

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050522\
 Data File : VL038977.D
 Acq On : 5 May 2022 18:01
 Operator : SY/AP
 Sample : N2698-04
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Quant Time: May 06 07:29:21 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LThu May 05 07:41:27 2022
 QLast Update : Thu May 05 07:41:27 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1178121	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3078972	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2620968	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2016977	9.72	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.20%

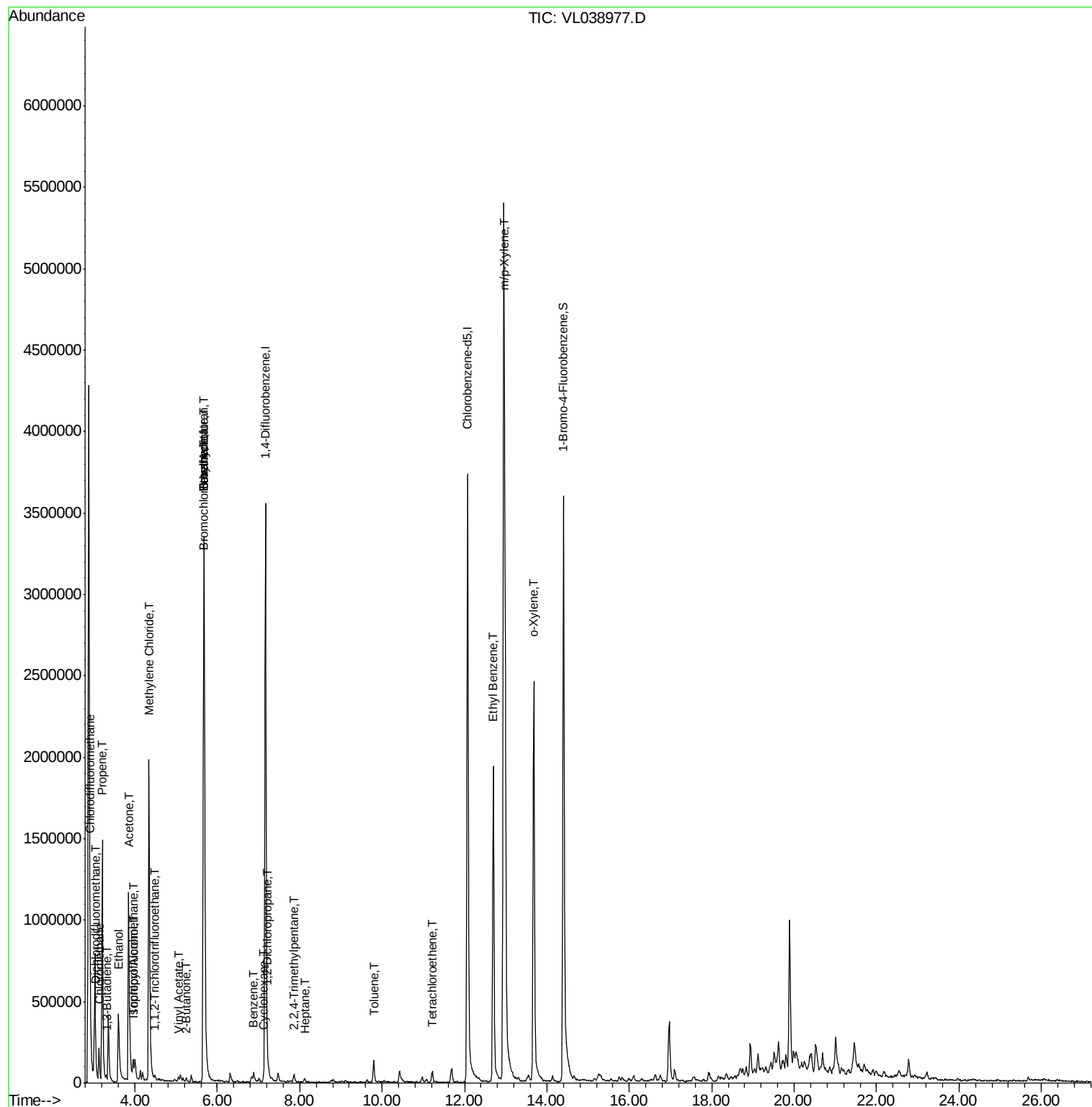
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	56655	0.307 ppbv	90
3) Chlorodifluoromethane	2.91	51	4694	0.032 ppbv	99
4) Chloromethane	3.14	50	33297	0.455 ppbv	96
9) Propene	3.20	41	537280	8.416 ppbv	96
10) Heptane	8.11	43	6038	0.039 ppbv #	27
11) Trichlorofluoromethane	3.95	101	32510	0.205 ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.48	101	4621	0.042 ppbv #	42
13) Ethanol	3.60	45	622307	124.825 ppbv	88
15) Acetone	3.84	43	1553621	13.980 ppbv	99
16) 1,3-Butadiene	3.30	39	6987	0.109 ppbv #	71
19) Isopropyl Alcohol	3.98	45	24530	0.464 ppbv #	95
20) Methylene Chloride	4.34	84	809548	19.328 ppbv	94
23) Vinyl Acetate	5.07	43	3534	0.040 ppbv #	83
25) Ethyl Acetate	5.68	43	836612	3.145 ppbv #	80
26) Hexane	5.68	57	1196672	10.125 ppbv #	37
30) Cyclohexane	7.12	84	4766	0.048 ppbv #	1
34) 2-Butanone	5.25	43	31587	0.201 ppbv #	90
36) Benzene	6.88	78	38764	0.147 ppbv #	92
39) 1,2-Dichloropropane	7.22	63	12479	0.122 ppbv #	27
41) Tetrahydrofuran	5.68	42	425887	4.034 ppbv #	50
44) 2,2,4-Trimethylpentane	7.86	57	15130	0.033 ppbv #	1
52) Tetrachloroethene	11.21	164	10061	0.107 ppbv	90
53) Toluene	9.80	91	98851	0.335 ppbv	99
58) Ethyl Benzene	12.70	91	1947219	5.162 ppbv	99
59) m/p-Xylene	12.95	91	6423695	19.949 ppbv	92
60) o-Xylene	13.68	91	2193885	7.239 ppbv	99

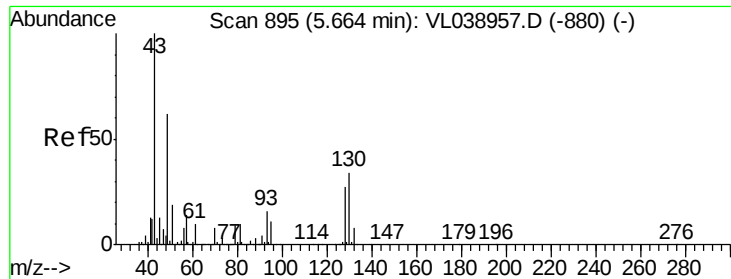
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu May 05 07:41:27 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. 0.00

Lab File: ClientSampleId: 1A2

Acq: 5 May 2022 18:01

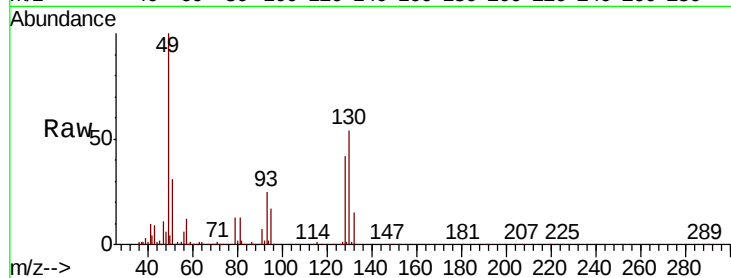
Tot Ion: 49 Resp: 1178121

Ion	Ratio	Lower	Upper
49	100		
128	48.5	23.3	69.8
130	60.6	29.8	89.3

49 100

128 48.5 23.3 69.8

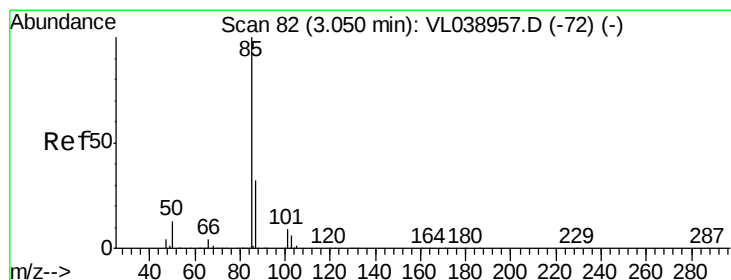
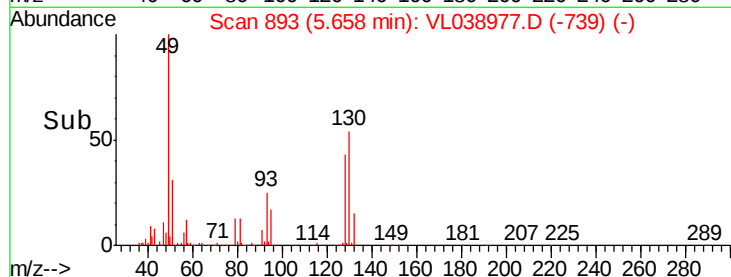
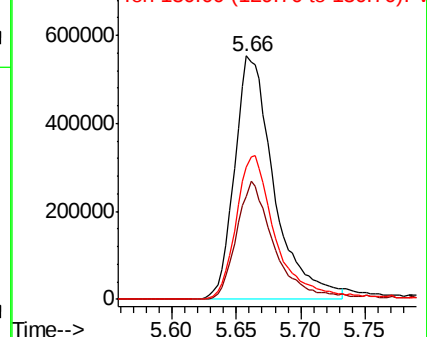
130 60.6 29.8 89.3



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: 0.307 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.00 min

Lab File: VL038977.D

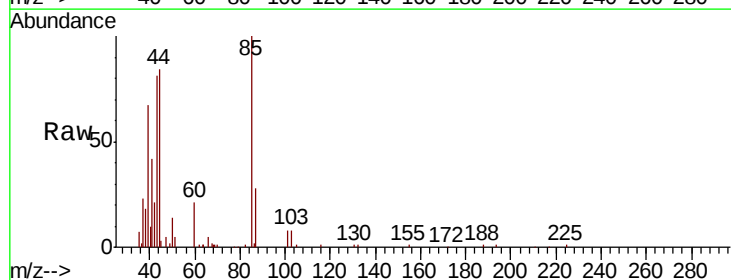
Acq: 5 May 2022 18:01

Tgt Ion: 85 Resp: 56655

Ion	Ratio	Lower	Upper
85	100		
87	26.3	25.7	38.5

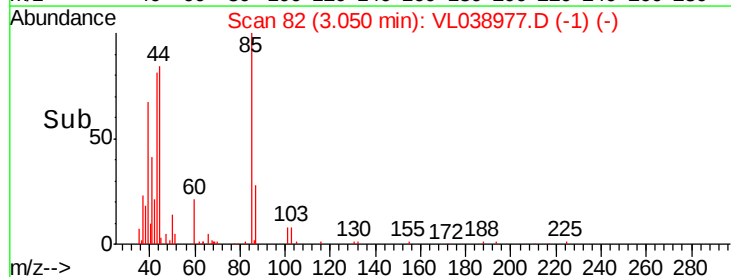
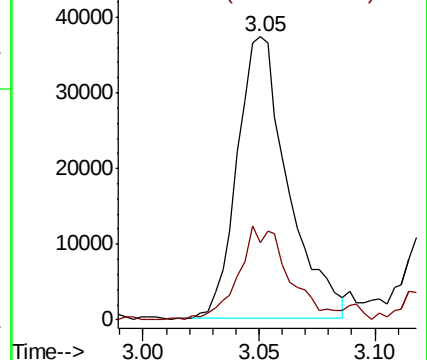
85 100

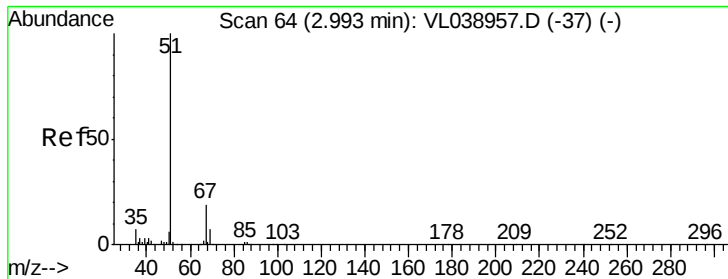
87 26.3 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.032 ppbv

RT: 2.91 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

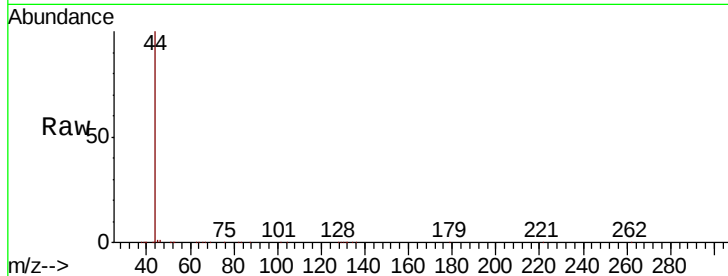
Acq: 5 May 2022 18:01

Tot Ion: 51 Resp: 4694

Ion Ratio Lower Upper

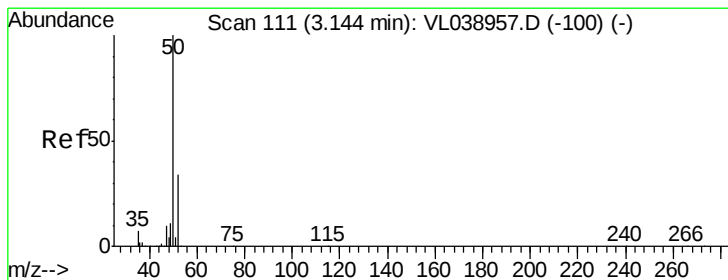
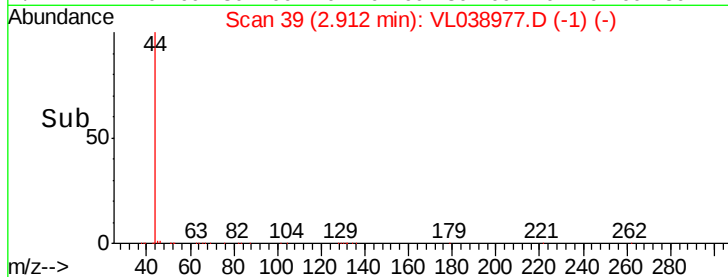
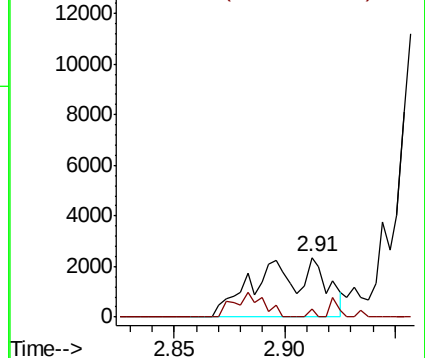
51 100

67 20.4 15.8 23.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.455 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.01 min

Lab File: VL038977.D

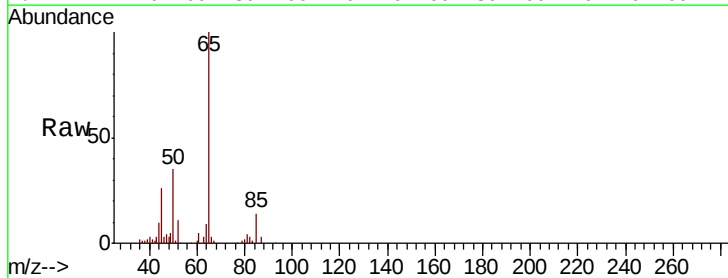
Acq: 5 May 2022 18:01

Tgt Ion: 50 Resp: 33297

Ion Ratio Lower Upper

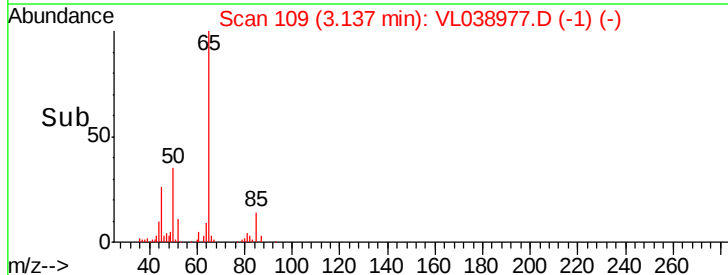
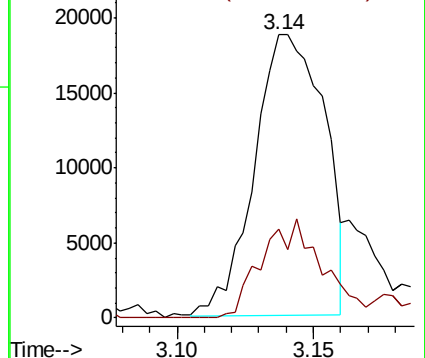
50 100

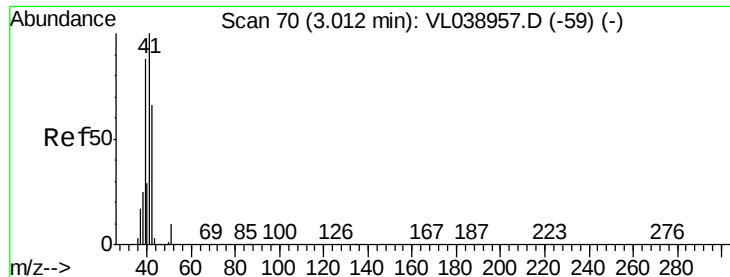
52 31.7 27.3 40.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

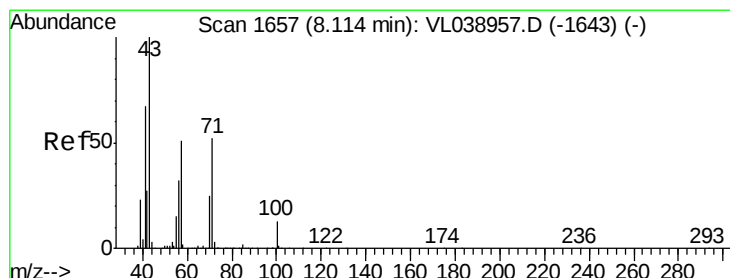
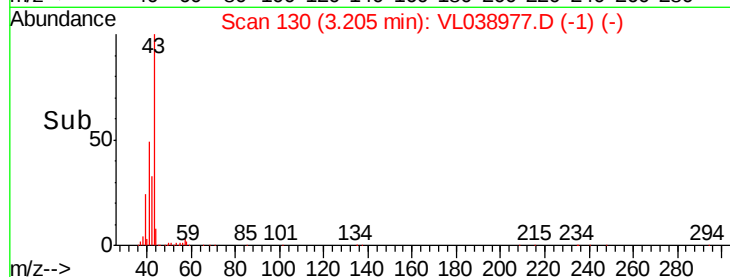
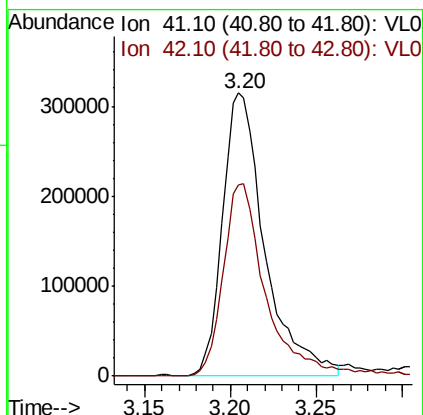
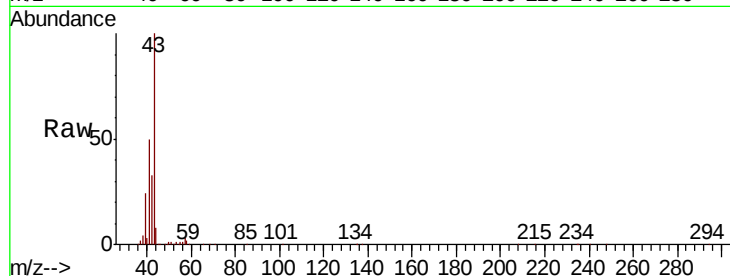
Ion 52.10 (51.80 to 52.80): VL0





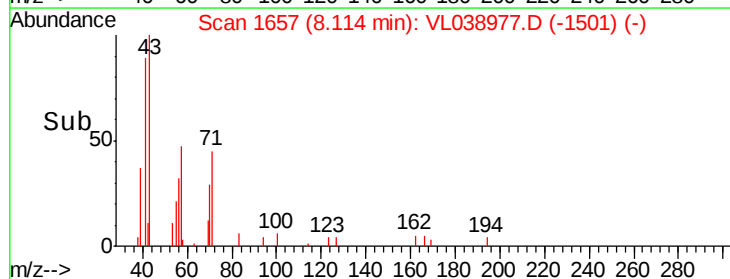
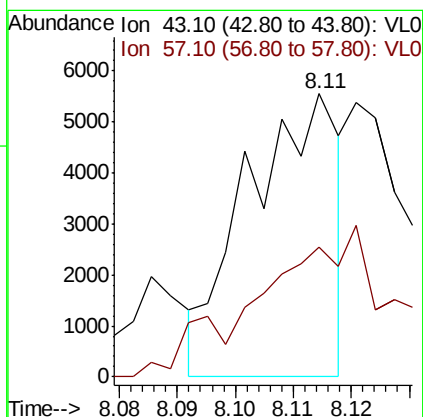
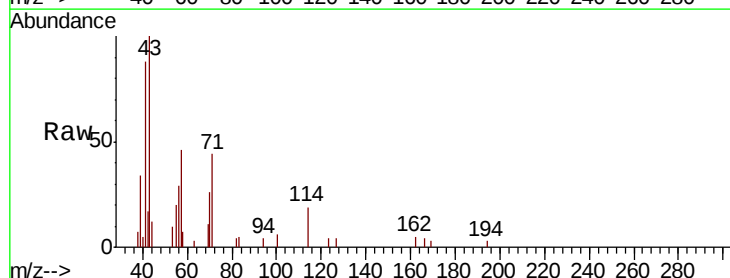
#9
 Propene
 Concen: 8.416 ppbv
 RT: 3.20
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 5 May 2022 18:01

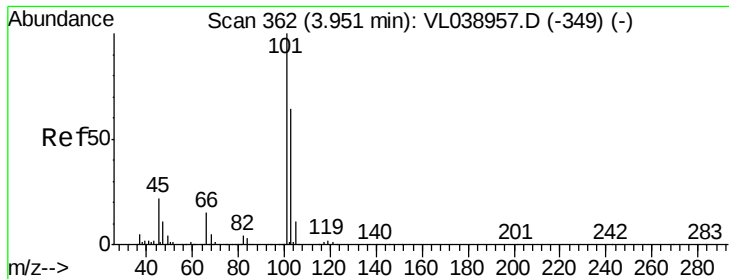
Tot Ion: 41 Resp: 537280
 Ion Ratio Lower Upper
 41 100
 42 69.2 58.3 87.5



#10
 Heptane
 Concen: 0.039 ppbv
 RT: 8.11 min Scan# 1657
 Delta R.T. 0.00 min
 Lab File: VL038977.D
 Acq: 5 May 2022 18:01

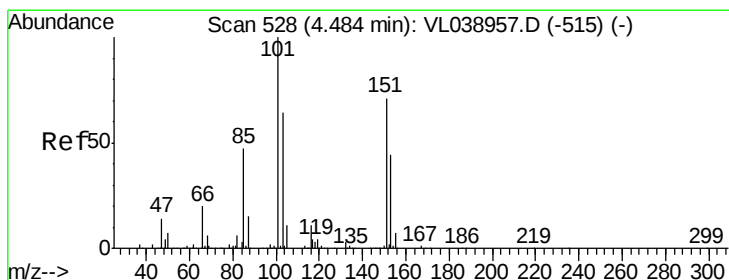
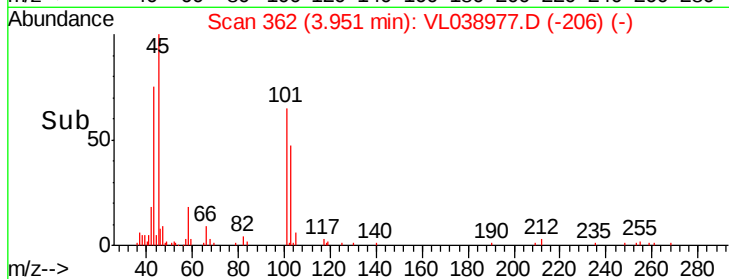
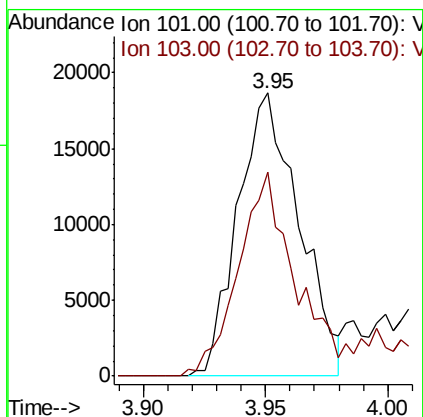
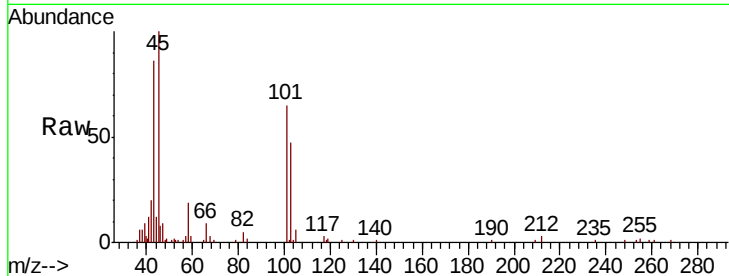
Tgt Ion: 43 Resp: 6038
 Ion Ratio Lower Upper
 43 100
 57 0.0 40.5 60.7#





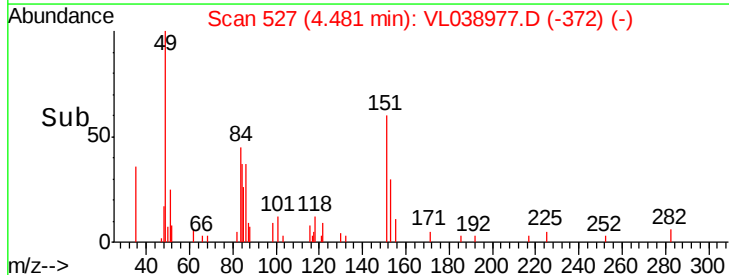
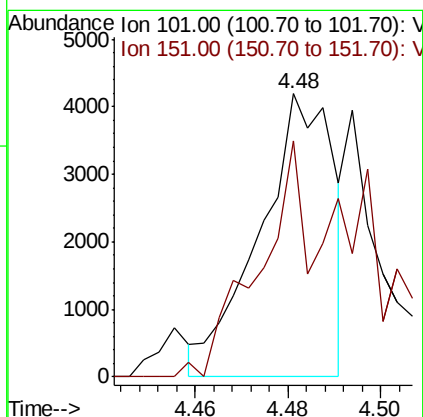
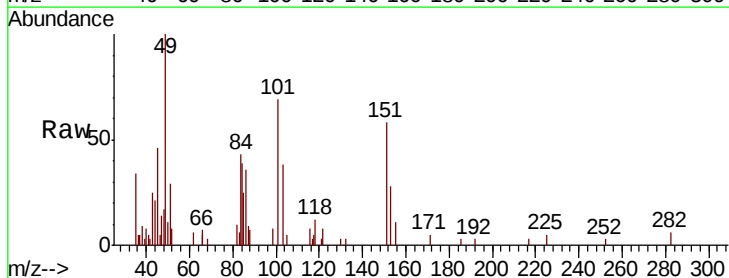
#11
 Trichlorofluoromethane
 Concen: 0.205 ppbv
 RT: 3.95
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 5 May 2022 18:01

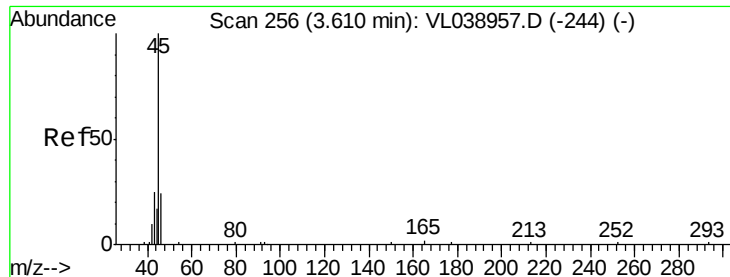
Tot Ion:101 Resp: 32510
 Ion Ratio Lower Upper
 101 100
 103 69.7 51.5 77.3



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.042 ppbv
 RT: 4.48 min Scan# 527
 Delta R.T. -0.00 min
 Lab File: VL038977.D
 Acq: 5 May 2022 18:01

Tgt Ion:101 Resp: 4621
 Ion Ratio Lower Upper
 101 100
 151 116.3 55.4 83.0#





#13

Ethanol

Concen: 124.825 ppbv

RT: 3.60 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

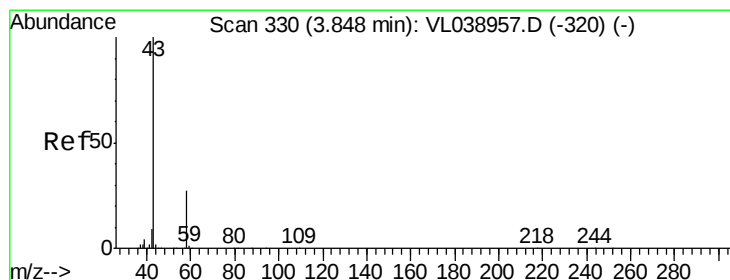
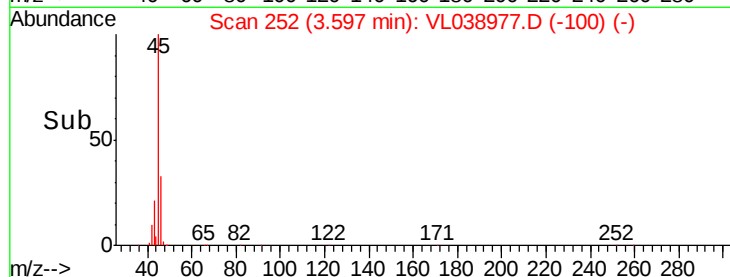
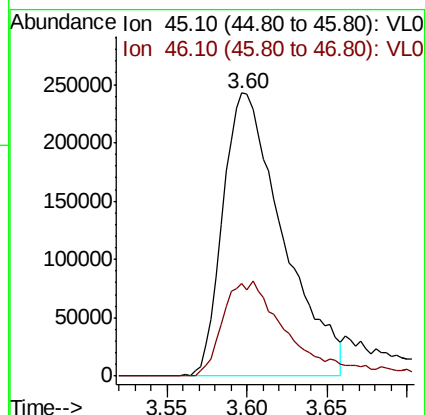
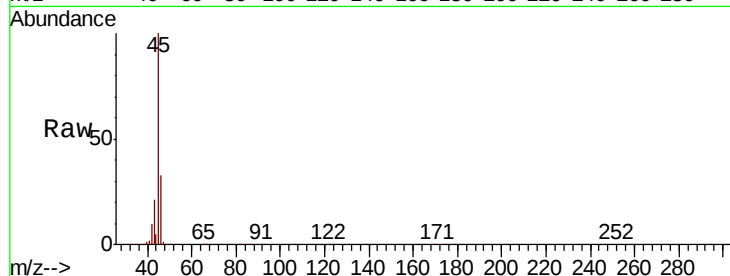
Acq: 5 May 2022 18:01

Tot Ion: 45 Resp: 622307

Ion Ratio Lower Upper

45 100

46 37.6 18.0 72.2



#15

Acetone

Concen: 13.980 ppbv

RT: 3.84 min Scan# 329

Delta R.T. -0.00 min

Lab File: VL038977.D

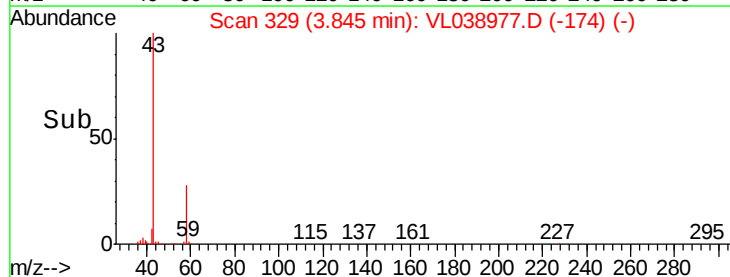
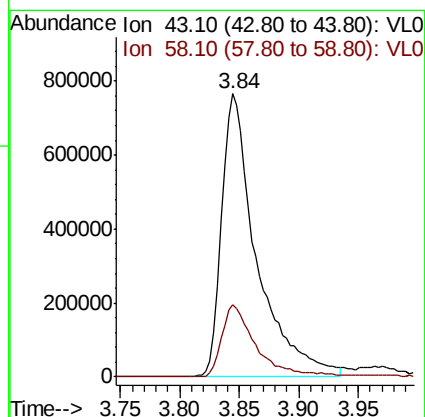
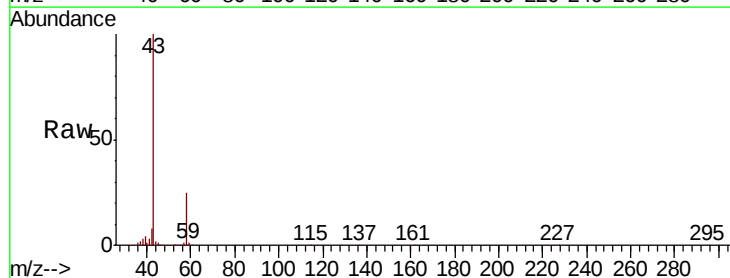
Acq: 5 May 2022 18:01

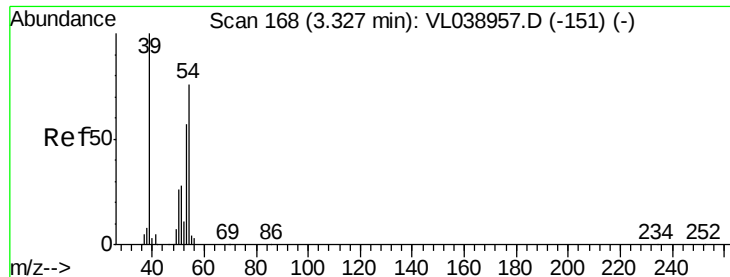
Tgt Ion: 43 Resp: 1553621

Ion Ratio Lower Upper

43 100

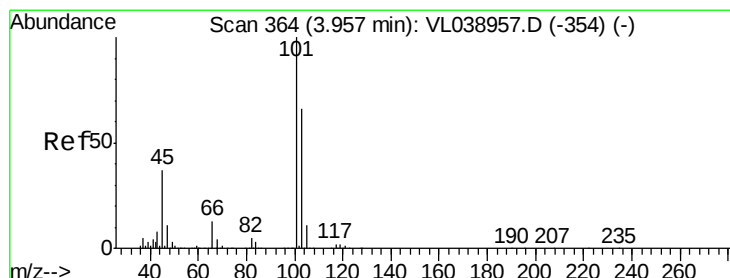
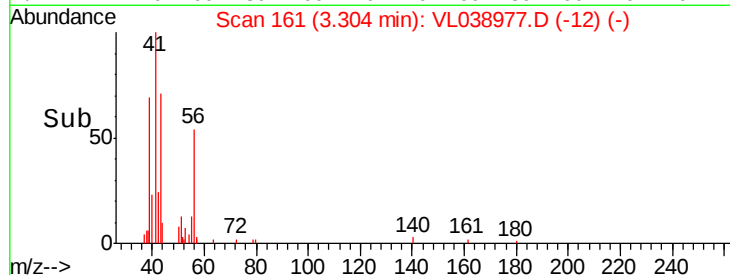
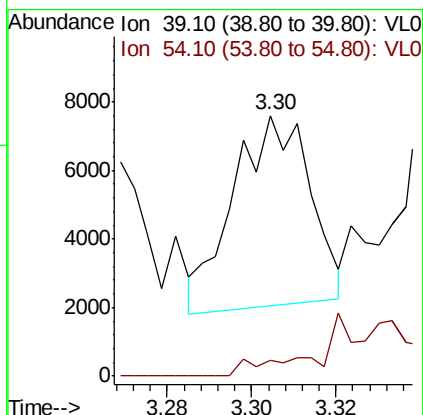
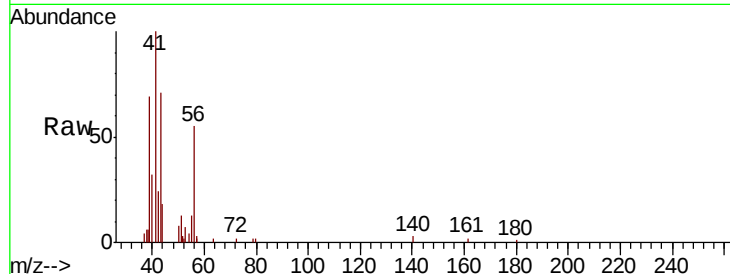
58 26.2 21.3 31.9





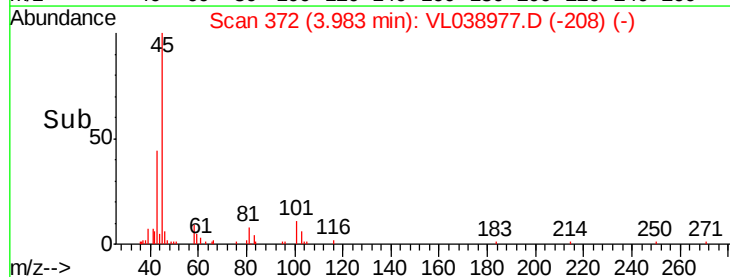
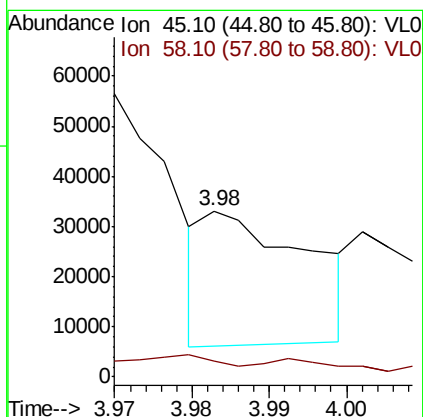
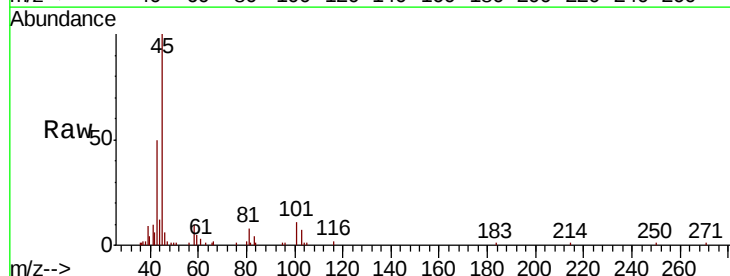
#16
 1,3-Butadiene
 Concen: 0.109 ppbv
 RT: 3.30
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 5 May 2022 18:01

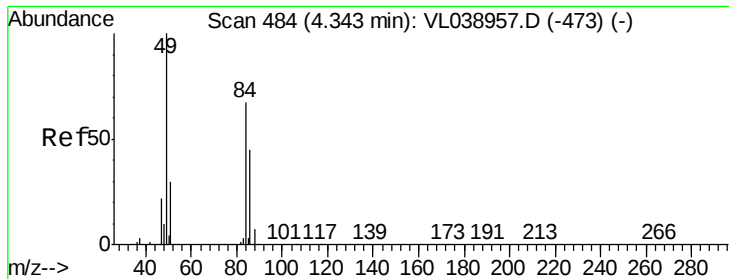
Tot Ion: 39 Resp: 6987
 Ion Ratio Lower Upper
 39 100
 54 56.0 65.2 97.8#



#19
 Isopropyl Alcohol
 Concen: 0.464 ppbv
 RT: 3.98 min Scan# 372
 Delta R.T. 0.03 min
 Lab File: VL038977.D
 Acq: 5 May 2022 18:01

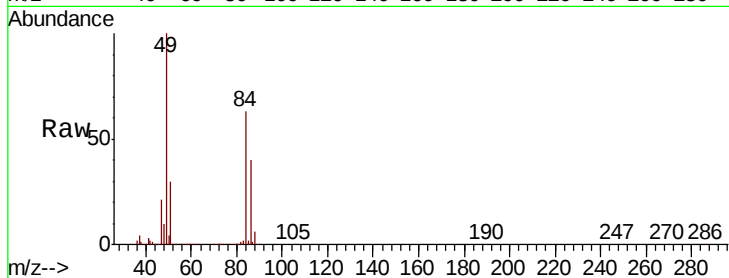
Tgt Ion: 45 Resp: 24530
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.4 2.2#





#20
Methvlene Chloride
Concen: 19.328 ppbv
RT: 4.34
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 5 May 2022 18:01

Tot Ion:	84	Resp:	809548
Ion	Ratio	Lower	Upper
84	100		
49	158.6	119.9	179.9
51	46.9	35.7	53.5
86	63.9	53.8	80.6



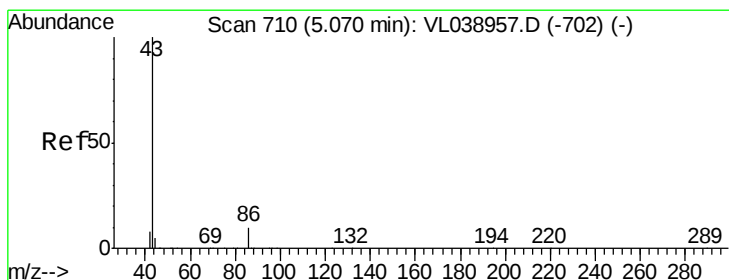
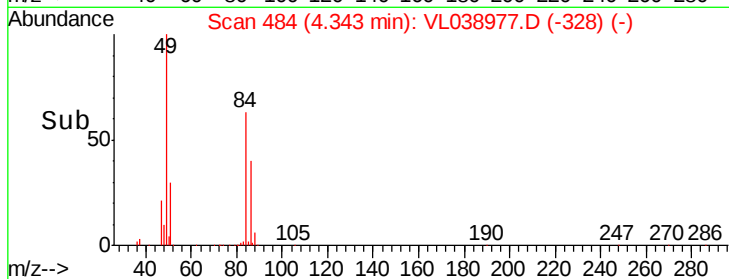
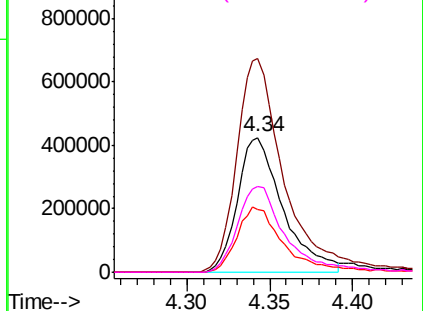
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

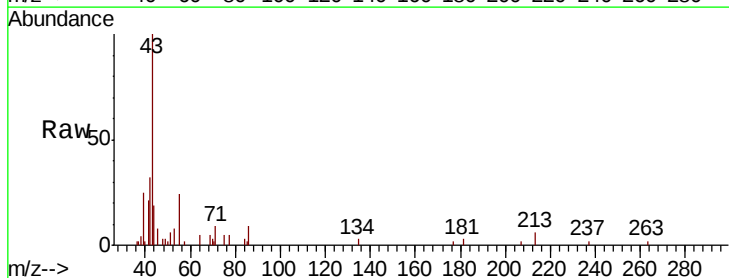
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#23
Vinyl Acetate
Concen: 0.040 ppbv
RT: 5.07 min Scan# 709
Delta R.T. -0.00 min
Lab File: VL038977.D
Acq: 5 May 2022 18:01

Tgt Ion:	43	Resp:	3534
Ion	Ratio	Lower	Upper
43	100		
86	5.5	6.6	9.8#
42	0.0	8.1	12.1#
44	0.0	3.5	5.3#



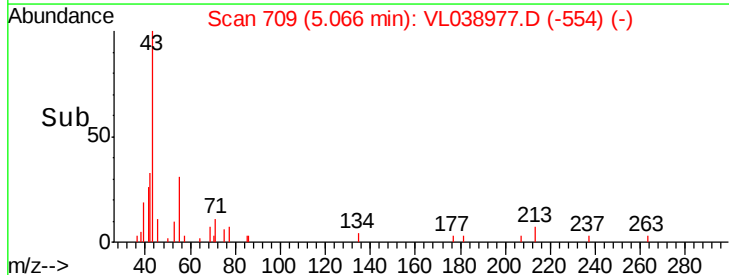
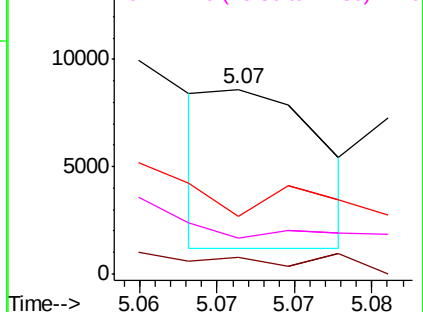
Abundance

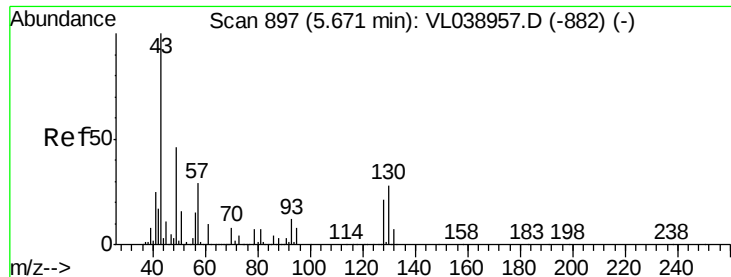
Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0





#25

Ethyl Acetate

Concen: 3.145 ppbv

RT: 5.68 Instrument:

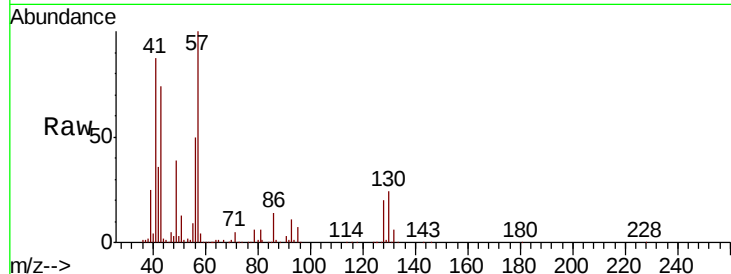
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 5 May 2022 18:01

Tot Ion: 43 Resp: 836612

Ion	Ratio	Lower	Upper
43	100		
45	3.1	8.1	12.1#
61	0.5	7.8	11.6#
70	1.5	5.6	8.4#



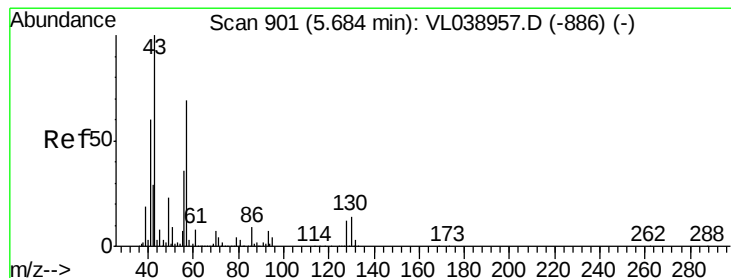
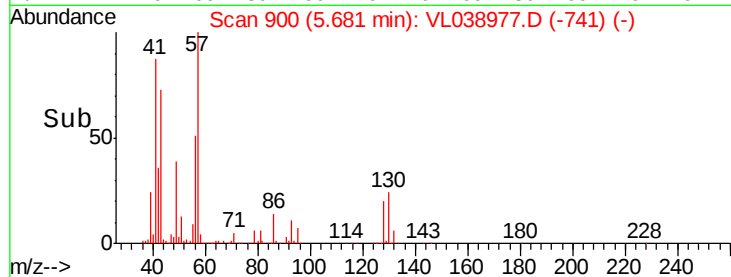
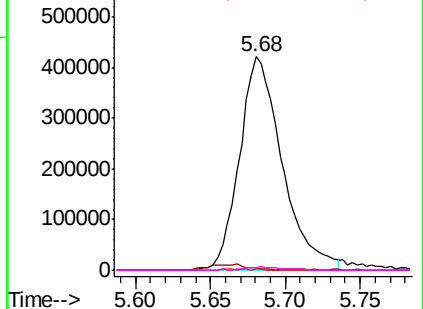
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 10.125 ppbv

RT: 5.68 min Scan# 901

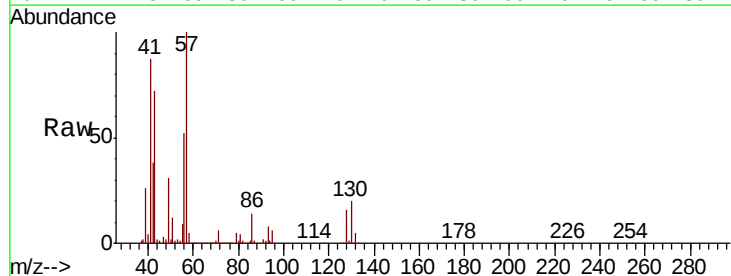
Delta R.T. 0.00 min

Lab File: VL038977.D

Acq: 5 May 2022 18:01

Tgt Ion: 57 Resp: 1196672

Ion	Ratio	Lower	Upper
57	100		
41	87.0	75.2	112.8
43	72.8	190.8	286.2#
56	52.0	43.0	64.6



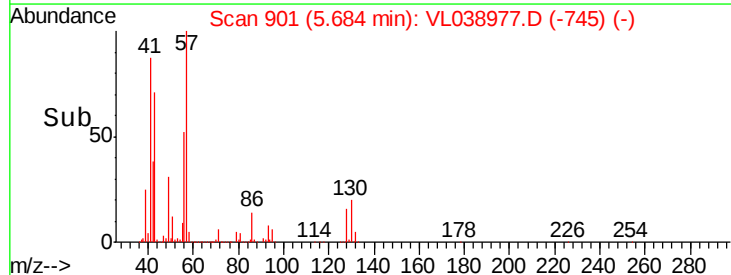
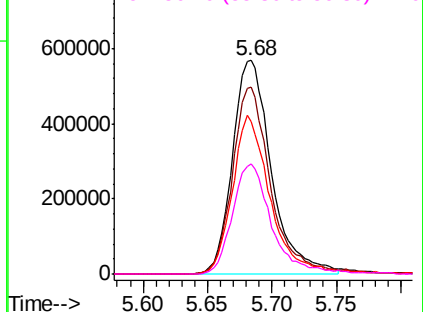
Abundance

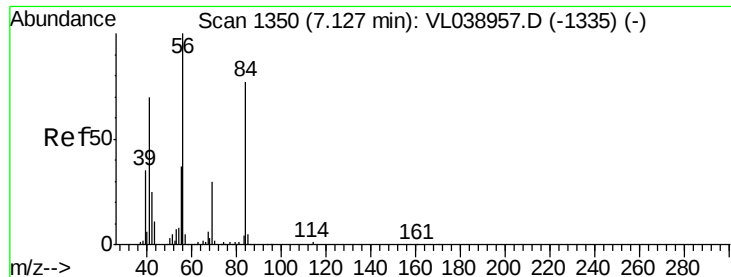
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

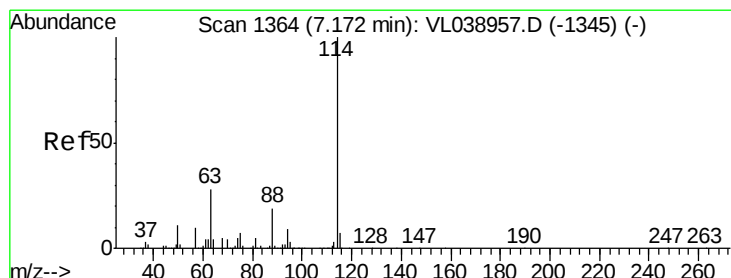
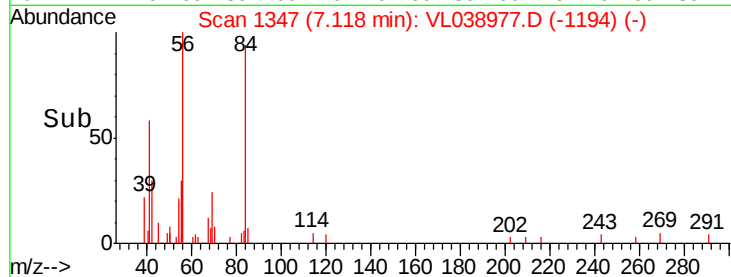
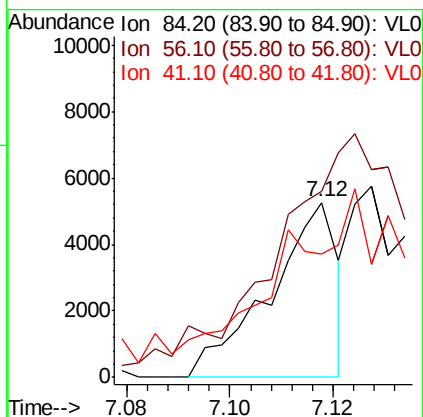
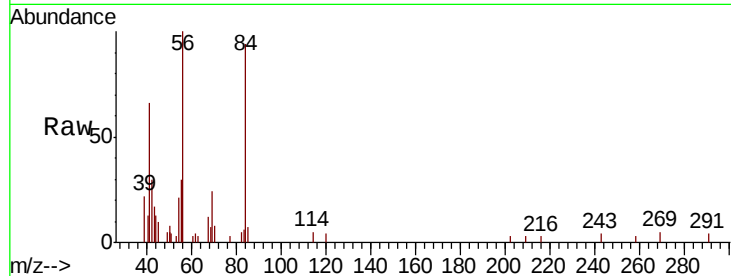
Ion 56.10 (55.80 to 56.80): VL0





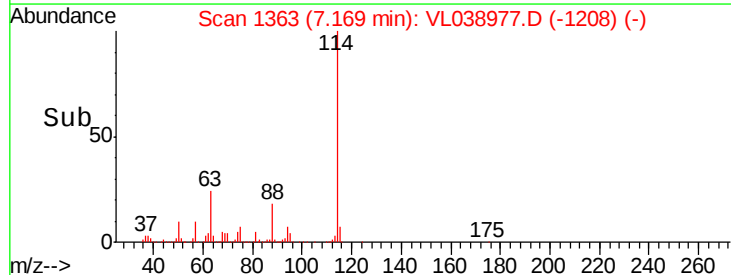
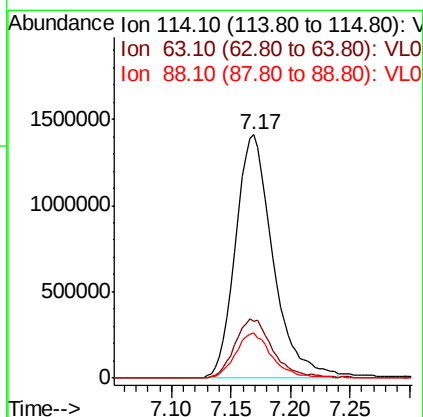
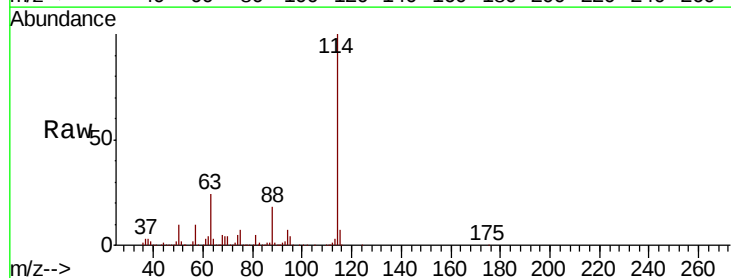
#30
Cvclohexane
Concen: 0.048 ppbv
RT: 7.12 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 5 May 2022 18:01

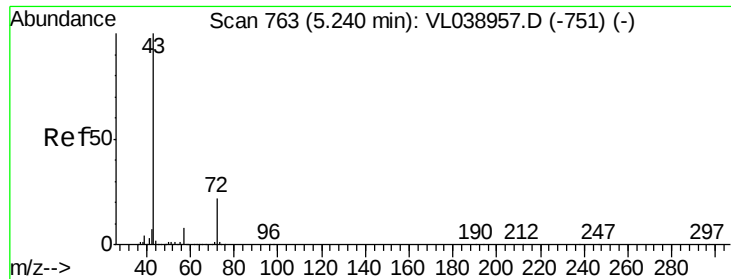
Tot Ion: 84 Resp: 4766
Ion Ratio Lower Upper
84 100
56 0.0 115.3 172.9#
41 0.0 72.0 108.0#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.00 min
Lab File: VL038977.D
Acq: 5 May 2022 18:01

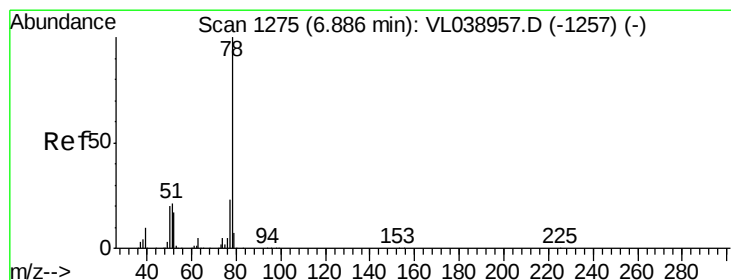
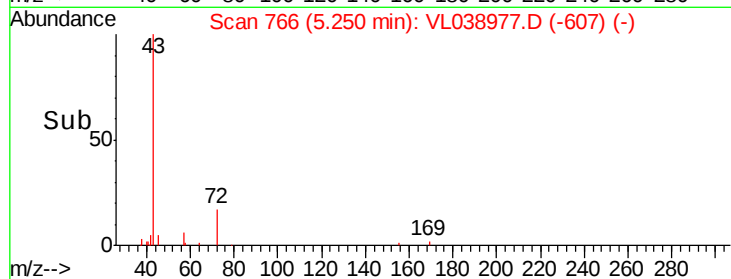
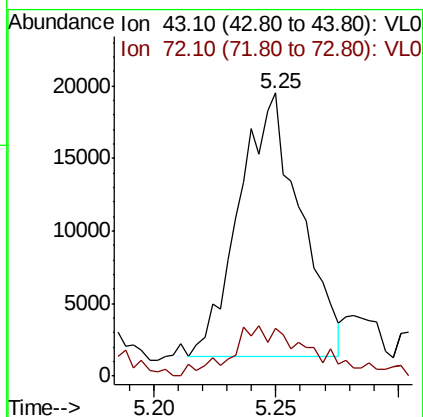
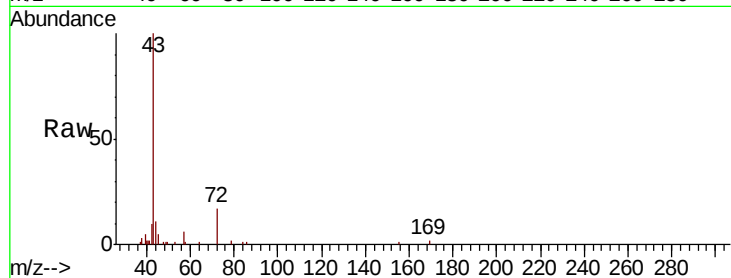
Tgt Ion: 114 Resp: 3078972
Ion Ratio Lower Upper
114 100
63 25.3 22.6 33.8
88 18.2 15.4 23.0





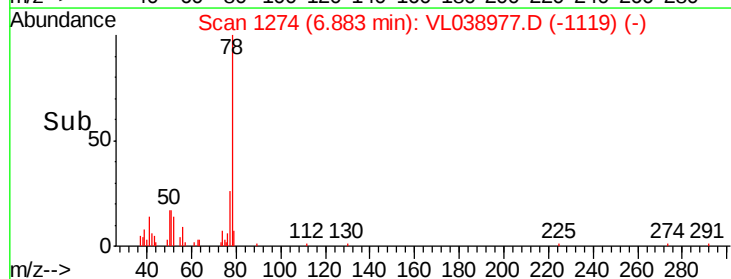
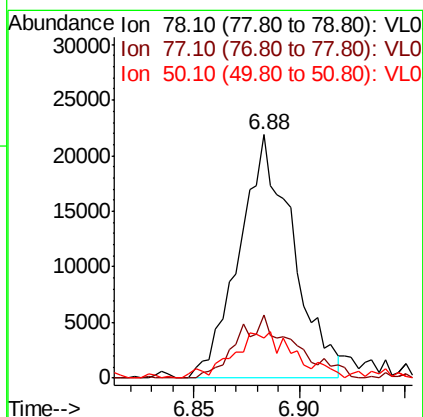
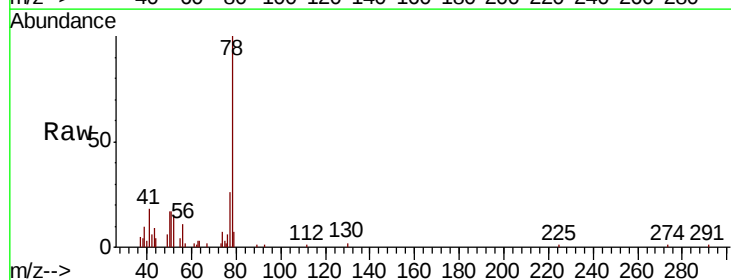
#34
2-Butanone
Concen: 0.201 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 5 May 2022 18:01

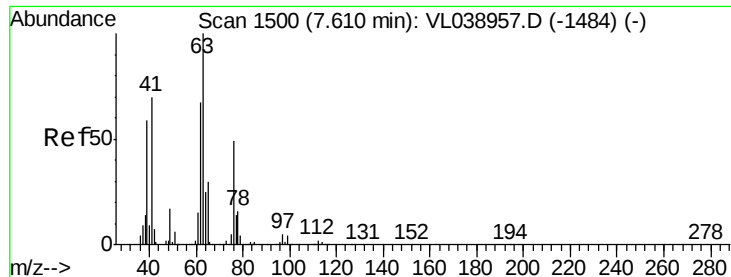
Tot Ion: 43 Resp: 31587
Ion Ratio Lower Upper
43 100
72 27.0 17.8 26.6#



#36
Benzene
Concen: 0.147 ppbv
RT: 6.88 min Scan# 1274
Delta R.T. -0.00 min
Lab File: VL038977.D
Acq: 5 May 2022 18:01

Tgt Ion: 78 Resp: 38764
Ion Ratio Lower Upper
78 100
77 25.8 18.6 28.0
50 14.7 15.6 23.4#





#39

1,2-Dichloropropane

Concen: 0.122 ppbv

RT: 7.22 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 5 May 2022 18:01

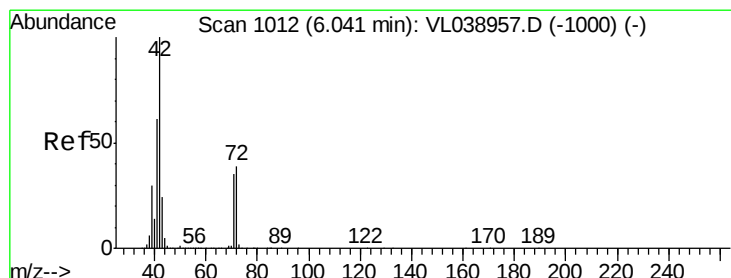
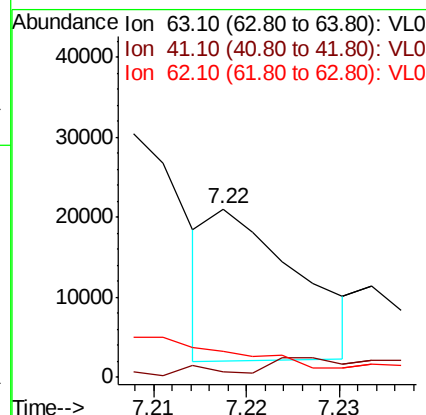
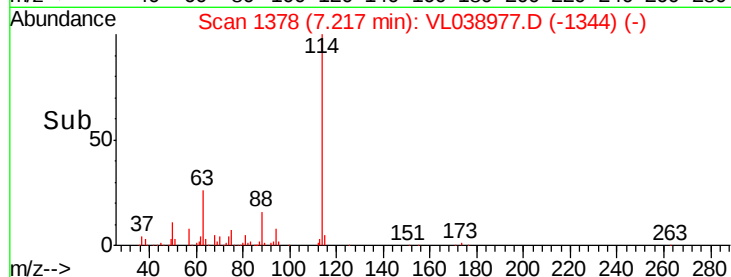
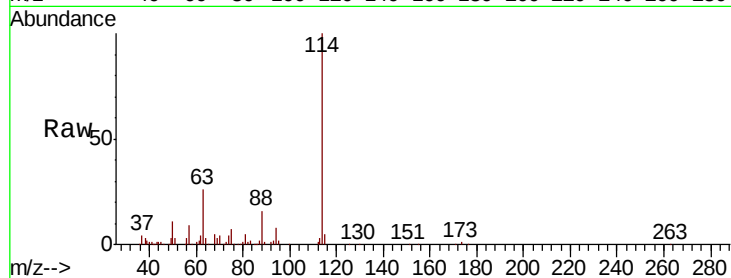
Tot Ion: 63 Resp: 12479

Ion Ratio Lower Upper

63 100

41 0.0 55.9 83.9#

62 18.9 53.8 80.6#



#41

Tetrahydrofuran

Concen: 4.034 ppbv

RT: 5.68 min Scan# 901

Delta R.T. -0.36 min

Lab File: VL038977.D

Acq: 5 May 2022 18:01

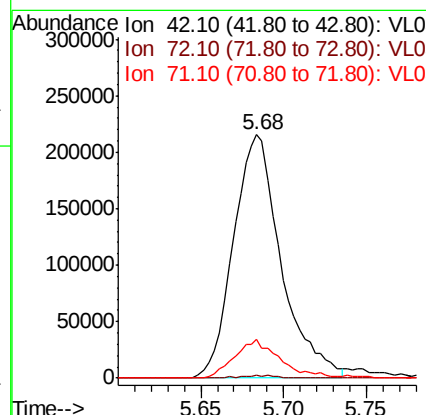
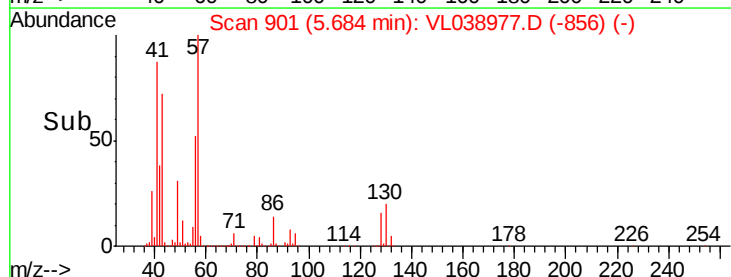
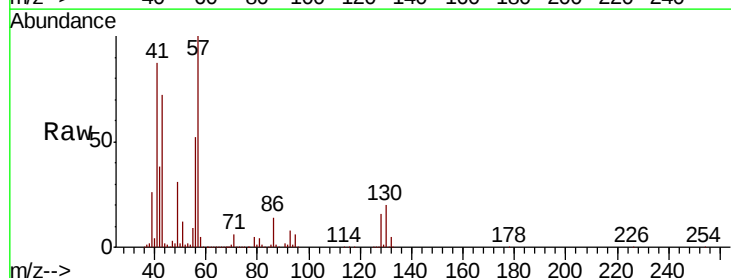
Tgt Ion: 42 Resp: 425887

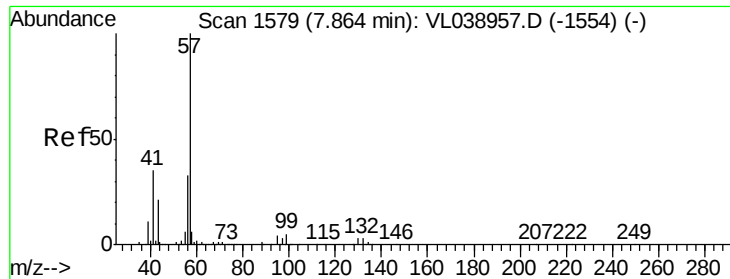
Ion Ratio Lower Upper

42 100

72 1.0 31.8 47.6#

71 15.7 30.6 45.8#





#44

2,2,4-Trimethylpentane

Concen: 0.033 ppbv

RT: 7.86 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 5 May 2022 18:01

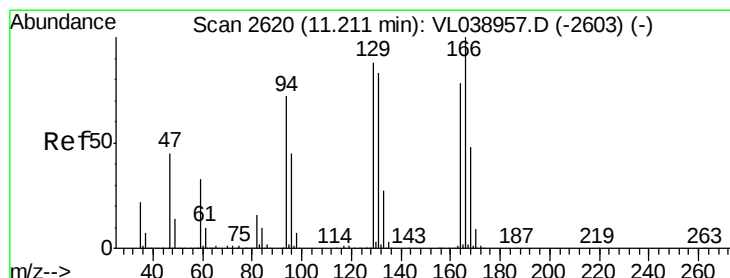
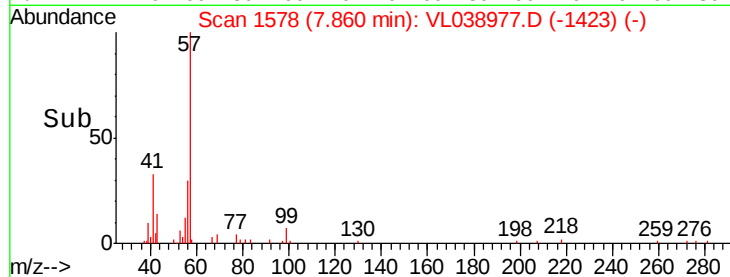
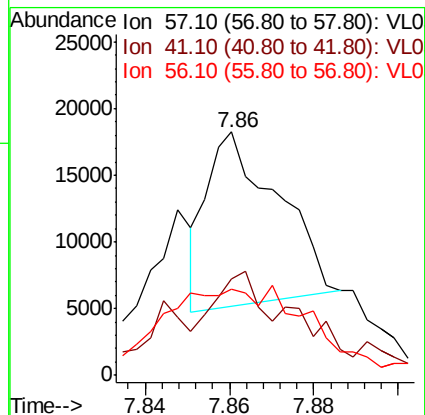
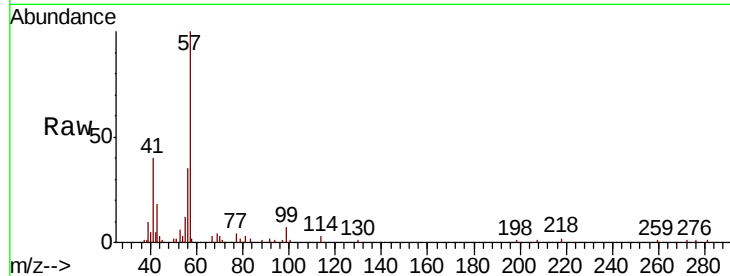
Tot Ion: 57 Resp: 15130

Ion Ratio Lower Upper

57 100

41 130.4 26.3 39.5#

56 115.3 24.6 37.0#



#52

Tetrachloroethene

Concen: 0.107 ppbv

RT: 11.21 min Scan# 2620

Delta R.T. 0.00 min

Lab File: VL038977.D

Acq: 5 May 2022 18:01

Tgt Ion: 164 Resp: 10061

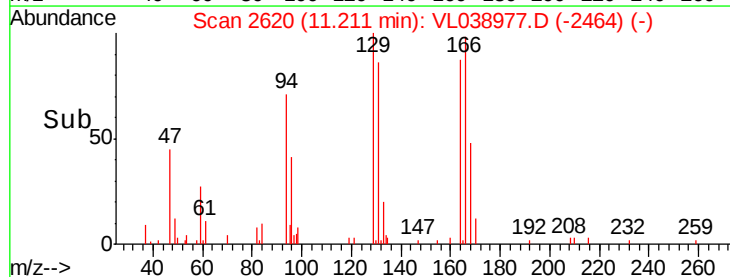
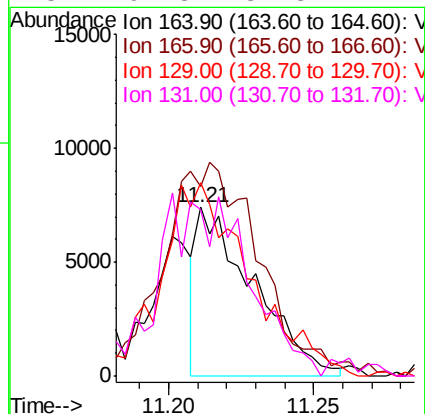
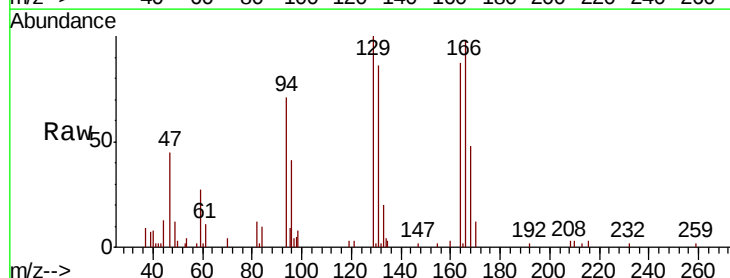
Ion Ratio Lower Upper

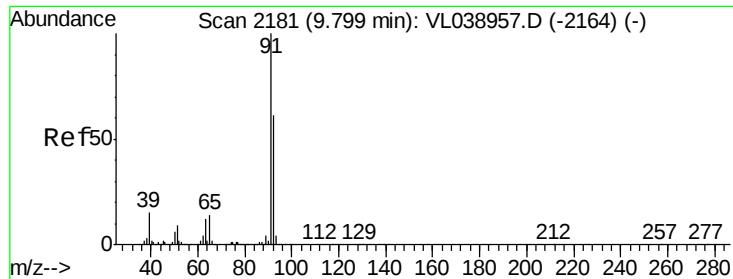
164 100

166 108.8 102.5 153.7

129 113.9 90.1 135.1

131 94.8 84.8 127.2





#53

Toluene

Concen: 0.335 ppbv

RT: 9.80 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

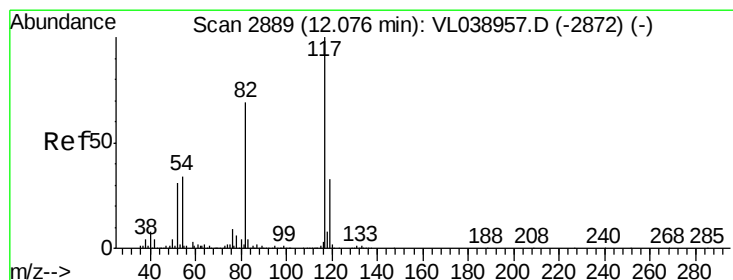
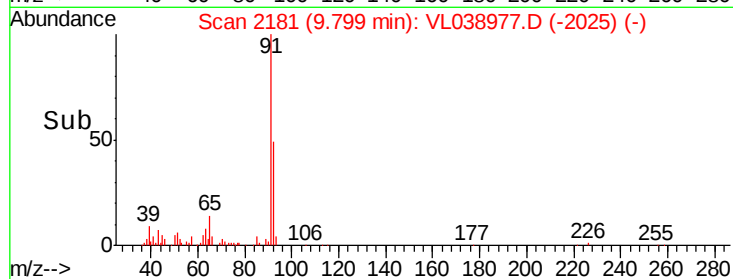
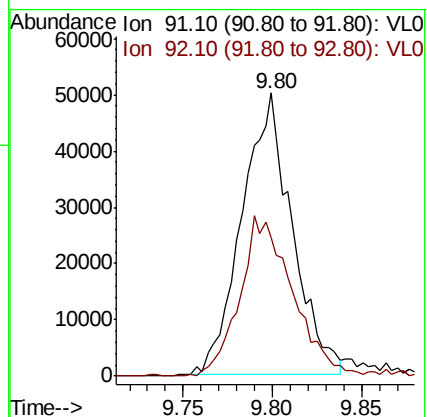
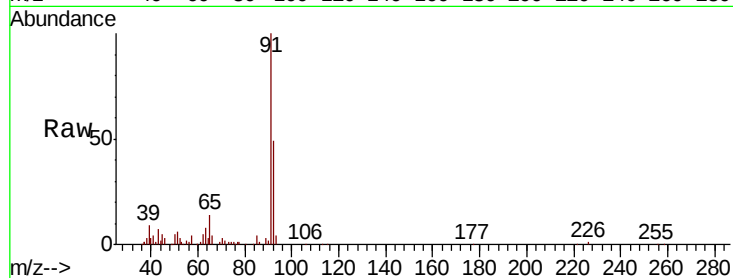
Acq: 5 May 2022 18:01

Tot Ion: 91 Resp: 98851

Ion Ratio Lower Upper

91 100

92 59.4 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2888

Delta R.T. -0.00 min

Lab File: VL038977.D

Acq: 5 May 2022 18:01

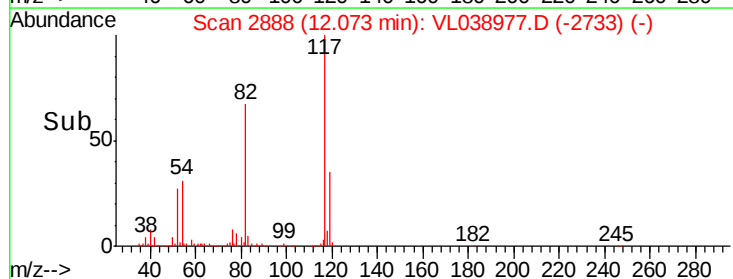
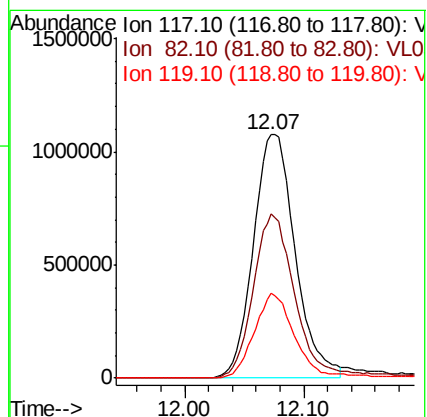
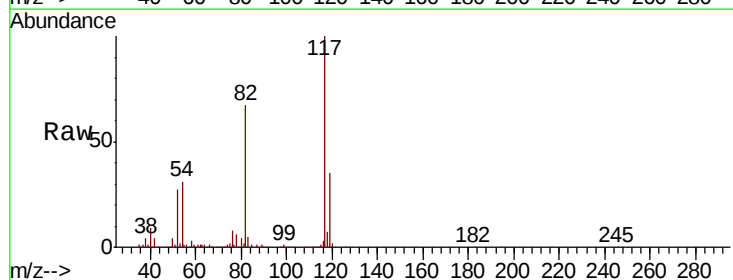
Tgt Ion: 117 Resp: 2620968

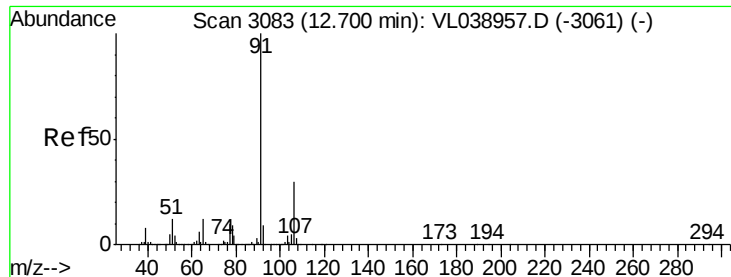
Ion Ratio Lower Upper

117 100

82 70.5 57.0 85.6

119 34.6 27.2 40.8





#58

Ethyl Benzene

Concen: 5.162 ppbv

RT: 12.70 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

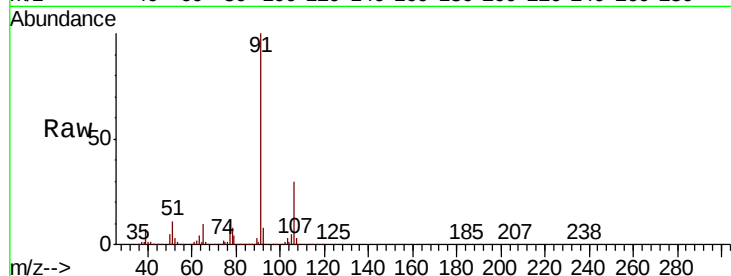
Acq: 5 May 2022 18:01

Tot Ion: 91 Resp: 1947219

Ion Ratio Lower Upper

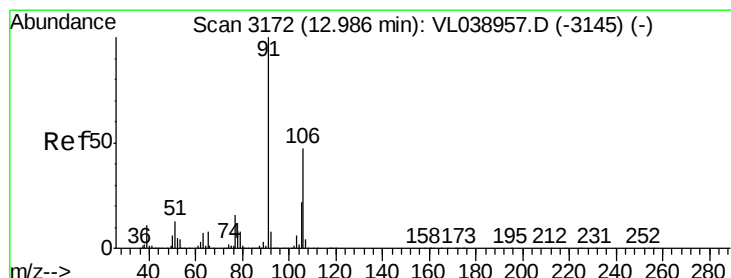
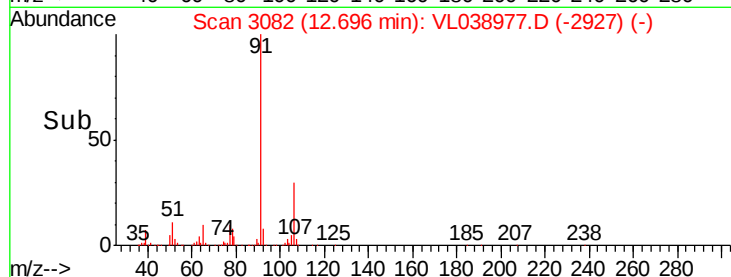
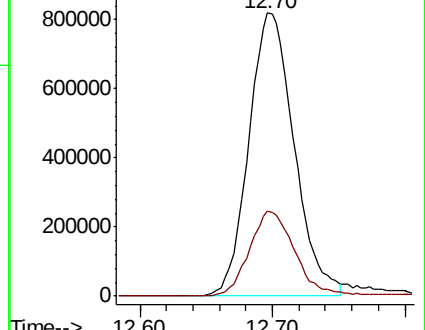
91 100

106 29.9 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 19.949 ppbv

RT: 12.95 min Scan# 3162

Delta R.T. -0.03 min

Lab File: VL038977.D

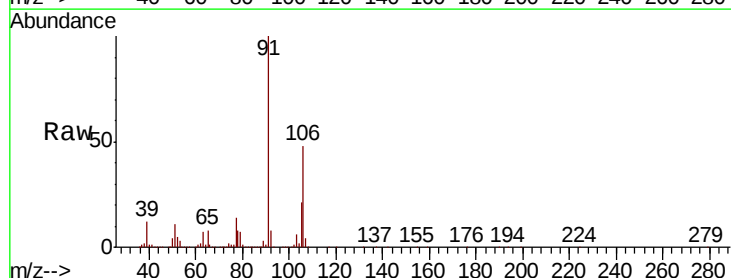
Acq: 5 May 2022 18:01

Tgt Ion: 91 Resp: 6423695

Ion Ratio Lower Upper

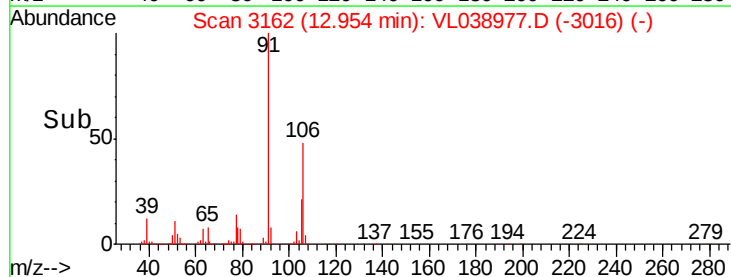
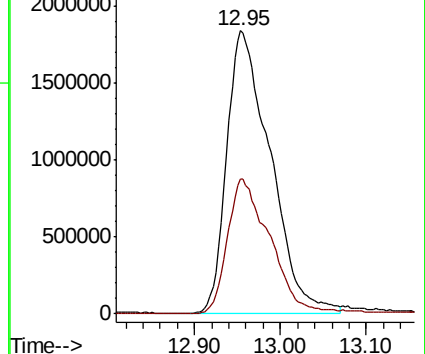
91 100

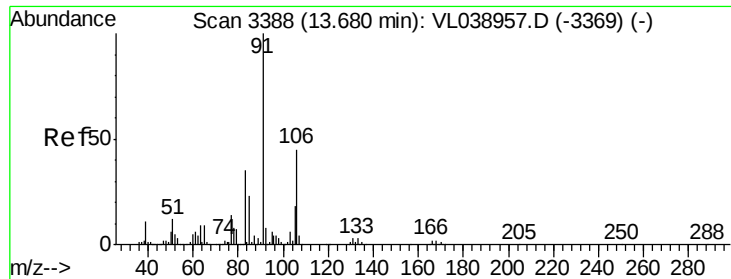
106 48.2 34.6 52.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#60

o-Xylene

Concen: 7.239 ppbv

RT: 13.68

Delta R.T. MSVOA_L

Lab File:

Acq: 5 May 2022 18:01

Instrument :

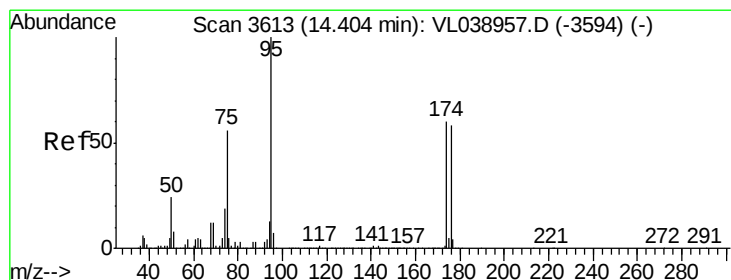
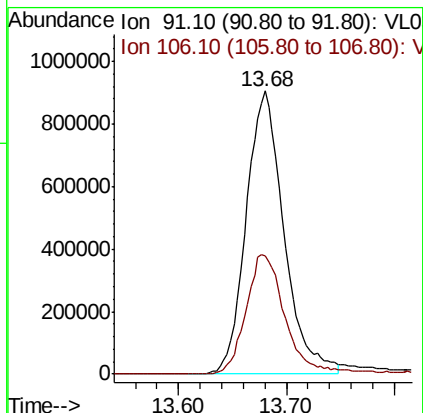
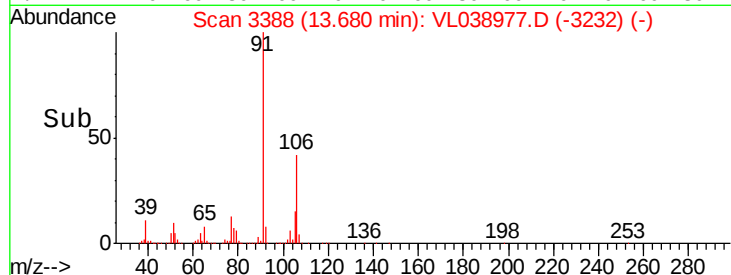
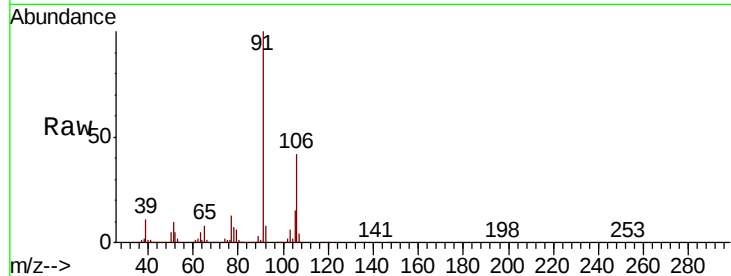
ClientSampleId :

Tot Ion: 91 Resp: 2193885

Ion Ratio Lower Upper

91 100

106 45.1 22.2 66.6



#68

1-Bromo-4-Fluorobenzene

Concen: 9.717 ppbv

RT: 14.40 min Scan# 3613

Delta R.T. 0.00 min

Lab File: VL038977.D

Acq: 5 May 2022 18:01

Tgt Ion: 95 Resp: 2016977

Ion Ratio Lower Upper

95 100

174 67.6 50.8 76.2

175 4.9 3.8 5.6

