

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL122921\
 Data File : VL038244.D
 Acq On : 29 Dec 2021 22:34
 Operator : SY/AP
 Sample : M5252-01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

Quant Time: Dec 30 06:22:16 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL122121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Dec 21 17:47:08 2021
 QLast Update : Tue Dec 21 17:47:08 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	640643	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	1626705	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	1398818	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1116385	10.36	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.60%

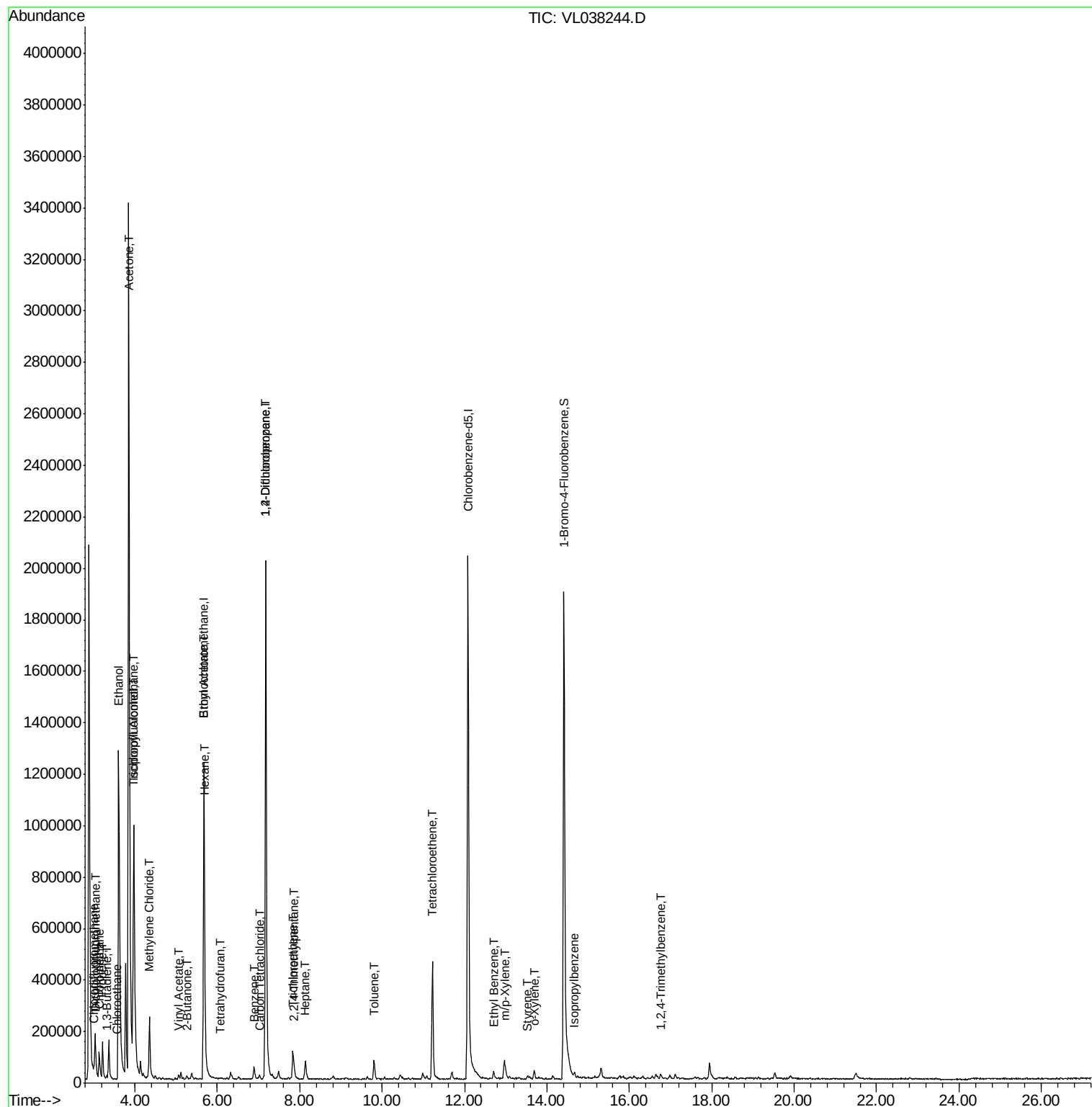
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.06	85	30891	0.256	ppbv	95
3) Chlorodifluoromethane	3.00	51	59391	0.441	ppbv #	81
4) Chloromethane	3.15	50	18968	0.406	ppbv	97
7) Chloroethane	3.56	64	482	0.031	ppbv #	88
9) Propene	3.21	41	39832	0.852	ppbv	95
10) Heptane	8.13	43	7259	0.061	ppbv #	61
11) Trichlorofluoromethane	3.96	101	309268	2.790	ppbv	100
13) Ethanol	3.61	45	1849185	233.342	ppbv #	100
15) Acetone	3.85	43	4577987	71.202	ppbv	99
16) 1,3-Butadiene	3.32	39	2226	0.051	ppbv #	68
19) Isopropyl Alcohol	3.97	45	1106092	27.581	ppbv #	1
20) Methylene Chloride	4.35	84	105164	2.897	ppbv	93
23) Vinyl Acetate	5.07	43	9338	0.107	ppbv #	37
25) Ethyl Acetate	5.68	43	114590	0.658	ppbv #	96
26) Hexane	5.69	57	64215	0.735	ppbv	88
34) 2-Butanone	5.26	43	17811	0.364	ppbv #	86
35) Carbon Tetrachloride	7.01	117	4143	0.041	ppbv	88
36) Benzene	6.89	78	35667	0.235	ppbv	99
38) Trichloroethene	7.83	130	33625	0.582	ppbv	98
39) 1,2-Dichloropropane	7.18	63	442306	7.574	ppbv #	25
41) Tetrahydrofuran	6.06	42	1381	0.039	ppbv #	81
44) 2,2,4-Trimethylpentane	7.87	57	25409	0.099	ppbv #	64
52) Tetrachloroethene	11.22	164	111430	1.990	ppbv	98
53) Toluene	9.80	91	26891	0.154	ppbv #	22
58) Ethyl Benzene	12.71	91	13441	0.062	ppbv	95
59) m/p-Xylene	13.00	91	16055	0.087	ppbv #	30
60) o-Xylene	13.69	91	12623	0.073	ppbv #	33
61) Styrene	13.52	104	3139	0.036	ppbv #	32
62) Isopropylbenzene	14.66	105	14185	0.059	ppbv	94
74) 1,2,4-Trimethylbenzene	16.76	105	6531	0.035	ppbv #	77

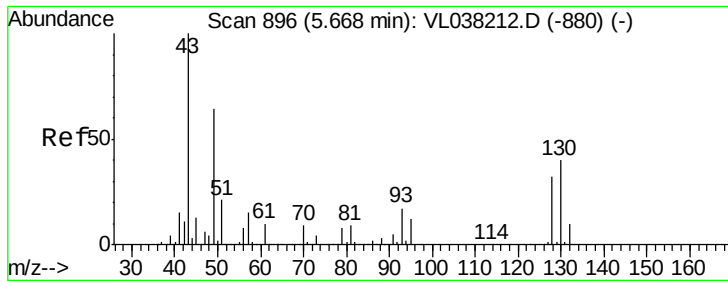
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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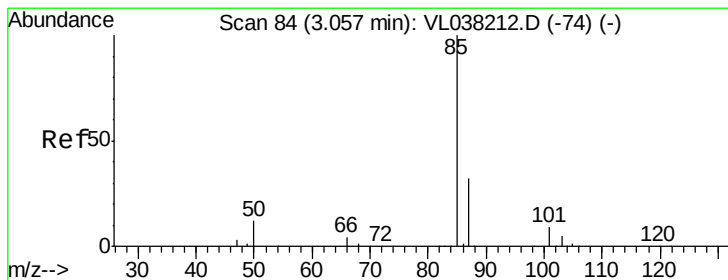
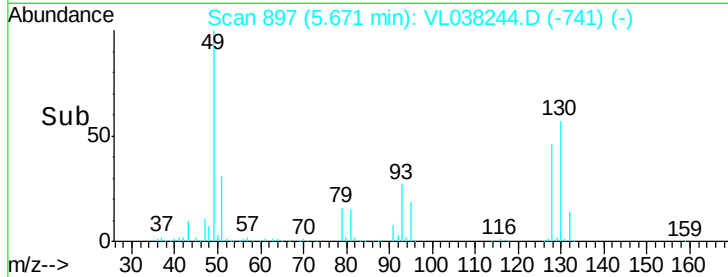
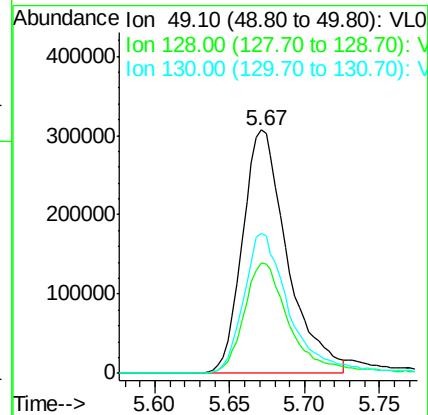
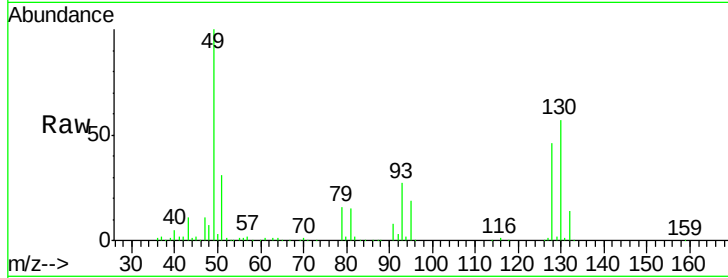
Quant Time: Dec 30 06:22:16 2021
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Dec 21 17:47:08 2021
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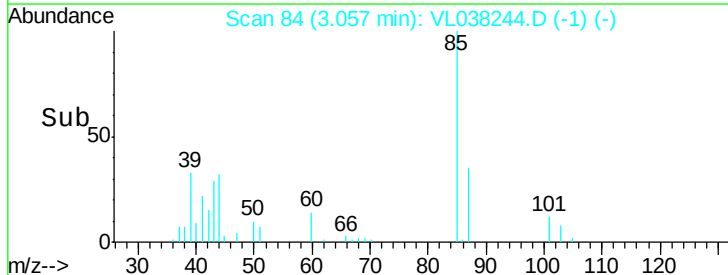
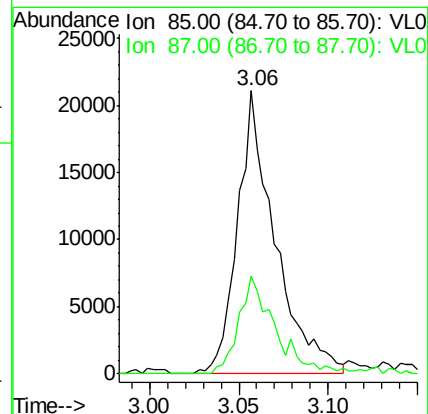
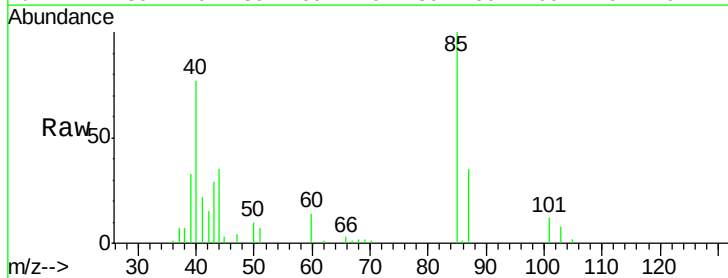
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.67
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 29 Dec 2021 22:34

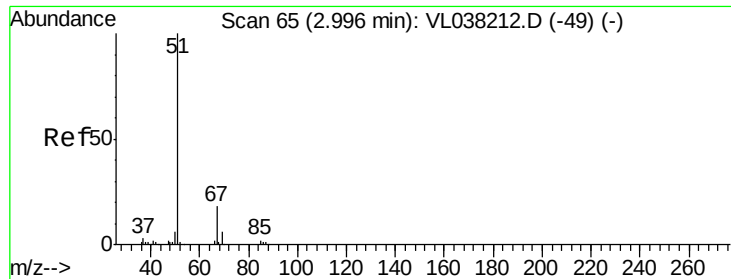
Tgt Ion: 49 Resp: 640643
 Ion Ratio Lower Upper
 49 100
 128 47.5 26.9 80.6
 130 60.2 32.3 96.9



#2
 Dichlorodifluoromethane
 Concen: 0.256 ppbv
 RT: 3.06 min Scan# 84
 Delta R.T. -0.00 min
 Lab File: VL038244.D
 Acq: 29 Dec 2021 22:34

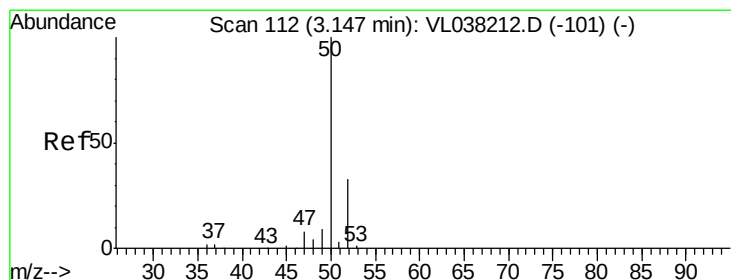
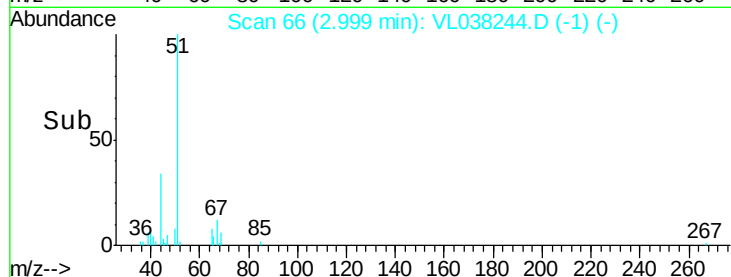
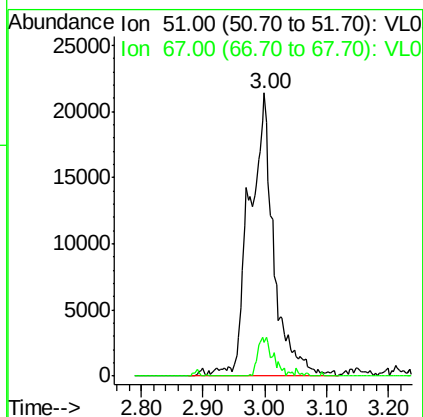
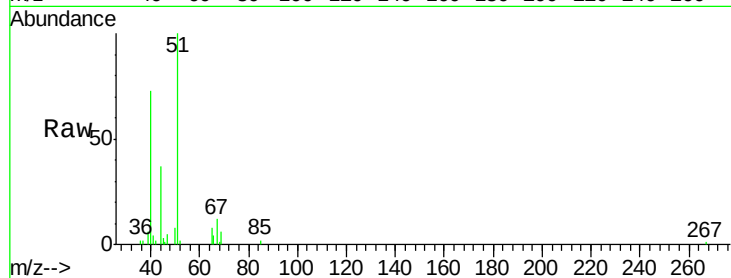
Tgt Ion: 85 Resp: 30891
 Ion Ratio Lower Upper
 85 100
 87 34.5 25.4 38.2





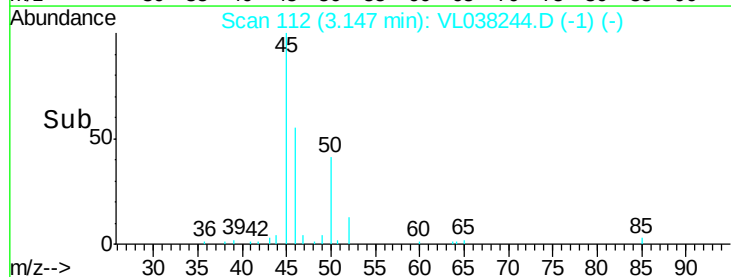
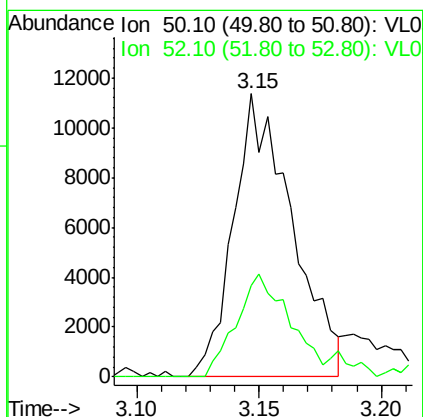
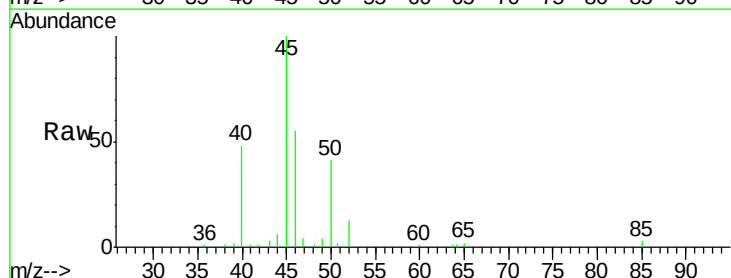
#3
Chlorodifluoromethane
Concen: 0.441 ppbv
RT: 3.00
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Dec 2021 22:34

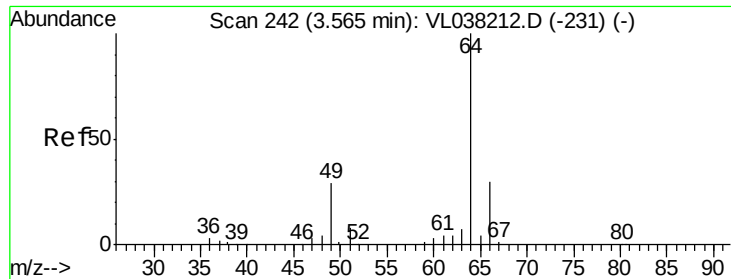
Tgt Ion: 51 Resp: 59391
Ion Ratio Lower Upper
51 100
67 9.3 14.0 21.0#



#4
Chloromethane
Concen: 0.406 ppbv
RT: 3.15 min Scan# 112
Delta R.T. -0.00 min
Lab File: VL038244.D
Acq: 29 Dec 2021 22:34

Tgt Ion: 50 Resp: 18968
Ion Ratio Lower Upper
50 100
52 30.9 26.2 39.2





#7

Chloroethane

Concen: 0.031 ppbv

RT: 3.56 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

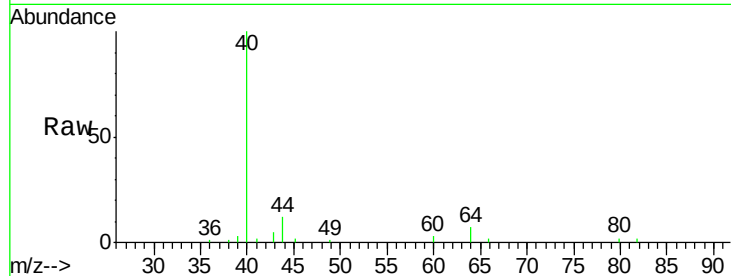
Acq: 29 Dec 2021 22:34

Tgt Ion: 64 Resp: 482

Ion Ratio Lower Upper

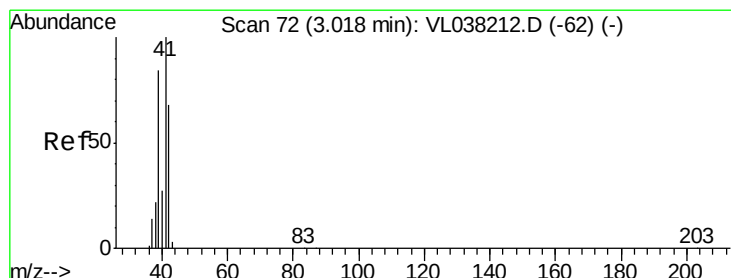
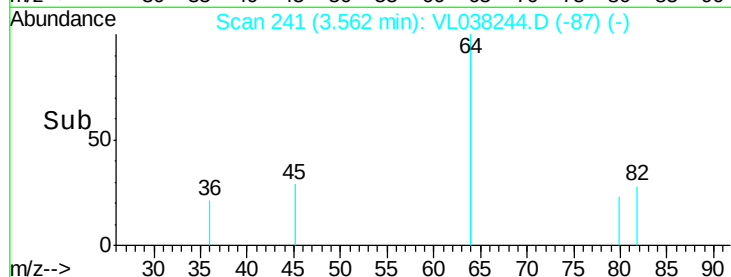
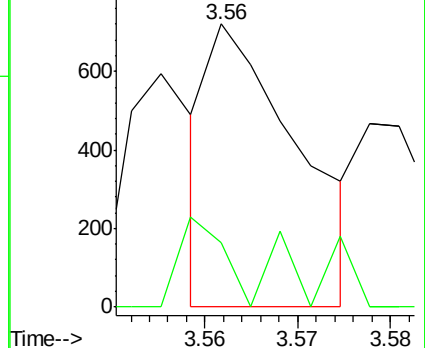
64 100

66 22.9 23.6 35.4#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#9

Propene

Concen: 0.852 ppbv

RT: 3.21 min Scan# 132

Delta R.T. 0.19 min

Lab File: VL038244.D

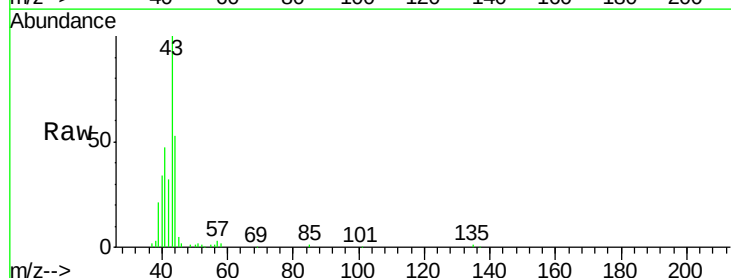
Acq: 29 Dec 2021 22:34

Tgt Ion: 41 Resp: 39832

Ion Ratio Lower Upper

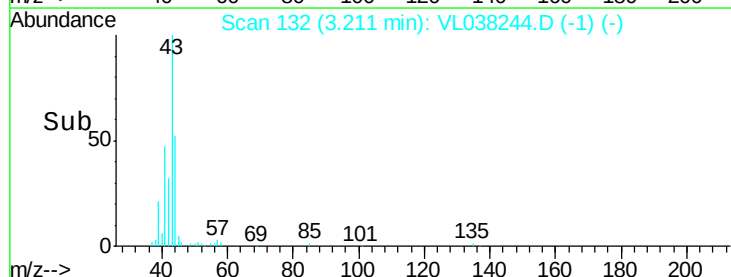
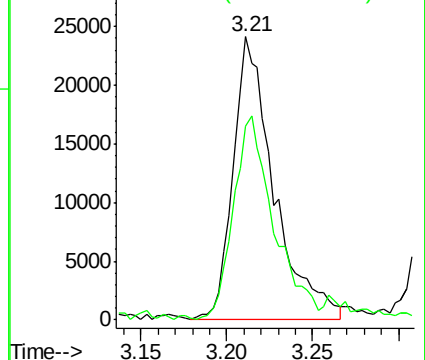
41 100

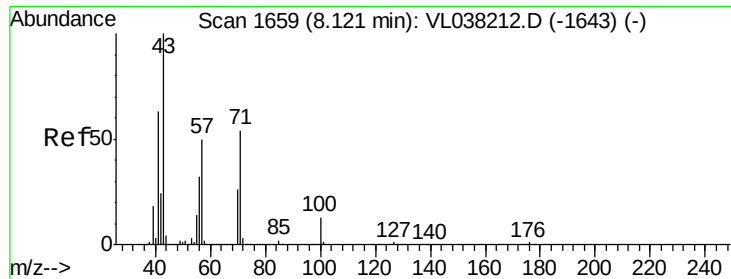
42 73.3 55.5 83.3



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.061 ppbv

RT: 8.13 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

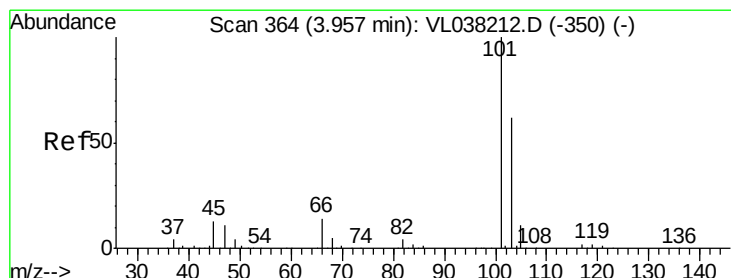
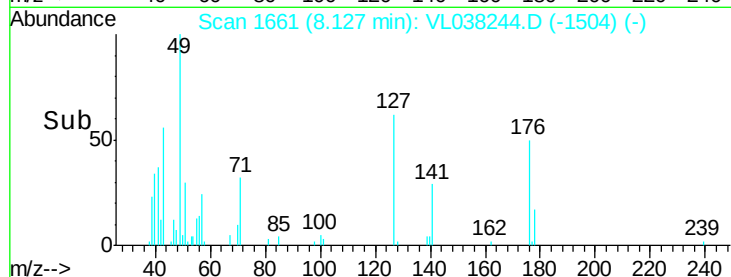
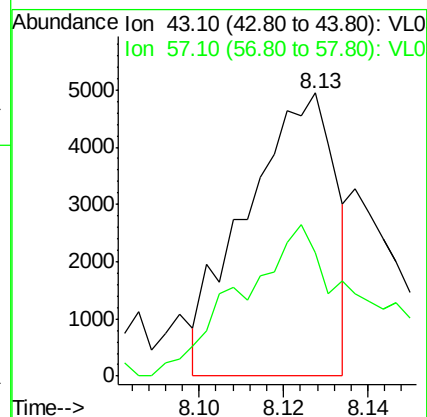
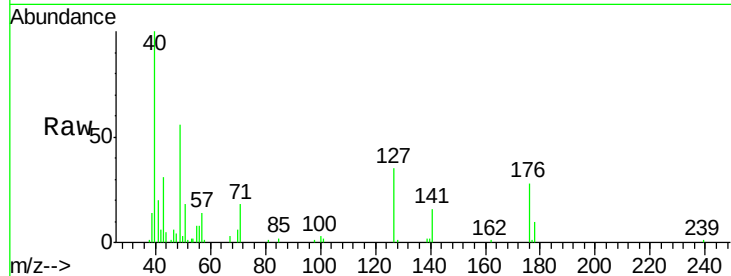
Acq: 29 Dec 2021 22:34

Tgt Ion: 43 Resp: 7259

Ion Ratio Lower Upper

43 100

57 77.6 40.3 60.5#



#11

Trichlorofluoromethane

Concen: 2.790 ppbv

RT: 3.96 min Scan# 364

Delta R.T. -0.00 min

Lab File: VL038244.D

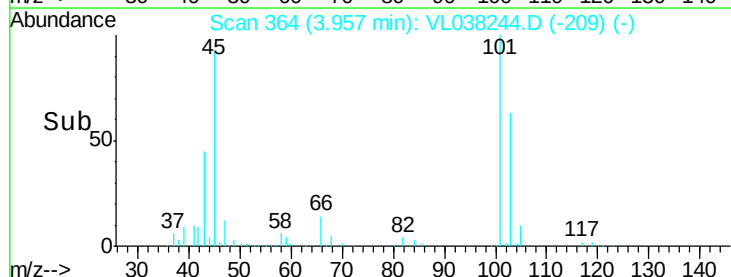
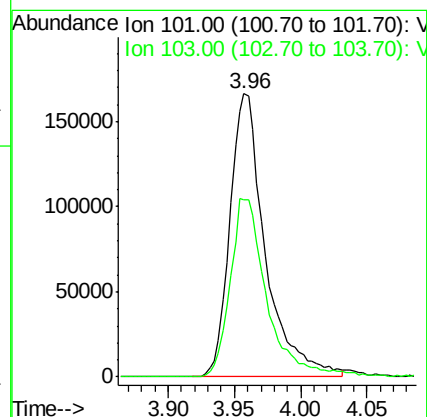
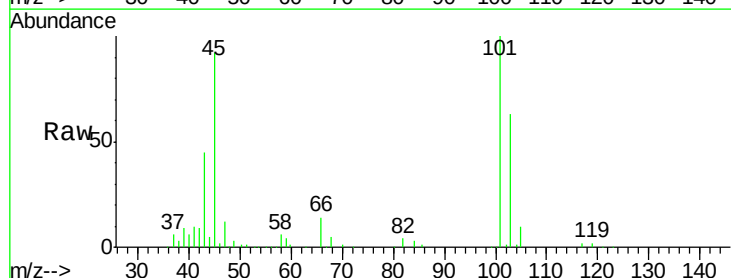
Acq: 29 Dec 2021 22:34

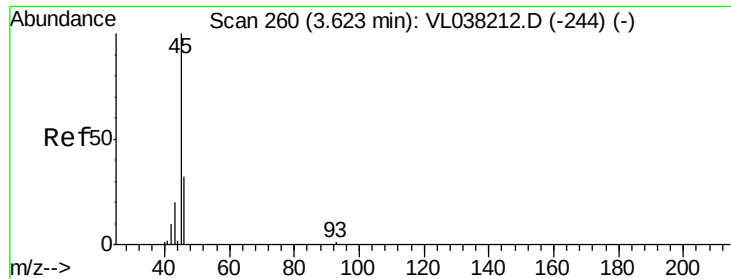
Tgt Ion: 101 Resp: 309268

Ion Ratio Lower Upper

101 100

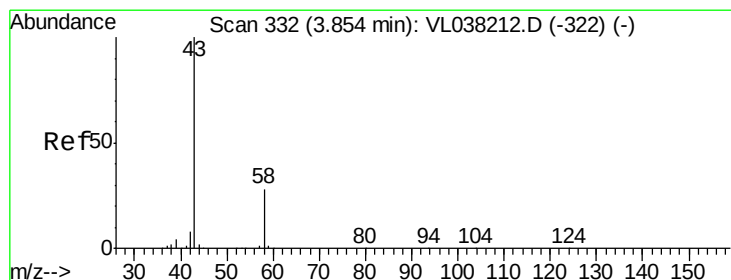
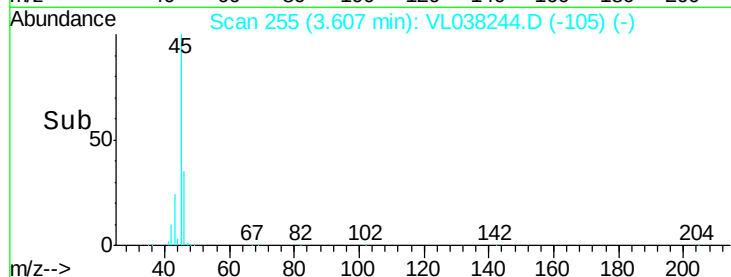
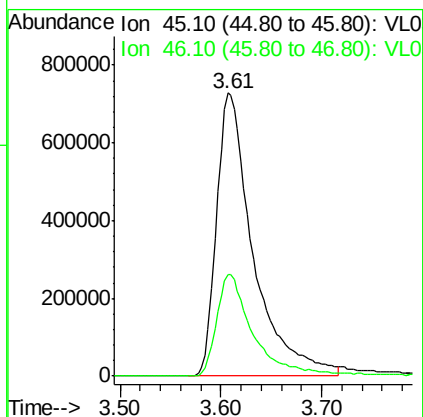
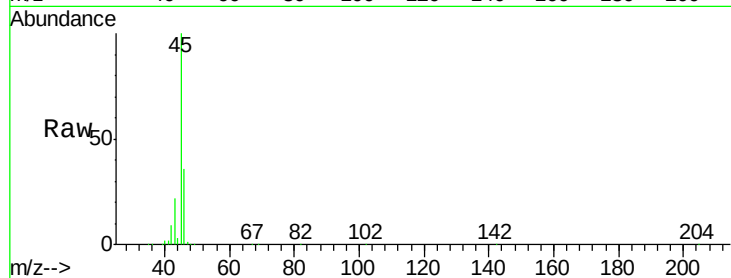
103 62.6 49.9 74.9





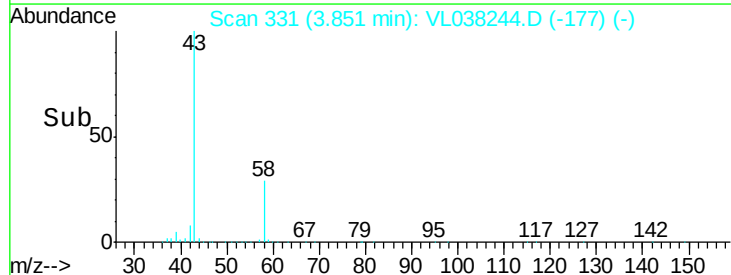
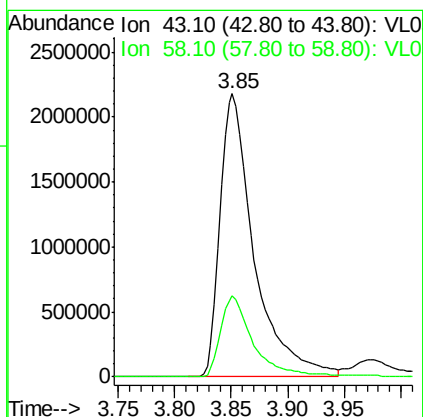
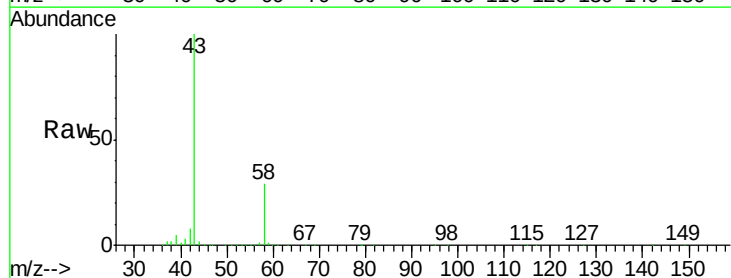
#13
Ethanol
Concen: 233.342 ppbv
RT: 3.61
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Dec 2021 22:34

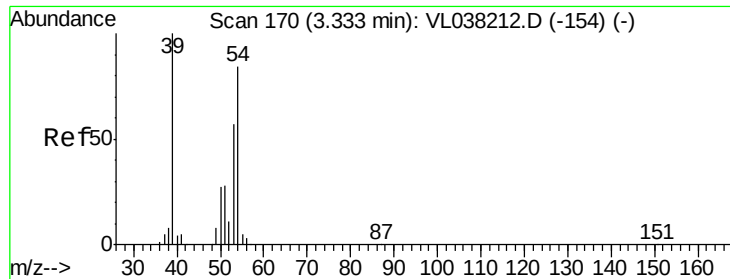
Tgt Ion: 45 Resp: 1849185
Ion Ratio Lower Upper
45 100
46 36.7 0.0 0.0#



#15
Acetone
Concen: 71.202 ppbv
RT: 3.85 min Scan# 331
Delta R.T. -0.00 min
Lab File: VL038244.D
Acq: 29 Dec 2021 22:34

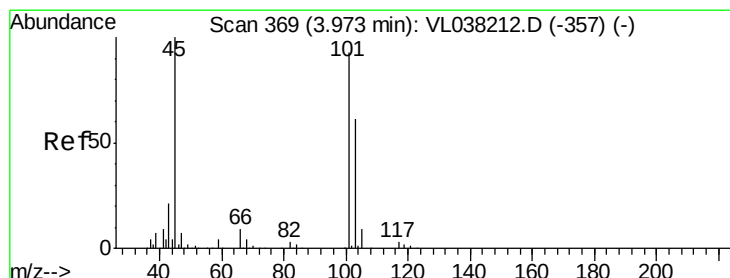
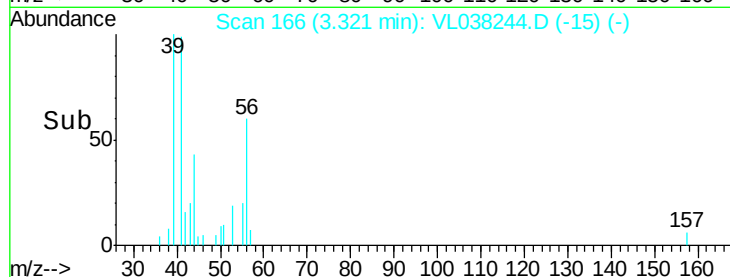
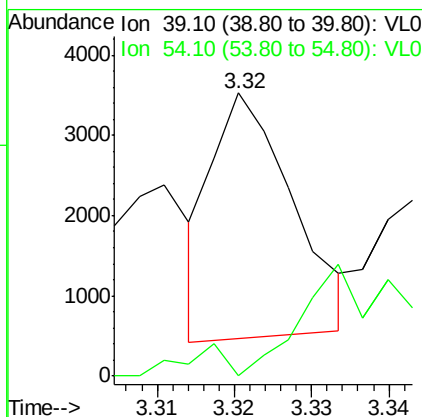
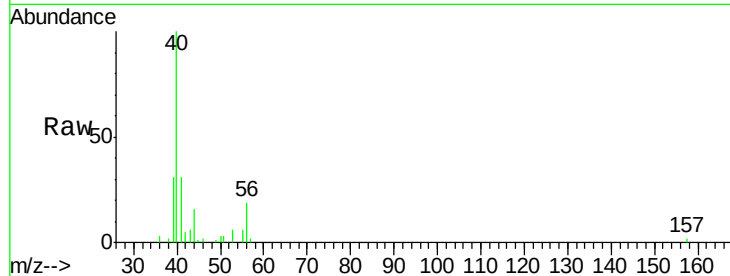
Tgt Ion: 43 Resp: 4577987
Ion Ratio Lower Upper
43 100
58 28.5 23.3 34.9





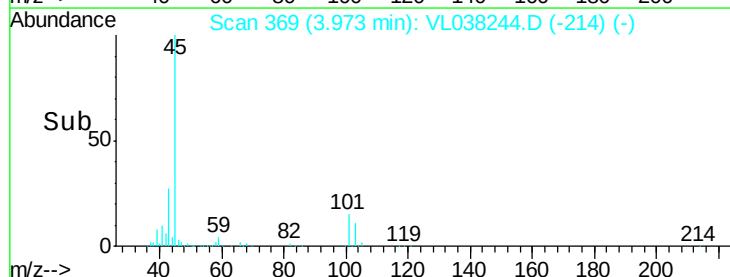
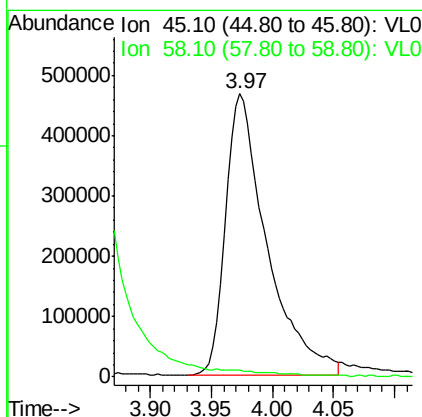
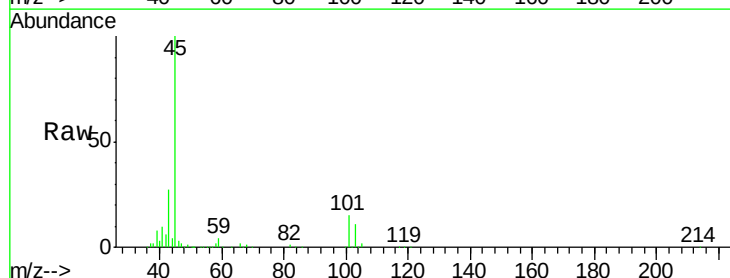
#16
 1,3-Butadiene
 Concen: 0.051 ppbv
 RT: 3.32
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 29 Dec 2021 22:34

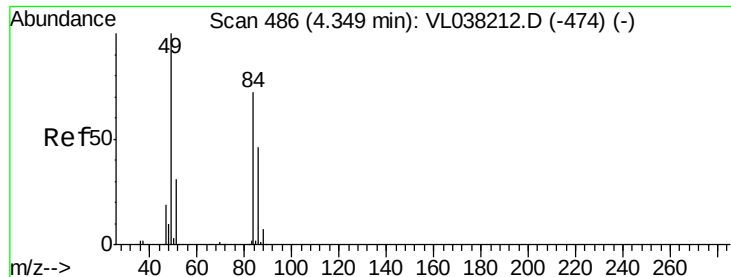
Tgt Ion: 39 Resp: 2226
 Ion Ratio Lower Upper
 39 100
 54 106.9 62.9 94.3#



#19
 Isopropyl Alcohol
 Concen: 27.581 ppbv
 RT: 3.97 min Scan# 369
 Delta R.T. -0.00 min
 Lab File: VL038244.D
 Acq: 29 Dec 2021 22:34

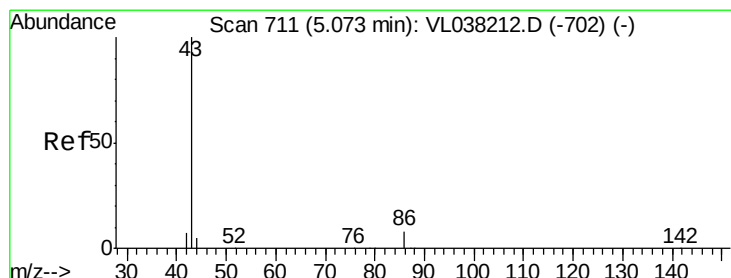
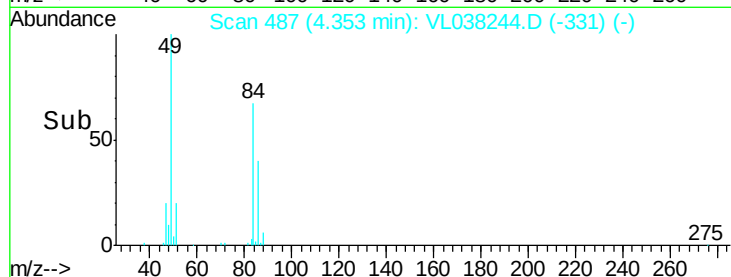
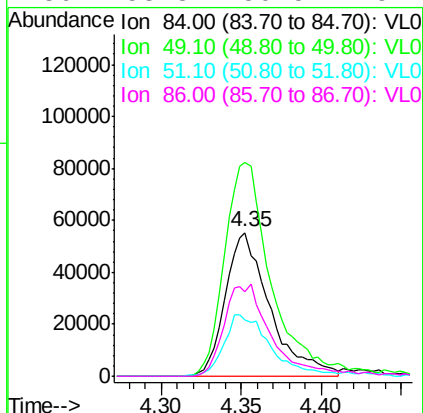
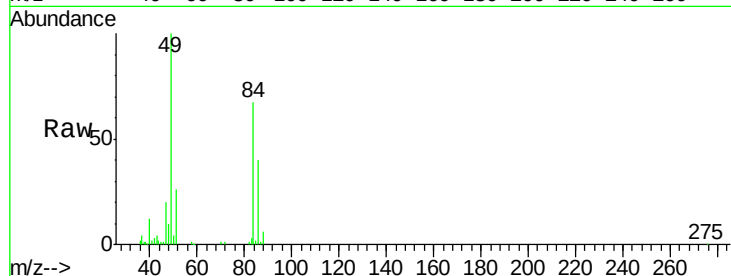
Tgt Ion: 45 Resp: 1106092
 Ion Ratio Lower Upper
 45 100
 58 118.1 32.4 48.6#





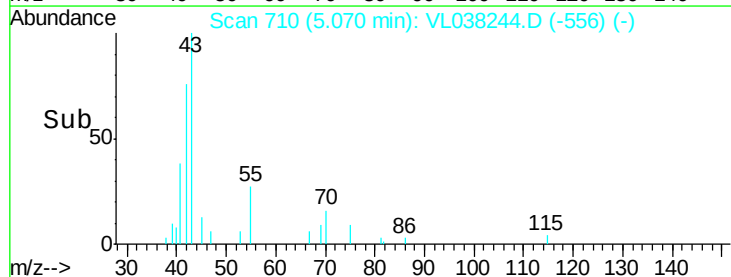
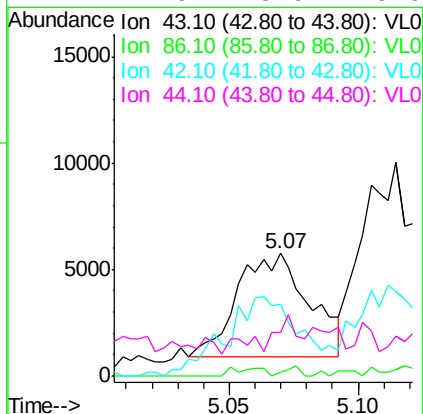
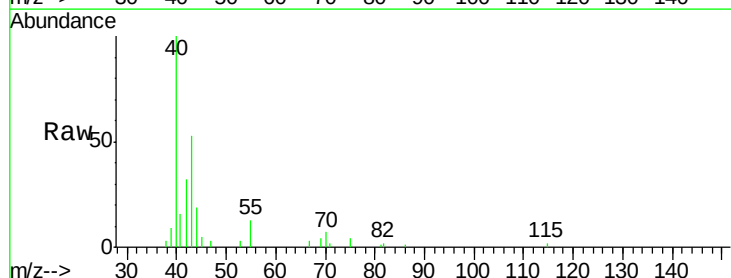
#20
Methylene Chloride
Concen: 2.897 ppbv
RT: 4.35
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Dec 2021 22:34

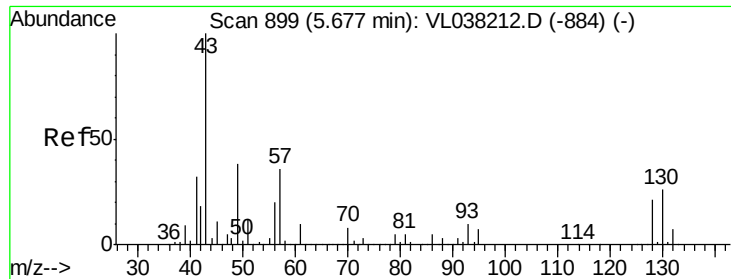
Tgt Ion:	84	Resp:	105164
Ion	Ratio	Lower	Upper
84	100		
49	148.5	110.6	166.0
51	38.7	34.2	51.2
86	58.8	50.5	75.7



#23
Vinyl Acetate
Concen: 0.107 ppbv
RT: 5.07 min Scan# 710
Delta R.T. -0.00 min
Lab File: VL038244.D
Acq: 29 Dec 2021 22:34

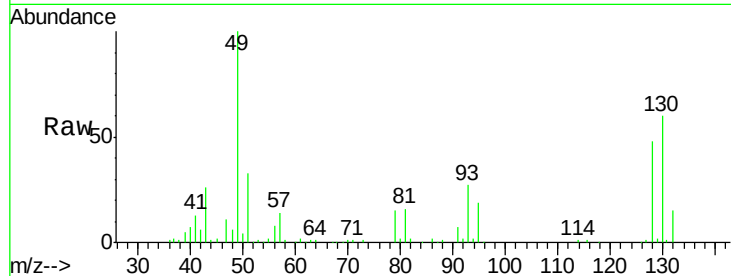
Tgt Ion:	43	Resp:	9338
Ion	Ratio	Lower	Upper
43	100		
86	3.2	5.6	8.4#
42	54.5	7.0	10.4#
44	12.9	3.9	5.9#



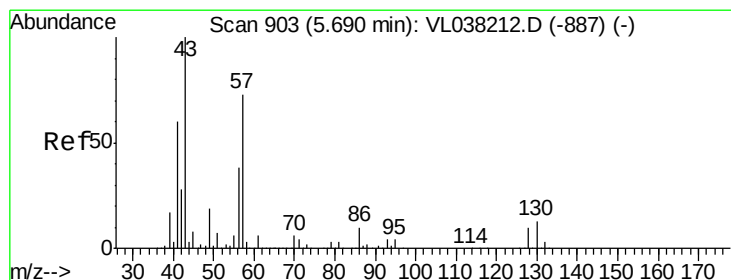
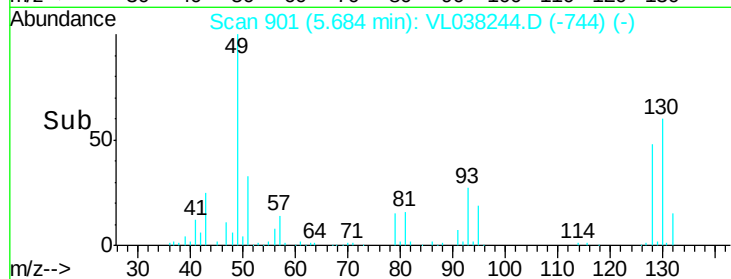
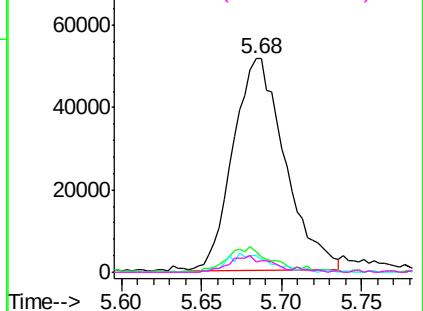


#25
 Ethyl Acetate
 Concen: 0.658 ppbv
 RT: 5.68 Instrument : MSVOA_1
 Delta R.T. ClientSampleId :
 Lab File: LA-1
 Acq: 29 Dec 2021 22:34

Tgt Ion:	43	Resp:	114590
Ion	Ratio	Lower	Upper
43	100		
45	10.9	7.9	11.9
61	7.8	8.1	12.1#
70	6.6	5.5	8.3

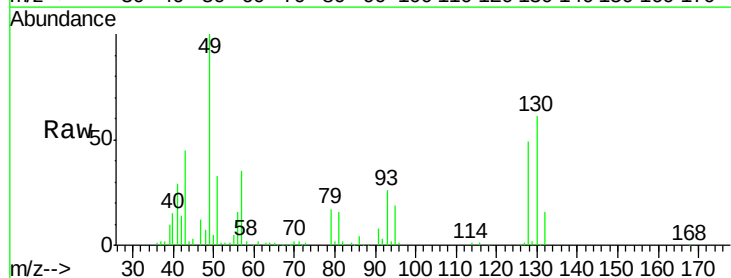


Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 45.10 (44.80 to 45.80): VL0
 Ion 61.10 (60.80 to 61.80): VL0
 Ion 70.10 (69.80 to 70.80): VL0

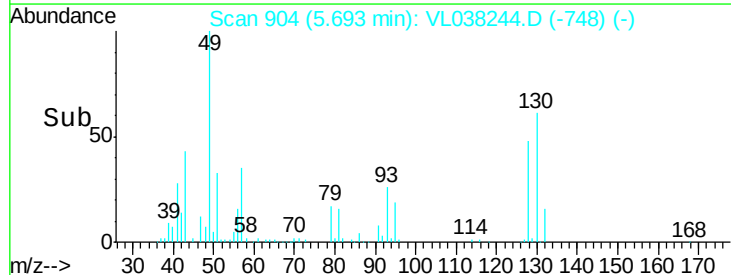
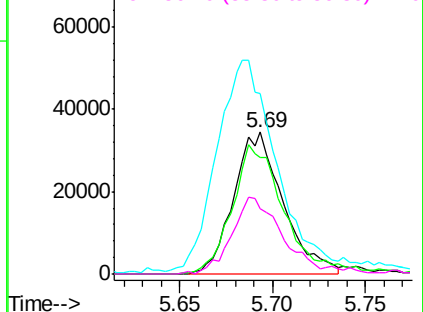


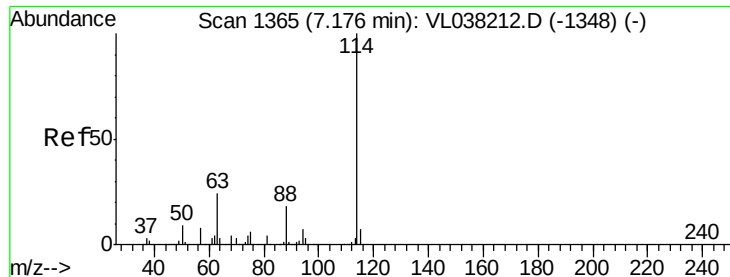
#26
 Hexane
 Concen: 0.735 ppbv
 RT: 5.69 min Scan# 904
 Delta R.T. 0.00 min
 Lab File: VL038244.D
 Acq: 29 Dec 2021 22:34

Tgt Ion:	57	Resp:	64215
Ion	Ratio	Lower	Upper
57	100		
41	99.4	69.0	103.6
43	194.4	171.2	256.8
56	56.6	41.5	62.3



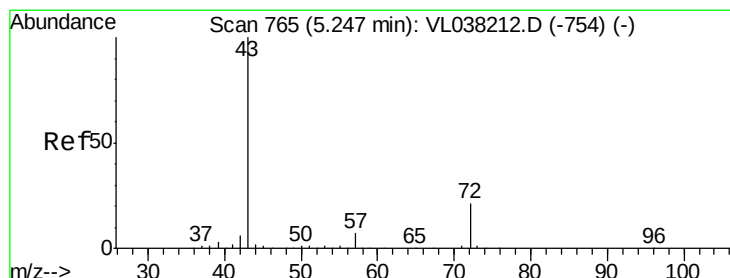
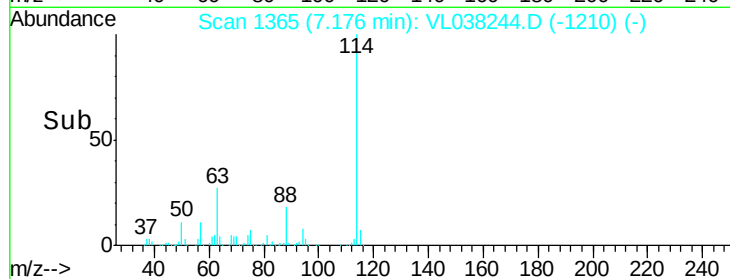
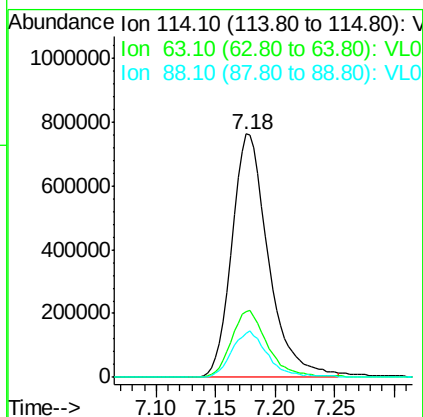
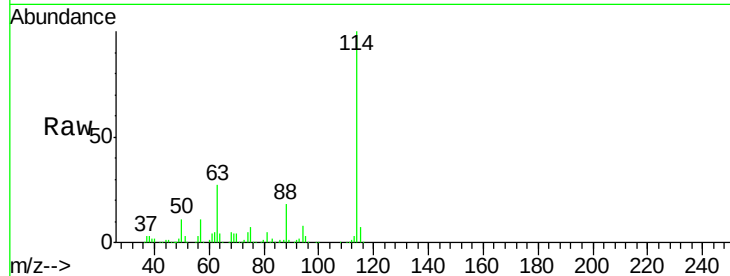
Abundance Ion 57.10 (56.80 to 57.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 43.10 (42.80 to 43.80): VL0
 Ion 56.10 (55.80 to 56.80): VL0





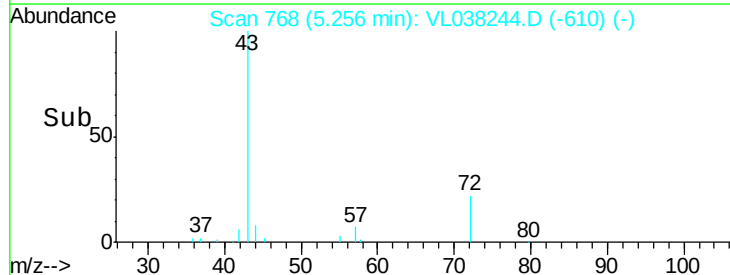
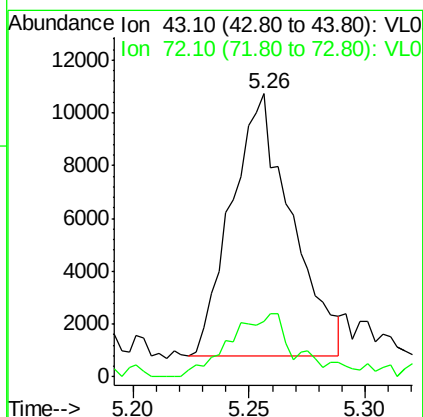
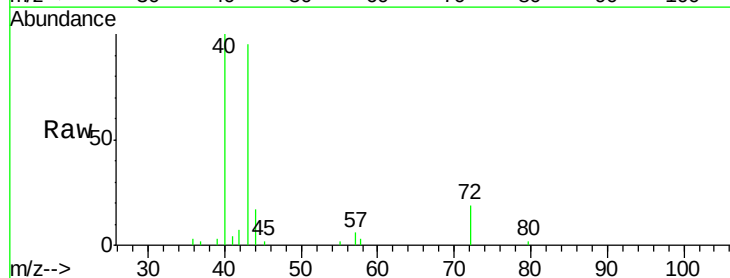
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Dec 2021 22:34

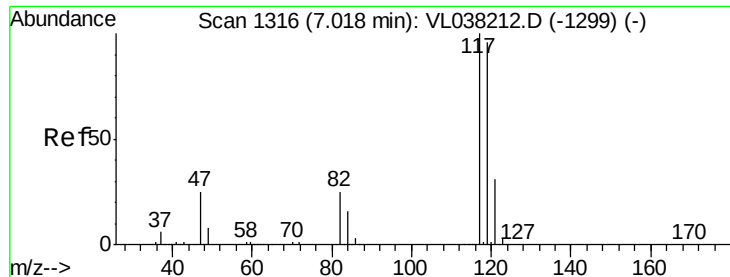
Tgt Ion: 114 Resp: 1626705
 Ion Ratio Lower Upper
 114 100
 63 27.7 19.7 29.5
 88 19.0 14.3 21.5



#34
 2-Butanone
 Concen: 0.364 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T. 0.01 min
 Lab File: VL038244.D
 Acq: 29 Dec 2021 22:34

Tgt Ion: 43 Resp: 17811
 Ion Ratio Lower Upper
 43 100
 72 29.9 18.3 27.5#





#35

Carbon Tetrachloride

Concen: 0.041 ppbv

RT: 7.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 29 Dec 2021 22:34

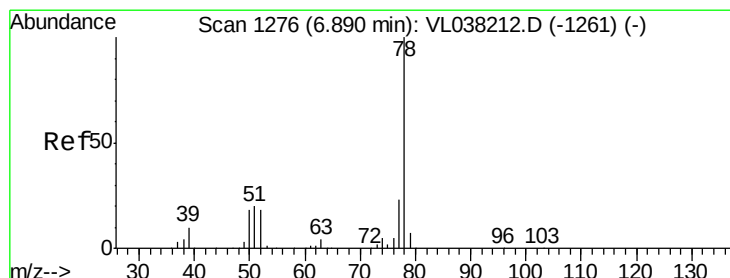
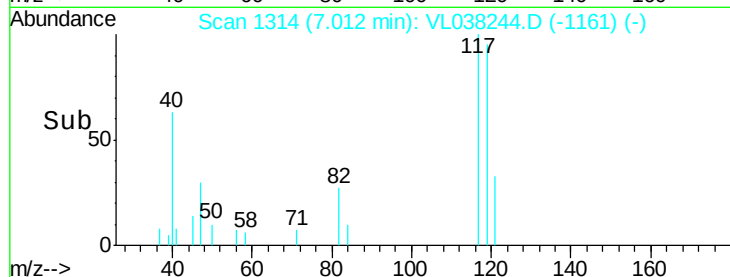
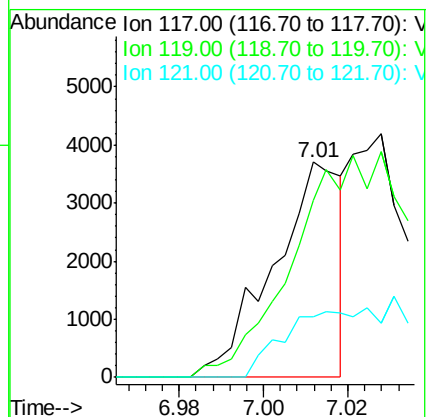
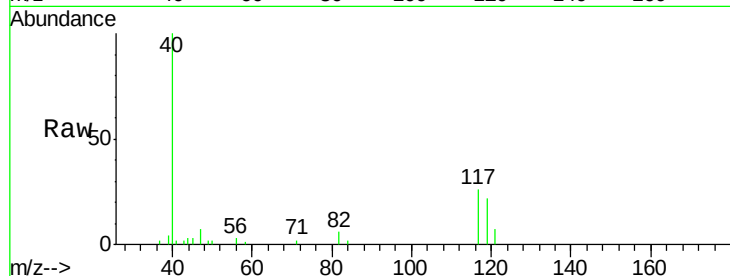
Tgt Ion: 117 Resp: 4143

Ion Ratio Lower Upper

117 100

119 82.4 76.7 115.1

121 28.5 25.0 37.4



#36

Benzene

Concen: 0.235 ppbv

RT: 6.89 min Scan# 1277

Delta R.T. 0.00 min

Lab File: VL038244.D

Acq: 29 Dec 2021 22:34

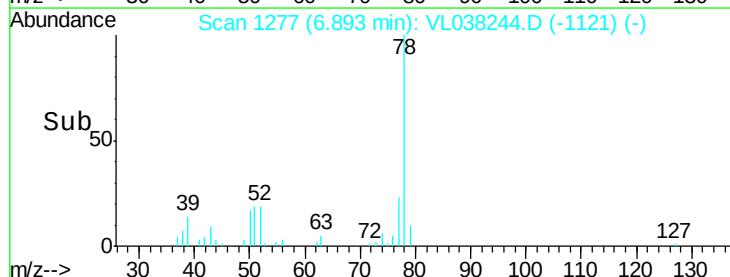
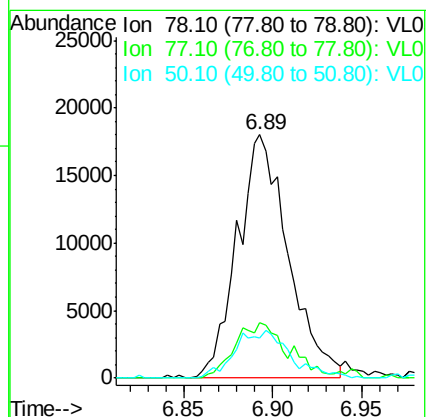
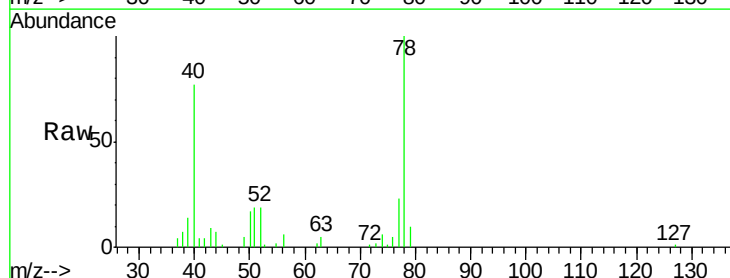
Tgt Ion: 78 Resp: 35667

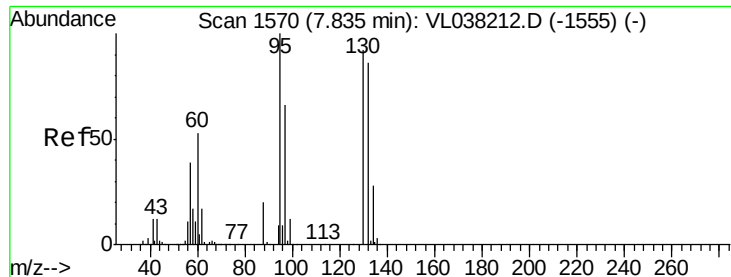
Ion Ratio Lower Upper

78 100

77 22.7 18.2 27.4

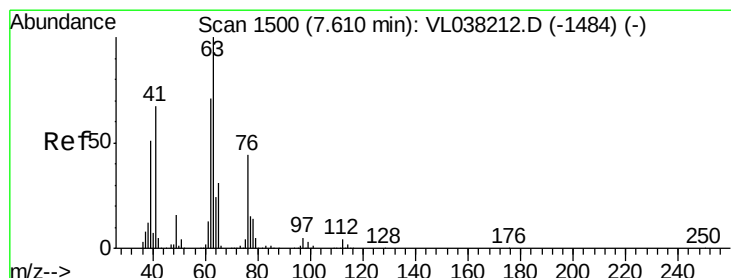
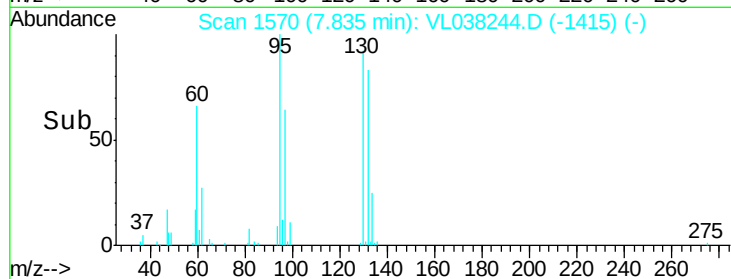
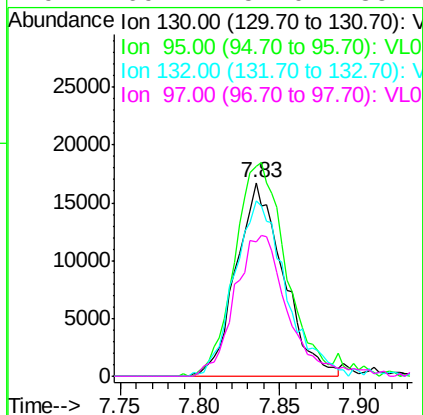
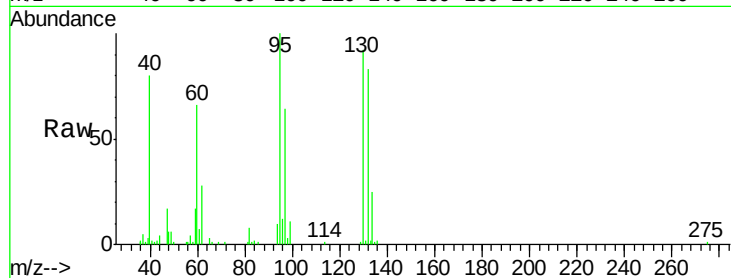
50 16.5 14.3 21.5





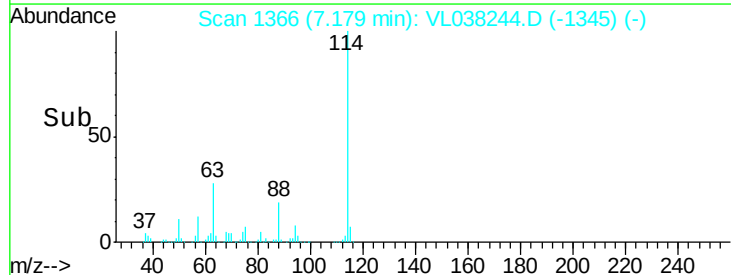
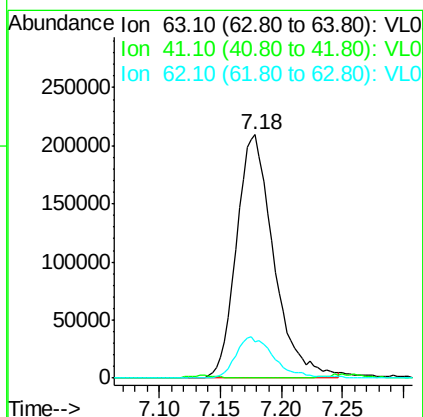
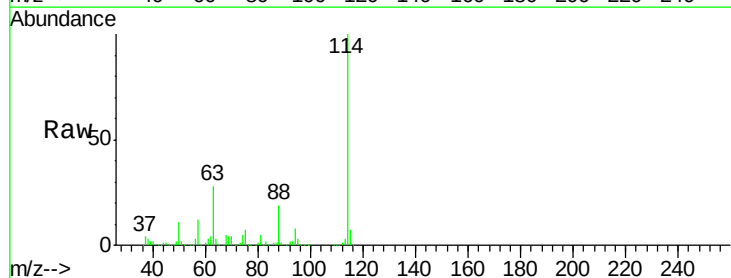
#38
 Trichloroethene
 Concen: 0.582 ppbv
 RT: 7.83
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 29 Dec 2021 22:34

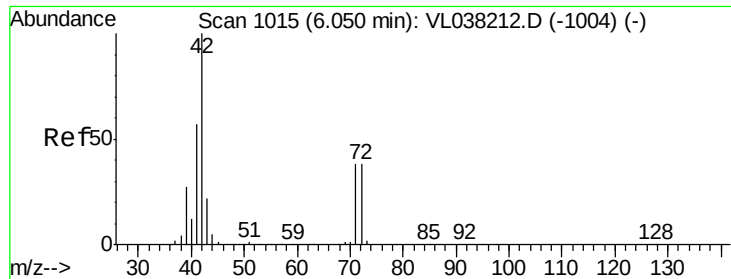
Tgt Ion:	130	Resp:	33625
Ion Ratio	Lower	Upper	
130	100		
95	108.8	87.0	130.4
132	90.6	75.1	112.7
97	69.2	57.0	85.4



#39
 1,2-Dichloropropane
 Concen: 7.574 ppbv
 RT: 7.18 min Scan# 1366
 Delta R.T. -0.43 min
 Lab File: VL038244.D
 Acq: 29 Dec 2021 22:34

Tgt Ion:	63	Resp:	442306
Ion Ratio	Lower	Upper	
63	100		
41	0.0	53.4	80.2#
62	14.7	56.5	84.7#





#41

Tetrahydrofuran

Concen: 0.039 ppbv

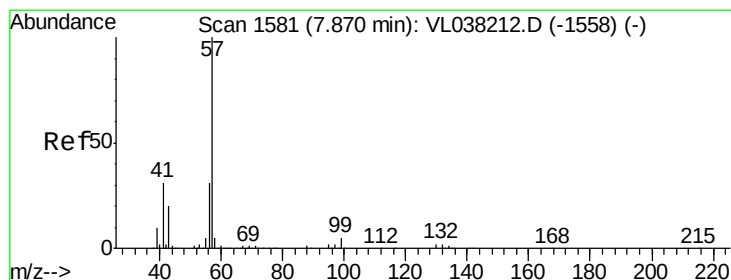
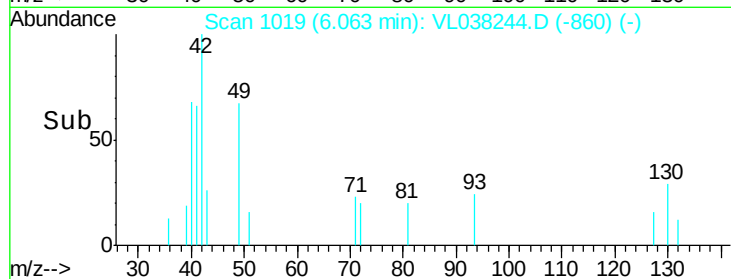
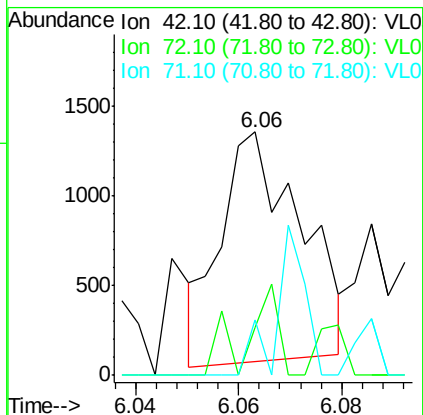
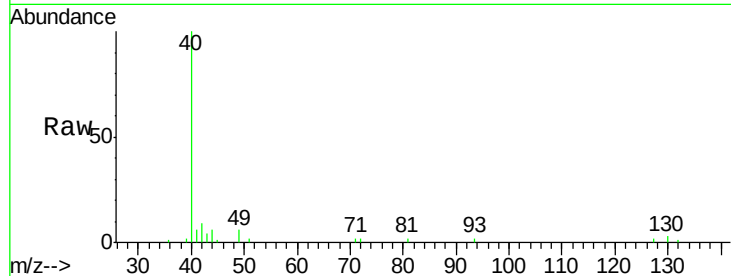
RT: 6.06 Instrument: MSVOA_1

Delta R.T. 0.00

Lab File: ClientSampleId: IA-1

Acq: 29 Dec 2021 22:34

Tgt Ion:	42	Resp:	1381
Ion	Ratio	Lower	Upper
42	100		
72	23.4	31.4	47.0#
71	30.1	30.0	45.0



#44

2,2,4-Trimethylpentane

Concen: 0.099 ppbv

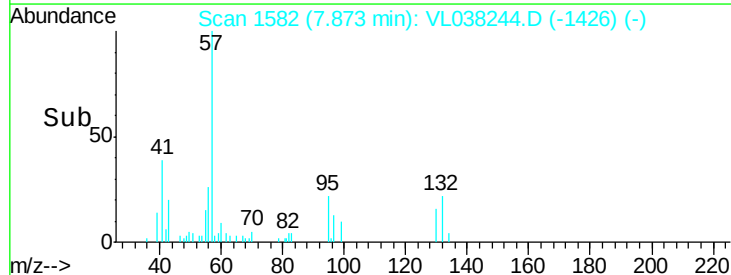
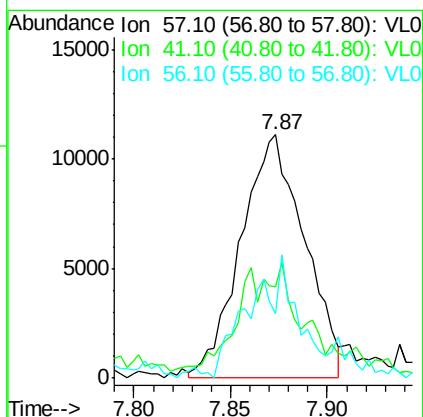
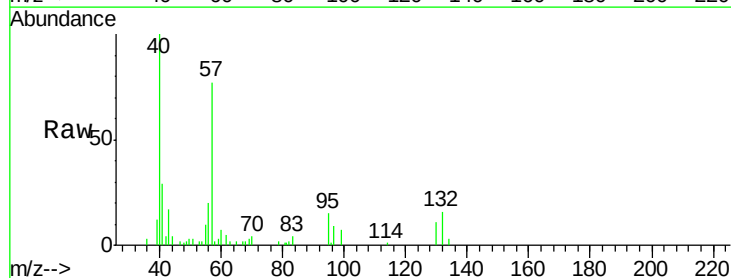
RT: 7.87 min Scan# 1582

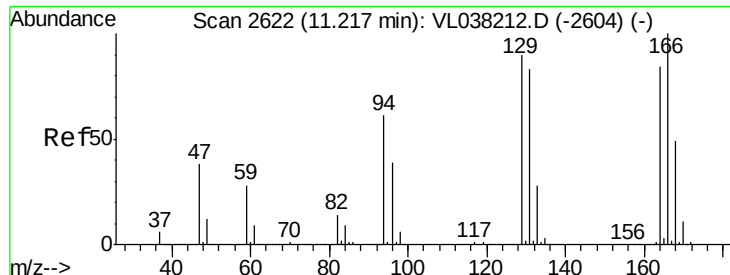
Delta R.T. 0.00 min

Lab File: VL038244.D

Acq: 29 Dec 2021 22:34

Tgt Ion:	57	Resp:	25409
Ion	Ratio	Lower	Upper
57	100		
41	55.6	24.9	37.3#
56	45.7	24.8	37.2#





#52

Tetrachloroethene

Concen: 1.990 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 29 Dec 2021 22:34

Tgt Ion: 164 Resp: 111430

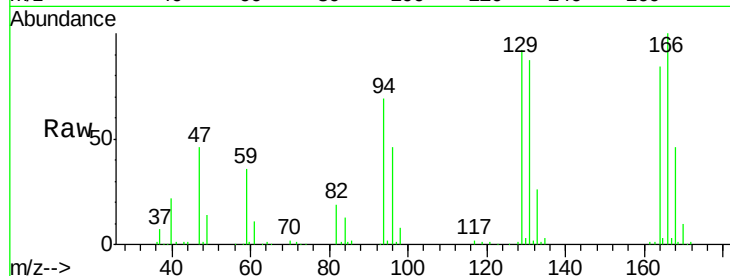
Ion Ratio Lower Upper

164 100

166 119.0 95.6 143.4

129 108.8 85.8 128.8

131 102.7 79.3 118.9

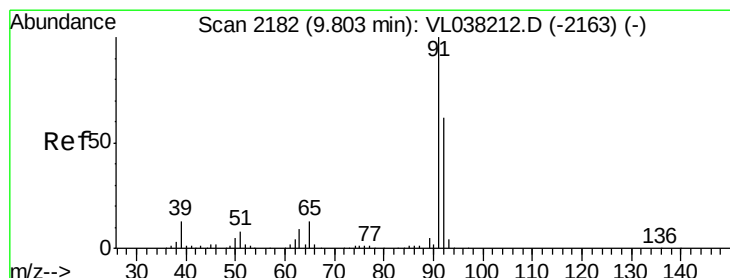
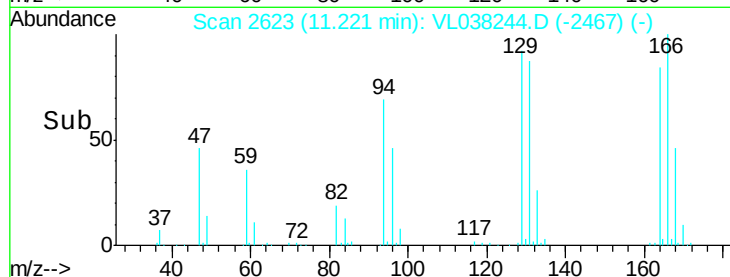
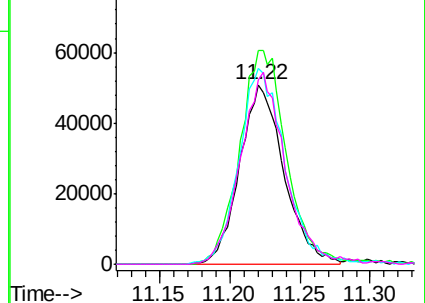


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.154 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. -0.00 min

Lab File: VL038244.D

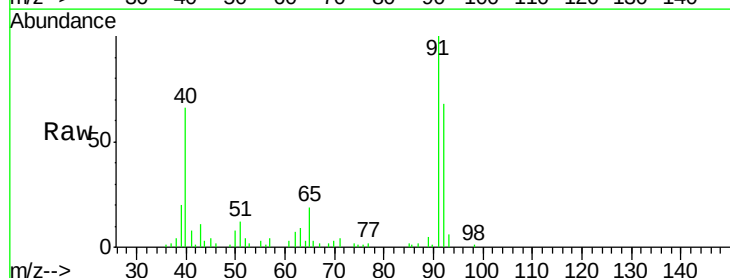
Acq: 29 Dec 2021 22:34

Tgt Ion: 91 Resp: 26891

Ion Ratio Lower Upper

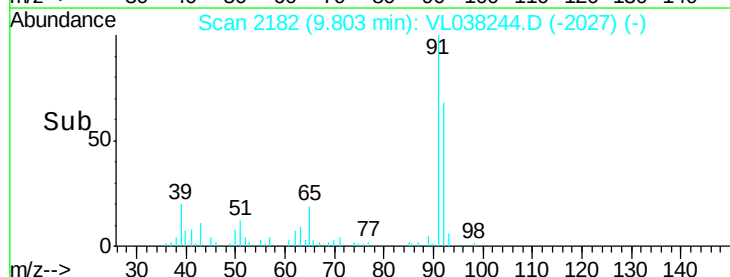
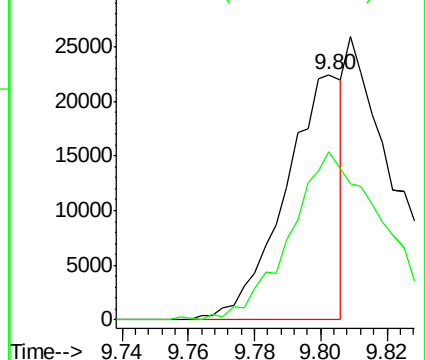
91 100

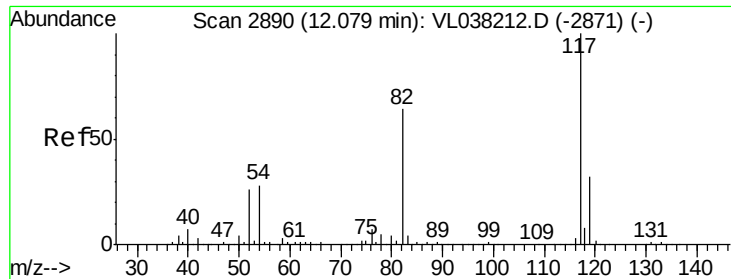
92 120.9 48.9 73.3#



Abundance Ion 91.10 (90.80 to 91.80): VL0

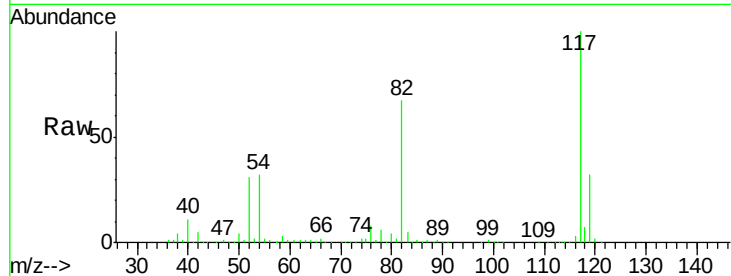
Ion 92.10 (91.80 to 92.80): VL0



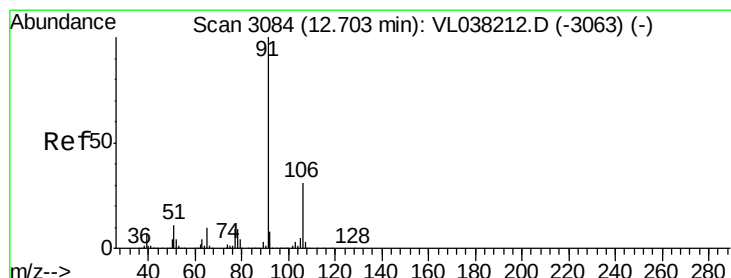
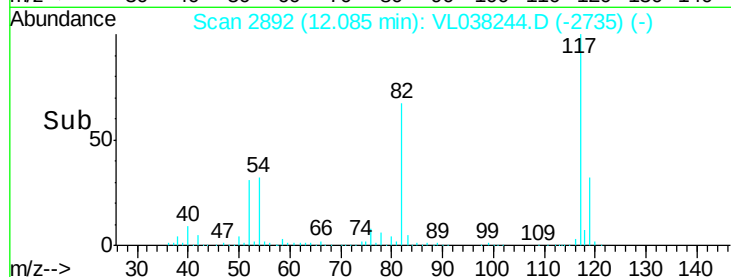
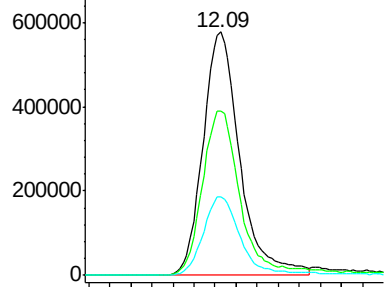


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 29 Dec 2021 22:34

Tgt Ion: 117 Resp: 1398818
Ion Ratio Lower Upper
117 100
82 71.9 53.3 79.9
119 33.2 25.5 38.3

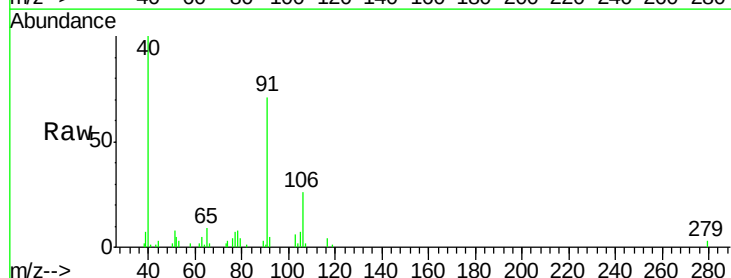


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

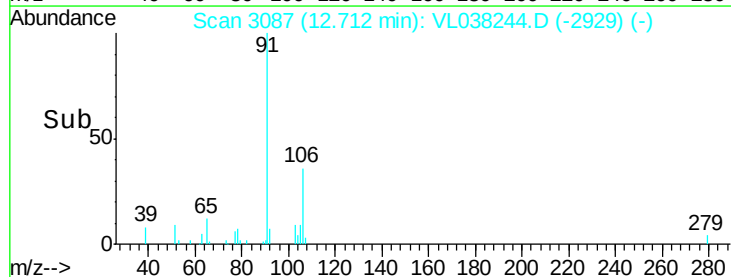
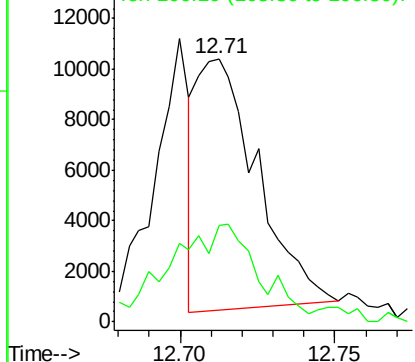


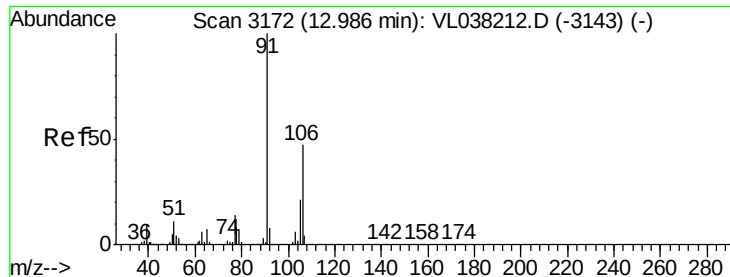
#58
Ethyl Benzene
Concen: 0.062 ppbv
RT: 12.71 min Scan# 3087
Delta R.T.: 0.01 min
Lab File: VL038244.D
Acq: 29 Dec 2021 22:34

Tgt Ion: 91 Resp: 13441
Ion Ratio Lower Upper
91 100
106 33.7 25.0 37.4



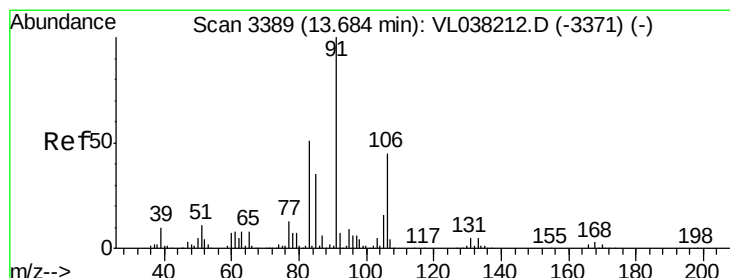
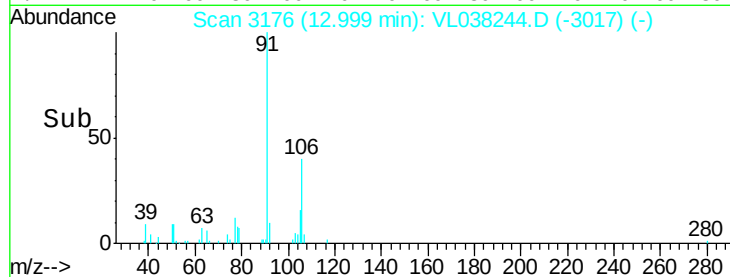
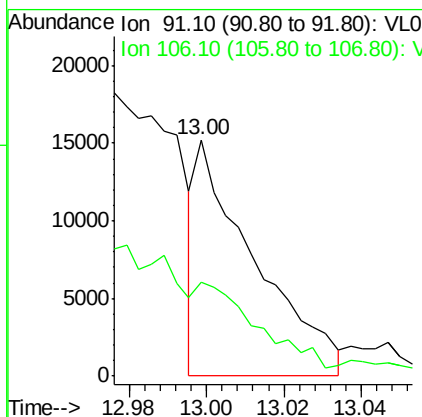
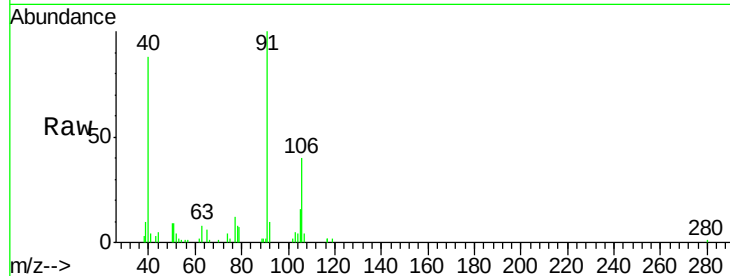
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





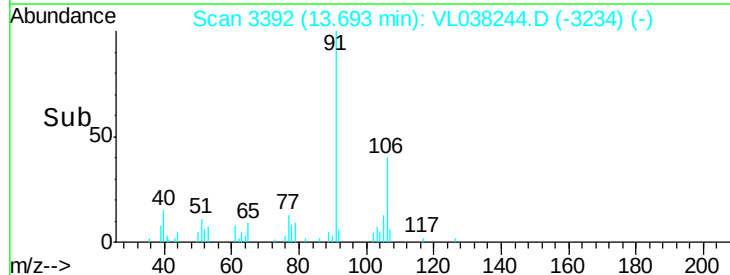
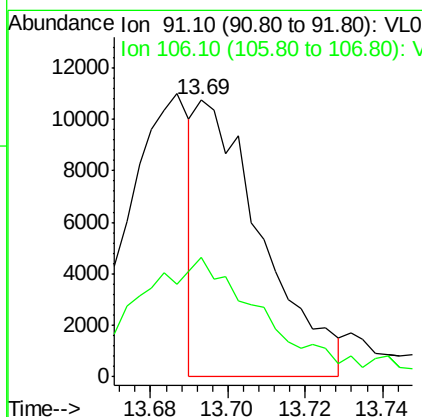
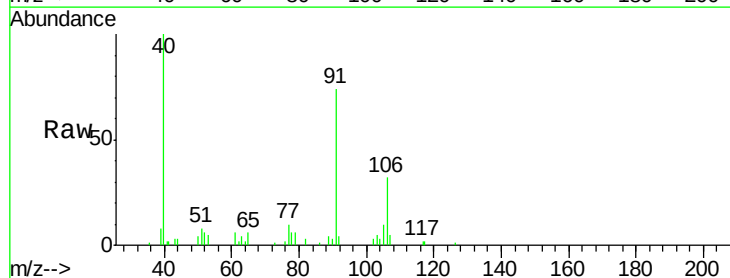
#59
m/p-Xylene
Concen: 0.087 ppbv
RT: 13.00 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Dec 2021 22:34

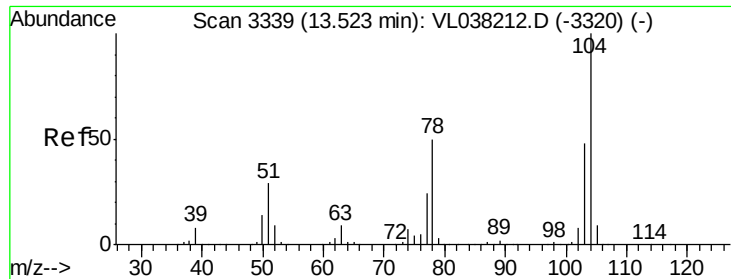
Tgt Ion: 91 Resp: 16055
Ion Ratio Lower Upper
91 100
106 0.0 36.9 55.3#



#60
o-Xylene
Concen: 0.073 ppbv
RT: 13.69 min Scan# 3392
Delta R.T. 0.01 min
Lab File: VL038244.D
Acq: 29 Dec 2021 22:34

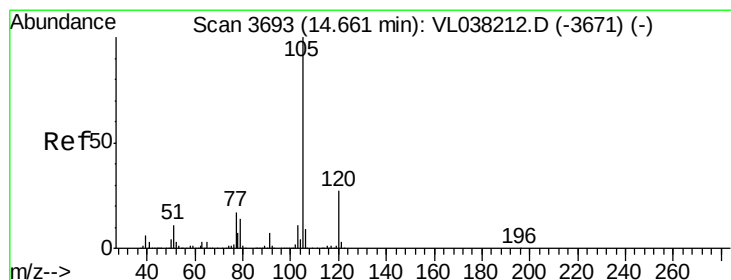
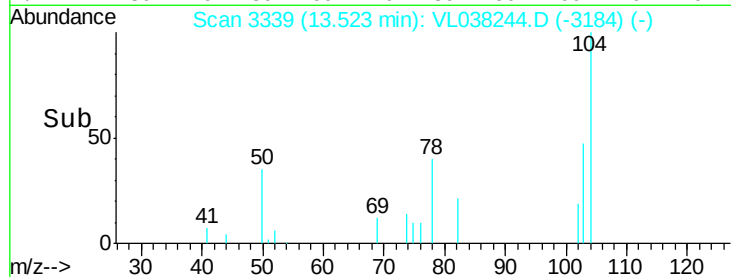
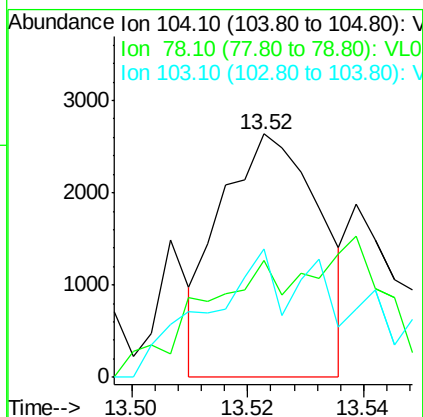
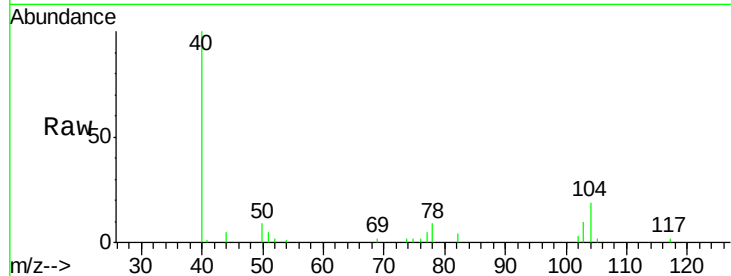
Tgt Ion: 91 Resp: 12623
Ion Ratio Lower Upper
91 100
106 91.6 23.5 70.5#





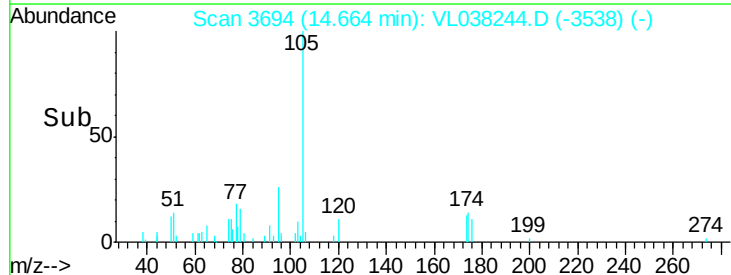
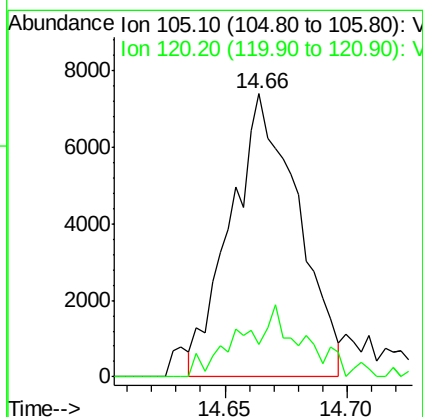
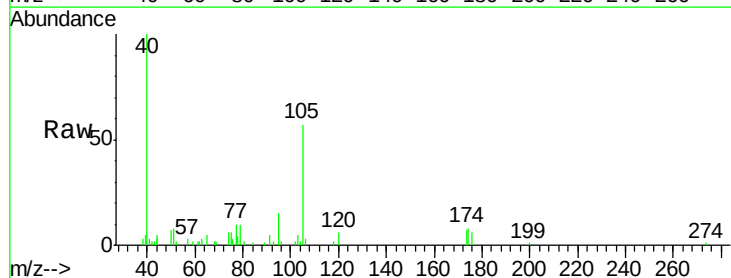
#61
Styrene
Concen: 0.036 ppbv
RT: 13.52
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Dec 2021 22:34

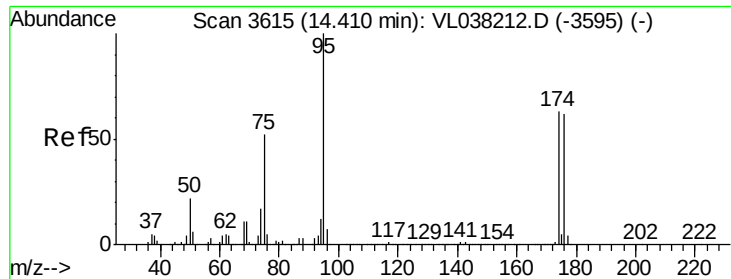
Tgt Ion:104 Resp: 3139
Ion Ratio Lower Upper
104 100
78 0.0 41.0 61.6#
103 88.9 38.0 57.0#



#62
Isopropylbenzene
Concen: 0.059 ppbv
RT: 14.66 min Scan# 3694
Delta R.T. 0.00 min
Lab File: VL038244.D
Acq: 29 Dec 2021 22:34

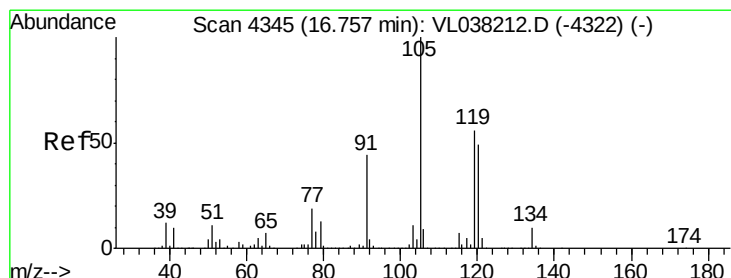
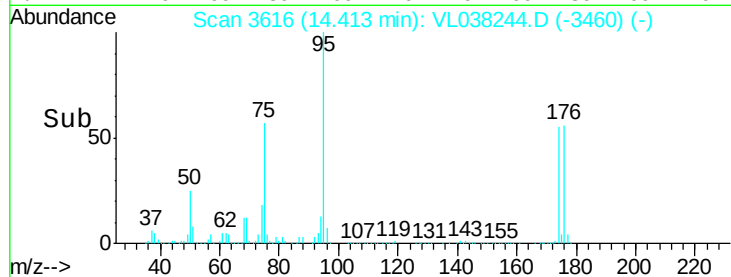
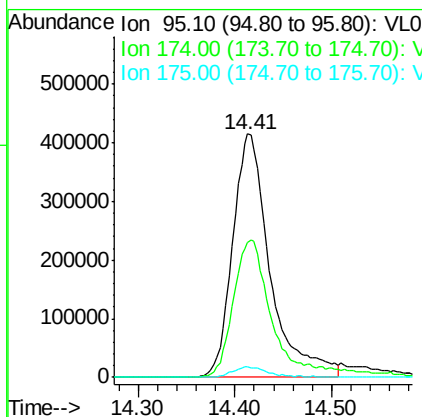
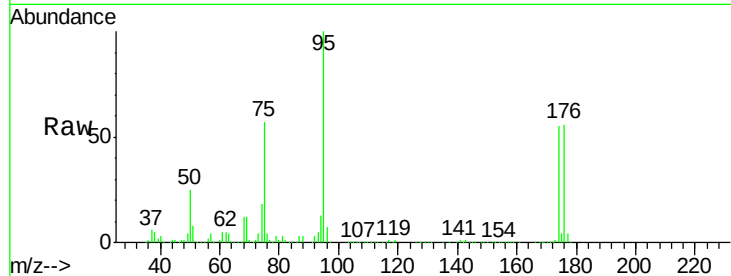
Tgt Ion:105 Resp: 14185
Ion Ratio Lower Upper
105 100
120 23.0 21.0 31.6





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.357 ppbv
 RT: 14.41 min
 Delta R.T.: 0.00 min
 Lab File: VL038212.D
 Acq: 29 Dec 2021 22:34

Tgt Ion: 95 Resp: 1116385
 Ion Ratio Lower Upper
 95 100
 174 61.7 54.6 81.8
 175 4.3 4.1 6.1



#74
 1,2,4-Trimethylbenzene
 Concen: 0.035 ppbv
 RT: 16.76 min Scan# 4346
 Delta R.T.: 0.00 min
 Lab File: VL038244.D
 Acq: 29 Dec 2021 22:34

Tgt Ion: 105 Resp: 6531
 Ion Ratio Lower Upper
 105 100
 120 39.6 39.4 59.2
 91 19.7 35.0 52.4#
 77 26.1 15.6 23.4#

