

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062722\
 Data File : VL039383.D
 Acq On : 28 Jun 2022 7:55
 Operator : SY/AP
 Sample : N3508-03 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-9-20220624

Quant Time: Jun 28 08:46:36 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL053122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jun 01 01:22:18 2022
 QLast Update : Wed Jun 01 01:22:18 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1017445	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	2960439	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	2740459	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	1993730	8.80	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	88.00%

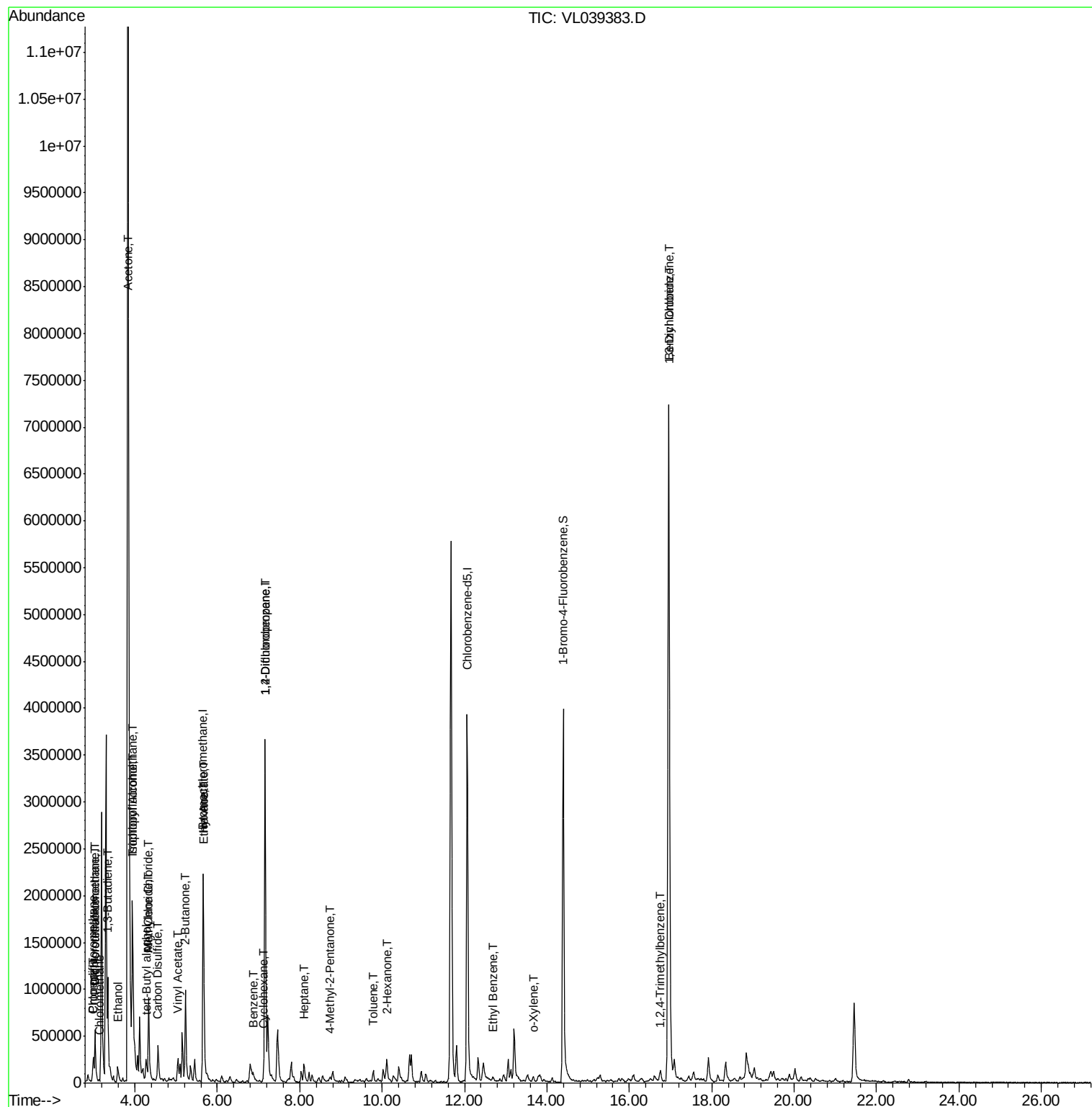
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	474489	2.655	ppbv 97
3) Chlorodifluoromethane	2.98	51	123326	0.953	ppbv 97
4) Chloromethane	3.12	50	5621	0.085	ppbv 88
8) Dichlorotetrafluoroethane	3.03	85	474489	2.905	ppbv # 15
9) Propene	2.99	41	113543	2.011	ppbv 95
10) Heptane	8.10	43	70659	0.537	ppbv 86
11) Trichlorofluoromethane	3.94	101	350845	2.169	ppbv 97
13) Ethanol	3.59	45	218274	70.904	ppbv # 100
15) Acetone	3.83	43	17482373	164.951	ppbv # 82
16) 1,3-Butadiene	3.34	39	192330	3.376	ppbv # 8
17) tert-Butyl alcohol	4.27	59	175218	2.131	ppbv 99
19) Isopropyl Alcohol	3.94	45	1720047	34.602	ppbv # 93
20) Methylene Chloride	4.33	84	347805	7.787	ppbv 89
21) Allyl Chloride	4.34	41	10441	0.146	ppbv # 29
23) Vinyl Acetate	5.04	43	178450	2.035	ppbv # 59
25) Ethyl Acetate	5.67	43	197538	0.827	ppbv # 77
26) Hexane	5.67	57	269068	2.563	ppbv # 34
27) Carbon Disulfide	4.54	76	74177	0.682	ppbv # 92
30) Cyclohexane	7.11	84	6108	0.069	ppbv # 1
34) 2-Butanone	5.22	43	1233332	7.668	ppbv 99
36) Benzene	6.88	78	34632	0.144	ppbv 95
39) 1,2-Dichloropropane	7.16	63	718213	7.513	ppbv # 24
50) 4-Methyl-2-Pentanone	8.72	43	9177	0.038	ppbv # 39
51) 2-Hexanone	10.11	43	197283	1.053	ppbv # 96
53) Toluene	9.78	91	55287	0.200	ppbv 98
58) Ethyl Benzene	12.69	91	24403	0.065	ppbv 94
60) o-Xylene	13.67	91	37953	0.122	ppbv 99
66) Benzyl Chloride	16.95	91	1680	0.030	ppbv # 1
74) 1,2,4-Trimethylbenzene	16.73	105	17745	0.048	ppbv # 57
75) 1,3-Dichlorobenzene	16.97	146	97702	0.468	ppbv # 54

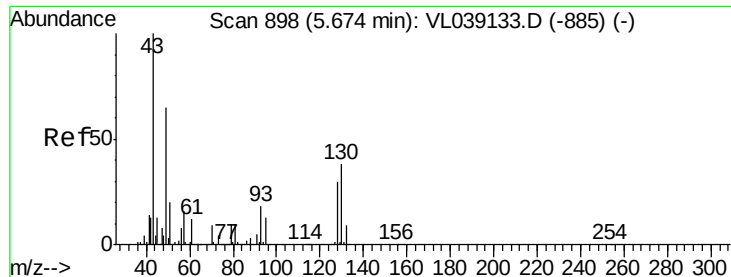
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data File : VL039383.D
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QLast Update : Wed Jun 01 01:22:18 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 28 Jun 2022 7:55

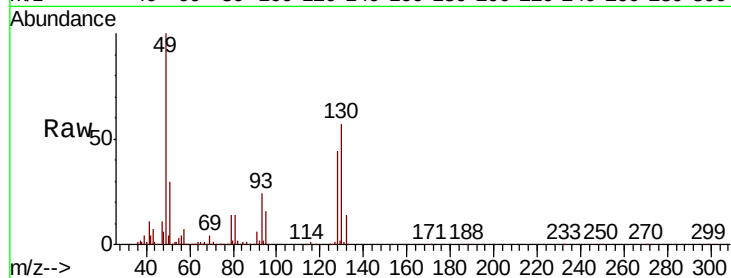
Tot Ion: 49 Resp: 1017445

Ion Ratio Lower Upper

49 100

128 49.5 24.7 74.1

130 62.7 31.4 94.0



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

5.65

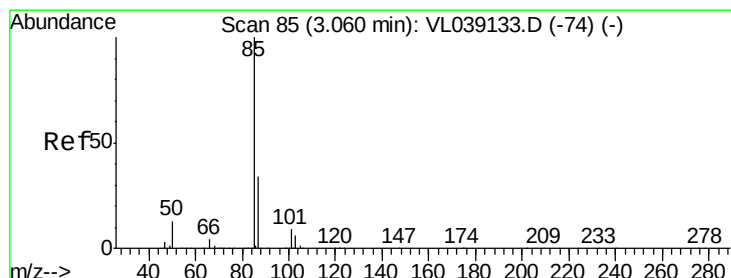
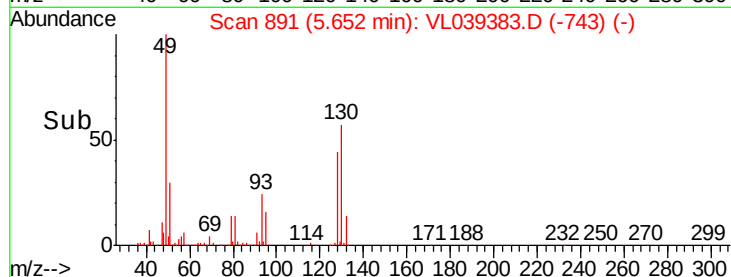
600000

400000

200000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 2.655 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.03 min

Lab File: VL039383.D

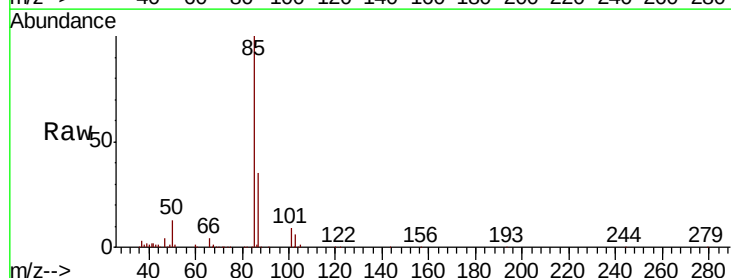
Acq: 28 Jun 2022 7:55

Tgt Ion: 85 Resp: 474489

Ion Ratio Lower Upper

85 100

87 35.1 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.03

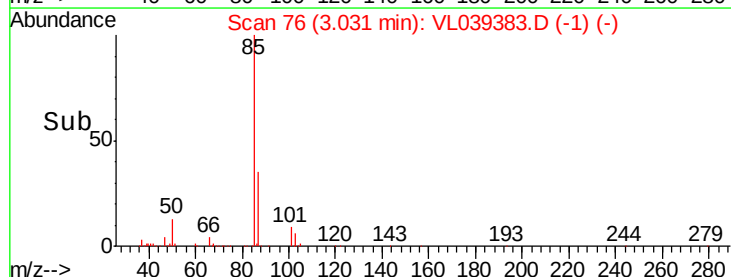
300000

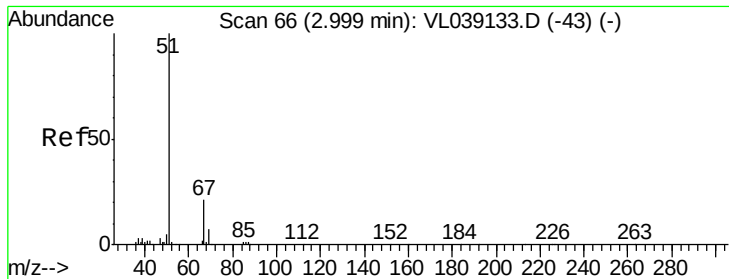
200000

100000

0

Time-->





#3

Chlorodifluoromethane

Concen: 0.953 ppbv

RT: 2.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

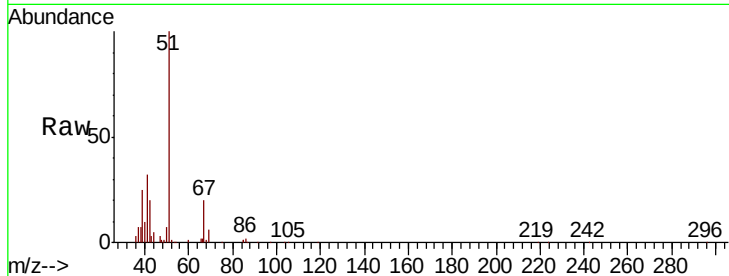
Acq: 28 Jun 2022 7:55 SV-9-20220624

Tot Ion: 51 Resp: 123326

Ion Ratio Lower Upper

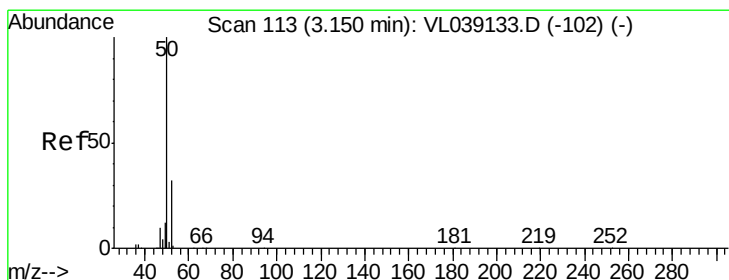
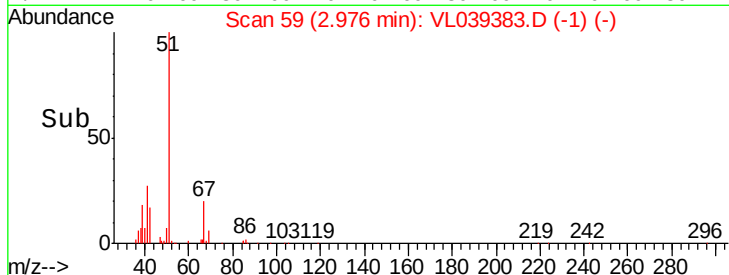
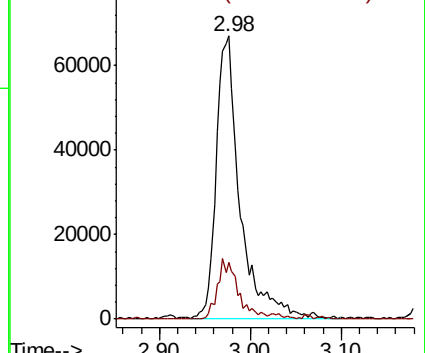
51 100

67 19.1 16.2 24.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.085 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.03 min

Lab File: VL039383.D

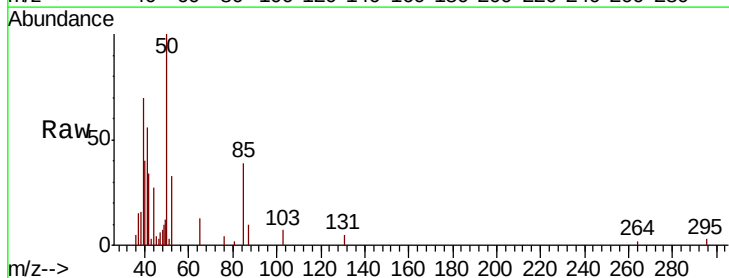
Acq: 28 Jun 2022 7:55

Tgt Ion: 50 Resp: 5621

Ion Ratio Lower Upper

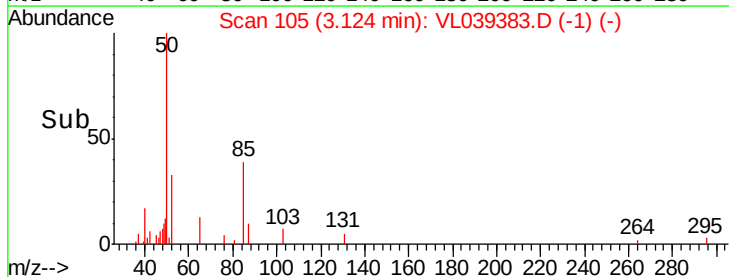
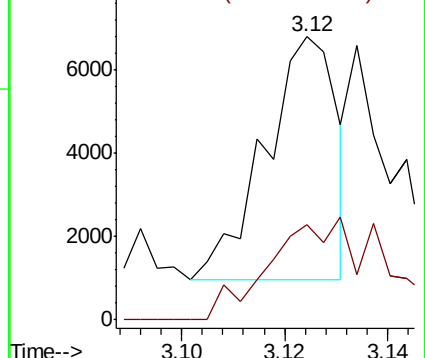
50 100

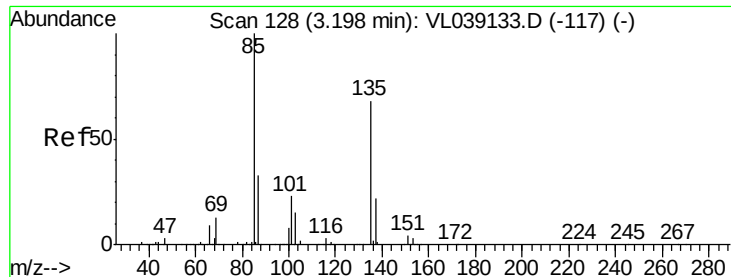
52 38.9 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#8

Dichlorotetrafluoroethane

Concen: 2.905 ppbv

RT: 3.03 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

SV-9-20220624

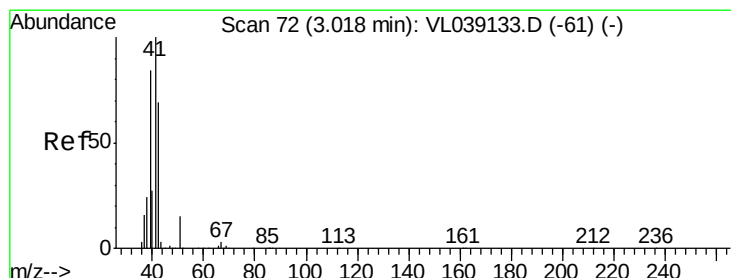
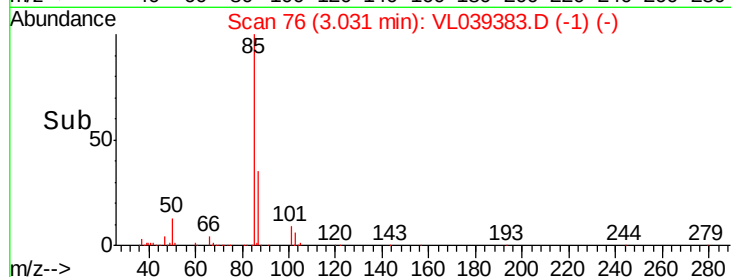
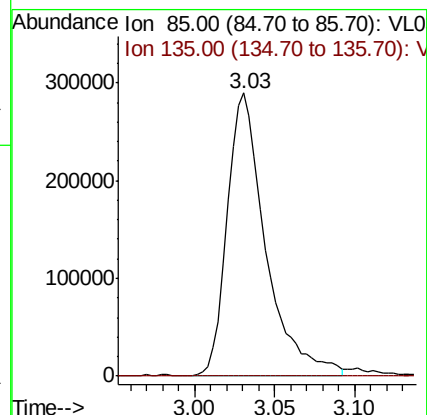
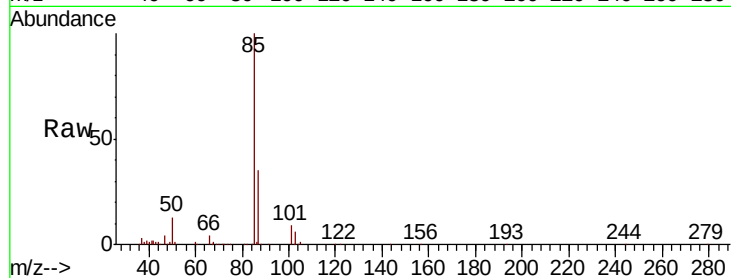
Acq: 28 Jun 2022 7:55

Tot Ion: 85 Resp: 474489

Ion Ratio Lower Upper

85 100

135 0.0 55.0 82.4#



#9

Propene

Concen: 2.011 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.03 min

Lab File: VL039383.D

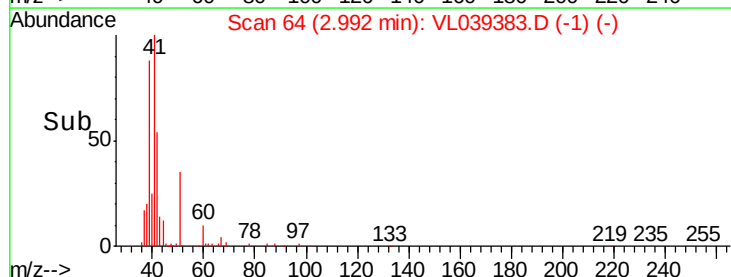
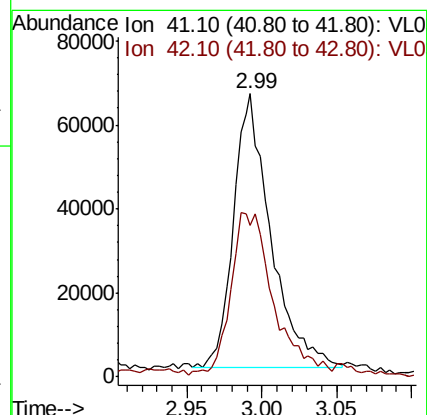
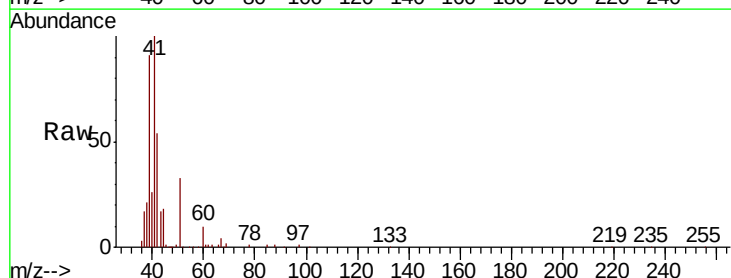
Acq: 28 Jun 2022 7:55

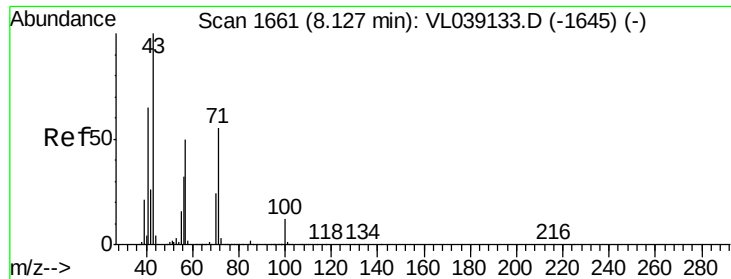
Tgt Ion: 41 Resp: 113543

Ion Ratio Lower Upper

41 100

42 73.5 55.4 83.2





#10

Heptane

Concen: 0.537 ppbv

RT: 8.10 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

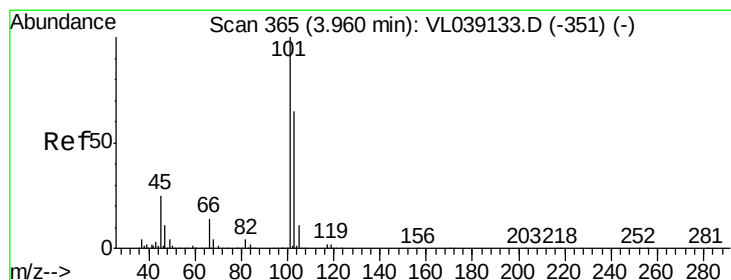
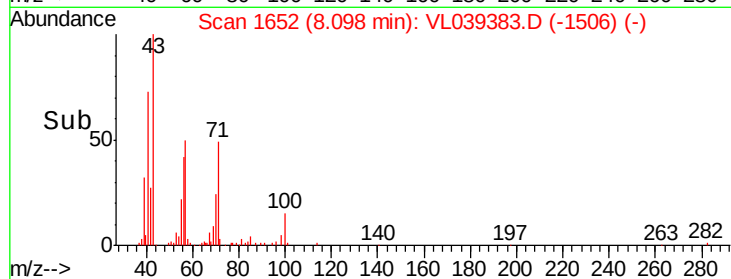
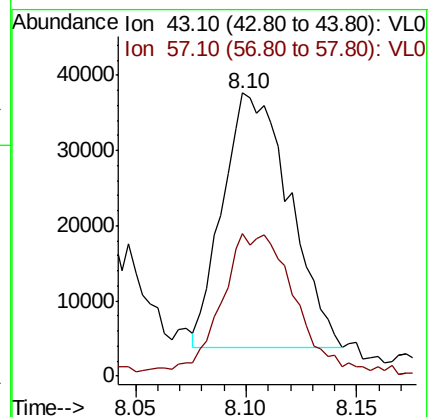
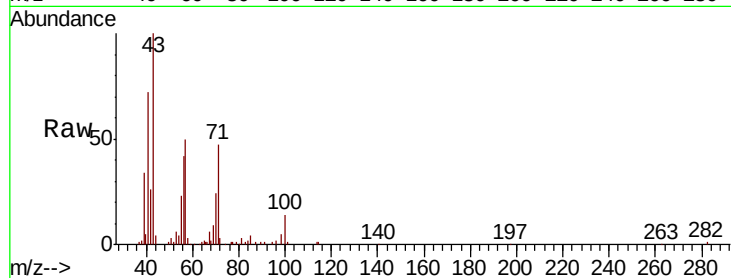
Acq: 28 Jun 2022 7:55 SV-9-20220624

Tot Ion: 43 Resp: 70659

Ion Ratio Lower Upper

43 100

57 61.8 41.4 62.2



#11

Trichlorofluoromethane

Concen: 2.169 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.02 min

Lab File: VL039383.D

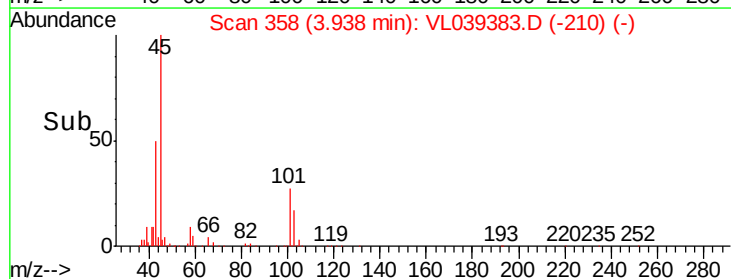
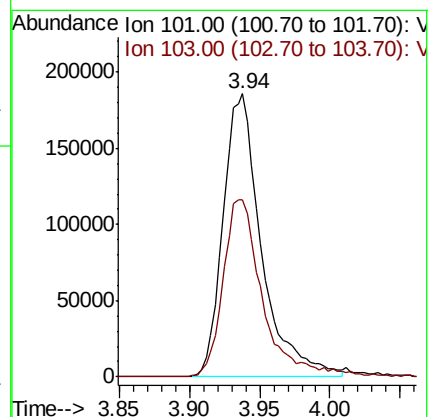
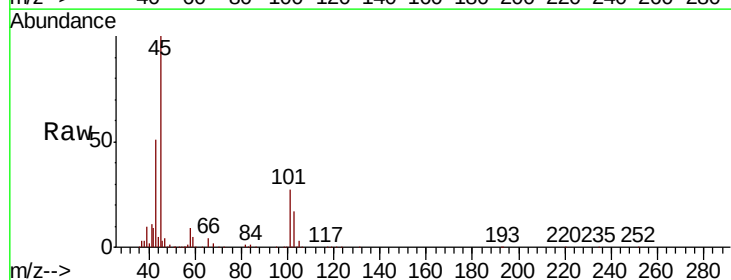
Acq: 28 Jun 2022 7:55

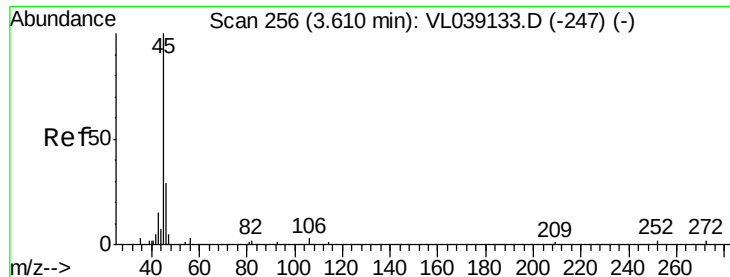
Tgt Ion: 101 Resp: 350845

Ion Ratio Lower Upper

101 100

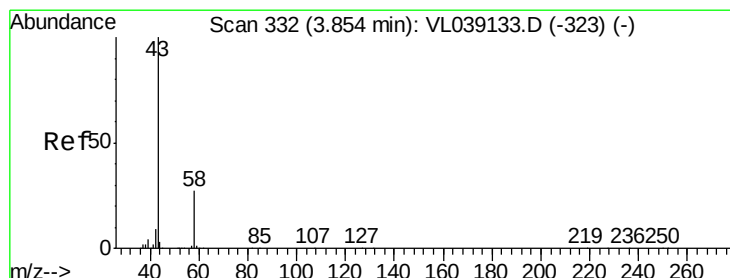
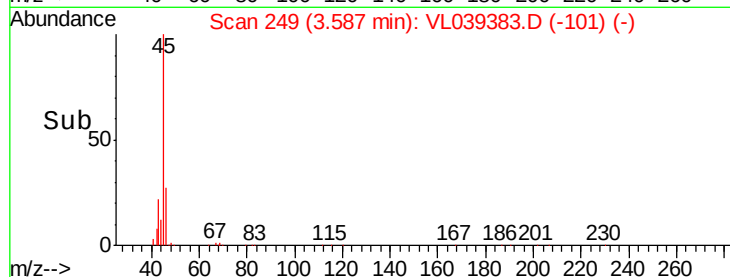
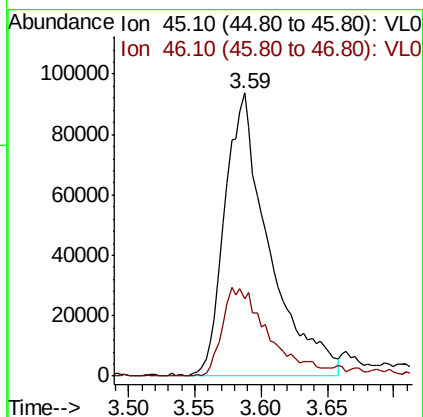
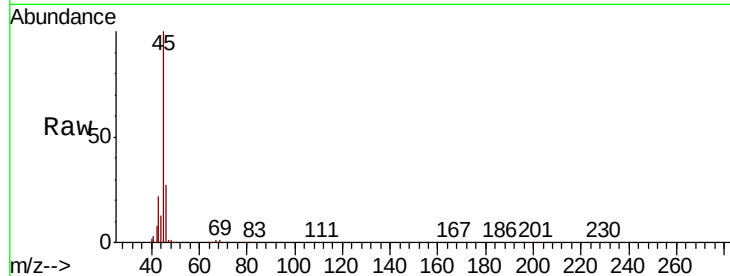
103 61.9 51.7 77.5





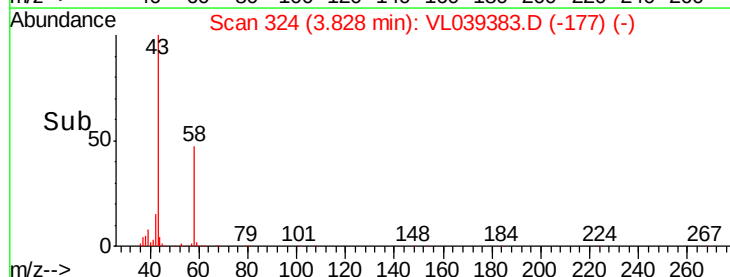
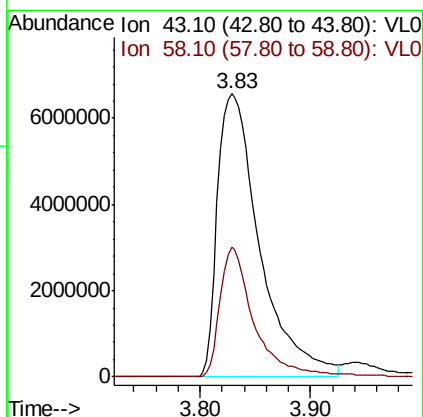
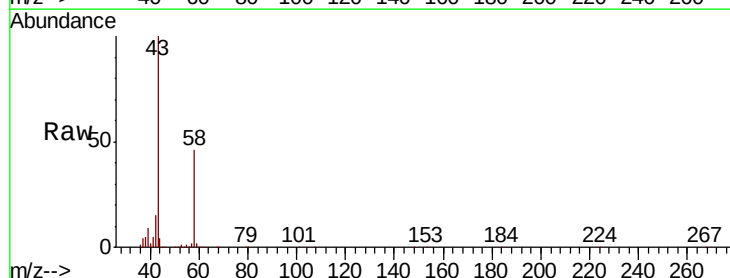
#13
 Ethanol
 Concen: 70.904 ppbv
 RT: 3.59
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-9-20220624
 Acq: 28 Jun 2022 7:55

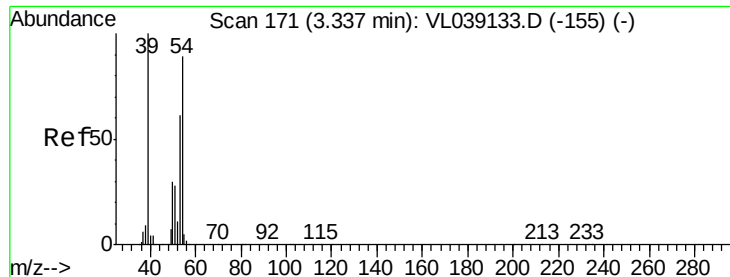
Tot Ion: 45 Resp: 218274
 Ion Ratio Lower Upper
 45 100
 46 34.3 0.0 0.0#



#15
 Acetone
 Concen: 164.951 ppbv
 RT: 3.83 min Scan# 324
 Delta R.T. -0.03 min
 Lab File: VL039383.D
 Acq: 28 Jun 2022 7:55

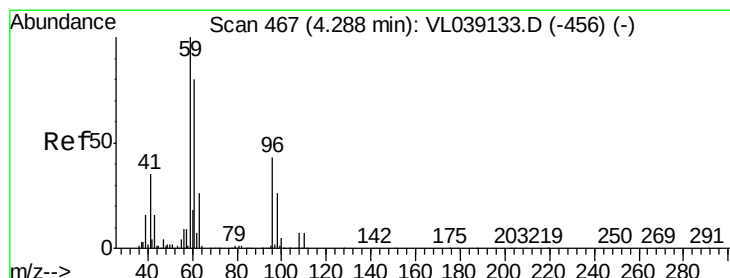
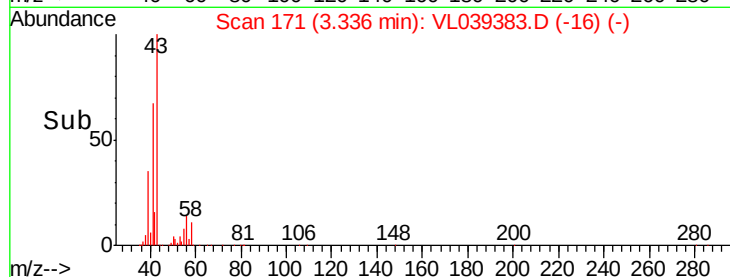
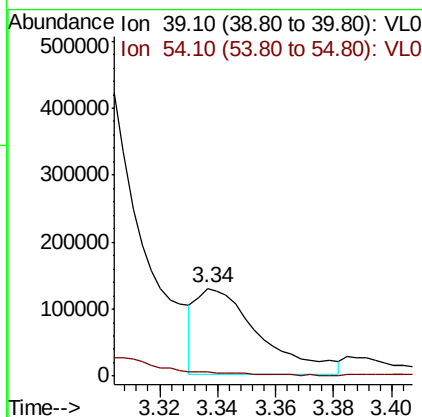
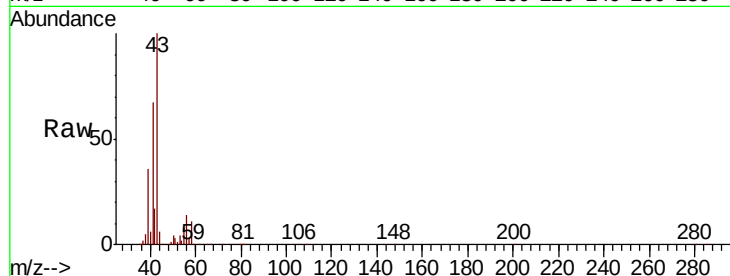
Tgt Ion: 43 Resp: 17482373
 Ion Ratio Lower Upper
 43 100
 58 37.7 22.5 33.7#





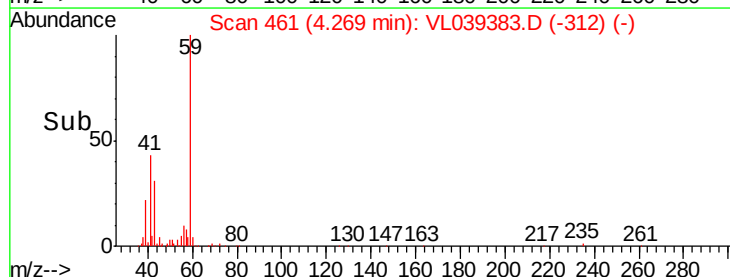
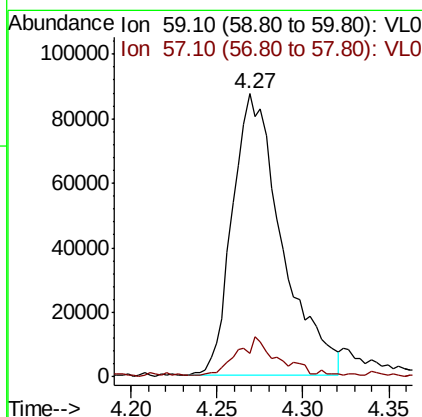
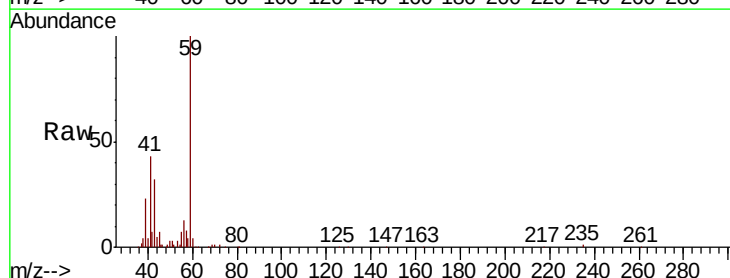
#16
1,3-Butadiene
Concen: 3.376 ppbv
RT: 3.34
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Jun 2022 7:55

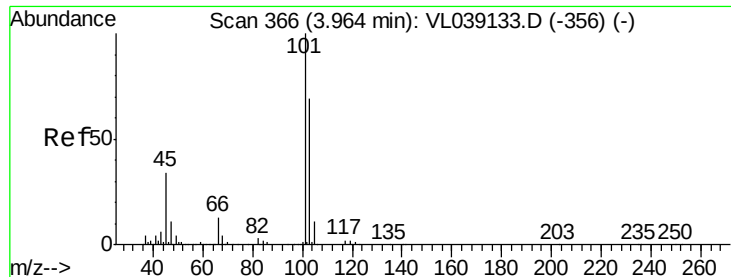
Tot Ion: 39 Resp: 192330
Ion Ratio Lower Upper
39 100
54 0.0 65.8 98.6#



#17
tert-Butyl alcohol
Concen: 2.131 ppbv
RT: 4.27 min Scan# 461
Delta R.T. -0.02 min
Lab File: VL039383.D
Acq: 28 Jun 2022 7:55

Tgt Ion: 59 Resp: 175218
Ion Ratio Lower Upper
59 100
57 11.7 9.1 13.7





#19

Isopropyl Alcohol

Concen: 34.602 ppbv

RT: 3.94 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

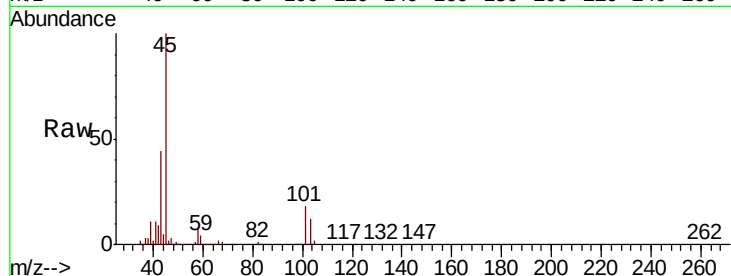
Acq: 28 Jun 2022 7:55 SV-9-20220624

Tot Ion: 45 Resp: 1720047

Ion Ratio Lower Upper

45 100

58 0.0 1.8 2.8#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

2500000

2000000

1500000

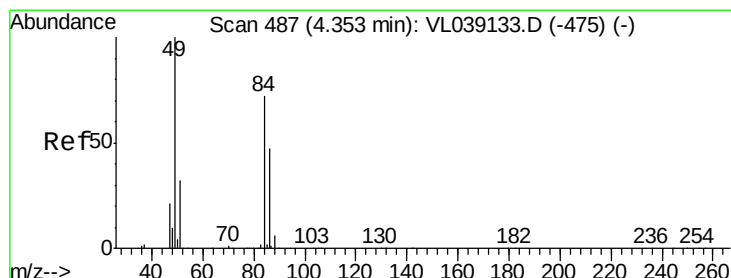
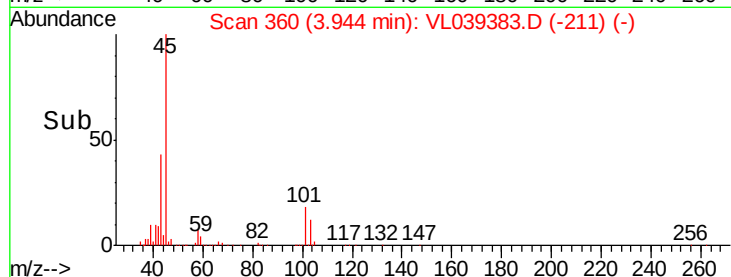
1000000

500000

0

3.90 3.94 4.00

Time-->



#20

Methylene Chloride

Concen: 7.787 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.02 min

Lab File: VL039383.D

Acq: 28 Jun 2022 7:55

Tgt Ion: 84 Resp: 347805

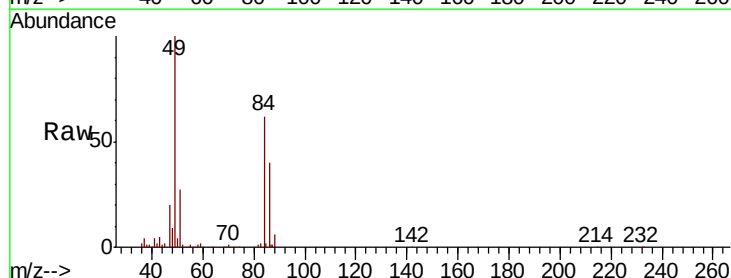
Ion Ratio Lower Upper

84 100

49 161.3 111.1 166.7

51 43.8 35.3 52.9

86 65.2 51.9 77.9



Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

400000

300000

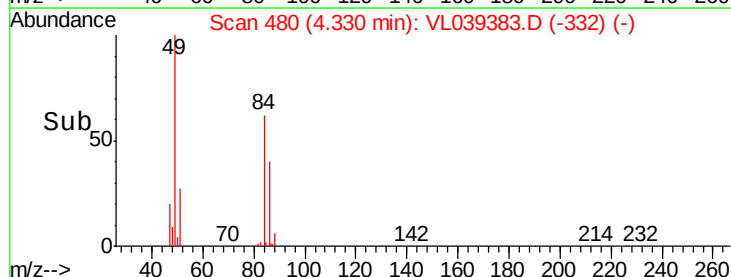
200000

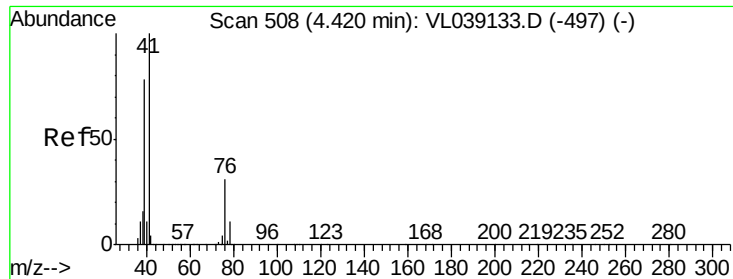
100000

0

4.30 4.33 4.40

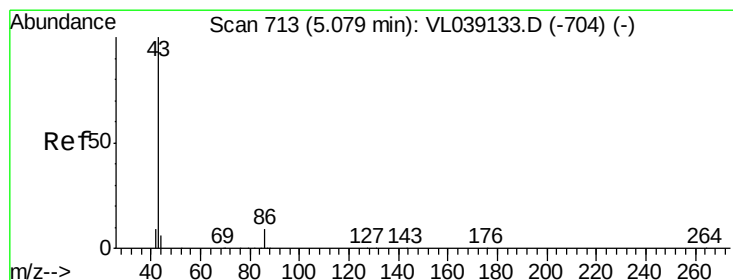
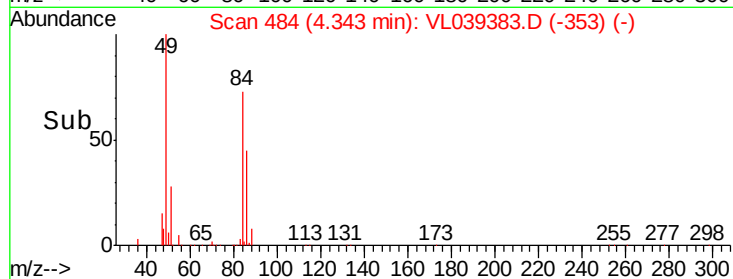
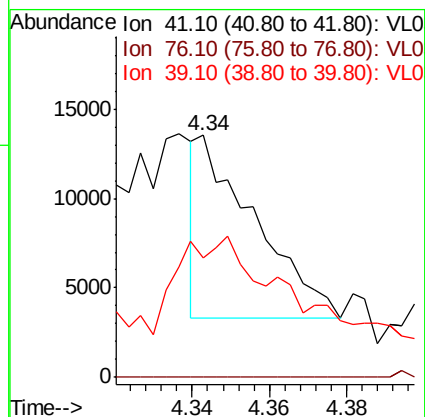
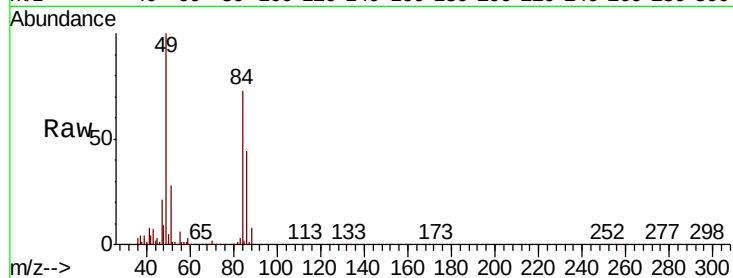
Time-->





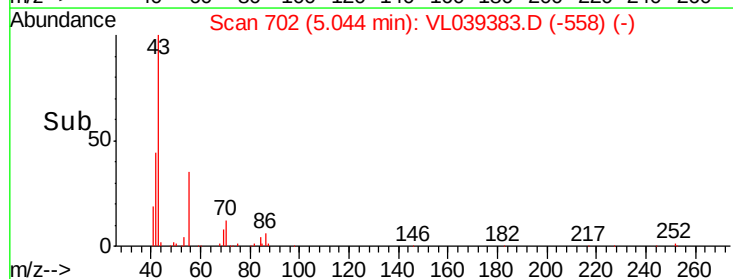
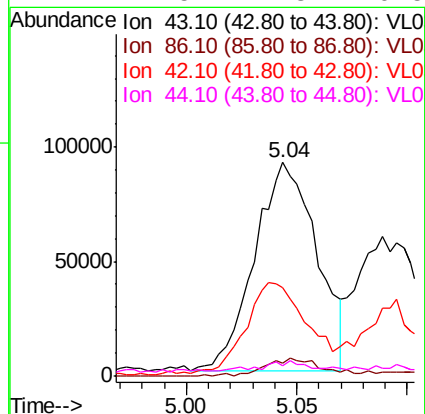
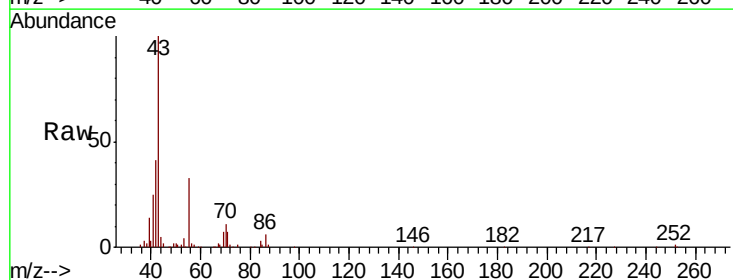
#21
 Allvl Chloride
 Concen: 0.146 ppbv
 RT: 4.34
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-9-20220624
 Acq: 28 Jun 2022 7:55

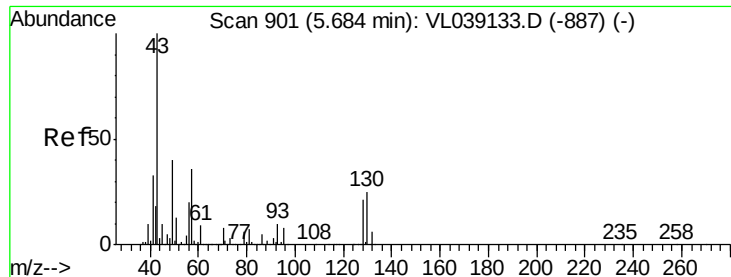
Tot Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.2	36.2#
39	145.1	62.2	93.2#



#23
 Vinyl Acetate
 Concen: 2.035 ppbv
 RT: 5.04 min Scan# 702
 Delta R.T. -0.04 min
 Lab File: VL039383.D
 Acq: 28 Jun 2022 7:55

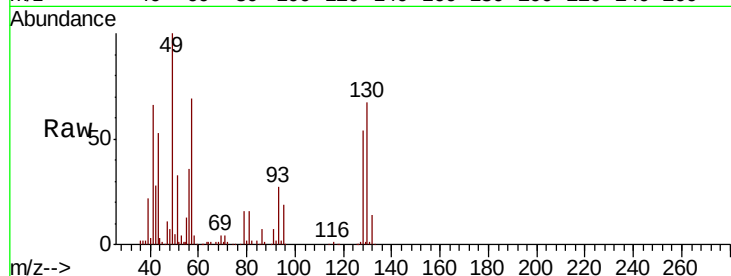
Tgt Ion	Ratio	Lower	Upper
43	100		
86	5.9	6.0	9.0#
42	41.1	8.2	12.4#
44	1.5	4.3	6.5#





#25
Ethyl Acetate
Concen: 0.827 ppbv
RT: 5.67 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Jun 2022 7:55

Tot Ion:	43	Resp:	197538
Ion	Ratio	Lower	Upper
43	100		
45	2.6	8.2	12.2#
61	0.3	8.4	12.6#
70	0.0	5.6	8.4#



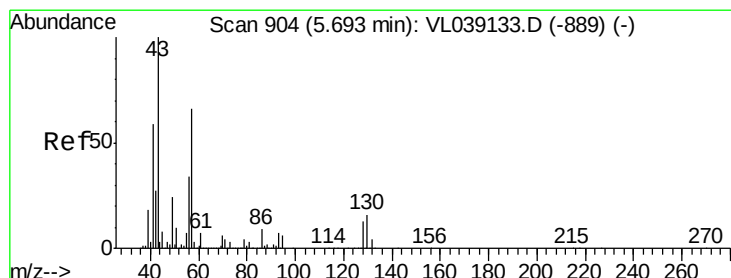
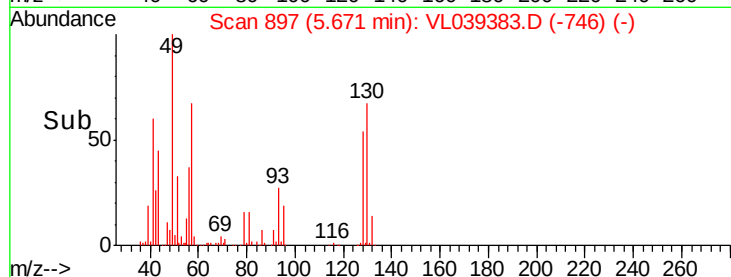
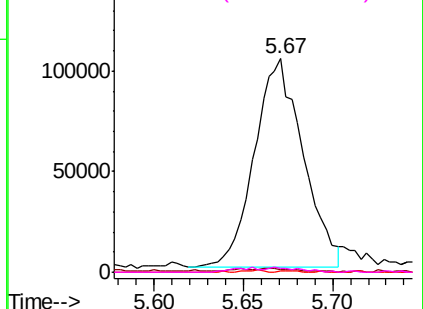
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

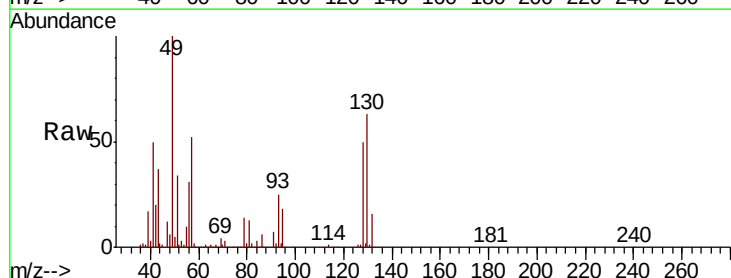
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26
Hexane
Concen: 2.563 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.03 min
Lab File: VL039383.D
Acq: 28 Jun 2022 7:55

Tgt Ion:	57	Resp:	269068
Ion	Ratio	Lower	Upper
57	100		
41	116.6	72.4	108.6#
43	79.4	187.0	280.6#
56	60.0	41.8	62.6



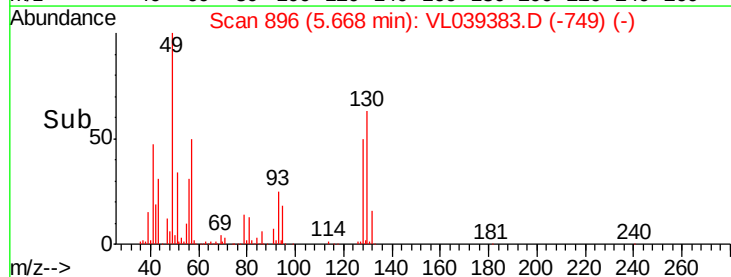
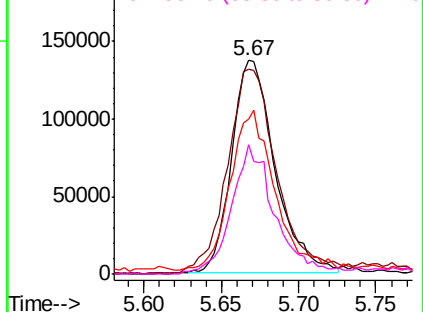
Abundance

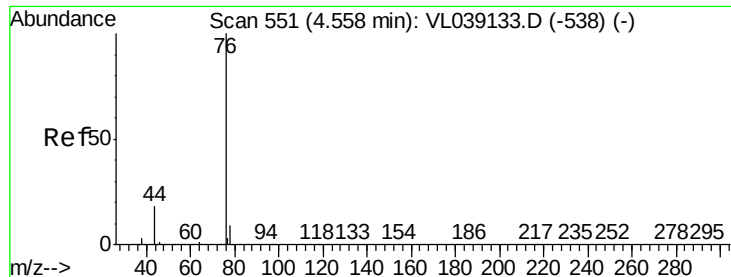
Ion 57.10 (56.80 to 57.80): VL0

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





#27

Carbon Disulfide

Concen: 0.682 ppbv

RT: 4.54 Instrument:

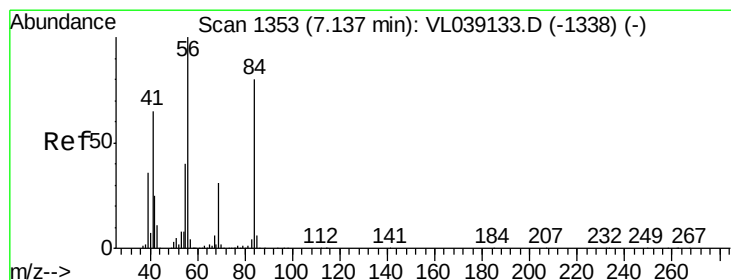
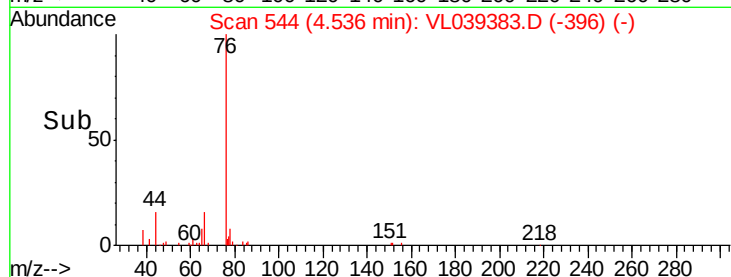
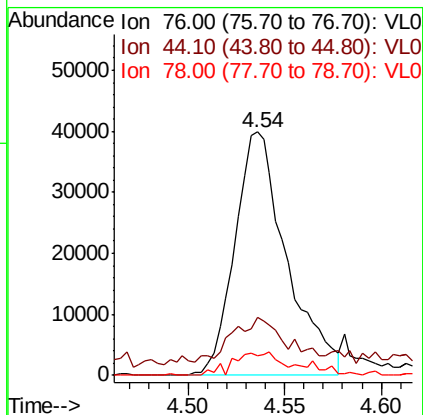
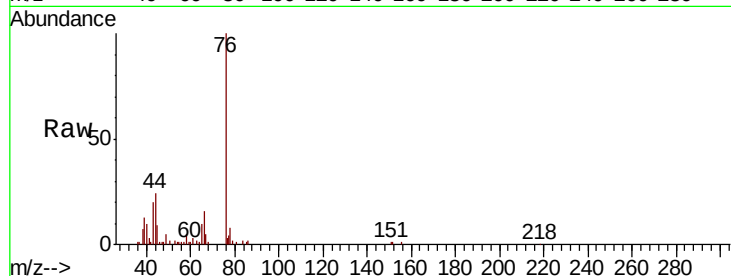
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Jun 2022 7:55 SV-9-20220624

Tot Ion: 76 Resp: 74177

Ion	Ratio	Lower	Upper
76	100		
44	22.3	14.4	21.6#
78	11.7	7.7	11.5#



#30

Cyclohexane

Concen: 0.069 ppbv

RT: 7.11 min Scan# 1346

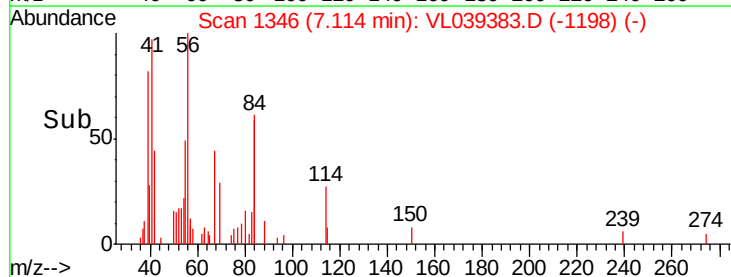
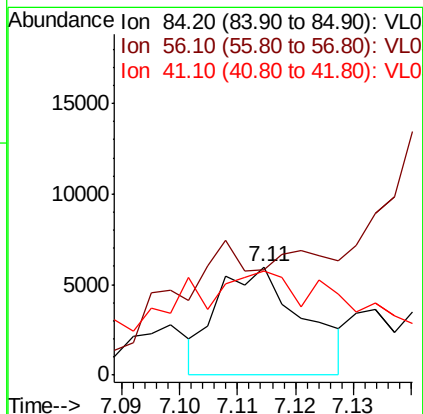
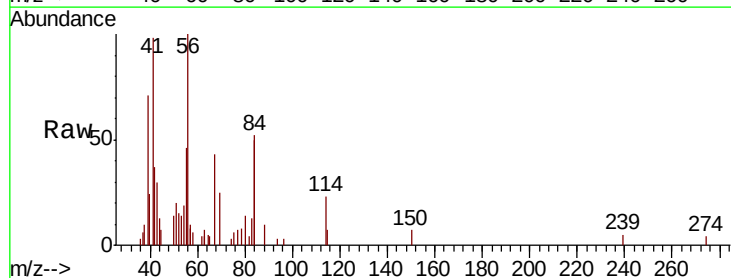
Delta R.T. -0.02 min

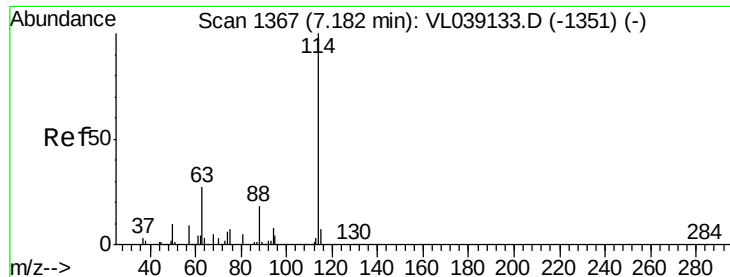
Lab File: VL039383.D

Acq: 28 Jun 2022 7:55

Tgt Ion: 84 Resp: 6108

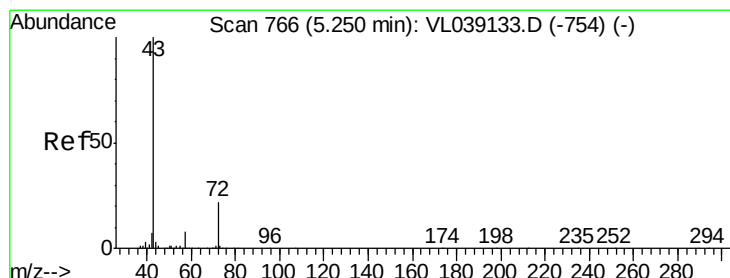
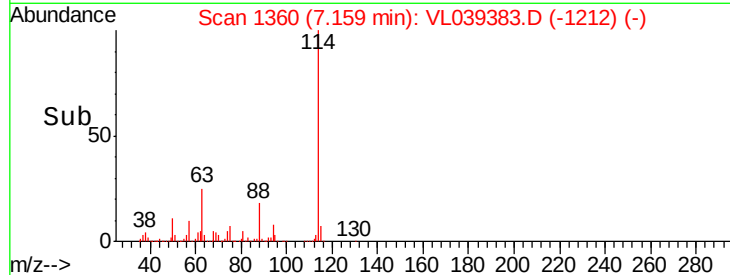
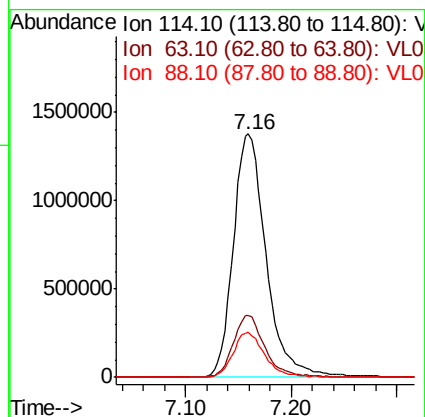
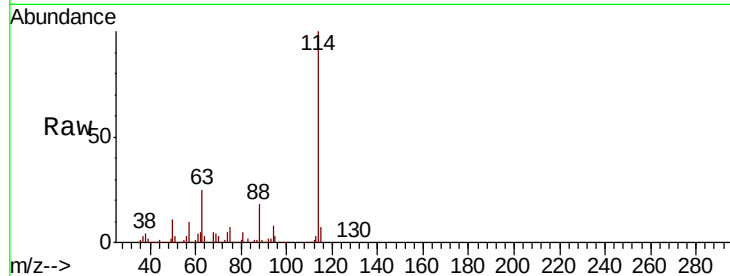
Ion	Ratio	Lower	Upper
84	100		
56	0.0	110.6	165.8#
41	203.7	68.9	103.3#





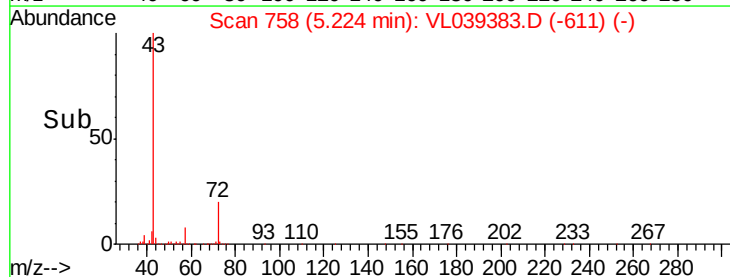
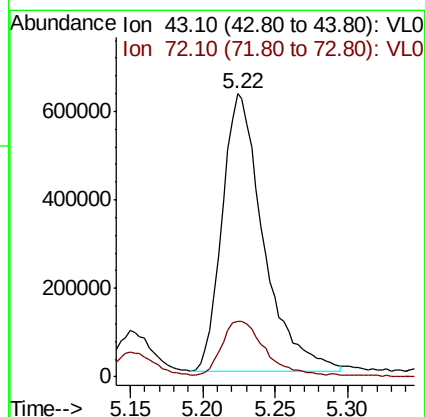
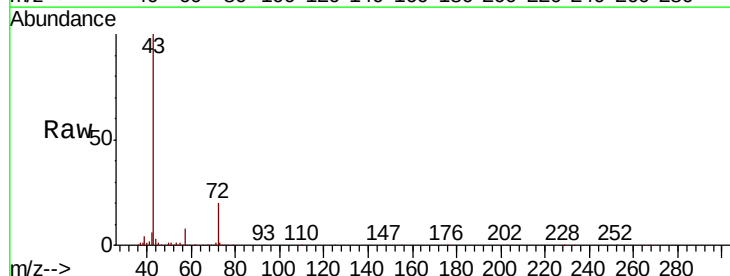
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 SV-9-20220624
 Acq: 28 Jun 2022 7:55

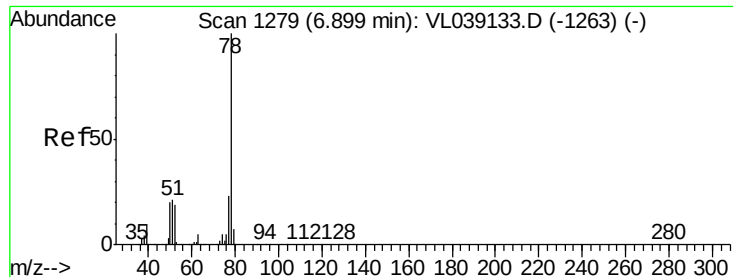
Tot Ion:114 Resp: 2960439
 Ion Ratio Lower Upper
 114 100
 63 25.0 21.7 32.5
 88 18.1 14.8 22.2



#34
 2-Butanone
 Concen: 7.668 ppbv
 RT: 5.22 min Scan# 758
 Delta R.T. -0.03 min
 Lab File: VL039383.D
 Acq: 28 Jun 2022 7:55

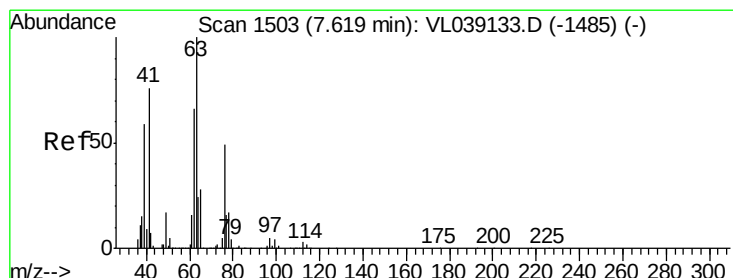
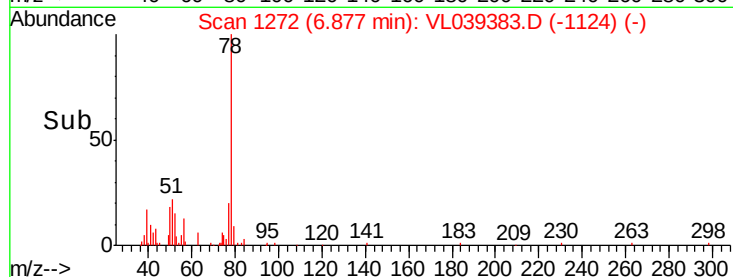
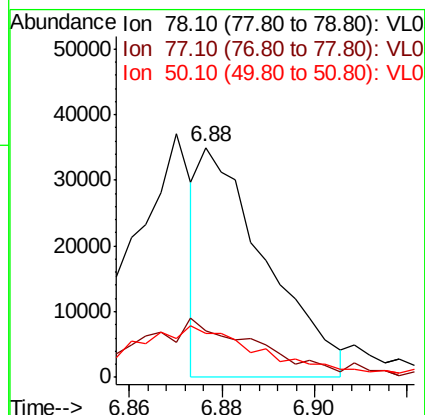
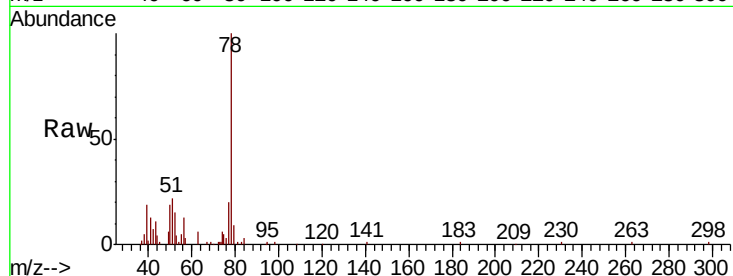
Tgt Ion: 43 Resp: 1233332
 Ion Ratio Lower Upper
 43 100
 72 22.2 18.2 27.2





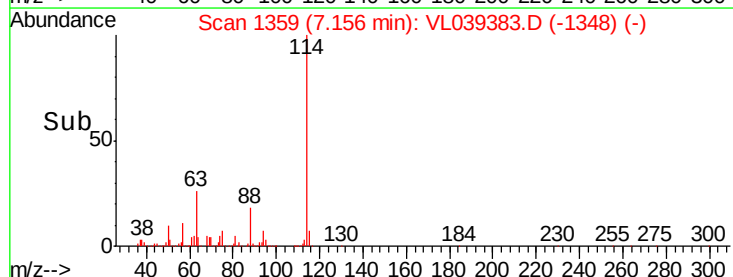
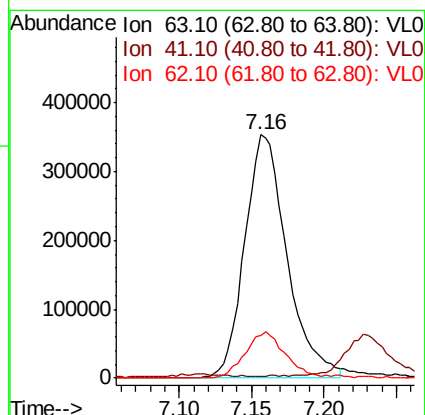
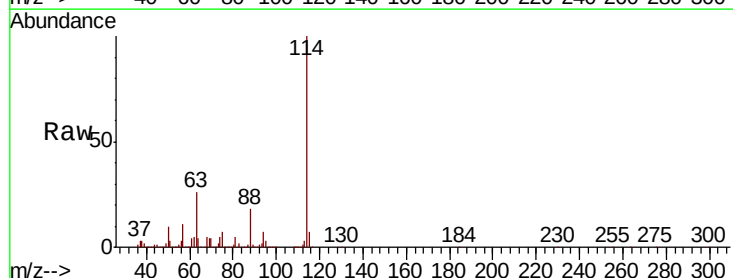
#36
Benzene
Concen: 0.144 ppbv
RT: 6.88
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-9-20220624
Acq: 28 Jun 2022 7:55

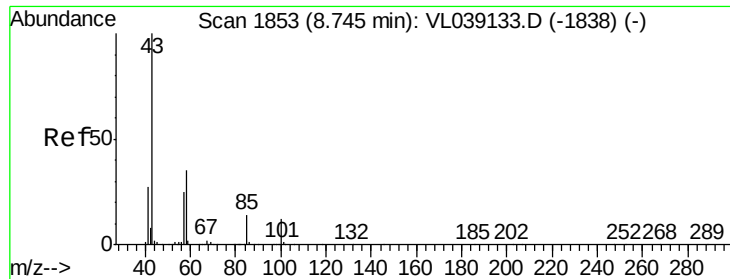
Tot Ion:	78	Resp:	34632
Ion	Ratio	Lower	Upper
78	100		
77	20.5	18.6	27.8
50	17.9	15.8	23.8



#39
1,2-Dichloropropane
Concen: 7.513 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.46 min
Lab File: VL039383.D
Acq: 28 Jun 2022 7:55

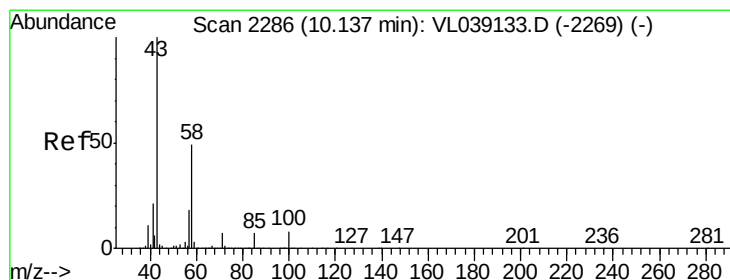
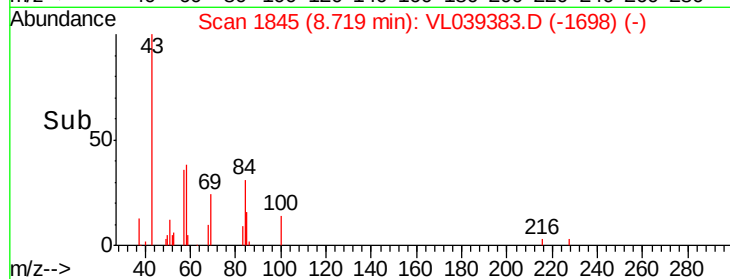
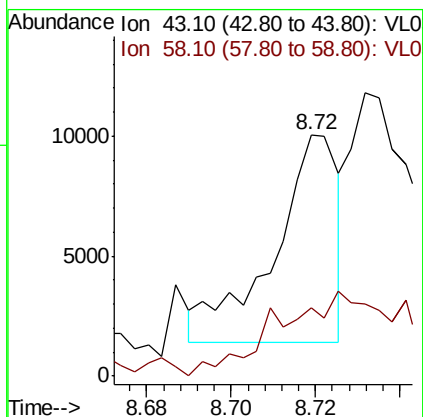
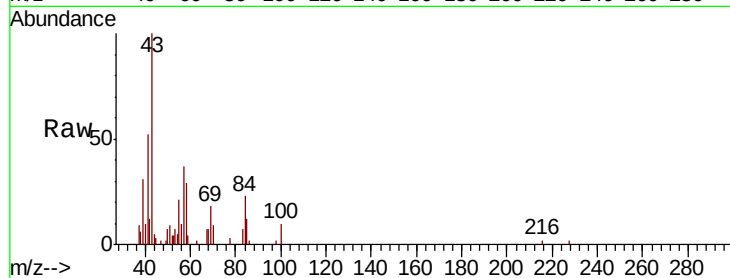
Tgt Ion:	63	Resp:	718213
Ion	Ratio	Lower	Upper
63	100		
41	0.0	60.8	91.2#
62	17.6	52.9	79.3#





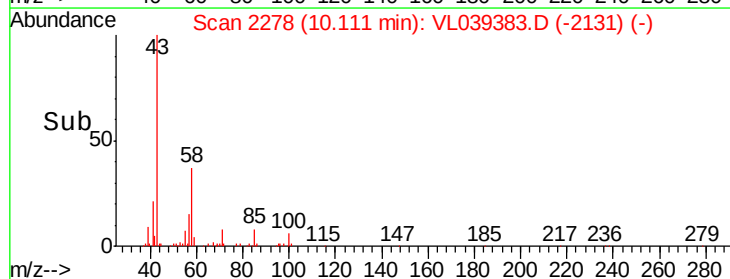
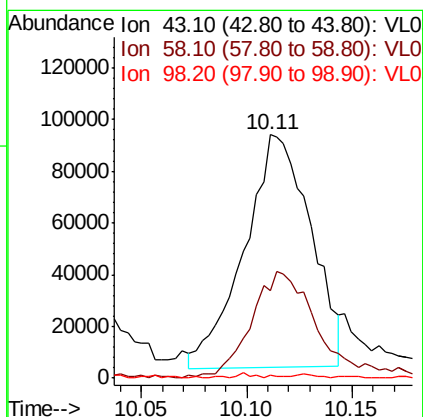
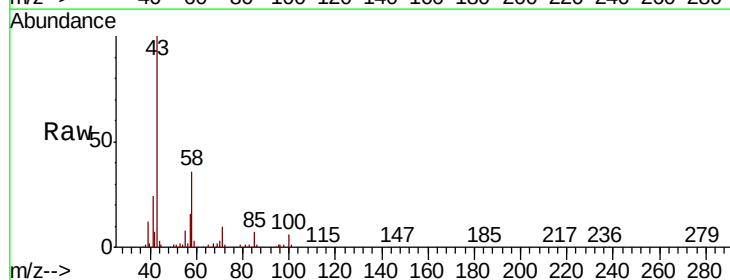
#50
 4-Methyl-2-Pentanone
 Concen: 0.038 ppbv
 RT: 8.72
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-9-20220624
 Acq: 28 Jun 2022 7:55

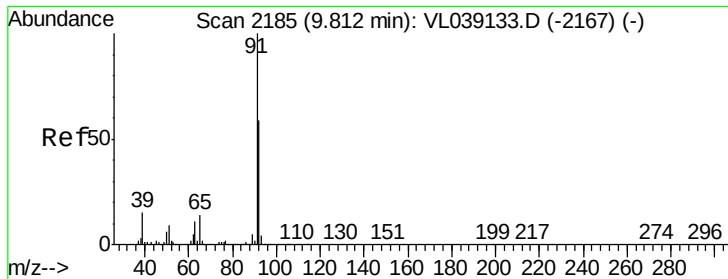
Tot Ion: 43 Resp: 9177
 Ion Ratio Lower Upper
 43 100
 58 0.0 28.7 43.1#



#51
 2-Hexanone
 Concen: 1.053 ppbv
 RT: 10.11 min Scan# 2278
 Delta R.T. -0.03 min
 Lab File: VL039383.D
 Acq: 28 Jun 2022 7:55

Tgt Ion: 43 Resp: 197283
 Ion Ratio Lower Upper
 43 100
 58 47.5 40.0 60.0
 98 0.9 0.1 0.1#





#53

Toluene

Concen: 0.200 ppbv

RT: 9.78 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

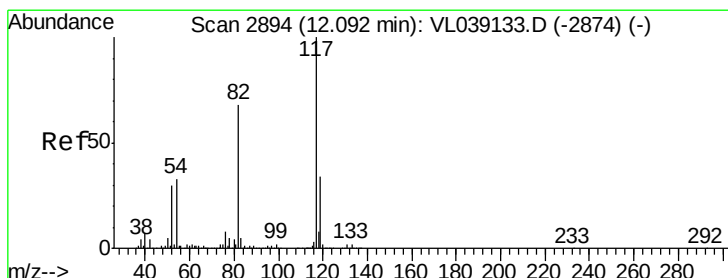
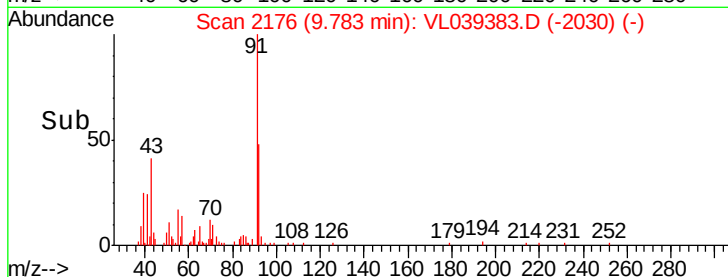
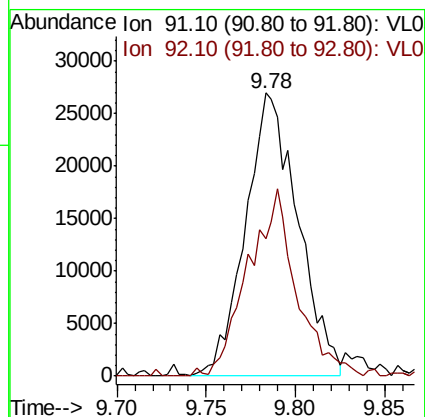
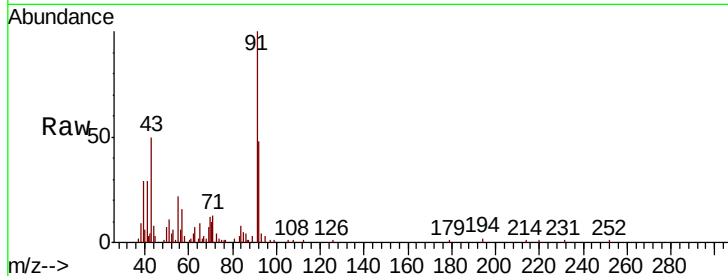
Acq: 28 Jun 2022 7:55

Tot Ion: 91 Resp: 55287

Ion Ratio Lower Upper

91 100

92 61.6 48.1 72.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2885

Delta R.T. -0.03 min

Lab File: VL039383.D

Acq: 28 Jun 2022 7:55

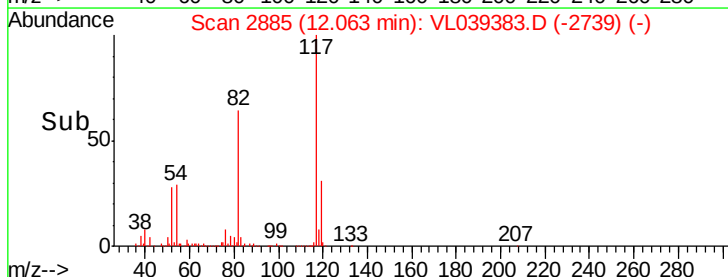
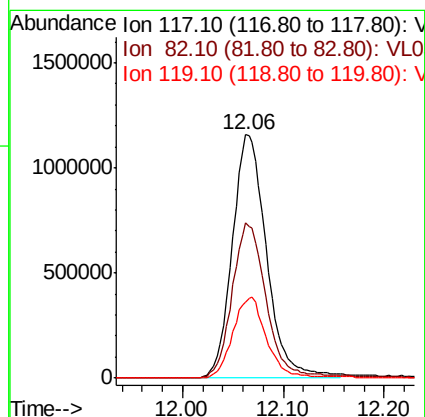
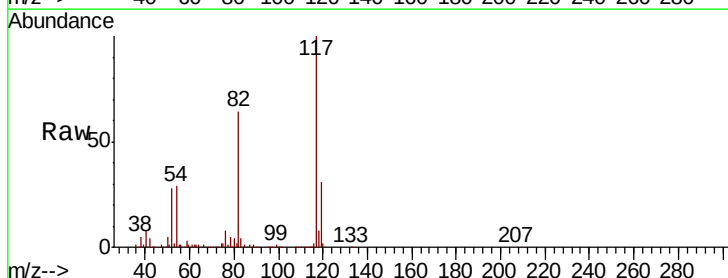
Tgt Ion: 117 Resp: 2740459

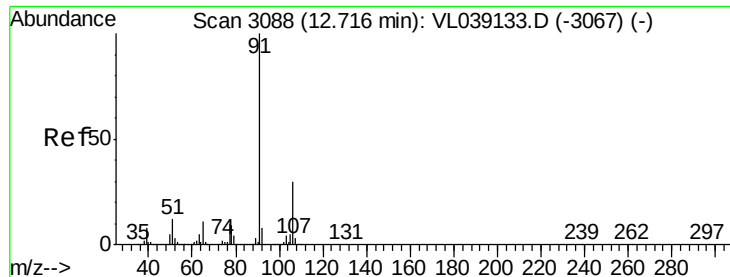
Ion Ratio Lower Upper

117 100

82 64.7 55.1 82.7

119 33.4 24.7 37.1





#58

Ethyl Benzene

Concen: 0.065 ppbv

RT: 12.69

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

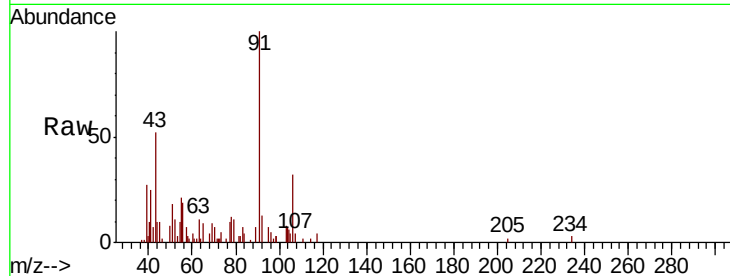
Acq: 28 Jun 2022 7:55

Tot Ion: 91 Resp: 24403

Ion Ratio Lower Upper

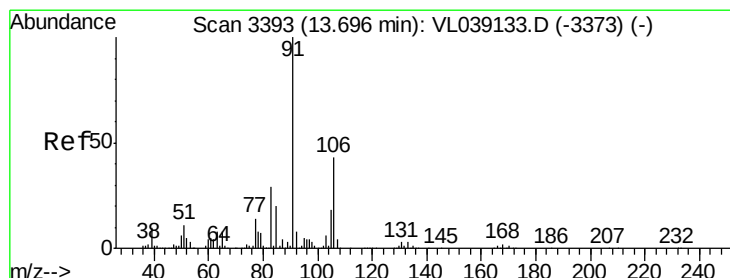
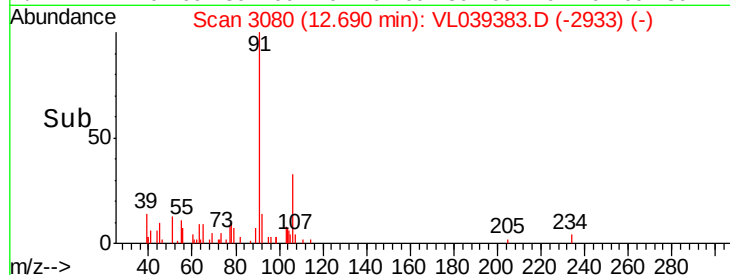
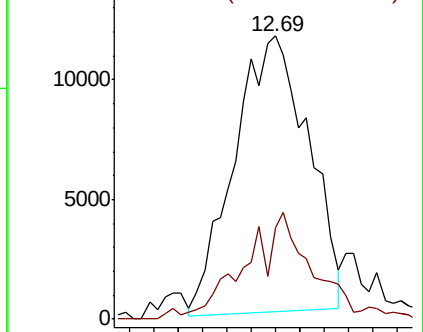
91 100

106 27.0 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.122 ppbv

RT: 13.67 min Scan# 3385

Delta R.T. -0.03 min

Lab File: VL039383.D

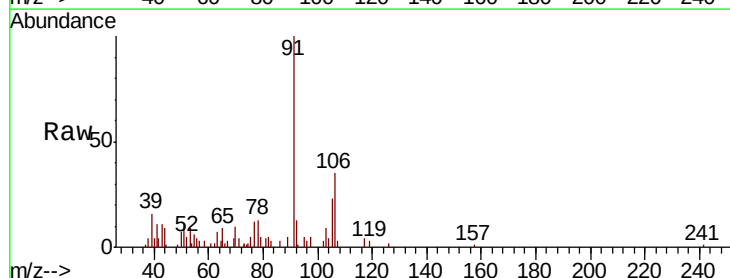
Acq: 28 Jun 2022 7:55

Tgt Ion: 91 Resp: 37953

Ion Ratio Lower Upper

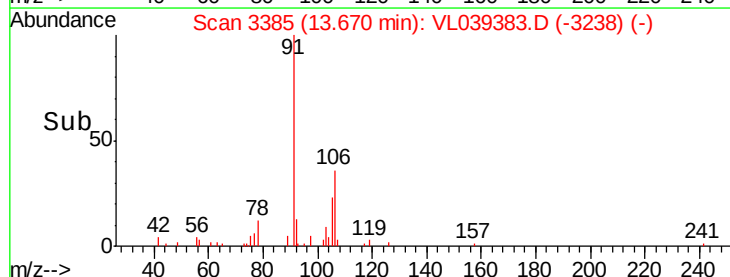
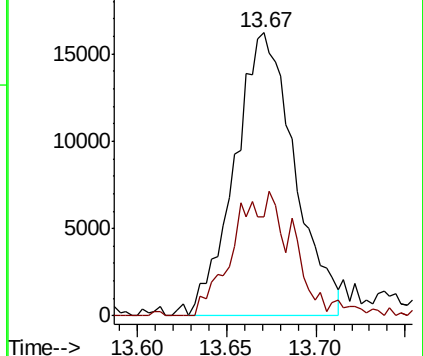
91 100

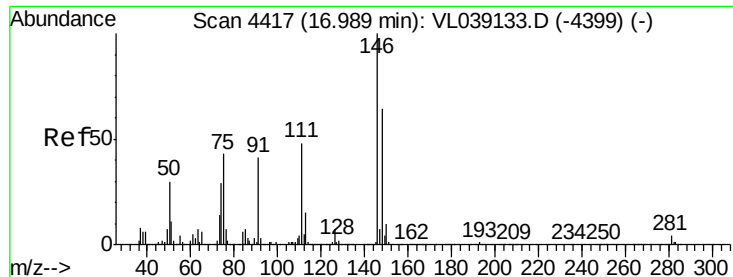
106 45.2 22.3 66.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

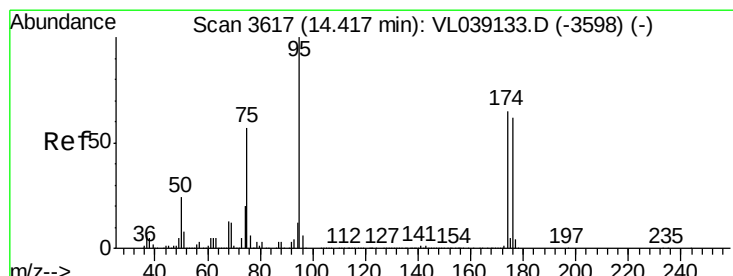
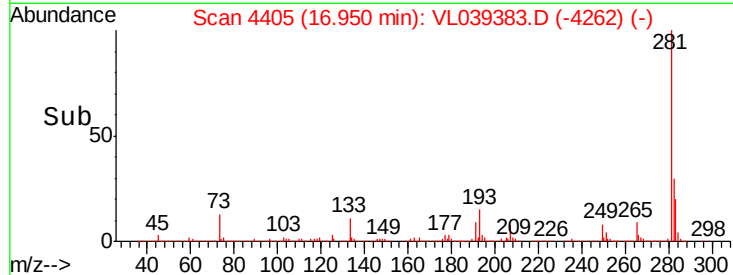
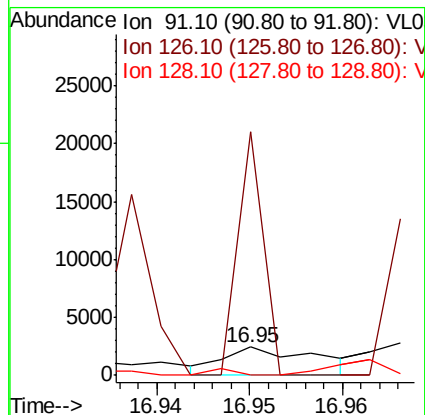
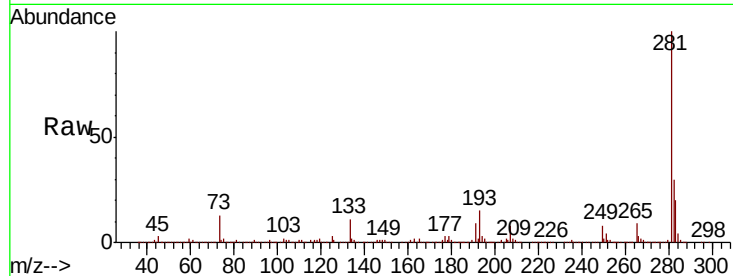
Ion 106.10 (105.80 to 106.80): V





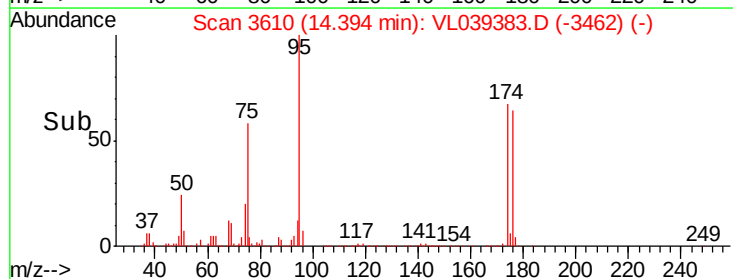
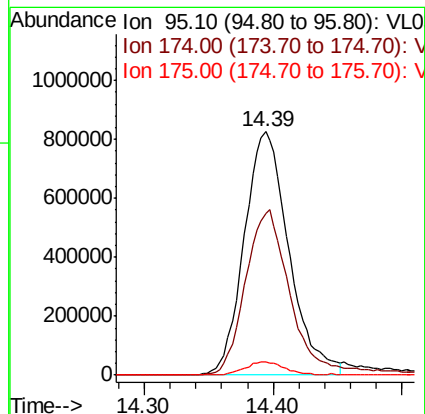
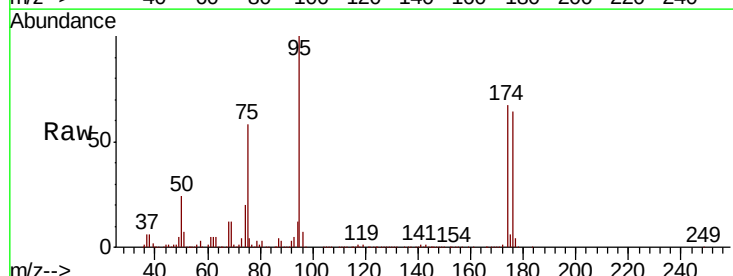
#66
Benzyl Chloride
Concen: 0.030 ppbv
RT: 16.95 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
SV-9-20220624
Acq: 28 Jun 2022 7:55

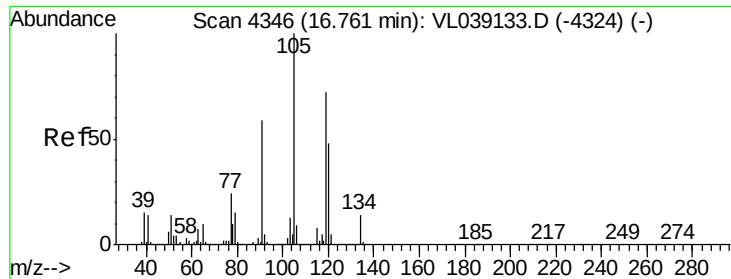
Tot Ion: 91 Resp: 1680
Ion Ratio Lower Upper
91 100
126 853.9 13.4 20.0#
128 0.0 4.1 6.1#



#68
1-Bromo-4-Fluorobenzene
Concen: 8.800 ppbv
RT: 14.39 min Scan# 3610
Delta R.T. -0.02 min
Lab File: VL039383.D
Acq: 28 Jun 2022 7:55

Tgt Ion: 95 Resp: 1993730
Ion Ratio Lower Upper
95 100
174 70.5 53.8 80.8
175 5.2 4.1 6.1





#74

1,2,4-Trimethylbenzene

Concen: 0.048 ppbv

RT: 16.73

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Jun 2022 7:55

Tot Ion:105 Resp: 17745

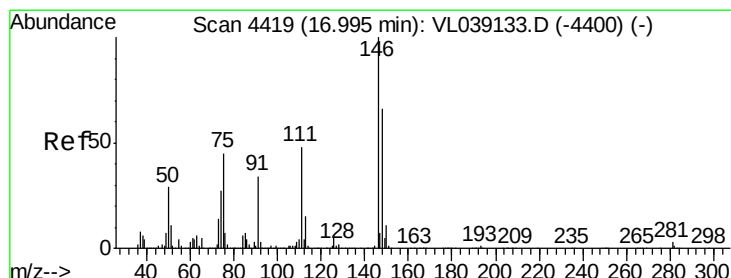
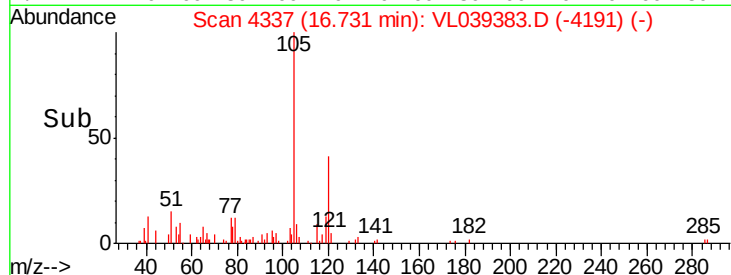
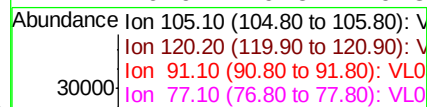
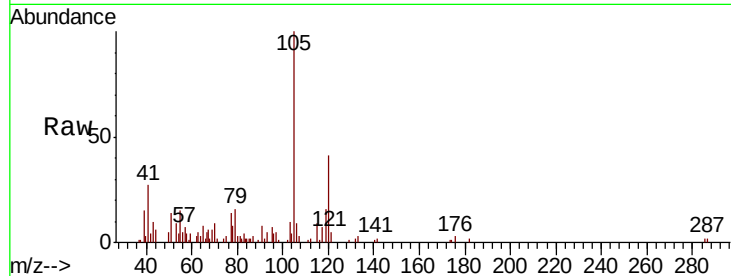
Ion Ratio Lower Upper

105 100

120 37.9 38.1 57.1#

91 4.1 47.4 71.0#

77 10.9 19.5 29.3#



#75

1,3-Dichlorobenzene

Concen: 0.468 ppbv

RT: 16.97 min Scan# 4411

Delta R.T. -0.03 min

Lab File: VL039383.D

Acq: 28 Jun 2022 7:55

Tgt Ion:146 Resp: 97702

Ion Ratio Lower Upper

146 100

111 97.8 23.8 71.4#

148 83.8 32.4 97.0

