

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051322\
 Data File : VL039045.D
 Acq On : 13 May 2022 20:25
 Operator : SY/AP
 Sample : N2812-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Quant Time: May 14 00:54:28 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 05 10:12:15 2022
 QLast Update : Thu May 05 10:12:15 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	887055	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.16	114	2159963	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	1739938	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	1333042	9.67	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.70%

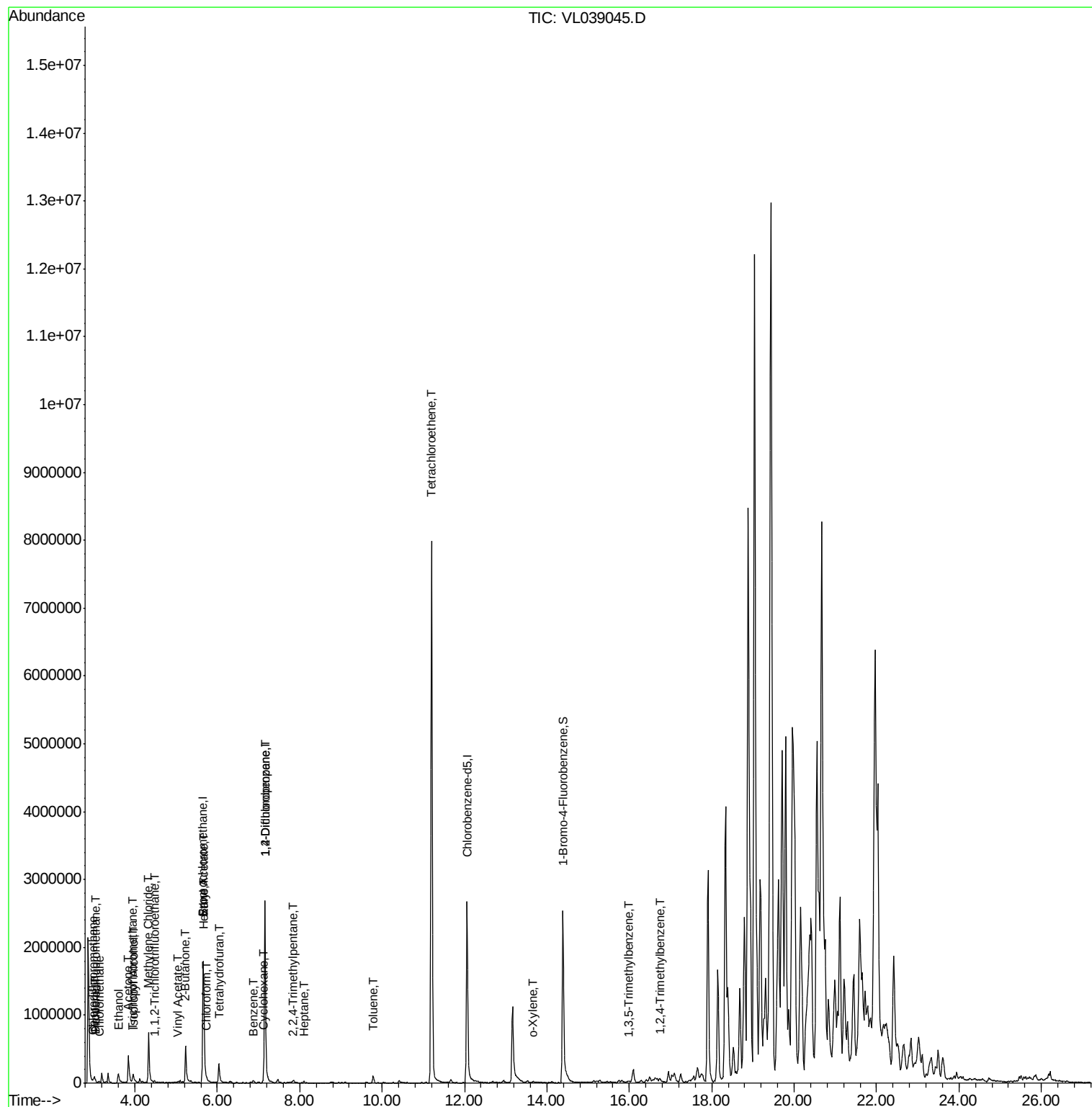
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	30172	0.217	ppbv	98
3) Chlorodifluoromethane	2.98	51	61499	0.559	ppbv #	85
4) Chloromethane	3.13	50	28474	0.517	ppbv	100
9) Propene	3.01	41	11123	0.231	ppbv #	53
10) Heptane	8.10	43	7509	0.064	ppbv #	34
11) Trichlorofluoromethane	3.94	101	12367	0.104	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.47	101	4918	0.060	ppbv #	68
13) Ethanol	3.60	45	193859	56.988	ppbv	91
15) Acetone	3.84	43	558830	6.679	ppbv	99
19) Isopropyl Alcohol	3.96	45	123785	3.111	ppbv #	89
20) Methylene Chloride	4.33	84	313841	9.951	ppbv	95
23) Vinyl Acetate	5.05	43	9821	0.148	ppbv #	13
25) Ethyl Acetate	5.67	43	241495	1.206	ppbv #	78
26) Hexane	5.67	57	347518	3.905	ppbv #	40
29) Chloroform	5.73	83	11493	0.080	ppbv	87
30) Cyclohexane	7.11	84	3115	0.042	ppbv #	1
34) 2-Butanone	5.23	43	785164	7.125	ppbv	99
36) Benzene	6.87	78	26645	0.144	ppbv #	89
39) 1,2-Dichloropropane	7.15	63	575914	8.007	ppbv #	27
41) Tetrahydrofuran	6.03	42	90769	1.226	ppbv #	36
44) 2,2,4-Trimethylpentane	7.85	57	16718	0.052	ppbv #	11
52) Tetrachloroethene	11.20	164	2048073	31.005	ppbv	98
53) Toluene	9.78	91	75650	0.365	ppbv	100
60) o-Xylene	13.67	91	6582	0.033	ppbv #	7
73) 1,3,5-Trimethylbenzene	15.97	105	7223	0.035	ppbv #	68
74) 1,2,4-Trimethylbenzene	16.74	105	32778	0.145	ppbv #	73

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 13 May 2022 20:25

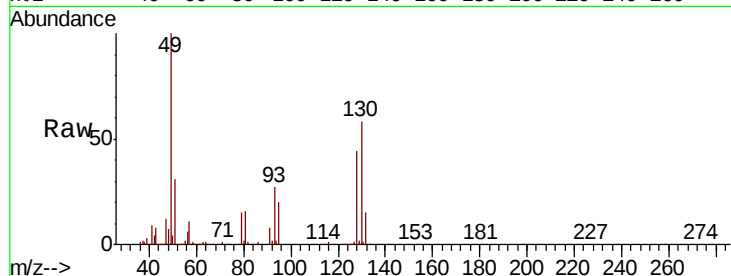
Tot Ion: 49 Resp: 887055

Ion Ratio Lower Upper

49 100

128 46.8 23.3 69.8

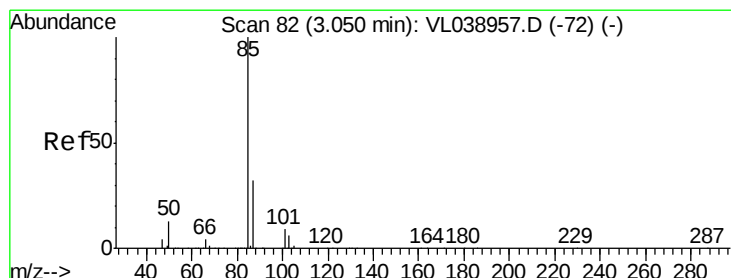
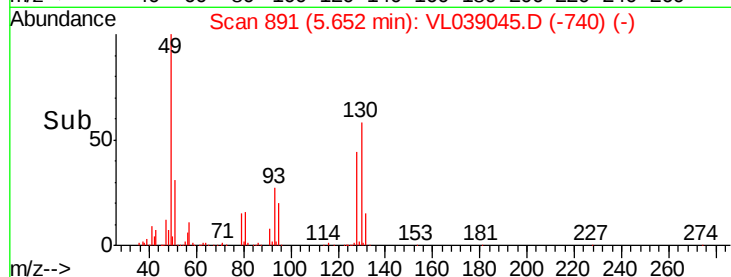
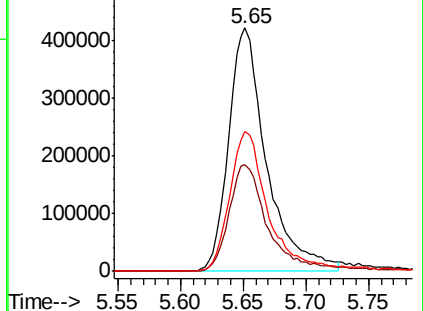
130 60.0 29.8 89.3



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: 0.217 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL039045.D

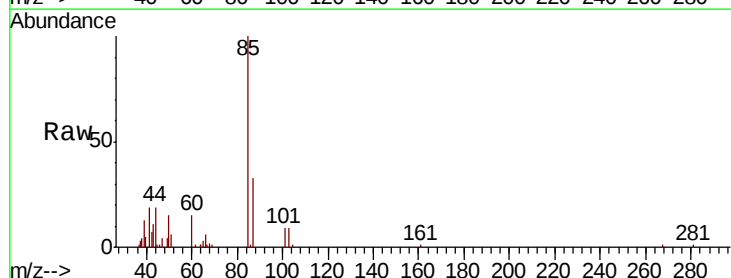
Acq: 13 May 2022 20:25

Tgt Ion: 85 Resp: 30172

Ion Ratio Lower Upper

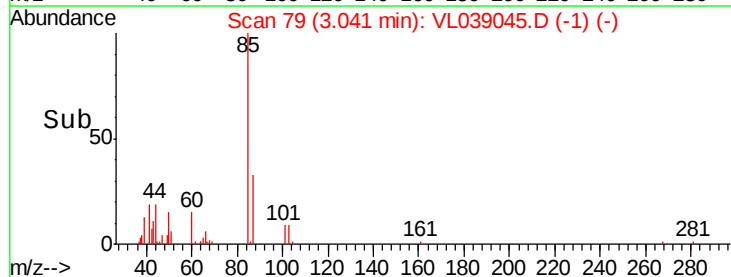
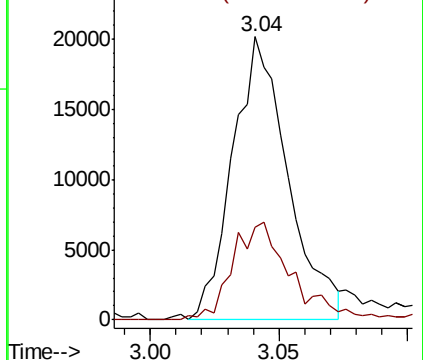
85 100

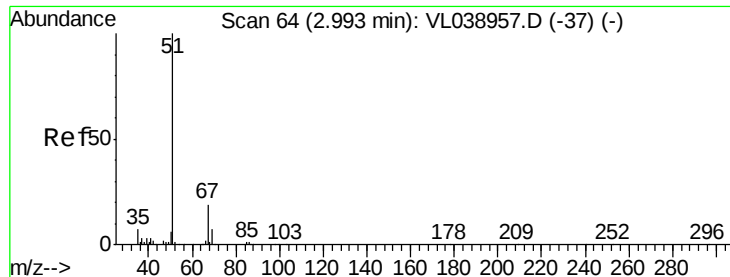
87 31.1 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

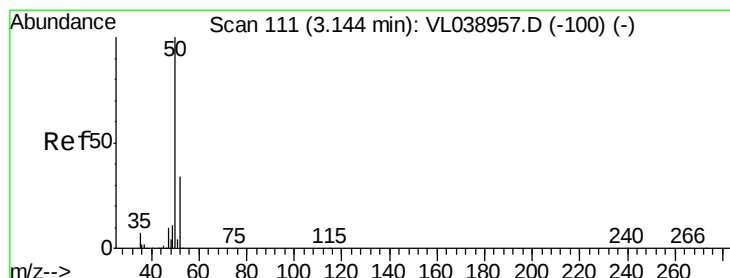
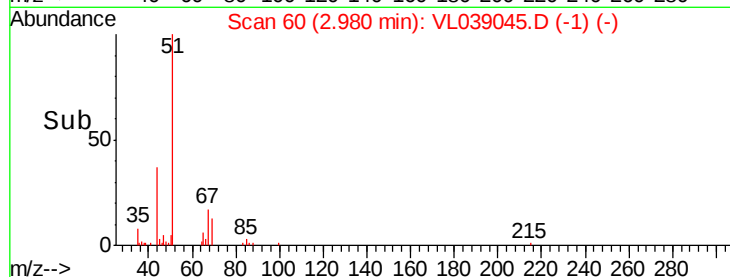
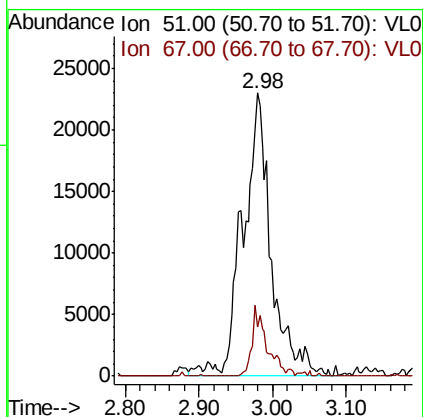
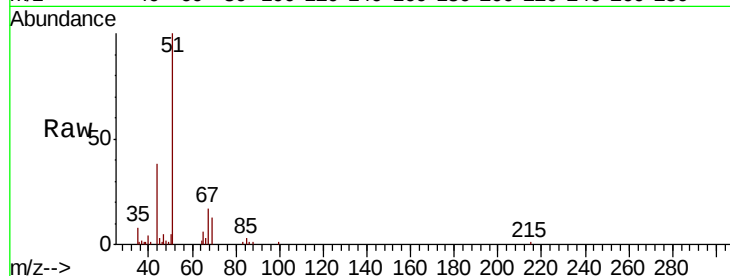
Ion 87.00 (86.70 to 87.70): VL0





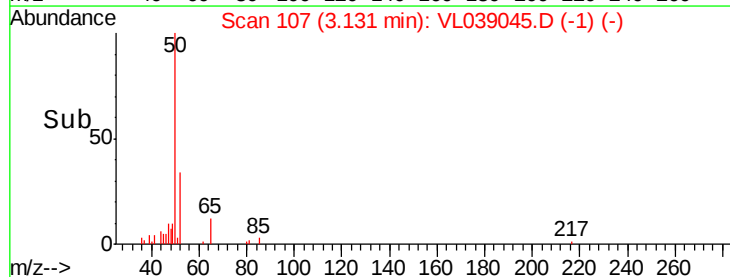
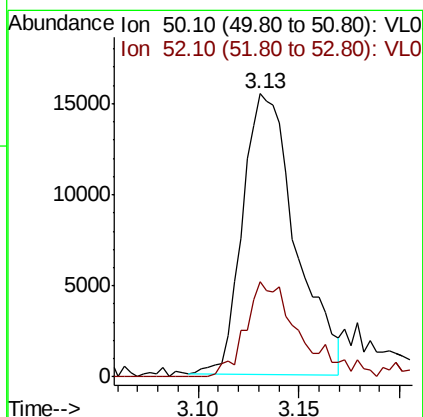
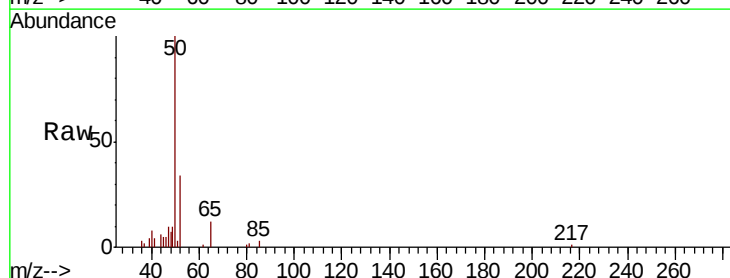
#3
Chlorodifluoromethane
Concen: 0.559 ppbv
RT: 2.98
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 20:25

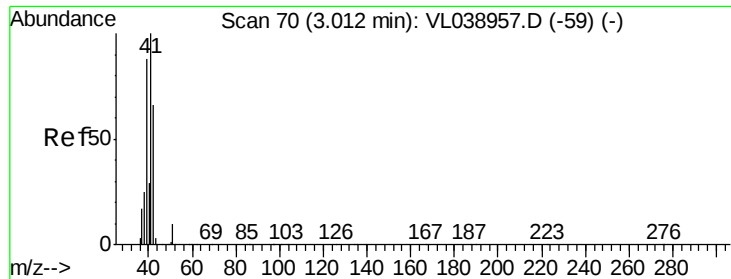
Tot Ion: 51 Resp: 61499
Ion Ratio Lower Upper
51 100
67 13.1 15.8 23.8#



#4
Chloromethane
Concen: 0.517 ppbv
RT: 3.13 min Scan# 107
Delta R.T. -0.01 min
Lab File: VL039045.D
Acq: 13 May 2022 20:25

Tgt Ion: 50 Resp: 28474
Ion Ratio Lower Upper
50 100
52 34.0 27.3 40.9





#9

Propene

Concen: 0.231 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

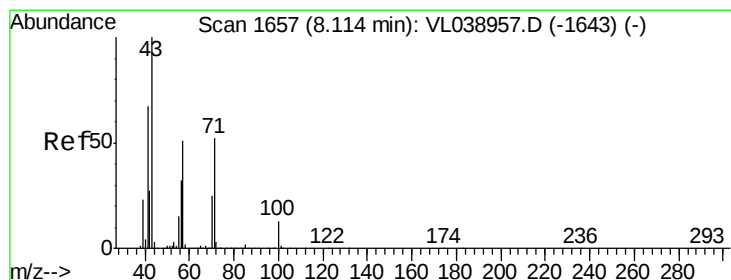
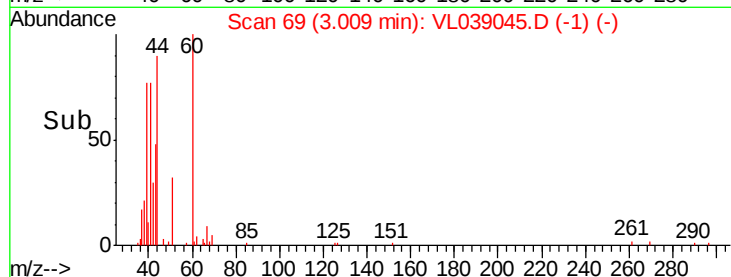
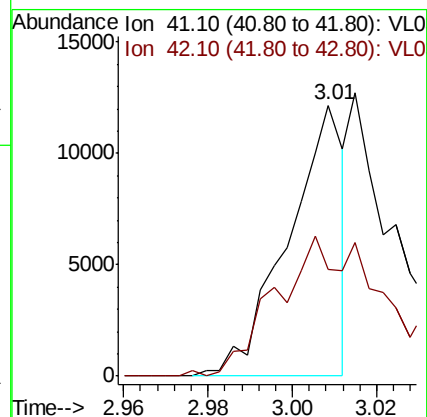
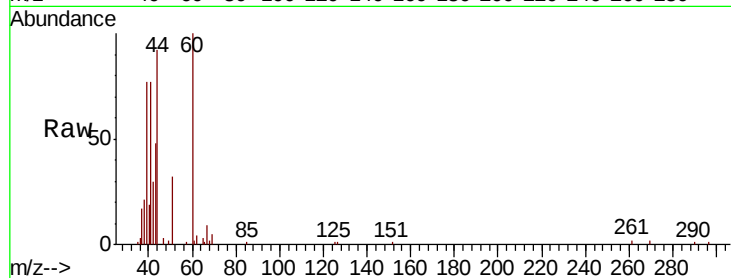
Acq: 13 May 2022 20:25

Tot Ion: 41 Resp: 11123

Ion Ratio Lower Upper

41 100

42 112.6 58.3 87.5#



#10

Heptane

Concen: 0.064 ppbv

RT: 8.10 min Scan# 1653

Delta R.T. -0.01 min

Lab File: VL039045.D

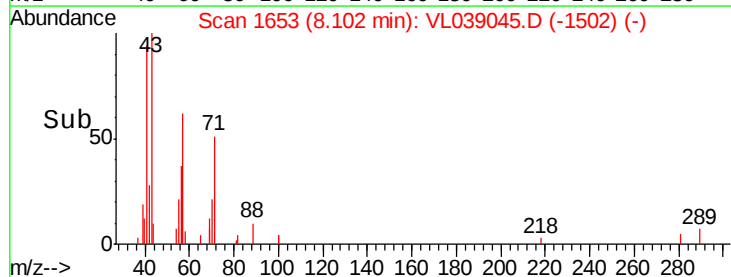
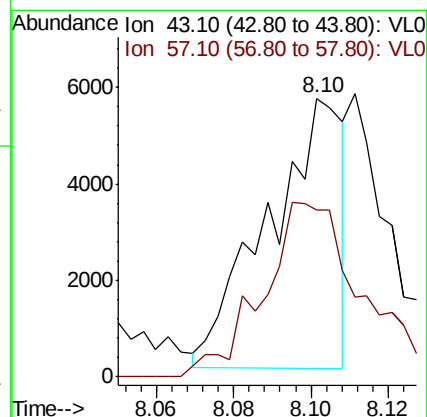
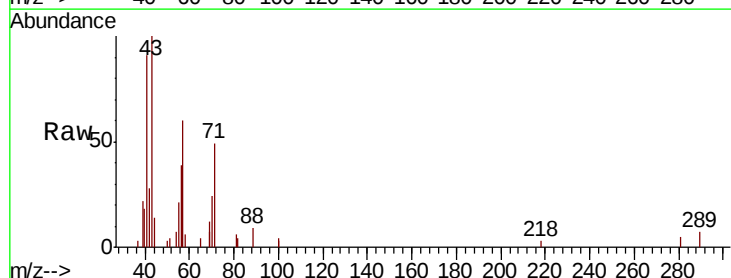
Acq: 13 May 2022 20:25

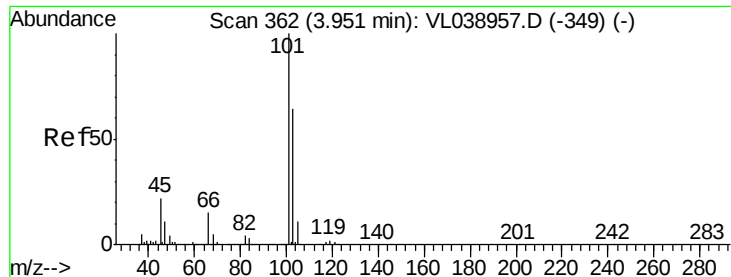
Tgt Ion: 43 Resp: 7509

Ion Ratio Lower Upper

43 100

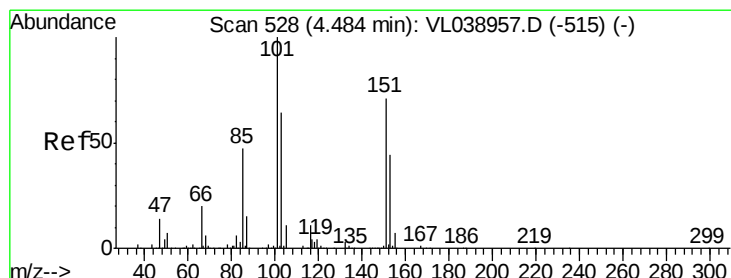
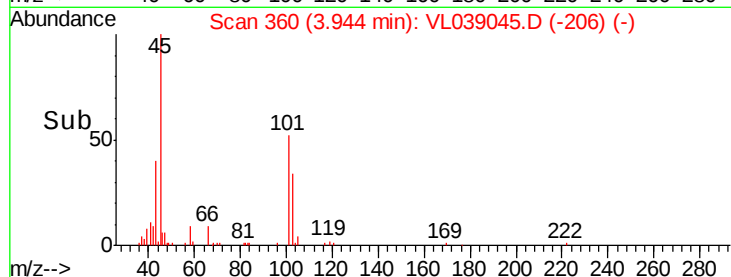
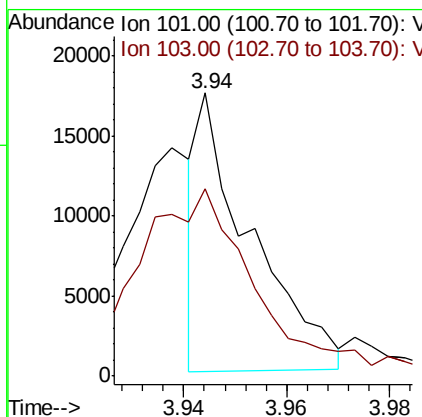
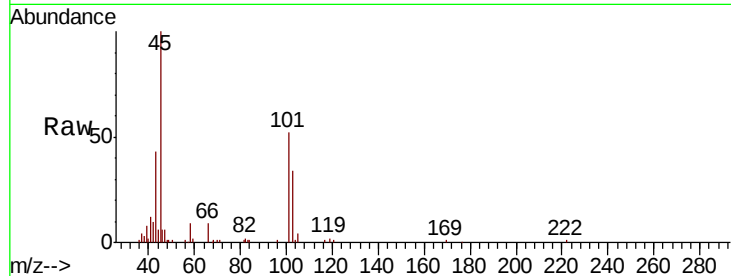
57 96.4 40.5 60.7#





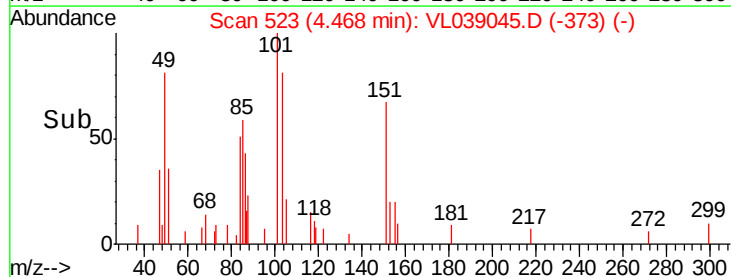
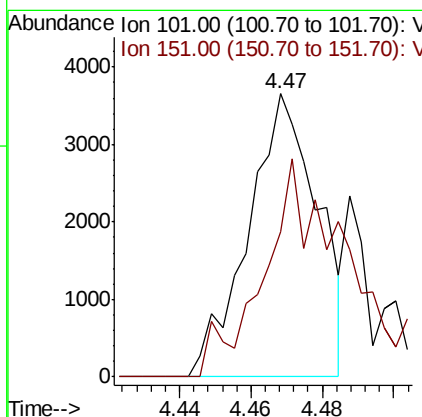
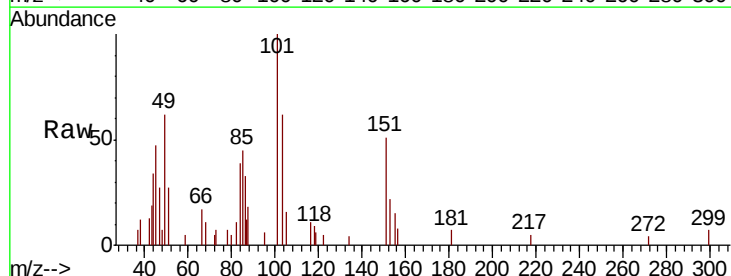
#11
 Trichlorofluoromethane
 Concen: 0.104 ppbv
 RT: 3.94
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 13 May 2022 20:25

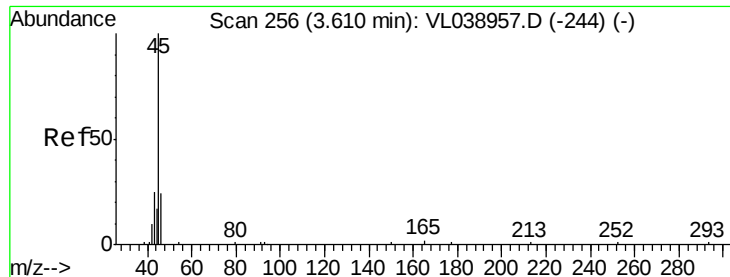
Tot Ion:101 Resp: 12367
 Ion Ratio Lower Upper
 101 100
 103 63.3 51.5 77.3



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.060 ppbv
 RT: 4.47 min Scan# 523
 Delta R.T. -0.02 min
 Lab File: VL039045.D
 Acq: 13 May 2022 20:25

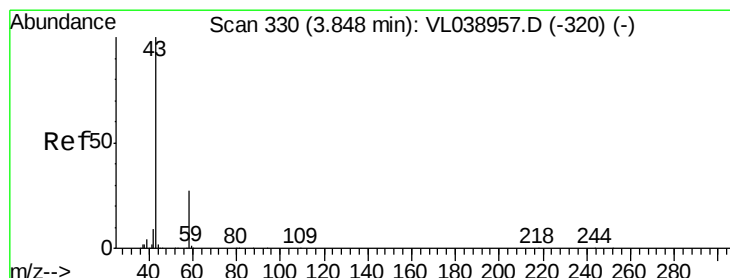
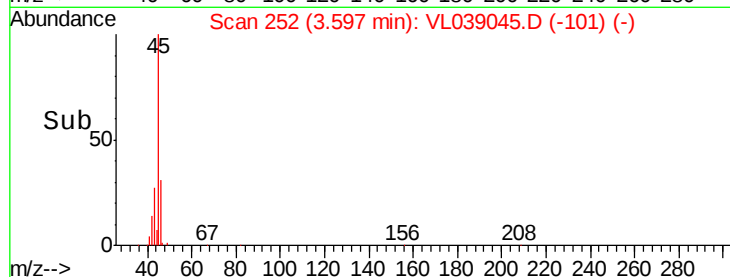
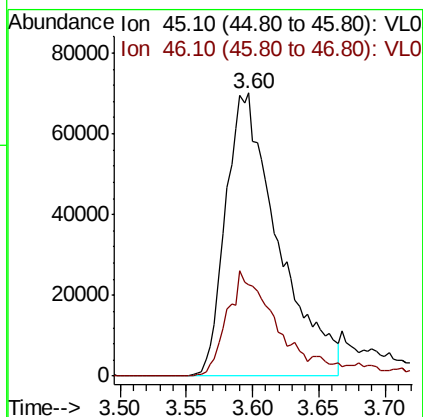
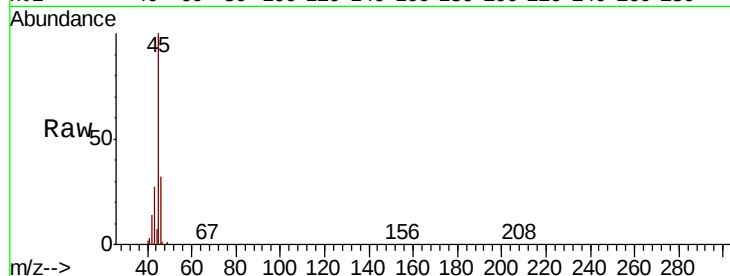
Tgt Ion:101 Resp: 4918
 Ion Ratio Lower Upper
 101 100
 151 95.5 55.4 83.0#





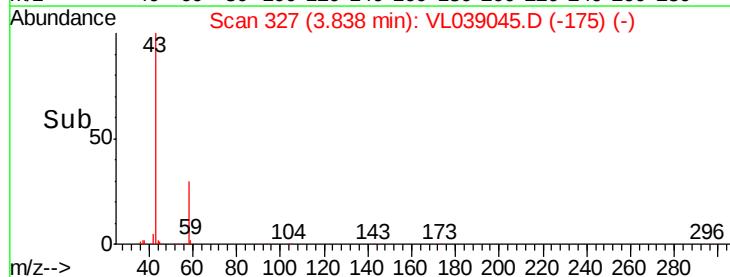
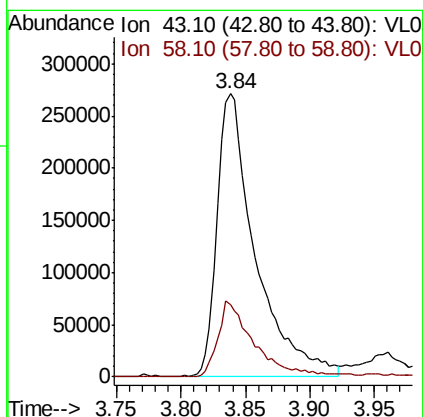
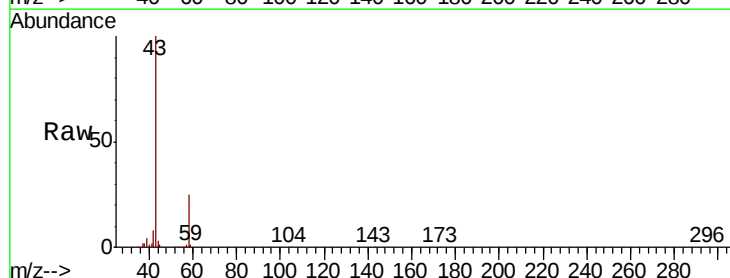
#13
Ethanol
Concen: 56.988 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 20:25

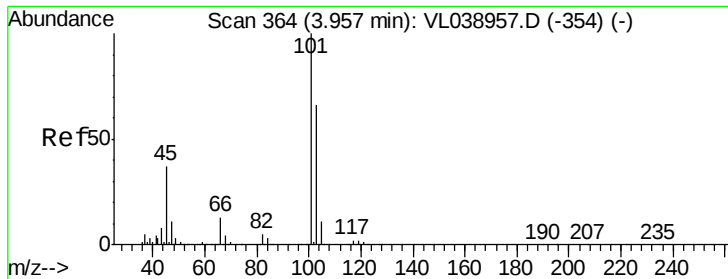
Tot Ion: 45 Resp: 193859
Ion Ratio Lower Upper
45 100
46 39.3 18.0 72.2



#15
Acetone
Concen: 6.679 ppbv
RT: 3.84 min Scan# 327
Delta R.T. -0.01 min
Lab File: VL039045.D
Acq: 13 May 2022 20:25

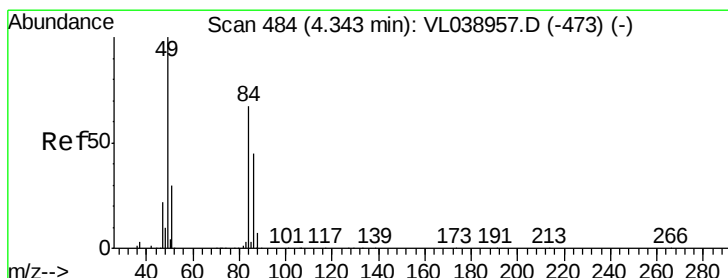
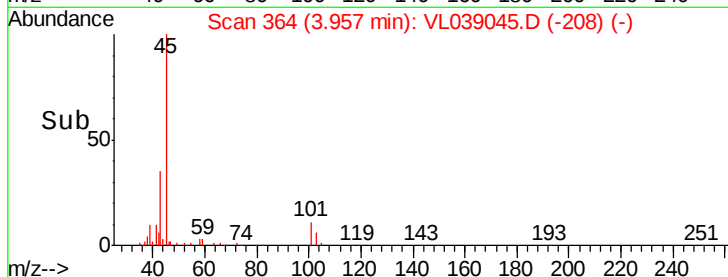
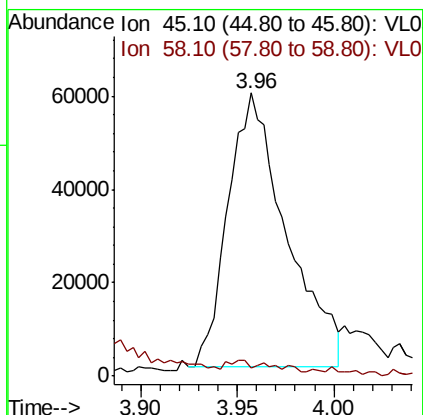
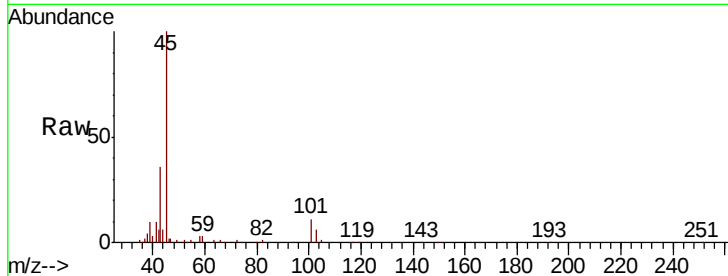
Tgt Ion: 43 Resp: 558830
Ion Ratio Lower Upper
43 100
58 27.2 21.3 31.9





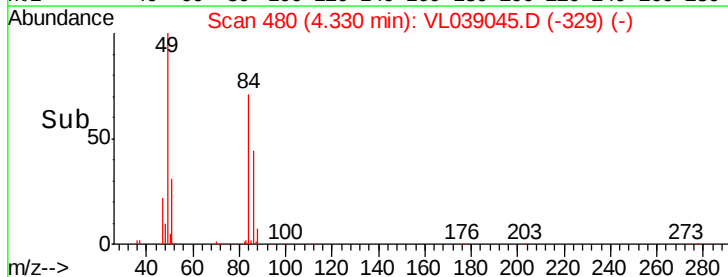
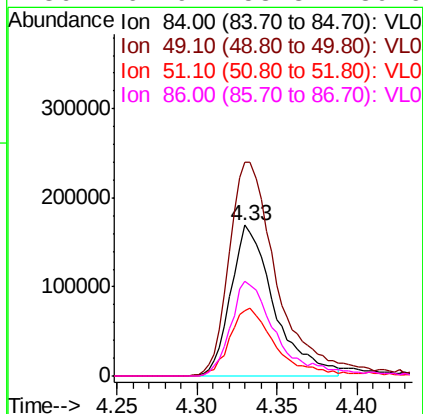
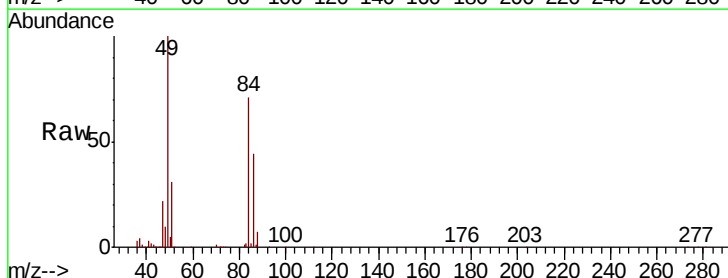
#19
Isopropyl Alcohol
Concen: 3.111 ppbv
RT: 3.96
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 20:25

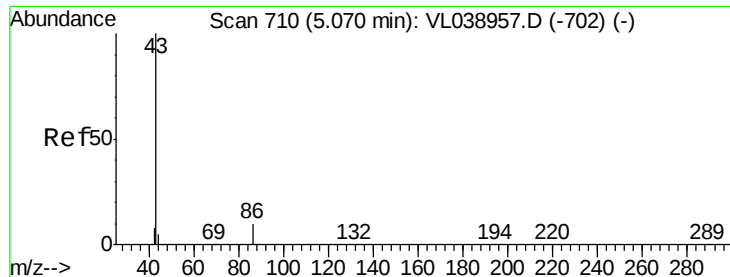
Tot Ion: 45 Resp: 123785
Ion Ratio Lower Upper
45 100
58 5.8 1.4 2.2#



#20
Methylene Chloride
Concen: 9.951 ppbv
RT: 4.33 min Scan# 480
Delta R.T. -0.01 min
Lab File: VL039045.D
Acq: 13 May 2022 20:25

Tgt Ion: 84 Resp: 313841
Ion Ratio Lower Upper
84 100
49 141.5 119.9 179.9
51 43.4 35.7 53.5
86 62.9 53.8 80.6





#23

Vinyl Acetate

Concen: 0.148 ppbv

RT: 5.05 Instrument:

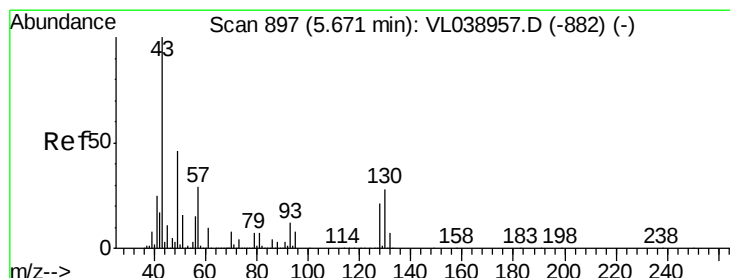
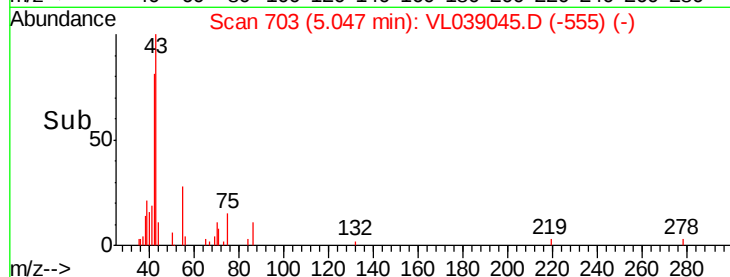
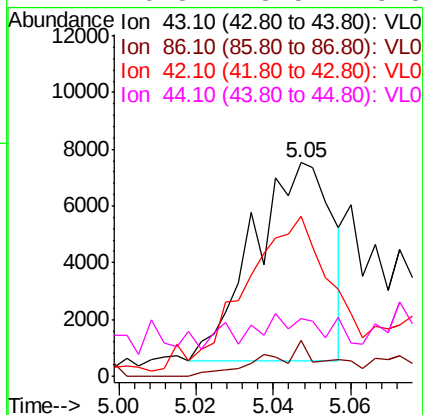
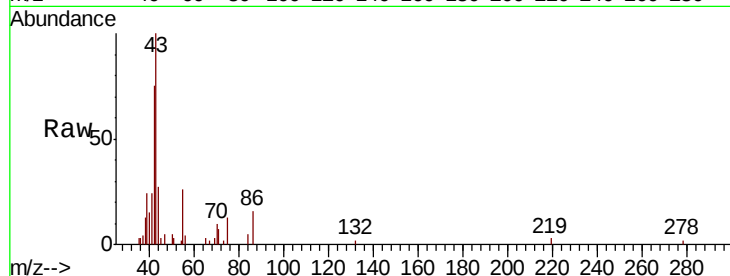
Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 13 May 2022 20:25

Tot Ion: 43 Resp: 9821

Ion	Ratio	Lower	Upper
43	100		
86	17.8	6.6	9.8#
42	73.7	8.1	12.1#
44	6.3	3.5	5.3#



#25

Ethyl Acetate

Concen: 1.206 ppbv

RT: 5.67 min Scan# 896

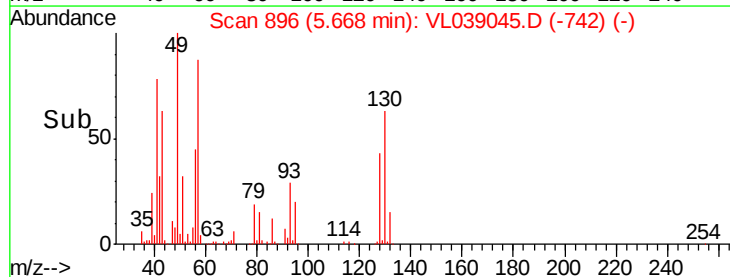
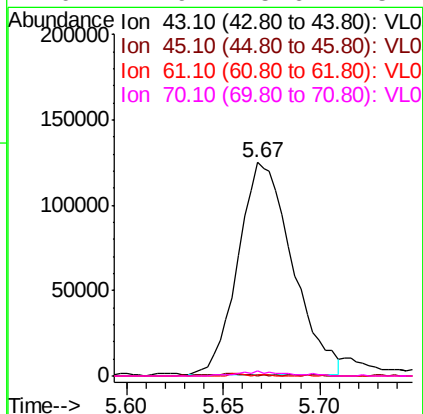
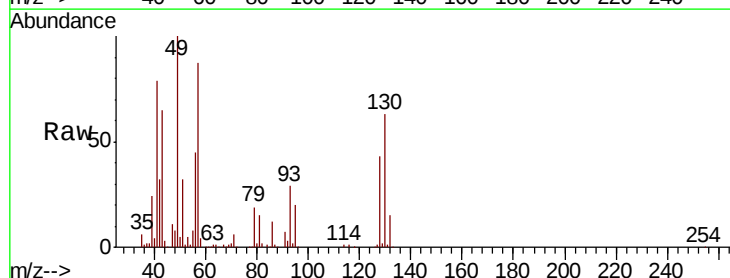
Delta R.T. -0.00 min

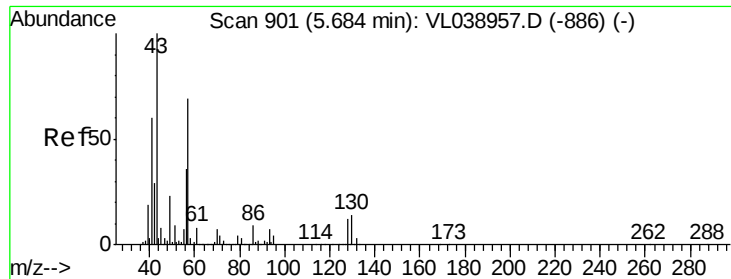
Lab File: VL039045.D

Acq: 13 May 2022 20:25

Tgt Ion: 43 Resp: 241495

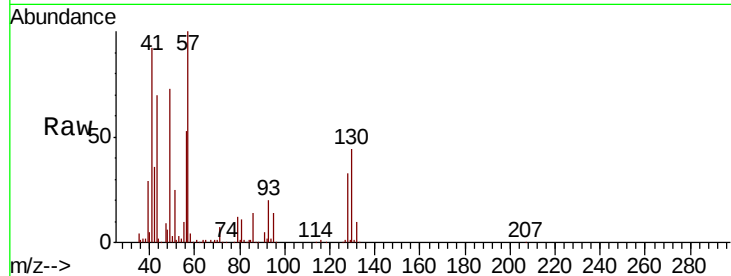
Ion	Ratio	Lower	Upper
43	100		
45	1.1	8.1	12.1#
61	0.7	7.8	11.6#
70	1.9	5.6	8.4#



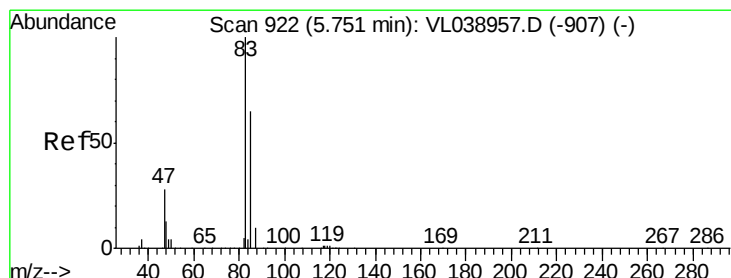
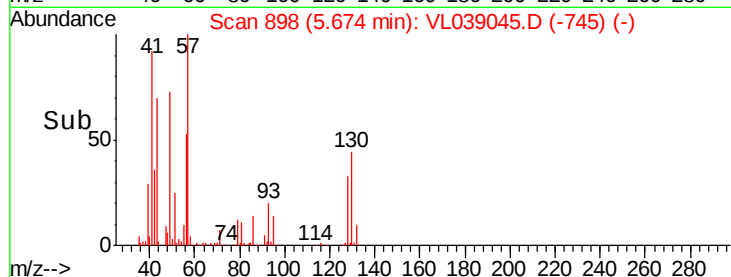
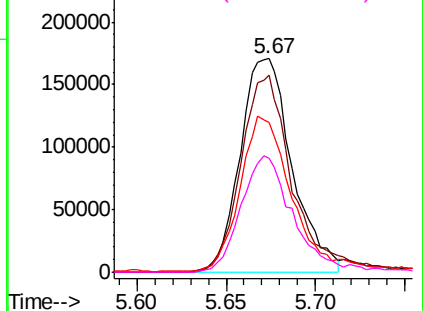


#26
Hexane
Concen: 3.905 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 20:25

Tot Ion:	57	Resp:	347518
Ion	Ratio	Lower	Upper
57	100		
41	94.4	75.2	112.8
43	74.1	190.8	286.2#
56	55.9	43.0	64.6

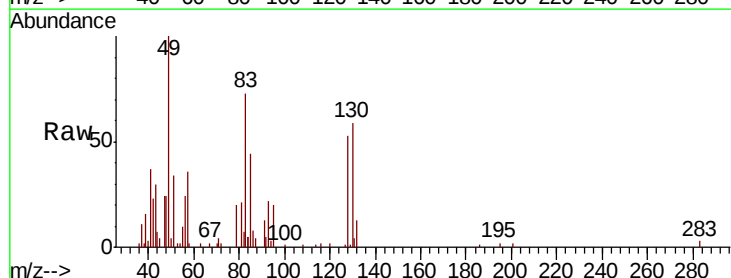


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

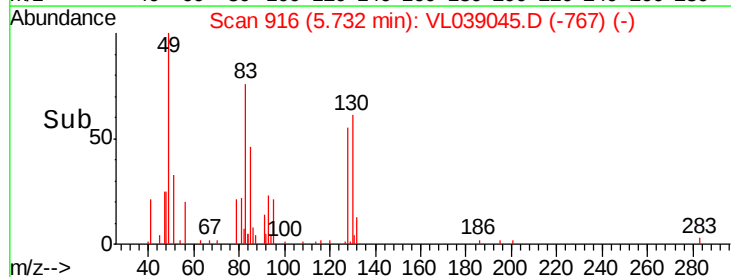
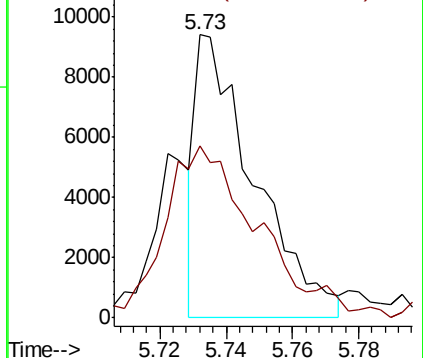


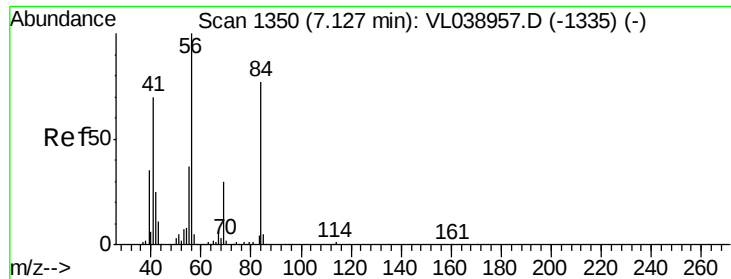
#29
Chloroform
Concen: 0.080 ppbv
RT: 5.73 min Scan# 916
Delta R.T. -0.02 min
Lab File: VL039045.D
Acq: 13 May 2022 20:25

Tgt Ion:	83	Resp:	11493
Ion	Ratio	Lower	Upper
83	100		
85	54.5	51.8	77.6



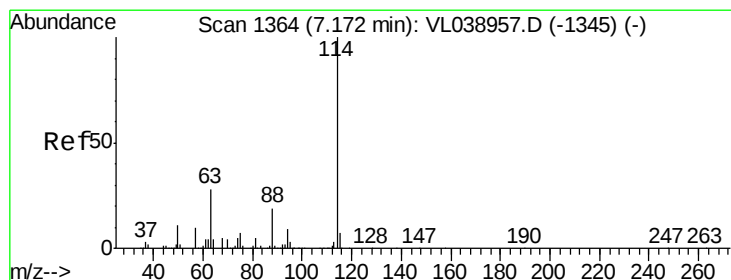
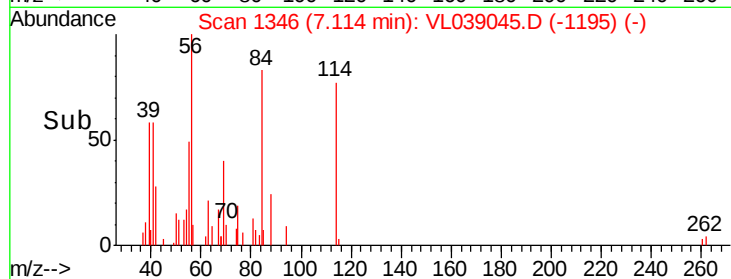
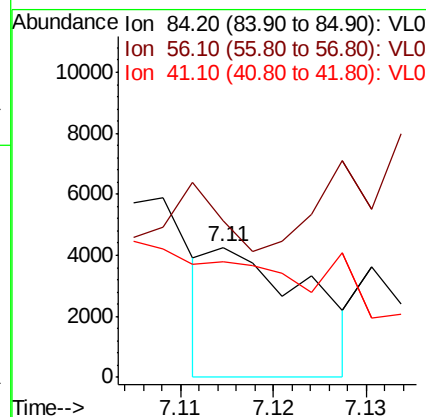
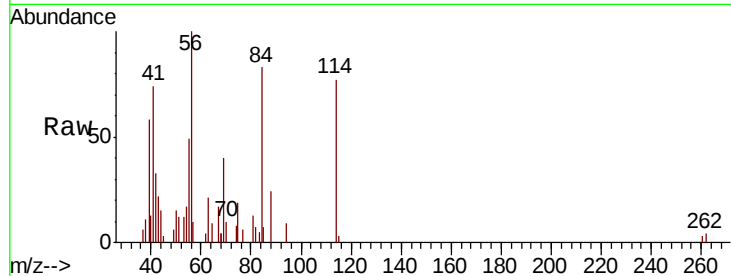
Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





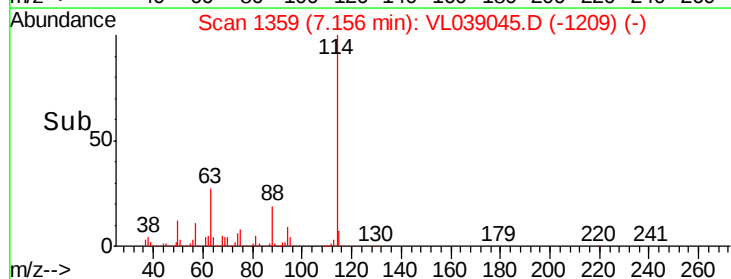
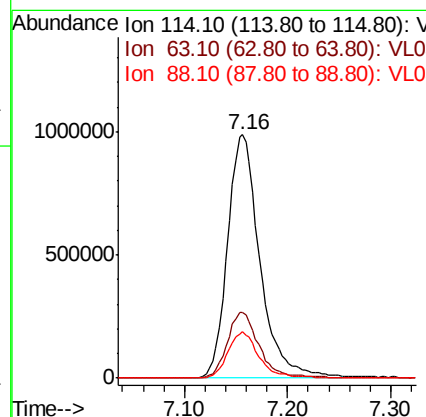
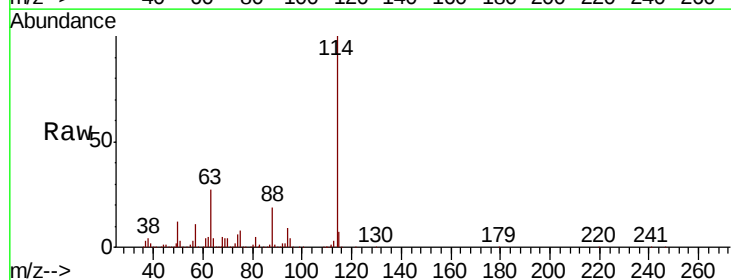
#30
Cvclohexane
Concen: 0.042 ppbv
RT: 7.11 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 20:25

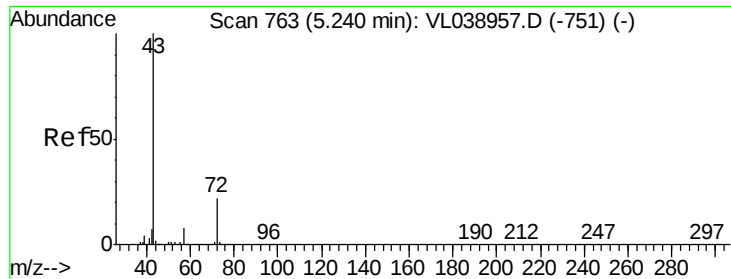
Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	115.3	172.9#
41	0.0	72.0	108.0#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.02 min
Lab File: VL039045.D
Acq: 13 May 2022 20:25

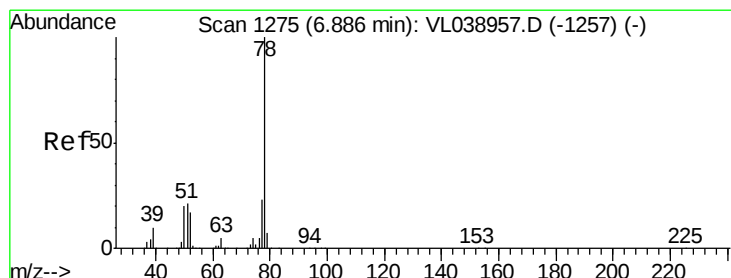
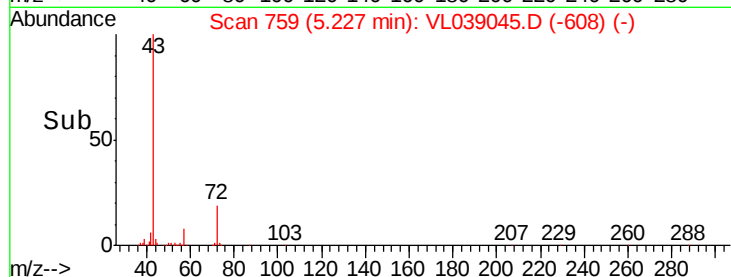
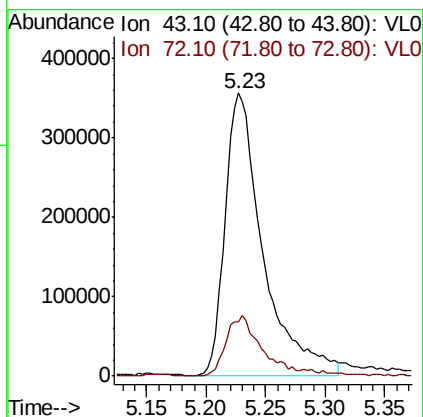
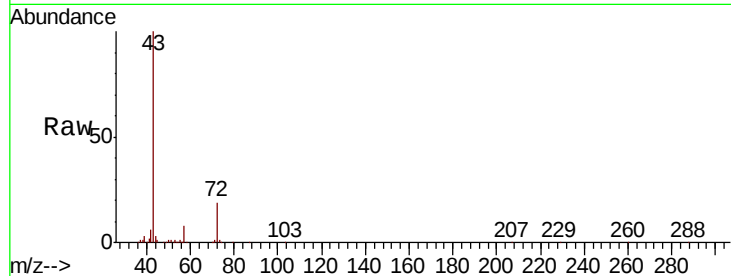
Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.0	22.6	33.8
88	18.5	15.4	23.0





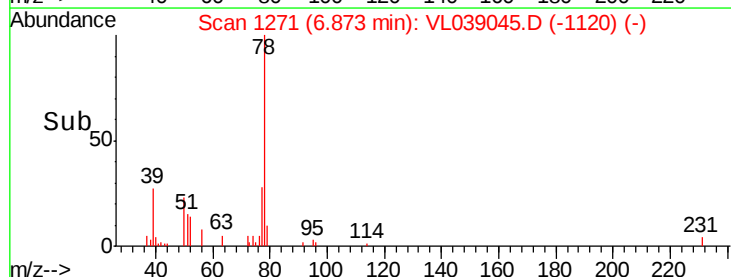
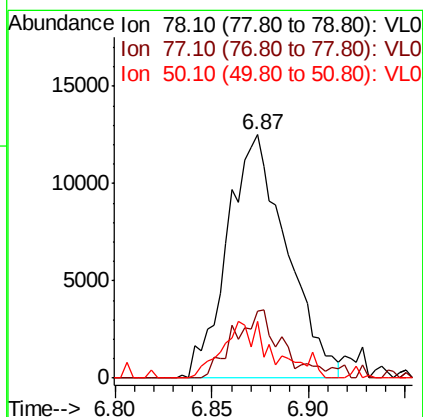
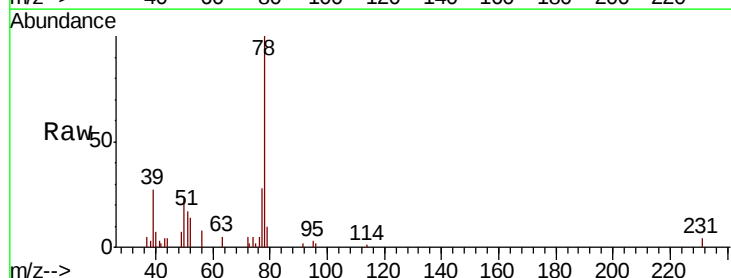
#34
 2-Butanone
 Concen: 7.125 ppbv
 RT: 5.23
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 May 2022 20:25

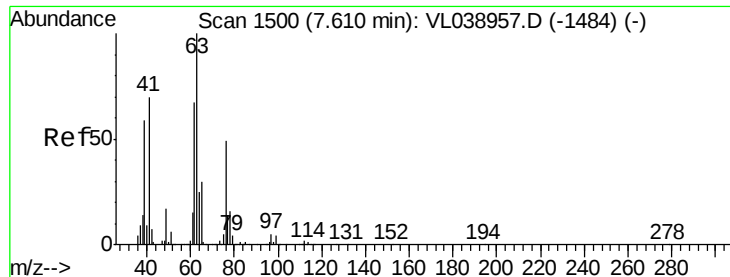
Tot Ion	43	Resp	785164
Ion Ratio	100	Lower	Upper
72	21.6	17.8	26.6



#36
 Benzene
 Concen: 0.144 ppbv
 RT: 6.87 min Scan# 1271
 Delta R.T. -0.01 min
 Lab File: VL039045.D
 Acq: 13 May 2022 20:25

Tgt Ion	78	Resp	26645
Ion Ratio	100	Lower	Upper
77	28.8	18.6	28.0#
50	24.0	15.6	23.4#





#39

1,2-Dichloropropane

Concen: 8.007 ppbv

RT: 7.15 Instrument:

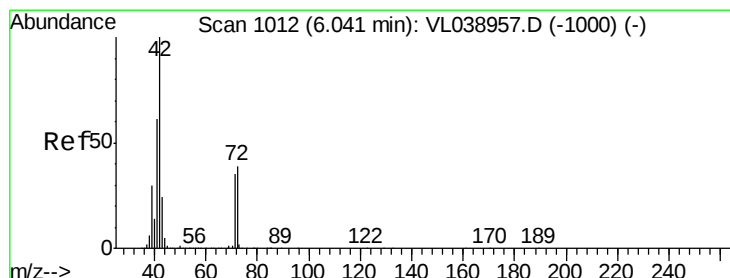
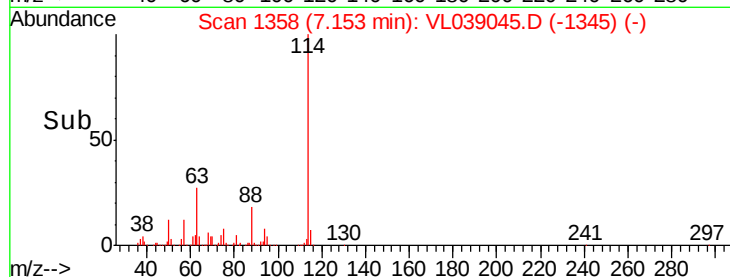
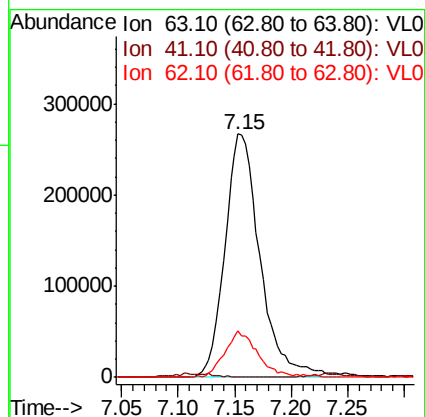
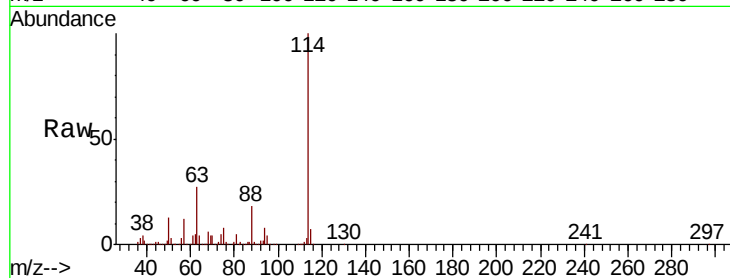
Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 13 May 2022 20:25

Tot Ion: 63 Resp: 575914

Ion	Ratio	Lower	Upper
63	100		
41	0.0	55.9	83.9#
62	19.1	53.8	80.6#



#41

Tetrahydrofuran

Concen: 1.226 ppbv

RT: 6.03 min Scan# 1010

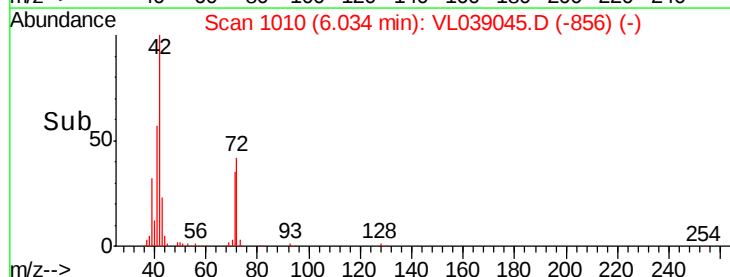
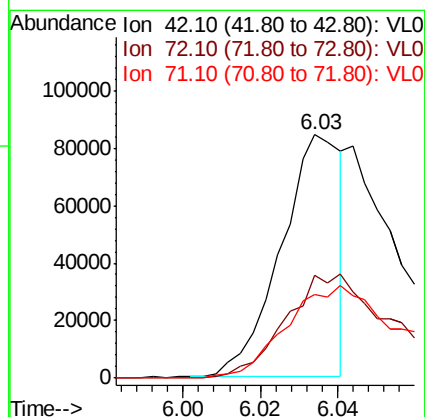
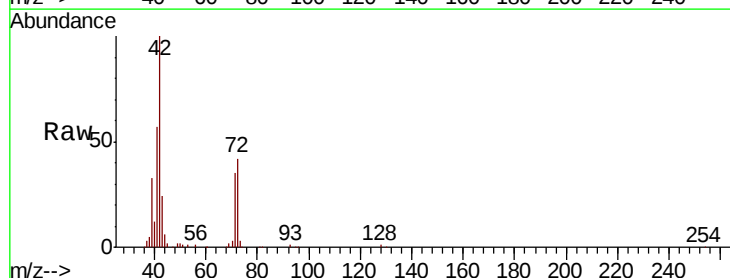
Delta R.T. -0.01 min

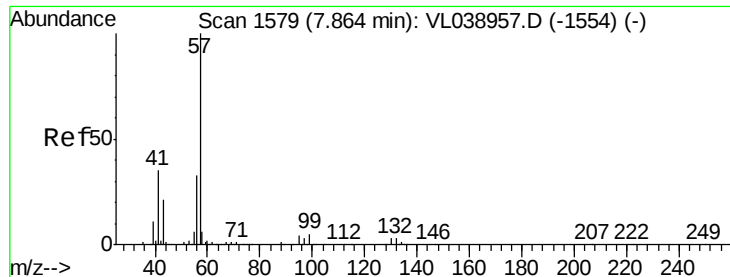
Lab File: VL039045.D

Acq: 13 May 2022 20:25

Tgt Ion: 42 Resp: 90769

Ion	Ratio	Lower	Upper
42	100		
72	0.0	31.8	47.6#
71	0.0	30.6	45.8#





#44

2,2,4-Trimethylpentane

Concen: 0.052 ppbv

RT: 7.85 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 13 May 2022 20:25

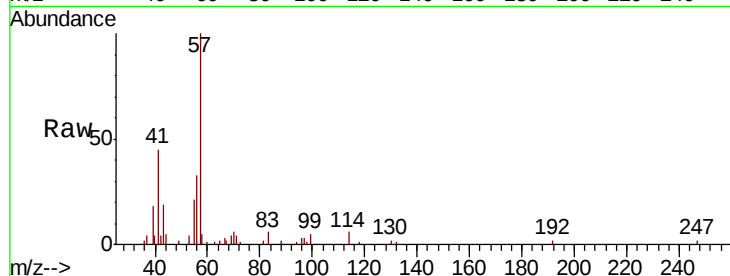
Tot Ion: 57 Resp: 16718

Ion Ratio Lower Upper

57 100

41 100.7 26.3 39.5#

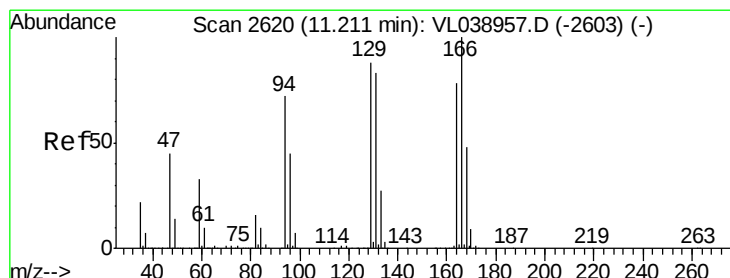
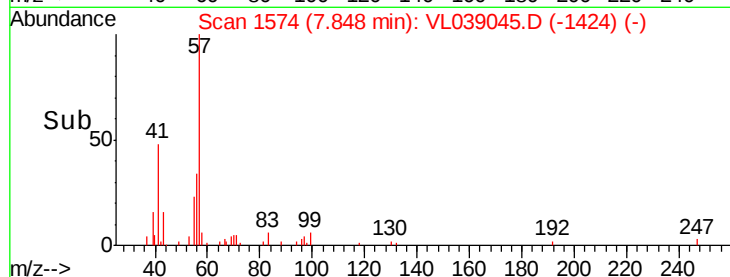
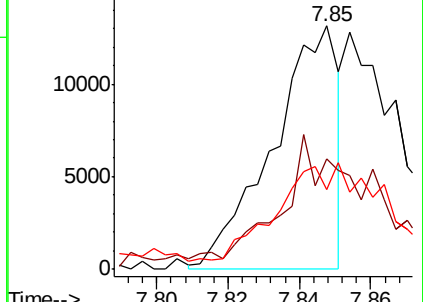
56 0.0 24.6 37.0#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 31.005 ppbv

RT: 11.20 min Scan# 2617

Delta R.T. -0.01 min

Lab File: VL039045.D

Acq: 13 May 2022 20:25

Tgt Ion:164 Resp: 2048073

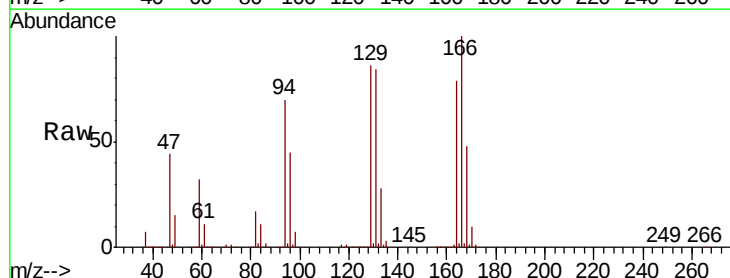
Ion Ratio Lower Upper

164 100

166 125.9 102.5 153.7

129 107.7 90.1 135.1

131 105.7 84.8 127.2

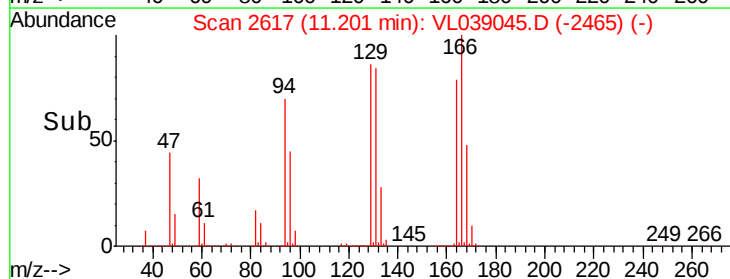
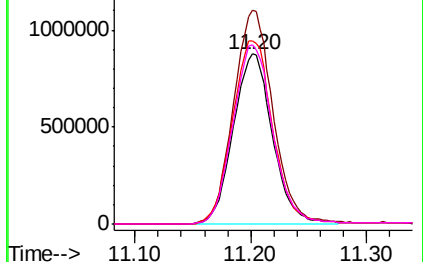


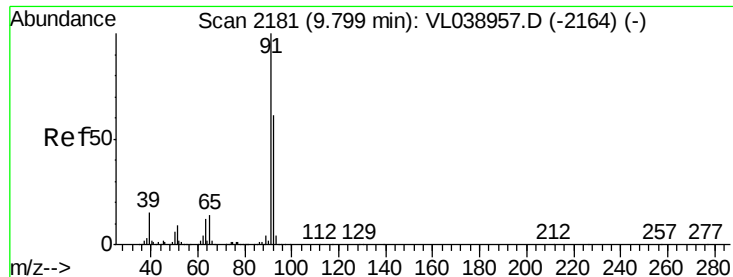
Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.365 ppbv

RT: 9.78 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

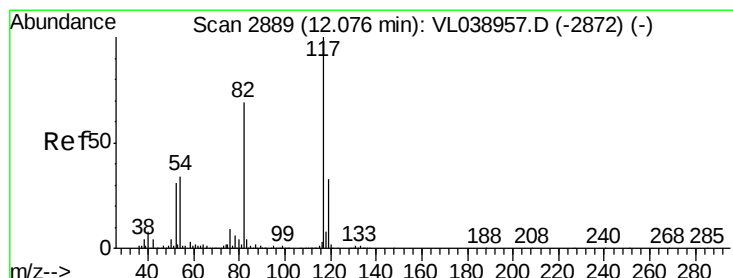
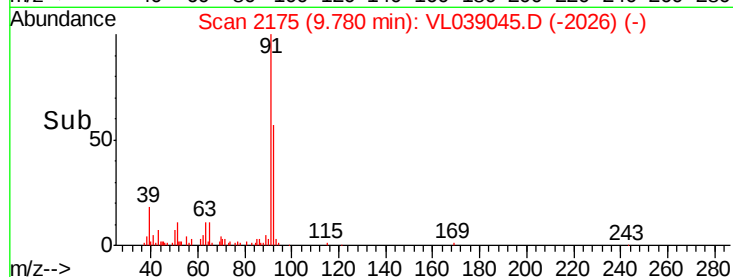
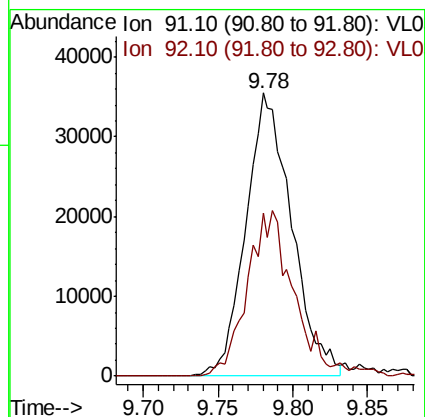
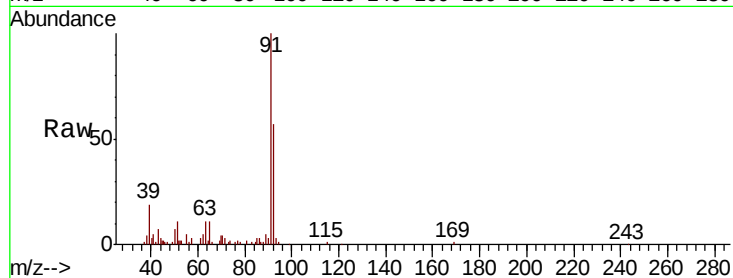
Acq: 13 May 2022 20:25

Tot Ion: 91 Resp: 75650

Ion Ratio Lower Upper

91 100

92 60.1 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2884

Delta R.T. -0.02 min

Lab File: VL039045.D

Acq: 13 May 2022 20:25

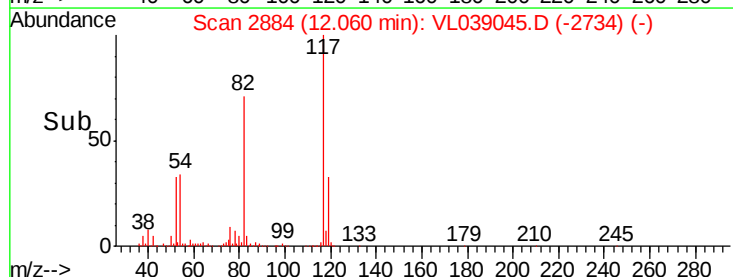
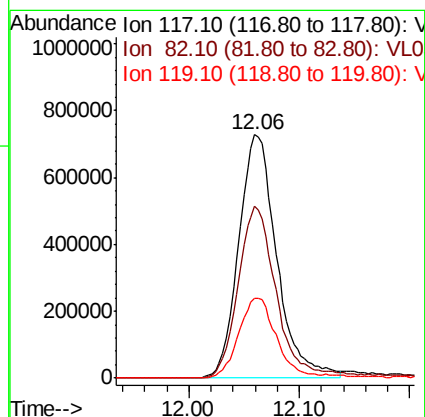
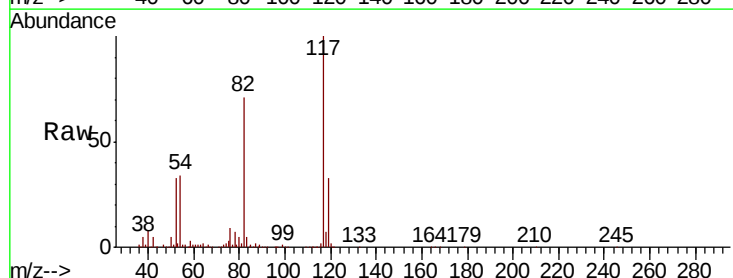
Tgt Ion: 117 Resp: 1739938

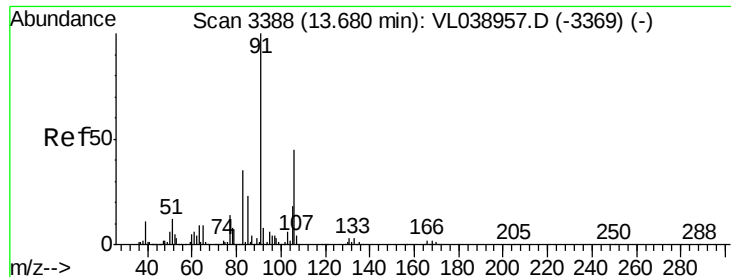
Ion Ratio Lower Upper

117 100

82 73.9 57.0 85.6

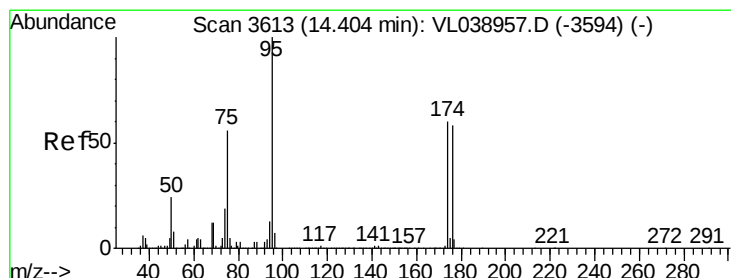
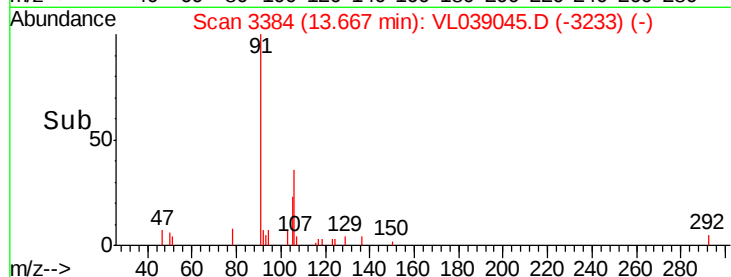
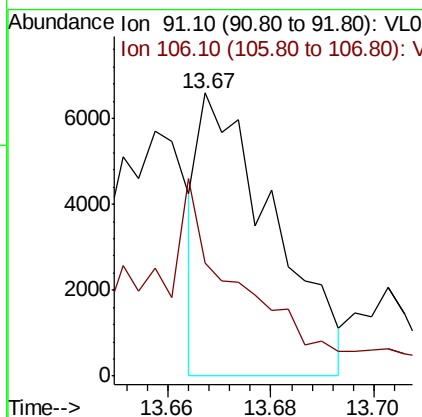
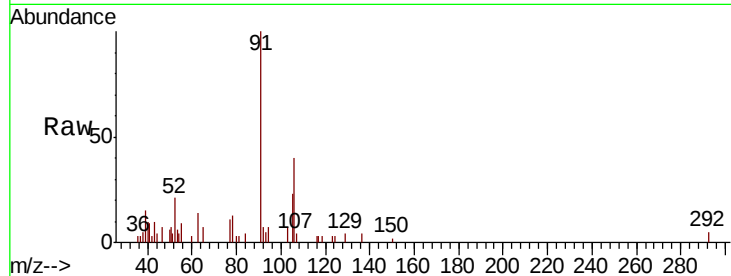
119 34.5 27.2 40.8





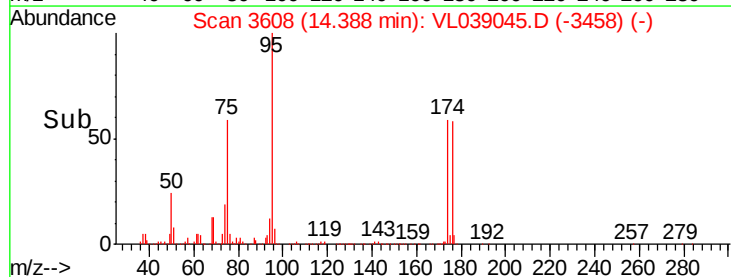
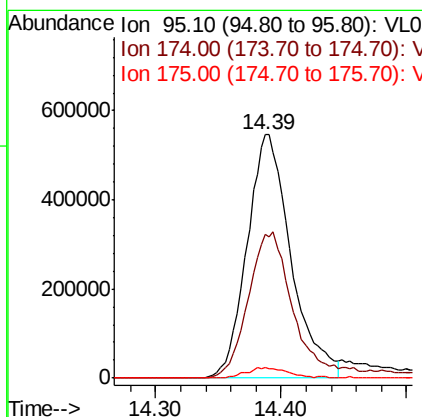
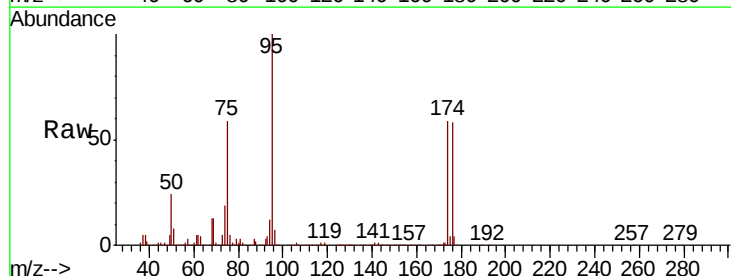
#60
o-Xylene
Concen: 0.033 ppbv
RT: 13.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 20:25

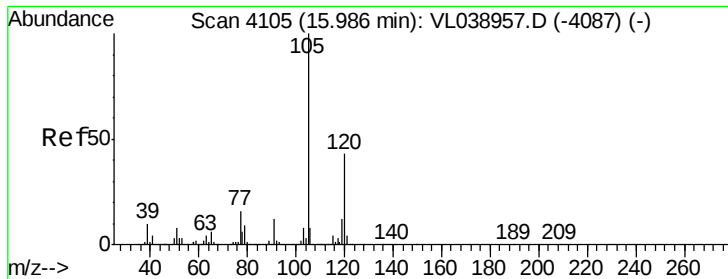
Tot Ion: 91 Resp: 6582
Ion Ratio Lower Upper
91 100
106 105.1 22.2 66.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.674 ppbv
RT: 14.39 min Scan# 3608
Delta R.T. -0.02 min
Lab File: VL039045.D
Acq: 13 May 2022 20:25

Tgt Ion: 95 Resp: 1333042
Ion Ratio Lower Upper
95 100
174 66.8 50.8 76.2
175 4.4 3.8 5.6





#73

1,3,5-Trimethylbenzene

Concen: 0.035 ppbv

RT: 15.97

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

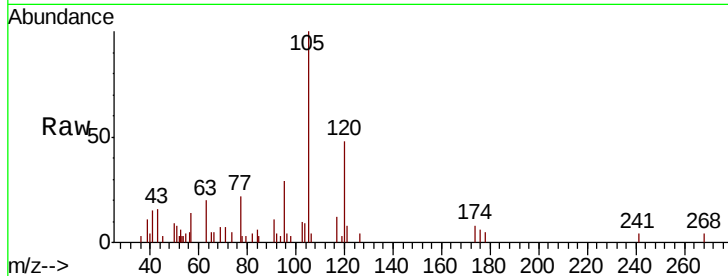
Acq: 13 May 2022 20:25

Tot Ion:105 Resp: 7223

Ion Ratio Lower Upper

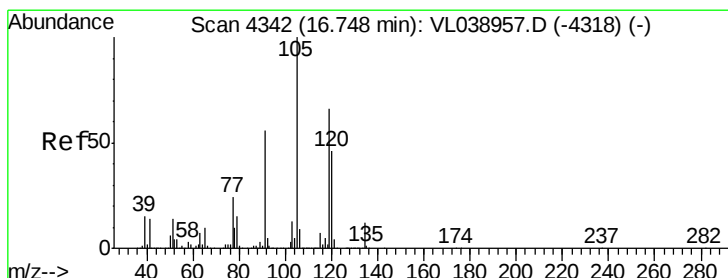
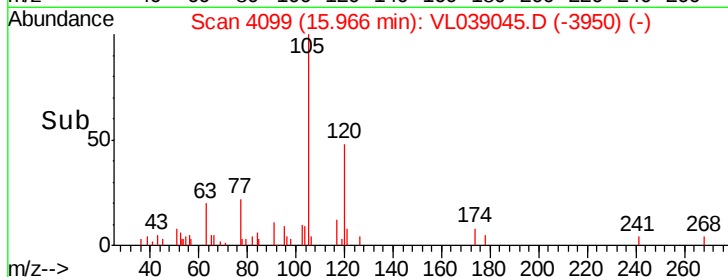
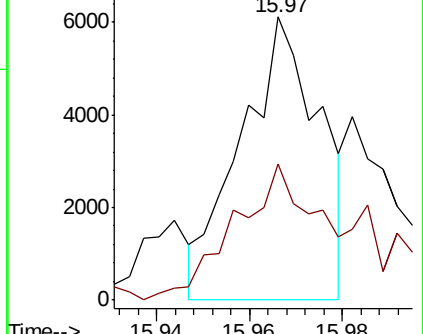
105 100

120 63.4 34.4 51.6#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.145 ppbv

RT: 16.74 min Scan# 4339

Delta R.T. -0.01 min

Lab File: VL039045.D

Acq: 13 May 2022 20:25

Tgt Ion:105 Resp: 32778

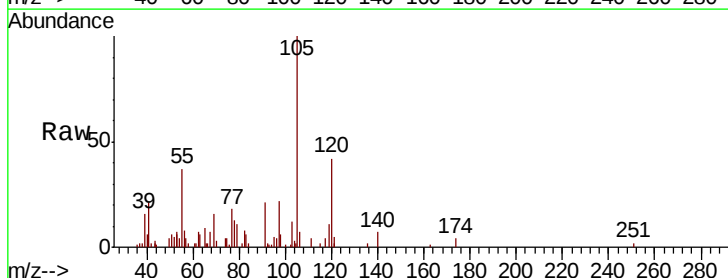
Ion Ratio Lower Upper

105 100

120 44.4 36.9 55.3

91 20.8 45.0 67.4#

77 12.4 19.2 28.8#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

