

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052322\
 Data File : VL039102.D
 Acq On : 24 May 2022 3:04
 Operator : SY/AP
 Sample : N2957-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AP-1

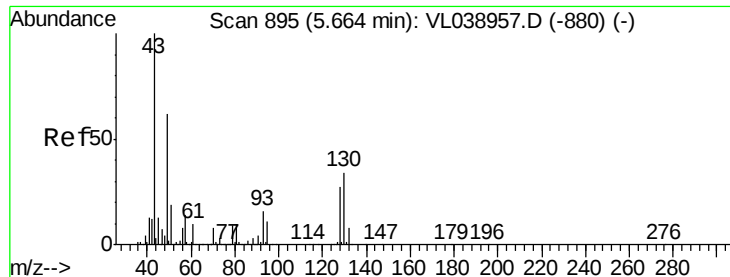
Quant Time: May 24 06:04:31 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 05 10:12:15 2022
 QLast Update : Thu May 05 10:12:15 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1168576	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.16	114	3073167	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	2632959	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	2039629	9.78	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	68540	0.374	ppbv	93
3) Chlorodifluoromethane	2.98	51	77231	0.533	ppbv #	84
4) Chloromethane	3.14	50	48111	0.663	ppbv #	86
7) Chloroethane	3.55	64	698	0.031	ppbv #	89
9) Propene	3.01	41	12530	0.198	ppbv #	1
10) Heptane	8.10	43	8216	0.053	ppbv #	27
11) Trichlorofluoromethane	3.94	101	28854	0.184	ppbv	90
13) Ethanol	3.59	45	161458	36.029	ppbv	98
15) Acetone	3.84	43	493142	4.474	ppbv	93
16) 1,3-Butadiene	3.30	39	2052	0.032	ppbv	87
19) Isopropyl Alcohol	3.97	45	27812	0.531	ppbv #	95
20) Methylene Chloride	4.33	84	251375	6.051	ppbv	95
23) Vinyl Acetate	5.06	43	6037	0.069	ppbv #	1
25) Ethyl Acetate	5.67	43	147457	0.559	ppbv #	82
26) Hexane	5.67	57	229809	1.960	ppbv #	39
34) 2-Butanone	5.23	43	45128	0.288	ppbv #	54
35) Carbon Tetrachloride	7.00	117	9535	0.047	ppbv #	77
36) Benzene	6.87	78	11154	0.042	ppbv #	33
39) 1,2-Dichloropropane	7.16	63	731503	7.148	ppbv #	25
44) 2,2,4-Trimethylpentane	7.85	57	31200	0.068	ppbv #	47
53) Toluene	9.79	91	162971	0.553	ppbv	98
58) Ethyl Benzene	12.68	91	34153	0.090	ppbv	99
60) o-Xylene	13.66	91	32987	0.108	ppbv	80
74) 1,2,4-Trimethylbenzene	16.73	105	24600	0.072	ppbv #	70

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. AP-1

Lab File: ClientSampleId :

Acq: 24 May 2022 3:04

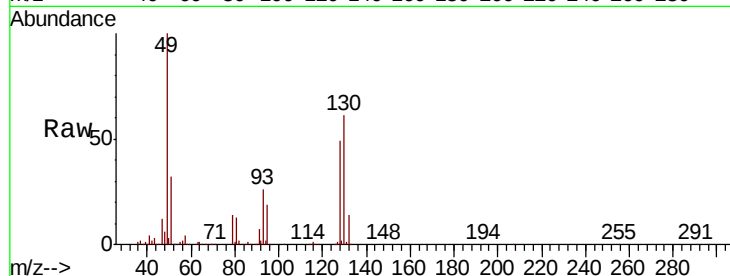
Tot Ion: 49 Resp: 1168576

Ion Ratio Lower Upper

49 100

128 50.6 23.3 69.8

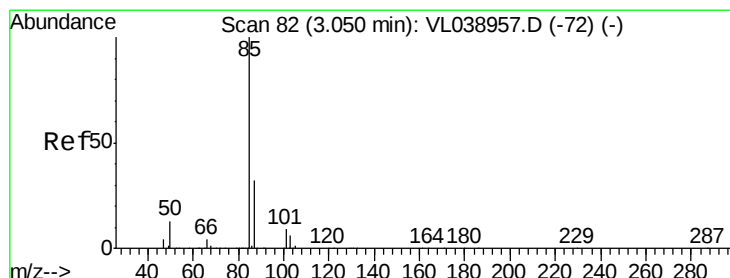
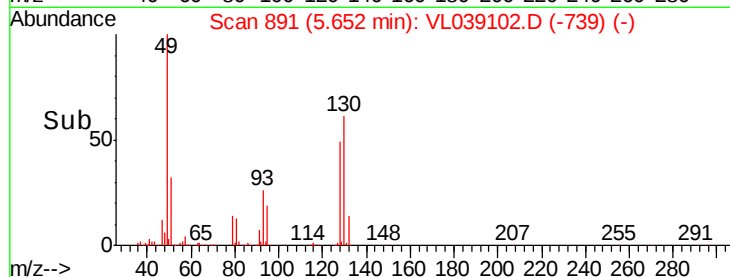
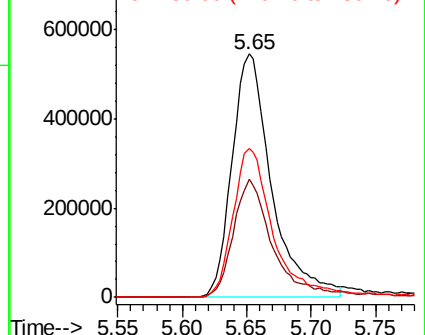
130 64.4 29.8 89.3



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: 0.374 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.01 min

Lab File: VL039102.D

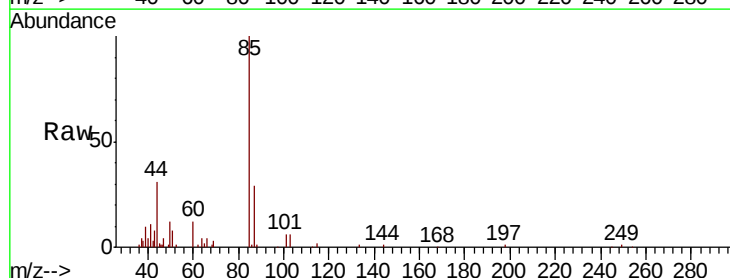
Acq: 24 May 2022 3:04

Tgt Ion: 85 Resp: 68540

Ion Ratio Lower Upper

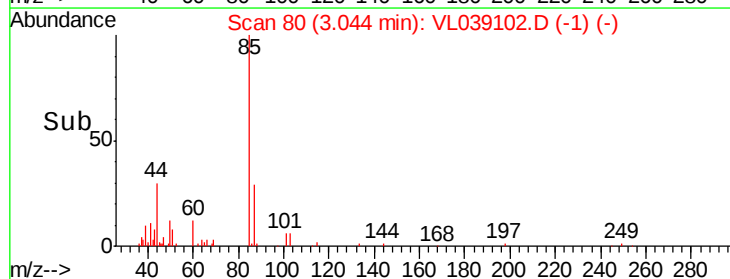
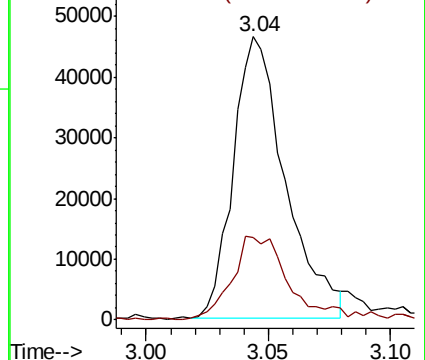
85 100

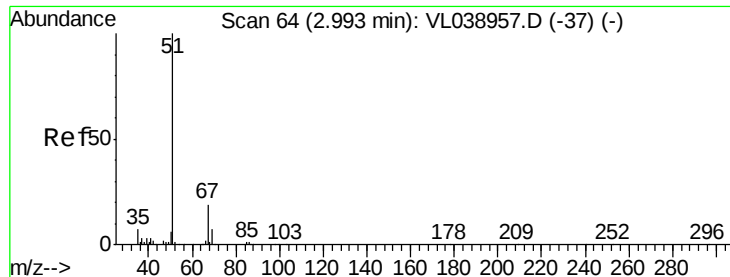
87 28.3 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.533 ppbv

RT: 2.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

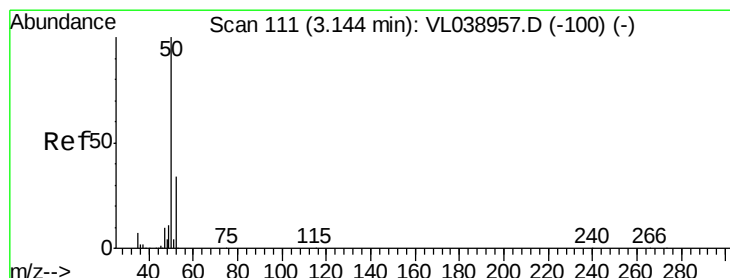
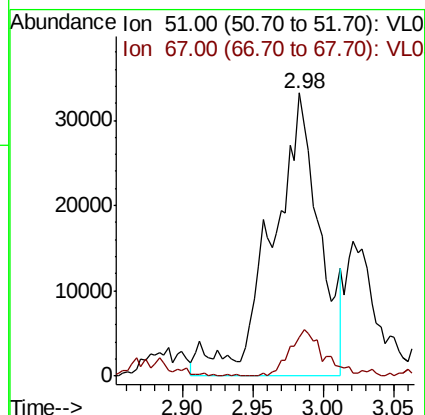
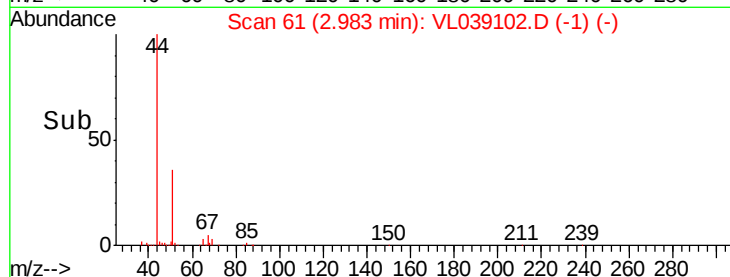
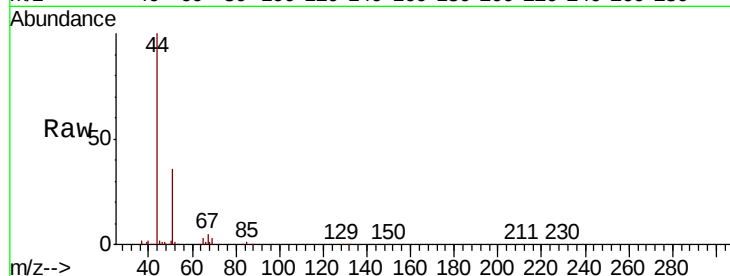
Acq: 24 May 2022 3:04

Tot Ion: 51 Resp: 77231

Ion Ratio Lower Upper

51 100

67 12.3 15.8 23.8#



#4

Chloromethane

Concen: 0.663 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.01 min

Lab File: VL039102.D

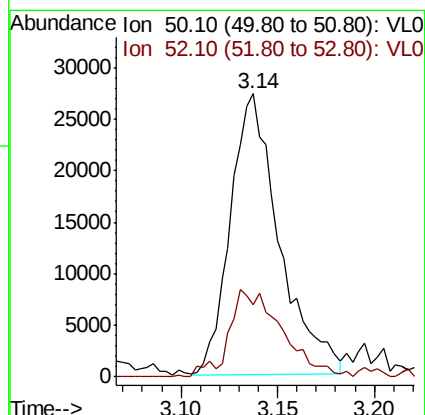
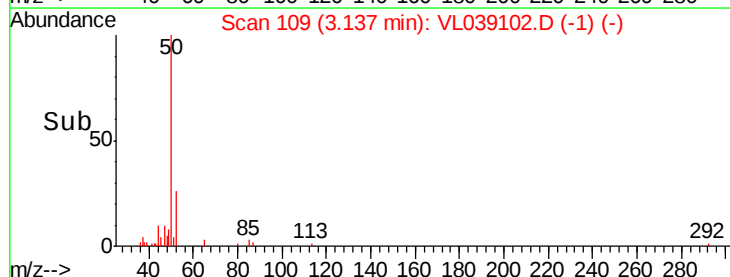
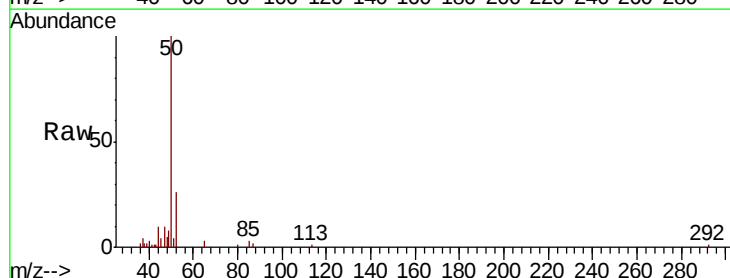
Acq: 24 May 2022 3:04

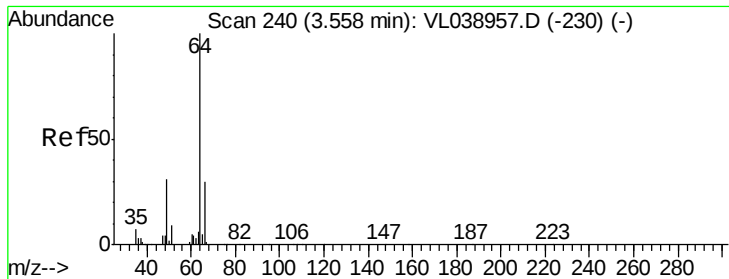
Tgt Ion: 50 Resp: 48111

Ion Ratio Lower Upper

50 100

52 26.4 27.3 40.9#





#7

Chloroethane

Concen: 0.031 ppbv

RT: 3.55 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

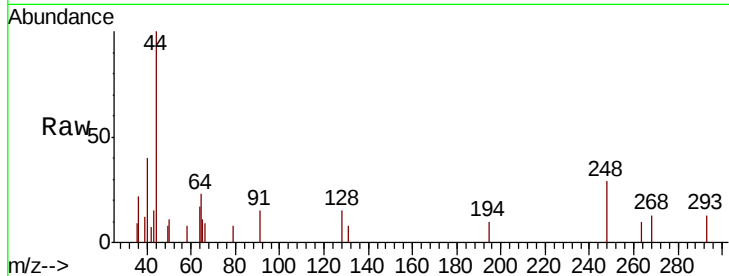
Acq: 24 May 2022 3:04

Tot Ion: 64 Resp: 698

Ion Ratio Lower Upper

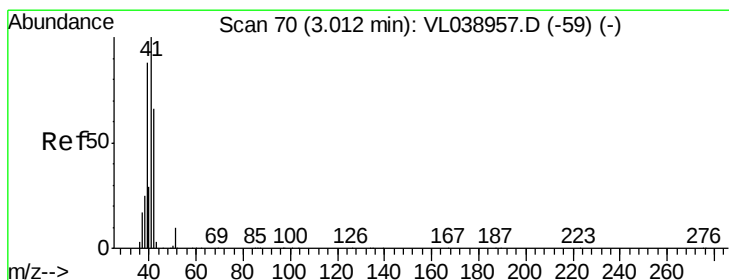
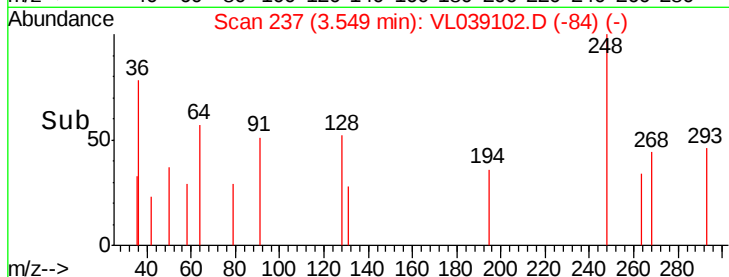
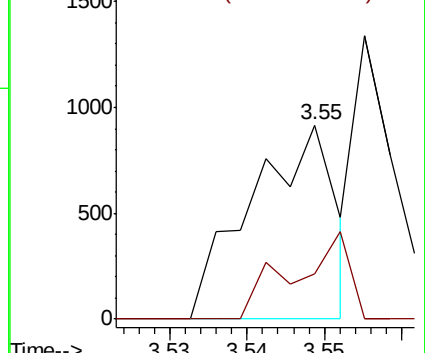
64 100

66 23.6 23.8 35.8#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#9

Propene

Concen: 0.198 ppbv

RT: 3.01 min Scan# 68

Delta R.T. -0.01 min

Lab File: VL039102.D

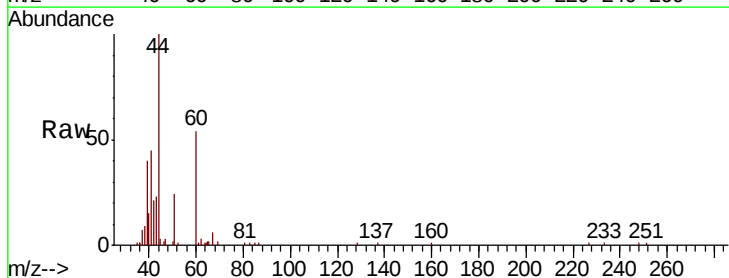
Acq: 24 May 2022 3:04

Tgt Ion: 41 Resp: 12530

Ion Ratio Lower Upper

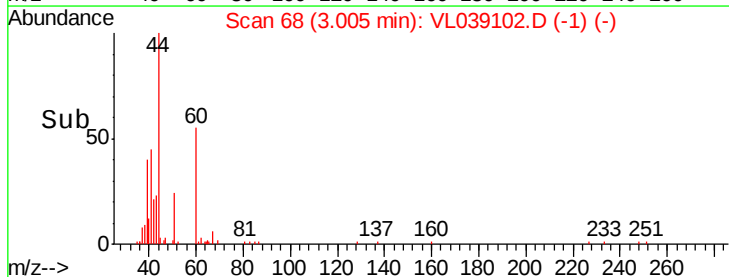
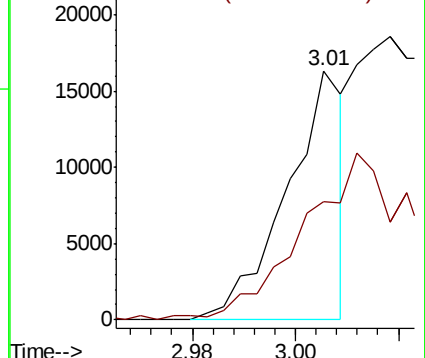
41 100

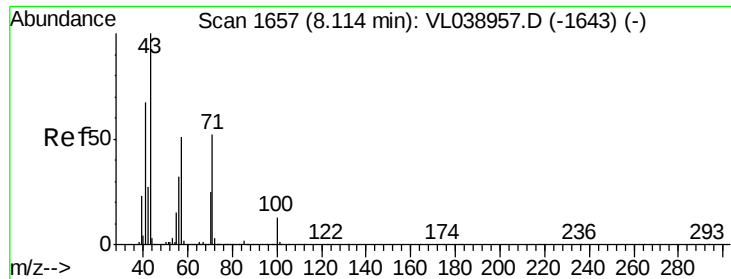
42 164.7 58.3 87.5#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.053 ppbv

RT: 8.10 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

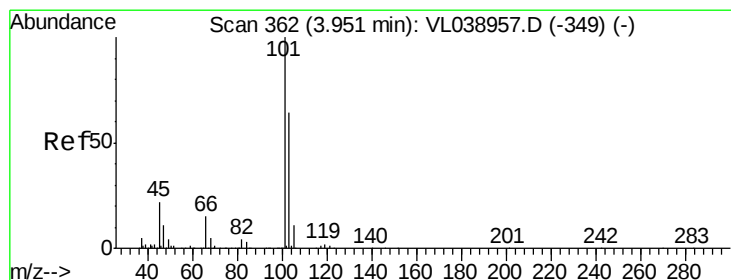
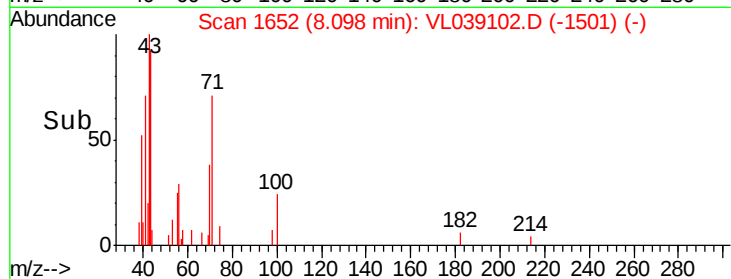
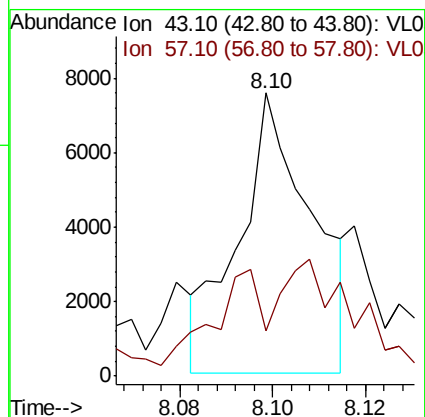
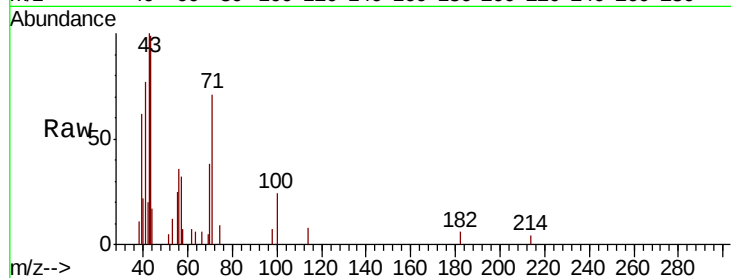
Acq: 24 May 2022 3:04

Tot Ion: 43 Resp: 8216

Ion Ratio Lower Upper

43 100

57 0.0 40.5 60.7#



#11

Trichlorofluoromethane

Concen: 0.184 ppbv

RT: 3.94 min Scan# 360

Delta R.T. -0.01 min

Lab File: VL039102.D

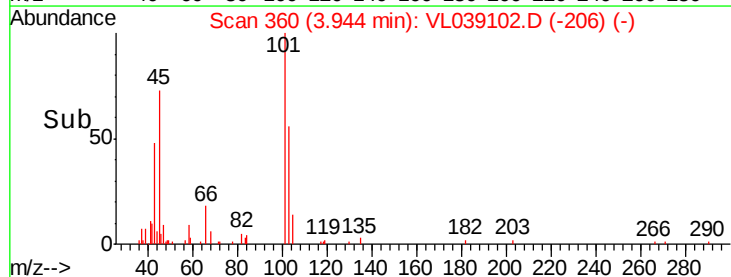
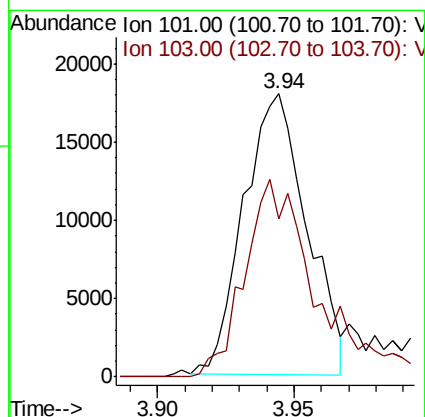
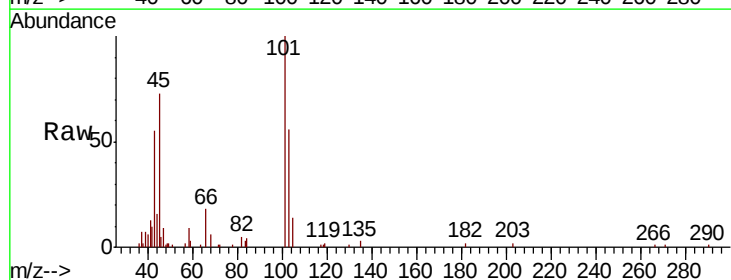
Acq: 24 May 2022 3:04

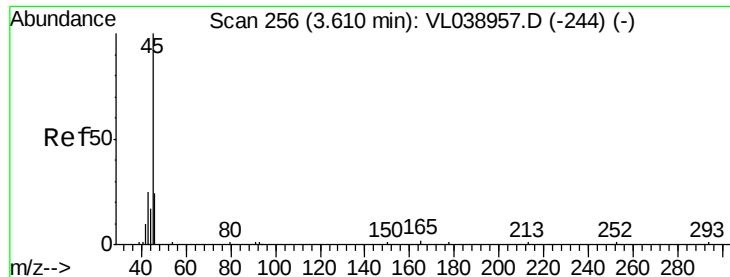
Tgt Ion: 101 Resp: 28854

Ion Ratio Lower Upper

101 100

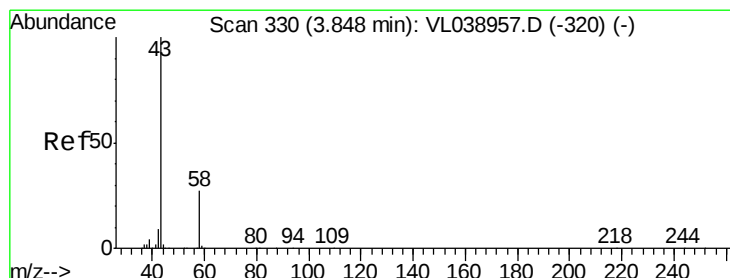
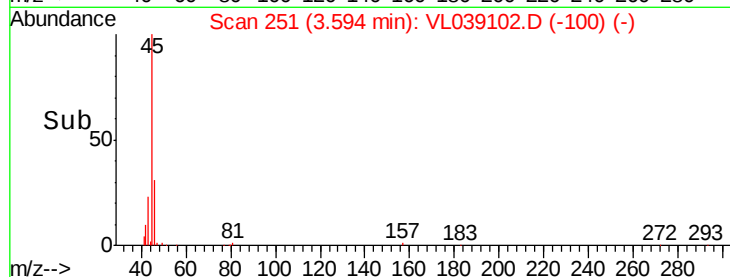
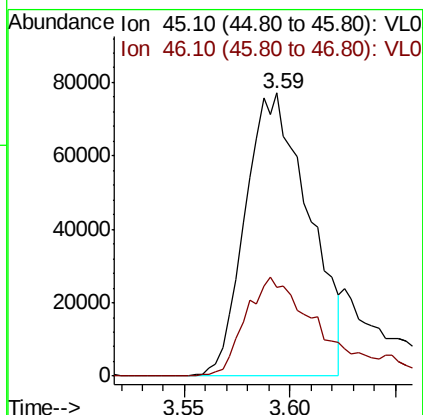
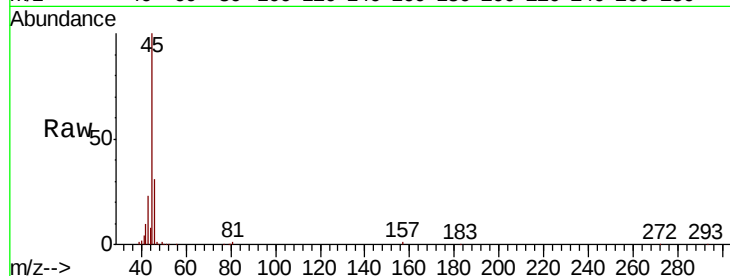
103 56.4 51.5 77.3





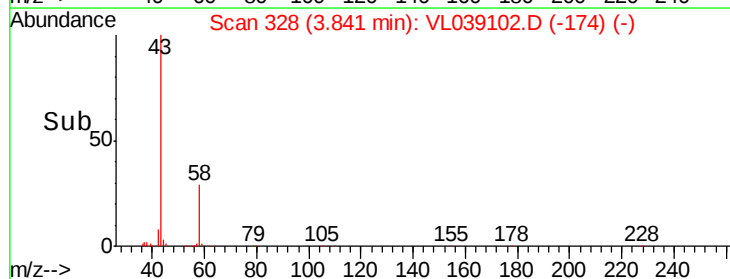
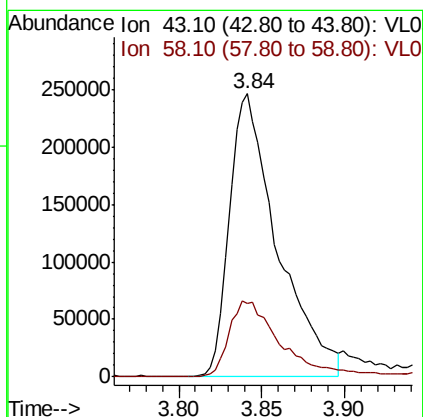
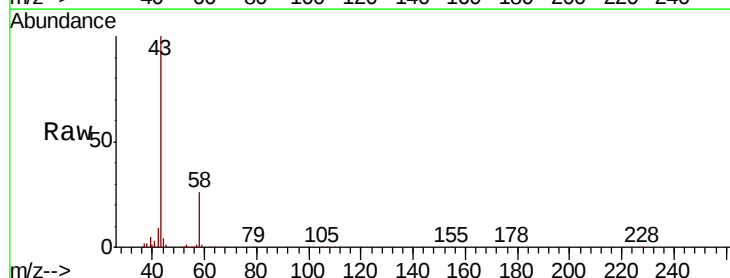
#13
Ethanol
Concen: 36.029 ppbv
RT: 3.59
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 24 May 2022 3:04

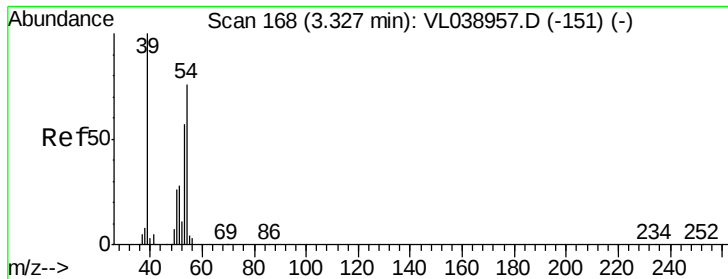
Tot Ion: 45 Resp: 161458
Ion Ratio Lower Upper
45 100
46 46.2 18.0 72.2



#15
Acetone
Concen: 4.474 ppbv
RT: 3.84 min Scan# 328
Delta R.T. -0.01 min
Lab File: VL039102.D
Acq: 24 May 2022 3:04

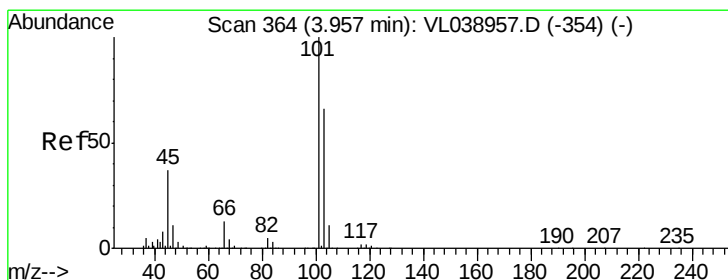
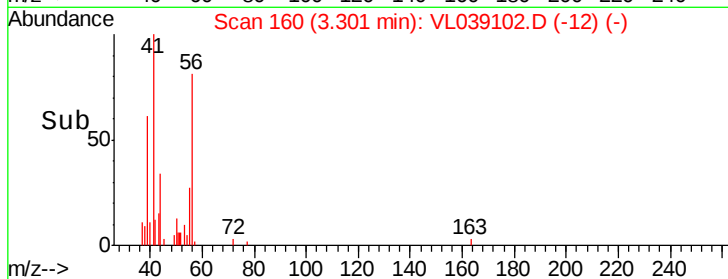
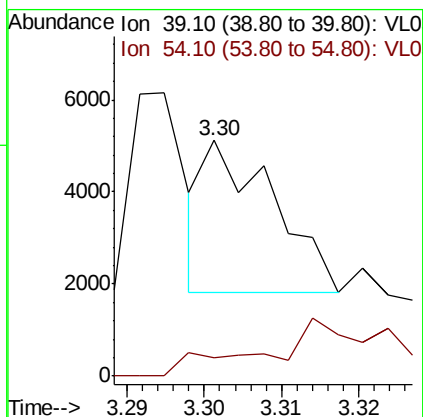
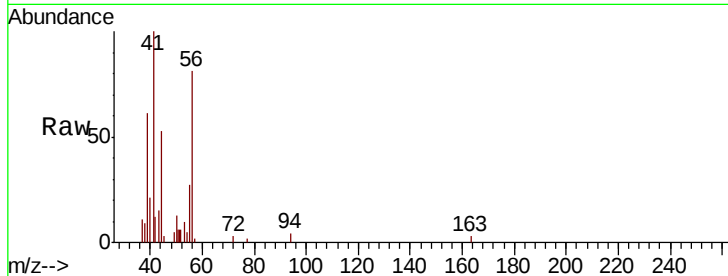
Tgt Ion: 43 Resp: 493142
Ion Ratio Lower Upper
43 100
58 30.0 21.3 31.9





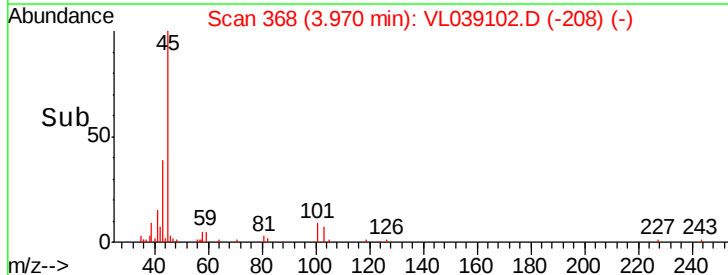
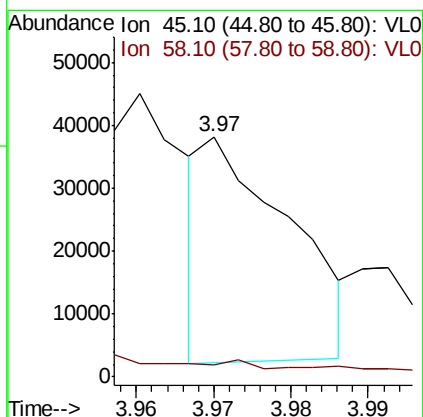
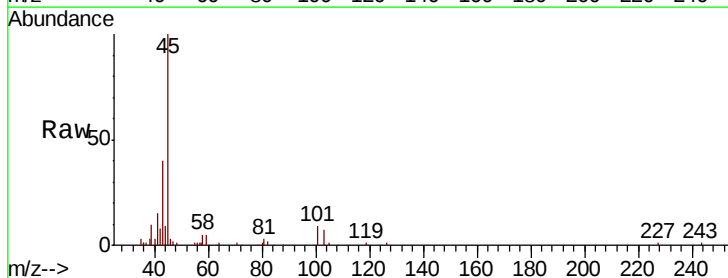
#16
 1,3-Butadiene
 Concen: 0.032 ppbv
 RT: 3.30
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId:
 AP-1
 Acq: 24 May 2022 3:04

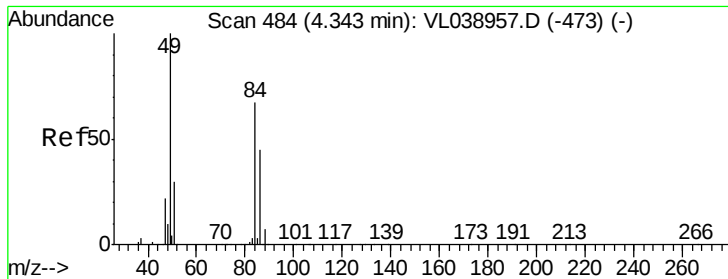
Tot Ion: 39 Resp: 2052
 Ion Ratio Lower Upper
 39 100
 54 93.5 65.2 97.8



#19
 Isopropyl Alcohol
 Concen: 0.531 ppbv
 RT: 3.97 min Scan# 368
 Delta R.T. 0.01 min
 Lab File: VL039102.D
 Acq: 24 May 2022 3:04

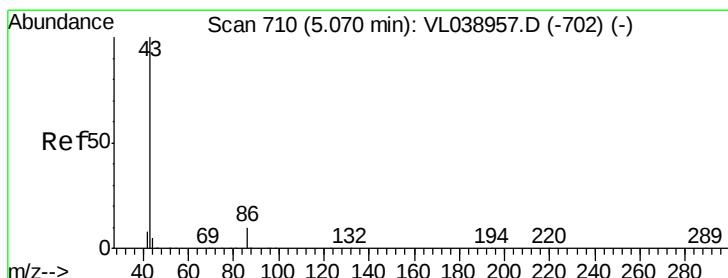
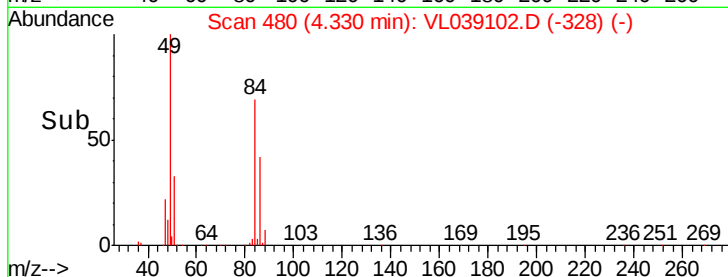
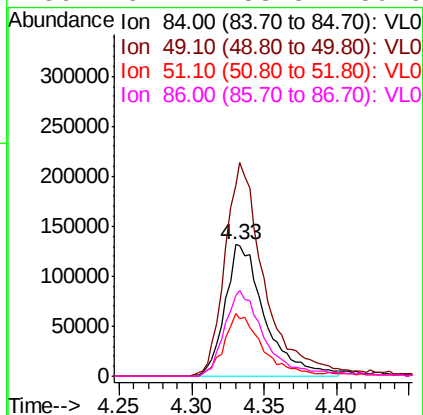
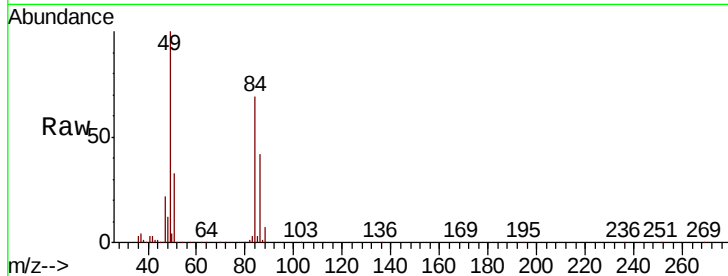
Tgt Ion: 45 Resp: 27812
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.4 2.2#





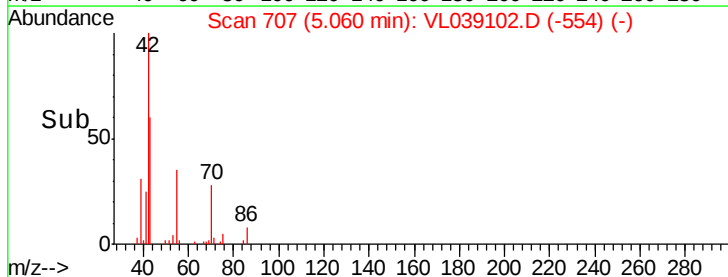
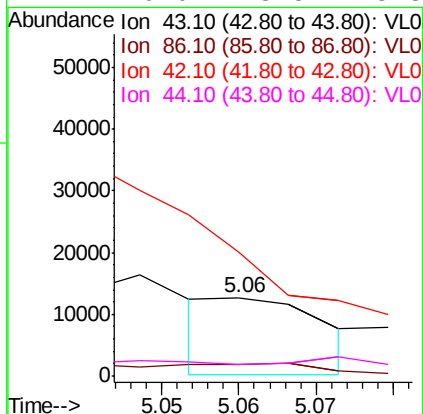
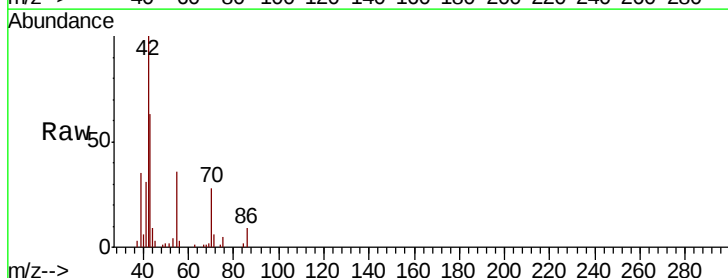
#20
Methvlene Chloride
Concen: 6.051 ppbv
RT: 4.33
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 24 May 2022 3:04

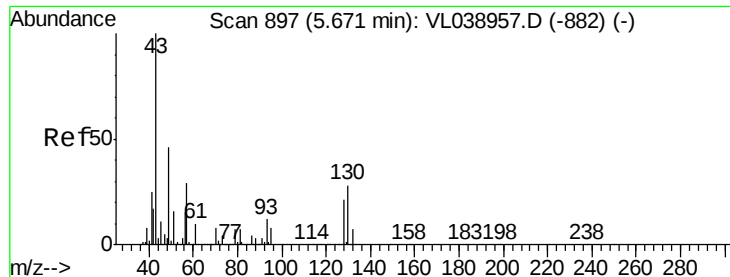
Tot Ion:	84	Resp:	251375
Ion	Ratio	Lower	Upper
84	100		
49	145.2	119.9	179.9
51	47.7	35.7	53.5
86	61.2	53.8	80.6



#23
Vinyl Acetate
Concen: 0.069 ppbv
RT: 5.06 min Scan# 707
Delta R.T. -0.01 min
Lab File: VL039102.D
Acq: 24 May 2022 3:04

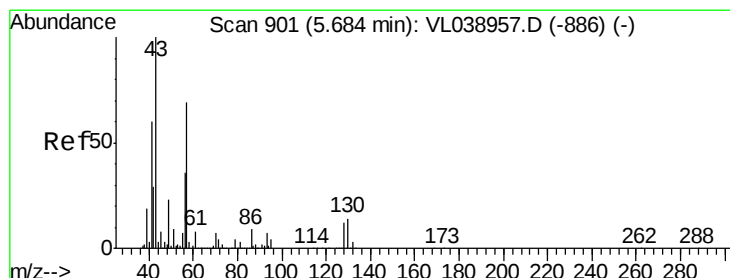
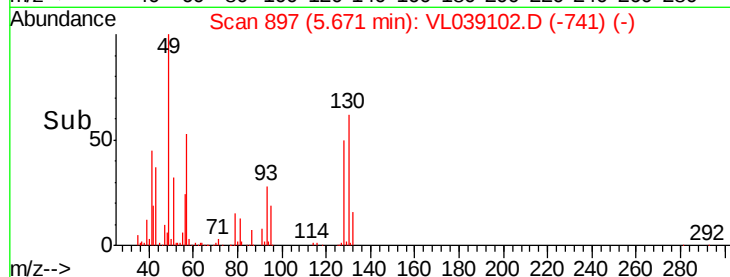
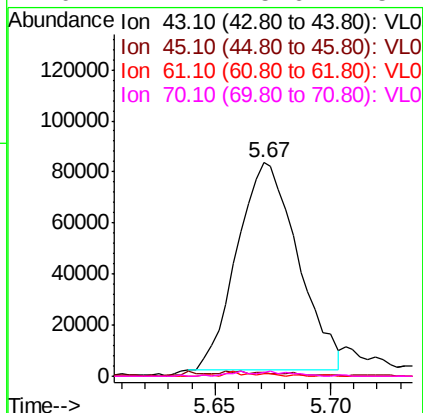
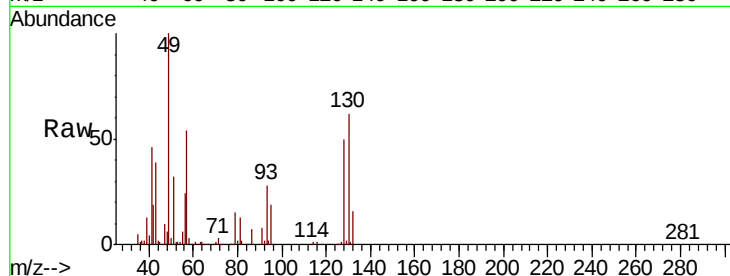
Tgt Ion:	43	Resp:	6037
Ion	Ratio	Lower	Upper
43	100		
86	19.4	6.6	9.8#
42	161.2	8.1	12.1#
44	0.0	3.5	5.3#





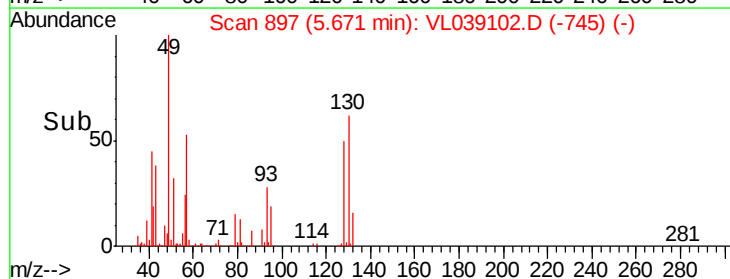
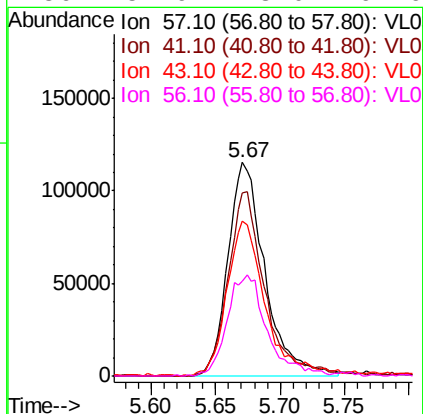
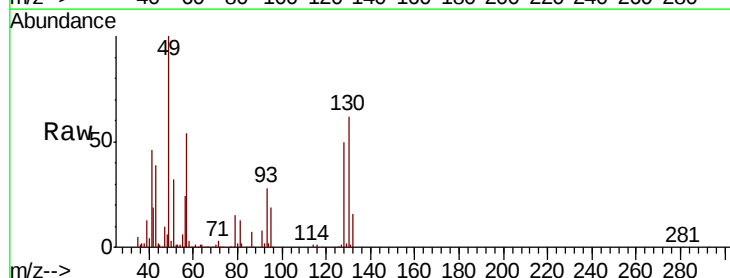
#25
Ethyl Acetate
Concen: 0.559 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 24 May 2022 3:04

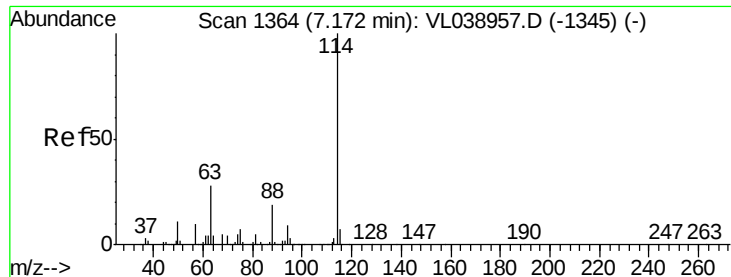
Tot Ion:	43	Resp:	147457
Ion	Ratio	Lower	Upper
43	100		
45	3.5	8.1	12.1#
61	1.5	7.8	11.6#
70	2.7	5.6	8.4#



#26
Hexane
Concen: 1.960 ppbv
RT: 5.67 min Scan# 897
Delta R.T. -0.01 min
Lab File: VL039102.D
Acq: 24 May 2022 3:04

Tgt Ion:	57	Resp:	229809
Ion	Ratio	Lower	Upper
57	100		
41	86.5	75.2	112.8
43	76.2	190.8	286.2#
56	51.9	43.0	64.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 May 2022 3:04

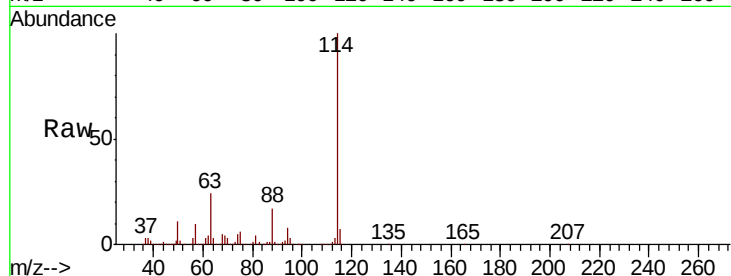
Tot Ion:114 Resp: 3073167

Ion Ratio Lower Upper

114 100

63 24.7 22.6 33.8

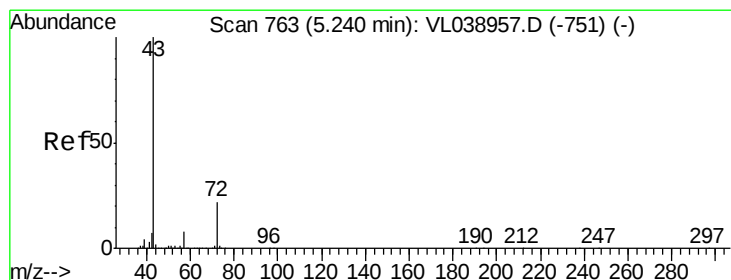
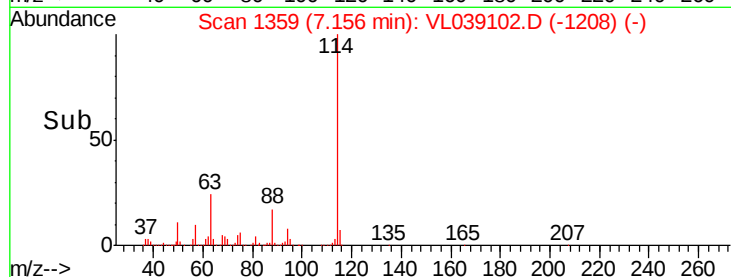
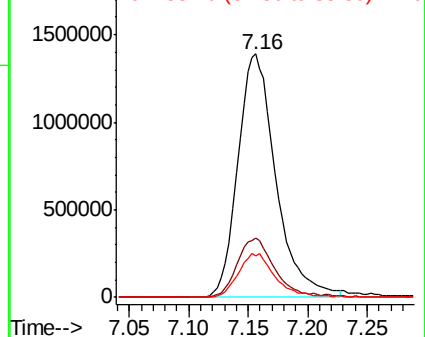
88 17.8 15.4 23.0



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.288 ppbv

RT: 5.23 min Scan# 761

Delta R.T. -0.01 min

Lab File: VL039102.D

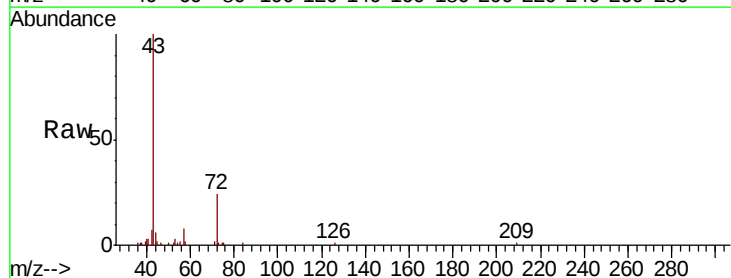
Acq: 24 May 2022 3:04

Tgt Ion: 43 Resp: 45128

Ion Ratio Lower Upper

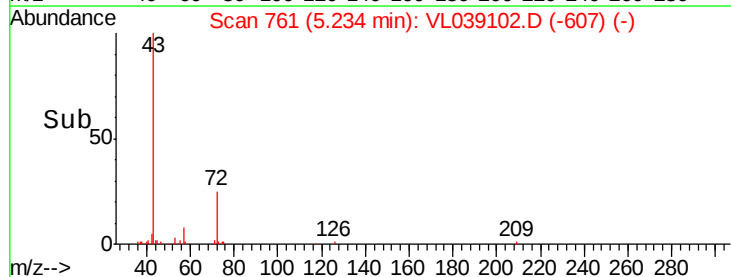
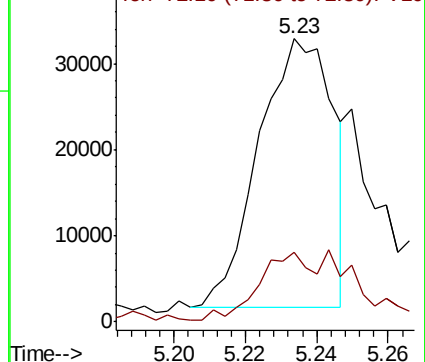
43 100

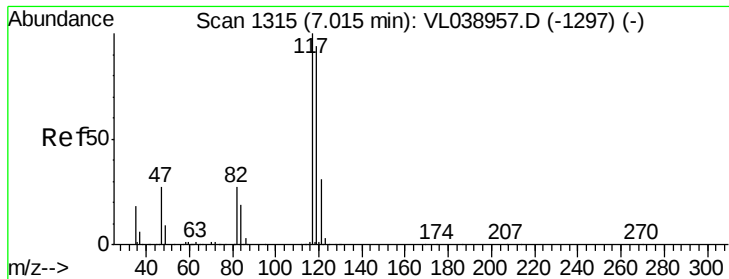
72 0.0 17.8 26.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

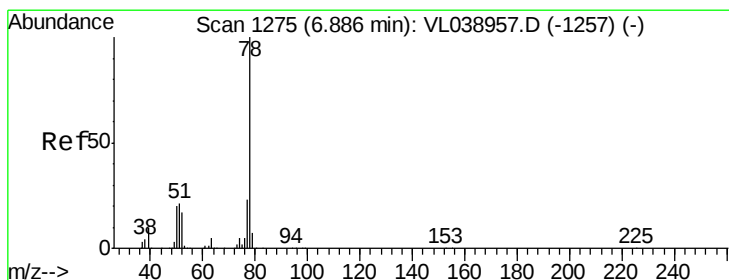
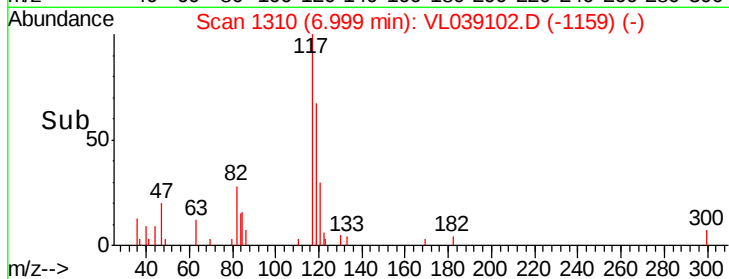
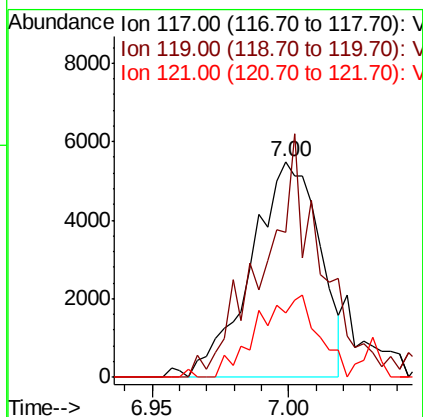
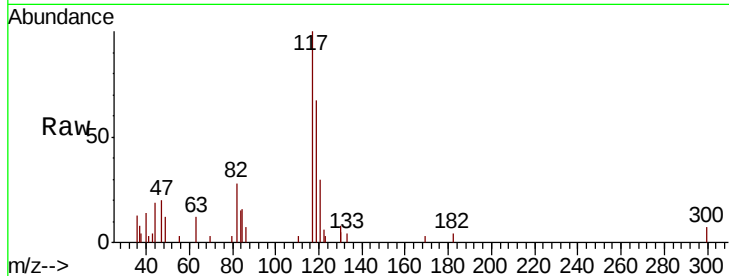
Ion 72.10 (71.80 to 72.80): VL0





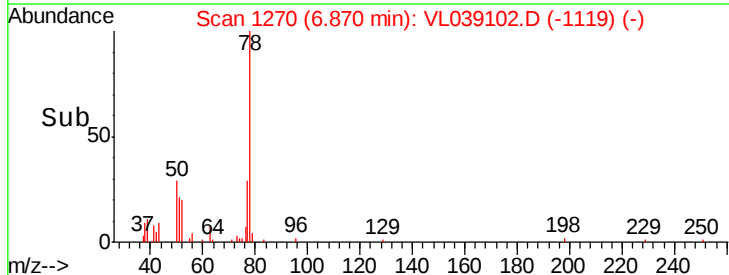
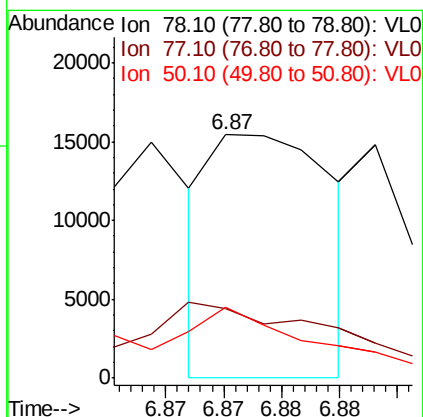
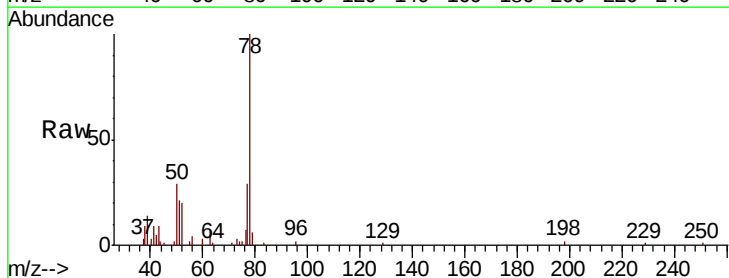
#35
Carbon Tetrachloride
Concen: 0.047 ppbv
RT: 7.00
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
AP-1
Acq: 24 May 2022 3:04

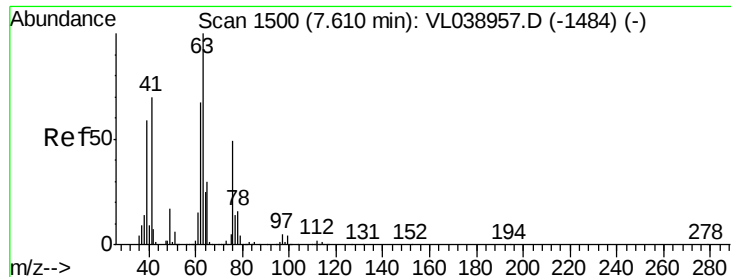
Tot Ion:117 Resp: 9535
Ion Ratio Lower Upper
117 100
119 67.0 75.2 112.8#
121 26.3 24.6 37.0



#36
Benzene
Concen: 0.042 ppbv
RT: 6.87 min Scan# 1270
Delta R.T. -0.02 min
Lab File: VL039102.D
Acq: 24 May 2022 3:04

Tgt Ion: 78 Resp: 11154
Ion Ratio Lower Upper
78 100
77 35.5 18.6 28.0#
50 72.4 15.6 23.4#





#39

1,2-Dichloropropane

Concen: 7.148 ppbv

RT: 7.16 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 May 2022 3:04

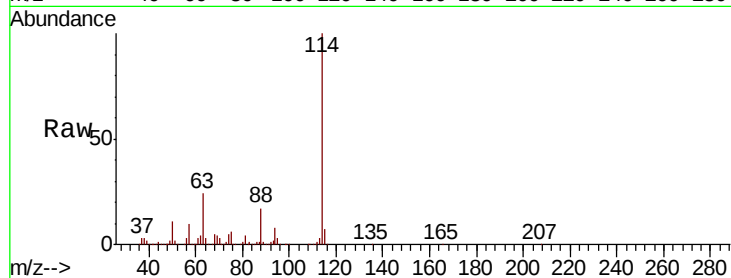
Tot Ion: 63 Resp: 731503

Ion Ratio Lower Upper

63 100

41 0.0 55.9 83.9#

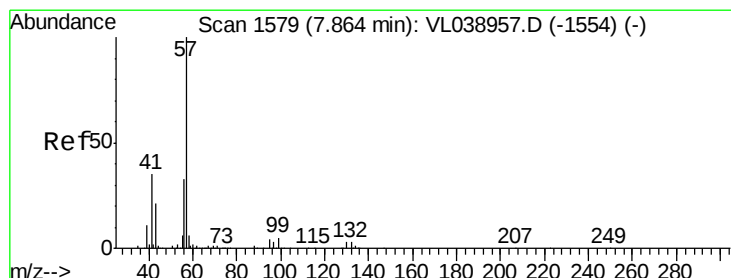
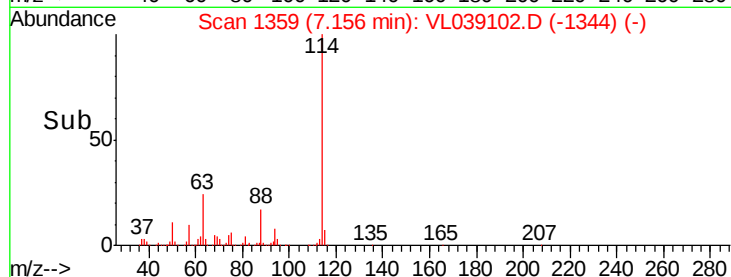
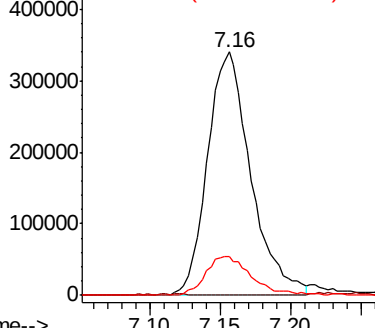
62 16.1 53.8 80.6#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.068 ppbv

RT: 7.85 min Scan# 1574

Delta R.T. -0.02 min

Lab File: VL039102.D

Acq: 24 May 2022 3:04

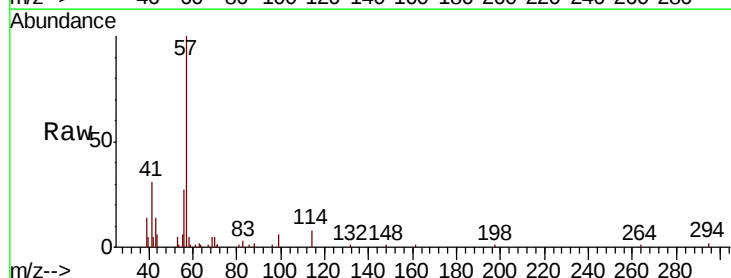
Tgt Ion: 57 Resp: 31200

Ion Ratio Lower Upper

57 100

41 61.1 26.3 39.5#

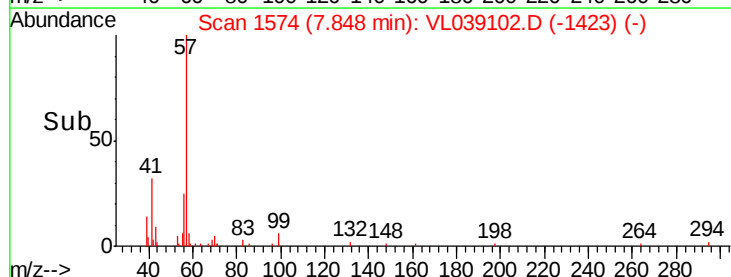
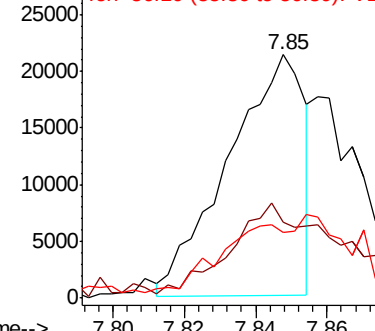
56 0.0 24.6 37.0#

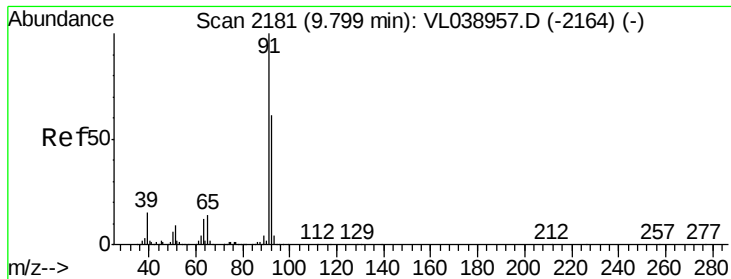


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.553 ppbv

RT: 9.79 Instrument: MSVOA_1

Delta R.T. AP-1

Lab File: ClientSampleId:

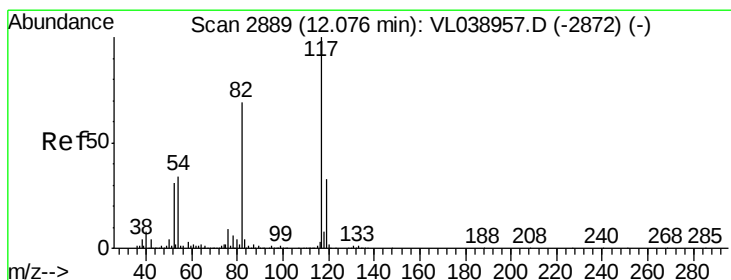
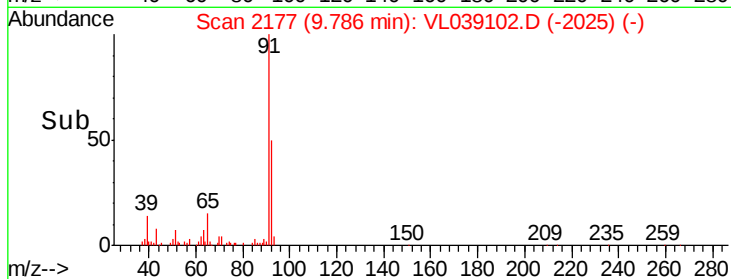
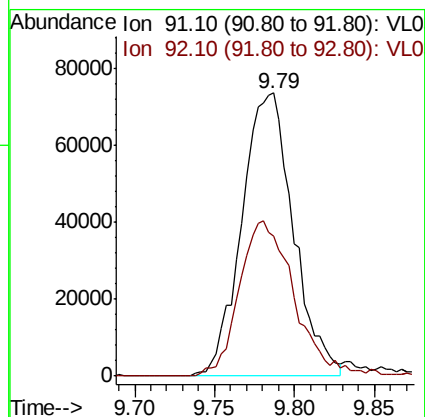
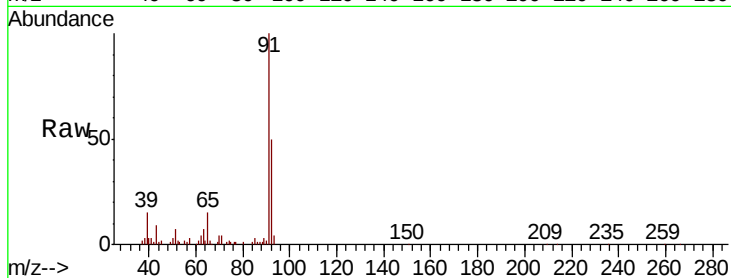
Acq: 24 May 2022 3:04

Tot Ion: 91 Resp: 162971

Ion Ratio Lower Upper

91 100

92 58.9 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: VL039102.D

Acq: 24 May 2022 3:04

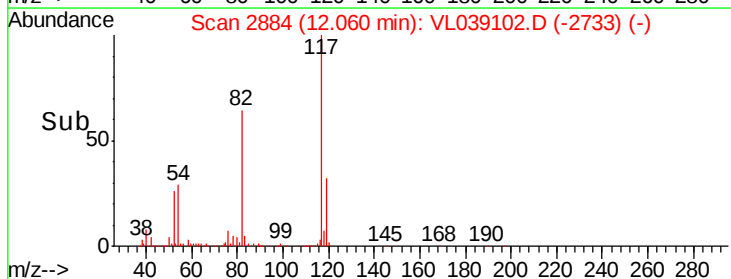
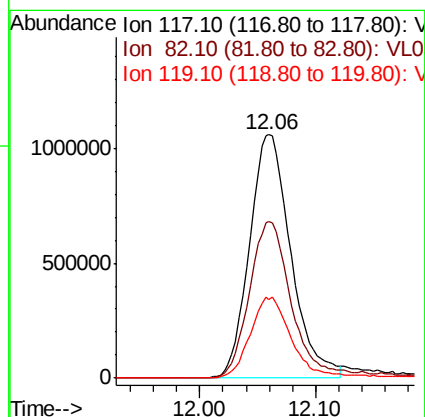
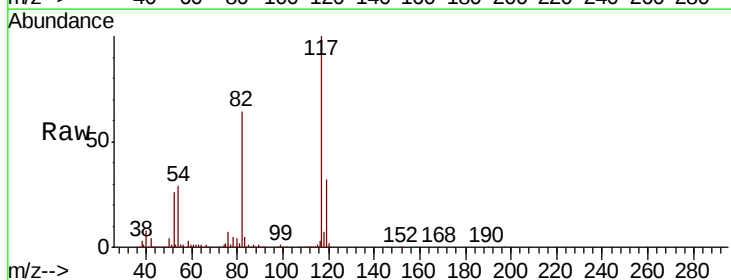
Tgt Ion: 117 Resp: 2632959

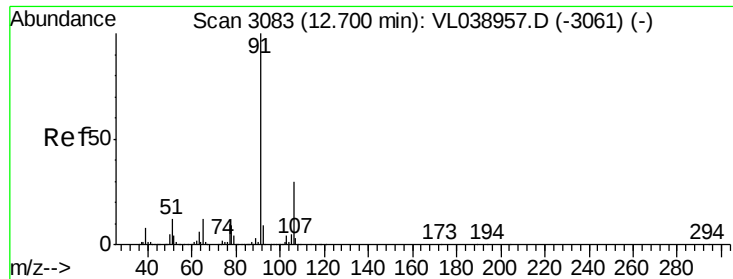
Ion Ratio Lower Upper

117 100

82 68.6 57.0 85.6

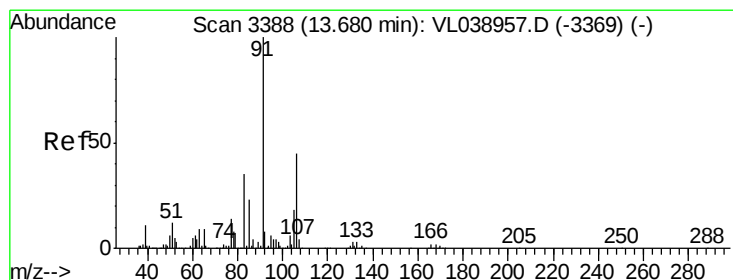
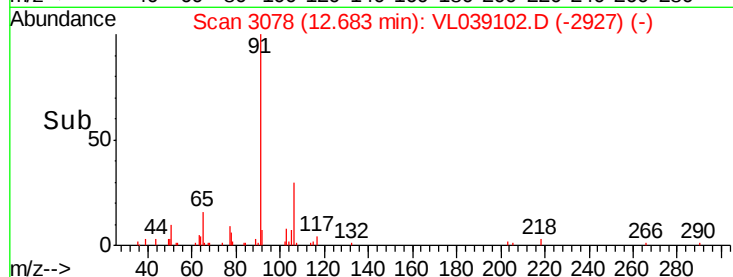
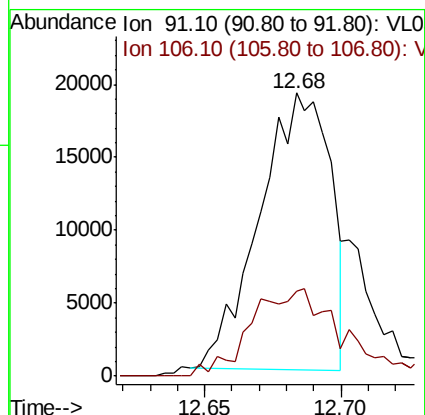
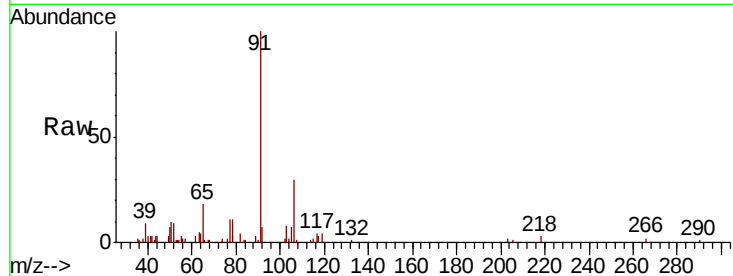
119 34.1 27.2 40.8





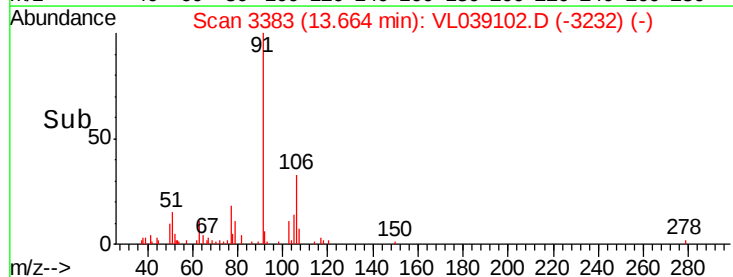
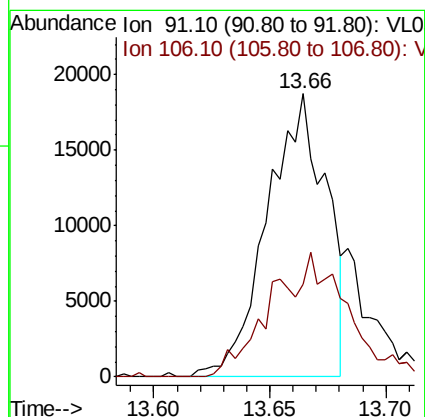
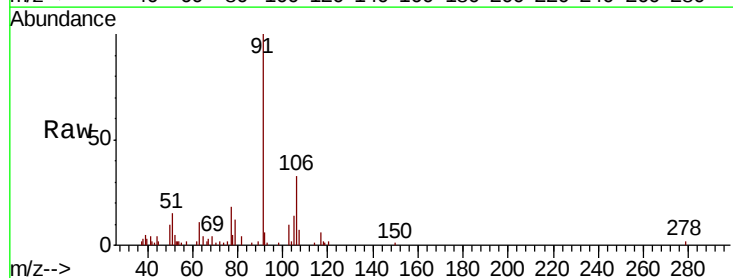
#58
Ethyl Benzene
Concen: 0.090 ppbv
RT: 12.68 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 24 May 2022 3:04

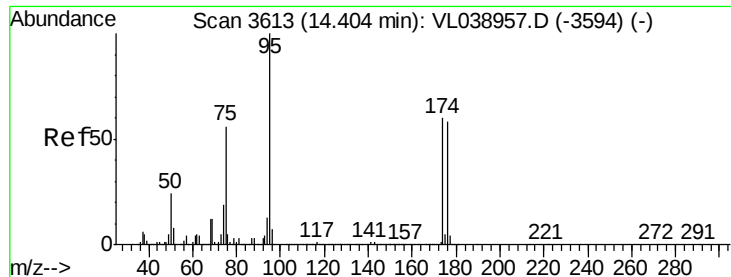
Tot Ion: 91 Resp: 34153
Ion Ratio Lower Upper
91 100
106 30.8 24.2 36.4



#60
o-Xylene
Concen: 0.108 ppbv
RT: 13.66 min Scan# 3383
Delta R.T. -0.02 min
Lab File: VL039102.D
Acq: 24 May 2022 3:04

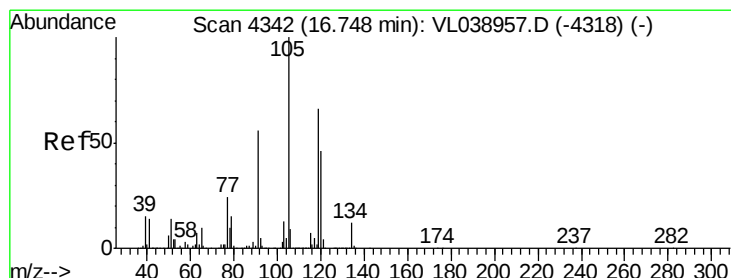
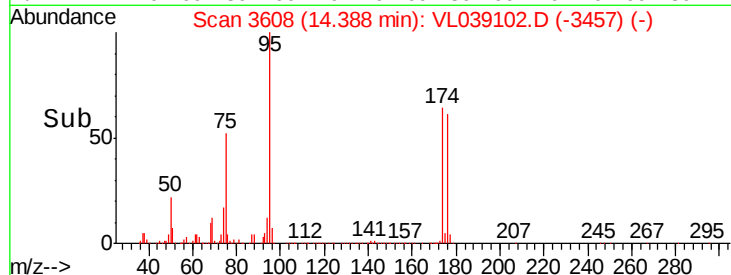
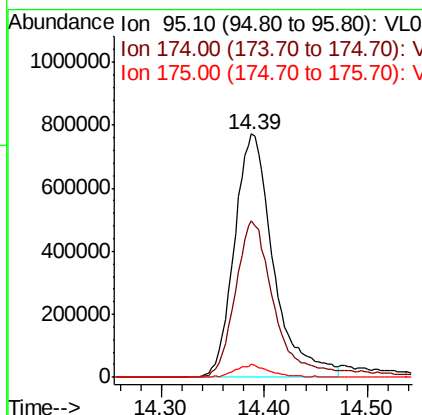
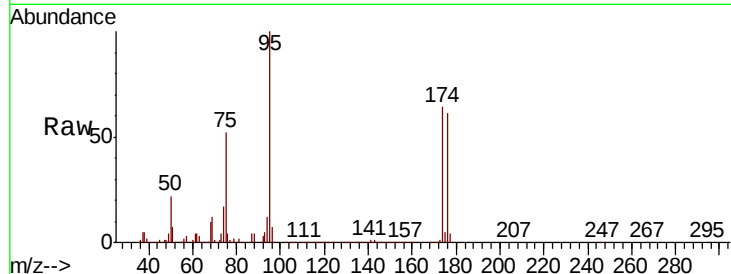
Tgt Ion: 91 Resp: 32987
Ion Ratio Lower Upper
91 100
106 57.6 22.2 66.6





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.782 ppbv
 RT: 14.39 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampled :
 AP-1
 Acq: 24 May 2022 3:04

Tot Ion: 95 Resp: 2039629
 Ion Ratio Lower Upper
 95 100
 174 67.8 50.8 76.2
 175 4.7 3.8 5.6



#74
 1,2,4-Trimethylbenzene
 Concen: 0.072 ppbv
 RT: 16.73 min Scan# 4338
 Delta R.T. -0.01 min
 Lab File: VL039102.D
 Acq: 24 May 2022 3:04

Tgt Ion: 105 Resp: 24600
 Ion Ratio Lower Upper
 105 100
 120 43.4 36.9 55.3
 91 11.9 45.0 67.4#
 77 20.3 19.2 28.8

