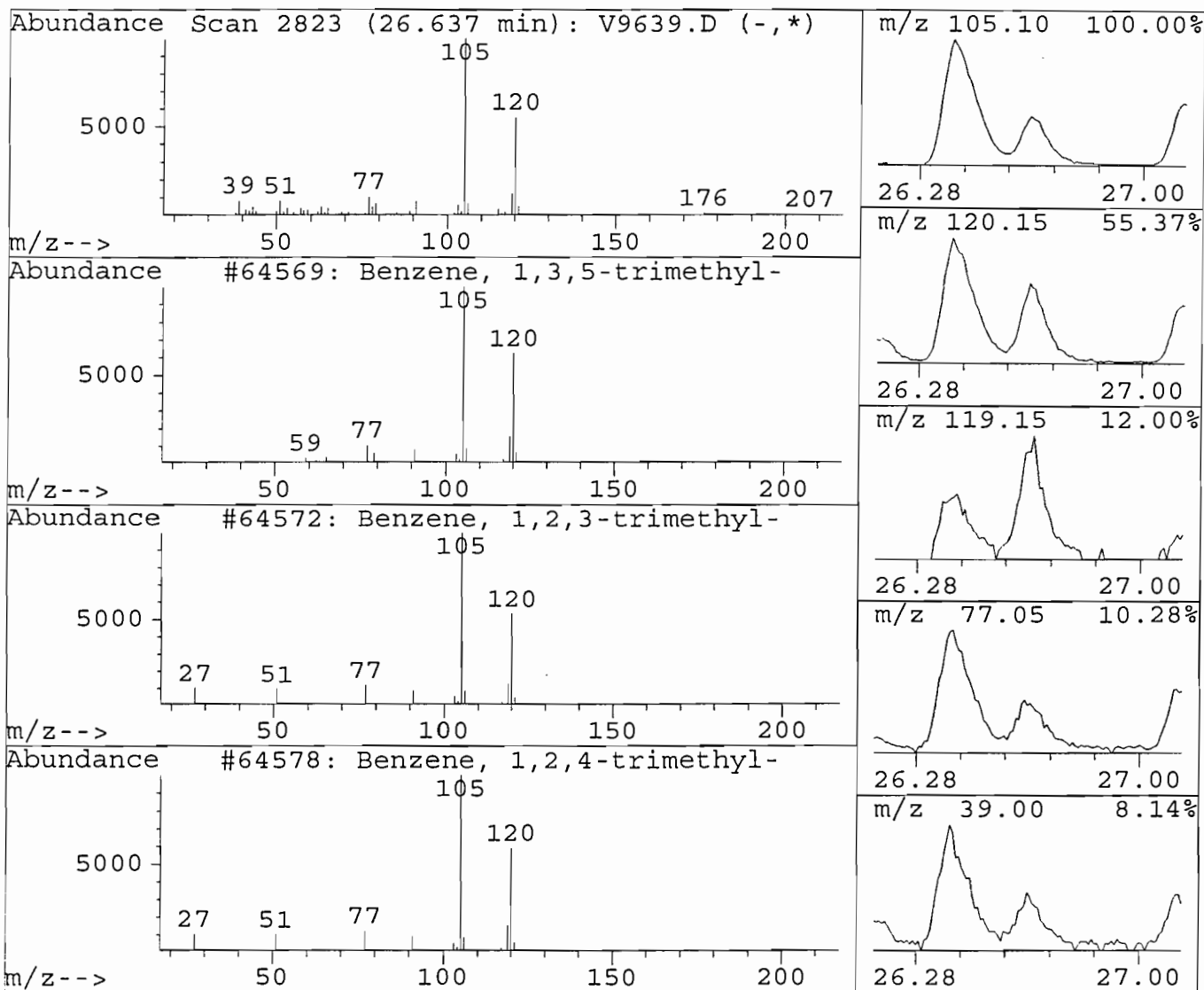
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.64	3.99 ug/L	1077232	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	94
2	Benzene, 1,2,3-trimethyl-	64572	000526-73-8	91
3	Benzene, 1,2,4-trimethyl-	64578	000095-63-6	91
4	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	90
5	1,2,4-Trimethylbenzene	3771	000095-36-3	90



000122

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D

Acq Time : 28 Oct 99 6:32 pm

Sample : L5320ASP-91755

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

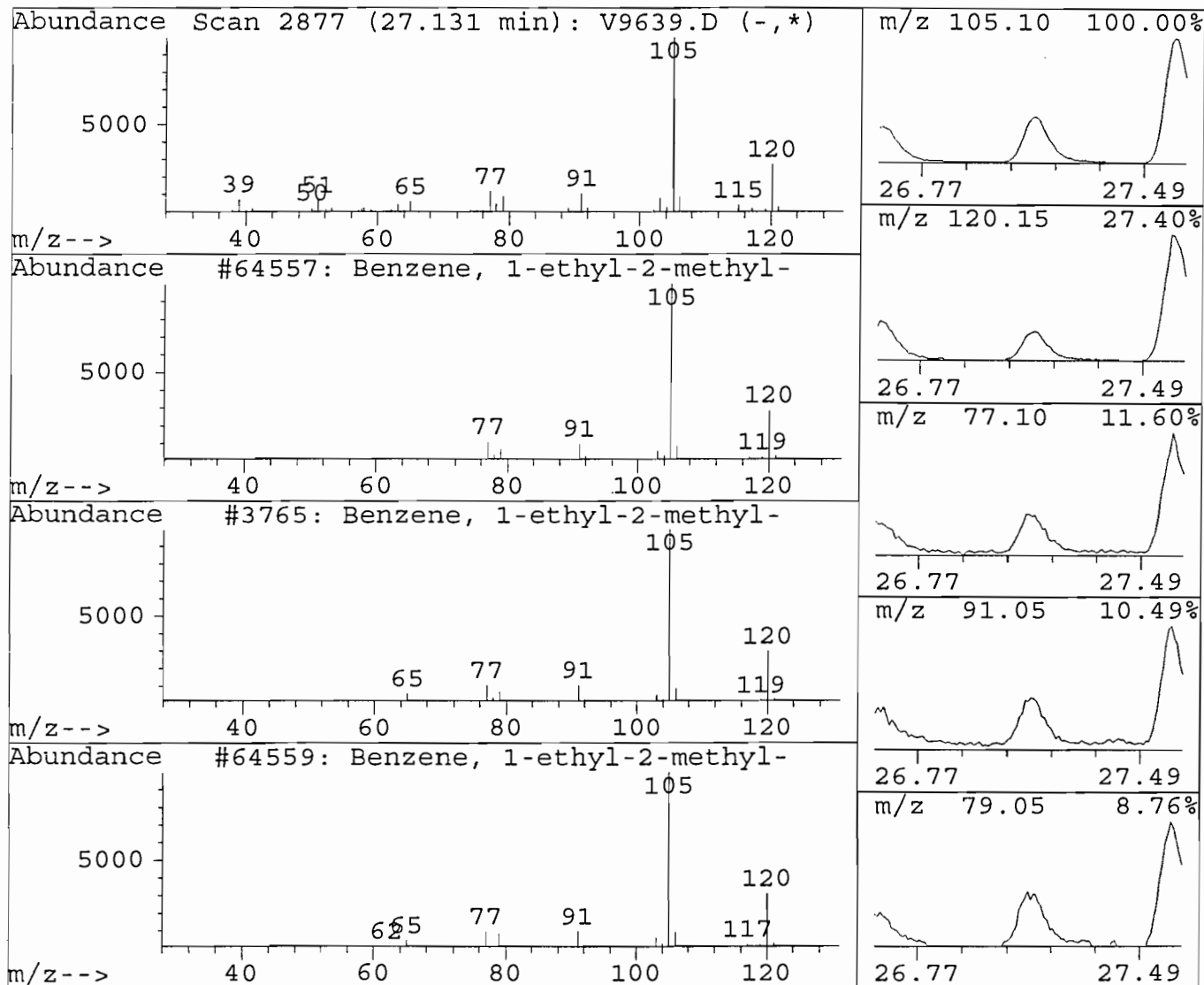
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
27.13	3.77 ug/L	1016886	Chlorobenzene-d5	22.40	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-		64557	000611-14-3	94
2	Benzene, 1-ethyl-2-methyl-		3765	000611-14-3	94
3	Benzene, 1-ethyl-2-methyl-		64559	000611-14-3	94
4	Benzene, 1-ethyl-2-methyl-		64558	000611-14-3	94
5	Benzene, 1-ethyl-4-methyl-		3770	000622-96-8	93



000123

Library Search Compound Report

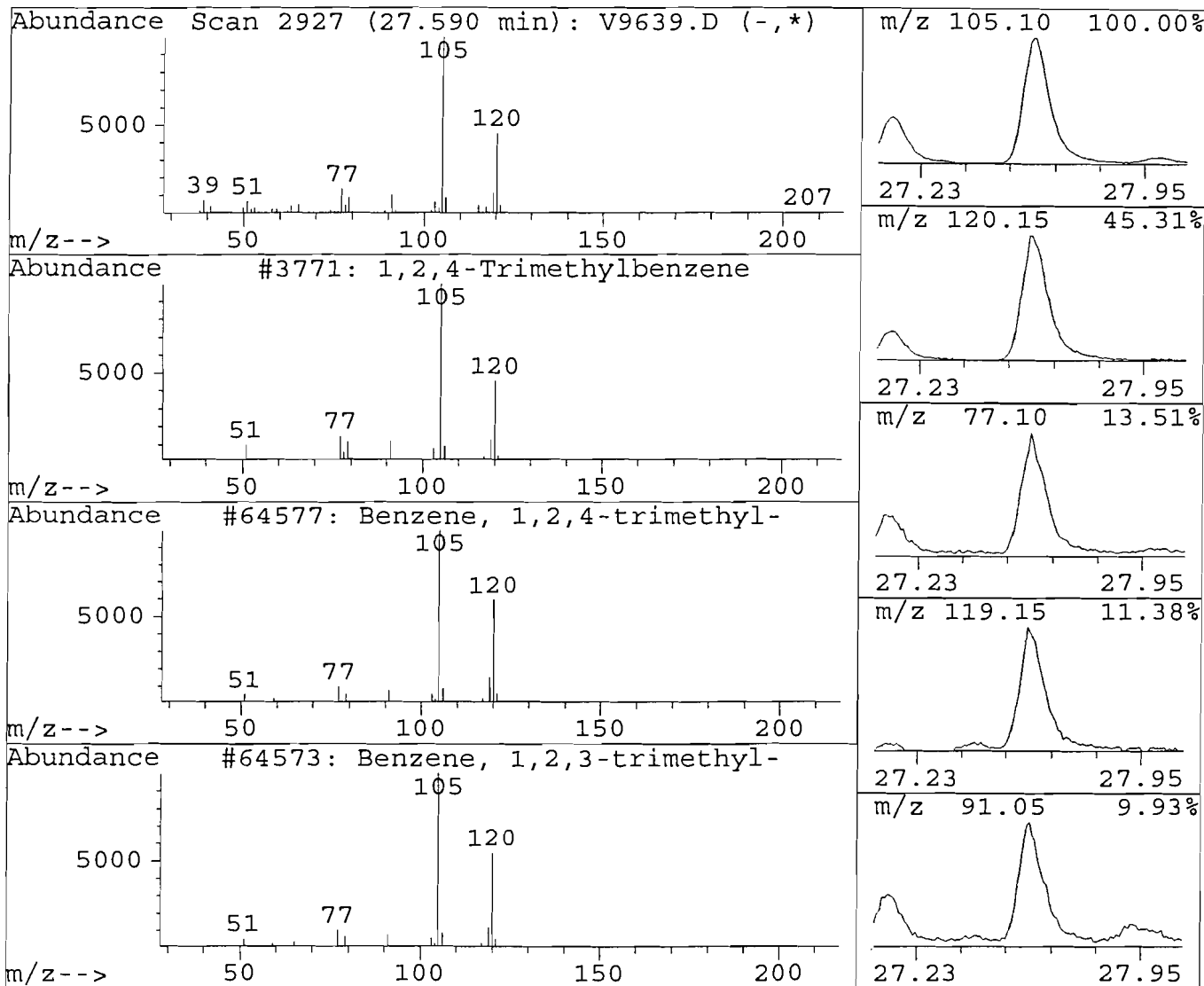
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.59	12.23 ug/L	3297602	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Trimethylbenzene	3771	000095-36-3	97
2	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	95
3	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
4	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
5	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	94



Library Search Compound Report

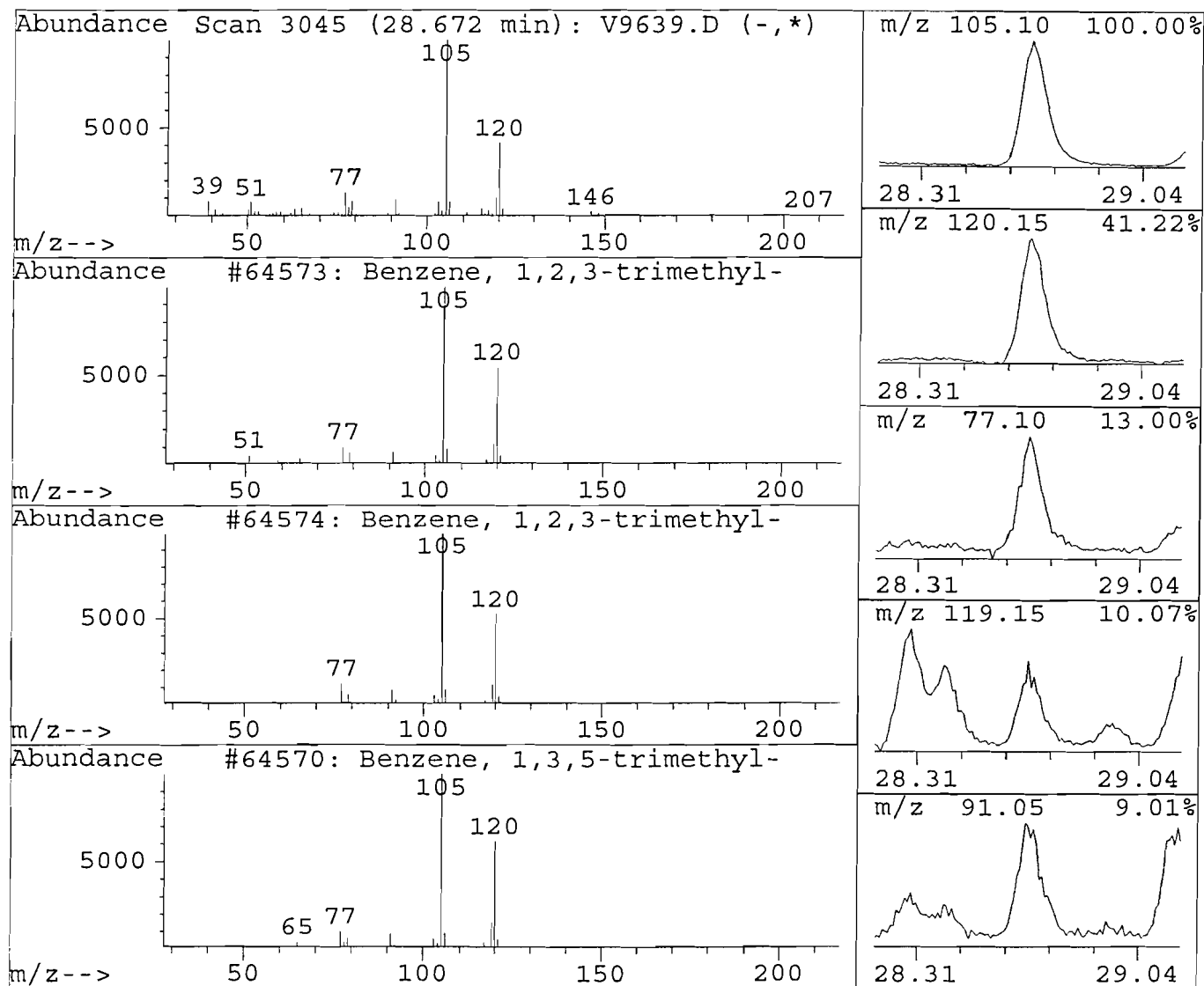
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.67	4.83 ug/L	1301775	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
2	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	94
3	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	94
4	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	94
5	Benzene, 1,2,4-trimethyl-	3775	000095-63-6	93



000125

Library Search Compound Report

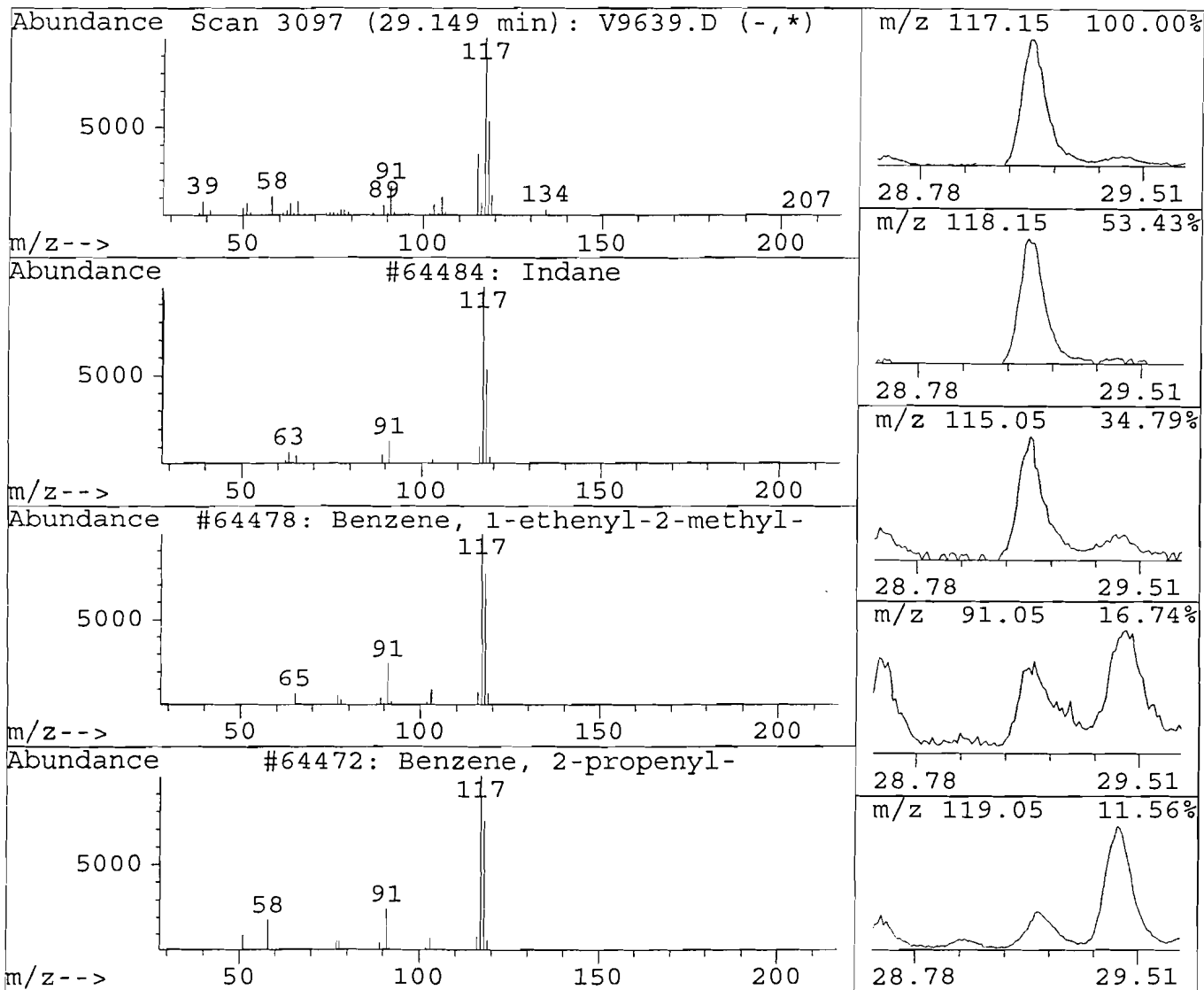
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.15	4.53 ug/L	1222331	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indane	64484	000496-11-7	76
2	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	55
3	Benzene, 2-propenyl-	64472	000300-57-2	55
4	Benzene, ethenylmethyl-	3598	025013-15-4	49
5	Benzene, 1-propenyl-	3595	000637-50-3	49



000126

Library Search Compound Report

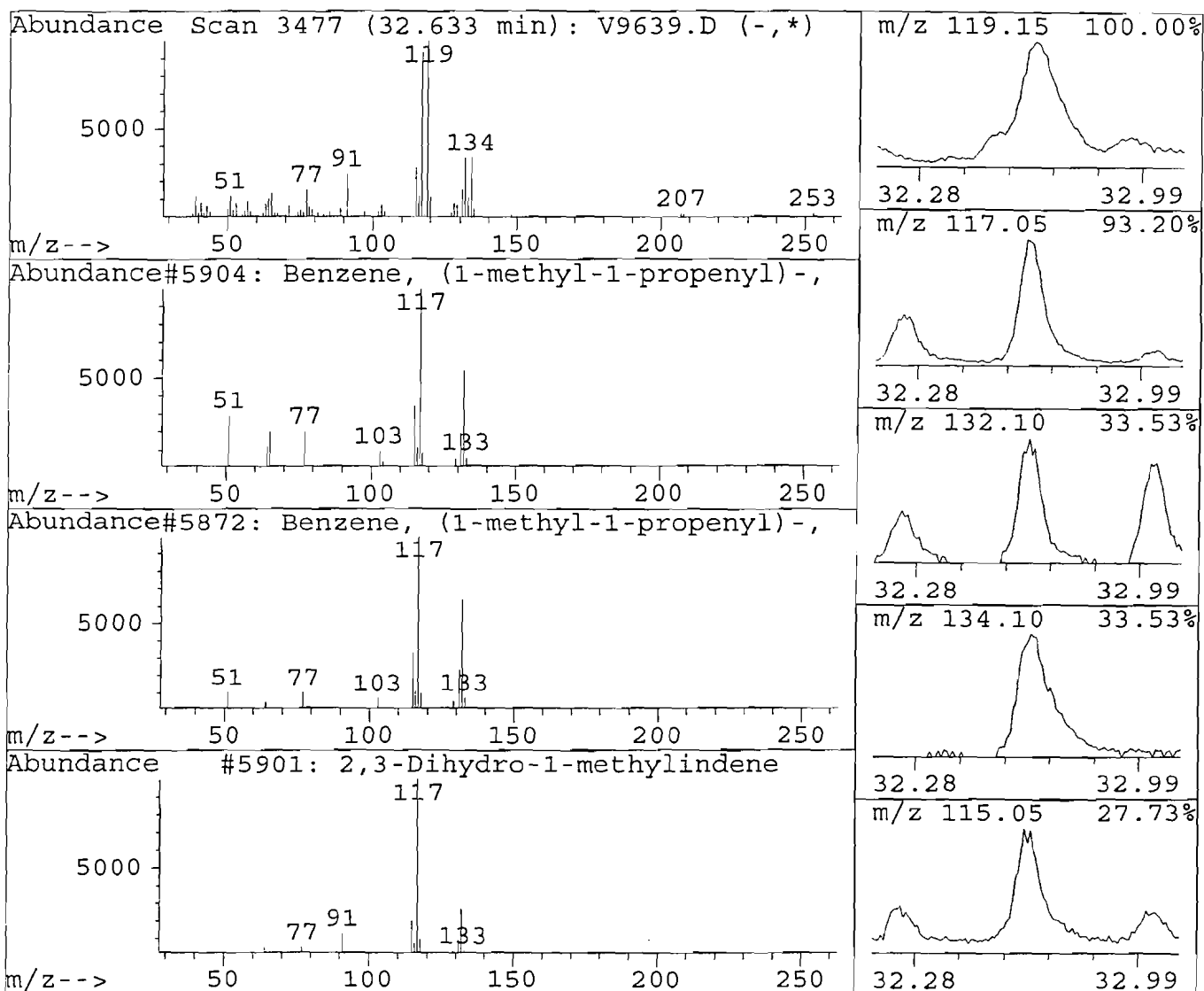
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : SMLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.63	6.27 ug/L	1690623	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1-methyl-1-propenyl)-, (Z	5904	000767-99-7	70
2	Benzene, (1-methyl-1-propenyl)-, (E	5872	000768-00-3	55
3	2,3-Dihydro-1-methylindene	5901	027133-93-3	55
4	1H-Indene, 2,3-dihydro-2-methyl-	5876	000824-63-5	50
5	Benzene, 2-ethenyl-1,3-dimethyl-	5883	002039-90-9	49



Library Search Compound Report

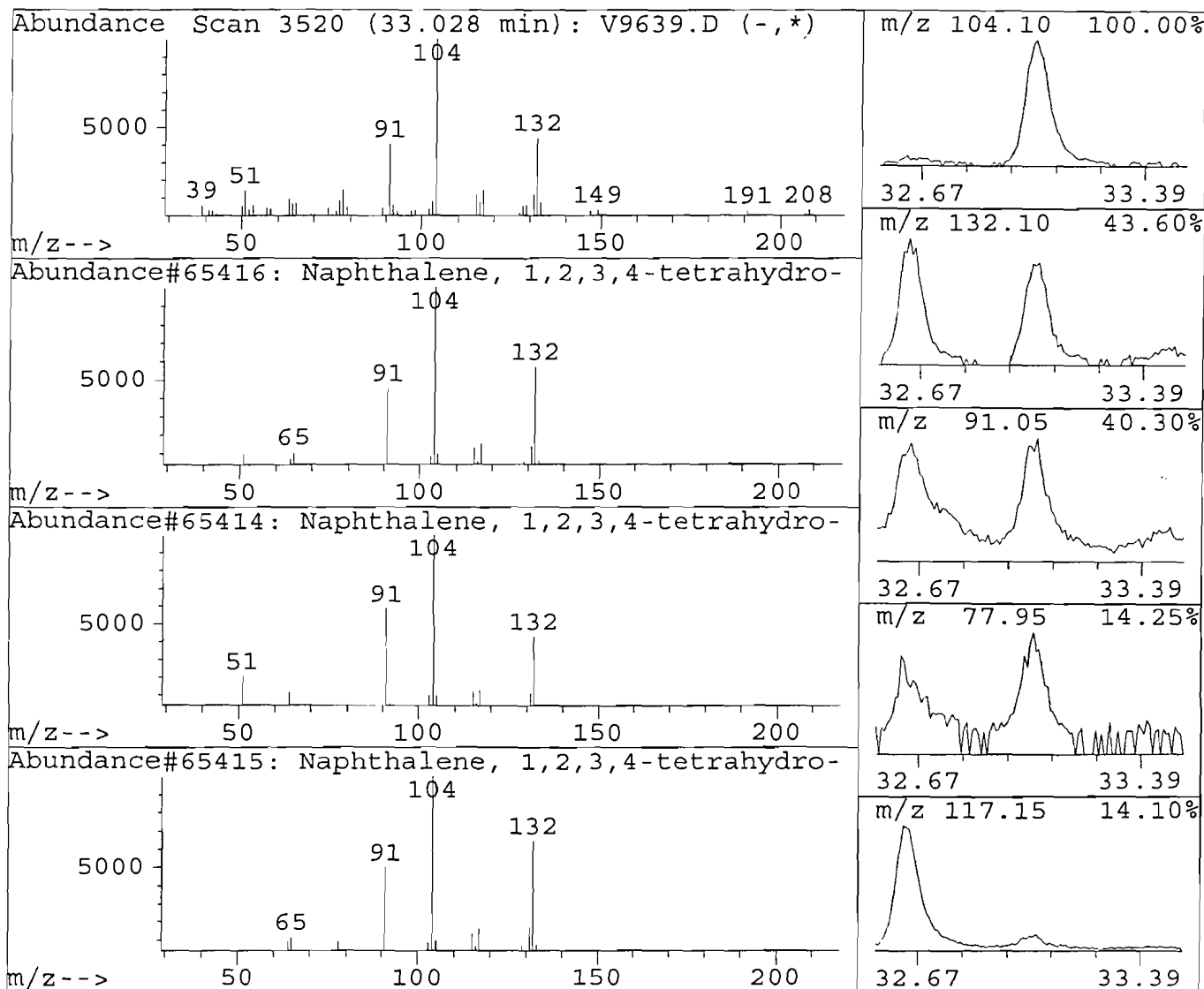
Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D
Acq Time : 28 Oct 99 6:32 pm
Sample : L5320ASP-91755
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
33.03	3.14 ug/L	846102	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	65416	000119-64-2	96
2	Naphthalene, 1,2,3,4-tetrahydro-	65414	000119-64-2	95
3	Naphthalene, 1,2,3,4-tetrahydro-	65415	000119-64-2	94
4	Naphthalene, 1,2,3,4-tetrahydro-	5880	000119-64-2	92
5	Benzene, cyclobutyl-	65420	004392-30-7	58



000128

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9639.D

Acq Time : 28 Oct 99 6:32 pm

Sample : L5320ASP-91755

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

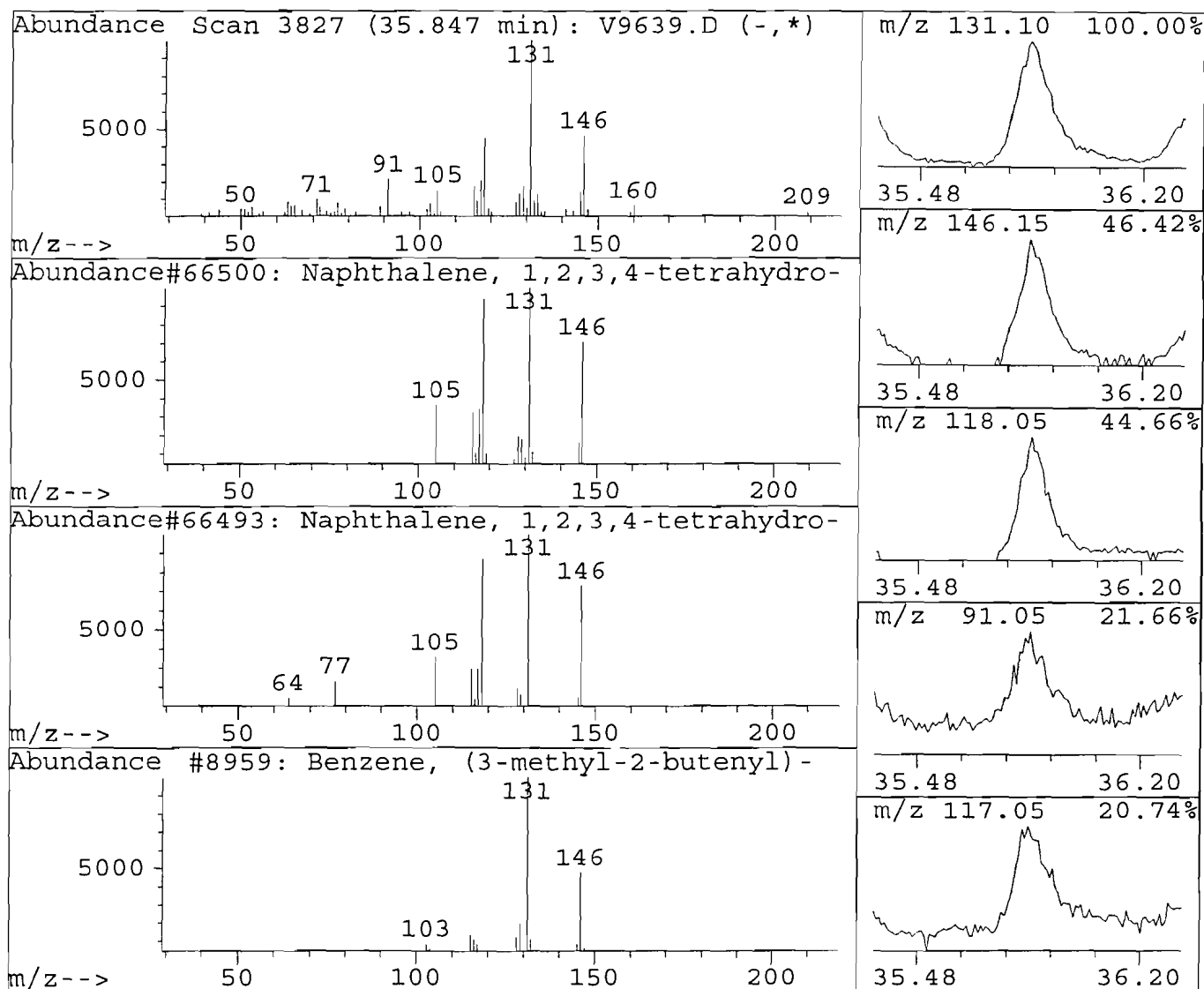
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.85	3.12 ug/L	842542	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-6-m	66500	001680-51-9	90
2	Naphthalene, 1,2,3,4-tetrahydro-5-m	66493	002809-64-5	86
3	Benzene, (3-methyl-2-butenyl)-	8959	004489-84-3	70
4	1H-Indene, 2,3-dihydro-4,7-dimethyl	66497	006682-71-9	70
5	Benzene, (1,1-dimethyl-2-propenyl)-	8972	018321-36-3	64



000129

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-030-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02

Matrix: (soil/water) WATER

Lab Sample ID: O91756

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9640.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	6.5		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	1.5		
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	4.6		
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	1.4		
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	96		
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	130		E
136777-61-2	m+ p-Xylenes	160		E
95-47-6	o-xylene	150		E
95-50-1	1,2-Dichlorobenzene	37		
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-030-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
Matrix: (soil/water) WATER Lab Sample ID: O91756
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9640.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
Number TICs found: 20 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	25.40	100	J
2. 611-14-3	Benzene, 1-ethyl-2-methyl-	26.36	270	J
3. 124-18-5	Decane	26.60	460	J
4.	Unknown	27.09	150	J
5. 17302-28-2	Nonane, 2,6-dimethyl-	27.34	120	J
6. 95-36-3	1,2,4-Trimethylbenzene	27.52	190	J
7. 526-73-8	Benzene, 1,2,3-trimethyl-	28.62	180	J
8.	Unknown	29.11	150	J
9. 535-77-3	Benzene, 1-methyl-3-(1-methy	29.41	110	J
10. 1120-21-4	Undecane	29.66	330	J
11. 527-84-4	Benzene, 1-methyl-2-(1-methy	30.10	120	J
12.	Unknown	30.18	170	J
13. 535-77-3	Benzene, 1-methyl-3-(1-methy	30.37	120	J
14.	Unknown	30.53	100	J
15. 2958-76-1	Naphthalene, decahydro-2-met	30.89	100	J
16.	Unknown	31.16	160	J
17. 934-74-7	Benzene, 1-ethyl-3,5-dimethy	31.40	160	J
18. 95-93-2	Benzene, 1,2,4,5-tetramethyl	31.52	170	J
19. 112-40-3	Dodecane	32.49	370	J
20.	Unknown	32.88	280	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Quant Time: Oct 29 6:48 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.83	128	637915	30.00	ug/L	0.03
19) 1,4-Difluorobenzene	14.38	114	3549114	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.37	117	2976230	30.00	ug/L	0.00
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.92	65	1044213	27.72	ug/L	92.40%
36) Toluene-d8	18.47	98	3683758	27.24	ug/L	90.79%
45) Bromofluorobenzene	25.52	95	2527100	31.83	ug/L	106.08%
Target Compounds						Qvalue
8) Acetone	5.11	43	64144	6.35	ug/L	95
10) Methylene Chloride	6.00	84	267971	6.48	ug/L	98
13) MTBE	6.56	73	863372	6.81	ug/L	96
15) cis-1,2-Dichloroethene	9.90	96	2158105	46.03	ug/L	98
22) 1,1,1-Trichloroethane	11.57	97	202620	2.75	ug/L	99
24) Benzene	12.83	78	724412	4.63	ug/L	96
25) Trichloroethene	15.02	130	70078	1.46	ug/L	97
37) Toluene	18.63	91	15877431	95.67	ug/L	96
38) Tetrachloroethene	20.07	166	63002	1.40	ug/L	96
40) Chlorobenzene	22.46	112	155618	1.42	ug/L	91
41) Ethylbenzene	22.70	91	27379158	131.73	ug/L	97
42) m+ p-Xylenes	23.05	106	11942434	160.19	ug/L	97
43) o-xylene	24.07	91	23665728	148.02	ug/L	97
46) 1,1,2,2-Tetrachloroethane	25.69	83	860650	11.48	ug/L	82
49) 1,2-Dichlorobenzene	29.49	146	2888757	37.32	ug/L	90

000132--

(#)=qualifier out of range (m)=manual integration

V9640.D V11027AW.M

Fri Oct 29 06:49:04 1999

VOA1

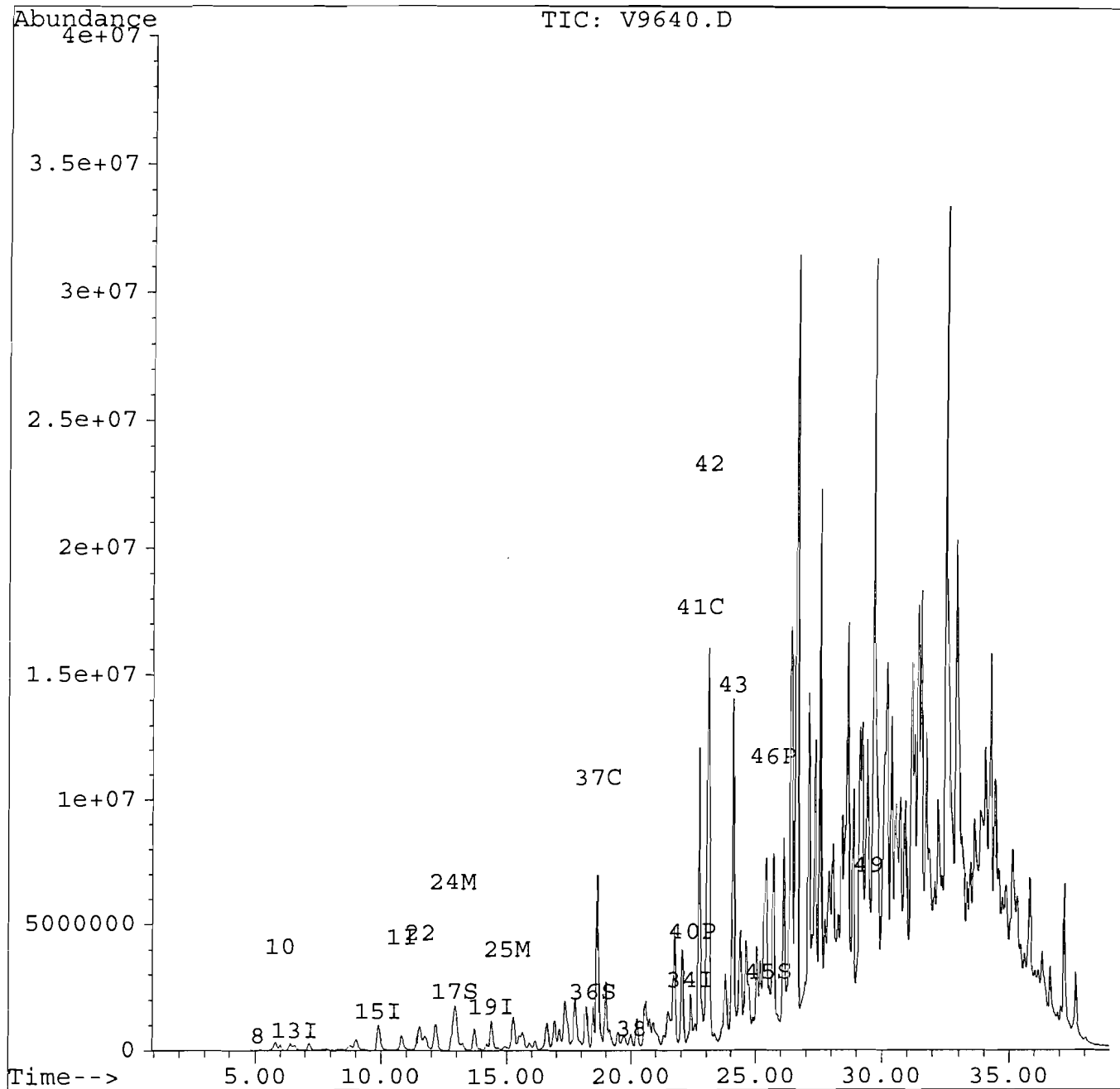
Page 1

Quantitation Report

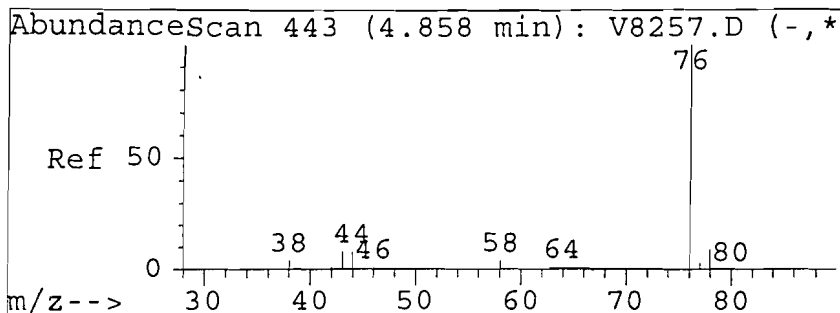
Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D
 Acq Time : 28 Oct 99 7:16 pm
 Sample : L5320ASP-91756
 Misc : 5MLS
 Quant Time: Oct 29 6:48 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

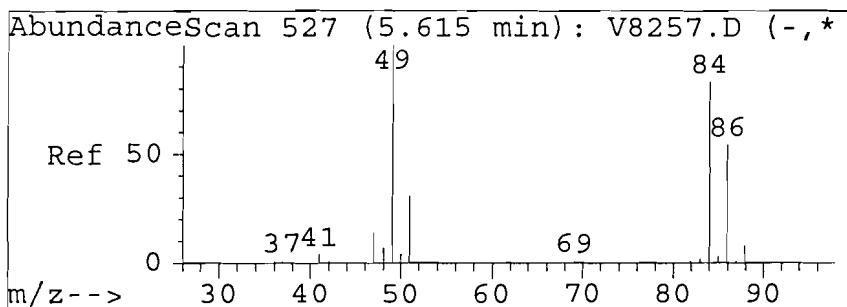
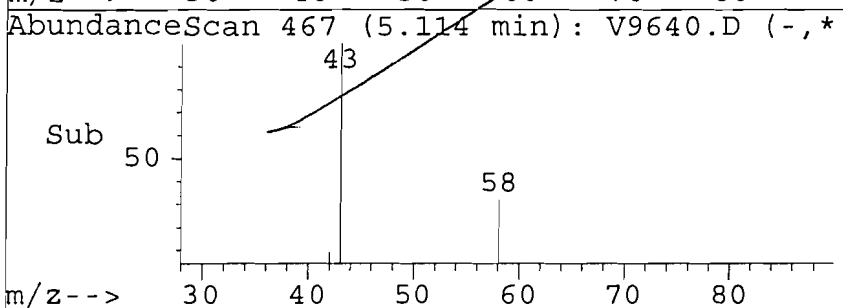
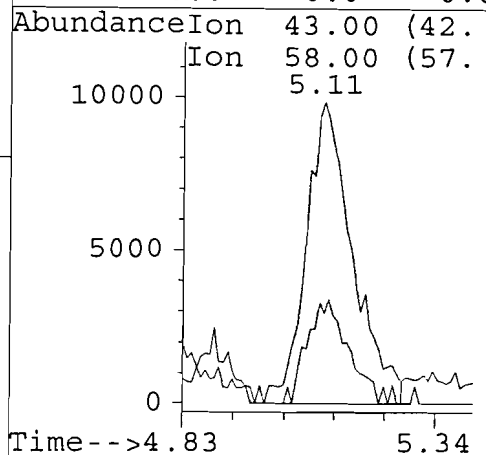
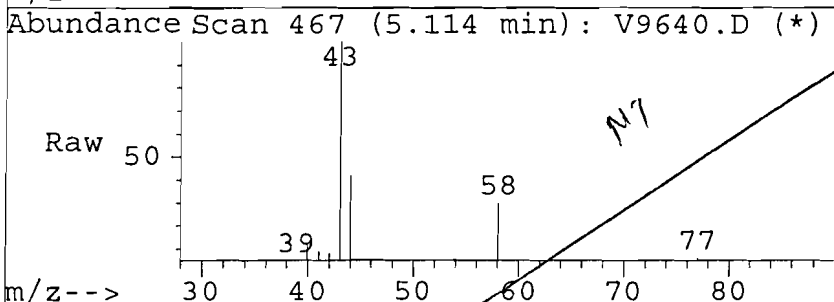


000133



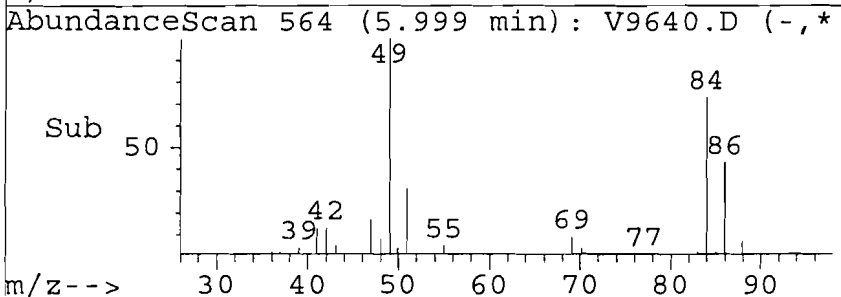
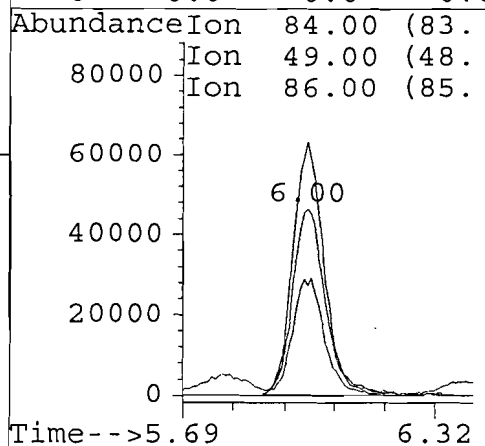
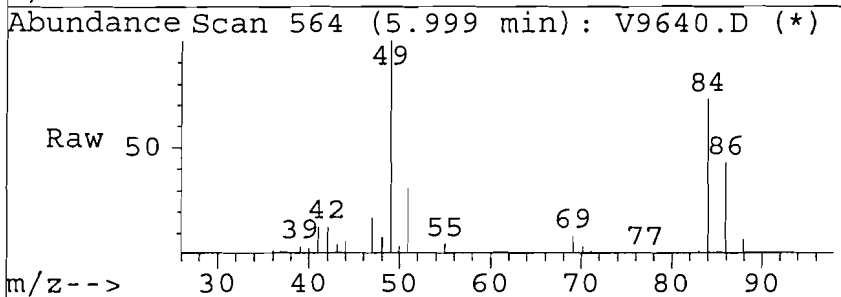
#8
Acetone
Concen: 6.35 ug/L
RT: 5.11 min Scan# 467
Delta R.T. 0.01 min
Lab File: V9640.D
Acq: 28 Oct 99 7:16 pm

Tgt Ion:43	Resp:	64144
Ion Ratio	Lower	Upper
43 100		
58 29.8	16.3	48.8
0 0.0	0.0	0.0
0 0.0	0.0	0.0

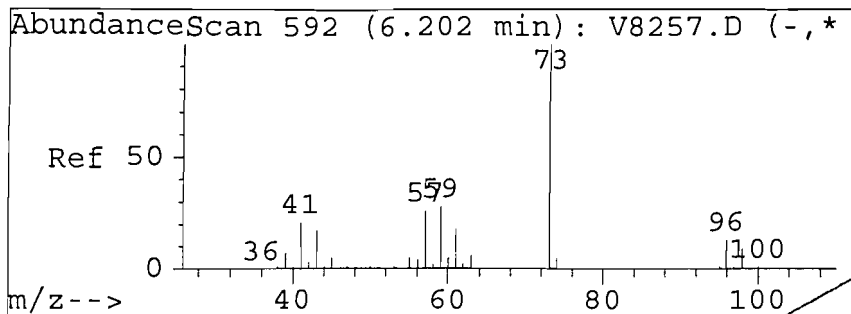


#10
Methylene Chloride
Concen: 6.48 ug/L
RT: 6.00 min Scan# 564
Delta R.T. 0.01 min
Lab File: V9640.D
Acq: 28 Oct 99 7:16 pm

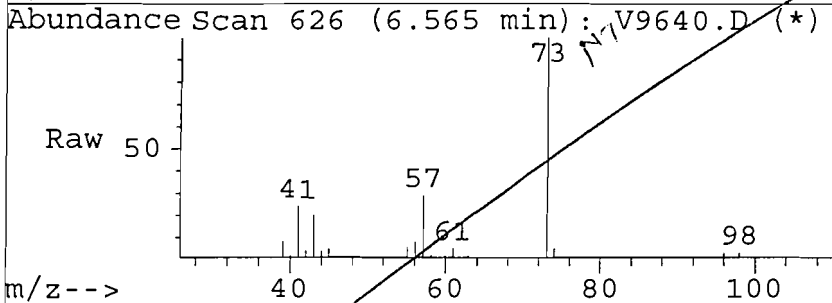
Tgt Ion:84	Resp:	267971
Ion Ratio	Lower	Upper
84 100		
49 136.7	67.5	202.6
86 59.0	30.8	92.4
0 0.0	0.0	0.0



000134

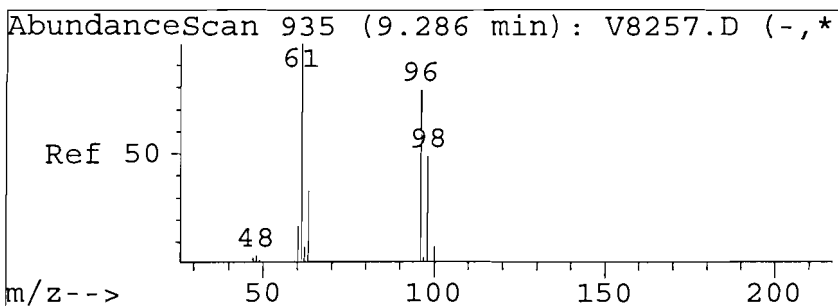
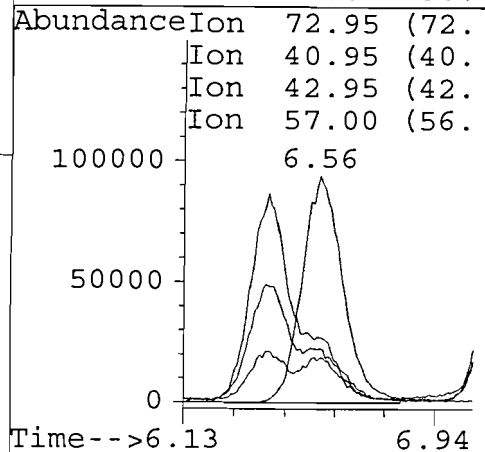
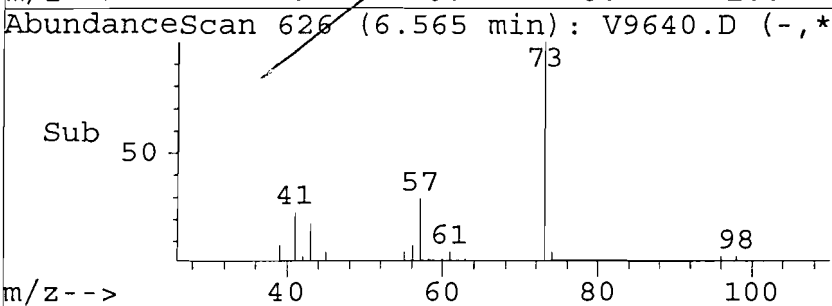


#13
MTBE
Concen: 6.81 ug/L
RT: 6.56 min Scan# 626
Delta R.T. 0.02 min
Lab File: V9640.D
Acq: 28 Oct 99 7:16 pm

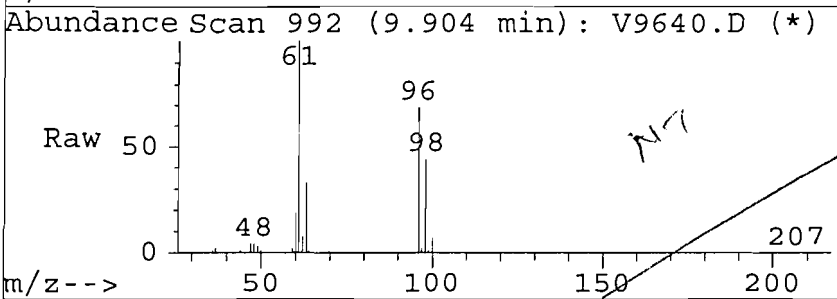


Tgt Ion: 72.95 Resp: 863372

Ion	Ratio	Lower	Upper
73	100		
41	23.9	11.4	34.2
43	19.7	10.0	30.0
57	28.7	20.0	30.0

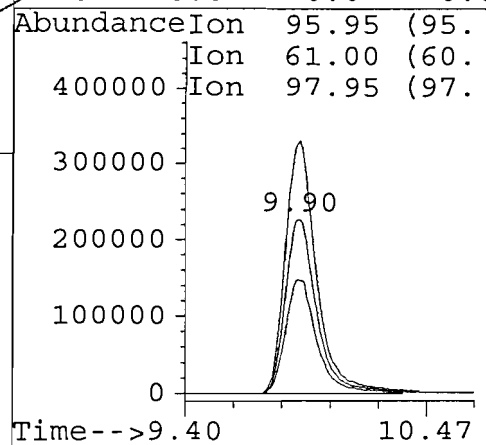
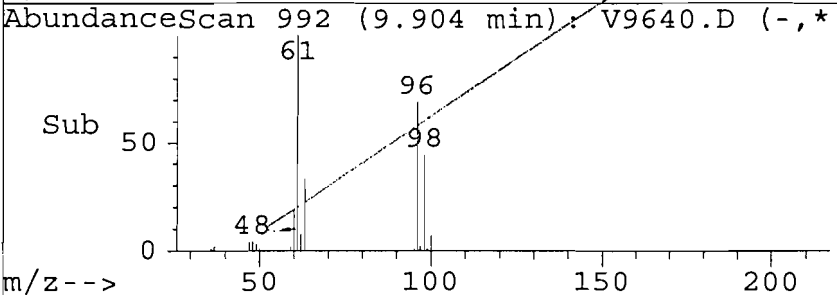


#15
cis-1,2-Dichloroethene
Concen: 46.03 ug/L
RT: 9.90 min Scan# 992
Delta R.T. 0.01 min
Lab File: V9640.D
Acq: 28 Oct 99 7:16 pm



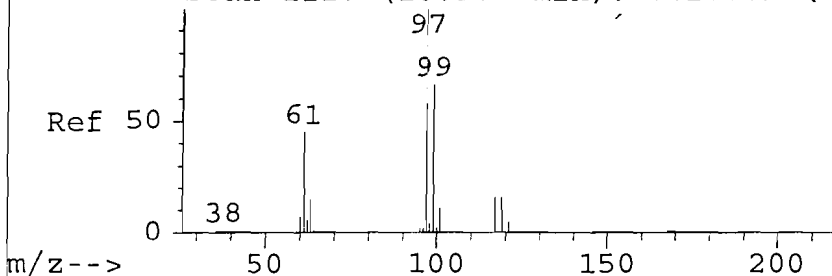
Tgt Ion: 95.95 Resp: 2158105

Ion	Ratio	Lower	Upper
96	100		
61	145.7	71.3	213.9
98	64.4	32.5	97.5
0	0.0	0.0	0.0



000135

AbundanceScan 1117 (10.946 min): V8257.D (-



#22

1,1,1-Trichloroethane

Concen: 2.75 ug/L

RT: 11.57 min Scan# 1174

Delta R.T. 0.03 min

Lab File: V9640.D

Acq: 28 Oct 99 7:16 pm

Tgt Ion:97 Resp: 202620

Ion Ratio Lower Upper

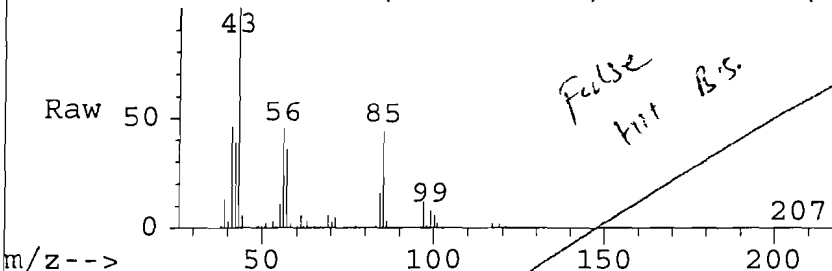
97 100

99 68.6 33.6 100.8

61 50.7 25.3 75.8

0 0.0 0.0 0.0

AbundanceScan 1174 (11.567 min): V9640.D (*)



AbundanceIon 97.00 (96.

Ion 99.00 (98.

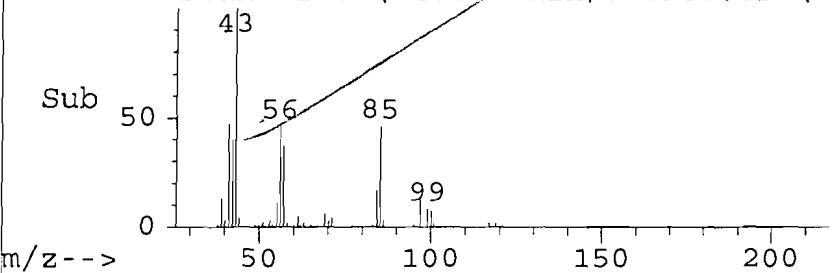
Ion 61.00 (60.

20000 11.57

10000

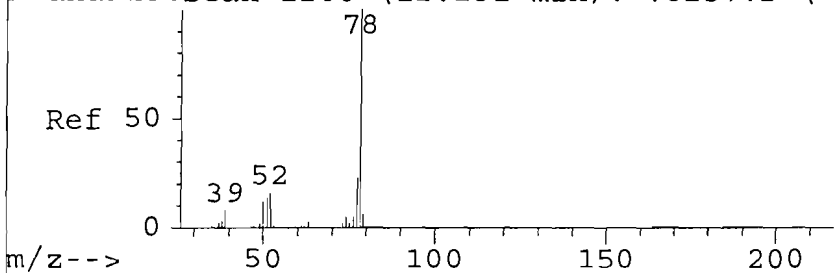
0

AbundanceScan 1174 (11.567 min): V9640.D (-



Time--> 11.15 11.87

AbundanceScan 1260 (12.251 min): V8257.D (-



#24

Benzene

Concen: 4.63 ug/L

RT: 12.83 min Scan# 1312

Delta R.T. 0.04 min

Lab File: V9640.D

Acq: 28 Oct 99 7:16 pm

Tgt Ion:78 Resp: 724412

Ion Ratio Lower Upper

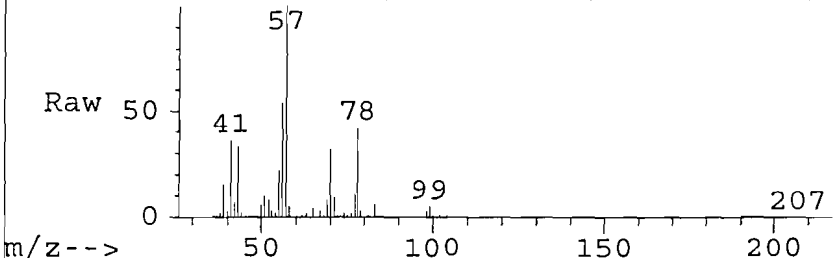
78 100

77 26.3 12.2 36.6

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1312 (12.828 min): V9640.D (*)



AbundanceIon 78.00 (77.

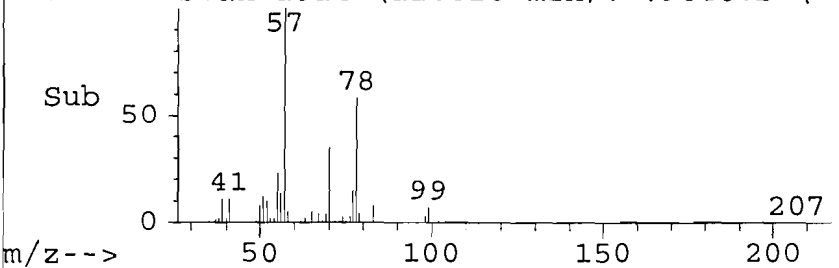
Ion 77.00 (76.

100000 12.83

50000

0

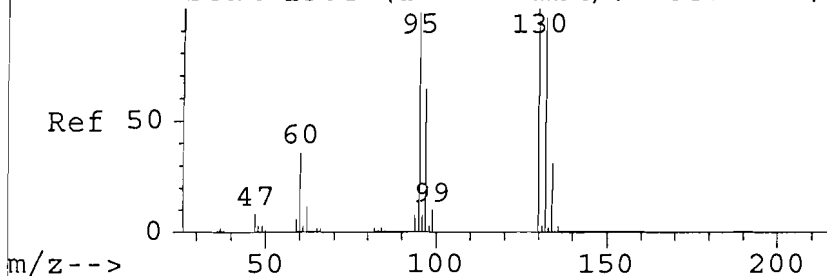
AbundanceScan 1312 (12.828 min): V9640.D (-



Time--> 12.48 13.11

000136

AbundanceScan 1504 (14.479 min): V8257.D (-



#25

Trichloroethene

Concen: 1.46 ug/L

RT: 15.02 min Scan# 1552

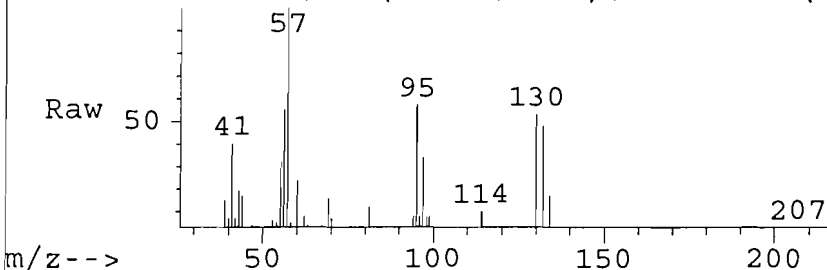
Delta R.T. 0.04 min

Lab File: V9640.D

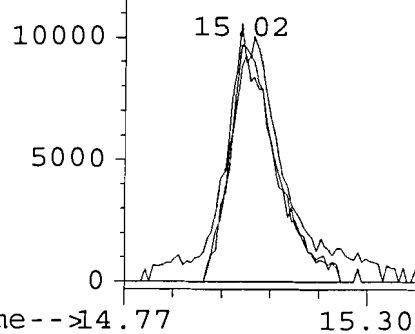
Acq: 28 Oct 99 7:16 pm

Tgt Ion:130	Resp:	70078
Ion Ratio	Lower	Upper
130 100		
132 91.1	46.0	138.0
95 108.9	52.2	156.6
0 0.0	0.0	0.0

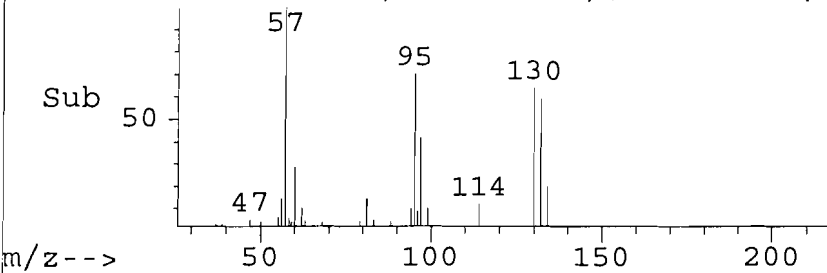
AbundanceScan 1552 (15.025 min): V9640.D (*)



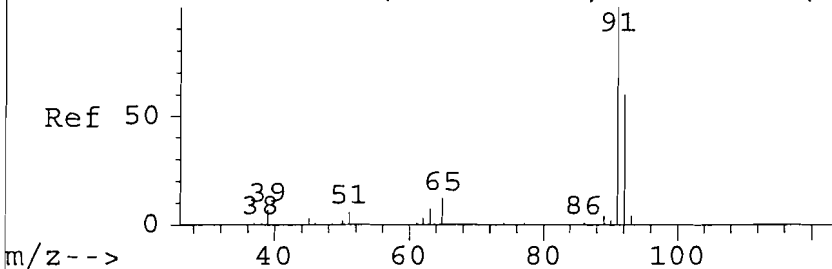
AbundanceIon 130.00 (129
Ion 132.00 (131
Ion 95.00 (94.



AbundanceScan 1552 (15.025 min): V9640.D (-



AbundanceScan 1900 (18.098 min): V8257.D (-



#37

Toluene

Concen: 95.67 ug/L

RT: 18.63 min Scan# 1946

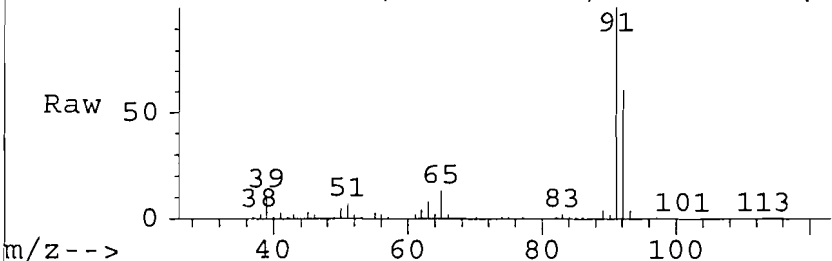
Delta R.T. 0.00 min

Lab File: V9640.D

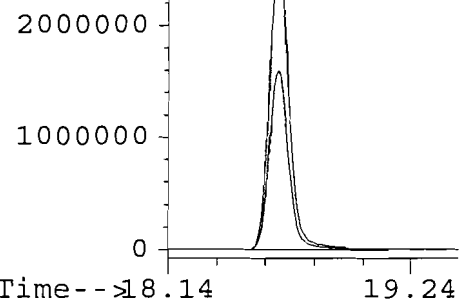
Acq: 28 Oct 99 7:16 pm

Tgt Ion:91	Resp:15877431
Ion Ratio	Lower Upper
91 100	
92 60.8	28.8 86.4
0 0.0	0.0 0.0
0 0.0	0.0 0.0

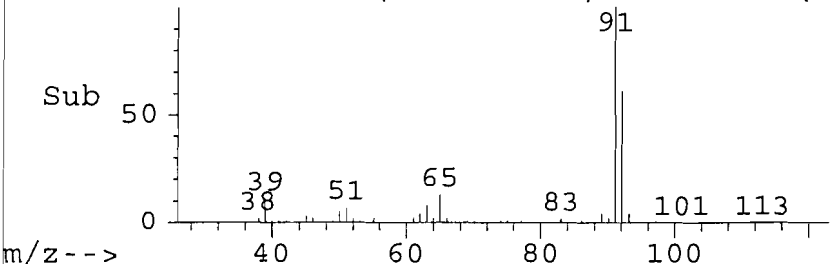
AbundanceScan 1946 (18.634 min): V9640.D (*)



AbundanceIon 91.00 (90.
3000000 Ion 92.00 (91.
18.63

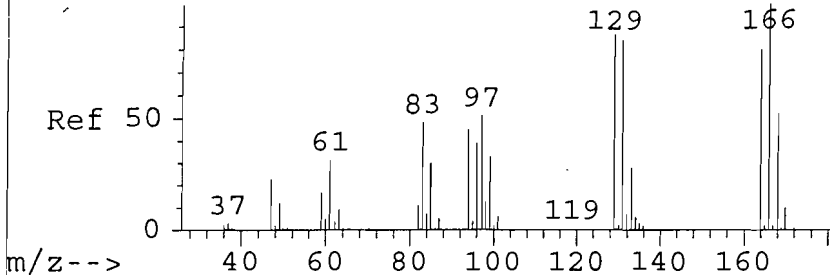


AbundanceScan 1946 (18.634 min): V9640.D (-



000137

AbundanceScan 2050 (19.471 min): V8257.D (-



#38

Tetrachloroethene

Concen: 1.40 ug/L

RT: 20.07 min Scan# 2103

Delta R.T. 0.03 min

Lab File: V9640.D

Acq: 28 Oct 99 7:16 pm

Tgt Ion:166 Resp: 63002

Ion Ratio Lower Upper

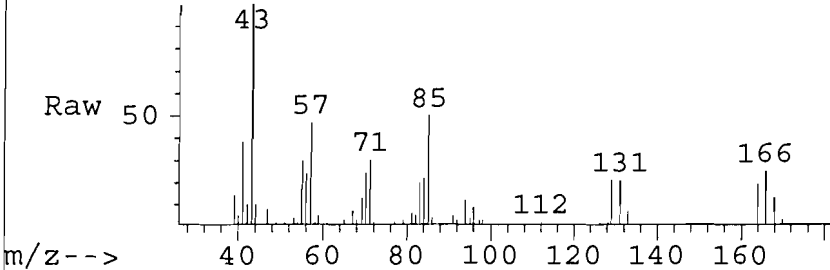
166 100

164 73.2 39.2 117.6

168 49.2 24.0 72.0

0 0.0 0.0 0.0

AbundanceScan 2103 (20.070 min): V9640.D (*)



AbundanceIon 166.00 (165

Ion 164.00 (163

Ion 168.00 (167

20.07

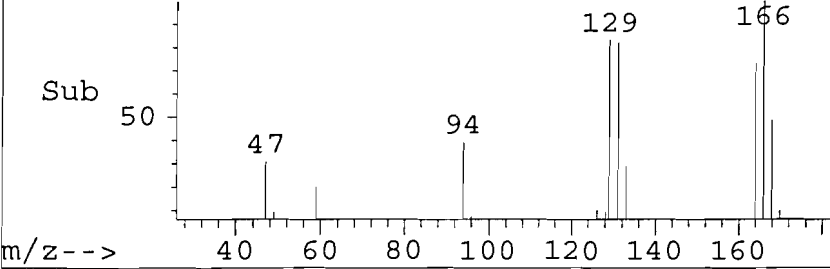
10000

5000

0

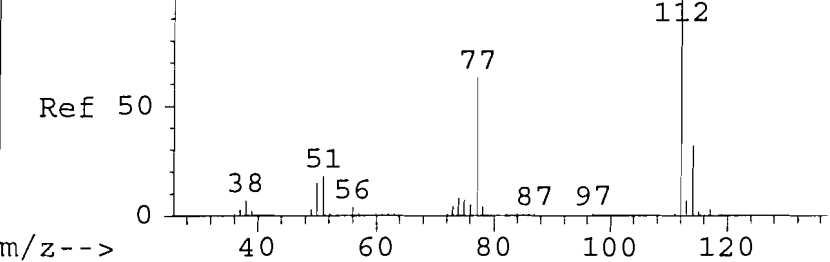
Time-->19.85 20.26

AbundanceScan 2103 (20.070 min): V9640.D (-



m/z-->

AbundanceScan 2305 (21.785 min): V8257.D (-



#40

Chlorobenzene

Concen: 1.42 ug/L

RT: 22.46 min Scan# 2364

Delta R.T. 0.03 min

Lab File: V9640.D

Acq: 28 Oct 99 7:16 pm

Tgt Ion:112 Resp: 155618

Ion Ratio Lower Upper

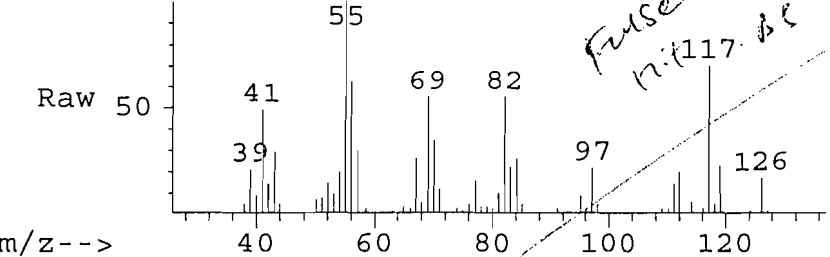
112 100

114 27.3 16.1 48.2

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 2364 (22.464 min): V9640.D (*)



AbundanceIon 112.00 (111

Ion 114.00 (113

22.46

20000

15000

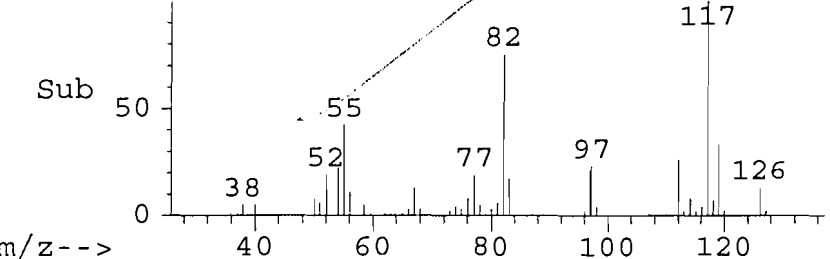
10000

5000

0

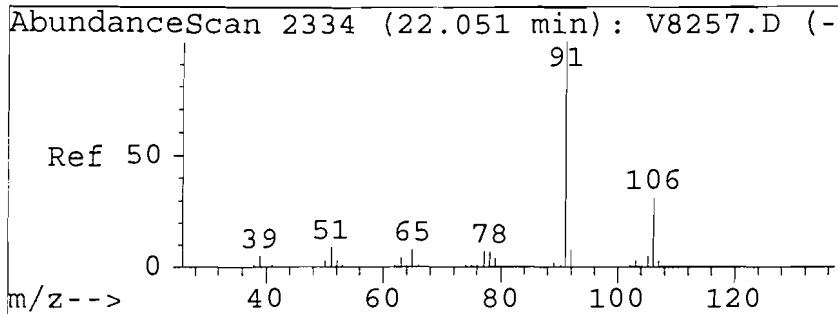
Time-->22.15 22.70

AbundanceScan 2364 (22.464 min): V9640.D (-

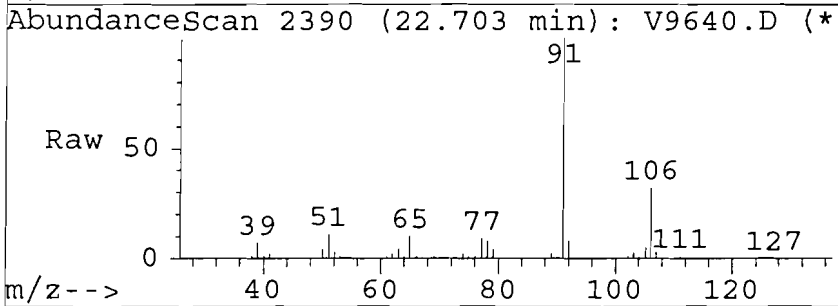


m/z-->

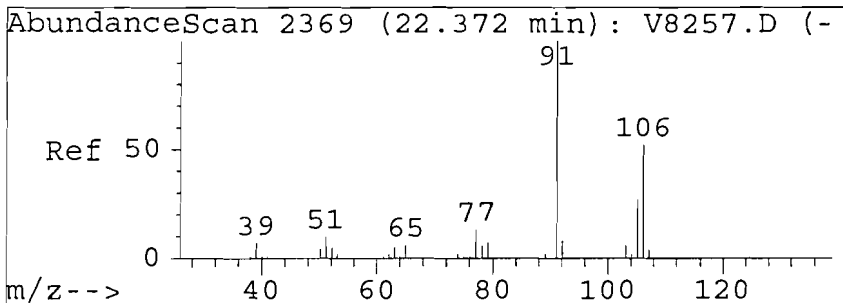
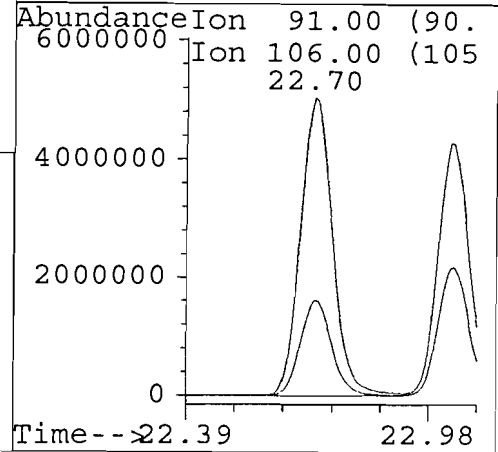
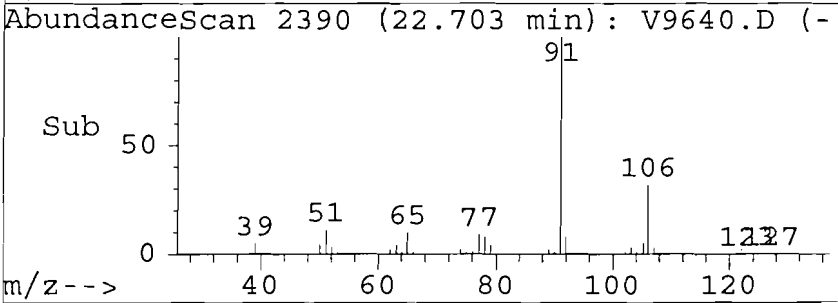
000138



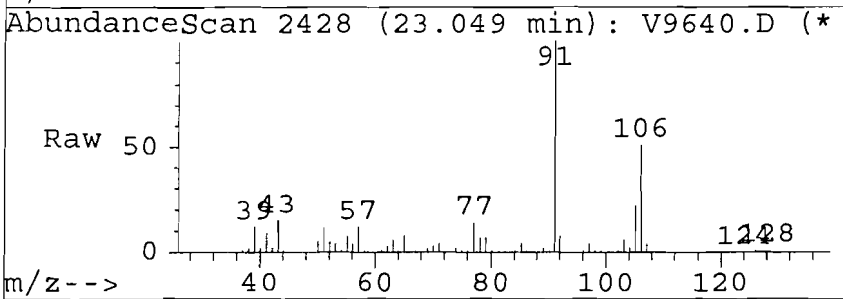
#41
Ethylbenzene
Concen: 131.73 ug/L
RT: 22.70 min Scan# 2390
Delta R.T. 0.00 min
Lab File: V9640.D
Acq: 28 Oct 99 7:16 pm



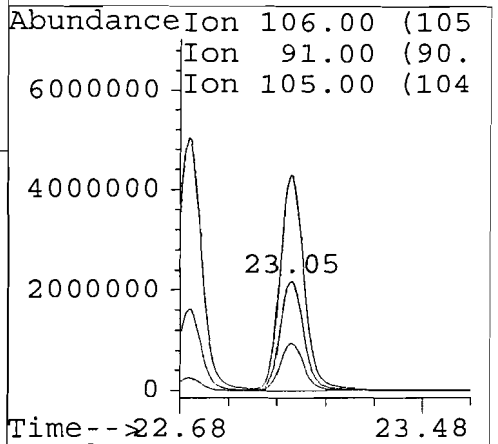
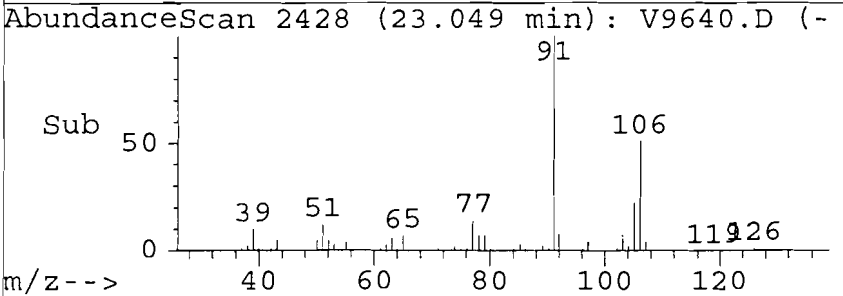
Tgt Ion:91 Resp:27379158
Ion Ratio Lower Upper
91 100
106 32.1 15.2 45.7
0 0.0 0.0 0.0
0 0.0 0.0 0.0



#42
m+ p-Xylenes
Concen: 160.19 ug/L
RT: 23.05 min Scan# 2428
Delta R.T. 0.02 min
Lab File: V9640.D
Acq: 28 Oct 99 7:16 pm

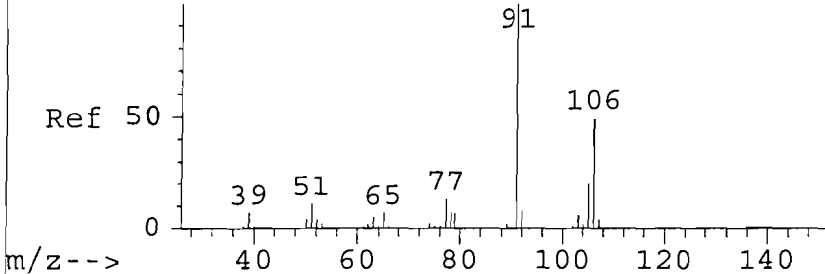


Tgt Ion:106 Resp:11942434
Ion Ratio Lower Upper
106 100
91 196.3 100.8 302.4
105 43.3 22.3 66.9
0 0.0 0.0 0.0



000139

AbundanceScan 2476 (23.350 min): V8257.D (-



#43

o-xylene

Concen: 148.02 ug/L

RT: 24.07 min Scan# 2539

Delta R.T. 0.01 min

Lab File: V9640.D

Acq: 28 Oct 99 7:16 pm

Tgt Ion:91 Resp:23665728

Ion Ratio Lower Upper

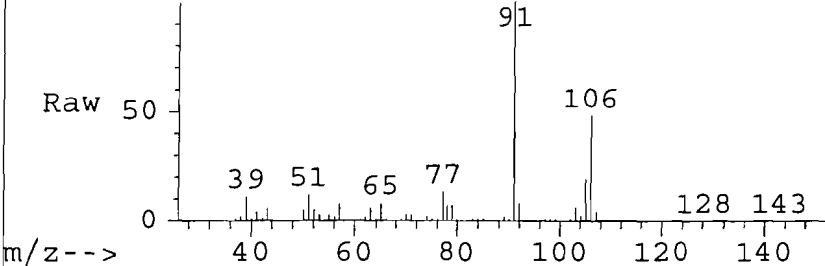
91 100

106 48.4 23.0 69.0

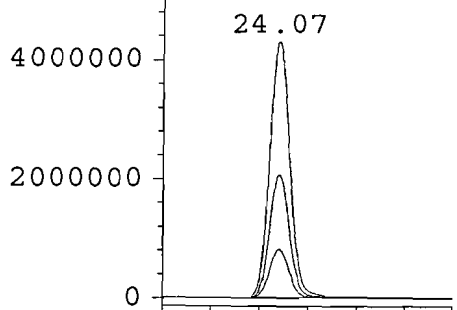
105 19.0 9.2 27.6

0 0.0 0.0 0.0

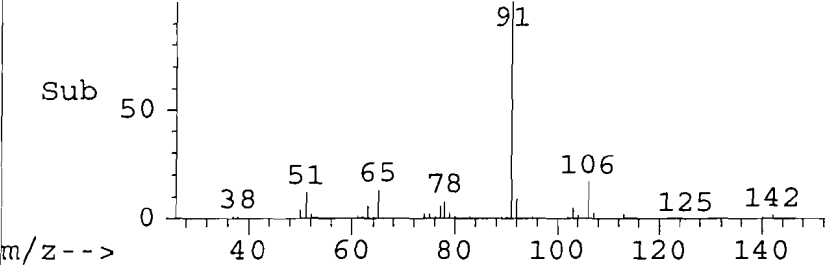
AbundanceScan 2539 (24.070 min): V9640.D (*)



AbundanceIon 91.00 (90.
6000000 Ion 106.00 (105
Ion 105.00 (104

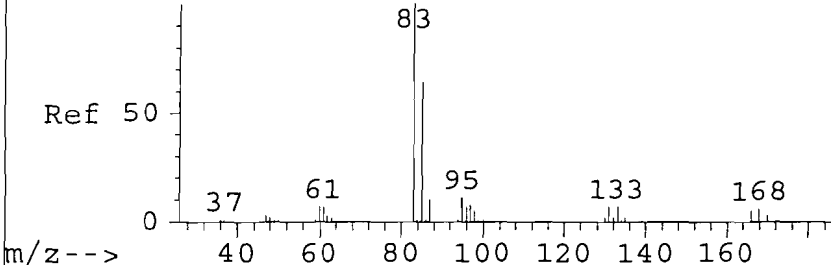


AbundanceScan 2539 (24.070 min): V9640.D (-



Time-->23.61 24.56

AbundanceScan 2683 (25.245 min): V8257.D (-



#46

1,1,2,2-Tetrachloroethane

Concen: 11.48 ug/L

RT: 25.69 min Scan# 2715

Delta R.T. -0.35 min

Lab File: V9640.D

Acq: 28 Oct 99 7:16 pm

Tgt Ion:83 Resp: 860650

Ion Ratio Lower Upper

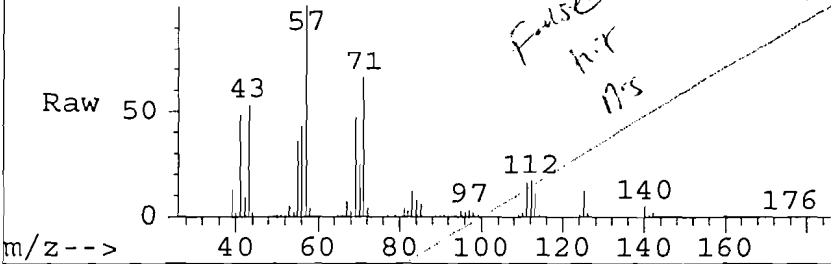
83 100

85 49.0 31.3 93.9

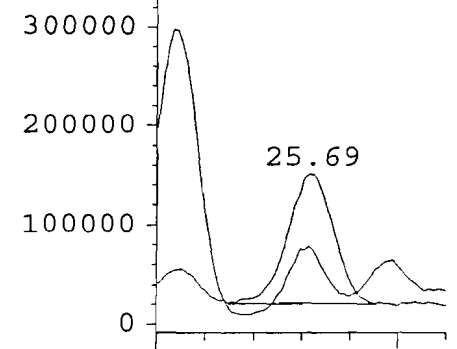
0 0.0 0.0 0.0

0 0.0 0.0 0.0

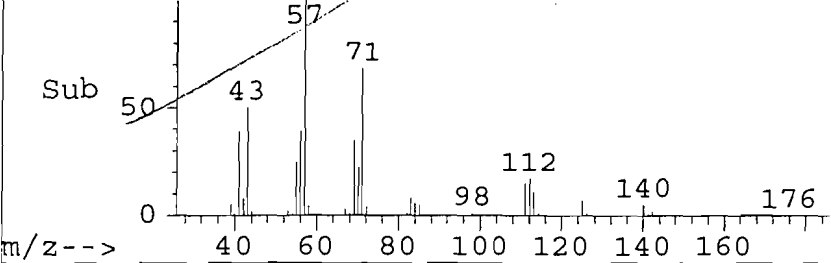
AbundanceScan 2715 (25.685 min): V9640.D (*)



AbundanceIon 83.00 (82.
300000 Ion 85.00 (84.



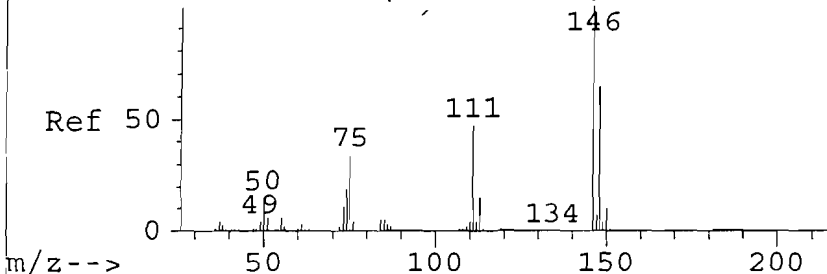
AbundanceScan 2715 (25.685 min): V9640.D (-



Time-->25.36 25.86

000140

AbundanceScan 3043 (28.534 min): V8257.D (-



#49

1,2-Dichlorobenzene

Concen: 37.32 ug/L

RT: 29.49 min Scan# 3125

Delta R.T. 0.02 min

Lab File: V9640.D

Acq: 28 Oct 99 7:16 pm

Tgt Ion:146 Resp: 2888757

Ion Ratio Lower Upper

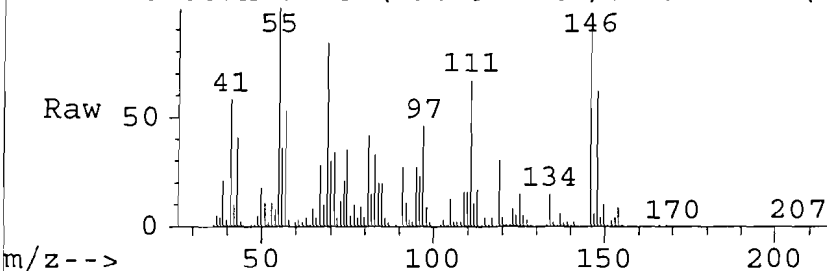
146 100

111 68.6 25.3 75.8

75 36.1 19.9 59.7

148 62.9 38.0 88.6

AbundanceScan 3125 (29.493 min): V9640.D (*)



AbundanceIon 146.00 (145

Ion 111.00 (110

Ion 75.00 (74.

Ion 148.00 (147

29.49

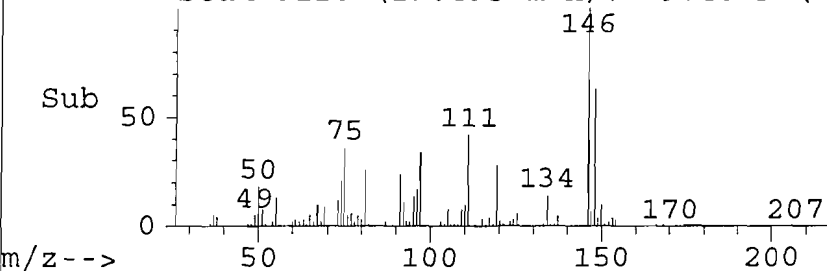
400000

200000

0

Time-->29.14 29.92

AbundanceScan 3125 (29.493 min): V9640.D (-



000141

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

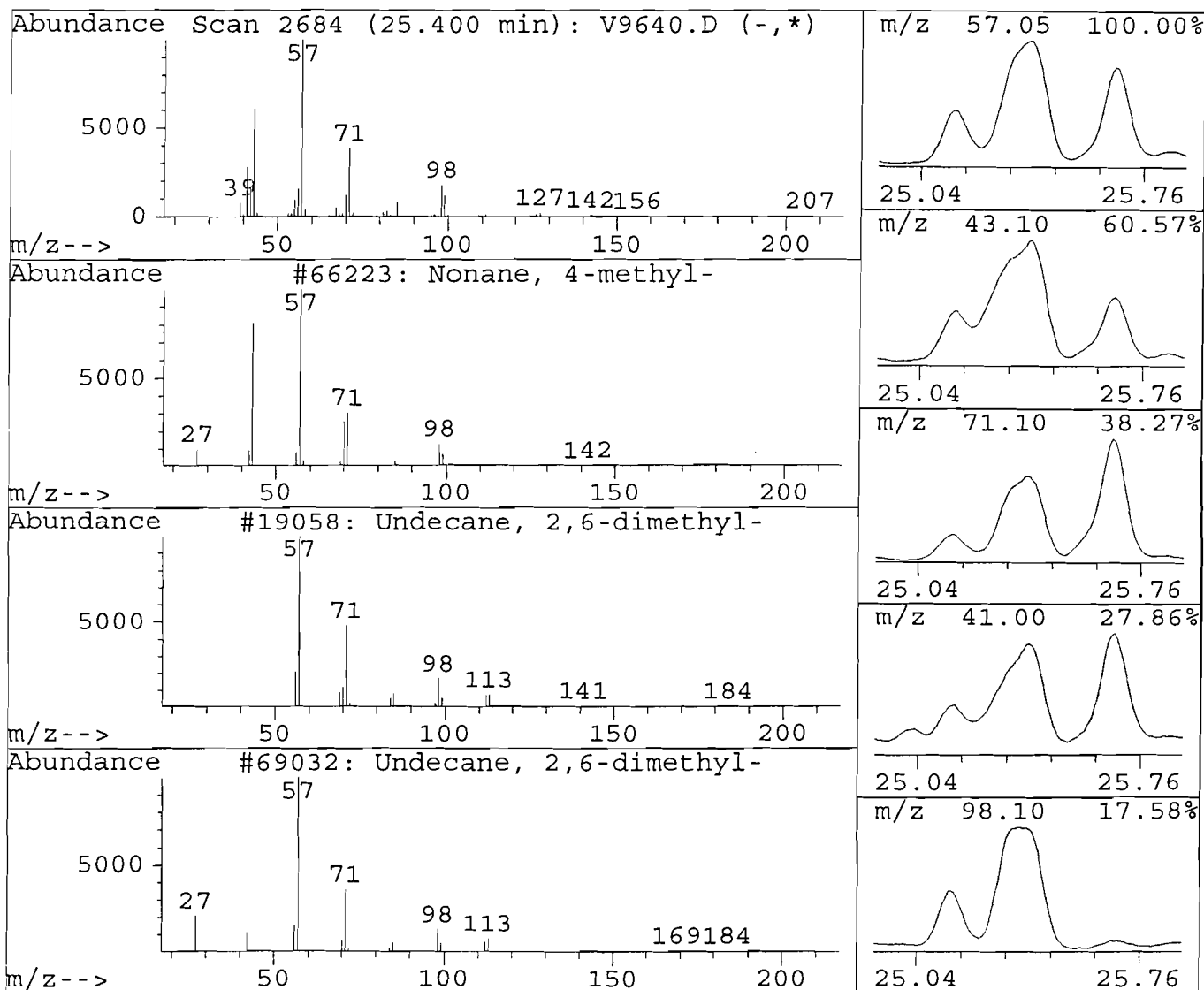
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
25.40	104.80 ug/L	42688234	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Nonane, 4-methyl-		66223	017301-94-9	80
2	Undecane, 2,6-dimethyl-		19058	017301-23-4	78
3	Undecane, 2,6-dimethyl-		69032	017301-23-4	72
4	Octane, 2,5-dimethyl-		8101	015869-89-3	64
5	Undecane, 2,6-dimethyl-		69033	017301-23-4	64



000142

Library Search Compound Report

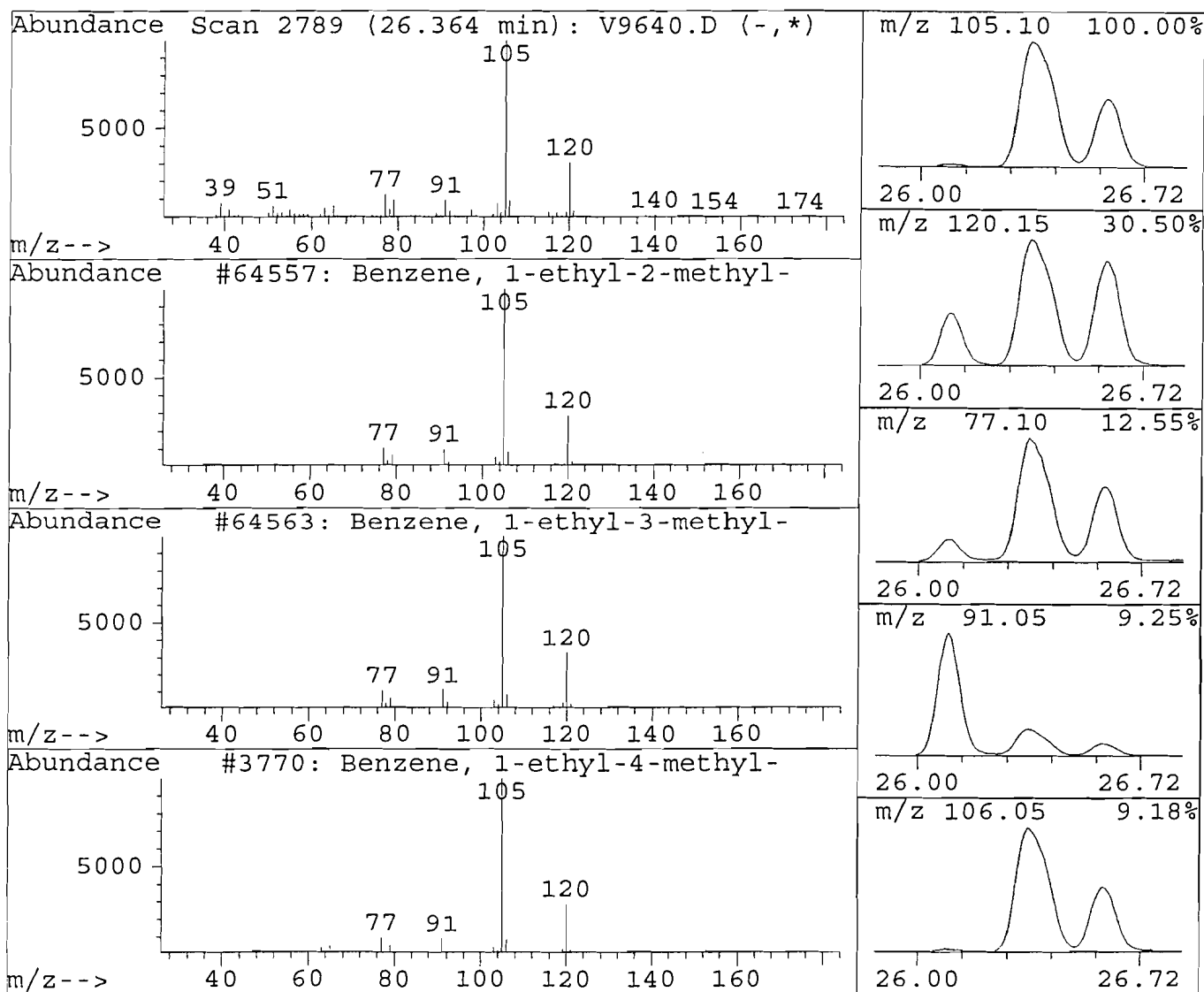
Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D
Acq Time : 28 Oct 99 7:16 pm
Sample : L5320ASP-91756
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.36	271.14 ug/L	110440720	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
2	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	95
3	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	95
4	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	95
5	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	95



000143

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

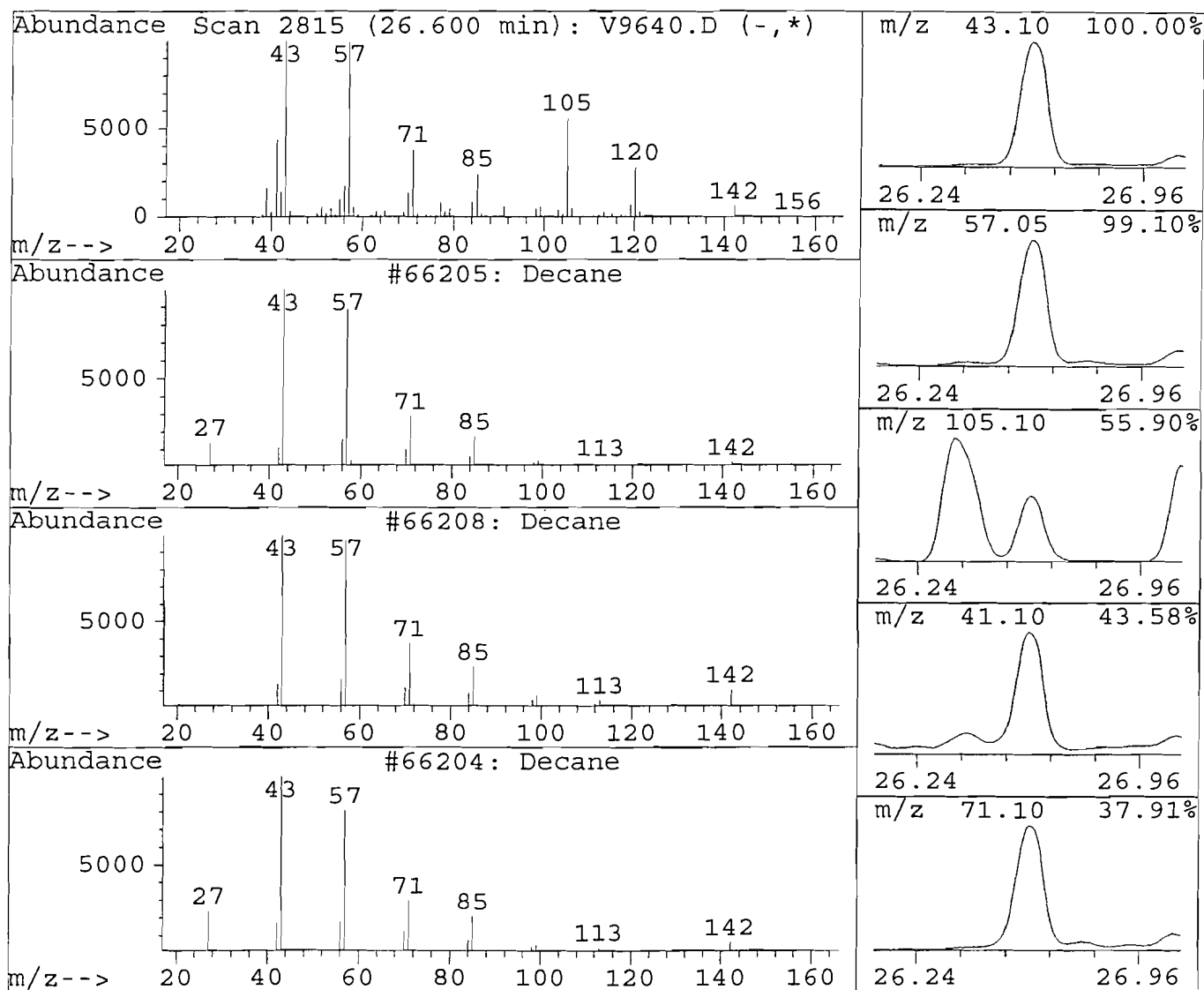
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.60	455.85 ug/L	185675590	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Decane		66205	000124-18-5	91
2	Decane		66208	000124-18-5	90
3	Decane		66204	000124-18-5	90
4	Decane		66206	000124-18-5	60
5	Decane		66207	000124-18-5	50



000144

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

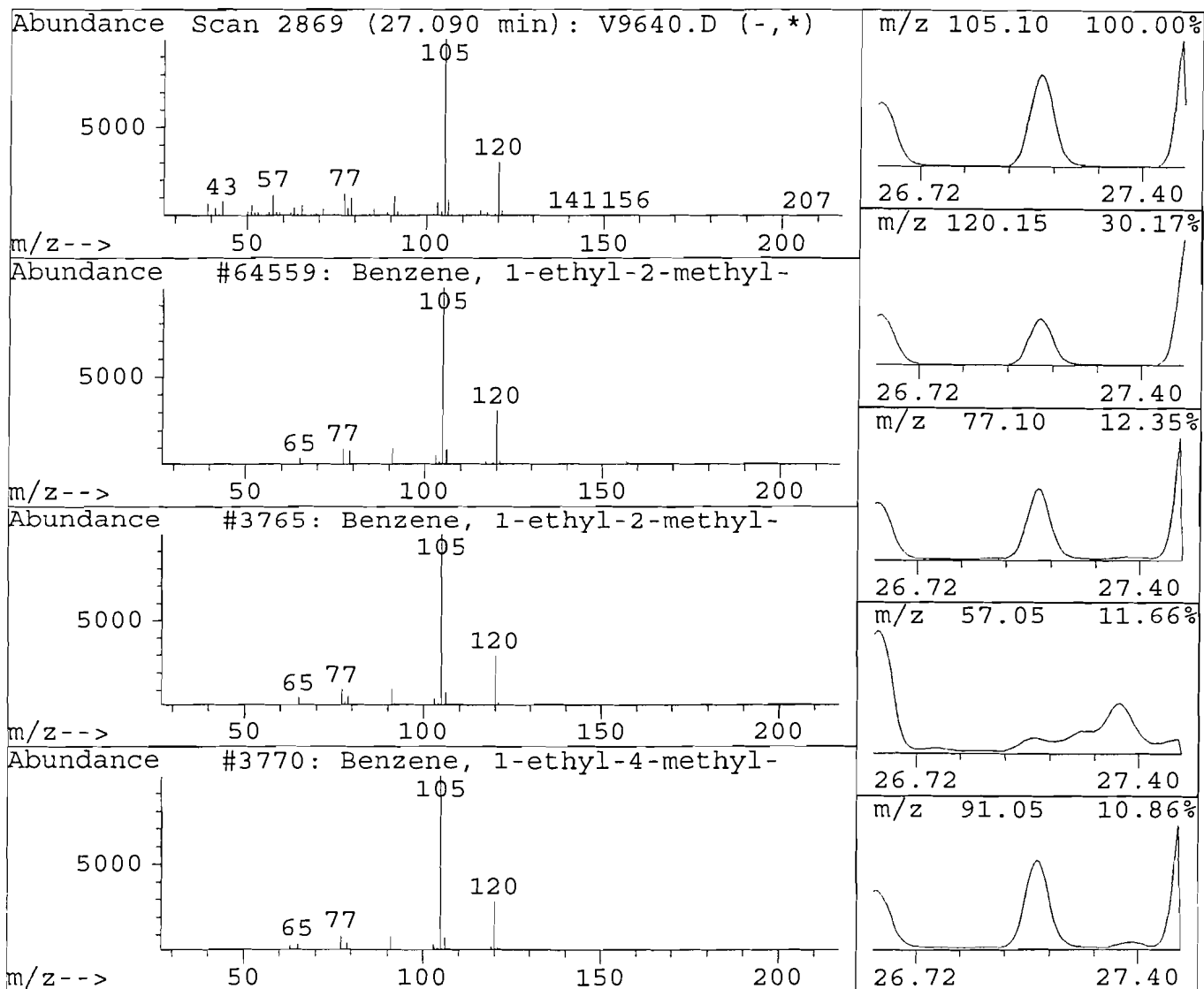
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
27.09	151.73 ug/L	61803749	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-		64559	000611-14-3	93
2	Benzene, 1-ethyl-2-methyl-		3765	000611-14-3	93
3	Benzene, 1-ethyl-4-methyl-		3770	000622-96-8	93
4	Benzene, 1-ethyl-2-methyl-		64557	000611-14-3	87
5	Benzene, 1,2,3-trimethyl-		64573	000526-73-8	87



000145

Library Search Compound Report

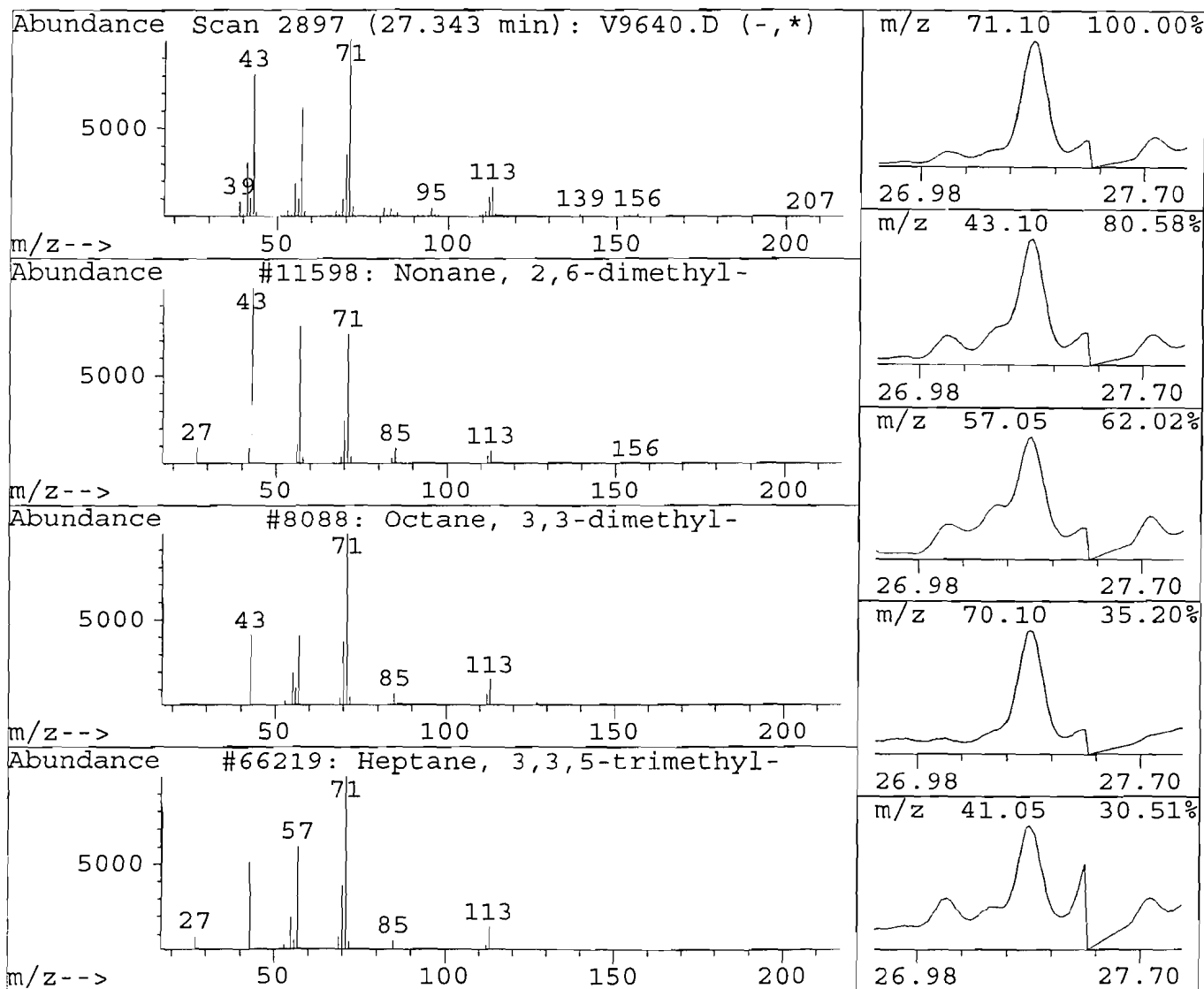
Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D
Acq Time : 28 Oct 99 7:16 pm
Sample : L5320ASP-91756
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.34	117.04 ug/L	47672603	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane, 2,6-dimethyl-	11598	017302-28-2	86
2	Octane, 3,3-dimethyl-	8088	004110-44-5	78
3	Heptane, 3,3,5-trimethyl-	66219	007154-80-5	78
4	Heptane, 3,3,5-trimethyl-	8090	007154-80-5	78
5	Decane, 5-ethyl-5-methyl-	19055	017312-74-2	72



000146

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

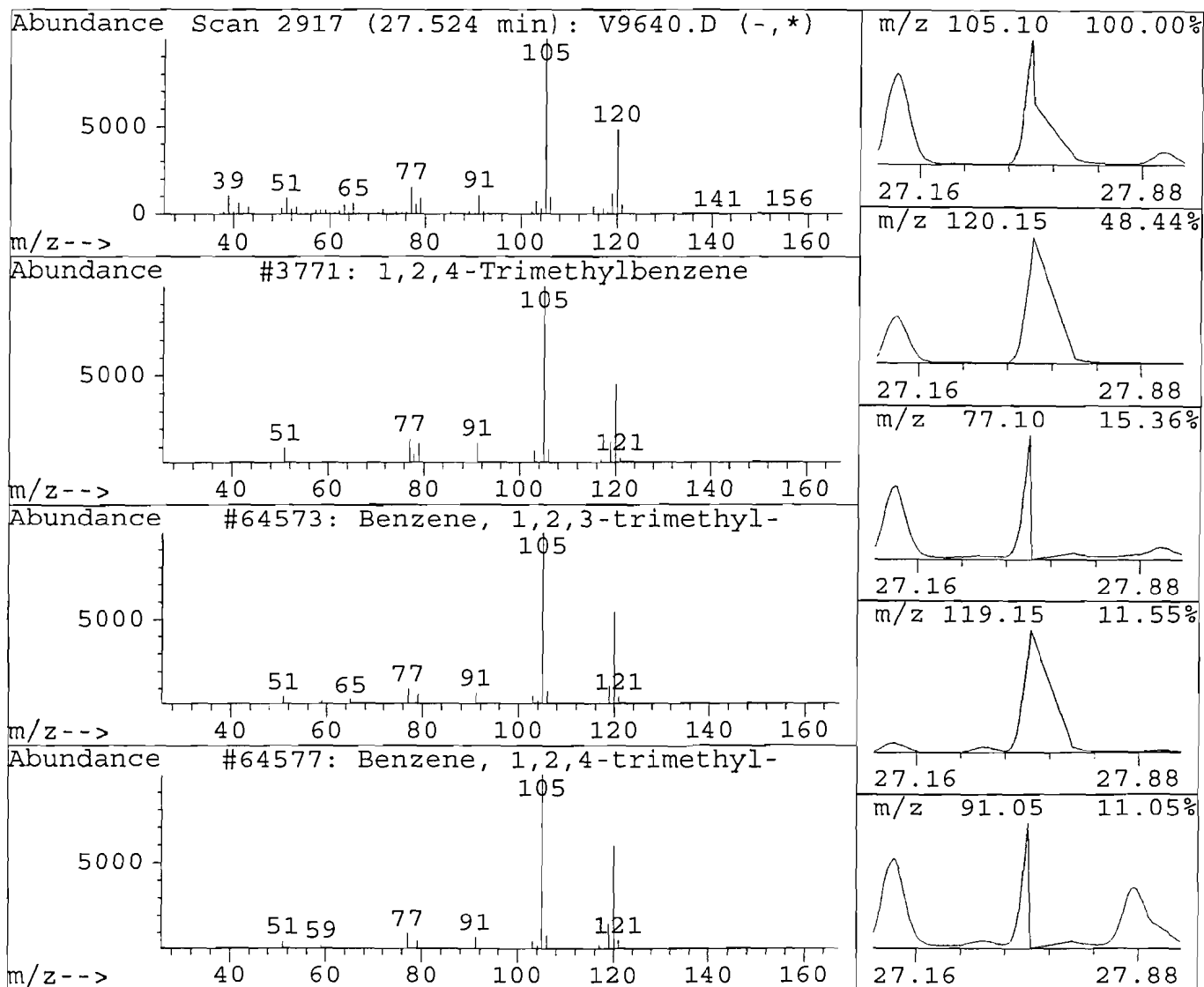
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.52	186.63 ug/L	76016765	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Trimethylbenzene	3771	000095-36-3	96
2	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
3	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	94
4	Benzene, 1,2,4-trimethyl-	64578	000095-63-6	94
5	Benzene, 1,3,5-trimethyl-	64568	000108-67-8	94



000147

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

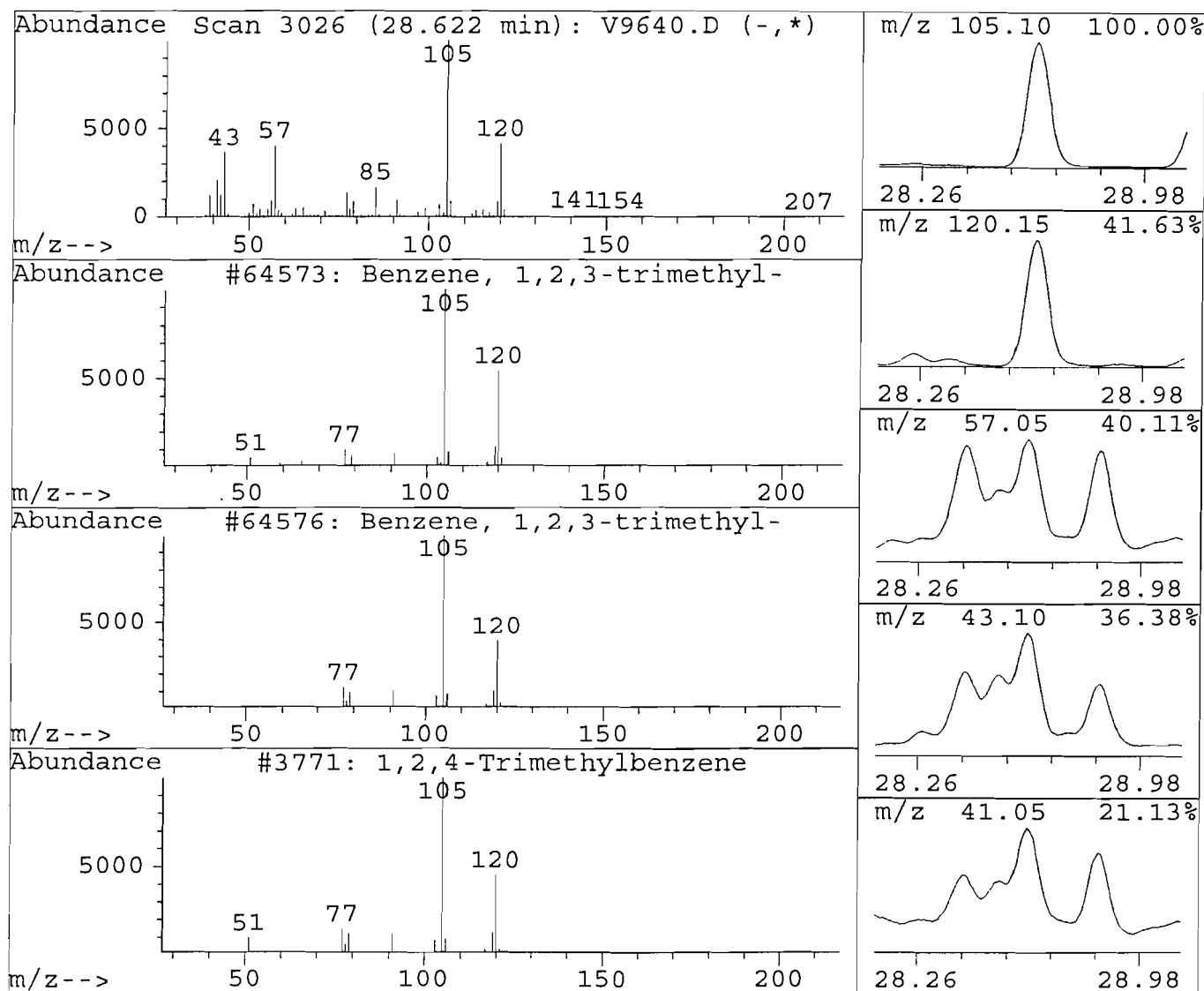
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.62	183.94 ug/L	74923922	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	94
2	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	94
3	1,2,4-Trimethylbenzene	3771	000095-36-3	93
4	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	93
5	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	90



000148

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : SMLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

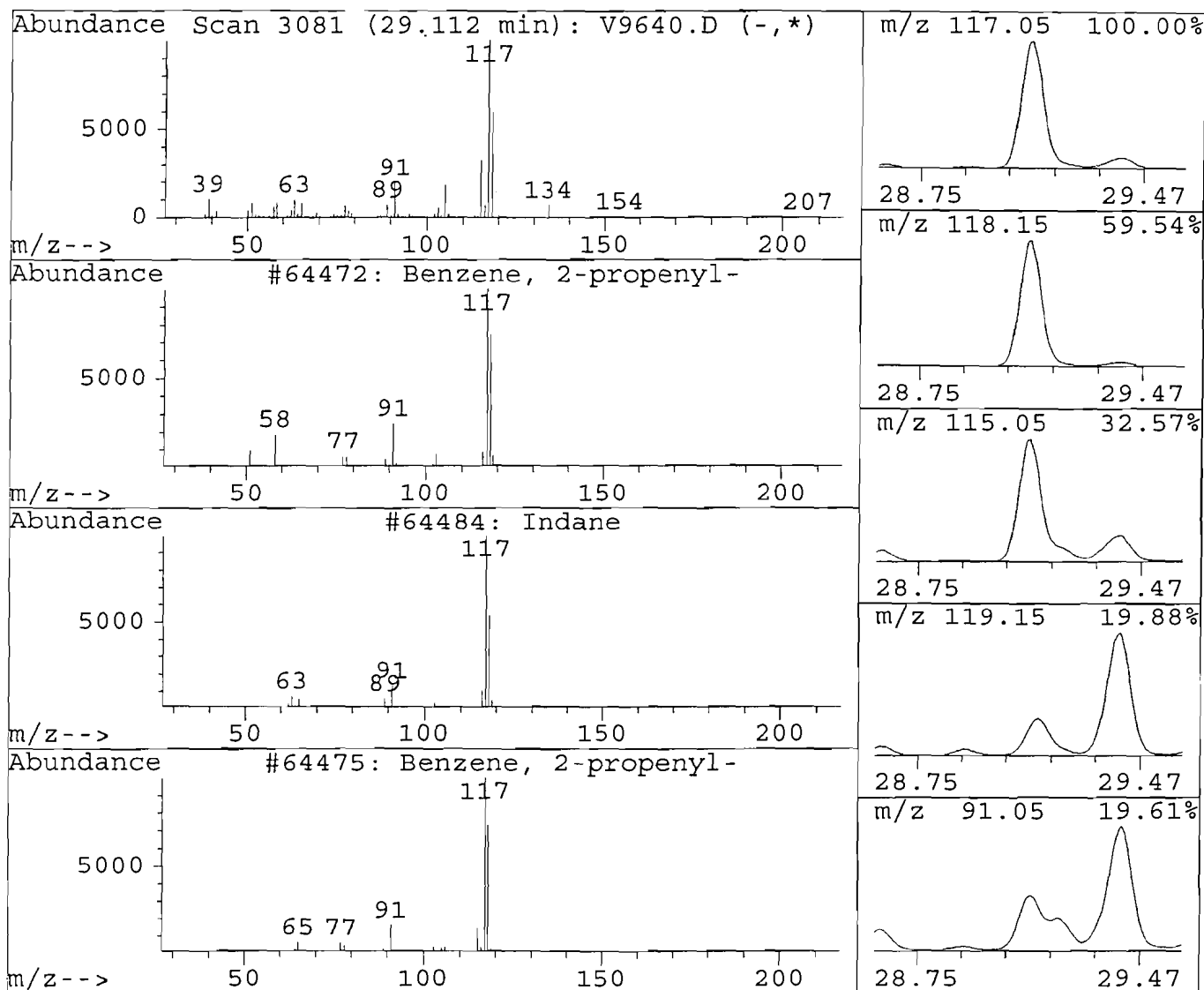
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.11	145.25 ug/L	59164193	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-propenyl-	64472	000300-57-2	70
2	Indane	64484	000496-11-7	70
3	Benzene, 2-propenyl-	64475	000300-57-2	58
4	Indane	64483	000496-11-7	55
5	Benzene, 1-ethenyl-4-methyl-	64480	000622-97-9	55



000149

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

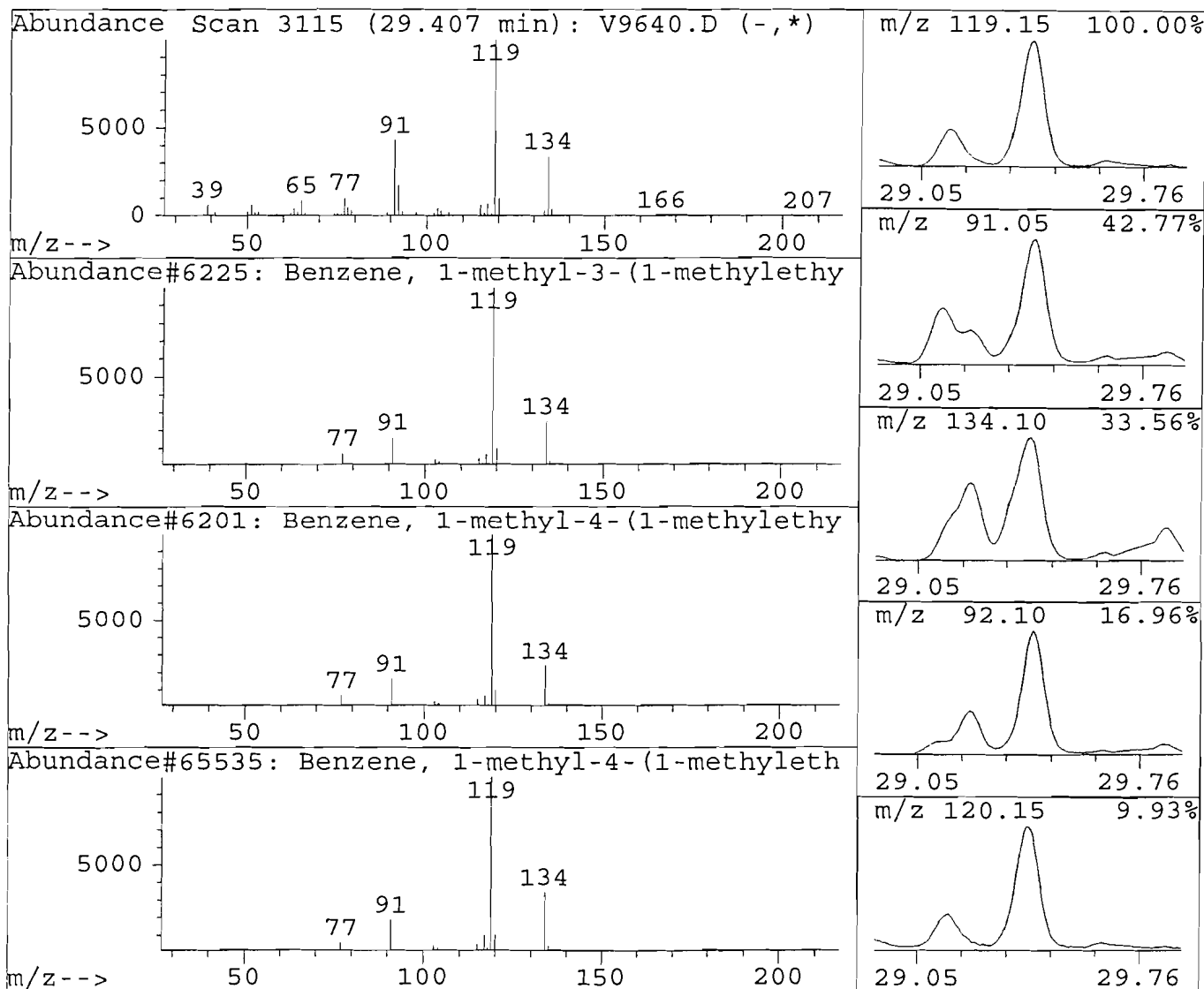
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
29.41	107.40 ug/L	43745803	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)		6225	000535-77-3	90
2	Benzene, 1-methyl-4-(1-methylethyl)		6201	000099-87-6	90
3	Benzene, 1-methyl-4-(1-methylethyl)		65535	000099-87-6	90
4	Benzene, 1-methyl-3-(1-methylethyl)		65579	000535-77-3	87
5	Benzene, 1-ethyl-2,3-dimethyl-		65555	000933-98-2	87



000150

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

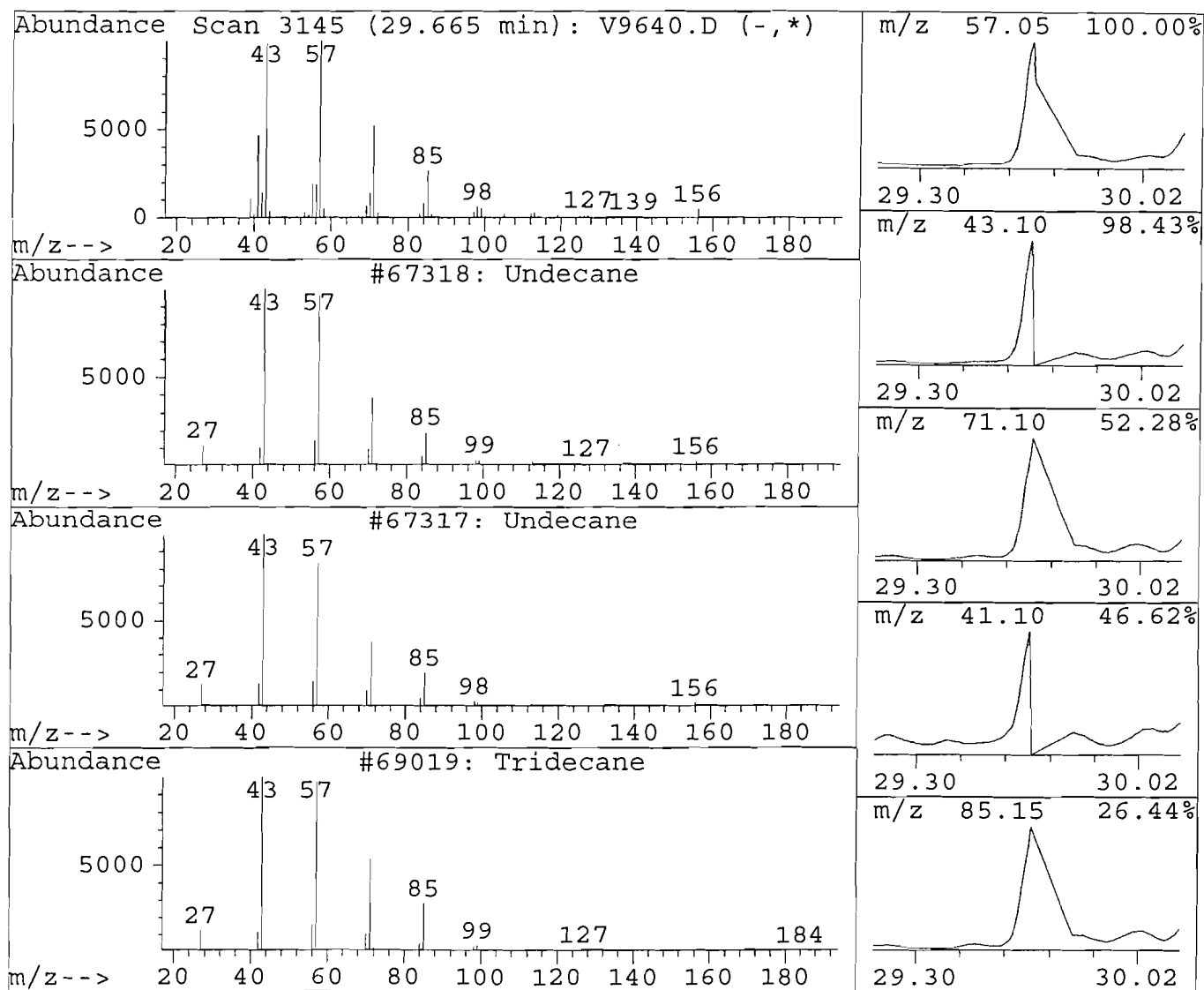
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.66	328.18 ug/L	133673275	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane	67318	001120-21-4	97
2	Undecane	67317	001120-21-4	95
3	Tridecane	69019	000629-50-5	90
4	Hexadecane	70789	000544-76-3	90
5	Undecane	11611	001120-21-4	87



000151

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

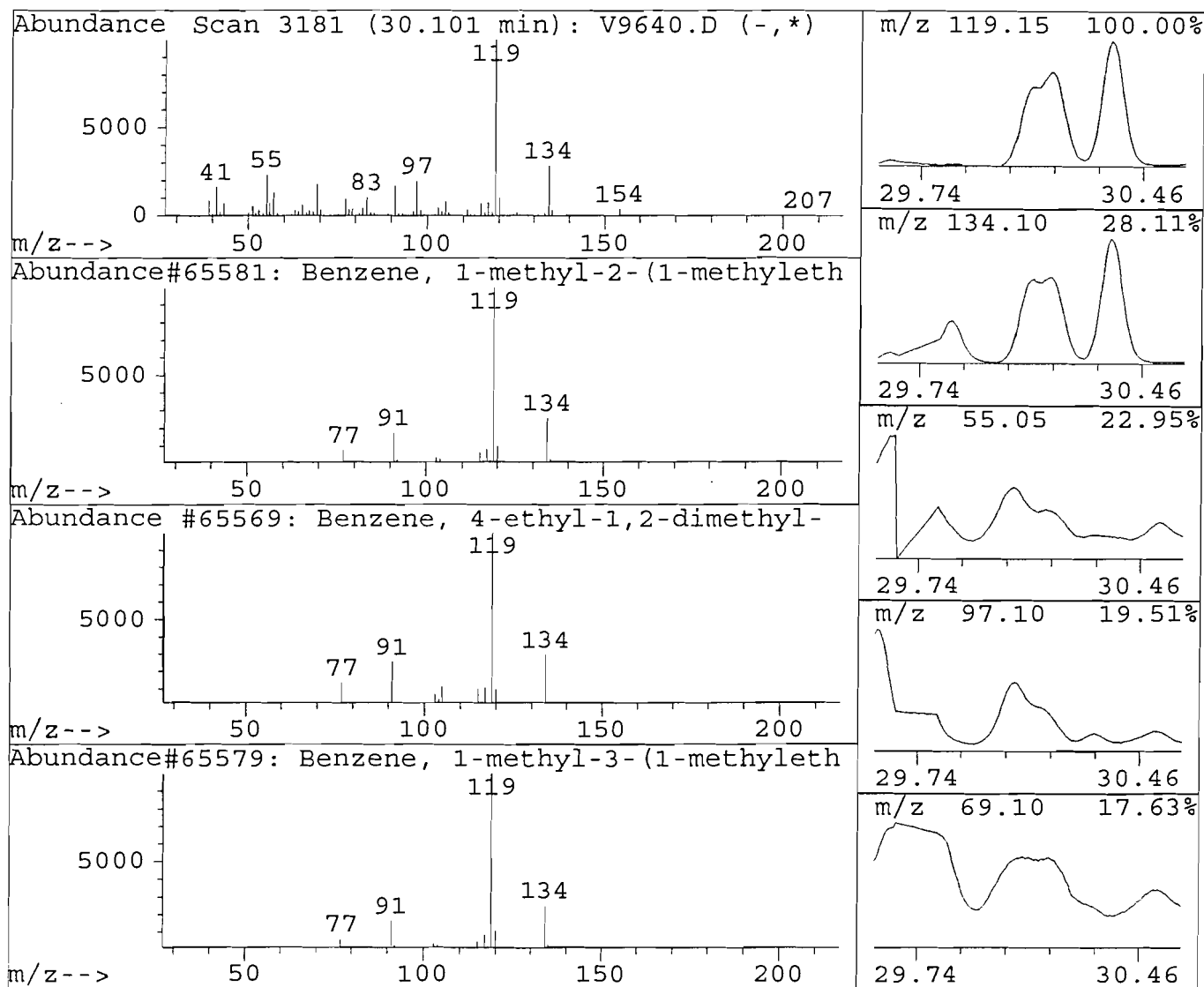
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.10	118.10 ug/L	48105010	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	95
2	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	95
3	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	94
4	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	94
5	Benzene, 1-methyl-4-(1-methylethyl)	65535	000099-87-6	94



000152

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

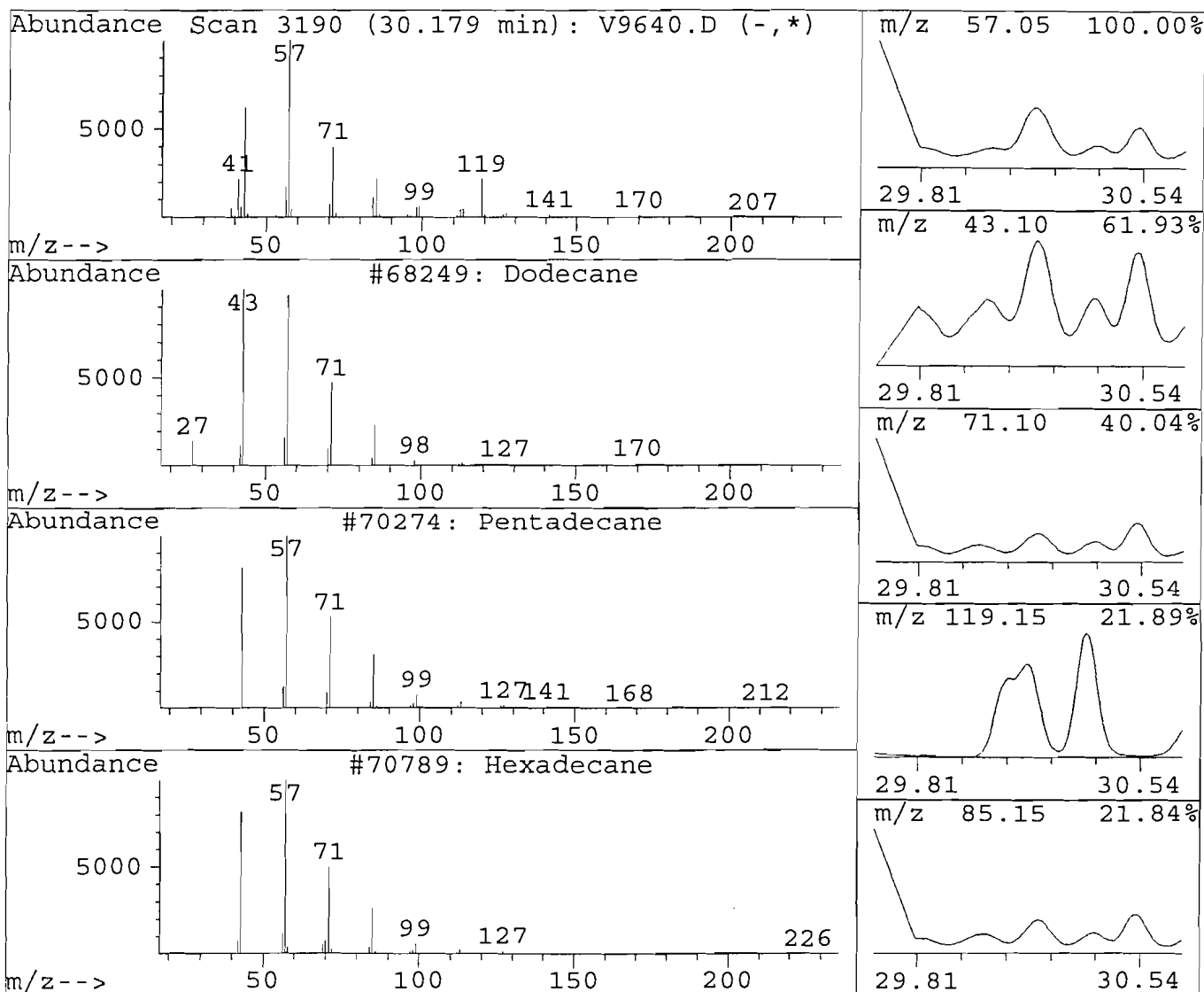
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.18	174.07 ug/L	70901327	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane	68249	000112-40-3	58
2	Pentadecane	70274	000629-62-9	58
3	Hexadecane	70789	000544-76-3	58
4	Hexatriacontane	59136	000630-06-8	53
5	Tetradecane	69657	000629-59-4	53



Library Search Compound Report

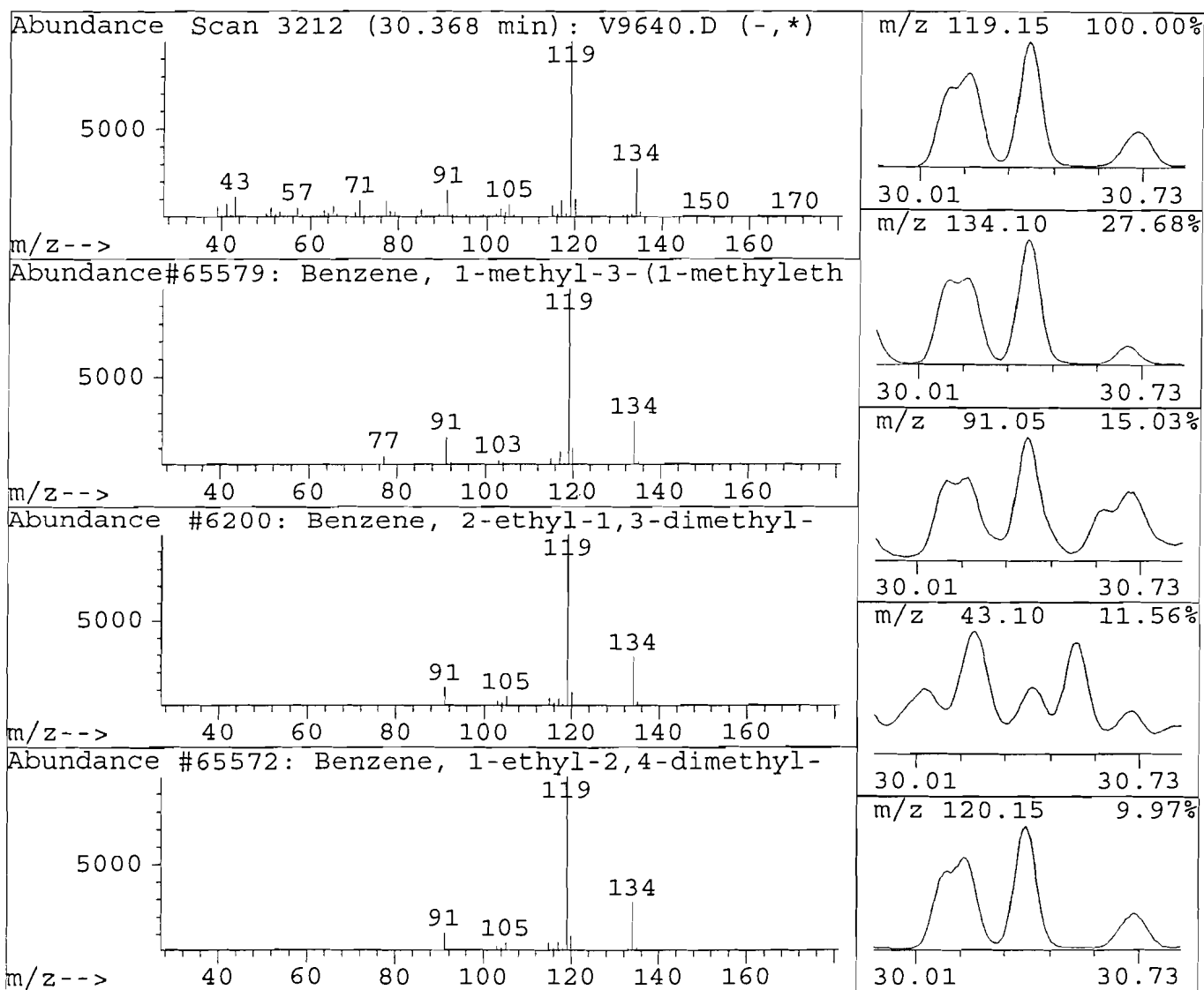
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Acq Time : 28 Oct 99 7:16 pm
Sample : L5320ASP-91756
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.37	122.95 ug/L	50080493	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	94
2	Benzene, 2-ethyl-1,3-dimethyl-	6200	002870-04-4	93
3	Benzene, 1-ethyl-2,4-dimethyl-	65572	000874-41-9	93
4	Benzene, 1-methyl-3-(1-methylethyl)	6225	000535-77-3	93
5	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	91



000154

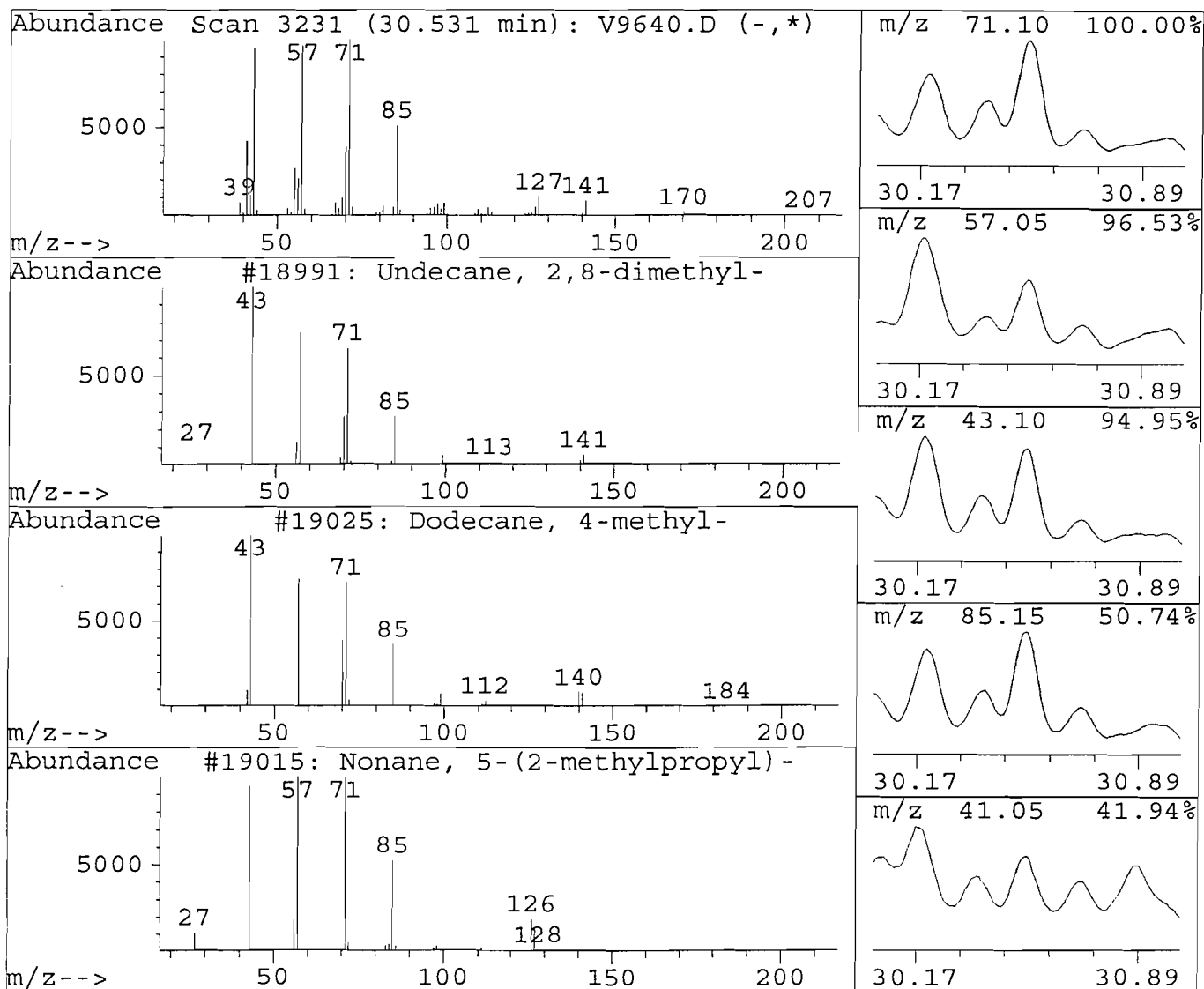
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D
Acq Time : 28 Oct 99 7:16 pm
Sample : L5320ASP-91756
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.53	100.19 ug/L	40807761	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Undecane, 2,8-dimethyl-		18991	017301-25-6	78
2	Dodecane, 4-methyl-		19025	006117-97-1	72
3	Nonane, 5-(2-methylpropyl)-		19015	062185-53-9	64
4	Hexane, 3,3-dimethyl-		64223	000563-16-6	64
5	Undecane, 4,7-dimethyl-		19020	017301-32-5	59



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

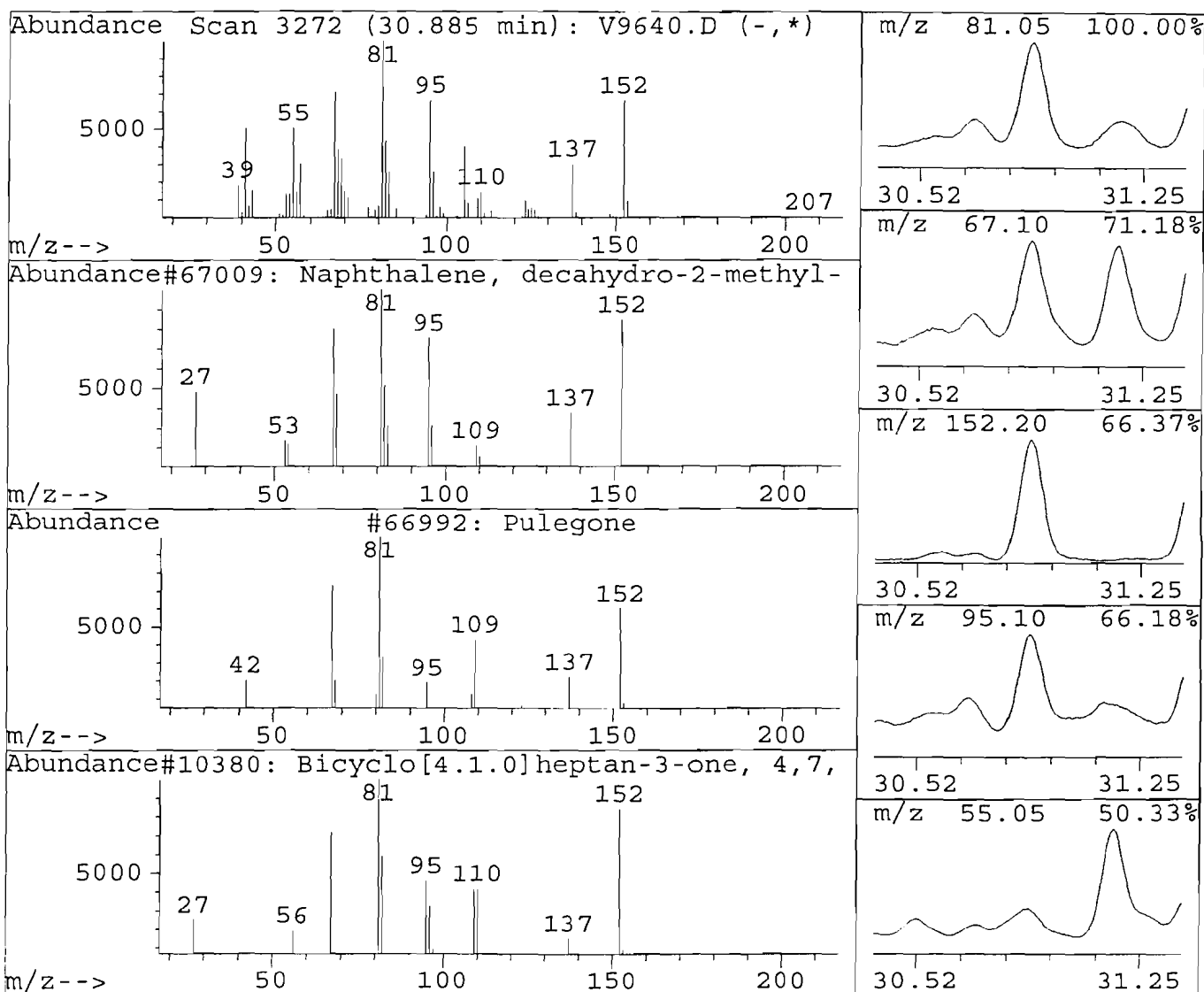
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.88	102.42 ug/L	41716869	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, decahydro-2-methyl-	67009	002958-76-1	94
2	Pulegone	66992	000089-82-7	74
3	Bicyclo[4.1.0]heptan-3-one, 4,7,7-t	10380	004176-04-9	72
4	Bicyclo[4.1.0]heptan-3-one, 4,7,7-t	10361	004176-01-6	72
5	Pulegone	66994	000089-82-7	68



000156

Library Search Compound Report

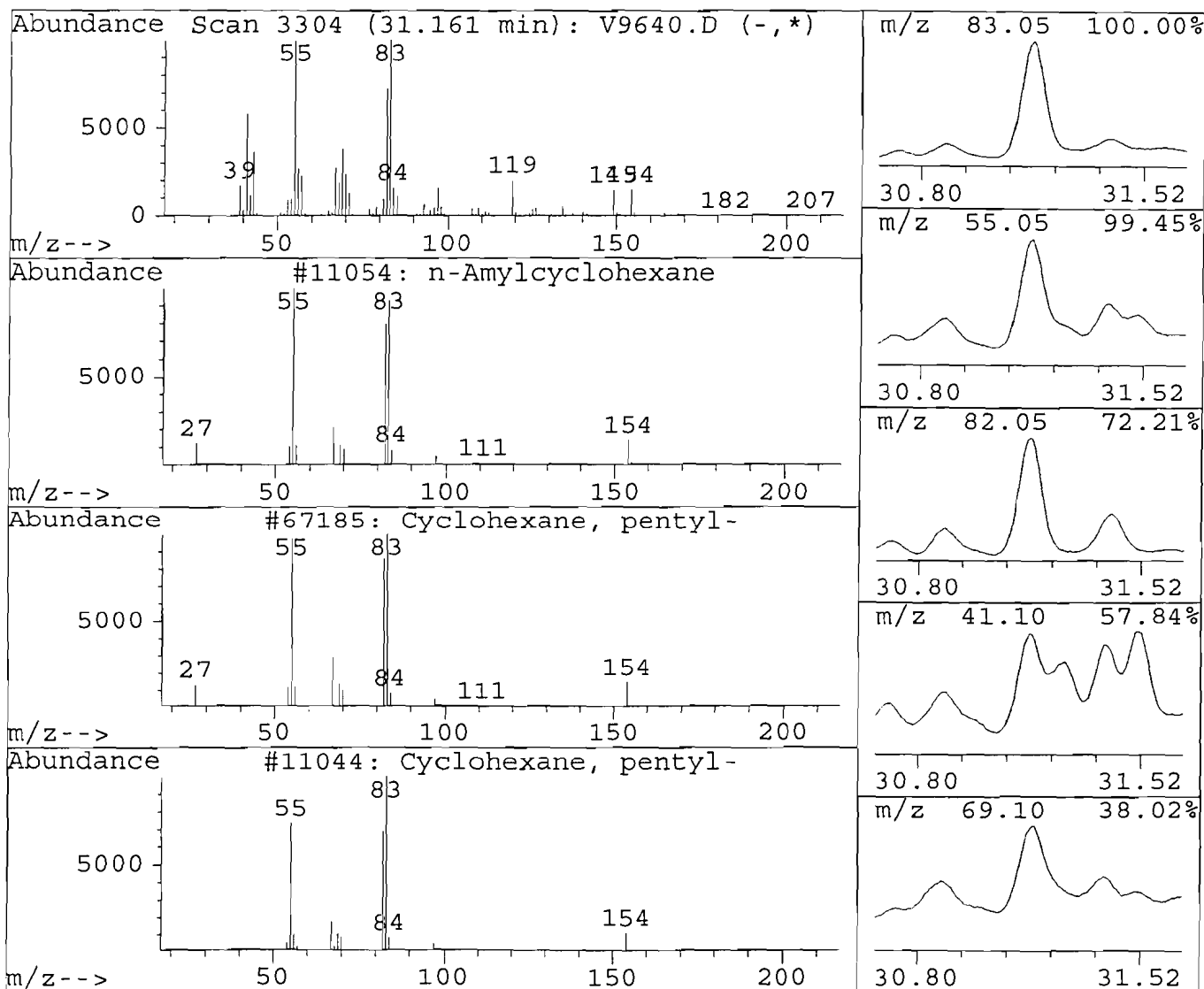
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Acq Time : 28 Oct 99 7:16 pm
Sample : L5320ASP-91756
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.16	157.59 ug/L	64191029	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	n-Amylcyclohexane	11054	029949-27-7	62
2	Cyclohexane, pentyl-	67185	004292-92-6	58
3	Cyclohexane, pentyl-	11044	004292-92-6	58
4	Cyclopentane, 1-methyl-3-(1-methyle	4644	053771-88-3	58
5	Cyclohexane, (1-ethylpropyl)-	11045	026321-98-2	52



000157

Library Search Compound Report

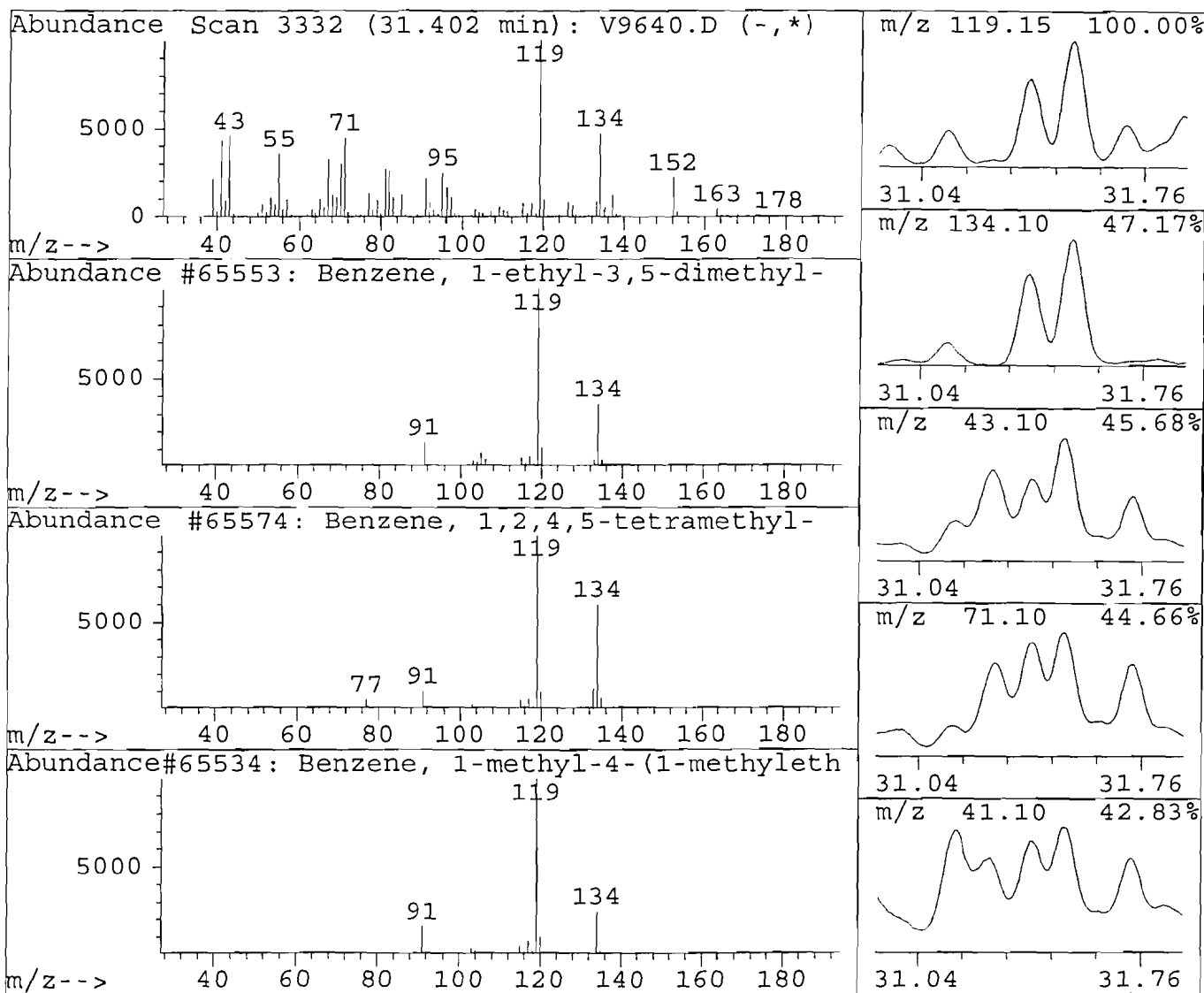
Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D
Acq Time : 28 Oct 99 7:16 pm
Sample : L5320ASP-91756
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.40	162.76 ug/L	66296417	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-3,5-dimethyl-	65553	000934-74-7	86
2	Benzene, 1,2,4,5-tetramethyl-	65574	000095-93-2	64
3	Benzene, 1-methyl-4-(1-methylethyl)	65534	000099-87-6	50
4	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	50
5	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	50



000158

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

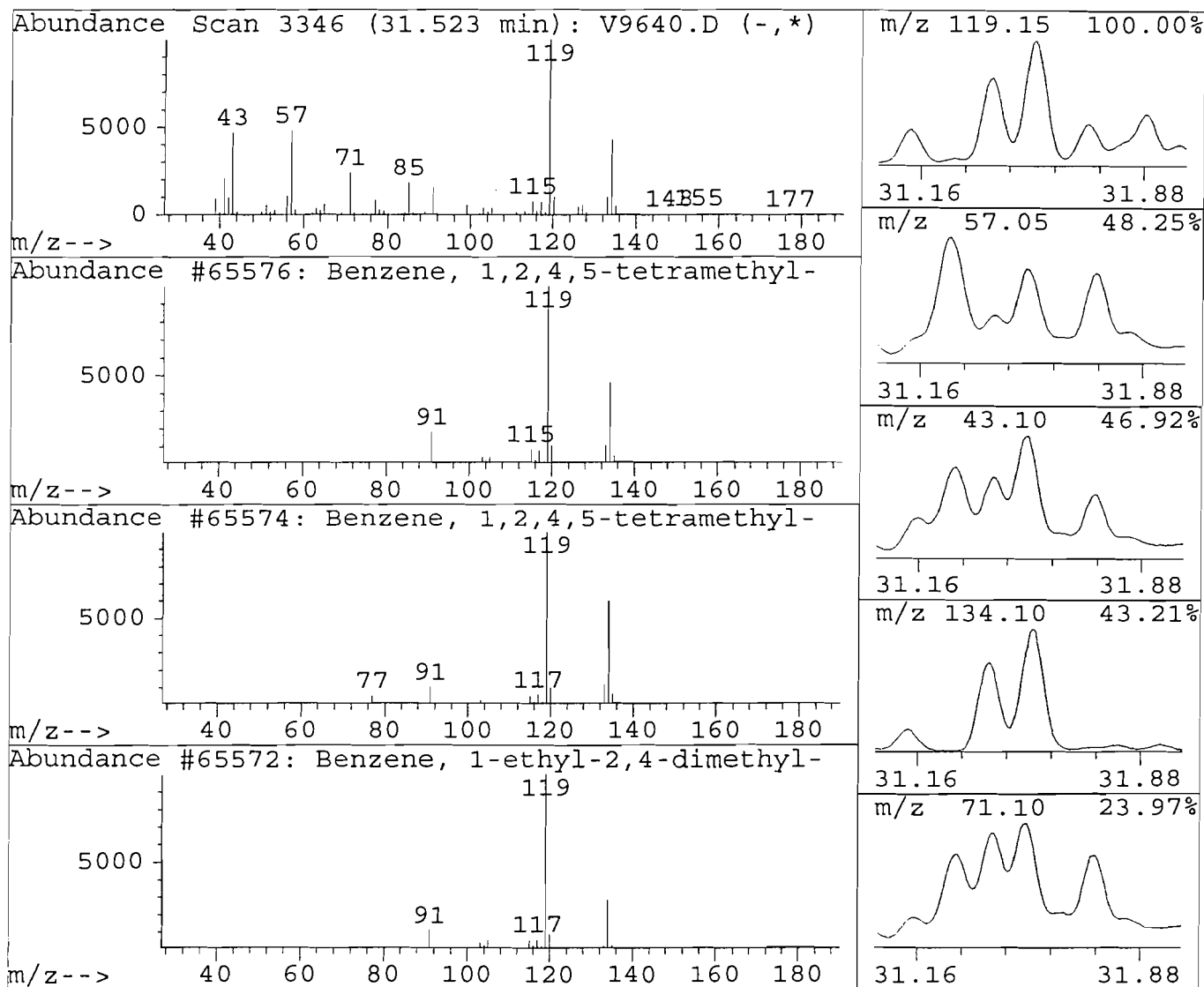
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
31.52	167.34 ug/L	68162263	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-		65576	000095-93-2	94
2	Benzene, 1,2,4,5-tetramethyl-		65574	000095-93-2	93
3	Benzene, 1-ethyl-2,4-dimethyl-		65572	000874-41-9	93
4	Benzene, 1-methyl-3-(1-methylethyl)		65579	000535-77-3	93
5	Benzene, 1-ethyl-2,3-dimethyl-		65555	000933-98-2	89



000159

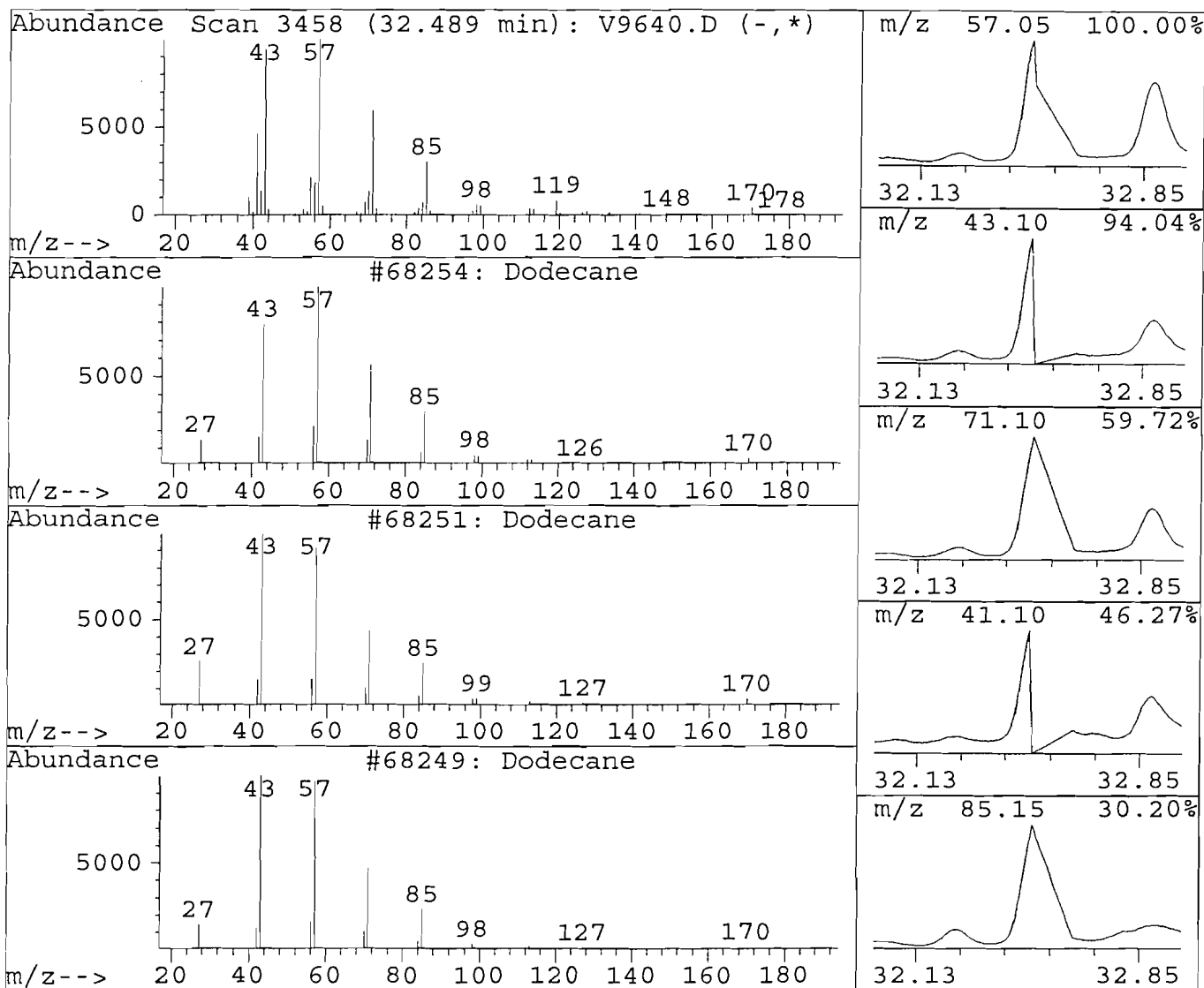
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D
Acq Time : 28 Oct 99 7:16 pm
Sample : L5320ASP-91756
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
32.49	365.31 ug/L	148797224	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Dodecane		68254	000112-40-3	94
2	Dodecane		68251	000112-40-3	93
3	Dodecane		68249	000112-40-3	91
4	Dodecane		68252	000112-40-3	90
5	Tridecane		69019	000629-50-5	87



000160

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9640.D

Acq Time : 28 Oct 99 7:16 pm

Sample : L5320ASP-91756

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

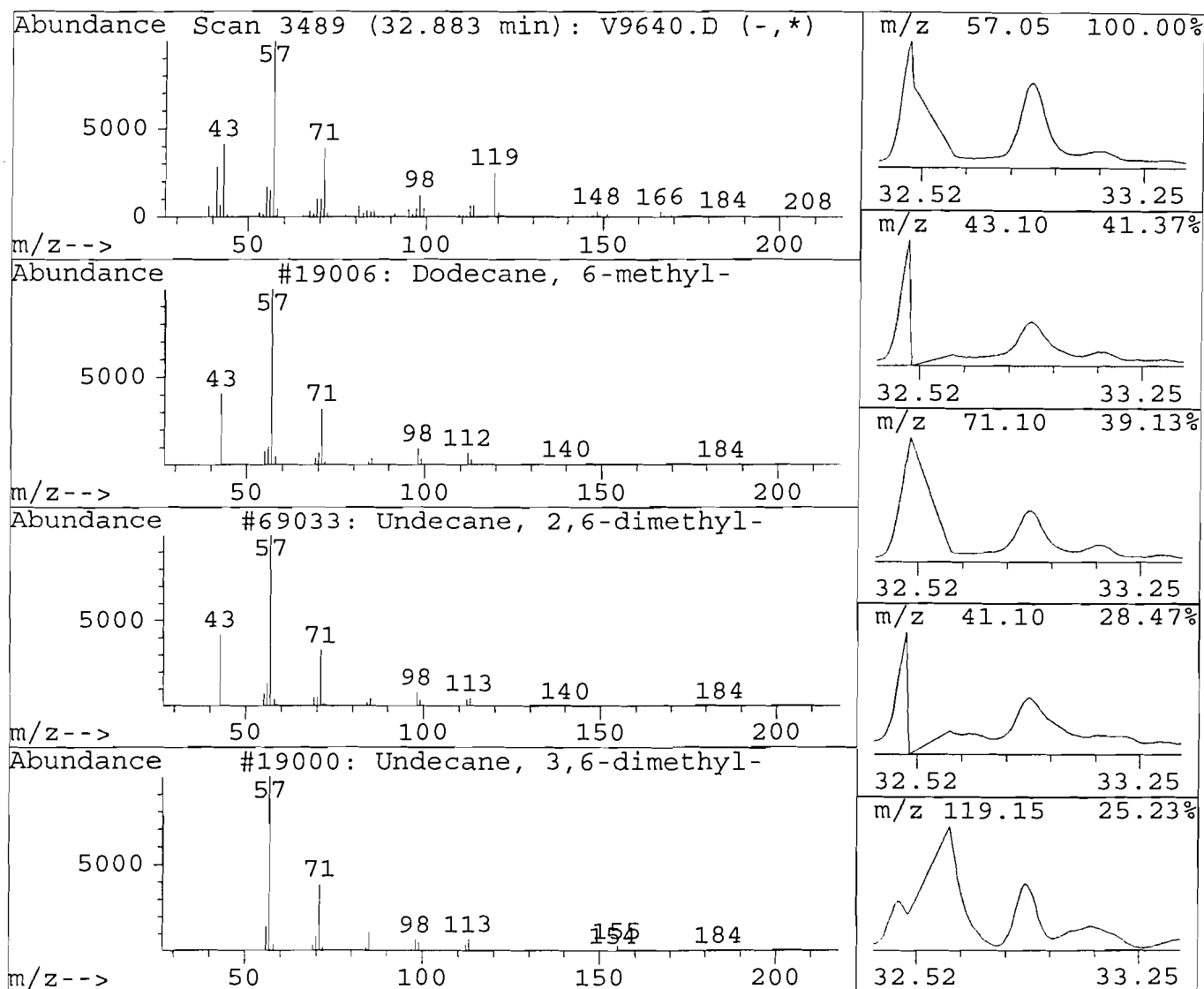
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
32.88	279.16 ug/L	113706198	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Dodecane, 6-methyl-		19006	006044-71-9	76
2	Undecane, 2,6-dimethyl-		69033	017301-23-4	70
3	Undecane, 3,6-dimethyl-		19000	017301-28-9	70
4	Undecane, 2,6-dimethyl-		19058	017301-23-4	64
5	Tridecane, 6-methyl-		22532	013287-21-3	53



000161

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-030-GW01DL

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-

Matrix: (soil/water) WATER

Lab Sample ID: O91756DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9653.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 5.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	11		UD
74-83-9	Bromomethane	9.1		UD
75-01-4	Vinyl Chloride	10		UD
75-00-3	Chloroethane	8		UD
75-09-2	Trichlorofluoromethane	7.7		UD
75-09-2	Methylene Chloride	3		UD
75-35-4	1,1-Dichloroethene	6		UD
75-34-3	1,1-Dichloroethane	3.5		UD
156-60-5	trans-1,2-Dichloroethene	4.8		UD
67-66-3	Chloroform	2.2		UD
107-06-2	1,2-Dichloroethane	2.4		UD
71-55-6	1,1,1-Trichloroethane	2.7		UD
56-23-5	Carbon Tetrachloride	2.1		UD
75-27-4	Bromodichloromethane	3.2		UD
78-87-5	1,2-Dichloropropane	4		UD
10061-01-5	cis-1,3-Dichloropropene	1.7		UD
79-01-6	Trichloroethene	1.5		UD
124-48-1	Dibromochloromethane	2.5		UD
79-00-5	1,1,2-Trichloroethane	4.3		UD
71-43-2	Benzene	5		D
10061-02-6	trans-1,3-Dichloropropene	2.3		UD
110-75-8	2-Chloroethyl Vinyl Ether	7.4		UD
75-25-2	Bromoform	3.5		UD
127-18-4	Tetrachloroethene	3.1		UD
79-34-5	1,1,2,2-Tetrachloroethane	5.1		UD
108-88-3	Toluene	100		D
108-90-7	Chlorobenzene	2.6		UD
100-41-4	Ethylbenzene	140		D
136777-61-2	m + p-Xylenes	170		D
95-47-6	o-xylene	160		D
95-50-1	1,2-Dichlorobenzene	27		D
541-73-1	1,3-Dichlorobenzene	2.2		UD
106-46-7	1,4-Dichlorobenzene	1.6		UD

000162

IE
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-030-GW01DL

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-
Matrix: (soil/water) WATER Lab Sample ID: O91756DL
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9653.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/29/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 5.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 10 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 103-65-1	Benzene, propyl-	26.13	89	J
2. 611-14-3	Benzene, 1-ethyl-2-methyl-	26.39	290	J
3. 526-73-8	Benzene, 1,2,3-trimethyl-	26.64	180	J
4. 622-96-8	Benzene, 1-ethyl-4-methyl-	27.13	170	J
5.	Unknown	27.58	580	J
6.	Unknown	28.67	93	J
7.	Unknown	29.16	220	J
8. 1758-88-9	Benzene, 2-ethyl-1,4-dimethy	29.43	120	J
9. 535-77-3	Benzene, 1-methyl-3-(1-methy	30.41	81	J
10.	Unknown	32.65	150	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000163

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D
 Acq Time : 29 Oct 99 5:03 am
 Sample : L5320ASP-91756 5X DIL
 Misc : 5MLS
 Quant Time: Oct 29 7:42 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.83	128	594015	30.00	ug/L	0.03
19) 1,4-Difluorobenzene	14.38	114	3354965	30.00	ug/L	0.01
34) Chlorobenzene-d5	22.39	117	2827660	30.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.92	65	921625	26.27	ug/L	87.58%
36) Toluene-d8	18.47	98	3406842	26.51	ug/L	88.38%
45) Bromofluorobenzene	25.55	95	2043826	27.09	ug/L	90.31%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
13) MTBE	6.62	73	168247	1.42	ug/L	95
15) cis-1,2-Dichloroethene	9.94	96	428255	9.81	ug/L	90
24) Benzene	12.84	78	148322	1.00	ug/L	98
37) Toluene	18.65	91	3243277	20.57	ug/L	98
41) Ethylbenzene	22.73	91	5456446	27.63	ug/L	100
42) m+ p-Xylenes	23.07	106	2362375	33.35	ug/L	98
43) o-xylene	24.09	91	4752928	31.29	ug/L	99
49) 1,2-Dichlorobenzene	29.54	146	394926	5.37	ug/L	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Quant Time: Oct 29 7:42 1999

Operator: JJ

Inst : 5971 - In

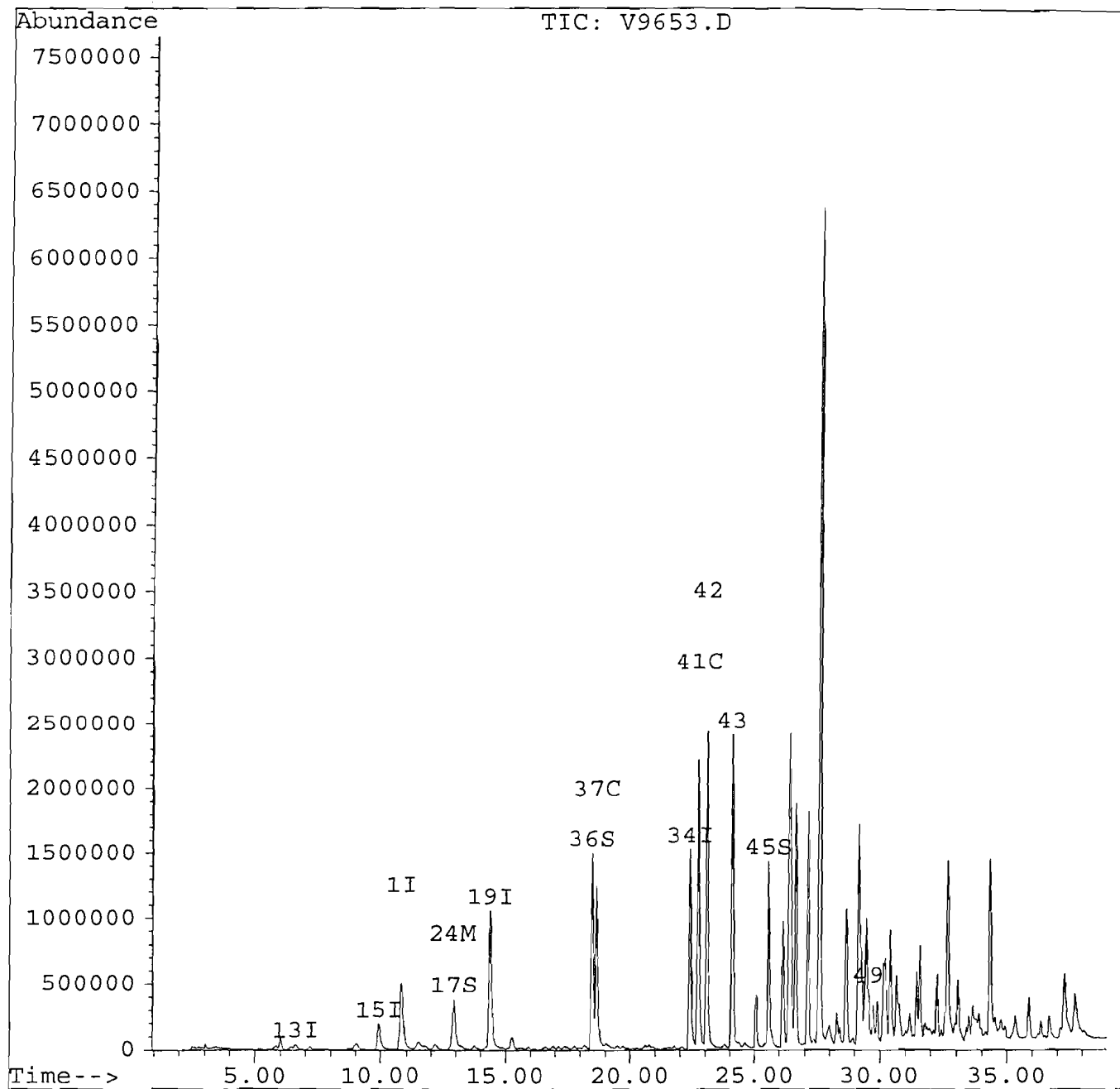
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

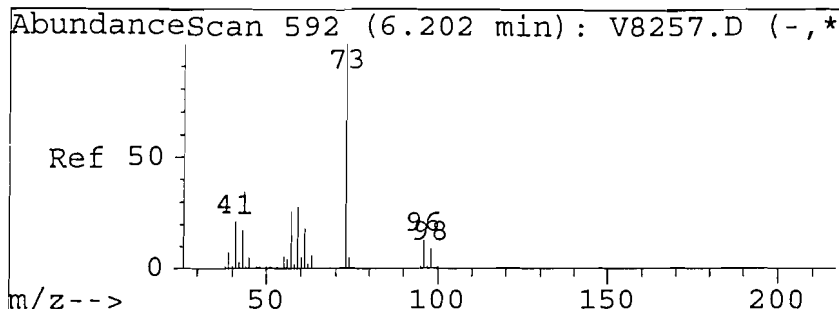
Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

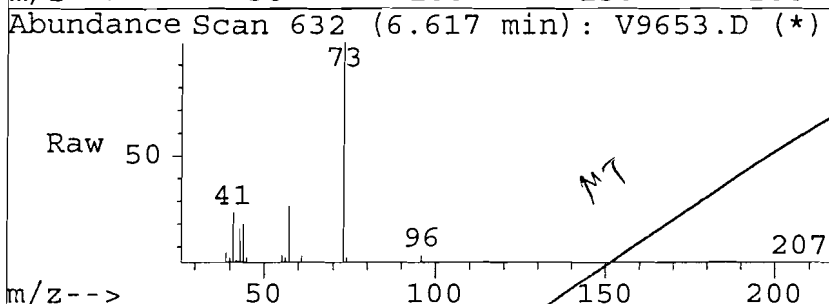
Response via : Multiple Level Calibration



000165

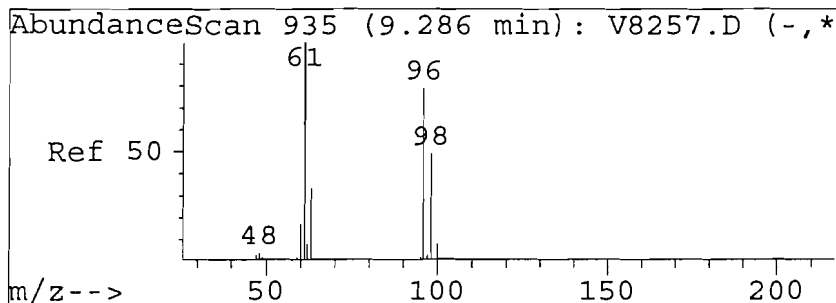
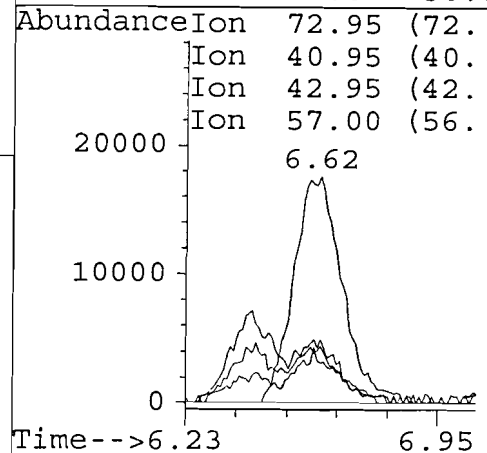
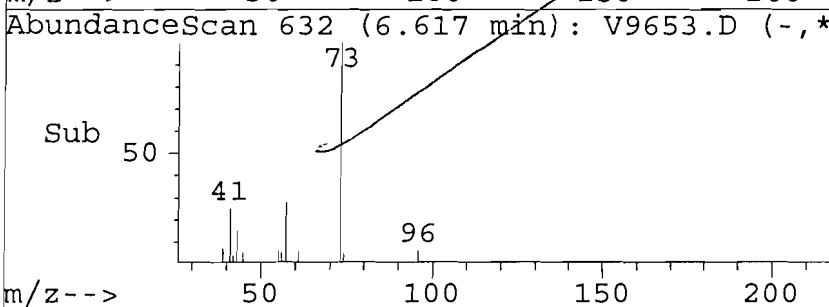


#13
MTBE
Concen: 1.42 ug/L
RT: 6.62 min Scan# 632
Delta R.T. 0.07 min
Lab File: V9653.D
Acq: 29 Oct 99 5:03 am

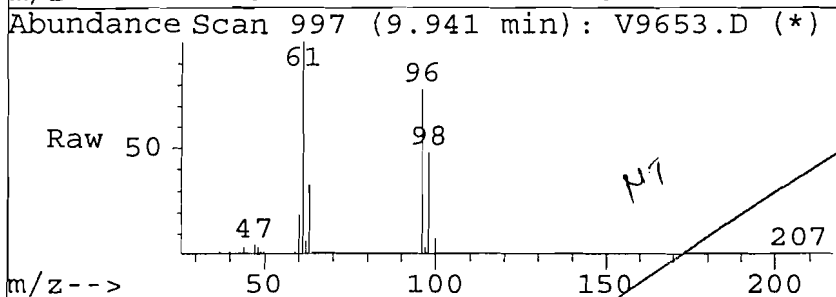


Tgt Ion:72.95 Resp: 168247

Ion	Ratio	Lower	Upper
73	100		
41	25.2	11.4	34.2
43	17.9	10.0	30.0
57	28.1	20.0	30.0

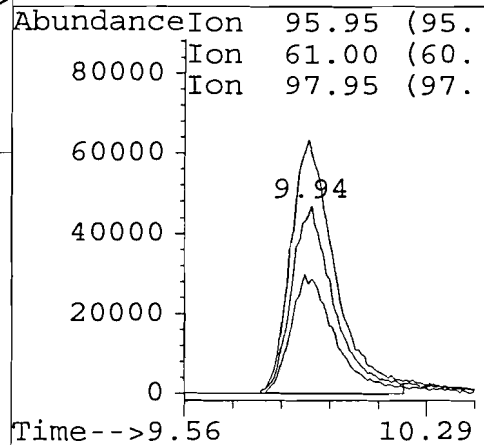
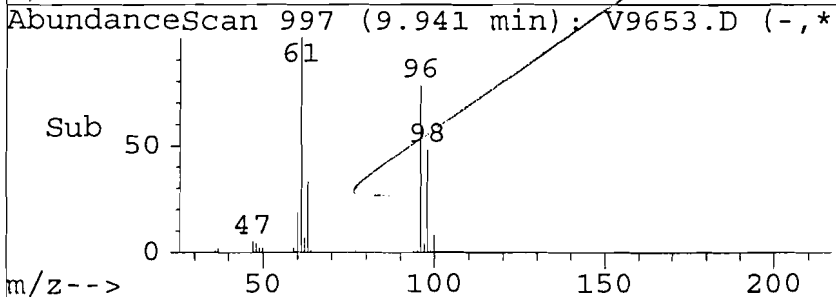


#15
cis-1,2-Dichloroethene
Concen: 9.81 ug/L
RT: 9.94 min Scan# 997
Delta R.T. 0.04 min
Lab File: V9653.D
Acq: 29 Oct 99 5:03 am



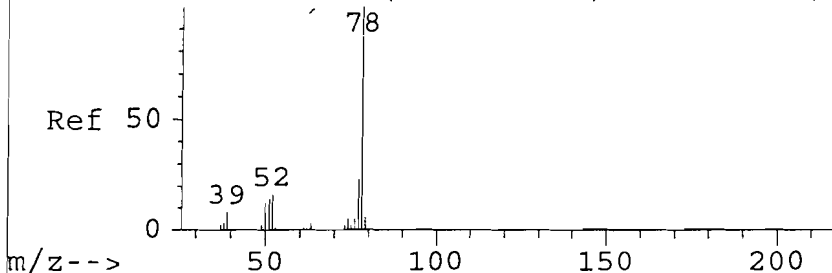
Tgt Ion:95.95 Resp: 428255

Ion	Ratio	Lower	Upper
96	100		
61	128.1	71.3	213.9
98	61.3	32.5	97.5
0	0.0	0.0	0.0



000166

AbundanceScan 1260 (12.251 min): V8257.D (-



#24

Benzene

Concen: 1.00 ug/L

RT: 12.84 min Scan# 1315

Delta R.T. 0.05 min

Lab File: V9653.D

Acq: 29 Oct 99 5:03 am

Tgt Ion:78 Resp: 148322

Ion Ratio Lower Upper

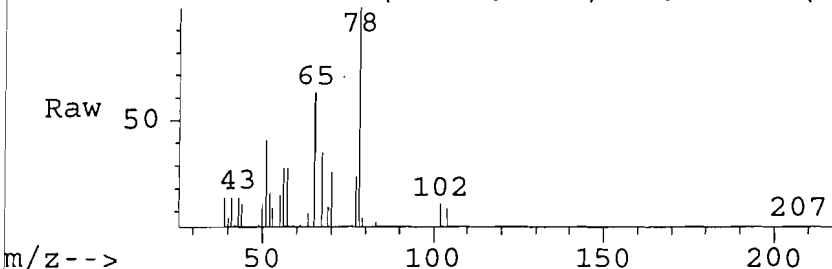
78 100

77 25.4 12.2 36.6

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1315 (12.839 min): V9653.D (*)



AbundanceIon 78.00 (77.

Ion 77.00 (76.

12.84

20000

15000

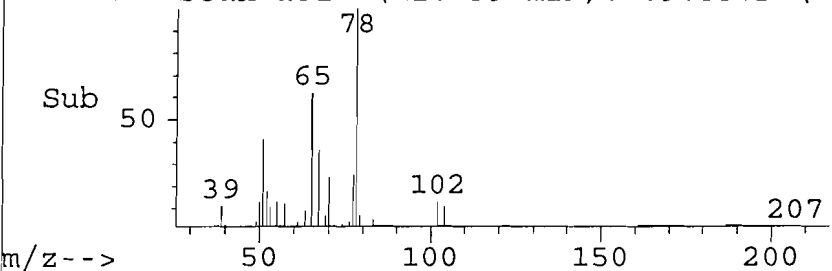
10000

5000

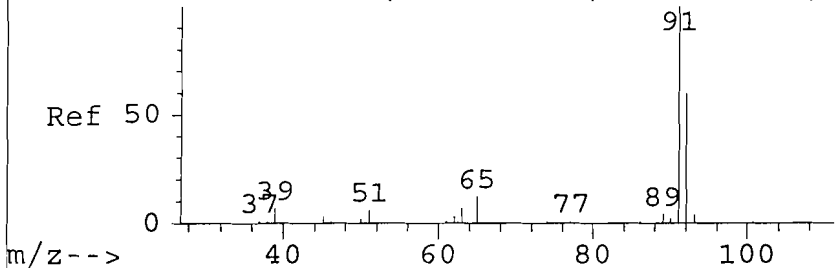
0

Time-->12.54 13.15

AbundanceScan 1315 (12.839 min): V9653.D (-



AbundanceScan 1900 (18.098 min): V8257.D (-



#37

Toluene

Concen: 20.57 ug/L

RT: 18.65 min Scan# 1952

Delta R.T. 0.02 min

Lab File: V9653.D

Acq: 29 Oct 99 5:03 am

Tgt Ion:91 Resp: 3243277

Ion Ratio Lower Upper

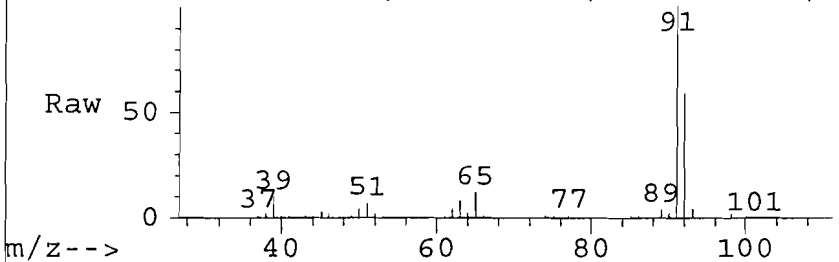
91 100

92 59.0 28.8 86.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceScan 1952 (18.654 min): V9653.D (*)



AbundanceIon 91.00 (90.

Ion 92.00 (91.

18.65

600000

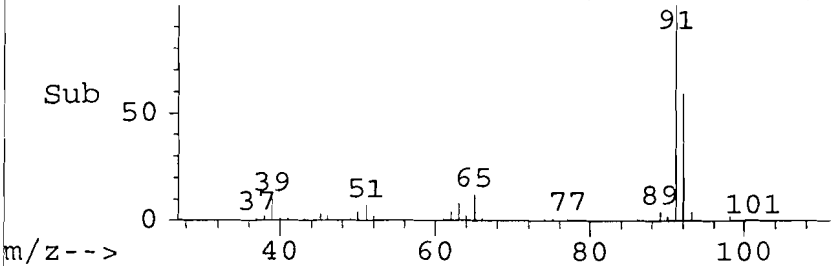
400000

200000

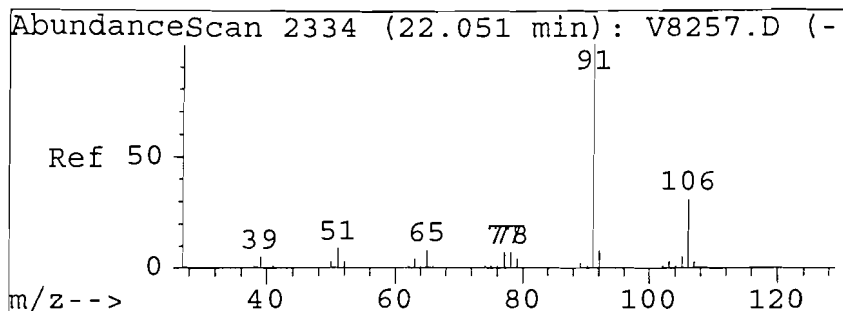
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Time-->18.24 19.10

AbundanceScan 1952 (18.654 min): V9653.D (-

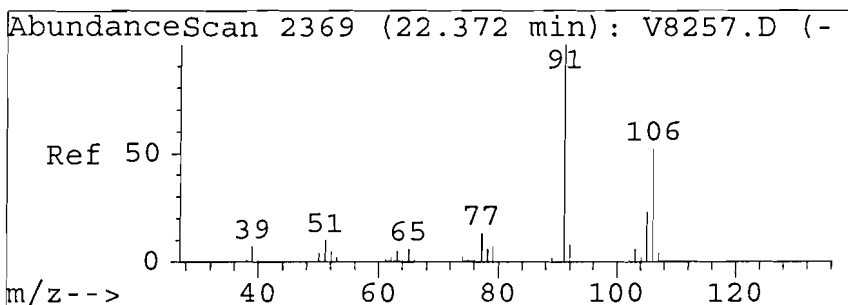
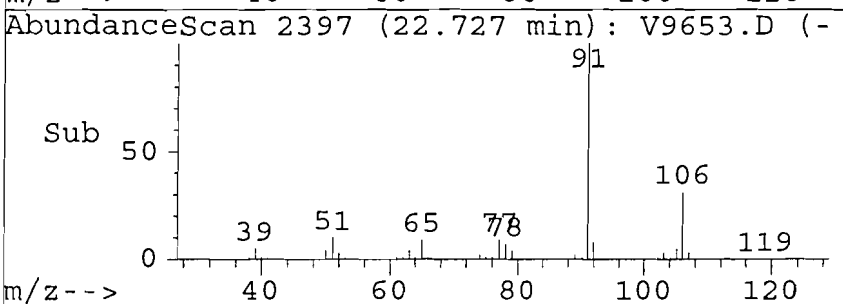
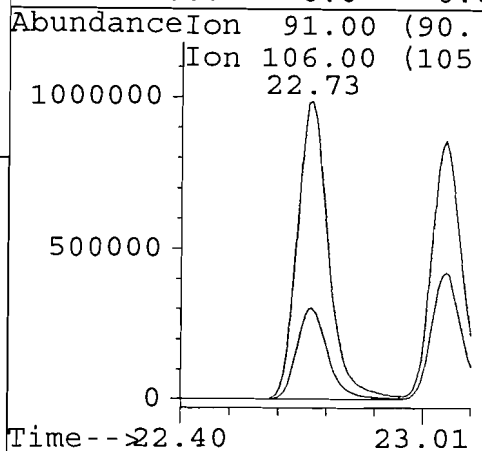
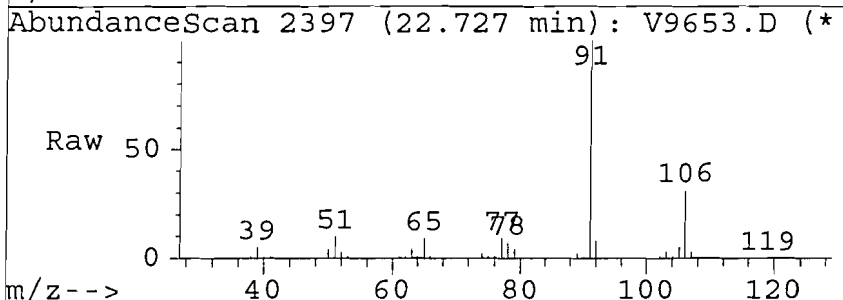


000167



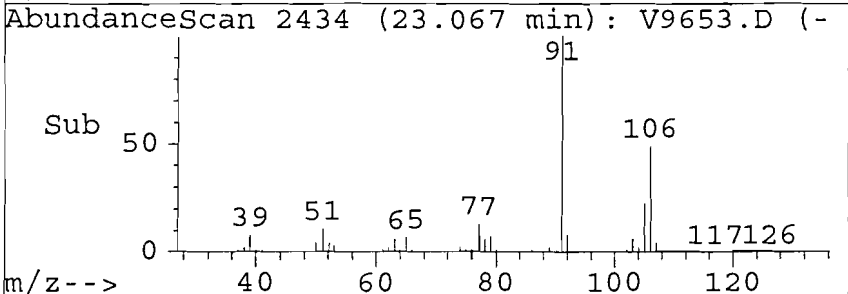
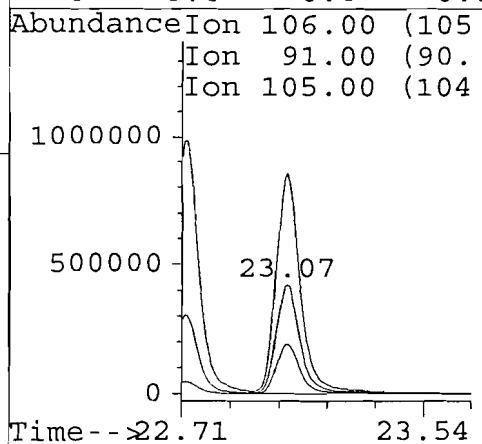
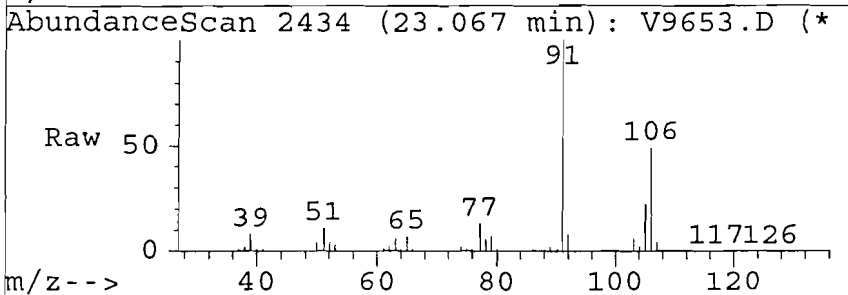
#41
Ethylbenzene
Concen: 27.63 ug/L
RT: 22.73 min Scan# 2397
Delta R.T. 0.02 min
Lab File: V9653.D
Acq: 29 Oct 99 5:03 am

Tgt Ion:91 Resp: 5456446
Ion Ratio Lower Upper
91 100
106 30.7 15.2 45.7
0 0.0 0.0 0.0
0 0.0 0.0 0.0

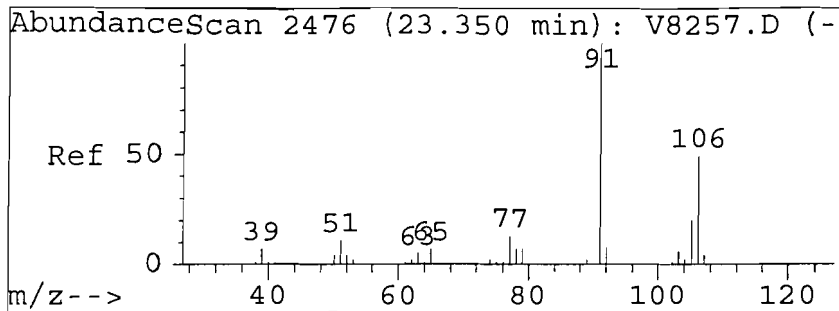


#42
m+ p-Xylenes
Concen: 33.35 ug/L
RT: 23.07 min Scan# 2434
Delta R.T. 0.03 min
Lab File: V9653.D
Acq: 29 Oct 99 5:03 am

Tgt Ion:106 Resp: 2362375
Ion Ratio Lower Upper
106 100
91 203.9 100.8 302.4
105 45.8 22.3 66.9
0 0.0 0.0 0.0

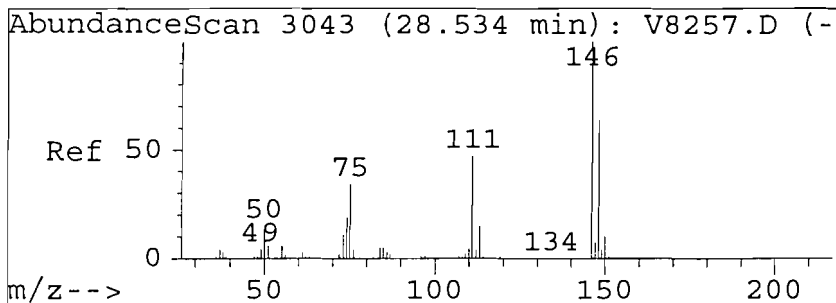
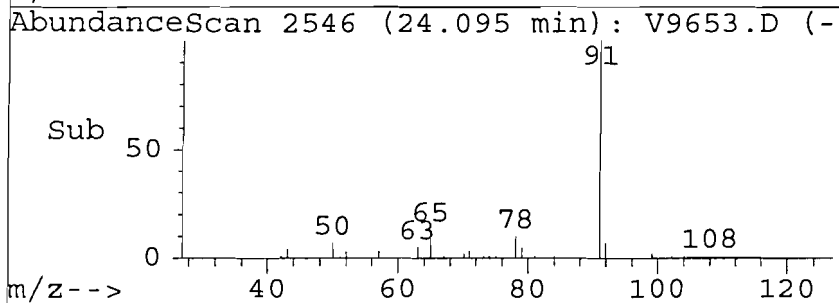
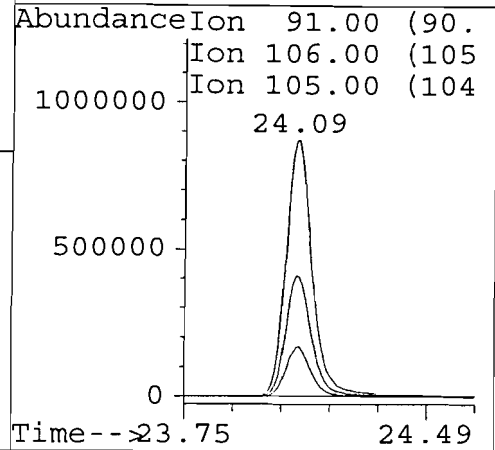
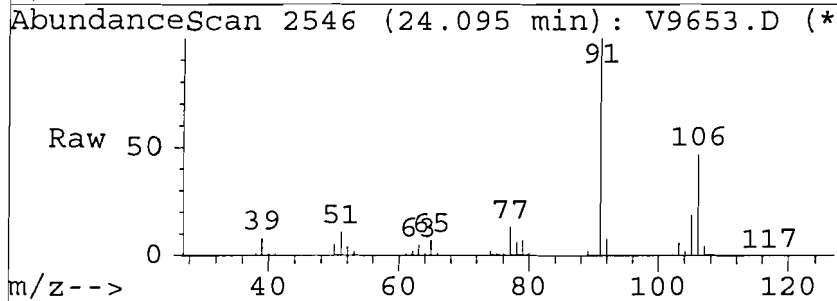


000168



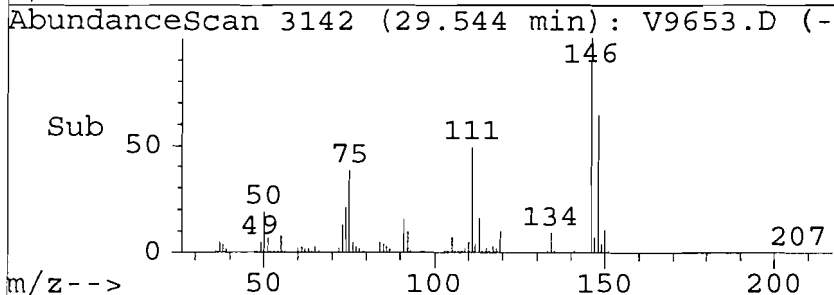
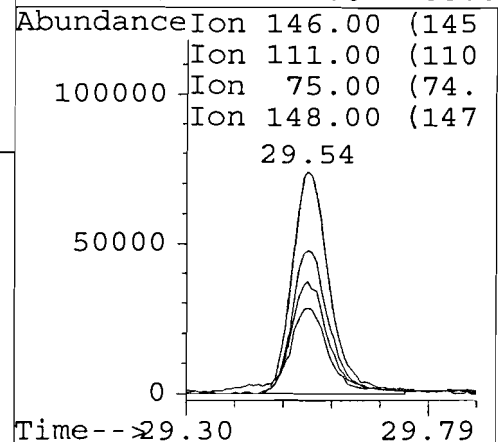
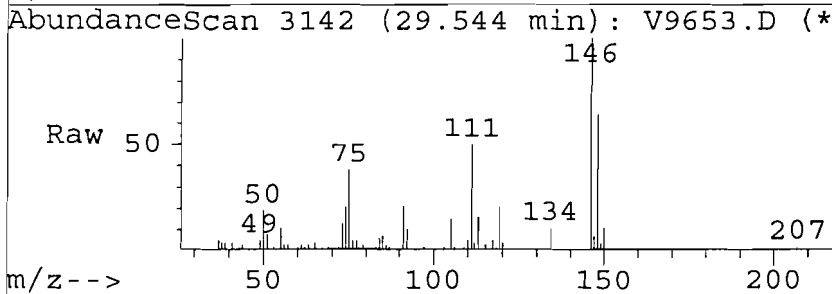
#43
o-xylene
Concen: 31.29 ug/L
RT: 24.09 min Scan# 2546
Delta R.T. 0.04 min
Lab File: V9653.D
Acq: 29 Oct 99 5:03 am

Tgt Ion:91 Resp: 4752928
Ion Ratio Lower Upper
91 100
106 46.6 23.0 69.0
105 19.4 9.2 27.6
0 0.0 0.0 0.0



#49
1,2-Dichlorobenzene
Concen: 5.37 ug/L
RT: 29.54 min Scan# 3142
Delta R.T. 0.07 min
Lab File: V9653.D
Acq: 29 Oct 99 5:03 am

Tgt Ion:146 Resp: 394926
Ion Ratio Lower Upper
146 100
111 50.3 25.3 75.8
75 38.4 19.9 59.7
148 64.4 38.0 88.6



000169

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

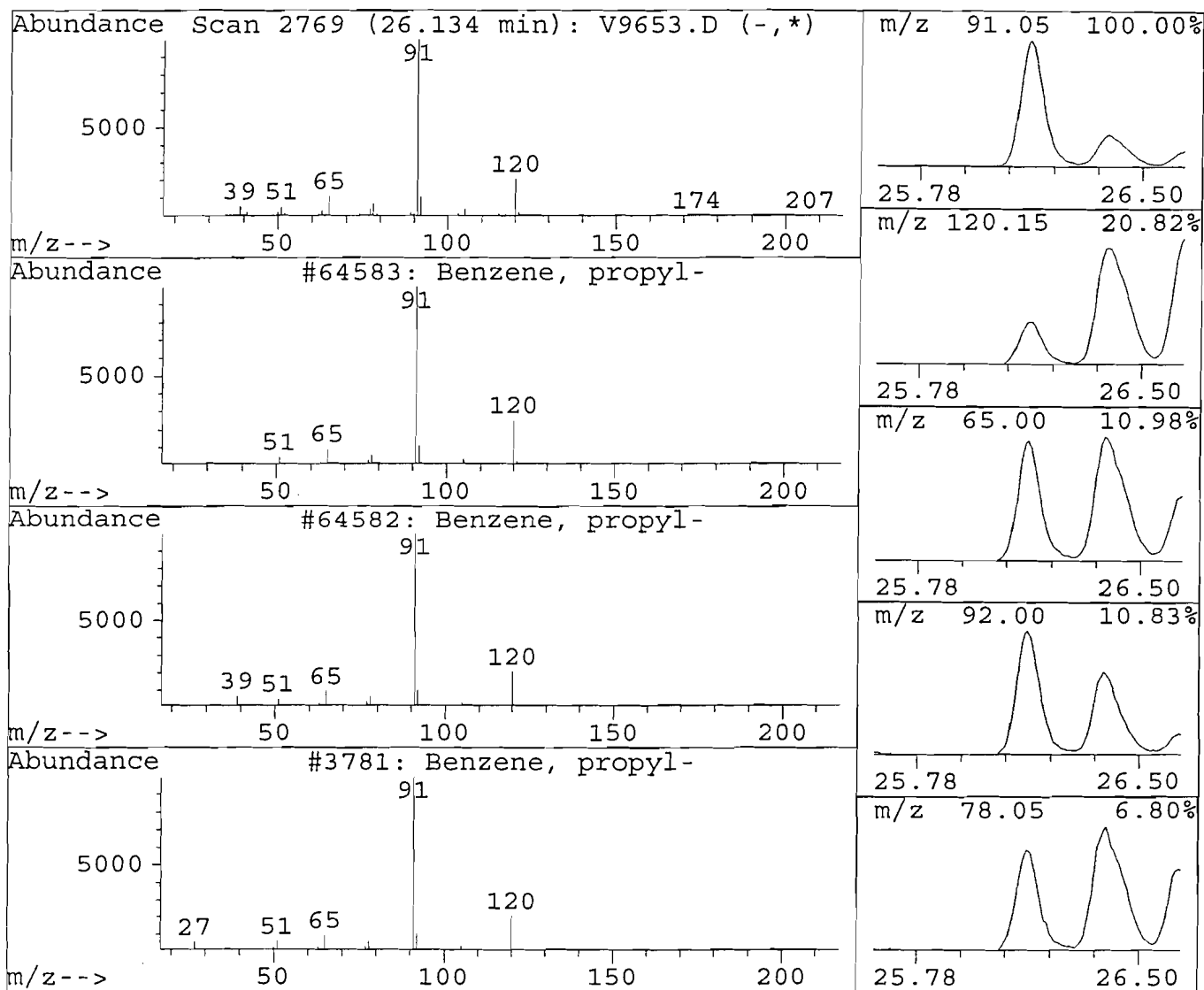
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.13	17.76 ug/L	5148305	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, propyl-	64583	000103-65-1	91
2	Benzene, propyl-	64582	000103-65-1	91
3	Benzene, propyl-	3781	000103-65-1	91
4	Benzene, propyl-	64584	000103-65-1	83
5	Propanenitrile, 3-[(phenylmethyl)am	12493	000706-03-6	72



000170

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

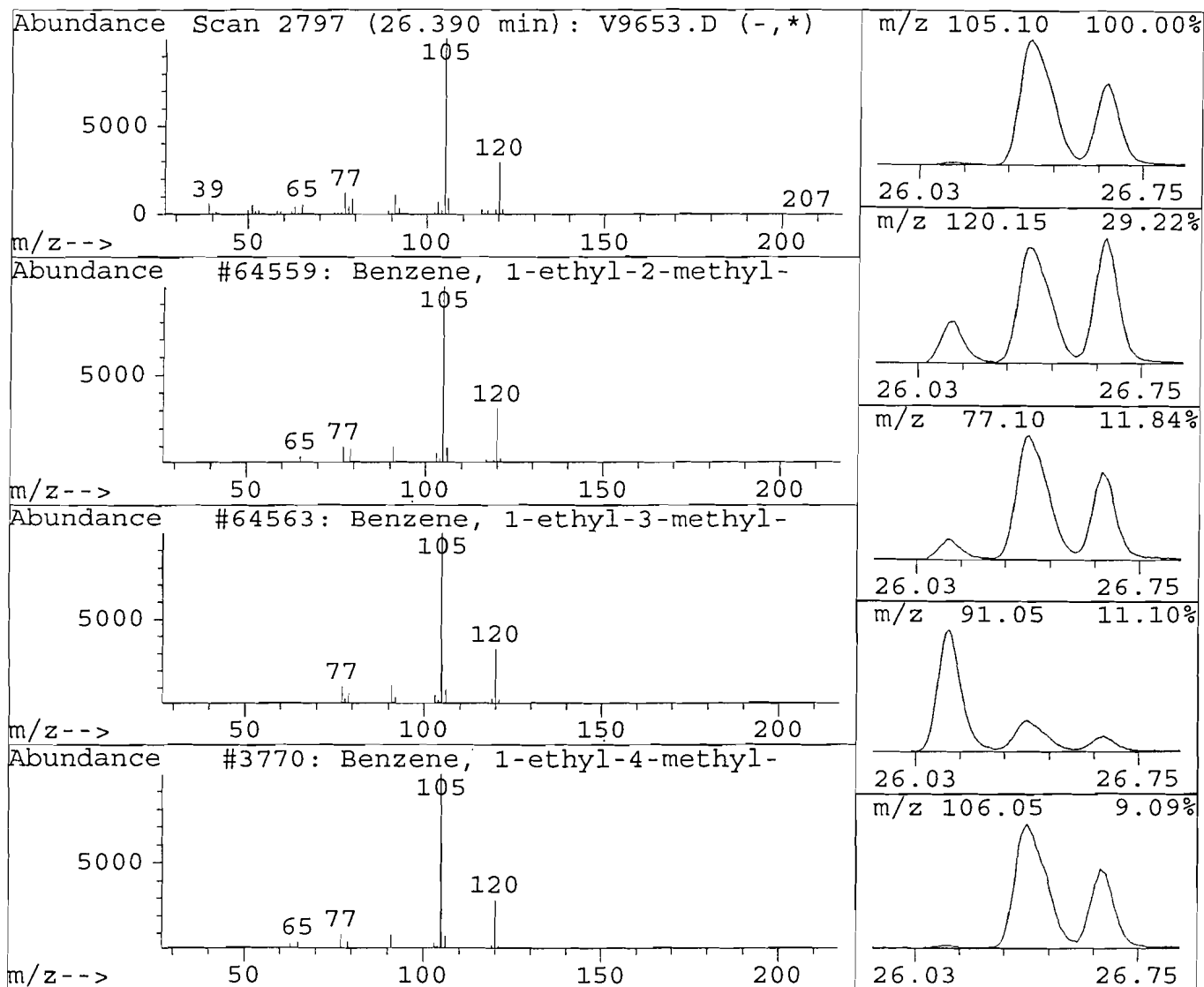
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.39	58.72 ug/L	17022692	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	95
2	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	95
3	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	95
4	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	95
5	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95



000171

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

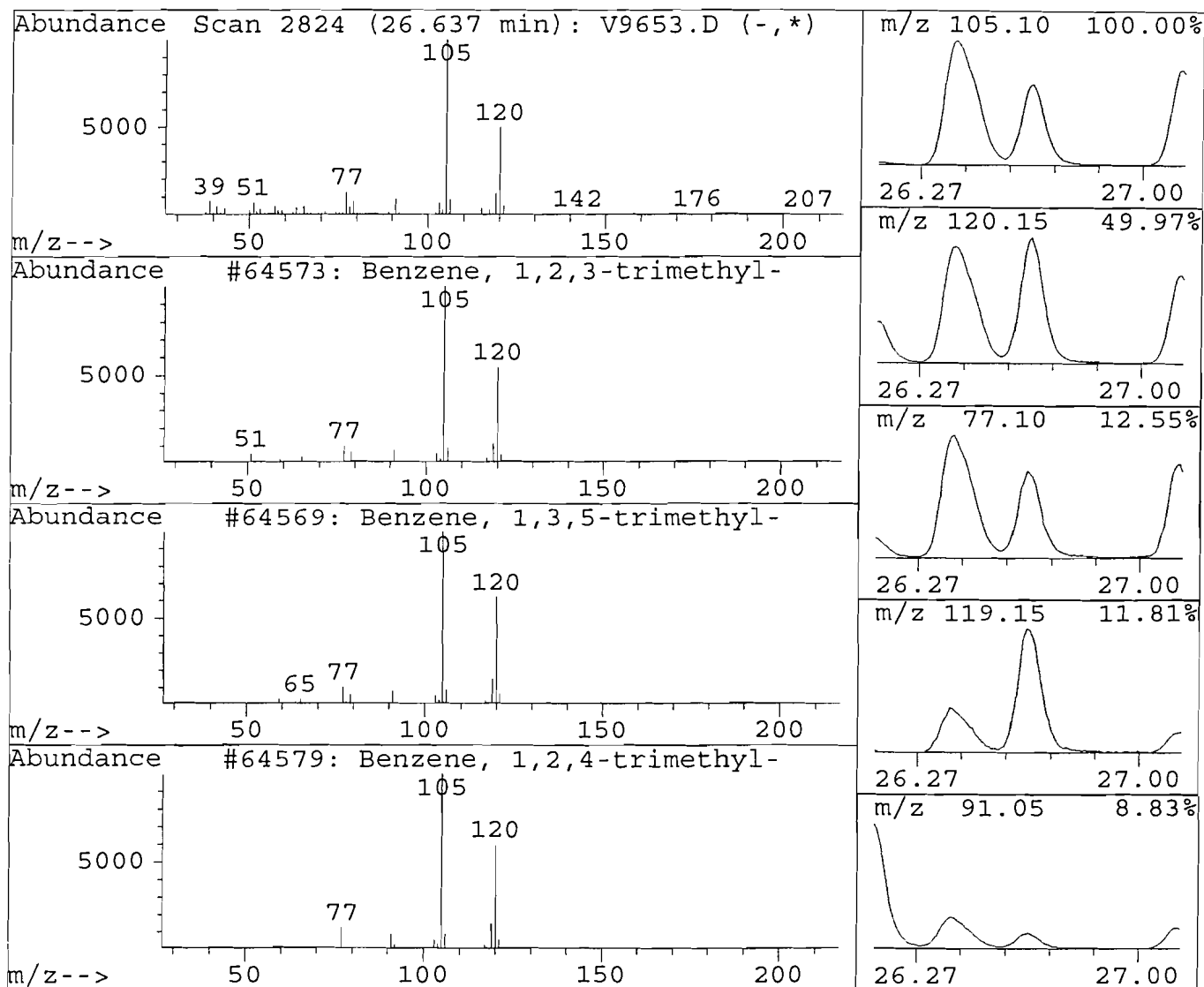
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.64	35.17 ug/L	10194307	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
2	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
3	Benzene, 1,2,4-trimethyl-	64579	000095-63-6	94
4	Benzene, 1,3,5-trimethyl-	64571	000108-67-8	94
5	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	91



000172

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

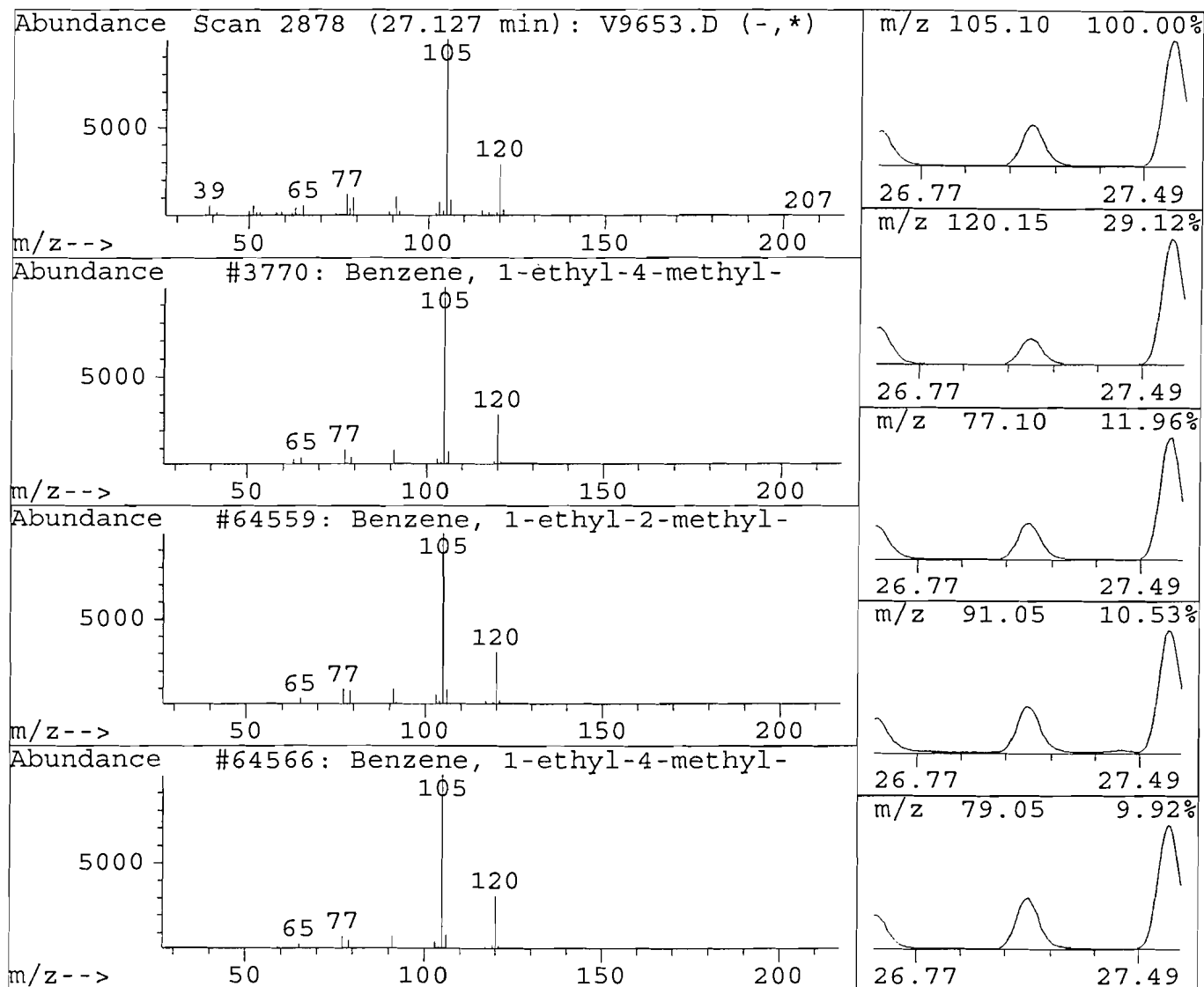
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
27.13	33.98 ug/L	9850268	Chlorobenzene-d5	22.39	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-ethyl-4-methyl-		3770	000622-96-8	94
2	Benzene, 1-ethyl-2-methyl-		64559	000611-14-3	94
3	Benzene, 1-ethyl-4-methyl-		64566	000622-96-8	91
4	Benzene, (1-methylethyl)-		64552	000098-82-8	91
5	Benzene, 1-ethyl-3-methyl-		64563	000620-14-4	91



000173

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

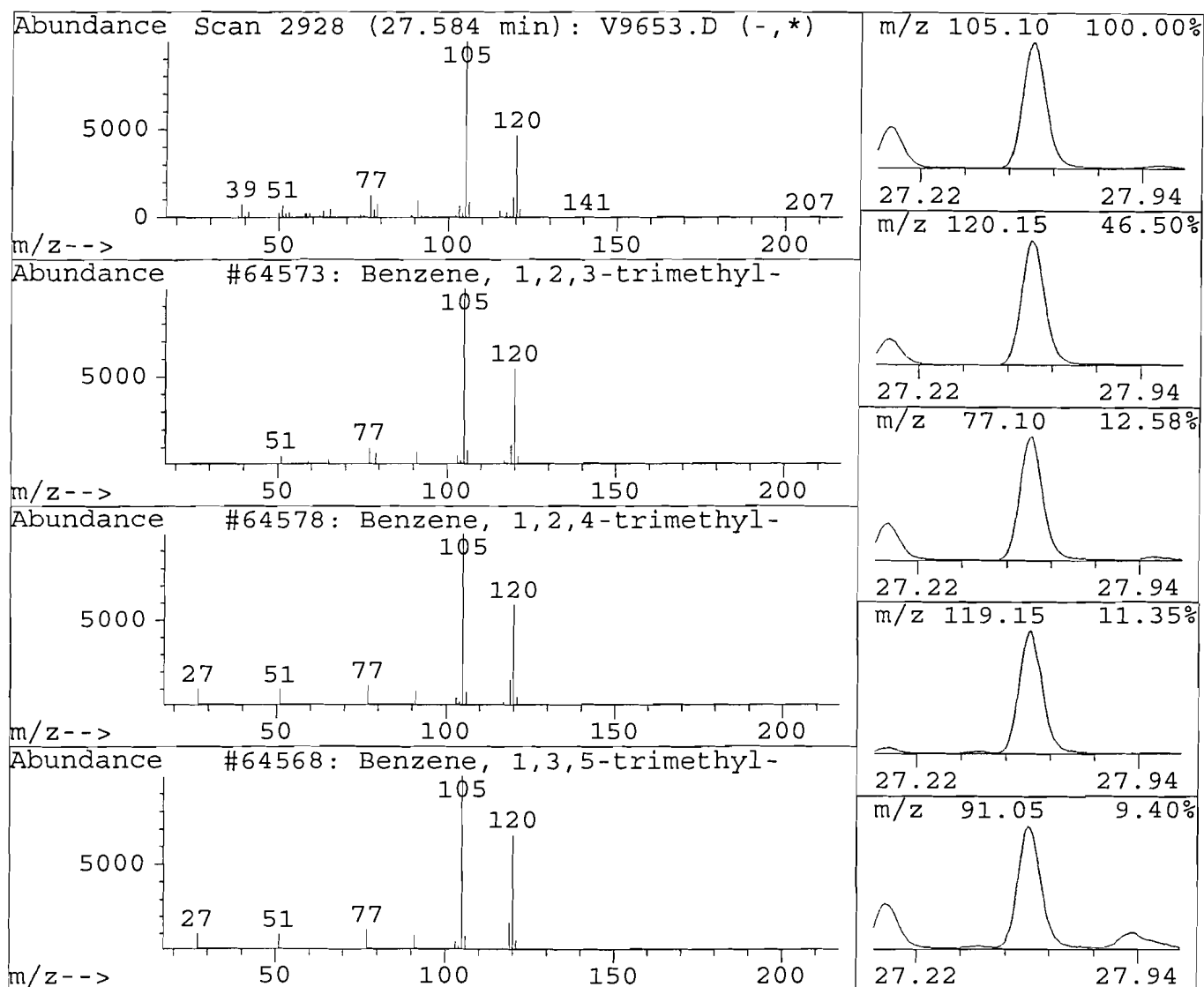
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
27.58	116.46 ug/L	33760656	Chlorobenzene-d5	22.39	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-		64573	000526-73-8	95
2	Benzene, 1,2,4-trimethyl-		64578	000095-63-6	95
3	Benzene, 1,3,5-trimethyl-		64568	000108-67-8	95
4	Benzene, 1,2,4-trimethyl-		64577	000095-63-6	95
5	1,2,4-Trimethylbenzene		3771	000095-36-3	95



000174

Library Search Compound Report

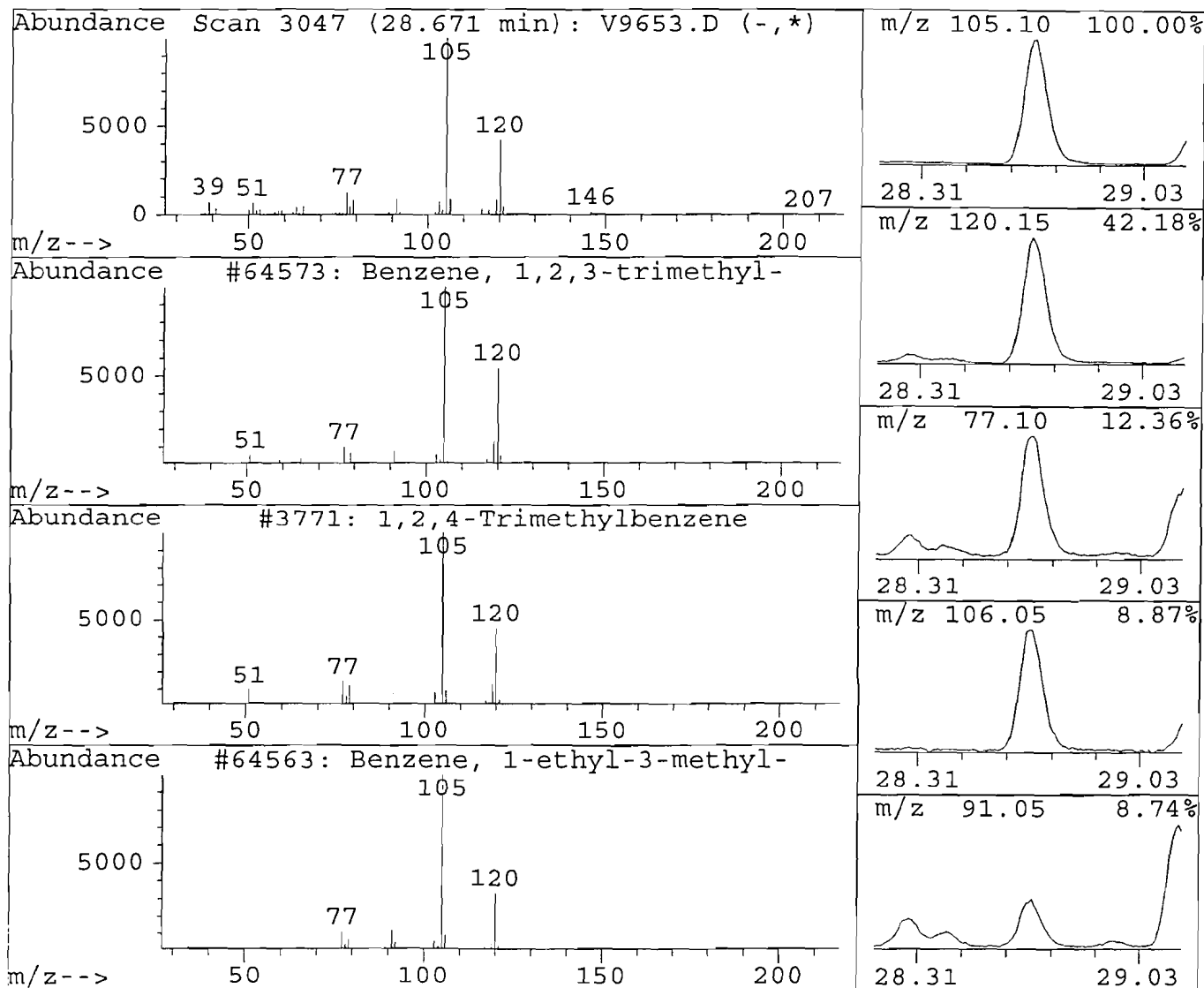
Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D
Acq Time : 29 Oct 99 5:03 am
Sample : L5320ASP-91756 5X DIL
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.67	18.60 ug/L	5392723	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	94
2	1,2,4-Trimethylbenzene	3771	000095-36-3	94
3	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	93
4	Benzene, 1,3,5-trimethyl-	64571	000108-67-8	90
5	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	90



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

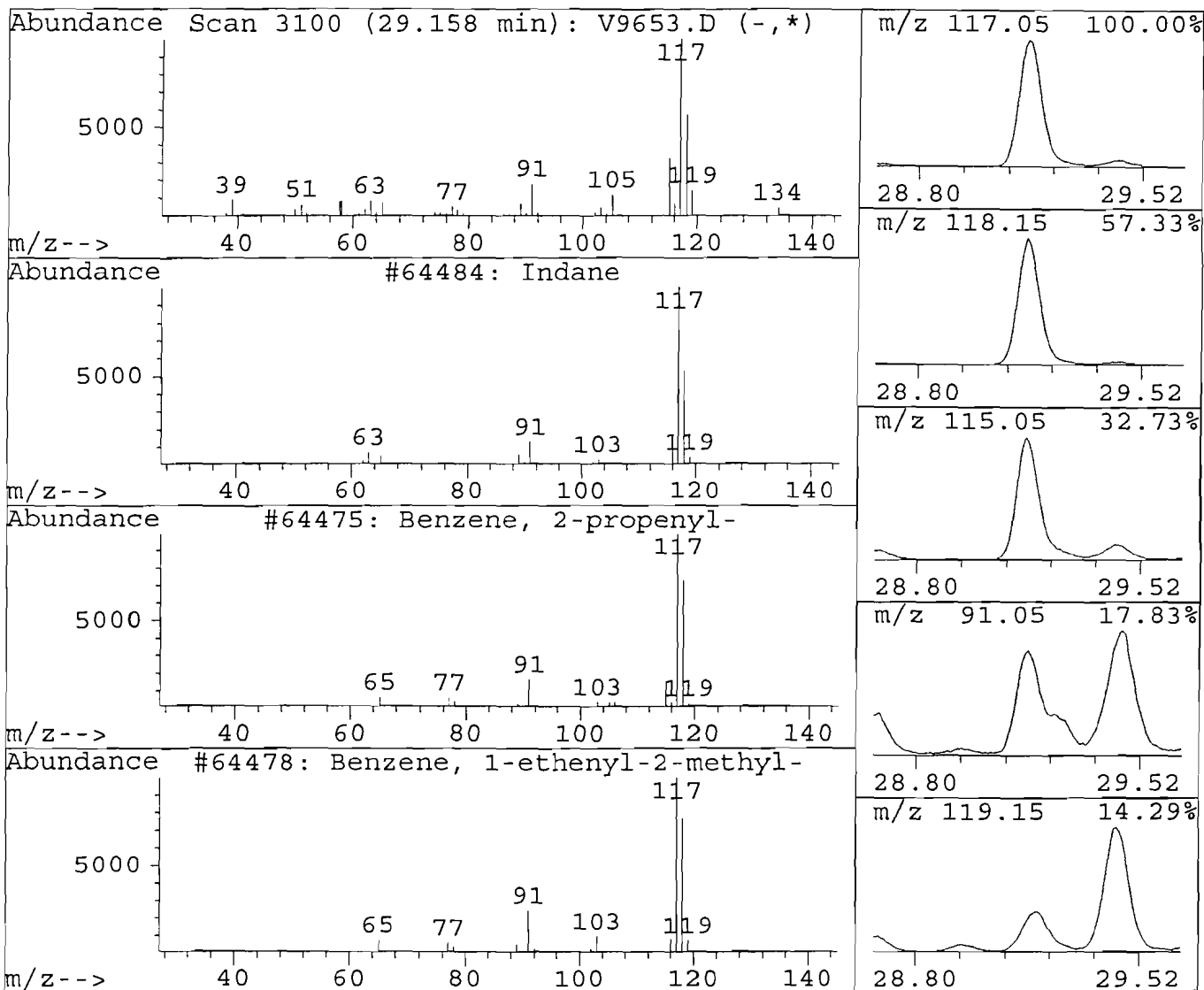
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
29.16	43.62 ug/L	12646255	Chlorobenzene-d5	22.39	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Indane		64484	000496-11-7	76
2	Benzene, 2-propenyl-		64475	000300-57-2	72
3	Benzene, 1-ethenyl-2-methyl-		64478	000611-15-4	64
4	Benzene, cyclopropyl-		3592	000873-49-4	59
5	Benzene, (2-bromocyclopropyl)-		21701	036617-02-4	50



000176

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

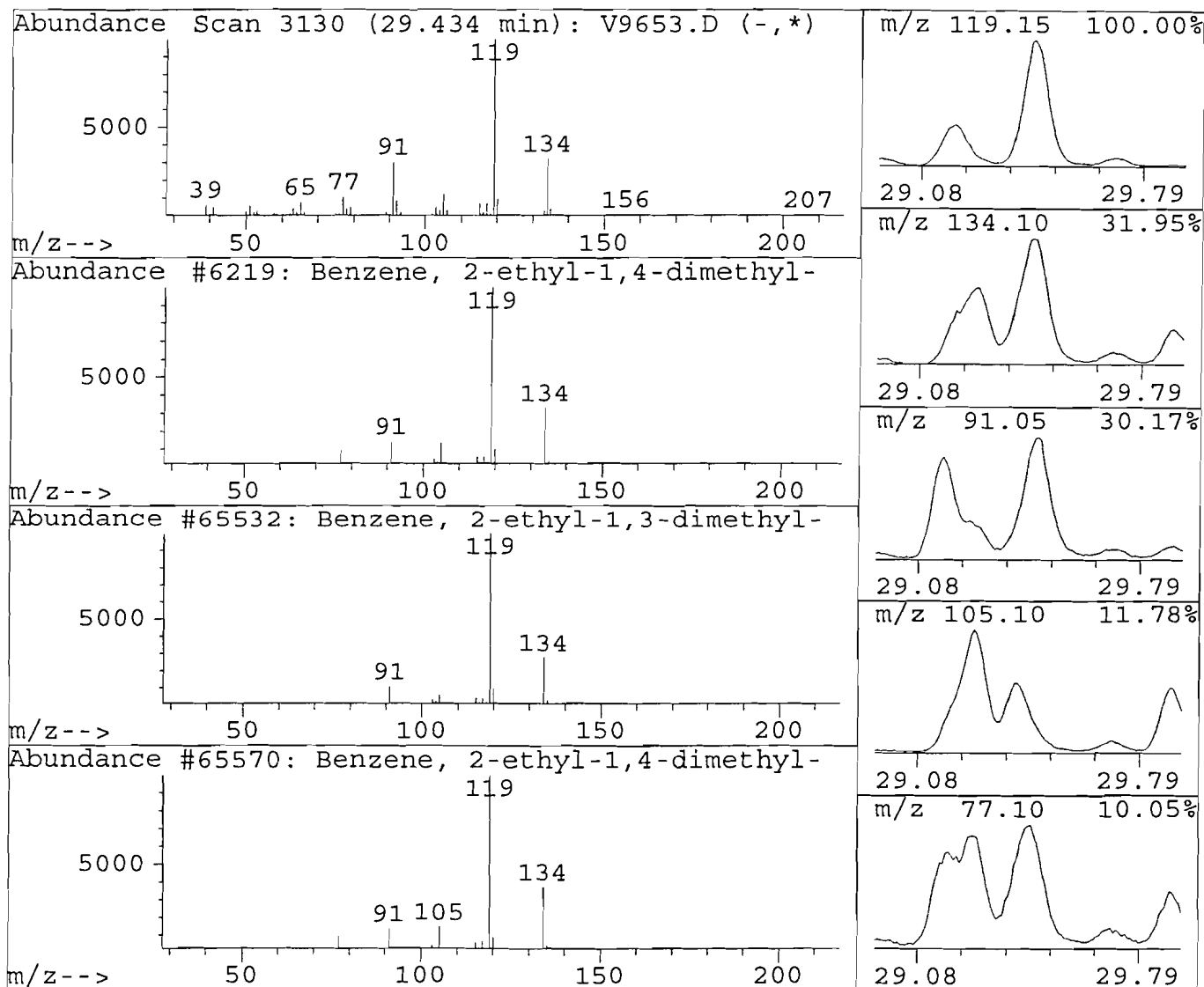
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.43	24.13 ug/L	6995516	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	94
2	Benzene, 2-ethyl-1,3-dimethyl-	65532	002870-04-4	93
3	Benzene, 2-ethyl-1,4-dimethyl-	65570	001758-88-9	91
4	Benzene, 1-ethyl-2,3-dimethyl-	6211	000933-98-2	91
5	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	91



000177

Library Search Compound Report

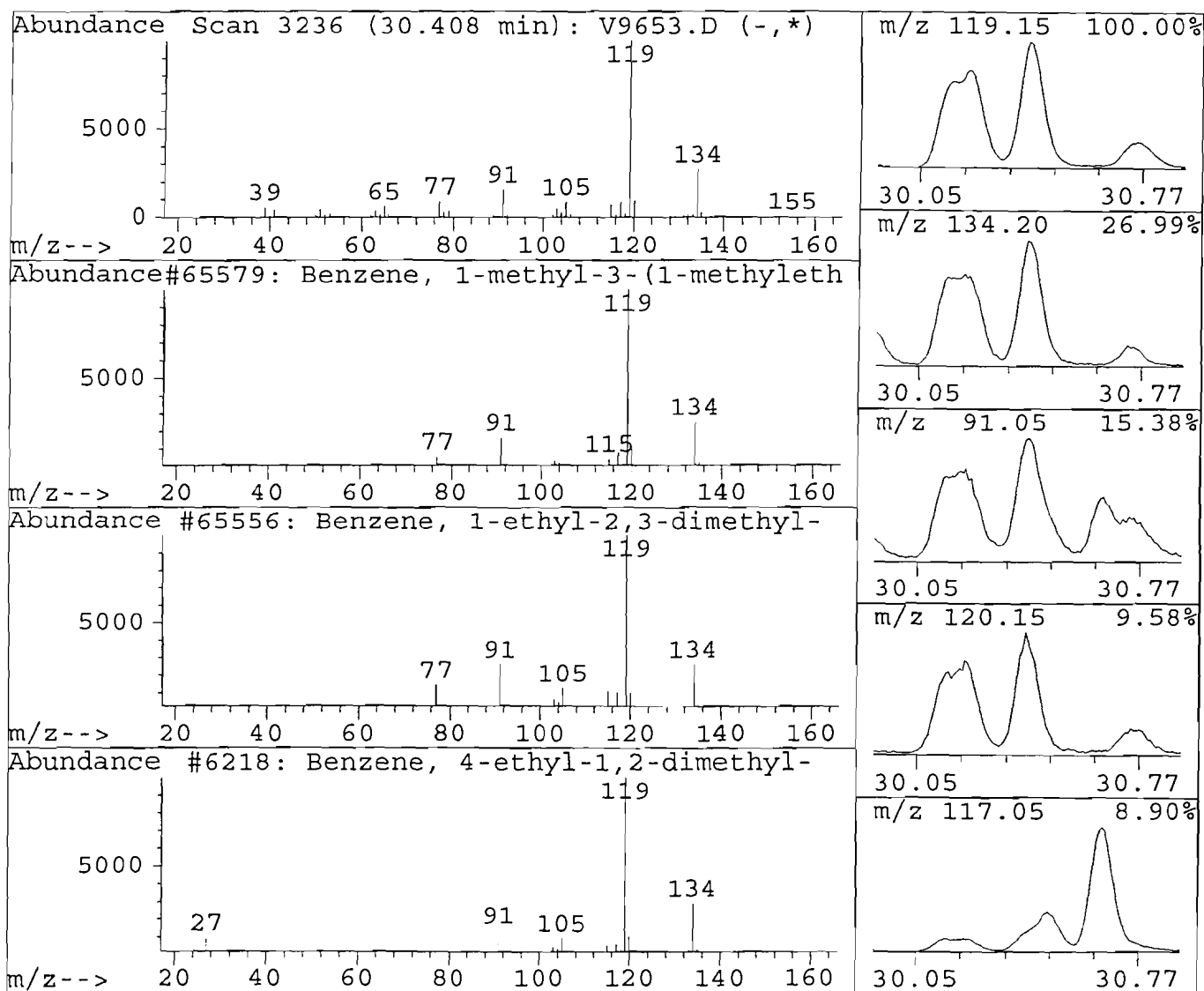
Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D
Acq Time : 29 Oct 99 5:03 am
Sample : L5320ASP-91756 5X DIL
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.41	16.29 ug/L	4722233	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	95
2	Benzene, 1-ethyl-2,3-dimethyl-	65556	000933-98-2	95
3	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	94
4	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	94
5	Benzene, 1-methyl-4-(1-methylethyl)	65536	000099-87-6	94



000178

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9653.D

Acq Time : 29 Oct 99 5:03 am

Sample : L5320ASP-91756 5X DIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

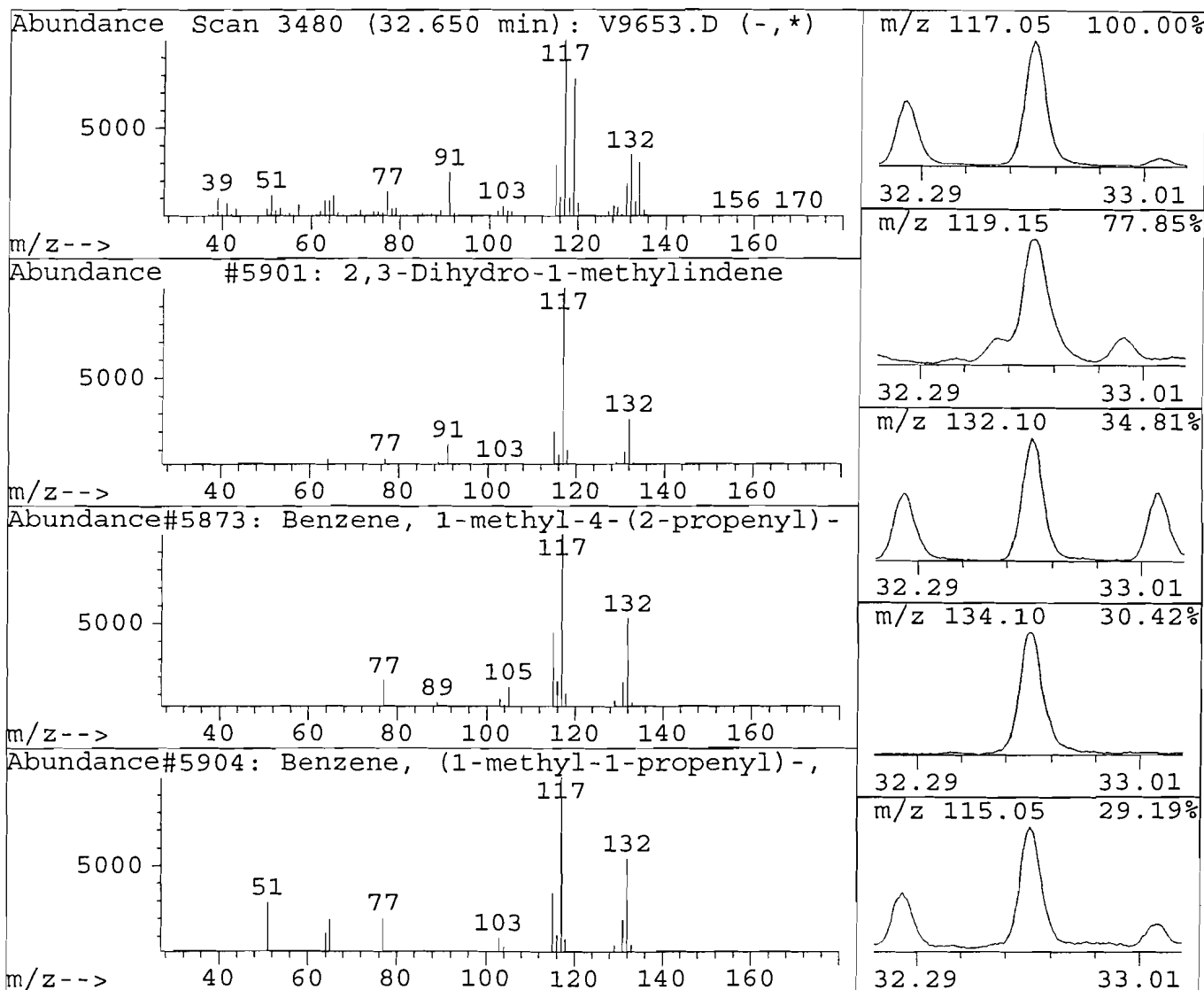
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.65	29.29 ug/L	8492006	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,3-Dihydro-1-methylindene	5901	027133-93-3	60
2	Benzene, 1-methyl-4-(2-propenyl)-	5873	003333-13-9	55
3	Benzene, (1-methyl-1-propenyl)-, (Z)	5904	000767-99-7	55
4	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	55
5	Indan, 1-methyl-	5882	000767-58-8	55



000179

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-031-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91757

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9641.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	7.1		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	4.7		
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	1.9		
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	2		
95-47-6	o-xylene	3.7		
95-50-1	1,2-Dichlorobenzene	1.1		
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-031-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91757
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9641.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 19 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 526-73-8	Benzene, 1,2,3-trimethyl-	27.61	4.1	J
2. 629-50-5	Tridecane	29.73	7.7	J
3. 112-40-3	Dodecane	32.54	18	J
4. 17301-23-4	Undecane, 2,6-dimethyl-	32.91	4.7	J
5.	Unknown	33.94	4.1	J
6.	Unknown	34.21	3.3	J
7.	Unknown	34.44	14	J
8. 629-50-5	Tridecane	35.14	58	J
9.	Unknown	35.66	5.1	J
10.	Unknown	35.83	3.6	J
11.	Unknown	36.43	14	J
12. 1560-96-9	Tridecane, 2-methyl-	36.70	21	J
13.	Unknown	36.90	5.9	J
14. 3891-98-3	Dodecane, 2,6,10-trimethyl-	37.04	20	J
15. 264-09-5	Benzocycloheptatriene	37.20	16	J
16. 629-59-4	Tetradecane	37.55	61	J
17. 91-57-6	Naphthalene, 2-methyl-	37.65	12	J
18.	Unknown	38.03	3.5	J
19.	Unknown	38.52	3.7	J
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Quant Time: Oct 29 6:50 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.80	128	553688	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.37	114	3016752	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.37	117	2561878	30.00	ug/L	0.00
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	981445	30.02	ug/L	100.05%
36) Toluene-d8	18.45	98	3663153	31.47	ug/L	104.89%
45) Bromofluorobenzene	25.53	95	2118587	31.00	ug/L	103.32%
Target Compounds						Qvalue
M: 8) Acetone	5.12	43	39605	4.52	ug/L	93
10) Methylene Chloride	6.01	84	255350	7.12	ug/L	97
13) MTBE	6.58	73	243388	2.21	ug/L	95
M: 15) cis-1,2-Dichloroethene	9.89	96	1646537	40.46	ug/L	97
24) Benzene	12.82	78	255983	1.93	ug/L	100
25) Trichloroethene	15.01	130	192324	4.70	ug/L	96
42) m+ p-Xylenes	23.09	106	125700	1.96	ug/L	96
43) o-xylene	24.09	91	511761	3.72	ug/L	97
49) 1,2-Dichlorobenzene	29.58	146	72951	1.09	ug/L	98

000182

(#) = qualifier out of range (m) = manual integration

V9641.D V11027AW.M

Fri Oct 29 06:50:41 1999

VOA1

Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Quant Time: Oct 29 6:50 1999

Operator: JJ

Inst : 5971 - In

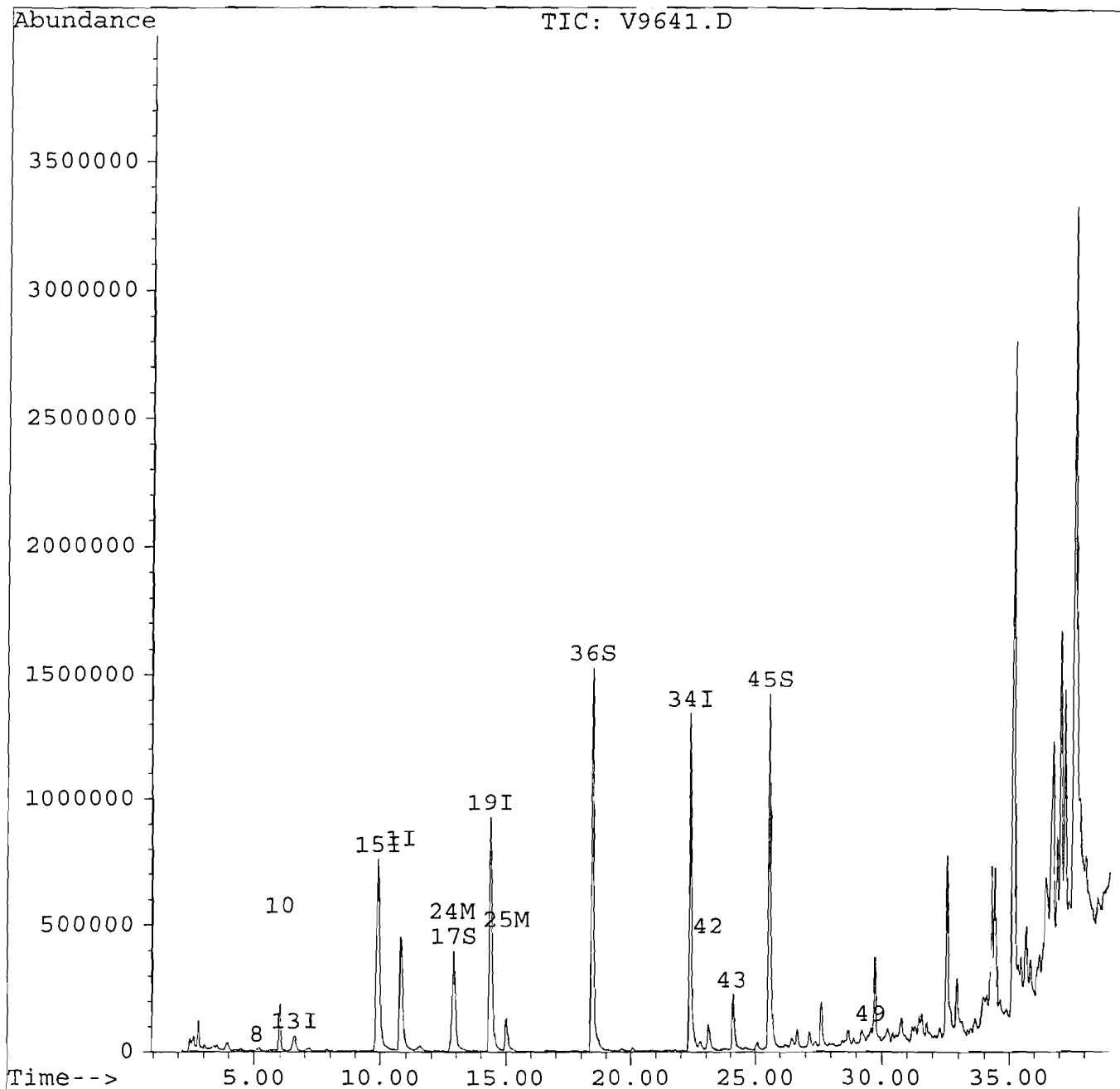
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

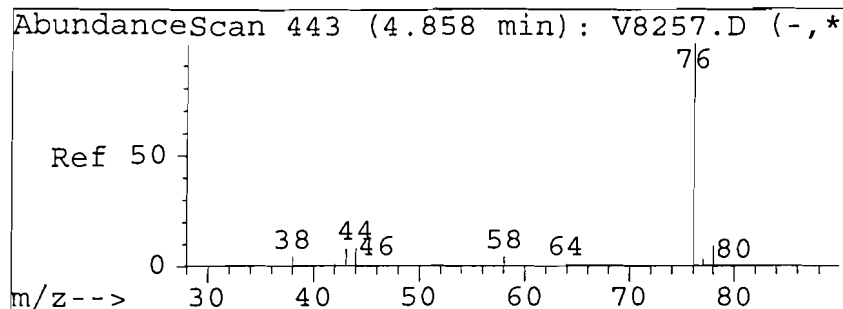
Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

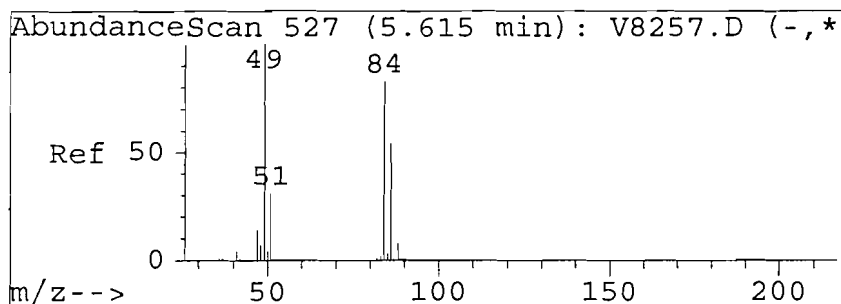
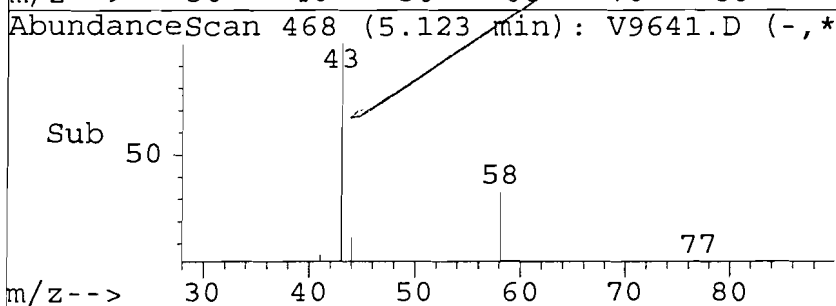
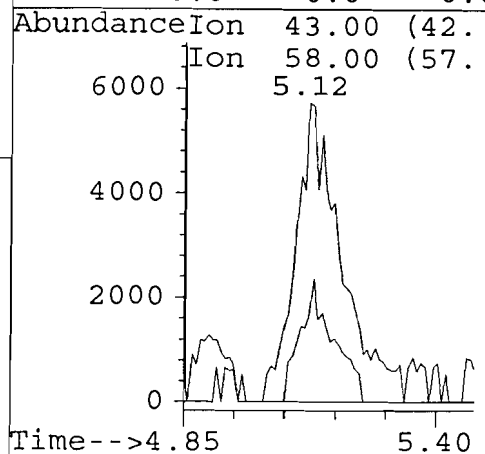
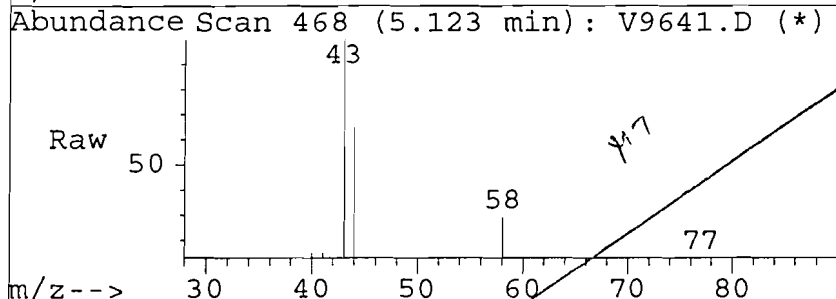


000183



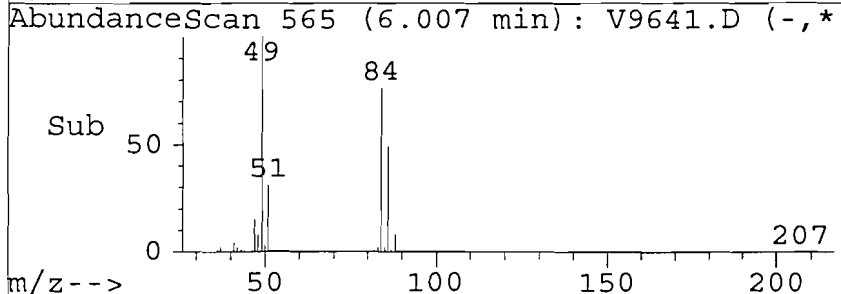
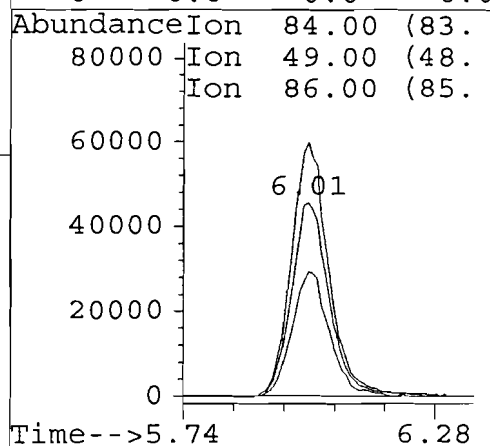
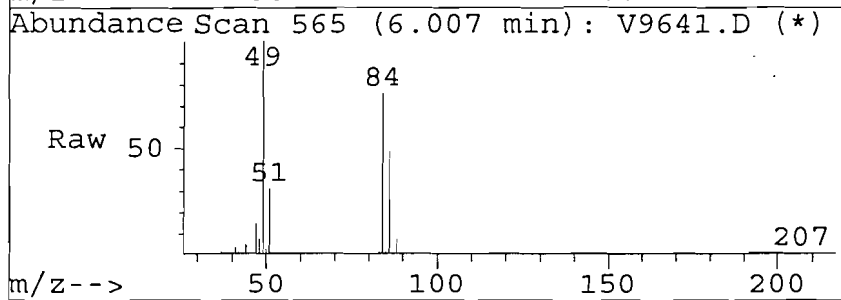
#8
Acetone
Concen: 4.52 ug/L
RT: 5.12 min Scan# 468
Delta R.T. 0.02 min
Lab File: V9641.D
Acq: 28 Oct 99 8:01 pm

Tgt Ion:	43	Resp:	39605
Ion	Ratio	Lower	Upper
43	100		
58	28.7	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



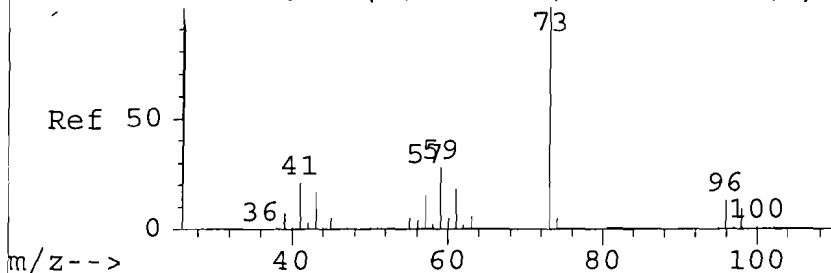
#10
Methylene Chloride
Concen: 7.12 ug/L
RT: 6.01 min Scan# 565
Delta R.T. 0.01 min
Lab File: V9641.D
Acq: 28 Oct 99 8:01 pm

Tgt Ion:	84	Resp:	255350
Ion	Ratio	Lower	Upper
84	100		
49	131.2	67.5	202.6
86	64.4	30.8	92.4
0	0.0	0.0	0.0



000184

AbundanceScan 592 (6.202 min): V8257.D (-, *



#13

MTBE

Concen: 2.21 ug/L

RT: 6.58 min Scan# 628

Delta R.T. 0.03 min

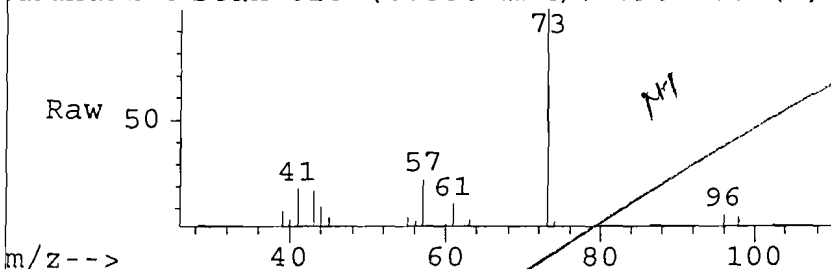
Lab File: V9641.D

Acq: 28 Oct 99 8:01 pm

Tgt Ion:72.95 Resp: 243388

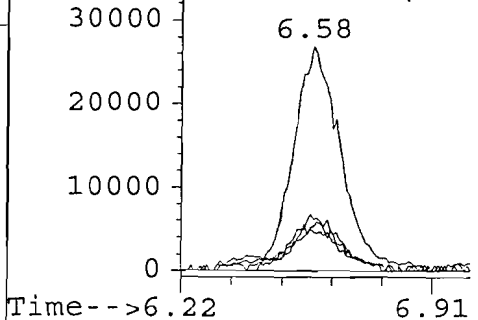
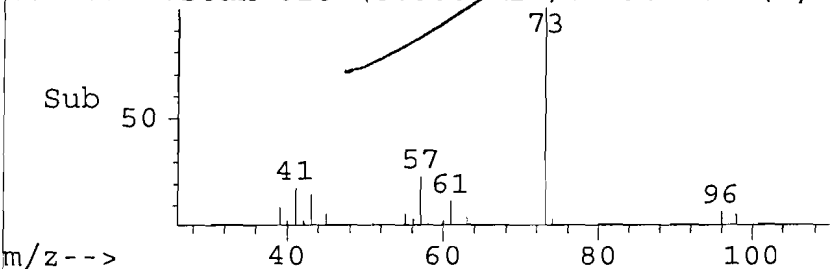
Ion	Ratio	Lower	Upper
73	100		
41	19.5	11.4	34.2
43	17.6	10.0	30.0
57	23.0	20.0	30.0

Abundance Scan 628 (6.580 min): V9641.D (*)

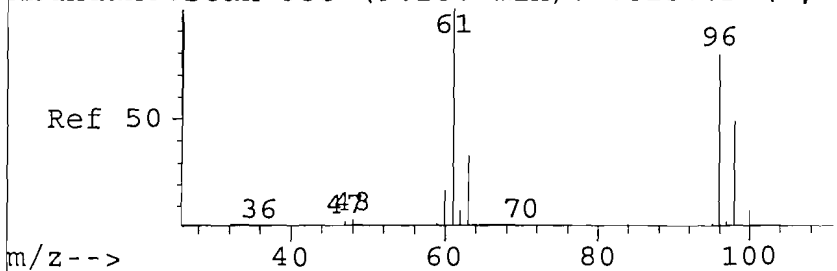


Abundance	Ion	72.95 (72.
40000	Ion	40.95 (40.
	Ion	42.95 (42.
30000	Ion	57.00 (56.

AbundanceScan 628 (6.580 min): V9641.D (-, *



AbundanceScan 935 (9.286 min): V8257.D (-, *



#15

cis-1,2-Dichloroethene

Concen: 40.46 ug/L

RT: 9.89 min Scan# 991

Delta R.T. -0.01 min

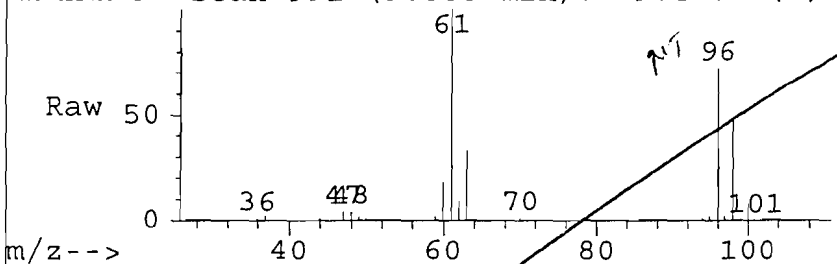
Lab File: V9641.D

Acq: 28 Oct 99 8:01 pm

Tgt Ion:95.95 Resp: 1646537

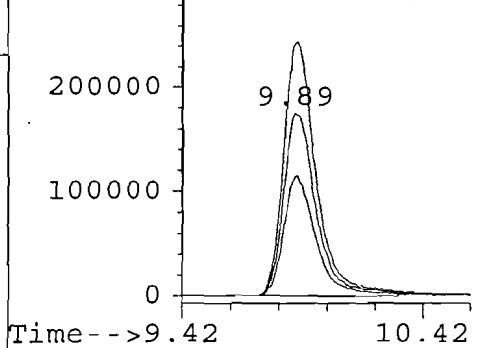
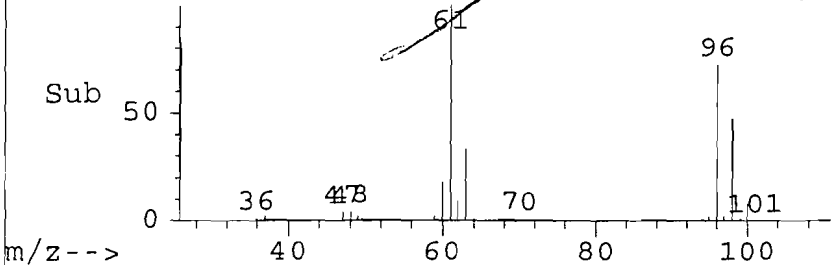
Ion	Ratio	Lower	Upper
96	100		
61	138.4	71.3	213.9
98	65.7	32.5	97.5
0	0.0	0.0	0.0

Abundance Scan 991 (9.888 min): V9641.D (*)

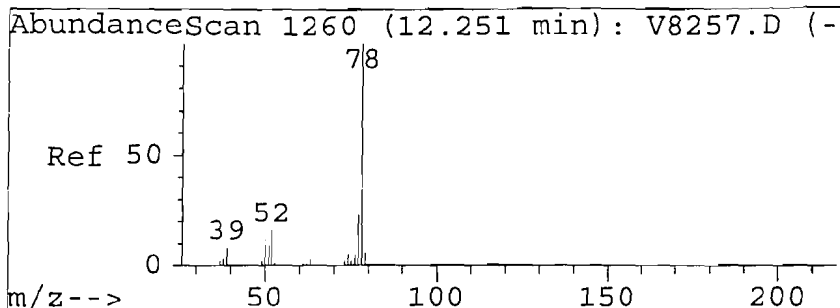


Abundance	Ion	95.95 (95.
300000	Ion	61.00 (60.
	Ion	97.95 (97.

AbundanceScan 991 (9.888 min): V9641.D (-, *



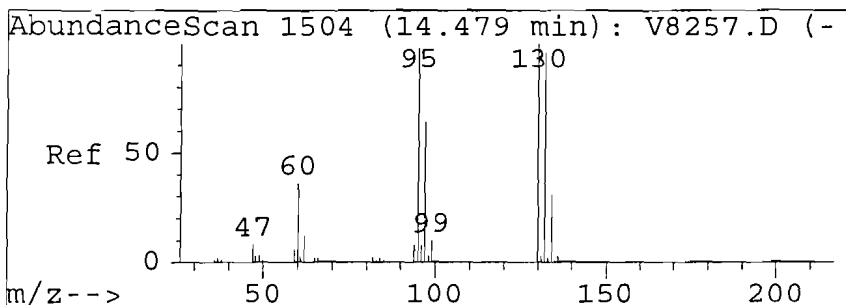
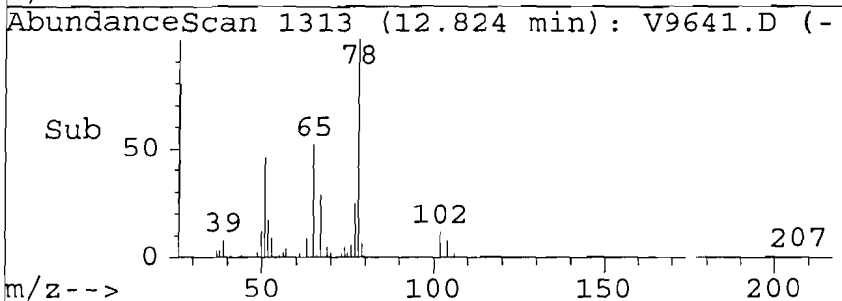
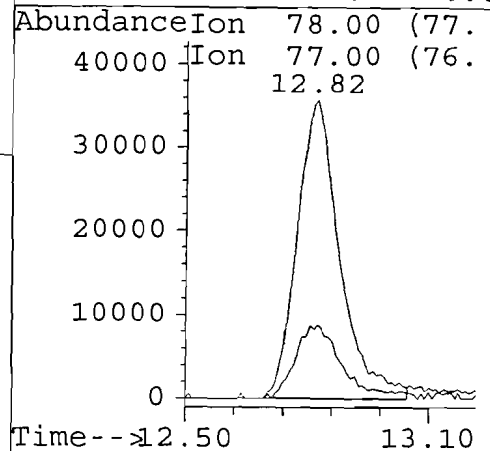
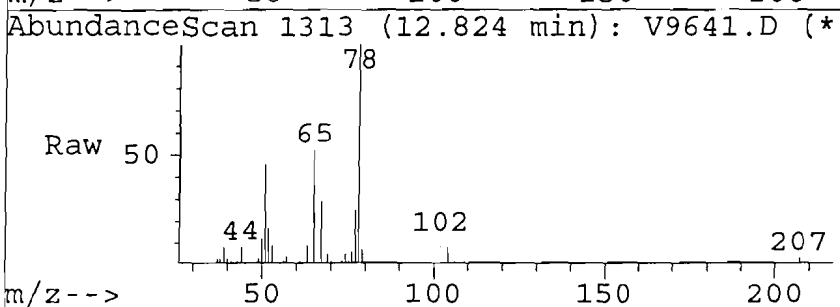
000185



#24
Benzene
Concen: 1.93 ug/L
RT: 12.82 min Scan# 1313
Delta R.T. 0.03 min
Lab File: V9641.D
Acq: 28 Oct 99 8:01 pm

Tgt Ion:78 Resp: 255983

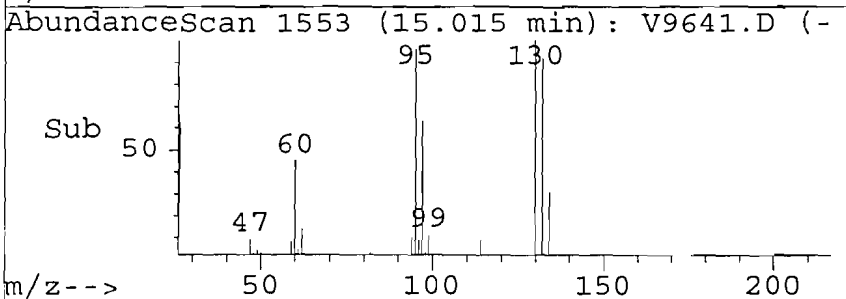
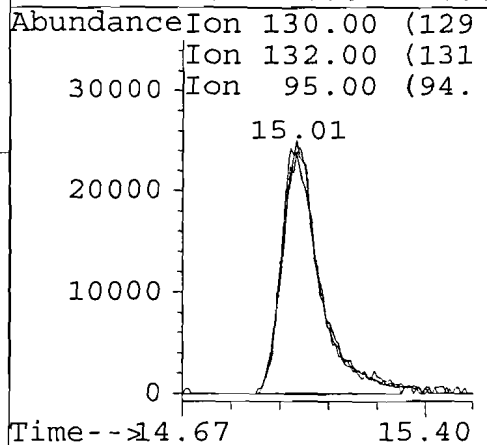
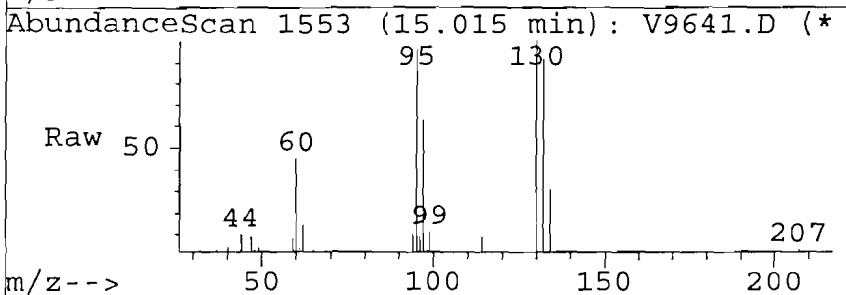
Ion	Ratio	Lower	Upper
78	100		
77	24.5	12.2	36.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0



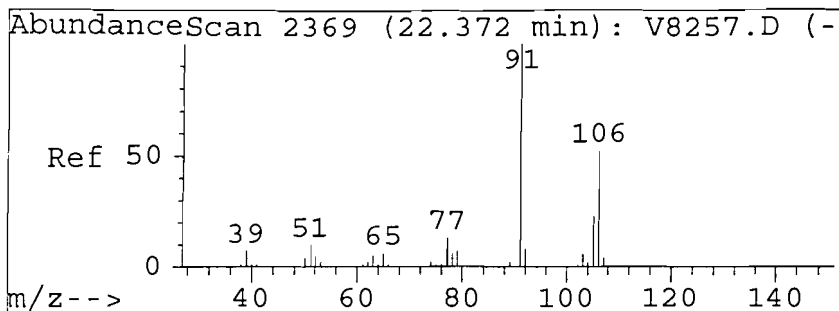
#25
Trichloroethene
Concen: 4.70 ug/L
RT: 15.01 min Scan# 1553
Delta R.T. 0.03 min
Lab File: V9641.D
Acq: 28 Oct 99 8:01 pm

Tgt Ion:130 Resp: 192324

Ion	Ratio	Lower	Upper
130	100		
132	92.1	46.0	138.0
95	96.0	52.2	156.6
0	0.0	0.0	0.0

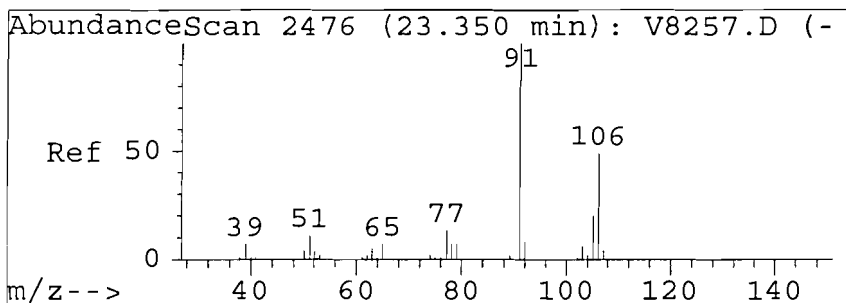
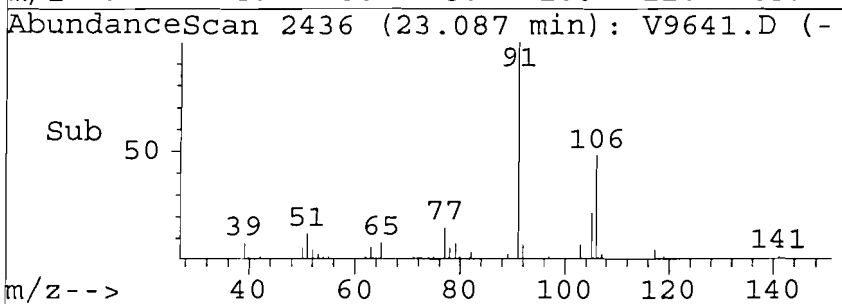
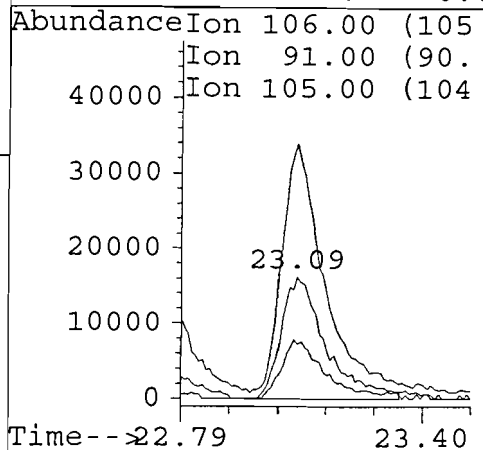
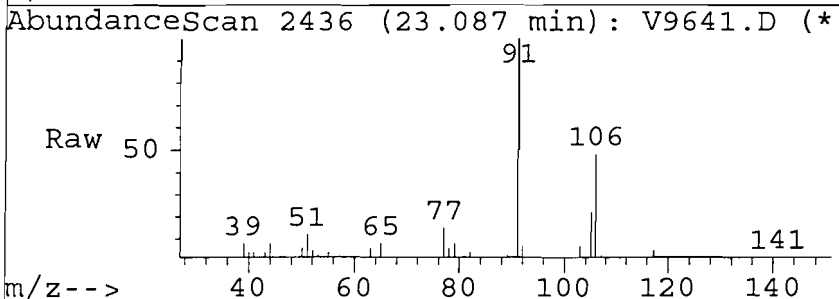


000186



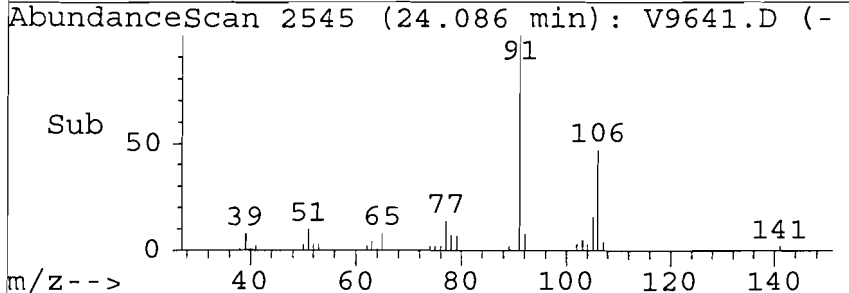
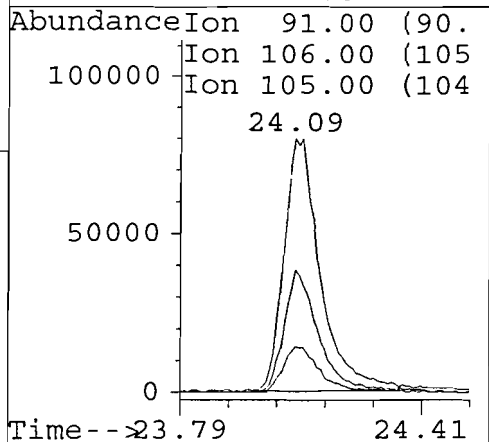
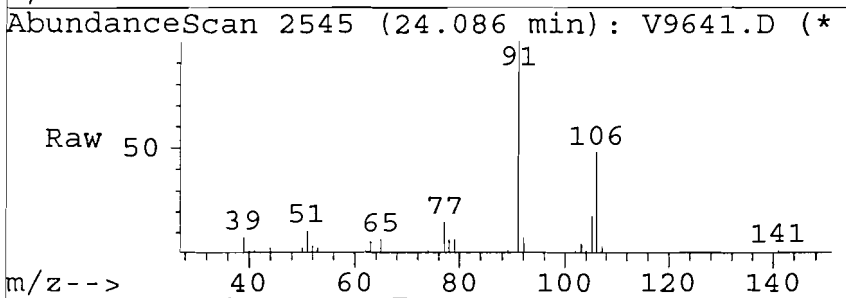
#42
m+ p-Xylenes
Concen: 1.96 ug/L
RT: 23.09 min Scan# 2436
Delta R.T. 0.05 min
Lab File: V9641.D
Acq: 28 Oct 99 8:01 pm

Tgt Ion:	106	Resp:	125700
Ion	Ratio	Lower	Upper
106	100		
91	209.3	100.8	302.4
105	45.2	22.3	66.9
0	0.0	0.0	0.0



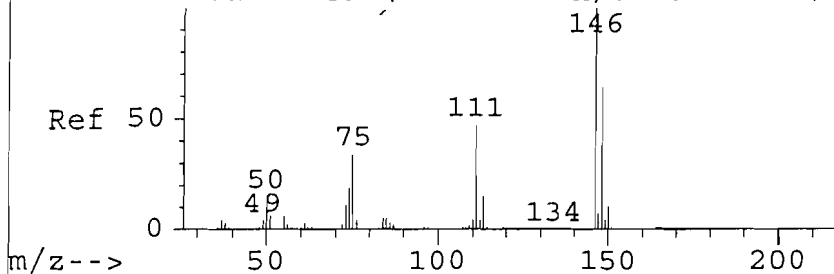
#43
o-xylene
Concen: 3.72 ug/L
RT: 24.09 min Scan# 2545
Delta R.T. 0.03 min
Lab File: V9641.D
Acq: 28 Oct 99 8:01 pm

Tgt Ion:	91	Resp:	511761
Ion	Ratio	Lower	Upper
91	100		
106	48.2	23.0	69.0
105	18.1	9.2	27.6
0	0.0	0.0	0.0

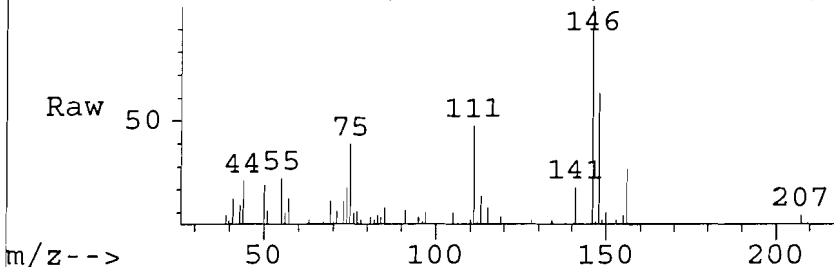


000187

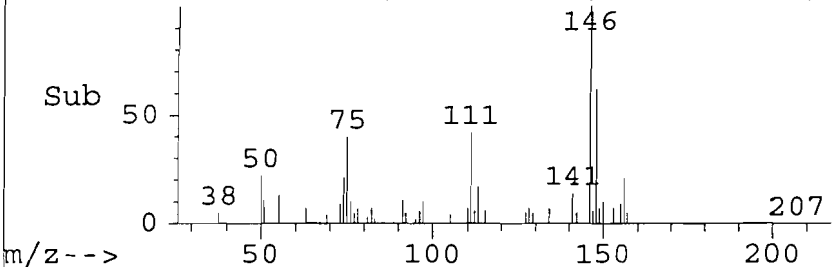
AbundanceScan 3043 (28.534 min): V8257.D (-



AbundanceScan 3144 (29.578 min): V9641.D (*)



AbundanceScan 3144 (29.578 min): V9641.D (-



#49

1,2-Dichlorobenzene

Concen: 1.09 ug/L

RT: 29.58 min Scan# 3144

Delta R.T. 0.10 min

Lab File: V9641.D

Acq: 28 Oct 99 8:01 pm

Tgt Ion:146 Resp: 72951

Ion Ratio Lower Upper

146 100

111 47.7 25.3 75.8

75 40.2 19.9 59.7

148 61.9 38.0 88.6

AbundanceIon 146.00 (145

Ion 111.00 (110

Ion 75.00 (74.

Ion 148.00 (147

15000

29.58

10000

5000

0

Time-->29.33 29.81

000188

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

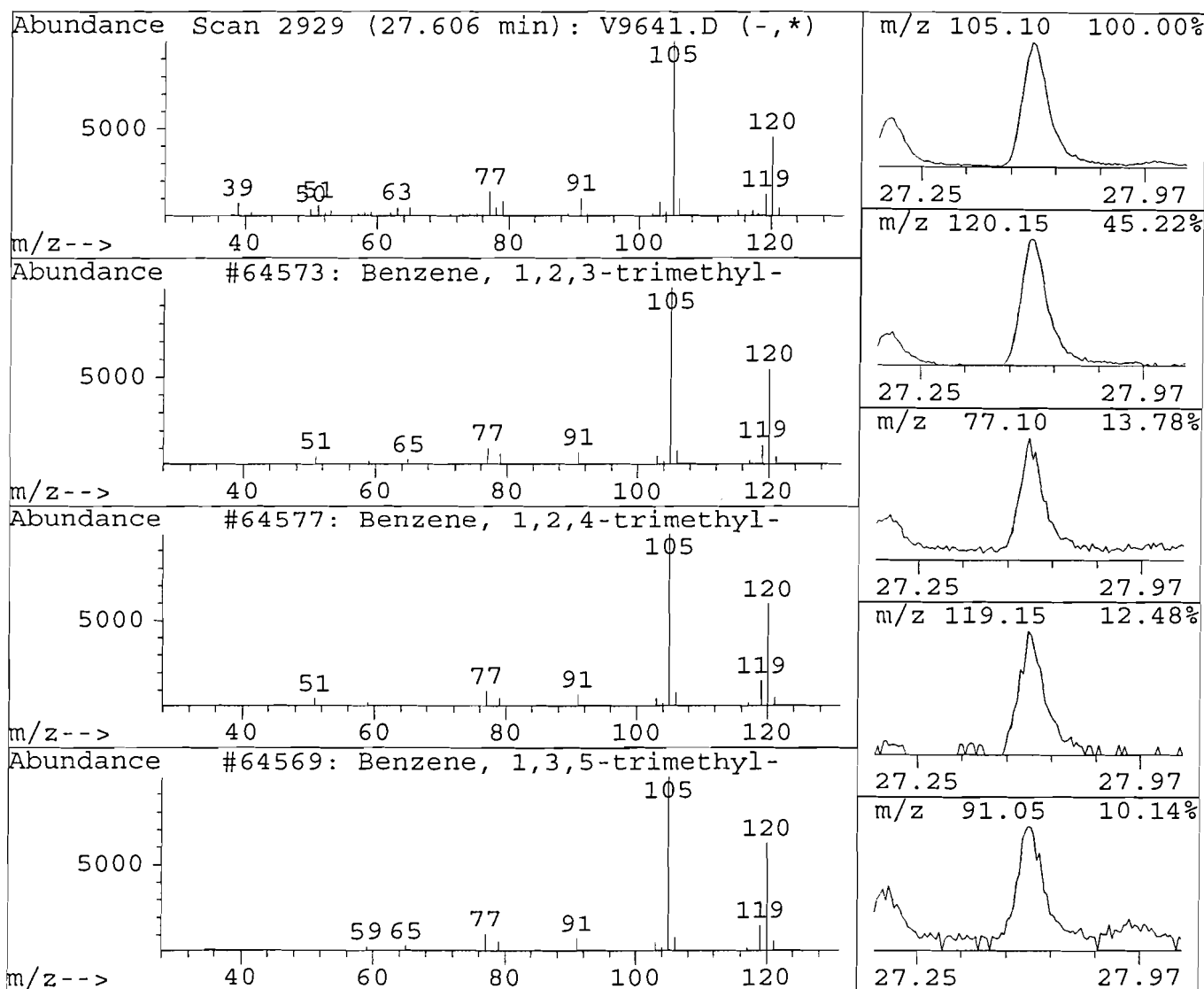
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
27.61	4.10 ug/L	1058576	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-		64573	000526-73-8	95
2	Benzene, 1,2,4-trimethyl-		64577	000095-63-6	95
3	Benzene, 1,3,5-trimethyl-		64569	000108-67-8	95
4	1,2,4-Trimethylbenzene		3771	000095-36-3	95
5	Benzene, 1,2,3-trimethyl-		64574	000526-73-8	94



000189

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

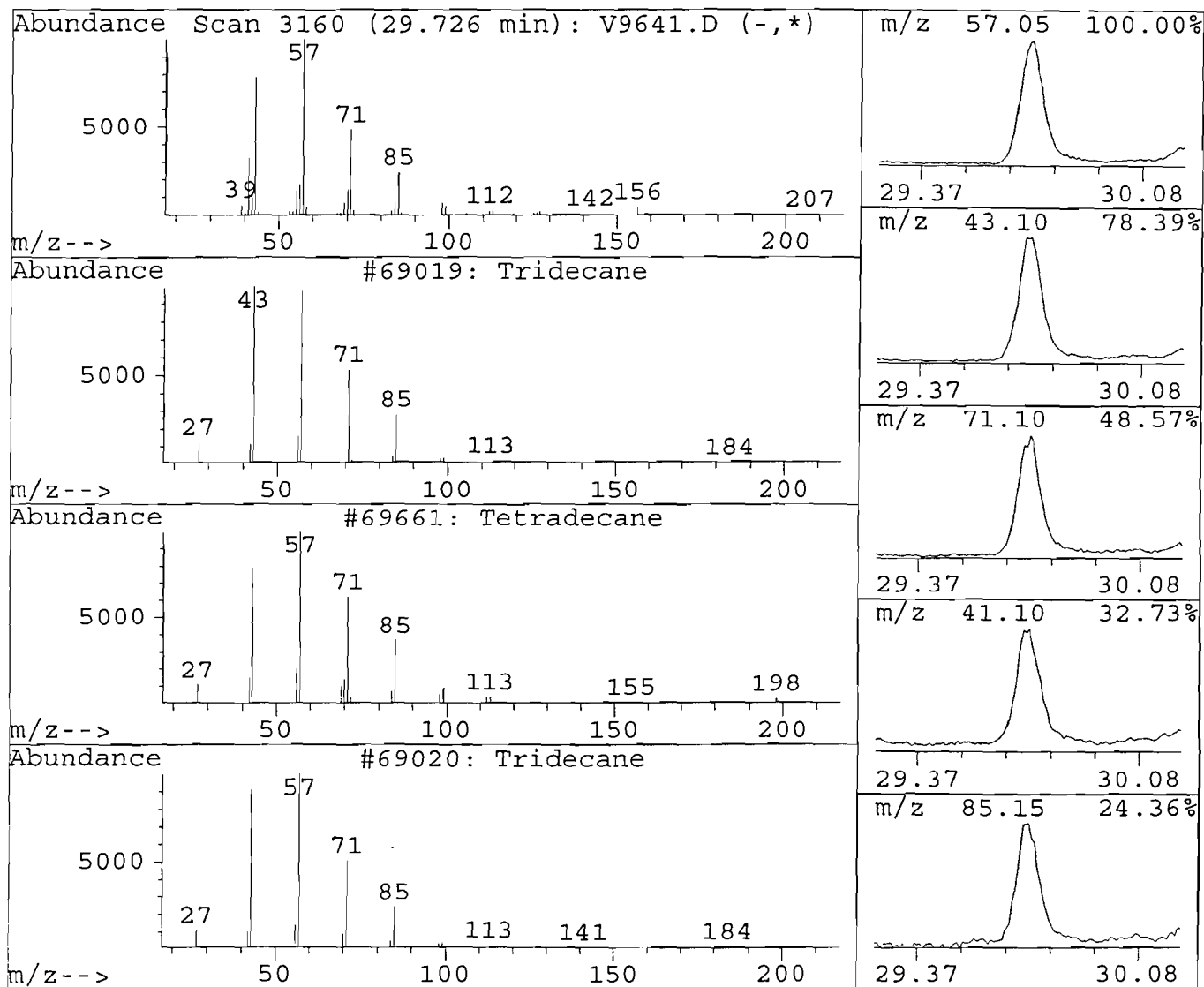
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.73	7.66 ug/L	1977159	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane	69019	000629-50-5	90
2	Tetradecane	69661	000629-59-4	90
3	Tridecane	69020	000629-50-5	90
4	Undecane	67317	001120-21-4	87
5	Undecane	67318	001120-21-4	87



000190

Library Search Compound Report

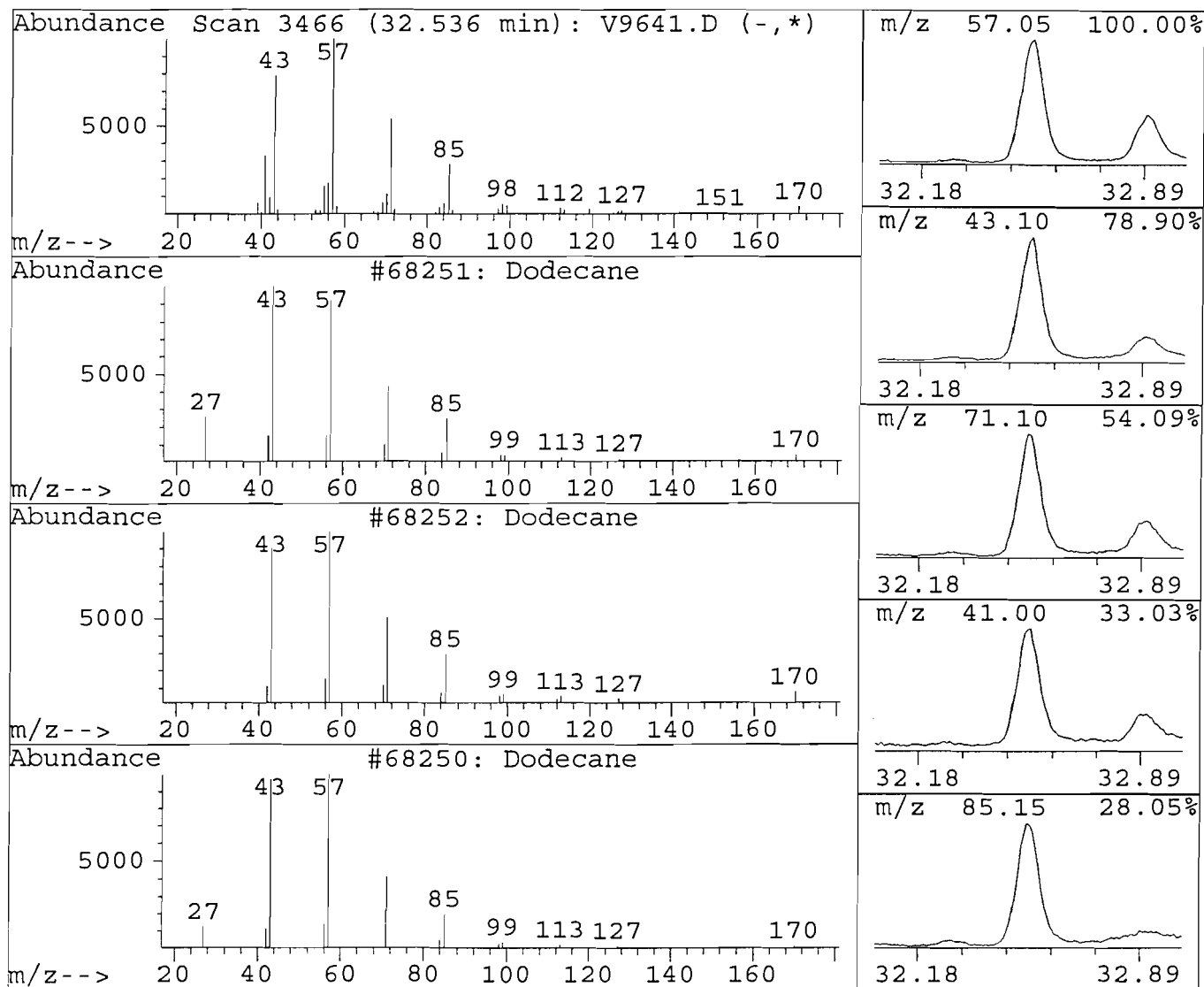
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.54	17.69 ug/L	4564217	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane	68251	000112-40-3	91
2	Dodecane	68252	000112-40-3	90
3	Dodecane	68250	000112-40-3	87
4	Tridecane	69019	000629-50-5	86
5	Hexadecane	70789	000544-76-3	86



000191

Library Search Compound Report

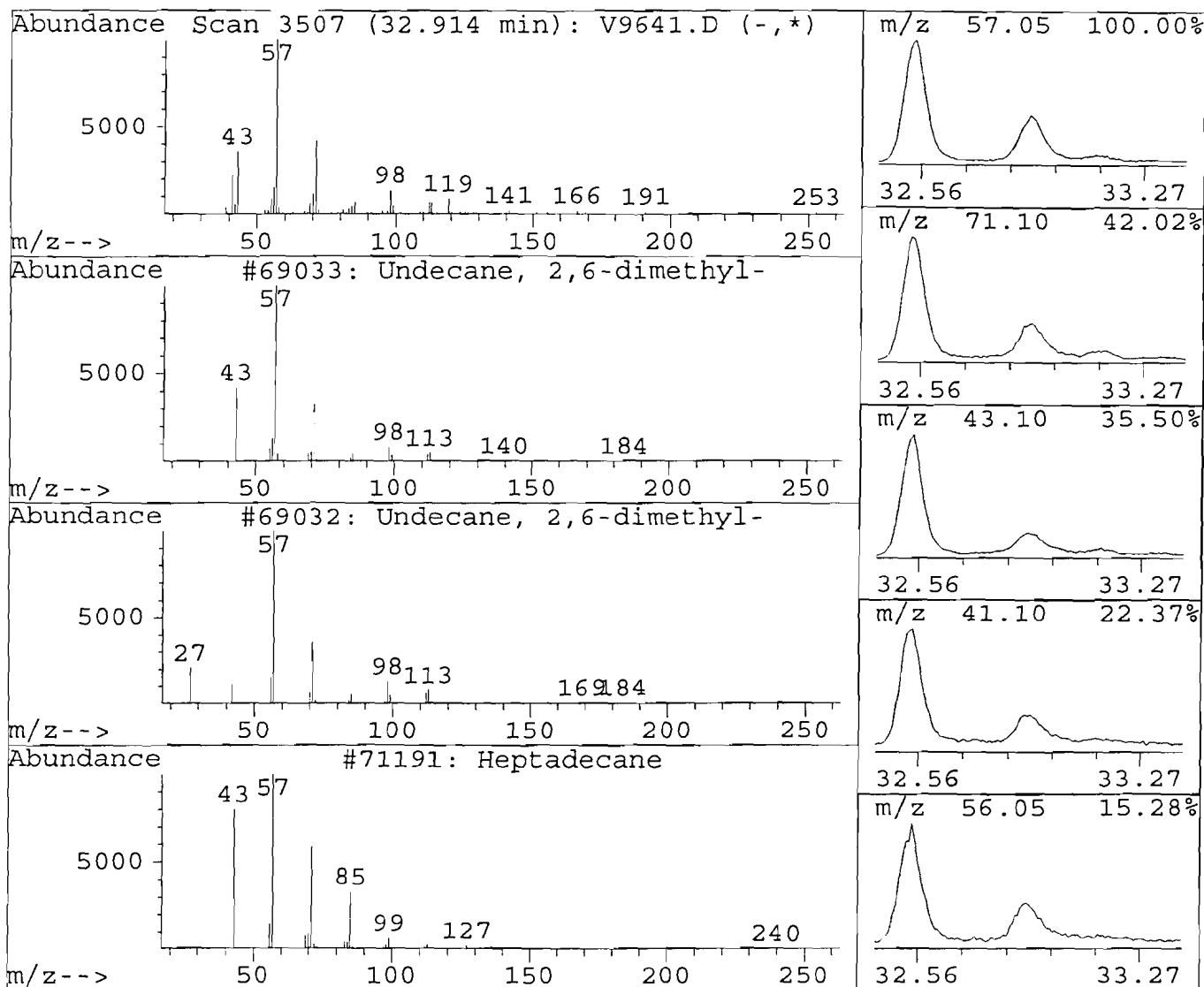
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.91	4.70 ug/L	1213698	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane, 2,6-dimethyl-	69033	017301-23-4	90
2	Undecane, 2,6-dimethyl-	69032	017301-23-4	83
3	Heptadecane	71191	000629-78-7	64
4	Hexadecane	70789	000544-76-3	59
5	Dodecane, 2,6,10-trimethyl-	25995	003891-98-3	53



000192

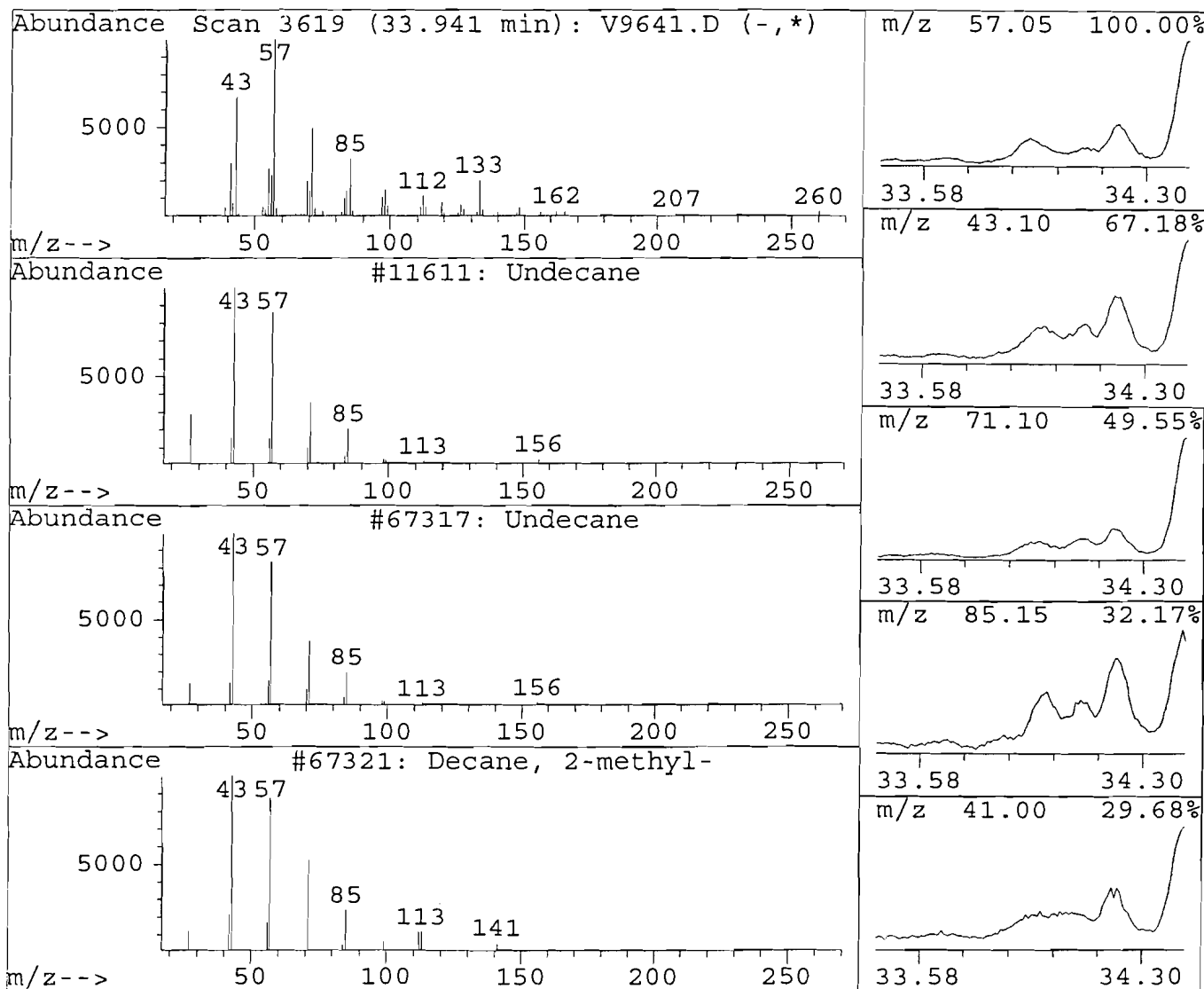
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
33.94	4.13 ug/L	1065003	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Undecane		11611	001120-21-4	70
2	Undecane		67317	001120-21-4	58
3	Decane, 2-methyl-		67321	006975-98-0	58
4	Triacontane		55461	000638-68-6	49
5	Dotriacontane		74490	000544-85-4	49



Library Search Compound Report

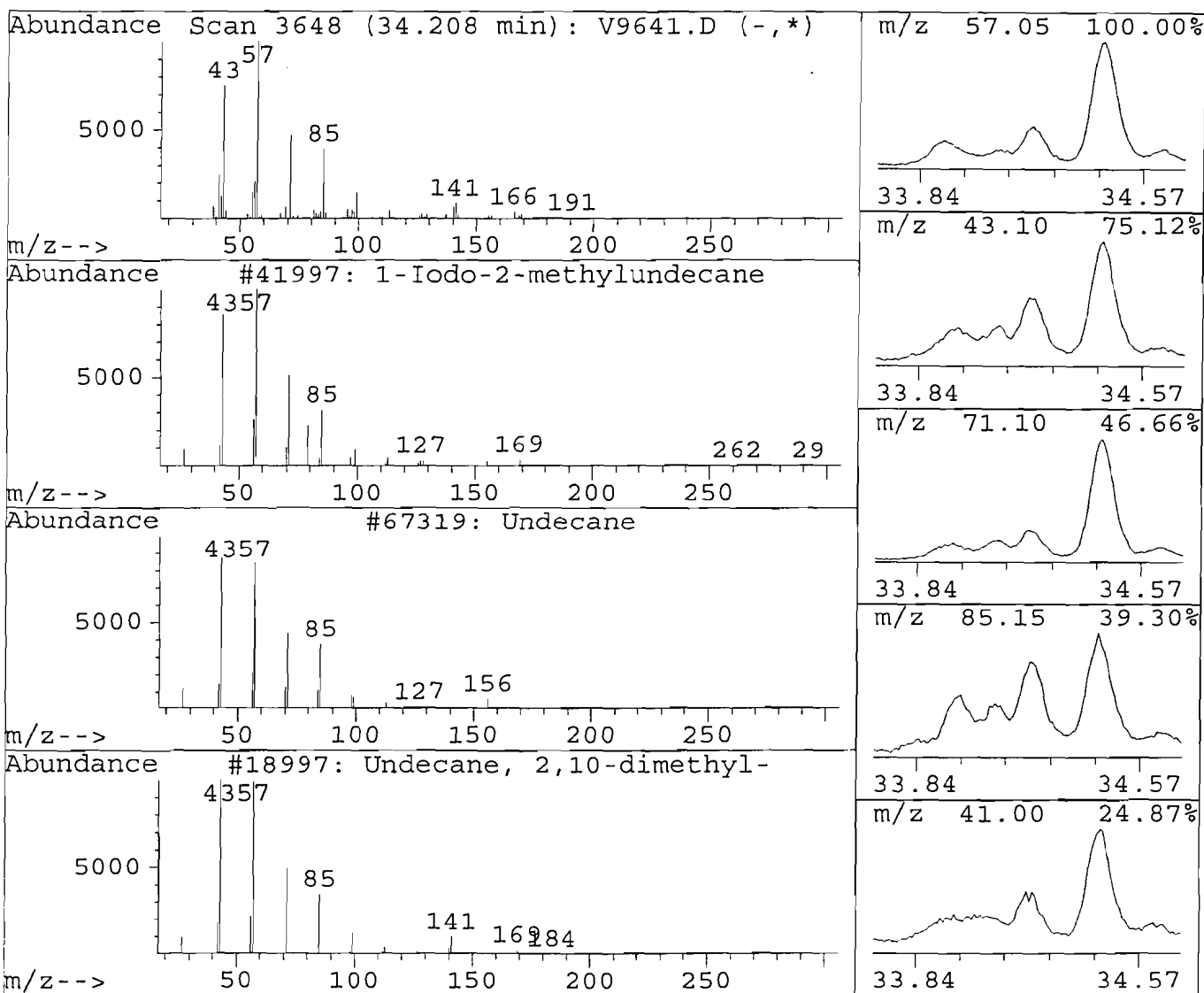
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
34.21	3.29 ug/L	848105	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-Iodo-2-methylundecane	41997	073105-67-6	80
2	Undecane	67319	001120-21-4	72
3	Undecane, 2,10-dimethyl-	18997	017301-27-8	64
4	Pentadecane	70274	000629-62-9	64
5	Heptadecane	32063	000629-78-7	64



000194

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

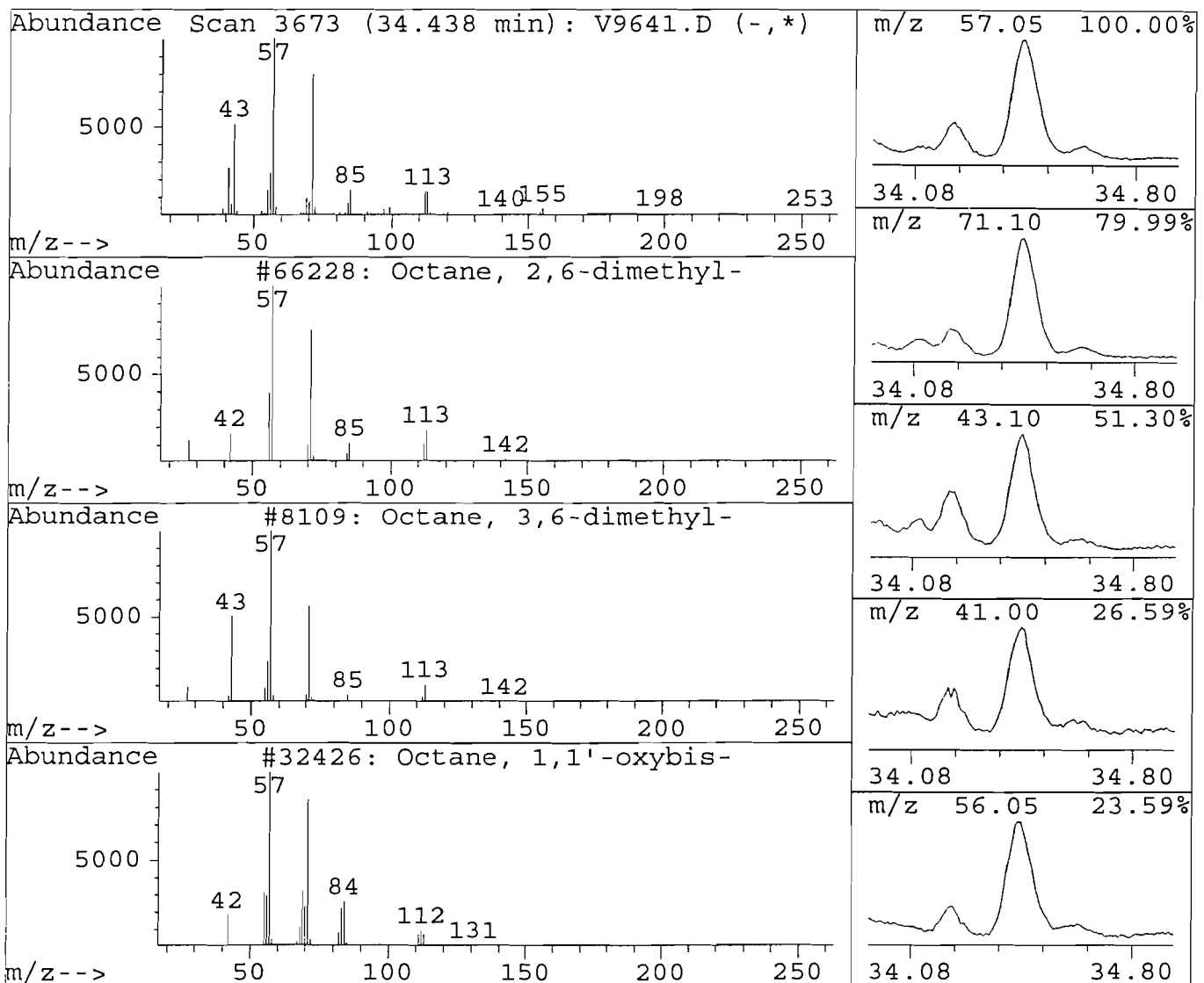
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
34.44	13.90 ug/L	3585750	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane, 2,6-dimethyl-	66228	002051-30-1	72
2	Octane, 3,6-dimethyl-	8109	015869-94-0	72
3	Octane, 1,1'-oxybis-	32426	000629-82-3	64
4	Tridecane, 7-methyl-	22538	026730-14-3	64
5	2-Undecene, 5-methyl-	14755	056851-34-4	64



000195

Library Search Compound Report

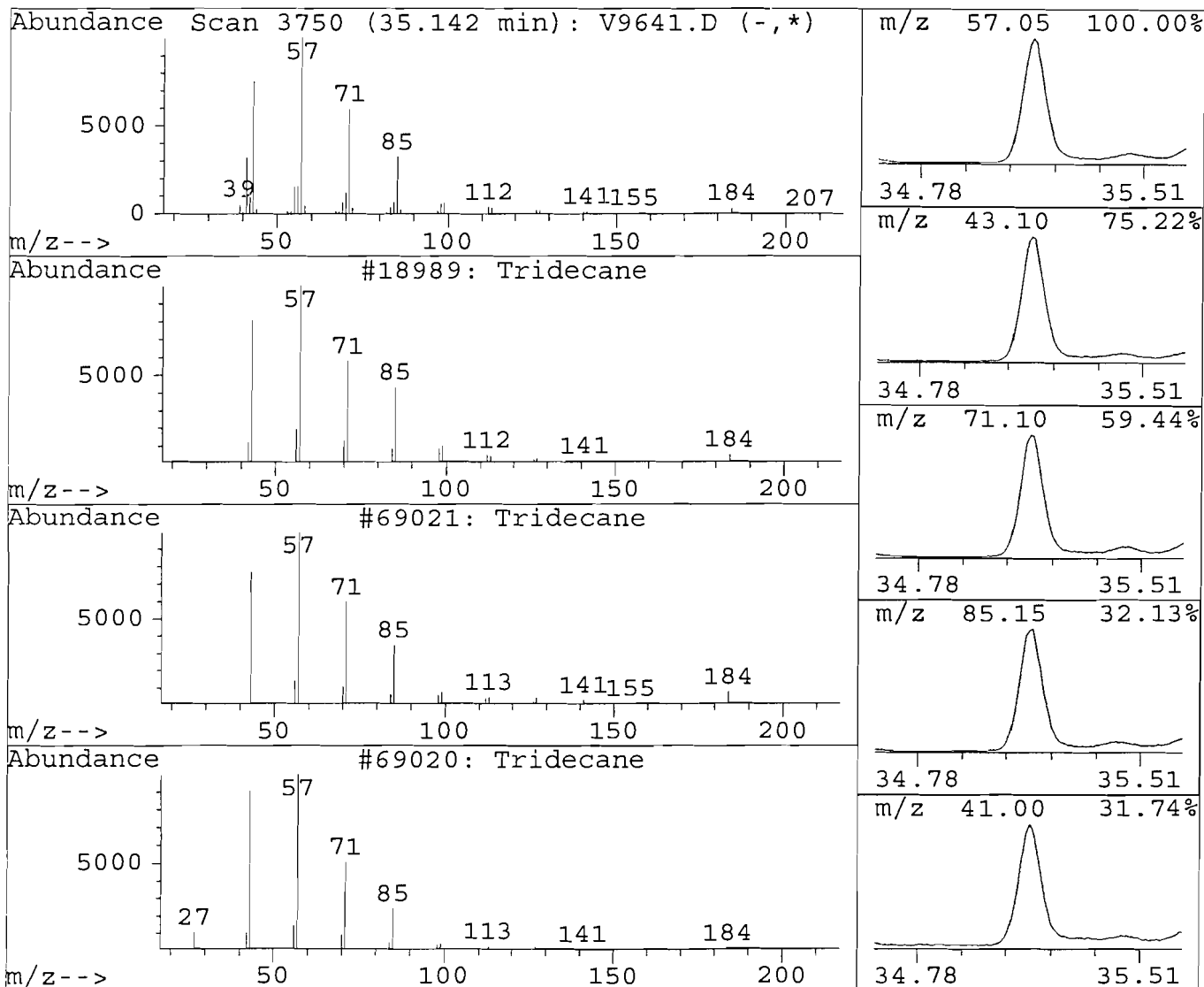
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.14	57.54 ug/L	14845897	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane	18989	000629-50-5	94
2	Tridecane	69021	000629-50-5	94
3	Tridecane	69020	000629-50-5	94
4	Heptadecane	71191	000629-78-7	90
5	Tridecane	69019	000629-50-5	90



000196

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

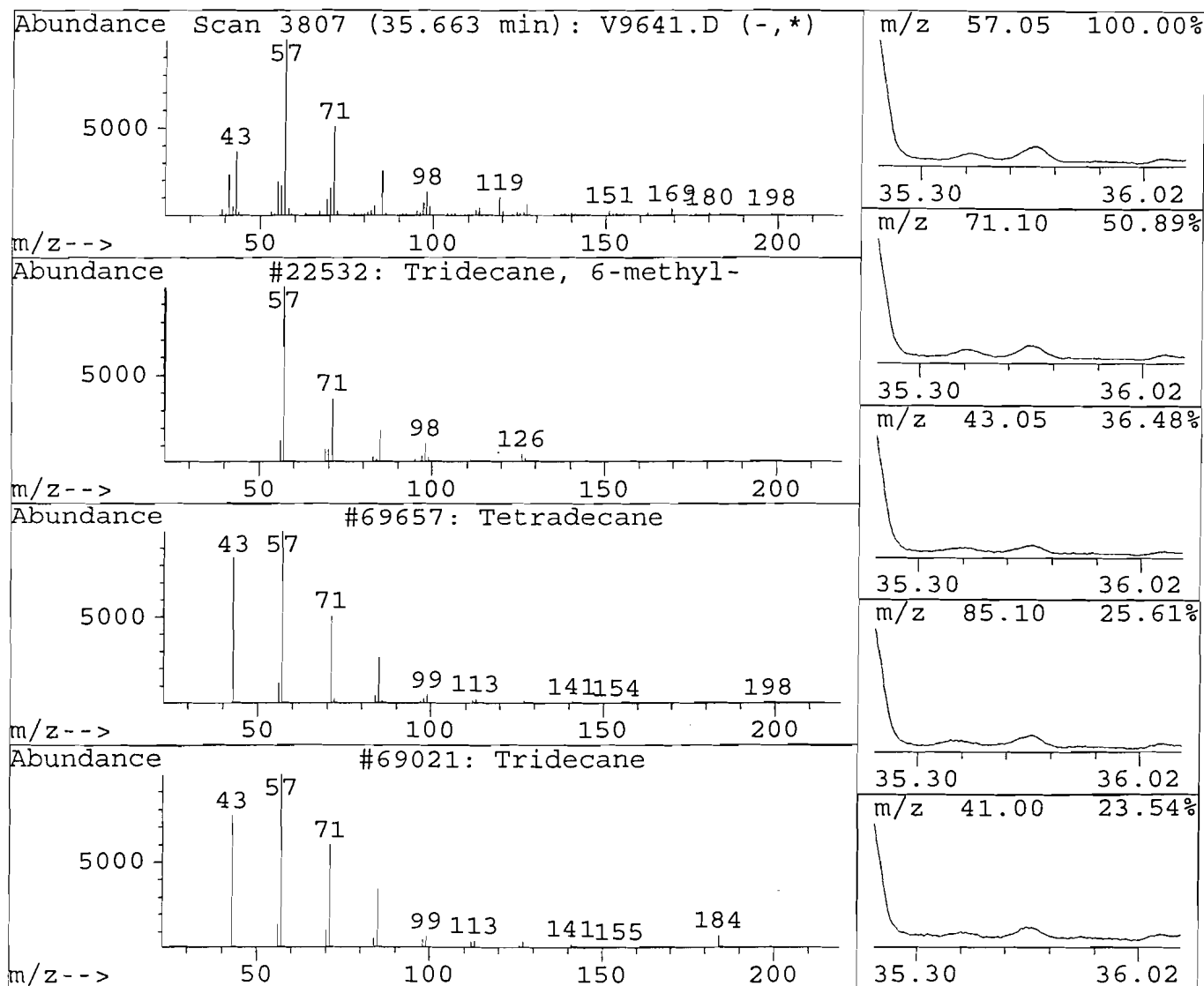
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
35.66	5.13 ug/L	1324666	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Tridecane, 6-methyl-		22532	013287-21-3	72
2	Tetradecane		69657	000629-59-4	72
3	Tridecane		69021	000629-50-5	53
4	Dodecane, 2,5-dimethyl-		22531	056292-65-0	52
5	Heptadecane		71191	000629-78-7	50



000197

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

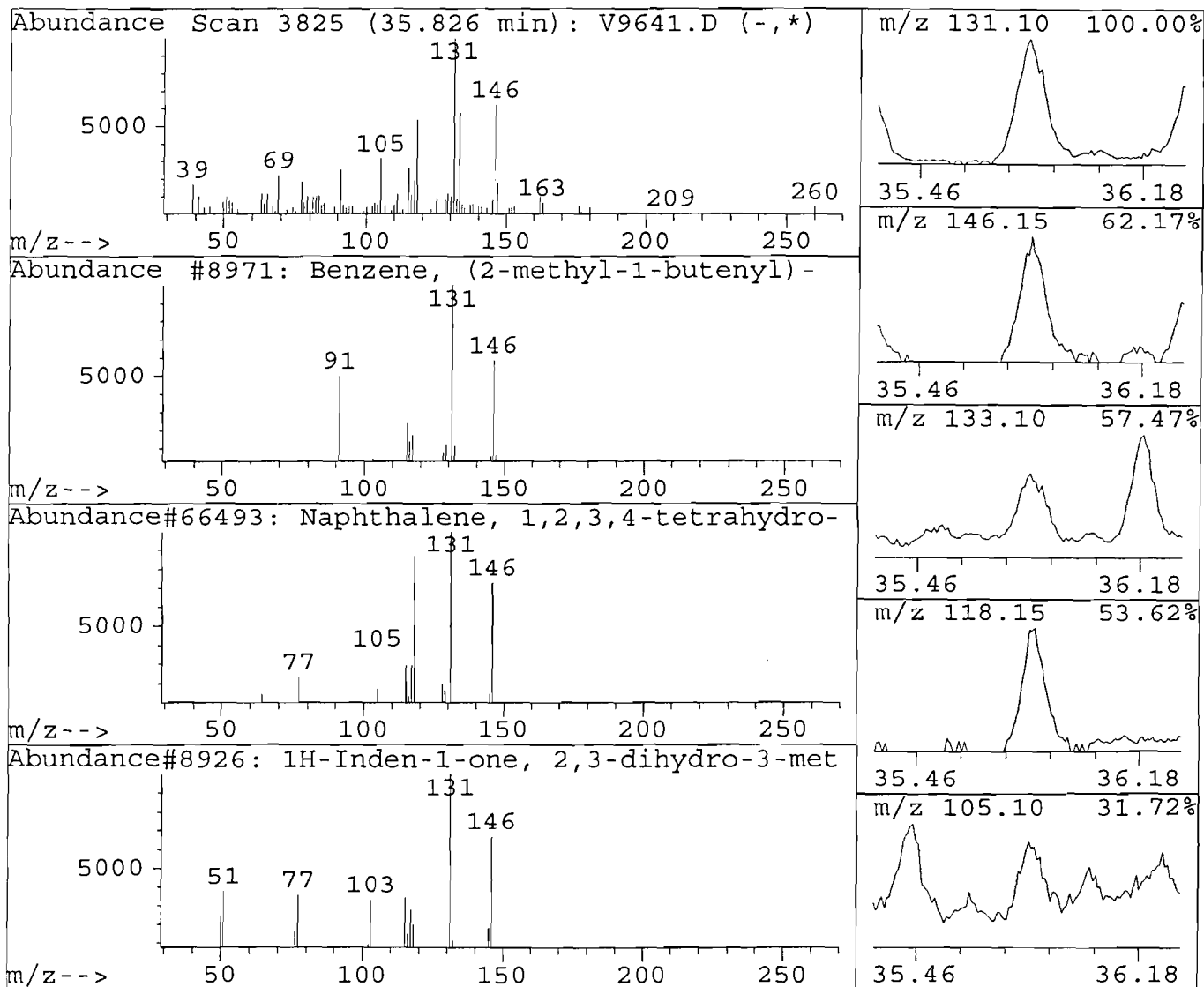
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.83	3.60 ug/L	928625	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (2-methyl-1-butenyl)-	8971	056253-64-6	78
2	Naphthalene, 1,2,3,4-tetrahydro-5-m	66493	002809-64-5	62
3	1H-Inden-1-one, 2,3-dihydro-3-methy	8926	006072-57-7	55
4	Naphthalene, 1,2,3,4-tetrahydro-5-m	8949	002809-64-5	49
5	Naphthalene, 1,2,3,4-tetrahydro-6-m	8964	001680-51-9	46



000198

Library Search Compound Report

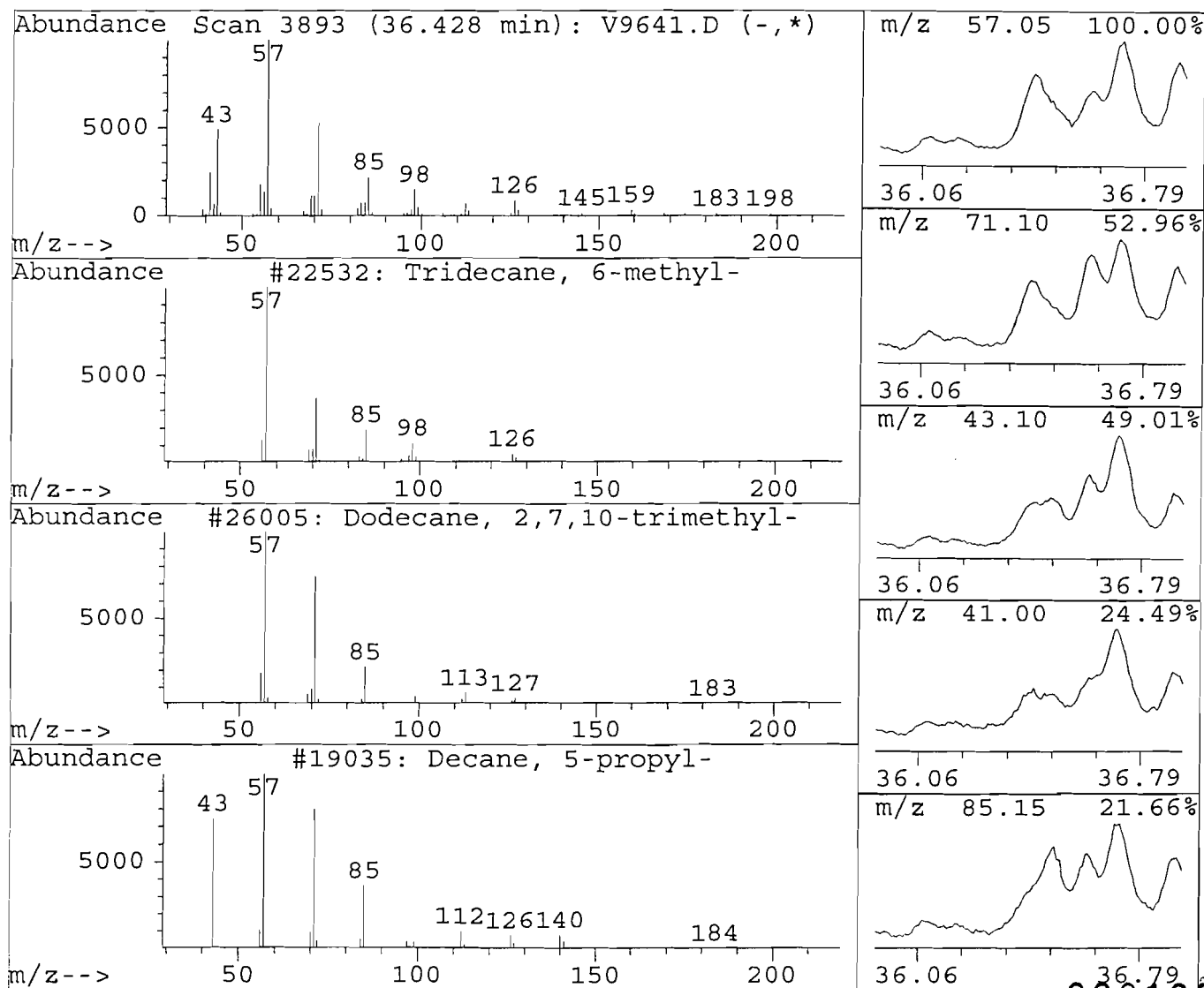
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
36.43	14.24 ug/L	3674122	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane, 6-methyl-	22532	013287-21-3	78
2	Dodecane, 2,7,10-trimethyl-	26005	074645-98-0	64
3	Decane, 5-propyl-	19035	017312-62-8	64
4	Decane, 2,3,5-trimethyl-	19043	062238-11-3	59
5	Nonane, 3-methyl-5-propyl-	19054	031081-18-2	59



000199

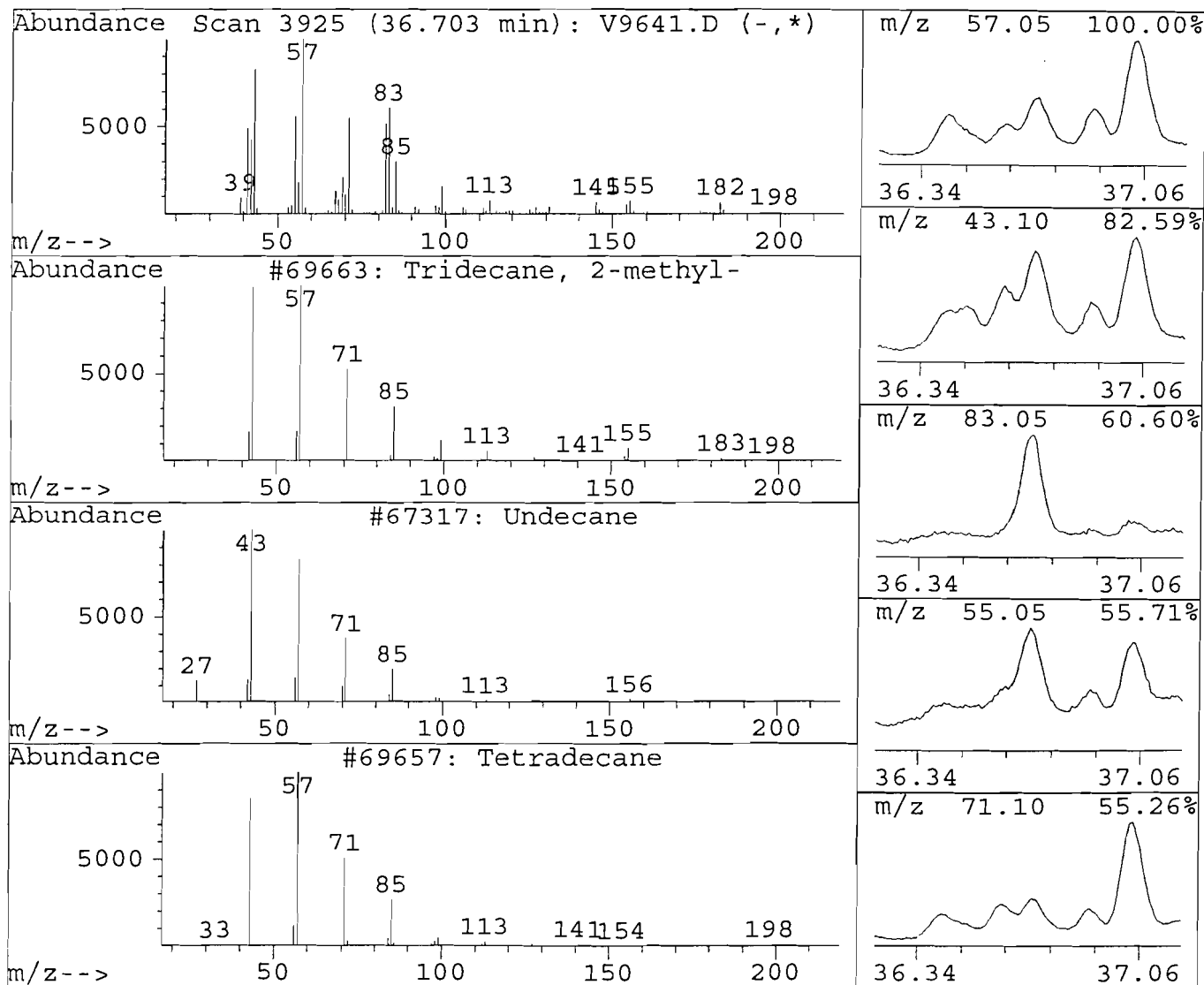
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
36.70	21.06 ug/L	5433113	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Tridecane, 2-methyl-		69663	001560-96-9	90
2	Undecane		67317	001120-21-4	46
3	Tetradecane		69657	000629-59-4	41
4	Pentadecane		70274	000629-62-9	38
5	Hexacosane		73943	000630-01-3	38



000200

Library Search Compound Report

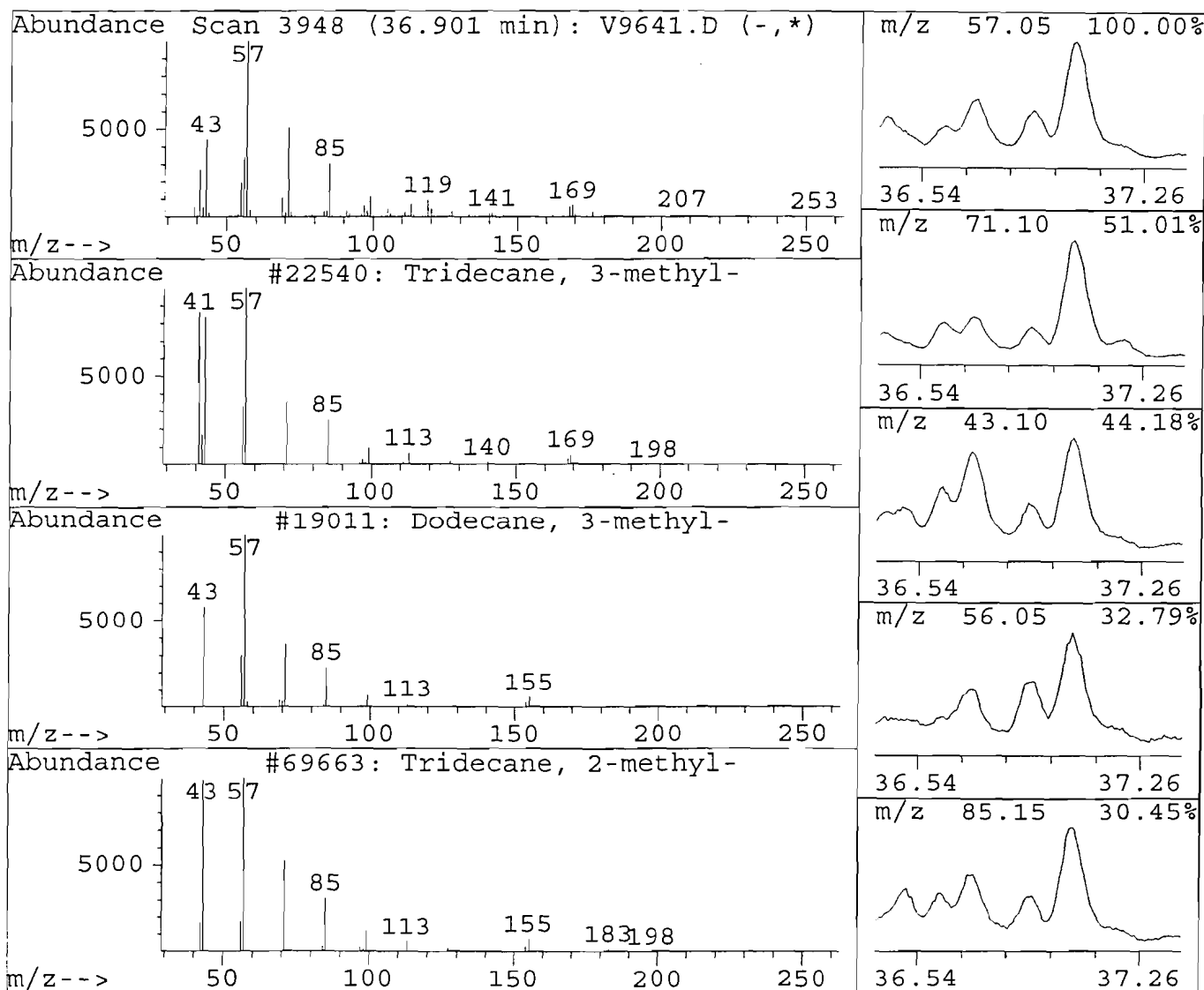
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
36.90	5.86 ug/L	1510796	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane, 3-methyl-	22540	006418-41-3	78
2	Dodecane, 3-methyl-	19011	017312-57-1	64
3	Tridecane, 2-methyl-	69663	001560-96-9	62
4	Tetradecane	69657	000629-59-4	58
5	Decane, 3-methyl-	67314	013151-34-3	53



000201

Library Search Compound Report

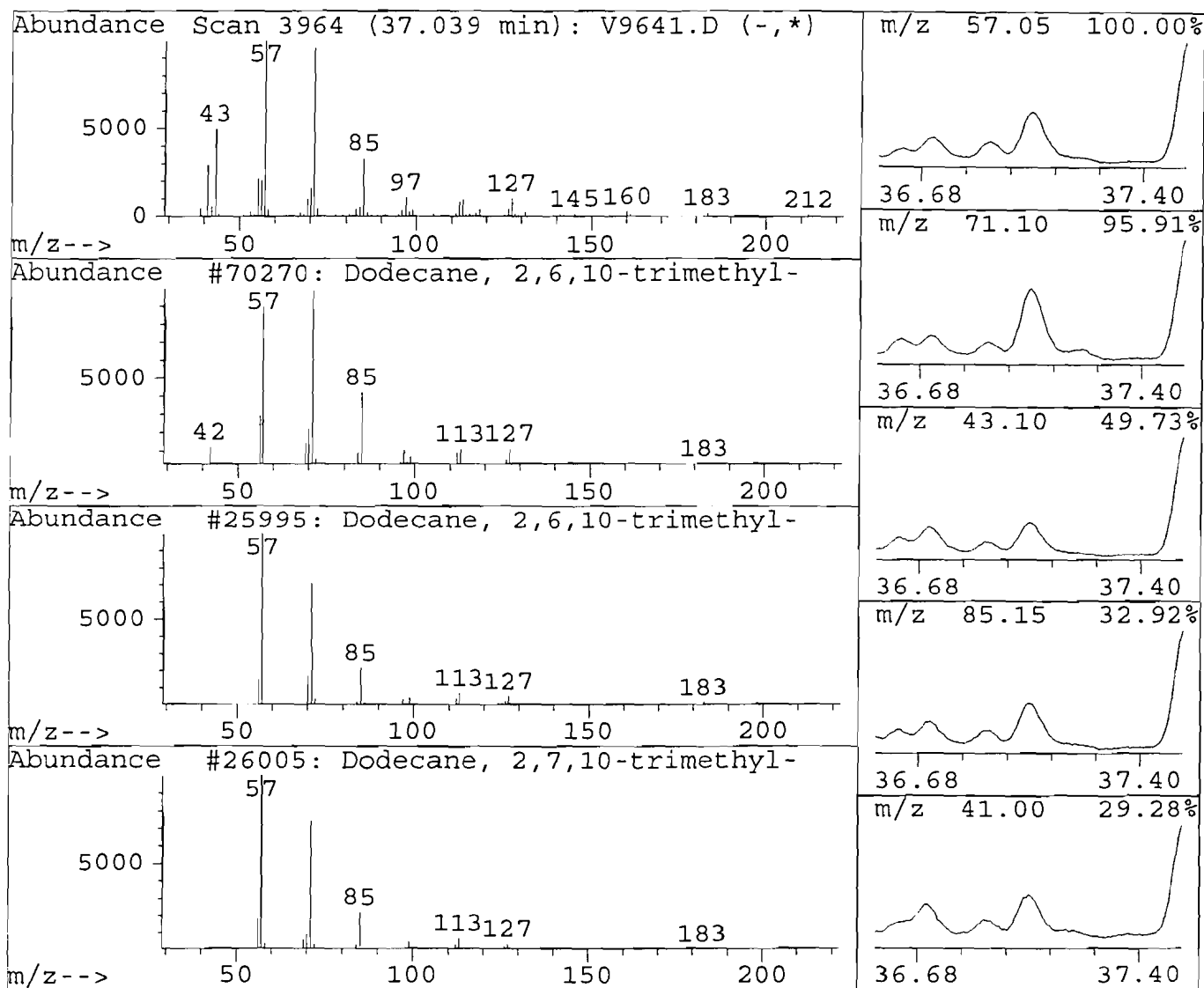
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.04	20.12 ug/L	5191864	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane, 2,6,10-trimethyl-	70270	003891-98-3	90
2	Dodecane, 2,6,10-trimethyl-	25995	003891-98-3	86
3	Dodecane, 2,7,10-trimethyl-	26005	074645-98-0	80
4	Dodecane, 2,6,11-trimethyl-	25998	031295-56-4	78
5	Heptadecane	32063	000629-78-7	72



000202

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

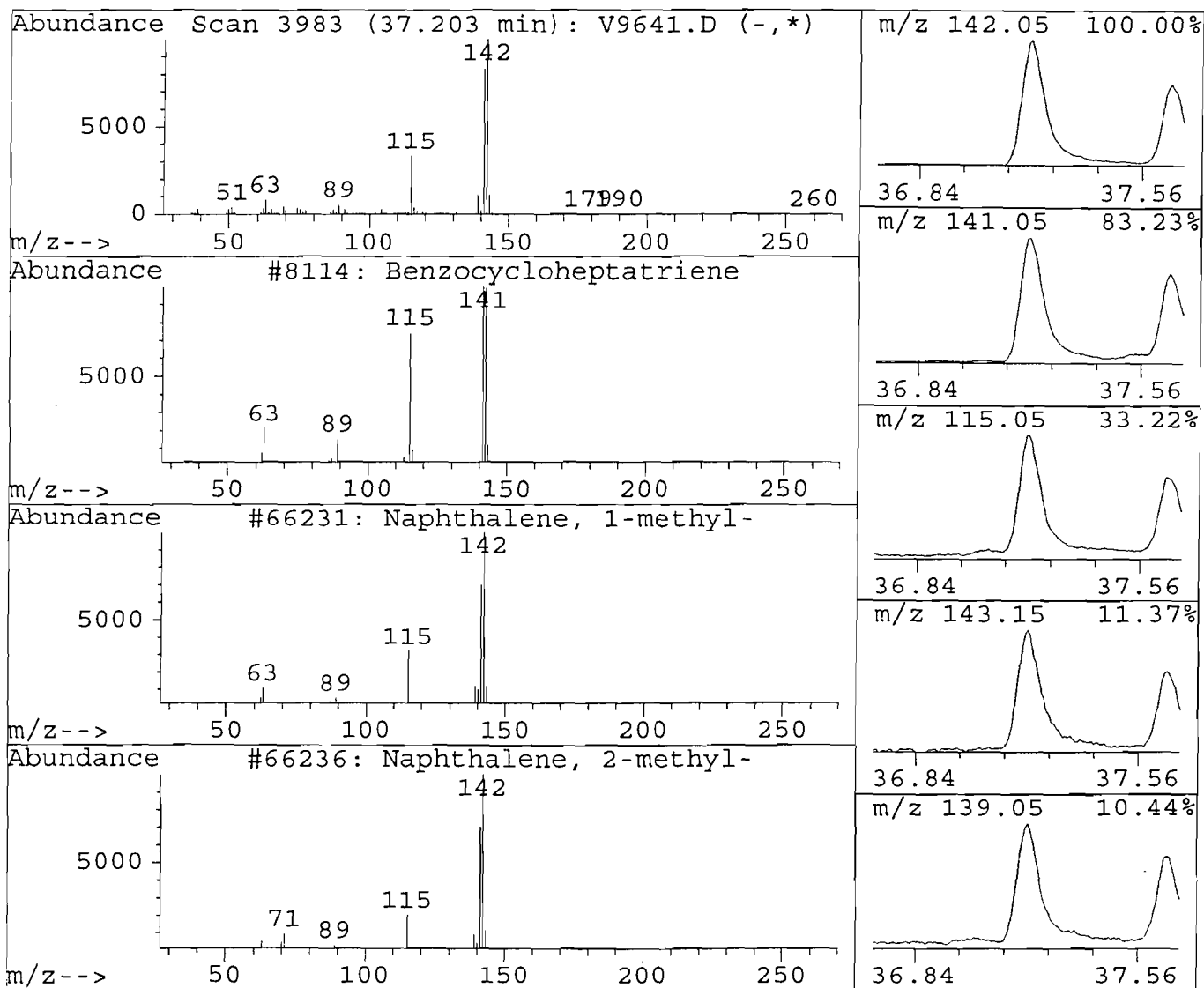
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.20	16.41 ug/L	4233842	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzocycloheptatriene	8114	000264-09-5	91
2	Naphthalene, 1-methyl-	66231	000090-12-0	91
3	Naphthalene, 2-methyl-	66236	000091-57-6	90
4	Naphthalene, 2-methyl-	66237	000091-57-6	90
5	Naphthalene, 2-methyl-	8115	000091-57-6	90



000203

Library Search Compound Report

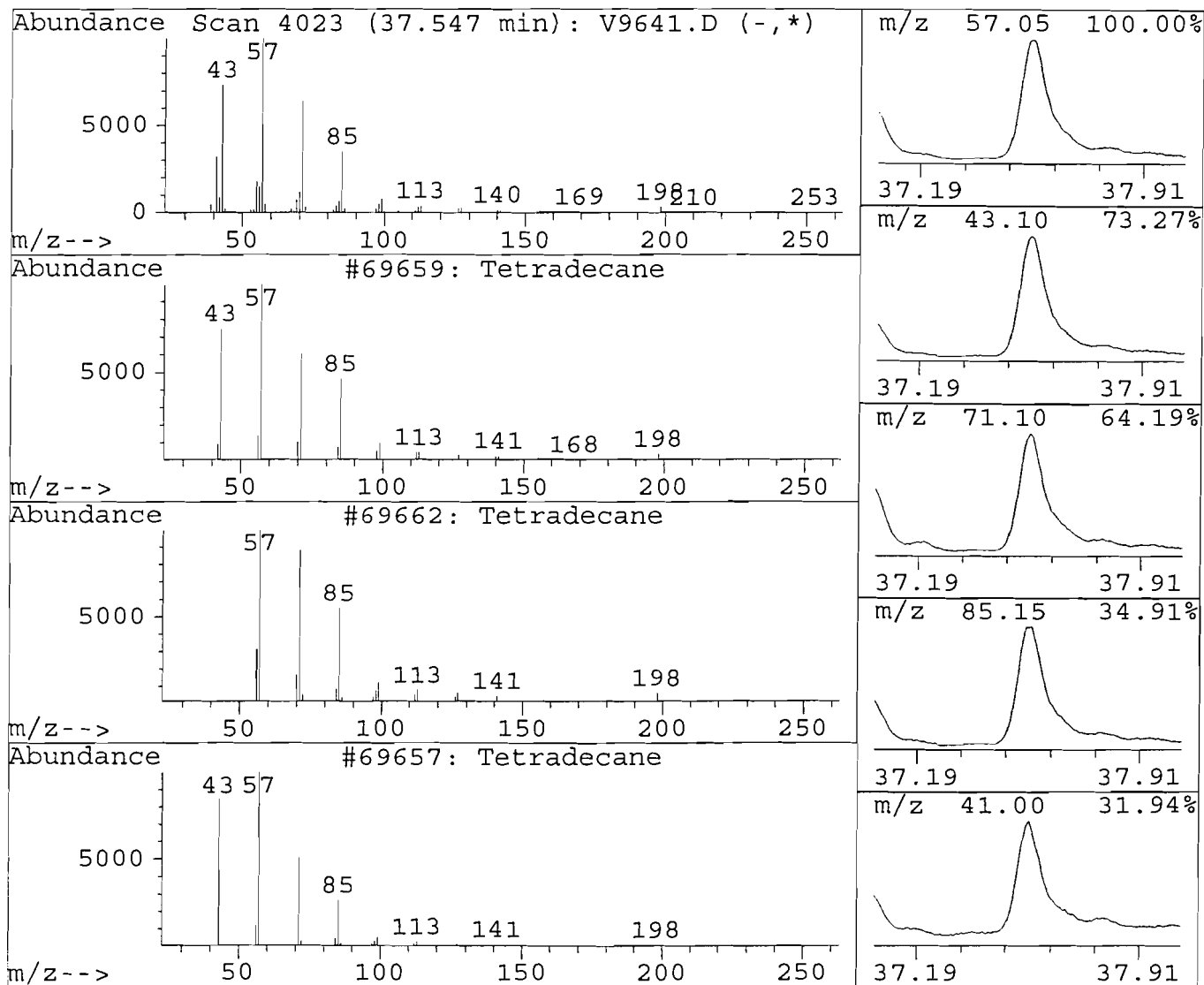
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.55	60.79 ug/L	15682783	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tetradecane	69659	000629-59-4	94
2	Tetradecane	69662	000629-59-4	94
3	Tetradecane	69657	000629-59-4	94
4	Heptadecane	71191	000629-78-7	91
5	Pentadecane	26001	000629-62-9	91



000204

Library Search Compound Report

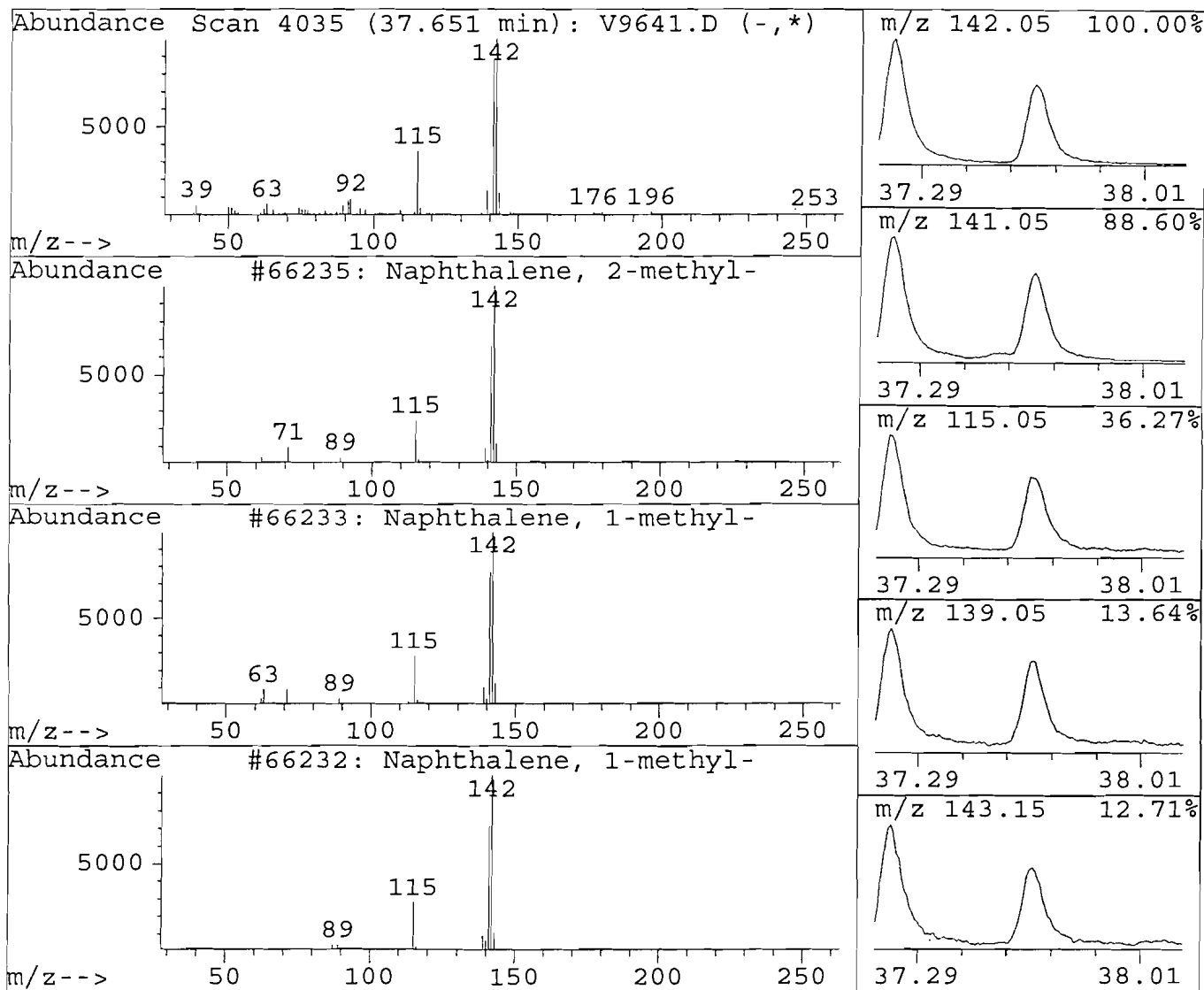
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.65	11.81 ug/L	3046742	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 2-methyl-	66235	000091-57-6	90
2	Naphthalene, 1-methyl-	66233	000090-12-0	90
3	Naphthalene, 1-methyl-	66232	000090-12-0	90
4	Naphthalene, 2-methyl-	66237	000091-57-6	87
5	Naphthalene, 2-methyl-	8115	000091-57-6	87



000205

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D

Acq Time : 28 Oct 99 8:01 pm

Sample : L5320ASP-91757

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

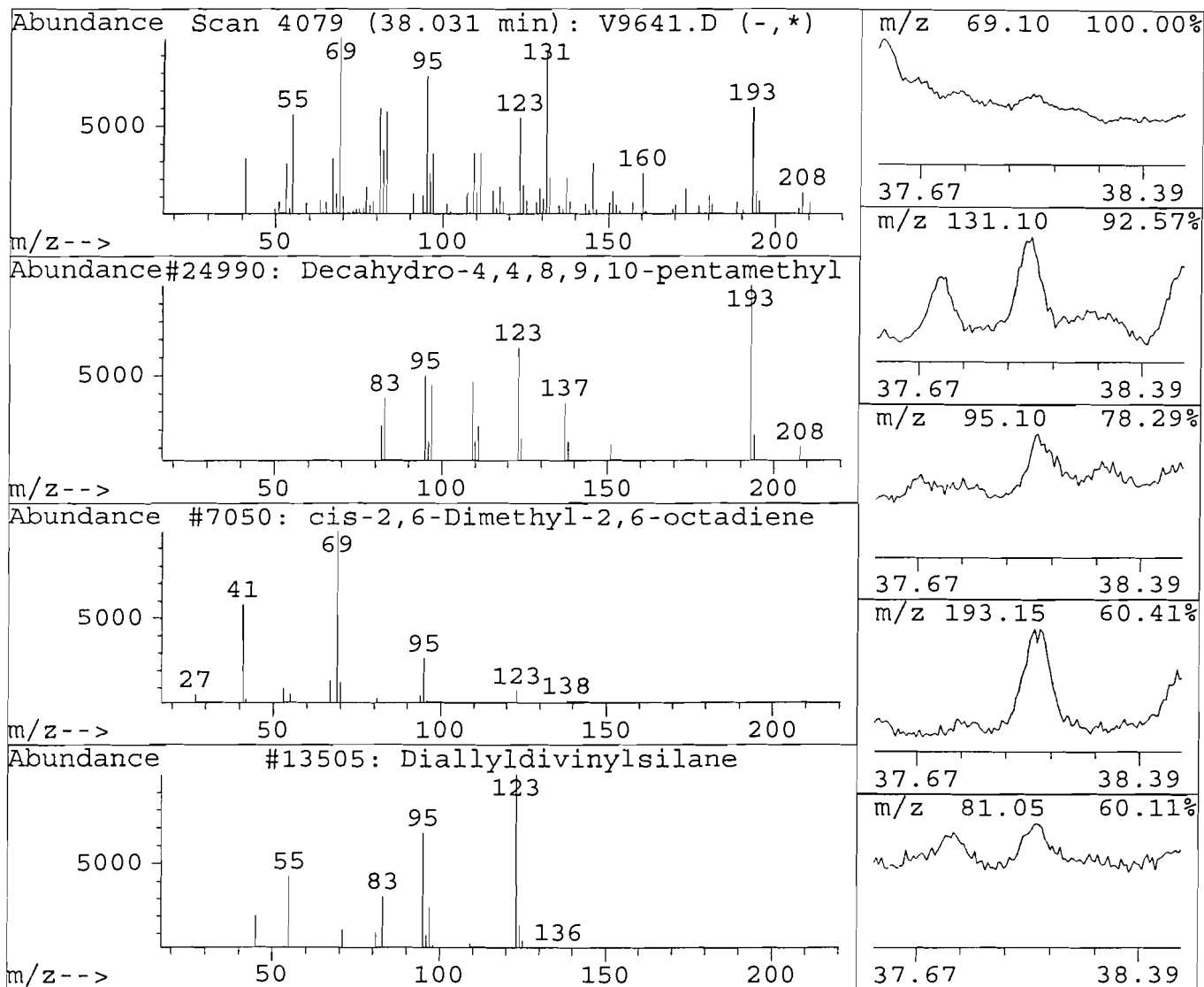
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
38.03	3.54 ug/L	912683	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decahydro-4,4,8,9,10-pentamethylnap	24990	000000-00-0	55
2	cis-2,6-Dimethyl-2,6-octadiene	7050	002492-22-0	38
3	Diallyldivinylsilane	13505	000000-00-0	14
4	5-Hepten-2-ol, 6-methyl-	65059	001569-60-4	11
5	Bicyclo[2.2.1]heptane, 2-hexyl-	17936	061141-60-4	11



000206

Library Search Compound Report

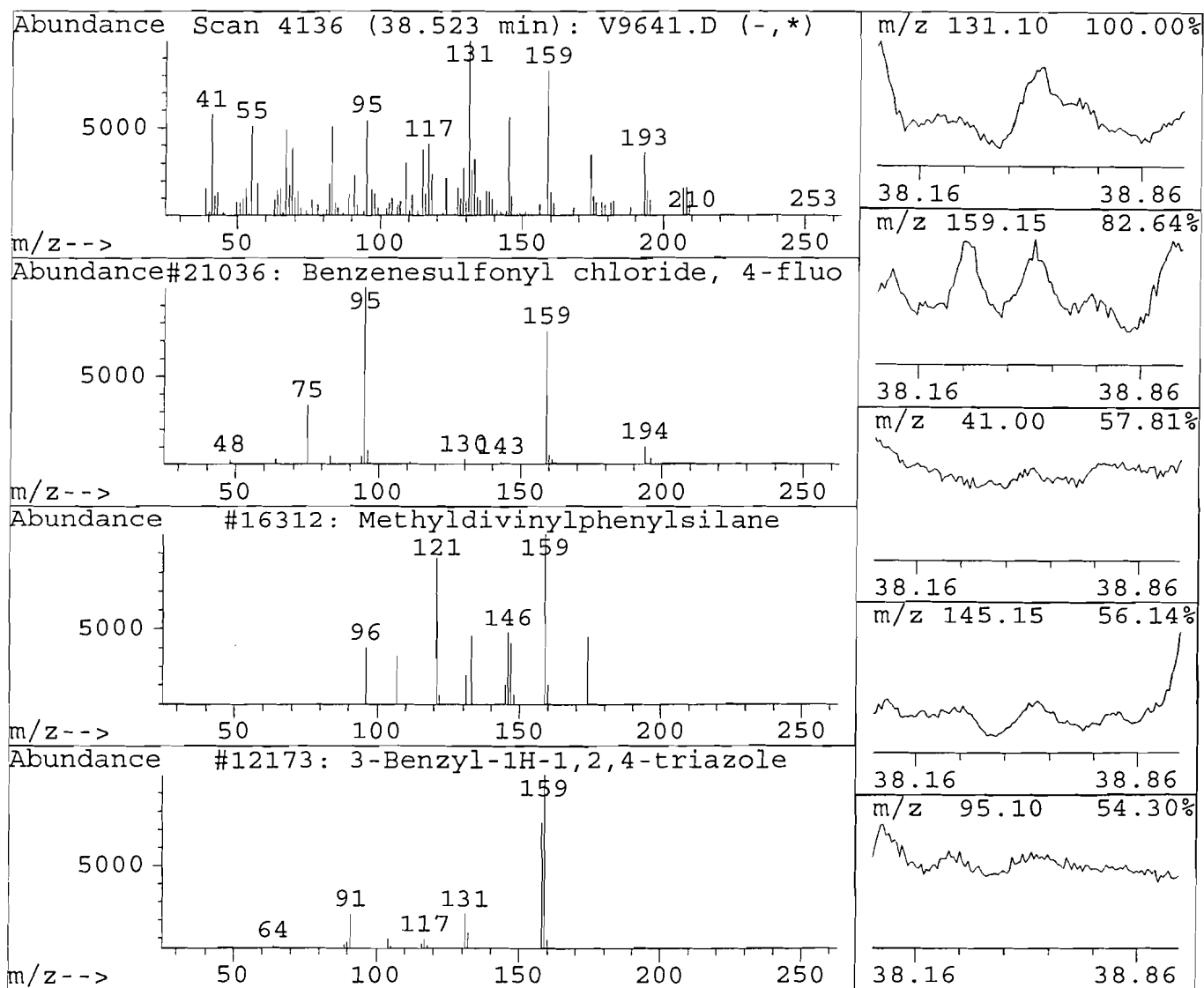
Data File : D:\HPCHEM\1\DATA\V1102899\V9641.D
Acq Time : 28 Oct 99 8:01 pm
Sample : L5320ASP-91757
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
38.52	3.65 ug/L	942213	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzenesulfonyl chloride, 4-fluoro-	21036	000349-88-2	22
2	Methyldivinylphenylsilane	16312	000000-00-0	22
3	3-Benzyl-1H-1,2,4-triazole	12173	021117-34-0	14
4	N-Oxide benzo[b]-1,4-diazabicyclo[2	16673	000000-00-0	14
5	1H-Inden-1-one, 2,3-dihydro-3,3,6-t	16343	054484-71-8	14



000207

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-032-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91758

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9642.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	7.3		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	2.7		
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	7.5		
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	97		
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	1.5		
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m+ p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-032-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-
 Matrix: (soil/water) WATER Lab Sample ID: O91758
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9642.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9642.D

Acq Time : 28 Oct 99 8:45 pm

Sample : L5320ASP-91758

Misc : 5MLS

Quant Time: Oct 29 6:52 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.80	128	595601	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.38	114	3344489	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.38	117	2847755	30.00	ug/L	0.01
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	1068664	30.38	ug/L	101.28%
36) Toluene-d8	18.46	98	3961717	30.61	ug/L	102.05%
45) Bromofluorobenzene	25.53	95	2190067	28.83	ug/L	96.08%
Target Compounds						Qvalue
NF 8) Acetone	5.10	43	40342	4.28	ug/L	99
10) Methylene Chloride	5.99	84	282669	7.32	ug/L	94
PM 11) trans-1,2-Dichloroethene	6.56	61	316342	5.29	ug/L	98
M 13) MTBE	6.54	73	7839813	66.21	ug/L	95
14) 1,1-Dichloroethane	7.84	63	241625	2.71	ug/L	100
PM 15) cis-1,2-Dichloroethene	9.86	96	24617166	562.41	ug/L	99
22) 1,1,1-Trichloroethane	11.53	97	522543	7.52	ug/L	95
PM 23) Carbon Tetrachloride	11.52	117	69704	1.22	ug/L	95
25) Trichloroethene	14.96	130	4403995	97.12	ug/L	96
38) Tetrachloroethene	20.08	166	66159	1.54	ug/L	96

000210

(#)=qualifier out of range (m)=manual integration

V9642.D V11027AW.M

Fri Oct 29 06:52:23 1999

VOA1

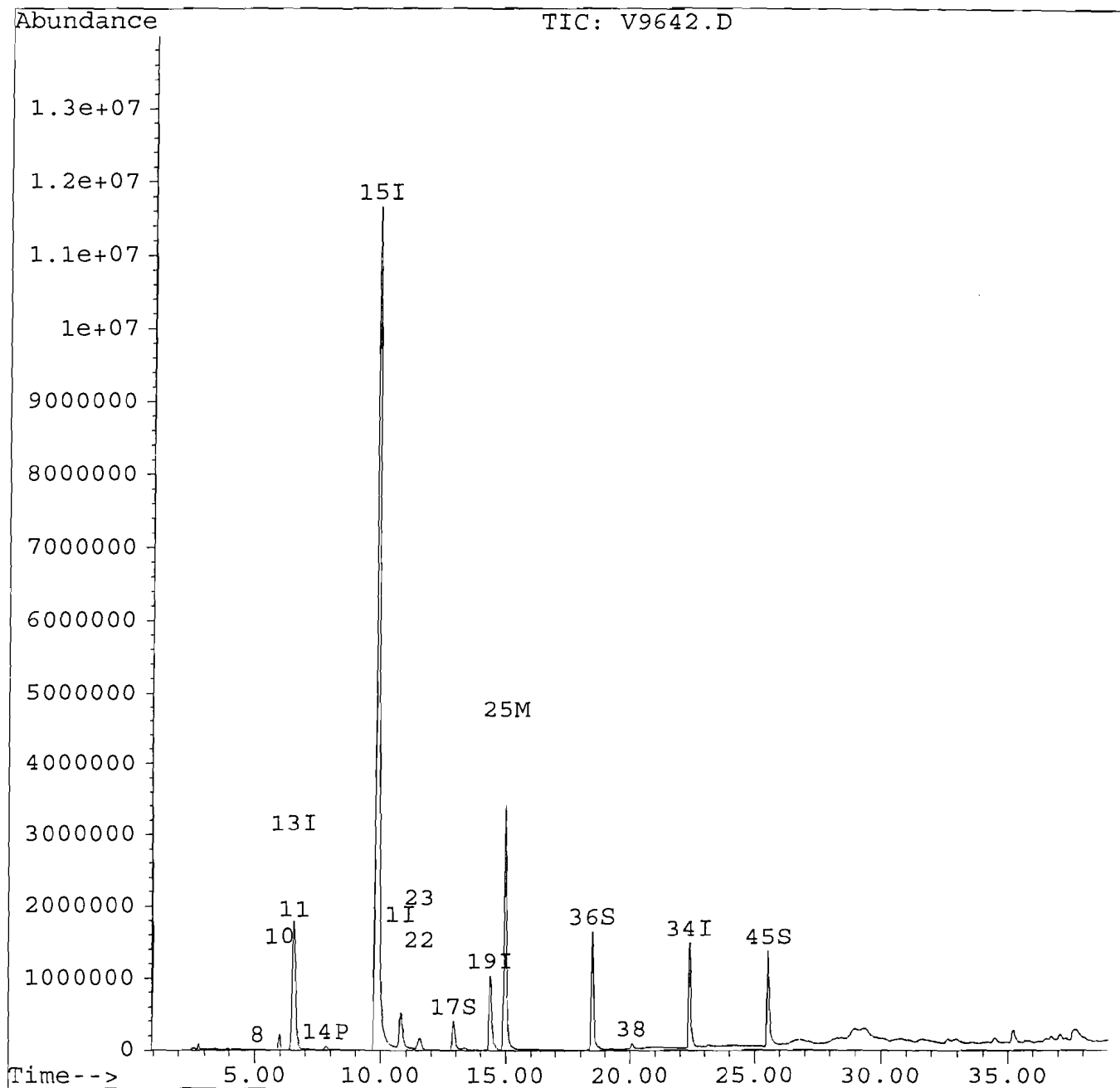
Page 1

Quantitation Report

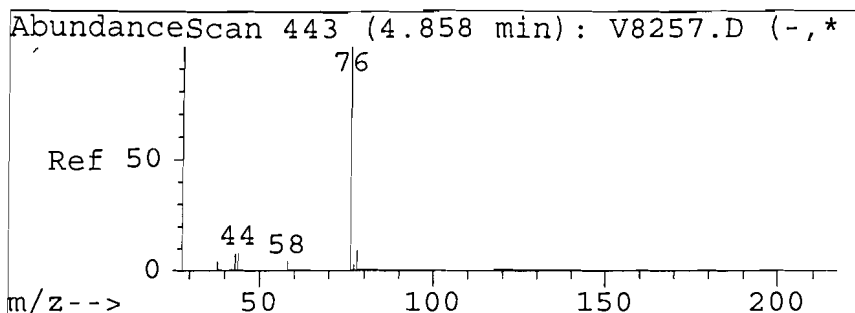
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Acq Time : 28 Oct 99 8:45 pm
Sample : L5320ASP-91758
Misc : 5MLS
Quant Time: Oct 29 6:52 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

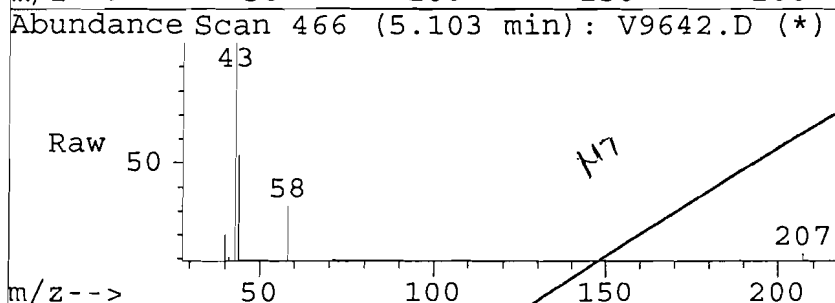
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



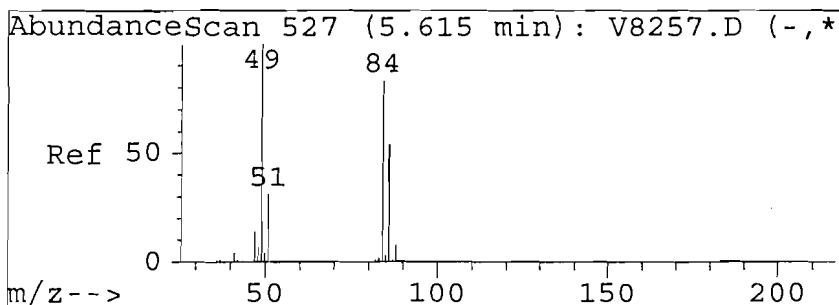
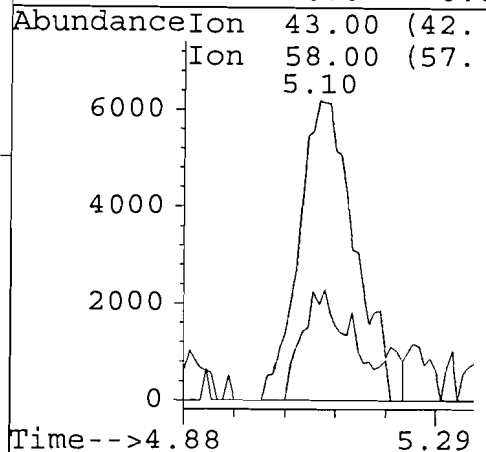
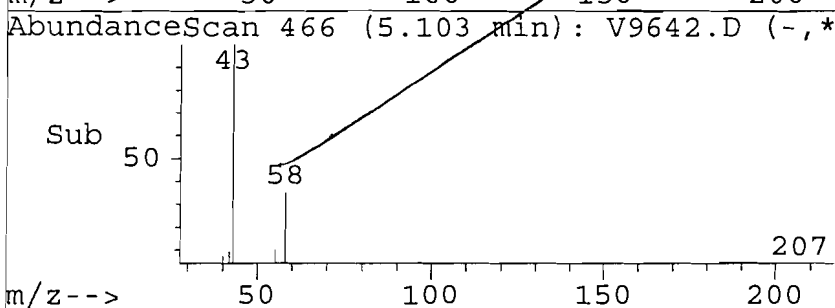
000211



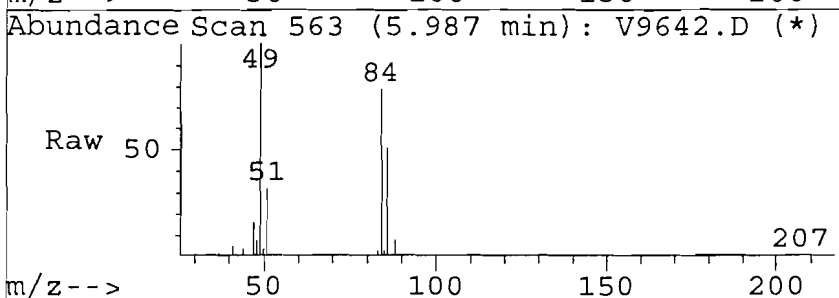
#8
Acetone
Concen: 4.28 ug/L
RT: 5.10 min Scan# 466
Delta R.T. -0.00 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm



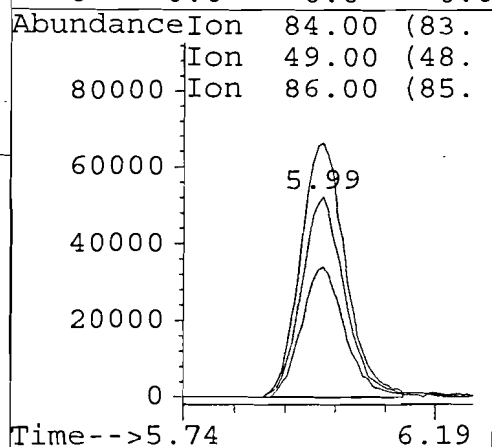
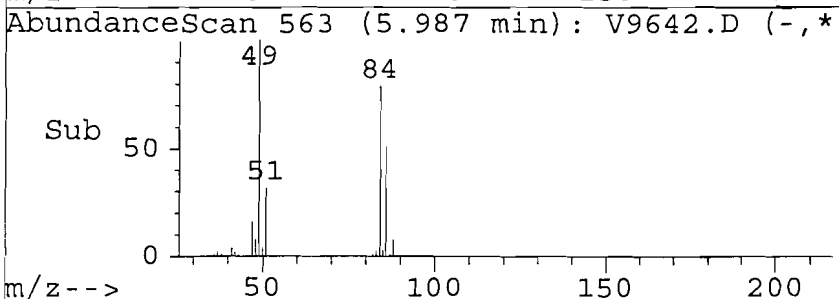
Tgt Ion	Ratio	Lower	Upper
43	100		
58	32.0	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



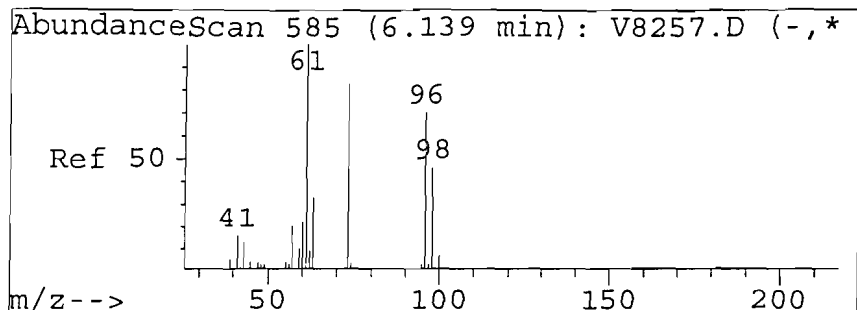
#10
Methylene Chloride
Concen: 7.32 ug/L
RT: 5.99 min Scan# 563
Delta R.T. -0.00 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm



Tgt Ion	Ratio	Lower	Upper
84	100		
49	127.0	67.5	202.6
86	64.7	30.8	92.4
0	0.0	0.0	0.0

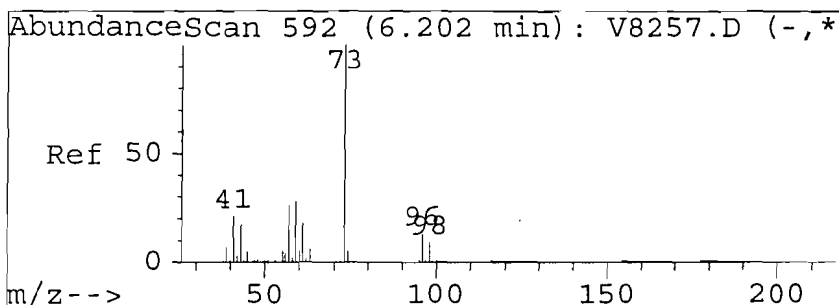
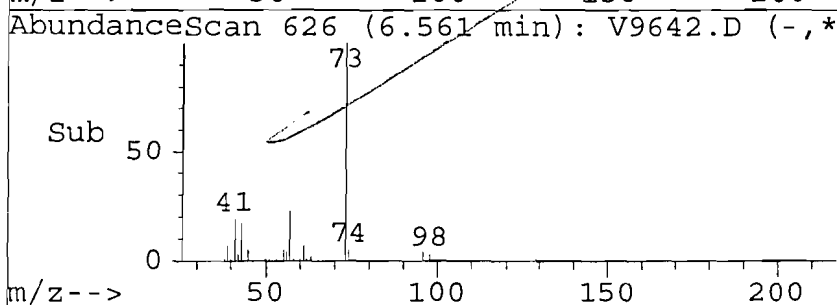
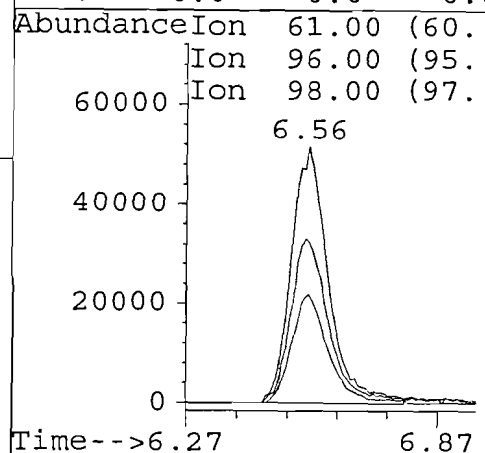
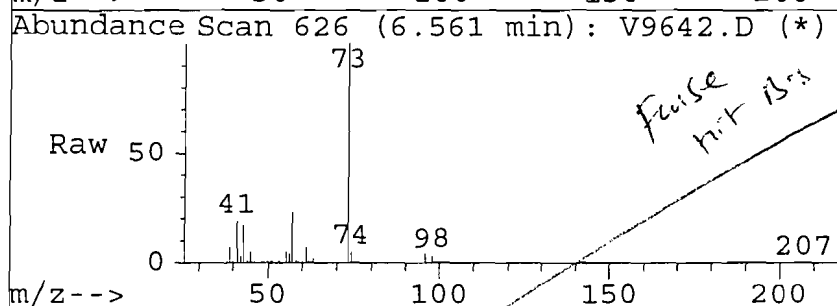


000212



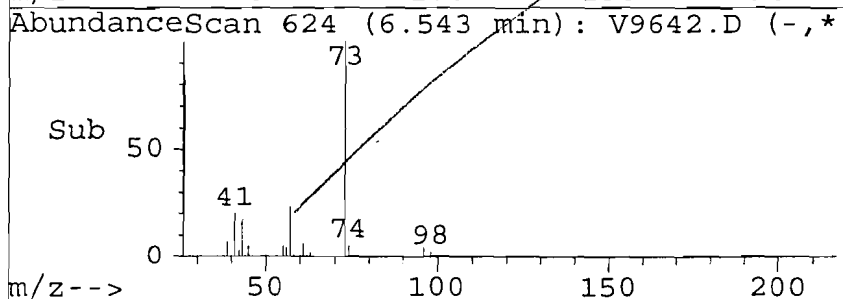
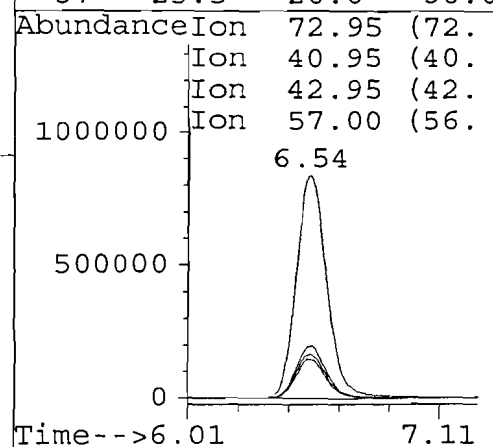
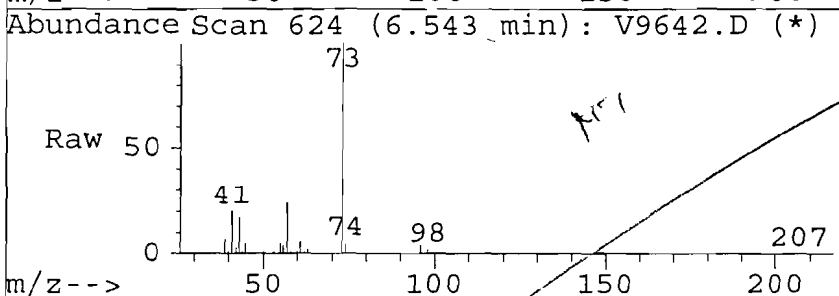
#11
trans-1,2-Dichloroethene
Concen: 5.29 ug/L
RT: 6.56 min Scan# 626
Delta R.T. 0.00 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm

Tgt Ion:61	Resp: 316342
Ion Ratio	Lower Upper
61 100	
96 63.3	31.2 93.6
98 42.4	20.1 60.2
0 0.0	0.0 0.0

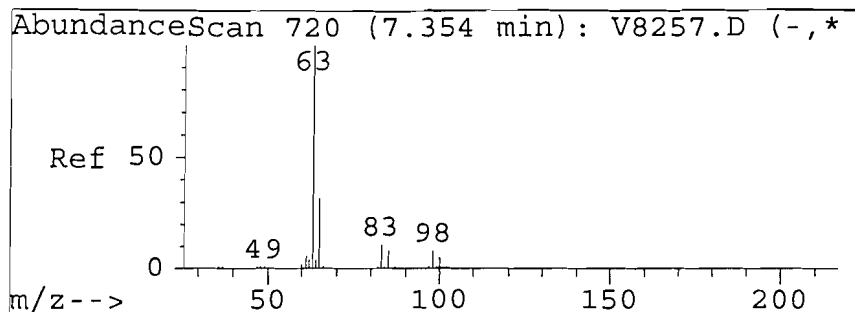


#13
MTBE
Concen: 66.21 ug/L
RT: 6.54 min Scan# 624
Delta R.T. -0.01 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm

Tgt Ion:72.95		Resp: 7839813	
Ion	Ratio	Lower	Upper
73	100		
41	19.7	11.4	34.2
43	17.2	10.0	30.0
57	23.5	20.0	30.0

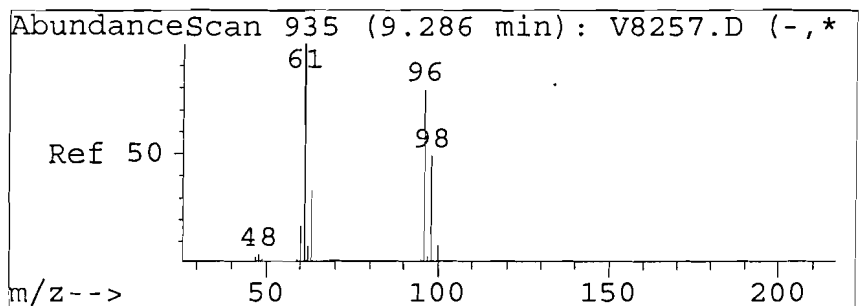
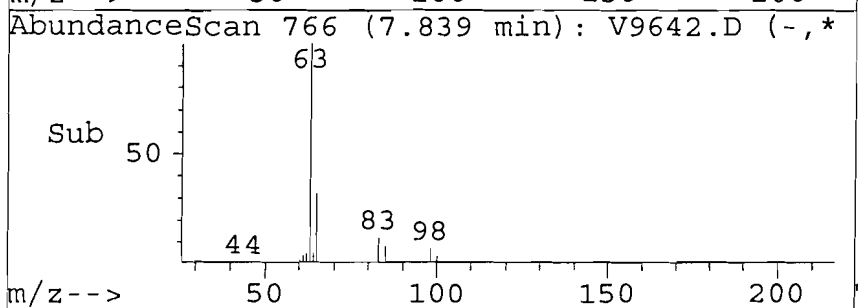
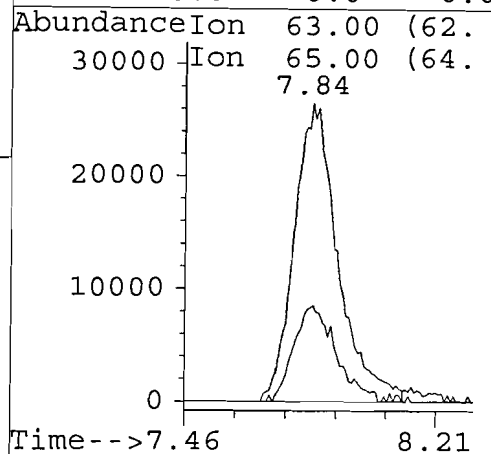
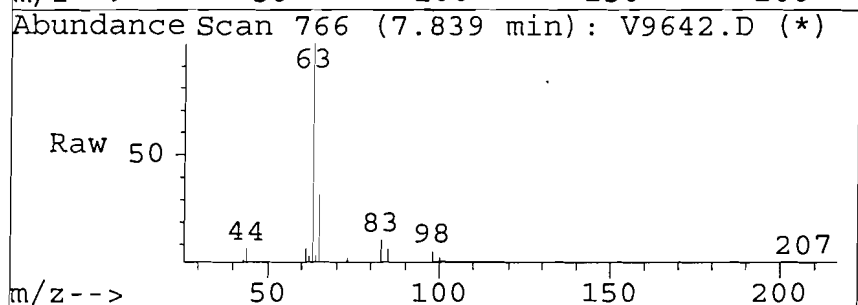


000213



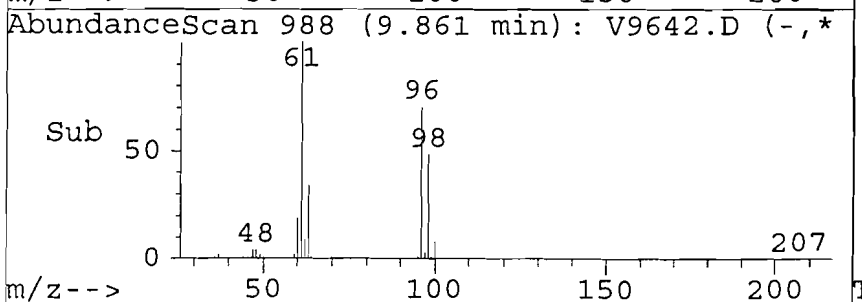
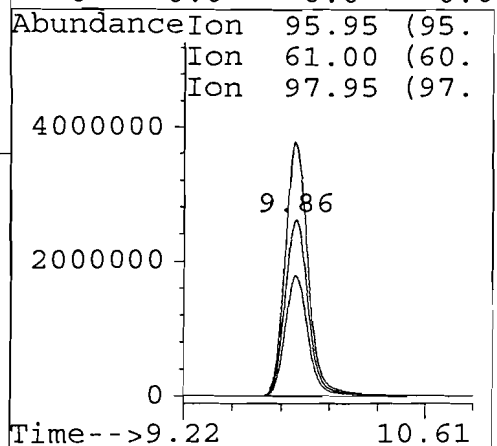
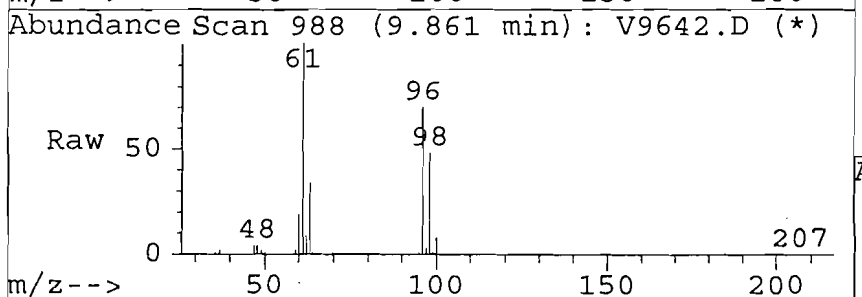
#14
1,1-Dichloroethane
Concen: 2.71 ug/L
RT: 7.84 min Scan# 766
Delta R.T. 0.01 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm

Tgt Ion:	63	Resp:	241625
Ion	Ratio	Lower	Upper
63	100		
65	32.1	16.0	48.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



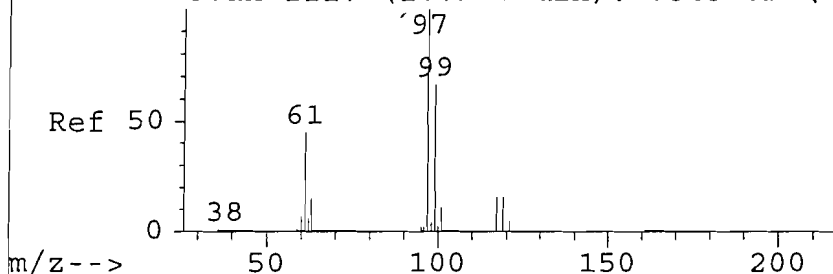
#15
cis-1,2-Dichloroethene
Concen: 562.41 ug/L
RT: 9.86 min Scan# 988
Delta R.T. -0.04 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm

Tgt Ion:	95.95	Resp:	24617166
Ion	Ratio	Lower	Upper
96	100		
61	143.0	71.3	213.9
98	68.3	32.5	97.5
0	0.0	0.0	0.0



000214

AbundanceScan 1117 (10.946 min): V8257.D (-



#22

1,1,1-Trichloroethane

Concen: 7.52 ug/L

RT: 11.53 min Scan# 1171

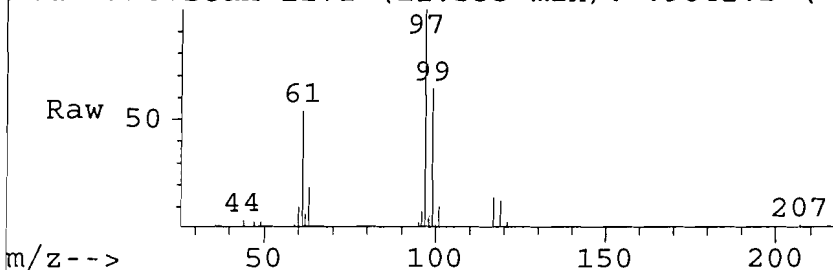
Delta R.T. 0.00 min

Lab File: V9642.D

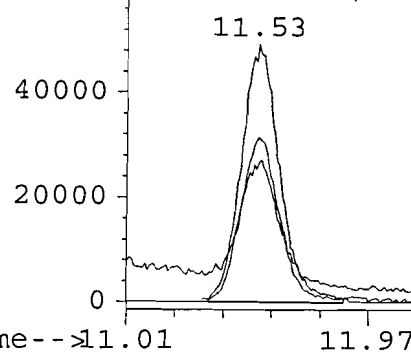
Acq: 28 Oct 99 8:45 pm

Tgt	Ion:97	Resp:	522543
Ion	Ratio	Lower	Upper
97	100		
99	63.9	33.6	100.8
61	54.1	25.3	75.8
0	0.0	0.0	0.0

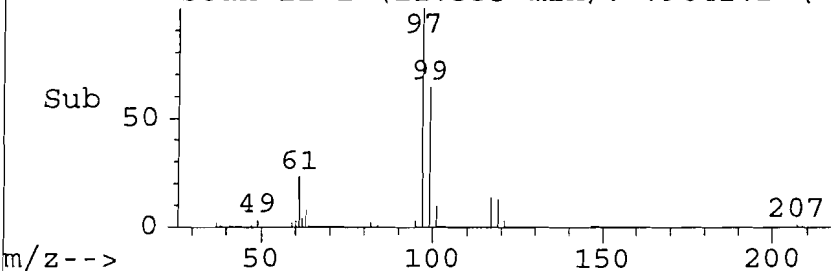
AbundanceScan 1171 (11.533 min): V9642.D (*)



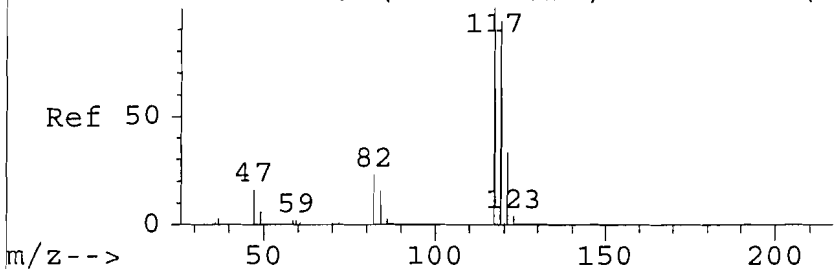
AbundanceIon 97.00 (96.
Ion 99.00 (98.
Ion 61.00 (60.



AbundanceScan 1171 (11.533 min): V9642.D (-



AbundanceScan 1169 (11.422 min): V8257.D (-



#23

Carbon Tetrachloride

Concen: 1.22 ug/L

RT: 11.52 min Scan# 1170

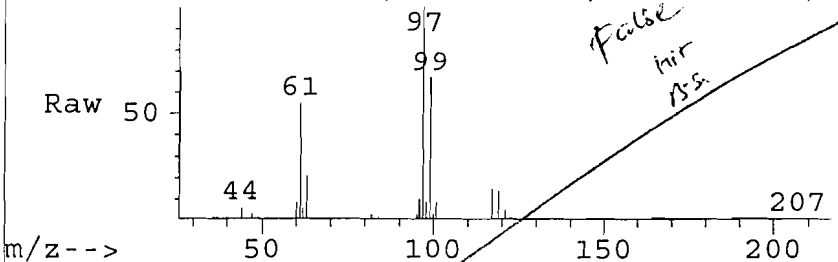
Delta R.T. -0.47 min

Lab File: V9642.D

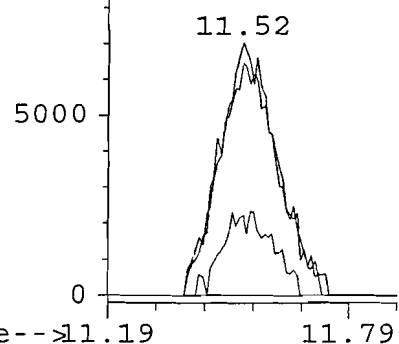
Acq: 28 Oct 99 8:45 pm

Tgt Ion:117	Resp: 69704
Ion Ratio	Lower Upper
117 100	
119 91.8	49.0 147.1
121 31.5	16.2 48.6
0 0.0	0.0 0.0

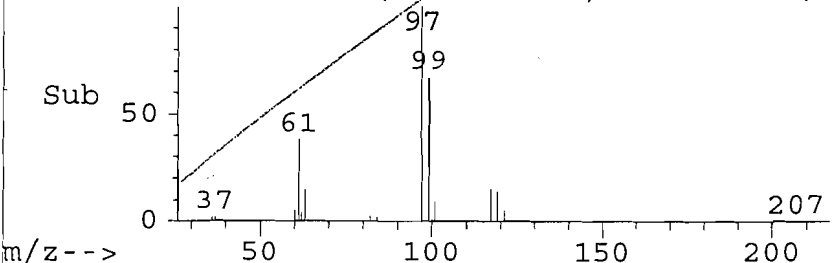
AbundanceScan 1170 (11.524 min): V9642.D (*)



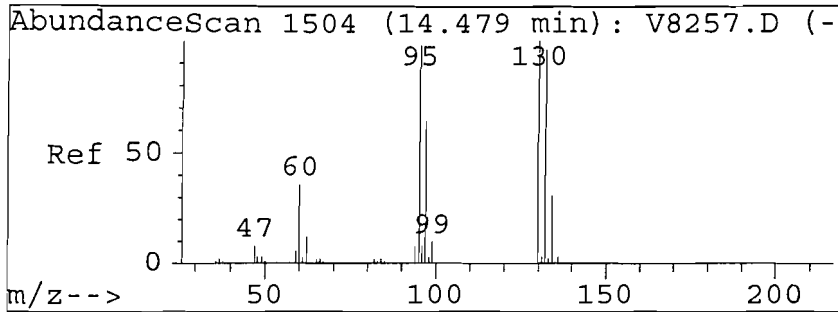
AbundanceIon 117.00 (116
Ion 119.00 (118
Ion 121.00 (120



AbundanceScan 1170 (11.524 min): V9642.D (-



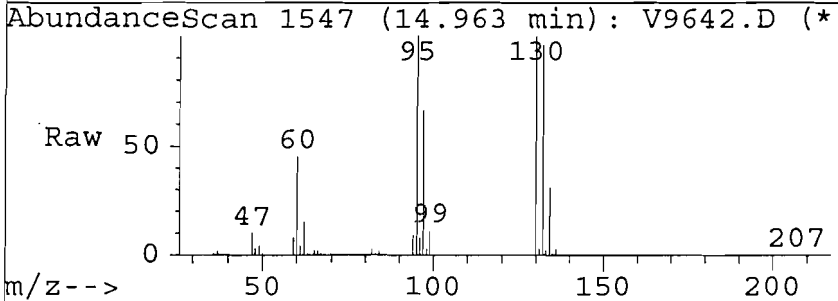
000215



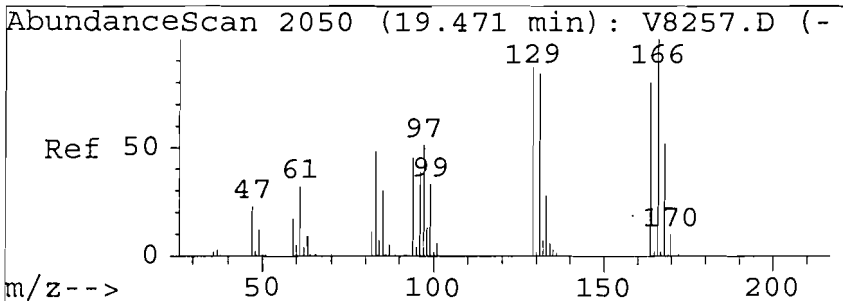
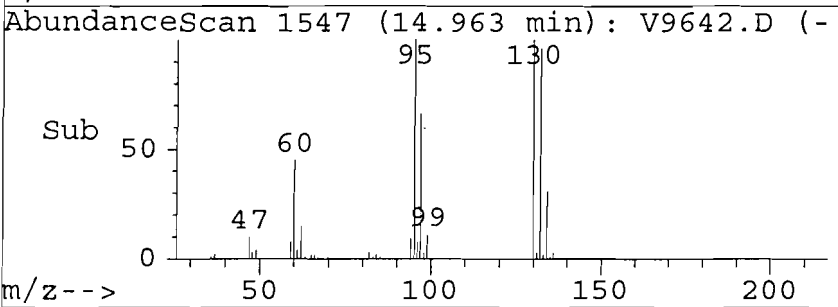
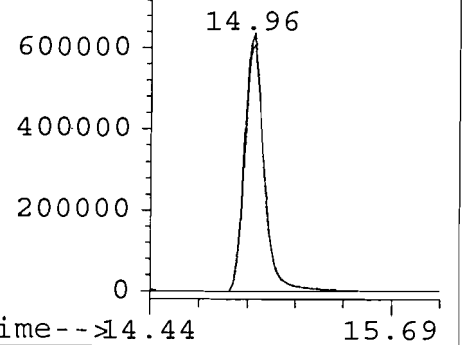
#25
Trichloroethene
Concen: 97.12 ug/L
RT: 14.96 min Scan# 1547
Delta R.T. -0.02 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm

Tgt Ion:130 Resp: 4403995

Ion	Ratio	Lower	Upper
130	100		
132	96.0	46.0	138.0
95	100.0	52.2	156.6
0	0.0	0.0	0.0



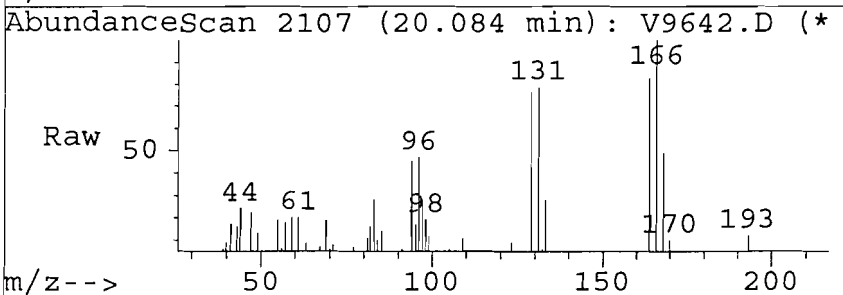
AbundanceIon 130.00 (129
 Ion 132.00 (131
 Ion 95.00 (94.



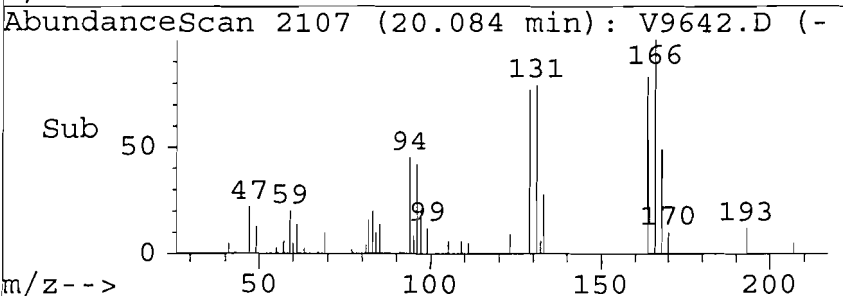
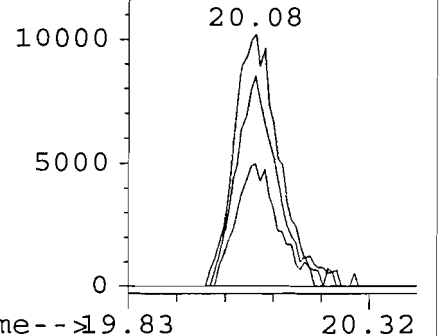
#38
Tetrachloroethene
Concen: 1.54 ug/L
RT: 20.08 min Scan# 2107
Delta R.T. 0.05 min
Lab File: V9642.D
Acq: 28 Oct 99 8:45 pm

Tgt Ion:166 Resp: 66159

Ion	Ratio	Lower	Upper
166	100		
164	83.4	39.2	117.6
168	48.8	24.0	72.0
0	0.0	0.0	0.0



AbundanceIon 166.00 (165
 Ion 164.00 (163
 Ion 168.00 (167



000216

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9642.D
Acq Time : 28 Oct 99 8:45 pm
Sample : L5320ASP-91758
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000217

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-033-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91759

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9643.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	7.2		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	1.1		
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	17		
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	1.4		
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

000218

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-033-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
Matrix: (soil/water) WATER Lab Sample ID: O91759
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9643.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units: _____
(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9643.D

Acq Time : 28 Oct 99 9:30 pm

Sample : L5320ASP-91759

Misc : 5MLS

Quant Time: Oct 29 6:52 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.82	128	529839	30.00	ug/L	0.02
19) 1,4-Difluorobenzene	14.38	114	2821843	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.37	117	2385893	30.00	ug/L	0.00
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.91	65	804185	25.70	ug/L	85.67%
36) Toluene-d8	18.46	98	2905228	26.80	ug/L	89.32%
45) Bromofluorobenzene	25.53	95	1656088	26.02	ug/L	86.72%
Target Compounds						Qvalue
8) Acetone	5.15	43	38800	4.63	ug/L	95
10) Methylene Chloride	6.01	84	247995	7.22	ug/L	93
13) MTBE	6.59	73	377382	3.58	ug/L	96
15) cis-1,2-Dichloroethene	9.90	96	3747048	96.23	ug/L	96
22) 1,1,1-Trichloroethane	11.56	97	64954	1.11	ug/L	90
24) Benzene	12.84	78	172710	1.39	ug/L	98
25) Trichloroethene	14.98	130	658760	17.22	ug/L	98

000220

(#) = qualifier out of range (m) = manual integration

V9643.D V11027AW.M

Fri Oct 29 06:52:45 1999

VOA1

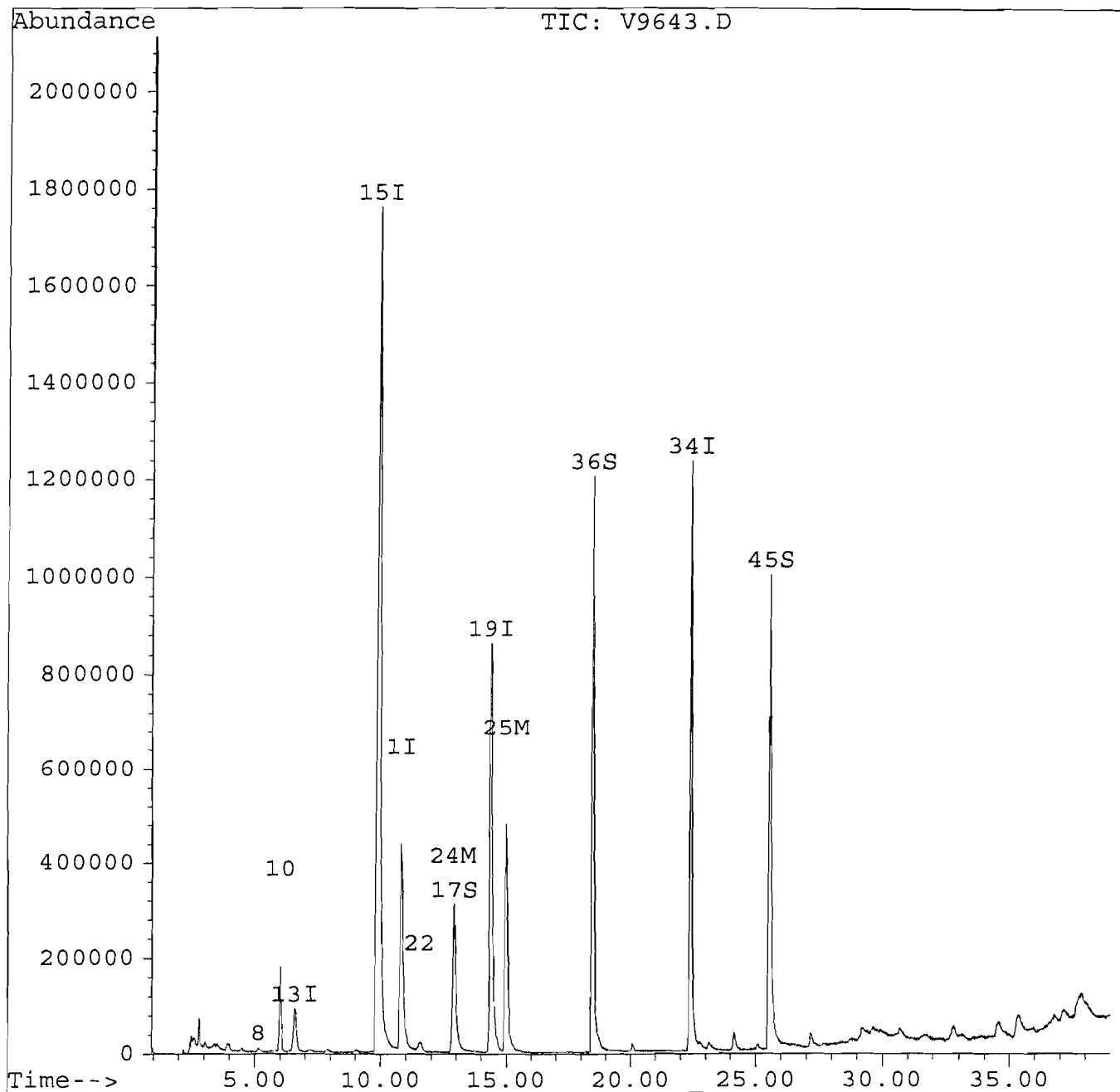
Page 1

Quantitation Report

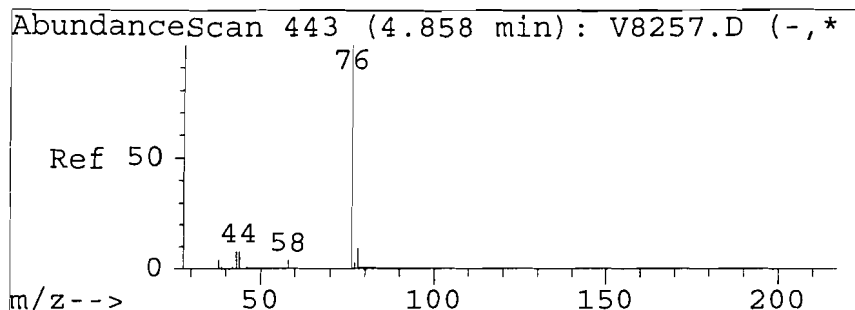
Data File : D:\HPCHEM\1\DATA\V1102899\V9643.D
Acq Time : 28 Oct 99 9:30 pm
Sample : L5320ASP-91759
Misc : 5MLS
Quant Time: Oct 29 6:52 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

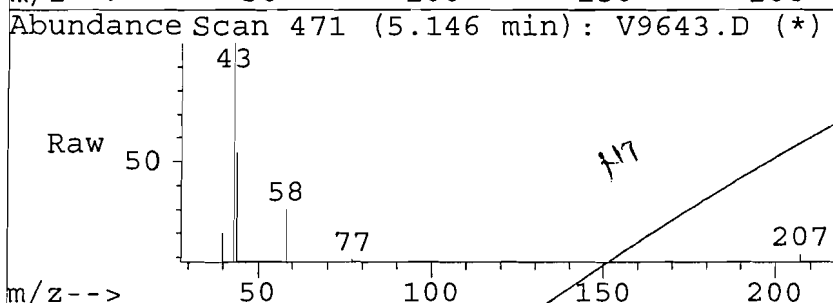
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



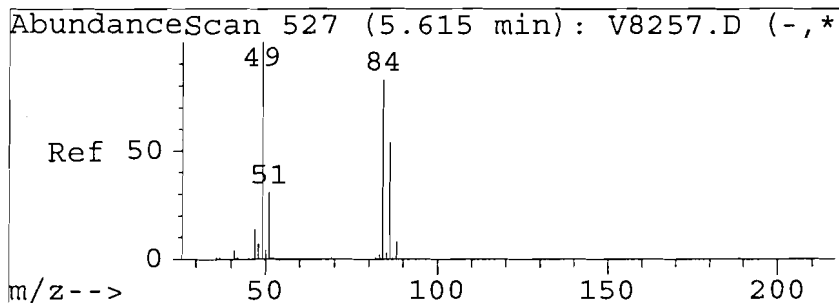
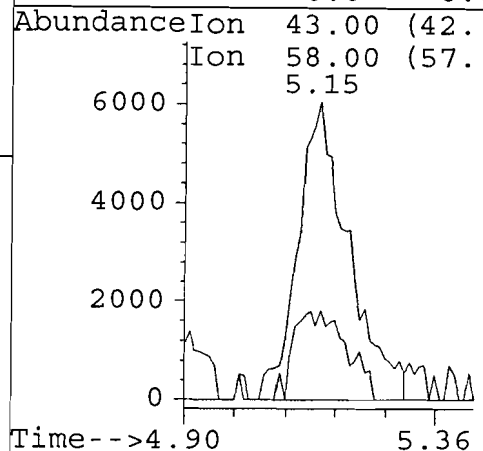
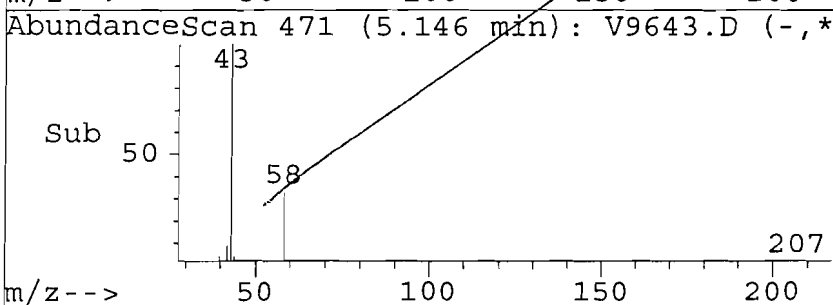
000221



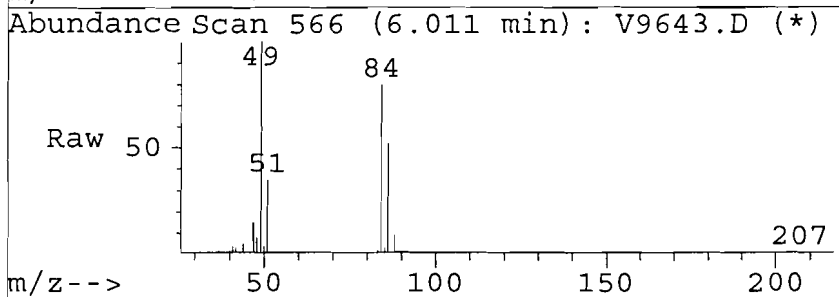
#8
Acetone
Concen: 4.63 ug/L
RT: 5.15 min Scan# 471
Delta R.T. 0.04 min
Lab File: V9643.D
Acq: 28 Oct 99 9:30 pm



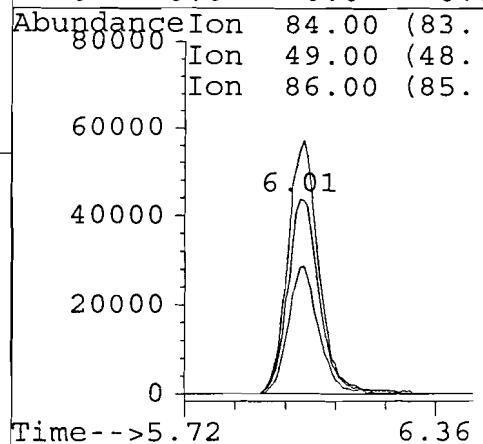
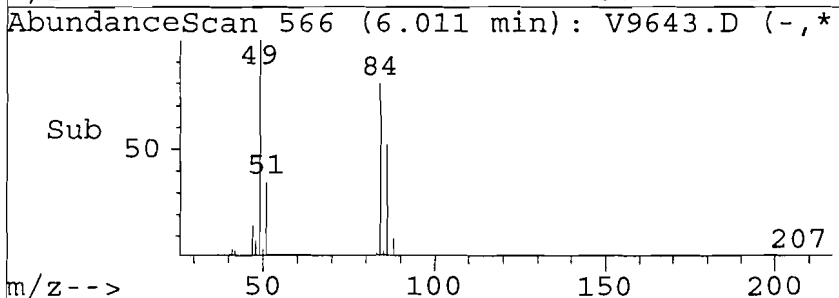
Tgt Ion:43 Resp: 38800
Ion Ratio Lower Upper
43 100
58 29.8 16.3 48.8
0 0.0 0.0 0.0
0 0.0 0.0 0.0



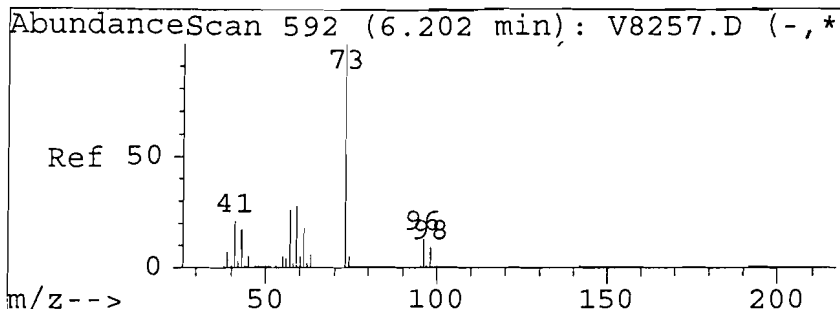
#10
Methylene Chloride
Concen: 7.22 ug/L
RT: 6.01 min Scan# 566
Delta R.T. 0.02 min
Lab File: V9643.D
Acq: 28 Oct 99 9:30 pm



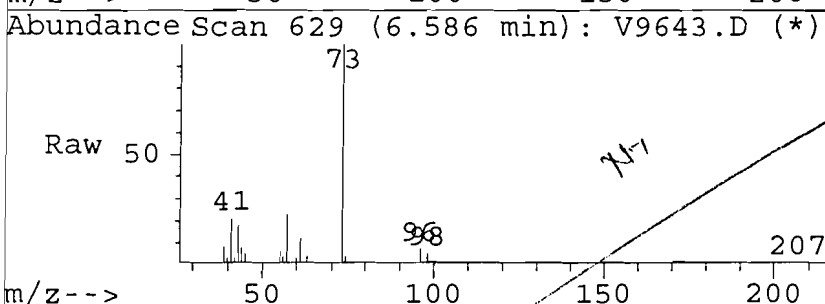
Tgt Ion:84 Resp: 247995
Ion Ratio Lower Upper
84 100
49 125.0 67.5 202.6
86 65.2 30.8 92.4
0 0.0 0.0 0.0



000222

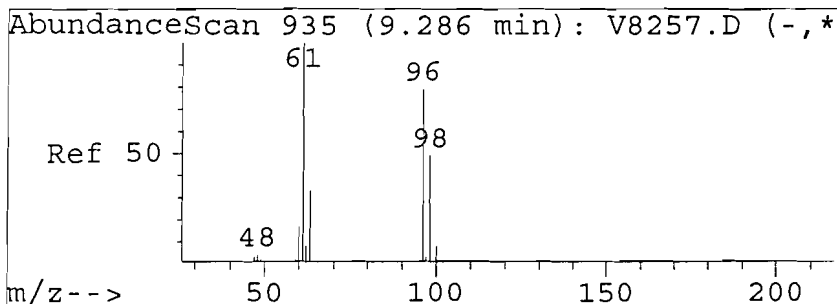
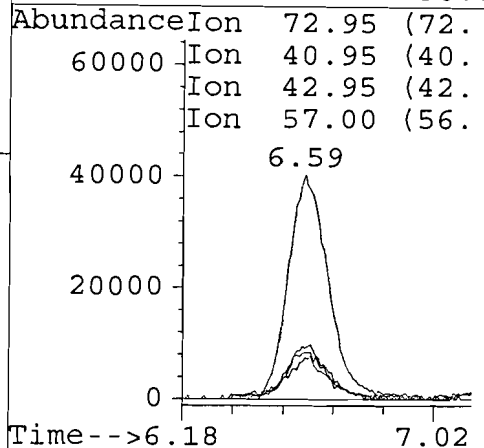
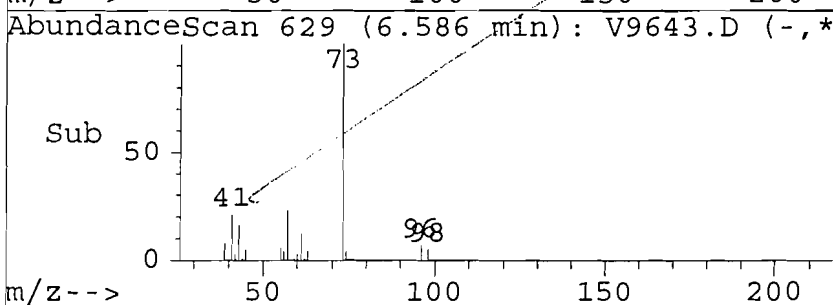


#13
MTBE
Concen: 3.58 ug/L
RT: 6.59 min Scan# 629
Delta R.T. 0.04 min
Lab File: V9643.D
Acq: 28 Oct 99 9:30 pm

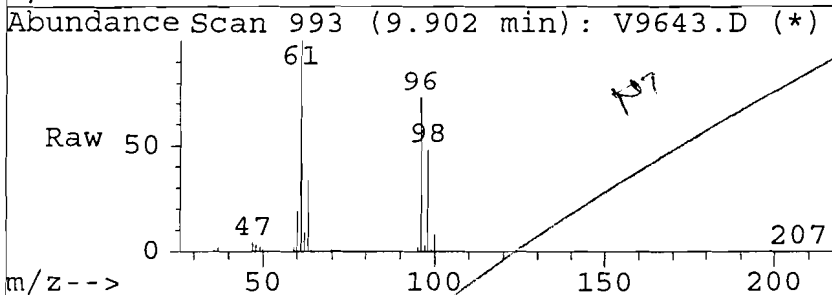


Tgt Ion: 72.95 Resp: 377382

Ion	Ratio	Lower	Upper
73	100		
41	20.7	11.4	34.2
43	18.3	10.0	30.0
57	22.7	20.0	30.0

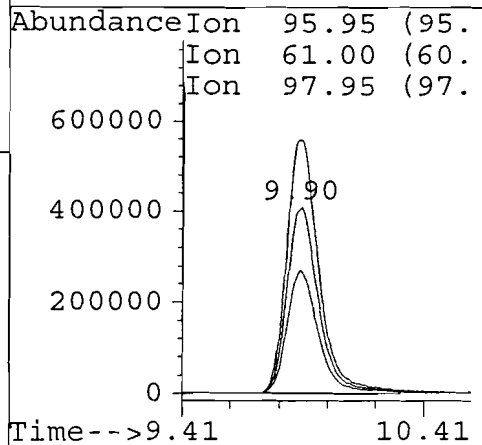
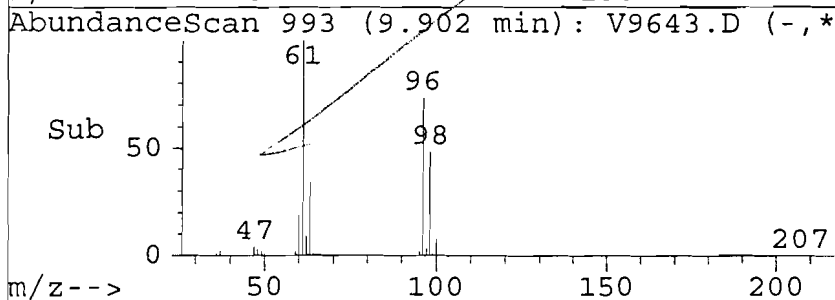


#15
cis-1,2-Dichloroethene
Concen: 96.23 ug/L
RT: 9.90 min Scan# 993
Delta R.T. 0.00 min
Lab File: V9643.D
Acq: 28 Oct 99 9:30 pm



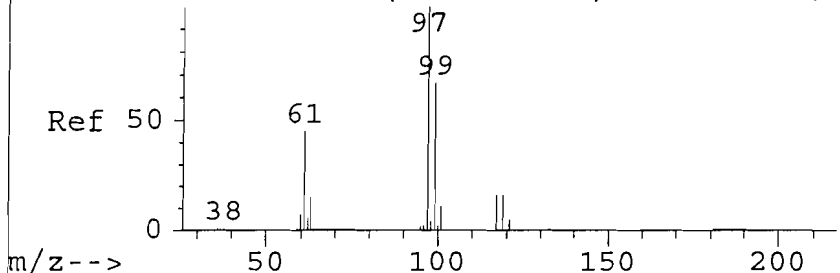
Tgt Ion: 95.95 Resp: 3747048

Ion	Ratio	Lower	Upper
96	100		
61	136.2	71.3	213.9
98	65.5	32.5	97.5
0	0.0	0.0	0.0



000223

AbundanceScan 1117 (10.946 min): V8257.D (-



#22

1,1,1-Trichloroethane

Concen: 1.11 ug/L

RT: 11.56 min Scan# 1175

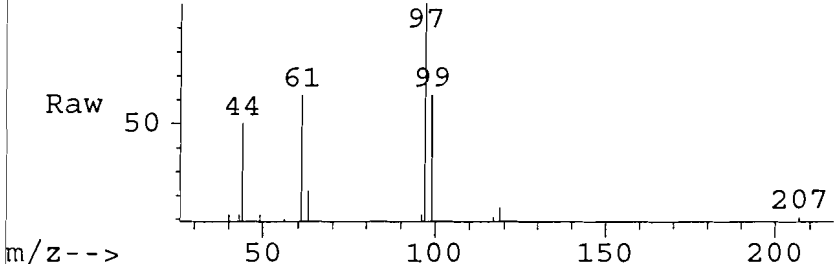
Delta R.T. 0.03 min

Lab File: V9643.D

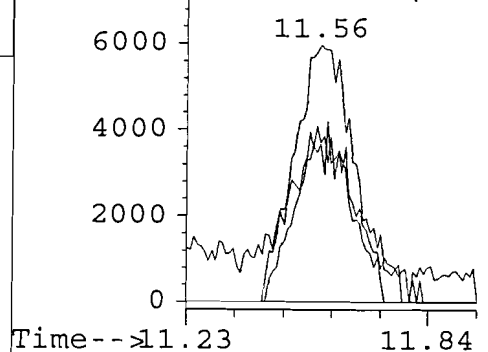
Acq: 28 Oct 99 9:30 pm

Tgt Ion:	97	Resp:	64954
Ion	Ratio	Lower	Upper
97	100		
99	62.1	33.6	100.8
61	61.6	25.3	75.8
0	0.0	0.0	0.0

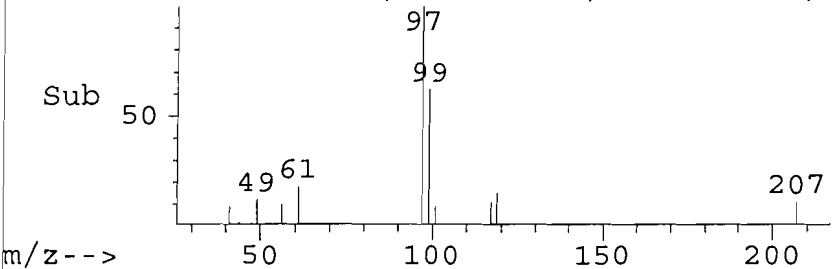
AbundanceScan 1175 (11.563 min): V9643.D (*)



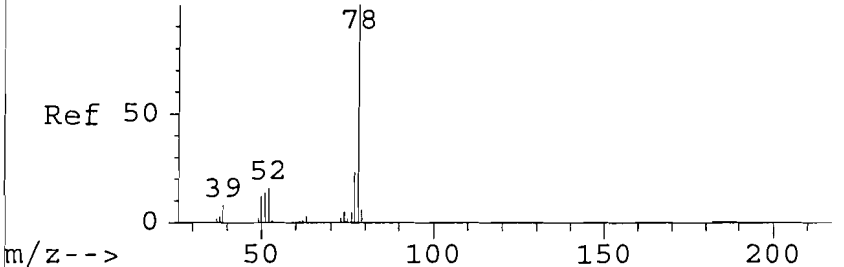
Abundance	Ion	97.00 (96.
8000	Ion	99.00 (98.
	Ion	61.00 (60.



AbundanceScan 1175 (11.563 min): V9643.D (-



AbundanceScan 1260 (12.251 min): V8257.D (-



#24

Benzene

Concen: 1.39 ug/L

RT: 12.84 min Scan# 1315

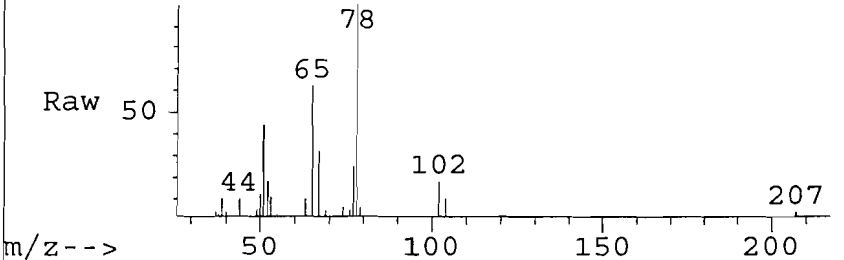
Delta R.T. 0.05 min

Lab File: V9643.D

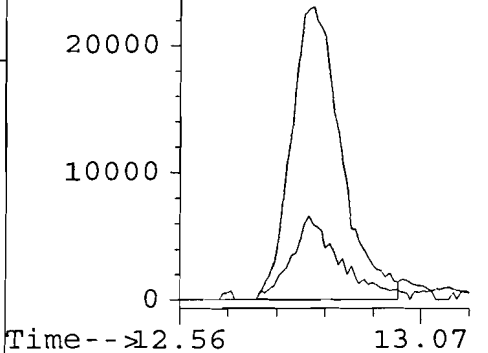
Acq: 28 Oct 99 9:30 pm

Tgt Ion:	78	Resp:	172710
Ion	Ratio	Lower	Upper
78	100		
77	25.4	12.2	36.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

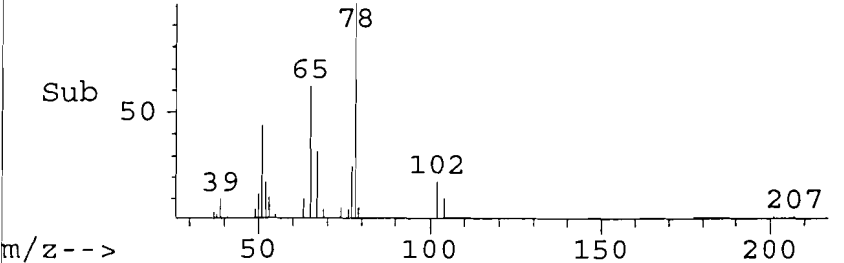
AbundanceScan 1315 (12.838 min): V9643.D (*)



Abundance	Ion	78.00 (77.
	Ion	77.00 (76.
		12.84

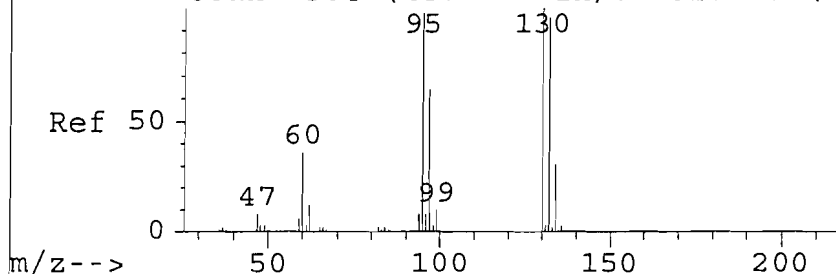


AbundanceScan 1315 (12.838 min): V9643.D (-



000224

AbundanceScan 1504 (14.479 min): V8257.D (-



#25

Trichloroethene

Concen: 17.22 ug/L

RT: 14.98 min Scan# 1550

Delta R.T. -0.00 min

Lab File: V9643.D

Acq: 28 Oct 99 9:30 pm

Tgt Ion:130 Resp: 658760

Ion Ratio Lower Upper

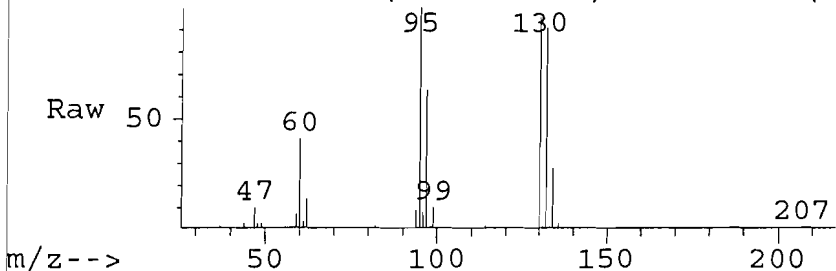
130 100

132 95.0 46.0 138.0

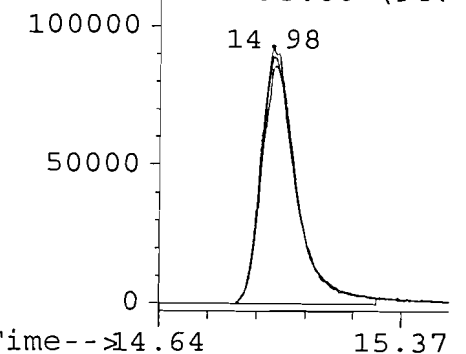
95 104.2 52.2 156.6

0 0.0 0.0 0.0

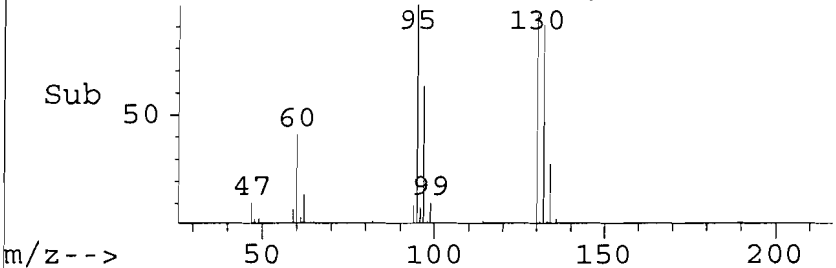
AbundanceScan 1550 (14.981 min): V9643.D (*)



AbundanceIon 130.00 (129
Ion 132.00 (131
Ion 95.00 (94.



AbundanceScan 1550 (14.981 min): V9643.D (-



000225

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9643.D

Acq Time : 28 Oct 99 9:30 pm

Sample : L5320ASP-91759

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000226

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-034-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91760

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9644.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	3.8		
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	8.6		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	8.6		
156-60-5	trans-1,2-Dichloroethene	8.5		
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	24		
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	5		
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	220		E
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	1.6		
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	190		E
108-90-7	Chlorobenzene	10		
100-41-4	Ethylbenzene	97		
136777-61-2	m + p-Xylenes	220		E
95-47-6	o-xylene	120		E
95-50-1	1,2-Dichlorobenzene	50		
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-034-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
Matrix: (soil/water) WATER Lab Sample ID: O91760
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9644.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 20 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 95-47-6	Benzene, 1,2-dimethyl-	23.01	240	J
2.	Unknown	25.43	150	J
3. 103-65-1	Benzene, propyl-	26.12	170	J
4. 611-14-3	Benzene, 1-ethyl-2-methyl-	26.47	210	J
5. 526-73-8	Benzene, 1,2,3-trimethyl-	26.63	600	J
6. 611-14-3	Benzene, 1-ethyl-2-methyl-	27.10	230	J
7. 17302-28-2	Nonane, 2,6-dimethyl-	27.37	150	J
8. 95-36-3	1,2,4-Trimethylbenzene	28.65	420	J
9.	Unknown	29.14	250	J
10. 535-77-3	Benzene, 1-methyl-3-(1-methy	29.42	180	J
11. 1120-21-4	Undecane	29.68	320	J
12. 527-84-4	Benzene, 1-methyl-2-(1-methy	30.11	170	J
13.	Unknown	30.20	180	J
14. 99-87-6	Benzene, 1-methyl-4-(1-methy	30.39	150	J
15.	Unknown	31.17	210	J
16. 527-84-4	Benzene, 1-methyl-2-(1-methy	31.42	180	J
17. 527-53-7	Benzene, 1,2,3,5-tetramethyl	31.54	160	J
18. 112-40-3	Dodecane	32.52	350	J
19. 874-35-1	1H-Indene, 2,3-dihydro-5-met	32.61	230	J
20. 119-64-2	Naphthalene, 1,2,3,4-tetrahy	33.00	150	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
 Acq Time : 28 Oct 99 10:14 pm
 Sample : L5320ASP-91760
 Misc : 5MLS
 Quant Time: Nov 9 0:17 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.80	128	452092	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.38	114	2424381	30.00	ug/L	0.01
34) Chlorobenzene-d5	22.40	117	2638312	30.00	ug/L	0.04

System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	759267	28.44	ug/L	94.80%
36) Toluene-d8	18.49	98	5150024	42.96	ug/L	143.19%
45) Bromofluorobenzene	25.54	95	1956650	27.80	ug/L	92.66%

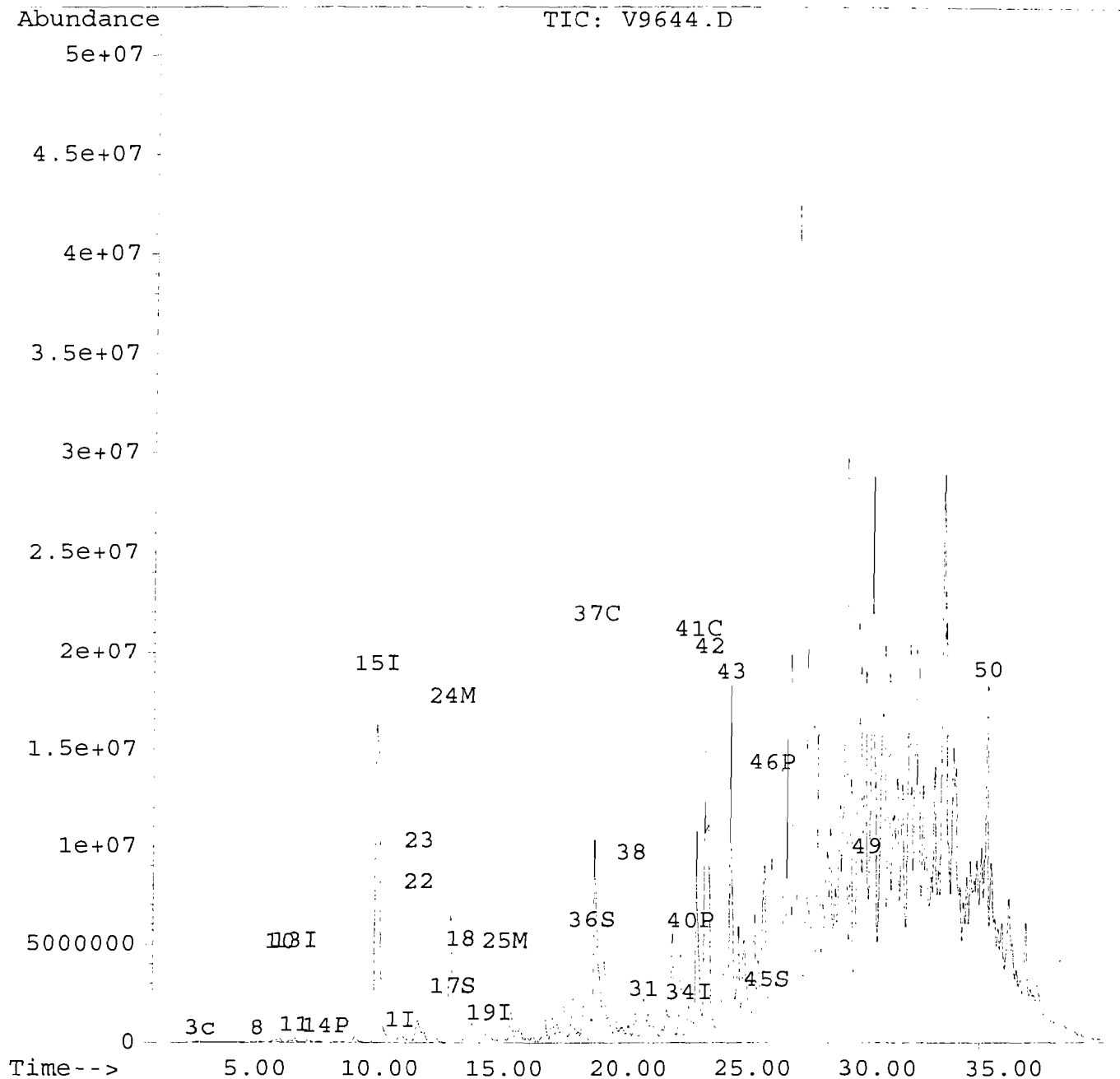
Target Compounds						Qvalue
13) Vinyl Chloride	2.83	62	102109	3.83	ug/L	98
NT 8) Acetone	5.10	43	252779	35.32	ug/L	96
10) Methylene Chloride	5.99	84	251432	8.58	ug/L	93
11) trans-1,2-Dichloroethene	6.56	61	387164	8.53	ug/L	94
NT 13) MTBE	6.57	73	242271	2.70	ug/L	95
14) 1,1-Dichloroethane	7.83	63	584338	8.62	ug/L	97
NT 15) cis-1,2-Dichloroethene	9.81	96	28166958	847.78	ug/L	61
Fr. 18) 1,2-Dichloroethane	13.21	62	39882	1.06	ug/L	93
22) 1,1,1-Trichloroethane	11.52	97	1212265	24.08	ug/L	96
Fr. 23) Carbon Tetrachloride	11.53	117	164098	3.95	ug/L	94
24) Benzene	12.78	78	23093268	216.18	ug/L	97
25) Trichloroethene	15.00	130	163923	4.99	ug/L	95
Fr. 31) 1,1,2-Trichloroethane	20.63	97	380374	12.49	ug/L	66
37) Toluene	18.59	91	28370924	192.85	ug/L	87
38) Tetrachloroethene	20.08	166	62748	1.58	ug/L	88
40) Chlorobenzene	22.47	112	988181	10.17	ug/L	98
41) Ethylbenzene	22.69	91	17863668	96.96	ug/L	93
42) m+ p-Xylenes	23.16	106	14679514	222.12	ug/L m	31
43) o-xylene	24.05	91	16772683	118.34	ug/L	96
Fr. 46) 1,1,2,2-Tetrachloroethane	25.70	83	1092948	16.45	ug/L	85
49) 1,2-Dichlorobenzene	29.51	146	3452886	50.32	ug/L	90
NT 50) Naphthalene	34.26	128	33415025	304.80	ug/L m	92

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
 Acq Time : 28 Oct 99 10:14 pm
 Sample : L5320ASP-91760
 Misc : 5MLS
 Quant Time: Nov 9 0:17 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



000230

AbundanceScan 199 (2.659 min): V8257.D (-,*

#3

Vinyl Chloride

Concen: 3.83 ug/L

RT: 2.83 min Scan# 217

Delta R.T. 0.01 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

0

m/z--> 50 100 150 200

Abundance Scan 217 (2.832 min): V9644.D (*)

Raw 50

Sub 50

m/z--> 50 100 150 200

AbundanceScan 217 (2.832 min): V9644.D (-,*

m/z--> 50 100 150 200

AbundanceScan 443 (4.858 min): V8257.D (-,*

#8

Acetone

Concen: 35.32 ug/L

RT: 5.10 min Scan# 466

Delta R.T. -0.00 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

0

m/z--> 50 100 150 200

Abundance Scan 466 (5.103 min): V9644.D (*)

Raw 50

Sub 50

m/z--> 50 100 150 200

AbundanceScan 466 (5.103 min): V9644.D (-,*

m/z--> 50 100 150 200

Tgt Ion:62 Resp: 102109

Ion Ratio Lower Upper

62 100

64 34.7 16.7 50.0

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 62.00 (61.

Ion 64.00 (63.

40000 2.83

30000

20000

10000

0

Time-->2.69

3.00

Tgt Ion:43 Resp: 252779

Ion Ratio Lower Upper

43 100

58 35.0 16.3 48.8

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 43.00 (42.

Ion 58.00 (57.

5.10

40000

20000

0

Time-->4.85

5.37

000231

AbundanceScan 527 (5.615 min): V8257.D (-,*

Ref 50

m/z--> 50 100 150 200
Abundance Scan 563 (5.988 min): V9644.D (*)

Raw 50

m/z--> 50 100 150 200
AbundanceScan 563 (5.988 min): V9644.D (-,*

Sub 50

m/z--> 50 100 150 200

AbundanceScan 585 (6.139 min): V8257.D (-,*

Ref 50

m/z--> 50 100 150 200
Abundance Scan 626 (6.563 min): V9644.D (*)

Raw 50

m/z--> 50 100 150 200
AbundanceScan 626 (6.563 min): V9644.D (-,*

Sub 50

m/z--> 50 100 150 200

#10

Methylene Chloride

Concen: 8.58 ug/L

RT: 5.99 min Scan# 563

Delta R.T. -0.00 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Tgt Ion:84 Resp: 251432

Ion Ratio Lower Upper

84 100

49 126.0 67.5 202.6

86 67.0 30.8 92.4

0 0.0 0.0 0.0

AbundanceIon 84.00 (83.

Ion 49.00 (48.

Ion 86.00 (85.

60000

5.99

40000

20000

0

Time-->5.70

6.30

#11

trans-1,2-Dichloroethene

Concen: 8.53 ug/L

RT: 6.56 min Scan# 626

Delta R.T. 0.00 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Tgt Ion:61 Resp: 387164

Ion Ratio Lower Upper

61 100

96 67.8 31.2 93.6

98 43.2 20.1 60.2

0 0.0 0.0 0.0

AbundanceIon 61.00 (60.

80000 Ion 96.00 (95.

Ion 98.00 (97.

60000

6.56

40000

20000

0

Time-->6.29

6.82

000232

Scan 592 (6.202 min): V8257.D (-,*

#13

MTBE

Concen: 2.70 ug/L

RT: 6.57 min Scan# 627

Delta R.T. 0.02 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

m/z--> 0 50 100 150 200
Abundance Scan 627 (6.572 min): V9644.D (*)

Raw 50

m/z--> 50 100 150 200
Abundance Scan 627 (6.572 min): V9644.D (-,*

Sub 50

m/z--> 0 50 100 150 200

Tgt Ion: 72.95 Resp: 242271

Ion	Ratio	Lower	Upper
73	100		
41	26.3	11.4	34.2
43	20.2	10.0	30.0
57	27.9	20.0	30.0

Abundance	Ion	72.95	(72.
60000	Ion	40.95	(40.
	Ion	42.95	(42.
	Ion	57.00	(56.

40000

20000

0

Time--> 6.19

6.88

6.57

Abundance Scan 720 (7.354 min): V8257.D (-,*

#14

1,1-Dichloroethane

Concen: 8.62 ug/L

RT: 7.83 min Scan# 765

Delta R.T. 0.01 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

m/z--> 0 40 60 80 100
Abundance Scan 765 (7.833 min): V9644.D (*)

Raw 50

m/z--> 40 60 80 100
Abundance Scan 765 (7.833 min): V9644.D (-,*

Sub 50

m/z--> 40 60 80 100

Tgt Ion: 63 Resp: 584338

Ion	Ratio	Lower	Upper
63	100		
65	33.7	16.0	48.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Abundance	Ion	63.00	(62.
	Ion	65.00	(64.

7.83

60000

40000

20000

0

Time--> 7.42

8.31

000233

AbundanceScan 935 (9.286 min): V8257.D (-,*

#15

cis-1,2-Dichloroethene

Concen: 847.78 ug/L

RT: 9.81 min Scan# 982

Delta R.T. -0.08 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

m/z--> 50 100 150 200
AbundanceScan 982 (9.813 min): V9644.D - CO

Tgt Ion:95.95 Resp:28166958

Ion Ratio Lower Upper

96 100

61 76.1 71.3 213.9

98 68.6 32.5 97.5

0 0.0 0.0 0.0

AbundanceIon 95.95 (95.

8000000 Ion 61.00 (60.

Ion 97.95 (97.

Raw 50

m/z--> 50 100 150 200
AbundanceScan 982 (9.813 min): V9644.D - CO

6000000

9.81

4000000

2000000

Sub 50

m/z--> 50 100 150 200

Time-->9.07

10.91

AbundanceScan 1302 (12.635 min): V8257.D (-

#18

1,2-Dichloroethane

Concen: 1.06 ug/L

RT: 13.21 min Scan# 1340

Delta R.T. 0.05 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

m/z--> 50 100 150 200
AbundanceScan 1340 (13.214 min): V9644.D (*)

Tgt Ion:62 Resp: 39882

Ion Ratio Lower Upper

62 100

64 29.6 16.8 50.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 62.00 (61.

6000 Ion 64.00 (63.

13.21

Raw 50

m/z--> 50 100 150 200
AbundanceScan 1340 (13.214 min): V9644.D (-

4000

2000

Sub 50

m/z--> 50 100 150 200

Time-->12.90

13.50

AbundanceScan 1117 (10.946 min): V8257.D (-

Ref 50

m/z--> 50 100 150 200
AbundanceScan 1155 (11.521 min): V9644.D (*)

Raw 50

m/z--> 50 100 150 200
AbundanceScan 1155 (11.521 min): V9644.D (-

Sub 50

m/z--> 50 100 150 200

#22

1,1,1-Trichloroethane

Concen: 24.08 ug/L

RT: 11.52 min Scan# 1155

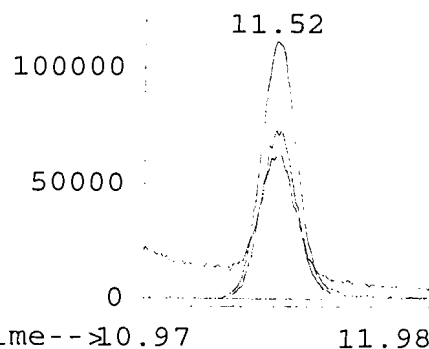
Delta R.T. -0.01 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Tgt Ion	97	Resp	1212265
Ion	Ratio	Lower	Upper
97	100		
99	65.9	33.6	100.8
61	55.5	25.3	75.8
0	0.0	0.0	0.0

Abundance	Ion	97.00	(96.
150000	Ion	99.00	(98.
	Ion	61.00	(60.



AbundanceScan 1169 (11.422 min): V8257.D (-

Ref 50

m/z--> 50 100 150 200
AbundanceScan 1156 (11.530 min): V9644.D (*)

Raw 50

m/z--> 50 100 150 200
AbundanceScan 1156 (11.530 min): V9644.D (-

Sub 50

m/z--> 50 100 150 200

#23

Carbon Tetrachloride

Concen: 3.95 ug/L

RT: 11.53 min Scan# 1156

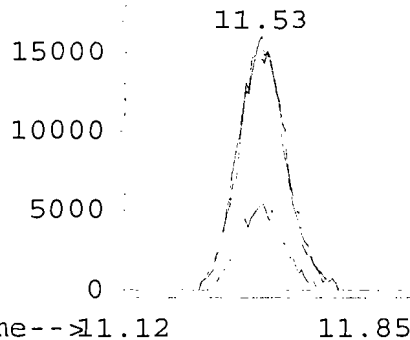
Delta R.T. -0.46 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Tgt Ion	117	Resp	164098
Ion	Ratio	Lower	Upper
117	100		
119	91.1	49.0	147.1
121	32.9	16.2	48.6
0	0.0	0.0	0.0

Abundance	Ion	117.00	(116
20000	Ion	119.00	(118
	Ion	121.00	(120



000235

AbundanceScan 1260 (12.251 min): V8257.D (-

#24

Benzene

Concen: 216.18 ug/L

RT: 12.78 min Scan# 1293

Delta R.T. -0.01 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

0
m/z--> 50 100 150 200
AbundanceScan 1293 (12.784 min): V9644.D (*)

Tgt Ion:78 Resp:23093268

Ion Ratio Lower Upper

78 100

77 22.9 12.2 36.6

0 0.0 0.0 0.0

0 0.0 0.0 0.0

Raw 50

AbundanceIon 78.00 (77.

Ion 77.00 (76.

3000000 12.78

2000000

1000000

0

0
m/z--> 50 100 150 200
AbundanceScan 1293 (12.784 min): V9644.D (-

Time-->12.16

13.53

Sub 50

0
m/z--> 50 100 150 200

AbundanceScan 1504 (14.479 min): V8257.D (-

#25

Trichloroethene

Concen: 4.99 ug/L

RT: 15.00 min Scan# 1535

Delta R.T. 0.01 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

0
m/z--> 50 100 150 200
AbundanceScan 1535 (14.996 min): V9644.D (*)

Tgt Ion:130 Resp: 163923

Ion Ratio Lower Upper

130 100

132 101.9 46.0 138.0

95 105.1 52.2 156.6

0 0.0 0.0 0.0

Raw 50

AbundanceIon 130.00 (129

30000 Ion 132.00 (131

Ion 95.00 (94.

20000

10000

0

0
m/z--> 50 100 150 200
AbundanceScan 1535 (14.996 min): V9644.D (-

Time-->14.68

15.29

Sub 50

0
m/z--> 50 100 150 200

000236

AbundanceScan 2046 (19.434 min): V8257.D (-

#31

1,1,2-Trichloroethane

Concen: 12.49 ug/L

RT: 20.63 min Scan# 2122

Delta R.T. 0.65 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

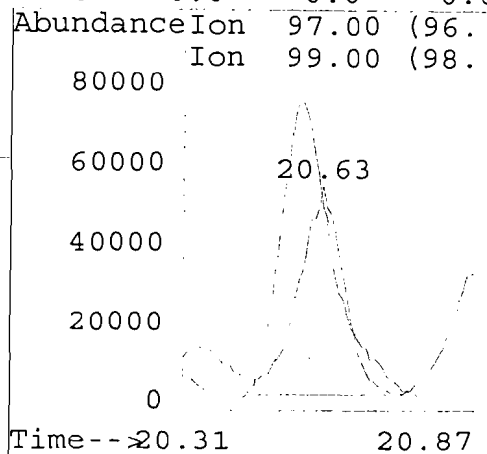
Ref 50 -

m/z--> 40 60 80 100 120 140 160
AbundanceScan 2122 (20.630 min): V9644.D (*)

Tgt Ion	97	Resp	380374
Ion Ratio	Lower	Upper	
97	100		
99	90.2	31.7	95.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Raw 50

m/z--> 40 60 80 100 120 140 160
AbundanceScan 2122 (20.630 min): V9644.D (-



Sub 50

m/z--> 40 60 80 100 120 140 160

AbundanceScan 1900 (18.098 min): V8257.D (-

#37

Toluene

Concen: 192.85 ug/L

RT: 18.59 min Scan# 1927

Delta R.T. -0.05 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

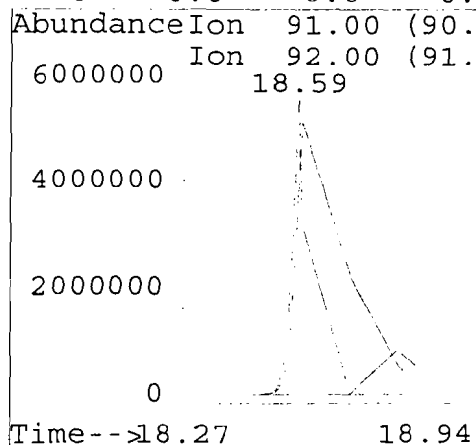
Ref 50

m/z--> 40 60 80 100
AbundanceScan 1927 (18.588 min): V9644.D (*)

Tgt Ion	91	Resp	28370924
Ion Ratio	Lower	Upper	
91	100		
92	67.2	28.8	86.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Raw 50

m/z--> 40 60 80 100
AbundanceScan 1927 (18.588 min): V9644.D (-



Sub 50

m/z--> 40 60 80 100

000237

AbundanceScan 2050 (19.471 min): V8257.D (-

Ref 50

#38

Tetrachloroethene

Concen: 1.58 ug/L

RT: 20.08 min Scan# 2062

Delta R.T. 0.04 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

0
m/z--> 40 60 80 100 120 140 160
AbundanceScan 2062 (20.080 min): V9644.D (*)

Raw 50

0
m/z--> 40 60 80 100 120 140 160
AbundanceScan 2062 (20.080 min): V9644.D (-

Sub 50

m/z--> 40 60 80 100 120 140 160

Tgt Ion	Ratio	Lower	Upper
166	100		
164	67.6	39.2	117.6
168	40.3	24.0	72.0
0	0.0	0.0	0.0

AbundanceIon 166.00 (165
Ion 164.00 (163
Ion 168.00 (167

20.08

10000

5000

0

Time-->19.84

20.27

AbundanceScan 2305 (21.785 min): V8257.D (-

Ref 50

#40

Chlorobenzene

Concen: 10.17 ug/L

RT: 22.47 min Scan# 2322

Delta R.T. 0.03 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

0
m/z--> 40 60 80 100 120
AbundanceScan 2322 (22.466 min): V9644.D (*)

Raw 50

0
m/z--> 40 60 80 100 120
AbundanceScan 2322 (22.466 min): V9644.D (-

Sub 50

0
m/z--> 40 60 80 100 120

Tgt Ion	Ratio	Lower	Upper
112	100		
114	33.1	16.1	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceIon 112.00 (111
Ion 114.00 (113
22.47

150000

100000

50000

0

Time-->22.16

22.76

000238

AbundanceScan 2334 (22.051 min): V8257.D (-

#41

Ethylbenzene

Concen: 96.96 ug/L

RT: 22.69 min Scan# 2346

Delta R.T. -0.02 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

m/z--> 40 60 80 100 120 140
AbundanceScan 2346 (22.685 min): V9644.D (*)

Tgt Ion:91 Resp:17863668

Ion Ratio Lower Upper

91 100

106 34.1 15.2 45.7

0 0.0 0.0 0.0

0 0.0 0.0 0.0

Raw 50

m/z--> 40 60 80 100 120 140
AbundanceScan 2346 (22.685 min): V9644.D (-

AbundanceIon 91.00 (90.
Ion 106.00 (105
6000000 22.69

4000000

2000000

0

m/z--> 40 60 80 100 120 140

Time-->22.35 23.02

AbundanceScan 2369 (22.372 min): V8257.D (-

#42

m+ p-Xylenes

Concen: 222.12 ug/L m

RT: 23.16 min Scan# 2370

Delta R.T. 0.12 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

m/z--> 40 60 80 100 120
AbundanceScan 2370 (23.157 min): V9644.D -

Tgt Ion:106 Resp:14679514

Ion Ratio Lower Upper

106 100

91 192.1 100.8 302.4

105 43.9 22.3 66.9

0 0.0 0.0 0.0

Raw 50

m/z--> 40 60 80 100 120
AbundanceScan 2370 (23.157 min): V9644.D -

AbundanceIon 106.00 (105
Ion 91.00 (90.
Ion 105.00 (104

6000000

4000000

2000000

0

m/z--> 40 60 80 100 120

Time-->22.55 23.80

Sub 50

23.16

000239

AbundanceScan 2476 (23.350 min): V8257.D (-

#43

o-xylene

Concen: 118.34 ug/L

RT: 24.05 min Scan# 2453

Delta R.T. -0.01 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

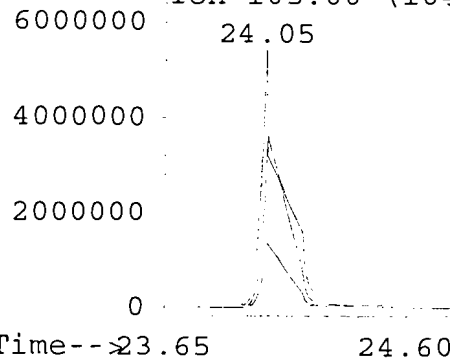
m/z--> 0 40 60 80 100 120 140
AbundanceScan 2453 (24.046 min): V9644.D (*)

Tgt Ion:91 Resp:16772683
Ion Ratio Lower Upper
91 100
106 49.7 23.0 69.0
105 18.9 9.2 27.6
0 0.0 0.0 0.0

Raw 50

AbundanceIon 91.00 (90.
Ion 106.00 (105
Ion 105.00 (104
24.05

m/z--> 0 40 60 80 100 120 140
AbundanceScan 2453 (24.046 min): V9644.D (-



Sub 50

m/z--> 0 40 60 80 100 120 140

AbundanceScan 2683 (25.245 min): V8257.D (-

#46

1,1,2,2-Tetrachloroethane

Concen: 16.45 ug/L

RT: 25.70 min Scan# 2620

Delta R.T. -0.33 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Ref 50

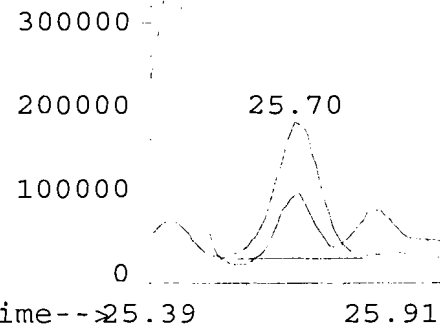
m/z--> 0 50 100 150 200
AbundanceScan 2620 (25.698 min): V9644.D (*)

Tgt Ion:83 Resp: 1092948
Ion Ratio Lower Upper
83 100
85 51.2 31.3 93.9
0 0.0 0.0 0.0
0 0.0 0.0 0.0

Raw 50

AbundanceIon 83.00 (82.
400000 Ion 85.00 (84.

m/z--> 0 50 100 150 200
AbundanceScan 2620 (25.698 min): V9644.D (-



Sub 50

m/z--> 0 50 100 150 200

000240

AbundanceScan 3043 (28.534 min): V8257.D (-

Ref 50

m/z--> 50 100 150 200
AbundanceScan 3007 (29.511 min): V9644.D (*)

Raw 50

m/z--> 50 100 150 200
AbundanceScan 3007 (29.511 min): V9644.D (-

Sub 50

m/z--> 50 100 150 200

AbundanceScan 3552 (33.187 min): V8257.D (-

Ref 50

m/z--> 50 100 150 200
AbundanceScan 3543 (34.260 min): V9644.D (*)

Raw 50

m/z--> 50 100 150 200
AbundanceScan 3543 (34.260 min): V9644.D (-

Sub 50

m/z--> 50 100 150 200

#49

1,2-Dichlorobenzene

Concen: 50.32 ug/L

RT: 29.51 min Scan# 3007

Delta R.T. 0.03 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Tgt Ion:146 Resp: 3452886

Ion Ratio Lower Upper

146 100

111 69.6 25.3 75.8

75 37.2 19.9 59.7

148 63.6 38.0 88.6

AbundanceIon 146.00 (145

800000 Ion 111.00 (110

Ion 75.00 (74.

Ion 148.00 (147

600000 29.51

400000

200000

0

Time-->29.14

29.95

#50

Naphthalene

Concen: 304.80 ug/L m

RT: 34.26 min Scan# 3543

Delta R.T. -0.08 min

Lab File: V9644.D

Acq: 28 Oct 99 10:14 pm

Tgt Ion:128.05 Resp:33415025

Ion Ratio Lower Upper

128 100

127 12.1 6.6 12.2

129 11.4 5.3 9.9#

0 0.0 0.0 0.0

AbundanceIon 128.05 (127

8000000 Ion 127.10 (126

Ion 129.05 (128

6000000 34.26

4000000

2000000

0

Time-->33.79

34.66

000241

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

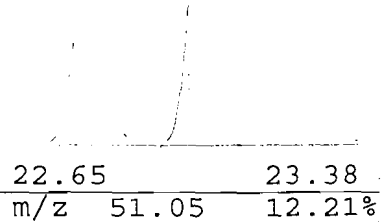
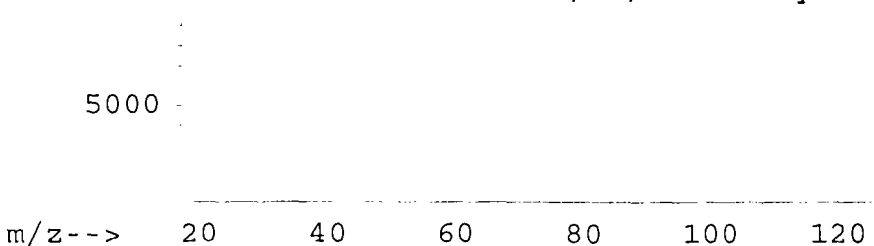
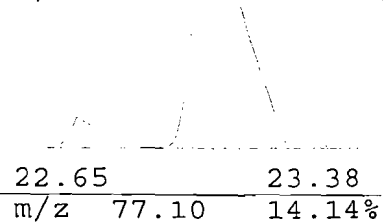
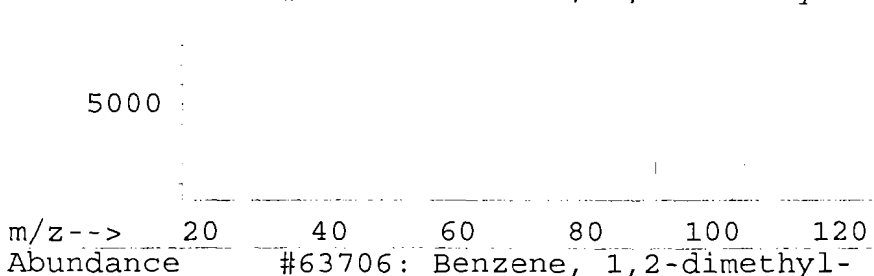
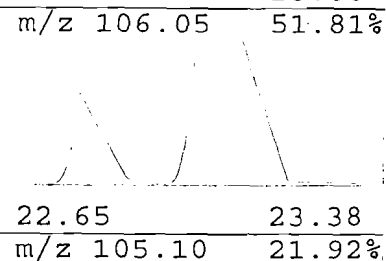
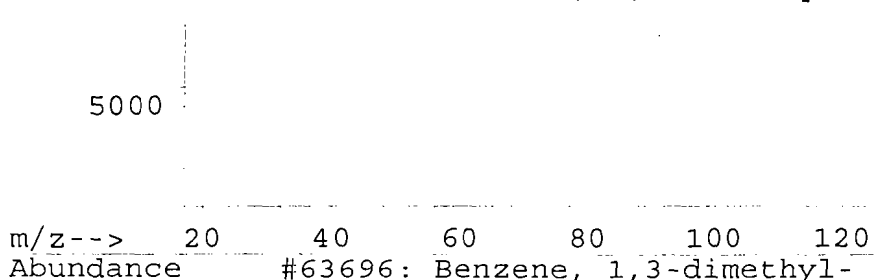
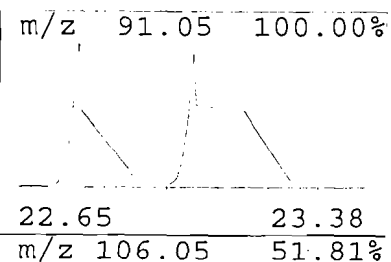
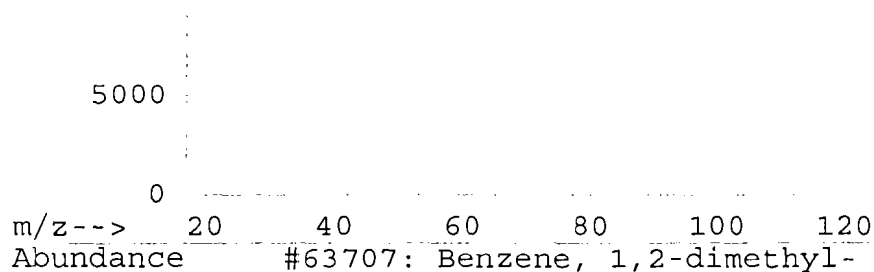
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.01	243.45 ug/L	101804093	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2-dimethyl-	63707	000095-47-6	97
2	Benzene, 1,3-dimethyl-	63696	000108-38-3	95
3	Benzene, 1,2-dimethyl-	63706	000095-47-6	95
4	p-Xylene	63699	000106-42-3	95
5	p-Xylene	63700	000106-42-3	95

Abundance Scan 2368 (23.012 min): V9644.D (-,*)



000242

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

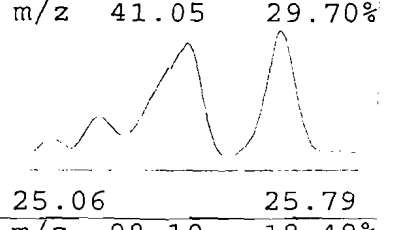
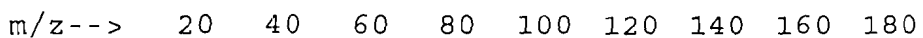
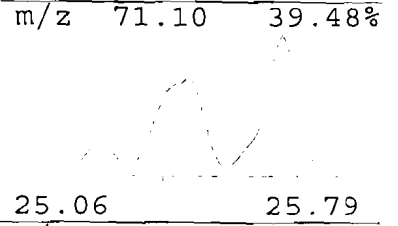
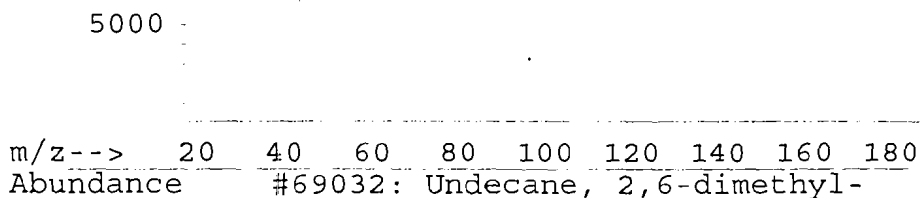
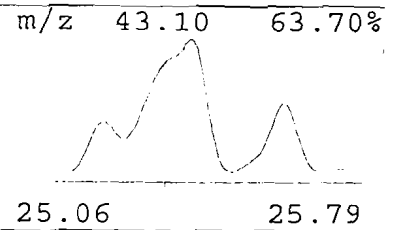
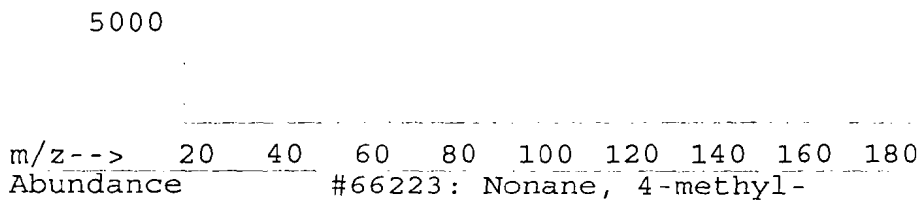
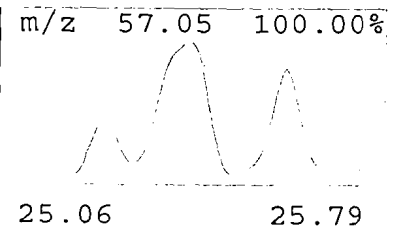
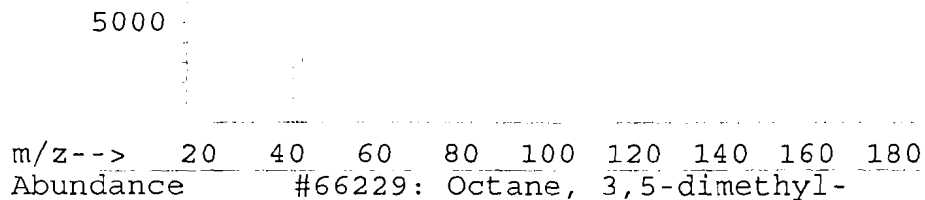
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.43	145.46 ug/L	60829369	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Octane, 3,5-dimethyl-	66229	015869-93-9	80
2	Nonane, 4-methyl-	66223	017301-94-9	80
3	Undecane, 2,6-dimethyl-	69032	017301-23-4	78
4	Nonane, 4-methyl-	8099	017301-94-9	72
5	Octane, 3,5-dimethyl-	8108	015869-93-9	72

Abundance Scan 2590 (25.426 min): V9644.D (-,*)



000243

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D

Acq Time : 28 Oct 99 10:14 pm

Sample : L5320ASP-91760

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

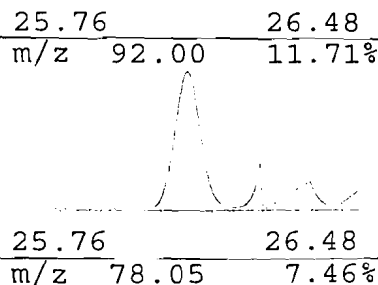
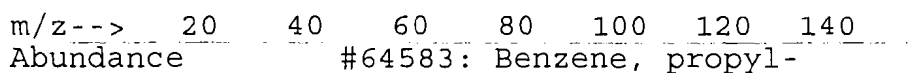
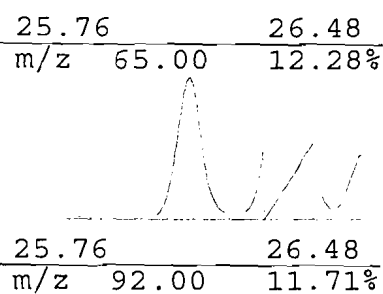
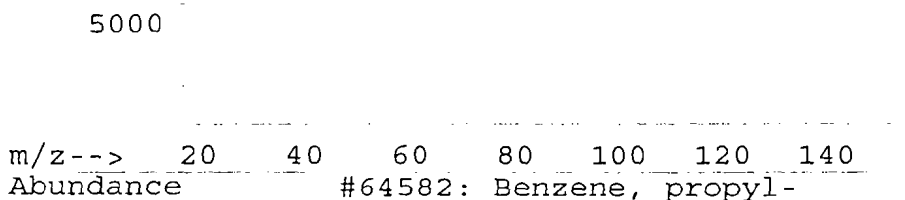
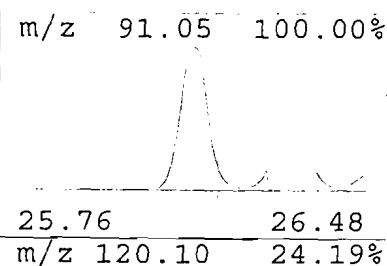
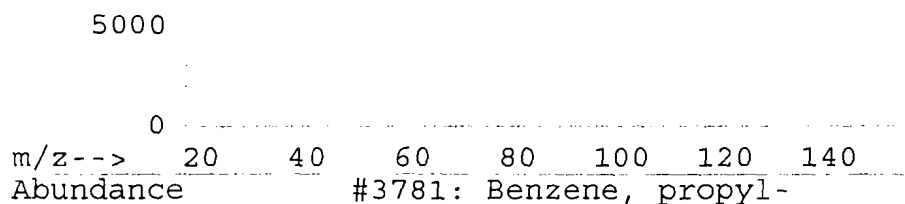
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.12	171.65 ug/L	71782409	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, propyl-	3781	000103-65-1	90
2	Benzene, propyl-	64582	000103-65-1	90
3	Benzene, propyl-	64583	000103-65-1	90
4	Propanenitrile, 3-[(phenylmethyl)am	12493	000706-03-6	72
5	Benzene, (ethenyloxy)-	3759	000766-94-9	64

Abundance Scan 2666 (26.119 min): V9644.D (-,*)



Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

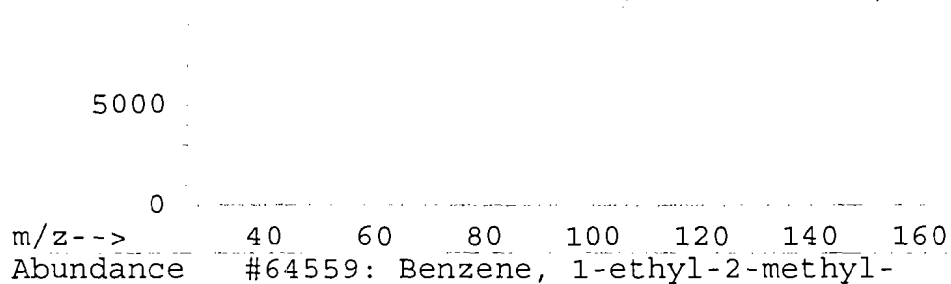
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.47	211.75 ug/L	88548307	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	94
2	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	94
3	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	90
4	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	90
5	Benzene, 1-ethyl-4-methyl-	64566	000622-96-8	87

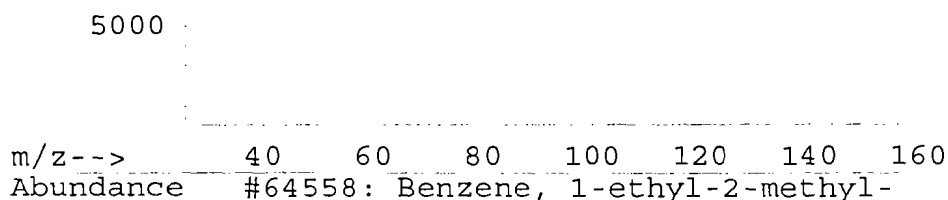
Abundance Scan 2691 (26.474 min): V9644.D (-,*)



m/z 105.10 100.00%

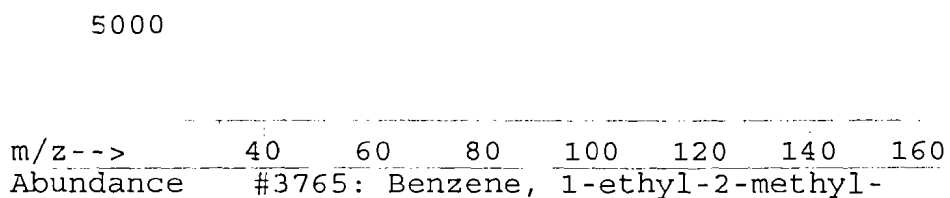
26.11 26.84

m/z 120.15 32.41%



26.11 26.84

m/z 77.10 12.84%



26.11 26.84

m/z 106.05 9.60%



26.11 26.84

m/z 79.05 9.51%

000245

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

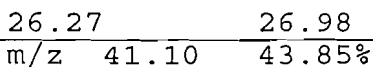
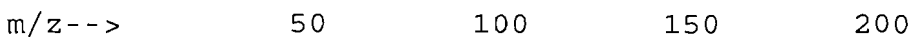
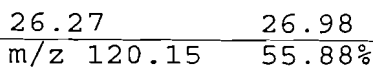
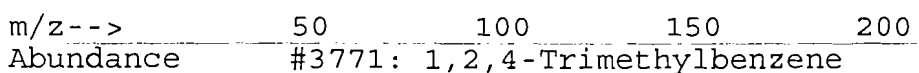
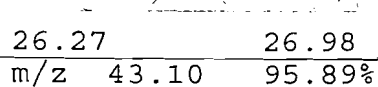
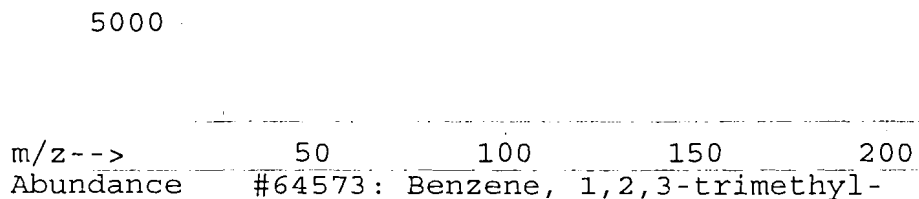
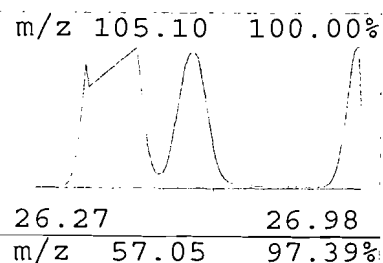
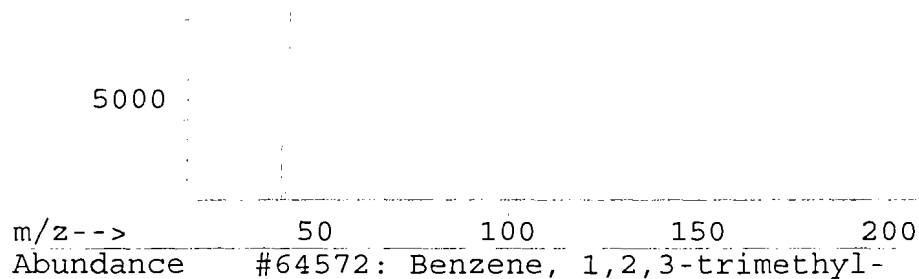
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.63	603.46 ug/L	252355059	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64572	000526-73-8	89
2	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	89
3	1,2,4-Trimethylbenzene	3771	000095-36-3	87
4	Benzene, 1,3,5-trimethyl-	64568	000108-67-8	86
5	Benzene, 1,2,4-trimethyl-	3775	000095-63-6	86

Abundance Scan 2708 (26.628 min): V9644.D (-,*)



000246

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D

Acq Time : 28 Oct 99 10:14 pm

Sample : L5320ASP-91760

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

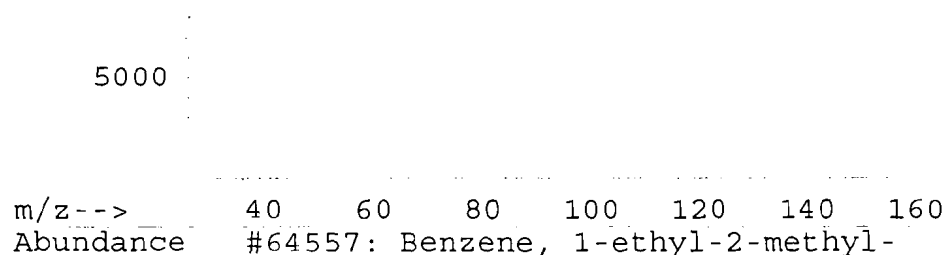
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

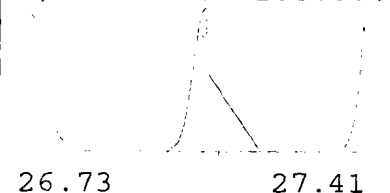
R.T.	Conc	Area	Relative to ISTD	R.T.
27.10	232.68 ug/L	97302616	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	93
2	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	93
3	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	93
4	1,2,4-Trimethylbenzene	3771	000095-36-3	91
5	Benzene, 1-ethyl-3-methyl-	3769	000620-14-4	87

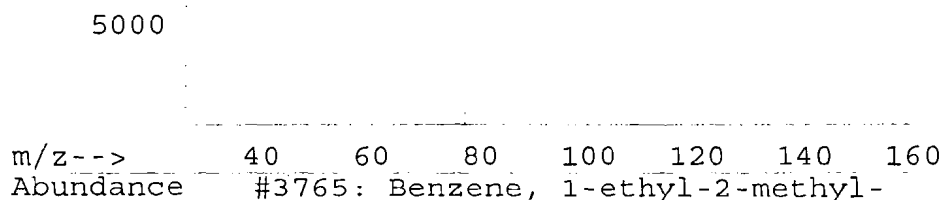
Abundance Scan 2761 (27.104 min): V9644.D (-,*)



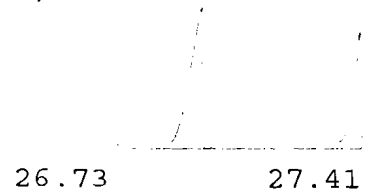
m/z 105.10 100.00%



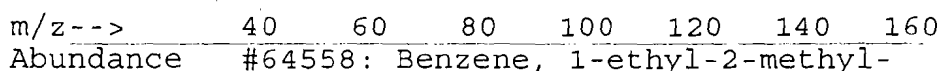
m/z 120.15 34.51%



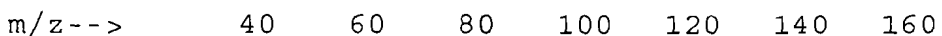
m/z 77.10 15.29%



m/z 91.05 13.14%



m/z 79.05 12.10%



m/z 26.73 27.41

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

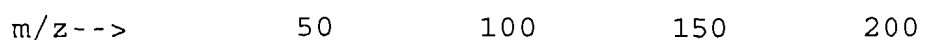
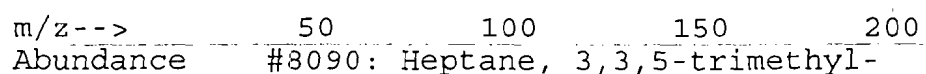
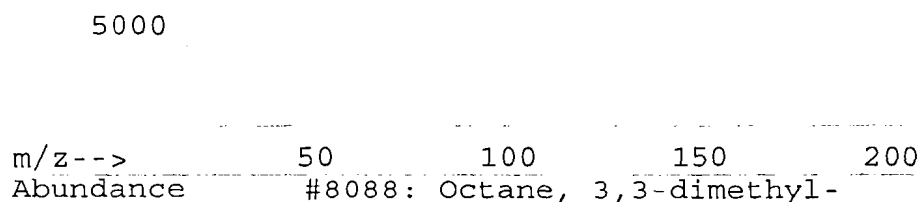
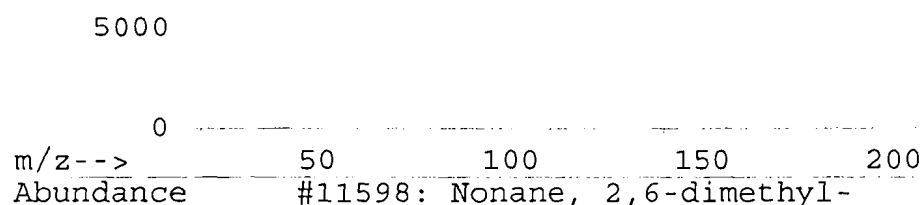
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.37	145.07 ug/L	60665960	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonane, 2,6-dimethyl-	11598	017302-28-2	86
2	Octane, 3,3-dimethyl-	8088	004110-44-5	78
3	Heptane, 3,3,5-trimethyl-	8090	007154-80-5	78
4	Heptane, 3,3,5-trimethyl-	66219	007154-80-5	78
5	Decane, 5-ethyl-5-methyl-	19055	017312-74-2	72

Abundance Scan 2777 (27.374 min): V9644.D (-,*)



m/z 71.10 100.00%

27.01 27.74
m/z 43.10 83.14%

27.01 27.74
m/z 57.05 63.00%

27.01 27.74
m/z 70.10 35.93%

27.01 27.74
m/z 41.10 32.10%

27.01 27.74

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

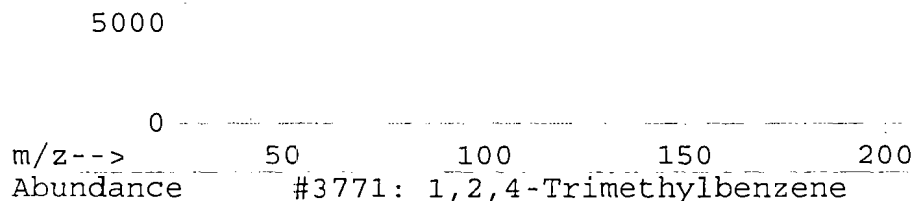
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.65	417.41 ug/L	174552806	Chlorobenzene-d5	22.40

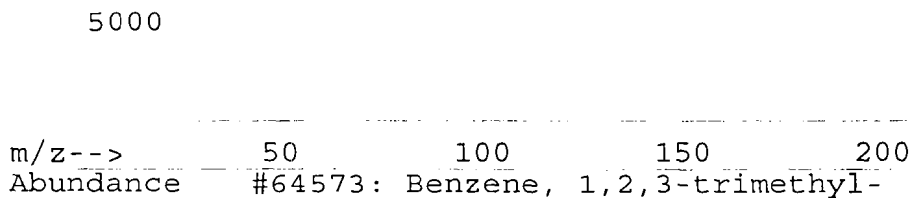
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Trimethylbenzene	3771	000095-36-3	96
2	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
3	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	94
4	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	93
5	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	93

Abundance Scan 2908 (28.650 min): V9644.D (-,*)

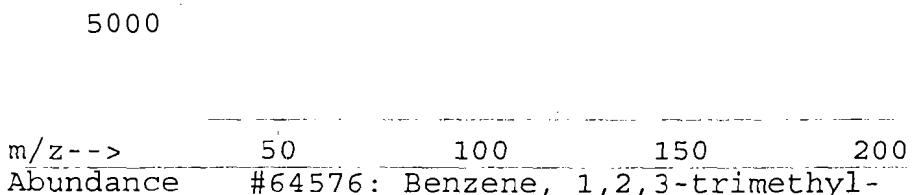


m/z 105.10 100.00%

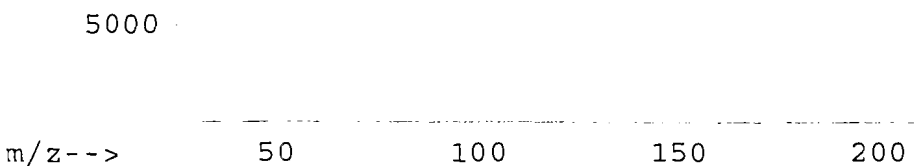
28.29 29.01
m/z 120.15 47.43%



28.29 29.01
m/z 77.10 15.94%



28.29 29.01
m/z 39.00 11.34%



28.29 29.01
m/z 43.10 11.22%

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

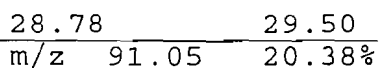
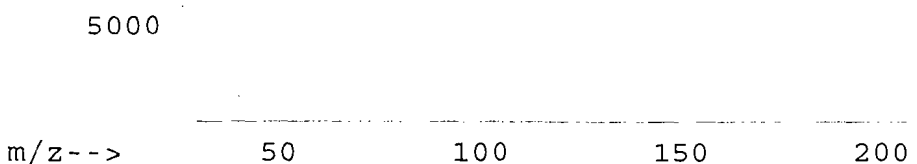
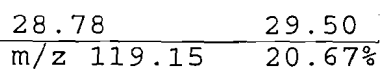
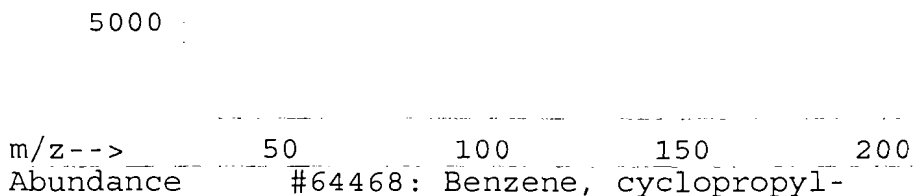
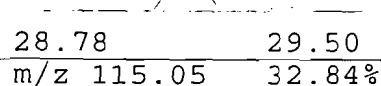
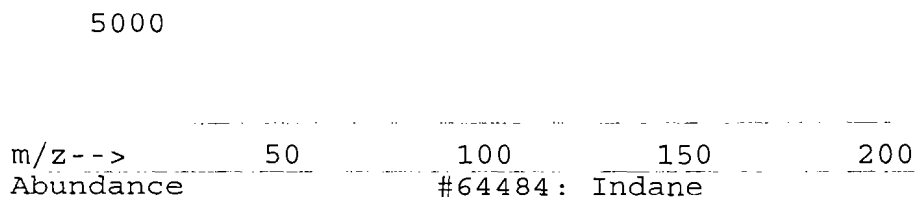
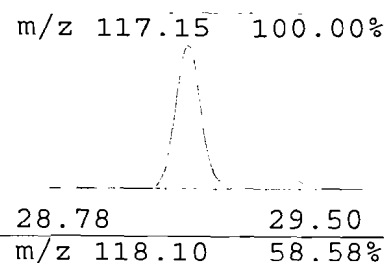
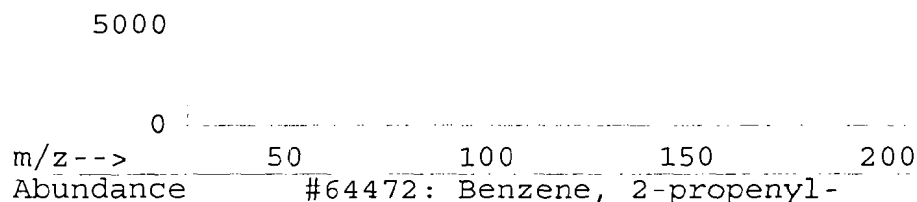
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.14	247.99 ug/L	103705838	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-propenyl-	64472	000300-57-2	64
2	Indane	64484	000496-11-7	62
3	Benzene, cyclopropyl-	64468	000873-49-4	62
4	Indane	3602	000496-11-7	58
5	Benzene, 1-ethenyl-4-methyl-	64480	000622-97-9	50

Abundance Scan 2964 (29.140 min): V9644.D (-,*)



Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D

Acq Time : 28 Oct 99 10:14 pm

Sample : L5320ASP-91760

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

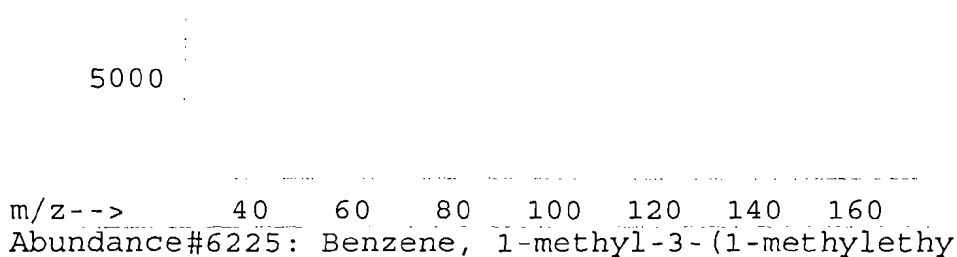
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

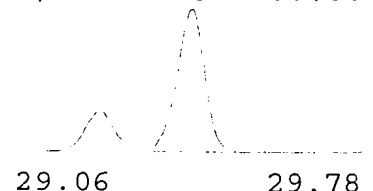
R.T.	Conc	Area	Relative to ISTD	R.T.
29.42	183.19 ug/L	76607586	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	6225	000535-77-3	91
2	Benzene, tert-butyl-	65530	000098-06-6	90
3	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	90
4	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	90
5	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	90

Abundance Scan 2997 (29.424 min): V9644.D (-,*)

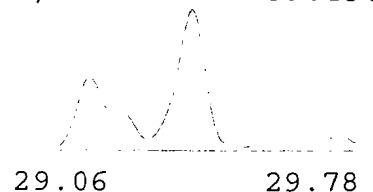


m/z 119.15 100.00%



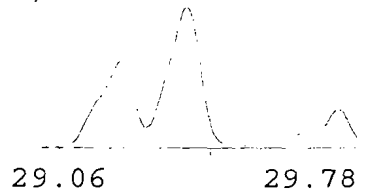
29.06 29.78

m/z 91.05 39.43%



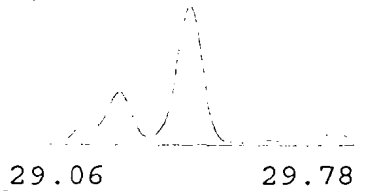
29.06 29.78

m/z 134.10 32.69%



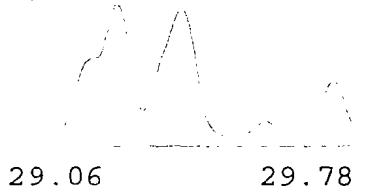
29.06 29.78

m/z 92.00 14.97%



29.06 29.78

m/z 77.10 10.26%



29.06 29.78

000251

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

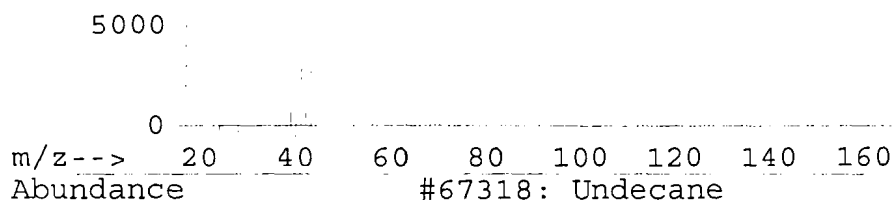
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.68	320.57 ug/L	134054507	Chlorobenzene-d5	22.40

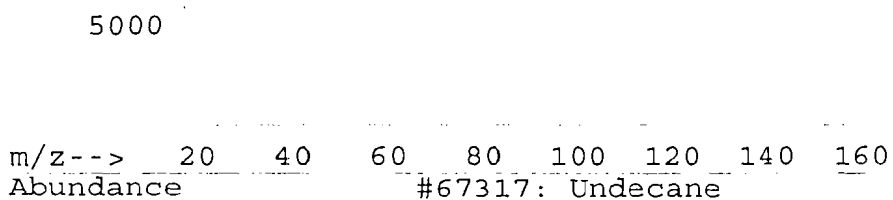
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane	67318	001120-21-4	97
2	Undecane	67317	001120-21-4	95
3	Undecane	11611	001120-21-4	93
4	Tridecane	69019	000629-50-5	87
5	Tridecane	69020	000629-50-5	86

Abundance Scan 3027 (29.683 min): V9644.D (-,*)

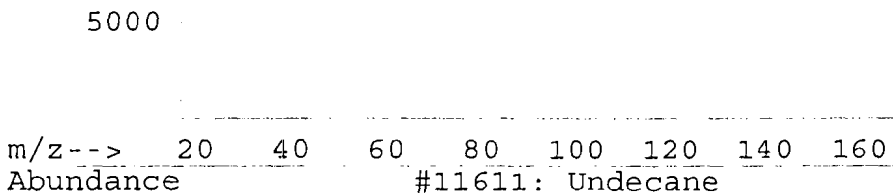


m/z 57.05 100.00%

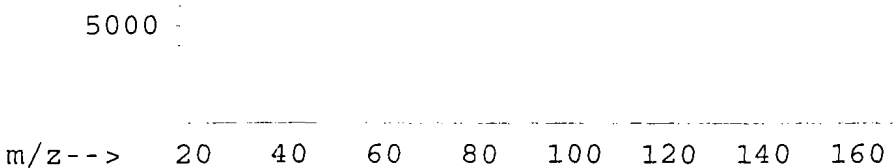
29.32 30.04
m/z 43.10 97.70%



29.32 30.04
m/z 71.10 49.56%



29.32 30.04
m/z 41.10 46.16%



29.32 30.04
m/z 85.15 25.65%

29.32 30.04

000252

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

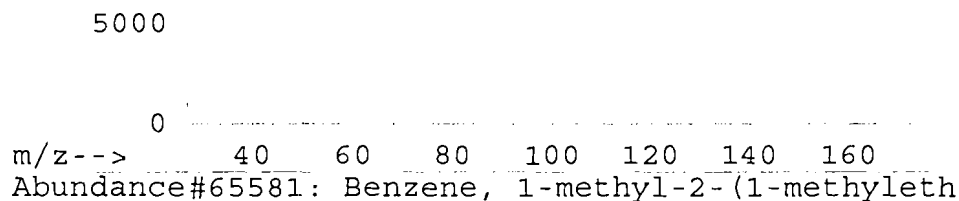
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.11	173.47 ug/L	72541858	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	95
2	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	95
3	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	94
4	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	94
5	Benzene, 1-methyl-4-(1-methylethyl)	65538	000099-87-6	93

Abundance Scan 3062 (30.111 min): V9644.D (-,*)



m/z 119.15 100.00%

29.75 30.47
m/z 134.10 28.44%

5000

m/z--> 40 60 80 100 120 140 160

Abundance #65569: Benzene, 4-ethyl-1,2-dimethyl-

29.75 30.47
m/z 55.05 22.49%

5000

m/z--> 40 60 80 100 120 140 160

Abundance#6201: Benzene, 1-methyl-4-(1-methylethyl)

29.75 30.47
m/z 97.10 17.66%

29.75 30.47
m/z 91.05 17.03%

m/z--> 40 60 80 100 120 140 160

29.75 30.47

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

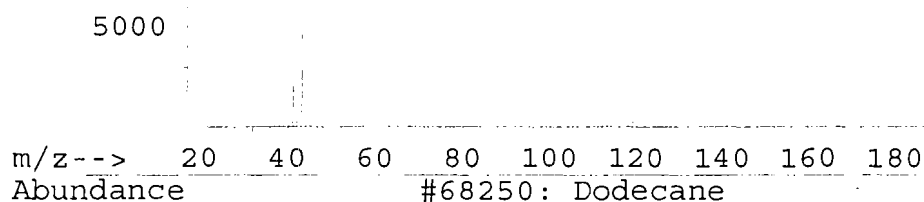
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.20	182.22 ug/L	76198953	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane	68250	000112-40-3	59
2	Decane, 3,6-dimethyl-	15348	017312-53-7	58
3	Tridecane	69020	000629-50-5	53
4	Tetradecane	69657	000629-59-4	53
5	Heptadecane	71191	000629-78-7	53

Abundance Scan 3072 (30.197 min): V9644.D (-,*)



m/z 57.05 100.00%

29.83 30.56

m/z 43.10 64.22%

5000

m/z--> 20 40 60 80 100 120 140 160 180

Abundance

#15348: Decane, 3,6-dimethyl-

29.83 30.56

m/z 71.10 41.02%

5000

m/z--> 20 40 60 80 100 120 140 160 180

Abundance

#69020: Tridecane

29.83 30.56

m/z 119.15 37.12%

5000

m/z--> 20 40 60 80 100 120 140 160 180

Abundance

#71191: Heptadecane

29.83 30.56

m/z 41.10 24.05%

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D

Acq Time : 28 Oct 99 10:14 pm

Sample : L5320ASP-91760

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

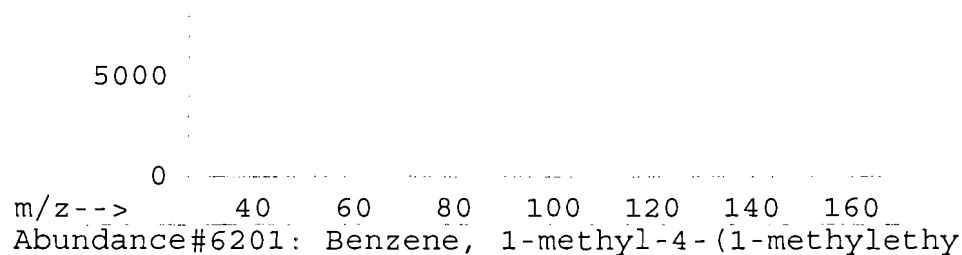
Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
30.39	149.57 ug/L	62547562	Chlorobenzene-d5	22.40	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-methyl-4-(1-methylethyl)		6201	000099-87-6	95
2	Benzene, 1-methyl-4-(1-methylethyl)		65535	000099-87-6	95
3	Benzene, 1-methyl-3-(1-methylethyl)		65579	000535-77-3	95
4	Benzene, 1-methyl-3-(1-methylethyl)		6225	000535-77-3	95
5	Benzene, 1-methyl-2-(1-methylethyl)		6228	000527-84-4	95

Abundance Scan 3094 (30.386 min): V9644.D (-,*)



m/z 119.15 100.00%



30.03 30.75

m/z 134.10 27.63%

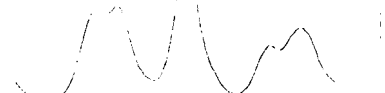


30.03 30.75

m/z 91.05 15.58%

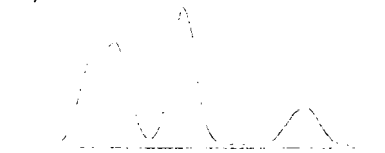
m/z--> 40 60 80 100 120 140 160

Abundance#65535: Benzene, 1-methyl-4-(1-methyleth



30.03 30.75

m/z 120.15 9.90%

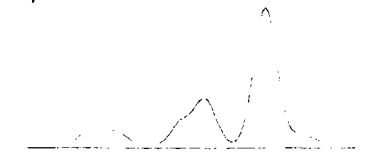


30.03 30.75

m/z 117.05 9.51%

m/z--> 40 60 80 100 120 140 160

Abundance#65579: Benzene, 1-methyl-3-(1-methyleth



30.03 30.75

000255

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

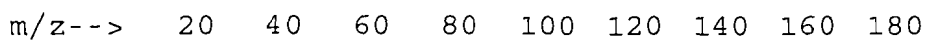
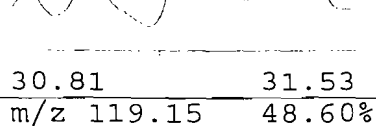
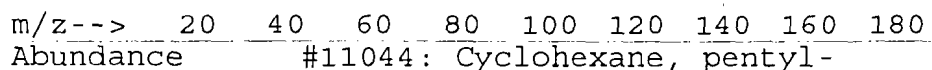
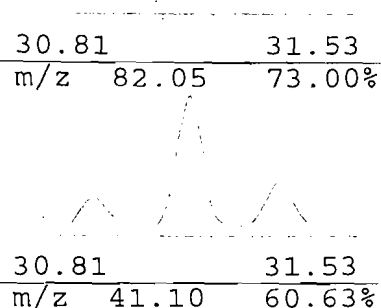
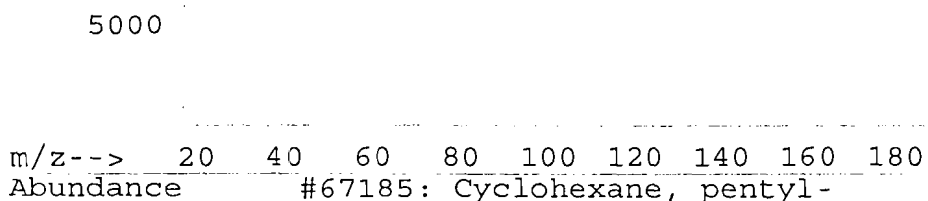
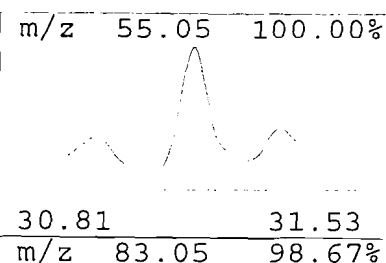
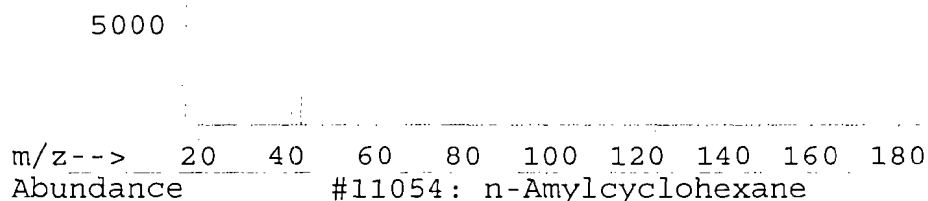
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.17	211.95 ug/L	88635131	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	n-Amylcyclohexane	11054	029949-27-7	64
2	Cyclohexane, pentyl-	67185	004292-92-6	64
3	Cyclohexane, pentyl-	11044	004292-92-6	49
4	Cyclohexane, (4-methylpentyl)-	14775	061142-20-9	49
5	Cyclohexane, octyl-	21971	001795-15-9	47

Abundance Scan 3185 (31.171 min): V9644.D (-,*)



000256

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : SMLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
31.42	179.02 ug/L	74861274	Chlorobenzene-d5	22.40	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1-methyl-2-(1-methylethyl)		65581	000527-84-4	87
2	Benzene, 1-methyl-2-(1-methylethyl)		6228	000527-84-4	87
3	Benzene, 1-methyl-4-(1-methylethyl)		6201	000099-87-6	87
4	Benzene, 1,2,4,5-tetramethyl-		65574	000095-93-2	70
5	Benzene, 1-methyl-4-(1-methylethyl)		65535	000099-87-6	55

Abundance Scan 3214 (31.421 min): V9644.D (-,*)

5000

m/z--> 50 100 150 200
Abundance#65581: Benzene, 1-methyl-2-(1-methyleth

5000

m/z--> 50 100 150 200
Abundance#6228: Benzene, 1-methyl-2-(1-methylethy

5000

m/z--> 50 100 150 200
Abundance#6201: Benzene, 1-methyl-4-(1-methylethy

5000

m/z--> 50 100 150 200

m/z 119.15 100.00%

31.06 31.78
m/z 134.10 45.65%

31.06 31.78
m/z 41.10 36.57%

31.06 31.78
m/z 67.10 34.14%

31.06 31.78
m/z 55.05 30.85%

31.06 31.78

000257

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
31.54	164.65 ug/L	68853251	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	94
2	Benzene, 1,2,3,5-tetramethyl-	65571	000527-53-7	93
3	Benzene, 1,2,4,5-tetramethyl-	65574	000095-93-2	93
4	Benzene, 1,2,3,4-tetramethyl-	65541	000488-23-3	93
5	Benzene, 1-ethyl-2,4-dimethyl-	65572	000874-41-9	93

Abundance Scan 3228 (31.542 min): V9644.D (-,*)

5000

m/z--> 40 60 80 100 120 140 160 180

Abundance #6220: Benzene, 1,2,3,5-tetramethyl-

m/z 119.15 100.00%

31.18 31.90

m/z 134.10 42.76%

5000

m/z--> 40 60 80 100 120 140 160 180

Abundance #65571: Benzene, 1,2,3,5-tetramethyl-

31.18 31.90

m/z 57.05 17.63%

5000

m/z--> 40 60 80 100 120 140 160 180

Abundance #65574: Benzene, 1,2,4,5-tetramethyl-

31.18 31.90

m/z 43.10 15.85%

5000

m/z--> 40 60 80 100 120 140 160 180

31.18 31.90

m/z 91.05 15.64%

31.18 31.90

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

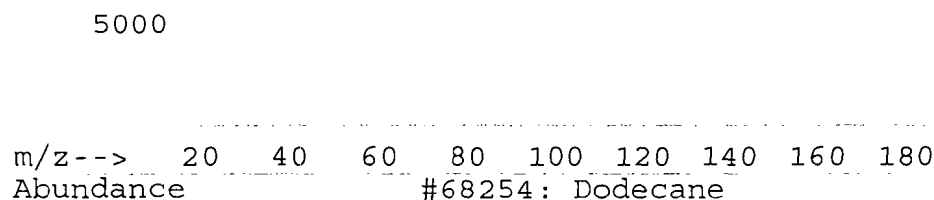
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.52	354.99 ug/L	148450554	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane	68254	000112-40-3	94
2	Dodecane	68251	000112-40-3	91
3	Undecane	67317	001120-21-4	81
4	Dodecane	68252	000112-40-3	81
5	Undecane	11611	001120-21-4	76

Abundance Scan 3341 (32.517 min): V9644.D (-,*)



m/z--> 20 40 60 80 100 120 140 160 180

Abundance

#68251: Dodecane

m/z--> 20 40 60 80 100 120 140 160 180

Abundance

#67317: Undecane

m/z--> 20 40 60 80 100 120 140 160 180

m/z 57.05 100.00%

32.16 32.88
m/z 43.10 89.16%

32.16 32.88
m/z 71.10 54.82%

32.16 32.88
m/z 41.10 43.17%

32.16 32.88
m/z 85.15 28.05%

32.16 32.88

Library Search Compound Report

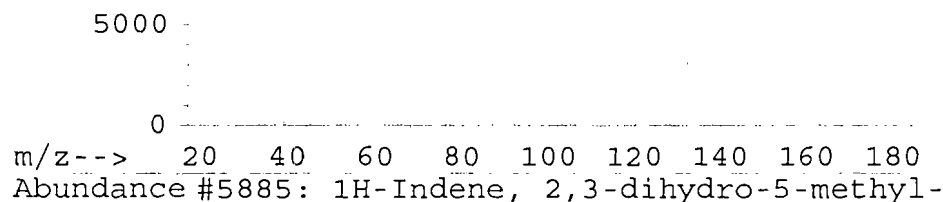
Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D
Acq Time : 28 Oct 99 10:14 pm
Sample : L5320ASP-91760
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

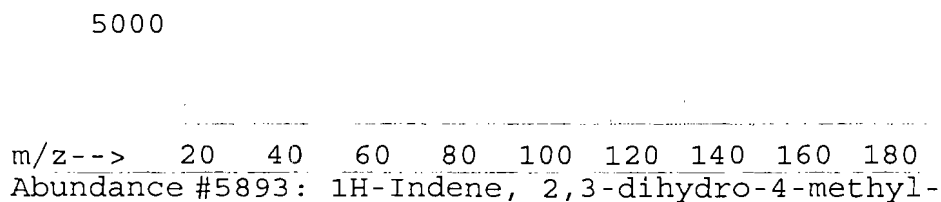
R.T.	Conc	Area	Relative to ISTD	R.T.	
32.61	232.19 ug/L	97095669	Chlorobenzene-d5	22.40	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-5-methyl-		5885	000874-35-1	86
2	1H-Indene, 2,3-dihydro-4-methyl-		5893	000824-22-6	86
3	Benzene, 1-methyl-4-(2-propenyl)-		5873	003333-13-9	83
4	Benzene, 2-ethenyl-1,4-dimethyl-		65413	002039-89-6	59
5	Benzene, (1-methyl-1-propenyl)-, (E		5872	000768-00-3	55

Abundance Scan 3352 (32.611 min): V9644.D (-,*)

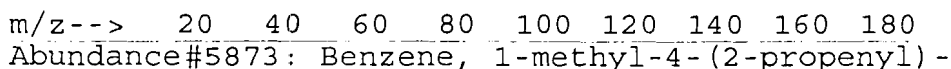


m/z 117.15 100.00%

32.25 32.97
m/z 119.15 98.51%



32.25 32.97
m/z 132.10 34.35%



32.25 32.97
m/z 115.05 31.06%

32.25 32.97
m/z 91.05 26.91%

m/z--> 20 40 60 80 100 120 140 160 180

32.25 32.97

000260

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9644.D

Acq Time : 28 Oct 99 10:14 pm

Sample : L5320ASP-91760

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
33.00	146.26 ug/L	61164330	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	65416	000119-64-2	93
2	Naphthalene, 1,2,3,4-tetrahydro-	65414	000119-64-2	90
3	Naphthalene, 1,2,3,4-tetrahydro-	65415	000119-64-2	86
4	Naphthalene, 1,2,3,4-tetrahydro-	5880	000119-64-2	70
5	Benzene, cyclobutyl-	65420	004392-30-7	58

Abundance Scan 3397 (32.999 min): V9644.D (-,*)

5000

m/z--> 50 100 150 200

Abundance#65416: Naphthalene, 1,2,3,4-tetrahydro-

m/z 104.10 100.00%

32.64 33.36

m/z 132.10 43.38%

5000

m/z--> 50 100 150 200

Abundance#65414: Naphthalene, 1,2,3,4-tetrahydro-

32.64 33.36

m/z 91.05 41.90%

5000

m/z--> 50 100 150 200

Abundance#65415: Naphthalene, 1,2,3,4-tetrahydro-

32.64 33.36

m/z 149.10 13.00%

5000

m/z--> 50 100 150 200

32.64 33.36

m/z 115.05 12.77%

32.64 33.36

000261

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-034-GW01DL

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-

Matrix: (soil/water) WATER

Lab Sample ID: O91760DL

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9656.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 10.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	23		UD
74-83-9	Bromomethane	18		UD
75-01-4	Vinyl Chloride	20		UD
75-00-3	Chloroethane	16		UD
75-09-2	Trichlorofluoromethane	15		UD
75-09-2	Methylene Chloride	6		UD
75-35-4	1,1-Dichloroethene	12		UD
75-34-3	1,1-Dichloroethane	6.9		UD
156-60-5	trans-1,2-Dichloroethene	9.5		UD
67-66-3	Chloroform	4.3		UD
107-06-2	1,2-Dichloroethane	4.7		UD
71-55-6	1,1,1-Trichloroethane	23		D
56-23-5	Carbon Tetrachloride	4.1		UD
75-27-4	Bromodichloromethane	6.3		UD
78-87-5	1,2-Dichloropropane	8		UD
10061-01-5	cis-1,3-Dichloropropene	3.3		UD
79-01-6	Trichloroethene	2.9		UD
124-48-1	Dibromochloromethane	5		UD
79-00-5	1,1,2-Trichloroethane	8.5		UD
71-43-2	Benzene	210		D
10061-02-6	trans-1,3-Dichloropropene	4.5		UD
110-75-8	2-Chloroethyl Vinyl Ether	15		UD
75-25-2	Bromoform	6.9		UD
127-18-4	Tetrachloroethene	6.1		UD
79-34-5	1,1,2,2-Tetrachloroethane	10		UD
108-88-3	Toluene	1300		D
108-90-7	Chlorobenzene	5.1		UD
100-41-4	Ethylbenzene	570		D
136777-61-2	m+ p-Xylenes	2300		DE
95-47-6	o-xylene	1200		D
95-50-1	1,2-Dichlorobenzene	43		D
541-73-1	1,3-Dichlorobenzene	4.4		UD
106-46-7	1,4-Dichlorobenzene	3.2		UD

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-034-GW01DL

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-
 Matrix: (soil/water) WATER Lab Sample ID: O91760DL
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9656.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/29/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 10.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 10 Concentration Units:
 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 620-14-4	Benzene, 1-ethyl-3-methyl-	26.37	1300	J
2. 526-73-8	Benzene, 1,2,3-trimethyl-	26.61	700	J
3. 611-14-3	Benzene, 1-ethyl-2-methyl-	27.11	390	J
4. 95-63-6	Benzene, 1,2,4-trimethyl-	27.57	1300	J
5. 526-73-8	Benzene, 1,2,3-trimethyl-	28.65	520	J
6.	Unknown	29.13	400	J
7. 1120-21-4	Undecane	29.71	540	J
8. 535-77-3	Benzene, 1-methyl-3-(1-methy	30.20	310	J
9. 112-40-3	Dodecane	32.52	520	J
10. 629-50-5	Tridecane	35.16	430	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D
 Acq Time : 29 Oct 99 7:17 am
 Sample : L5320ASP-91760 10 XDIL
 Misc : 5MLS
 Quant Time: Nov 9 0:30 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.84	128	589694	30.00	ug/L	0.03
19) 1,4-Difluorobenzene	14.39	114	3270379	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.38	117	2726262	30.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.93	65	886645	25.46	ug/L	84.87%
36) Toluene-d8	18.47	98	4461680	36.01	ug/L	120.05%
45) Bromofluorobenzene	25.53	95	2067854	28.43	ug/L	94.77%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
8) Acetone	5.16	43	47977	5.14	ug/L	96
15) cis-1,2-Dichloroethene	9.91	96	10889130	251.27	ug/L	96
22) 1,1,1-Trichloroethane	11.58	97	154263	2.27	ug/L	90
24) Benzene	12.82	78	3043930	21.12	ug/L	97
37) Toluene	18.60	91	19799188	130.24	ug/L	83
40) Chlorobenzene	22.48	112	121516	1.21	ug/L	99
41) Ethylbenzene	22.71	91	10765602	56.55	ug/L	99
42) m+ p-Xylenes	23.05	106	15432359	225.98	ug/L	94
43) o-xylene	24.07	91	16917666	115.51	ug/L	97
49) 1,2-Dichlorobenzene	29.52	146	306793	4.33	ug/L	98
50) Naphthalene	34.29	128	5316614	46.93	ug/L m	94

000264

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : 5MLS

Quant Time: Nov 9 0:30 1999

Operator: JJ

Inst : 5971 - In

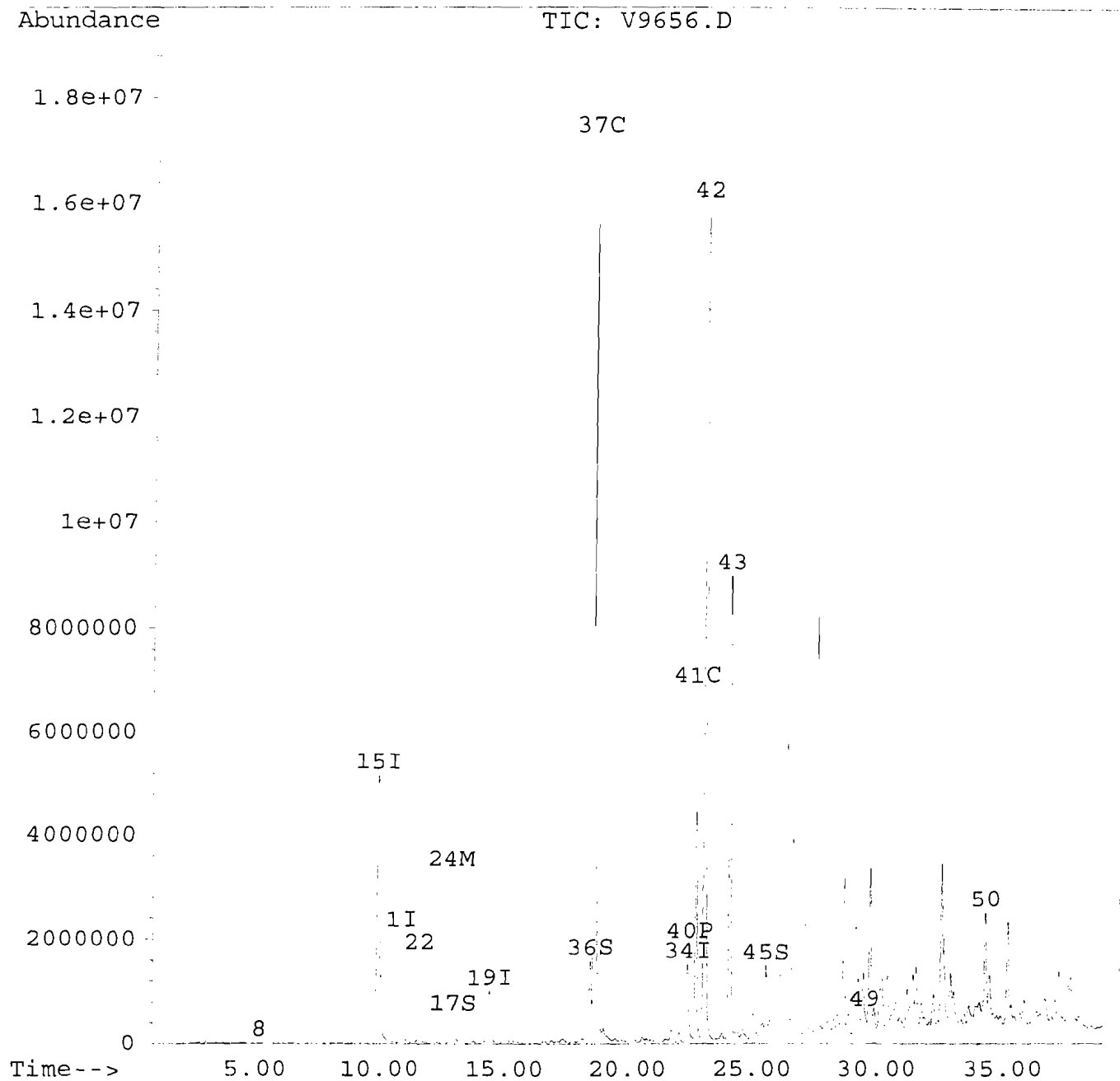
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

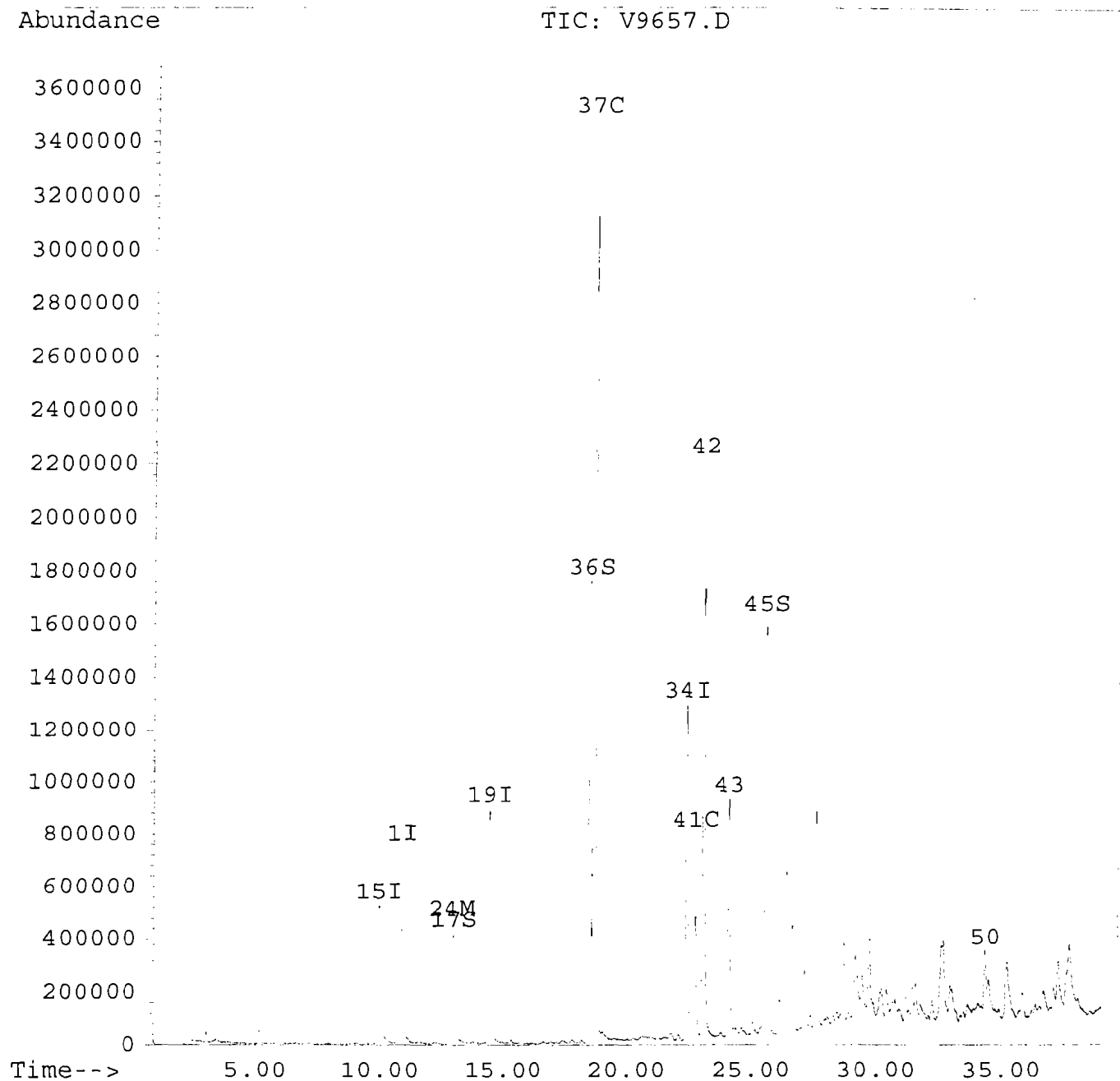


Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D
Acq Time : 29 Oct 99 8:01 am
Sample : L5320ASP-91760 100 XDIL
Misc : 5MLS
Quant Time: Nov 9 0:38 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000285

AbundanceScan 443 (4.858 min): V8257.D (-,* #8

Acetone

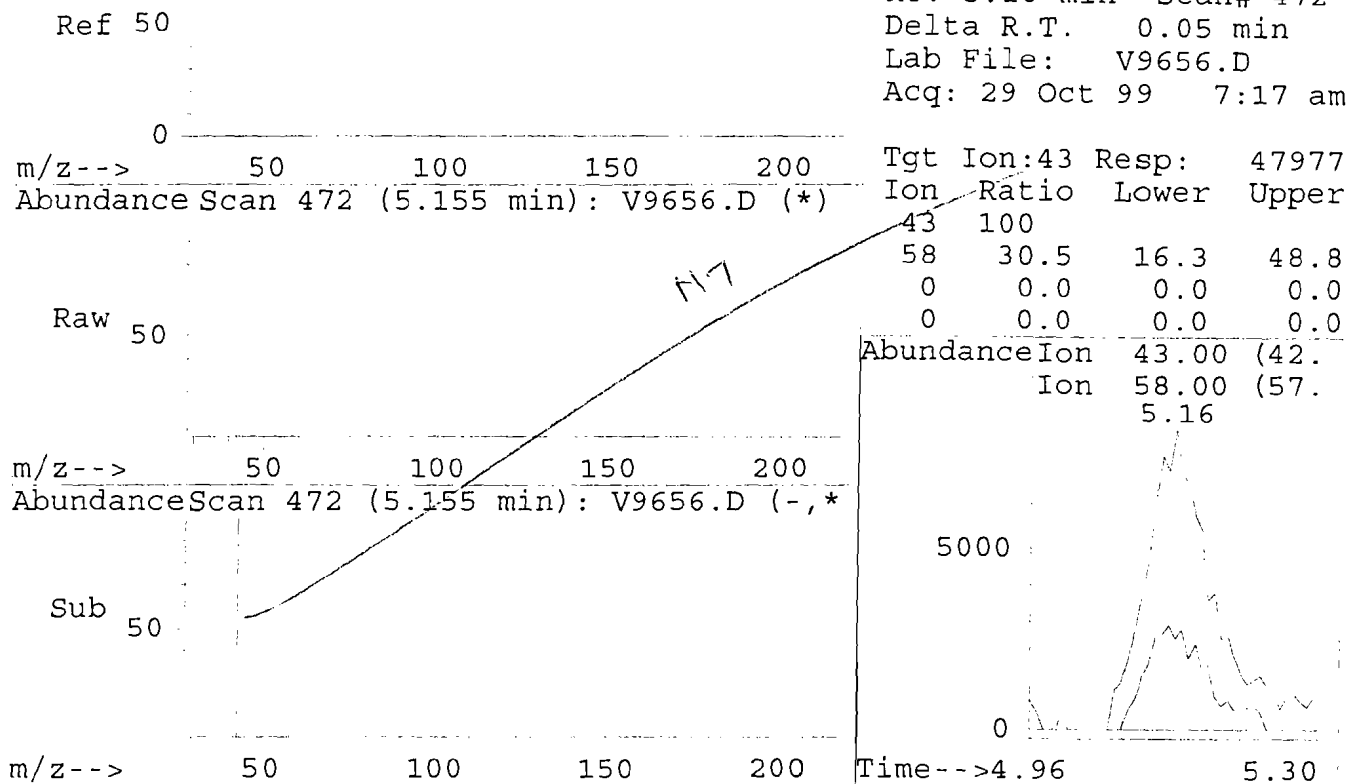
Concen: 5.14 ug/L

RT: 5.16 min Scan# 472

Delta R.T. 0.05 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am



AbundanceScan 935 (9.286 min): V8257.D (-,* #15

cis-1,2-Dichloroethene

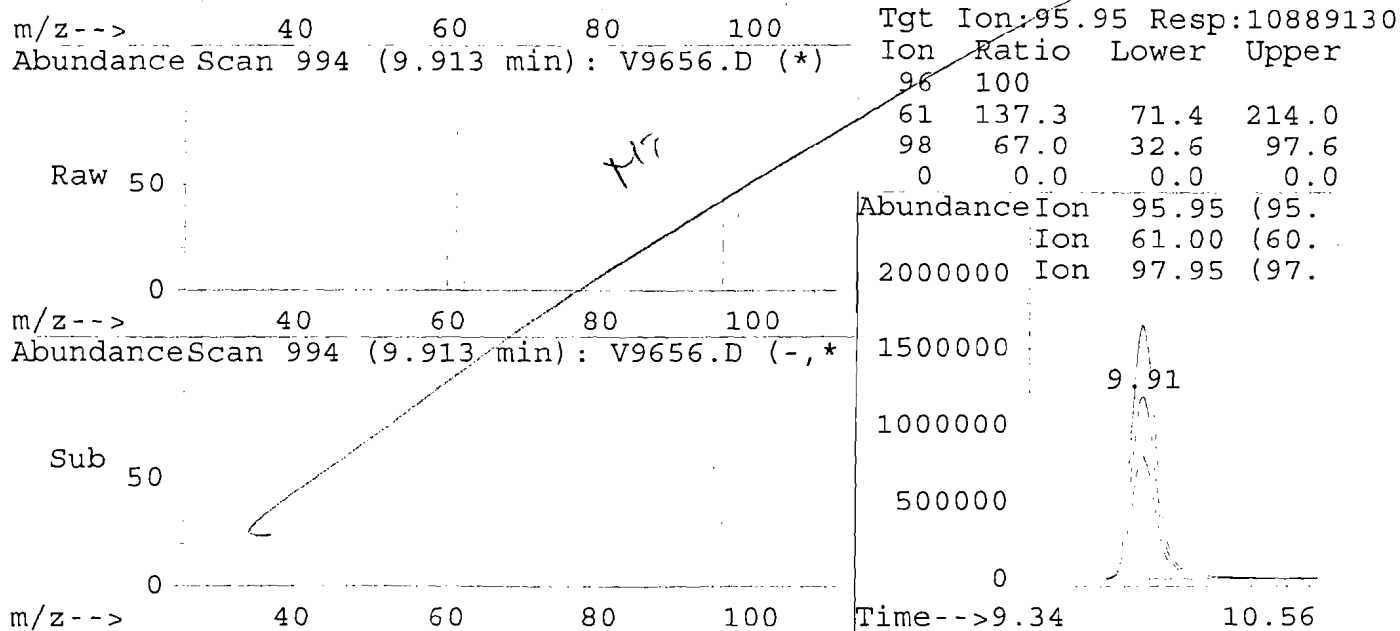
Concen: 251.27 ug/L

RT: 9.91 min Scan# 994

Delta R.T. 0.02 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am



AbundanceScan 1117 (10.946 min): V8257.D (-

#22

1,1,1-Trichloroethane

Concen: 2.27 ug/L

RT: 11.58 min Scan# 1177

Delta R.T. 0.05 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Ref 50

m/z--> 50 100 150 200
AbundanceScan 1177 (11.584 min): V9656.D (*)

Raw 50

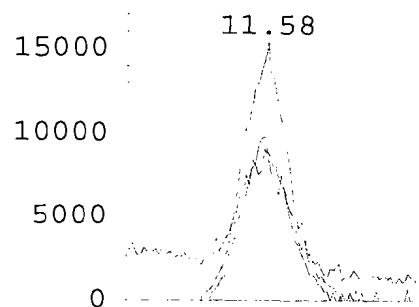
m/z--> 50 100 150 200
AbundanceScan 1177 (11.584 min): V9656.D (-

Sub 50

m/z--> 50 100 150 200

Tgt Ion:97	Resp: 154263
Ion Ratio	Lower Upper
97 100	
99 57.8	33.7 100.9
61 56.0	25.3 75.8
0 0.0	0.0 0.0

AbundanceIon 97.00 (96.
20000 Ion 99.00 (98.
Ion 61.00 (60.



Time-->11.15 11.91

AbundanceScan 1260 (12.251 min): V8257.D (-

#24

Benzene

Concen: 21.12 ug/L

RT: 12.82 min Scan# 1312

Delta R.T. 0.03 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Ref 50

m/z--> 50 100 150 200
AbundanceScan 1312 (12.816 min): V9656.D (*)

Raw 50

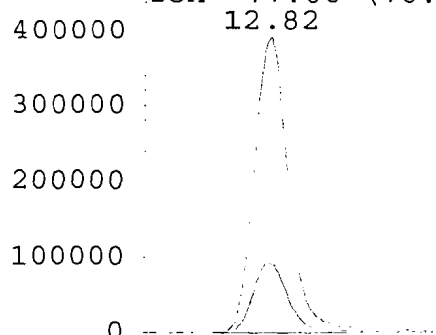
m/z--> 50 100 150 200
AbundanceScan 1312 (12.816 min): V9656.D (-

Sub 50

m/z--> 50 100 150 200

Tgt Ion:78	Resp: 3043930
Ion Ratio	Lower Upper
78 100	
77 23.1	12.3 36.7
0 0.0	0.0 0.0
0 0.0	0.0 0.0

AbundanceIon 78.00 (77.
Ion 77.00 (76.



Time-->12.41 13.20

000267

AbundanceScan 1900 (18.098 min): V8257.D (-

#37

Toluene

Concen: 130.24 ug/L

RT: 18.60 min Scan# 1966

Delta R.T. -0.03 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Ref 50

0

m/z--> 40 60 80 100

AbundanceScan 1966 (18.600 min): V9656.D (*)

Raw 50

0

m/z--> 40 60 80 100

AbundanceScan 1966 (18.600 min): V9656.D (-

Sub

50

0

m/z--> 40 60 80 100

Tgt Ion:91 Resp:19799188

Ion Ratio Lower Upper

91 100

92 69.9 28.9 86.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 91.00 (90.

Ion 92.00 (91.

6000000 18.60

4000000

2000000

0

Time-->18.14

19.24

AbundanceScan 2305 (21.785 min): V8257.D (-

#40

Chlorobenzene

Concen: 1.21 ug/L

RT: 22.48 min Scan# 2381

Delta R.T. 0.04 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Ref 50

0

m/z--> 40 60 80 100 120

AbundanceScan 2381 (22.475 min): V9656.D (*)

Raw 50

Tgt Ion:112 Resp: 121516

Ion Ratio Lower Upper

112 100

114 32.8 16.1 48.2

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 112.00 (111

Ion 114.00 (113

22.48

15000

10000

5000

0

Time-->22.18

22.73

m/z--> 40 60 80 100 120

AbundanceScan 2381 (22.475 min): V9656.D (-

Sub

50

0

m/z--> 40 60 80 100 120

*Free
H.T.S.*

000268

AbundanceScan 2334 (22.051 min): V8257.D (-

Ref 50

m/z--> 40 60 80 100 120
AbundanceScan 2406 (22.705 min): V9656.D (*)

Raw 50

m/z--> 40 60 80 100 120
AbundanceScan 2406 (22.705 min): V9656.D (-

Sub 50

m/z--> 40 60 80 100 120

AbundanceScan 2369 (22.372 min): V8257.D (-

Ref 50

m/z--> 40 60 80 100 120
AbundanceScan 2443 (23.046 min): V9656.D (*)

Raw 50

m/z--> 40 60 80 100 120
AbundanceScan 2443 (23.046 min): V9656.D (-

Sub 50

m/z--> 40 60 80 100 120

#41

Ethylbenzene

Concen: 56.55 ug/L

RT: 22.71 min Scan# 2406

Delta R.T. 0.00 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Tgt Ion:91 Resp:10765602

Ion Ratio Lower Upper

91 100

106 31.1 15.3 45.8

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 91.00 (90.
6000000 Ion 106.00 (105

4000000

2000000

22.71

0

Time-->22.36 22.97

#42

m+ p-Xylenes

Concen: 225.98 ug/L

RT: 23.05 min Scan# 2443

Delta R.T. 0.01 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Tgt Ion:106 Resp:15432359

Ion Ratio Lower Upper

106 100

91 192.0 100.9 302.5

105 42.4 22.4 67.0

0 0.0 0.0 0.0

AbundanceIon 106.00 (105
Ion 91.00 (90.
Ion 105.00 (104

6000000

4000000

2000000

23.05

0

Time-->22.68 23.48

000269

AbundanceScan 2476 (23.350 min): V8257.D (-

Ref 50

m/z--> 40 60 80 100 120 140
AbundanceScan 2558 (24.073 min): V9656.D (*)

Raw 50

m/z--> 40 60 80 100 120 140
AbundanceScan 2558 (24.073 min): V9656.D (-

Sub

50

m/z--> 40 60 80 100 120 140

AbundanceScan 3043 (28.534 min): V8257.D (-

Ref 50

m/z--> 50 100 150 200
AbundanceScan 3165 (29.523 min): V9656.D (*)

Raw 50

m/z--> 50 100 150 200
AbundanceScan 3165 (29.523 min): V9656.D (-

Sub

50

m/z--> 50 100 150 200

#43

o-xylene

Concen: 115.51 ug/L

RT: 24.07 min Scan# 2558

Delta R.T. 0.01 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Tgt Ion:91 Resp:16917666

Ion Ratio Lower Upper

91 100

106 48.8 23.1 69.1

105 19.0 9.3 27.7

0 0.0 0.0 0.0

AbundanceIon 91.00 (90.

4000000 Ion 106.00 (105

Ion 105.00 (104

24.07

3000000

2000000

1000000

0

Time-->23.68

24.51

#49

1,2-Dichlorobenzene

Concen: 4.33 ug/L

RT: 29.52 min Scan# 3165

Delta R.T. 0.05 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Tgt Ion:146 Resp: 306793

Ion Ratio Lower Upper

146 100

111 53.2 25.3 75.8

75 37.6 20.0 59.8

148 63.2 38.0 88.7

AbundanceIon 146.00 (145

Ion 111.00 (110

80000 Ion 75.00 (74.

Ion 148.00 (147

29.52

60000

40000

20000

0

Time-->29.26

29.81

000270

AbundanceScan 3552 (33.187 min): V8257.D (-

Ref 50

m/z--> 0 50 100 150 200 250
AbundanceScan 3719 (34.290 min): V9656.D (-

Raw 50

m/z--> 0 50 100 150 200 250
AbundanceScan 3719 (34.290 min): V9656.D (-

Sub

m/z--> 0 50 100 150 200 250

#50

Naphthalene

Concen: 46.93 ug/L m

RT: 34.29 min Scan# 3719

Delta R.T. -0.05 min

Lab File: V9656.D

Acq: 29 Oct 99 7:17 am

Tgt Ion:128.05 Resp: 5316614

Ion Ratio Lower Upper

128 100

127 12.1 6.6 12.3

129 11.1 5.4 9.9#

0 0.0 0.0 0.0

AbundanceIon 128.05 (127

Ion 127.10 (126

Ion 129.05 (128

1000000 34.29

500000

0

Time-->33.98

34.64

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

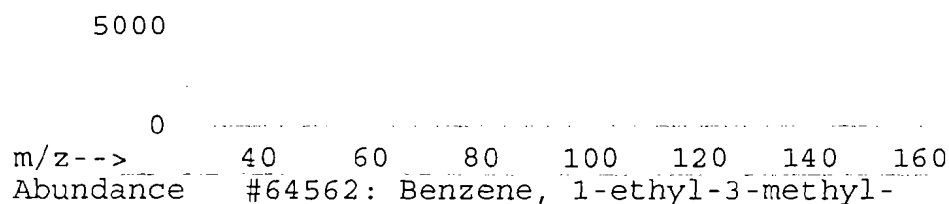
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

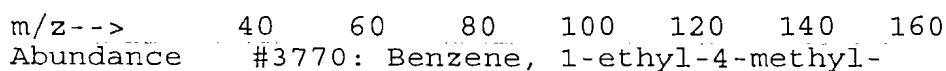
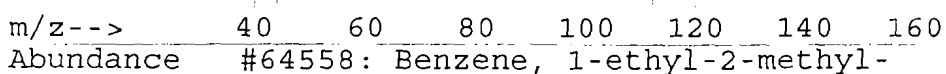
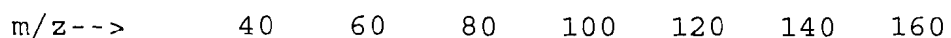
R.T.	Conc	Area	Relative to ISTD	R.T.
26.37	128.92 ug/L	38205903	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	64562	000620-14-4	95
2	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	95
3	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	95
4	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
5	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	95

Abundance Scan 2810 (26.369 min): V9656.D (-,*)



m/z 105.10 100.00%

26.00 26.73
m/z 120.15 30.26%26.00 26.73
m/z 77.10 11.56%26.00 26.73
m/z 91.05 11.56%26.00 26.73
m/z 106.05 8.98%

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

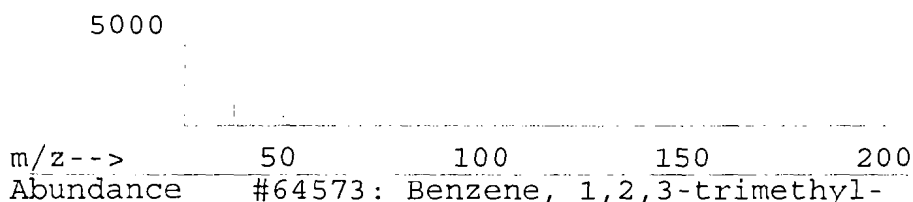
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.61	69.79 ug/L	20682685	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
2	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	94
3	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	93
4	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	93
5	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	91

Abundance Scan 2837 (26.612 min): V9656.D (-,*)



m/z 105.10 100.00%

26.25 26.98

m/z 120.15 50.14%

26.25 26.98

m/z 57.05 42.10%

5000

m/z--> 50 100 150 200

Abundance #64569: Benzene, 1,3,5-trimethyl-

This mass spectrum shows the abundance of ions versus their mass-to-charge ratio (m/z). The x-axis ranges from 50 to 200 m/z, and the y-axis represents abundance up to 5000. The base peak is at m/z 41.00 with 17.60% relative abundance. Other significant peaks are labeled at m/z 105.10 (100.00%), 120.15 (50.14%), and 57.05 (42.10%).

26.25 26.98

m/z 43.10 37.83%

5000

m/z--> 50 100 150 200

Abundance #64570: Benzene, 1,3,5-trimethyl-

This mass spectrum shows the abundance of ions versus their mass-to-charge ratio (m/z). The x-axis ranges from 50 to 200 m/z, and the y-axis represents abundance up to 5000. The base peak is at m/z 41.00 with 17.60% relative abundance. Other significant peaks are labeled at m/z 105.10 (100.00%), 120.15 (50.14%), and 57.05 (42.10%).

26.25 26.98

m/z 41.00 17.60%

m/z--> 50 100 150 200

26.25 26.98

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D
Acq Time : 29 Oct 99 7:17 am
Sample : L5320ASP-91760 10 XDIL
Misc : 5MLS

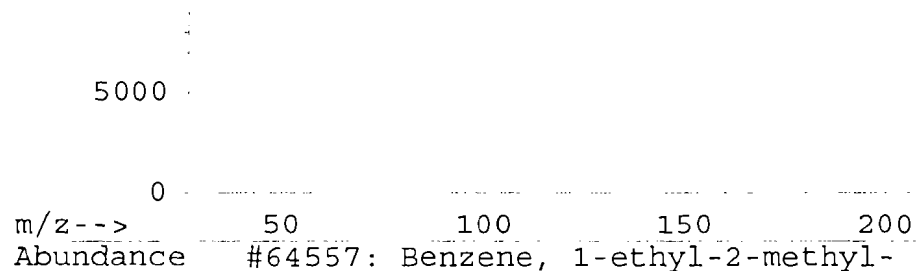
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.11	39.05 ug/L	11572676	Chlorobenzene-d5	22.38

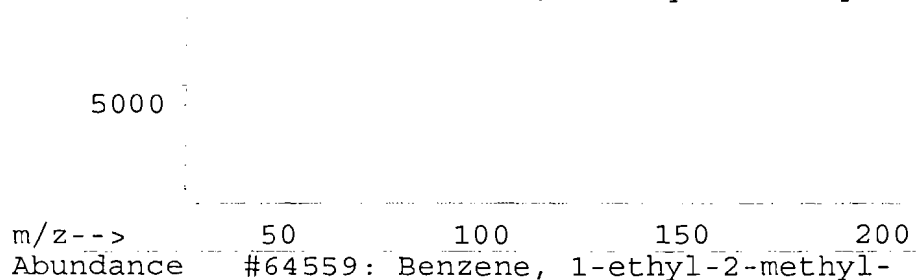
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	95
3	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	94
4	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
5	Benzene, 1-ethyl-3-methyl-	64562	000620-14-4	91

Abundance Scan 2892 (27.106 min): V9656.D (-,*)

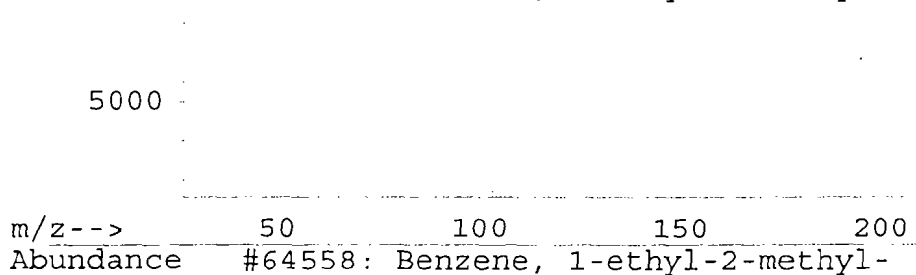


m/z 105.10 100.00%

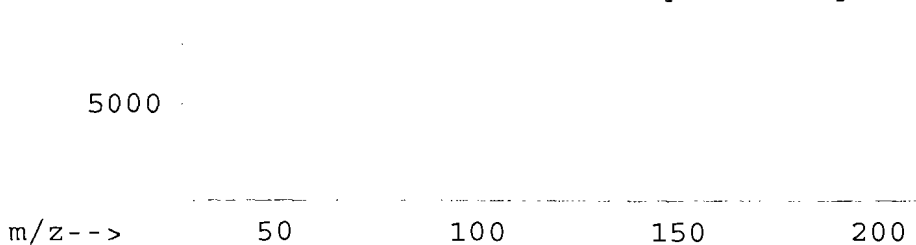
26.74 27.47
m/z 120.15 29.60%



26.74 27.47
m/z 77.10 11.74%



26.74 27.47
m/z 91.05 10.60%



26.74 27.47
m/z 79.05 9.50%

000274

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D
Acq Time : 29 Oct 99 7:17 am
Sample : L5320ASP-91760 10 XDIL
Misc : 5MLS

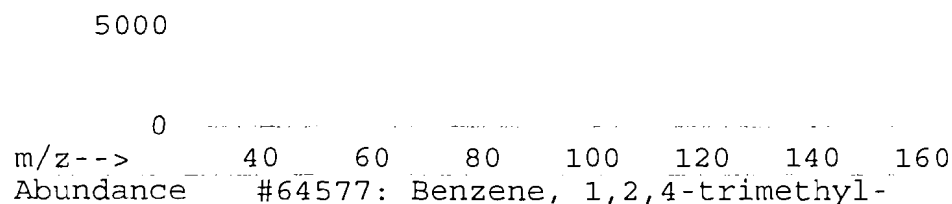
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.57	134.64 ug/L	39901642	Chlorobenzene-d5	22.38

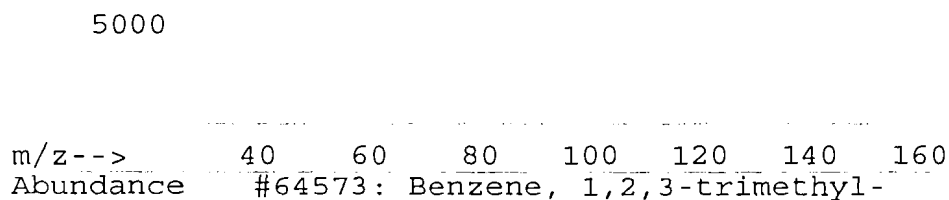
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	95
2	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
3	1,2,4-Trimethylbenzene	3771	000095-36-3	95
4	Benzene, 1,3,5-trimethyl-	3772	000108-67-8	94
5	Benzene, 1,2,3-trimethyl-	64574	000526-73-8	94

Abundance Scan 2945 (27.573 min): V9656.D (-,*)

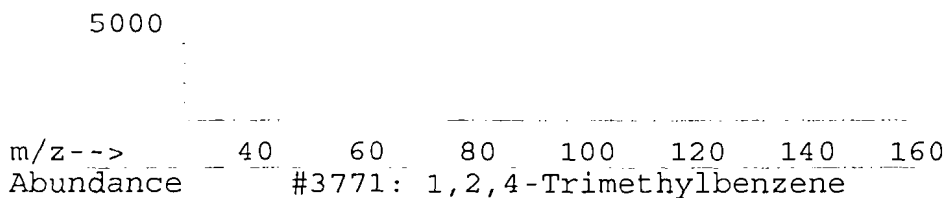


m/z 105.10 100.00%

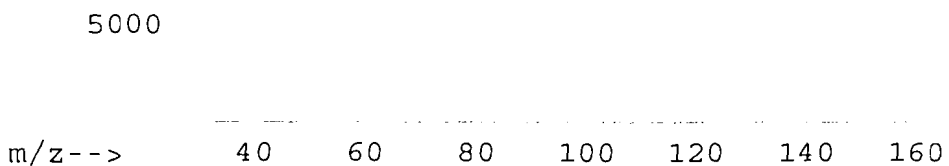
27.21 27.94
m/z 120.15 46.36%



27.21 27.94
m/z 77.10 12.66%



27.21 27.94
m/z 119.15 11.29%



27.21 27.94
m/z 91.05 9.25%

m/z--> 40 60 80 100 120 140 160

27.21 27.94

000275

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : SMLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

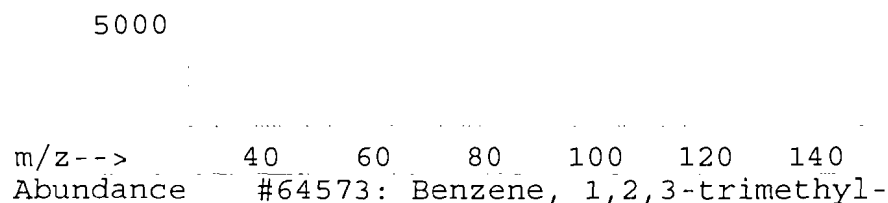
Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

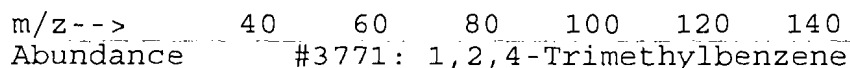
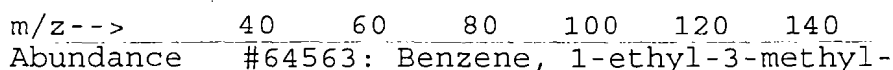
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
28.65	52.41 ug/L	15533382	Chlorobenzene-d5	22.38	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-		64573	000526-73-8	95
2	1,2,4-Trimethylbenzene		3771	000095-36-3	94
3	Benzene, 1-ethyl-3-methyl-		64563	000620-14-4	94
4	Benzene, 1-ethyl-3-methyl-		3769	000620-14-4	91
5	Benzene, 1-ethyl-3-methyl-		64562	000620-14-4	91

Abundance Scan 3067 (28.650 min): V9656.D (-,*)



m/z 105.10 100.00%

28.28 29.01
m/z 120.15 42.90%28.28 29.01
m/z 77.10 12.37%28.28 29.01
m/z 91.05 9.09%28.28 29.01
m/z 106.05 8.97%

28.28 29.01

000276

Library Search Compound Report

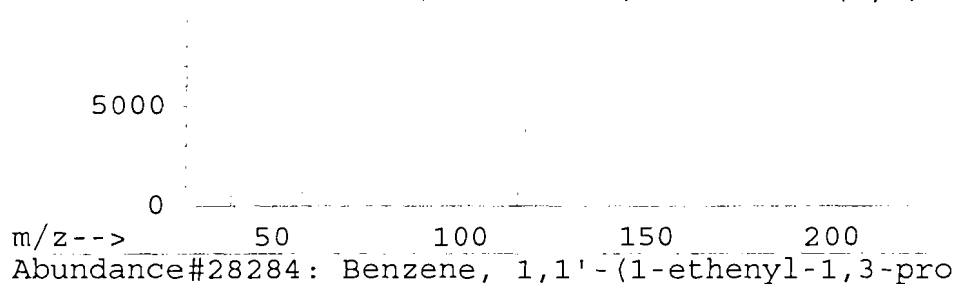
Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D
Acq Time : 29 Oct 99 7:17 am
Sample : L5320ASP-91760 10 XDIL
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
29.13	39.96 ug/L	11841269	Chlorobenzene-d5	22.38	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,1'-(1-ethenyl-1,3-propan		28284	061141-97-7	78
2	Benzene, 1-ethenyl-2-methyl-		64478	000611-15-4	74
3	Indane		64484	000496-11-7	68
4	Indane		3602	000496-11-7	59
5	Benzene, (2-bromocyclopropyl)-		21701	036617-02-4	50

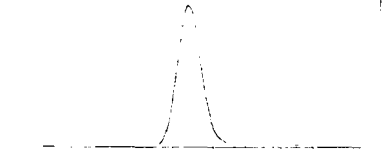
Abundance Scan 3121 (29.130 min): V9656.D (-,*)



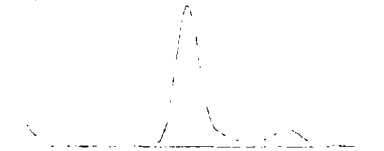
m/z 117.05 100.00%



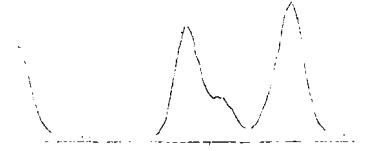
m/z 118.10 56.63%



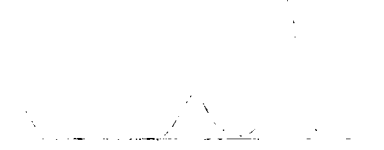
m/z 115.05 32.17%



m/z 91.05 16.60%



m/z 119.15 9.97%



000277

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

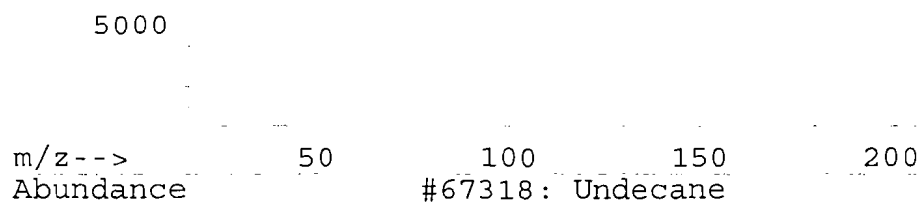
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.71	53.60 ug/L	15884359	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane	67318	001120-21-4	91
2	Tridecane	69020	000629-50-5	90
3	Tridecane	69019	000629-50-5	90
4	Hexadecane	70787	000544-76-3	90
5	Undecane	11611	001120-21-4	87

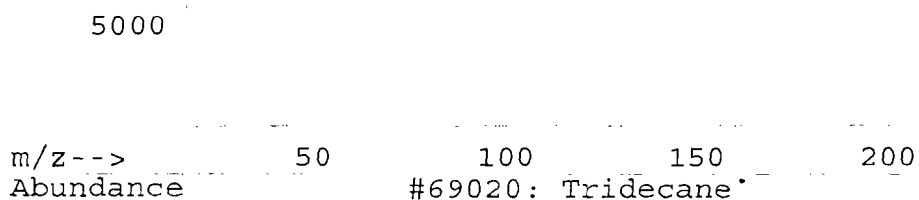
Abundance Scan 3185 (29.708 min): V9656.D (-,*)



m/z 57.05 100.00%

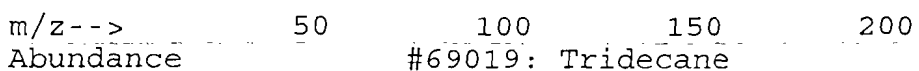
29.35 30.07

m/z 43.10 81.70%



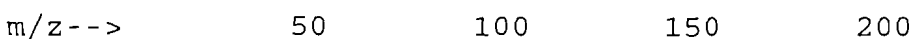
29.35 30.07

m/z 71.10 48.10%



29.35 30.07

m/z 41.00 32.58%



29.35 30.07

m/z 85.15 25.79%

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

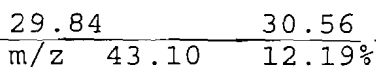
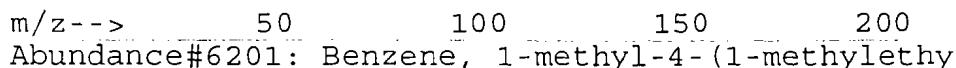
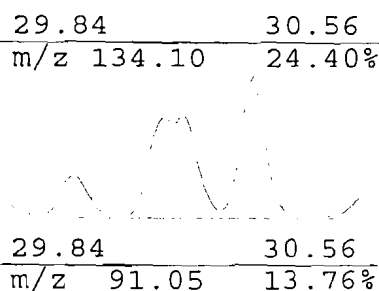
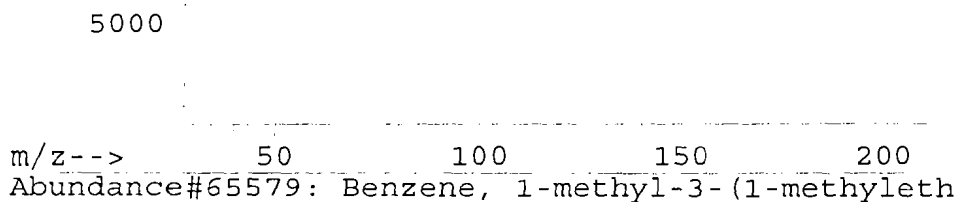
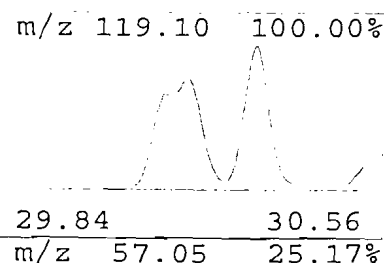
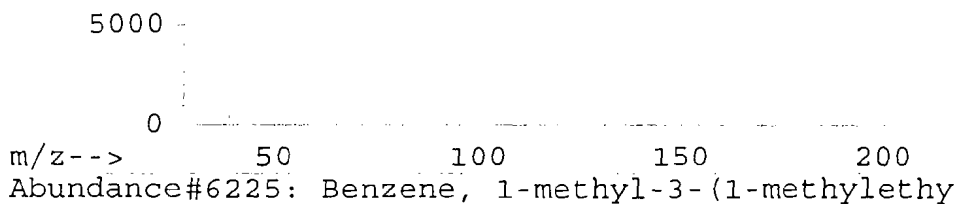
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.20	31.09 ug/L	9214666	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-methyl-3-(1-methylethyl)	6225	000535-77-3	93
2	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	93
3	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	93
4	Benzene, 2-ethyl-1,3-dimethyl-	65532	002870-04-4	90
5	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	90

Abundance Scan 3238 (30.195 min): V9656.D (-,*)



m/z--> 50 100 150 200

29.84 30.56

000279

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

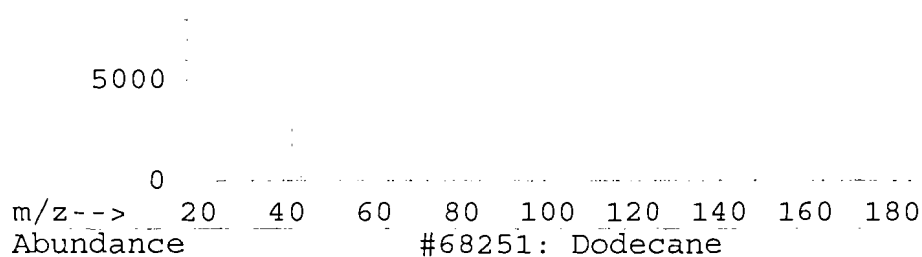
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.52	51.57 ug/L	15284381	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecane	68251	000112-40-3	90
2	Dodecane	68252	000112-40-3	90
3	Tridecane	69020	000629-50-5	80
4	Hexadecane	70789	000544-76-3	80
5	Hexadecane	70787	000544-76-3	80

Abundance Scan 3509 (32.524 min): V9656.D (-,*)



m/z--> 20 40 60 80 100 120 140 160 180
Abundance #68252: Dodecane

m/z--> 20 40 60 80 100 120 140 160 180
Abundance #69020: Tridecane

m/z--> 20 40 60 80 100 120 140 160 180

m/z 57.05 100.00%

32.16 32.88
m/z 43.10 79.51%

32.16 32.88
m/z 71.10 56.15%

32.16 32.88
m/z 41.00 32.90%

32.16 32.88
m/z 85.15 28.77%

000280

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9656.D

Acq Time : 29 Oct 99 7:17 am

Sample : L5320ASP-91760 10 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

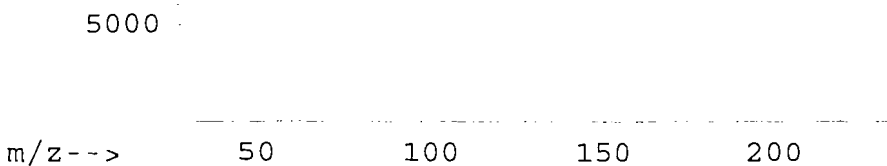
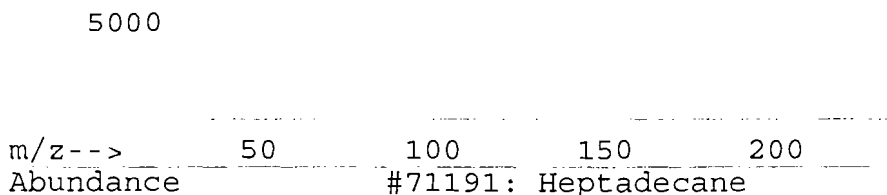
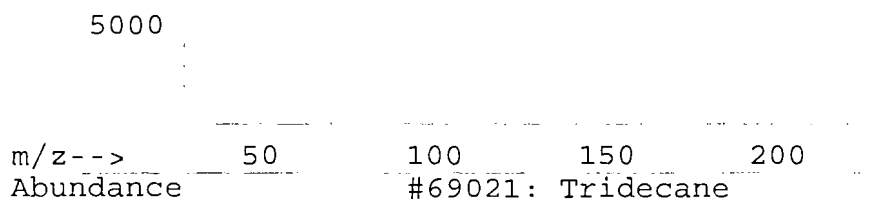
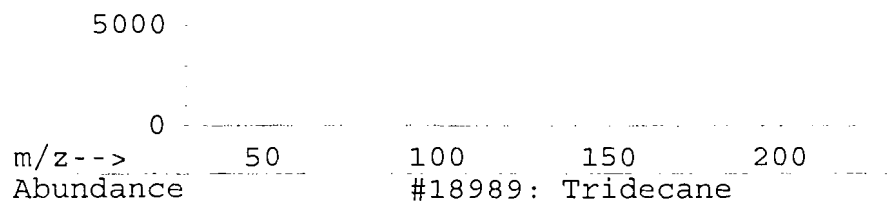
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.16	42.61 ug/L	12629378	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane	18989	000629-50-5	95
2	Tridecane	69021	000629-50-5	94
3	Heptadecane	71191	000629-78-7	91
4	Tridecane	69020	000629-50-5	91
5	Eicosane	72323	000112-95-8	90

Abundance Scan 3818 (35.156 min): V9656.D (-,*)



m/z 57.05 100.00%

34.79 35.51

m/z 43.10 74.59%

34.79 35.51

m/z 71.10 59.17%

34.79 35.51

m/z 85.15 32.90%

34.79 35.51

m/z 41.00 31.53%

34.79 35.51

000281

IA
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-034-GW01DL1

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-

Matrix: (soil/water) WATER

Lab Sample ID: O91760L1

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9657.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 100.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	230		UD
74-83-9	Bromomethane	180		UD
75-01-4	Vinyl Chloride	200		UD
75-00-3	Chloroethane	160		UD
75-09-2	Trichlorofluoromethane	150		UD
75-09-2	Methylene Chloride	60		UD
75-35-4	1,1-Dichloroethene	120		UD
75-34-3	1,1-Dichloroethane	69		UD
156-60-5	trans-1,2-Dichloroethene	95		UD
67-66-3	Chloroform	43		UD
107-06-2	1,2-Dichloroethane	47		UD
71-55-6	1,1,1-Trichloroethane	54		UD
56-23-5	Carbon Tetrachloride	41		UD
75-27-4	Bromodichloromethane	63		UD
78-87-5	1,2-Dichloropropane	80		UD
10061-01-5	cis-1,3-Dichloropropene	33		UD
79-01-6	Trichloroethene	29		UD
124-48-1	Dibromochloromethane	50		UD
79-00-5	1,1,2-Trichloroethane	85		UD
71-43-2	Benzene	240		D
10061-02-6	trans-1,3-Dichloropropene	45		UD
110-75-8	2-Chloroethyl Vinyl Ether	150		UD
75-25-2	Bromoform	69		UD
127-18-4	Tetrachloroethene	61		UD
79-34-5	1,1,2,2-Tetrachloroethane	100		UD
108-88-3	Toluene	5800		D
108-90-7	Chlorobenzene	51		UD
100-41-4	Ethylbenzene	700		D
136777-61-2	m + p-Xylenes	2800		D
95-47-6	o-xylene	1400		D
95-50-1	1,2-Dichlorobenzene	20		UD
541-73-1	1,3-Dichlorobenzene	44		UD
106-46-7	1,4-Dichlorobenzene	32		UD

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
335-GP-034-GW01DL1

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-G
 Matrix: (soil/water) WATER Lab Sample ID: O91760L1
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9657.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/29/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 100.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
(ug/L or ug/Kg) ug/L

Number TICs found: 10

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 620-14-4	Benzene, 1-ethyl-3-methyl-	26.37	1800	J
2. 526-73-8	Benzene, 1,2,3-trimethyl-	26.62	1000	J
3. 108-67-8	Benzene, 1,3,5-trimethyl-	27.57	1900	J
4. 95-36-3	1,2,4-Trimethylbenzene	28.66	710	J
5.	Unknown	29.14	650	J
6. 1120-21-4	Undecane	29.71	630	J
7. 768-00-3	Benzene, (1-methyl-1-propeny	32.62	670	J
8. 629-50-5	Tridecane	35.21	1000	J
9. 90-12-0	Naphthalene, 1-methyl-	37.25	630	J
10.	Unknown	37.70	1400	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D
 Acq Time : 29 Oct 99 8:01 am
 Sample : L5320ASP-91760 100 XDIL
 Misc : 5MLS
 Quant Time: Nov 9 0:38 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.84	128	516128	30.00	ug/L	0.04
19) 1,4-Difluorobenzene	14.39	114	2888861	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.39	117	2465485	30.00	ug/L	0.03
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.93	65	969753	31.82	ug/L	106.06%
36) Toluene-d8	18.47	98	3522360	31.44	ug/L	104.80%
45) Bromofluorobenzene	25.52	95	1997381	30.37	ug/L	101.22%
Target Compounds						Qvalue
15) cis-1,2-Dichloroethene	9.94	96	1143214	30.14	ug/L	95
24) Benzene	12.84	78	310247	2.44	ug/L	96
37) Toluene	18.64	91	7998399	58.18	ug/L	98
41) Ethylbenzene	22.73	91	1199430	6.97	ug/L	99
42) m+ p-Xylenes	23.05	106	1755529	28.43	ug/L	97
43) o-xylene	24.08	91	1876386	14.17	ug/L	99
50) Naphthalene	34.32	128	943267	9.21	ug/L m	91

AbundanceScan 935 (9.286 min): V8257.D (-, *

#15

cis-1,2-Dichloroethene

Concen: 30.14 ug/L

RT: 9.94 min Scan# 998

Delta R.T. 0.04 min

Lab File: V9657.D

Acq: 29 Oct 99 8:01 am

Ref 50

m/z--> 50 100 150 200
AbundanceScan 998 (9.936 min): V9657.D (*)

Tgt Ion:95.95 Resp: 1143214

Ion Ratio Lower Upper

96 100

61 134.7 71.3 213.9

98 67.1 32.5 97.5

0 0.0 0.0 0.0

Raw 50

0

m/z--> 50 100 150 200
AbundanceScan 998 (9.936 min): V9657.D (-, *

AbundanceIon 95.95 (95.

Ion 61.00 (60.

200000 Ion 97.95 (97.

Sub

50

0

m/z--> 50 100 150 200

Time-->9.53

10.32

150000

100000

50000

9.94

AbundanceScan 1260 (12.251 min): V8257.D (-

#24

Benzene

Concen: 2.44 ug/L

RT: 12.84 min Scan# 1317

Delta R.T. 0.05 min

Lab File: V9657.D

Acq: 29 Oct 99 8:01 am

Ref 50

m/z--> 50 100 150 200
AbundanceScan 1317 (12.839 min): V9657.D (*)

Tgt Ion:78 Resp: 310247

Ion Ratio Lower Upper

78 100

77 22.5 12.2 36.6

0 0.0 0.0 0.0

0 0.0 0.0 0.0

Raw 50

0

m/z--> 50 100 150 200
AbundanceScan 1317 (12.839 min): V9657.D (-

AbundanceIon 78.00 (77.

Ion 77.00 (76.

12.84

40000

20000

0

m/z--> 50 100 150 200

Time-->12.54

13.11

000286

AbundanceScan 1900 (18.098 min): V8257.D (-

#37

Toluene

Concen: 58.18 ug/L

RT: 18.64 min Scan# 1954

Delta R.T. 0.01 min

Lab File: V9657.D

Acq: 29 Oct 99 8:01 am

Ref 50

m/z--> 0 40 60 80 100

AbundanceScan 1954 (18.641 min): V9657.D (*)

Raw 50

m/z--> 0 40 60 80 100

AbundanceScan 1954 (18.641 min): V9657.D (-

Sub 50

m/z--> 0 40 60 80 100

AbundanceScan 2334 (22.051 min): V8257.D (-

Tgt Ion:91 Resp: 7998399

Ion Ratio Lower Upper

91 100

92 59.1 28.8 86.4

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 91.00 (90.

1500000 Ion 92.00 (91.

18.64

1000000

500000

0

Time-->18.18

19.16

Ref 50

m/z--> 0 50 100 150 200

AbundanceScan 2402 (22.729 min): V9657.D (*)

Raw 50

m/z--> 0 50 100 150 200

AbundanceScan 2402 (22.729 min): V9657.D (-

Sub 50

m/z--> 0 50 100 150 200

#41

Ethylbenzene

Concen: 6.97 ug/L

RT: 22.73 min Scan# 2402

Delta R.T. 0.03 min

Lab File: V9657.D

Acq: 29 Oct 99 8:01 am

Tgt Ion:91 Resp: 1199430

Ion Ratio Lower Upper

91 100

106 30.9 15.2 45.7

0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 91.00 (90.

Ion 106.00 (105

600000

400000

200000

22.73

0

Time-->22.43

23.00

000287

AbundanceScan 2369 (22.372 min): V8257.D (-

#42

m+ p-Xylenes

Concen: 28.43 ug/L

RT: 23.05 min Scan# 2437

Delta R.T. 0.02 min

Lab File: V9657.D

Acq: 29 Oct 99 8:01 am

Ref 50

m/z--> 40 60 80 100 120
AbundanceScan 2437 (23.049 min): V9657.D (*)

Tgt Ion:106 Resp: 1755529

Ion Ratio Lower Upper

106 100

91 197.4 100.8 302.4

105 43.8 22.3 66.9

0 0.0 0.0 0.0

Raw 50

m/z--> 40 60 80 100 120
AbundanceScan 2437 (23.049 min): V9657.D (-

AbundanceIon 106.00 (105

800000 Ion 91.00 (90.

Ion 105.00 (104

Sub 50

m/z--> 40 60 80 100 120

600000

400000

200000

23.05

Time-->22.71

23.43

AbundanceScan 2476 (23.350 min): V8257.D (-

#43

o-xylene

Concen: 14.17 ug/L

RT: 24.08 min Scan# 2550

Delta R.T. 0.02 min

Lab File: V9657.D

Acq: 29 Oct 99 8:01 am

Ref 50

m/z--> 40 60 80 100 120 140
AbundanceScan 2550 (24.080 min): V9657.D (*)

Tgt Ion:91 Resp: 1876386

Ion Ratio Lower Upper

91 100

106 46.3 23.0 69.0

105 18.9 9.2 27.6

0 0.0 0.0 0.0

Raw 50

m/z--> 40 60 80 100 120 140
AbundanceScan 2550 (24.080 min): V9657.D (-

AbundanceIon 91.00 (90.

Ion 106.00 (105

400000 Ion 105.00 (104

24.08

300000

200000

100000

Sub 50

m/z--> 40 60 80 100 120 140

Time-->23.79

24.34

000288

AbundanceScan 3552 (33.187 min): V8257.D (-

#50

Naphthalene

Concen: 9.21 ug/L m

RT: 34.32 min Scan# 3666

Delta R.T. -0.01 min

Lab File: V9657.D

Acq: 29 Oct 99 8:01 am

Ref 50

m/z--> 0 50 100 150 200
AbundanceScan 3666 (34.322 min): V9657.D (*)

Raw 50

m/z--> 0 50 100 150 200
AbundanceScan 3666 (34.322 min): V9657.D (-

Sub 50

m/z--> 0 50 100 150 200

Tgt Ion:128.05 Resp: 943267

Ion Ratio Lower Upper

128	100		
127	12.1	6.6	12.2
129	11.4	5.3	9.9#
0	0.0	0.0	0.0

Abundance Ion 128.05 (127
150000 Ion 127.10 (126
Ion 129.05 (128
34.32

100000

50000

0

Time--> 33.94 34.83

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D
Acq Time : 29 Oct 99 8:01 am
Sample : L5320ASP-91760 100 XDIL
Misc : 5MLS

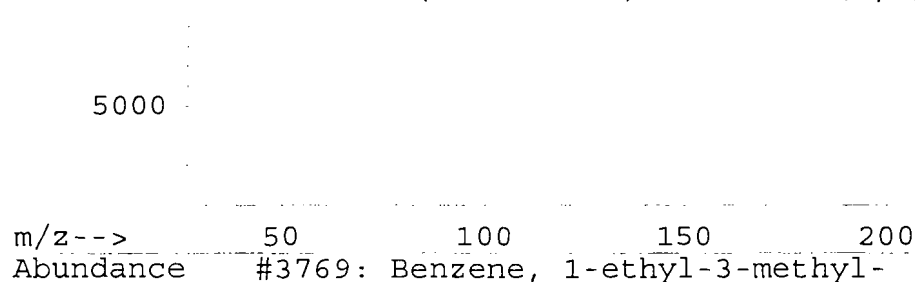
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

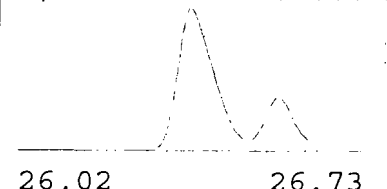
R.T.	Conc	Area	Relative to ISTD	R.T.
26.37	18.42 ug/L	4506222	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-3-methyl-	3769	000620-14-4	95
2	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	95
3	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	95
4	Benzene, 1-ethyl-3-methyl-	64562	000620-14-4	95
5	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	95

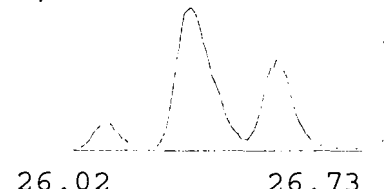
Abundance Scan 2800 (26.375 min): V9657.D (-,*)



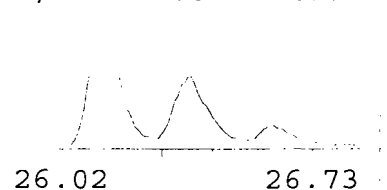
m/z 105.10 100.00%



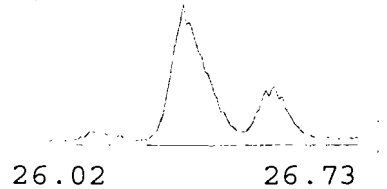
m/z 120.15 28.80%



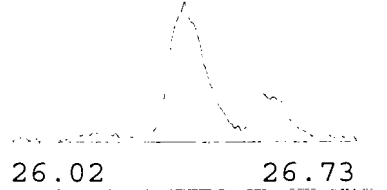
m/z 91.05 11.04%



m/z 77.10 10.91%



m/z 79.05 9.16%



m/z--> 50 100 150 200

Abundance #64563: Benzene, 1-ethyl-3-methyl-

m/z--> 50 100 150 200

000290

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D

Acq Time : 29 Oct 99 8:01 am

Sample : L5320ASP-91760 100 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

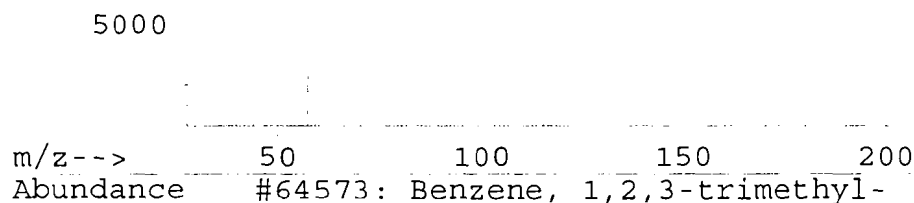
Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

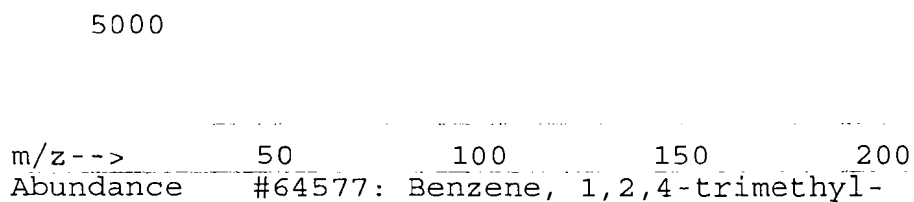
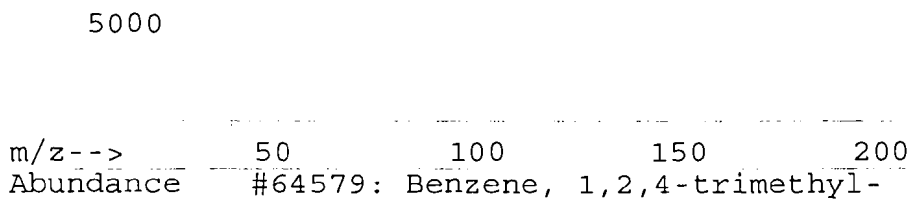
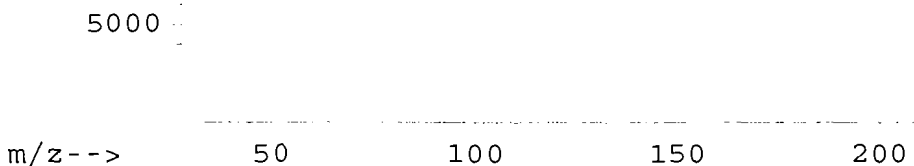
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
26.62	10.38 ug/L	2539919	Chlorobenzene-d5	22.39	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-		64573	000526-73-8	94
2	Benzene, 1,2,4-trimethyl-		64577	000095-63-6	94
3	Benzene, 1,2,4-trimethyl-		64579	000095-63-6	94
4	Benzene, 1,3,5-trimethyl-		64569	000108-67-8	93
5	Benzene, 1,2,3-trimethyl-		64574	000526-73-8	93

Abundance Scan 2827 (26.622 min): V9657.D (-,*)



m/z 105.10 100.00%

26.26 26.98
m/z 120.15 51.81%26.26 26.98
m/z 57.05 42.13%26.26 26.98
m/z 43.10 37.35%26.26 26.98
m/z 41.00 18.51%

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D

Acq Time : 29 Oct 99 8:01 am

Sample : L5320ASP-91760 100 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

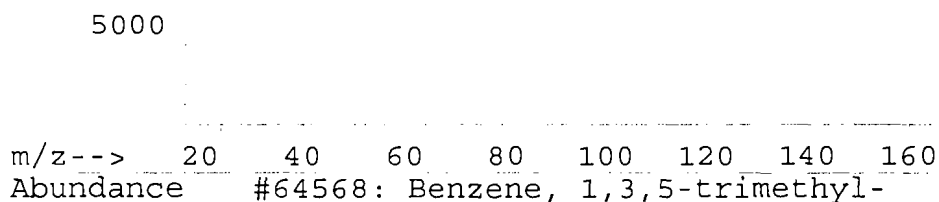
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.57	19.13 ug/L	4679494	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,3,5-trimethyl-	64568	000108-67-8	95
2	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
3	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	95
4	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
5	Benzene, 1,2,4-trimethyl-	64579	000095-63-6	95

Abundance Scan 2930 (27.569 min): V9657.D (-,*)



m/z 105.10 100.00%

27.21 27.93

m/z 120.10 45.15%

27.21 27.93

m/z 77.10 12.80%

5000

m/z--> 20 40 60 80 100 120 140 160

Abundance #64569: Benzene, 1,3,5-trimethyl-

27.21 27.93

m/z 119.10 11.48%

5000

m/z--> 20 40 60 80 100 120 140 160

Abundance #64577: Benzene, 1,2,4-trimethyl-

27.21 27.93

m/z 91.05 8.83%

5000

m/z--> 20 40 60 80 100 120 140 160

27.21 27.93

000292

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D

Acq Time : 29 Oct 99 8:01 am

Sample : L5320ASP-91760 100 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

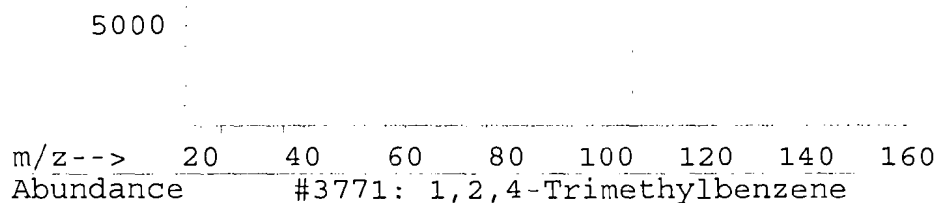
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.66	7.14 ug/L	1746370	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Trimethylbenzene	3771	000095-36-3	97
2	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	97
3	Benzene, 1,2,3-trimethyl-	64572	000526-73-8	95
4	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
5	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95

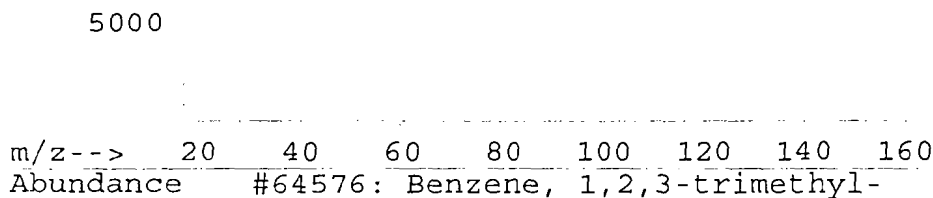
Abundance Scan 3049 (28.658 min): V9657.D (-,*)



m/z 105.10 100.00%

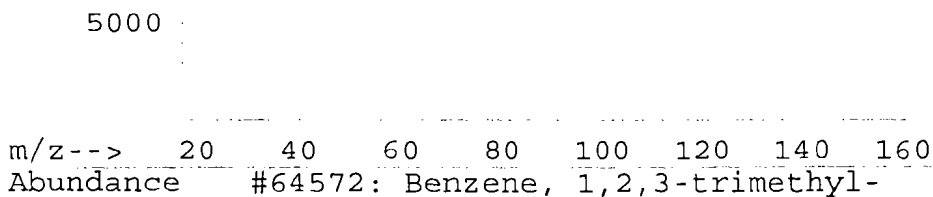
28.29 29.02

m/z 120.10 44.58%



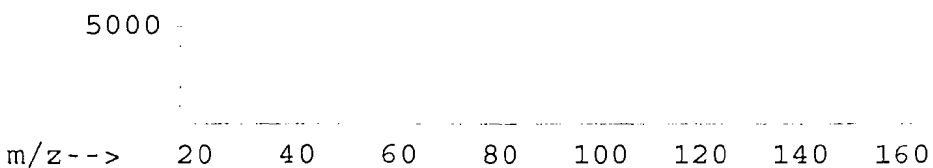
28.29 29.02

m/z 77.05 12.94%



28.29 29.02

m/z 91.05 10.44%



28.29 29.02

m/z 119.15 9.13%

28.29 29.02

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D
Acq Time : 29 Oct 99 8:01 am
Sample : L5320ASP-91760 100 XDIL
Misc : 5MLS

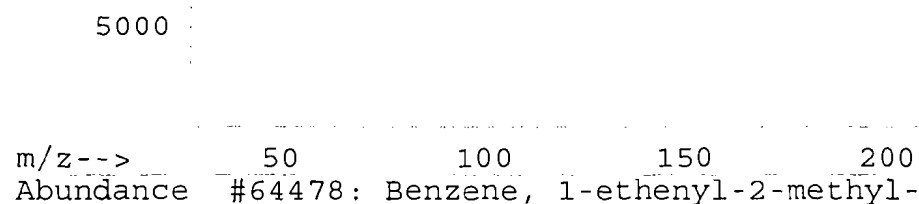
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.14	6.49 ug/L	1588599	Chlorobenzene-d5	22.39

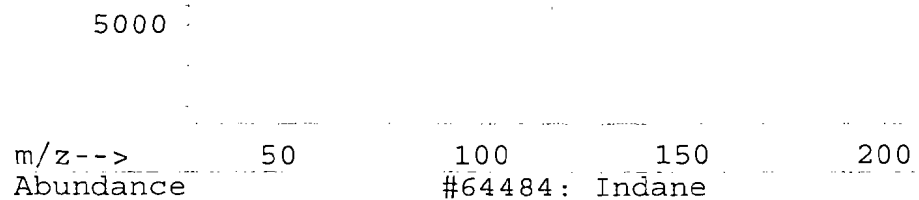
Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	81
2	Indane	64484	000496-11-7	76
3	Benzene, 2-propenyl-	64475	000300-57-2	72
4	Benzene, 1,1'-(1-ethenyl-1,3-propan	28284	061141-97-7	72
5	Benzene, cyclopropyl-	64468	000873-49-4	68

Abundance Scan 3101 (29.137 min): V9657.D (-,*)

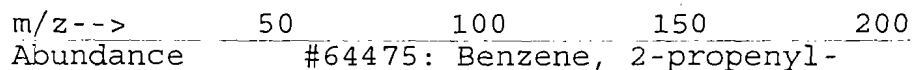


m/z 117.05 100.00%

28.78 29.50
m/z 118.15 57.01%

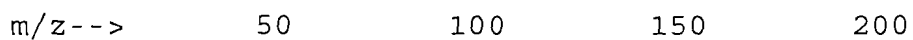


28.78 29.50
m/z 115.05 34.43%



28.78 29.50
m/z 91.05 15.12%

28.78 29.50
m/z 119.10 11.71%



28.78 29.50

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D
Acq Time : 29 Oct 99 8:01 am
Sample : L5320ASP-91760 100 XDIL
Misc : 5MLS

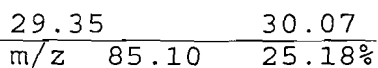
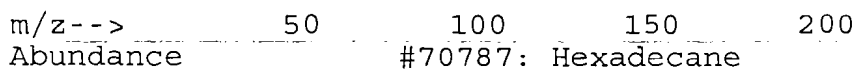
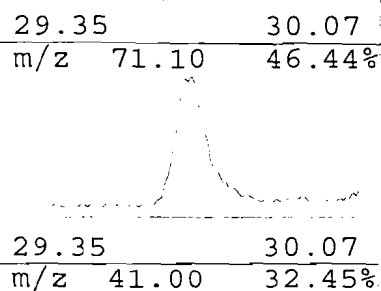
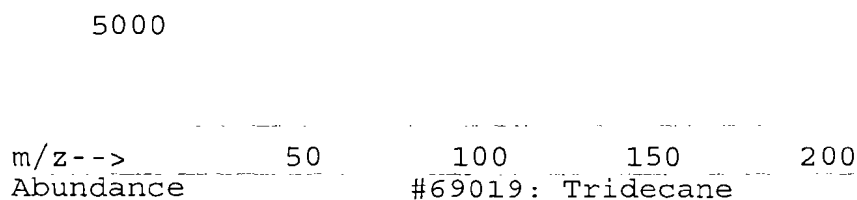
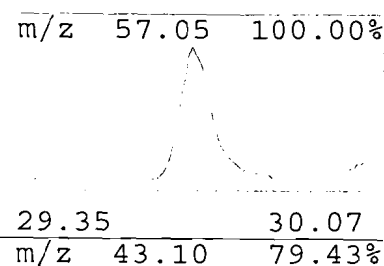
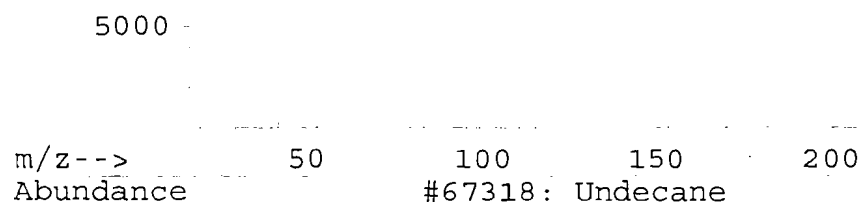
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.71	6.32 ug/L	1547177	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane	67318	001120-21-4	91
2	Tridecane	69019	000629-50-5	90
3	Hexadecane	70787	000544-76-3	90
4	Undecane	11611	001120-21-4	87
5	Undecane	67317	001120-21-4	87

Abundance Scan 3164 (29.713 min): V9657.D (-,*)



000295

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D

Acq Time : 29 Oct 99 8:01 am

Sample : L5320ASP-91760 100 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

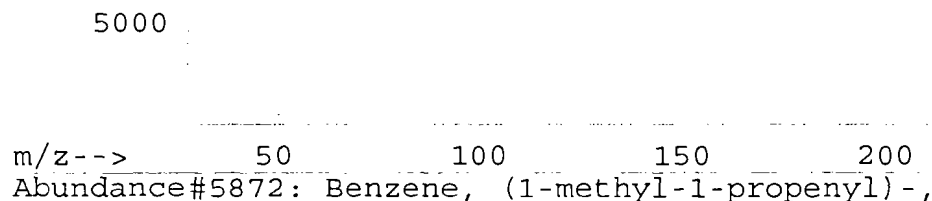
Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
32.62	6.74 ug/L	1648877	Chlorobenzene-d5	22.39	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Benzene, (1-methyl-1-propenyl)-, (E		5872	000768-00-3	93
2	Benzene, 2-ethenyl-1,4-dimethyl-		65413	002039-89-6	90
3	Benzene, (1-methyl-1-propenyl)-, (Z		5904	000767-99-7	89
4	Benzene, 1-methyl-2-(2-propenyl)-		65419	001587-04-8	76
5	1H-Indene, 2,3-dihydro-4-methyl-		5893	000824-22-6	70

Abundance Scan 3481 (32.623 min): V9657.D (-,*)



m/z 117.05 100.00%

32.26 32.99

m/z 119.10 59.37%

32.26 32.99

m/z 132.10 38.77%

5000

m/z--> 50 100 150 200

Abundance#65413: Benzene, 2-ethenyl-1,4-dimethyl-

32.26 32.99

m/z 115.05 31.37%

5000

m/z--> 50 100 150 200

Abundance#5904: Benzene, (1-methyl-1-propenyl)-,

32.26 32.99

m/z 134.10 29.93%

5000

m/z--> 50 100 150 200

32.26 32.99

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D
Acq Time : 29 Oct 99 8:01 am
Sample : L5320ASP-91760 100 XDIL
Misc : 5MLS

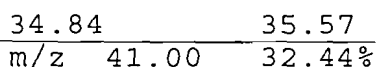
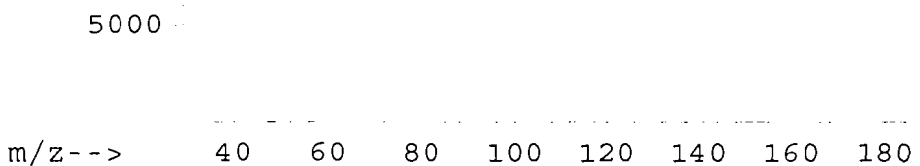
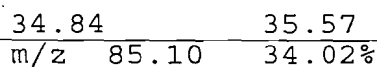
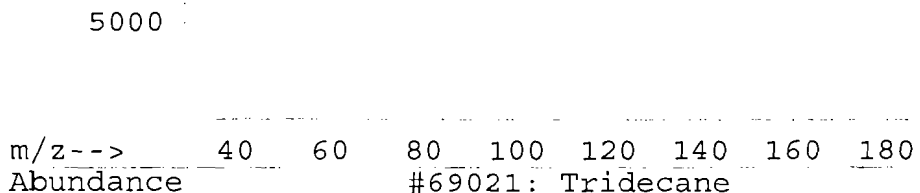
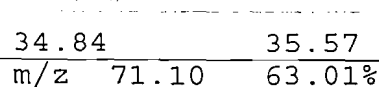
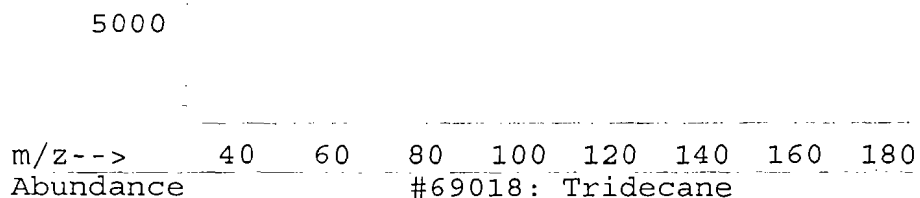
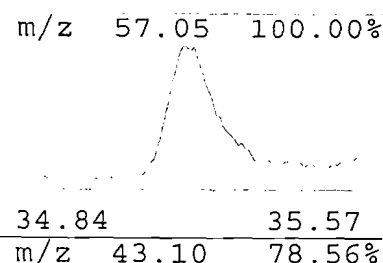
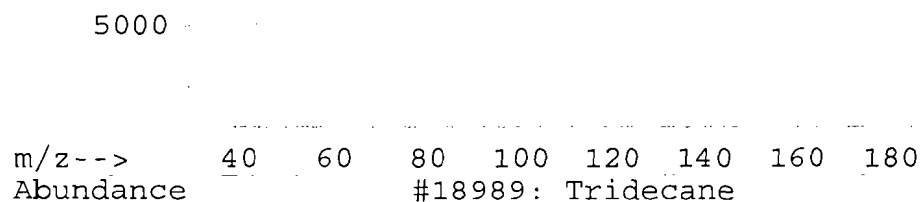
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.21	9.96 ug/L	2436264	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane	18989	000629-50-5	96
2	Tridecane	69018	000629-50-5	94
3	Tridecane	69021	000629-50-5	94
4	Tridecane	69020	000629-50-5	91
5	Tridecane	69016	000629-50-5	87

Abundance Scan 3763 (35.208 min): V9657.D (-,*)



Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D
Acq Time : 29 Oct 99 8:01 am
Sample : L5320ASP-91760 100 XDIL
Misc : 5MLS

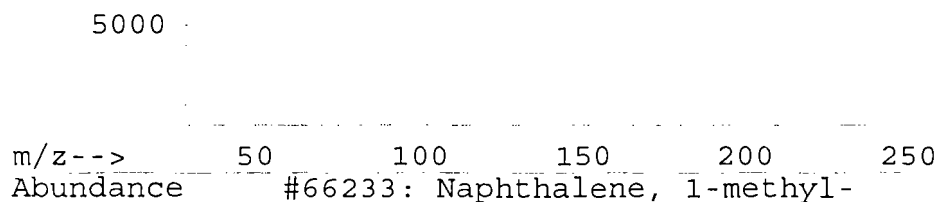
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.25	6.26 ug/L	1532539	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1-methyl-	66233	000090-12-0	94
2	Naphthalene, 2-methyl-	66235	000091-57-6	93
3	Naphthalene, 1-methyl-	66232	000090-12-0	93
4	Benzocycloheptatriene	8114	000264-09-5	91
5	Naphthalene, 1-methyl-	66230	000090-12-0	91

Abundance Scan 3986 (37.253 min): V9657.D (-,*)



m/z 142.05 100.00%

36.89 37.62

m/z 141.05 85.40%

m/z--> 50 100 150 200 250

Abundance #66235: Naphthalene, 2-methyl-

36.89 37.62

m/z 115.05 32.46%

m/z--> 50 100 150 200 250

Abundance #66232: Naphthalene, 1-methyl-

36.89 37.62

m/z 143.15 12.63%

m/z--> 50 100 150 200 250

36.89 37.62

m/z 139.05 11.76%

000298

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9657.D

Acq Time : 29 Oct 99 8:01 am

Sample : L5320ASP-91760 100 XDIL

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M

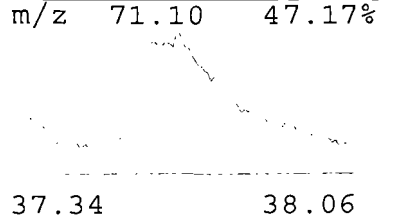
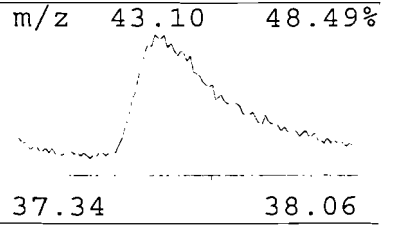
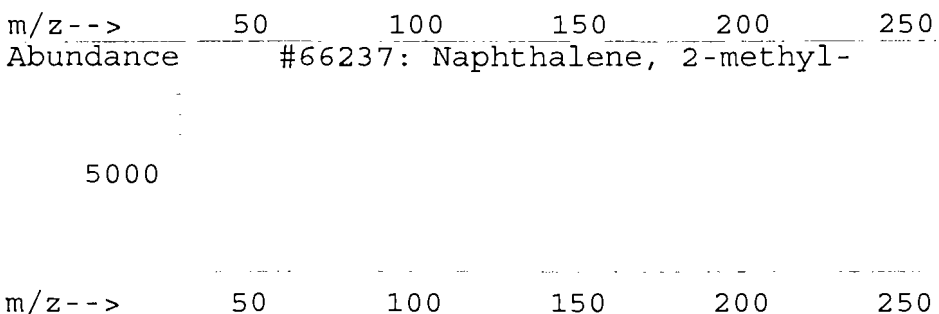
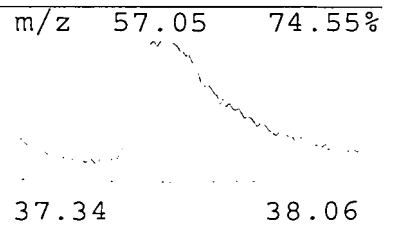
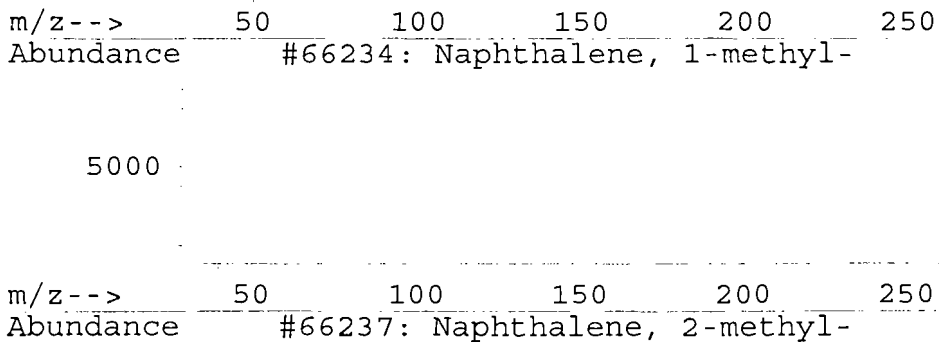
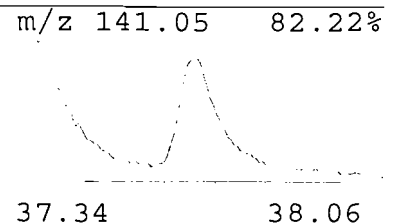
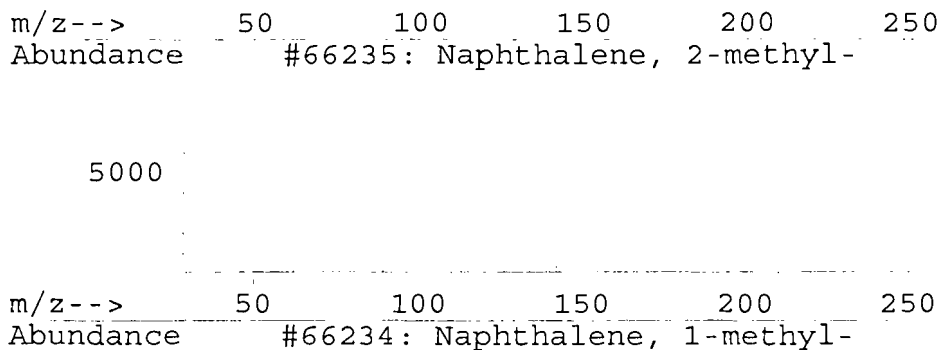
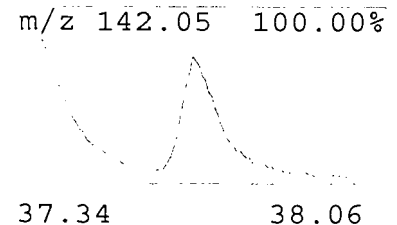
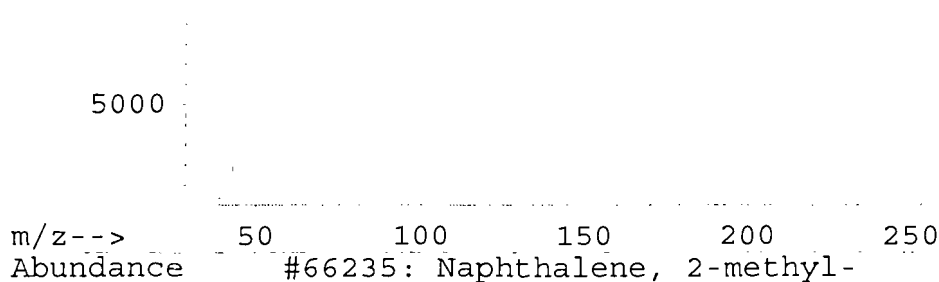
Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.70	13.57 ug/L	3319154	Chlorobenzene-d5	22.39

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 2-methyl-	66235	000091-57-6	70
2	Naphthalene, 1-methyl-	66234	000090-12-0	64
3	Naphthalene, 2-methyl-	66237	000091-57-6	64
4	Naphthalene, 1-methyl-	66230	000090-12-0	62
5	Naphthalene, 1-methyl-	66231	000090-12-0	58

Abundance Scan 4035 (37.700 min): V9657.D (-,*)



000299

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-035-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: 091761

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9655.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2.6		
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	8.2		
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	41		
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	64		
136777-61-2	m+ p-Xylenes	40		
95-47-6	o-xylene	51		
95-50-1	1,2-Dichlorobenzene	9.6		
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-035-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91761
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9655.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/29/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 10 Concentration Units:
 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 98-82-8	Benzene, (1-methylethyl)-	25.05	12	J
2. 103-65-1	Benzene, propyl-	26.13	13	J
3. 611-14-3	Benzene, 1-ethyl-2-methyl-	26.39	21	J
4. 526-73-8	Benzene, 1,2,3-trimethyl-	26.63	11	J
5.	Unknown	27.12	29	J
6. 95-63-6	Benzene, 1,2,4-trimethyl-	27.58	120	J
7. 496-11-7	Indane	29.14	55	J
8. 2870-04-4	Benzene, 2-ethyl-1,3-dimethy	30.40	12	J
9. 27133-93-3	2,3-Dihydro-1-methylindene	30.63	12	J
10.	Unknown	32.64	21	J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D

Acq Time : 29 Oct 99 6:32 am

Sample : L5320ASP-91761

Misc : 5MLS

Quant Time: Oct 29 7:46 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.84	128	580248	30.00	ug/L	0.04
19) 1,4-Difluorobenzene	14.41	114	3193874	30.00	ug/L	0.04
34) Chlorobenzene-d5	22.40	117	2681957	30.00	ug/L	0.03
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.94	65	950985	27.75	ug/L	92.51%
36) Toluene-d8	18.49	98	3372971	27.68	ug/L	92.25%
45) Bromofluorobenzene	25.54	95	1904826	26.62	ug/L	88.74%
Target Compounds						Qvalue
3) Vinyl Chloride	2.85	62	89838	2.63	ug/L	100
13) MTBE	6.59	73	2046438	17.74	ug/L	96
15) cis-1,2-Dichloroethene	9.97	96	170786	4.01	ug/L	82
24) Benzene	12.85	78	1158157	8.23	ug/L	97
37) Toluene	18.66	91	6159105	41.19	ug/L	98
40) Chlorobenzene	22.48	112	118898	1.20	ug/L	98
41) Ethylbenzene	22.73	91	12049293	64.33	ug/L	98
42) m+ p-Xylenes	23.07	106	2662780	39.64	ug/L	100
43) o-xylene	24.08	91	7294022	50.63	ug/L	98
49) 1,2-Dichlorobenzene	29.54	146	666519	9.56	ug/L	97

000302

(#) = qualifier out of range (m) = manual integration

V9655.D V11027AW.M

Fri Oct 29 07:50:35 1999

VOA1

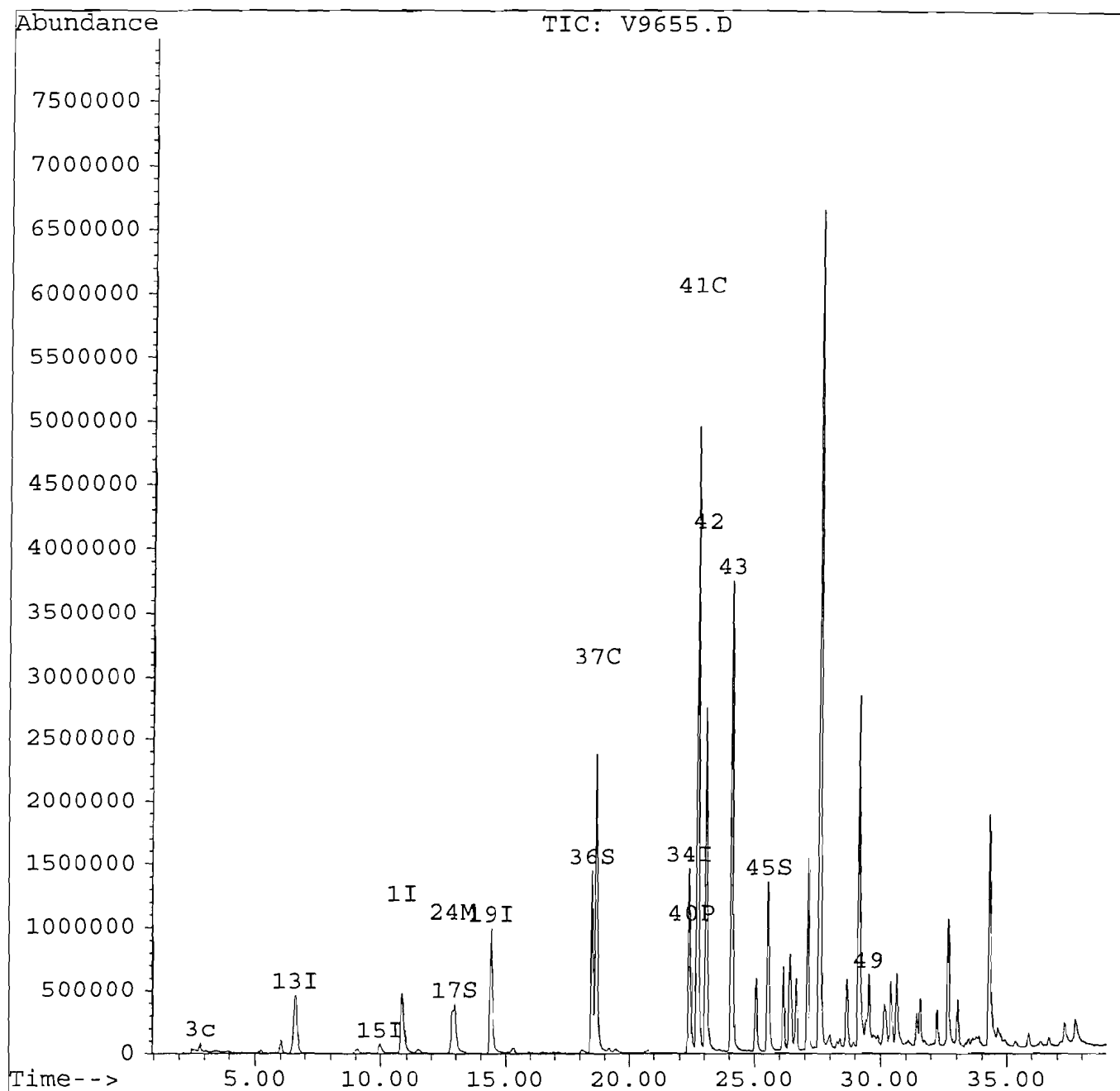
Page 1

Quantitation Report

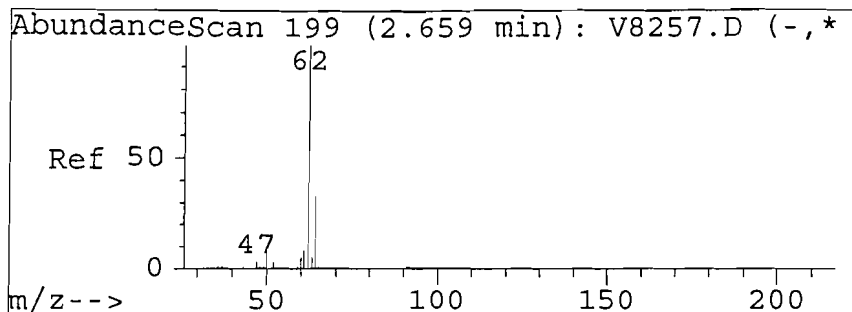
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Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS
Quant Time: Oct 29 7:46 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

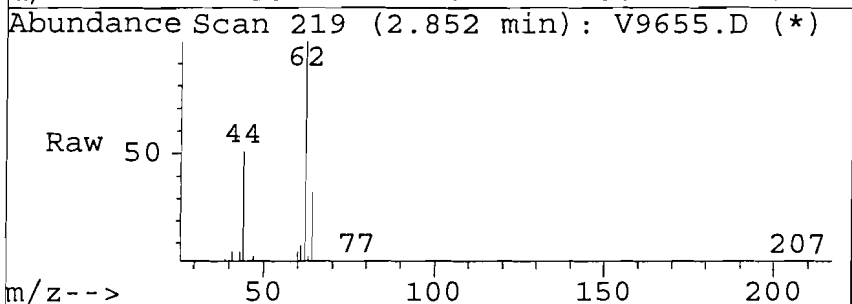
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



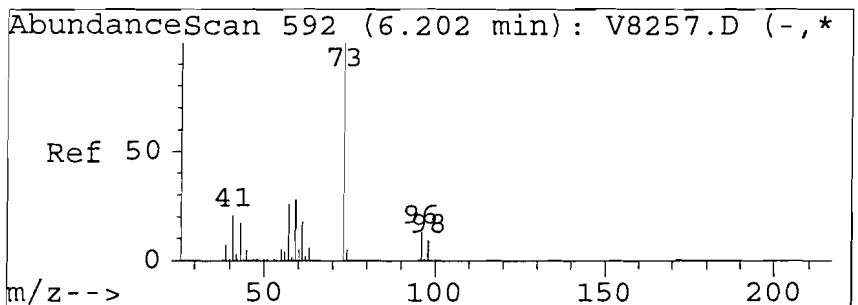
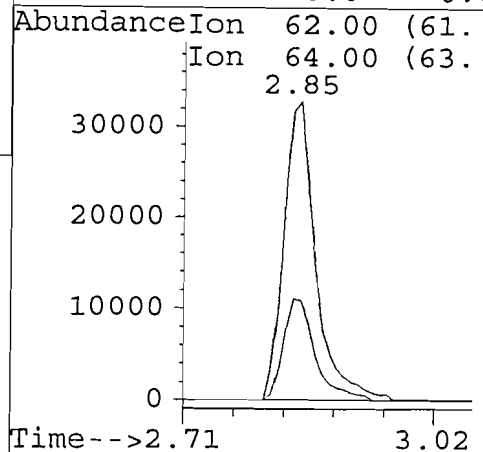
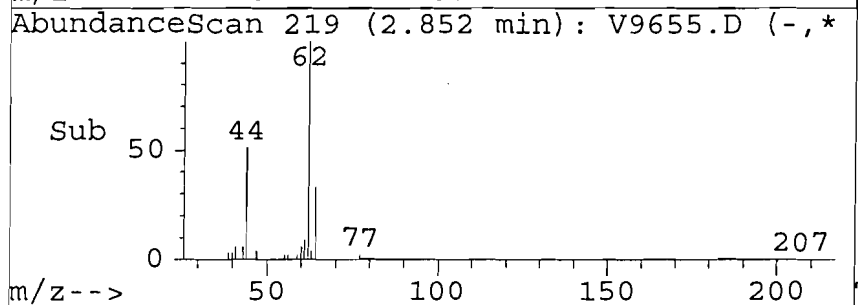
000303



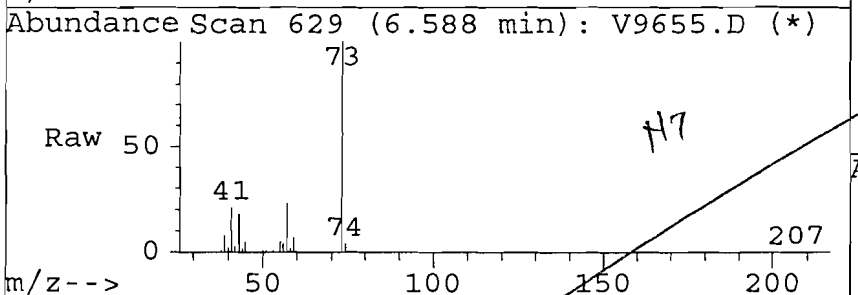
#3
 Vinyl Chloride
 Concen: 2.63 ug/L
 RT: 2.85 min Scan# 219
 Delta R.T. 0.03 min
 Lab File: V9655.D
 Acq: 29 Oct 99 6:32 am



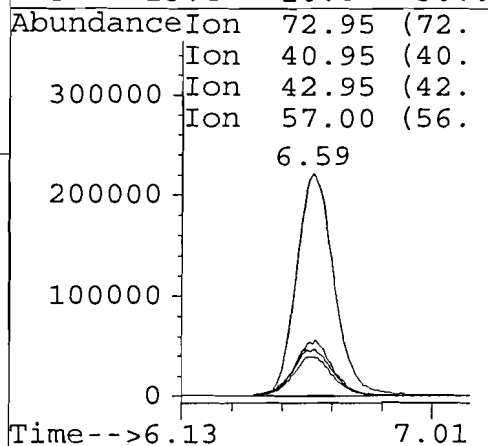
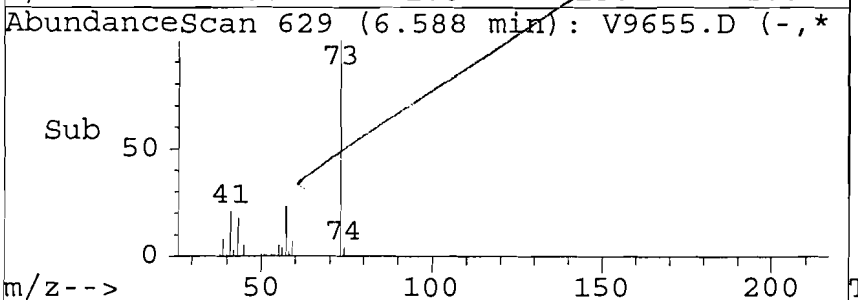
Tgt Ion	Ratio	Lower	Upper
62	100		
64	33.3	16.7	50.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#13
 MTBE
 Concen: 17.74 ug/L
 RT: 6.59 min Scan# 629
 Delta R.T. 0.04 min
 Lab File: V9655.D
 Acq: 29 Oct 99 6:32 am

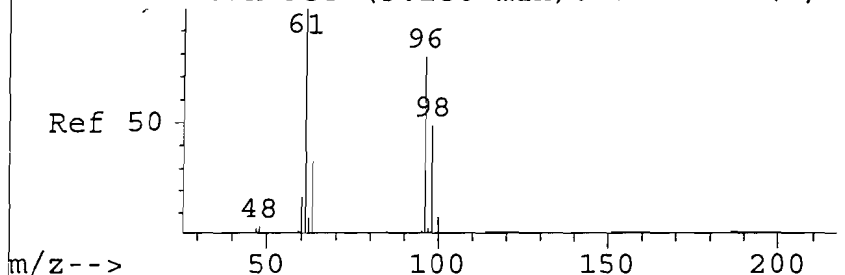


Tgt Ion	Ratio	Lower	Upper
73	100		
41	21.1	11.4	34.2
43	18.0	10.0	30.0
57	23.4	20.0	30.0



000304

AbundanceScan 935 (9.286 min): V8257.D (-,*



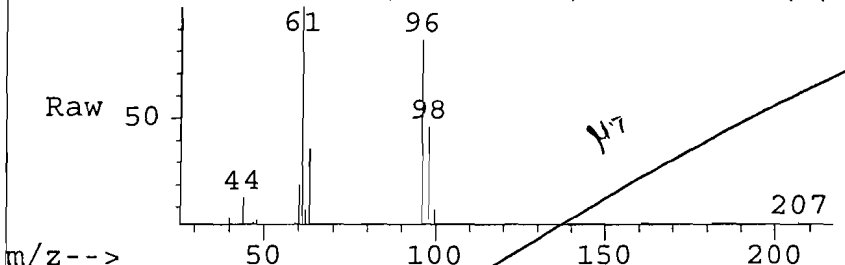
#15

cis-1,2-Dichloroethene
Concen: 4.01 ug/L
RT: 9.97 min Scan# 1000
Delta R.T. 0.07 min
Lab File: V9655.D
Acq: 29 Oct 99 6:32 am

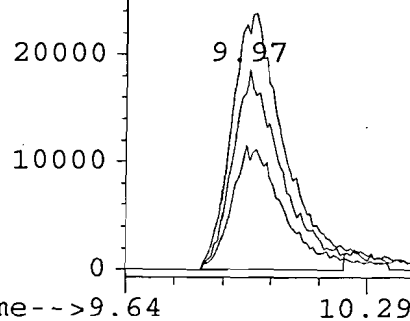
Tgt Ion:95.95 Resp: 170786

Ion	Ratio	Lower	Upper
96	100		
61	117.5	71.3	213.9
98	54.4	32.5	97.5
0	0.0	0.0	0.0

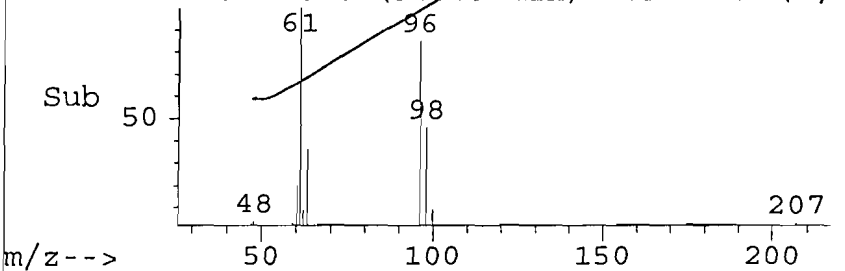
AbundanceScan 1000 (9.969 min): V9655.D (*)



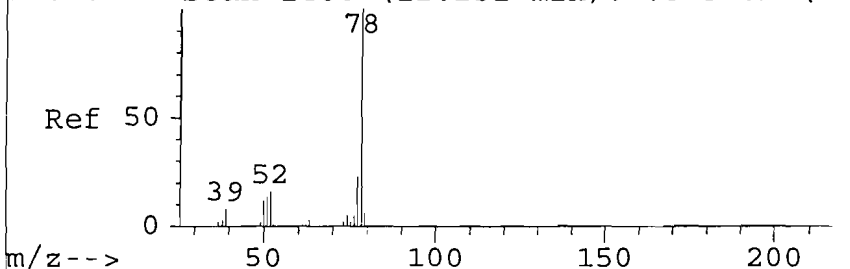
Abundance	Ion	95.95 (95.
30000	Ion	61.00 (60.
	Ion	97.95 (97.



AbundanceScan 1000 (9.969 min): V9655.D (-,



AbundanceScan 1260 (12.251 min): V8257.D (-



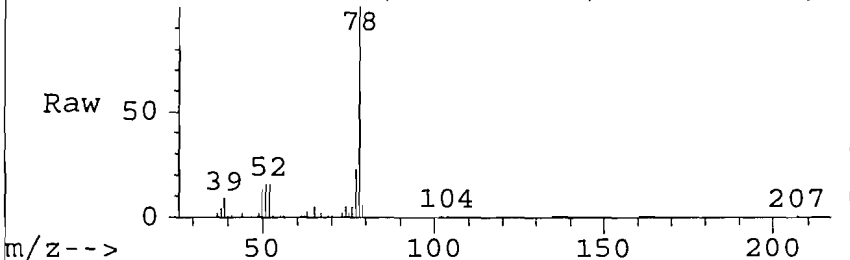
#24

Benzene
Concen: 8.23 ug/L
RT: 12.85 min Scan# 1316
Delta R.T. 0.06 min
Lab File: V9655.D
Acq: 29 Oct 99 6:32 am

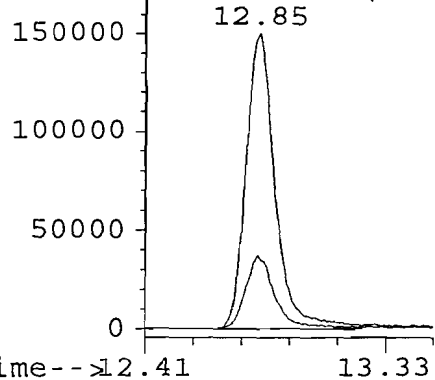
Tgt Ion:78 Resp: 1158157

Ion	Ratio	Lower	Upper
78	100		
77	23.0	12.2	36.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

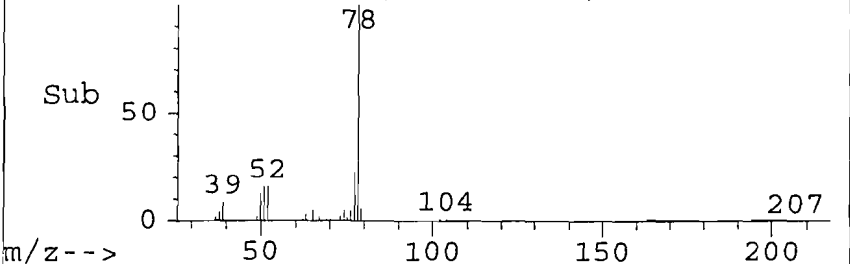
AbundanceScan 1316 (12.848 min): V9655.D (*)



Abundance	Ion	78.00 (77.
150000	Ion	77.00 (76.

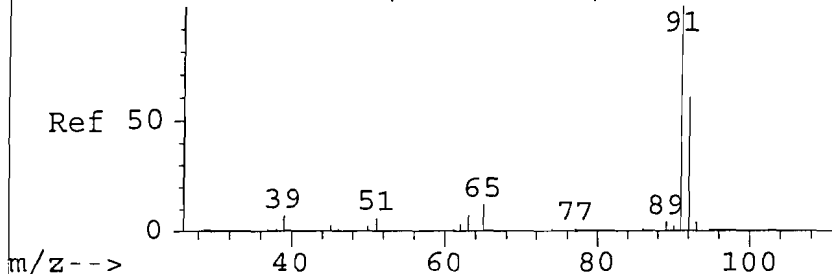


AbundanceScan 1316 (12.848 min): V9655.D (-



000305

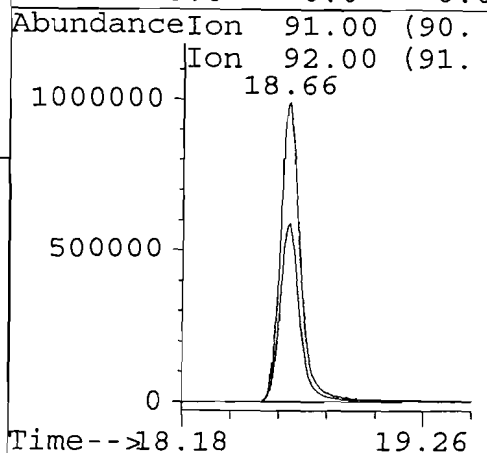
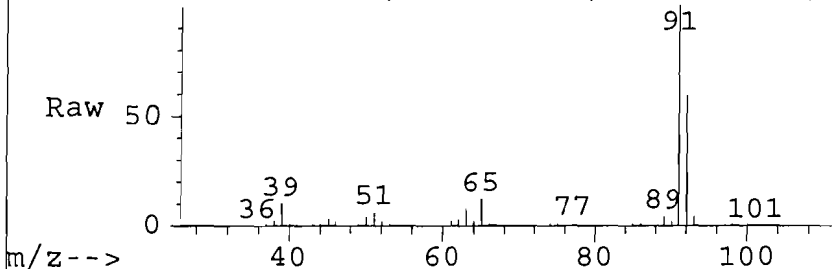
AbundanceScan 1900 (18.098 min): V8257.D (-



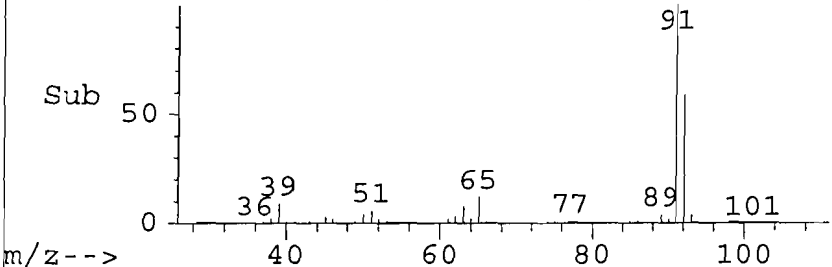
#37
Toluene
Concen: 41.19 ug/L
RT: 18.66 min Scan# 1953
Delta R.T. 0.03 min
Lab File: V9655.D
Acq: 29 Oct 99 6:32 am

Tgt Ion:	91	Resp:	6159105
Ion	Ratio	Lower	Upper
91	100		
92	59.3	28.8	86.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

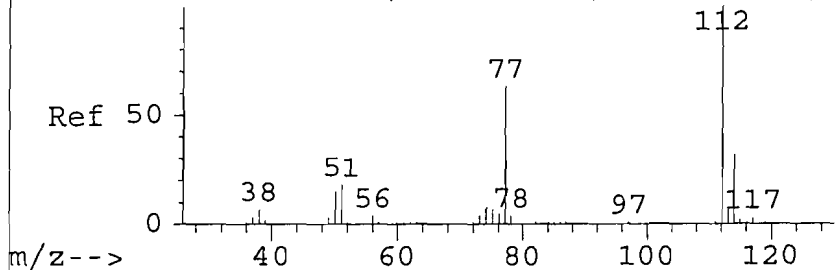
AbundanceScan 1953 (18.660 min): V9655.D (*)



AbundanceScan 1953 (18.660 min): V9655.D (-



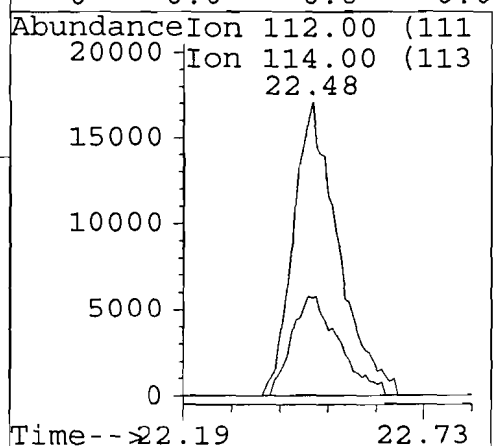
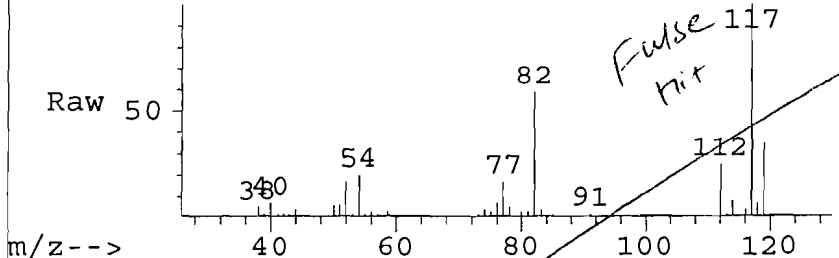
AbundanceScan 2305 (21.785 min): V8257.D (-



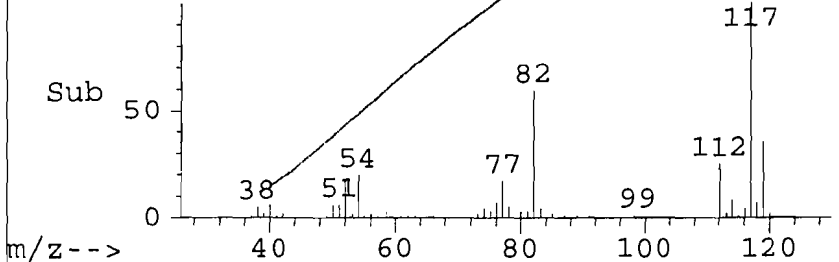
#40
Chlorobenzene
Concen: 1.20 ug/L
RT: 22.48 min Scan# 2370
Delta R.T. 0.04 min
Lab File: V9655.D
Acq: 29 Oct 99 6:32 am

Tgt Ion:	112	Resp:	118898
Ion	Ratio	Lower	Upper
112	100		
114	33.1	16.1	48.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

AbundanceScan 2370 (22.479 min): V9655.D (*)

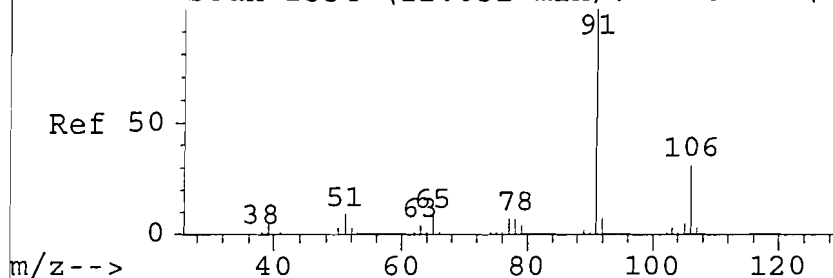


AbundanceScan 2370 (22.479 min): V9655.D (-



000306

AbundanceScan 2334 (22.051 min): V8257.D (-



#41

Ethylbenzene

Concen: 64.33 ug/L

RT: 22.73 min Scan# 2397

Delta R.T. 0.02 min

Lab File: V9655.D

Acq: 29 Oct 99 6:32 am

Tgt Ion:91 Resp:12049293

Ion Ratio Lower Upper

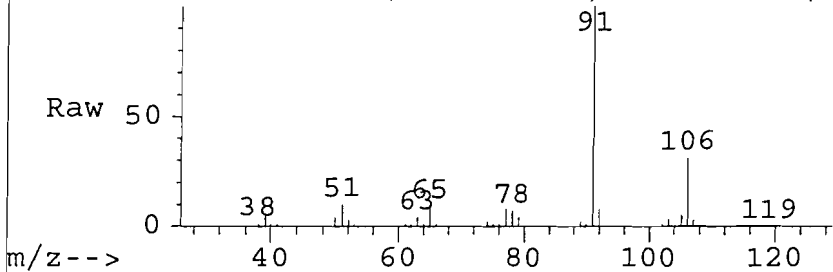
91 100

106 31.5 15.2 45.7

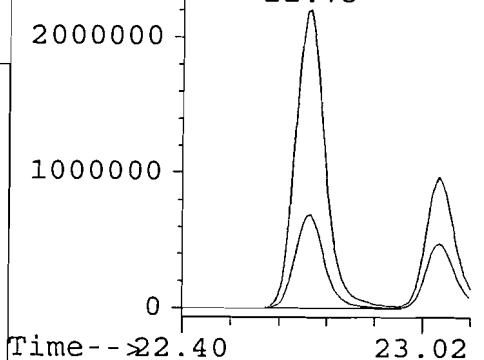
0 0.0 0.0 0.0

0 0.0 0.0 0.0

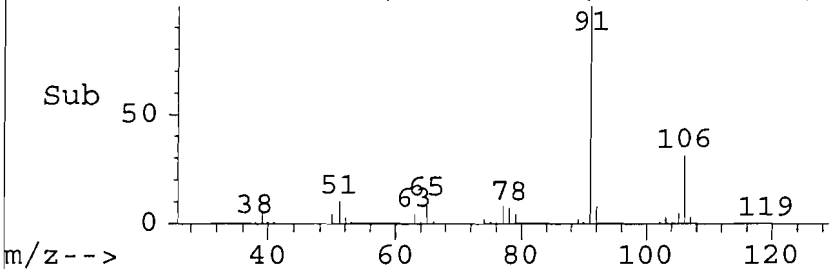
AbundanceScan 2397 (22.727 min): V9655.D (*)



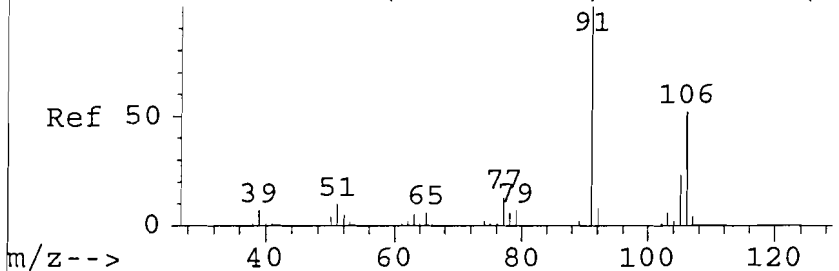
AbundanceIon 91.00 (90.00)
Ion 106.00 (105.00)
22.73



AbundanceScan 2397 (22.727 min): V9655.D (-



AbundanceScan 2369 (22.372 min): V8257.D (-



#42

m+ p-Xylenes

Concen: 39.64 ug/L

RT: 23.07 min Scan# 2434

Delta R.T. 0.03 min

Lab File: V9655.D

Acq: 29 Oct 99 6:32 am

Tgt Ion:106 Resp: 2662780

Ion Ratio Lower Upper

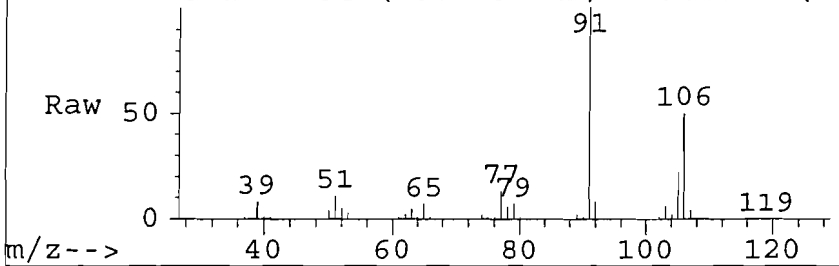
106 100

91 201.7 100.8 302.4

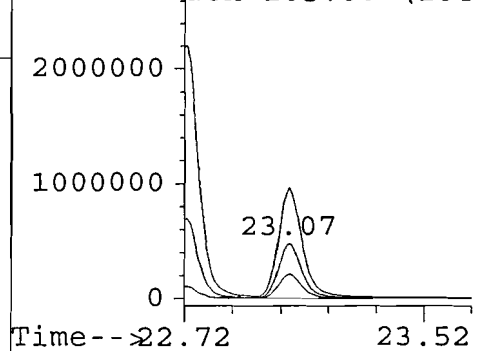
105 45.2 22.3 66.9

0 0.0 0.0 0.0

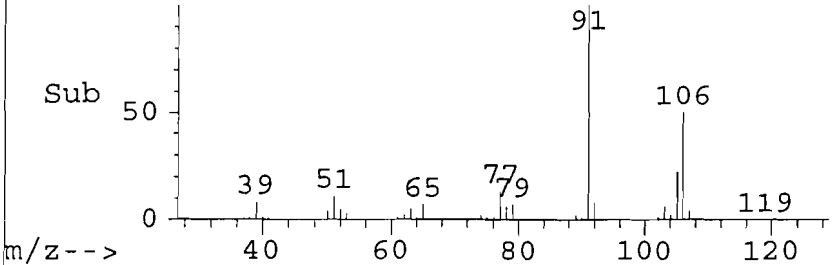
AbundanceScan 2434 (23.065 min): V9655.D (*)



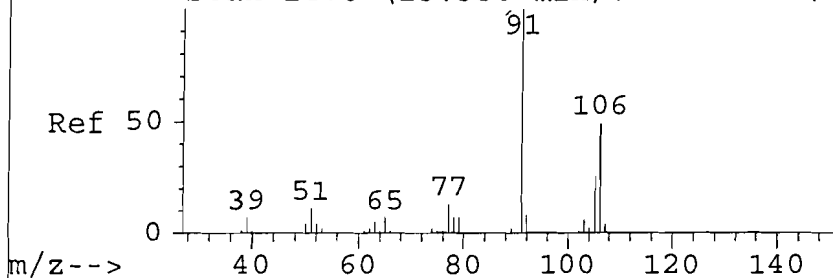
AbundanceIon 106.00 (105.00)
Ion 91.00 (90.00)
Ion 105.00 (104.00)



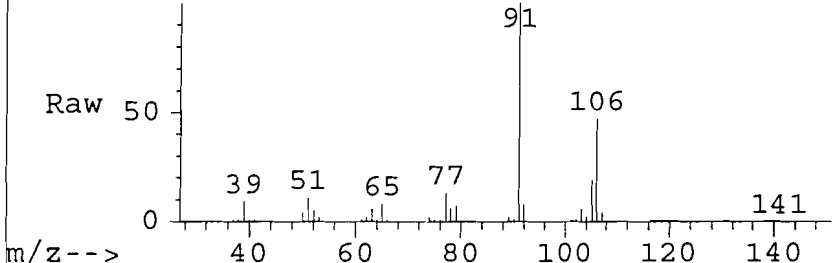
AbundanceScan 2434 (23.065 min): V9655.D (-



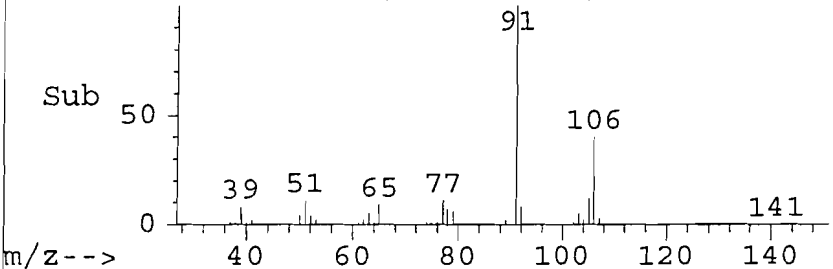
AbundanceScan 2476 (23.350 min): V8257.D (-



AbundanceScan 2545 (24.084 min): V9655.D (*)



AbundanceScan 2545 (24.084 min): V9655.D (-



#43

o-xylene

Concen: 50.63 ug/L

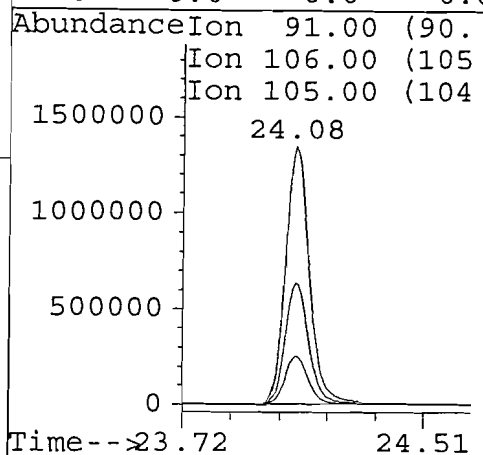
RT: 24.08 min Scan# 2545

Delta R.T. 0.03 min

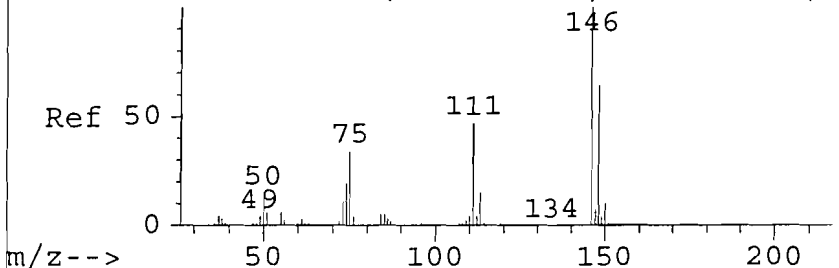
Lab File: V9655.D

Acq: 29 Oct 99 6:32 am

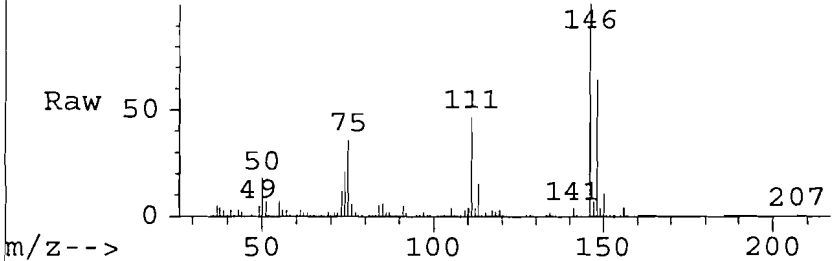
Tgt Ion:	91	Resp:	7294022
Ion Ratio	Lower	Upper	
91	100		
106	47.2	23.0	69.0
105	19.1	9.2	27.6
0	0.0	0.0	0.0



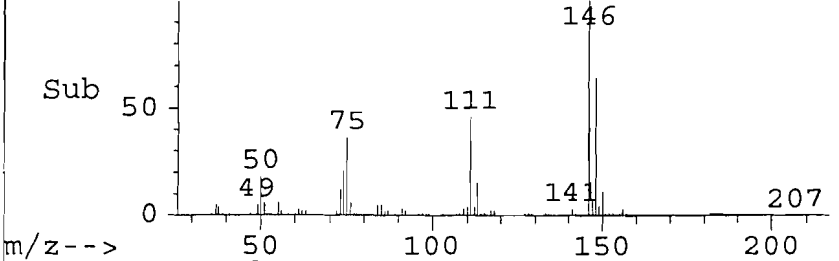
AbundanceScan 3043 (28.534 min): V8257.D (-



AbundanceScan 3139 (29.537 min): V9655.D (*)



AbundanceScan 3139 (29.537 min): V9655.D (-



#49

1,2-Dichlorobenzene

Concen: 9.56 ug/L

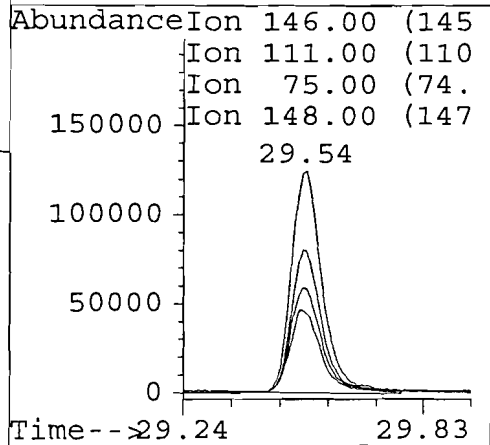
RT: 29.54 min Scan# 3139

Delta R.T. 0.06 min

Lab File: V9655.D

Acq: 29 Oct 99 6:32 am

Tgt Ion:	146	Resp:	666519
Ion Ratio	Lower	Upper	
146	100		
111	47.2	25.3	75.8
75	35.8	19.9	59.7
148	63.6	38.0	88.6



000308

Library Search Compound Report

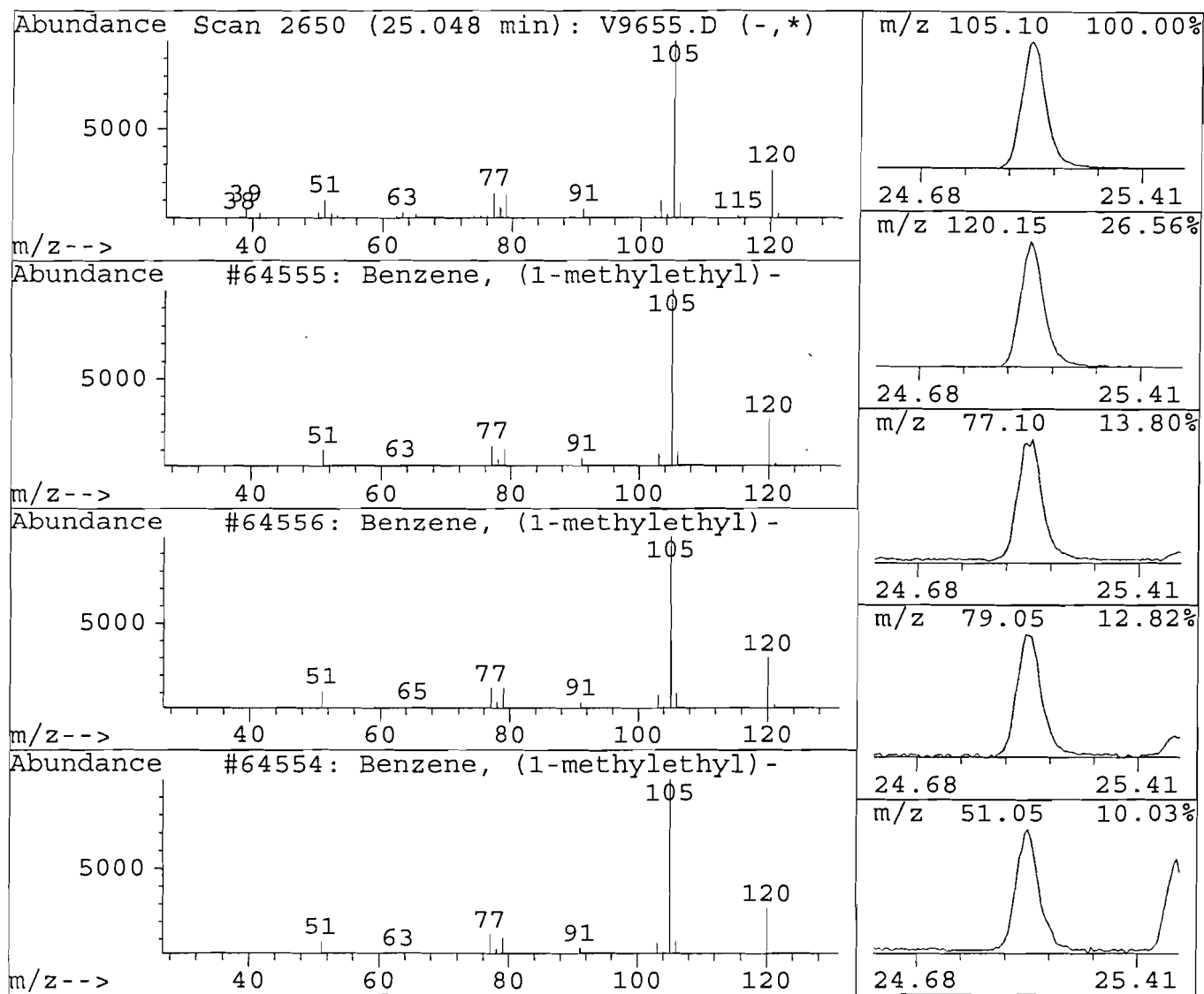
Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D
Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.05	11.75 ug/L	3290973	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1-methylethyl)-	64555	000098-82-8	95
2	Benzene, (1-methylethyl)-	64556	000098-82-8	94
3	Benzene, (1-methylethyl)-	64554	000098-82-8	94
4	Benzene, (1-methylethyl)-	64552	000098-82-8	91
5	Benzene, (1-methylethyl)-	3763	000098-82-8	91



000309

Library Search Compound Report

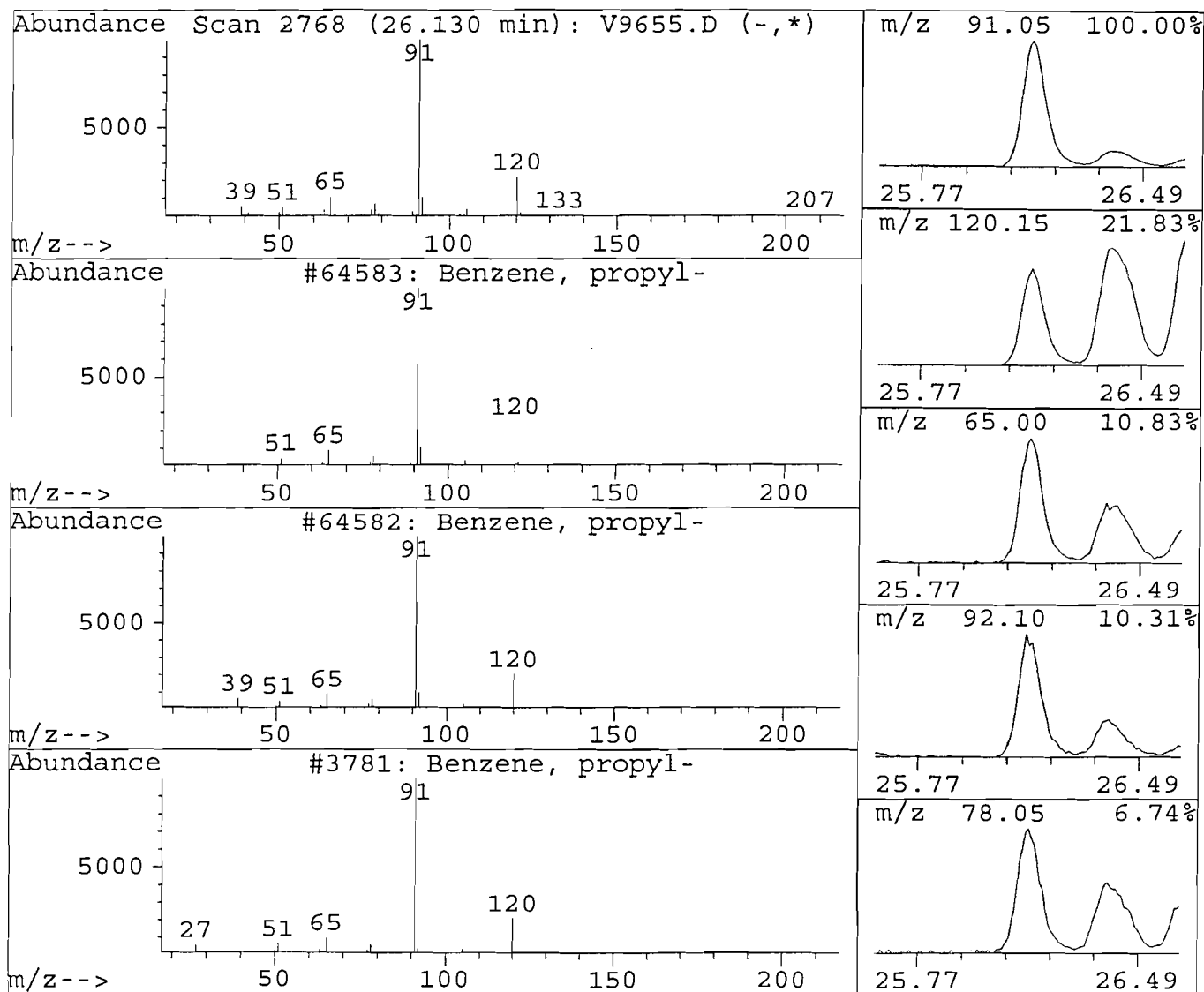
Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D
Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.13	12.77 ug/L	3577863	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, propyl-	64583	000103-65-1	91
2	Benzene, propyl-	64582	000103-65-1	91
3	Benzene, propyl-	3781	000103-65-1	91
4	1,2-Ethanediamine, N-(phenylmethyl)	9756	004152-09-4	64
5	N-Benzyl-2-phenethylamine	25639	003647-71-0	64



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D

Acq Time : 29 Oct 99 6:32 am

Sample : L5320ASP-91761

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

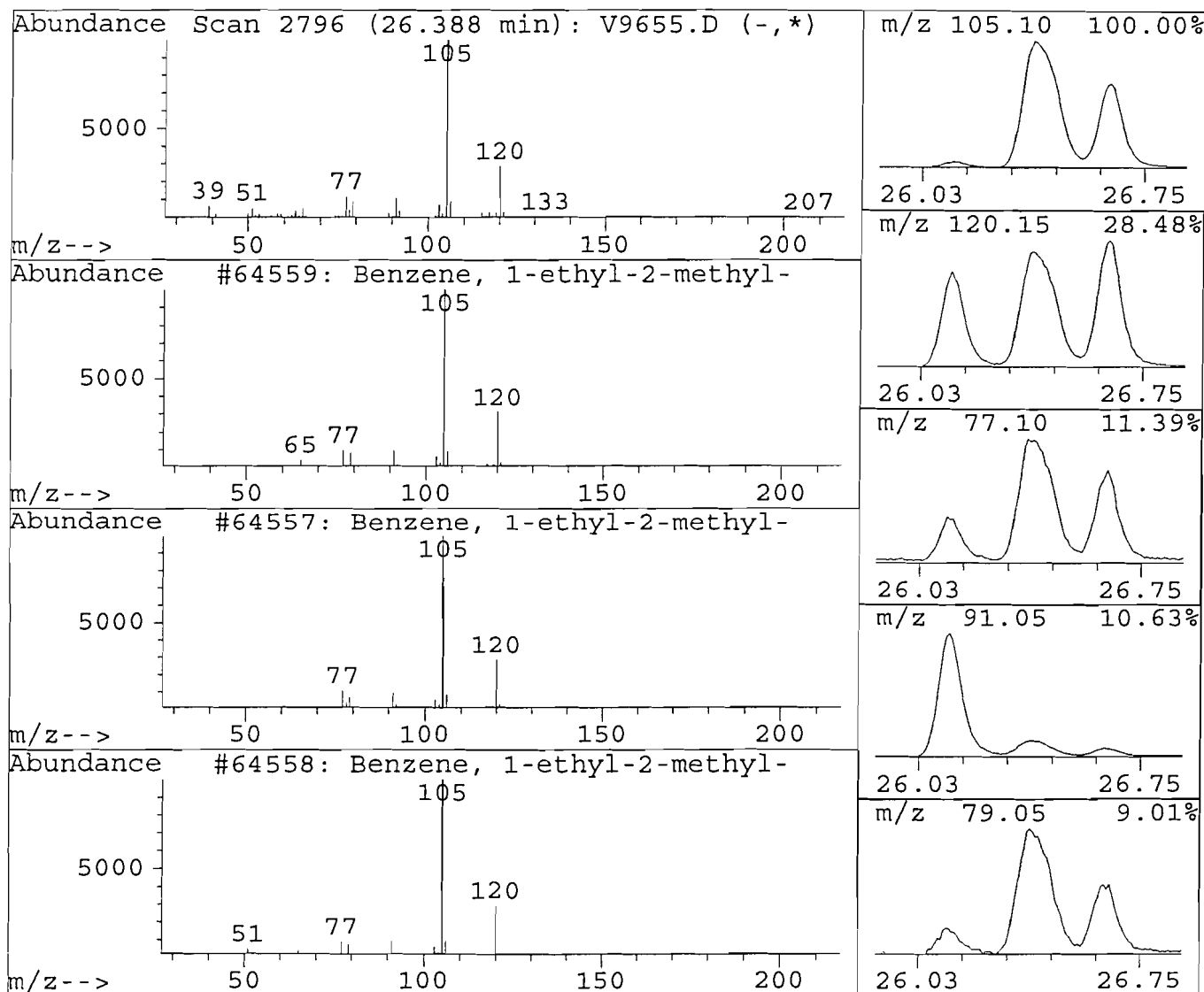
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.39	20.87 ug/L	5845557	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
3	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	95
4	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	95
5	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	95



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D

Acq Time : 29 Oct 99 6:32 am

Sample : L5320ASP-91761

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

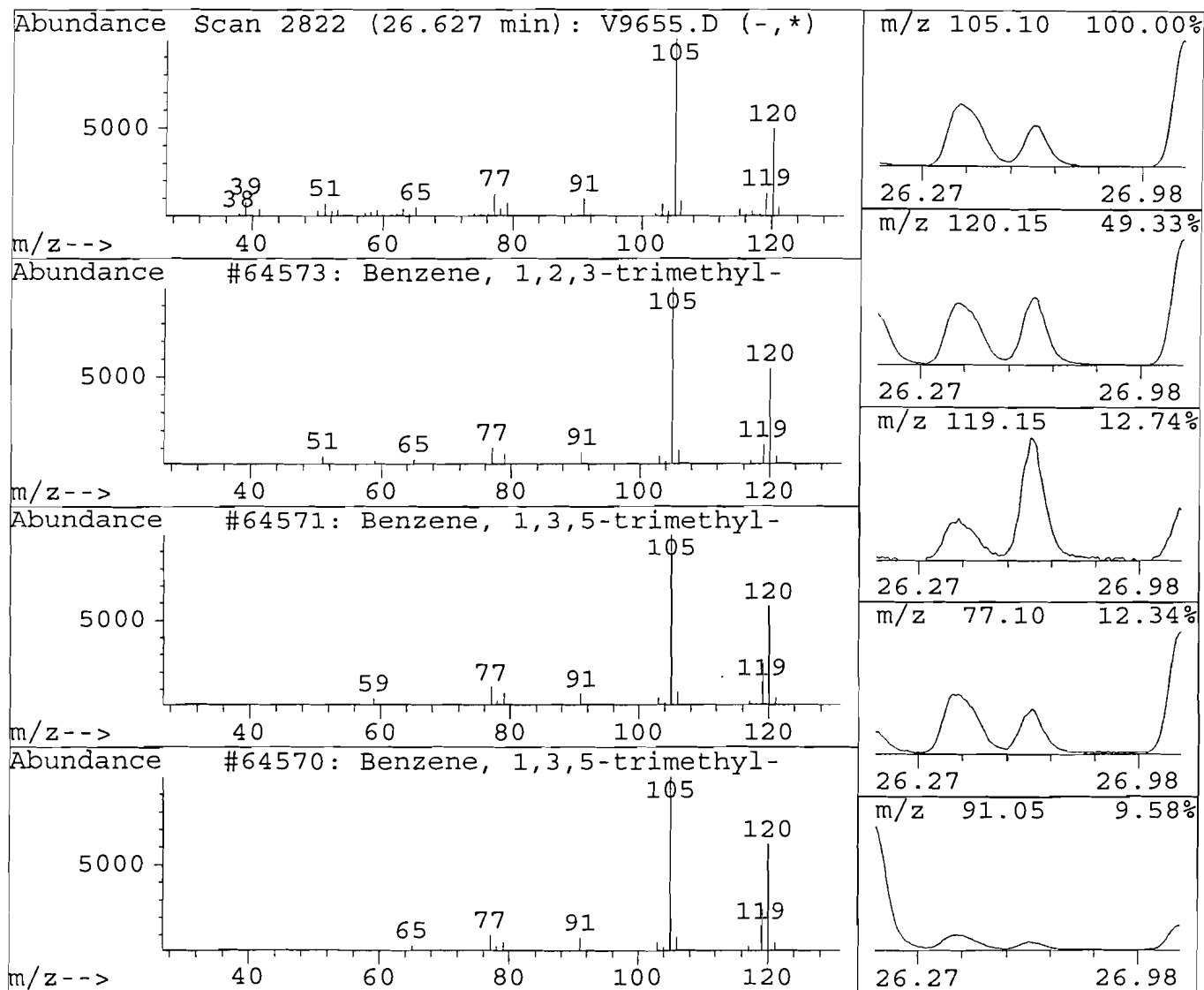
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.63	11.37 ug/L	3185501	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	97
2	Benzene, 1,3,5-trimethyl-	64571	000108-67-8	97
3	Benzene, 1,3,5-trimethyl-	64570	000108-67-8	95
4	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
5	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	95



000312

Library Search Compound Report

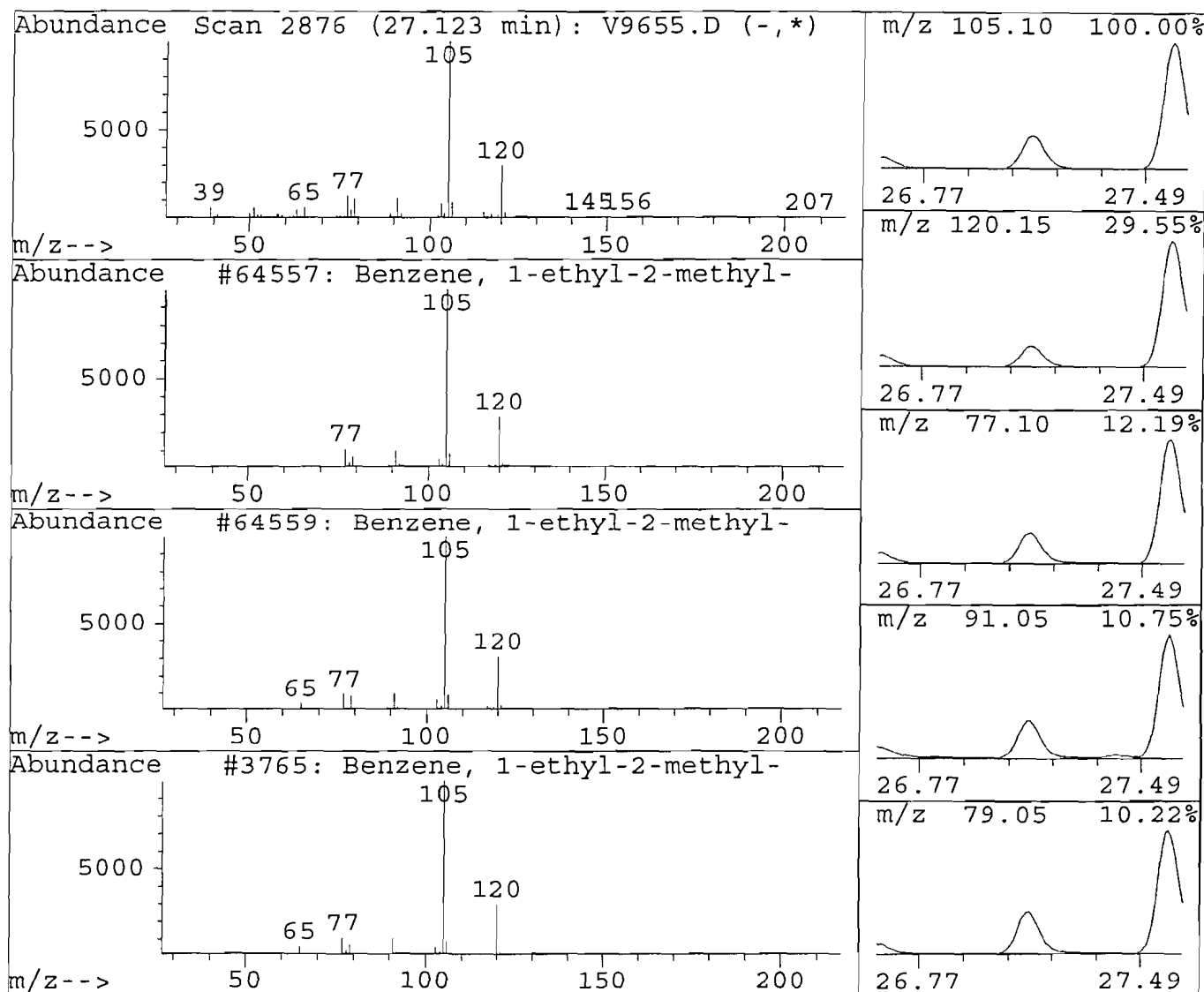
Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D
Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.12	29.07 ug/L	8144339	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
2	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	95
3	Benzene, 1-ethyl-2-methyl-	3765	000611-14-3	95
4	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	95
5	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94



000313

Library Search Compound Report

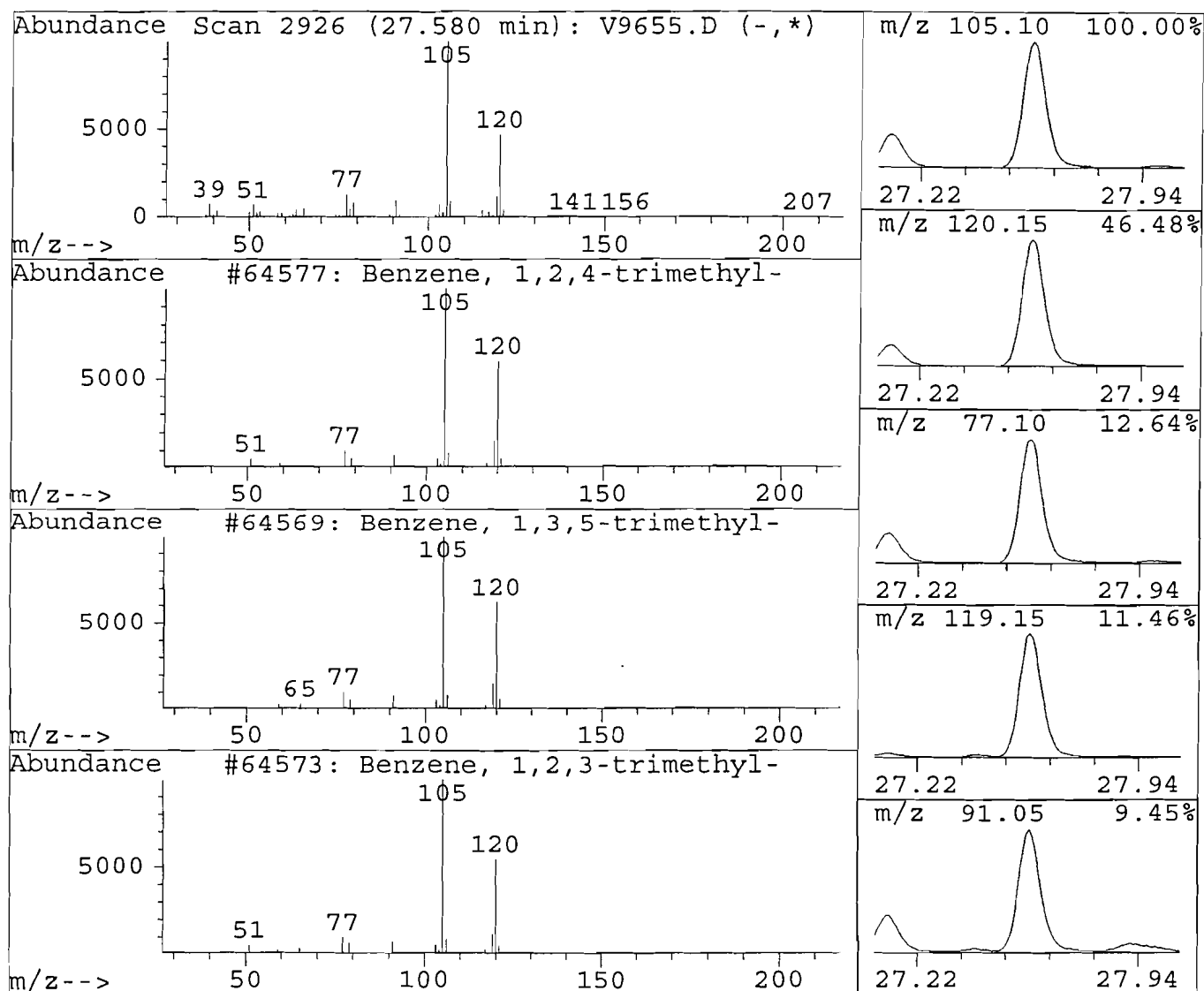
Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D
Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
27.58	124.41 ug/L	34856040	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,4-trimethyl-	64577	000095-63-6	95
2	Benzene, 1,3,5-trimethyl-	64569	000108-67-8	95
3	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	95
4	Benzene, 1,2,4-trimethyl-	64578	000095-63-6	95
5	1,2,4-Trimethylbenzene	3771	000095-36-3	95



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D

Acq Time : 29 Oct 99 6:32 am

Sample : L5320ASP-91761

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

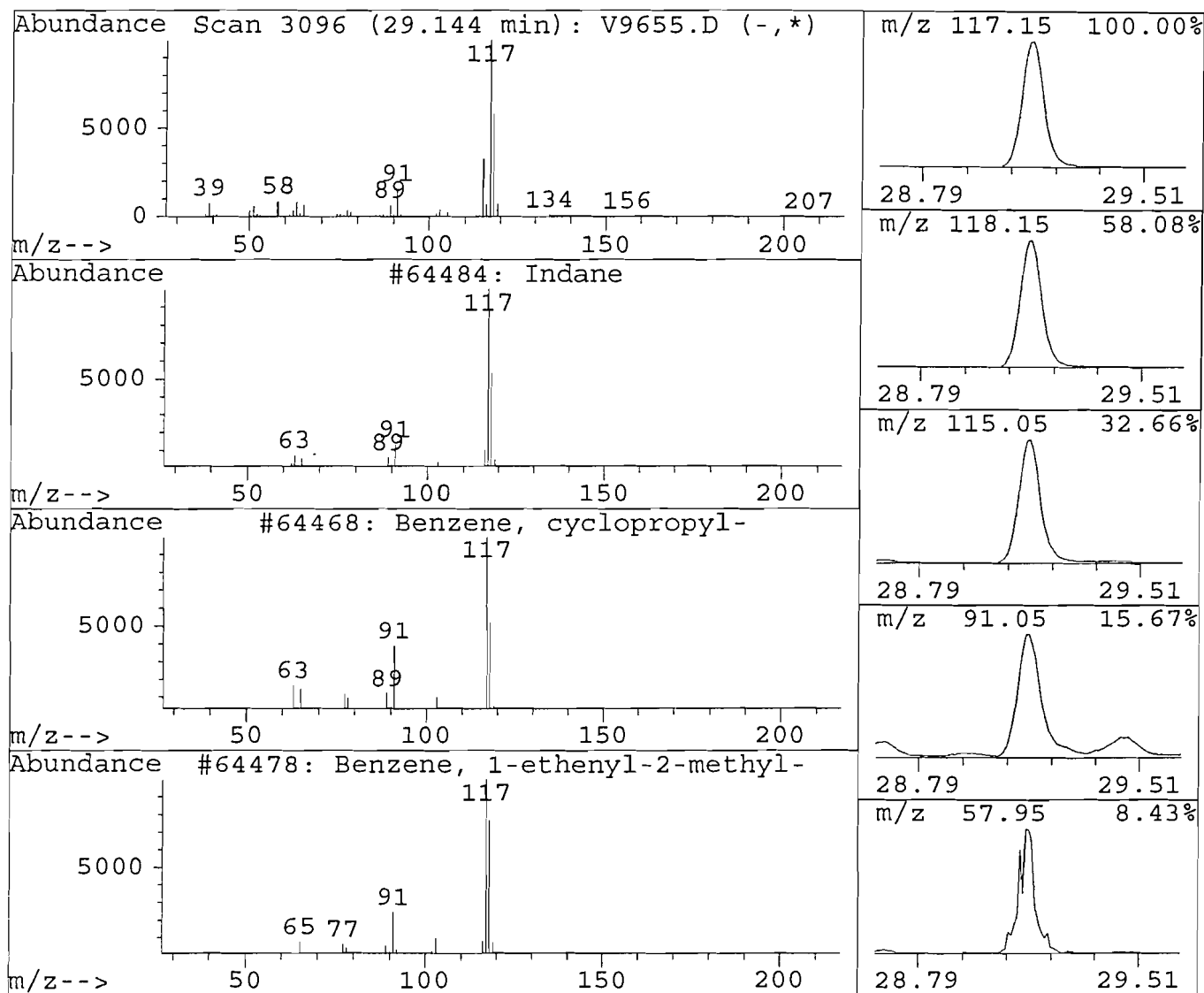
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.14	55.07 ug/L	15429180	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indane	64484	000496-11-7	81
2	Benzene, cyclopropyl-	64468	000873-49-4	68
3	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	49
4	Benzene, 2-propenyl-	3594	000300-57-2	47
5	Benzene, 1-propenyl-	64476	000637-50-3	47



000315

Library Search Compound Report

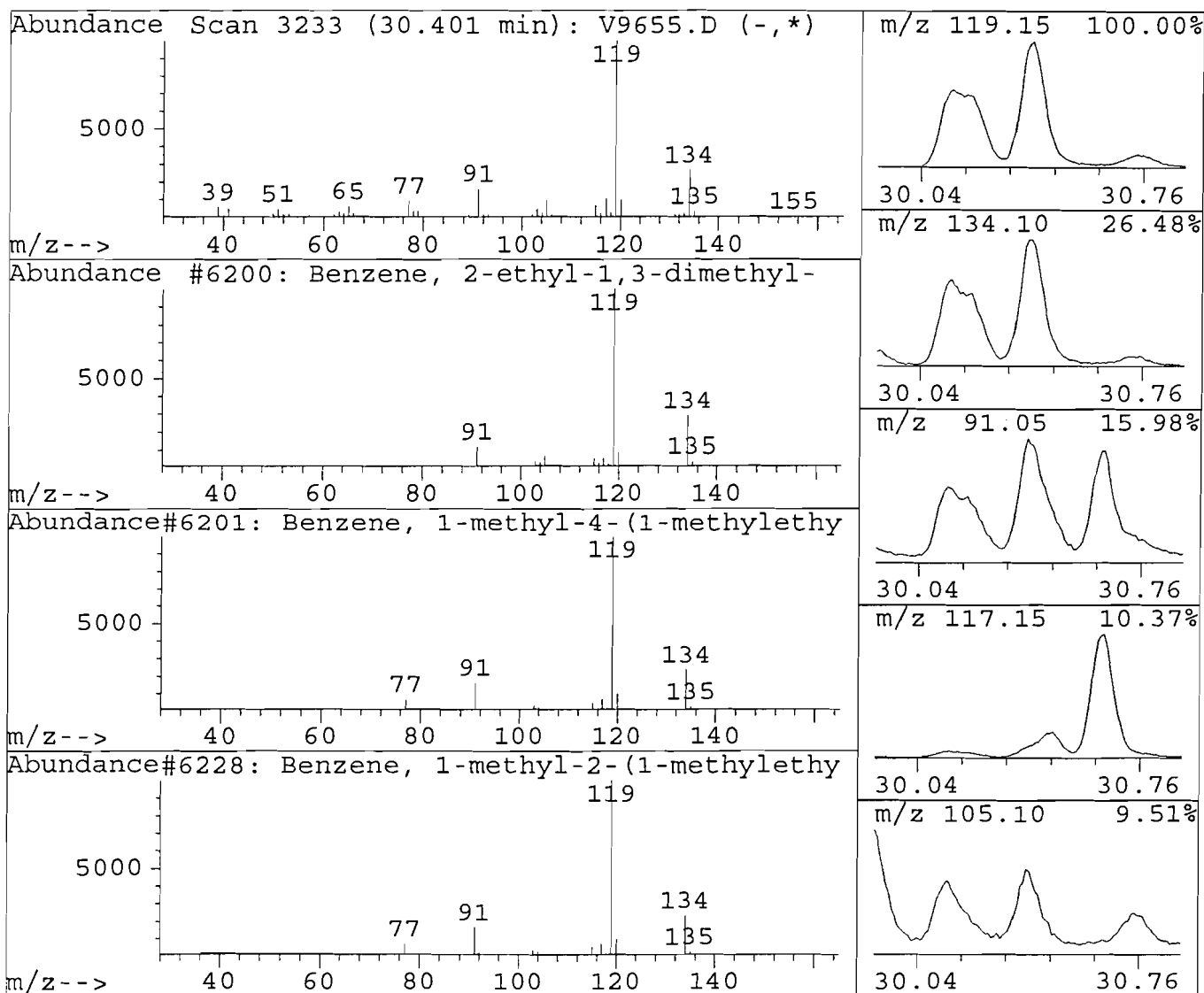
Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D
Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.40	11.50 ug/L	3222562	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-ethyl-1,3-dimethyl-	6200	002870-04-4	93
2	Benzene, 1-methyl-4-(1-methylethyl)	6201	000099-87-6	93
3	Benzene, 1-methyl-2-(1-methylethyl)	6228	000527-84-4	93
4	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	93
5	Benzene, 1-ethyl-2,4-dimethyl-	6221	000874-41-9	91



000316

Library Search Compound Report

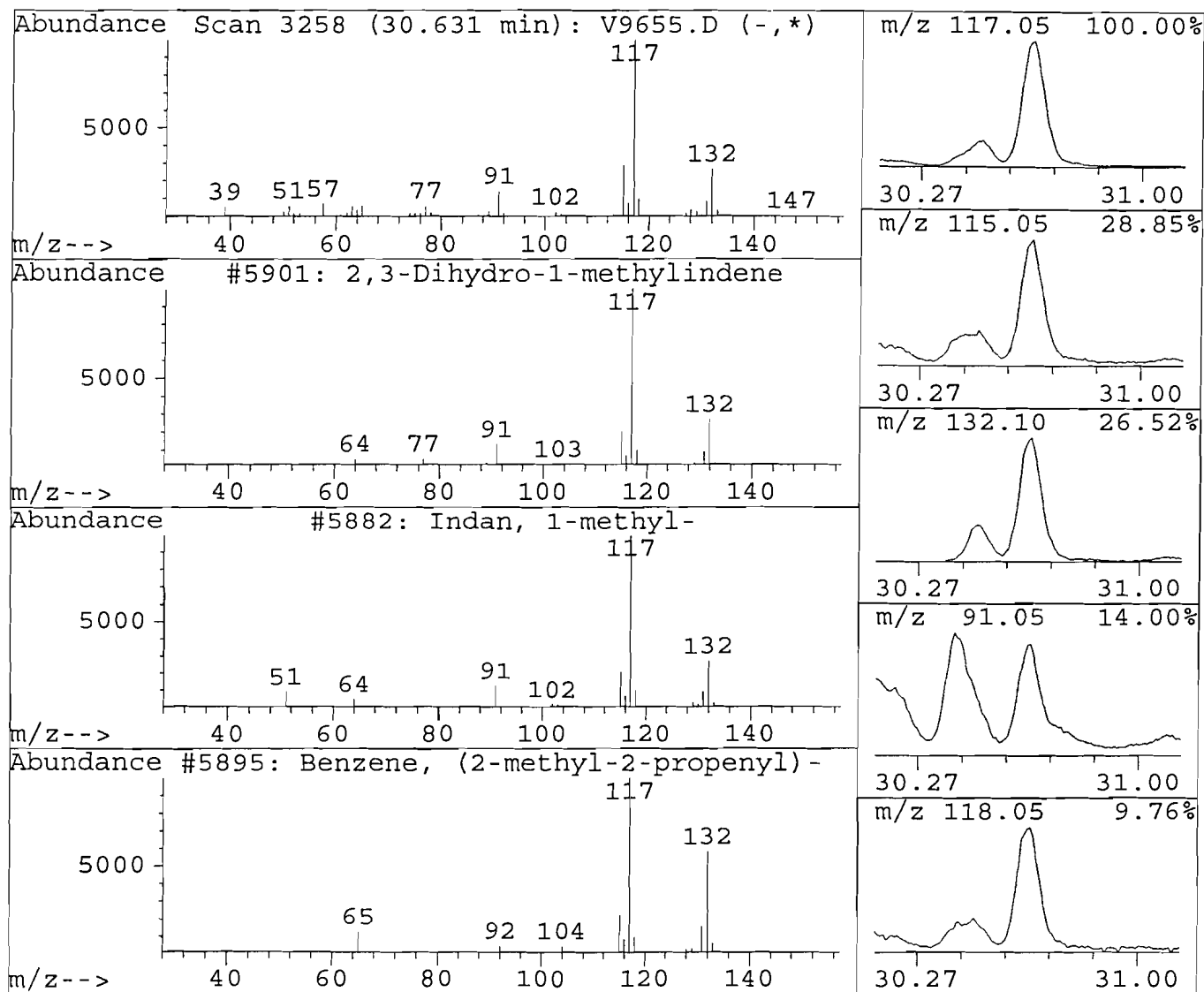
Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D
Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
30.63	11.73 ug/L	3287349	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2,3-Dihydro-1-methylindene	5901	027133-93-3	90
2	Indan, 1-methyl-	5882	000767-58-8	90
3	Benzene, (2-methyl-2-propenyl)-	5895	003290-53-7	87
4	Benzene, 1-methyl-2-(2-propenyl)-	65419	001587-04-8	87
5	Indan, 1-methyl-	65418	000767-58-8	81



000317

Library Search Compound Report

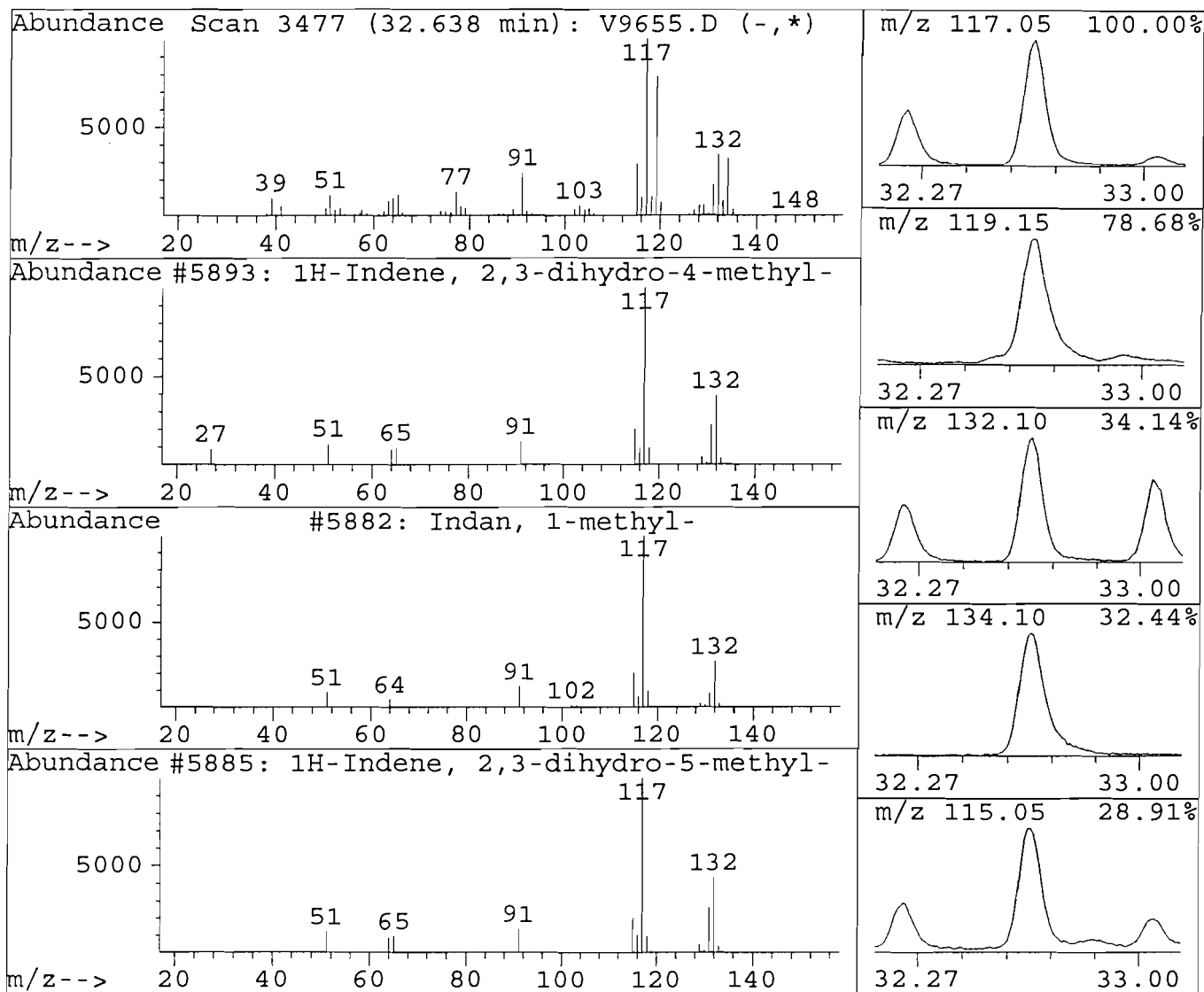
Data File : D:\HPCHEM\1\DATA\V1102899\V9655.D
Acq Time : 29 Oct 99 6:32 am
Sample : L5320ASP-91761
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
32.64	21.45 ug/L	6008194	Chlorobenzene-d5	22.40

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	55
2	Indan, 1-methyl-	5882	000767-58-8	53
3	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	49
4	Benzene, 1-methyl-2-(1-methylethyl)	65582	000527-84-4	46
5	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	46



000318

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-036-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91762

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9646.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	7.7		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	1.3		
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	1.2		
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-036-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91762
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9646.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/28/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 6 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	2.80	6.3	J
2.	Unknown	29.44	3	J
3.	Unknown	34.46	4	J
4. 629-50-5	Tridecane	35.21	11	J
5.	Unknown	37.27	3.8	J
6.	Unknown	37.71	15	J
7.				
8.				
9.				
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Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D
 Acq Time : 28 Oct 99 11:43 pm
 Sample : L5320ASP-91762
 Misc : 5MLS
 Quant Time: Oct 29 6:56 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.81	128	462184	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.37	114	2305796	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.38	117	2052479	30.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	750043	27.48	ug/L	91.60%
36) Toluene-d8	18.46	98	2518801	27.01	ug/L	90.02%
45) Bromofluorobenzene	25.54	95	1511075	27.59	ug/L	91.98%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
NT 8) Acetone	5.14	43	31801	4.35	ug/L	86
10) Methylene Chloride	6.01	84	230430	7.69	ug/L	90
NT 13) MTBE	6.56	73	1066432	11.61	ug/L	95
37) Toluene	18.70	91	152162	1.33	ug/L	90
42) m+ p-Xylenes	23.13	106	60862	1.18	ug/L	96

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D

Acq Time : 28 Oct 99 11:43 pm

Sample : L5320ASP-91762

Misc : 5MLS

Quant Time: Oct 29 6:56 1999

Operator: JJ

Inst : 5971 - In

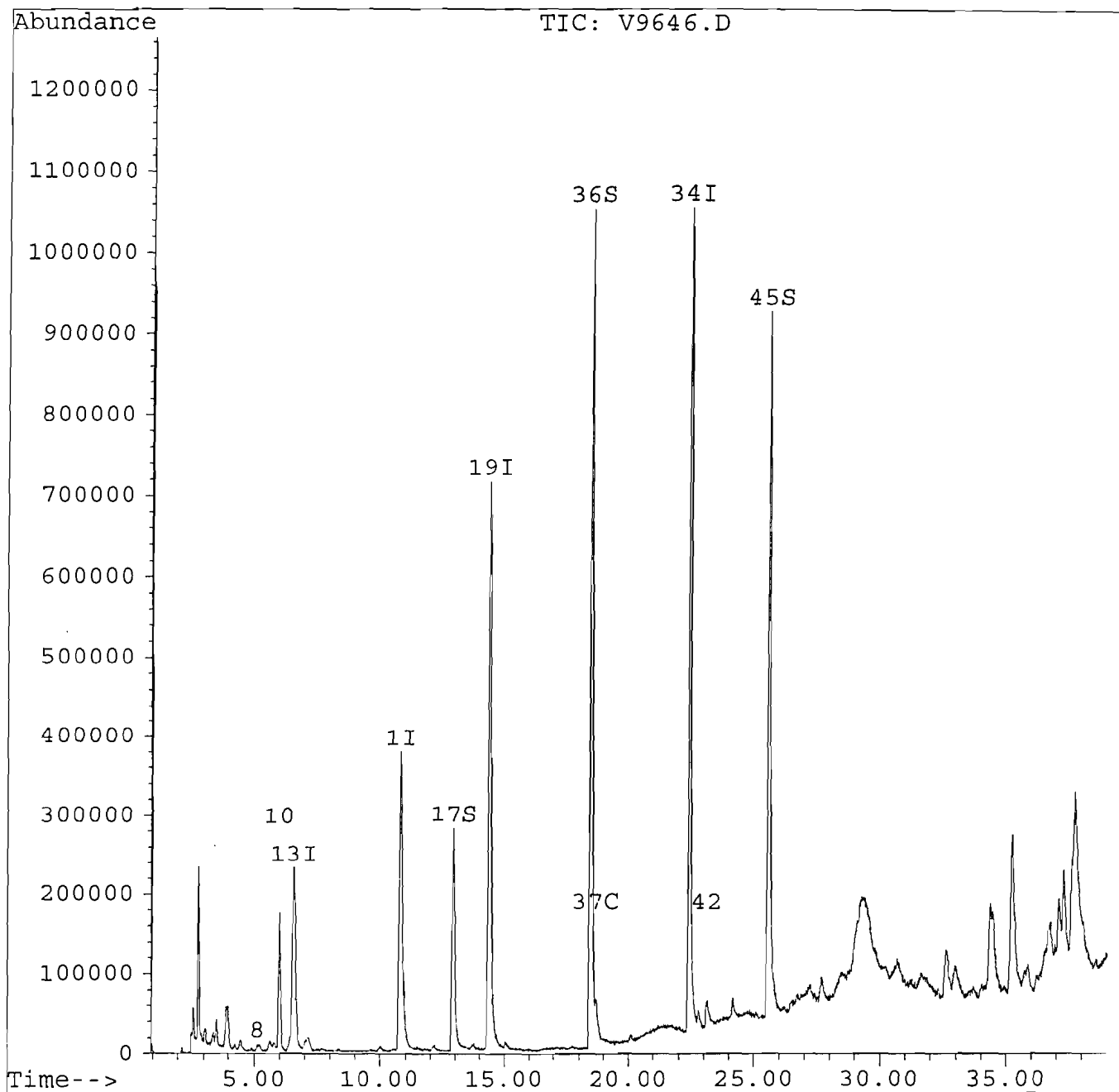
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

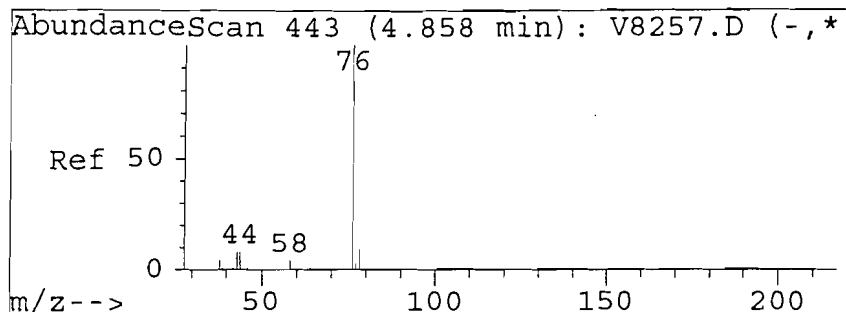
Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

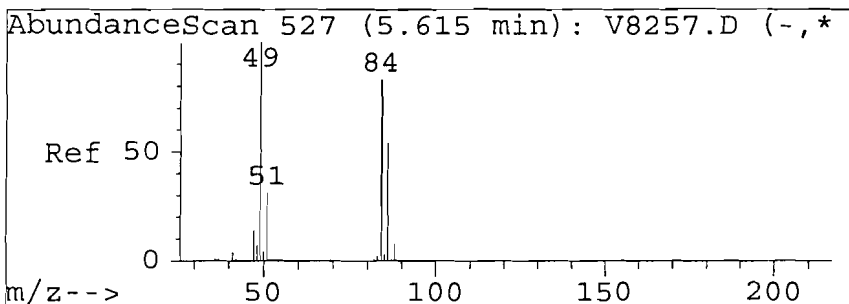
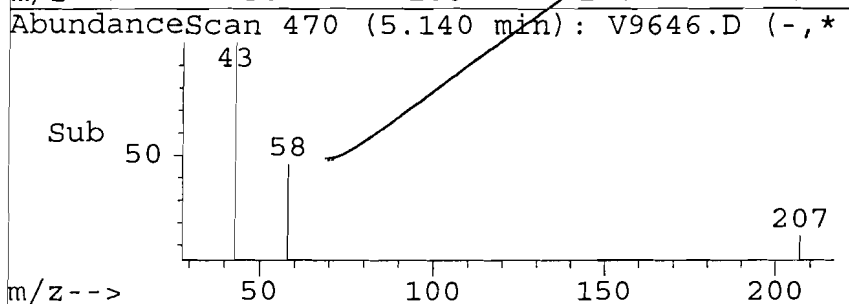
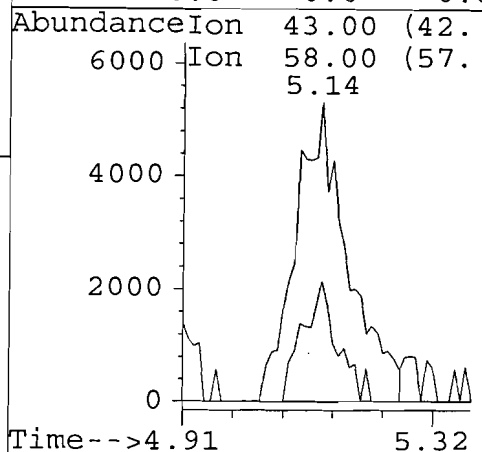
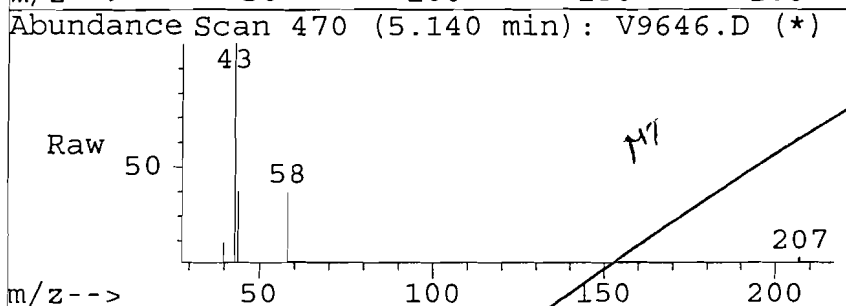


000322



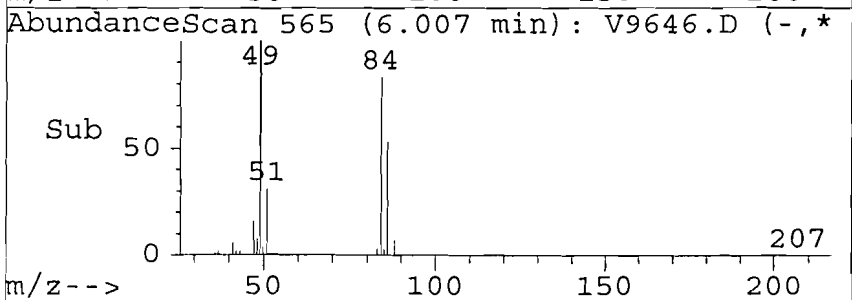
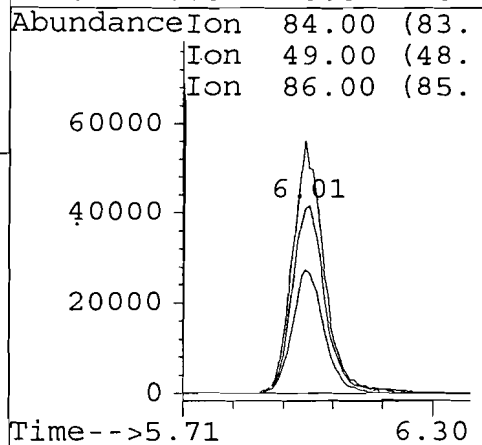
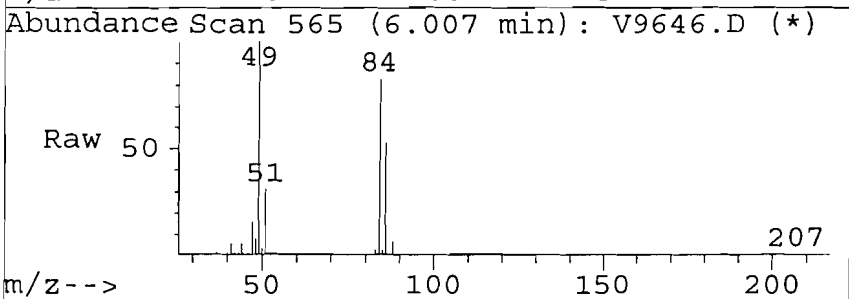
#8
Acetone
Concen: 4.35 ug/L
RT: 5.14 min Scan# 470
Delta R.T. 0.03 min
Lab File: V9646.D
Acq: 28 Oct 99 11:43 pm

Tgt Ion:43	Resp:	31801
Ion Ratio	Lower	Upper
43	100	
58	40.4	16.3 48.8
0	0.0	0.0 0.0
0	0.0	0.0 0.0

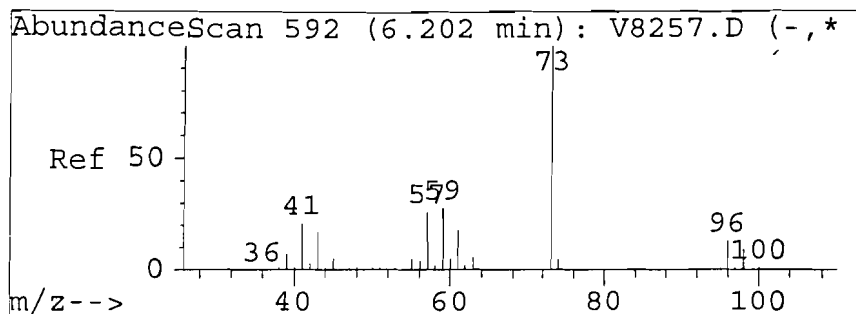


#10
Methylene Chloride
Concen: 7.69 ug/L
RT: 6.01 min Scan# 565
Delta R.T. 0.01 min
Lab File: V9646.D
Acq: 28 Oct 99 11:43 pm

Tgt Ion:84	Resp:	230430
Ion Ratio	Lower	Upper
84	100	
49	120.0	67.5 202.6
86	64.2	30.8 92.4
0	0.0	0.0 0.0



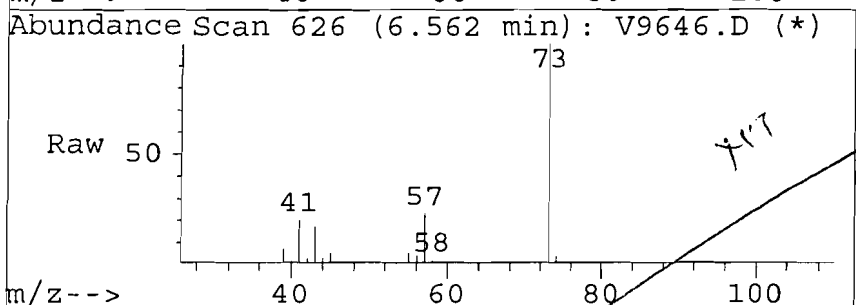
000323



#13
MTBE
Concen: 11.61 ug/L
RT: 6.56 min Scan# 626
Delta R.T. 0.01 min
Lab File: V9646.D
Acq: 28 Oct 99 11:43 pm

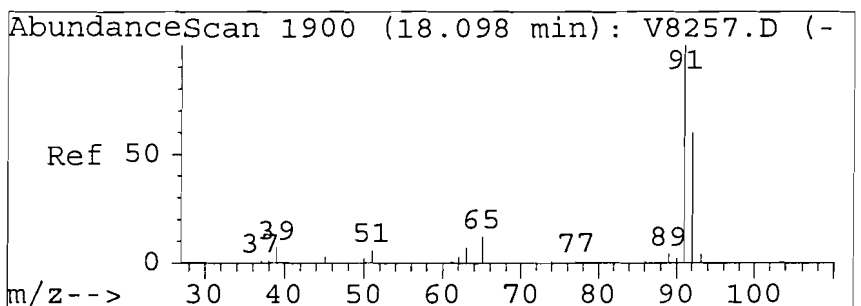
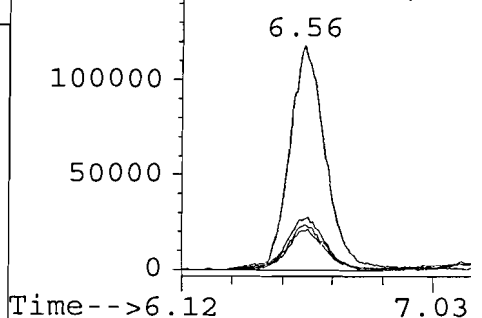
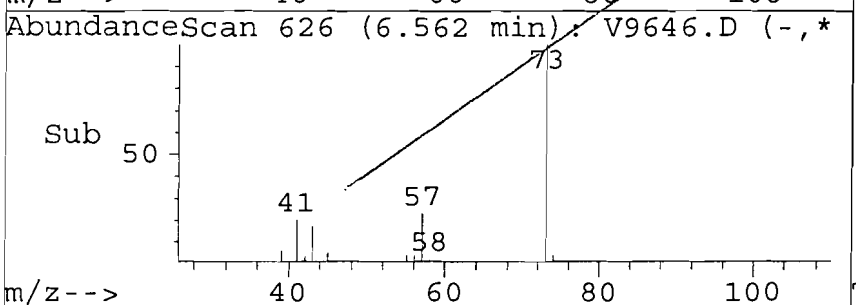
Tgt Ion: 72.95 Resp: 1066432

Ion	Ratio	Lower	Upper
73	100		
41	20.4	11.4	34.2
43	17.3	10.0	30.0
57	22.9	20.0	30.0



AbundanceIon

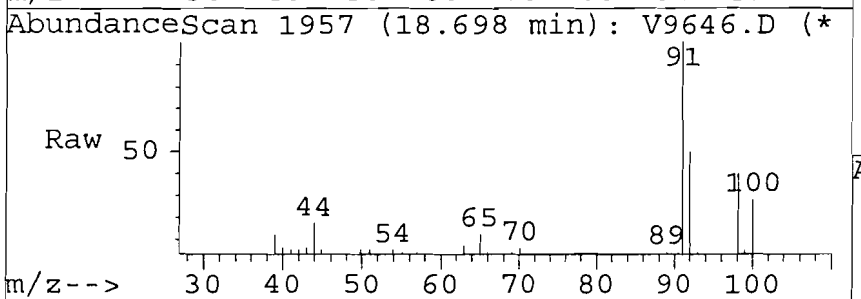
72.95	(72.95)
40.95	(40.95)
42.95	(42.95)
57.00	(56.99)



#37
Toluene
Concen: 1.33 ug/L
RT: 18.70 min Scan# 1957
Delta R.T. 0.06 min
Lab File: V9646.D
Acq: 28 Oct 99 11:43 pm

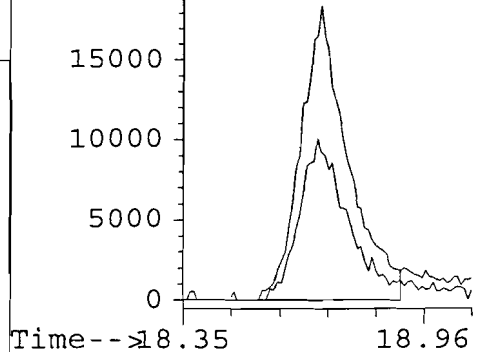
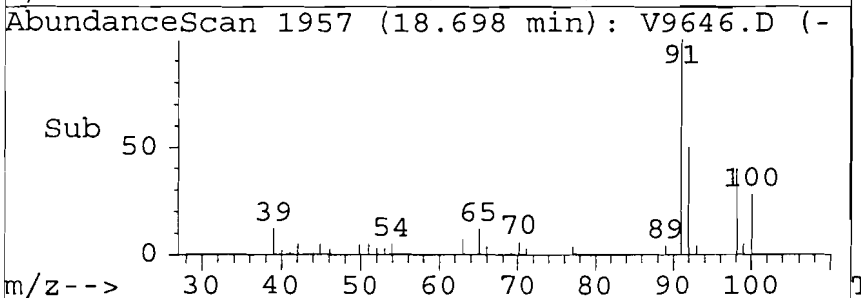
Tgt Ion: 91 Resp: 152162

Ion	Ratio	Lower	Upper
91	100		
92	50.1	28.8	86.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0



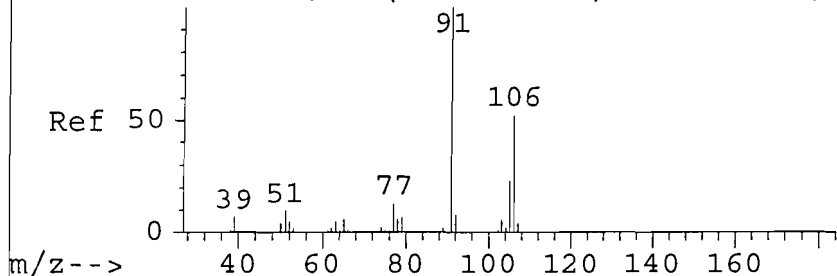
AbundanceIon

91.00	(90.99)
92.00	(91.00)
18.70	

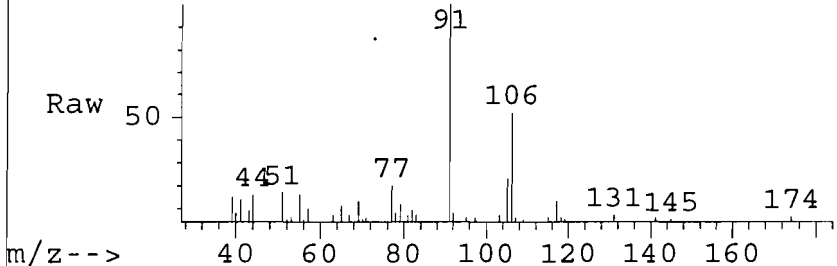


000324

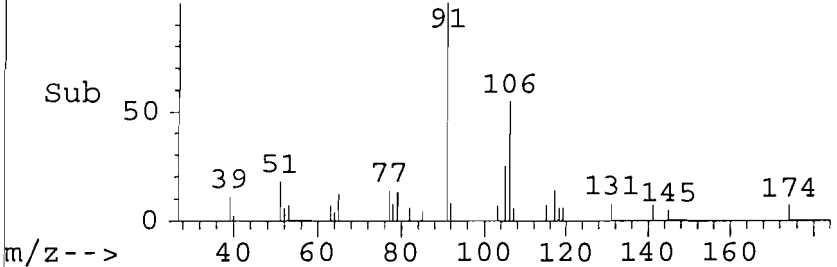
AbundanceScan 2369 (22.372 min): V8257.D (-



AbundanceScan 2440 (23.126 min): V9646.D (*)



AbundanceScan 2440 (23.126 min): V9646.D (-



#42

m+ p-Xylenes

Concen: 1.18 ug/L

RT: 23.13 min Scan# 2440

Delta R.T. 0.09 min

Lab File: V9646.D

Acq: 28 Oct 99 11:43 pm

Tgt Ion:106 Resp: 60862

Ion Ratio Lower Upper

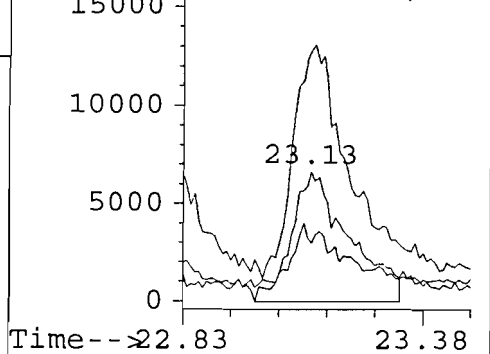
106 100

91 193.7 100.8 302.4

105 44.9 22.3 66.9

0 0.0 0.0 0.0

AbundanceIon 106.00 (105
Ion 91.00 (90.
Ion 105.00 (104



000325

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D

Acq Time : 28 Oct 99 11:43 pm

Sample : L5320ASP-91762

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

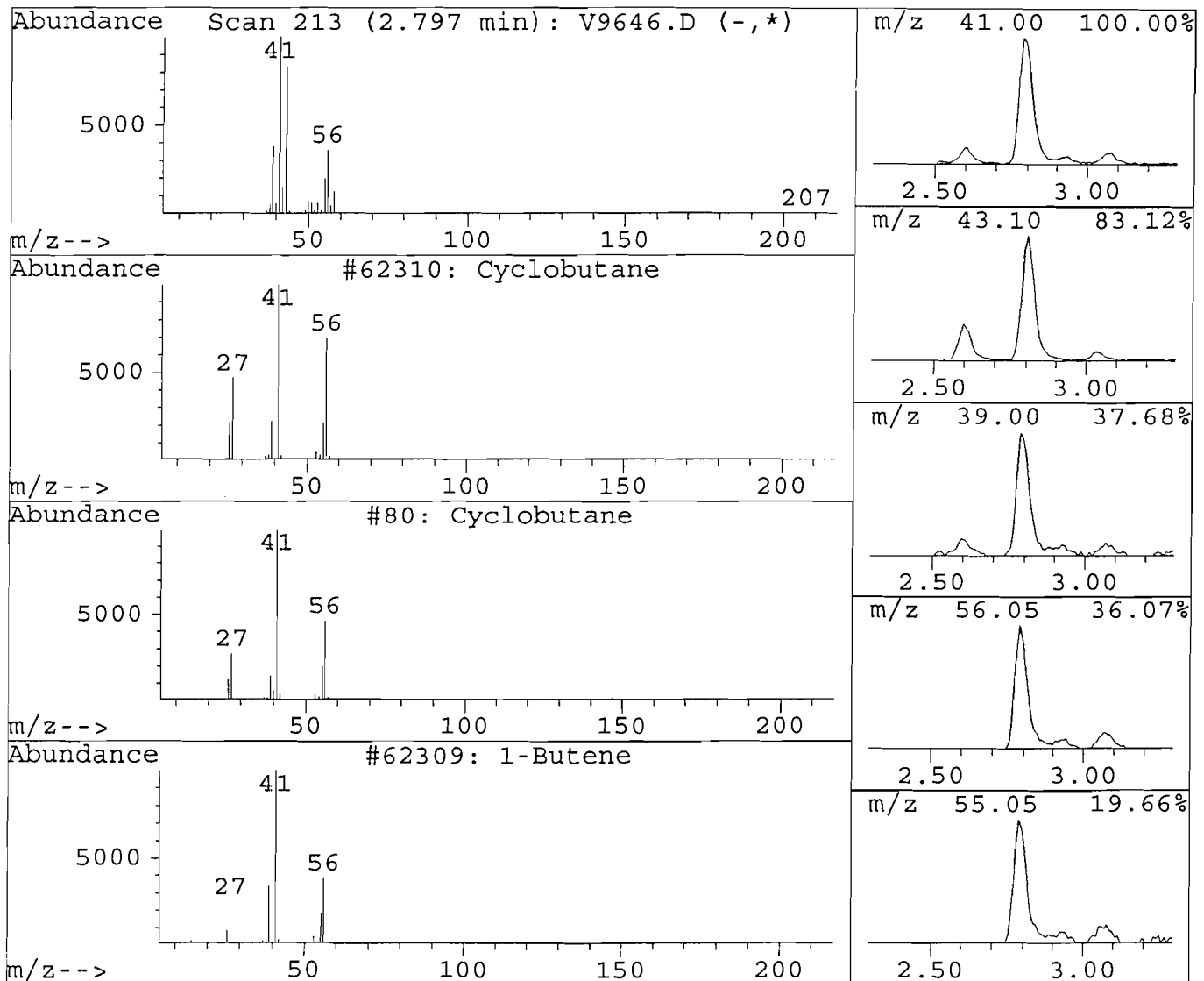
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD		R.T.
2.80	6.29 ug/L	695238	Bromochloromethane		10.81
Hit# of 14	Tentative ID		Ref#	CAS#	Qual
1	Cyclobutane		62310	000287-23-0	46
2	Cyclobutane		80	000287-23-0	46
3	1-Butene		62309	000106-98-9	46
4	1-Butene		62308	000106-98-9	46
5	1-Butene		62307	000106-98-9	46



000326

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D

Acq Time : 28 Oct 99 11:43 pm

Sample : L5320ASP-91762

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

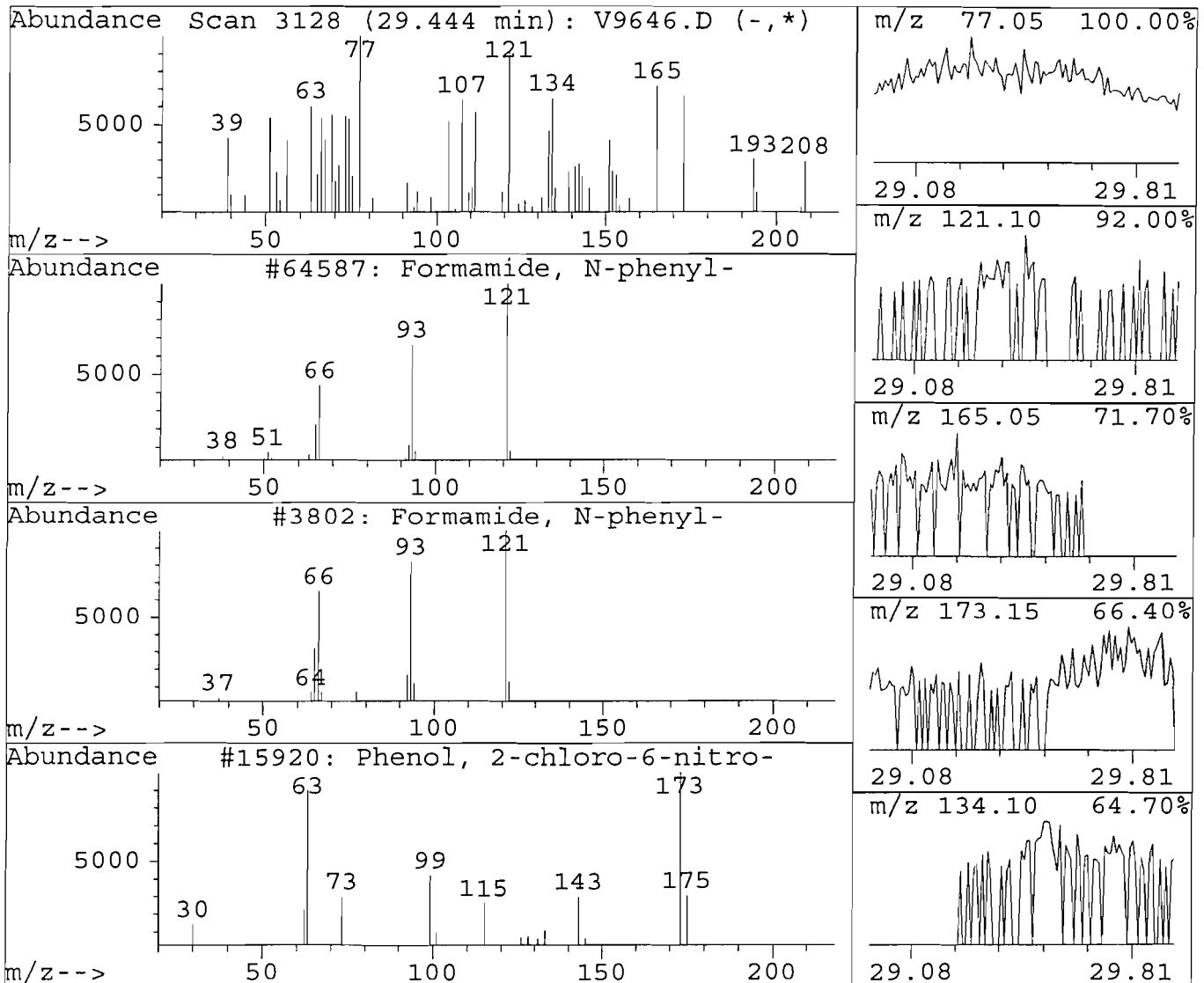
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
29.44	3.00 ug/L	610144	Chlorobenzene-d5	22.38	
Hit# of 16	Tentative ID		Ref#	CAS#	Qual
1	Formamide, N-phenyl-		64587	000103-70-8	22
2	Formamide, N-phenyl-		3802	000103-70-8	22
3	Phenol, 2-chloro-6-nitro-		15920	000603-86-1	14
4	7.beta.-Ethyl-8.beta.-hydroxy-2,6-d		24964	000000-00-0	10
5	(Bicyclo[3.2.0]hept-2-en-6-one)-7-s		29029	000000-00-0	10



000327

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D

Acq Time : 28 Oct 99 11:43 pm

Sample : L5320ASP-91762

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

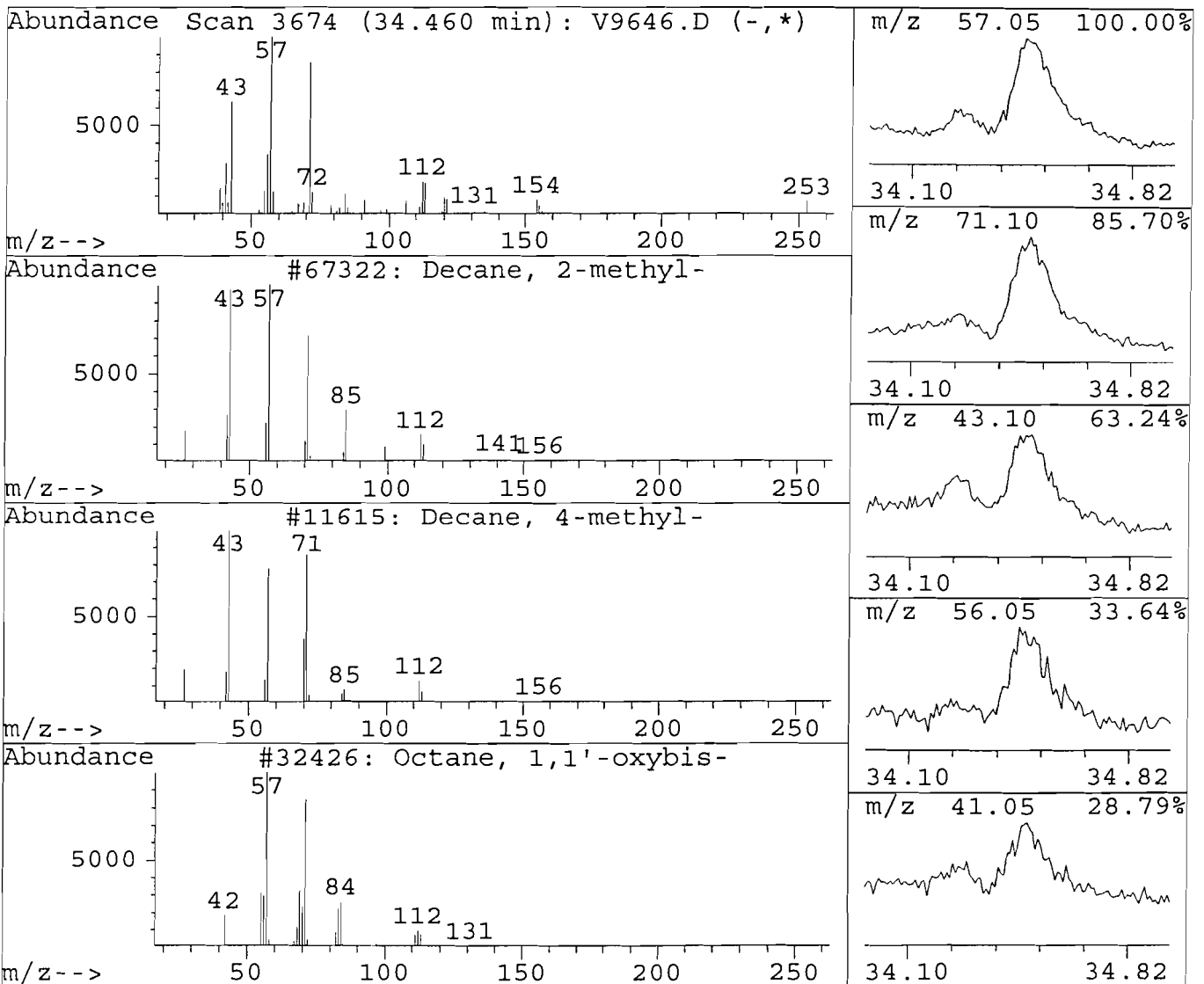
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
34.46	3.96 ug/L	806150	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Decane, 2-methyl-	67322	006975-98-0	72
2	Decane, 4-methyl-	11615	002847-72-5	64
3	Octane, 1,1'-oxybis-	32426	000629-82-3	64
4	Heptane, 5-ethyl-2-methyl-	8100	013475-78-0	59
5	Nonane, 3-methyl-	66203	005911-04-6	56



Library Search Compound Report

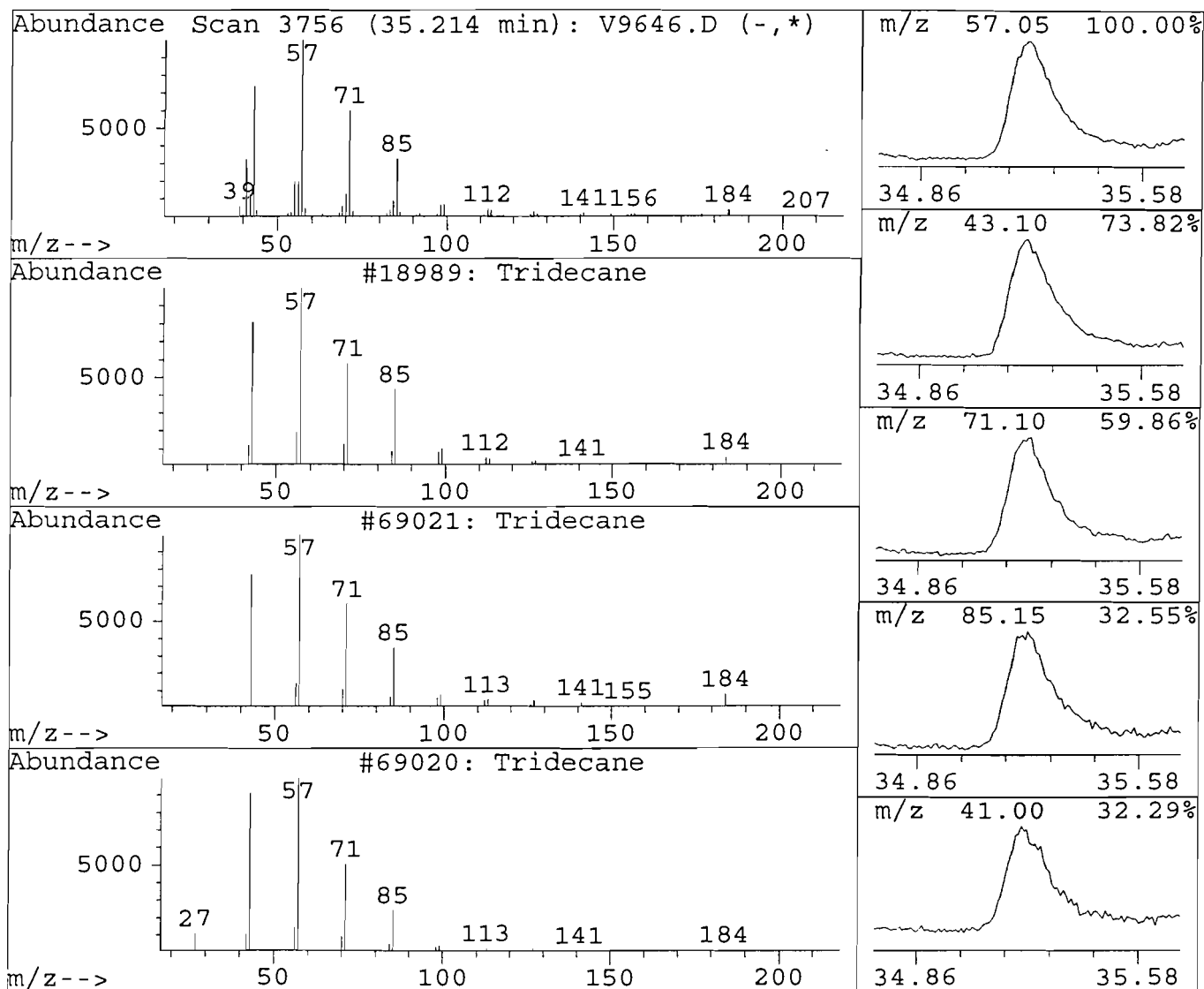
Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D
Acq Time : 28 Oct 99 11:43 pm
Sample : L5320ASP-91762
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.21	10.52 ug/L	2138601	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane	18989	000629-50-5	94
2	Tridecane	69021	000629-50-5	94
3	Tridecane	69020	000629-50-5	94
4	Undecane	11611	001120-21-4	91
5	Undecane	67317	001120-21-4	90



000329

Library Search Compound Report

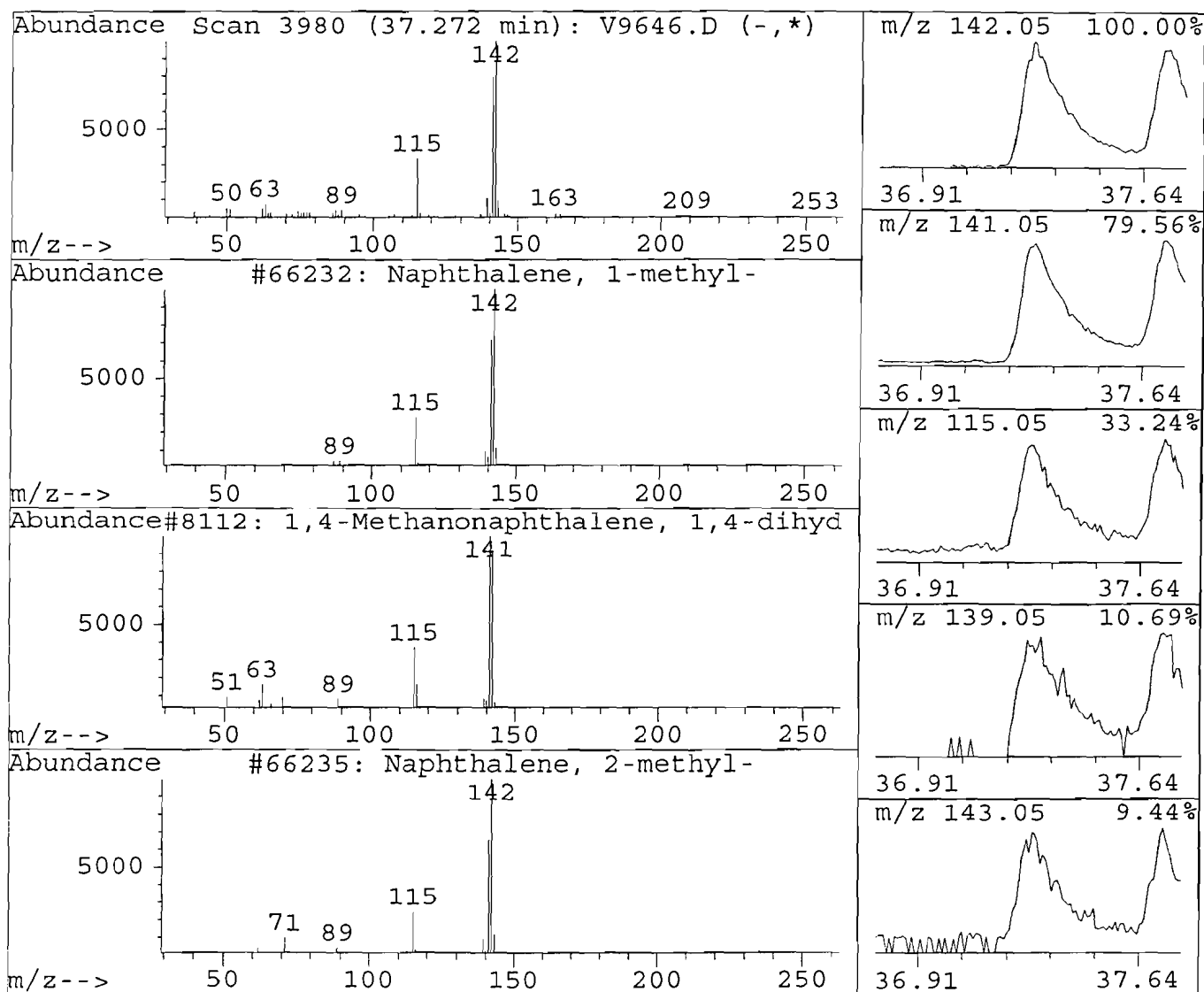
Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D
Acq Time : 28 Oct 99 11:43 pm
Sample : L5320ASP-91762
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.27	3.84 ug/L	781661	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1-methyl-	66232	000090-12-0	91
2	1,4-Methanonaphthalene, 1,4-dihydro	8112	004453-90-1	90
3	Naphthalene, 2-methyl-	66235	000091-57-6	87
4	Naphthalene, 2-methyl-	66236	000091-57-6	86
5	Naphthalene, 2-methyl-	66237	000091-57-6	78



000330

Library Search Compound Report

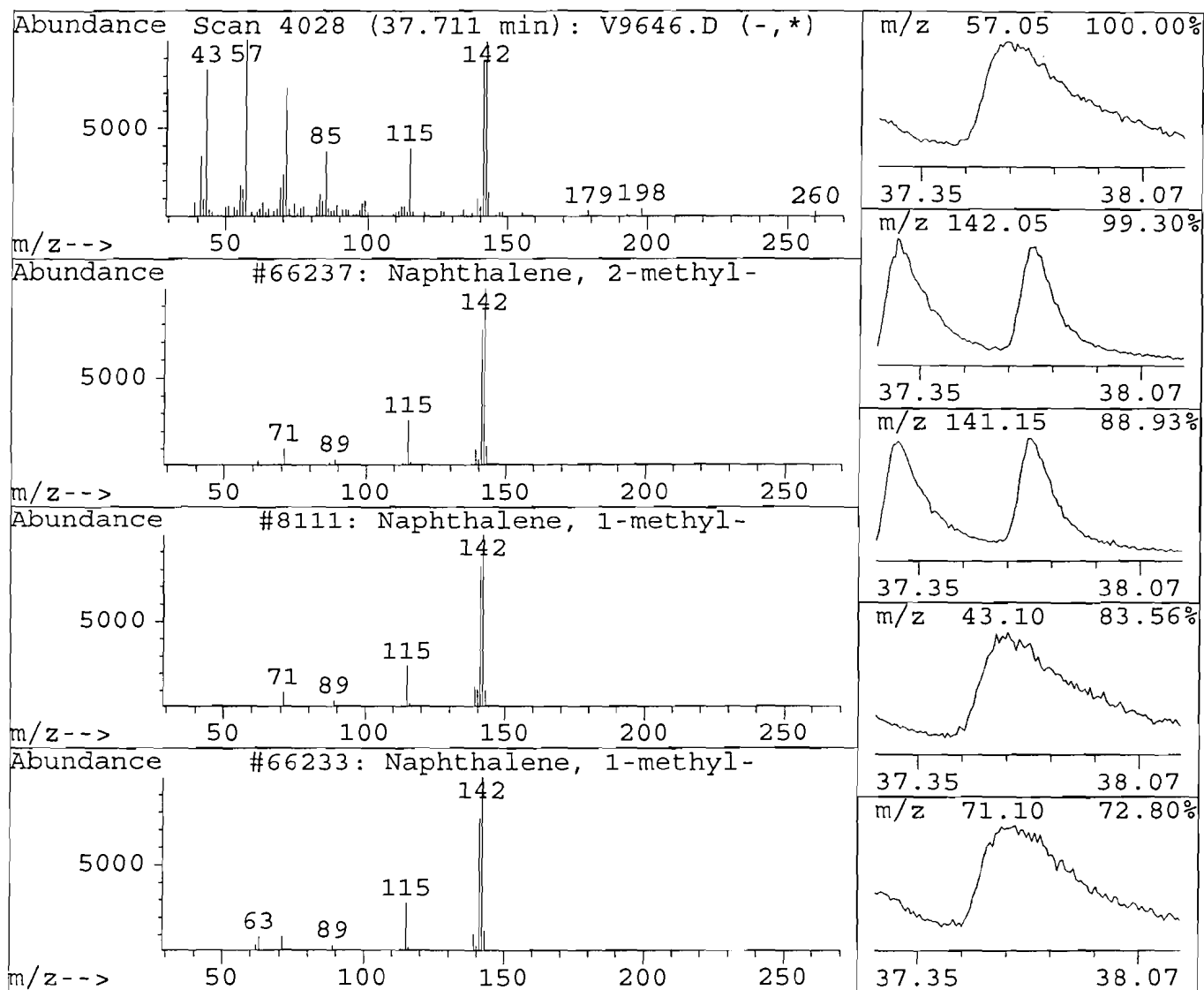
Data File : D:\HPCHEM\1\DATA\V1102899\V9646.D
Acq Time : 28 Oct 99 11:43 pm
Sample : L5320ASP-91762
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.71	14.58 ug/L	2965104	Chlorobenzene-d5	22.38

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 2-methyl-	66237	000091-57-6	81
2	Naphthalene, 1-methyl-	8111	000090-12-0	74
3	Naphthalene, 1-methyl-	66233	000090-12-0	60
4	Tetradecane	69659	000629-59-4	59
5	Naphthalene, 2-methyl-	66235	000091-57-6	58



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-037-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021

Matrix: (soil/water) WATER

Lab Sample ID: O91763

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9647.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	7.7		
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-037-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021
 Matrix: (soil/water) WATER Lab Sample ID: O91763
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9647.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/29/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
 Number TICs found: 7 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	2.80	3.2	J
2. 1120-21-4	Undecane	29.73	3.8	J
3.	Unknown	32.55	9.7	J
4.	Unknown	32.93	3	J
5.	Unknown	34.48	4.3	J
6. 629-50-5	Tridecane	35.19	14	J
7.	Unknown	37.75	4.9	J
8.				
9.				
10.				
11.				
12.				
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000333

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D
 Acq Time : 29 Oct 99 12:28 am
 Sample : L5320ASP-91763
 Misc : 5MLS
 Quant Time: Oct 29 6:56 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.82	128	548878	30.00	ug/L	0.02
19) 1,4-Difluorobenzene	14.39	114	2903984	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.37	117	2501662	30.00	ug/L	0.00
System Monitoring Compounds						
17) 1,2-Dichloroethane-d4	12.92	65	852505	26.30	ug/L	87.67%
36) Toluene-d8	18.46	98	3097001	27.24	ug/L	90.81%
45) Bromofluorobenzene	25.51	95	1829184	27.41	ug/L	91.35%
Target Compounds						
Nr 8) Acetone	5.14	43	28673	3.30	ug/L	80
10) Methylene Chloride	6.01	84	272645	7.66	ug/L	95
Nr 13) MTBE	6.57	73	520600	4.77	ug/L	95

000334

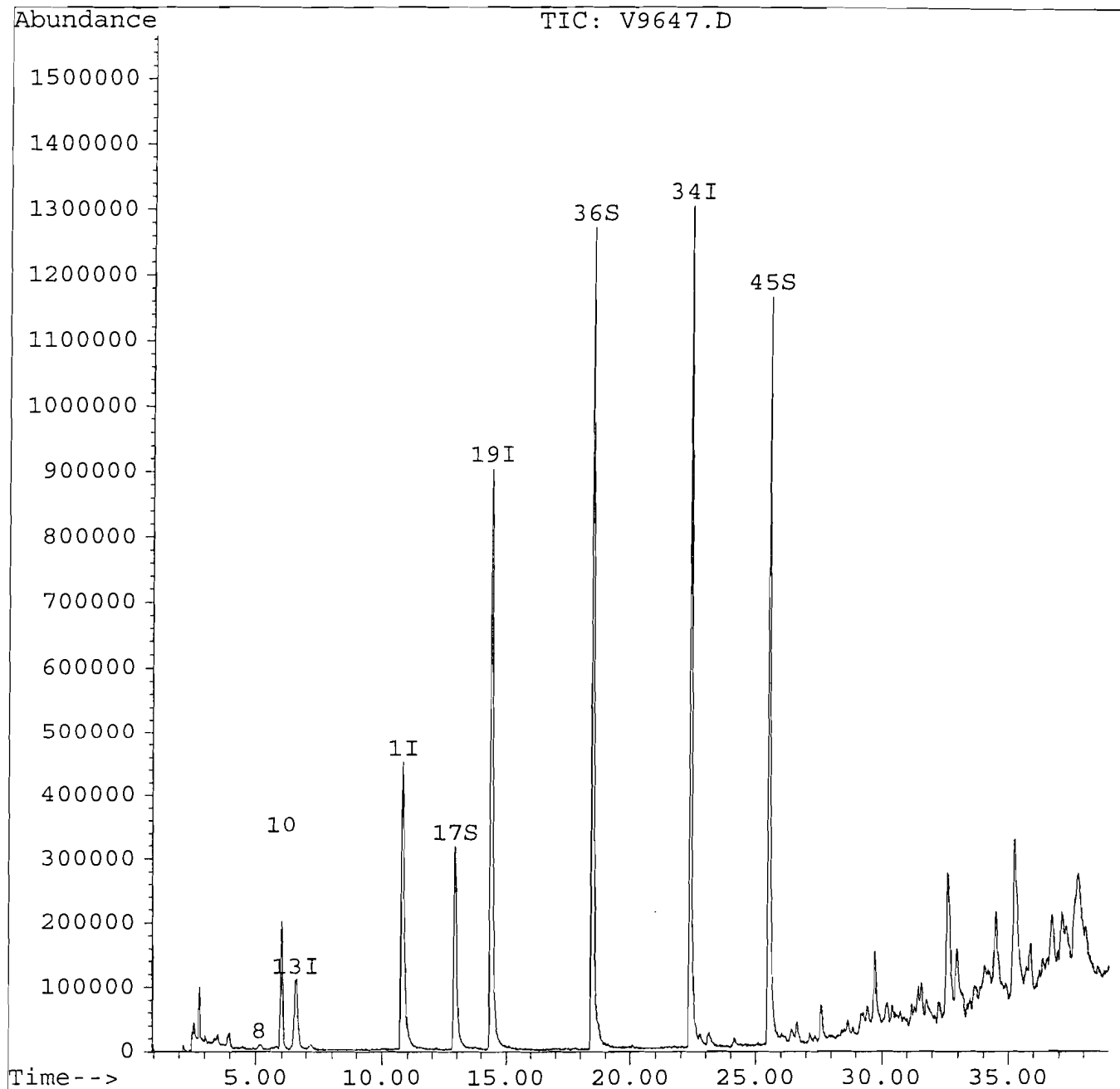
(#) = qualifier out of range (m) = manual integration

Quantitation Report

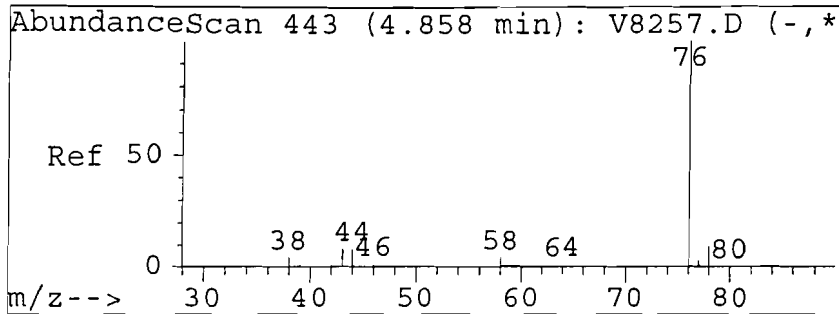
Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D
Acq Time : 29 Oct 99 12:28 am
Sample : L5320ASP-91763
Misc : 5MLS
Quant Time: Oct 29 6:56 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

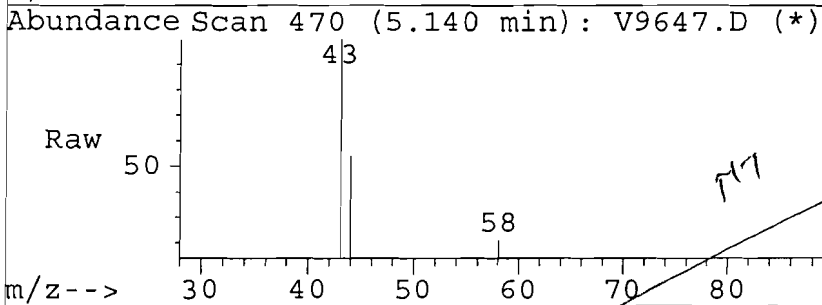
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



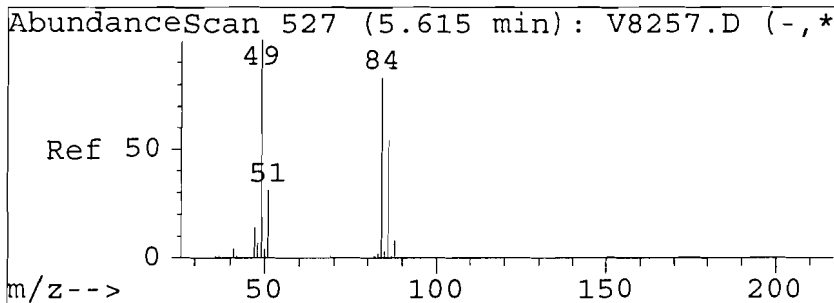
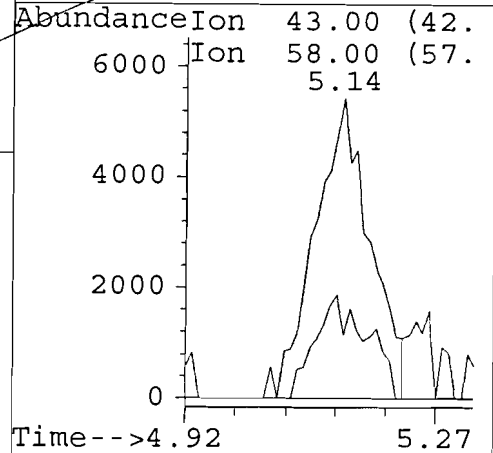
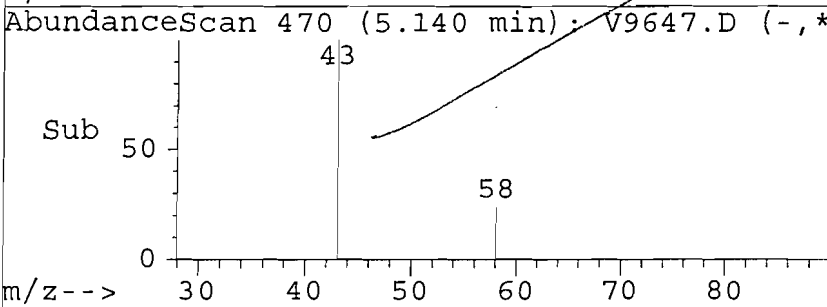
000335



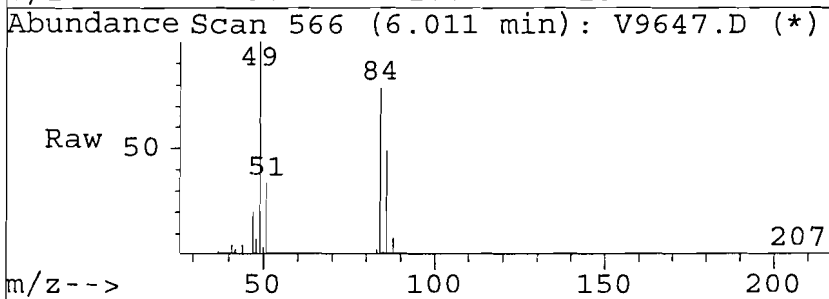
#8
 Acetone
 Concen: 3.30 ug/L
 RT: 5.14 min Scan# 470
 Delta R.T. 0.03 min
 Lab File: V9647.D
 Acq: 29 Oct 99 12:28 am



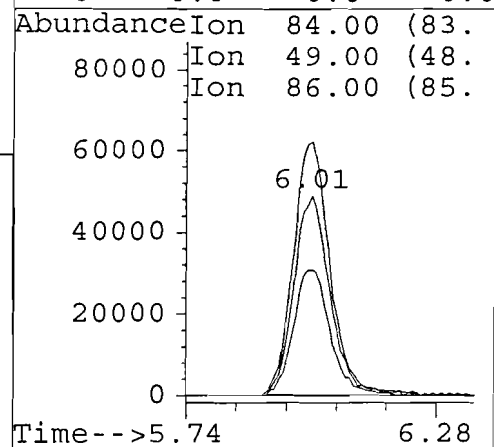
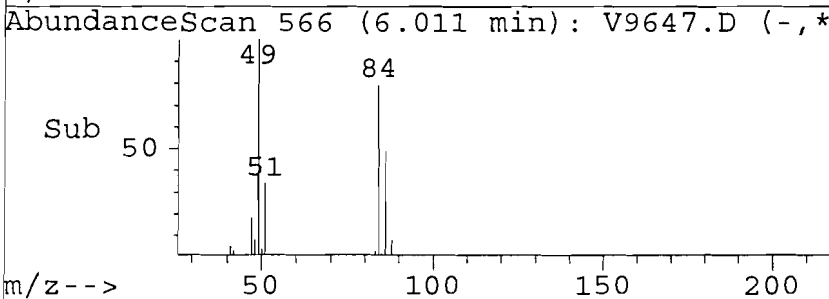
Tgt Ion:	43	Resp:	28673
Ion Ratio		Lower	Upper
43	100		
58	21.3	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



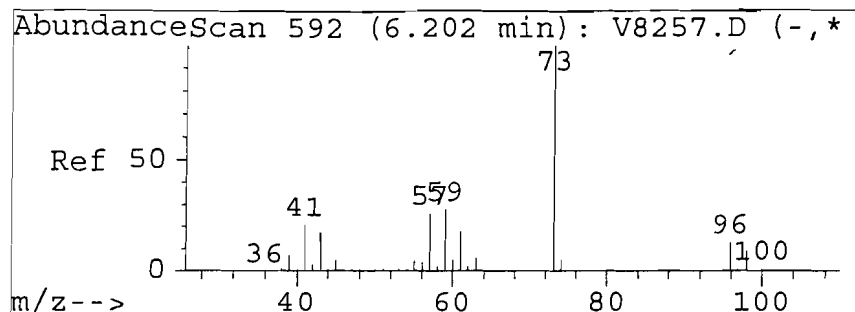
#10
 Methylene Chloride
 Concen: 7.66 ug/L
 RT: 6.01 min Scan# 566
 Delta R.T. 0.02 min
 Lab File: V9647.D
 Acq: 29 Oct 99 12:28 am



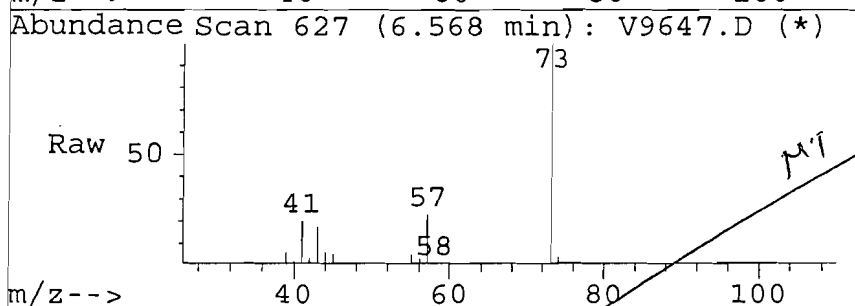
Tgt Ion:	84	Resp:	272645
Ion Ratio		Lower	Upper
84	100		
49	127.0	67.5	202.6
86	62.8	30.8	92.4
0	0.0	0.0	0.0



000336

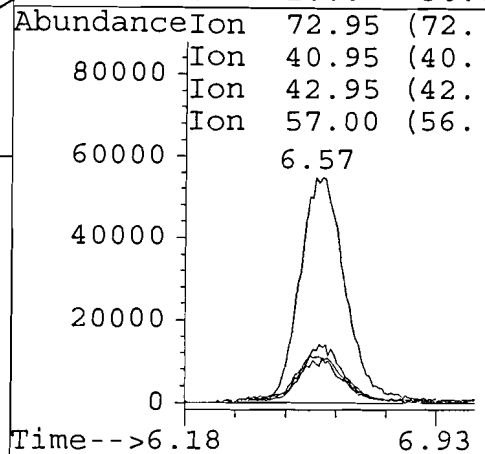
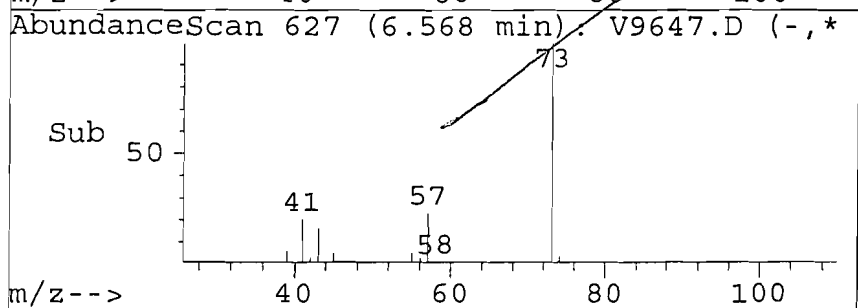


#13
 MTBE
 Concen: 4.77 ug/L
 RT: 6.57 min Scan# 627
 Delta R.T. 0.02 min
 Lab File: V9647.D
 Acq: 29 Oct 99 12:28 am



Tgt Ion: 72.95 Resp: 520600

Ion	Ratio	Lower	Upper
73	100		
41	20.2	11.4	34.2
43	17.1	10.0	30.0
57	23.0	20.0	30.0



000337

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D

Acq Time : 29 Oct 99 12:28 am

Sample : L5320ASP-91763

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

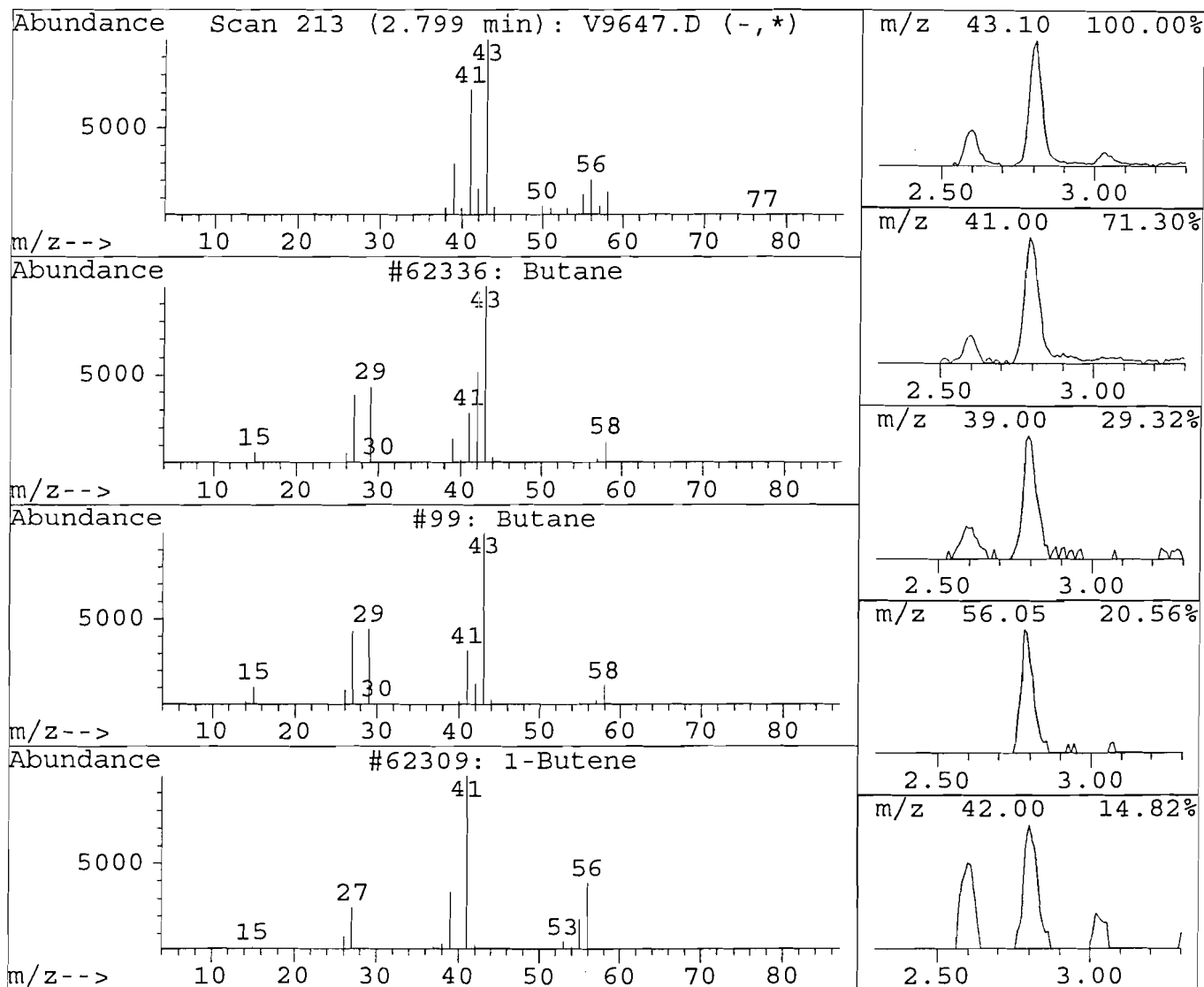
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
2.80	3.23 ug/L	419552	Bromochloromethane	10.82
Hit# of 7	Tentative ID	Ref#	CAS#	Qual
1	Butane	62336	000106-97-8	37
2	Butane	99	000106-97-8	37
3	1-Butene	62309	000106-98-9	27
4	1-Butene	62308	000106-98-9	27
5	Propane, 1-nitro-	864	000108-03-2	25



000338

Library Search Compound Report

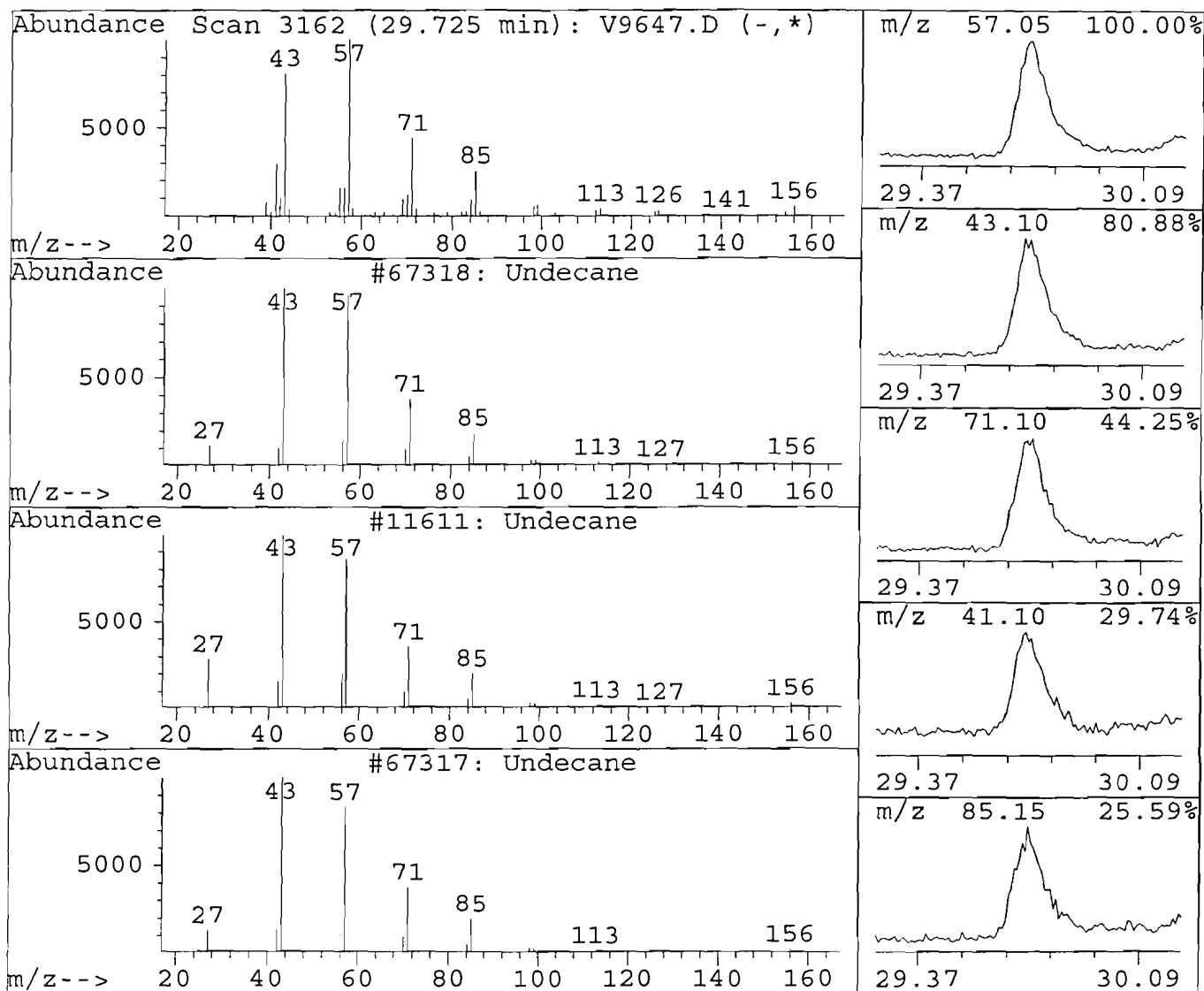
Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D
Acq Time : 29 Oct 99 12:28 am
Sample : L5320ASP-91763
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.73	3.79 ug/L	940158	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Undecane	67318	001120-21-4	91
2	Undecane	11611	001120-21-4	91
3	Undecane	67317	001120-21-4	91
4	Tetradecane	69661	000629-59-4	91
5	Tridecane	69020	000629-50-5	86



000339

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D

Acq Time : 29 Oct 99 12:28 am

Sample : L5320ASP-91763

Misc : SMLS

Operator: JJ

Inst : 5971 - In

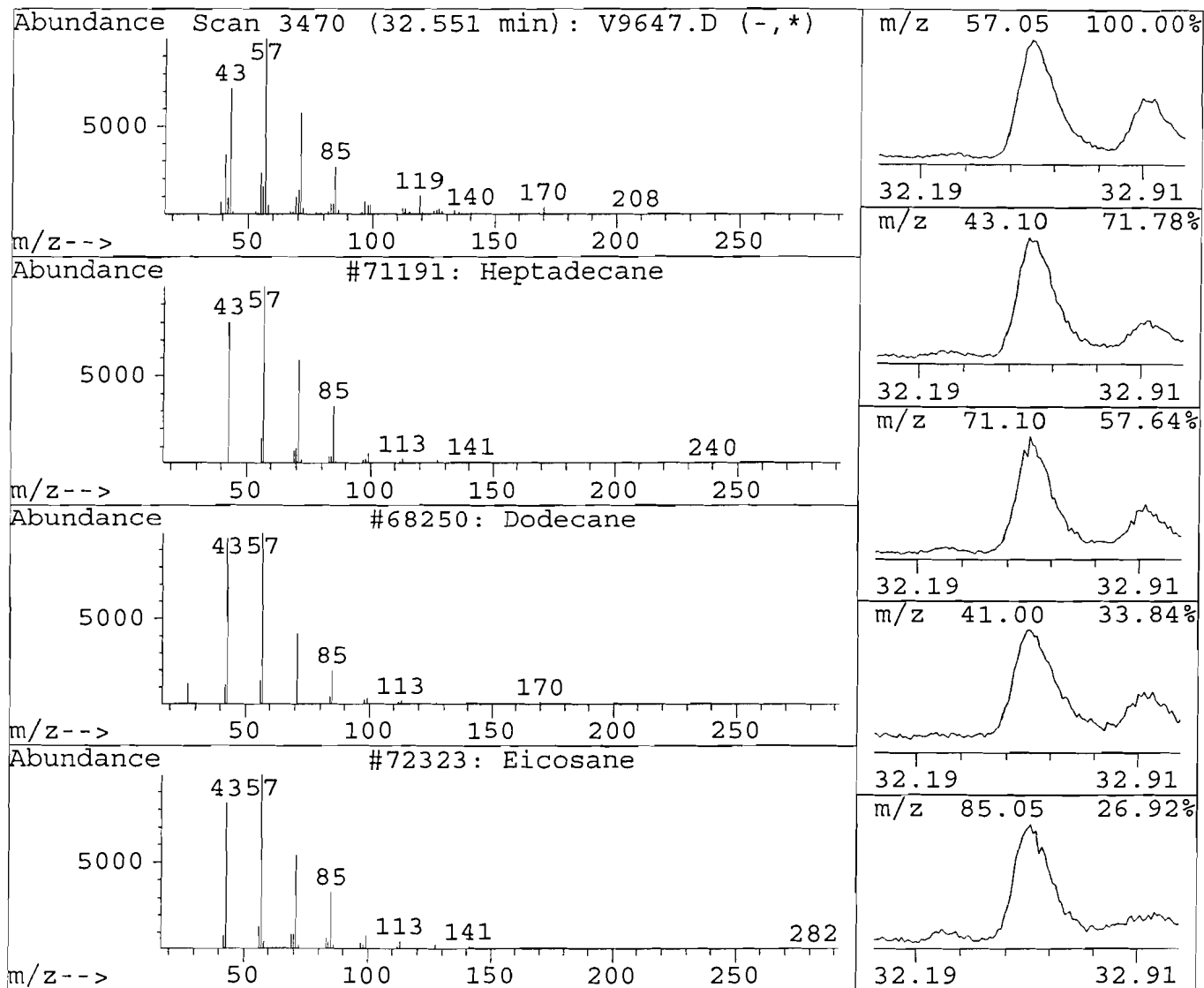
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
32.55	9.67 ug/L	2397615	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Heptadecane		71191	000629-78-7	83
2	Dodecane		68250	000112-40-3	81
3	Eicosane		72323	000112-95-8	72
4	Eicosane		72326	000112-95-8	72
5	Hexadecane		70789	000544-76-3	72



000340

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D

Acq Time : 29 Oct 99 12:28 am

Sample : L5320ASP-91763

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

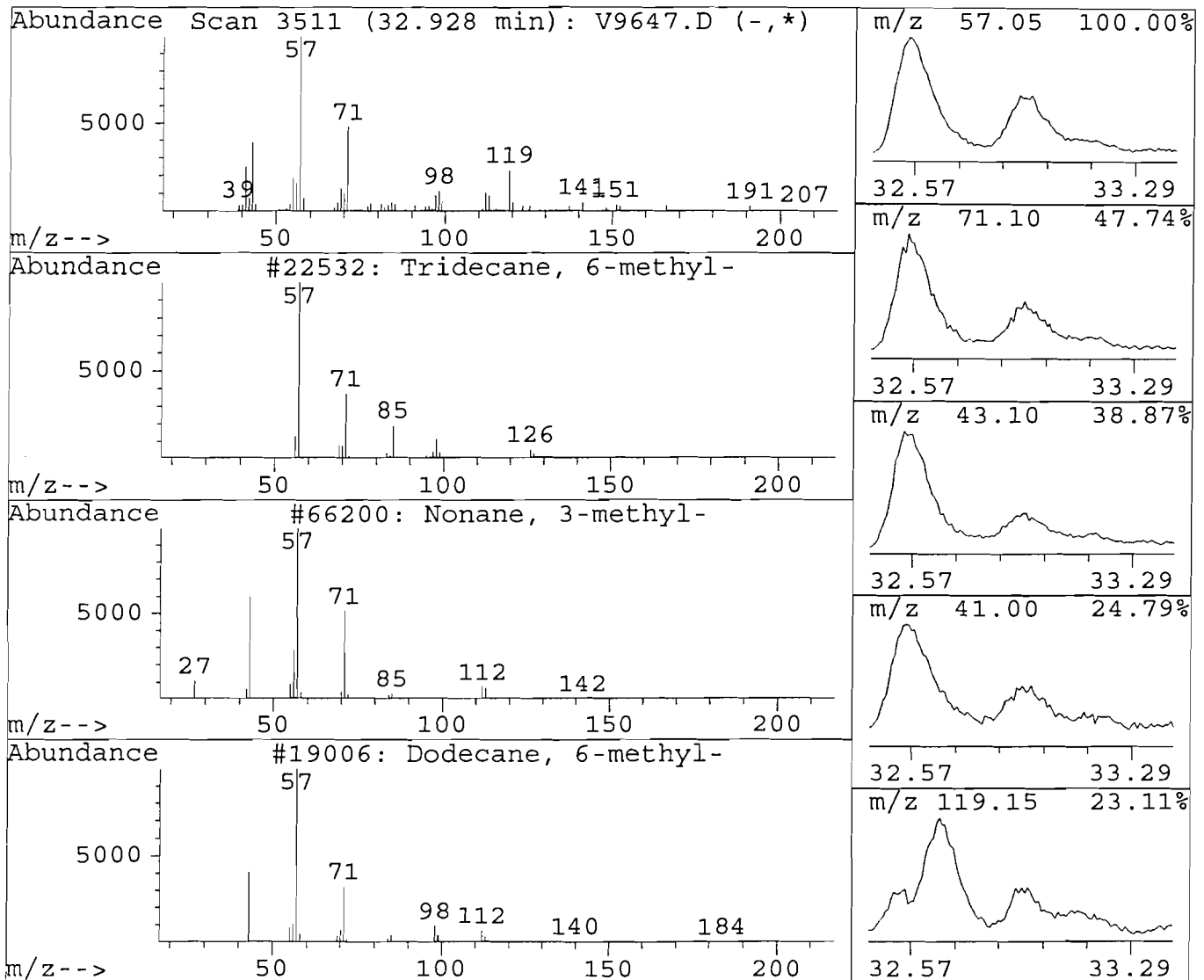
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
32.93	3.02 ug/L	749602	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Tridecane, 6-methyl-		22532	013287-21-3	47
2	Nonane, 3-methyl-		66200	005911-04-6	47
3	Dodecane, 6-methyl-		19006	006044-71-9	43
4	Dodecane		68250	000112-40-3	38
5	Tridecane, 7-methyl-		22538	026730-14-3	38



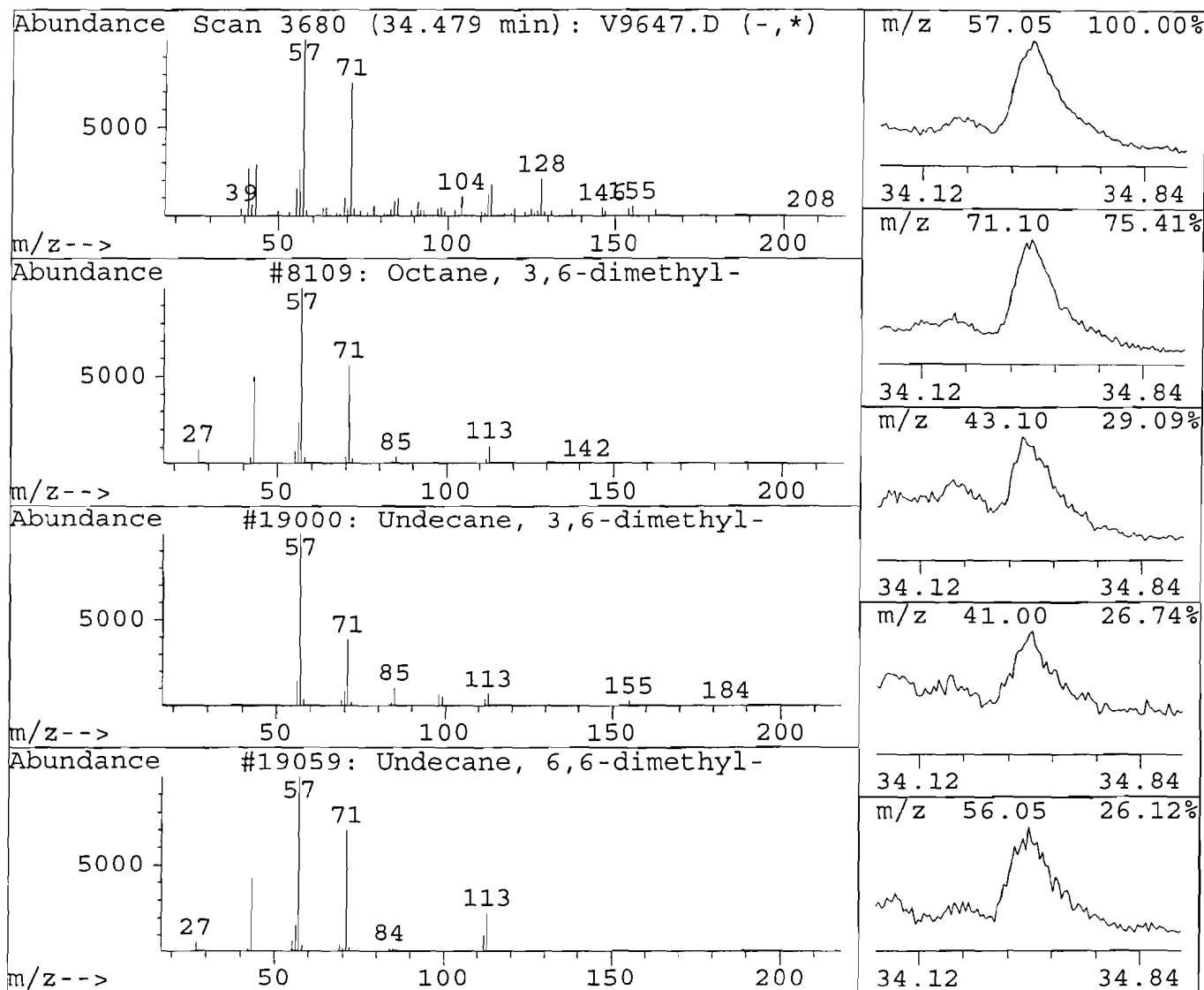
Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D
Acq Time : 29 Oct 99 12:28 am
Sample : L5320ASP-91763
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.	
34.48	4.34 ug/L	1077544	Chlorobenzene-d5	22.37	
Hit# of 20	Tentative ID		Ref#	CAS#	Qual
1	Octane, 3,6-dimethyl-		8109	015869-94-0	59
2	Undecane, 3,6-dimethyl-		19000	017301-28-9	53
3	Undecane, 6,6-dimethyl-		19059	017312-76-4	53
4	2-Undecene, 5-methyl-		14755	056851-34-4	53
5	Tridecane, 7-methyl-		22538	026730-14-3	50



000342

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D

Acq Time : 29 Oct 99 12:28 am

Sample : L5320ASP-91763

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

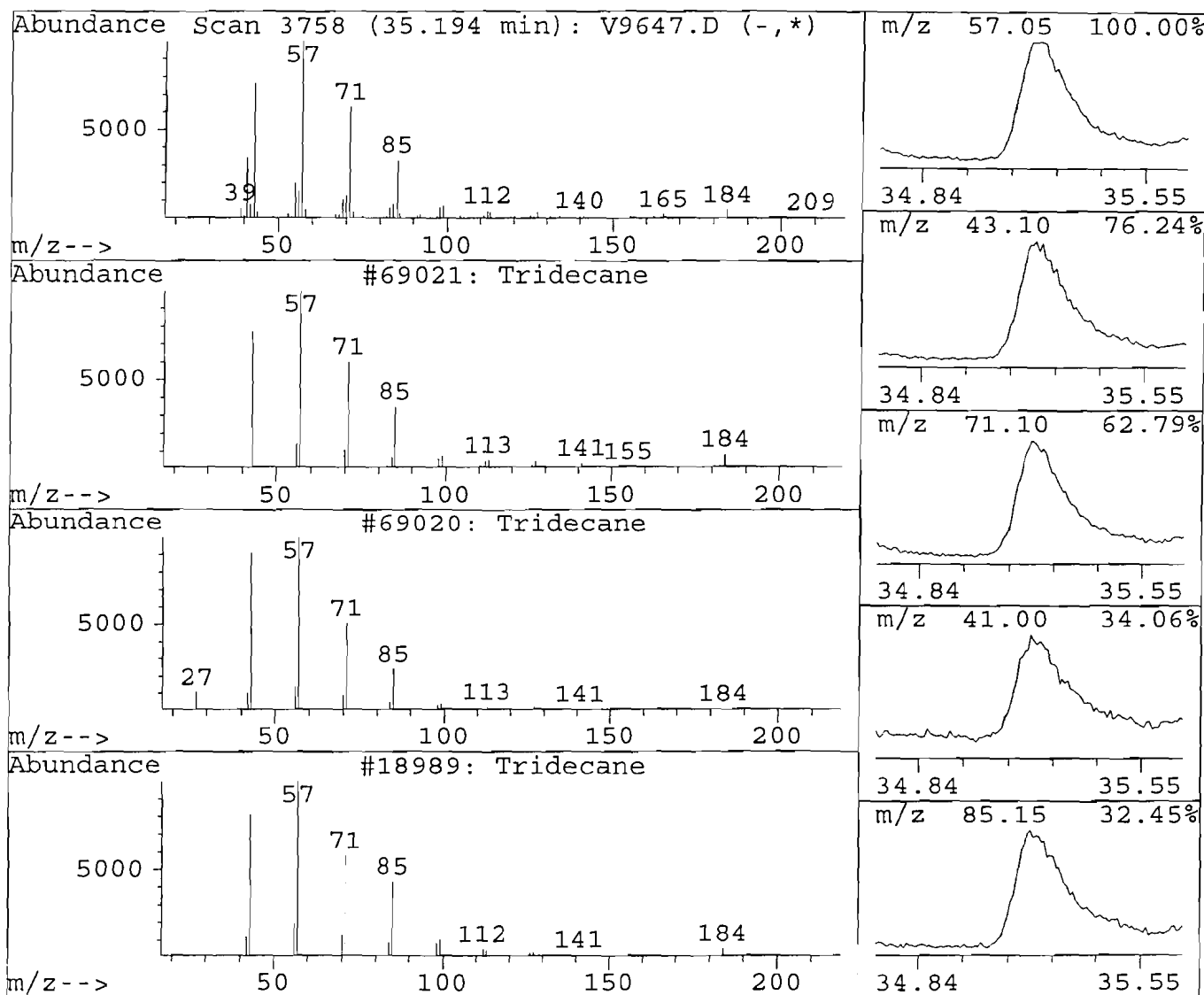
Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
35.19	13.65 ug/L	3385910	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Tridecane	69021	000629-50-5	94
2	Tridecane	69020	000629-50-5	94
3	Tridecane	18989	000629-50-5	92
4	Heptadecane	71191	000629-78-7	91
5	Tridecane	69016	000629-50-5	90



000343

Library Search Compound Report

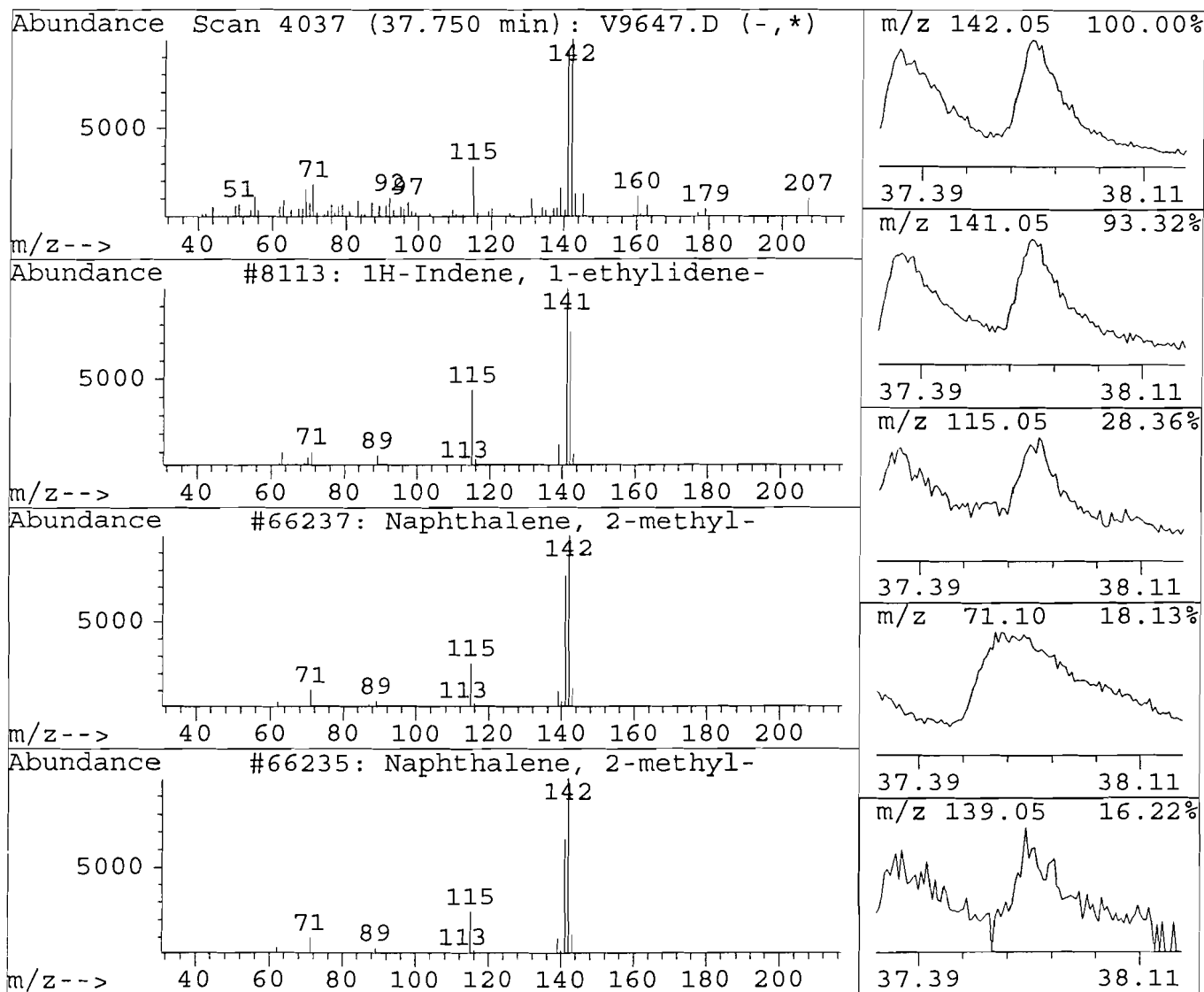
Data File : D:\HPCHEM\1\DATA\V1102899\V9647.D
Acq Time : 29 Oct 99 12:28 am
Sample : L5320ASP-91763
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
37.75	4.89 ug/L	1213839	Chlorobenzene-d5	22.37

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 1-ethylidene-	8113	002471-83-2	74
2	Naphthalene, 2-methyl-	66237	000091-57-6	72
3	Naphthalene, 2-methyl-	66235	000091-57-6	72
4	Naphthalene, 2-methyl-	8115	000091-57-6	72
5	Naphthalene, 1-methyl-	8111	000090-12-0	72



000344

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-FB-GW 10 19

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-021-

Matrix: (soil/water) WATER Lab Sample ID: O91764

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9684.D

Level: (low/med) _____ Date Received: 10/26/99

% Moisture: not dec. 100 Date Analyzed: 10/30/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-FB-GW 10 19

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-
 Matrix: (soil/water) WATER Lab Sample ID: O91764
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9684.D
 Level: (low/med) _____ Date Received: 10/26/99
 % Moisture: not dec. 100 Date Analyzed: 10/30/99
 GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
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27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9684.D
 Acq Time : 30 Oct 99 3:29 pm
 Sample : L5320ASP-91764
 Misc : 5MLS
 Quant Time: Oct 31 15:04 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.86	128	553754	30.00	ug/L	0.06
19) 1,4-Difluorobenzene	14.39	114	3044185	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.39	117	2517533	30.00	ug/L	0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.95	65	991666	30.33	ug/L	101.08%
36) Toluene-d8	18.47	98	3483864	30.45	ug/L	101.51%
45) Bromofluorobenzene	25.54	95	1840436	27.40	ug/L	91.34%

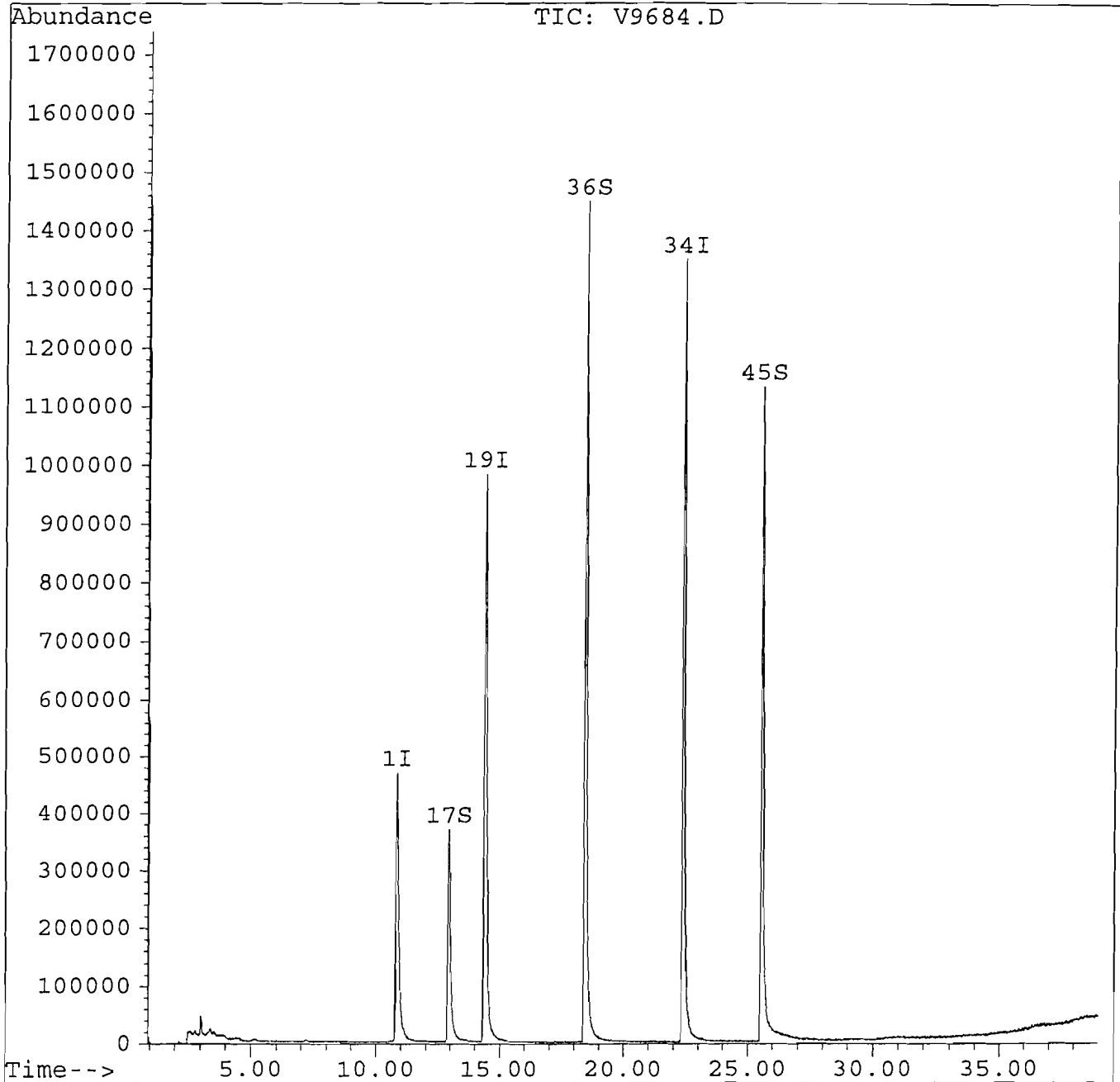
Target Compounds	Qvalue

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9684.D
Acq Time : 30 Oct 99 3:29 pm
Sample : L5320ASP-91764
Misc : 5MLS
Quant Time: Oct 31 15:04 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000348

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9684.D

Acq Time : 30 Oct 99 3:29 pm

Sample : L5320ASP-91764

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000349

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-FB-GW 10 20

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-

Matrix: (soil/water) WATER

Lab Sample ID: O91765

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9685.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/30/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m+ p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

IE
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-FB-GW 10 20

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-
Matrix: (soil/water) WATER Lab Sample ID: O91765
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9685.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/30/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
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22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9685.D

Acq Time : 30 Oct 99 4:13 pm

Sample : L5320ASP-91765

Misc : 5MLS

Quant Time: Oct 31 15:04 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.83	128	573401	30.00	ug/L	0.03
19) 1,4-Difluorobenzene	14.39	114	3253512	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.37	117	2695331	30.00	ug/L	0.01

System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.93	65	1022322	30.19	ug/L	100.64%
36) Toluene-d8	18.46	98	3664468	29.92	ug/L	99.73%
45) Bromofluorobenzene	25.54	95	1933989	26.89	ug/L	89.65%

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration

V9685.D V11027AW.M

Sun Oct 31 15:05:16 1999

VOA1

Page 1

000352

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9685.D

Acq Time : 30 Oct 99 4:13 pm

Sample : L5320ASP-91765

Misc : 5MLS

Quant Time: Oct 31 15:04 1999

Operator: JJ

Inst : 5971 - In

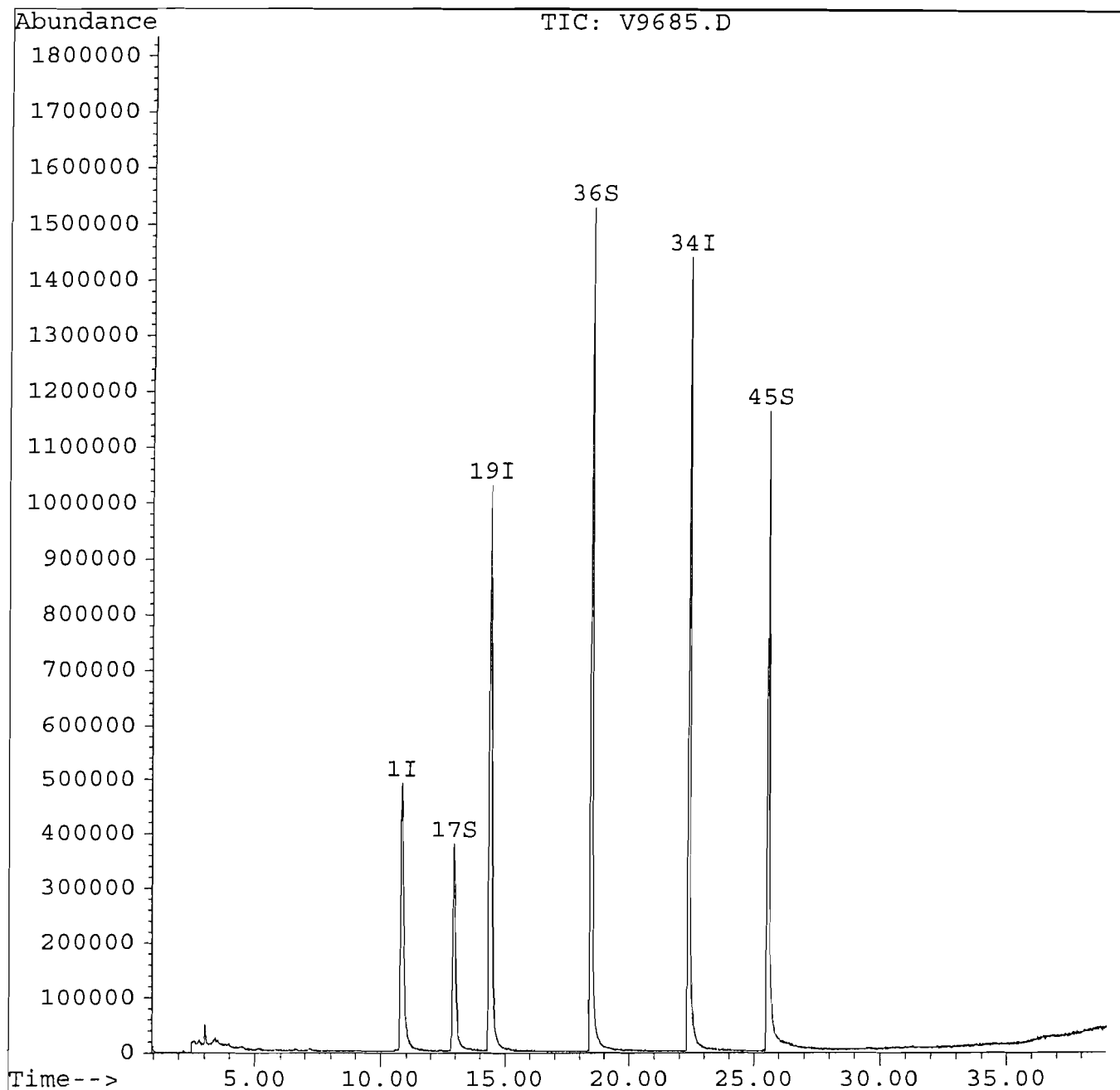
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration



000353

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9685.D
Acq Time : 30 Oct 99 4:13 pm
Sample : L5320ASP-91765
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000354

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-FB-GW 10 21

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-

Matrix: (soil/water) WATER

Lab Sample ID: O91766

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9650.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-FB-GW 10 21

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-
Matrix: (soil/water) WATER Lab Sample ID: O91766
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9650.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/29/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
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27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9650.D

Acq Time : 29 Oct 99 2:48 am

Sample : L5320ASP-91766

Misc : 5MLS

Quant Time: Oct 29 7:37 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.82	128	596948	30.00	ug/L	0.02
19) 1,4-Difluorobenzene	14.39	114	3204098	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.39	117	2700457	30.00	ug/L	0.03

System Monitoring Compounds

%Recovery

17) 1,2-Dichloroethane-d4	12.93	65	951594	26.99	ug/L	89.98%
36) Toluene-d8	18.48	98	3619825	29.50	ug/L	98.33%
45) Bromofluorobenzene	25.54	95	1901776	26.40	ug/L	87.99%

Target Compounds

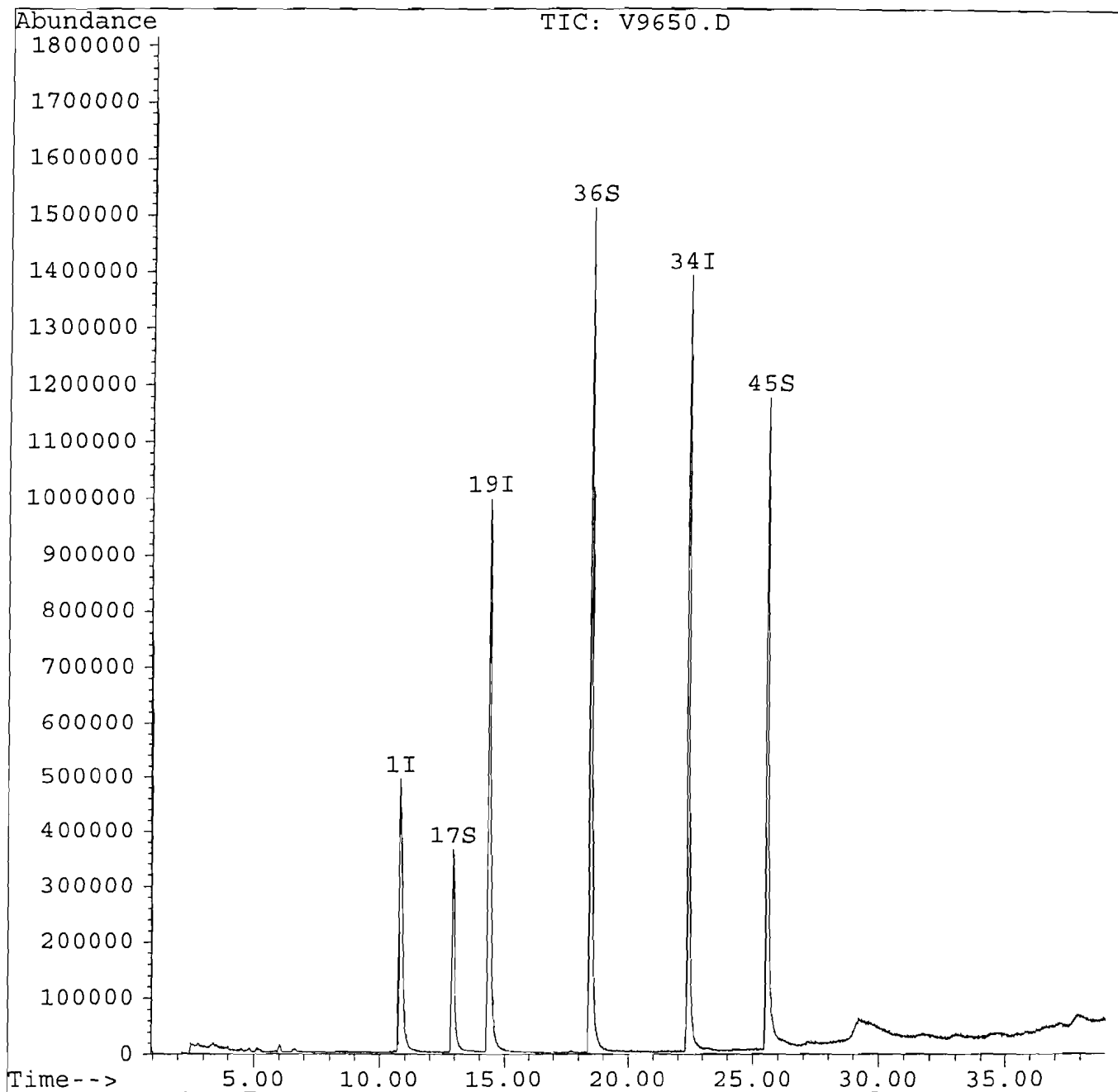
Qvalue

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9650.D
Acq Time : 29 Oct 99 2:48 am
Sample : L5320ASP-91766
Misc : 5MLS
Quant Time: Oct 29 7:37 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9650.D

Acq Time : 29 Oct 99 2:48 am

Sample : L5320ASP-91766

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000359

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-FB-GW 10 22

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-

Matrix: (soil/water) WATER

Lab Sample ID: O91767

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9651.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m+ p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-GP-FB-GW 10 22

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-021-
Matrix: (soil/water) WATER Lab Sample ID: O91767
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9651.D
Level: (low/med) _____ Date Received: 10/26/99
% Moisture: not dec. 100 Date Analyzed: 10/29/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
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26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9651.D
 Acq Time : 29 Oct 99 3:32 am
 Sample : L5320ASP-91767
 Misc : 5MLS
 Quant Time: Oct 29 7:37 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.80	128	631900	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.37	114	3597200	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.40	117	2908482	30.00	ug/L	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.91	65	985079	26.40	ug/L	87.99%
36) Toluene-d8	18.49	98	3766944	28.50	ug/L	95.01%
45) Bromofluorobenzene	25.55	95	2083538	26.85	ug/L	89.50%

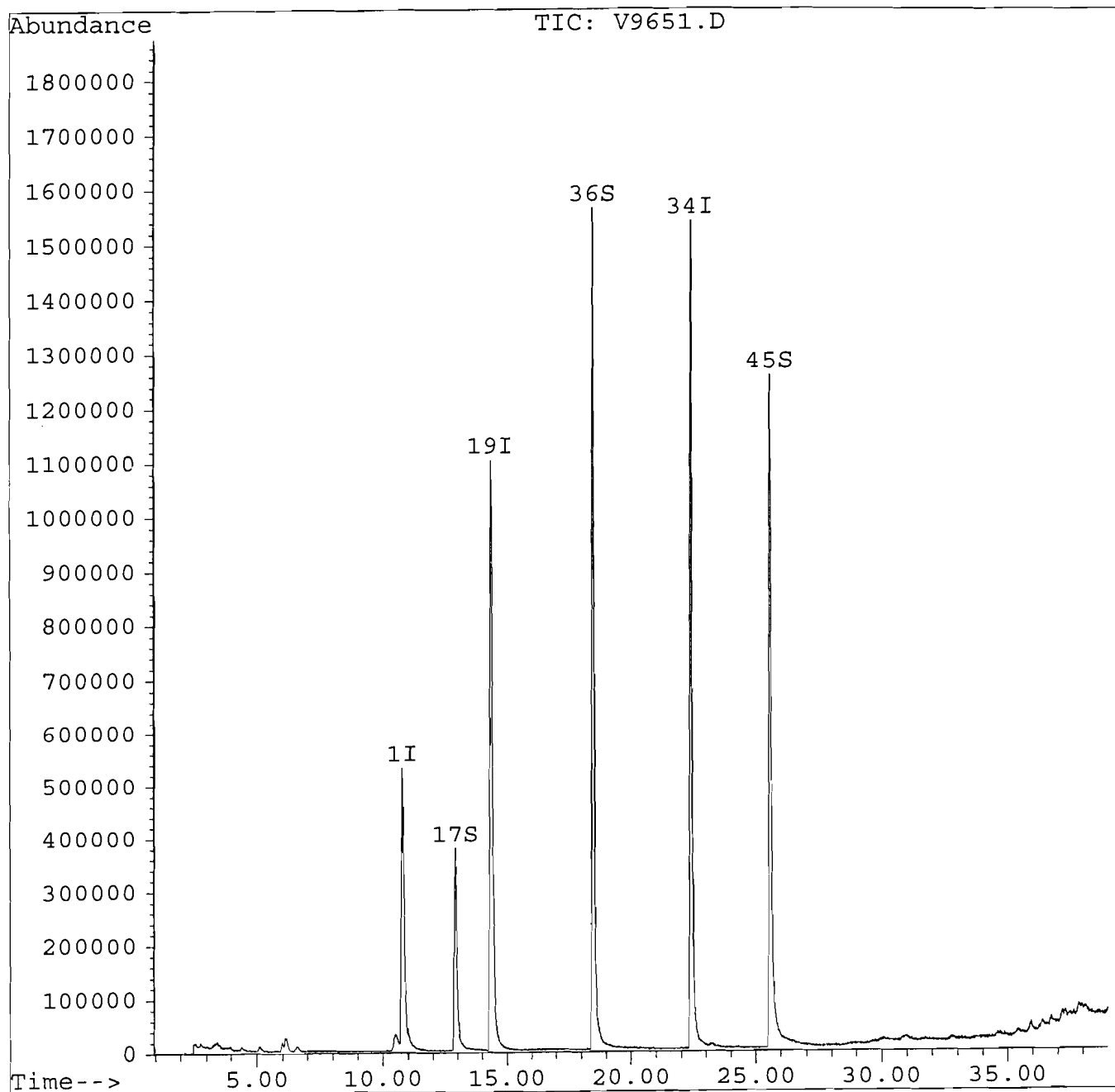
Target Compounds Qvalue

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9651.D
Acq Time : 29 Oct 99 3:32 am
Sample : L5320ASP-91767
Misc : 5MLS
Quant Time: Oct 29 7:37 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000363

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9651.D

Acq Time : 29 Oct 99 3:32 am

Sample : L5320ASP-91767

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000364

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-TRIP BK

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02

Matrix: (soil/water) WATER

Lab Sample ID: O91768

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9652.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m+ p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-TRIP BK

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No. L532

Site: _____

Location: _____

Group: 335-GP-02

Matrix: (soil/water) WATER

Lab Sample ID: O91768

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9652.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/29/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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18.				
19.				
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21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9652.D

Acq Time : 29 Oct 99 4:18 am

Sample : L5320ASP-91768

Misc : 5MLS

Quant Time: Oct 29 7:38 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.82	128	588910	30.00	ug/L	0.02
19) 1,4-Difluorobenzene	14.37	114	3308325	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.39	117	2739942	30.00	ug/L	0.02

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	1017768	29.27	ug/L	97.55%
36) Toluene-d8	18.45	98	3853670	30.95	ug/L	103.17%
45) Bromofluorobenzene	25.55	95	1984460	27.15	ug/L	90.49%

Target Compounds

Qvalue

000367

(#) = qualifier out of range (m) = manual integration

V9652.D V11027AW.M

Fri Oct 29 07:48:17 1999

VOA1

Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9652.D

Acq Time : 29 Oct 99 4:18 am

Sample : L5320ASP-91768

Misc : 5MLS

Quant Time: Oct 29 7:38 1999

Operator: JJ

Inst : 5971 - In

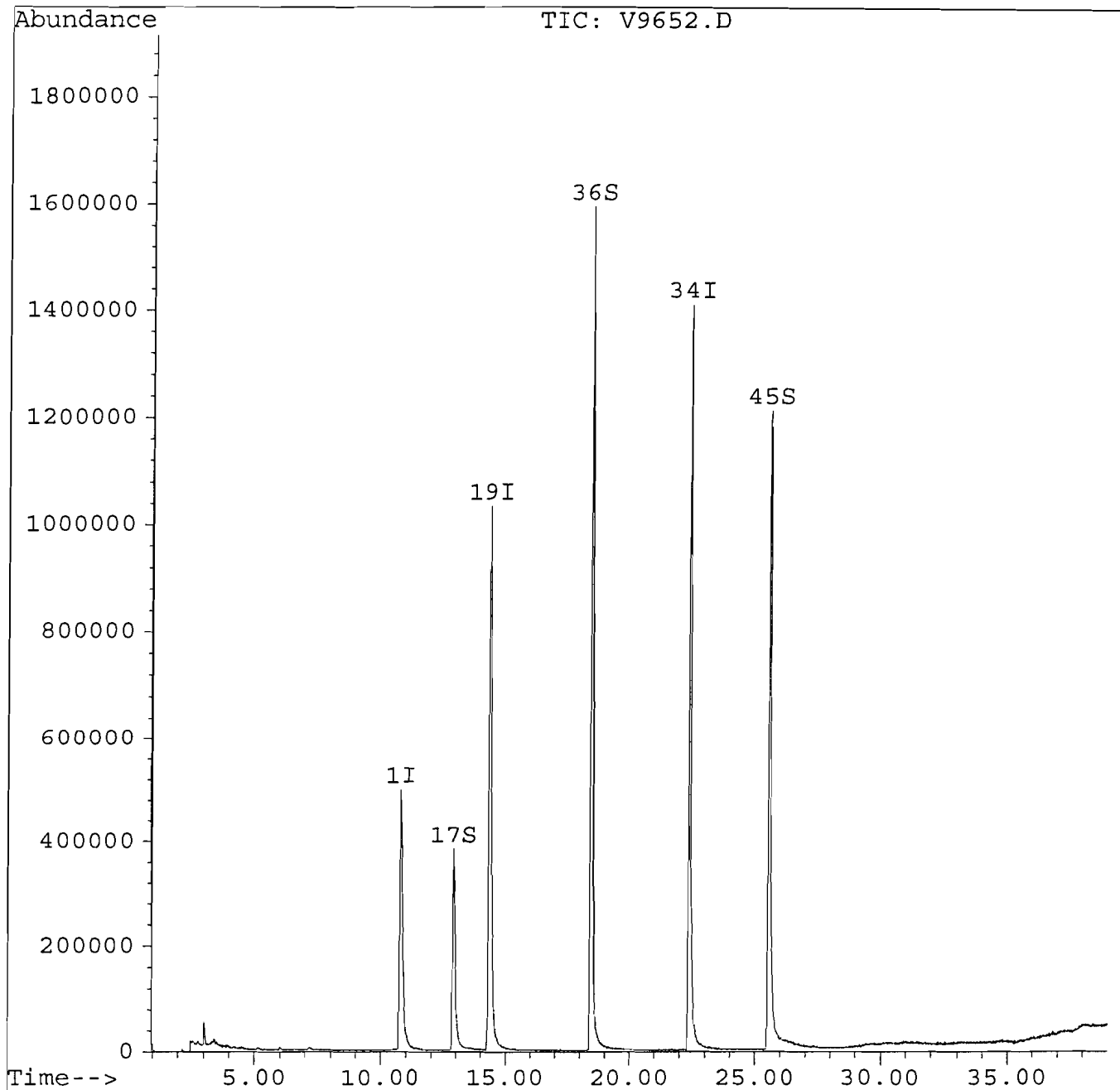
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration



000368

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9652.D

Acq Time : 29 Oct 99 4:18 am

Sample : L5320ASP-91768

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000369

CHEMTECH CONSULTING GROUP

VOLATILES

CALIBRATION DATA

000370

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02Instrument ID: VOA 1Calibration Date(s): '10/27/99 '10/27/99Heated Purge: (Y/N) NCalibration Times: 2150 2318GC Column RTX624ID: 0.53 (mm)

Lab File ID:

RRF005 = V9618.D

RRF20 = V9617.D

RRF100 = V9616.D

COMPOUND	RRF005	RRF20	RRF100			RRF	% RSD
Chloromethane	* 1.711	1.451	1.533			1.565	8.5 *
Bromomethane	* 0.967	0.820	0.886			0.891	8.3 *
Vinyl Chloride	* 1.907	1.594	1.803			1.768	9.0 *
Chloroethane	* 1.142	0.644	0.650			0.812	35.2 *
Trichlorofluoromethane	* 3.572	2.959	2.175			2.902	24.1 *
Methylene Chloride	* 2.163	1.874	1.797			1.944	9.9 *
1,1-Dichloroethene	* 3.237	2.862	2.852			2.984	7.4 *
1,1-Dichloroethane	* 4.892	4.238	4.361			4.497	7.7 *
trans-1,2-Dichloroethene	* 3.283	2.905	2.848			3.012	7.8 *
Chloroform	* 4.365	3.938	3.846			4.050	6.8 *
1,2-Dichloroethane	* 2.638	2.471	2.400			2.503	4.9 *
1,1,1-Trichloroethane	* 0.682	0.607	0.579			0.623	8.6 *
Carbon Tetrachloride	* 0.549	0.501	0.492			0.514	5.9 *
Bromodichloromethane	* 0.646	0.631	0.609			0.629	3.0 *
1,2-Dichloropropane	* 0.534	0.474	0.450			0.486	8.9 *
cis-1,3-Dichloropropene	* 0.706	0.676	0.641			0.674	4.8 *
Trichloroethene	* 0.420	0.414	0.387			0.407	4.3 *
Dibromochloromethane	* 0.522	0.480	0.436			0.479	9.0 *
1,1,2-Trichloroethane	* 0.421	0.381	0.329			0.377	12.2 *
Benzene	* 1.438	1.284	1.244			1.322	7.7 *
trans-1,3-Dichloropropene	* 0.581	0.570	0.531			0.560	4.7 *
2-Chloroethyl Vinyl Ether	* 0.138	0.151	0.176			0.155	12.5 *
Bromoform	* 0.302	0.270	0.244			0.272	10.6 *
Tetrachloroethene	* 0.497	0.446	0.415			0.453	9.1 *
1,1,2,2-Tetrachloroethane	* 0.911	0.746	0.611			0.756	19.9 *
Toluene	* 1.842	1.652	1.524			1.673	9.6 *
Chlorobenzene	* 1.216	1.086	1.014			1.105	9.2 *
Ethylbenzene	* 2.335	2.050	1.899			2.095	10.6 *
m+ p-Xylenes	* 0.824	0.738	0.693			0.751	8.8 *
o-xylene	* 1.804	1.581	1.450			1.612	11.1 *
1,2-Dichlorobenzene	* 0.854	0.790	0.697			0.780	10.1 *
1,3-Dichlorobenzene	* 0.777	0.788	0.726			0.764	4.4 *
1,4-Dichlorobenzene	* 0.766	0.773	0.752			0.764	1.4 *
Toluene-d8	* 1.465	1.323	1.302			1.363	6.5 *
Bromofluorobenzene	* 0.865	0.789	0.747			0.800	7.5 *
1,2-Dichloroethane-d4	* 1.931	1.702	1.682			1.772	7.8 *

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report 5971 - In

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:50:27 1999
 Response via : Initial Calibration

Calibration Files

20 =V9617.D 100 =V9616.D 5 =V9618.D
 = =

Compound		20	100	5	Avg	%RSD
-----ISTD-----						
1) I	Bromochloromethane					
2) P	Chloromethane	1.451	1.533	1.711	1.565	8.48#
3) c	Vinyl Chloride	1.594	1.803	1.907	1.768	9.00
4)	Bromomethane	0.820	0.886	0.967	0.891	8.30
5)	Chloroethane	0.644	0.650	1.142	0.812	35.17
6)	Trichlorofluoromethane	2.959	2.175	3.572	2.902	24.14
7) C	1,1-Dichloroethene	2.862	2.852	3.237	2.984	7.35
8)	Acetone	0.462	0.365	0.598	0.475	24.70
9)	Carbon Disulfide	5.008	5.044	5.556	5.203	5.90
10)	Methylene Chloride	1.874	1.796	2.163	1.944	9.93
11)	trans-1,2-Dichloroethene	2.905	2.847	3.283	3.012	7.85
12) I	TBA	0.152	0.132	0.195	0.160	19.93
13) I	MTBE	5.876	5.305	6.710	5.964	11.85
14) P	1,1-Dichloroethane	4.238	4.361	4.892	4.497	7.74#
15) I	cis-1,2-Dichloroethene	2.178	2.100	2.337	2.205	5.48
16) C	Chloroform	3.938	3.846	4.365	4.050	6.84
17) S	1,2-Dichloroethane-d4	1.702	1.682	1.931	1.772	7.79
18)	1,2-Dichloroethane	2.471	2.400	2.638	2.503	4.89
-----ISTD-----						
19) I	1,4-Difluorobenzene					
20)	Vinyl Acetate	0.654	0.729	0.586	0.656	10.89
21)	2-Butanone	0.136	0.137	0.177	0.150	15.36
22)	1,1,1-Trichloroethane	0.607	0.579	0.682	0.623	8.55
23)	Carbon Tetrachloride	0.501	0.492	0.549	0.514	5.92
24) M	Benzene	1.284	1.244	1.438	1.322	7.74
25) M	Trichloroethene	0.414	0.387	0.420	0.407	4.28
26) C	1,2-Dichloropropane	0.474	0.450	0.534	0.486	8.87
27)	Bromodichloromethane	0.631	0.609	0.646	0.629	2.98
28)	2-Chloroethyl Vinyl Ether	0.151	0.176	0.138	0.155	12.50
29)	cis-1,3-Dichloropropene	0.676	0.641	0.706	0.674	4.78
30)	trans-1,3-Dichloropropene	0.569	0.531	0.581	0.560	4.73
31)	1,1,2-Trichloroethane	0.381	0.329	0.420	0.377	12.17
32)	Dibromochloromethane	0.479	0.436	0.522	0.479	9.01
33) P	Bromoform	0.270	0.244	0.302	0.272	10.59#
-----ISTD-----						
34) I	Chlorobenzene-d5					
35)	4-Methyl-2-Pentanone	0.430	0.397	0.369	0.398	7.75
36) S	Toluene-d8	1.323	1.302	1.465	1.363	6.48
37) C	Toluene	1.652	1.524	1.842	1.673	9.55
38)	Tetrachloroethene	0.446	0.415	0.497	0.453	9.09
39)	2-Hexanone	0.237	0.255	0.275	0.256	7.40
40) P	Chlorobenzene	1.085	1.014	1.216	1.105	9.25#
41) C	Ethylbenzene	2.050	1.899	2.335	2.095	10.57

000372

Response Factor Report 5971 - In

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:50:27 1999
 Response via : Initial Calibration

Calibration Files

20 =V9617.D 100 =V9616.D 5 =V9618.D
 = =

Compound	20	100	5	Avg	%RSD
42) m+ p-Xylenes	0.738	0.693	0.824	0.751	8.83
43) o-xylene	1.581	1.450	1.804	1.612	11.09
44) Styrene	1.119	1.089	1.021	1.076	4.65
45) S Bromofluorobenzene	0.789	0.747	0.865	0.800	7.49
46) P 1,1,2,2-Tetrachloroethane	0.745	0.611	0.911	0.756	19.92#
47) 1,3-Dichlorobenzene	0.788	0.726	0.777	0.764	4.37
48) 1,4-Dichlorobenzene	0.773	0.752	0.766	0.764	1.37
49) 1,2-Dichlorobenzene	0.790	0.697	0.854	0.780	10.12
50) Naphthalene	1.358	1.016	1.365	1.247	16.01

000373

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9617.D
 Acq Time : 27 Oct 99 10:34 pm
 Sample : 20PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:38 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.80	128	684261	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.37	114	3842534	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.36	117	3215355	30.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	776387	20.00	ug/L	40.00%
36) Toluene-d8	18.46	98	2836225	20.00	ug/L	40.00%
45) Bromofluorobenzene	25.51	95	1692040	20.00	ug/L	40.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chloromethane	2.70	50	661870	20.00	ug/L	100
3) Vinyl Chloride	2.82	62	727277	20.00	ug/L	100
4) Bromomethane	3.32	94	373863	20.00	ug/L	100
5) Chloroethane	3.45	64	293937	20.00	ug/L	100
6) Trichlorofluoromethane	3.85	101	1349639	20.00	ug/L	100
7) 1,1-Dichloroethene	4.81	61	1305506	20.00	ug/L	100
8) Acetone	5.11	43	210584	20.00	ug/L	100
9) Carbon Disulfide	5.20	76	2284500	20.00	ug/L	100
10) Methylene Chloride	5.99	84	854757	20.00	ug/L	100
11) trans-1,2-Dichloroethene	6.56	61	1325197	20.00	ug/L	100
12) TBA	6.47	59	693246	200.00	ug/L	100
13) MTBE	6.55	73	2680607	20.00	ug/L	100
14) 1,1-Dichloroethane	7.83	63	1933041	20.00	ug/L	100
15) cis-1,2-Dichloroethene	9.90	96	993548	20.00	ug/L	100
16) Chloroform	11.18	83	1796188	20.00	ug/L	100
18) 1,2-Dichloroethane	13.17	62	1127042	20.00	ug/L	100
20) Vinyl Acetate	8.09	43	1676340	20.00	ug/L	100
21) 2-Butanone	10.24	43	349023	20.00	ug/L	100
22) 1,1,1-Trichloroethane	11.53	97	1555693	20.00	ug/L	100
23) Carbon Tetrachloride	11.99	117	1283590	20.00	ug/L	100
24) Benzene	12.79	78	3288951	20.00	ug/L	100
25) Trichloroethene	14.98	130	1059267	20.00	ug/L	100
26) 1,2-Dichloropropane	15.72	63	1214862	20.00	ug/L	100
27) Bromodichloromethane	16.62	83	1616312	20.00	ug/L	100
28) 2-Chloroethyl Vinyl Ether	17.68	63	387082	20.00	ug/L	100
29) cis-1,3-Dichloropropene	17.91	75	1732206	20.00	ug/L	100
30) trans-1,3-Dichloropropene	19.55	75	1458776	20.00	ug/L	100
31) 1,1,2-Trichloroethane	19.98	97	975745	20.00	ug/L	100
32) Dibromochloromethane	20.91	129	1228301	20.00	ug/L	100
33) Bromoform	24.63	173	692766	20.00	ug/L	100
35) 4-Methyl-2-Pentanone	18.42	43	922189	20.00	ug/L	100
37) Toluene	18.63	91	3541488	20.00	ug/L	100
38) Tetrachloroethene	20.04	166	956511	20.00	ug/L	100
39) 2-Hexanone	20.73	43	508711	20.00	ug/L	100

000374

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9617.D
 Acq Time : 27 Oct 99 10:34 pm
 Sample : 20PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:38 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.44	112	2326790	20.00	ug/L	100
41) Ethylbenzene	22.70	91	4394916	20.00	ug/L	100
42) m+ p-Xylenes	23.03	106	3162770	40.00	ug/L	100
43) o-xylene	24.06	91	3389432	20.00	ug/L	100
44) Styrene	24.16	104	2398573	20.00	ug/L	100
46) 1,1,2,2-Tetrachloroethane	26.03	83	1597943	20.00	ug/L	100
47) 1,3-Dichlorobenzene	28.27	146	1689436	20.00	ug/L	100
48) 1,4-Dichlorobenzene	28.54	146	1657144	20.00	ug/L	100
49) 1,2-Dichlorobenzene	29.48	146	1693145	20.00	ug/L	100
50) Naphthalene	34.34	128	2911980	20.00	ug/L	100

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9617.D

Acq Time : 27 Oct 99 10:34 pm

Sample : 20PPB ICC

Misc : 25MLS

Quant Time: Oct 28 8:38 1999

Operator: AV

Inst : 5971 - In

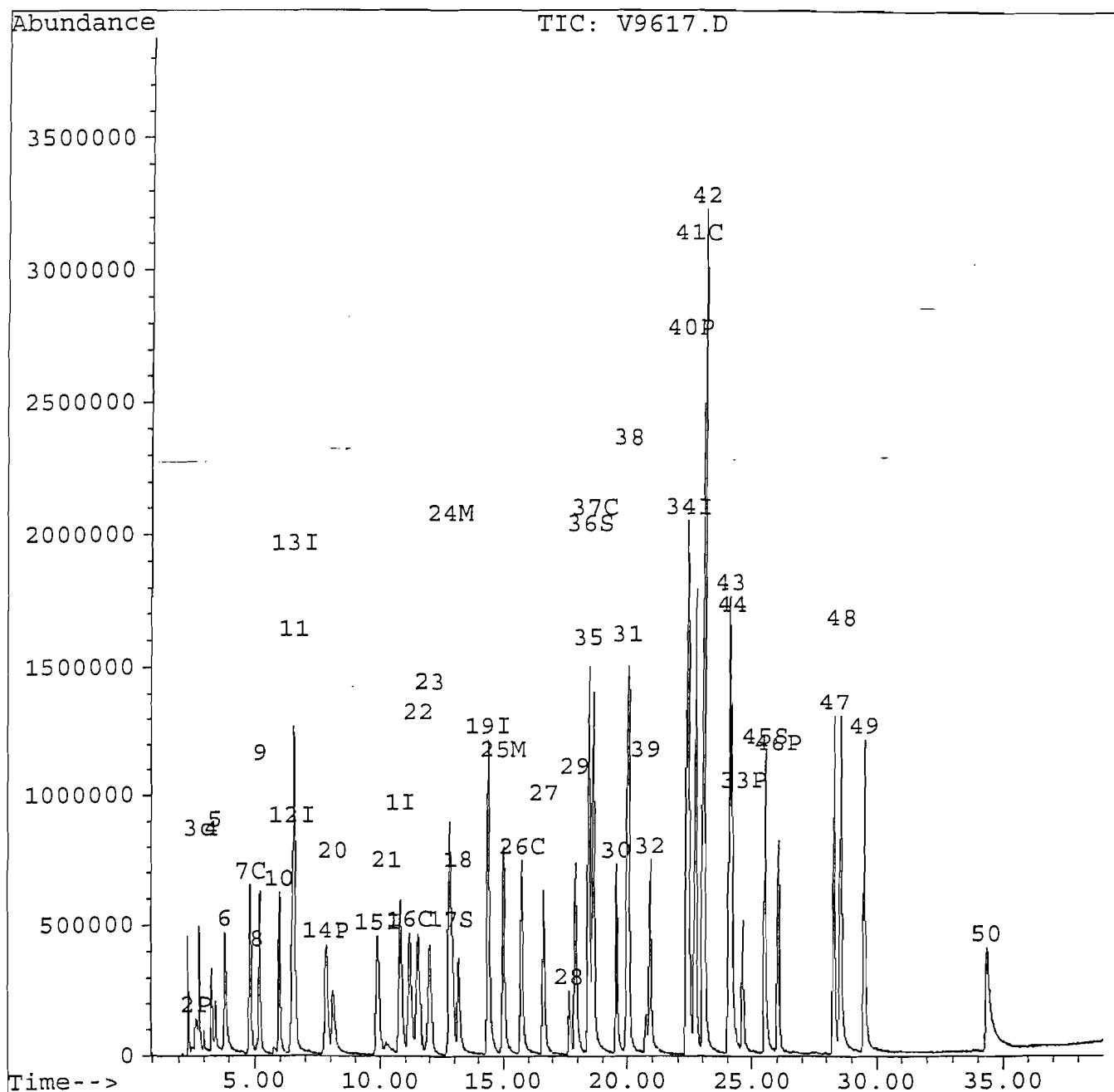
Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 08:37:17 1999

Response via : Single Level Calibration



000376

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.74	128	652543	30.00	ug/L	-0.06
19) 1,4-Difluorobenzene	14.33	114	3718021	30.00	ug/L	-0.04
34) Chlorobenzene-d5	22.35	117	3102548	30.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.84	65	3659149	98.84	ug/L	197.69%
36) Toluene-d8	18.42	98	13465399	98.41	ug/L	196.81%
45) Bromofluorobenzene	25.49	95	7722495	94.60	ug/L	189.20%
Target Compounds						Qvalue
2) Chloromethane	2.72	50	3334776	105.67	ug/L	98
3) Vinyl Chloride	2.82	62	3922566	113.11	ug/L	100
4) Bromomethane	3.31	94	1926568	108.07	ug/L	97
5) Chloroethane	3.45	64	1414581	100.93	ug/L	100
6) Trichlorofluoromethane	3.78	101	4730516	73.51	ug/L	98
7) 1,1-Dichloroethene	4.74	61	6203901	99.66	ug/L	97
8) Acetone	5.16	43	793584	79.03	ug/L	96
9) Carbon Disulfide	5.11	76	10970391	100.71	ug/L	99
10) Methylene Chloride	5.94	84	3907588	95.88	ug/L	95
11) trans-1,2-Dichloroethene	6.50	61	6193618	98.02	ug/L	99
12) TBA	6.63	59	2878102	870.69	ug/L m	46
13) MTBE	6.56	73	11539113	90.28	ug/L	99
14) 1,1-Dichloroethane	7.78	63	9485496	102.91	ug/L	99
15) cis-1,2-Dichloroethene	9.81	96	4566750	96.40	ug/L	98
16) Chloroform	11.11	83	8365835	97.68	ug/L	100
18) 1,2-Dichloroethane	13.10	62	5219475	97.12	ug/L	100
20) Vinyl Acetate	8.03	43	9030989	111.35	ug/L	100
21) 2-Butanone	10.15	43	1701425	100.76	ug/L	95
22) 1,1,1-Trichloroethane	11.46	97	7180114	95.40	ug/L	100
23) Carbon Tetrachloride	11.91	117	6099132	98.21	ug/L	99
24) Benzene	12.72	78	15416573	96.89	ug/L	98
25) Trichloroethene	14.92	130	4796209	93.59	ug/L	95
26) 1,2-Dichloropropane	15.68	63	5574946	94.85	ug/L	99
27) Bromodichloromethane	16.57	83	7545528	96.49	ug/L	99
28) 2-Chloroethyl Vinyl Ether	17.60	63	2184769	116.66	ug/L	98
29) cis-1,3-Dichloropropene	17.86	75	7946384	94.82	ug/L	99
30) trans-1,3-Dichloropropene	19.52	75	6575202	93.17	ug/L	99
31) 1,1,2-Trichloroethane	19.95	97	4077597	86.38	ug/L	98
32) Dibromochloromethane	20.88	129	5399696	90.87	ug/L	100
33) Bromoform	24.61	173	3026189	90.29	ug/L	100
35) 4-Methyl-2-Pentanone	18.38	43	4102910	92.22	ug/L	99
37) Toluene	18.59	91	15764201	92.26	ug/L	95
38) Tetrachloroethene	20.01	166	4294663	93.06	ug/L	99
39) 2-Hexanone	20.69	43	2642209	107.66	ug/L	98

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.41	112	10487474	93.42	ug/L	97
41) Ethylbenzene	22.68	91	19642675	92.64	ug/L	97
42) m+ p-Xylenes	23.02	106	14335805	187.90	ug/L	97
43) o-xylene	24.04	91	14996355	91.71	ug/L	98
44) Styrene	24.13	104	11258666	97.29	ug/L	98
46) 1,1,2,2-Tetrachloroethane	26.03	83	6314485	81.91	ug/L	97
47) 1,3-Dichlorobenzene	28.27	146	7504387	92.07	ug/L	99
48) 1,4-Dichlorobenzene	28.54	146	7781040	97.32	ug/L	97
49) 1,2-Dichlorobenzene	29.49	146	7207470	88.23	ug/L	97
50) Naphthalene	34.27	128	10508871	74.80	ug/L m	95

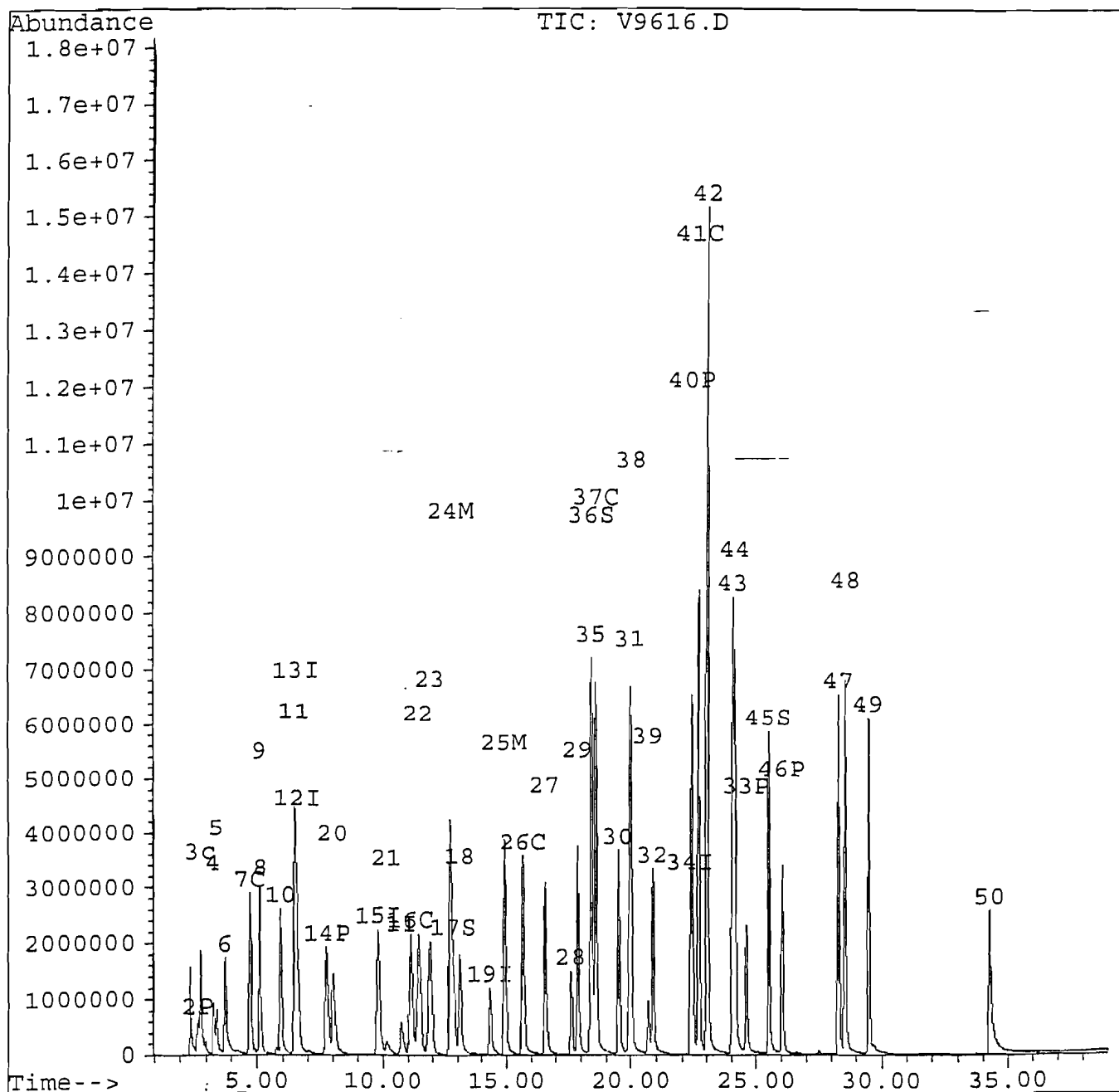
000378

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



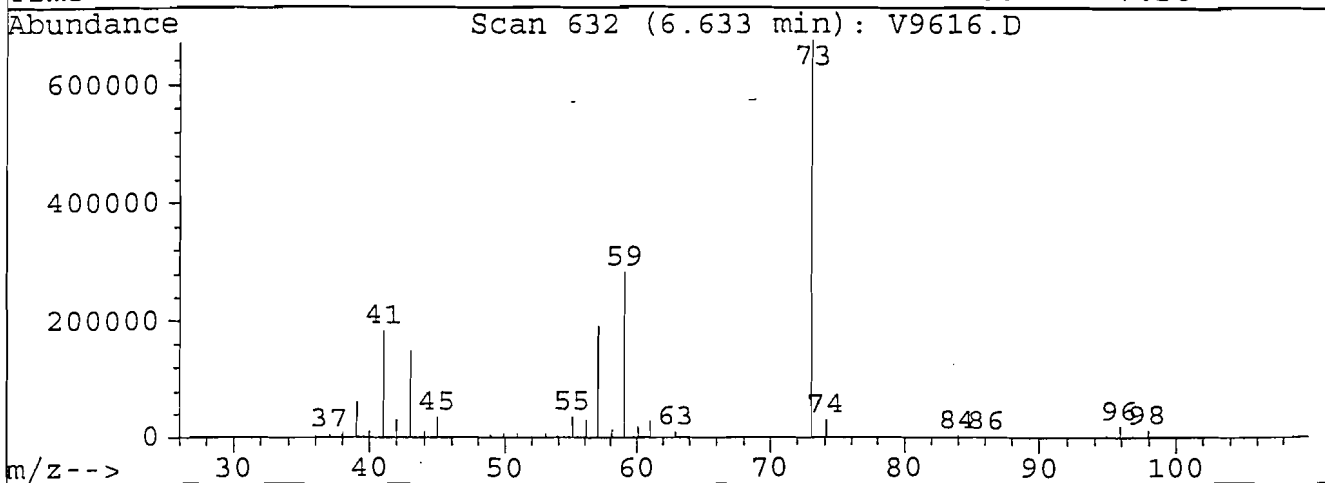
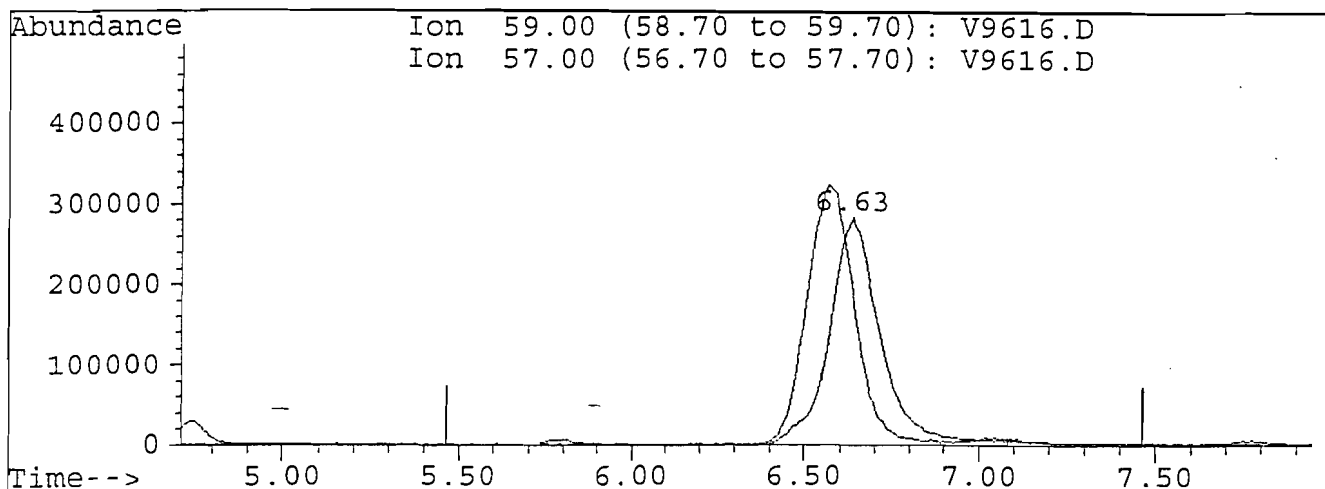
000379

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:39 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9616.D

(12) TBA (I)
 6.63min 870.69ug/L m
 response 2878102

Ion	Exp%	Act%
59.00	100	100
57.00	35.90	67.49
0.00	0.00	0.00
0.00	0.00	0.00

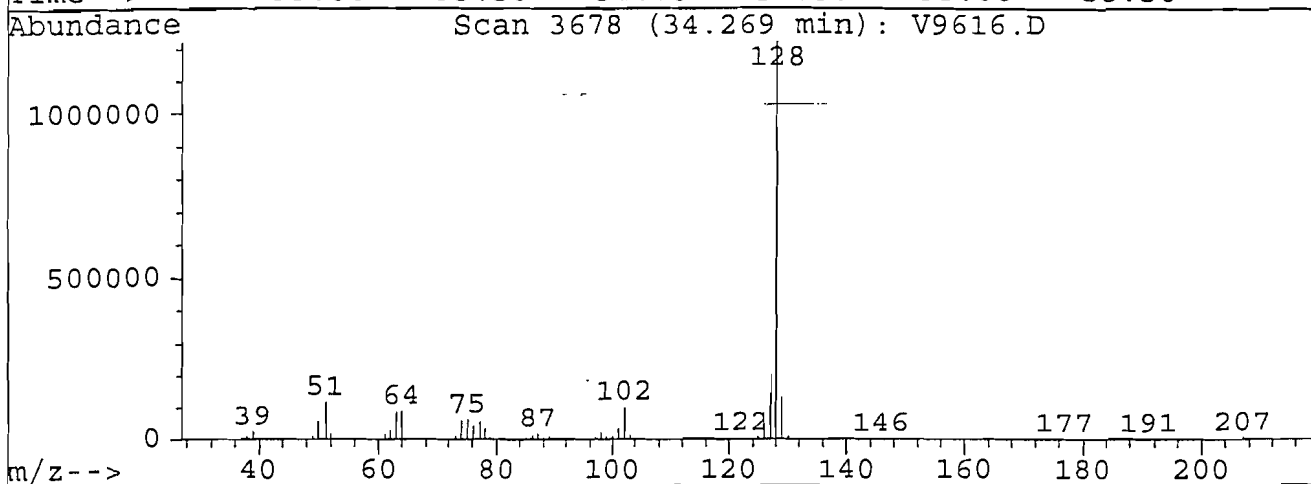
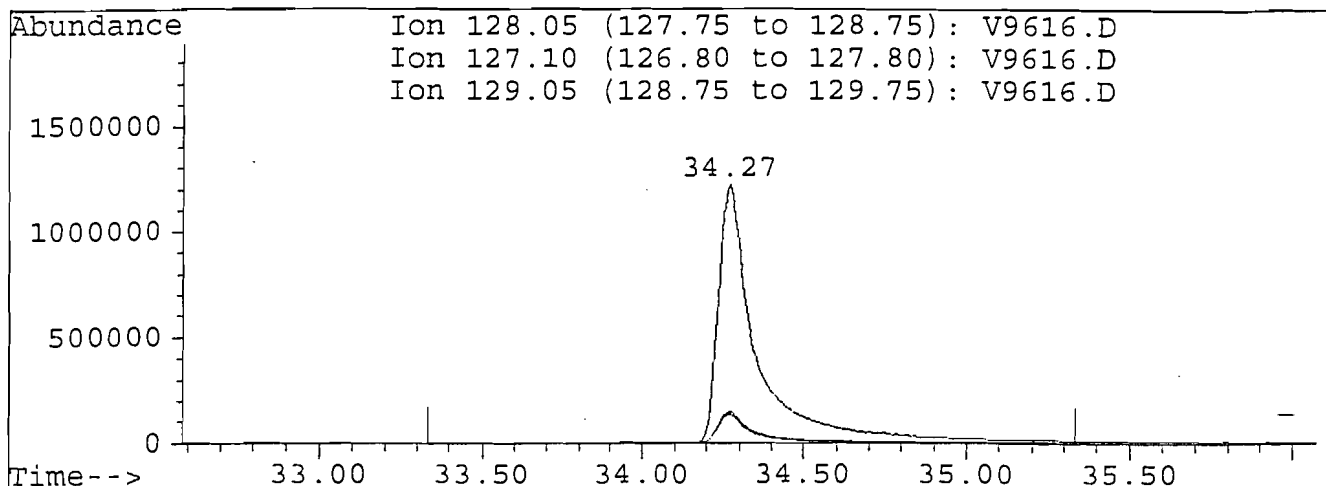
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Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9616.D

(50) Naphthalene

34.27min 74.80ug/L m

response 10508871

Ion	Exp%	Act%
128.05	100	100
127.10	9.40	11.92
129.05	7.60	10.76
0.00	0.00	0.00

000381

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D

Acq Time : 27 Oct 99 11:18 pm

Sample : 5PPB ICC

Misc : 25MLS

Quant Time: Oct 28 8:43 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 08:37:17 1999

Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.78	128	676816	30.00	ug/L	-0.02
19) 1,4-Difluorobenzene	14.35	114	3786861	30.00	ug/L	-0.02
34) Chlorobenzene-d5	22.38	117	3156926	30.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.92	65	217779	5.67	ug/L	11.34%
36) Toluene-d8	18.48	98	770600	5.53	ug/L	11.07%
45) Bromofluorobenzene	25.55	95	455175	5.48	ug/L	10.96%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chloromethane	2.69	50	192960	5.89	ug/L	97
3) Vinyl Chloride	-2.83	62	215097	5.98	ug/L	100
4) Bromomethane	3.32	94	109091	5.90	ug/L	99
5) Chloroethane	3.47	64	128827	8.86	ug/L	95
6) Trichlorofluoromethane	3.86	101	402965	6.04	ug/L	100
7) 1,1-Dichloroethene	4.82	61	365116	5.66	ug/L	96
8) Acetone	5.10	43	67494	6.48	ug/L	95
9) Carbon Disulfide	5.21	76	626761	5.55	ug/L	92
10) Methylene Chloride	5.99	84	243961	5.77	ug/L	95
11) trans-1,2-Dichloroethene	6.55	61	370281	5.65	ug/L	98
12) TBA	6.47	59	219444	64.01	ug/L	91
13) MTBE	6.54	73	756912	5.71	ug/L	98
14) 1,1-Dichloroethane	7.82	63	551860	5.77	ug/L	99
15) cis-1,2-Dichloroethene	9.89	96	263572	5.36	ug/L	92
16) Chloroform	11.17	83	492378	5.54	ug/L	99
18) 1,2-Dichloroethane	13.16	62	297544	5.34	ug/L	99
20) Vinyl Acetate	8.15	43	369717	4.48	ug/L	96
21) 2-Butanone	10.42	43	111520	6.48	ug/L m	91
22) 1,1,1-Trichloroethane	11.51	97	430691	5.62	ug/L	92
23) Carbon Tetrachloride	11.96	117	346334	5.48	ug/L	97
24) Benzene	12.78	78	907457	5.60	ug/L	99
25) Trichloroethene	14.98	130	264959	5.08	ug/L	99
26) 1,2-Dichloropropane	15.72	63	336795	5.63	ug/L	99
27) Bromodichloromethane	16.62	83	407755	5.12	ug/L	97
28) 2-Chloroethyl Vinyl Ether	17.73	63	87187	4.57	ug/L m	93
29) cis-1,3-Dichloropropene	17.92	75	445304	5.22	ug/L	98
30) trans-1,3-Dichloropropene	19.58	75	366790	5.10	ug/L	97
31) 1,1,2-Trichloroethane	20.02	97	265373	5.52	ug/L	95
32) Dibromochloromethane	20.94	129	329471	5.44	ug/L	99
33) Bromoform	24.64	173	190452	5.58	ug/L	98
35) 4-Methyl-2-Pentanone	18.46	43	193893	4.28	ug/L	99
37) Toluene	18.65	91	969156	5.57	ug/L	97
38) Tetrachloroethene	20.06	166	261411	5.57	ug/L	99
39) 2-Hexanone	20.90	43	144793	5.80	ug/L m	77

(#) = qualifier out of range (m) = manual integration

V9618.D V11027AW.M

Thu Oct 28 08:43:51 1999

VOA3

Page 1

000382

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:43 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

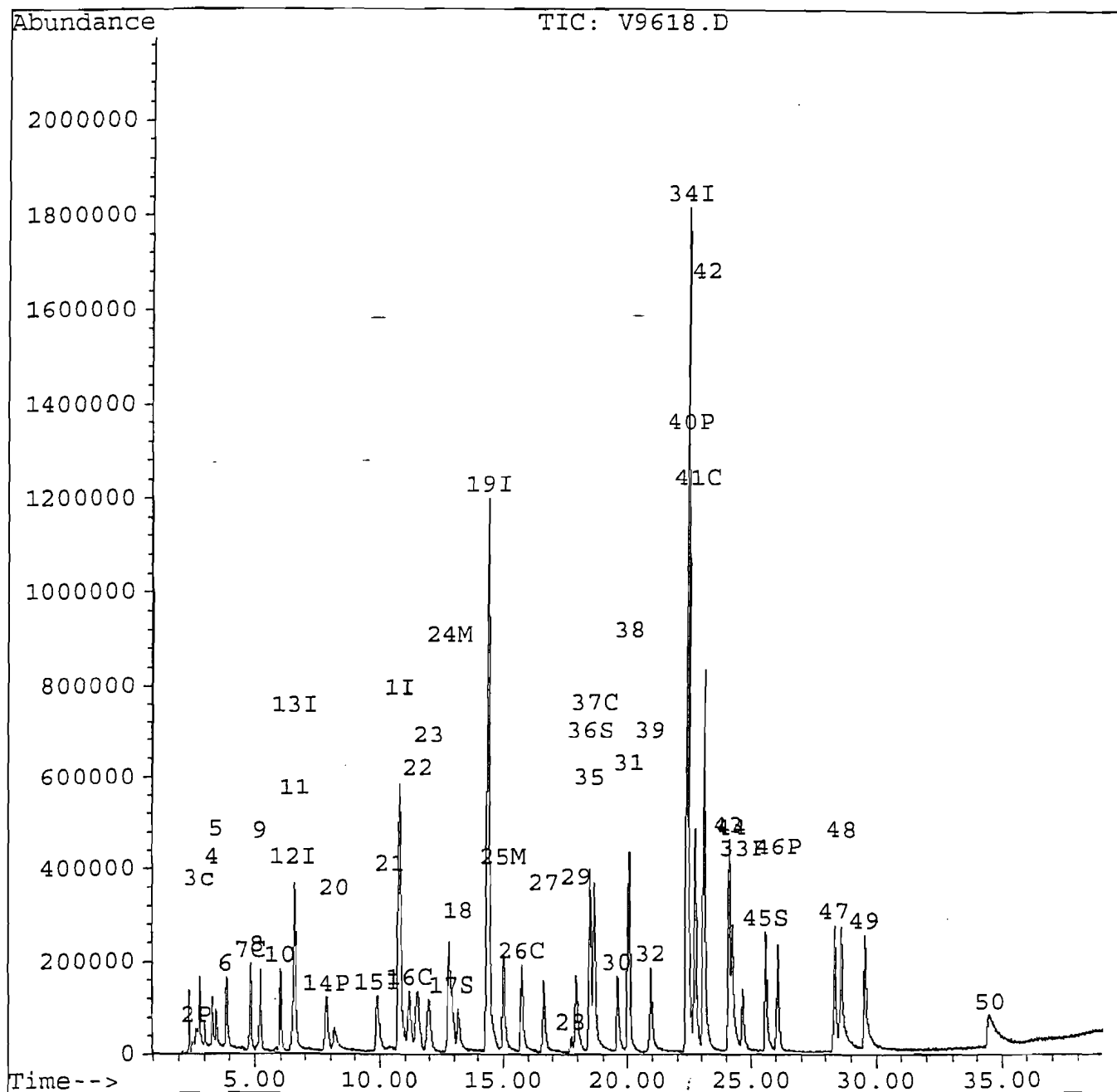
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.45	112	639667	5.60	ug/L	97
41) Ethylbenzene	22.73	91	1228772	5.70	ug/L	98
42) m+ p-Xylenes	23.07	106	866694	11.16	ug/L	100
43) o-xylene	24.08	91	948994	5.70	ug/L	100
44) Styrene	24.20	104	537306	4.56	ug/L	99
46) 1,1,2,2-Tetrachloroethane	26.05	83	479360	6.11	ug/L	98
47) 1,3-Dichlorobenzene	28.31	146	408825	4.93	ug/L	96
48) 1,4-Dichlorobenzene	28.57	146	402934	4.95	ug/L	96
49) 1,2-Dichlorobenzene	29.51	146	449350	5.41	ug/L	98
50) Naphthalene	34.49	128	718238	5.02	ug/L m	85

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
Acq Time : 27 Oct 99 11:18 pm
Sample : 5PPB ICC
Misc : 25MLS
Quant Time: Oct 28 8:43 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 08:37:17 1999
Response via : Single Level Calibration

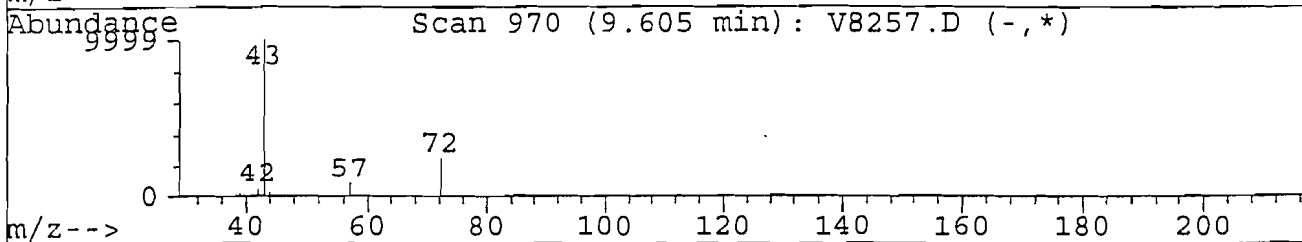
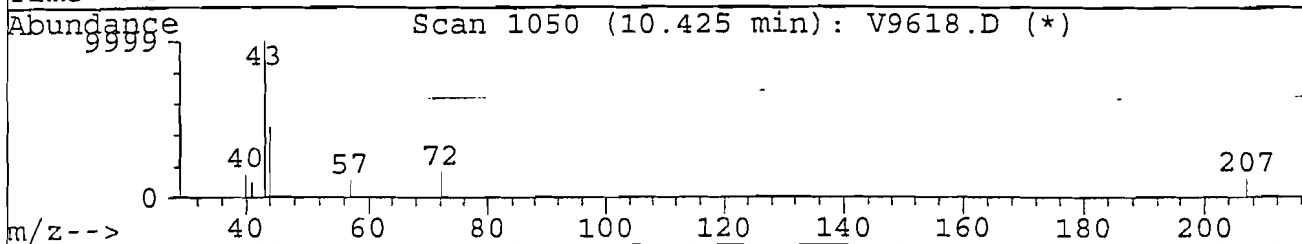
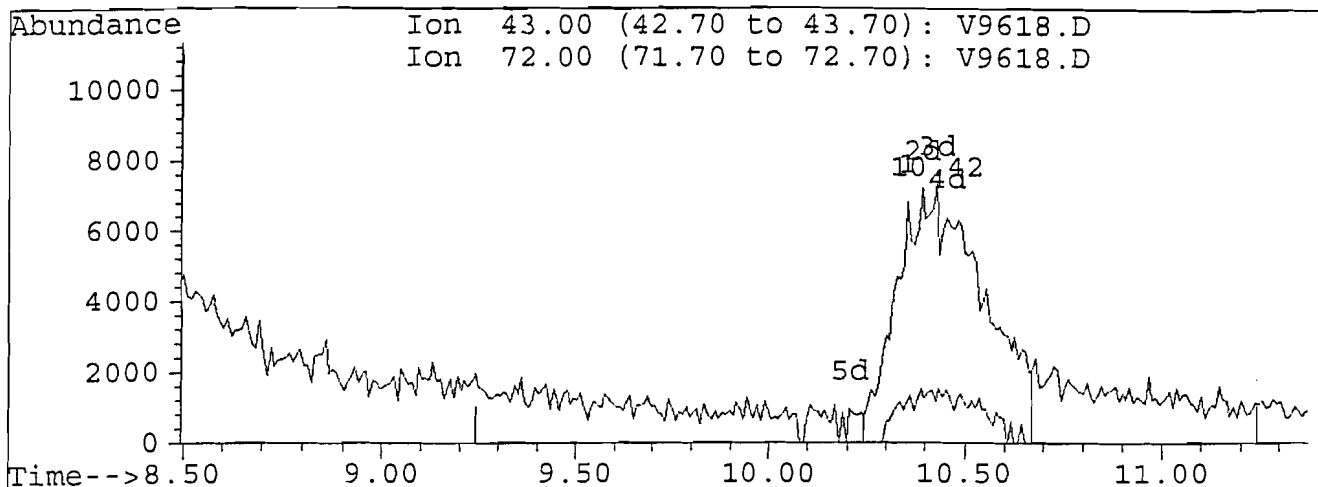


Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:42 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(21) 2-Butanone
 10.42min 6.48ug/L m
 response 111520

Ion	Exp%	Act%
43.00	100	100
72.00	20.60	24.69
0.00	0.00	0.00
0.00	0.00	0.00

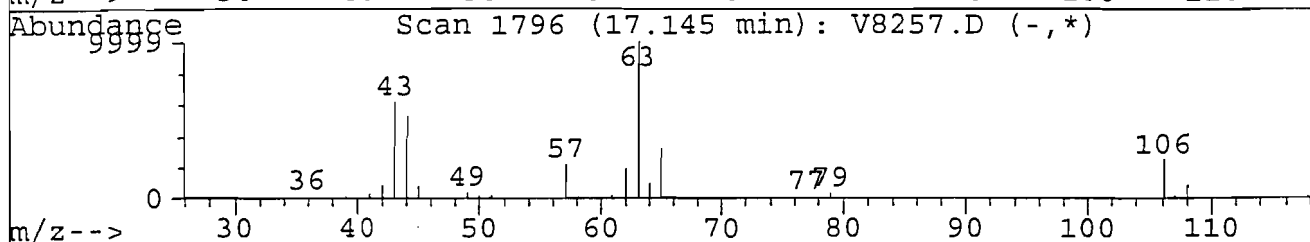
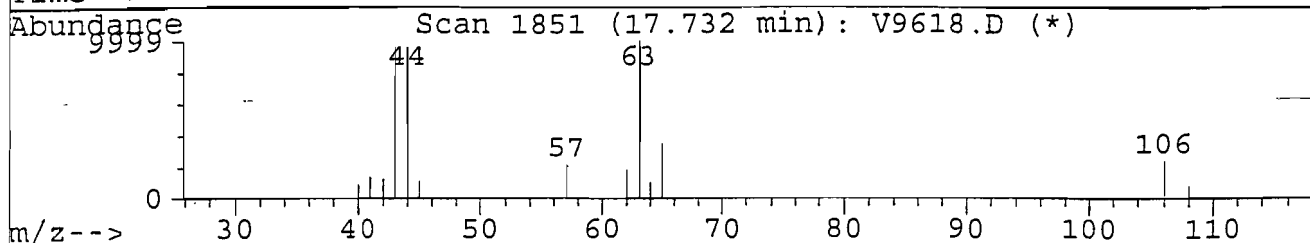
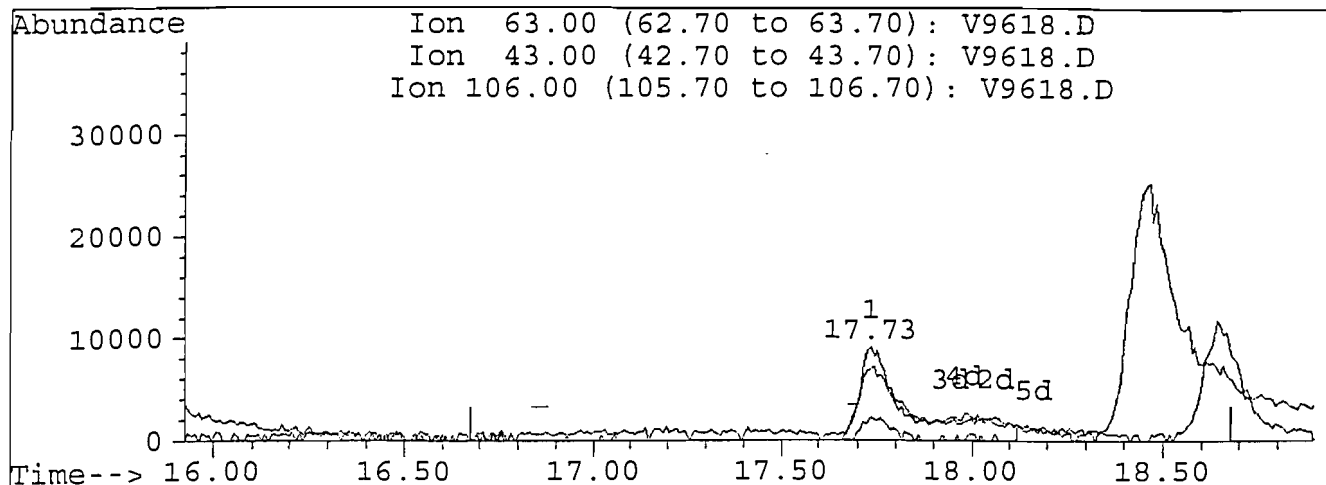
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Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:42 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(28) 2-Chloroethyl Vinyl Ether

17.73min 4.57ug/L m

response 87187

Ion	Exp%	Act%
63.00	100	100
43.00	69.90	61.50
106.00	25.90	24.95
0.00	0.00	0.00

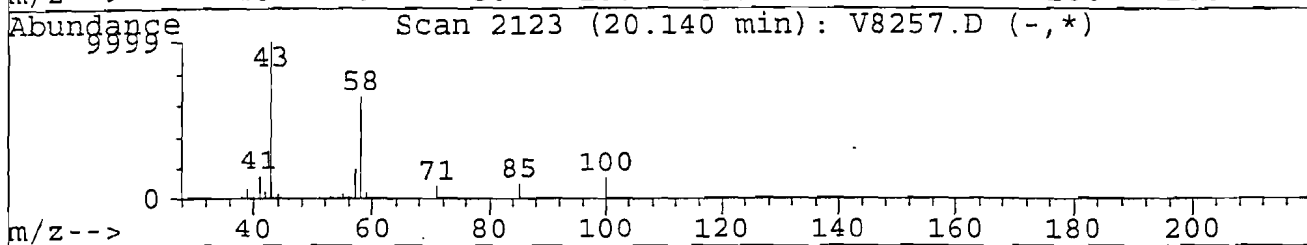
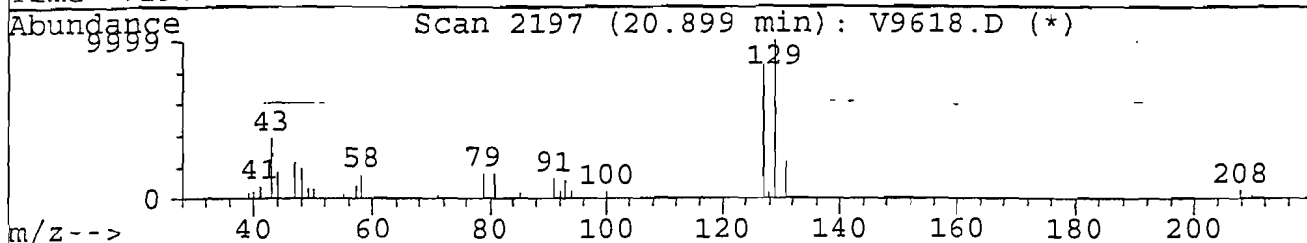
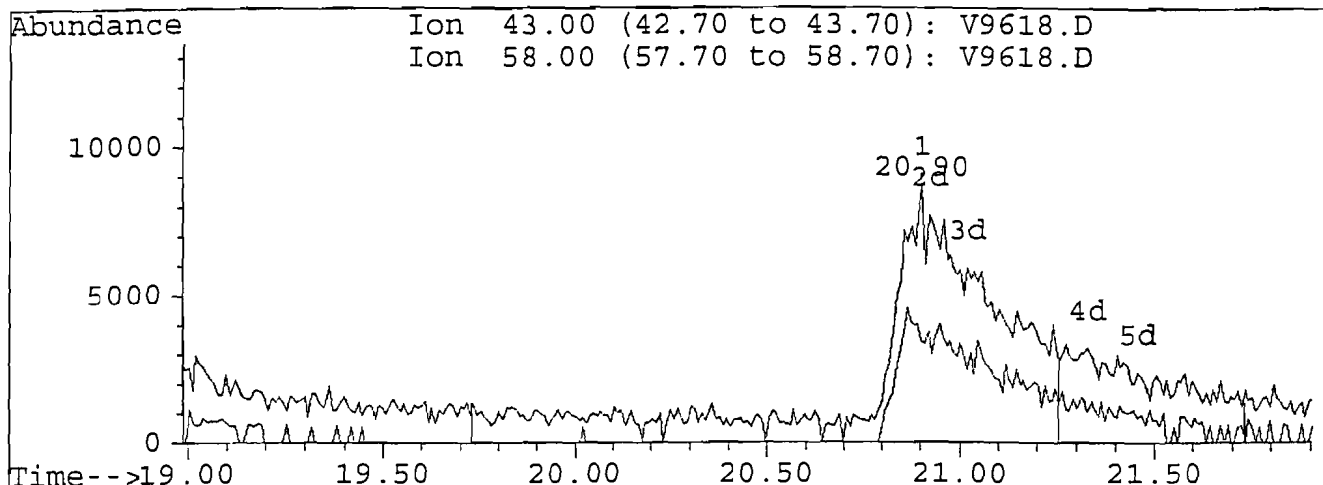
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Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:43 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(39) 2-Hexanone
 20.90min 5.80ug/L m
 response 144793

Ion	Exp%	Act%
43.00	100	100
58.00	56.10	64.77
0.00	0.00	0.00
0.00	0.00	0.00

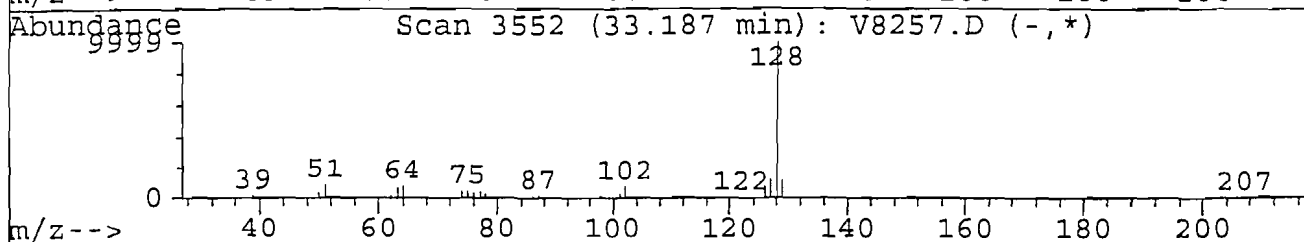
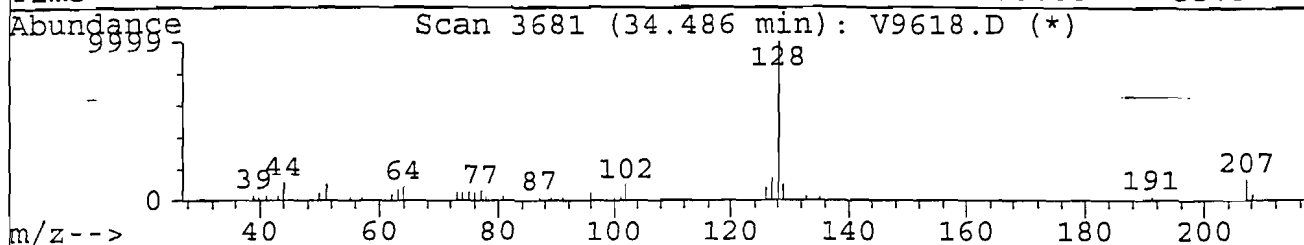
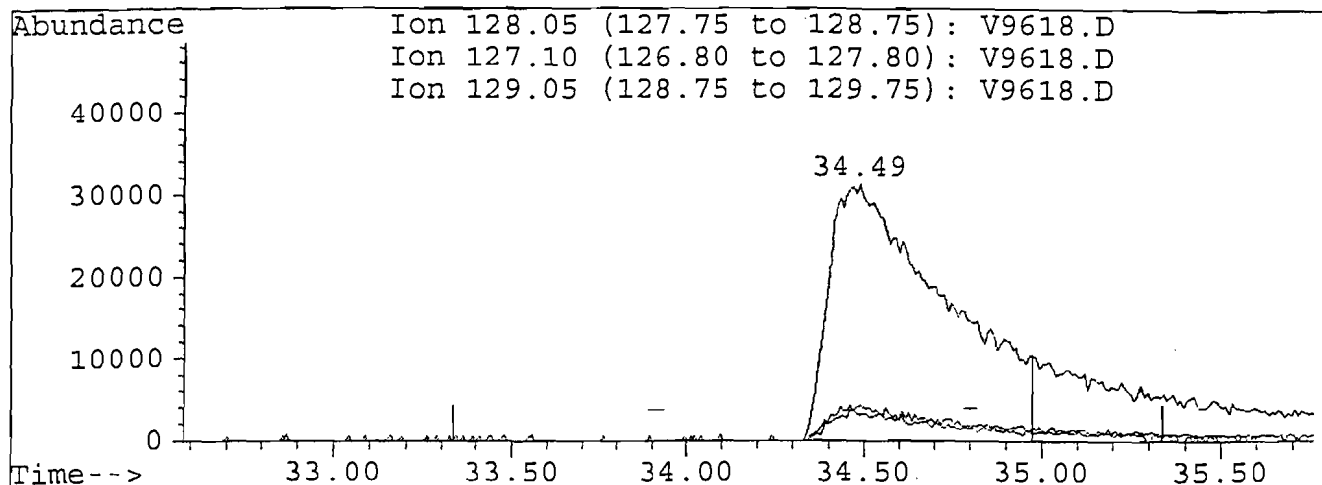
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Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:43 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(50) Naphthalene

34.49min 5.02ug/L m

response 718238

Ion	Exp%	Act%
128.05	100	100
127.10	9.40	12.05
129.05	7.60	11.35
0.00	0.00	0.00

000388

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No. L5320ASP Site: _____ Location: _____ Group: 335-GP-021
 Instrument ID: VOA 1 Calibration Date: '10/28/99 Time: 1047
 Lab File ID: V9630.D Init. Calib. Date(s): '10/27/99 '10/27/99
 Heated Purge: (Y/N) N Init. Calib. Times: 2150 2318
 GC Column: RTX624 ID: 0.53 (mm)

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX %D
Chloromethane	1.565	1.515	0.300	3.2	20.0
Bromomethane	0.891	0.940	0.300	-5.5	20.0
Vinyl Chloride	1.768	1.753	0.300	0.8	20.0
Chloroethane	0.812	0.671	0.300	17.4	20.0
Trichlorofluoromethane	2.902	3.150	0.300	-8.5	20.0
Methylene Chloride	1.944	1.827	0.300	6.0	20.0
1,1-Dichloroethene	2.984	2.904	0.300	2.7	20.0
1,1-Dichloroethane	4.497	4.333	0.300	3.6	20.0
trans-1,2-Dichloroethene	3.012	2.919	0.300	3.1	20.0
Chloroform	4.050	3.923	0.300	3.1	20.0
1,2-Dichloroethane	2.503	2.445	0.300	2.3	20.0
1,1,1-Trichloroethane	0.623	0.610	0.300	2.1	20.0
Carbon Tetrachloride	0.514	0.501	0.300	2.5	20.0
Bromodichloromethane	0.629	0.631	0.300	-0.3	20.0
1,2-Dichloropropane	0.486	0.478	0.300	1.6	20.0
cis-1,3-Dichloropropene	0.674	0.685	0.300	-1.6	20.0
Trichloroethene	0.407	0.423	0.300	-3.9	20.0
Dibromochloromethane	0.479	0.452	0.300	5.6	20.0
1,1,2-Trichloroethane	0.377	0.376	0.300	0.3	20.0
Benzene	1.322	1.284	0.300	2.9	20.0
trans-1,3-Dichloropropene	0.560	0.558	0.300	0.4	20.0
2-Chloroethyl Vinyl Ether	0.155	0.148	0.300	4.5	20.0
Bromoform	0.272	0.258	0.250	5.1	25.0
Tetrachloroethene	0.453	0.450	0.300	0.7	25.0
1,1,2,2-Tetrachloroethane	0.756	0.708	0.300	6.3	25.0
Toluene	1.673	1.647	0.300	1.6	25.0
Chlorobenzene	1.105	1.071	0.300	3.1	25.0
Ethylbenzene	2.095	2.054	0.300	2.0	25.0
m+ p-Xylenes	0.751	0.742	0.300	1.2	25.0
o-xylene	1.612	1.591	0.300	1.3	25.0
1,2-Dichlorobenzene	0.780	0.748	0.300	4.1	25.0
1,3-Dichlorobenzene	0.764	0.760	0.300	0.5	25.0
1,4-Dichlorobenzene	0.764	0.789	0.300	-3.3	25.0
Toluene-d8	1.363	2.046	0.300	-50.1	25.0
Bromofluorobenzene	0.800	1.286	0.300	-60.8	25.0
1,2-Dichloroethane-d4	1.772	2.576	0.300	-45.4	25.0

All other compounds must meet a minimum RRF of 0.010.

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9630.D
 Acq Time : 28 Oct 99 10:47 am
 Sample : 20 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 28 11:57 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.72	128	583937	30.00	ug/L	-0.08
19) 1,4-Difluorobenzene	14.32	114	3235182	30.00	ug/L	-0.05
34) Chlorobenzene-d5	22.36	117	2701409	30.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.84	65	1002871	29.08	ug/L	96.94%
36) Toluene-d8	18.43	98	3685412	30.02	ug/L	100.07%
45) Bromofluorobenzene	25.52	95	2316387	32.14	ug/L	107.13%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chloromethane	2.69	50	589766	19.36	ug/L	95
3) Vinyl Chloride	2.81	62	682460	19.83	ug/L	100
4) Bromomethane	3.30	94	365813	21.10	ug/L	97
5) Chloroethane	3.45	64	261056	16.51	ug/L	99
6) Trichlorofluoromethane	3.81	101	1226168	21.71	ug/L	99
7) 1,1-Dichloroethene	4.79	61	1130629	19.47	ug/L	98
8) Acetone	5.10	43	186608	20.19	ug/L	96
9) Carbon Disulfide	5.17	76	1912077	18.88	ug/L	100
10) Methylene Chloride	5.94	84	711269	18.79	ug/L	96
11) trans-1,2-Dichloroethene	6.51	61	1136376	19.39	ug/L	100
12) TBA	6.45	59	583601	187.85	ug/L	70
13) MTBE	6.53	73	2238442	19.28	ug/L	99
14) 1,1-Dichloroethane	7.78	63	1686688	19.27	ug/L	99
15) cis-1,2-Dichloroethene	9.82	96	820058	19.11	ug/L	97
16) Chloroform	11.11	83	1527225	19.38	ug/L	98
18) 1,2-Dichloroethane	13.10	62	951898	19.54	ug/L	98
20) Vinyl Acetate	8.05	43	1447101	20.45	ug/L	100
21) 2-Butanone	10.17	43	211672	13.08	ug/L	97
22) 1,1,1-Trichloroethane	11.47	97	1316260	19.59	ug/L	97
23) Carbon Tetrachloride	11.92	117	1080733	19.50	ug/L	97
24) Benzene	12.74	78	2768654	19.42	ug/L	99
25) Trichloroethene	14.94	130	913161	20.82	ug/L	98
26) 1,2-Dichloropropane	15.68	63	1031525	19.69	ug/L	99
27) Bromodichloromethane	16.58	83	1360665	20.07	ug/L	99
28) 2-Chloroethyl Vinyl Ether	17.64	63	318667	19.04	ug/L	93
29) cis-1,3-Dichloropropene	17.89	75	1476850	20.31	ug/L	99
30) trans-1,3-Dichloropropene	19.54	75	1202751	19.90	ug/L	97
31) 1,1,2-Trichloroethane	19.97	97	810921	19.96	ug/L	100
32) Dibromochloromethane	20.91	129	975645	18.89	ug/L	99
33) Bromoform	24.63	173	556955	18.98	ug/L	99
35) 4-Methyl-2-Pentanone	18.39	43	824089	22.97	ug/L	99
37) Toluene	18.62	91	2966407	19.69	ug/L	96
38) Tetrachloroethene	20.03	166	809699	19.86	ug/L	99
39) 2-Hexanone	20.75	43	388763	16.86	ug/L	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9630.D
 Acq Time : 28 Oct 99 10:47 am
 Sample : 20 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 28 11:57 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

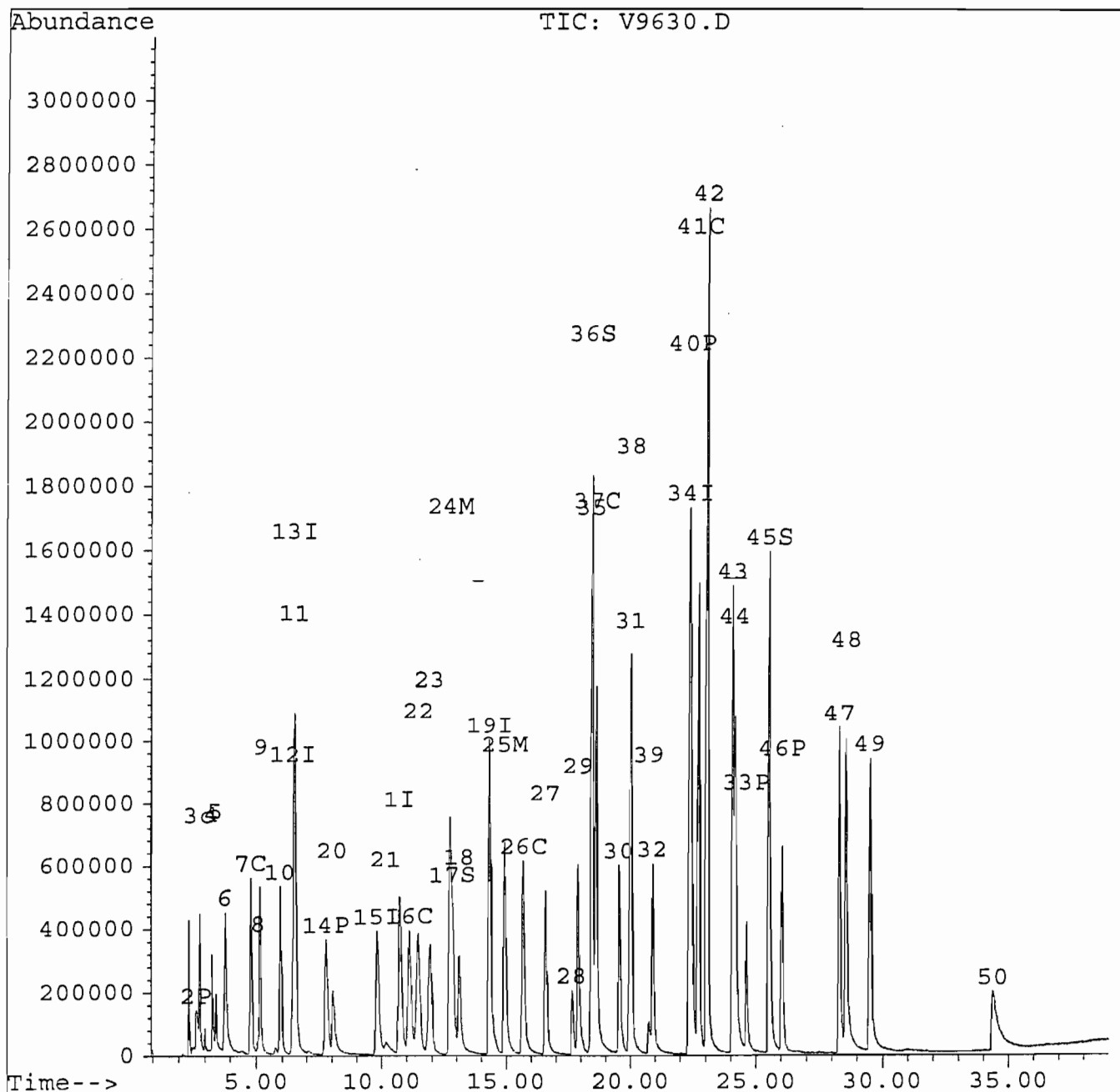
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.44	112	1928502	19.38	ug/L	100
41) Ethylbenzene	22.70	91	3699038	19.61	ug/L	99
42) m+ p-Xylenes	23.04	106	2671633	39.48	ug/L	100
43) o-xylene	24.07	91	2865665	19.75	ug/L	99
44) Styrene	24.17	104	1942828	20.05	ug/L	100
46) 1,1,2,2-Tetrachloroethane	26.04	83	1274335	18.73	ug/L	97
47) 1,3-Dichlorobenzene	28.29	146	1367849	19.89	ug/L	98
48) 1,4-Dichlorobenzene	28.54	146	1420794	20.66	ug/L	97
49) 1,2-Dichlorobenzene	29.49	146	1346431	19.16	ug/L	99
50) Naphthalene	34.37	128	1766760	15.74	ug/L m	91

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9630.D
 Acq Time : 28 Oct 99 10:47 am
 Sample : 20 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 28 11:57 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



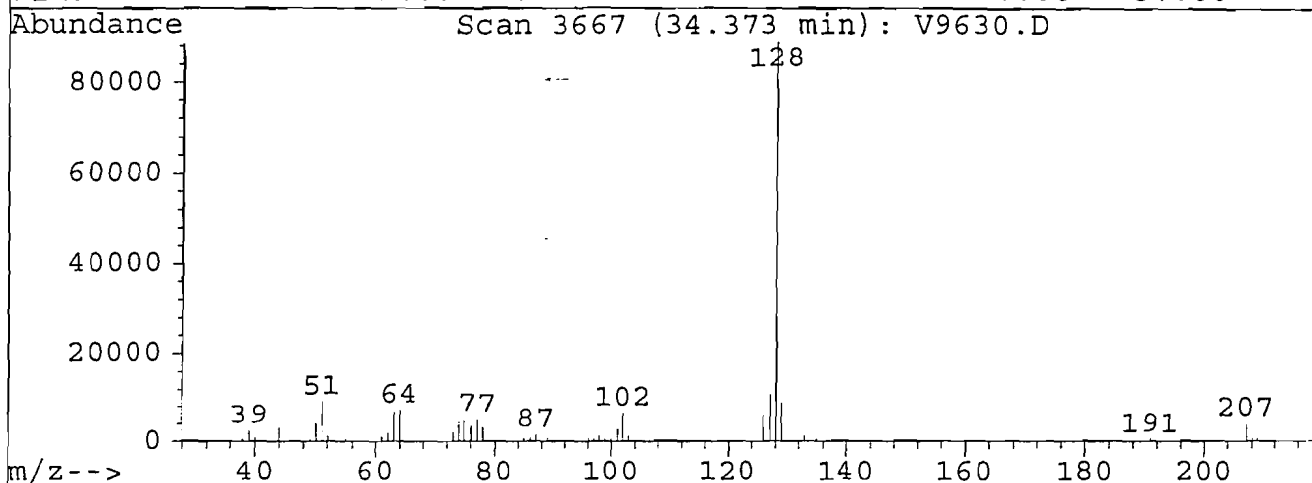
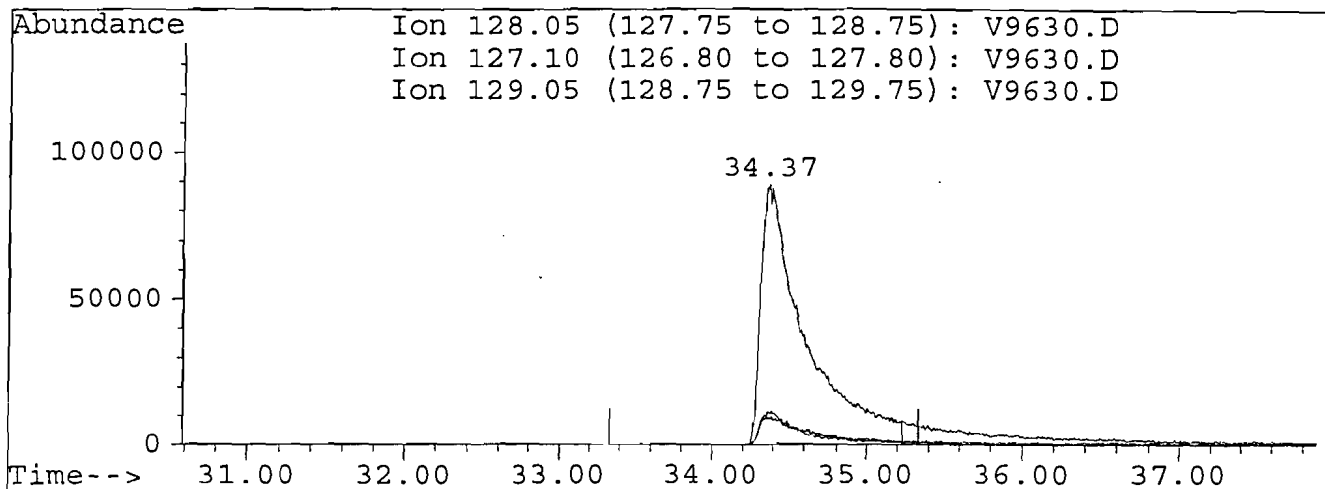
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Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9630.D
 Acq Time : 28 Oct 99 10:47 am
 Sample : 20 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 28 11:57 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



TIC: V9630.D

(50) Naphthalene

34.37min 15.74ug/L m

response 1766760

Ion	Exp%	Act%
128.05	100	100
127.10	9.40	12.11
129.05	7.60	10.07
0.00	0.00	0.00

000393

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9630.D

Acq Time : 28 Oct 99 10:47 am

Sample : 20 PPB CCC

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration.

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

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

Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1 I	Bromochloromethane	1.000	1.000	0.0	85	-0.08
2 P	Chloromethane	1.565	1.515	3.2	89	0.00
3 c	Vinyl Chloride	1.768	1.753	0.9	94	-0.02
4	Bromomethane	0.891	0.940	-5.5	98	-0.02
5	Chloroethane	0.812	0.671	17.4	89	0.00
6	Trichlorofluoromethane	2.902	3.150	-8.5	91	-0.04
7 C	1,1-Dichloroethene	2.984	2.904	2.7	87	-0.03
8	Acetone	0.475	0.479	-0.9	89	-0.01
9	Carbon Disulfide	5.203	4.912	5.6	84	-0.03
10	Methylene Chloride	1.944	1.827	6.0	83	-0.05
11	trans-1,2-Dichloroethene	3.012	2.919	3.1	86	-0.05
12 I	TBA	0.160	0.150	6.1	84	-0.02
13 I	MTBE	5.964	5.750	3.6	84	-0.02
14 P	1,1-Dichloroethane	4.497	4.333	3.7	87	-0.05
15 I	cis-1,2-Dichloroethene	2.205	2.107	4.5	83	-0.08
16 C	Chloroform	4.050	3.923	3.1	85	-0.07
17 S	1,2-Dichloroethane-d4	1.772	2.576	-45.4#	129	-0.06
18	1,2-Dichloroethane	2.503	2.445	2.3	84	-0.06
19 I	1,4-Difluorobenzene	1.000	1.000	0.0	84	-0.05
20	Vinyl Acetate	0.656	0.671	-2.2	86	-0.04
21	2-Butanone	0.150	0.098	34.6#	61	-0.07
22	1,1,1-Trichloroethane	0.623	0.610	2.0	85	-0.06
23	Carbon Tetrachloride	0.514	0.501	2.5	84	-0.07
24 M	Benzene	1.322	1.284	2.9	84	-0.05
25 M	Trichloroethene	0.407	0.423	-4.1	86	-0.04
26 C	1,2-Dichloropropane	0.486	0.478	1.6	85	-0.04
27	Bromodichloromethane	0.629	0.631	-0.4	84	-0.04
28	2-Chloroethyl Vinyl Ether	0.155	0.148	4.8	82	-0.03
29	cis-1,3-Dichloropropene	0.674	0.685	-1.5	85	-0.02
30	trans-1,3-Dichloropropene	0.560	0.558	0.5	82	0.00
31	1,1,2-Trichloroethane	0.377	0.376	0.2	83	0.00
32	Dibromochloromethane	0.479	0.452	5.6	79	0.00
33 P	Bromoform	0.272	0.258	5.1	80	0.00
34 I	Chlorobenzene-d5	1.000	1.000	0.0	84	0.00
35	4-Methyl-2-Pentanone	0.398	0.458	-14.8	89	-0.03
36 S	Toluene-d8	1.363	2.046	-50.1#	130	-0.03
37 C	Toluene	1.673	1.647	1.5	84	-0.02
38	Tetrachloroethene	0.453	0.450	0.7	85	0.00
39	2-Hexanone	0.256	0.216	15.7	76	0.02
40 P	Chlorobenzene	1.105	1.071	3.1	83	0.00

(#) = Out of Range

000394

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9630.D

Acq Time : 28 Oct 99 10:47 am

Sample : 20 PPB CCC

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration.

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
41 C	Ethylbenzene	2.095	2.054	2.0	84	0.00
42	m+ p-Xylenes	0.751	0.742	1.3	84	0.00
43	o-xylene	1.612	1.591	1.3	85	0.00
44	Styrene	1.076	1.079	-0.2	81	0.00
45 S	Bromofluorobenzene	0.800	1.286	-60.7#	137	0.00
46 P	1,1,2,2-Tetrachloroethane	0.756	0.708	6.4	80	0.00
47	1,3-Dichlorobenzene	0.764	0.760	0.5	81	0.01
48	1,4-Dichlorobenzene	0.764	0.789	-3.3	86	0.00
49	1,2-Dichlorobenzene	0.780	0.748	4.2	80	0.01
50	Naphthalene	1.247	0.981	21.3	61	0.04

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No. L5320ASP

Site: _____

Location: _____

Group: 335-GP-021Instrument ID: VOA 1Calibration Date: '10/30/99Time: 0754Lab File ID: V9675.DInit. Calib. Date(s): '10/27/99 '10/27/99Heated Purge: (Y/N) NInit. Calib. Times: 2150 2318GC Column: RTX624ID: 0.53 (mm)

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX %D
Chloromethane	1.565	1.547	0.300	1.2	20.0
Bromomethane	0.891	0.948	0.300	-6.4	20.0
Vinyl Chloride	1.768	1.789	0.300	-1.2	20.0
Chloroethane	0.812	0.711	0.300	12.4	20.0
Trichlorofluoromethane	2.902	3.153	0.300	-8.6	20.0
Methylene Chloride	1.944	1.906	0.300	2.0	20.0
1,1-Dichloroethene	2.984	2.970	0.300	0.5	20.0
1,1-Dichloroethane	4.497	4.563	0.300	-1.5	20.0
trans-1,2-Dichloroethene	3.012	3.031	0.300	-0.6	20.0
Chloroform	4.050	4.083	0.300	-0.8	20.0
1,2-Dichloroethane	2.503	2.591	0.300	-3.5	20.0
1,1,1-Trichloroethane	0.623	0.620	0.300	0.5	20.0
Carbon Tetrachloride	0.514	0.505	0.300	1.8	20.0
Bromodichloromethane	0.629	0.641	0.300	-1.9	20.0
1,2-Dichloropropane	0.486	0.479	0.300	1.4	20.0
cis-1,3-Dichloropropene	0.674	0.681	0.300	-1.0	20.0
Trichloroethene	0.407	0.414	0.300	-1.7	20.0
Dibromochloromethane	0.479	0.480	0.300	-0.2	20.0
1,1,2-Trichloroethane	0.377	0.382	0.300	-1.3	20.0
Benzene	1.322	1.306	0.300	1.2	20.0
trans-1,3-Dichloropropene	0.560	0.574	0.300	-2.5	20.0
2-Chloroethyl Vinyl Ether	0.155	0.111	0.300	28.4	20.0
Bromoform	0.272	0.268	0.250	1.5	25.0
Tetrachloroethene	0.453	0.448	0.300	1.1	25.0
1,1,2,2-Tetrachloroethane	0.756	0.749	0.300	0.9	25.0
Toluene	1.673	1.678	0.300	-0.3	25.0
Chlorobenzene	1.105	1.095	0.300	0.9	25.0
Ethylbenzene	2.095	2.097	0.300	-0.1	25.0
m+ p-Xylenes	0.751	0.744	0.300	0.9	25.0
o-xylene	1.612	1.609	0.300	0.2	25.0
1,2-Dichlorobenzene	0.780	0.762	0.300	2.3	25.0
1,3-Dichlorobenzene	0.764	0.758	0.300	0.8	25.0
1,4-Dichlorobenzene	0.764	0.803	0.300	-5.1	25.0
Toluene-d8	1.363	1.757	0.300	-28.9	25.0
Bromofluorobenzene	0.800	1.161	0.300	-45.1	25.0
1,2-Dichloroethane-d4	1.772	2.292	0.300	-29.3	25.0

All other compounds must meet a minimum RRF of 0.010.

000396

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9675.D
 Acq Time : 30 Oct 99 7:54 am
 Sample : 20 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 30 8:41 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.77	128	571349	30.00	ug/L	-0.03
19) 1,4-Difluorobenzene	14.34	114	3225769	30.00	ug/L	-0.03
34) Chlorobenzene-d5	22.36	117	2684853	30.00	ug/L	0.00

System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.87	65	872973	25.87	ug/L	86.24%
36) Toluene-d8	18.45	98	3144074	25.77	ug/L	85.90%
45) Bromofluorobenzene	25.51	95	2078368	29.01	ug/L	96.72%

Target Compounds						Qvalue
2) Chloromethane	2.73	50	589238	19.77	ug/L	100
3) Vinyl Chloride	2.83	62	681433	20.24	ug/L	99
4) Bromomethane	3.32	94	361126	21.29	ug/L	95
5) Chloroethane	3.46	64	270822	17.51	ug/L	99
6) Trichlorofluoromethane	3.83	101	1200930	21.73	ug/L	100
7) 1,1-Dichloroethene	4.82	61	1131089	19.91	ug/L	98
8) Acetone	5.12	43	185412	20.50	ug/L	99
9) Carbon Disulfide	5.19	76	1976801	19.95	ug/L	100
10) Methylene Chloride	5.99	84	725931	19.60	ug/L	94
11) trans-1,2-Dichloroethene	6.54	61	1154457	20.13	ug/L	99
12) TBA	6.49	59	640038	210.56	ug/L	74
13) MTBE	6.54	73	2346867	20.66	ug/L	99
14) 1,1-Dichloroethane	7.81	63	1737920	20.29	ug/L	99
15) cis-1,2-Dichloroethene	9.88	96	831543	19.80	ug/L	97
16) Chloroform	11.16	83	1555292	20.17	ug/L	99
18) 1,2-Dichloroethane	13.13	62	987020	20.71	ug/L	100
20) Vinyl Acetate	8.08	43	1531325	21.70	ug/L	97
21) 2-Butanone	10.23	43	222420	13.78	ug/L	100
22) 1,1,1-Trichloroethane	11.49	97	1333489	19.91	ug/L	97
23) Carbon Tetrachloride	11.95	117	1085150	19.64	ug/L	97
24) Benzene	12.76	78	2809019	19.76	ug/L	99
25) Trichloroethene	14.95	130	889793	20.34	ug/L	95
26) 1,2-Dichloropropane	15.70	63	1029393	19.70	ug/L	99
27) Bromodichloromethane	16.60	83	1377701	20.38	ug/L	98
28) 2-Chloroethyl Vinyl Ether	17.67	63	238834	14.31	ug/L	97
29) cis-1,3-Dichloropropene	17.90	75	1464304	20.20	ug/L	99
30) trans-1,3-Dichloropropene	19.55	75	1234897	20.49	ug/L	98
31) 1,1,2-Trichloroethane	19.98	97	821629	20.28	ug/L	97
32) Dibromochloromethane	20.90	129	1033199	20.06	ug/L	100
33) Bromoform	24.63	173	575576	19.67	ug/L	96
35) 4-Methyl-2-Pentanone	18.41	43	796298	22.33	ug/L	95
37) Toluene	18.62	91	3002764	20.06	ug/L	99
38) Tetrachloroethene	20.04	166	801579	19.78	ug/L	94
39) 2-Hexanone	20.73	43	470825	20.55	ug/L	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9675.D
 Acq Time : 30 Oct 99 7:54 am
 Sample : 20 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 30 8:41 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

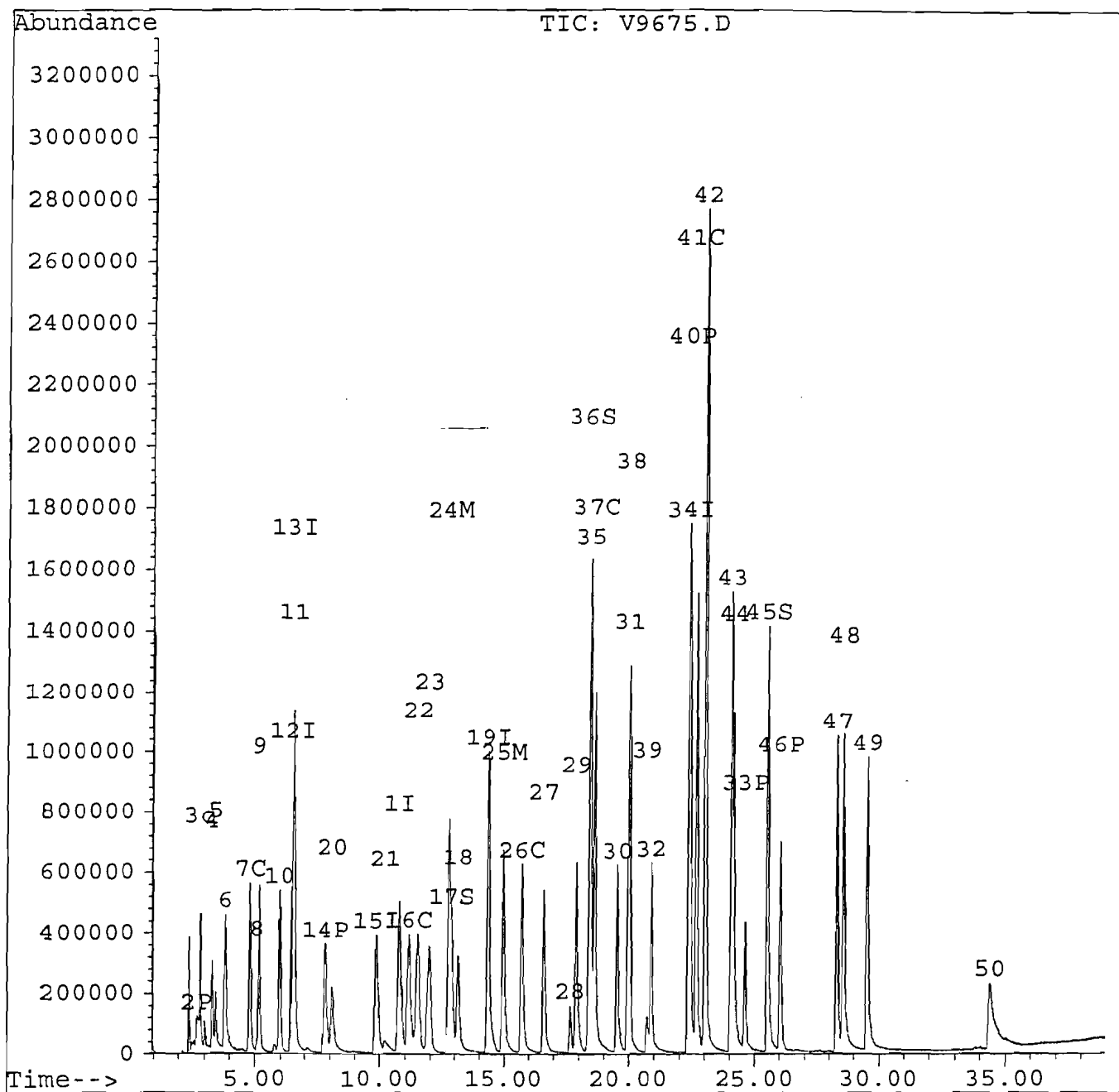
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.43	112	1960087	19.82	ug/L	99
41) Ethylbenzene	22.70	91	3753915	20.02	ug/L	99
42) m+ p-Xylenes	23.03	106	2663216	39.60	ug/L	99
43) o-xylene	24.05	91	2879743	19.97	ug/L	100
44) Styrene	24.15	104	2001788	20.78	ug/L	99
46) 1,1,2,2-Tetrachloroethane	26.03	83	1340285	19.82	ug/L	99
47) 1,3-Dichlorobenzene	28.29	146	1357339	19.86	ug/L	98
48) 1,4-Dichlorobenzene	28.56	146	1437552	21.03	ug/L	98
49) 1,2-Dichlorobenzene	29.50	146	1363594	19.53	ug/L	99
50) Naphthalene	34.40	128	1904592	17.07	ug/L m	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9675.D
 Acq Time : 30 Oct 99 7:54 am
 Sample : 20 PPB CCC
 Misc : 5MLS
 Quant Time: Oct 30 8:41 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



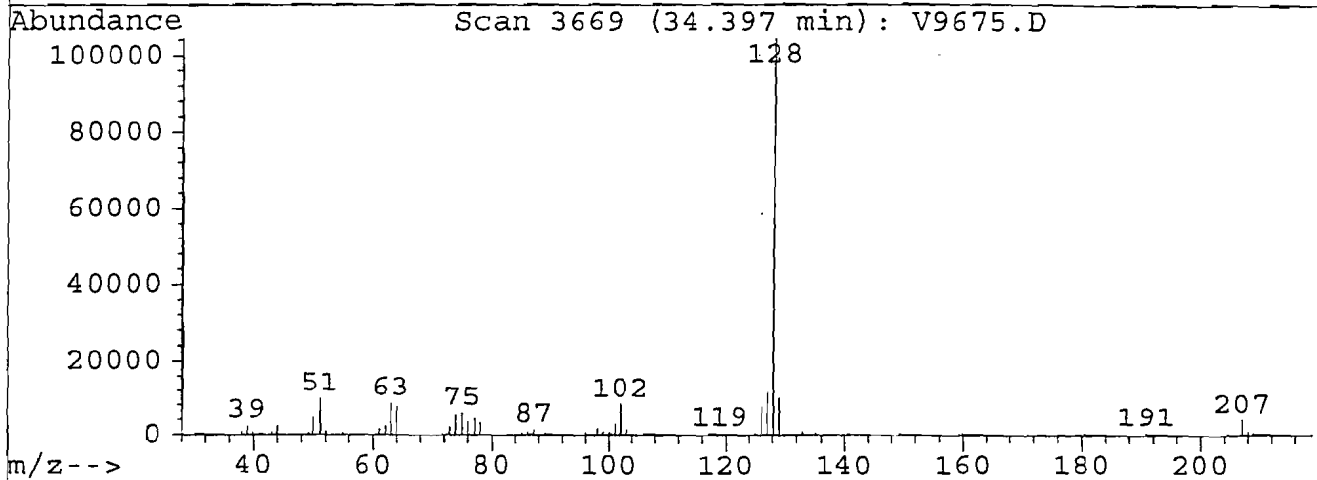
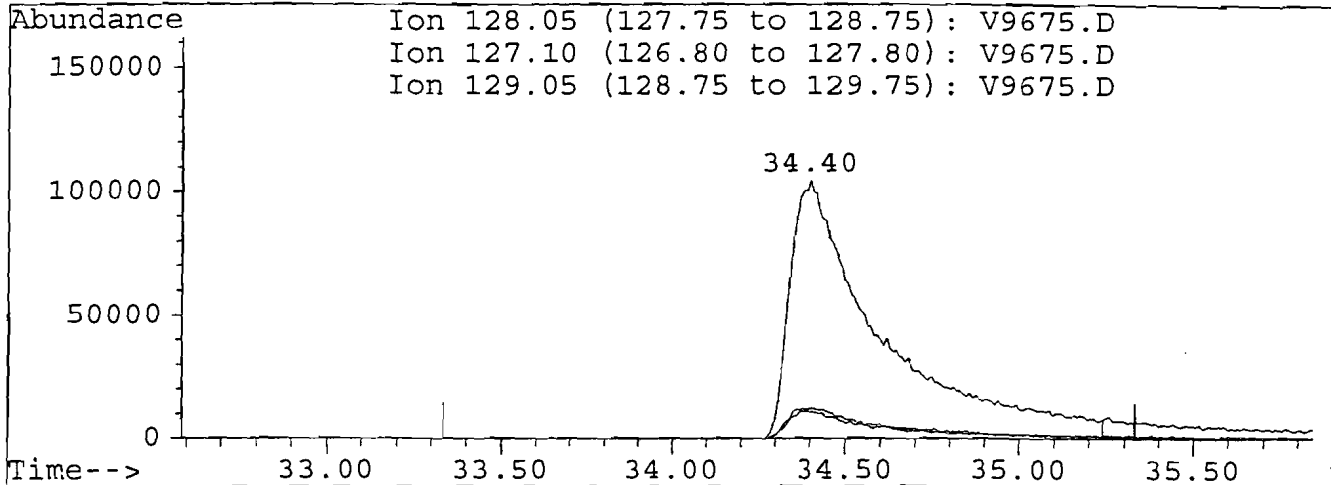
000399

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9675.D
 Acq Time : 30 Oct 99 7:54 am
 Sample : 20 PPB CCC
 Misc : SMLS
 Quant Time: Oct 30 8:41 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



TIC: V9675.D

(50) Naphthalene

34.40min 17.07ug/L m

response 1904592

Ion	Exp%	Act%
128.05	100	100
127.10	9.40	11.55
129.05	7.60	10.15
0.00	0.00	0.00

000400

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9675.D

Acq Time : 30 Oct 99 7:54 am

Sample : 20 PPB CCC

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

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

Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
1 I	Bromochloromethane	1.000	1.000	0.0	83	-0.03
2 P	Chloromethane	1.565	1.547	1.1	89	0.03
3 c	Vinyl Chloride	1.768	1.789	-1.2	94	0.00
4	Bromomethane	0.891	0.948	-6.4	97	0.00
5	Chloroethane	0.812	0.711	12.5	92	0.00
6	Trichlorofluoromethane	2.902	3.153	-8.6	89	-0.02
7 C	1,1-Dichloroethene	2.984	2.970	0.5	87	0.00
8	Acetone	0.475	0.487	-2.5	88	0.01
9	Carbon Disulfide	5.203	5.190	0.2	87	0.00
10	Methylene Chloride	1.944	1.906	2.0	85	0.00
11	trans-1,2-Dichloroethene	3.012	3.031	-0.6	87	-0.02
12 I	TBA	0.160	0.168	-5.3	92	0.02
13 I	MTBE	5.964	6.161	-3.3	88	0.00
14 P	1,1-Dichloroethane	4.497	4.563	-1.5	90	-0.02
15 I	cis-1,2-Dichloroethene	2.205	2.183	1.0	84	-0.02
16 C	Chloroform	4.050	4.083	-0.8	87	-0.03
17 S	1,2-Dichloroethane-d4	1.772	2.292	-29.4#	112	-0.03
18	1,2-Dichloroethane	2.503	2.591	-3.5	88	-0.04
19 I	1,4-Difluorobenzene	1.000	1.000	0.0	84	-0.03
20	Vinyl Acetate	0.656	0.712	-8.5	91	0.00
21	2-Butanone	0.150	0.103	31.1#	64	-0.01
22	1,1,1-Trichloroethane	0.623	0.620	0.5	86	-0.04
23	Carbon Tetrachloride	0.514	0.505	1.8	85	-0.04
24 M	Benzene	1.322	1.306	1.2	85	-0.03
25 M	Trichloroethene	0.407	0.414	-1.7	84	-0.03
26 C	1,2-Dichloropropane	0.486	0.479	1.5	85	-0.02
27	Bromodichloromethane	0.629	0.641	-1.9	85	-0.02
28	2-Chloroethyl Vinyl Ether	0.155	0.111	28.4#	62	-0.01
29	cis-1,3-Dichloropropene	0.674	0.681	-1.0	85	-0.01
30	trans-1,3-Dichloropropene	0.560	0.574	-2.5	85	0.00
31	1,1,2-Trichloroethane	0.377	0.382	-1.4	84	0.00
32	Dibromochloromethane	0.479	0.480	-0.3	84	0.00
33 P	Bromoform	0.272	0.268	1.6	83	0.00
34 I	Chlorobenzene-d5	1.000	1.000	0.0	84	0.00
35	4-Methyl-2-Pentanone	0.398	0.445	-11.6	86	-0.01
36 S	Toluene-d8	1.363	1.757	-28.9#	111	-0.01
37 C	Toluene	1.673	1.678	-0.3	85	-0.01
38	Tetrachloroethene	0.453	0.448	1.1	84	0.00
39	2-Hexanone	0.256	0.263	-2.8	93	0.00
40 P	Chlorobenzene	1.105	1.095	0.9	84	0.00

(#) = Out of Range

Sat Oct 30 08:42:24 1999

VOA1

Page 1

000401

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9675.D

Acq Time : 30 Oct 99 7:54 am

Operator: JJ

Sample : 20 PPB CCC

Inst : 5971 - In

Misc : 5MLS

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

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

Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
41 C	Ethylbenzene	2.095	2.097	-0.1	85	0.00
42	m+ p-Xylenes	0.751	0.744	1.0	84	0.00
43	o-xylene	1.612	1.609	0.2	85	0.00
44	Styrene	1.076	1.118	-3.9	83	0.00
45 S	Bromofluorobenzene	0.800	1.161	-45.1#	123	0.00
46 P	1,1,2,2-Tetrachloroethane	0.756	0.749	0.9	84	0.00
47	1,3-Dichlorobenzene	0.764	0.758	0.7	80	0.02
48	1,4-Dichlorobenzene	0.764	0.803	-5.2	87	0.02
49	1,2-Dichlorobenzene	0.780	0.762	2.4	81	0.02
50	Naphthalene	1.247	1.064	14.6	65	0.06

CHEMTECH CONSULTING GROUP

VOLATILES

RAW QC DATA

000403

BFB

JJ 10-27-99

Data File : J:\HPCHEM\1\DATA\V1102799\V9601.D

Acq Time : 27 Oct 99 9:47 am

Sample : BFB TUNE CHECK

Misc : 25MLS

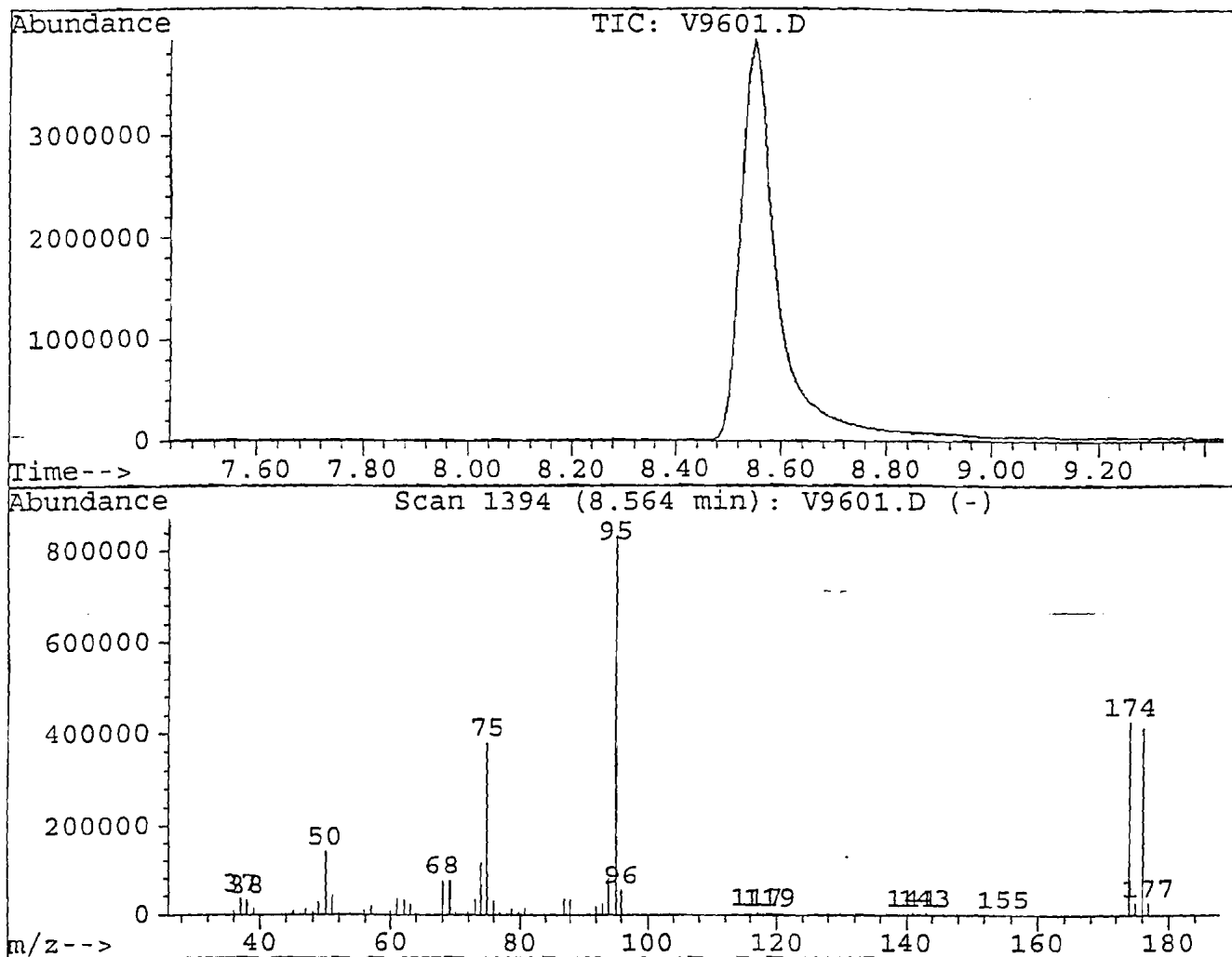
Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : J:\HPCHEM\1\OLDMETH\V11017IT.M

Title : 8260B VOA



Peak Apex is scan: 1380

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	142272	PASS
75	95	30	60	45.5	378496	PASS
95	95	100	100	100.0	832448	PASS
96	95	5	9	6.4	53592	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	50.8	422912	PASS
175	174	.5	9	6.8	28752	PASS
176	174	95	101	97.1	410496	PASS
177	176	5	9	6.6	27232	PASS

000404

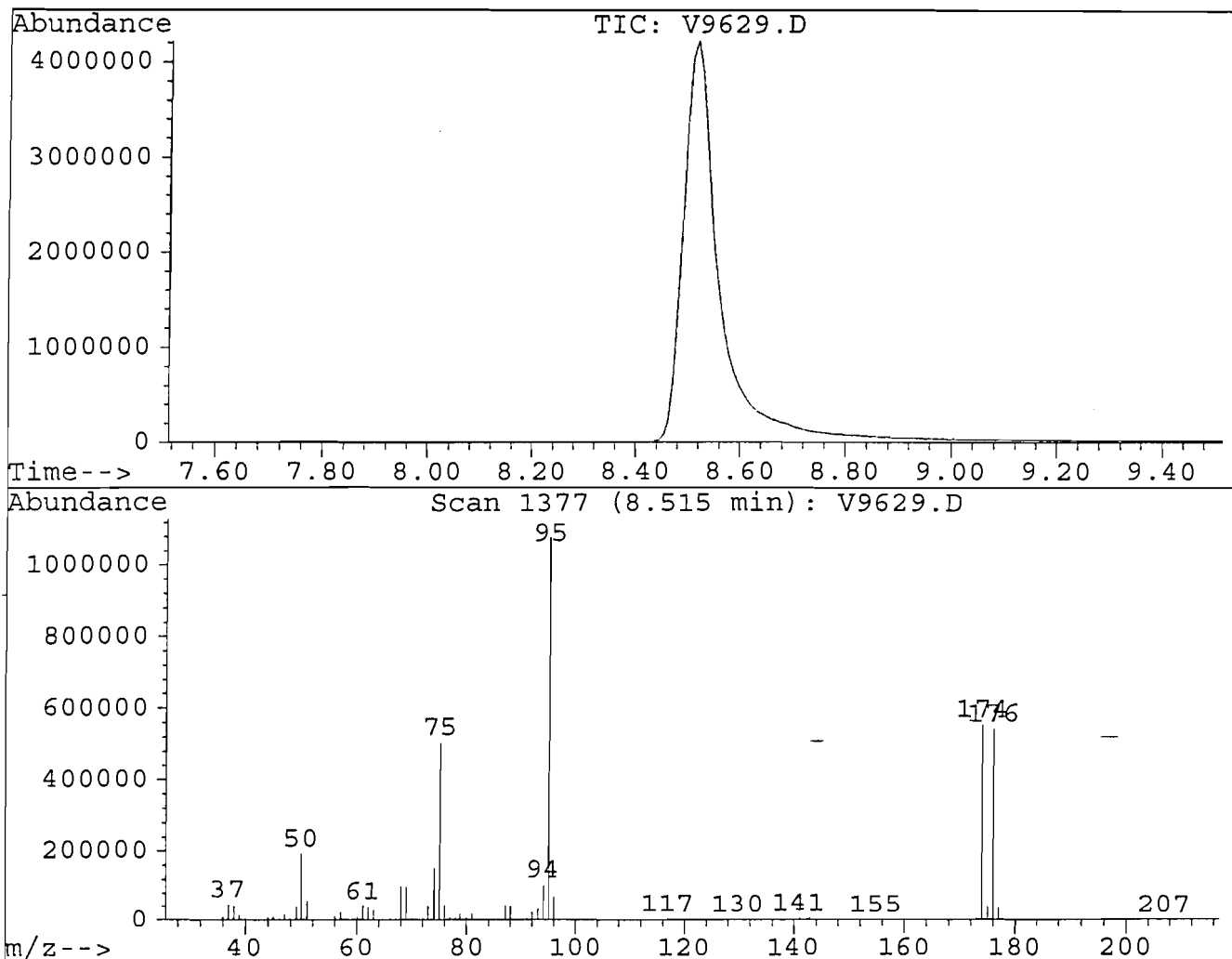
BFB

JJ 10-28-99

Data File : D:\HPCHEM\1\DATA\V1102899\V9629.D
 Acq Time : 28 Oct 99 10:15 am
 Sample : BFB TUNE CHECK
 Misc : 5MLS

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration



Peak Apex is scan: 1377

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	190144	PASS
75	95	30	60	46.5	500288	PASS
95	95	100	100	100.0	1076224	PASS
96	95	5	9	6.4	69360	PASS
173	174	0	2	0.6	3101	PASS
174	95	50	100	51.2	551488	PASS
175	174	5	9	7.1	39320	PASS
176	174	95	101	97.9	539712	PASS
177	176	5	9	6.8	36832	PASS

BFB

JJ 10-30-99

Data File : D:\HPCHEM\1\DATA\V1103099\V9674.D

Acq Time : 30 Oct 99 7:22 am

Sample : BFB TUNE CHECK

Misc : 5MLS

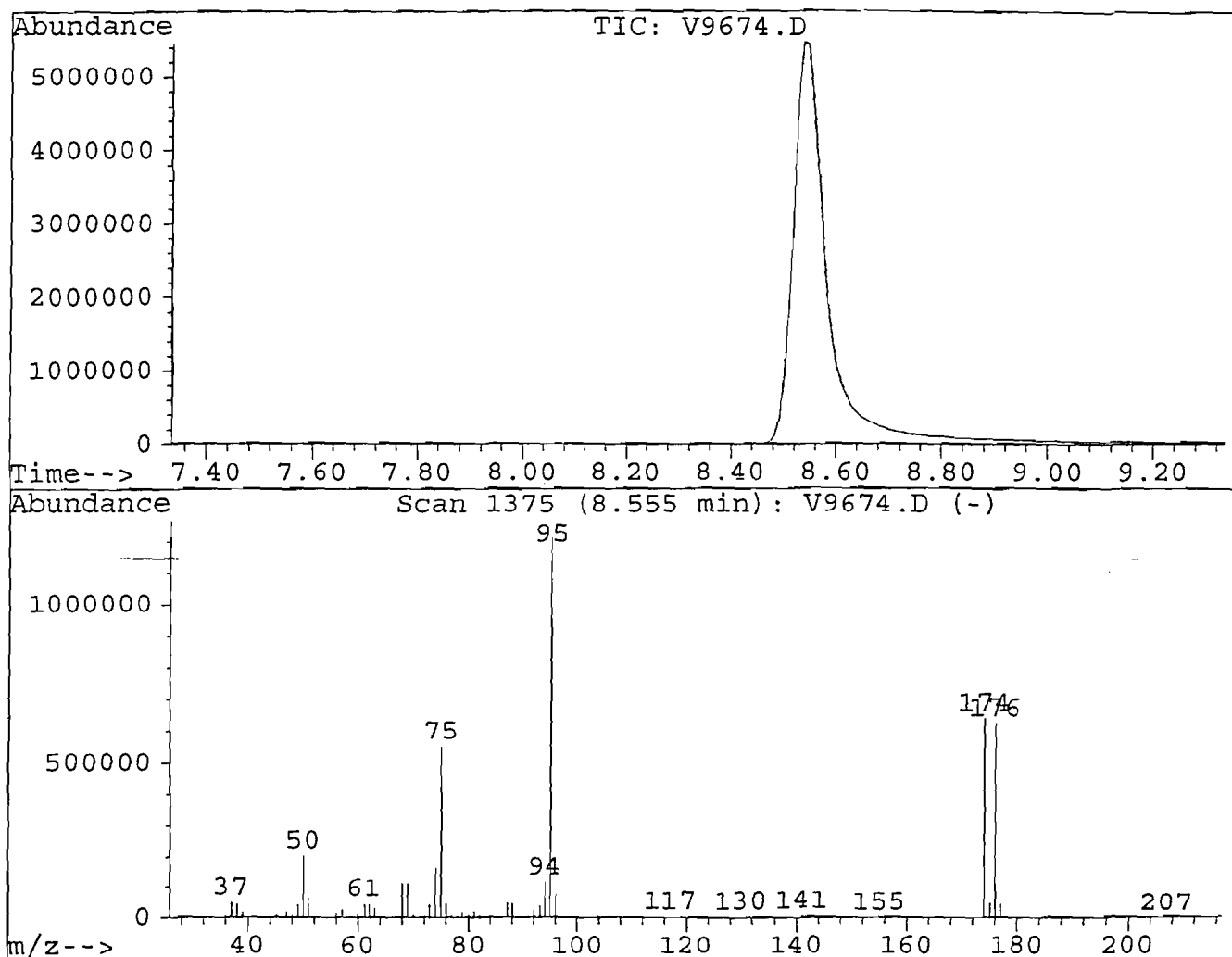
Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration



Peak Apex is scan: 1351

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.0	205184	PASS
75	95	30	60	45.4	548544	PASS
95	95	100	100	100.0	1209344	PASS
96	95	5	9	6.4	77312	PASS
173	174	0	2	0.4	2854	PASS
174	95	50	100	52.6	636672	PASS
175	174	5	9	7.0	44552	PASS
176	174	95	101	97.6	621312	PASS
177	176	5	9	6.6	41176	PASS

000406

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBK01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-02

Matrix: (soil/water) WATER Lab Sample ID: VBK01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9619.D

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. 100 Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3	U	U
74-83-9	Bromomethane	1.8	U	U
75-01-4	Vinyl Chloride	2	U	U
75-00-3	Chloroethane	1.6	U	U
75-09-2	Trichlorofluoromethane	1.5	U	U
75-09-2	Methylene Chloride	0.6	U	U
75-35-4	1,1-Dichloroethene	1.2	U	U
75-34-3	1,1-Dichloroethane	0.7	U	U
156-60-5	trans-1,2-Dichloroethene	1	U	U
67-66-3	Chloroform	0.4	U	U
107-06-2	1,2-Dichloroethane	0.5	U	U
71-55-6	1,1,1-Trichloroethane	0.5	U	U
56-23-5	Carbon Tetrachloride	0.4	U	U
75-27-4	Bromodichloromethane	0.6	U	U
78-87-5	1,2-Dichloropropane	0.8	U	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U	U
79-01-6	Trichloroethene	0.3	U	U
124-48-1	Dibromochloromethane	0.5	U	U
79-00-5	1,1,2-Trichloroethane	0.9	U	U
71-43-2	Benzene	0.6	U	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U	U
110-75-8	2-Chloroethyl Vinyl Ether	1.5	U	U
75-25-2	Bromoform	0.7	U	U
127-18-4	Tetrachloroethene	0.6	U	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U	U
108-88-3	Toluene	0.5	U	U
108-90-7	Chlorobenzene	0.5	U	U
100-41-4	Ethylbenzene	0.5	U	U
136777-61-2	m + p-Xylenes	0.4	U	U
95-47-6	o-xylene	0.4	U	U
95-50-1	1,2-Dichlorobenzene	0.2	U	U
541-73-1	1,3-Dichlorobenzene	0.4	U	U
106-46-7	1,4-Dichlorobenzene	0.3	U	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-02
Matrix: (soil/water) WATER Lab Sample ID: VBLK01
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9619.D
Level: (low/med) _____ Date Received: _____
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
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000408

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1102799\V9619.D
 Acq Time : 28 Oct 99 12:03 am
 Sample : PRO BLK
 Misc : 25MLS
 Quant Time: Nov 9 10:48 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.71	128	701104	30.00	ug/L	-0.09
19) 1,4-Difluorobenzene	14.31	114	3869363	30.00	ug/L	-0.06
34) Chlorobenzene-d5	22.32	117	3319333	30.00	ug/L	-0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.84	65	1108230	26.77	ug/L	89.22%
36) Toluene-d8	18.41	98	4088423	27.11	ug/L	90.35%
45) Bromofluorobenzene	25.46	95	2340695	26.43	ug/L	88.10%

Target Compounds	Qvalue

000409

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1102799\V9619.D

Acq Time : 28 Oct 99 12:03 am

Sample : PRO BLK

Misc : 25MLS

Quant Time: Nov 9 10:48 1999

Operator: AV

Inst : 5971 - In

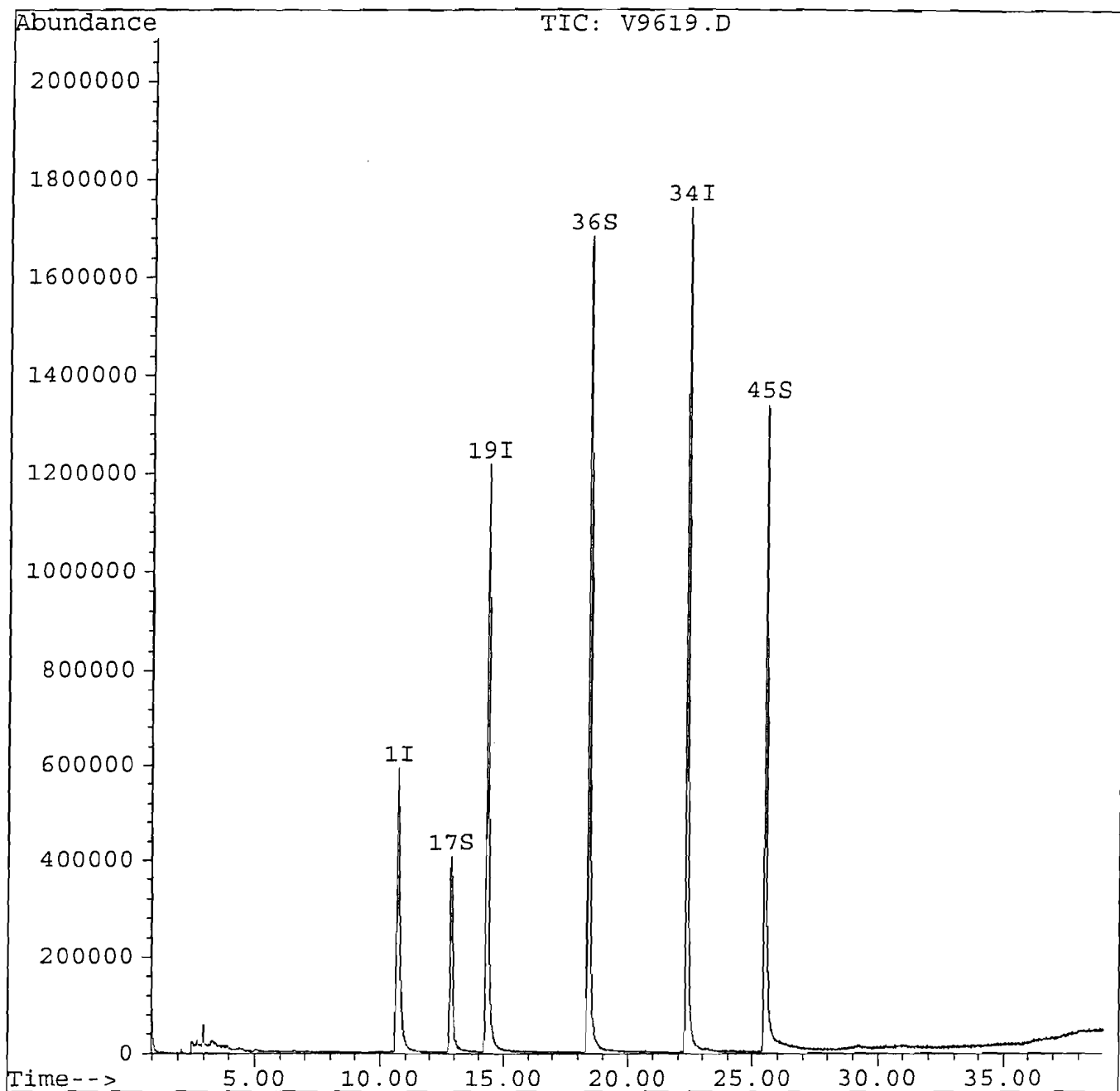
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration



000410

Library Search Compound Report

Data File : E:\HPCHEM\1\DATA\V1102799\V9619.D

Acq Time : 28 Oct 99 12:03 am

Sample : PRO BLK

Misc : 25MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000411

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLK02

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02

Matrix: (soil/water) WATER

Lab Sample ID: VBLK02

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9631.D

Level: (low/med) _____

Date Received: _____

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBK02

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-02
Matrix: (soil/water) WATER Lab Sample ID: VBK02
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9631.D
Level: (low/med) _____ Date Received: _____
% Moisture: not dec. 100 Date Analyzed: 10/28/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
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000413

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9631.D
 Acq Time : 28 Oct 99 12:21 pm
 Sample : PRO BLK
 Misc : 5MLS
 Quant Time: Nov 9 0:39 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.76	128	671113	30.00	ug/L	-0.04
19) 1,4-Difluorobenzene	14.35	114	3680742	30.00	ug/L	-0.02
34) Chlorobenzene-d5	22.37	117	3135273	30.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.88	65	1192235	30.08	ug/L	100.28%
36) Toluene-d8	18.44	98	4228959	29.68	ug/L	98.94%
45) Bromofluorobenzene	25.52	95	2245455	26.84	ug/L	89.48%

Target Compounds

Qvalue

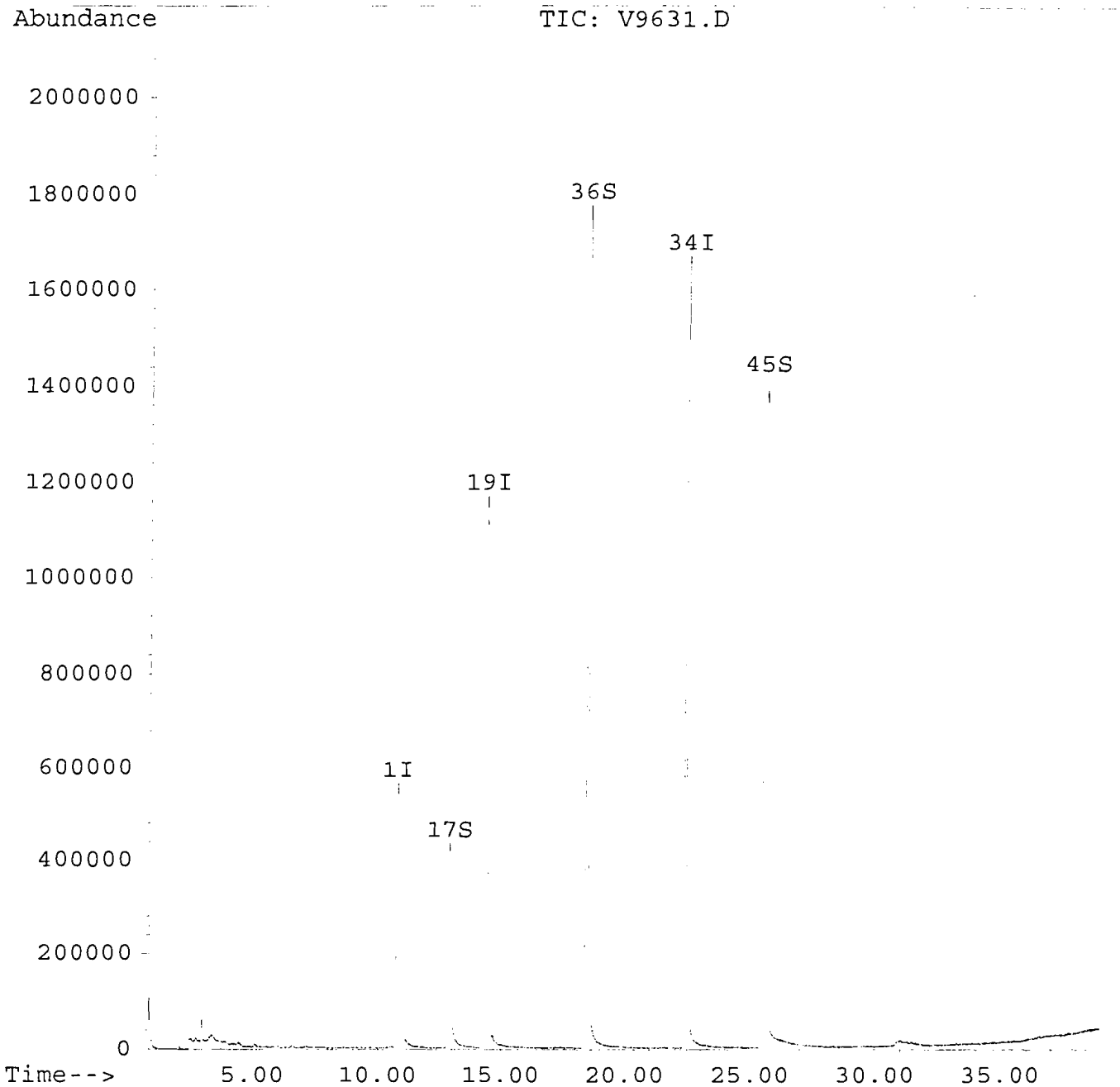
000414

Quantitation Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9631.D
Acq Time : 28 Oct 99 12:21 pm
Sample : PRO BLK
Misc : 5MLS
Quant Time: Nov 9 0:39 1999

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000415

Library Search Compound Report

Data File : I:\HPCHEM\1\DATA\V1102899\V9631.D
Acq Time : 28 Oct 99 12:21 pm
Sample : PRO BLK
Misc : 5MLS

Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : I:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000416

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLK03

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP Site: _____ Location: _____ Group: 335-GP-02

Matrix: (soil/water) WATER Lab Sample ID: VBLK03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9676.D

Level: (low/med) _____ Date Received: _____

% Moisture: not dec. 100 Date Analyzed: 10/30/99

GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-3	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
136777-61-2	m+ p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBK03

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. L532 Site: _____ Location: _____ Group: 335-GP-02
Matrix: (soil/water) WATER Lab Sample ID: VBK03
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9676.D
Level: (low/med) _____ Date Received: _____
% Moisture: not dec. 100 Date Analyzed: 10/30/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
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27.				
28.				
29.				
30.				

000418

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9676.D
 Acq Time : 30 Oct 99 9:04 am
 Sample : PRO BLK
 Misc : 5MLS
 Quant Time: Oct 30 9:46 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.84	128	599604	30.00	ug/L	0.04
19) 1,4-Difluorobenzene	14.39	114	3371421	30.00	ug/L	0.02
34) Chlorobenzene-d5	22.38	117	2860638	30.00	ug/L	0.02
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.94	65	1049641	29.64	ug/L	98.81%
36) Toluene-d8	18.47	98	3667399	28.21	ug/L	94.04%
45) Bromofluorobenzene	25.52	95	2013025	26.38	ug/L	87.92%
Target Compounds						Qvalue
8) Acetone	5.14	43	22478	2.37	ug/L	90

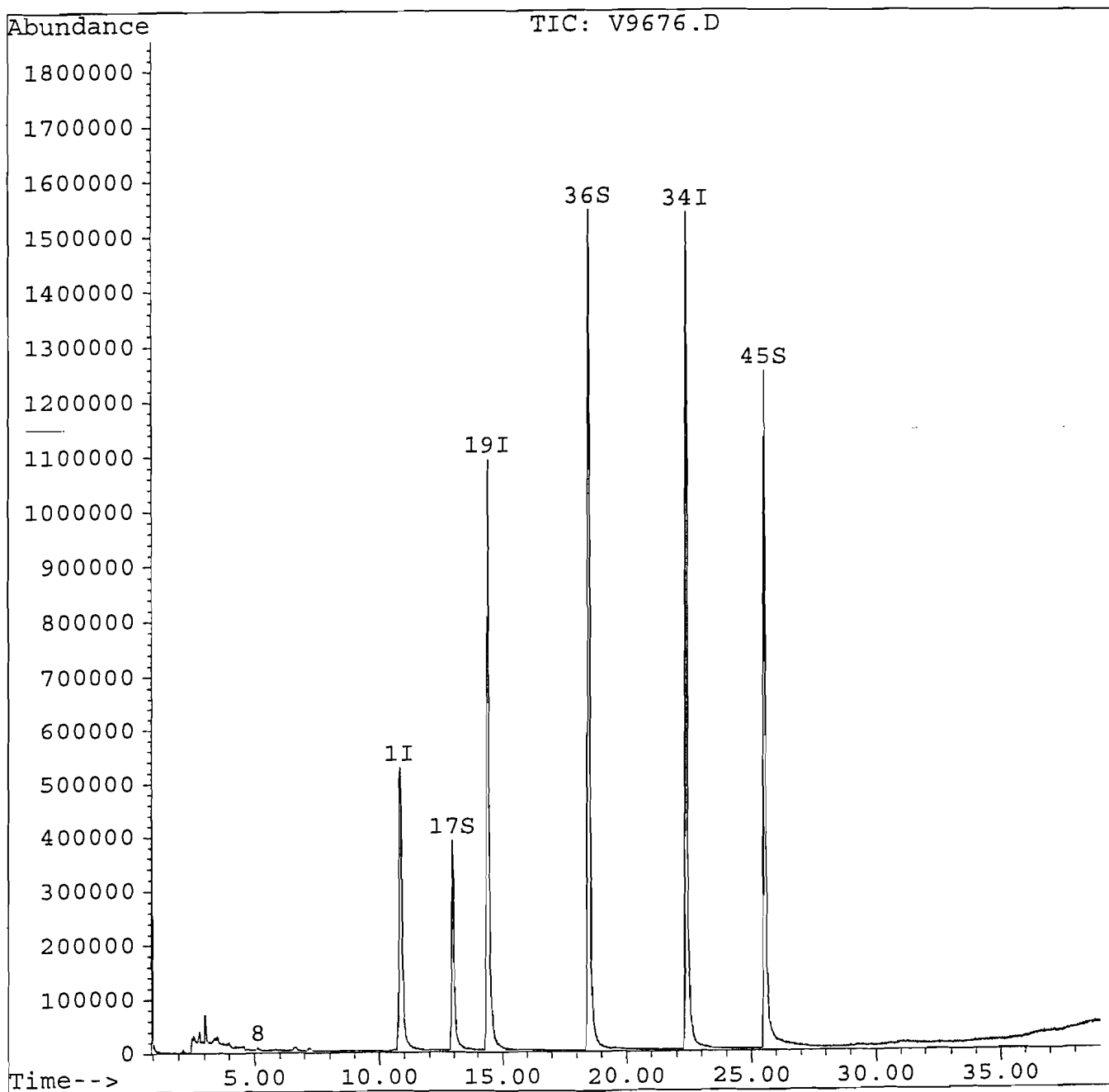
000419

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9676.D
Acq Time : 30 Oct 99 9:04 am
Sample : PRO BLK
Misc : 5MLS
Quant Time: Oct 30 9:46 1999

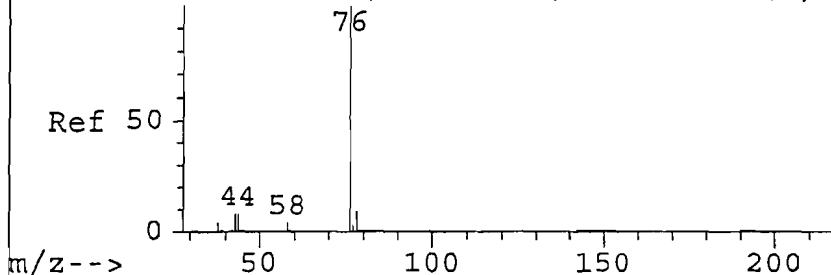
Operator: JJ
Inst : 5971 - In
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration

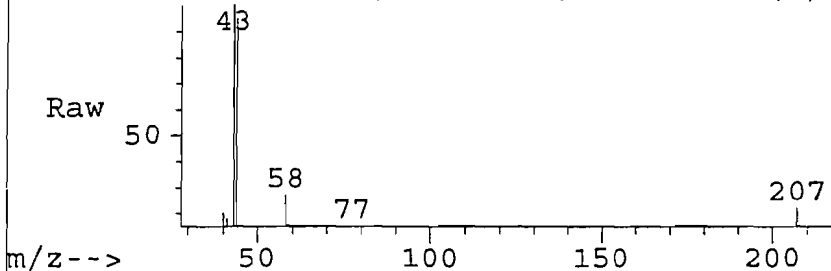


000420

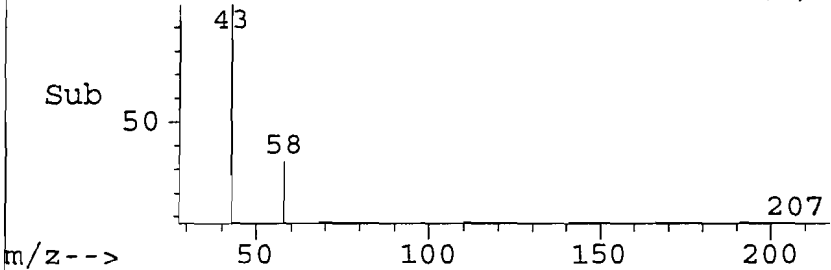
AbundanceScan 443 (4.858 min): V8257.D (-,*



AbundanceScan 470 (5.142 min): V9676.D (*)



AbundanceScan 470 (5.142 min): V9676.D (-,*



#8

Acetone

Concen: 2.37 ug/L

RT: 5.14 min Scan# 470

Delta R.T. 0.03 min

Lab File: V9676.D

Acq: 30 Oct 99 9:04 am

Tgt Ion:43 Resp: 22478

Ion Ratio Lower Upper

43 100

58 26.8 16.3 48.8

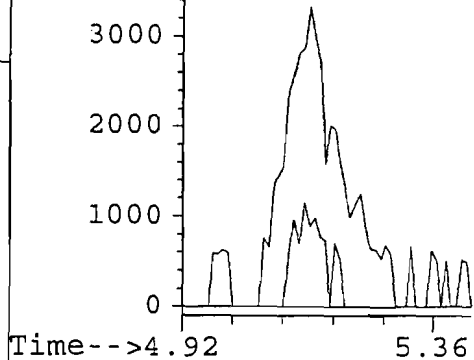
0 0.0 0.0 0.0

0 0.0 0.0 0.0

AbundanceIon 43.00 (42.

Ion 58.00 (57.

5.14



000421

Library Search Compound Report

Data File : D:\HPCHEM\1\DATA\V1103099\V9676.D

Acq Time : 30 Oct 99 9:04 am

Sample : PRO BLK

Misc : 5MLS

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000422

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

BLKSPK

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-02

Matrix: (soil/water) WATER

Lab Sample ID: BLKSPK

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9620.D

Level: (low/med) _____

Date Received: _____

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
74-87-3	Chloromethane	19		
74-83-9	Bromomethane	19		
75-01-4	Vinyl Chloride	19		
75-00-3	Chloroethane	16		
75-09-2	Trichlorofluoromethane	20		
75-09-2	Methylene Chloride	18		
75-35-4	1,1-Dichloroethene	19		
75-34-3	1,1-Dichloroethane	19		
156-60-5	trans-1,2-Dichloroethene	19		
67-66-3	Chloroform	19		
107-06-2	1,2-Dichloroethane	19		
71-55-6	1,1,1-Trichloroethane	19		
56-23-5	Carbon Tetrachloride	18		
75-27-4	Bromodichloromethane	19		
78-87-5	1,2-Dichloropropane	18		
10061-01-5	cis-1,3-Dichloropropene	18		
79-01-6	Trichloroethene	19		
124-48-1	Dibromochloromethane	18		
79-00-5	1,1,2-Trichloroethane	18		
71-43-2	Benzene	19		
10061-02-6	trans-1,3-Dichloropropene	18		
110-75-8	2-Chloroethyl Vinyl Ether	17		
75-25-2	Bromoform	17		
127-18-4	Tetrachloroethene	18		
79-34-5	1,1,2,2-Tetrachloroethane	17		
108-88-3	Toluene	19		
108-90-7	Chlorobenzene	18		
100-41-4	Ethylbenzene	18		
136777-61-2	m + p-Xylenes	37		
95-47-6	o-xylene	19		
95-50-1	1,2-Dichlorobenzene	18		
541-73-1	1,3-Dichlorobenzene	18		
106-46-7	1,4-Dichlorobenzene	20		

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9620.D

Acq Time : 28 Oct 99 12:47 am

Sample : BLK SPK

Misc : 25MLS Sm/s *10-25-99*

Quant Time: Oct 28 12:17 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.81	128	665429	30.00	ug/L	0.01
19) 1,4-Difluorobenzene	14.37	114	3798564	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.36	117	3145833	30.00	ug/L	0.00

System Monitoring Compounds

						%Recovery
17) 1,2-Dichloroethane-d4	12.91	65	1137907	28.96	ug/L	96.52%
36) Toluene-d8	18.45	98	4153624	29.06	ug/L	96.85%
45) Bromofluorobenzene	25.50	95	2441103	29.08	ug/L	96.95%

Target Compounds

						Qvalue
2) Chloromethane	2.70	50	645025	18.58	ug/L	98
3) Vinyl Chloride	2.83	62	733768	18.71	ug/L	99
4) Bromomethane	3.32	94	377819	19.12	ug/L	96
5) Chloroethane	3.46	64	288083	15.99	ug/L	99
6) Trichlorofluoromethane	3.85	101	1294287	20.11	ug/L	99
7) 1,1-Dichloroethene	4.82	61	1245880	18.83	ug/L	98
8) Acetone	5.13	43	188782	17.92	ug/L	98
9) Carbon Disulfide	5.20	76	2149762	18.63	ug/L	99
10) Methylene Chloride	5.99	84	787711	18.26	ug/L	94
11) trans-1,2-Dichloroethene	6.56	61	1237221	18.52	ug/L	99
12) TBA	6.49	59	612881	173.12	ug/L	71
13) MTBE	6.56	73	2450000	18.52	ug/L	99
14) 1,1-Dichloroethane	7.84	63	1845437	18.50	ug/L	97
15) cis-1,2-Dichloroethene	9.91	96	904234	18.49	ug/L	99
16) Chloroform	11.20	83	1677920	18.68	ug/L	100
18) 1,2-Dichloroethane	13.16	62	1036027	18.66	ug/L	99
20) Vinyl Acetate	8.11	43	1603823	19.30	ug/L	100
21) 2-Butanone	10.26	43	388875	20.46	ug/L m	99
22) 1,1,1-Trichloroethane	11.55	97	1471116	18.65	ug/L	99
23) Carbon Tetrachloride	11.99	117	1200574	18.45	ug/L	99
24) Benzene	12.79	78	3103939	18.54	ug/L	99
25) Trichloroethene	14.98	130	985280	19.13	ug/L	99
26) 1,2-Dichloropropane	15.73	63	1121838	18.23	ug/L	99
27) Bromodichloromethane	16.61	83	1498410	18.83	ug/L	99
28) 2-Chloroethyl Vinyl Ether	17.67	63	343522	17.48	ug/L	99
29) cis-1,3-Dichloropropene	17.91	75	1578808	18.49	ug/L	99
30) trans-1,3-Dichloropropene	19.55	75	1307222	18.42	ug/L	99
31) 1,1,2-Trichloroethane	19.98	97	859695	18.02	ug/L	99
32) Dibromochloromethane	20.90	129	1084487	17.88	ug/L	99
33) Bromoform	24.62	173	600749	17.44	ug/L	99
35) 4-Methyl-2-Pentanone	18.41	43	893842	21.39	ug/L	1
37) Toluene	18.62	91	3274469	18.67	ug/L	99
38) Tetrachloroethene	20.04	166	874176	18.41	ug/L	99
39) 2-Hexanone	20.74	43	588940	21.94	ug/L m	99

(#) = qualifier out of range (m) = manual integration

V11027AW.M

Thu Oct 28 12:17:49 1999

VOA1

Page

000424

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9620.D
 Acq Time : 28 Oct 99 12:47 am
 Sample : BLK SPK
 Misc : 25MLS
 Quant Time: Oct 28 12:17 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

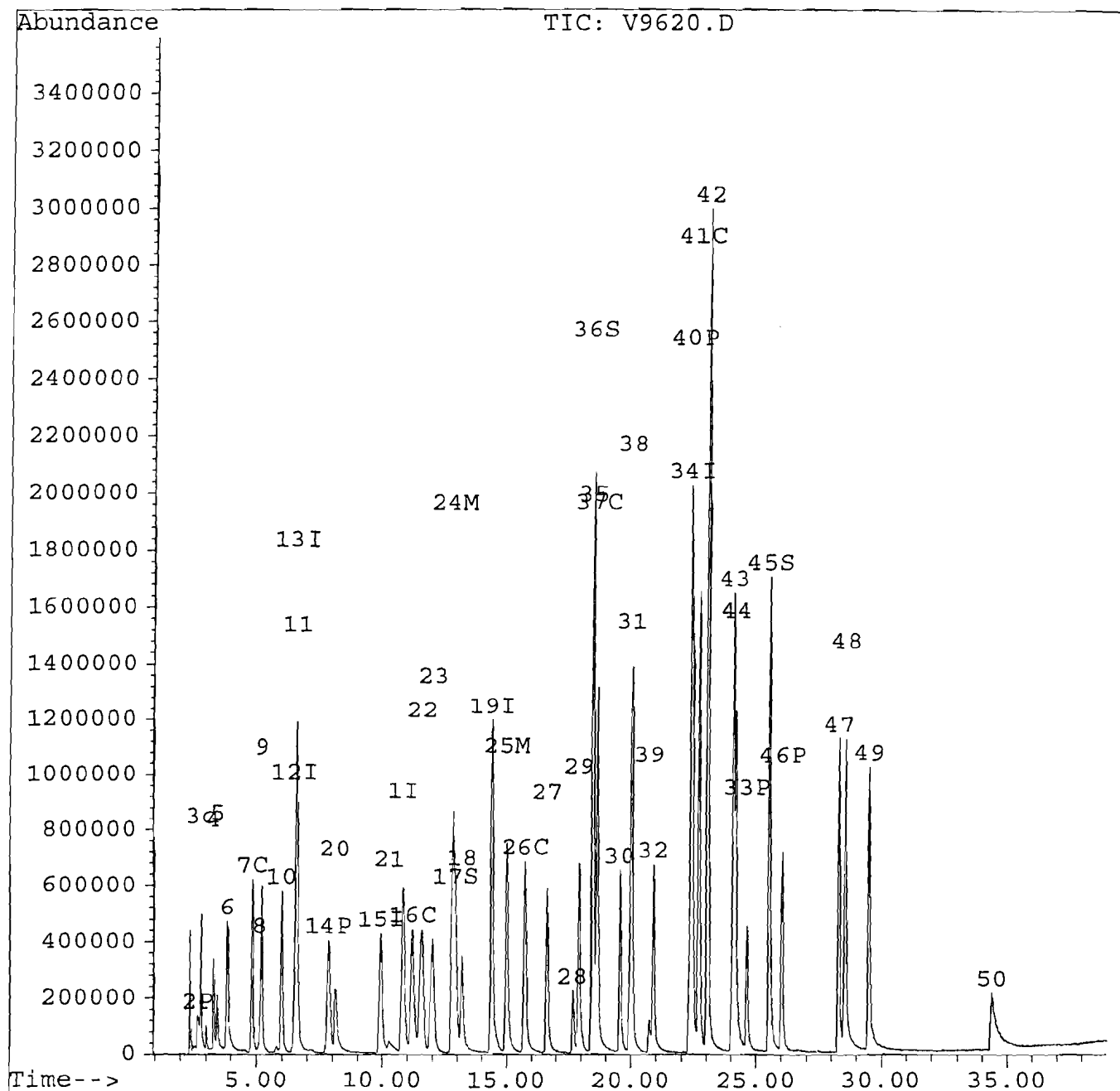
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.43	112	2128498	18.37	ug/L	100
41) Ethylbenzene	22.70	91	4050722	18.44	ug/L	99
42) m+ p-Xylenes	23.03	106	2892871	36.71	ug/L	99
43) o-xylene	24.06	91	3127897	18.51	ug/L	100
44) Styrene	24.15	104	2200556	19.50	ug/L	99
46) 1,1,2,2-Tetrachloroethane	26.02	83	1370102	17.29	ug/L	96
47) 1,3-Dichlorobenzene	28.26	146	1466773	18.32	ug/L	99
48) 1,4-Dichlorobenzene	28.53	146	1563265	19.52	ug/L	99
49) 1,2-Dichlorobenzene	29.47	146	1432784	17.51	ug/L	98
50) Naphthalene	34.37	128	1868003	14.29	ug/L m	99

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9620.D
 Acq Time : 28 Oct 99 12:47 am
 Sample : BLK SPK
 Misc : 25MLS
 Quant Time: Oct 28 12:17 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



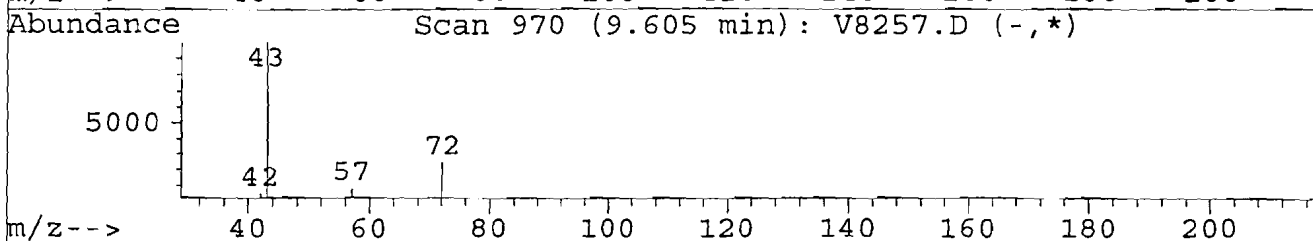
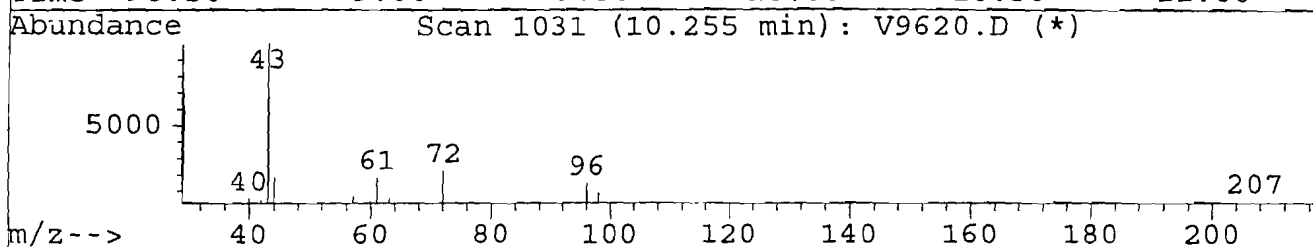
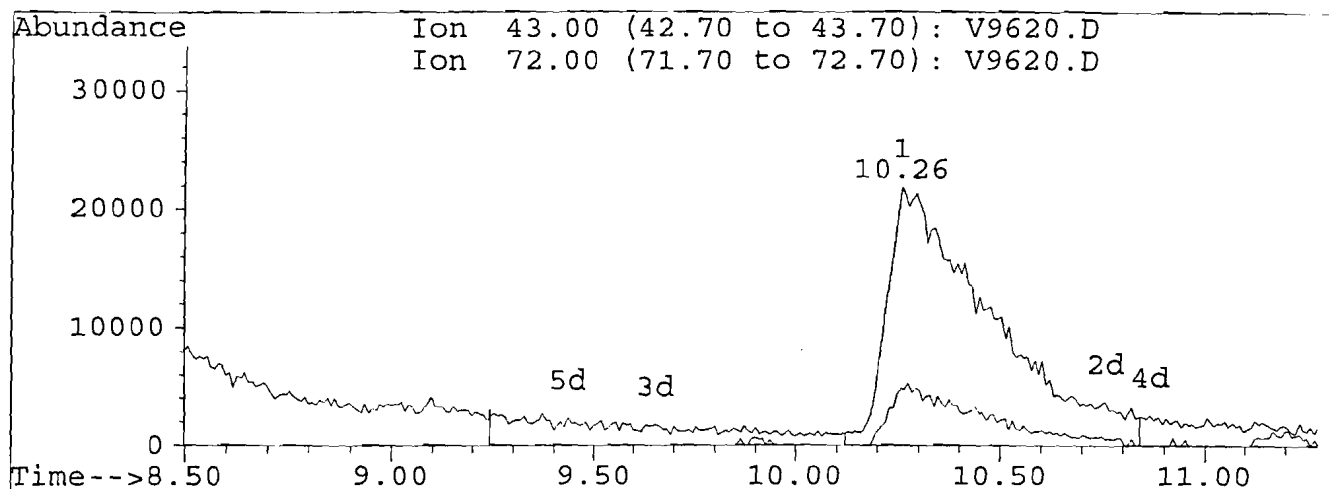
000426

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9620.D
 Acq Time : 28 Oct 99 12:47 am
 Sample : BLK SPK
 Misc : 25MLS
 Quant Time: Oct 28 12:16 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



TIC: V9620.D

(21) 2-Butanone
 10.26min 20.46ug/L m
 response 388875

Ion	Exp%	Act%
43.00	100	100
72.00	20.60	24.69
0.00	0.00	0.00
0.00	0.00	0.00

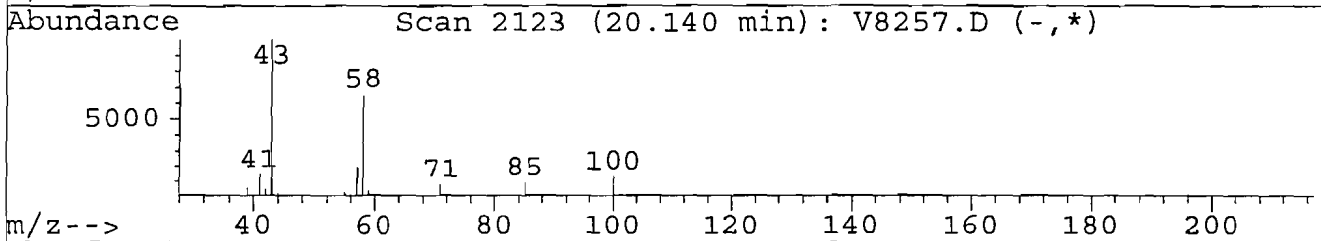
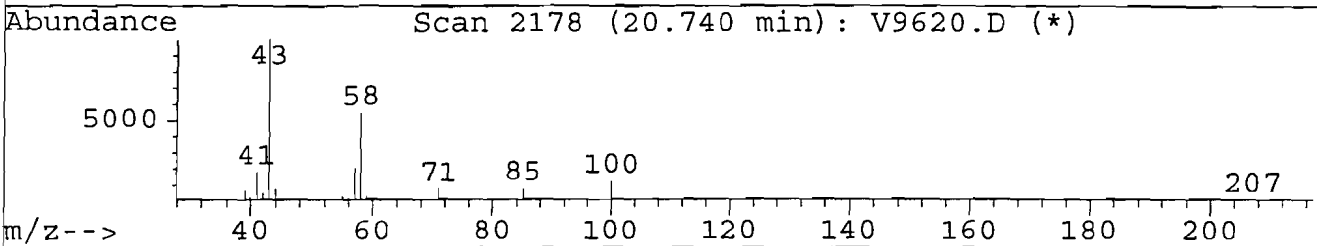
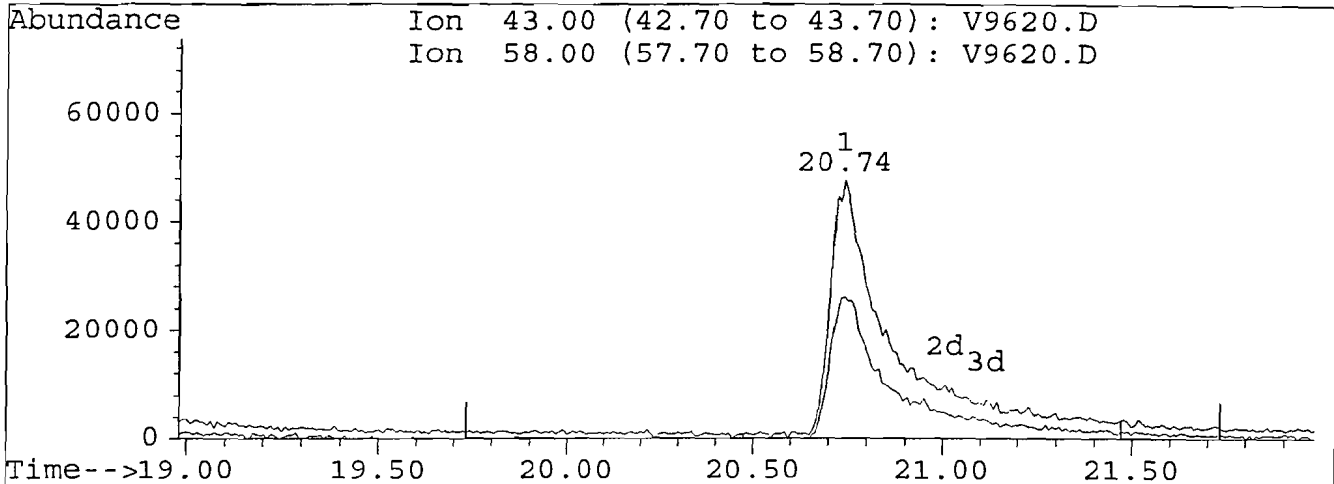
000427

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9620.D
 Acq Time : 28 Oct 99 12:47 am
 Sample : BLK SPK
 Misc : 25MLS
 Quant Time: Oct 28 12:17 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



TIC: V9620.D

(39) 2-Hexanone

20.74min 21.94ug/L m

response 588940

Ion	Exp%	Act%
43.00	100	100
58.00	56.10	64.77
0.00	0.00	0.00
0.00	0.00	0.00

000428

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9620.D

Acq Time : 28 Oct 99 12:47 am

Sample : BLK SPK

Misc : 25MLS

Quant Time: Oct 28 12:17 1999

Operator: AV

Inst : 5971 - In

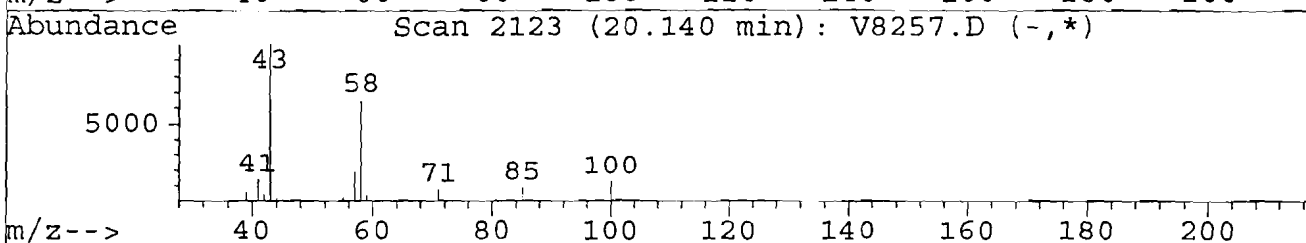
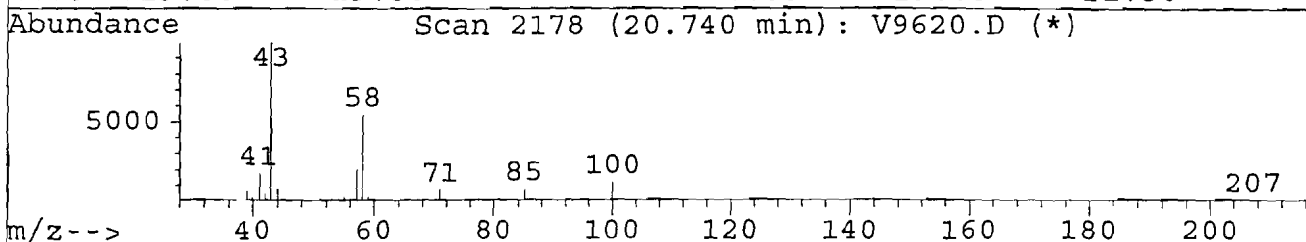
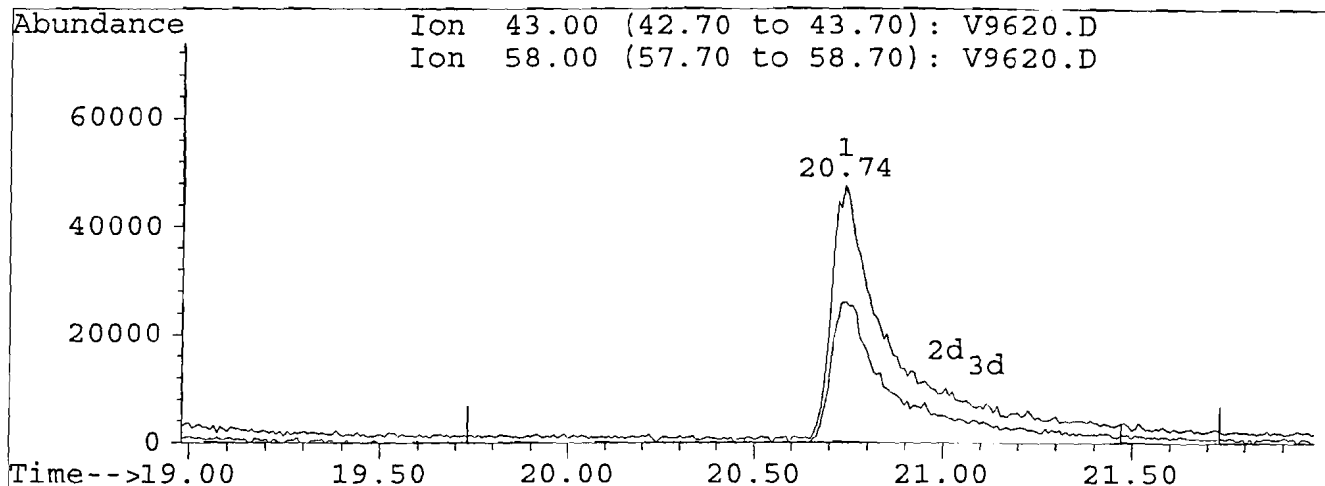
Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration



TIC: V9620.D

(39) 2-Hexanone

20.74min 21.94ug/L m

response 588940

Ion	Exp%	Act%
43.00	100	100
58.00	56.10	64.77
0.00	0.00	0.00
0.00	0.00	0.00

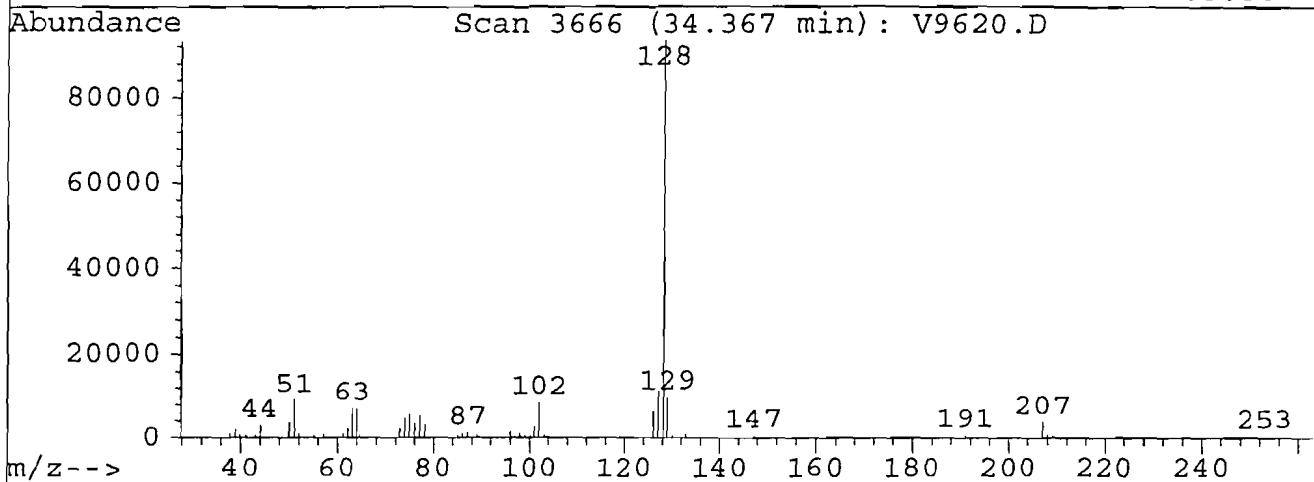
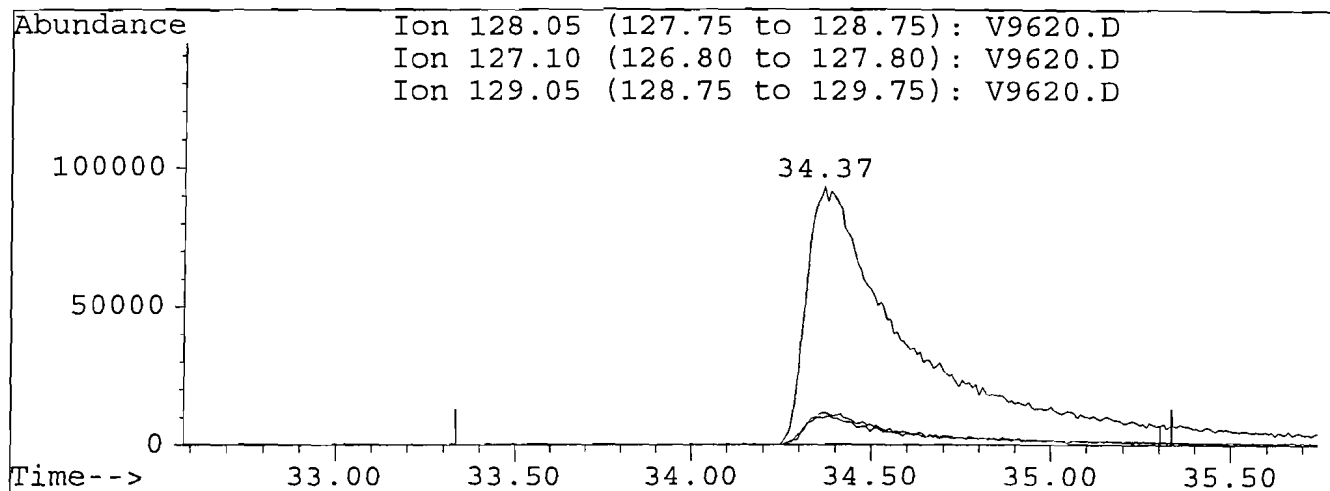
000429

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102799\V9620.D
 Acq Time : 28 Oct 99 12:47 am
 Sample : BLK SPK
 Misc : 25MLS
 Quant Time: Oct 28 12:15 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



TIC: V9620.D

(50) Naphthalene
 34.37min 14.29ug/L m
 response 1868003

Ion	Exp%	Act%
128.05	100	100
127.10	9.40	12.42
129.05	7.60	10.53
0.00	0.00	0.00

000430

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-GP-029-GW01MS

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: L5320ASP

Site: _____

Location: _____

Group: 335-GP-021-

Matrix: (soil/water) WATER

Lab Sample ID: O91755MS

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9638.D

Level: (low/med) _____

Date Received: 10/26/99

% Moisture: not dec. 100

Date Analyzed: 10/28/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	16		
74-83-9	Bromomethane	18		
75-01-4	Vinyl Chloride	17		
75-00-3	Chloroethane	14		
75-09-2	Trichlorofluoromethane	17		
75-09-2	Methylene Chloride	21		
75-35-4	1,1-Dichloroethene	20		
75-34-3	1,1-Dichloroethane	20		
156-60-5	trans-1,2-Dichloroethene	20		
67-66-3	Chloroform	20		
107-06-2	1,2-Dichloroethane	21		
71-55-6	1,1,1-Trichloroethane	20		
56-23-5	Carbon Tetrachloride	19		
75-27-4	Bromodichloromethane	20		
78-87-5	1,2-Dichloropropane	20		
10061-01-5	cis-1,3-Dichloropropene	20		
79-01-6	Trichloroethene	25		
124-48-1	Dibromochloromethane	19		
79-00-5	1,1,2-Trichloroethane	20		
71-43-2	Benzene	20		
10061-02-6	trans-1,3-Dichloropropene	20		
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	19		
127-18-4	Tetrachloroethene	20		
79-34-5	1,1,2,2-Tetrachloroethane	19		
108-88-3	Toluene	29		
108-90-7	Chlorobenzene	20		
100-41-4	Ethylbenzene	22		
136777-61-2	m + p-Xylenes	49		
95-47-6	o-xylene	25		
95-50-1	1,2-Dichlorobenzene	20		
541-73-1	1,3-Dichlorobenzene	21		
106-46-7	1,4-Dichlorobenzene	21		

000431

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9638.D

Acq Time : 28 Oct 99 5:48 pm

Sample : L5320ASP-91755MS

Misc : 5MLS

Quant Time: Oct 29 1:32 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.83	128	646924	30.00	ug/L	0.03
19) 1,4-Difluorobenzene	14.38	114	3672114	30.00	ug/L	0.01
34) Chlorobenzene-d5	22.38	117	2997414	30.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.93	65	932956	24.42	ug/L	81.40%
36) Toluene-d8	18.46	98	3883096	28.51	ug/L	95.03%
45) Bromofluorobenzene	25.53	95	2230305	27.89	ug/L	92.96%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chloromethane	2.71	50	556491	16.49	ug/L	99
3) Vinyl Chloride	2.84	62	634531	16.64	ug/L	99
4) Bromomethane	3.33	94	337931	17.59	ug/L	95
5) Chloroethane	3.48	64	249191	14.23	ug/L	100
6) Trichlorofluoromethane	3.85	101	1084412	17.33	ug/L	98
7) 1,1-Dichloroethene	4.84	61	1270531	19.75	ug/L	98
8) Acetone	5.15	43	209402	20.45	ug/L	97
9) Carbon Disulfide	5.22	76	2272633	20.26	ug/L	98
10) Methylene Chloride	6.01	84	875703	20.89	ug/L	94
11) trans-1,2-Dichloroethene	6.59	61	1268718	19.54	ug/L	95
13) MTBE	6.59	73	5321795	41.38	ug/L	98
14) 1,1-Dichloroethane	7.86	63	1913492	19.73	ug/L	100
15) cis-1,2-Dichloroethene	9.91	96	1680739	35.35	ug/L	96
16) Chloroform	11.21	83	1751830	20.06	ug/L	100
18) 1,2-Dichloroethane	13.17	62	1113159	20.63	ug/L	98
20) Vinyl Acetate	8.12	43	1779992	22.16	ug/L	97
21) 2-Butanone	10.29	43	357936	19.48	ug/L	94
22) 1,1,1-Trichloroethane	11.56	97	1558582	20.44	ug/L	99
23) Carbon Tetrachloride	12.01	117	1225736	19.48	ug/L	98
24) Benzene	12.81	78	3252227	20.10	ug/L	97
25) Trichloroethene	14.99	130	1232484	24.75	ug/L	97
26) 1,2-Dichloropropane	15.73	63	1213563	20.40	ug/L	99
27) Bromodichloromethane	16.62	83	1547418	20.11	ug/L	98
29) cis-1,3-Dichloropropene	17.92	75	1622265	19.65	ug/L	98
30) trans-1,3-Dichloropropene	19.56	75	1373160	20.02	ug/L	98
31) 1,1,2-Trichloroethane	20.00	97	902034	19.56	ug/L	100
32) Dibromochloromethane	20.92	129	1126221	19.21	ug/L	100
33) Bromoform	24.65	173	631082	18.95	ug/L	97
35) 4-Methyl-2-Pentanone	18.42	43	830930	20.87	ug/L	97
37) Toluene	18.64	91	4825681	28.87	ug/L	97
38) Tetrachloroethene	20.05	166	919790	20.33	ug/L	98
39) 2-Hexanone	20.74	43	471372	18.43	ug/L	96
40) Chlorobenzene	22.45	112	2256111	20.43	ug/L	99
41) Ethylbenzene	22.72	91	4693239	22.42	ug/L	100

(#) = qualifier out of range (m) = manual integration
V9638.D V11027AW.M Fri Oct 29 01:33:05 1999

000432
VOA1 Page 1

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9638.D

Acq Time : 28 Oct 99 5:48 pm

Sample : L5320ASP-91755MS

Misc : 5MLS

Quant Time: Oct 29 1:32 1999

Operator: JJ

Inst : 5971 - In

Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) m+ p-Xylenes	23.05	106	3669741	48.88	ug/L	98
43) o-xylene	24.08	91	3980178	24.72	ug/L	99
44) Styrene	24.18	104	2266824	21.08	ug/L	99
46) 1,1,2,2-Tetrachloroethane	26.06	83	1462818	19.37	ug/L	97
47) 1,3-Dichlorobenzene	28.32	146	1612878	21.14	ug/L	99
48) 1,4-Dichlorobenzene	28.58	146	1574999	20.64	ug/L	99
49) 1,2-Dichlorobenzene	29.52	146	1597159	20.49	ug/L	99
50) Naphthalene	34.32	128	2716515	21.81	ug/L m	92

000433

(#) = qualifier out of range (m) = manual integration

V9638.D V11027AW.M

Fri Oct 29 01:33:06 1999

VOA1

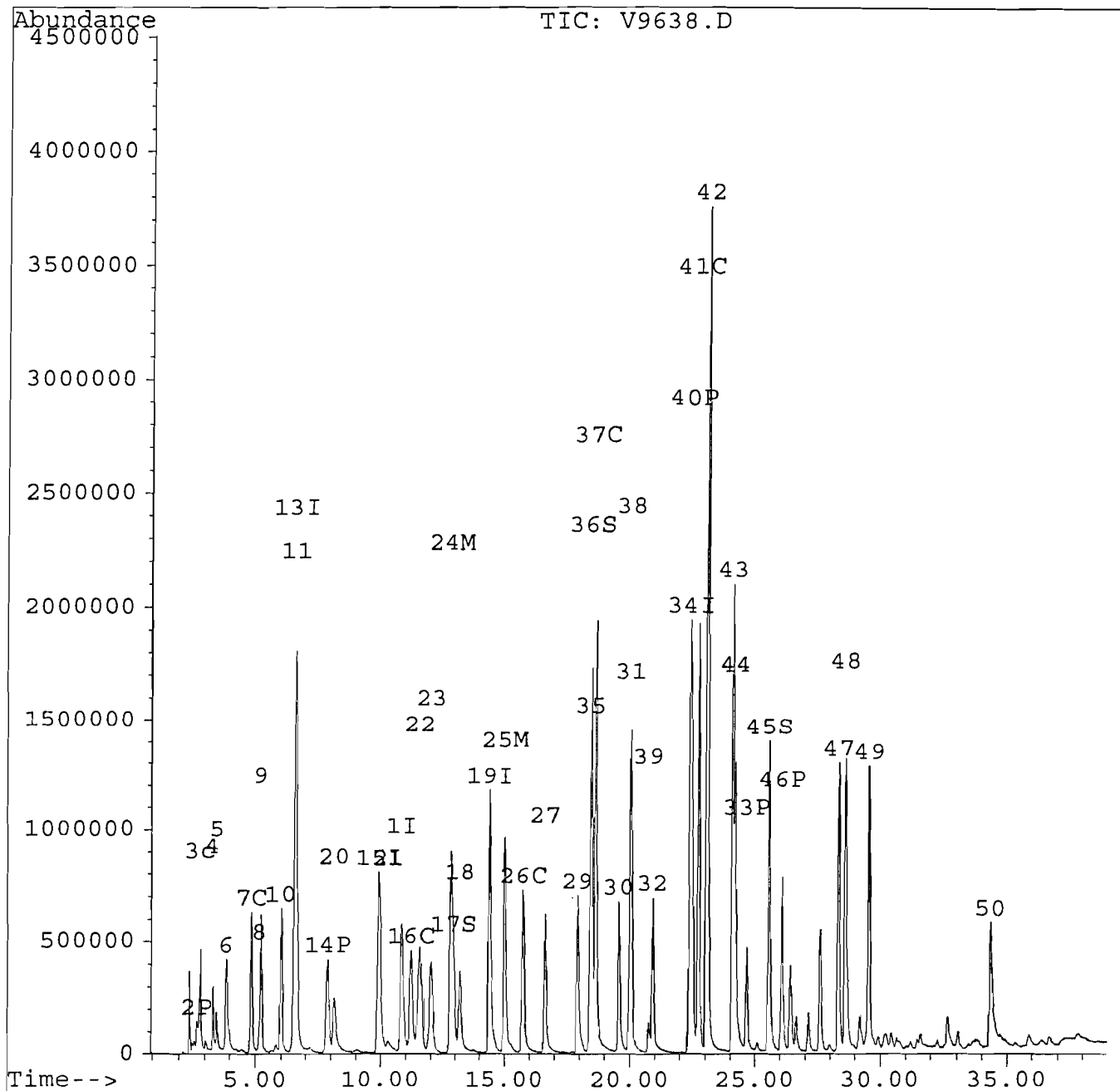
Page 2

Quantitation Report

Data File : D:\HPCHEM\1\DATA\V1102899\V9638.D
 Acq Time : 28 Oct 99 5:48 pm
 Sample : L5320ASP-91755MS
 Misc : 5MLS
 Quant Time: Oct 29 1:32 1999

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



000434

CHEMTECH CONSULTING GROUP

MISCELLANEOUS DATA

000435

Start Date: 10/27/99 End Date: 10/27/99 Analyst: AF Review By: A

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	V1072	QC Check Std.	_____
CCC 50	V1099, V1100	Initial Calibration Stds.	_____
Internal Stds.	V1097	Spike Std.	V1107
Surrogate Stds.	V1098	METH	V11017 I.T.M

4935338
3447980
1311848

SR #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	BFB	V9601		pH	OK 9:47
2	10PPB CCC	V9602	826075		OK
3	PRO BIK	V9603			OK
4	BIK SPIK	V9604			OK
5	991003 -001	V9605		C2 25mls	OK
6	-002	V9606		C2	OK
7	-003	V9607		C2	OK RR to Confirm
8	-004	V9608		C2	OK RR 1:10/1:25
9	-005	V9609		C2	OK RR Pas Carryover
10	-006	V9610		C2	OK
11	-007	V9611		C2	OK
12	-008	V9612		C2	OK
13	-009	V9613		C2	OK
14	-010	V9614		C2	OK
15	V-011	V9615		C2	OK
16	100PPB ICC	V9616	8/624	Swb	OK
17	20PPB ICC	V9617		V11027 A.V.M	OK
18	5PPB ICC	V9618			OK
19	PRO. BLANK	V9619			OK -000436
20	BLANK SPIKE	V9620			OK

Start Date: 10/27/99 End Date: 10/28/99 Analyst: A 4 Review By: JA

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	V1072	QC Check Std.	—
CCC 50	—	Initial Calibration Stds.	V1068, V1069
Internal Stds.	V1104	Spike Std.	V1068, V1069
Surrogate Stds.	V1105	Meth	V11027AW.m

684261
3842534
3215355

SR. #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	LS320ASF-91747	V9621	624	5m/s	OK
2	91748	V9622			OK
3	91749	V9623			OK
4	91750	V9624			OK
5	91751	V9625			OK
6	91752	V9626			OK
7	91753	V9627			OK
8	91754	V9628			OK
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					000437
20					

Start Date: 10/28/99 End Date: 10/29/99 Analyst: JA Review By: A

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	V1072	QC Check Std.	_____
CCC 50	V1068, V1069	Initial Calibration Stds.	_____
Internal Stds.	V1104	Spike Std.	V1068, V1069
Surrogate Stds.	V1105	METH	V11027 AW, M

583937
3235182
2701409

SR #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	BFB	V9629			OK 10:15
2	20PPBCCC	V9630	624		OK
3	PROBIX	V9631			OK
4	BIX SPK	V9632			OK
5	L5320ASP -91764	V9633		5mls	OK
6	-91765	V9634			OK
7	-91766	V9635			OK
8	-91767	V9636			OK
9	-91768	V9637			OK
10	-91755ms	V9638			OK
11	-91755	V9639			OK
12	-91756	V9640			OK RR 5x
13	-91757	V9641			OK
14	-91758	V9642			OK RR 20x
15	-91759	V9643			OK
16	-91760	V9644			OK Sur 4 matrix rr 10x & 100x
17	-91761	V9645			RR STR pos CO
18	-91762	V9646			OK
19	↓ -91763	V9647	↓	↓	OK 000438
20	L5320ASP -91764	V9648	624	5mls	RR Pass Carryover

HEMTECH

Daily Analysis Runlog For GC/MS #: VOA1

Start Date: 10/28/99 End Date: 10/29/99 Analyst: [Signature] Review By: [Signature]

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	V1072	QC Check Std.	_____
CCC 50	V1068, V1069	Initial Calibration Stds.	_____
Internal Stds.	V1104	Spike Std.	V1068, V1069
Surrogate Stds.	V1105	METH	V11027 AW, m

583937
3235182
2701409

SR #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	L5320ASP -91765	V9649	624	5mls	RR Pass Carryover
2	-91766	V9650	↓	↓	ok
3	-91767	V9651	↓	↓	ok
4	↓-91768	V9652	↓	↓	ok
5	L5320ASP -91756	V9653		5x	ok
6	-91758	V9654		20x	ok
7	-91761	V9655		5mls	ok
8	-91760	V9656		10x	ok RR 1:100
9	-91760	V9657	↓	100x	ok
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					000439
20					

Start Date: 10/30/99 End Date: 10/30/99 Analyst: AG Review By: Amf

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	V1112	QC Check Std.	—
CCC 50 ¹⁰⁻³⁰⁻⁹⁹	V1068 ^{V1068} V1069 ^{V1069}	Initial Calibration Stds.	—
Internal Stds.	V1104	Spike Std.	V1068, V1069
Surrogate Stds.	V1105	M.ETN	V11027 A.M.

571349
3225169
2684853

SR. #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	BFB	V 9674			OK 7:22
2	20PPBCC	V 9675	624		OK
3	PRO BIK	V9676			OK
4	BIK SPK	V 9677			OK
5	L5320 ASD -91769	V 9678		5mls	RR
6	-91765	V 9679			RR Sur
7	13855C -13281	V 9680			RR 50x + 100x
8	-13282	V9681			RR 10x + 51R.
9	CIVUP BIK	V9682	624	5ms	ok
10	BIK	V9683		5mls	ok
11	L5320 ASD -91764	V9684		5mls	ok
12	-91765	V9685		5mls	ok
13	13855C -13281	V9686		50x Dil	ok
14	-13281	V9687		100x Dil	Not needed
15	-13282	V9688		STR 5mls	ok RR 10x
16	-13282	V9689		10x Dil	ok w/ V9688
17					
18					
19					
20					

000440

CASE NARRATIVE SUPPORT DOCUMENTProject No.: 15320 ASPDate: 11/9/99Project Name: Impact EnvisoAnalyst: BSSupervisor: _____ Department Head: 1 QC Review by: _____

<u>TEST SAMPLING</u>	
91756	needed 5x dilution
91758	needed 2x dilution
91760	needed 10x & 100x dilution
<u>GENERAL COMMENTS:</u> 624 B BS	

NOTES:

1. Please report unusual (e.g. different matrix, analytical problems/etc.) items.
2. For no unusual items, please write 'NONE.'
3. Return the completed document to QC Department with the analytical data.

SHIPPING AND RECEIVING DOCUMENTATION

000442

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CHEMTECH JOB NO.:

15320 ASP

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Impact Environmental

ADDRESS: 1 Village Plaza

CITY: Kings Park STATE: NY ZIP: 11754

ATTENTION: Kevin Klecka

PHONE: (516) 269-8800 FAX: (516) 269-1599

PROJECT INFORMATION

PROJECT NAME: #1-30-0435

PROJECT NO.: 98-335, Westbury

PROJECT MANAGER: Richard Parrish

LOCATION: 299 Main St. Westbury, NY

PHONE: — FAX: —

BILLING INFORMATION

BILL TO: Client PO #:

ADDRESS:

CITY: STATE: ZIP:

ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX: — DAYS: —
HARD COPY: Standard DAYS: —
EDD: — DAYS: —

* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT: —

1 USEPA 624

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other	
			COMP	GRAB	DATE	TIME		A										
								E	1	2	3	4	5	6	7	8		9
1. 91747	335-GP-021-GW01	L		X	10/19/99	936	2	X										
2. 91748	335-GP-022-GW01	L		X	10/19/99	1104	2	X										
3. 91749	335-GP-023-GW01	L		X	10/19/99	1246	2	X										
4. 91750	335-GP-024-GW01	L		X	10/19/99	245	2	X										
5. 91751	335-GP-025-GW01	L		X	10/20/99	110	2	X										
6. 91752	335-GP-026-GW01	L		X	10/20/99	906	2	X										
7. 91753	335-GP-027-GW01	L		X	10/20/99	1029	2	X										
8. 91754	335-GP-028-GW01	L		X	10/20/99	1208	2	X										

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY: SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 10/25/99	RECEIVED BY: 1. <i>[Signature]</i>	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler _____ Comments:
RELINQUISHED BY: 2. <i>[Signature]</i>	DATE/TIME: 10-26-99 1252	RECEIVED BY: 2. <i>[Signature]</i>	
RELINQUISHED BY: 3. <i>[Signature]</i>	DATE/TIME: 10/26/99	RECEIVED FOR LAB BY: 3. <i>[Signature]</i>	

Page _____ of _____ Shipment Complete: Yes ☐ No ☐

CHEMTECH

CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CHEMTECH JOB NO.:

LS320ASF

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Impact Environmental

ADDRESS: 1 Village Plaza

CITY: Kings Park STATE: NY ZIP: 11754

ATTENTION: Kevin Klecka

PHONE: (516) 269-8800 FAX: (516) 269-1597

PROJECT INFORMATION

PROJECT NAME: #1-30-0435

PROJECT NO.: 98-335, Westbury

PROJECT MANAGER: Richard Parrish

LOCATION: 299 Main St., Westbury, NY

PHONE: FAX:

BILLING INFORMATION

BILL TO: Client

PO #:

ADDRESS:

CITY:

STATE:

ZIP:

ATTENTION:

PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: Standard DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT:

USEPA 624

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other	
			COMP	GRAB	DATE	TIME		A										
								E	1	2	3	4	5	6	7	8		9
1. 91755	335-GP-029-GW01	L		X	10/10/99	2 ⁵⁶	2	X										
2. 91756	335-GP-030-GW01	L		X	10/11/99	9 ¹⁴	2	X										
3. 91757	335-GP-031-GW01	L		X	10/14/99	10 ²⁴	2	X										
4. 91758	335-GP-032-GW01	L		X	10/21/99	12 ⁰⁶	2	X										
5. 91759	335-GP-033-GW01	L		X	10/21/99	1 ²⁶	2	X										
6. 91760	335-GP-034-GW01	L		X	10/21/99	3 ⁰⁰	2	X										
7. 91761	335-GP-035-GW01	L		X	10/22/99	9 ¹⁰	2	X										
8. 91762	335-GP-036-GW01	L		X	10/24/99	10 ³¹	2	X										

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 10/25/99	RECEIVED BY: 1. <i>[Signature]</i>	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler _____
RELINQUISHED BY: 2. <i>[Signature]</i>	DATE/TIME: 10/26/99 12:55	RECEIVED BY: 2. <i>[Signature]</i>	Comments:
RELINQUISHED BY: 3. <i>[Signature]</i>	DATE/TIME: 10/26/99 14:00	RECEIVED FOR LAB BY: 3. <i>[Signature]</i>	Page _____ of _____

Shipment Complete: Yes _____ No _____

CHEMTECH
CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
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Fax (201) 567-1333

☐ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CHEMTECH JOB NO.: L5320ASP
CHEMTECH QUOTE NO.:

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION	
REPORT TO BE SENT TO:					
COMPANY: <u>Impact Environmental</u>		PROJECT NAME: <u>#1-30-0435</u>		BILL TO: <u>Client</u> PO #:	
ADDRESS: <u>1 Village Plaza</u>		PROJECT NO.: <u>98-335, Westbury</u>		ADDRESS:	
CITY: <u>King Park</u> STATE: <u>Ny</u> ZIP: <u>11754</u>		PROJECT MANAGER: <u>Richard Parrish</u>		CITY: STATE: ZIP:	
ATTENTION: <u>Kevin Kleaka</u>		LOCATION: <u>299 Main St., Westbury, Ny</u>		ATTENTION: PHONE:	
PHONE: <u>(516) 269-8800</u> FAX: <u>(516) 269-1599</u>		PHONE: FAX:			

DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION	
FAX:	DAYS *	☐ RESULTS ONLY	☐ USEPA CLP
HARD COPY: <u>Standard</u>	DAYS *	☐ RESULTS + QC	☒ NYS ASP "B"
EDD:	DAYS *	☐ NJ REDUCED	☐ NYS ASP "A"
* TO BE APPROVED BY CHEMTECH		☐ NJ CLP	☐ EDD
** NORMAL TURNAROUND TIME - 14 DAYS		☐ EDD FORMAT:	

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other	
			COMP	GRAB	DATE	TIME		A										
								E	1	2	3	4	5	6	7	8		9
1. <u>91763</u>	335-GP-037-GW01	L		X	10/24/99	11:57	2	X										
2. <u>91764</u>	335-GP-FB-GW(10119)	L		X	10/19/99	8:25	10	X										
3. <u>91765</u>	335-GP-FB-GW(10120)	L		X	10/20/99	8:03 am	1	X										
4. <u>91766</u>	335-GP-FB-GW(10121)	L		X	10/21/99	7:50 am	1	X										
5. <u>91767</u>	335- TB ^{GP} -FB-GW(10122)	L		X	10/22/99	10:31 am	1	X										
6. <u>91768</u>	335-Trip BK	L					1	X										
7.																		
8.																		

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY: SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>10/25/99</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler _____ Comments:
RELINQUISHED BY: 2. <u>[Signature]</u>	DATE/TIME: <u>10-26/99 12:42</u>	RECEIVED BY:	
RELINQUISHED BY: 3. <u>[Signature]</u>	DATE/TIME: <u>10/26/99</u>	RECEIVED FOR LAB BY: <u>[Signature]</u>	

Page _____ of _____ Shipment Complete: Yes No _____

DATA PACKAGE FOR VOLATILE ORGANICS

**PROJECT NAME: # 1-30-0435
PROJECT # 98-335, WESTBURY**

**IMPACT ENVIRONMENTAL
1 VILLAGE PLAZA
KING PARK NY 11754
916-269-8800**

**CHEMTECH PROJECT
ATTENTION**

**13946ASP
KEVIN KLEAKA**

CASE NARRATIVE-VOLATILE ORGANICS**Impact Environmental****Project Name: # 1-30-0435****Project # 98-335, Westbury****Chemtech Project # 13946ASP****A. Number of Samples and Date of Receipt**

3 Aqueous samples and A Trip Blank were delivered to the laboratory intact on 10/29/99.

B. Parameters

Test requested was Volatile Organics. This data package contains results for Volatile Organics.

C. Analytical Techniques:

Samples were analyzed for Volatile Organics according Method 624. The analyses were performed on instruments VOA5, using GC column RTX624 which is 75 meters, 0.53mm ID, 3.0mm df (crossbond 6% cyanopropylphenyl-94%) dimethylpolysiloxane. The Purge Trap was supplied by Supelco, VO CARB 3000, Tekmar 3000.

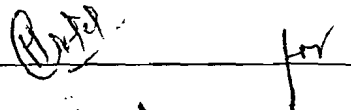
D. QA/ QC Samples:

The Surrogate Recoveries for each sample are found in Form II-A. Initial Calibration of Single Component Analytes results are found on Form 6 D & E. The Matrix Spike and Matrix Spike Duplicate were analyzed and are reported on Form 3F.

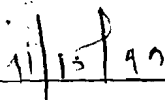
System Monitoring Compound recoveries were acceptable. MS/MSD recoveries and RPDs met requirements. Internal Standard Areas met requirements and Retention Times met criteria. Calibrations met requirements. Blank analyses did not indicate the presence of contamination.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature

Name: Divyajit Mehta

Date:

Title: Lab Manager

000001



ANALAB/ICM DIVISION

205 Campus Plaza 1 • Raritan Center • Edison, NJ • 08837

Tel: 732.225.4111 Fax: 732.225.4110

COVER PAGE

Lab Name: Chemtech Consulting Group

Client: IMPACT ENVIRONMENTAL

Lab Code: CHEM Project No.: 13946ASP

Client Sample No.

Lab Sample ID

335-MW-1-GW01

89335

335-MW-2-GW01

89336

335-MW-3-GW01

89337

335-TRIP BLANK

89338

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designed, as verified by the following signature.

Signature: _____

Name: DIVYAJIT MEHTA

Date : _____

Title: LAB DIRECTOR

000002

DATA REPORTING QUALIFIERS - ORGANIC

For reporting results, the following "Results Qualifiers" are used:

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates the compound was analyzed for, but was not detected. Report the minimum detection limit for the sample with the U, ie "10 U". This is not necessarily the instrument detection limit. The figure represents the minimum detection limit attainable for this particular sample based on any concentration or dilution that may have been required.

J - Indicates an estimated value. This flag is used:

- (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed).
- (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit but greater than zero. If the detection limit was 10 ug/L and a concentration of 3 ug/L was calculated, report as "3 J".

B - Indicates the analyte was found in the blank as well as the sample; report as "12 B".

E - Indicates the analyte's concentration exceeds the calibrated range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

P - This flag is used for a Pesticide/Aroclor target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a "P".

N - This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

CHEMTECH CONSULTING GROUP

II

VOLATILES

DATA

000004

CHEMTECH CONSULTING GROUP

VOLATILES

QC DATA

000005

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-GW0

	SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER #	TOT OUT
01	VBLK01	107	98	112		
02	BLKSPK	95	97	98		
03	335-TRIP BLANK	103	96	108		
04	335-MW-1-GW01	104	93	106		
05	335-MW-2-GW01	98	96	107		
06	335-MW-3-GW01	101	94	104		
07						
08						
09						
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SMC1 (TOL) = Toluene-d8
 SMC2 (BFB) = Bromofluorobenzene
 SMC3 (DCE) = 1,2-Dichloroethane-d4

QC LIMITS

(88-110)

(86-115)

(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

000006

3A
VOLATILE MATRIX SPIKE

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13946ASP

Site: _____

Location: _____

Group: _____

COMPOUND	MS CONC.	SAMPLE CONC.	SPIKE ADDED	%R	
Chloromethane	19.07	0.00	20.00	95.4	
Bromomethane	19.67	0.00	20.00	98.4	
Vinyl Chloride	19.49	0.00	20.00	97.5	
Chloroethane	19.07	0.00	20.00	95.4	
Trichlorofluoromethane	20.70	0.00	20.00	103.5	
Methylene Chloride	21.12	0.00	20.00	105.6	
1,1-Dichloroethene	20.35	0.00	20.00	101.8	
1,1-Dichloroethane	20.55	0.00	20.00	102.8	
trans-1,2-Dichloroethene	20.74	0.00	20.00	103.7	
Chloroform	20.66	0.00	20.00	103.3	
1,2-Dichloroethane	21.13	0.00	20.00	105.7	
1,1,1-Trichloroethane	20.54	0.00	20.00	102.7	
Carbon Tetrachloride	19.85	0.00	20.00	99.3	
Bromodichloromethane	20.92	0.00	20.00	104.6	
1,2-Dichloropropane	20.75	0.00	20.00	103.8	
cis-1,3-Dichloropropene	20.21	0.00	20.00	101.1	
Trichloroethene	20.37	0.00	20.00	101.9	
Dibromochloromethane	20.09	0.00	20.00	100.5	
1,1,2-Trichloroethane	21.00	0.00	20.00	105.0	
Benzene	20.22	0.00	20.00	101.1	
trans-1,3-Dichloropropene	20.09	0.00	20.00	100.5	
2-Chloroethylvinyl ether	18.40	0.00	20.00	92.0	
Bromoform	19.48	0.00	20.00	97.4	
Tetrachloroethene	19.27	0.00	20.00	96.4	
1,1,2,2-Tetrachloroethane	19.11	0.00	20.00	95.6	
Toluene	19.70	0.00	20.00	98.5	
Chlorobenzene	20.06	0.00	20.00	100.3	
Ethylbenzene	19.63	0.00	20.00	98.2	
1,2-Dichlorobenzene	19.64	0.00	20.00	98.2	
1,3-Dichlorobenzene	20.13	0.00	20.00	100.7	
1,4-Dichlorobenzene	21.28	0.00	20.00	106.4	

000007

4A
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBK01

Lab Name: CHEMTECH Contract: IMPACT

Project No.: 13946ASP Site: _____ Location: _____ Group: 335-MW-1-

Lab File ID: V9770.D Lab Sample ID: VBK01

Date Analyzed: 11/4/99 Time Analyzed: 0233

GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLKSPK	BLKSPK	V9771.D	0317
02	335-TRIP BLANK	O89338	V9772.D	0402
03	335-MW-1-GW01	O89335	V9773.D	0447
04	335-MW-2-GW01	O89336	V9774.D	0531
05	335-MW-3-GW01	O89337	V9775.D	0615
06				
07				
08				
09				
10				
11				
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13				
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30				

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13946ASP Site: _____ Location: _____ Group: 335-MW-1-G
 Lab File ID: V9601.D BFB Injection Date: 10/27/99
 Instrument ID: VOA1 BFB Injection Time: 0947
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.1
75	30.0 - 60.0% of mass 95	45.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	< 2.0% of mass 174	0.0 (0.0)1
174	> 50.0% of mass 95	50.8
175	5.0 - 9.0% of mass 174	3.5 (6.8)1
176	> 95.0 % but < 101.0% of mass 174	49.3 (97.1)1
177	5.0 - 9.0% of mass 176	3.3 (6.6)2

1-Value is % mass 174

2-Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD100	VSTD100	V9616.D	10/27/99	2150
02	VSTD020	VSTD020	V9617.D	10/27/99	2234
03	VSTD005	VSTD005	V9618.D	10/27/99	2318
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : CHEMTECH Contract: IMPACT ENVIRONMENTAL
 Project No.: 13946ASP Site: _____ Location: _____ Group: 335-MW-1-G
 Lab File ID: V9758.D BFB Injection Date: 11/3/99
 Instrument ID: VOA1 BFB Injection Time: 1725
 GC Column: RTX624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	46.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	< 2.0% of mass 174	0.3 (0.5)1
174	> 50.0% of mass 95	50.4
175	5.0 - 9.0% of mass 174	3.5 (7.0)1
176	> 95.0 % but < 101.0% of mass 174	49.3 (97.9)1
177	5.0 - 9.0% of mass 176	3.2 (6.4)2

1-Value is % mass 174

2-Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD2002	V9769.D	11/4/99	0148
02	VBLK01	VBLK01	V9770.D	11/4/99	0233
03	BLKSPK	BLKSPK	V9771.D	11/4/99	0317
04	335-TRIP BLANK	O89338	V9772.D	11/4/99	0402
05	335-MW-1-GW01	O89335	V9773.D	11/4/99	0447
06	335-MW-2-GW01	O89336	V9774.D	11/4/99	0531
07	335-MW-3-GW01	O89337	V9775.D	11/4/99	0615
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-GLab File ID (Standard): V9769.DDate Analyzed: 11/4/99Instrument ID: VOA1Time Analyzed: 0148GC Column: RTX624ID: 0.53 (mm)Heated Purge (Y/N) N

	IS1 (CBZ)		IS2 DFB		IS3 BCM	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	2473962	22.46	2842359	14.44	521027	10.89
UPPER LIMIT	4947924	22.96	5684718	14.94	1042054	11.39
LOWER LIMIT	1236981	21.96	1421180	13.94	260514	10.39
SAMPLE NO.						
01 VBLK01	2483677	22.44	2949107	14.44	517505	10.89
02 BLKSPK	2572100	22.46	3020508	14.47	538090	10.91
03 335-TRIP BLANK	2393498	22.45	2755671	14.46	513532	10.91
04 335-MW-1-GW01	2471520	22.46	2978360	14.44	534858	10.87
05 335-MW-2-GW01	2441365	22.45	2832123	14.46	534753	10.91
06 335-MW-3-GW01	2621777	22.44	3166662	14.45	568784	10.89
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (CBZ) = Chlorobenzene-d5

IS2 DFB = 1,4-Difluorobenzene

IS3 BCM = Bromochloromethane

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

000011

CHEMTECH CONSULTING GROUP

VOLATILES

SAMPLE DATA

000012

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-MW-1-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-

Matrix: (soil/water) WATER

Lab Sample ID: O89335

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9773.D

Level: (low/med) _____

Date Received: 10/29/99

% Moisture: not dec. 100

Date Analyzed: 11/4/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-4	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
1330-20-7	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-MW-1-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1394 Site: _____ Location: _____ Group: 335-MW-1
Matrix: (soil/water) WATER Lab Sample ID: O89335
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9773.D
Level: (low/med) _____ Date Received: 10/29/99
% Moisture: not dec. 100 Date Analyzed: 11/4/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
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25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9773.D

Acq Time : 4 Nov 99 4:47 am

Sample : 13946ASP-89335

Misc : 5MLS

Quant Time: Nov 4 7:33 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.87	128	534858	30.00	ug/L	0.07
19) 1,4-Difluorobenzene	14.44	114	2978360	30.00	ug/L	0.07
34) Chlorobenzene-d5	22.46	117	2471520	30.00	ug/L	0.10
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.97	65	1004815	31.81	ug/L	106.04%
36) Toluene-d8	18.54	98	3514075	31.29	ug/L	104.30%
45) Bromofluorobenzene	25.61	95	1844671	27.98	ug/L	93.25%
Target Compounds						Qvalue
8) Acetone	5.16	43	55206	6.52	ug/L	94
13) MTBE	6.61	73	1290538	12.14	ug/L	96

000015

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9773.D

Acq Time : 4 Nov 99 4:47 am

Sample : 13946ASP-89335

Misc : 5MLS

Quant Time: Nov 4 7:33 1999

Operator: AV

Inst : 5971 - In

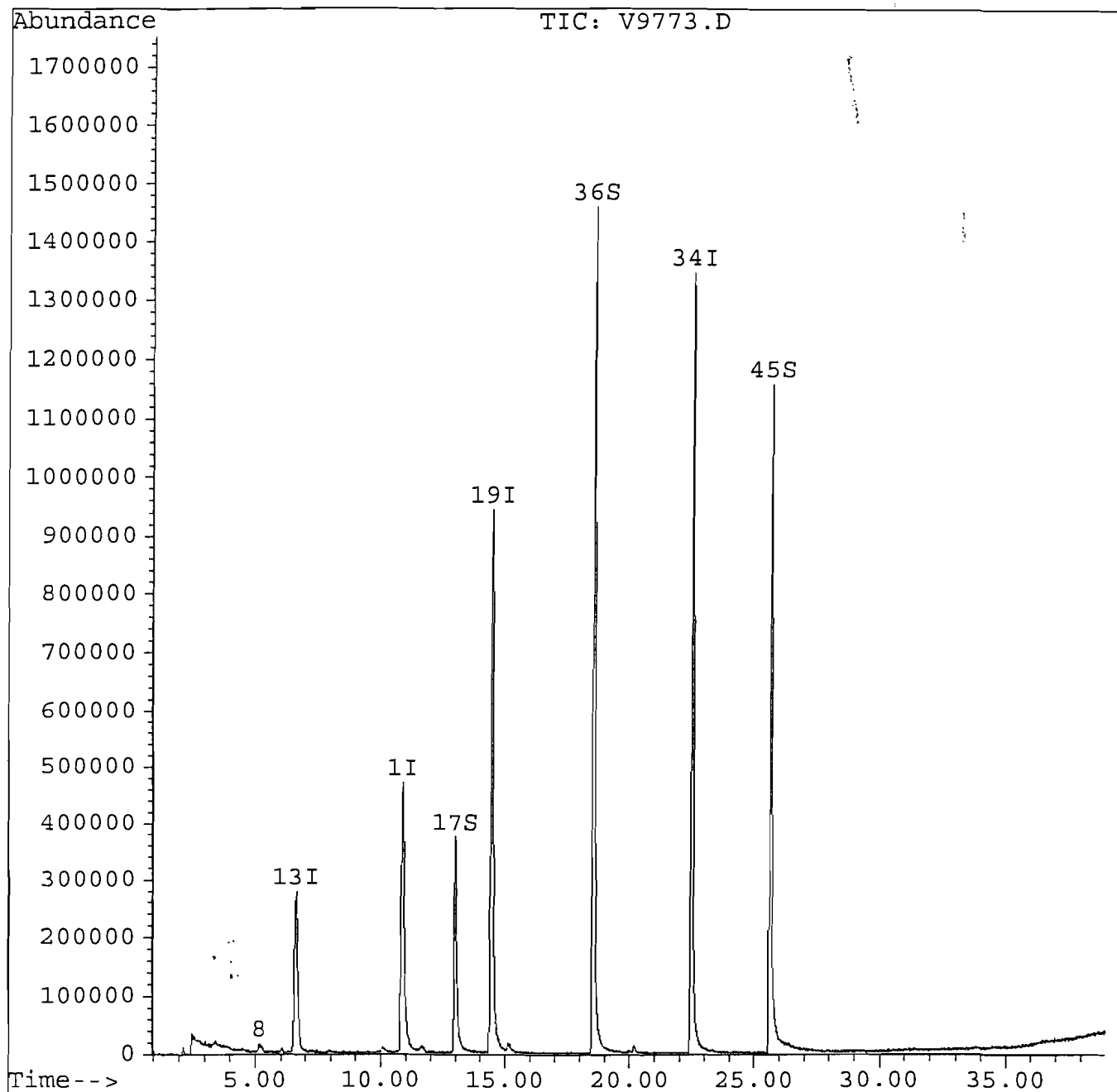
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

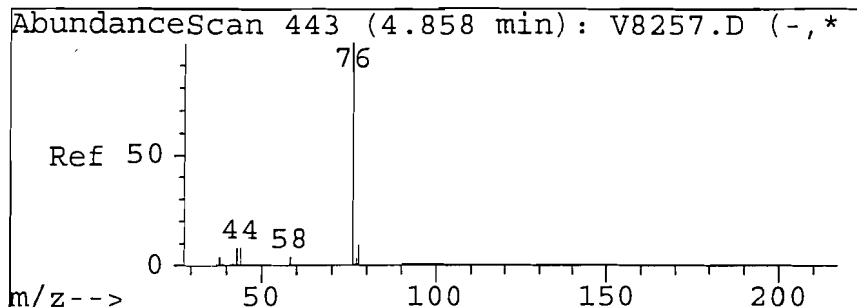
Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

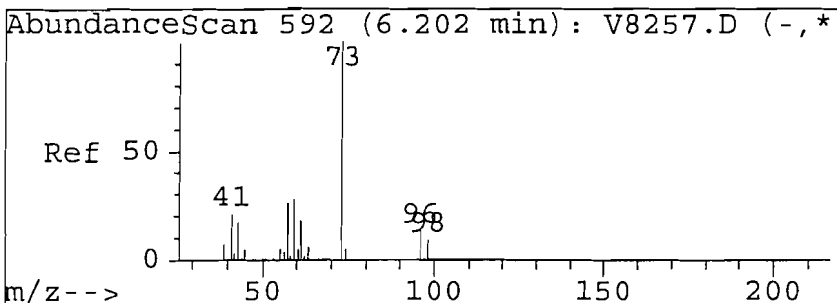
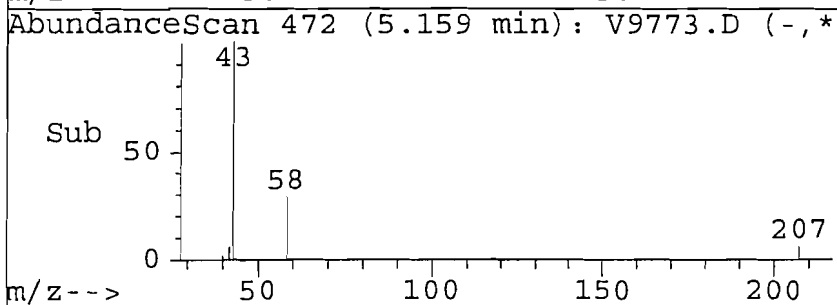
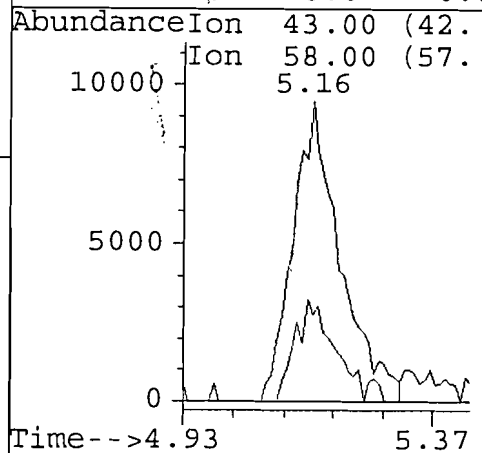
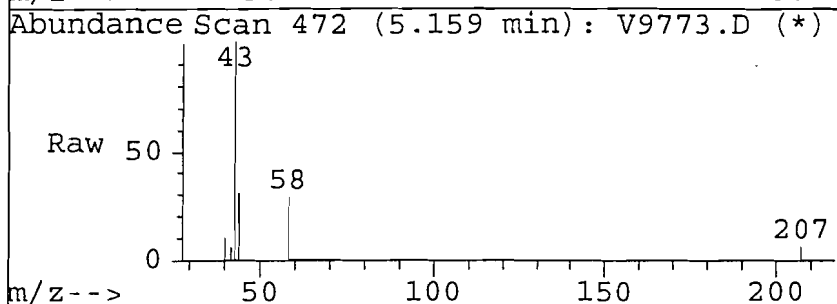


000016



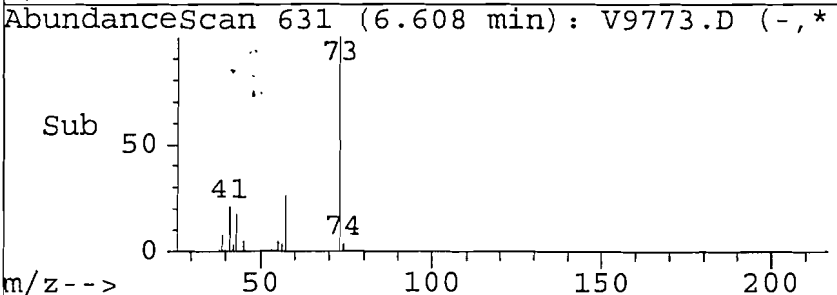
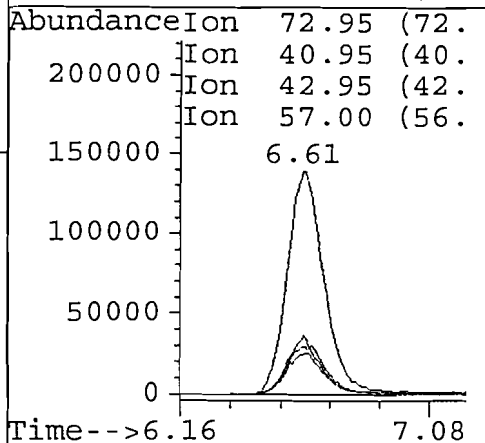
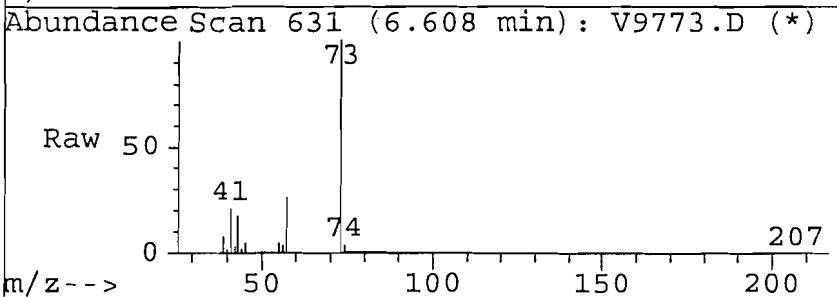
#8
Acetone
Concen: 6.52 ug/L
RT: 5.16 min Scan# 472
Delta R.T. 0.05 min
Lab File: V9773.D
Acq: 4 Nov 99 4:47 am

Tgt Ion:	43	Resp:	55206
Ion Ratio	Lower	Upper	
43	100		
58	29.3	16.3	48.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#13
MTBE
Concen: 12.14 ug/L
RT: 6.61 min Scan# 631
Delta R.T. 0.06 min
Lab File: V9773.D
Acq: 4 Nov 99 4:47 am

Tgt Ion:	72.95	Resp:	1290538
Ion Ratio	Lower	Upper	
73	100		
41	20.6	11.4	34.2
43	17.4	10.0	30.0
57	25.7	20.0	30.0



000017

Library Search Compound Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9773.D
Acq Time : 4 Nov 99 4:47 am
Sample : 13946ASP-89335
Misc : 5MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000018

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-MW-2-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-

Matrix: (soil/water) WATER

Lab Sample ID: O89336

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9774.D

Level: (low/med) _____

Date Received: 10/29/99

% Moisture: not dec. 100

Date Analyzed: 11/4/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No. Compound (ug/L or ug/Kg) ug/L Q

74-87-3	Chloromethane	2.3	U
74-83-9	Bromomethane	1.8	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	1.6	U
75-09-2	Trichlorofluoromethane	1.5	U
75-09-2	Methylene Chloride	0.6	U
75-35-4	1,1-Dichloroethene	1.2	U
75-34-4	1,1-Dichloroethane	0.7	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.4	U
107-06-2	1,2-Dichloroethane	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.4	U
75-27-4	Bromodichloromethane	0.6	U
78-87-5	1,2-Dichloropropane	0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.3	U
79-01-6	Trichloroethene	0.3	U
124-48-1	Dibromochloromethane	0.5	U
79-00-5	1,1,2-Trichloroethane	0.9	U
71-43-2	Benzene	0.6	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
110-75-8	2-Chloroethyl Vinyl Ether	1.5	U
75-25-2	Bromoform	0.7	U
127-18-4	Tetrachloroethene	0.6	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	m + p-Xylenes	0.4	U
95-47-6	o-xylene	0.4	U
95-50-1	1,2-Dichlorobenzene	0.2	U
541-73-1	1,3-Dichlorobenzene	0.4	U
106-46-7	1,4-Dichlorobenzene	0.3	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-MW-2-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1394 Site: Location: Group: 335-MW-1
Matrix: (soil/water) WATER Lab Sample ID: O89336
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9774.D
Level: (low/med) Date Received: 10/29/99
% Moisture: not dec. 100 Date Analyzed: 11/4/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0 Concentration Units:
(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	, Q
1.				
2.				
3.				
4.				
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30.				

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9774.D

Acq Time : 4 Nov 99 5:31 am

Sample : 13946ASP-89336

Misc : 5MLS

Quant Time: Nov 4 7:34 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T. QIon		Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.91	128	534753	30.00	ug/L	0.11
19) 1,4-Difluorobenzene	14.46	114	2832123	30.00	ug/L	0.09
34) Chlorobenzene-d5	22.45	117	2441365	30.00	ug/L	0.09
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.99	65	1009414	31.96	ug/L	106.55%
36) Toluene-d8	18.55	98	3272423	29.50	ug/L	98.32%
45) Bromofluorobenzene	25.59	95	1872378	28.75	ug/L	95.82%
Target Compounds						Qvalue
8) Acetone	5.15	43	83971	9.92	ug/L	92
13) MTBE	6.63	73	683107	6.43	ug/L	98

000021

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9774.D

Acq Time : 4 Nov 99 5:31 am

Sample : 13946ASP-89336

Misc : 5MLS

Quant Time: Nov 4 7:34 1999

Operator: AV

Inst : 5971 - In

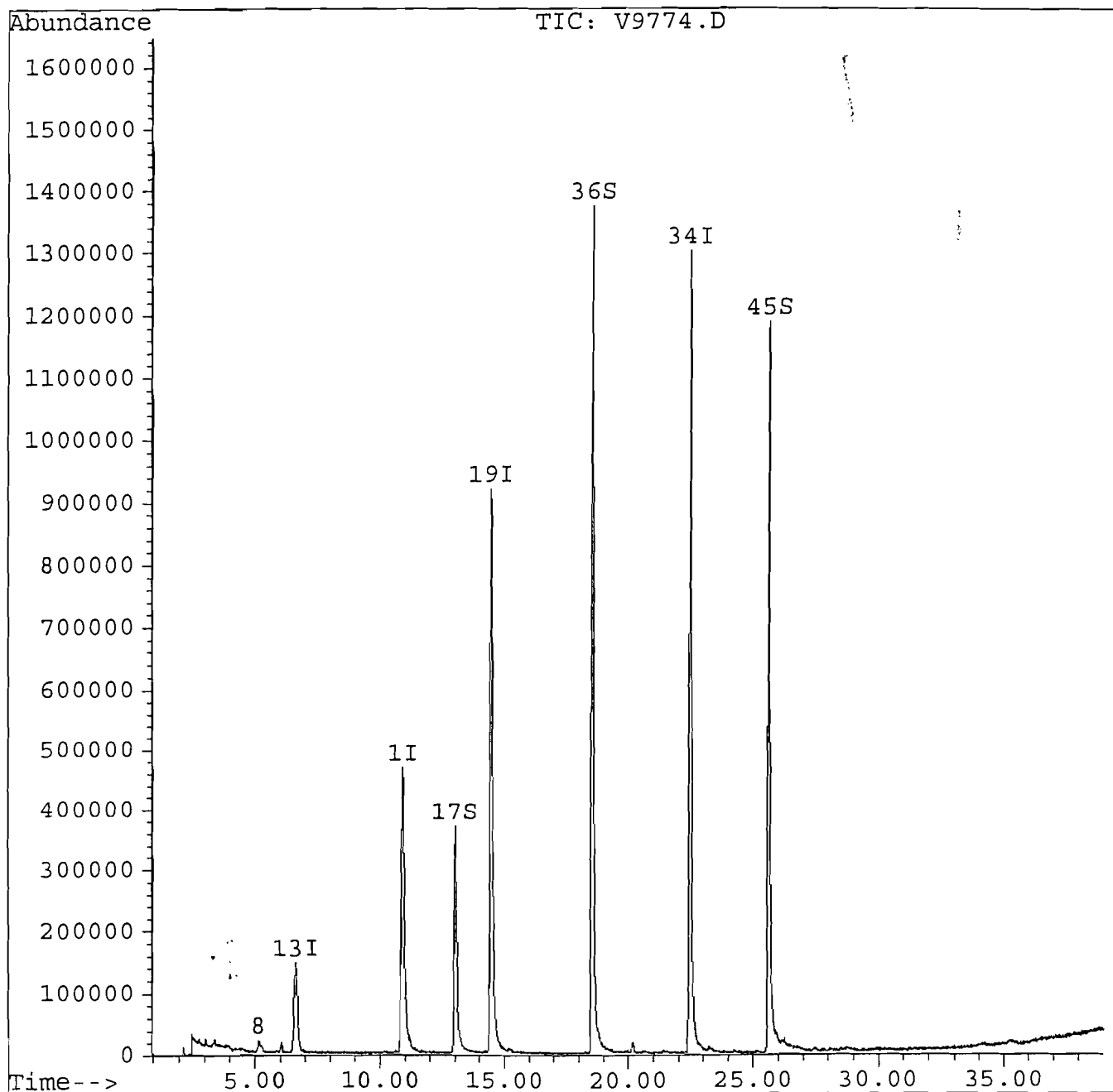
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

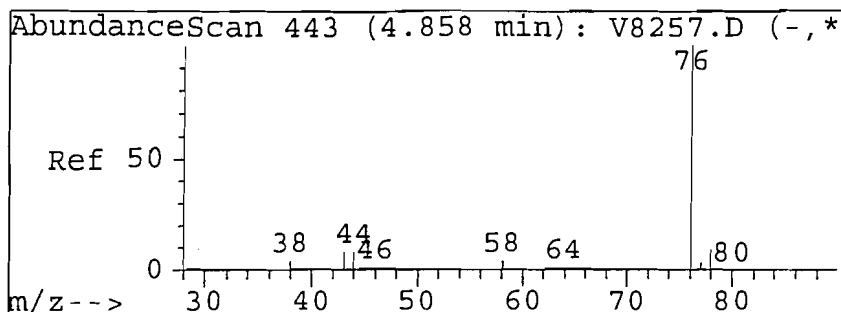
Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

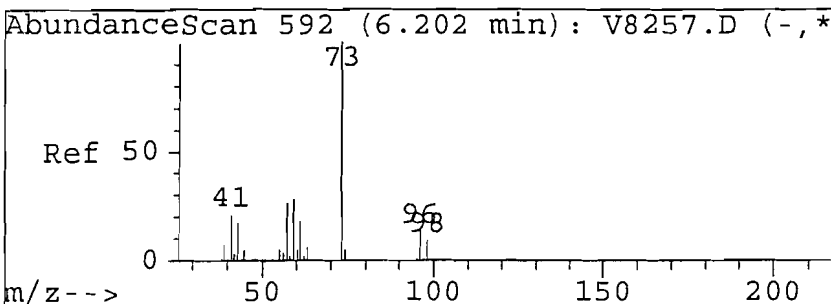
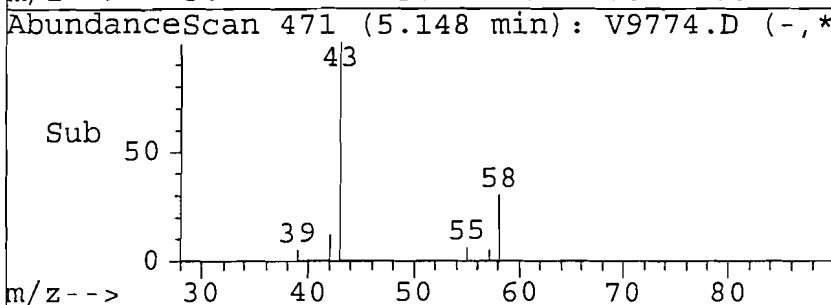
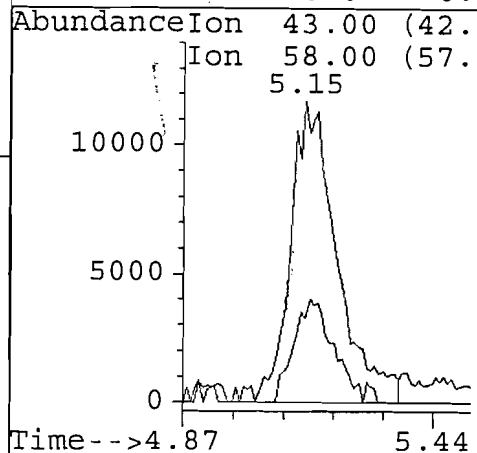
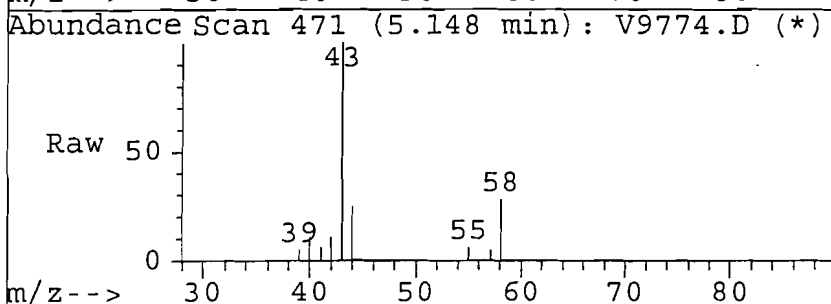


000022



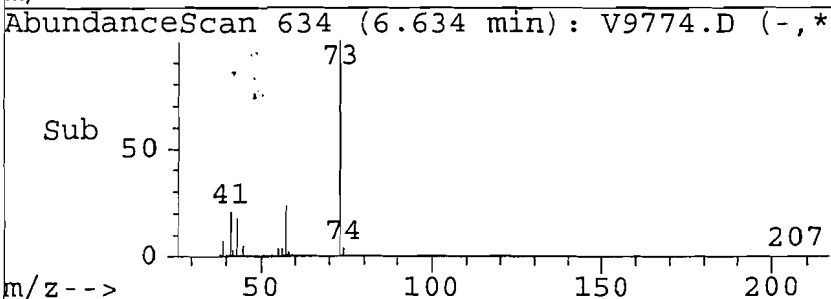
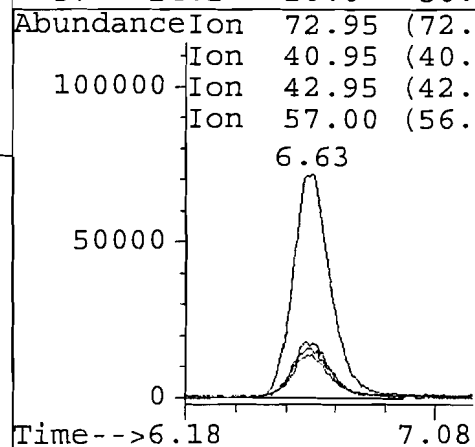
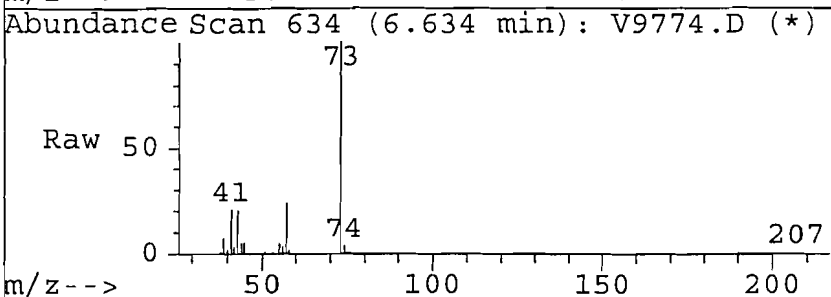
#8
Acetone
Concen: 9.92 ug/L
RT: 5.15 min Scan# 471
Delta R.T. 0.04 min
Lab File: V9774.D
Acq: 4 Nov 99 5:31 am

Tgt Ion:43	Resp:	83971
Ion	Ratio	Lower Upper
43	100	
58	27.9	16.3 48.8
0	0.0	0.0 0.0
0	0.0	0.0 0.0



#13
MTBE
Concen: 6.43 ug/L
RT: 6.63 min Scan# 634
Delta R.T. 0.09 min
Lab File: V9774.D
Acq: 4 Nov 99 5:31 am

Tgt Ion:72.95	Resp:	683107
Ion	Ratio	Lower Upper
73	100	
41	21.1	11.4 34.2
43	19.7	10.0 30.0
57	24.2	20.0 30.0



000023

Library Search Compound Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9774.D

Acq Time : 4 Nov 99 5:31 am

Sample : 13946ASP-89336

Misc : 5MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Library : NBS75K.L

No Library Search Compounds Detected

000024

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-MW-3-GW01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-

Matrix: (soil/water) WATER

Lab Sample ID: O89337

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9775.D

Level: (low/med) _____

Date Received: 10/29/99

% Moisture: not dec. 100

Date Analyzed: 11/4/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-4	1,1-Dichloroethane	1.7		
156-60-5	trans-1,2-Dichloroethene	4.4		
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	5.3		
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	88		
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	3.8		
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
1330-20-7	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-MW-3-GW01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1394 Site: _____ Location: _____ Group: 335-MW-1
Matrix: (soil/water) WATER Lab Sample ID: O89337
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9775.D
Level: (low/med) _____ Date Received: 10/29/99
% Moisture: not dec. 100 Date Analyzed: 11/4/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
(ug/L or ug/Kg) ug/L

Number TICs found: 0

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000026

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9775.D
 Acq Time : 4 Nov 99 6:15 am
 Sample : 13946ASP-89337
 Misc : 5MLS
 Quant Time: Nov 4 7:34 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.89	128	568784	30.00	ug/L	0.09
19) 1,4-Difluorobenzene	14.45	114	3166662	30.00	ug/L	0.08
34) Chlorobenzene-d5	22.44	117	2621777	30.00	ug/L	0.08
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.99	65	1044219	31.09	ug/L	103.63%
36) Toluene-d8	18.53	98	3622889	30.41	ug/L	101.36%
45) Bromofluorobenzene	25.57	95	1970028	28.16	ug/L	93.88%
Target Compounds						Qvalue
8) Acetone	5.18	43	52835	5.87	ug/L	94
11) trans-1,2-Dichloroethene	6.63	61	250242	4.38	ug/L	99
13) MTBE	6.63	73	1420278	12.56	ug/L	96
14) 1,1-Dichloroethane	7.94	63	142501	1.67	ug/L	99
15) cis-1,2-Dichloroethene	9.97	96	13965388	334.10	ug/L	96
22) 1,1,1-Trichloroethane	11.61	97	349856	5.32	ug/L	91
25) Trichloroethene	15.03	130	3766812	87.73	ug/L	97
38) Tetrachloroethene	20.13	166	150476	3.80	ug/L	95

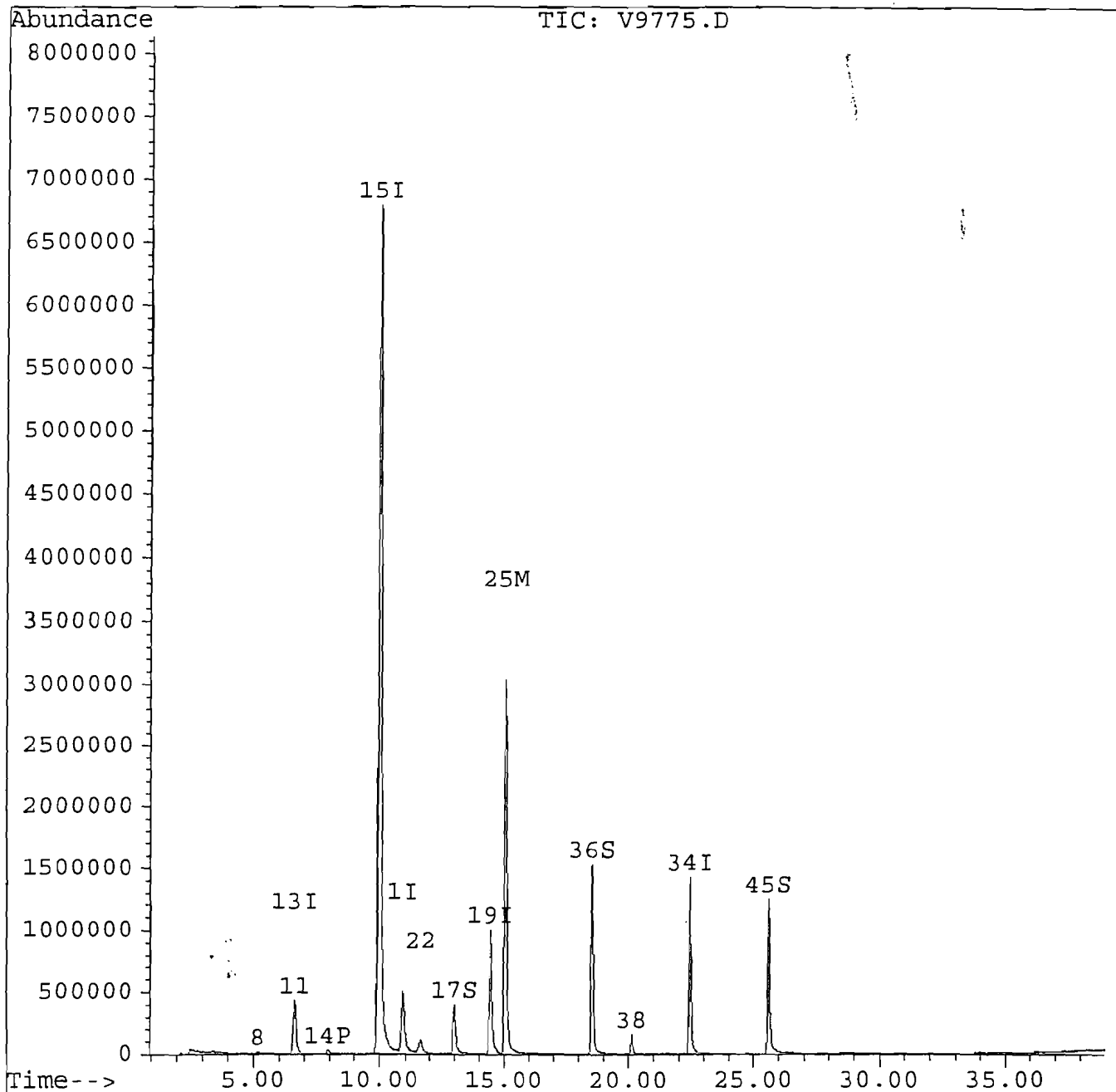
000027

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9775.D
Acq Time : 4 Nov 99 6:15 am
Sample : 13946ASP-89337
Misc : 5MLS
Quant Time: Nov 4 7:34 1999

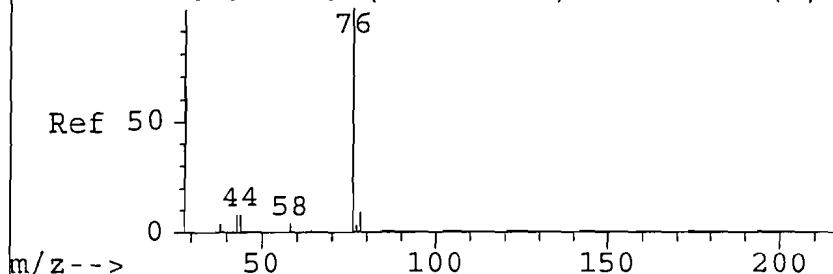
Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000028

AbundanceScan 443 (4.858 min): V8257.D (-,*



#8

Acetone

Concen: 5.87 ug/L

RT: 5.18 min Scan# 479

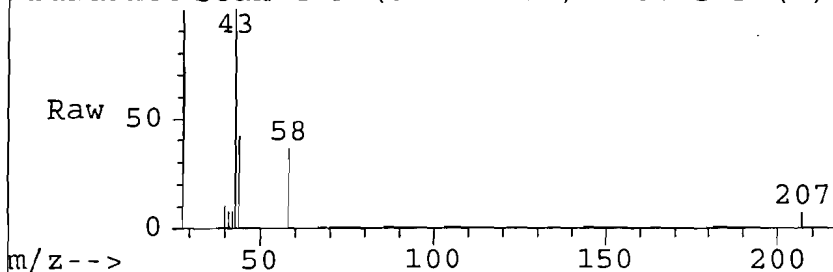
Delta R.T. 0.07 min

Lab File: V9775.D

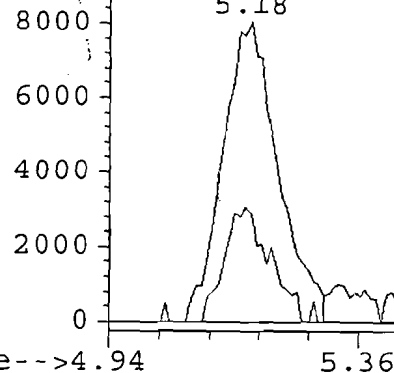
Acq: 4 Nov 99 6:15 am

Tgt Ion:43	Resp:	52835
Ion Ratio	Lower	Upper
43	100	
58	36.0	16.3 48.8
0	0.0	0.0 0.0
0	0.0	0.0 0.0

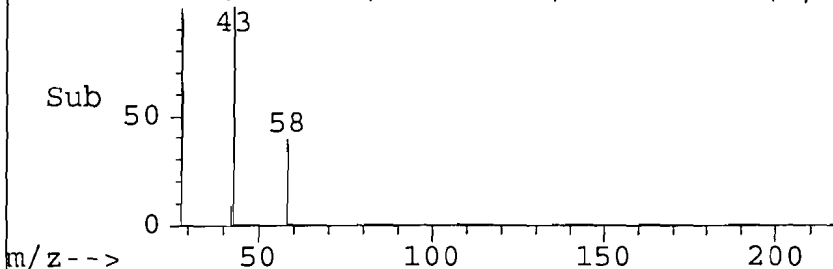
Abundance Scan 479 (5.177 min): V9775.D (*)



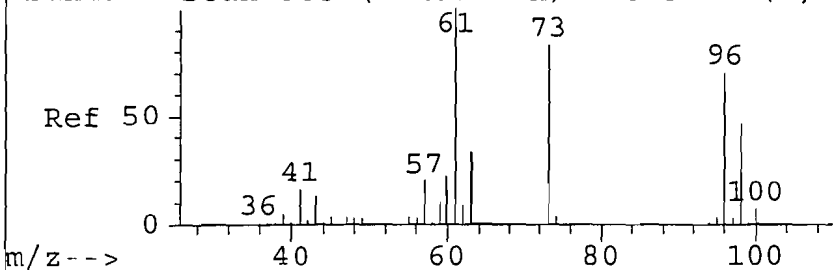
AbundanceIon 43.00 (42.
Ion 58.00 (57.
5.18



AbundanceScan 479 (5.177 min): V9775.D (-,*



AbundanceScan 585 (6.139 min): V8257.D (-,*



#11

trans-1,2-Dichloroethene

Concen: 4.38 ug/L

RT: 6.63 min Scan# 639

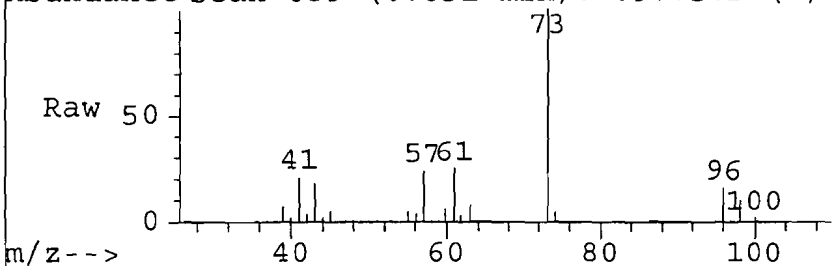
Delta R.T. 0.07 min

Lab File: V9775.D

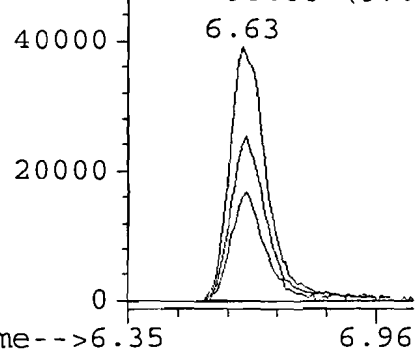
Acq: 4 Nov 99 6:15 am

Tgt Ion:61	Resp:	250242
Ion Ratio	Lower	Upper
61	100	
96	61.8	31.2 93.6
98	41.1	20.1 60.2
0	0.0	0.0 0.0

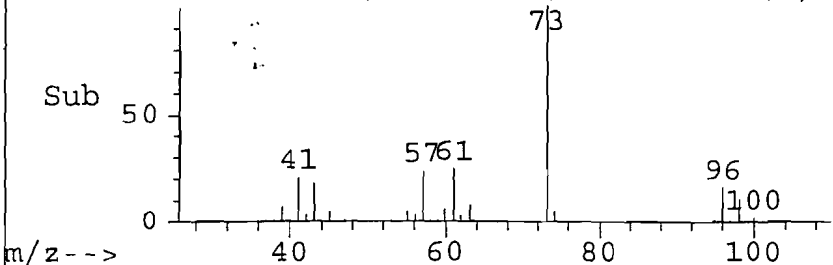
Abundance Scan 639 (6.631 min): V9775.D (*)



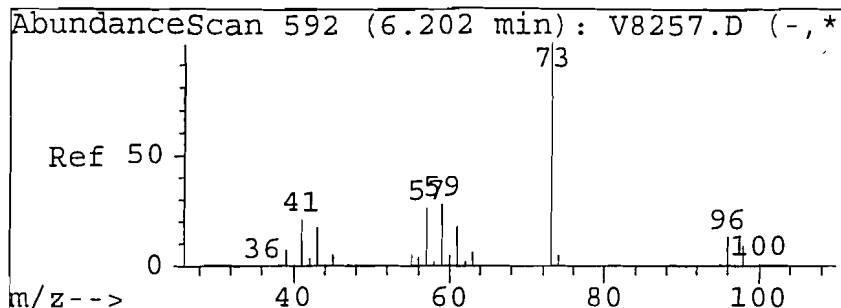
AbundanceIon 61.00 (60.
Ion 96.00 (95.
Ion 98.00 (97.



AbundanceScan 639 (6.631 min): V9775.D (-,*



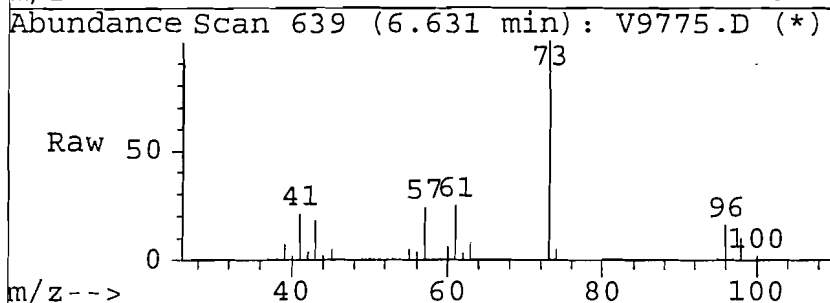
000029



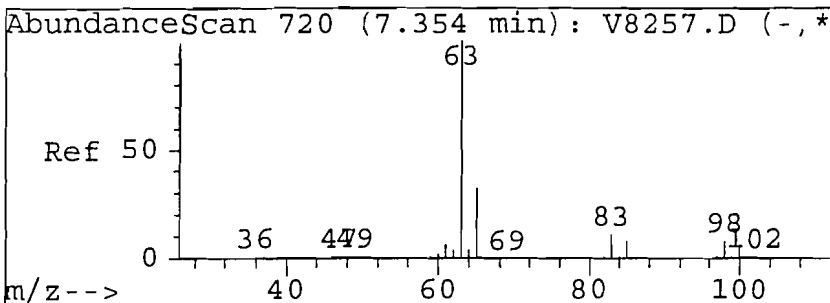
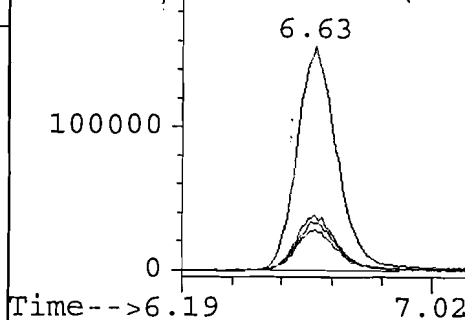
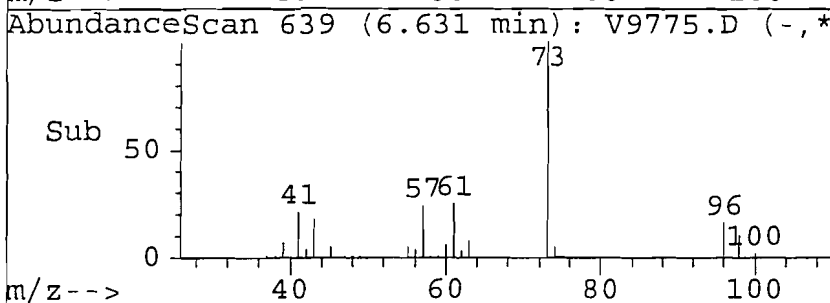
#13
MTBE
Concen: 12.56 ug/L
RT: 6.63 min Scan# 639
Delta R.T. 0.08 min
Lab File: V9775.D
Acq: 4 Nov 99 6:15 am

Tgt Ion: 72.95 Resp: 1420278

Ion	Ratio	Lower	Upper
73	100		
41	20.8	11.4	34.2
43	18.0	10.0	30.0
57	23.7	20.0	30.0



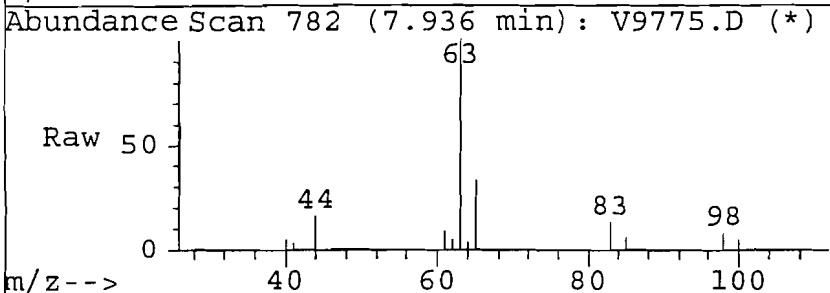
Abundance	Ion	72.95 (72.
	Ion	40.95 (40.
	Ion	42.95 (42.
	Ion	57.00 (56.



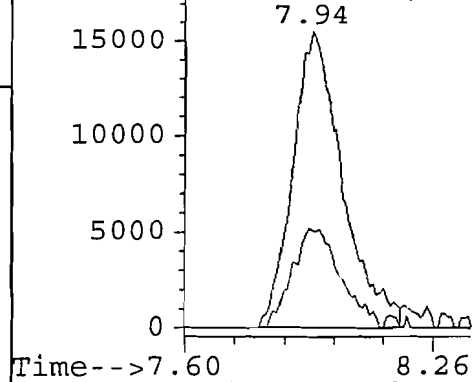
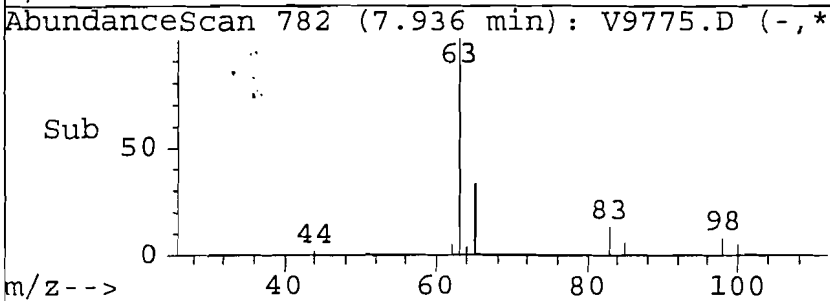
#14
1,1-Dichloroethane
Concen: 1.67 ug/L
RT: 7.94 min Scan# 782
Delta R.T. 0.11 min
Lab File: V9775.D
Acq: 4 Nov 99 6:15 am

Tgt Ion: 63 Resp: 142501

Ion	Ratio	Lower	Upper
63	100		
65	32.5	16.0	48.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

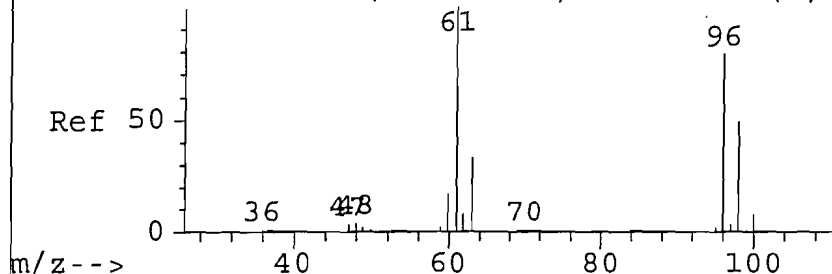


Abundance	Ion	63.00	(62.
	Ion	65.00	(64.



000030

AbundanceScan 935 (9.286 min): V8257.D (-,*



#15

cis-1,2-Dichloroethene

Concen: 334.10 ug/L

RT: 9.97 min Scan# 1005

Delta R.T. 0.07 min

Lab File: V9775.D

Acq: 4 Nov 99 6:15 am

Tgt Ion: 95.95 Resp: 13965388

Ion Ratio Lower Upper

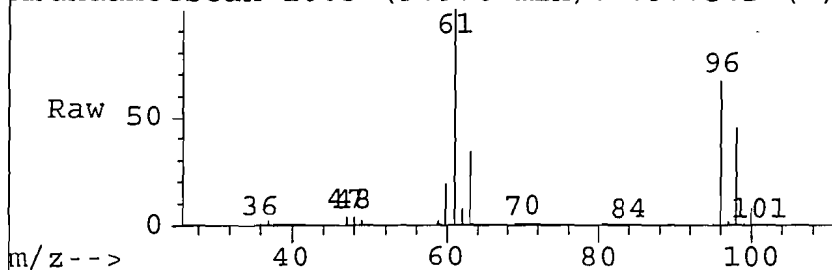
96 100

61 148.9 71.3 213.9

98 66.8 32.5 97.5

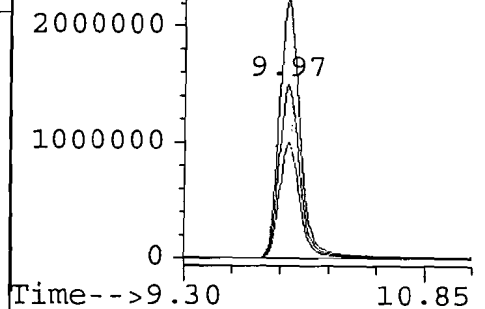
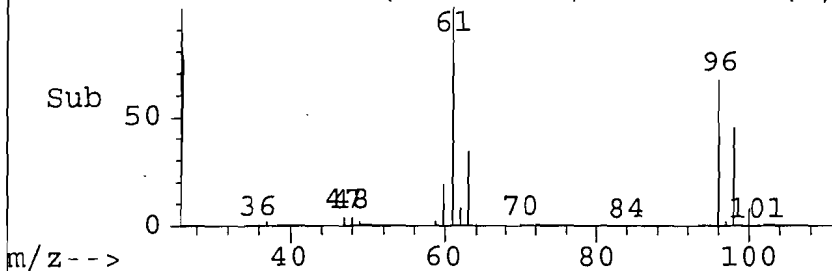
0 0.0 0.0 0.0

AbundanceScan 1005 (9.970 min): V9775.D (*)

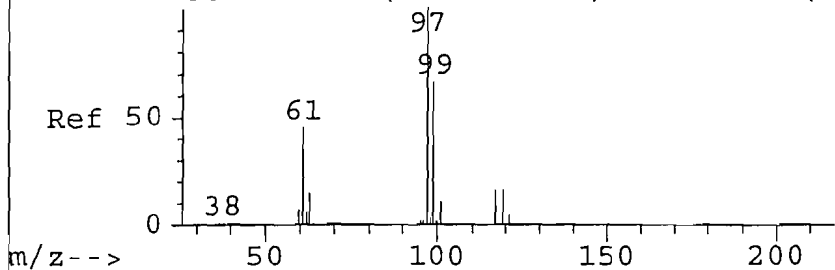


AbundanceIon 95.95 (95.
3000000 Ion 61.00 (60.
Ion 97.95 (97.

AbundanceScan 1005 (9.970 min): V9775.D (-,



AbundanceScan 1117 (10.946 min): V8257.D (-



#22

1,1,1-Trichloroethane

Concen: 5.32 ug/L

RT: 11.61 min Scan# 1185

Delta R.T. 0.08 min

Lab File: V9775.D

Acq: 4 Nov 99 6:15 am

Tgt Ion: 97 Resp: 349856

Ion Ratio Lower Upper

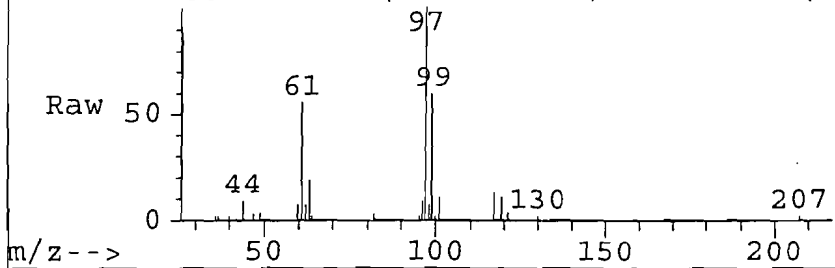
97 100

99 58.9 33.6 100.8

61 54.9 25.3 75.8

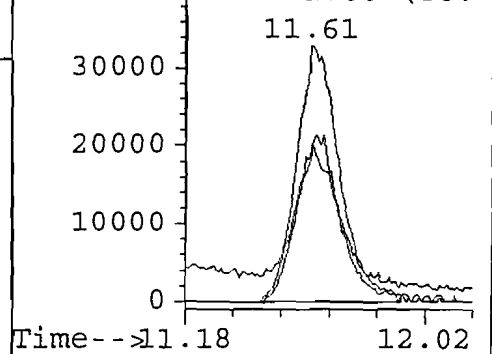
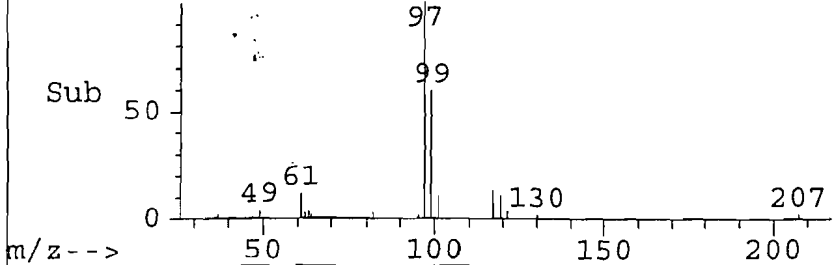
0 0.0 0.0 0.0

AbundanceScan 1185 (11.615 min): V9775.D (*)



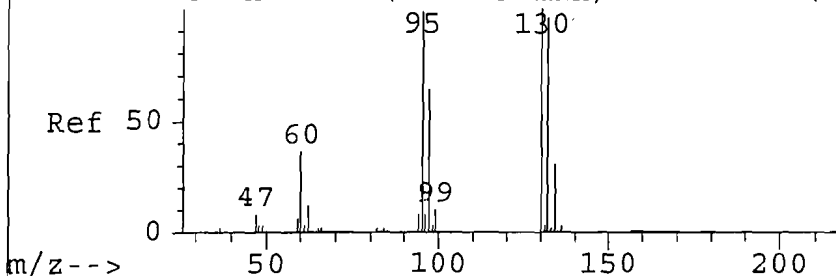
AbundanceIon 97.00 (96.
40000 Ion 99.00 (98.
Ion 61.00 (60.

AbundanceScan 1185 (11.615 min): V9775.D (-



000031

AbundanceScan 1504 (14.479 min): V8257.D (-



#25

Trichloroethene

Concen: 87.73 ug/L

RT: 15.03 min Scan# 1560

Delta R.T. 0.05 min

Lab File: V9775.D

Acq: 4 Nov 99 6:15 am

Tgt Ion:130 Resp: 3766812

Ion Ratio Lower Upper

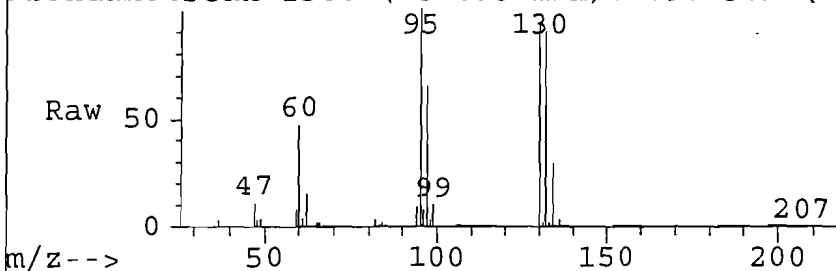
130 100

132 95.5 46.0 138.0

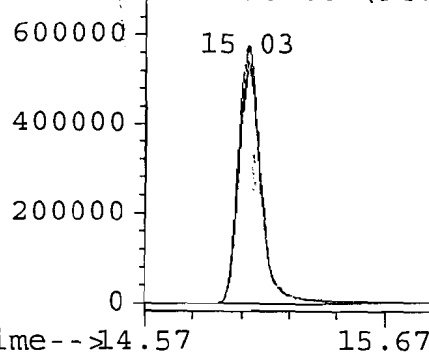
95 106.4 52.2 156.6

0 0.0 0.0 0.0

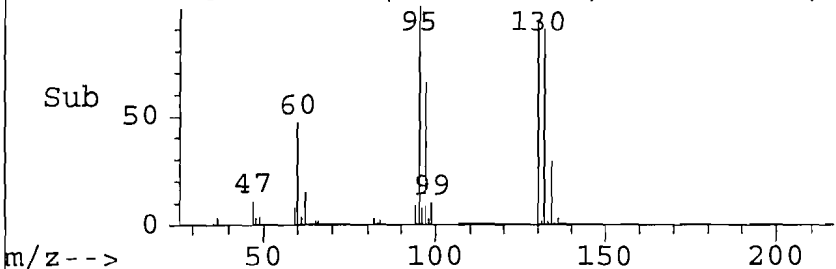
AbundanceScan 1560 (15.035 min): V9775.D (*)



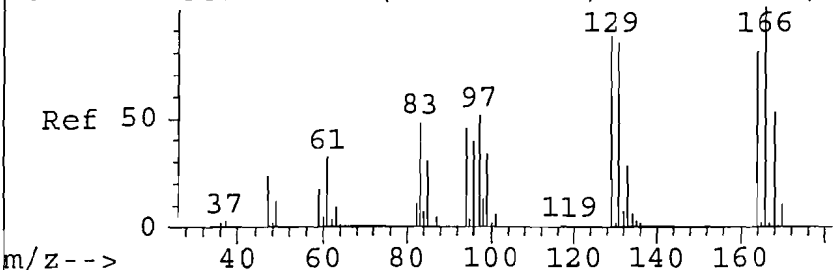
AbundanceIon 130.00 (129
Ion 132.00 (131
Ion 95.00 (94.



AbundanceScan 1560 (15.035 min): V9775.D (-



AbundanceScan 2050 (19.471 min): V8257.D (-



#38

Tetrachloroethene

Concen: 3.80 ug/L

RT: 20.13 min Scan# 2118

Delta R.T. 0.10 min

Lab File: V9775.D

Acq: 4 Nov 99 6:15 am

Tgt Ion:166 Resp: 150476

Ion Ratio Lower Upper

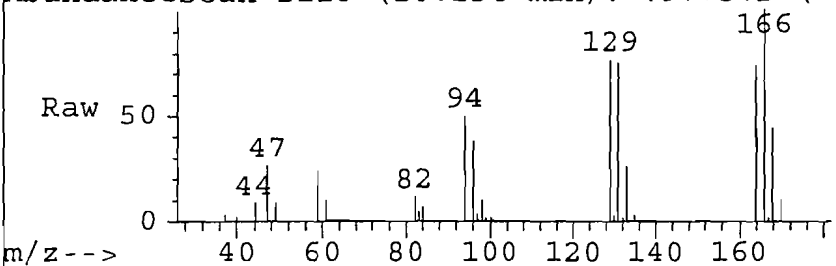
166 100

164 74.1 39.2 117.6

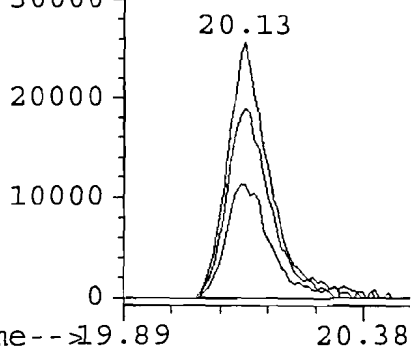
168 43.9 24.0 72.0

0 0.0 0.0 0.0

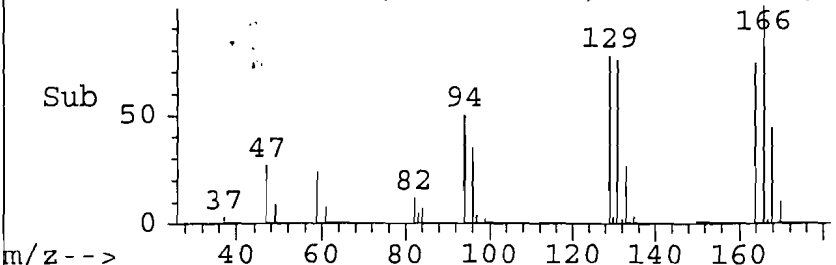
AbundanceScan 2118 (20.134 min): V9775.D (*)



AbundanceIon 166.00 (165
Ion 164.00 (163
Ion 168.00 (167



AbundanceScan 2118 (20.134 min): V9775.D (-



000032

Library Search Compound Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9775.D
Acq Time : 4 Nov 99 6:15 am
Sample : 13946ASP-89337
Misc : 5MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000033

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

335-TRIP BLANK

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-

Matrix: (soil/water) WATER

Lab Sample ID: O89338

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9772.D

Level: (low/med) _____

Date Received: 10/29/99

% Moisture: not dec. 100

Date Analyzed: 11/4/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-4	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
1330-20-7	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

000034

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

335-TRIP BLANK

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1394 Site: _____ Location: _____ Group: 335-MW-1
Matrix: (soil/water) WATER Lab Sample ID: O89338
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9772.D
Level: (low/med) _____ Date Received: 10/29/99
% Moisture: not dec. 100 Date Analyzed: 11/4/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
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29.				
30.				

000035

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9772.D
 Acq Time : 4 Nov 99 4:02 am
 Sample : 13946ASP-89338
 Misc : 5MLS
 Quant Time: Nov 4 7:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.91	128	513532	30.00	ug/L	0.11
19) 1,4-Difluorobenzene	14.46	114	2755671	30.00	ug/L	0.09
34) Chlorobenzene-d5	22.45	117	2393498	30.00	ug/L	0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.99	65	978316	32.26	ug/L	107.53%
36) Toluene-d8	18.53	98	3347724	30.78	ug/L	102.60%
45) Bromofluorobenzene	25.59	95	1836768	28.76	ug/L	95.88%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
8) Acetone	5.21	43	29277	3.60	ug/L	98

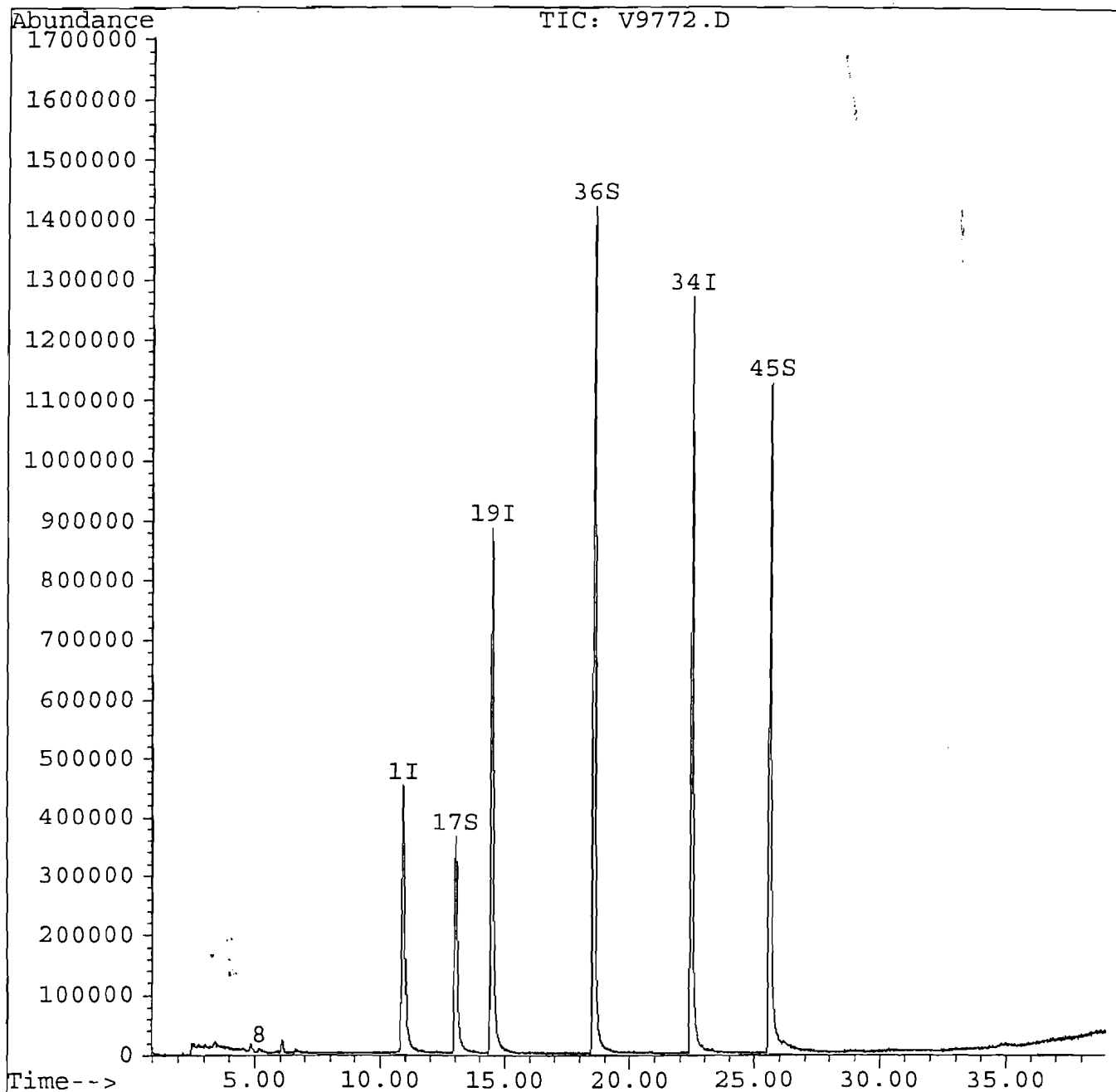
000036

Quantitation Report

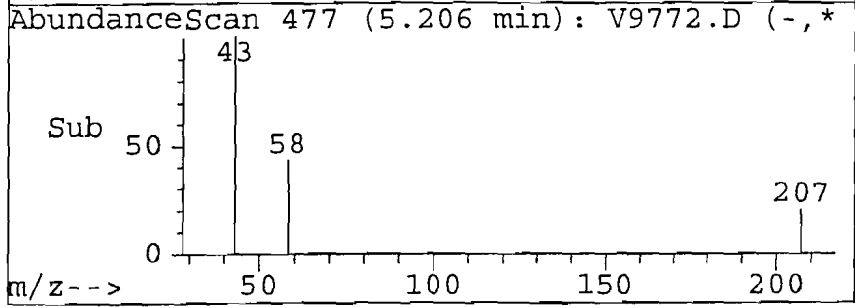
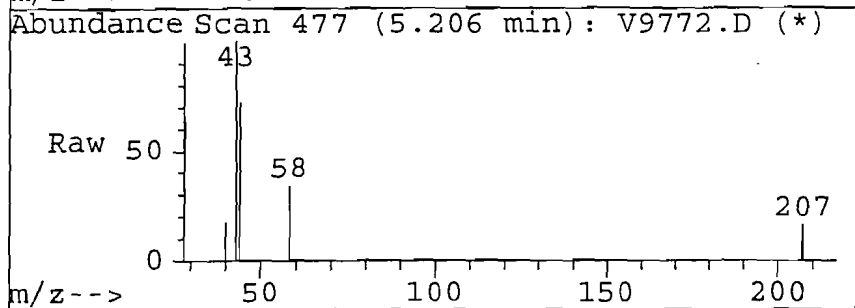
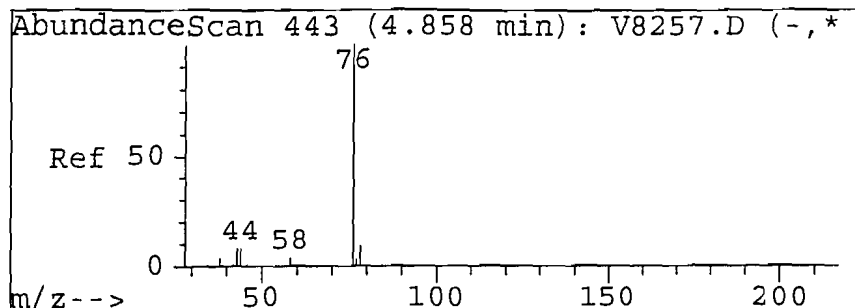
Data File : E:\HPCHEM\1\DATA\V1110399\V9772.D
Acq Time : 4 Nov 99 4:02 am
Sample : 13946ASP-89338
Misc : 5MLS
Quant Time: Nov 4 7:40 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration

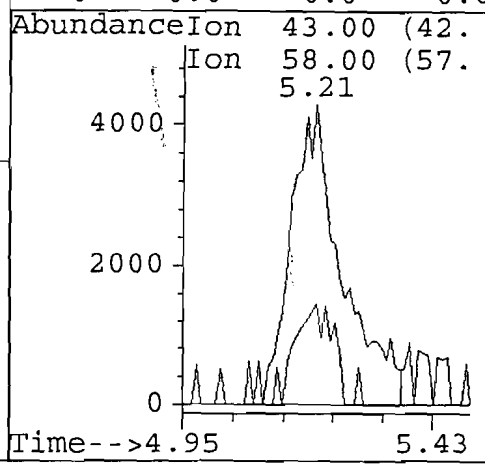


000037



#8
 Acetone
 Concen: 3.60 ug/L
 RT: 5.21 min Scan# 477
 Delta R.T. 0.10 min
 Lab File: V9772.D
 Acq: 4 Nov 99 4:02 am

Tgt Ion:43	Resp:	29277
Ion Ratio	Lower	Upper
43	100	
58	33.7	16.3 48.8
0	0.0	0.0 0.0
0	0.0	0.0 0.0



000038

Library Search Compound Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9772.D
Acq Time : 4 Nov 99 4:02 am
Sample : 13946ASP-89338
Misc : 5MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000039

CHEMTECH CONSULTING GROUP

VOLATILES

CALIBRATION DATA

000040

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-Instrument ID: VOA1Calibration Date(s): '10/27/99 '10/27/99Heated Purge: (Y/N) NCalibration Times: 2150 2318GC Column RTX624ID: 0.53 (mm)

Lab File ID:

RRF005 = V9618.D

RRF20 = V9617.D

RRF100 = V9616.D

COMPOUND	RRF005	RRF20	RRF100			RRF	% RSD
Chloromethane *	1.711	1.451	1.533			1.565	8.5 *
Bromomethane *	0.967	0.820	0.886			0.891	8.3 *
Vinyl Chloride *	1.907	1.594	1.803			1.768	9.0 *
Chloroethane *	1.142	0.644	0.650			0.812	35.2 *
Trichlorofluoromethane *	3.572	2.959	2.175			2.902	24.1 *
Methylene Chloride *	2.163	1.874	1.797			1.944	9.9 *
1,1-Dichloroethene *	3.237	2.862	2.852			2.984	7.4 *
1,1-Dichloroethane *	4.892	4.238	4.361			4.497	7.7 *
trans-1,2-Dichloroethene *	3.283	2.905	2.848			3.012	7.8 *
Chloroform *	4.365	3.938	3.846			4.050	6.8 *
1,2-Dichloroethane *	2.638	2.471	2.400			2.503	4.9 *
1,1,1-Trichloroethane *	0.682	0.607	0.579			0.623	8.6 *
Carbon Tetrachloride *	0.549	0.501	0.492			0.514	5.9 *
Bromodichloromethane *	0.646	0.631	0.609			0.629	3.0 *
1,2-Dichloropropane *	0.534	0.474	0.450			0.486	8.9 *
cis-1,3-Dichloropropene *	0.706	0.676	0.641			0.674	4.8 *
Trichloroethene *	0.420	0.414	0.387			0.407	4.3 *
Dibromochloromethane *	0.522	0.480	0.436			0.479	9.0 *
1,1,2-Trichloroethane *	0.421	0.381	0.329			0.377	12.2 *
Benzene *	1.438	1.284	1.244			1.322	7.7 *
trans-1,3-Dichloropropene *	0.581	0.570	0.531			0.560	4.7 *
2-Chloroethyl Vinyl Ether *	0.138	0.151	0.176			0.155	12.5 *
Bromoform *	0.302	0.270	0.244			0.272	10.6 *
Tetrachloroethene *	0.497	0.446	0.415			0.453	9.1 *
1,1,2,2-Tetrachloroethane *	0.911	0.746	0.611			0.756	19.9 *
Toluene *	1.842	1.652	1.524			1.673	9.6 *
Chlorobenzene *	1.216	1.086	1.014			1.105	9.2 *
Ethylbenzene *	2.335	2.050	1.899			2.095	10.6 *
m+ p-Xylenes *	0.824	0.738	0.693			0.751	8.8 *
o-xylene *	1.804	1.581	1.450			1.612	11.1 *
1,2-Dichlorobenzene *	0.854	0.790	0.697			0.780	10.1 *
1,3-Dichlorobenzene *	0.777	0.788	0.726			0.764	4.4 *
1,4-Dichlorobenzene *	0.766	0.773	0.752			0.764	1.4 *
Toluene-d8 *	1.465	1.323	1.302			1.363	6.5 *
Bromofluorobenzene *	0.865	0.789	0.747			0.800	7.5 *
1,2-Dichloroethane-d4 *	1.931	1.702	1.682			1.772	7.8 *

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

Response Factor Report 5971 - In

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:50:27 1999
 Response via : Initial Calibration

Calibration Files

20 =V9617.D 100 =V9616.D 5 =V9618.D
 = =

Compound		20	100	5	Avg	%RSD
-----ISTD-----						
1) I	Bromochloromethane					
2) P	Chloromethane	1.451	1.533	1.711	1.565	8.48#
3) c	Vinyl Chloride	1.594	1.803	1.907	1.768	9.00
4)	Bromomethane	0.820	0.886	0.967	0.891	8.30
5)	Chloroethane	0.644	0.650	1.142	0.812	35.17
6)	Trichlorofluoromethane	2.959	2.175	3.572	2.902	24.14
7) C	1,1-Dichloroethene	2.862	2.852	3.237	2.984	7.35
8)	Acetone	0.462	0.365	0.598	0.475	24.70
9)	Carbon Disulfide	5.008	5.044	5.556	5.203	5.90
10)	Methylene Chloride	1.874	1.796	2.163	1.944	9.93
11)	trans-1,2-Dichloroethene	2.905	2.847	3.283	3.012	7.85
12) I	TBA	0.152	0.132	0.195	0.160	19.93
13) I	MTBE	5.876	5.305	6.710	5.964	11.85
14) P	1,1-Dichloroethane	4.238	4.361	4.892	4.497	7.74#
15) I	cis-1,2-Dichloroethene	2.178	2.100	2.337	2.205	5.48
16) C	Chloroform	3.938	3.846	4.365	4.050	6.84
17) S	1,2-Dichloroethane-d4	1.702	1.682	1.931	1.772	7.79
18)	1,2-Dichloroethane	2.471	2.400	2.638	2.503	4.89
-----ISTD-----						
19) I	1,4-Difluorobenzene					
20)	Vinyl Acetate	0.654	0.729	0.586	0.656	10.89
21)	2-Butanone	0.136	0.137	0.177	0.150	15.36
22)	1,1,1-Trichloroethane	0.607	0.579	0.682	0.623	8.55
23)	Carbon Tetrachloride	0.501	0.492	0.549	0.514	5.92
24) M	Benzene	1.284	1.244	1.438	1.322	7.74
25) M	Trichloroethene	0.414	0.387	0.420	0.407	4.28
26) C	1,2-Dichloropropane	0.474	0.450	0.534	0.486	8.87
27)	Bromodichloromethane	0.631	0.609	0.646	0.629	2.98
28)	2-Chloroethyl Vinyl Ether	0.151	0.176	0.138	0.155	12.50
29)	cis-1,3-Dichloropropene	0.676	0.641	0.706	0.674	4.78
30)	trans-1,3-Dichloropropene	0.569	0.531	0.581	0.560	4.73
31)	1,1,2-Trichloroethane	0.381	0.329	0.420	0.377	12.17
32)	Dibromochloromethane	0.479	0.436	0.522	0.479	9.01
33) P	Bromoform	0.270	0.244	0.302	0.272	10.59#
-----ISTD-----						
34) I	Chlorobenzene-d5					
35)	4-Methyl-2-Pentanone	0.430	0.397	0.369	0.398	7.75
36) S	Toluene-d8	1.323	1.302	1.465	1.363	6.48
37) C	Toluene	1.652	1.524	1.842	1.673	9.55
38)	Tetrachloroethene	0.446	0.415	0.497	0.453	9.09
39)	2-Hexanone	0.237	0.255	0.275	0.256	7.40
40) P	Chlorobenzene	1.085	1.014	1.216	1.105	9.25#
41) C	Ethylbenzene	2.050	1.899	2.335	2.095	10.57

000042

Response Factor Report 5971 - In

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:50:27 1999
 Response via : Initial Calibration

Calibration Files

20 =V9617.D 100 =V9616.D 5 =V9618.D
 = =

Compound		20	100	5	Avg	%RSD
42)	m+ p-Xylenes	0.738	0.693	0.824	0.751	8.83
43)	o-xylene	1.581	1.450	1.804	1.612	11.09
44)	Styrene	1.119	1.089	1.021	1.076	4.65
45) S	Bromofluorobenzene	0.789	0.747	0.865	0.800	7.49
46) P	1,1,2,2-Tetrachloroethane	0.745	0.611	0.911	0.756	19.92#
47)	1,3-Dichlorobenzene	0.788	0.726	0.777	0.764	4.37
48)	1,4-Dichlorobenzene	0.773	0.752	0.766	0.764	1.37
49)	1,2-Dichlorobenzene	0.790	0.697	0.854	0.780	10.12
50)	Naphthalene	1.358	1.016	1.365	1.247	16.01

000043

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9617.D

Acq Time : 27 Oct 99 10:34 pm

Sample : 20PPB ICC

Misc : 25MLS

Quant Time: Oct 28 8:38 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 08:37:17 1999

Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.80	128	684261	30.00	ug/L	0.00
19) 1,4-Difluorobenzene	14.37	114	3842534	30.00	ug/L	0.00
34) Chlorobenzene-d5	22.36	117	3215355	30.00	ug/L	0.00

System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.90	65	776387	20.00	ug/L	40.00%
36) Toluene-d8	18.46	98	2836225	20.00	ug/L	40.00%
45) Bromofluorobenzene	25.51	95	1692040	20.00	ug/L	40.00%

Target Compounds						Qvalue
2) Chloromethane	2.70	50	661870	20.00	ug/L	100
3) Vinyl Chloride	2.82	62	727277	20.00	ug/L	100
4) Bromomethane	3.32	94	373863	20.00	ug/L	100
5) Chloroethane	3.45	64	293937	20.00	ug/L	100
6) Trichlorofluoromethane	3.85	101	1349639	20.00	ug/L	100
7) 1,1-Dichloroethene	4.81	61	1305506	20.00	ug/L	100
8) Acetone	5.11	43	210584	20.00	ug/L	100
9) Carbon Disulfide	5.20	76	2284500	20.00	ug/L	100
10) Methylene Chloride	5.99	84	854757	20.00	ug/L	100
11) trans-1,2-Dichloroethene	6.56	61	1325197	20.00	ug/L	100
12) TBA	6.47	59	693246	200.00	ug/L	100
13) MTBE	6.55	73	2680607	20.00	ug/L	100
14) 1,1-Dichloroethane	7.83	63	1933041	20.00	ug/L	100
15) cis-1,2-Dichloroethene	9.90	96	993548	20.00	ug/L	100
16) Chloroform	11.18	83	1796188	20.00	ug/L	100
18) 1,2-Dichloroethane	13.17	62	1127042	20.00	ug/L	100
20) Vinyl Acetate	8.09	43	1676340	20.00	ug/L	100
21) 2-Butanone	10.24	43	349023	20.00	ug/L	100
22) 1,1,1-Trichloroethane	11.53	97	1555693	20.00	ug/L	100
23) Carbon Tetrachloride	11.99	117	1283590	20.00	ug/L	100
24) Benzene	12.79	78	3288951	20.00	ug/L	100
25) Trichloroethene	14.98	130	1059267	20.00	ug/L	100
26) 1,2-Dichloropropane	15.72	63	1214862	20.00	ug/L	100
27) Bromodichloromethane	16.62	83	1616312	20.00	ug/L	100
28) 2-Chloroethyl Vinyl Ether	17.68	63	387082	20.00	ug/L	100
29) cis-1,3-Dichloropropene	17.91	75	1732206	20.00	ug/L	100
30) trans-1,3-Dichloropropene	19.55	75	1458776	20.00	ug/L	100
31) 1,1,2-Trichloroethane	19.98	97	975745	20.00	ug/L	100
32) Dibromochloromethane	20.91	129	1228301	20.00	ug/L	100
33) Bromoform	24.63	173	692766	20.00	ug/L	100
35) 4-Methyl-2-Pentanone	18.42	43	922189	20.00	ug/L	100
37) Toluene	18.63	91	3541488	20.00	ug/L	100
38) Tetrachloroethene	20.04	166	956511	20.00	ug/L	100
39) 2-Hexanone	20.73	43	508711	20.00	ug/L	100

000044

(#) = qualifier out of range (m) = manual integration

V9617.D V11027AW.M

Thu Oct 28 08:38:31 1999

VOA3

Page 1

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9617.D
 Acq Time : 27 Oct 99 10:34 pm
 Sample : 20PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:38 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

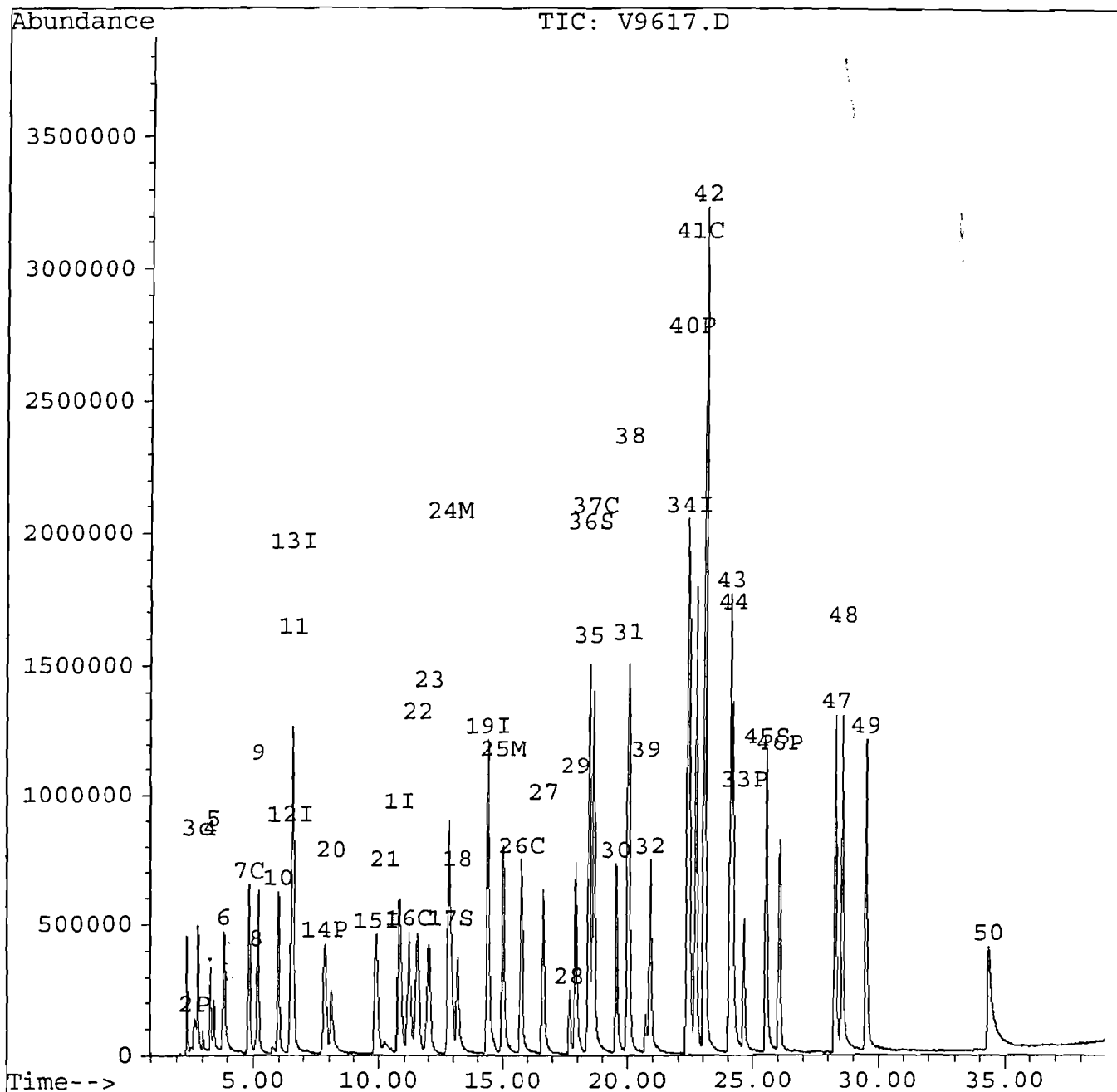
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.44	112	2326790	20.00	ug/L	100
41) Ethylbenzene	22.70	91	4394916	20.00	ug/L	100
42) m+ p-Xylenes	23.03	106	3162770	40.00	ug/L	100
43) o-xylene	24.06	91	3389432	20.00	ug/L	100
44) Styrene	24.16	104	2398573	20.00	ug/L	100
46) 1,1,2,2-Tetrachloroethane	26.03	83	1597943	20.00	ug/L	100
47) 1,3-Dichlorobenzene	28.27	146	1689436	20.00	ug/L	100
48) 1,4-Dichlorobenzene	28.54	146	1657144	20.00	ug/L	100
49) 1,2-Dichlorobenzene	29.48	146	1693145	20.00	ug/L	100
50) Naphthalene	34.34	128	2911980	20.00	ug/L	100

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9617.D
 Acq Time : 27 Oct 99 10:34 pm
 Sample : 20PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:38 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



000046

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.74	128	652543	30.00	ug/L	-0.06
19) 1,4-Difluorobenzene	14.33	114	3718021	30.00	ug/L	-0.04
34) Chlorobenzene-d5	22.35	117	3102548	30.00	ug/L	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.84	65	3659149	98.84	ug/L	197.69%
36) Toluene-d8	18.42	98	13465399	98.41	ug/L	196.81%
45) Bromofluorobenzene	25.49	95	7722495	94.60	ug/L	189.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chloromethane	2.72	50	3334776	105.67	ug/L	98
3) Vinyl Chloride	2.82	62	3922566	113.11	ug/L	100
4) Bromomethane	3.31	94	1926568	108.07	ug/L	97
5) Chloroethane	3.45	64	1414581	100.93	ug/L	100
6) Trichlorofluoromethane	3.78	101	4730516	73.51	ug/L	98
7) 1,1-Dichloroethene	4.74	61	6203901	99.66	ug/L	97
8) Acetone	5.16	43	793584	79.03	ug/L	96
9) Carbon Disulfide	5.11	76	10970391	100.71	ug/L	99
10) Methylene Chloride	5.94	84	3907588	95.88	ug/L	95
11) trans-1,2-Dichloroethene	6.50	61	6193618	98.02	ug/L	99
12) TBA	6.63	59	2878102	870.69	ug/L m	46
13) MTBE	6.56	73	11539113	90.28	ug/L	99
14) 1,1-Dichloroethane	7.78	63	9485496	102.91	ug/L	99
15) cis-1,2-Dichloroethene	9.81	96	4566750	96.40	ug/L	98
16) Chloroform	11.11	83	8365835	97.68	ug/L	100
18) 1,2-Dichloroethane	13.10	62	5219475	97.12	ug/L	100
20) Vinyl Acetate	8.03	43	9030989	111.35	ug/L	100
21) 2-Butanone	10.15	43	1701425	100.76	ug/L	95
22) 1,1,1-Trichloroethane	11.46	97	7180114	95.40	ug/L	100
23) Carbon Tetrachloride	11.91	117	6099132	98.21	ug/L	99
24) Benzene	12.72	78	15416573	96.89	ug/L	98
25) Trichloroethene	14.92	130	4796209	93.59	ug/L	95
26) 1,2-Dichloropropane	15.68	63	5574946	94.85	ug/L	99
27) Bromodichloromethane	16.57	83	7545528	96.49	ug/L	99
28) 2-Chloroethyl Vinyl Ether	17.60	63	2184769	116.66	ug/L	98
29) cis-1,3-Dichloropropene	17.86	75	7946384	94.82	ug/L	99
30) trans-1,3-Dichloropropene	19.52	75	6575202	93.17	ug/L	99
31) 1,1,2-Trichloroethane	19.95	97	4077597	86.38	ug/L	98
32) Dibromochloromethane	20.88	129	5399696	90.87	ug/L	100
33) Bromoform	24.61	173	3026189	90.29	ug/L	100
35) 4-Methyl-2-Pentanone	18.38	43	4102910	92.22	ug/L	99
37) Toluene	18.59	91	15764201	92.26	ug/L	95
38) Tetrachloroethene	20.01	166	4294663	93.06	ug/L	99
39) 2-Hexanone	20.69	43	2642209	107.66	ug/L	98

(#) = qualifier out of range (m) = manual integration
 V9616.D V11027AW.M Thu Oct 28 08:41:04 1999

VOA3

Page 1

000047

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

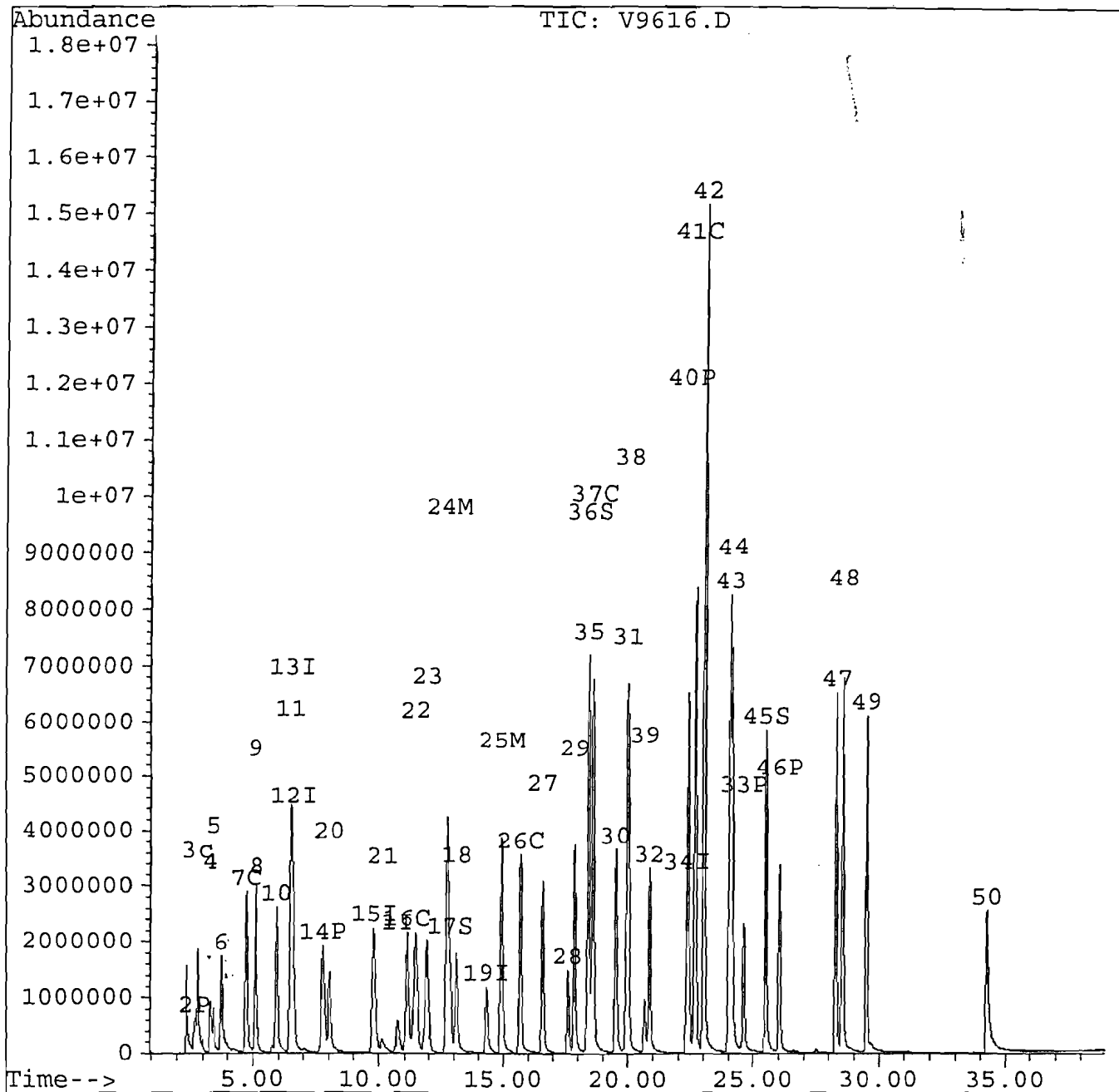
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.41	112	10487474	93.42	ug/L	97
41) Ethylbenzene	22.68	91	19642675	92.64	ug/L	97
42) m+ p-Xylenes	23.02	106	14335805	187.90	ug/L	97
43) o-xylene	24.04	91	14996355	91.71	ug/L	98
44) Styrene	24.13	104	11258666	97.29	ug/L	98
46) 1,1,2,2-Tetrachloroethane	26.03	83	6314485	81.91	ug/L	97
47) 1,3-Dichlorobenzene	28.27	146	7504387	92.07	ug/L	99
48) 1,4-Dichlorobenzene	28.54	146	7781040	97.32	ug/L	97
49) 1,2-Dichlorobenzene	29.49	146	7207470	88.23	ug/L	97
50) Naphthalene	34.27	128	10508871	74.80	ug/L m	95

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



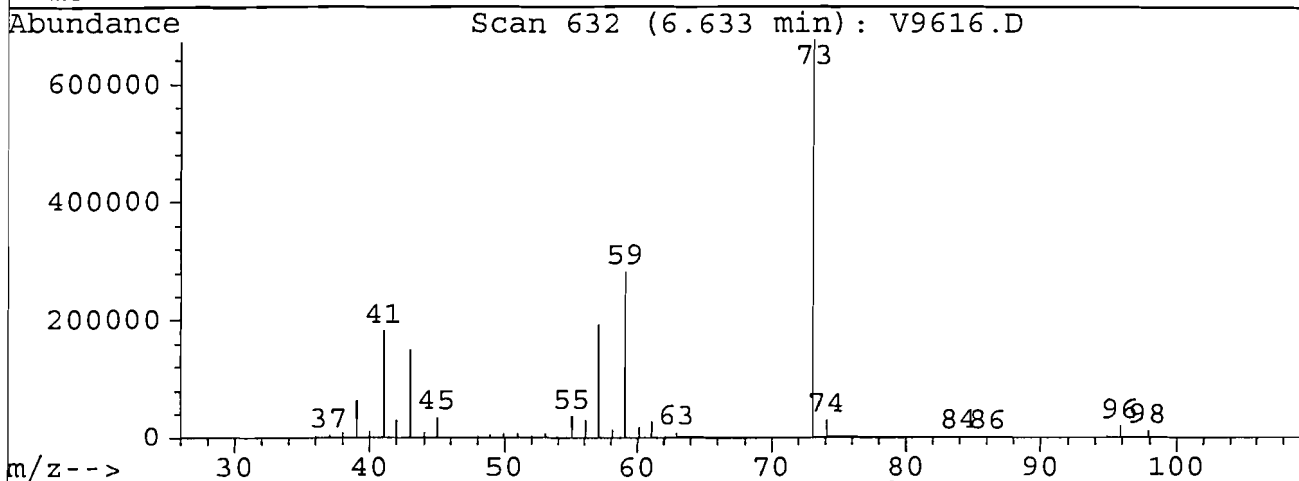
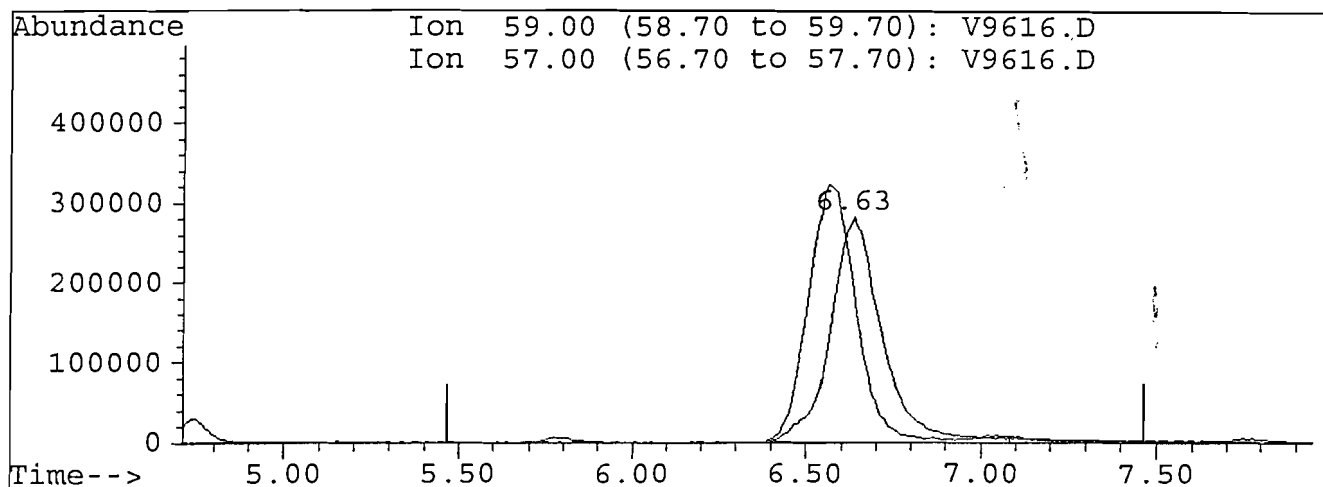
000049

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:39 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9616.D

(12) TBA (I)

6.63min 870.69ug/L m

response 2878102

Ion	Exp%	Act%
59.00	100	100
57.00	35.90	67.49
0.00	0.00	0.00
0.00	0.00	0.00

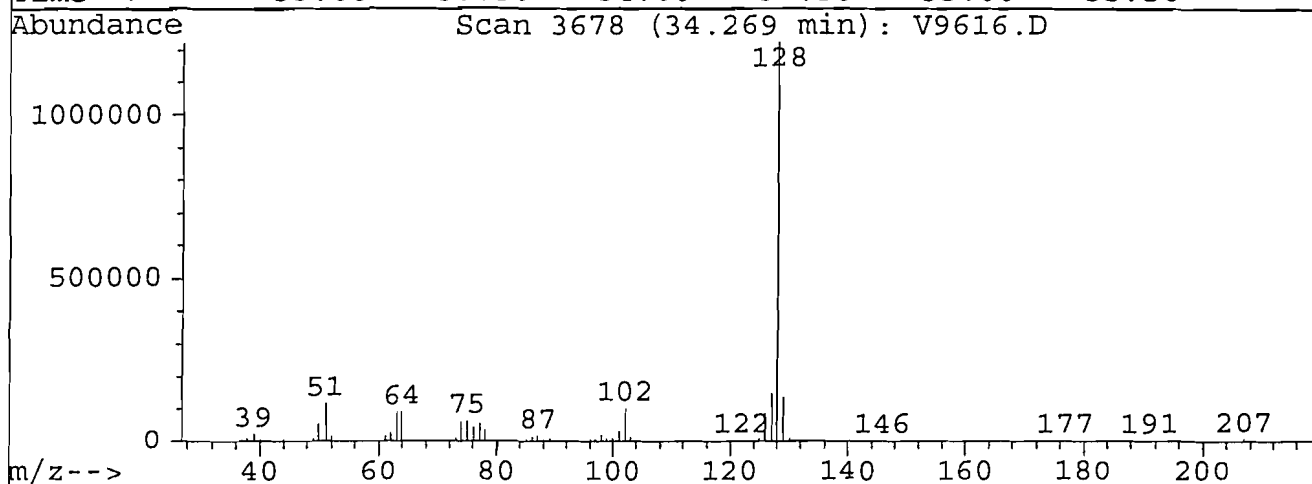
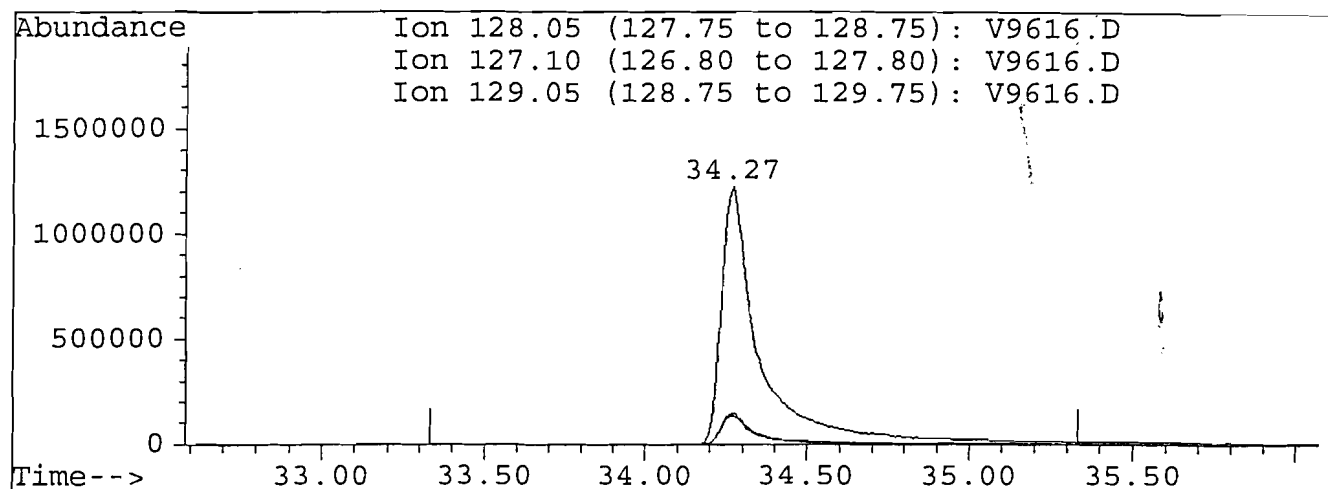
000050

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9616.D
 Acq Time : 27 Oct 99 9:50 pm
 Sample : 100PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:40 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9616.D

(50) Naphthalene

34.27min 74.80ug/L m

response 10508871

Ion	Exp%	Act%
128.05	100	100
127.10	9.40	11.92
129.05	7.60	10.76
0.00	0.00	0.00

000051

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:43 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane	10.78	128	676816	30.00	ug/L	-0.02
19) 1,4-Difluorobenzene	14.35	114	3786861	30.00	ug/L	-0.02
34) Chlorobenzene-d5	22.38	117	3156926	30.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) 1,2-Dichloroethane-d4	12.92	65	217779	5.67	ug/L	11.34%
36) Toluene-d8	18.48	98	770600	5.53	ug/L	11.07%
45) Bromofluorobenzene	25.55	95	455175	5.48	ug/L	10.96%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Chloromethane	2.69	50	192960	5.89	ug/L	97
3) Vinyl Chloride	2.83	62	215097	5.98	ug/L	100
4) Bromomethane	3.32	94	109091	5.90	ug/L	99
5) Chloroethane	3.47	64	128827	8.86	ug/L	95
6) Trichlorofluoromethane	3.86	101	402965	6.04	ug/L	100
7) 1,1-Dichloroethene	4.82	61	365116	5.66	ug/L	96
8) Acetone	5.10	43	67494	6.48	ug/L	95
9) Carbon Disulfide	5.21	76	626761	5.55	ug/L	92
10) Methylene Chloride	5.99	84	243961	5.77	ug/L	95
11) trans-1,2-Dichloroethene	6.55	61	370281	5.65	ug/L	98
12) TBA	6.47	59	219444	64.01	ug/L	91
13) MTBE	6.54	73	756912	5.71	ug/L	98
14) 1,1-Dichloroethane	7.82	63	551860	5.77	ug/L	99
15) cis-1,2-Dichloroethene	9.89	96	263572	5.36	ug/L	92
16) Chloroform	11.17	83	492378	5.54	ug/L	99
18) 1,2-Dichloroethane	13.16	62	297544	5.34	ug/L	99
20) Vinyl Acetate	8.15	43	369717	4.48	ug/L	96
21) 2-Butanone	10.42	43	111520	6.48	ug/L m	91
22) 1,1,1-Trichloroethane	11.51	97	430691	5.62	ug/L	92
23) Carbon Tetrachloride	11.96	117	346334	5.48	ug/L	97
24) Benzene	12.78	78	907457	5.60	ug/L	99
25) Trichloroethene	14.98	130	264959	5.08	ug/L	99
26) 1,2-Dichloropropane	15.72	63	336795	5.63	ug/L	99
27) Bromodichloromethane	16.62	83	407755	5.12	ug/L	97
28) 2-Chloroethyl Vinyl Ether	17.73	63	87187	4.57	ug/L m	93
29) cis-1,3-Dichloropropene	17.92	75	445304	5.22	ug/L	98
30) trans-1,3-Dichloropropene	19.58	75	366790	5.10	ug/L	97
31) 1,1,2-Trichloroethane	20.02	97	265373	5.52	ug/L	95
32) Dibromochloromethane	20.94	129	329471	5.44	ug/L	99
33) Bromoform	24.64	173	190452	5.58	ug/L	98
35) 4-Methyl-2-Pentanone	18.46	43	193893	4.28	ug/L	99
37) Toluene	18.65	91	969156	5.57	ug/L	97
38) Tetrachloroethene	20.06	166	261411	5.57	ug/L	99
39) 2-Hexanone	20.90	43	144793	5.80	ug/L m	77

(#) = qualifier out of range (m) = manual integration
 V9618.D V11027AW.M Thu Oct 28 08:43:51 1999

VOA3

Page 1

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:43 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
40) Chlorobenzene	22.45	112	639667	5.60 ug/L	97
41) Ethylbenzene	22.73	91	1228772	5.70 ug/L	98
42) m+ p-Xylenes	23.07	106	866694	11.16 ug/L	100
43) o-xylene	24.08	91	948994	5.70 ug/L	100
44) Styrene	24.20	104	537306	4.56 ug/L	99
46) 1,1,2,2-Tetrachloroethane	26.05	83	479360	6.11 ug/L	98
47) 1,3-Dichlorobenzene	28.31	146	408825	4.93 ug/L	96
48) 1,4-Dichlorobenzene	28.57	146	402934	4.95 ug/L	96
49) 1,2-Dichlorobenzene	29.51	146	449350	5.41 ug/L	98
50) Naphthalene	34.49	128	718238	5.02 ug/L m	85

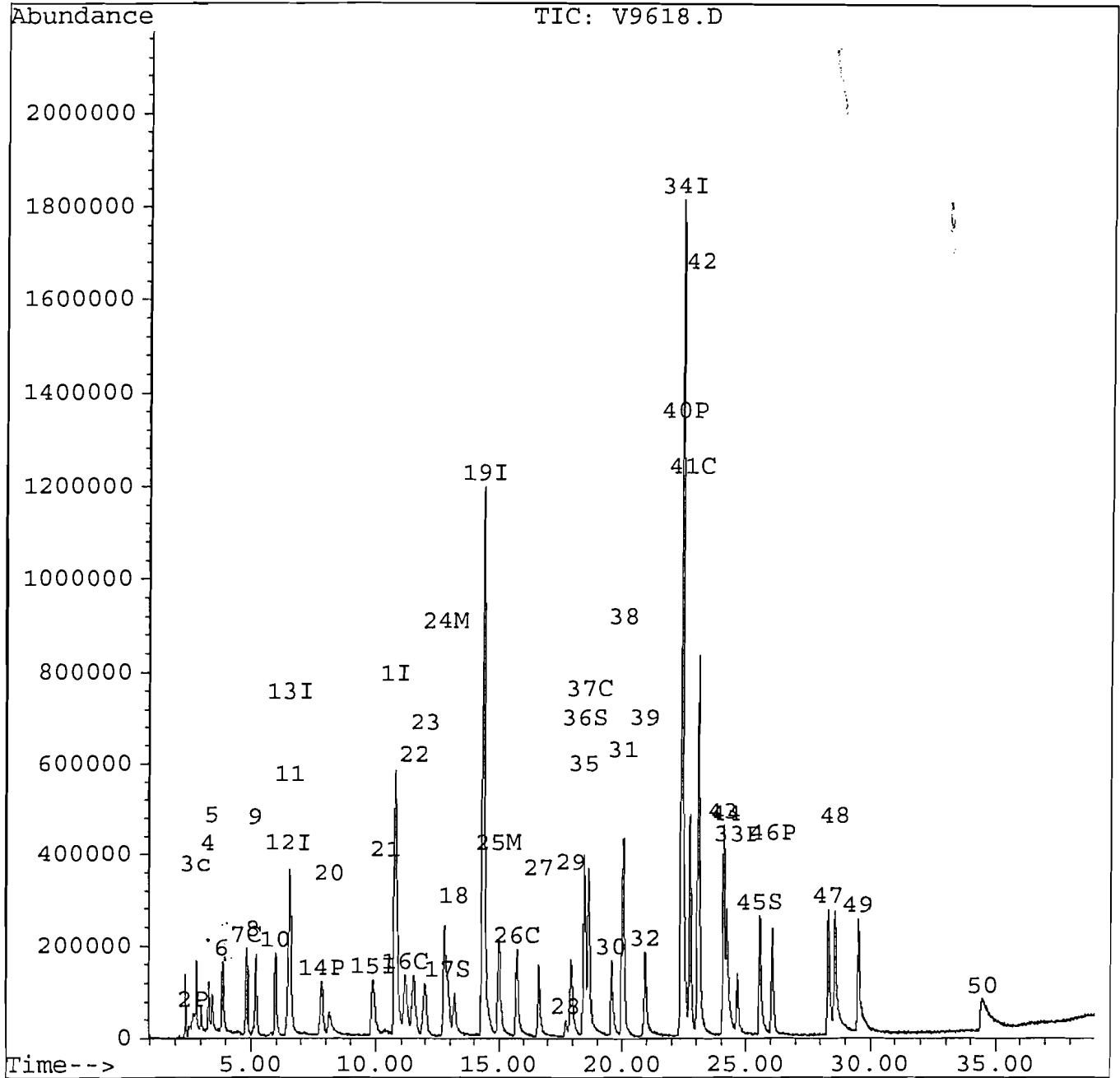
000053

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
Acq Time : 27 Oct 99 11:18 pm
Sample : 5PPB ICC
Misc : 25MLS
Quant Time: Oct 28 8:43 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 08:37:17 1999
Response via : Single Level Calibration



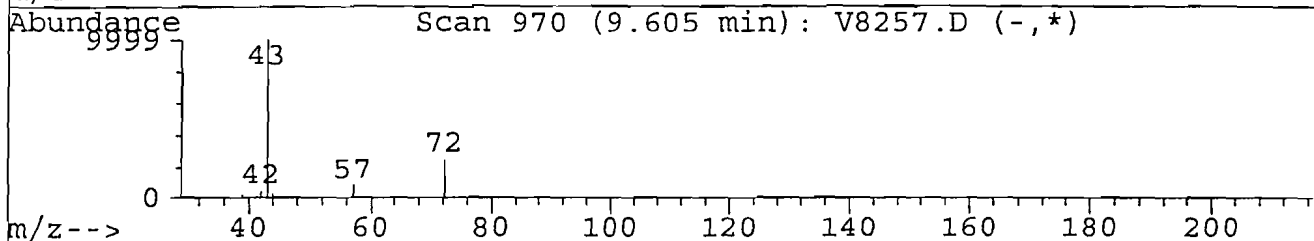
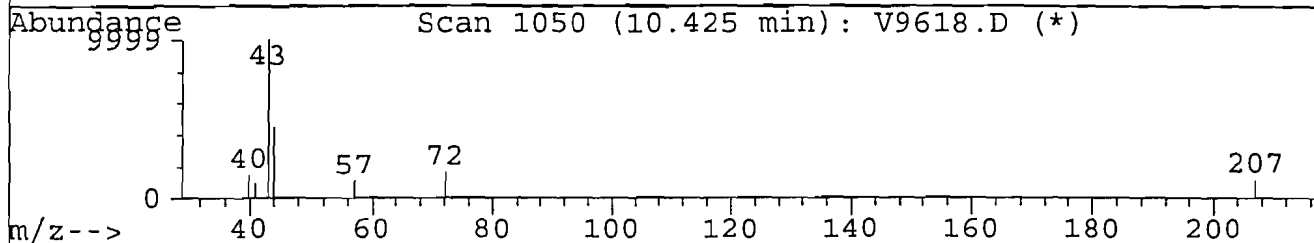
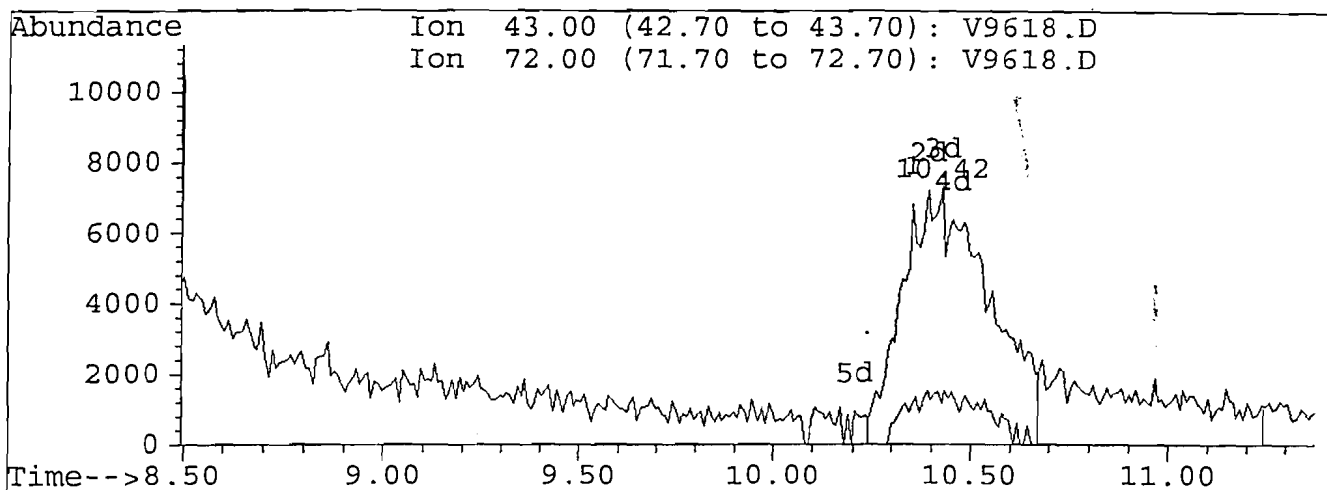
000054

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:42 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(21) 2-Butanone
 10.42min 6.48ug/L m
 response 111520

Ion	Exp%	Act%
43.00	100	100
72.00	20.60	24.69
0.00	0.00	0.00
0.00	0.00	0.00

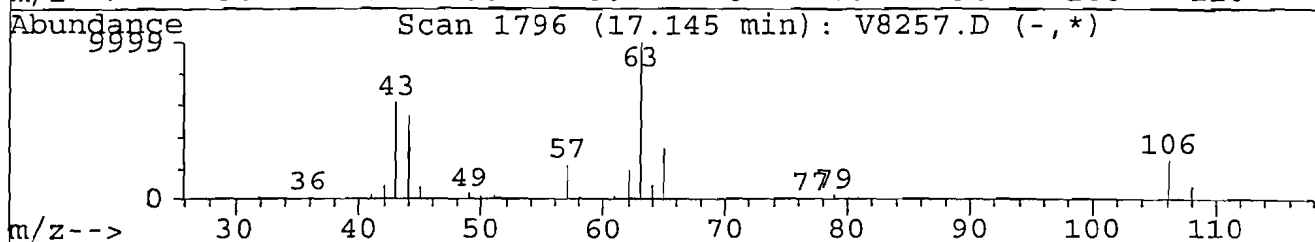
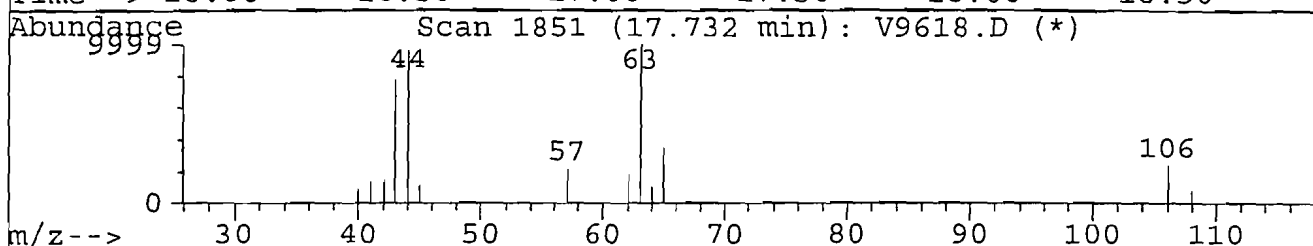
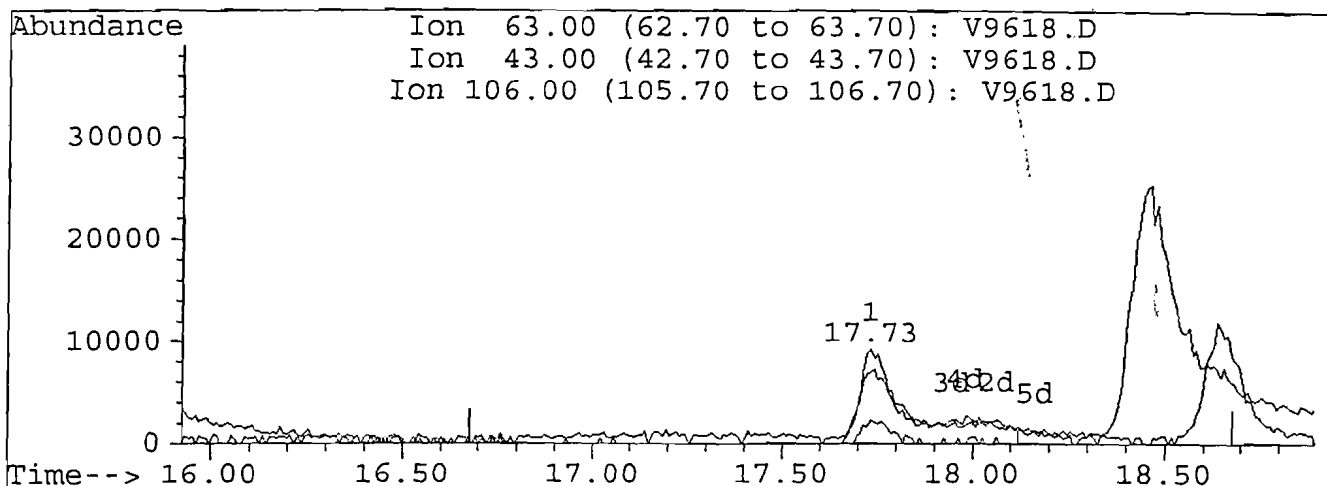
000055

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:42 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(28) 2-Chloroethyl Vinyl Ether

17.73min 4.57ug/L m

response 87187

Ion	Exp%	Act%
63.00	100	100
43.00	69.90	61.50
106.00	25.90	24.95
0.00	0.00	0.00

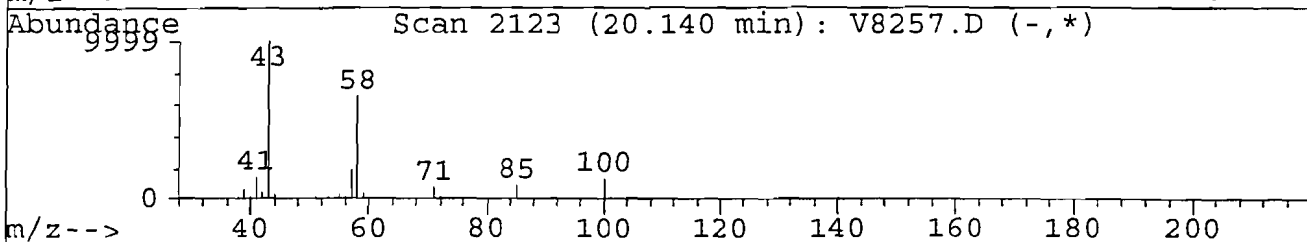
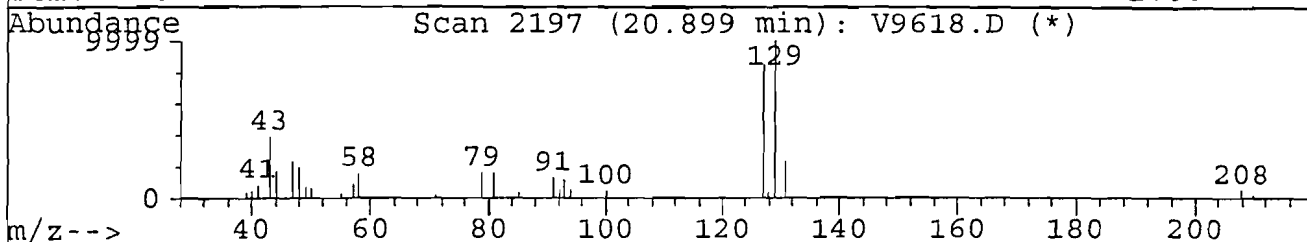
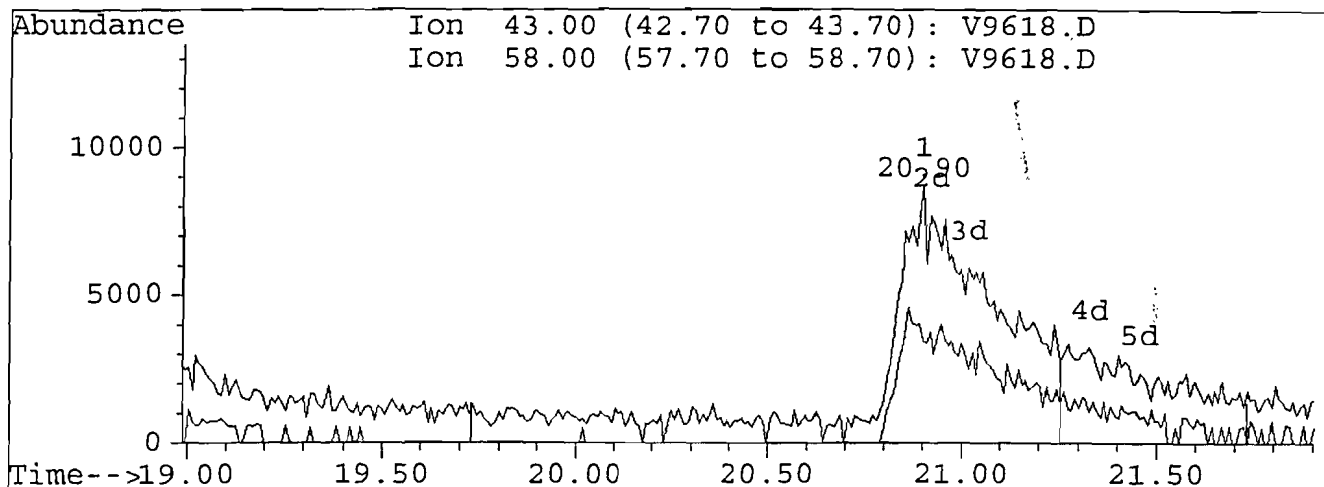
000056

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:43 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(39) 2-Hexanone
 20.90min 5.80ug/L m
 response 144793

Ion	Exp%	Act%
43.00	100	100
58.00	56.10	64.77
0.00	0.00	0.00
0.00	0.00	0.00

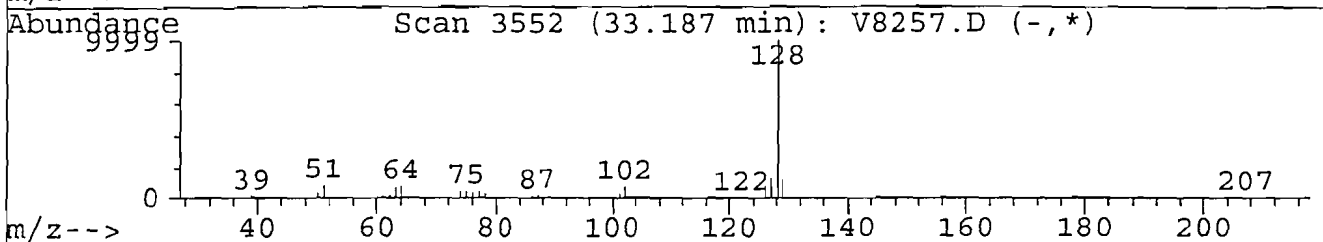
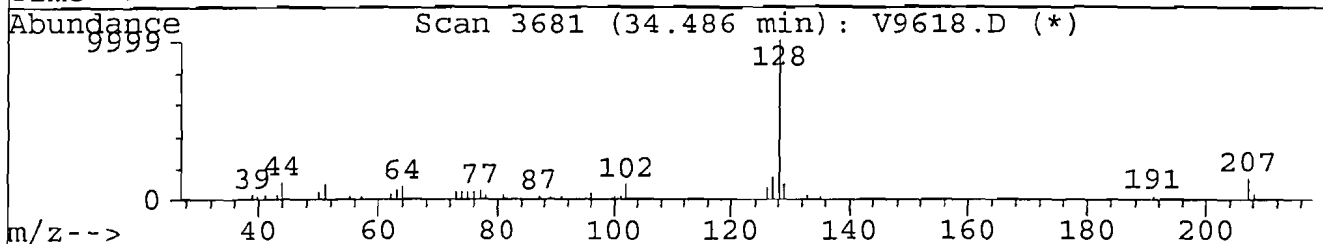
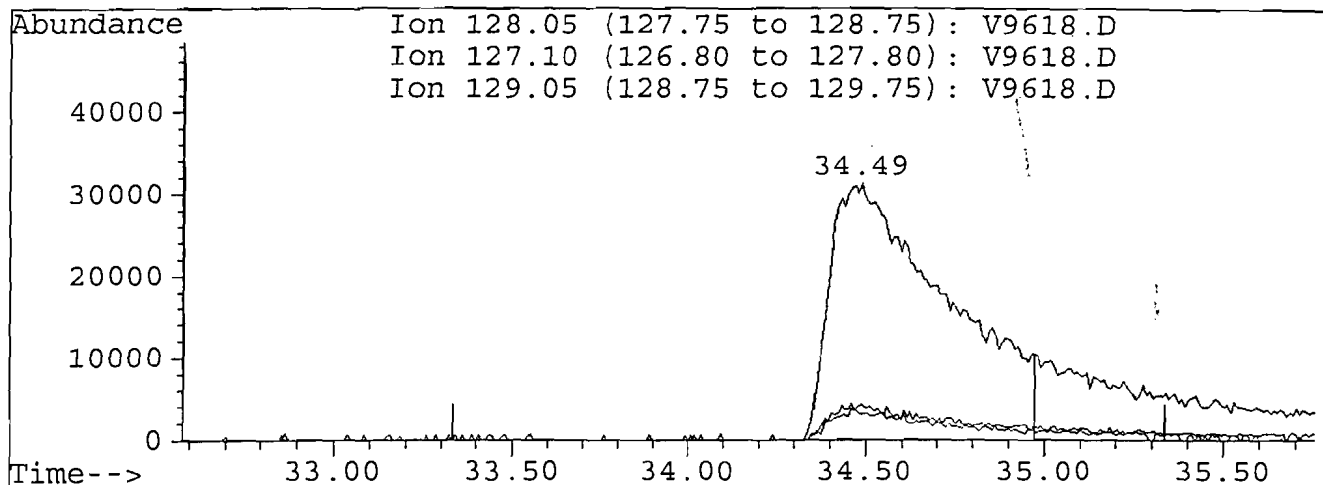
000057

Quantitation Report

Data File : F:\HPCHEM\1\DATA\V1102799\V9618.D
 Acq Time : 27 Oct 99 11:18 pm
 Sample : 5PPB ICC
 Misc : 25MLS
 Quant Time: Oct 28 8:43 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : F:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 08:37:17 1999
 Response via : Single Level Calibration



TIC: V9618.D

(50) Naphthalene

34.49min 5.02ug/L m

response 718238

Ion	Exp%	Act%
128.05	100	100
127.10	9.40	12.05
129.05	7.60	11.35
0.00	0.00	0.00

000058

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECHContract: IMPACT ENVIRONMENTALProject No. 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-Instrument ID: VOA1Calibration Date: '11/4/99Time: 0148Lab File ID: V9769.DInit. Calib. Date(s): '10/27/99 '10/27/99Heated Purge: (Y/N) NInit. Calib. Times: 2150 2318GC Column: RTX624ID: 0.53 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX %D
Chloromethane	1.565	1.429	0.300	8.7	20.0
Bromomethane	0.891	0.858	0.300	3.7	20.0
Vinyl Chloride	1.768	1.638	0.300	7.4	20.0
Chloroethane	0.812	0.629	0.300	22.5	20.0
Trichlorofluoromethane	2.902	2.856	0.300	1.6	20.0
Methylene Chloride	1.944	2.422	0.300	-24.6	20.0
1,1-Dichloroethene	2.984	3.554	0.300	-19.1	20.0
1,1-Dichloroethane	4.497	5.439	0.300	-20.9	20.0
trans-1,2-Dichloroethene	3.012	3.682	0.300	-22.2	20.0
Chloroform	4.050	4.961	0.300	-22.5	20.0
1,2-Dichloroethane	2.503	3.207	0.300	-28.1	20.0
1,1,1-Trichloroethane	0.623	0.768	0.300	-23.3	20.0
Carbon Tetrachloride	0.514	0.633	0.300	-23.2	20.0
Bromodichloromethane	0.629	0.797	0.300	-26.7	20.0
1,2-Dichloropropane	0.486	0.630	0.300	-29.6	20.0
cis-1,3-Dichloropropene	0.674	0.841	0.300	-24.8	20.0
Trichloroethene	0.407	0.494	0.300	-21.4	20.0
Dibromochloromethane	0.479	0.596	0.300	-24.4	20.0
1,1,2-Trichloroethane	0.377	0.488	0.300	-29.4	20.0
Benzene	1.322	1.618	0.300	-22.4	20.0
trans-1,3-Dichloropropene	0.560	0.707	0.300	-26.3	20.0
2-Chloroethyl Vinyl Ether	0.155	0.179	0.300	-15.5	20.0
Bromoform	0.272	0.334	0.250	-22.8	25.0
Tetrachloroethene	0.453	0.513	0.300	-13.2	25.0
1,1,2,2-Tetrachloroethane	0.756	0.918	0.300	-21.4	25.0
Toluene	1.673	1.924	0.300	-15.0	25.0
Chlorobenzene	1.105	1.323	0.300	-19.7	25.0
Ethylbenzene	2.095	2.453	0.300	-17.1	25.0
m+ p-Xylenes	0.751	0.876	0.300	-16.6	25.0
o-xylene	1.612	1.897	0.300	-17.7	25.0
1,2-Dichlorobenzene	0.780	0.922	0.300	-18.2	25.0
1,3-Dichlorobenzene	0.764	0.930	0.300	-21.7	25.0
1,4-Dichlorobenzene	0.764	0.973	0.300	-27.4	25.0
Toluene-d8	1.363	2.019	0.300	-48.1	25.0
Bromofluorobenzene	0.800	1.231	0.300	-53.9	25.0
1,2-Dichloroethane-d4	1.772	2.764	0.300	-56.0	25.0

All other compounds must meet a minimum RRF of 0.010.

000059

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9769.D

Acq Time : 4 Nov 99 1:48 am

Sample : 20PPB CCC

Misc : 5MLS

Quant Time: Nov 4 6:20 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.89	128	521027	30.00	ug/L	0.09
19) 1,4-Difluorobenzene	14.44	114	2842359	30.00	ug/L	0.08
34) Chlorobenzene-d5	22.46	117	2473962	30.00	ug/L	0.09
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.98	65	959956	31.20	ug/L	104.00%
36) Toluene-d8	18.55	98	3330746	29.63	ug/L	98.76%
45) Bromofluorobenzene	25.59	95	2030326	30.76	ug/L	102.53%
Target Compounds						Qvalue
2) Chloromethane	2.72	50	496260	18.26	ug/L	98
3) Vinyl Chloride	2.84	62	569018	18.53	ug/L	97
4) Bromomethane	3.34	94	297992	19.26	ug/L	98
5) Chloroethane	3.49	64	218565	15.49	ug/L	98
6) Trichlorofluoromethane	3.87	101	992130	19.69	ug/L	98
7) 1,1-Dichloroethene	4.87	61	1234557	23.82	ug/L	98
8) Acetone	5.15	43	199248	24.16	ug/L	97
9) Carbon Disulfide	5.24	76	2041129	22.59	ug/L	98
10) Methylene Chloride	6.03	84	841291	24.91	ug/L	96
11) trans-1,2-Dichloroethene	6.61	61	1278973	24.45	ug/L	98
12) TBA	6.53	59	743090	268.07	ug/L	89
13) MTBE	6.61	73	2625205	25.35	ug/L	99
14) 1,1-Dichloroethane	7.89	63	1889114	24.19	ug/L	99
15) cis-1,2-Dichloroethene	9.97	96	919692	24.02	ug/L	97
16) Chloroform	11.26	83	1723125	24.50	ug/L	99
18) 1,2-Dichloroethane	13.23	62	1113825	25.63	ug/L	99
20) Vinyl Acetate	8.16	43	1782313	28.66	ug/L	99
21) 2-Butanone	10.33	43	342579	24.09	ug/L	99
22) 1,1,1-Trichloroethane	11.61	97	1454444	24.64	ug/L	98
23) Carbon Tetrachloride	12.05	117	1200026	24.64	ug/L	98
24) Benzene	12.87	78	3066626	24.49	ug/L	100
25) Trichloroethene	15.06	130	935589	24.28	ug/L	97
26) 1,2-Dichloropropane	15.81	63	1194646	25.95	ug/L	97
27) Bromodichloromethane	16.69	83	1509798	25.35	ug/L	97
28) 2-Chloroethyl Vinyl Ether	17.75	63	339355	23.08	ug/L	94
29) cis-1,3-Dichloropropene	18.00	75	1594171	24.95	ug/L	98
30) trans-1,3-Dichloropropene	19.65	75	1339845	25.24	ug/L	99
31) 1,1,2-Trichloroethane	20.09	97	925055	25.91	ug/L	100
32) Dibromochloromethane	21.00	129	1128436	24.86	ug/L	97
33) Bromoform	24.71	173	632409	24.53	ug/L	98
35) 4-Methyl-2-Pentanone	18.50	43	875468	26.64	ug/L	98
37) Toluene	18.72	91	3173945	23.01	ug/L	97
38) Tetrachloroethene	20.14	166	846890	22.68	ug/L	99
39) 2-Hexanone	20.84	43	567744	26.89	ug/L	96

(#)=qualifier out of range (m)=manual integration

V9769.D V11027AW.M

Fri Nov 12 07:19:06 1999

VOA3

Page 1

000060

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9769.D

Acq Time : 4 Nov 99 1:48 am

Sample : 20PPB CCC

Misc : 5MLS

Quant Time: Nov 4 6:20 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

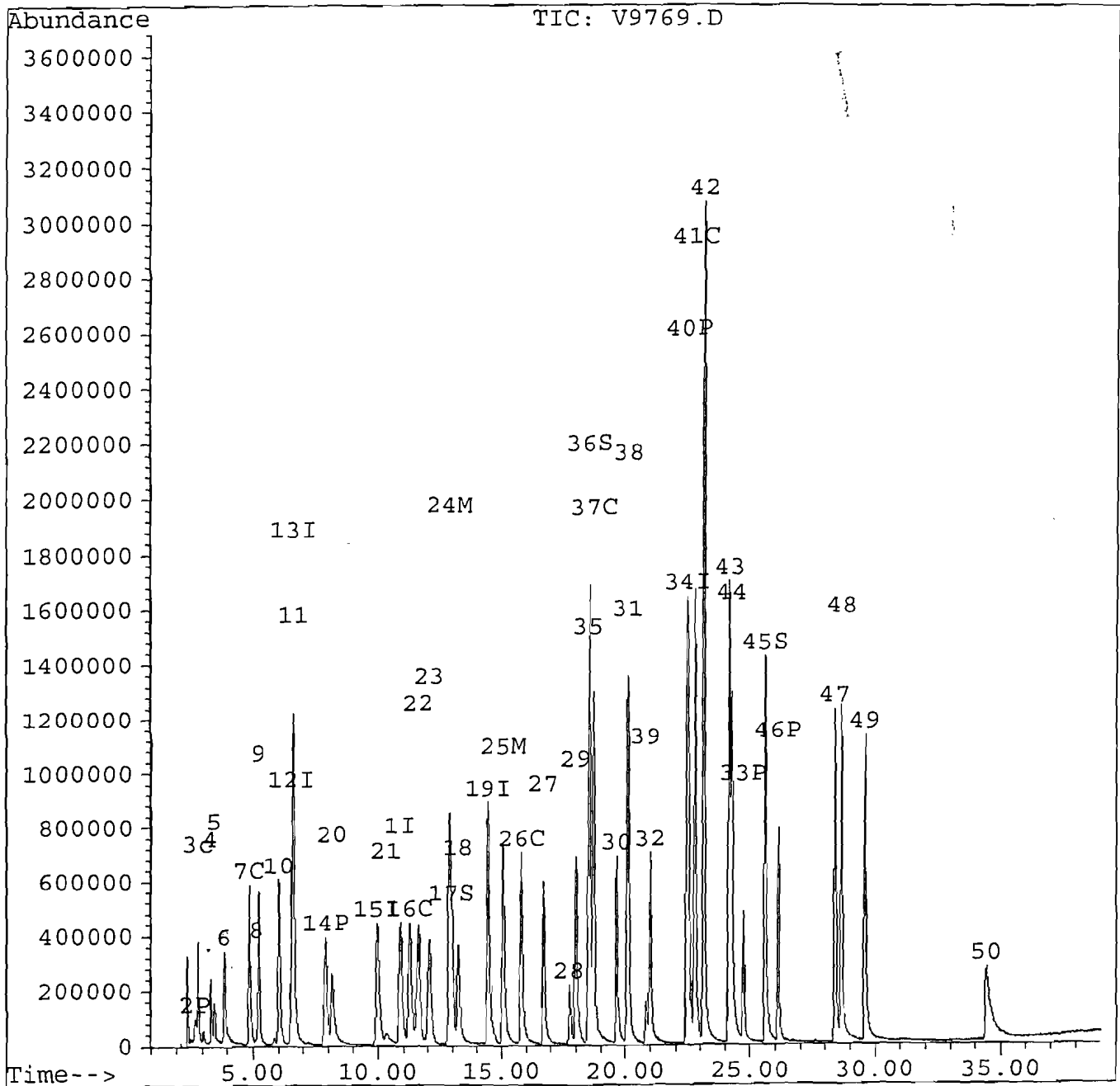
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.53	112	2182592	23.95	ug/L	99
41) Ethylbenzene	22.80	91	4045128	23.41	ug/L	100
42) m+ p-Xylenes	23.13	106	2890572	46.64	ug/L	98
43) o-xylene	24.15	91	3129233	23.54	ug/L	99
44) Styrene	24.25	104	2261447	25.48	ug/L	99
46) 1,1,2,2-Tetrachloroethane	26.11	83	1514598	24.30	ug/L	99
47) 1,3-Dichlorobenzene	28.37	146	1533799	24.36	ug/L	99
48) 1,4-Dichlorobenzene	28.63	146	1604159	25.47	ug/L	97
49) 1,2-Dichlorobenzene	29.58	146	1520227	23.63	ug/L	98
50) Naphthalene	34.44	128	2084767	20.28	ug/L m	90

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9769.D
Acq Time : 4 Nov 99 1:48 am
Sample : 20PPB CCC
Misc : 5MLS
Quant Time: Nov 4 6:20 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000062

Evaluate Continuing Calibration Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9769.D

Acq Time : 4 Nov 99 1:48 am

Sample : 20PPB CCC

Misc : 5MLS

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

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

Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev (Min)
1 I	Bromochloromethane	1.000	1.000	0.0	76	0.09
2 P	Chloromethane	1.565	1.429	8.7	75	0.03
3 c	Vinyl Chloride	1.768	1.638	7.4	78	0.02
4	Bromomethane	0.891	0.858	3.7	80	0.03
5	Chloroethane	0.812	0.629	22.5	74	0.03
6	Trichlorofluoromethane	2.902	2.856	1.6	74	0.02
7 C	1,1-Dichloroethene	2.984	3.554	-19.1	95	0.05
8	Acetone	0.475	0.574	-20.8	95	0.04
9	Carbon Disulfide	5.203	5.876	-12.9	89	0.04
10	Methylene Chloride	1.944	2.422	-24.6	98	0.04
11	trans-1,2-Dichloroethene	3.012	3.682	-22.3	97	0.05
12 I	TBA	0.160	0.214	-34.0#	107	0.07
13 I	MTBE	5.964	7.558	-26.7#	98	0.06
14 P	1,1-Dichloroethane	4.497	5.439	-20.9	98	0.07
15 I	cis-1,2-Dichloroethene	2.205	2.648	-20.1	93	0.08
16 C	Chloroform	4.050	4.961	-22.5	96	0.07
17 S	1,2-Dichloroethane-d4	1.772	2.764	-56.0#	124	0.08
18	1,2-Dichloroethane	2.503	3.207	-28.1#	99	0.06
19 I	1,4-Difluorobenzene	1.000	1.000	0.0	74	0.08
20	Vinyl Acetate	0.656	0.941	-43.3#	106	0.07
21	2-Butanone	0.150	0.181	-20.5	98	0.09
22	1,1,1-Trichloroethane	0.623	0.768	-23.2	93	0.07
23	Carbon Tetrachloride	0.514	0.633	-23.2	93	0.06
24 M	Benzene	1.322	1.618	-22.4	93	0.07
25 M	Trichloroethene	0.407	0.494	-21.4	88	0.07
26 C	1,2-Dichloropropane	0.486	0.630	-29.7#	98	0.08
27	Bromodichloromethane	0.629	0.797	-26.7#	93	0.07
28	2-Chloroethyl Vinyl Ether	0.155	0.179	-15.4	88	0.07
29	cis-1,3-Dichloropropene	0.674	0.841	-24.8	92	0.09
30	trans-1,3-Dichloropropene	0.560	0.707	-26.2#	92	0.10
31	1,1,2-Trichloroethane	0.377	0.488	-29.6#	95	0.10
32	Dibromochloromethane	0.479	0.596	-24.3	92	0.09
33 P	Bromoform	0.272	0.334	-22.6	91	0.08
34 I	Chlorobenzene-d5	1.000	1.000	0.0	77	0.09
35	4-Methyl-2-Pentanone	0.398	0.531	-33.2#	95	0.08
36 S	Toluene-d8	1.363	2.019	-48.1#	117	0.09
37 C	Toluene	1.673	1.924	-15.0	90	0.09
38	Tetrachloroethene	0.453	0.513	-13.4	89	0.10
39	2-Hexanone	0.256	0.344	-34.5#	112	0.10
40 P	Chlorobenzene	1.105	1.323	-19.7	94	0.09

(#) = Out of Range

V9769.D V11027AW.M

Fri Nov 12 07:19:15 1999

VOA3

Page 1

000063

Evaluate Continuing Calibration Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9769.D
 Acq Time : 4 Nov 99 1:48 am
 Sample : 20PPB CCC
 Misc : 5MLS

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRRF	CCRRF	%Dev	Area%	Dev(Min)
41 C	Ethylbenzene	2.095	2.453	-17.1	92	0.09
42	m+ p-Xylenes	0.751	0.876	-16.6	91	0.09
43	o-xylene	1.612	1.897	-17.7	92	0.09
44	Styrene	1.076	1.371	-27.4#	94	0.09
45 S	Bromofluorobenzene	0.800	1.231	-53.8#	120	0.08
46 P	1,1,2,2-Tetrachloroethane	0.756	0.918	-21.5	95	0.08
47	1,3-Dichlorobenzene	0.764	0.930	-21.8	91	0.10
48	1,4-Dichlorobenzene	0.764	0.973	-27.3#	97	0.09
49	1,2-Dichlorobenzene	0.780	0.922	-18.1	90	0.10
50	Naphthalene	1.247	1.264	-1.4	72	0.11

CHEMTECH CONSULTING GROUP

VOLATILES

RAW QC DATA

000065

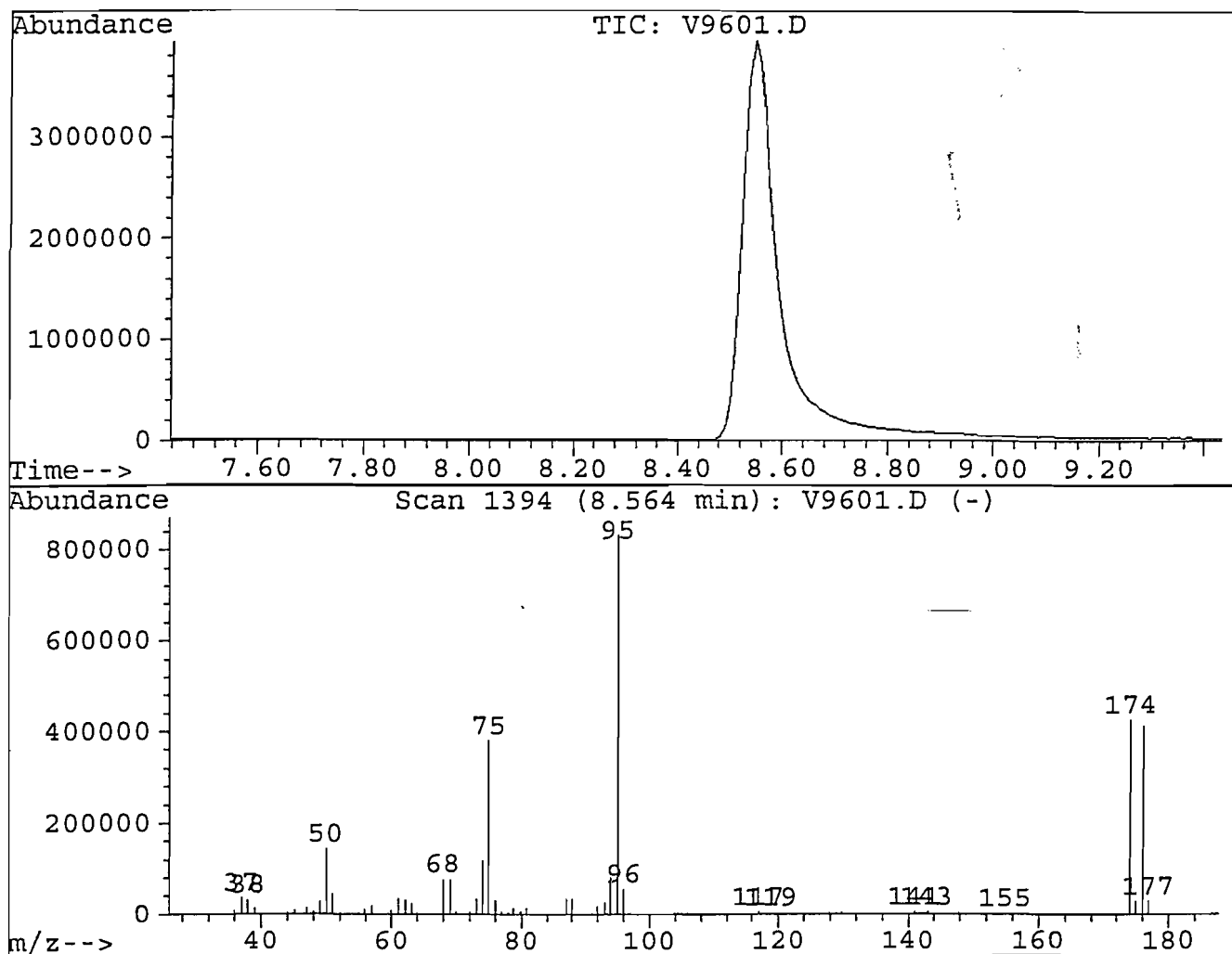
BFB

JJ 10-27-99

Data File : J:\HPCHEM\1\DATA\V1102799\V9601.D
 Acq Time : 27 Oct 99 9:47 am
 Sample : BFB TUNE CHECK
 Misc : 25MLS

Operator: JJ
 Inst : 5971 - In
 Multiplr: 1.00

Method : J:\HPCHEM\1\OLDMETH\V11017IT.M
 Title : 8260B VOA



Peak Apex is scan: 1380

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	142272	PASS
75	95	30	60	45.5	378496	PASS
95	95	100	100	100.0	832448	PASS
96	95	5	9	6.4	53592	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	50.8	422912	PASS
175	174	5	9	6.8	28752	PASS
176	174	95	101	97.1	410496	PASS
177	176	5	9	6.6	27232	PASS

000066

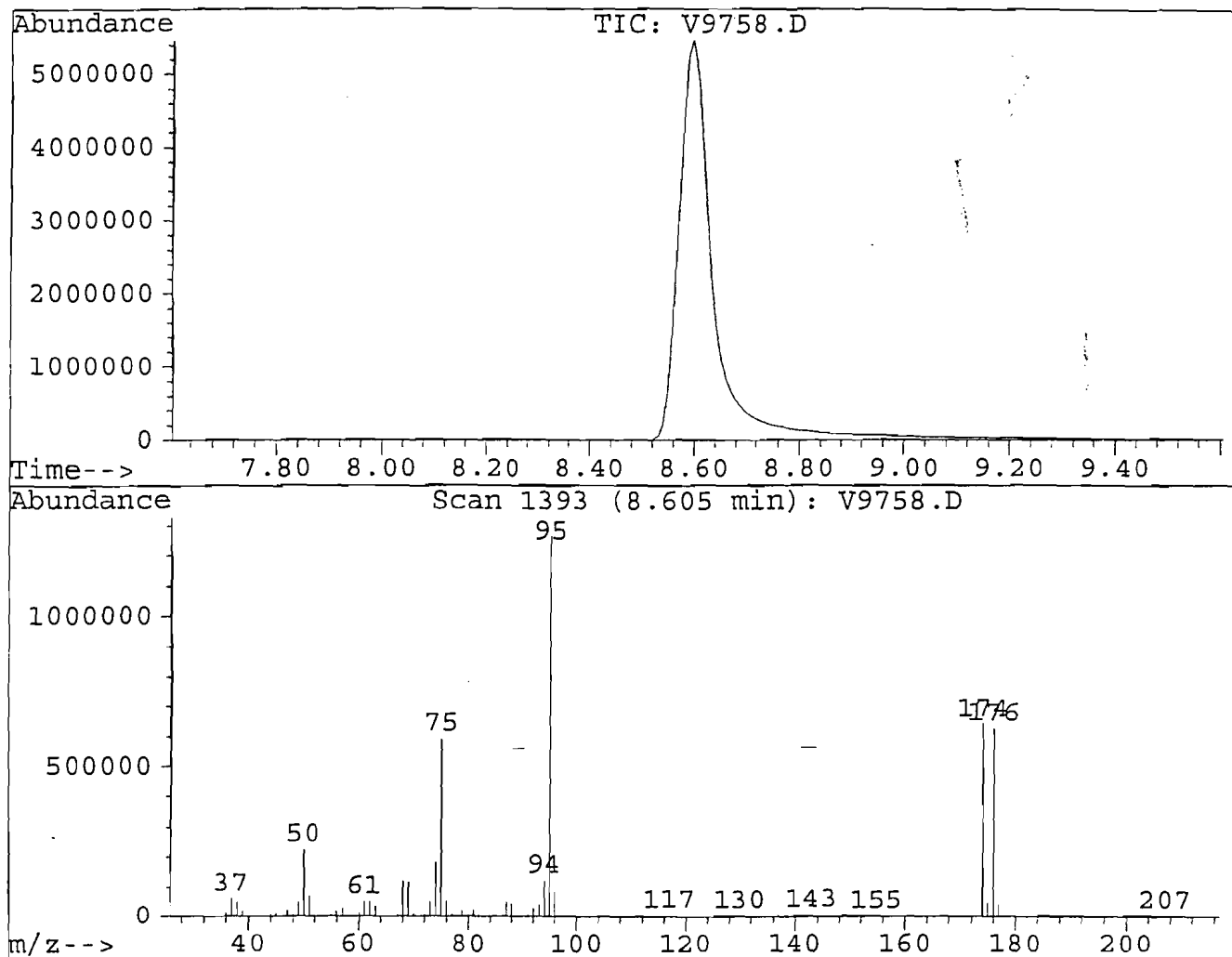
BFB

A-FV-gs

Data File : D:\HPCHEM\1\DATA\V1110399\V9758.D
 Acq Time : 3 Nov 99 5:25 pm
 Sample : BFB TUNE CHECK
 Misc : 5MLS

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : D:\HPCHEM\1\OLDMETH\V11017IT.M
 Title : 8260B VOA



Peak Apex is scan: 1393

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	222528	PASS
75	95	30	60	46.6	590144	PASS
95	95	100	100	100.0	1266176	PASS
96	95	5	9	6.6	83648	PASS
173	174	0	2	0.5	3311	PASS
174	95	50	100	50.4	638400	PASS
175	174	5	9	7.0	44672	PASS
176	174	95	101	97.9	624704	PASS
177	176	5	9	6.4	40288	PASS

000067

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBK01

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13946ASP

Site:

Location:

Group: 335-MW-1-

Matrix: (soil/water) WATER

Lab Sample ID: VBK01

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9770.D

Level: (low/med)

Date Received:

% Moisture: not dec. 100

Date Analyzed: 11/4/99

GC Column: RTX624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
74-87-3	Chloromethane	2.3		U
74-83-9	Bromomethane	1.8		U
75-01-4	Vinyl Chloride	2		U
75-00-3	Chloroethane	1.6		U
75-09-2	Trichlorofluoromethane	1.5		U
75-09-2	Methylene Chloride	0.6		U
75-35-4	1,1-Dichloroethene	1.2		U
75-34-4	1,1-Dichloroethane	0.7		U
156-60-5	trans-1,2-Dichloroethene	1		U
67-66-3	Chloroform	0.4		U
107-06-2	1,2-Dichloroethane	0.5		U
71-55-6	1,1,1-Trichloroethane	0.5		U
56-23-5	Carbon Tetrachloride	0.4		U
75-27-4	Bromodichloromethane	0.6		U
78-87-5	1,2-Dichloropropane	0.8		U
10061-01-5	cis-1,3-Dichloropropene	0.3		U
79-01-6	Trichloroethene	0.3		U
124-48-1	Dibromochloromethane	0.5		U
79-00-5	1,1,2-Trichloroethane	0.9		U
71-43-2	Benzene	0.6		U
10061-02-6	trans-1,3-Dichloropropene	0.5		U
110-75-8	2-Chloroethyl Vinyl Ether	1.5		U
75-25-2	Bromoform	0.7		U
127-18-4	Tetrachloroethene	0.6		U
79-34-5	1,1,2,2-Tetrachloroethane	1		U
108-88-3	Toluene	0.5		U
108-90-7	Chlorobenzene	0.5		U
100-41-4	Ethylbenzene	0.5		U
1330-20-7	m + p-Xylenes	0.4		U
95-47-6	o-xylene	0.4		U
95-50-1	1,2-Dichlorobenzene	0.2		U
541-73-1	1,3-Dichlorobenzene	0.4		U
106-46-7	1,4-Dichlorobenzene	0.3		U

000068

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBK01

Lab Name: CHEMTECH Contract: IMPACT ENVIRONMENTAL
Project No. 1394 Site: _____ Location: _____ Group: 335-MW-1
Matrix: (soil/water) WATER Lab Sample ID: VBK01
Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V9770.D
Level: (low/med) _____ Date Received: _____
% Moisture: not dec. 100 Date Analyzed: 11/4/99
GC Column: RTX624 ID: 0.53 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

000069

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9770.D
 Acq Time : 4 Nov 99 2:33 am
 Sample : PRO BLK
 Misc : 5MLS
 Quant Time: Nov 4 6:54 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.89	128	517505	30.00	ug/L	0.09
19) 1,4-Difluorobenzene	14.44	114	2949107	30.00	ug/L	0.07
34) Chlorobenzene-d5	22.44	117	2483677	30.00	ug/L	0.08
System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	12.98	65	1025826	33.57	ug/L	111.89%
36) Toluene-d8	18.52	98	3631346	32.17	ug/L	107.25%
45) Bromofluorobenzene	25.60	95	1954761	29.50	ug/L	98.33%
Target Compounds						Qvalue
8) Acetone	5.17	43	24255	2.96	ug/L	91

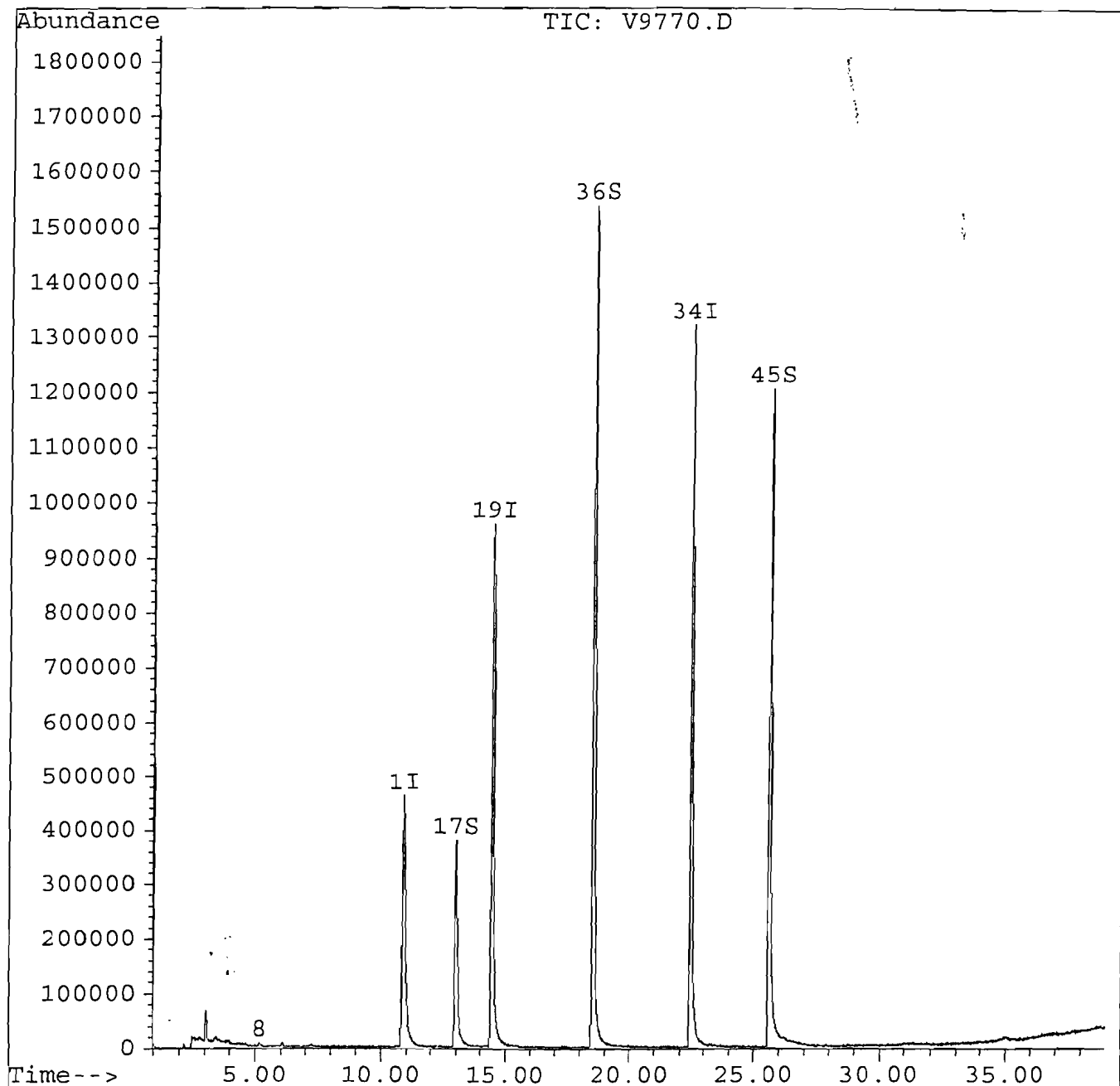
000070

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9770.D
Acq Time : 4 Nov 99 2:33 am
Sample : PRO BLK
Misc : 5MLS
Quant Time: Nov 4 6:54 1999

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Last Update : Thu Oct 28 09:06:17 1999
Response via : Multiple Level Calibration



000071

Library Search Compound Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9770.D
Acq Time : 4 Nov 99 2:33 am
Sample : PRO BLK
Misc : 5MLS

Operator: AV
Inst : 5971 - In
Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
Title : VOA Standards for 5 point calibration
Library : NBS75K.L

No Library Search Compounds Detected

000072

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

BLKSPK

Lab Name: CHEMTECH

Contract: IMPACT ENVIRONMENTAL

Project No.: 13946ASP

Site: _____

Location: _____

Group: 335-MW-1-

Matrix: (soil/water) WATER

Lab Sample ID: BLKSPK

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: V9771.D

Level: (low/med) _____

Date Received: _____

% Moisture: not dec. 100

Date Analyzed: 11/4/99

GC Column: RTX624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
74-87-3	Chloromethane	19		
74-83-9	Bromomethane	20		
75-01-4	Vinyl Chloride	19		
75-00-3	Chloroethane	16		
75-09-2	Trichlorofluoromethane	21		
75-09-2	Methylene Chloride	21		
75-35-4	1,1-Dichloroethene	20		
75-34-4	1,1-Dichloroethane	21		
156-60-5	trans-1,2-Dichloroethene	21		
67-66-3	Chloroform	21		
107-06-2	1,2-Dichloroethane	21		
71-55-6	1,1,1-Trichloroethane	21		
56-23-5	Carbon Tetrachloride	20		
75-27-4	Bromodichloromethane	21		
78-87-5	1,2-Dichloropropane	21		
10061-01-5	cis-1,3-Dichloropropene	20		
79-01-6	Trichloroethene	20		
124-48-1	Dibromochloromethane	20		
79-00-5	1,1,2-Trichloroethane	21		
71-43-2	Benzene	20		
10061-02-6	trans-1,3-Dichloropropene	20		
110-75-8	2-Chloroethyl Vinyl Ether	18		
75-25-2	Bromoform	19		
127-18-4	Tetrachloroethene	19		
79-34-5	1,1,2,2-Tetrachloroethane	19		
108-88-3	Toluene	20		
108-90-7	Chlorobenzene	20		
100-41-4	Ethylbenzene	20		
1330-20-7	m + p-Xylenes	39		
95-47-6	o-xylene	20		
95-50-1	1,2-Dichlorobenzene	20		
541-73-1	1,3-Dichlorobenzene	20		
106-46-7	1,4-Dichlorobenzene	21		

000073

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9771.D

Acq Time : 4 Nov 99 3:17 am

Sample : BLK SPK

Misc : 5MLS

Quant Time: Nov 4 7:30 1999

Operator: AV

Inst : 5971 - In

Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M

Title : VOA Standards for 5 point calibration

Last Update : Thu Oct 28 09:06:17 1999

Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	10.91	128	538090	30.00	ug/L	0.11
19) 1,4-Difluorobenzene	14.47	114	3020508	30.00	ug/L	0.10
34) Chlorobenzene-d5	22.46	117	2572100	30.00	ug/L	0.09

System Monitoring Compounds						%Recovery
17) 1,2-Dichloroethane-d4	13.01	65	936910	29.48	ug/L	98.28%
36) Toluene-d8	18.55	98	3334713	28.53	ug/L	95.10%
45) Bromofluorobenzene	25.59	95	1989943	29.00	ug/L	96.66%

Target Compounds						Qvalue
2) Chloromethane	2.73	50	535169	19.07	ug/L	100
3) Vinyl Chloride	2.84	62	618127	19.49	ug/L	99
4) Bromomethane	3.35	94	314308	19.67	ug/L	97
5) Chloroethane	3.49	64	236527	16.24	ug/L	94
6) Trichlorofluoromethane	3.88	101	1077433	20.70	ug/L	100
7) 1,1-Dichloroethene	4.87	61	1089098	20.35	ug/L	97
8) Acetone	5.17	43	168768	19.81	ug/L	100
9) Carbon Disulfide	5.25	76	1806080	19.35	ug/L	99
10) Methylene Chloride	6.06	84	736408	21.12	ug/L	96
11) trans-1,2-Dichloroethene	6.63	61	1120161	20.74	ug/L	99
12) TBA	6.55	59	570418	199.25	ug/L	90
13) MTBE	6.62	73	2179682	20.38	ug/L	100
14) 1,1-Dichloroethane	7.92	63	1657833	20.55	ug/L	99
15) cis-1,2-Dichloroethene	10.02	96	803604	20.32	ug/L	99
16) Chloroform	11.30	83	1500339	20.66	ug/L	99
18) 1,2-Dichloroethane	13.27	62	948425	21.13	ug/L	97
20) Vinyl Acetate	8.20	43	1461962	22.12	ug/L	99
21) 2-Butanone	10.37	43	75741	5.01	ug/L	100
22) 1,1,1-Trichloroethane	11.64	97	1288635	20.54	ug/L	97
23) Carbon Tetrachloride	12.09	117	1027124	19.85	ug/L	99
24) Benzene	12.90	78	2691036	20.22	ug/L	99
25) Trichloroethene	15.09	130	834064	20.37	ug/L	98
26) 1,2-Dichloropropane	15.82	63	1015291	20.75	ug/L	100
27) Bromodichloromethane	16.71	83	1324280	20.92	ug/L	99
28) 2-Chloroethyl Vinyl Ether	17.77	63	287507	18.40	ug/L	95
29) cis-1,3-Dichloropropene	18.01	75	1372124	20.21	ug/L	97
30) trans-1,3-Dichloropropene	19.64	75	1133389	20.09	ug/L	98
31) 1,1,2-Trichloroethane	20.08	97	796622	21.00	ug/L	99
32) Dibromochloromethane	21.00	129	968916	20.09	ug/L	98
33) Bromoform	24.71	173	533723	19.48	ug/L	98
35) 4-Methyl-2-Pentanone	18.50	43	705377	20.65	ug/L	99
37) Toluene	18.73	91	2825497	19.70	ug/L	97
38) Tetrachloroethene	20.14	166	747968	19.27	ug/L	99
39) 2-Hexanone	20.84	43	379765	17.30	ug/L	95

(#) = qualifier out of range (m) = manual integration
V9771.D V11027AW.M Fri Nov 12 07:22:53 1999

000074

VOA3

Page 1

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9771.D
 Acq Time : 4 Nov 99 3:17 am
 Sample : BLK SPK
 Misc : 5MLS
 Quant Time: Nov 4 7:30 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
40) Chlorobenzene	22.53	112	1900780	20.06	ug/L	98
41) Ethylbenzene	22.79	91	3526015	19.63	ug/L	99
42) m+ p-Xylenes	23.13	106	2522000	39.14	ug/L	99
43) o-xylene	24.15	91	2732271	19.77	ug/L	99
44) Styrene	24.25	104	1918332	20.79	ug/L	99
46) 1,1,2,2-Tetrachloroethane	26.11	83	1238007	19.11	ug/L	96
47) 1,3-Dichlorobenzene	28.36	146	1318135	20.13	ug/L	98
48) 1,4-Dichlorobenzene	28.64	146	1393227	21.28	ug/L	98
49) 1,2-Dichlorobenzene	29.57	146	1314002	19.64	ug/L	99
50) Naphthalene	34.46	128	1758439	16.45	ug/L m	84

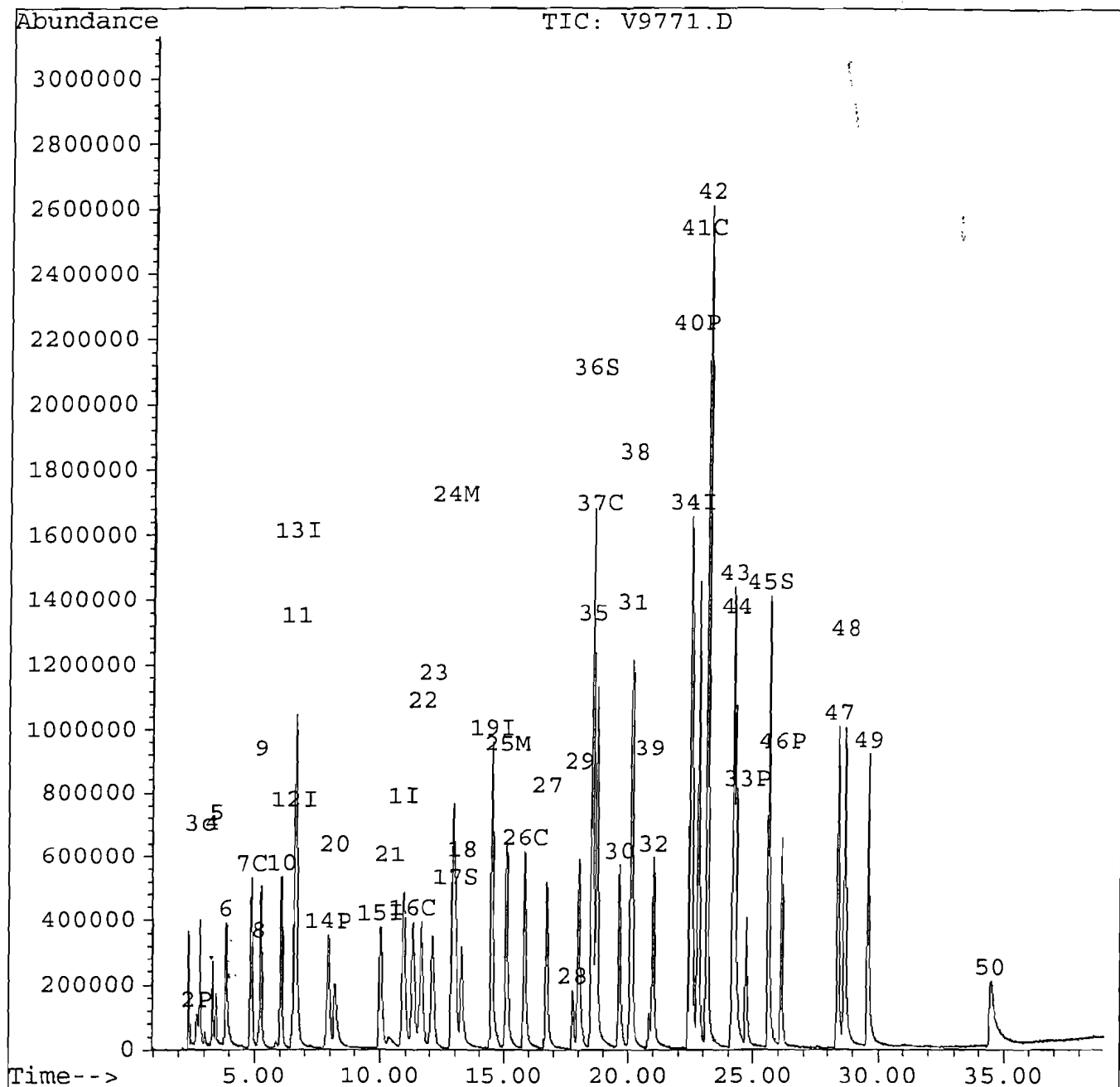
000075

Quantitation Report

Data File : E:\HPCHEM\1\DATA\V1110399\V9771.D
 Acq Time : 4 Nov 99 3:17 am
 Sample : BLK SPK
 Misc : 5MLS
 Quant Time: Nov 4 7:30 1999

Operator: AV
 Inst : 5971 - In
 Multiplr: 1.00

Method : E:\HPCHEM\1\OLDMETH\V11027AW.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Oct 28 09:06:17 1999
 Response via : Multiple Level Calibration



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CHEMTECH CONSULTING GROUP

MISCELLANEOUS DATA

000077

Start Date: 10/27/99End Date: 10/27/99Analyst JPReview By: A

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	V1072	QC Check Std.	_____
CCC 50	V1099, V1100	Initial Calibration Stds.	_____
Internal Stds.	V1097	Spike Std.	V1107
Surrogate Stds.	V1098	METH	V11017 I.T.M

4935338

3447980

1311848

SR. #:	Sample ID	Data File Name	Method #:	Run Information		Comment
1	BFB	V9601		pH		OK 9:47
2	10PPB CCC	V9602	8260JF			OK
3	PRO BIK	V9603				OK
4	BIK SPIK	V9604				OK
5	9910013 -001	V9605		< 2	25mls	OK
6	-002	V9606		< 2		OK
7	-003	V9607		< 2		OK RE to Confirm
8	-004	V9608		< 2		OK RE 1:10/1:25
9	-005	V9609		< 2		OK RE Pos Carryover
10	-006	V9610		< 2		OK
11	-007	V9611		< 2		OK
12	-008	V9612		< 2		OK
13	-009	V9613		< 2		OK
14	-010	V9614		< 2		OK
15	V-011	V9615		< 2		OK
16	100PPB ICC	V9616	8/624		Swb	OK
17	20PPB ICC	V9617			V11027 A.M.	OK
18	5PPB ICC	V9618				OK
19	PRO. BLANK	V9619				
20	BLACK SPIKE	V9620				000078

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CHEMTECH

Daily Analysis Runlog For GC/MS #: VOA1

Start Date: 10/3/99 End Date: 10/4/99 Analyst A-T Review By: JF

STD. NAME	STD REF. #:	STD NAME	STD REF. #:
BFB	V1112	QC Check Std.	5374497
CCC 50	V1099, V1100	Initial Calibration Stds.	3717042 1T 1420761
Internal Stds.	V1097	Spike Std.	V1107 521027
Surrogate Stds.	V1098	Melli	V1107 FIT.M. 2842359 624 2473962

SR #:	Sample ID	Data File Name	Method #:	Run Information	Comment
1	BFB	V9758		PH	OK 5:25pm
2	(1) 10PPB CCC	V9759	876017	25ul	OK
3	Pro BLANK	V9760			OK
4	BLANK SPIKE	V9761			OK
5	911004-017	V9762		< 2	OK
6	027	V9763		< 2	OK
7	028	V9764		< 2	OK
8	029	V9765		< 2	OK
9	030	V9766		< 2	OK
10	031	V9767		< 2	OK
11	032	V9768	✓	< 2	OK
12	20PPB CCC	V9769	624/w	5ul	OK
13	Pro BLANK	V9770			OK
14	BLANK SPIKE	V9771			OK
15	13946ASP-89338	V9772		< 2	OK
16	89335	V9773		< 2	OK 000079
17	89336	V9774		< 2	OK
18	89337	V9775		< 2	OK RR 10x
19	89337	V9776	624	< 2 10x Dil	RT Shift
20	89337	V9777	624	< 2 10x Dil	✓

SHIPPING AND RECEIVING DOCUMENTATION

000080

CHEMTECH

CHAIN OF CUSTODY RECORD

☐ 110 Route 4
Englewood, NJ 07631
(201) 567-6868
Fax (201) 567-1333

☒ 205 Campus Plaza 1
Edison, NJ 08837
(732) 225-4111
Fax (732) 225-4110

☐ 515 Route 9 South
Barnegat, NJ 08005
(609) 698-0199
Fax (609) 698-0910

CHEMTECH JOB NO.:

CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Impact Environmental
ADDRESS: 1 Village Plaza
CITY: Kings Park STATE: NY ZIP: 11754
ATTENTION: Kevin Kleaka
PHONE: (516) 269-8800 FAX: (516) 269-1599

PROJECT INFORMATION

PROJECT NAME: #1-30-0435
PROJECT NO.: 98-335, Westbury
PROJECT MANAGER: Richard Parrish
LOCATION: 299 Main St., Westbury, NY
PHONE: — FAX: —

BILLING INFORMATION

BILL TO: Client PO #: —
ADDRESS: —
CITY: — STATE: — ZIP: —
ATTENTION: — PHONE: —

DATA TURNAROUND INFORMATION

FAX: — DAYS *
HARD COPY: — DAYS *
EDD: — DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ NYS ASP "B"
☐ NJ REDUCED ☐ NYS ASP "A"
☐ NJ CLP ☐ EDD
☐ EDD FORMAT: —

ANALYSIS

1 USEPA 624

CHEMTECH SAMPLE ID	SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		A										
								E	1	2	3	4	5	6	7	8	9	← Specify Preservatives A - HCl B - HNO ₃ C - H ₂ SO ₄ D - NaOH E - ICE F - Other
1.	335-MW-1-GW01	L		X	11/18/99	1205 _{pm}	2	X										20081
2.	335-MW-2-GW01	L		V	11/18/99	1251 _{pm}	2	X										11
3.	335-MW-3-GW01	L		X	11/28/99	135 _{pm}	2	X										11
4.	335-Trip Blank	L			11/25/99	-	1	X										11 only
5.																		
6.																		
7.																		
8.																		

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <u>K. Kleaka</u>	DATE/TIME: <u>10/28/99 3:15</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler <u>11c</u>
RELINQUISHED BY: 2. <u>[Signature]</u>	DATE/TIME: <u>10-29-99 1300</u>	RECEIVED BY: 2. <u>[Signature]</u>	Comments:
RELINQUISHED BY: 3. <u>[Signature]</u>	DATE/TIME: <u>10/29/99</u>	RECEIVED FOR LAB BY: 3. <u>[Signature]</u>	Page <u>1</u> of <u>1</u> Shipment Complete: Yes ☐ No ☐