

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051322\
 Data File : VL039049.D
 Acq On : 13 May 2022 23:10
 Operator : SY/AP
 Sample : N2812-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

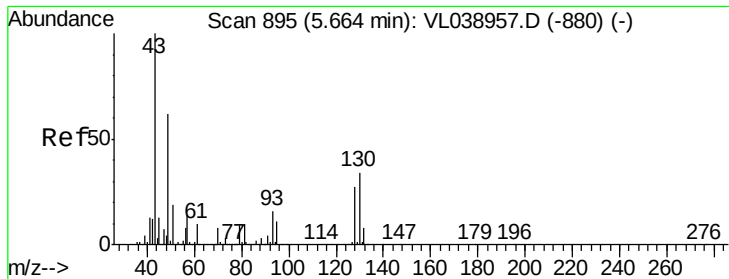
Quant Time: May 14 00:55:26 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 05 10:12:15 2022
 QLast Update : Thu May 05 10:12:15 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	963604	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.15	114	2379852	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	1965923	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	1553548	9.98	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.12	85	13559	0.090	ppbv	94
3) Chlorodifluoromethane	2.98	51	1386282	11.594	ppbv	95
4) Chloromethane	3.13	50	32057	0.535	ppbv #	83
9) Propene	3.02	41	67118	1.285	ppbv	87
10) Heptane	8.10	43	27596	0.215	ppbv #	78
11) Trichlorofluoromethane	3.94	101	29485	0.228	ppbv	94
13) Ethanol	3.60	45	8213942	2222.799	ppbv	90
15) Acetone	3.83	43	882842	9.713	ppbv	95
16) 1,3-Butadiene	3.35	39	67478	1.292	ppbv #	10
17) tert-Butyl alcohol	3.96	59	175558	2.513	ppbv	98
19) Isopropyl Alcohol	3.96	45	5197601	120.265	ppbv #	98
20) Methylene Chloride	4.33	84	50651	1.478	ppbv	94
21) Allyl Chloride	4.65	41	10885	0.176	ppbv #	20
23) Vinyl Acetate	5.04	43	32816	0.456	ppbv #	55
25) Ethyl Acetate	5.65	43	1698637	7.808	ppbv #	91
26) Hexane	5.67	57	64573	0.668	ppbv #	1
29) Chloroform	5.73	83	83568	0.534	ppbv	93
31) cis-1,2-Dichloroethene	5.65	61	214251	2.176	ppbv #	28
34) 2-Butanone	5.23	43	43866	0.361	ppbv #	88
36) Benzene	6.87	78	32346	0.159	ppbv	98
39) 1,2-Dichloropropane	7.20	63	9343	0.118	ppbv #	25
41) Tetrahydrofuran	6.03	42	4247	0.052	ppbv #	5
44) 2,2,4-Trimethylpentane	7.85	57	47034	0.132	ppbv #	75
53) Toluene	9.78	91	64613	0.283	ppbv #	21
58) Ethyl Benzene	12.93	91	18126	0.064	ppbv	96
59) m/p-Xylene	12.97	91	17437	0.072	ppbv #	33
60) o-Xylene	13.67	91	12725	0.056	ppbv #	32
66) Benzyl Chloride	16.74	91	2797	0.073	ppbv #	84
69) p-Isopropyltoluene	17.62	119	34161	0.102	ppbv #	42
74) 1,2,4-Trimethylbenzene	16.73	105	19720	0.077	ppbv #	66

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA1

Acq: 13 May 2022 23:10

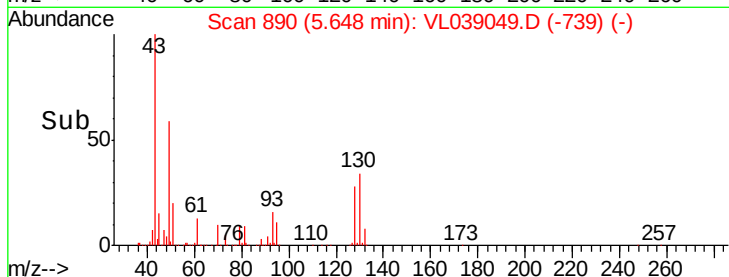
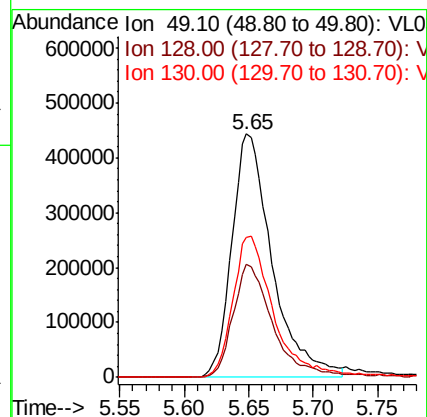
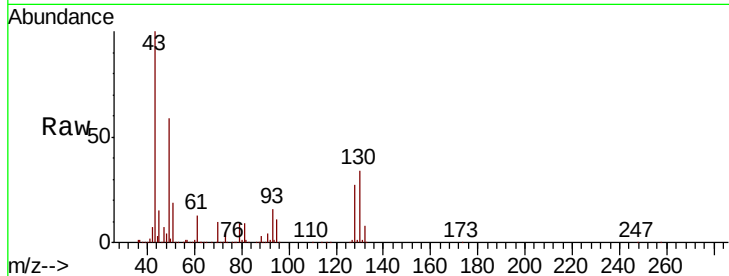
Tot Ion: 49 Resp: 963604

Ion Ratio Lower Upper

49 100

128 47.4 23.3 69.8

130 60.2 29.8 89.3



#2

Dichlorodifluoromethane

Concen: 0.090 ppbv

RT: 3.12 min Scan# 103

Delta R.T. 0.07 min

Lab File: VL039049.D

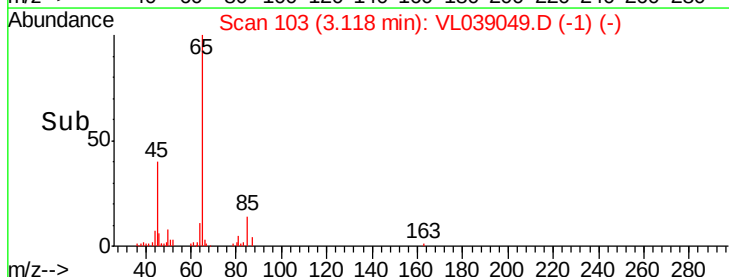
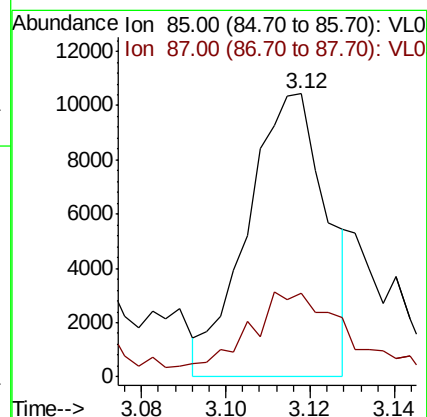
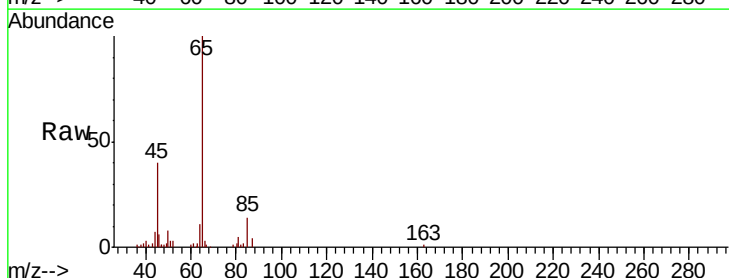
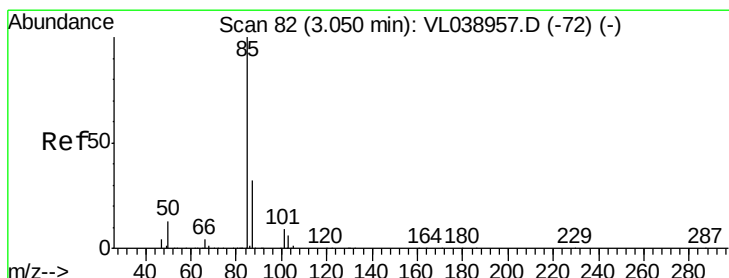
Acq: 13 May 2022 23:10

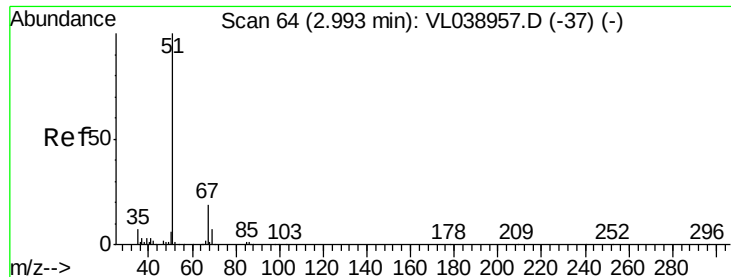
Tgt Ion: 85 Resp: 13559

Ion Ratio Lower Upper

85 100

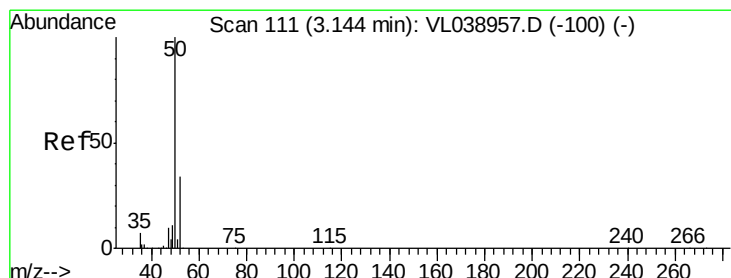
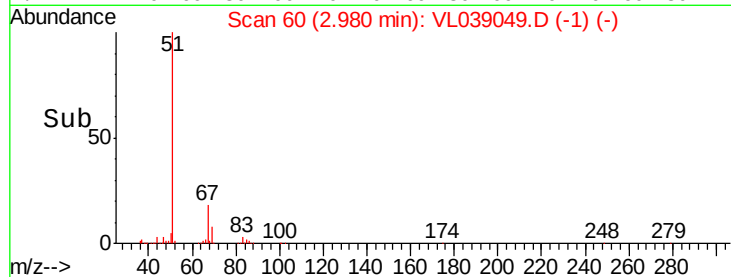
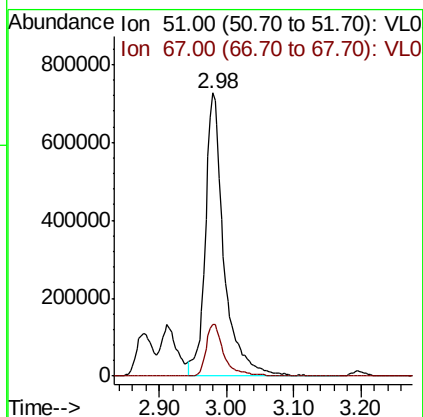
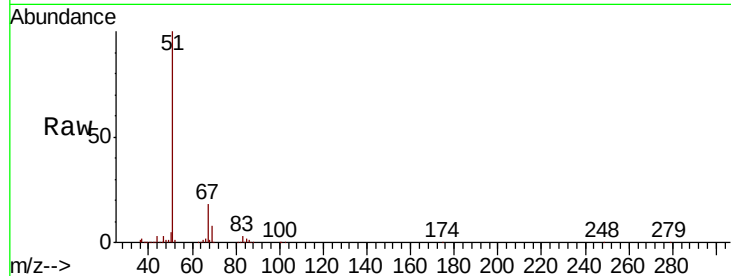
87 28.6 25.7 38.5





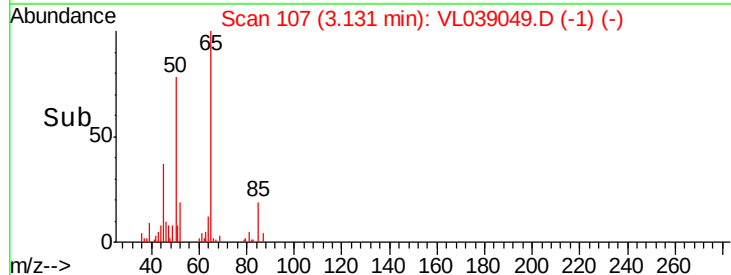
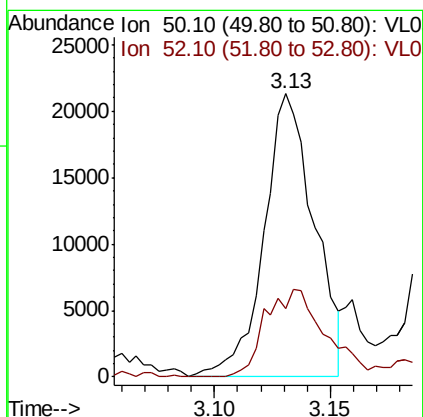
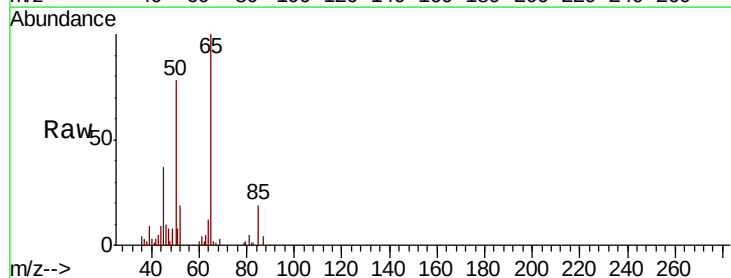
#3
 Chlorodifluoromethane
 Concen: 11.594 ppbv
 RT: 2.98
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 13 May 2022 23:10

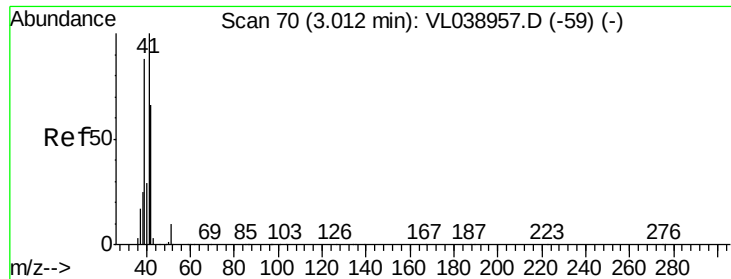
Tot Ion: 51 Resp: 1386282
 Ion Ratio Lower Upper
 51 100
 67 17.7 15.8 23.8



#4
 Chloromethane
 Concen: 0.535 ppbv
 RT: 3.13 min Scan# 107
 Delta R.T. -0.01 min
 Lab File: VL039049.D
 Acq: 13 May 2022 23:10

Tgt Ion: 50 Resp: 32057
 Ion Ratio Lower Upper
 50 100
 52 24.2 27.3 40.9#





#9

Propene

Concen: 1.285 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

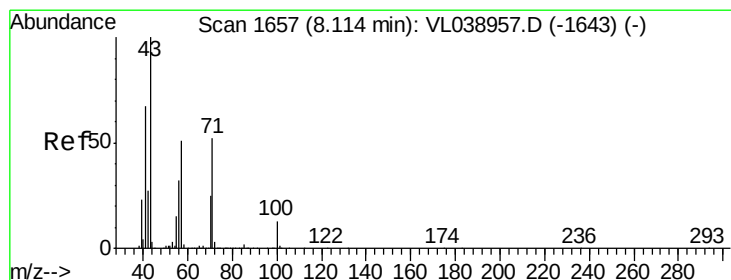
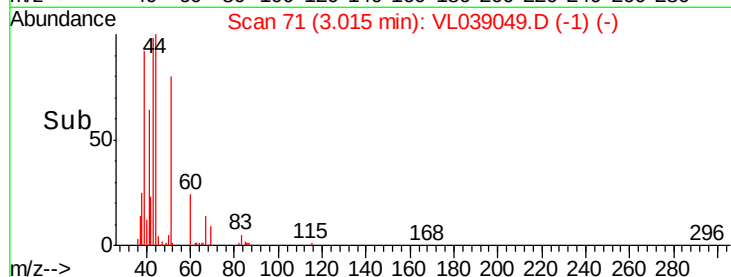
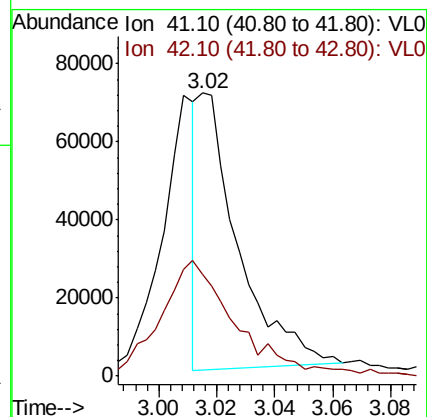
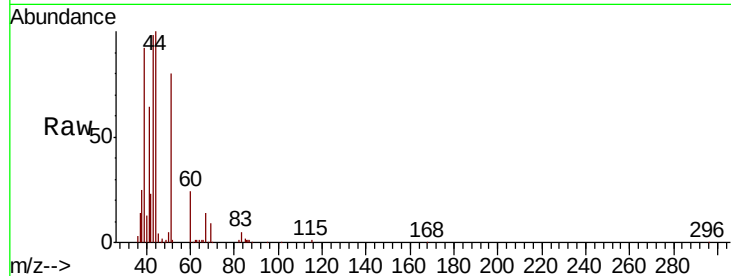
Acq: 13 May 2022 23:10

Tot Ion: 41 Resp: 67118

Ion Ratio Lower Upper

41 100

42 83.5 58.3 87.5



#10

Heptane

Concen: 0.215 ppbv

RT: 8.10 min Scan# 1652

Delta R.T. -0.02 min

Lab File: VL039049.D

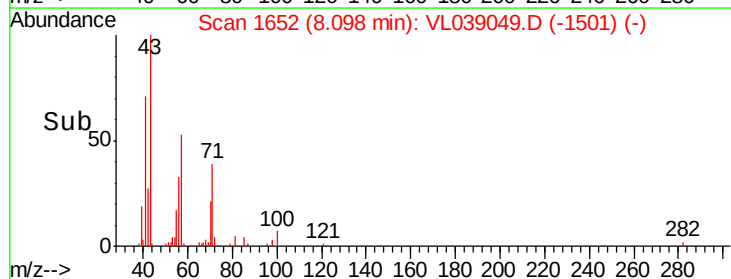
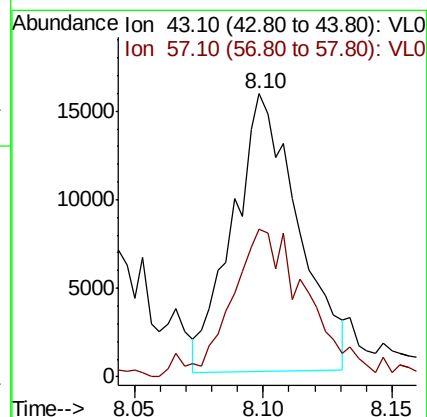
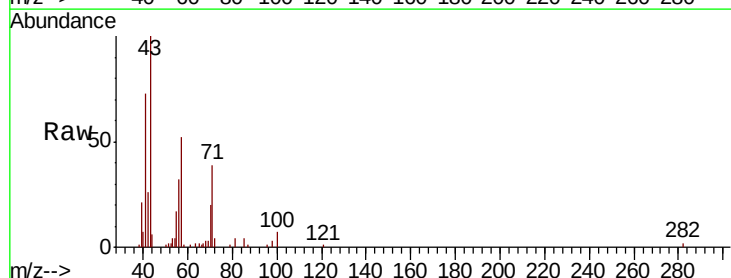
Acq: 13 May 2022 23:10

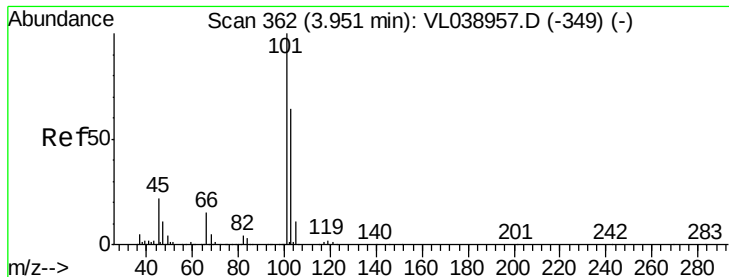
Tgt Ion: 43 Resp: 27596

Ion Ratio Lower Upper

43 100

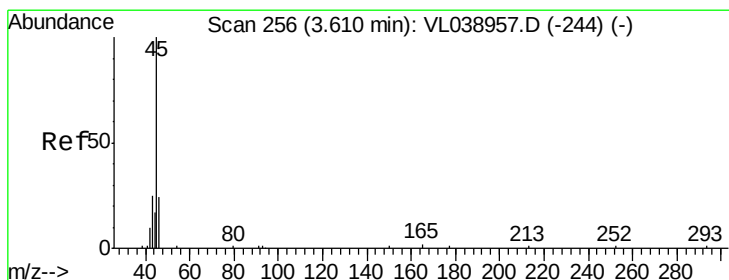
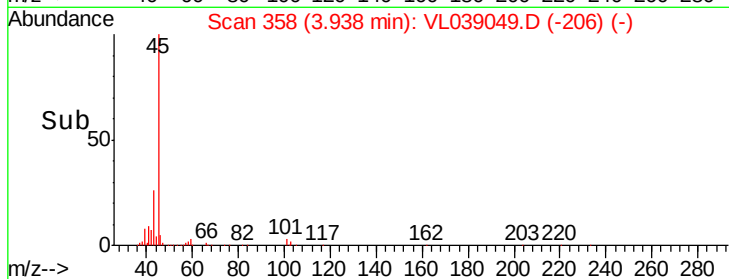
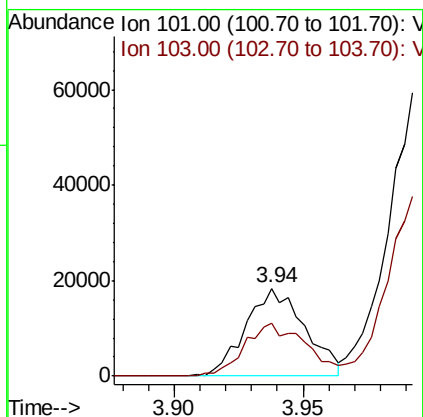
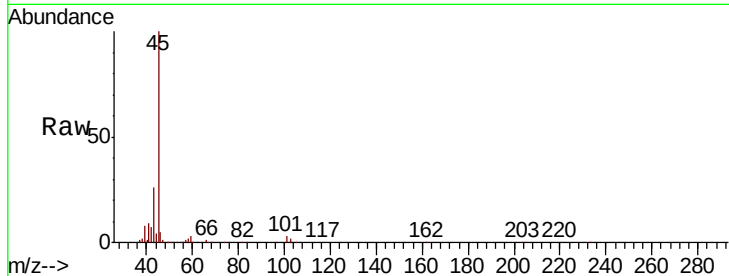
57 65.8 40.5 60.7#





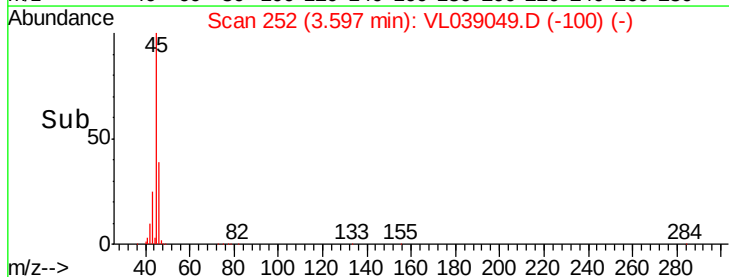
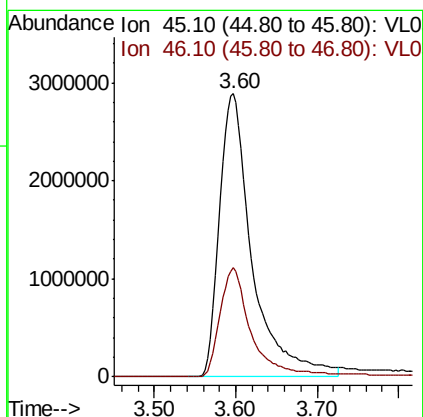
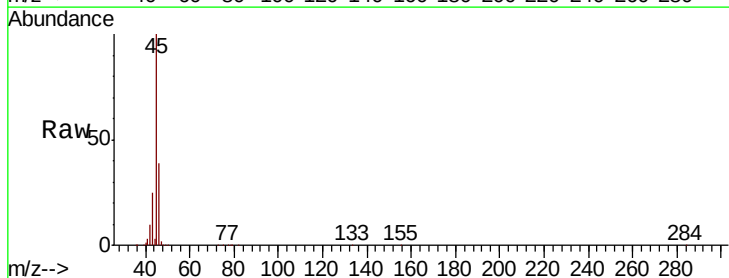
#11
 Trichlorofluoromethane
 Concen: 0.228 ppbv
 RT: 3.94
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 May 2022 23:10

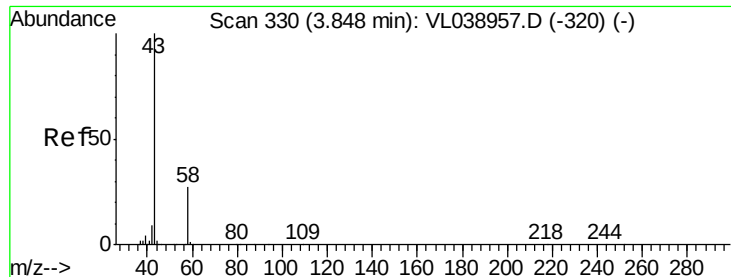
Tot Ion: 101 Resp: 29485
 Ion Ratio Lower Upper
 101 100
 103 59.6 51.5 77.3



#13
 Ethanol
 Concen: 2222.799 ppbv
 RT: 3.60 min Scan# 252
 Delta R.T. -0.01 min
 Lab File: VL039049.D
 Acq: 13 May 2022 23:10

Tgt Ion: 45 Resp: 8213942
 Ion Ratio Lower Upper
 45 100
 46 38.8 18.0 72.2





#15

Acetone

Concen: 9.713 ppbv

RT: 3.83

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

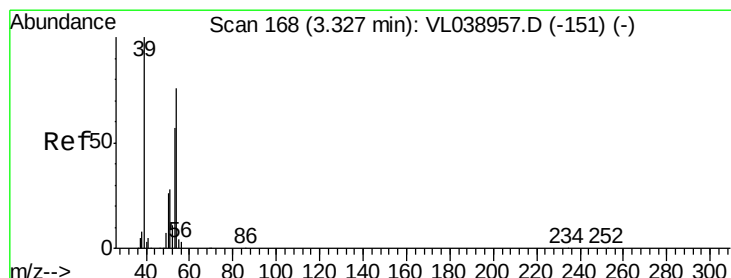
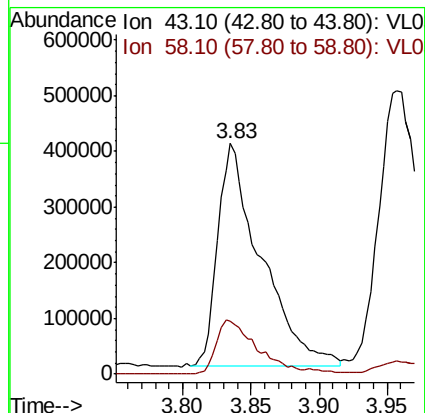
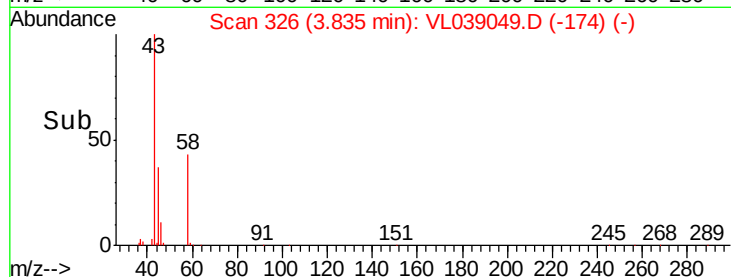
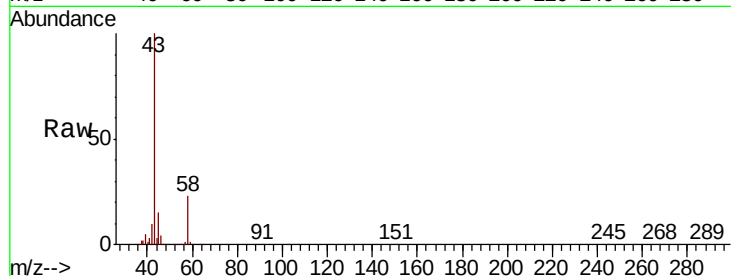
Acq: 13 May 2022 23:10

Tot Ion: 43 Resp: 882842

Ion Ratio Lower Upper

43 100

58 24.1 21.3 31.9



#16

1,3-Butadiene

Concen: 1.292 ppbv

RT: 3.35 min Scan# 174

Delta R.T. 0.02 min

Lab File: VL039049.D

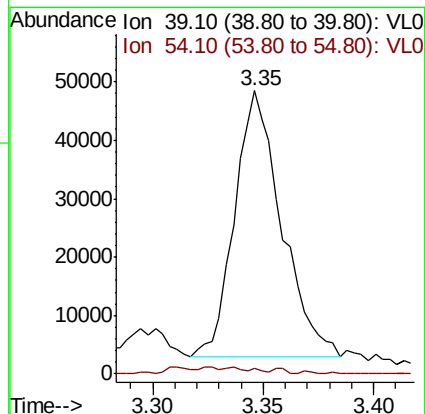
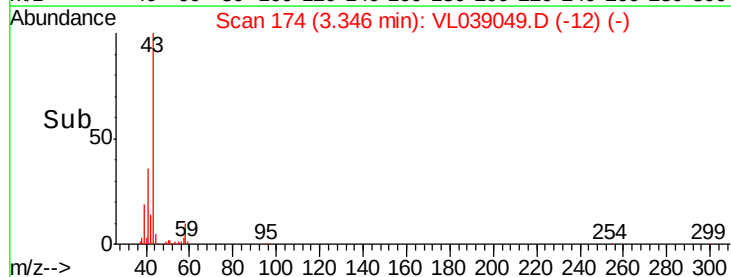
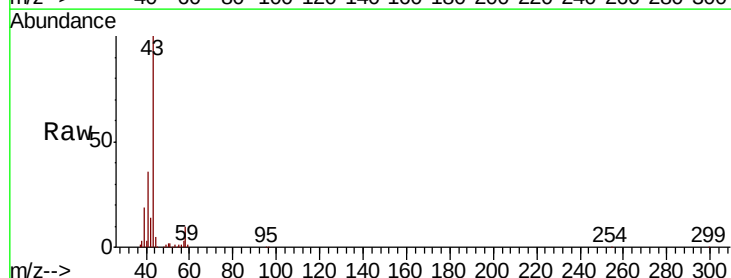
Acq: 13 May 2022 23:10

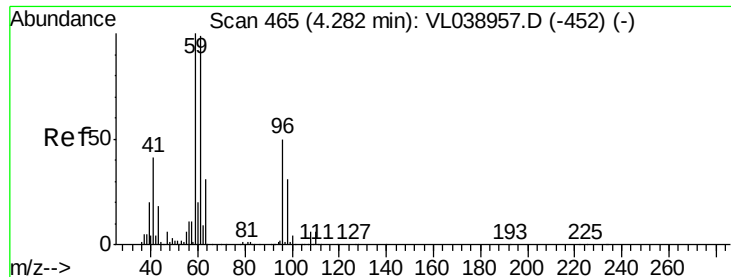
Tgt Ion: 39 Resp: 67478

Ion Ratio Lower Upper

39 100

54 1.0 65.2 97.8#





#17

tert-Butyl alcohol

Concen: 2.513 ppbv

RT: 3.96

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

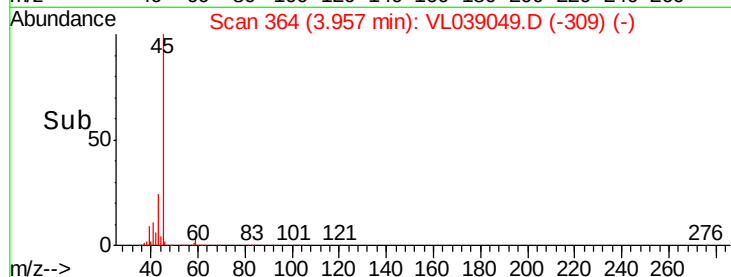
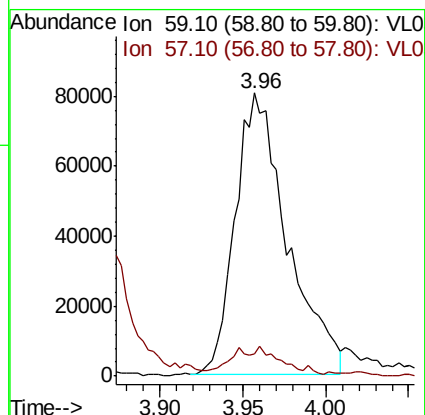
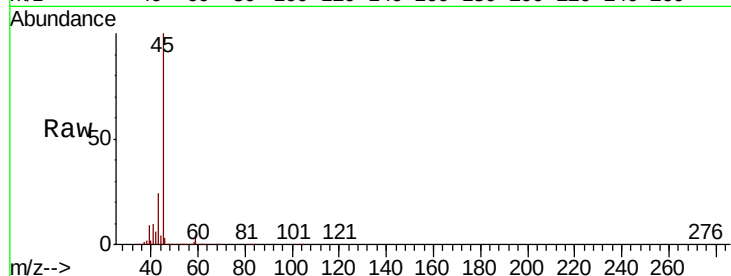
Acq: 13 May 2022 23:10

Tot Ion: 59 Resp: 175558

Ion Ratio Lower Upper

59 100

57 10.8 9.2 13.8



#19

Isopropyl Alcohol

Concen: 120.265 ppbv

RT: 3.96 min Scan# 364

Delta R.T. 0.00 min

Lab File: VL039049.D

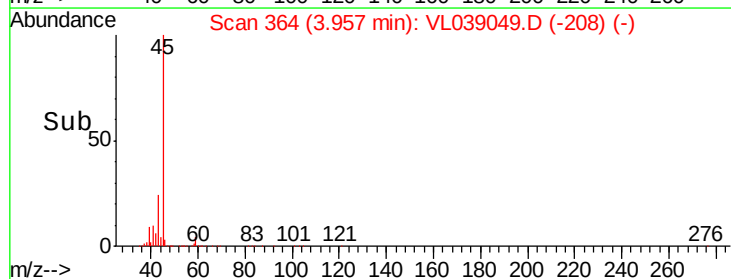
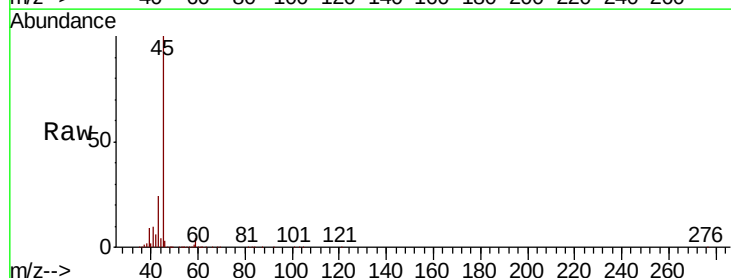
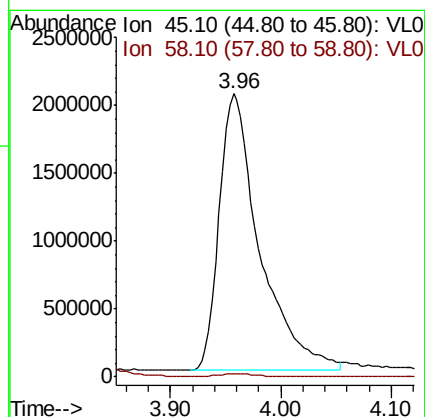
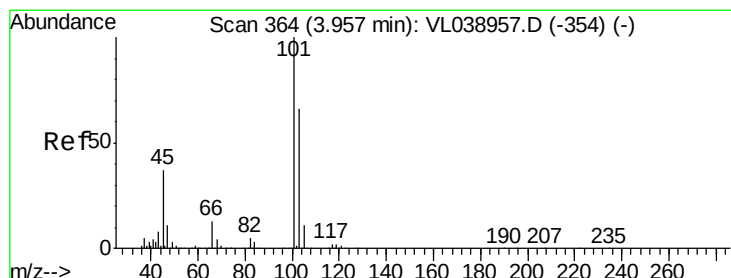
Acq: 13 May 2022 23:10

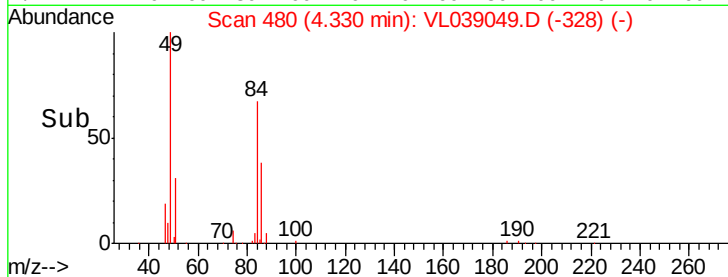
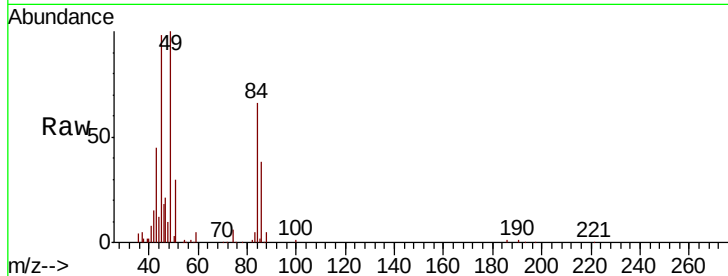
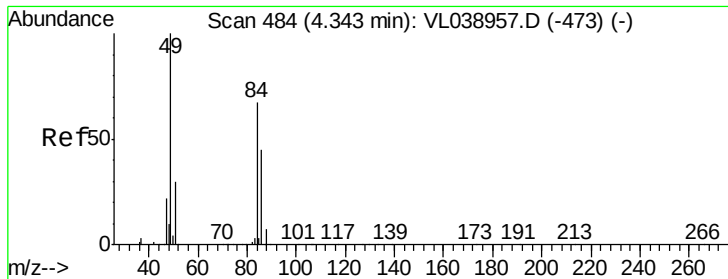
Tgt Ion: 45 Resp: 5197601

Ion Ratio Lower Upper

45 100

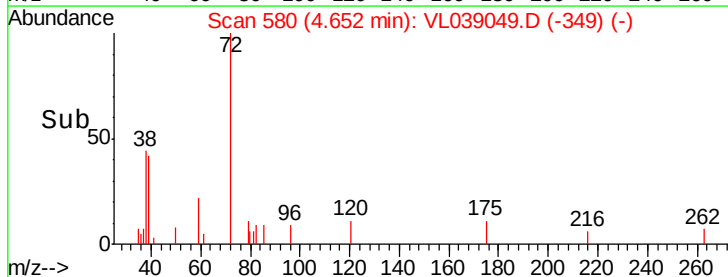
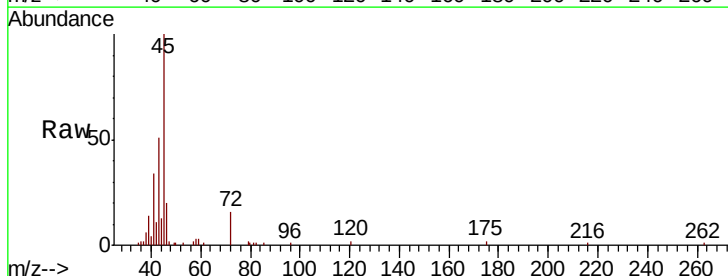
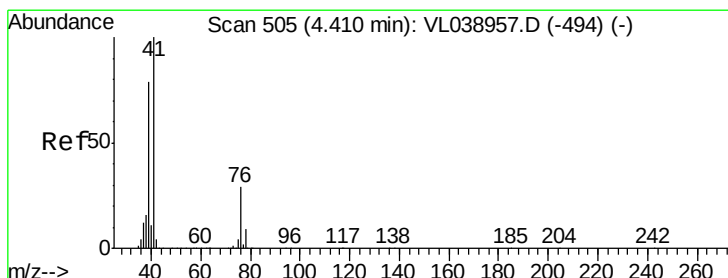
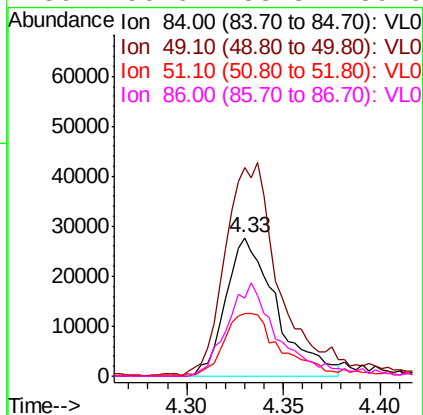
58 1.0 1.4 2.2#





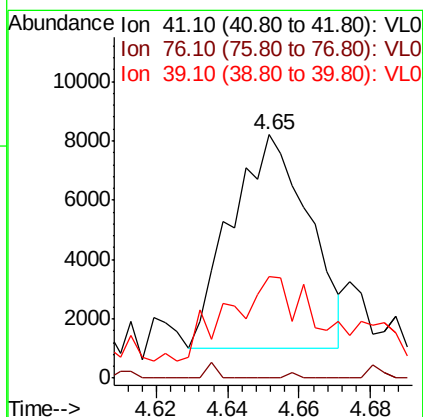
#20
Methvlene Chloride
Concen: 1.478 ppbv
RT: 4.33
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 13 May 2022 23:10

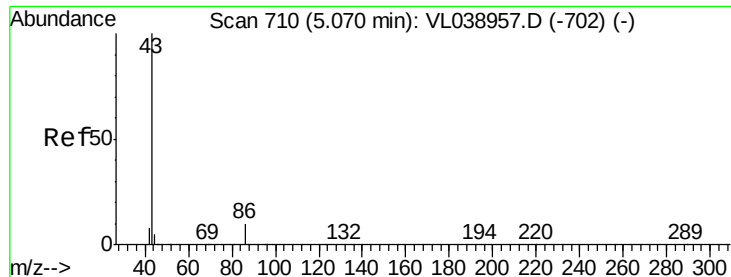
Tot Ion:	84	Resp:	50651
Ion	Ratio	Lower	Upper
84	100		
49	145.4	119.9	179.9
51	43.5	35.7	53.5
86	56.6	53.8	80.6



#21
Allyl Chloride
Concen: 0.176 ppbv
RT: 4.65 min Scan# 580
Delta R.T. 0.24 min
Lab File: VL039049.D
Acq: 13 May 2022 23:10

Tgt Ion:	41	Resp:	10885
Ion	Ratio	Lower	Upper
41	100		
76	58.5	24.2	36.4#
39	0.0	63.8	95.8#





#23

Vinyl Acetate

Concen: 0.456 ppbv

RT: 5.04 Instrument:

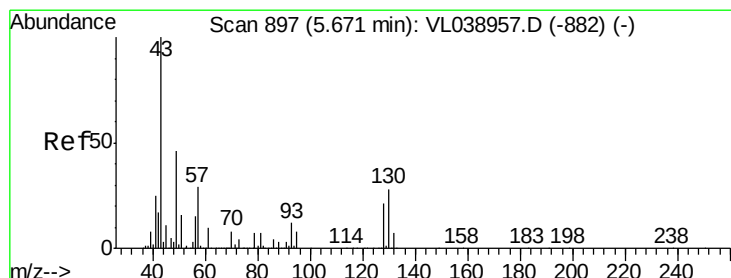
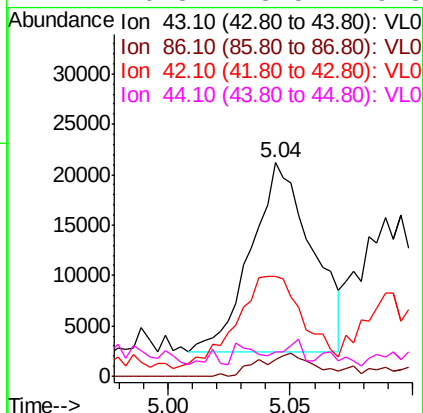
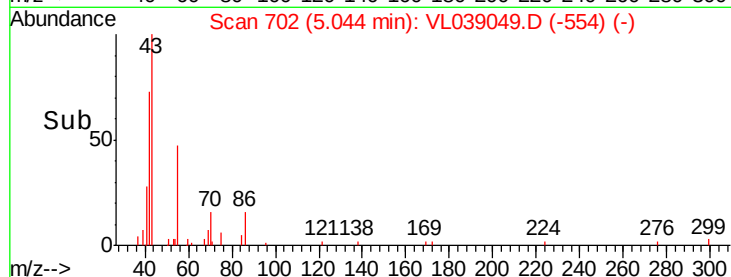
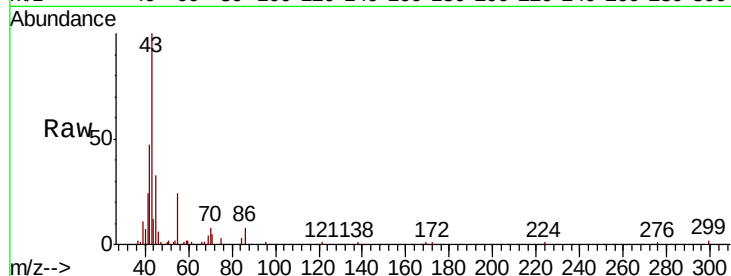
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 May 2022 23:10

Tot Ion: 43 Resp: 32816

Ion	Ratio	Lower	Upper
43	100		
86	9.0	6.6	9.8
42	45.5	8.1	12.1#
44	6.8	3.5	5.3#



#25

Ethyl Acetate

Concen: 7.808 ppbv

RT: 5.65 min Scan# 891

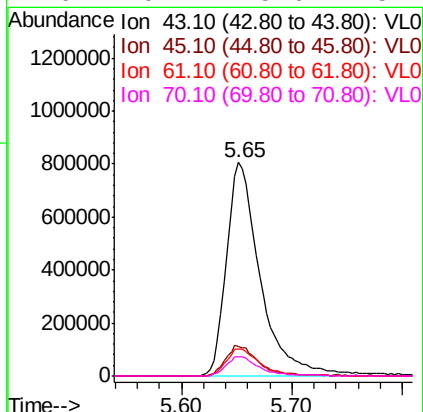
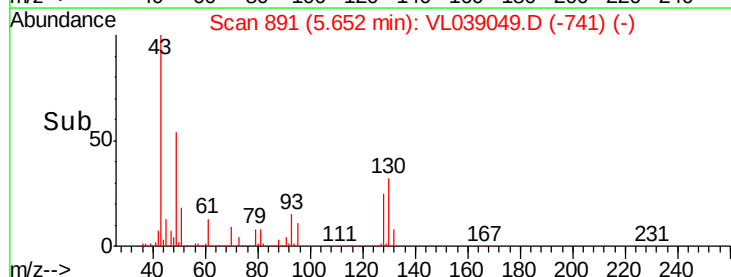
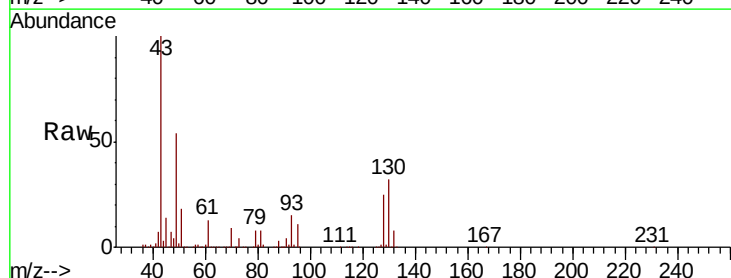
Delta R.T. -0.02 min

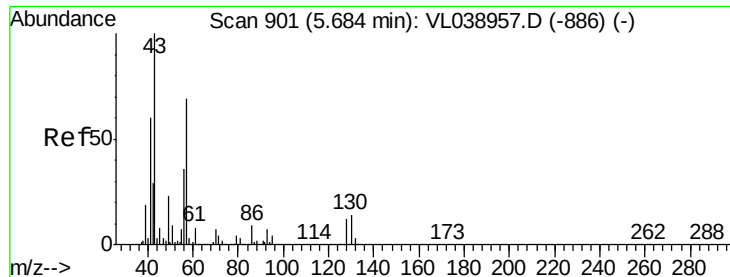
Lab File: VL039049.D

Acq: 13 May 2022 23:10

Tgt Ion: 43 Resp: 1698637

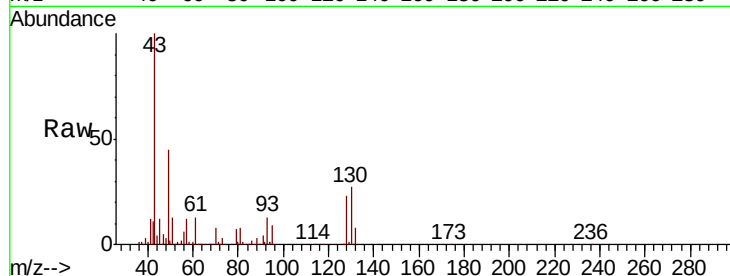
Ion	Ratio	Lower	Upper
43	100		
45	14.2	8.1	12.1#
61	13.1	7.8	11.6#
70	9.2	5.6	8.4#





#26
Hexane
Concen: 0.668 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 23:10

Tot Ion	57	Resp	64573
Ion	Ratio	Lower	Upper
57	100		
41	124.2	75.2	112.8#
43	2677.5	190.8	286.2#
56	57.4	43.0	64.6



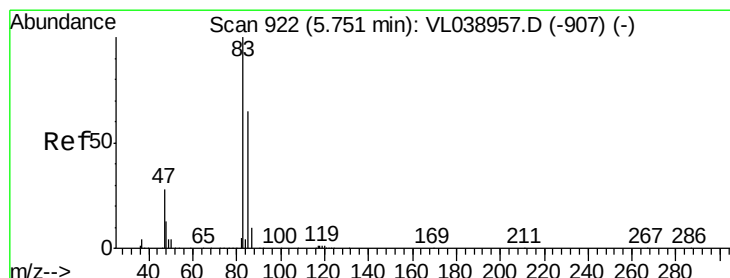
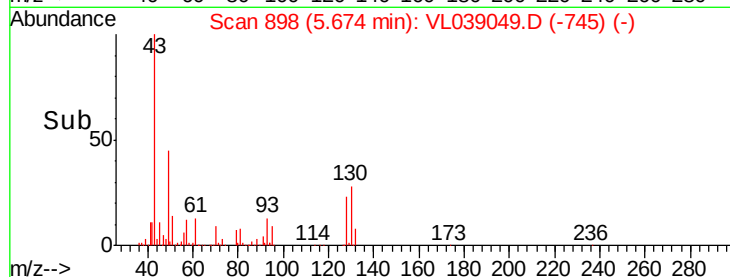
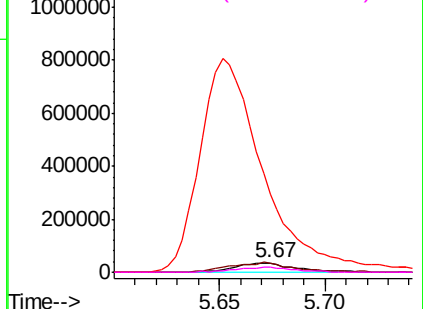
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

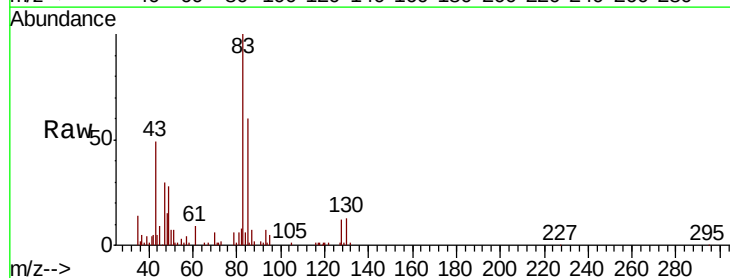
Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#29
Chloroform
Concen: 0.534 ppbv
RT: 5.73 min Scan# 916
Delta R.T. -0.02 min
Lab File: VL039049.D
Acq: 13 May 2022 23:10

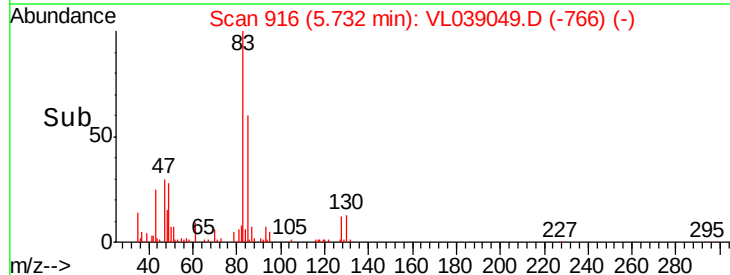
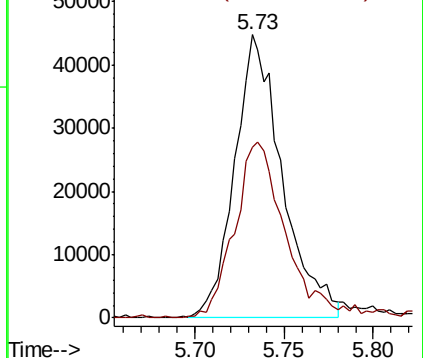
Tgt Ion	83	Resp	83568
Ion	Ratio	Lower	Upper
83	100		
85	59.6	51.8	77.6

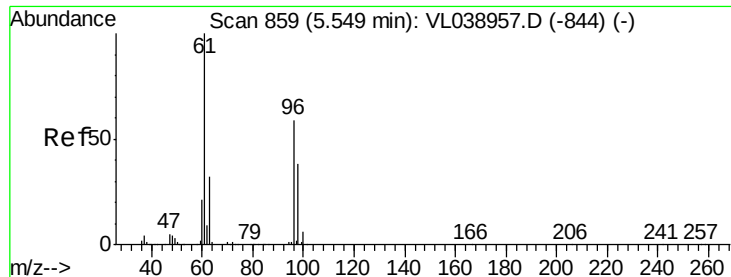


Abundance

Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0





#31

cis-1,2-Dichloroethene

Concen: 2.176 ppbv

RT: 5.65 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 May 2022 23:10

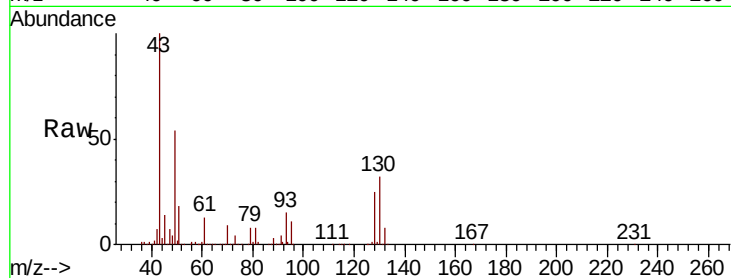
Tot Ion: 61 Resp: 214251

Ion Ratio Lower Upper

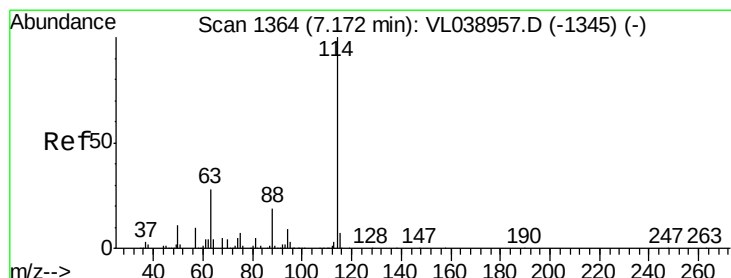
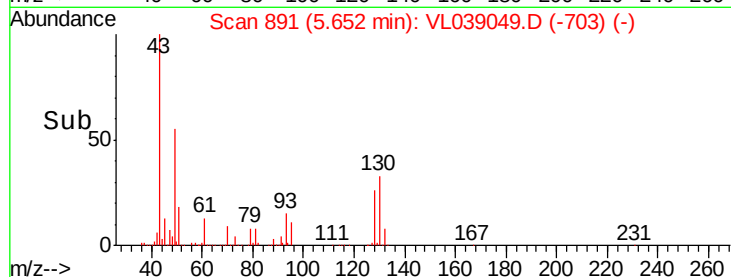
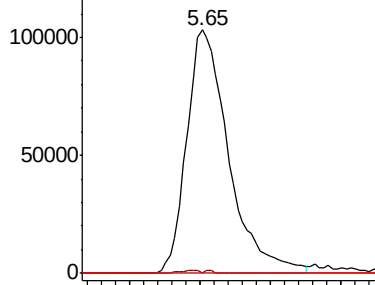
61 100

96 0.4 47.4 71.0#

98 0.0 30.6 45.8#



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.15 min Scan# 1358

Delta R.T. -0.02 min

Lab File: VL039049.D

Acq: 13 May 2022 23:10

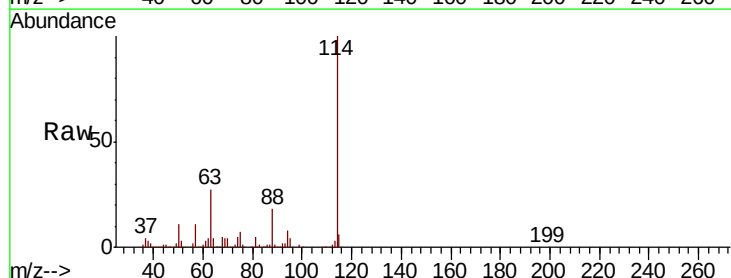
Tgt Ion: 114 Resp: 2379852

Ion Ratio Lower Upper

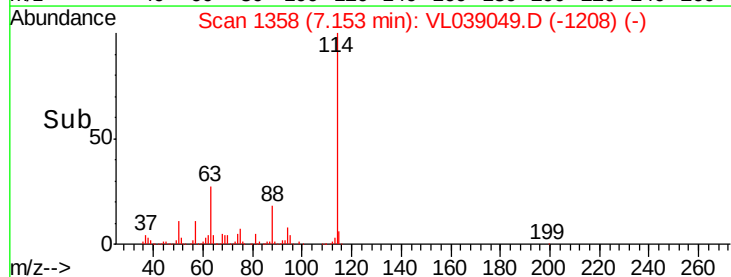
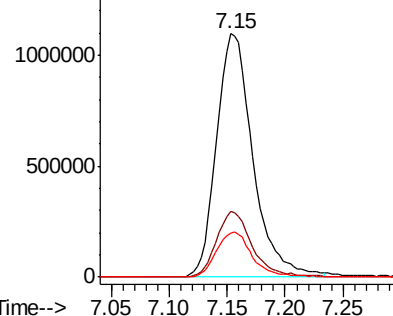
114 100

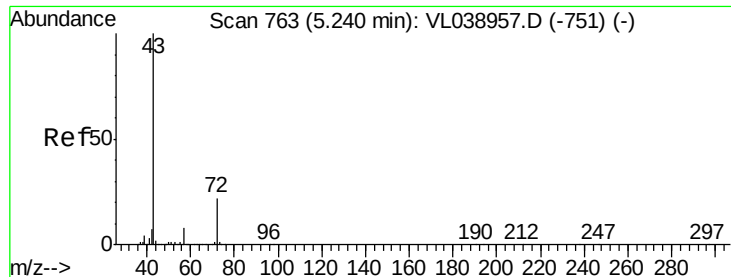
63 26.7 22.6 33.8

88 18.6 15.4 23.0



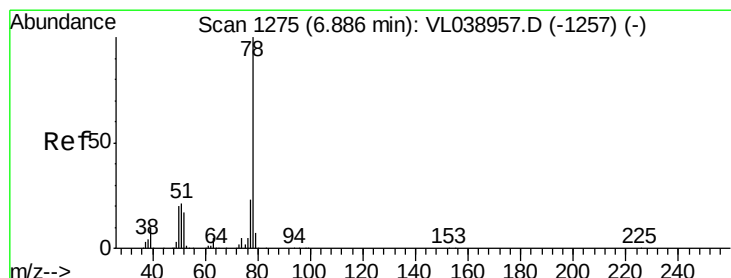
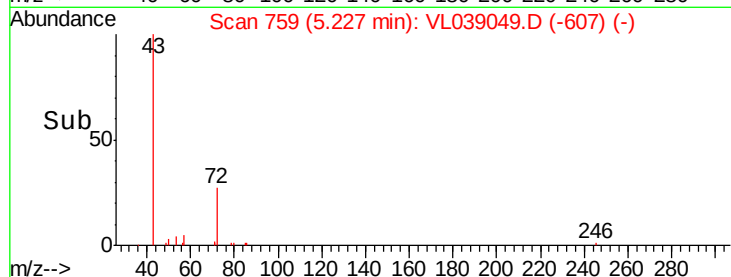
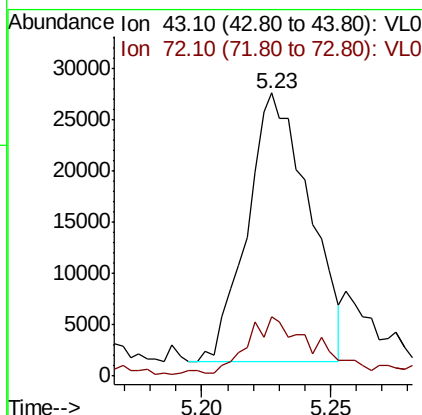
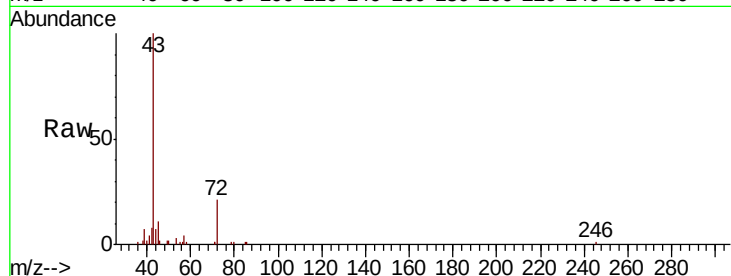
Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0





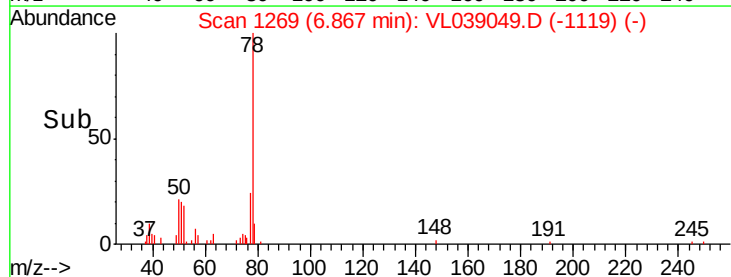
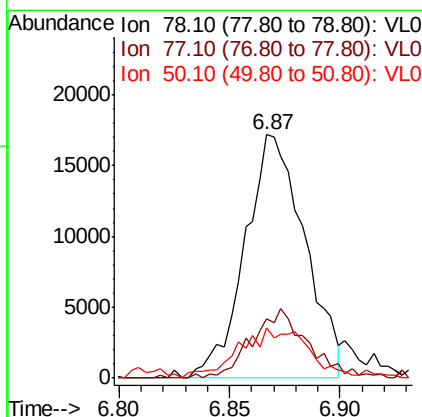
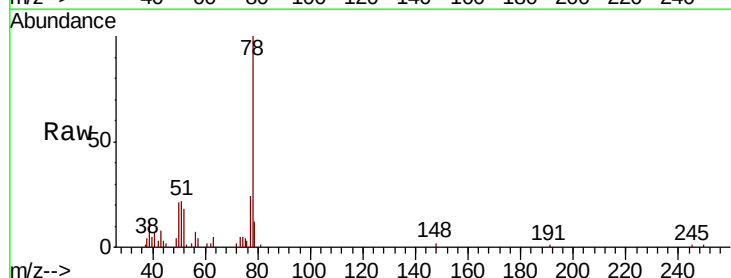
#34
 2-Butanone
 Concen: 0.361 ppbv
 RT: 5.23
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 May 2022 23:10

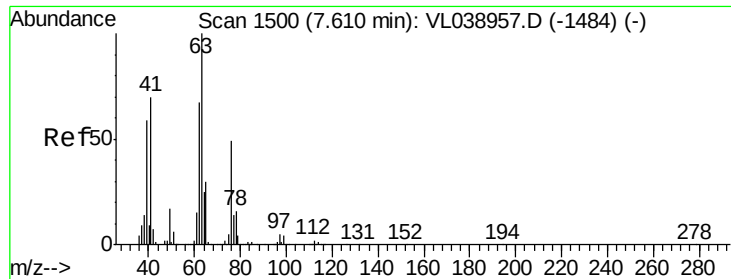
Tot Ion: 43 Resp: 43866
 Ion Ratio Lower Upper
 43 100
 72 28.0 17.8 26.6#



#36
 Benzene
 Concen: 0.159 ppbv
 RT: 6.87 min Scan# 1269
 Delta R.T. -0.02 min
 Lab File: VL039049.D
 Acq: 13 May 2022 23:10

Tgt Ion: 78 Resp: 32346
 Ion Ratio Lower Upper
 78 100
 77 24.3 18.6 28.0
 50 18.5 15.6 23.4





#39

1,2-Dichloropropane

Concen: 0.118 ppbv

RT: 7.20 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 13 May 2022 23:10

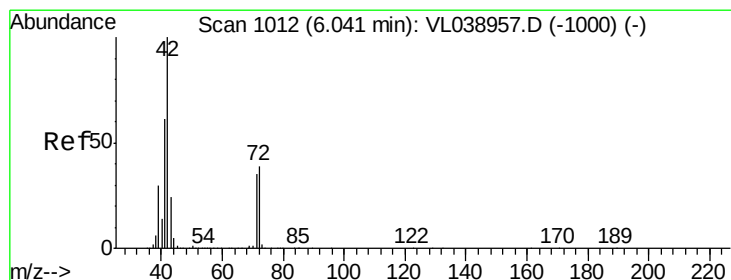
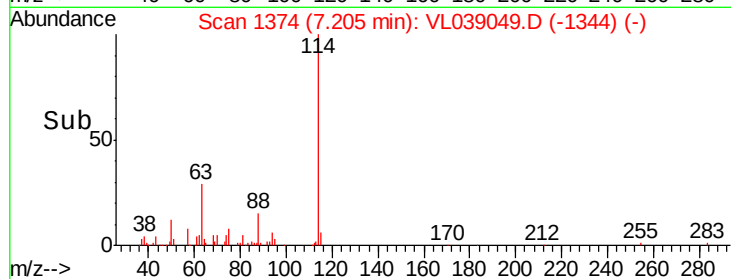
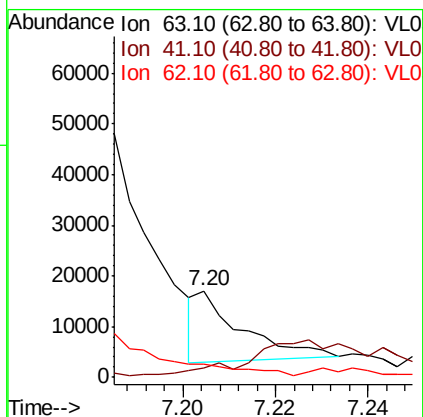
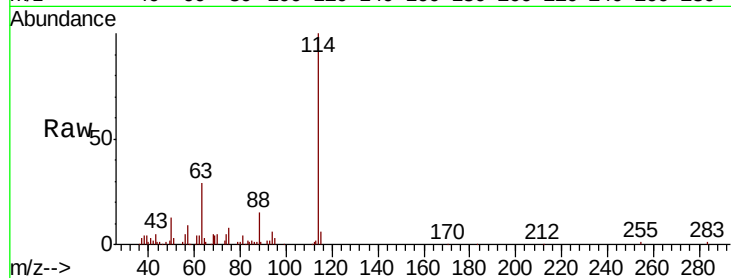
Tot Ion: 63 Resp: 9343

Ion Ratio Lower Upper

63 100

41 3.3 55.9 83.9#

62 11.9 53.8 80.6#



#41

Tetrahydrofuran

Concen: 0.052 ppbv

RT: 6.03 min Scan# 1010

Delta R.T. -0.01 min

Lab File: VL039049.D

Acq: 13 May 2022 23:10

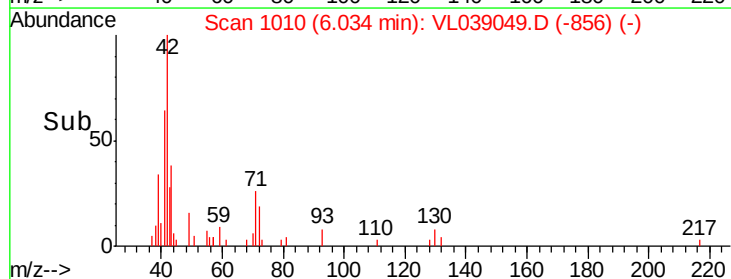
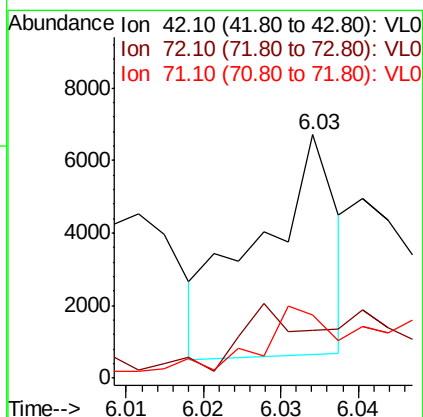
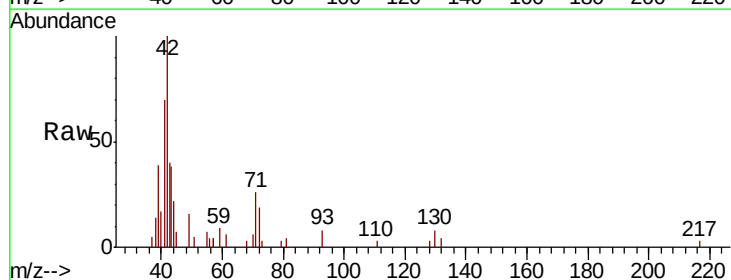
Tgt Ion: 42 Resp: 4247

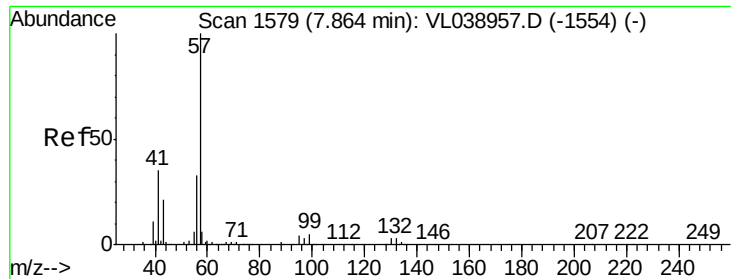
Ion Ratio Lower Upper

42 100

72 117.1 31.8 47.6#

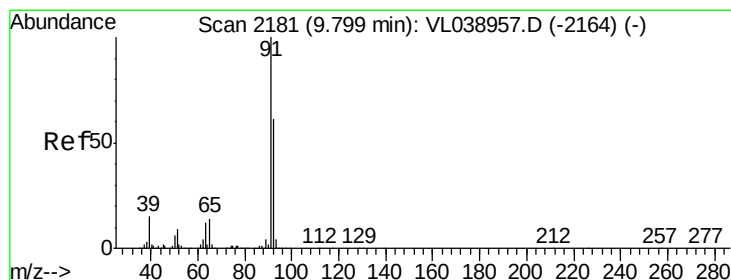
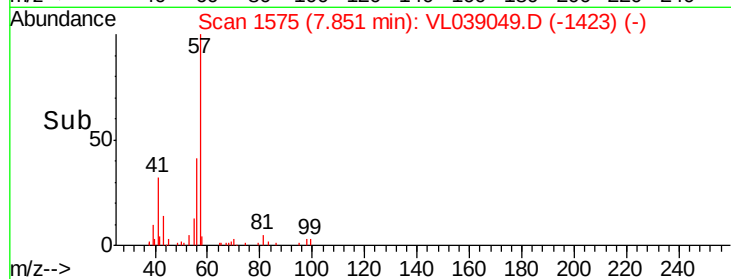
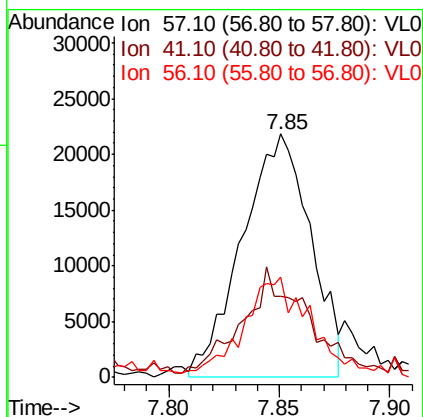
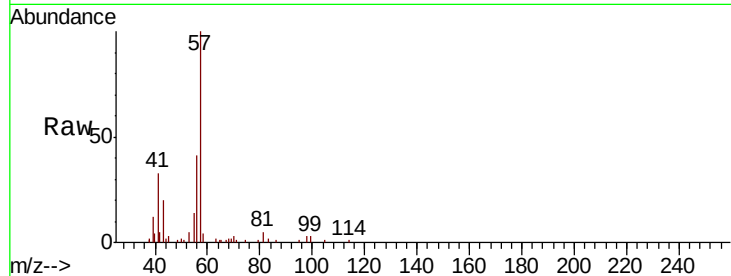
71 76.3 30.6 45.8#





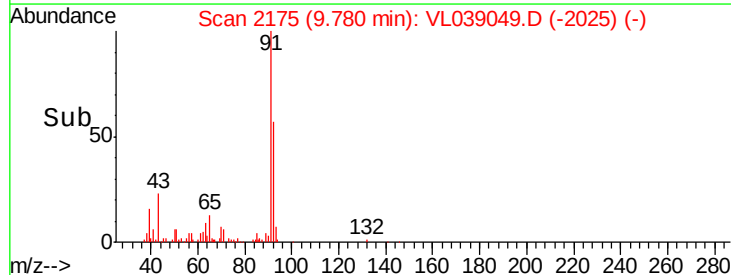
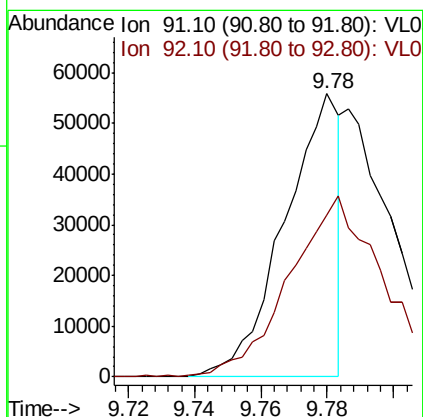
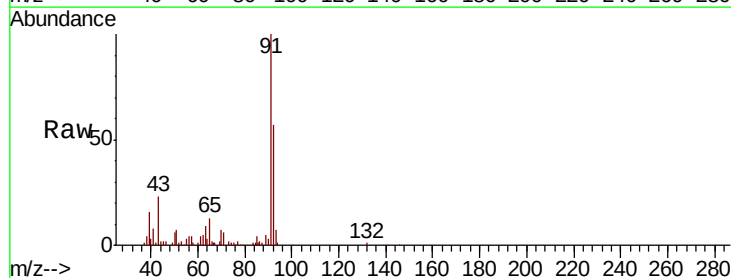
#44
 2,2,4-Trimethylpentane
 Concen: 0.132 ppbv
 RT: 7.85
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 May 2022 23:10

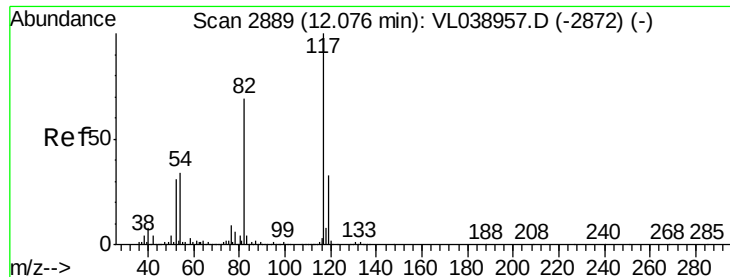
Tot Ion	57	Resp	47034
Ion	Ratio	Lower	Upper
57	100		
41	47.8	26.3	39.5#
56	43.4	24.6	37.0#



#53
 Toluene
 Concen: 0.283 ppbv
 RT: 9.78 min Scan# 2175
 Delta R.T. -0.02 min
 Lab File: VL039049.D
 Acq: 13 May 2022 23:10

Tgt Ion	91	Resp	64613
Ion	Ratio	Lower	Upper
91	100		
92	0.0	48.2	72.2#

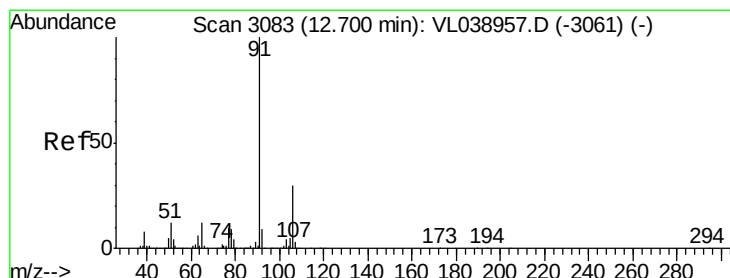
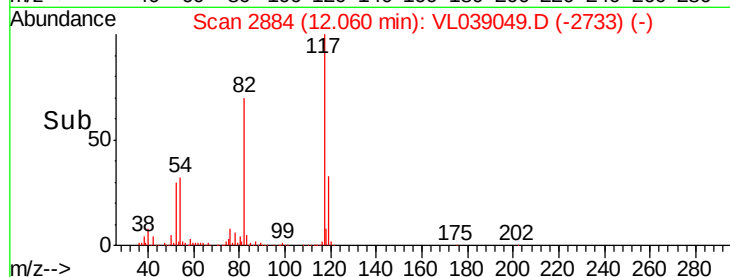
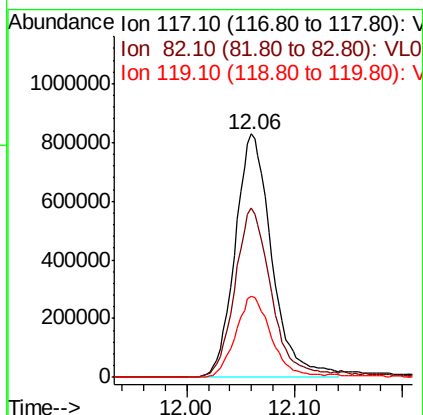
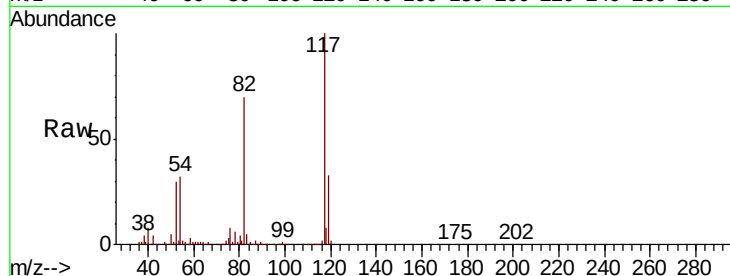




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.06 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 13 May 2022 23:10

Tot Ion: 117 Resp: 1965923

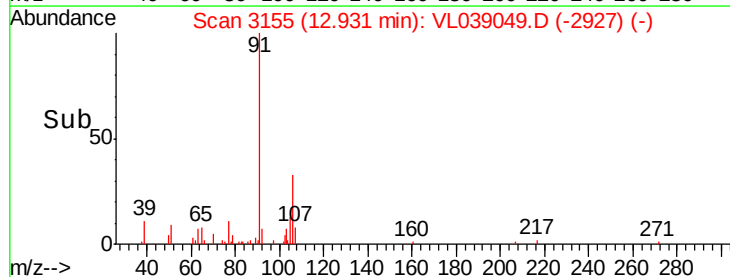
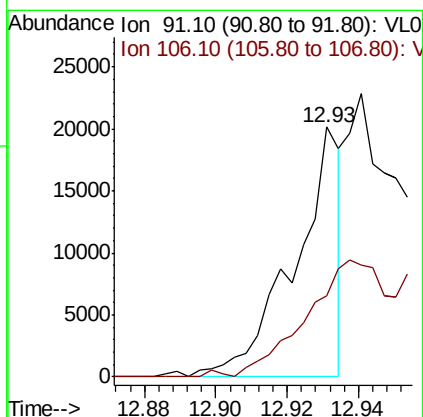
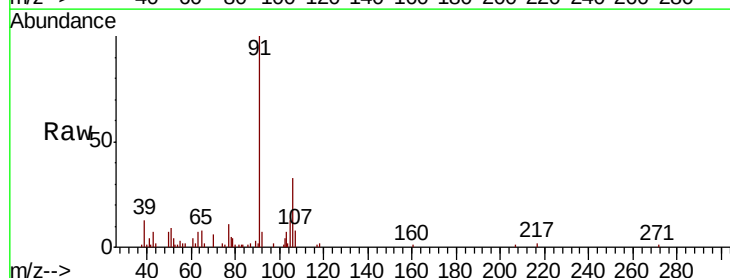
Ion	Ratio	Lower	Upper
117	100		
82	71.8	57.0	85.6
119	33.9	27.2	40.8

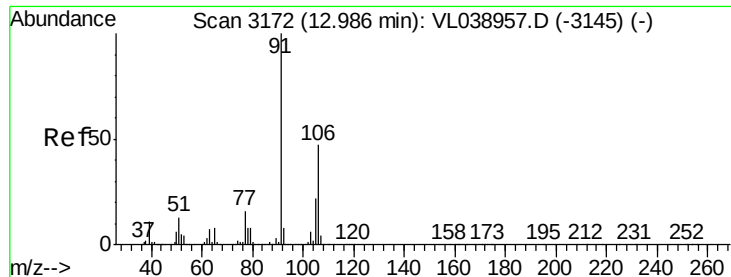


#58
Ethyl Benzene
Concen: 0.064 ppbv
RT: 12.93 min Scan# 3155
Delta R.T.: 0.23 min
Lab File: VL039049.D
Acq: 13 May 2022 23:10

Tgt Ion: 91 Resp: 18126

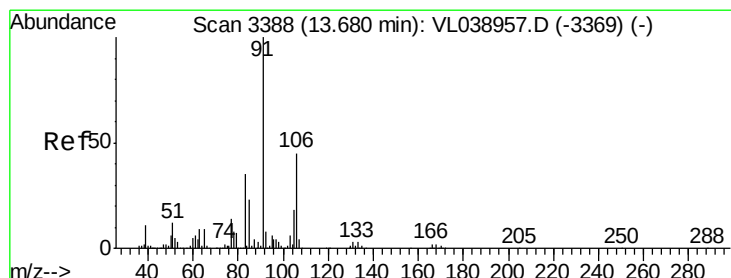
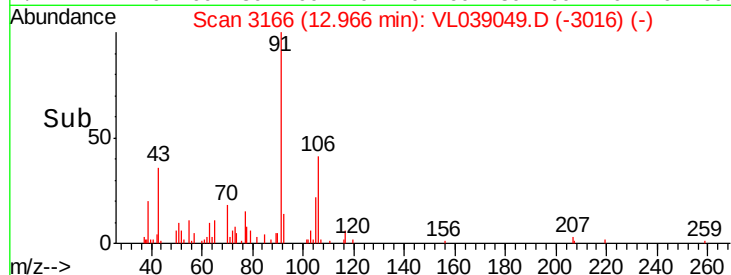
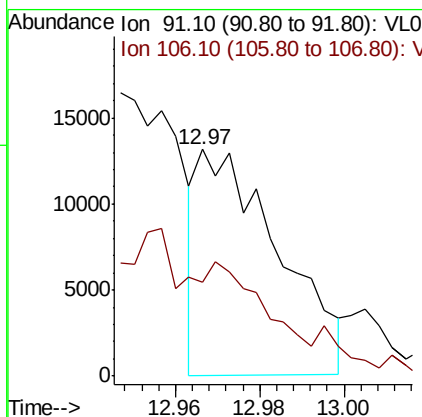
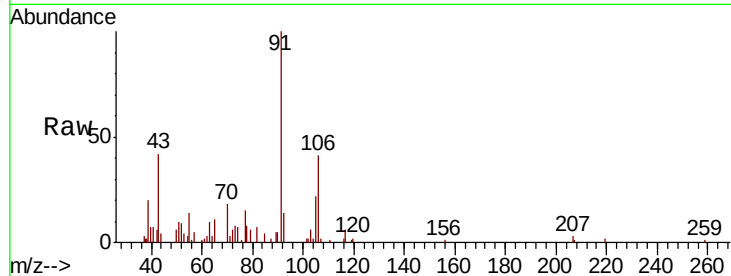
Ion	Ratio	Lower	Upper
91	100		
106	32.5	24.2	36.4





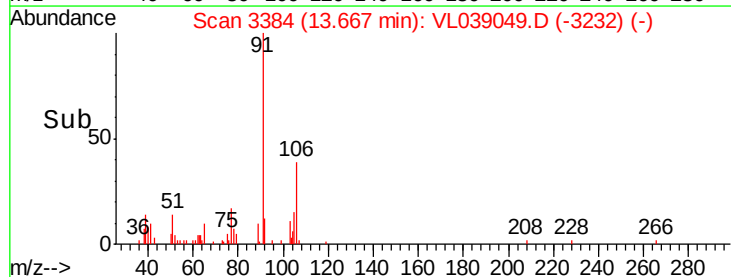
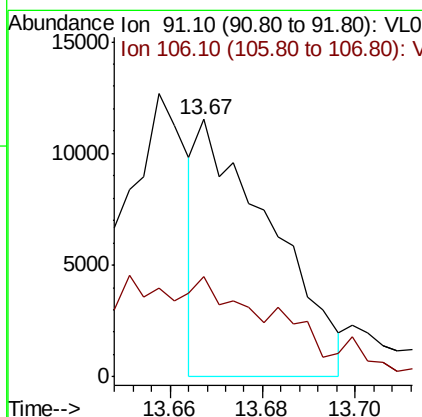
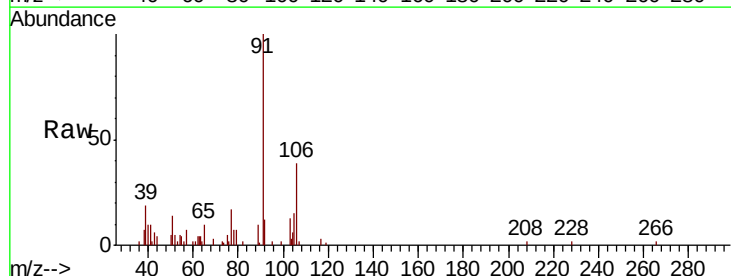
#59
m/p-Xylene
Concen: 0.072 ppbv
RT: 12.97 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 13 May 2022 23:10

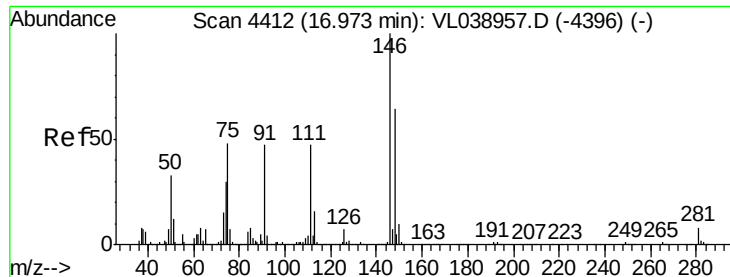
Tot Ion: 91 Resp: 17437
Ion Ratio Lower Upper
91 100
106 0.0 34.6 52.0#



#60
o-Xylene
Concen: 0.056 ppbv
RT: 13.67 min Scan# 3384
Delta R.T.: -0.01 min
Lab File: VL039049.D
Acq: 13 May 2022 23:10

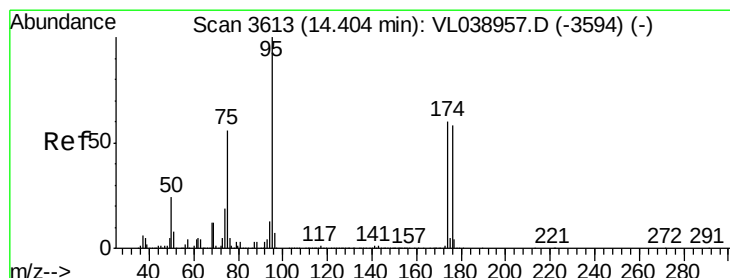
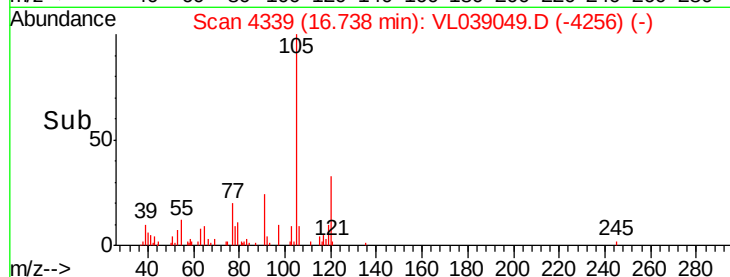
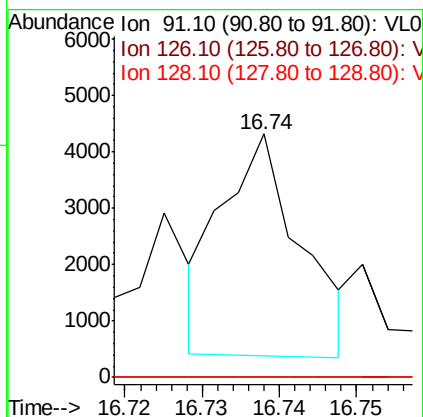
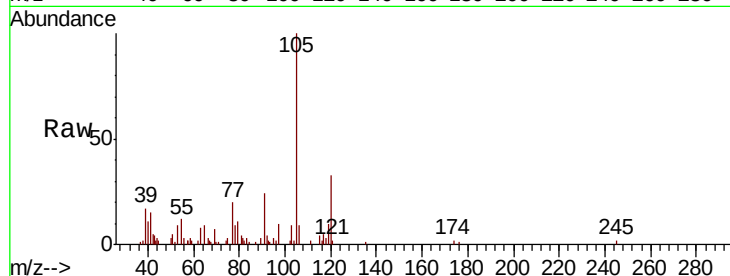
Tgt Ion: 91 Resp: 12725
Ion Ratio Lower Upper
91 100
106 0.0 22.2 66.6#





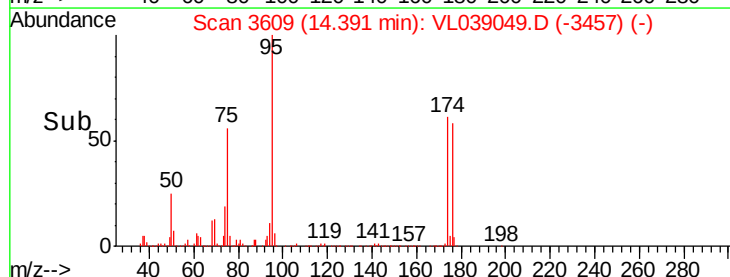
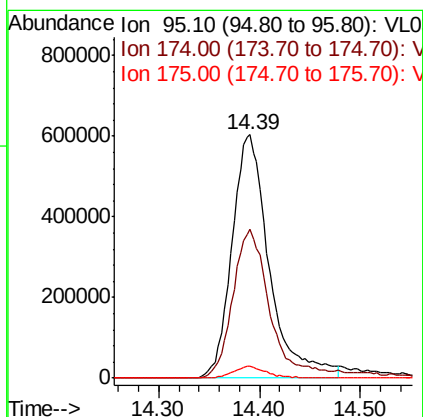
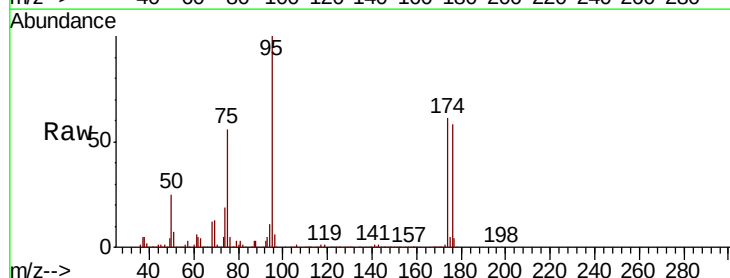
#66
Benzyl Chloride
Concen: 0.073 ppbv
RT: 16.74
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 13 May 2022 23:10

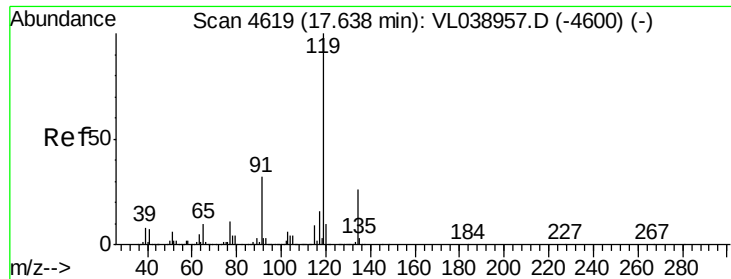
Tot Ion	91	Resp	2797
Ion	Ratio	Lower	Upper
91	100		
126	8.2	11.8	17.6#
128	0.0	4.2	6.2#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.978 ppbv
RT: 14.39 min Scan# 3609
Delta R.T. -0.01 min
Lab File: VL039049.D
Acq: 13 May 2022 23:10

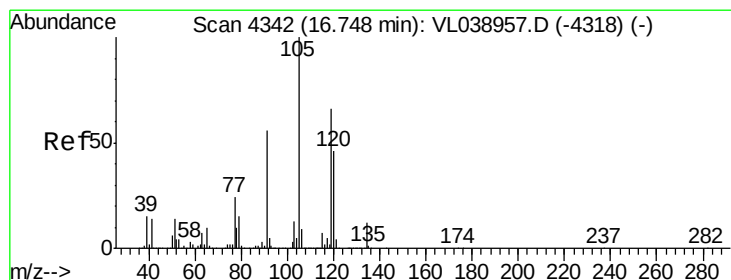
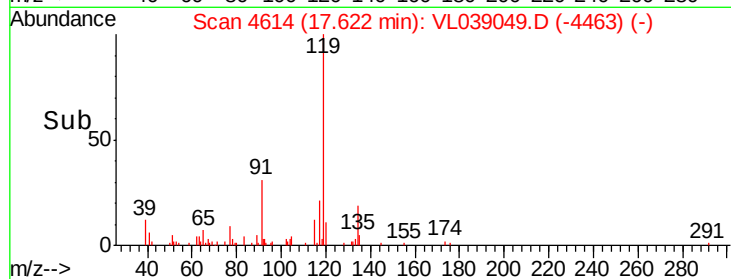
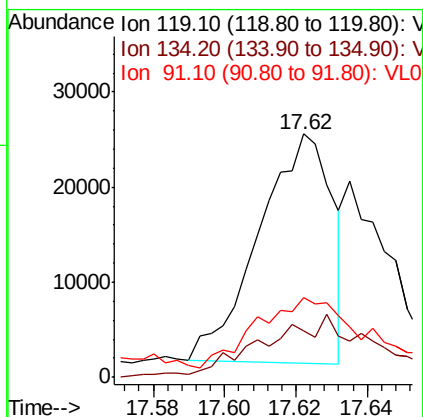
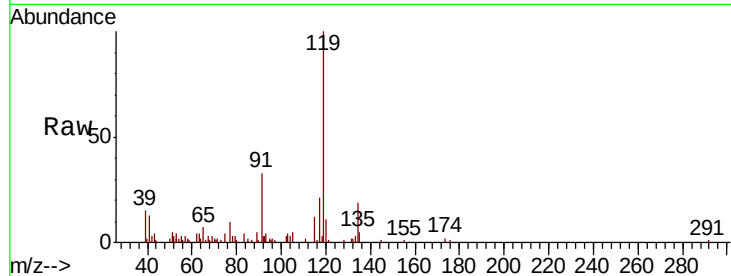
Tgt Ion	95	Resp	1553548
Ion	Ratio	Lower	Upper
95	100		
174	64.5	50.8	76.2
175	4.5	3.8	5.6





#69
 p-Isopropyltoluene
 Concen: 0.102 ppbv
 RT: 17.62 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 May 2022 23:10

Tot Ion	Ratio	Lower	Upper
119	100		
134	0.0	20.0	30.0#
91	66.2	24.8	37.2#



#74
 1,2,4-Trimethylbenzene
 Concen: 0.077 ppbv
 RT: 16.73 min Scan# 4336
 Delta R.T. -0.02 min
 Lab File: VL039049.D
 Acq: 13 May 2022 23:10

Tgt Ion	Ratio	Lower	Upper
105	100		
120	47.6	36.9	55.3
91	8.5	45.0	67.4#
77	13.1	19.2	28.8#

