

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032322\
 Data File : VL038738.D
 Acq On : 24 Mar 2022 5:48
 Operator : SY/AP
 Sample : N2051-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 24 07:52:31 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 21 17:09:26 2022
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	737051	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2002445	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	1799243	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1315577	9.54	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.40%

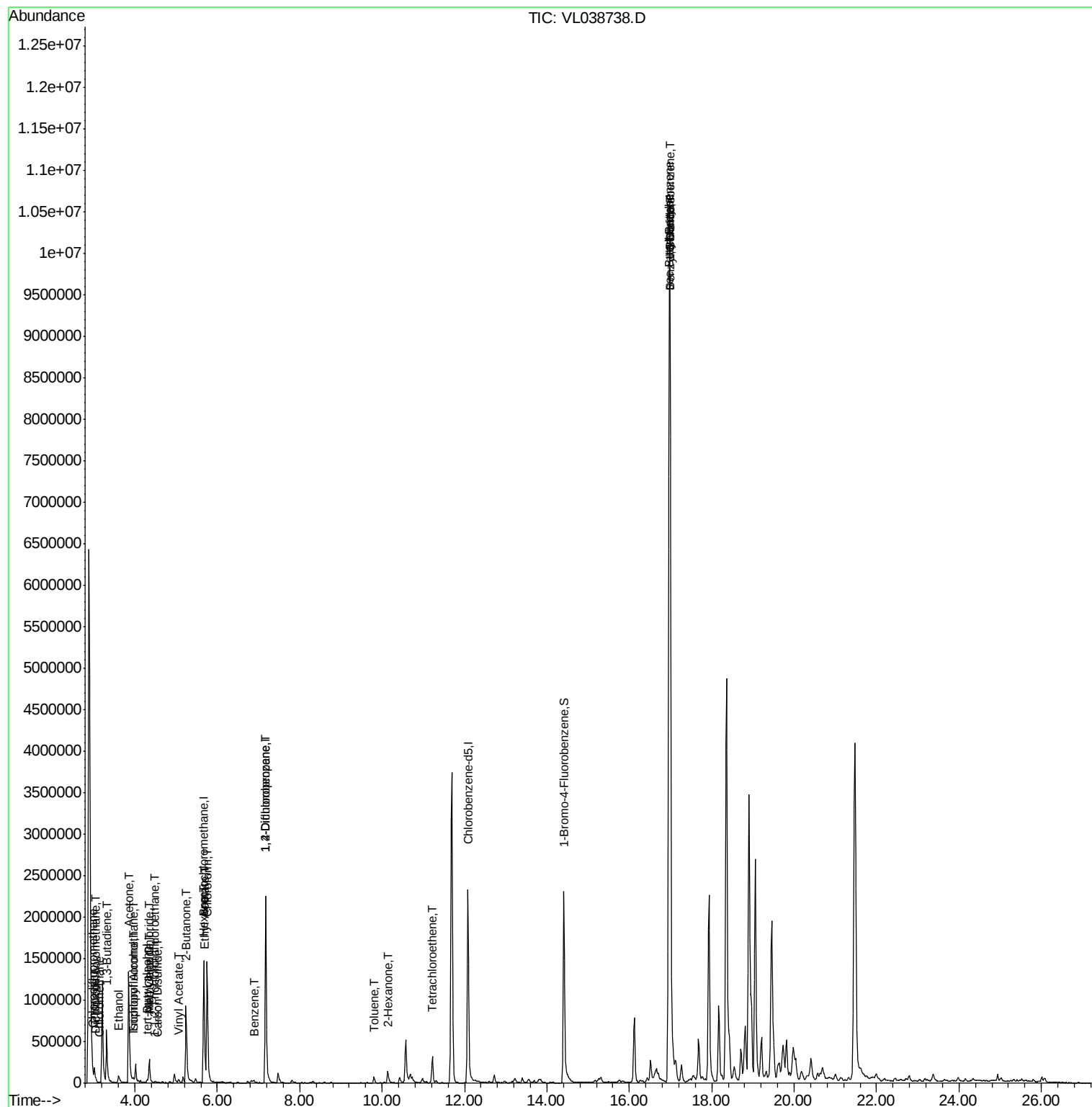
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	28652	0.289	ppbv	94
3) Chlorodifluoromethane	2.99	51	22707	0.292	ppbv	95
4) Chloromethane	3.15	50	7528	0.176	ppbv #	85
9) Propene	3.01	41	78892	2.099	ppbv	99
11) Trichlorofluoromethane	3.95	101	24341	0.278	ppbv	88
12) 1,1,2-Trichlorotrifluoroet	4.48	101	5223	0.078	ppbv #	70
13) Ethanol	3.61	45	123552	29.803	ppbv	95
15) Acetone	3.85	43	1729434	27.193	ppbv	90
16) 1,3-Butadiene	3.31	39	188719	5.229	ppbv #	13
17) tert-Butyl alcohol	4.30	59	40594	0.731	ppbv #	93
19) Isopropyl Alcohol	3.97	45	23298	0.661	ppbv #	1
20) Methylene Chloride	4.35	84	123817	4.622	ppbv	96
21) Allyl Chloride	4.35	41	5311	0.116	ppbv #	23
23) Vinyl Acetate	5.06	43	18075	0.294	ppbv #	86
25) Ethyl Acetate	5.69	43	56326	0.352	ppbv #	79
26) Hexane	5.69	57	80910	1.129	ppbv #	37
27) Carbon Disulfide	4.55	76	7717	0.110	ppbv #	81
29) Chloroform	5.75	83	1224412	10.669	ppbv	100
34) 2-Butanone	5.24	43	1358359	17.139	ppbv	99
36) Benzene	6.89	78	21609	0.140	ppbv #	92
39) 1,2-Dichloropropane	7.17	63	458118	7.583	ppbv #	29
51) 2-Hexanone	10.14	43	126652	1.197	ppbv #	95
52) Tetrachloroethene	11.22	164	85207	1.507	ppbv	89
53) Toluene	9.81	91	52395	0.316	ppbv	96
65) tert-Butylbenzene	16.96	119	60712	0.257	ppbv #	25
66) Benzyl Chloride	16.99	91	1514	0.034	ppbv #	65
67) sec-Butylbenzene	16.97	105	21588	0.064	ppbv	95
75) 1,3-Dichlorobenzene	17.00	146	27641	0.212	ppbv #	23

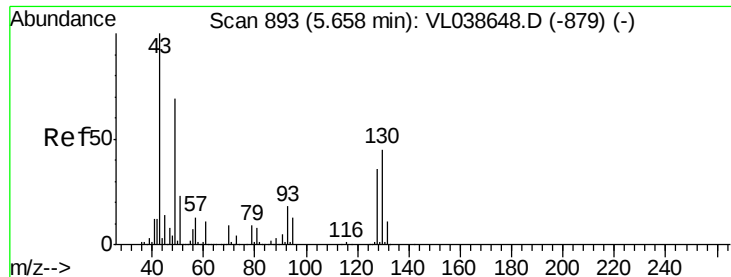
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Mar 2022 5:48

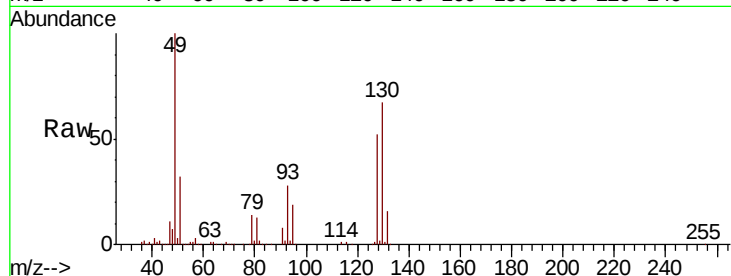
Tot Ion: 49 Resp: 737051

Ion Ratio Lower Upper

49 100

128 56.4 26.2 78.6

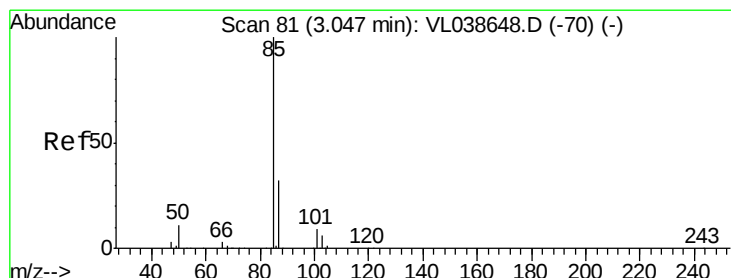
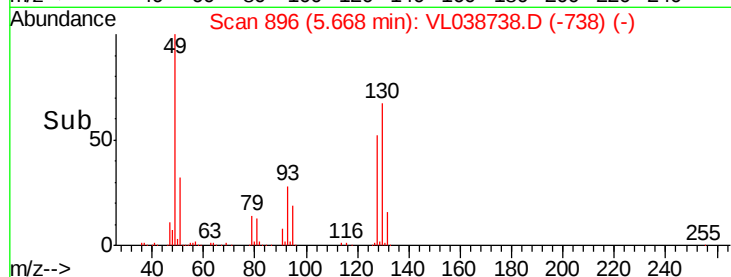
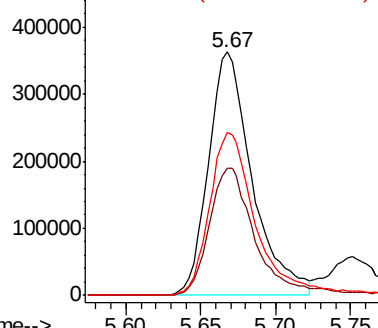
130 73.5 33.7 101.1



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



#2

Dichlorodifluoromethane

Concen: 0.289 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.01 min

Lab File: VL038738.D

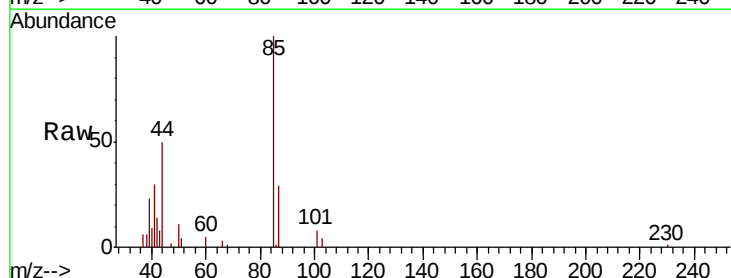
Acq: 24 Mar 2022 5:48

Tgt Ion: 85 Resp: 28652

Ion Ratio Lower Upper

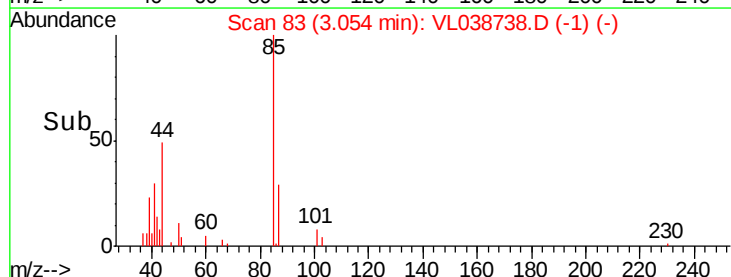
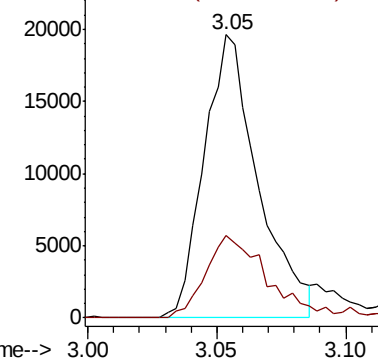
85 100

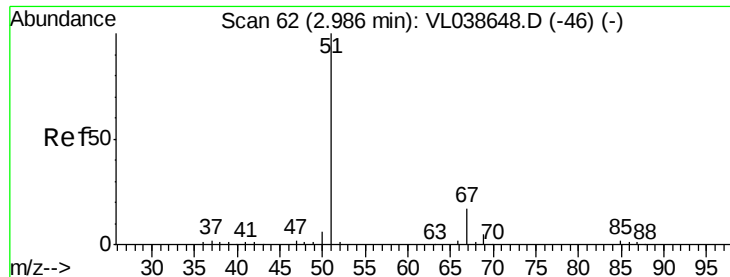
87 29.2 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

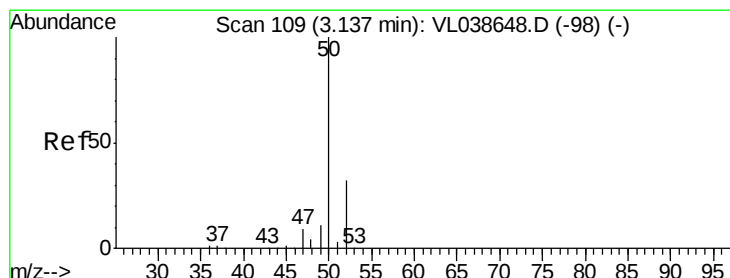
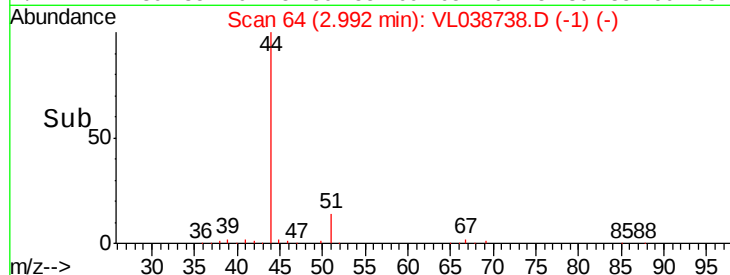
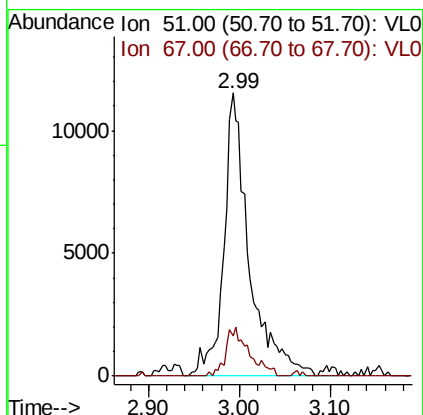
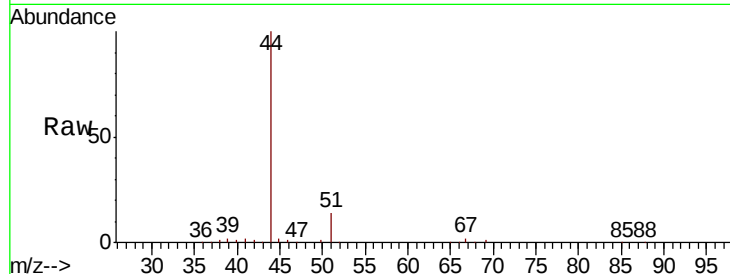
Ion 87.00 (86.70 to 87.70): VL0





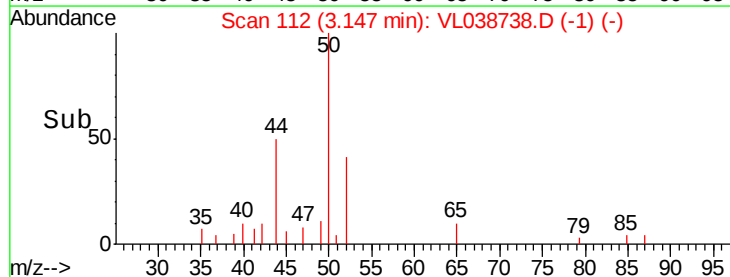
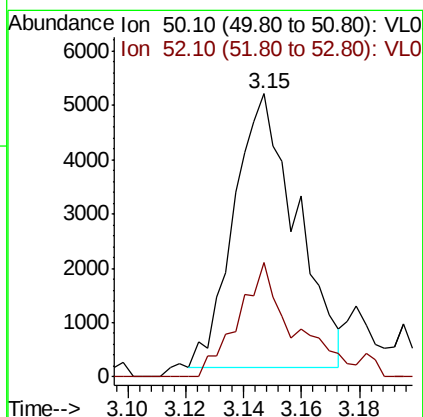
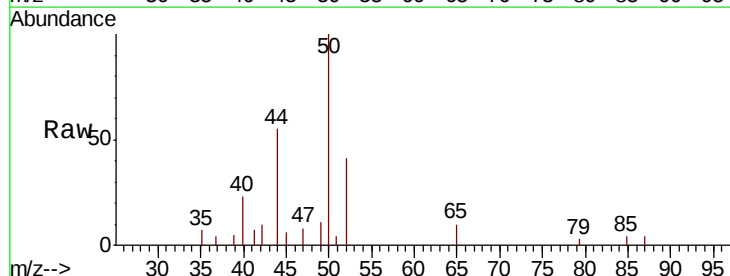
#3
 Chlorodifluoromethane
 Concen: 0.292 ppbv
 RT: 2.99 Instrument : MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 24 Mar 2022 3:48

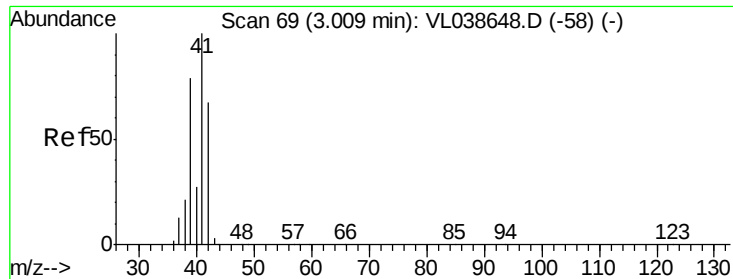
Tot Ion: 51 Resp: 22707
 Ion Ratio Lower Upper
 51 100
 67 15.5 14.1 21.1



#4
 Chloromethane
 Concen: 0.176 ppbv
 RT: 3.15 min Scan# 112
 Delta R.T. 0.01 min
 Lab File: VL038738.D
 Acq: 24 Mar 2022 5:48

Tgt Ion: 50 Resp: 7528
 Ion Ratio Lower Upper
 50 100
 52 40.4 25.5 38.3#





#9

Propene

Concen: 2.099 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

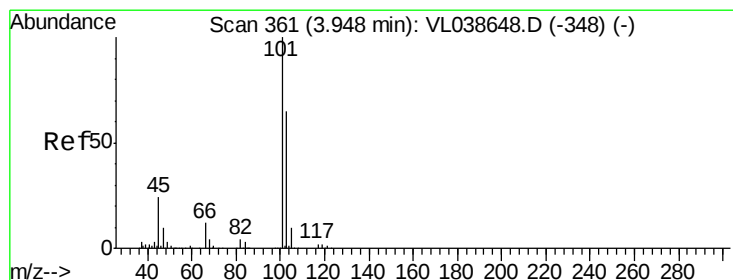
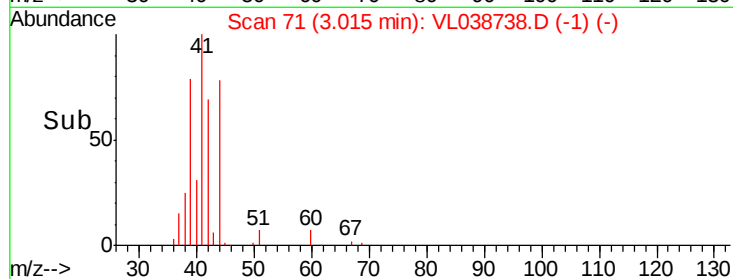
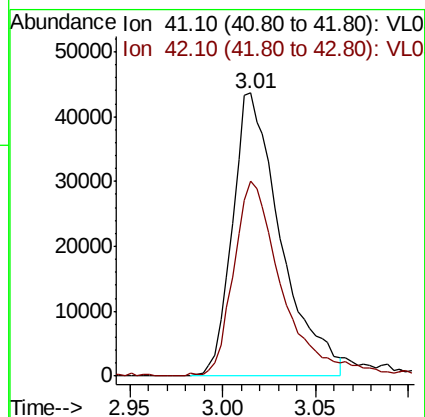
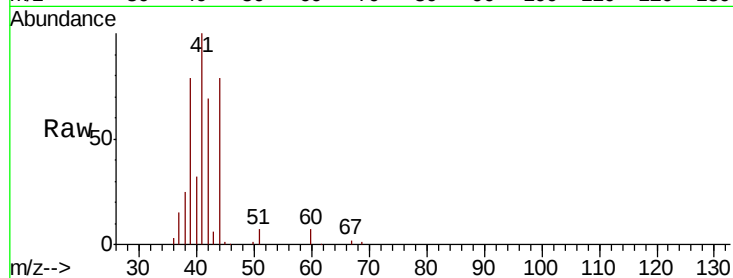
Acq: 24 Mar 2022 3:48

Tot Ion: 41 Resp: 78892

Ion Ratio Lower Upper

41 100

42 70.9 56.2 84.4



#11

Trichlorofluoromethane

Concen: 0.278 ppbv

RT: 3.95 min Scan# 363

Delta R.T. 0.01 min

Lab File: VL038738.D

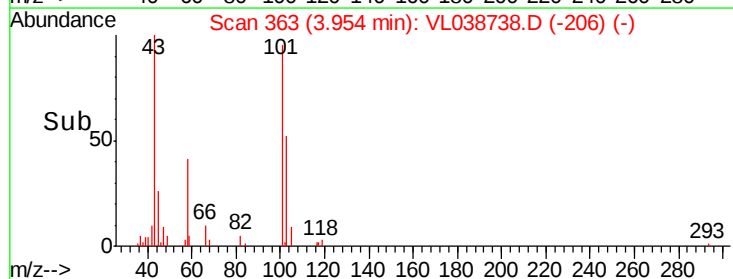
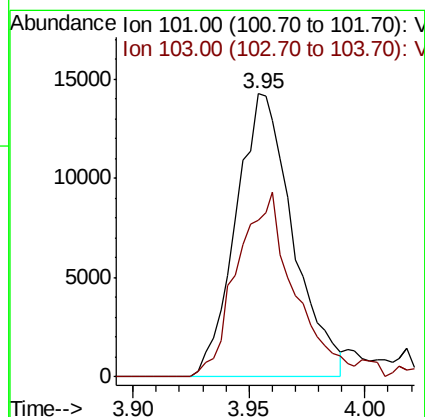
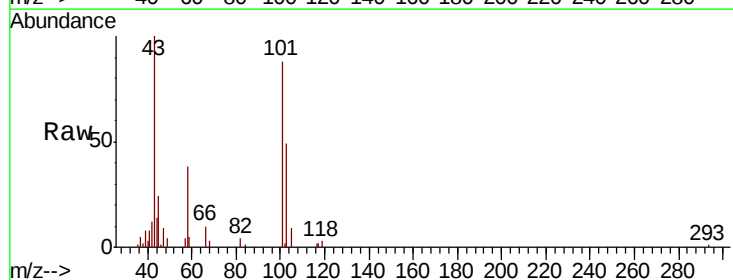
Acq: 24 Mar 2022 5:48

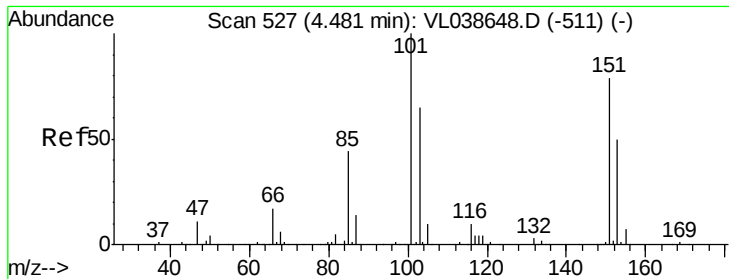
Tgt Ion: 101 Resp: 24341

Ion Ratio Lower Upper

101 100

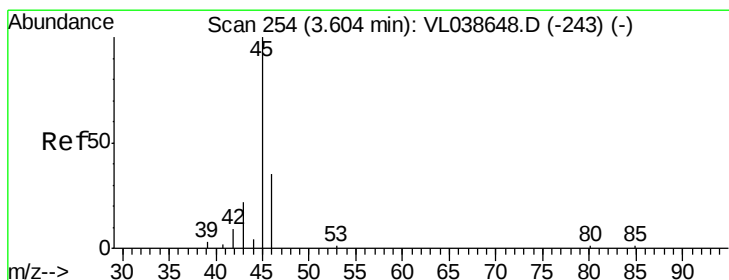
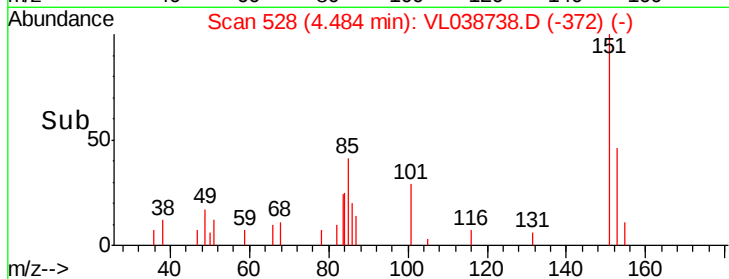
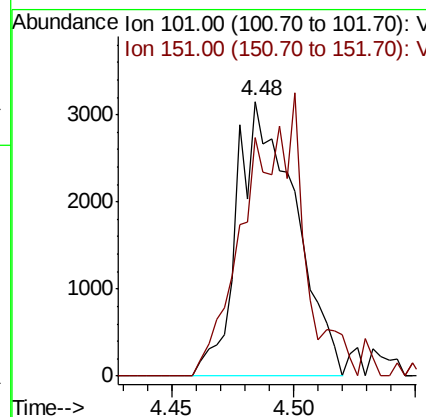
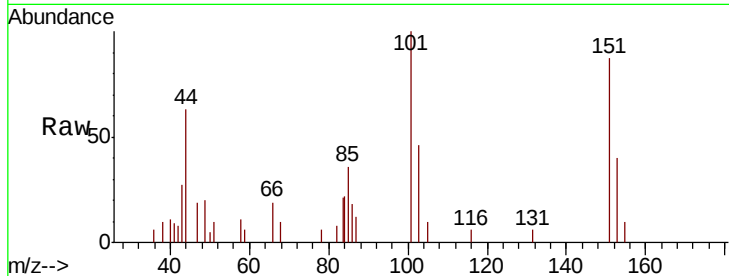
103 55.3 51.9 77.9





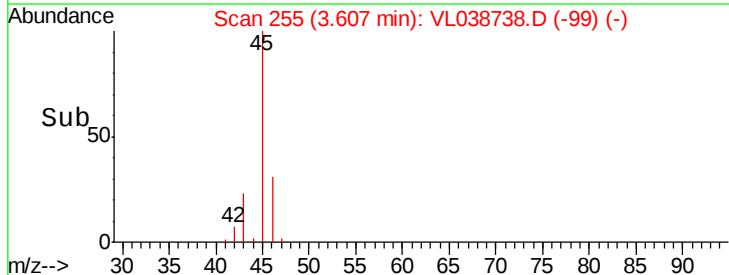
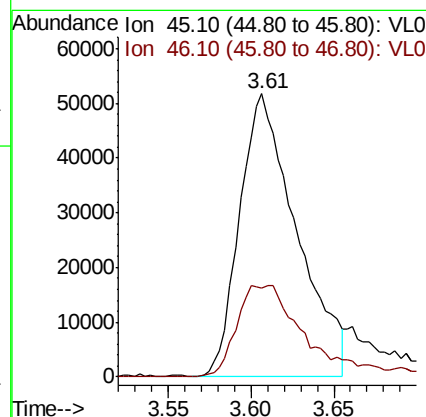
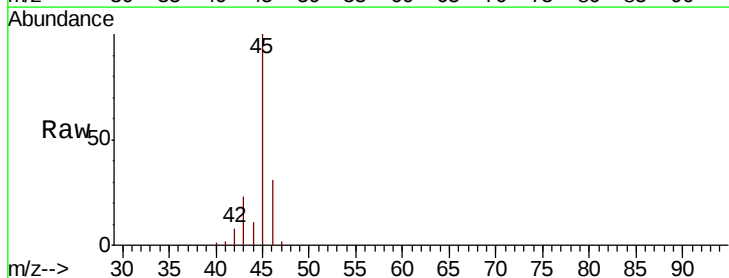
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.078 ppbv
 RT: 4.48
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 24 Mar 2022 5:48

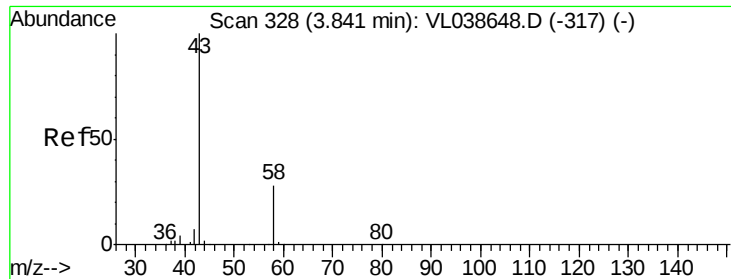
Tot Ion: 101 Resp: 5223
 Ion Ratio Lower Upper
 101 100
 151 105.0 62.9 94.3#



#13
 Ethanol
 Concen: 29.803 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. 0.00 min
 Lab File: VL038738.D
 Acq: 24 Mar 2022 5:48

Tgt Ion: 45 Resp: 123552
 Ion Ratio Lower Upper
 45 100
 46 40.7 15.1 60.5





#15

Acetone

Concen: 27.193 ppbv

RT: 3.85 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

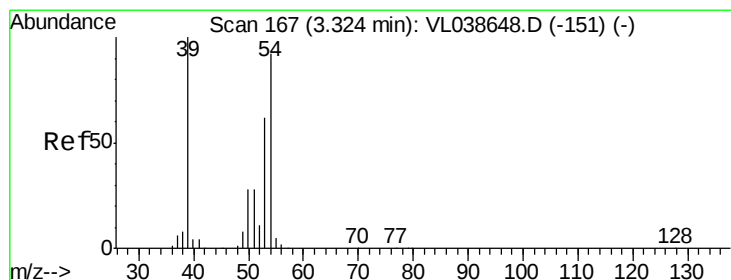
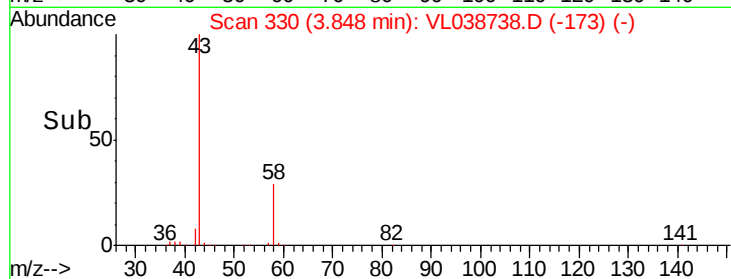
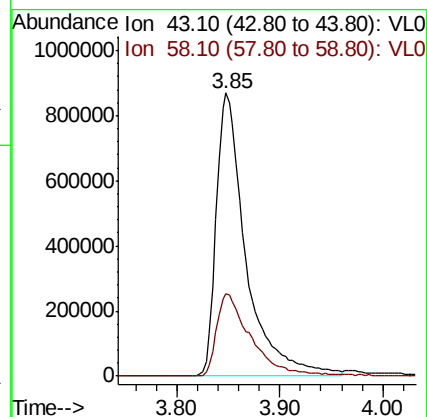
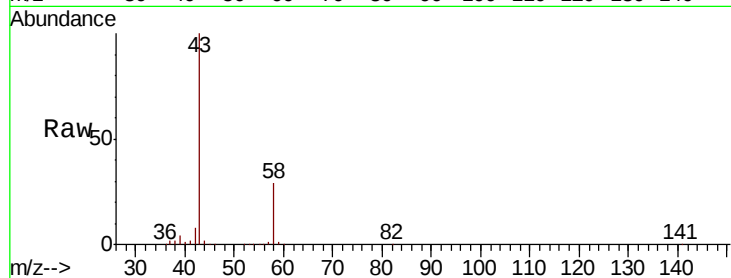
Acq: 24 Mar 2022 3:48

Tot Ion: 43 Resp: 1729434

Ion Ratio Lower Upper

43 100

58 34.7 23.3 34.9



#16

1,3-Butadiene

Concen: 5.229 ppbv

RT: 3.31 min Scan# 164

Delta R.T. -0.01 min

Lab File: VL038738.D

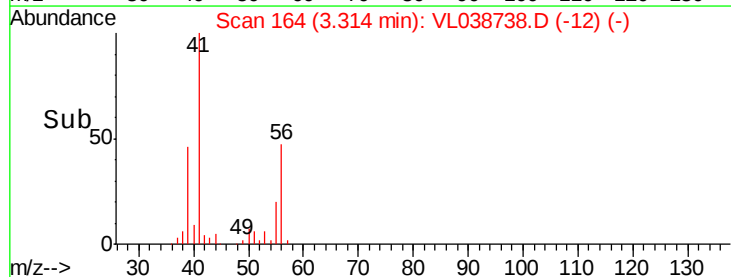
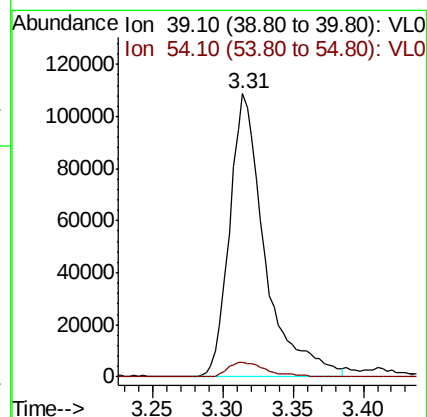
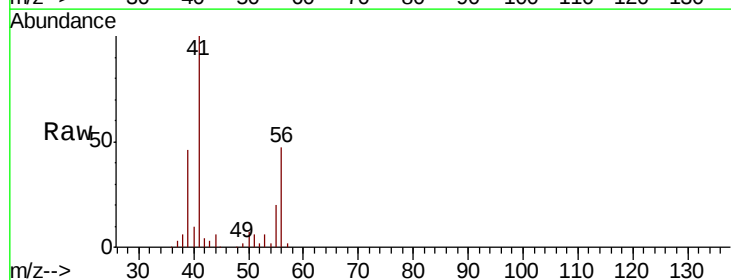
Acq: 24 Mar 2022 5:48

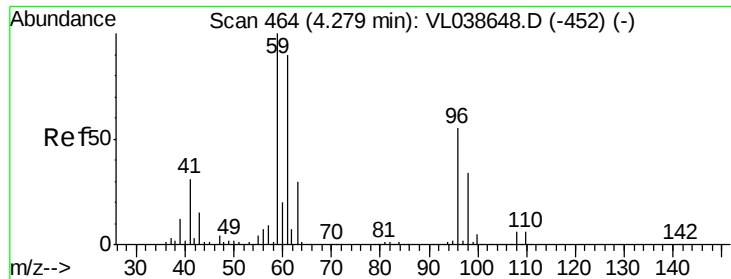
Tgt Ion: 39 Resp: 188719

Ion Ratio Lower Upper

39 100

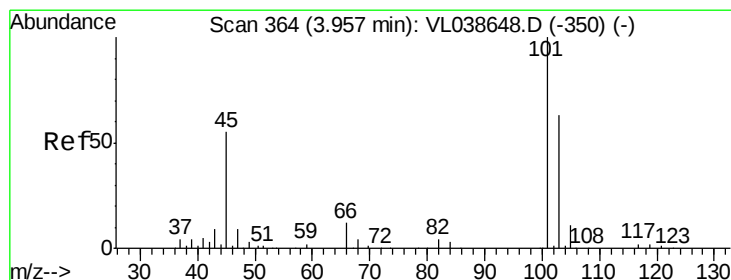
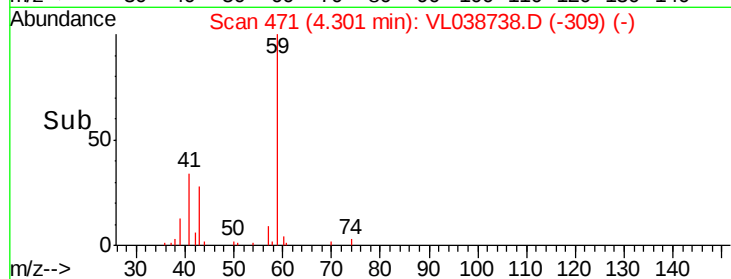
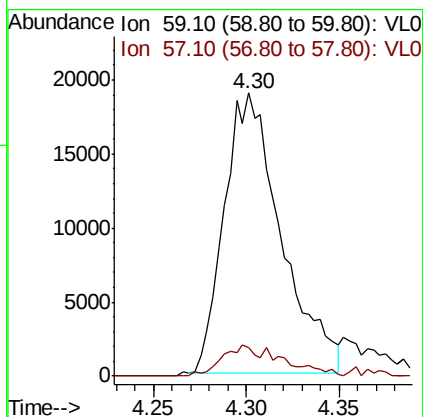
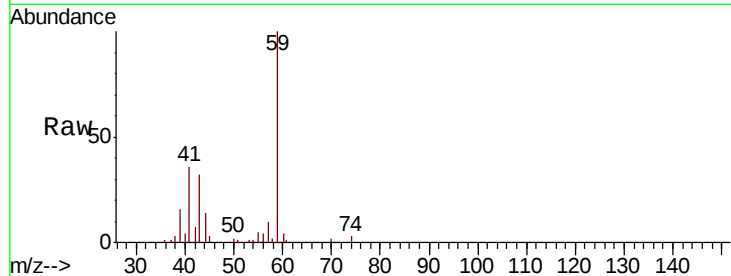
54 6.1 69.1 103.7#





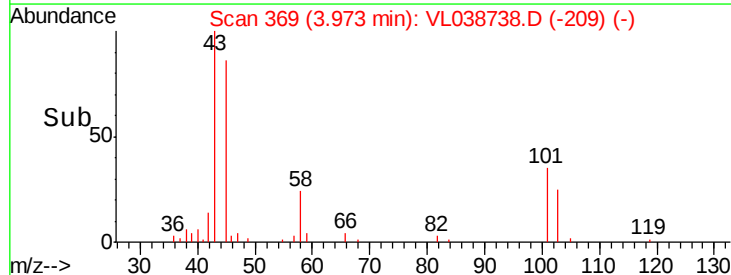
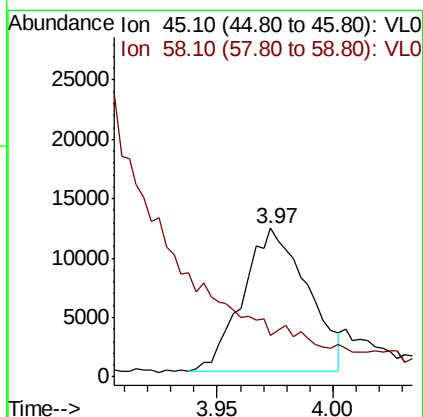
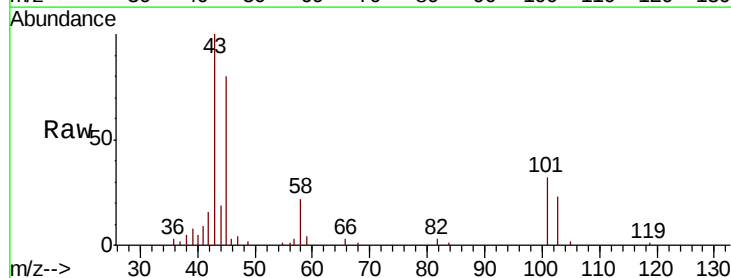
#17
 tert-Butyl alcohol
 Concen: 0.731 ppbv
 RT: 4.30
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 24 Mar 2022 5:48

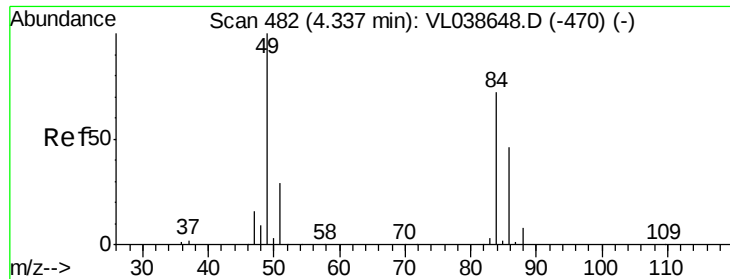
Tot Ion: 59 Resp: 40594
 Ion Ratio Lower Upper
 59 100
 57 12.9 8.2 12.2#



#19
 Isopropyl Alcohol
 Concen: 0.661 ppbv
 RT: 3.97 min Scan# 369
 Delta R.T. 0.02 min
 Lab File: VL038738.D
 Acq: 24 Mar 2022 5:48

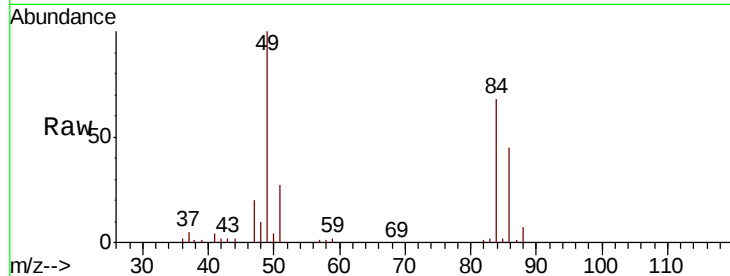
Tgt Ion: 45 Resp: 23298
 Ion Ratio Lower Upper
 45 100
 58 2575.7 2.3 3.5#





#20
Methvlene Chloride
Concen: 4.622 ppbv
RT: 4.35 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 24 Mar 2022 5:48

Tot Ion:	84	Resp:	123817
Ion	Ratio	Lower	Upper
84	100		
49	146.4	111.2	166.8
51	39.2	32.8	49.2
86	65.7	51.4	77.0



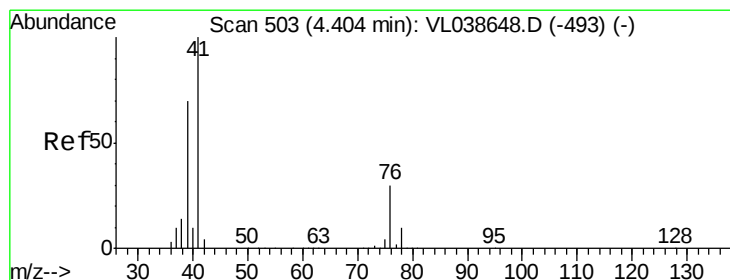
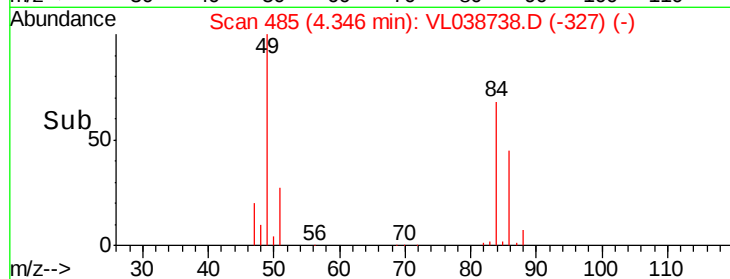
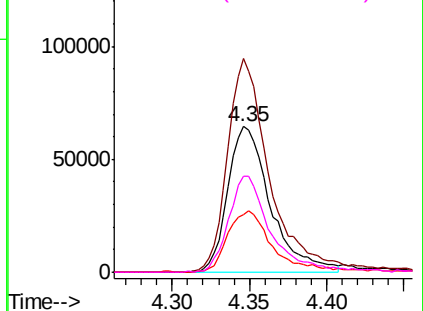
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

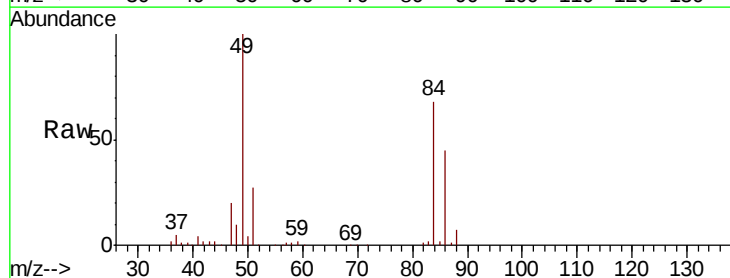
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.116 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.06 min
Lab File: VL038738.D
Acq: 24 Mar 2022 5:48

Tgt Ion:	41	Resp:	5311
Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.0	37.6#
39	0.0	56.6	85.0#

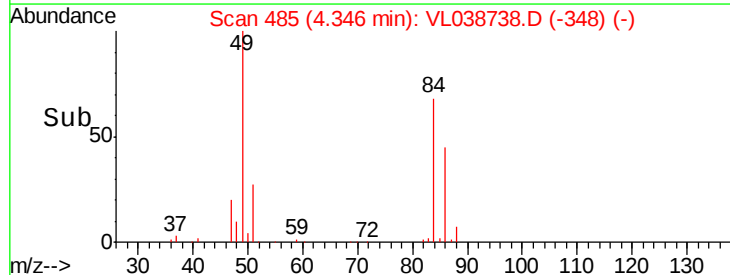
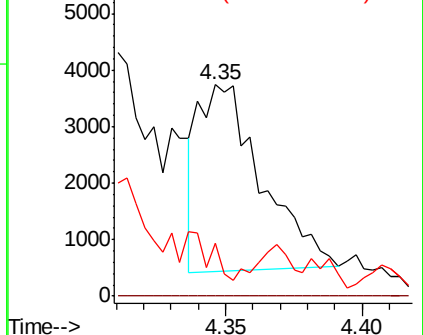


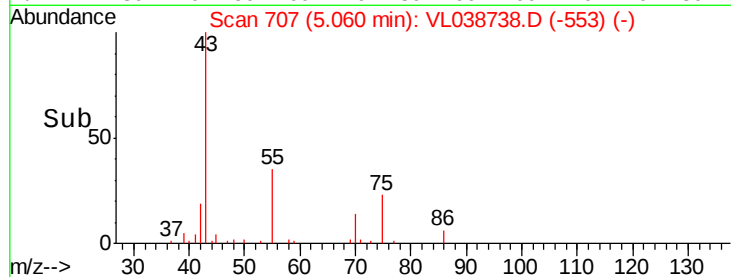
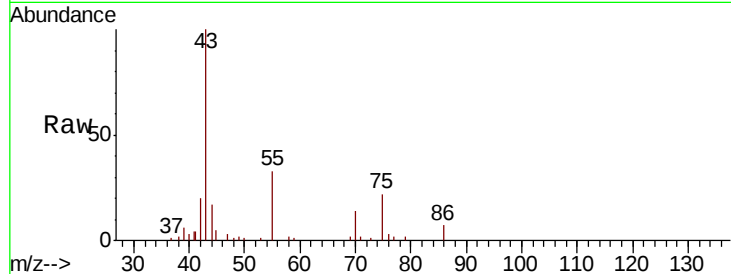
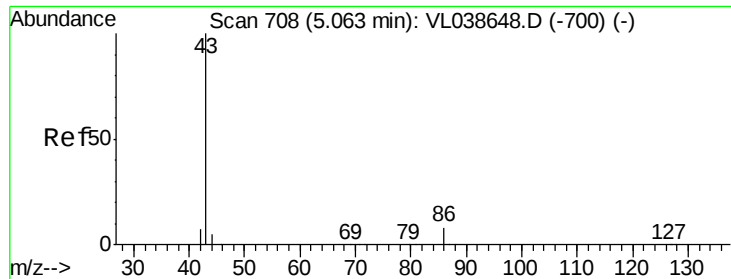
Abundance

Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.294 ppbv

RT: 5.06 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Mar 2022 5:48

Tot Ion: 43 Resp: 18075

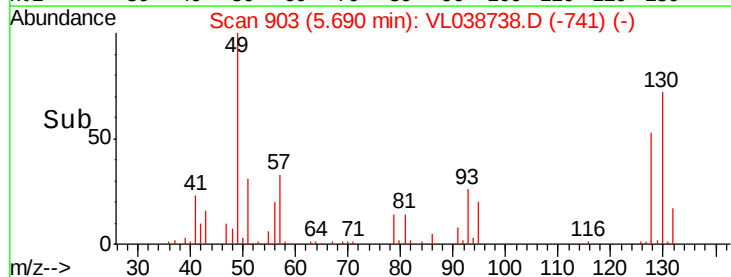
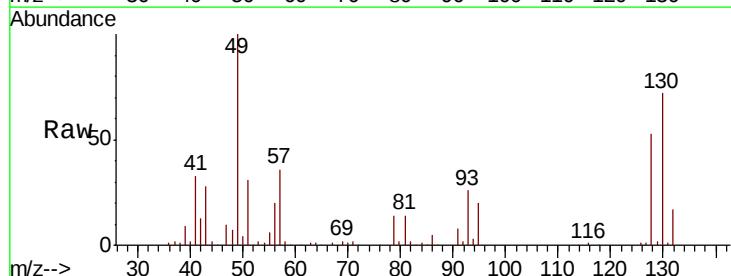
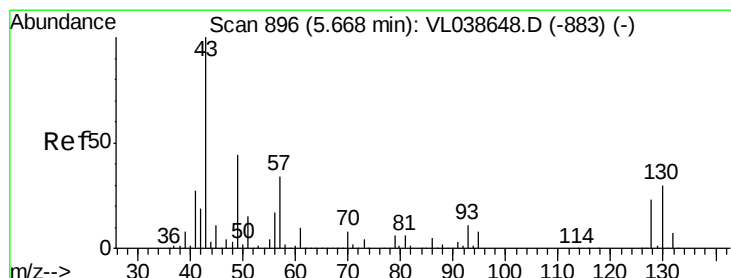
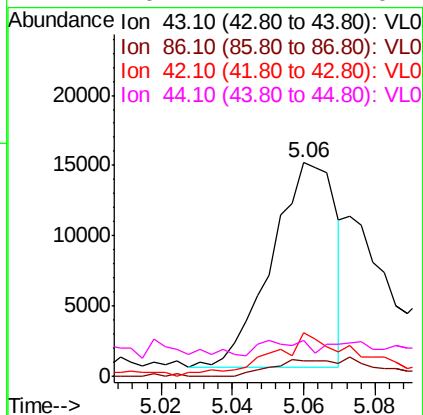
Ion Ratio Lower Upper

43 100

86 7.4 5.6 8.4

42 19.6 6.8 10.2#

44 6.7 4.2 6.2#



#25

Ethyl Acetate

Concen: 0.352 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.02 min

Lab File: VL038738.D

Acq: 24 Mar 2022 5:48

Tgt Ion: 43 Resp: 56326

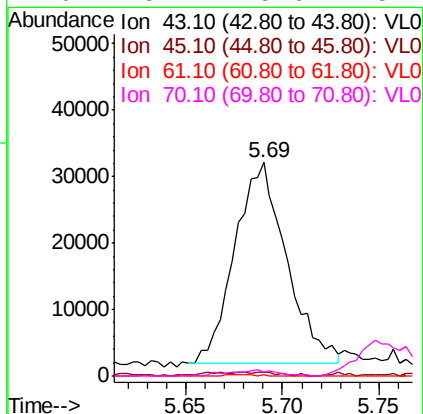
Ion Ratio Lower Upper

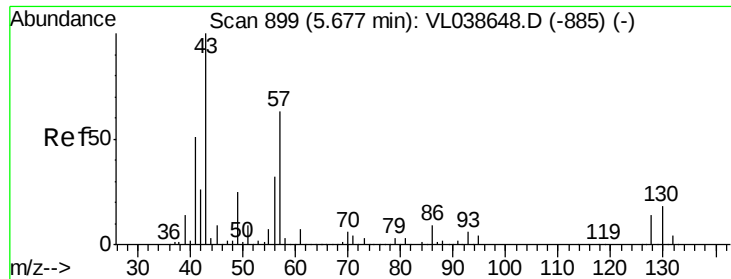
43 100

45 2.6 8.2 12.4#

61 0.5 8.3 12.5#

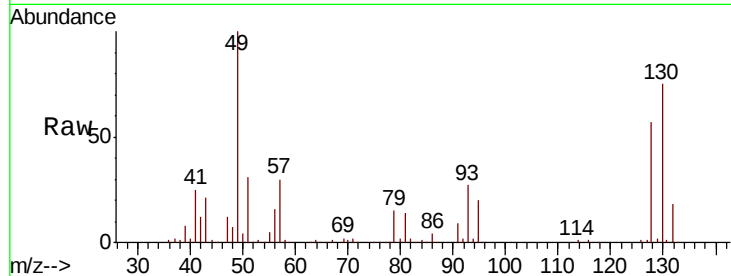
70 3.1 5.6 8.4#





#26
Hexane
Concen: 1.129 ppbv
RT: 5.69
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 24 Mar 2022 5:48

Tot Ion	57	Resp	80910
Ion Ratio	Lower	Upper	
57	100		
41	105.0	67.0	100.4#
43	82.2	184.2	276.2#
56	61.5	42.6	64.0



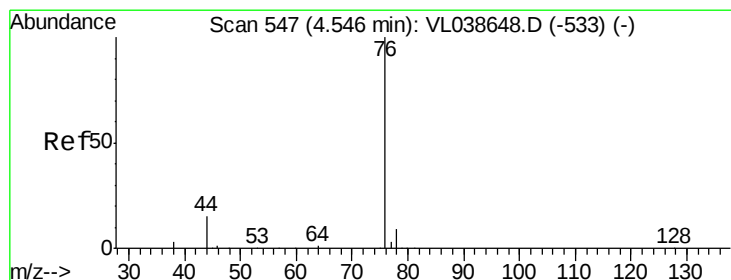
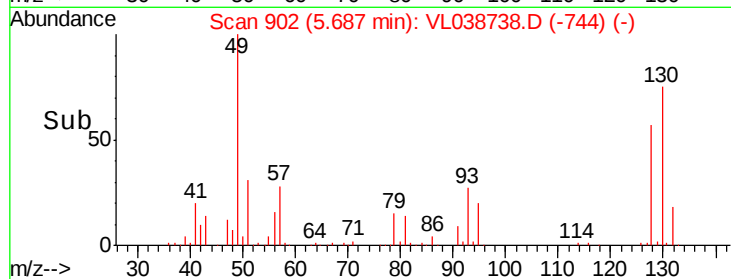
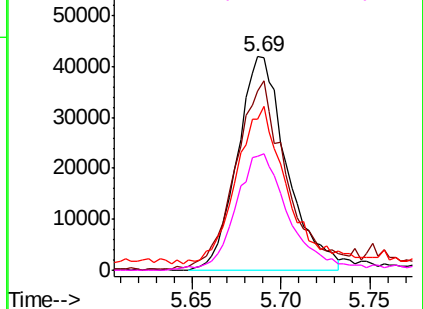
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

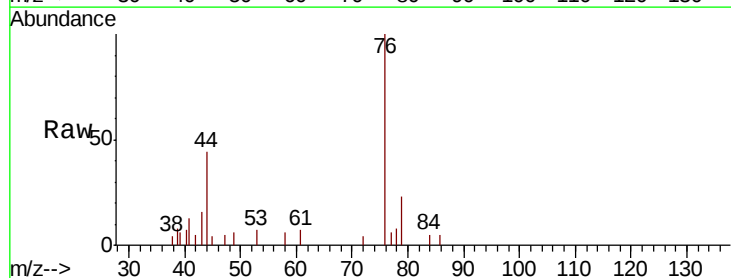
Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27
Carbon Disulfide
Concen: 0.110 ppbv
RT: 4.55 min Scan# 549
Delta R.T.: 0.01 min
Lab File: VL038738.D
Acq: 24 Mar 2022 5:48

Tgt Ion	76	Resp	7717
Ion Ratio	Lower	Upper	
76	100		
44	24.3	12.4	18.6#
78	15.6	7.8	11.8#

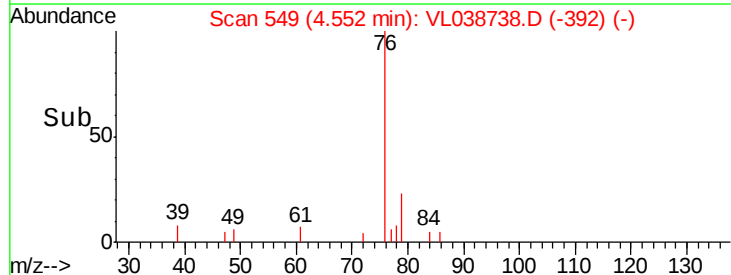
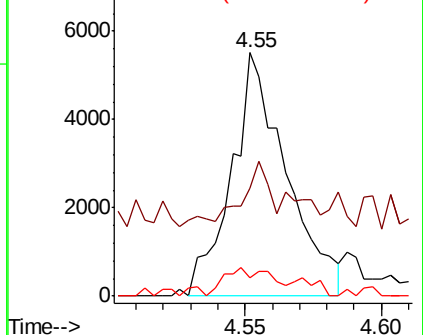


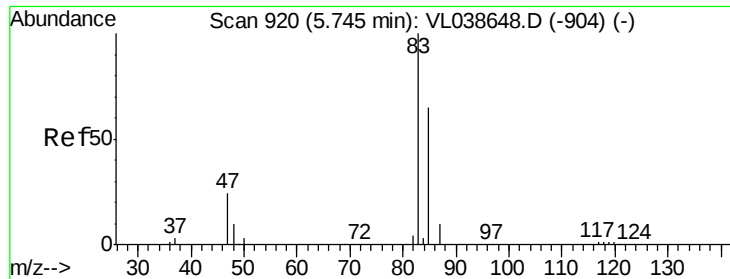
Abundance

Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

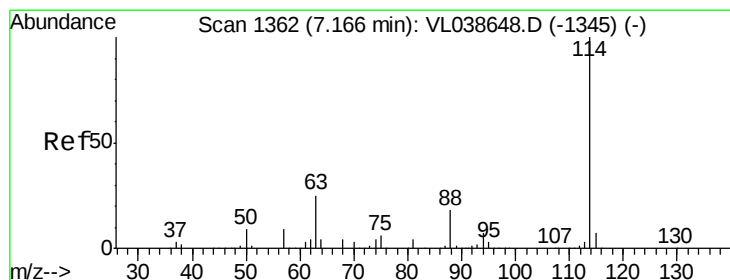
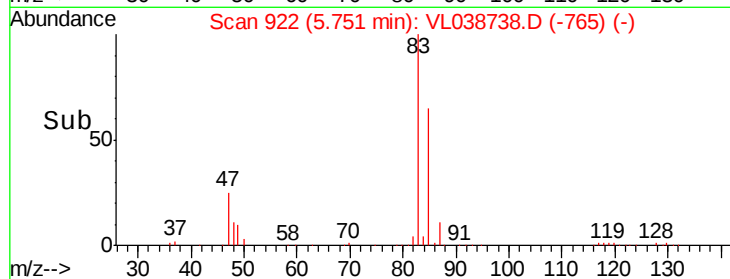
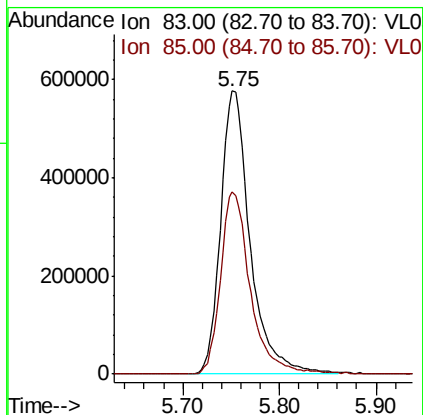
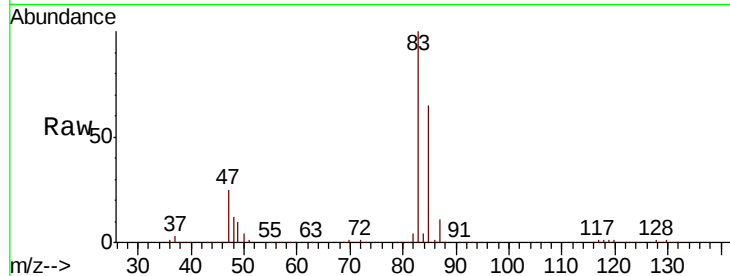
Ion 78.00 (77.70 to 78.70): VL0





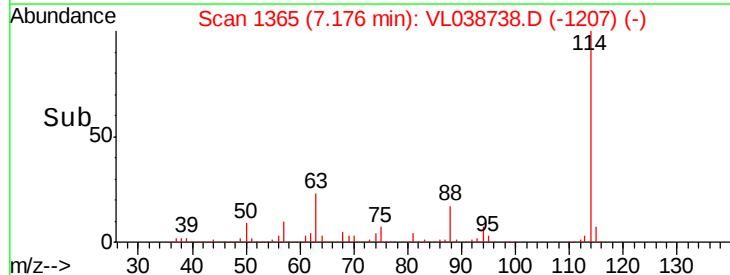
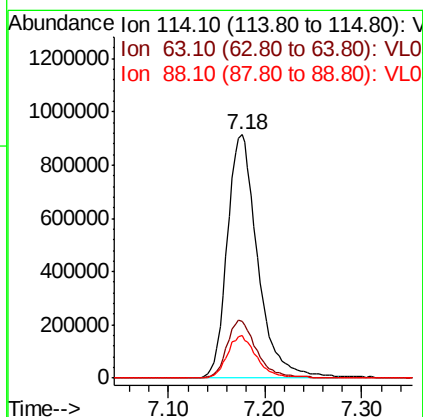
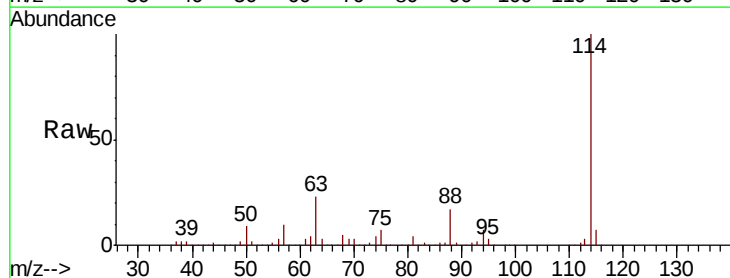
#29
 Chloroform
 Concen: 10.669 ppbv
 RT: 5.75 Instrument :
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 24 Mar 2022 5:48

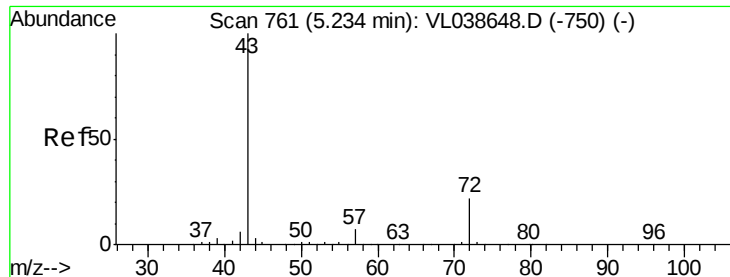
Tot Ion: 83 Resp: 1224412
 Ion Ratio Lower Upper
 83 100
 85 64.5 51.7 77.5



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. 0.01 min
 Lab File: VL038738.D
 Acq: 24 Mar 2022 5:48

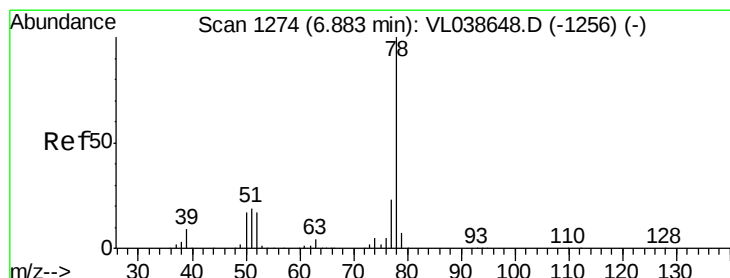
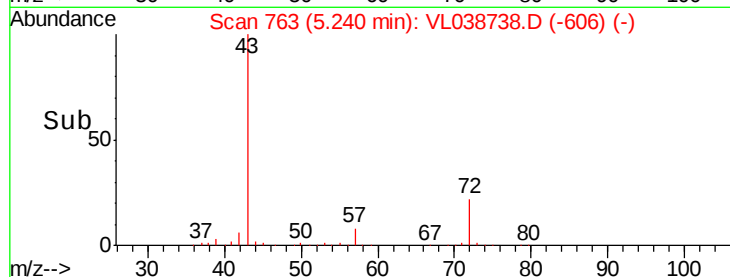
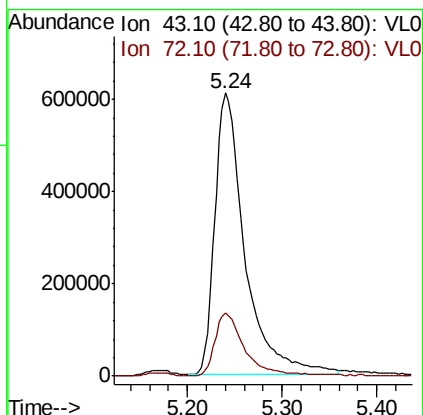
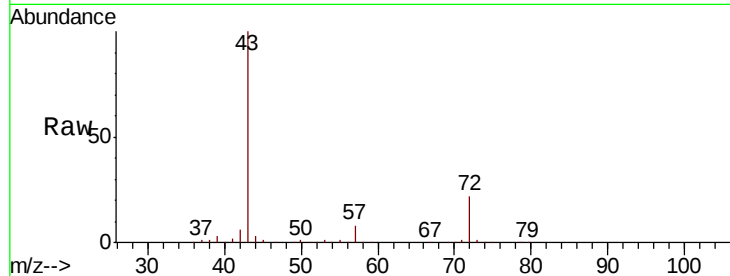
Tgt Ion: 114 Resp: 2002445
 Ion Ratio Lower Upper
 114 100
 63 23.5 19.4 29.0
 88 17.1 13.9 20.9





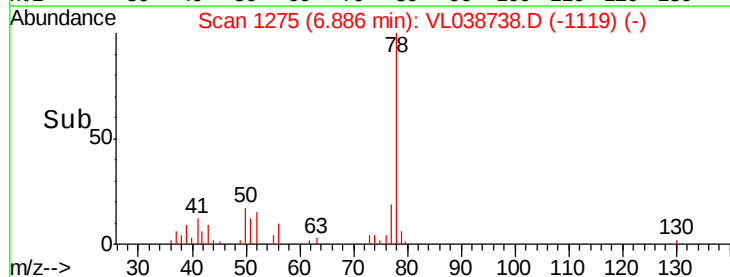
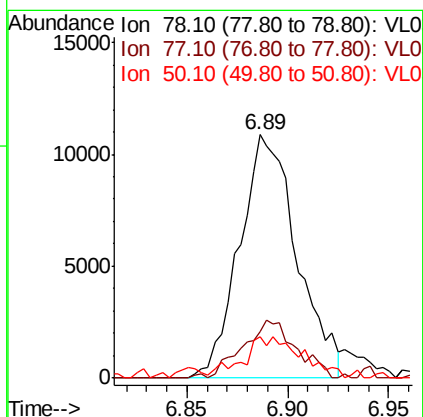
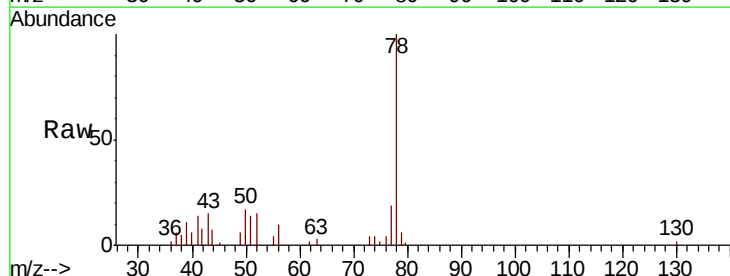
#34
 2-Butanone
 Concen: 17.139 ppbv
 RT: 5.24
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 24 Mar 2022 5:48

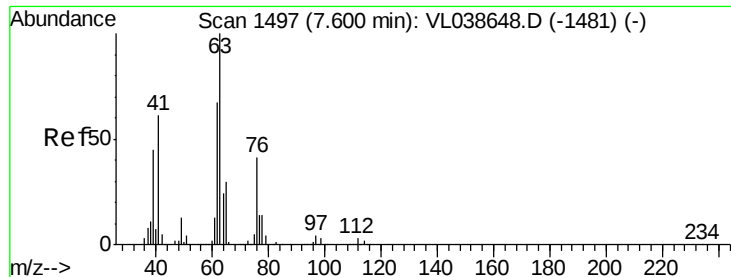
Tot Ion: 43 Resp: 1358359
 Ion Ratio Lower Upper
 43 100
 72 22.6 17.8 26.8



#36
 Benzene
 Concen: 0.140 ppbv
 RT: 6.89 min Scan# 1275
 Delta R.T. 0.00 min
 Lab File: VL038738.D
 Acq: 24 Mar 2022 5:48

Tgt Ion: 78 Resp: 21609
 Ion Ratio Lower Upper
 78 100
 77 19.1 18.1 27.1
 50 12.8 13.6 20.4#





#39

1,2-Dichloropropane

Concen: 7.583 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Mar 2022 5:48

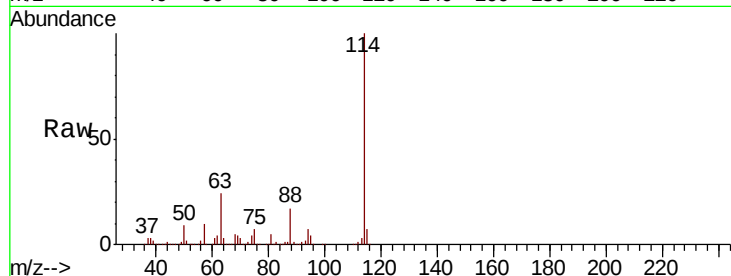
Tot Ion: 63 Resp: 458118

Ion Ratio Lower Upper

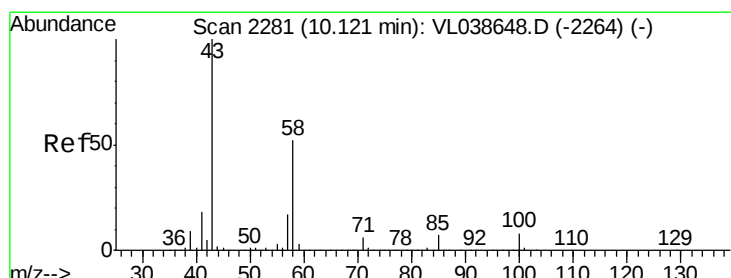
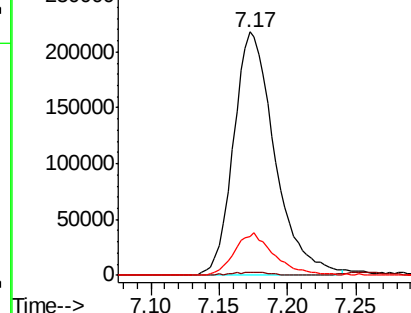
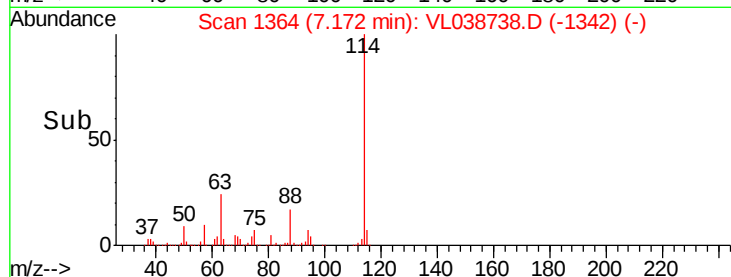
63 100

41 0.8 49.0 73.6#

62 16.1 53.9 80.9#



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



#51

2-Hexanone

Concen: 1.197 ppbv

RT: 10.14 min Scan# 2287

Delta R.T. 0.02 min

Lab File: VL038738.D

Acq: 24 Mar 2022 5:48

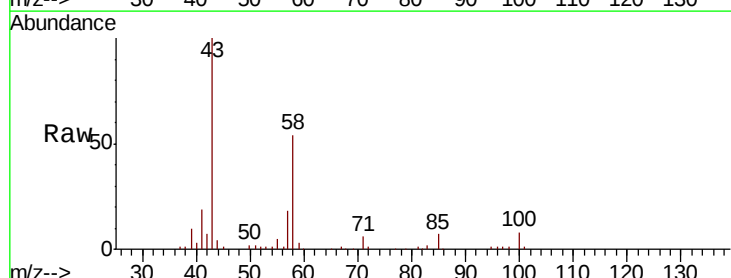
Tgt Ion: 43 Resp: 126652

Ion Ratio Lower Upper

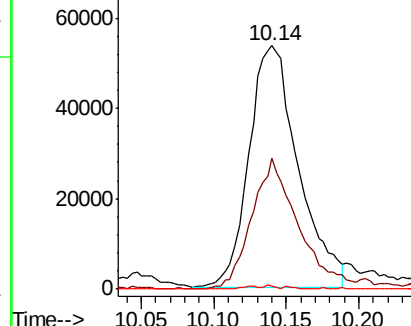
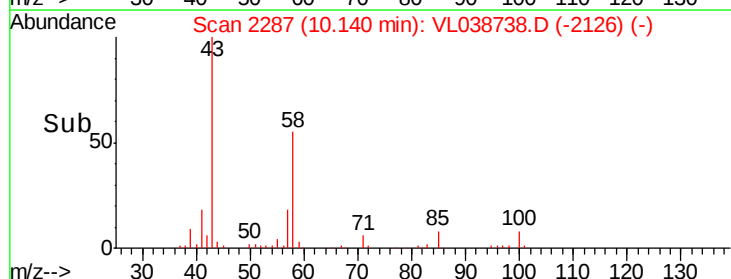
43 100

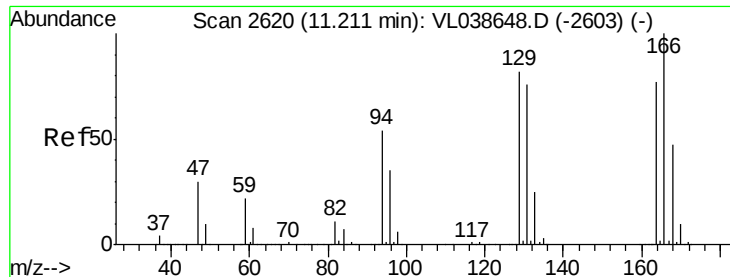
58 54.8 41.2 61.8

98 1.1 0.2 0.4#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0
Ion 98.20 (97.90 to 98.90): VL0





#52

Tetrachloroethene

Concen: 1.507 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File:

Acq: 24 Mar 2022 5:48

Tot Ion: 164 Resp: 85207

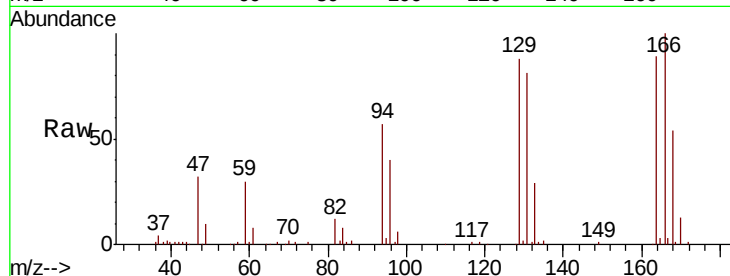
Ion Ratio Lower Upper

164 100

166 110.8 103.3 154.9

129 97.9 85.2 127.8

131 89.9 78.3 117.5

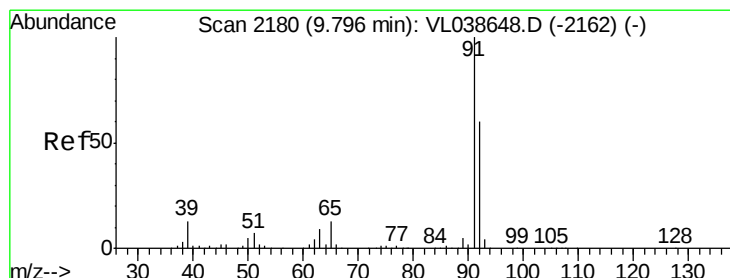
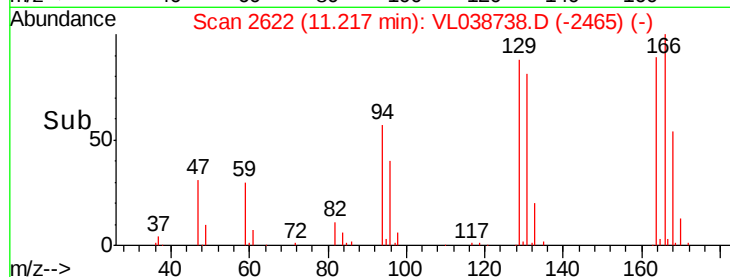
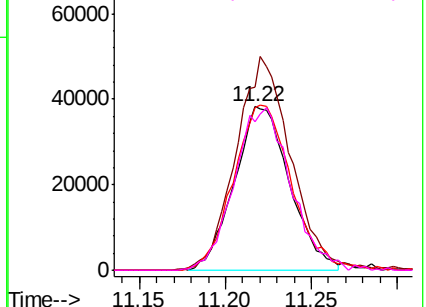


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.316 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. 0.01 min

Lab File: VL038738.D

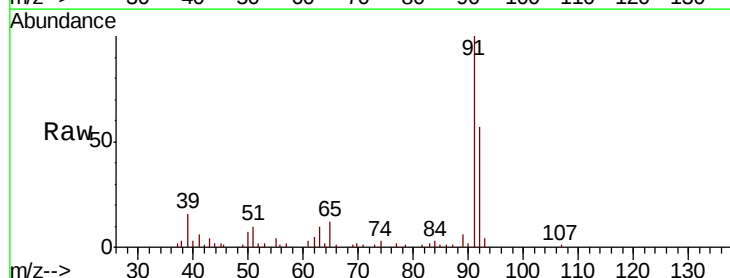
Acq: 24 Mar 2022 5:48

Tgt Ion: 91 Resp: 52395

Ion Ratio Lower Upper

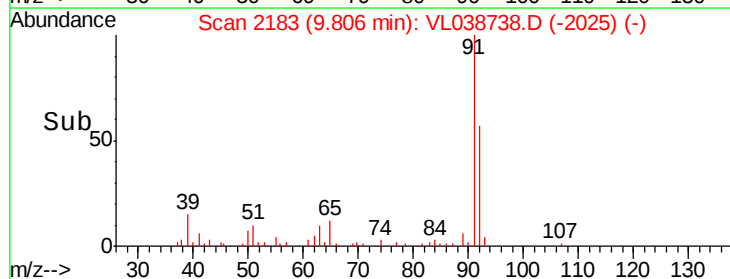
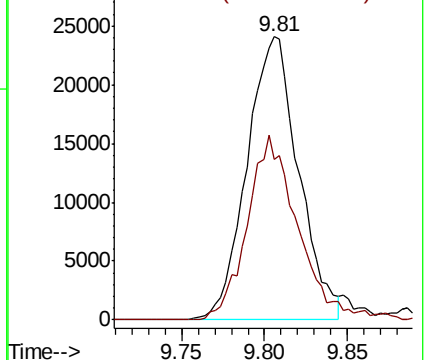
91 100

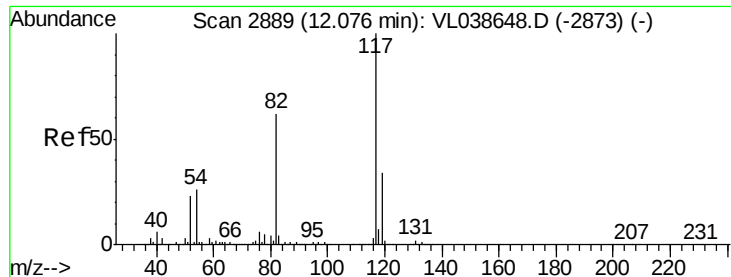
92 63.9 48.7 73.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

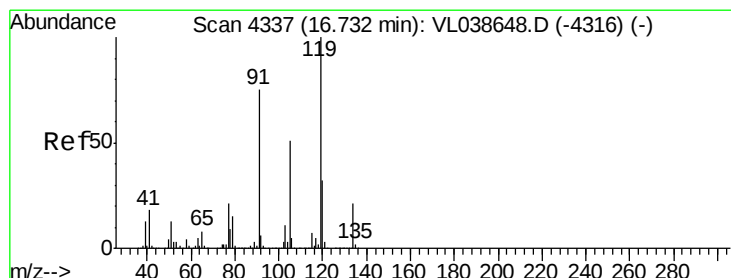
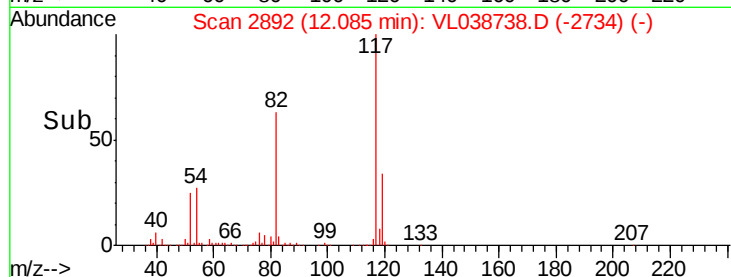
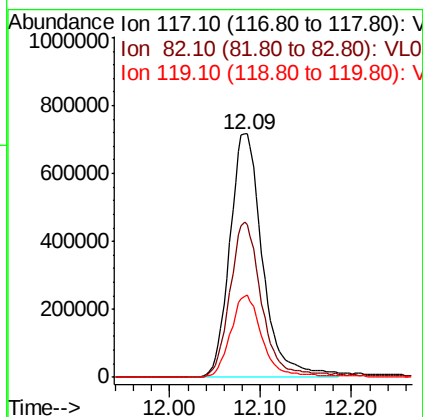
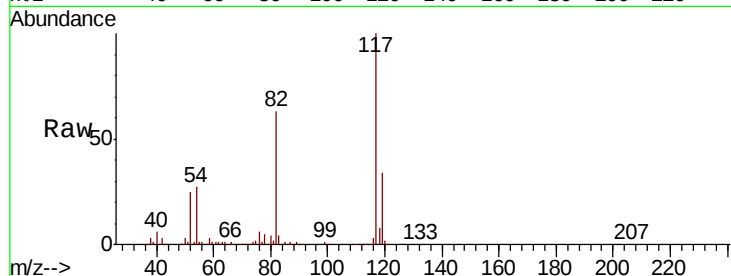




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 24 Mar 2022 5:48

Tot Ion:117 Resp: 1799243

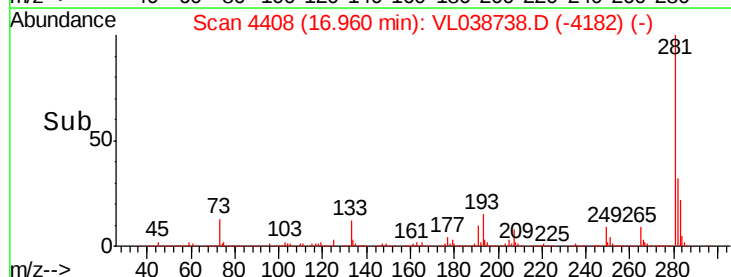
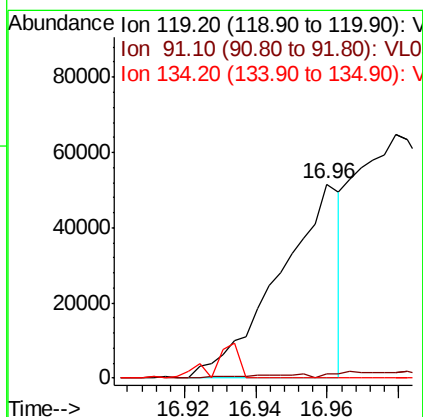
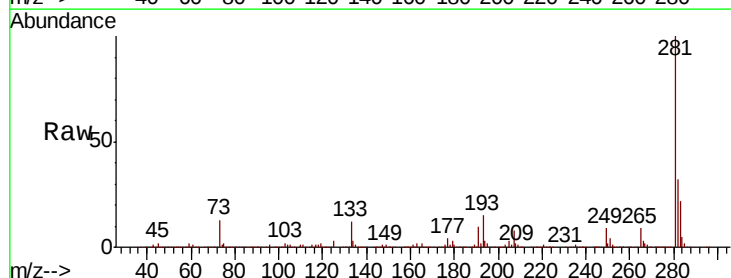
Ion	Ratio	Lower	Upper
117	100		
82	64.1	51.6	77.4
119	33.4	26.9	40.3

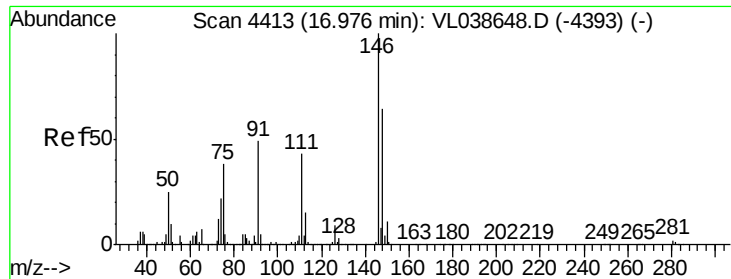


#65
tert-Butylbenzene
Concen: 0.257 ppbv
RT: 16.96 min Scan# 4408
Delta R.T. 0.23 min
Lab File: VL038738.D
Acq: 24 Mar 2022 5:48

Tgt Ion:119 Resp: 60712

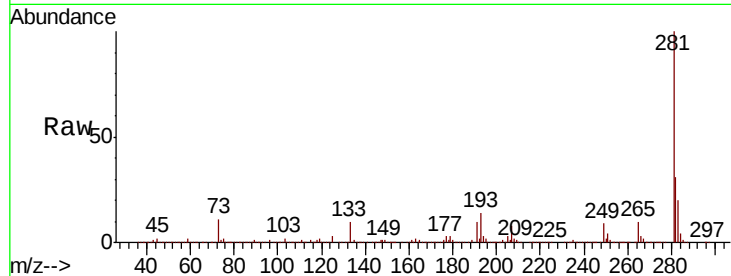
Ion	Ratio	Lower	Upper
119	100		
91	0.9	61.2	91.8#
134	7.5	16.3	24.5#





#66
Benzyl Chloride
Concen: 0.034 ppbv
RT: 16.99 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 24 Mar 2022 5:48

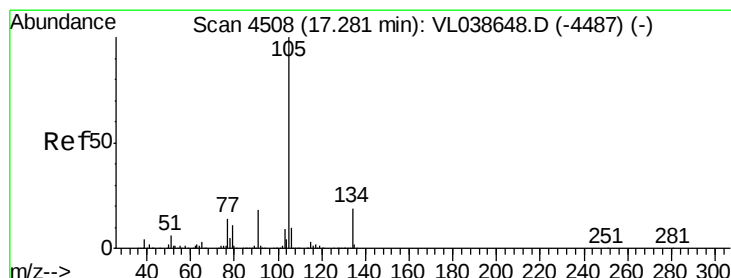
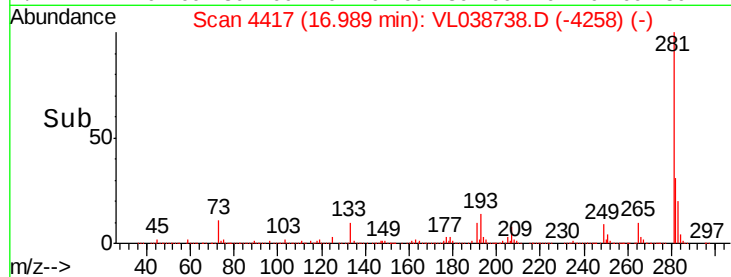
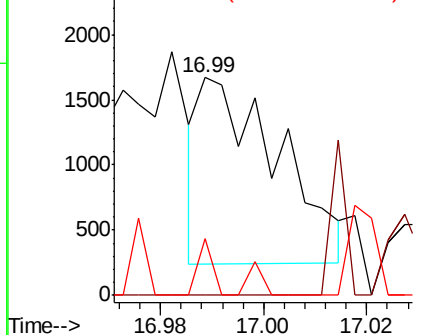
Tot Ion	Ratio	Lower	Upper
91	100		
126	0.0	14.3	21.5#
128	0.0	4.6	6.8#



Abundance Ion 91.10 (90.80 to 91.80): VL038648.D (-4393) (-)

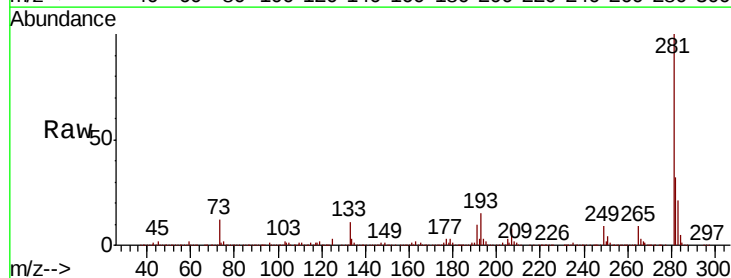
Ion 126.10 (125.80 to 126.80): VL038648.D (-4393) (-)

Ion 128.10 (127.80 to 128.80): VL038648.D (-4393) (-)



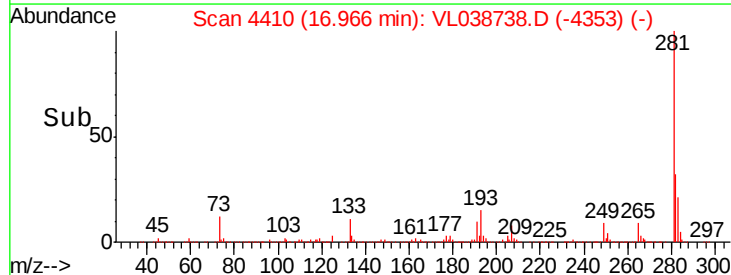
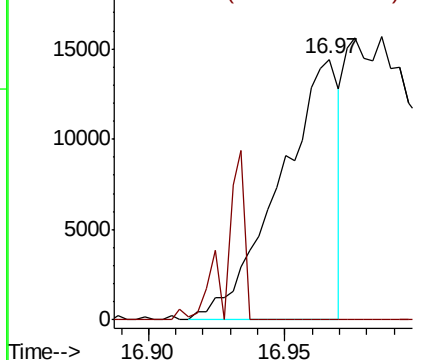
#67
sec-Butylbenzene
Concen: 0.064 ppbv
RT: 16.97 min Scan# 4410
Delta R.T.: -0.32 min
Lab File: VL038738.D
Acq: 24 Mar 2022 5:48

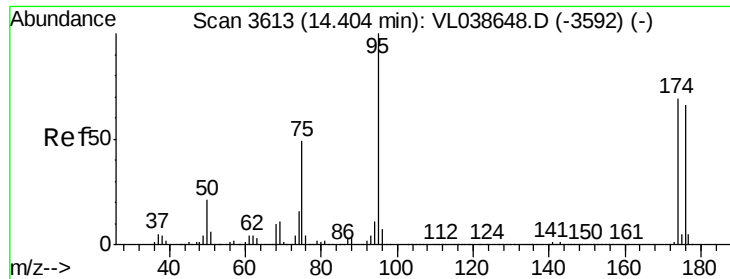
Tgt Ion	Ratio	Lower	Upper
105	100		
134	21.1	15.1	22.7



Abundance Ion 105.10 (104.80 to 105.80): VL038648.D (-4487) (-)

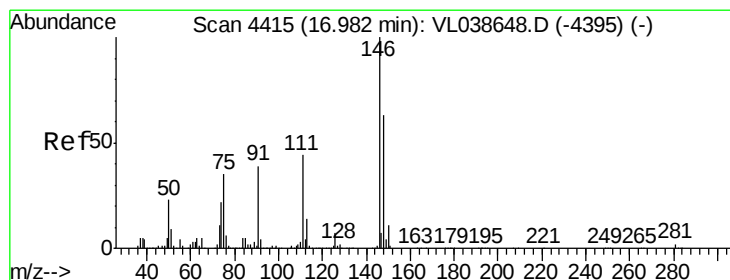
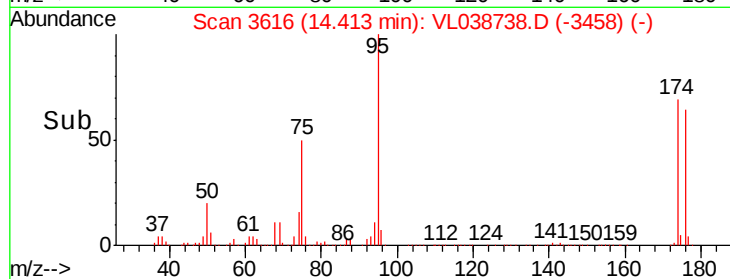
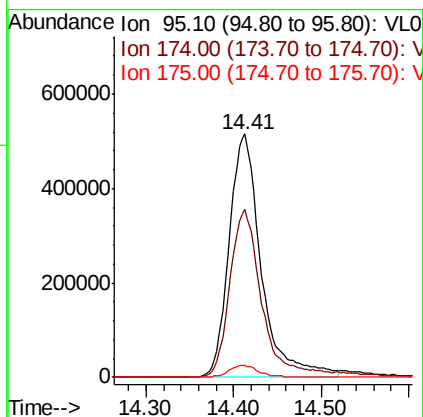
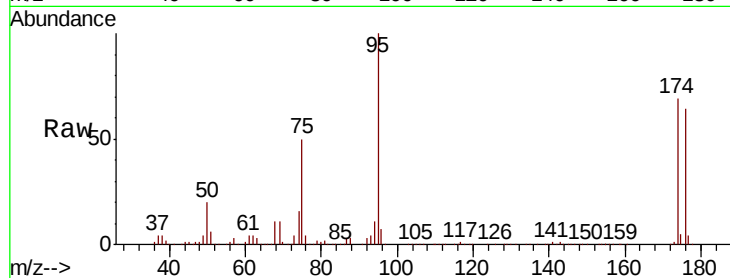
Ion 134.20 (133.90 to 134.90): VL038648.D (-4487) (-)





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.537 ppbv
 RT: 14.41 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 24 Mar 2022 5:48

Tot Ion: 95 Resp: 131577
 Ion Ratio Lower Upper
 95 100
 174 71.2 56.1 84.1
 175 4.9 4.2 6.2



#75
 1,3-Dichlorobenzene
 Concen: 0.212 ppbv
 RT: 17.00 min Scan# 4421
 Delta R.T. 0.02 min
 Lab File: VL038738.D
 Acq: 24 Mar 2022 5:48

Tgt Ion: 146 Resp: 27641
 Ion Ratio Lower Upper
 146 100
 111 0.0 22.2 66.6#
 148 0.0 32.5 97.5#

