

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122921\
 Data File : VL038236.D
 Acq On : 29 Dec 2021 17:18
 Operator : SY/AP
 Sample : M5217-03 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 29 18:40:33 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	691205	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	1894838	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	1620263	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	1288106	10.32	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.20%

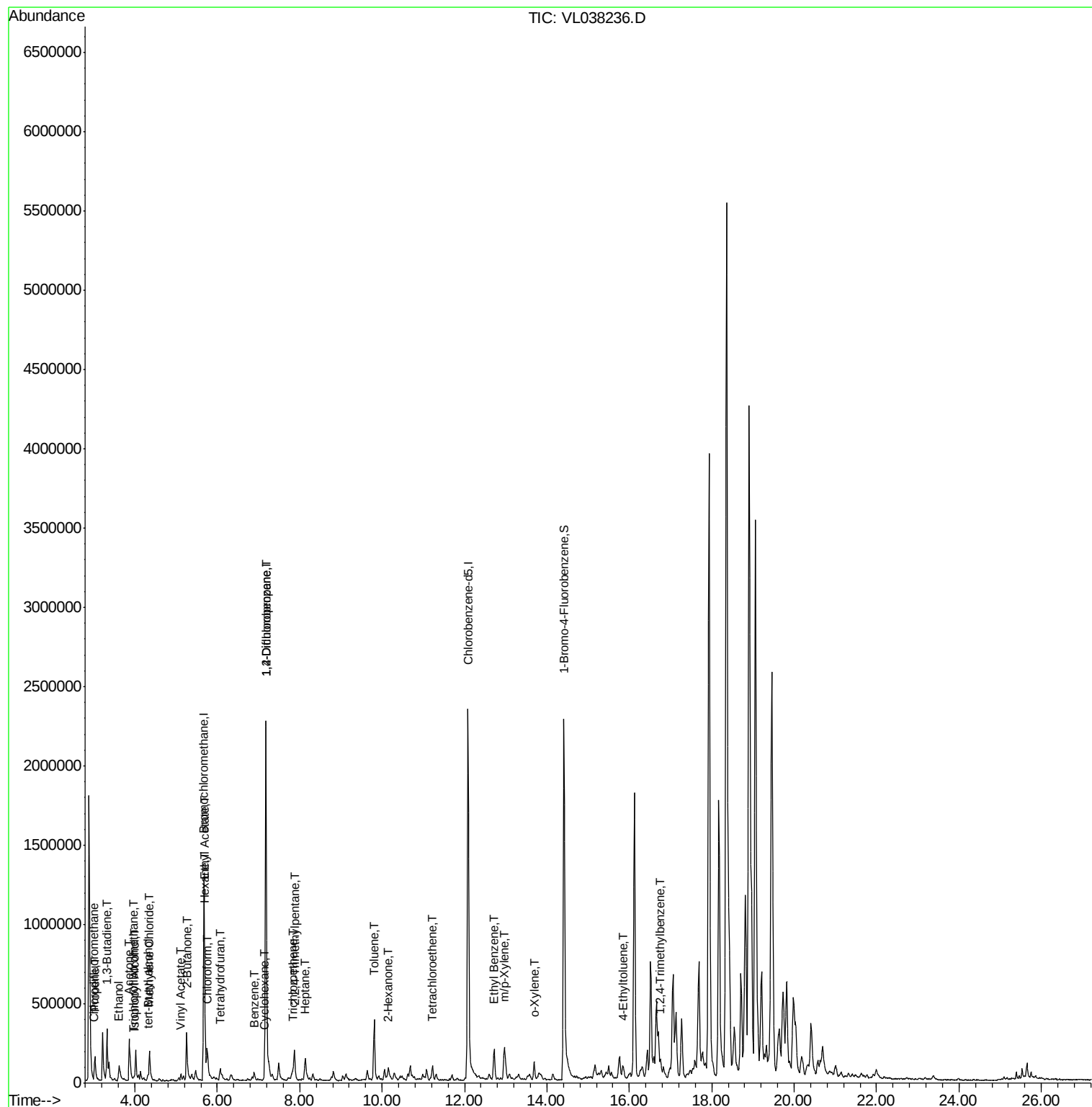
Target Compounds					Ovalue
3) Chlorodifluoromethane	3.00	51	5083	0.035 ppbv	# 88
9) Propene	3.02	41	77403	1.535 ppbv	93
10) Heptane	8.12	43	38820	0.303 ppbv	85
11) Trichlorofluoromethane	3.96	101	3986	0.033 ppbv	96
13) Ethanol	3.63	45	74805	8.749 ppbv	# 100
15) Acetone	3.86	43	334282	4.819 ppbv	# 84
16) 1,3-Butadiene	3.32	39	98377	2.082 ppbv	# 25
17) tert-Butyl alcohol	4.31	59	20414	0.268 ppbv	# 55
19) Isopropyl Alcohol	3.98	45	29495	0.682 ppbv	# 35
20) Methylene Chloride	4.35	84	72448	1.850 ppbv	92
23) Vinyl Acetate	5.11	43	10963	0.117 ppbv	# 58
25) Ethyl Acetate	5.69	43	55341	0.294 ppbv	# 91
26) Hexane	5.70	57	30450	0.323 ppbv	# 47
29) Chloroform	5.75	83	127258	0.909 ppbv	92
30) Cyclohexane	7.13	84	4045	0.048 ppbv	# 1
34) 2-Butanone	5.25	43	430809	7.564 ppbv	100
36) Benzene	6.89	78	17255	0.098 ppbv	97
38) Trichloroethene	7.84	130	9165	0.136 ppbv	94
39) 1,2-Dichloropropane	7.18	63	496432	7.298 ppbv	# 25
41) Tetrahydrofuran	6.07	42	52842	1.267 ppbv	100
44) 2,2,4-Trimethylpentane	7.87	57	169921	0.566 ppbv	# 86
51) 2-Hexanone	10.15	43	61827	1.247 ppbv	# 81
52) Tetrachloroethene	11.22	164	22670	0.347 ppbv	# 82
53) Toluene	9.81	91	276888	1.358 ppbv	99
58) Ethyl Benzene	12.71	91	81805	0.325 ppbv	98
59) m/p-Xylene	12.97	91	133946	0.623 ppbv	# 57
60) o-Xylene	13.69	91	42789	0.215 ppbv	# 58
72) 4-Ethyltoluene	15.84	105	8954	0.039 ppbv	# 1
74) 1,2,4-Trimethylbenzene	16.76	105	34277	0.159 ppbv	# 72

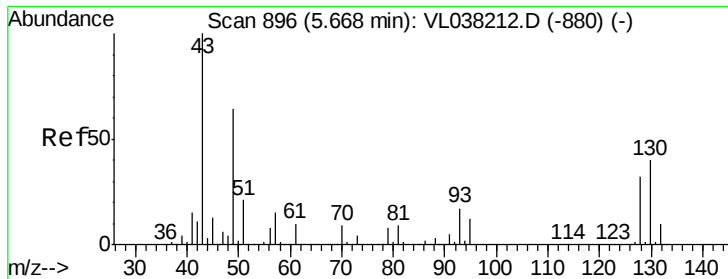
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Dec 21 17:47:08 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 29 Dec 2021 17:18

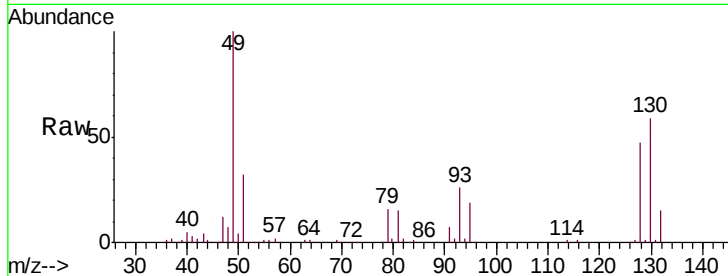
Tot Ion: 49 Resp: 691205

Ion Ratio Lower Upper

49 100

128 49.1 26.9 80.6

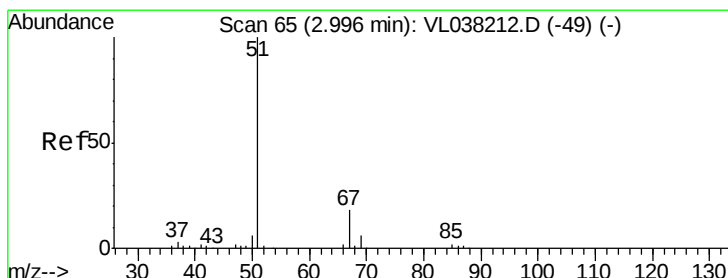
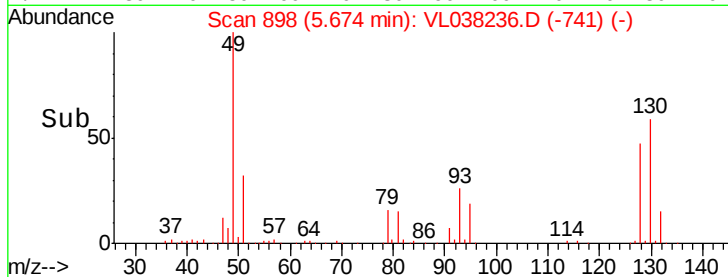
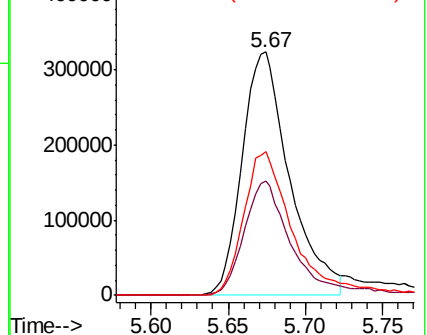
130 63.8 32.3 96.9



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#3

Chlorodifluoromethane

Concen: 0.035 ppbv

RT: 3.00 min Scan# 67

Delta R.T. 0.01 min

Lab File: VL038236.D

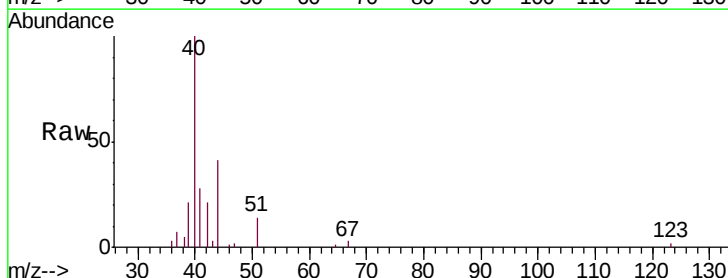
Acq: 29 Dec 2021 17:18

Tgt Ion: 51 Resp: 5083

Ion Ratio Lower Upper

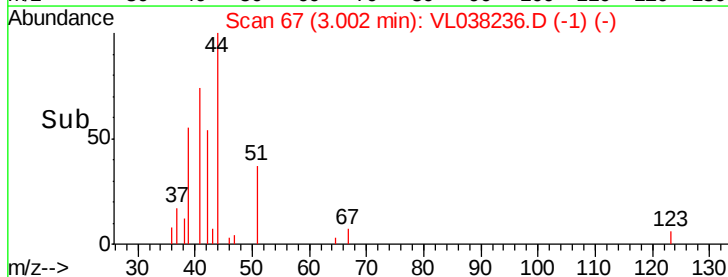
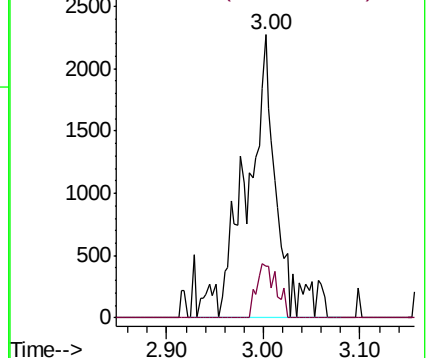
51 100

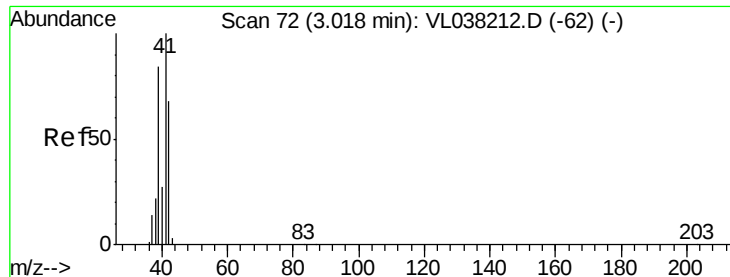
67 12.2 14.0 21.0#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 1.535 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

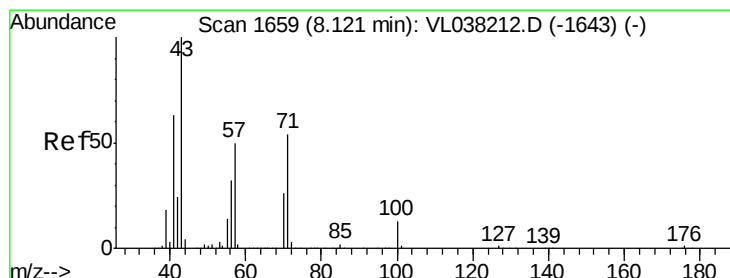
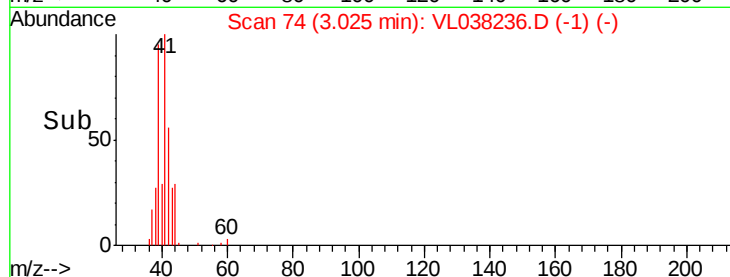
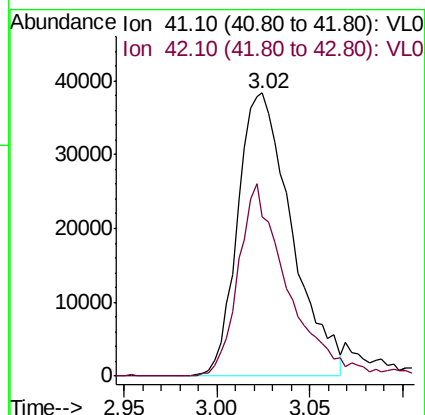
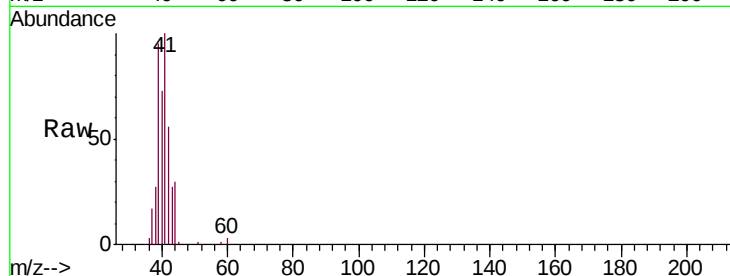
Acq: 29 Dec 2021 17:18

Tot Ion: 41 Resp: 77403

Ion Ratio Lower Upper

41 100

42 63.9 55.5 83.3



#10

Heptane

Concen: 0.303 ppbv

RT: 8.12 min Scan# 1660

Delta R.T. 0.00 min

Lab File: VL038236.D

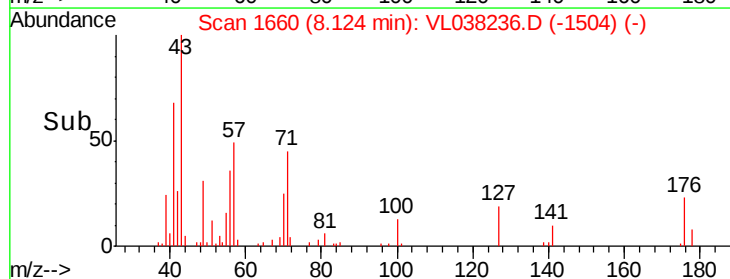
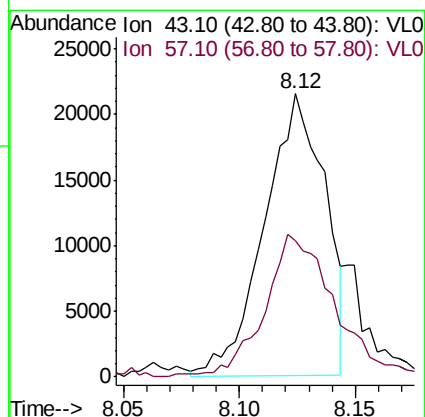
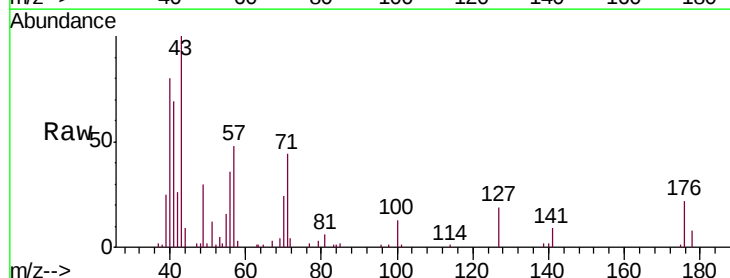
Acq: 29 Dec 2021 17:18

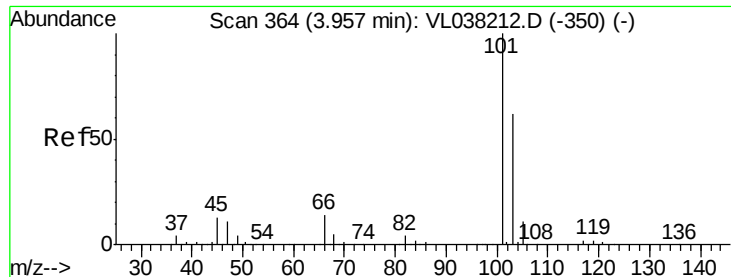
Tgt Ion: 43 Resp: 38820

Ion Ratio Lower Upper

43 100

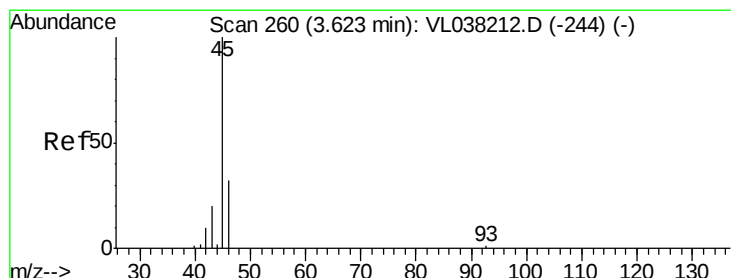
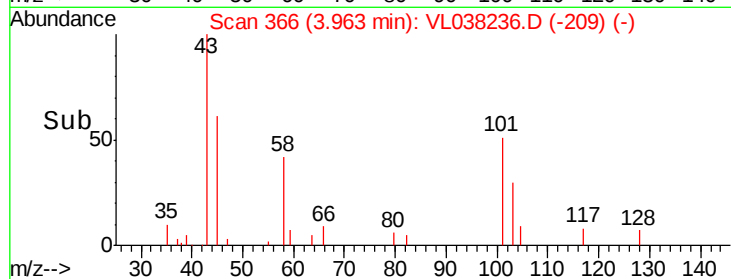
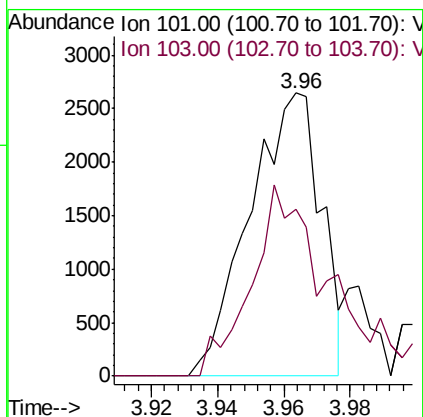
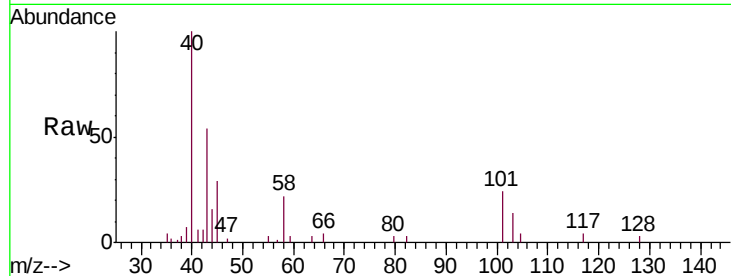
57 60.4 40.3 60.5





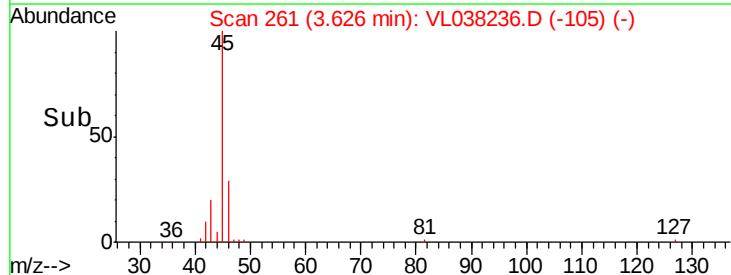
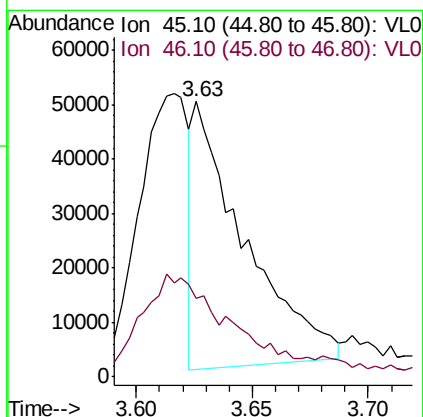
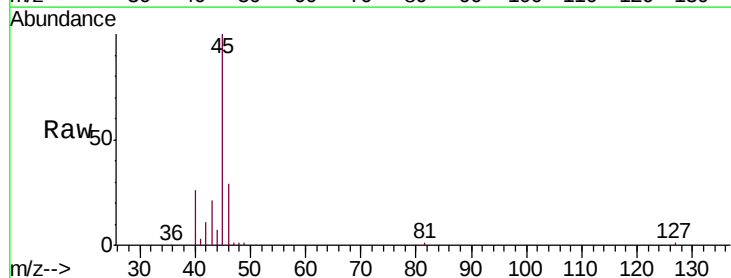
#11
 Trichlorofluoromethane
 Concen: 0.033 ppbv
 RT: 3.96 Instrument:
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId:
 Acq: 29 Dec 2021 17:18

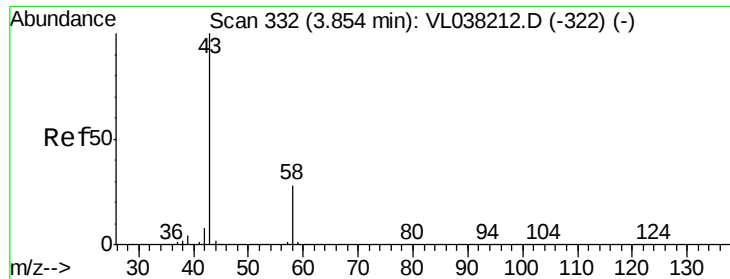
Tot Ion: 101 Resp: 3986
 Ion Ratio Lower Upper
 101 100
 103 59.1 49.9 74.9



#13
 Ethanol
 Concen: 8.749 ppbv
 RT: 3.63 min Scan# 261
 Delta R.T. 0.00 min
 Lab File: VL038236.D
 Acq: 29 Dec 2021 17:18

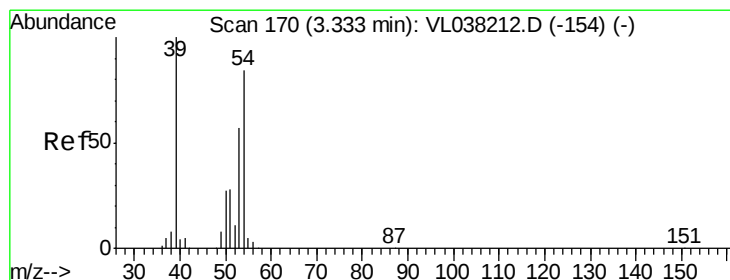
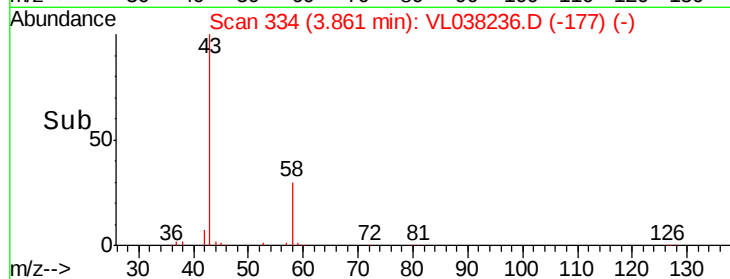
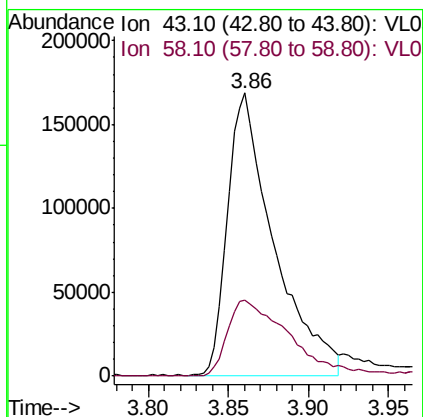
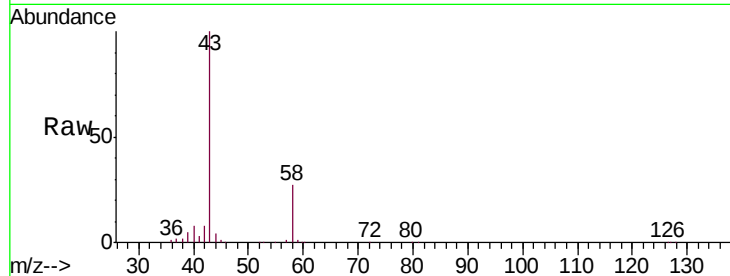
Tgt Ion: 45 Resp: 74805
 Ion Ratio Lower Upper
 45 100
 46 0.0 0.0 0.0





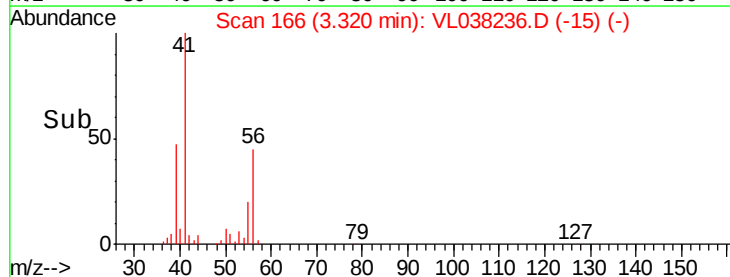
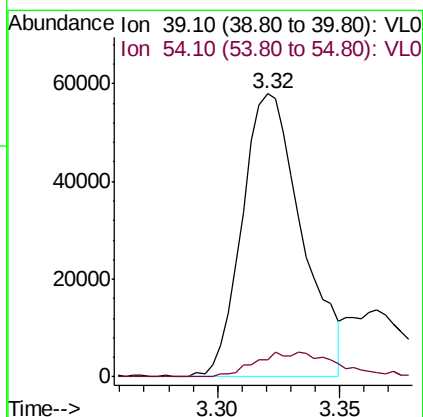
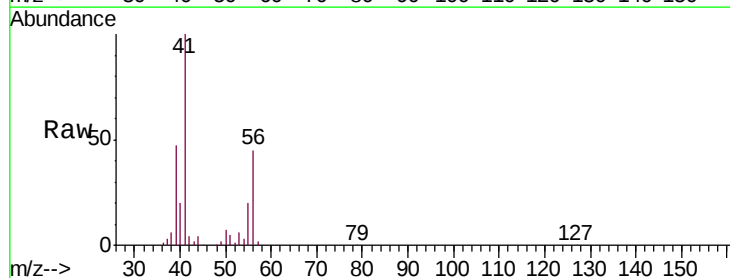
#15
Acetone
Concen: 4.819 ppbv
RT: 3.86
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Dec 2021 17:18

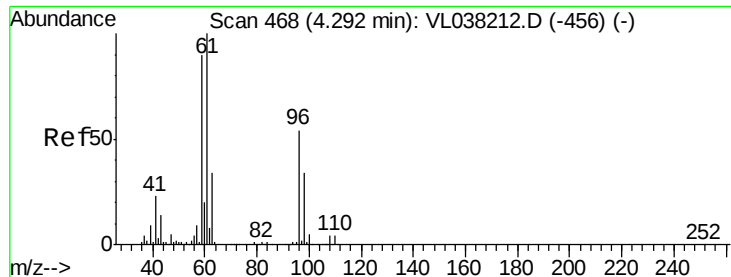
Tot Ion: 43 Resp: 334282
Ion Ratio Lower Upper
43 100
58 37.8 23.3 34.9#



#16
1,3-Butadiene
Concen: 2.082 ppbv
RT: 3.32 min Scan# 166
Delta R.T. -0.01 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

Tgt Ion: 39 Resp: 98377
Ion Ratio Lower Upper
39 100
54 13.0 62.9 94.3#

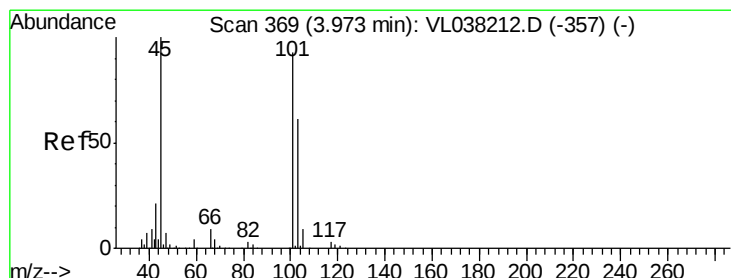
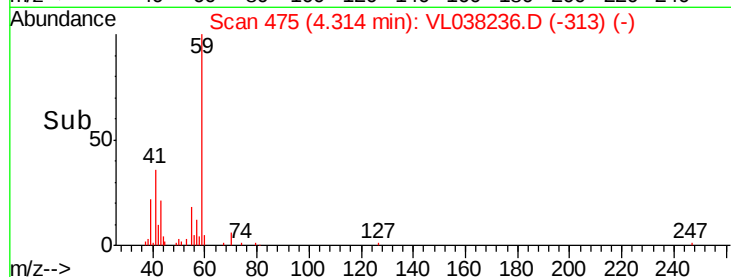
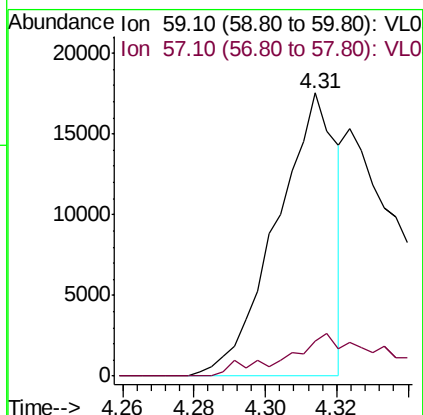
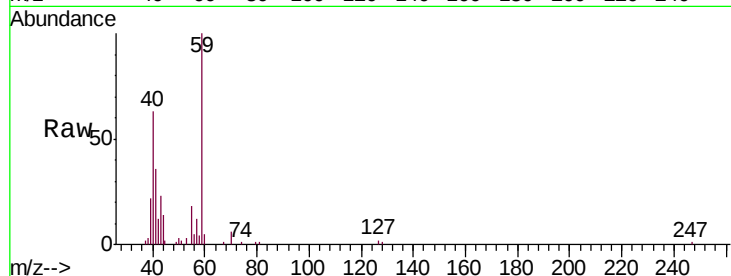




#17

tert-Butyl alcohol
Concen: 0.268 ppbv
RT: 4.31
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Dec 2021 17:18

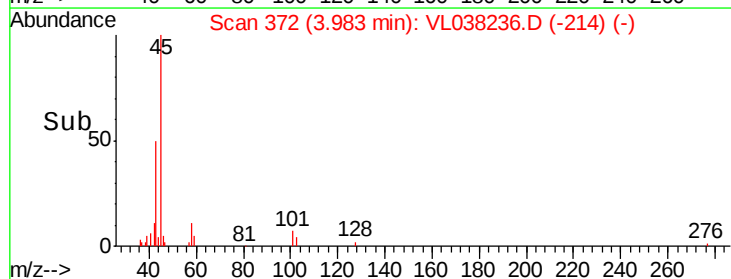
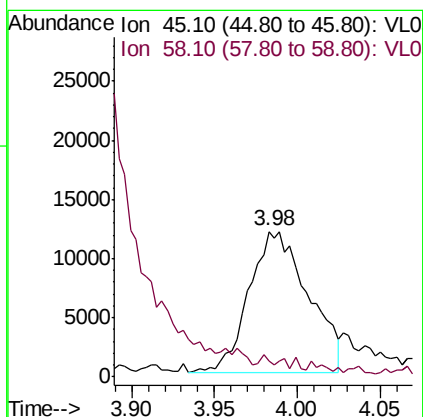
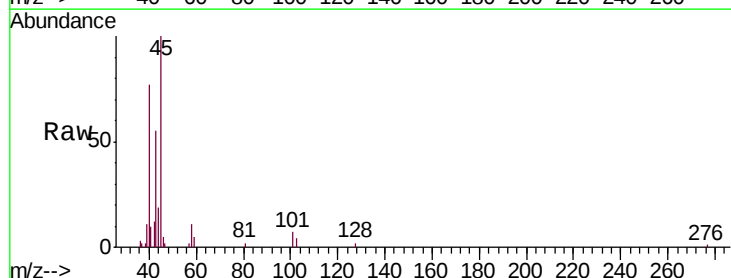
Tot Ion: 59 Resp: 20414
Ion Ratio Lower Upper
59 100
57 28.0 8.7 13.1#

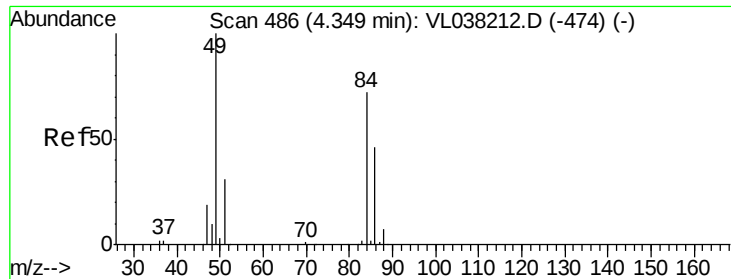


#19

Isopropyl Alcohol
Concen: 0.682 ppbv
RT: 3.98 min Scan# 372
Delta R.T. 0.01 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

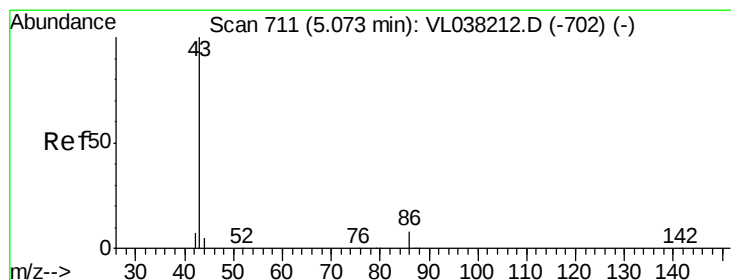
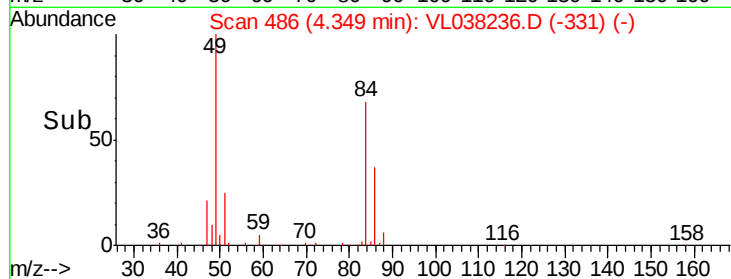
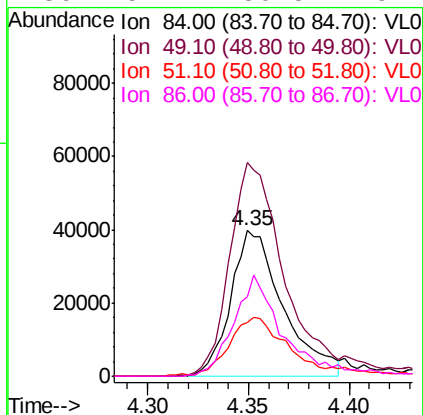
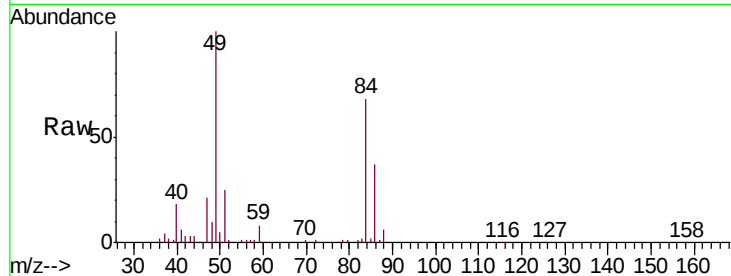
Tgt Ion: 45 Resp: 29495
Ion Ratio Lower Upper
45 100
58 0.0 32.4 48.6#





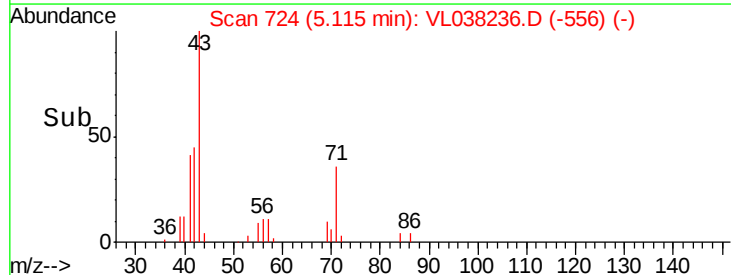
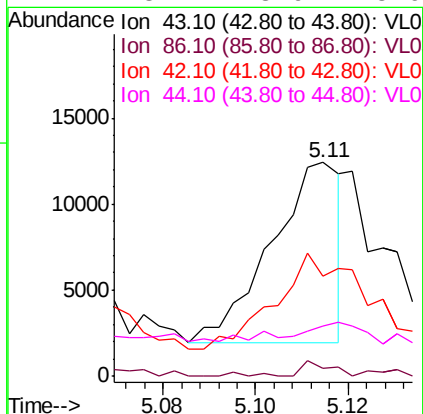
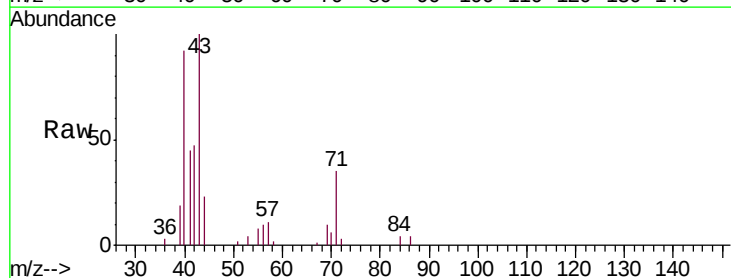
#20
Methvlene Chloride
Concen: 1.850 ppbv
RT: 4.35 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 29 Dec 2021 17:18

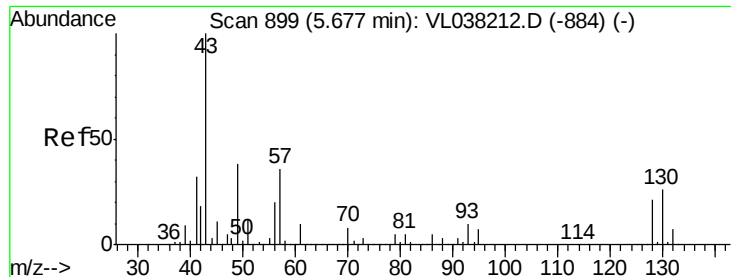
Tot Ion:	84	Resp:	72448
Ion	Ratio	Lower	Upper
84	100		
49	145.7	110.6	166.0
51	36.3	34.2	51.2
86	54.1	50.5	75.7



#23
Vinyl Acetate
Concen: 0.117 ppbv
RT: 5.11 min Scan# 724
Delta R.T. 0.04 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

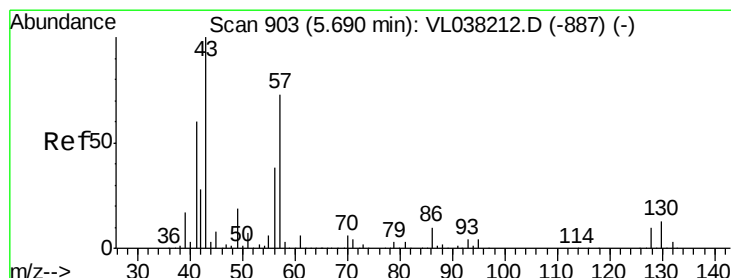
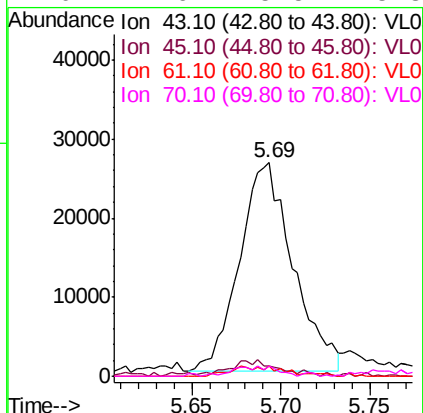
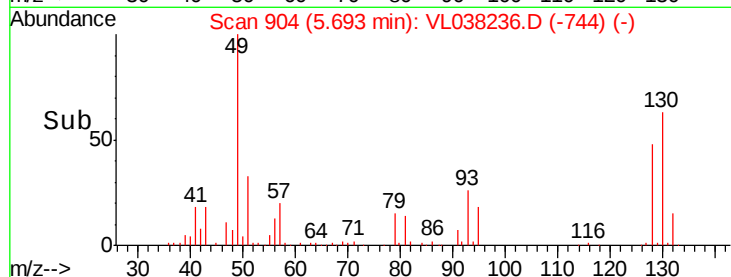
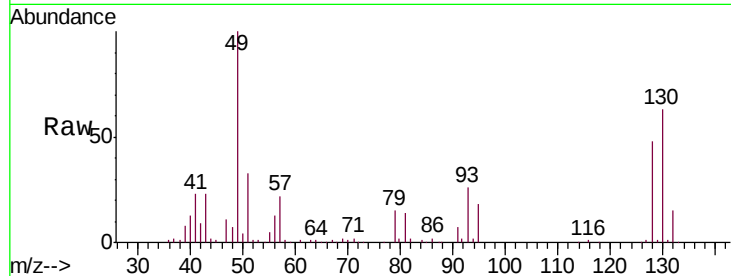
Tgt Ion:	43	Resp:	10963
Ion	Ratio	Lower	Upper
43	100		
86	4.6	5.6	8.4#
42	40.0	7.0	10.4#
44	8.4	3.9	5.9#





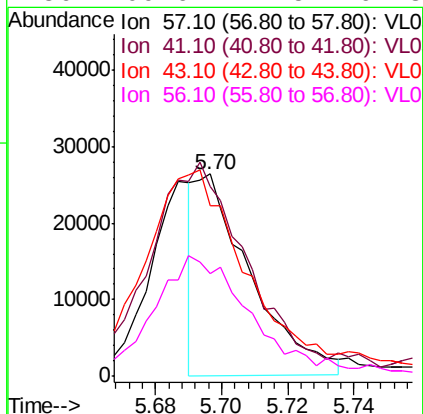
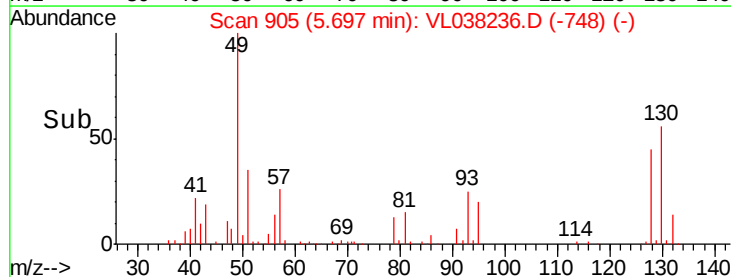
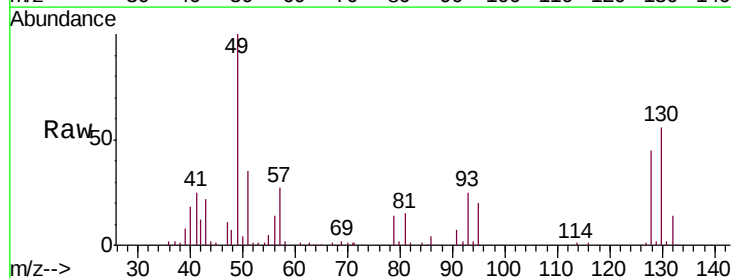
#25
Ethyl Acetate
Concen: 0.294 ppbv
RT: 5.69 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 29 Dec 2021 17:18

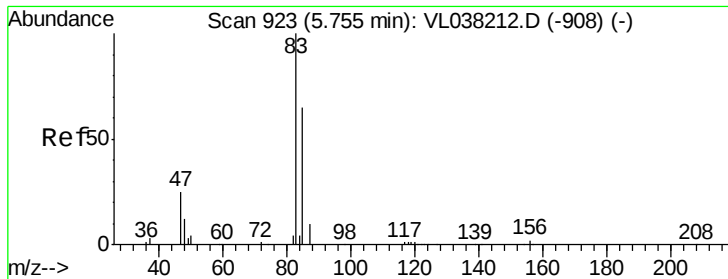
Tot Ion:	43	Resp:	55341
Ion	Ratio	Lower	Upper
43	100		
45	8.0	7.9	11.9
61	5.0	8.1	12.1#
70	4.6	5.5	8.3#



#26
Hexane
Concen: 0.323 ppbv
RT: 5.70 min Scan# 905
Delta R.T.: 0.01 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

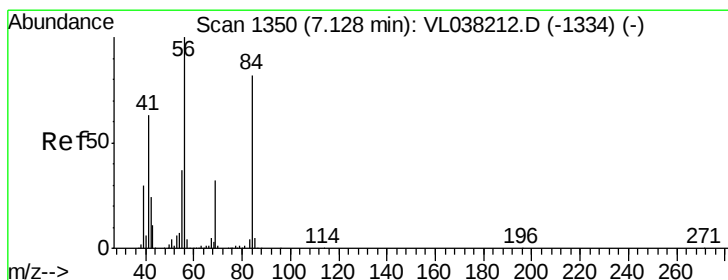
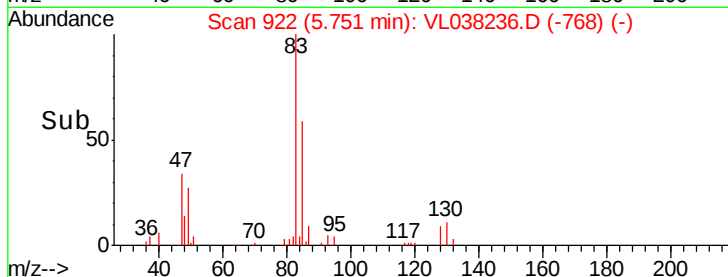
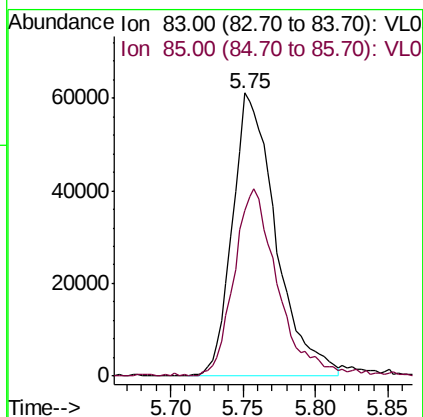
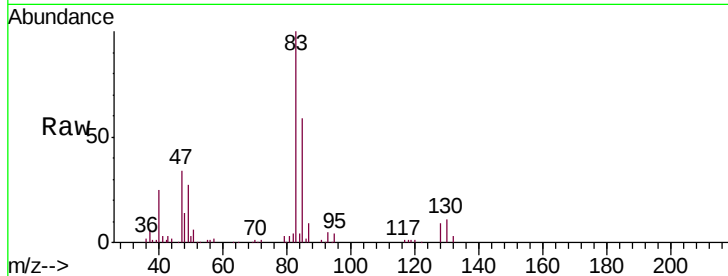
Tgt Ion:	57	Resp:	30450
Ion	Ratio	Lower	Upper
57	100		
41	202.1	69.0	103.6#
43	188.6	171.2	256.8
56	109.6	41.5	62.3#





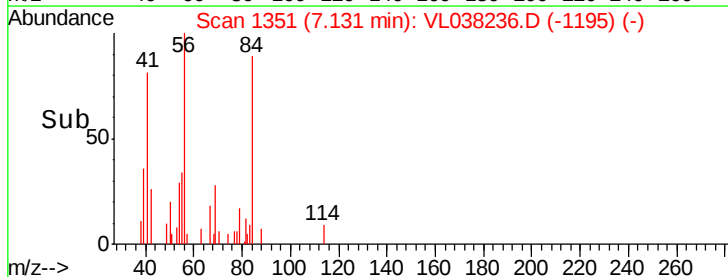
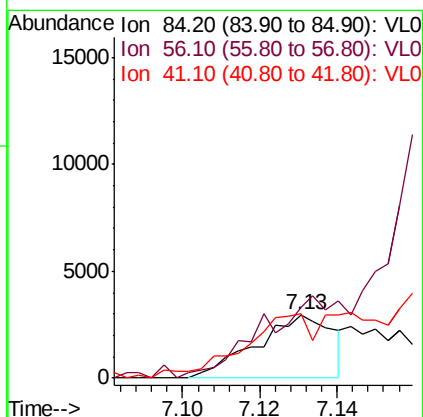
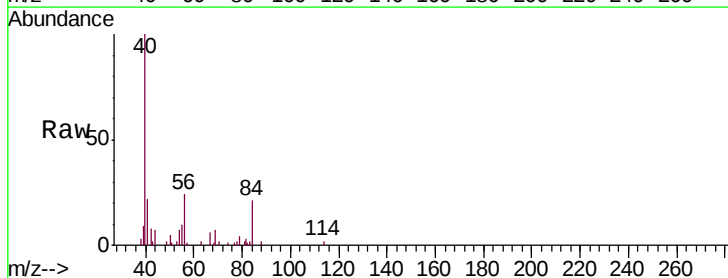
#29
Chloroform
Concen: 0.909 ppbv
RT: 5.75 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 29 Dec 2021 17:18

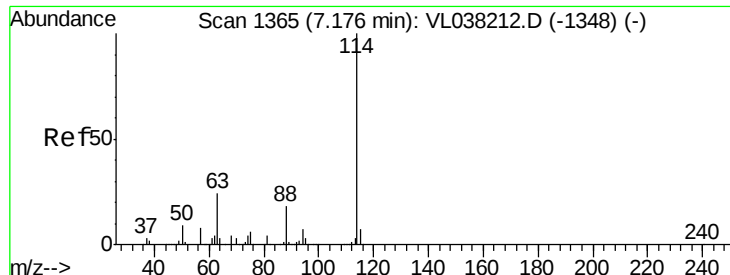
Tot Ion: 83 Resp: 127258
Ion Ratio Lower Upper
83 100
85 58.6 52.2 78.4



#30
Cyclohexane
Concen: 0.048 ppbv
RT: 7.13 min Scan# 1351
Delta R.T.: 0.00 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

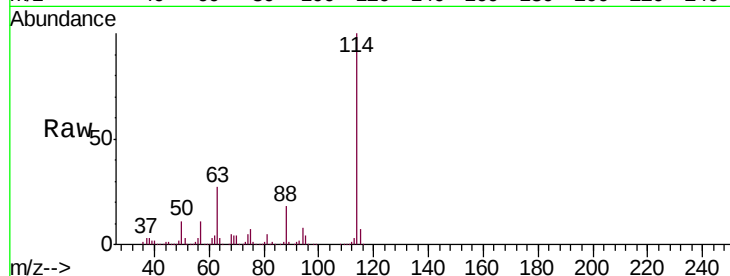
Tgt Ion: 84 Resp: 4045
Ion Ratio Lower Upper
84 100
56 0.0 105.2 157.8#
41 0.0 63.2 94.8#



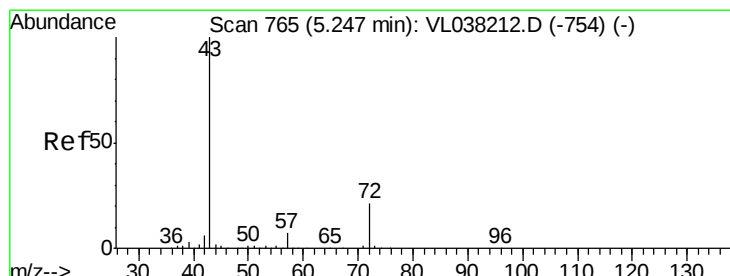
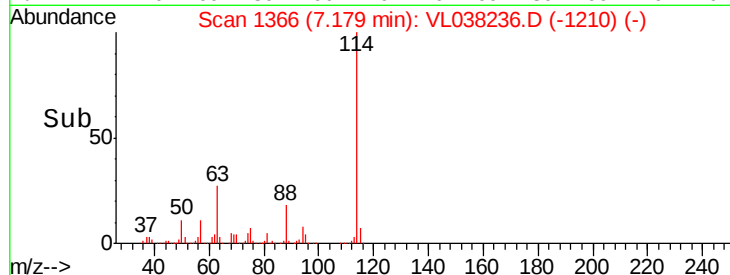
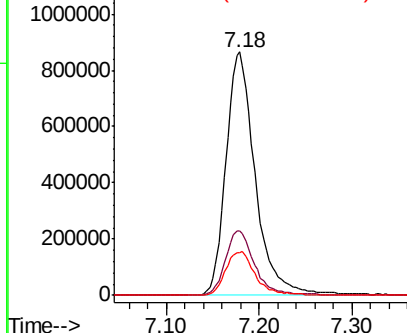


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 29 Dec 2021 17:18

Tot Ion	114	Resp: 1894838	
Ion	Ratio	Lower	Upper
114	100		
63	26.9	19.7	29.5
88	18.6	14.3	21.5

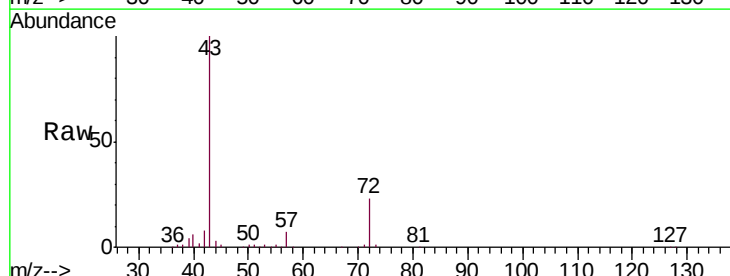


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

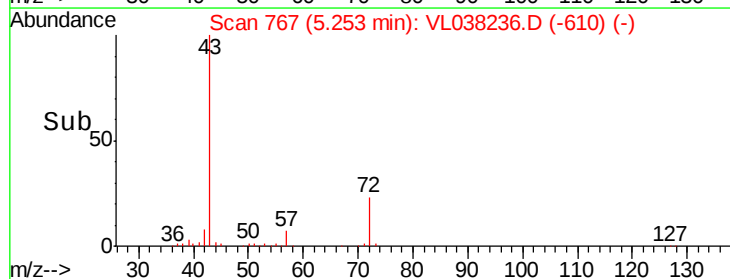
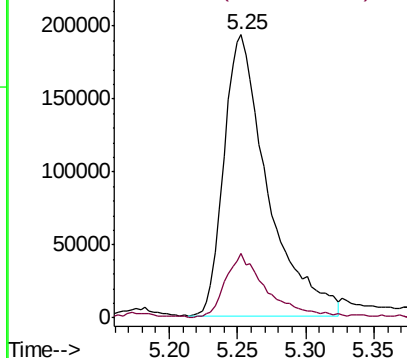


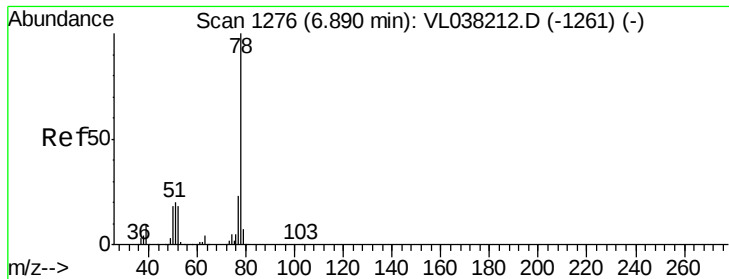
#34
 2-Butanone
 Concen: 7.564 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T.: 0.01 min
 Lab File: VL038236.D
 Acq: 29 Dec 2021 17:18

Tgt Ion: 43	Resp: 430809
Ion Ratio	Lower Upper
43 100	
72 22.7	18.3 27.5



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0

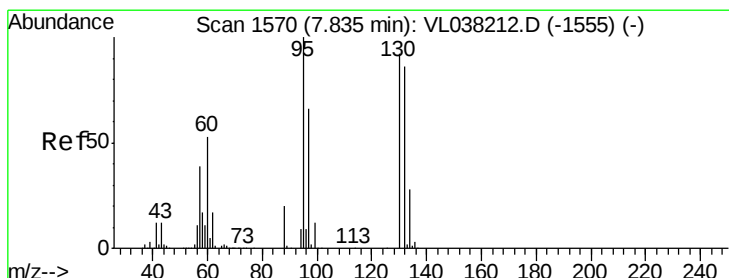
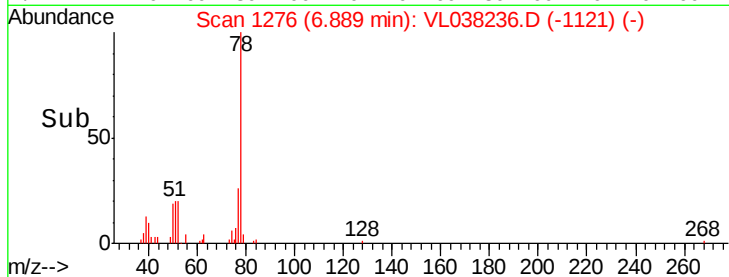
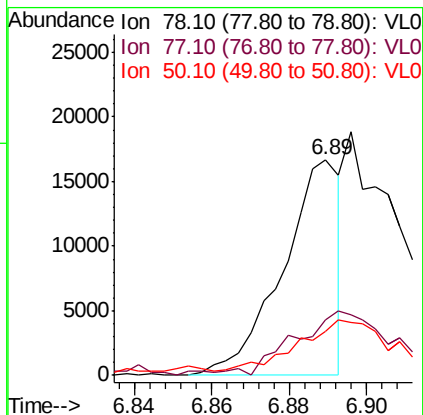
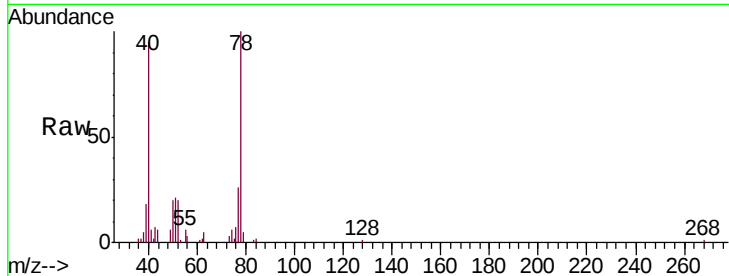




#36
Benzene
Concen: 0.098 ppbv
RT: 6.89
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 29 Dec 2021 17:18

Tot Ion: 78 Resp: 17255

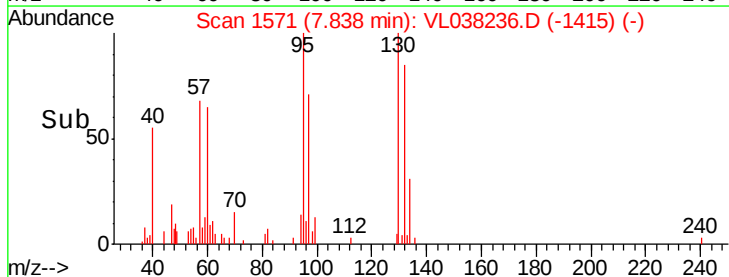
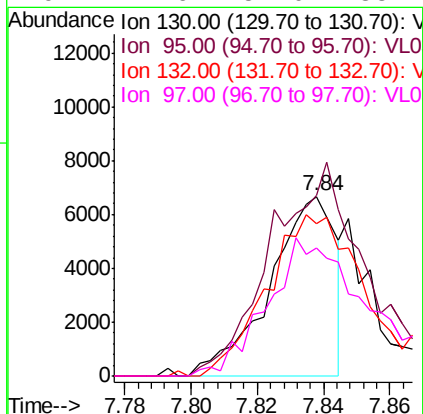
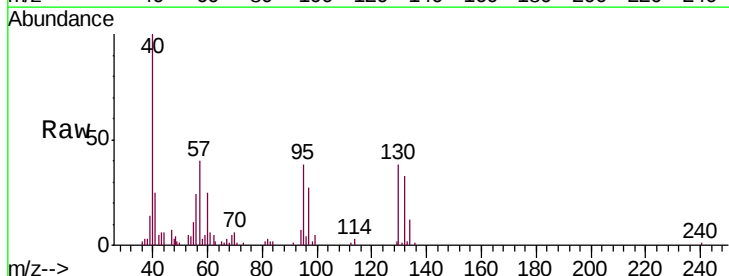
Ion	Ratio	Lower	Upper
78	100		
77	23.7	18.2	27.4
50	15.8	14.3	21.5

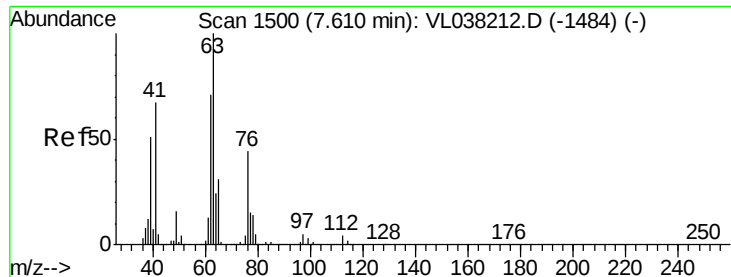


#38
Trichloroethene
Concen: 0.136 ppbv
RT: 7.84 min Scan# 1571
Delta R.T.: 0.00 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

Tgt Ion: 130 Resp: 9165

Ion	Ratio	Lower	Upper
130	100		
95	100.2	87.0	130.4
132	85.0	75.1	112.7
97	71.6	57.0	85.4





#39

1,2-Dichloropropane

Concen: 7.298 ppbv

RT: 7.18 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 29 Dec 2021 17:18

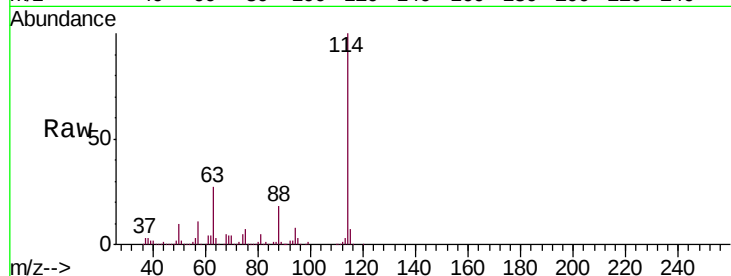
Tot Ion: 63 Resp: 496432

Ion Ratio Lower Upper

63 100

41 0.1 53.4 80.2#

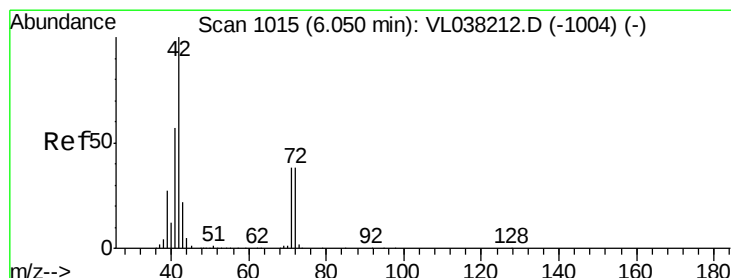
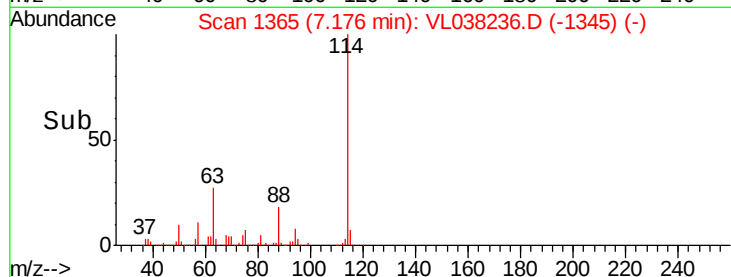
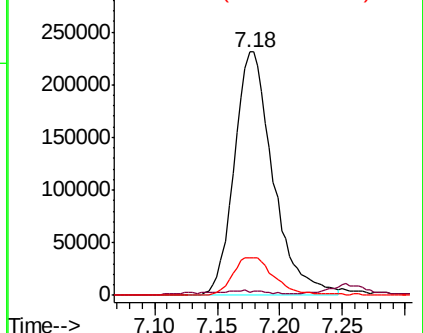
62 15.5 56.5 84.7#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 1.267 ppbv

RT: 6.07 min Scan# 1022

Delta R.T. 0.02 min

Lab File: VL038236.D

Acq: 29 Dec 2021 17:18

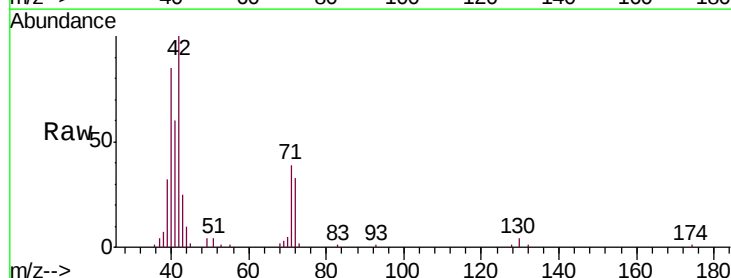
Tgt Ion: 42 Resp: 52842

Ion Ratio Lower Upper

42 100

72 39.4 31.4 47.0

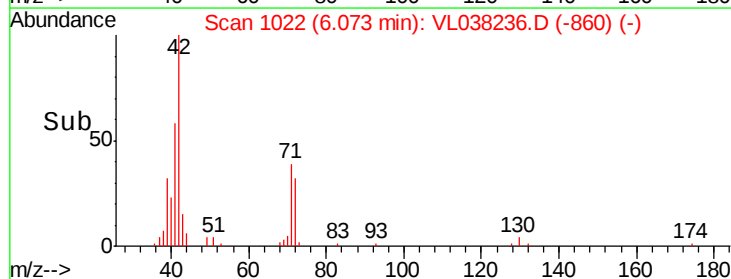
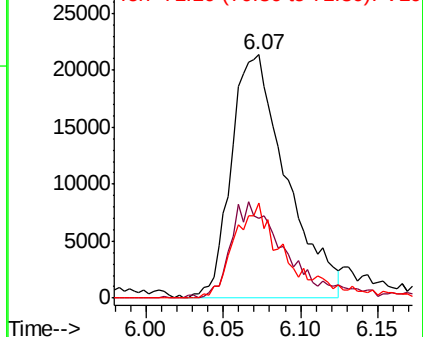
71 37.7 30.0 45.0

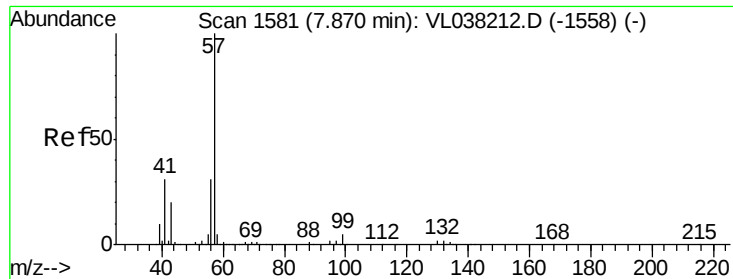


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

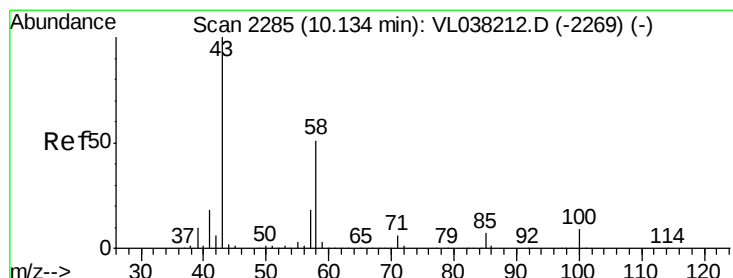
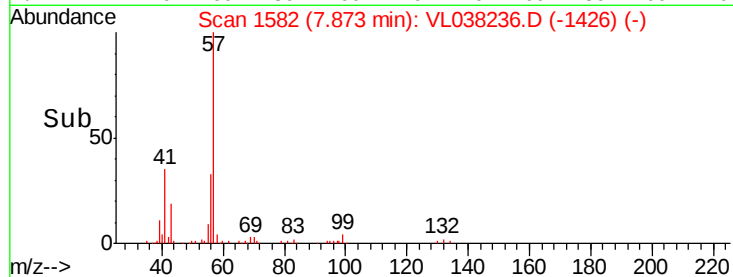
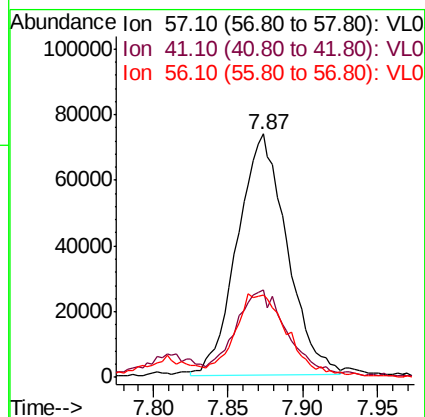
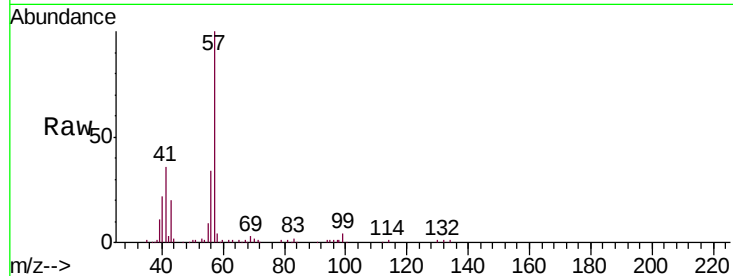
Ion 71.10 (70.80 to 71.80): VL0





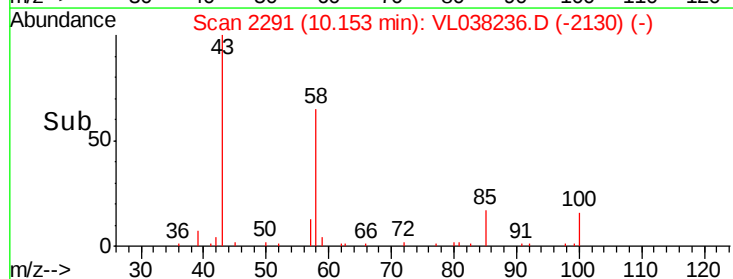
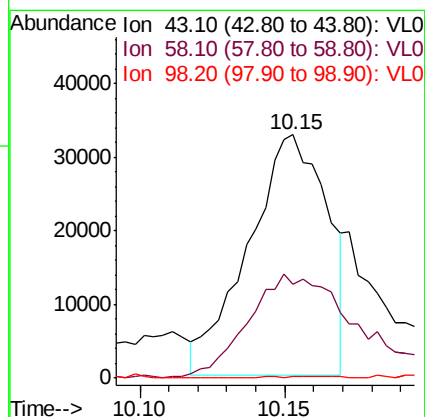
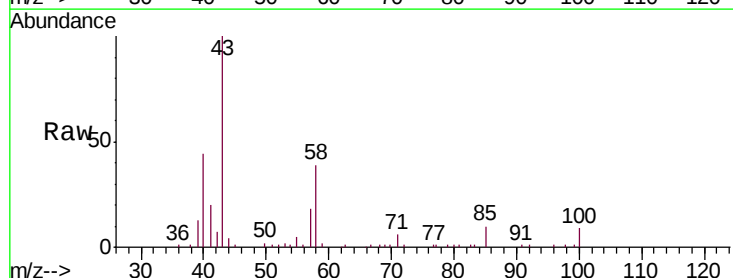
#44
 2,2,4-Trimethylpentane
 Concen: 0.566 ppbv
 RT: 7.87 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 29 Dec 2021 17:18

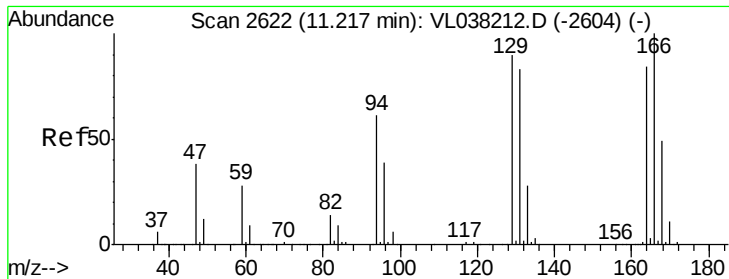
Tot Ion:	57	Resp:	169921
Ion	Ratio	Lower	Upper
57	100		
41	38.7	24.9	37.3#
56	38.7	24.8	37.2#



#51
 2-Hexanone
 Concen: 1.247 ppbv
 RT: 10.15 min Scan# 2291
 Delta R.T.: 0.02 min
 Lab File: VL038236.D
 Acq: 29 Dec 2021 17:18

Tgt Ion:	43	Resp:	61827
Ion	Ratio	Lower	Upper
43	100		
58	64.2	40.8	61.2#
98	0.0	0.0	0.0





#52

Tetrachloroethene

Concen: 0.347 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 29 Dec 2021 17:18

Tot Ion:164 Resp: 22670

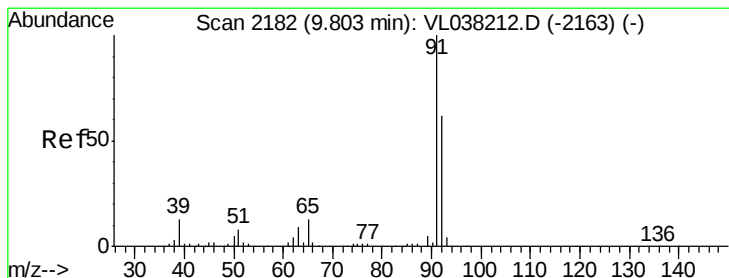
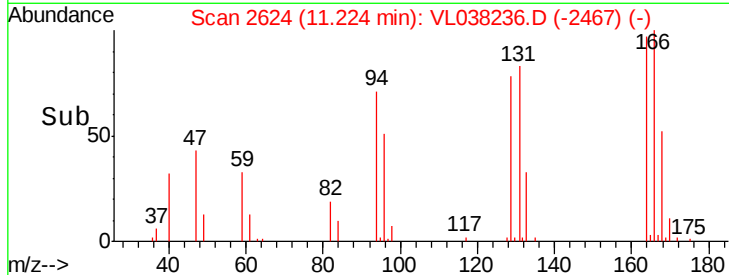
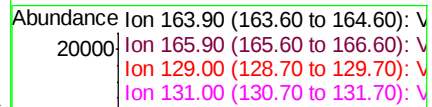
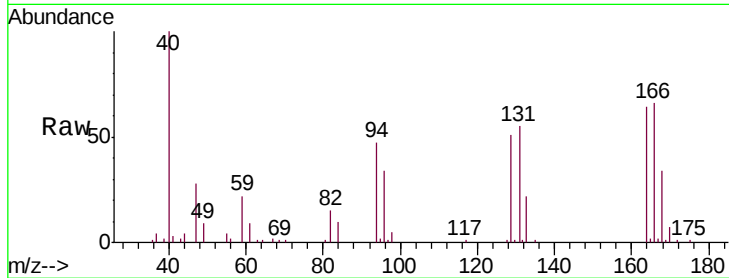
Ion Ratio Lower Upper

164 100

166 101.5 95.6 143.4

129 80.3 85.8 128.8#

131 88.1 79.3 118.9



#53

Toluene

Concen: 1.358 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. 0.01 min

Lab File: VL038236.D

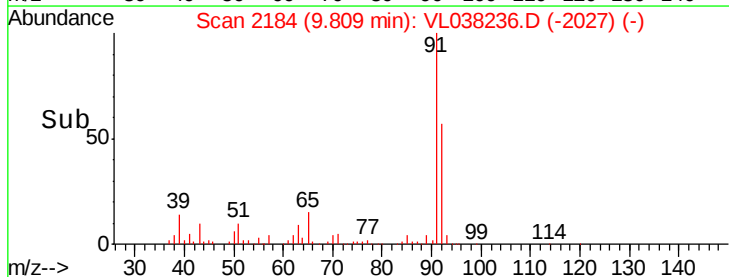
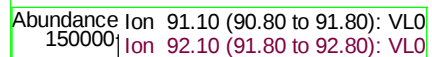
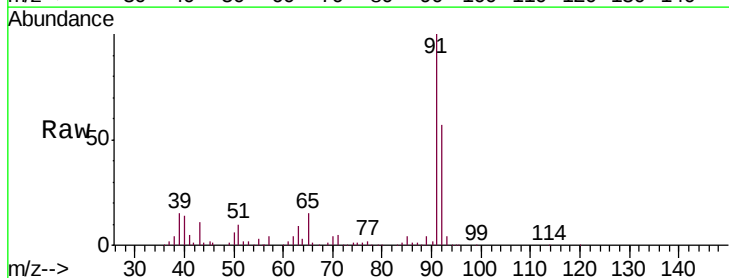
Acq: 29 Dec 2021 17:18

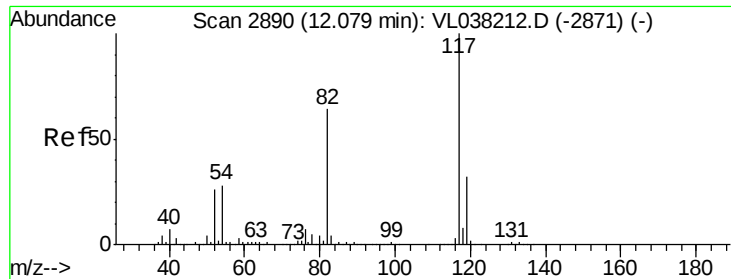
Tgt Ion: 91 Resp: 276888

Ion Ratio Lower Upper

91 100

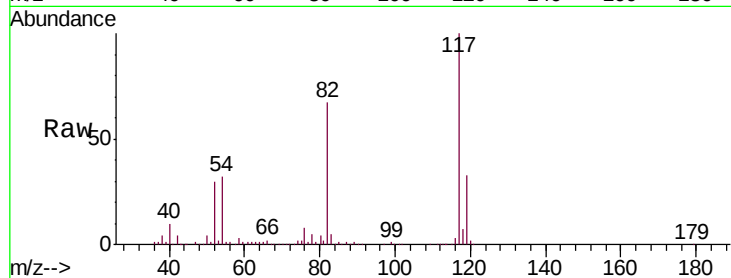
92 60.0 48.9 73.3



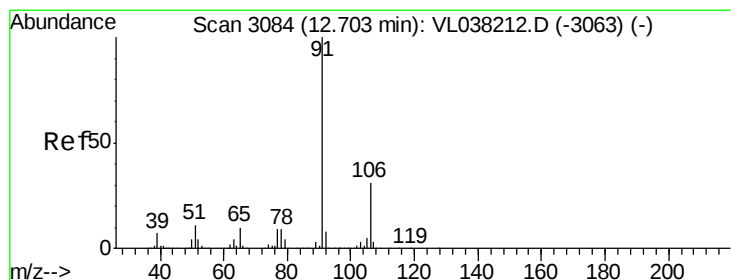
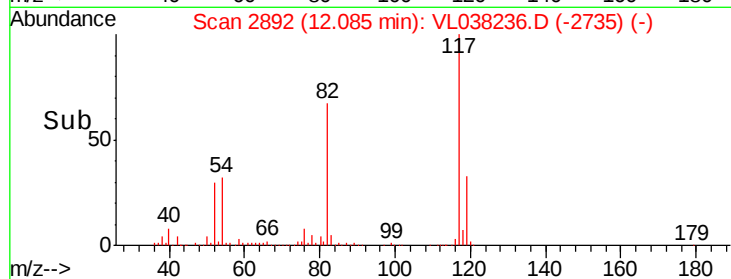
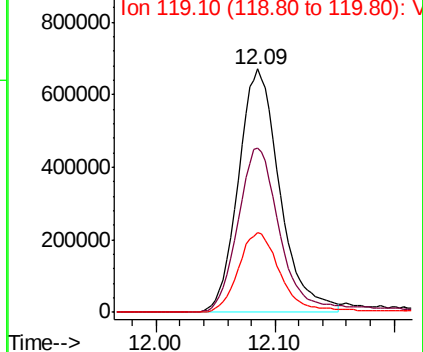


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId:
Acq: 29 Dec 2021 17:18

Tot Ion: 117 Resp: 1620263
Ion Ratio Lower Upper
117 100
82 72.1 53.3 79.9
119 34.5 25.5 38.3

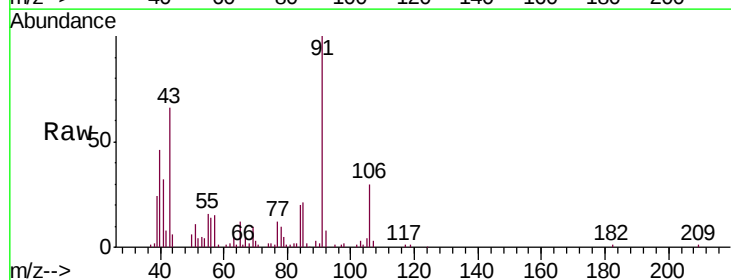


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

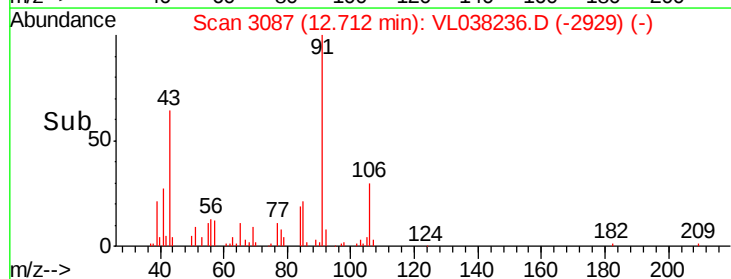
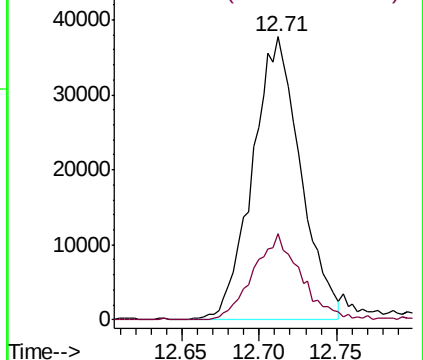


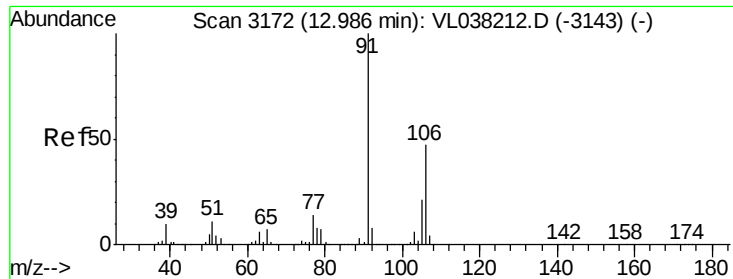
#58
Ethyl Benzene
Concen: 0.325 ppbv
RT: 12.71 min Scan# 3087
Delta R.T. 0.01 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

Tgt Ion: 91 Resp: 81805
Ion Ratio Lower Upper
91 100
106 30.3 25.0 37.4



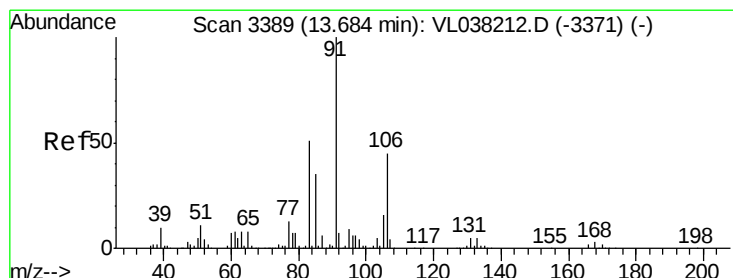
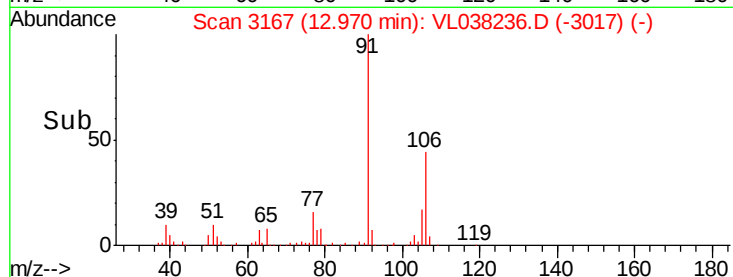
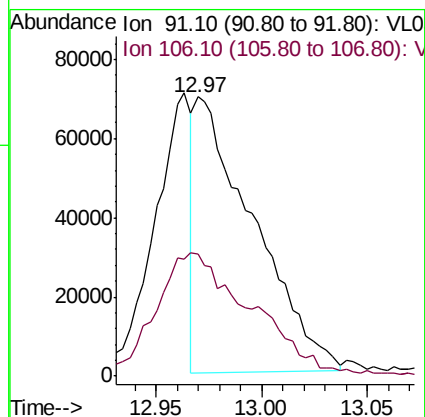
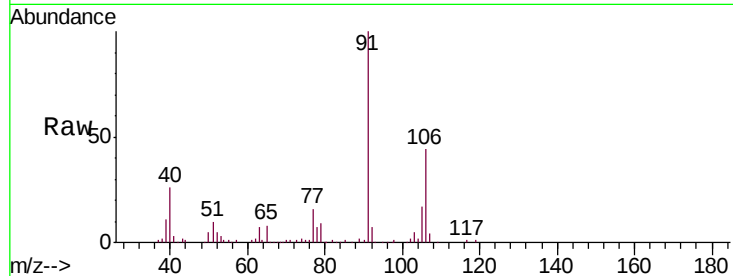
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





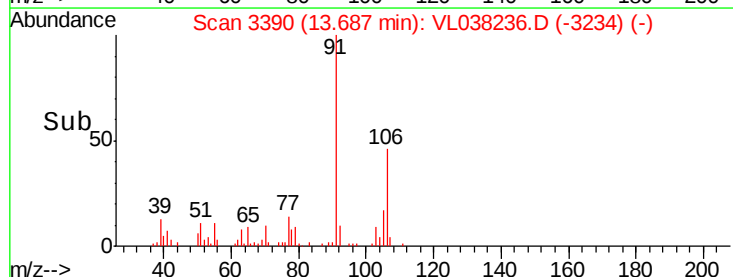
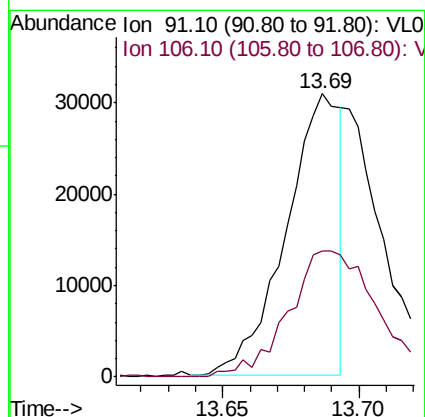
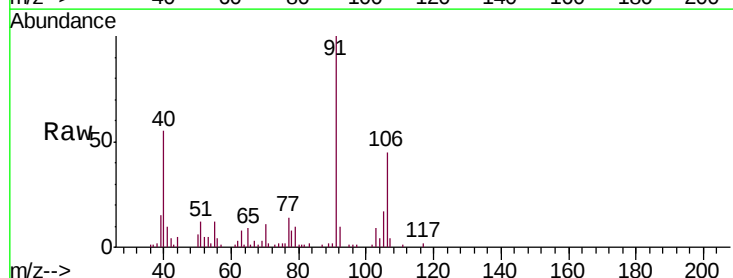
#59
m/p-Xylene
Concen: 0.623 ppbv
RT: 12.97 min
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 29 Dec 2021 17:18

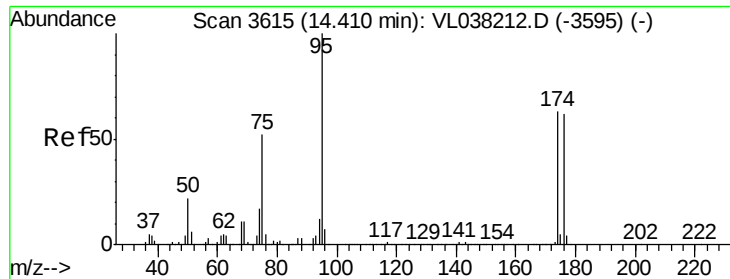
Tot Ion: 91 Resp: 133946
Ion Ratio Lower Upper
91 100
106 74.4 36.9 55.3#



#60
o-Xylene
Concen: 0.215 ppbv
RT: 13.69 min Scan# 3390
Delta R.T. 0.00 min
Lab File: VL038236.D
Acq: 29 Dec 2021 17:18

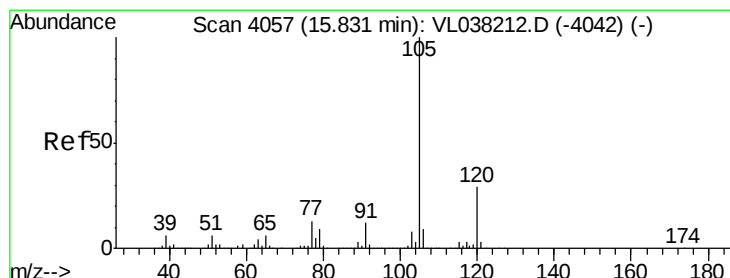
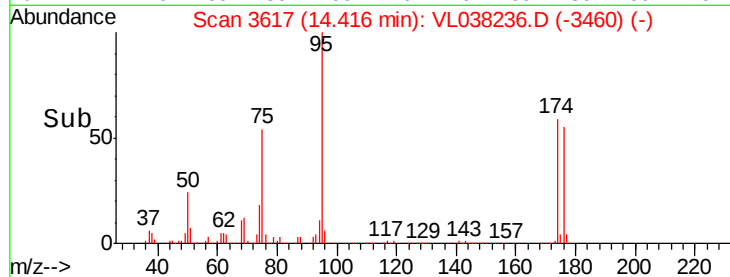
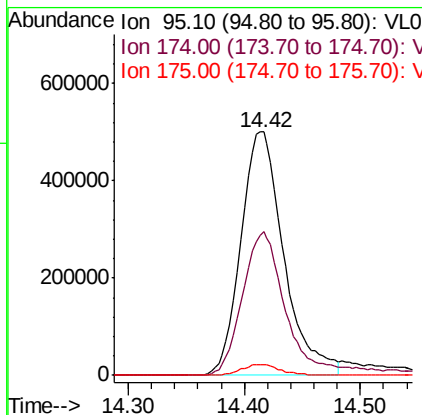
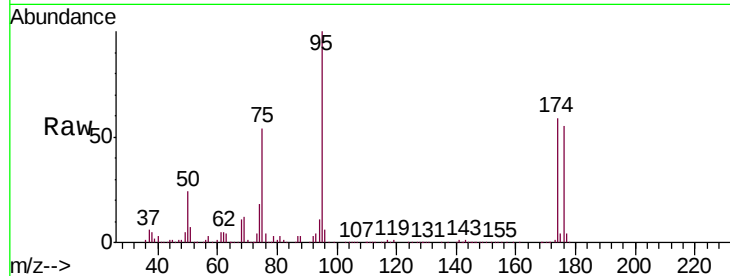
Tgt Ion: 91 Resp: 42789
Ion Ratio Lower Upper
91 100
106 75.3 23.5 70.5#





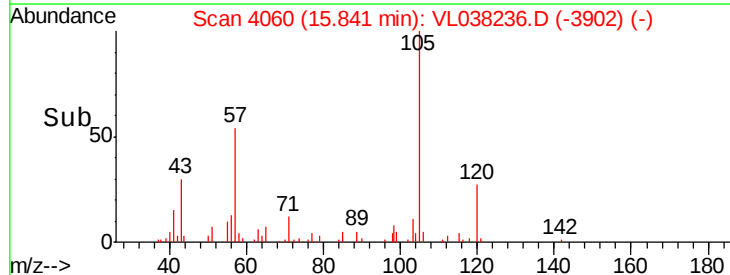
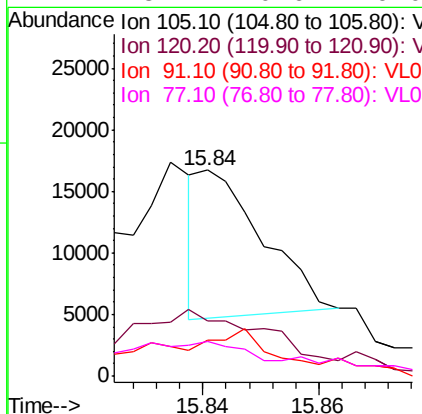
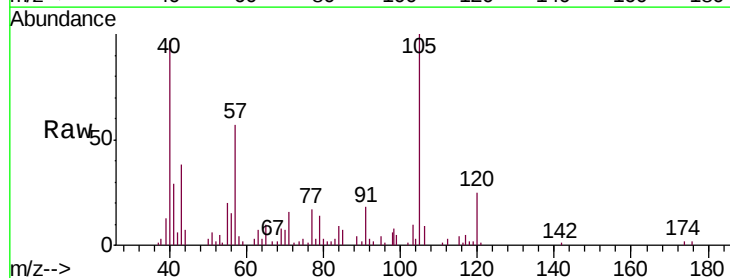
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.317 ppbv
 RT: 14.42 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Dec 2021 17:18

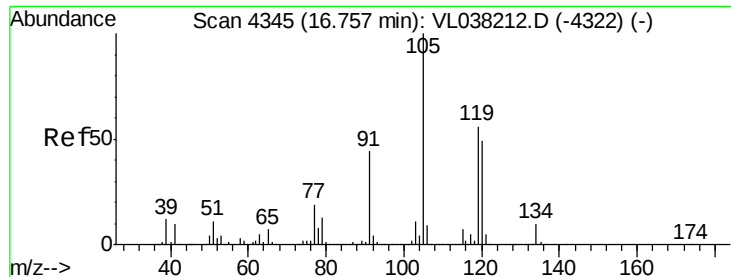
Tot Ion: 95 Resp: 1288106
 Ion Ratio Lower Upper
 95 100
 174 63.5 54.6 81.8
 175 4.3 4.1 6.1



#72
 4-Ethyltoluene
 Concen: 0.039 ppbv
 RT: 15.84 min Scan# 4060
 Delta R.T. 0.01 min
 Lab File: VL038236.D
 Acq: 29 Dec 2021 17:18

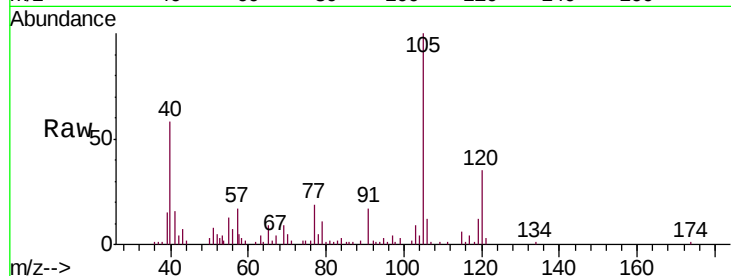
Tgt Ion: 105 Resp: 8954
 Ion Ratio Lower Upper
 105 100
 120 128.0 24.3 36.5#
 91 88.5 9.8 14.6#
 77 75.4 10.6 16.0#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.159 ppbv
 RT: 16.76
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Dec 2021 17:18

Tot Ion:	105	Resp:	34277
Ion	Ratio	Lower	Upper
105	100		
120	31.6	39.4	59.2#
91	17.2	35.0	52.4#
77	16.8	15.6	23.4



Abundance Ion 105.10 (104.80 to 105.80): V
 Ion 120.20 (119.90 to 120.90): V
 Ion 91.10 (90.80 to 91.80): VL0
 Ion 77.10 (76.80 to 77.80): VL0

