

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL012722\
 Data File : VL038311.D
 Acq On : 28 Jan 2022 00:28
 Operator : SY/AP
 Sample : N1300-01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-18C

Quant Time: Jan 28 05:15:31 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL012422AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Jan 24 14:12:48 2022
 QLast Update : Mon Jan 24 14:12:48 2022
 Response via : Initial Calibration

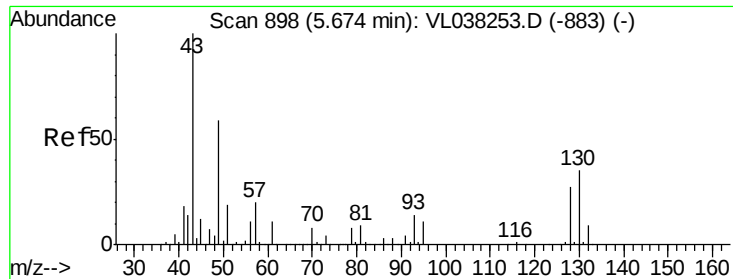
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	762757	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	1884641	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	1576138	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	1208201	10.10	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	71789	0.442	ppbv	96
3) Chlorodifluoromethane	2.96	51	232800	1.533	ppbv #	76
4) Chloromethane	3.14	50	12919	0.247	ppbv	94
9) Propene	3.20	41	149714	3.029	ppbv	100
10) Heptane	8.10	43	11078	0.087	ppbv #	28
11) Trichlorofluoromethane	3.95	101	23327	0.184	ppbv	95
12) 1,1,2-Trichlorotrifluoroet	4.48	101	4516	0.047	ppbv #	43
13) Ethanol	3.60	45	5078237	956.993	ppbv	98
15) Acetone	3.84	43	374066	5.563	ppbv	91
16) 1,3-Butadiene	3.30	39	2273	0.047	ppbv #	70
17) tert-Butyl alcohol	3.97	59	75732	1.026	ppbv	95
19) Isopropyl Alcohol	3.96	45	2285709	54.340	ppbv #	95
20) Methylene Chloride	4.34	84	20015	0.512	ppbv	91
21) Allyl Chloride	4.29	41	5839	0.098	ppbv #	21
25) Ethyl Acetate	5.67	43	106590	0.566	ppbv #	84
26) Hexane	5.68	57	126451	1.444	ppbv #	49
29) Chloroform	5.74	83	90300	0.632	ppbv	94
30) Cyclohexane	7.11	84	3689	0.048	ppbv #	1
34) 2-Butanone	5.23	43	27685	0.449	ppbv	97
35) Carbon Tetrachloride	7.00	117	5316	0.040	ppbv #	81
36) Benzene	6.87	78	50309	0.302	ppbv	96
38) Trichloroethene	7.82	130	12831	0.207	ppbv	90
39) 1,2-Dichloropropane	7.16	63	510849	7.558	ppbv #	25
41) Tetrahydrofuran	6.31	42	1762	0.043	ppbv #	39
44) 2,2,4-Trimethylpentane	7.85	57	68706	0.234	ppbv #	77
53) Toluene	9.78	91	108225	0.587	ppbv	99
58) Ethyl Benzene	12.69	91	19565	0.084	ppbv	95
60) o-Xylene	13.67	91	18971	0.103	ppbv #	54
61) Styrene	13.50	104	3744	0.044	ppbv #	66
74) 1,2,4-Trimethylbenzene	16.74	105	10888	0.060	ppbv #	72

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_L

Delta R.T. ClientSampleId:

Lab File: IA-18C

Acq: 28 Jan 2022 00:28

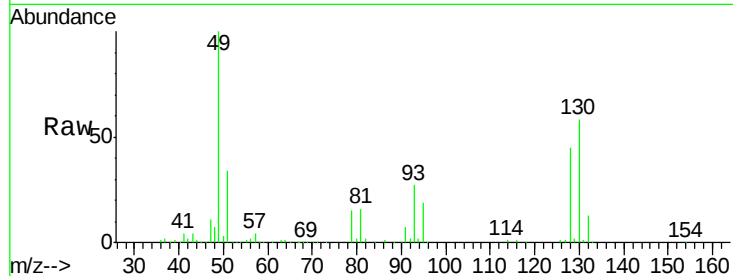
Tgt Ion: 49 Resp: 762757

Ion Ratio Lower Upper

49 100

128 45.3 24.5 73.5

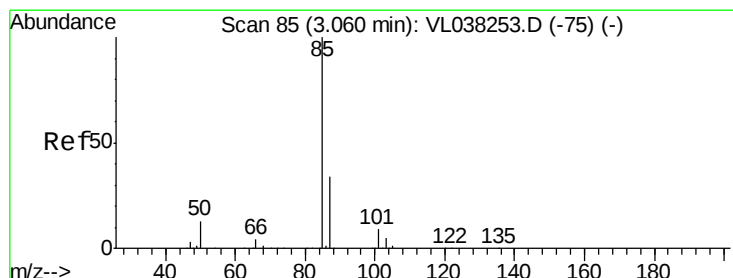
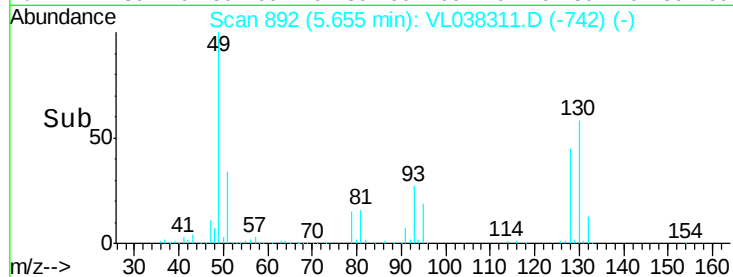
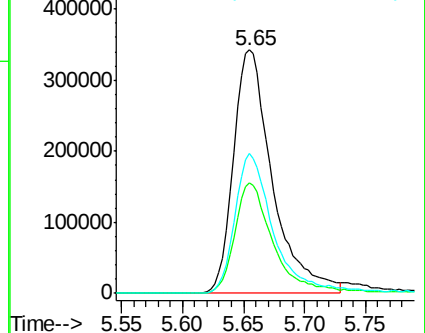
130 58.2 30.1 90.5



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: 0.442 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.01 min

Lab File: VL038311.D

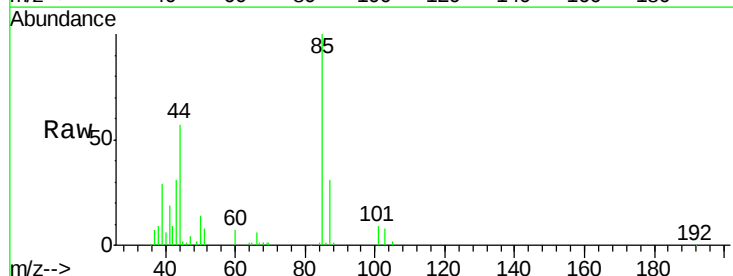
Acq: 28 Jan 2022 00:28

Tgt Ion: 85 Resp: 71789

Ion Ratio Lower Upper

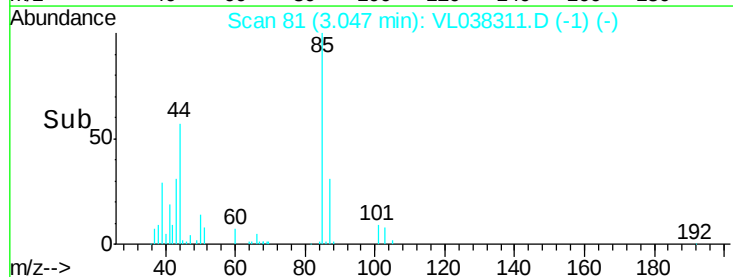
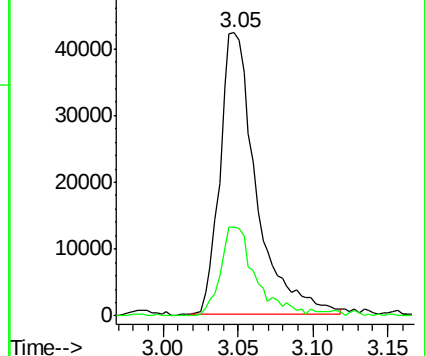
85 100

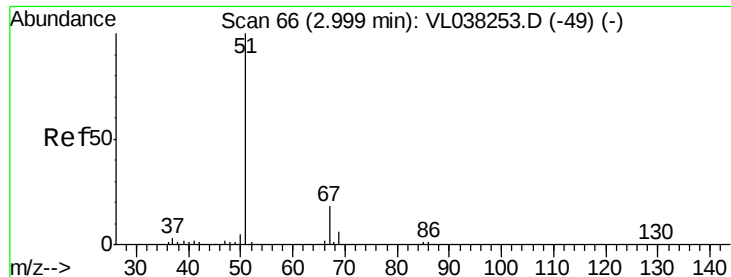
87 31.5 27.0 40.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.533 ppbv

RT: 2.96 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

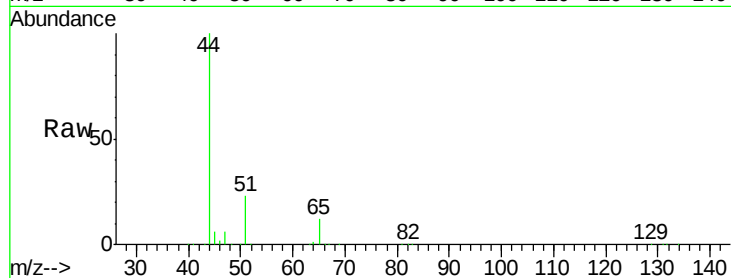
Acq: 28 Jan 2022 00:28

Tgt Ion: 51 Resp: 232800

Ion Ratio Lower Upper

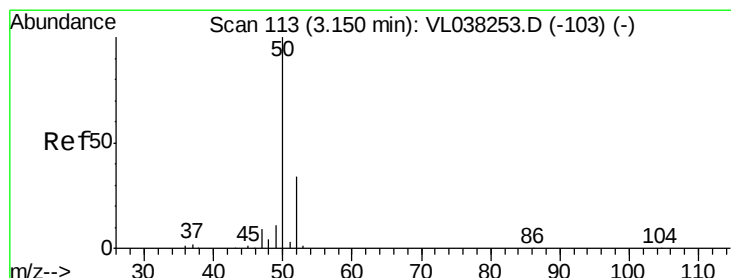
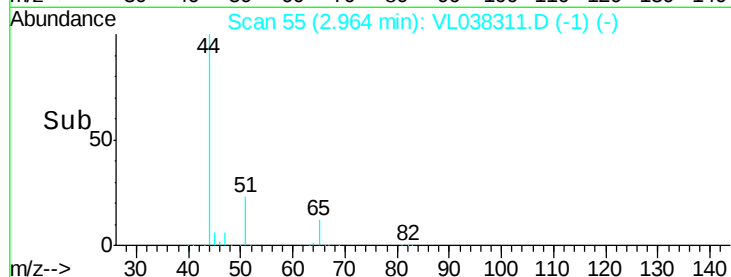
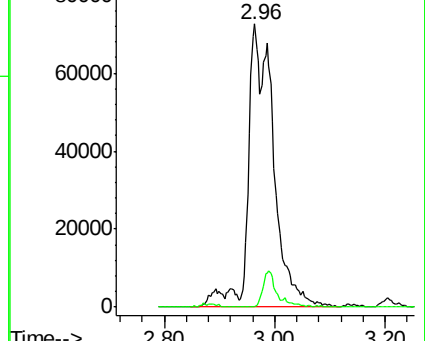
51 100

67 7.3 14.4 21.6#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.247 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.01 min

Lab File: VL038311.D

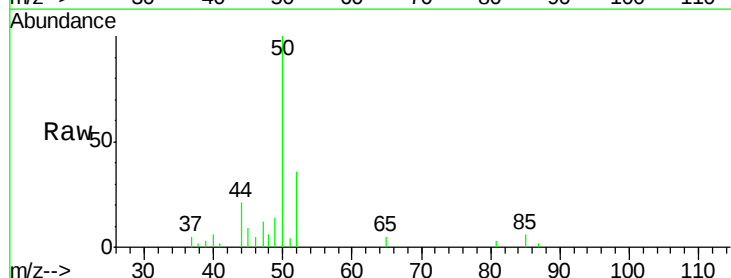
Acq: 28 Jan 2022 00:28

Tgt Ion: 50 Resp: 12919

Ion Ratio Lower Upper

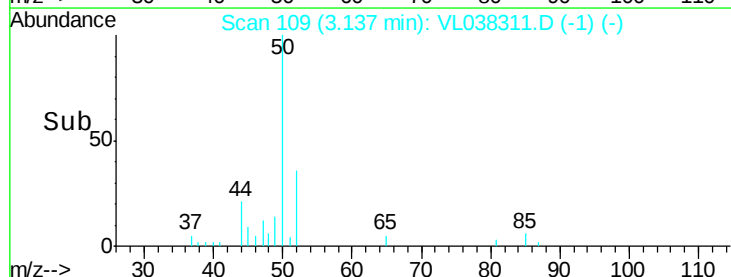
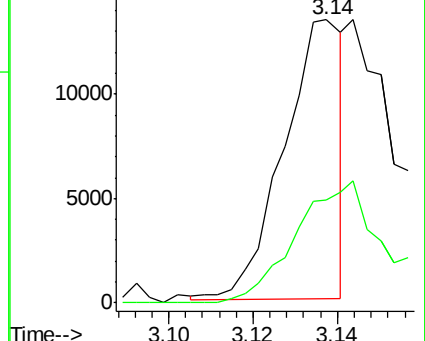
50 100

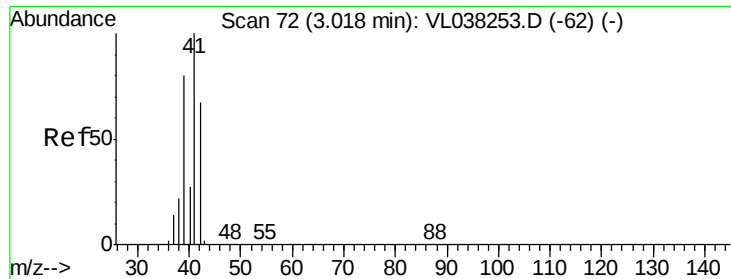
52 37.2 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 3.029 ppbv

RT: 3.20 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

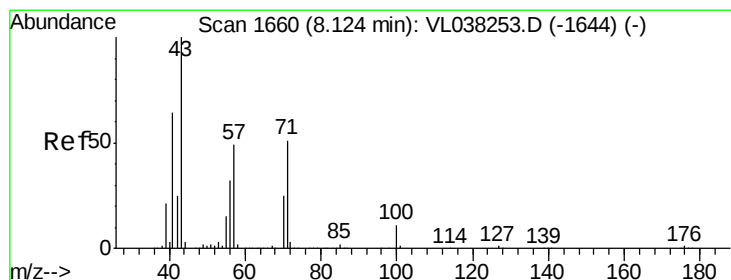
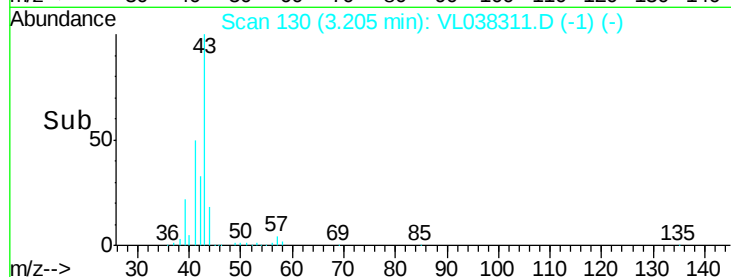
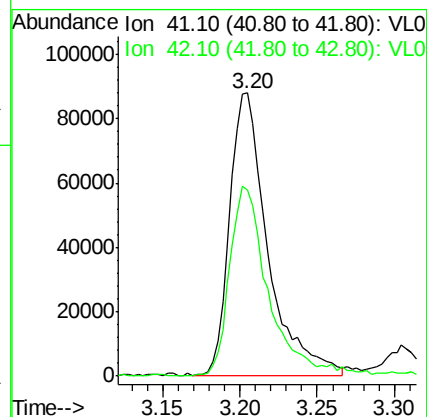
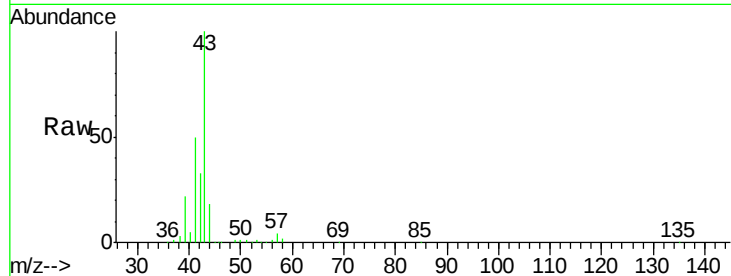
Acq: 28 Jan 2022 00:28

Tgt Ion: 41 Resp: 149714

Ion Ratio Lower Upper

41 100

42 68.8 54.9 82.3



#10

Heptane

Concen: 0.087 ppbv

RT: 8.10 min Scan# 1651

Delta R.T. -0.03 min

Lab File: VL038311.D

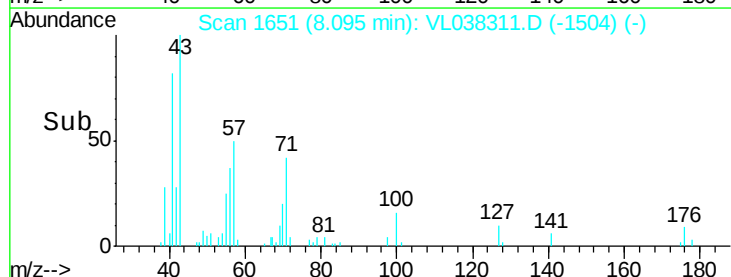
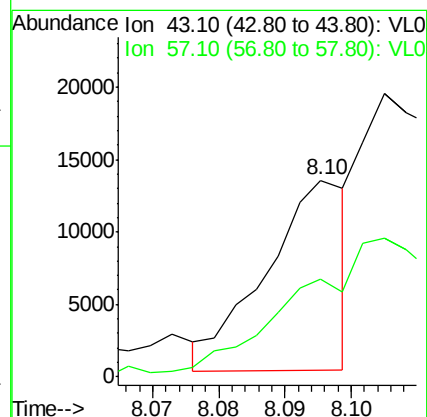
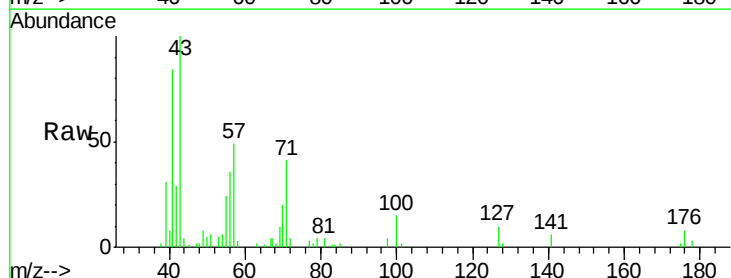
Acq: 28 Jan 2022 00:28

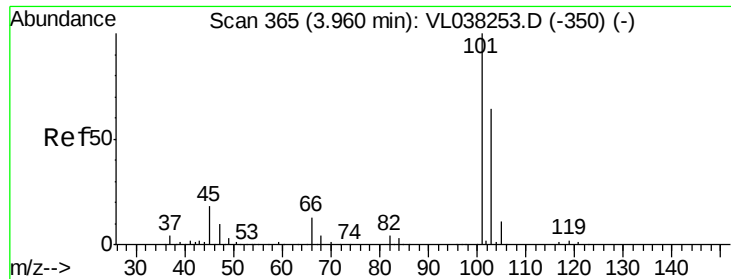
Tgt Ion: 43 Resp: 11078

Ion Ratio Lower Upper

43 100

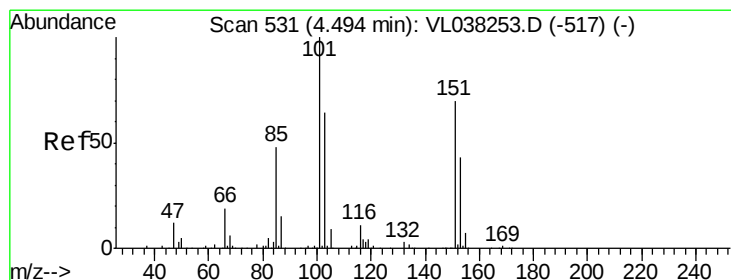
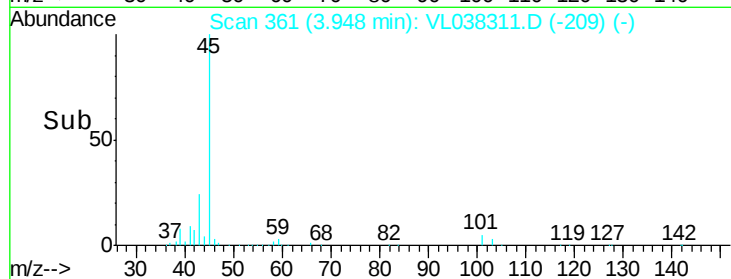
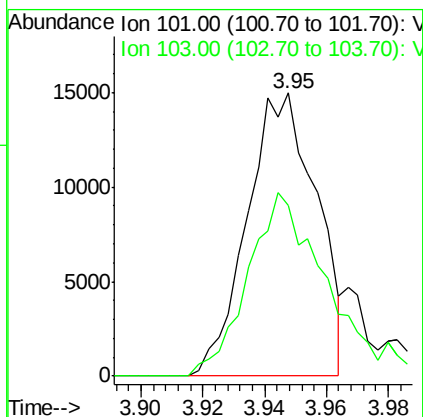
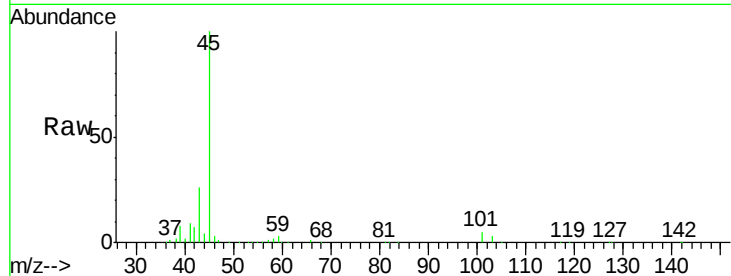
57 0.0 39.5 59.3#





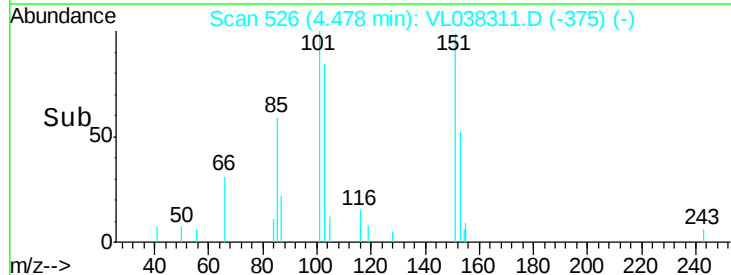
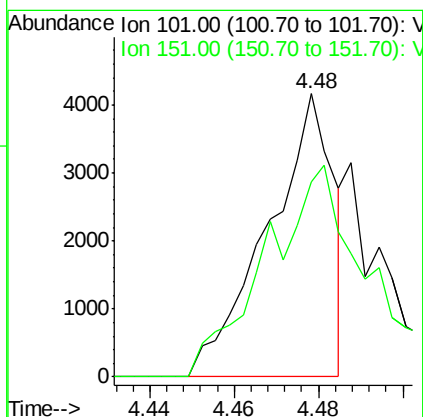
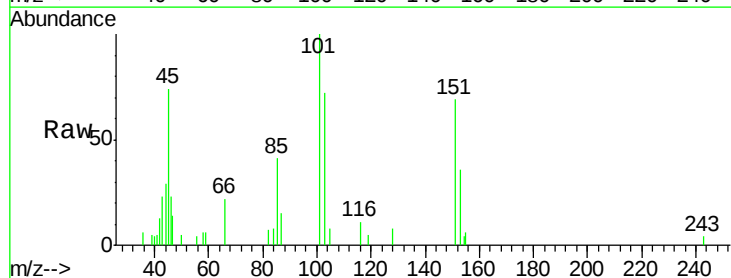
#11
 Trichlorofluoromethane
 Concen: 0.184 ppbv
 RT: 3.95
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Jan 2022 00:28

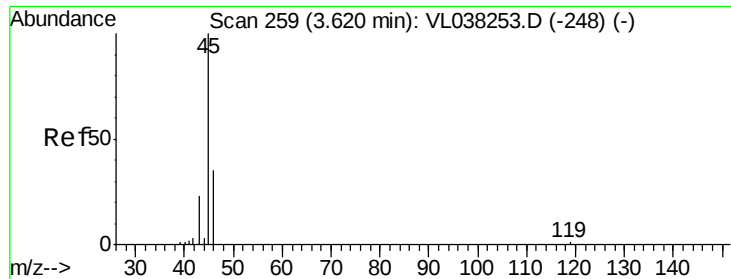
Tgt Ion:101 Resp: 23327
 Ion Ratio Lower Upper
 101 100
 103 60.3 51.2 76.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.047 ppbv
 RT: 4.48 min Scan# 526
 Delta R.T. -0.02 min
 Lab File: VL038311.D
 Acq: 28 Jan 2022 00:28

Tgt Ion:101 Resp: 4516
 Ion Ratio Lower Upper
 101 100
 151 115.3 55.3 82.9#





#13

Ethanol

Concen: 956.993 ppbv

RT: 3.60 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

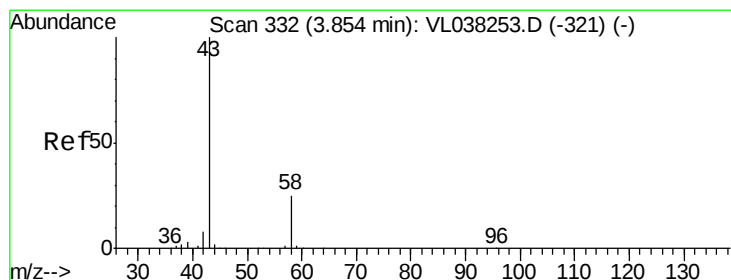
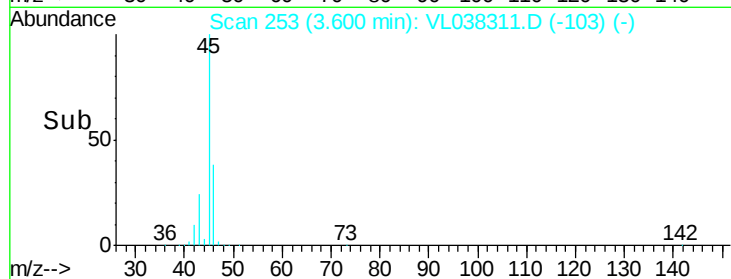
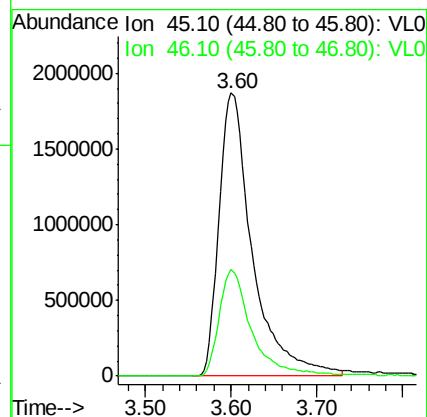
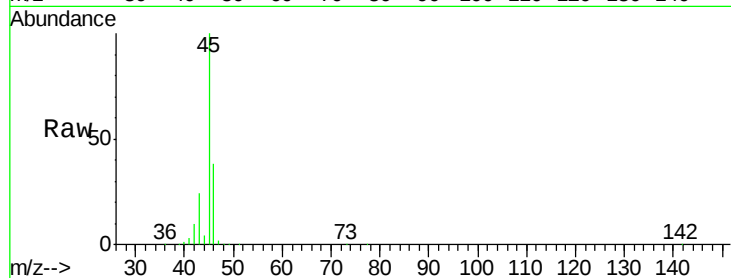
Acq: 28 Jan 2022 00:28

Tgt Ion: 45 Resp: 5078237

Ion Ratio Lower Upper

45 100

46 37.0 15.4 61.6



#15

Acetone

Concen: 5.563 ppbv

RT: 3.84 min Scan# 329

Delta R.T. -0.01 min

Lab File: VL038311.D

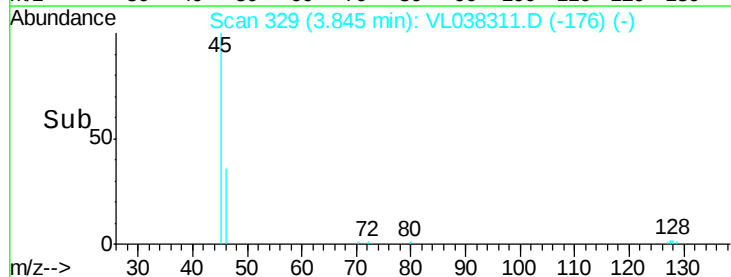
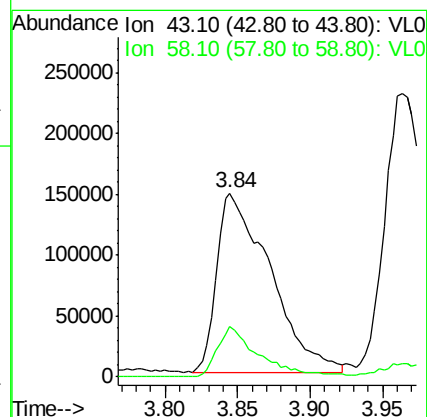
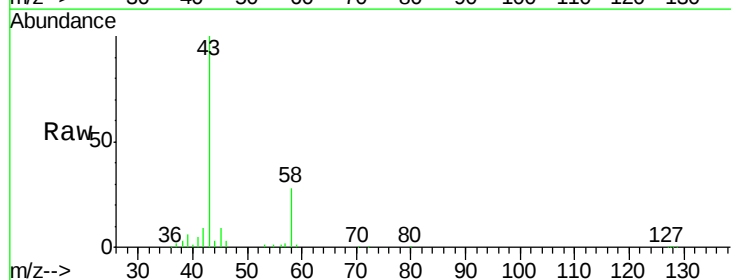
Acq: 28 Jan 2022 00:28

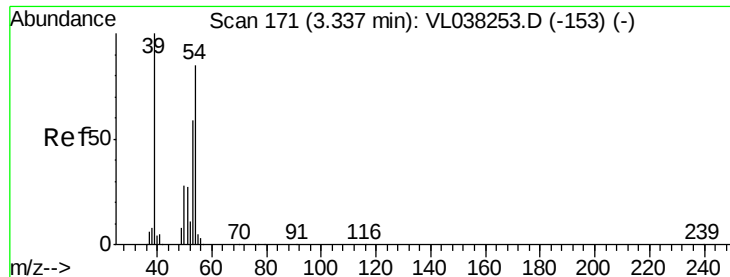
Tgt Ion: 43 Resp: 374066

Ion Ratio Lower Upper

43 100

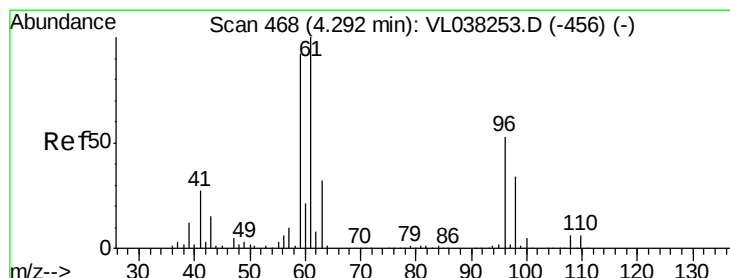
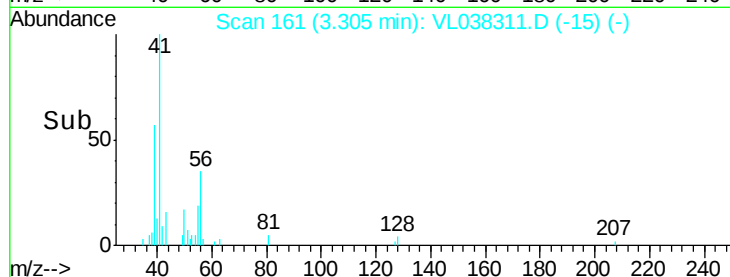
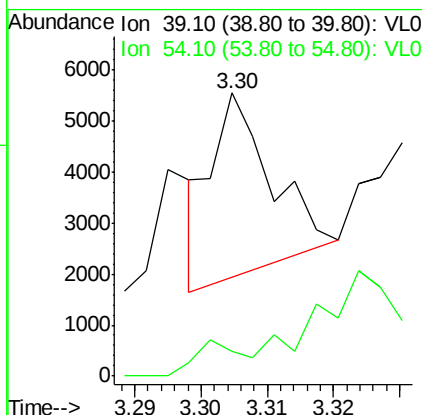
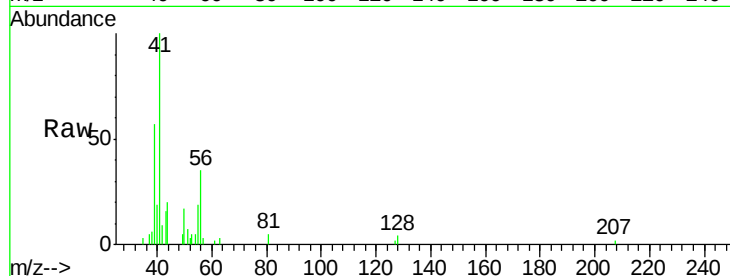
58 22.3 21.5 32.3





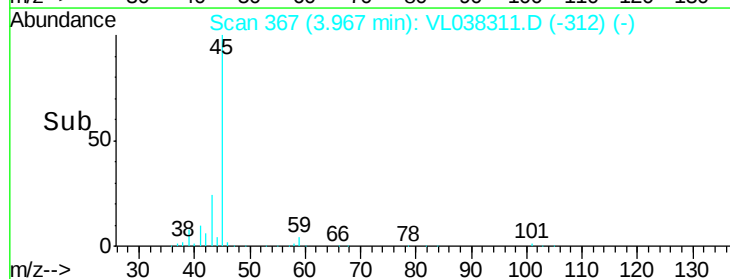
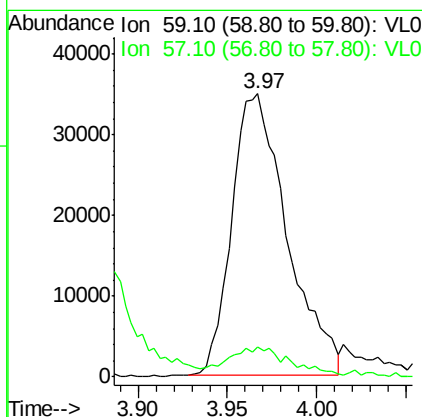
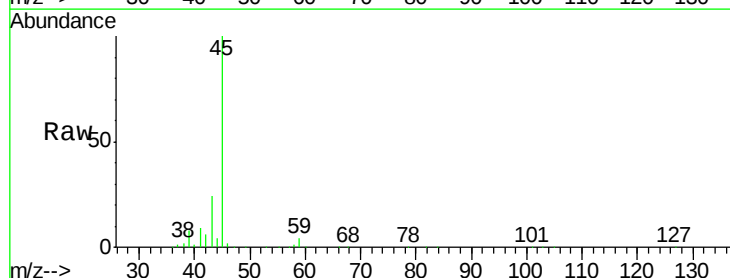
#16
 1,3-Butadiene
 Concen: 0.047 ppbv
 RT: 3.30
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Jan 2022 00:28

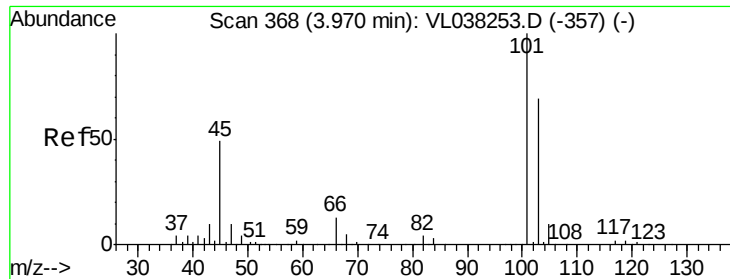
Tgt Ion: 39 Resp: 2273
 Ion Ratio Lower Upper
 39 100
 54 104.8 62.6 94.0#



#17
 tert-Butyl alcohol
 Concen: 1.026 ppbv
 RT: 3.97 min Scan# 367
 Delta R.T. -0.32 min
 Lab File: VL038311.D
 Acq: 28 Jan 2022 00:28

Tgt Ion: 59 Resp: 75732
 Ion Ratio Lower Upper
 59 100
 57 13.5 9.2 13.8





#19

Isopropyl Alcohol

Concen: 54.340 ppbv

RT: 3.96 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

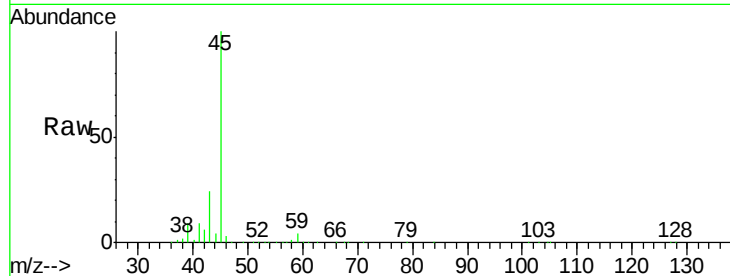
Acq: 28 Jan 2022 00:28

Tgt Ion: 45 Resp: 2285709

Ion Ratio Lower Upper

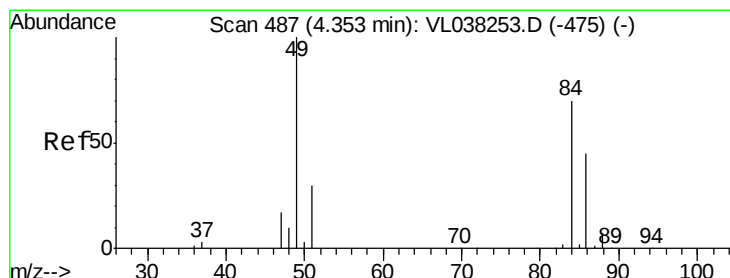
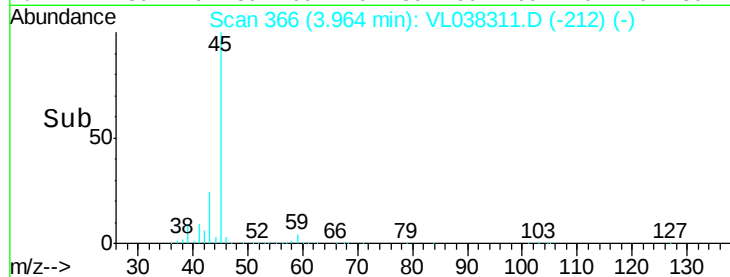
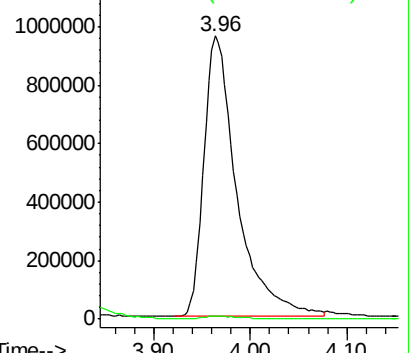
45 100

58 1.3 2.3 3.5#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.512 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.01 min

Lab File: VL038311.D

Acq: 28 Jan 2022 00:28

Tgt Ion: 84 Resp: 20015

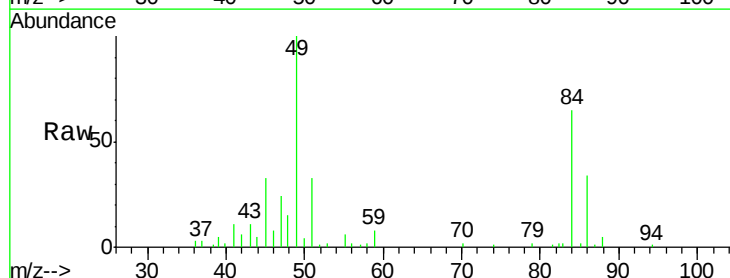
Ion Ratio Lower Upper

84 100

49 151.3 115.0 172.6

51 49.1 35.0 52.6

86 51.8 51.4 77.0

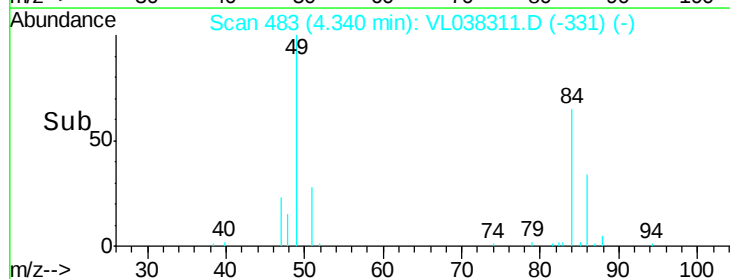
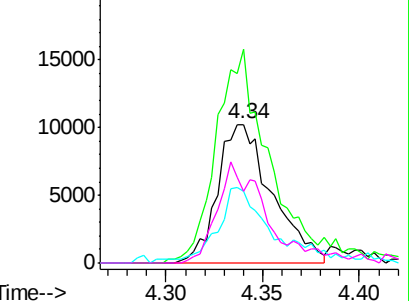


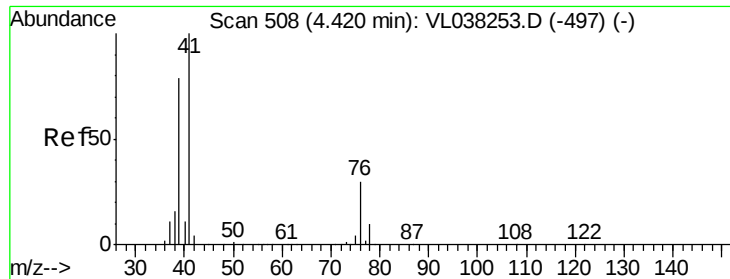
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

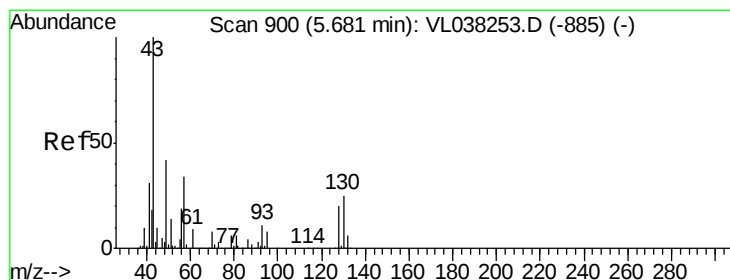
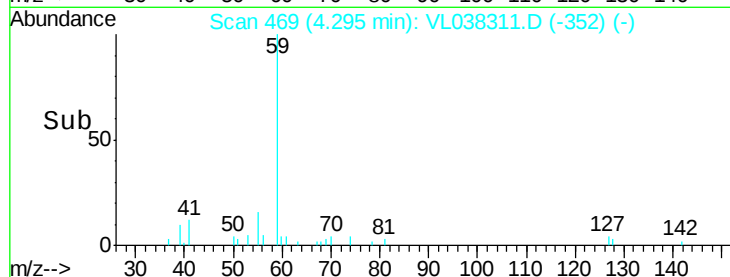
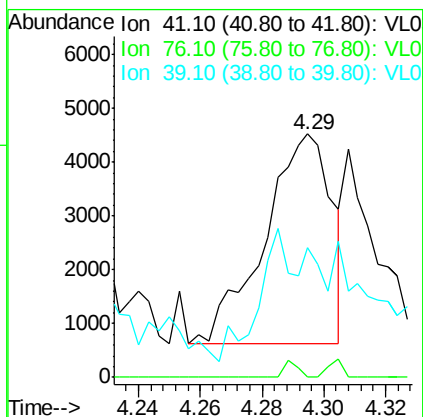
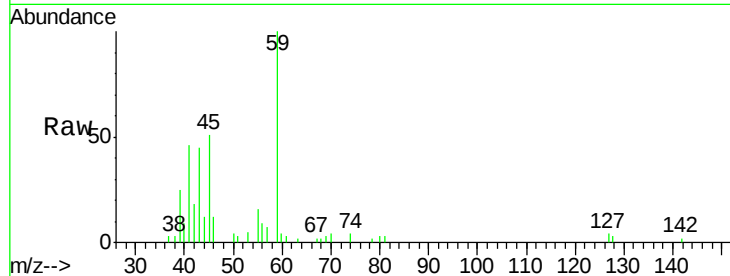
Ion 86.00 (85.70 to 86.70): VL0





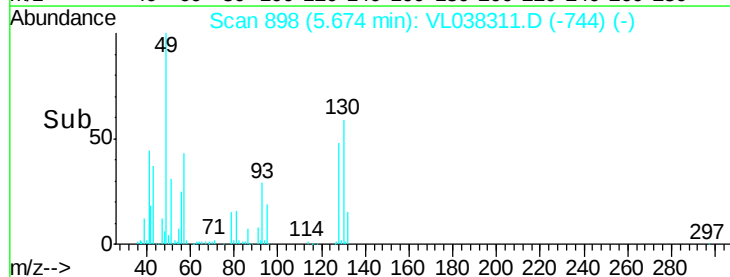
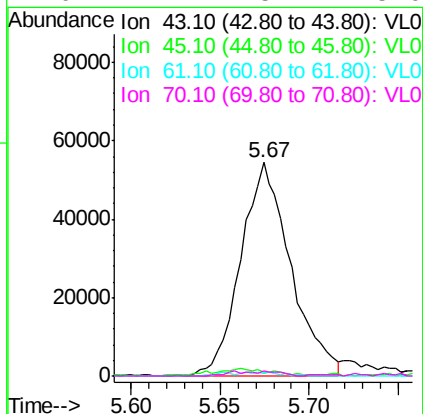
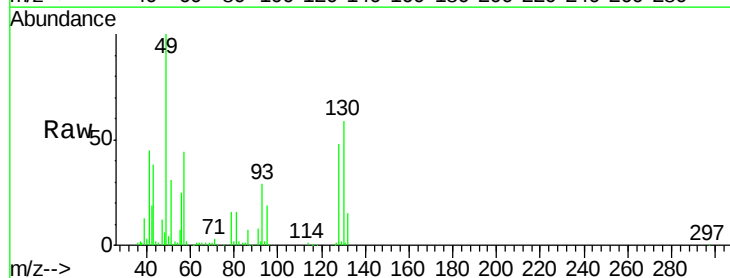
#21
 Allyl Chloride
 Concen: 0.098 ppbv
 RT: 4.29
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Jan 2022 00:28

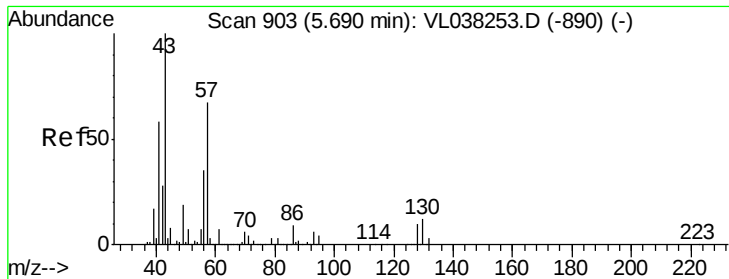
Tgt Ion: 41 Resp: 5839
 Ion Ratio Lower Upper
 41 100
 76 3.4 25.0 37.6#
 39 0.0 63.0 94.6#



#25
 Ethyl Acetate
 Concen: 0.566 ppbv
 RT: 5.67 min Scan# 898
 Delta R.T. -0.01 min
 Lab File: VL038311.D
 Acq: 28 Jan 2022 00:28

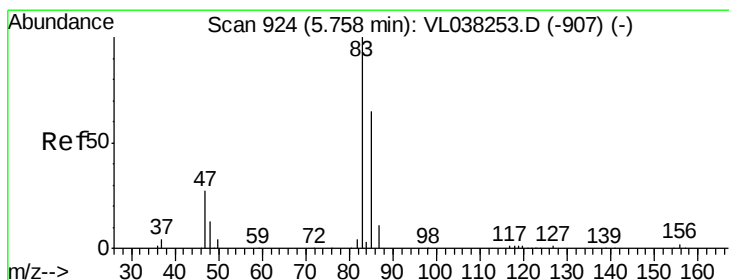
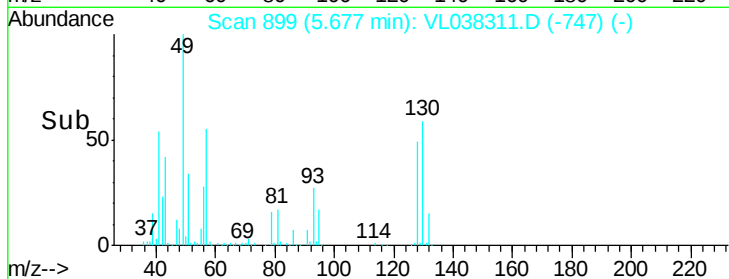
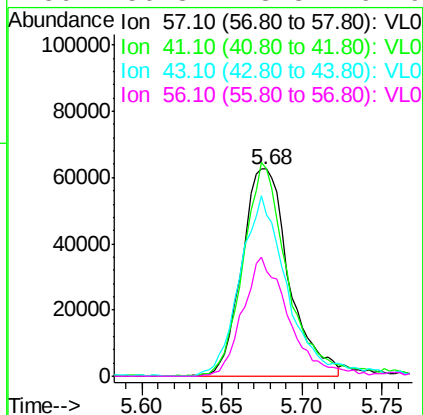
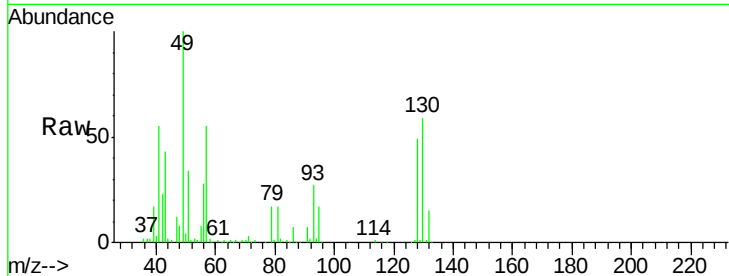
Tgt Ion: 43 Resp: 106590
 Ion Ratio Lower Upper
 43 100
 45 5.7 7.9 11.9#
 61 1.8 7.8 11.8#
 70 2.2 5.4 8.0#





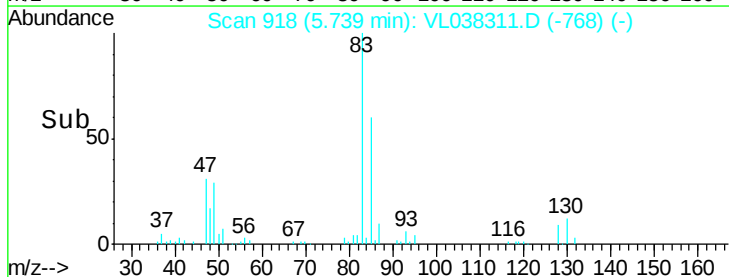
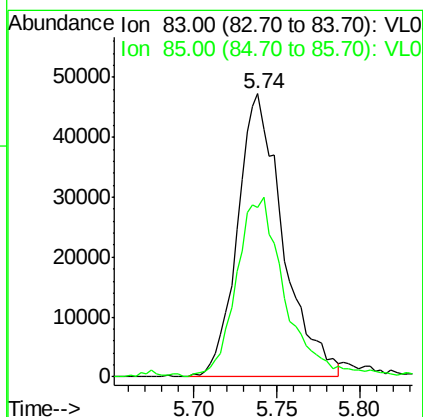
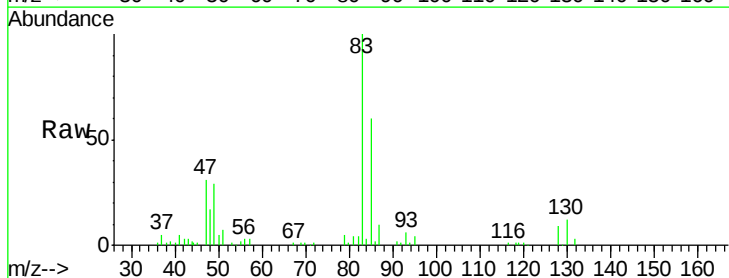
#26
Hexane
Concen: 1.444 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Jan 2022 00:28

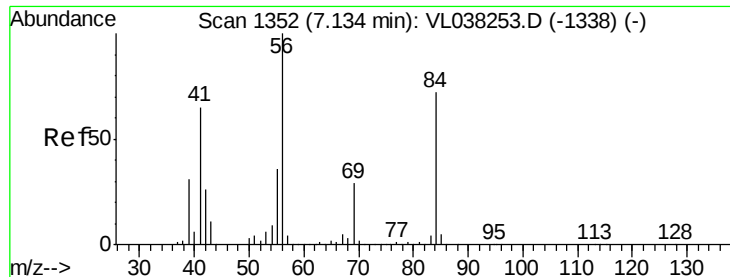
Tgt Ion:	57	Resp:	126451
Ion	Ratio	Lower	Upper
57	100		
41	99.6	72.8	109.2
43	91.2	177.0	265.6#
56	56.3	43.3	64.9



#29
Chloroform
Concen: 0.632 ppbv
RT: 5.74 min Scan# 918
Delta R.T. -0.02 min
Lab File: VL038311.D
Acq: 28 Jan 2022 00:28

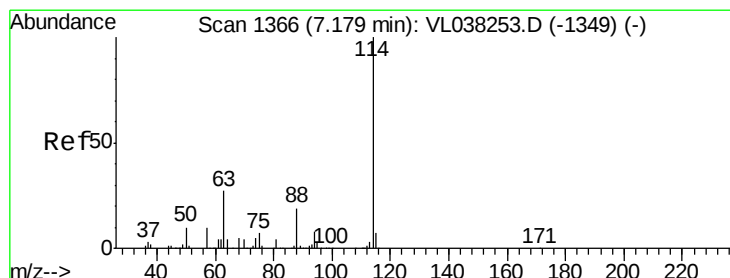
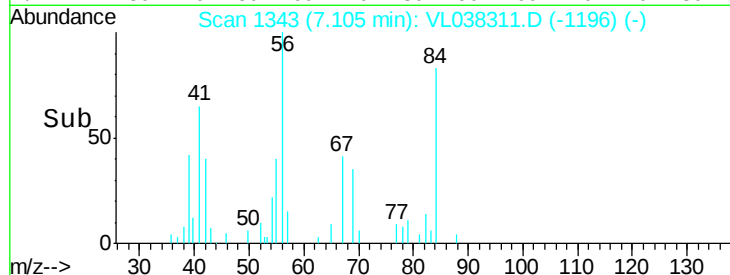
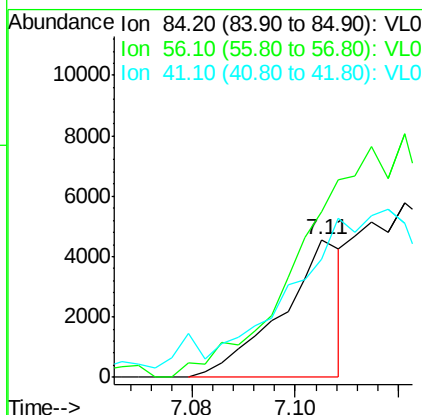
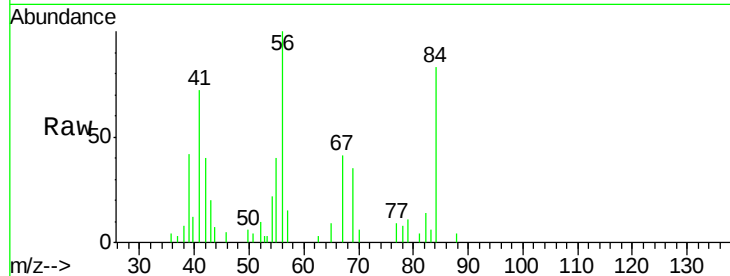
Tgt Ion:	83	Resp:	90300
Ion	Ratio	Lower	Upper
83	100		
85	59.9	51.9	77.9





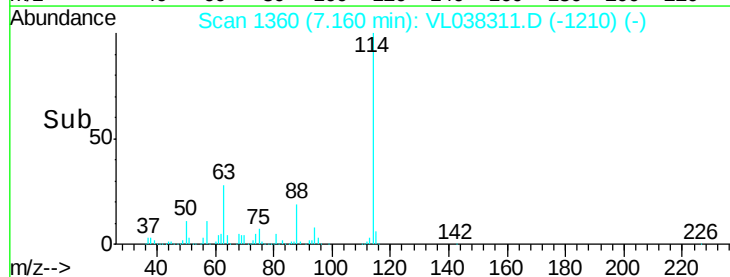
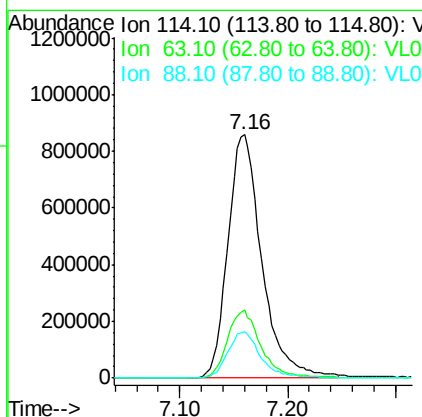
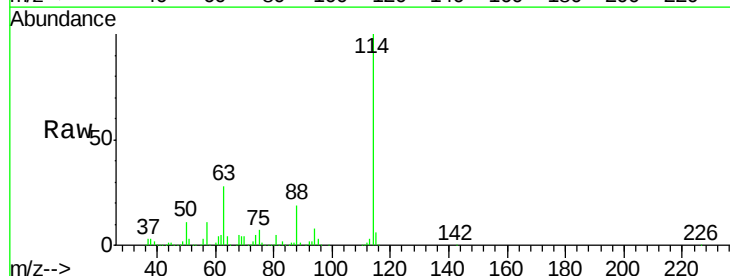
#30
Cyclohexane
Concen: 0.048 ppbv
RT: 7.11 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 28 Jan 2022 00:28

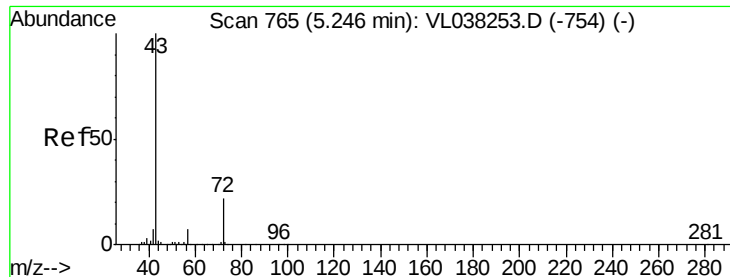
Tgt Ion: 84 Resp: 3689
Ion Ratio Lower Upper
84 100
56 0.0 112.7 169.1#
41 0.0 71.1 106.7#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1360
Delta R.T. -0.02 min
Lab File: VL038311.D
Acq: 28 Jan 2022 00:28

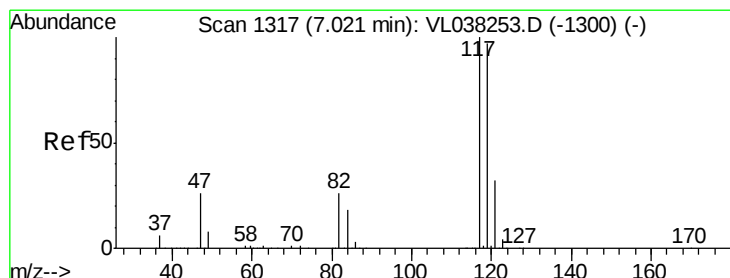
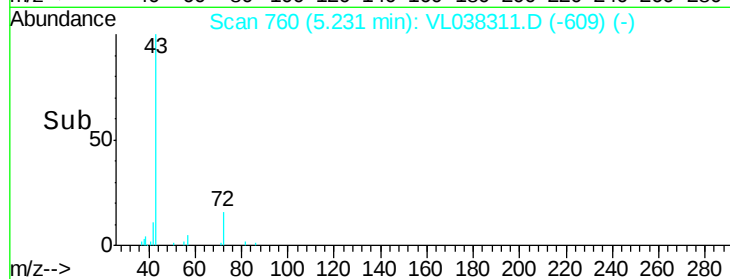
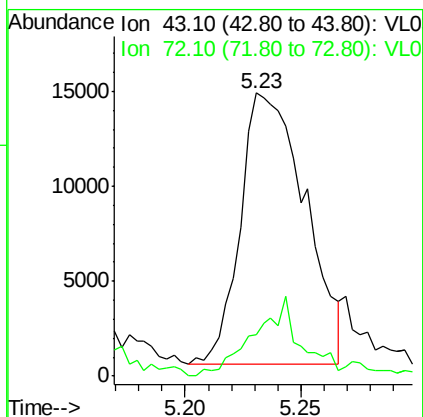
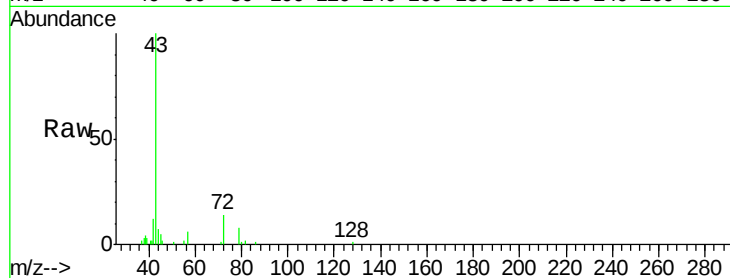
Tgt Ion: 114 Resp: 1884641
Ion Ratio Lower Upper
114 100
63 27.9 22.0 33.0
88 19.0 15.0 22.6





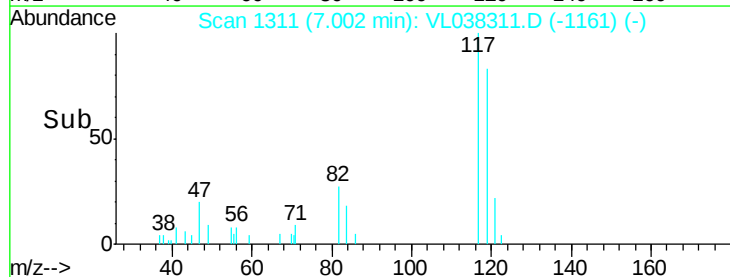
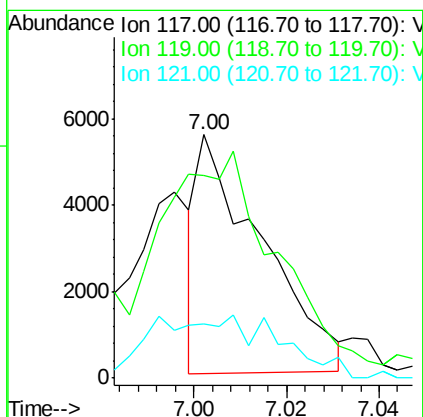
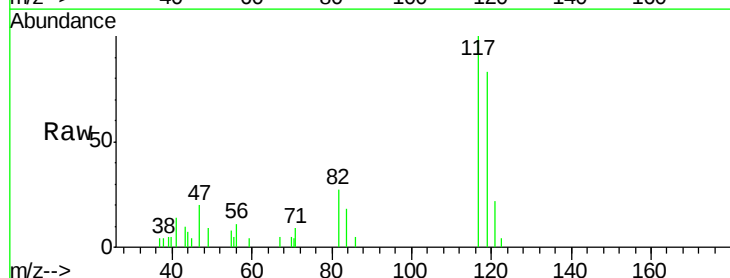
#34
 2-Butanone
 Concen: 0.449 ppbv
 RT: 5.23
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Jan 2022 00:28

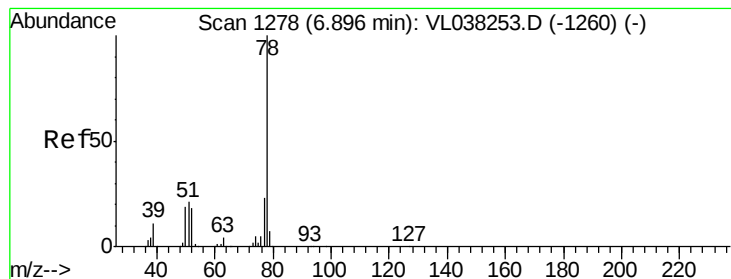
Tgt Ion: 43 Resp: 27685
 Ion Ratio Lower Upper
 43 100
 72 23.9 18.1 27.1



#35
 Carbon Tetrachloride
 Concen: 0.040 ppbv
 RT: 7.00 min Scan# 1311
 Delta R.T. -0.02 min
 Lab File: VL038311.D
 Acq: 28 Jan 2022 00:28

Tgt Ion: 117 Resp: 5316
 Ion Ratio Lower Upper
 117 100
 119 82.1 77.9 116.9
 121 16.0 25.4 38.2#





#36

Benzene

Concen: 0.302 ppbv

RT: 6.87 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Jan 2022 00:28

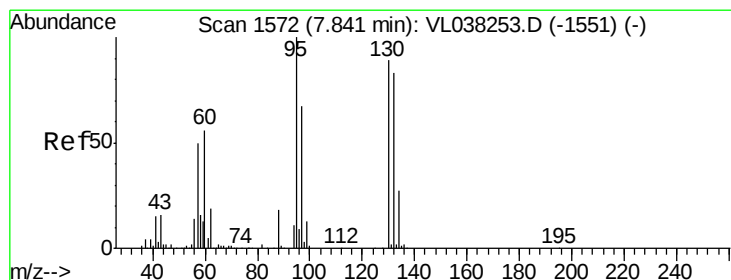
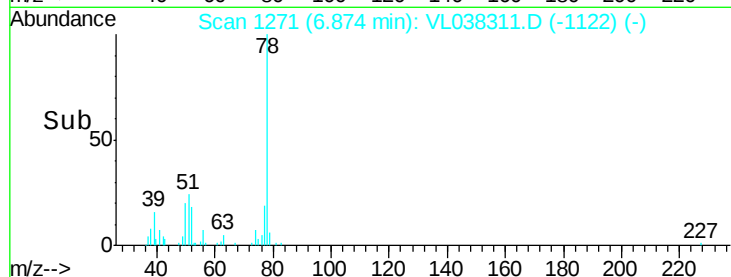
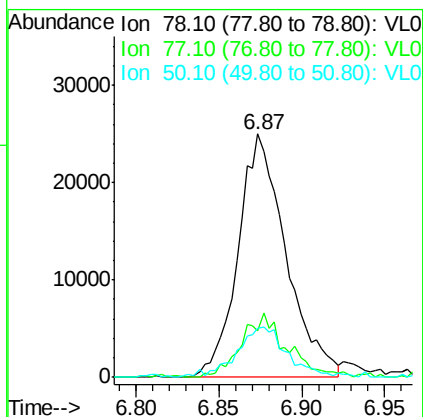
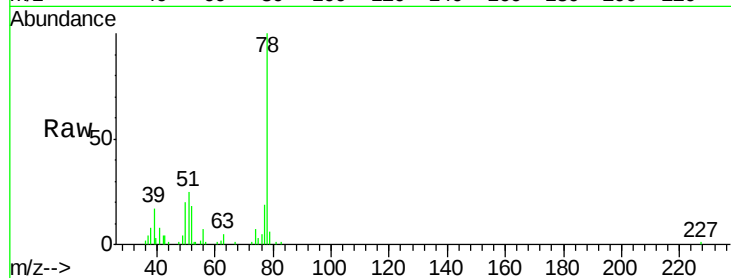
Tgt Ion: 78 Resp: 50309

Ion Ratio Lower Upper

78 100

77 19.4 18.2 27.2

50 19.6 15.1 22.7



#38

Trichloroethene

Concen: 0.207 ppbv

RT: 7.82 min Scan# 1566

Delta R.T. -0.02 min

Lab File: VL038311.D

Acq: 28 Jan 2022 00:28

Tgt Ion: 130 Resp: 12831

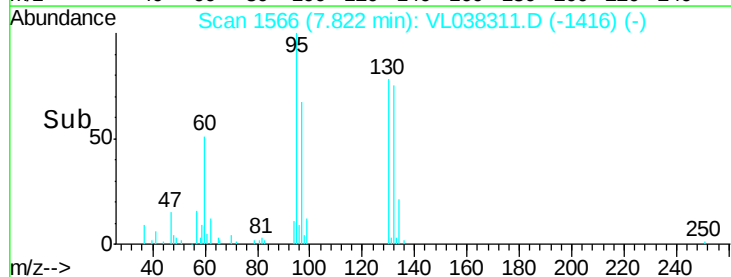
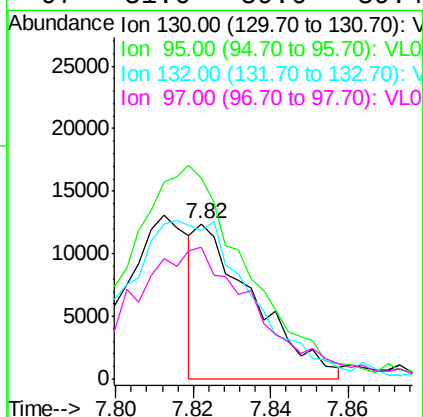
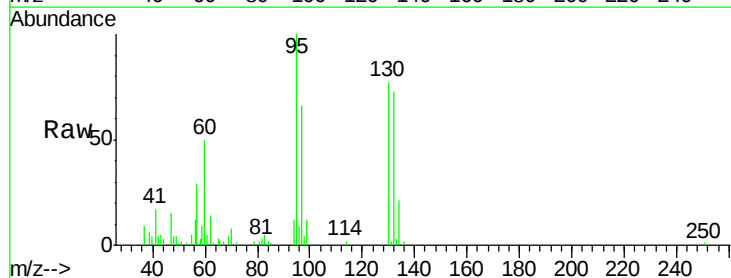
Ion Ratio Lower Upper

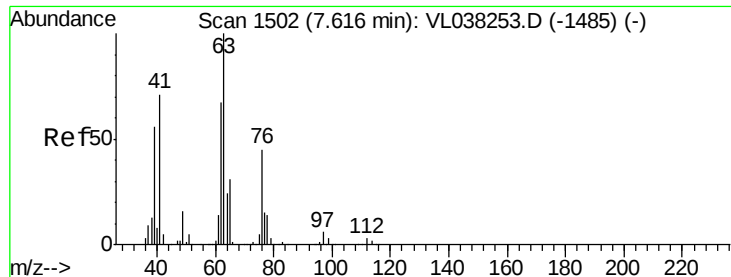
130 100

95 129.9 89.4 134.2

132 95.6 74.6 111.8

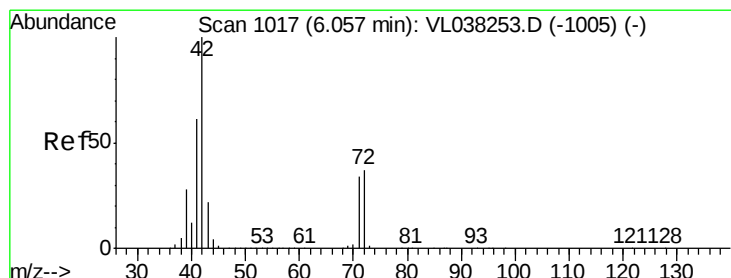
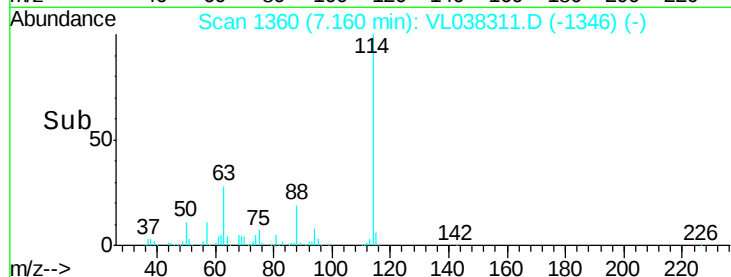
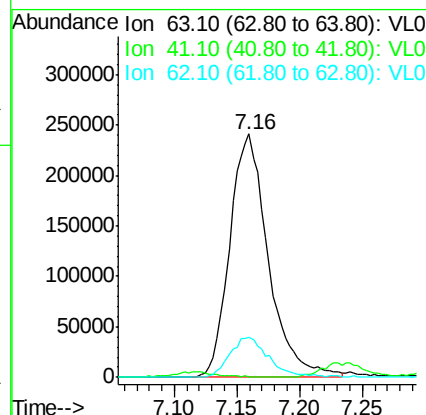
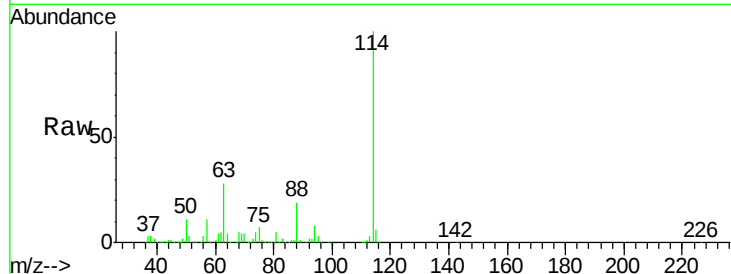
97 81.6 59.6 89.4





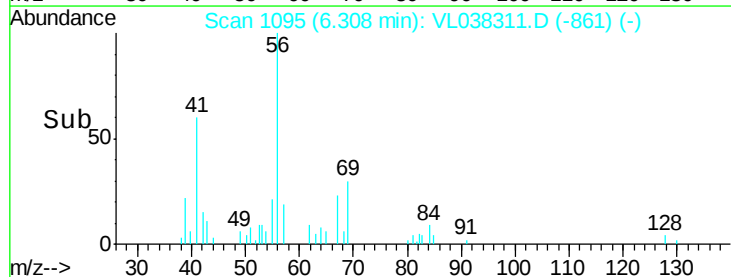
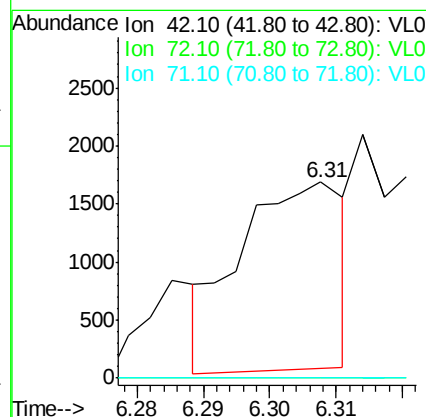
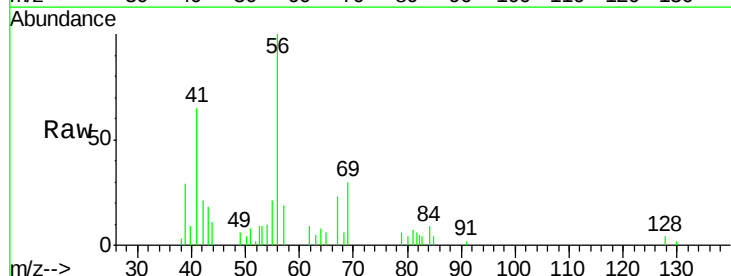
#39
 1,2-Dichloropropane
 Concen: 7.558 ppbv
 RT: 7.16
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Jan 2022 00:28

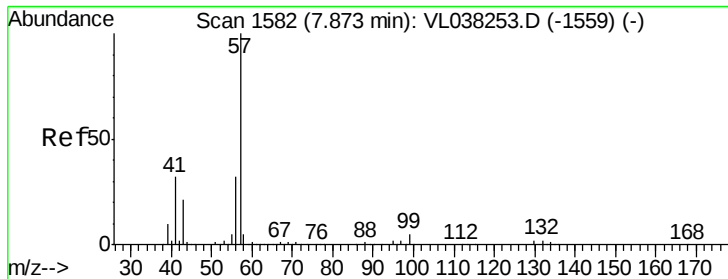
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	56.6	85.0#
62	16.4	53.9	80.9#



#41
 Tetrahydrofuran
 Concen: 0.043 ppbv
 RT: 6.31 min Scan# 1095
 Delta R.T. 0.25 min
 Lab File: VL038311.D
 Acq: 28 Jan 2022 00:28

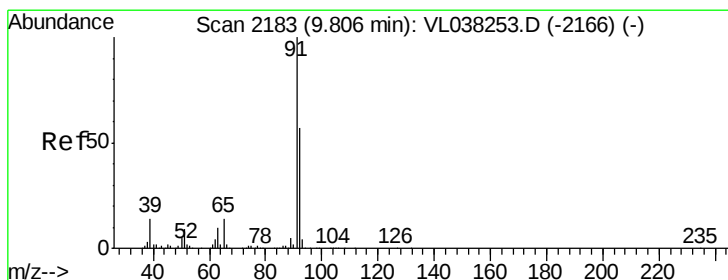
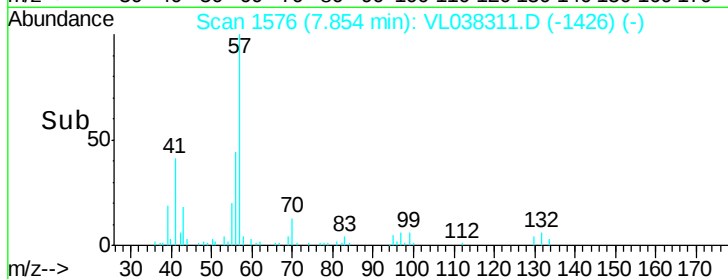
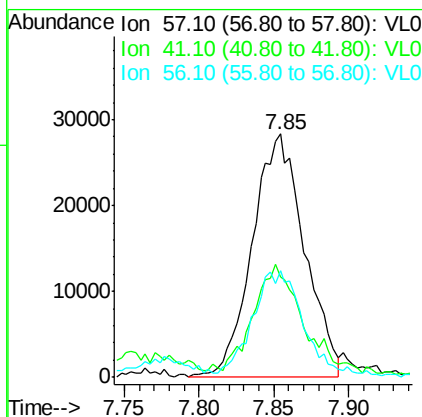
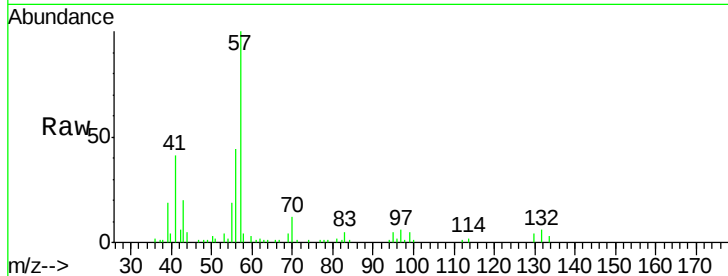
Tgt Ion	Ratio	Lower	Upper
42	100		
72	1.9	29.7	44.5#
71	0.0	29.4	44.2#





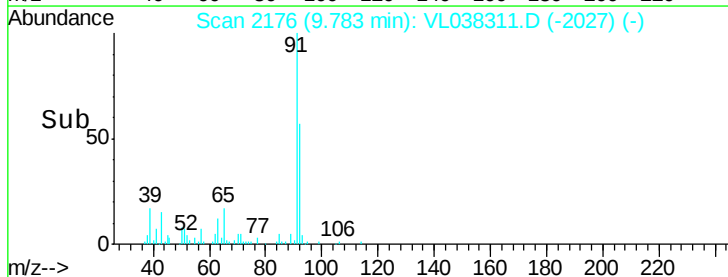
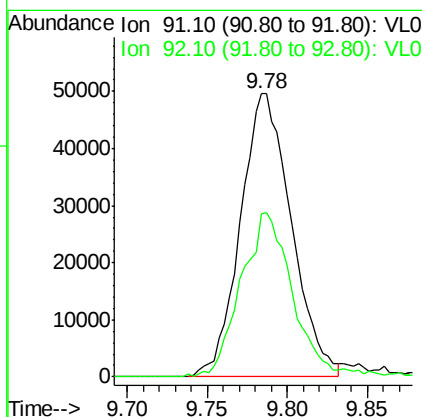
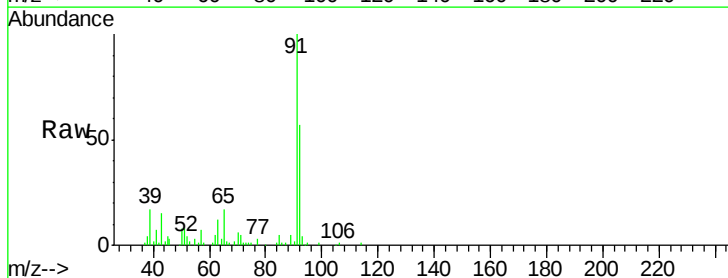
#44
 2,2,4-Trimethylpentane
 Concen: 0.234 ppbv
 RT: 7.85
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Jan 2022 00:28

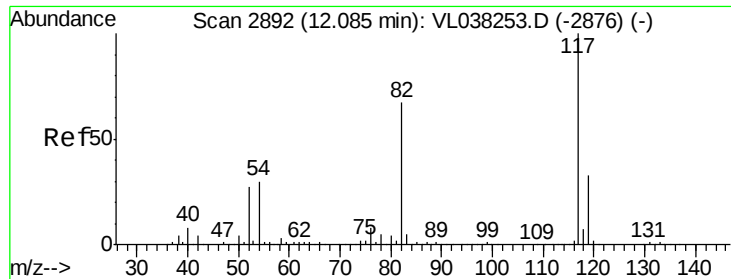
Tgt Ion	Resp	Lower	Upper
57	100		
41	44.8	26.3	39.5#
56	45.0	25.2	37.8#



#53
 Toluene
 Concen: 0.587 ppbv
 RT: 9.78 min Scan# 2176
 Delta R.T. -0.02 min
 Lab File: VL038311.D
 Acq: 28 Jan 2022 00:28

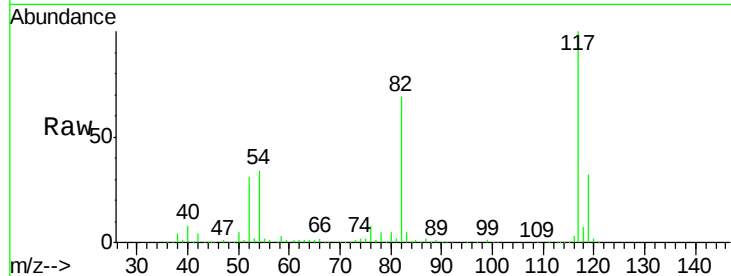
Tgt Ion	Resp	Lower	Upper
91	100		
92	60.2	47.4	71.0



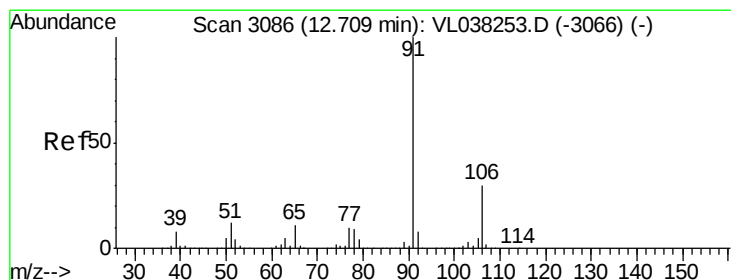
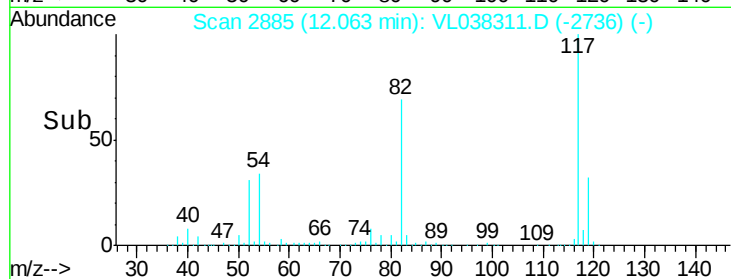
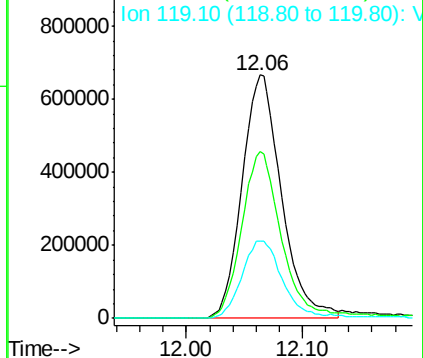


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.06 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Jan 2022 00:28

Tgt Ion: 117 Resp: 1576138
Ion Ratio Lower Upper
117 100
82 72.0 54.4 81.6
119 34.3 45.9 68.9

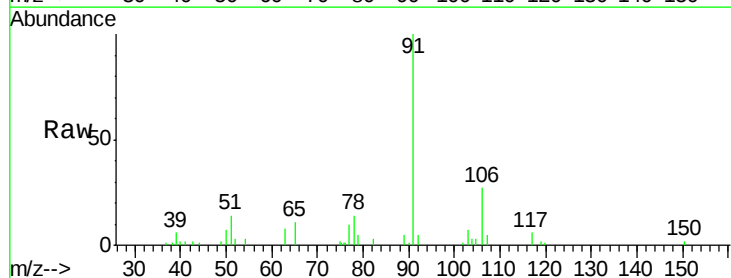


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

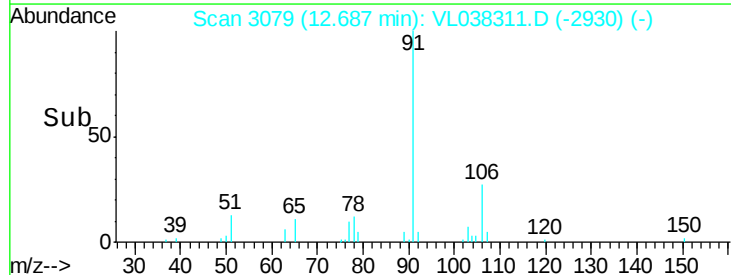
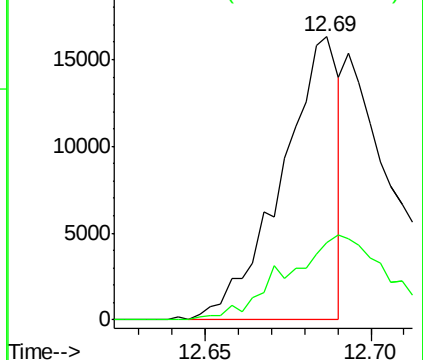


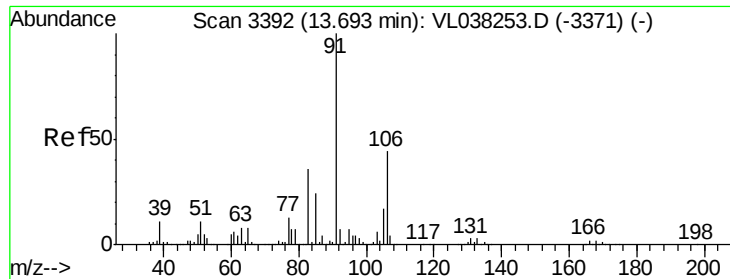
#58
Ethyl Benzene
Concen: 0.084 ppbv
RT: 12.69 min Scan# 3079
Delta R.T. -0.02 min
Lab File: VL038311.D
Acq: 28 Jan 2022 00:28

Tgt Ion: 91 Resp: 19565
Ion Ratio Lower Upper
91 100
106 27.1 24.1 36.1



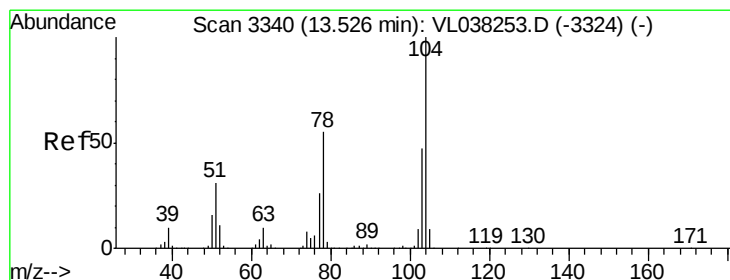
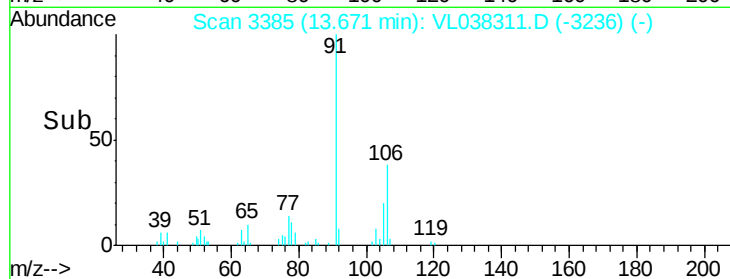
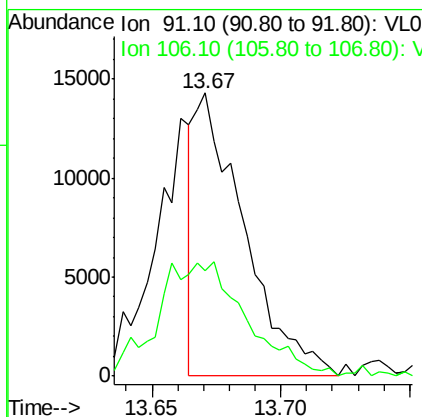
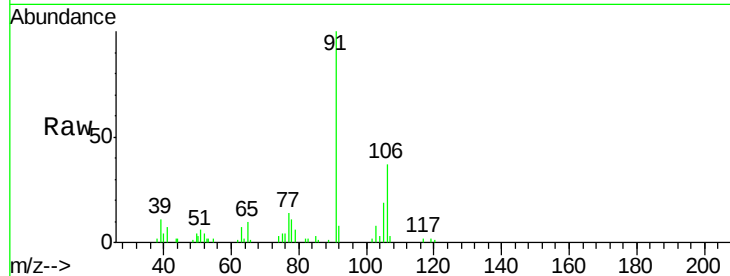
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





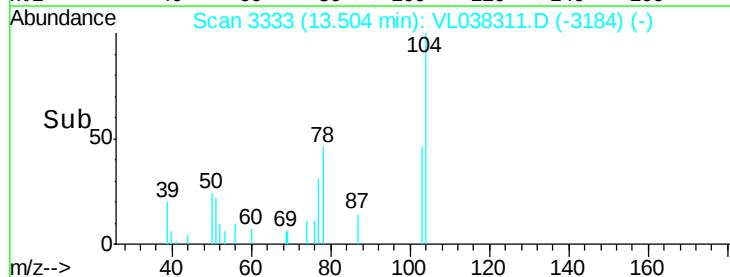
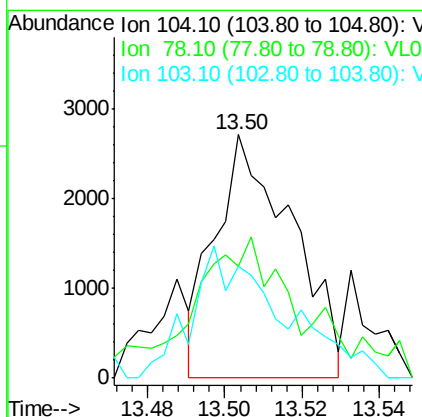
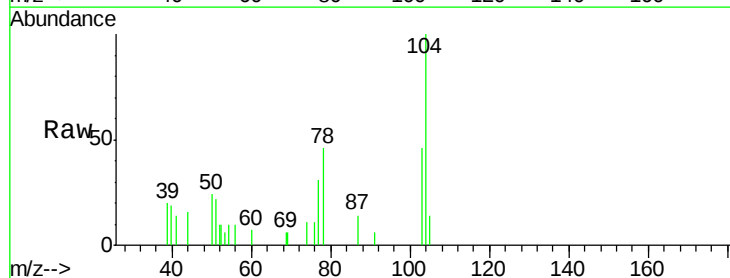
#60
o-Xylene
Concen: 0.103 ppbv
RT: 13.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Jan 2022 00:28

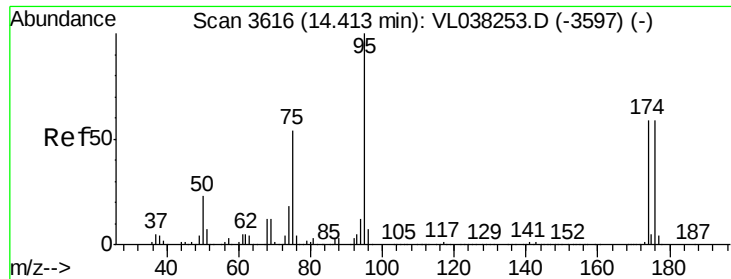
Tgt Ion: 91 Resp: 18971
Ion Ratio Lower Upper
91 100
106 74.2 22.2 66.6#



#61
Styrene
Concen: 0.044 ppbv
RT: 13.50 min Scan# 3333
Delta R.T. -0.02 min
Lab File: VL038311.D
Acq: 28 Jan 2022 00:28

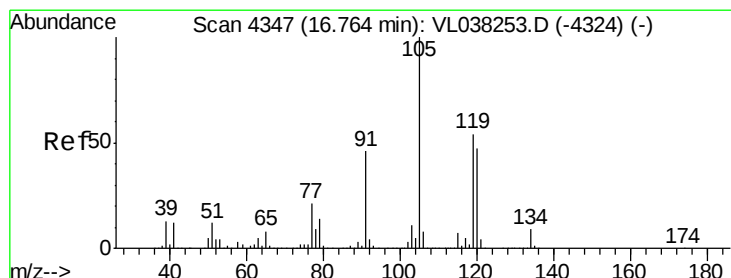
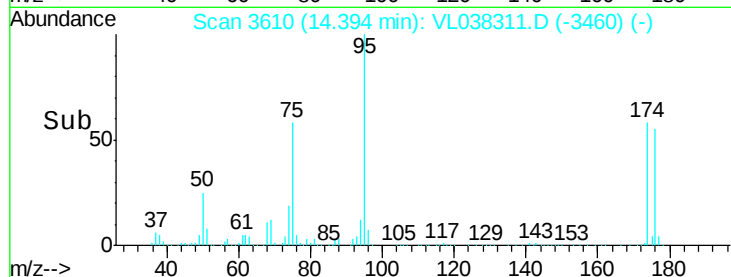
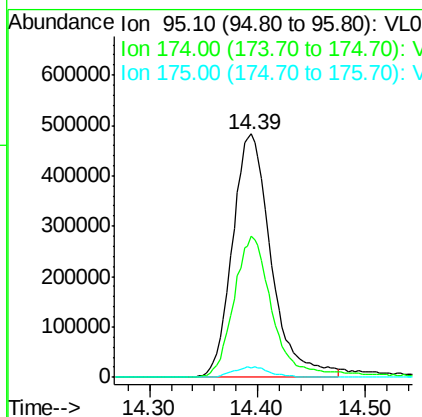
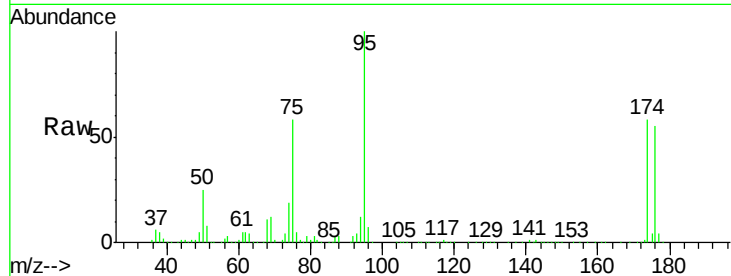
Tgt Ion: 104 Resp: 3744
Ion Ratio Lower Upper
104 100
78 84.8 44.2 66.4#
103 65.2 38.2 57.4#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.100 ppbv
 RT: 14.39 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampled :
 Acq: 28 Jan 2022 00:28

Tgt Ion: 95 Resp: 1208201
 Ion Ratio Lower Upper
 95 100
 174 59.8 48.3 72.5
 175 4.3 3.5 5.3



#74
 1,2,4-Trimethylbenzene
 Concen: 0.060 ppbv
 RT: 16.74 min Scan# 4339
 Delta R.T. -0.03 min
 Lab File: VL038311.D
 Acq: 28 Jan 2022 00:28

Tgt Ion: 105 Resp: 10888
 Ion Ratio Lower Upper
 105 100
 120 51.2 37.2 55.8
 91 13.2 36.6 55.0#
 77 8.0 16.9 25.3#

