

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040722\
 Data File : VL038853.D
 Acq On : 7 Apr 2022 22:48
 Operator : SY/AP
 Sample : N2273-05DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 1160-1-SG-2DL

Quant Time: Apr 11 05:16:47 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL040522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Apr 06 06:12:53 2022
 QLast Update : Wed Apr 06 06:12:53 2022
 Response via : Initial Calibration

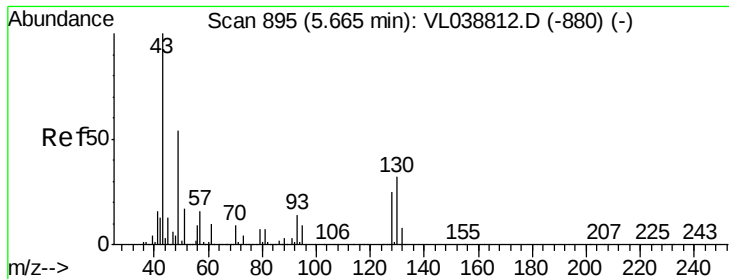
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.70	49	1194603	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.20	114	2997614	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.12	117	2580154	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.45	95	2048238	10.47	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	10304	0.061	ppbv	97
3) Chlorodifluoromethane	3.01	51	7023	0.048	ppbv	100
9) Propene	3.23	41	63760	0.827	ppbv	99
10) Heptane	8.15	43	85746	0.441	ppbv	95
13) Ethanol	3.63	45	132336	28.231	ppbv #	100
15) Acetone	3.87	43	14100864	118.561	ppbv	91
16) 1,3-Butadiene	3.38	39	762692	11.217	ppbv #	11
17) tert-Butyl alcohol	3.91	59	9585	0.090	ppbv #	72
19) Isopropyl Alcohol	3.99	45	104197	1.714	ppbv #	100
20) Methylene Chloride	4.37	84	30145	0.699	ppbv #	85
25) Ethyl Acetate	5.72	43	51445	0.170	ppbv #	95
26) Hexane	5.71	57	52000	0.379	ppbv #	56
30) Cyclohexane	7.16	84	14403	0.119	ppbv #	10
34) 2-Butanone	5.27	43	17329	0.146	ppbv #	46
36) Benzene	6.92	78	27994	0.103	ppbv	99
39) 1,2-Dichloropropane	7.20	63	773501	7.416	ppbv #	27
44) 2,2,4-Trimethylpentane	7.90	57	164158	0.356	ppbv #	79
50) 4-Methyl-2-Pentanone	8.78	43	83351	0.313	ppbv	93
51) 2-Hexanone	9.83	43	1845190	9.191	ppbv #	27
52) Tetrachloroethene	11.26	164	4331	0.045	ppbv #	61
53) Toluene	9.84	91	213842	0.679	ppbv	99
58) Ethyl Benzene	12.74	91	232836	0.604	ppbv	89
59) m/p-Xylene	13.00	91	737116	2.276	ppbv	99
60) o-Xylene	13.72	91	244809	0.808	ppbv	91
71) 2-Chlorotoluene	15.59	91	52543	0.154	ppbv #	42
72) 4-Ethyltoluene	15.87	105	35836	0.099	ppbv #	42
73) 1,3,5-Trimethylbenzene	16.02	105	55512	0.171	ppbv #	85
74) 1,2,4-Trimethylbenzene	16.79	105	137873	0.401	ppbv #	64

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.70 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 7 Apr 2022 22:48

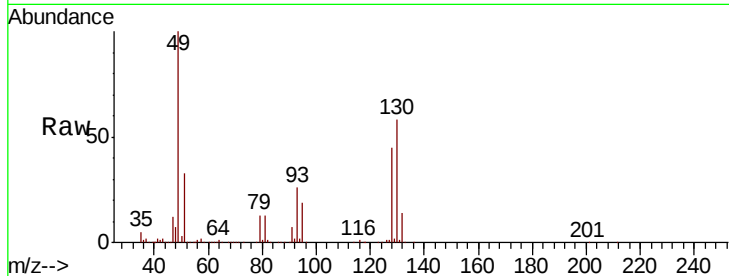
Tot Ion: 49 Resp: 1194603

Ion Ratio Lower Upper

49 100

128 47.0 24.1 72.3

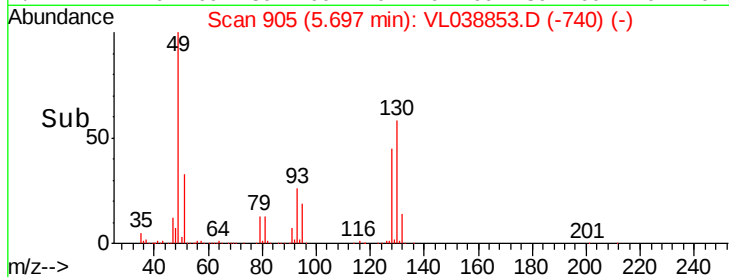
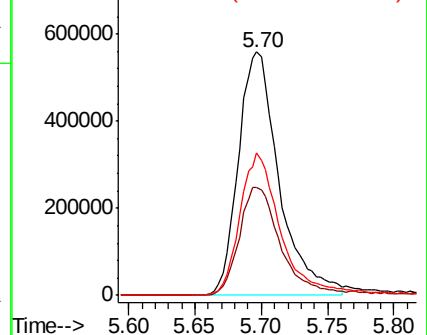
130 59.9 30.9 92.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.061 ppbv

RT: 3.07 min Scan# 89

Delta R.T. 0.02 min

Lab File: VL038853.D

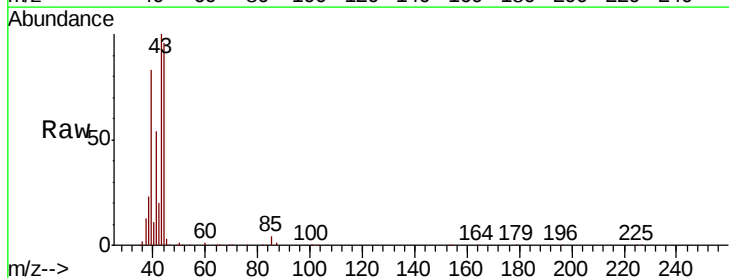
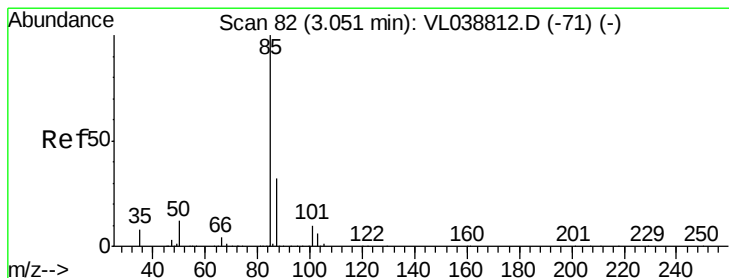
Acq: 7 Apr 2022 22:48

Tgt Ion: 85 Resp: 10304

Ion Ratio Lower Upper

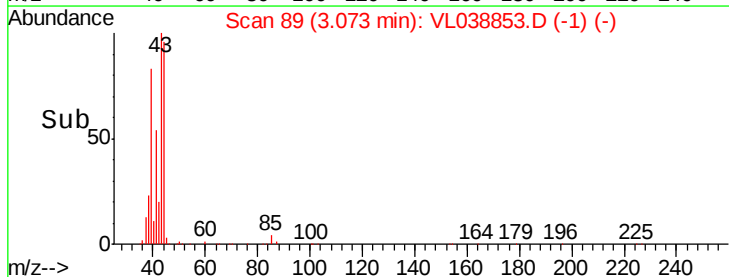
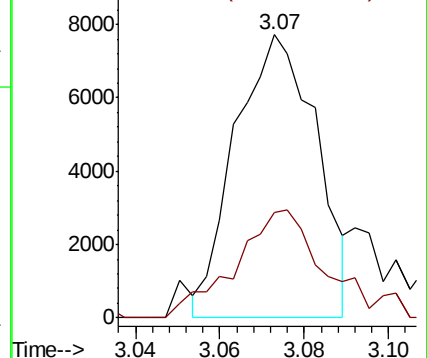
85 100

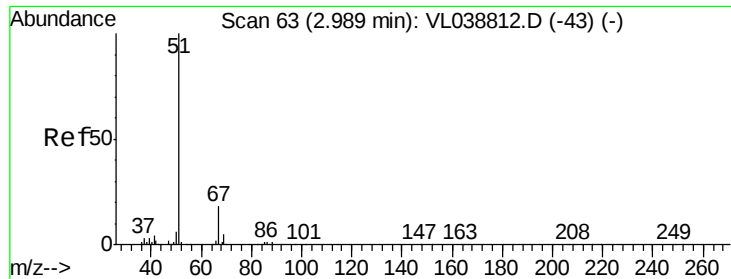
87 30.7 25.9 38.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.048 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

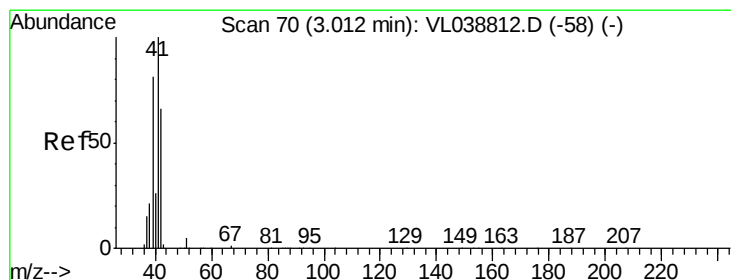
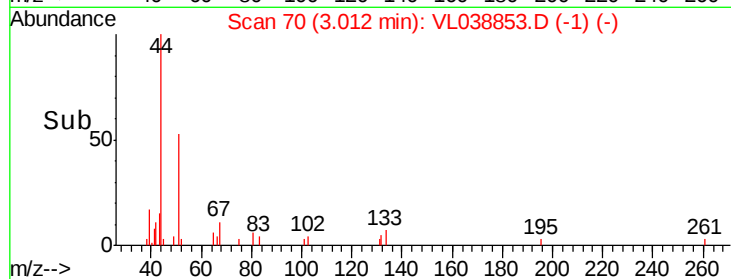
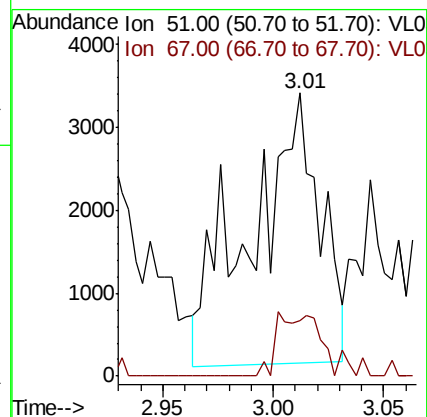
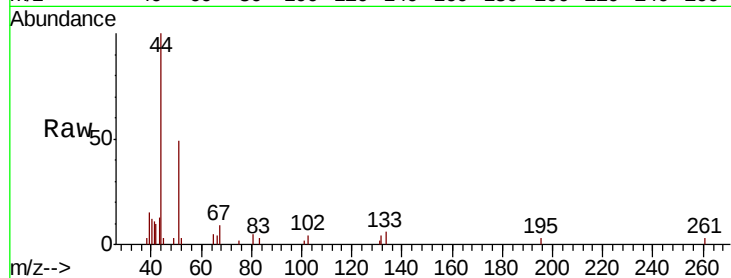
Acq: 7 Apr 2022 22:48

Tot Ion: 51 Resp: 7023

Ion Ratio Lower Upper

51 100

67 16.5 13.4 20.0



#9

Propene

Concen: 0.827 ppbv

RT: 3.23 min Scan# 138

Delta R.T. 0.22 min

Lab File: VL038853.D

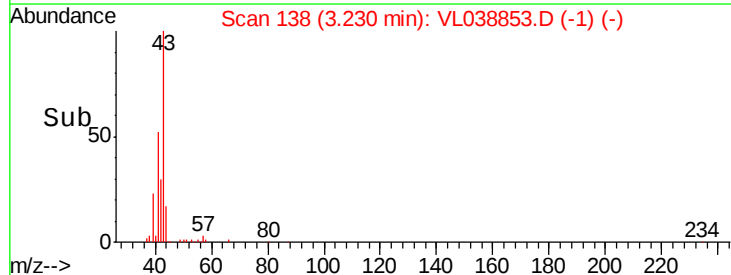
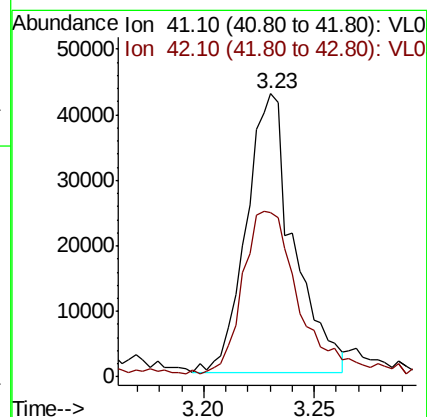
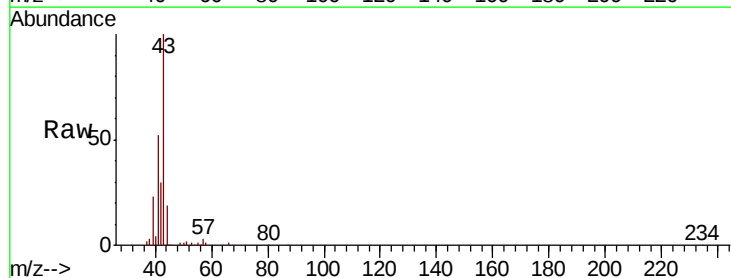
Acq: 7 Apr 2022 22:48

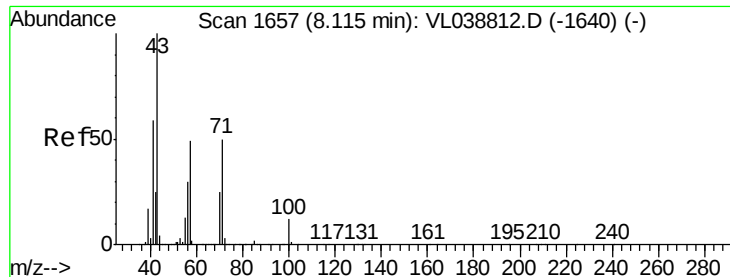
Tgt Ion: 41 Resp: 63760

Ion Ratio Lower Upper

41 100

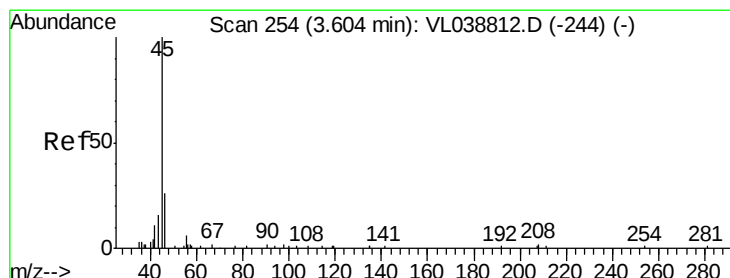
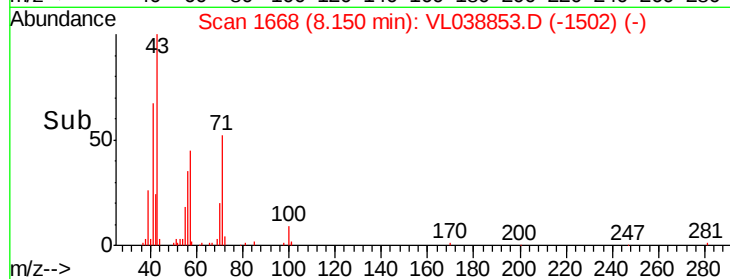
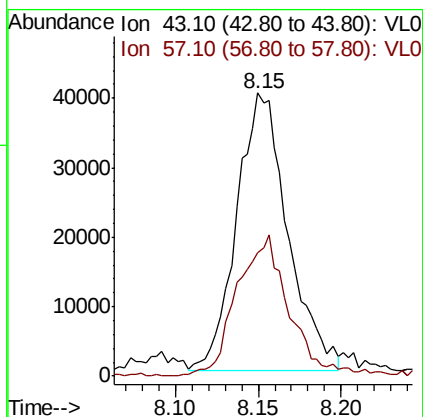
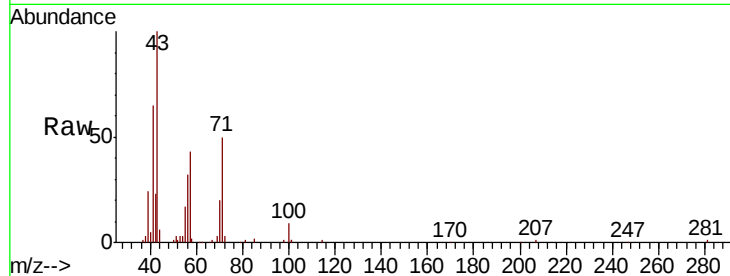
42 66.8 54.2 81.4





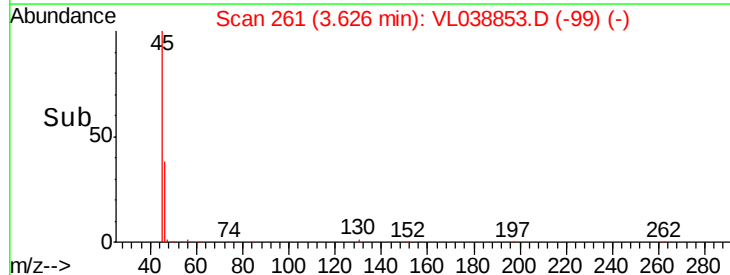
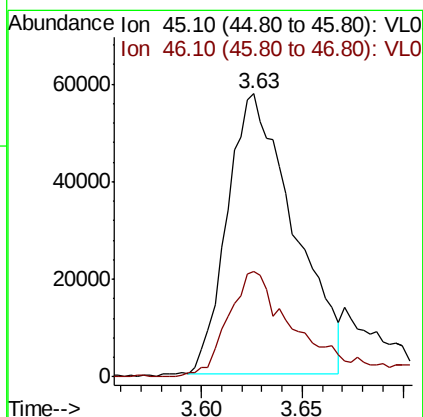
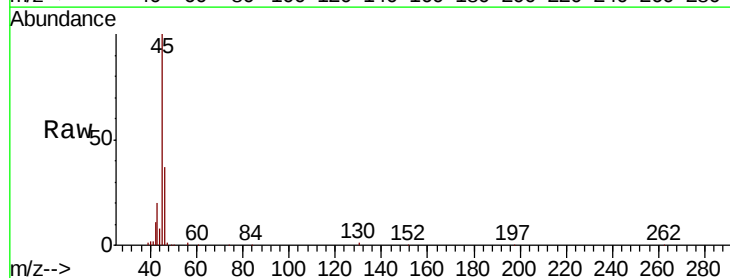
#10
Heptane
Concen: 0.441 ppbv
RT: 8.15
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Apr 2022 22:48

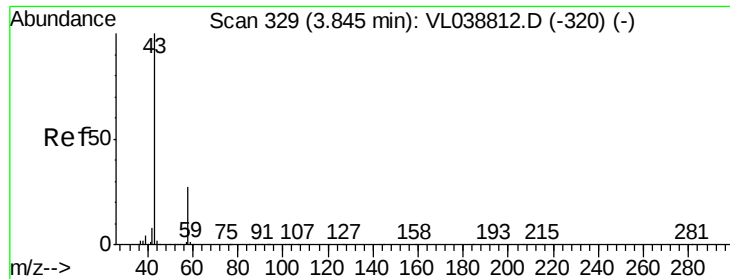
Tot Ion: 43 Resp: 85746
Ion Ratio Lower Upper
43 100
57 52.8 39.3 58.9



#13
Ethanol
Concen: 28.231 ppbv
RT: 3.63 min Scan# 261
Delta R.T. 0.02 min
Lab File: VL038853.D
Acq: 7 Apr 2022 22:48

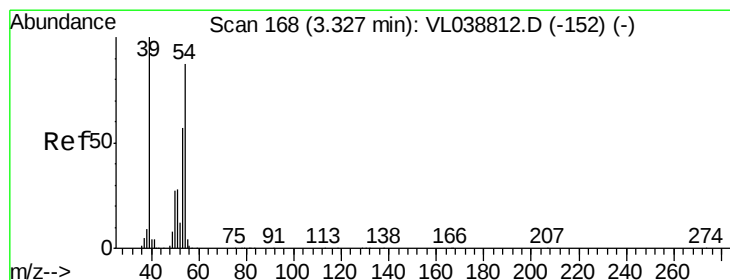
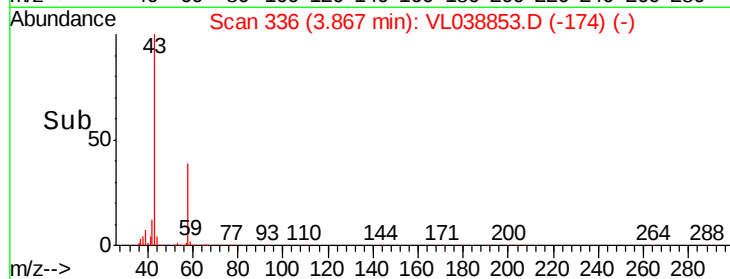
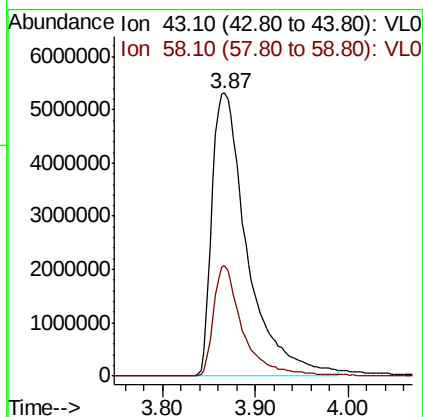
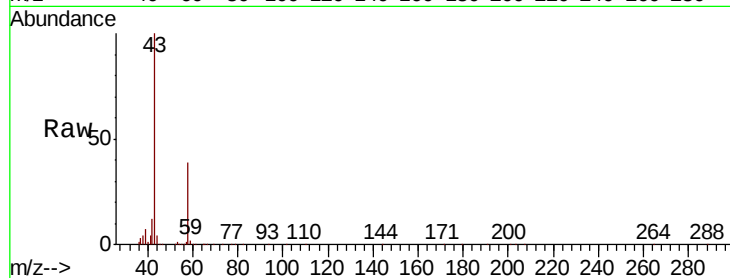
Tgt Ion: 45 Resp: 132336
Ion Ratio Lower Upper
45 100
46 43.3 0.0 0.0#





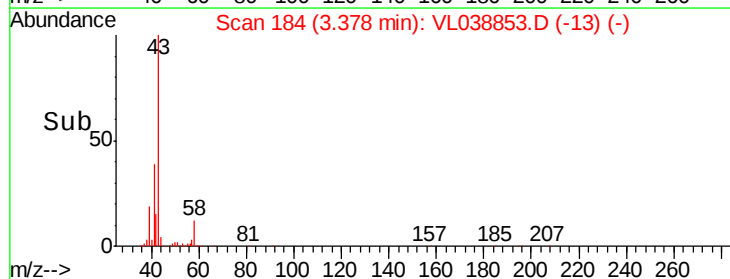
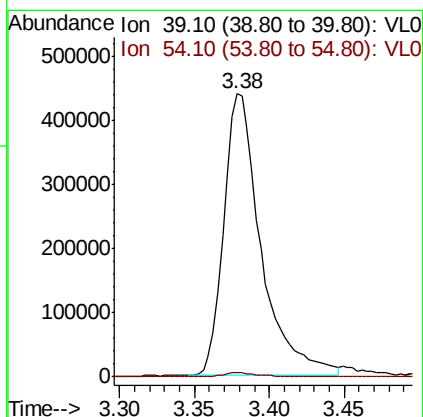
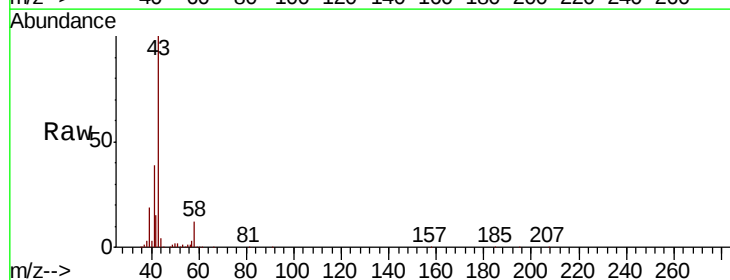
#15
Acetone
Concen: 118.561 ppbv
RT: 3.87
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Apr 2022 22:48

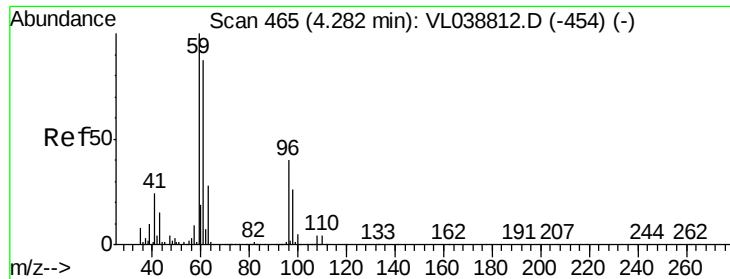
Tot Ion: 43 Resp: 14100864
Ion Ratio Lower Upper
43 100
58 32.7 22.5 33.7



#16
1,3-Butadiene
Concen: 11.217 ppbv
RT: 3.38 min Scan# 184
Delta R.T. 0.05 min
Lab File: VL038853.D
Acq: 7 Apr 2022 22:48

Tgt Ion: 39 Resp: 762692
Ion Ratio Lower Upper
39 100
54 1.8 64.8 97.2#





#17

tert-Butyl alcohol

Concen: 0.090 ppbv

RT: 3.91 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

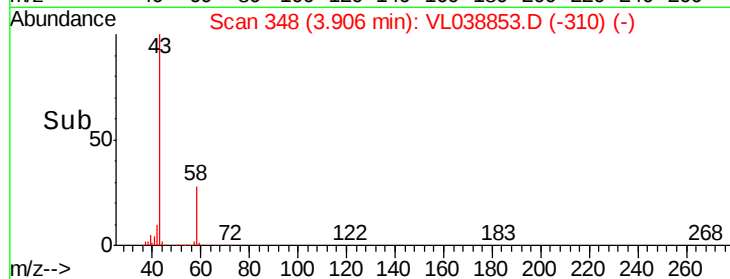
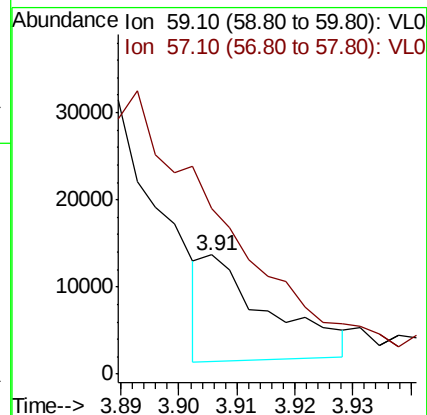
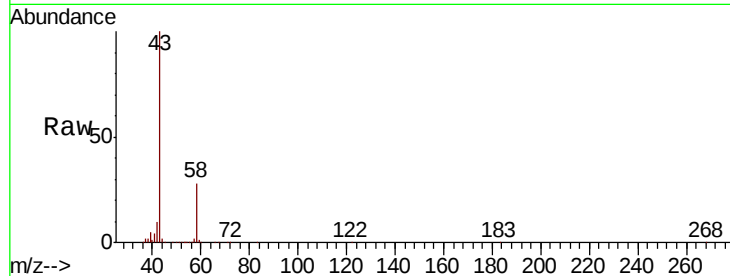
Acq: 7 Apr 2022 22:48

Tot Ion: 59 Resp: 9585

Ion Ratio Lower Upper

59 100

57 0.0 8.5 12.7#



#19

Isopropyl Alcohol

Concen: 1.714 ppbv

RT: 3.99 min Scan# 374

Delta R.T. 0.03 min

Lab File: VL038853.D

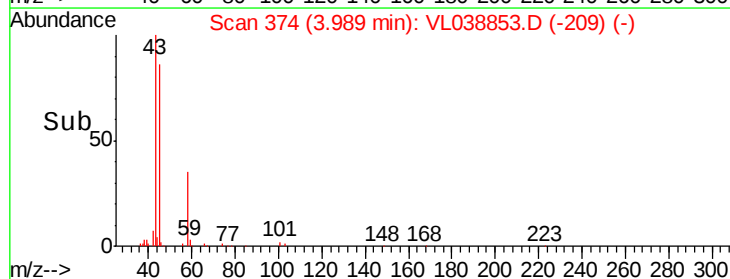
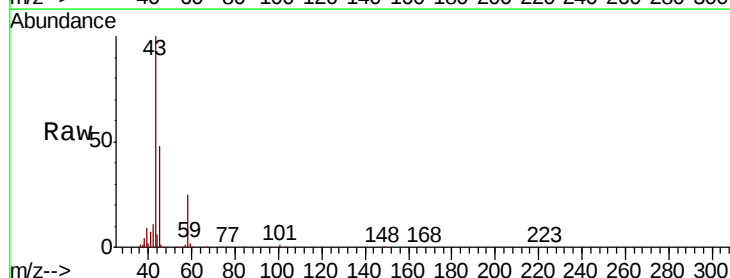
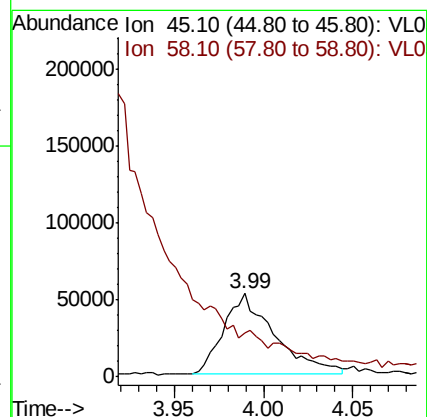
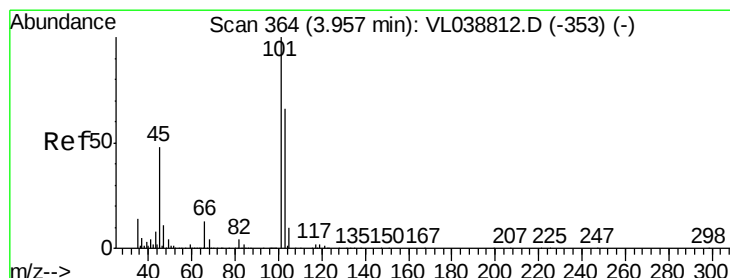
Acq: 7 Apr 2022 22:48

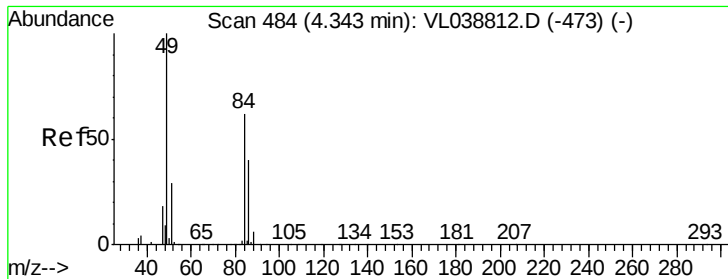
Tgt Ion: 45 Resp: 104197

Ion Ratio Lower Upper

45 100

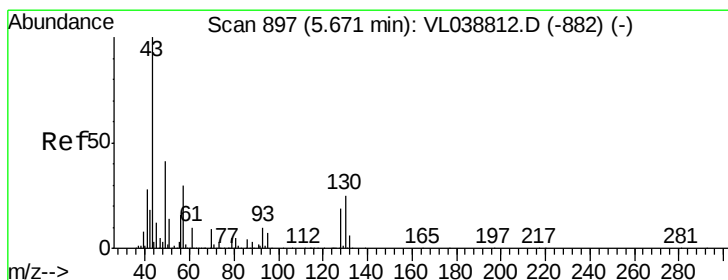
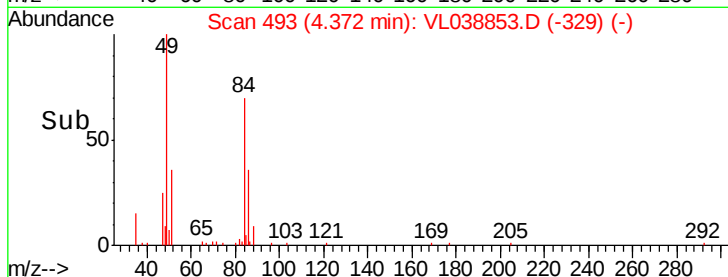
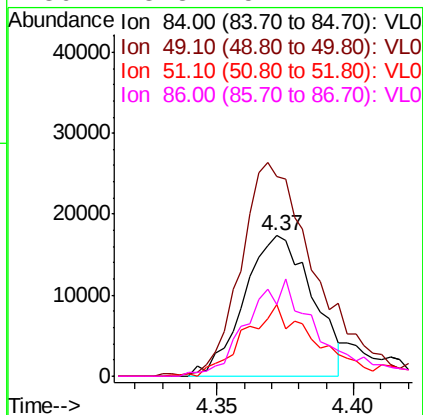
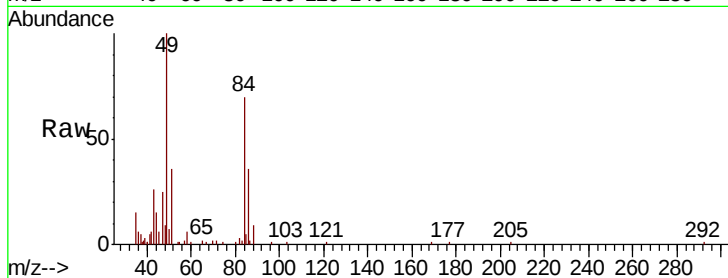
58 0.0 0.0 0.0





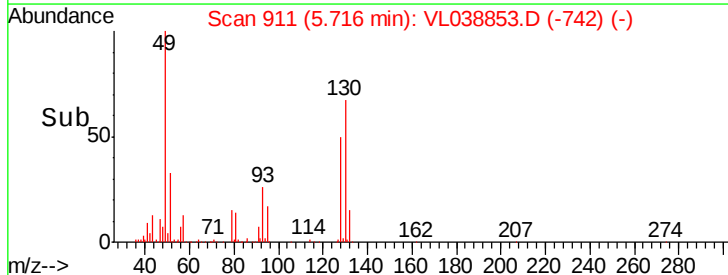
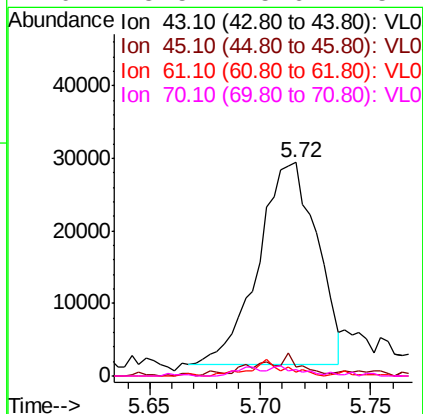
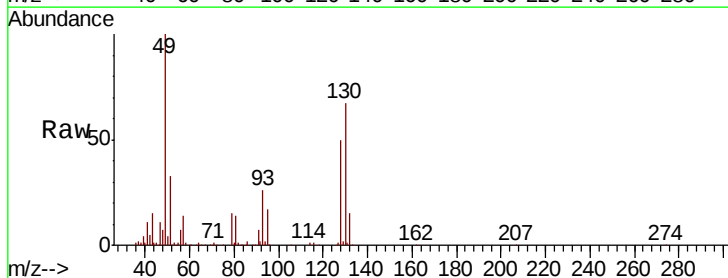
#20
Methylene Chloride
Concen: 0.699 ppbv
RT: 4.37
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 7 Apr 2022 22:48

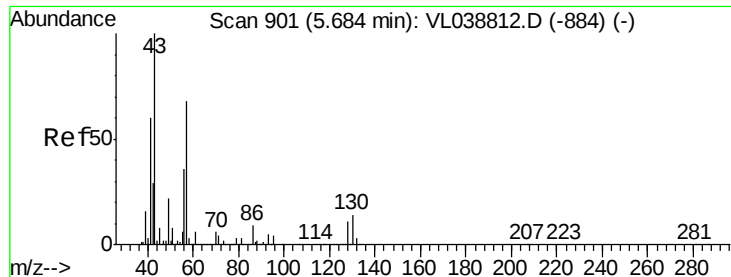
Tot Ion: 84 Resp: 30145
Ion Ratio Lower Upper
84 100
49 140.4 129.4 194.0
51 49.0 37.4 56.2
86 48.3 51.4 77.2#



#25
Ethyl Acetate
Concen: 0.170 ppbv
RT: 5.72 min Scan# 911
Delta R.T.: 0.04 min
Lab File: VL038853.D
Acq: 7 Apr 2022 22:48

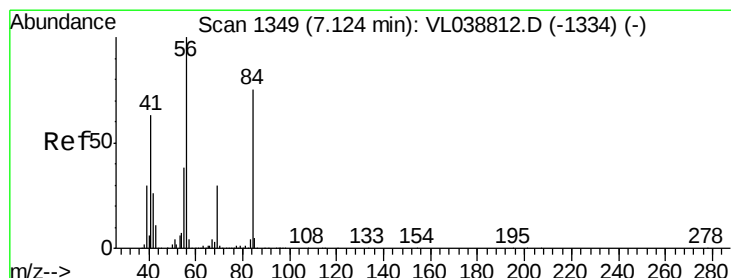
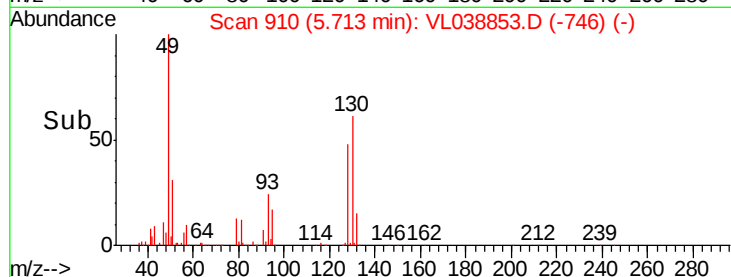
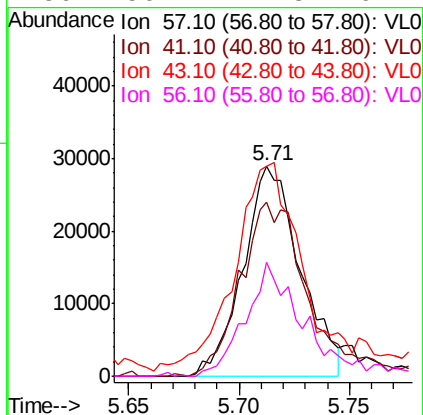
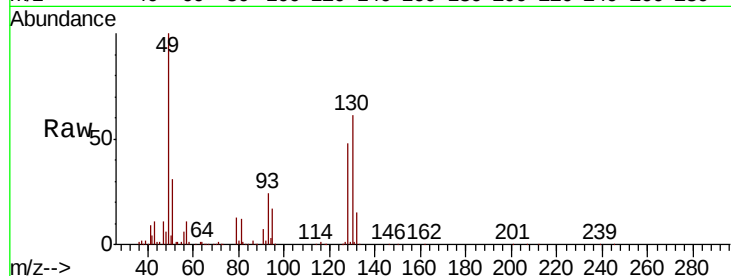
Tgt Ion: 43 Resp: 51445
Ion Ratio Lower Upper
43 100
45 10.1 8.4 12.6
61 5.9 7.9 11.9#
70 5.5 5.6 8.4#





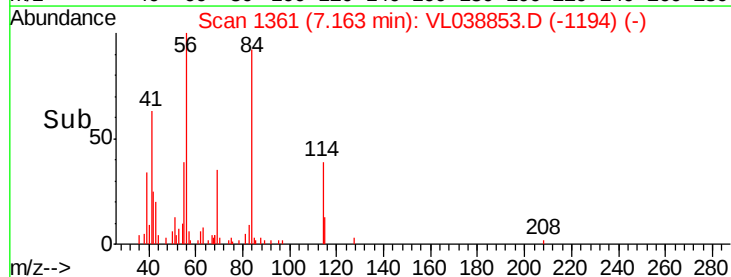
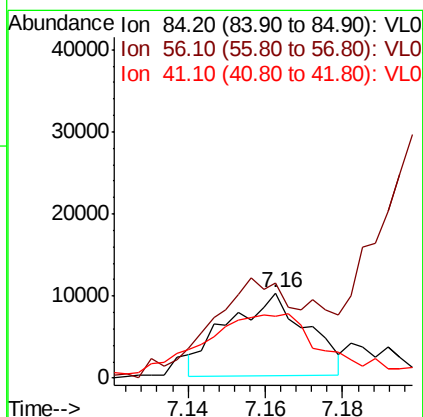
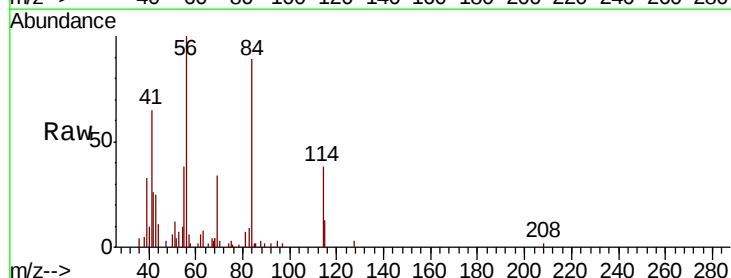
#26
Hexane
Concen: 0.379 ppbv
RT: 5.71
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Apr 2022 22:48

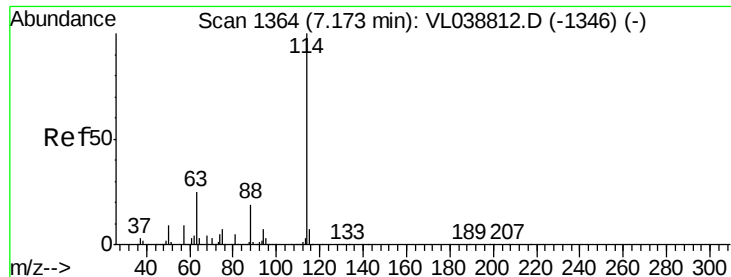
Tot Ion:	57	Resp:	52000
Ion Ratio	Lower	Upper	
57	100		
41	100.4	72.0	108.0
43	124.6	186.6	280.0#
56	56.2	42.8	64.2



#30
Cyclohexane
Concen: 0.119 ppbv
RT: 7.16 min Scan# 1361
Delta R.T. 0.04 min
Lab File: VL038853.D
Acq: 7 Apr 2022 22:48

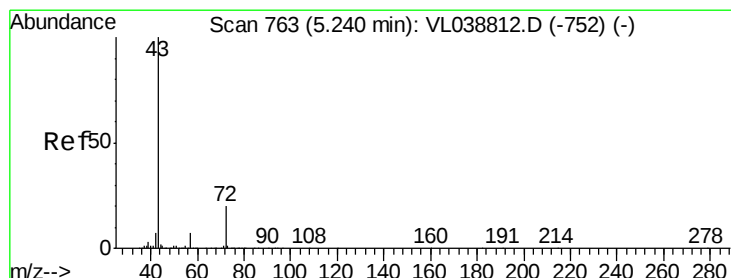
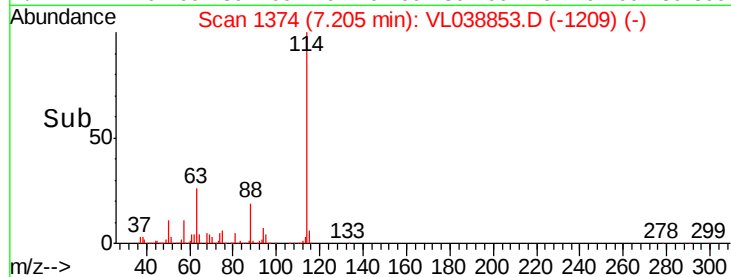
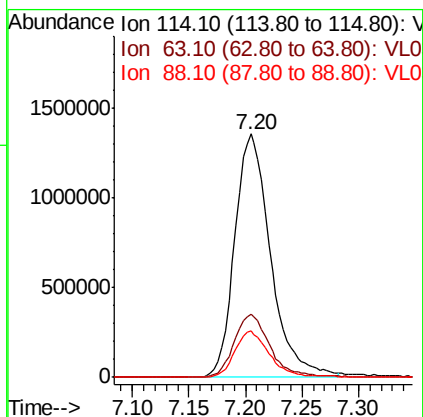
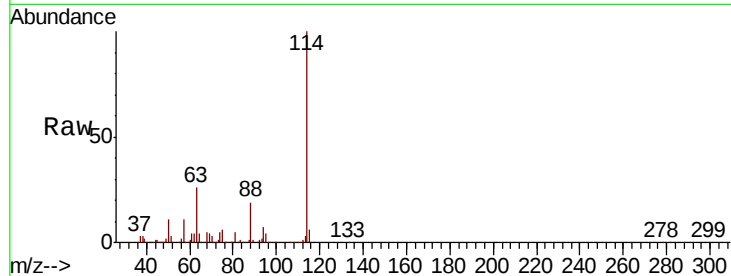
Tgt Ion:	84	Resp:	14403
Ion Ratio	Lower	Upper	
84	100		
56	0.0	114.4	171.6#
41	128.2	69.0	103.4#





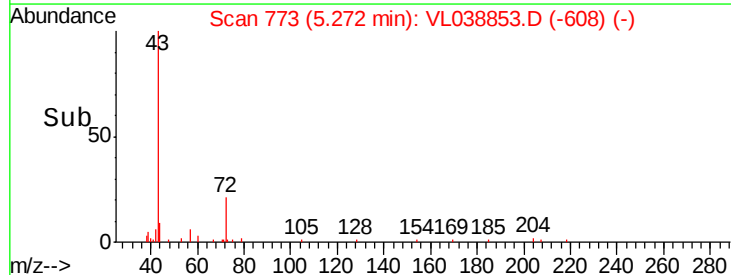
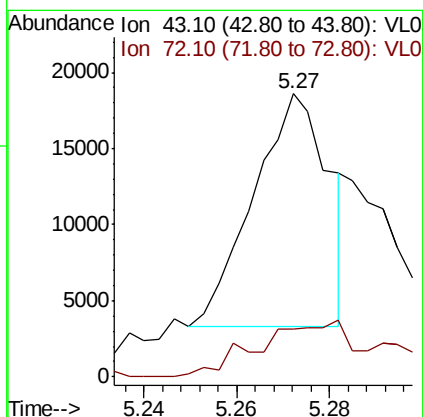
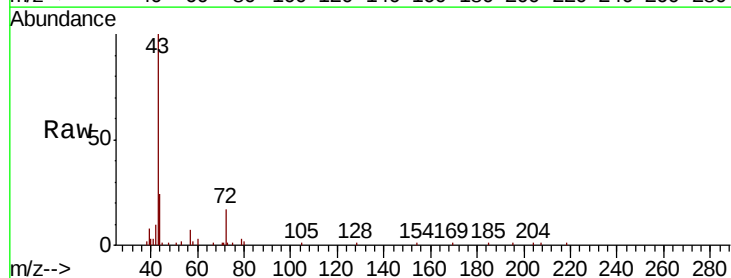
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.20
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 7 Apr 2022 22:48

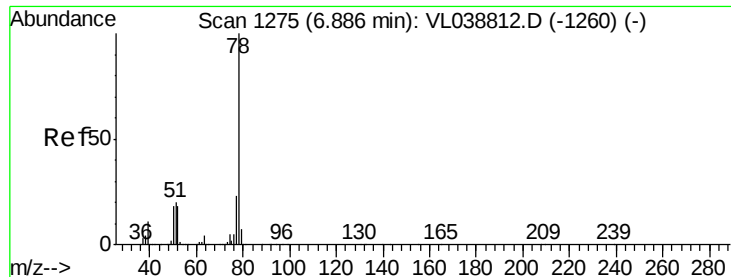
Tot Ion:114 Resp: 2997614
 Ion Ratio Lower Upper
 114 100
 63 26.2 19.8 29.8
 88 18.8 14.2 21.4



#34
 2-Butanone
 Concen: 0.146 ppbv
 RT: 5.27 min Scan# 773
 Delta R.T. 0.03 min
 Lab File: VL038853.D
 Acq: 7 Apr 2022 22:48

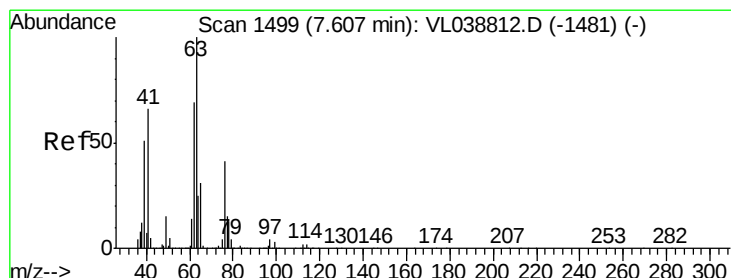
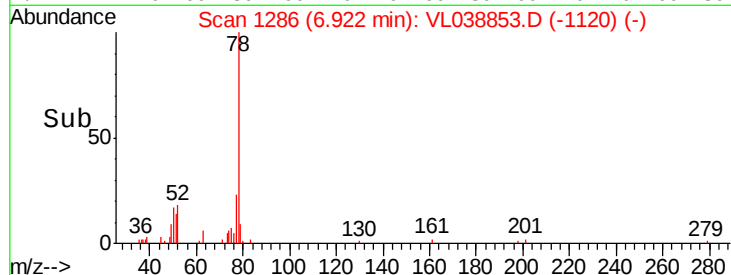
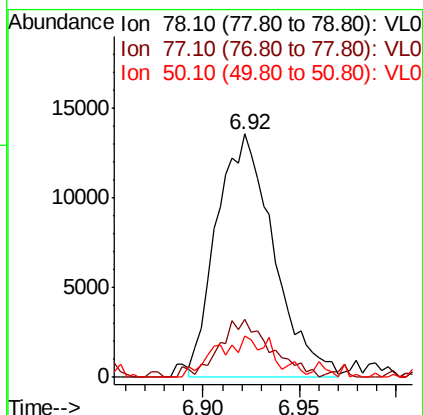
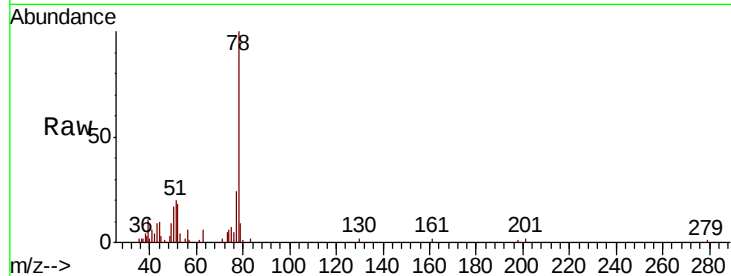
Tgt Ion: 43 Resp: 17329
 Ion Ratio Lower Upper
 43 100
 72 46.6 16.9 25.3#





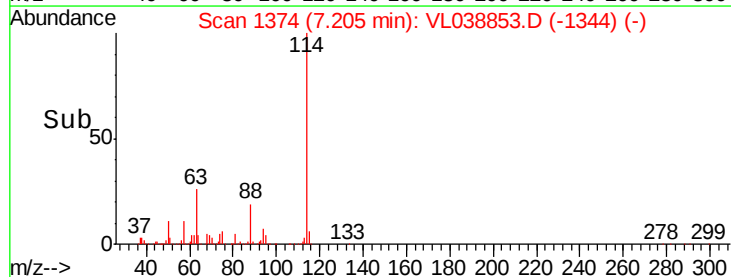
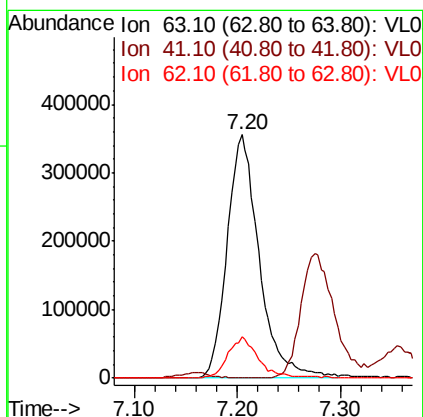
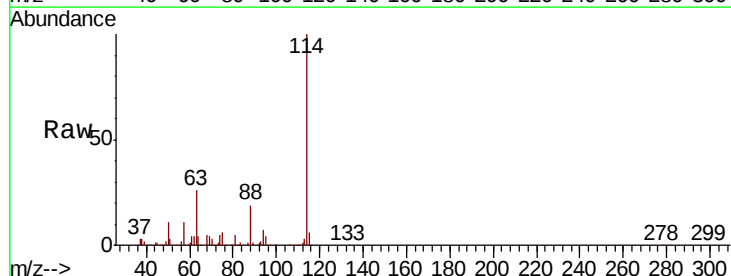
#36
Benzene
Concen: 0.103 ppbv
RT: 6.92
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Apr 2022 22:48

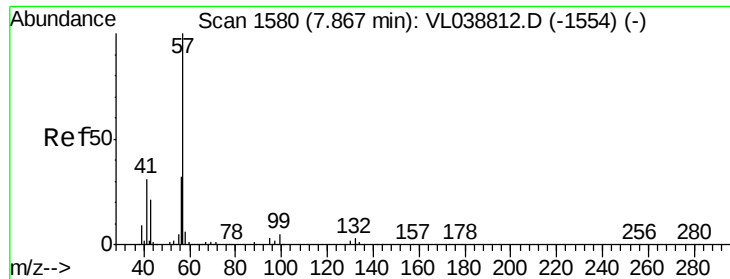
Tot Ion	Ratio	Lower	Upper
78	100		
77	21.9	18.2	27.2
50	17.2	14.0	21.0



#39
1,2-Dichloropropane
Concen: 7.416 ppbv
RT: 7.20 min Scan# 1374
Delta R.T. -0.40 min
Lab File: VL038853.D
Acq: 7 Apr 2022 22:48

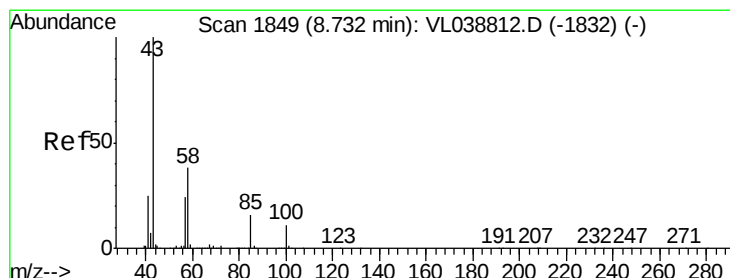
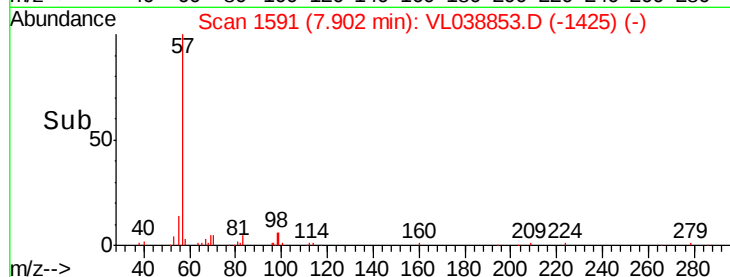
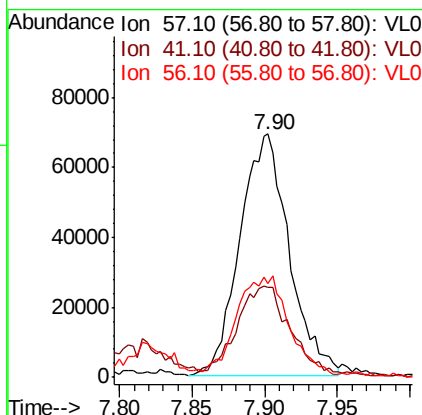
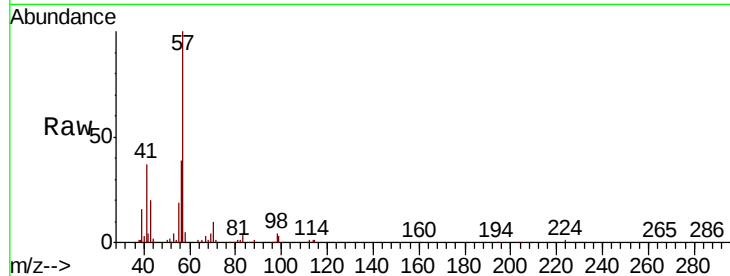
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	53.0	79.6#
62	17.0	55.0	82.4#





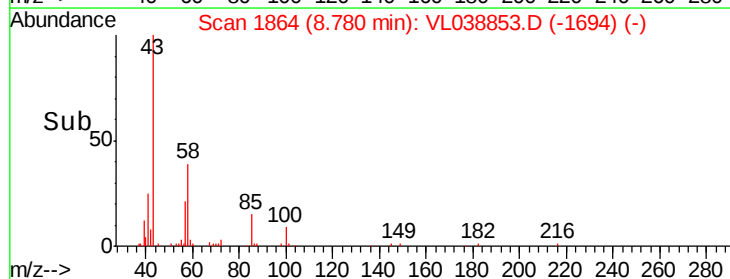
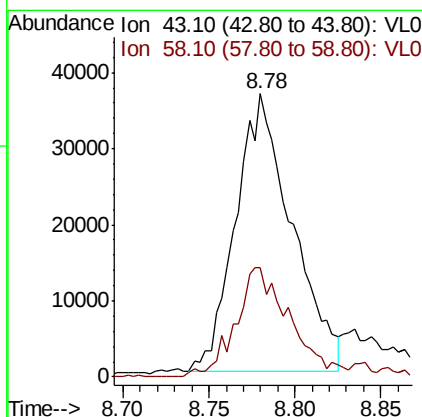
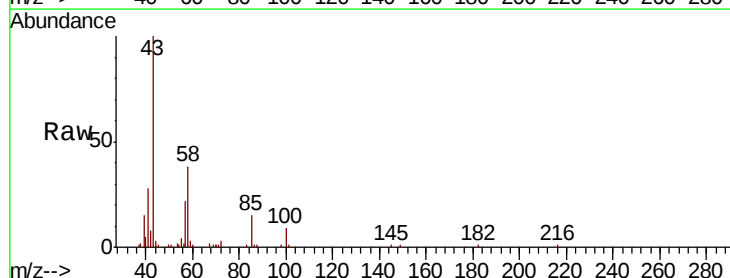
#44
 2,2,4-Trimethylpentane
 Concen: 0.356 ppbv
 RT: 7.90
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 1160-1-SG-2DL
 Acq: 7 Apr 2022 22:48

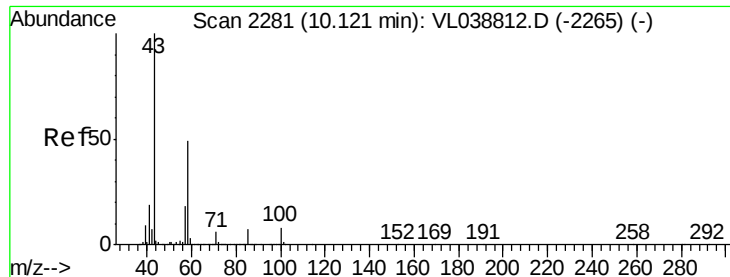
Tot Ion	57	Resp	164158
Ion Ratio	Lower	Upper	
57	100		
41	41.6	25.0	37.4#
56	44.5	25.3	37.9#



#50
 4-Methyl-2-Pentanone
 Concen: 0.313 ppbv
 RT: 8.78 min Scan# 1864
 Delta R.T. 0.05 min
 Lab File: VL038853.D
 Acq: 7 Apr 2022 22:48

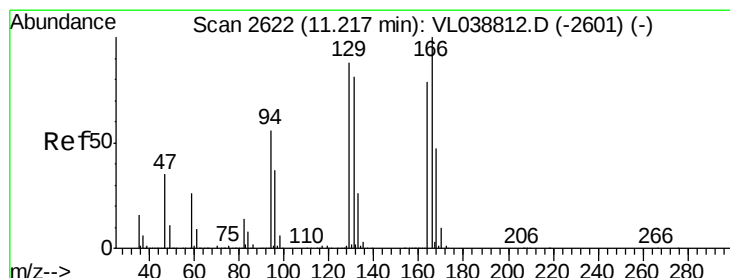
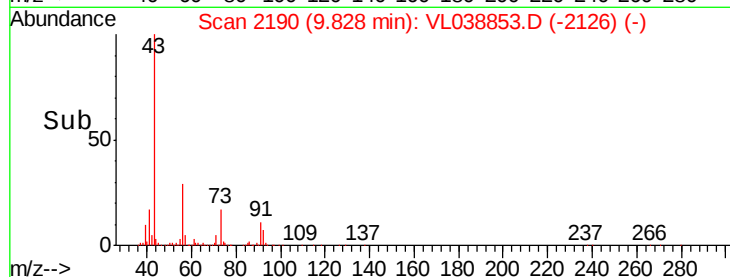
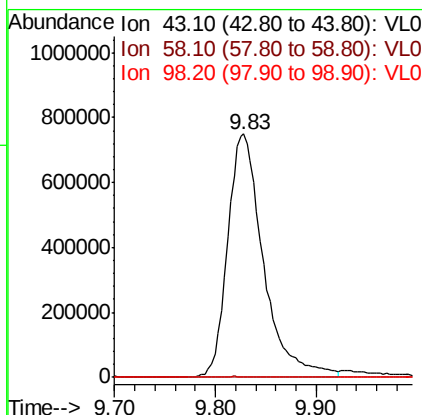
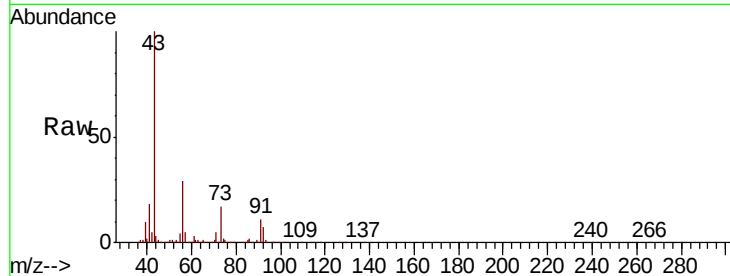
Tgt Ion	43	Resp	83351
Ion Ratio	Lower	Upper	
43	100		
58	40.5	29.0	43.6





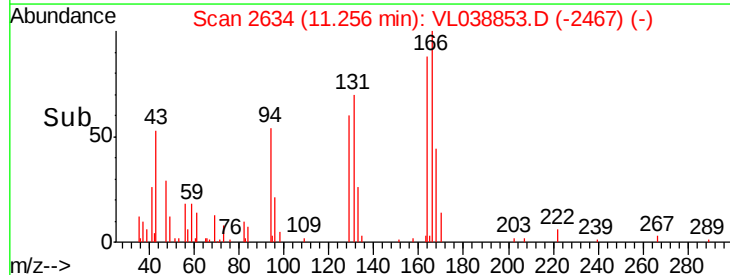
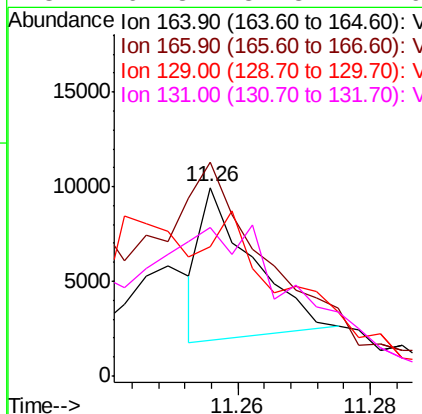
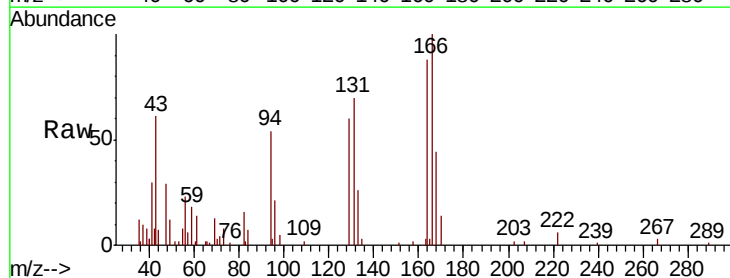
#51
2-Hexanone
Concen: 9.191 ppbv
RT: 9.83
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
Acq: 7 Apr 2022 22:48

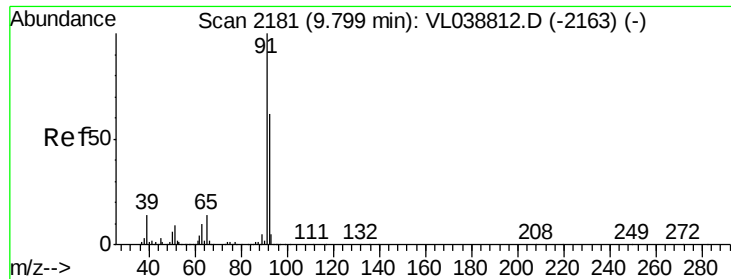
Tot Ion: 43 Resp: 1845190
Ion Ratio Lower Upper
43 100
58 0.4 41.4 62.0#
98 0.0 0.1 0.1#



#52
Tetrachloroethene
Concen: 0.045 ppbv
RT: 11.26 min Scan# 2634
Delta R.T. 0.04 min
Lab File: VL038853.D
Acq: 7 Apr 2022 22:48

Tgt Ion: 164 Resp: 4331
Ion Ratio Lower Upper
164 100
166 104.9 101.0 151.6
129 47.2 88.7 133.1#
131 61.3 81.8 122.6#





#53

Toluene

Concen: 0.679 ppbv

RT: 9.84 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

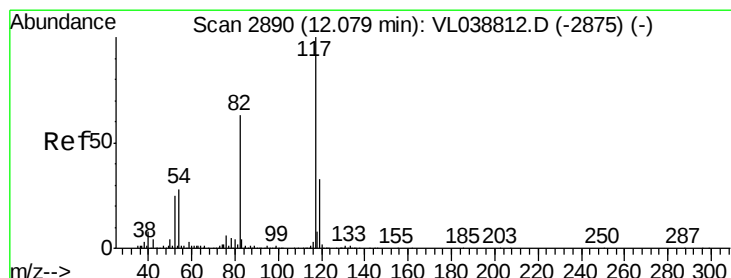
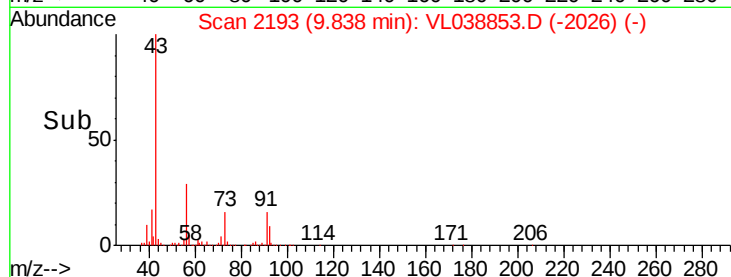
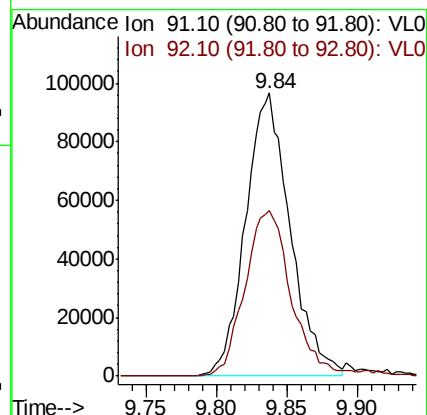
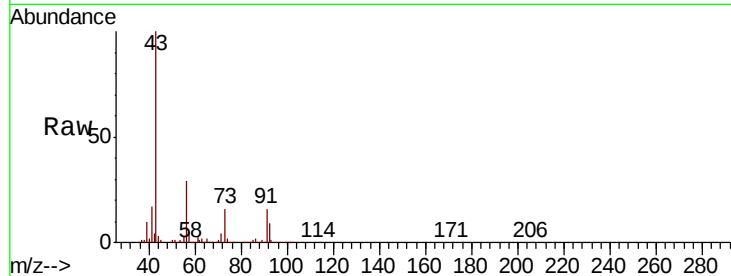
Acq: 7 Apr 2022 22:48

Tot Ion: 91 Resp: 213842

Ion Ratio Lower Upper

91 100

92 61.9 49.2 73.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.12 min Scan# 2902

Delta R.T. 0.04 min

Lab File: VL038853.D

Acq: 7 Apr 2022 22:48

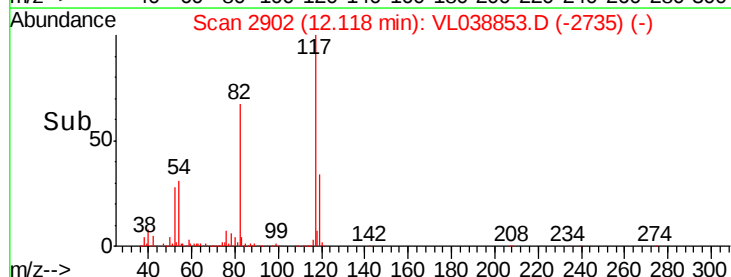
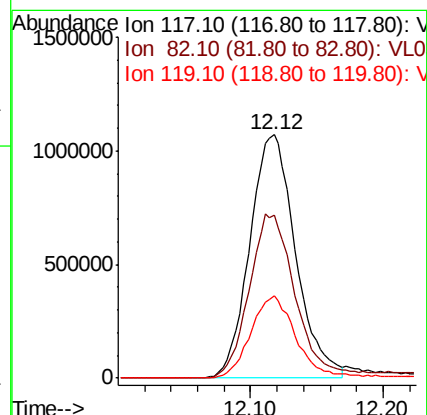
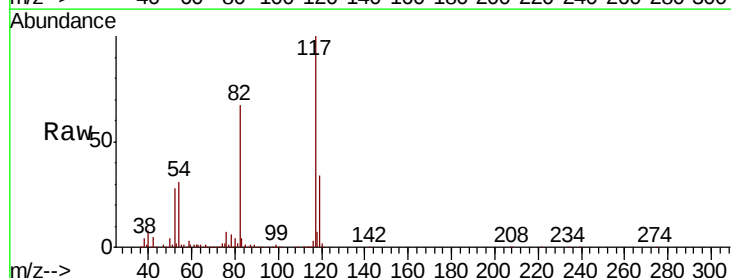
Tgt Ion: 117 Resp: 2580154

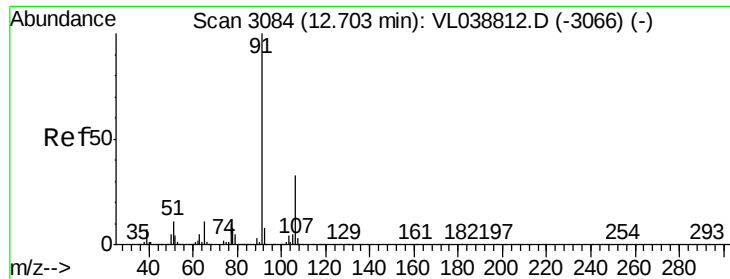
Ion Ratio Lower Upper

117 100

82 68.9 53.0 79.6

119 34.2 24.9 37.3





#58

Ethyl Benzene

Concen: 0.604 ppbv

RT: 12.74

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

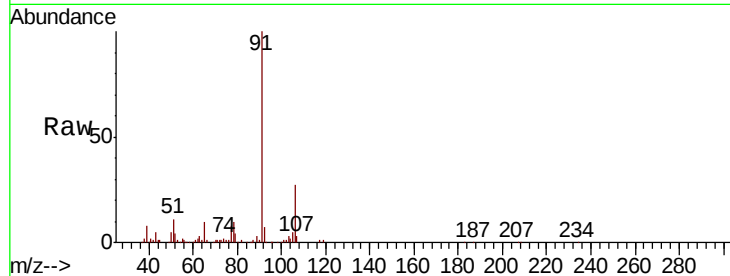
Acq: 7 Apr 2022 22:48

Tot Ion: 91 Resp: 232836

Ion Ratio Lower Upper

91 100

106 27.4 26.7 40.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

120000

100000

80000

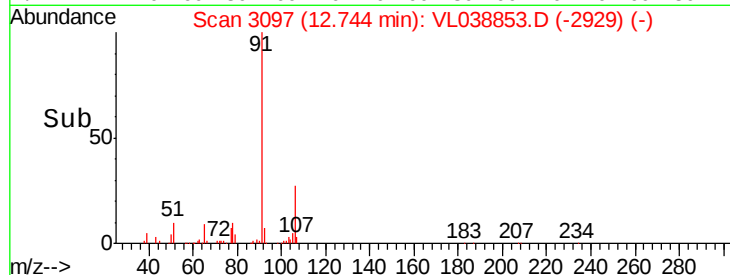
60000

40000

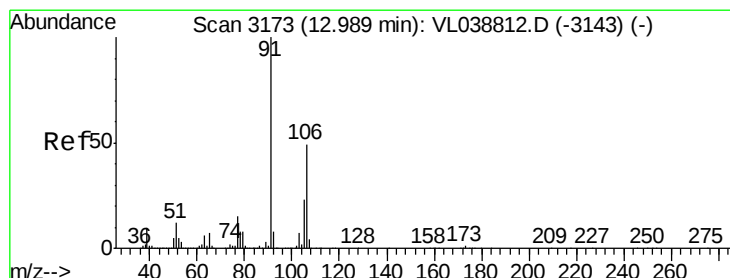
20000

0

Time-->



Time-->



#59

m/p-Xylene

Concen: 2.276 ppbv

RT: 13.00 min Scan# 3175

Delta R.T. 0.01 min

Lab File: VL038853.D

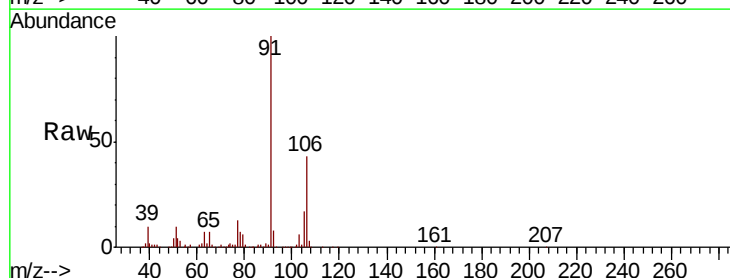
Acq: 7 Apr 2022 22:48

Tgt Ion: 91 Resp: 737116

Ion Ratio Lower Upper

91 100

106 45.8 37.1 55.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

250000

200000

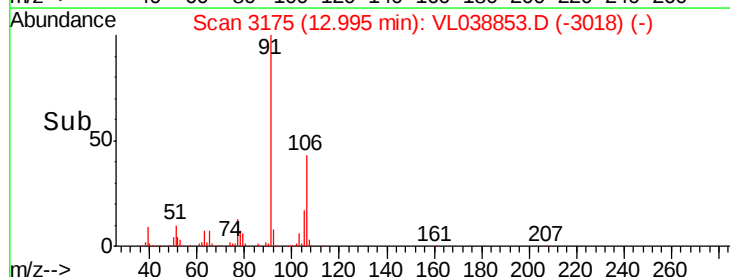
150000

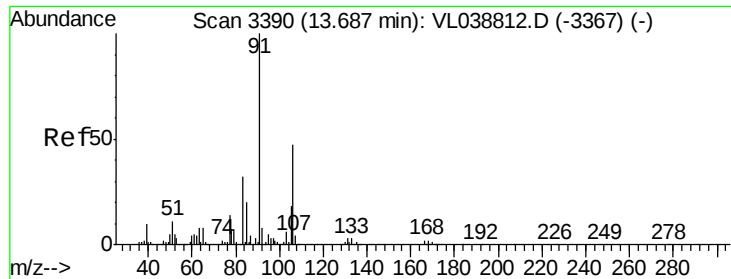
100000

50000

0

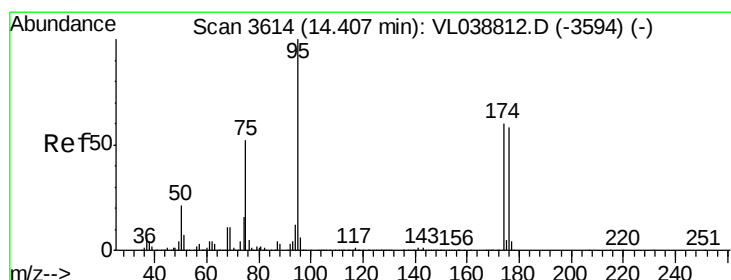
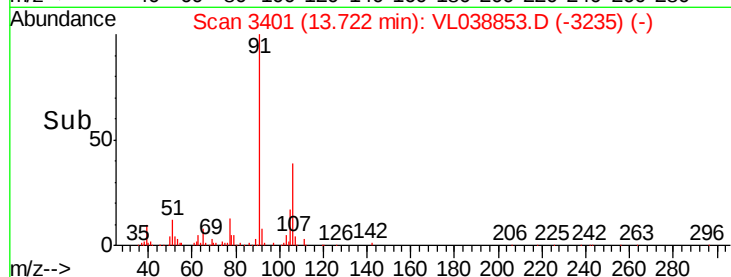
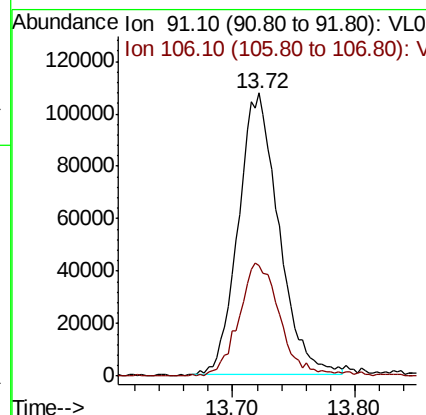
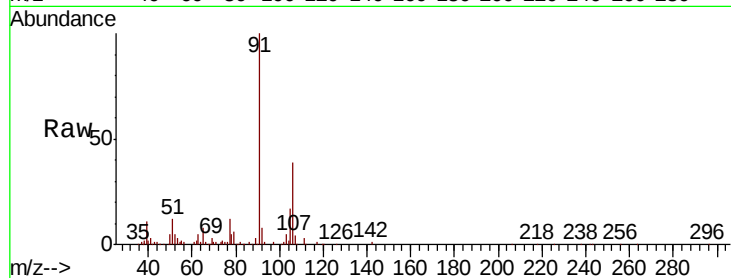
Time-->





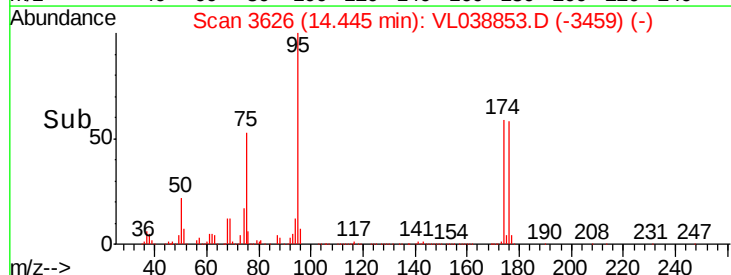
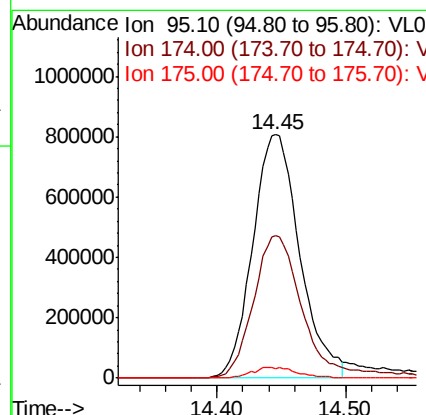
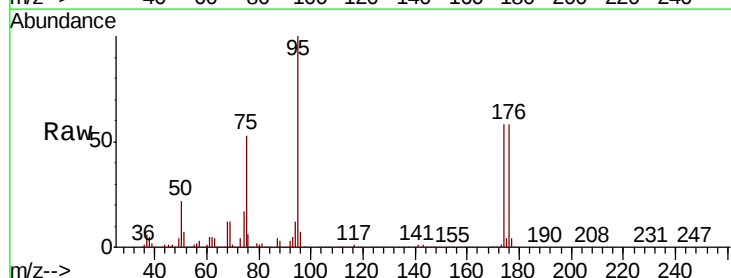
#60
o-Xylene
Concen: 0.808 ppbv
RT: 13.72
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Apr 2022 22:48

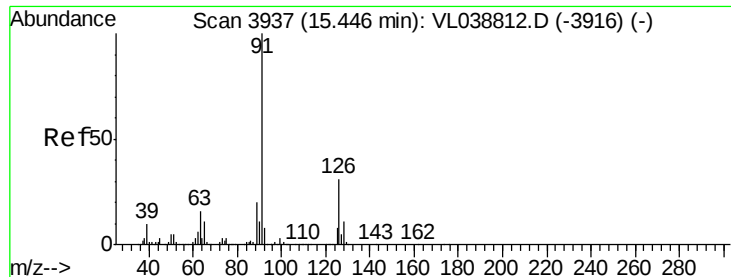
Tot Ion: 91 Resp: 244809
Ion Ratio Lower Upper
91 100
106 41.5 23.8 71.4



#68
1-Bromo-4-Fluorobenzene
Concen: 10.466 ppbv
RT: 14.45 min Scan# 3626
Delta R.T. 0.04 min
Lab File: VL038853.D
Acq: 7 Apr 2022 22:48

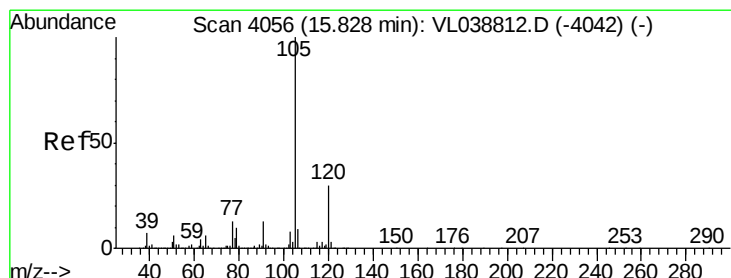
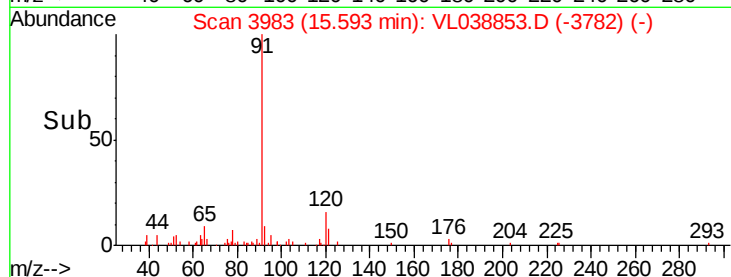
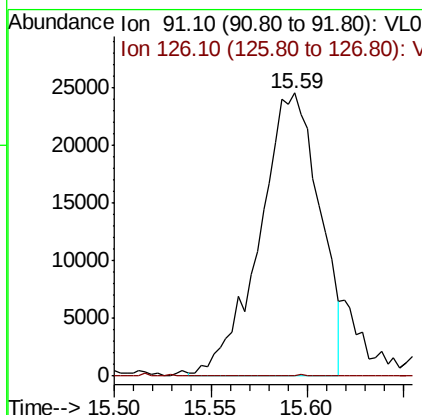
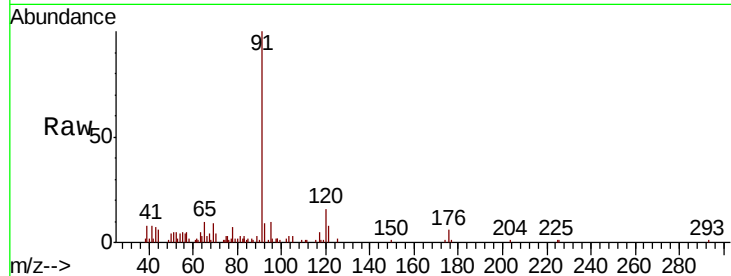
Tgt Ion: 95 Resp: 2048238
Ion Ratio Lower Upper
95 100
174 63.8 52.0 78.0
175 4.3 4.0 6.0





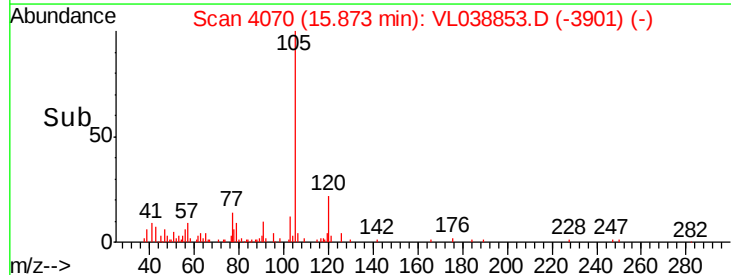
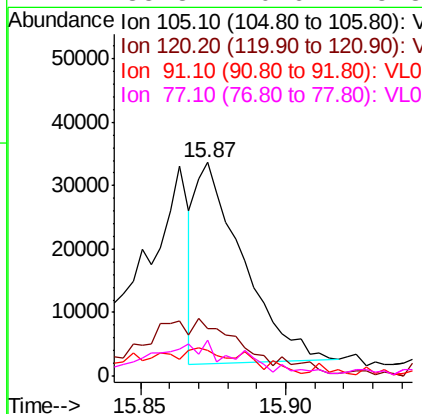
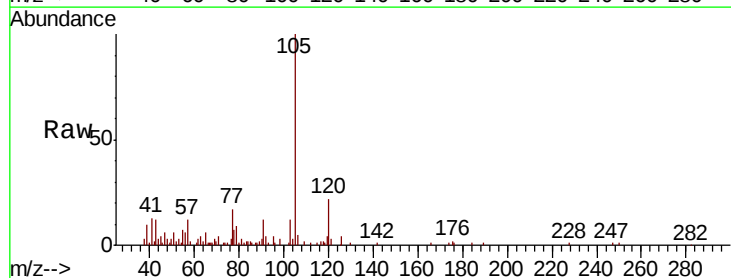
#71
 2-Chlorotoluene
 Concen: 0.154 ppbv
 RT: 15.59 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : 1160-1-SG-2DL
 Acq: 7 Apr 2022 22:48

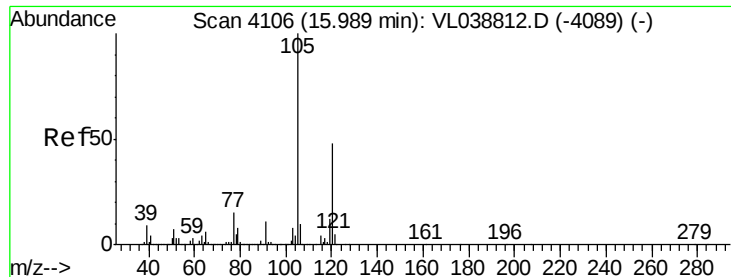
Tot Ion: 91 Resp: 52543
 Ion Ratio Lower Upper
 91 100
 126 0.0 13.0 51.8#



#72
 4-Ethyltoluene
 Concen: 0.099 ppbv
 RT: 15.87 min Scan# 4070
 Delta R.T. 0.04 min
 Lab File: VL038853.D
 Acq: 7 Apr 2022 22:48

Tgt Ion:105 Resp: 35836
 Ion Ratio Lower Upper
 105 100
 120 60.4 24.3 36.5#
 91 36.9 9.4 14.2#
 77 35.8 10.6 15.8#





#73

1,3,5-Trimethylbenzene

Concen: 0.171 ppbv

RT: 16.02

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

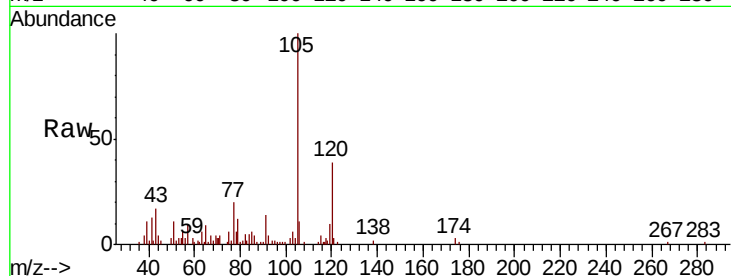
Acq: 7 Apr 2022 22:48

Tot Ion:105 Resp: 55512

Ion Ratio Lower Upper

105 100

120 38.5 38.7 58.1#

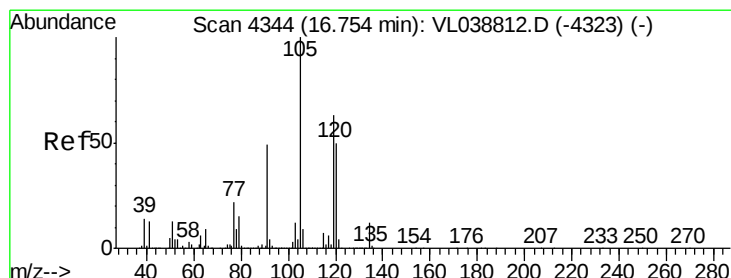
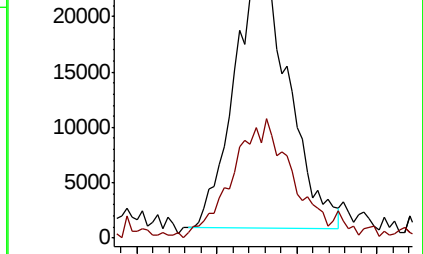
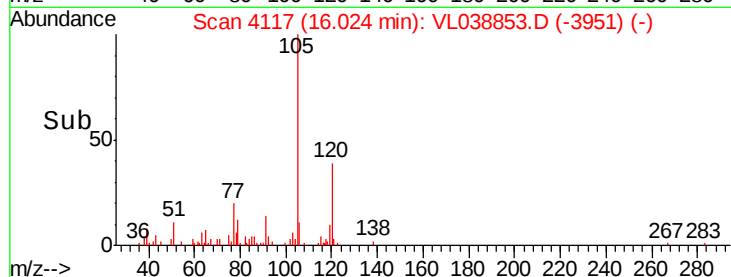


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.02

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 0.401 ppbv

RT: 16.79 min Scan# 4356

Delta R.T. 0.04 min

Lab File: VL038853.D

Acq: 7 Apr 2022 22:48

Tgt Ion:105 Resp: 137873

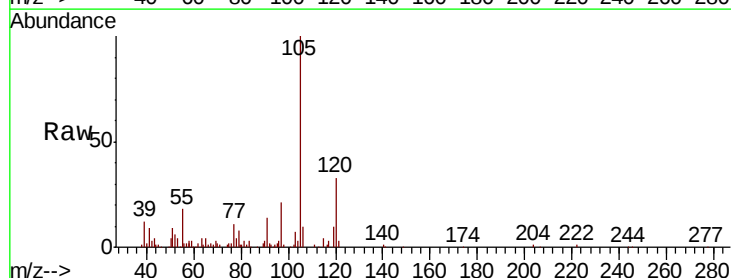
Ion Ratio Lower Upper

105 100

120 32.3 39.8 59.8#

91 13.8 39.4 59.0#

77 10.5 17.3 25.9#



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

16.79

Time-->

