

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL033022\
 Data File : VL038801.D
 Acq On : 30 Mar 2022 19:22
 Operator : SY/AP
 Sample : N2169-04DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 31 04:13:11 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 21 17:09:26 2022
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	902868	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2580913	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2293931	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	1598939	9.09	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	90.90%

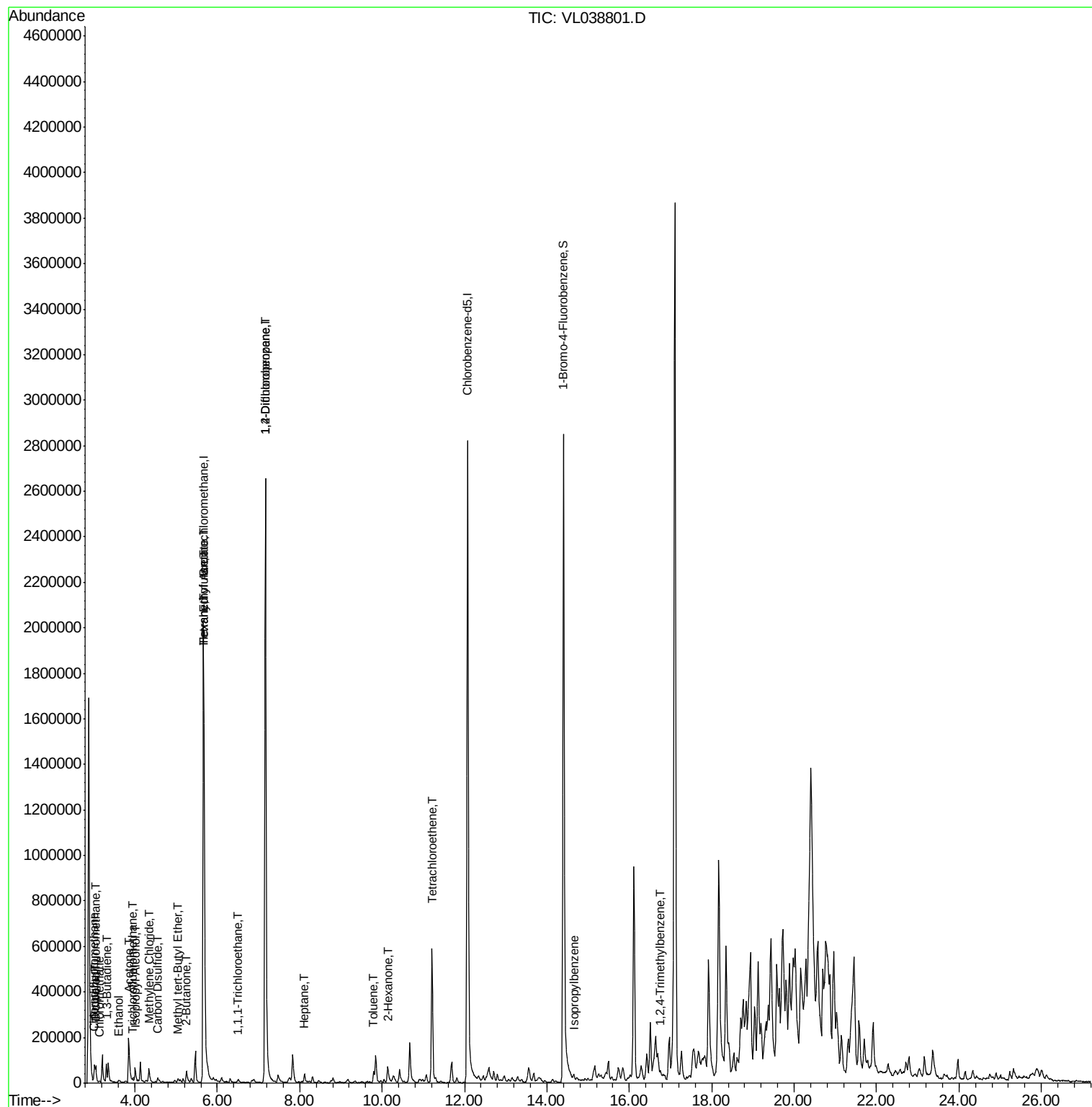
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	54743	0.451	ppbv	94
3) Chlorodifluoromethane	2.99	51	7423	0.078	ppbv #	85
4) Chloromethane	3.14	50	3663	0.070	ppbv #	83
9) Propene	3.02	41	33065	0.718	ppbv	86
10) Heptane	8.11	43	18544	0.169	ppbv	92
11) Trichlorofluoromethane	3.95	101	7274	0.068	ppbv	89
13) Ethanol	3.61	45	4895	0.964	ppbv #	37
15) Acetone	3.85	43	272057	3.492	ppbv	94
16) 1,3-Butadiene	3.31	39	22917	0.518	ppbv #	16
19) Isopropyl Alcohol	3.99	45	6596	0.153	ppbv #	91
20) Methylene Chloride	4.34	84	25124	0.766	ppbv	91
25) Ethyl Acetate	5.68	43	205684	1.049	ppbv #	79
26) Hexane	5.68	57	305772	3.483	ppbv #	27
27) Carbon Disulfide	4.55	76	27607	0.321	ppbv #	87
28) Methyl tert-Butyl Ether	5.04	73	2844	0.043	ppbv #	1
32) 1,1,1-Trichloroethane	6.50	97	5645	0.042	ppbv #	73
34) 2-Butanone	5.25	43	74770	0.732	ppbv	92
39) 1,2-Dichloropropane	7.17	63	545382	7.004	ppbv #	28
41) Tetrahydrofuran	5.68	42	143082	1.882	ppbv #	46
51) 2-Hexanone	10.14	43	66939	0.491	ppbv #	92
52) Tetrachloroethene	11.21	164	178408	2.448	ppbv	95
53) Toluene	9.80	91	40600	0.190	ppbv	97
62) Isopropylbenzene	14.66	105	13995	0.042	ppbv #	72
74) 1,2,4-Trimethylbenzene	16.75	105	8507	0.033	ppbv #	70

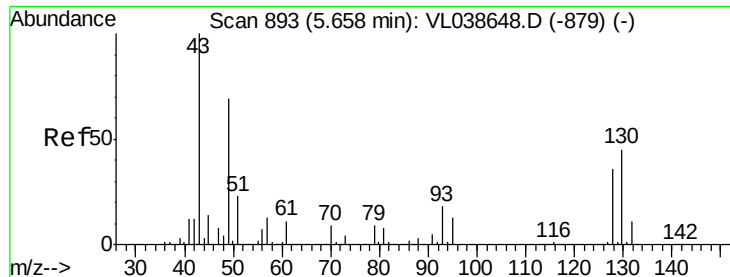
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 30 Mar 2022 19:22

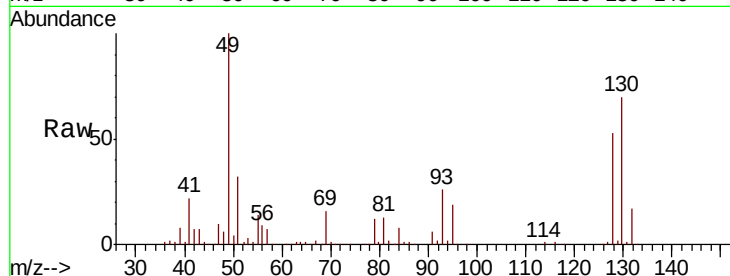
Tot Ion: 49 Resp: 902868

Ion Ratio Lower Upper

49 100

128 56.2 26.2 78.6

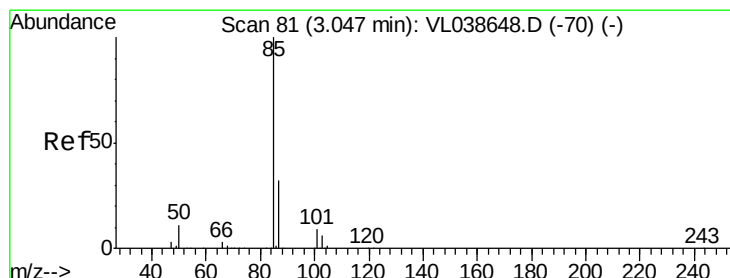
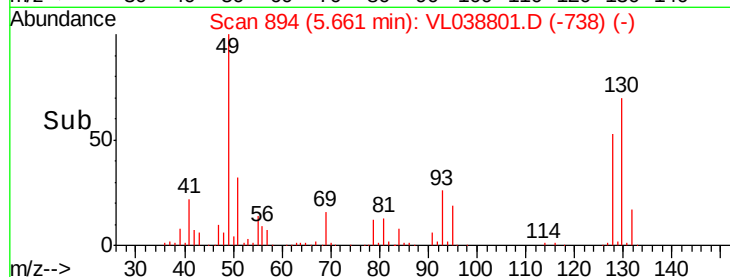
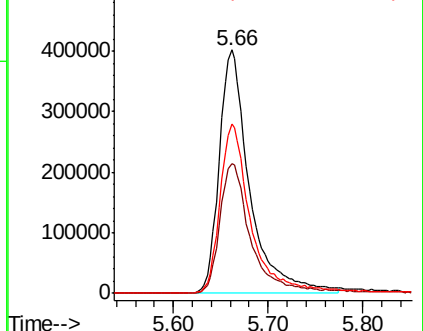
130 71.9 33.7 101.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.451 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.00 min

Lab File: VL038801.D

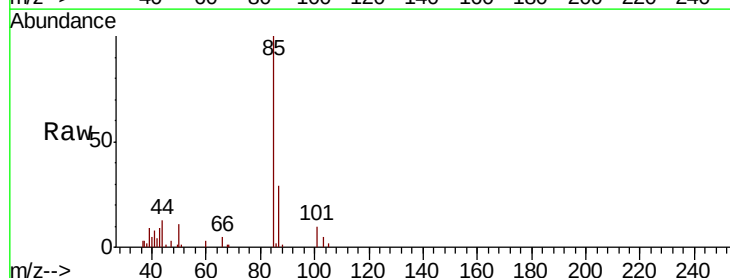
Acq: 30 Mar 2022 19:22

Tgt Ion: 85 Resp: 54743

Ion Ratio Lower Upper

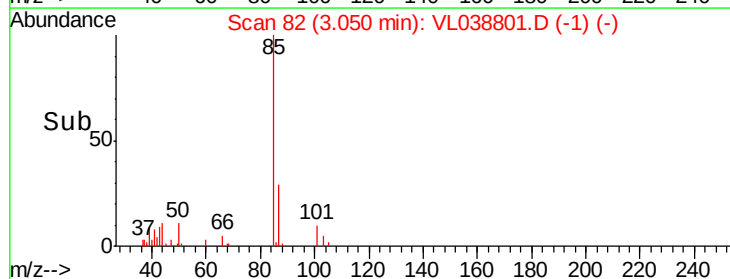
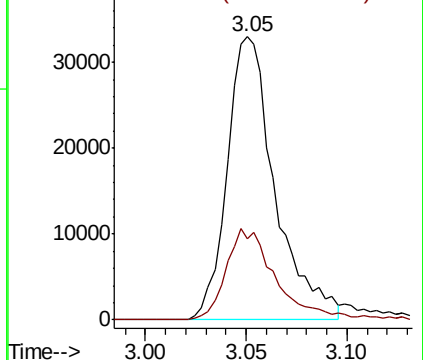
85 100

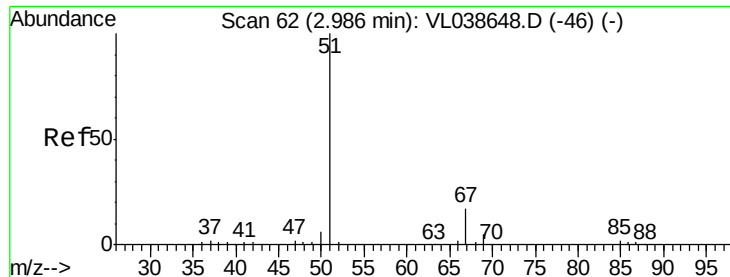
87 28.9 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.078 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

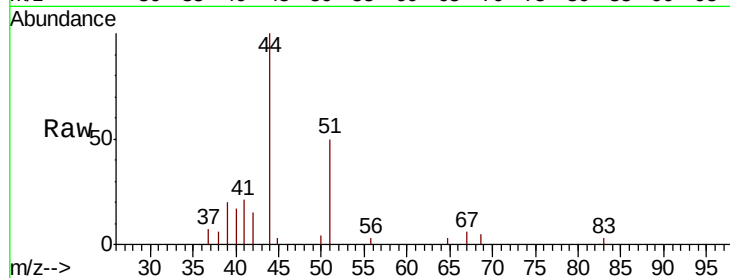
Acq: 30 Mar 2022 19:22

Tot Ion: 51 Resp: 7423

Ion Ratio Lower Upper

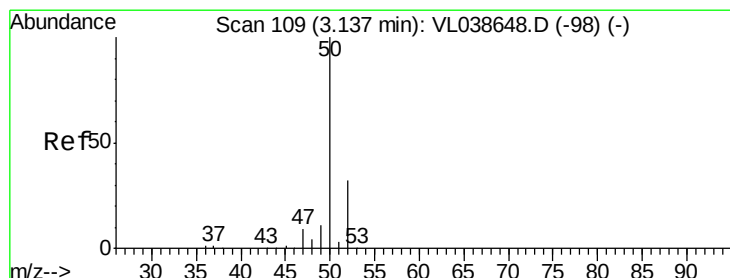
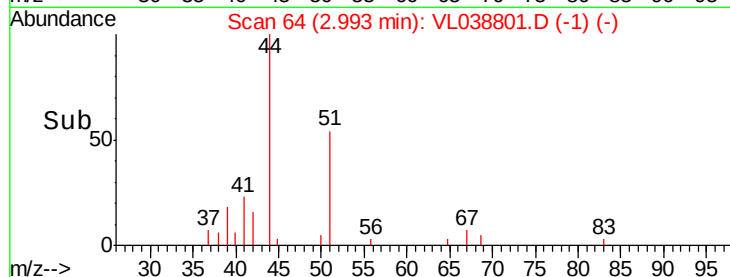
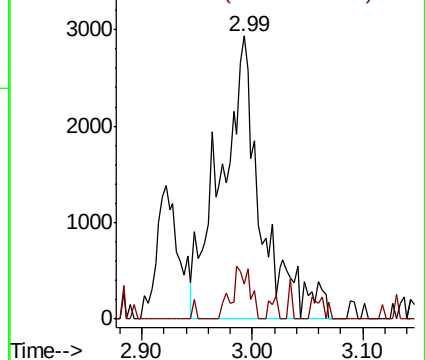
51 100

67 10.9 14.1 21.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.070 ppbv

RT: 3.14 min Scan# 110

Delta R.T. 0.00 min

Lab File: VL038801.D

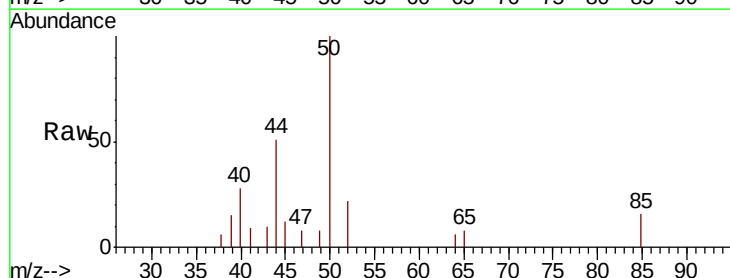
Acq: 30 Mar 2022 19:22

Tgt Ion: 50 Resp: 3663

Ion Ratio Lower Upper

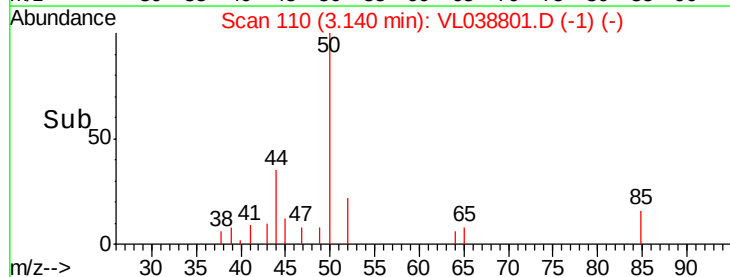
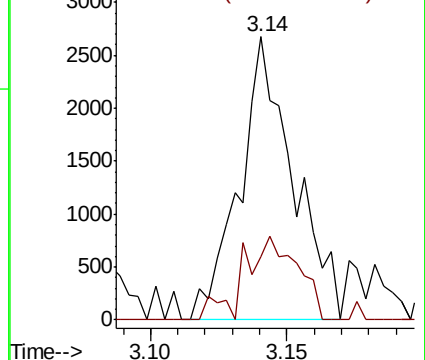
50 100

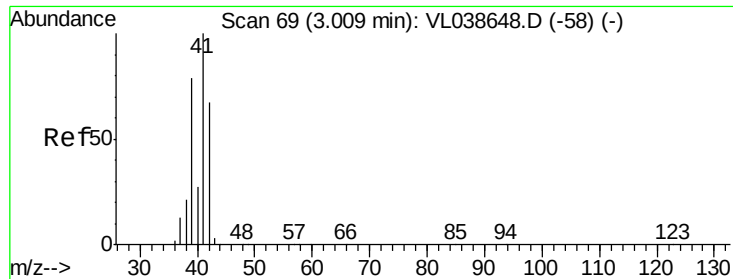
52 22.3 25.5 38.3#



Abundance Ion 50.10 (49.80 to 50.80): VL0

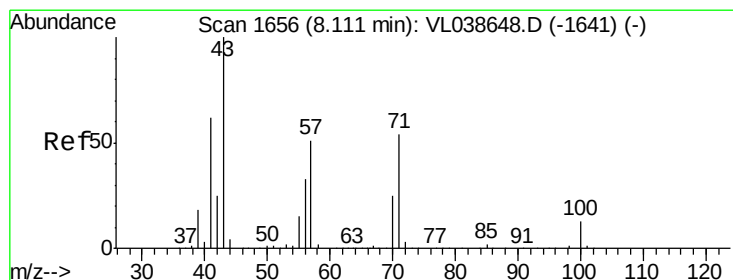
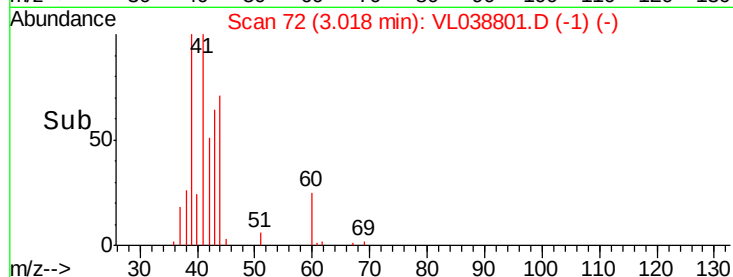
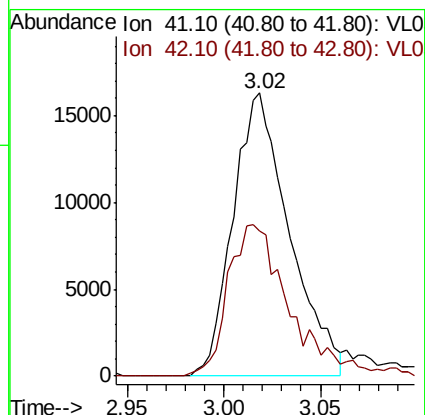
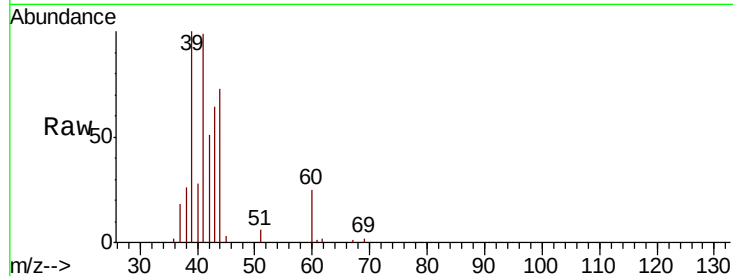
Ion 52.10 (51.80 to 52.80): VL0





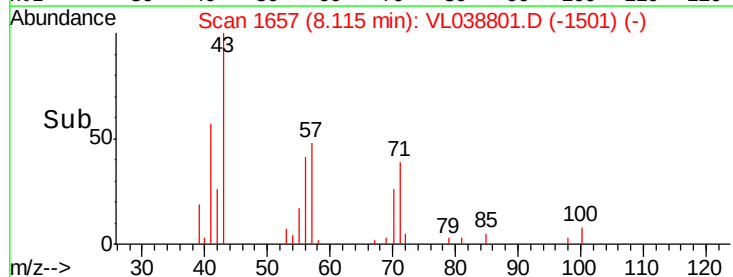
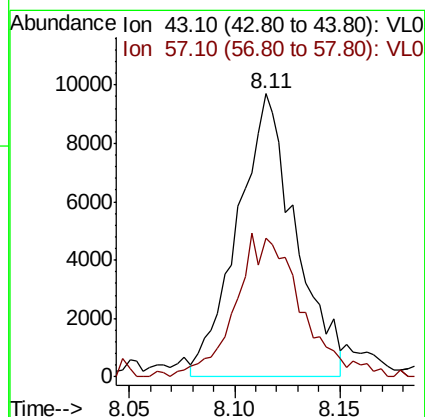
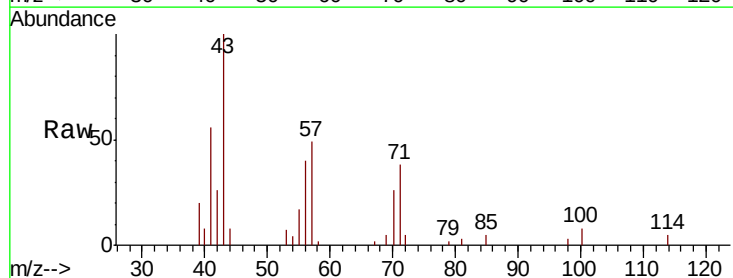
#9
 Propene
 Concen: 0.718 ppbv
 RT: 3.02
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Mar 2022 19:22

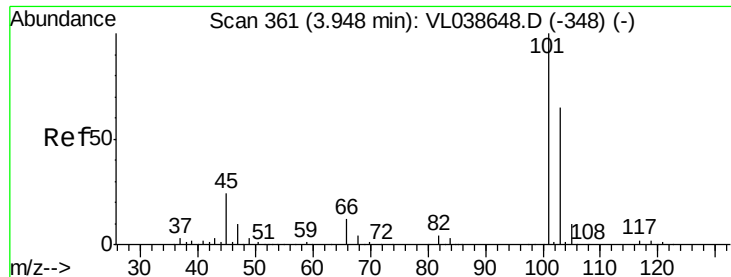
Tot Ion: 41 Resp: 33065
 Ion Ratio Lower Upper
 41 100
 42 58.8 56.2 84.4



#10
 Heptane
 Concen: 0.169 ppbv
 RT: 8.11 min Scan# 1657
 Delta R.T. 0.00 min
 Lab File: VL038801.D
 Acq: 30 Mar 2022 19:22

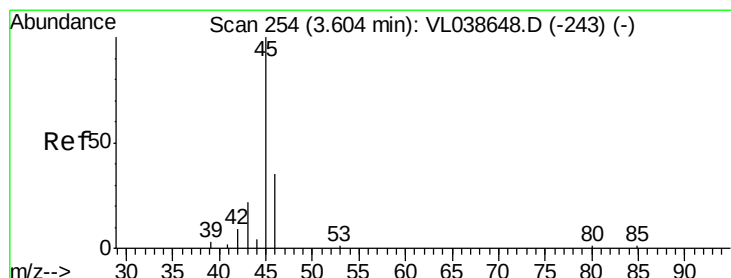
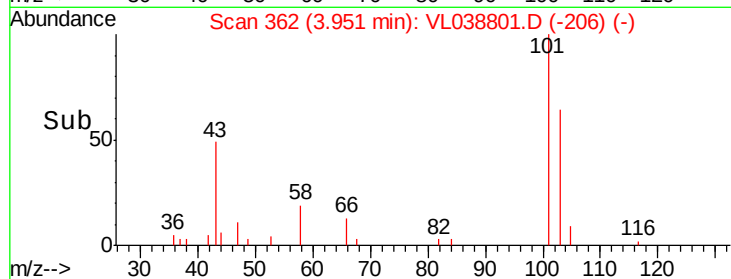
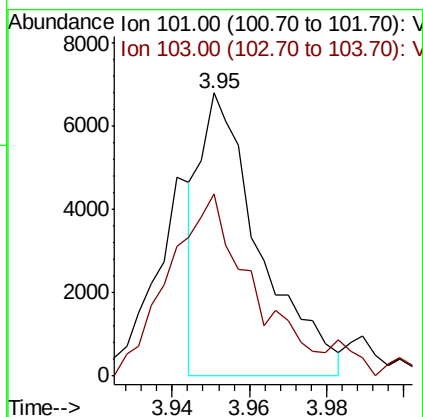
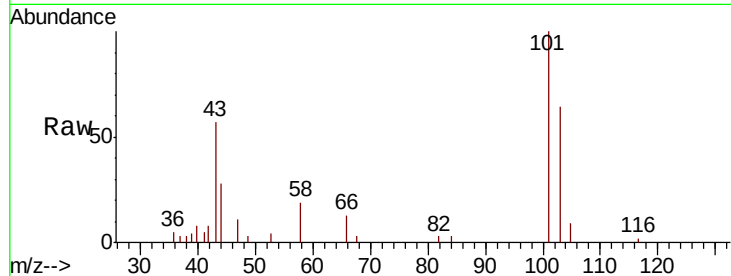
Tgt Ion: 43 Resp: 18544
 Ion Ratio Lower Upper
 43 100
 57 57.3 41.4 62.2





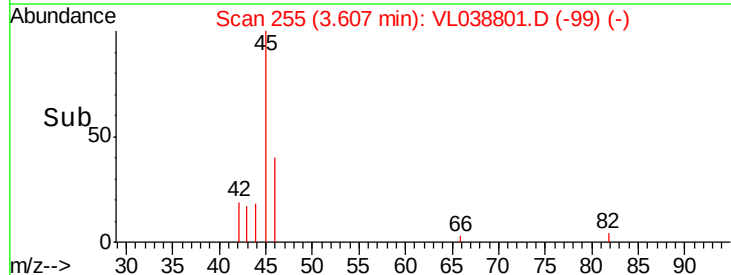
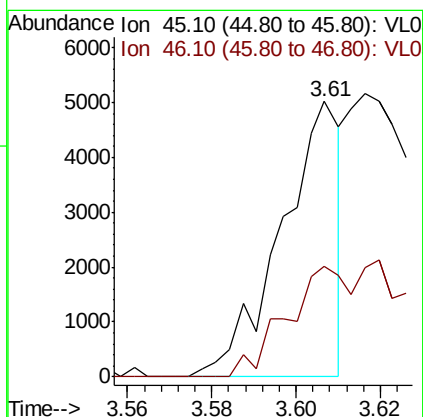
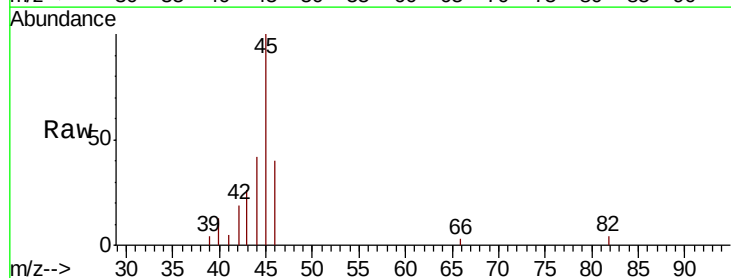
#11
 Trichlorofluoromethane
 Concen: 0.068 ppbv
 RT: 3.95
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 30 Mar 2022 19:22

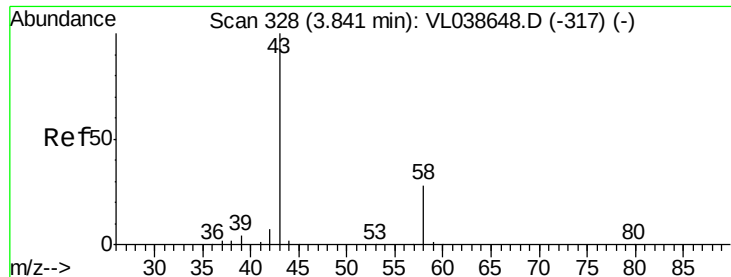
Tot Ion:101 Resp: 7274
 Ion Ratio Lower Upper
 101 100
 103 56.1 51.9 77.9



#13
 Ethanol
 Concen: 0.964 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. 0.00 min
 Lab File: VL038801.D
 Acq: 30 Mar 2022 19:22

Tgt Ion: 45 Resp: 4895
 Ion Ratio Lower Upper
 45 100
 46 0.0 15.1 60.5#





#15

Acetone

Concen: 3.492 ppbv

RT: 3.85 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

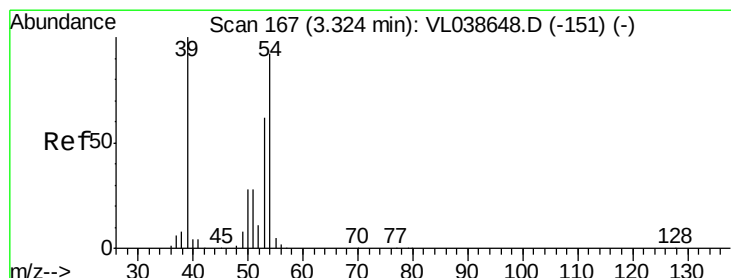
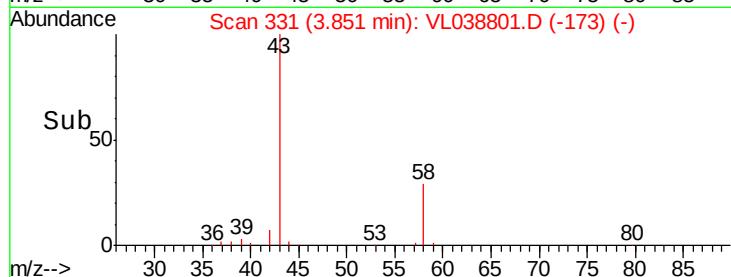
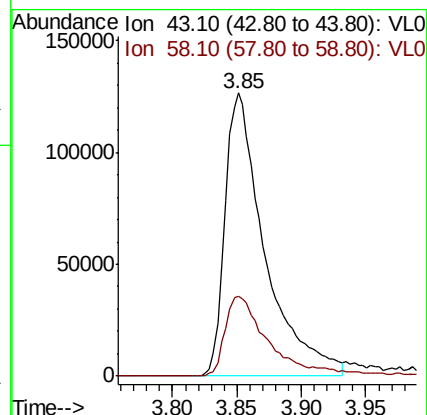
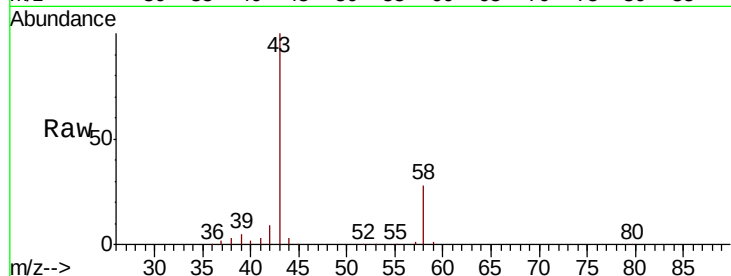
Acq: 30 Mar 2022 19:22

Tot Ion: 43 Resp: 272057

Ion Ratio Lower Upper

43 100

58 32.2 23.3 34.9



#16

1,3-Butadiene

Concen: 0.518 ppbv

RT: 3.31 min Scan# 162

Delta R.T. -0.02 min

Lab File: VL038801.D

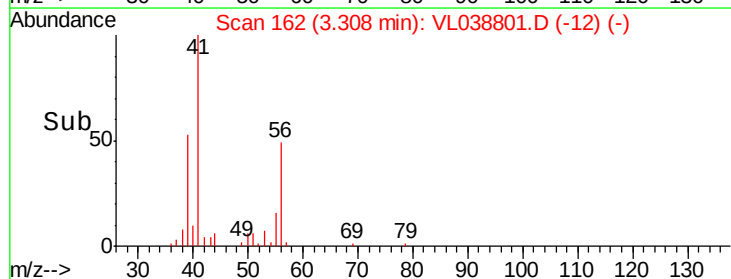
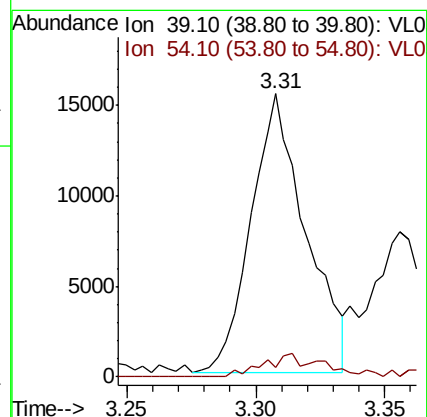
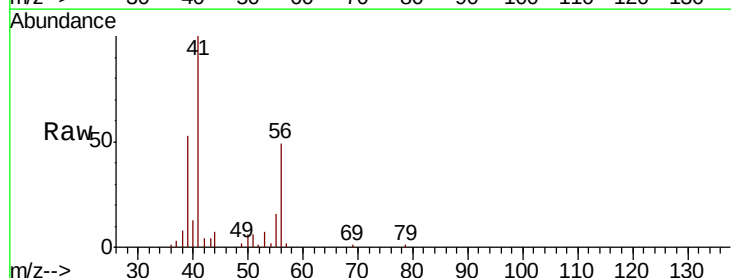
Acq: 30 Mar 2022 19:22

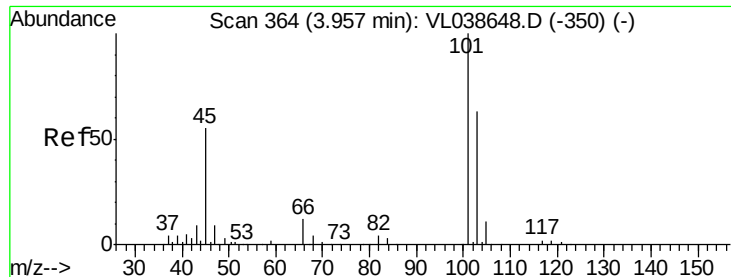
Tgt Ion: 39 Resp: 22917

Ion Ratio Lower Upper

39 100

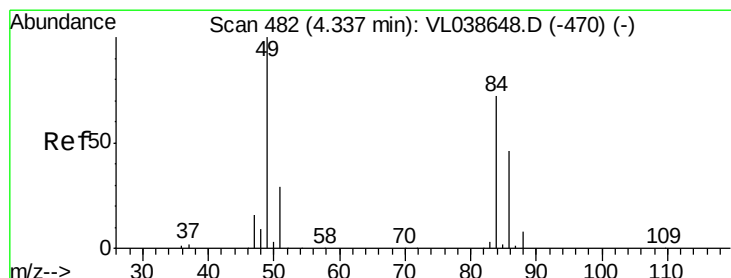
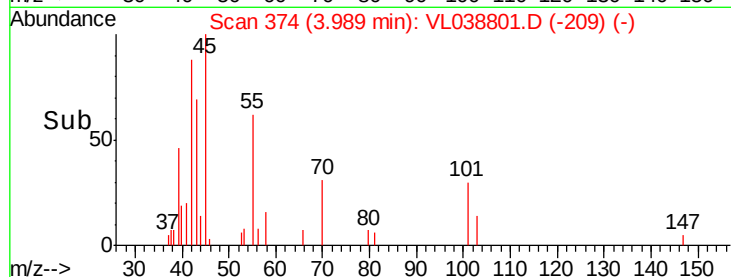
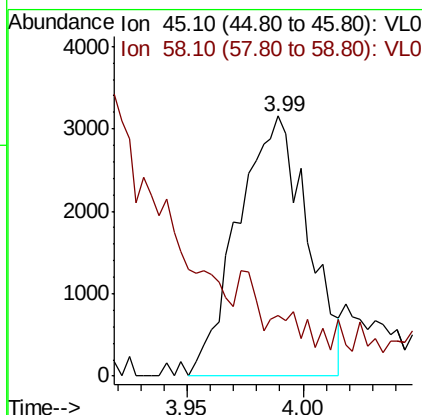
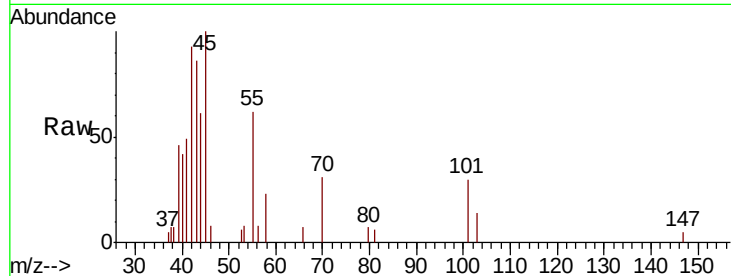
54 9.3 69.1 103.7#





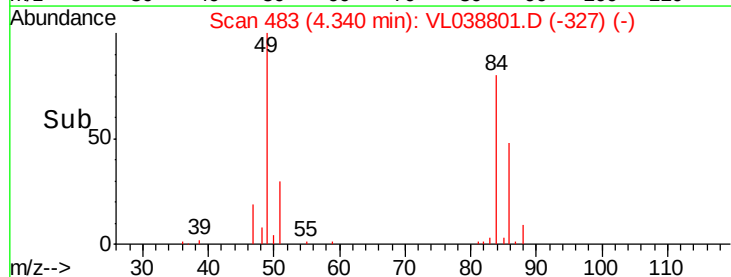
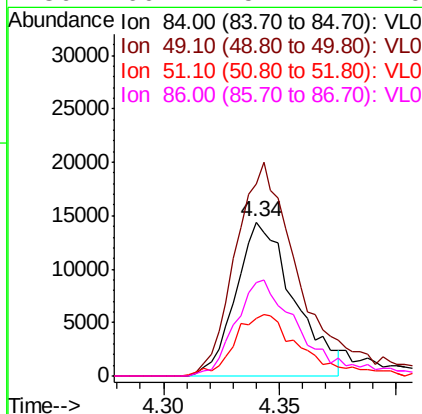
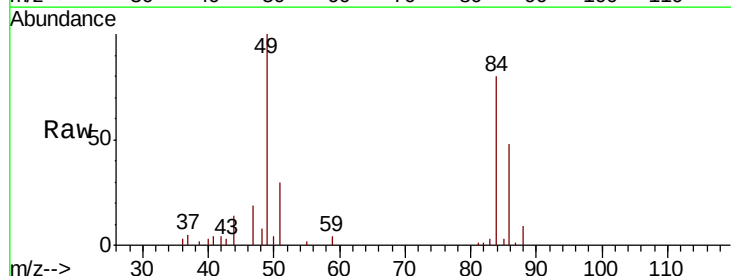
#19
Isopropyl Alcohol
Concen: 0.153 ppbv
RT: 3.99 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 30 Mar 2022 19:22

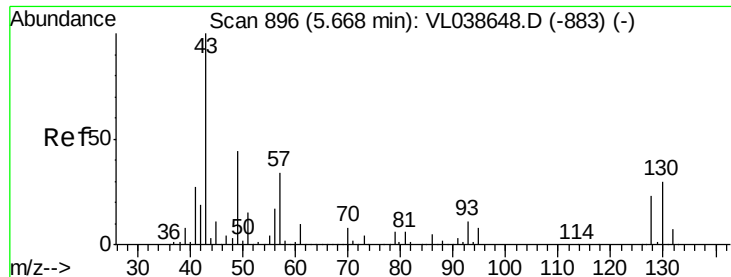
Tot Ion: 45 Resp: 6596
Ion Ratio Lower Upper
45 100
58 0.0 2.3 3.5#



#20
Methylene Chloride
Concen: 0.766 ppbv
RT: 4.34 min Scan# 483
Delta R.T.: 0.00 min
Lab File: VL038801.D
Acq: 30 Mar 2022 19:22

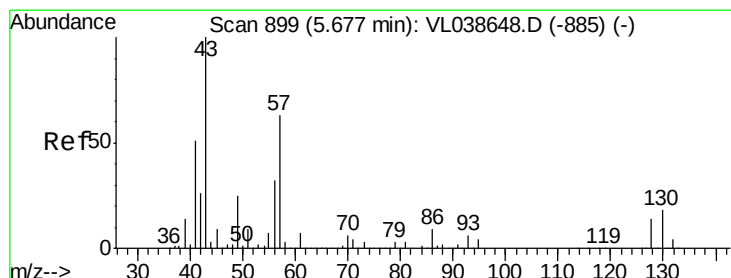
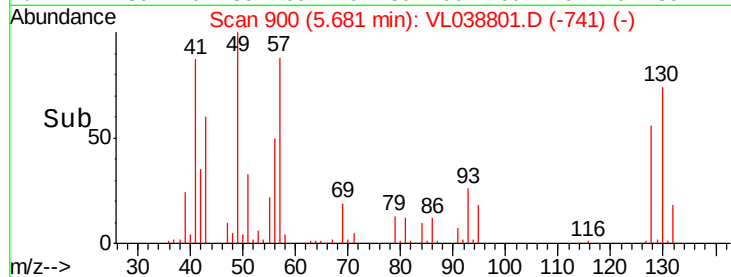
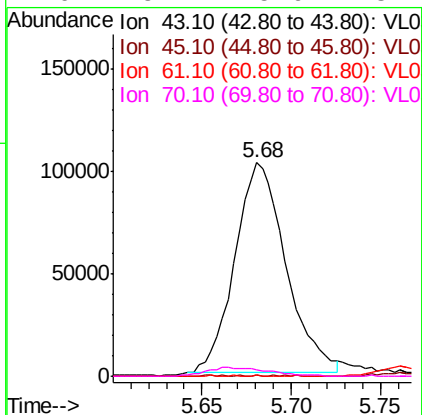
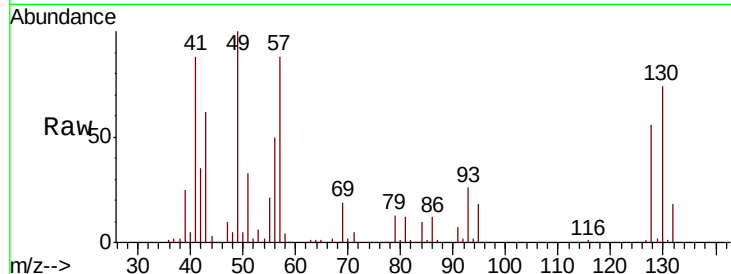
Tgt Ion: 84 Resp: 25124
Ion Ratio Lower Upper
84 100
49 125.4 111.2 166.8
51 36.8 32.8 49.2
86 60.7 51.4 77.0





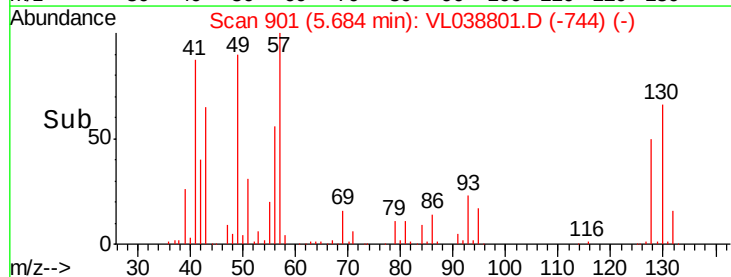
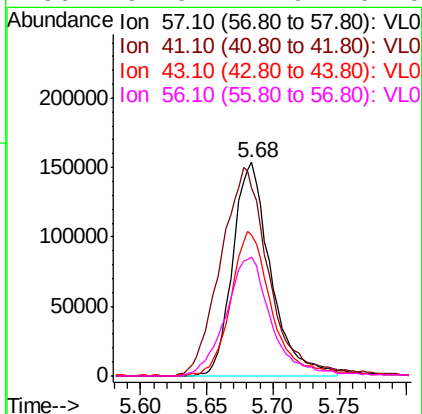
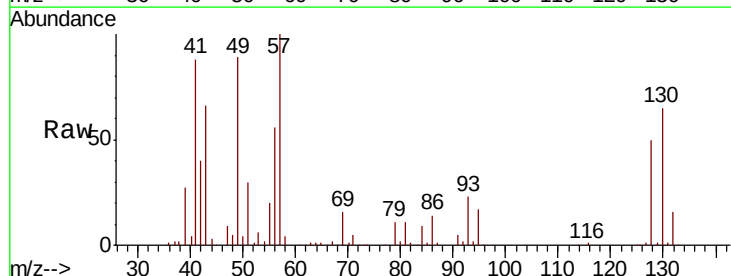
#25
Ethyl Acetate
Concen: 1.049 ppbv
RT: 5.68 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 30 Mar 2022 19:22

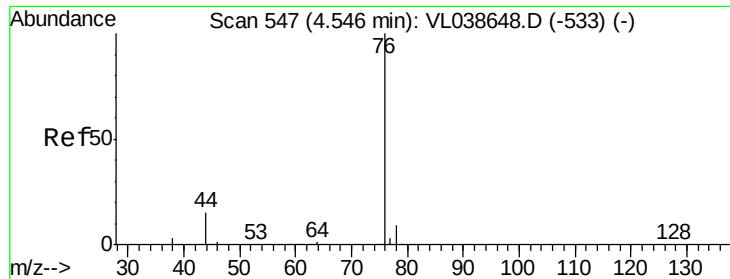
Tot Ion:	43	Resp:	205684
Ion	Ratio	Lower	Upper
43	100		
45	0.5	8.2	12.4#
61	0.4	8.3	12.5#
70	5.2	5.6	8.4#



#26
Hexane
Concen: 3.483 ppbv
RT: 5.68 min Scan# 901
Delta R.T.: 0.01 min
Lab File: VL038801.D
Acq: 30 Mar 2022 19:22

Tgt Ion:	57	Resp:	305772
Ion	Ratio	Lower	Upper
57	100		
41	126.3	67.0	100.4#
43	74.1	184.2	276.2#
56	67.6	42.6	64.0#





#27

Carbon Disulfide

Concen: 0.321 ppbv

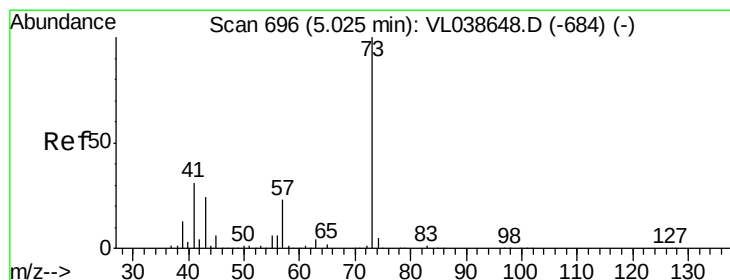
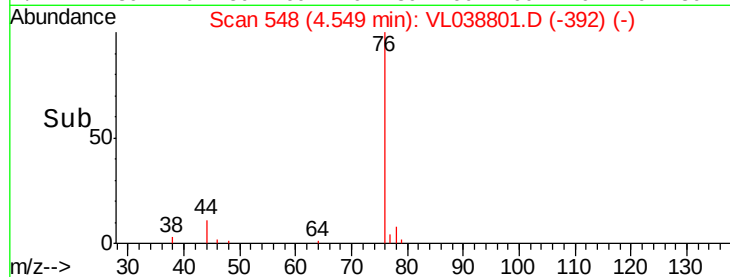
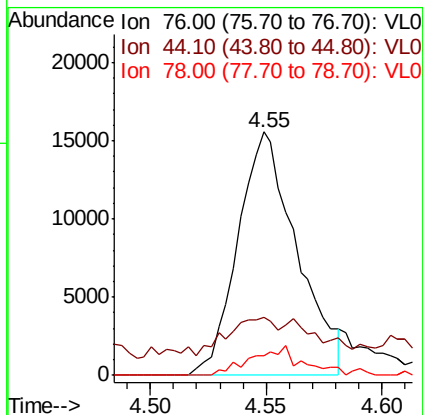
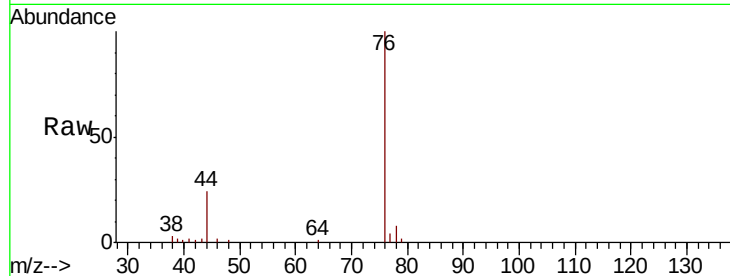
RT: 4.55 Instrument:

Delta R.T. MSVOA_L

Lab File:

Acq: 30 Mar 2022 19:22

Tot Ion:	76	Resp:	27607
Ion	Ratio	Lower	Upper
76	100		
44	23.6	12.4	18.6#
78	10.9	7.8	11.8



#28

Methyl tert-Butyl Ether

Concen: 0.043 ppbv

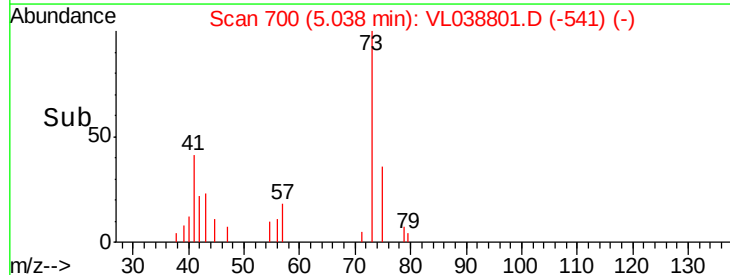
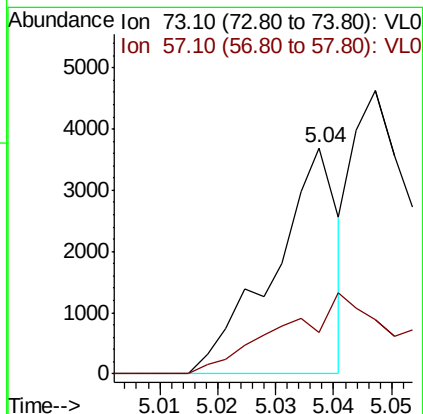
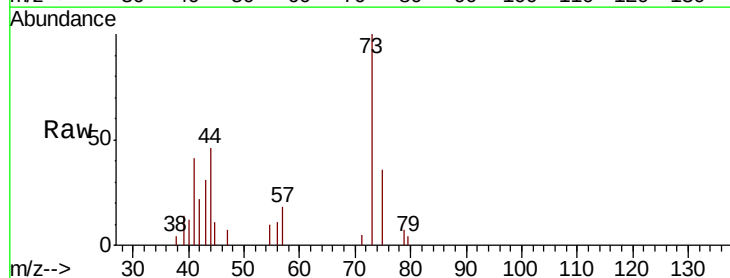
RT: 5.04 min Scan# 700

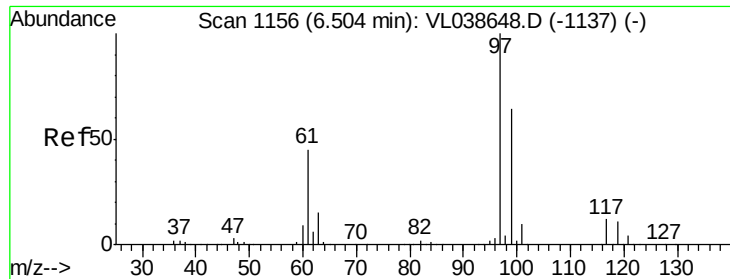
Delta R.T. 0.01 min

Lab File: VL038801.D

Acq: 30 Mar 2022 19:22

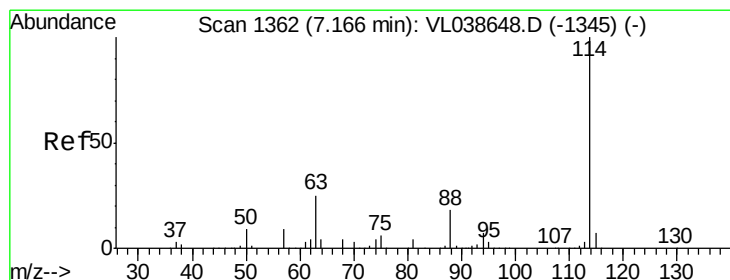
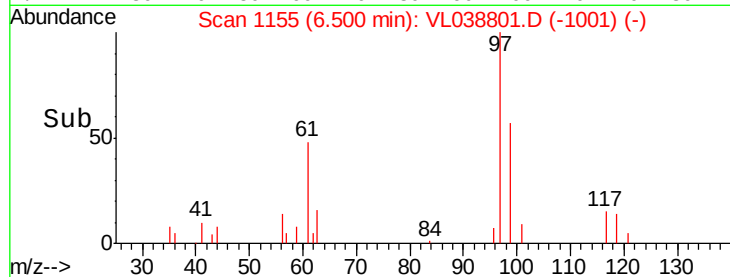
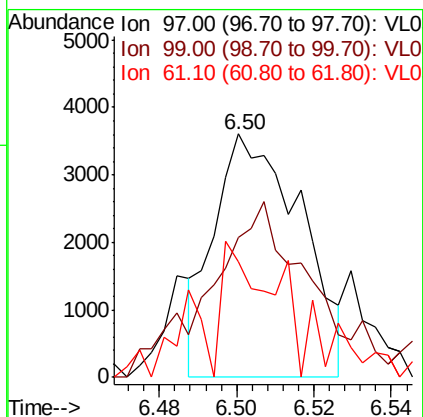
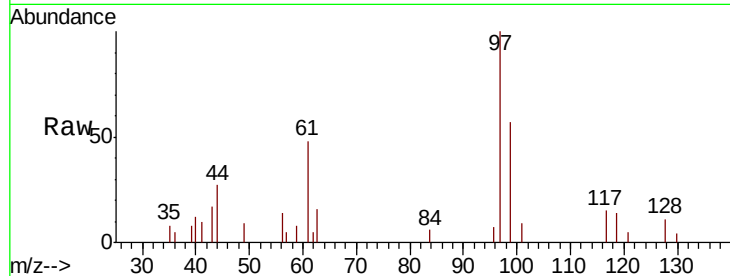
Tgt Ion:	73	Resp:	2844
Ion	Ratio	Lower	Upper
73	100		
57	77.9	19.2	28.8#





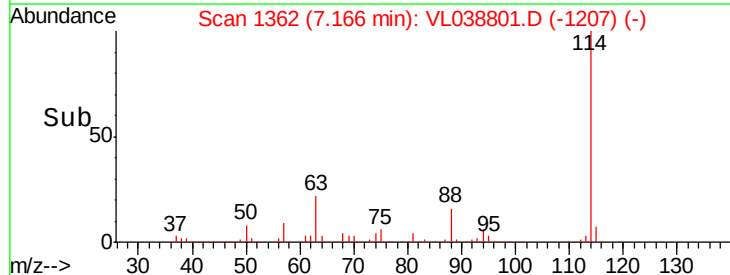
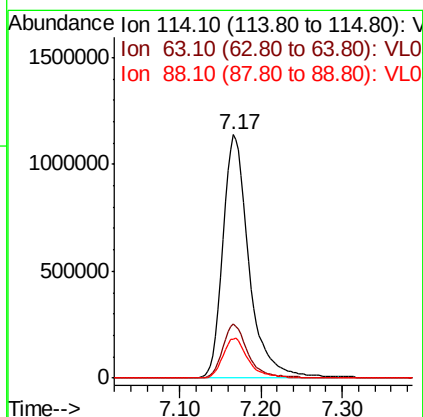
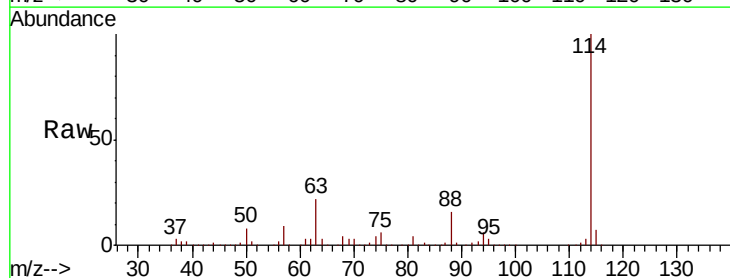
#32
 1,1,1-Trichloroethane
 Concen: 0.042 ppbv
 RT: 6.50
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Mar 2022 19:22

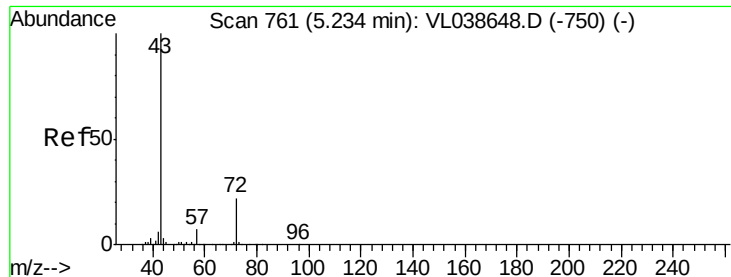
Tot Ion: 97 Resp: 5645
 Ion Ratio Lower Upper
 97 100
 99 89.7 51.8 77.8#
 61 58.9 36.7 55.1#



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1362
 Delta R.T. -0.00 min
 Lab File: VL038801.D
 Acq: 30 Mar 2022 19:22

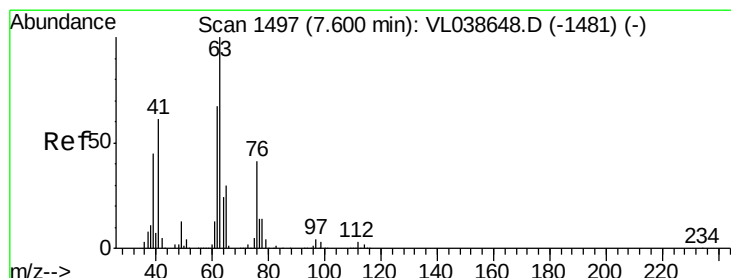
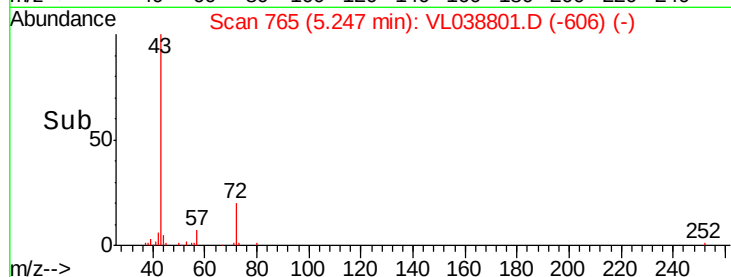
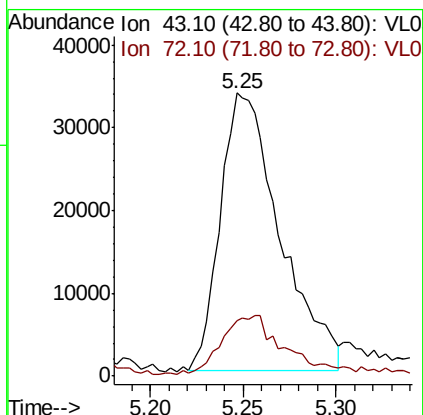
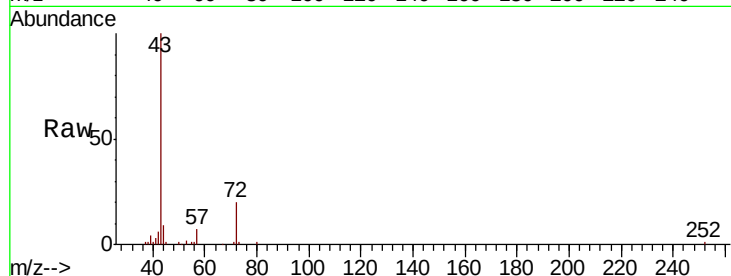
Tgt Ion: 114 Resp: 2580913
 Ion Ratio Lower Upper
 114 100
 63 21.8 19.4 29.0
 88 16.3 13.9 20.9





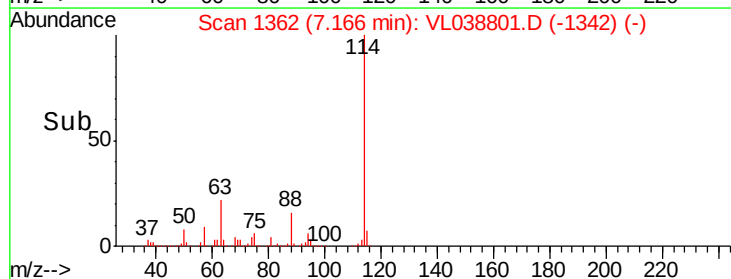
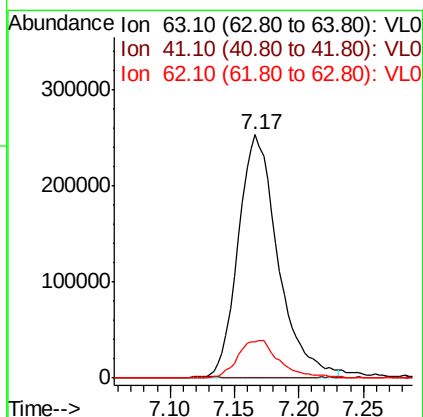
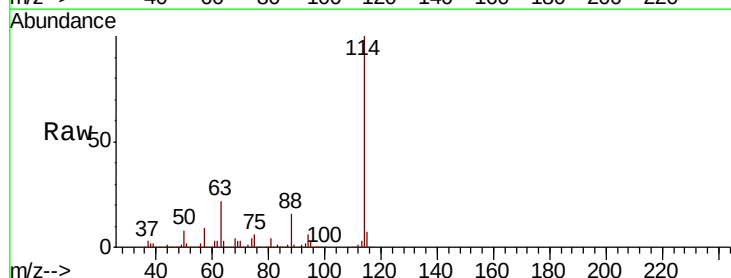
#34
 2-Butanone
 Concen: 0.732 ppbv
 RT: 5.25
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Mar 2022 19:22

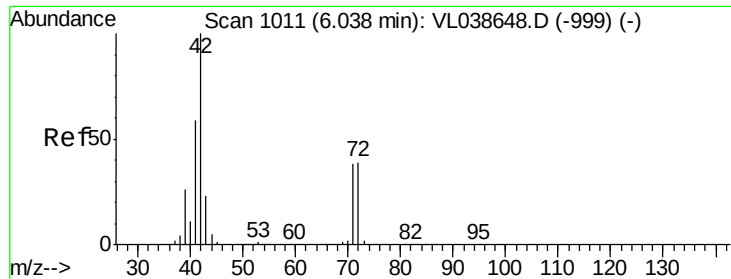
Tot Ion: 43 Resp: 74770
 Ion Ratio Lower Upper
 43 100
 72 26.2 17.8 26.8



#39
 1,2-Dichloropropane
 Concen: 7.004 ppbv
 RT: 7.17 min Scan# 1362
 Delta R.T. -0.43 min
 Lab File: VL038801.D
 Acq: 30 Mar 2022 19:22

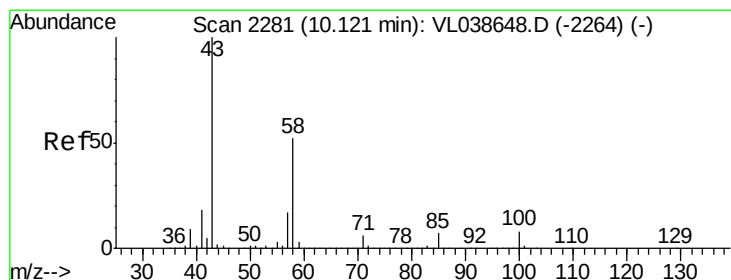
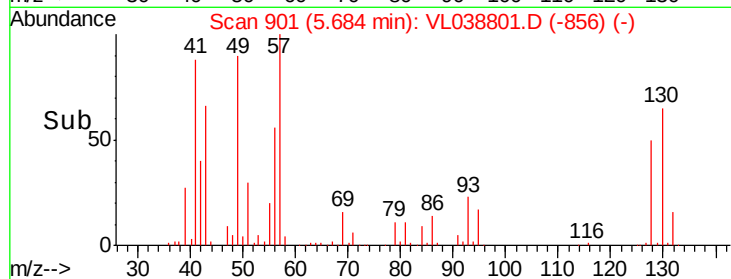
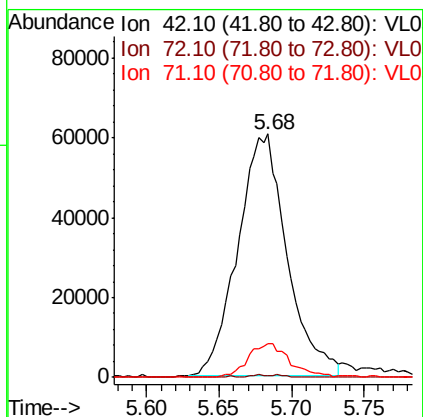
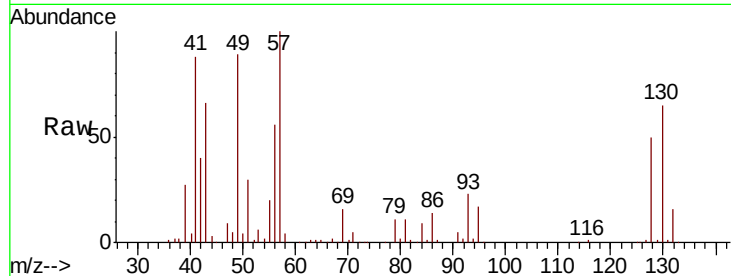
Tgt Ion: 63 Resp: 545382
 Ion Ratio Lower Upper
 63 100
 41 0.2 49.0 73.6#
 62 14.8 53.9 80.9#





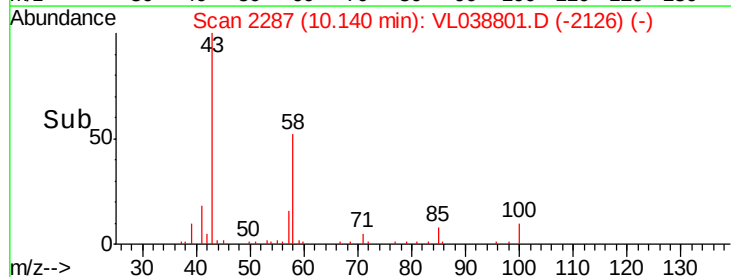
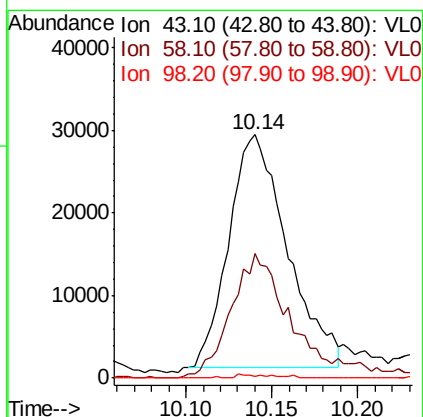
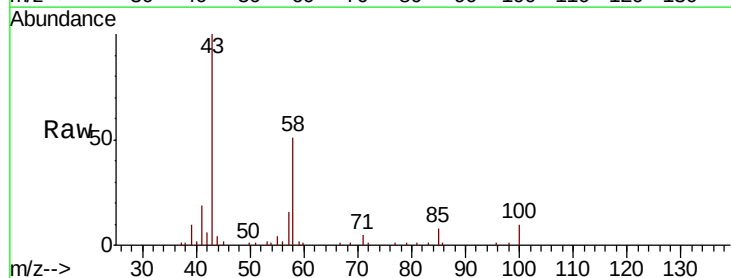
#41
Tetrahydrofuran
Concen: 1.882 ppbv
RT: 5.68
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 30 Mar 2022 19:22

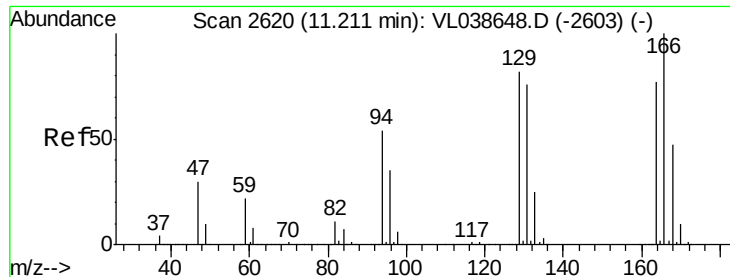
Tot Ion	Ratio	Lower	Upper
42	100		
72	0.7	32.5	48.7#
71	12.3	31.4	47.2#



#51
2-Hexanone
Concen: 0.491 ppbv
RT: 10.14 min Scan# 2287
Delta R.T.: 0.02 min
Lab File: VL038801.D
Acq: 30 Mar 2022 19:22

Tgt Ion	Ratio	Lower	Upper
43	100		
58	57.1	41.2	61.8
98	1.0	0.2	0.4#





#52

Tetrachloroethene

Concen: 2.448 ppbv

RT: 11.21

Delta R.T. MSVOA_L

Lab File:

Acq: 30 Mar 2022 19:22

Tot Ion:164 Resp: 178408

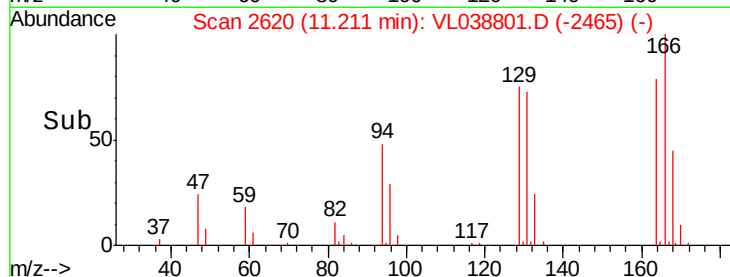
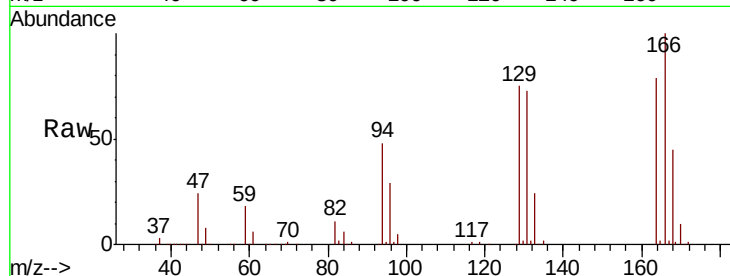
Ion Ratio Lower Upper

164 100

166 127.3 103.3 154.9

129 95.1 85.2 127.8

131 93.5 78.3 117.5

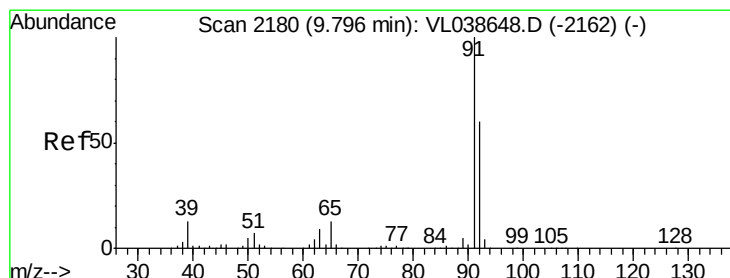
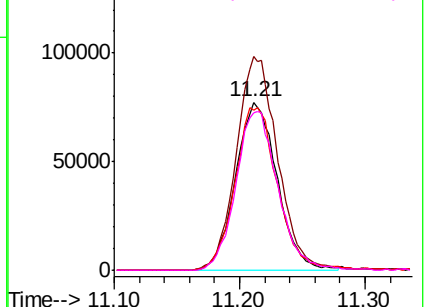


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.190 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. 0.00 min

Lab File: VL038801.D

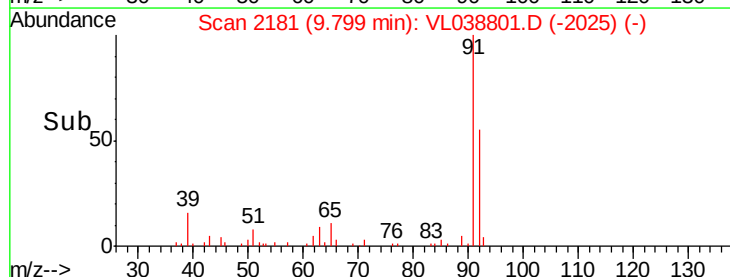
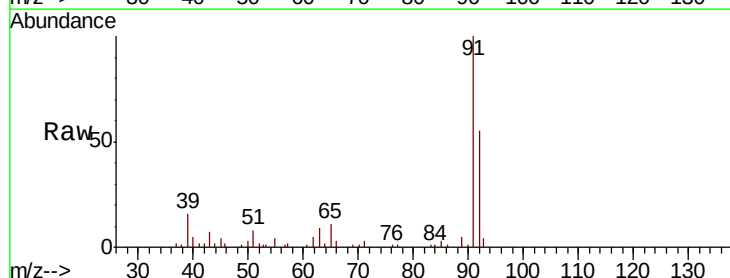
Acq: 30 Mar 2022 19:22

Tgt Ion: 91 Resp: 40600

Ion Ratio Lower Upper

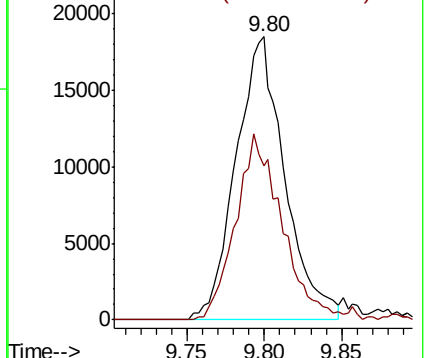
91 100

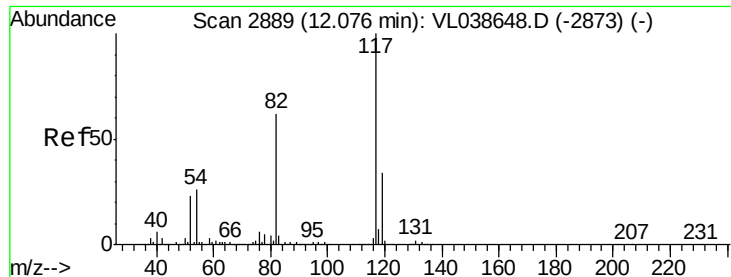
92 63.0 48.7 73.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

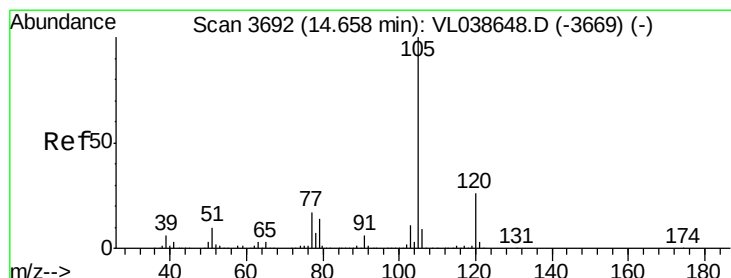
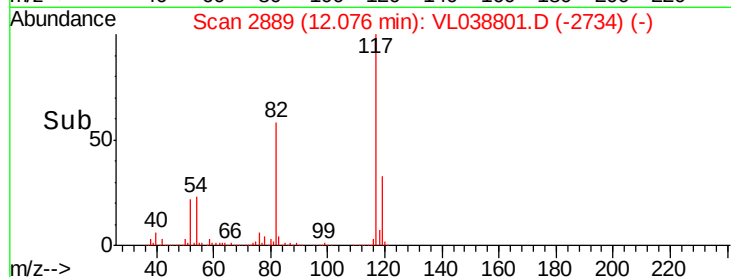
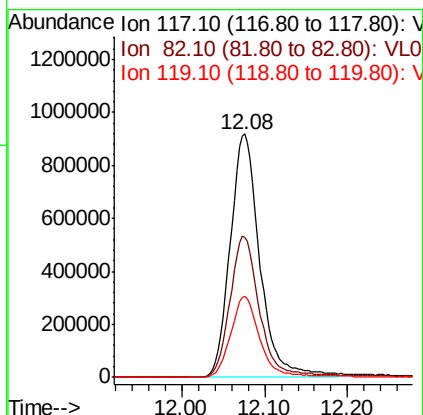
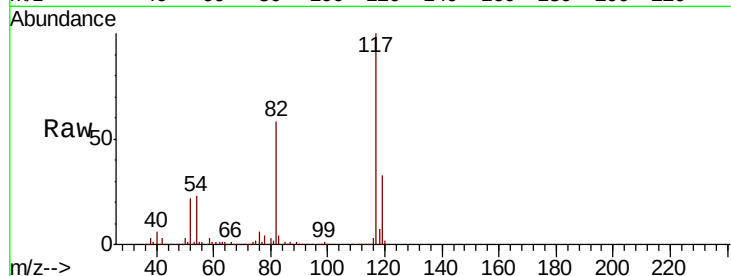
Ion 92.10 (91.80 to 92.80): VL0





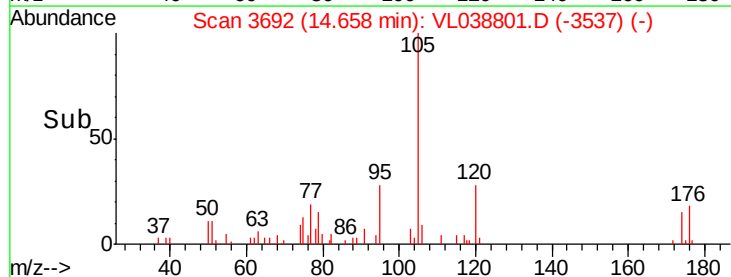
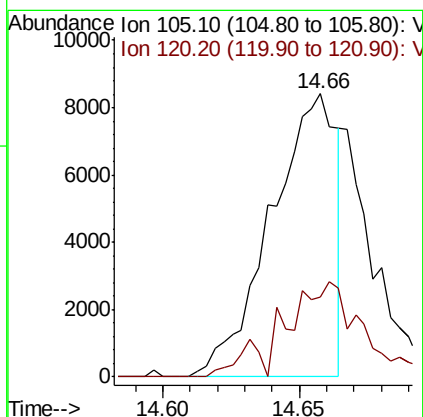
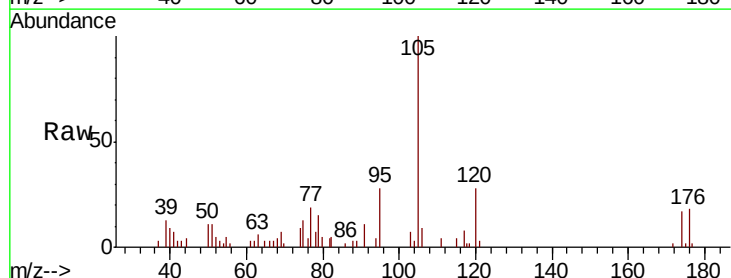
#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 12.08 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 30 Mar 2022 19:22

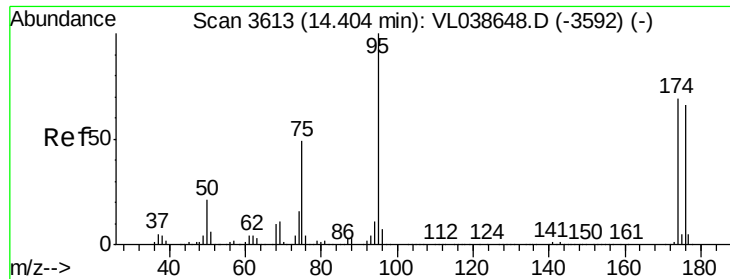
Tot Ion:117 Resp: 2293931
 Ion Ratio Lower Upper
 117 100
 82 59.8 51.6 77.4
 119 33.2 26.9 40.3



#62
 Isopropylbenzene
 Concen: 0.042 ppbv
 RT: 14.66 min Scan# 3692
 Delta R.T. -0.00 min
 Lab File: VL038801.D
 Acq: 30 Mar 2022 19:22

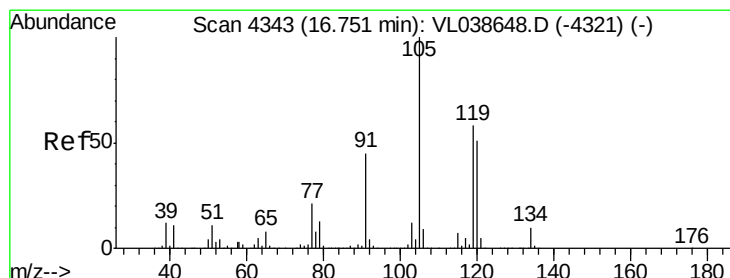
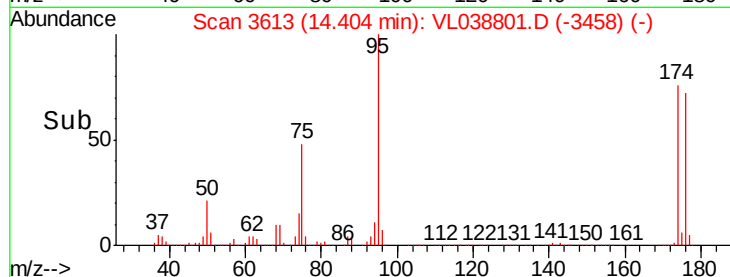
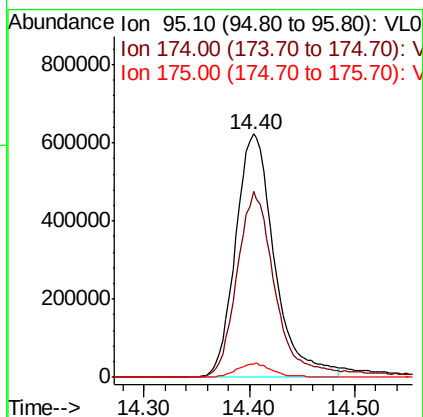
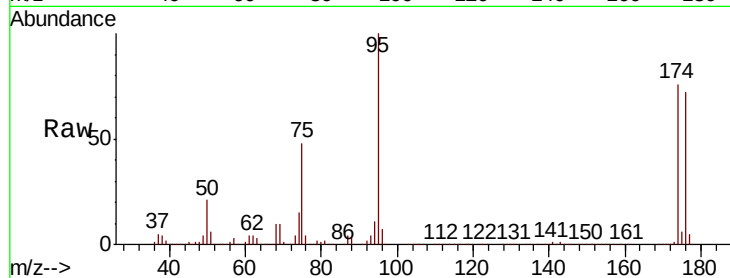
Tgt Ion:105 Resp: 13995
 Ion Ratio Lower Upper
 105 100
 120 41.1 21.2 31.8#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.091 ppbv
 RT: 14.40 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Mar 2022 19:22

Tot Ion: 95 Resp: 1598939
 Ion Ratio Lower Upper
 95 100
 174 78.4 56.1 84.1
 175 5.7 4.2 6.2



#74
 1,2,4-Trimethylbenzene
 Concen: 0.033 ppbv
 RT: 16.75 min Scan# 4343
 Delta R.T. -0.00 min
 Lab File: VL038801.D
 Acq: 30 Mar 2022 19:22

Tgt Ion: 105 Resp: 8507
 Ion Ratio Lower Upper
 105 100
 120 48.6 40.5 60.7
 91 4.1 35.9 53.9#
 77 9.0 16.6 25.0#

